

OFFICE OF THE COUNCIL

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VICE PRESIDENT

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BRANDON McCULLOUGH
KATHLEEN E. McINTYRE
SCOTT MORGAN



33000 CIVIC CENTER DRIVE
LIVONIA, MICHIGAN 48154-3097
(734) 466-2250
citycouncil@livonia.gov

OFFICE OF THE COUNCIL

**AGENDA PACKET FOR
THE PUBLIC HEARING OF
WEDNESDAY, AUGUST 3, 2022
7:00 P.M.***

**The electronic agenda is compiled, produced and distributed
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The official documents are on file in the City Clerk's office.

PUBLIC HEARING AGENDA OF THE LIVONIA CITY COUNCIL
Wednesday, August 3, 2022
7:00 P.M.
Livonia City Hall Auditorium
33000 Civic Center Drive, Livonia, Michigan

AGENDA ITEM(S)

1. [Appeal of the denial of the Planning Commission regarding Petition 2022-04-08-02 submitted by Middlebelt Plymouth Venture L.L.C. requesting to construct an apartment complex \(Wonderland Flats\), consisting of two \(2\) buildings and 201 units, on the properties at 29707 & 30273 Plymouth Road, located on the south side of Plymouth Road between Middlebelt Road and Milburn Avenue in the Northeast ¼ of Section 35.](#)

AUDIENCE COMMUNICATION

SUSAN M. NASH, CITY CLERK

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LETTER TO THE LIVONIA CITY COUNCIL

1.

Planning
June 22, 2022

MEETING DATE

Public Hearing of
August 3, 2022 for the
Regular Meeting of
August 22, 2022

PREPARED BY

Stephanie Reece, Program Supervisor

AGENDA ITEM

Appeal of the denial of the Planning Commission regarding Petition 2022-04-08-02 submitted by Middlebelt Plymouth Venture L.L.C. requesting to construct an apartment complex (Wonderland Flats), consisting of two (2) buildings and 201 units, on the properties at 29707 & 30273 Plymouth Road, located on the south side of Plymouth Road between Middlebelt Road and Milburn Avenue in the Northeast $\frac{1}{4}$ of Section 35.

BACKGROUND

RECOMMENDATION

June 22, 2022

Honorable Members of the City Council
City of Livonia, Michigan

Re: Petition 2022-04-08-02 -Middlebelt Plymouth Venture L.L.C. (Wonderland Flats)

Dear Council Members:

At the 1,188th Public Hearing and Regular Meeting held by the City Planning Commission on June 7, 2022, the following resolution was adopted:

#06-34-2022 RESOLVED, That City Planning Commission does hereby recommend to City Council that Petition 2022-04-08-02 submitted by Middlebelt Plymouth Venture L.L.C. requesting approval pursuant to Sections 3.08 and 6.04 of The Livonia Vision 21 Zoning Ordinance, as amended, to construct an apartment complex (Wonderland Flats), consisting of two (2) buildings and 201 units, on the properties at 29707 & 30273 Plymouth Road, located on the south side of Plymouth Road between Middlebelt Road and Milburn Avenue in the Northeast $\frac{1}{4}$ of Section 35, be denied, for the following reasons

1. That the petitioner has failed to affirmatively show that the proposed use is in compliance with all of the special and general waiver use standards and requirements as set forth in Sections 3.08, 6.04 and 13.13 of the Livonia Vision 21 Zoning Ordinance.

2. That too many issues remain unresolved, including increased traffic concerns, building architecture, signage, site layout, compatibility with the surrounding retail uses and the close proximity to the adjacent residential neighborhood.
3. That the site lacks the capacity to handle the intensity associated with a 201-unit apartment complex and would therefore be detrimental to and not in harmony with the character of the surrounding commercial center and adjacent neighborhood.
4. That the apartment complex would create significant adverse impacts on adjoining parcels, public services, and community planning efforts.
5. That the proposal conflicts with the spirit and intent of the Zoning Ordinance to promote and encourage a balanced and appropriate mix of uses, and
6. That the petitioner has failed to comply with all the concerns deemed necessary for the safety and welfare of the City and its residents.

A roll call vote on the foregoing resolution resulted in the following:

AYES: Ventura, Smiley, McCue, Long, Wilshaw

NAYS: Caramagno, Bongero

ABSENT: None

ABSTAIN: None

FISCAL CONSIDERATION

ATTACHMENTS

1. 2022-04-08-02_E-COUNCIL Pkt

APPROVED BY



Date: June 22, 2022

Mark Taormina, Planning and Economic Development Director



Date: June 23, 2022

Maureen Miller Brosnan, Mayor

Petition 2022-04-08-02 submitted by Middlebelt Plymouth Venture L.L.C. requesting approval pursuant to Sections 3.08 and 6.04 of The Livonia Vision 21 Zoning Ordinance, as amended, to construct an apartment complex (Wonderland Flats), consisting of two (2) buildings and 201 units, on the properties at 29707 & 30273 Plymouth Road, located on the south side of Plymouth Road between Middlebelt Road and Milburn Avenue in the Northeast ¼ of Section 35.

17430 Laurel Park Drive North
Suite 120
E
Livonia, Michigan
48150

THE
MIKE COX
LAW FIRM PLLC

Telephone: (734)591-4002
Facsimile: (734)591-4006
Email: MC@mikecoxlaw.com

June 21, 2022

Via Email and Hand-delivery

Ms. Susan M. Nash, City Clerk
33000 Civic Center Drive
City Hall, 1st Floor
Livonia, MI 48154
SNash@livonia.gov

Re: Petition 2022-04-08-02 - Wonderland Flats
Appeal of the City Planning Commission's Denial on June 7, 2022

Dear Clerk Nash:

I write on behalf of Middlebelt Plymouth Venture, LLC ("Middlebelt") regarding Petition 2022-04-08-02 ("Site Plan Petition") requesting City approval of a site plan in accordance with the Livonia Vision 21 Zoning Ordinance and Michigan's Zoning Enabling Act ("MZEA"), MCL 125.3103, *et seq.*

The Site Plan Petition proposes development of an apartment complex ("Wonderland Flats") pursuant to Sections 3.08 and 6.04 of the Livonia Vision 21 Zoning Ordinance that consists of two (2) buildings and 201 units, located on the properties at 29707 & 30273 Plymouth Road. On June 7, 2022, the Planning Commission improperly denied Middlebelt's Site Plan Petition.

Accordingly, Middlebelt files this appeal pursuant to Section 13.13(10) of the Livonia Vision 21 Zoning Ordinance and requests the City Council reverse the Planning Commission's recommendation and approve the Site Plan Petition.

Along with the filing fee of \$400.00, enclosed please find Middlebelt's appeal and attached exhibits. I ask that you please (a) forward this on to all City Council members via email, (b) ensure that a reasonable time for hearing the appeal is assigned and (c) included the appeal on the agenda for the appropriate city council meeting.

If you have any questions regarding this appeal, please feel free to contact me by email at mc@mikecoxlaw.com or telephone at (734) 591-4002. In addition to filing hard copies of this appeal, I will email you copies of the same documents for ease of electronic distribution.

Very truly yours,
THE MIKE COX LAW FIRM, PLLC

Michael A Cox

Michael A. Cox

RECEIVED
OFFICE OF THE CITY CLERK
2022 MAY 12 AM 10:16
June 21
L. J. J. J.

17430 Laurel Park Drive North
Suite 120
E
Livonia, Michigan

THE
MIKE COX
LAW FIRM PLLC

Telephone: (734)591-4002
Facsimile: (734)591-4006
Email: info@mikecoxlaw.com

APPEAL BY MIDDLEBELT PLYMOUTH VENTURE, LLC TO THE LIVONIA CITY COUNCIL

To: Livonia City Council
From: Michael A. Cox
Kimberly M. Moehle
On behalf of Middlebelt Plymouth Venture, LLC
Re: Appeal of 6-7-2022 Planning Commission Denial
Date: June 21, 2022

RECEIVED
OFFICE OF THE CITY CLERK
2022 MAY 12 AM 10:16
June 21
L. Taylor

**Petition 2022-04-08-02 - Wonderland Flats
Appeal of the City Planning Commission's Denial on June 7, 2022**

INTRODUCTION

On behalf of the Schostak family, Schostak Brothers & Company, and Middlebelt Plymouth Venture, LLC, we would first like to thank the Livonia City Council for its consideration of this appeal and associated Site Plan Petition. As local property owners and developers with a 50-year history of doing business in Livonia, we support the Council's efforts and its commitment to the goals in the Livonia Vision 21 Master Plan. Our proposed development is consistent with the City's vision, and we look forward to seeing its positive impacts on the residents, the businesses and the City of Livonia in the coming years.

Appellant, Middlebelt Plymouth Venture, LLC, ("Middlebelt") submitted Petition 2022-04-08-02 ("Site Plan Petition") requesting City approval of a site plan in accordance with the Livonia Vision 21 Zoning Ordinance and Michigan's Zoning Enabling Act ("MZEA"), MCL 125.3103, *et seq.* The Site Plan Petition proposes development of an apartment complex ("Wonderland Flats") pursuant to Sections 3.08 and 6.04 of the Livonia Vision 21 Zoning Ordinance that consists of two (2) buildings and 201 units, located on the properties at 29707 &

30273 Plymouth Road.

The Wonderland Flats site plans have been discussed at, at least, nine different City meetings, and Middlebelt has substantially amended the plans *three* different times to address all concerns raised by nearby residents and City officials. (A comparison of the **four** site plan versions is attached as **Appendix A: Site Plan Comparison Chart**.)

This appeal is based on the Planning Commission's improper exercise of discretion that is not allowed in determinations of site plan approvals: more particularly, the Commission attempted to exercise the discretionary authority it is granted in Section 13.15(5), which govern rezoning requests, when deciding Middlebelt's site plan petition, which is governed by the strict, non-discretionary standards of Section 13.13(12)(C). Therefore, Middlebelt now files this appeal pursuant to Section 13.13(10) of the Livonia Vision 21 Zoning Ordinance, and requests the City Council reverse the Planning Commission's recommendation, corrects its improper exercise of discretion, and approve the Site Plan Petition.

STATEMENT OF FACTS

I. Petition 2020-08-01-06: Rezoning Petition and Initial Site Plans

In October of 2020, Middlebelt submitted Petition 2020-08-01-06 (the "Rezoning Petition") to rezone parts of the properties at 29707 & 30273 Plymouth Road, located on the south side of Plymouth Road between Middlebelt Road and Milburn Avenue in the Northeast ¼ of Section 35, from C-2 General Business to R-8 High-Rise Multiple Family Residential. The Livonia Vision 21 Future Land Use map, attached as **Exhibit 1**, designates the proposed Wonderland Flats site as a mixed development center. Mixed development centers are intended to have (a) higher densities, (b) walkable and pedestrian friendly areas, and (c) integration between commercial and residential areas.

Attached to its initial Rezoning Petition, Middlebelt submitted a preliminary site plan (the “**First Site Plan: Rezoning**”) showing five (5) three-story apartment buildings and a one-story clubhouse. Combined, the five (5) buildings contained 192 apartments, including 89 one-bedroom units and 103 two-bedroom units.

The Planning Commission first considered the Rezoning Petition and **First Site Plan: Rezoning** at the October 27, 2020 Planning Commission study meeting and noted that the minimum required site area based on a total of 89 one-bedroom units and 103 two-bedroom units was 535,700 square feet, or 12.3 acres and that total area of the proposed (473,258 square feet or 10.86 acres) failed to satisfy this requirement.¹ Among other reasons, because the Original Rezoning Site Plan’s dwelling units per acre exceeded the then-existing density allowance under Section 27.06(2) of the then operative zoning ordinance, the Planning Commission tabled the Rezoning Petition (at Middlebelt’s request) during the November 10, 2020 meeting.

Middlebelt submitted revised preliminary site plans to the Planning Commission (the “**Second Site Plan: Rezoning**”) on June 25, 2021.² These revised plans reduced the number of three-story apartment buildings from five (5) down to two (2) “C”-shaped apartment buildings that mirror one another and create a central courtyard and common area.³

By eliminating three of the five originally proposed buildings, the more compact arrangement moved the two remaining buildings further north toward Plymouth Road - - and away from the nearby single-family homes in the Bel-Aire Gardens Subdivision to the south. Under the **Second Site Plan: Rezoning**, the two apartment buildings would have contained a

¹ See (**Appendix A: Site Plan Comparison Chart**).

² A comparison of the various site plans is attached as **Appendix A: Site Plan Comparison Chart**.

³ Visually the two-building arrangement resembles two brackets—essentially, a [] shape with the common area and pool in the center.

total of 201 units on 10.86 acres, for an overall density of 18.5 dwelling units per acre.

The Planning Commission considered the **Second Site Plan: Rezoning** at their July 20, 2021, prehearing study meeting where its members focused on (a) density, (b) integration with the surrounding commercial uses to create a mixed-use development, and (c) the appearance and design of the apartment buildings. The Planning Commission again tabled the Rezoning Petition at their July 27, 2021 public hearing at Middlebelt's request.

A. Change to Zoning Ordinance, Revised Plans and Planning Commission Recommendation

On August 23, 2021, the City officially adopted the Livonia Vision 21 Zoning Ordinance (the "LV21 Zoning Ordinance") and Livonia Vision 21 Zoning Map ("LV21 Map") which impacted the Rezoning Petition in several important ways. *First*, Section 13.15 of the new LV21 Zoning Ordinance now governs rezoning requests like Middlebelt's Rezoning Petition. Section 13.15(5) gives both the Planning Commission and City Council discretionary authority to consider the criteria listed in Section 13.15 (5)(A)-(L) as well as "other factors or considerations specific to the subject matter of the proposed amendment" when making "findings, recommendations, and a decision" on rezoning.⁴

Second, the LV21 Zoning Ordinance replaced the former R-8 High-Rise Multiple Family Residential zoning classification with the NM2 Neighborhood Multifamily zoning district. And so, under LV21 Zoning Ordinance changes, the Middlebelt's Rezoning Petition sought a rezoning from C-2 General Business to NM2 Neighborhood Multifamily. In some respects, the new NM2 District regulations align with the former R-8 District; however, the new LV21 Zoning Ordinance made the following changes:

⁴ (**Exhibit 2:** LV21 Zoning Ordinance, Section 13.15(5), page 224-225.); see also (**Appendix B:** Planning Commission Authority Comparison.).

1. Reduced the minimum building height from three (3) stories to one (1) story.
2. Increased the 20% maximum ground coverage by the principal structure to 30% maximum useable floor area as percentage of lot area.
3. Eliminated the minimum lot area per dwelling unit.
4. Eliminated the 1,000 feet setback from any other residentially zoned property.
5. Eliminated the requirement of covered parking spaces.

As a result of these changes, on September 17, 2021 Middlebelt submitted another set of revised site plans (the “**Third Site Plan: Rezoning**”) which satisfied (and exceeded) the LV21 Zoning Ordinance’s new NM2 District regulations as follows:

LV21 ZONING REQUIREMENT	REQUIRED	PROPOSED
MINIMUM LOT AREA	Eliminated	473,258 SF (10.86 AC)
MINIMUM LANDSCAPED AREA	15% (80,355 SF)	PROVIDED
MAXIMUM USABLE FLOOR AREA (% OF LOT AREA)	30% (141,977 SF)	33.5 % (158,773 SF) ^(w)
MAXIMUM BUILDING HEIGHT	4 stories	3 stories
MINIMUM FRONT YARD SETBACK	50 FT	110.3 FT (over 2x the required amount)
MINIMUM SIDE YARD SETBACK	25 FT	91.0 FT (over 3x the required amount)
MINIMUM SIDE YARD SETBACK (BOTH)	60 FT	221.9 FT (over 3x the required amount)
MINIMUM REAR YARD SETBACK	50 FT	231.0 FT (over 4x the required amount)
FENCED RECREATION AREA	5,650 SF	12,150 SF (over 2x the required SF)

RESIDENTIAL LANDSCAPE BUFFER	20 FT	98.6 FT (almost 5x the required amount)
COMMERCIAL LANDSCAPE BUFFER	20 FT	20.0 FT

^(W) The MAXIMUM USABLE FLOOR AREA would require a waiver.

LV21 PARKING REQUIREMENT	REQUIRED	PROPOSED
REQUIRED PARKING: § 9.05	2.0 space for each unit with 1 or 2 bedrooms (201 UNITS)(2.0 SPACES) = 402 SPACES	422 SPACES
MAXIMUM PERMITTED PARKING: § 9.03 (5)	20% above minimum requirement (402 SPACES) (1.20) = 482 SPACES	422 SPACES
SNOW STORAGE: § 9.03 (7)	10% of the required parking stall area 200 SF x 422 spaces = 84,400 SF	> 84,400 SF
90° PARKING DIMENSIONS: § 9.04 ⁽ⁱ⁾	20 ft x 10 ft w/ 24 ft drive aisle	20 ft x 10 ft w/ 22 ft aisle

⁽ⁱ⁾ The stall length may be reduced by two feet where 90-degree parking abuts either an 8-foot sidewalk or 2 feet of additional landscaping to account for the vehicle overhang.

The **Third Site Plan: Rezoning** also incorporated the following exterior façade features to address the issues about the appearance and design of the apartment buildings the Planning Commission raised at their prior meetings in the fall of 2020 and summer of 2021:

- Added a varying range of smaller building façade “bump outs” along the exterior façade, providing more balance to the overall residential appearance;
- Added full size balconies, and a mixture of Juliet balconies (facing single-family), for additional architectural feature;
- Added a mixture of “eyebrow” decorative details above various window locations; and
- Included a new mixture and a range of material colors and textures to soften the overall appearance.

The Planning Commission considered the **Third Site Plan: Rezoning** at its October 12,

2021 study meeting. The Commissioners again stated general concerns over the site plan and building designs despite Middlebelt already addressing those concerns through extensive redesigning of its original plan in two successive revised proposals that led to the **Third Site Plan: Rezoning**.⁵ However, rather than provide concrete feedback with measurable objective values or metrics to improve the site plan, the Commissioners and residents merely conveyed that they would prefer a mixed-use development that includes multifamily residential on more of a neighborhood scale as opposed to apartment buildings.

Importantly, this stated preference is contrary to the Livonia Vision 21 Master Plan goal of providing “missing middle housing” due to the “limited appeal of traditional multi-family housing types developed in decades past” such as conventional neighborhoods.⁶ Still, at the October 19, 2021 regular meeting, the Planning Commission unanimously adopted Resolution #10-52-2021 which recommended City Council deny the Rezoning Petition.⁷

In short, based on the *discretionary* authority granted to the Planning Commission regarding *rezoning* decisions granted in Section 13.15 of the LV21 Zoning Ordinance, the Planning Commission opposed the proposed Wonderland Flats development as (a) incompatible with the surrounding residential neighborhoods, (b) contrary to the goals and objectives of the Livonia Vision 21 Master Plan, and (c) inconsistent with the established pattern of development in the surrounding area and would adversely alter the character of the neighborhood.⁸

⁵ See, e.g., (**Appendix A: Site Plan Comparison Chart**).

⁶ See Livonia Vision 21 Master Plan, <https://www.livoniavision21.com>, *Book 2: Land Development*, p 23, available at <<https://www.livoniavision21.com/s/LV21-Book2-FINAL-091318B.pdf>>.

⁷ See (**Appendix B: Planning Commission Authority Comparison**) regarding the extent of the Planning Commission’s authority under Section 13.15.

⁸ (**Exhibit 3: October 26, 2021 Planning Review Letter**.)

B. City Council Approval of the Rezoning Petition

The City Council held a Public Hearing on the Rezoning Petition and the attached **Third Site Plan: Rezoning** on Monday, March 7, 2022. At the meeting Middlebelt representatives explained, among other things, how the proposed Wonderland Flats site plan achieves the Livonia Vision 21 Master Plan goal of providing “missing middle housing” because it proposes a residential density that is in between single-family dwellings and mid-rise apartment buildings. And, as City Council Member Rob Donovic noted, the Rezoning Petition was similar to what City Council approved a few years ago for the nearby Liv Apartments on Haggerty Road: “So, this project reminds me a lot of the Liv apartments, it’s very similar in the way it’s designed and in the walkability. . . I mean, *this is essentially what the City Council approved a few years ago* for the Liv apartments, *identical to what this proposal looks like*. I do see the similarities there and the precedent there.”⁹

At the close of the meeting, Councilmember Donovic offered three motions to be considered at the next City Council meeting: (1) an approving motion, (2) a denying motion, and (3) a motion to refer the Rezoning Petition to the Committee of the Whole. City Council Jim Jolly explained that “nothing would proceed . . . before we have a site plan that we reviewed, and we would normally be voting on the site plan and the second read on the zoning change all at the same time.”¹⁰

At the March 23, 2022 regular meeting, City Council exercised its discretionary authority under Section 13.15¹¹ and rejected the recommendation made by the Planning Commission and

⁹ (Emphasis added.) (Exhibit 4: March 7, 2022 City Council Meeting Minutes, p 11.)

¹⁰ (Exhibit 4: March 7, 2022 City Council Meeting Minutes, p 10.)

¹¹ (Exhibit 2: LV21 Zoning Ordinance, Section 13.15(5) and (7), p 224-225.)

voted 4-3 to approve the Rezoning Petition “for preparation of [a zoning] Ordinance” amendment:

[T]he Council does hereby reject the recommendation made by the Planning Commission and *Petition 2020-08-01-06 is hereby approved for preparation of the Ordinance for submission to Council*; and the City Planner is hereby instructed to cause the necessary map for publication to be prepared indicating the zoning change herein approved and to furnish the same to the Department of Law and, upon receipt of such map, the Department of Law is requested to prepare an ordinance amending Livonia Vision 21 Zoning Ordinance, as amended, in accordance with this resolution.¹²

Councilmember Scott Bahr gave the first reading of the proposed ordinance amendment at the April 4, 2022 City Council regular meeting and placed the proposed ordinance amendment “on the table for consideration at an upcoming regular meeting.”

This vote resolved the rezoning considerations raised by the Rezoning Petition and moved the Wonderland Flats development project into the site plan approval phase, where the Planning Commission’s role is limited to a *non-discretionary* administrative determination of whether the proposed site plan complies with the standards and regulations set forth in the LV21 Zoning Ordinance.¹³

II. Petition 2022-04-08-02: Site Plan Petition

Because City Council will not hold a second reading of the proposed zoning change until they “have a site plan that we also know exactly what the buildings are going to be,”¹⁴ Middlebelt submitted Petition 2022-04-08-02 (“Site Plan Petition”) seeking site plan approval for Wonderland Flats.¹⁵ The Site Plan Petition contained a 21-page site development plan (the

¹² (Emphasis added.) (Exhibit 5: March 23, 2022 Meeting Minutes.)

¹³ See (Appendix B: Planning Commission Authority Comparison.).

¹⁴ (Exhibit 4: March 7, 2022 City Council Meeting Minutes, p 10.)

¹⁵ See (Exhibit 7: Site Plan Approval Submission) and (Exhibit 8: Wonderland Flats Graphic Presentation.)

“**Fourth Site Plan: Site Plan Approval Submission**”) (attached as **Exhibit 7**) which is similar in many respects to the Third Site Plan: Rezoning attached to the Rezoning Petition.¹⁶

However, the **Fourth Site Plan: Site Plan Approval Submission** contains additional information required by the LV21 Zoning Ordinance¹⁷ such as: (i) a demolition plan (C-2); (ii) a grading plan (C-5); (iii) a stormwater management plan (C-6); (iv) a utility plan (C-7); (v) a lighting plan (C-8); (vi) a landscaping plan and landscaping details (C-9, C-10, C-11); (vii) construction details (C-12 & C-13); and (ix) truck exhibits (EX-1 - EX-3).¹⁸ It also voluntarily added many non-mandatory aesthetic features requested by residents and Planning Commission members.

Although they both relate to the same Wonderland Flats development, the Site Plan Petition (Petition 2022-04-08-02) is different from the Rezoning Petition (Petition 2020-08-01-06) because each petition seeks two different objectives under two different processes. Section 13.15 of the LV21 Zoning Ordinance governs rezoning requests (and other proposed zoning ordinance amendments) while Section 13.13(12) governs site plan review and approval.¹⁹ And while the Planning Commission could “take into account other factors or considerations specific to the subject matter of the [rezoning request],”²⁰ the LV21 Zoning Ordinance strictly limits site plan review and approval to whether the plans “comply with the standards and regulations set

¹⁶ See (**Appendix A: Site Plan Comparison Chart**).

¹⁷ (**Exhibit 2: LV21 Zoning Ordinance, Section 13.13 (12)(E), p 218.**)

¹⁸ See generally (**Exhibit 7: Site Plan Approval Submission.**)

¹⁹ See (**Appendix B: Planning Commission Authority Comparison**) for a comparison of the Planning Commission’s authority under Section 13.15 vs Section 13.13.

²⁰ (**Exhibit 2: LV21 Zoning Ordinance, Section 13.15(5), page 224-225.**)

forth in [the LV21 Zoning Ordinance].”²¹ Put differently, the Planning Commission has no discretion in making site plan determinations.

On May 24, 2022, the Planning Commission had a study meeting on the proposed Site Plan Petition. At the meeting Livonia’s Planning and Economic Development Director Mark Taormina presented the **Fourth Site Plan: Site Plan Approval Submission**, and noted the following changes from the **Third Site Plan: Rezoning** attached to the Rezoning Petition:²²

- Added a third row of 8-foot-tall evergreen trees added to the proposed two rows of evergreen 5-6 feet tall trees;
- Added an 8-foot screening fence atop of the berm;
- Added additional bike racks for a total of 16 bike racks (with a total capacity to house approximately 64 bikes);
- Changed the number and location of dumpsters to allow better access to all residents (previously 2 double dumpsters and 1 triple dumpster, now proposed 4 double dumpsters evenly spaced throughout the site);
- Added sidewalks off the property connecting to offsite walkways northeast and west corners of property;
- Added outdoor package centers for mail and packages received by residents;
- Added decorative fencing along the northern property line; and
- Added seating area with benches at the northeast and northwest corners of the site.

None of these changes were required by the LV21 Zoning Ordinance; rather, Middlebelt once again voluntarily changed its plans and increased its development costs to address the

²¹(**Exhibit 2:** LV21 Zoning Ordinance, Section 13.13(12).) See also (**Appendix B:** Planning Commission Authority Comparison).

²² See (**Appendix A:** Site Plan Comparison Chart).

generalized concerns of the City Council, Planning Commission, and city residents. For example, because residents raised concerns about privacy and garbage collection at the March 7, 2022 meeting, Middlebelt added additional landscaping on the berm and additional garbage dumpsters into the **Fourth Site Plan: Site Plan Approval Submission**. Similarly, Middlebelt committed to providing²³ the Commissioners with an additional, updated traffic impact study for the site before the June 7, 2022 Planning Commission meeting.

A. June 7, 2022 Planning Commission Meeting and Denial

On June 7, 2022, the Planning Commission considered the Site Plan Petition and the attached **Fourth Site Plan: Site Plan Approval Submission** at its regular meeting. Director Mark Taormina gave an overview of the **Fourth Site Plan: Site Plan Approval Submission** which includes, among other things, (a) 201 apartments; (b) a pool and pool house; (c) brick veneer and then vinyl siding; (d) a mix of full and Juliette balconies; (e) a widened berm; (f) four dumpsters; and (g) pedestrian connections with internal sidewalks. Director Taormina then presented letters from five city departments— The Engineering Division, Department of Public Safety Livonia Fire and Rescue, Department of Inspection, Department of Finance, and the Office of Treasurer— all stating that they had no objections to the site plan.

City residents spoke at the meeting expressing the same issues they raised during the 2021 Planning Commission meetings and the 2022 City Council meetings for the Rezoning Petition— concerns about privacy and sight-lines; lack of walkways for people to walk through the apartment complex; concerns about what type of residents will live there in the future; amorphous

²³ Middlebelt provided the Planning Commissioners with a 21-page traffic impact study prepared by the civil, environmental, architectural/engineering, and construction management consulting firm Fishbeck dated May 27, 2022. The “May 27, 2022 Traffic Impact Study” is attached as **Exhibit 8**.

worries about traffic, utilities, sewer system, and the flood plane; and generalized feelings that the development did not fit the Vision 21 plan.²⁴ While these concerns were arguably appropriate considerations during the rezoning request phase, they are outside the scope of the site plan review and approval process which is strictly limited to determining whether a proposed site plan complies with the standards and regulations set forth in the LV21 Zoning Ordinance.²⁵

Further Middlebelt had already directly addressed these concerns in either the updated **Fourth Site Plan: Site Plan Approval Submission** or in prior versions.²⁶ (Many of these concerns had even been addressed as far back as last September in Middlebelt's Third Site Plan: Rezoning.) For example, Middlebelt representative Jeff Schostak explained that as a direct result of the privacy concerns raised at the prior Planning Commission and City Council meetings, the **Fourth Site Plan: Site Plan Approval Submission** added a *third* row of 8-foot-tall evergreen trees, which in combination with the 8-foot screening fence added atop the berm, ensures there is zero visibility from the third-floor apartments into the nearby residential homes. Further, **Fourth Site Plan: Site Plan Approval Submission's** stormwater management plan and utility plan²⁷ addressed the resident's utilities, sewer system, and flood plan concerns and the City departments responsible for those concerns—the Engineering Division of the Department of Public Works and the Inspection Department—both submitted letters of no objection regarding the Site Plan Petition. Likewise, Middlebelt has continuously demonstrated how the proposed

²⁴ This concern had already been addressed during the approval process for the Rezoning Petition and by approving the Rezoning Petition City Council implicitly found that development achieved the goals and objectives of the Livonia Vision 21 Master Plan.

²⁵ See (**Appendix B: Planning Commission Authority Comparison**).

²⁶ See (**Exhibit 7: Site Plan Approval Submission**) and (**Exhibit 8: Wonderland Flats Graphic Presentation**).

²⁷ (**Exhibit 7: Site Plan Approval Submission, C-6 and C-7.**)

Wonderland Flats will serve as a catalyst for a walkable neighborhood where the apartments are integrated with nearby commercial developments; Middlebelt's Wonderland Flats Graphic Presentation shown during the meeting clearly demonstrated the ample walkways for people to walk both through the apartment complex and to nearby mixed-use retail centers.²⁸

Middlebelt representative Mike Labadie also presented the results of the May 27, 2022 Traffic Impact Study (attached as **Exhibit 9**) at the meeting. Mr. Labadie explained that the planned Wonderland Flats apartments would have "little effect on the intersection of Plymouth Road and Middlebelt Road traffic operations":

The forecasted trips from the proposed residential development *has little effect* on the intersection of Plymouth Road and Middlebelt Road traffic operations. Table 10 displays the comparison of the intersection of Plymouth Road and Middlebelt for the background and future conditions. The results indicate approximate delay increases of *one (1) second and two (2) seconds* at the intersection for the a.m. and p.m. peak hours, respectively.

...

The analyses conducted for this TIS indicate that the proposed development *will not result in any significant impact to the adjacent road network*. The proposed site access configuration is appropriate and will acceptably facilitate site ingress and egress.²⁹

Additionally, Mr. Labadie explained that the anticipated traffic impact of the planned apartments was significantly *less* than it would be for a permissible commercial development, such as a hypothetical Sam's Club or other big box store, which are typical for a C-2 General Business district.

Despite both **Fourth Site Plan: Site Plan Approval Submission's** compliance with the LV21 Zoning Ordinance and the overwhelming evidence presented at the June 7, 2022 meeting,

²⁸ (**Exhibit 8:** Wonderland Flats Graphic Presentation.)

²⁹ (**Exhibit 9:** May 27, 2022 Traffic Impact Study, p 13) (emphasis added).

the Planning Commission voted 5-2 to adopt a resolution (Resolution #06-34-2022) recommending the City Council deny the Site Plan Petition. The Planning Commission's denial letter on June 8, 2022 (attached as **Exhibit 6**) demonstrates the Planning Commission's application of the wrong standard. The Planning Commission listed the following reasons for its recommendation:

1. That the petitioner failed to affirmatively show that the proposed use is in compliance with all of the special and general waiver use standards and requirements as set forth in Sections 3.08, 6.04 and 13.13 of the Livonia Vision 21 Zoning Ordinance.
2. That too many issues remain unresolved, including increase traffic concerns, building architecture, signage, site layout, compatibility with the surrounding retail uses and the close proximity to the adjacent residential neighborhood.
3. That the site lacks the capacity to handle the intensity associated with a 201-unit apartment complex and would therefore be detrimental to and not in harmony with the character of the surrounding commercial center and adjacent neighborhood.
4. That the apartment complex would create significant adverse impacts on adjoining parcels, public services, and community planning efforts.
5. That the proposal conflicts with the spirit and intent of the Zoning Ordinance to promote and encourage a balanced and appropriate mix of uses, and
6. That the petitioner has failed to comply with all the concerns deemed necessary for the safety and welfare of the City and its residents.

While the Planning Commission obtusely mentioned Sections 3.08 and 6.08, not one of these "reasons" identify any specific failures to satisfy those sections or any other enumerated requirement in the LV21 Zoning Ordinance. It is insufficient for the Planning Commission to "merely repeat the conclusionary language of the zoning ordinance *without specifying the factual findings* underlying the determination that the requirements of the ordinance were satisfied" or not satisfied.³⁰

³⁰ *Reenders v Parker*, 217 Mich App 373, 378–79; 551 NW2d 474, 477 (1996).

LEGAL STANDARD

The Michigan constitution, statutes, court rules and case law all require that a municipal zoning decision is constitutional, based upon proper procedure, authorized by law, based on substantial, competent, material evidence on the record, and that the decision must “represent the reasonable exercise of discretion granted by law.”³¹

Section 501 of Michigan’s Zoning Enabling Act (“MZEA”) governs the submission and approval of site plans. Section 501 requires approval of a site plan if it contains the information required by the zoning ordinance and conforms to the applicable regulations: “A site plan shall be approved if it contains the information required by the zoning ordinance and is in compliance with the conditions imposed under the zoning ordinance, other statutorily authorized and properly adopted local unit of government planning documents, other applicable ordinances, and state and federal statutes.”³²

GROUND FOR REVERSAL OF THE PLANNING COMMISSION’S DECISION

III. The Planning Commission denial is not authorized by law.

Michigan law is clear that once an applicant has complied with all applicable statutes and ordinances, as is the case here, the municipality must approve the site plan.³³ For example, in *Hessee Realty, Inc v City of Ann Arbor*, ten city departments and the planning commission recommended approval of plaintiff Hessee Realty, Inc’s site plan for an apartment development before the Ann Arbor City Council voted to return the site plan to the Planning Commission.³⁴

³¹ See Mich Const 1963 art 6, §28; MCL 125.3606(1); and MCR 7.122. See also, e.g., *Janssen v. Holland Charter Twp Zoning Bd of Appeals*, 252 Mich App 197, 201; 651 NW2d 464 (2002).

³² MCL 125.3501(5).

³³ *Hessee Realty, Inc v City of Ann Arbor*, 61 Mich App 319; 232 NW2d 695 (1975).

³⁴ *Hessee Realty, Inc*, 61 Mich App at 321. The Ann Arbor City Council sent the plans back to the Planning Commission so that the Board of Education could be asked to analyze the potential

The Planning Commission reconsidered plaintiff's site plan (which was the same one it had earlier approved), and this time, rejected it. Afterwards, the City Council "alluding to possible traffic problems, voted unanimously to reject the plan."³⁵

On appeal the Court of Appeals reversed the Council's action and explained that while municipalities "are given great breadth in establishing general land use patterns through their power to zone," their "ability to regulate specific uses which the zoning scheme allows, through site plan approval and building permit issuance, must be carefully circumscribed by specific, published standards" and so generally qualifies as an administrative, rather than legislative, act:³⁶

The Commission's duty is apparently limited to a determination that site plans meet such standards and, through a review by city agencies, comply with the relevant, specific 'legal requirements'. . . Thus, *once the requirements of 'statute, ordinance and regulation' have been satisfied, the Commission must approve the site plan.* We find the same limitations to apply to the City Council.³⁷

The Court of Appeals found that the City's denial of the site plan was both an abuse of discretion and not supported by competent and material evidence: "We can find no legitimate reasons in the record. Some concern was expressed at the Council meeting over the impact which plaintiff's development would create on traffic at nearby schools. No specific evidence was presented to support this concern. Indeed, defendant's own Department of Traffic Engineering and Transportation had already approved the site plan."³⁸

Here, the Planning Commission's denial is neither authorized by law nor supported by

impact of the plan on the local schools. However, the Board of Education refused to give an opinion, claiming plaintiff's plans were too indefinite to be analyzed as to school impact.

³⁵ *Hessee Realty, Inc*, 61 Mich App at 322.

³⁶ *Hessee Realty, Inc*, 61 Mich App at 324-25.

³⁷ *Id.* at 325.

³⁸ *Hessee Realty, Inc*, 61 Mich App at 326.

competent and material evidence. Section 13.13 (12) of the LV21 Zoning Ordinance grants the Planning Commission only the limited administrative authority to “postpone, approve, approve subject to conditions, or deny the site plan.”³⁹ Denial is only appropriate “[u]pon determination that a site plan *does not comply* with the standards and regulations set forth in this Ordinance or would require extensive revisions to comply with the standards and regulations.”⁴⁰

In contrast, “[u]pon determination that a site plan is in compliance with the requirements of this Ordinance and other applicable ordinances and laws, the site plan *shall be approved*.”⁴¹ In Michigan, the use of the term “shall” rather than “may” indicates a mandatory rather than discretionary action.⁴² Therefore, if an applicant shows that its site plan meets the requirements in the LV21 Zoning Ordinance and “other applicable ordinances and laws,” the Planning Commission *must* approve the site plan. Here, Middlebelt’s **Fourth Site Plan: Site Plan Approval Submission** satisfied the LV21 Zoning Ordinance requirements and standards and contained all of the required information under Section 13 of the LV21 Zoning Ordinance. And so, the Planning Commission was required by law to approve the Site Plan Petition.

IV. The Planning Commission denial is not based on substantial, competent, and material evidence.

The Planning Commission’s denial is not based on substantial, competent, and material evidence because the Planning Commission never identified any specific deficiencies in the Site Plan Petition (likely because the Site Plan Petition contained all required information and compiled with the LV21 Zoning Ordinance). A determination of “whether there was competent,

³⁹ (Exhibit 2: LV21 Zoning Ordinance, Section 13.13 (12)(C), p 218.)

⁴⁰ (Exhibit 2: V21 Zoning Ordinance, Section 13.13 (12) (ii)) (emphasis added).

⁴¹ (Exhibit 2: V21 Zoning Ordinance, Section 13.13 (12) (iii).) (emphasis added).

⁴² *Browder v Int'l Fidelity Ins Co*, 413 Mich. 603, 612; 321 NW2d 668 (1982).

material, and substantial evidence on the record to support a zoning board decision requires ‘a knowledge of the facts justifying the board's ... conclusion.’”⁴³

As the Court of Appeals explained in *Hessee Realty, Inc.*: “[t]o preserve the property owner's right, the municipality's ability to regulate specific uses which the zoning scheme allows, through site plan approval and building permit issuance, *must be carefully circumscribed by specific, published standards.*”⁴⁴ The deficiencies in the Planning Commission’s denial are clear when you compare the language of the (**Exhibit 6**: June 8, 2022 Planning Denial Letter) with the facts in the 2001 Court of Appeals decision of *Kanakry v City of St Clair Shores*.⁴⁵ There, the Court of Appeals noted the subject planning commission’s detailed site plan denial which was directly linked to objective criteria in the applicable ordinance: “pursuant to Zoning Ordinance . . . fourteen stacking spaces were required for the plaintiffs to have two drive-thru windows. Plaintiffs’ site plan only provided for nine stacking spaces.”⁴⁶ These types of specific findings by a planning commission are required to support a site plan denial: here, the Planning Commission denial does not identify one (or any) ordinance standard – such as setback distances or minimum apartment square footage or parking space minimums – that Middlebelt failed to meet.⁴⁷

Nor does the Planning Commission’s denial ever identify what ordinance provision, if any, the Site Plan Petition violates. Instead, it contains broad conclusory statements that the site plan “conflicts with the spirit and intent of the Zoning Ordinance to promote and encourage a

⁴³ *Reenders v Parker*, 217 Mich App 373, 378–79; 551 NW2d 474, 477 (1996) (quoting *Tireman–Joy–Chicago Improvement Ass’n v. Chernick*, 361 Mich 211, 219; 105 NW2d 57 (1960)).

⁴⁴ *Hessee Realty, Inc.*, 61 Mich App at 325.

⁴⁵ *Kanakry v City of St Clair Shores*, unpublished opinion of the Court of Appeals, issued May 11, 2001 (Docket No. 216010), 2001 WL 669309.

⁴⁶ *Id.* at *3.

⁴⁷ See (**Exhibit 6**: June 8, 2022 Planning Denial Letter).

balanced and appropriate mix of uses.”⁴⁸ “Spirit and Intent” is the opposite of a specific, published standard and it is insufficient for the Planning Commission to “merely repeat the conclusionary language of the zoning ordinance without specifying the factual findings underlying the determination that the requirements of the ordinance were satisfied in the case at hand.”⁴⁹

Further, it is plain that the Planning Commission did not base its denial on competent and material evidence because the evidence in the record *contradicts* the reasoning in the June 8, 2022 Denial Letter. For example, the Planning Commission claimed the “apartment complex would create significant adverse impacts on adjoining parcels, public services, and community planning efforts” and that Middlebelt “failed to comply with all the concerns deemed necessary for the safety and welfare of the City and its residents.”⁵⁰

Putting aside the proofs offered by Middlebelt, five City departments—the Engineering Division, Department of Public Safety Livonia Fire and Rescue, Department of Inspection, Department of Finance, and the Office of Treasurer— all told the Planning Commission that they had no objection to the Site Plan Petition. The City website explains the primary objective of the Inspection Department “is to safeguard the health, safety and welfare of the citizens and businesses of Livonia.”⁵¹ Importantly, the June 3, 2022 Inspection Department letter read during the June 7, 2022 meeting establishes that the Inspection Department did not have any objection to the proposed site. The Planning Commission’s determination that the Site Plan Petition “filed to comply with concerns deemed necessary for the safety and welfare of the City and its residents”

⁴⁸ (Exhibit 6: June 8, 2022 Planning Denial Letter.)

⁴⁹ *Reenders*, 217 Mich App at 378-379.

⁵⁰ (Exhibit 6: June 8, 2022 Planning Denial Letter.)

⁵¹ Livonia.gov, *Inspection (Building & Enforcement)*, <<https://livonia.gov/241/Inspection-Building-Enforcement>> (last accessed June 14, 2022).

is nonsensical in the face of the express approval from the public service departments responsible for the safety and welfare of the City and its residents.

CONCLUSION

The Site Plan Petition and this appeal establish that the **Fourth Site Plan: Site Plan Approval Submission** complies with Sections 3.08 and 6.04 of the LV21 Zoning Ordinance as well as the objectives of the Livonia Vision 21 Master Plan. And so, pursuant to Section 13.13(10) of the LV21 Zoning Ordinance, Middlebelt requests the City Council reverse the Planning Commission's recommendation and approve the Site Plan Petition.

Respectfully Submitted,

THE MIKE COX LAW FIRM, PLLC,

By: /s/ Michael A. Cox
Michael A. Cox (P43039)
Kimberly M. Moehle (P83086)
Attorneys for Middlebelt Plymouth Venture, LLC
17430 Laurel Park Dr., North, Suite 120 E
Livonia, MI 48154
Phone: (734) 591-4002
Fax: (734) 591-4006
mc@mikecoxlaw.com
kmoehle@mikecoxlaw.com

APPENDIX A: SITE PLAN COMPARISON CHART

Plan Version	First Site Plan: Rezoning	Second Site Plan: Rezoning	Third Site Plan: Rezoning	Fourth Site Plan: Site Plan Approval Submission								
Date	October 2020	June 25, 2021	September 17, 2021	April 27, 2022								
Acres	10.86 acres 473,258 square feet	10.86 acres 473,258 square feet	10.86 acres 473,258 square feet	10.86 acres 473,258 square feet								
Buildings	5 three-story apartment buildings	2 three-story apartment buildings	2 three-story apartment buildings	2 three-story apartment buildings								
Units	192 apartment units	201 apartment units	201 apartment units	201 apartment units								
Usable floor area				160,054 square feet 33.8% of total site area ¹								
Density	17.68 dwelling units per acre	18.5 dwelling units per acre	18.5 dwelling units per acre ²	18.5 dwelling units per acre								
Setback	129.6 rear yard setback from Bel-Aire Gardens Subdivision residential district	300 rear yard setback from Bel-Aire Gardens Subdivision residential district										
		<table><tr><td>FRONT YARD SETBACK</td><td>over 2x the required amount</td></tr><tr><td>SIDE YARD SETBACK</td><td>over 3x the required amount</td></tr><tr><td>SIDE YARD SETBACK (BOTH)</td><td>over 3x the required amount</td></tr><tr><td>REAR YARD SETBACK</td><td>over 4x the required amount</td></tr></table>			FRONT YARD SETBACK	over 2x the required amount	SIDE YARD SETBACK	over 3x the required amount	SIDE YARD SETBACK (BOTH)	over 3x the required amount	REAR YARD SETBACK	over 4x the required amount
FRONT YARD SETBACK	over 2x the required amount											
SIDE YARD SETBACK	over 3x the required amount											
SIDE YARD SETBACK (BOTH)	over 3x the required amount											
REAR YARD SETBACK	over 4x the required amount											

¹ Under the LV21 Zoning Ordinance the maximum permitted usable floor area in percentage of lot area is 35%.

² The LV21 Zoning Ordinance eliminated the requirement for minimum lot area per dwelling unit.

Plan Version	First Site Plan: Rezoning	Second Site Plan: Rezoning	Third Site Plan: Rezoning	Fourth Site Plan: Site Plan Approval Submission
Landscape Buffers ³			Residential Landscape Buffer = 98.6 FT (almost 5x the required amount) Commercial Landscape Buffer = 20.0 FT	Residential Landscape Buffer = 98.6 FT (almost 5x the required amount) Commercial Landscape Buffer = 20.0 FT
Berm	5-foot-high masonry screen wall atop the approximately 8-foot-high berm Green space area		5-foot-high masonry screen wall, atop the approximately 8-foot-high berm - Green space area - Added 2 rows of evergreen trees (5-6 feet tall)	8-foot-high screening fence added atop the approximately 8-foot-high berm - Green space area - Added 2 rows of evergreen trees (5-6 feet tall) - Added 1 row of 8-foot-tall evergreen trees - Also added a dozen deciduous trees to color the south side of the berm
Parking	385 parking spaces			404 parking spaces (including over 101 carports)
Fenced Recreation Area				8,530 SF (69.75% more than required) ⁴
Bike Racks			12 bike racks	16 bike racks
Dumpsters			2 double dumpsters and 1 triple dumpster	4 double dumpsters for better resident accessibility

³ Under the LV21 Zoning Ordinance, the NM2 District requires a 20-foot commercial side yard “landscape” buffer (Section 10.03(5)), whereas the prior ordinance did not specify landscape sets backs, but rather only 50-foot building setbacks.

⁴ The LV21 Zoning Ordinance requires a fenced recreation area of 25 SF per dwelling unit. Here, (25 SF / UNIT) (201 UNITS) = 5,025 SF.

Plan Version	First Site Plan: Rezoning	Second Site Plan: Rezoning	Third Site Plan: Rezoning	Fourth Site Plan: Site Plan Approval Submission
Additional changes			- Added a varying range of smaller building façade “bump outs” along the exterior façade, giving more balanced to the overall residential appearance. - Added full size balconies, and a mixture of Juliet balconies (facing single-family), for additional architectural feature. - Added a mixture of “eyebrow” decorative details above various window locations. - New mixture and arrange of material colors and textures to soften the overall reside.	- Added sidewalks off the property connecting to offsite walkways northeast and west corners of property - Added outdoor package centers for mail and packages received by residents - Added decorative fencing along the northern property line - Added seating area with benches at the northeast and northwest corners of the site

APPENDIX B: PLANNING COMMISSION AUTHORITY COMPARISON

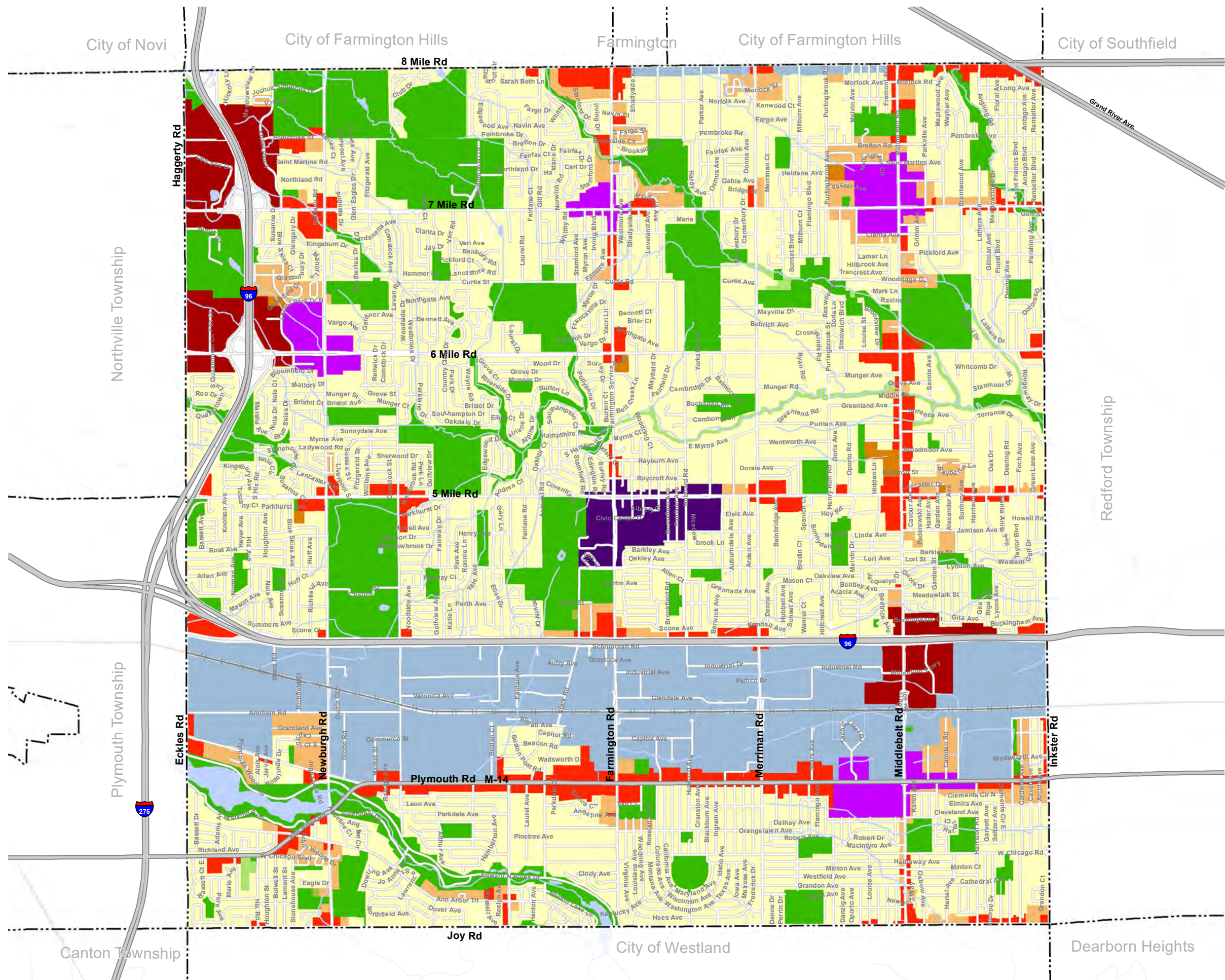
Planning Commission Authority re: Rezoning Requests	Planning Commission Authority re: Site Plan Review & Approval
<i>Section 13.15 (5)</i>	<i>Section 13.13(12)(C)</i>
(5) Standards of Review for Amendments. In considering any petition for an amendment to the text of this Ordinance or to the Zoning Map, the Planning Commission and City Council shall consider the following criteria that apply to the application in making findings, recommendations, and a decision. The Planning Commission and City Council may also take into account other factors or considerations specific to the subject matter of the proposed amendment. A) Consistency with the goals, policies and objectives of the Master Plan and any sub-area plans. If conditions have changed since the Master Plan was adopted, consistency with recent development trends in the area shall be considered. B) Consistency with the basic intent and purpose of this Zoning Ordinance. C) The capability of the street system to safely and efficiently accommodate the expected traffic generated by uses permitted in the requested zoning district. D) The capacity of the City's utilities and services sufficient to accommodate the uses permitted in the requested district without compromising the health, safety, and welfare of the City. E) That conditions have changed since the Zoning Ordinance was adopted or there was an error in the Zoning Ordinance that justifies the amendment. F) That the amendment will not be expected to result in exclusionary zoning. G) If a rezoning is requested, compatibility of the site's physical, geological, hydrological and other environmental features with the uses permitted in the proposed zoning district. H) If a rezoning is requested, compatibility of all the potential uses allowed in the proposed zoning district with surrounding uses and zoning in terms of land suitability, impacts on the environment, density, nature of use, traffic impacts, aesthetics, infrastructure and potential influence on property values. I) If a rezoning is requested, the boundaries of the	C) Planning Commission Review. The Planning Commission shall review the site plan, together with any reports and recommendations from staff, consultants, and other reviewing agencies and any public comments. The Planning Commission is authorized to postpone, approve, approve subject to conditions, or deny the site plan as follows: i) Postponement. Upon determination by the Planning Commission that a site plan is not sufficiently complete for approval or denial or upon a request by the applicant, the Planning Commission may postpone consideration until a later meeting. ii) Denial. Upon determination that a site plan <i>does not comply with the standards</i> and regulations set forth in this Ordinance or would require extensive revisions to comply with the standards and regulations, the site plan <i>shall be denied</i>. If a site plan is denied, a written record shall be provided to the applicant <i>listing the reasons for such denial</i>. In instances where Planning Commission denies a Site Plan this decision can be appealed to City Council pursuant to Section 13.13 (10). iii) Approval. Upon determination that a site plan <i>is in compliance with the requirements of this Ordinance</i> and other applicable ordinances and laws, the site plan <i>shall be approved</i>. iv) Approval Subject to Conditions. The Planning Commission may approve a site plan, subject to one or more conditions necessary to address minor modifications to the site plan, ensure that public services and facilities can accommodate the proposed use, protect significant natural features, ensure compatibility with adjacent land uses, or otherwise meet the intent and purpose of this Ordinance. Such conditions may include the need to obtain variances or approvals from other agencies.

requested rezoning district will be reasonable in relationship to surrounding zoning districts, and construction on the sites will be able to meet the dimensional regulations for the requested zoning district. J) If a rezoning is requested, the requested zoning district is considered to be more appropriate from the perspective than another zoning district. K) If a rezoning is requested to allow for a specific use, rezoning the land is considered to be more appropriate than amending the list of permitted or special land uses in the current zoning district to allow the use. L) If a rezoning is requested, the requested rezoning will not create an isolated or incompatible zone in the neighborhood.	
--	--

ADDITIONAL EXHIBITS

- Exhibit 1: The Livonia Vision 21 Future Land Use map**
- Exhibit 2: LV21 Zoning Ordinance**
- Exhibit 3: October 26, 2021 Planning Commission Letter to City Council**
- Exhibit 4: March 7, 2022 City Council Meeting Minutes**
- Exhibit 5: March 23, 2022 City Council Meeting Minutes**
- Exhibit 6: June 8, 2022 Planning Denial Letter**
- Exhibit 7: Fourth Site Plan: Site Plan Approval Submission**
- Exhibit 8: Wonderland Flats Graphic Presentation**
- Exhibit 9: May 27, 2022 Traffic Impact Study**

EXHIBIT 1



Proposed Future Land Use

City of Livonia, Michigan

LEGEND

- Parks and Community
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Corridor Commercial
- Regional Commercial
- Mixed Development Center
- City Center
- Tech and Manufacturing
- Floodplain Area



Data Source: City of Livonia, 2015, Michigan Geographic Framework, Michigan Center for Geographic Information, McKenna, 2018



September 7, 2018
DRAFT

EXHIBIT 2



LIVONIA VISION 21

Zoning Ordinance

City of Livonia, Michigan

CITY COUNCIL ADOPTED AUGUST 23, 2021



MCKENNA
151 South Rose Street, Suite 920
Kalamazoo, MI 49007
O 248.596.0920
F 248.596.0930
E info@mcka.com
MCKA.COM

MCKENNA

Communities for real life.

Acknowledgments

Mayor

Maureen Miller Brosnan

City Council Members

Kathleen E. McIntyre—*Council President*

Scott Bahr—*Council Vice President*

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Jim Jolly

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Joel Turbiak

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Technical Committee

Ian Wilshaw—*Chairman, Planning Commission*

James M. Baringhaus—*Zoning Board of Appeals*

Michael E. Fisher—*Chief Assistant City Attorney*

Jerome Hanna—*Director of Inspection*

Mark Taormina—*Director of Planning and Economic Development*

Consulting Planners: McKenna

John Jackson, AICP —*President*

Paul Lippens AICP, NCI — *Project Manager*

Mike Campbell, RA — *Urban Designer*

Carrie Leitner—*Graphic Designer*

Hunter Whitehill—*Project Planner*

Cameron Carley—*Project Assistant*



235 East Main Street, Suite 105
Northville, MI 48167
(248) 596-0920
mcka.com

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Article I.

Title, Purpose, and Scope

Section 1.01 Short Title.

This Ordinance shall be known and may be cited as the LIVONIA VISION 21 Zoning Ordinance.

Section 1.02 Purpose.

The comprehensive plan of this Ordinance is for the purpose of promoting public health, safety, morals, convenience, comfort, amenities, prosperity, and general welfare of the community and of a wholesome, serviceable, and attractive municipality. These purposes are attained by having regulations and restrictions that increase the safety and security of home life; that preserve and create a more favorable environment in which to rear children; that develop permanent good citizenship; that stabilize and enhance property and civic values; that provide for a more uniformly just land-use pattern and tax assessment basis; that facilitate adequate provisions for increased safety in traffic and for transportation, vehicular parking, parks, parkways, recreation, schools, public buildings, housing, light, air, water supply, sewerage, sanitation, and other public requirements that lessen congestion, disorder and danger which often inhere in unregulated municipal development; that prevent overcrowding of land and undue concentration of population; that assist in carrying out the Master Plan of the City of Livonia; and that provide more reasonable and serviceable means and methods of protecting and safeguarding the economic structure upon which the good of all depends. In order to more effectively protect and promote the general welfare and to accomplish the aims and purposes of this comprehensive plan, the City is divided into districts of such number, shape, and area, as well as, of such common unity of purpose and adaptability of use, that are deemed most suitable to provide for the best general civic use, protect the common rights and interests within each district, preserve the general rights and interests of all, and to promote improved wholesome, sightly, harmonious, and economic results in civic service, activities, and operations; and by further regulations to limit the location, uses and occupancy of buildings, structures and land to be used for trade, industry, residence or other purposes, and also the location, height, bulk, occupancy, and uses of buildings and other structures, including the percentage of plot occupancy and coverage, street setback lines, sizes of yards, and other open spaces.

Section 1.03 Construction.

This Ordinance shall be liberally construed in such manner as to best effectuate its purpose. In interpreting and applying the provisions of this Ordinance, they shall be held to be the minimum requirements for the promotion of the public health, safety, convenience, comfort, prosperity, and general welfare. Whenever the requirements of this Ordinance impose requirements of lower heights of buildings, or a less percentage of lot that may be occupied, or require wider or larger courts, or deeper yards than are imposed or required by existing provisions of law or ordinance, the provisions of this Ordinance shall govern. Where, however, the provisions of the State Housing Code or other ordinance or regulations of the City of Livonia impose requirements for lower heights of buildings, or less percentage of lot that may be occupied, or require wider or larger courts, or deeper yards than are required by this Ordinance, the provisions of the State Housing Code or other ordinance or regulations shall govern. The provisions of this Ordinance shall be construed, if possible, in such manner as to make such provisions compatible and consistent with each other and likewise with the provisions of all existing and future ordinances of the City of Livonia, and all amendments thereto provided, however, that where any inconsistency or conflict cannot be avoided, then the most restrictive of such inconsistent or conflicting provisions shall control and prevail.

Section 1.04 Enabling Authority.

This Ordinance is adopted pursuant to the Michigan Zoning Enabling Act, Act 110 of 2006, as amended; its predecessor statute, Act 208, Public Acts of Michigan, 1949, as amended; and Section I of Chapter II and Sections 11 and 20 of Chapter IV of the Charter of the City of Livonia. Said acts are hereby made a part of this Ordinance just as if they were word for word repeated herein.

Article II.

Definitions

Section 2.01 General.

(1) Definitions Pertaining to Grammatical Usage.

Meaning of Words and Phrases. The words and phrases defined in this Article, when used in this Ordinance, shall, for the purpose of this Ordinance, have the meanings ascribed to them in this Article, except in those cases where the context clearly indicates a different meaning. Words used in the present tense include the future tense, words in the singular number include the plural number, words in the plural number include the singular number, and the word "shall" is always mandatory and not merely directory. The word "building" includes the word "structure," and the word "dwelling" includes the word "residence." The word "lot" includes the word "plot" or "parcel." Terms not herein defined shall have the meaning customarily assigned to them.

Occupied and Used. The word "occupied", and the word "used" shall each be considered and construed as though followed by the words "or intended, arranged, or designed to be used or occupied."

Person. The word "person" shall include any individual, firm, co-partnership, corporation, company, association, club, joint venture, estate, trust, or any other group or combination acting as a unit, and the individuals constituting such group or unit and the plural as well as the singular number; the singular masculine pronoun, the singular feminine pronoun, and the corresponding plural pronouns shall include the masculine, feminine, neuter and plural unless the intention to give a more limited meaning is disclosed by the context.

(2) Definitions of General Zoning Terms.

Board of Appeals. The Zoning Board of Appeals operating pursuant to the provisions of Michigan Zoning Enabling Act, MCL 125.3101, et seq, as amended.

Building Official. The Director of the Department of Inspection or any of his or her duly authorized assistants.

Department of Inspection. The Department of Inspection of the City of Livonia.

Family. A family is any number of persons living together in a single dwelling unit comprising a single housekeeping unit and related by blood, marriage, adoption, or any unrelated person who resides therein as though a member of the family and including the domestic employees thereof. Any group of persons not so related but inhabiting a single dwelling unit shall, for the purpose of this Ordinance, be considered to constitute one (1) family for each five (5) persons exclusive of domestic employees contained in such group.

Future Transportation Map. Current adopted Future Transportation Map included in the Livonia Vision 21 Master Plan, as amended.

Non-Conforming Building. A building or structure, lawfully existing at the time of enactment of this Ordinance or a subsequent amendment thereto, that does not conform to the regulations or provisions of this Ordinance applicable to the zoning district in which it is located.

Non-Conforming Use. A use of a building, structure, or of a tract of land, lawfully existing at the time of enactment of this Ordinance or a subsequent amendment thereto, that does not conform to the regulations or provisions of this Ordinance applicable to the zoning district in which it is situated.

Planning Commission. The City Planning Commission operating pursuant to the provisions of the Michigan Planning Enabling Act, MCL 125.3801, et. seq, as amended.

Plat. A map or chart of a subdivision of land.

Platted Subdivision. A parcel or tract of land which has been partitioned or divided by the proprietor thereof or by his or her heirs, executors, administrator, legal representative, successors, or assigns for the purpose of sale or of building development where the act of division created parcels in accordance with the provisions of MCL 560.101, et seq, as amended, being the "Land Division Act."

Single Ownership. Ownership by a person or by two or more members of the same family of a lot of record which is completely isolated from any other property held by the same person or persons.

Subdivision Regulations. Regulations and amendments thereto adopted by the City Planning Commission and authorized by the Michigan Planning Enabling Act, MCL 125.3801, et seq, as amended and Land Division Act, MCL 560.101, et seq, as amended.

Use. The purpose for which land or buildings thereon are designed, arranged, or intended to be occupied, used, or for which they are occupied or maintained.

Variance. A modification of the literal provisions of the Zoning Ordinance granted by the Board of Appeals when in its judgment the strict enforcement of the Zoning Ordinance would cause practical difficulty or undue hardship owing to circumstances unique to the individual property on which the variance is granted.

Waiver Use. Uses as enumerated under the zoning district that are permitted upon review and submission of findings by the City Planning Commission and approved by the City Council. Waiver uses are synonymous to special land uses, as defined in Section 125.3502 of the Michigan Zoning Enabling Act.

Waiver Use Open Space Planned Residential Development. The variation of residential zoning district requirements so as to achieve greater flexibility in the creation of open space and improved design without increasing density.

(3) Definitions Pertaining to Rights-of-Way and Public Utilities.

Alley. A passage or way open to public travel, not more than thirty (30) feet wide, affording a secondary means of vehicular access to abutting property and not intended for general traffic circulation.

Cul-de-sac. A street with only one (1) outlet having sufficient space at the closed end to provide vehicular turning facilities.

Essential Services. The construction, alteration, or maintenance by private companies, municipal departments, or commissions of the various transmission, distribution, or disposal systems that are necessary for the preservation of the public health, safety, or general welfare, such as gas, electricity, telephone, telegraph, fire alarm, steam, water and sewage. This term shall also include all poles, wires, mains, drains, sewers, pipes, conduits, cables, fire alarm boxes, police call boxes, traffic signals, hydrants, emergency outdoor warning sirens, and other similar equipment or accessories reasonably necessary for the furnishing of adequate service by such private company, municipal department, or commission, but it shall not be deemed to include buildings or public utility substations. This term shall not include telecommunication towers, solar energy facilities, and wind energy conversion systems.

Major Thoroughfare. An arterial street intended to serve as a large volume trafficway for both the City of Livonia and the region beyond and which may be designated as a parkway, freeway, expressway, arterial highway, arterial street, special arterial, city major, or equivalent term for identification purposes. Any street with a width, either existing or proposed (as shown on the Future Transportation Map) of one hundred (100) feet or more shall be considered a master or major thoroughfare.

Minor Street. A street designated as a minor street pursuant to Act 51 of the Public Acts of 1951 intended primarily for providing access to abutting properties. A "Minor Street" includes a street supplementary to a secondary street intended to serve the local needs of the neighborhood and of limited continuity used primarily as access to abutting residential properties.

Public Utility. Any person, firm, corporation, municipal department, or board, duly authorized to furnish and furnishing general community services to the public, under state or municipal regulations, including, but not restricted to, electrical, gas, steam, communication, transportation, sewer, or water service. Telecommunication towers, small wireless communication facilities, solar energy facilities, and wind energy conversion systems are not public utilities.

Public Utility Buildings. This term shall include telephone exchange buildings, transformer stations and substations, gas regulator stations, and similar structures.

Street. A dedicated and accepted public thoroughfare, other than a public alley, open to public travel, whether designated as a road, avenue, highway, boulevard, drive, lane, circle, place, court, terrace, or any similar designation, having a right-of-way at least thirty (30) feet in width. A street may also accommodate non-motorized traffic.

(4) Definitions of Basic Types of Buildings and Uses.

Accessory Buildings and Structures. A subordinate building or structure whether attached, detached, or a subordinate adjunct to the principal building.

Building, Principal. A building or, where the context so indicates, a group of buildings in which the main or principal use of the lot is conducted.

Educational Uses. Uses that provide educational services, such as public libraries, public primary and secondary schools, and publicly owned and operated institutions of higher learning.

General Farming. Standard farming activities such as horticulture, dairying, livestock and poultry raising, farm forestry, and similar bona fide agricultural enterprises or uses of land and structures, except farms operated wholly or in part for the disposal of garbage, sewage, rubbish, offal, and wastes from rendering plants.

Use, Accessory. A use normally incidental to, and subordinate to the principal use of the premises.

Use, Principal. The primary and chief purpose for which a lot is used.

Temporary Use, Temporary Building, Temporary Structure. A structure building or use permitted by the City Building Official or City Council to exist during periods of construction of the principal use, for special events, or purposes, which shall not exceed one (1) year unless otherwise permitted or extended by the City Council. Temporary uses shall be only those which are clearly short duration.

(5) Definitions of Basic Building and Structural Terms.

Alterations. A change, addition, or modification in construction or type of occupancy. Any change in the structural members of a building, such as walls, partitions, columns, beams, or girders, the consummated act of which may be referred to herein as "altered" or "reconstructed."

Basement. That portion of a building which is wholly or partly below the average grade of the ground level adjoining the building is a basement when the height from the grade up to the first floor level is less than the height from the grade level down to the floor; provided, however, that if the height from the grade level to the first floor level is five (5) feet or more, such basement shall be considered a story.

Building. Any structure, either temporary or permanent, having a roof and used or built for the shelter or enclosure of persons, animals, chattels, or property of any kind. This shall include tents, awnings or vehicles situated on private property and used for purposes of a building.

Building Area. That portion of the lot occupied by the main building, accessory building, and other structures. The term is synonymous with lot coverage.

Building, Front of. That façade of a building most nearly parallel to and nearest the front lot line.

Building Height. The vertical distance between the average grade (see definition of "Grade") and the highest point of the roof surface for flat roofs; to the deck line of Mansard roofs; the average height between eaves and ridge for gable, hip, and gambrel roofs; and the average height between the lowest point and the highest point on a shed roof.

Building Line. The line formed by the outer surface of a building, structure, or enclosure wall at ground level.

Erected. The word "erected" includes built, constructed, reconstructed, moved upon, or any physical operations on the premises required for the building. Excavations, fill drainage, and the like, shall be considered a part of erection.

Grade, Finished. The final elevation of ground surface after man-made alterations to a site in conformance with the approved plans or designs relating thereto.

Grade, Natural. The elevation of the undisturbed natural surface of the ground prior to any excavation or fill.

Mezzanine. An intermediate floor in any story occupying not to exceed one-third (1/3) of the floor area of such story.

Soil. Includes land, earth, dirt, clay, sand, gravel, soil components, minerals, and kindred substances.

Story. That portion of a building included between the upper surface of any floor and the upper surface of the floor next above, or any portion of a building between the upper surface of the topmost floor and the ceiling above it.

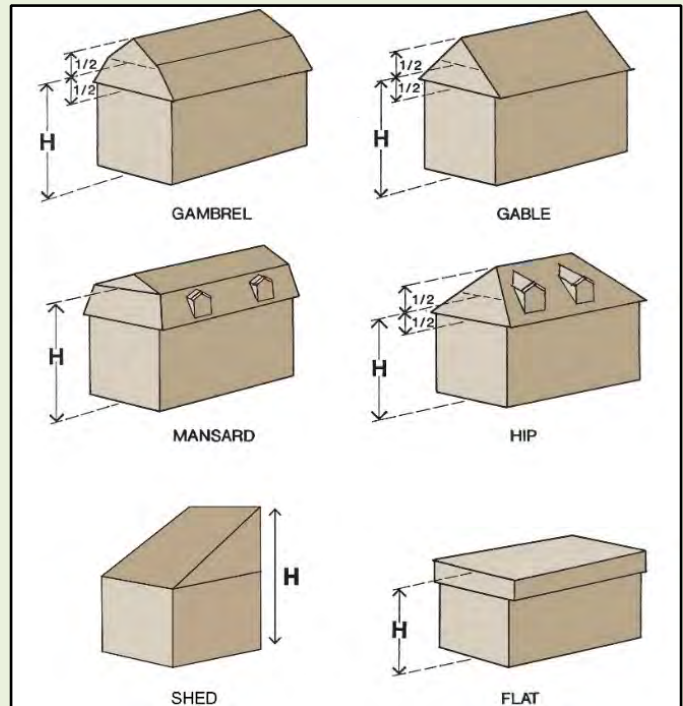
Story, Half. A half story is an uppermost story lying under a sloping roof, the usable floor area of which does not exceed seventy-five (75) per cent of the floor area of the story immediately below it.

Structure. A structure is anything erected or constructed which requires permanent location on the ground or attachment to something having such location.

Usable Floor Area, Non-Residential. The measurement of usable floor area for non-residential uses shall be the sum of the area of the first floor, as measured to the exterior face of the exterior walls, plus that area, similarly measured, of all other stories that are accessible by a fixed stairway, ramp, escalator or elevator, which may be made fit for occupancy. The measurement shall include the floor area of all accessory buildings measured similarly.

Usable Floor Area, Residential. The measurement of usable floor area for residential uses shall be the sum of the area of the first floor, as measured to the exterior face of the exterior walls, plus that area, similarly measured, of all other stories having more than ninety (90) inches of headroom that are accessible by a fixed stairway and which may be made usable for human habitation, but excluding the floor area of uninhabitable basements, cellars, garages, accessory buildings, attics, unenclosed breezeways, and unenclosed porches.

Utility Room. A utility room, or space, is a room, or space, located other than in the basement, specifically designed and constructed to house any home utilities such as the heating unit and laundry facilities.



(6) Definitions Pertaining to Lots and Areas.

Lot. An area of land, which may consist of lots of record and/or parcels or parts thereof, occupied or intended for occupancy by not more than one main building or dwelling unit, unless otherwise specifically provided in this Ordinance.

Lot, Area. The total horizontal area within the lot lines of a lot.

Lot, Corner. A lot located at the intersection of two (2) or more streets where the corner interior angle formed by the intersection of the two (2) streets is one hundred thirty-five (135) degrees or less; or a lot abutting upon a curved street or streets if tangents to the curve at the two (2) points where the lot lines meet the curve, form an interior angle of less than one hundred thirty-five (135) degrees.

Lot Coverage. That part or percent of the lot occupied by buildings, including accessory buildings. See Figure below.

Lot Depth. The average depth of a lot.

Lot, Double Frontage. An interior lot having a street line for both the front lot line and the rear lot line.

Lot, Interior. An interior lot is a lot other than a corner lot.

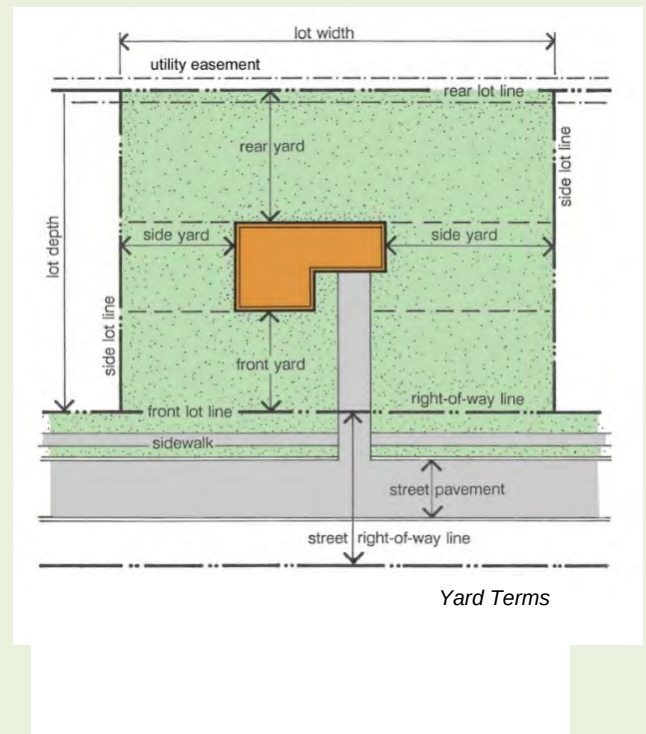
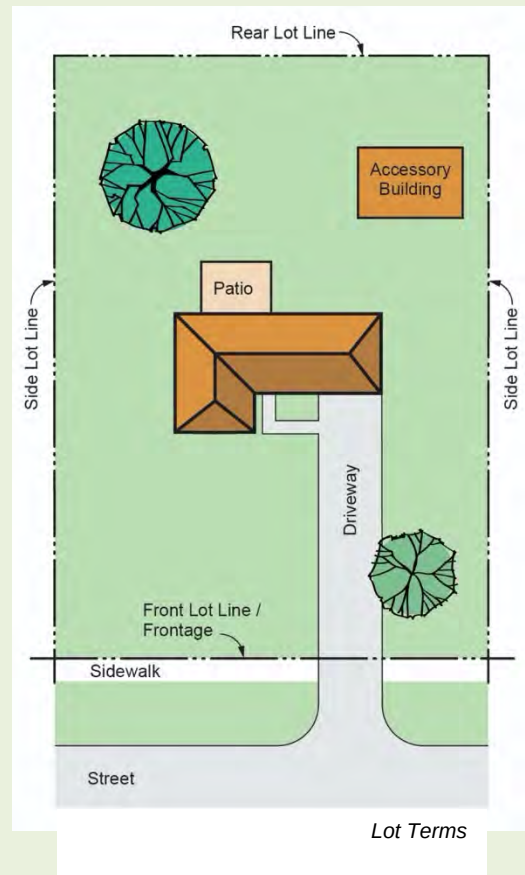
Lot of Record. A lot of record is a lot the dimensions of which are shown on a plat recorded in the office of the Register of Deeds prior to the effective date of this Ordinance, and which actually exists as so shown.

Lot Lines. The lines bounding a lot as defined herein. In case a recorded ownership is to the center line of a public thoroughfare, the lot line, for the purposes of this Ordinance, shall be the outside line of the right-of-way as shown on the Future Transportation Map.

Lot Line, Front. The line abutting a street. On a corner lot the shorter street line shall be considered the front lot line. Where new street lines are established by ordinance or the Future Transportation Map of the City of Livonia, such lines shall be the front lot line. See Figure above.

Lot Line, Rear. The rear lot line is that boundary which is opposite and most distant from the front lot line. In the case of a lot pointed at the rear, the rear lot line shall be that assumed line parallel to the front lot line, not less than ten (10) feet long, lying most distant from the front lot line and wholly within the lot. See Figure above.

Lot Line, Side. A side lot line is any lot boundary line not a front lot line or a rear lot line. A side lot line separating a lot from a street is a side street lot line. A side lot line separating a lot from another lot, or lots is an interior lot line. See Figure above.



Lot Width. The shortest straight-line dimension of a lot measured between side lot lines at the distance required for a front yard, but not encroaching into the setback, in the district in which the lot is located.

Outlot. An outlot is a parcel of land which must be designated on a recorded plat as an outlot before it may be legally considered as such.

Setback. The minimum required horizontal distance between the foundation of a building or other structure, excluding allowable projections and encroachments, and the front, side, or rear lot line or right-of-way line.

Setback Lines. A line marking the setback distance from the lot lines which establishes the minimum required front, side, or rear yards of a lot.

Yards. The open spaces on the same lot with a principal building are established by and between the lot lines and the required building setback lines and which are open, unoccupied, and unobstructed by any structure or any part thereof from the ground upward, except as may otherwise be provided in this Ordinance.

Yard, Front. A front yard is an open space extending the full width of a lot and of a uniform depth equal to required setback line as measured horizontally and perpendicular to the front lot line, unoccupied from the ground upward except as hereinafter specified. See Figure below.

Yard, Rear. A rear yard is an open space extending the full width of a lot and of a uniform depth equal to the required setback line measured horizontally and perpendicular to the rear lot line, unoccupied from the ground upward except as hereinafter specified. See Figure to the right.

Yard, Side. A side yard is an open space extending from the front yard to the rear yard and of a uniform width equal to the required setback line measured horizontally and perpendicular to the side lot line, unoccupied from the ground upward except as hereinafter specified. See Figure to the right.

(7) Definitions Pertaining to Types of Dwellings.

Apartments. A suite of rooms forming one residence, typically in a building containing a number of these.

Condominium. A form of property ownership in which dwelling units are owned individually but the associated land (limited and common) and common elements in the structure are owned jointly.

Congregate Elderly Housing. Apartments and dwellings for the elderly with communal dining facilities and services, such as housekeeping, organized social and recreational room(s) and activities, transportation services, and other support services appropriate for the residents under common management.

Dwelling, Converted. A "converted dwelling" is a building containing more dwelling units than the number for which it was originally designed and constructed.

Dwelling, Multiple Family. A building containing three (3) or more dwelling units arranged either side by side or one above the other.

Dwelling, One-Family. A separate detached building designed exclusively for and containing only one (1) dwelling unit.

Dwelling, Two-Family. A separate detached building designed exclusively for and containing only two (2) dwelling units, each of which is independent from the other.

Dwelling Unit. Any room or group of rooms located within a dwelling and forming a residential household unit with facilities that are used or intended to be used for living, sleeping, cooking, and eating, with a restroom(s) and bathing facility(ies) to be utilized by a family, a household unit as that term is defined in this Chapter, or three or more unrelated individuals. A building or portion thereof designed as a unit for occupancy by only one (1) family for residential living purposes and having principal kitchen facilities.

Independent Elderly Housing. Attached or detached dwellings (apartment, townhouse, or single-family structures) occupied by elderly persons in good health who desire and are capable of maintaining independent households as part of a planned development and provided with qualified management services, such as security, housekeeping, and recreational and social activities, to maintain the premises.

Mobile Home. A structure, transportable in one (1) or more sections, which is built on a chassis and is designed to be used as a one-family dwelling, with or without a permanent foundation, when connected to the required utilities, and which includes the plumbing, heating, air conditioning and electrical systems contained in the structure.

Mobile Home Park. A parcel or tract of land under the control of a person upon which three (3) or more mobile homes are located on a continual non-recreational basis, and which is offered to the public for that purpose regardless of whether a charge is made therefor, together with any building, structure, enclosure, street, equipment, or facility used or intended for use incidental to the occupancy of a mobile home and which is not intended for use as a temporary trailer park.

Modular Home. A structure, transportable in two (2) or more sections and designed to be used as a one-family dwelling with a permanent foundation.

Senior Assisted Living Facility. Elderly residences that provide 24-hour supervision and are designed and operated for elderly people who require some level of support for daily living. Such support shall include meals, security, and housekeeping, and may include daily personal care, transportation, and other support services, where needed. Individual dwellings may contain kitchen facilities.

Site Condominium. Any development which is (i) exempt, pursuant to MCL 559.110(1), being Section 10(1) of the Condominium Act, MCL 559.101, et seq., from the provisions of the Land Division Act, MCL 560.101, et seq., and (ii) not a condominium as that term is used in [Section 2.01 \(7\)](#) of this Ordinance, and shall include, but not be limited to, one-family dwellings.

(8) Definitions of Terms Relating to Commercial Buildings and Uses.

Adult Businesses:

- A) **Adult Bookstore.** An establishment housing as a substantial or significant portion of its stock in trade, books, magazines, periodicals, or other materials which are distinguished or characterized by their emphasis on sexually explicit matter, or an establishment with a segment or section devoted to the sale or display of such material.
- B) **Adult Motion Picture Theater.** An enclosed building with a capacity of four hundred (400) or more persons used for the presentation of material that has a dominant theme which is distinguished or characterized by an emphasis on the depicting or describing of sexually explicit matter, for observation by patrons therein.
- C) **Adult-oriented Merchandise.** Goods, products, commodities, or other ware, including, but not limited to videos, CD ROMs, DVDs, computer disks or other storage devices, magazines, books, pamphlets, posters, cards, periodicals, or non-clothing novelties which depict, describe, or simulate sexual activities.
- D) **Adult-oriented Retail.** An enclosed building or any portion thereof which for money, including any portion thereof, or any other form of consideration, devotes a significant or substantial portion of stock in trade to the sale, exchange, rental, loan, trade, transfer, or viewing of adult-oriented merchandise.

Antique Store. A retail establishment selling objects made in a bygone period having special value because of their age.

Artisan, Craftsman, Printing, Engraving Shops, and other similar uses. A service that requires a skilled trade, especially one that involves making things by hand.

Bakeries, Dairies, Creameries, Soft Drink and Bottling Plants, and other similar uses. Retail stores where bread and cakes are made and sold; establishments for the storage, processing, and distribution of milk and milk products at said retail stores; and the production and manufacturing of soft drinks and bottles to be sold at retail stores.

Consignment Shop. A store that sells Second-hand items (typically clothing and accessories) on behalf of the original owner, who receives a percentage of the selling price.

Escort Services. An establishment which provides the services of escorting members for payment of a fee.

Garage, Community. A community garage is a structure or a series of structures, for the storage of motor vehicles, having no public shop or services in connection therewith, and separated into compartments or sections with separate vehicular entrances, for the use of two (2) or more owners or occupants of property in the vicinity.

Garage, Public. A public garage is a structure, other than a private or community garage, for the storage, care, repair, or refinishing of motor vehicles. Except that a structure or room used solely for the display and sale of such vehicles, in which they are not operated under their own power and in connection with which there is no repair, maintenance, or refinishing service or storage of vehicles other than those displayed, shall not be considered a garage for the purposes of this Ordinance.

Gasoline Service Station. Buildings or premises, or portions thereof, arranged or designed to be used for the retail sale of oil, gasoline, or other fuel for the propulsion or lubrication of motor vehicles, including facilities for changing of tires, tube repairing, polishing, greasing, washing, or minor servicing of such motor vehicles, but excluding high-speed automotive washing, high-speed automotive steam cleaning, body repairing, chassis repairing, and bumping and painting.

Home Occupation. Any use customarily conducted entirely within a dwelling unit by the inhabitant thereof which is incidental and secondary to the use of the dwelling unit for dwelling purposes not requiring internal or external alterations or construction features or the use of equipment, machinery, outdoor storage, or signs not customary in residential areas. Clinics, hospitals, barber shops, beauty parlors, tea rooms, tourist homes, bed and breakfast establishments, animal hospitals, kennels, and uses of similar character shall not be deemed to be home occupations.

Hotel. An establishment providing accommodations, meals, and other services for travelers and tourists.

Ice Cream Parlor. An ice cream parlor is any establishment where ice cream (which may be in bulk form), desserts, confectioneries, packaged dairy products, and beverages are sold and which ice cream, desserts, confectioneries, and beverages may be consumed in the establishment at chairs and tables located within the premises only; provided, however, that there shall be no in-car customer service on the premises, and provided, further, that no food other than that enumerated above shall be consumed on the premises.

Indoor recreational activities. Indoor commercial amusement services such as but not limited to bowling alleys; billiard parlors and poolrooms; and swimming pools.

Junkyard. Place, structure, or parcel of land where junk, waste, discarded, salvaged, or similar materials, such as old iron or other metal, wood, lumber, glass, paper, rags, cloth, bagging, cordage, barrels, containers, etc., are bought, sold, exchanged, baled, packed, disassembled, or handled. Including auto wrecking yards, used lumber yards, house wrecking yards, and places or yards for use of salvaged house wrecking and structural steel materials, and equipment; excluding pawn shops, establishments for the sale, purchase or storage of used cars, salvaged machinery, used furniture, radios, stoves, refrigerators, or similar household goods, and the processing of used, discarded or salvaged materials as part of manufacturing operations.

Kennel. A kennel is a building, pen or enclosure used for the keeping, sheltering, maintaining, or boarding of four (4) or more dogs, or for the keeping or boarding of any number of dogs as a regular business. The term "kennel" shall not include the keeping or maintaining of puppies less than three (3) months old when borne by dogs which are legal accessory house pets.

Loading Space. An off-street space on the same lot with a building or group of buildings, for the temporary parking of a commercial vehicle while loading or unloading merchandise or vehicles.

Massage Establishment. A place where manipulated massage or manipulated exercises are practiced for pay upon the human body by anyone using mechanical, therapeutic, or bathing devices or techniques, other than the following: a duly licensed physician, osteopath, or chiropractor; a registered or practical nurse operating under a physician's directions; or, registered physical or occupational therapist or speech pathologist who treats patients referred by a licensed physician and operates only under such physician's direction. Massage establishments, as defined herein, shall not include properly licensed hospitals, medical clinics, nursing homes, beauty salons, barber shops, tanning and/or nail salons, athletic clubs, or other licensed facilities where massages are administered as an incidental or accessory use to the main use of the premises, provided, that the facility maintains a separate room equipped with appliances and apparatus for massages and; provided further, that the massages are administered only by massage therapists who are licensed by the State of Michigan and have and continue to satisfy all the requirements and abide by all the restrictions and prohibitions set forth in the Mich. Admin. Code R 338.701 through R 338.727 inclusive, as amended; and, provided further, that the establishment or facility has obtained a separate zoning compliance permit from the Inspection Department for this use on an annual basis. Massage establishments, as defined herein, shall also not include offices where occasional chair massages are administered as an incidental or accessory use to the main use of the premises as long as the massages are administered only by massage therapists who are licensed by the State of Michigan and have and continue to satisfy all the requirements and abide by all the restrictions and prohibitions set forth in the Mich. Admin. Code R 338.701 through R 338.727 inclusive, as amended.

Motel. A motel is a building or group of buildings, cabins, courts or similar structures, containing primarily rooming units with the number of dwelling units being not greater than ten percent (10%) of the total number of rooming units, and designed, intended and actually used, if at all, for the provision of sleeping accommodations for travelers and auxiliary facilities for the person or persons in charge of such motel. The term "motel" shall include tourist cabins, motor courts, automobile courts, auto cabins, motor lodges, and similar facilities within this definition, but it shall not include tourist homes, bed and breakfast establishments, rooming houses, boarding houses, multiple dwellings, or hotels.

Nursery. Any grounds or premises on or in which nursery stock is propagated, grown, or cultivated for the purpose of distributing and/or selling the same as a business and required to be licensed under Insect Pest and Plant Disease Act, MCL 286.201, et seq., as amended.

Office Business. Place of business where professional or clerical duties are performed. Includes but not limited to advertising offices and businesses; consumer credit reporting agencies and offices; and telephone and public utility business offices.

Outdoor Dining Areas. Use of an adjacent, outside area by a food or beverage establishment for the same eating and drinking activities that occur within the establishment.

Paint Shops, Automotive. A service shop where vehicles and parts are painted, typically by spraying.

Payday Lenders. Any business licensed pursuant to the deferred presentment service transactions act, MCL 487.2121, et. Seq.

Places of Assembly. Shall include limited service and full-service restaurants; banquet facilities; business schools, colleges, and trade schools; auditoriums and theaters; lodge halls, social clubs, and fraternal organizations; and religious institutions.

Restaurants:

- A) **Full-Service Restaurant.** A structure or portion of a structure which is maintained, operated, and advertised or held out to the public as a place where food, confections, frozen dessert, and beverages are served and consumed at chairs and tables primarily within the structure and which has a minimum seating capacity for more than thirty (30) persons.
- B) **Limited Service Restaurant.** A structure or portion of a structure which is maintained, operated, and advertised or held out to the public as a place where food, confections, frozen dessert, and beverages are served and consumed within the structure, and which has seating for no more than thirty (30) persons.

- C) **Carry-out Restaurant.** A structure which is maintained, operated, and advertised or held out to the public as a place where the principal activity is food, confections, frozen dessert and beverage take-out service and which includes, as an accessory use, a dining or eating area which has seating for no more than twelve (12) persons, where food and beverages may be selected and consumed within the structure.
- D) **Drive-In Restaurant.** Any establishment where food, confections, frozen dessert, and/or beverages are served to customers while seated in their motor vehicles upon the premises. It shall also include any establishment where the customers may serve themselves and are permitted to consume food and beverage in a motor vehicle parked on the premises or at other facilities which are provided for the use of the patron for the purpose of consumption, and which are located outside of the building.
- E) **Drive-Thru Restaurant.** A structure or portion of a structure which is maintained, operated, and advertised or held out to the public as a place where food, confections, frozen dessert, and/or beverages are purchased by customers from a drive-up window while seated in their motor vehicle and where no consumption of such food or beverage, when purchased at the drive-thru, shall take place anywhere on the site or within the structure.

Retail Sales. A business that sells commodities or goods to the public for personal, household, or business consumption. Includes but not limited to automobile accessory stores; monument sales, not including stone cutting; and office equipment sales.

Retail Sales and Service Incidental to Trades in which a workshop is required. A business that sells commodities or goods in small quantities to the public for personal, household, or business consumption that also includes a workshop. Includes but not limited to air conditioning sales, service and repair shops; electrical and lighting fixture sales, service, and repair shops; lawnmower sales, service and repair shops; and office equipment sales, service, and repair establishments.

Retail Services. Retailing that focuses on services rather than goods. Includes but not limited to blueprint, photostat, and photo-copying establishments; dry cleaning stores (including coin-operated) and plants; and exterminating services and shops.

Retail Stores. A place of business usually owned and operated by a retailer but sometimes owned and operated by a manufacturer or by someone other than a retailer in which merchandise is sold primarily to ultimate consumers. Includes but not limited to antique shops, with no outside storage; bicycle stores, including sales, rental, and repairs; candy, confectionery stores, and ice cream parlors; electrical and household appliance stores; garden supply and seed stores; locksmith shops; orthopedic and medical supply stores, not including assembly or manufacture of such articles; and sporting goods stores.

Sexually Explicit Matter. "Sexually explicit matter," as defined in MCL 722.673, as amended. All definitions therein are hereby adopted and included herein by reference.

Specially Designated Distributor (S.D.D). A person engaged in an established business licensed by the Michigan Liquor Control Commission pursuant to Michigan Public Act 58 of 1998, as amended, to distribute spirits and mixed spirit drink in the original package for consumption off the premises.

Specially Designated Merchant (S.D.M.). A person engaged in an established business licensed by the Michigan Liquor Control Commission pursuant to Michigan Public Act 58 of 1998, as amended, to sell beer or wine, or both, at retail for consumption off the licensed premises.

Storage. The keeping of goods, merchandise, or materials for subsequent sale, distribution or use on the site wherein said goods, merchandise, or materials are stored.

Theater. An enclosed building used principally for presenting performances or motion pictures which are observed by paying patrons from seats situated within the building.

Theater, Drive-In. An open-air theater constructed and operated in an established location, without cover or roof, displaying motion pictures for the general public who view the screen or stage while seated in automobiles. The term as used herein shall mean and include the entire premises upon which such theater is constructed, including parking areas, and all other facilities accessory to such business but excluding driveways and marquees.

Used Car Lot. A used car lot shall include and refer to any lot or parcel of land, or to any part thereof, used for the identification, exchange, or sale of used motor vehicles or used house trailers of any description whatsoever.

Wholesale Business Uses. The sale of goods or merchandise to retailers; to industrial, commercial, institutional, or other professional business users; or to other wholesalers. Includes but not limited to candy, jewelry, and tobacco products.

Section 2.02 Specific Terms.

(1) Definitions of Parking Terms.

Off-street Parking Lot. A facility providing vehicular parking spaces with adequate drives and aisles for maneuvering, so as to provide access for entrance and exits for the parking of more than two (2) vehicles. Off-street parking lots must be durable and smooth.

Parking Space. An area suitable for the parking of a motor vehicle with a driveway connecting such parking space with a street or alley, arranged to facilitate the convenient and safe ingress and egress of a motor vehicle. The minimum area required above shall be exclusive of necessary driveways, aisles, or maneuvering areas for all uses other than one- and two-family dwellings.

(2) Definition of Miscellaneous Terms.

Adult Foster Care Facility. A governmental or nongovernmental establishment that provides foster care to adults. Subject to Michigan Public Act 218 of 1979, as amended, and MCL 400.701, et seq, adult foster care facilities include facilities and foster care family homes for adults who are aged, mentally ill, developmentally disabled, or physically disabled, who require supervision on an ongoing basis but who do not require continuous nursing care. An adult foster care facility does not include a nursing home, home for the aged, hospital, hospital for the mentally ill, facility for the developmentally disabled, county infirmary, child caring institution, an establishment commonly described as an alcohol or substance abuse rehabilitation center, a residential facility for persons released from or assigned to adult correctional institution, or any other use excluded under Act 218 of 1979, as amended.

Agriculture. The art and science of cultivating the ground, the production of crops or livestock, and the processing of milk produced on the farm on which the processing is located, excluding, however, commercial greenhouses, the sale of nursery stock, riding stables, mink or fox or similar fur farms, hog or poultry farms using garbage as the principal source of feed, and dairy processing operations.

Automobile Car Wash Establishment. A facility for the washing or cleaning of vehicles. A car wash may be:

- A) a single unit type which has a single bay or a group of single bays with each bay to accommodate one vehicle only where a person uses a high-pressure hose to wash the vehicle by hand; or
- B) an automated single unit type which has a single bay to accommodate one vehicle at a time; or
- C) a tunnel unit type which allows washing of multiple vehicles in a tandem arrangement while moving through the structure.

Automobile or Vehicle Dealership. A business that sells new or used cars at the retail level. It may also provide maintenance services for cars and employ automotive technicians to stock and sell spare automobile parts and process warranty claims.

Automobile Service Station. A complex used for the sale of gasoline or other motor fuels, oils, lubricants, and auto accessories; and which may or may not include washing, lubricating, and other minor servicing except for automobile body work.

Bed and Breakfast Establishment. An owner-occupied dwelling where no more than 5 (five) guest rooms are made available for the temporary accommodation of the traveling or vacationing public. Such an establishment may offer meals only to those persons temporarily residing at the establishment. See also definition of “Bed and Breakfast Inn” and “Homestay.”

- A) **Bed and Breakfast Inn.** A structure primarily used for lodging purposes where the use as a residence is clearly secondary. A structure where more than 5 (five) but not more than 30 (thirty) guest rooms are made available for the temporary accommodation of the traveling or vacationing public. Such an establishment may offer meals to the public and persons temporarily residing at the establishment. See also definition of “Bed and Breakfast Establishment” and “Homestay.”
- B) **Homestay.** An owner-occupied, single-family dwelling, or a dwelling unit in a duplex or multi-family dwelling structure, that may rent up to three (3) single bedrooms with bathroom access for overnight accommodates for periods as short as one overnight stay. Meals are not provided with rental, but kitchen and/or dining facilities may be available for guests to prepare their own meals. Only properties that have received approval of a rental registration application are recognized as a Homestay for purposes of complying with City of Livonia ordinances. See also definition of “Bed and Breakfast Establishment” and “Bed and Breakfast Inn.”

Breezeway. A roofed outdoor passage, as between a house and a garage.

Bulk Storage. Goods for sale, storage, or display that have a large size, mass, or volume and are not easily moved or carried, such as railroad ties, large bags of feed, fertilizer, wood, sand, gravel, stone, lumber, equipment, and other similar materials and supplies.

Caregiver Grow Facility. An enclosed, locked facility in which a “caregiver” or “patient,” as those terms are used in the Michigan Medical Marihuana Act, Initiated Law 1, MCL 333.226421, et seq, cultivates marijuana.

Electric Vehicle (EV) Charging Station or Port. Equipment that connects a single electric or plug-in hybrid vehicle to a source of electricity.

Enclosed. Surrounded or closed off on all sides.

Establishments for the distribution of or the packaging, assembling, secondary processing, alteration, or repair. Includes but not limited to printing, publishing and related products; glass products made of purchased glass; and professional, scientific, and control instruments and parts; toys; amusement; sporting and athletic goods; office and artist materials; and jewelry and notions.

Exotic Vehicle. An investment-grade sport or luxury automobile specially made or produced in sufficiently limited numbers to be recognized for rarity, beauty, and general distinction.

Family Child Care Home. As defined by Public Act 1973, No. 116 of the State of Michigan, MCL 722.111, et seq, as amended, as a private home in which one (1) but fewer than seven (7) minor children are received for care and supervision for periods of less than twenty-four (24) hours a day, unattended by a parent or legal guardian, for more than four (4) weeks during a calendar year, except children related to an adult member of the family by blood, marriage, or adoption.

Farm. A farm is a platted or unplatted parcel of land more than three (3) acres, in area in single ownership or single operation, on which agriculture takes place.

Fence. An artificially constructed physical barrier used to contain or enclose an area for protective measures, privacy, decorative purposes, or to mark a boundary.

Food Truck. A large-wheeled vehicle from which food is sold that typically contains cooking facilities where the food is prepared.

Garage, Private. A private garage is a structure bearing a garage door and typically designed for the storage principally of non-commercial motor vehicles having no public shop or services in connection therewith.

Group Day Care Home. As defined by 1973 PA 116, of the State of Michigan, as amended, and MCL 722.111, et seq, as a private home in which more than six (6) but not more than twelve (12) minor children are given care and supervision for periods of less than twenty-four (24) hours a day unattended by a parent or legal guardian, for more than four (4) weeks during a calendar year, except children related to an adult member of the family by blood, marriage or adoption.

Heavy Manufacturing. Heavy manufacturing means primarily moderate- and high-impact industrial uses that need to be separated from residential and other uses due to potential land use conflicts. Heavy manufacturing usually means continuous processing, as in the assembly of motor vehicles or the manufacture of chemicals, and may involve the manufacture, processing or packaging of raw or unprocessed materials which that are inherently dangerous or hazardous due to flammability, radioactivity, explosiveness, or toxicity. This category shall also include any establishment or facility using large unscreened outdoor structures such as conveyor belt systems, cooling towers, cranes, storage silos, or similar equipment, that cannot be integrated into the building design, or engaging in largescale outdoor storage. Any industrial use that generates noise, odor, vibration, illumination, or particulate that may be offensive or obnoxious to adjacent land uses or requires a significant amount of on-site hazardous chemical storage, shall be classified under this land use. This use shall include any packaging of the product being manufactured on-site. Examples include but are not limited to the production of the following: large-scale food and beverage operations, lumber, milling, and planning facilities; aggregate, concrete, and asphalt plants; foundries, forge shops, open air welding, and other intensive metal fabrication facilities; chemical blending, mixing, or production, and plastic processing and production.

Helicopter. A vehicle where support in the air is derived from the vertical component of the force produced by airfoils mechanically rotated about an approximately vertical axis.

Heliport. An area of land, water, or a structural surface which is designed, used, or intended to be used for the landing and take-off of helicopters, and any appurtenant areas which are designed to be used for helicopter support facilities such as maintenance, refueling, and parking.

- A) *Personal-use Heliport.* Any heliport used exclusively by the owner and/or operator.
- B) *Public-use Heliport.* Any heliport open to the general public and not requiring prior permission of the owner and/or operator to land.
- C) *Private-use Heliport.* Any heliport that restricts usage to the owner and/or operator or to persons authorized by the owner and/or operator.
- D) *Temporary Heliport.* Any heliport used on a one-time or temporary basis which is limited to a maximum of ten (10) operations per day for not longer than thirty (30) consecutive days.

Home, Rooming. A rooming house is a building where, for compensation, and by prearrangement for definite periods, lodging or lodging and meals are provided for more than three (3) persons. The term "rooming house" shall include lodging house and boarding house, but not a tourist home, bed and breakfast establishment, automobile court, hotel, or motor court.

Home, Tourist. A dwelling furnishing overnight sleeping quarters to transient guests and containing not more than three (3) guest bedrooms.

Hospital. A hospital is an institution for the diagnosis and treatment of sick or injured people with both in-patient and outpatient facilities. The term "hospital" shall not include any institution established principally for the care of mental disorders or the treatment of alcoholics or drug addicts.

House Unit, Rooming. Any room or group of rooms forming a single habitable unit used for living and sleeping, but which does not contain cooking or eating facilities.

Industrial Park. A legally recorded subdivision that has been specifically designed for industrial purposes and use.

Industrial plants manufacturing, processing, or assembling. Industries that engage in the transformation of goods, materials, or substances into new products. The transformational process can be physical, chemical, or mechanical. Manufacturers often have plants, mills, or factories that produce goods for public consumption. Includes but not limited to agricultural products; food and kindred products, excluding, slaughterhouses and abattoirs; fabricated metal products, except heavy machinery, transportation equipment, and steel fabricators; and dies, gauges, instruments, patterns, and leather goods.

Landscaping. Notwithstanding any other provisions contained in this Ordinance, in commercial and industrial zoning districts, sodding, seeding or decorative treatment of the area lying between the property line and the pavement shall be required of the owner and/or developer of the lot, as approved by the Inspection Department.

Light Manufacturing. Light manufacturing refers to industrial activity that uses small or moderate amounts of raw or partially processed materials to produce items of relatively high value per unit weight. Light manufacture is most often associated with batches or discrete production runs. The manufacturing of clothes, furniture, consumer electronics, household items, jewelry, pottery, food, and beverages are some examples of light manufacturing. In determining whether a use is classified as light manufacturing or some other classification of use (e.g., heavy manufacturing, commercial, accessory use, home occupation, etc.), the Building Official shall consider the material, process, quantities, and/or other similar factors.

Name Plate. A sign indicating the name and/or address of a building or the name of an occupant thereof and the nature of a permitted occupation therein.

Nature Preserve. An area of land managed to conserve wildlife, plant habitat, or other natural features. Activities such as hiking, day camping, and educational laboratories can take place in a Nature Preserve.

Nursing Home. (Convalescent Home-Sheltered Care Home). An establishment for the care of children, the elderly, or infirm. Such an establishment shall not contain equipment for or provide care in maternity cases or for psychotics or other unruly, mentally deranged persons nor for surgical or medical cases commonly treated in hospitals and shall be licensed as a nursing home by the State of Michigan.

Office, Medical. Medical office includes such occupations as physicians, dentists, and similar medical personnel for the treatment and examination of patients solely on an outpatient basis, provided that no overnight patients are kept on the premises.

Outdoor Recreation Uses. Recreation engaged in out of doors, most commonly in natural settings. Including, but not limited to, baseball, soccer, basketball, nature trails, educational laboratories, etc.

Personal Service Establishments. An establishment engaged primarily in providing services involving the care of a person or apparel, includes but not limited to barber shops; custom dressmaking shops; health studios (not including reducing salons, massage parlors, and public baths); rental business with no outside storage or display of goods; and watch repair shops.

Professional. Having to do with a vocation, calling, occupation, or employment involving labor, skill, and education of an advanced type in a field of science or learning customarily acquired by a prolonged course of specialized intellectual instruction and study.

Professional Offices. Including, but not limited to, the following: Medicine, osteopathy and dentistry (excluding veterinary clinics); Law, engineering and architecture; Optometry and chiropractic; and Insurance.

Psychiatric Hospital. A licensed publicly or privately-owned facility for in-patient care and treatment of mental disorders or the treatment of substance abusers such as alcoholics and drug addicts.

Publicly or privately-owned facility. Any facility in which a service is provided by any person, firm, corporation, municipal, county, state, or federal department or board, duly authorized and licensed to furnish such services to the public, under federal, state, county, or municipal regulations.

Recreational Equipment. Recreational equipment is defined and shall include the following:

- A) A "travel trailer" is a vehicular, portable structure built on a chassis, designed to be used as a temporary dwelling for travel, recreational and vacation uses; not to exceed eight (8) feet in width.

- B) A "*pickup camper*" is a structure designed primarily to be mounted on a pickup or truck chassis and with sufficient equipment to render it suitable for use as a temporary dwelling for travel, recreational, and vacation uses.
- C) A "*motorized home*" is a portable dwelling designed and constructed as an integral part of a self-propelled vehicle.
- D) A "*folding tent trailer*" is a folding structure, mounted on wheels and designed for travel and vacation uses.
- E) Boats and "*boat trailer*" shall include boats, floats, and rafts, plus the normal equipment to transport the same on the highway.
- F) Snowmobile and "*snowmobile trailer*" shall include all motorized tracked recreational vehicles for use on snow and ice and normal equipment to transport the same on the highway.

Religious Institution. A Religious Institution for the purpose of this Ordinance shall mean: an institution that people regularly attend to participate in or hold religious services, meetings, and other activities. The term "Religious Institution" shall not carry a secular connotation and shall include buildings in which the religious services of any denomination are held. Structures owned or operated by Religious Institutions located on parcels other than where the principal structure for religious services are held shall not, for the purpose of this Ordinance, be considered a Religious Institution, and the principal use of this structure shall be its use and the use shall conform to the requirements of the district in which it is located.

Residential Homes for Mentally or Physically Handicapped Persons. A state licensed residential facility constructed for the purpose of providing resident services with twenty-four (24) hour supervision or care for more than six (6) mentally or physically handicapped persons.

School. A building used for the purpose of elementary or secondary education, which meets all requirements of the compulsory education laws of the State of Michigan, and not providing residential accommodations.

School, Nursery. A public or private school or kindergarten wherein day care or day care and education are provided for five (5) or more children aged five (5) years and under.

School, Private. A building used for the purpose of elementary or secondary education and having a curriculum essentially the same as ordinarily given in a public school.

Site Plan. An accurate plan prepared by the applicant for evaluation by the Planning Commission and/or the City Council.

Solar Charging Facility. An infrastructure that supplies electric energy for the recharging of plug-in electric vehicles—including electric cars, neighborhood electric vehicles, and plug-in hybrids.

Sound Level. Sound level, in decibels, is defined as the reading of a sound level meter which conforms to the latest Standards of the American Standards Association for Sound Level Meters.

Steel fabricators, truck terminals, truck and trailer rental facilities, and special trade contractors. Including but not limited to concrete contractors; excavating contractors; paving contractors; septic tank installers and cleaners; landscape contractors; and vehicle tow yards.

Truck Stop. An establishment which shall be located on a major thoroughfare, and which shall be designed for and contain facilities to meet the needs of commercial truck traffic while in transit, including restaurants and vehicle service (minor), but excluding storage buildings, warehouses, and repair shops.

Vehicle Repair. All general repair and reconditioning of motor vehicles, including engine rebuilding, repair of collision damage, overall painting, and vehicle rust proofing.

- A) **Vehicle Repair, Major.** Major repairs include engine rebuilding; rebuilding or reconditioning of vehicles; collision service, such as body, frame, or fender straightening and repair; overall painting and undercoating of vehicles; overhauling of engine requiring removal of cylinder head or crank case pan; steam cleaning; and similar activities.

- B) **Vehicle Repair, Minor.** Buildings or structures which are designed or used for the retail sale and furnishing fuel, lubricants, air, water, and other operating commodities for motor vehicles, including aircraft and water craft, but excluding semi-trucks, and which has space and facilities for:
- i) the storage of such fuel in underground tanks;
 - ii) the installation of such commodities on or in such vehicles, and the storage, minor repair or
 - iii) servicing of such vehicles, but which does not have a space and facilities for the major repair, bumping, painting, refinishing, overhauling, steam cleaning, rust proofing, or high-speed washing of such vehicles.

Warehouse. A building, or part of a building, used or intended to be used primarily for the storage of goods or chattels that are to be sold retail or wholesale from other premises; sold wholesale from the same premises; for the storage of goods or chattels to be shipped on mail order; for the storage of equipment or materials to be used or installed at other premises by the owner or operator of the warehouse; or for similar storage purposes.

(3) Definitions Pertaining to Signs.

The following definitions describe particular characteristics of certain words and phrases as used in the Ordinance. All other words and phrases used herein shall adhere to the rules of language construction described in [Section 2.01](#), [Section 2.01\(1\)](#) above.

Abandoned Sign. Any sign which no longer directs a person to or advertises a bona fide business, tenant, owner, product or activity conducted, or product available on the premises where such sign is displayed, or any sign pole, frame or structure no longer containing a sign, or any sign not repaired or maintained properly, after notice pursuant to the terms of the Ordinance.

Area of Sign. The area of a sign, expressed in square feet, shall mean the entire area within any circle, triangle or rectangle, or square enclosing the extreme limits of writing, representation, emblem or any figure, or similar character, together with any frame or other material or color forming an integral part of the display or used to differentiate the sign from the background against which it is placed; excluding the necessary supports or uprights on which such sign is placed. Where a sign has two (2) or more faces, the area of all faces shall be included in determining the area of the sign, except that where two (2) such faces are placed back-to-back and are at no point more than two (2) feet from one another, the area of the sign shall be taken as the area of one (1) face if the two (2) faces are of equal area, or as the area of the larger face if the two (2) faces are of unequal area.

Awning Sign. A permanent Projecting Sign painted or printed on the exterior surface of an awning. Such signs may be internally illuminated pursuant to the requirements of this Ordinance. See Figure to the right.



Banner. A temporary sign made of cloth used in connection with some special event or promotion.

Billboard. A ground sign advertising a product, event, person, business, or subject not related to the premises on which the sign is located. Billboards typically have much greater height and area than signs permitted by this ordinance, and have characteristic types of installation, whether as pylon signs or with a substantial support structure.

Blade Sign. A small, pedestrian-oriented sign mounted so that the sign face is perpendicular to the face of the building.

Bulletin Board. A sign with temporary or replaceable letters or characters used to announce dates of functions or activities.

Business. Any legal use of a building other than for a religious institution, school, home occupation or residence by a person, firm, or corporation. Although contained in the same building as another business and owned by the same person, an activity may be treated as a separate business if it is physically separated from, uses different personnel than, and provides different products or services than such other related business.

Business Center. A group of four (4) or more contiguous businesses or offices, research facilities, or industrial facilities developed as a planned complex which collectively have a name different from the name of any individual business, are under common ownership or management and share a common parking area or otherwise present the appearance of one (1) development site.

Business Center Sign. A sign which gives direction, name and identification to a business center.

Business Sign. A sign which directs attention to a business or profession conducted or to a product, service, or activity sold or offered upon the premises where such sign is located.

Construction Sign. A sign erected at a construction site identifying the architects, engineers, contractors or other parties responsible for a project, or identifying the intended purposes or uses of the building.

Department. The Inspection Department of the City of Livonia.

Directional Sign. A sign directing vehicular or pedestrian traffic to parking areas, loading areas, or to portions of a building.

Development Site. A lot, combination of lots, or parcels of property when combined form a complete parcel of land for development purposes.

Director. The Director of Building Inspection.

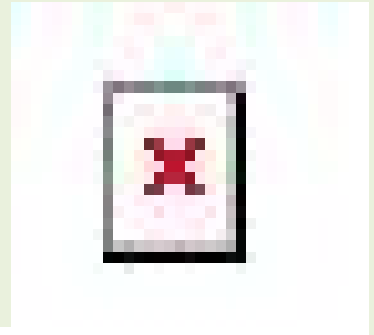
Electronic Message Center (EMC) Sign. An electrically activated changeable-copy sign whose variable message and/or graphic presentation capability can be electronically programmed. EMCs typically use light emitting diodes (LEDs) as lighting sources.

Entranceway Sign. A sign that designates the street entranceway to a residential or industrial subdivision from a public right-of-way.

Flag. A piece of cloth or bunting bearing the symbol of a nation, state, corporation, or organization.

Freestanding Sign. A sign supported by one or more uprights, poles, pylons, monuments, or braces placed in the ground and not attached to any building or other structure. Freestanding signs include, but are not limited to, Pole Signs and Monument Signs.

Frontage. Expressed in lineal feet, the width of the first-floor portion of a building occupied by a single business facing a street adjacent to the premises on which the business is located.



Banner



Blade Sign

Group Identification Sign. A single sign or entranceway structure listing the names and addresses only of the establishments occupying a development or subdivision. The erection of such identification signs is so intended to assist the public in locating establishments within its immediate area and shall be placed upon property within the development or subdivision.

Height of a Sign. The vertical distance measured from the surface grade of the land beneath the midpoint of the face of the sign to the highest point of the sign or supporting structure without including any berm, landscaping, grading, or other artificially or unnaturally constructed raised portion of land at the point of measurement.

Identification Sign. A sign containing the name of a business operating on the premises, where located, the type of business, owner or resident, and/or the street address, and sets forth no other advertisement display.

Master Sign Plan. A plan for signage used in a plaza, mall, business center, office complex, industrial complex, or shopping center indicating the location, style, and maximum square footage of possible wall signage and the location and size of ground signs and all other signs on the development site.

Monument Sign. A base-mounted, freestanding sign placed in the ground and not attached to any building or other structure. See Figure Below.

Moving Sign. A sign that has motion either constantly or at intervals, or that gives the impression of movement through intermittent flashing, scintillating, or varying the intensity of illumination whether or not said illumination is reflected from an artificial source or from the sun. Such signs shall not include banners, pennants, spinners, streamers, or barber poles.

Murals. An original painting or texturing applied to the surface of a wall or window. If what the mural depicts is commercial in nature, the mural will be considered a wall sign for purposes of this Ordinance.

Nameplate. A wall sign not exceeding one (1) square foot in area stating the name of a person, firm, or name or description of a certain permitted use.

Natural Materials. Substances determined to be "natural materials" for the purposes of this Ordinance shall include, but not be limited to wood, stone, and brick. Substances specifically excluded from this definition are plywood, pressed board, drywall, wood or metal paneling, sheet metal, or any substances synthetically created in a manufacturing process. A natural material sign may only be illuminated by an indirect light source.

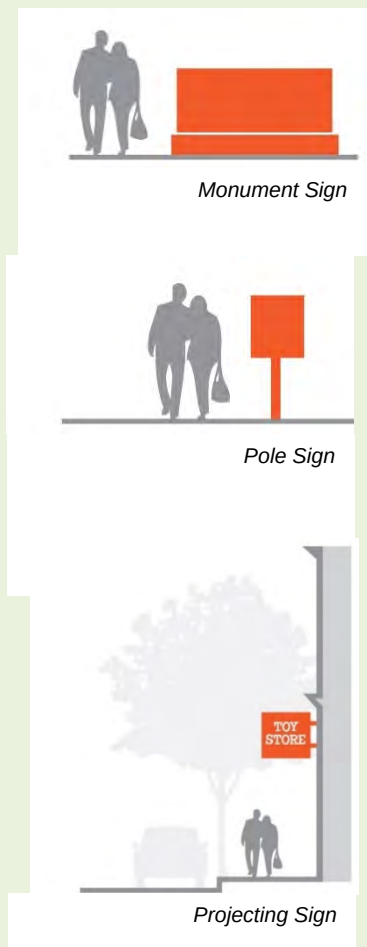
Non-Conforming Sign. Any advertising structure or sign which was lawfully erected and maintained prior to the effective date of this Ordinance, and any amendments thereto, and which fails to conform to all applicable regulations and restrictions of this Ordinance, or a sign for which a permit was previously issued that does not comply with the provisions of this Ordinance.

Off-Premise[s] Sign. A sign which contains a message unrelated to a business or profession conducted on the subject property, or to a commodity, service, or activity not sold or offered upon the premises where such sign is located.

Outline Tubing Sign. An arrangement of tubes or bands of light that outline and call attention to a window or other building feature or certain features of an advertising device such as individual letters, figures, shapes, or words commonly referred to as a neon sign.

Owner. A person, firm, partnership, association, or corporation and/or their legal successors.

Pennant. A narrow triangular cloth of the general type which is sometimes associated with naval signaling.



Pole Sign. A type of freestanding sign that is elevated above the ground on poles or braces.

Portable Sign. A sign that is freestanding, not permanently anchored or secured to either a building or the ground, including but not limited to "A" frame signs, commonly called sandwich signs; "T" frame signs; or any other sign which by its description or nature may be, or is intended to be, moved from one location to another.

Poster Panel. A device used to draw attention to matters ordinarily temporary or transitory in nature announcing price changes, bargains, loss leaders, and is accessory to the property upon which such sign is located.

Premises. Any contiguous real property under common management or ownership.

Projecting Sign. A sign which is affixed to any building or structure other than a marquee and projects in such a way that the message is not parallel to the wall to which it is attached.

Public Sign. A sign, noncommercial in nature, including but not limited to the following: legal notices, historic site designations, municipal facility directional or identification signs, street or traffic signs, railroad crossings, danger, and other emergency signs as may be authorized by the City of Livonia or any Federal, State, or County agency having jurisdiction over the subject matter of the sign.

Pylon Sign. A type of ground sign with a clear space of more than six (6) feet between the bottom of the face of the sign and the grade.

Real Estate Development Sign. A temporary non-illuminated business sign, of any content the owner deems appropriate, placed on the premises of a subdivision or other real estate development to advertise the development and provide information relative to availability while the development site is under construction.

Real Estate Sign. A temporary non-illuminated sign, of any content the owner deems appropriate, pertaining to the sale, lease, or rental of a single lot, parcel, or existing building situated thereon.

Regional Center. A planned complex of buildings containing a total gross leasable area of five hundred thousand (500,000) square feet or more and sharing a common parking area.

Required Announcement Sign. A temporary ground sign announcing to the general public a pending request for a lot split or rezoning of the property upon which the sign is displayed.

Roof Sign. A sign which is attached to a building and any part of which extends or projects above or beyond the roof or parapet.

Seasonal Decorations. Signs of a decorative nature not used for any commercial purpose and commonly associated with any national, local, or religious holiday.

Sign. A name, identification, description, display, light, balloon, flag, pennant, streamer, banner, illustration, letter, numeral, work, model, logo, trademark, representation, or device of any kind whatsoever, which is affixed to, painted, otherwise located, or set upon or in a building, structure, or piece of land and which directs attention to an object, product, place, activity, person, institution, organization, or business and which is visible from any public street, sidewalk, alley, park, or public property. The definition includes interior and exterior signs but not signs primarily directed at persons within the premises of the sign owners and does not include goods displayed in a store window.

Sign Erector. Any person engaged in the business of erecting, altering, or removing signs on a contractual or hourly basis.

Sign Setback. The distance measured from the portion of the sign structure nearest to the property lines or public rights-of-way. For the purpose of this measurement, the property lines and public right-of-way lines extend vertically and perpendicularly from the ground to infinity.

Temporary Sign. A display, information sign, or banner with or without a structural frame intended for a limited period of display including decorative displays for holidays or public demonstrations, civic projects, or other special events of a temporary nature.

Trailer Sign. A sign calling attention to special events, sales, services, products, or new attractions and is portable by virtue of being part of a trailer, attached to wheels, or towed by a vehicle.

Variable Electronic Message Sign. A light emitting diode (LED), digital or other similar sign such as, but not limited to, a liquid crystal display sign, fiber optic sign, or plasma display screen sign, the content of which can be electronically changed by remote or automatic means without altering the face of the sign. A sign or portion of a sign on which the message or display is an electronic indication of fuel price is an example of a variable electronic message sign.

Wall Sign. A sign attached to, inscribed or painted on, or placed flat against the exterior surface of any building or the vertical face of a "mansard roof," no portion of which projects more than twelve (12) inches from the wall and which may not project above the roof or parapet line. The roof line meaning the vertical distance measured from the established grade to the highest point of the roof surface for flat roofs; to the deck line of mansard roofs; and the average height between eaves and ridge boards for gable, hip and gambrel roofs.

Window Sign. A sign which is applied, affixed, or attached to the interior of any building window or which is displayed through the glass area so as to be visible from the exterior of the building.

(4) **Flood Plain Terms.**

Base Flood. A 100-year flood having a one (1) percent chance of being equaled or exceeded in any given year.

Flood or Flooding. A general and temporary condition of partial or complete inundation of normally dry land areas from:

- A) the overflow of inland or tidal waters;
- B) the usual and rapid accumulation or runoff of surface waters from any source.

Flood Hazard Area. Land which on the basis of available flood plain information is subject to a one (1) percent or greater chance of flooding in any given area. Flood Hazard Area shall also mean the designated regulatory flood plain.

Flood Hazard Boundary Map (FHBM). An official map of the City of Livonia, issued by the Federal Insurance Administration, where the boundaries of the areas of special flood hazards have been designated as Zone A.

Flood Insurance Rate Map (FIRM). An official map of the City of Livonia, on which the Federal Insurance Administration has delineated both the areas special flood hazards and the risk premium zones applicable to the City.

Flood Insurance Study. The official report provided by the Federal Insurance Administration. The report contains flood profiles as well as the Flood Hazard Boundary Floodway Map and the water surface elevation of the base flood.

Flood Plain. Any land area susceptible to being inundated by water from any source (see definition of flood).

Floodway. The channel of a river or other water course and the adjacent land areas designated in the Flood Insurance Study which must be reserved in order to discharge the base.

Special Flood Hazard Area. The land area covered by the floodwaters of the base flood on National Flood Insurance Program (NFIP) maps.

Article III.

Zoning Districts and Map

Section 3.01 Zoning Districts.

- (1) **Established of Zoning Districts.** For the purpose of this Ordinance, the City of Livonia is hereby divided into the following zoning districts which shall be known by the following respective names and symbols:

N1	Neighborhood District.
N2	Neighborhood District.
RUF	Rural Urban Farm District.
NM1	Neighborhood Multifamily District.
NM2	Neighborhood Multifamily District.
NM3	Neighborhood Multifamily District.
C-1	Local Business District.
C-2	General Business District.
C-3	Highway Services District.
C-4	High Rise Commercial District.
P-L	Public Lands District.
M-L	Manufacturing Limited District.
M-1	Light Manufacturing District.
M-2	General Manufacturing District.
NP	Nature Preserves District.
P	Parking District.

- (2) **District Areas.** The areas assigned to and included in the districts created in [Section 3.01 \(1\)](#) of this Ordinance, together with the designation and boundaries of said districts as shown on the Zoning Map of the City of Livonia, are hereby established.
- (3) **Sections of Zoning Map.** Zoning Map of the City of Livonia is hereby divided into one hundred and forty-four (144) quarter sections which shall be the same in area, boundaries, and location as the thirty-six (36) sections of the City of Livonia, also known as Town One (1) South, Range Nine (9) East, Wayne County, Michigan, and which shall be known by the same section numbers as the corresponding sections of said City.

- (4) **Amendments of Zoning Map.** The Zoning Map of the City of Livonia may be amended from time to time, in whole or in part, by Ordinance to which there shall be attached a map of the section or sections, or any part thereof, affected by the amendment or amendments set forth in such Ordinance. Each map showing an amendment shall be designated "Amendment No. ____ to the Zoning Map of the City of Livonia" and shall be given a number. Whenever the Council shall cause the Zoning Map of the City of Livonia to be amended as a whole, such map shall contain and show all prior amendments. Each amendment stating or describing a change in the districts, areas, or boundaries established by the provisions of this Article shall be considered and designated as an additional section of this Article. All other amendments shall be affected by re-enacting and publishing at length the section or sections amended, as provided in Section 23, Chapter IV of the Charter.

A copy of the Zoning Map of the City of Livonia adopted by this Ordinance shall be prominently displayed for public examination in the City Planning Department. Thereafter the same shall be revised to reflect such amendments of the Zoning Ordinance as may be made from time to time, and it shall be the duty of the City Planner to make these revisions no later than thirty (30) days after the effective date of such enactment.

- (5) **Interpretation of the Zoning Map.** Where, due to the scale, lack of detail, or illegibility of the Zoning Map accompanying this Ordinance, there is an uncertainty, contradiction, or conflict as to the intended location of any Zoning District boundary as shown thereon, interpretation concerning the exact location of the Zoning District boundary line shall be determined by the Board of Appeals. The Board in arriving at a decision on these matters, shall apply the following standards:
- A) Zoning District boundary lines are intended to follow lot lines, or be parallel or perpendicular thereto, or along the center lines of alleys, streets, rights-of-way, or water courses, unless such Zoning District boundary lines are fixed by dimensions as shown on the Zoning Map.
 - B) When Zoning District boundaries are so indicated that they approximately follow lot lines, such lot lines shall be construed to be such boundaries.
 - C) In unsubdivided property, or where a zoning district divides a recorded lot, the location of any such boundary, unless the same is indicated by dimensions shown on the zoning map, shall be determined by use of the map scale shown thereon.
 - D) If, after the application of the foregoing rules, uncertainty still exists as to the exact location of a zoning district boundary, the Board of Appeals shall determine and fix the location of said line in a reasonable manner to best accomplish the purposes of this Ordinance.
- (6) **Districting of Vacated Streets and Alleys.** Whenever a street or alley shall have been vacated, the land within the former street or alley, or portion thereof, shall automatically be classified in the same zoning district as the property to which it attaches.
- (7) **District Regulations.** Each district, as created in this Article, shall be subject to the regulations contained in this Ordinance. Uses not expressly permitted are prohibited. Uses for enterprises or purposes that are contrary to federal, state, or local laws or ordinances are prohibited. Waiver uses, because of their nature, require special restrictions and some measure of individual attention to determine whether or not such uses will be compatible with uses permitted by right in the district and with the purposes of this Ordinance. Waiver uses are therefore prohibited uses unless a waiver of such prohibition is reviewed, and findings submitted by the City Planning Commission as provided in this Ordinance and approved by the City Council.

Section 3.02 Adoption of Zoning Map.

The Zoning Map, as identified by the signature of the President of the Council, and signed by the Mayor and City Clerk, together with all notations, references, and other information shown thereon is hereby approved and adopted. Such map, together with all amendments which may be hereafter made thereto, shall be known and cited as the LIVONIA VISION 21 Zoning Map for all purposes. The LIVONIA VISION 21 Zoning Map of the City of Livonia is hereby made a part of this Ordinance with the same effect as if all matters and information set forth in said map were fully described therein.

Section 3.03 Permitted Uses by District.

The following table lists the permitted uses and waiver uses in each zoning district. Whenever a specific development standard is included for a particular use in the table below, any development must comply with the requirement of the referenced section in addition to all the other applicable requirements of this Code. All development standards for specific uses are listed in [Section 5.04\(1\)](#) and in other areas of this Code. Additionally, any use that is a waiver land use must also comply with the standards of [Section 13.13](#), [Section 13.13\(6\)](#).

P	Permitted
W	Waiver Use

(1) Permitted Agricultural Uses by District.

AGRICULTURAL USES																	
Land Use	N1	N2	RUF	NM1	NM2	NM3	C-1	C-2	C-3	C-4	P-L	M-L	M-1	M-2	NP	P	Use Standards
Fowl and rabbits for the owner's consumption			P														Section 6.34
Fowl and rabbits raised for sale			W														Section 6.34(3)
Gardening and Tree Nurseries			P					P	P	P							Section 6.25
Nurseries, including sale of garden supplies								P	P	P							
The raising of fur bearing animals			W														Section 6.49

(2) Permitted Residential Uses by District.

RESIDENTIAL USES																	
Land Use	N1	N2	RUF	NM1	NM2	NM3	C-1	C-2	C-3	C-4	P-L	M-L	M-1	M-2	NP	P	Use Standards
Accessory residential use for apartments										W							Section 7.23 Section 7.23(2)
Bed and breakfast establishments	W	W	W	W			P	P	P	P							Section 6.08
Boarding, rooming and lodging houses or tourist homes				W													
Condominium multiple dwellings				P	P	P											
Family child care home	P	P	P														Section 6.11
Group child care home	P	P	P														Section 6.12
Home occupations	P	P	P	P	P	P											Section 6.28
Housing for the elderly						P					P						Section 6.31
Multiple dwellings and apartment houses					P												Section 6.04 Section 6.18
One-family dwellings	P	P	P	P	P												Section 6.19
Planned developments	W	W	W	W	W		W	W	W	W							Section 5.02 Section 5.02(2)
Residential homes for mentally or physically handicapped persons			W														Section 6.02
Single-family clustering	W	W															Section 5.03
Temporary buildings or structures for uses incidental to the construction of residential dwellings and	P	P	P														Section 6.56 Section 6.56(2)

improvements																	
Two-family dwellings				P	P												Section 6.20

(3) Permitted Medical Uses by District.

MEDICAL USES																	
Land Use	N1	N2	RUF	NM1	NM2	NM3	C-1	C-2	C-3	C-4	P-L	M-L	M-1	M-2	NP	P	Use Standards
Blood and plasma donation centers							P	P	P	P							
Hospitals							W	W	P	W	P						Section 6.29
Kidney transfusion centers							P	P	P	P							
Medicine, osteopathy and dentistry (excluding veterinary clinics)							P	P	P	P							
Optometry and chiropractic							P	P	P	P							
Orthopedic and medical supply stores, but not including assembly or manufacture of such articles							P	P	P	P							
Physical therapy and health services (not including massage establishments and public baths)							P	P	P	P							
Psychology and podiatry							P	P	P	P							
Veterinary clinics, animal clinics and animal hospitals			W				W	W	P								Section 6.59

(4) Permitted Public and Quasi-Public Uses by District.

PUBLIC AND QUASI-PUBLIC USES																	
Land Use	N1	N2	RUF	NM1	NM2	NM3	C-1	C-2	C-3	C-4	P-L	M-L	M-1	M-2	NP	P	Use Standards
Cemeteries			W														
Clubs, lodges, and meeting halls, fraternal and religious							P	P	P								
Cultural service buildings, such as publicly owned museums, art galleries and libraries							P	P	P	P	P						
Educational uses	P	P	P				P	P	P	P	P						Section 2.01 Section 2.01(4)
Heliports										W	P	W	W	W			Section 6.27
Licensed and certified publicly or privately-owned facilities for the detention, incarceration, commitment and/or rehabilitation of adults or minor children and psychiatric hospitals											W						Section 6.23
Local and suburban passenger terminals; trucking transportation terminals including maintenance and service facilities													W	W			Section 6.36
Municipal or other governmental buildings											P						
Nature Preserve															P		Section 2.02 Section 2.02(2) Section 6.39
Parking Structure				W	W	W		W	W	W	P	W	W	P		W	Section 9.09

Parks and Outdoor recreational uses	P	P	P	P	P	P	P	P	P	P	P	P	P	P			Section 2.02 Section 2.02(2)
Privately owned and operated recreational uses	W	W	W	W													Section 6.48
Public utility buildings and substations	W	W	W	W			P	P	P	P			P	P			
PUBLIC AND QUASI-PUBLIC USES																	
Land Use	N1	N2	RUF	NM1	NM2	NM3	C-1	C-2	C-3	C-4	P-L	M-L	M-1	M-2	NP	P	Use Standards
Radio and television towers and broadcasting studios								P	P	P							
Religious Institutions	W	W	W	W			P	P	P	P							Section 6.50
Schools including, but not limited to dance, music and instrumental, and business/ training							P	P	P	P							
Universities, colleges, private colleges, including ancillary uses and facilities			P							P	P						

(5) Permitted Commercial and Retail Uses by District.

COMMERCIAL AND RETAIL USES																	
Land Use	N1	N2	RUF	NM1	NM2	NM3	C-1	C-2	C-3	C-4	P-L	M-L	M-1	M-2	NP	P	Use Standards
Adult Businesses									W								Section 6.01
Airports, landing fields and platforms, hangars, masts and other facilities for the operation of aircraft			W														
Ambulance services, local and suburban bus terminals and taxicab terminals								W	P				W	W			Section 6.57
Artisan, Craftsman, Printing and Engraving Shops other similar uses							W	P	P	P			P	P			Section 2.01 Section 2.01(8)
Automobile and light truck (one (1) ton gross vehicle weight) repair								W	P								Section 6.06
Auto-wash establishments and auto-wash establishments operated with accessory gasoline pumps								W	P								Section 6.07
Bakeries							P	P	P	P							
Banks and savings and loans associations							P	P	P	P							
Brewer, Micro Brewer, Brewpub, and Distilleries							W	W	P	W	P	P	P	P			Section 6.09
Buildings (single or multi-unit) for the purpose of retail sales and which contain a GFA of 30,000 square feet or more							W	W	P								Section 6.52 Section 6.52(1)

COMMERCIAL AND RETAIL USES																	
Land Use	N1	N2	RUF	NM1	NM2	NM3	C-1	C-2	C-3	C-4	P-L	M-L	M-1	M-2	NP	P	Use Standards
Carnivals, outdoor circuses or migratory amusement enterprises			W					W	P	W	P						Section 6.56 Section 6.56(3)
Catering establishments							P	P	P	P							
Climate controlled, indoor self-storage used to provide temporary storage needs for businesses and other individuals on a self-service basis								W	P			P	P	P			Section 6.54
Convalescent and nursing homes							W	W	P	P							Section 6.40
Dairies, Creameries, Soft Drink and Bottling Plants, and other similar uses							W	W	W	W			P	P			Section 2.01(8)
Dance Halls and Ballrooms								W	P								Section 6.14
Day care nurseries					W		W	P	P	P							Section 6.13
Dog Kennels			W														Section 6.34(3)
Drive-in Restaurants and restaurants with either drive-thru or drive-up window facilities; including food trucks								W	P								Section 6.51 Section 6.51(3)
Drive-in Theaters								W	P								
Establishments having liquor licenses such as Class C, Tavern, and Club							W	W	P	W	P						Section 6.22

COMMERCIAL AND RETAIL USES																	
Land Use	N1	N2	RUF	NM1	NM2	NM3	C-1	C-2	C-3	C-4	P-L	M-L	M-1	M-2	NP	P	Use Standards
Full-Service Restaurants with or without outdoor dining areas							W	W	P	P							Section 6.51 Section 6.51(2)
Funeral homes and undertaking establishments							W	P	P	P							
Garages, repair shops, rustproofing and similar highway services													W	P			Section 6.24
Gasoline service station								W	P								Section 6.26
Golf courses, but not including miniature golf courses or golf driving ranges	P	P	P														
General offices							P	P	P	P		P	P	P			
Hotels								P	P	P							Section 6.30
Indoor recreational uses							P	P	P	P			W				Section 2.01 Section 2.01(8) Section 6.32
Laundry and dry-cleaning establishments												P	P	P			
Limited Service and Carry-Out restaurants with or without outdoor dining areas							P	P	P	P							Section 6.51 Section 6.51(1)
Massage establishments							W	W	P	W							Section 6.37
Motels								W	P	P							Section 6.38
Museums							P	P	P	P							

COMMERCIAL AND RETAIL USES																	
Land Use	N1	N2	RUF	NM1	NM2	NM3	C-1	C-2	C-3	C-4	P-L	M-L	M-1	M-2	NP	P	Use Standards
Music, Dance, or Business academies							P	P	P	P							
New and Used Car Lots and Showrooms, New or Used Mobile Home Sales and Automobile Rental Facilities								W	P								Section 6.05
Open-air business uses							W	W	P								Section 6.42
Open-air sales of Christmas trees							P	P	P	P							Section 6.43
Automotive Paint shops								W	W	W			P	P			Section 2.01(8)
Parking, non-residential							P	P	P	P	P	P	P	P	P	P	Article IX
Pawn shops								W	P								Section 6.45
Payday lenders								W	P								Section 6.46
Personal service establishments					W	W	P	P	P	P							Section 2.02 Section 2.02(2) Section 6.47
Photographic studios							P	P	P	P							
Planned developments	W	W	W	W	W		W	W	W	W							Section 5.02 Section 5.02(2)
Professional offices							P	P	P	P		P	P	P			Section 2.02 Section 2.02(2)
Retail sales					W	W	P	P	P	P			W				Section 2.01 Section 2.01(8) Section 6.52
S.D.D. and S.D.M. licenses							W	W	P								Section 6.03
Second-hand stores and rummage shops								W	P								Section 6.53

COMMERCIAL AND RETAIL USES																	
Land Use	N1	N2	RUF	NM1	NM2	NM3	C-1	C-2	C-3	C-4	P-L	M-L	M-1	M-2	NP	P	Use Standards
Wholesale business uses								P	P	P							Section 2.01 Section 2.01(8)

(6) Permitted Industrial Uses by District.

INDUSTRIAL USES																	
Land Use	N1	N2	RUF	NM1	NM2	NM3	C-1	C-2	C-3	C-4	P-L	M-L	M-1	M-2	NP	p	Use Standards
Bulk storage of refined petroleum products													P	P			
Caregiver grow facilities													P	P			Section 6.10
Data processing and computer centers								W	W			P	P	P			
Establishments for the distribution of, or the packaging, assembling, secondary processing, alteration or repair												P	P	P			Section 2.02 Section 2.02(2)
Experimental product development and testing including limited manufacturing												P	P	P			
Heavy manufacturing and general industrial plants														P			
Outdoor storage of Recreational Equipment													W	P			Section 6.44
Industrial, scientific, or business research development and testing laboratories and offices												P	P	P			
Industrial parks												P	P	P			Section 7.28
Industrial plants manufacturing, processing or assembling													P	P			Section 2.02 Section 2.02(2)

Internet-based exotic vehicle sales												P	P				Section 6.33
Steel fabricators, truck terminals, truck and trailer rental facilities, special trade contractors, and vehicle tow yards.												W	W				Section 6.58
Tool and die shops and pattern making shops												P	P	P			
Warehouses												P	P	P			Section 2.01 Section 2.01(8)

(7) Permitted Other Uses by District.

OTHER USES																	
Land Use	N1	N2	RUF	NM1	NM2	NM3	C-1	C-2	C-3	C-4	P-L	M-L	M-1	M-2	NP	p	Use Standards
Accessory structures and uses	P	P	P	P	P	P	P	P	P	P	P	P	P	P			Section 7.23 Section 7.23(1)
Any lawful use of land or buildings not herein expressly provided for or prohibited														P			
Temporary buildings for construction purposes for a period not to exceed the duration of construction							P	P	P	P		P	P	P			
Temporary Uses and Sidewalk and Tent Sales							P	P									Section 6.56(1)

Section 3.04 N1 Neighborhood District.

APPLICATION OF ARTICLE

The regulations set forth in this Article shall apply to all N1 Districts.

PERMITTED USES	WAIVER USES
- Accessory structures and uses (Section 7.09, Section 7.23, Section 7.23(1)) - Educational uses (Section 2.01, Section 2.01(4)) - Golf courses, but not including miniature golf courses or golf driving ranges - Family child care home (Section 6.11) - Group child care home (Section 6.12) - Home occupations (Section 6.28) - One-family dwellings (Section 6.19) - Parks and outdoor recreational uses (Section 2.02, Section 2.02(2)) - Temporary buildings or structures for uses incidental to the construction of residential dwellings and improvements (Section 6.56, Section 6.56(2))	- Bed and breakfast establishments (Section 6.08) - Planned developments (Section 5.02, Section 5.02(2)) - Public utility buildings and substations - Single-family clustering (Section 5.03) - Privately owned and operated recreational uses (Section 6.48) - Religious institutions (Section 6.50)
Refer to Article II for definitions of uses and refer to Section 5.04(1) for development standards for specific uses.	

PROHIBITED USES

- Caregiver grow facilities.
- Non-residential uses, except as set forth in this Section.

DIMENSION REGULATIONS

Lot Standards	N1
Min. Lot Area (sq. ft.)	6,000
Min. Lot Width (ft.)	50 ((a))
Min. Lot Depth (ft.)	120 ((a)) ((b))
Front Yard Setback	25 feet ((r))
Rear Yard Setback	30 feet
Side Yard Setback	5 feet
Total of two side yard setbacks	14 feet
Side yard setback abutting street	15 feet
Rear yard abutting side yard, the side yard abutting upon a street not less than	25 feet
Max. Lot Coverage (%)	((c))
Max. Building Height	35 feet (2 stories), except as provided in Section 7.17 to Section 7.20

Footnotes: Refer to [Section 4.03](#) wherever a footnote is referenced in parentheses after one of the design regulations. Additionally, some uses have specific standards that overrule these Dimensional Regulations. Refer to [Section 5.04\(1\)](#) for dimensional regulations for specific uses.

Section 3.05 N2 Neighborhood District.

APPLICATION OF ARTICLE

The regulations set forth in this Article shall apply to all N2 Districts.

PERMITTED USES

- Accessory structures and uses ([Section 7.09](#), [Section 7.23](#), [Section 7.23\(1\)](#))
- Educational uses ([Section 2.01](#), [Section 2.01\(4\)](#))
- Golf courses, but not including miniature golf courses or golf driving ranges
- Family child care home ([Section 6.11](#))
- Group child care home ([Section 6.12](#))
- Home occupations ([Section 6.28](#))
- One-family dwellings ([Section 6.19](#))
- Parks and outdoor recreational uses ([Section 2.02](#), [Section 2.02\(2\)](#))
- Temporary buildings or structures for uses incidental to the construction of residential dwellings and improvements ([Section 6.56](#), [Section 6.56\(2\)](#))

WAIVER USES

- Bed and breakfast establishments ([Section 6.08](#))
- Planned developments ([Section 5.02](#), [Section 5.02\(2\)](#))
- Public utility buildings and substations
- Single-family clustering ([Section 5.03](#))
- Privately owned and operated recreational uses ([Section 6.48](#))
- Religious institutions ([Section 6.50](#))

Refer to [Article II](#) for definitions of uses and refer to [Section 5.04\(1\)](#) for development standards for specific uses.

PROHIBITED USES

- Caregiver grow facilities.
- Non-residential uses, except as set forth in this Section.

DIMENSION REGULATIONS

Lot Standards	N2
Min. Lot Area (sq. ft.)	8,400
Min. Lot Width (ft.)	70 ((a))
Min. Lot Depth (ft.)	120 ((a)) ((b))
Front Yard Setback	30 feet ((r))
Rear Yard Setback	30 feet
Side Yard Setback	6 feet
Total of two side yard setbacks	16 feet
Side yard setback abutting street	17 feet
Rear yard abutting side yard, the side yard abutting upon a street not less than	25 feet
Max. Lot Coverage (%)	((c))
Max. Building Height	35 feet (2 stories), except as provided in Section 7.17 to Section 7.20

Footnotes: Refer to [Section 4.03](#) wherever a footnote is referenced in parentheses after one of the design regulations. Additionally, some uses have specific standards that overrule these Dimensional Regulations. Refer to [Section 5.04\(1\)](#) for dimensional regulations for specific uses.

Section 3.06 RUF District Regulations.

APPLICATION OF ARTICLE

The regulations set forth in this Article shall apply to all RUF Districts.

PERMITTED USES

- Accessory structures and uses ([Section 7.09](#), [Section 7.23](#), [Section 7.23\(1\)](#))
- Educational uses ([Section 2.01](#), [Section 2.01\(4\)](#))
- Fowl and rabbits for the owner's consumption ([Section 6.34](#))
- Gardening and tree nurseries ([Section 6.24](#))
- Golf courses, but not including miniature golf courses or golf driving ranges
- Family child care home ([Section 6.11](#))
- Group child care home ([Section 6.12](#))
- Home occupations ([Section 6.28](#))
- One-family dwellings ([Section 6.19](#))
- Parks and outdoor recreational uses ([Section 2.02](#), [Section 2.02\(2\)](#))
- Temporary buildings or structures for uses incidental to the construction of residential dwellings and improvements ([Section 6.56](#), [Section 6.56\(2\)](#))
- Universities, colleges, private colleges, including ancillary uses and facilities

WAIVER USES

- Airports, landing fields and platforms, hangars, masts and other facilities for the operation of aircraft
- Bed and breakfast establishments ([Section 6.08](#))
- Carnivals, outdoor circuses or migratory amusement enterprises ([Section 6.56](#), [Section 6.56\(3\)](#))
- Cemeteries
- Dog kennels ([Section 6.35](#))
- Fowl and rabbits raised for sale
- Planned developments ([Section 5.02](#), [Section 5.02\(2\)](#))
- Public utility buildings and substations
- Privately owned and operated recreational uses ([Section 6.48](#))
- Religious institutions ([Section 6.50](#))
- Residential homes for mentally or physically handicapped persons ([Section 6.02](#))
- The raising of fur bearing animals ([Section 6.49](#))
- Veterinary clinics, animal clinics and hospitals ([Section 6.59](#))

Refer to [Article II](#) for definitions of uses and refer to [Section 5.04\(1\)](#) for development standards for specific uses.

PROHIBITED USES

- Caregiver grow facilities.
- Non-residential uses, except as set forth in this Section.

DIMENSION REGULATIONS

Lot Standards	RUF
Min. Lot Area (sq. ft.)	15,000
Min. Lot Width (ft.)	75 ((a))
Min. Lot Depth (ft.)	150 ((a)) ((b))
Front Yard Setback	50 feet ((r))
Rear Yard Setback	45 feet
Side Yard Setback	10 feet
Total of two side yard setbacks	20 feet
Side yard setback abutting street	23 feet
Rear yard abutting side yard, the side yard abutting upon a street not less than	40 feet
Max. Lot Coverage (%)	(c)
Max. Building Height	35 feet (2 stories), except as provided in Section 7.17 to Section 7.20

Footnotes: Refer to [Section 4.03](#) wherever a footnote is referenced in parentheses after one of the design regulations. Additionally, some uses have specific standards that overrule these Dimensional Regulations. Refer to [Section 5.04\(1\)](#) for dimensional regulations for specific uses.

Section 3.07 NM1 Neighborhood Multifamily Regulations.

APPLICATION OF ARTICLE

The regulations set forth in this Article shall apply in all NM1 Districts.

PERMITTED USES	WAIVER USES
• Accessory structures and uses (Section 7.23, Section 7.23(1)) • Condominium multiple dwellings • One-family dwellings (Section 6.19, Section 6.19(2)) • Parks and outdoor recreational uses (Section 2.02, Section 2.02(2)) • Two-family dwellings (Section 6.20, Section 6.20(2)) • Home occupations (Section 6.28)	• Bed and breakfast establishments (Section 6.08) • Boarding, rooming and lodging houses or tourist homes • Planned developments (Section 5.02, Section 5.02(2)) • Privately owned and operated recreational uses (Section 6.48) • Public utility buildings and substations • Religious institutions (Section 6.50)
Refer to Article II for definitions of uses and refer to Section 5.04(1) for development standards for specific uses.	

DIMENSION REGULATIONS

Lot Standards	NM1
Min. Lot Width	80 ((a))
Front Yard Setback	30 feet
Rear Yard Setback	50 feet
Side Yard Setback	25 ((d))
Total of two side yard setbacks	60 ((d))
Side yard setback abutting street	((e))
Max. Lot Coverage	25%
Max. Building Height	35 feet (2.5 stories), except as provided in Section 7.17 to Section 7.20
Footnotes: Refer to Section 4.03 wherever a footnote is referenced in parentheses after one of the design regulations. Additionally, some uses have specific standards that overrule these Dimensional Regulations. Refer to Section 5.04(1) for dimensional regulations for specific uses.	

Section 3.08 NM2 Neighborhood Multifamily District.

APPLICATION OF ARTICLE

The regulations set forth in this Article shall apply in all NM2 Districts.

PERMITTED USES	WAIVER USES
• Accessory structures and uses (Section 7.23 Section 7.23(1)) • Condominium multiple dwellings • Home occupations (Section 6.28) • Multiple dwellings and apartment houses (Section 6.04, Section 6.18) • One-family dwellings (Section 6.19, Section 6.19(2)) • Parks and outdoor recreational uses (Section 2.02, Section 2.02(2)) • Two-family dwellings (Section 6.20, Section 6.20(2))	• Day care nurseries (Section 6.13) • Personal service establishments (Section 2.02, Section 2.02(2)) (Section 6.47) • Planned developments (Section 5.02, Section 5.02(2)) • Retail sales (Section 2.01, Section 2.01(8)) (Section 6.52)
Refer to Article II for definitions of uses and refer to Section 5.04(1) for development standards for specific uses.	

DIMENSION REGULATIONS

Lot Standards	NM2
Max. Usable Floor Area in percentage of lot area	35% ((s))
Front Yard Setback	50 feet ((f))
Rear Yard Setback	50 feet ((f))
Side Yard Setback	25 feet ((f))
Total of two side yard setbacks	60 feet ((f))
Max. Building Height	(g)
Footnotes: Refer to Section 4.03 wherever a footnote is referenced in parentheses after one of the design regulations. Additionally, some uses have specific standards that overrule these Dimensional Regulations. Refer to Section 5.04(1) for dimensional regulations for specific uses.	

Section 3.09 NM3 District Regulations.

APPLICATION OF ARTICLE

The regulations set forth in this Article shall apply in all NM3 Districts.

PERMITTED USES

- Accessory structures and uses ([Section 7.23](#), [Section 7.23\(1\)](#))
- Condominium multiple dwellings
- Home occupations ([Section 6.28](#))
- Housing for the elderly ([Section 6.31](#))
- Parks and outdoor recreational uses ([Section 2.02](#), [Section 2.02\(2\)](#))

WAIVER USES

- Personal service establishments ([Section 2.02](#), [Section 2.02\(2\)](#)) ([Section 6.47](#))
- Retail sales ([Section 2.01](#), [Section 2.01\(8\)](#)) ([Section 6.52](#))

Refer to [Article II](#) for definitions of uses and refer to [Section 5.04\(1\)](#) for development standards for specific uses.

DIMENSION REGULATIONS

Lot Standards	NM3
Front Yard Setback	50 feet ((i))
Rear Yard Setback	50 feet ((i))
Side Yard Setback	25 feet ((i))
Total of two side yard setbacks	60 feet
Maximum ground coverage by principal structure	25%
Max. Building Height	((h))

Footnotes: Refer to [Section 4.03](#) wherever a footnote is referenced in parentheses after one of the design regulations. Additionally, some uses have specific standards that overrule these Dimensional Regulations. Refer to [Section 5.04\(1\)](#) for dimensional regulations for specific uses.

Section 3.10 C-1 District Regulations.

APPLICATION OF ARTICLE

The regulations set forth in this Article shall apply in all C-1 Districts.

PERMITTED USES	WAIVER USES
• Accessory structures and uses (Section 7.23, Section 7.23(1D)) • Bakeries • Banks and savings and loans associations • Bed and breakfast establishments (Section 6.08) • Blood and plasma donation centers • Catering establishments • Clubs, lodges, and meeting halls, fraternal and religious • Cultural institutions, such as museums, art galleries and libraries • Data processing and computer centers, including sales, service, and maintenance of electronic data processing equipment • Educational uses (Section 2.01, Section 2.01(4)) • General offices • Indoor recreational uses • Kidney transfusion centers • Limited service and carry-out restaurants with or without outdoor dining areas (Section 6.51, Section 6.51(1)) • Medicine, osteopathy and dentistry (excluding veterinary clinics) • Music, dance, or business academies • Open-air sales of Christmas trees (Section 6.43) • Optometry and chiropractic • Orthopedic and medical supply stores, but not including assembly or manufacturing • Parks and outdoor recreational uses (Section 2.02, Section 2.02(2)) • Personal service establishments (Section 2.02, Section 2.02(2)) (Section 6.47) • Photographic studios • Physical therapy and health services (not including massage establishments and public baths) • Professional offices (Section 2.02, Section 2.02(2)) • Psychology and podiatry • Public utility uses • Religious institutions (Section 6.50) • Retail sales (Section 2.01, Section 2.01(8)) (Section 6.52) • Schools including, but not limited to dance, music and instrumental, and business/ training • Schools - music, dance or business • Temporary buildings for construction purposes, not to exceed the duration of construction • Temporary Uses and Sidewalk and Tent Sales (Section 6.56(1))	• Artisan, craftsman, printing and engraving Shops other similar uses (Section 2.01, Section 2.01(8)) • Buildings (single or multi-unit) for the purpose of retail sales and which contain a GFA of 30,000 square feet or more (Section 6.52, Section 6.52(1)) • Brewer, micro brewer, brewpub, and distilleries (Section 6.09) • Convalescent and nursing homes (Section 6.40) • Dairies, creameries, soft drink and bottling plants, and other similar uses (Section 2.01, Section 2.01(8)) • Day care nurseries (Section 6.13) • Establishments having liquor licenses such as Class C, tavern, and club (Section 6.22) • Full-service restaurants with or without outdoor dining areas (Section 6.51, Section 6.51(2)) • Funeral homes and undertaking establishments • Hospitals (Section 6.29) • Massage establishments (Section 6.37) • Open-air business uses (Section 6.42) • Planned developments (Section 5.02) • S.D.D. and S.D.M. licenses (Section 6.03) • Veterinary clinics, animal clinics and animal hospitals (Section 6.59)
Refer to Article II for definitions of uses and refer to Section 5.04(1) for development standards for specific uses.	

PROHIBITED USES

In all C-1 Districts no buildings shall hereafter be erected, altered, or used, nor shall any land be used in whole or in part for residential purposes; provided, however, that nothing contained in this section shall affect or interfere with dwellings now in existence in C-1 Districts on the date when this Ordinance becomes effective nor with any buildings accessory to such dwellings or in any way prevent the owners thereof from making any additions, alterations, or repairs to such dwellings or erecting any buildings accessory thereto; provided further, however, that all such dwellings and buildings accessory thereto shall conform to the same requirements as are provided in this Ordinance for the nearest district thereto in which a dwelling may hereafter be lawfully erected.

Nothing in this Article shall be construed as permitting the operation of material yards, new and used lumber sales, nor the sale of used machinery or auto parts, which uses are hereby expressly prohibited in C-1 Districts.

DIMENSION REGULATIONS

Lot Standards	C-1
Min. Lot Area	4,000 sq. ft.
Min. Size of Commercial Buildings	(j)
Front Yard Setback	15 feet (p)
Side Yard Setback	8 feet (p)
Total of two side yard setbacks	16 feet
Rear Yard Setback	8 feet (p)
Max. Building Height	35 feet (2 stories), except as provided in Section 7.17 to Section 7.20

Footnotes: Refer to [Section 4.03](#) wherever a footnote is referenced in parentheses after one of the design regulations. Additionally, some uses have specific standards that overrule these Dimensional Regulations. Refer to [Section 5.04\(1\)](#) for dimensional regulations for specific uses.

Section 3.11 C-2 District Regulations.

APPLICATION OF ARTICLE

The regulations set forth in this Article shall apply in all C-2 Districts.

PERMITTED USES	WAIVER USES
- Accessory structures and uses (Section 7.23, Section 7.23(1D)) - Artisan, craftsman, printing and engraving shops other similar uses (Section 2.01, Section 2.01(8)) - Bakeries - Banks and savings and loans associations - Bed and breakfast establishments (Section 6.08) - Blood and plasma donation centers - Catering establishments - Clubs, lodges, and meeting halls, fraternal and religious - Cultural institutions, such as museums, art galleries and libraries - Day care nurseries (Section 6.13) - Data processing and computer centers, including sales, service, and maintenance of electronic data processing equipment - Educational uses (Section 2.01, Section 2.01(4)) - Funeral homes and undertaking establishments - Gardening and tree nurseries (Section 6.24) - General offices - Hotels (Section 6.30) - Indoor recreational uses (Section 2.01 (8)) (Section 6.32) - Kidney transfusion centers - Limited service and carry-out restaurants with or without outdoor dining areas (Section 6.51, Section 6.51(1)) - Medicine, osteopathy and dentistry (excluding veterinary clinics) - Music, dance, or business academies - Nurseries, including sale of garden supplies - Open-air sales of Christmas trees (Section 6.43) - Optometry and Chiropractic - Orthopedic and medical supply stores, but not including assembly or manufacturing - Parks and outdoor recreational uses (Section 2.02, Section 2.02(2)) - Personal service establishments (Section 2.02, Section 2.02(2)) (Section 6.47) - Photographic studios - Physical therapy and health services (not including massage establishments and public baths) - Professional offices (Section 2.02, Section 2.02(2)) - Psychology and podiatry - Public utility uses - Radio and television towers and broadcasting studios - Religious institutions (Section 6.50) - Retail sales (Section 2.01, Section 2.01(8)) (Section 6.52) - Schools including, but not limited to dance, music and instrumental, and business/ training	- Ambulance services, local and suburban bus terminals and taxicab terminals (Section 6.57) - Automobile and light truck (one (1) ton gross vehicle weight) repair (Section 6.06) - Auto-wash establishments and auto-wash establishments operated with accessory gasoline pumps (Section 6.07) - Buildings (single or multi-unit) for the purpose of retail sales and which contain a GFA of 30,000 square feet or more (Section 6.52, Section 6.52(1)) - Brewer, micro brewer, brewpub, and distilleries (Section 6.09) - Carnivals, outdoor circuses or migratory amusement enterprises (Section 6.56, Section 6.56(3)) - Climate controlled, indoor self-storage used to provide temporary storage needs for businesses and other individuals on a self-service basis (Section 6.54) - Convalescent and nursing homes (Section 6.40) - Dairies, Creameries, Soft Drink and Bottling Plants, and other similar uses (Section 2.01 (8)) - Dance halls and ballrooms (Section 6.14) - Drive-in restaurants and restaurants with either drive-thru or drive-up window facilities; including food trucks (Section 6.51, Section 6.51(3)) - Drive-in theaters - Establishments having liquor licenses such as Class C, tavern, and club (Section 6.22) - Full-service restaurants with or without outdoor dining areas (Section 6.51, Section 6.51(2)) - Gasoline service station (Section 6.26) - Hospitals (Section 6.29) - Massage establishments (Section 6.37) - Motels (Section 6.38) - New and used car lots and showrooms, new or used mobile home sales and automobile rental facilities (Section 6.05) - Open-air business uses (Section 6.42) - Automotive paint Shops (Section 2.01 (8)) - Parking structure (Section 9.09) - Pawn shops (Section 6.45) - Payday lenders (Section 6.46) - Planned developments (Section 5.02) - S.D.D. and S.D.M. licenses (Section 6.03) - Second-hand stores and rummage shops (Section 6.53) - Veterinary clinics, animal clinics and animal hospitals (Section 6.59)

- Temporary buildings for construction purposes, not to exceed the duration of construction
- Temporary Uses and Sidewalk and Tent Sales ([Section 6.56\(1\)](#))
- Wholesale business uses ([Section 2.01](#), [Section 2.01\(8\)](#))

Refer to Article II for definitions of uses and refer to Section 5.04(1) for development standards for specific uses.

PROHIBITED USES

In all C-2 Districts no building shall hereafter be erected, altered, or used, nor shall any land be used in whole or in part for residential purposes; provided, however, that nothing contained in this section shall affect or interfere with dwellings now in existence in C-2 Districts on the date when this Ordinance becomes effective nor with any buildings accessory to such dwellings, or in any way prevent the owners thereof from making any additions, alterations, or repairs to such dwellings or erecting any buildings accessory thereto; provided further, however, that all such dwellings and buildings accessory thereto shall conform to the same requirements as are provided in this Ordinance for the nearest district thereto in which a dwelling may hereafter be lawfully erected.

Nothing in this Article shall be construed as permitting the operation of material yards, new and used lumber sales, nor the sale of used machinery or auto parts, which uses are hereby expressly prohibited in C-2 Districts.

DIMENSION REGULATIONS

Lot Standards	C-2
Min. Lot Area	((k))
Min. Size of Commercial Buildings	((l))
Front Yard Setback	15 feet ((p))
Side Yard Setback	8 feet ((p))
Total of two side yard setbacks	16 feet
Rear Yard Setback	8 feet ((p))
Max. Building Height	35 feet (2 stories), except as provided in Section 7.17 to Section 7.20

Footnotes: Refer to [Section 4.03](#) wherever a footnote is referenced in parentheses after one of the design regulations. Additionally, some uses have specific standards that overrule these Dimensional Regulations. Refer to [Section 5.04\(1\)](#) for dimensional regulations for specific uses.

Section 3.12 C-3 District Regulations.

APPLICATION OF ARTICLE

The regulations set forth in this Article shall apply in all C-3 Districts.

PERMITTED USES	WAIVER USES
- Accessory structures and uses (Section 7.23, Section 7.23(1D)) - Ambulance services, local and suburban bus terminals and taxicab terminals (Section 6.57) - Artisan, craftsman, printing and engraving shops other similar uses (Section 2.01, Section 2.01(8)) - Automobile and light truck (one (1) ton gross vehicle weight) repair (Section 6.06) - Auto-wash establishments and auto-wash establishments operated with accessory gasoline pumps (Section 6.07) - Bakeries - Banks and savings and loans associations - Bed and breakfast establishments (Section 6.08) - Blood and plasma donation centers - Buildings (single or multi-unit) for the purpose of retail sales and which contain a GFA of 30,000 square feet or more (Section 6.52, Section 6.52(1)) - Brewer, micro brewer, brewpub, and distilleries (Section 6.09) - Carnivals, outdoor circuses or migratory amusement enterprises (Section 6.56, Section 6.56(3)) - Catering establishments - Climate controlled, indoor self-storage used to provide temporary storage needs for businesses and other individuals on a self-service basis (Section 6.54) - Clubs, lodges, and meeting halls, fraternal and religious - Convalescent and nursing homes (Section 6.40) - Cultural institutions, such as museums, art galleries and libraries - Dance halls and ballrooms (Section 6.14) - Data processing and computer centers, including sales, service, and maintenance of electronic data processing equipment - Day care nurseries (Section 6.13) - Drive-in restaurants and restaurants with either drive-thru or drive-up window facilities; including food trucks (Section 6.51, Section 6.51(3)) - Drive-in theaters - Educational uses (Section 2.01, Section 2.01(4)) - Establishments having liquor licenses such as Class C, tavern, and club (Section 6.22) - Full service restaurants with or without outdoor dining areas (Section 6.51, Section 6.51(2)) - Funeral homes and undertaking establishments - Gardening and tree nurseries (Section 6.24) - Gasoline service station (Section 6.26) - General offices - Hospitals (Section 6.29) - Hotels (Section 6.30) - Indoor recreational uses (Section 2.01, Section 2.01(8)) (Section 6.32) - Kidney transfusion centers - Limited service and carry-out restaurants with or without outdoor dining areas (Section 6.51 Section 6.51(1))	- Adult businesses (Section 6.01) - Dairies, creameries, soft drink and bottling plants, and other similar uses (Section 2.01(8)) - Automotive paint shops (Section 2.01(8)) - Parking structure (Section 9.09) - Planned developments (Section 5.02)•

PERMITTED USES	WAIVER USES
• Massage establishments (Section 6.37) • Medicine, osteopathy and dentistry (excluding veterinary clinics) • Motels (Section 6.38) • Music, dance, or business academies • New and used car lots and showrooms, new or used mobile home sales and automobile rental facilities (Section 6.05) • Nurseries, including sale of garden supplies • Open-air business uses (Section 6.42) • Open-air sales of Christmas trees (Section 6.43) • Optometry and chiropractic • Orthopedic and medical supply stores, but not including assembly or manufacturing • Parks and outdoor recreational uses (Section 2.02, Section 2.02(2)) • Pawn shops (Section 6.45) • Payday lenders (Section 6.46) • Personal service establishments (Section 2.02, Section 2.02(2)) (Section 6.47) • Photographic studios • Physical therapy and health services (not including massage establishments and public baths) • Professional offices (Section 2.02, Section 2.02(2)) • Psychology and podiatry • Public utility uses • Radio and television towers and broadcasting studios • Religious institutions (Section 6.50) • Retail sales (Section 2.01, Section 2.01(8)) (Section 6.52) • S.D.D. and S.D.M. licenses (Section 6.03) • Second-hand stores and rummage shops (Section 6.53) • Schools including, but not limited to dance, music and instrumental, and business/ training • Temporary buildings for construction purposes, not to exceed the duration of construction • Veterinary clinics, animal clinics and animal hospitals (Section 6.59) • Wholesale business uses (Section 2.01, Section 2.01(8))	

PROHIBITED USES
In all C-3 Districts no building shall hereafter be erected, altered, or used, nor shall any land be used in whole or in part for residential purposes; provided, however, that nothing contained in this section shall affect or interfere with dwellings now in existence in C-3 Districts on the date when this Ordinance becomes effective nor with any buildings accessory to such dwellings, or in any way prevent the owners thereof from making any additions, alterations or repairs to such dwellings or erecting any buildings accessory thereto; provided further, however, that all such dwellings and buildings accessory thereto shall conform to the same requirements as are provided in this Ordinance for the nearest district thereto in which a dwelling may hereafter be lawfully erected. Nothing in this article shall be construed as permitting the operation of material yards and the sale of used machinery or auto parts, which uses are hereby expressly prohibited in C-3 Districts.

DIMENSION REGULATIONS	
Lot Standards	C-3
Min. Lot Area	(k)
Min. Size of Commercial Buildings	(l)

Front Yard Setback	50 feet ((p))
Side Yard Setback	25 feet ((p))
Total of two side yard setbacks	50 feet
Rear Yard Setback	((p)) ((q))
Max. Building Height	35 feet (2 stories), except as provided in Section 7.17 to Section 7.20
Footnotes: Refer to Section 4.03 wherever a footnote is referenced in parentheses after one of the design regulations. Additionally, some uses have specific standards that overrule these Dimensional Regulations. Refer to Section 5.04(1) for dimensional regulations for specific uses.	

Section 3.13 C-4 District Regulations.

APPLICATION OF ARTICLE

The regulations set forth in this Article shall apply in all C-4 Districts.

PERMITTED USES	WAIVER USES
- Accessory structures and uses (Section 7.23, Section 7.23(1D)) - Artisan, craftsman, printing and engraving shops other similar uses (Section 2.01, Section 2.01(8)) - Bakeries - Banks and savings and loans associations - Bed and breakfast establishments (Section 6.08) - Blood and plasma donation centers - Brewer, Micro Brewer, Brewpub, and Distilleries (Section 6.09) - Catering establishments - Convalescent and nursing homes (Section 6.40) - Cultural service buildings, such as publicly owned museums, art galleries and libraries - Day care nurseries (Section 6.13) - Educational uses (Section 2.01, Section 2.01(4)) - Full service restaurants with or without outdoor dining areas (Section 6.51, Section 6.51(2)) - Funeral homes and undertaking establishments - Gardening and tree nurseries (Section 6.24) - General offices - Hotels (Section 6.30) - Indoor recreational uses (Section 2.01, Section 2.01(8)) (Section 6.32) - Kidney transfusion centers - Limited service restaurant and carry-out restaurants with or without outdoor dining areas (Section 6.51, Section 6.51(1)) - Medicine, osteopathy and dentistry (excluding veterinary clinics) - Motels (Section 6.38) - Museums - Music, dance, or business academies - Nurseries, including sale of garden supplies - Open-air sales of Christmas trees (Section 6.43) - Optometry and chiropractic	- Accessory residential use for apartments (Section 7.23, Section 7.23(2)) - Carnivals, outdoor circuses or migratory amusement enterprises (Section 6.56, Section 6.56(3)) - Dairies, creameries, soft drink and bottling plants, and other similar uses (Section 2.01 (8)) - Establishments having liquor licenses such as Class C, Tavern, and Club (Section 6.22) - Heliports (Section 6.27) - Hospitals (Section 6.29) - Massage establishments (Section 6.37) - Automotive paint shops (Section 2.01 (8)) - Parking structure (Section 9.09) - Planned developments (Section 5.02)

- Orthopedic and medical supply stores, but not including assembly or manufacturing
- Parks and outdoor recreational uses ([Section 2.02](#), [Section 2.02\(2\)](#))
- Personal service establishments ([Section 2.02](#), [Section 2.02\(2\)](#)) ([Section 6.47](#))
- Photographic studios
- Physical therapy and health services (not including massage establishments and public baths)
- Professional offices ([Section 2.02](#), [Section 2.02\(2\)](#))
- Psychology and podiatry
- Public utility uses
- Radio and television towers and broadcasting studios
- Religious institutions ([Section 6.50](#))
- Retail sales ([Section 2.01](#), [Section 2.01\(8\)](#)), ([Section 6.52](#))
- Schools including, but not limited to dance, music and instrumental, and business/ training
- Universities, colleges, private colleges, including ancillary uses and facilities
- Wholesale business uses ([Section 2.01](#), [Section 2.01\(8\)](#))
- Temporary buildings for construction purposes, not to exceed the duration of construction

Refer to [Article II](#) for definitions of uses and refer to [Section 5.04\(1\)](#) for development standards for specific uses.

DIMENSION REGULATIONS

Lot Standards	C-4
Min. Lot Area	4,000 sq. ft.
Front Yard Setback	40 feet ((p))
Side Yard Setback	40 feet ((p))
Total of two side yard setbacks	80 feet
Rear Yard Setback	40 feet ((p))
Max. Ground Coverage by Principal Structure	20%
Max. Building Height	((g))

Footnotes: Refer to [Section 4.03](#) wherever a footnote is referenced in parentheses after one of the design regulations. Additionally, some uses have specific standards that overrule these Dimensional Regulations. Refer to [Section 5.04\(1\)](#) for dimensional regulations for specific uses.

Section 3.14 P-L District Regulations.

APPLICATION OF ARTICLE

This district is designed to classify publicly owned uses and land publicly or privately-owned facilities (as defined in [Section 2.02](#) of this ordinance). The regulations set forth in this Article shall apply in all P-L districts.

PERMITTED USES	WAIVER USES
• Accessory structures and uses (Section 7.23, Section 7.23(1)) • Brewer, Micro Brewer, Brewpub, and Distilleries (Section 6.09) • Carnivals, outdoor circuses or migratory amusement enterprises (Section 6.56(3)) • Cultural service buildings, such as publicly owned museums, art galleries and libraries • Educational uses (Section 2.01, Section 2.01(4)) • Establishments having liquor licenses such as Class C, tavern, and club (Section 6.22) • Hospitals (Section 6.29) • Housing for the elderly (Section 6.31) • Municipal or other governmental buildings • Heliports (Section 6.27) • Parking structures (Section 9.09) • Parks and outdoor recreational uses (Section 2.02, Section 2.02(2)) • Universities, colleges, private colleges, including ancillary uses and facilities	• Licensed and certified publicly or privately-owned facilities for the detention, incarceration, commitment and/or rehabilitation of adults or minor children and psychiatric hospitals (Section 6.23)
Refer to Article II for definitions of uses and refer to Section 5.04(1) for development standards for specific uses.	

Section 3.15 ML District Regulations.

APPLICATION OF ARTICLE

The regulations set forth in this Article shall apply in all ML Districts.

PERMITTED USES	WAIVER USES
- Accessory structures and uses (Section 7.23, Section 7.23(1)) - Brewer, micro brewer, brewpub, and distilleries (Section 6.09) - Climate controlled, indoor self-storage used to provide temporary storage needs for businesses and other individuals on a self-service basis (Section 6.54) - Data processing and computer centers, including sales, service and maintenance of electronic data processing equipment - Establishments for the distribution of, or the packaging, assembling, secondary processing, alteration or repair - Experimental product development and testing including limited manufacturing (Section 6.22(3)) - General offices - Industrial, scientific, or business research development and testing laboratories and offices - Industrial parks (Section 7.28) - Laundry and dry-cleaning establishments - Parks and outdoor recreational uses (Section 2.02, Section 2.02(2)) - Professional offices (Section 2.02, Section 2.02(2)) - Temporary buildings for construction purposes for a period not to exceed the duration of construction - Tool and die shops and pattern making shops - Warehouses (Section 2.01, Section 2.01(8))	- Heliports (Section 6.27) - Parking structure (Section 9.09)
Refer to Article II for definitions of uses and refer to Section 5.04(1) for development standards for specific uses.	

PROHIBITED USES

In all ML Districts no building shall be erected or used, or land used, in whole or in part, for any one or more of the following uses:

- All uses permitted in N1, N2, R-U-F, NM1, NM2, C-1, C-2, and C-3 Districts.
- All waiver uses listed in N1, N2, R-U-F-Districts, NM1, NM2, C-1, C-2, and C-3 Districts.
- Outside storage of trucks, materials, and/or supplies.
- Uses causing or resulting in obnoxious, offensive, injurious, dangerous or unhealthy odors, fumes, dust, smoke, noise, glare of lights or vibration, or the accumulation of unsightly waste materials on private or public property.

DIMENSION REGULATIONS

Lot Standards	ML
Front Yard Setback	((m))
Rear Yard Setback	((m))
Side Yard Setback	((m))

Max. Building Height	35 feet, except as provided in Section 7.17 to Section 7.20
Footnotes: Refer to Section 4.03 wherever a footnote is referenced in parentheses after one of the design regulations. Additionally, some uses have specific standards that overrule these Dimensional Regulations. Refer to Section 5.04(1) for dimensional regulations for specific uses.	

Section 3.16 M-1 District Regulations.

APPLICATION OF ARTICLE

The regulations set forth in this Article shall apply in all M-1 Districts.

PERMITTED USES	WAIVER USES
- Accessory structures and uses (Section 7.23, Section 7.23(1)) - Artisan, craftsman, printing and engraving shops other similar uses (Section 2.01 Section 2.01(8)) - Brewer, micro brewer, brewpub, and distilleries (Section 6.09) - Bulk storage of refined petroleum products - Caregiver grow facilities (Section 6.10) - Climate controlled, indoor self-storage used to provide temporary storage needs for businesses and other individuals on a self-service basis (Section 6.54) - Dairies, creameries, soft drink and bottling plants, and other similar uses (Section 2.01 Section 2.01(8)) - Data processing and computer centers, including sales, service and maintenance of electronic data processing equipment - Establishments for the distribution of, or the packaging, assembling, secondary processing, alteration or repair - Experimental product development and testing including limited manufacturing (Section 6.22(3)) - General offices - Industrial parks (Section 7.28) - Industrial, scientific, or business research development and testing laboratories and offices - Internet-based exotic vehicle sales (Section 6.33) - Industrial plants manufacturing, processing or assembling (Section 2.02, Section 2.02(2)) - Laundry and dry-cleaning establishments - Paint shops (Section 2.01 (8)) - Parks and outdoor recreational uses (Section 2.02, Section 2.02(2)) - Professional offices (Section 2.02, Section 2.02(2)) - Public utility uses - Temporary buildings for construction purposes for a period not to exceed the duration of construction - Tool and die shops and pattern making shops - Warehouses (Section 2.01, Section 2.01(8))	- Ambulance services, local and suburban bus terminals and taxicab terminals (Section 6.57) - Garages, repair shops, rustproofing and similar highway services (Section 6.24) - Heliports (Section 6.27) - Indoor recreational uses (Section 2.01, Section 2.01(8)) (Section 6.32) - Local and suburban passenger terminals; trucking transportation terminals including maintenance and service facilities (Section 6.36) - Outdoor storage of recreational equipment (Section 6.44) - Parking structures (Section 9.09) - Retail sales (Section 2.01, Section 2.01(8)) (Section 6.52) - Steel fabricators, truck terminals, truck and trailer rental facilities, special trade contractors, and vehicle tow yards (Section 6.58)
Refer to Article II for definitions of uses and refer to Section 5.04(1) for development standards for specific uses.	

PROHIBITED USES

In all M-1 Districts no building shall be erected or used, or land used, in whole or in part, for any one or more of the following uses:

- a) All uses permitted in N1, N2, R-U-F, NM1, NM2, C-1, C-2 and C-3 Districts unless expressly permitted in this Article.
- b) All waiver uses listed in any of the N1, N2, RUF, NM1, NM2, C1, C2, and C3 Districts unless expressly permitted in this Article.
- c) Junk yards and businesses handling junk, waste, trash, or rubbish.
- d) Used auto parts or auto wrecking establishments.
- e) Incubation, raising, or storing of poultry.
- f) Slaughtering of animals.
- g) Use or operation of steam hammers, forging equipment.
- h) Heavy manufacturing drop forging plants, foundries, and boiler works.
- i) Uses causing or resulting in obnoxious, offensive, injurious, dangerous or unhealthy odors, fumes, dust, smoke, noise, glare of lights or vibration, or the accumulation of unsightly waste materials on private or public property.

DIMENSION REGULATIONS

Lot Standards	M-1
Front Yard Setback	((n))
Rear Yard Setback	((n))
Side Yard Setback	((n))
Max. Building Height	50 feet, except as provided in Section 7.17 to Section 7.20

Footnotes: Refer to [Section 4.03](#) wherever a footnote is referenced in parentheses after one of the design regulations. Additionally, some uses have specific standards that overrule these Dimensional Regulations. Refer to [Section 5.04\(1\)](#) for dimensional regulations for specific uses.

Section 3.17 M-2 District Regulations.

APPLICATION OF ARTICLE

The regulations set forth in this Article shall apply in all M-2 Districts.

PERMITTED USES	WAIVER USES
• Accessory structures and uses (Section 7.23, Section 7.23(1)) • Any lawful use of land or buildings not herein expressly provided for or prohibited • Artisan, craftsman, printing and engraving shops other similar uses (Section 2.01, Section 2.01(8)) • Brewer, micro brewer, brewpub, and distilleries (Section 6.09) • Bulk storage of refined petroleum products • Caregiver grow facilities (Section 6.10) • Climate controlled, indoor self-storage used to provide temporary storage needs for businesses and other individuals on a self-service basis (Section 6.54) • Dairies, creameries, soft drink and bottling plants, and other similar uses (Section 2.01 (8)) • Data processing and computer centers, including sales, service and maintenance of electronic data processing equipment • Establishments for the distribution of, or the packaging, assembling, secondary processing, alteration or repair • Experimental product development and testing including limited manufacturing (Section 6.22(3)) • Garages, repair shops, rustproofing and similar highway services (Section 6.24) • General offices • Heavy manufacturing and general industrial plants • Industrial, scientific, or business research development and testing laboratories and offices • Industrial parks (Section 7.28) • Industrial plants manufacturing, processing or assembling (Section 2.02, Section 2.02(2)) • Internet-based exotic vehicle sales (Section 6.33) • Laundry and dry-cleaning establishments • Outdoor storage of Recreational Equipment (Section 6.44) • Paint shops (Section 2.01 (8)) • Parking structure (Section 9.09) • Parks and outdoor recreational uses (Section 2.02, Section 2.02(2)) • Professional offices (Section 2.02, Section 2.02(2)) • Public utility uses • Temporary buildings for construction purposes for a period not to exceed the duration of construction • Tool and die shops and pattern making shops • Warehouses (Section 2.01, Section 2.01(8))	• Ambulance services, local and suburban bus terminals and taxicab terminals (Section 6.57) • Heliports (Section 6.27) • Local and suburban passenger terminals; trucking transportation terminals including maintenance and service facilities (Section 6.36) • Steel fabricators, truck terminals, truck and trailer rental facilities, special trade contractors, and vehicle tow yards (Section 6.58)
Refer to Article II for definitions of uses and refer to Section 5.04(1) for development standards for specific uses.	

PROHIBITED USES

In all M-2 Districts no building shall be erected or used, or land used, in whole or in part, for any one or more of the following uses:

- a) All uses that are prohibited in an M-1 District.
- b) Tanneries, slaughterhouses, stock yards, glue factories, soap factories, asphalt mixing, batching or paving plants, oil or asphalt refineries.
- c) Furniture stores.
- d) Indoor recreational uses.
- e) The operation of forgings by steam or board hammers except where located more than one thousand (1,000) feet from any district zoned as residential as measured from any point on the property and only when approved by the City Council after review and submission of findings by the City Planning Commission. No such approval shall be given until the City Council is satisfied that vibration and noise will be reduced to a reasonable minimum through construction and use of the most modern and effective facilities available for such purpose.
- f) Uses causing or resulting in obnoxious, offensive, injurious, dangerous or unhealthy odors, fumes, dust, smoke, noise, glare of lights, waste, discharge of by-products, or the accumulation of unsightly waste materials on private or public property.
- g) Uses like the above specified uses.

DIMENSION REGULATIONS

Lot Standards	M-2
Front Yard Setback	((o))
Rear Yard Setback	((o))
Side Yard Setback	((o))

Footnotes: Refer to [Section 4.03](#) wherever a footnote is referenced in parentheses after one of the design regulations. Additionally, some uses have specific standards that overrule these Dimensional Regulations. Refer to [Section 5.04\(1\)](#) for dimensional regulations for specific uses.

Section 3.18 NP District Regulations.

APPLICATION OF ARTICLE

The regulations of this Article shall apply in all NP Districts. The intent of this Article is to provide for the preservation and protection of certain City-owned properties which remain undisturbed in their natural state and which are designated as "Nature Preserve" on Part VII of the Master Plan, the Future Land Use Plan, because they have unique characteristics such as a dense growth of trees, wild flowers and a variety of other plants, animals and birds normally associated with a densely wooded area, as well as the preservation of publicly-owned properties which are designated as wetlands by the Department of Natural Resources or are located within a designated Flood Hazard District as defined in [Section 2.02](#), [Section 2.02\(4\)](#) of this Ordinance.

PERMITTED USES

Nature Preserves ([Section 2.02](#), [Section 2.02\(2\)](#), [Section 6.39](#))

Refer to Article II for definitions of uses.

PROHIBITED USES

In all NP districts, no building or structure shall be erected, nor shall any land be used in whole or in part for any purpose whatsoever except for one or more of the uses expressly permitted in the permitted uses listed above. Irrespective of any other provisions of this Ordinance, the foregoing prohibition shall include grading, filling or dumping of any material in any manner; the removal or damaging of trees, wild flowers, and other plant material; and the destruction of wildlife.

Section 3.19 P District Regulations.

APPLICATION OF ARTICLE

The regulations of this Article shall apply in all P Districts.

PERMITTED AND WAIVER USES

Non-residential parking shall be treated as a Permitted Use. In all P Districts, no land shall be used and no building shall be hereafter erected, converted or structurally altered, unless otherwise provided for in this Ordinance, for any use other than automobile parking. All P Districts shall be contiguous to a Business District and/or Industrial District; provided, however, that there may be a private highway or public street or public alley between such P District and such Business District and/or Industrial District. Parking may be with or without charge. The standards of Article X, Parking, Loading, and Access Management shall apply ([Article X](#)).

Parking structures shall be treated as a Waiver Use, subject to the provisions set forth in [Section 9.09](#).

PROHIBITED USES

- a) Parking areas shall be used for parking of private passenger vehicles only.
- b) No business involving the repair or services to vehicles permitted thereon or sale, or other storage, or display thereof, shall be conducted from or upon such premises

Article IV.

Schedule of Regulations

Section 4.01 Statement of Purpose.

The purpose of this Article is to provide area, height, and placement regulations for districts established by this Zoning Ordinance.

Section 4.02 Schedule of Regulations.

Unless otherwise provided in this Ordinance, area, height, and placement regulations under this Ordinance shall be in accordance with the Schedule of Regulations in the Table and footnotes below, which schedule and footnotes are hereby made a part of this *Section 4.02*.

SCHEDULE OF REGULATIONS														
	Lot Area, Lot Coverage, and Dwelling/Business Unit Standards						Minimum Yard Setbacks (ft)						Maximum Building Height	
Zoning District	Minimum Lot Area	Maximum Usable Floor Area in Percentage of Lot Area	Minimum Size of Commercial Buildings	Minimum Lot Width (ft.)	Minimum Lot Depth (ft.)	Maximum Lot Coverage (%)	Front (ft.)	Side (ft.)	Total of 2 Sides (ft.)	Side yard setback abutting street	Rear yard abutting side yard, the side yard abutting upon a street not less than	Rear (ft.)	Feet	Stories
N1, Neighborhood	6,000 sq. ft.	—	—	50 (a)	120 (a) (b)	(c)	25 (r)	5	14	15	25	30	35, except as provided in Section 7.17 to Section 7.20	2, except as provided in Section 7.17 to Section 7.20
N2, Neighborhood	8,400 sq. ft.	—	—	70 (a)	120 (a) (b)	(c)	30 (r)	6	16	17	25	30	35, except as provided in Section 7.17 to Section 7.20	2, except as provided in Section 7.17 to Section 7.20
RUF, Rural Urban Farm	15,000 sq. ft.	—	—	75 (a)	150 (a) (b)	(c)	50 (r)	10	20	23	40	45	35, except as provided in Section 7.17 to Section 7.20	2, except as provided in Section 7.17 to Section 7.20
NM1, Neighborhood Multifamily	—	—	—	80 (a)	--	25%	30	25 (d)	60 (d)	(e)	—	50	35, except as provided in Section 7.17 to Section 7.20	2 ½, except as provided in Section 7.17 to Section 7.20
NM2, Neighborhood Multifamily	—	35% (s)	—	—	—	—	50 (f)	25 (f)	60 (f)	—	—	50 (f)	(g)	(g)
NM3, Neighborhood Multifamily	—	—	—	—	—	25% for the principal structure	50 (i)	25 (i)	60 (i)	—	—	50 (i)	(h)	(h)
C-1, Local Business	4,000 sq. ft.	—	(j)	—	—	—	15 (p)	8 (p)	16	—	—	8 (p)	35, except as provided in Section 7.17 to Section 7.20	2, except as provided in Section 7.17 to Section 7.20
C-2, General Business	(k)	—	(l)	—	—	—	15 (p)	8 (p)	16	—	—	8 (p)	35, except as provided in Section 7.17 to Section 7.20	2, except as provided in Section 7.17 to Section 7.20
C-3, Highway Services	(k)	—	(l)	—	—	—	50 (p)	25 (p)	50	—	—	(p) (q)	35, except as provided in Section 7.17 to Section 7.20	2, except as provided in Section 7.17 to Section 7.20
C-4, High Rise Commercial	4,000 sq. ft.	—	—	--	--	—	40 (p)	40 (p)	80	—	—	40 (p)	(g)	(g)
ML, Manufacturing Limited	—	—	—	—	—	—	(m)	(m)	—	—	—	(m)	35, except as provided in Section 7.17 to Section 7.20	—
M-1, Light Manufacturing	—	—	—	—	—	—	(n)	(n)	—	—	—	(n)	50, except as provided in Section 7.17 to Section 7.20	—
M-2, General Manufacturing	—	—	—	—	—	—	(o)	(o)	—	—	—	(o)	—	—

Footnotes: Refer to *Section 4.03* wherever a footnote is referenced in parentheses after one of the design regulations. Additionally, some uses have specific standards that overrule these Dimensional Regulations. Refer to *Section 5.04(1)* for dimensional regulations for specific uses.

Section 4.03 Footnotes to Schedule of Regulations.

- (a) When lots are hereafter platted with a side or rear lot line abutting a major thoroughfare with an existing or proposed right-of-way width of one hundred twenty (120) feet or more as designated on the Future Transportation Map of the City of Livonia, the lot depth and/or lot width shall be increased by at least thirty (30) feet to provide additional buffering from such thoroughfare.
- (b) Lot depth requirements need not be adhered to where immovable physical boundary limitations exist which prohibit meeting lot depth requirements, provided that all minimum area and width requirements are met.
- (c) One-family dwellings together with accessory buildings shall not cover more than thirty-five (35) percent of the lot area.
- (d) Side Yard Setbacks
 - i) Side Yards; One- and Two-Family Dwellings. All lots in NM1 Districts on which a one family dwelling is established shall have two (2) side yards, one with a minimum width of not less than six (6) feet, and the aggregate width of both side yards shall not be less than sixteen (16) feet. All lots in NM1 Districts on which a two (2) family dwelling is established shall have two (2) side yards of not less than ten (10) feet each.
 - ii) Side Yards; Non-Residential Use. Every lot on which a building or structure used for a non-dwelling purpose shall have a side yard on each side of such lot, and each such yard shall be not less than fifteen (15) feet in width.
- (e) In NM1 Districts, the width of side yards abutting upon a street shall not be less than seventeen (17) feet at the first-floor level when rear yards abut rear yards; however, in case of a rear yard abutting a side yard of an adjacent lot, the side yard abutting upon a street shall be not less than thirty (30) feet.
- (f) Provided, however, that when any front, rear or side yard abuts a major thoroughfare of one hundred twenty (120) feet or more as indicated on the Future Transportation Map of the City of Livonia, the minimum setback shall be seventy-five (75) feet.
- (g) Buildings shall not exceed four (4) stories in height, except that the maximum height of buildings to be erected or used on any parcel or parcels of land designated Zone I, Zone II, or Zone III shall be as follows:

Zone	Maximum Height of Building
I	6 stories
II	8 stories
III	12 stories
IV	20 stories

- (h) Thirty-five (35) feet and two and a half (2-½) stories, except that the maximum height of a building to be erected or used on any parcel or parcels of land designated Zone I, Zone II, and Zone III shall be as follows:

Zone	Maximum Height of Building
I	4 stories
II	6 stories
III	9 stories

- (i) The following setbacks apply in the NM3 District for building heights greater than 2 stories:

Type of Building		Front Yard	Rear Yard	Side Yard	Interior Yard
Required setback lines for principal buildings and accessory buildings	Perimeter 3-story building:	75 feet	50 feet	50 feet	50 feet
	Perimeter for each story more than three (3), the following additional setback is required	5 feet	10 feet	10 feet	Interior for each story of a principal building in excess of three (3), the distance between buildings shall be increased by ten (10) feet.

- (j) In C-1 Districts no commercial building shall hereafter be erected having a first-floor area of less than six hundred (600) square feet or as otherwise approved by the City Council.
- (k) In no case shall a business lot be less than four thousand (4,000) square feet in area.
- (l) No commercial or business building shall hereafter be erected having a first-floor area of less than four hundred (400) square feet or as otherwise approved by the City Council.
- (m) When a building is hereafter erected or altered in any ML District, front, rear, and side yards shall be maintained as follows:
- i) Parcels Less Than One (1) Acre in Area. The front yard shall have a depth of at least fifty (50) feet, the rear yard shall have a depth of at least twenty (20) feet, and there shall be two (2) side yards, each having a width of not less than twelve (12) feet and the combined width of both side yards shall not be less than forty (40) feet; provided, however, that a side yard abutting a street shall not be less than thirty (30) feet.
 - ii) Parcels Less Than Ten (10) Acres in Area. Where such building is situated on a lot having an area in excess of one (1) acre and not more than ten (10) acres, the front and rear yards shall be at least fifty (50) feet each in depth, the interior side yards shall not be less than thirty (30) feet each, and a side yard abutting a street shall not be less than thirty (30) feet.
 - iii) Parcels More Than Ten (10) Acres in Area. The front yard shall have a depth of at least one hundred (100) feet, the rear yard shall be at least fifty (50) feet in depth, interior side yards shall not be less than thirty (30) feet each, and a side yard abutting a street shall not be less than fifty (50) feet.
 - iv) Provided, however, that notwithstanding the foregoing, where any such parcel or lot abuts a major thoroughfare having an existing or planned width of one hundred twenty (120) feet or more, as shown on the Future Transportation Map, then the required yards abutting major thoroughfares shall be provided with a depth of no less than one hundred (100) feet; except, however, in the case of properties abutting Eight Mile Road (Baseline Road) and the I-96 (Schoolcraft) Freeway eastbound service drive, in which case the said minimum setback shall be fifty (50) feet; further, the yard requirements set forth in this section shall not apply to property lines adjacent to any railroad right-of-way.
- (n) When a building is hereafter erected or altered in any M-1 District, front, rear, and side yards shall be maintained as follows:

- i) Parcels Less Than One (1) Acre in Area. The front yard shall have a depth of at least fifty (50) feet, the rear yard shall have a depth of at least twenty (20) feet, the interior side yards shall be not less than twenty (20) feet each, and a side yard abutting a street shall be not less than twenty-five (25) feet.
- ii) Parcels Less Than Ten (10) Acres in Area. Where such building is situated on a lot having an area in excess of one (1) acre and not more than ten (10) acres, the front and rear yards shall be at least fifty (50) feet each in depth, the interior side yards shall be not less than twenty (20) feet each, and a side yard abutting a street shall be not less than twenty-five (25) feet.
- iii) Parcels More Than Ten (10) Acres in Area. Where such building is situated on a lot having an area in excess of ten (10) acres, the front yard shall have a depth of at least one hundred (100) feet, the rear yard shall be at least fifty (50) feet in depth, the interior side yards shall not be less than twenty (20) feet each, and a side yard abutting a street shall be not less than fifty (50) feet.

Provided, however, that notwithstanding the foregoing, where any such parcel or lot abuts a major thoroughfare having an existing or planned width of one hundred twenty (120) feet or more, as shown on the Future Transportation Map, then the required yards abutting major thoroughfares shall be provided with a depth of no less than one hundred (100) feet; except, however, in the case of properties abutting Eight Mile Road (Baseline Road) and the I-96 (Schoolcraft) Freeway eastbound service drive, in which case the said minimum setback shall be fifty (50) feet; further, the yard requirements set forth in this section shall not apply to property lines adjacent to any railroad right-of-way.

- (o) When a building is hereafter erected or altered in any M-2 District, front, rear, and side yards shall be maintained as follows:
 - i) Parcels more than twenty (20) acres in area, front, rear, and side yards shall have a depth of at least two hundred (200) feet each.
 - ii) Parcels twenty (20) acres or less in area. Front, rear, and side yards shall be the same as required in an M-1 District;
 - iii) Provided, however, that notwithstanding the foregoing provisions of this section, the following additional requirements shall apply:
 - Where any such parcel or lot abuts a major thoroughfare having an existing or planned width of one hundred twenty (120) feet or more, as shown on the Future Transportation Map, then, and in such event, the required yard abutting a major thoroughfare shall have a setback of no less than one hundred (100) feet; except, however, in the case of properties abutting the I-96 (Schoolcraft) Freeway eastbound service drive, in which case the said minimum setback shall be fifty (50) feet;
 - Where any such parcel abuts on the boundary of any district zoned other than M-2, M-1, or PL, any yard of such parcel abutting on such boundary shall not be less than two hundred (200) feet;
 - The yard requirements set forth in this section shall not apply to property lines adjacent to any railroad right-of-way.
- (p) No part of the minimum required front yard, side yard or rear yard shall be used for either the storage, placement or display of merchandise or equipment and no part of any parcel of land located in a C-1, C-2, C-3, or C-4 District shall be used for outdoor storage of merchandise or equipment, except as specifically permitted by other provisions of this ordinance. The foregoing prohibition of storage, placement or display of equipment within the required minimum front yard shall include the parking or storage of merchants' delivery vehicles except when loading or unloading merchandise or equipment. Side yards are not required along interior lot lines if all walls abutting or facing such lot lines are of fireproof construction and wholly without windows or other openings; but if the side wall is not of fireproof construction, or if of fireproof construction but containing windows or other openings (other than emergency exits or vents). For one (1) story buildings, the side/rear yard setback shall be five (5) feet; provided, however, that when a side/rear lot line coincides with a side/rear lot line in a residential district each commercial building shall provide a side/rear yard of not less than twenty (20) feet.

- (q) In C-3 Districts no rear yard is required except for a lot running through to the street in the rear in which case a rear yard shall be provided which shall comply with the front yards on that street.
- (r) A covered but unenclosed front porch will not be considered nonconforming by virtue of its incidental encroachment on the front yard setback.
- (s) The maximum usable floor area as a percentage of lot area shall be limited to 35%, except in cases where City Council determines that it is in the best interests of the community to allow for a greater percentage, the maximum shall be 45%.

Article V.

Supplemental Zoning District Standards

Section 5.01 Special Area Development Control.

- (1) **Requirement.** No building shall be erected, expanded, or externally altered on property in the following designated areas except upon review and submission of findings by the City Planning Commission and approval by the City Council.
- A) The area described as being within the vicinity of the Civic Center being that area located in Sections 15, 16, 21, and 22, bounded on the north by Roycroft Avenue, on the east by Hubbard Road, on the south by Lyndon Avenue (excepting therefrom all property in Kimberly Oaks Subdivision and Taylor Gardens Subdivision), on the west by the east property line of the Parkview Memorial Cemetery, and that portion of Stamford Road that is north of Five Mile Road and south of Roycroft Avenue.
 - B) The area described as being within the vicinity of the Wonderland Village being the area located in the Southwest $\frac{1}{4}$ of Section 25; the Northwest $\frac{1}{4}$ of Section 36; the Northeast $\frac{1}{4}$ of Section 35; and the Southeast $\frac{1}{4}$ of Section 26 (excepting therefrom all property located in Single-Family Residential Zoning Districts).
 - C) The area described as being within the vicinity of the Livonia Marketplace being the area located in the Southwest $\frac{1}{4}$ of Section 1; the Northwest $\frac{1}{4}$ of Section 12; the Northeast $\frac{1}{4}$ of Section 11; and the Southeast $\frac{1}{4}$ of Section 2 (excepting therefrom all property located in Single-Family Residential Zoning Districts).
 - D) The area described as being within the vicinity of the I-275 Freeway being the area described as the Southwest $\frac{1}{4}$ of Section 5; all of Section 6; all of Section 7; the west $\frac{1}{2}$ of Section 8; the Northwest $\frac{1}{4}$ of Section 17; and the North $\frac{1}{2}$ of Section 18 (excepting therefrom all property located in Single-Family Residential and Public Lands Zoning Districts).
 - E) The area described as being within the vicinity of the Seven Mile Road-Farmington Road Intersection being the area located in the West $\frac{1}{2}$ of Section 3; the East $\frac{1}{2}$ of Section 4; the Northeast $\frac{1}{4}$ of Section 9; and the N.W. $\frac{1}{4}$ of Section 10 (excepting therefrom all property located in Single-Family Residential Zoning Districts).
 - F) The area described as being within the vicinity of the Plymouth Road-Farmington Road Intersection being the area located in the Southwest $\frac{1}{4}$ of Section 27; the Southeast $\frac{1}{4}$ of Section 28; the Northeast $\frac{1}{4}$ of Section 33; and the Northwest $\frac{1}{4}$ of Section 34 (excepting therefrom all property located in Single Family Residential and Public Lands Zoning Districts).
 - G) The area described as being within the vicinity of Middlebelt Road-Schoolcraft-1-96 Service Drive being the area located in the Southeast $\frac{1}{4}$ of Section 23; the Southwest $\frac{1}{4}$ of Section 24; the Northwest $\frac{1}{4}$ of Section 25; and the Northeast $\frac{1}{4}$ of Section 26 (excepting therefrom all property located in Single-Family Residential and Public Lands Zoning Districts)
- (2) **Standards.** A determination made by the City Planning Commission and City Council hereunder shall be subject to compliance with, and the application of, the standards prescribed in [Section 13.13](#), [Section 13.13\(6\)](#) of this Ordinance. A petition for site plan approval shall also comply with the requirements prescribed in [Section 13.13](#), [Section 13.13\(12\)](#) of this Ordinance.
-

- (3) **Appeal to City Council.** In the event any applicant or petitioner is aggrieved by the determination of the City Planning Commission in relation to site plan approval, they may file an appeal with the City Council in accordance with the provisions set forth in [Section 13.13](#), [Section 13.13\(10\)](#) of this Ordinance.
- (4) **Limitation.** Whenever the City Planning Commission and City Council shall approve a site plan, such approval shall continue and be valid only in accordance with the provisions set forth in [Section 13.13](#), [Section 13.13\(13\)](#) of this Ordinance.
- (5) **Implementation.** An approved site plan shall be immediately transmitted to the Inspection Department, and all non-building improvements such as, but not limited to, landscaping, parking lots, parking spaces, walkways, screen walls, and exterior lighting required by such site plan shall be completed prior to the issuance of a Certificate of Occupancy; provided, however, that a temporary Certificate of Occupancy may be issued in the event that such completion is impractical or impossible, provided that a performance bond in the form of a cash bond or irrevocable bank letter of credit covering the estimated total cost of such improvements or parts thereof is deposited with the Inspection Department prior to the issuance of such temporary Certificate of Occupancy; provided further, however, that in no event shall a final Certificate of Occupancy be issued until all improvements have been completed. All improvements, when completed, shall, thereafter, be maintained with materials equal to or greater than the quality of the materials originally installed.

Section 5.02 Special Waiver Use Standards for Planned Developments, including Planned Residential Developments and Planned General Developments.

- (1) **Statement of Intent.** The intent of this Article is to provide, in the case of Planned Residential Developments and Planned General Developments, an added degree of flexibility in the placement, bulk, and interrelationship of the buildings and uses within the Planned Development, and the implementation of new design concepts so as to encourage a more efficient use of land and of public services through the use of a unified planning approach, while at the same time maintaining the over-all intensity of land use, density of population, and amounts of light, air, access, and required open space as specified in this Ordinance for the zoning district in which the Planned Development is to be located.

A Planned Development shall be deemed to be a Planned Residential Development when such development is limited to dwelling units in detached, attached or multi-storied structures, or any combination thereof. A Planned Development shall be deemed to be a Planned General Development when it contains commercial and/or office structures and uses exclusively or when it includes residential structures or dwelling units in a unified plan with commercial and/or office structures and uses.

The City Council does hereby determine that the several district regulations pertaining to intensity of land use, density of population, and required open space are the minimum requirements for the promotion and protection of the public health, safety, and welfare.

- (2) **Authority to Grant Waiver for Planned Residential Development or Planned General Development.** Subject to the foregoing statement of intent, the Planning Commission may grant a waiver authorizing a Planned Residential Development or a Planned General Development but only after notice and hearing in the manner provided for other waivers and subject to all other provisions of this Article, and the City Planning Commission and City Council may, in the case of Planned Developments, allow for modification of the provisions of this Ordinance. Such modifications shall be considered only with respect to the following guidelines:
 - A) Modification in lot sizes may be granted irrespective of the minimum requirements imposed under the Zoning District within which such development is located.

- B) Modification of yard requirements may be granted irrespective of the minimum requirements imposed under the Zoning District within which a Planned Development is located when it is determined that such modification will result in a more efficient use of the land and will not be injurious to surrounding land and to the public.
- C) Uses not permitted in the Zoning District within which the Planned Development is located may be permitted when such uses are primarily designed and intended to service residents of any Planned Residential Development or Planned General Development or when such uses relate to an overall concept in the case of a non-residentially conceived Planned General Development. In the case of a Planned General Development located on any parcel of land zoned N1, N2, RUF, NM1, or NM2 and which involves development of one or more non-residential uses, such approval shall require a two-thirds (2/3) majority vote of City Council.

(3) Application for Waiver for Planned Residential Development and/or Planned General Development. The owner or owners of any tract of land may submit to the City Planning Commission an application for a waiver to use and develop the entire tract in a manner not consistent with regular or conventional street and lot patterns or general site development concepts. The application shall be made and filed in triplicate with the City Planning Commission and shall either contain or be accompanied by the following:

- A) A legal description of the property under consideration.
- B) The existing zoning classification of the property.
- C) A fully dimensional map of the land showing topographic information at a contour interval of not less than two (2) feet.
- D) A site plan showing the location of all existing and proposed principal and accessory buildings and structures, parking areas, driveways, buffer strips, distances between buildings and between buildings and lot lines, setback lines, all open spaces to be dedicated for parks, recreation, light and air, etc., and showing the location and design of all lots to be subdivided and the dimensions of all lot lines.
- E) A vicinity map showing the location of the site in relation to surrounding properties, streets, parks, schools, school sites, etc.
- F) Architectural sketches, at an appropriate scale, showing building heights, elevations, and an indication of the design and distribution of signs to be erected.
- G) A declaration of private restrictions to be imposed upon the property after it is subdivided and developed to ensure that the development conforms in every detail to the approved site plan.
- H) The location and the pavement and right of way width of all abutting roads and streets and driveway locations on abutting public streets.
- I) A statement on intended phases of the project.
- J) Description of soil erosion and sedimentation control measures.
- K) Location of clusters of trees on site and all existing trees eight (8) inches or greater in diameter.
- L) Location of existing wetlands.
- M) The location of all rubbish receptacles and the location, height, and type of fences and walls to screen receptacles.
- N) Location and dimension of required easements for public right-of way, utilities, access, and shared access.
- O) Location of any proposed stormwater detention or retention facilities.

- P) Traffic and pedestrian circulation patterns both within the site and on the public streets adjacent to the site and the proposed location and dimensions of any pedestrian sidewalks, malls, and open areas for parks and recreation either required or otherwise deemed necessary by the City Council. A concrete sidewalk of sufficient width as determined by the City Council shall be provided within the public right of way one (1) foot from the subject site's property line where the subject site borders a public right of way.
- Q) The location, height, and area of all signs.
- R) Information and plans for the storage, loading, disposal, and transfer of any hazardous/toxic waste (gas, oil, transmission fluid, lubricants, solvents, etc.). If any underground tank is used, the location, size, construction and use of the tank shall be specified on the site plan.
- S) Any other information as required by the City Council or Director of Planning which will assist in evaluation of the proposed use.

(4) Action by Planning Commission. After a study of the application for a Planned Development, the Planning Commission shall send a resolution recommending approval or denial to the City Council for the final determination based upon the following standards:

- A) The proposed use or uses shall be of such location, size, and character as to be in harmony with the appropriate and orderly development of the zoning district in which situated and shall not be detrimental to the orderly development of adjacent zoning districts.
- B) The location and size of the proposed use or uses, the nature and intensity of the principal use and all accessory uses, the site layout and its relation to streets giving access to it, shall be such that traffic to and from the use or uses, and the assembly of persons in connection therewith, will not be hazardous or inconvenient to the neighborhood nor conflict with the normal traffic of the neighborhood. In applying this standard, the Commission shall consider, among other things: convenient routes for pedestrian traffic, particularly of children; the relationship of the proposed project to main traffic thoroughfares and to street and road intersections; and the general character and intensity of the existing and potential development of the neighborhood. In addition, where appropriate, the Commission shall determine that noise, vibration, odor, light, glare, heat, electromagnetic or radioactive radiation, or other external effects, from any source whatsoever which relates to the proposed use, will not have a detrimental effect upon neighboring property or the neighboring area in general.
- C) The location and height of buildings, the location and nature and height of walls and fences, and the nature and extent of landscaping of the site shall be such that they will not hinder or discourage the proper development and use of adjacent land and buildings nor impair the value thereof.
- D) The standards of density and required open space in the proposed project are at least equal to those required by this Ordinance in the zoning district in which the proposed project is to be located.
- E) In any Planned Development wherein a shopping center is an integral part, the following specific standards shall be made a part of the site plan as it relates to the front, side, and rear yards of said shopping center:
 - i) Along freeways, major thoroughfares or secondary thoroughfares, except in areas described in ii), hereinbelow, the nearest fifteen (15) feet within the required yard area to the right-of-way line shall be maintained in landscaping and no parking or parking access aisles shall be permitted in such landscaped areas.
 - ii) Where residential districts adjoin the shopping center without an intervening street, the nearest twenty-five (25) feet to the property line within the required yard area of the shopping center shall be maintained in landscaping and no parking or vehicular access shall be permitted in such landscaped area.

- iii) Where lots in residential areas front on minor streets at the boundary of a shopping center, the nearest twenty-five (25) feet to the right-of-way within the required yard of the shopping center shall be maintained in landscaping and no parking or parking access aisles shall be permitted in such area.
- iv) All other yards within the shopping center, except those abutting a business or industrial district shall maintain no less than a fifteen (15) foot landscaped strip along the property lines which strip shall not be used for parking or parking access aisles.

The Commission may require such changes or modification in the site plan as are needed to achieve conformity to the standards as herein specified. Upon the finding by the Commission that all the standards as herein specified have been met, it may approve the project and the requested minor modifications to the provisions of this ordinance, if any, and recommend approval of the same to the City Council. It shall also, where it deems appropriate and necessary, recommend to the City Council those conditions to be imposed upon the project, its operation, or both, that are needed to assure adherence to the aforesaid standards. The Commission and Council may, in their determination whether to approve a proposed Planned Residential Development or Planned General Development, consider the impacts of the proposed project on existing developed land bordering the site as well as the future impacts of any development or redevelopment on the adjoining lands. Upon such review and determination and in furtherance of its objective to provide for the orderly development of land within the city, the Council may require that the streets be arranged in such a manner to provide for the future continuation or appropriate projection of existing streets in the surrounding areas. Streets shall be laid out to prevent the creation of double frontage lots.

(5) Conditions Upon which Waiver is Granted. Any waiver granted to authorize such a planned project shall in every case be subject to the following express conditions:

- A) Immediately after waiver approval by the City Planning Commission the applicant shall submit the proposal to the City Council and obtain its concurrence in the waiver; until the approval of the City Council is obtained, the City Planning Commission's approval shall not be effective; if the City Council rejects, then the action of the City Planning Commission shall be deemed null and void.
- B) The applicant shall thereafter submit proposed and final plats for the Planned Residential Development or Planned General Development for approval as in the case of other subdivision plats to the extent required by law; provided, however, that if the planned project is designed as site condominiums, the applicant shall thereafter submit the Master Deed for approval in accordance with the provisions set forth in [Section 7.27](#) of this Ordinance prior to any bonds being established by City Council pursuant to [Section 7.27](#) of this Ordinance.
- C) Such plats or Master Deed shall be in strict conformity with the approved waiver, the conditions attached thereto, the site plan submitted with the waiver, and the provisions of this Article.
- D) Where appropriate, a development agreement shall be submitted to the City in recordable form sufficient to assure the use and development of the planned project in accordance with the waiver, site plan, and the provisions of this Article.
- E) The development agreement shall incorporate the approved site plan together with the resolutions of the City Planning Commission and City Council approving such waiver use. Said approved site plan shall be filed with the Department of Inspection and all building and land uses shall thereafter be in accordance with the site plan.
- F) When open space and/or park land is/are provided as a part of a Planned Residential Development or a Planned General Development, the applicant shall provide an appropriate document which sets forth the function of the open space and/or park land, and such provisions for the ownership and maintenance of such lands as are reasonably necessary to ensure its continuity, care, conservation, maintenance, and to ensure that remedial measures will be available to the City of Livonia if such open space and/or park land is permitted to deteriorate or is not maintained in a condition that is consistent with the best interests of the Planned Development or of the City of Livonia.

- G) No structure designed or intended to be used in part or in whole, for commercial purposes shall be constructed prior to the construction of not less than thirty (30) percent of the dwelling units, if any, proposed for the development.
- H) Except as may otherwise be expressly authorized by council resolution, all internal private roads within a Planned Residential Development or a Planned General Development shall be designed and constructed in accordance with the minimum standards set forth by the City of Livonia Engineering Division consisting of asphalt pavement with monolithic valley swales, twenty-eight (28) feet wide, with a six (6) inch thick asphalt base, and one and one-half (1-1/2) inch thick wearing course.

(6) Public Improvements within Planned Development. The applicant for a waiver to authorize a Planned Residential Development or a Planned General Development may apply to the City Council for a modification of the nature and extent of public improvements required to be installed with respect to new residential subdivisions. The City Council may in its discretion relieve the applicant from installing public improvements as would otherwise be required to the extent that it determines such improvements to be unnecessary with the Planned Development. In the event of such a determination, the City Council shall incorporate the same in its resolution granting the waiver for the Planned Development. In granting such relief, as in granting the waiver use, the City Council may attach thereto such condition(s) regarding the character of the proposed development as it may deem reasonable. Compliance with such conditions shall be a prerequisite to the issuance of a Certificate of Compliance or Occupancy and the violation of any such condition shall be deemed a violation of this Ordinance.

Section 5.03 Single-Family Clustering.

The intent of this section is to encourage development alternatives in any N1 and N2 district which will preserve open space while at the same time provide detached or attached single-family dwellings; encourage improved design alternatives to provide more efficient use of land and public services; provide single-family development for difficult sites; and encourage reasonable alternatives to multiple family residential development commonly referred to as apartments or townhouses.

- A) The Planning Commission may recommend and the City Council may grant a waiver authorizing a single-family cluster project pursuant to [Section 5.02, Section 5.02\(2\)](#) of this Ordinance; provided, however, that in addition to requirements set forth in [Section 5.02, Section 5.02\(3\)](#), the application for a waiver shall include documentation substantiating that the land area to be developed contains one or more of the following characteristics:
 - i) Contains natural assets, such as, but not limited to, natural stands of large trees, natural habitat for wildlife, natural streams and watercourses, or unusual topographic features, a substantial portion of which would be preserved using single-family clustering.
 - ii) Has a substantial portion of its perimeter adjacent to major office, commercial, industrial, institutional, or high-rise residential development or is otherwise located to act as a transitional use between conventional single-family residential areas and uses which are or are likely to be incompatible.
 - iii) Contains a flood plain which results in a substantial portion of the total land area being unbuildable as confirmed by current Flood Plain Information Report prepared by the Corps of Engineers, United States Army, a copy of which is on file with the Engineering Division.
 - iv) Contains poor soil conditions which result in a substantial portion of the total area being unbuildable using conventional construction methods as confirmed by soil test borings furnished by the applicant.

- v) Is a small parcel which has frontage on a major thoroughfare with an existing or planned right-of-way width of one hundred twenty (120) feet or more as indicated on the Future Transportation Map and contains acute angles or is of shallow depth as measured from the thoroughfare to make conventional subdivision development physically impractical.
 - vi) Contains other unique physical or geographical constraints as determined by the Planning Commission and City Council to make conventional subdivision development impractical.
- B) In addition to requirements contained in other sections of this Ordinance regarding "Planned Residential Developments" or "Planned General Developments," the following standards shall govern single-family cluster development:
- i) In a planned development that qualifies as a single-family cluster project, yard requirements may be modified pursuant to [Section 5.02 Section 5.02\(2\)](#) of this Ordinance; provided, however, that the following additional rules shall apply:
 - a) Attaching of single-family dwelling units, provided the number of dwelling units attached shall not exceed four (4).
 - b) Minimum yard requirements shall provide that the minimum spacing between groups of attached buildings or between unattached buildings shall be ten (10) feet in an N1 district, and sixteen (16) feet in an N2 district; provided, however, that where a rear yard of one building or group of attached buildings abuts a rear yard or a side yard of another building or group of attached buildings, the distance between such buildings shall be the sum of the two abutting yards as required by [Section 4.02](#) of this Ordinance.
 - c) Front yards abutting a private street shall be as required by [Section 4.02](#) of this Ordinance; a side yard abutting a private street shall be a minimum of fifteen (15) feet and a side yard abutting a public street shall be as required by [Section 4.02](#) of this Ordinance; provided, however, that all buildings and parking areas shall be set back at least forty (40) feet from any major thoroughfare with an existing or proposed right-of-way width of one hundred twenty (120) feet, or more, as indicated on the Future Transportation Map .
 - ii) In a planned development when a single-family cluster project is proposed, the maximum number of units which may be developed shall be the number of acres of land on the proposed site, less any current or planned future rights-of-way of abutting public roads and areas designated by the Federal Emergency Management Agency (FEMA) as Special Flood Hazard Areas inundated by the 100-year flood or by the Michigan Department of Environmental Quality as protected wetlands, times the following numbers of units per acre for each zoning district:

N1 Districts	4.0 dwelling units per acre
N2 Districts	3.0 dwelling units per acre
 - iii) Whenever a proposed single-family cluster project abuts an existing single-family residential district, such district shall be buffered by means of one (1) or more of the following methods as a part of the development of the single-family cluster project:

- a) Locate detached single-family dwellings on conventional lots immediately abutting the existing single-family residential district subject to requirements contained in *Section 3.04* of this Ordinance and the Subdivision Rules and Regulations of the City of Livonia.
 - b) Provide open space or recreation space immediately abutting said existing single-family residential district.
 - c) Provide significant topographic features, landscaping, or a combination thereof immediately abutting said existing single-family residential district.
 - d) A major thoroughfare located between the cluster development and a single-family residential district.
- iv) The application shall include a fully dimensional and illustrated landscape treatment of the project, including the labeling of all materials as to type and size when installed, and shall also indicate the location, type, and size of all existing trees having at least a three (3) inch caliper measured one (1) foot above the ground and shall designate for non-removal all such trees so located so as not to substantially interfere with proposed street and structure locations.

Section 5.04 Form-Based Development Option in Commercial Districts.

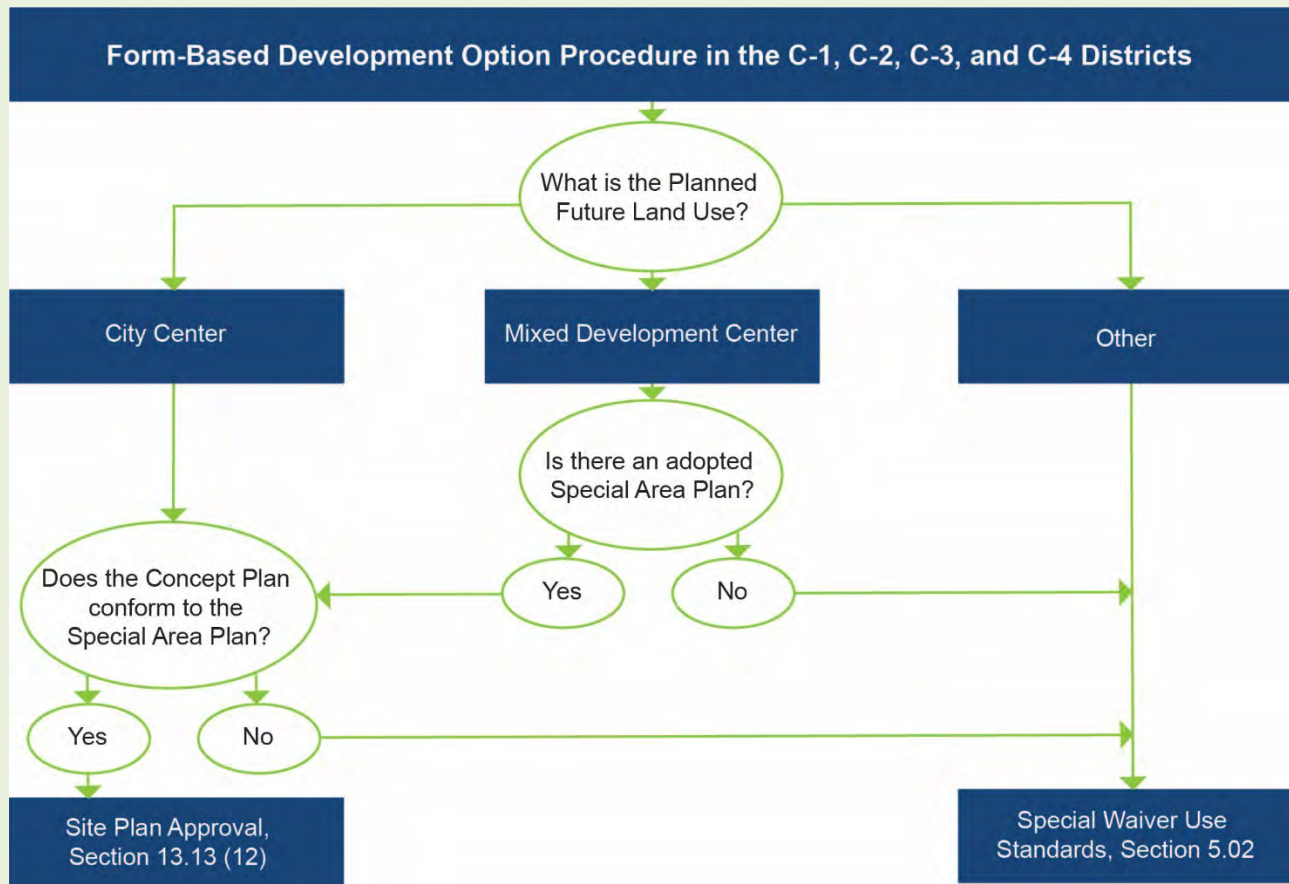
- (1) **Statement of Purpose.** The purpose of the form-based development option is to create clear and simple regulations on the design of new development or redevelopment in Livonia's Commercial Districts of C-1, C-2, C-3, and C-4.

The regulations of this Section require development to have a physical form that enhances the goals and objectives of the City's Future Land Use Plan. Specifically, these regulations encourage a pedestrian friendly and walkable character; permit a mixture of land uses; encourage streets that serve the needs of pedestrians, bicycles, and motorized vehicle traffic equitably; encourage places for informal social activity and recreation; and encourage building frontages that define the public space of streets. With proper physical form, a building can accommodate a wide range of uses without generating undue impact on neighboring properties.

It is further the purpose of the Form-Based Development Option to:

- A) Create walkable business area(s) that maintain the traditional physical form and help to implement the City's development objectives as described in the City's Future Land Use Plan.
- B) Create unique, walkable mixed-use developments including residential, retail, entertainment, office, and other compatible uses.
- C) Promote the orderly development, redevelopment, and continued maintenance of the City's commercial districts.
- D) Encourage shared parking areas throughout the City rather than requiring each individual property owner to provide physical parking space on their property.
- E) Create quantitative and qualitative building design guidelines that ensure new development is compatible with the City's Future Land Use Plan.
- F) Ensure buildings create a solid street wall that helps to define streets as public spaces.
- G) Ensure that permitted uses complement each other in terms of character and location, and to ensure that uses in the C-1, C-2, C-3, and C-4 districts do not have an adverse impact on the overall economic and social vitality of the district, street capacity, public utilities or services, or the overall image and function of the district.
- H) Prevent automobile-oriented development from impacting access to commercial uses by walking, biking, or transit.
- I) Encourage harmonious residential infill and adaptive reuse of noteworthy buildings to provide a mix of housing types, unit sizes, and compatible uses within walking distance of Livonia neighborhoods.
- J) Encourage accessible housing options throughout the City.

- (2) **Form-Based Development Option Procedures.** When using the Form-Based Development Option, conformance with the adopted Livonia Future Land Use Plan is required and one of the following application procedures must be followed:
- A) Areas designated on the Future Land Use Plan as City Center.
 - i) A concept plan shall first be submitted. The City Planning and Economic Development Director, or designee, shall conduct a preliminary development meeting to review the concept plan and determine its conformance with the adopted Special Area Plan.
 - ii) Conforming plans may submit for Site Plan approval, per [Section 13.13 \(12\)](#).
 - iii) Non-conforming plans shall follow the procedure outlined in [5.04 \(2\) C](#).
 - B) Areas designated on the Future Land Use Plan as Mixed Development Center
 - i) Developments within an area having an adopted Special Area Plan, may follow the procedure outlined in [5.04 \(2\) A](#).
 - ii) Developments not within an area having an adopted Special Area Plan, shall follow the procedure outlined in [5.04 \(2\) C](#).
 - C) Areas in the C-1, C-2, C-3, and C-4 districts not within an area having an adopted Special Area Plan, or not in conformance with an adopted Special Area Plan.
 - i) Developments in the C-1, C-2, C-3, and C-4 districts may use the Form Based Development Option subject to a review following the procedures of [Section 5.02](#), Special Waiver Use Standards for Planned Residential Developments and Planned General Developments.



- (3) **Expansion of existing development in the C-1, C-2, C-3, and C-4 districts with the Form-Based Development Option.** All sites in the C-1, C-2, C-3, and C-4 districts are eligible to use the Form-Based Development Option. When using the Form-Based Development Option to expand or redevelop an existing site or structure the following standards shall apply:

A) **Expansions of developed sites.**

- i) Less than 15 percent of existing condition. Any development activity on a developed site that would increase the floor area of an existing building or group of buildings located on the same parcel or the area of existing site improvements by less than 15% need not comply with the requirements of this Section. However, any new building area or site improvements should result in the site being more compliant and shall not result in the site being less compliant with the requirement of this Section.
- ii) More than 15 percent of existing condition. Whenever a building or site improvement expansion of greater than 15 percent of the existing condition is proposed, the activity shall comply with the requirements of this Section.
- iii) Expansions measured cumulatively. For the purposes of determining compliance with this section, expansions shall be measured cumulatively, with the baseline being the building area and improved site area that existed at the date of adoption of this Ordinance.

B) **Redevelopment.** Redevelopment of existing buildings shall comply with the Architectural Standards for Adaptive Reuse, [Section 5.04 \(5\)](#).

- i) Whenever 50 percent or less of the existing building will be demolished or replaced, the development activity need not comply with the requirements of this Section. However, any site layout or building design changes that may occur as a result of the development activity should result in the site being more compliant with the requirements of this Section.
- ii) Whenever more than 50 percent of an existing building will be demolished or replaced, the development activity shall comply with all of the requirements of this Section.

(4) **Modification of form-based development option requirements.**

- A) **Purpose and limitations.** Upon review and submission of findings by the City Planning Commission and approval by the City Council for an activity in the C-1, C-2, C-3, and C-4 districts, the Planning Commission or Council may modify certain dimensional requirements contained in this Section. Regulations that may be altered through the modification process are described in the various sections of this Section, along with the specific parameters by which the regulation may be altered.

Modifications, as described in this section, are separate and distinct from variances in that they are limited in their bounds and are intended to permit reasonable use of property where the strict application of the requirements of this Section would not further the public purpose, and a relaxed or altered dimensional standard will still meet the intent and purpose of the C-1, C-2, C-3, and C-4 districts.

Whenever a regulation may be altered through the modification process, specific bounds are listed within which the modifications must be maintained. If an alteration to a dimensional requirement is requested that is greater than that listed in this Section, the applicant must obtain a variance following the procedures and review standards [Section 13.14](#) Board of Appeals.

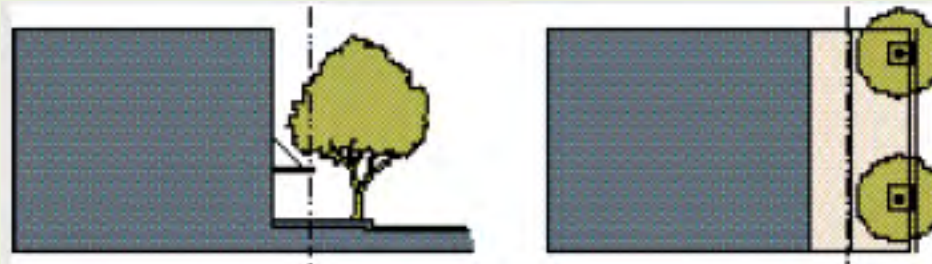
- B) **Application and review procedures.** The applicant shall clearly identify all requested modifications on the application and site plan. The reviewing authority shall evaluate the requested modifications and approve, approve with conditions, or deny the modification request. In evaluating a modification request, the reviewing authority shall take into account the following considerations:
- i) Approval of the modification will not result in development that is incompatible with or will negatively impact existing or potential future development in the vicinity of the property to be developed.
 - ii) The requested modification is consistent with the intent and purpose of this Section.

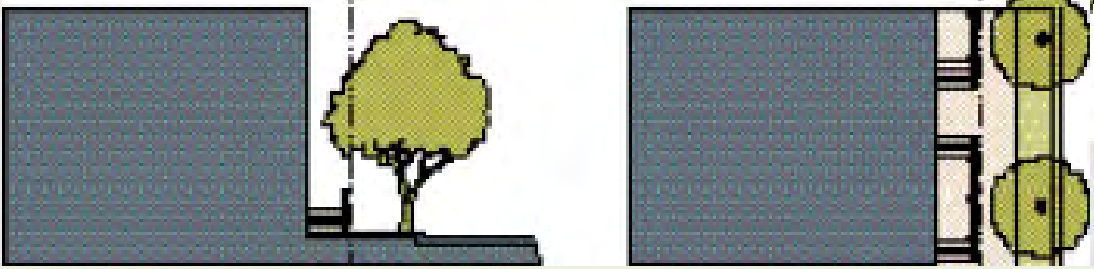
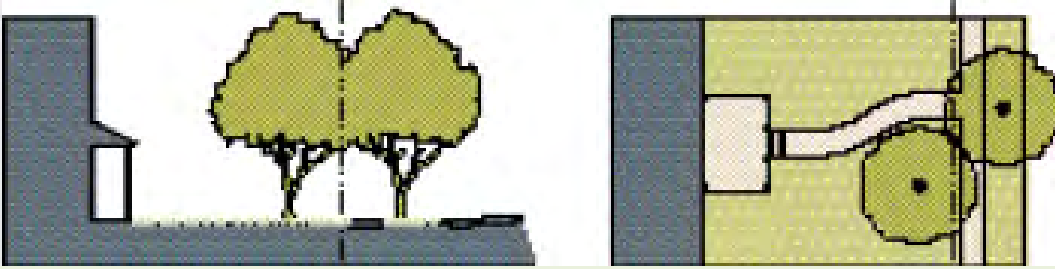
- iii) The modification will result in a superior development when compared with what could be achieved through the strict application of the requirements of this Section.
- iv) A lesser modification will not accomplish the same purpose as the requested modification.
- v) The modification will not negatively impact the potential of adjacent parcels to develop according to the requirements of this Section.

(5) Architectural Standards for Adaptive Reuse.

- A) **Frontage Requirements.** Buildings in the C-1, C-2, C-3, and C-4 districts shall comply with the following requirements, in addition to any applicable requirements of [Section 4.02](#), Schedule of Regulations. The requirements of this Section and [Section 4.02](#) are intended to be complimentary; however, in any instance where there is an apparent conflict, the provisions of this Section shall control.
 - i) **Private frontage.** The private frontage is the area between the right-of-way and the principal building façade. Buildings must contain architectural elements consistent with one of the following four private frontages. Each frontage is designed to be consistent with some or all of the uses permitted in the C-1, C-2, C-3, and C-4 districts.

Note that the following table includes specific dimensional requirements for each of the frontages. Unless otherwise noted, the dimensional requirements are in addition to any other dimensional requirement of this Section.

FRONTAGE TYPE	WHERE PERMITTED	DIMENSIONAL REQUIREMENTS
Shopfront.		
A frontage where the building façade is located close to the front lot line with the building entrance at sidewalk grade. This frontage type is suitable for nonresidential uses on the first floor.	C-1 C-2 C-3 C-4	The building shall be set back a maximum of 15 feet from the front lot line.
		
Courtyard		
A frontage where a portion of the building façade is close to the front lot line with a portion set back. The courtyard may accommodate tree plantings or a vehicle drop-off area. This frontage is suitable for any building use.	C-1 C-2 C-3 C-4	The building shall be set back a maximum of 5 feet from the front lot line. The courtyard area shall be considered part of the front building façade for the purposes of determining compliance with the setback and frontage requirements.
		

FRONTAGE TYPE	WHERE PERMITTED	DIMENSIONAL REQUIREMENTS
Stoop		
A frontage where the first floor is elevated from the sidewalk to provide privacy for first floor windows. The entrance is usually from an exterior stair and landing. This frontage is suitable for ground-floor residential use.	C-1 C-2 C-3 C-4	The building shall be set back a minimum of 7 feet from the front lot line. The stoop or porch area shall be set back a minimum of 2 feet from the front lot line.
		
Lawn		
A frontage where the building is set back from the street with a landscaped front yard area. This frontage is suitable for any building use.	C-1 C-2 C-3 C-4	The building shall be set back a minimum of 10 feet from the front lot line. Unenclosed front porches shall be set back a minimum of 5 feet from the front lot line.
		

- B) **Minimum height.** The minimum building height in the C-1, C-2, C-3, and C-4 districts is 20 feet. All buildings shall have the appearance of being at least 2-story buildings.

- C) **Base, Middle, and Cap.** All buildings shall incorporate a base, middle, and cap, as is applicable.
- i) **Base.** The base shall include an entryway with transparent windows and a horizontal molding or reveal placed between the first and second stories or over the second story. The molding or reveal shall have a depth of at least two (2) inches and a height of at least four (4) inches. If a one-story building is proposed, the molding or reveal is not required.
 - ii) **Middle.** The middle may include buildings and/or balconies that are located between the reveal and the cap area.
 - iii) **Cap.** The cap includes the area from the top floor to the roof of the building and shall include a cornice or roof overhang.
- D) **Alignment.** Window sills, moldings, and cornices shall align with those of adjacent buildings. The bottom and top line defining the edge of the windows (the "window sill alignment") shall not vary more than two feet from the alignment of surrounding buildings. If the adjoining buildings have window sill alignments that vary by more than two feet from one another, the proposed building shall align with one of the adjoining buildings. This requirement may be modified, per [Section 5.04 \(4\)](#).
- E) **Building materials.** Buildings in the C-1, C-2, C-3, and C-4 districts shall comply with the following building material requirements:
- i) **Primary building materials.** Durable natural building materials such as brick, stone, exposed logs or timber, and other similar materials are preferred primary building materials in the C-1, C-2, C-3, and C-4 districts. Concrete block or similar masonry units (including CMU or split-face blocks) are prohibited as a primary building material unless covered with a veneer of natural building materials. Synthetic building materials that convincingly match the appearance of natural building materials may be used as a primary building material. Primary building materials shall be used on a minimum of 70 percent of the façade area of the building (excluding doors and windows).
 - ii) **Accent building materials.** Accent materials may be used on up to 30% of the façade area of the building (excluding doors and windows). Acceptable accent materials include decorative precast concrete block, metal, and glass. Non-durable building materials such as EIFS may be used as accent building materials on up to ten percent of the total wall area of any façade, but may not be used on the ground floor façade.
 - iii) **Modification.** This requirement may be modified, per [Section 5.04 \(4\)](#).
- F) **Ground floor design.**
- i) **Building entrance(s).** All buildings shall have their principal entrance or entrances open onto a street, sidewalk, or public space. The principal building entrance shall not open onto a parking lot, although a secondary or subordinate entrance may be provided to a parking lot.
 - ii) **Entryway alignment.**

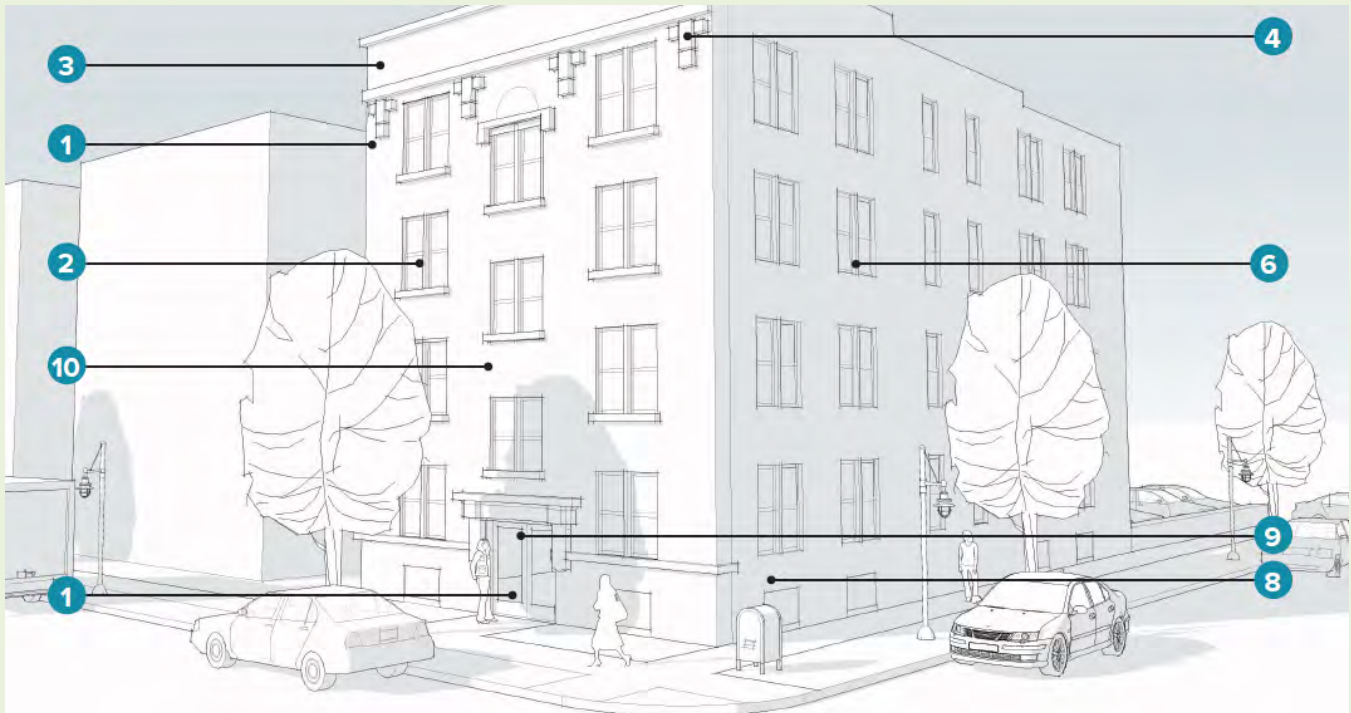
- a) Nonresidential uses. For all buildings in the C-1, C-2, C-3, and C-4 districts and buildings with nonresidential uses on the first floor, the ground floor of the principal entrance shall align with the elevation of the adjacent sidewalk. Sunken terraces or stairways to a basement shall not constitute principal entrances to a building for the purposes of this section. It is not the intent of this section to preclude the use of below or above grade entryways, provided that such entryways are secondary, not principal entrances.
 - b) Residential and live/work uses. For first-floor residential and live/work uses in the C-1, C-2, C-3, and C-4 districts, the ground floor of the building (and consequently the principal entrance as well) may be raised up to 36 inches above the elevation of the adjacent sidewalk. This is intended to create greater privacy for first floor residential uses by elevating windows above the view of passing pedestrians.
- G) Windows and entryways. The following requirements apply to façades of buildings facing a public street or public space such as a plaza or square.
 - i) Windows. Windows above the ground floor shall have a height to width ratio of at least 2:1.
 - ii) Ground floor façade transparency.
 - a) All buildings with first floor nonresidential uses shall maintain transparency for at least 70 percent of the first-floor façade area between two and eight feet above grade level. Doors and windows provide transparency.
 - b) All windows shall use transparent, non-reflective glass.
 - c) Areas of solid wall shall not exceed a length of 20 feet.
- H) Recessed entrances encouraged. Doors are encouraged to be recessed into the face of the building to create a sense of entry and to add variety to the streetscape.
- I) Encroachments. The following building elements may encroach into a public right-of-way or setback
 - i) Balconies. Balconies on upper stories may encroach up to 6 feet into any required setback area and up to 4 feet into any right-of-way area.
 - ii) Stoops. Unenclosed and uncovered front stoops may encroach up to 5 feet into a front yard setback area, provided that the stoop maintains a minimum setback of five feet from any right-of-way line.
 - iii) Awnings.
 - a) Ground-story awnings may encroach up to six feet from the face of the building into the setback or right-of-way area.
 - b) Awnings shall have a minimum of eight (8) feet of clear space between the sidewalk and the bottom of the awning or any support structure and shall not exceed a height of 12 feet to the highest point of the canopy.
 - c) If the awning encroachment of six (6) feet would interfere with the placement of street lighting or street trees, the awning projection shall be reduced to resolve the conflict.
 - d) Awnings shall be constructed out of fabric and may not be internally illuminated. Metal or other materials may be used for awnings if a modification is approved per Section 5.04 D.
 - iv) *Bay windows*. Bay windows on the ground story may encroach up to three (3) feet into any setback area, but may not encroach into a right-of-way area. Bay windows on upper floors may encroach up to three (3) feet into any setback or right-of-way area.
 - v) *Eaves*. Roof eaves may encroach up to three (3) feet into any setback or right-of-way area.
- J) Service areas. All service areas, including utility access, above ground equipment and dumpsters shall be located in side or rear yards and shall be screened from view from any street.

- K) Mechanical and utility equipment. Mechanical equipment, electrical and gas meter and service components, and similar utility devices (whether ground level, wall mounted, or roof mounted) shall be screened from view from the front property line. Exterior screening materials shall be the same as the predominant exterior materials of the principal building.

(6) Building Type Standards for New Construction.

When using the Form-Based Development Option for new construction in the C-1, C-2, C-3, and C-4 districts, buildings must conform to architectural and dimensional standards of the following building types.

- A) **Apartments.** A medium sized building that contains five (5) to ten (10) dwelling units either side-by-side or stacked between two floors. There can be one shared entry or individual entries facing the street.



ILLUSTRATED DESIGN STANDARDS: APARTMENTS

1. Traditional building façade treatments (including masonry reliefs and/or motifs) and main entrances located along street of building address.
2. Opaque façade through which window and door openings appear to have been “punched” as through paper in a ring binder.
3. Building cornice (at top of building) of substantial height and decoration.
4. Minimum one horizontal molding or accent material projection dividing the façade into layers.
5. Pattern of solids and voids generated by the vertical and horizontal alignment of windows and doors in repeating sizes.
6. Window groupings encouraged, with groups of up to 3 allowable.
7. Main entrances at grade for accessibility, working in conjunction with interior lobby or vestibule and elevator(s).
8. Ground Floor Units (finished floor) 36” to 42” above grade.
9. Main entrance articulation.
10. Prominent sills and/or heads required for windows located along façades (discouraged along other exterior walls).
11. No building entrances from side parking lots allowable. Otherwise, sides and backs of buildings not regulated by this code, except at corners (as shown here).
12. Building façade treatments optional along intersecting streets.
13. Towers, sculptures, and other characteristic forms and/or focal points encouraged (not illustrated).

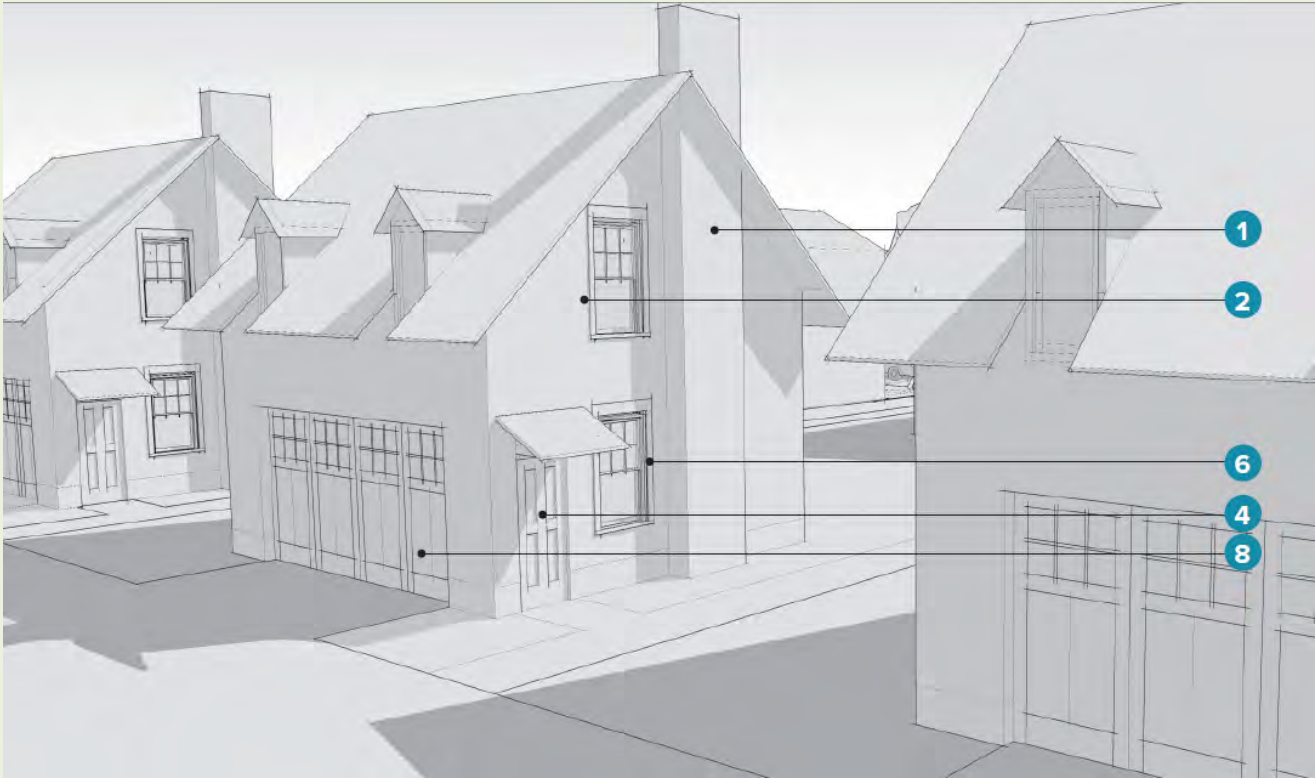
ILLUSTRATED DESIGN STANDARDS: APARTMENTS

14. Floor to floor heights limited to 10'-6".
15. Feature excepted on Art Deco style buildings.

Permitted Materials: Apartments

	Brick	Terra Cotta	Sandstone	Limestone	Formed Concrete	Marble	Other
Building Wall	X		X			X	Portland Cement Stucco
Accents		X	X	X	X	X	Limestone
Window and Door Heads	Soldier Course	X	X	X	X		Limestone
Window Sills	Soldier Course	X	X	X	X	X	Limestone
Columns	X	X	X	X	X		Limestone

- B) **Carriage House/Accessory Dwelling Unit.** Also considered an accessory structure, a carriage house is a small building located in the rear of a principal dwelling unit and can contain a small dwelling unit or similar use. They are often above a garage but can also be at ground level.



ILLUSTRATED DESIGN STANDARDS: CARRIAGE HOUSE / ACCESSORY DWELLING UNIT

1. Small, traditionally-styled residential garage form containing one (1) residential unit, indoor parking, or one (1) residential unit above indoor parking. Ground floor finish floor 24"-36" above grade (if not above parking).
 2. Opaque façade through which window and door openings appear to have been "punched" as through paper in a ring binder (garage doors excepted).
 3. Window groupings encouraged, with groups of up to 3 allowable.
 4. Residential entrance articulation and indoor stairway (stairway if more than one story).
 5. Floor to floor heights limited to 10'-6".
 6. Window screens to be made of wood or, if non-masonry structure, windows to have 3 ½" ht. painted wood aprons added beneath sills to width of cased openings.
 7. Must be concealed behind a primary building type. Not to be located in view of frontage corresponding to street of primary building address.
- Garage door openings, garage doors, garage door Window panes, and garage door panels must all be square or rectangular. Door panels and Window panes must be oriented vertically.

Permitted Materials: Carriage House / Accessory Dwelling Unit							
	Brick	Terra Cotta	Sandstone	Limestone	Formed Concrete	Marble	Other
Building Wall	X		X			X	Portland Cement Stucco / Cement Board*
Accents		X	X	X	X		
Window and Door Heads	Soldier Course	X	X	X	X		Cedar
Window Sills*	Soldier Course	X	X	X	X		Cedar
Columns	X	X	X	X	X		Wood

*Cement Siding and Wood Trim Installed Smooth-Side Out. Visible Wood-Grain Embossing or Rough-Sawn Surfaces Prohibited

- C) **Duplex/Triplex Stacked, or Adjacent.** A small or medium sized building with two dwelling units stacked one on ground level and one above, each with a separate door facing the street.



ILLUSTRATED DESIGN STANDARDS: DUPLEX / TRIPLEX STACKED, OR ADJACENT

1. Traditionally-styled single-family house form containing two (2) residential units with two (2) main entrances at the front, and alternate or service entrances along the sides and/or back. Finished floor located 24" to 30" above grade.
2. Residential units exist above one another within building enclosure.
3. Opaque exterior walls through which window and door openings appear to have been "punched" as through paper in a ring binder.
4. Pattern of solids and voids generated by the vertical and horizontal alignment of Windows and doors in variously repeating sizes.
5. Window groupings encouraged, with groups of up to 3 allowable.
6. Building overhangs commensurate with style of architecture.
7. Ground floor 24" to 30" above grade.
8. Min. 6'-6" deep front porch maximum 30" above grade with optional decorative rail 28"– 36" above porch floor.
9. Stacked duplex and triplexes entrances may have separate doors or share a vestibule. Adjacent duplex and triplexes entrances shall have individual main entrance articulation.
10. Window screens to be made of wood or, if non-masonry structure, windows to have 3 ½" ht. painted wood aprons added beneath sills to width of cased openings.
11. Floor to floor heights limited to 10'-6".

Permitted Materials: Duplex / Triplex Stacked, or Adjacent								
	Duplex Type	Brick	Terra Cotta	Sandstone	Limestone	Formed Concrete	Beveled Cedar Siding	Other
Building Wall	Stacked	X		X			X	Portland Cement Stucco / Cement Board *
	Adjacent							
Accents	Stacked	X	X	X	X	X		
	Adjacent							
Window and Door Trim*	Stacked	Soldier Course	X	X	X	X		Cedar
	Adjacent							
Window Sills*	Stacked	Soldier Course	X	X	X	X		Cedar
	Adjacent							
Columns	Stacked	X	X	X	X	X		Wood
	Adjacent							

*Cement Siding and Wood Trim Installed Smooth-Side Out. Visible Wood-Grain Embossing or Rough-Sawn Surfaces Prohibited.

- D) **Fourplex/Four-Family Dwelling Unit.** A medium sized building that contains four dwelling units split up two (2) on the ground floor and two (2) above, with a shared door facing the street.



ILLUSTRATED DESIGN STANDARDS: FOURPLEX / FOUR-FAMILY DWELLING UNIT

1. Traditional building façade treatments (including masonry reliefs and/or motifs) and main entrances located along street of building address.
2. Opaque exterior walls through which window and door openings appear to have been “punched” as through paper in a ring binder.
3. Building cornice must have the most prominent shadow line.
4. Minimum one (1) additional horizontal molding or accent material projection dividing the building into layers or creating water table expression on ground floor level.
5. Pattern of solids and voids generated by the vertical and horizontal alignment of windows and doors in repeating sizes.
6. Window groupings encouraged, with groups of up to 3 allowable.
7. Main entrances at grade for accessibility, working in conjunction with interior lobby or vestibule and lift or ramp servicing first floor units.
8. Ground-floor units finish floor-elevation 36” to 42” above grade.
9. Main entrance articulation.
10. Prominent sills and/or heads required for Windows located along façades.
11. No building entrances from side parking lots allowable. Otherwise, sides and backs of buildings not regulated by this code, except at corners (as shown here).
12. Building façade treatments optional along intersecting streets.
13. Floor to floor heights limited to 10’-6”.

Permitted Materials: Fourplex / Four-Family Dwelling Unit							
	Brick	Terra Cotta	Sandstone	Limestone	Formed Concrete	Marble	Other
Building Wall	X		X			X	Portland Cement Stucco
Accents	x	X	X	X	X		
Window and Door Heads	Soldier Course	X	X	X	X		Cedar
Window Sills	Soldier Course	X	X	X	X		Cedar
Columns	X	X	X	X	X		Wood

- E) **Live/Work Unit.** A small to medium sized building that contains a ground floor office, service, or retail space with a dwelling unit above or behind it. The building can be attached or detached, and both the living and working space are owned or rented by one (1) user.



ILLUSTRATED DESIGN STANDARDS: LIVE / WORK UNIT

1. Ground floor elevated 30" to 42" above average grade at front of building with interior lift for accessibility (Type A). Main level may be accessible at grade with plate glass storefront (Type B) or if building is setback from right-of-way line minimum 7'-0" (Type C).
2. Traditional building façade treatments (as well as main business entrances) to be located along streets of corresponding building addresses and corresponding to right-of-way lines. Side entrances subordinate and allowable at right-of-way lines along intersecting streets only. Side entrances along parking lots prohibited. Rear entrances also subordinate. Storefront main entrance at corner may substitute for that listed above (see Mixed-Use Building).
3. Main business entrance doors must remain unlocked during business hours.
4. Open, plate-glass shopfronts (Type B) encouraged at ground-floor level along street of building address, with façade supported above by columns and beams and extending for a distance of 12' to 14' around building corners at intersecting streets.
5. Plate glass material beginning 15" to 18" above finished grade (top of sidewalk) and extending to underside of beam, with alternate leaded or stained-glass transoms minimum 8'-0" above finish grade.
6. Sign band and/or secondary cornice to be integral with any shopfronts and located above plate glass shopfronts or transoms (Type B).
7. At-grade doorways to be recessed (see numerical parameters below).
8. Opaque exterior walls, through which all window openings appear to have been "punched" (such as through paper in a ring binder), with such windows recessed into the façade, reinforcing this intended effect (except at shopfronts, which are to have plate glass column to column).
9. Building cornice (at top of building) casting tallest horizontal shadow upon building façade. Must be the most prominent shadow line (aside from those cast individually by awnings above shopfronts).

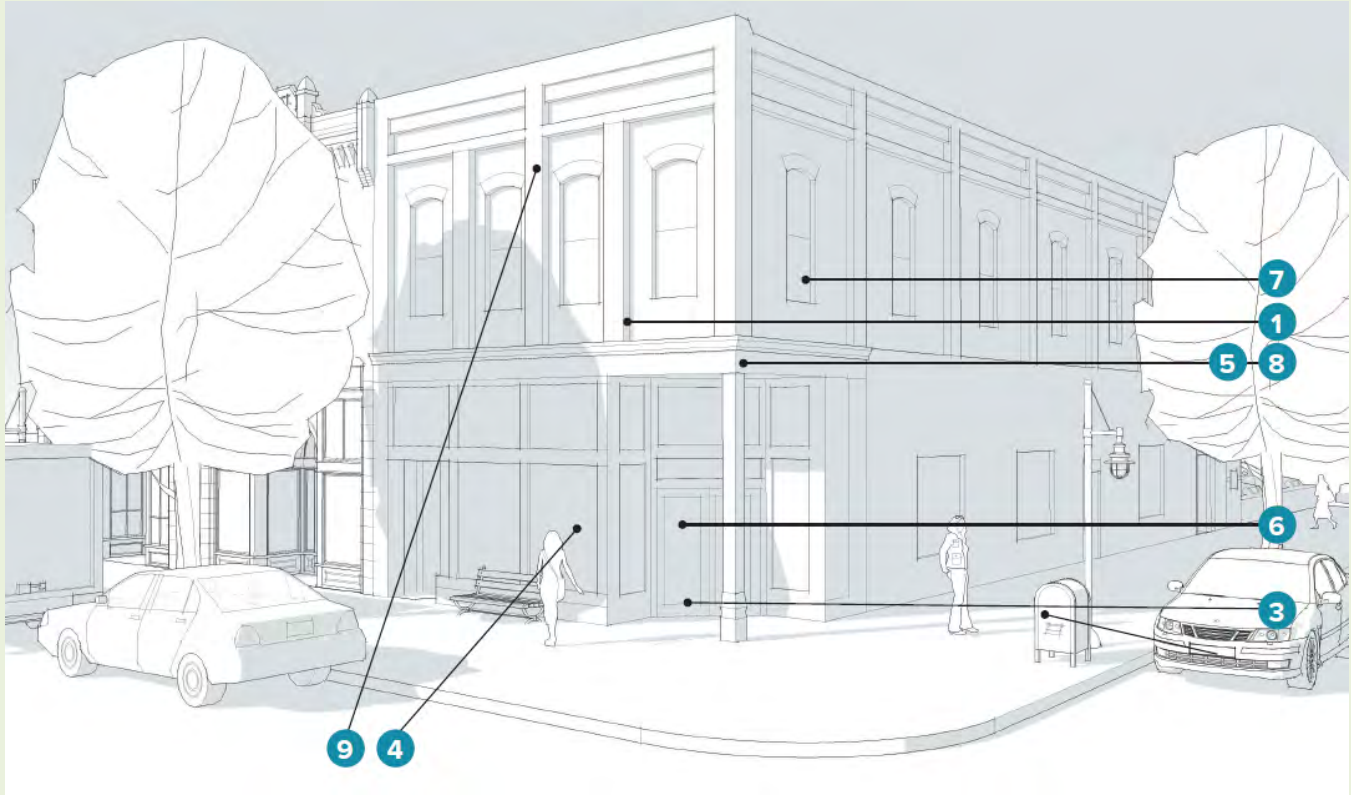
ILLUSTRATED DESIGN STANDARDS: LIVE / WORK UNIT

10. Phasing of site development to be coordinated with individual units (each 16' to 25' in width), any first unit developed front to back for a minimum distance of 25' before development of any adjacent unit is to begin. Adjacent and subsequent units to be developed front to back in a similar manner. 8 units per building maximum.
11. Pattern of solids and voids, coordinated within structural bays, generated by the vertical and horizontal alignment of rectangular windows and doors in repeating sizes. Full and segmented arches allowable atop rectangular windows in these locations (shopfronts excepted).
12. Arched building tops prohibited.
13. Window groupings allowable.
14. Open-ended, canvas, sloped awnings above shopfront windows. (Type B).
15. Decorative sills and/or headers required on windows located along exterior walls (shopfronts excepted).
16. Sides and backs of buildings not regulated by this code, except along intersecting streets (as shown here).
17. Floor to floor heights limited to 15'.
18. Flat roof required.

Permitted Materials: Live / Work Unit

	Brick	Terra Cotta	Sandstone	Limestone	Formed Concrete	Marble	Other
Building Wall	X		X				Portland Cement Stucco
Accents	X	X	X	X	X		
Window and Door Heads	Soldier Course	X	X	X	X		
Window Sills	Soldier Course	X	X	X	X	X	
Columns	X	X		X	X	X	Steel

- F) **Mixed-Use Building.** A small to medium sized building that contains ground floor commercial space with dwelling units above. Any number of dwelling units can be incorporated based on the desired level of density. Typically, there is one (1) shared door for residential access facing the street.



ILLUSTRATED DESIGN STANDARDS: MIXED-USE BUILDING

1. Traditional building façade treatments (including masonry reliefs and/or motifs), as well as main business entrances, to be located along streets of corresponding building addresses and at right-of-way lines. Side entrances subordinate and allowable at right-of-way lines along intersecting streets only. Side entrances along parking lots prohibited. Rear entrances also subordinate. Main entrance at corner may substitute for that listed above.
2. Main entrance doors must remain unlocked during business hours.
3. Main level accessible at grade.
4. Open, plate-glass shopfronts (curtain walls), located at ground-floor level along street of building address, with façade supported above by columns and beams and extending for a distance of one structural bay around building corners at intersecting streets. Plate glass material beginning 15" to 18" above finish grade (top of sidewalk) and extending to underside of beam, with alternate leaded or stained-glass transoms minimum 8'-0" above finish grade.
5. Sign band and/or secondary cornice integral with shopfronts and above plate glass and/or transoms. Such cornice may be used to satisfy the one horizontal molding or accent material band projection requirement.
6. Recessed doorways located within shopfronts (see numerical parameters below).
7. Opaque exterior walls above ground floor, through which window openings appear to have been "punched" (such as through paper in a ring binder), with such windows recessed into the façade, reinforcing this intended effect.
8. Minimum one additional horizontal molding or accent material band projection, casting a secondary horizontal shadow line, dividing the façade into layers. This feature is excepted on Art Deco-style buildings.
9. Vertical façade projections (corresponding to structural columns) casting vertical shadows on façade and articulating regular structural bays, each 20' to 30' in width.

ILLUSTRATED DESIGN STANDARDS: MIXED-USE BUILDING

10. Phasing of site development to be coordinated with structural bays, any first bay developed front to back for a minimum distance of 20' before development of any adjacent bay is to begin. Adjacent and subsequent bays to be developed front to back in a similar manner.
11. Pattern of solids and voids above ground floor, coordinated within structural bays, generated by the vertical and horizontal alignment of rectangular windows and doors in repeating sizes. Full and segmented arches allowable atop rectangular windows in these locations.
12. Radii of arches on segmented-arch windows must equal widths of corresponding windows.
13. Arched building tops prohibited.
14. Window groupings allowable above ground floor, corresponding to structural bays.
15. Open-ended, canvas, sloped awnings above shopfront windows.
16. Decorative sills and/or headers required on upper-floor windows located along façades.
17. Sides and backs of buildings not regulated by this code, except at corners (as illustrated here).
18. Building façade treatments optional along intersecting streets.
19. Towers, sculptures, and other characteristic forms and/or focal points encouraged (not illustrated).
20. Characteristic forms echoed or repeated within structural bays.
21. Floor to floor heights limited to 15'.

Permitted Materials: Mixed-Use Building

	Brick	Terra Cotta	Sandstone	Limestone	Formed Concrete	Beveled Cedar Siding	Other
Building Wall	X		X				Portland Cement Stucco
Accents	X	X	X	X	X		
Window and Door Heads	Soldier Course	X	X	X	X		Cedar
Window Sills	Soldier Course	X	X	X	X	X	Cedar
Columns	X	X		X	X	X	Wood

*Cement Siding and Wood Trim Installed Smooth-Side Out. Visible Wood-Grain Embossing Or Rough-Sawn Surfaces Prohibited

- G) **Townhome, Rowhouse.** A small to medium sized building that contains side-by-side attached single-family dwelling units. Typically, two (2) to eight (8) units make up a building, all with individual entrances facing the street.



ILLUSTRATED DESIGN STANDARDS: TOWNHOME / ROWHOUSE

1. Residential units existing side-by side within building enclosure with each unit extending from foundation to roof.
2. Parking at rear or within building at ground floor with parking entrance at rear of building.
3. Side parking lots prohibited.
4. Opaque exterior walls through which window and door openings appear to have been “punched” as through paper in a ring binder.
5. Pattern of solids and voids generated by the vertical and horizontal alignment of windows and doors in variously repeating sizes.
6. Window groupings encouraged, with groups of up to 3 allowable.
7. Ground floor (finished floor) 24” to 30” above grade.
8. Min. 6’-6” deep required front porch maximum 30” above grade with decorative rail 28” – 36” above porch floor (porches may be individual or shared and continuous across front of building).
9. Individual main entrance articulation. Porch may be shared (entrances may have separate doors or share a vestibule).
10. Window screens to be made of wood or, if non-masonry structure, Windows to have 3 ½” ht. painted wood aprons added beneath sills to width of cased openings.
11. Floor to floor heights limited to 10’-6”.

Permitted Materials: Townhome / Rowhouse							
	Brick	Terra Cotta	Sandstone	Limestone	Formed Concrete	Beveled Cedar Siding	Other
Building Wall	X		X			X	Portland Cement Stucco Cement Board (a)
Accents	X	X	X	X	X		Painted Wood
Window and Door Heads (a)	(b)	X	X	X	X		Cedar
Window Sills (a)	(b)	X	X	X	X		Cedar
Columns	X	X		X	X		Wood

- a) Cement siding and wood trim shall be installed with the smooth side facing outward. Visible woodgrain embossing or rough-sawn surfaces are prohibited.
- b) Soldier course.

- H) **Schedule of Regulations by Building Types:** When using the Form-Based Development Option, the following dimensional standards by building type shall apply to new construction in the C-1, C-2, C-3, and C-4 districts. When in conflict with [Section 4.02](#), these regulations shall prevail.

SCHEDULE OF REGULATIONS BY BUILDING TYPE				
Building Type	Front Setback (j)	Side Setback (adjacent to private lot)	Side Setback (adjacent to ROW line)	Rear Setback
Adjacent / Stacked Duplex & Triplex	≥ 20' (a)	10'	7' to 12'	10'
Fourplex	10' (b)	7'	4' to 7'	0'
Rowhouse	20' (c)	7'	4' to 6'	10' (d)
Small Apartment Building	≤ 10' (e)	7'	≤ 7'	0'
Residential Accessory Dwelling Unit / Garage	≥ 10' (f)	≥ 3'	≥ 3'	10' (d)
Live-Work Building	0' (g)	0'	0'	0'
Mixed-Use Building	0' (h)	0'	0'	0'
a) Setback shall match mean setback of existing residential buildings along block frontage, ≥ 20'. If mean existing setback is < 20', then setback of new building shall default to 20'. Porches may encroach ≤ 12' into required front setbacks. b) Setback shall match that of an adjacent residential building on the principal frontage, ≤ 35'. If adjacent building(s) are set back > 35', then setback of new building shall default to 10'. c) Setback shall match that of an adjacent residential building on the principal frontage, ≤ 35'. If adjacent building(s) are set back > 35', then setback of new building shall default to 20'. Porches or porticos may encroach ≤ 9' into required front setbacks. d) Rear setback is 4' from alley easements. e) Setback shall match that of an adjacent residential building on the principal frontage, ≤ 35'. If adjacent building(s) are set back > 35', then setback of new building shall default to a distance ≤ 10'. Porches or porticos may encroach ≤ 9' into required front setbacks. Entrance canopies on Large Apartment Buildings may extend into right of way over sidewalk. f) From main building on parcel. g) See Building Type Regulations. h) Required build-to line.				

- I) **Modifications from Building Design Standards for New Construction.** The City Council may modify the above requirements finding all of the following standards have been met:
- The architectural design of the proposed structure is consistent with the character of the surrounding area.
 - The architectural design otherwise meets the building design standards for adaptive reuse in the C-1, C-2, C-3, and C-4 districts.
 - The project brings the site more into compliance with the Building Design Standards for New Construction and purpose of the C-1, C-2, C-3, and C-4 districts.

Article VI.

Standards Applicable to Specific Uses

Section 6.01 Adult Entertainment.

Adult Businesses provided that:

- (1) **Districts Permitted.** The following standards apply in the C-3 District as a waiver use.
- (2) **Location.** No adult business shall be located within one thousand (1,000) feet of any property which is either occupied or approved for an adult business or within five hundred (500) feet of any property which is either occupied or zoned for residential use as measured from any point on the property which is so occupied or zoned.
- (3) **Access.** The parcel of land on which the adult business is located shall have direct access to a major thoroughfare having an existing or planned width of one hundred twenty (120) feet or more as designated on the Future Transportation Map of the City of Livonia.

Section 6.02 Adult Foster Care.

Residential homes for mentally or physically handicapped persons (as defined in [Section 2.02](#), [Section 2.02\(2\)](#) of this Ordinance) for more than six (6) persons, provided that:

- (1) **Districts Permitted.** The following standards apply in the RUF District as a waiver use.
- (2) **Lot Size.** Residential homes for mentally or physically handicapped persons shall be located on a lot or parcel of no less than one-half (½) acre in area.
- (3) **Maximum Capacity.** Such residential home shall house no more than sixteen (16) mentally or physically handicapped persons plus such persons as may be required to provide supervision. There shall be no more than two (2) occupants per bedroom.
- (4) **Outdoor Recreation.** An outdoor recreation area shall be provided equal to five hundred (500) square feet per bedroom, and such recreation area shall be designed and oriented to fulfill the needs of all residents.

Section 6.03 Alcohol Sales (Specially Designated Merchant [SDM] and Specially Designated Distributor [SDD]).

S.D.D. and S.D.M. licenses provided, however, that S.D.D. licenses which were approved and in use at locations prior to March 7, 1977, and S.D.M. licenses which were approved and in use at locations prior to April 11, 1983, may continue to be used to the extent and in the manner previously established at such locations without waiver use approval, provided further that:

- (1) **Districts Permitted.** The following standards apply in the C-1 and C-2 Districts as a waiver use and in the C-3 District as a permitted use.
- (2) **Location.**
 - A) Such proposed S.D.D. licensed establishment shall be located at least one thousand (1,000) feet distant from any existing S.D.D. licensed establishment, as measured from the nearest point on the building proposed to be licensed to the building in which the existing licensed establishment is located; and further provided that such S.D.M. licensed establishment shall be located at least five hundred (500) feet distant from any existing S.D.M. licensed establishment, as measured from the nearest point on the building proposed to be licensed to the building in which the existing licensed establishment is located; provided, however, that the foregoing one thousand (1,000) foot and five hundred (500) foot limitations may be waived by action of the City Council.
 - B) Such proposed S.D.D. or S.D.M. licensed establishment shall be located at least four hundred (400) feet distant from any church or school building, either public or parochial, as measured from the nearest point on the building proposed to be licensed to the existing church or school building.
- (3) **Access.** Access to such S.D.D. or S.D.M. licensed establishment shall be from a public street having a right-of-way width of at least one hundred twenty (120) feet, as indicated on the Future Transportation Map of the City of Livonia.
- (4) **Locked Display Case.** All S.D.D. licensees who sell alcoholic liquor other than beer and wine in their original package for consumption off the premises and whose total gross receipts derived from the sale of all alcoholic beverages do not exceed 35% of the total gross receipts of all sales, both alcoholic and non-alcoholic, shall display such alcoholic liquor behind a counter or in a locked display case in such a manner with no direct public access for a qualified employee at least eighteen (18) years of age to distribute to the customer.

Section 6.04 Apartments.

- (1) **Districts Permitted.** The following standards apply in the NM2 District as a permitted use.
- (2) **Studio.** A dwelling unit containing a minimum net floor area of at least three hundred (300) square feet per unit, consisting of not more than one (1) room, in addition to kitchen and necessary sanitary facilities, and for the purposes of computing density shall be considered as a one (1) room unit.
- (3) **One (1) Bedroom Unit.** A dwelling unit containing a minimum net floor area of at least four hundred fifty (450) square feet per unit, consisting of not more than three (3) rooms, in addition to kitchen and necessary sanitary facilities, and for the purposes of computing density shall be considered as a three (3) room unit.
- (4) **Two (2) Bedroom Unit.** A dwelling unit containing a minimum net floor area of at least seven hundred fifty (750) square feet per unit, consisting of not more than four (4) rooms, in addition to kitchen and necessary sanitary facilities, and for the purposes of computing density shall be considered as a four (4) room unit.

- (5) **Three (3) or More Bedroom Unit.** A dwelling unit wherein for each room in addition to the four (4) rooms permitted in a two (2) bedroom unit, there shall be provided an additional area of three hundred (300) square feet to the minimum net floor area of seven hundred fifty (750) square feet. For the purpose of computing density, said three (3) bedroom unit shall be considered as a five (5) room unit and for each increase in a bedroom over three (3) there shall be an increase in the room count by one (1) over the five (5).

Section 6.05 Automobile Sales and Rental and Mobile Home Sales.

New and used car lots and showrooms, new or used mobile home sales and automobile rental facilities (including repair and service facilities only when owned and operated in conjunction therewith by the same proprietor and located on the same property), provided that:

- (1) **Districts Permitted.** The following standards apply in the C-2 District as a waiver use and in the C-3 District as a permitted use.
- (2) **Minimum Lot Size and Lot Width.** Automobile sales and rental and mobile home sales shall be located on a parcel of land containing no less than one-half (½) acre and having a width of at least one hundred (100) feet at the front lot line.
- (3) **Parking Setback.** No vehicles shall be parked within twenty (20) feet from the front lot line or at the side lot line adjacent to the street.
- (4) **Lighting.** All exterior lighting, including illuminated signs, shall be erected and hooded or shielded so as to be deflected away from the adjacent or neighboring residential property.
- (5) **Number of Vehicles.** The total number of vehicles proposed to be displayed or stored shall be subject to recommendation by the Planning Commission and approval by the City Council.
- (6) **Access.** Automobile sales and rental and mobile home sales shall have direct access to a major thoroughfare having an existing or proposed right-of-way width of one hundred twenty (120) feet or more as designated on the Future Transportation Map.
- (7) **Outdoor Storage.** Outdoor storage of disabled, damaged, or unlicensed vehicles is prohibited.

Section 6.06 Automobile Repair (Up to One (1) Ton GVWR).

Automobile and light truck (one (1) ton gross vehicle weight) repair such as motor and electrical tune-up; replacement of shock absorbers, brakes, mufflers, exhaust and tailpipes; transmissions; and other similar repairs subject to the following:

- (1) **Districts Permitted.** The following standards apply in the C-2 District as a waiver use and in the C-3 District as a permitted use.
- (2) **Repair Work.** All repair work must be carried out within an enclosed building.
- (3) **Light Truck Repair.** Automobile and light truck repair shall not permit such repairs as bumping, painting, spraying or rustproofing.
- (4) **Number of Vehicles.** The total number of vehicles proposed to be stored shall be subject to recommendation by the Planning Commission and approved by the City Council.

- (5) **Access.** Automobile Repair shops shall have direct access to a major thoroughfare having an existing or proposed right-of-way width of one hundred twenty (120) feet or more as designated on the Future Transportation Map.
- (6) **Outdoor Storage.** Outdoor storage of disabled, damaged, or unlicensed vehicles is prohibited.

Section 6.07 Auto-Wash Establishments.

Auto-wash establishments and auto-wash establishments operated with accessory gasoline pumps, provided that:

- (1) **Districts Permitted.** The following standards apply in the C-2 District as a waiver use and in the C-3 District as a permitted use.
- (2) **Enclosure.** All washing facilities (except steaming) are to be enclosed within a building.
- (3) **Side Yard Setback.** The building is situated no closer than thirty-five (35) feet from one side property line.
- (4) **Parking Lot Layout.** The building and off-street parking (waiting) areas shall be so located and arranged so that motor vehicles shall not park upon or overhang any public sidewalk, street, or right-of-way.
- (5) **Location.** Auto-wash Establishments shall not be located nearer than one hundred fifty (150) feet as measured from any point on the property to any point on the property of any church, public or parochial school, or playground.
- (6) **Minimum Lot Size and Lot Width.** Auto-wash establishments shall be located on a parcel of land containing at least eight thousand (8,000) square feet and having a width of at least one hundred (100) feet at the front property line.
- (7) **Screening.** Where such a use adjoins any property located in any residential district or is separated from such property by a public alley, a protective wall shall be erected and maintained as provided in [Article X](#) of this Ordinance.
- (8) **Lighting.** All exterior lighting, including illuminated signs, shall be erected and hooded or shielded so as to be deflected away from any adjacent or neighboring residential property.
- (9) **Access.** Ingress and egress shall be available from a public street having a right-of-way width of at least one hundred twenty (120) feet or more as indicated on the Future Transportation Map.

Section 6.08 Bed and Breakfast Establishments.

Bed and breakfast establishments provided that:

- (1) **Districts Permitted.** The following standards apply in the N1, N2, RUF, and NM1 Districts as a waiver use and in the C-1, C-2, C-3, and C-4 as a permitted use.
- (2) **Minimum Lot Size and Lot Width.** Bed and Breakfast Establishments shall be located on a lot or parcel of no less than one-half (½) acre in area or in a residential structure containing no less than two thousand (2,000) square feet of living space.

- (3) **Parking Setbacks.** Off-street parking shall be provided in the rear or side yard, behind the front building setback line. For parcels abutting an exterior side street, parking shall not be closer to the street than the principal structure.
- (4) **Site Features.** Such parking lot shall be improved with a minimum of four (4) inches of concrete or plant mixed asphalt. Natural screening by use of plant material or other screening by use of fencing shall be utilized to screen parking areas from adjoining residential properties.
- (5) **Access.** Bed and breakfast establishments shall have direct access to a public street having an existing or planned width of at least eighty-six (86) feet or more as designated on the Future Transportation Map.
- (6) **Ownership.** Such establishments shall be run by persons who own and occupy the premises for residential purposes.
- (7) **Bedrooms.** Not more than six (6) bedrooms in the bed and breakfast establishment shall be used for bed and breakfast sleeping rooms. No more than four (4) occupants per room shall be allowed. There shall be no cooking facilities for use by the occupants of the bed and breakfast sleeping rooms.
- (8) **Accessory Structures.** No accessory buildings shall be used for bed and breakfast sleeping rooms unless they were originally constructed to accommodate housing use. No garage shall be used for bed and breakfast sleeping rooms.
- (9) **Signs.** One (1) sign identifying the bed and breakfast establishment shall be permitted if such sign complies with the requirements of Section 11.08 Section 11.08(1) of this Ordinance.
- (10) **Maximum Stay.** Guest occupancy shall be no longer than fourteen (14) consecutive days.
- (11) **Restrooms.** Lavatory and bathing facilities shall be available for all persons utilizing the bed and breakfast establishment.
- (12) **Safety.** The dwelling to be used as a bed and breakfast establishment shall have at least two (2) usable exits. A fire escape plan shall be developed and graphically displayed in each guest room. A smoke detector in proper working order shall be placed in every sleeping room and a fire extinguisher in proper working order shall be placed on every floor. The site shall be reviewed by the Fire Marshall pursuant to the standards contained in the Fire Prevention Code as to the necessity for fire lanes.
- (13) **Compliance.** All bed and breakfast establishments shall be required to obtain a business license under Chapter 5.42 of the Livonia Code of Ordinances and shall not conduct operations until such license has been obtained pursuant to that chapter. Such establishments shall comply with all applicable local, county, state, and federal ordinances, laws, rules, regulations, and codes. All bed and breakfast operations shall submit to annual inspections by the Building and Fire Departments. Renewal of a business license shall be contingent upon compliance with applicable codes, as verified by such inspectors.

Section 6.09 Brewer, Micro Brewer, Brewpub, and Distilleries.

- (1) **Districts Permitted.** The following standards apply in the C-1, C-2, and C-4 Districts as a waiver use and in the P-L, C-3, M-L, M-1, and M-2 District as a permitted use.
- (2) **Location.**

- A) Brewers, micro brewers, brewpubs, and distilleries shall not be located within one thousand (1,000) feet of any other such licensed establishment as measured from the actual premises being used or proposed for use of the respective properties; provided, however, that with respect to those licensed establishments which are utilized primarily as restaurants or for dining facilities, the foregoing one thousand (1,000) foot requirement may be waived by the City Council.
 - B) Such proposed licensed establishment shall be located at least four-hundred (400) feet distant from any church or school building, either public or parochial, as measured from the nearest point on the building proposed to be licensed to the existing church or school building.
- (3) **Compliance.** Brewers, micro brewers, brewpubs, and distilleries shall comply in every respect with the Michigan Liquor Control Act.
- (4) In M-L, M-1, and M-2 Districts, waiver use approval shall be required for on-site consumption except from a hospitality room located on the premises for sampling by consumers as provided in the Michigan Liquor Control Act which provisions are made a part hereof and incorporated herein by reference, and further provided, no Brewer, Micro Brewer, Brewpub, or Distillery shall be located less than 250 feet from the nearest point on the boundary of a residential district.

Section 6.10 Caregiver Grow Facilities

- (1) Such use shall not be located within four hundred (400) feet of any residential district, place of worship, municipal or private park, public or private school or daycare facility, or public or private indoor recreational uses permitted pursuant to [Section 6.32](#), as measured from the nearest point on the building within which the caregiver grow facility is operating and the property line of any of the uses.
- (2) Such use shall be limited to buildings in which there are no other uses other than caregiver grow facilities.
- (3) Such proposed Caregiver Grow Facility shall be located at least one thousand (1,000) feet distant from any existing Caregiver Grow Facility as measured from the nearest point on the building proposed to be occupied to the building in which the existing Caregiver Grow Facility is located.

Section 6.11 Child Care, Family Home.

- (1) **Districts Permitted.** The following standards apply in the N1, N2, and RUF Districts as a waiver use.
- (2) **Compliance.** The owner or occupant of said residence is a licensee in good standing with the State of Michigan pursuant to PA 1973, No. 116, MCL 722.111, et seq, as amended. All health and safety requirements established by the State of Michigan shall be met.
- (3) **Ownership.** The owner or occupant of said residence has registered with the City Clerk. The facility must be the principal residence of the provider.
- (4) **Drop-off/ Pickup Area.** A drop-off/pickup area shall be provided where the residence is located on a major thoroughfare as defined in this Ordinance in order to prevent vehicles from backing onto the roadway.
- (5) **Operating Hours.** There shall be no dropping off or picking up of children between the hours of 10:00 p.m. and 6:00 a.m.

- (6) **Exterior Alterations.** No structural changes or exterior alterations shall be made which would alter the residential character of the dwelling except for those necessary to comply with the State of Michigan licensing rules applicable to family day care homes.
- (7) **Outdoor Recreation.** Family day care homes shall provide and maintain an outdoor play space as required by the State of Michigan.
- (8) **Noise.** Use will comply with all noise standards and other provisions contained in [Section 8.01](#).
- (9) **Signs.** No sign shall be used on the premises.
- (10) **Safety.** All family day care homes shall be registered with the 911 dispatch center and the City of Livonia Public Safety Department.
- (11) **Location.** No new family day care home shall operate within one thousand (1,000) feet from any existing registered family day care home or group day care home, as measured from the nearest property line of the proposed use to the nearest property line of the existing registered use.

Section 6.12 Child Care, Group Home.

- (1) **Districts Permitted.** The following standards apply in the N1, N2, and RUF Districts as a conditional use.
- (2) **Compliance.** The owner or occupant of said residence currently operating as a group day care home is a licensee and has continuously remained a licensee in good standing with the State of Michigan pursuant to 1973 PA 116, as amended, since prior to November 14, 1999.
- (3) **Previously Existing Group Homes.** Group day care homes not licensed and operating prior to November 14, 1999 in residential zones shall meet all of the following:
 - A) The owner or occupant of said residence shall be a licensee and continuously remain a licensee in good standing with the State of Michigan pursuant to 1973 PA 116, as amended.
 - B) The group day care home shall not operate within a distance of one thousand (1,000) feet from any existing registered family day care home or group day care home, as measured from the nearest property line of the proposed use to the nearest property line of the existing registered use.
 - C) The owner or operator has registered with the City Clerk.
 - D) The facility is the principal residence of the provider.
 - E) Group day care homes shall not result in traffic congestion or hazardous traffic conditions.
 - F) A drop-off/pickup area shall be provided if the residence is located on a major thoroughfare as defined in this Ordinance in order to prevent vehicles from backing onto the roadway.
 - G) The use shall not involve an increase in on-street parking by more than two (2) additional vehicles at a time.
 - H) All health and safety requirements of the State of Michigan shall be met.
 - I) There shall be no dropping off or picking up of children between the hours of 10:00 p.m. and 6:00 a.m.
 - J) No structural changes or exterior alterations shall be made which would alter the residential character of the dwelling except as required by the State of Michigan licensing rules.
 - K) Group day care homes shall provide and maintain an outdoor play space meeting the minimum requirements of the State of Michigan.

- L) The residence shall have appropriate fencing which shall encompass the entire outdoor play space, unless same is prohibited by recorded private homeowner's restrictions/bylaws, or, in the alternative, relief from this requirement may be sought upon appeal to the Board of Appeals.
- M) The use shall comply with all noise standards and other provisions contained in *Article VIII* of this Ordinance.
- N) No sign shall be used on the premises.
- O) All group day care homes shall be registered with the 911 dispatch center and the City of Livonia Public Safety Department.

Section 6.13 Day Care Nurseries.

- (1) **Districts Permitted.** The following standards apply in the NM2 and C-1 Districts as a waiver use and in the C-2, C-3, and C-4 Districts as a permitted use.
- (2) **General Requirements.** Day care nurseries if situated on a parcel of land at least ten thousand (10,000) square feet in area and abutting a street or thoroughfare which has an existing or planned width of eighty-six (86) feet or more as indicated on the Future Transportation Map , and further provided that there is provided and maintained a minimum of five thousand (5,000) square feet of outdoor play area; and further provided that buildings erected on the premises are in harmony with the adjacent buildings in the area; and further provided that appropriate fencing of at least five (5) feet in height encompass the entire outdoor play area. Any use permitted herein shall not be permitted in the interior of any residential block.

Section 6.14 Dance Halls and Ballrooms.

- (1) **Districts Permitted.** The following standards apply in the C-2 District as a waiver use and in the C-3 District as a permitted use.
- (2) **Residential Setback.** Dance halls and ballrooms, provided that such use shall not be located within three hundred (300) feet of any residential district or property used for church purposes as measured from any point on the property to be so used.

Section 6.15 Reserved.

Section 6.16 Dwelling, Condominium.

- (1) **Districts Permitted.** The following standards apply in the NM1, NM2, and NM3 Districts as a permitted use.
- (2) **Minimum Size.** The minimum size of condominium dwellings within the City, unless otherwise established and shown on the Zoning Map, shall be as follows:

One Bedroom unit	800 sq. feet
Two Bedroom unit	1000 sq. feet
Three Bedroom unit	1200 sq. feet

Section 6.17 Dwelling, Mobile Homes and Modular Homes.

The placement of a mobile home or a modular home, as defined in [Section 2.01](#), [Section 2.01\(7\)](#) of this Ordinance, on any lot or parcel in N-1, N-2, N-3, and NM1 districts shall comply with all the requirements and standards contained in such districts relating to one-family dwellings including, but not limited to, lot size, building setback and land coverage limitations and, in addition, shall comply with the requirements and standards set forth in [Section 6.19](#) of this Ordinance relating to one-family dwelling size; provided, however, that said mobile home or modular home shall comply with the following additional standards:

- (1) **Structure Width.** Every mobile home or modular home shall have a minimum width across any main section of twenty (20) feet.
- (2) **Attachment to Permanent Foundation.** Every mobile home or modular home shall be attached to a permanent foundation co-extensive with the perimeter of the building, which foundation shall be approved by the Inspection Department.
- (3) **Public Utilities.** Every mobile home or modular home shall be connected to a public sanitary sewer, storm sewer, and water system.
- (4) **Visual Appearance.** Such mobile home, when in place, shall not have exposed wheels, towing mechanisms, undercarriage, or chassis. The mobile home or modular home shall contain no additions or rooms or other areas which are not constructed with similar materials and which are not similar in appearance and which shall have similar quality of workmanship as the original structure, including the above described foundation and permanent attachment to the principal structure.
- (5) **Site Features.** Every mobile home and modular home shall be aesthetically compatible in design and appearance with other residences in the vicinity, with either a roof overhang of not less than six (6) inches on all sides, or alternatively, with window sills and roof drainage systems concentrating roof drainage along the sides of the dwelling; with not less than two (2) exterior doors with one being in the front of the dwelling and the other being in either the rear or side of the dwelling, containing permanently attached steps connected to said exterior door areas where a difference in elevation requires the same. The foregoing shall not be construed to prohibit innovative design concepts involving such matters as solar energy, view, unique land contour, or relief from the common or standard designed home.
- (6) **Compliance.** Every mobile home or modular home shall comply with all pertinent City building and fire codes as well as, in the case of mobile homes, state and federal standards for mobile home construction. The foregoing standards shall not apply to a mobile home located in a licensed mobile home park except to the extent required by state or federal law or otherwise specifically required in any ordinance of the City of Livonia pertaining to such parks.

Section 6.18 Dwelling, Multi-Family and Apartments.

- (1) **Districts Permitted.** The following standards apply in the NM2 District as a permitted use.
- (2) **Common Recreation Area.** In the case of multiple family projects comprising two (2) or more acres, there shall be provided a common recreation area equal to at least twenty-five (25) square feet per dwelling unit in the development with a minimum of twelve hundred (1,200) square feet. Such recreation area shall be designated and oriented to fit the needs of all tenants and may contain facilities such as but not limited to community buildings, swimming pools, tennis courts, and putting greens.

Section 6.19 Dwelling, Single-Family.

- (1) **Districts Permitted.** The following standards apply in the N1, N2, RUF, NM1, and NM2 Districts as a permitted use.
- (2) **Requirements in Multifamily Zones.** In NM1 and NM2 Districts, one-family dwellings shall be subject to all of the regulations that apply in the N1 Neighborhood District, including the regulations pertaining to lot size and yard requirements.
- (3) **Minimum Size.** The minimum size of one-family dwellings within the City, unless otherwise established and shown on the Zoning Map, shall be as follows:

Dwelling Design		Minimum Size Required (sq. ft.)
One (1) Story Plan		1,000
One and One-half (1-1/2) Story Plan	Ground Floor	800
	Aggregate	1,100
Two (2) Story Plan	Ground Floor	624
	Aggregate	1,200

Section 6.20 Dwelling, Two-Family.

- (1) **Districts Permitted.** The following standards apply in the NM1 and NM2 Districts as a permitted use.
- (2) **Requirements in Multifamily Zones.** In NM1 and NM2 Districts, two-family dwellings shall be subject to all of the regulations that apply in the N2 Neighborhood District, including the regulations pertaining to lot size and yard requirements.
- (3) **Minimum Size of Two-Family Dwellings.** The minimum size of two-family dwellings is hereby fixed as follows: Each living unit shall have not less than eight hundred (800) square feet of usable floor area, all on one floor, which shall not include common hall space or utility room space; provided, however, that where a living unit occupies more than one (1) floor, the aggregate usable floor area for the entire unit shall not be less than one thousand (1,000) square feet.

Section 6.21 Essential Services.

Essential services shall be permitted as authorized and regulated by law and other ordinances, it being the intention hereof to exempt such essential services from the application of this Ordinance.

Section 6.22 Establishments Having Liquor Licenses Such as Class C, Tavern, and Club.

- (1) **Districts Permitted.** The following standards apply in the C-1, C-2, and C-4 Districts as a waiver use and in the C-3 and P-L Districts as a permitted use.

(2) Location.

- A) Establishments having liquor licenses such as Class C, tavern, club, and small distiller shall not be located within one thousand (1,000) feet of any other such licensed establishment as measured from the actual premises being used or proposed for use of the respective properties; provided, however, that with respect to those licensed establishments which are utilized primarily as restaurants or for dining facilities, the foregoing one thousand (1,000) foot requirement may be waived by the City Council.
- B) Such proposed licensed establishment shall be located at least four-hundred (400) feet distant from any church or school building, either public or parochial, as measured from the nearest point on the building proposed to be licensed to the existing church or school building.

(3) Compliance. Establishments having liquor licenses such as Class C, tavern, club, and small distiller shall comply in every respect with the Michigan Liquor Control Act.

Section 6.23 Facilities for the Detention, Incarceration, Commitment, and/or Rehabilitation of Adults or Minor Children and Psychiatric Hospitals.

Licensed and certified publicly or privately-owned facilities for the detention, incarceration, commitment, and/or rehabilitation of adults or minor children and psychiatric hospitals provided that:

- (1) Districts Permitted.** The following standards apply in the P-L District as a waiver use.
- (2) Minimum Lot Size.** Facilities for the detention, incarceration, commitment, and/or rehabilitation of adults or minor children and psychiatric hospitals shall be located on a parcel of land consisting of at least twenty-five (25) acres in area.
- (3) Access.** Access to the site shall be directly from a major thoroughfare having an existing right-of-way width of one hundred twenty (120) feet or more.
- (4) Fencing.** Facilities for the detention, incarceration, commitment, and/or rehabilitation of adults or minor children and psychiatric hospitals shall be completely enclosed with security fencing at least eight (8) feet in height; provided, however, that such fence shall be located no closer than twenty (20) feet from any side or rear lot line and no closer than eighty (80) feet from the front property line. In addition, perimeter fencing not to exceed four (4) feet in height may be provided in the front yard forward of the building; provided, however, that in all cases the fencing shall be exclusive of the minimum front yard setback requirement.
- (5) Surveillance.** Such use shall have twenty-four (24) hour supervision and surveillance on site by experienced professional personnel in sufficient numbers as to ensure the security of the institution and surrounding properties as well as the safety of the general public.
- (6) Location.**
 - A) Facilities for the detention, incarceration, commitment, and/or rehabilitation of adults or minor children and psychiatric hospitals shall be separated from any school, playground, park, or church by a distance of at least one thousand (1,000) feet as measured from any point on the respective property lines.
 - B) Facilities for the detention, incarceration, commitment, and/or rehabilitation of adults or minor children and psychiatric hospitals shall be located no closer than five hundred (500) feet from the intersection of two (2) major thoroughfares.

- C) Facilities for the detention, incarceration, commitment, and/or rehabilitation of adults or minor children and psychiatric hospitals shall be separated from any residential zoning district by a distance of at least five hundred (500) feet as measured from any point on the subject property to any point on the residential district line; provided, however, that the foregoing five hundred (500) foot restriction may be waived by the City Council.
- (7) **Setbacks.** The minimum distance of any main or accessory building from boundary property lines shall be at least one hundred (100) feet for front, rear and side yards.
- (8) **Off-street Parking.** Off-street parking shall comply with standards as set forth in [Section 9.03](#) of this Ordinance and shall be provided in an amount equal to one (1) space for each employee, including administrators, plus visitor parking spaces equal to fifty (50) percent of the number of individuals being served by the facility.

Section 6.24 Garages, Repair Shops, Rustproofing and Similar Highway Services.

Garages, repair shops, rustproofing, and similar highway services, provided that:

- (1) **Districts Permitted.** The following standards apply in the M-1 District as a waiver use and in the M-2 District as a permitted use.
- (2) **Required Fencing.** Except for the front yard setback, the lot area shall be enclosed with a fence of a type approved by the City Council which shall be located and maintained on the boundaries of such lot area, with only such openings therein as may be necessary for ingress and egress; provided, however, that in the case of a corner lot such fence shall be located on the side yard setback line abutting a public or private thoroughfare.

Section 6.25 Gardening and Tree Nurseries.

- (1) **Districts Permitted.** The following standards apply in the N1, N2, RUF, C-2, C-3, and C-4 Districts as a permitted use.
- (2) **Sale of Nursery Stock.** The sale of nursery stock and greenhouse product is permitted in the RUF, C-2, C-3, and C-4 Districts but prohibited in the N1 and N2 District.

Section 6.26 Gasoline Service Station.

In order to regulate and control the problems of noise, odor, light, fumes, dust, danger of fire and explosion, and traffic congestion which is likely to result from the unrestricted and unregulated construction and operation of gasoline service stations, and to avoid, if possible, and control the adverse effects which these factors and other characteristics incident to the gasoline service station may have upon adjacent and surrounding land and uses, the following special requirements and regulations governing the erection of gasoline service stations are hereby established:

- (1) **Districts Permitted.** The following standards apply in the C-2 District as a waiver use and in the C-3 District as a permitted use.
- (2) **Minimum Lot Area and Lot Width.** Gasoline service stations shall always be located on a plot of ground with frontage along a commercial street of not less than one hundred fifty (150) feet and which shall have a minimum area of not less than twenty-two thousand five hundred (22,500) square feet.

- (3) **Setbacks.** Gasoline service stations shall provide a setback (area between the adjacent road right-of-way line(s) and the building line) of sixty (60) feet from any road with a right-of-way width of one hundred twenty (120) feet or more and/or any freeway service drive as designated on the Future Transportation Map and at least one side yard of not less than twenty (20) feet. The area within the setback and side yards shall not be used for vehicular storage or for any other service facilities.
- (4) **Maximum Height.** Gasoline service stations including any part of the façade, shall not exceed thirty-five (35) feet in height; provided, however, that canopies shall not exceed eighteen (18) feet in height.
- (5) **Access.** Gasoline service stations when located on a corner lot shall provide vehicular entrances or exits (curb cuts) no less than a minimum of twenty-five (25) feet from the intersection of the property lines parallel to the two (2) streets pavement. All curb openings whether on a corner lot or not shall not exceed thirty-five (35) feet in width at the curb. There shall always be a minimum of thirty (30) feet measured along the property line between any series of driveways. On corner lots, no driveway from a side street shall be less than fifteen (15) feet from rear property line as measured along the side street property line. Curbs shall be provided to prevent ingress or egress except at the required locations.
- (6) **Enclosure.** All lubrication equipment, motor vehicle equipment, hydraulic hoists, and pits shall be enclosed entirely within the building. All gasoline pumps shall be located not less than twenty (20) feet from any lot line and shall be arranged so that motor vehicles shall not be supplied with gasoline or serviced while parked upon or overhanging any public sidewalk, street or right-of-way.
- (7) **Screening.** Where a gasoline service station use adjoins any property located in any residential district or is separated from such property by a public alley, a protective wall shall be erected and maintained as provided in [Article X](#) of this Ordinance.
- (8) **Lighting.** All exterior lighting on the property, including illuminated signs, shall be erected and hooded, shielded and recessed so as to be deflected away from any adjacent or neighboring residential property.
- (9) **Outdoor Storage.** Outdoor storage of disabled, abandoned, junked, wrecked, and/or unlicensed vehicles is prohibited. Outdoor storage of rubbish and junked equipment or parts is prohibited unless such rubbish, junked equipment, or parts are stored adjacent and to the rear of the principal building and are enclosed by a masonry wall. When such a wall is provided, rubbish, junked equipment, or parts shall not be stored at a height exceeding the height of the wall; provided, further, that such rubbish and junked equipment or parts shall be removed from the property at least once every week.
- (10) **Parking.**
 - A) No part of any parcel of land used for gasoline service station purposes shall be utilized for outdoor storage, placement, or display of merchandise; provided, however, that the foregoing prohibition shall not apply to the display, on a pump island only, of oil or oil-based products including, by way of example, but not limitation, motor oil, transmission oil, oil and gasoline additives, windshield solvent, and windshield wipers.
 - B) No more than one (1) tow truck may be parked in the front or side yard abutting a street.
 - C) Outside parking or storage of recreational equipment, or commercial vehicles or automobiles which are not used in the operation of the business is prohibited; provided, however, that such prohibition shall not apply to any equipment or vehicle which is temporarily on the premises for repair or service and which is stored or parked in a designated parking space; and provided, further, that no such equipment or vehicle shall be parked within one hundred (100) feet of the intersection of the property lines of two (2) intersecting public streets.
- (11) **Free Air.** Free air shall be provided at all times station is open for business. The free air shall be dispensed at the point of service without having to enter the station or the performance of any extra action in order to obtain the air without charge.

- (12) **Compliance.** Gasoline service stations must meet all the requirements of the Police and Fire Departments. The petitioner shall receive written approval by the Police and Fire Departments before the City Council can validly consider this use within a multi-story structure.
- (13) **Signs.** Gasoline service stations only may display the following type, size, and number of signs which are deemed customary and necessary to their respective business:
- A) One (1) ground sign per development site not to exceed a maximum area of forty (40) square feet at a maximum height above grade not to exceed twelve (12) feet and a minimum setback of five (5) feet from any right-of-way line.
 - B) Wall signs and all window signage, including those signs attached to the service buildings or to the canopy fascia, shall not in sum total exceed two (2) square feet in area for each one (1) lineal foot of building frontage with a maximum total area of one hundred (100) square feet.
 - C) Customary lettering or other insignia on a gasoline pump consisting of the brand of gasoline sold, lead warning information, and any other data not exceeding a total of three (3) square feet on each pump.

Section 6.27 Heliports.

No land, water, or building in the City of Livonia shall be used as a location for landing, take-off, storage, servicing, or fueling of any helicopter until the following standards have been adhered to:

- (1) **Districts Permitted.** The following standards apply in P-L as a permitted use and in the C-4, ML, M-1, and M-2 as a waiver use.
- (2) **Compliance.** The proposed heliport shall be constructed, operated, and maintained in accordance with the published rules and regulations of the Federal Aviation Administration (FAA), Michigan Aeronautics Commission, and the National Fire Protection Association governing the use of heliports.
- (3) **Required Application.** Each application for a heliport shall include:
 - A) A copy of the Federal Aviation Administration Form #7480, "Notice of Landing Area Approval".
 - B) A copy of a letter of "No Objection" from the FAA.
 - C) A copy of an approved State of Michigan Aeronautics Commission application for licensing.
 - D) An aerial photograph of a scale no less than one (1) inch equals four hundred (400) feet indicating the approach and departure routes, the location of all residences, schools, churches, hospitals and areas used for the open assembly of people as well as other noise sensitive areas within a radius of one-half (½) mile of the proposed heliport site.
 - E) A statement of property ownership or authorization of owner for property proposed to be used as a heliport.
 - F) A description of the purpose for which the heliport is being established and a schedule of proposed activities including:
 - i) Number of monthly operations.
 - ii) Hours of operation.
 - iii) Support activities such as storage, maintenance, and refueling.
 - G) A site plan which shall contain the following information:
 - i) The location, nature, and height of proposed security fences, berms, landscaping, and other security and noise attenuation structures.

- ii) The location and type of firefighting equipment and materials.
- iii) The location and type of fuel storage facilities.
- iv) The location of all existing and proposed buildings.
- v) The location of all helicopter landing and take-off areas; parking areas; and the method of surface preparation or stabilization.
- H) A certificate of structural compliance attested to by registered professional engineer or architect shall be furnished with each application for a roof-top or other elevated heliport.
- I) An environmental report showing the expected noise levels and possible odors, fumes, and dust that may be caused by the operations of the heliport.
- J) Approval of the City of Livonia Department of Public Safety, Division of Fire, for the installation and location of firefighting equipment and materials; and the installation and location and method of use for refueling equipment and procedures.
- K) Approval of the City of Livonia Department of Public Safety, Division of Police, as to the location of a temporary heliport and the effect of the proposed operation on the safety and well-being of the public.

Section 6.28 Home Occupations.

Home occupations, except where specifically prohibited, shall be permitted where incidental to residential use and meeting all the following criteria:

- (1) **Districts Permitted.** The following standards apply in the in the N1, N2, RUF, NM1, NM2, and NM3 Districts as a permitted use.
- (2) **Usable Floor Area.** The activity is conducted entirely within a completely enclosed dwelling unit and entails neither the use of more than 20% of the usable floor area of that dwelling unit nor any garage (detached or attached) or other building or structure accessory to the principal building.
- (3) **Nuisances.** The activity does not generate any noise, vibrations, smoke, dust, heat, glare, or interference with radio or television reception in the area that would exceed that normally produced by a dwelling unit in a residential district.
- (4) **Advertisement.** The activity does not entail any advertising, display, or other indications of a home occupation, business, professional, trade, or occupational use of the property, except as permitted by [Section 11.08](#) of this Ordinance.
- (5) **Outdoor Storage.** There is no outdoor display or storage of materials, goods, supplies, or equipment.
- (6) **Deliveries.** There are no deliveries from commercial suppliers by any vehicle that exceeds Class 5 in the Federal Highway Administration classification system, and all deliveries are made between 9:00 a.m. and 5:00 p.m. on weekdays, provided further that such deliveries shall not restrict traffic circulation or occur so frequently as to interfere with the quiet character of the residential neighborhood.
- (7) **Operating Hours.** No clients, patrons, salespersons, or other commercial invitees visit the premises except between the hours of 8:00 a.m. and 9:00 p.m., and no more than ten (10) vehicles visit the premises during that period, with no more than two (2) vehicles visiting at one time; provided further, that massage establishments, as defined in [Section 2.01](#), [Section 2.01\(8\)](#) of this Ordinance, shall be strictly prohibited in all N1 districts, as permitted or waiver uses.

- (8) **Prohibited Use.** The activity does not entail large-scale manufacturing or assembly; warehousing or distribution; or sales or rentals of any article or service except such as is produced by such occupation.
- (9) **External Alterations.** The activity does not require any internal or external alteration, construction feature, equipment, or machinery which is not customary in residential areas.
- (10) **Employment.** The activity does not entail employment of more than one person other than members of the resident family.
- (11) **Safety.** If chemical and/or toxic-based materials will be utilized in connection with said home occupation, the owner or occupant of the property shall register same with the Building Official, the Fire Department and the Livonia Emergency Planning Committee prior to use of the residence for said home occupation in order to ensure compliance with all local, state, and federal environmental regulations.

Section 6.29 Hospitals.

Hospitals are subject to the following regulations:

- (1) **Districts Permitted.** The following standards apply in the C-1, C-2, and C-4 Districts as a waiver use and in the C-3 and P-L District as a permitted use.
- (2) **Minimum Lot Size.** All such hospitals shall be developed on sites consisting of at least five (5) acres in area. Provided that there is a minimum of fifteen hundred (1,500) square feet of lot area per bed.
- (3) **Access.** Ingress and egress shall be available from public street having an existing or planned right-of-way width of at least eighty-six (86) feet as shown on the Future Transportation Map. All ingress to and egress from the off-street parking areas for guests, employees, staff, as well as any other users of the facility, shall be directly from a major thoroughfare.
- (4) **Setbacks.** The minimum distance of any main or accessory building from bounding lot lines or streets shall be at least one hundred (100) feet for front, rear, and side yards for all two (2) story structures. For every story above two (2), the minimum yard distance shall be increased twenty (20) feet.
- (5) **Screening.** Ambulance and delivery areas shall be obscured from all residential view with an obscuring wall or fence not less than six (6) feet in height.

Section 6.30 Hotels.

- (1) **Districts Permitted.** The following standards apply in the C-2, C-3, and C-4 Districts as a permitted use.
- (2) **Number of Dwelling Units.** Any building containing primarily rooming units with the number of dwelling units being not greater than ten percent (10%) of the total number of rooming units and, with the exception of the unit occupied by the management staff, used only for the accommodation of transients.
- (3) **Signs.** Hotels having a minimum of two hundred (200) feet of property bordering on I-275 or I-96 right-of-ways may display additional wall signs on the basis of one (1) square foot of sign area in sum total for each one (1) lineal foot of building frontage facing I-275 or I-96. Wall signs exceeding thirty (30) square feet of sign area each shall consist exclusively of individually fabricated letters or symbols attached individually and flatly to the building.

Section 6.31 Housing for the Elderly.

- (1) **Districts Permitted.** The following standards apply in the NM3 and P-L Districts as a permitted use.
- (2) **General Standards.** A building or group of buildings which provides housing, and as to which at least eighty percent (80%) of the occupied units are rented to at least one (1) person who is fifty-five (55) years of age or older, and which otherwise meets the requirements of 42 USC 3607(b)(2). This may include any of the following: independent elderly housing, senior assisted living facilities, congregate elderly housing, and nursing homes; but shall not include hospitals, hotels, motels, tourist homes, rooming homes, condominiums, or site condominiums.

Section 6.32 Indoor Recreational Uses.

- (1) **Districts Permitted.** The following standards apply in the M-1 District as a waiver use and in the C-2, C-3, and C-4 Districts as a permitted use.
- (2) **Nature of Use.** Due to the nature of the use or its unique characteristics (e.g., requirement for higher ceilings), indoor recreational uses may be better suited or compatible in an industrial setting, including, but not limited to, gymnastics training facilities, martial arts and cheerleading schools, soccer facilities, tennis courts, racquetball and handball courts, baseball and softball practice areas, and archery ranges, provided that all parking and ingress/egress to the facility shall be designed so as not to interfere with industrial traffic in the area. In an M-1 District, such uses shall not include health and fitness clubs, swimming pools, bowling alleys, or billiard parlors and poolrooms.
 - A) **Skating Rinks.** Skating Rinks, ice or roller are permitted by right in the C-2 and C-3 and prohibited in the M-1 District, provided that such use shall not be located within five hundred (500) feet of any Class C licensed establishment as measured from any point on the respective properties.
 - B) **Theaters.** Enclosed theaters (not including drive-in theaters) are permitted by right in the C-2 and C-3 Districts and prohibited in the M-1 District. Such use must be carried on in a building properly designed and suitable for theater use and when such building is located on a parcel of land five (5) acres or more in size; provided further, that the parcel of land on which the theater building is located shall have direct access by means of at least two (2) separate entrances and exits to a major thoroughfare having an existing or planned width of one hundred twenty (120) feet or more as designated on the Future Transportation Map of the City of Livonia.

Section 6.33 Internet-based Exotic Vehicle Sales

- (1) **Districts Permitted.** The following standards apply in the M-1 and M-2 Districts as a permitted use.
- (2) **Parking and Storage of All Vehicles.** No vehicles or parts thereof are displayed or stored outdoors, and that none of the vehicles stored or offered for sale within building(s) are visible from the surrounding streets or public places.
- (3) **No Advertising.** The site offers no advertising of vehicle sales/storage which is visible from the surrounding streets or public places
- (4) **No Repair Services.** There is no repair or reconditioning of vehicles on the premises.
- (5) **Operating Hours.** Hours of operation do not include any time on Saturday, Sunday, or holidays, nor after 6:00 p.m. on weekdays, except by appointment.

- (6) **Inspections.** All facilities for Internet-based Exotic Vehicle Sales shall be subject to annual inspection by the Department of Inspection.

Section 6.34 Keeping of Animals (Fowl, Rabbits, Horses, Cows, etc.).

- (1) **Districts Permitted.** The following standards apply in the RUF Districts as a permitted use.
- (2) **Minimum Lot Size.** Fowl and rabbits may be raised and kept for the owner's consumption only on one-half (½) acre or more; two (2) horses may be kept for the owner's use only on one (1) acre or more; two (2) horses and one (1) cow or three (3) horses may be kept for the owner's use only on two (2) acres or more. The raising of livestock shall conform to the Generally Accepted Agricultural and Management Practices (GAAMP) for the Care of Farm Animals.
- (3) **Fowl and Rabbits Raised for Sale.** Fowl and rabbits may be raised for sale on parcels five (5) acres or more in size if such animals are properly housed, maintained, and fenced so as not to become a nuisance or detrimental to public health, safety, or welfare.

Section 6.35 Kennels.

- (1) **Districts Permitted.** The following standards apply in the RUF District as a waiver use.
- (2) **Minimum Lot Size.** Dog kennels may be operated on parcels five (5) acres or more in size if such animals are properly housed, maintained, and fenced so as not to become a nuisance or detrimental to public health, safety, or welfare.

Section 6.36 Local and Suburban Passenger Terminals; Trucking Transportation Terminals Including Maintenance and Service Facilities.

- (1) **Districts Permitted.** The following standards apply in the M-1 and M-2 Districts as a waiver use.
- (2) **Parking and Storage of All Vehicles.** Parking and storage of all vehicles, equipment, and material must be enclosed wholly within a building.

Section 6.37 Massage Establishments.

Massage establishments (as defined in [Section 2.01](#), [Section 2.01\(8\)](#) of this Ordinance), provided that:

- (1) **Districts Permitted.** The following standards apply in the C-1, C-2, and C-4 Districts as a waiver use and in the C-3 District as a permitted use.
- (2) **Compliance.** Such facilities shall conform to the requirements, restrictions, and prohibitions contained within Mich. Admin. Code R 338.701 through R 338.727 inclusive, as amended, the provisions of which are made a part hereof and incorporated herein by reference.

- (3) **Separation Requirements.** No massage establishment shall be located within four hundred (400) feet of any property which is either occupied or approved for a massage establishment. No massage establishment shall be located within four hundred (400) feet of a preexisting school, place of worship, state-licensed day care facility, public library, playground, or public park, as measured from any point on the property to any point on the property of any school, place of worship, state-licensed day care facility, public library, playground, or public park.
- (4) **Operating Hours.** Daily hours of operation of any massage establishment shall be limited to the period of time from 8:00 a.m. to 10:00 p.m.

Section 6.38 Motels.

- (1) **Districts Permitted.** The following standards apply in the C-2 District as a waiver use and in the C-3 and C-4 Districts as a permitted use.
- (2) **Setbacks.** No building shall be any closer than twenty-five (25) feet to any side lot line and no closer than seventy-five (75) feet to the front lot line.
- (3) **Separation.** Separate buildings shall not be less than ten (10) feet apart.
- (4) **Signs.** Motels having a minimum of two hundred (200) feet of property bordering on I-275 or I-96 right-of-way may display additional wall signs on the basis of one (1) square foot of sign area in sum total for each one (1) lineal foot of building frontage facing I-275 or I-96. Wall signs exceeding thirty (30) square feet of sign area each shall consist exclusively of individually fabricated letters or symbols attached individually and flatly to the building.

Section 6.39 Nature Preserves

- (1) **Districts Permitted.** The following uses and standards apply in the NP District as a permitted use.
 - A) **Outdoor Recreational Uses**, such as:
 - i) Nature trails, including the construction of new trails and any improvements necessary to meet barrier-free design standards, where feasible, provided such improvements are consistent with the City of Livonia Five-Year Parks and Recreation Master Plan and the City's nonmotorized transportation plan.
 - ii) Appropriate forest management practices as determined by the Parks and Recreation Commission, including:
 - a) The removal of invasive plant or animal species deemed to be harmful or damaging to the health of existing or desired native plant or animal species, or to the economy, environment, or human health.
 - b) Introduction, reintroduction or promotion of native plant and animal species
 - iii) Hiking.
 - iv) Educational laboratories.
 - v) Day camping (overnight camping not permitted).
 - B) **Accessory Uses**, necessary or incidental to the principal uses listed above in A).

Section 6.40 Nursing Homes and Convalescent Homes.

- (1) **Districts Permitted.** The following standards apply in the C-1 and C-2 Districts as a waiver use and in the C-3 and C-4 Districts as a permitted use.
- (2) **Minimum Lot Size.** Provided nursing homes and convalescent homes are located on a parcel of land comprising at least one (1) acre plus five hundred (500) square feet of land per bed.

Section 6.41 Oil and Gas Wells and Storage.

No oil well or natural gas well shall be drilled, established, or maintained in the City of Livonia, nor may any drilling rig or similar equipment be erected or constructed for the purpose of drilling, establishing or maintaining an oil or gas well without recommendation of the City Planning Commission and approval of the City Council.

Section 6.42 Open Air Business Uses Sales, Display, and/or Rental of Utility Trailers and Recreational Equipment.

- (1) **Districts Permitted.** The following standards apply in the C-1 and C-2 Districts as a waiver use and in the C-3 District as a permitted use.
- (2) **General Standards.** Open air sales, display, and/or rental of utility trailers and recreational equipment subject to the following:
 - A) **Minimum Lot Size.** A minimum lot area of eight thousand (8,000) square feet shall be required.
 - B) **Minimum Building Size and Maximum Building Height.** A building of not less than four hundred (400) square feet in area and not more than fifteen (15) feet in height shall be required to be located on said lot.
 - C) **Lighting.** Adequate lighting facilities shall be provided and so arranged as to reflect light toward the trailer rental area and away from streets and residential uses adjacent to the area. During the hours when the open-air display area is closed to business, lighting shall be provided at a level of not less than one (1) watt per each square yard of display area and with a maximum of not more than one and one-half (1 1/2) watts per each square yard of display area; provided, however, that such lighting shall be hooded or shielded so as to be deflected from adjacent residential property.
 - D) **Enclosure.** The display area shall be enclosed with either a six (6) foot cyclone fence or a fence of a type approved by the Inspection Department which shall be located and maintained on the boundaries of such display area, with only such openings therein as may be necessary for ingress and egress.
 - E) **Display Area Setback.** No utility trailers or recreational equipment shall be parked or displayed within twenty (20) feet from the front or side lot line abutting a public street.
- (3) **Certain additional open-air business uses as herein specified:**
 - A) **Operating Season.** Retail sales and/or display of plant materials not grown on site and sales of lawn furniture, playground equipment, and other home garden supplies, providing such use is temporary and carried on between April 1 and November 1.
 - B) **Location.** Open-air Businesses shall not be located within two hundred (200) feet of any intersection of two (2) or more major thoroughfares as indicated on the Future Transportation Map.

- C) **Enclosure.** Except for sales and/or display taking place on a pedestrian walkway, the sales and/or display area shall be enclosed with a fence of a type as recommended by the Planning Commission and approved by the City Council, which fence shall be located and maintained on the boundaries of such sales and display area.
- D) **Pedestrian Access.** Such retail sales and/or display taking place on any walkway providing pedestrian access to the adjacent building shall be limited to bedding plants (flowers and vegetables) and potted shrubs; provided, however, that such uses shall be conducted in a manner that will insure that the walkway is sufficiently free of obstructions at all times so as to provide safe and direct pedestrian access to and from the building.

Section 6.43 Open-Air Sales of Christmas Trees by Churches, Public and Parochial Schools and Other Bona Fide Charitable Organizations.

- (1) **Districts Permitted.** The following standards apply in the C-1, C-2, C-3, and C-4 Districts as a permitted use.
- (2) **General Standards.** Open-air sales of Christmas trees shall be permitted upon approval of a special annual commercial license by the Department of Inspection to churches, public and parochial schools, and other bona fide charitable organizations. The Department of Inspection shall determine that there is safe and suitable ingress and egress to the premises; adequate off-street parking is provided; and shall contact the Fire Department to determine that all fire rules and regulations have been complied with.

Section 6.44 Outdoor Storage of Recreational Equipment.

Outdoor storage of Recreational Equipment provided that:

- (1) **Districts Permitted.** The following standards apply in the M-1 District as a waiver use and in the M-2 District as a permitted use.
- (2) **Compliance.** A site plan, as defined by Section 2.02 Section 2.02(2) of this Ordinance, has been submitted therefor and has been reviewed and recommended by the Planning Commission and approved by the City Council.
- (3) **Outdoor Storage.** There shall be no recreational equipment parked or stored within the front yard or side yard abutting a public or private street as would be required therefor by Section 4.02.
- (4) **Enclosure.** The storage area shall be enclosed with either a six (6) foot cyclone fence or a fence of a type approved by the Inspection Department which shall be located and maintained on the boundaries of such storage area with only such openings therein as may be necessary for ingress or egress.
- (5) **Lighting.** Adequate lighting facilities shall be provided and so arranged as to reflect light toward the storage area and away from streets and residential uses adjacent to the area.

Section 6.45 Pawnshops.

Pawn shops, provided that:

- (1) **Districts Permitted.** The following standards apply in the C-2 District as a waiver use and in the C-3 District as a permitted use.
- (2) **Outdoor Storage.** There shall be no outdoor sales, storage, or display of merchandise.
- (3) **Access.** Ingress and egress shall be available from a public street having an existing or planned right-of-way width of at least one hundred twenty (120) feet as shown on the Future Transportation Map.
- (4) **Compliance.** The business shall be properly licensed and bonded pursuant to Chapter 5.63 of the Livonia Code of Ordinances.
- (5) **Separation.** There is not a similar use within one thousand (1,000) feet measured from property lines.

Section 6.46 Payday Lenders.

Any business licensed pursuant to the Deferred Presentment Service Transactions Act, MCL 487,2121, et. seq., provided that:

- (1) **Districts Permitted.** The following standards apply in the C-2 District as a waiver use and in the C-3 District as a permitted use.
- (2) **Access.** Ingress and egress shall be available from a public street having an existing or planned right-of-way width of at least one hundred twenty (120) feet as shown on the Future Transportation Map.
- (3) **Separation.** There is not a similar use within one thousand three hundred and twenty (1,320) feet measured from property lines.

Section 6.47 Personal Service Establishments.

Personal Service Establishments within the NM2 and NM3 Districts must be developed in conjunction with the development of a planned residential community.

Section 6.48 Privately Owned and Operated Recreational Uses.

Privately owned and operated recreational uses subject to the following special requirements:

- (1) **Districts Permitted.** The following standards apply in the N1, N2, RUF, and NM1 Districts as a waiver use.
- (2) **Minimum Lot Size.** The use shall be erected and located on a satisfactory site that is at least four (4) acres in area.
- (3) **Setbacks.** Front, side, and rear yards shall each be at least twenty (20) feet wide. A swimming pool shall not be constructed within fifty (50) feet of any existing public street right-of-way as measured from the edge of the water. The pool shall not be constructed within three hundred (300) feet of any existing residence as measured from the edge of the water.
- (4) **Access.** A parking and traffic plan showing the planned provision for parking and ingress and egress for pedestrian and motor vehicle traffic approved by the Police and Fire Departments shall be filed with the Inspection Department as a condition precedent to the issuance of the permit.

- (5) **Landscape Plan.** A landscaping plan and time schedule approved by the Parks and Recreation Department shall be filed with the Inspection Department as a condition precedent to the issuance of the permit.
- (6) **Maximum Building and Lighting Height.** Buildings erected on the premises in connection with privately owned and operated recreational uses shall in no case exceed one (1) story in height except where, as a result of the peculiar topography of the premises, a lower level can be constructed entirely below the grade of the public street abutting or adjacent to such premises, in which case the same shall be permitted, and lighting facilities erected on the premises shall not exceed twenty (20) feet in height.
- (7) **Compliance.** Provided further, that privately owned and operated recreational uses comply with all other applicable rules, regulations, and ordinances of the City of Livonia. In order that the City Council might properly determine whether or not the requirements provided herein have and can be complied with, there shall be filed with the City Council a certified copy of the Articles of Incorporation and By-Laws of the private swimming pool club or organization; a plot plan drawn to scale showing the location of the premises on which the private swimming pool and related recreational facilities are to be situated, showing also the dimensions and area of such proposed area; the location of all residences and other buildings, structures, and public streets within one thousand (1,000) feet of such premises as measured from each of the property lines of the property site; and a separate development plan of the proposed site showing the size and location of all facilities to be situated thereon, and the size and location of all front, rear, and side yards and the length, width, and location of all driveways and parking facilities to be located on the proposed site. For the purpose of this Ordinance, the term "neighborhood," "community," or "club" pool shall mean that the pool is owned and operated by a private swimming club or similar organization for the sole and exclusive use of its members of such club, their families, and guests.

Section 6.49 Raising of Fur Bearing Animals.

- (1) **Districts Permitted.** The following standards apply in the RUF District as a waiver use.
- (2) **Minimum Lot Size.** The raising of fur bearing animals shall be conducted on a farm of five (5) acres or more.
- (3) **Setbacks.** The pens or cages must be located at least one hundred (100) feet from any front, side, or rear property line.
- (4) **Conformance.** The raising of livestock shall conform to the Generally Accepted Agricultural and Management Practices (GAAMP) for the Care of Farm Animals.

Section 6.50 Religious Institutions.

- (1) **Districts Permitted.** The following standards apply in the N1, N2, RUF, and NM1 Districts as a waiver use, and in the C-1, C-2, C-3, and C-4 Districts as a permitted use.
- (2) **Minimum Lot Size.** In N1, N2, RUF, and NM1 Districts, Religious Institutions must be located on a parcel of land at least two (2) acres in area.
- (3) **Signs.** Religious institutions shall be permitted the following:
 - A) One (1) identification ground sign not to exceed thirty (30) square feet of sign area or to exceed six (6) feet in height and shall have a minimum setback of ten (10) feet from any right-of-way line.

- B) One (1) freestanding bulletin board or identification ground sign not to exceed twenty (20) square feet of sign area and not to exceed five (5) feet in height and shall have a minimum setback of ten (10) feet from any right-of-way line.
- C) One (1) wall sign not to exceed twenty (20) square feet of sign area. Such sign shall consist of individual letters attached individually and flatly to the building.

Section 6.51 Restaurants.

- (1) Limited service and carry-out restaurants with or without outdoor dining areas subject to the following:
 - A) **Districts Permitted.** The following standards apply in the C-1, C-2, C-3, and C-4 Districts as a permitted use.
 - B) **Access.** Ingress and egress shall be available from a public street having an existing or planned right-of-way width of at least one hundred twenty (120) feet as shown on the Future Transportation Map.
 - C) **Drive-Up Window Facilities.** Drive-up window facilities are prohibited.
 - D) **Outdoor Dining.** Outdoor dining areas with seating for no more than six (6) persons when conducted in conjunction with a carry-out restaurant or twelve (12) persons when conducted in conjunction with a Limited Service Restaurant (as defined in [Section 2.01 Section 2.01\(8\)](#) of this Ordinance) operating pursuant to a valid waiver use approval, provided that:
 - i) The outdoor dining is conducted in accordance with a site plan illustrating the seating arrangement and capacity which has been approved by the Planning Department and Inspection Department.
 - ii) That outdoor dining shall be restricted to sidewalk or patio areas adjoining the building.
 - iii) That the outdoor dining shall be conducted in a manner that will ensure that sufficient clear space for pedestrian and handicapped circulation is provided, and that safe and direct access to and from the building is maintained.
 - iv) If deemed necessary for public safety in instances where outdoor dining areas or drive aisles, decorative fencing (or other measures, such as bollards) shall be installed to demarcate and protect the outdoor seating areas.
 - v) That trash receptacles shall be provided for the outdoor seating area and shall be emptied regularly as needed.
 - vi) That the sound levels of any outdoor speakers shall be kept to a reasonable minimum so as to not become objectionable.
 - vii) That all lighting equipment installed for the outdoor seating area shall be shielded or so arranged as to minimize stray light trespassing across property lines and glaring into adjacent roadway.
- (2) Full-service restaurants with or without outdoor dining areas subject to the following:
 - A) **Districts Permitted.** The following standards apply in the C-1 and C-2 Districts as a waiver use and in the C-3 and C-4 Districts as a permitted use.
 - B) **Floor Area.** At least one-half (½) of a restaurant's usable main floor area shall be devoted to a dining or eating and/or drinking area.
 - C) **Access.** Ingress and egress be available from a public street by means of at least two (2) separate driveways at least forty (40) feet apart from one another.
 - D) **Lighting.** Suitable lighting shall be provided and so arranged as to reflect away from any adjacent or abutting residential district and toward the commercial area.

- (3) Drive-in restaurants and restaurants with either drive-thru or drive-up window facilities; including food trucks subject to the following:
- A) **Districts Permitted.** The following standards apply in the C-2 District as a waiver use and in the C-3 District as a permitted use.
 - B) **Access.** Ingress and egress shall be available from a public street having a right-of-way width of at least one hundred twenty (120) feet or more as indicated on the Future Transportation Map by means of at least two (2) separate driveways located at least thirty (30) feet apart from one another.
 - C) **Lighting.** Suitable lighting shall be provided and so arranged as to reflect away from any adjacent or abutting residential district and toward the commercial area.
 - D) **Setback.** No drive-in restaurant shall be located nearer than two hundred (200) feet as measured from any point on the property to any point on the property of a religious institution.
 - E) **Drive-Up Window Facilities.** Drive-up window facilities shall comply with the following minimum standards:
 - i) A restaurant with a drive-up window shall provide a separate customer ordering station.
 - ii) The traffic lane serving the drive-up window shall be at least ten (10) feet wide.
 - iii) The turning radius on any curve in the drive-up window traffic lane shall be no less than fifteen (15) feet.
 - iv) A by-pass lane or other suitable means of access to a public street shall be provided for vehicles that do not use the drive-up window.
 - v) Parking spaces located beyond drive-up windows shall be designated for use of drive-up window patrons.
 - vi) Ingress and egress shall be available from a public street by means of at least two (2) separate driveways at least forty (40) feet apart from one another.
 - vii) Suitable lighting shall be provided and so arranged as to reflect away from any adjacent or abutting residential district and toward the commercial area.

Section 6.52 Retail Sales.

- (1) Buildings (single or multi-unit) for the purpose of retail sales and which contain a gross floor area of thirty thousand (30,000) square feet or more provided that:
- A) **Districts Permitted.** The following standards apply in the C-1, C-2 and C-4 Districts as a waiver use and in the C-3 District as a permitted use.
 - B) **Setbacks.** The front yard shall be at least one hundred (100) feet; the rear yard shall be at least twenty-five (25) feet; the interior side yard(s) shall be at least twenty (20) feet; and a side or rear yard abutting a street shall be at least sixty (60) feet; provided, however, that when Retail Sales abuts a residential district, the required side and rear yards which abut such residential district shall be at least sixty (60) feet.
 - C) **Outdoor Storage.** There shall be no outdoor sales, storage, or display of merchandise.
 - D) **Restaurants as an accessory use.** Restaurant uses as defined in [Section 2.01](#), [Section 2.01\(8\)](#) of this Ordinance shall be permitted as an accessory use to a single unit building only; provided, however, that the number of customer seats in the restaurant shall not exceed thirty (30). In the event that such building of thirty thousand (30,000) square feet or more was previously granted waiver use approval without providing for an accessory restaurant use, any restaurant use may not be added thereafter without first obtaining waiver use approval in accordance with the provision of this Ordinance.

- E) **Single Unit.** In the event that such building of thirty thousand (30,000) square feet or more is intended to be a single unit, the application for waiver use shall include a statement that the building as proposed will be attractive to other commercial tenants in the event the initial occupant ceases its occupancy of the building, including a description of the features of the building which will make it attractive to prospective replacement tenants. Such statement shall be revised, prior to final approval, to reflect any design changes recommended by City Council which affect the attractiveness of the proposed building to subsequent would-be occupants.
- (2) A workshop incidental to retail sales is permitted for servicing, repairing, or workshop activities. Up to 50% of the usable floor area can be used as a showroom in the commercial zoning districts. Up to 10% of the usable floor area can be used as a showroom in the industrial zoning districts. Such uses are detailed below:
- A) Air conditioning sales, service, and repair shops;
 - B) Apparel alteration and repair shops;
 - C) Electrical and lighting fixture sales, service, and repair shops;
 - D) Furniture reupholstery and refinishing establishments;
 - E) Lawnmower sales, service, and repair shops;
 - F) Locksmith shops;
 - G) Office equipment sales, service, and repair establishments;
 - H) Plumbing and heating sales, service, and repair shops;
 - I) Radio and television sales, service, and repair shops;
 - J) Sign painting shops (no outside storage);
 - K) Taxidermy shops;
 - L) Motorcycle sales, service, and repair establishments; however, facilities for outdoor testing, display, or storage of merchandise are expressly prohibited.
- (3) Retail sales of new furniture when such use is accessory to a furniture warehouse establishment and located within a warehouse structure, and located in an M-1 District, such waiver use being expressly prohibited in an M-2 District, and provided that:
- A) **Minimum Lot Size.** The warehouse structure in any such case shall be located on a parcel of land containing four (4) acres or more.
 - B) **Floor Area.** Such retail sales use and display areas combined shall not exceed thirty-five (35) percent of the entire floor area of the structure or such lesser percent as approved.
 - C) **Outdoor Storage.** No outside storage, sales, or display of merchandise or promotional activity shall be permitted.
 - D) **Sales.** All sales of merchandise shall be conducted wholly within the retail sales portion of the structure.
 - E) **Off-Street Parking.** Off-street parking facilities shall be provided as hereinafter specified in [Section 9.04](#) of this Ordinance, except that no parking of automobiles or other motor vehicles shall be permitted in the front yard setbacks and in the case of double frontage lots, the rear yard setbacks or side yard setbacks if such yard abuts a public or private street.

Section 6.53 Second-Hand Stores.

The following standards shall apply to second-hand stores and rummage shops (not including antique stores as defined in [Section 2.01\(8\)](#) of this Ordinance):

- (1) **Districts Permitted.** The following standards apply in the C-2 District as a waiver use and in the C-3 District as a permitted use.
- (2) **Outdoor Storage.** There shall be no outdoor sales, storage, or display of merchandise.
- (3) **Access.** Ingress and egress shall be available from a public street having an existing or planned right-of-way width of at least one hundred twenty (120) feet as shown on the Future Transportation Map.

Section 6.54 Self-Storage, Indoor Climate Controlled.

Climate controlled, indoor self-storage used to provide temporary storage needs for businesses and other individuals on a self-service basis, subject to the following:

- (1) **Districts Permitted.** The following standards apply in the C-2 District as a waiver use and in the C-3, ML, M-1, and M-2 Districts as a permitted use.
- (2) **Minimum Lot Size.** The minimum size of the site shall be not less than three (3) acres.
- (3) **Maximum Number.** Only one (1) climate-controlled building used in whole or in part for the purpose of providing storage on a self-service basis shall be permitted on the premises.
- (4) **Outdoor Storage.** There shall be no outdoor storage and no storage of flammable, explosive, radioactive, hazardous, toxic, or volatile substances within the self-storage buildings or upon the premises.
- (5) **Access.** Customer access to the self-storage units shall only be from the interior of a fully-enclosed, climate-controlled building.
- (6) **Overhead Doors.** Overhead doors to allow vehicles to enter or exit the building may be allowed provided they are controlled by means of electronic access devices or by an employee of the facility.
- (7) **Operating Hours.** The facility shall not be open for customer access to the storage units earlier than 7 a.m. nor later than 9 p.m.
- (8) **Building Façades.** Exterior building wall façades shall consist of maintenance-free materials, and the design and architectural appearance of the building shall be compatible to and in harmony with the surrounding commercial buildings in the area.
- (9) **Use of Self-Storage Facility.** Except as provided herein, the use of the self-storage facility shall be limited to the storage of personal and business items only, and no unit designed or intended for storage purposes shall be used for operating a business or recreational activity including, but not limited to, repairs, manufacturing, assembly, personal service, hobby, retail, or office.
- (10) **Security Manager.** A security manager shall be permitted to reside within the confines of the same building used in whole or in part for self-storage and such residence shall be considered an accessory use as provided in Section 2.01 Section 2.01(4).

- (11) **Accessory Uses.** Office, retail, and other uses otherwise permitted under this Article may be allowed only where such use or uses are designed and provided as an integral part of the development, including, but not limited to, access, parking, lighting, and signage.

Section 6.55 Small Cell Wireless Facilities.

- (1) **Districts Permitted.** The following standards apply in all zoning districts as a permitted use.
- (2) **Compliance.** Per the provisions of the Small Wireless Communications Facilities Deployment Act, Public Act 365 of 2018, MCL 460.1301, et seq. ("Act 365"), the activities set forth in Code of Ordinances Section 12.06.050(D) are exempt from zoning review, except that replacement small cell wireless facilities shall require a permit if they exceed in size or weight the size or weight of the small cell wireless facility being replaced. Subsections (3) to (5) below apply to zoning reviews for the following activities that are subject to zoning review and approval, that are not a permitted use under Code of Ordinances Section 12.06.040(E), and that take place within or outside the public right-of-way:
- A) The modification of existing or installation of new small cell wireless facilities.
 - B) The modification of existing or installation of new wireless support structures used for such small cell wireless facilities.
- (3) **Application.** Applications for zoning approval shall be filed with the City Engineer, or his or her designee ("Engineer"), and the processing of an application for a zoning approval is subject to all of the following requirements:
- A) Within 30 days after receiving an application under this section, the Engineer shall notify the applicant in writing whether the application is complete. If the application is incomplete, the notice shall clearly and specifically delineate all missing documents or information. The notice tolls the running of the 30-day period.
 - B) The running of the time period tolled under subdivision (A) resumes when the applicant makes a supplemental submission in response to the authority's notice of incompleteness. If a supplemental submission is inadequate, the Engineer shall notify the applicant not later than 10 days after receiving the supplemental submission that the supplemental submission did not provide the information identified in the original notice delineating missing documents or information. The time period may be tolled in the case of second or subsequent notices under the procedures identified in subdivision (2)(A) above. Second or subsequent notices of incompleteness may not specify missing documents or information that was/were not delineated in the original notice of incompleteness.
 - C) The application shall be processed on a nondiscriminatory basis.
 - D) The Engineer shall approve or deny the application and notify the applicant in writing within 90 days after an application for a modification of a wireless support structure or installation of a small cell wireless facility is received or 150 days after an application for a new wireless support structure is received. The time period for approval may be extended by mutual agreement between the applicant and the Engineer. If the Engineer fails to comply with this subdivision, the application is considered to be approved subject to the condition that the applicant provide the City not less than 15 days' advance written notice that the applicant will be proceeding with the work pursuant to this automatic approval.
 - E) The Engineer shall not deny an application unless all of the following apply:
 - i) The denial is supported by substantial evidence contained in a written record that is publicly released contemporaneously.
 - ii) There is a reasonable basis for the denial.

- iii) The denial would not discriminate against the applicant with respect to the placement of the facilities of other wireless providers.

(4) Zoning Approval. Review of an application for a zoning approval is subject to all of the following requirements:

- A) An applicant's business decision on the type and location of small cell wireless facilities, wireless support structures, or technology to be used is presumed to be reasonable. This presumption does not apply with respect to the height of wireless facilities or wireless support structures. The Engineer may consider the height of such structures in its zoning review but shall not discriminate between the applicant and other communications service providers.
- B) The Engineer shall not evaluate or require an applicant to submit information about an applicant's business decisions with respect to any of the following:
 - i) The need for a wireless support structure or small cell wireless facilities.
 - ii) The applicant's service, customer demand for the service, or the quality of service.
- C) Any requirements regarding the appearance of facilities, including those relating to materials used or arranging, screening, or landscaping, shall be reasonable.
- D) Any spacing, setback, or fall zone requirement shall be substantially similar to a spacing, setback, or fall zone requirement imposed on other types of commercial structures of a similar height.

(5) Fees. Application fees for zoning approval hereunder shall be:

- A) \$1,000.00 for a new wireless support structure or modification of an existing wireless support structure.
- B) \$500.00 for a new small cell wireless facility or modification of an existing small cell wireless facility.

Fees hereunder shall be adjusted as necessary to assure that such fees are the highest amounts permitted under Act 365, so long as such fees do not exceed the costs imposed on the City in connection with the permit application and zoning review.

(6) Construction Commencement. Within 1 year after a zoning approval is granted, a wireless provider shall commence construction of the approved structure or facilities that are to be operational for use by a wireless services provider, unless the Engineer and the applicant agree to extend this period or the delay is caused by a lack of commercial power or communications facilities at the site. If the wireless provider fails to commence the construction of the approved structure or facilities within the time required, the zoning approval is void, and the wireless provider may reapply for a zoning approval. However, the wireless provider may voluntarily request that the zoning approval be terminated.

(7) Moratorium. The City shall not institute a moratorium on either of the following:

- A) Filing, receiving, or processing applications for zoning approval.
- B) Issuing approvals for installations that are not a permitted use.

(8) Failure to Meet Requirements. The Engineer may revoke a zoning approval, upon 30 days' notice and an opportunity to cure, if the permitted small cell wireless facilities and any associated wireless support structure fail to meet the requirements of the approval, applicable codes, or applicable zoning requirements.

(9) Administration. The Mayor or his/her designee may provide forms and policies for administering this Section and Chapter 06 of Title 12 of the Code of Ordinances.

- (10) **Written Appeal.** Pursuant to MCL 460.1327, a person seeking to reverse a determination made under this Section or Chapter 06 of Title 12 of the Code of Ordinances may submit a written appeal to the Mayor, identifying the reason(s) for reversing the determination. Within 10 business days of receiving the written appeal, the Mayor shall render his/her decision whether to uphold, reverse, or uphold in part/reverse in part the determination under appeal.

Section 6.56 Temporary Uses and Sidewalk and Tent Sales.

- (1) **Sidewalk and Tent Sales.** Sidewalk and tent sales are permitted accessory uses for retail establishments in C-1 and C-2 Districts, provided that:
- A) The retail establishment submits a site plan to the Building Official and obtains a permit from the Building Official and complies with all permit conditions.
 - B) No portion of any sale shall take place in a public right-of-way or the front or side yard required by this Ordinance for the retail establishment, except in cases where the building setback renders compliance with the yard requirement infeasible, in which case the sale shall be conducted at a setback which is, in the judgment of the Building Official, as near to a conforming setback as is feasible.
 - C) The retail establishment does not conduct more than two sidewalk and/or tent sales in any calendar year per address or tenant.
 - D) No such sale exceeds two (2) weeks in duration.
 - E) The principal use is located on the same premises; and
 - F) The premises upon which the sidewalk or tent sale is proposed is otherwise code compliant. If the Building Official has concerns or questions regarding safe access or the possibility of pedestrian and vehicular traffic conflicts that could occur in connection with the subject use, the Building Official will obtain a recommendation from the Traffic Bureau of the Police Department prior to issuance of a permit.
- (2) **Temporary Buildings Incidental to the Construction of Residential Dwellings.** The following standard applies in the N1, N2, and RUF Districts as a permitted use. Temporary buildings or structures for uses incidental to the construction of residential dwellings and improvements shall be removed immediately upon completion or abandonment of the construction work.
- (3) **Carnivals.** The following standard applies in the RUF, C-2, and C-4 Districts as a waiver use and in the P-L and C-3 Districts as a permitted use. Carnivals may be allowed for periods not normally to exceed two (2) weeks; however, they may request an optional time extension of up to two (2) weeks from the Planning Director.

Section 6.57 Ambulance Services, Local and Suburban Bus Terminals and Taxicab Terminals.

- (1) **Districts Permitted.** The following standards apply in the C-2, M-1, and M-2 Districts as a waiver use and in the C-3 District as a permitted use.
- (2) **General Standards.** Ambulance services, local and suburban bus terminals, and taxicab terminals when exterior design, appearance, and location of any proposed building, structure, or premises and the location and design of any proposed parking facility or loading and unloading area to be used for above uses is consistent with the spirit, intent, and purpose of this Ordinance.

Section 6.58 Steel Fabricators, Truck Terminals, Truck and Trailer Rental Facilities, Special Trade Contractors, and Vehicle Tow Yards.

- (1) **Districts Permitted.** The following standards apply in the M-1 and M-2 Districts as a waiver use.
- (2) **Classification.** Steel fabricators; truck terminals; truck and trailer rental facilities where vehicles, trailers, equipment, and material are not wholly enclosed within a building; vehicle tow yards; and special trade contractor classified as:
- A) Bridge builders.
 - B) Concrete contractors.
 - C) Dredging contractors.
 - D) Excavating contractors.
 - E) Fence contractors.
 - F) Foundation contractors.
 - G) Grading contractors.
 - H) Oil well contractors.
 - I) Paving contractors.
 - J) Pile driving contractors.
 - K) Sewer excavators.
 - L) Steel erectors.
 - M) Underground contractors.
 - N) Wrecking contractors.
 - O) Septic tank installers and cleaners.
 - P) Landscape contractors.

Provided that:

- i) Except for the front yard setback, the lot area shall be enclosed with a fence of a type approved by the Inspection Department which shall be located and maintained on the boundaries of such lot area, with only such openings therein as may be necessary for ingress and egress; provided, however, that in the case of a corner lot such fence shall be located on the side yard setback line abutting a public or private thoroughfare.
- ii) Landscaping of the front yard and, in the case of a corner lot, also the side yard abutting a public or private thoroughfare, shall be required.
- iii) The outside stacking or stockpiling of materials shall not exceed eight (8) feet in height above ground level.
- iv) Notwithstanding any other provisions of this Ordinance, wherever the outside storage of equipment and/or material occurs on the site of an approved waiver use and is immediately adjacent to or abutting any residentially zoned property, there shall be provided a greenbelt which shall be at least twenty (20) feet in width, which shall consist of at least two (2) rows of appropriate live plant materials, so placed as to provide continuous screening over and above that which is provided by the protective wall, as is required by other provisions of this Ordinance and shall thereafter be permanently maintained; and further provided, that such greenbelt shall attain a minimum height of at least eight (8) feet after one full growing season.

Section 6.59 Veterinary Clinics, Animal Clinics, and Animal Hospitals.

Veterinary clinics, animal clinics, and animal hospitals, provided that such uses or clinics are hereby defined to mean the professional use of a building, by a licensed veterinarian for rendering professional services to household pets, and provided that:

- (1) **Districts Permitted.** The following standards apply in the RUF, C-1 and C-2 Districts as a waiver use and in the C-3 Districts as a permitted use.
- (2) **Specified Use.** Any building designed, constructed, or modified for veterinary clinics, animal clinics, and animal hospitals shall be used for the sole purpose of providing necessary medical care for sick or diseased household pets and shall not be constructed or used as a boarding establishment for household pets.
- (3) **Attendant.** A full-time duly qualified attendant or veterinarian shall be stationed in charge of such premises whenever any animals eligible for treatment at such establishment, as herein defined, are kept on the premises.
- (4) **Enclosure.** In no case shall such establishments have open or outdoor runways, kennels, or pens.
- (5) **Disposal of Rubbish.** In no case shall there be, in connection with the operation of such establishment, the disposal of rubbish and litter in such a manner as to be obnoxious or offensive. In no case shall there be any harboring of vermin or decaying matter on the premises, and effective provision shall be made to confine all noise, confusion, and odor, if any, to the premises.
- (6) **Soundproof.** The building housing veterinary clinics, animal clinics, and animal hospitals and the ventilating system used in connection therewith shall be so constructed as to be soundproof and soundproofing shall be installed to the extent necessary to ensure the elimination of all noise from the area used for the treatment and temporary keeping of such sick and diseased household pets.

Section 6.60 Wireless Communication Facilities.

- (1) **Purpose and intent.** It is the general purpose and intent of the City of Livonia to carry out the will of the United States Congress by authorizing communications facilities needed to operate wireless communications systems. However, it is the further purpose and intent of the City of Livonia to provide for such authorization in a manner which will retain the integrity of neighborhoods and the character, property values, and aesthetic quality of the community at large.
- (2) **Compliance. Wireless communication facilities, provided that:**
 - A) Wireless Communication Facilities shall meet the requirements of [Section 7.18](#) of the Zoning Ordinance.
 - B) At least fifteen (15) days prior to the public hearing required by [Section 13.13](#), [Section 13.13\(2\)](#) of the Zoning Ordinance with respect to such use, the City shall erect four foot by four foot (4' x 4') sign(s) at one (1) or more prominent locations around the premises leased or purchased for such wireless communication facility, in location(s) determined by the Building Official to be likely to give notice of the referenced proceedings to all interested parties. Such sign shall state the fact that a wireless communication facility has been proposed for a location near the sign, and name and address of the real party requesting the waiver use approval, and the telephone number at City Hall where interested persons can call for further information.

- C) Notice of the hearing shall be provided as required by law for public hearings concerning zoning matters, except that, due to the public nature of the property involved, the area in which notices are mailed will be expanded to include properties within six hundred (600) feet of the property which is the subject of the application or petition, as measured from the boundaries of the site leased or purchased for the purpose of erecting the wireless communication facility.

(3) Definitions. The following definitions shall apply in the interpretation of this section:

- A) “*Collocate*” means to place or install wireless communications equipment on an existing wireless communications support structure or in an existing equipment compound. “Collocation” has a corresponding meaning.
- B) “*Equipment compound*” means an area surrounding or adjacent to the base of a wireless communications support structure and within which wireless communications equipment is located.
- C) “*Wireless communications equipment*” means the set of equipment and network components used in the provision of wireless communications services, including, but not limited to, antennas, transmitters, receivers, base stations, equipment shelters, cabinets, emergency generators, power supply cables, and coaxial and fiber optic cables, but excluding wireless communications support structures.
- D) “*Wireless communications support structure*” means a structure that is designed to support, or is capable of supporting, wireless communications equipment, including a monopole, self-supporting lattice tower, guyed tower, water tower, utility pole, or building.
- E) “*Planning Official*” shall mean the Director of Planning.
- F) “*Building Official*” shall mean the Chief Building Official.
- G) “*Backhaul network*” shall mean the lines that connect a wireless communications provider's wireless communications facilities to one or more cellular telephone switching offices, and/or long-distance providers, or the public switched telephone network.

(4) Authorization. Except for paragraph A) below, no wireless communications equipment or support structures may be erected in the City of Livonia except upon application to the City for approval thereof, as set forth in paragraph (6) below; compliance with all other requirements of this section; and conformance of said equipment or support structure to one of the categories set forth in subparagraphs B) or D) below:

- A) Wireless communications equipment is a permitted use of property and is not subject to special land use approval or any other approval if all the following requirements are met:
 - i) The wireless communications equipment will be collocated on an existing wireless communications support structure or in an existing equipment compound.
 - ii) The existing wireless communications support structure or existing equipment compound is in compliance with this zoning ordinance or was approved by the Planning Commission and City Council.
 - iii) The proposed collocation will not do any of the following:
 - a) Increase the overall height of the wireless communications support structure by more than 20 feet or 10% of its original height, whichever is greater.
 - b) Increase the width of the wireless communications support structure by more than the minimum necessary to permit collocation.
 - c) Increase the area of the existing equipment compound to greater than 2,500 square feet.
 - iv) *The proposed collocation complies with the terms and conditions of any previous final approval of the wireless communications support structure or equipment compound by the Planning Official, Building Official, Planning Commission, or City Council.*

- B) Wireless communications equipment that meets the requirements of subparagraph A)i) and A)ii) but does not meet the requirements of subparagraph A)iii) or A)iv) is a permitted use of property if it receives waiver use or special waiver use approval under paragraphs E) or F).
- C) Wireless communications equipment that meets the requirements of paragraph A) shall be required to comply with the requirements set forth in paragraph (5A)i)a) through (5A)i)c); paragraph (5A)iii); paragraph (5A)v)e) through (5A)v)f); and paragraph (5A)v)i) through (5A)v)j).
- D) Other circumstances creating permitted use treatment. Subject to the standards and conditions set forth in subparagraph (5A) below, wireless communications equipment or support structures shall be permitted uses in the following circumstances, and in the following zoning districts and zones, after approval by both the Planning Official and Building Official:
 - i) An existing structure which will have wireless communications equipment attached to it within a non-residential zoning district where the existing structure is not proposed to be materially altered or materially changed in appearance.
 - ii) An existing structure which will have wireless communications equipment attached to it and which structure consists of a utility pole located within a right-of-way, where the existing pole is not proposed to be modified in a manner which would materially alter the structure and/or result in an impairment of sight lines or other safety interests.
 - iii) A wireless communications support structure established within a right-of-way having an existing width of more than 204 feet (expressways), subject to collocation requirements as outlined in paragraph (8) below.
 - iv) A wireless communications support structure established in any M-1, M-2, or commercially zoned district within Sections 25 - 30 and that portion of Section 19 bounded by Schoolcraft Road, Eckles Road, and the I-96 expressway, M-1, ML, and commercial zones which are contiguous with Eight Mile Road, and that zone which is west of the I-275/96 expressway, north of Six Mile Road, east of the western City boundary, and south of Eight Mile Road.
- E) Waiver Uses.
 - i) Subject to the standards and conditions set forth below in Sections (5A) and (5B) and in *Section 13.13, Section 13.13(6)* of this Zoning Ordinance, wireless communications equipment and support structures may be authorized as waiver uses in C-1, C-2, C-3, C-4, PO, and OS zoning districts if not included in Paragraph A) or D) above upon a recommendation by the City Planning Commission and approval of the City Council.
 - ii) Subject to the standards and conditions set forth below and in *Section 13.13, Section 13.13(6)* of this Zoning Ordinance, wireless communications equipment may be authorized as waiver uses in NM3 zoning districts upon a recommendation by the City Planning Commission and approval by the City Council.
 - iii) Subject to the standards and conditions set forth below in Sections (5A) and (5B) and in *Section 13.13, Section 13.13(6)* of this Zoning Ordinance, wireless communications support structures may be authorized as a waiver use in any public land zone upon a recommendation of the City Planning Commission, approval of the Livonia City Council, and approval of the governing body which owns the land. Failure to receive approval from either the Livonia City Council or the governing body which owns the land shall result in a denial of the petition or application. In no case shall the wireless communications support structure in a public land zone be within 300 feet of a residence.

- F) **Special Waiver Uses.** If it is demonstrated by an applicant that wireless communications equipment or a wireless communications support structure may not reasonably be established as a permitted use under paragraph A) or D) above, and is required to be established outside of a zoning district identified in paragraphs D) and E) above, in order to operate a wireless communications service, then wireless communications equipment or a wireless equipment support structure may be permitted elsewhere in the City as a special waiver use subject to the criteria and standards of *Section 13.13, Section 13.13(3)* of this Ordinance and paragraphs (5A) and (5B) below.

(5) General Regulations.

- A) **Standards and Conditions.** Applications for wireless communications equipment or support structures, if required, shall be reviewed in accordance with the following standards and conditions, and, if approved, shall be constructed and maintained in accordance with such standards and conditions. In addition, if the wireless communications equipment or support structure is approved, and is other than a permitted use, it shall be constructed and maintained with any additional conditions imposed by the findings of the Planning Commission and approved by the City Council in its discretion; provided, however, that waiver use or special waiver use approval of wireless communications equipment may be made expressly conditional only on the wireless communications equipment's meeting the requirements of City ordinances and of federal and state laws before the wireless communications equipment begins operation.
- i) Wireless communications equipment or support structures shall not be demonstrably injurious to neighborhoods or otherwise detrimental to the public safety and welfare.
- a) **Annual Certification of Wireless Communications Equipment and Support Structures.**
Every operator and all collocators on all wireless communications equipment and wireless communications support structures shall no later than November 1st of each year certify to the Inspection Department by sworn statement of an authorized corporate officer that each of the facilities it operates in the City:
- i. are authorized to operate under a wireless license granted by the FCC;
 - ii. are subject to the FCC's radiofrequency exposure rules; and
 - iii. are operated in accordance with the FCC's radiofrequency rules.

Temporary remedial measures shall be promptly taken to bring equipment not certified to be compliant until permanent remedial measures have been made and compliance has been certified to the Inspection Department. Permanent remedial measures shall be made within thirty (30) days after the equipment was first deemed to be not in compliance with the FCC's radiofrequency rules. A late fee of One Hundred Dollars (\$100.00) shall be imposed on any operator or collocator that has not provided this certification within ten (10) days of November 1st of each year.

- b) **Penalty.** Any person, persons, firm or corporation, or any others acting on behalf of said person, persons, firm, or corporation, violating or failing to comply with any of the provisions of a) above shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine not exceeding five hundred dollars (\$500.00), or by imprisonment not exceeding five (5) days, or by both such fine and imprisonment at the discretion of the Court. Each act of violation and every day upon which such violation shall occur shall constitute a separate offense.
- c) **Address and Change of Address.** Each annual submission shall include the address of the facility assigned by the City and all pertinent information including the name, address, and telephone number of each operator and collocator. The operator and collocator of a cell tower or collocation equipment is hereby obligated to notify the Inspection Department in writing of any change of contact information or ownership within ten (10) days of any change. There shall be no charge for notification of the change of contact information or ownership if the notification is accomplished within the ten (10) day period. A late fee of one hundred dollars (\$100.00) shall be imposed for failure to notify the Inspection Department of a change in contact information or ownership within the ten (10) day period. It is the responsibility of the owner and/or operator to verify that the city has received said notification.
 - ii) Wireless communications equipment and support structures shall be located and designed to be harmonious with the surrounding areas, and if it is a new wireless communications support structure, shall be located no less than 1/2 mile from existing wireless communications support structures. The distance requirements shall not apply to applicants who have demonstrated that collocation is not feasible pursuant to paragraph (8)C)i) below.
 - iii) Wireless communications equipment and support structures shall comply with applicable federal and state standards relative to the environmental effects of radio frequency emissions.
 - iv) Applicants shall demonstrate a justification for the proposed height of the structures and an evaluation of alternative designs which might result in lower heights.
 - v) The following additional standards shall be met:

- a) The maximum height of the new or modified wireless communications support structure and antenna shall be the minimum height demonstrated to be necessary for reasonable communications by the applicant (and by other entities to collocate on the structure), but in no event shall the wireless communications support structure exceed 150 feet in height in all districts except in any M-1, M-2, or commercially zoned district within sections 25-30 and that portion of Section 19 bounded by Schoolcraft Road, Eckles Road, and the I-96 expressway, in which case the maximum height shall not exceed 250 feet. These height limitations shall not apply to those collocations which are a permitted use as set forth in paragraph (4)A) above. The accessory building contemplated to enclose such things as switching equipment shall be limited to the maximum height for accessory structures within the respective district.
- b) The setback of the new or proposed wireless communications support structure from any residential district or residential use shall be at least the height of the highest point of the structure plus 25 feet. The setback of the new or proposed wireless communications support structure from any existing or proposed rights-of-way or other publicly traveled roads shall be no less than the height of the structure unless the structure is placed within the right-of-way itself.
- c) Where the proposed new or modified wireless communication support structure abuts a parcel of land which is used for other than residential purposes, the minimum setback of the structure, and accessory structures, shall be in accordance with the required setbacks for main or principal buildings as provided in the schedule of regulations for the zoning district in which the support structure is located.
- d) There shall be unobstructed access to the wireless communications support structure, for operation, maintenance, repair, and inspection purposes, which may be provided through or over an easement. This access shall have a width and location determined by such factors as: the location of adjacent thoroughfares and traffic and circulation within the site; utilities needed to service the tower and any attendant facilities; the location of buildings and parking facilities; proximity to residential districts and minimizing disturbance to the natural landscape; and the type of equipment which will need to access the site.
- e) The division of property (lot splits or subdividing) for the purpose of locating wireless communications equipment or a wireless communications support structure is prohibited unless all zoning requirements and conditions are met.
- f) Where wireless communications equipment is proposed on the roof of a building, if the equipment enclosure is proposed as a roof appliance or penthouse on the building, it shall be designed, constructed, and maintained to be architecturally compatible with the principal building. The equipment enclosure may be located within the principal building or may be an accessory building. If proposed as an accessory building, it shall conform with all district requirements for principal buildings, including yard setbacks.
- g) Where the proposed wireless communications support structure is not a permitted use under section (4)D)i) above, the Planning Commission and City Council shall, with respect to the color of the support structure and all accessory buildings, review and approve so as to minimize distraction, reduce visibility, maximize aesthetic appearance, and ensure compatibility with surroundings. It shall be the responsibility of the applicant to maintain the wireless communications support structure in a neat and orderly condition.
- h) Before installing wireless communications support structures, the support system shall be constructed in accordance with all applicable building codes and shall include the submission of a soils report from a geotechnical engineer, licensed in the State of Michigan. This soils report shall include soil borings and statements confirming the suitability of soil conditions for the proposed use. The requirements of the Federal Aviation Administration, Federal Communications Commission, and Michigan Aeronautics Commission shall be noted. All applicants shall apply for and receive a permit from the Building Official prior to commencement of construction.

- i) A maintenance plan, and any applicable maintenance agreement, shall be presented and approved for the proposed wireless communications equipment or support structure. Such plan shall be designed to ensure long term, continuous maintenance to a reasonably prudent standard.
 - j) The application, if required, or the operator of wireless communications equipment if same is a permitted use, shall provide a description of security to be posted at the time of receiving a building permit for, or the installation of, the wireless communications equipment or a support structure to ensure removal of the wireless communications equipment or support structure when it has been abandoned or is no longer needed, as provided in paragraph (8) below. In this regard, the security shall, at the election of the applicant or the operator, be in the form of:
 - i. Cash calculated at \$100.00 per vertical foot for wireless communications support structures.
 - ii. Surety bond calculated at \$100.00 per vertical foot for wireless communications support structures.
 - iii. Letter of credit calculated at \$100.00 per vertical foot for wireless communications support structures.
 - iv. An agreement in a form approved by the attorney for the City of Livonia and recordable at the office of the Register of Deeds for all wireless communications equipment or support structures, establishing a promise of the applicant and owner of the property to remove the equipment or support structure in a timely manner as required under this section of the ordinance, with the further provision that the applicant and owner shall be responsible for the payment of any costs and attorney's fees incurred by the City of Livonia in securing removal and that any removal costs incurred by the City of Livonia will become a lien on the owner's property and enforceable against said landowner in a court of law of appropriate jurisdiction.
- B) Standards and Conditions Applicable to Waiver Uses and Special Waiver Uses. Applications for wireless communications equipment or support structures which may be approved as waiver uses and special waiver uses under subparagraphs (4)E) or (4)F) above shall be reviewed by the City Planning Commission with a submission of findings to City Council for its review and decision, and if approved, constructed and maintained in accordance with the standards and conditions in subparagraph A), and in accordance with the following standards:
- i) The applicant shall demonstrate the need for the proposed wireless communications equipment or support structure to be located as proposed based upon the presence of one or more of the following factors:
 - a) Proximity to an interstate or major thoroughfare.
 - b) Areas of population concentration.
 - c) Concentration of commercial, industrial, and/or other business centers.
 - d) Areas where signal interference has occurred due to tall buildings, masses of trees, or other obstructions.
 - e) Topography of the proposed wireless communications equipment or support structure location in relation to other wireless communications equipment or support structures with which the proposed facility is to operate.
 - f) Other specifically identified reason(s) creating need for the wireless communications equipment or support structure.
 - ii) The proposal shall be reviewed in conformity with the collocation requirements of this section.

(6) Application Requirements for Wireless Communications Equipment or Support Structures Requiring Approval.

- A) A site plan prepared in accordance with [Section 13.13](#), [Section 13.13\(3\)](#) of this zoning ordinance shall be submitted, showing the location, size, screening, and design of all buildings and structures, including fences, and the location and size of outdoor equipment, and the location, number, and species of proposed landscaping.
- B) The site plan shall also include a detailed landscaping plan where the support structure is being placed at a location which is not otherwise developed, or where a developed area will be disturbed. The purpose of landscaping is to provide screening and aesthetic enhancement for the structure base, accessory buildings, and enclosure. In all cases, there shall be shown on the plan fencing which is required for protection of the support structure and security from children and other persons who may otherwise access facilities.
- C) The application shall include a signed certification by a State of Michigan licensed professional engineer regarding the manner in which the proposed wireless communications support structure will fall, which certification will be utilized, along with other criteria such as applicable regulations for the district in question, in determining the appropriate setback to be required for the structure and other equipment.
- D) The application shall include a description of security to be posted at the time of receiving a building permit for the facility to ensure removal of the wireless communications equipment or support structure when it has been abandoned or is no longer needed, as provided in paragraph (9) below. In this regard, the security shall, at the election of the applicant, be in the form of:
 - i) Cash calculated at one hundred dollars (\$100.00) per vertical foot for wireless communications support structures.
 - ii) Surety bond calculated at one hundred dollars (\$100.00) per vertical foot for wireless communications support structures.
 - iii) Letter of credit calculated at one hundred dollars (\$100.00) per vertical foot for wireless communications support structures.
 - iv) An agreement in a form approved by the attorney for the City of Livonia and recordable at the office of the Register of Deeds for all wireless communications equipment and support structures, establishing a promise of the applicant and owner of the property to remove the equipment and support structures in a timely manner as required under this section of the ordinance, with the further provision that the applicant and owner shall be responsible for the payment of any costs and attorney's fees incurred by the City of Livonia in securing removal and that any removal costs incurred by the City of Livonia will become a lien on the owner's property and enforceable against said landowner in a court of law of appropriate jurisdiction.
- E) The application shall include a map showing existing and known proposed wireless communications equipment and support structures within the City of Livonia, and further showing existing and known proposed wireless communications equipment and support structures within areas surrounding the borders of the City of Livonia in the location, and in the area, which are relevant in terms of potential collocation or in demonstrating the need for the proposed wireless communications equipment and support structures. If and to the extent the information in question is on file with the City of Livonia, the applicant shall be required only to update as needed. Any such information which is trade secret and/or other confidential commercial information which, if released, would result in commercial disadvantage to the applicant, may be submitted with a request for confidentiality in connection with the development of governmental policy MCL 15.243(1)(g). This Ordinance shall serve as the promise to maintain confidentiality to the extent permitted by law. The request for confidentiality must be prominently stated to bring it to the attention of the City of Livonia.

- F) The application shall include the name, address, and phone number of the person to contact for engineering, maintenance, and other notice purposes. This information shall be continuously updated during all times the facility is on the premises.
- G) The application shall include identification of the entities providing the backhaul network for the wireless communications equipment and support structure described in the application and other facilities owned or operated by the applicant in the municipality, including any lessees or users of the facilities.

(7) Time Periods for Approvals.

- A) After an application for a waiver use or special waiver use approval is filed with the Planning Commission, the Planning Official shall determine whether the application is administratively complete. Unless the Planning Official proceeds as provided under subparagraph B) below, the application shall be administratively complete when the Planning Official makes that determination or 14 business days after the Planning Commission receives the application, whichever is first.
- B) If, before the expiration of the 14-day period under subparagraph A) above, the Planning Official notifies the applicant that the application is not administratively complete, specifying the information necessary to make the application administratively complete, or notifies the applicant that a fee required to accompany the application has not been paid, specifying the amount due, the running of the 14-day period under subparagraph A) is tolled until the applicant submits to the Planning Official the specified information or fee amount due. The notice shall be given in writing or by electronic notification.
- C) The Planning Commission and City Council shall approve or deny the application not more than 60 days after the application is considered to be administratively complete. If the Planning Commission and City Council fail to timely approve or deny the application, the application shall be considered approved and the Planning Commission and City Council shall be considered to have made any determination required for approval.
- D) If the wireless communications equipment does not meet the requirements of paragraph (4)A) or for a wireless communications support structure, subparagraphs A) through C) above apply to the waiver use and special waiver use approval process, except that the period for approval or denial under subparagraph C) above is 90 days.

(8) Collocation.

- A) **Statement of Policy:** It is the policy of the City of Livonia to minimize the overall number of newly established locations for wireless communications equipment and wireless communications support structures within the City of Livonia and encourage the use of existing structures for attached wireless communications purposes, consistent with the statement of purpose and intent set forth in paragraph (1) of this section above. In light of the dramatic increase in the number of wireless communications equipment and support structures reasonably anticipated to occur as a result of the change of federal law and policy in and relating to the Federal Telecommunications Act of 1996, it is the policy of the City of Livonia that all users should collocate on wireless communications support structures in the interest of achieving the purposes and intent of this section, as stated above, and as stated in paragraph (1) of this section. If a provider fails or refuses to permit collocation on a facility owned or otherwise controlled by it, where collocation is feasible, the result will be that a new and unnecessary additional structure will be compelled, in direct violation of and in direct contradiction to the basic policy, intent, and purpose of the City of Livonia. The provisions of this subsection are designed to carry out and encourage conformity with the policy of the City of Livonia.
- B) **Feasibility of collocation:** Collocation shall be deemed to be "feasible" for purposes of this section where all the following are met:

- i) The wireless communications provider entity under consideration for collocation will undertake to pay market rent or other market compensation for collocation.
- ii) The site on which collocation is being considered, taking into consideration reasonable modification or replacement of a support structure, can provide structural support.
- iii) The collocation being considered is technologically reasonable, e.g., the collocation will not result in unreasonable interference, given appropriate physical and other adjustment in relation to the structure, antennas, and the like.
- iv) The height of the structure necessary for collocation will not be increased beyond a point deemed to be permissible by the City of Livonia taking into consideration the several standards contained in paragraph (5) of this section, above.

C) Requirements for Collocation:

- i) A special land use permit for the construction and use of a new wireless communications support structure shall not be granted unless and until the applicant demonstrates that a feasible collocation is not available for the coverage area and capacity needs.
- ii) All new and modified wireless communications support structures shall be designed and constructed to accommodate collocation for a minimum of three (3) total users. The Planning Official and Building Official may reduce the number of required users if they are convinced that a total of three (3) users will be unfeasible.
- iii) The policy of the City of Livonia is for collocation. Thus, if a party who owns or otherwise controls a wireless communications support structure within the City of Livonia shall fail or refuse to alter a structure to accommodate a proposed and otherwise feasible collocation, such structure shall thereupon and thereafter be deemed to be a nonconforming structure and use, and shall not be altered, expanded or extended in any respect.
- iv) If a party who owns or otherwise controls a wireless communication support structure shall fail or refuse to permit a feasible collocation, and this requires the construction and/or use of a new wireless communications support structure, the party failing or refusing to permit a feasible collocation shall be deemed to be in direct violation and contradiction of the policy, intent and purpose of the City of Livonia, and consequently, such party shall take responsibility for the violation, and shall be prohibited from receiving approval for a new wireless communications support structure within the City of Livonia for a period of five years from the date of the failure or refusal to permit the collocation. Such a party may seek and obtain a variance from the Board of Appeals if and to the limited extent the applicant demonstrates entitlement to variance relief which, in this context, shall mean a demonstration that enforcement of the five year prohibition would unreasonably discriminate among providers of functionally equivalent wireless communications services, or that such enforcement would have the effect of prohibiting the provision of personal wireless communications services.

- D) Incentive.** Review of an application for collocation (where required under this section) and review of an application for a permit for use of a facility permitted under paragraph (4)D)i) above shall be expedited by the City of Livonia.

(9) Removal.

- A) A condition of the installation of any wireless communications equipment or a wireless communications support structure shall be adequate provision for removal of all or part of the wireless communications equipment and support structure by users and owners upon the occurrence of one or more of the following events:
 - i) When the equipment or support structure has not been used for 180 days or more. For purposes of this section, the removal of antennas or other equipment from the support structure or the cessation of operations (transmission and/or reception of radio signals) shall be considered as the beginning of a period of nonuse.

- ii) Six (6) months after new technology is available at reasonable cost as determined by the Livonia City Council, which determination shall be rebuttable by the support structure owner, which permits the operation of the communications system without the requirement of a support structure.
 - B) The situations in which removal of wireless communications equipment or a wireless communications support structure is required, as set forth in paragraph A) above, may be applied and limited to portions of wireless communications equipment or a wireless communications support structure.
 - C) Upon the occurrence of one or more of the events requiring removal specified in paragraph A) above, the property owner or persons who had used the equipment or support structure shall immediately apply or secure the application for any required demolition or removal permits, and immediately proceed with and complete the demolition/removal, restoring the premises to an acceptable condition as reasonably determined by the Planning Official and Building Official.
 - D) If the required removal of wireless communications equipment or a wireless communications support structure or a portion thereof has not been lawfully completed within sixty (60) days of the applicable deadline, and after at least thirty (30) days written notice to the equipment or support structure owner and property owner, the City of Livonia may remove or secure the removal of the equipment or support structure or required portions thereof, with its actual cost and reasonable administrative charge to be drawn, collected and/or enforced from or under the security posted at the time application was made for establishing the wireless communications equipment or support structure.
- (10) **Application Fees.** All applicants for wireless communications equipment (except where approval is not required pursuant to paragraph (4)A) above) and for a wireless communications support structure shall pay an application fee of \$500.00 before a permit may be issued.
- (11) **Signs on Towers/Antennas/Wireless Communications Support Structures.** No signs shall be displayed on any cellular tower antennas or wireless communications support structure or equipment without a submission of findings of the City Planning Commission and approval of the City Council.
- (12) **Franchise Fee.**
- A) If a wireless communications equipment provider installs land-based equipment such as coaxial, wire, or fiber optic cables to transmit information or electric impulses to or from wireless communications equipment or support structures, such provider shall apply to the City of Livonia for a permit or franchise as required by law prior to installing said land-based equipment. The provider shall submit all information in its possession to the City of Livonia regarding any entity installing, providing, or using a backhaul network, and such entity shall also apply for a permit or franchise as required by law.
 - B) Owners and/or operators of wireless communications equipment and support structures shall certify that all franchises required by law for the construction and/or operation of a wireless communications system in the City of Livonia have been obtained and shall file a copy of all required franchises with the Planning Official.

Article VII.

General Provisions

Section 7.01 Applicability.

The provisions of this Article shall apply to all districts within the City of Livonia, except where otherwise expressly stated in this Ordinance.

Section 7.02 Scope.

No building or land, or part thereof, shall be used, altered, constructed or reconstructed except in conformity with the provisions of this Ordinance and the regulations hereby established which apply to the district in which it is located. No building shall be erected or altered to exceed in height the limit herein established for the district in which such building is located; no building shall be erected, nor shall an existing building be altered, enlarged, or rebuilt, nor shall any open space surrounding any building be encroached upon or reduced in any manner, except in conformity with the provisions of this Ordinance and the regulations hereby established for the district in which it is located.

Section 7.03 Buildings Under Construction.

Any building or structure for which a building permit has been issued and the construction of the whole or a part of which has been started, or for which a contract or contracts have been entered into pursuant to a building permit issued prior to the effective date of this Ordinance, may be completed and used in accordance with the plans and application on which said building permit was granted.

Section 7.04 Building and Easement Grades.

- (1) **Surface Water.** Any building requiring yard space shall be located at such an elevation that a sloping grade shall be maintained to cause the flow of surface water to run away from the walls of the building. A building grade line (sometimes referred to as the finish grade or finish grade line) shall mean the elevation of the ground adjoining the building on all four sides. A first-floor elevation shall mean the height which the first floor extends above the building grade. A sloping earth grade beginning at a sidewalk level shall be maintained and established from the center of the front lot line to the finish grade line at the front of the building and from the rear wall of the building to the rear lot line, subject to approval of the Building Official and City Engineer. The height of the finish grade line of any dwelling shall not be less than twelve (12) inches nor more than eighteen (18) inches above the average front sidewalk elevation; the first-floor elevation shall not be more than twenty-six (26) inches above the finish grade line of the building. When a new building is being constructed on a vacant lot between two (2) existing buildings or adjacent to an existing building, the yards around the new building shall be graded in such a manner so as not to permit runoff of surface water to flow onto the adjacent properties. Whenever the natural drainage of the land is such as is likely to or will cause the flow of surface water to be from the front yard to the rear yard, or where the natural topography dictates a modification from the foregoing requirements, the building grade may be established otherwise than hereinbefore provided; provided, however, that in all such cases the altered design shall be submitted to and approved by the Department of Public Works. Surface grades shall be approved by the Department of Public Works before the issuance of any building permit.
- (2) **Grading.** Where any lot, part or parcel of land, has located upon it a duly recorded easement for any purpose whatsoever, that portion of such land whereon the easement exists shall be graded as indicated by the Department of Public Works, and in no event shall be graded so as to obstruct or substantially slow down the natural flow of surface water across such easement. The grade in easements shall in all cases be subject to the approval of the Department of Public Works.

Section 7.05 Minimum Lot Size and Width.

The size and width of each residential lot on which or in relation to which any building or use is affected by the provisions of this Ordinance shall not be less than the minimum size and width requirements established by this Ordinance which apply to the district in which the residential lot is located.

Section 7.06 Application to Lots of Record.

Where two (2) or more abutting lots of record are held under one (1) ownership and where one (1) or more of such lots are nonconforming, the provisions of this Ordinance relating to lot width and area in the district in which such lots are located shall be observed and shall not be avoided by any sale or conveyance of all or any portion of any such lots after the effective date of this Ordinance; provided, however, that any lot of record which is the same width and area as, or a larger width and area than, fifty-five percent (55%) or more of the lots in the same subdivision in which such lot is located, which have already been developed, with dwellings, and as building sites, may be developed as a separate building site of a width and area consistent with the majority of the lots theretofore developed.

Section 7.07 Approval of Plats.

No proposed plat of a new subdivision shall hereafter be approved by the City Planning Commission unless all the lots within such plat equal or exceeds the minimum lot size and width requirements which apply to the district in which the land sought to be platted is located and unless such plat in all other respects fully conforms with the statutes of the State of Michigan, the ordinances of the City of Livonia, and the Subdivision Regulations of the City Planning Commission.

Section 7.08 Lot Limitation.

No more than one (1) principal building shall be constructed, erected, or placed on any lot in a recorded subdivision or on any parcel of land except for:

- (1) **Outlots.** Parcels described and designated as "outlots" in a recorded plat which are so arranged or subdivided as to provide for one or more principal buildings with a land area allocated to each building which is equal to or greater than the lot area required in the district, and the building and land comply with all other requirements of the district in which it is located.

Section 7.09 Single-Family Residential Accessory Buildings and Recreational Equipment Storage.

(1) Residential Accessory Buildings.

- A) **Maximum Size.** For the purpose of this Section, a garage, whether attached or detached, shall be considered a residential accessory building. On single family lots, the combined ground floor area of all attached and detached residential accessory buildings shall not exceed nine hundred twenty (920) square feet; provided, however, the maximum ground floor area of any attached accessory building shall not exceed seven hundred twenty (720) square feet and the maximum ground floor area of any detached accessory building shall not exceed two hundred (200) square feet. On lots that do not contain any detached accessory buildings, the ground floor area of an attached residential accessory building shall not exceed seven hundred twenty (720) square feet or the ground floor area of the house (excluding the area of the attached accessory building), whichever is larger, subject to a maximum size limit of one thousand (1,000) square feet. On lots that do not contain attached accessory buildings, the combined ground floor area of all detached accessory buildings shall not exceed the ground floor area of the house, subject to a maximum size limit of one thousand (1,000) square feet. Notwithstanding the above, on lots measuring one-half (1/2) acre or more, one (1) detached residential accessory building not to exceed a ground floor area of three hundred (300) square feet shall be allowed solely for the purpose of housing or keeping of animals pursuant to [Section 6.34](#) or [Section 6.49](#). Further, on lots measuring one (1) acre or more, one (1) detached residential accessory building not to exceed a ground floor area of six hundred (600) square feet shall be allowed solely for the purpose of housing or keeping of animals pursuant to [Section 6.34](#) or [Section 6.49](#).
- B) **Maximum Number.** On lots less than one-half (1/2) acre in size, no more than two (2) residential accessory buildings, including one (1) attached accessory building, are allowed. On lots which are more than one-half (1/2) acre, a total of three (3) residential accessory buildings, including one (1) attached accessory building, are allowed.
- C) **Maximum Height.** Detached residential accessory buildings shall not exceed sixteen (16) feet in height.

- D) **Minimum Setbacks.** Attached residential accessory buildings shall comply, in all respects, with the requirements of this ordinance applicable to the principal building. Detached residential accessory buildings shall not be located nearer than two (2) feet to the side lot line, two (2) feet to the rear lot line and shall not be constructed closer than ten (10) feet to the principal building; provided, further, however, that the minimum distance between detached residential accessory buildings on the same lot or parcel shall be four (4) feet. Detached residential accessory buildings proposed to be constructed on corner lots shall not be located closer to the side street lot line than that wall of the principal building which is parallel to such side street line. All residential accessory buildings used for the housing or keeping of animals pursuant to [Section 6.34](#) or [Section 6.49](#) shall be located not less than twenty-five (25) feet from any lot line.
- E) **Maximum Lot Coverage.** The combined floor area of all detached residential accessory buildings shall not occupy more than twenty (20) percent of the area of any rear yard.
- F) **Exempt Structures.** Landscaping structures, art displays, and minor structures (dog houses, playgrounds, treehouses, etc.) are not considered residential accessory buildings and are not regulated by this Section.

(2) **Residential Accessory Building and Storage Therein.** All inoperable or unlicensed vehicles or vehicles bearing visible commercial advertising, equipment, or accessories shall be housed in a residential accessory building when not in use.

(3) **Recreational Equipment Storage.** Unoccupied recreational equipment may be housed in a residential accessory building, and no more than one (1) unit of recreational equipment may be stored in the rear yard, except that no such unit may be stored within the corner side yard, as that term is defined in Section 15.44.030 of the Livonia Code of Ordinances, as amended. The temporary parking of one (1) unit of recreational equipment on the recreational equipment owner's or user's front or side driveway shall be permitted for a period not to exceed seventy-two (72) hours cumulatively in any five (5) day period for the purpose of repairing and maintaining the Recreational Equipment unit for suitable vacation use.

Section 7.10 Reserved.

Section 7.11 Yards; Double Frontage Lots.

On double frontage lots, a front yard, as prescribed for the district as herein established, shall be provided on both streets.

Section 7.12 Front Yards; Schoolcraft Road.

Notwithstanding anything in this Ordinance to the contrary, where a residentially zoned lot or parcel is adjacent to or abuts on Schoolcraft Road in the City of Livonia, no building shall be erected, moved, enlarged, or otherwise established on such lot or parcel closer than seventy-five (75) feet to the lot line abutting the major street.

Section 7.13 Yards; Use.

In any residential district no part of any required yard, except a rear yard, shall be used for any detached garage or any accessory building other than an attached garage or for the storage of vehicles. Any portion of a residential lot in front of the front building line shall be used for landscaping purposes only and nothing shall be placed thereon except trees, shrubs, or items of similar nature and required driveways.

Section 7.14 Yard; Alley.

Wherever there is a public alley at the rear of a lot upon which the lot abuts for the full width, measurements of the depth of any abutting rear yard required under this Ordinance may be made to the center line of such alley.

Section 7.15 Lots; Use for Yards, Courts, Etc.

No portion of a lot used in complying with the provisions of this Ordinance for yards, courts, lot area per family, or percentage of lot occupancy in connection with an existing or proposed building or structure shall again be used as part of the lot required in connection with any other building or structure existing or intended to exist at the same time.

Section 7.16 Room Requirements.

Any dwelling hereafter constructed or altered shall comply with the Housing Law of Michigan.

Section 7.17 Heights; Public, Quasi-Public, Form-Based Development Option, Planned Developments, and Major Business Buildings.

The height of public or semi-public buildings, churches, cathedrals, temples, hospitals, sanitariums, schools, major business buildings when developed as a part of a complete shopping center, and buildings when developed under the Form-Based Development Option pursuant to [Section 5.04](#) or as a Planned Development pursuant to [Section 5.02](#), shall not in any case exceed one hundred and fifty-five (155) feet, subject to the General Waiver Requirements and General Standards as set forth in [Section 13.13\(6\)](#).

Section 7.18 Height; Items Not Included.

Chimneys, cooling towers, elevator bulkheads, fire towers, grain elevators, silos, penthouses, stacks, stage towers, scenery lofts, sugar refineries, tanks, water towers, pumping towers, television and radio towers and antennas, church steeples, monuments, cupolas, and mechanical appurtenances, including signs, pertaining to and necessary to the permitted use of the district in which they are located, shall not be included in calculating the height of the principal structure; provided, however, that in residentially zoned districts, television and radio towers and antennas which have a height, as measured from the established grade, of greater than 75 feet shall be prohibited. Television and radio towers and antennas in residentially zoned districts may be erected to a height of up to 40 feet, as measured from the established grade, but shall be prohibited for heights which exceed 40 feet but which are less than 75 feet, as measured from the established grade, unless written permission has first been obtained from the owners of at least two-thirds (2/3) of the lots which adjoin or abut the property upon which the proposed tower or antenna is to be located when the height of the proposed tower or antenna be greater than the distance from the center of the base of the tower or antenna to any of the property lines of such adjoining or abutting lots; provided, further, that all freestanding television and radio within residentially zoned districts shall be of a self-supporting design; and provided, further, however, that the location of television and radio towers or antennas shall be further subject to the following limitations:

- (1) **Radio Towers or Satellite Antenna Dishes.** The location of television and radio towers or antennas including satellite dish antennas and cellular mobile towers in the established or minimum front yard of any zoning district is prohibited; provided, however, that the foregoing prohibition shall not apply to television or radio antennas, satellite dish antennas or cellular mobile towers located in M-1 and M-2 Districts in Section 25 through 30, when a site plan therefor is approved by the City Council subject to compliance with the general standards contained in [Section 13.13](#), [Section 13.13\(6\)](#) of this Ordinance and the following additional standards; provided, however, that site plan approval shall not be required for satellite dish antennas which do not exceed 24 inches in diameter or 500 square inches in area, whichever is greater. Provided further, however, that prior to installation of any satellite dish antenna, a permit shall be obtained from the Inspection Department:
 - A) That such site plan shall include:
 - i) The proposed location of the antenna and detailed plans and specifications indicating its size, weight, color and specific materials to be used in construction of the antenna.
 - ii) The proposed method of screening the antenna from public view.
 - iii) Any other pertinent information the applicant or City Council deems necessary to properly evaluate the proposed antenna and its location.
 - B) Signs attached to or painted on such antenna are prohibited.

Section 7.19 Height; Parapet Walls.

Parapet walls may extend not more than five (5) feet above the allowable height of a building.

Section 7.20 Height; Public Buildings; Utilities.

The City Planning Commission may recommend and the City Council approve the erection and use of a building or an addition to an existing building which is publicly owned or owned by a public service corporation to be used for a public use or for public utility purposes, in any permitted district to a greater height or of larger area than the district requirements herein established, and permit the location in any use district of a public building or a public utility building, structure or use, provided the City Planning Commission shall find such use, height, area, building or structure reasonably necessary for the public convenience and service; and, provided further, that such building, structure or use is designed, erected and landscaped to conform harmoniously with the general architecture and plan of such district.

Section 7.21 Division or Partitioning of Lots.

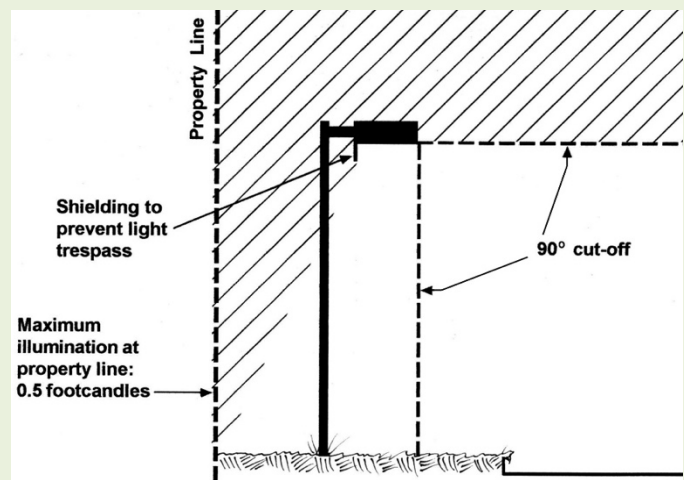
Upon petition by the owner of a parcel of land, the City Council may approve the division of the said parcel in accordance with Act 172 of the Public Acts of 1929 of the State of Michigan, as amended, and the City's Lot Partition Ordinance, Chapter 32 of Title 16 of the Livonia Code of Ordinances, as amended. Any nonconformity waived pursuant to the City's Lot Partition Ordinance shall be deemed waived pursuant to this Ordinance, subject to any conditions contained in the City Council resolution waiving same. Except for deficiencies as to lot width, area, accessibility, and depth-to-width ratio, any deficiencies not waived shall be subject to the jurisdiction of the Board of Appeals.

Section 7.22 Lighting.

(1) **Purpose and Intent.** The regulations in this section aim to ensure that sufficient lighting is provided in the publicly accessible areas of buildings and surrounding property, to provide for the security of property and safety of the general public. These regulations promote the use of appropriate lighting practices and systems and discourage the adverse effects of inappropriate lighting such as glare, light trespass onto adjoining properties, light pollution and sky glow, and energy waste. This section also intends to encourage the use of innovative lighting designs and fixtures which complement the natural and built environments found throughout the City.

(2) **General Requirements.**

- A) **Shielding.** All outdoor lighting in all use districts other than residential shall be shielded so the surface of the source of the light shall not be visible from adjacent residential districts, adjacent residences, and public right-of-way. All outdoor lighting must be directed toward and confined to the ground areas. Full cut-off fixtures must be used to prevent light from projecting above a ninety (90) degree horizontal plane (see figure).



- B) **Illumination Levels.** Sufficient lighting, as specified in the following table, shall be required for parking areas, walkways, driveways, building entrances, loading areas, and public common areas to ensure security of property and safety of persons.

Location	Maximum Level of Illumination (Foot-candles) for the Average of the Area
Off-Street Parking Areas	1.0
Off-Street Loading Areas	1.0
Sidewalks (Residential Areas-Public [only where required by this Ordinance or the City Council])	1.0
Sidewalks (Non-Residential Areas)	1.0
Building Entrances (Frequent Use)	5.0
Building Entrances (Infrequent Use)	1.0
Gas Station (Directly Under Canopy)	20.0
Other Outdoor Areas Not Listed	At the discretion of the Planning Director, with a maximum not to exceed 20.0

- C) **Light Trespass Limits.** Exterior lighting sources shall be designed, constructed, located, and maintained in a manner that minimizes light trespass onto neighboring properties. The light trespass from a property shall not exceed 0.5-foot-candles at the property line, measured five (5) feet from the ground. The light-emitting element of a light fixture shall not be directly visible from neighboring properties, as this is the primary cause of glare.
- D) **Up-lighting.** All up-lighting in nonresidential districts used for the external illumination of buildings, so as to feature the buildings, shall be placed and shielded so as to not interfere with the vision of persons on adjacent highways or adjacent property. The light-emitting element of such fixtures shall not be directly visible from a vehicle or pedestrian travel area so as to not interfere with the vision of persons on adjacent highways or adjacent property. Such lighting shall be shielded in such a manner as to minimize or eliminate light pollution and sky glow.
- E) **Height.** The height of light fixtures shall be measured from the finished grade to the top of the fixture. All lighting fixtures in non-industrial districts shall not exceed twenty (20) feet in height. In industrial districts, or on large-scale commercial developments, lighting fixtures up to a maximum height of thirty-five (35) feet may be allowed if the proposed lighting over twenty (20) feet in height has no adverse impacts on the surrounding land uses and on the natural environment.

(3) Prohibited Lighting.

- A) All illumination of outdoor features of a flashing, moving, or intermittent type are prohibited.
- B) No outdoor recreational facility, public or private, shall be illuminated after 11:00 p.m., except to conclude a permitted recreational or sporting event or other activity already in progress prior to 11:00 p.m.
- C) The use of laser source light or any similar intensity light for outdoor advertising or entertainment is prohibited.
- D) The operation of searchlights for advertising purposes is prohibited.

- (4) **Exempt Lighting.** The following exterior lighting fixtures and systems are exempt from the regulations of this section. The Planning Director reserves the right to enforce standards to minimize glare, reduce light pollution, and otherwise protect the health, safety, and welfare of the public.
- A) Light fixtures placed by a governmental agency in the right-of-way.
 - B) Decorative holiday lighting.
 - C) Pedestrian walkway lighting.
 - D) Temporary festival and civic lighting.
 - E) Temporary construction or emergency lighting.
 - F) Instances where federal, state, or local laws, rules, or regulations take precedence over the provisions of this section.
- (5) **Waiver Process.** The City Council has the ability to waive the lighting requirements of this Section upon evidence that the required lighting would have a negative impact on neighboring properties.

Section 7.23 Accessory Structures and Uses.

(1) **Accessory structures and uses:**

- A) The following standards apply to accessory structures in the N1 and N2 Districts:
 - i) Private garages and detached accessory structures are permitted in accordance with [Section 2.02](#), [Section 2.02\(2\)](#) and [Section 7.09](#) of this Ordinance.
 - ii) Must be customarily incidental to the principal permitted use on the site.
- B) In addition to the standards above the following standards shall apply to accessory structures and uses in the R-U-F District:
 - i) No more than one (1) temporary structure (which may be of wood construction and shall have not more than three (3) walls and a roof with at least one (1) open side) which structure shall only be used for the sale of products grown on the site in the greenhouse or truck garden between May 15 and October 31 and thereafter shall be removed, dismantled and stored in the rear yard only.
 - ii) Such temporary structure shall be located on a parcel of land at least one-half ($\frac{1}{2}$) acre in size and not less than twenty-five (25) feet from the street or highway right-of-way line.
 - iii) An open space for parking, twenty-five (25) feet off the street or highway right-of-way, shall be provided for patrons of the temporary structure. Provided, however, that the outdoor storage of trucks, merchandise and equipment is prohibited.
- C) The following standards apply to accessory structures in the NM1 and NM2:
 - i) Not more than one of which may be a commercial vehicle which shall not exceed three-quarter ($\frac{3}{4}$) ton capacity, and which shall be kept housed within a garage when not used, provided said commercial vehicle is owned and operated by a member of the family who resides in said living unit.
 - ii) The storage or parking of trucks, truck tractors and truck trailers of over one (1) ton capacity, automobile trailers or the storage, parking or use of coaches, bus or street car bodies, or tourist cabins, tents or similar dwellings and enclosures shall not be allowed or considered a legal accessory use in an NM1 District. This shall not, however, prohibit the storage in the rear yard only of one (1) unoccupied recreational equipment unit for each dwelling unit which equipment is the property of or in the trust of the occupant of the dwelling unit.
 - iii) Must be customarily incidental to the principal permitted use on the site.

- D) The following standards apply to accessory structures in the C-1, C-2, C-3 and C-4 Districts:
 - i) Must be customarily incidental to the principal permitted use on the site.
 - ii) A storage garage for the storage of commercial vehicles used by a business or other permitted activity, when located on the same lot therewith and occupying not more than twenty-five (25) percent of the area of such lot shall be considered a legal accessory building.
 - iii) Accessory uses to those permitted in this section include assembly, repair and storage which is clearly incidental to the conduct of the permitted use.
 - iv) Except where prescribed herein, fences are prohibited in all commercial zoning districts.
- E) The following standards apply to accessory structures in the M-L, M-1, and M-2 Districts:
 - i) Must be customarily incidental to the principal permitted use on the site.
 - ii) Any portion of the lot area not used for structures, driveways, parking areas and sidewalks shall be landscaped and thereafter permanently maintained. Such landscaping shall include the total area of the established or minimum front yard exclusive of driveways, parking areas and sidewalks.

- (2) **Accessory residential use for apartments.** Provided they do not constitute more than twenty (20) percent of the total floor area of the building.

Section 7.24 Fences and Walls.

Except where prescribed herein, fences are prohibited in all commercial zoning districts. Yards may be used for fences and similar structures as set forth in Chapter 44 of Title 15 of the Livonia Code of Ordinances, as amended.

Section 7.25 Alternative Energy.

(1) Solar Energy.

- A) **Roof-Mounted and Wall-Mounted Solar Energy Systems.** Roof-mounted and wall-mounted solar energy systems for on-site use are permitted accessory structures in all zoning districts, subject to the following regulations:
 - i) Height. Roof-mounted systems shall not extend more than three (3) feet above the roofline nor above the maximum permitted height of the building to which it is attached.
 - ii) Location.
 - a) Roof-mounted solar energy systems may be located anywhere on a roof of a principal or accessory structure. However, roof-mounted solar energy systems shall not protrude beyond the edge of the roof. A solar panel may function as a roof element, such as an awning.
 - b) Wall-mounted solar energy systems may be located anywhere on the wall of a principal or accessory structure. Wall-mounted systems shall not extend above the edge of the roof.

- B) **Ground-Mounted Solar Energy Systems.** Ground mounted and freestanding solar energy systems for on-site use are permitted accessory structures in all zoning districts. Total system production is limited to 10kW in all zoning districts, except M-1 and M-2, subject to the following regulations:
 - i) **Location and Setbacks.** Solar energy systems must be located in the rear of the principal building. Solar energy systems must also meet the minimum setbacks of the zoning district.
 - ii) **Height.** The height of the solar energy system and any mounts must not exceed ten (10) feet when oriented at maximum tilt.
 - iii) **Screening.** Evergreen landscaping must be provided to screen the racking and framing below the panels from view on all sides.
 - iv) **Power Lines.** All power lines between solar panels and inverters must be placed underground.
- C) **Performance Guarantee.** All applications for a solar energy system must be accompanied by a performance guarantee sufficient to ensure the decommissioning and removal of the system when it is abandoned or no longer needed.
- D) **Insurance.** The applicant must submit proof of sufficient property damage and liability insurance.
- E) **Utility Connection.** The applicant must submit evidence that the utility company has been informed of the customer's intent to install an interconnected, customer-owned solar energy system and that such connection has been approved. Off-grid systems are exempt from this requirement.

(2) Wind Energy.

- A) **Districts Permitted.**
 - i) **Roof-Mounted Small Wind Energy Systems** are permitted by right in all zoning districts, provided that the system does not fall within the front yard and meets all of the applicable requirements of this Ordinance.
 - ii) **Tower-Mounted Small Wind Energy Systems** shall be treated as a waiver use in the RUF, P-L, and M-L Districts and as a permitted use in the M-1 and M-2 Districts, provided that the system does not fall within the front yard and meets all of the applicable requirements of this Code.
- B) **Minimum Lot Area.**
 - i) **Roof-Mounted Small Wind Energy Systems** will have no minimum lot area.
 - ii) **Tower-Mounted Small Wind Energy Systems** must be located on a lot with a minimum area of one (1) acre.
- C) **Maximum Wind Turbine Height.**
 - i) **Roof-Mounted Small Wind Energy Systems** will have a maximum height of ten (10) feet above the highest point of the roof or ten (10) feet above the maximum height of the zoning district, whichever is lower.
 - ii) **Tower-Mounted Small Wind Energy Systems** will have a maximum height of seventy (70) feet.
- D) **Minimum Setbacks.**
 - i) **Roof-Mounted Small Wind Energy Systems** must adhere to the minimum setbacks of the zoning district.
 - ii) **Tower-Mounted Small Wind Energy Systems** must be set back from all property lines, overhead utility rights-of-way and easements, and other towers a distance equal to or greater than the height of the tower.
- E) **General Standards.** The following requirements are applicable to all wind energy systems:
 - i) **Noise.** A wind energy system must comply with the noise standards set forth in the City's Ordinances.

- ii) **Shadow Flicker.** The application for a wind energy system must include a shadow flicker analysis demonstrating impact on adjacent and nearby residential properties. Wind energy systems must be constructed in locations that minimize the impacts of shadow flicker on residences.
- iii) **Lighting.** No wind energy system will be artificially lighted unless required by the Federal Aviation Administration (FAA).
- iv) **Appearance, Color, and Finish.** The wind energy system must be maintained in the color or finish that was originally applied by the manufacturer, unless otherwise approved in the building permit. All wind energy systems will be a single non-reflective, non-obtrusive, matte finished color (white or gray).
- v) **Electrical Wires.** All electrical wires associated with a wind energy system, other than wires necessary to connect the wind generator to the tower wiring, the tower wiring to the disconnect junction box, and grounding wires, must be located underground.
- vi) **Compliance with Electrical Code.** Building permit applications for wind energy systems must be accompanied by line drawings of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the National Electrical Code.
- vii) **Construction Codes, Towers, and Interconnection Standards.** Wind energy systems, including towers, must comply with all applicable state construction and electrical codes and local building permit requirements. Wind energy systems including towers, must comply with the FAA requirements, and other applicable local and state regulations. A wind energy system connected to the public utility electrical grid must comply with the Michigan Public Service Commission and Federal Energy Regulatory Commission standards. Off-grid systems are exempt from this requirement.
- viii) **System Access.** Small wind energy systems must be designed and installed such that step bolts, ladders, or other means of access readily accessible to the public are located at least eight (8) feet above grade level.
- ix) **Safety.** A wind energy system must have an automatic braking, governing, or feathering system to prevent uncontrolled rotation or over speeding. All wind towers must have lightning protection. If a tower is supported by guy wires, the wires must be clearly visible to a height of at least six (6) feet above the guy wire anchors.
- x) **Minimum Ground Clearance.** The lowest extension of any blade or other exposed moving component of a tower mounted wind energy system must be at least twenty (20) feet above the surrounding grade at its highest point within twenty (20) feet of the base of the tower and at least twenty (20) feet above any outdoor surface intended for human use, such as balconies or roof gardens, that are located below the wind energy system.
- xi) **Roof-Mounted Small Wind Energy Systems.** Roof-mounted small wind energy systems must be limited to roof mounting and must not be mounted on any other building wall or surface.
- xii) **Performance Guarantee.** All applications for a small wind energy system must be accompanied by a performance guarantee in an amount sufficient to ensure the decommissioning and removal of the system when it is abandoned or no longer needed.
- xiii) **Insurance.** The applicant must submit proof of sufficient property damage and liability insurance.
- xiv) **Utility Connection.** The applicant must submit evidence that the utility company has been informed of the customer's intent to install an interconnected, customer-owned wind energy generator and that such connection has been approved. Off-grid systems are exempt from this requirement.

Section 7.26 Encroachments and Exempt Structures.

(1) Permitted Yard Encroachments.

- A) **Open Decks, Stairways, Porches, Paved Terraces, and Patios in the Front Yard Setback.** Open decks, stairways, porches, paved terraces, and patios which are at or below the finished first floor level of the building may encroach up to six (6) feet into the required front yard setback area on any lot, provided that in no case may any paved terrace, patio, deck, or other similar structure be located closer than 25 feet from a regulated wetland(s) or a detention pond or non-regulated wetland as shown on an approved site plan. Open decks, stairways, porches, paved terraces, and patios that encroach into the required front yard setback area may have a required railing and be covered with a roof that is no higher than the first story and does not encroach more than 6 feet into the front yard setback area. Any deck, terrace or patio that encroaches into the front yard setback must remain open and shall not be enclosed.
- B) **Open Decks, Paved Terraces, and Patios in the Rear Yard Setback.** Open decks, stairways, porches, paved terraces and patios which have no roof or other projections above any required railing and which are at or below the finished first floor level of the building may encroach up to ten (10) feet into the required rear yard setback area on any lot, provided that in no case may any paved terrace, patio, deck, or other similar structure be located closer than 25 feet from a regulated wetland(s) or a detention pond or non-regulated wetland as shown on an approved site plan.
- C) **Chimneys, Fireplaces, Eaves, Overhangs, and Cornices in the Side, Rear and Front Yard Setbacks.** Chimneys, fireplaces, eaves, overhangs, and cornices may encroach up to twenty-four (24) inches into the required side, rear or front yard setback area on any lot, provided that in the case of a side yard, a minimum setback of four (4) feet shall be maintained.
- D) **Landscaping, Garden, and Retaining Walls.** Landscaping, garden, and retaining walls raised three (3) feet or less above the finished grade may be located in a yard setback.
- E) **Walls, Fences, and Other Protective Barriers.** Walls, fences, and other protective barriers may be located in a yard setback pursuant to Chapter 44 of Title 15 of the Livonia Code of Ordinances.
- F) **Swimming Pools.** Swimming pools may be located in required yard setback subject to the requirements in [Section 6.48](#).
- G) **Public Use.** The City Planning Commission may recommend and the City Council approve the erection and use of a building or an addition to an existing building which is publicly owned or owned by a public service corporation to be used for a public use or for public utility purposes, in any permitted district to a greater height or of larger area than the district requirements herein established, and permit the location in any use district of a public building or a public utility building, structure or use, provided the City Council shall find such use, height, area, building, or structure reasonably necessary for the public convenience and service; and, provided further, that such building, structure or use is designed, erected, and landscaped to conform harmoniously with the general architecture and plan of such district.

Section 7.27 Subdivision and Site Condominiums.

No portion of any site condominium may be sold or offered for sale, nor shall a permit be issued for construction of same in the City of Livonia unless the master deed for such site condominium has been approved by the City Council upon review and submission of findings by the City Planning Commission, which master deed shall include as attachments thereto bylaws and a site plan that complies with the requirements of [Section 5.02](#) and the Subdivision Control Ordinance, Title 16, Chapters 16.04-16.40 of the Livonia Code of Ordinances, and shall pay the filing fees set forth therein.

- (1) Applicability of Subdivision Improvement Regulations for Site Condominiums.** Sewer, water, storm drainage, other utility services and streets and roads for site condominium projects shall conform to design, layout, and improvement standards as provided in the City of Livonia Subdivision Control Ordinance. The plat review and approval process required by the Subdivision Control Ordinance and Subdivision Rules and Regulations shall not apply to site condominiums.
- (2) Utilities.**

 - A) The Master Deed shall grant utility easements or the right of access to utility easements to the City of Livonia as may be required to construct, operate, inspect, maintain, repair, alter, replace, and/or remove pipelines, mains, and other installations of a similar character for the purpose of providing public utilities.
 - B) The Master Deed shall require that any stormwater detention pond(s) or underground stormwater detention facilities installed in connection with development of the site condominium shall be located in private parks, outlots, or general common areas and shall not be installed on limited common areas or any portion of any unit offered for sale. This requirement may be waived or modified, if Council finds that compliance with same would be unduly onerous, by a resolution in which two-thirds (2/3) of the City Council concur. To prevent an inadvertent waiver or modification of the prohibition on detention ponds in limited common areas and units offered for sale, such resolution must be separate from the resolution approving the Master Deed.
- (3) Master Deed.** The site condominium developer shall furnish a copy of the Master Deed as approved by the City Council, including bylaws and site plans, to the City Assessor and to the Inspection Department.
- (4) Bonds required.**

 - A) For any site condominium or other project which requires the approval of the City Council pursuant to this Zoning Ordinance, as amended the City Council may require the posting of a cash deposit, certified check, irrevocable bank letter of credit, or surety bond acceptable to the City covering the estimated cost of completing any or all of the following (the "improvements"):

 - i) roadways
 - ii) lighting
 - iii) utilities
 - iv) sidewalks
 - v) screening
 - vi) drainage
 - vii) such other features and actions which are considered necessary by the City Council to protect the health, safety, and welfare, of residents of the city, subject to the limitations of Section 125.584e of the Michigan Compiled Laws.
 - B) Any such performance guarantee shall be deposited with the City Clerk, at the time of the issuance of the permit authorizing the activity or project, to insure faithful completion of the improvements. Any cash deposits made to assure completion of an improvement shall be rebated at such time as completion of the improvement is attested by the City Engineer and Department of Inspection.
 - C) This section shall not be applicable to improvements for which a cash deposit, certified check, irrevocable bank letter of credit, or surety bond has been deposited pursuant to the Subdivision Control act, being Act No. 288 of the Public Acts of 1967, as amended, section 560.101 to 560.293 of the Michigan Compiled Laws.
- (5) Completion.** The proprietor shall be responsible for completing all common elements as shown on the approved site plan.

Section 7.28 Industrial Parks

- (1) **Setback Requirements.** When an industrial building is hereafter erected fronting on an internal road within an Industrial Park, the front yard shall be at least sixty (60) feet in depth as measured from the centerline of the publicly dedicated street.
- (2) **Maximum Ground Coverage by Principal Structure.** In an Industrial Park located in this district, no more than fifty percent (50%) of the total lot area shall be occupied by the principal structure.
- (3) **Landscaping Requirements.** Any portion of the lot area not used for structures, driveways, parking areas, and sidewalks, shall be landscaped and maintained.
- (4) **Driveways and Parking Areas.** All driveways and parking areas shall be surfaced with concrete or plant-mixed bituminous material within two (2) years from the date that the Certificate of Occupancy is issued by the Bureau of Inspection.
- (5) **Off-Street Parking Requirements.** Off-street parking facilities shall be provided as hereinafter specified in Article IX of this ordinance, except that no parking of automobiles or other motor vehicles shall be permitted in the front yard setback if such setback is less than eighty-five (85) feet in depth as measured from the centerline of the publicly dedicated internal street.

Article VIII.

Environmental Performance Standards

Section 8.01 Sound/Noise.

Sound and noise shall be regulated by Chapter 8.32 of the Livonia Code of Ordinances.

Section 8.02 Odors.

Any use which causes the production of odors or fumes, noxious or otherwise, which are detectable beyond the building, shall not be permitted.

Section 8.03 Waste and Rubbish Facilities.

Waste and rubbish facilities are subject to the Livonia Code of Ordinances Chapters 13.36 and 13.38.

Section 8.04 Soil Removal, Excavation, and Dumping Soil, Sand, Clay, or Gravel.

- (1) **Permit Required.** No person shall remove, excavate, extract, stockpile, or transport or cause to be removed, excavated, extracted, transported, or stockpiled for such removal any soil from any land within the City of Livonia unless and until the bonds and fees required herein have been filed and deposited and a permit therefor obtained from the City. All soil removal and excavation permits where authorized, shall be issued by the Department of Inspection after full compliance by the applicant of all terms and provisions of this section relating thereto.
- (2) **Approval of Commission.** No soil removal permit or permit to stockpile shall hereafter be issued unless and until the City Planning Commission does, by resolution:
 - A) Determine the proposed soil removal and/or excavation operations will not be injurious to the public health, safety and welfare.
 - B) Approves the application for a soil removal permit.
 - C) Authorizes the issuance of a soil removal permit. Such approval shall be nontransferable, and the applicant must obtain from the Department of Inspection a topsoil permit within a thirty (30) day period immediately following the approval.

(3) Application Required. Applications for soil removal and/or excavation permits, verified under oath, shall be filed, in quadruplicate, with the Department of Inspection. Such applications shall be accompanied by and set forth fully the following information:

- A) The full name, address and signature of the applicant; a full and complete legal description of the land on which the soil removal and/or excavation operations are proposed; the names, addresses and signatures of the owner or owners of such land; a detailed description of the nature and extent, including the amount of acreage, of the proposed operations so that the character thereof and the effect upon such land can readily be ascertained; a description of the equipment and vehicles to be used in the proposed operations; the time within which such operations shall be commenced and completed, and an agreement on the part of the applicant and owner, or owners, to fully comply with all the ordinances, rules and regulations of the City of Livonia and all its departments.
- B) A topographical survey dated and certified by a registered engineer or land surveyor showing, in detail, the existing grade elevations, the proposed or finished grade elevation and the contour of the land described in the application. The survey shall also indicate the grade and elevation of all the nearest existing streets; provided that in those cases where the applicant desires to remove soil from land that has been or is being platted and a proposed subdivision has been approved or will be submitted to the City of Livonia, then the applicant shall submit, in addition to the above survey, a plat clearly indicating the grade elevations of the proposed streets in such subdivision.
- C) A license, witnessed and acknowledged as in the case of a deed, granting to the applicant (if the applicant is not the owner), the person or persons executing the corporate surety bond required hereafter and the City of Livonia, severally, the right to enter upon said premises, describing them and granting to the aforesaid the right to fill and grade such premises, and restore the same and bring it to the normal building grade as established from the nearest existing or proposed street as the case may be.
- D) The Department of Inspection shall forward a copy of such application and topographical survey to the Police Department, the Engineering Division and the City Planning Commission.
 - i) The Police Department shall examine the application to determine whether or not the proposed operations will interfere with the enforcement and administration of traffic laws. The recommendation of the Police Department shall be transmitted to the City Planning Commission.
 - ii) The Engineering Division shall examine and investigate the application and topographical survey to determine the existing grade elevation of the property described in same. The City Engineer shall recommend approval of the application only if it appears from his or her examination and investigation that no soil will be removed below the normal building grade as established by the City Engineer from the nearest existing or proposed streets, as the case may be. The recommendation of the Engineering Division shall be transmitted to the City Planning Commission.
 - iii) The City Planning Commission shall examine the application and topographical survey, together with the above recommendations. The Commission shall not approve any application to remove soil below the normal building grade as established from the nearest existing or proposed street; similarly, no application shall be approved where the proposed operations, in the opinion of the Commission, would result in land becoming unwholesome, unhealthy, offensive, filthy or otherwise obnoxious. If, in the opinion of the Commission, there is sufficient soil available above the normal building grade and the proposed operations will not endanger the public health, safety and welfare, then the Commission may approve the application. The approval shall be by resolution; such resolution shall also authorize the issuance of a soil removal permit subject to any restriction or condition which the Commission may specify in approving the application and upon the payment of the permit fee and filing of the bond hereinafter provided.

(4) Regulations, Fee, Bonds.

- A) Where an application requests permission to remove soil from land that has been platted and approved for subdividing by the City of Livonia, the grade elevation of the streets in the proposed subdivision may be used as a basis for determining the normal building grade. The applicant is herein required to present substantial evidence of the grade elevation of such proposed streets.
- B) Notwithstanding any of the provisions of this section, no soil shall be removed below the normal building grade as established from the nearest existing or proposed street, by the Engineering Division. No soil shall be removed in such manner as to cause water to collect or as to result in a menace or danger to the public health, safety and welfare. No soil shall be removed in such manner as to leave the surface of the land below such established grade or unfit for the growing of turf and other land uses permitted in the district in which such removal occurs. The Engineering Division at any time may fully inspect or examine land from which it is proposed to remove or excavate soil, for the purpose of making any determination as to grades or otherwise. The holder of a permit shall, during such removal, provide for drainage in such manner as may be approved by the Engineering Division of the Department of Public Works.
- C) The fee for such permit is hereby fixed at One Hundred Dollars (\$100.00). No permit shall be transferable. Such permit shall specify the period for which it is granted, which shall in no case be longer than one (1) year from the date of issuance. A permit may be revoked by the Department of Inspection whenever the holder of such permit has violated any of the provisions of the ordinances, rules, and regulations of the City of Livonia or whenever the exercise of the rights granted by such permit have caused or is reasonably likely to cause a menace or danger to the public health, safety or welfare.
- D) No permit shall be issued until the applicant and owner or owners have filed with the City a cash bond guaranteeing and a corporate surety bond, conditioned on the full performance by the holder of the permit of all the provisions of this section, due compliance with the laws of the State and ordinances of the City of Livonia and payment of any and all claims of the City of Livonia and/or any person or persons arising out of any operation under or use of such permit, or any violation of said laws or ordinances; such bonds shall also be specifically conditioned upon the holder of the permit, at all times, maintaining the premises upon which the removal of soil or excavating is being performed, in a safe and proper condition, and that said permitholder will, upon completion of such operation, leave or restore the said land to normal building grade level (as established by the Department of Public Works), remove and abate all offensive conditions, all unhealthy, unwholesome, obnoxious, filthy and unsanitary conditions, drain stagnant water existing and resulting from such removal of soil or excavating. The City Planning Commission shall fix the amount of the bonds to be deposited by the applicant. The bonds shall be in an amount estimated as sufficient to fill and grade the land on which such operations are to be undertaken to the normal building grades as established by the Engineering Division of the Department of Public Works. The Commission shall fix the amount of the corporate surety bond to be filed and the applicant shall deposit in addition thereto a cash bond in an amount equal to ten (10) per cent of the surety bond. Such bonds shall be for an indefinite period until released and discharged, after recommendation of the Engineering Division and Department of Inspection, by resolution of the City Planning Commission adopted at a regular meeting of that body. The bonds shall be in such form as may be approved by the City Attorney.

- (5) Exceptions.** This section shall apply only to the removal of soil for commercial purposes and shall not apply to the moving, grading or leveling of soil within a parcel of land for reasonably immediate use upon such parcel of land, nor shall this section apply to such removal of soil as the Department of Inspection may determine to be reasonably necessary in the construction of basements, foundations, footings, driveways, underground utilities and parking areas, nor shall this section apply to the removal of grass sod grown for commercial purposes where the Department of Public Works determines that such removal will not cause water to collect, result in poor drainage conditions or constitute a menace to public health and safety; provided, however, that a determination that this section does or does not apply in the above instance shall always be made in writing by the Department of Inspection on written application of any person desiring to remove sod.

- (6) **Excavations and Holes.** The construction, maintenance, or existence within the City of Livonia of any unprotected, unbarricaded, open or dangerous excavations, holes, pits, or wells, or of any excavations, holes or pits which constitute or are reasonably likely to constitute a danger or menace to the public health, safety or welfare, are hereby prohibited; provided, however, that this section shall not prevent construction of excavations under a permit issued pursuant to this Ordinance or the Building Code Ordinances of the City of Livonia where such excavations are properly protected and warning signs posted in such manner as may be approved by the Department of Inspection; and, provided further, that this section shall not apply to lakes, streams, or other natural bodies of water, or to ditches, streams, reservoirs, or other major bodies of water created or existing by authority of the State of Michigan, County of Wayne, City of Livonia, or other governmental agency.
- (7) **Dumping of Soil, Sand, Clay or Gravel.** The dumping of any soil, sand, clay, or gravel on any parcel of land within the City of Livonia is hereby prohibited, except where, within six (6) months following such dumping, such parcel of land is graded in such manner as to prevent the collection of water, to provide proper drainage and to leave the ground surface fit for the growing of turf and other land uses permitted in the district; provided, however, that no soil, sand, clay, gravel, trash, rubbish, or waste material shall be dumped on the spillways or flood plains of any natural streams or water courses, or on any area between the lower and upper banks of such streams or water courses, except on recommendation of the City Planning Commission and approval of the City Council after a public hearing and on a satisfactory showing that such dumping will not result in damage to other property within the City of Livonia and will not be injurious to the public health, safety, and welfare.

Section 8.05 Performance Standards for Industrial Uses.

All uses permitted in either ML, M-1, or M-2 Districts shall comply with the following table of standards:

- (1) **Automatic Screw Machines.** Where permitted in a district shall only be operated with noise silencers and only when located more than two hundred (200) feet from any residential zoned district.
- (2) **Stamping Machines, Punch Presses, and Press Brakes.** When permitted in a district, no such machine shall be loaded beyond the capacity prescribed by the manufacturer. No such machine shall be operated less than two hundred (200) feet from any residential zoned district.
- (3) **Hot Forgings, Steam, or Board Hammers.** No such machine shall be operated except in an M-2 District located more than one thousand (1,000) feet from any residential zoned district and when operations are located entirely within a masonry building on a suitably reinforced concrete mat or to solid rock and mounted on shock absorbers that reduce vibrations to a reasonable minimum.
- (4) **Sound Level Limitations.** Noise decibels, as measured at the street or property line shall not exceed sixty-five (65) decibels in an ML District; seventy (70) decibels in an M-1 District; and seventy-five (75) decibels in an M-2 District. All noise shall be muffled so as not to become objectionable due to intermittence, beat frequency, or shrillness.
- (5) **Smoke, Dust, Dirt, and Fly Ash.** Shall not exceed 0.3 grains per cubic foot of flue gas at stack temperature of 500 degrees Fahrenheit and not to exceed fifty (50) per cent excess air and shall not be so unclean, destructive, unhealthful, or hazardous as to be detrimental to the public health, safety, or welfare nor shall visibility be impaired by the emission of a haze which unduly impedes vision within apparent opaqueness equivalent to No. 1 of the Ringlemann Chart.
- (6) **Glare and Heat.** Glare and heat from arc welding, acetylene torch cutting, or similar processes shall be performed so as not to be seen from any point beyond the outside of the property.

(7) Sewage Wastes.

- A) No wastes shall be discharged in the public sewer system which is dangerous to the public health and safety.
- B) Acidity or alkalinity shall be neutralized to a pH of 7.0 as a daily average on a volumetric basis, with a temporary variation of pH 5.0 to 10.0.
- C) Wastes shall contain no Cyanides nor Halogens and shall contain no more than 10 parts per million (ppm) of the following gases: hydrogen sulfide, sulfur dioxide, and nitrous oxide.
- D) Wastes shall not contain any insoluble substances in excess of 10,000 ppm or exceed a daily average of 500 ppm or fail to pass a No. 8 Standard Sieve, nor have a dimension greater than one-half (1/2) inch.
- E) Wastes shall not have a chlorine demand greater than 15 ppm.
- F) Wastes shall not contain phenols in excess of .005 ppm.
- G) Wastes shall not contain any grease or oil or any oily substance in excess of 100 ppm or exceed a daily average of 25 ppm.

(8) Radioactive Materials. Radioactive materials shall not be emitted to exceed quantities established as safe by the U.S. Bureau of Standards, or as amended from time to time.

Section 8.06 Special Flood Hazard Areas.

(1) Application of Article. All land lying within the Special Flood Hazard Area is subject to the regulations of this district in addition to the regulations otherwise established by the City of Livonia Zoning Map. The boundaries of the Special Flood Hazard Area shall coincide with the boundaries of the areas indicated as within the limits of the 100-year flood in the report entitled "The Flood Insurance Study, City of Livonia, Michigan," dated September 30, 2008, with accompanying Flood Insurance Rate Maps, effective February 2, 2012. The aforesaid Study and Maps are made part of this Article by reference, copies of which shall be maintained on file for public examination in the City Planning Department and the City Engineering Division.

(2) Permitted Uses. Notwithstanding any other provisions of this Ordinance, no building or structure shall be erected, converted, or structurally altered, and no land and/or structure shall be used in a Special Flood Hazard Area, except for one (1) or more of the following uses:

- A) Gardening, horticulture, open recreational uses, such as parks, playgrounds, playfields, athletic fields, golf courses, bridle trails, and nature paths.
- B) In the area above the Special Flood Hazard Area, uses permitted by the zoning district otherwise established for the lot, subject to regulations of such districts; provided, however, that the elevation of the lowest floor designed or intended for human habitation (including basement) shall be elevated to or above the elevation of the nearest point of the Special Flood Hazard Area Level unless an exception is granted pursuant to Chapter 15.36 of the Livonia Code of Ordinances.
- C) In the area below the Special Flood Hazard Area Level, land may be used to supply open space or lot area requirements of a lot partially located beyond; provided, however, that no building or structure shall be located below the Special Flood Hazard Area Level except in conformance with Chapter 15.36 of the Livonia Code of Ordinances.

(3) Accessory Uses.

- A) In the area above the Special Flood Hazard Area Level, accessory uses shall be regulated by the provisions of the zoning district within which such lot is otherwise located.

- B) In the area below the Special Flood Hazard Area Level, off-street parking is permitted as a use accessory to a principal use beyond the Special Flood Hazard Area Level on the same lot. However, no building, structure, fence, or equipment other than boundary monuments is permitted below the Special Flood Hazard Area Level as an accessory use.

(4) Dumping Prohibited; Exceptions.

- A) In the area below the Special Flood Hazard Area Level, dumping or backfilling with any material in any manner is prohibited, unless through compensating excavation and shaping of the flood plain, the flow and impoundment capacity of the flood plain will be maintained or improved.
- B) In the area below the Special Flood Hazard Area Level, dumping or backfilling with any material in any manner is prohibited, unless no significantly measurable reduction in flow or impoundment capacity of the flood plain would thereby be caused; and further, that approval or a letter of no authority has been issued from the Michigan Department of Environment, Great Lakes and Energy under the authority of the floodplain regulatory provisions of Part 31 of Act 451 of 1994.
- C) Below the Special Flood Hazard Area Level, the construction or location of bridges, outdoor play equipment, bleachers, and similar outdoor equipment and appurtenances is prohibited unless such elements would not cause any significant obstruction to the flow, or reduction in the impoundment capacity of the flood plain.
- D) The foregoing exceptions shall be permitted only upon review by the City Planning Commission at a public hearing and on a showing that the above requirements are satisfied, and submission of findings to and approval by the City Council. To the extent applicable, the provisions set forth in [Section 13.13](#) of this Ordinance shall be complied with.

Section 8.07 Outdoor Toilets.

No permanent building within the City of Livonia shall hereafter be erected, altered, or used for an outside toilet of any type unless approved lavatory facilities are installed and connected to a public sewer. This Section shall not be construed to prohibit temporary toilets on construction sites during period of construction or for temporary public gatherings.

Article IX.

Parking, Loading, and Access Management

Section 9.01 Applicability.

The parking requirements of this Code must be met when one (1) or more of the following takes place.

- (1) Any new building or structure.
- (2) Commencement of use of any land.
- (3) Any alterations to a building or structure which would require additional parking.
- (4) Any alteration to the use of any building or structure or use of land which would require additional parking.

Section 9.02 Access Management.

- (1) **Standards for the Number of Nonresidential Driveways.** Access shall be provided for each site. Where feasible, access may be provided via a shared access driveway. Where it is not possible to provide shared access, access may be provided by a single driveway. One (1) additional driveway may be allowed for properties with a continuous frontage of over five hundred (500) feet and one (1) additional driveway for each additional two hundred fifty (250) feet of frontage. Uses requiring more than one driveway, detailed elsewhere in this Ordinance, are subject to those specific standards and the standard above will not apply. The City Council may determine additional driveways are justified due to the amount of traffic generated by the use without compromising traffic operations along the public street, based upon a traffic impact study submitted by the applicant.
- (2) **Minimum Width.** Each ingress and/or egress driveway must have a minimum width of twenty (20) lineal feet and must be so designed so as to provide adequate turning and maneuvering for emergency and service vehicles.

(3) Driveway Spacing Standards.

- A) **Between Driveways.** The minimum spacing between two (2) nonresidential driveways on the same side of the road shall be based upon posted speed limits along the parcel frontage. The minimum spacings indicated below are measured from centerline to centerline. For sites with insufficient road frontage to meet the driveway spacing standards below, the City Council may modify the spacing requirements.

Posted Speed Limit (Mile Per Hour)	Minimum Driveway Spacing (Feet)
30	155
35	185
40	225
45+	300

- B) **Spacing from Intersections.** Minimum spacing requirements between a proposed nonresidential driveway and an intersection must be setback fifty (50) feet from the right of way. The City Council may modify the spacing standards.

- (4) Driveway Distance from Single-Family Residential Zone.** Each entrance and exit to and from any off-street parking lot located in a non-residential district must be at least twenty-five (25) feet from an adjacent residential use.

- (5) Modification of Standards for Special Situations.** During site plan review, the City Council shall have the authority to modify the standards of this Section upon consideration of the following:

- A) The standards of this Section would prevent reasonable access to the site.
- B) Access via a shared driveway or service/frontage road is not possible due to the presence of existing buildings or topographic conditions.
- C) Roadway improvements (such as the addition of a traffic signal, center turn lane or bypass lane) will be made to improve overall traffic operations prior to project completion, or occupancy of the building.
- D) The use involves the redesign of an existing development or a new use which will generate less traffic than the previous use.
- E) The proposed location and design are supported by the Michigan Department of Transportation (MDOT) or Wayne County as an acceptable design under the existing site conditions. The City Council may also request the applicant provide a traffic impact study to support the requested access design.
- F) Where there is a change in use or expansion at a site that does not comply with standards of this Ordinance, the City Council shall determine the amount of upgrade needed in consideration of the existing and expected traffic pattern and the capability to meet the standards of this Ordinance to the extent practical.

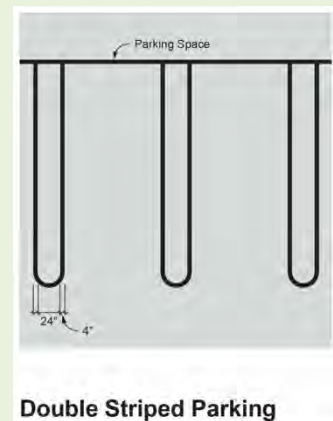
- (6) Traffic Impact Studies.** The City Council may require a traffic impact study (TIS) for all development proposals that it reviews. The TIS shall be accordance with and meet the standards of the City. The TIS shall be submitted by the developer or applicant to determine the potential future traffic conditions on adjacent roadways once a proposed development is finished. TIS shall predict the peak-hour operational conditions at site driveways and road intersections affected by the development. The results of the TIS shall be used in the final design of access points and internal circulation and may identify necessary off-site road improvements. At a minimum, the TIS shall meet standards as published by the Southeast Michigan Council of Governments (SEMCOG) and MDOT in the handbook titled Evaluating Traffic Impact Studies and shall be found acceptable by the City Council prior to being used.

Section 9.03 Off-Street Parking Requirements.

In all zoning districts, off-street parking facilities for the storage or parking of self-propelled motor vehicles for the use of occupants, employees, and patrons of the buildings hereafter erected, altered or extended after the effective date of this Ordinance, shall be provided and maintained as herein prescribed.

- (1) **Non-Residential.** Off-street parking for nonresidential uses shall be either on the same lot or within three hundred (300) feet of the building it is intended to serve, measured from the nearest public entrance to the building to the nearest point of the off-street parking lot, except as may be provided for by this Ordinance.
- (2) **Off-Street Parking.** Off-street parking facilities for one- or two-family dwellings shall be located on the same lot or plot of ground as the building they are intended to serve. The location of required off-street parking facilities for other than one- and two-family dwellings shall be within three hundred (300) feet of the building they are intended to serve, measured from the nearest point of the off-street parking facilities and the nearest point of the building. Such facilities for multiple dwelling, commercial and professional uses, in order to ensure their use as a parking area for the building they are intended to serve, shall be located in a convenient and conspicuous position with reference to such building. For this purpose, the area to the rear of the building shall be considered as satisfying this requirement only when the building is to have a heavily used public entrance in the rear.
- (3) **Existing Parking.** Off-street parking existing at the effective date of this Ordinance, in connection with the operation of an existing building or use, shall not be reduced in size to an amount less than hereinafter required for a similar new building or new use.
- (4) **Parking Deferment.** Where the property owner can demonstrate or the City Council finds that the required number of parking spaces is excessive and the proposed parking will meet the demand for the proposed use, the City Council may, as a condition of site plan approval, permit up to twenty-five (25) percent of the total number of required parking spaces to be reserved for future consideration (i.e., “banked”), subject to the following:
 - A) The consequent reduction in off-street parking provided will not impair the functioning of the subject development or have a negative effect on traffic flow or parking on and/or adjacent to the site.
 - B) That a reserved area be shown on the site plan of sufficient size to meet the parking space, circulation, and maneuvering requirements of this Article, including dimensions and dotted parking lot layout. The reserved area shall be retained as open space. The reserved area designated as deferred parking shall be on the same lot as the principal use.
 - C) The reserved area shall not be within a required parking setback, landscape area, or greenbelt.
 - D) A written legal agreement, provided by the applicant, which has been approved by the City attorney, shall include provisions to construct the deferred parking and the agreement shall be referenced on the site plan.
 - E) The applicant shall agree in writing to install such “banked” parking within 180 days of a City Council resolution in which it is determined that such additional parking is needed.
 - F) The Department of Inspection may require posting of a performance guarantee to cover the estimated construction cost of the deferred parking with a refund in two (2) years if the additional parking is not found to be necessary.

- (5) **Maximum Parking Allowable.** In order to minimize excessive areas of pavement which depreciate aesthetic standards and contribute to higher rates of storm water runoff and higher micro temperatures, exceeding the minimum parking space requirements of [Section 9.05](#) by greater than twenty percent (20%) is prohibited, except as approved by the City Council. In its request for additional parking spaces, the applicant must submit a parking study to the City Council demonstrating that additional parking spaces are needed based on the nature of the use and/or peak times thereof. In determining whether to grant additional parking spaces, the City Council shall also consult the most recent edition of Parking Generation, published by the Institute of Traffic Engineers (ITE), or another acceptable standard.
- (6) **Minimum Parking Required.** The minimum number of off-street parking spaces by type of use shall be determined in accordance with the schedule contained in [Section 9.05](#) herein; however, the City Council may modify the numerical requirements for off-street parking based on evidence that another standard would be more reasonable based on the level of current or future employment and/or level of current or future customer traffic. In determining whether to permit fewer parking spaces, the City Council shall consult the most recent edition of Parking Generation, published by the Institute of Traffic Engineers (ITE), or another acceptable standard.
- (7) **Snow Storage.** An area equivalent to ten percent (10%) of the required parking stall area must be provided for snow storage. The snow storage area must be landscaped and if the parking lot is bounded by a fence, the snow storage area must be located on the parking lot side of that fence. The snow storage area may be located in a landscape area required in [Article X](#) or in a storm water management area, subject to approval by the City.
- (8) **Carports and Garages.** Carports and garages in multiple-family dwelling developments shall have a maximum height of fourteen (14) feet, measured from the grade to the peak of the structure. Carports shall be at least partially screened on any side facing a public or internal street or drive unless the side is used for entrance and exit.
- (9) **Changes in Use.** Should the use of the land or building change, the parking shall be provided based on the new use(s). For example, purposes only, should an approved elderly housing facility for independent or dependent living are converted to general occupancy, the parking shall be provided based on the requirements for multiple-family dwellings.
- (10) **Parking Measurement Standard.** When units of measurement determining the number of required parking spaces result in the requirement of a fractional space, any fraction up to and including one-half ($\frac{1}{2}$) shall be disregarded and fractions over one-half ($\frac{1}{2}$) shall require one (1) parking space.
- (11) **Parking Calculation Standard – Floor Area.** For the purpose of this Ordinance, "Floor Area," in the case of offices, merchandising or service types of uses, shall mean the gross floor area used or intended to be used for services to the public as customers, patrons, clients or patients or as tenants, including areas occupied for fixtures and equipment used for display or sale of merchandise.
- (12) **Parking Standard – Employee Based.** For the purpose of computing the number of parking spaces required based on the number or employees, the parking shall be calculated based on the number of employees likely to be on the premise during the peak shift.
- (13) **Double Striping.** All parking spaces shall be clearly marked by the use of double striping. Except for parallel parking, all parking spaces shall be clearly striped with four (4) inch wide double lines, twenty-four (24) inches apart, to facilitate movement and to help maintain an orderly parking arrangement. See image below.



- (14) **Required Parking for Uses Not Provided.** In the case of a use not specifically provided for herein, the City Council shall determine the off-street parking requirements for such use based on the most recent edition of Parking Generation, published by the Institute of Traffic Engineers (ITE), or another acceptable standard applicable for that use or a similar use.

Section 9.04 Off-Street Parking Space Layout Standards.

Whenever the building of an off-street parking facility is required, such off-street parking lots shall be laid out, constructed and maintained in accordance with the following standards and regulations.

- (1) **Dimensional Layout.** Plans for the layout of off-street parking facilities shall be in accordance with the following minimum requirements:

Angle (In Degrees)	Min. Stall Length	Min. Stall Width	Min. Maneuvering Lane Width	
			One-way	Two-way
0 (parallel)	20 feet	10 feet	12 feet	-
30-53	20 feet	10 feet	15 feet	-
54-74	20 feet	10 feet	18 feet	-
75-90	20 feet	10 feet	12 feet	24 feet

- (2) **Shorter Parking Stall Length.** The requirements for parking stall length may be reduced by two (2) feet where 90-degree parking abuts a sidewalk, other pavement, or sodded area at the front of the stalls provided such pavement or sidewalk measures a minimum of eight (8) feet in width, or at least two (2) additional feet of landscaped area are provided. This is to account for the vehicle overhang.
- (3) **Maneuvering Lane Access.** All spaces must be provided adequate access by means of maneuvering lanes. Backing directly onto a street or requiring the use of a street for a maneuvering lane is prohibited. Parking spaces must be clearly identified and marked with durable striping to distinguish the boundaries of the maneuvering lane and parking stalls.
- (4) **Modifications.** Where site constraints limit the ability to meet the requirements of this Section, the City Council may approve modifications to the parking space and maneuvering lane dimensions as part of Site Plan Review, except in no case shall parking stalls be less than nine (9) feet in width or eighteen (18) feet in length. For general and professional office centers that contain a minimum gross floor area of 15,000 square feet, the City Council may, upon the review and approval of a site plan by the City Planning Commission, allow up to ninety (90) percent of the required off-street parking spaces (exclusive of the required number of handicap parking spaces) to be nine (9) feet in width and one-hundred eighty (180) square feet in area. Such spaces shall be used primarily by the employees of the office center and shall be referred to in this ordinance as "designated employee parking spaces." In order to provide an adequate number of visitor and customer spaces for such office centers, no less than ten (10) percent of the total number of required parking spaces (exclusive of the required number of handicap parking spaces) shall be ten (10) feet in width and two hundred (200) square feet in area and shall be clearly marked and situated in close proximity to the building entrance(s).

Section 9.05 Minimum Number of Parking Spaces Required.

USE	PARKING REQUIRED
AGRICULTURAL USES	
Gardening and tree nurseries	One (1) parking space for each 500 sq. ft. of retail space
Nurseries, including sale of garden supplies	One (1) parking space for each 500 sq. ft. of retail space
RESIDENTIAL USES	
Accessory residential use for apartments	One (1) parking space per additional dwelling unit.
Bed and breakfast establishments	One (1) parking space per bedroom.
Boarding, rooming and lodging houses or tourist homes	One (1) parking space for each one (1) guest bedroom.
Condominium multiple dwellings	Two (2) parking spaces for each unit with one (1) and two (2) bedrooms and two and one-half (2½) spaces for each unit with three (3) or more bedrooms.
Family child care home	One (1) parking space per 250 sq. ft. of floor area.
Home occupations	Two (2) parking spaces
Housing for the elderly	One (1) parking space for each bed, plus one (1) space for each staff or visiting doctor, plus one (1) space for each employee including nurses.
Multiple dwellings and apartment houses	Two (2) parking spaces for each unit with one (1) and two (2) bedrooms and two and one-half (2½) spaces for each unit with three (3) or more bedrooms.
One-family dwellings	Two (2) parking spaces for each dwelling unit.
Residential homes for mentally or physically handicapped persons	One (1) parking space per bedroom.
Two family dwellings	Two (2) parking spaces for each dwelling unit.
MEDICAL USES	
Blood and plasma donation centers	One (1) parking space per two hundred (200) square feet of gross floor area and one (1) per employee on peak shift.
Hospitals	One (1) parking space per two (2) beds plus two (2) parking spaces per three (3) employees on the largest working shift.
Kidney transfusion centers	One (1) parking space per two hundred (200) square feet of gross floor area and one (1) parking space per employee on peak shift.
Medicine, osteopathy and dentistry (excluding veterinary clinics)	One (1) parking space for each one hundred ten (110) square feet of floor area.
Optometry and chiropractic	One (1) parking space for each one hundred ten (110) square feet of floor area.
Orthopedic and medical supply stores, but not including assembly or manufacture of such articles	One (1) parking space for each two hundred fifty (250) square feet of floor area.
Physical therapy and health services (not including massage establishments and public baths)	One (1) parking space for each one hundred fifty (150) square feet of floor area.
Psychology and podiatry	One (1) parking space for each two hundred (200) square feet of floor area.

USE	PARKING REQUIRED
Veterinary clinics, animal clinics and animal hospitals	One (1) parking space for each two hundred (200) square feet of floor area.
PUBLIC & QUASI-PUBLIC USES	
Clubs, lodges, and meeting halls, fraternal and religious	One (1) parking space for every 50 square feet of gross assembly.
Cultural service buildings, such as publicly owned museums, art galleries and libraries	One (1) parking space per three hundred thirty-three (333) square feet of floor area.
Educational uses	One (1) parking space for each employee (including teachers and administrators) plus sufficient off-street space for the safe and convenient loading and unloading of students.
Licensed and certified publicly or privately-owned facilities for the detention, incarceration, commitment and/or rehabilitation of adults or minor children and psychiatric hospitals	One (1) parking space for each bed, plus one (1) space for each staff or visiting doctor, plus one (1) space for each employee including nurses.
Local and suburban passenger terminals; trucking transportation terminals including maintenance and service facilities	One (1) parking space per 500 sq. ft.
Privately owned and operated recreational uses	Off-street parking facilities shall be provided on the premises to accommodate one third (1/3) of the total member families and/or individual members of the organization.
Radio and television towers and broadcasting studios	One (1) parking space for each employee on the largest working shift.
Religious Institutions	One (1) parking space for each three (3) seats in the main assembly unit.
Schools - music, dance or business	One (1) parking space for each employee (including teachers and administrators) plus sufficient off-street space for the safe and convenient loading and unloading of students.
Schools including, but not limited to dance, music and instrumental, and business/ training	One (1) parking space for each employee (including teachers and administrators) plus sufficient off-street space for the safe and convenient loading and unloading of students.
Universities, colleges, private colleges, including ancillary uses and facilities	One (1) parking space per thirty (30) square feet of classrooms, labs, or other instructional floor area, plus one (1) parking space per two hundred fifty (250) square feet of office or administrative floor area.
COMMERCIAL & RETAIL USES	
Adult businesses	One (1) parking space for each one hundred fifty (150) square feet of floor area.
Ambulance services, local and suburban bus terminal and taxicab terminals	One (1) parking space for each employee on the largest working shift.
Artisan, craftsman, printing and engraving shops other similar uses	One (1) parking space for each employee computed on the basis of the greatest number of persons to be employed at any one period during the day or night.
Automobile and light truck (one (1) ton gross vehicle weight) repair	Two (2) parking spaces for each repair bay plus one (1) for each employee.
Auto-wash establishments and auto-wash establishments operated with accessory gasoline pumps	At least twenty (20) parking spaces

USE	PARKING REQUIRED
Bakeries	One (1) parking space per one hundred seventy-five (175) square feet of floor area.
Banks and savings and loans associations	One (1) parking space for each one hundred fifty (150) square feet of floor space, plus one (1) space for each employee computed on the basis of the greatest number of persons to be employed at any one time.
Planned commercial or shopping centers, or buildings (single or multi-unit) for the purpose of retail sales and which contain a GFA of 30,000 square feet or more	One (1) parking space for each two hundred fifty (250) square feet gross leasable area (GLA) not including full service restaurants, plus one (1) parking space for every seventy-five (75) square feet of gross floor area devoted to full service restaurants.
Brewer, micro brewer, brewpub, and distilleries	One (1) parking space for each three hundred (300) square feet of floor area.
Catering establishments	One (1) parking space for every 3 persons, based on maximum capacity
Climate controlled, indoor self-storage used to provide temporary storage needs for businesses and other individuals on a self-service basis	One (1) parking space for each one thousand (1,000) square feet of floor space.
Convalescent and nursing homes	One (1) parking space for each three (3) beds, plus one (1) space for each staff or visiting doctor, plus one (1) space for each employee including nurses.
Dance halls and ballrooms	One (1) parking space for each fifty (50) square feet of floor area used for dancing or assembly.
Day care nurseries	One (1) parking space per 250 sq. ft. of floor area.
Dog kennels	One (1) parking space per 4 stalls
Drive-in restaurants and restaurants with either drive-thru or drive-up window facilities; including food trucks	One (1) parking space for each one hundred twenty-five (125) square feet of floor area, plus one (1) parking space for each three (3) outside patio seating spaces, plus one (1) parking space for each employee.
Establishments having liquor licenses such as Class C, tavern, and club	One (1) parking space for each three hundred (300) square feet of floor area.
Full-service restaurants with or without outdoor dining areas	One (1) parking space for each two (2) interior seating spaces to be provided within the proposed establishment, plus one (1) parking space for each three (3) outside patio seating spaces, plus one (1) parking space for each employee.
Funeral homes and undertaking establishments	One (1) parking space for each fifty (50) square feet of floor space in the parlors or individual funeral service rooms with a minimum of seventy-five (75) parking spaces.
Garages, repair shops, rustproofing and similar highway services	Two (2) parking spaces for each repair bay plus one (1) for each employee.
Gasoline service station	One (1) parking space for fueling pump
Golf courses but not including miniature golf courses or golf driving ranges	Three (3) parking spaces per hole plus one (1) parking space per three (3) seats of the dining facilities.
General offices	One (1) parking space for each two hundred (200) square feet of floor area.
Hotels	One (1) parking space for each guest room, plus one (1) additional space for each employee.
Indoor recreational uses	One (1) parking space per two hundred (200) square feet of floor area.

USE	PARKING REQUIRED
Laundry and dry-cleaning establishments	One (1) parking space per two (2) washing and drying machines.
Limited service and carry-out restaurants with or without outdoor dining areas	One (1) parking space for each one hundred (100) square feet of floor area, plus one (1) parking space for each three (3) outside patio seating spaces, plus one (1) parking space for each employee.
Massage establishments	One (1) parking space for each one hundred fifty (150) square feet of floor area.
Motels	One (1) parking space for each guest or sleeping room in a tourist home; one (1) parking space for each rental unit in a motel; plus one (1) additional space in each case for the owner or manager and for each employee.
Museums	One (1) parking space per three hundred thirty-three (333) square feet of floor area.
Music, dance, or business academies	One (1) per three (3) persons allowed within the maximum occupancy load as established by local, county or state fire, building or health codes.
New and used car lots and showrooms, new or used mobile home sales and automobile rental facilities	One (1) parking space for every two hundred (200) square feet of use area.
Paint shops	One (1) parking space per service stall.
Pawn shops	One (1) parking space for each one hundred fifty (150) square feet of floor space.
Payday lenders	One (1) parking space for each one hundred fifty (150) square feet of floor space.
Personal service establishments	One (1) parking space for each five hundred (500) square feet of floor space.
Photographic studios	One (1) parking space for each one hundred fifty (150) square feet of floor space.
Professional offices	One (1) parking space for each two hundred (200) square feet of floor area.
Retail sales	One (1) parking space for each one hundred fifty (150) square feet of floor space.
S.D.D. and S.D.M. licenses	One (1) parking space for each three hundred (300) square feet of floor area.
Second-hand stores and rummage shops	One (1) parking space for each one hundred fifty (150) square feet of floor space.
Wholesale business uses	One (1) parking space for each five hundred (500) square feet of floor space.
INDUSTRIAL USES	
Bulk storage of refined petroleum products	One (1) parking space for each employee computed on the basis of the greatest number of persons to be employed at any one period during the day or night.
Data processing and computer centers, including sales, service and maintenance of electronic data processing equipment	One (1) parking space for each four hundred (400) square feet of floor space.

USE	PARKING REQUIRED
Establishments for the distribution of, or the packaging, assembling, secondary processing, alteration or repair	Five (5) parking spaces, plus one (1) per 1,500 square feet of floor area plus one (1) per 350 useable square feet of office, sales or similar space plus one (1) per truck or company vehicle operating from the premises.
Experimental product development and testing including limited manufacturing	Five (5) parking spaces plus one (1) per 250 square feet gross floor area plus one (1) per each employee at peak shift.
Heavy manufacturing and general industrial plants	One (1) parking space for each employee computed on the basis of the greatest number of persons to be employed at any one period during the day or night.
Industrial, scientific, or business research development and testing laboratories and offices	One (1) parking space for each employee computed on the basis of the greatest number of persons to be employed at any one period during the day or night.
Industrial plants manufacturing, processing or assembling	One (1) parking space for each employee computed on the basis of the greatest number of persons to be employed at any one period during the day or night.
Steel fabricators, truck terminals, truck and trailer rental facilities, and special trade contractors	One (1) parking space per five hundred (500) square feet of use area.
Tool and die shops and pattern making shops	One (1) parking space per five hundred (500) square feet of use area.
Warehouses	One (1) parking space for each employee computed on the basis of the greatest number of persons to be employed at any one period during the day or night.

Section 9.06 Barrier-Free Parking Required.

Each parking lot that services a building entrance, except single- or two-family residential or temporary structures, shall provide parking spaces for the physically handicapped which shall be located as close as possible to walkways and entrances. All parking lots shall be designed in conformance with Michigan State Act No. 1 of the Public Acts of 1966 as amended, and the Americans with Disabilities Act, as summarized in the Table below.

Total Spaces Required	Barrier-Free Spaces Required
1-25 Spaces	1 Space
25-50	2 Spaces
51-75	3 Spaces
76-100	4 Spaces
101-150	5 Spaces
151-200	6 Spaces
201-300	7 Spaces
301-400	8 Spaces
401-500	9 Spaces
501-1,000	2% of total
Greater than 1,000	20, plus one (1) for each 100 spaces over 1,000

Section 9.07 Parking and Loading for Multiple Uses and Joint Use.

The parking and loading regulations for any premises in multiple usages must be the sum of the minimum requirements for the individual uses on the premises.

In order to meet the minimum amount of required off-street parking spaces for a given use, application must be made to the City Council for the right to engage in the joint use of owned parking spaces. Prior to approving the joint use of parking spaces to meet the minimum amount of required off-street parking for a given use in a given zoning district, the City Council must verify by a preponderance of the evidence that each of the following statements are true:

- (1) The commercial enterprises, industrial establishments, residential uses, places of public assembly, and religious institutions engaged in the joint use of off-street parking spaces are unlikely to have a need for the joint parking spaces at overlapping times.
- (2) The parking spaces designated for joint use comprise less than seventy-five percent (75%) of the applicant's minimum required off-street parking spaces.
- (3) The parking spaces designated for joint use are within five hundred (500) lineal feet of the applicant's most appropriate entrance.
- (4) Written contracts, in the form of cross-access agreements, between the applicant and the owner/operator of the parking spaces approve this joint use.
- (5) There must be adequate pedestrian access provided between the shared parking lot and the associated buildings and uses.

Section 9.08 Off-Street Loading Space.

On the same premises with every building structure, or part thereof, erected and occupied for manufacturing, storage, warehouse purposes, department store, wholesale store, market, hotel, hospital, mortuary, laundry, dry cleaning, or other uses similarly involving the receipt or distribution of vehicles or materials or merchandise, there shall be provided and maintained on the lot adequate space for standing, loading and unloading services in order to avoid undue interferences with public use of the streets or alleys. Such space shall be provided as follows:

TOTAL FLOOR AREA OF THE BUILDING	OFF-STREET LOADING SPACE REQUIREMENTS
Office Use	
0 - 10,000 square feet	One (1) usable loading space 10 ft. x 25 ft. in area
10,001 - 50,000 square feet	One (1) usable loading spaces 10 ft. x 50 ft. in area
Over 50,000 square feet	Two (2) usable loading spaces 10 ft. x 50 ft. in area
Commercial and Industrial uses	
0 - 1,400 square feet	One (1) usable loading 10 ft. x 25 ft. in area
1,401 - 20,000 square feet	One (1) usable loading space 10 ft. x 50 ft. in area
20,001 - 50,000 square feet	Two (2) usable loading spaces each 10 ft. x 50 ft. in area
Over 50,000 square feet	Three (3) usable loading spaces plus one (1) space for each fifty thousand (50,000) square feet in excess of fifty thousand (50,000) square feet each 10' x 50' in area

- (1) All loading spaces shall be in addition to the off-street parking area access drive and maneuvering lane requirements.
- (2) Off-street loading space shall have a clearance of fourteen (14) feet in height.

- (3) Off-street loading space may be completely enclosed within a building or may occupy a portion of the site outside of the building, provided that where any portion of a loading space is open to public view from a public way, the space shall be screened in accordance with *Article X*.
- (4) All loading and unloading in an industrial district shall be provided off-street in the rear yard or interior side yard and shall in no instance be permitted in a front yard. In those instances where exterior side yards have a common relationship with an industrial district across a public thoroughfare, loading and unloading may take place in the exterior side yard when the setback is equal to at least fifty (50) feet.

Section 9.09 **Parking structures.**

- (1) **Districts Permitted.** Parking structures are subject to the following standards and are treated as a permitted use in the P-L and M-2 Districts and as a waiver use in the C-2, C-3, C-4, ML, M-1, and P Districts.
- (2) **Maximum Height.** The height of any parking structure shall not exceed the maximum height of the district in which it is located.
- (3) **Location.** Parking structures shall not be located in the Front Yard. No parking space within a parking structure may be closer to the street than the front face of the principal building.
- (4) **Traffic Circulation.** Traffic circulation shall be designed so that no automobile need enter a public street in order to progress from one aisle to another within the same structure and so that no automobile need enter a public street backwards in order to leave the structure. Clear signs or pavement markings shall be provided to indicate traffic circulation.
- (5) **Screening.** Parking structures shall be designed to screen vehicles and light trespass onto adjacent properties.
- (6) **Architectural Standards.**
 - A) The design of all parking structures should be more than just a rectangular utilitarian box composed of concrete or steel beams and columns. Variation in forms and detail along with high quality facing materials are required where viewable by the general public.
 - B) Exterior elevations shall incorporate design components and materials utilized and compatible with the primary building(s). The incorporation of brick, stone, and precast concrete are preferred choices.
 - C) Floors shall be designed horizontally to support adaptive reuse of the structure.
- (7) **Exemptions.** Parking structures are not required to have interior landscape islands as required in Section 10.03 Section 10.03(2)(Section 10.03(2)B)).

Section 9.10 **Surfacing and Drainage.**

- (1) **Hard Surfacing.** All parking areas, regardless of size, must be hard surfaced. Pavement type and thickness must be approved by the City Engineer prior to construction, taking into consideration soil conditions and traffic loadings.

- (2) **Storm Water Management.** Storm water runoff created as a result of the improvements to the parking area must be controlled in such a manner so as to reduce and/or eliminate draining onto neighboring properties. To reduce storm water runoff, developers shall consider using permeable, pervious pavements wherever feasible. Improved parking areas may be incorporated into the storm water management plan for the proposed project. Site grading as well as storm water control provisions must be reviewed and approved by the City Engineer prior to site construction.
- (3) **Maintenance.** All off-street parking areas shall be continually maintained in satisfactory condition so as to be safe, attractive, and free of any hazard, nuisance, or other unsafe condition.

Section 9.11 Curb.

Except for those parking areas serving a single- and two-family dwelling unit, concrete curbs, sidewalks, and other items as necessary for the protection of the public and adjoining properties must be provided and maintained around all parking areas, including where parking spaces abut landscaping, property lines, or required setback areas. The City Council may approve an alternative design when opportunity exists to substantially improve the water quality of the site. In all cases where parking lots abut public sidewalks, a concrete curb at least six (6) inches high must be installed so that a motor vehicle cannot be driven or parked within two (2) feet of a public sidewalk.

Section 9.12 Approval.

Plans for the development of any such parking area must be approved by the City Council before construction is started. No such land shall be used for parking purposes until approved by the Department of Inspection.

Section 9.13 Off-Street Parking: Study and Report.

The City Council shall routinely make studies of the various areas in the City of Livonia for the purpose of determining areas within which there is need for the establishment of off-street parking facilities to be provided by the City of Livonia and to be financed wholly or in part by a special assessment district, or by other means, where such need is found. This study and report shall include recommendations on the site, location and other pertinent features of the proposed off-street parking facilities and the area they should be intended to serve. Wherever, pursuant to such recommendations, the City Council shall establish off-street parking facilities by means of a special assessment district or by any other means, it may also determine, upon completion and acceptance of such off-street parking facilities by the City, all existing buildings and uses and all buildings erected or uses established thereafter within the special assessment district, or districts which shall be exempt from the requirements of this section for privately supplied off-street parking facilities.

Section 9.14 Illegal Parking of Motor Vehicles; Tickets; Towing of Motor Vehicles.

- (1) It shall be unlawful for any motor vehicle which is abandoned, unlicensed, wrecked, inoperative, in a state of major disassembly, disrepair, or in the process of being stripped or dismantled, to be parked on any private property unless the same is completely enclosed within a garage or other suitable building or structure. A vehicle of any type shall not at any time undergo major overhaul, including body work, in any residential district.

- (2) For the purpose of this section, a vehicle of any kind, as described in paragraph (1) of this section, or any unlicensed vehicle, shall be deemed abandoned when it has remained parked, stored, or left or been permitted to be parked, stored, or left on private property for a period of forty-eight (48) continuous hours or more. Provided, however, that this section shall not be applicable where a vehicle is being stored, used, or repaired, in connection with the following designated uses:
- A) The repair and service facilities of a new and used automobile dealership or a new and used truck dealership when owned and operated in conjunction therewith by the same proprietor and located on the same property.
 - B) Garage, repair shops, and similar highway services.
- (3) The officer authorized to enforce the provisions of this Zoning Ordinance, may in his or her discretion remove, cause to be removed, or tow away under his or her direction, any such motor vehicle which is flagrantly, continuously or persistently violating the provisions of the Zoning Ordinance relating to the parking of motor vehicles on private property. Any such motor vehicle thus removed or towed away shall be taken to the City automobile or motor vehicle pound or to a privately owned garage and kept under the custody or control of the officer or person in charge thereof; provided, however, that any such removal or towing shall be at the risk of the owner of said vehicle, and provided further that the disposition of said vehicle after removal shall be in accordance with the provisions set forth in Sections 10.21.210-10.21.260 of the Livonia Code of Ordinances, as amended, which provisions are made a part hereof and incorporated herein by reference.
- (4) In any prosecution or proceeding under this section, the registration plate displayed on a motor vehicle shall constitute in evidence a prima facie presumption that the registered owner of such vehicle was the person who parked such vehicle at the place where such violation occurred. Whenever the owner or operator of any such motor vehicle is convicted of violating any of the provisions of said Ordinance pertaining to the parking of motor vehicles on private property, such violation shall be deemed to be a misdemeanor and shall be subject to all the penalties set forth in this Zoning Ordinance

Section 9.15 Electric Vehicle (EV) Charging Stations or Ports

- (1) **Accessory Use.** Electric Vehicle (EV) Charging Stations or Ports, when treated as an accessory use, shall be allowed in all zoning districts, subject to the review and approval of the Department of Inspection and the following:
- A) **Size and Signage.**
 - i) **Commercial.** On commercial properties, all above-ground equipment associated with an EV Charging Station or Port shall be limited to a height of eight (8) feet and a width of four (4) feet, including any sign that is a part of or attached to the equipment, which sign shall not exceed two (2) square feet in area; provided, however, that in the case of an EV Charging Station that has a setback of one-hundred (100) feet or more from any public place, including any public right-of-way, the area of the sign shall be a maximum of ten (10) square feet. The use of neon-type or LED lighting around the frame, perimeter or any part of the EV Charging Station is strictly prohibited.
 - ii) **Single-Family.** On single-family lots, any equipment used in connection with an EV Charging Station located in a front or side yard shall be limited to a height of four (4) feet. In a rear yard, all EV Charging equipment shall be limited to a height of six (6) feet.
 - B) **Setbacks and Pedestrian Walkways.**
 - i) **Commercial.** No EV Charging Station shall be located closer than ten (10) feet from any public right-of-way, and no EV Charging Station shall be located within any part of a public right-of-way without the prior written approval of the authority having jurisdiction over the right-of-way. EV Charging Stations shall not encroach upon or inhibit the use of pedestrian walkways.

- ii) **Single-Family.** EV Charging equipment on single-family lots shall not be located in any required front, side, or rear yard setback.
 - C) **Landscaping and Protection.** On commercial properties, any landscaping that must be removed for the installation of an EV Charging Station shall be replaced in the same general area as where it was removed. Adequate spacing or protection shall be provided around or adjacent to the EV Charging Station, such as steel or concrete-filled bollards.
 - D) **Coverings.** All structural or non-structural canopies, coverings, overhangs or structures designed to fully or partially enclose or protect an EV Charging Station shall comply with the height, area and setback requirements of the zoning district in which the EV Charging Station is located. Such coverings or structures in any commercial zoning district shall first require approval of a site plan pursuant to [Section 13.13\(12\)](#).
 - E) **Residential.** In residential zoning districts, use of EV Charging Stations shall be limited to the owners, occupants or visitors of the property, and there shall be no remuneration or compensation charged for the services.
 - F) **Limitation.** In nonresidential zoning districts, no more than fifteen (15%) percent of the required number of parking spaces shall be dedicated EV Charging Stations unless an exception is granted by the Department of Inspection.
- (2) **Principal Use.** Electric Vehicle (EV) Charging Stations or Ports as a principal use of the property, shall be treated as a waiver use limited to C-2 and C-3 zoning districts and subject to review and submission of findings by the City Planning Commission and approval by the City Council pursuant to [Section 6.26](#).

Section 9.16 Limitation of the Use.

- (1) Parking areas shall be used for parking of private passenger vehicles only.
- (2) Parking may be with or without charge.
- (3) No business involving the repair or services to vehicles permitted thereon or sale, or other storage, or display thereof, shall be conducted from or upon such premises.

Article X.

Landscaping and Screening

Section 10.01 Applicability.

The requirements set forth in this Section shall apply to all uses, lots, site, and parcels for which Site Plan Review is required and which are developed or expanded following the effective date of this Ordinance. No site plan shall be approved unless that site plan shows landscaping and screening consistent with the provisions of this Section. Furthermore, where landscaping and screening are required, a Building Permit shall not be issued until the required landscape plan is submitted and approved and a Certificate of Occupancy shall not be issued unless provisions set forth in this Article have been met or a performance guarantee has been provided.

In cases where the use of an existing building changes or an existing building is altered or re-occupied, all of the standards of this Article shall be met.

The requirements of this Article are minimum requirements, and nothing in this Article shall preclude a developer and the City from agreeing to more extensive landscaping.

Section 10.02 Landscape Plan Requirements.

The Landscaping Plan must be drawn at a reasonable scale to indicate all types of proposed landscape improvements at a minimum of one-inch equals thirty feet (1" = 30') and must include at least the following information:

- (1) North arrow and scale;
- (2) Name of the project applicant/owner;
- (3) Name, address and phone number of the person or firm responsible for the preparation of the Landscaping Plan;
- (4) Signed and sealed landscape architect stamp;
- (5) Dates on which the plan was submitted or revised;
- (6) All existing and proposed buildings and other structures, paved areas, planted areas, fencing, walls, water outlets, utility poles, fire hydrants, luminaires, underground utilities, signs, fences, dumpster locations, and other permanent features to be added to or retained on the site;

- (7) All existing plant material to be removed or retained and all proposed additions or changes to landscaping, buffering, and walkways, illustrating existing natural land features including, but not limited to: trees, forest cover, and water resources (Water resources include ponds, lakes, streams, wetlands, flood plains, and drainage ditches and retention areas, rivers, and any other body of water or waterway);
- (8) A schedule of all new landscaping materials to be installed. The plant list must include the common name, specified installation size, and on-center planting dimensions when applicable. When the list of plant material to be removed contains existing trees, the Landscaping Plan must justify that building location and placement has been developed with due consideration given to minimizing removal of trees. Quantities of plant material required shall be referenced on the plan;
- (9) All property lines and easements;
- (10) Details must be shown for the planting of trees, shrubs and ground cover within the buffered or landscaped area;
- (11) Proposed irrigation fixtures shall also be shown, including, but not limited to the location and type of all sprinkler heads, the size of mainline and irrigation piping, the location and size of water meters and all valves, and the location of back flow prevention devices and irrigation controllers;
- (12) Location and description of any and all storm water management or low impact development techniques used in site design (i.e., rain gardens, detention/retention ponds, filter strips, etc.); and
- (13) Any other information which is determined necessary by the Planning Director or City Council for adequate review of the proposal.

Section 10.03 Landscaping Design Requirements.

The following requirements must be satisfied by all projects set forth by Section 10.01 above. The following requirements must be detailed on a Landscaping Plan pursuant to Section 10.02 above. Existing landscaping or natural vegetation, as shown on a Landscaping Plan and that are in satisfactory condition, may be used to meet the standards and satisfy the requirements below in whole or in part, if protected and maintained during the construction phase of the development.

- (1) **Frontage Landscaping.** Where the site abuts a public road right-of-way, the following frontage landscaping shall be provided in the front yard area adjacent to the road right-of-way (see Example of Frontage Landscaping below):

Type of Landscaping	Minimum Required Landscaping
Deciduous or Evergreen Tree	1 per 40 linear feet of road frontage or fraction thereof
Ornamental (Flowering) Tree	1 per 100 linear feet of road frontage or fraction thereof
Shrubs	8 per 40 linear feet of road frontage or fraction thereof

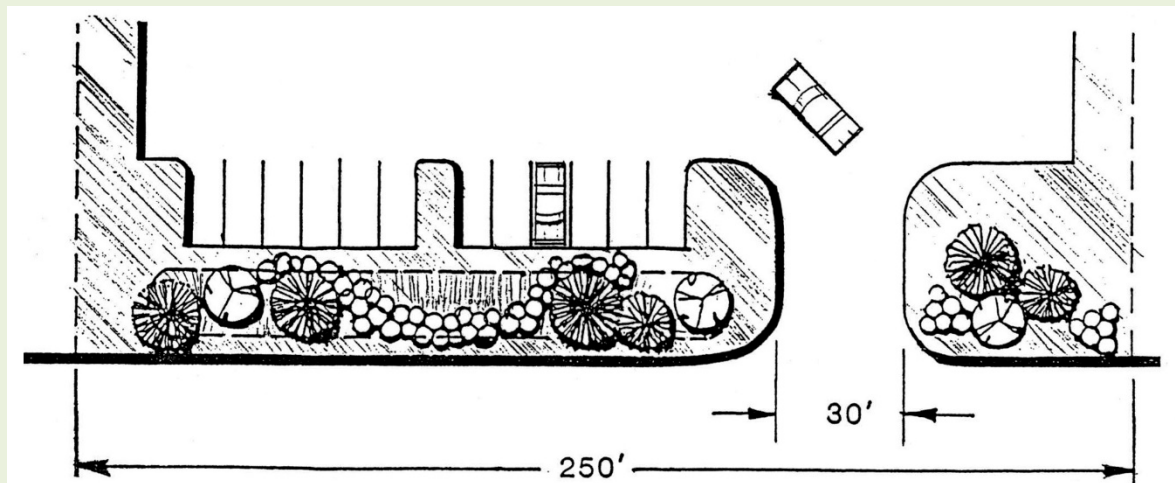
The depth of the frontage landscaping area shall be sufficient to contain the required landscaping and ensure the survivability of plant material. For the purposes of computing length of road frontage, openings for driveways and sidewalks shall not be counted. Trees and shrubs may be planted at uniform intervals, at random, or in groupings. However, the City Council or Planning Director may require the planting design to use massing or groupings of materials to create a stronger visual impact from the public right-of-way.

Example of Frontage Landscaping

Length of Road Frontage: 250 linear feet minus 30-foot driveway = 220 feet

Required Number of Plants

Deciduous or evergreen trees	220 ft./40 ft. = 6 deciduous or evergreen trees
Ornamental trees	220 ft./100 ft. = 3 ornamental trees
Shrubs	(220 ft./40 ft.) x 8 = 48 shrubs
TOTAL	6 deciduous or evergreen trees, 3 ornamental trees, and 48 shrubs



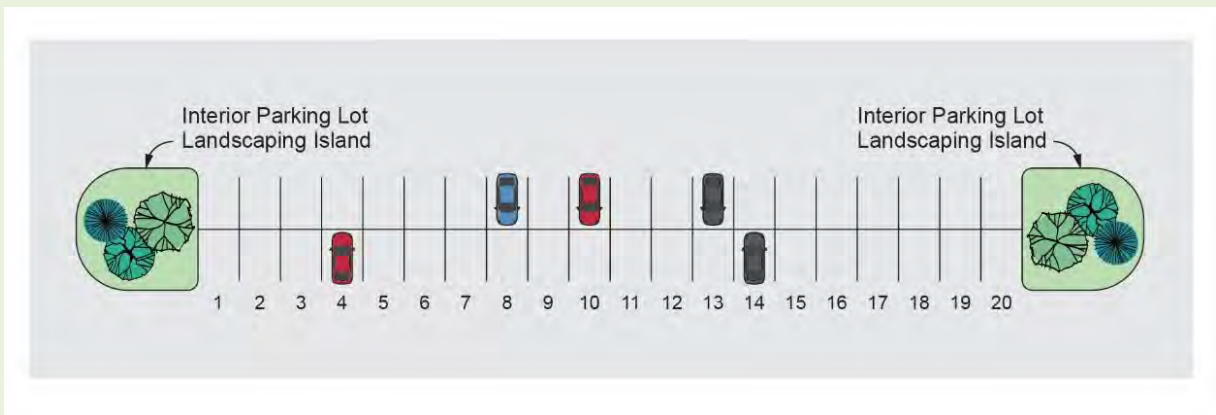
(2) **Parking Lot Landscaping.** All parking areas and other paved ground surface areas used for vehicular parking must have perimeter and internal landscaping to provide visual and climatic relief from broad expanses of pavement and to channelize and define logical areas for pedestrian and vehicular circulation.

A) **Parking Lot Screening.** Parking lot screening adjacent to a parking lot is not required if the paved ground surface area is completely screened from the public right-of-way by an intervening building or structure. Where paved ground surface areas are located adjacent to sidewalks, streets, and other public rights-of-way, landscaping shall be provided between the public right-of-way and the paved ground surface area within ten (10) feet of the paved ground surface area with landscaping, a berm, a masonry wall, or a combination of these, as follows:

- i) **Parking Lot Screening Landscaping.** Landscaping shall include a landscaped yard at least five (5) feet in width containing an opaque screen of landscaping (evergreen or deciduous hedge) at least three (3) feet in height. The landscaping shall be planted in a manner where the landscaping can be expected to provide an unbroken visual screen within three (3) years. The landscaping shall be located at least two (2) feet from the front of a parking space curb so as to account for vehicle overhang.
- ii) **Parking Lot Screening Berm.** Berms shall be at least three (3) feet in height (measured above the elevation of the adjacent parking surface) and meet the requirements of [Section 10.03 \(7\)](#).
- iii) **Parking Lot Screening Wall.** Walls shall be at least three (3) feet in height and constructed of the same or compatible material and colors of the principal building in terms of texture and quality.

B) **Interior Parking Lot Landscaping.** All off-street parking areas of forty (40) parking spaces or more must have internal landscaping.

- i) **Size of Interior Parking Lot Landscaping Areas.** Interior landscaping must account for a minimum of five percent (5%) of all paved parking areas, including parking and loading spaces, driveways, and aisles. Each separate interior landscaped area must be a minimum of three hundred (300) square feet in area and must have a minimum width of ten (10) feet.
- ii) **Minimum Number of Trees.** Each interior landscape area must contain at least one (1) tree. One (1) tree must be planted for each three hundred (300) square feet of interior landscaping.
- iii) **Location of Landscaping.** All required interior parking lot landscaping must be planted within the landscaped islands or in landscaped areas within twenty (20) feet of the perimeter of the parking lot, provided that such landscaping is not also counted toward other landscape or screening requirements.
- iv) **Groundcover.** Interior parking lot landscape areas must include groundcover of grass, perennials, shrubs, and/or hardwood mulch. Rock, stone, or pebbles are not permitted ground cover.
- v) **Protection with Curbing or Wheel Stops.** All interior parking lot landscaping must be protected from vehicular encroachment by six (6) inch high concrete curbing or wheel stops.
- vi) **Maximum Number of Parking Spaces in a Row.** Landscaping islands with or without walkways must be used to subdivide parking areas into parking rows with no more than twenty (20) spaces. See image below.



- vii) **Maintenance.** The internal landscaping must be installed and maintained so that, when mature, it does not obscure traffic signs, fire hydrants, lighting, drainage patterns, or vision for safety or ingress or egress.

- (3) **Loading Area Landscaping.** All loading areas (including, but not limited to, truck docks, overhead doors, or trailer staging areas) not screened by an intervening building shall be screened from a perpendicular view from any public street rights-of-way or adjacent residential zoning district for the entire length except for necessary access. It is the intent of this Section to screen loading areas and delivery vehicles as completely as practicable. Screening for loading areas may be accomplished by one (1) or a combination of the following:
 - A) An opaque fence or wall which is at least six (6) feet high and is made of the same or compatible material, in terms of texture and quality, as the material and color of the principal building. Additional evergreen planting materials shall be provided so that no more than two-thirds (2/3) of the surface area of the closed fence or wall is visible from the street within three (3) years of erection of the structure.
 - B) Evergreen trees at least eight (8) feet in height and planted in a staggered double row spaced fifteen (15) feet on center. Any plant material used to fulfill these requirements shall meet or exceed the minimum size requirements of [Section 10.04](#) when planted.

- (4) **Display Area Screening.** Screening of display areas may, at the discretion of the City Council, be accomplished by plants, fences, walls or earthen berms, or any combination thereof to meet the requirements of this Section. The City Council must base its discretion on the material being displayed and the visual impact on surrounding areas. The City Council may modify or waive these requirements where outdoor display is integral to the principal use of the property (e.g., Outdoor Vehicle Sales).
- A) The plants, fence, walls, earthen berms, or combination thereof, must provide a buffer no less than three (3) feet in height equal to the length of the display area, exclusive of driveways and sight lines used for safe automobile access and egress. In the case of vehicle or equipment display, the buffer must create a screen.
 - B) Walls which are used shall be of the same or compatible material, in terms of texture and quality, with the material and color of the principal building. Additional planting materials shall be provided so that no more than one half (½) of the surface area of the wall is visible from the street within three (3) years of erection of the structure. Forty percent (40%) of this plant material may be deciduous.
 - C) All shrubs shall comply with the requirements of [Section 10.04](#). Vegetation planted on berms may have a lesser mature height required by the Article provided that the combined height of the berm and the plantings after three (3) years are at least three (3) feet high. Up to forty percent (40%) of all shrubs may be deciduous.
- (5) **Screen Wall and Greenbelt Buffering.** The intent of this Section is to reserve an appropriate area of a lot to screen and buffer the lot and its use(s) based on its zoning district and the zoning district of the adjacent lots, regardless of whether the adjacent lots are developed. A screen wall and/or greenbelt as specified in the table below shall be provided for all uses requiring Site Plan Review.

Developing Zoning District	Adjacent To			
	N1, N2, and R-U-F Districts	NM1, NM2, and NM3 Districts	C-1, C-2, C-3, and C-4 Districts	ML, M-1, and M-2, and Railroad and Utility rights-of-way
N1, N2, and R-U-F Districts	a	b	b	b
NM1, NM2, and NM3 Districts	b	a	b	b
C-1, C-2, C-3, and C-4 Districts	b	b	a	b
ML, M-1, and M-2 Districts	c	c	b	-
a) A ten (10) foot wide buffer, with one (1) tree per thirty (30) linear feet. For proposed single-family residential uses, the greenbelt buffering requirements shall apply only to Subdivision and Site Condominium development. b) A six (6) foot high masonry wall or opaque fence and/or a twenty (20) foot wide greenbelt buffer, with one (1) tree per twenty (20) linear feet (minimum of 50% evergreen trees), subject to City Council review and approval. c) A seven (7) foot high masonry wall and/or a sixty (60) foot wide greenbelt buffer, with a staggered double row of evergreen trees spaced fifteen (15) feet apart on a six (6) foot high berm (see Section 10.03 (7)) with a flat horizontal area at the crest to be at least three (3) feet in width, subject to City Council review and approval. The planting must be in a manner where the evergreen trees provide eighty percent (80%) opacity within three (3) years of planting, measured from the top of the berm. After three (3) years, if this opacity is not achieved then additional evergreen trees and/or shrubs must be planted to achieve eighty percent (80%) opacity at the time of their planting.				

- A) **Planting Setback.** Trees and shrubs must not be placed closer than four (4) feet to the fence line or property line. Single family uses are excluded from this requirement.
- B) **City Review.** The City Council or Planning Director may modify the greenbelt buffering to allow less buffering or require additional buffering based on the proposed use's impact on adjacent lots.

- C) **Greenspace Lawn.** The remainder of the greenspace area which is not planted with the aforementioned stock must be kept in lawn or another approved native vegetation. All plant materials must be maintained in a healthy growing condition and in a neat and orderly appearance as required in this Article.
 - D) **Existing Buffering.** If an existing wall, fence, or vegetation exists on the site that meets the greenspace buffering standards of this Ordinance, the City Council or Planning Director may accept the existing screening or require only supplemental screening to meet the intent of this Article.
 - E) **Circumstances Requiring Construction of a Wall.** City Council, in the review of a site plan or waiver use petition, may require the construction of a masonry wall where it is determined that construction of a wall is needed to adequately buffer a developing district from an adjacent use or district.
 - F) **Separation Agreement.** Upon receipt by the Inspection Department of a written agreement for a term of not more than five years, among the owner(s) of property requiring installation of a protective wall or greenbelt and the owner(s) of all abutting residential properties, and proof that a buffer complying with such agreement is in place, the requirements of this section shall be waived during the time such agreement remains in effect. Such an agreement may be renewed, for terms not exceeding five years for each renewal, pursuant to a written agreement of the owners of property described above. Any agreement made pursuant to this paragraph shall be expressly made binding on the parties' successors in title for the duration of the agreement. This paragraph shall only apply where the property requiring the protective wall cannot meet the standards for greenbelts set forth above due to a condition on the property which existed at the time this paragraph (f) was added to this Section.
- (6) **Open Space Landscaping.** All remaining open areas on the site that are not required landscaping areas as described elsewhere in this Article (frontage landscaping, parking lot landscaping, loading and display area landscaping, and greenbelt buffering) shall be planted with one (1) tree per three thousand (3,000) square feet of open area. All open space landscaping areas shall be planted with grass or another suitable vegetative ground cover.
- (7) **Berms.** Where required, earth berms, or landscaped berms must conform to the following standards:
- A) The berm must be at least constructed with slopes no steeper than one (1) foot vertical for each three (3) feet horizontal with at least a two (2) foot flat area on the top unless a different size is required in this Ordinance.
 - B) The berm must be planted with grass or other suitable ground cover to ensure that it withstands wind, weather, and erosion, and retains its height and shape.
 - C) Unless a specific planting pattern is required by the Ordinance or the City Council, required trees and shrubs may be planted at uniform intervals, at random or in groupings.
 - D) Berm height must be measured as elevation above grade.
- (8) **Garbage, Refuse, and Recycling Collection Areas.** All garbage, refuse, and recycling must be placed within a sealed container that shall be screened utilizing an enclosure that meets the following requirements:
- A) An enclosure of sufficient height to completely screen the dumpster is required on three (3) sides of the waste receptacle with a solid gate on the fourth side. The height of the enclosure must be not less than six (6) feet or at least one (1) foot above the height of the dumpster, whichever is greater. This requirement specifically supersedes the maximum height requirement of a fence as set forth in Chapter 44 of Title 15 of the Livonia Code of Ordinances, as amended. The enclosure gates shall be of solid panel steel construction or durable, long-lasting solid panel fiberglass and, when not in use, closed at all times.
 - B) The enclosure must be constructed of the same or compatible material and colors of the principal building in terms of texture and quality.

- (9) **Mechanical and Utility Equipment Screening.** All mechanical equipment, utility meters, storage tanks, air conditioning equipment, transformers, or similar equipment, incidental to any building, including roof-mounted equipment must be totally enclosed or screened from view off-site and must be an integral part of the architectural or landscape design of the building and site. This requirement does not apply to equipment serving a single-family unit or duplex.
- (10) **Right-of-Way and Access Easement Landscaping.** In addition to any other landscaping requirements of this Ordinance for public rights-of-way and other access easements, any public right-of-way and access easement areas adjacent to required landscaped areas shall be planted with grass or other suitable ground cover and maintained by the owner of the adjacent property as if they were part of required landscaped areas.

Section 10.04 Standards for Plant Materials.

- (1) **Lawn Areas.** Lawn areas shall be planted in species of grass normally grown as permanent lawns in southeast Michigan. Grass may be sodded or seeded and mulched, except that solid sod shall be used in swales or other areas subject to erosion. Sod or seed shall be clean, free of weeds and noxious pests or disease.
- (2) **Recommended Species of Trees, Shrubs, and Perennials.** The plant palette should emphasize native trees, shrubs, and perennials which are hardy to the southeast Michigan region. The following is a list of recommended species and required minimum sizes of plant materials. The City of Livonia may permit other species that are not listed below.

Recommended Plant Type and Minimum Size	Common Name
Evergreen Trees (8 feet minimum height)	Fir, Hemlock, Juniper, Pine, and Spruce
Narrow Evergreens (5 feet minimum height)	Blue Columnar Chinese Juniper, Column Honoki Cypress, Douglas Arborvitae, Pyramidal Red Cedar, Pyramidal White Pine, and Swiss Stone Pine
Deciduous Trees (3-inch minimum caliper)	Beech, Birch, Gingko, Hackberry, Honey Locust (Without Thorns), Hop Hornbeam, Linden, Oak, Planetree (Sycamore), and Sweet Gum
Ornamental Trees (2-inch minimum caliper)	Allegheny Serviceberry, Dogwood, Flowering Crab, Hawthorn, Hornbeam, Magnolia, Redbud, and Rose of Sharon
Deciduous Shrubs (3 feet minimum height)	Dogwood, Euonymus, Fosythia, Hazelnut, Honeysuckle, Hydrangea, Lilac, Mock-Orange, Ninebark, Privet, Spiraea, Sumac, and Viburnum
Evergreen Shrubs (30 inches minimum height)	Holly, Juniper, and Yew
Spreading Shrubs (18 inches minimum height)	Cotoneaster and Creeping Juniper
Perennial Flowers/Groundcover	Black-Eyed Susan, Creeping Juniper, Creeping Phlox, Daylily, Fragrant Sumac, Ornamental Grass, Periwinkle, and Purple Coneflower

- (3) **Prohibited Species.** Based on the undesirability of the following species, they are prohibited from being planted as required landscaping. The City Council or Planning Director may prohibit other species that are not listed below.

Latin (scientific name)	Prohibited Species	Description or Characteristic of Plant
Acer negundo	Boxelder Maple	
Catalpa speciosa	Catalpa	
Populus sp.	Poplars	
Salix sp.	Willows	
Ailanthus altissima	Tree of Heaven	
Fraxinus sp.	Ash	Due to Emerald Ash Borer.
Acer sp.	Maples	Should be discouraged due to overuse in landscape.

(4) Minimum Requirements for Plant Material.

- A) All plant material must conform to the description consistent with generally accepted and published nursery and landscape standards. Plant materials must be typical of their species or variety, have normal habitat of growth, well-branched, and densely foliated when in leaf.
- B) Plant materials must be chosen according to soil, climatic conditions, and environmental factors for the proposed development, the location of the installation, and its desired function.
- C) Artificial plants are prohibited from satisfying landscape requirements.

Section 10.05 Landscape Installation and Maintenance.

(1) Installation.

- A) **Installation Period.** Whenever planting is required by this Ordinance, it must be planted prior to the issuance of the Certificate of Occupancy. If the weather does not permit the planting, the required planting must take place within six (6) months from the date of issuance of the Certificate of Occupancy.
- B) **Installation Method.** All landscaping must be installed in a manner consistent with generally accepted and published nursery and landscape standards, the approved landscaping plan, and the following:
 - i) **High Quality and Healthy Plant Material.** Plant material must be freshly dug. Plant material must be of sound health, vigorous and uniform in appearance with a well-developed root system and free from disease, insects, pests, eggs, or larvae. Trees must have straight trunks with leaders intact, undamaged and uncut.
 - ii) **Mulching.** Trees, shrubs, hedges, vines, perennials, and live groundcovers (except turf grasses) must be generously mulched at the time of planting with hardwood bark mulch or similar natural material. Because stone, rocks, and pebbles trap heat and do not retain moisture, these materials must not be permitted as a ground cover or mulch.
 - iii) **Topsoil.** A minimum of four (4) inches of topsoil must be provided for all lawn areas, ground covers, berms, and planting beds.

- iv) **Plant Material Required in All Portions of Landscaped Areas.** All portions of the landscaped areas must be planted with grass, groundcover, shrubbery, or other suitable plant material, except that paved patios, terraces, sidewalks, and similar site features may be incorporated with City Council approval.
- v) **Planting Locations.** Unless a specific planting pattern is required by the Ordinance or the City Council, required trees and shrubs may be planted at uniform intervals, at random, or in groupings, provided they are planted in accordance with the approved plan. Landscaping must be located and maintained in a manner that minimizes conflicts with overhead or underground utilities, and that allows reasonable view of storefronts and signs.
- vi) **Protection of Existing Vegetation.** Existing vegetation to be preserved must be protected during construction through the use of temporary fencing around the drip line.

(2) Maintenance.

- A) The owner of the property is responsible for the regular maintenance of all plants and must replenish mulch, control weeds, fertilize plants, and prune plants as necessary beginning upon completion of construction of landscaping. All diseased, dead, or damaged plants must be replaced within thirty (30) days, unless the season is not appropriate for planting, in which case such plant material must be replaced at the beginning of the next planting season.
- B) The approved landscape plan must be considered a permanent record and integral part of site plan approval. Unless otherwise approved in accordance with the procedures for amending a site plan, any revisions to or removal of plant materials that are not replaced will cause the parcel to be in nonconformity with the originally approved landscape plan and must be viewed as a violation of this Ordinance.

- (3) Irrigation Required.** All landscape areas (including lawns) shall be provided with an automatic underground irrigation system. The City Council or Planning Director may approve an alternate form of irrigation for a particular area, or may waive the irrigation requirement in an area upon determining that the underground irrigation is not necessary to maintain site landscaping in good condition due to the characteristics of the proposed plant materials.

- (4) Snow Storage.** Landscape areas may be used for snow storage, provided they are designed to accommodate the large volumes of snow, planted with salt-tolerant landscape material that can survive in winter conditions, and maintained in accordance with this Article.

Section 10.06 Modifications.

In consideration of the overall design and impact of the landscape plan, the City Council may modify or adjust the requirements outlined in this Article for required landscaping, provided that any such adjustment is keeping with the intent of this Ordinance and more specifically, with the intent of this Article.

Article XI.

Signs

Section 11.01 Applicability.

(1) Sign Standards.

All signs within the City of Livonia shall comply with the General Requirements of [Section 11.04](#). Signs in specific Zoning Districts shall comply with [Section 11.08](#). For prohibited signage refer to [Section 11.05](#) and [Section 11.09](#). For exempt signage refer to [Section 11.06](#).

(2) Existing Signs.

Except as otherwise specifically provided, nothing in this Article requires removal or discontinuance of an existing sign. Existing signs must not be enlarged or extended without meeting the requirements of this Article and obtaining a sign permit. Legally existing signs that do not meet this Article's requirements are labeled nonconforming signs.

(3) Dual Suitability.

Meeting the criteria of one sign type definition does not exclude the sign from meeting another sign definitions' criteria. For example, a blade sign can also meet the definition criteria of a double-faced sign. Therefore, the sign is a double-faced blade sign.

Section 11.02 Intent.

It is not the intent of this Ordinance to have the open spaces and lines of vision created by public rights-of-way used as license for unrestricted advertising through the use of signage, but rather to enhance the physical appearance of the city, preserve scenic and natural beauty of designated areas, make the city a more enjoyable and pleasing community and to create a more attractive economic and business climate by preserving property values. It is intended by the provisions of this Ordinance to reduce sign or advertising distractions, to eliminate the visual blight caused by abandoned or poorly maintained signs and to avoid the confusion of conflicting adjacent signs. Through this Ordinance signage will be allowed in such a manner so as to provide those similar uses in similar zones the opportunity for identification exposure regardless of parcel size, although the location and size of buildings will influence the amount and type of signage permitted. This Ordinance shall make a distinction between those non-residential zones that provide for transitional or other than retail activity as a primary use. This section, through this approach, reflects the transitional nature of the zoning district arrangements shown on the zoning map and the future land use plan so that as the intensity of land use is decreased, so is the amount of permitted signage. This consistent approach is necessary to remove the need for the type of signs which compete for attention for the motorist, thereby creating traffic hazards as well as creating visual blight within the city. It is therefore within the health, safety and welfare responsibility of the city of Livonia that this section of the Ordinance is promulgated.

Section 11.03 Substitution Clause.

Any non-commercial message may be substituted for the copy on any commercial sign allowed by this Ordinance.

Section 11.04 General Requirements for All Signs.

The following conditions apply to all signs erected or located in any zoning district:

(1) Inspection.

No signs oriented to motorized traffic on a public street (except as specifically exempted) shall be erected, used, changed or altered without first having been approved by the Director of the Inspection Department, or his or her designee, and a sign permit issued.

(2) Sign Location.

- A) No sign shall project beyond or overhang the wall or any permanent architectural feature (e.g., awning, canopy, or marquee) by more than eighteen (18) inches and shall not project above or beyond the highest point in the roof or parapet.
- B) No sign shall be permitted at any location that creates any type of safety hazard or visual impediment to pedestrian or vehicular traffic. Any citation or notice of violation of this subsection shall cite any relevant building or electrical codes, provisions of this Ordinance or other City ordinances, and/or findings or studies of the Livonia Police Department Traffic Bureau and/or a traffic engineer.

(3) Maximum Sign Size. No sign in the City shall exceed an overall sign area of 200 square feet.

(4) Alterations. No sign will be altered, rebuilt, enlarged, extended or relocated except in conformity with the provisions of this Article. The refacing of signs is not an alteration within the meaning of this Article.

- (5) **Sign Attachment and Support.** A sign must not be attached to or supported by a tree, utility pole, light pole, trash receptacle, bench, vending machine, public shelter, or be painted or drawn upon rocks or other natural features.

Section 11.05 Prohibited Signs.

A sign not expressly permitted in a zoning district is prohibited. The following signs shall not be permitted and are expressly prohibited in any zoning district:

- (1) **Abandoned signs.**
- (2) **Bench signs.**
- (3) **Billboards.**
- (4) **Festoons, air-activated signs, and balloon signs** except for decorations commemorating a permitted time-limited event or a nationally recognized holiday.
- (5) **Flashing signs.**
- (6) **Moving signs.**
- (7) **Outline tubing signs,** except that the use of outline tubing may be permitted when
 - A) such tubing is encased with tinted glass or plastic so as to protect it from weather and breakage and to render such tubing invisible when not illuminated, and
 - B) the tubing does not outline windows, roofs, or other building features.
- (8) **Portable signs.**
- (9) **Pylon signs.**
- (10) **Roof signs.**
- (11) **Trailer signs.**
- (12) Any sign attached to a tree or utility pole whether public or private, or attached to a traffic device or public sign.
- (13) Any sign unlawfully installed, erected or maintained.
- (14) Any sign which has displayed thereon advertising or announcements in obscene material or language.
- (15) Signs painted permanently and directly on the exterior surface of any building, wall or fence.
- (16) Signs that include audio, pyrotechnic, Bluecasting (Bluetooth advertising), or other similar components.
- (17) Any sign, that is located in or projects into any public right-of-way as shown on the Future Transportation Map is prohibited, except for traffic or other public signs and those signs for which a valid permit has been issued by a) the County, in the case of a County right-of-way, or b) the State, in the case of a State right-of-way. Any sign, including real estate signs, placards, posters, circulars, showbills, handbills, cards, leaflets or other advertising matter posted, pasted, nailed, printed, stamped, or unlawfully placed or erected in any right-of-way or public property may be removed and disposed of by the enforcement officers of the City of Livonia without regard to other provisions of this Ordinance.

Section 11.06 Exempt Signs.

The following types of signs, where expressly permitted by zoning district, shall not require sign permits unless otherwise indicated; provided that the principal use to which they relate is permitted by this Zoning Ordinance and they meet all other restrictions of the particular zoning district and the following criteria:

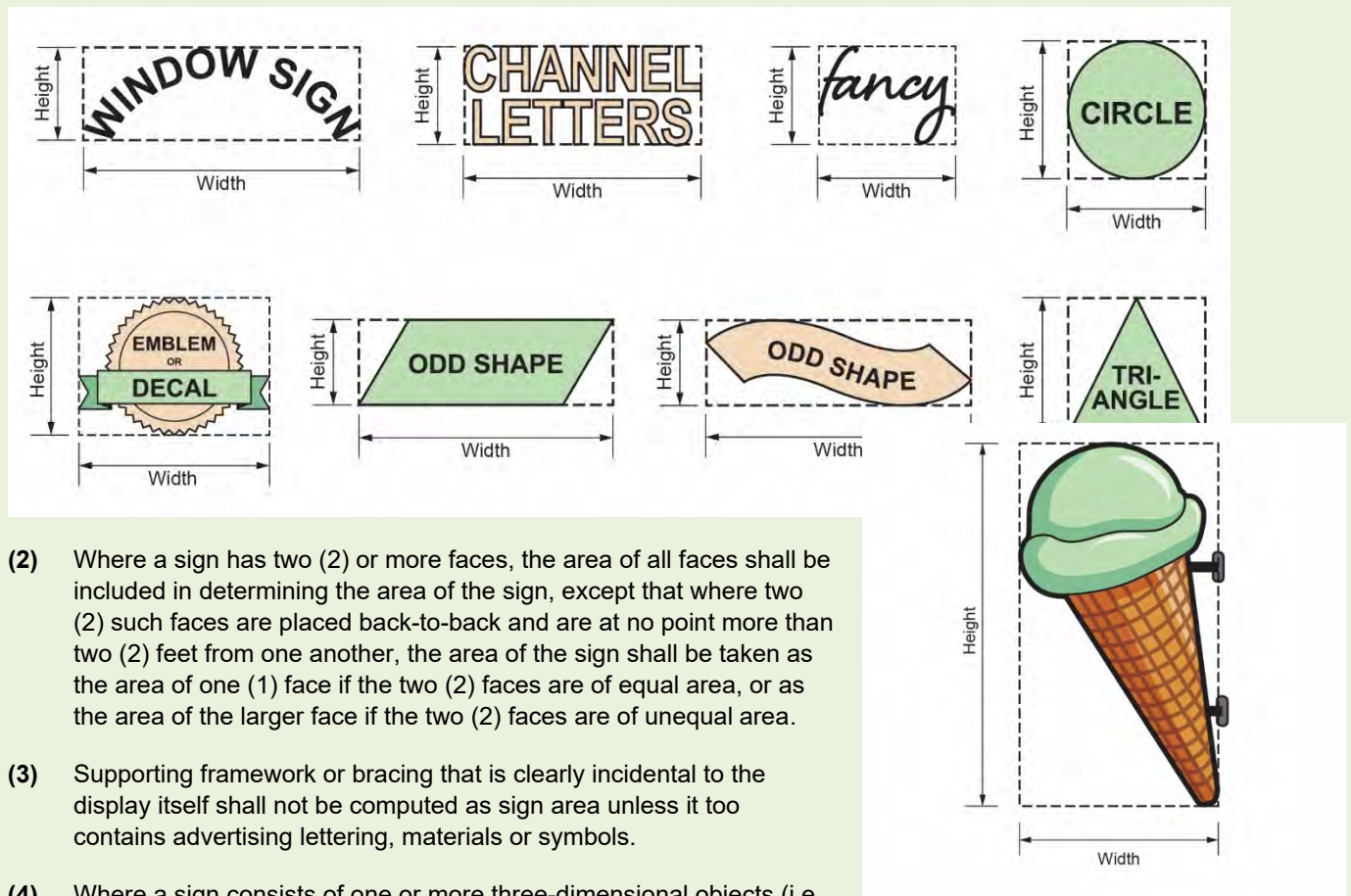
- (1) **Public signs.**
- (2) **Temporary signs.** Provided they meet district regulations of [Section 11.08](#).
- (3) **Flags.** No greater quantity than three (3) per development site. Flagpoles shall be permitted to be located within the minimum required building setback area, provided that the distance between the base of the pole and any lot line is not less than the height of the flagpole.
- (4) Address numbers with a numeral height not greater than six (6) inches for residences and twelve (12) inches for businesses. Address numbers on a business with a numeral height in excess of twelve (12) inches may be permitted as part of the total allowable wall or ground sign area otherwise permitted in this Ordinance. Individual addresses on multi-tenant buildings shall consist of numerals of a uniform size, style and color.
- (5) Nameplates on the entry door of the premises or adjacent to the doorway.
- (6) One (1) temporary construction sign of whatever content the owner deems appropriate, provided that such sign is erected only after the issuance of a building permit and is removed at the completion of construction or occupancy of the building, whichever occurs first, and subject to the following additional requirements:
 - A) Construction signs in R-U-F, N1, and N2 districts shall not exceed six (6) square feet in area, and if freestanding shall not exceed five (5) feet in height and shall have a minimum setback of ten (10) feet from any public right-of-way.
 - B) Construction signs in all other districts shall not exceed thirty (30) square feet in area, and if freestanding shall not exceed six (6) feet in height and shall have a minimum setback of ten (10) feet from any public right-of-way.
- (7) Temporary community event signs, of whatever content the owner deems appropriate, for the purpose of advertising or promoting public events sponsored by a non-profit association or corporation for a charitable, educational, or public purpose to which the general public is invited when approved by the City Council and only after a sign permit has been issued by the Director of the Inspection Department, or his or her designee. Such signs shall not exceed sixteen (16) square feet of sign area, eight (8) feet in height, have a minimum setback of ten (10) feet from any public right-of-way and shall be removed within twenty-four (24) hours of the conclusion of the event it advertises.
- (8) Directional signs, of whatever content the owner deems appropriate, located on parking areas or on auxiliary parking lots used in conjunction with an adjacent permitted use when the purpose of the sign is to expedite the flow of vehicular and pedestrian traffic to, from, and within a development site, each sign may not exceed two (2) square feet in area. The minimum setback for such signs used to indicate an entrance or exit shall be two (2) feet from all property lines or any public right-of-way line with a maximum height of three (3) feet. All other directional signs shall have a minimum setback of ten (10) feet from all property lines or any public right-of-way line with a maximum height of five (5) feet.
- (9) One (1) temporary real estate sign of whatever content the owner deems appropriate, when located on the land or building intended to be rented, leased or sold, subject to the following additional requirements:

- A) Real estate signs shall be removed within thirty (30) days after the property is rented, leased, or sold. For the purpose of this Ordinance, a property shall be considered leased when the lease agreement is executed by all parties or it shall be considered sold when the sale is closed.
 - B) Real estate signs in R-U-F, N1, and N2 districts shall not exceed six (6) square feet in area, and if freestanding shall not exceed five (5) feet in height and shall have a minimum setback of ten (10) feet from any public right-of-way.
 - C) Temporary real estate signs, of whatever content the owner deems appropriate, in all other districts shall not exceed sixteen (16) square feet in area, and if freestanding shall not exceed eight (8) feet in height and shall have a minimum setback of ten (10) feet from any public right-of-way or a location as deemed appropriate by the Director of the Inspection Department. Two (2) signs not exceeding sixteen (16) square feet each shall be permitted on property situated on a lot with double frontage and corner lots. Such signs shall require a sign permit and may be erected for a time period not to exceed six (6) months from the date of issuance of the sign permit; provided, however, that such permit may be renewed by the Director of the Inspection Department, or his or her designee, for a second six (6) month period. At the end of the second six (6) month period, such permit may be renewed for a period not to exceed six (6) additional months only if more than ten (10%) of the building or rentable area of the building is available.
 - D) On development sites with a minimum of two hundred (200) feet of property bordering on the I-275 freeway, temporary real estate, of whatever content the owner deems appropriate, signs facing the I-275 freeway shall not exceed sixty-four (64) square feet in area, and if freestanding shall not exceed twelve (12) feet in height and shall have a minimum setback of ten (10) feet from any public right-of-way.
- (10) One (1) temporary non-illuminated "open house" real estate sign, of whatever content the owner deems appropriate, with an area not to exceed four (4) square feet. Such signs may be located only on the premises being sold and may be displayed for only one (1) day in any seven (7) day period.
- (11) Temporary real estate development signs, of whatever content the owner deems appropriate, when permitted in a zoning district, require sign permits, provided that such sign is erected only after the issuance of a building permit for the development or a portion thereof. Except for temporary residential subdivisions which are provided for elsewhere, such signs shall be subject to the following additional requirements:
- A) Real estate development signs shall be located on the land being developed and shall not exceed thirty-two (32) square feet in area, eight (8) feet in height and shall have a minimum setback of ten (10) feet from any public right-of-way line.
 - B) Real estate development signs may be permitted for a time period not to exceed twelve (12) months from the date of issuance of the sign permit and may be renewed by the Director of the Inspection Department, or his or her designee, when the sign is demonstrated to be safe and well maintained. Such signs are to be removed upon expiration of the permit or occupancy of the building, whichever occurs first.
- (12) Residential subdivision development with models shall be permitted one (1) temporary real estate sign of whatever content the owner deems appropriate, for each access road entering the development. Such signs shall be separated by a minimum distance of five hundred (500) feet and shall not exceed thirty (30) square feet in area, twelve (12) feet in height, and shall have a minimum setback of ten (10) feet from all property lines and any public right-of-way lines.
- A) Within subdivisions, each home builder for each model shall be permitted, one (1) temporary real estate sign of whatever content the owner deems necessary, for each home builder for each model. Such signs shall not exceed of sixteen (16) square feet in area, five (5) feet in height, and shall have a minimum setback of fifteen (15) feet from any property line.

- B) Such home builder signs shall be removed upon cessation of new home marketing within the subdivision or when ninety-five percent (95%) of all lots have been sold by the builder(s) or when the permit expires, whichever occurs first.
- (13) Required announcement signs are permitted in all zoning districts when erected and maintained in accordance with the provisions requiring their use.

Section 11.07 Measurement of Sign Area.

- (1) The area of a sign, expressed in square feet, shall mean the entire area within any circle, triangle or rectangle or square enclosing the extreme limits of writing, representation, emblem or any figure or similar character, together with any frame or other material or color forming an integral part of the display or used to differentiate the sign from the background against which it is placed, excluding the necessary supports or uprights on which such sign is placed. Refer to the image below.



- (2) Where a sign has two (2) or more faces, the area of all faces shall be included in determining the area of the sign, except that where two (2) such faces are placed back-to-back and are at no point more than two (2) feet from one another, the area of the sign shall be taken as the area of one (1) face if the two (2) faces are of equal area, or as the area of the larger face if the two (2) faces are of unequal area.
- (3) Supporting framework or bracing that is clearly incidental to the display itself shall not be computed as sign area unless it too contains advertising lettering, materials or symbols.
- (4) Where a sign consists of one or more three-dimensional objects (i.e., balls, cubes, clusters of objects, sculpture, or statue-like trademarks), the sign area is measured as their maximum projection, upon a vertical plane, as viewed from a position in the public right-of-way which produces the largest visual projection. See figure to the right.
- (5) Regardless of spacing, the letters forming a word or words shall be considered a single sign. The area of such a sign shall be measured as provided in this Article.

Section 11.08 Zoning District Regulations.

(1) Sign Regulations for Residential Districts

Sign Type	N1, N2, RUF, NM1, NM2, and NM3 Districts (Single-family and two-family lots only)	N1, N2, RUF, NM1, NM2, and NM3 Districts (Residential developments [subdivisions, site condominiums, and multi-family] and non-residential uses only)
Blade Signs	Not Permitted	
Banner or Pennant Signs	Not Permitted	
Monument Signs	Not Permitted	Maximum Number: One (1) for each lot with permitted non-residential uses. One (1) entranceway sign per residential development when constructed out of natural materials. Maximum Height: Five (5) feet. Maximum Area: Twenty (20) sq. ft. Minimum Setback: Ten (10) feet from all property lines and any right-of-way line.
Awning, Canopy, or Wall Signs	Not Permitted	Maximum Area: Twenty (20) sq. ft.
Window Signs	Not Permitted	
Changeable Signs and Electronic Message Center Signs (EMCs) <i>Section 11.10</i>	Not Permitted	
Temporary Signs	Maximum Number: Two (2) per residential lot. Maximum Area: Thirty-two (32) sq. ft., total for all signs. Sixteen (16) sq. ft. maximum per sign. Maximum Height: Six (6) feet. Minimum Setback: Ten (10) feet from any property line. Duration: Temporary signs shall not be placed for a period exceeding ninety (90) days in one calendar year, unless otherwise permitted by this ordinance.	
Address Number Signs	Maximum Numeral Height. Six (6) inches for residences and twelve (12) inches for businesses. Address numbers on a business with a numeral height in excess of twelve (12) inches may be permitted as part of the total allowable wall or monument sign area otherwise permitted in this Ordinance. Individual addresses on multi-tenant buildings shall consist of numerals of a uniform size, style, and color.	
Identification Sign	Maximum Number: One (1) for each waiver use, not including religious institutions. Maximum Area: Six (6) sq. ft. Maximum Height: Four (4) feet. Minimum Setback: Twenty (20) feet from any right-of-way line.	

(2) Sign Regulations for C-1 Districts.

SIGN TYPE	C-1 DISTRICTS	
Blade Signs	Maximum Area: Six (6) sq. ft.	
Banner or Pennant Signs	Maximum Number: One (1) per lot. Maximum Area: Thirty-two (32) sq. ft. or the area of the permanent sign if temporarily covering the permanent sign. Maximum Duration: Four (4) weeks per year. No such permit shall allow the display of balloons or searchlights for more than seven (7) consecutive days or of pennants, banners, or other decorations for more than fourteen (14) consecutive days.	
Menu Order Board	Maximum Number: One (1). Maximum Area: Thirty (30) sq. ft. Such signs shall be primarily directed at persons within the premises of the sign owner.	
Monument Signs	Sites consisting of a single tenant occupying a single building.	Sites comprised of one (1) building or multiple architecturally uniform buildings and sharing a common parking area
	Maximum Number: One (1). Maximum Area: Thirty (30) sq. ft. Maximum Height: Six (6) feet. Maximum Length: Ten (10) feet. Minimum Setback: Ten (10) feet from any right-of-way line.	Maximum Number: One (1). Maximum Area: Thirty (30) sq. ft. Maximum Height: Six (6) feet. Maximum Length: Ten (10) feet. Minimum Setback: Ten (10) feet from the perimeter of the building.
Awning, Canopy, or Wall Signs	Maximum Area: One (1) square foot of area for each one (1) lineal foot of frontage of the building or portion thereof occupied by each separate business; provided, however, that in the case of a single business occupying a corner lot situated on two (2) major thoroughfares, a second wall sign having an area not exceeding one-half ($\frac{1}{2}$) of the allowable area as the first permitted sign, shall be permitted on the other façade facing a street.	
Window Signs	Maximum Area: 20% of the window area.	
Changeable Signs and Electronic Message Center Signs (EMCs) <i>Section 11.10</i>	Maximum Area: Fifteen (15) sq. ft. EMC signs are only permitted if they are a monument sign, and only if all signage on site is fully compliant with the Zoning Ordinance.	
Temporary Signs	Maximum Number: - On lots of five (5) acres or less, no more than two (2) temporary signs are permitted at any one time. - On lots of five (5) acres or more, or with three (3) or more businesses, no more than three (3) temporary signs are permitted at any one time. Maximum Area: Sixteen (16) sq. ft. maximum per sign. Maximum Height: Six (6) feet. Duration: Must not be displayed more than 90 days in a 1-year period.	
Address Number Signs	Maximum Numeral Height. Twelve (12) inches for businesses. Address numbers on a business with a numeral height in excess of twelve (12) inches may be permitted as part of the total allowable wall or monument sign area otherwise permitted in this Ordinance. Individual addresses on multi-tenant buildings shall consist of numerals of a uniform size, style, and color.	

(3) Sign Regulations in C-2, C-3, and C-4 Districts.

SIGN TYPE	C-2, C-3, AND C-4 DISTRICTS		
Blade Signs	Maximum Area: Six (6) sq. ft.		
Banner or Pennant Signs	Maximum Number: One (1) per lot. Maximum Area: Thirty-two (32) sq. ft. or the area of the permanent sign if temporarily covering the permanent sign. Maximum Duration: Four (4) weeks per year. No such permit shall allow the display of balloons or searchlights for more than seven (7) consecutive days or of pennants, banners, or other decorations for more than fourteen (14) consecutive days.		
Menu Order Board	Maximum Number: One (1). Maximum Area: Thirty (30) sq. ft. Such signs shall be primarily directed at persons within the premises of the sign owner.		
Monument Signs	For each single building or business center, housing no more than three (3) separate business uses	For each business center having four (4) or more separate business uses	Signage in a Regional Shopping Center is intended to identify the regional center and/or the principal tenants to the general public
	Maximum Area: Thirty (30) sq. ft. Maximum Height: Six (6) feet.	Maximum Area: Forty (40) sq. ft. Maximum Height: Eight (8) feet.	Maximum Area: One Hundred (100) sq. ft. Maximum Height: Twenty (20) feet.
	Maximum Number: One (1). Where a development site has more than four hundred (400) feet of frontage along a major thoroughfare or a minimum of two hundred (200) feet of frontage on each of two (2) major thoroughfares, a second freestanding sign shall be permitted with the same size and location limitations as the first permitted sign, provided the distance between the two (2) signs is no less than three hundred (300) feet measured along the road frontage. Maximum Length: Ten (10) feet. Minimum Setback: Ten (10) feet from any right-of-way line. No freestanding sign shall be permitted when the front yard setback of the building(s) is less than twenty (20) feet.		
Awning, Canopy, or Wall Signs	Maximum Area: One (1) square foot of area for each one (1) lineal foot of frontage of the building or portion thereof occupied by each separate business; provided, however, that in the case of a single business occupying a corner lot situated on two (2) major thoroughfares, a second wall sign having an area not exceeding one-half ($\frac{1}{2}$) of the allowable area as the first permitted sign, shall be permitted on the other façade facing a street.		
Window Signs	Maximum Area: 20% of the window area.		
Changeable Signs and Electronic Message Center Signs (EMCs) <i>Section 11.10</i>	Maximum Area: Fifteen (15) sq. ft. EMC signs are only permitted if they are a monument sign, and only if all signage on site is fully compliant with the Zoning Ordinance.		
Temporary Signs	Maximum Number: - On lots of five (5) acres or less, no more than two (2) temporary signs are permitted at any one time. - On lots of five (5) acres or more, or with three (3) or more businesses, no more than three (3) temporary signs are permitted at any one time. Maximum Area: Sixteen (16) sq. ft. maximum per sign. Maximum Height: Six (6) feet.		

	Duration: Must not be displayed more than 90 days in a 1-year period.
Address Number Signs	Maximum Numeral Height: Twelve (12) inches for businesses. Address numbers on a business with a numeral height in excess of twelve (12) inches may be permitted as part of the total allowable wall or monument sign area otherwise permitted in this Ordinance. Individual addresses on multi-tenant buildings shall consist of numerals of a uniform size, style, and color.

(4) Sign Regulations in Industrial Districts.

SIGN TYPE	M-L, M-1, AND M-2 DISTRICTS		
Blade Signs	Maximum Area: Six (6) sq. ft.		
Banner or Pennant Signs	Maximum Number: One (1) per lot. Maximum Area: Thirty-two (32) sq. ft. or the area of the permanent sign if temporarily covering the permanent sign. Maximum Duration: Four (4) weeks per year. No such permit shall allow the display of balloons or searchlights for more than seven (7) consecutive days or of pennants, banners, or other decorations for more than fourteen (14) consecutive days.		
Monument Signs	For each industrial development site consisting of a single tenant occupying a single building	Multi-tenant complexes comprised of one (1) or more architecturally uniform buildings and sharing a common parking area shall be permitted the following, and prior to sign permits being issued, a master sign plan shall be submitted to the Director of the Inspection Department, or his or her designee, indicating size, type and location of wall signs, ground signs and any other requested signs	At the entrance to an industrial park, an entranceway sign shall be permitted when constructed out of natural materials.
	Maximum Number: One (1). Where a development site has more than four hundred (400) feet of frontage along a major thoroughfare or a minimum of two hundred (200) feet of frontage on each of two (2) major thoroughfares, a second freestanding sign shall be permitted with the same size and location limitations as the first permitted sign, provided the distance between the two (2) signs is no less than three hundred (300) feet measured along the road frontage. Maximum Length: Ten (10) feet. Maximum Area: Thirty (30) sq. ft. Maximum Height: Six (6) feet. Minimum Setback: Ten (10) feet from any right-of-way line.		Maximum Number: One (1). Maximum Area: Twenty (20) sq. ft. Maximum Height: Five (5) feet. Minimum Setback: Ten (10) feet from any right-of-way line.

Awning, Canopy, and Wall Signs	For each industrial development site consisting of a single tenant occupying a single building	Multi-tenant complexes comprised of one (1) or more architecturally uniform buildings and sharing a common parking area
	Maximum Area: One (1) square foot of area for each two (2) lineal foot of front building width or one hundred (100) square feet, whichever is lesser.	Multi-tenant structures may identify tenants with not more than one (1) wall sign per tenant, not to exceed ten (10) square feet of sign area and to be located on the face of the area occupied by the tenant. Additionally, one (1) identification wall sign not to exceed two (2) square feet in area shall be permitted at the rear entrance to each business establishment.
Window Signs	Maximum Area: 20% of the window area.	
Changeable Signs and Electronic Message Center Signs (EMCs) <i>Section 11.10</i>	Not Permitted	
Temporary Signs	Maximum Number: - On lots of five (5) acres or less, no more than two (2) temporary signs are permitted at any one time. - On lots of five (5) acres or more, or with three (3) or more businesses, no more than three (3) temporary signs are permitted at any one time. Maximum Area: Sixteen (16) sq. ft. maximum per sign. Maximum Height: Six (6) feet. Duration: Must not be displayed more than 90 days in a 1-year period.	
Address Number Signs	Maximum Numeral Height. Twelve (12) inches for businesses. Address numbers on a business with a numeral height in excess of twelve (12) inches may be permitted as part of the total allowable wall or monument sign area otherwise permitted in this Ordinance. Individual addresses on multi-tenant buildings shall consist of numerals of a uniform size, style and color.	
Identification Signs	Multi-tenant complexes comprised of one (1) or more architecturally uniform buildings and sharing a common parking area shall be permitted one (1) group identification sign not to exceed twenty-four (24) square feet of sign area and if freestanding, shall be located within ten (10) feet of the perimeter of the building.	

Section 11.09 Billboards.

The erection and maintenance of billboards and outdoor advertising signs on any parcel of land within the City of Livonia, or the use of any such parcel for said purpose, are hereby prohibited; provided, however, that this section shall not apply to billboards or outdoor advertising signs lawfully in existence at the time this Ordinance becomes effective, nor to those specific signs which are expressly allowed by the district regulations contained in this Ordinance.

Section 11.10 Sign Illumination.

(1) Illumination.

Signs permitted to be illuminated, may be either internally or indirectly illuminated. Any sign, regardless of size, that makes use of electricity, shall require an electrical permit in addition to any required sign permit. No sign shall be illuminated by other than approved electrical devices, installed in accordance with the requirements of the regulations adopted by the City of Livonia, and shall be subject to the following conditions:

- A) The lighting of signs shall be of a non-intermittent, non-flashing character.
- B) Illumination devices designed and installed to illuminate the exterior of principal buildings or accessory buildings on a site shall be permitted without respect to the size of signs permitted in any zoning district; provided, however, that there shall be no spillage of illumination or glare onto any public or private roads, drives or traffic lanes, and shall be so shielded, trained, or aimed that glare is prevented from spilling onto adjacent residential properties.
- C) Internal illumination or back-lighting of signs attached to a canopy or awning, which render the canopy or awning translucent, is not permitted; however, the portion of the canopy or awning which encompasses the sign area only may be illuminated to light the sign area in a translucent manner.

(2) Standards.

Any ground sign permitted under [Section 11.08, 0](#) which pertains to a business, business center, and/or regional center as to which all other signage of whatever type also conforms to this Ordinance, may include a variable electronic message sign covering not more than fifty (50) percent of the area of the ground sign, provided that each individual message on the sign shall remain in place for a minimum of eight (8) seconds, any change of message is accomplished within one (1) second, and any change shall occur simultaneously over the entire face of the variable electronic message sign. Signs which constitute Nonconforming Uses under [Section 11.15](#) of this Ordinance, or as to which variance(s) has/have been granted for sign size, height, location, or number, must be eliminated or brought into conformity with all currently applicable Ordinance limits prior to the issuance of a variable electronic message sign permit for the business, business center, and/or regional center to which such nonconforming sign(s) pertain(s).

- A) No such sign may be oriented to face any residentially zoned property.
- B) The intensity of the display on any variable electronic message sign shall not exceed the levels specified in the chart below:

INTENSITY LEVEL (NITS)		
COLOR	DAYTIME	NIGHTTIME
Red Only	3,150	1,125
Green Only	6,300	2,250
Amber Only	4,690	1,675
Full Color	7,000	2,500

- C) Prior to the issuance of a permit for a variable electronic message sign, applicant shall provide a written certification from the sign manufacturer that the light intensity has been factory pre-set not to exceed the levels specified in the chart above, and the intensity level is protected from end-user manipulation by password-protected software or other method deemed appropriate by the Department. The characters on any variable electronic message sign must be lighted against a darker or less luminous background.

- D) The sign owner shall provide on the application for a permit for a variable electronic message sign contact information for a person who is available to be contacted at any time and who is able to turn off the variable electronic message sign promptly after a malfunction occurs. If the Department finds that a variable electronic message sign has malfunctioned, the owner of the sign, within twenty-four (24) hours of a request by the Department, shall correct the malfunction or power off the sign.
- E) Variable electronic message signs which do not comply with all of the provisions of this subsection shall not be permitted in any zoning district in the City.

Section 11.11 Construction and Maintenance.

(1) Material Requirements.

All signs shall be designed and constructed in conformity to the provisions for materials, loads, and stresses of the latest adopted edition of the B.O.C.A. Code and requirements of this section.

- A) **Restriction on Combustible Materials.** All signs and sign structures erected shall conform to the State Construction Code relating to combustibility.
- B) **Non-Structural Trim.** Non-structural trim may be of wood, metal, approved plastics, or any combination thereof.
- C) **Fastenings.** Signs erected to masonry, concrete or steel shall be safely and securely fastened thereto by means of metal anchors, bolts, or approved expansion screws of sufficient size and anchorage to support safely the loads applied. All bolts, cables, and other parts of such signs shall be painted and free from corrosion. Any defect due to the fault of the erector shall be repaired by the erector. All building fastenings must be of non-corrosive materials. Lightweight sign letters may be attached by means of an approved adhesive.
- D) **Proximity to Electrical Conductors.** No sign shall be erected so that any part including cables, guys, etc., will be within six (6) feet of any electrical conductor, electric light pole, street lamp, traffic light, or other public utility pole or standard.
- E) **Erector's Imprint.** Signs of every class which come within the purview of this section, must carry the identification of the sign erector in clearly legible letters. In case of rehanging or re-erection of any sign, the new erector must place his or her identification and the date on the sign.

(2) Windloads.

For the purpose of design, wind pressure shall be taken upon the gross area of the vertical projection of all signs and sign structures at not less than fifteen (15) pounds per square foot for those portions above the ground. In calculating wind pressure on curved surfaces such as cylindrical or spherical signs or sign structures, this pressure shall be assumed to act on three-fifths (3/5) of the projected area. In all open frame signs or sign structures, the area used in computing wind pressure shall be one-half (1/2) times the net area of the framing members exposed to the wind.

(3) Sign Elimination.

The Director of the Inspection Department, or his or her designee, may order the removal of any sign and supporting structures:

- A) Maintained in violation of this section, such order shall be in writing to the owner of said sign; or to the owner of the building, structure, or premises on which the sign is located; or to the owner or operator of the business to which the sign pertains; and shall allow seven (7) days for the removal of said sign or to insure that it is brought into conformance with the terms of this section.

- B) Existing at the time of, or erected after, the adoption of this Ordinance if either by its location or structural characteristics is deemed to be immediately hazardous to the safety of the general public.
- C) Whenever the sign becomes abandoned as defined in this Ordinance.

(4) Responsibility of Compliance.

The owner of any property on which a sign is erected, located, or placed, and the person maintaining said sign, are declared to be equally responsible for the condition of the sign and the area in the vicinity thereof.

Section 11.12 Permits.

(1) Permits Required.

It shall be unlawful for any person to erect, alter, paint, relocate, or maintain (by structural change or changing the display of the face of the sign) within the City of Livonia any sign or other advertising structure as defined herein, except where specifically exempted by [Section 11.06](#) of this Ordinance, without first obtaining a permit from the Department and payment of the fee provided for in this Ordinance. The provisions and regulations of this Ordinance shall not apply to the ordinary servicing or repainting of an existing sign message, cleaning of a sign, nor to changing of advertising on a sign specifically designed for periodic change of message without change in structure, such as a bulletin board, or similar type of sign, but not including a sign to which a new permanent face may be attached.

(2) Application for Sign Permit.

Application for sign permits shall be made upon forms provided by the Department, and shall contain or have attached thereto the following information:

- A) Name, address, and telephone number of the applicant.
- B) Location of the building, structure, or lot to which the sign is to be attached or erected.
- C) Position of the sign in relation to nearby buildings, structures, and property lines.
- D) Three (3) scaled drawings of the plans and specifications and method of construction and attachment to the building or in the ground.
- E) Copy of stress sheets and calculations, if deemed necessary, showing the structure as designed for dead load and wind pressure.
- F) Name and address of the person, firm, corporation, or association erecting the structure.
- G) Any electrical permit required and issued for said sign.
- H) Insurance policy or bond as required herein.
- I) Such other information as the Director of the Inspection Department, or his or her designee, may require to show full compliance with this and all other applicable laws of the City of Livonia and the State of Michigan.
- J) In the discretion of said Director when in his or her opinion the public safety requires it, the application containing the aforesaid material shall, in addition, bear the certificate or seal of a registered architect or engineer as a condition to the issuance of a permit.
- K) In all applications for entranceway signs, the Director of the Inspection Department, or his or her designee, shall require that appropriate provisions have been made to assure continued maintenance of the sign.

(3) Permit Fees.

A permit fee shall be paid to the Department for each permanent permit and each temporary permit and each renewal thereof required by this Ordinance as shall be set by resolution of the City Council. The fee for any required permit shall be doubled if the sign is erected prior to the issuance of the permit.

(4) Appeal Process.

The Department has the authority to revoke or deny any sign permit required under this Ordinance if the sign violates this Ordinance or another law, provided that the Department shall offer the sign owner an opportunity to be heard by the Director of the Inspection Department, or his or her designee. Such hearing rights shall be in addition to the property owner's rights under [Section 13.14](#) of this Zoning Ordinance as amended. Such hearing shall occur no later than ten (10) business days after the denial or revocation complained of, except with the consent of the owner to a later hearing date. The person(s) whose permit is under consideration shall be given at least five (5) days written notice of the time, place, and reason for the hearing. The sign owner and/or person identified in the permit shall be permitted to present relevant facts and legal argument concerning the pending denial or revocation. Following this hearing, the Department shall consider the merits of the case and shall present a written opinion prior to any action. If, however, the Department believes the health, safety, or welfare of the citizens is endangered by any violation of this Ordinance, the Department may immediately revoke any sign permits.

(5) Sign Permit Expiration.

A sign permit shall become null and void if the work for which the permit was issued is not completed within ninety (90) days of the date of issuance.

(6) Authorized Sign Erectors.

Every person before engaging or continuing in the business of erecting, repairing, or dismantling signs, poster boards, or other display signs in the City of Livonia, shall obtain an annual sign erector's license. The erector shall first furnish the City a public liability insurance policy, approved by the City Attorney, in the amount of one million dollars (\$1,000,000.00) for injury to one (1) person and another one million dollars (\$1,000,000.00) for injury to more than one (1) person, and property damage insurance policy in the amount of five hundred thousand dollars (\$500,000.00) for damage to property, said policy to indemnify said erector from all damage suits or actions of every nature brought or claimed against the erector for or on account of injuries or damages to persons or property received or sustained by any person or persons through any act of omission or negligence of said erector, his or her servants, agents or employees in the erection, repair, or dismantling of any sign, poster board, or other display sign. Said policy shall contain a clause whereby said policy cannot be cancelled until after a written notice of intention to cancel has been filed with the Department at least ten (10) days prior to the date of cancellation. In lieu of an insurance policy as herein required, an erector may present proof satisfactory to the City Attorney that the said erector is financially capable of self-insurance in the above amounts. Said sign erector's license shall terminate upon the expiration or cancellation of the insurance policy unless evidence of renewal is filed with the Department. The license may be suspended or revoked in the manner provided by [0 \(8\)](#), revocation of license.

(7) License Fees.

The annual fees for licenses issued under this section shall be as provided in Section 15.56.070 of the Livonia Code of Ordinances, as amended.

(8) Revocation of License.

The Director of the Inspection Department, or his or her designee, may, after notice and service upon any holder of a license issued under this Ordinance, suspend any license heretofore or hereafter granted, for good cause shown. The City Council may revoke a sign license upon giving thirty (30) days' notice to the licensee of the reasons for the proposed revocation and a hearing held thereon. Upon such hearing the licensee may appear in person or together with counsel and contest such revocation.

Section 11.13 Sign Removal.

The Zoning Inspector will order the removal of any sign for which no sign permit has been issued or signs erected in violation of this Ordinance in accordance with the following procedures:

(1) Notify Property Owner of Violation.

The Zoning Inspector will notify the property owner by first class mail describing the sign, specifying the violation involved, and ordering correction of the violation within 15 days. A similar notice will be posted on the property.

(2) Timely Action by Property Owner.

The property owner must remove the offending sign, obtain a permit if the sign can be conforming, or initiate an appeal to the Board of Appeals within 15 days of receipt of the letter.

(3) Enforcement.

When a sign is removed or replaced, all brackets, poles, and other structural elements that supported the sign must also be removed. Affected building surfaces must be restored to match the adjacent portion of the structure. If at the expiration of the time limit in said notice, the owner has not complied with the requirements thereof, or appealed the decision of the Zoning Inspector, the Zoning Inspector may carry out the requirements of the notice pursuant to [Article XIV](#) to seek the legal removal of the sign.

Section 11.14 Dangerous Signs

In the case of a sign which presents imminent danger to life or property the sign owner must take immediate action as is necessary to abate the danger. If the sign owner cannot be reached, the appropriate City Official may abate the danger in order to protect the health, safety, and welfare of the community.

Section 11.15 Non-Conforming Signs.

It is the intent of this section to recognize that the existence of non-conforming signs is contrary to the best interests of the community. It is considered as much a subject of health, safety, and welfare as is the prohibition of the establishment of new signs in violation of the requirements of this Ordinance. It is hereby declared to be the policy of the City of Livonia, as expressed in this Ordinance, to remove non-conforming signs as expeditiously as is reasonable and as circumstances permit, having due regard for the rights of all parties concerned.

(1) Maintenance.

Nothing in this section shall relieve the owner or user of a non-conforming sign, or owner of property on which the non-conforming sign is located, from the provisions of this Ordinance regarding safety and maintenance of the sign.

(2) Existing Signs.

Any existing sign lawfully erected prior to the effective date of this Ordinance, which does not comply with all of the requirements and provisions hereof, may be maintained subject to the following provisions, but shall not be:

- A) Replaced by or changed to another non-conforming sign.
- B) Structurally altered so as to prolong the life of the sign or to change the shape, size, type, or design of the sign unless the sign is brought into conformance with the requirements of this Ordinance.

- C) Repaired or reestablished after damage or destruction, if the estimated expense of reconstruction exceeds fifty (50) percent of the cost of an identical new sign.
- D) Displayed, maintained, or placed by anyone other than the person who owned the premises on the date of adoption of this Ordinance.
- E) Reestablished or maintained after the activity, business, or usage to which it relates has been discontinued for a period of ninety (90) days or longer. In the case where the activity, business, or usage which is discontinued occupies a portion of a non-conforming multi-tenant wall or ground type business sign, that portion of the sign identifying the previous use shall be painted out or replaced with a blank panel of the same color as the background color that it replaces until such time as fifty (50) percent or more of the total sign area is blank, at which time the entire sign structure is to be removed or replaced with a conforming sign.

(3) Alteration.

No nonconforming sign shall be altered or reconstructed, unless the alteration or reconstruction is in compliance with the provisions of this Article. For the purpose of this Article only, the term “altered” or “reconstructed” shall not include normal maintenance; changing of surface sign space to a lesser or equal area, ornamental molding, frames, trellises or ornamental features or landscaping below the base line; or the addition, construction, installation or changing of electrical wiring or electrical devices, backgrounds, letters, figures or characters or other embellishments.

Section 11.16 Severability.

If any part, section, subsection, paragraph, subparagraph, sentence, phrase, clause, term, or word of this Article is declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, the declaration of such unconstitutionality must not affect any other part, section, subsection, paragraph, subparagraph, sentence, phrase, clause, term or word of this Article. It is intended that if any part, section, subsection, paragraph, subparagraph, sentence, phrase, clause, term, or word of this Article is severed, the remaining parts, sections, subsections, paragraphs, subparagraphs, sentences, phrases, clauses, terms, or words of this Article must be considered independent, valid, and enforceable.

Article XII. Nonconformities.

Section 12.01 Nonconforming Uses and structures; Continuance.

The lawful use of land or a structure exactly as such existed at the time of the enactment of this Ordinance, may be continued although such use or structure does not conform with the provisions of this Ordinance. Such a use, where lawfully continued pursuant to the provisions of this section, shall, for the purpose of this Ordinance, be known as a "Valid Nonconforming Use"; but where such a use is not thus lawfully continued, the same, for the purpose of this Ordinance, shall be known as an "Invalid Nonconforming Use." For purpose of this section, produce markets and nurseries existing in the City as of July 1, 1997 in RUF zoning districts and which are currently nonconforming uses shall be considered to be valid nonconforming uses as long as the continuation of the operation of such business and buildings utilized therein is substantially of the same size and same essential nature as the use existing as of July 1, 1997. Such produce markets and nurseries shall remain subject to the provisions below, inclusive, of this Ordinance and any expansion of these uses is prohibited.

Section 12.02 Certificates of Valid Nonconforming Uses and structures.

A certificate shall be required for each valid nonconforming use, as that term is defined in [Section 12.01](#) of this Ordinance. Such certificate shall state that, on consideration by the Department of Inspection of an application for such certificate and of such other facts as may be ascertained by the Department, the use described in the application has been determined to be a valid nonconforming use existing pursuant to [Section 12.01](#) and [Section 12.03](#) of this Ordinance. Such application shall be filed with the Department of Inspection by the owner or lessee of the building or land occupied by such nonconforming use, within one (1) year from the effective date of this Ordinance, and the Department shall issue such certificate within thirty (30) days following the filing of such application. Failure of an owner or lessee to so obtain such a certificate within said one (1) year period shall create a conclusive presumption that such use is not a valid nonconforming use and such use shall be discontinued immediately following said one (1) year period; provided, however, that nothing contained in this section shall affect existing dwellings or interfere with the continued use, as a dwelling, or any dwelling lawfully existing at the time this Ordinance becomes effective, or prevent any alteration, repair or improvements as provided by [Section 12.06](#) of this Ordinance.

Section 12.03 Nonconforming Uses and structures; Termination.

Any use which is properly designated as a valid nonconforming use shall be automatically terminated on the happening of either of the following events:

- (1) Actual abandonment of said use;

- (2) Acquisition by the City of Livonia, by purchase, condemnation or otherwise, of private property for the removal of such valid nonconforming use, pursuant to Section 8 (3), Act 110, Public Acts of Michigan, 2006, MCL125.3208, as amended.

After such termination, such nonconforming use may not thereafter be resumed or revived.

Section 12.04 Nonconforming Uses and structures; Restoration.

- (1) Nothing in this Ordinance shall prevent the restoration, repairing, or rebuilding of any valid nonconforming building or structure damaged by fire, explosion, act of God, or any act of the public enemy, subsequent to the effective date of this Ordinance, or shall prevent the continuance of the use of such building, or part thereof, as such use existed at the time of such impairment of such building or part thereof, provided said use has not been abandoned.
- (2) No nonconforming structure or use shall be changed unless the changed structure or use conforms to the Zoning Ordinance regulations for the district in which such structure or use is located. However, any vertical or horizontal retraction of a nonconforming structure or use is permitted, provided there is no vertical or horizontal expansion of the nonconforming portion of the structure or use.
- (3) No nonconforming use or structure shall be moved in whole or in part, for any distance whatsoever, to any other location on the same or any other lot unless the entire use and structure shall thereafter conform to the regulations of the zoning district in which it is located after being moved.

Section 12.05 Nonconforming Uses and structures; Repair.

Nothing in this Ordinance shall prevent the repair, reinforcement, or reconstruction of a valid nonconforming building, structure, or part thereof existing at the effective date of this Ordinance, rendered necessary by wear and tear, deterioration or depreciation, provided such use, building, or structure has not been previously abandoned, nor shall any provision of this Ordinance prevent compliance with the provisions of any Building Code in effect in this City or the Housing Laws of Michigan relative to the maintenance of buildings or structures.

Section 12.06 Nonconforming Uses and Structures; Exceptions.

Notwithstanding the provisions of the preceding Sections above, inclusive, of this Ordinance, nothing in this Ordinance shall prevent:

- (1) The alteration, improvement, or rehabilitation of any valid nonconforming building which does not involve any increase in height, area, bulk, or change of use;
- (2) The strengthening or restoration of any building or wall declared unsafe by the Department of Inspection;
- (3) Any alteration, improvement or repair required by the Department of Health or the Department of Public Safety, or by any of the divisions of said departments, as necessary to the protection of the public health, safety, and welfare;
- (4) Any alteration, improvement, repair, or addition determined by the Department of Inspection to constitute full or partial compliance with the use requirements of the district in which the building in question is situated.

- (5) The conforming alteration, improvement, or repair of, or addition to any dwelling or any accessory building, including private garage, incidental to such dwelling; or
- (6) The erection of any conforming accessory building, including private garage, incidental to an existing dwelling.

Section 12.07 Nonconforming Uses and Structures; Elimination.

Except as hereinafter provided, no building, structure, or premises or part thereof shall be used, altered, constructed, or reconstructed except in conformity with the provisions of this Ordinance which apply to the district in which it is located. The existence of nonconforming uses is hereby declared to be contrary to the best interests of the community and it is hereby declared to be the policy of the City as expressed in this Ordinance to discontinue nonconforming uses in the course of time, as circumstances permit, having due regard for the rights of all parties concerned. In order to accomplish the elimination of those nonconforming uses which constitute a nuisance or are detrimental to the public health and general welfare, the City of Livonia, pursuant to Section 8(3), Act 110, Public Acts of Michigan, 2006, MCL 125.3208(3), as amended, and Sections 11 and 15, Chapter IV of the Charter, may acquire by purchase, condemnation or otherwise private property for the removal of nonconforming uses and structures. The Council may in its discretion provide that the cost and expense of acquiring such private property be paid from general funds, or the cost and expense or any portion thereof be assessed to a special district.

Section 12.08 Nonconforming Due to Reclassification.

The foregoing provisions relating to nonconforming uses shall also apply to buildings, structures, land, or uses which hereafter become nonconforming due to any reclassification of districts under this Ordinance or any subsequent change in the regulations of the Ordinance.

Article XIII.

Administrative Procedures

Section 13.01 Administration and Enforcement.

The Department of Inspection shall administer the provisions of this Ordinance and shall enforce such provisions with the assistance of the Police Department.

Section 13.02 Zoning Permit and Zoning Compliance Permit Required.

It shall be unlawful to begin the excavation for the construction, the moving, alteration, or repair, except ordinary repairs, of any building or other structure, including a fence or an accessory structure exceeding forty (40) square feet in area until the building official has issued either a Zoning Permit or a Zoning Compliance Permit for such work which includes a certification of his or her determination that plans, specifications, and the intended use for such structure do, in all respects, conform to the provisions of this Ordinance. Also, it shall be unlawful to change the type of use of land, or to change the type of use or type of occupancy of any building, or to extend any use on any lot on which there is a nonconforming use, until the building official has issued for such intended use a Zoning Compliance Permit, including a certification of his or her determination that the proposed new use does, in all respects, conform to the provisions of this Ordinance. In all cases where a building permit is required, application for a Zoning Compliance Permit shall be made coincidentally with the application for a building permit; in all other cases, it shall be made prior to that date when a new or enlarged use of a building or premises or part thereof is intended to begin. All Zoning Permit and Zoning Compliance Permit applications shall be made in writing to the building official on forms provided for that purpose. The Zoning Permit or Zoning Compliance Permit may be incorporated as part of the building permit form and issued simultaneously with the issuance of the building permit, or it may be issued separately.

Section 13.03 Duties and Limitations of the Building Official.

- (1) The building official shall have the power to grant zoning compliance permits and certificates of occupancy and to make inspections of buildings or premises necessary to carry out his or her duties in the enforcement of this Ordinance.
- (2) Every application for a zoning compliance permit for excavation, construction, moving, alteration, or change in type of use or type of occupancy, shall be accompanied by a written statement and plans or plats, drawn to scale, showing the following in sufficient detail to enable the building official to ascertain whether the proposed work or use is in conformance with the provisions of this Ordinance:

- A) The actual shape, location, and dimensions of the lot; if the lot is not a lot of record, sufficient survey data to locate the lot on the ground.
 - B) The shape, size, and location of all buildings, or other structures, to be erected, altered or moved, and of any other buildings, or other structures, already on the lot.
 - C) The existing and intended use of the lot and of all structures upon it.
 - D) Such other information concerning the lot, adjoining lots, or other matters as may be essential for determining whether the provisions of this Ordinance and any condition(s) of zoning approval(s) are being observed.
- (3) If the proposed excavation, construction, moving, alteration, or use of land as set forth in the application are in conformity with the provisions of this Ordinance and any condition(s) of zoning approval(s), the building official shall issue a Zoning Compliance Permit, however:
- A) Issuance of a zoning compliance permit shall in no case be construed as waiving any provision of this Ordinance.
 - B) The building official under no circumstances is permitted to grant exceptions to any clause, order, or regulation contained in this Ordinance to any person making application to excavate, construct, move, alter, or use either buildings, structures, or land.
 - C) The building official under no circumstances is permitted to make changes to this Ordinance or to vary the terms of this Ordinance in carrying out his or her duties as building official.
 - D) The Zoning Compliance Permit shall be in addition to any building permit or other permits specifically required to be obtained by this Ordinance and shall be in addition to all permits required to be obtained by the Building Code ordinances of the City.
 - E) The building official shall issue a permit when the imposed conditions of this Ordinance and any condition(s) of zoning approval(s) are complied with by the applicant.
 - F) If any application for such permit is not approved, the building official shall state in writing the cause for such disapproval.

Section 13.04 Permit Fees.

No Zoning Compliance Permit shall be issued under the provisions of this Ordinance until there shall have been paid to the City Treasurer a separate permit fee therefor in accordance with the schedule outlined in Chapter 15.56 of the Code of Ordinances.

Section 13.05 Duration of Permit.

Any Zoning Compliance Permit issued under the provisions of this Ordinance shall be valid for a period of six (6) months from the date of the issuance thereof, unless revoked prior to the termination of such six (6) month period, thereof, or as long as work is in progress, unless revoked etc.

Section 13.06 Revocation of Permit.

Any permit issued under the provisions of this Ordinance may be revoked by the Department of Inspection at any time whenever the holder thereof:

- (1) shall have made any false or fraudulent statement in the application for such permit or in the exercise of such permit;
- (2) shall have violated any of the provisions of this Ordinance;
- (3) shall have failed to satisfy the requirements of this Ordinance or of any rules or approvals adopted pursuant thereto; or
- (4) shall have caused, created or maintained, in the exercise of such permit, a menace or danger to the public health, safety, or welfare.

Section 13.07 Inspection.

It shall be the duty of the holder of every zoning compliance permit, building permit, or other permit to notify the Department of Inspection, in writing, of the time when such building or premises will be ready for inspection. In addition to inspections required by other ordinances of the City, at least two (2) such inspections shall be requested on all buildings. The first of these inspections shall be requested when excavation for foundations has been completed, and the second inspection shall be requested when the building is completed. In the case of sheds and garages, having an area of less than eight hundred (800) square feet, only one (1) inspection by the Department of Inspection shall be required, which inspection shall be requested as soon as wall studs are in place. Failure to notify the Department of Inspection of the time of such inspection shall automatically cancel all permits, and before re-issuing any of such permits, the Department of Inspection may require the payment of a second fee. A notice to call the attention of the holders of permits to the requirements of this section shall be printed on all permits issued. Whenever a zoning compliance permit shall be issued for the use of vacant land, an inspection of such land may be made at any time by the Department of Inspection.

Section 13.08 Certificate of Compliance Required.

No land or building, or part thereof, for which a zoning compliance permit or a building permit has been issued, shall be used or occupied unless and until after final inspection a Certificate of Compliance shall have been issued by the Department of Inspection for such new use. Certificates of Occupancy as required by the Building Code ordinances may be so prepared and worded as to include and constitute Certificates of Compliance as required by this Ordinance, in which case the same shall be designated as a Certificate of Compliance and Occupancy. The issuance of either a Certificate of Compliance or Occupancy shall not be construed as waiving any provision or requirement of this Ordinance.

Section 13.09 Temporary Certificate of Occupancy.

The Chief Building Inspector or Acting Chief Building Inspector may issue a Temporary Certificate of Occupancy for a portion of a building in process of erection or alteration, provided that such certificate shall not be effective for longer than six (6) months; provided further, that such portion of the building is in conformity with the provisions of this Ordinance and provided further, that the applicant has agreed in writing to comply with all of such provisions as to the entire building.

Section 13.10 Application for Certificates.

Application for any certificate authorized by the provisions of this Ordinance shall be made in writing to the Department of Inspection on forms furnished by the Department and such certificate shall be issued within ten (10) days after receipt of such application if it is found that the building, or part thereof, or the use of land is in accordance with the provisions of this Ordinance. If such certificate is refused, the applicant shall be notified of such refusal and the reasons therefor within the aforesaid ten (10) day period.

Section 13.11 Record of Certificates.

A record and copy of each permit and of each certificate issued pursuant to the provisions of this Ordinance shall be kept on file in the office of the Department of Inspection and copies shall be furnished to any person having a proprietary or tenancy interest on payment to the City Treasurer of a fee of one dollar (\$1.00) each. A record of all applications shall likewise be kept on file in said office.

Section 13.12 Exception to Barrier Free Design Requirements—Posting of Final Order.

Any business or establishment which has requested and received an exception to the barrier free design requirements from the State Barrier Free Design Board, pursuant to the provisions of Act I, Public Acts of Michigan of 1966, MCL 125.1351, et seq., as amended, shall post a copy of the Final Order issued by the State Barrier Free Design Board in a conspicuous location in a public area of the building for examination by the public. The copy of the Final Order shall be exhibited at all times at such location and shall be required to be posted in this manner regardless of whether the Final Order was issued prior to or subsequent to the enactment of this section.

Section 13.13 City Planning Commission.

(1) Appointment and Duties.

The City Planning Commission is hereby appointed by the City Council to perform the duties of the Commission specified in Act 33, Public Acts of Michigan of 2008, MCL 125.3801, et seq. as amended; is hereby designated as such Commission; and is authorized to perform such duties. The City Planning Commission is hereby vested with all powers and duties given to a City Planning Commission by the laws of the state, together with such other powers and duties as are given to such Commission by the provisions of this Ordinance, including authority to act on all matters requiring the approval or action of such Commission.

(2) Authority to Grant Waivers and Approve Uses.

Wherever in this Ordinance the lawful exercise or existence of a use requires the review of a waiver or a conditional use and submission of findings by the City Planning Commission and approval by the City Council, the Commission is hereby authorized and directed, upon application or petition by an owner or property owners, to investigate the matters relating to the requested waiver or use approval, to conduct a public hearing thereon, to make a determination, to either recommend approval or denial of the requested waiver or use approval, and to do all other things reasonably necessary or incidental to the making of such investigation or determination.

(3) Applications and Petitions; Filing Fee.

Each application for a waiver or conditional use approval filed by a property owner or owners shall be accompanied by a filing fee as determined by the schedule outlined in Chapter 15.56 of the Code of Ordinances.

(4) Applications and Petitions; Filing, Form and Contents. All applications and petitions for waivers or use approvals shall be in writing, signed, notarized, and filed in triplicate with the City Clerk and, if in the proper form, shall be immediately forwarded by the City Clerk to the City Planning Commission. All such applications and petitions, without limiting the right to file additional material, shall contain at least the following:

- A) The petitioner's name, address and interest in the petition, as well as the name, address and interest of every person having a legal or an equitable interest in the land covered by the petition.
- B) The waiver use or other use sought to be recommended;
- C) A fully dimensional map showing:
 - i) The land upon which the proposed use is to be located, including the location of the use on such land and dimensions indicating the front, side and rear setback lines to be maintained.
 - ii) The location and arrangement of parking areas and spaces.
 - iii) A legal description of the property to be considered.
 - iv) The zoning classification of the property together with the zoning classification of all property located within five hundred (500) feet of such property as measured from all of its property lines.
 - v) All public and private rights-of-way and easements bounding and intersecting the land to be under consideration.
 - vi) All existing uses within five hundred (500) feet of any property line of the property to be considered.
 - vii) The lot lines and their dimensions.
 - viii) The area of the property.
 - ix) All other circumstances, factors and reasons which the applicant offers in support of the proposed use.
- D) The applicant shall also furnish such other surveys, plans or other information as may be reasonably required by the Commission for the proper evaluation and consideration of the matter.

(5) Hearings; Notice. Prior to conducting a hearing as required in [Section 13.13 \(2\)](#), or by any other provision of this Ordinance, the City Planning Commission shall cause notice of such hearing to be given as required by law for public hearings concerning zoning matters. In the case of public hearings on waiver use petitions pursuant to [Section 13.15](#), [Section 13.15\(5\)](#), notice of the hearing shall be provided as set forth in that Section. Failure of any person to receive any notice required to be sent under the provisions of this section shall not invalidate any such proceedings provided that the notice has been given as required herein.

- (6) General Waiver Requirements and General Standards.** Where this Ordinance empowers the City Planning Commission to review waivers or approval of conditional uses to be approved by the City Council, such waiver or use shall be approved only where the proposal complies with all of the special requirements for the waiver or use sought to be approved, except that any or all requirements may be waived or modified by a separate resolution, specifically delineating the requirement(s) waived or modified, in which two-thirds (2/3) of the members of the City Council concur. Whether or not any condition is waived, all such proposals must comply with all of the following general standards:
- A) The proposed use must be of such location, size, and character that it will be in harmony with the appropriate and orderly development of the surrounding neighborhood.
 - B) The location and size of the proposed use or uses, the nature and intensity of the principal use and all accessory uses, the site layout and its relation to streets giving access to it, shall be such that traffic to and from the use and uses, and the assembly of persons in connection therewith, will not be hazardous or inconvenient to the neighborhood nor unduly conflict with the normal traffic of the neighborhood. In applying this standard, the Commission shall consider, amongst other things: convenient routes for pedestrian traffic, particularly of children; the relationship of the proposed use to main traffic thoroughfares and to streets and road intersections; vehicular turning movements in relation to routes of traffic flow; location and access of off-street parking and provisions for pedestrian traffic with particular attention to minimizing child-vehicle contact in residential districts; and the general character and intensity of the existing and potential development of the neighborhood.
 - C) The location and height of buildings or structures and the location, nature, and height of walls and fences must be such that the proposed use will not have a detrimental effect upon the neighboring property or the neighboring area in general, nor impair the value of neighboring property, nor interfere with or discourage the appropriate development and use of adjacent land or buildings or unreasonably affect their value.
 - D) The standards of density and required open spaces for the proposed use shall be at least equal to those:
 - i) required in the zoning district in which the proposed use is to be located or
 - ii) unless they have been specifically waived as set forth above, those prescribed in the special requirements relating to the proposed use, whichever is the greater.
 - E) The location, size, intensity, site layout, and periods of operation of any such proposed use must be designed to eliminate any possible nuisance likely to emanate therefrom which might be noxious to the occupants of any other nearby permitted uses, whether by reason of dust, noise, fumes, vibration, smoke, or lights. Such design shall provide for (but shall not be limited to) the following:
 - i) Facilities for the storage of refuse for subsequent disposal which shall be concealed and contained in such a manner that they will be screened from public view and will prevent the emission of noxious odors and the attraction of insects and vermin.
 - ii) All mechanical equipment, such as (but not limited to) air conditioning and heating units which shall be located and concealed so as to be completely screened from public view; provided, however, that the location and method of containment and concealment of refuse storage facilities and mechanical equipment shall be subject to the review and recommendation of the Planning Commission and approval by the City Council.
 - F) The proposed use must provide for proper yard space, parking facilities, loading space, percentage of lot coverage, protective walls, size of buildings, lot area and width and other requirements of this Ordinance.
 - G) The proposed use must be in accord with the spirit and purpose of this Ordinance and not be inconsistent with or contrary to the objectives sought to be accomplished by this Ordinance and principles of sound planning.

- H) Any building proposed to be erected or any addition thereto shall be designed by an architect or professional engineer registered by the State of Michigan or by a state having a reciprocal agreement with the State of Michigan; provided, however, that no building shall be erected, placed, expanded or externally altered on any lot or parcel for which a site plan therefor is required pursuant to [Section 5.01](#) and [Section 13.13 \(12\)](#) of this Ordinance until the exterior design of which has been reviewed and approved as to materials and harmony of design and colors with existing and planned buildings by that City body having the authority to grant final site plan approval as designated in [Section 5.01](#) and [Section 13.13 \(12\)](#) of this Ordinance.
 - I) No building shall be erected, placed or expanded on any lot or parcel for which a site plan therefor is required pursuant to [Section 5.01](#) and [Section 13.13 \(12\)](#) of this Ordinance until a landscape plan has been reviewed and approved by that City body having the authority to grant final site plan approval as designated in [Section 5.01](#) and [Section 13.13 \(12\)](#) of this Ordinance; provided, however, that the area proposed to be landscaped as illustrated on the landscape plan shall not be less than fifteen (15) percent of the total area of the lot or parcel exclusive of public right-of-way as shown on the Future Transportation Map ; provided further, however, that such minimum area requirement may be waived by that City body having the authority to grant final site plan approval as designated in [Section 5.01](#) and [Section 13.13 \(12\)](#) of this Ordinance. The landscape plan shall identify all plant materials as to species, quantity and size upon installation and all other landscape materials shall be similarly identified on the plan. Tree species shall be from the Approved Tree Species list as identified in [Article X](#).
- (7) City Body Having the Authority to Grant Final Site Plan Approval. That City body having the authority to grant final site plan approval as designated in Article V and Section 13.13 (12) of this Ordinance, in acting on any request for a waiver use, approval of a conditional use, or approval of a site plan, may attach any conditions to their approval which they determine are necessary to accomplish the reasonable application of the special requirements and the foregoing standards. Compliance with such conditions shall be a prerequisite to the issuance of a Certificate of Compliance or Occupancy, and the violation of any such condition shall be deemed a violation of this Ordinance.
- (8) Mayoral Veto. Any waiver use or conditional use approval shall be subject to mayoral veto as set forth in the City Charter, provided that
- A) The mayor has participated in any council hearing(s) held with respect to the petition for waiver or conditional use;
 - B) The mayor shall apply the standards applicable in the City Council's review of said petition; and
 - C) Any veto shall be incorporated in a statement of conclusions relative to said petition, specifying the basis for the veto.
- (9) **Determination.**
- Each determination or recommendation made by the City Planning Commission under the provisions of this Ordinance shall be in the form of a resolution, copies of which shall be furnished to any party on request.

(10) Appeal to City Council; Filing Fee; Hearing and Notice.

Any applicant or petitioner aggrieved by a recommendation and findings of fact by the City Planning Commission that results in a denial of any application or petition may file an appeal with the City Council requesting a reversal of such recommendation and/or findings. In order for such appeal to be heard by the City Council, the same must be filed with the City Clerk, in writing, no more than ten (10) business days from the Commission's determination and shall specify the grounds thereof. Each request for appeal shall be accompanied by a filing fee. Upon receiving such an appeal, the City Clerk shall immediately forward the same to the City Council. The City Council shall thereafter fix a reasonable time for a hearing of the appeal and the City Clerk shall give due notice of such hearing and the date thereof in the same manner and to the same extent as was given prior to the hearing before the Commission. The City Council shall make a determination of the appeal by resolution and such determination shall be final.

(11) Rules of Procedure.

The City Planning Commission is hereby authorized to make rules of procedure consistent with the statutes of Michigan and the provisions of this Ordinance.

(12) Site Plan Review and Approval.

- A) **Authority.** No condominium or site condominium shall be developed in an N1, N2, or RUF district, nor shall any building be constructed or expanded in an NM1, NM2, NM3, C-1, C-2, C-3, or C-4 district, nor shall any parking lot be constructed or expanded in a P district, nor shall any building be constructed or expanded in an ML, M-1 or M-2 district which abuts a residential district, unless a site plan therefor has been reviewed by the City Planning Commission and approved by the City Council.
- B) **Staff Review.** Prior to Planning Commission or City Council consideration, the site plan and application may be distributed to appropriate City departments, staff, and any consultants for review and comment. If deemed necessary, the plans may also be submitted to applicable outside agencies for review and comment. After written comments are obtained from City departments, staff, consultants, and outside agencies, a Staff Review meeting may be held with the applicant, Planning Director, City departments, staff, and consultants to discuss review comments and address concerns raised. After the Staff Review meeting, the Planning Director shall determine if the site plan application is ready to proceed for Planning Commission review.
- C) **Planning Commission Review.** The Planning Commission shall review the site plan, together with any reports and recommendations from staff, consultants, and other reviewing agencies and any public comments. The Planning Commission is authorized to postpone, approve, approve subject to conditions, or deny the site plan as follows:
 - i) **Postponement.** Upon determination by the Planning Commission that a site plan is not sufficiently complete for approval or denial or upon a request by the applicant, the Planning Commission may postpone consideration until a later meeting.
 - ii) **Denial.** Upon determination that a site plan does not comply with the standards and regulations set forth in this Ordinance or would require extensive revisions to comply with the standards and regulations, the site plan shall be denied. If a site plan is denied, a written record shall be provided to the applicant listing the reasons for such denial. In instances where Planning Commission denies a Site Plan this decision can be appealed to City Council pursuant to [Section 13.13 \(10\)](#).
 - iii) **Approval.** Upon determination that a site plan is in compliance with the requirements of this Ordinance and other applicable ordinances and laws, the site plan shall be approved.

- iv) **Approval Subject to Conditions.** The Planning Commission may approve a site plan, subject to one or more conditions necessary to address minor modifications to the site plan, ensure that public services and facilities can accommodate the proposed use, protect significant natural features, ensure compatibility with adjacent land uses, or otherwise meet the intent and purpose of this Ordinance. Such conditions may include the need to obtain variances or approvals from other agencies.
- D) **Final Site Plan Review.** Except as provided below, the City Council shall review the final site plan, together with any reports and recommendations from the Planning Commission, staff, consultants, and other reviewing agencies and any public comments. The City Council shall then make a determination to postpone, deny, approve, or approve subject to conditions based on the requirements of this Ordinance. Amendments to Site Plans previously given final approval by the Planning Commission shall be reviewed and approved by the Planning Commission.
- E) **Submittal Requirements.** The site plan shall be drawn to scale and shall contain the following information. The Planning Department shall have the discretion to modify site plan information requirements based on site specific development characteristics.

Site Plan Required Information

- Site dimensions including road right-of-way and building setback lines.
- Public or private easements, protective walls (existing and/or proposed) and existing trees.
- Any significant topographic features (existing and proposed).
- Relationship of ingress and egress to thoroughfares, showing traffic patterns into the site from the same including ultimate pavement width, deceleration lanes and the like.
- On-site traffic circulation, parking areas (including size of parking bays, aisles, lighting materials, surface materials, and striping of parking lots surface to delineate parking bays).
- All landscape treatment of the site, including the labeling of all materials as to type and size, when installed.
- The location of signs (existing and/or proposed), and an indication of their size, height, and design
- Title and date of plan, including the date and nature of all subsequent revisions.
- North arrow and scale.
- Zoning classification of the petitioner's parcel and all abutting parcels.
- The location and height of all existing and proposed structures on and within 100 feet of the subject property.
- A schedule of parking needs. Separate drawings may be submitted to indicate usable floor areas, etc. for computation of parking needs. Each individual parking space shall be indicated including typical parking space dimensions for regular and handicapped spaces and type of lot surfacing.
- The location of all waste and recycling receptacles and the location, height and type of fences and walls to screen receptacles.
- Location of existing and proposed fire hydrants, water mains, pump houses, stand pipes, building services, and sizes including proposed connections to public sewer or water supply systems and/or considerations for extensions to loop other public water mains in adjacent public rights of way.
- Front, rear, and side elevations of proposed buildings, a color rendering, and proposed type of building materials, roof design, projections, canopies and overhangs, screen walls and accessory buildings, and any other outdoor mechanical equipment, i.e., air conditions, heating units, etc.
- The location and type of outdoor lighting, proposed illumination patterns (including a photometric plan), a manufacturer cut sheet detailing lighting specifications, aesthetic appearance, and method of screening to prevent glare onto adjacent properties.
- The location of any outdoor storage of material(s) and the manner in which it shall be screened or covered.
- With nonresidential proposals, the number of offices, number of employees, the number of floors, typical floor plans, and the gross and usable floor area shall be provided.
- For sites with regular truck traffic, a truck circulation diagram indicating the type and volume of truck traffic anticipated at the site and defining all truck access and circulation lanes and truck loading/unloading areas on the site plan.

- F) **Outside Agency Permits or Approvals.** The applicant shall be responsible for obtaining all necessary permits or approvals from applicable outside state and county agencies. All federal, state, and local laws and ordinances shall be met, and no unresolved negative comments issued by any governmental agency or public utility shall exist prior to the issuance of a certificate of occupancy.

G) Limitation.

- i) Whenever the City Council shall have approved a site plan, such approval shall continue and be valid for a period of one (1) year only from the date of such action. If the applicant does not obtain a building permit or obtain an extension of time, the site plan approval shall be deemed null and void at the expiration of said period. Site plan approvals granted to applicants shall be construed as running with the land and shall not be transferable or assignable.
- ii) If the City Council approves a site plan conditional upon the petitioner submitting additional information such as, but not limited to, revised site plans, landscape or signage plans, said information must be submitted to the City for review within sixty (60) days from the date of approval of the site plan unless more time is granted by the City Council. If the additional information is not submitted, no building permits shall be issued by any city department for work or improvements at the subject site.

H) Implementation. An approved site plan shall be immediately transmitted to the Inspection Department, and all non-building improvements such as, but not limited to, landscaping, parking lots, parking spaces, walkways, screen walls and exterior lighting required by such site plan shall be completed prior to the issuance of a Certificate of Occupancy; provided, however, that a temporary Certificate of Occupancy may be issued in the event that such completion is impractical or impossible provided that a performance bond in the form of a cash bond or irrevocable bank letter of credit covering the estimated total cost of such improvements or parts thereof is deposited with the Inspection Department prior to the issuance of such temporary Certificate of Occupancy; provided further, however, that in no event shall a final Certificate of Occupancy be issued until all improvements have been completed. All improvements, when completed, shall thereafter be maintained with materials equal to or greater than the quality of the materials originally installed.

(13) Waiver or Use Approval; Limitation. Whenever the Commission or City Council grants a waiver or approves of a conditional use upon original application or appeal, such waiver or approval shall continue and be valid for a period of one (1) year only from the date of such action. If the applicant does not obtain a building permit and commence construction within that period or obtain an extension of time, the waiver or use approval shall be deemed void at the expiration of said period. Waivers and use approvals granted to applicants shall be construed as running with the land and shall not be transferable or assignable.

Section 13.14 Board of Appeals.

- (1) Creation of Board.** A Board of Appeals consisting of seven (7) members is hereby created pursuant to the provisions of Section 5, Act 207, Public Acts of Michigan of 1921, as well as Act 110 of 2006, MCL 125.3101, et seq, as amended. Said board shall be known as the Board of Appeals.
- (2) Appointment of Members.** The members of the Board of Appeals shall be appointed by the City Council; provided, however, that those persons who are acting as members of the Board of Appeals under the provisions of Ordinance No. 543, as amended, of the City of Livonia, having been duly appointed as members of such Board by the City Council, and who are so acting immediately prior to the time this Ordinance becomes effective, shall automatically become members of the Board of Appeals created under the provisions of Section 13.14 (1) of this Ordinance, are hereby appointed as such at the time this Ordinance becomes effective, and shall hold their respective offices for respective periods of time equivalent to their respective unexpired terms as members of the Board of Appeals, created under the provisions of Ordinance No. 543 , as amended.
- (3) Term of Office.** Each member of the Board of Appeals shall be appointed for a term of three (3) years; provided, however, that the first members of such Board to be appointed shall hold their respective offices for the period provided in Section 13.14 (1) of this Ordinance; and thereafter two (2) members shall be appointed each year, each for the full three (3) year term; provided, however, that every three (3) years there shall be three (3) members appointed for the full three (3) year term.

- (4) **Officers.** The Board of Appeals shall annually elect from among its members a Chairman, Vice-Chairman, Secretary and such other officers as it may determine, who shall each hold office for one (1) year and until his or her successor is duly elected.
- (5) **Compensation.** The City Council may authorize by Council resolution the remuneration of the members of the Board for attendance at each meeting of the Board.
- (6) **Powers of Board.** The Board of Appeals shall have all powers and authority granted by State Law together with such other powers and duties as are given to such Board by the provisions of this Ordinance, including the following specific powers:
 - A) **Administrative Review.** To hear and decide appeals where it is alleged by the applicant that there is an error in any order, requirement, permit, decision, or refusal made by the building official or any other administrative official in enforcing the provisions of this Ordinance.
 - B) **Variances.** To authorize, upon an appeal filed by the legal or equitable owner of property, a variance from the strict application of the provisions of this Ordinance where existing conditions or factors would result, by strict application of the provisions of this Ordinance, in peculiar or exceptional practical difficulties to, or exceptional or undue hardship upon, the owner of such property, provided that such relief may be granted without substantial detriment to the public good and without substantially impairing the intent and purpose of this Ordinance. In granting a variance, the Board of Appeals may attach thereto such condition regarding the location, character, and other features of the proposed building, structure, or use as it may deem reasonable. Compliance with such conditions shall be a prerequisite to the issuance of a Certificate of Compliance or Occupancy and the violation of any such condition shall be deemed a violation of this Ordinance.
 - C) **Other Powers:**
 - i) In those cases where a district boundary line divides a lot of record, the Board shall have the power to permit the extension of a use permitted on the less restricted portion of such a lot to that portion of said lot which lies in the more restricted district, provided that such extension shall be made for a distance of not to exceed fifty (50) feet beyond the district boundary line in any case.
 - ii) The Board shall also have the authority to hear and decide all matters referred to it or upon which such Board is required to pass under this Ordinance, including the power to reverse, affirm, in whole or in part, or modify the order, requirement; decision or determination appealed from and may make such order, requirement, decision or determination as in its opinion ought to be made in the premises, and to that end shall have all the powers of the officer from whom the appeal is taken.
 - D) **Rules.** To adopt and enforce rules of procedure consistent with the statutes of the State of Michigan, the Charter of the City of Livonia and the provisions of this Ordinance.
- (7) **Application of Variance Power.** No variance in the application of the provisions of this Ordinance shall be allowed by the Board of Appeals relating to buildings, land, or premises now existing or to be constructed, except in cases involving practical difficulties or unnecessary hardships when the evidence in the official record of the appeal from a decision or order of the building official supports the following affirmative findings:
 - A) That the alleged hardships and practical difficulties, or both, are exceptional and peculiar to the property of the person requesting the variance, and result from conditions which do not exist generally throughout the City.
 - B) That the alleged hardships and practical difficulties, or both, which will result from a failure to grant the variance, include substantially more than mere inconvenience, inability to attain a higher financial return, or both.

- C) That allowing the variance will result in substantial justice being done, considering the public benefits intended to be secured by this Ordinance, the individual hardships that will be suffered by a failure of the Board to grant a variance, and the rights of others whose property would be affected by the allowance of the variance.
- D) That the variance, if granted, will not adversely affect the purpose or objectives of the Master Plan of the City of Livonia.

The above findings of fact shall be made by the Board of Appeals which is not empowered to grant a variance without an affirmative finding of fact on the categories above.

(8) Limitations on the Powers of the Board of Appeals. Every decision of the Board of Appeals shall be based upon finding of fact and every finding of fact shall be supported in the record of the proceedings of the Board. Nothing contained herein shall be construed to empower the Board of Appeals to change the terms of this Ordinance, or effect changes in the Zoning Map.

(9) Appeal Procedure.

- A) **Notice of Appeal.** An appeal may be taken by any person aggrieved or by an officer, department, board, or Department of the City of Livonia. Such appeal shall be taken within such time as shall be prescribed by the Board of Appeals by rule, by the filing with the officer from whom the appeal is taken and with such Board of a notice of appeal specifying the grounds thereof. The officer from whom the appeal is taken shall forthwith transmit to the Board all the papers constituting the record upon which the action appealed from was taken.
- B) **Stay of Proceedings.** An appeal stays all proceedings in furtherance of the action appealed from unless the officer from whom the appeal is taken certifies to the Board of Appeals, after the notice of appeal shall have been filed with him or her, that by reason of facts stated in the certificate, a stay would in his or her opinion cause imminent peril to life or property, in which case proceedings shall not be stayed otherwise than by a restraining order which may be granted by the Board or by the Circuit Court on application, on notice to such officer, and on due cause shown.
- C) **Hearing on Appeal.** The Board of Appeals shall fix a reasonable time for the hearing of an appeal and give due notice thereof as required by law for public hearings concerning zoning matters, and shall decide the same within a reasonable time. Upon the hearing, any party may appear in person or by agent or attorney.
- D) **Official Record of Appeal.** The Board of Appeals shall prepare an official record for each appeal and shall base its decision on this record. The official record shall include:
 - i) The relevant administrative and historical records and any administrative orders issued thereon relating to the appeal.
 - ii) The notice of appeal.
 - iii) Such documents, exhibits, photographs, or written reports as may be submitted to the Board for its consideration.
- E) **Determination of Appeal.** The concurring vote of a majority of the members of the Board of Appeals shall be necessary to reverse any order, requirement, decision, or determination of any administrative official, or to decide in favor of the applicant any matter upon which the Board is required to pass under this Ordinance or to effect any variation of this Ordinance except that a concurring vote of two-thirds (2/3) of the members of the Board shall be necessary to grant a variance from uses of land permitted in this Ordinance.

- F) **Recording of Determination.** The requisite written findings of fact, the conditions attached, and the decisions and orders by the Board in disposing of the appeal shall be entered into the official record after they have been authenticated by the signature of the chairman of the Board and after written notice of the disposition of the appeal has been served, either in person or by mail, upon the parties to the appeal, the building official, and the City Clerk. The completed official records of appeals shall be filed in the Inspection Department.
- (10) **Filing Fees.** Each application for appeal shall be given a number and shall be accompanied by a filing fee as determined by the schedule outlined in Chapter 15.56 of the Code of Ordinances.
- (11) **Meetings and Records of Board.** At least one (1) regular meeting shall be held each month by the Board of Appeals, as provided in the rules of the Board. Special meetings may be called by the chairman or any three (3) members. All regular meetings and all hearings shall be public. The Board shall keep minutes of its meetings, which shall be a public record. The chairman, or in his or her absence, the vice-chairman may administer oaths and compel the attendance of witnesses.
- (12) **Pending Matters.** All petitions, appeals and other matters pending at the time this Ordinance becomes effective, before the Board of Appeals, created and existing under the provisions of Ordinance No. 543 of the City of Livonia, shall continue before the Board of Appeals, created by Section 13.14 (1) of this Ordinance, and said Board shall hear, determine and dispose of such petitions, appeals and other matters with the same effect as if such petitions, appeals, and other matters had been duly filed with said Board of Appeals.

Section 13.15 Amendments.

- (1) **This Ordinance may be amended from time to time pursuant to the provisions of PA 110 of 2006 (MCL 125.3405, as amended).** All amendments shall be made in the manner provided in this section and in [Section 3.01, Section 3.01\(4\)](#) of this Ordinance. Proceedings to amend this Ordinance or the Zoning Map of the City of Livonia shall be initiated or commenced by any one or more of the following methods:
- A) By resolution of the Council wherein the question whether or not a particular amendment should be made is referred by the Council, on its own motion, to the City Planning Commission and wherein such commission is requested to hold a public hearing on the question and to thereafter make a report and recommendation to the Council.
 - B) By resolution of the City Planning Commission wherein such commission, on its own motion, provides for a public hearing on the question whether or not a particular amendment should be made and for a report and recommendation thereon to the Council.
 - C) By written application in triplicate, addressed to the Council, duly signed by the legal or equitable owners of fifty percent (50%) or more of the frontage in any district or part thereof, duly acknowledged by each owner substantially in accordance with the statutory provisions for acknowledgment of deeds, and accompanied by the filing fee hereinafter fixed.
- (2) **Procedure for Amendment Applications.** Where an application is presented by a property owner or owners, pursuant to [Section 13.15 \(1\), Section 13.14 \(1\)C](#), the following procedure and requirements shall be observed in every case:
- A) **Filing of Applications.** All applications shall be in writing, signed before a notary, and filed in quadruplicate with the City Clerk for presentation to the City Council.
 - B) **Contents of Applications.** All applications for amendments to this Ordinance, without limiting the right to file additional material, shall contain at least the following:

- i) The petitioner's name, address, and interest in the petition, as well as the name, address, and interest of every person having a legal or an equitable interest in the land covered by the petition.
- ii) The nature and effect of the proposed amendment.
- iii) The existing zoning classification of such property.
- iv) The change or amendment desired.
- v) A complete legal and common description of the property sought to be rezoned.
- vi) If the proposed amendment would require a change on the zoning map, a fully dimensional area map drawn at a scale of four hundred (400) feet to one (1) inch with a north point, dated, key to symbols, if used, section numbers and showing:
 - a) The land which would be affected by the proposed amendment;
 - b) A legal description of such land;
 - c) A common description of such land;
 - d) The present zoning classification of the land;
 - e) The zoning classification of all abutting zoning districts;
 - f) All public and private right-of-ways and easements bounding and intersecting the land under consideration;
 - g) The dimension of land sought to be rezoned;
 - h) The proposed land uses in land sought to be rezoned; and
 - i) The structures and existing land use on all property adjacent to the subject parcel and on such other property as may, in the City Planner's determination, be necessary to properly reflect the existing character of the surrounding neighborhood.

(3) Fees for Amendment Applications. Each application presented by a property owner or owners to have property rezoned pursuant to [Section 13.15 \(2\) \(5\)](#) shall be accompanied by a publication fee in the amount specified in Chapter 15.56 of the Code of Ordinances.

(4) Designation of Proceedings. Each proceeding, whether originating by resolution or application, shall be designated as a "petition" and given a number by the City Clerk. All such petitions shall be approved as to form by the Department of Law before action is taken thereon by the City Planning Commission, in the case of those petitions initiated by resolution; and before forwarding to the City Council, where initiated by application.

(5) Standards of Review for Amendments. In considering any petition for an amendment to the text of this Ordinance or to the Zoning Map, the Planning Commission and City Council shall consider the following criteria that apply to the application in making findings, recommendations, and a decision. The Planning Commission and City Council may also take into account other factors or considerations specific to the subject matter of the proposed amendment.

- A) Consistency with the goals, policies and objectives of the Master Plan and any sub-area plans. If conditions have changed since the Master Plan was adopted, consistency with recent development trends in the area shall be considered.
- B) Consistency with the basic intent and purpose of this Zoning Ordinance.
- C) The capability of the street system to safely and efficiently accommodate the expected traffic generated by uses permitted in the requested zoning district.
- D) The capacity of the City's utilities and services sufficient to accommodate the uses permitted in the requested district without compromising the health, safety, and welfare of the City.

- E) That conditions have changed since the Zoning Ordinance was adopted or there was an error in the Zoning Ordinance that justifies the amendment.
- F) That the amendment will not be expected to result in exclusionary zoning.
- G) If a rezoning is requested, compatibility of the site's physical, geological, hydrological and other environmental features with the uses permitted in the proposed zoning district.
- H) If a rezoning is requested, compatibility of all the potential uses allowed in the proposed zoning district with surrounding uses and zoning in terms of land suitability, impacts on the environment, density, nature of use, traffic impacts, aesthetics, infrastructure and potential influence on property values.
- I) If a rezoning is requested, the boundaries of the requested rezoning district will be reasonable in relationship to surrounding zoning districts, and construction on the sites will be able to meet the dimensional regulations for the requested zoning district.
- J) If a rezoning is requested, the requested zoning district is considered to be more appropriate from the City's perspective than another zoning district.
- K) If a rezoning is requested to allow for a specific use, rezoning the land is considered to be more appropriate than amending the list of permitted or special land uses in the current zoning district to allow the use.
- L) If a rezoning is requested, the requested rezoning will not create an isolated or incompatible zone in the neighborhood.

(6) Action by City Planning Commission; Notice; Public Hearing. The City Council, on receipt of a petition for amendment from the City Clerk, shall forthwith refer such petition to the City Planning Commission. The Commission shall cause a complete study of the petition to be made by the Planning Director, shall review the request contained in the petition, and shall within sixty (60) days recommend to the City Council such action as the Commission deems proper. The Commission shall hold a public hearing on such petition before making its recommendation and notice thereof shall be given to the same extent as is provided for the public hearing required to be held by the City Council. At least fifteen (15) days prior to the public hearing the applicant shall erect a four foot by four foot (4' x 4'), two (2) sided sign on the property proposed to be rezoned with an insert containing the following information:

- A) At the top of the sign the following words shall appear: "This property is proposed to be rezoned," followed by the present zoning district at the time of the petition and the proposed or requested zoning district sought. The full name of the zoning districts shall be used as, for example, RUF, rural urban farm.
- B) The name and address of the real party requesting the zoning change.
- C) The proposed use of the land or building if the request for rezoning is successful.
- D) The phone number at City Hall where interested persons can call for further information.

The sign shall be erected in a location one (1) foot behind the right-of-way line perpendicular to the adjoining street(s) and clearly observable by passersby on the adjoining street(s). The sign shall remain up until the application process is completed and shall thereafter be removed by the petitioner within thirty (30) days.

(7) Action by City Council; Notice; Public Hearing. The City Council shall, after receipt of the report and recommendation from the City Planning Commission, either approve or reject the recommendation of the Commission and either grant or refuse the requested amendment; provided, however, that a public hearing shall be held by the City Council, for which notice shall be given as required by law for public hearings concerning zoning matters, before the adoption of any amendment to this Ordinance. The City Council's approval of any amendment hereunder shall be subject to mayoral veto as set forth in the City Charter.

- (8) **Effect of Protest to Proposed Amendment.** In case a protest against any proposed amendment to the Zoning Map be presented in writing to the City Council prior to the adoption by the Council of the Ordinance which protest is duly signed by the owners of at least twenty percent (20%) of the area of land included in the proposed change, or by the owners of at least twenty percent (20%) of the area of land included within an area extending outward one hundred (100) feet from any point on the boundary of the land included in the proposed change excluding publicly owned land, said amendment shall not be passed except by a three-fourths ($\frac{3}{4}$) vote of the City Council.

Article XIV.

Violations and Penalties

Section 14.01 Compliance and Responsibility.

- (1) No land or building within the City of Livonia shall be occupied or used except in compliance with the provisions of this Ordinance, including any conditions on any zoning approval by the City Council or Board of Appeals. No building within the City of Livonia shall be erected, altered, repaired, or moved except in compliance with the provisions of this Ordinance. No person shall use or occupy any land or building within the City of Livonia, nor shall any person erect, alter, repair, or move any building within the City of Livonia except in compliance with this Ordinance.
- (2) The prohibition of any act in this Ordinance, in any amendment thereof and in any rule or regulation adopted hereunder shall include the causing, securing, aiding, or abetting of another person to do said act.
- (3) It shall be the duty of all architects, contractors, subcontractors, builders, and other persons having charge of the establishment of any use of land or the erecting, altering, changing, or remodeling of any building or structure, before beginning or undertaking any such work to see that all proper and necessary permits have been applied for and obtained, including a zoning compliance permit, certificate of occupancy, building permit and all other permits required by either this Ordinance or any of the Building Code ordinances of the City; it shall also be the duty of such parties to see that such work does not conflict with and is not in violation of the terms of this Ordinance and any such architect, contractor, subcontractor, builder or other person doing or performing any such work or erecting, repairing, altering, changing or remodeling without such a permit or permits having been issued or in violation of, or in conflict with the terms of this Ordinance or allowing any building erected to be occupied without a certificate of occupancy having first been issued, shall be guilty of a violation of this Ordinance in the same manner and to the same extent as the owner of the premises or the person or persons for whom such building was or is erected, altered, changed, repaired or remodeled or the use of land established or a building occupied in violation hereof and shall be subject to the penalties herein prescribed for such violation.

Section 14.02 Violation Nuisance Per Se.

Buildings erected, altered, razed, converted, or uses carried on in violation of any provision of this Ordinance are hereby declared to be a nuisance per se. The court having jurisdiction shall order such nuisances abated and the owner and/or agent in charge of such building or land shall be adjudged guilty of maintaining a nuisance per se.

Section 14.03 Penalty.

Any person, persons, firm, corporation, or any others acting on behalf of said person, persons, firm, or corporation, violating or failing to comply with any of the provisions of this Ordinance, or any of the regulations adopted in pursuance hereof, or who shall hamper, impede or interfere with the performance of the duties of any official or agent of the Department of Inspection or other officer under the provisions of this Ordinance, shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine not exceeding five hundred dollars (\$500.00), or by imprisonment not exceeding ninety-three (93) days, or by both such fine and imprisonment in the discretion of the Court. Alternatively, first-time violators may be charged with a civil infraction, with a maximum fine of \$500. Each act of violation and every day upon which such violation shall occur shall constitute a separate offense.

Section 14.04 Other Remedies.

In addition to all other remedies, including the penalties provided in [Section 14.03](#) of this Ordinance, the City of Livonia may commence and prosecute appropriate actions or proceedings in the Circuit Court for the County of Wayne or any other court having jurisdiction to restrain or prevent any noncompliance with or violation of any of the provisions of this Ordinance, or to correct, remedy or abate such noncompliance or violation.

Section 14.05 Severability.

It is the legislative intent of the City Council in adopting this Ordinance that all sections thereof shall be liberally construed to protect and preserve the peace, health, safety, and general welfare of the inhabitants of the City of Livonia, Wayne County, Michigan, and further, that should any provision, portion, section, or subsection of this Ordinance be held or deemed unconstitutional or invalid, such holding shall not be construed nor shall it in any manner affect the validity of any of the remaining provisions, portions, sections, or subsections of this Ordinance, it being the intent of the City Council that this Ordinance shall stand, notwithstanding the invalidity of any provision or section or any part thereof. The provisions of this section shall apply to the amendment of any section of this Ordinance whether or not such a provision is restated in the amendatory Ordinance, and to any supplemental regulation added by amendment to this Ordinance.

Section 14.06 Repeal.

The existing zoning regulations of the City of Livonia, being Ordinance No. 543 and all amendments and extensions thereof, are hereby repealed and all other ordinances of the City of Livonia and parts of such other ordinances in conflict with any of the provisions of this Ordinance are hereby repealed to the extent of such conflict. The adoption of this Ordinance, however, shall not affect or prevent any pending or future prosecution of, or action to abate, any existing provision of Ordinance No. 543, as amended, if the use, so in violation, is in violation of the provisions of this Ordinance. The adoption of this Ordinance shall not be deemed to nor shall it discontinue, abate, modify, alter, or in any way affect or waive any right of the City of Livonia under any section or provision of the ordinances herein repealed existing on the effective date of this Ordinance or any right of the City under any determination or action by the Board of Appeals or City Planning Commission made pursuant to any section or provision of the ordinances herein repealed. A provision herein which duplicates the wording of a corresponding provision of any predecessor Ordinance shall be deemed effective continuously from the date of original adoption.

EXHIBIT 3



LETTER TO THE LIVONIA CITY COUNCIL

Planning
October 26, 2021

MEETING DATE

February 21, 2022

PREPARED BY

Stephanie Reece, Program Supervisor,

AGENDA ITEM

Petition 2020-08-01-06 submitted by Middlebelt Plymouth Venture L.L.C. pursuant to Section 13.15 of the Livonia Vision 21 Zoning Ordinance, requesting to rezone parts of the properties at 29707 & 30273 Plymouth Road, located on the south side of Plymouth Road between Middlebelt Road and Milburn Avenue in the Northeast $\frac{1}{4}$ of Section 35, from C-2 (General Business) to NM2 (Neighborhood Multifamily).

BACKGROUND

RECOMMENDATION

At the 1,177th Public Hearing and Regular Meeting held by the City Planning Commission on October 19, 2021, the following resolution was unanimously adopted:

#10-53-2021 RESOLVED, That pursuant to a Public Hearing having been held by the City Planning Commission on October 19, 2021, on Petition 2020-08-01-06 submitted by Middlebelt Plymouth Venture, L.L.C. pursuant to Section 13.15 of the Livonia Vision 21 Zoning Ordinance, requesting to rezone parts of the properties at 29707 & 30273 Plymouth Road, located on the south side of Plymouth Road between Middle Belt Road and Milburn Avenue in the Northeast $\frac{1}{4}$ of Section 35, from C-2 (General Business) to NM2 (Neighborhood Multi-family), the Planning Commission does hereby deny Petition 2021-08-01-06 for the following reasons:

1. That the Petitioner has failed to affirmatively show that the proposed change of zoning to NM2 Multifamily Residential and the intended design and layout of the development as presented to the Planning Commission would be compatible to and in harmony with the surrounding residential neighborhoods.
2. That the design concept as presented by the Petitioner fails to achieve the goals and objectives of the Livonia Vision 21 Master Plan which seeks to create a mixed-use development in which the apartments are integrated within the surrounding commercial land uses.
3. That the plan to construct two (2) very large, three-story apartment buildings, each containing approximately 100 dwelling units, is contrary to the goals and objectives of the Livonia Vision 21 Master Plan which recommends high density residential in buildings that have a residential scale and character by creating smaller buildings close to streets and in smaller blocks to establish a walkable pedestrian environment with better connectivity to the surrounding area.

4. That development of multifamily residential on the subject site pursuant to the standards and guidelines as set forth in Section 5.04, Form-Based Development Option in Commercial Districts, would achieve the desired outcome of creating a mixed-use development that is consistent with the Livonia Vision 21 Master Plan and that integrates multifamily housing with the existing surrounding commercial land uses.
5. That the proposed change of zoning is inconsistent with the established pattern of development in the surrounding area and would adversely alter the character of the neighborhood, and
6. That the proposed zoning and use is contrary to the purposes, goals and objectives of the Zoning Ordinance, which seek to ensure compatibility and appropriateness of uses so as to enhance property values and to create and promote a more favorable environment for neighborhood use and enjoyment.

FURTHER RESOLVED, That notice of the above hearing was given in accordance with the provisions of Section 13.13 and 13.15 of the Livonia Vision 21 Zoning Ordinance.

FISCAL CONSIDERATION

ATTACHMENTS

1. 2020-08-01-06_3rd Revision_E-COUNCIL Pkt

APPROVED BY



Mark Taormina, Planning and Economic Development
Director

Date: October 26, 2021



Maureen Miller Brosnan, Mayor

Date: October 29, 2021

EXHIBIT 4

**CITY OF LIVONIA
PUBLIC HEARING**

Minutes of Meeting Held on Monday, March 7, 2022

A Public Hearing of the Council of the City of Livonia was held at the Livonia City Hall Auditorium on **Monday, March 7, 2022.**

MEMBERS PRESENT: Jim Jolly, President
 Laura Toy, Vice President
 Rob Donovic
 Brandon McCullough
 Scott Morgan

MEMBERS ABSENT: Scott Bahr
 Kathleen McIntyre

OTHERS PRESENT: Paul Bernier, City Attorney
 Mark Taormina, Planning and Economic Dev. Director

 Sara Kasprowicz, Recording Secretary

The Public Hearing was called to order at 7:00 p.m. with President Jim Jolly presiding. This item is regarding Petition 2020-08-01-06, Middlebelt Plymouth Ventures, LLC, pursuant to Sections 13.13 and 13.15 of the Livonia Vision 21 Zoning Ordinance, requesting to rezone parts of the properties at 29707 & 30273 Plymouth Road, located on the south side of Plymouth Road between Middlebelt Road and Milburn Avenue in the Northeast ¼ of Section 35, from C-2 (General Business) to NM2 (Neighborhood Multifamily).

This item will move to the Regular Meeting of **March 23, 2022.**

The Public Hearing is now open. There were 32 persons in the audience.

Jolly: We will start the public hearing with a presentation from our City's Planning and Economic Development Director. Then we'll have any kind of brief remarks from the Developers, in this case, and then I will open it up to the residents to speak and make their comments. Okay. Mr. Taormina.

Taormina: Thank you Mr. President. This is a request to retail property that is part of the Wonderland Village Shopping Center. The land area involved in this request is approximately 10.86 acres it's located between the Walmart Supercenter and LA Fitness. The change would be from C-2, General Business to NM-2, Neighborhood Multifamily. Bordering the property to the south are single family homes that are part of the Bel Air Gardens subdivision. The purpose of the rezoning is to facilitate the future development of an apartment complex that would be called Wonderland Flats. NM-2 zoning does allow for multi-family dwellings and buildings that are not to exceed four stories in height.

The preliminary plans submitted with this application show two, three-story apartment buildings, the two C-shaped buildings would mirror one another, similar to the configuration of Haggerty Square. The site layout includes a central courtyard and a common area that would contain an inground pool as well as other amenities. Each building would have a gross floor area of approximately 100,000 square feet. Together they would contain a total of 200, one and two-bedroom units. Ingress and egress would be from two driveways that would be on the north side of the apartment complex. The main point of access from Plymouth Road would be from the signalized drive that is located across from Tech Center Drive. This road runs between the White Castle and the Biolife. It intersects with a road that runs east and west. Across the shopping center. There are two driveways that would serve the apartment complex and these would be located between that and main entrance drive. Parking is shown around the perimeter of both buildings. The plan shows a total of 422 parking spaces, which is slightly more than the required two spaces per unit. In comparison, Haggerty Square, with the same number of apartments, obtained a variance for 323 parking spaces translated to a ratio of roughly 1.6 spaces per unit. Carports for about 100 of the vehicles are shown along the east, south and a small portion of the west sides of the development. At the south end of the property the site contains an existing screen wall and landscape berm that separates the proposed development from the adjacent single-family homes. The width of the berm measured from the masonry wall to the base of the slope is about 69 feet and from this point, the distance to the closest edge of the parking lot is another 100 feet, and from the parking lot to Building B, is another 131 feet. So altogether, the distance between the adjacent residential properties in the closest point of apartment building D would be about 300 feet. The buildings which span a length of approximately 343 feet would all have flat roofs. All units would be accessible from corridors that are located inside the buildings. There will be a network of interconnected sidewalks that would be provided around both of the buildings as well as the courtyard in the common areas. The Livonia Vision 21 Future Land Use map designates the entire Wonderland complex, including the subject site, as a mixed development center. Mixed development centers are intended to have higher densities and massing, be walkable and pedestrian friendly, and be integrated with, and connected to, surrounding areas and neighborhoods. Attached dwellings and apartments are identified as an appropriate land use within a mixed development center, subject to a maximum density of 20 units per acre. Residential options include attached and upper story units, including townhomes, lofts and apartments. The concept plan for Wonderland Flats reflects an overall density of 17.6 dwelling units per acre, which is slightly less than the maximum density provided on the Master Plan. On October 19, Planning Commission held a public hearing on this item and is requesting denial of the rezoning. With that, Mr. Chairman, I'll be happy to answer any questions.

Jolly: Could you repeat that last part, Mark?

Taormina: The Planning Commission recommends denial based on a public hearing held on October 19.

Jolly: Sounds good. Thank you, sir. We'll go to Council first, does the Council any questions for Mr. Taormina? I see none of this time. The Developer, Schostak, or whatever business entity you're proposing to do this under. If there's anything you'd like to state, at this time, please take the podium, state your name and address for the record.

Schostak: Good evening. Jeffrey Schostak, Schostak Brothers, business address 1700 Laurel Park Place Drive Livonia, Michigan. I'd just like to say a few words. And then I will hand it off to Mark Schovers, our architect on the project, who will run through some more slides. I wanted to give just some kind of background thinking where we're at and how we've come to this place tonight. So, as I'm sure most of you know, maybe not, we've been doing business in Livonia, Schostak Brothers, for 50 years. We've been long term owners and developers in this town. We're not an out of state developer just flying in to do this project. We've been here a long time and we're here to stay. What we're proposing as Mark Taormina just laid out, it fits in the Livonia 21 Vision, what is called for a mixed-use, and this is multifamily apartments. This is what clearly city leaders have wanted to some degree and matching it with Livonia 21 and saying that mixed-use apartment complex is something that this site, this location, is what the city wants. That's what we're bringing today. This is a \$30 million development in southeast Livonia. This is a very big project. It's really good for the owner's tax base. It is a low traffic use, it is easier on city services than current zoning would allow under Commercial, big box commercial, and generally less traffic overall from a residential development than any large commercial developments. This is completely privately funded. No tax abatements or incentives or anything of that nature are being requested by the developer. This is a high-end class A market rate, low-rise apartment project. I say that the rents that we are budgeting are anywhere between \$1,200 and \$1700 a month. These are nice places. This is attractive. This is a good investment for the future of Livonia. This is housing for young professionals, millennials, empty nesters that maybe don't want to live in a home anymore, want the more convenience of a brand-new Class A apartment complex. This will help Livonia grow and keep people in Livonia and bring young people that maybe grow up in Livonia, give them another option rather than acquiring their first home when they're younger. These will be good neighbors for the residents. These are good jobs that these people have to live in these apartments, these are nice apartments are not inexpensive, in fact they are expensive to live in. Additionally, we met with the residents. We heard some of the residents at Planning, we recently met with the residents and we heard you, privacy, that was important. And you'll see in the presentation tonight, we added another layer of trees on the berm making that three layers of trees, more than the zoning requires, and also a fence, and that you will see, there is no line of sight from the third floor apartments into the neighbor's yard. It'll be completely blocked, they won't be able to see anything. And I know that was a concern. And by the way, very

valid concerns, so we took that, and want to address that. You'll see more of that tonight. But then additionally, we're 300 feet away, as Mark pointed out from the closest residence, which is much further than what the current zoning allows. Even the zoning we're trying to get in does not even require you to be 300 feet. So lastly, before I hand it off to our architect, are excited about this. We think this is a really good thing, this a huge investment in southeast Livonia and you know, we really would like to work with everyone to try and get this done. And additionally, we're here and would love to respond to any questions or comments that people have. We're going to be here all night and we're going collect a response. So, I'm going to hand it off to Mark Schovers to kind of walk through the presentation.

Schovers: Good evening. My name is Mark Schovers, Spire Design Group, 115, East Fourth Street, Rochester, Michigan. As Mr. Schostak had mentioned, we have listened to the concerns of the residents we met with them. The main concerns are the security of what's going on there currently and how we can address that. The visibility from the single-family residence to the building and vice versa, the third floor looking at the residence, noise and traffic. As we go through this presentation, I will address those. So, as you can see on this slide, the current zoning versus what we're proposing the C-2 to the NM-2 is Livonia 21, shows that it has this corner, or this development, marked as a mixed-use. This development has everything in it, it's got big box retail, it's got your out lots with restaurants, fitness centers, has everything there. The one thing to make it an actual mixed-use is you got to have people living there. That's what makes it a mixed-use, otherwise, it's just development. So, in order to follow the guidelines of Livonia 21, we're proposing that this be rezone so that we can provide that mixed-use and everyone wants to help those businesses thrive and stay in business. Also in the Livonia 21, there's a section on missing middle. What the missing middle is, this gap from the single-family to your urban developments, and providing those housing opportunities for people that are looking to downsize for young professionals for starter families that don't have money for down payment. That's what this area is missing. It points out that the key areas that you should be focusing on is commercial corridors and mixed-use centers. That's Wonderland Village, both of those. As Jeff had mentioned, the rent. These are very high rent, \$1200 to \$1600. This information is from a marketing study. This isn't just us, winging it and saying this is what we think we can get. All this information on here. It's from a marketing study, giving us what the rents are, and also telling us what the target markets are. And those are the young professionals, empty nesters, starter families and people looking to downsize. All these people don't want the maintenance of the yard, or they don't have money for a down payment and they don't want the hassle of property taxes. This solves that issue. It gives them a great place to live in a class A living. These are nice units. There are quartz countertops, the doors have Ring Doorbells, they every appliance, they have heat pumps, which are more energy efficient than your traditional gas furnaces.

Then also for the common spaces, we have things that modern apartment buildings have there's packaged rooms, there's mail rooms, fitness rooms, there's common space for people to hang out. There's a pool, there's carports and you can walk to the retail developments. So, everything that you're seeing in here is high end, it's not the 80's style where you walk up to your unit. These are essential corridors it gives a high end feel everyone's private, everything's secure. The building itself is fobbed, so only residents can get in. You don't have people that can just randomly walk in. So, it's all monitored their security cameras around the site, the security cameras in the building, there's on site management, leasing, maintenance, they're accessed 24/7 Everything is monitored and tracked, and we know what's going on in this development. So, this is from the Livonia 21 showing that the population increase is in the age group 20 to 29 and 60 to 69. So that's your young professionals getting out of college with a good job, don't have money for a house or a starter family. Then you also have the people whose kids have graduated from college or moved out of the house, and they don't need their house anymore and they want to spend the winters in Florida or something along those lines, they want to downsize and make life easier themselves. The lower graph shows that Livonia is outpacing Wayne County, and the state of Michigan in your professional jobs. That's the people we're targeting. We're targeting these professional people with good jobs that can pay the rents. Here's an aerial. So, you're seeing the retail, the big box, it's a horizontal mixed use. It's not a vertical mixed, it's a horizontal. So, you've got to walk, you got to get your exercise, but this is the missing component to create that mixed-use, putting the residential in the middle of this commercial district.

Jolly: If I can jump in here for a second. I think I can probably speak for all of us up here. We know the Livonia Vision 21, we spent multiple years dealing with it, you want to get to the part where you talk about the architectural renderings or what you're going to do with the site specifically?

Schovers: Yes, that's next slide. This is just giving a quick snapshot of the current zoning versus what we're proposing. Some of the current zoning C-2, if we were to build a retail building, we could be about 103 and a half feet from the single family property line, where we're proposing 300 feet, so we're moving all that action, all the noise of semi deliveries, all that stuff, because we don't have semi deliveries, we don't have any noise, we just got cars. So, all that moves away.

This is a snapshot of where we started years ago, when there were multiple buildings. This was 130 feet from the property line. So now we're two and a half times that away from that property line. We're moving everyone away from the single-family residence for noise, for security, visibility. So, as Jeff had mentioned, this is after the Planning Commission meeting with the residents. This is how we addressed a lot of those concerns. So, we have three rows of trees, two rows are on the single-family side, we have an eight-foot solid vinyl fence to block any visibility through it and a third row of trees on the multifamily side. We're also proposing to add some flowering trees to

add some variety so there's not just an Evergreen wall. So, that eight-foot wall blocks all visibility, which we'll show you in a minute. We're also proposing to cap the ends of that with a chain link fence so no one can get on the south side of that vinyl fence to where they can look into the neighbor's backyard. So, we're securing our site, preventing anyone from that visibility or being able to look at the single family.

The bottom slide came out of the meeting with the residents to where they wanted some kind of a division from the multifamily to the commercial. So, we don't want to visual obstruction here. We just want to give the imitation of some division. So, it's a lower aluminum fence with some plantings that kind of create this division of when you cross on the other side here, you're in the multifamily portion of the mixed-use development.

This is the southern face of the southern building. So, this is facing the single family. So, one thing we did hear from the meetings of the rapid response in the study session was they wanted balconies. We held the balconies off of here so that no one was out there to give the privacy to the single family. We do still have the door walls and they have a Juliet as a railing to prevent people from falling, but you don't have people being able to go out there and talk on the phone and create noise and security for the residents.

So, this is the revised view from the rear yard. Looking at the multifamily, so the top is what we had before. The lower one is with the ornamental trees, the two ever grow trees, the eight-foot vinyl fence. So, as you can see, there is no visibility can't see the building with this addition.

Here's a side section of what we were proposing before where you could see your the line of sight was hitting about the third floor plate for now with that vinyl fence and the extra row trees were well above the building. So, there's no visibility in the building from the rear yards.

This is a view from the third floor again, with that extra row of trees and the fence. We're not seeing that first row of houses back there, there's no visibility. They get the privacy. They can't see us, we can't see them. It's a two-way street.

Here's a view of the courtyard showing that it is a high-class development. You do have areas where you can go out there and read books and hang out. There's the inground pool, bike racks. There are activities for people to do that are in the courtyard and not by the residents.

Here's an aerial showing the whole development and the landscape buffer between the multifamily and the single family. As you can see, everything is pulled to the north. So, all the residents in the multifamily are to the north and they're hanging out in the courtyard.

This is a precedent study of recent, horizontal mixed-use developments with multifamily. These are all in Metro Detroit, same concept they don't have any retail and mixed-use in them, but you got to walk to them. That's how nowadays that's how we're getting these mixed-use developments is when you're not in front and you're not on the main road like Plymouth Road, you can't do the vertical mixed-use, you got to do the horizontal mixed-use make the project successful. Do you guys have any questions, we're more than willing to answer them.

Jolly: Any questions? Mr. Morgan.

Morgan: As far as access to this community is it, do they have a key fob or something to get in there, is their access controlled from the main to the parking lot and so on, so people can't just hang out in that parking lot?

Schovers: Correct? Well, the building is a key fob. The entry into the parking lot, that's something to discuss whether we provide gates or not. The building itself is fobbed. The leasing office is open during business hours for someone to walk in and sign a lease. but all the perimeter doors are fobbed and locked. 24/7.

Jolly: Mr. Donovic.

Donovic: Thank you, Mr. Chair. In its current state, if it we went with a typical big box store, which is what this is zoned for, in that, if we kept it that style, it would only be 103 feet from the berm, is that you said?

Schovers: 103 feet from the south side of the berm, at the property line of the single family.

Donovic: That's where portions of the Walmart and Target, they currently fluctuate. I know the building kind of zigzags around the back, but it's about 103 feet regardless.

Schovers: They're like Walmart, I believe is one 125 feet.

Donovic: Okay, and now if this should pass, it would be 300 feet from the back of the building?

Schovers: Correct?

Donovic: Okay. Thank you.

Jolly: Ms. Toy.

Toy: Thank you, Mr. President, just a few questions. I didn't think I heard you about traffic and all. We're getting some new developments over in that corner, as you're probably aware of Chick-fil-A, etc. I also didn't hear if there's any police reports you're bringing forward or fire reports for that area that we could look

at as well. Or maybe we need to request that, I don't know. As we look at these mixed-uses, now, when we do them in different neighborhoods, if you will, that about commercial, I think it's important that we begin to look at traffic, things like police and fire services that we provide, because this adds extra strain on some of those services our city provides. You have a site, maybe you don't, but Mr. Schostak does at Seven and Farmington, that has been very vacant for many years now and we want to see what, in the future here, what we're going to see there. As we look at another development, this Council has responsibility of all these sites in the city. As we look at this mixed-use, it begs of a lot of questions that come up, particularly when it comes to the taxpayer that has to not endure some of the kinds of things you're referring to, while they're young professionals, whether they're older folks, it still changes that area. So, I'd appreciate any help on those kinds of things that you could give sir or that the team could, I'd appreciate that, thank you.

Schovers: Sure. So as far as traffic, the nice thing about multifamily is that it's slow out and slow in, if people are going to work from six in the morning to nine in the morning, and then they're coming back, they might be stopping in groceries on the way home, for picking their kids up from daycare, stuff like that. So, it's not like retail to where someone gets out of work and everyone at five o'clock is going to that retail deal, going to Target or Walmart, those are your extremely high intense traffic volumes. This is people going in and out, and they're living their life and everyone starts working at different times and comes home at different times. So, it's a very minimal traffic, if any, traffic.

Jolly: Okay, with all due respect to everybody here, you're the residents, we're here for you to speak tonight, but not to interrupt other people. So, I'm going to ask you very politely to not do that and show some respect, I'm going to ask the same of them, as I am of you. Okay, thank you very much.

Schovers: On regards to this site, on Plymouth Road, there is a traffic light. So, you don't have the issue of people trying to make a fast left hand turn out. We have ways to regulate the traffic and get the traffic to move, but with it being slower in and slower out, it's a very minimal effect. As far as the police and stuff and issues like that, one thing to keep in mind about the issues that are happening there, is that it's a dark area. So, when you have people that to just hang out and get off the grid or whatever, they're going to go to a dark area. As soon as you have people living there and they're and it's lit up around the building, those issues go away. You have people watching them. The people that are here, if they see something funny going on, they're going to call the manager and say, hey, something is going on in the parking lot, and the manager is going to address it. Having the 300 set of eyes, looking out the windows and monitoring, the activity around the building is a huge benefit to mitigating crime or people just hanging out.

Toy: So does that mean you are going to provide security then, if we find that that area has been troubled, perhaps by some of those kinds of reports of various

things, even though it identifies with commercial, but you're mixing residential now in with commercial and you know, and as we know, so the sensitivity of that, I got to be cognizant of as I as I take the vote. That's what I need to hear from you, where you're going to alleviate some of that, as I think Councilman Morgan asked, are you going to secure that parking lot? You got a lot of truck traffic over there, I mean, I pulled up to a red light and got rear-ended by a bus. I'm not saying it's your problem, I'm just say there is a lot of traffic there.

Schovers: Yeah, so like I was saying, there's cameras around the building monitoring the parking lot. There's the on-site managers, there's these measures that we're taking to make sure that we're addressing the security issues. Now, I guess if there's a phase goes on, and it's bad. I mean, it's in their interest to protect the development. So, if there's a crime, people aren't going to live there, they're going to address that with the on-site security.

Toy: Thank you. Thank you very much. Thank you, Mr. Chair.

Jolly: We'll go to Mr. McCullough.

McCullough: Thank you. Through the Chair to the Petitioner. A couple of quick questions, the slide with trees showing, different vertical views. Now, the question I would have is obviously, during construction phase, I assume that these trees are not going to be full grown. What can those residents expect? Is that line-of-sight post construction after C of O or is this after many years of growth?

Schovers: Well, the first row of trees are already in place. So, we're proposing the second and third row of trees. And as shown in that rendering, those are trees that come ten to twelve foot high. We're spending extra money to get taller trees. We're not putting in six-foot-high trees. That's very realistic at installation, what you would see.

McCullough: Okay. The other question I had were before we move on to the residents. You know, Vision 21 focuses on harmony and creating harmony in the existing surrounding areas. I know you've spoke a lot about it, but you've got a Walmart, you got a Target, where seem to be a destination, people are traveling or parking or going in there. With a Chili's, that's pretty much on the side closest to Middlebelt and Plymouth, how do you, in your words, what do you see as the connectivity to the surrounding areas? As someone would be renting here, I just see, you've got a plasma center in front, you got Bank of America, White Castle and LA Fitness. It's kind of tough to kind of carve everything out. So, I'm just trying to figure out how does that fit into the walkability and the pedestrian use? Right now, I mean, after you travel that site, I have huge concerns of wanting to walk across those roads to get to any of the retail without any wayfinding signs and more safety measures.

Schovers: Sure, so, obviously, the east west go to Walmart and Target, that one's easy. To your concern about going out to the out lots, there is a sidewalk by the plasma center that I believe takes you to the north, so you can get to the

Chili's, you can get to the Noodle & Company. It is a development where you can walk. Obviously, if you're living there, you know, the path to take. It doesn't benefit from necessarily this treed boulevard, but there is ways for you to go to the out lots, to the Chili's and other outbuildings and also in a Walmart and Target. So, it is it is a horizontal excuse.

Jolly: Okay, so I'm going to jump in here and give you my comments real quick, and I know a couple of my colleagues here have some comments as well. To be frank with you, I don't like the last answer that you provided. We have one site here that I believe is owned by one entity, the commercial and this potential residential. If we're going to look at this as a multi-use development, there needs to be connectivity. Walking through a parking lot, knowing that, it's not appropriate. To me, that's not multi-use. So, I would like to see some sort of connectivity, number one. Number two, I understand that people would have to access the site to potentially rent an apartment there during business hours, because this is enclosed and set back the way that it has been proposed at this point, I would want there to be some sort of fob entry to the parking lot in off-business hours. Whether that's after six o'clock, some morning opening, there needs to be some sort of element like that if we're going to look at doing this from my perspective anyways. I think if you look at the development on Haggerty Road that is very similar to this, they do have something like that in place. I think it's a nice feature.

In my last comment here question, Mr. Schostak indicated during his presentation that there would be no tax assistance in any way sought, right? I like to hear that. Are you giving us your word because I can say that, not because I don't trust you, but because we've had people give us pie in the sky ideas for developing sites, and they come back a year later, and they ask for some sort of tax abatement? So, I would want that in writing as well. For my last comments, for everybody in the room here, just to know the procedure. For what we're looking at, what is being proposed before us, at this point in time, is a request to change the zoning. The City of Livonia, this Council, has a long tradition where a request for the zoning change requires multiple steps. You've been to many of them yourselves, at this point. Along the way, there is a first reading for a zoning change that typically happens. We normally hold up the second reading, which would hold up the vote after a second reading until we have a site plan that we also know exactly what the buildings are going to be. Okay? So, at this point, even though they're talking about what the building is going to look like, what their plans are for the building and all that kind of stuff, the only thing that's actually on the table at this point in time is the zoning change. Okay, so it would not be uncommon at all, for us to go to the meeting on March 23rd and have somebody provide a first reading for the zoning change. No second meeting would happen, and nothing would proceed beyond that before we have a site plan that we reviewed, and we would normally be voting on the site plan and the second read on the zoning change all at the same time. Okay, just FYI.

I think Mr. Donovic has a couple more comments or questions, then Mr. Morgan, and then we'll go to the audience. Okay.

Donovic: Thank you, Mr. President. So, this project reminds me a lot of the Liv apartments, it's very similar in the way it's designed and in the walkability. I mean, it's next door to Costco, Bahama Breeze, Donut Bar, Tropical Smoothie, Starbucks, Chick-fil-A, the AMC movie theater. I mean, this is essentially what the City Council approved a few years ago for the Liv apartments, identical to what this proposal looks like. I do see the similarities there and the precedent there. The couple questions I had were to Councilwoman Laura Toy's point on traffic. Traffic is a very important thing. In one sense, I'm thankful that there's investment, I live in the neighborhood. I'm thankful there's investment in the southeastern corridor of Livonia. I don't want vacant buildings. I don't want vacant lots. I don't want another big box store. If you guys wanted, you could install another building the big box store and that might be vacant 10 or 15 years with the trends in online shopping. I'm trying to keep an open mindset here, but that's not what I want and my fear is that if this project doesn't pass, then you're just going to build another big box store, find a tenant, they're going to be there for 10, 15, 20 years maybe, if that, and be vacant, and we'll be looking at another large vacant store like we have at Seven and Farmington. So, with traffic, when you talk about traffic trends, I'm not an expert in traffic trends, would you say that there's going to be more traffic with a big box store? When you look at Walmart and Meijer or Target etc., when they're full all day long cars are coming and going nonstop. Whereas, I would assume, residential multifamily, again, to your point, you kind of touched on a little bit, but I'm still trying to wrap my head around how those traffic flows work. You're going to have 200 units, so let's just say there's 250 to 300 people with guests, visitors and vehicles in the parking lot. Could you say that there's less cars with this than opposed to a Meijer, Walmart, Target when there's maybe 500 cars, do you have any evidence supporting that?

Schovers: Sure, not in front of me, but you are correct. If you look at that aerial, just the mass size of the parking lot is bigger than the Walmart. They are planning on, I don't know how many parking spots they got there, 550, 600 spots where we only need 380. We're a much smaller amount, and our traffic is in and out slower. They're getting these mad rushes of people coming in, at five o'clock, or when they open, you know, people kind of grab stuff on the way to work. So, you're getting these mad rushes. And yeah, the retail is a lot more intensive on parking.

Donovic: Thank you.

Jolly: Mr. Morgan.

Morgan: Thank you, Mr. Chair. I have a few questions here. First of all, since I'm not really 100% sure who owns the Walmart area, is that Schostak?

Schostak: Walmart owns their building and lot. We sold that to them, and they put their store there. Walmart and Target own their own properties. We own all the surrounding.

Morgan: Okay, so you wouldn't be able to control any of the semi traffic that comes in there, because a lot of the complaints of the citizens, when I was a Policeman and even currently, the semi-trucks come in there and it would be between Walmart and the project that you're looking at right now. They idle there, and they sit there all night. We had major issues, rattling off the citizens house, which could be 300 feet away. I know that's not your problem, but it's something that is a concern. It has been voiced to me by the citizens. They've had these issues and we tried our best to enforce it. We've even threatened to sue Walmart several times to make this go away, but it's an ongoing problem. Any suggestions?

Schostak: Absolutely. Yeah, we know that's an issue and we put up different blockings to try to stop that. I think it's reduced itself because we've heard that they've been parking other places, but probably not exclusively. Quite frankly, this development stops that because there's nowhere for them to go. Right now, there's 10 plus acres of vacant land that they take advantage of, and they go idle and park there. We can't control their loss, per se. We do have a reciprocal access agreement with Walmart and Target that we obviously all abide to. The biggest thing is there's this tenant 10 plus acres of vacant land that will now be gone, and it just won't be an option for it. That is an advantage just kind of pointed out earlier is that once you have, land is vacant, it encourages that behavior, so to speak, where now its developed people live in there, there's going to be no ability for the semi drivers to park and idle over there.

Morgan: Secondly, the berm that's in the back and proposing a fence and the three rows of trees, who is going to maintain that?

Schovers: It would be part of our development maintains that berm back there.

Morgan: Okay. So, the maintenance, that's connected with those apartments or condominiums, or whatever you want to call them is going to be maintained by the maintenance department?

Schovers: Correct.

Morgan: Okay.

Jolly: All right. I'm going to thank everybody who's spoken so far. As one of you, all of you, whoever will be responding to note any questions from the residents, we're going to listen to the residents speak, and I'll ask you to come back up and address the questions that have been presented to them. In terms of the residents, as I indicated earlier, this is your opportunity to speak at this public hearing. I presume many of you would like to speak, I would ask you to line

up or move this area over here. You are limited to three minutes for your comments. And we'll go directly one to one. I asked you to direct any kind of comments to me as the Chair not to the Petitioner or anybody else. They'll note the questions, and we'll circle back, okay? All set, sir? Good evening, please state your name for the record.

Weldon: Hello, my name is Steven Weldon. I'm a 29912 Orangelawn Street, right behind the area where this project is supposed to be committed here. First off, the Vision Livonia 21 plan does not incorporate or anticipate this kind of project. When you talk about vertical, it's it was supposed to be more where all the businesses and the living residences would be horizontal, I'm sorry, vertical versus horizontal. That way you would attract those businesspeople to come into that area. There's no dog park, as you had mentioned before, walking safely across this big busy business complex to retail, there's a lot of potential for accidents, people getting hurt, then if you have, again, with a parking lot situation. This is kind of a fantasy that we're just going to attract high end professionals to this area. This is a low-income area. It's not like over there in the Laurel Park area. They're attracted to areas like that. You can't do this in this area that's not geared that way. You've got lots of traffic, both on Plymouth and Middlebelt. You're going to add another potentially 200 to 300 or more vehicles from the apartment complexes. They're not just going to walk across to the Target or the little pod stores. They're going to drive their cars. They want to be protected from the rain and other things too. They're not going to walk across that, it's going to be very difficult for them trying to dodge cars and those cars aren't paying attention as their driving along. Then you're also talking what has been promised to us by Schostak before. The berm has not been maintained. We get weeds growing all the time up through there. I have to call, others have to call to try and get that maintained. We get waves that are over 15 inches high. As far as people, I've seen it before, when they put the movie theater back behind the complex where we live, that was told that it would only be too long about 10 o'clock at night while they were going on until two in the morning. As far as cracking the snowbirds, and then the young professionals coming, no, you're going to get young kids that need to share their rent. You'll have four or five individuals in one apartment complex sharing that rent. That means more cars. That means more noise. Those type of individuals, they don't care. They don't pay property taxes. They don't have to maintain anything. They'll come out and they'll sit around their cars they'll work on their cars. They'll play their boom boxes. I've been in many places like that and it's very frustrating when you have that kind of noise because it will travel over the berms and the walls. The other aspects, as you mentioned, with the traffic, we've already got way too much traffic through there just on the streets alone and then coming in and out of the retail area. You're going to put an ad hoc?

Jolly: I'm going to have to stop you there. Can we have the next resident? Please identify yourself, name and address.

Grad: Hi, Jeff Grad 11325 Blackburn Street. Thanks for letting me talk. I think you guys made some great points today. I just want to get back to the point of, focusing on the fact that this is a rezoning request. I think we're getting a lot of details of little things here there, how this compares to the development on Haggerty. The whole point of Livonia Vision 21 was to have mixed-use development. This is not a mixed-use development. Throwing an apartment building in between a Walmart a liquor store, a plasma center and a Target is about as far as you can get from a sustainable and an asset, multi-use development in the city as you could possibly get. I can't think of a worse spot in the city to potentially put this, to be perfectly honest. I mean, I literally thought I can't think of a worse place to put this. I think their lack of vision and lack of effort, that Schostak team shows you a couple things. I probably could have put a better, I'm not trying to be rude, but I could have put a better presentation together myself in a week. The whole thing about who they're trying to attract, you know. I was a young professional relatively recently. I'm older now, but, you know, this would be the last place that I'd want to live, again, between a liquor store, a plasma center, a Walmart and Target where there's already sometimes cars and homeless people living in that parking lot. It just doesn't make any sense. You know, when I look at multifamily housing, when I think of multi-use, I think of townhomes with coffee shops that you guys know, you know, other cities that you can look at and see what the residents will own and you truly want and this is not it. My parents live in Livonia. I lived here my whole life. I have a business in Livonia. I still live here, and my parents are looking to downsize. I brought this up to them and they said, this would be the last place that I would want to live if I was looking for an apartment. So, just my thoughts. I know I've said this before, but it just seems like down to issue, this is a rezoning request and I feel like there has to be a very good reason to rezone something. This isn't a request for an apartment building up in a place that's already zoned for this. It's a complete change, and it just doesn't have substance. So, thank you.

Jolly: Thank you sir. Please identify yourself sir.

Shimshock: Peter Shimshock, 9950 Oporto. I agree with the Planning Commission, I think this should stay as General Business. Several months ago, I found a dead rat in the middle of my driveway. Currently, Walmart, Target, the restaurants, they all have people hired to maintain the garbage bins, and they do a good job. Yet we still have issues and other people do in the neighborhood. Not terrible, but we still have issues. Livonia doesn't support residents for rodent problems. It's up to the residents now. So, you probably wouldn't have a record of how many complaints there are with issues like this. I think adding a apartment complex now, that would add 20, 30 more dumpsters without one person in charge, but multi-families in charge of making sure that dumpster is handled correctly and hits the dumpster. I think actually, this kind of apartment complex would be like ringing the dinner bell for more rats and more problems. It doesn't take much to start the issue. but if you add a box store or something else in there, you're adding something that's managed by an employee, not 200 separate families. I think this is not

something you want to put in the middle of the residential area. I don't agree. I'm sorry. I don't agree that you should make a decision now on something changing zoning, based on what could happen if another big box store comes in 20 years from now. I think on the northeast side of Plymouth and Middlebelt, they're rebuilding it completely. They tore down what was there and they're making it all new again. All of this can be done in the future, but for now, with the situation now, residents on their own with rodent issues, and I understand you don't help, but it's not going to get any better by adding 20 or 50 more dumpsters with 200 families added to it, not managed by one person. Also, the commercial areas empty the dumpsters as needed. I'm sure there'd be a schedule with any kind of apartment building is the ones I looked at, it's one dumpster for 12 units. So, if you have 200 units, that's a lot of dumpsters emptied once a week, full or empty. Thank you for your time.

Jolly Thank you, sir. A little bit less obnoxious ringtone here. Good evening, ma'am. Please state your name.

Sullivan: My name is Jeanne Sullivan. I live at 29944 Orangelawn, which is directly behind the area that we're talking about. I have a great many concerns about this, but the last few people that were up here have covered just about everything that I wanted to say, other than Livonia zoning ordinances say that the idea behind their zoning is grouping residential, commercial, so now we have all these buildings, the same site, the same architecture so that everything looks copesetic, right. Also, to protect the residents from unnecessary noise and disruption and to preserve the ideals and character of the surrounding neighborhoods. We're not so sure this is going to be a good idea for our surrounding neighborhoods. I'm a little bit concerned about them closing off the berm. Our berm has never been well maintained. We were promised two rows of trees, never got. One neighbor had to call the city last year 34 times to ask them to come the grass, put in the sprinklers so the grass grows. Sprinklers went in, they never got turned on, only when it was their last-minute idea. I know you're big on wanting a new Senior Center, awesome. And I know that the mayor wants more walking and more biking. I don't think this is going to increase any of our walking. I worry more about if you put children in a multifamily. Everywhere those kids would exit the parking lot, no matter which direction they go, it's a parking lot. If they see the berm, they're kids, they're going to walk climb up on the berm. I don't care if there's a fence there or not. They're going to want to climb up there. It would be look here, look here. Then it's, let's see how far we can throw. It happens, because it happened before they raised our wall. People were always coming by, tossing things in our yard, tossing things to the animals. It's just, it's what we live with, but yes, we chose to live behind the mall in the first place. I actually moved there. I liked the idea of that brick wall behind my yard. I never worried about my children. They could go outside. I didn't worry about anybody snatching my pets. It was more of a security. I think a lot of that security is going to go right out the window. We understand that this is their property. They bought the property. They need to use the property. We understand that. I would want to use it too, if it was my property, but they knew it was a

commercial zoned property when they bought it. Now commercial areas are going down, residential areas are going up. This doesn't seem to be a reason for the city to bend over and rezone this property. I know it would be beneficial to them, not so much for us, with all the commercial areas.

Jolly: I need to stop you, ma'am.

Sullivan: Oh, my buzzer. I'm not going to have any question and answers.

Jolly: No, that's not the purpose of this meeting. I asked him to take note of any questions that were relayed and to address them afterwards, but this is not a question answer session. All right.

Sullivan: Thank you. Aren't you glad I didn't read all of this?

Jolly: We'll take the next resident please. Good evening, please identify yourself.

Lupu: Good evening. Cheryl Lupu, 29864 Orangelawn. I've been there for many of years, and I agree with all comments and everything else that has been said. I've called the police numerous times because of the idling trucks. When they say there's a fence, there's a gate going up to this property also. There was supposed to be a gate for these trucks now to be able to go back and forth with certain times, in fact, that has never been used since it's been put in, I believe. That's really a main concern. My other concerns are the garbage and the rats. I caught the brother of the other guy because it was as big as the shovel. I know we're infested with them, but I just think of all the ones that are going to come joining and I think we have enough already. This isn't a good feel at all. I'm sure and I hope you guys will agree, because it's not in your backyard or in your backyard, so that's all I have to say, thank you.

Jolly: Thank you ma'am. Good evening, sir, please identify yourself.

Smith: Good evening, Merlyn Smith, 30039 Richland. Council, Schostak, let me start by saying, this rezoning, that's what we're after. First off, I appreciate Schostak trying to meet with the residents two weeks before this meeting. I asked around and residents are still pretty mad. Promises were made when Walmart and Target came in. Rows of trees were never put in and stuff like that, but that's not about the rezoning, but the promises that were made and not kept. They already mentioned that about its commercial. They bought it commercial, and you just don't stick a residential in the middle of commercial. I don't know of any place that does that and it just don't belong. I lost track, nervous, you know, not a public speaker, I still got two minutes or less than that now, can I sing?

Jolly: If you do, I'm going to leave.

Smith: I appreciate your time and the thought is gone. I would recommend and consider you guy's vote for no rezoning. And I asked you, please and thank you.

Jolly: Thank you, sir. Good evening, ma'am.

Kowaleski: Good evening, Victoria Kowaleski, 29960 Orangelawn, directly behind the proposed project. I know that this is about zoning. First, I want to ask at the beginning, I thought I heard somebody say four floors.

Jolly: Ma'am, you can't direct your comments to them. It just works better if you just give me your anger, I mean not you, in particular.

Kowaleski: Four floors, because initially this was supposed to be three floors, am I wrong? Did I hear?

Jolly: I think the proposal currently is three.

Kowaleski: Okay. Thank you. All right. Real quick. A good and decent citizenry is the backbone of any city. The citizenry needs to know that their elected officials will stand up for their privacy, safety, and comfort. Correct me if I'm wrong, isn't this developer the largest business property owner in the city of Livonia? If this is correct, this developer owns other parcels to be in our city that will be much more suitable for this project. Here's where I say, hey, go. I heard somebody say that this project will help the nearby businesses survive. That's not what we're supposed to be doing here. We're supposed to be protecting people's property rights. Let me just get to it. In all fairness, I consider, it more suggested that the neighbors should come up with ideas for the parcel, maybe give the developer other options and ideas. He doesn't want our ideas. Okay. I want to know, I heard somebody say that the developer met with people. I was never met with. I was never notified about a meeting. I don't know what happened two weeks ago, but somehow, I was left out of the loop, which I think is a little unfair. My opinion, in this moment, is please do not okay this zoning change. Whenever you reschedule a meeting for me to speak some more, I will absolutely be here to speak, because this is my property. I'm here to protect it and you people are supposed to help me protect it also. Thank you so very much. Have a blessed night and God bless us all.

Jolly: Thank you., any other residents like to speak, at this time? Good evening, sir, your name, please.

Schmidt: My name is Bill Schmidt, 29688 Macintyre. I'm in the neighborhood. I'm opposed to the zoning change. We don't have any large apartment complexes, even within miles of this area. There's nothing like it. We have single family homes, not huge rental complexes. That's just the truth. This is a complete anomaly in the area. That's it. Deny the zoning request. Thank you.

- Jolly: Anybody else, last call. Anybody else would like to speak, please get on deck.
- Vowell: Hello, my name is Martin Vowell. I live at 29720 Orangelawn. I'm directly behind Walmart's loading dock. So, I know a lot about trucks and a lot of things. As a young lady said, this isn't a question answer, I just happen to have a lot more questions than anything else. I obviously do not want to see this go forward, but as the one young lady said, because I know he said that he was four story about looks like the site planning thing showed three stories. So, I guess what I heard and what I think.
- Jolly: It's currently three floors.
- Vowell: Okay. I know before I was in on a thing when they started to build because Walmart's directly behind my house. In fact, the loading dock is behind my house. So, I know when winter comes, and I don't say anything, I know they leave their trucks running there, because it's a diesel truck and it's wintertime and it's Christmas. So, I understand, not that it makes me happy, but because I live right there, so I smell it, I hear it, everything. Just out of curiosity, on lighting, also I have that, because they have a dock light there, which a lot of times shines right in my backyard, if the screen is knocked off from the wind. I've gone over there to talk to them. It's taken them a while I understand how they get a lift up there and fix it. I know when they're building Walmart, there were height restrictions and it seemed like they had a lot going on with that because just like signage, I don't know if they changed that but before, he couldn't put a sign if it was too tall in Livonia. They want everything small, low, whatever. So now, all of a sudden, they want to build this three-story thing right behind our homes. It's kind of weird to me. I'm just curious, as far as with the rats, is this place going to be pet friendly, because obviously they might be taking, who knows, their pets to the berm, if nothing will get picked up, and you know what's going to happen with the rats. It's like, oh, free lunch. So those are my concerns because I lived there. I've seen the rats. I trapped them myself. So, that's kind of what I have, more of my things that are more questions because I don't know what's going to happen. That's basically my reason to say I would not like to see that happen, only because the problems I can see that will we're going to have to face further down the road. So, that's my spiel. I thank you very much. Take care.
- Jolly: Thank you sir. Anyone else?
- Weldon: I'd like to say one more question.
- Jolly: Unfortunately, sir, you cannot you exceeded, you reached your time. Thank you. That's the meeting, we got to run the meeting per the rules.
- Polewski: Hi, my name is Dan Polewski, I live at 28500 Cleveland. I'm super nervous but I'm going to say what I think. I get you guys want to make money. Okay. Well also when we're talking about traffic, you're going to bring at least 100 or more cars. Traffic, this is already crazy, I'm a truck driver. I deliver

residential. I deliver to residential apartments like this building. There was already one, Middlebelt and Plymouth. You should go there sometime during summertime, see what happens to those balconies, what these guys are doing. Okay, if you're not going to have security and those buildings, gated security. Anybody can come up there. Anybody could sit down play music, and you're going to bring young guys or college students. They are what, six months and hey, I don't like this place. I'm out. They're not families, you know reasonable tenant will want to live in a high traffic area. Okay. I just moved here two years ago from Hamtramck and Hamtramck went from beautiful to, you should see it now, it's not beautiful. Okay? What else want to say? Oh, if the market goes down okay, I get, it was \$1200, \$1500 right now, but if their rents are going to go down, that means we're going to lower, because you have to keep people in there, right? So, now lower to \$800, \$700. Then you're going to bring people that make less money and then who's going to come in there, not good people. Not good people, I'm telling you. I don't know, something better than this, yes? Honestly, garbage, traffic, security wise, I mean studies nope. Police, show me the numbers. I cover from Dearborn to all the way to Chesterfield anywhere I see I go to apartments, there's nothing good about apartments. There's no, people live there for a minute, as soon as they see the bad stuff happening, they start moving out. They don't care. They don't have to stay. Then guess what, I just bought a house. I don't want to live in this property only for 10, 20 years. I want to raise a, I got a kid on the way. My wife is 8 weeks pregnant. There's no privacy on three story building. There's no privacy. There are no trees because city ordinance is what 10 to 20 feet, I don't know, but it's not going to cover and you got these developments, so these people are not going to have any privacy any quiet peace and as soon as summer comes, traffic in and out, crazy already. Today, I went to Walmart to buy some stuff. In and out it's like a race. Those people don't care, you're coming out. Who you got coming into those stores? Walmart, Target, all of Redford, all the restaurants. How many folks you got from Redford coming in? It's not Livonia people. Those people don't care. They want to make money. They don't care. To me, I don't know why punish those people. Why punish us? We want to live in a decent city. We don't want what's going on. Go and look at Redford apartments, see what is going on. How many calls do you got? So much stuff is going on. Maybe senior houses, something that's quiet. All right. Thank you so much.

Jolly: Thank you, sir. Okay, I see no other residents approaching the podium. So, I will call the public comment closed. At this time, I'm going to ask the petitioner to come back up to the podium for closing, I'd like you to limit that to five minutes, not any longer. Then after that, I'm going to go to the Council for any motions. That's it, we'll make the motions at that time. Your name again, sir.

Schovers: Mark Schovers, Spire Design Group. I'm just going to go in order of the comments as people raised. There was a comment raised about people sharing apartments and putting four to five people in a unit. We have ways to mitigate that with a leasing and management. We know who's coming on site. We know who drives what car, we know what fobs are fobbing in. We

know how and we can track whether someone shared a room. If that happens, they're evicted. There are ways to mitigate this.

Schovers: The scale of the building, the residential is a lower floor to floor than retail. So, if you look at that Walmart, they're like 30 feet, the their peaks and their gables, they're 36 feet. We're proposing a building that's the same scale in height wise, in width wise. We're a junior box size, so we're smaller in width than what that is, but we're meeting the context of that development on the scale.

The dumpsters and the rats. We have six dumpsters proposed on the site. That is the proper amount of dumpsters for this site and would probably pick up every other day. With maintenance there every day and maintained, those corrals are cleaned up and we mitigate the ability for rats to habitat the area where retail development is. The kids that are there clean them out.

It has been brought up whether it's a four story, we are proposing a three story. The zoning allows four stories. We are proposing a three story.

As far as if there's dogs in the area, we have an onsite dog park, so we have an area for people to take the dog. It's on the western portion of the site. It's away from the single family. It's away from the courtyard where the kids will be playing. It keeps them in their own way that is also maintained. If residents aren't picking up their poop the surveillance camera will know and we can address that issue.

As far as lighting and screening, we will meet city ordinance. The lights will be screened. There won't be any light pollution shining over the top of the berm into the single-family residence. In that regard, especially with the fence and the additional trees, you won't see any lighting. Like I said, we are open to doing a fob system locked potentially at the entrance to the site, if that's, whatever everyone wants from security, that way we know even more of who's coming in and out of the site.

The comment about children. So, we have ample area in the courtyard for children, it's contained. It's not access to the parking lot. They're in an area where they're safe and their parents can monitor them and play with them, and they can run around and be safe.

Schostak: Just real quick, I just wanted to thank the Council for all your comments and all the residents for their comments. Well, we, of course, do not agree with all of them, we certainly agree with some, and we will take them to heart, as this process moves along, as generally does. Thank you.

Jolly: Thank you very much. So, at this time, I'll ask the Council for any motions. I'll note before the motions are made, no motions will be voted on tonight. Any motions that come out of this meeting will be heard, voted on at the next regular meeting on March 23rd of 2022. Motions that are given tonight, may

be the motions that are given at that time, or there could be other motions or some combination thereof. So, any motions from the council?

Donovic: Mr. President, I'll offer an approving a denying and committee.

Jolly: Okay, so, Mr. Donovic has offered three motions that are pretty typical in the public hearing. They are an approving a denying and referring to the Committee of the Whole. Those motions will be considered. That's pretty much the spectrum of what could be offered here tonight. Like I said, those will be voted on and heard again by the Council on March 23rd at the Regular meeting, which will start at 7pm. I thank you all for being here. I will note for the record that Councilmembers present are Mr. Morgan, Mr. McCullough, Mr. Donovic, Ms. Toy and myself Jim Jolly. With that I will close the public hearing, thank you all.

As there were no further questions or comments, the Public Hearing was declared closed at 8:12 p.m.

EXHIBIT 5

MINUTES OF THE ONE THOUSAND NINE HUNDRED FORTY FIRST**REGULAR MEETING MARCH 23, 2022**

On March 23, 2022, the above meeting was held at the City Hall, 33000 Civic Center Drive, Livonia, Michigan, and was called to order by the President of the Council at 7:00 p.m. Vice President Toy led the meeting with the Pledge of Allegiance.

Roll was called with the following result: Laura Toy, Scott Bahr, Rob Donovic, Scott Morgan, Brandon McCullough, Kathleen McIntyre, and Jim Jolly. Absent: None.

Elected and appointed officials present: Paul Bernier, City Attorney; Lori L. Miller, Deputy City Clerk; Sara Kasprowicz, Manager of Council Office; Mark Taormina, Director of Planning and Economic Development; and Todd Zilincik, City Engineer.

On a motion by McIntyre, seconded by Donovic, and unanimously adopted, it was:

#96-22 RESOLVED, that the Minutes of the 1,940th Regular Meeting of the Council held March 14, 2022 are approved as presented.

Councilmember Donovic recognized Livonia resident, Renee Geisinger, who he indicated is facing a very serious health situation. Councilmember Donovic stated Ms. Geisinger's family owns a small Livonia business, JB Tools, and thanked them for what they do for the community. Councilmember Donovic asked everyone to keep Renee and her family in their thoughts and prayers.

Councilmember McIntyre offered condolences to former Mayor Jack Engebretson and his wife Senie on the loss of their daughter, Cindy. Councilmember McIntyre stated the funeral will be held at the R.G. and G.R. Harris Funeral Home located on Farmington Road next Monday, March 28th.

President Jolly extended Happy Birthday wishes to former Mayor Jack Engebretson, Director of Emergency Preparedness Brian Kahn, and Councilmember Kathleen McIntyre.

#19. President Jolly announced there was new data on Agenda Items #13 and

On a motion by Vice President Toy, seconded by McCullough, it was:

#97-22 RESOLVED, that having considered the report and recommendation of the Director of Finance, dated February 22, 2022, approved for submission by the Mayor, to which is attached recommended final budget adjustments for Fiscal Year ending November 30, 2021, the Council does hereby authorize said budget adjustments and transfers in the manner and form set forth in the attachment.

#98-22 RESOLVED, that having considered the report and recommendation of the Chief of Police, dated March 3, 2022, which bears the signatures of the Director of Finance and the City Attorney and is approved for submission by the Mayor, the Council does hereby accept the quote of Dell, Inc., One Dell Way, Mail Stop 8129, Round Rock, TX 78682, for the purchase of three (3) Dell network servers and one (1) Dell backup and recovery tape library, specifically: (1) Dell EMC ml3/ml3e at a cost of \$27,362.46; one (1) Poweredge R740 at a cost of \$27,250.35; one (1) Poweredge R740 at a cost of \$40,579.53; and one (1) Poweredge R640 at a cost of \$7,118.63, for a total amount not to exceed \$102,310.97, to replace current servers and backup equipment which are out of warranty and at the end of their life expectancy; FURTHER, the Council does hereby authorize an appropriation and expenditure in an amount not to exceed \$102,310.97 from funds already budgeted in Account No. 101-306-987-000 for this purpose; FURTHER, the Council does hereby determine to authorize the said purchase without competitive bidding inasmuch as the same is based upon the DELL (MHEC) State of Michigan Contract Pricing Bid under Contract No. MHEC-07012015 for the new purchase, and such action is taken in accordance with the provisions set forth in Section 3.04.140.D.4 of the Livonia Code of Ordinances, as amended.

#99-22 RESOLVED, that having considered a communication from the Director of Housing, dated February 28, 2022, which bears the signature of the Director of Finance and is approved for submission by the Mayor, requesting approval of a proposed agreement for the Specialized Services Operating Assistance Program Third-Party Contract between SMART and the City of Livonia for the period October 1, 2021 through September 30, 2022, with grant funds to be used for the Livonia Community Transit Program to provide lift-equipped transportation to the senior and disabled residents of the City, the Council does, for and on behalf of the City of Livonia, authorize the Mayor and City Clerk to execute the said agreement in the manner and form herein submitted, subject to approval as to form and substance by the Department of Law, and to do all other things necessary or incidental to the full performance of this resolution.

#100-22 RESOLVED, that having considered the report and recommendation of the Director of the Housing Commission, dated February 28, 2022, which bears the signature of the Director of Finance and is approved for submission by the Mayor, and to which is attached a report containing an explanation of the 2022-2023 Community Development Block Grant (CDBG) Program and Budget, the Council does hereby take this means to indicate its informal approval of the proposed program and tentative budget and does further authorize the Housing Commission to conduct a second public hearing on this matter for public comment and to thereafter prepare a final program and budget for submission to the City Council.

#101-22 RESOLVED, that having considered a communication from the Superintendent of Parks and Recreation, dated March 3, 2022, which bears the signatures of the Director of Finance and the City Attorney, and is approved for submission by the Mayor, and in light of CR 255-21, which approved an Addendum to the Sublease Agreement between the City of Livonia and Livonia Civic Arenas, Inc., suspending the \$2,000.00 monthly lease payments for twelve (12) months commencing August 1, 2021, due to the difficult conditions under which the Eddie Edgar Ice Arena operated during the pandemic, and continues to operate; and considering the proposed Second Addendum to the Sublease Agreement between the City of Livonia and Livonia Civic Arenas, Inc., attached to the aforesaid communication, which suspends lease payments for the Eddie Edgar Ice Arena for an additional twelve (12) months, commencing August 1, 2022, the Council does hereby authorize the Mayor and City Clerk, for and on behalf of the City of Livonia, to execute the attached Second Addendum to the sublease agreement between the City of Livonia and Livonia Civic Arenas, Inc., subject to approval as to form and substance by the Department of Law, and to do all other things necessary or incidental to the full performance of this resolution.

#102-22 WHEREAS, the Livonia City Council has undertaken a planning process to determine the recreation and natural resource conservation needs and desires of its residents during a five-year period covering the years 2022-2026; and

WHEREAS, the Livonia City Council began the process of developing a Parks and Recreation Master Plan in accordance with the most recent guidelines developed by the Department of Natural Resources and made available to local communities; and

WHEREAS, residents of the City of Livonia were provided with a well-advertised opportunity during the development of the draft plan to express opinions, ask questions, and discuss all aspects of the Parks and Recreation Master Plan; and

WHEREAS, the public was given a well-advertised opportunity and reasonable accommodations to review the final draft of the Parks and Recreation Master Plan for a period of at least 30 days (Jan. 17, 2022-Feb. 16, 2022); and

WHEREAS, a public meeting was held on March 14, 2022, at City Hall to provide opportunity for all residents to express opinions, ask questions, and discuss all aspects of the City of Livonia Parks and Recreation Master Plan; and

WHEREAS, the Livonia City Council has developed the plan as a guideline for improving recreation and enhancing natural resource conservation for the City of Livonia; and

WHEREAS, after the public meeting, the Livonia City Council met to adopt said City of Livonia Parks and Recreation Master Plan 2022-2026; and

NOW THEREFORE BE IT RESOLVED that the Livonia City Council hereby adopts the City of Livonia Parks and Recreation Master Plan 2022-2026; and

BE IT FURTHER RESOLVED that the City Council authorizes the Superintendent of Parks and Recreation to submit said Parks and Recreation Master Plan to the State of Michigan.

#103-22 RESOLVED, that having considered a communication from the Assistant Director of Public Works, dated March 1, 2022, which bears the signatures of the Director of Public Works and the Director of Finance, and is approved for submission by the Mayor, to which is attached a proposed agreement between the City of Livonia and Detroit Architectural Group, Inc. for architectural services in connection with the Newburgh Village HVAC Improvements, the Council does hereby authorize the Mayor and City Clerk, for and on behalf of the City of Livonia, to execute a contract between the City of Livonia and Detroit Architectural Group, Inc. (DAG), 1644 Ford Avenue, Wyandotte, MI 48192, to provide professional architectural services in connection with the design/bid phase and construction contract administration phase for the Newburgh Village HVAC improvements in an aggregate amount not to exceed \$62,705.00, the same having been in fact the lowest bid received and meets all specifications; FURTHER, the aforesaid proposal is accepted through the Qualification Based Selection Process, pursuant to CR 378-20, adopted on December 14, 2020, and such action is taken in accordance with Section 3.04.140.D.2.b of the Livonia Code of Ordinances, as amended; FURTHER, the Council does hereby authorize an expenditure in an amount not to exceed \$62,705.00 from funds budgeted in Account No. 294-834-982-000 (Housing Budget) for this purpose.

#104-22 RESOLVED, that having considered a communication from the Assistant Director of Public Works, dated March 1, 2022, which bears the signatures of the Director of Public Works and the Director of Finance, and is approved for submission by the Mayor, to which is attached a proposed agreement between the City of Livonia and DLZ Michigan, 607 Shelby Street, Suite 650, Detroit, MI 48226 for architectural services in connection with the DPW Roads barn roof replacement, the Council does hereby authorize the Mayor and City Clerk, for and on behalf of the City of Livonia, to execute a contract between the City of Livonia and DLZ Michigan, 607 Shelby Street, Suite 650, Detroit, MI 48226, to provide professional architectural services in connection with the design/bid phase and construction contract administration phase for the DPW Roads barn roof replacement in an aggregate amount not to exceed \$40,000.00, the same having been in fact the lowest bid received and meets all specifications; FURTHER, the aforesaid proposal is accepted through the Qualification Based Selection Process, pursuant to CR 378-20, adopted on December 14, 2020, and such action is taken in accordance with Section 3.04.140.D.2.b of the Livonia Code of Ordinances, as amended; FURTHER, the Council does hereby authorize an expenditure in an amount not to exceed \$40,000.00 from funds budgeted in Account No. 401-000-976-000 (Capital Outlay) for this purpose.

#105-22 RESOLVED, that having considered the report and recommendation of the City Engineer, dated March 1, 2022, submitted pursuant to Council Resolution 107-21, which bears the signatures of the Director of Public Works, the Director of Finance and the City Attorney, and is approved for submission by the Mayor, the Council does hereby award a contract extending the Contract 21-D unit prices, per agreement, to Michigan Joint Sealing, Inc., 28830 W. Eight Mile Road, Suite 103, Farmington Hills, MI 48336 for performing all work required in connection with the 2022 Pavement Crack and Joint Sealing Program (Contract 22-D) for the estimated total cost not to exceed \$250,000.00, FURTHER, the Council does hereby authorize an expenditure in an amount not to exceed \$62,500.00 from funds budgeted in Account No. 202-463-818-117 (Major Roads) and \$187,500.00 from 203-463-818-117 (Local Roads) for this purpose; FURTHER, the Council does hereby authorize the action herein without competitive bidding in accordance with Section 3.04.140.D.3 of the Livonia Code of Ordinances, as amended, since no advantage to the City would result from additional competitive bidding; FURTHER, the City Engineer is hereby authorized to approve minor adjustments in the work as it becomes necessary but this authorization does not entitle the City Engineer to authorize any increase in the not to exceed amount or to contract with other parties; and FURTHER, the Mayor and City Clerk are hereby authorized for and on behalf of the City of Livonia to execute a contract extension with the aforesaid company, approved as to form and substance by the Department of Law, and to do all other things necessary or incidental to the full performance of this resolution.

#106-22 RESOLVED, that having considered a communication from the City Engineer, dated March 2, 2022, which bears the signatures of the Director of Public Works and the City Attorney, and is approved for submission by the Mayor, and a communication from Eric Williams, Stonefield Engineering and Design, LLC, on behalf of Haggerty Residential LLC, dated February 14, 2022, wherein a request is submitted for the vacating of a public utility easement within Haggerty Square Phase II, located at 19750 Haggerty Road, in order for a new easement to be put in place that will encompass the newly constructed sanitary sewer, the Council does hereby refer this item to the City Planning Commission for action and recommendation in accordance with provisions of law and City ordinance.

#107-22 RESOLVED, that Leo Soave, as proprietor, having requested the City Council approve Hines Park Site Condominium, located on the west side of Jughandle Road, between Plymouth Road and Edward N. Hines Drive, in the Southeast $\frac{1}{4}$ of Section 30 of the City of Livonia (hereafter the "Condominium"), and it further appearing that approval of the Master Deed, bylaws and site plan for the Condominium was given by the City Council pursuant to Council Resolution 300-21, adopted on October 4, 2021, and it further appearing that such site plan, together with Development Plans and specifications for improvements, have been examined and approved by the Department of Public Works as set forth in the report of that Department, dated March 2, 2022, therefore, the City Council does hereby determine as follows:

(1) All of the public improvements, utilities and grading shall be constructed, installed and accomplished in conformity with the provisions of the ordinances of the City of Livonia, including Section 7.27 of the Livonia Vision 21 Zoning Ordinance, as amended, and the provisions referenced therein, and the regulations and specifications of the Department of Public Works and the Development Plans submitted by the proprietor and approved by such Department; all such improvements to be constructed, installed, accomplished and completed within a period of two (2) years from the effective date of this resolution; failing this, the approval granted by the City shall be considered null, void and of no effect whatsoever;

(2) That all inspection fees and other charges due to the City of Livonia shall be fully paid at the time and in the manner provided in the said ordinance provisions;

(3) That the installation of all such improvements shall be subject at all times to the supervision and inspection and final approval of the Department of Public Works, and such improvements shall not be considered as having been satisfactorily and completely installed until there is filed with the City Council the certificate as provided in such ordinance provisions;

(4) That the proprietor shall enter into an agreement with the City of Livonia agreeing to construct, within the prescribed period of time and in the prescribed manner, all improvements required to the extent required by the City of Livonia and as shown on the approved Development Plans;

(5) That as a condition of obtaining necessary engineering permits prior to commencing the required improvements, the proprietor shall file with the City of Livonia a corporate surety bond, certified check, cash bond, irrevocable letter of credit, or other financial assurance in such form as may be approved by the Department of Law guaranteeing the satisfactory installation of all such improvements, utilities and grading by the proprietor within the prescribed period in the following amounts:

- | | |
|---------------------------------------|--|
| (a) General Improvement Bond | \$195,892.00, of which at least
\$ 19,589.00 shall be in cash |
| (b) Sidewalk Bond | \$ 32,637.00, of which at least
\$ 7,500.00 shall be in cash |
| (c) Grade & Soil Erosion Control Bond | \$ 2,400.00 (all cash) |
| (d) Entrance Markers/Landscaping | \$ 5,000.00 (all cash) |
| (e) Monuments and Markers Bond | \$ 1,000.00 (all cash) |
| (f) As-Built Drawing Bond | \$ 10,000.00 (all cash) |

and require cash payments in the total amount of \$45,489.00

(6) That all required cash deposits and certified checks which shall be established by the City Engineer pursuant to Article VII of the Livonia Vision 21 Zoning Ordinance, Section 7.27 of the Ordinance, shall be deposited with the City prior to the issuance of engineering permits for this condominium development; and

(7) That the distribution lines for telephones and electric service are to be placed underground and ornamental streetlights are to be provided throughout the Condominium in accordance with City ordinances.

A roll call vote was taken on the foregoing resolutions with the following result:

AYES: Toy, Bahr, Donovic, Morgan, McCullough, McIntyre, and Jolly

NAYS: None

Councilmember McIntyre reported out on the Public Safety and Health Committee meeting held March 9, 2022. (Petition 2021-10-02-22)

On a motion by Bahr, seconded by McIntyre, it was:

RESOLVED, that having considered the report and recommendation of the Public Safety and Health Committee, dated March 9, 2022, submitted pursuant to Council Resolution 18-22, and a communication from the City Planning Commission, dated January 6, 2022, approved for submission by the Mayor, which transmits its resolution #11-67-2021, adopted on November 30, 2021, with regard to Petition 2021-10-02-22, submitted by Century 21 ROW, requesting waiver use approval pursuant to Section 6.58 of the Livonia Vision 21 Zoning Ordinance to construct and operate a vehicle tow yard (Excellerated Towing & Recovery) at 34437 Rosati Avenue, located on the west side of Stark Road just south of the CSX Railroad in the Southwest ¼ of Section 28, the Council does hereby deny waiver use Petition 2021-10-02-22 as submitted by Century 21 Row.

Petitioner, Michael Fields, 14310 21 ½ Mile Road, Marshal, was present to answer any questions of Council. (Petition 2021-10-02-22)

Odai Mawdway, 14339 Ford Road, Second Floor, Dearborn, was present on behalf of the Alden Village Neighborhood Association to voice concerns and objections to the proposed waiver use as submitted to construct and operate a vehicle tow yard on property located on Rosati Avenue. (Petition 2021-10-02-22)

Bruce Tenniswood, 34921 Beacon, Livonia, addressed Council to express concern and objections to the proposed waiver use as submitted to construct and operate a vehicle tow yard on property located on Rosati Avenue. (Petition 2021-10-02-22)

Ron Emling, 34422 Rosati Drive, Livonia, indicated he was the owner of the subject property and was present to answer any questions of Council. (Petition 2021-10-02-22)

Following discussion by Council, the proposed resolution offered by Bahr and McIntyre was withdrawn.

On a motion by Bahr, seconded by McIntyre, and unanimously adopted, it was:

#108-22 RESOLVED, that upon the motion by Councilmember Scott Bahr, seconded by Councilmember Kathleen McIntyre, at the Regular Meeting held March 23, 2022, the Council does hereby refer the subject matter of developing the property located at 34437 Rosati Avenue, as specified in Petition 2021-10-02-22, submitted by Century 21 Row, with potential environmental issues and solutions, to the Public Safety, Health and Environment Committee for its report and recommendation.

President Jolly announced there was new data for Agenda Item #13,

An email communication from Joanna Danowski, Parish Secretary for Saint Rafka Maronite Catholic Church, dated March 22, 2022, requesting the Noise Ordinance waiver request submitted for their annual cultural festival include Friday, August 19, 2022, was received and placed on file for the information of the Council.

On a motion by Vice President Toy, seconded by Donovic, and unanimously adopted, it was:

#109-22 RESOLVED, that having considered a communication from Rev. Dr. Rodrigue Constantin, Saint Rafka Maronite Catholic Church, dated March 2, 2022, which requests permission to waive Section 8.32.070 (Noise Control) of the Livonia Code of Ordinances, as amended, in order to hold a cultural festival with music played by a DJ and live bands at Saint Rafka Maronite Catholic Church located at 32765 Lyndon Street on Friday, August 19, 2022, from 5:00 p.m. to 12:00 a.m.; Saturday, August 20, 2022, from 3:00 p.m. to 12:00 a.m.; and Sunday, August 21, 2022, from 1:00 p.m. to 9:00 p.m., the Council does hereby determine to waive section 8.32.070 (Noise Control) of the Livonia Code of Ordinances from 5:00 p.m. to 12:00 a.m. on Friday, August 19, 2022, 3:00 p.m. to 12:00 a.m. on Saturday, August 20, 2022, and from 1:00 p.m. to 9:00 p.m. on Sunday, August 21, 2022, in connection with this event.

Joanna Danowski, Parish Secretary for Saint Rafka Maronite Catholic Church, 32765 Lyndon Street, was present to answer any questions or Council.

Donovic took from the table, for second reading and adoption, the following

Ordinance:

AN ORDINANCE AMENDING SECTION 13 OF THE LIVONIA VISION 21 ZONING ORDINANCE, AS AMENDED, BY ADDING SECTION . ____ THERETO. (Petition 2021-11-01-08)

A roll call vote was taken on the foregoing Ordinance with the following result:

AYES: Toy, Bahr, Donovic, Morgan, McCullough, McIntyre, and Jolly

NAYS: None

The President declared the foregoing Ordinance duly adopted and would become effective on publication.

Morgan took from the table, for second reading and adoption, the following

Ordinance:

AN ORDINANCE AMENDING SECTION 13 OF THE LIVONIA VISION 21 ZONING ORDINANCE, AS AMENDED, BY ADDING SECTION . ____ THERETO. (Petition 2021-11-01-09)

A roll call vote was taken on the foregoing Ordinance with the following result:

AYES: McCullough and McIntyre

NAYS: Toy, Bahr, Donovic, Morgan and Jolly

The President declared the foregoing Ordinance failed for lack of support.

Kevin Allen, representative on behalf of Schoolcraft College, was present to answer any questions of Council. (Petition 2021-11-01-09)

Morgan took from the table, for second reading and adoption, the following

Ordinance:

AN ORDINANCE AMENDING SECTION 13 OF THE LIVONIA VISION 21 ZONING ORDINANCE, AS AMENDED, BY ADDING SECTION 3. ____ THERETO. (Petition 2021-11-01-10)

A roll call vote was taken on the foregoing Ordinance with the following result:

AYES: Toy

NAYS: Bahr, Donovic, Morgan, McCullough, McIntyre and Jolly

The President declared the foregoing Ordinance failed for lack of support.

Steve Kauffman, Chief Operating Officer for Schoolcraft College, 18600 Haggerty Road, was present to answer any questions of Council. (Petition 2021-11-01-10)

Bahr took from the table, for second reading and adoption, the

following Ordinance:

AN ORDINANCE AMENDING SECTION 30 OF THE ZONING MAP OF THE CITY OF LIVONIA AND AMENDING ARTICLE III OF THE LIVONIA VISION 21 ZONING ORDINANCE

KNOWN AND CITED AS "THE CITY OF LIVONIA ZONING ORDINANCE" BY ADDING SECTION 3._____ THERETO.
(Petition 2021-07-01-06)

A roll call vote was taken on the foregoing Ordinance with the following result:

AYES: Toy, Bahr, Donovic, Morgan, McCullough, McIntyre, and Jolly

NAYS: None

The President declared the foregoing Ordinance duly adopted and would become effective on publication.

On a motion by Vice President Toy, seconded by McCullough, and unanimously adopted, it was:

#110-22 RESOLVED, that having considered a communication from the City Planning Commission, dated February 24, 2022, approved for submission by the Mayor, which transmits its resolution #02-14-2022, adopted on February 22, 2022, with regard to Petition 2022-01-02-01 submitted by LAG Development, requesting waiver use approval to demolish the existing commercial building and use the property for the storage and display of vehicles in connection with an automobile dealership (Lafontaine Hyundai of Livonia) at 34801 Plymouth Road, located on the south side of Plymouth Road between Stark and Wayne Roads in the Northwest ¼ of Section 33, the Council does hereby concur in the recommendation made by the City Planning Commission and Petition 2022-01-02-01 is hereby approved and granted, subject to the following conditions:

1. That the Site Plan identified as 2 of 3, dated January 26, 2022, as revised, prepared by Mannik Smith Group, is hereby approved and shall be adhered to;
2. That the number of vehicles to be stored and displayed on this site shall be limited to a total of forty (40) vehicles, and unless waived by a two-thirds majority of City Council, no vehicles for sale shall be displayed closer than twenty feet (20') from the front lot line;
3. That the parking lot shall be repaired, resealed, and restriped as necessary to the satisfaction of the Inspection Department. Parking spaces shall be doubled striped at ten feet (10') wide by twenty feet (20') in length;

4. That unless approved by the proper local authority, any type of exterior advertising, such as promotional flags, streamers or sponsor vehicles designed to attract the attention of passing motorists, shall be prohibited;
5. That the display of any vehicles on car lifts is strictly prohibited;
6. That the Landscape Plan identified as 3 of 3, dated January 26, 2022, as revised, prepared by Mannik Smith Group, is hereby approved and shall be adhered to;
7. That all disturbed lawn areas, including road rights-of-way, shall be sodded in lieu of hydroseeding;
8. That the Petitioner shall work with the Planning Department and the Plymouth Road Development Authority (PRDA) on plans to install additional landscaping and other streetscape improvements (i.e., brick piers and ornamental fencing) along Plymouth Road;
9. That all light fixtures shall not exceed twenty feet (20') in height and shall be aimed and shielded so as to minimize stray light trespassing across property lines and glaring into adjacent roadways; and
10. Pursuant to Section 13.13 of the Livonia Vision 21 Zoning Ordinance, this approval is valid for a period of one year only from the date of approval by City Council, and unless a building permit is obtained, this approval shall be null and void at the expiration of said period.

On a motion by McIntyre, seconded by Vice President Toy, and unanimously adopted, it was:

#111-22 RESOLVED, that having considered a communication from the City Planning Commission, dated February 24, 2022, approved for submission by the Mayor, which transmits its resolution #02-14-2022, adopted on February 22, 2022, with regard to Petition 2022-01-02-01, submitted by LAG Development, requesting waiver use approval to demolish the existing commercial building and use the property for the storage and display of vehicles in connection with an automobile dealership (Lafontaine Hyundai of Livonia) at 34801 Plymouth Road, located on the south side of Plymouth Road between Stark and Wayne Roads in the Northwest ¼ of Section 33, the Council does hereby waive the twenty foot (20') separation requirement of forty (40) vehicles to be stored and displayed from the front lot line as set forth in Section 6.05(3) of the Livonia Vision 21 Zoning Ordinance.

An email communication received from Ray and Karen DePerro, 29361 Elmira Street, dated March 21, 2022, re: objecting to the proposed rezoning of properties located at 29707 & 30273 Plymouth Road, was received and placed on file for the information of the Council. (Petition 2020-08-01-06)

An email communication received from Stephen E. Duczynski, II, Vice President of Development and Construction of Schostak Brothers & Company, Inc., dated March 18, 2022, regarding 22.3.18 Wonderland Flats Revised Presentation, was received and placed on file for the information of the Council. (Petition 2020-08-01-06)

On a motion by McIntyre, seconded by Bahr, it was:

#112-22 RESOLVED, that having considered a communication from the City Planning Commission, dated March 3, 2022, which transmits its resolution 10-53-2021, adopted on October 19, 2021, with regard to Petition 2020-08-01-06 submitted by Middlebelt Plymouth Venture L.L.C., to rezone parts of the properties at 29707 & 30273 Plymouth Road, located on the south side of Plymouth Road between Middlebelt Road and Milburn Avenue in the Northeast ¼ of Section 35, from C-2 (General Business) to NM2 (Neighborhood Multifamily), and the Council having conducted a public hearing with regard to this matter on Monday, March 7, 2022, the Council does hereby reject the recommendation made by the Planning Commission and Petition 2020-08-01-06 is hereby approved for preparation of the Ordinance for submission to Council; and the City Planner is hereby instructed to cause the necessary map for publication to be prepared indicating the zoning change herein approved and to furnish the same to the Department of Law and, upon receipt of such map, the Department of Law is requested to prepare an ordinance amending Livonia Vision 21 Zoning Ordinance, as amended, in accordance with this resolution.

The following individuals spoke in opposition to the proposed rezoning of properties located at 29707 & 30273 Plymouth Road (Petition 2020-08-01-06):

Peter Sabbadin, 9971 Oporto, Livonia
Bill Schmidt, 29688 McIntyre, Livonia
Merlin Smith, 30039 Richland, Livonia
Victoria Kowaleski, 29960 Orangelawn, Livonia
Daniel Kelewsky, 28500 Cleveland, Livonia
Char Lupu, 29864 Orangelawn, Livonia

Jeffrey Schostak, Schostak Brothers & Company, Inc., 17800 Laurel Park Drive, Livonia, was present to answer any questions of Council. (Petition 2020-08-01-06)

A roll call vote was taken on the foregoing resolution with the following result:

AYES: Bahr, Donovic, McIntyre and Jolly

NAYS: Toy, Morgan, McCullough

The President declared the resolution adopted.

Councilmember McIntyre thanked the Senior Center for an outstanding drive-thru luncheon provided on St. Patrick's Day. She indicated the event was a huge success and thanked all who participated and made it so amazing.

During Audience Communication, Ishmail Terry introduced himself as candidate for State Representative. Mr. Terry indicated due to recent state redistricting, he is honored to be a candidate to represent part of Livonia and highlighted his longstanding political career and background. Mr. Terry stated he will be a strong representative of the community and concluded by introducing his wife, Bridget Terry, who was present to support him.

On a motion by Councilmember McIntyre, seconded by Vice President Toy, and unanimously adopted, this 1,941st Regular Meeting of the Council of the City of Livonia was adjourned at 8:32 p.m.

Susan M. Nash, City Clerk

EXHIBIT 6

PLANNING COMMISSION

IAN WILSHAW, Chairman
GLEN W. LONG, JR., Vice Chairman
SAM CARAMAGNO, Secretary
DAVID BONGERO
ELIZABETH McCUE
CAROL A. SMILEY
PETER H. VENTURA



33000 CIVIC CENTER DRIVE
LIVONIA, MICHIGAN 48154-3097
(734) 466-2290 Fax (734) 466-2108

MAUREEN MILLER BROSNAN
MAYOR

MARK TAORMINA
PLANNING & ECONOMIC
DEVELOPMENT DIRECTOR

JACOB UHAZIE
PLANNING & ECONOMIC DEVELOPMENT
COORDINATOR

SCOTT O. MILLER
PLANNER IV

June 8, 2022

Middlebelt Plymouth Venture, L.L.C.
Stephen Duczynski
17800 North Laurel Park Drive, Ste. 200C
Livonia, MI 48152

Re: Petition 2022-04-08-02 – Wonderland Flats

Dear Mr. Duczynski:

At the 1,188th Public Hearing and Regular Meeting held by the City Planning Commission on June 7, 2022, in the Livonia City Hall, the following resolution was adopted:

#06-34-2022 **RESOLVED**, That City Planning Commission does hereby recommend to City Council that Petition 2022-04-08-02 submitted by Middlebelt Plymouth Venture L.L.C. requesting approval pursuant to Sections 3.08 and 6.04 of The Livonia Vision 21 Zoning Ordinance, as amended, to construct an apartment complex (Wonderland Flats), consisting of two (2) buildings and 201 units, on the properties at 29707 & 30273 Plymouth Road, located on the south side of Plymouth Road between Middlebelt Road and Milburn Avenue in the Northeast ¼ of Section 35, be denied, for the following reasons

1. That the petitioner has failed to affirmatively show that the proposed use is in compliance with all of the special and general waiver use standards and requirements as set forth in Sections 3.08, 6.04 and 13.13 of the Livonia Vision 21 Zoning Ordinance.
2. That too many issues remain unresolved, including increase traffic concerns, building architecture, signage, site layout, compatibility with the surrounding retail uses and the close proximity to the adjacent residential neighborhood.

To: Mr. Stephen Duczynski
Re: 2022-04-08-02 – Wonderland Flats

June 7, 2022

3. That the site lacks the capacity to handle the intensity associated with a 201-unit apartment complex and would therefore be detrimental to and not in harmony with the character of the surrounding commercial center and adjacent neighborhood.
4. That the apartment complex would create significant adverse impacts on adjoining parcels, public services, and community planning efforts.
5. That the proposal conflicts with the spirit and intent of the Zoning Ordinance to promote and encourage a balanced and appropriate mix of uses, and
6. That the petitioner has failed to comply with all the concerns deemed necessary for the safety and welfare of the City and its residents.

A roll call vote on the foregoing resolution resulted in the following:

AYES: Ventura, Smiley, McCue, Long, Wilshaw
NAYS: Caramagno, Bongero
ABSENT: None
ABSTAIN: None

Mr. Wilshaw, Chairman, declared the motion is carried and the foregoing resolution adopted.

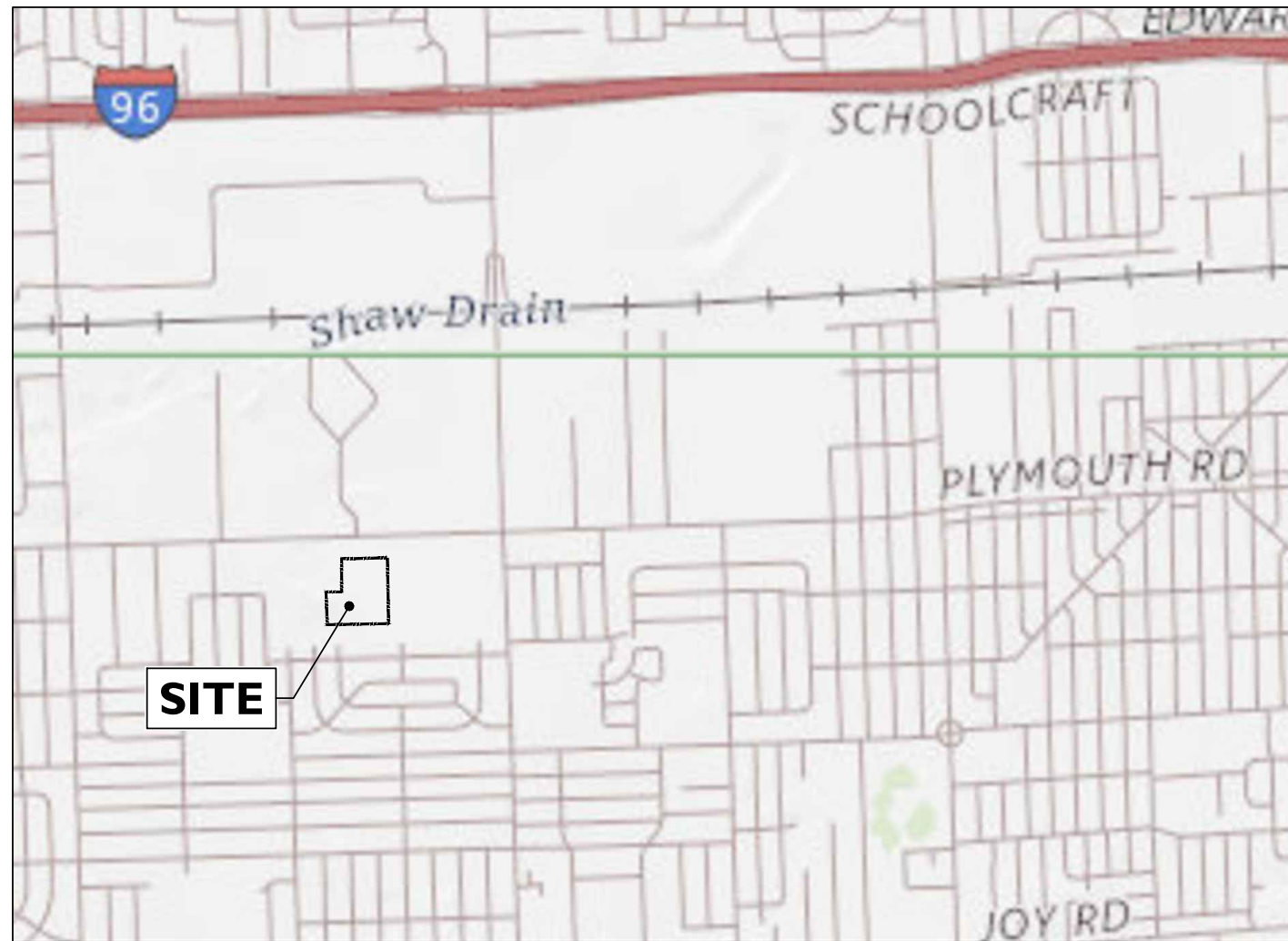
Pursuant to Section 13.13(10) of the Livonia Vision 21 Zoning Ordinance, as amended, you will have ten (10) business days to appeal the decision in writing to the Livonia City Clerk. The fee for an appeal is \$400.00.

Very truly yours,

CITY PLANNING COMMISSION


Sam Caramagno, Secretary

EXHIBIT 7



SOURCE: USGS MAPS

LOCATION MAP

SCALE: 1" = 2000'±



SOURCE: GOOGLE EARTH PRO

AERIAL MAP

SCALE: 1" = 300'±

SITE DEVELOPMENT PLANS FOR **Schostak** BROTHERS & COMPANY WONDERLAND FLATS PROPOSED RESIDENTIAL DEVELOPMENT

PARCEL IDS: 137-99-0008-010 & 137-99-0004-002

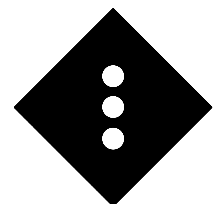
CITY OF LIVONIA, WAYNE COUNTY, MICHIGAN

APPLICANT / OWNER

STEPHEN E. DUCZYNSKI II
MIDDLEBELT PLYMOUTH VENTURE LLC
17800 NORTH LAUREL PARK DRIVE
#200C
LIVONIA, MICHIGAN

NOT APPROVED FOR CONSTRUCTION

STONEFIELD
engineering & design



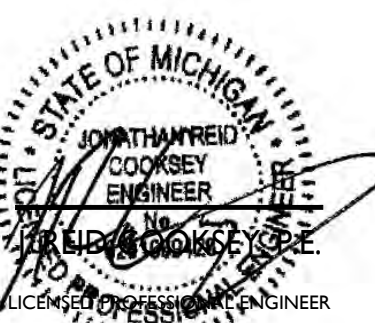
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607 Shelby Suite 200, Detroit, MI 48226
Phone 248.247.1115

SITE DEVELOPMENT PLANS

Schostak
BROTHERS & COMPANY
WONDERLAND FLATS
PROPOSED RESIDENTIAL DEVELOPMENT

PARCEL IDS: 137-99-0008-010 & 137-99-0004-002
CITY OF LIVONIA
WAYNE COUNTY, MICHIGAN



STONEFIELD
engineering & design

SCALE: AS SHOWN PROJECT ID: M-19052.01

TITLE:

COVER SHEET

DRAWING:

C-1

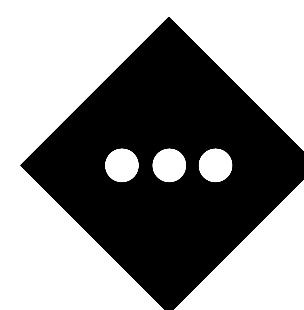
PLAN REFERENCE MATERIALS:

- THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
 - ALTA/NSPS LAND TITLE SURVEY PREPARED BY HUBBELL, ROTH & CLARK, INC., DATED: APRIL 2022
 - GEOTECHNICAL REPORT PREPARED BY SME, DATED: 06/28/2019
 - AERIAL MAP OBTAINED FROM GOOGLE EARTH PRO
 - LOCATION MAP OBTAINED FROM USGS MAPS
- ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.



Know what's below
Call before you dig.

PLANS PREPARED BY:



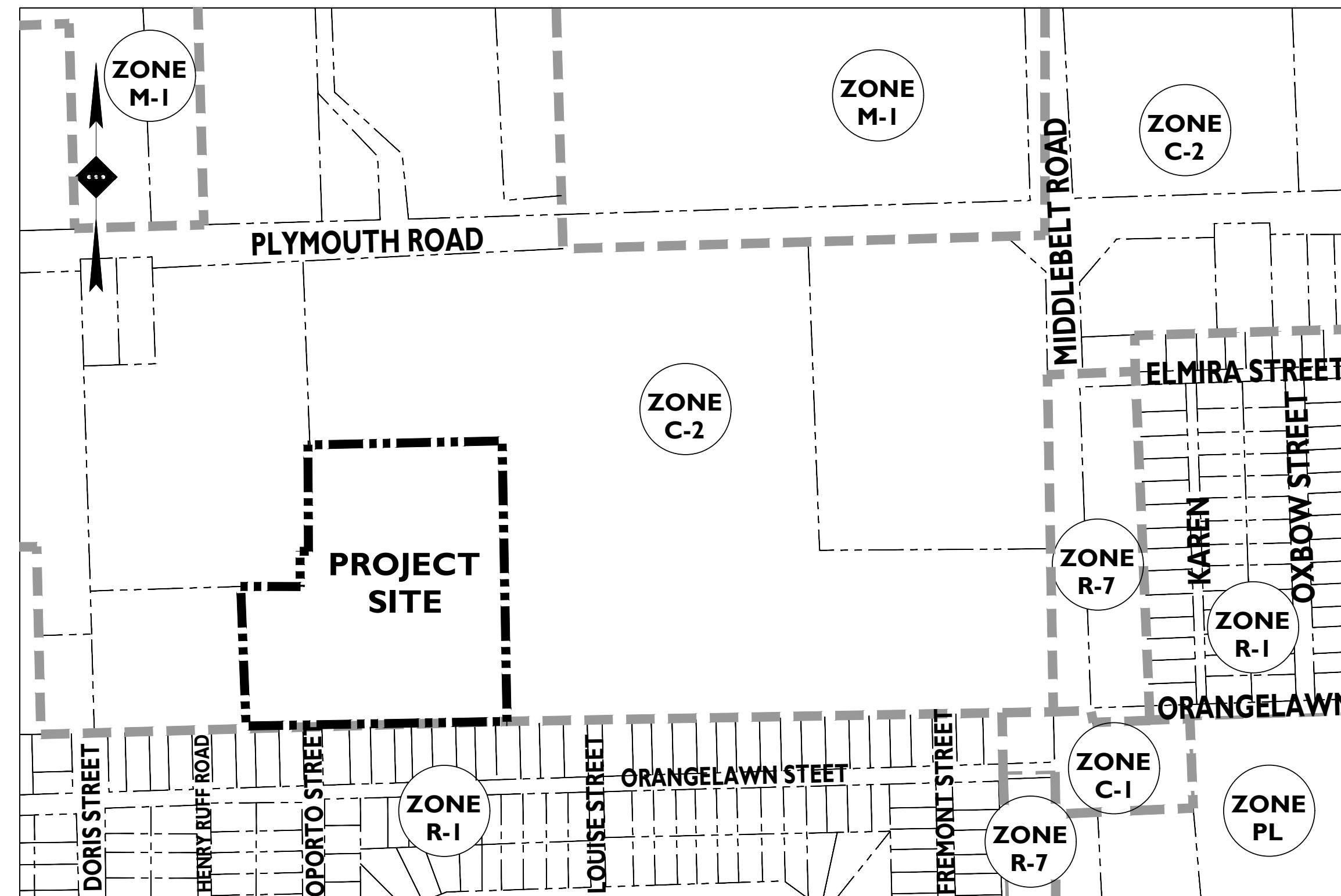
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607 Shelby Suite 200, Detroit, MI 48226

Phone 248.247.1115



SOURCE: WAYNE COUNTY PARCEL VIEWER & CITY OF LIVONIA ZONING MAP

TAX & ZONING MAP

SCALE: 1" = 300'±

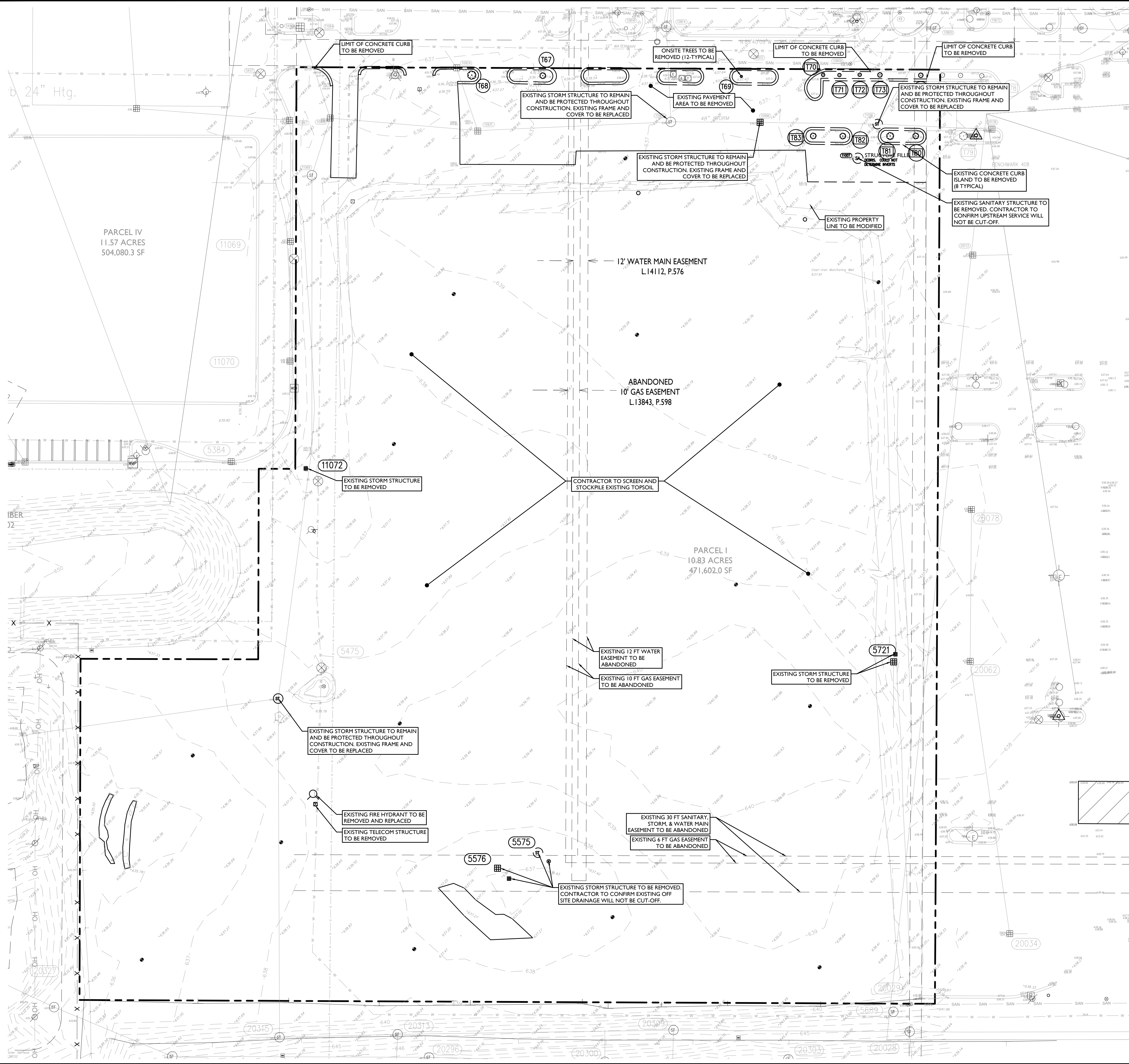
CIVIL SHEET INDEX

DRAWING TITLE	SHEET #
COVER SHEET	C-1
DEMOLITION PLAN	C-2
SITE PLAN (OVERALL)	C-3
SITE PLAN	C-4
GRADING PLAN	C-5
STORMWATER MANAGEMENT PLAN	C-6
UTILITY PLAN	C-7
LIGHTING PLAN	C-8
LANDSCAPING PLAN	C-9 & C-10
LANDSCAPING DETAILS	C-11
CONSTRUCTION DETAILS	C-12 TO C-13
TRUCK EXHIBITS	EX-1 thru EX-3
ALTA/NSPS LAND TITLE SURVEY	I & 2 OF 2

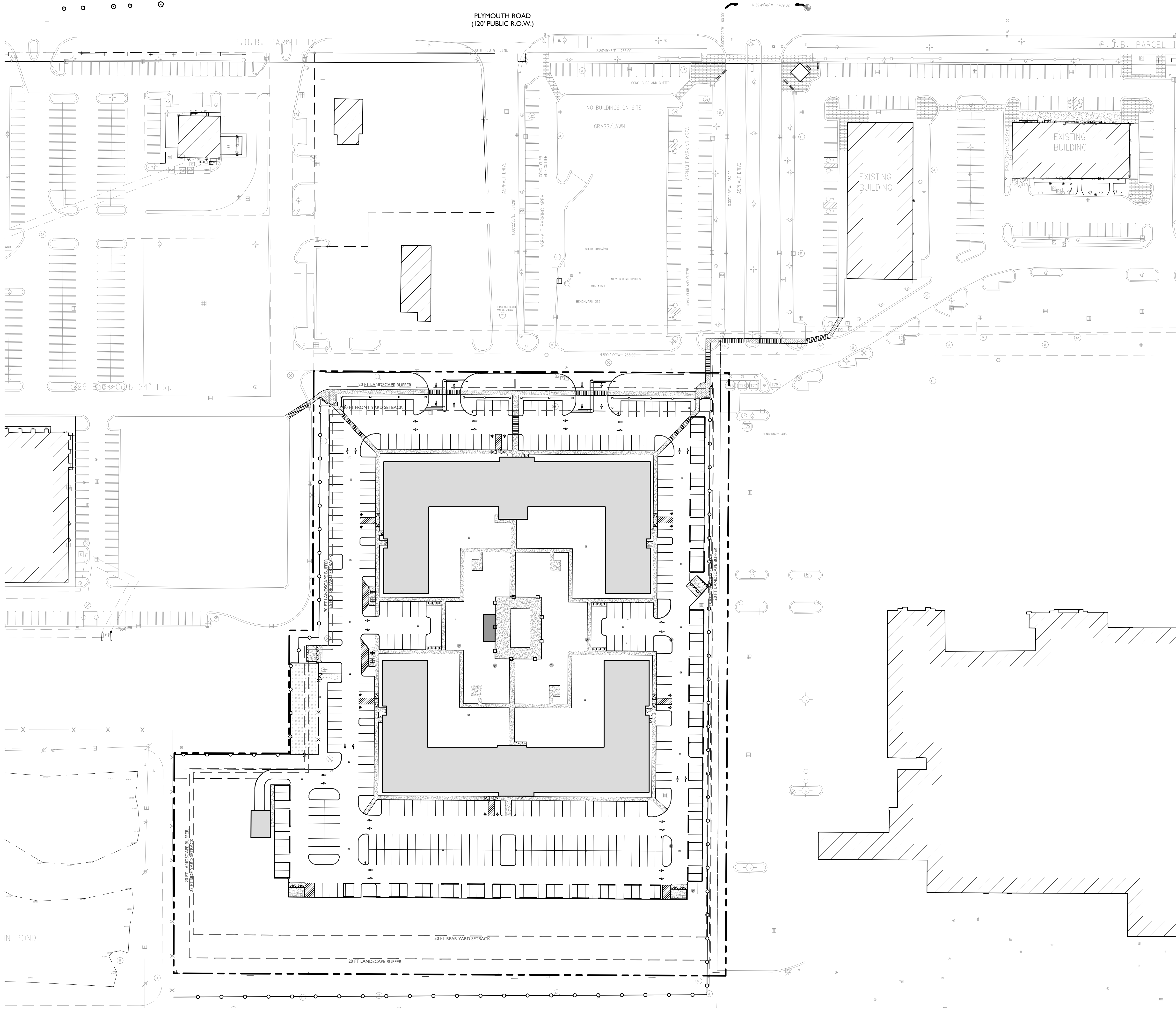
ARCHITECT SHEET INDEX

DRAWING TITLE	SHEET #
BUILDING A FIRST FLOOR	A101-A
BUILDING B FIRST FLOOR	A101-B
BUILDING A SECOND FLOOR	A102-A
BUILDING B SECOND FLOOR	A102-B
BUILDING A THIRD FLOOR	A103-A
BUILDING B THIRD FLOOR	A103-B
BUILDING A ROOF PLAN	A104-A
BUILDING B ROOF PLAN	A104-B
TYPICAL UNITS	A105
BUILDING A ELEVATIONS	A201-A
BUILDING B ELEVATIONS	A201-B
ACCESSORY BUILDINGS	A111
LOBBY DETAIL	A401

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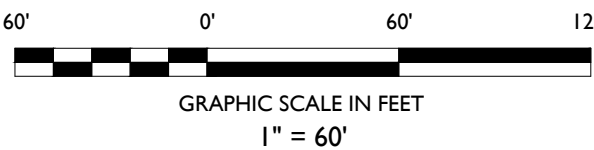
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SYMBOL	DESCRIPTION
	PROPERTY LINE
	PHASE LINE
	PROPOSED CURB AND GUTTER
	PROPOSED FLUSH CURB
	PROPOSED SIGNS / BOLLARDS
	PROPOSED CARPORT SPACES
	PROPOSED BUILDING
	PROPOSED CONCRETE
	PROPOSED FENCE
	PROPOSED STORM STRUCTURES

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
3. ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC, AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
4. THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
5. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
6. THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
7. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTOR'S EXPENSE.
8. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC, WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
9. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
10. THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
11. THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
12. SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC, BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.



SITE DEVELOPMENT PLANS



PARCEL IDS: 137-99-0008-010 & 137-99-0004-002
CITY OF LIVONIA
WAYNE COUNTY, MICHIGAN



SCALE: 1" = 60' PROJECT ID: M-19052.01

TITLE: SITE PLAN (OVERALL)

DRAWING: C-3

NOT APPROVED FOR CONSTRUCTION



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www.stonefielddesign.com

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Phone 248.247.1115

ISSUE	DATE	BY	DESCRIPTION
1	04/27/2023	MPH	CITY SITE PLAN REVIEW

V:\P\19052\19052 SCHOSTAK BROTHERS & COMPANY\19052\19052-002.DWG

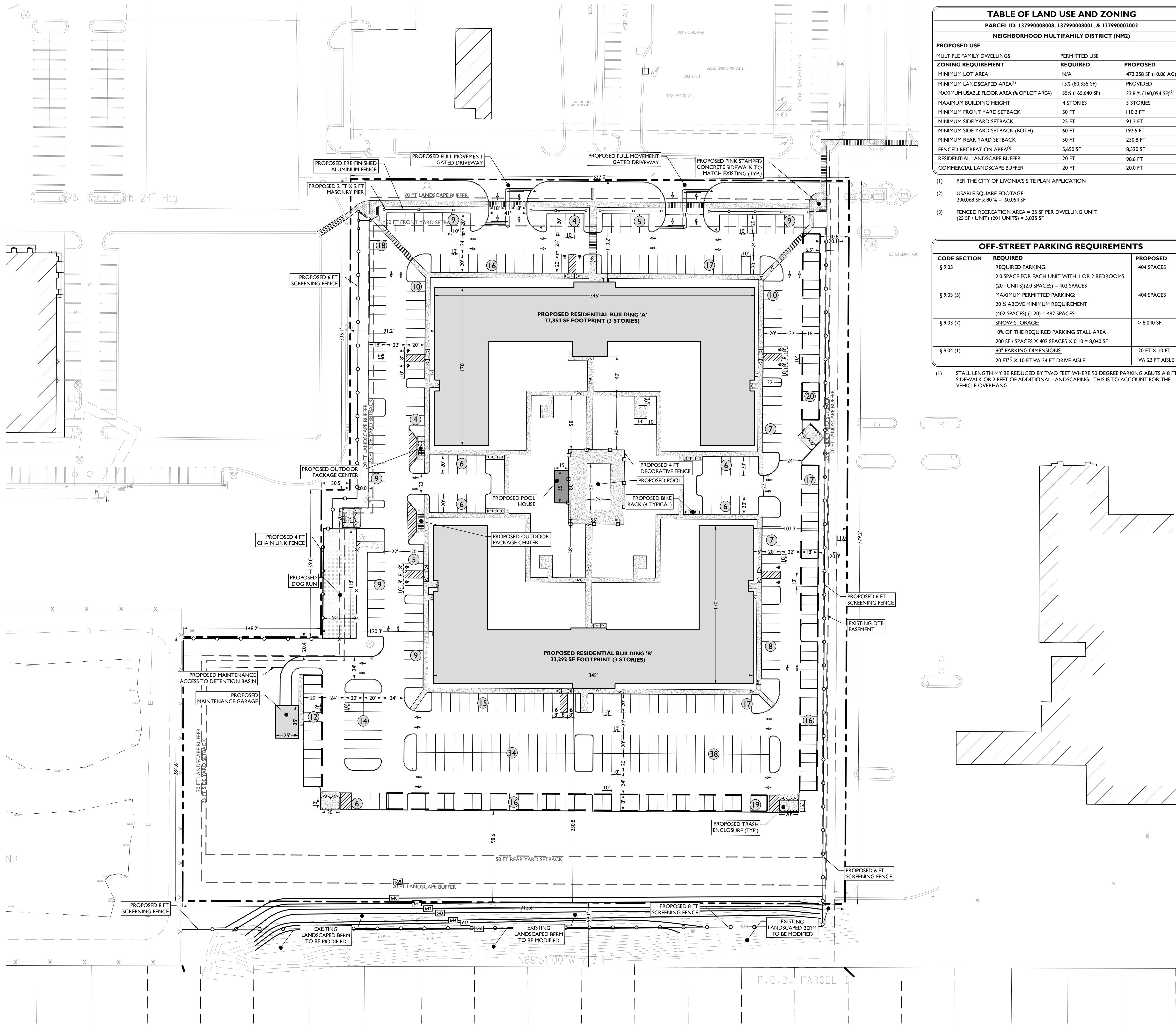


TABLE OF LAND USE AND ZONING

PARCEL ID: 137990000008, 137990000001, & 1379900003002

NEIGHBORHOOD MULTIFAMILY DISTRICT (NM2)

PROPOSED USE

MULTIPLE FAMILY DWELLINGS

ZONING REQUIREMENT

MINIMUM LOT AREA

MINIMUM LANDSCAPED AREA⁽¹⁾

MAXIMUM USABLE FLOOR AREA (% OF LOT AREA)

MAXIMUM BUILDING HEIGHT

MINIMUM FRONT YARD SETBACK

MINIMUM SIDE YARD SETBACK

MINIMUM SIDE YARD SETBACK (BOTH)

MINIMUM REAR YARD SETBACK

FENCED RECREATION AREA⁽¹⁾

RESIDENTIAL LANDSCAPE BUFFER

COMMERCIAL LANDSCAPE BUFFER

PERMITTED USE

REQUIRED

PROPOSED

N/A

15% (80,355 SF)

35% (165,640 SF)

4 STORIES

50 FT

25 FT

60 FT

50 FT

20 FT

20 FT

473,258 SF (10.86 AC)

PROVIDED

33.8 % (160,054 SF)⁽²⁾

1102 FT

91.2 FT

192.5 FT

230.8 FT

8,530 SF

98.6 FT

20.0 FT

(1) PER THE CITY OF LIVONIA'S SITE PLAN APPLICATION

(2) USABLE SQUARE FOOTAGE

200,068 SF x 80 % = 160,054 SF

(3) FENCED RECREATION AREA = 25 SF PER DWELLING UNIT

(25 SF / UNIT) (201 UNITS) = 5,025 SF

OFF-STREET PARKING REQUIREMENTS

CODE SECTION

§ 9.05

§ 9.03 (5)

§ 9.03 (7)

§ 9.04 (1)

REQUIRED PARKING:

2.0 SPACE FOR EACH UNIT WITH 1 OR 2 BEDROOMS

(201 UNITS)(2.0 SPACES) = 402 SPACES

MAXIMUM PERMITTED PARKING:

20 % ABOVE MINIMUM REQUIREMENT

(402 SPACES) (1.20) = 482 SPACES

SNOW STORAGE:

10% OF THE REQUIRED PARKING STALL AREA

200 SF / SPACES X 402 SPACES X 0.10 = 8,040 SF

90° PARKING DIMENSIONS:

20 FT⁽¹⁾ X 10 FT VW 24 FT DRIVE AISLE

404 SPACES

404 SPACES

> 8,040 SF

20 FT X 10 FT

VW 22 FT AISLE

(1) STALL LENGTH MAY BE REDUCED BY TWO FEET WHERE 90-DEGREE PARKING ABUTS A 8 FT SIDEWALK OR 2 FEET OF ADDITIONAL LANDSCAPING. THIS IS TO ACCOUNT FOR THE VEHICLE OVERHANG.

SYMBOL

PROPERTY LINE

SETBACK LINE

PROPOSED CURB AND GUTTER

PROPOSED FLUSH CURB

PROPOSED SIGNS / BOLLARDS

PROPOSED CARPORT SPACES

PROPOSED BUILDING

PROPOSED CONCRETE

PROPOSED PINK STAMPED CONCRETE SIDEWALK

DESCRIPTION

PROPERTY LINE

SETBACK LINE

PROPOSED CURB AND GUTTER

PROPOSED FLUSH CURB

PROPOSED SIGNS / BOLLARDS

PROPOSED CARPORT SPACES

PROPOSED BUILDING

PROPOSED CONCRETE

PROPOSED PINK STAMPED CONCRETE SIDEWALK

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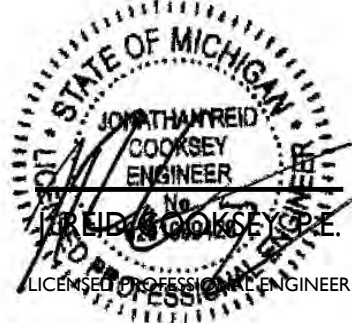
SITE DEVELOPMENT PLANS

Schostak
BROTHERS & COMPANY

WONDERLAND FLATS
PROPOSED RESIDENTIAL DEVELOPMENT

PARCEL IDS: 13799-0008-010 & 13799-0004-002

CITY OF LIVONIA
WAYNE COUNTY, MICHIGAN



STONEFIELD
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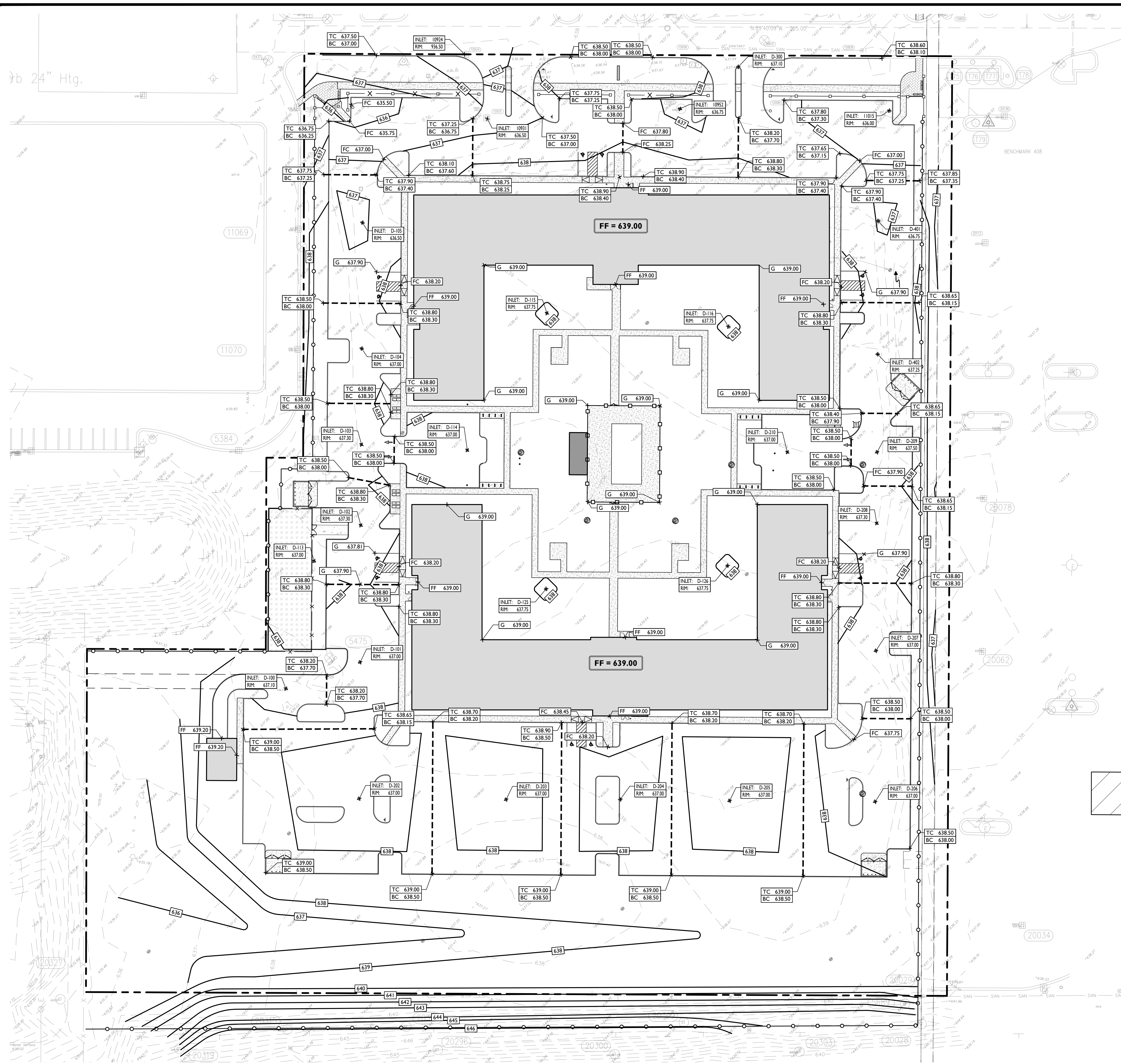
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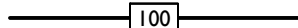
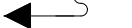
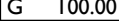
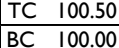
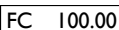
TITLE:

SITE PLAN

DRAWING:

C-4



<u>SYMBOL</u>	<u>DESCRIPTION</u>
	PROPERTY LINE
	PROPOSED GRADING CONTOUR
	PROPOSED GRADING RIDGELINE
	PROPOSED DIRECTION OF DRAINAGE FLOW
	PROPOSED GRADE SPOT SHOT
	PROPOSED TOP OF CURB / BOTTOM OF CURB SPOT SHOT
	PROPOSED FLUSH CURB SPOT SHOT

GRADING NOTES

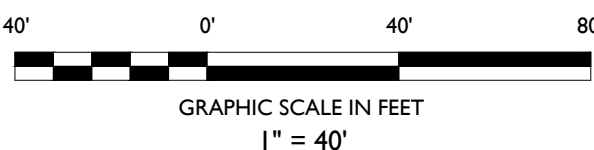
- ALL SOIL AND MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS. ANY REMOVAL OF SOIL OR MATERIAL SHALL BE UNDER THE CLOSE SUPERVISION OF A QUALIFIED PROFESSIONAL. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE DISCHARGE OF DE-WATERED SOILS AND MATERIALS TO THE SITE. THE CONTRACTOR SHALL MAINTAIN RECORDS OF ALL FILL MATERIALS BROUGHT TO THE SITE.
- THE CONTRACTOR IS REQUIRED TO PROVIDE TEMPORARY AND/OR PERMANENT SHORING WHERE REQUIRED DURING EXCAVATION ACTIVITIES, INCLUDING BUT NOT LIMITED TO UTILITY TRENCHES, TO ENSURE THE STRUCTURAL INTEGRITY OF NEARBY EXISTING STRUCTURES.
- PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 4 INCHES TO 7 INCHES ABOVE EXISTING GRADES UNLESS OTHERWISE NOTED. THE CONTRACTOR WILL SUPPLY ALL MATERIALS AND LABOR REQUIRED TO CONSTRUCT THE CURB. SEE ENGINEERING & DESIGN, LLC. FOR REVIEW AND APPROVAL PRIOR TO POURING CURBS.
- THE CONTRACTOR IS RESPONSIBLE TO SET ALL PROPOSED UTILITY COVERS AND RESET ALL EXISTING UTILITY COVERS WITHIN THE PROJECT LIMITS TO PROPOSED GRADE IN ACCORDANCE WITH ALL APPLICABLE MUNICIPAL, COUNTY, STATE AND/OR UTILITY AUTHORITY REGULATIONS.
- MINIMUM SOLE REQUIREMENTS TO PREVENT PONDING SHALL BE AS FOLLOWS:
- CONCRETE SURFACES: 1.00%
 - ASPHALT SURFACES: 1.00%
 - GRAVEL SURFACES: 1.00%
- THE CONTRACTOR SHALL ENSURE PROPER DRAINAGE FROM ALL BUILDINGS. THE CONTRACTOR SHALL ENSURE SUFFICIENT BE PROVIDED FROM THE BUILDING IS ACHIEVED, AND SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IF THIS CONDITION IS NOT MET.
- FOR PROJECTS WHERE BASEMENTS ARE PROPOSED, THE DEVELOPER IS RESPONSIBLE TO DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED BASEMENT. GRADING SHALL BE SUFFICIENT TO PREVENT WATER FROM ENTERING THE BASEMENT. SPECIAL CONSTRUCTION METHODS SHALL BE UTILIZED AND REVIEWED/APPROVED BY THE CONSTRUCTION CODE OFFICIAL IF PUMP PUMPS ARE UTILIZED. ALL DISCHARGES TO THE SEWERAGE AND WASTEWATER TREATMENT PLANT SYSTEM WITHIN THE CITY OF ST. LOUIS SHALL BE APPROVED BY THE GOVERNING STORM SEWER SYSTEM AUTHORITY.

ADA NOTES

- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE ON ANY DIRECTION WITHIN THE ADA PARKING SPACES AND ACCESS AISLES.
- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE AT ALL ADA PARKING AREAS IN ACCORDANCE WITH STATE GUIDELINES.
- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 5.00% RUNNING SLOPE AND A MAXIMUM 10.00% CROSS SLOPE ON ANY CURB RAMPS WITHIN THE ACCESSIBLE PATH OF TRAVEL (SEE THE SITE PLAN FOR THE LOCATION OF THE ACCESSIBLE PATH). THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE ACCESSIBLE PATH OF TRAVEL IS 36 INCHES WIDE OR GREATER UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- ALL LANDINGS, LANDINGS INCLUDE, BUT ARE NOT LIMITED TO, THE TOP AND BOTTOM OF AN ACCESSIBLE RAMP, AT ACCESSIBLE BUILDING ENTRANCES, AT AN AREAS OF CONCERN, AND AT ANY OTHER AREAS WHERE A CHANGE IN ELEVATION OCCURS OF TRAVEL. THE LANDING AREA SHALL HAVE A MINIMUM CLEAR AREA OF 60 INCHES BY 60 INCHES UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 1.33% RUNNING SLOPE AND A MAXIMUM 2.00% CROSS SLOPE ON ANY CURB RAMPS ALONG THE ACCESSIBLE PATH OF TRAVEL. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT HAVE A SLOPE GREATER THAN 10.00% IF A LANDING AREA IS PROVIDED AT THE TOP OF THE RAMP, FOR CURB RAMPS WHERE A LANDING AREA IS NOT PROVIDED AT THE TOP OF THE RAMP, CURB RAMPS SHALL NOT RISE MORE THAN 6 INCHES IN ELEVATION WITHOUT A HANDRAIL. THE CLEARANCE OF CURB RAMPS SHALL BE 8 INCHES.
- ACCESSIBLE RAMPS WITH A RISE GREATER THAN 6 INCHES SHALL CONTAIN COMPLIANT HANDRAILS ON BOTH SIDES OF THE RAMP AND SHALL NOT RISE MORE THAN 30" IN ANY ONE LANDING AREA. HANDRAILS SHALL BE PROVIDED AT THE TOP AND BOTTOM OF THE RAMP.
- A SLIP RESISTANT SURFACE SHALL BE CONSTRUCTED ALONG THE ACCESSIBLE PATH AND WITHIN ADA PARKING AREAS.
- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM OF 1/4 INCH VERTICAL CHANGE IN LEVEL ALONG THE ACCESSIBLE PATH, WHERE A CHANGE IN LEVEL BETWEEN 1/4 INCHES AND 1/2 INCHES EXISTS, THE CONTRACTOR SHALL ENSURE THAT THE TOP 1/4 INCH CHANGE IS NOT USED TO EXCEED A 2.00% SLOPE NOT STEEPER THAN 1/2" VERTICAL & 2" HORIZONTAL (2:1 SLOPE).
- THE CONTRACTOR SHALL ENSURE THAT ANY OPENINGS (GAPS OR HORIZONTAL CHANGES) IN THE ACCESSIBLE PATH SHALL NOT LIMIT THE PASSAGE OF A SPHERE OF 36 INCHES DIAMETER.
- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 5.00% SLOPE ON ANY CURB RAMPS GREATER THAN 1/2 INCH.

EARTHWORK NOTES

1. THE CONTRACTOR IS RESPONSIBLE TO SCREEN AND REUTILIZE 3 INCHES OF EXISTING TOPSOIL WITHIN PROPOSED LANDSCAPED AREAS.
2. ALL SITE SPOILS TO BE BERMED AT THE REAR OF THE SITE. THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN IN WRITING IF THE SPOILS EXCEED THE PROPOSED BERM SIZE.

[illegible]

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SITE DEVELOPMENT PLANS



Schostak
BROTHERS & COMPANY

WONDERLAND FLATS PROPOSED RESIDENTIAL DEVELOPMENT

PARCEL IDS: 137-99-0008-010 & 137-99-0004-002
CITY OF LIVONIA
WAYNE COUNTY, MICHIGAN



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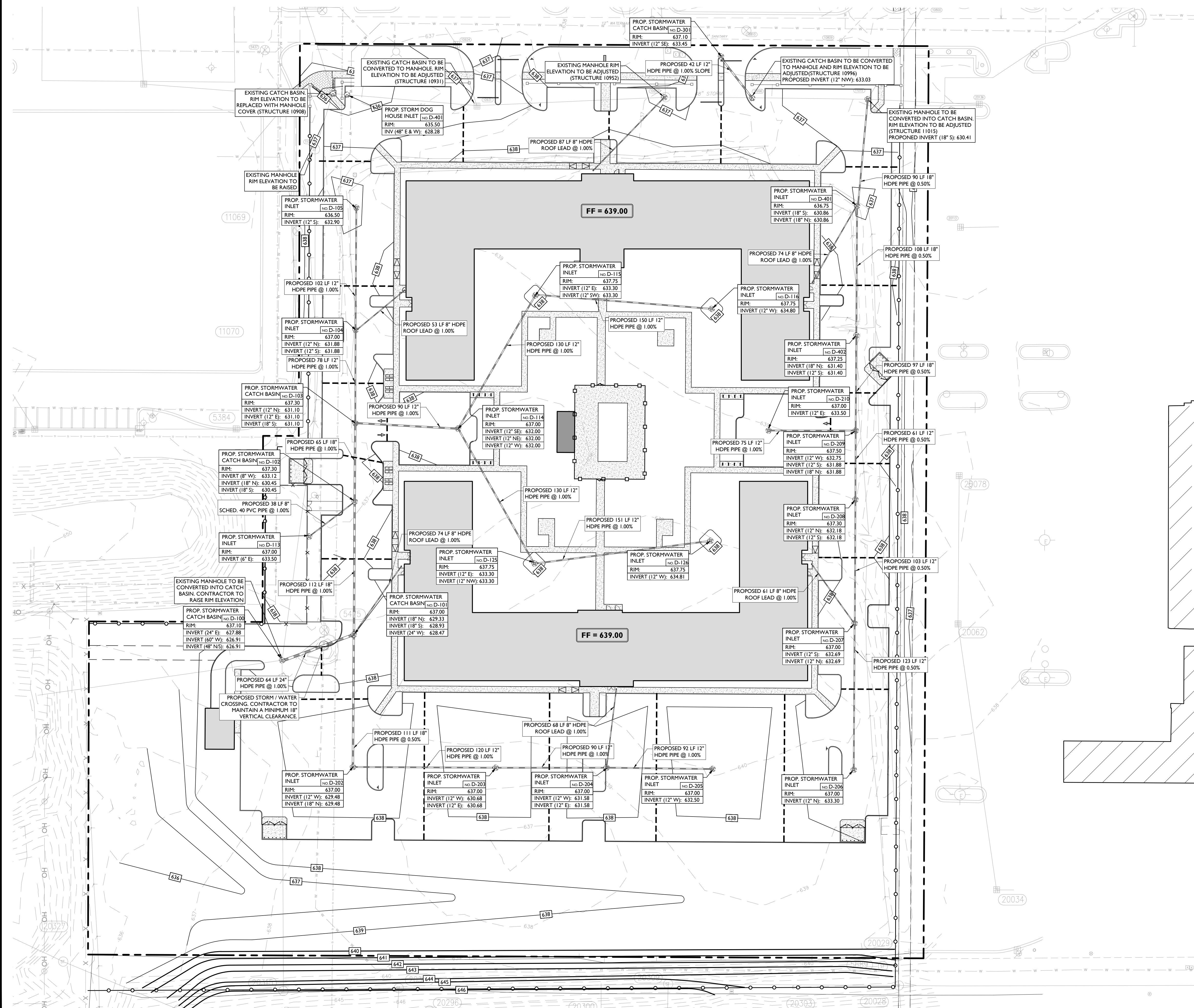
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TITLE

GRADING PLAN

DRAWING

C-5



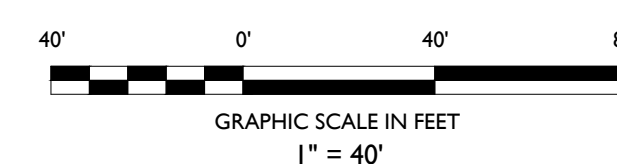
SYMBOL	DESCRIPTION
	PROPERTY LINE
	PROPOSED GRADING CONTOUR
	PROPOSED GRADING RIDGELINE
	PROPOSED STORMWATER STRUCTURES
	PROPOSED STORMWATER PIPING

DRAINAGE AND UTILITY NOTES

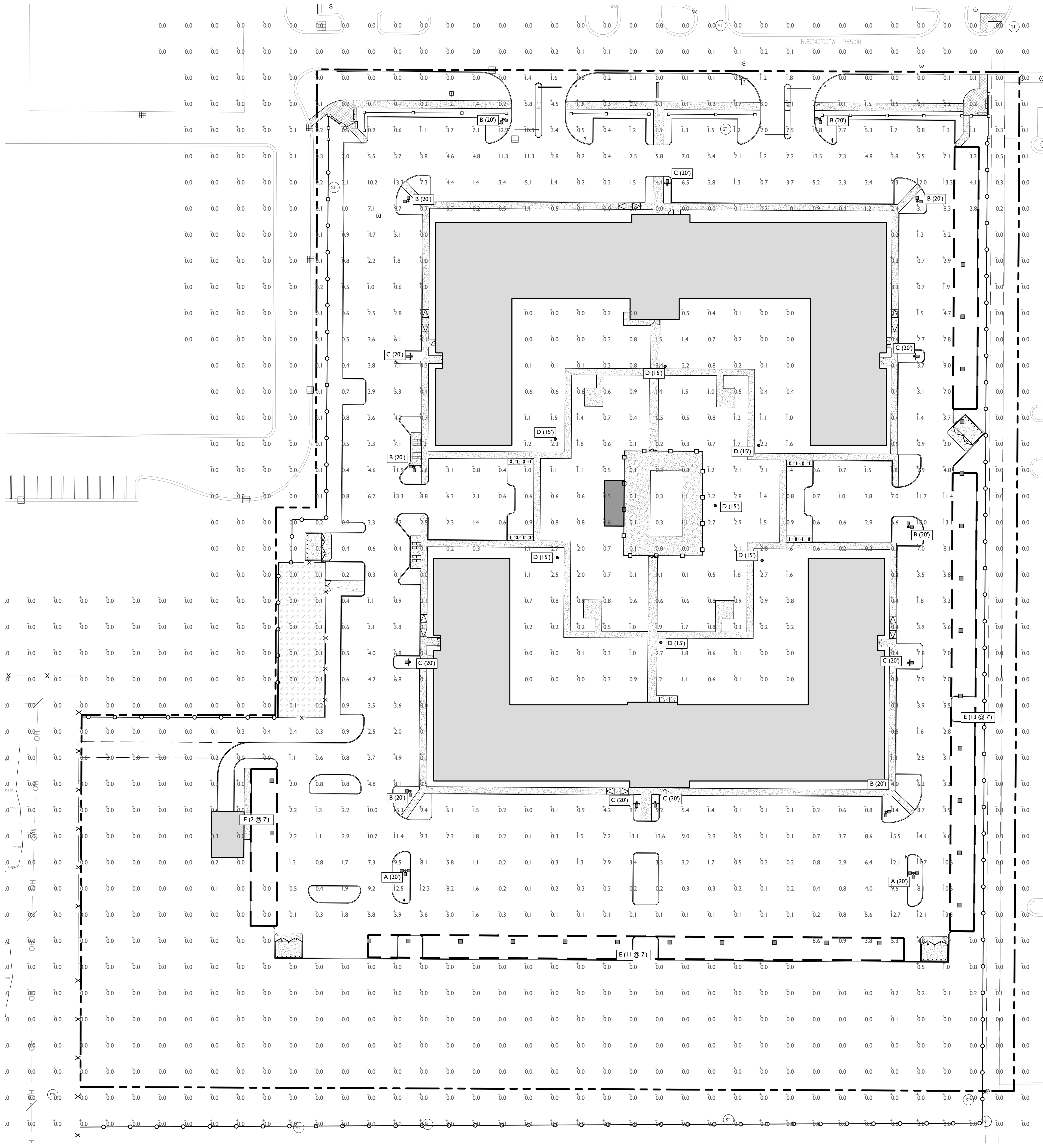
1. THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR STORMWATER IMPROVEMENTS. IN THE EVENT OF A CONFLICT BETWEEN THE TEST PIT RESULTS AND NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
2. CONTRACTOR SHALL START CONSTRUCTION OF STORM LINES AT THE LOWEST INVERT AND WORK UP GRADIENT.
3. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN THE FIELD. DISCREPANCY BETWEEN THE FIELD LOCATIONS AND THE UTILITY MARKS SHALL BE CONFIRMED THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE UTILITY MARKS, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING.
4. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE LOCATION OF ALL UTILITIES AND EXISTING UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE FIELD LOCATIONS. DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE OWNER FOLLOWING COMPLETION OF WORK.

EXCAVATION, SOIL PREPARATION, AND DEWATERING NOTES

1. THE CONTRACTOR IS REQUIRED TO REVIEW THE REFERENCED GEOTECHNICAL DOCUMENTS PRIOR TO CONSTRUCTION, THESE DOCUMENTS SHALL BE CONSIDERED A PART OF THE PLAN SET.
2. THE CONTRACTOR IS REQUIRED TO PREPARE SUBGRADE SOILS AND ALL PROPOSED EXCAVATIONS AND ALL EXCAVATIONS IN ACCORDANCE WITH RECOMMENDATIONS BY THE GEOTECHNICAL ENGINEER OF RECORD.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SHORING FOR ALL EXCAVATIONS. THE CONTRACTOR SHALL HAVE THE SHORING DESIGN PREPARED BY A QUALIFIED PROFESSIONAL, SHORING DESIGNS SHALL BE SUBMITTED TO STONEFIELD ENGINEERING & DESIGN, LLC, AND THE OWNER PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL OPEN EXCAVATIONS ARE PERFORMED AND PROTECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE OSHA REGULATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR ANY Dewatering DESIGN AND OPERATIONS, AS REQUIRED, TO CONSTRUCT THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL OBTAIN ANY REQUIRED PERMITS FOR Dewatering OPERATIONS AND GROUNDWATER DISPOSAL.

[illegible]

VP018191022 SCHOSTAK BROTHERS DEVELOPMENT ROAD AND KENYON ROAD, LIVONIA, MICHIGAN 48150-1000



GENERAL LIGHTING NOTES

- THE LIGHTING LEVELS DEPICTED WITHIN THE PLAN SET ARE CALCULATED UTILIZING DATA OBTAINED FROM THE LISTED MANUFACTURER. ACTUAL ILLUMINATION LEVELS AND PERFORMANCE OF ANY PROPOSED LIGHTING FIXTURE MAY VARY DUE TO UNCONTROLLABLE VARIABLES SUCH AS WEATHER, VOLTAGE SUPPLY, LAMP TOLERANCE, EQUIPMENT SERVICE LIFE AND OTHER VARIABLE FIELD CONDITIONS.
- WHERE APPLICABLE, THE EXISTING LIGHT LEVELS DEPICTED WITHIN THE PLAN SET SHALL BE CONSIDERED APPROXIMATE. THE EXISTING LIGHT LEVELS ARE BASED ON FIELD OBSERVATIONS AND THE MANUFACTURER'S DATA OF THE ASSUMED OR MOST SIMILAR LIGHTING FIXTURE MODEL.
- UNLESS NOTED ELSEWHERE WITHIN THIS PLAN SET, THE LIGHT LOSS FACTORS USED IN THE LIGHTING ANALYSIS ARE AS FOLLOWS:
 - LIGHT EMITTING DIODES (LED): 0.90
 - HIGH PRESSURE SODIUM: 0.72
 - METAL HALIDE: 0.72
- THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC, IN WRITING, PRIOR TO THE START OF CONSTRUCTION, OF ANY PROPOSED LIGHTING LOCATIONS THAT CONFLICT WITH EXISTING/ PROPOSED DRAINAGE, UTILITY, OR OTHER IMPROVEMENTS.
- THE CONTRACTOR IS RESPONSIBLE TO PREPARE A WIRING PLAN AND PROVIDE ELECTRIC SERVICE TO ALL PROPOSED LIGHTING FIXTURES. THE CONTRACTOR IS REQUIRED TO PREPARE AN AS-BUILT PLAN OF WIRING AND PROVIDE COPIES TO THE OWNER AND STONEFIELD ENGINEERING & DESIGN, LLC.

SYMBOL

A (XX')

+XX

DESCRIPTION

PROPOSED LIGHTING FIXTURE (MOUNTING HEIGHT)

PROPOSED LIGHTING INTENSITY (FOOTCANDLES)

PROPOSED LUMINARIES SCHEDULE

SYMBOL	LABEL	QUANTITY	LIGHTING FIXTURE	DISTRIBUTION	LLF	WATTS	MANUFACTURER	IES FILE
	A	2	MIRADA MEDIUM OUTDOOR LED AREA LIGHT - 40K	FT	0.90	247	LSI INDUSTRIES	MRM-LED-42L-SIL-FT-50-70CRI
	B	8	MIRADA MEDIUM OUTDOOR LED AREA LIGHT - 40K	FT	0.90	247	LSI INDUSTRIES	MRM-LED-30L-SIL-FT-50-70CRI
	C	7	MIRADA MEDIUM OUTDOOR LED AREA LIGHT - HSS - 40K	FT	0.90	247	LSI INDUSTRIES	MRM-LED-30L-SIL-FT-50-70CRI-HL
	D	7	MIRADA POST TOP	V	0.90	73	LSI INDUSTRIES	LDN6_50_20_LO6AR_LSS
	E	26	CPG - LED COMPACT PARKING GARAGE LIGHT - 40K	WIDE	0.90	60	LSI LIGHTING	CPG-LED-7L-CA-W-40



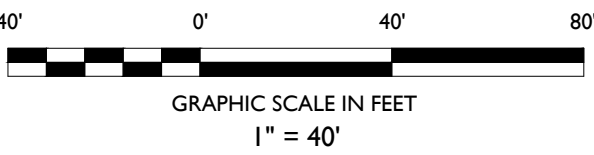
FIXTURES "A", "B", & "C"



FIXTURES "D"



FIXTURE "E"



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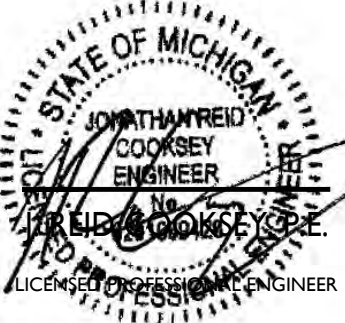
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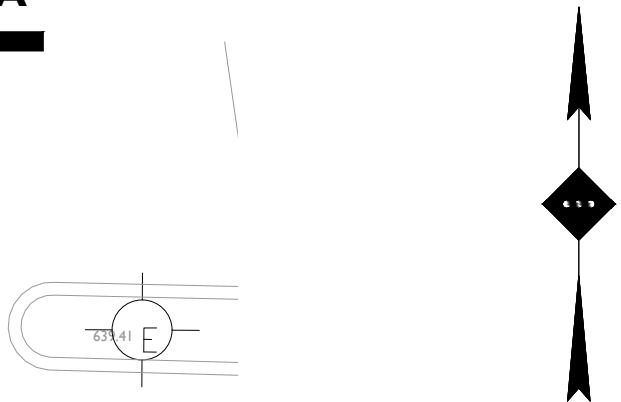
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TITLE:

LIGHTING PLAN

DRAWING:

C-8

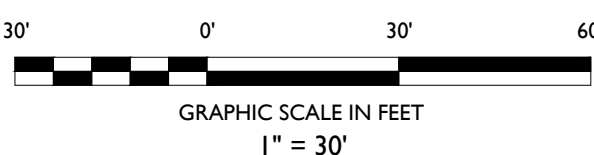


NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE.

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE.

IRRIGATION CONTRACTOR TO PROVIDE A DESIGN FOR AN IRRIGATION SYSTEM SEPARATING PLANTING BEDS FROM LAWN AREA. PRIOR TO CONSTRUCTION, DESIGN IS TO BE SUBMITTED TO THE PROJECT LANDSCAPE DESIGNER FOR REVIEW AND APPROVAL. WHERE POSSIBLE, DRIP IRRIGATION AND OTHER WATER CONSERVATION TECHNIQUES ARE TO BE USED. DESIGN TO PROVIDE IRRIGATION CONTRACTOR WITH VERIFIY MAXIMUM ON SITE DYNAMIC WATER PRESSURE AVAILABLE. MEASURED IN PSI. PRESSURE REDUCING DEVICES OR BOOSTER PUMPS SHALL BE PROVIDED TO MEET SYSTEM PRESSURE REQUIREMENTS. DESIGN TO SHOW ALL VALVES, PIPING, HEADS, BACKFLOW PREVENTION, METERS, CONTROLLERS, AND SLEEVES WITHIN HARDSCAPE AREAS.

3. THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
4. THE CONTRACTOR SHALL RESEED AND FERTILIZE LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED.
5. THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 3 INCH LAYER OF MULCH.
6. THE SLOPE SHALL BE FLOWABLE IN LANDSCAPE RESTORATION AREAS SHALL BE 3 FEET HORIZONTAL TO 1 FOOT VERTICAL (3:1 SLOPE) UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
7. THE CONTRACTOR IS REQUIRED TO LOCATE ALL SPRINKLER HEADS IN LANDSCAPED AREAS. IN ACCORDANCE WITH THE SPECIFICATIONS TO CONSTRUCTION, THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS AND LINES IN ACCORDANCE WITH OWNER'S DIRECTION WITHIN AREAS OF DISTURBANCE.
8. THE CONTRACTOR SHALL INSURE THAT ALL DISTURBED LANDSCAPED AREAS ARE GRADED TO MEET FLUSH AT THE ELEVATION OF WALKWAYS AND TOP OF CURB ELEVATIONS EXCEPT UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. NO ABRUPT CHANGES IN GRADE ARE PERMITTED IN DISTURBED LANDSCAPING AREAS.



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Schostak
BROTHERS & COMPANY

WONDERLAND FLATS PROPOSED RESIDENTIAL DEVELOPMENT

PARCEL IDS: 137-99-0008-010 & 137-99-0004-002
CITY OF LIVONIA
WAYNE COUNTY, MICHIGAN



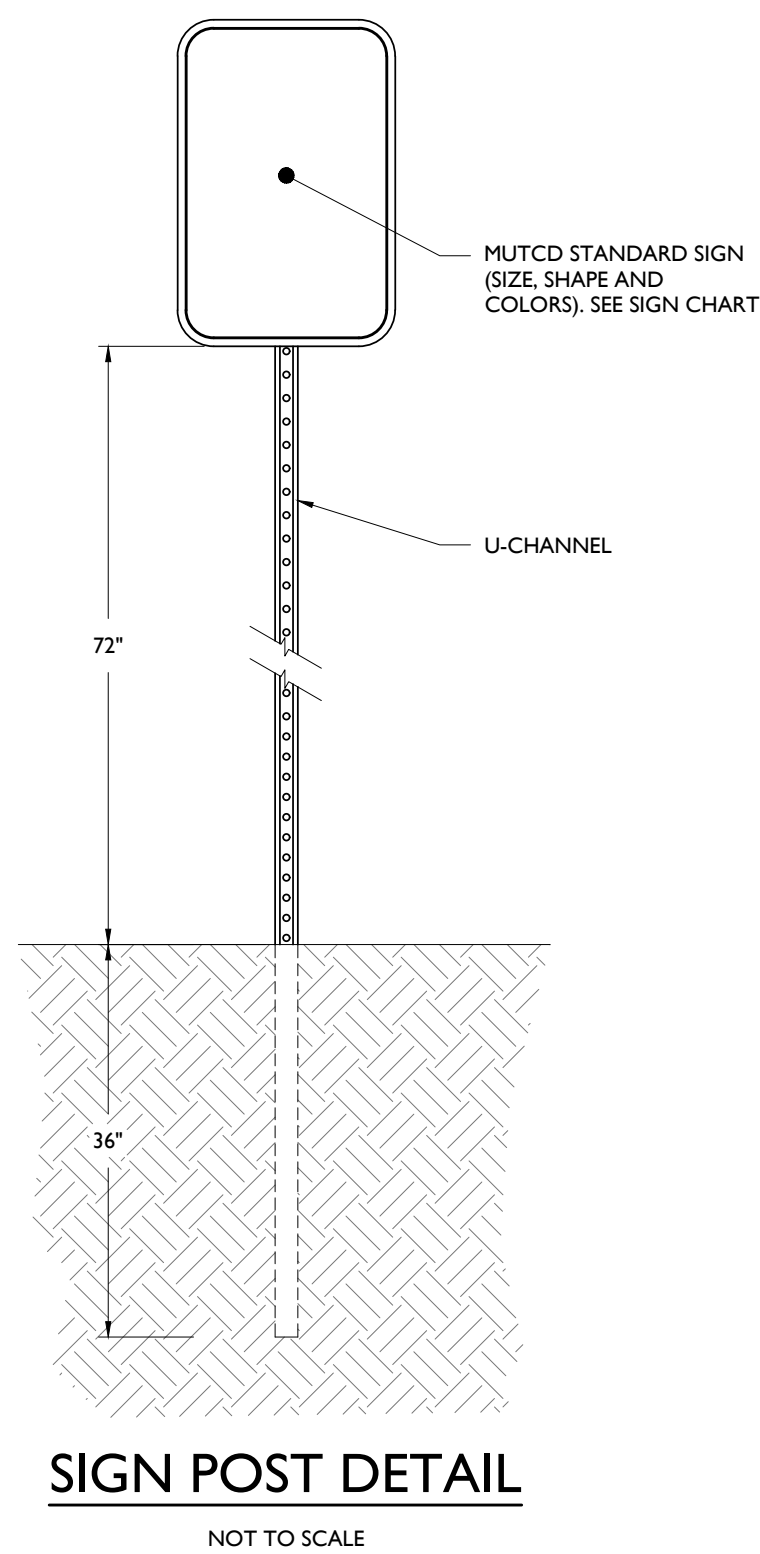
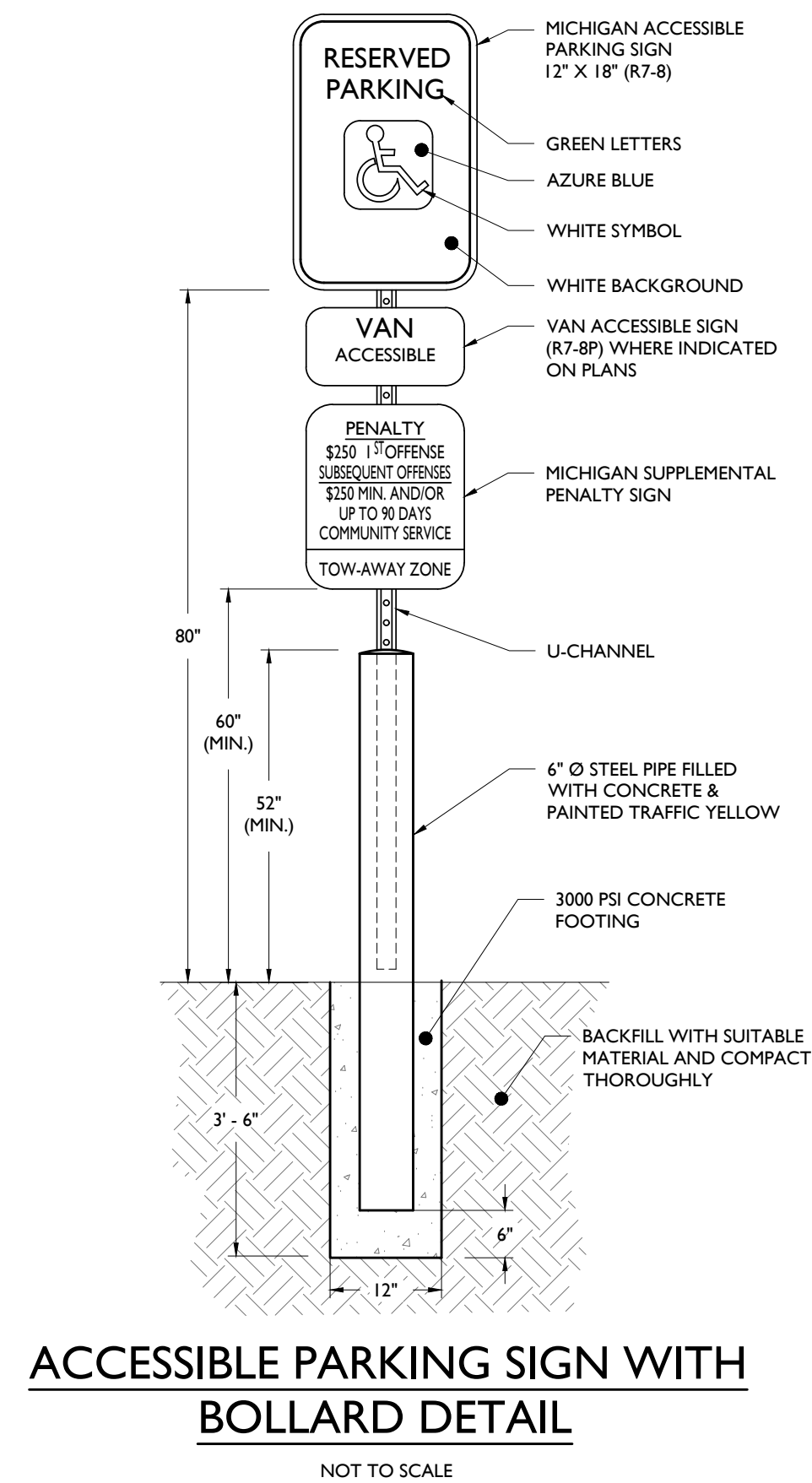
SCALE:	1" = 30'	PROJECT ID: M-19052.0
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LANDSCAPING PLAN

DRAWING:

C-10

C-11

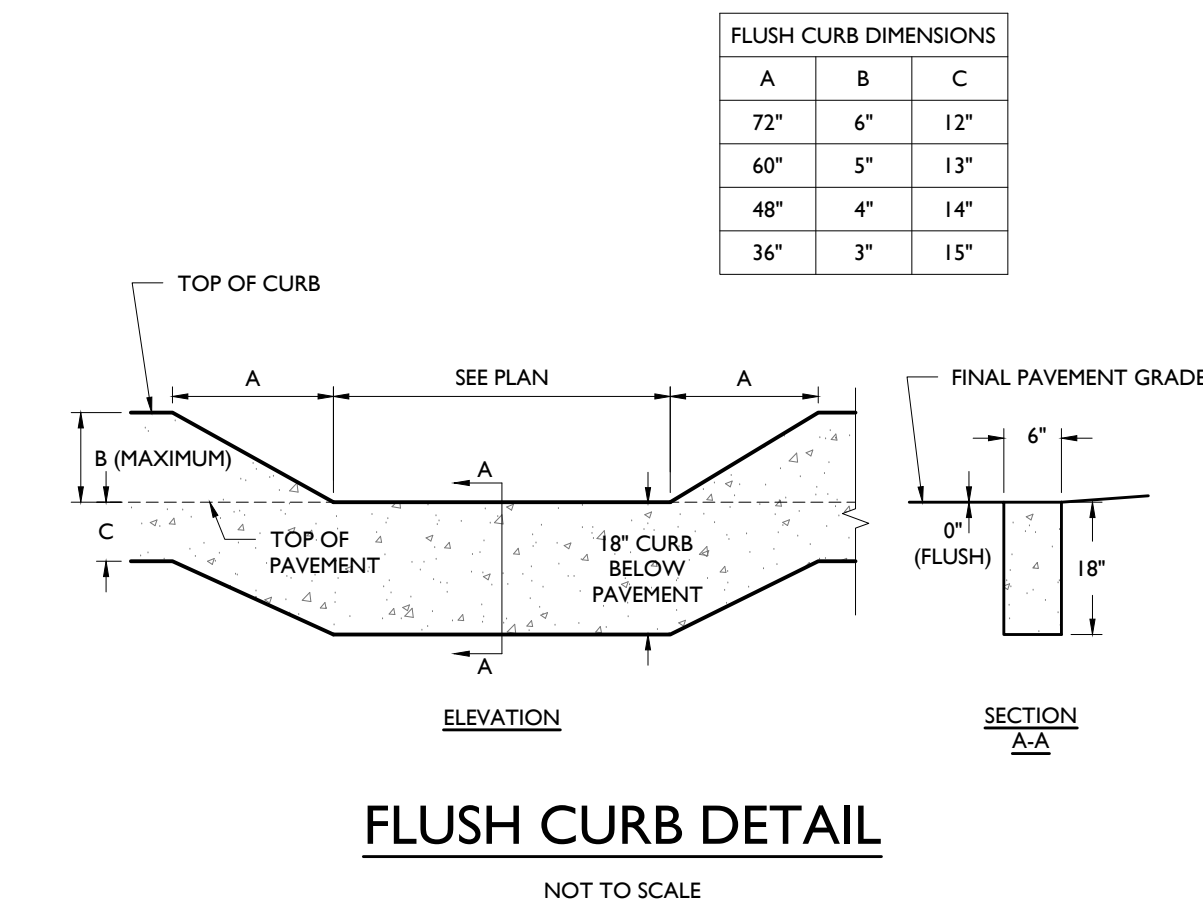
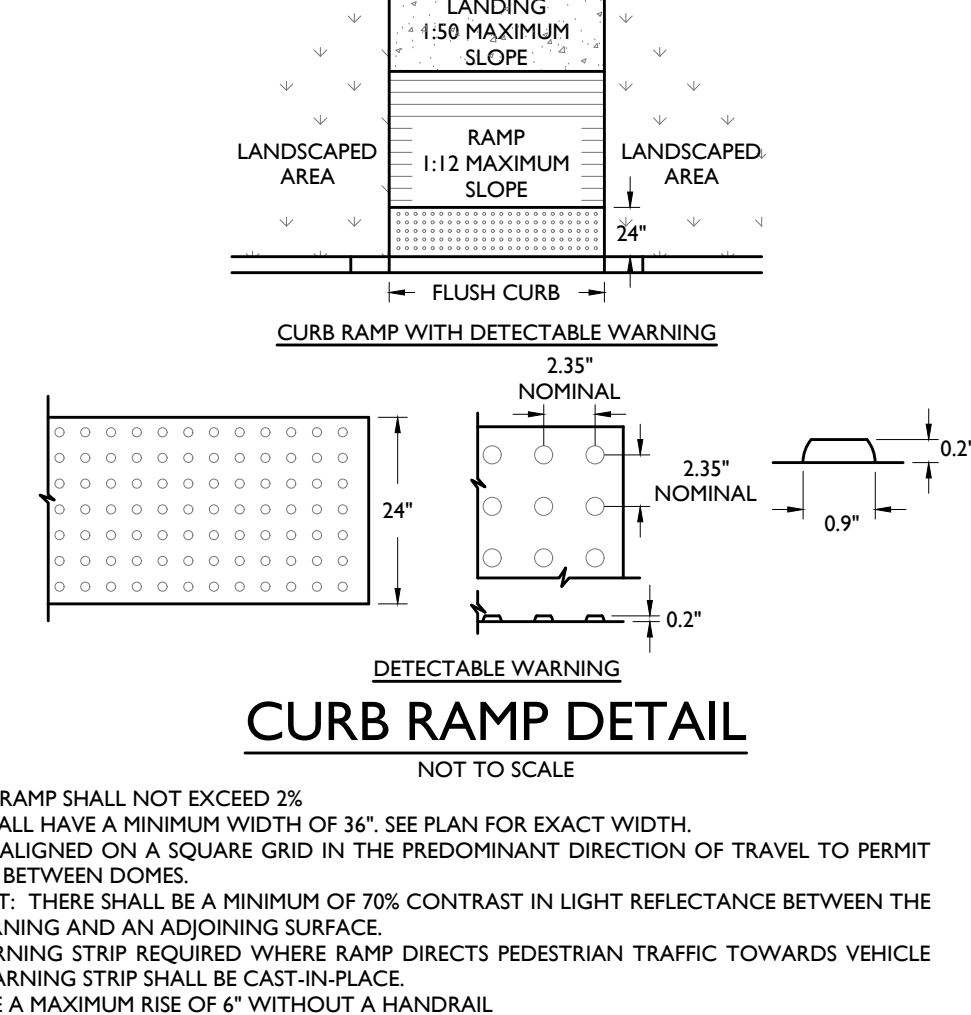
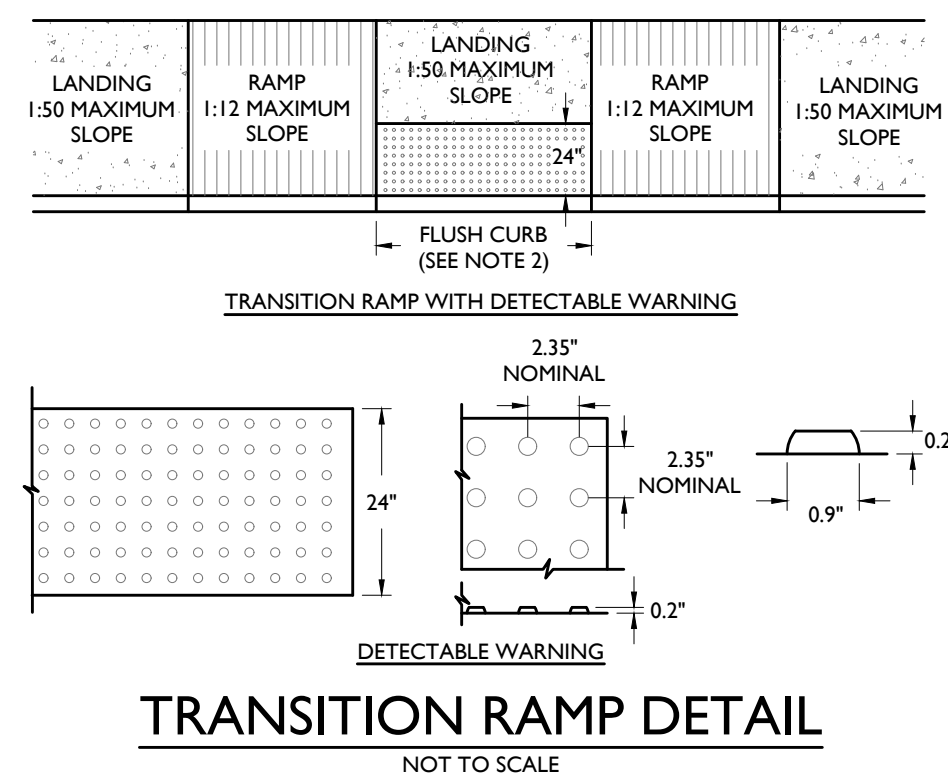
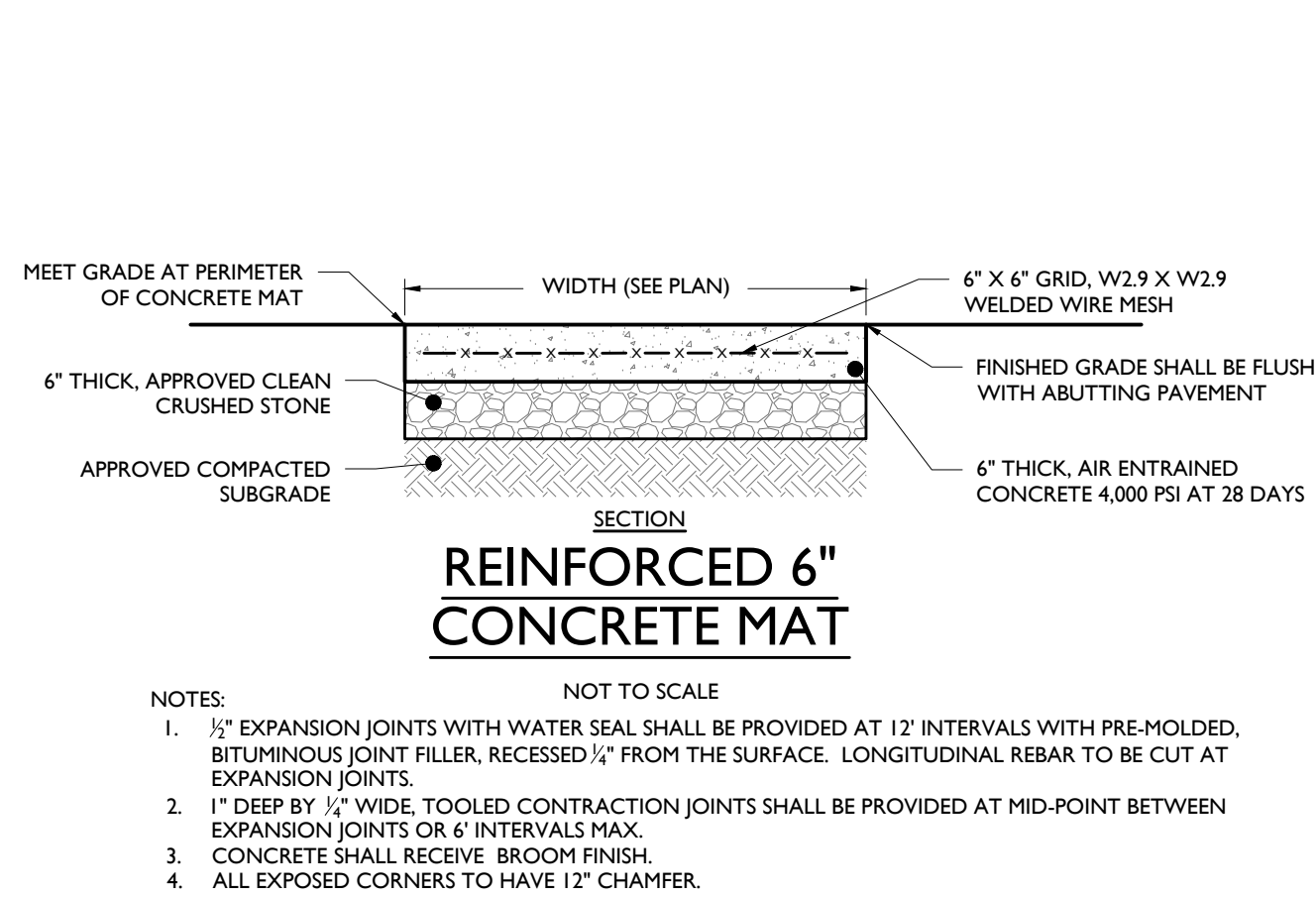
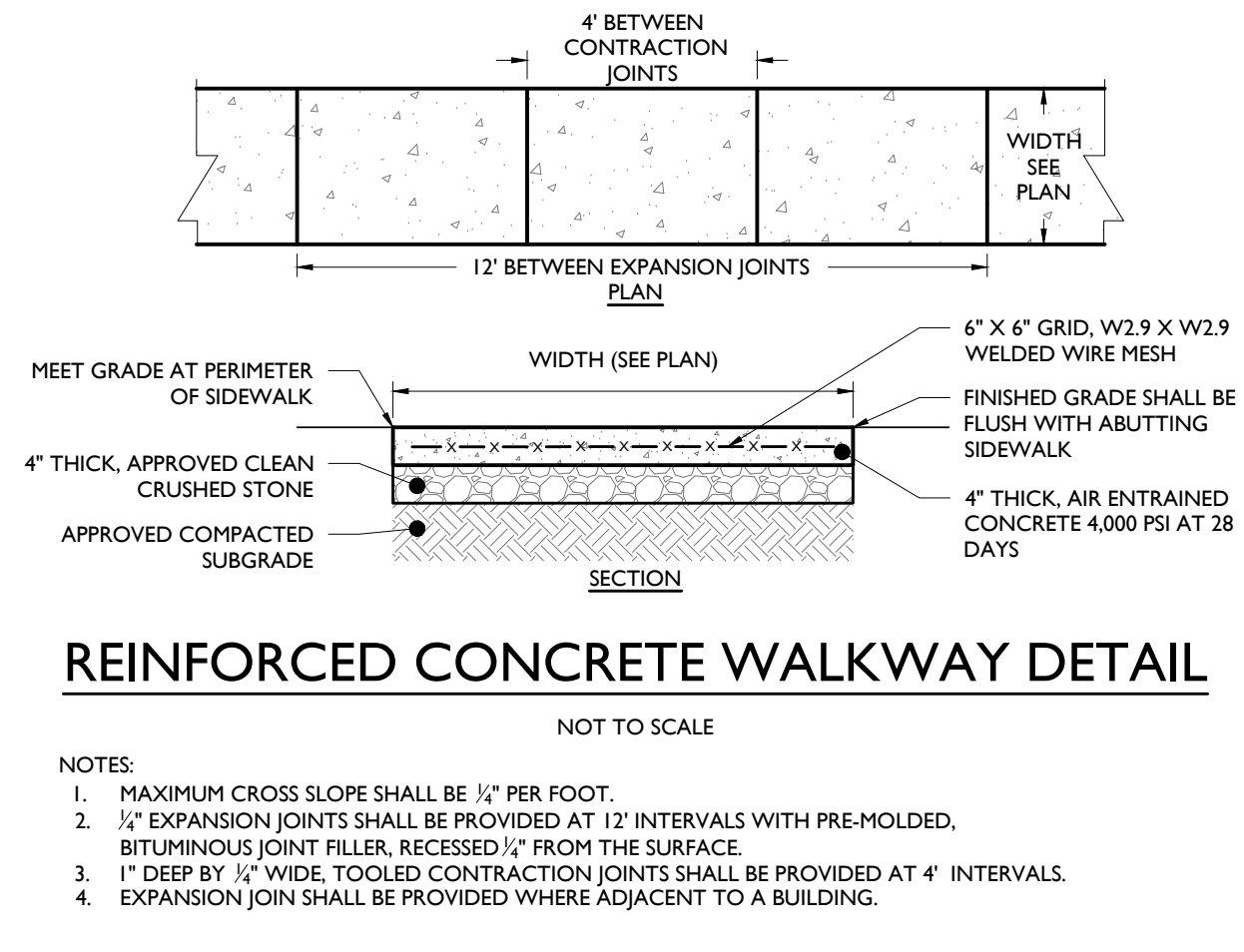
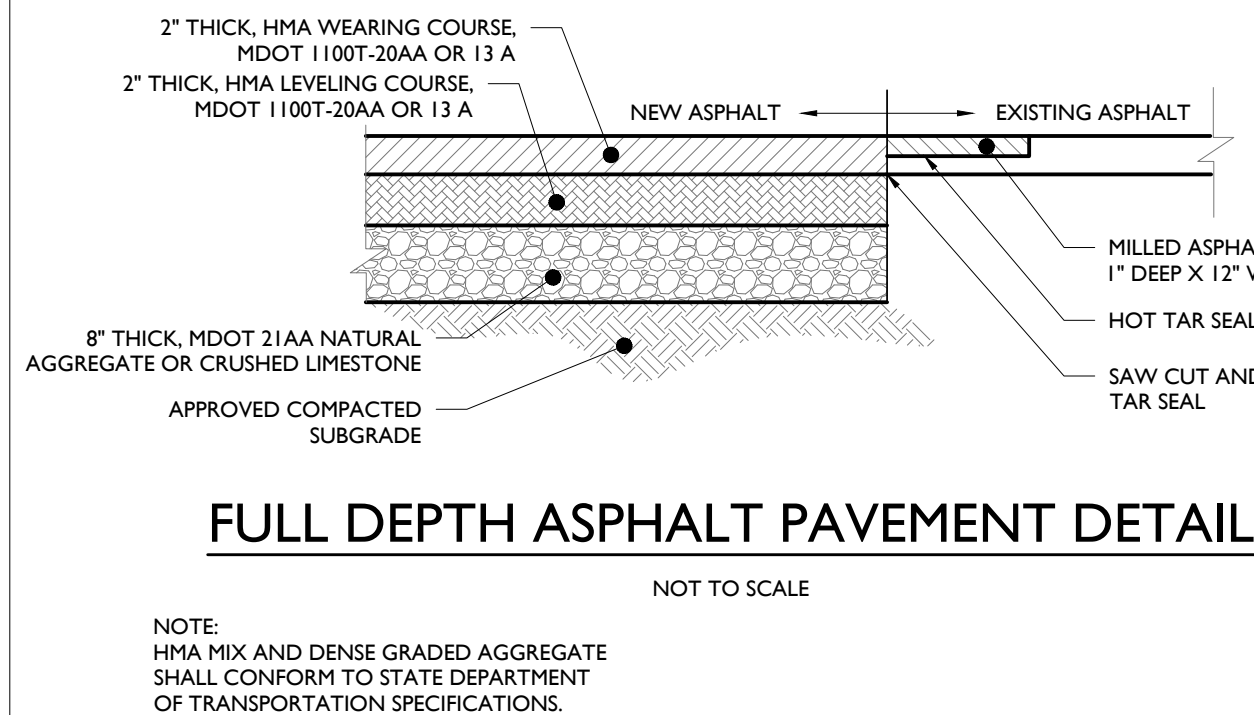
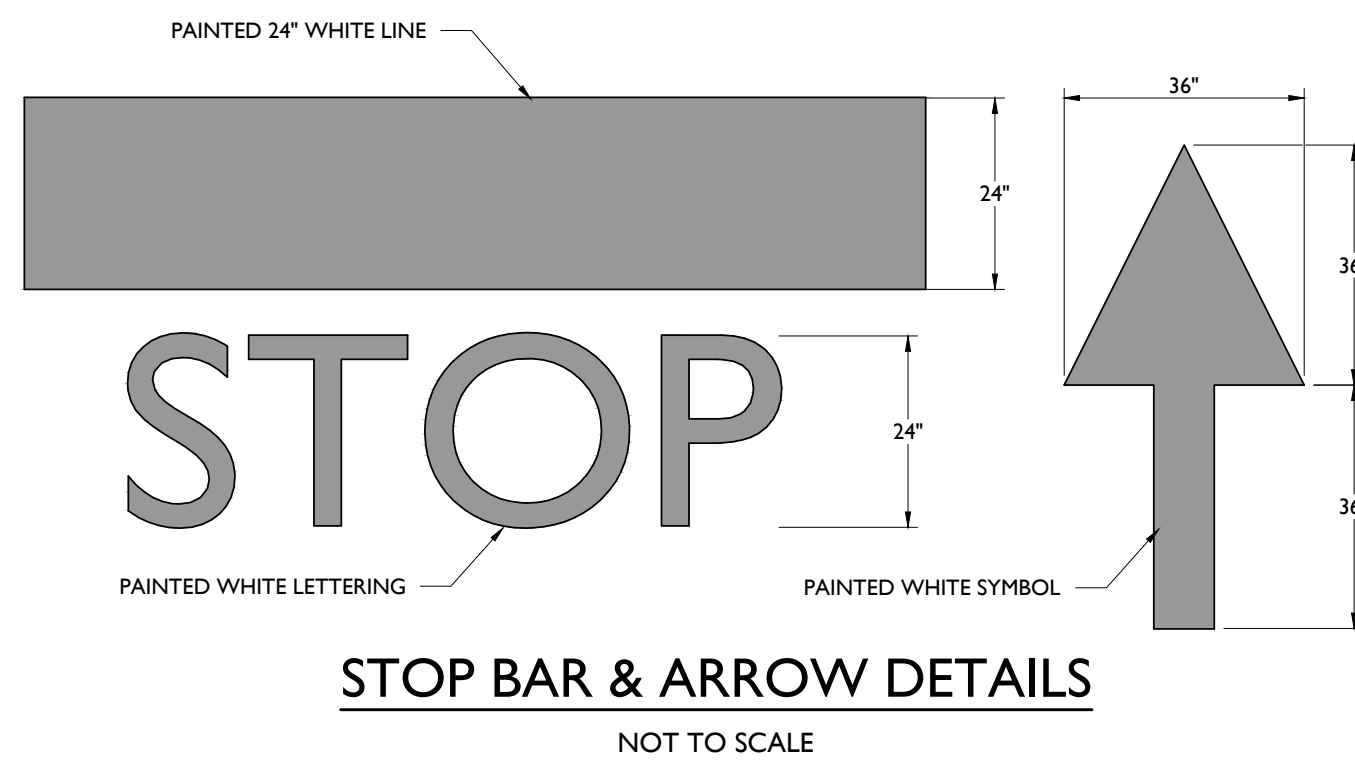
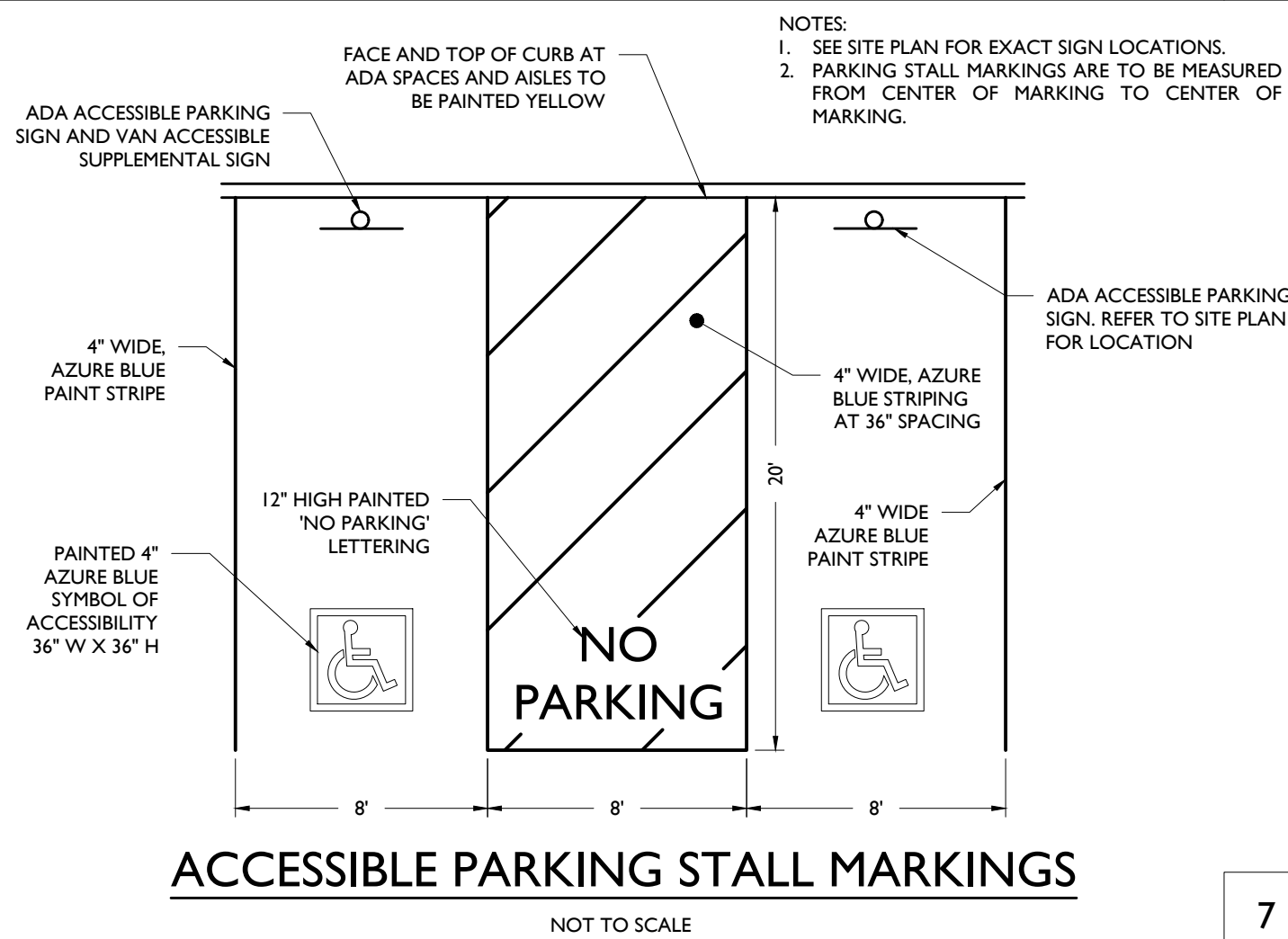
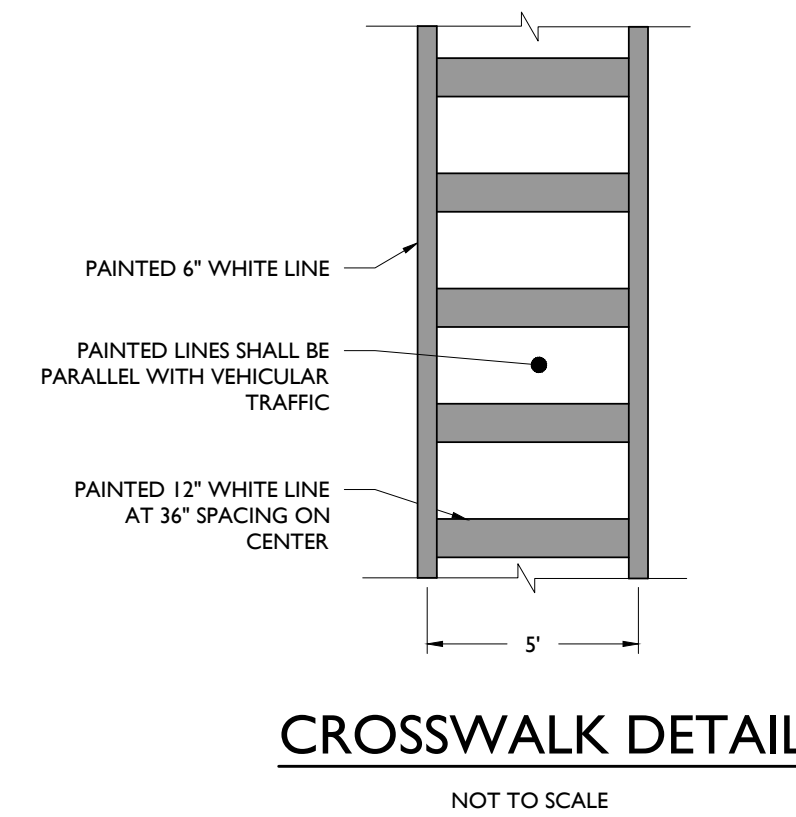
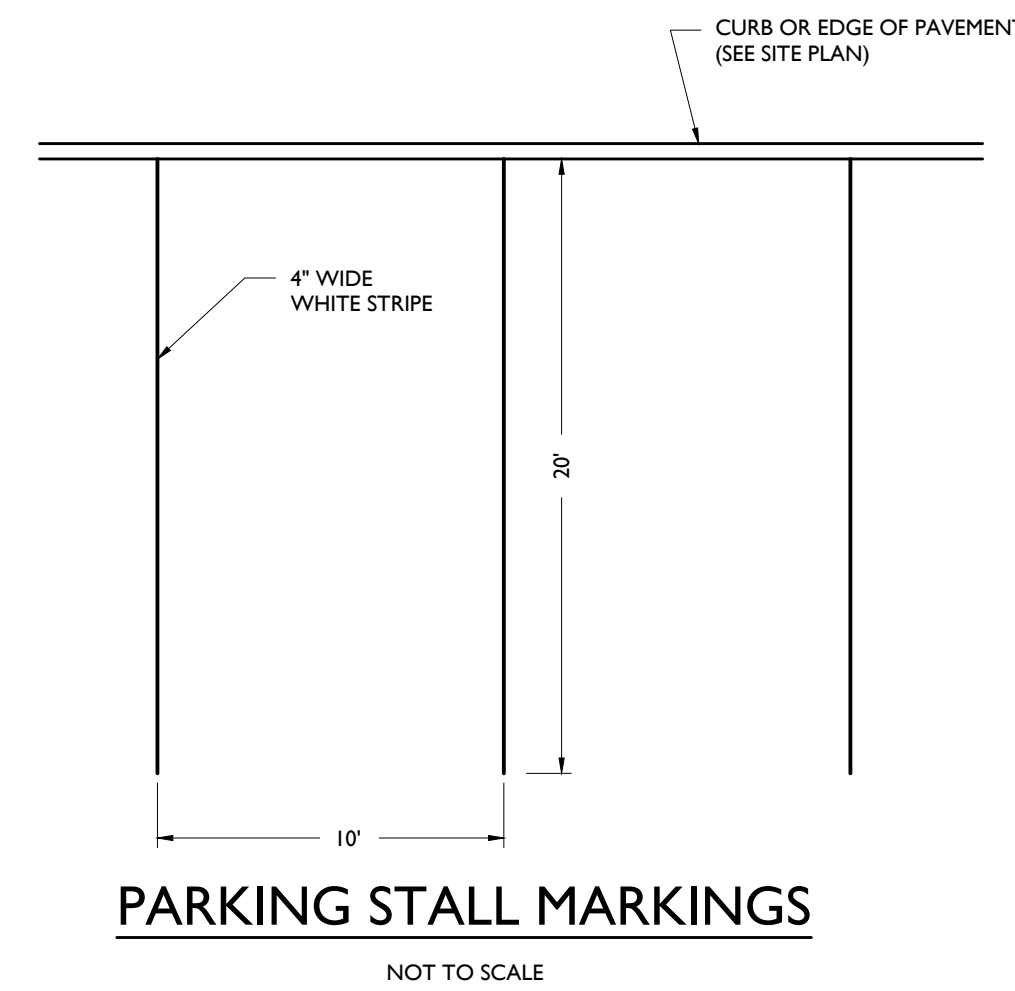


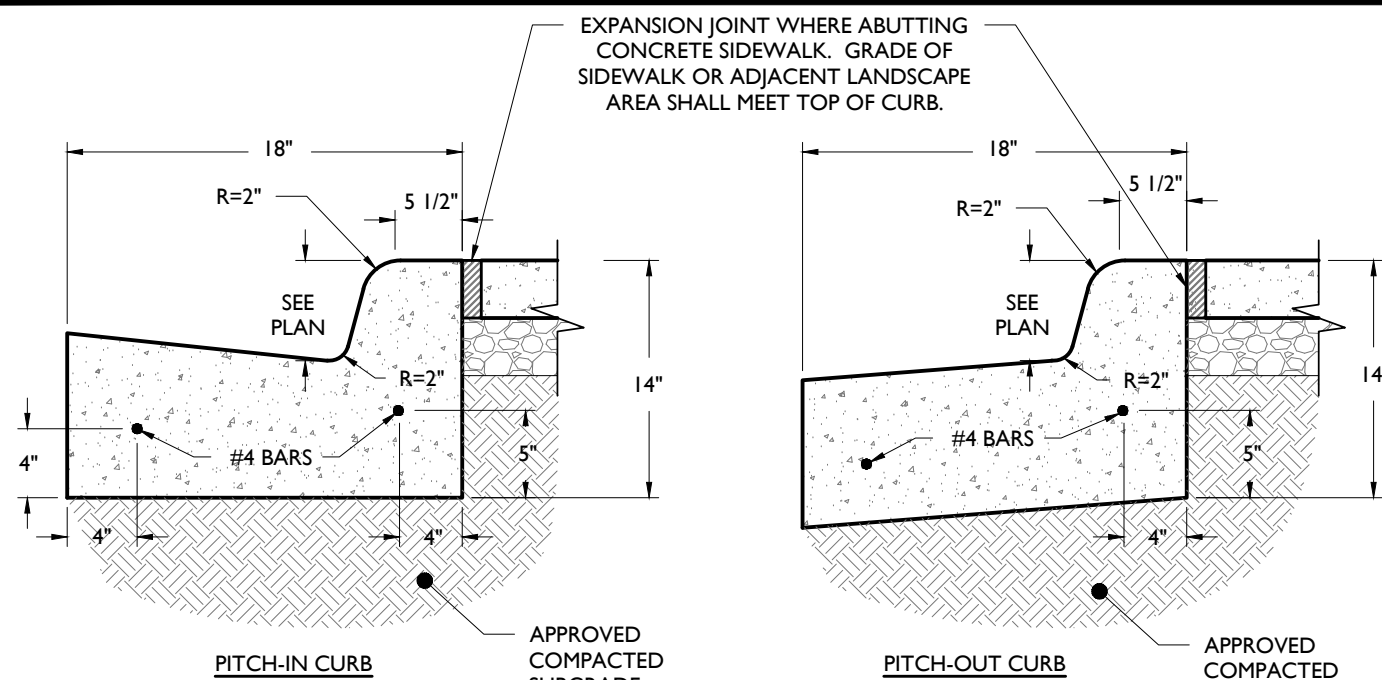
M.U.T.C.D. NUMBER	TEXT	COLOR		SIZE OF SIGN (WIDTH X HEIGHT)	TYPE OF MOUNT
		LEGEND	BACKGROUND		
STOP SIGN (R1-1)		RED	WHITE	36"x36"	GROUND

NOTE:

1. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), EXCEPT AS NOTED
2. ALL SIGNS SHALL BE MOUNTED AS TO NOT OBSTRUCT THE SHAPE OF "STOP" (R1-1) AND "YIELD" (R1-2) SIGNS.

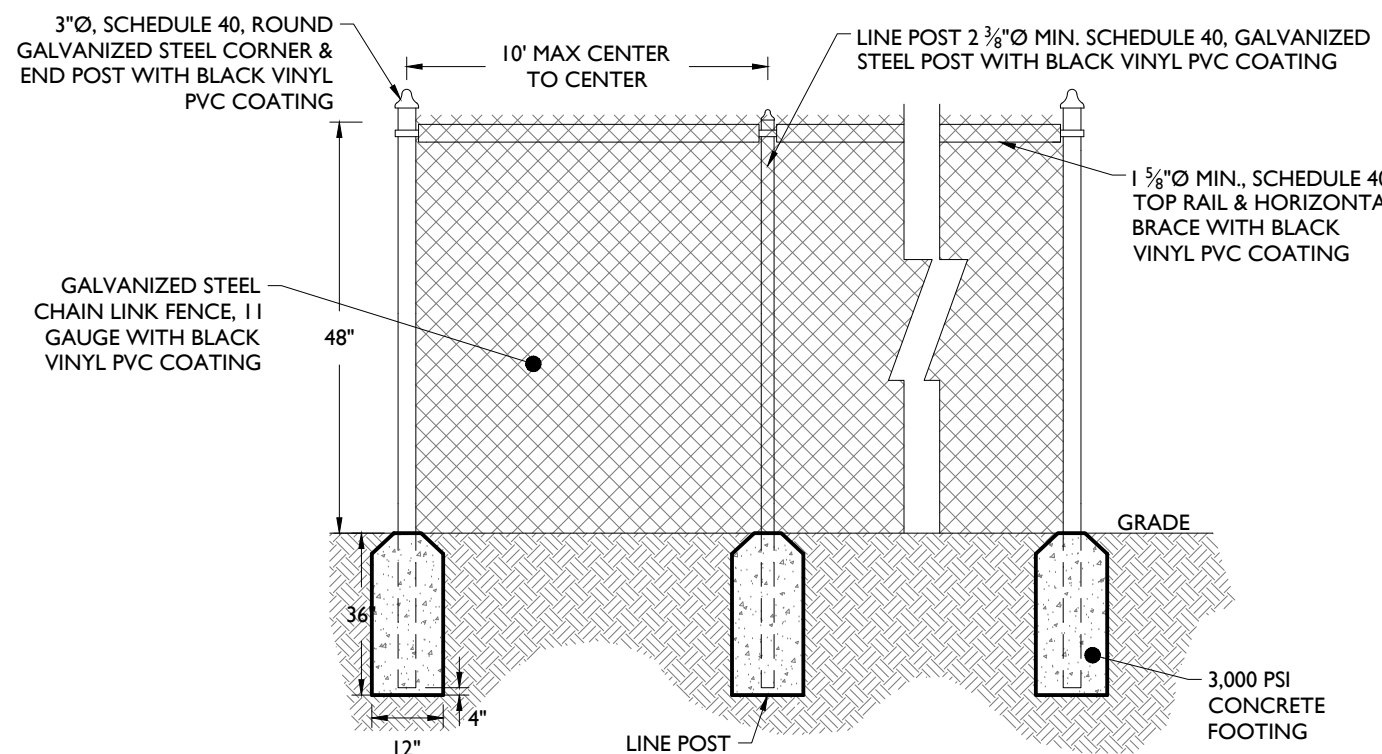
SIGN DATA TABLE

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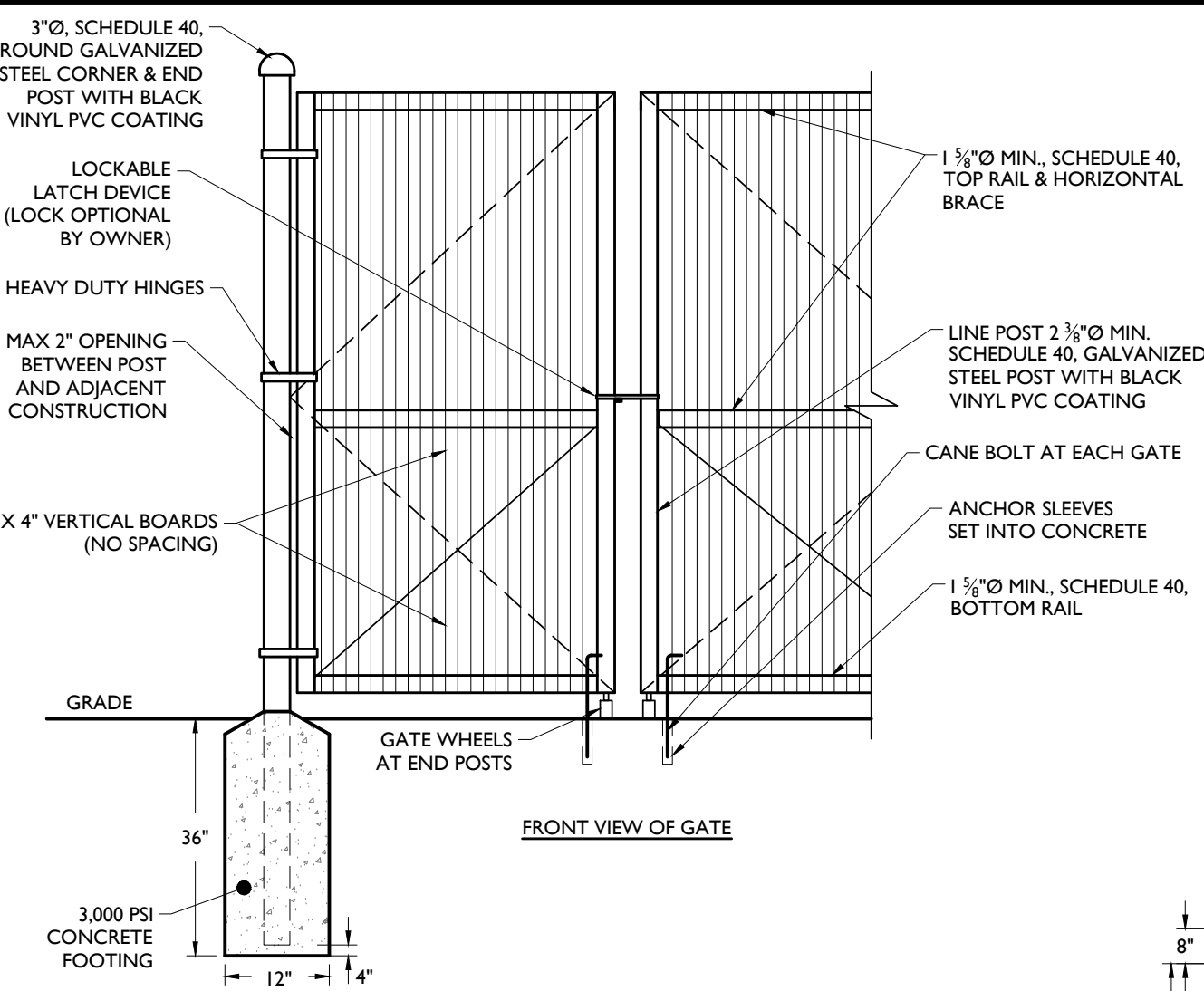
CONCRETE CURB AND GUTTER DETAIL

- NOTES:
1. CONCRETE SHALL BE 3500 PSI AT 28 DAYS, AIR-ENTRAINED.
 2. TRANSVERSE EXPANSION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM SURFACE.
 3. HALF DEPTH CONTRACTION JOINTS SHALL BE PROVIDED AT 10 FOOT INTERVALS.
 4. 14" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.



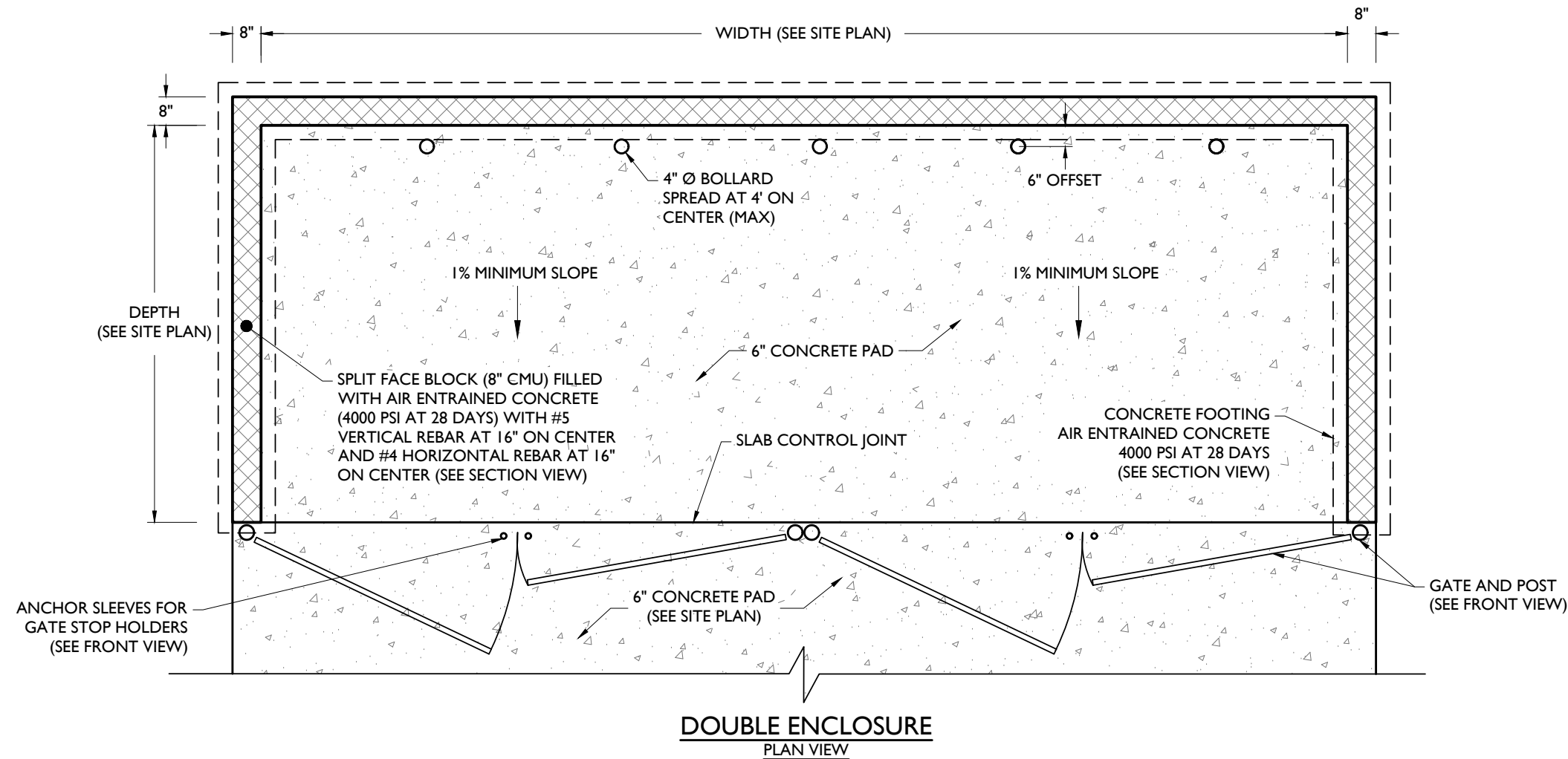
CHAIN LINK FENCE (DOG PARK)

- NOTES:
1. CONTRACTOR TO PROVIDE ALL HARDWARE NECESSARY FOR FENCE CONSTRUCTION AND OPERATION, PER SITE DESIGN. INSTALLATION SHALL COMPLY WITH MANUFACTURER'S REQUIREMENTS.
 2. FENCE DETAIL ONLY APPLIES TO FENCE WITHOUT PRIVACY SLATS.
 3. FENCE TO BE INSTALLED FOLLOWING SITE GRADING.
 4. FENCE TO BE INSTALLED ONE FOOT WITHIN PROPERTY LINE WHERE SHOWN ON PROPERTY LINE ON SITE PLAN.
 5. VIBRATE OR TAMP BACKFILL FOR CONSOLIDATION SURROUNDING FENCE POSTS.



FRONT VIEW OF GATE

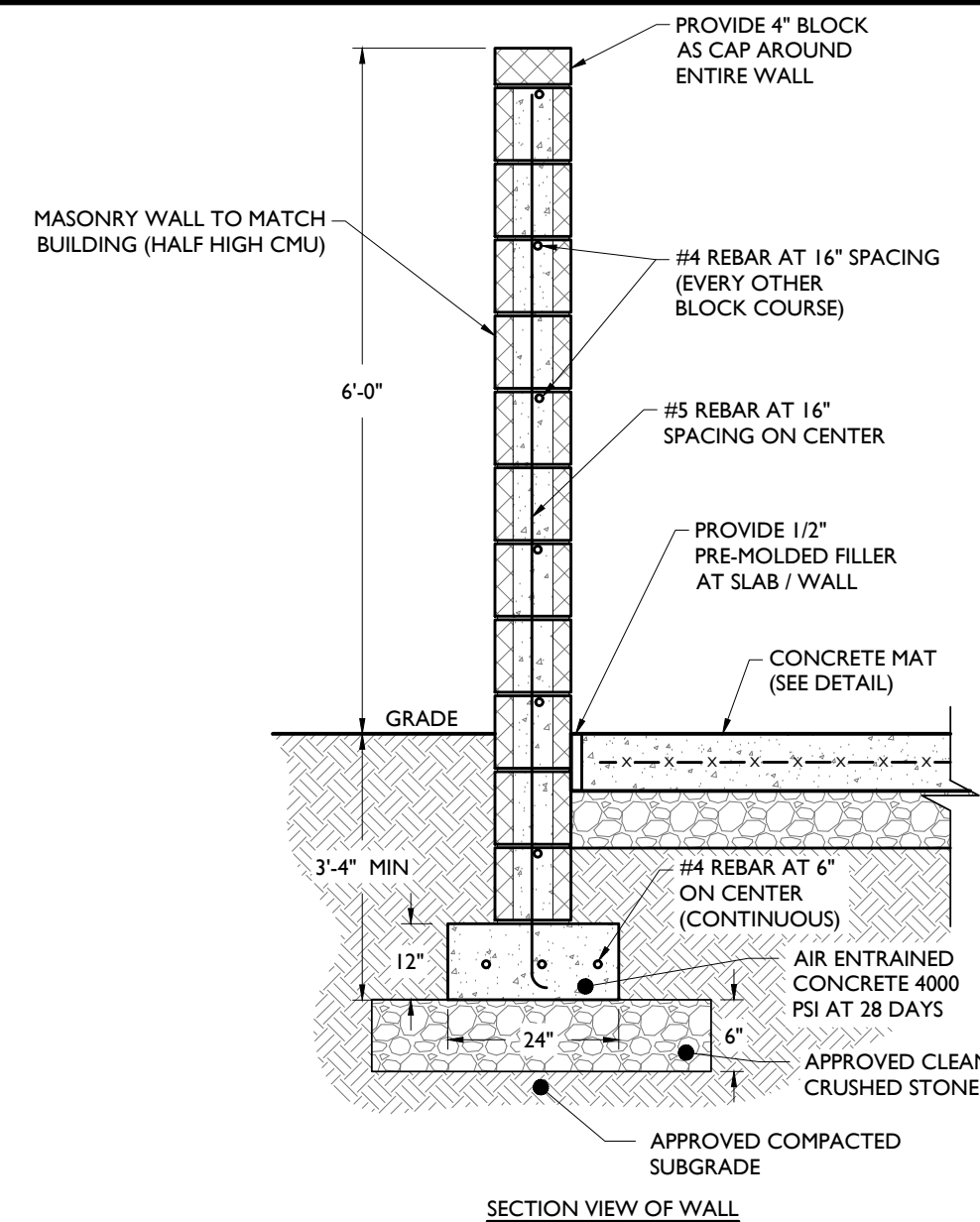
NOTE:
BLOCK COLOR TO MATCH BUILDING
OR AS SPECIFIED BY OWNER



DOUBLE ENCLOSURE
PLAN VIEW

TRASH / RECYCLE ENCLOSURE DETAIL

NOT TO SCALE



SECTION VIEW OF WALL

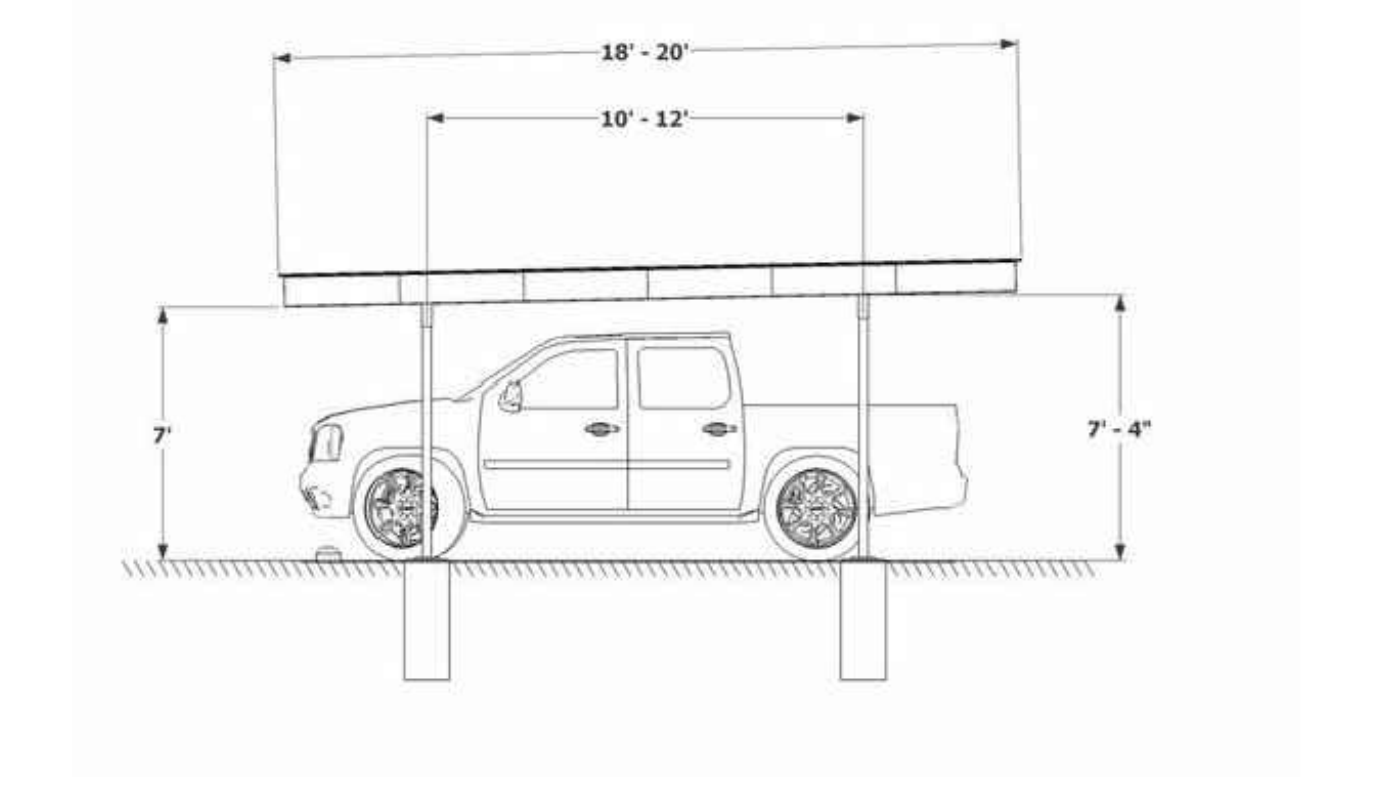
CITY SITE PLAN REVIEW		DESCRIPTION	
BY	DATE	ISSUE	
MPH	04/27/2023	1	

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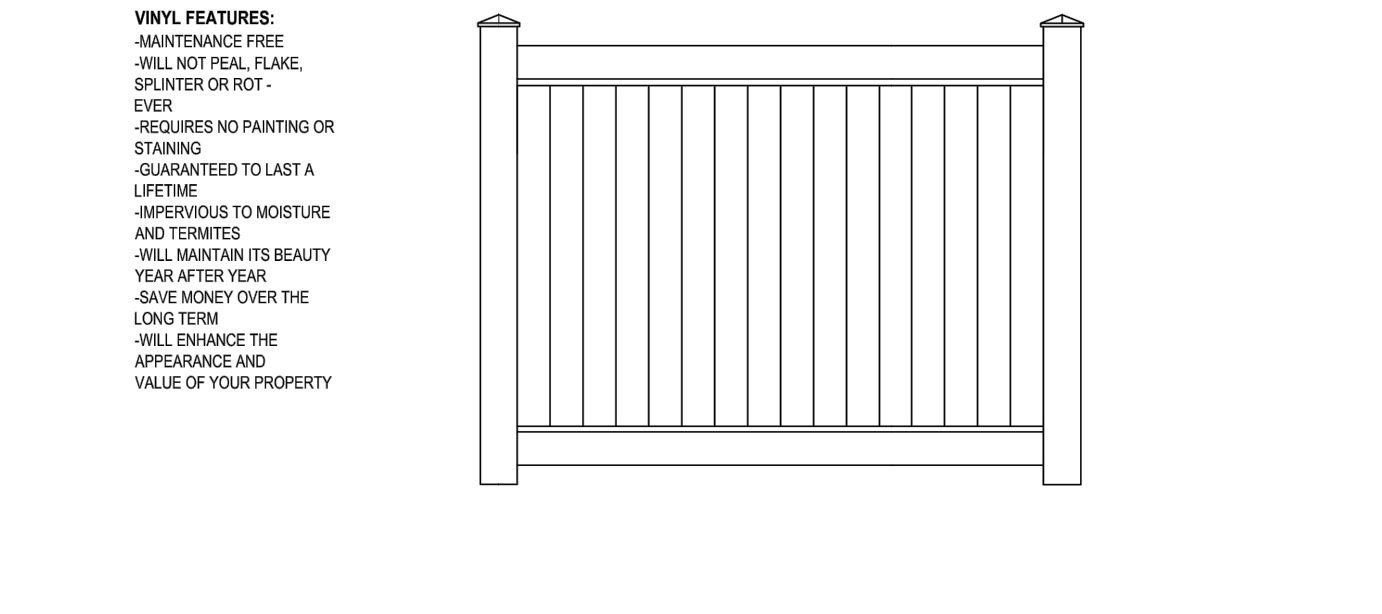
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CAR PORT DETAIL

NOT TO SCALE



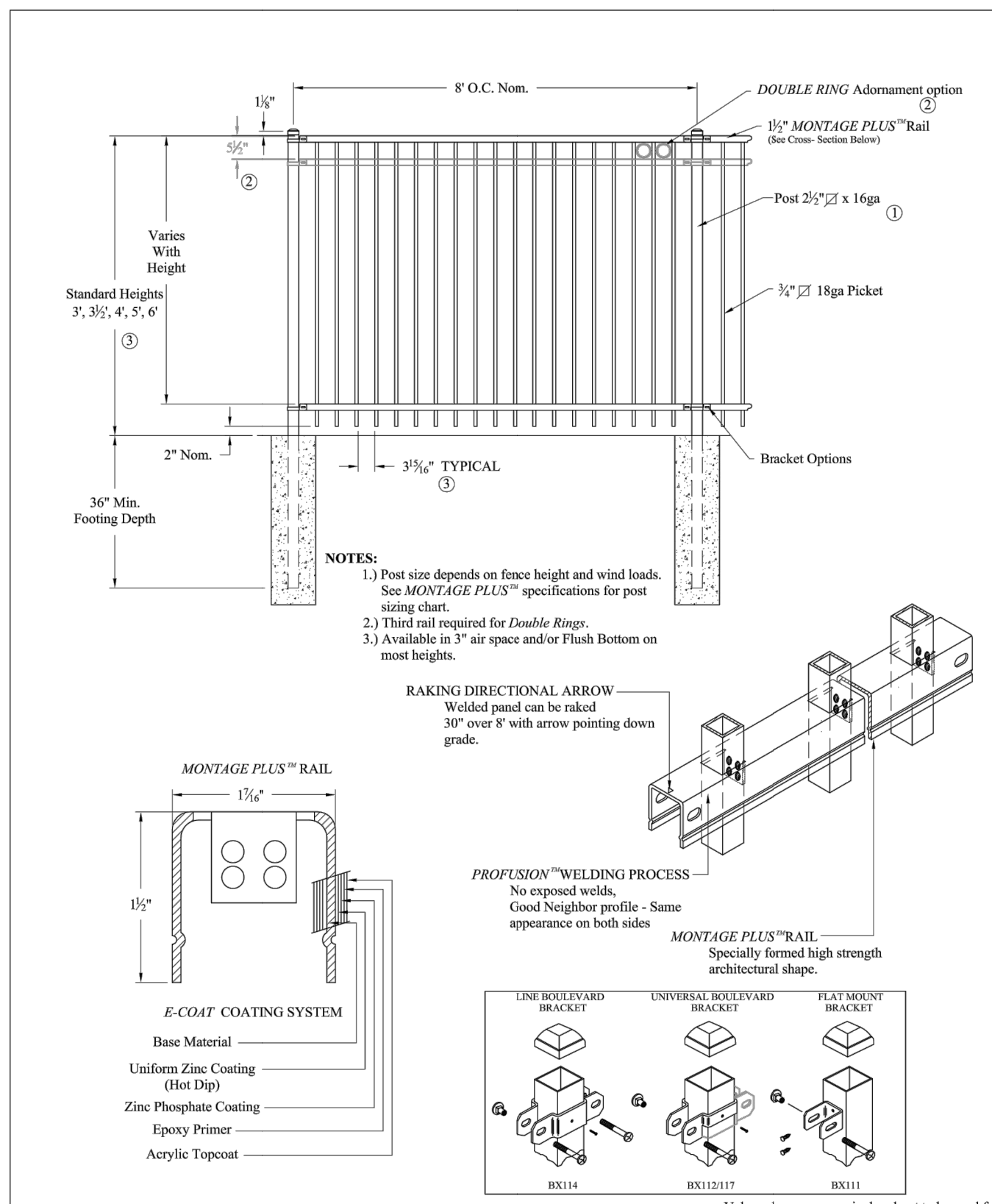
VINYL FEATURES:
- MAINTENANCE FREE
- WILL NOT PEEL, FLAKE, SPILT OR ROT
- EVER
- REQUIRES NO PAINTING OR STAINING
- GUARANTEED TO LAST A LIFETIME
- IMPERVIOUS TO MOISTURE AND TERMITES
- WILL MAINTAIN ITS BEAUTY YEAR AFTER YEAR
- SAVE MONEY OVER THE LONG TERM
- WILL ENHANCE THE APPEARANCE AND VALUE OF YOUR PROPERTY

- NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 2. DO NOT SCALE DRAWING.
 3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
 4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
 5. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 3437-029.



VINYL FENCE DETAIL

NOT TO SCALE



LIGHT POLE INSTALLATION DETAIL

NOT TO SCALE

- NOTES:
1. MINIMUM SOIL BEARING PRESSURE OF 1500 PSF, SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.
 2. CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATOR.
 3. ALL REBAR TO BE NEW GRADE 60 STEEL.
 4. PRE-CAST PIERS ACCEPTABLE UPON WRITTEN APPROVAL OF SHOP DRAWING BY ENGINEER.
 5. CONCRETE TO BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO INSTALLING LIGHT POLE. POURED CONCRETE MIX REQUIRED TO OBTAIN 80% OF DESIGN STRENGTH PRIOR TO INSTALLING LIGHT POLE.
 6. CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4" (WITHIN 1" TOLERANCES).
 7. POLE SHALL BE RATED FOR 10 MPH HIGHER THAN MAXIMUM WIND SPEED 33FT ABOVE GROUND FOR THE AREA BASED ON ANS/ASCE 7-93.
 8. POUR TO BE TERMINATED AT A FORM.
 9. WORK SHALL CONFORM TO ACI BEST PRACTICES FOR APPROPRIATE TEMPERATURE AND WEATHER CONDITIONS.
 10. CONTRACTOR TO TEMPORARILY SUPPORT ADJACENT SOIL AND STRUCTURES DURING EXCAVATION IF REQUIRED.

ROLLING RACK
Submittal Sheet

CAPACITY

RR2H: 5 Bikes
RR3H: 7 Bikes
RR4H: 9 Bikes
RR5H: 11 Bikes

MATERIALS

2.375" OD Schedule 40 Steel Pipe

FINISHES

- ☐ **Galvanized**
An after fabrication hot dipped galvanized finish is our standard option.
- ☐ **Powder Coat**
Our powder coat finish assures a high level of adhesion and durability by following these steps:
1. Sandblast
2. Epoxy primer electrostatically applied
3. Final thick TGIC polyester powder coat
- ☐ **Stainless**
Stainless Steel: 304 grade stainless steel material finished in either a high polished shine or a satin finish.

MOUNT OPTIONS

- ☐ **In-ground**
In ground mount is embedded into concrete base. Specify in ground mount for this option.
- ☐ **Surface**
Foot Mount has two 5"x6"x.25" feet with four anchors per foot. Specify foot mount for this option.

RR2H - 38"
Parks 5 Bikes

RR3H - 63"
Parks 7 Bikes

RR4H - 87"
Parks 9 Bikes

RR5H - 111"
Parks 11 Bikes

IN-GROUND MOUNT

SURFACE MOUNT

BIKE RACK DETAIL

NOT TO SCALE

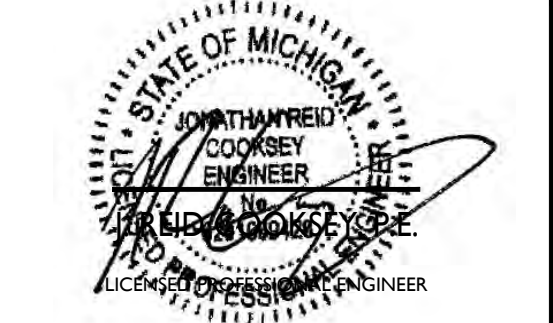
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WONDERLAND FLATS
PROPOSED RESIDENTIAL DEVELOPMENT

PARCEL IDS: 137-99-0008-010 & 137-99-0004-002
CITY OF LIVONIA
WAYNE COUNTY, MICHIGAN



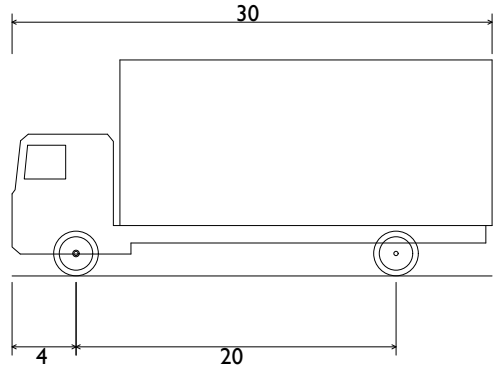
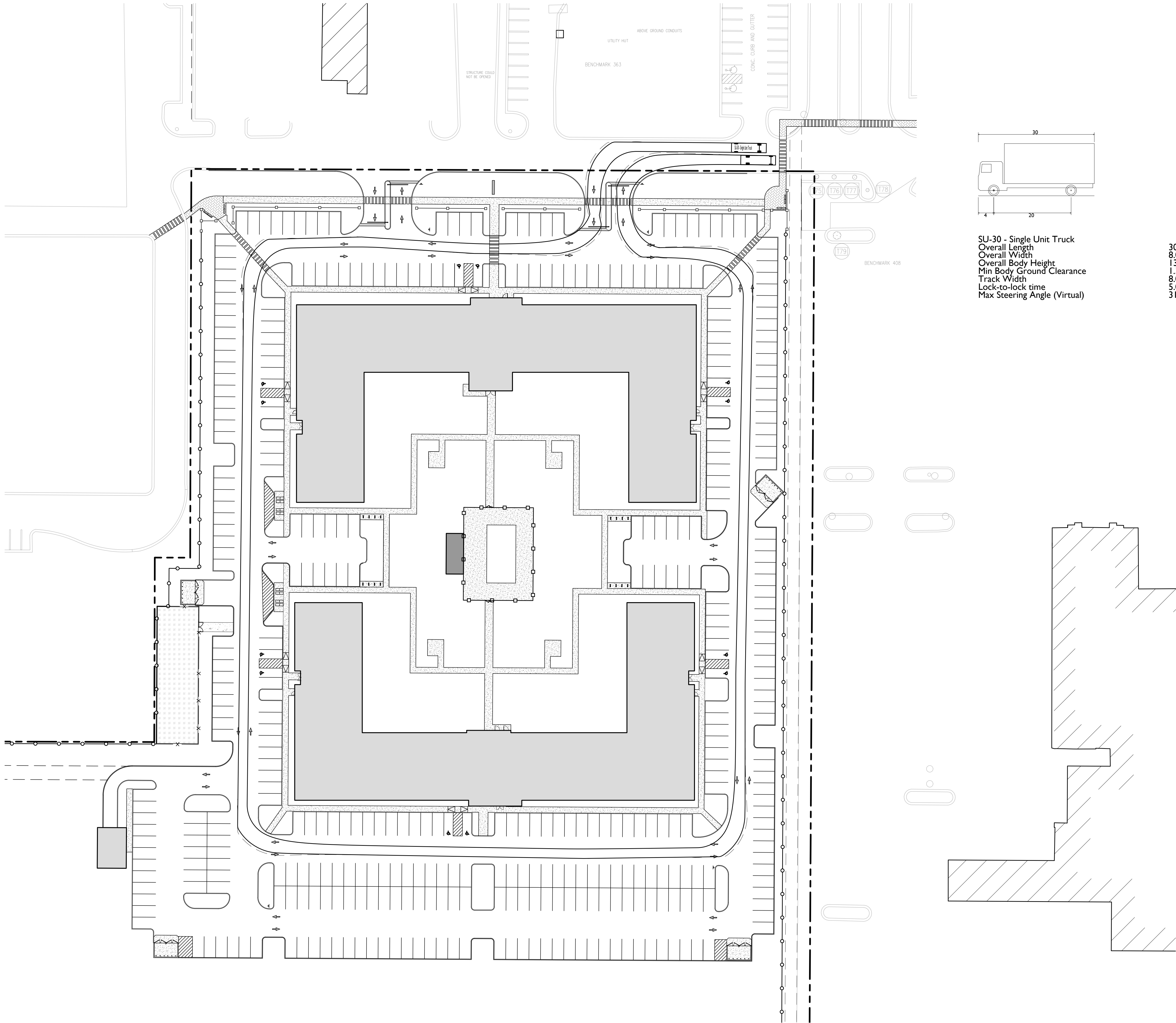
STONEFIELD
engineering & design

SCALE: AS SHOWN PROJECT ID: M-19052.01

TITLE: CONSTRUCTION DETAILS

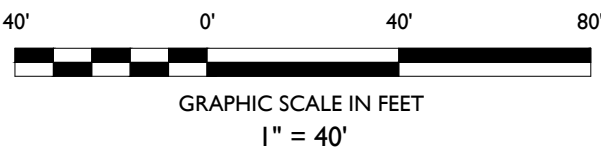
DRAWING: C-13

V:\P\B\1911\1902\1 SCHOSTAK BROTHERS-REDLINE\ROAD AND PAVEMENT\1911-17 TRUCK.DWG



SU-30 - Single Unit Truck
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock-to-lock time
Max Steering Angle (Virtual)

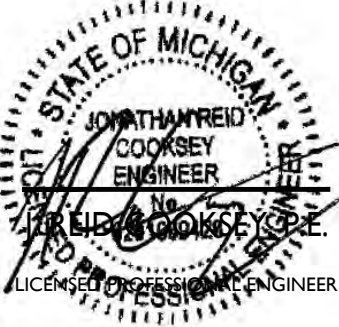
30.000ft
8.000ft
13.500ft
1.367ft
8.000ft
5.00s
31.80°



SITE DEVELOPMENT PLANS

Schostak
BROTHERS & COMPANY
WONDERLAND FLATS
PROPOSED RESIDENTIAL DEVELOPMENT

PARCEL IDS: 137-99-0008-010 & 137-99-0004-002
CITY OF LIVONIA
WAYNE COUNTY, MICHIGAN



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SCALE: 1" = 40' PROJECT ID: M-19052.01

TITLE:

**TRUCK EXHIBIT
(MOVING TRUCK)**

DRAWING:

EX-1

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ISSUE	DATE	BY	DESCRIPTION
1	04/27/2023	MPH	CITY SITE PLAN REVIEW

4/25/2022 9:55 AM
HRC_01w.ctb
V: 201902120190258\F\20190258_FR_APT_20220422.dwg
Piggott, Robert

FLOOD ZONE INFORMATION

SUBJECT PROPERTY FALLS IN ZONE "X",
MINIMAL FLOODING, AS SHOWN IN FEMA MAP
26163C0227E, DATED 02/02/2012.

NOTES:

NO EVIDENCE OF RECENT EARTH MOVING WORK ON SITE.

I AM NOT AWARE OF ANY PROPOSED CHANGES IN STREET
RIGHT OF WAY LINES.

UTILITY STATEMENT

THE LOCATIONS AND ELEVATIONS OF EXISTING
UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING
ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER
EXPRESSED OR IMPLIED AS TO THE COMPLETENESS
OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE
EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE
EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO
THE START OF CONSTRUCTION.

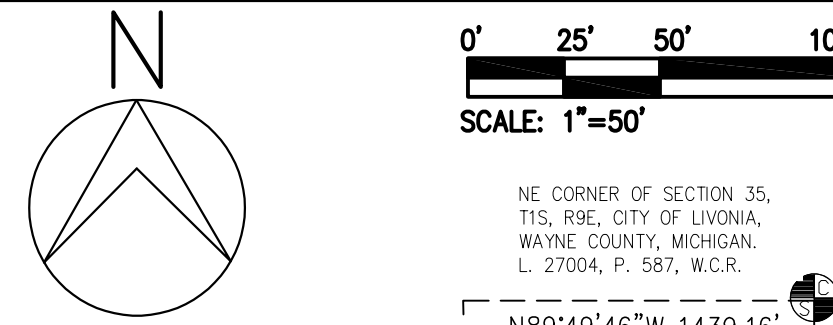
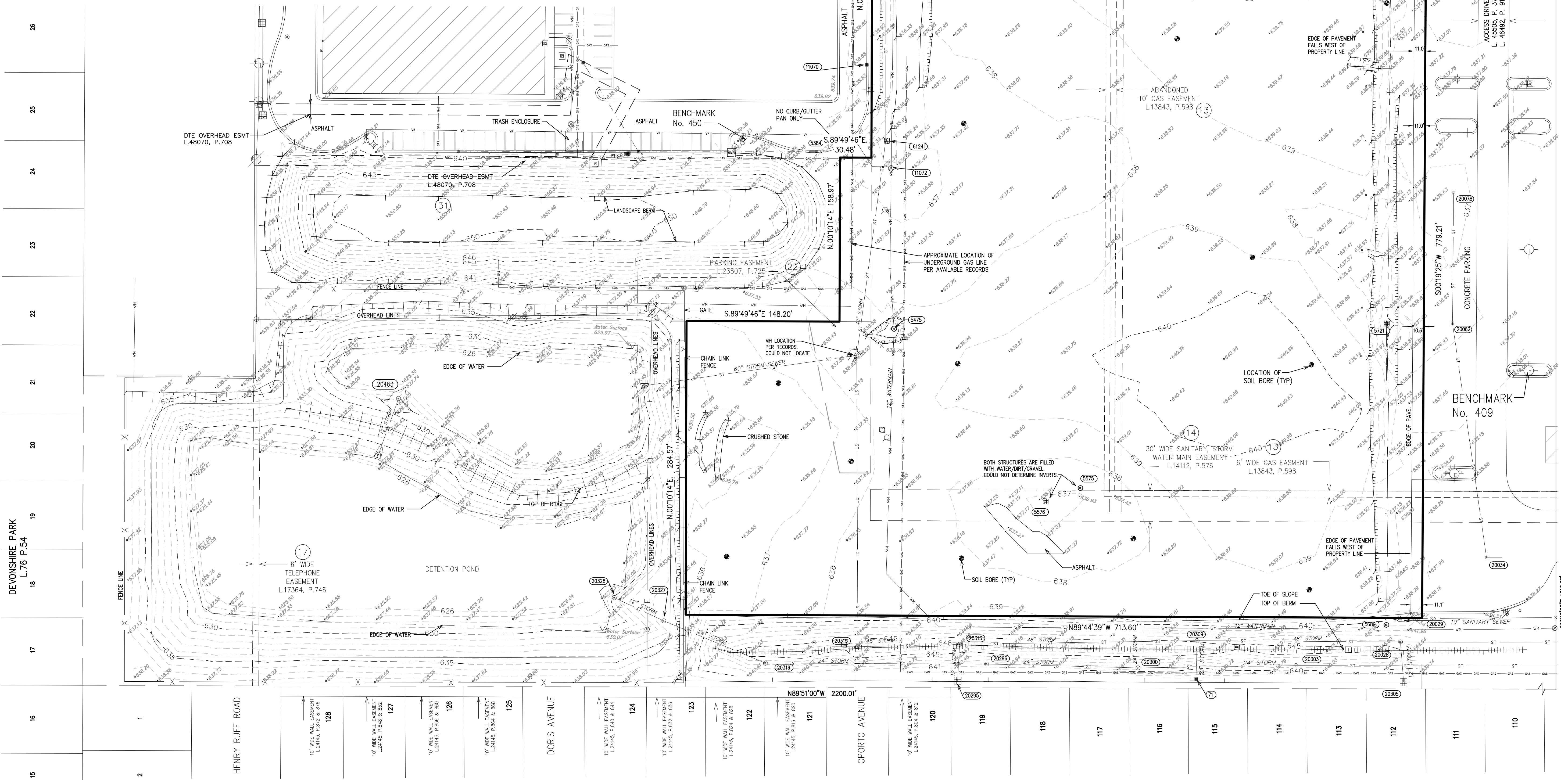
LEGEND	
BUILDING	_____
STORM	ST
SANITARY	SA
WATERMAIN	WM
UND. TELEPHONE	T
UND. ELECTRICAL	E
TRAVERSE LINE	_____
TRAVERSE POINT	_____
BENCH MARK SYMBOL	_____
DEAD TREE	_____
DECIDUOUS TREE	_____
DECIDUOUS SHRUB	_____
CONIFEROUS TREE	_____
CONIFEROUS SHRUB	_____
STUMP	_____
SQ. & RD. CATCH BASINS & INLETS IN PAVEMENT	_____
STORM MANHOLE & PIPE END	_____
UNSPECIFIED MH.	_____
RISER & DOWN SPOUT	_____
PUMP STATION	_____
FIRE HYDRANT	_____
GATE & VALVE, & WELL	_____
CISTERN & WELL	_____
WATER STOP BOX & SPRINKLER HEAD	_____
WATER TOWER BASE & METER PIT	_____
UTILITY POLE	_____
LIGHT POLE	_____
GUY WIRE ANCHOR	_____
UNDERGROUND MARKER	_____
RISER	_____
GAS BOX & BLOW OFF	_____
BUILD. CORNER & 1st FLOOR ELEV.	_____
C. OF DITCH	_____
810E OF SLOPE	_____
TOP OF BANK & RIDGE	_____
TOP OF BERM	_____
EDGE OF WATER & WATER SURFACE	_____
HEADWALL & RETAINING WALL	_____
SIGNS & SIGN POST	_____
LOCAL LOW POINT & LOCAL HIGH POINT	_____
COLUMN OR PIER	_____

BENCHMARK

BENCHMARK No. 408
N. END TOP LAMP POLE BASE
ELEVATION 639.62 NAVD 88 DATUM

BENCHMARK No. 409
CHISELED SQUARE W. TOP OF CONC.
LAMP POLE BASE
ELEVATION 641.24 NAVD 88 DATUM

BENCHMARK No. 415
ARROW ON FIRE HYDRANT
ELEVATION 638.59 NAVD 88 DATUM



NE CORNER OF SECTION 35,
T15S, R9E, CITY OF LIVONIA,
WAYNE COUNTY, MICHIGAN
L. 27004, P. 587, W.C.R.



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CONSULTING ENGINEERS SINCE 1915

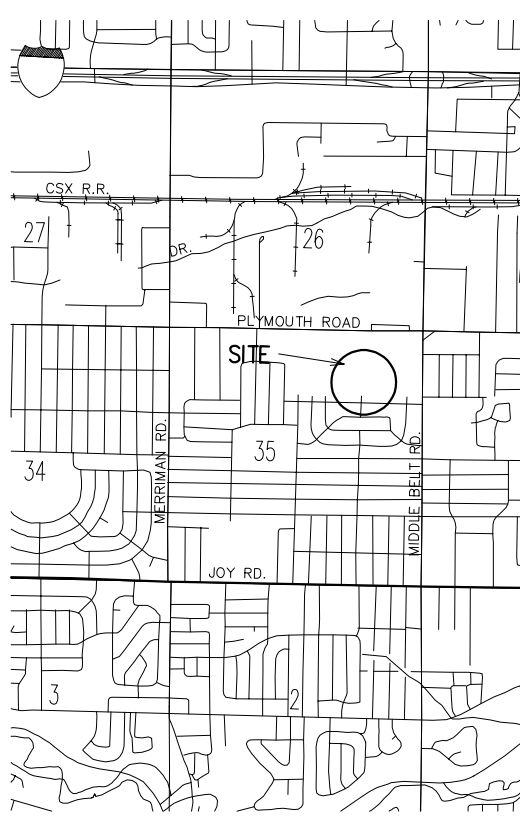
555 HULET DRIVE P.O. BOX 824
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FAX (1st Floor): (248) 454-6312
FAX (2nd Floor): (248) 454-6359

WEB SITE: <http://www.hrcengr.com>



DATE	ADDITIONS AND/OR REVISIONS
DESIGNED	
DRAWN	B.PIGGOTT
CHECKED	G.CHALICE
APPROVED	G.CHALICE



CITY OF LIVONIA
WONDERLAND MALL

ALTA/NSPS
LAND TITLE SURVEY

HRC JOB NO. 20190258	SCALE 1"=50'
DATE April 2022	SHEET NO. 1 OF 2

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SANITARY STRUCTURE DATA	
Structure Name	Structure Details
49	RM=637.64 INV IN=623.37 SW 12" TO FROM 10809 INV IN=623.14 W 12" FROM INV OUT=624.4 E 18" TO 10672
5441	RM=637.46 INV IN=625.40 NE 12" FROM INV OUT=624.75 E 12" TO 10816
10672	RM=637.68 INV IN=623.08 W 18" FROM INV OUT=623.07 E 18" TO
10809	RM=638.10 INV IN=624.28 W 12" FROM 10956 INV OUT=624.52 NE 12" TO 49
10816	RM=638.27 INV IN=624.69 W 12" FROM 5441 INV OUT=624.65 SE 12" TO 10956
10956	RM=637.50 INV IN=623.66 NW 12" FROM 10816 INV OUT=623.59 E 12" TO 10809
11007	RM=637.47
20029	RM=639.69 INV IN=629.74 W 12" FROM INV OUT=629.72 E 12" TO

WATER STRUCTURE DATA	
Structure Name	Structure Details
5437	RIM=638.19 T/P IN=632.26 W 12" DI FROM T/P OUT=632.26 E 12" DI TO
5475	RIM=636.90 T/P IN=629.90 W 12" DI FROM T/P OUT=629.90 S 12" DI TO
10810	RIM=638.31 T/P IN=631.95 W 12" DI FROM T/P OUT=631.95 E 12" DI TO
11064	RIM=636.76 T/P IN=630.21 W 12" DI FROM T/P OUT=630.21 E 12" DI TO
11072	RIM=636.60 T/P IN=630.60 W 12" DI FROM T/P OUT=630.60 N 12" DI TO

	STORM	STRUCTURE	DATA
Structure Name	Structure Details		
71	RM=630.73	INV OUT=631.61 N 12" RCP TO 20309	
5026	RM=636.34	INV OUT=631.70 E 12" RCP TO 10871	
5029	RM=636.88	INV IN=632.38 E 12" RCP TO 10817	
		INV OUT=632.93 NW 12" RCP	
5054	RM=635.87	INV OUT=632.72 SW 12" RCP TO 5020	
5384	RM=637.91	INV IN=628.22 E 24" RCP FROM	
		INV OUT=628.11 W 24" RCP TO	
5440	RM=638.07	INV IN=631.61 N 15" RCP FROM	
		INV IN=631.44 W 12" RCP FROM	
		INV OUT=631.36 S 12" RCP TO 10908	
5575	RM=637.14	(FILLED WITH WATER & DIRT)	
5576	RM=636.82	(FILLED WITH WATER & DIRT)	
5689	RM=640.77	(FILLED WITH DEBRIS)	
5721	RM=634.88	INV OUT=632.11 S 12"	
		INV OUT=632.11 S 12"	
6124	RM=634.85	INV IN=626.91 N 48" CONC FROM 51068	
		INV OUT=626.91 S 48" CONC TO	
10692	RM=635.71	INV OUT=632.19 W 12" RCP TO 10691	
10708	RM=635.67	INV IN=632.21 W 12" RCP FROM 10709	
		INV OUT=631.91 E 12" RCP TO 10596	
10709	RM=635.59	INV OUT=632.46 E 12" RCP TO 10708	
10747	RM=635.72	INV OUT=632.60 S 12" RCP TO 10770	
10770	RM=637.75	INV IN=633.40 N 12" RCP FROM 10747	
		INV OUT=633.33 E 12" RCP TO 10598	
10800	RM=630.59	INV IN=630.87 NE 36" RCP FROM	
		INV OUT=630.74 SW 48" RCP TO 11015	
10814	RM=638.42	INV IN=631.85 N 18" RCP FROM 10817	
		INV IN=631.66 W 48" RCP FROM	
		INV IN=631.46 E 48" RCP FROM	
		INV OUT=631.58 S 18" RCP TO 10952	
10818	RM=638.44	INV IN=631.96 N 18" RCP FROM 10831	
		INV IN=631.64 W 12" RCP FROM 50209	
		INV OUT=631.94 S 18" RCP TO 10814	
10831	RM=637.18	INV IN=631.62 N 18" RCP FROM 10850	
		INV IN=631.62 W 12" RCP FROM 10871	
		INV IN=632.63 E 12" RCP FROM	
		INV OUT=631.41 S 18" RCP TO 10817	
10850	RM=637.63	INV IN=631.47 N 18" RCP FROM 10851	
		INV IN=631.47 W 12" RCP FROM 10868	
		INV IN=632.06 E 12" RCP FROM	
		INV OUT=631.53 S 18" RCP TO 10383	
10851	RM=637.81	INV IN=631.97 W 12" RCP FROM 50220	
		INV IN=631.94 NE 12" RCP FROM 10861	
		INV OUT=631.75 S 18" RCP TO 10850	
10859	RM=636.73	INV OUT=632.76 W 12" RCP TO 10851	
10861	RM=637.36	INV IN=632.30 E 12" RCP FROM 50859	
		INV OUT=632.26 SW 12" RCP TO 50819	
10868	RM=635.93	INV IN=631.97 W 12" RCP FROM 50519	
		INV OUT=631.71 E 12" RCP TO 10826	
10871	RM=636.31	INV IN=632.68 W 12" RCP FROM 5020	
		INV OUT=632.01 E 12" RCP TO 10831	
10908	RM=635.93	INV IN=630.79 N 15" RCP FROM 5440	
		INV IN=630.00 W 33" RCP FROM 10657	
		INV OUT=628.21 E 48" RCP TO 10931	

STORM STRUCTURE DATA	
Structure Name	Structure Details
11068	RM=637.11 INV IN=628.53 S 48° RCP FROM 11068 INV OUT=628.48 N 48° RCP TO
11069	RM=637.99 INV IN=628.75 S 12° RCP FROM 11070 INV OUT=632.71 N 12° RCP TO 11067
11070	RM=638.11 INV OUT=633.11 N 12° RCP TO 11069
20028	RM=644.28 INV IN=630.73 S 12° CONC FROM 20305 INV OUT=627.73 W CONC FROM 20304 INV IN=627.63
20034	RM=634.73 INV IN=628.87 N 21° RCP FROM 20062 INV OUT=628.83 E 24° RCP TO
20062	RM=635.90 INV IN=631.25 N 15° RCP FROM 20078 INV OUT=631.00 S 21° RCP TO 20034
20078	RM=635.98 INV OUT=631.56 S 15° RCP TO 20062
20113	RM=635.90 INV OUT=631.72 E 12° RCP TO
20136	RM=636.26 INV OUT=630.76 NW 12° RCP TO
20295	RM=636.03 INV IN=632.08 N 12° RCP TO
20296	RM=641.20 INV IN=622.92 W 24° RCP FROM 20319 INV OUT=622.70 E 24° RCP TO 20300
20296	RM=641.85 INV IN=622.13 N 24° RCP FROM 20296 INV IN=622.33 N 24° RCP FROM INV OUT=622.25 E 24° RCP TO 20303
20303	RM=642.35 INV IN=621.91 W 24° RCP FROM 20300 INV OUT=621.79 E 24° RCP TO
20305	RM=635.46 INV OUT=631.26 N 12° RCP TO
20309	RM=645.02 INV IN=627.81 E 48° RCP FROM INV IN=631.10 S 12° RCP FROM 71 INV OUT=627.98 W 48° RCP TO 20313
20313	RM=646.87 INV IN=627.85 E 48° RCP FROM 20309 INV OUT=627.75 W 48° RCP TO 20315
20315	RM=647.23 INV IN=627.36 E 48° RCP FROM 20313 INV IN=628.11 E 48° RCP FROM
20319	RM=644.93 INV IN=623.50 W 24° RCP FROM 20327 INV OUT=623.43 E 24° RCP TO 20326
20326	RM=632.57 INV IN=625.15 NW 12° RCP FROM 20328 INV OUT=623.75 E 24° RCP TO 20319
20328	RM=632.82 INV OUT=623.74 SE 12° RCP TO 20327
20463	RM=630.68 T/P=627.48
10924	RM=635.71 INV IN=631.41 NW 12° RCP FROM INV OUT=629.15 S 12° RCP TO 10931
10931	RM=635.77 INV IN=629.07 N 12° RCP FROM 10924 INV IN=629.21 E 48° RCP FROM 10928 INV OUT=629.01 E 48° RCP TO 10952
10952	RM=636.93 INV IN=630.17 N 18° RCP FROM 10814 INV IN=628.43 W 48° RCP FROM 10931 INV OUT=629.43 E 48° RCP TO 10996
10996	RM=636.01 INV IN=628.53 W 48° RCP FROM 10952 INV OUT=628.53 E 48° RCP TO 11015
11015	RM=637.37 INV IN=628.82 E 48° RCP FROM 10996 INV IN=628.82 E 48° RCP FROM 10800 INV IN=628.82 E 48° RCP TO
11068	RM=636.35 INV IN=633.73 SW 12° RCP FROM INV IN=628.74 NW 33° RCP FROM INV IN=627.54 S 12° RCP FROM 11069 INV OUT=628.75 S 33° RCP TO

PROPERTY DESCRIPTION

Part of the Northeast ¼ of Section 35, Township 1 South, Range 9 East, City of Livonia, Wayne County, Michigan, described as:

Commencing at the Northeast Corner of said Section 35; thence North 89 degrees 49 minutes 46 seconds West 1439.16 feet along the north line of said Section and centerline of Plymouth Road (120 feet wide); thence South 00 degrees 10 minutes 14 seconds West 60.00 feet to the South line of Plymouth Road; thence continuing South 00 degrees 10 minutes 14 seconds West 411.54 feet; thence North 89 degrees 57 minutes 47 seconds West 34.00 feet to the POINT OF BEGINNING; thence South 00 degrees 19 minutes 25 seconds West 779.21 feet; thence North 89 degrees 44 minutes 39 seconds West 713.60 feet; thence North 00 degrees 10 minutes 14 seconds East 284.57 feet; thence South 89 degrees 49 minutes 46 seconds East 148.20 feet; thence North 00 degrees 10 minutes 14 seconds East 158.97 feet; thence South 89 degrees 49 minutes 46 seconds East 30.48 feet; thence North 00 degrees 10 minutes 14 seconds East 335.09 feet; thence South 89 degrees 46 minutes 36 seconds East 537.00 feet to the POINT OF BEGINNING. Containing 473,257.9 SF and/or 10.86 acres.

EXCEPTIONS

- | | |
|----|--|
| 11 | Water Easement in favor of Board of County Road Commissioners of the County of Wayne and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 6221, page 394, Register #C6144562. (CANNOT DETERMINE LOCATION DUE TO POOR UNREADABLE DOCUMENT) |
| 12 | Underground Paved in favor of Michigan Bell Telephone Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 10350, page 682, Register #D44589, as to Parcel IV. (CANNOT DETERMINE LOCATION DUE TO POOR UNREADABLE DOCUMENT) |
| 13 | Agreement for Right of Way in favor of Consumers Power Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 13643, page 598, Register #C384005, (CANNOT DETERMINE LOCATION DUE TO POOR UNREADABLE DOCUMENT) |
| 14 | Terms and Conditions contained in Easement as disclosed by instrument recorded in Liber 14112, page 572, Register #D490558, as to Parcel 12, page 572, Register #E469807, and in Liber 14112, page 581, Register #E490558. (AS SHOWN ON SURVEY) |
| 15 | Release of Right-of-Way in favor of County of Wayne and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 14180, page 497, Register #E503288, as to Parcels I, II and IV. (SHOWN ON SURVEY) |
| 16 | Terms and Conditions contained in Warranty deed as disclosed by instrument recorded in Liber 16839, page 70, Register #E383920, as to Parcel IV. (NOT PLOTTABLE) |
| 17 | Terms and Conditions contained in Easement Right of Way as disclosed by instrument recorded in Liber 17264, page 745, Register #E637371, as to Parcel III. (SHOWN ON SURVEY) |
| 18 | Easement in favor of Consumers Power Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 19200, page 393, Register #E632769, as to Parcel III. (SHOWN ON SURVEY) |
| 19 | Right of Way in favor of Michigan Bell Telephone Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 21399, page 129, Register #E653485. (SHOWN ON SURVEY) |
| 20 | Right of Way in favor of Michigan Bell Telephone Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 21399, page 130, Register #E653485 and Modification of Right of Way recorded in Liber 21645, page 636, Register #C738037. (SHOWN ON SURVEY) |
| 21 | Grant of Easement in favor of The Detroit Edison Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 22458, page 91. (SHOWN ON SURVEY) |
| 22 | Terms and Conditions contained in Easement Agreement as disclosed by instrument recorded in Liber 23507, page 725. (SHOWN ON SURVEY) |
| 23 | Terms and Conditions contained in Wall Easement Agreement as disclosed by instrument recorded in Liber 24145, page 804, Liber 24145, page 812, Liber 24145, page 816, Liber 24145, page 820, Liber 24145, page 824, Liber 24145, page 828, Liber 24145, page 830, Liber 24145, page 832, Liber 24145, page 840, Liber 24145, page 844, Liber 24145, page 848, Liber 24145, page 852, Liber 24145, page 856, Liber 24145, page 860, Liber 24145, page 864, Liber 24145, page 868, Liber 24145, page 872, and in Liber 24145, page 876. (AS SHOWN ON SURVEY) |
| 24 | Highway Easement Release for signal pole in favor of Michigan Department of Transportation and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 24610, page 483, as to Parcel II. (SHOWN ON SURVEY) |
| 25 | Terms and Conditions contained in Beautification Easement Agreement as disclosed by instrument recorded in Liber 34069, page 321, and in Liber 34069, page 339. (SHOWN ON SURVEY) |
| 26 | Terms and Conditions contained in Easement as disclosed by instrument recorded in Liber 35211, page 153, as to Parcel IV. (SHOWN ON SURVEY) |
| 27 | Easements, Terms and Conditions contained in Easement Agreement as disclosed by instrument recorded in Liber 45466, page 1201 as to Parcels I and II. (NOT PLOTTABLE) |
| 28 | Terms and Conditions contained in Grant of Easement as disclosed by instrument recorded in Liber 45466, page 275, as to Parcel I and II. (NOT PLOTTABLE) |
| 29 | Terms and Conditions contained in Operation and Easement Agreement as disclosed by instrument recorded in Liber 45526, page 375, and in First Amendment to Operation and Easement Agreement as disclosed by instrument recorded in Liber 45492, page 934. (SHOWN ON SURVEY) |
| 30 | Terms and Conditions contained in Declaration of Covenants, Conditions, Restrictions, and Easements as disclosed by instrument recorded in Liber 46879, page 103, as to Parcel IV. (SHOWN ON SURVEY) |
| 31 | Detrol Edison Underground Easement (Right of Way) in favor of The Detroit Edison Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 48070, page 708, as to Parcel IV. (SHOWN ON SURVEY) |
| 36 | Survey by Hubbel, Roth and Clark, Inc., dated February 27, 2003, Job No. 20030115, discloses the following:
a. Treaty is built over to foot main, which has been abandoned. (NA)
b. Partner built between the enclosed mill and The Target Store. (NA)
c. Power lines overhead at various locations. (NA)
d. Actual paving over the easement areas, gas mains, water sewer, telephone and electrical lines.
e. Building designated as the Montgomery Wards building, encroaches over the Easement Parcel survey points (NA)
f. Building designated as Ward's Automotive Center is built over the easement for sanitary sewer recorded in Liber 14112, page 572, Wayne County Records |

NOTE: (THE FOLLOWING WAS SHOWN ON HRC JOB No. 20090336.04, WITH A REVISION DATE OF 07/23/09.)

ASSESSMENTS SCHEDULED FOR TERMINATION PER DEPARTMENTAL INFORMATION AND ESSEMENT DRAWING OF
HUBBELL, ROTH & CLARK DEDICATED DATED 02-09-06., FINAL REVISION 03-02-06.

10" WIDE GAS EASEMENT, L1484, P.598 (ABANDONED LINE)
10" WIDE STORM SEWER EASEMENT, L1412, P.576
20" WIDE SANITARY, STORM, WATER MAIN EASEMENT, L1412, P.572
20" WIDE SANITARY, STORM, WATER MAIN EASEMENT, L1412, P.572
12" WIDE SANITARY SEWER EASEMENT, L1412, P.572
12" WIDE WATER MAIN EASEMENT, L1412, P.576
12" WIDE WATER MAIN EASEMENT, L1412, P.576
20" WIDE WATER MAIN EASEMENT, L1412, P.576
20" WIDE STORM SEWER AND WATER SYSTEM EASEMENT, L1412, P.576
10" WIDE SANITARY, STORM, WATER MAIN EASEMENT, L1412, P.576
20" WIDE SANITARY, STORM, WATER MAIN EASEMENT, L1412, P.576
20" WIDE SANITARY SEWER AND WATER MAIN EASEMENT, L1412, P.576
12" WIDE STORM SEWER EASEMENT, L1412, P.576

SURVEYOR'S CERTIFICATION

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 5, 8, 9, 11, 13, 14, 16, 17, OF TABLE A THEREOF.



GARY M. CHALICE
PROFESSIONAL SURVEYOR No. 55939



Schostak
BROTHERS & COMPANY

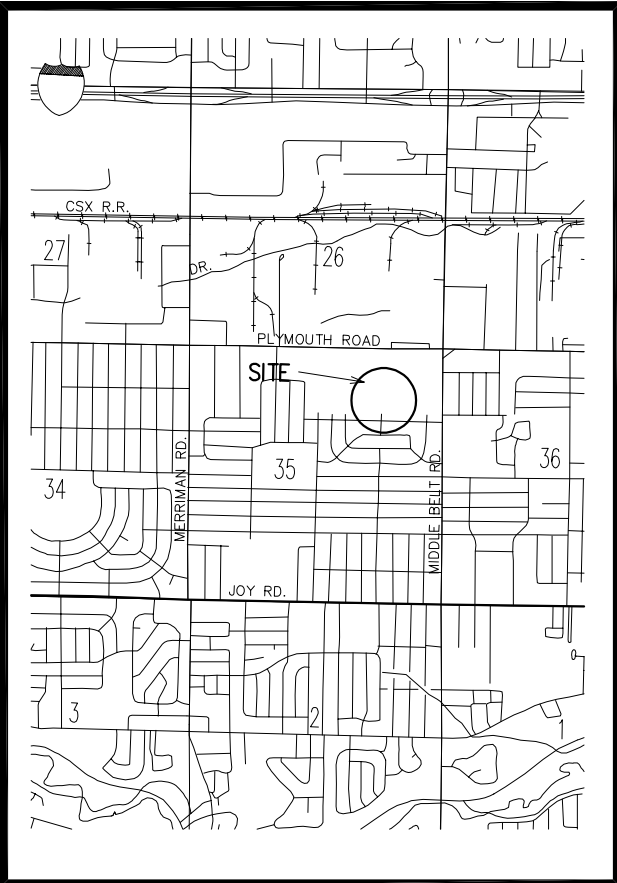
HRC
HUBBELL, ROTH & CLARK, INC.
CONSULTING ENGINEERS SINCE 1915

555 HULET DRIVE
BLOOMFIELD HILLS, MICH.

P.O. BOX 824
48303 - 0824

PHONE: (248) 454-6300
FAX (1st. Floor): (248) 454-6312
FAX (2nd. Floor): (248) 454-6359

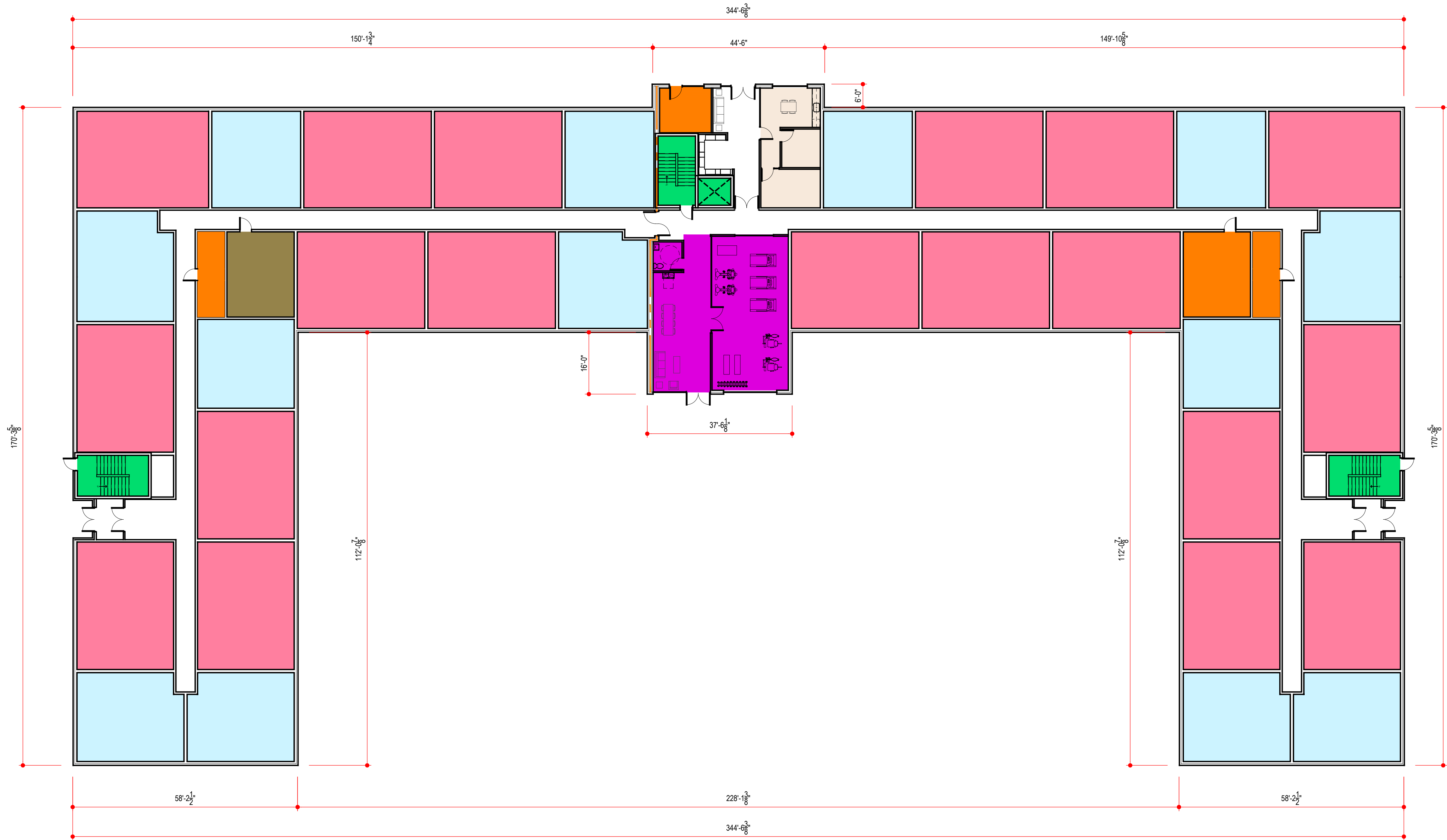
WEB SITE: [http:// www.hrcenr.com](http://www.hrcenr.com)

[illegible]

CITY OF LIVONIA
WONDERLAND MALL

ALTA/NSPS
LAND TITLE
SURVEY

HRC JOB NO. 20190258	SCALE 1"=50'
DATE April 2022	SHEET NO. 2 OF 2



1 Building A First Floor
SCALE: 1/16" = 1'

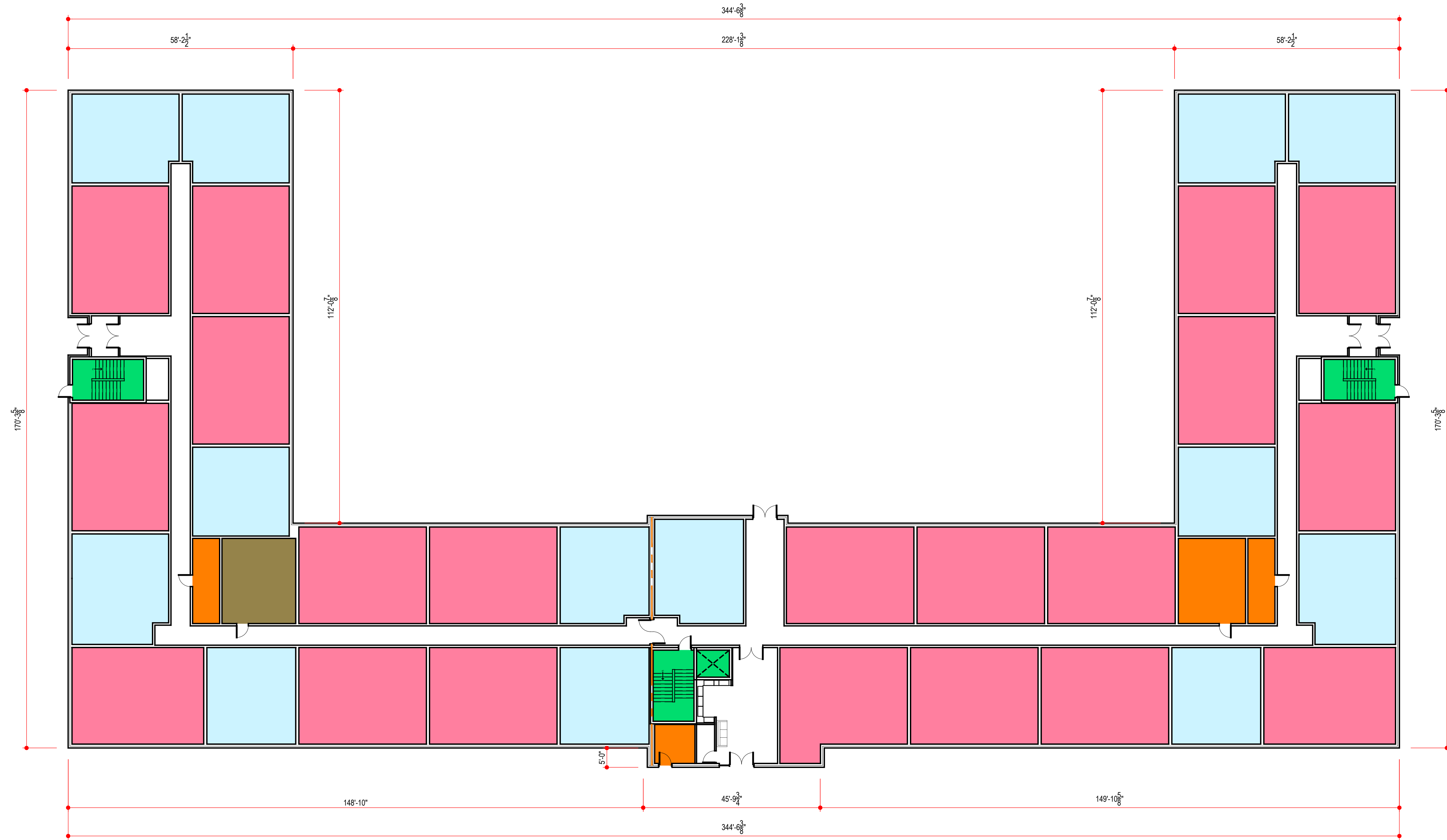


- VERTICAL CIRCULATION
- MECHANICAL/MAINTENANCE
- STORAGE
- ONE BED UNIT
- TWO BED UNIT
- COMMUNITY SPACES
- LEASING OFFICE

UNIT MATRIX

	1ST FLOOR	2ND FLOOR	3RD FLOOR	TOTAL
ONE BED	13	13	13	39
TWO BED	19	21	21	61
TOTAL	32	34	34	100

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SPA SUBMITTAL	4.22.22
REVISION/ISSUE	DATE

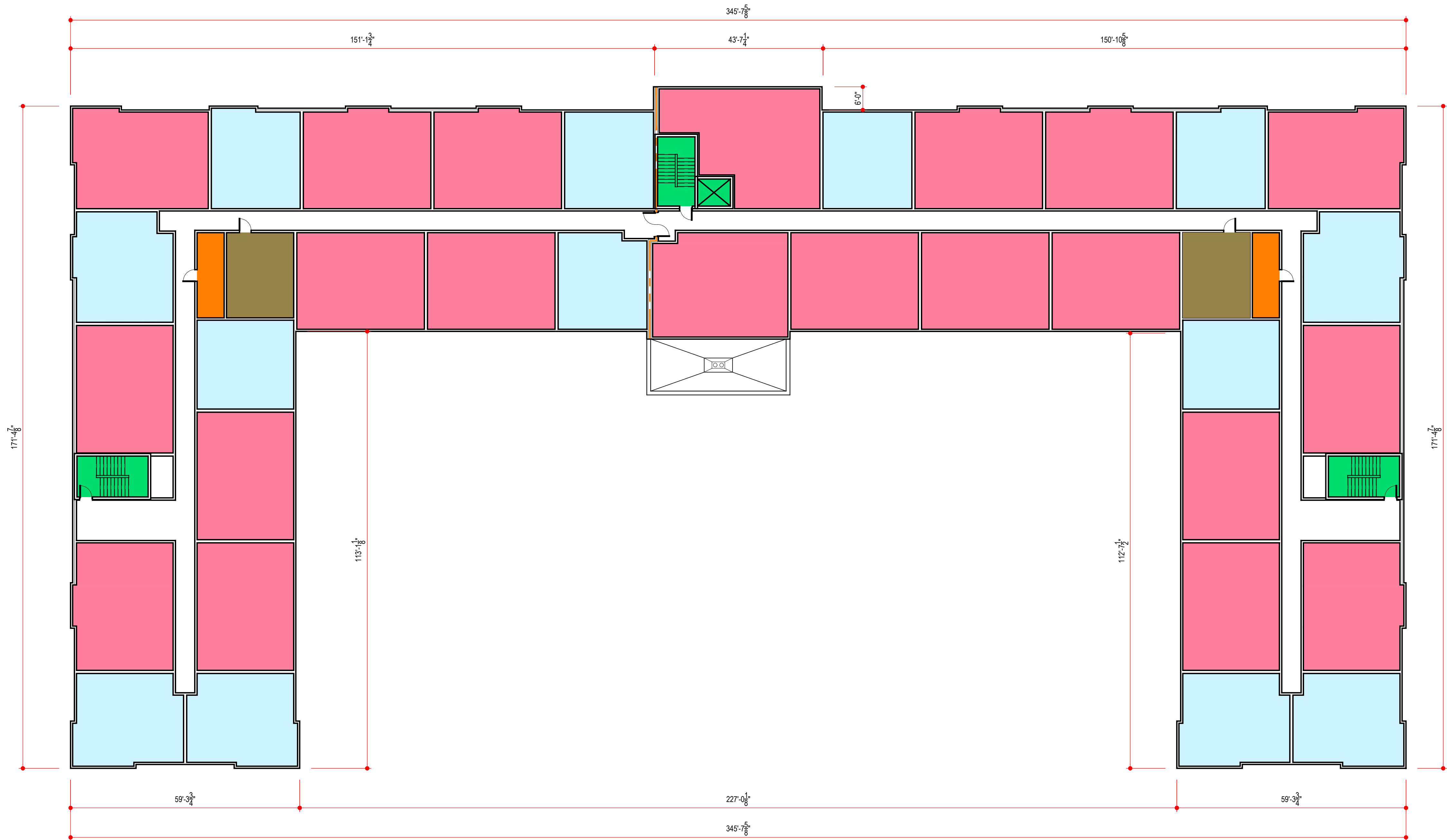


1 Building B First Floor
SCALE: 1/16" = 1'
NORTH

- VERTICAL CIRCULATION
- MECHANICAL
- STORAGE
- ONE BED UNIT
- TWO BED UNIT

UNIT MATRIX

	1ST FLOOR	2ND FLOOR	3RD FLOOR	TOTAL
ONE BED	13	13	13	39
TWO BED	20	21	21	61
TOTAL	33	34	34	101



1 Building A Second Floor
SCALE: 1/16" = 1'



- VERTICAL CIRCULATION
- MECHANICAL
- STORAGE
- ONE BED UNIT
- TWO BED UNIT

UNIT MATRIX

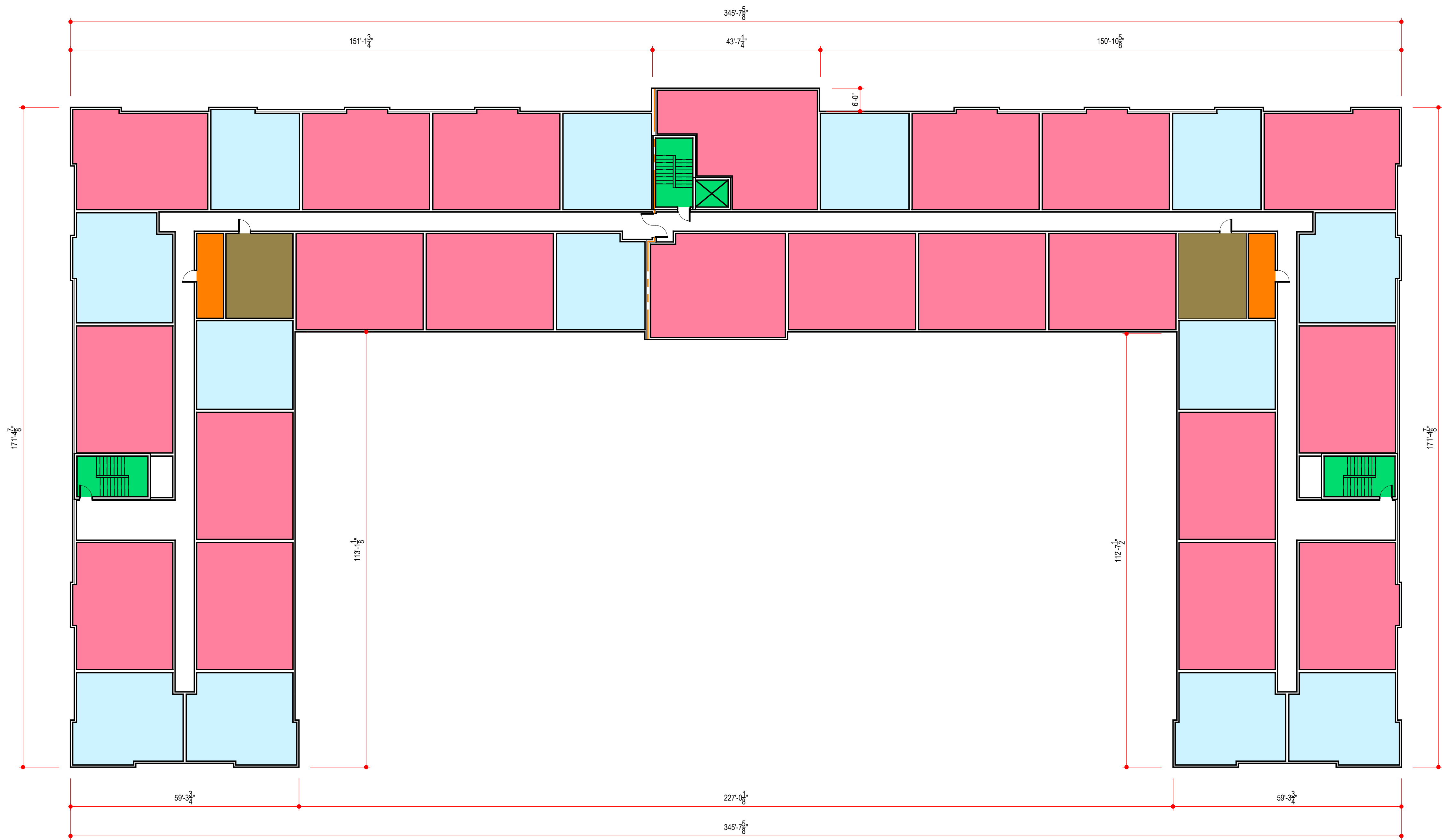
	1ST FLOOR	2ND FLOOR	3RD FLOOR	TOTAL
ONE BED	13	13	13	39
TWO BED	19	21	21	61
TOTAL	32	34	34	100

	1ST FLOOR	2ND FLOOR	3RD FLOOR	TOTAL
ONE BED	13	13	13	39
TWO BED	20	21	21	61
TOTAL	33	34	34	101



- NORTH
- 
- A circular compass rose with a vertical line and a horizontal line intersecting at the center. The top half is shaded black, and the bottom half is white. The word "NORTH" is written above the circle.

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SPA SUBMITTAL	4.22.22
REVISION/ISSUE	DATE



1 Building A Third Floor
SCALE: 1/16" = 1'

- VERTICAL CIRCULATION
- MECHANICAL
- STORAGE
- ONE BED UNIT
- TWO BED UNIT

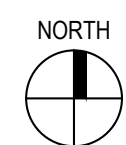


UNIT MATRIX

	1ST FLOOR	2ND FLOOR	3RD FLOOR	TOTAL
ONE BED	13	13	13	39
TWO BED	19	21	21	61
TOTAL	32	34	34	100

	1ST FLOOR	2ND FLOOR	3RD FLOOR	TOTAL
ONE BED	13	13	13	39
TWO BED	20	21	21	61
TOTAL	33	34	34	101

SPIRE | DESIGN GROUP
248.921.0794 MARK@SPIREDG.COM



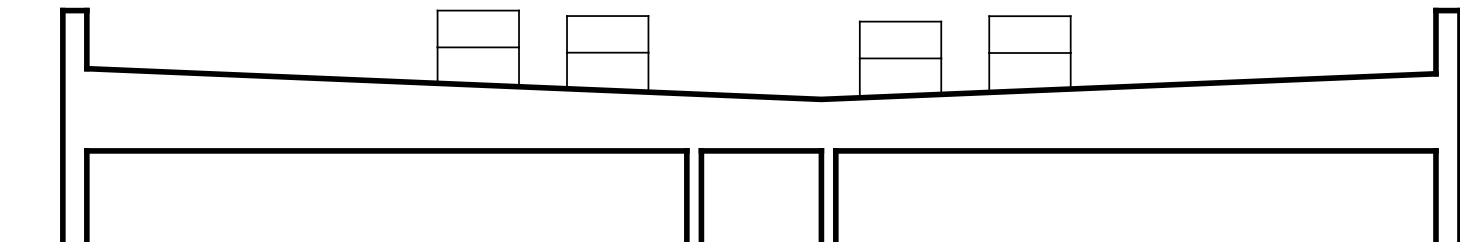
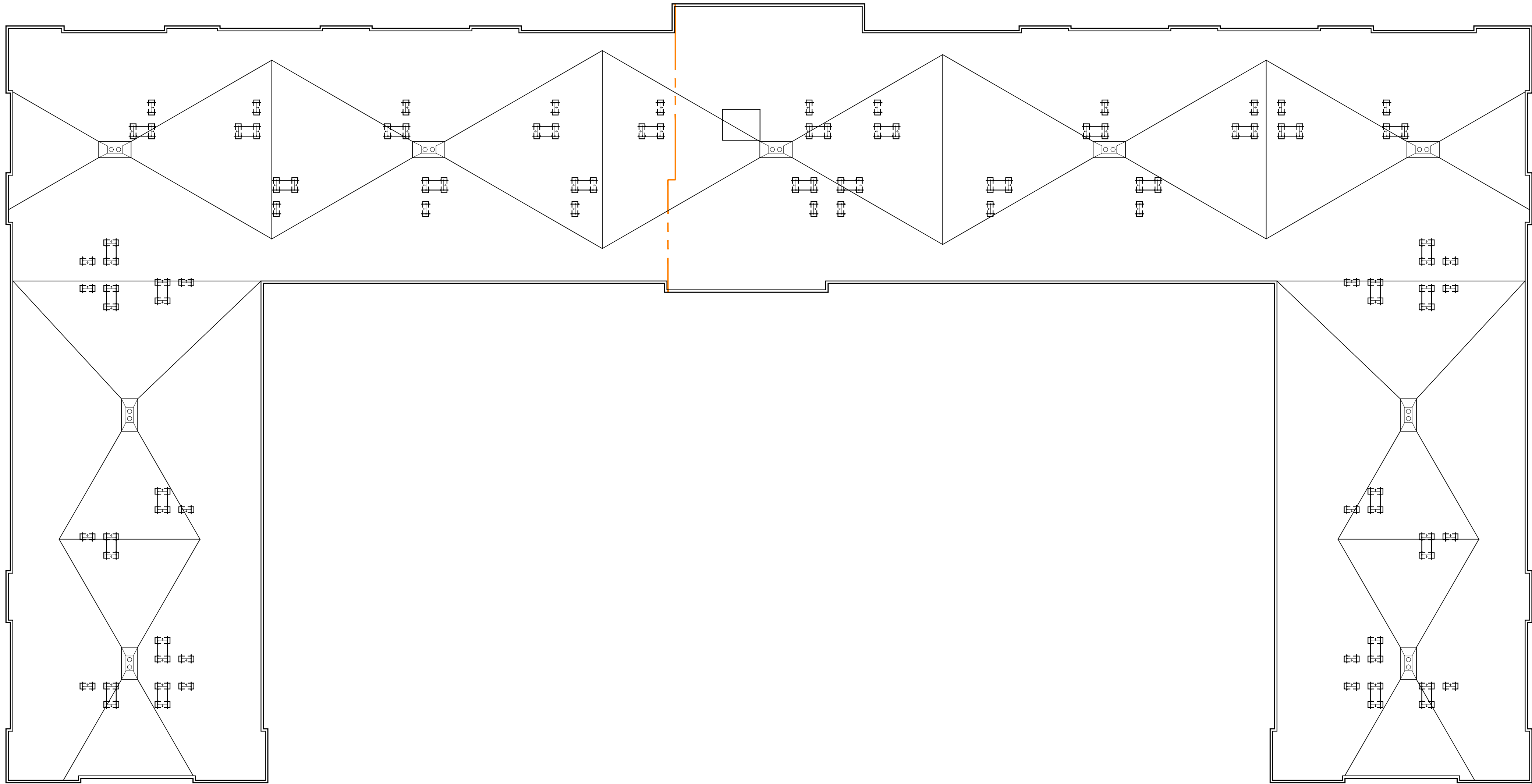
- | | | | |
|---|----------------------|---|--------------|
|  | VERTICAL CIRCULATION |  | ONE BED UNIT |
|  | MECHANICAL |  | TWO BED UNIT |
|  | STORAGE | | |

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SPA SUBMITTAL	4.22.22
REVISION/ISSUE	DATE

Wonderland Village
11320 Middlebelt Rd.
Livonia, MI 48150

A103-B

020014



NOTE: TOP OF MECHANICAL UNITS BELOW PARAPET

2 Mechanical Screen
SCALE: 1/8" = 1'

1 Building A Roof Plan
SCALE: 1/16" = 1'



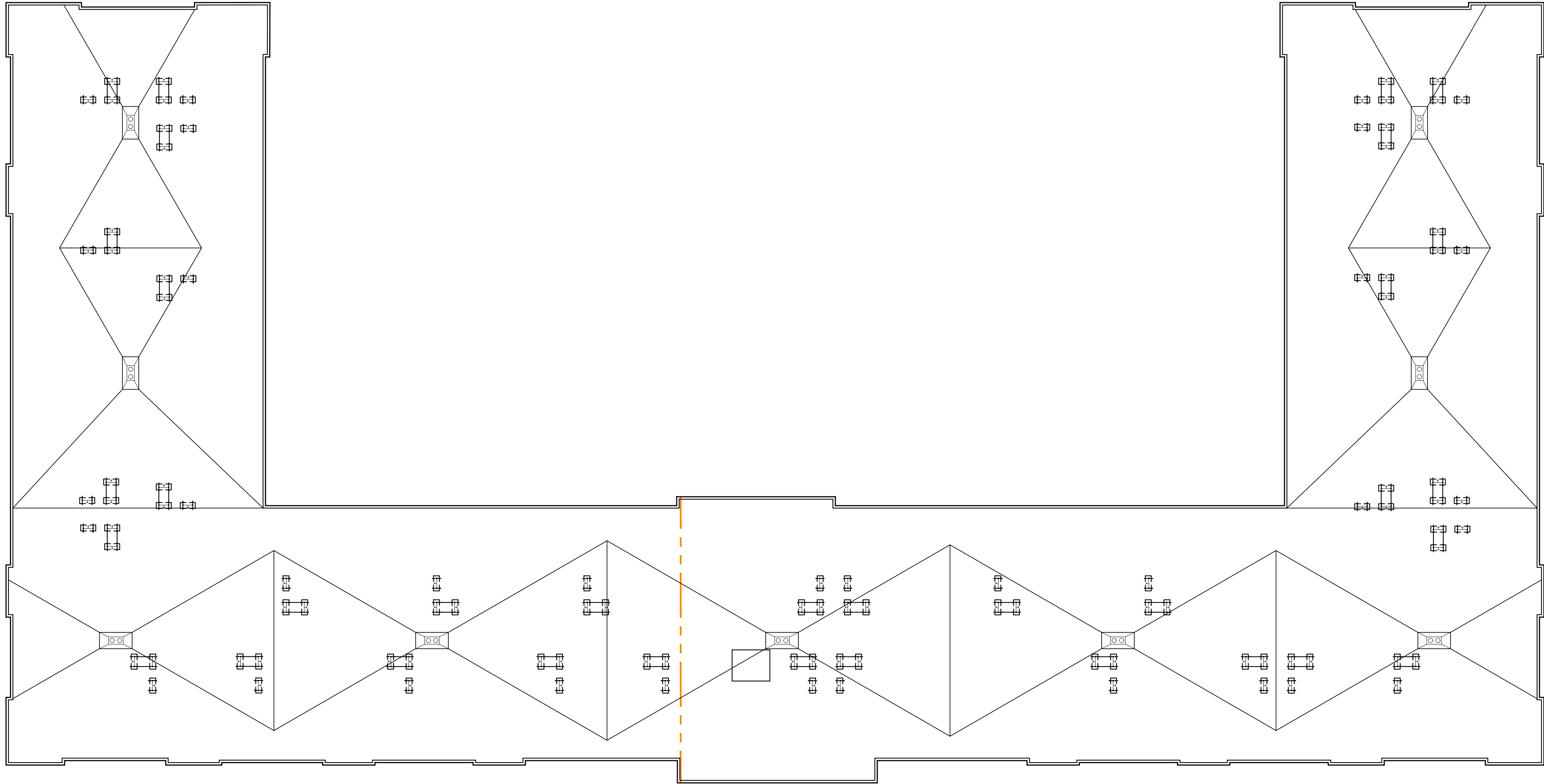
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SPA SUBMITTAL	4.22.22	
REVISION/ISSUE	DATE	

Wonderland Village
11320 Middlebelt Rd.
Livonia, MI 48150

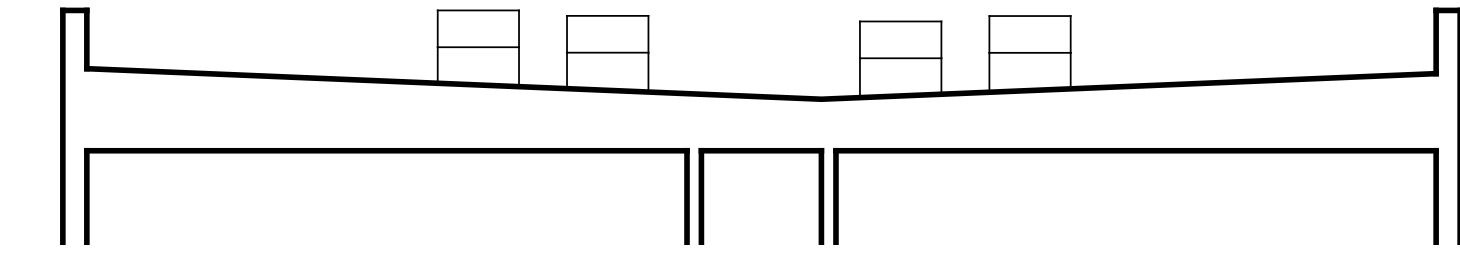
Building A Roof Plan

A104-A

020014



1 Building B Roof Plan
SCALE: 1/16" = 1'

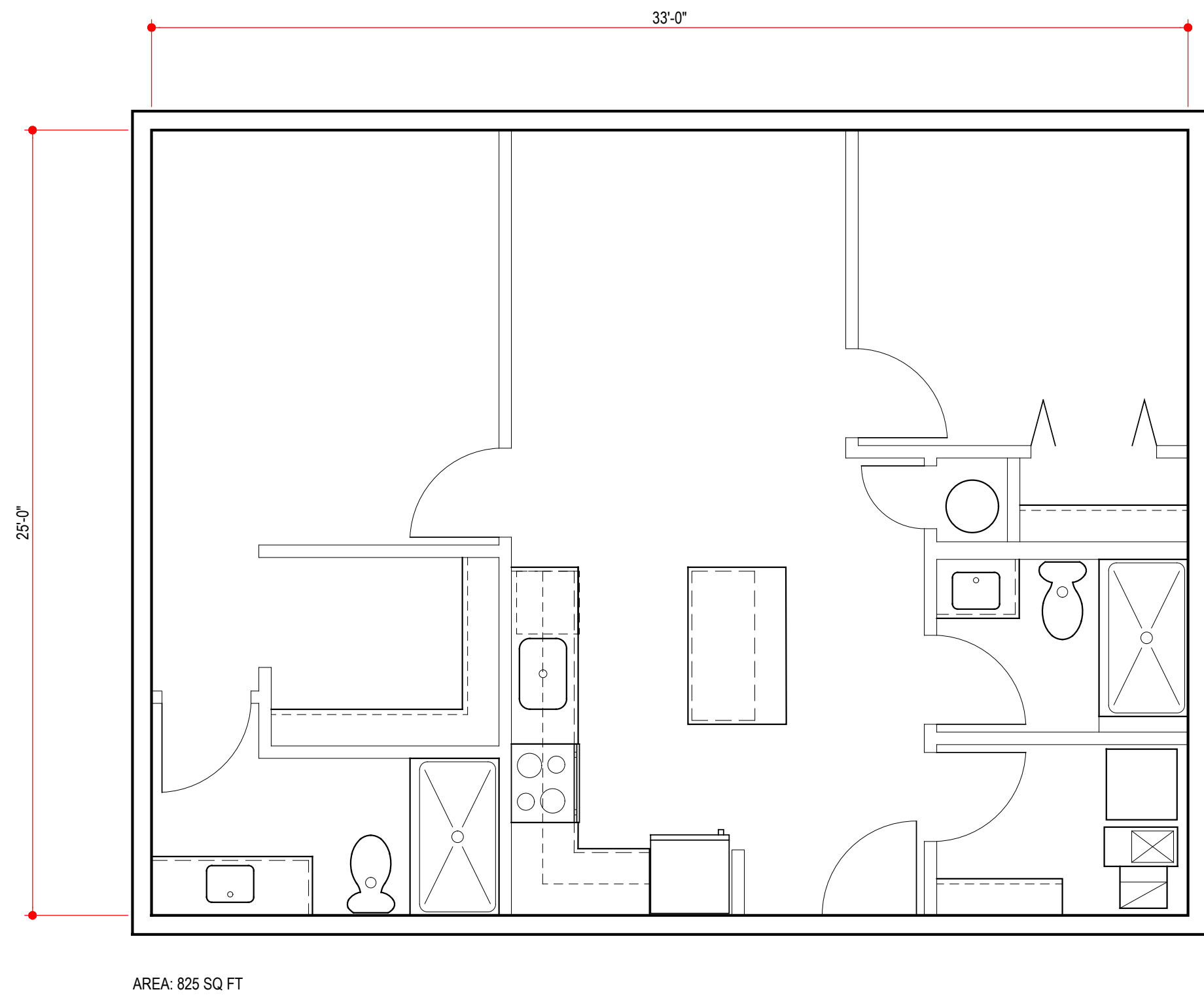


NOTE: TOP OF MECHANICAL UNITS BELOW PARAPET

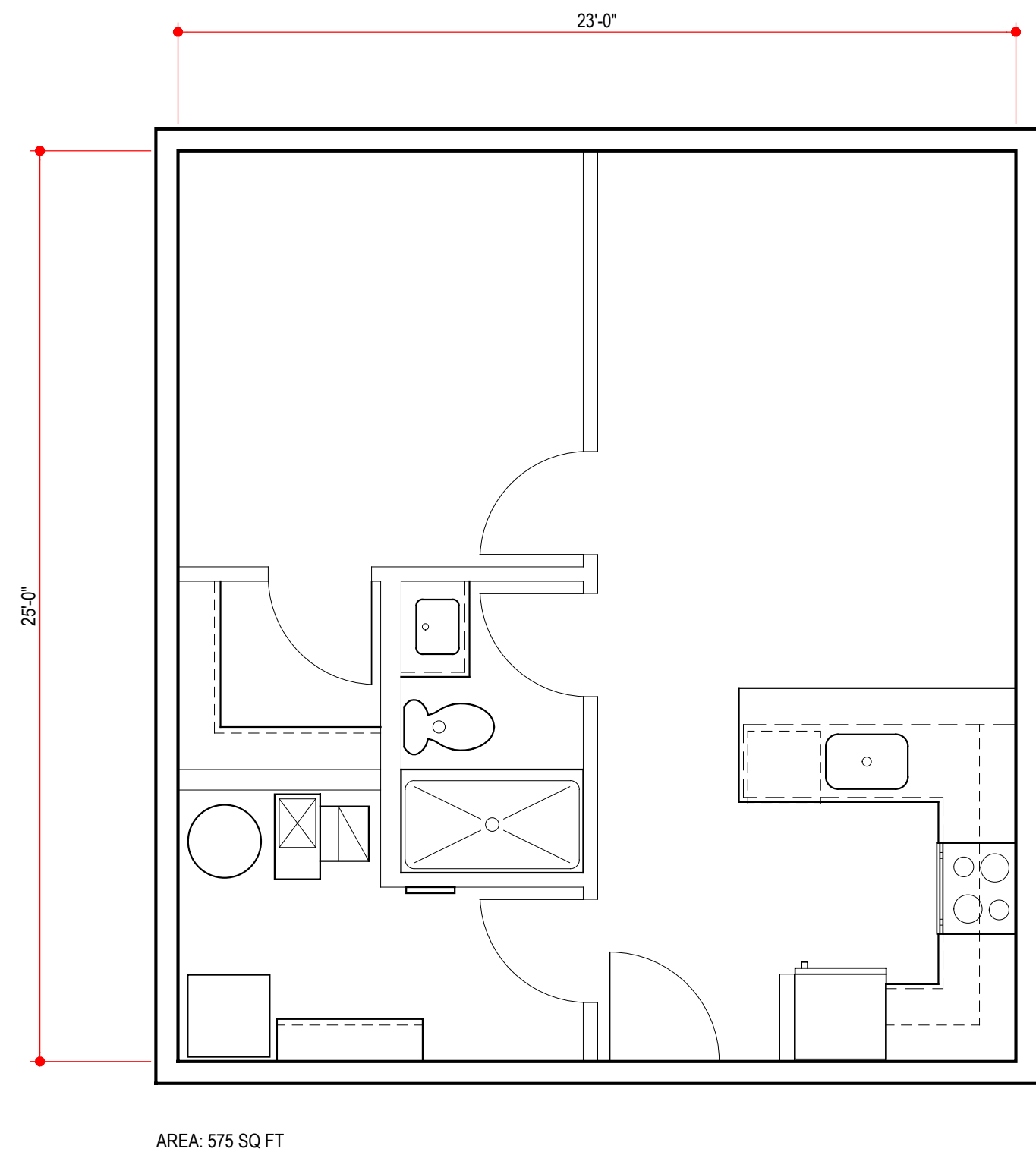
2 Mechanical Screen
SCALE: 1/8" = 1'

Wonderland Village 11320 Middlebelt Rd. Livonia, MI 48150		Building B Roof Plan
A104-B		
020014		

REVISION/ISSUE	DATE
SPA SUBMITTAL	4.22.22

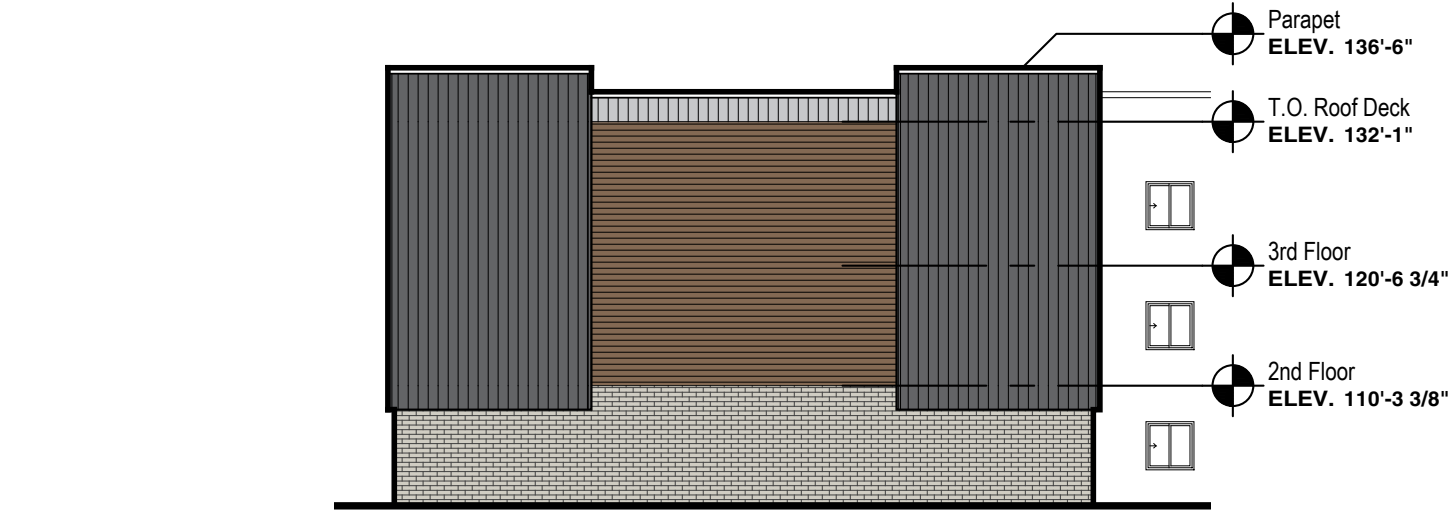


2 Typical Two Bed
SCALE: 1/4" = 1'

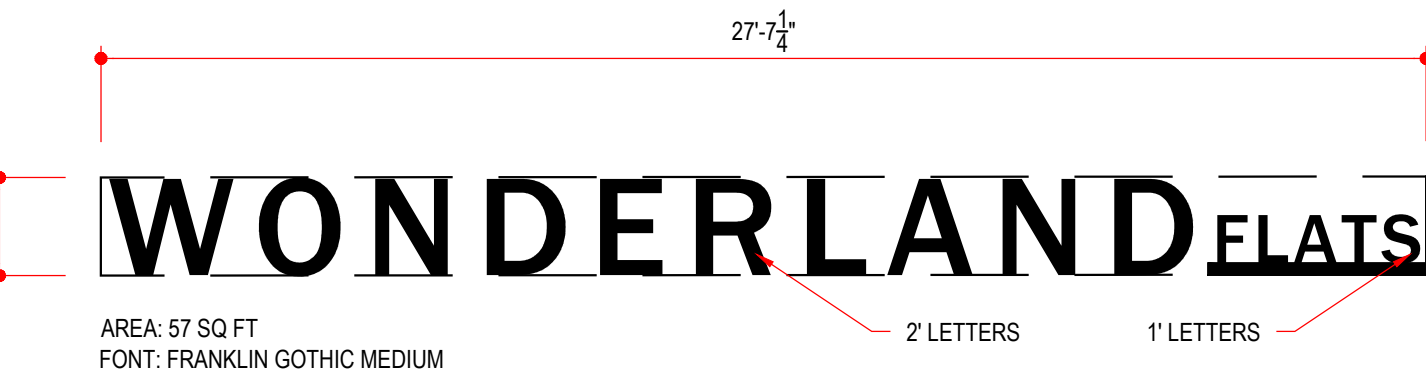
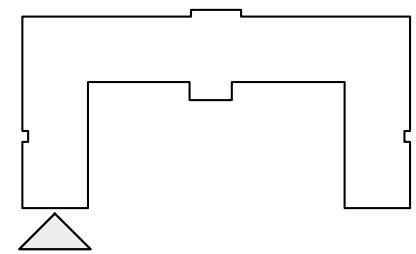


1 Typical One Bed
SCALE: 1/4" = 1'

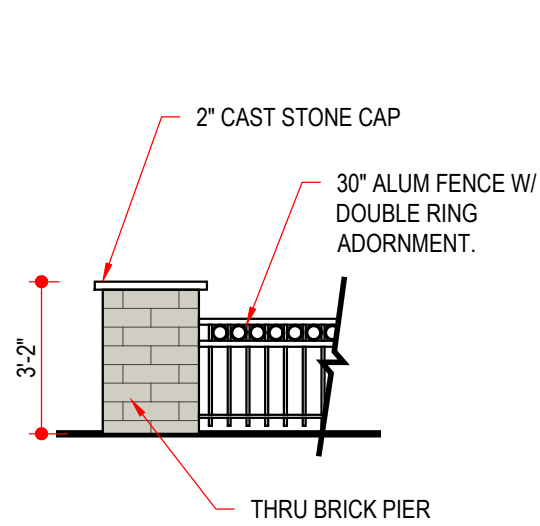
REVISION/ISSUE	DATE
SPA SUBMITTAL	4.22.22
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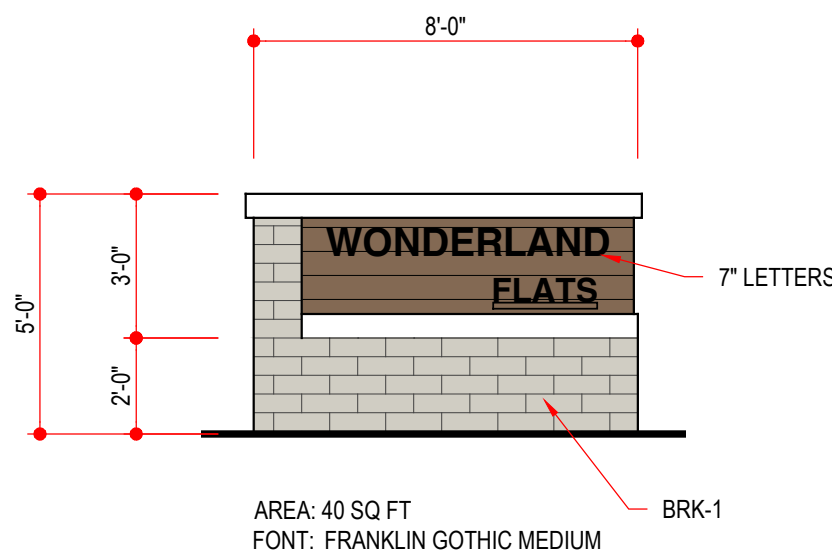
9 Building A South Elevation West Wing
SCALE: 1/16" = 1'



6 Building Sign
SCALE: 1/4" = 1'



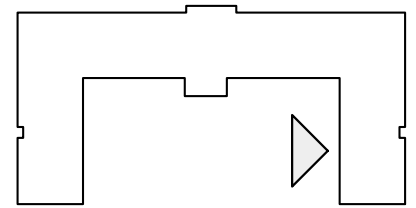
3 Decorative Fence Detail
SCALE: 1/4" = 1'



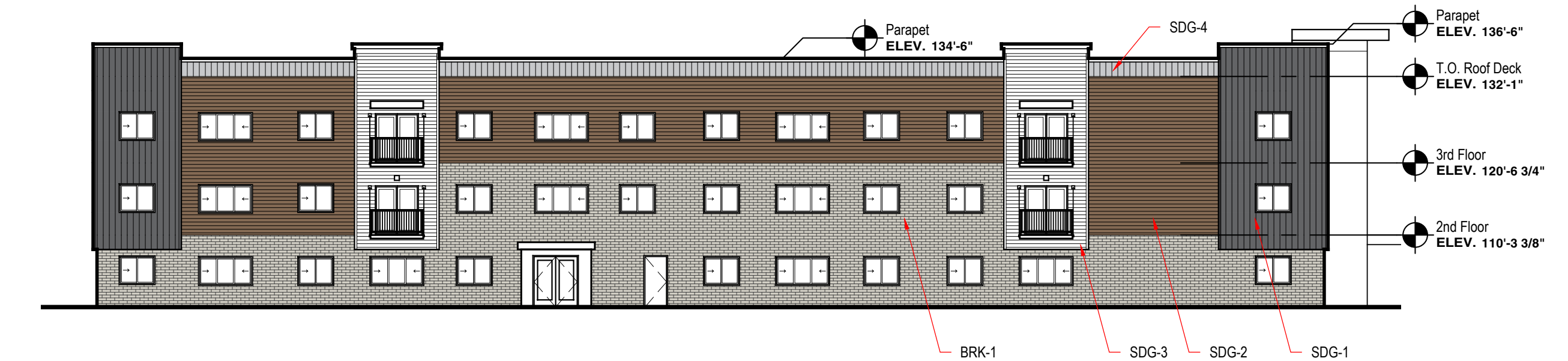
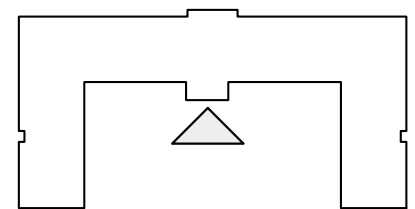
2 Monument Sign
SCALE: 1/4" = 1'



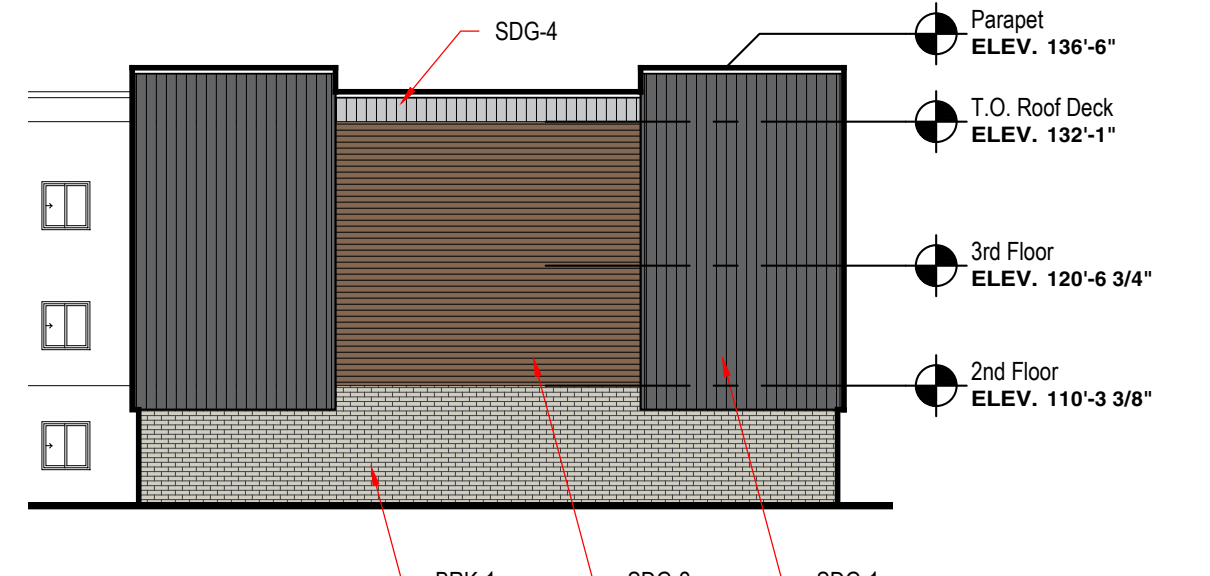
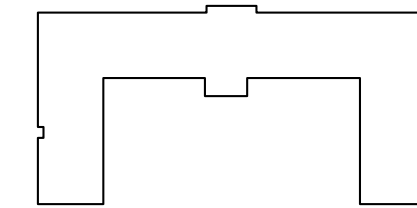
11 Building A East Courtyard Elevation
SCALE: 1/16" = 1'



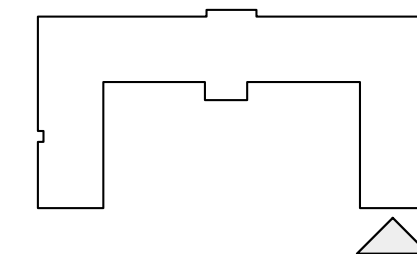
8 Building A South Courtyard Elevation
SCALE: 1/16" = 1'



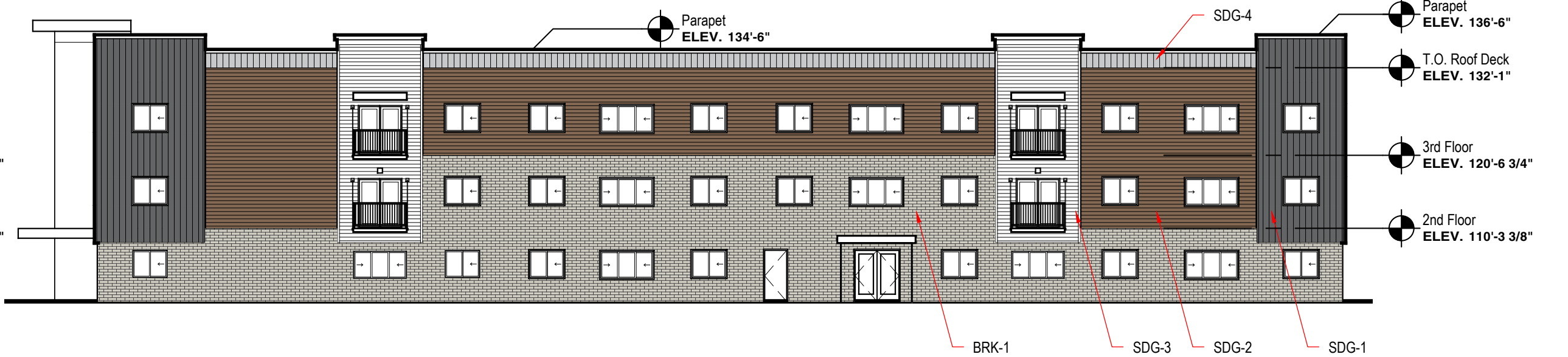
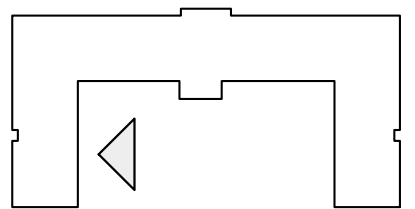
10 Building A East Elevation
SCALE: 1/16" = 1'



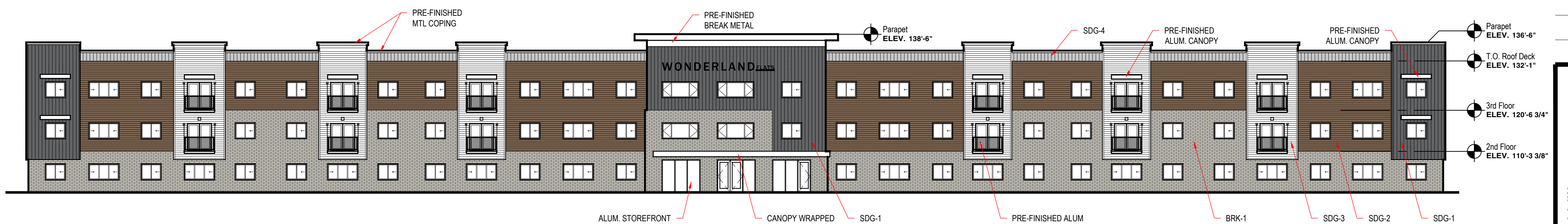
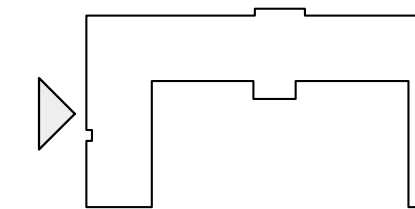
7 Building A South Elevation East Wing
SCALE: 1/16" = 1'



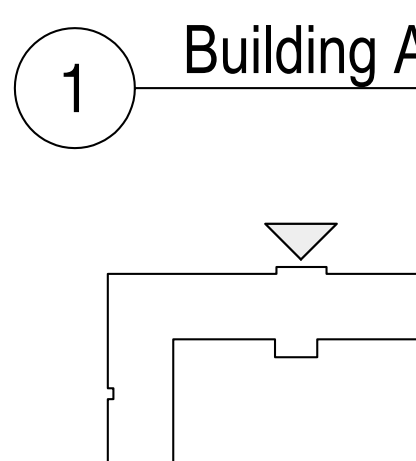
5 Building A West Courtyard Elevation
SCALE: 1/16" = 1'



4 Building A West Elevation
SCALE: 1/16" = 1'

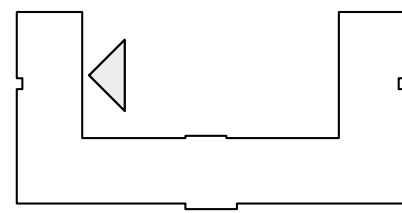


1 Building A North Elevation
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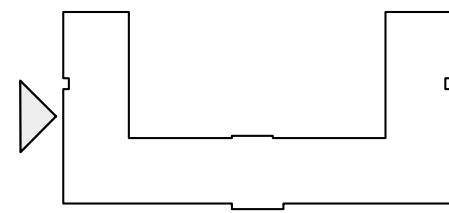


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*MANUFACTURER AND COLORS MAY BE ADJUSTED AT TIME OF CONSTRUCTION BASED ON PRODUCT AVAILABILITY



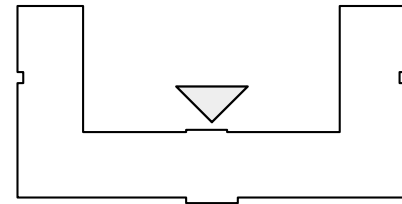
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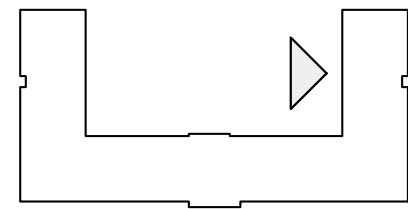
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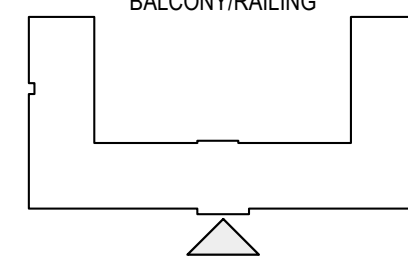
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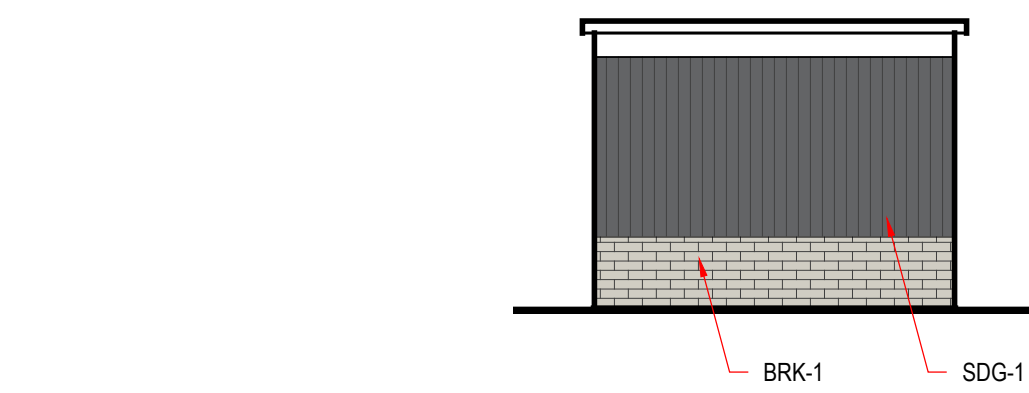
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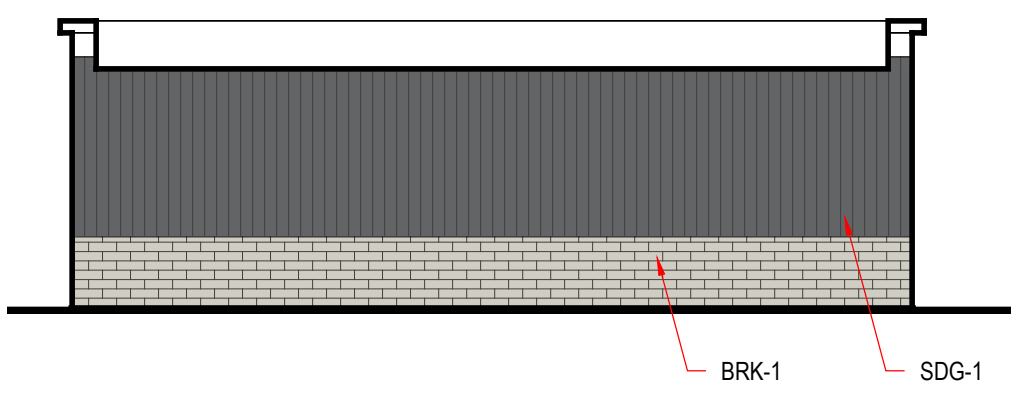
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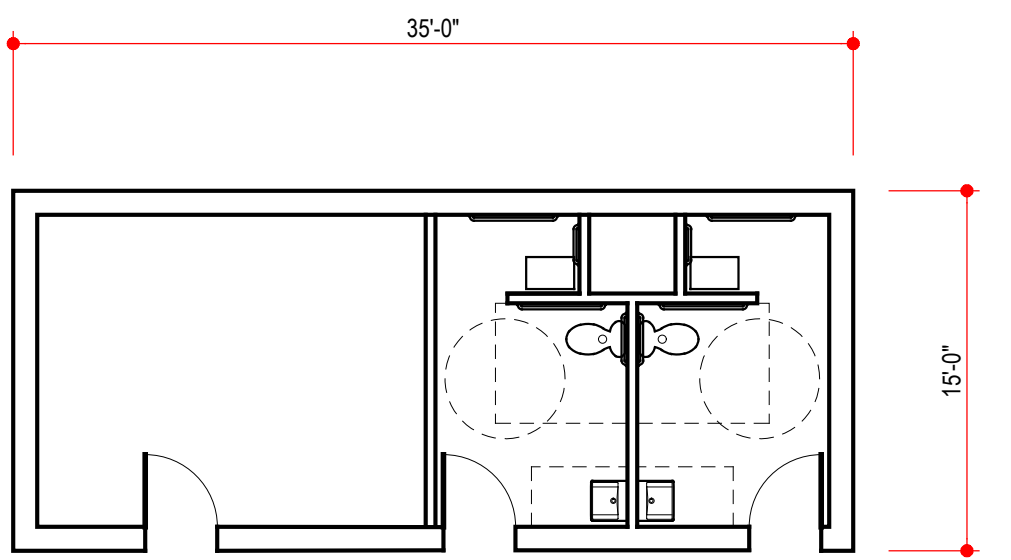
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A201-B	020014



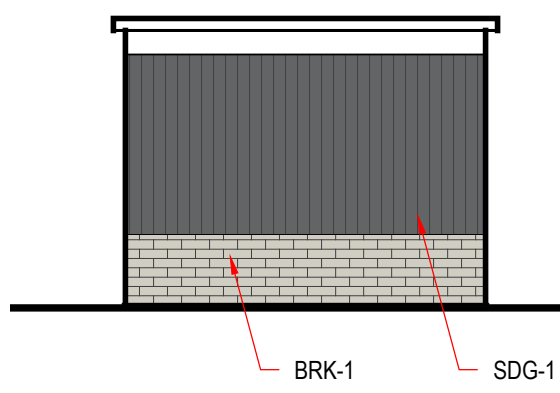
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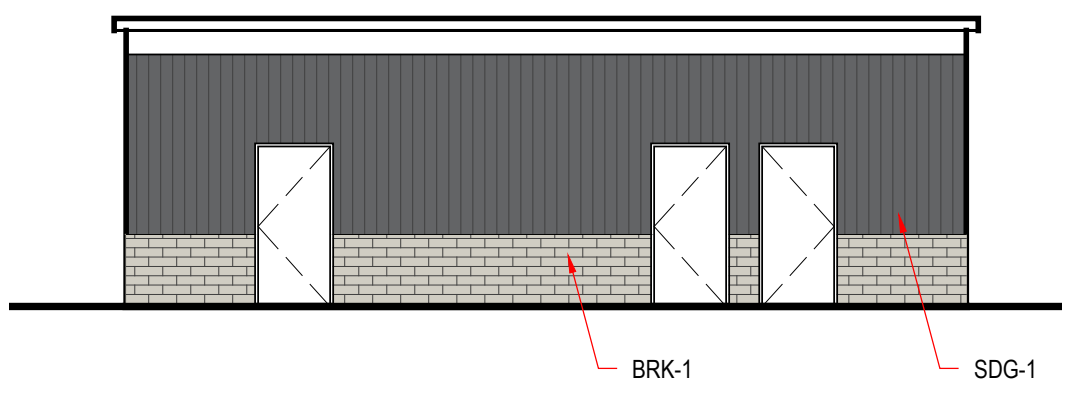
9 Pool House West Elevation
SCALE: 1/8" = 1'



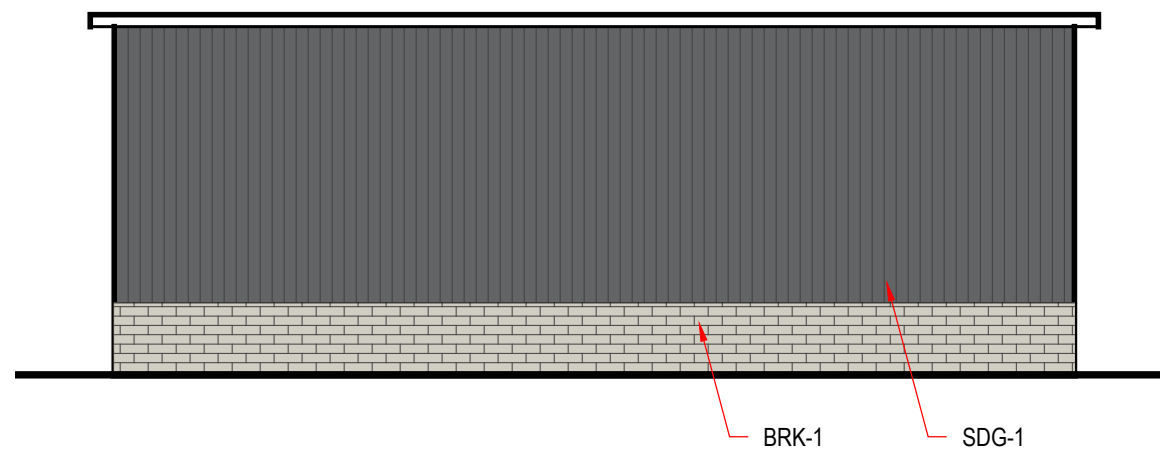
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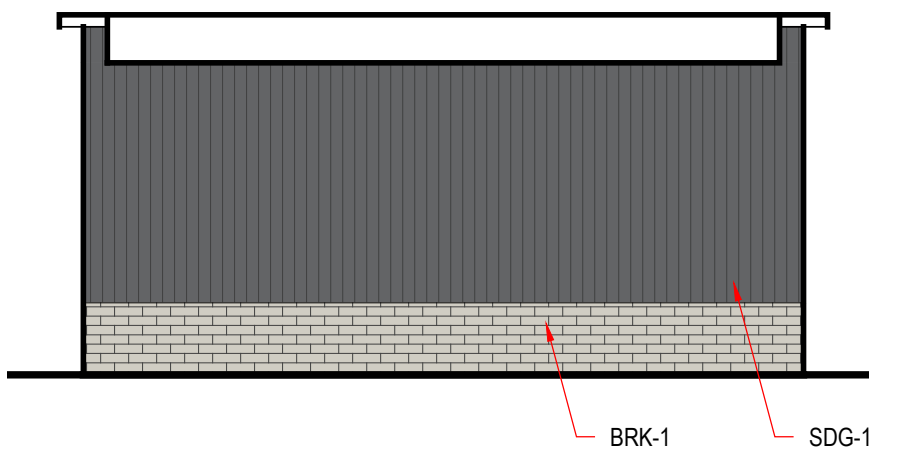
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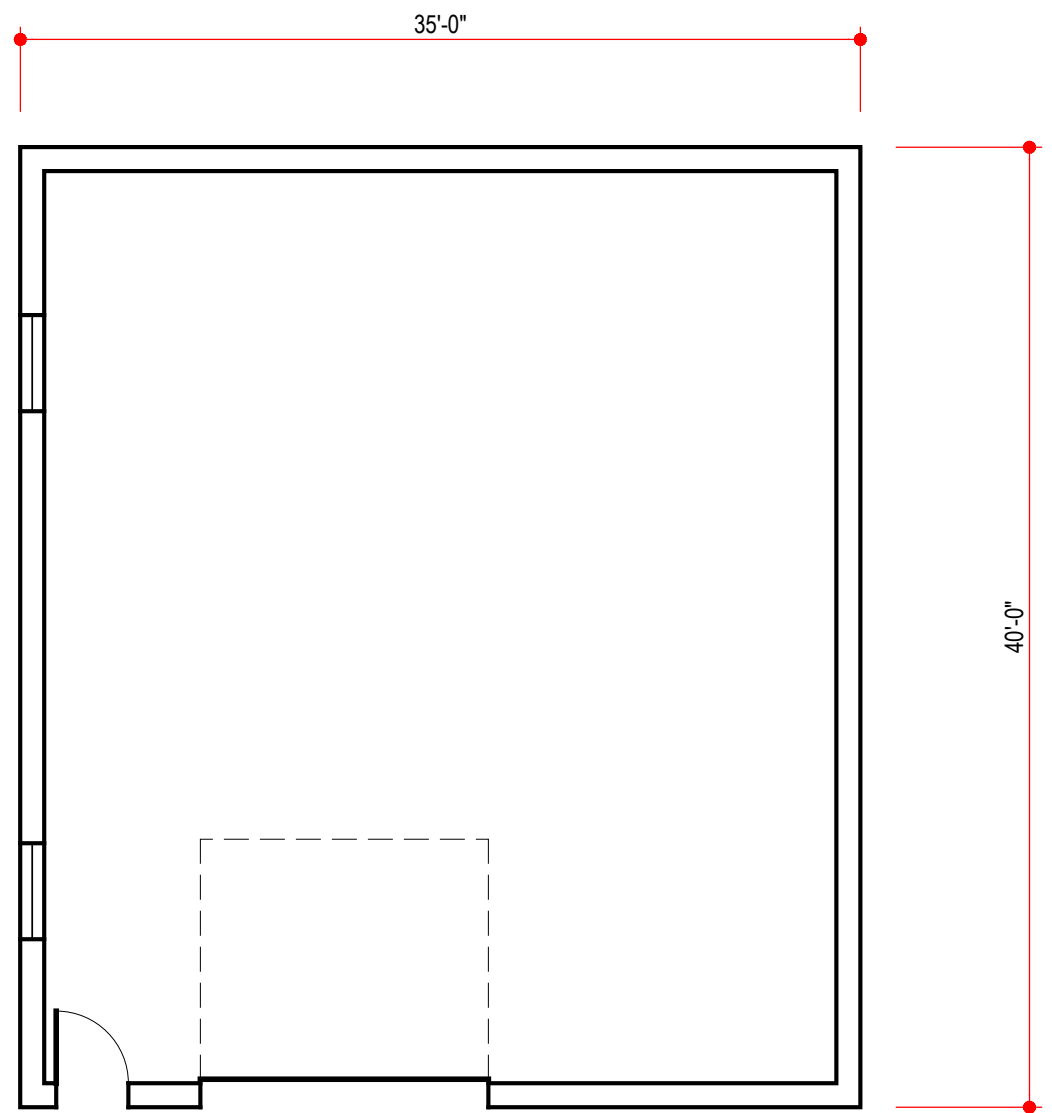
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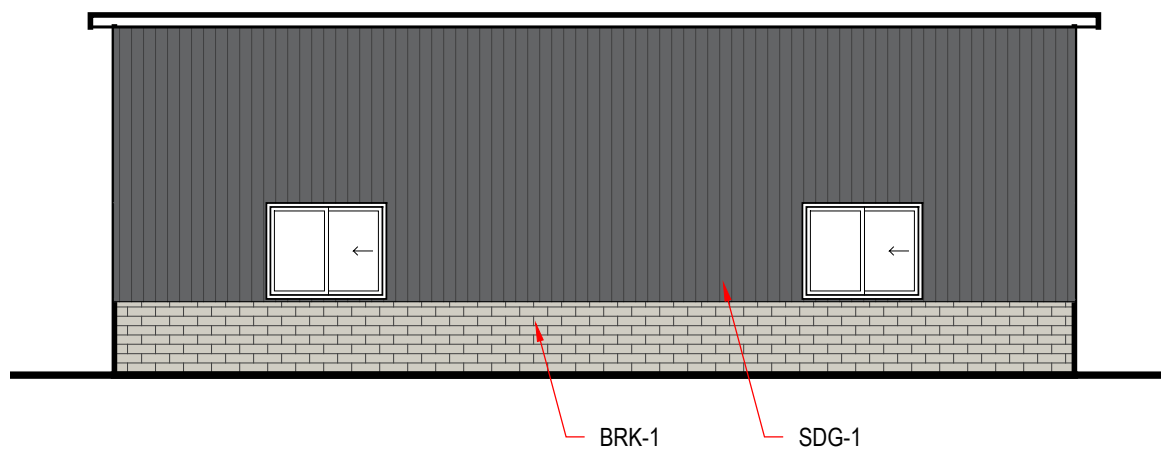
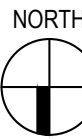
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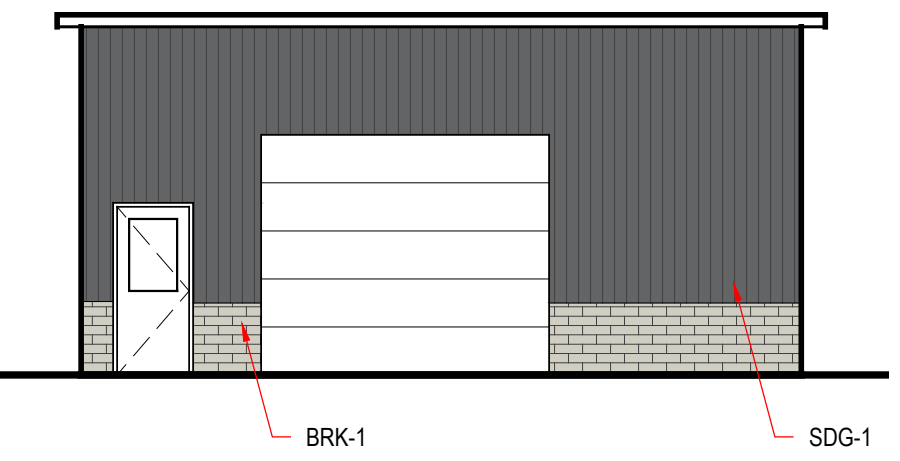
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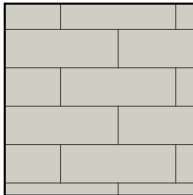
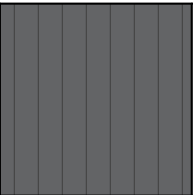
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3 Maintenance Garage East Elevation
SCALE: 1/8" = 1'



2 Maintenance Garage North Elevation
SCALE: 1/8" = 1'

	BRK-1 BRICK VENEER MFR: TBD SIZE: UTILITY		SDG-1 VINYL BOARD AND BATTEN MFR: CERTANTEED SIZE: 7" COLOR: SLATE
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*MANUFACTURER AND COLORS MAY BE ADJUSTED AT TIME OF CONSTRUCTION BASED ON PRODUCT AVAILABILITY

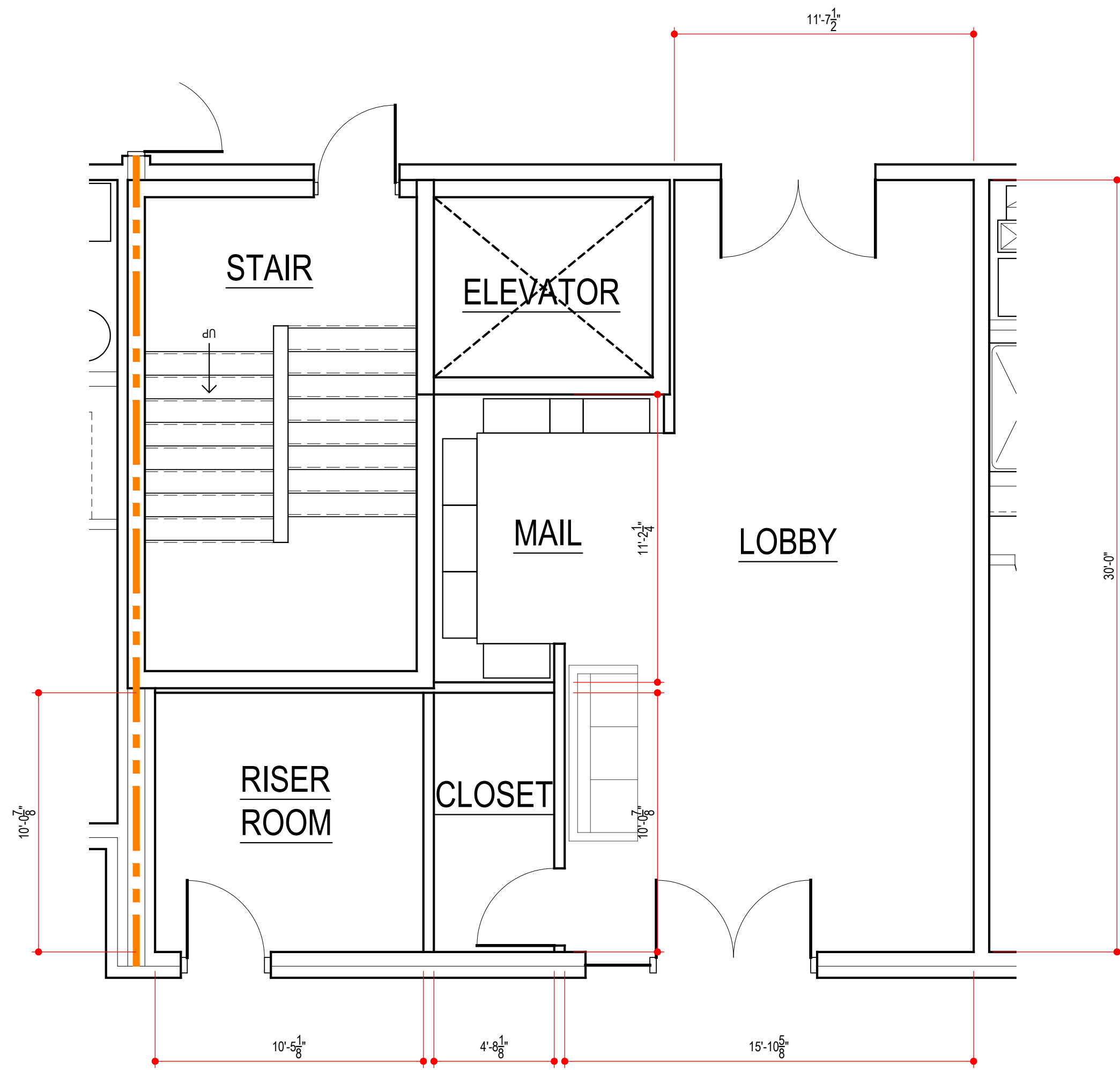
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..	..
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SPA SUBMITTAL	4.22.22
REVISION/ISSUE	DATE

Wonderland Village
11320 Middlebelt Rd.
Livonia, MI 48150

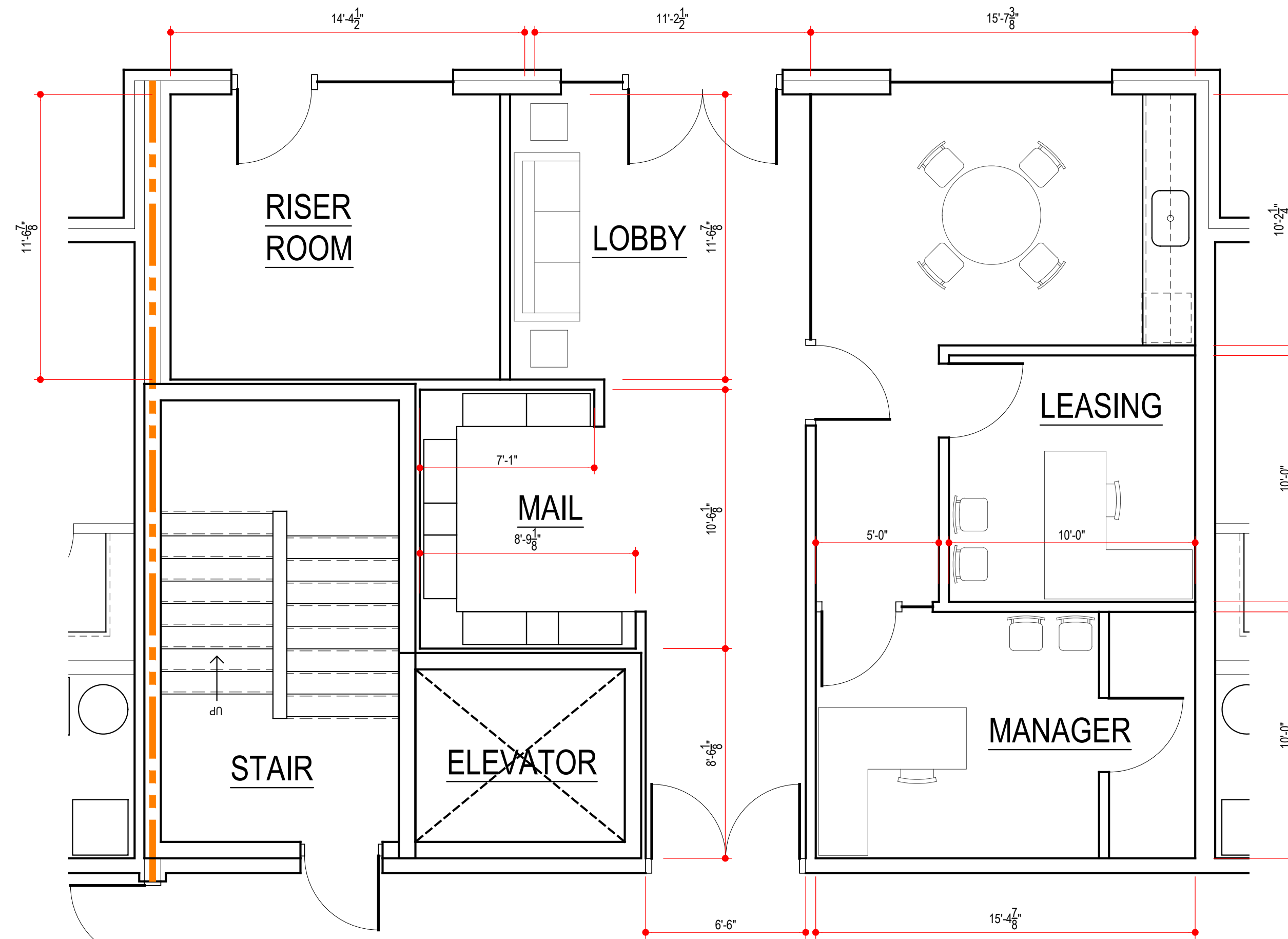
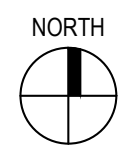
Accessory Buildings

A111

020014



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1 Building A Lobby
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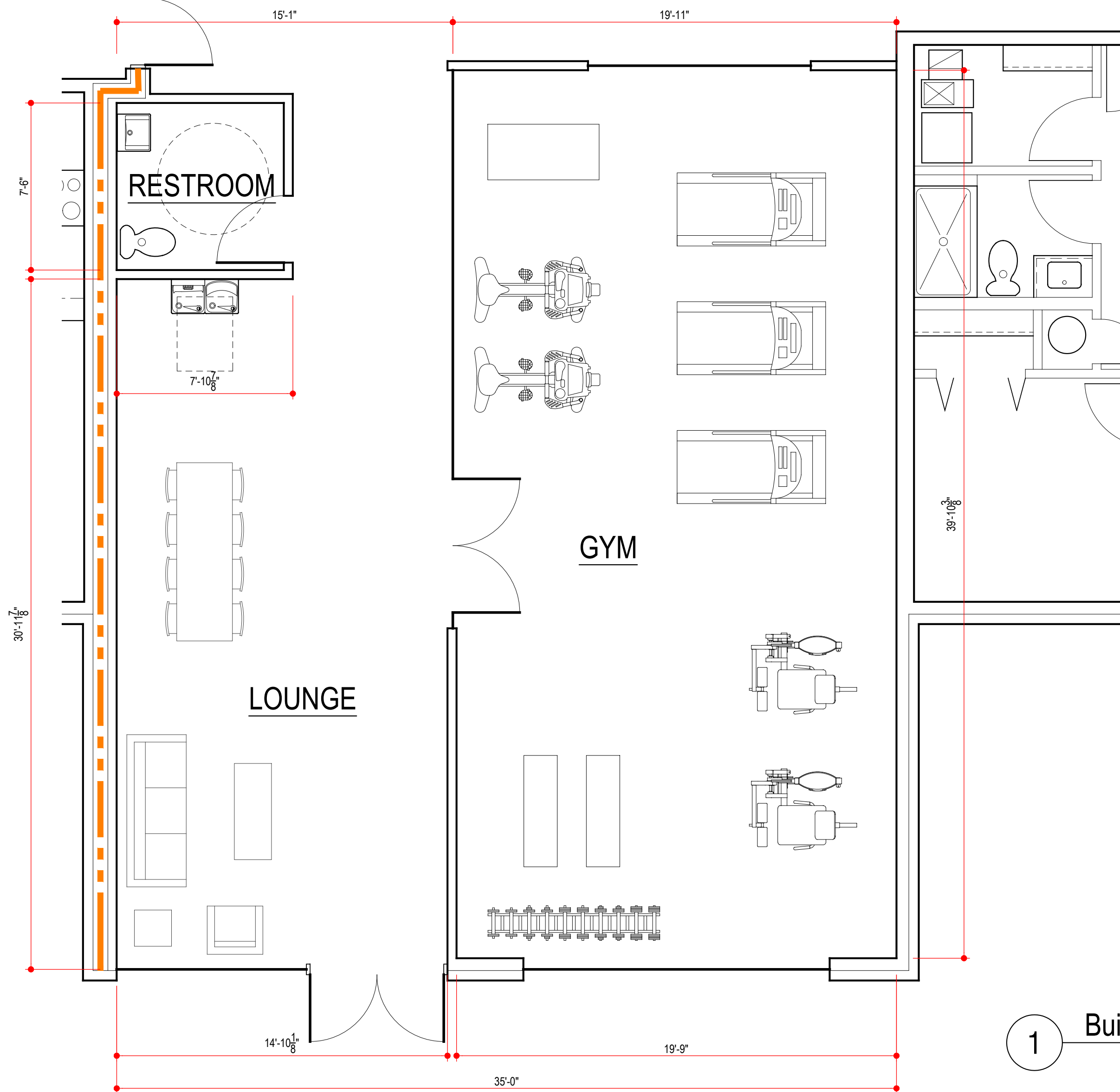
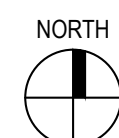


EXHIBIT 8



WONDERLAND FLATS

LIVONIA, MI

APRIL 22, 2022

OWNER: MIDDLEBELT PLYMOUTH VENTURE LLC

DEVELOPER:

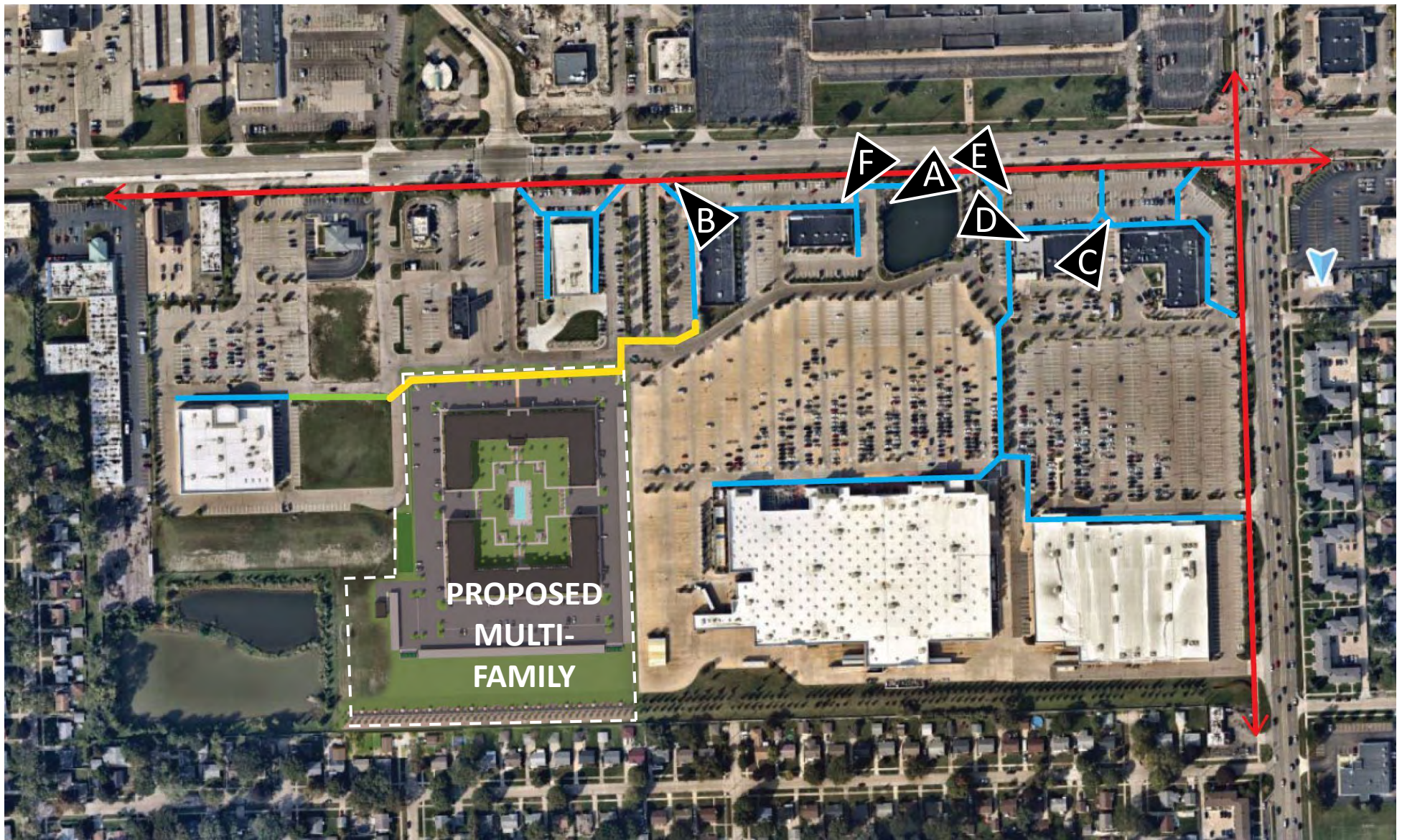


ARCHITECT:



CIVIL ENGINEER &
LANDSCAPE ARCHITECT:



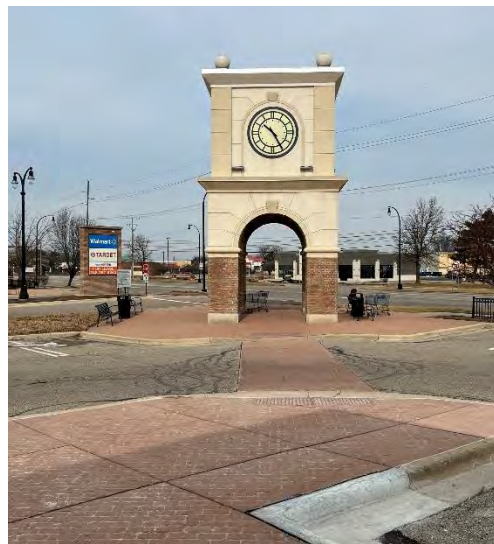


- | | | | |
|---|--------------------------------------|---|--------------------------|
|  | EXISTING ROAD PEDESTRIAN PATH |  | PROPOSED PEDESTRIAN PATH |
|  | EXISTING DEVELOPMENT PEDESTRIAN PATH |  | FUTURE PEDESTRIAN PATH |

MIXED USE PEDESTRIAN CIRCULATION



A



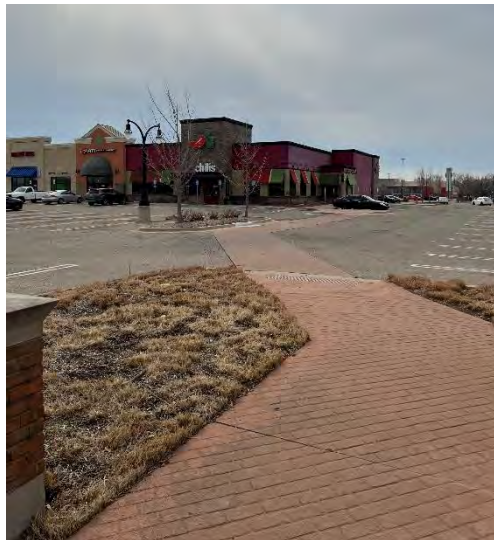
B



C



D

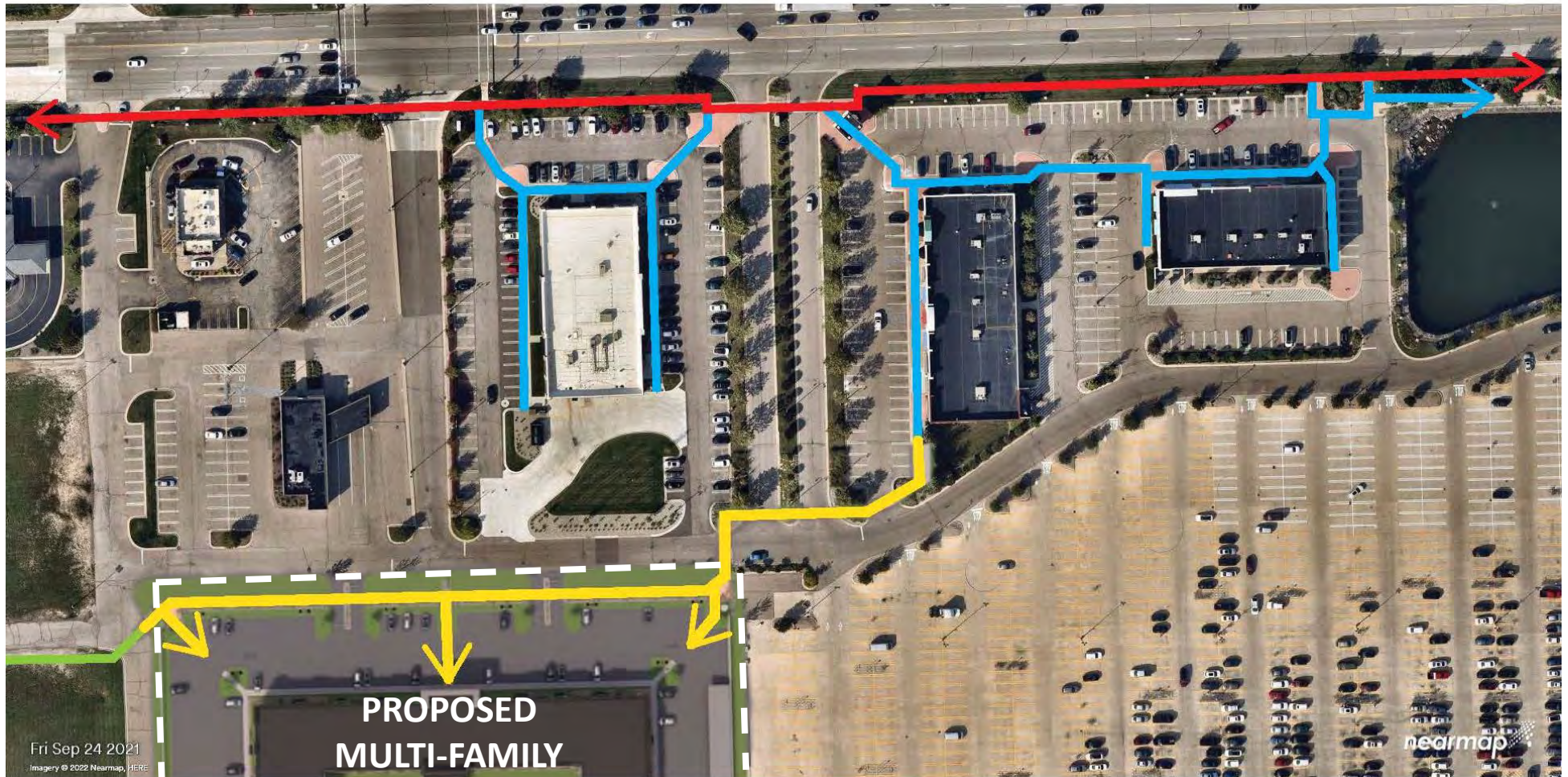


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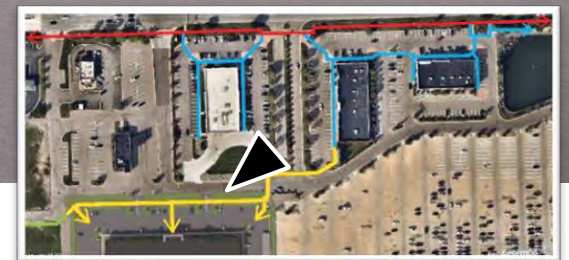
F

EXISTING MIXED USE PATH CONNECTIVITY AND SITTING AREAS



- | | | | |
|---|--------------------------------------|---|--------------------------|
|  | EXISTING ROAD PEDESTRIAN PATH |  | PROPOSED PEDESTRIAN PATH |
|  | EXISTING DEVELOPMENT PEDESTRIAN PATH |  | FUTURE PEDESTRIAN PATH |

PROPOSED MULTI-FAMILY PEDESTRIAN CONNECTIVITY TO RETAIL MIXED USE



PROPOSED VEHICULAR SECURITY GATE



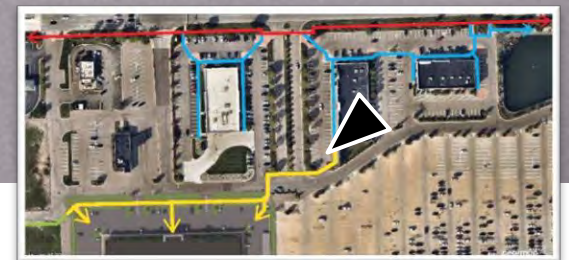
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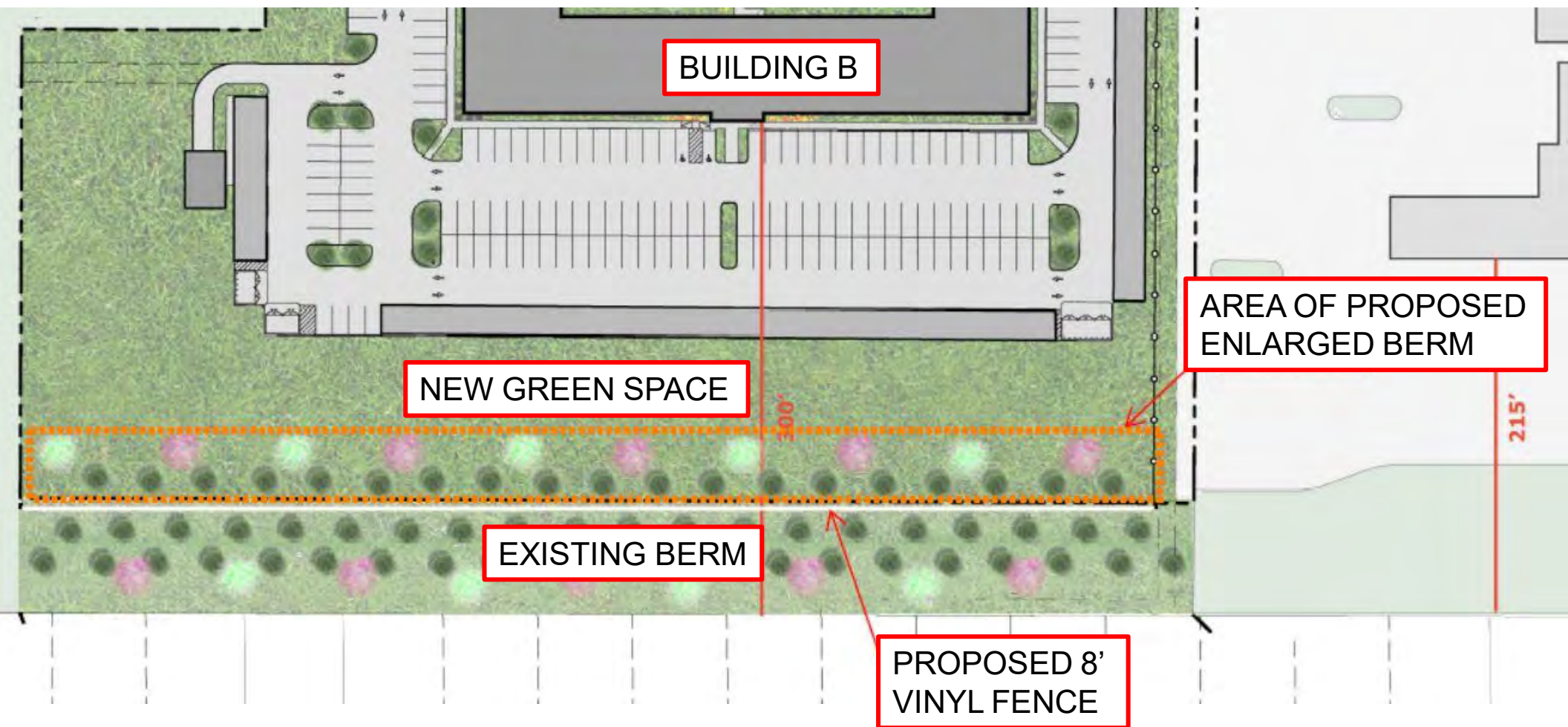
PERSPECTIVE OF MIXED USE PROPOSED PEDESTRIAN CONNECTION



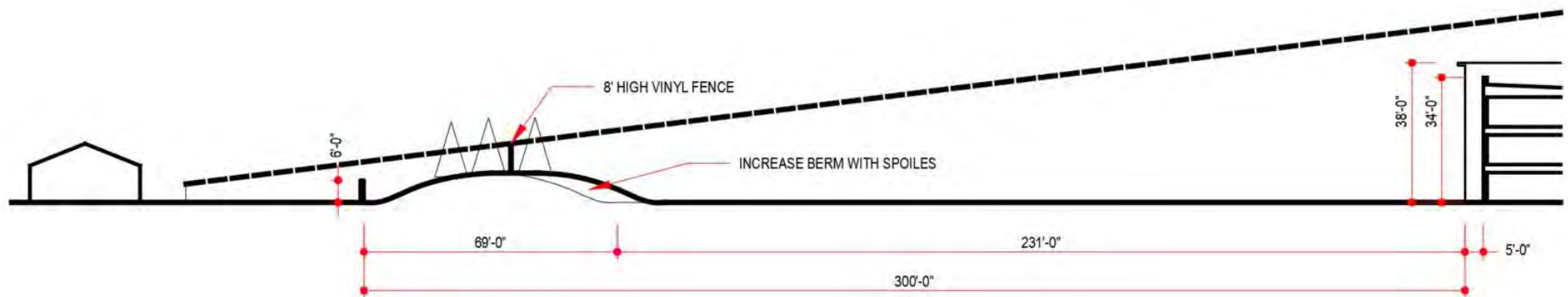
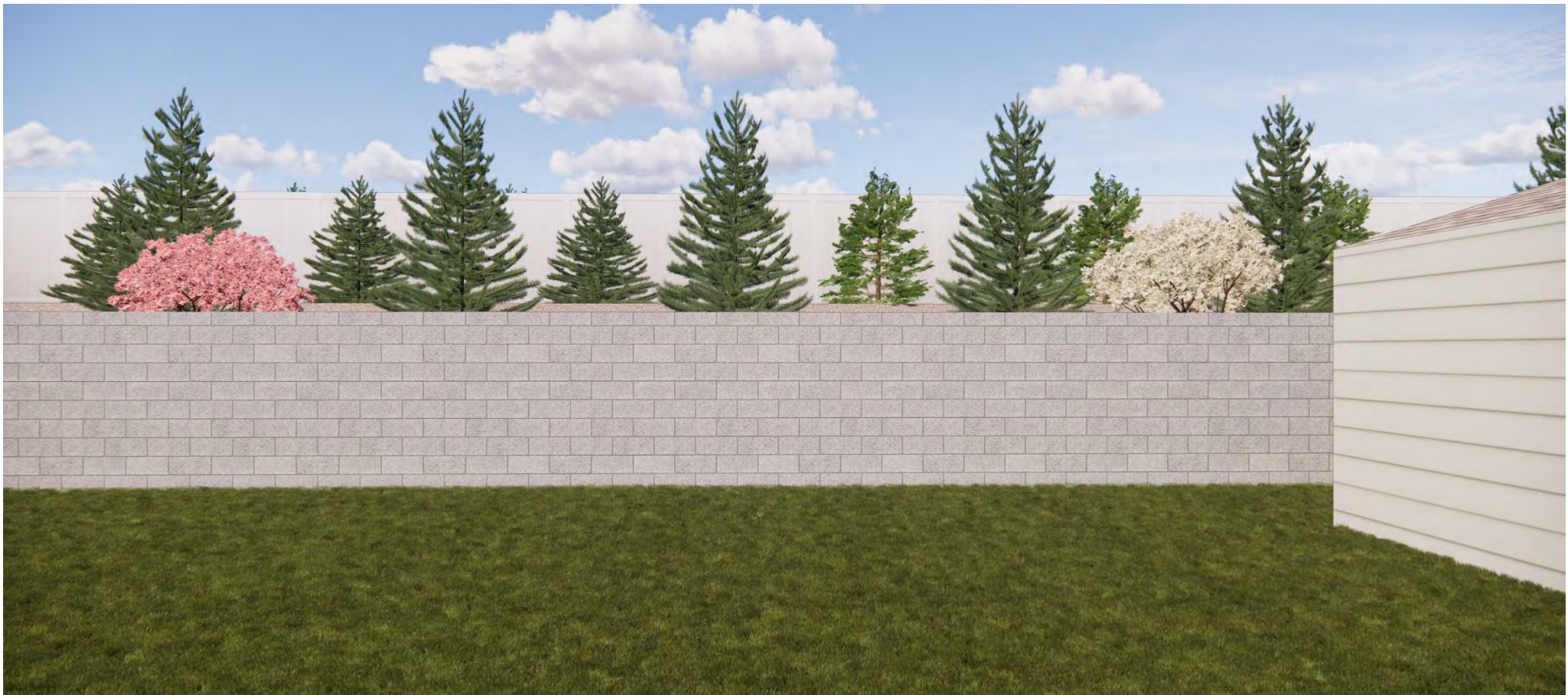
PERSPECTIVE OF MIXED USE PROPOSED PEDESTRIAN CONNECTION



PERSPECTIVE OF MIXED USE PROPOSED PEDESTRIAN CONNECTION



REAR BERM ENHANCEMENT



VIEW FROM BACKYARD OF SINGLE-FAMILY HOUSES



VIEW FROM THIRD FLOOR OF APARTMENTS



PERSPECTIVE VIEW OF BUILDING A – FROM PLYMOUTH RD



PERSPECTIVE VIEW OF BUILDING A – FROM PLYMOUTH RD



PERSPECTIVE VIEW OF BUILDING B – FROM SINGLE FAMILY



AERIAL VIEW



COURTYARD AERIAL VIEW



COURTYARD NIGHT VIEW



COURTYARD POOL PERSPECTIVE



COURTYARD PERSPECTIVE



PACKAGE PICK UP SITE AMENITY

EXHIBIT 9

Wonderland Residential Development Traffic Impact Study - DRAFT

**Prepared For:
Schostak Brothers & Company Inc.
Livonia, MI**

**May 27, 2022
Project No. 220740**

Review Draft

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Appendix 2 – Existing LOS Output Reports
Appendix 3 – Background LOS Output Reports
Appendix 4 – Trip Generation Calculations
Appendix 5 – Future LOS Output Reports

List of Abbreviations/Acronyms

AADT	Average Annual Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
AWSC	All-Way Stop Control
City	City of Livonia
DU	Dwelling Units
EB	Eastbound
ETCDG	(MDOT) Electronic Traffic Control Device Guidelines
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LCT	Livonia Community Transit
MDOT	Michigan Department of Transportation
MMUTCD	Michigan Manual on Uniform Traffic Control Devices
MPH	Miles per Hour
NB	Northbound
NEMA	National Electrical Manufacturing Association
LOS	Level of Service
LUC	Land Use Code
SB	Southbound
SEMCOG	Southeast Michigan Council of Governments
SF	Square Foot
TDMS	Transportation Data Management System
TIS	Traffic Impact Study
TMC	Turning Movement Count
TWLTL	Two-Way Left Turn Lane
WB	Westbound
WCDPS	Wayne County Department of Public Services
SMART	Suburban Mobility Authority for Regional Transportation
DDOT	Detroit Department of Transportation

References

The Highway Capacity Manual, 6th Edition. (2016). Washington, DC: Transportation Research Board (TRB).
The Highway Capacity Manual: 2000. (2000). Washington, DC: Transportation Reserach Board (TRB).
Trip Generation Handbook, 3rd Edition. (2017). Washington DC: Institute of Transportation Engineers (ITE).
Trip Generation Manual, 11th Edition. (2021). Washington DC: Institute of Transportation Engineers (ITE).

Executive Summary

Fishbeck has completed a TIS related to a proposed residential development located along the south side of Plymouth Road, west of Middlebelt Road in the City of Livonia (City), Wayne County, Michigan. The existing site is south of Bank of America and BioLife Plasma Services and is currently vacant. The development will be completed and assumed to be open and fully operational in 2024.

The site will share access within the existing commercial development. The primary access point is on Plymouth Road at Tech Center Drive.

Vehicular, pedestrian, and cyclist TMCs were collected at the study intersection on Thursday, April 28, 2022 during the weekday a.m. (7 a.m. to 9 a.m.) and p.m. (4 p.m. to 6 p.m.) peak periods of the roadway network. There is one known project in the site vicinity that would add additional traffic volumes or alter traffic patterns within the study network. The following developments were included:

- Livonia Shoppes/Chick-fil-A

Site-generated traffic was forecast using the information and methodologies specified in the latest version of Trip Generation (Trip Generation Manual, 11th Edition, 2021),. The existing traffic volumes, site layout, and engineering judgement were used to develop a trip distribution model for the a.m. and p.m. peak hours for the new traffic that will be generated by the proposed development. Additionally, directions of origin, surrounding residential densities, and commuting patterns were considered.

Capacity analyses were conducted for existing, background, and total future conditions based on HCM 6th Edition (The Highway Capacity Manual, 6th Edition, 2016) methodologies using Synchro traffic analysis software. Synchro network models were also simulated using SimTraffic to evaluate network operations including intersection queueing.

Based on the findings of the HCM operational analyses and site traffic generation, there are no recommended existing, background, and future improvements to the study intersections to mitigate traffic impacts.

The opinions, findings, and conclusions expressed in this TIS are those of Fishbeck and not necessarily those of the Owner/Applicant, MDOT, WCDPS, or the City of Livonia.

Prepared By:

Jeffery Morden, PE, PTOE
Fishbeck

Fishbeck Project Manager

Brandon Hayes, PE, P. Eng, PTOE
Fishbeck

1.0 Introduction

1.1 Project Overview

On behalf of Schostak Brothers & Company Inc., Fishbeck has conducted a TIS related to a proposed residential development located along the south side of Plymouth Road, west of Middlebelt Road in the City of Livonia (City), Wayne County, Michigan. The existing site is south of Bank of America and BioLife Plasma Services and is currently vacant. The development will be completed and assumed to be open and fully operational in 2024.

The site will have shared access within the commercial development. The primary access point is on Plymouth Road at Tech Center Drive.

The project location and study intersections are indicated in Figure 1.

Figure 1 – Project Location and Study Network



1.2 Study Methodology

The objectives of this TIS were to determine what impacts, if any, the proposed project will have on adjacent roadway traffic operations, and to develop recommendations for any improvements necessary to mitigate the project impacts on the studied intersections. Study analyses were completed relative to typical weekday a.m. and p.m. peak periods.

This study was conducted according to the methodologies and guidance published by ITE, AASHTO, MDOT, WCDPS, and the City of Livonia.

1.3 Intersection Characteristics

Based on the type and size of the proposed development and the likely area of influence for the site trips, traffic operations were analyzed for the following intersections:

1. Plymouth Road & Middlebelt Road (signalized)
2. Plymouth Road & Tech Center Drive/Commercial Driveway (signalized; shared site access point)
3. Middlebelt Road & Commercial Driveway (signalized; shared site access point)

The existing intersection lane configurations, traffic controls, and posted speed limits are indicated in Figure 2.

Figure 2 – Existing Lane Configurations

1.4 Roadway Characteristics

The characteristics of the study area roadways and signalized intersections are described in Table 1 and Table 2 below. These data points were referenced from the SEMCOG Traffic Volumes and Road Jurisdiction online maps.

Table 1 – Roadway Characteristics

Roadway	Jurisdiction	Speed Limit (MPH)	Number of Lanes	Roadway Classification	Direction	AADT (vpd)
Plymouth Road	MDOT	40	5	Other Principal Arterial	2-way	21,300, west of Middlebelt Road
					2-way	19,400, east of Middlebelt Road
Middlebelt Road	WCDPS	40	6, north of Plymouth Road	Other Principal Arterial	2-way	18,800, north of Plymouth Road
			5, south of Plymouth Road		2-way	21,400, south of Plymouth Road

Table 2 – Signal Characteristics

Intersection	Jurisdiction	Left Turn Phasing			
		NB	SB	EB	WB
Plymouth Road & Middlebelt Road	MDOT	Permitted & Protected	Permitted & Protected	Permitted & Protected	Permitted & Protected
Plymouth Road & Tech Center Drive/Commercial Driveway	MDOT	Permitted	Permitted	Permitted	Permitted
Middlebelt Road & Commercial Driveway	WCDPS	Permitted	Permitted	Permitted	Permitted

1.5 Existing Traffic Volumes

Vehicular, pedestrian, and cyclist TMCs were collected at the following study intersection during the weekday a.m. (7 to 9 a.m.) and p.m. (4 to 6 p.m.) peak periods of the road network on Thursday, April 28, 2022:

- Plymouth Road and Middlebelt Road
- Plymouth Road & Tech Center Drive/Commercial Driveway
- Middlebelt Road & Commercial Driveway

Due to the impact of COVID-19, current traffic volume data may not be representative of typical operations. Historical traffic data from the MDOT TDMS website were reviewed. Based on this review, there was no compelling evidence to apply an adjustment factor to the collected TMCs. Fishbeck also reviewed the traffic counts used in the Livonia Chick-fil-A study during the COVID adjustment analysis. The 2022 raw traffic counts were generally greater than the normalized 2021 traffic counts used in the Chick-fil-A study, indicating a full recovery of traffic volumes on the adjacent road network.

Traffic volume information can be found in Appendix 1, which include heavy vehicle and pedestrian crossing data. The existing traffic volumes used in this study are shown in Figure 3.

Figure 3 – Existing Traffic Volumes

1.6 Multimodal Characteristics

The primary transportation system user in the study area is vehicular traffic. Accordingly, this study focuses on the potential impacts to the vehicle transportation network. Conservatively in this respect, all users of the site are assumed to travel to/from the site by passenger vehicle; however, there are limited multimodal facilities in the vicinity of the project.

Livonia Community Transit (LCT) is the area transit agency with service for passengers coming into Livonia from Suburban Mobility Authority for Regional Transportation (SMART) and Detroit Department of Transportation (DDOT) bus systems. Passengers are shuttled to and from SMART and DDOT to select Livonia bus stops. These are similar fixed route transit services. The proposed project is not expected to have any impact on the existing or planned transit or non-motorized facilities in the site vicinity.

There is currently sidewalk adjacent to the site. Sidewalk is located on both sides of Plymouth Road and Middlebelt Road.

At both intersections of Plymouth Road and Middlebelt Road and Plymouth Road and Tech Center Drive/Commercial Driveway, all legs of the intersection have pedestrian signals with pushbuttons crossing the east and west legs. There are sidewalk ramps on all quadrants of the intersection. There are no pedestrian signals at the intersection of Middlebelt Road and Commercial Driveway. There are sidewalk ramps crossing the west leg.

2.0 Existing Conditions Analysis

2.1 Traffic Operations Analysis Methodology

Synchro was used to perform HCM operational analyses during the a.m. and p.m. peak hours for all the intersections within this study. According to the most recent editions of the HCM (The Highway Capacity Manual, 6th Edition, 2016), LOS is a qualitative measure describing operational conditions of a traffic stream or intersection. LOS ranges from A to F, with LOS A representing desirable traffic operations characterized by low delay and LOS F representing extremely poor traffic operations characterized by excessive delays and long vehicle queues. LOS D is generally considered acceptable for most areas. Table 3 presents the HCM criteria for various LOS for unsignalized and signalized intersections.

Table 3 – LOS Criteria

LOS	Average Stopped Vehicle Delay (seconds)	
	Unsignalized	Signalized
A	≤ 10	≤ 10
B	$> 10 \text{ and } \leq 15$	$> 10 \text{ and } \leq 20$
C	$> 15 \text{ and } \leq 25$	$> 20 \text{ and } \leq 35$
D	$> 25 \text{ and } \leq 35$	$> 35 \text{ and } \leq 55$
E	$> 35 \text{ and } \leq 50$	$> 55 \text{ and } \leq 80$
F	> 50	> 80

2.3 Existing Conditions Traffic Analysis

Synchro models for the existing network were created based on the existing roadway configurations and traffic controls. Where applicable, data concerning the existing intersection and roadway lane configurations, geometry, and traffic control that were observed in the field were entered in the models. The traffic signal timing permit for the signalized intersections were provided by WCDPS for use in the models.

The resulting LOS and delay for the existing conditions are shown in Table 4.

Table 4 – LOS Analysis for Existing Conditions

Approach/Lane Group	LOS/Delay (s)	
	a.m. Peak Hour	p.m. Peak Hour
Plymouth Road & Middlebelt Road (Signalized)		
EB Plymouth Road	D 36.5	E 57.6
WB Plymouth Road	C 27.8	D 38.5
NB Middlebelt Road	D 51.0	D 51.1
SB Middlebelt Road	D 38.6	E 58.1
Overall	D 41.5	D 52.5
Plymouth Road & Tech Center Drive/Commercial Driveway (Signalized)		
EB Plymouth Road	A 1.9	A 4.6
WB Plymouth Road	A 2.2	A 0.5
NB Commercial Driveway	D 51.2	D 46.2
SB Tech Center Drive	D 50.3	D 46.5
Overall	A 4.2	A 8.3
Middlebelt Road & Commercial Driveway (Signalized)		
EB Commercial Driveway	D 43.5	D 43.4
NB Middlebelt Road	A 2.5	A 4.4
SB Middlebelt Road	A 1.7	A 3.4
Overall	A 2.9	A 5.7

Further analysis of the LOS results for existing conditions revealed that most movements, approaches, and intersections are expected to operate at an acceptable LOS D or better during both the a.m. and p.m. peak hours, with the following exceptions:

- Plymouth Road and Middlebelt Road
 - The EB approach/left turn movement operates at LOS E and LOS F, respectively, during the p.m. peak hour.
 - The WB left turn movement operates at LOS E during the p.m. peak hour.
 - The NB left turn movement operates at LOS E during the p.m. peak hour.
 - The SB approach/SB through movement operates at LOS E in the p.m. peak hour. The SB left turn movement operates at LOS E and LOS F during the a.m. and p.m. peak hour, respectively.

The eastbound and southbound approaches at Plymouth Road and Middlebelt Road present poor LOS/delay during the p.m. peak hour. Traffic signal timing favors Plymouth Road (east/west), while there is greater traffic volume on Middlebelt Road (north/south). Optimizing the traffic signal timing and cycle length could alleviate the delay. Updating the cycle length could trigger an optimization of the entire Plymouth Road corridor in order to resolve the issue while maintaining consistent and appropriate cycle lengths at all coordinated signalized intersections along the corridor.

SimTraffic simulations were also reviewed to observe network operations and vehicle queues. For existing conditions, study network operations are acceptable, without significant vehicle queues or spill-back from available storage lanes. 95th percentile queue lengths for the turning movements exceeded the provided storage length at the NB right turn lane during both peak hours. The EB left-turn lane exceeds a 500' storage length during the p.m. peak hour. This lane is a two-way left-turn lane (TWLTL) which vehicles can use up to the Plymouth Road and Tech Center Drive intersection. See Appendix 2 for the existing conditions LOS reports and queueing analysis reports.

3.0 Background Conditions Analysis

Historical traffic data on the MDOT TDMS website and previous studies within the City of Livonia were referenced in order to determine the applicable growth rate for the existing traffic volumes to the project build-out year in 2024. Based on this review, a background growth rate of 0.5% was utilized. In addition, one (1) background development was identified and included in the background traffic conditions. This background development has been approved and is currently under construction. The trip generation listed below is using the Trip Generation, 10th Edition, 2017. The results of the trip generation forecasts for the background developments are provided below in Table 5.

Table 5 – Trip Generation for Background Developments

Development	ITE Land Use	Land Use Code	Units		a.m. Peak Hour			p.m. Peak Hour			Weekday
					In	Out	Total	In	Out	Total	
Livonia Shoppes/Chick-fil-A	Shopping Center	820	50,388	sf	16	10	26	51	56	107	1,061
	Supermarket	850	40,417	sf	92	62	154	202	195	397	4,078
	Fast-Food Restaurant with Drive-Through Window	934	2,000	sf	41	40	81	34	32	66	944
	Chick-fil-A ¹	N/A	4,995	sf	51	54	105	143	137	280	-
	Total				200	166	366	430	420	850	6,083
	Internal Capture Reductions: 10% AM (9% In, 11% Out); 28% PM (28% In, 29% Out)				18	18	36	120	120	240	-
	Total External Trips				186	142	328	227	233	460	6,083
	Pass-By Rates, LUC 820: 34% PM				0	0	0	17	19	36	-
	Pass-By Rates, LUC 850: 36% PM				0	0	0	73	70	143	-
	Pass-By Rates, LUC 934: 49% AM; 50% PM				20	20	40	17	16	33	-
	Pass-By Rates, Chick-fil-A ² : 40% AM; 40% PM				20	22	42	57	55	112	-
	Total New Trips				142	106	248	146	140	286	6,083

¹Source: Driveway counts generated by multiplying driveway counts by AECOM at Chick-fil-A, South Bend, IN, Thursday, December 15, 2016 with a size of 4,730 SF by 106 percent to be proportional to the 4,995 SF proposed development.

²Pass-By rates are provided by AECOM from the Chick-fil-A in South Bend, IN.

Square feet (sf)

These trips were distributed through the road network as described in the Livonia Chick-fil-A TIS report prepared by ROWE Professional Services Company. The total background traffic volumes are shown in Figure 4.

Figure 4 – Background Traffic Volumes

3.1 Background Conditions Traffic Analysis

The resulting LOS and delay for the background conditions are shown in Table 6.

Table 6 – LOS Analysis for Background Conditions

Approach/Lane Group	LOS/Delay (s)	
	a.m. Peak Hour	p.m. Peak Hour
Plymouth Road & Middlebelt Road (Signalized)		
EB Plymouth Road	D 37.5	E 65.2
WB Plymouth Road	C 28.1	D 39.2
NB Middlebelt Road	E 60.4	E 56.5
SB Middlebelt Road	D 46.1	F 82.0
Overall	D 47.6	E 63.5
Plymouth Road & Tech Center Drive/Commercial Driveway (Signalized)		
EB Plymouth Road	A 1.9	A 4.7
WB Plymouth Road	A 2.3	A 0.5
NB Commercial Driveway	D 51.2	D 46.1
SB Tech Center Drive	D 50.3	D 46.5
Overall	A 4.2	A 8.2
Middlebelt Road & Commercial Driveway (Signalized)		
EB Commercial Driveway	D 43.5	D 43.5
NB Middlebelt Road	A 2.7	A 4.7
SB Middlebelt Road	A 1.7	A 3.5
Overall	A 3.0	A 5.9

Further analysis of the LOS results for background conditions revealed that most movements, approaches, and intersections are expected to continue to operate at an acceptable LOS D or better during both the a.m. and p.m. peak hours, with the following exceptions:

- Plymouth Road and Middlebelt Road
 - The EB approach/left turn movement operates at LOS E and LOS F, respectively, during the p.m. peak hour.
 - The WB left turn movement operates at LOS E during the p.m. peak hour.
 - The NB approach/through movement operates at LOS E and LOS F, respectively, during the a.m. peak hour. The NB approach/through and left turn movements operate at LOS E during the p.m. peak hour.
 - The SB approach/SB through movement operates at LOS F in the p.m. peak hour. The SB left turn movement operates at LOS F during the a.m. and p.m. peak hours.

SimTraffic simulations were also reviewed to observe network operations and vehicle queues. For background conditions, study network operations continue to be acceptable, without significant vehicle queues or spill-back from available storage lanes at most locations except the intersection of Plymouth Road and Middlebelt Road. During the p.m. peak hour, spill-back is shown for the EB and SB left turns. 95th percentile queue lengths for the EB and SB left turn turning movements exceed the provided storage length of 500 feet for the two-way left turn lanes (TWLTL) during the p.m. peak hour. The NB right turn lane 95th percentile queue length exceeds the provided storage length for both a.m. and p.m. peak hours. See Appendix 3 for the background conditions LOS reports and queueing analysis reports.

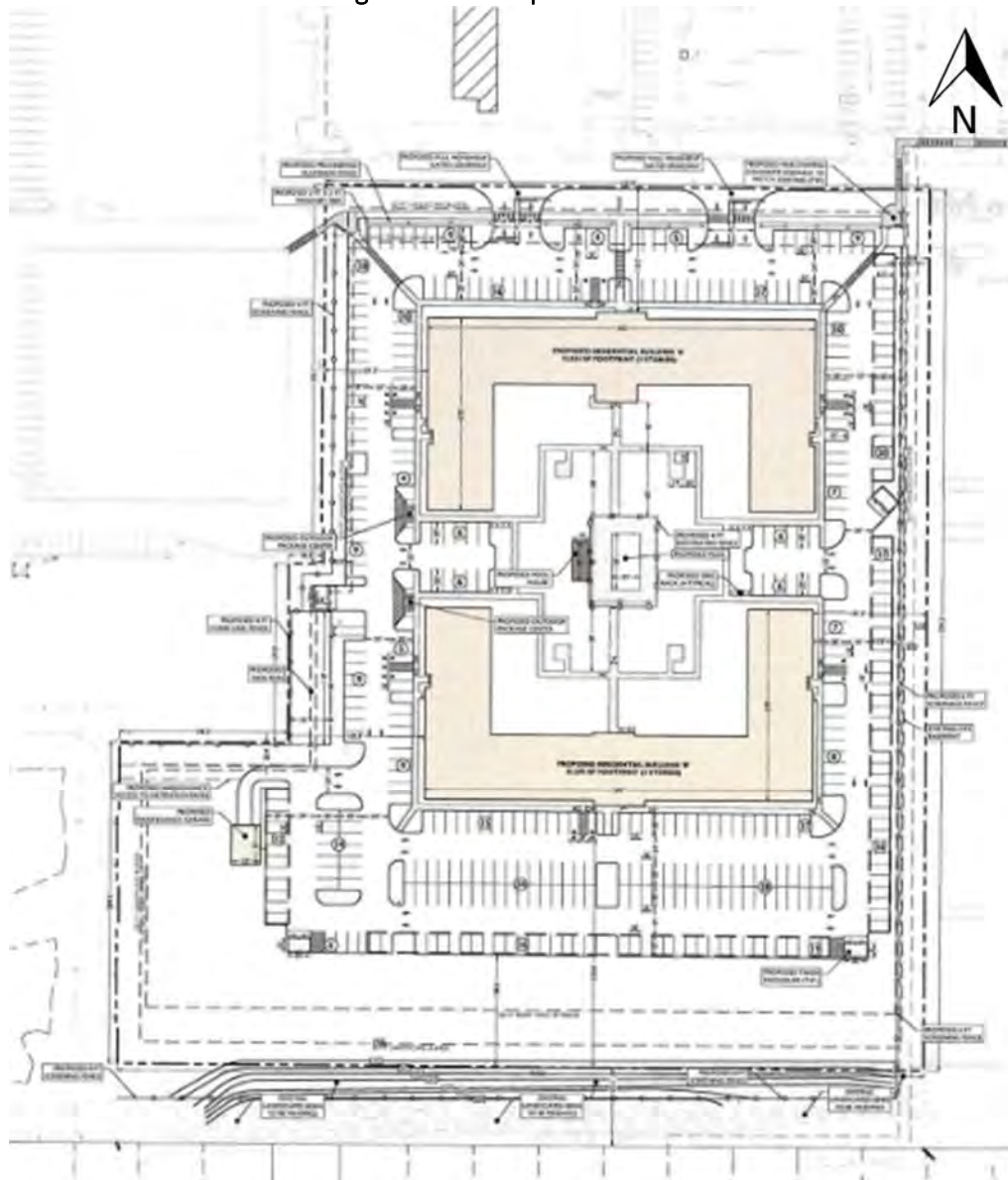
Poor LOS/delay and queueing at the Plymouth Road and Middlebelt Road intersection is due to timing favoring Plymouth Road (east/west), while there is more traffic volume on Middlebelt Road (north/south). A traffic signal optimization of both the cycle length and traffic signal splits could improve traffic operations. As previously

stated, updating the cycle length could trigger an optimization of the entire Plymouth Road corridor in order to resolve the issue while maintaining consistent and appropriate cycle lengths at all coordinated signalized intersections along the corridor.

4.0 Site Traffic Characteristics

A representation of the current conceptual site plan is provided in Figure 5 below.

Figure 5 – Conceptual Site Plan



4.1 Trip Generation

Using the information and methodologies specified in the latest version of Trip Generation (Trip Generation Manual, 11th Edition, 2021), Fishbeck forecast the weekday a.m. and p.m. peak hour trips associated with the proposed development.

In multi-use developments, not all the trips generated are from sources outside the boundaries of the development but are rather trips that are “internally captured” within the site, meaning that a vehicle may visit several components of a mixed-use development in a single trip. The methodology presented in the Trip Generation Handbook (Trip Generation Handbook, 3rd Edition, 2017) was followed to determine an appropriate internal capture rate for the proposed development. To be conservative, it is assumed all traffic forecasted by the development will use the external network. Therefore, no internal capture was used in the analysis, despite the possibility that a small number of trips from the residential development would originate from and be destined to locations within the mixed-used development.

Table 7 presents the resulting trip generation for the development. Refer to Appendix 4 for additional details related to the trip generation.

Table 7 – Trip Generation for Proposed Development

ITE Land Use	Land Use Code	Units	a.m. Peak Hour			p.m. Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Multifamily Housing (Low Rise)	220	201 DU	20	65	85	67	40	107	1,364

Dwelling Unit (DU)

4.2 Trip Distribution

The directions that site traffic will travel to and from were based upon existing traffic patterns during the a.m. and p.m. peak hours. The existing traffic patterns reflect the gravity between origins and destinations in the study area, and therefore an accurate indication of where the proposed trips would be coming from and going to. **Error! Reference source not found.** Table 8 – Trip provides the probable distribution based on the existing traffic patterns.

Table 8 – Trip Distribution

Direction	Via	New Trips			
		a.m. Peak Hour		p.m. Peak Hour	
		To	From	To	From
North	Middlebelt Road	44%	28%	32%	33%
	Tech Center Drive	4%	0%	1%	4%
South	Middlebelt Road	20%	41%	29%	25%
East	Plymouth Road	15%	18%	21%	19%
West	Plymouth Road	17%	13%	17%	19%

The trip distribution for the site is shown in Figure 6 below. These trips were added to the background volumes (Figure 4) to result in the future conditions volumes in Figure 7.

Figure 6 – Trip Generation Volumes

Figure 7 – Future Conditions Volumes

5.0 Future Conditions Analysis

5.1 Turn Lane Warrants

A typical TIS would include an evaluation in accordance with MDOT and WCDPS requirements to determine if left turn passing lanes or right turn deceleration lanes are required at the site driveways. At the existing driveway locations for the residential development, there are TWLTL and right turn storage lane already present. Therefore, turn lane warrant analysis was not required for this TIS.

5.2 Future Conditions Traffic Analysis

The resulting LOS and delay for the future conditions are shown in Table 9.

Table 9 – LOS Analysis for Future Conditions

Approach/Lane Group	LOS/Delay (s)	
	a.m. Peak Hour	p.m. Peak Hour
Plymouth Road & Middlebelt Road (Signalized)		
EB Plymouth Road	D 38.3	E 68.8
WB Plymouth Road	C 28.2	D 39.4
NB Middlebelt Road	E 63.4	E 57.8
SB Middlebelt Road	D 46.0	F 83.8
Overall	D 48.8	E 65.4
Plymouth Road & Tech Center Drive/Commercial Driveway (Signalized)		
EB Plymouth Road	A 2.2	A 5.2
WB Plymouth Road	A 2.5	A 0.6
NB Commercial Driveway	D 53.4	D 44.9
SB Tech Center Drive	D 51.0	D 45.9
Overall	A 6.9	A 8.8
Middlebelt Road & Commercial Driveway (Signalized)		
EB Commercial Driveway	D 42.5	D 44.2
NB Middlebelt Road	A 3.2	A 5.1
SB Middlebelt Road	A 2.1	A 3.5
Overall	A 4.0	A 6.3

Further analysis of the LOS results for future conditions revealed that most movements, approaches, and intersections are expected to continue to operate at an acceptable LOS D or better during both the a.m. and p.m. peak hours, with the following exceptions:

- Plymouth Road and Middlebelt Road
 - The EB approach/left turn movement operates at LOS E and LOS F, respectively, during the p.m. peak hour.
 - The WB left turn movement operates at LOS E during the p.m. peak hour.
 - The NB approach/through movement operates at LOS E and LOS F, respectively, during the a.m. peak hour. The NB approach/through and left turn movements operate at LOS E during the p.m. peak hour.
 - The SB approach/SB through movement operates at LOS F in the p.m. peak hour. The SB left turn movement operates at LOS F during the a.m. and p.m. peak hours.
- Plymouth Road and Tech Center Drive/Commercial Driveway
 - The NB shared through/right turn movement operates at LOS E during the a.m. peak hour.

Overall, from background to future conditions, LOS for the overall intersections and approaches did not experience a major increase with the addition of the forecasted site-generated vehicle traffic.

SimTraffic simulations were also reviewed to observe network operations and vehicle queues. For future conditions, study network operations continue to be acceptable, without significant vehicle queues or spill-back from available storage lanes at most locations except the intersection of Plymouth Road and Middlebelt Road. During the p.m. peak hour, spill-back is shown for the EB and SB left turns. 95th percentile queue lengths for EB and SB left turn movements exceed the provided storage length of 500 feet for the TWLTL during the p.m. peak hour. The NB right turn lane 95th percentile queue length exceeds the provided storage length for both a.m. and p.m. peak hours. During the p.m. peak hour, at the intersection of Plymouth Road and Tech Center Drive/Commercial Driveway, the SB left turn lane queue length exceeds the provided storage length by approximately 20 feet. Also, during the p.m. peak hour, at the intersection of Middlebelt Road and Commercial Driveway, the EB right turn lane queue length exceeds the provided storage length by approximately 40 feet. See Appendix 5 for the future conditions LOS reports and queueing analysis reports.

The 95th percentile queue lengths were reviewed at the development access driveways. At the intersection of Plymouth Road and Tech Center Drive/Commercial Driveway, the queue length for the NB approach are less than 65 feet (3 vehicles) and 110 feet (4 vehicles) during the a.m. and p.m. peak hours, respectively. At the intersection of Middlebelt Road and Commercial Driveway, the queue length for the EB approach are less than 65 feet (3 vehicles) and 95 feet (4 vehicles) during the a.m. and p.m. peak hours, respectively. If one of the access points in this study have long queues presented, there are minor driveways with access to both Plymouth Road and Middlebelt Road within the mixed-used development.

The forecasted trips from the proposed residential development has little effect on the intersection of Plymouth Road and Middlebelt Road traffic operations. **Table 10** displays the comparison of the intersection of Plymouth Road and Middlebelt for the background and future conditions. The results indicate approximate delay increases of one (1) second and two (2) seconds at the intersection for the a.m. and p.m. peak hours, respectively.

Table 10 – Comparison of Background and Future Conditions at Plymouth Road and Middlebelt Road

Approach/Lane Group	Background Conditions		Future Conditions	
	LOS/Delay (s)		LOS/Delay (s)	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
Plymouth Road & Middlebelt Road (Signalized)				
EB Plymouth Road	D 37.5	E 65.2	D 38.3	E 68.8
WB Plymouth Road	C 28.1	D 39.2	C 28.2	D 39.4
NB Middlebelt Road	E 60.4	E 56.5	E 63.4	E 57.8
SB Middlebelt Road	D 46.1	F 82.0	D 46.0	F 83.8
Overall	D 47.6	E 63.5	D 48.8	E 65.4

As a result of the analysis indicated that the proposed development will have a negligible effect on traffic operations within the study network, there are no recommended mitigations for the future conditions.

6.0 Findings and Recommendations

The analyses conducted for this TIS indicate that the proposed development will not result in any significant impact to the adjacent road network. The proposed site access configuration is appropriate and will acceptably facilitate site ingress and egress. These conclusions are supported by the following key findings:

1. 95th percentile queue length exceeds the available storage length at several locations, including the NB right turn lane and EB and SB left turn lanes. However, these approaches each have a TWLTL and the queue spill-backs occur in the background and future conditions during the p.m. peak hour only.

2. Lane configurations and physical capacity are appropriate within the study area.
3. Neither existing nor planned transit or non-motorized facilities in the site vicinity will be impacted by the project.

Based on the findings of the HCM operational analyses and site traffic generation, there are no recommended existing, background, and future improvements to the study intersections to mitigate traffic impacts.

PLANNING COMMISSION

IAN WILSHAW, Chairman
GLEN W. LONG, JR., Vice Chairman
SAM CARAMAGNO, Secretary
DAVID BONGERO
ELIZABETH McCUE
CAROL A. SMILEY
PETER H. VENTURA



33000 CIVIC CENTER DRIVE
LIVONIA, MICHIGAN 48154-3097
(734) 466-2290 Fax (734) 466-2108

MAUREEN MILLER BROSNAN
MAYOR

MARK TAORMINA
PLANNING & ECONOMIC
DEVELOPMENT DIRECTOR

JACOB UHAZIE
PLANNING & ECONOMIC DEVELOPMENT
COORDINATOR

SCOTT O. MILLER
PLANNER IV

June 8, 2022

Middlebelt Plymouth Venture, L.L.C.
Stephen Duczynski
17800 North Laurel Park Drive, Ste. 200C
Livonia, MI 48152

Re: Petition 2022-04-08-02 – Wonderland Flats

Dear Mr. Duczynski:

At the 1,188th Public Hearing and Regular Meeting held by the City Planning Commission on June 7, 2022, in the Livonia City Hall, the following resolution was adopted:

#06-34-2022 **RESOLVED**, That City Planning Commission does hereby recommend to City Council that Petition 2022-04-08-02 submitted by Middlebelt Plymouth Venture L.L.C. requesting approval pursuant to Sections 3.08 and 6.04 of The Livonia Vision 21 Zoning Ordinance, as amended, to construct an apartment complex (Wonderland Flats), consisting of two (2) buildings and 201 units, on the properties at 29707 & 30273 Plymouth Road, located on the south side of Plymouth Road between Middlebelt Road and Milburn Avenue in the Northeast ¼ of Section 35, be denied, for the following reasons

1. That the petitioner has failed to affirmatively show that the proposed use is in compliance with all of the special and general waiver use standards and requirements as set forth in Sections 3.08, 6.04 and 13.13 of the Livonia Vision 21 Zoning Ordinance.
2. That too many issues remain unresolved, including increase traffic concerns, building architecture, signage, site layout, compatibility with the surrounding retail uses and the close proximity to the adjacent residential neighborhood.

To: Mr. Stephen Duczynski
Re: 2022-04-08-02 – Wonderland Flats

June 7, 2022

3. That the site lacks the capacity to handle the intensity associated with a 201-unit apartment complex and would therefore be detrimental to and not in harmony with the character of the surrounding commercial center and adjacent neighborhood.
4. That the apartment complex would create significant adverse impacts on adjoining parcels, public services, and community planning efforts.
5. That the proposal conflicts with the spirit and intent of the Zoning Ordinance to promote and encourage a balanced and appropriate mix of uses, and
6. That the petitioner has failed to comply with all the concerns deemed necessary for the safety and welfare of the City and its residents.

A roll call vote on the foregoing resolution resulted in the following:

AYES: Ventura, Smiley, McCue, Long, Wilshaw
NAYS: Caramagno, Bongero
ABSENT: None
ABSTAIN: None

Mr. Wilshaw, Chairman, declared the motion is carried and the foregoing resolution adopted.

Pursuant to Section 13.13(10) of the Livonia Vision 21 Zoning Ordinance, as amended, you will have ten (10) business days to appeal the decision in writing to the Livonia City Clerk. The fee for an appeal is \$400.00.

Very truly yours,

CITY PLANNING COMMISSION


Sam Caramagno, Secretary

**CITY OF LIVONIA, MICHIGAN
APPLICATION FOR SITE PLAN REVIEW & APPROVAL**

All petitions for Site Plan Approval shall be filed with the City Planning Commission,
33000 Civic Center Drive, Livonia, MI 48154-3097.

For filing fee see computation below

Date Filed: 4-29-22 Petition 2022-04-08-02
Site Address: Vacant parcel - see sidwell # (or 29707 & 30273 Plymouth Rd) Sidwell Portion 137-99-0008-010, & 137-99-0004-002
Requesting Approval to for a proposed NM2 multi-family residential development
Applicant: Stephen E. Duczynski Business/Company: Middlebelt Plymouth Venture LLC
Applicant's Address: 17800 North Laurel Park Drive #200C City: Livonia State: MI Zip Code: 48152
Applicant's Phone # (248) 357-6272 Applicant's Email duczynskis@schostak.com
Contact Person: Stephen E. Duczynski Business/Company: Middlebelt Plymouth Venture LLC
Contact's Address: 17800 North Laurel Park Drive #200 C City: Livonia State: MI Zip Code: 48152
Contact's Phone # (248) 357-6272 Contact's Email duczynskis@schostak.com

Please provide the following information:

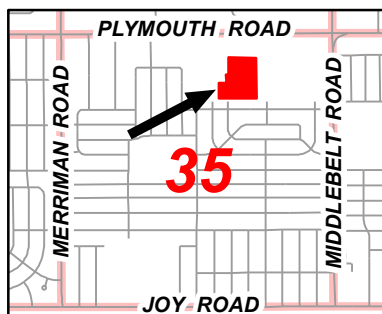
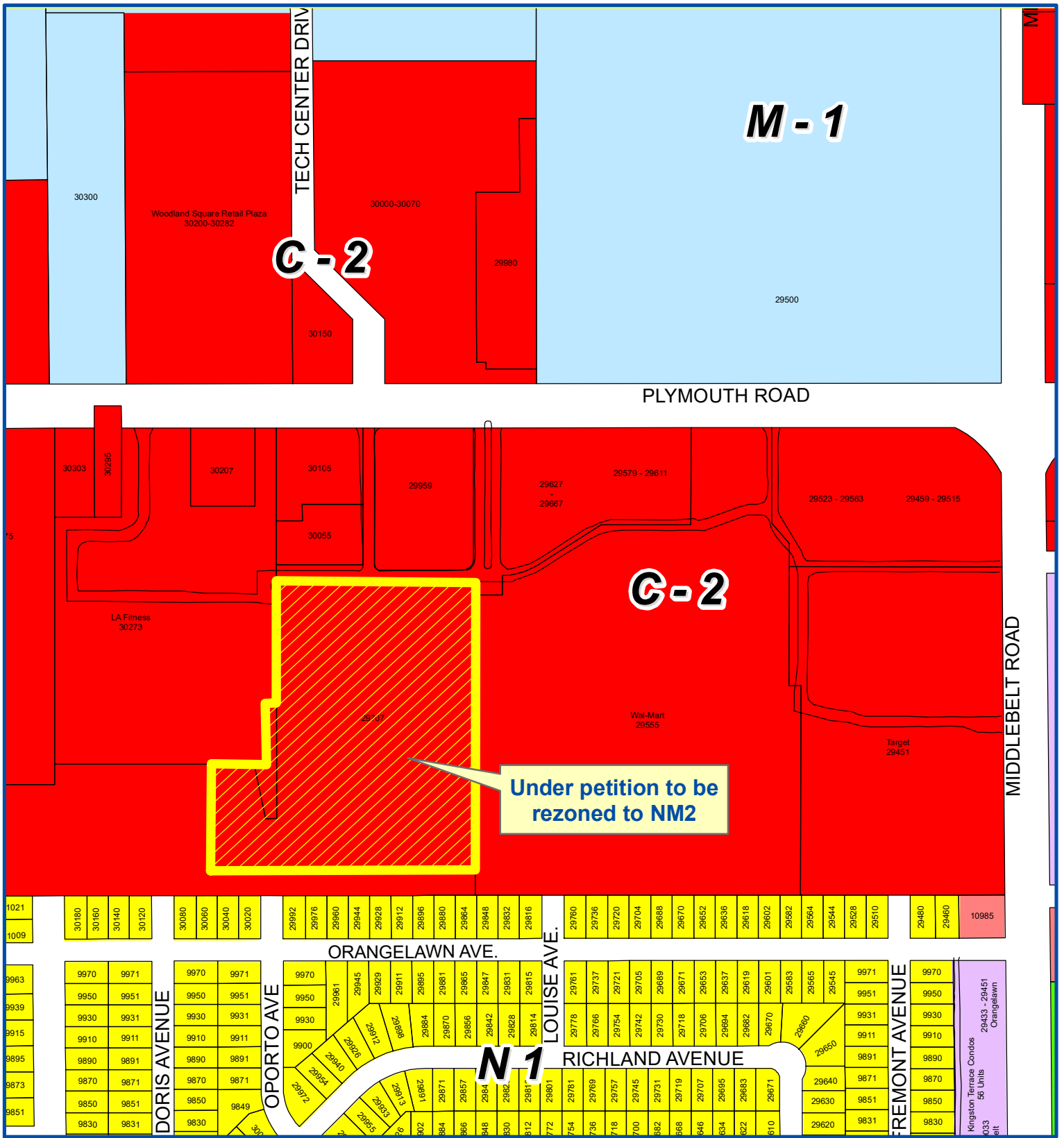
- 1) **Site Plan** showing:
 - property dimensions, including road right-of-way & building setback lines
 - foot print of building(s), including dimensions & square footage
 - all easements, protective walls, sidewalks & existing trees
 - any significant topographic features (existing or proposed)
 - parking layout, including type of surface material, sizes of spaces & aisles
 - method used in calculating parking requirement
 - location of light standards servicing parking lot & cutout showing type & height
 - location of trash receptacle, including description of screening
 - location of signs (if proposed must submit separate sign application)
- 2) **Detailed Landscape Plan** including:
 - listing or labeling of all planted materials as to type and size
 - areas to be fully irrigated
 - percentage of landscaping provided (15% of total site required)
- 3) **Building Elevation Plan** depicting:
 - architectural quality
 - wall section & detail plan - exterior building materials must be labeled (i.e. brick, thin brick, E.F. S)
 - all visible rooftop mechanical equipment and how they will be screened
- 4) **General Floor Plan** showing:
 - floor layout
 - entrances & exits
 - restaurants are required to illustrate seating arrangement & capacity
- 5) **One (1) set of reduced plans** (i.e. site, landscape, elevation, floor), **a maximum 11" x 17" in size, or digital file in a .pdf format either on CD or emailed to: planning@livonia.gov**
- 6) **Legal Description** of the property to be considered (**Clearly Printed**)
- 7) One (1) completed application form & **three (3)** sets of full-size drawings

RECEIVED
APR 29 2022
CITY OF LIVONIA
PLANNING COMMISSION

You are invited and encouraged to review your proposal with the Planning Department staff. Only one set of preliminary drawings will be necessary for this analysis.

<u>FEE COMPUTATION</u>	<u>200,068 SF</u> sq. ft. of new construction x \$20.00 per 1,000 sq. ft.	\$600.00
	(NOTE: Round off to nearest 1,000) + \$4,000.00	
	Total Amount Due \$	<u>\$4,600.00</u>

Owner of Property: Middlebelt Plymouth Venture LLC
Owner's Address: 17800 Laurel Park Drive, Suite 200C City: Livonia State: MI Zip Code: 48152
Owner's Phone # (248) 357-6272 Owner's Email duczynskis@schostak.com
Signature of Owner: [Signature] Print Name: David W. Schostak



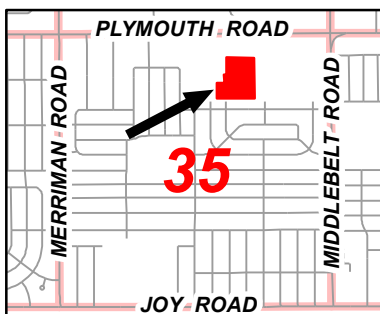
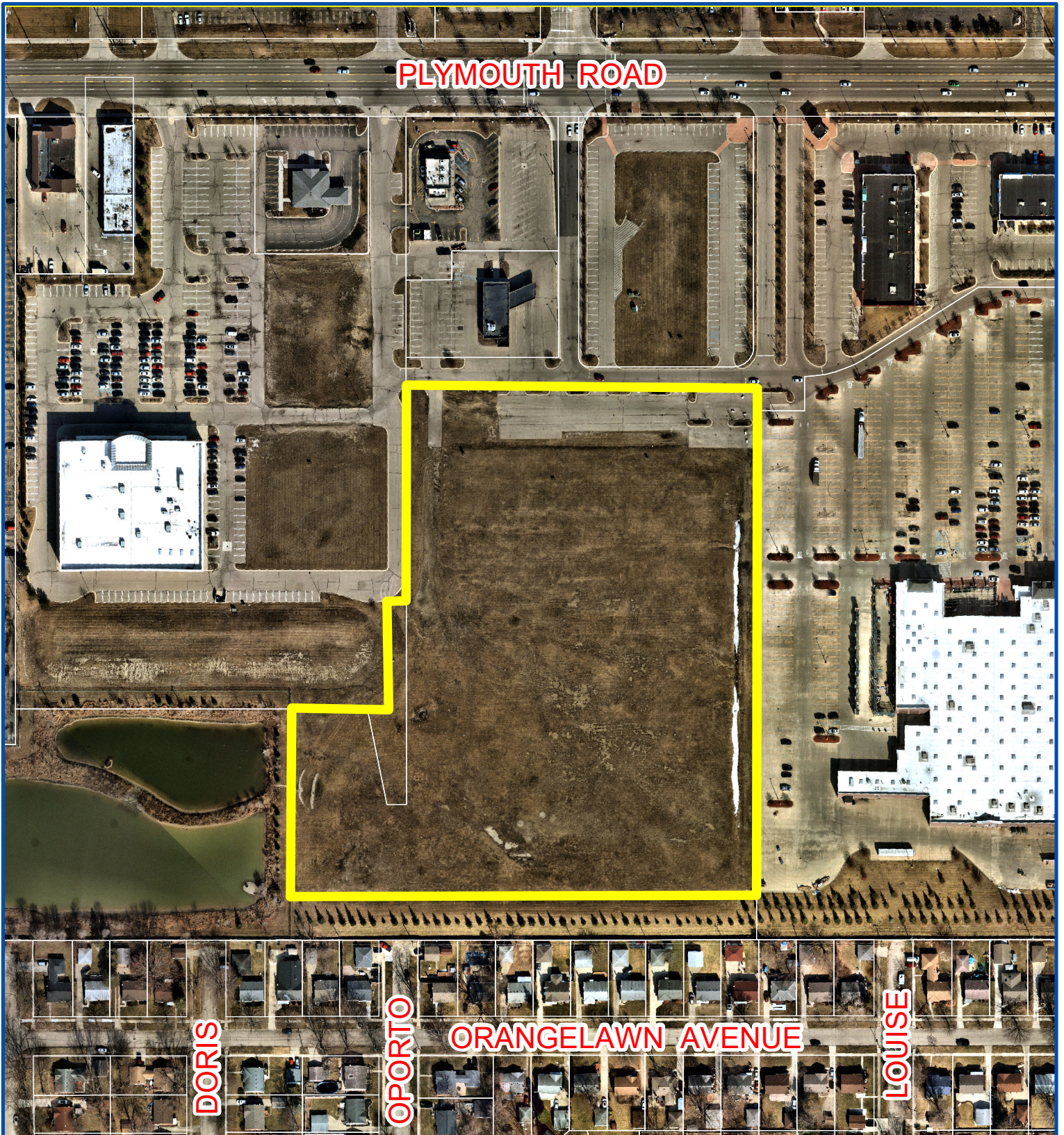
Address & Zoning Map

Petition 2022-04-08-02
Wonderland Flats
29707 & 30273 Plymouth Road
Construct Apartments



Not to Scale

City of Livonia
 Planning Department



Aerial Map

Petition 2022-04-08-02
Wonderland Flats
29707 & 30273 Plymouth Road
Construct Apartments



Not to Scale



City of Livonia
Planning Department

PLANNING COMMISSION STAFF NOTES

MISCELLANEOUS

ITEM 2

Petition 2022-04-08-02 submitted by Middlebelt Plymouth Venture L.L.C. requesting approval pursuant to Sections 3.08 and 6.04 of The Livonia Vision 21 Zoning Ordinance, as amended, to construct an apartment complex (Wonderland Flats), consisting of two (2) buildings and 201 units, on the properties at 29707 & 30273 Plymouth Road, located on the south side of Plymouth Road between Middlebelt Road and Milburn Avenue in the Northeast ¼ of Section 35.

May 24, 2022: Study Meeting:

This petition involves a request to construct an apartment complex called Wonderland Flats on approximately 10.86 acres of vacant land located between the Walmart Supercenter and LA Fitness. The subject site is currently under consideration (Petition 2020-08-01-06) to be rezoned from C-2, General Business, to NM2, Neighborhood Multifamily. City Council gave First Reading to the rezoning on March 23, 2022. Second Reading and the Roll Call Vote, the final steps in the rezoning process, are on hold pending review of the site plan. Multiple dwellings and apartment houses are treated as permitted uses in the NM2 zoning district. NM2 zoning allow buildings up to four (4) stories in height.

The proposed site plan is substantially similar to the plan that was presented with the rezoning application. It shows two (2) apartment buildings, both of which are three (3) stories in height. The buildings would have similar ground floor areas (i.e., footprints) with the north building, identified as Building 'A', covering 33,854 square feet and the south building, Building 'B', measuring 33,292 square feet. Apartment Building 'A' has 100 one and two-bedroom units, and Building 'B' has 101 one and two-bedroom units. The proposed "C-shaped" buildings would mirror one another, creating a central courtyard and common area that measures approximately 227' x 310' (1.61 acres). Within this central common area, the plans show an in-ground swimming pool and pool house. Combined, the two (2) apartment buildings would contain 201 apartment units, which represents a density of approximately 18.5 dwelling units per acre. The combined total usable floor area of both buildings equals 160,054 square feet, constituting 33.8% of the total site area. Per the Ordinance, the maximum permitted usable floor area in percentage of lot area is 35%. All yard, bulk, height, and area requirements of the NM2 district would be met.

Both buildings would have central lobbies. The lobby diagram for Building 'A' (Sheet A401) shows a lounge, gym, restrooms, leasing and manager offices, staircase, riser room (mechanical room for fire/sprinkler controls), elevator, and mail room. Building 'B' lobby has a mail room, staircase, elevator, and riser room. Additional entrances/exits with staircases are shown at the east and west ends of both buildings, and each floor would include storage and mechanical rooms (see Sheets A101-A & B, A102-A & B, and A103-A & B). According to the general floor layouts and Unit Matrix charts shown on Sheets A101 thru A103, each floor would

contain a mix of one- and two-bedroom units. Altogether, the proposed total number one-bed units equals 78 (39%) and the number of two-bed units is 123 (61%).

Required setbacks are determined by building height. For three (3) story buildings, the minimum front and rear yard setbacks are fifty feet (50'), and the minimum required side yard setback is twenty-five feet (25') with a total of sixty (60) feet required for the total of both side yards. As proposed, this development would meet all required building setbacks.

Extending across the rear of both the commercial shopping complex and the site of the proposed multi-family development are a landscaped berm and masonry screen wall. Together, these features help form a visual barrier for the adjacent single-family homes to the south. The homes on the other side of the berm and wall are a part of the Bel-Aire Gardens Subdivision, zoned N1, Neighborhood. The distance between the existing screen wall and the closest apartment building would be 300.0 feet. Open space in the form of a turf lawn area measuring approximately 100 feet in length would be maintained between the bottom of the berm and the parking lot of the apartment complex. The berm would be widened on its north side to create more room at the top for an eight foot (8') high obscuring fence and additional trees (see Sheets C-4 and C-10).

Site access would be from two (2) driveways, both of which are at the north end of the apartment complex with connections to the main internal drive that runs across Wonderland Village, from LA Fitness to the east to Middlebelt Road to the west. Between the two (2) driveways serving the apartment complex is a signalized drive to Plymouth Road, located across from Tech Center Drive to the north.

Required parking for apartment buildings is computed based on a ratio of two (2) parking spaces for each unit with one (1) or two (2) bedrooms. With 201 units, the site requires **402 parking spaces** (201 x 2). The site plan shows **404 available parking spaces**. Carports are depicted along the east and south sides of the apartment complex. The Car Port Detail cut-out, depicted on Drawing C-13 only gives dimensions of the structures and does not provide any information as to building materials.

A total of four (4) dumpster enclosures would serve the two (2) apartment buildings. Two (2) are located on the east and west sides of the parking lots, generally positioned between the two (2) buildings. The other two (2) are in the southeast and southwest corners of the parking lot. The walls surrounding the containers would be six feet (6') in height and would be constructed out of masonry to match the buildings. The swing gates would be constructed out of vertical boards mounted on steel fencing.

Exterior site lighting for the parking surrounding the apartments would consist of ground-mounted light fixtures measuring twenty feet (20') in height. The Lighting

Plan, Drawing C-8, shows the different styles of lights that would be used throughout the complex, including the locations, a luminaries' schedule, and site photometric plan.

The Building Elevation Plans, Sheets A201-A & A201-B, illustrate the exterior of the buildings with basic information on the type and location of proposed building materials. On both buildings, the entire first floor and portions of the second floor would consist of a brick veneer (utility size). The remaining upper floors would be finished with four (4) different colors and two (2) different styles of vinyl siding. The colors include Rustic Blend, Colonial White, Slate and Sterling Gray. The types of vinyl siding include 4" horizontal and 7" board and batten (vertical). Minor offsets and projections appear uniformly across the façades where the materials and/or colors transition from one to another. These dimensional depths of the offsets are not provided, but—judging from the floor plans—appear to be minimal (i.e., 1 to 2 feet). 'Juliet'-style balconies are shown on some of the units facing the exterior of the complex, but not on any of the courtyard-facing elevations. Building height is 36.5 feet measured from the finished grade to the top edge of the highest parapet wall. The roof deck is shown at a height roughly 2'-5" to 4'-5" below the top of the parapets. The edge of the roof would contain a pre-finished metal coping. The pool house and maintenance garage would be constructed out of the same building materials.

The Landscape Plans, Drawings C-9 & C-10, indicate the type, quantities and size of plant materials. As previously mentioned, additional trees would be added to the enlarged berm that separates this site from the residential district to the south. A note should be added to the plan indicating that sod would be used on all areas identified as lawn. The plan specifies that the landscape areas will be irrigated by an automatic underground irrigation system.

The Stormwater Management Plan, Drawing C-6, indicates that all runoff from the impervious areas of the site would be collected and directed underground into the existing storm system and off-site detention pond which is located in the southwest corner of the Wonderland complex. The petitioner will need to provide drainage and storm water treatment details to the Engineering Department prior to obtaining permits for the proposed redevelopment.

For signage, residential multi-family developments are permitted one (1) wall sign at a maximum area of twenty (20) square feet and one (1) ground sign at twenty (20) square feet in area at a maximum height of five feet (5'). The elevation plans show a fifty-seven (57) square foot wall sign on the north elevation of Building 'A' and a forty (40) square foot ground sign. Signage as depicted would require a variance from the Zoning Board of Appeals.

During the rezoning process, the Petitioner presented drawings that showed the planned pedestrian connections between the proposed apartment complex and the existing Wonderland retail center. The plans show a network of sidewalks

within the apartment complex connecting to a proposed pedestrian path that would extend across the north end of the property. As part of the development, this path would be extended further east where it would connect to an existing pedestrian path on the west side of Retail G, which in turn links to a system of pedestrian paths that interconnect with the various other retail buildings, including the Walmart and Target stores, as well as the sidewalks along both Plymouth and Middlebelt Roads. The sidewalks for this development would mimic the existing sidewalks of the shopping center and would be five feet (5') wide and constructed out of either concrete or brick pavers.

To help provide screening, privacy and security, fencing would be installed around the perimeters of this development. Along the east boundary would be six foot (6') high vinyl privacy fencing, along the western edge would be four foot (4') high chain-link fencing and, as mentioned, along the top edge of berm that runs along the site's southern boundary would be eight foot (8') high vinyl privacy fencing. The front of the development would be defined by 2' x 2' masonry piers and aluminum ornamental fencing.

June 7, 2022: Regular Meeting:

At the May 24th Study Meeting, the Petitioner informed the Planning Commission that the rents at Wonderland Flats would range from approximately \$1,200 - \$1,350 for one-bedroom units and from \$1,350 - \$1,600 for the two-bedroom units. With a typical one-bed unit measuring 575 square feet and a typical two-bed unit measuring 825 square feet, the average rent per square foot would range from \$2.08 - \$2.35 for the one-bed units and \$1.63 - \$1.94 for the two-bed units. Of the seventeen (17) non-senior dedicated Livonia apartment complexes analyzed, the average size of a one-bed unit is approximately 774 square feet, and the average two-bed unit measures around 1,007 square feet. According to CoStar, Livonia's 2022 Q2 market effective rents per square foot by bedroom are currently \$1.53 for one-bed units and \$1.32 for two-bed units. Translated, one- and two-bed units in Livonia are currently averaging around \$1,184 and \$1,329 per month, respectively.

With the exception of Haggerty Center, which is a three-story project, all of the non-senior dedicated apartment complexes in Livonia are two (2) stories in height. In terms of unit count, the City's largest apartment developments are Franklin Square with 152 units, Plymouth Woods with 156 units, Woodridge with 176 units, Canterbury Park with 200 units, The LIV with 200 units, and Apple Ridge with 272 units. The total inventory of apartments in Livonia is currently around 1,900 units (not including senior independent living) with an occupancy rate of 98.2%. This equals the highest previously recorded rate back in 2000. CoStar's five-year forecasts show a slight decrease in the overall multi-family occupancy rate (96.5% in 2027), coupled with a steady increase in the market effective rents per unit by bedroom (\$1,445 for one-bed units and \$1,644 for two-bed units).

The Petitioner clarified at the Study Meeting that the plans show full-size balconies for the units on the exterior facing elevations of Building A, but that the units on the other sides of the building, including the courtyard, would not contain balconies. On Building B, the balconies shown are “Juliet”-style. A comparison with other Livonia apartment projects shows that substantially more brick is used on the exterior of the buildings. In addition, newer projects, such as Aletha and The Liv, incorporate fiber-cement and/or metal panels into the design as opposed to vinyl siding. Another concern is the lack of dimensional off-sets and articulations in the façades. It was also noted that the five foot (5') wide interior hallways seemed too narrow for buildings that are over 300 feet in length. At The Liv, the minimum interior hallway width is 6'-8" and widens to over ten feet (10') in multiple locations.

On June 2, 2022, a traffic study and a revised site plan was submitted. The new plan shows a repositioning of the dumpster enclosure along the west side of site reflecting the comments from the Study Meeting.

Approving Resolution: That this request to construct an apartment complex (Wonderland Flats) on the properties located at 29707 and 30273 Plymouth Road is approved, subject to City Council approval and the following conditions:

1. That the Site Plan identified as Drawing C-4, dated June 1, 2022, as revised, prepared by Stonefield Engineering & Design, is hereby approved and shall be adhered to.
2. All parking spaces, except the required barrier free parking, shall be doubled striped and shall be ten (10) feet in width, as required, and the number and location of the barrier free parking space(s) shall be provided at the direction of the Inspection Department.
3. That the Landscaping Plans, identified as Drawings C-9 and C-10, and the Landscaping Details plan, identified as Drawing C-11, all dated April 27, 2022, prepared by Stonefield Engineering & Design, are hereby approved and shall be adhered to.
4. That all disturbed lawn areas shall be sodded in lieu of hydroseeding.
5. That underground sprinklers are to be provided for all landscaped and sodded areas and all planted materials shall be installed to the satisfaction of the Inspection Department and thereafter permanently maintained in a healthy condition.

MISCELLANEOUS

6. That the Building Elevations Plans, identified as A201-A, A201-B and A111, all dated April 22, 2022, prepared by Spire Design Group, are hereby approved and shall be adhered to, **except that a majority of the apartment units shall contain full balconies, and either masonry (brick or burnished block), metal panels or fiber-cement siding shall replace all areas shown having vinyl siding.**
7. That the three walls of the trash dumpster areas shall be constructed out of the same brick used in the construction of the buildings or in the event a poured wall is substituted, the wall's design, texture and color shall match that of the buildings. The enclosure gates shall be of solid panel steel construction or durable, long-lasting solid panel fiberglass.
8. That the location and/or orientation of the dumpster enclosure on the west side of the buildings shall be adjusted similar to the dumpster enclosure on the east side to improve access and safety.
9. That all light fixtures shall not exceed twenty feet (20') in height and shall be shielded to minimize glare trespassing on adjacent properties and roadways.
10. That the network of sidewalks within the apartment complex shall connect with the pedestrian sidewalks and pathways of the adjacent retail establishments.
11. That the Petitioner shall install a gate or other type of opening along east side of the complex to allow residents of Wonderland Flats to access the adjacent retail property.
12. That the issues as outlined in the correspondence dated May 17, 2022, from the Fire Marshal, including providing automatic sprinkler systems, fire alarm systems, on-site hydrants and a fire access road, shall be resolved to the satisfaction of the Department of Public Safety Livonia Fire & Rescue.
13. That only conforming signage is approved with this petition, and any additional signage shall be separately submitted for review and approval by the Zoning Board of Appeals.
14. That no LED light band or exposed neon shall be permitted on this site including, but not limited to, the building or around the windows.
15. That the specific plans referenced in this approving resolution shall be submitted to the Inspection Department at the time the building permits are applied for; and

MISCELLANEOUS

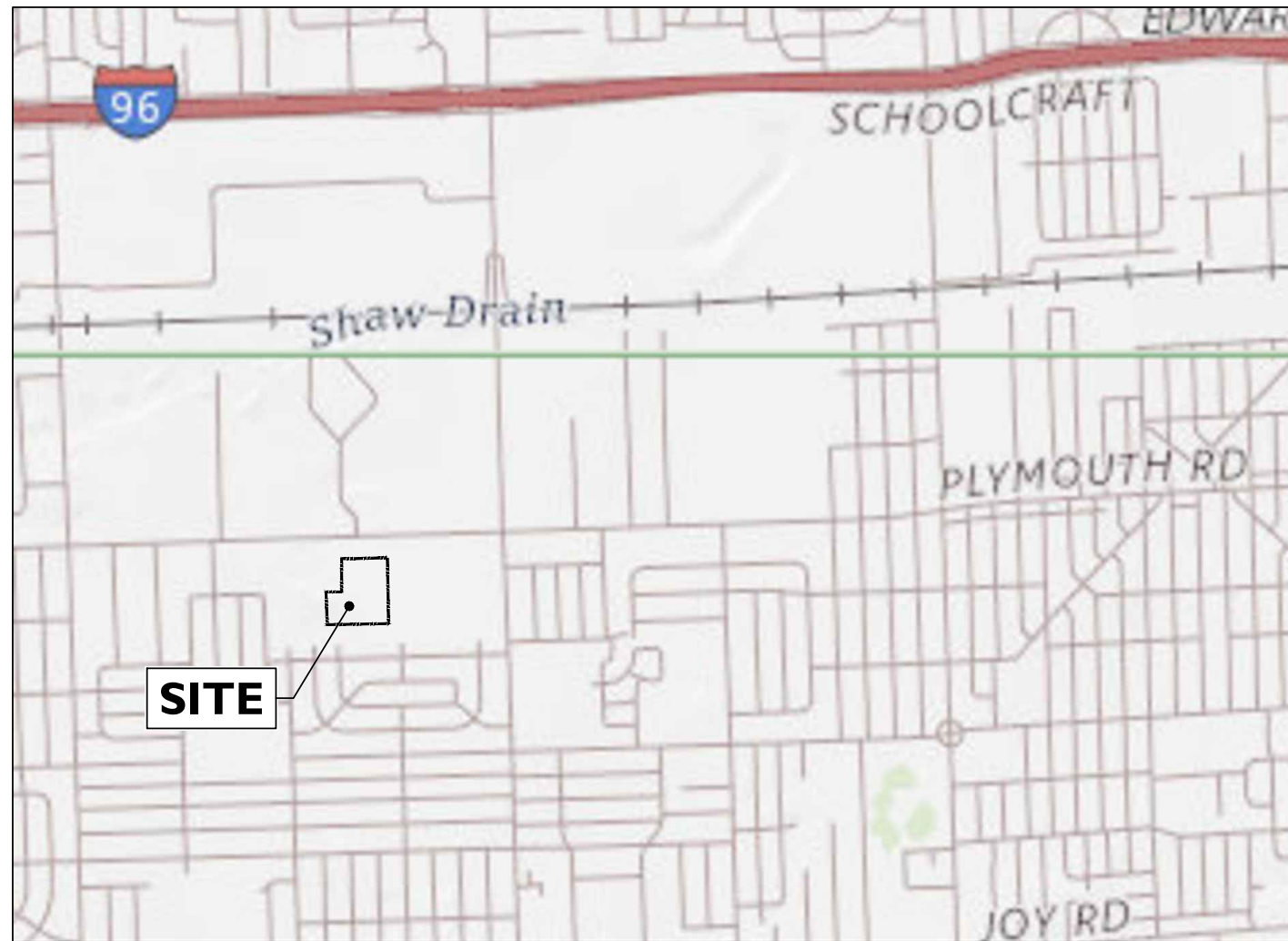
ITEM 2 Petition 2022-04-08-02 – Wonderland Flats

Page 7

16. Pursuant to Section 13.13 of the Livonia Vision 21 Zoning Ordinance, this approval is valid for a period of one year only from the date of approval by City Council, and unless a building permit is obtained, this approval shall be null and void at the expiration of said period.

Denying Resolution: That this request to construct an apartment complex (Wonderland Flats) on the properties at 29707 & 30273 Plymouth Road, is denied for the following reasons

1. That the petitioner has failed to affirmatively show that the proposed use is in compliance with all of the special and general waiver use standards and requirements as set forth in Sections 3.08, 6.04 and 13.13 of the Livonia Vision 21 Zoning Ordinance.
2. That too many issues remain unresolved, including increase traffic concerns, building architecture, signage, site layout, compatibility with the surrounding retail uses and the close proximity to the adjacent residential neighborhood.
3. That the site lacks the capacity to handle the intensity associated with a 201-unit apartment complex and would therefore be detrimental to and not in harmony with the character of the surrounding commercial center and adjacent neighborhood.
4. That the apartment complex would create significant adverse impacts on adjoining parcels, public services, and community planning efforts.
5. That the proposal conflicts with the spirit and intent of the Zoning Ordinance to promote and encourage a balanced and appropriate mix of uses, and
6. That the petitioner has failed to comply with all the concerns deemed necessary for the safety and welfare of the City and its residents.



SOURCE: USGS MAPS

LOCATION MAP

SCALE: 1" = 2000'±



SOURCE: GOOGLE EARTH PRO

AERIAL MAP

SCALE: 1" = 300'±

SITE DEVELOPMENT PLANS FOR **Schostak** BROTHERS & COMPANY WONDERLAND FLATS PROPOSED RESIDENTIAL DEVELOPMENT

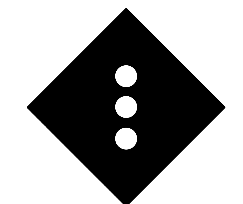
PARCEL IDS: 137-99-0008-010 & 137-99-0004-002
CITY OF LIVONIA, WAYNE COUNTY, MICHIGAN

APPLICANT / OWNER

STEPHEN E. DUCZYNSKI II
MIDDLEBELT PLYMOUTH VENTURE LLC
17800 NORTH LAUREL PARK DRIVE
#200C
LIVONIA, MICHIGAN

NOT APPROVED FOR CONSTRUCTION

STONEFIELD
engineering & design



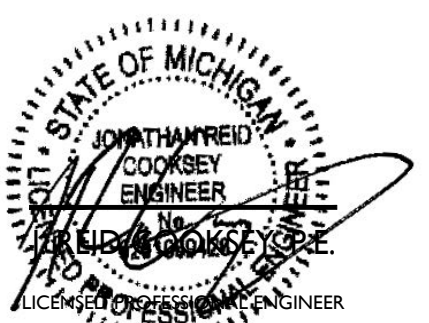
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SITE DEVELOPMENT PLANS

Schostak
BROTHERS & COMPANY
WONDERLAND FLATS
PROPOSED RESIDENTIAL DEVELOPMENT

PARCEL IDS: 137-99-0008-010 & 137-99-0004-002
CITY OF LIVONIA
WAYNE COUNTY, MICHIGAN



STONEFIELD
engineering & design

SCALE: AS SHOWN PROJECT ID: M-19052.01

TITLE:

COVER SHEET

DRAWING:

C-1

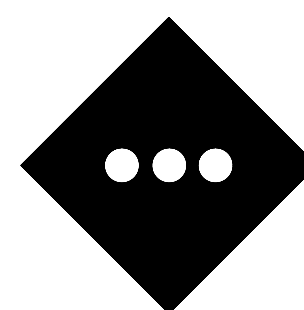
PLAN REFERENCE MATERIALS:

- THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
 - ALTA/NSPS LAND TITLE SURVEY PREPARED BY HUBBELL, ROTH & CLARK, INC, DATED: APRIL 2022
 - GEOTECHNICAL REPORT PREPARED BY SME, DATED: 06/28/2019
 - AERIAL MAP OBTAINED FROM GOOGLE EARTH PRO
 - LOCATION MAP OBTAINED FROM USGS MAPS
- ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.



Know what's below
Call before you dig.

PLANS PREPARED BY:



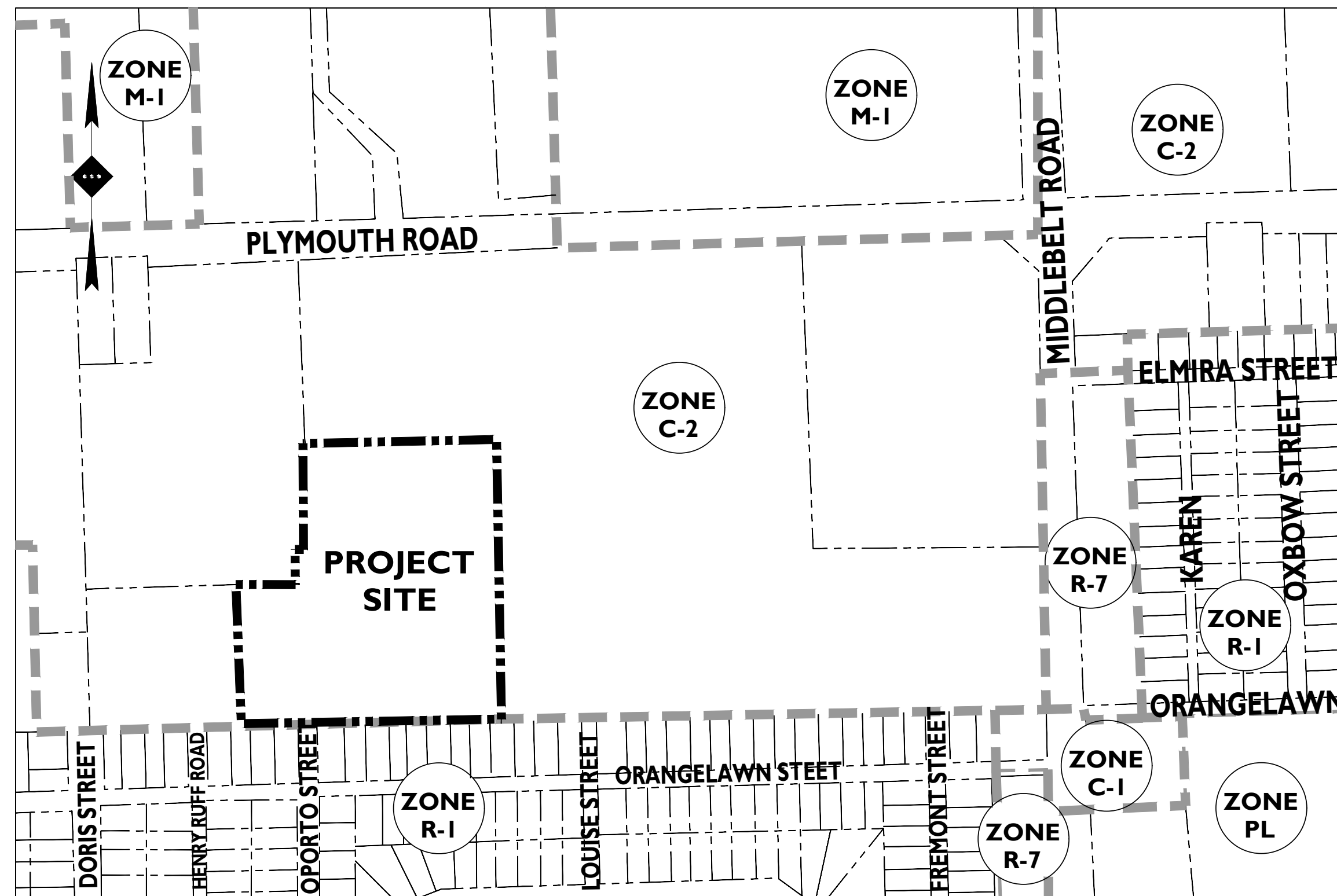
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SOURCE: WAYNE COUNTY PARCEL VIEWER & CITY OF LIVONIA ZONING MAP

TAX & ZONING MAP

SCALE: 1" = 300'±

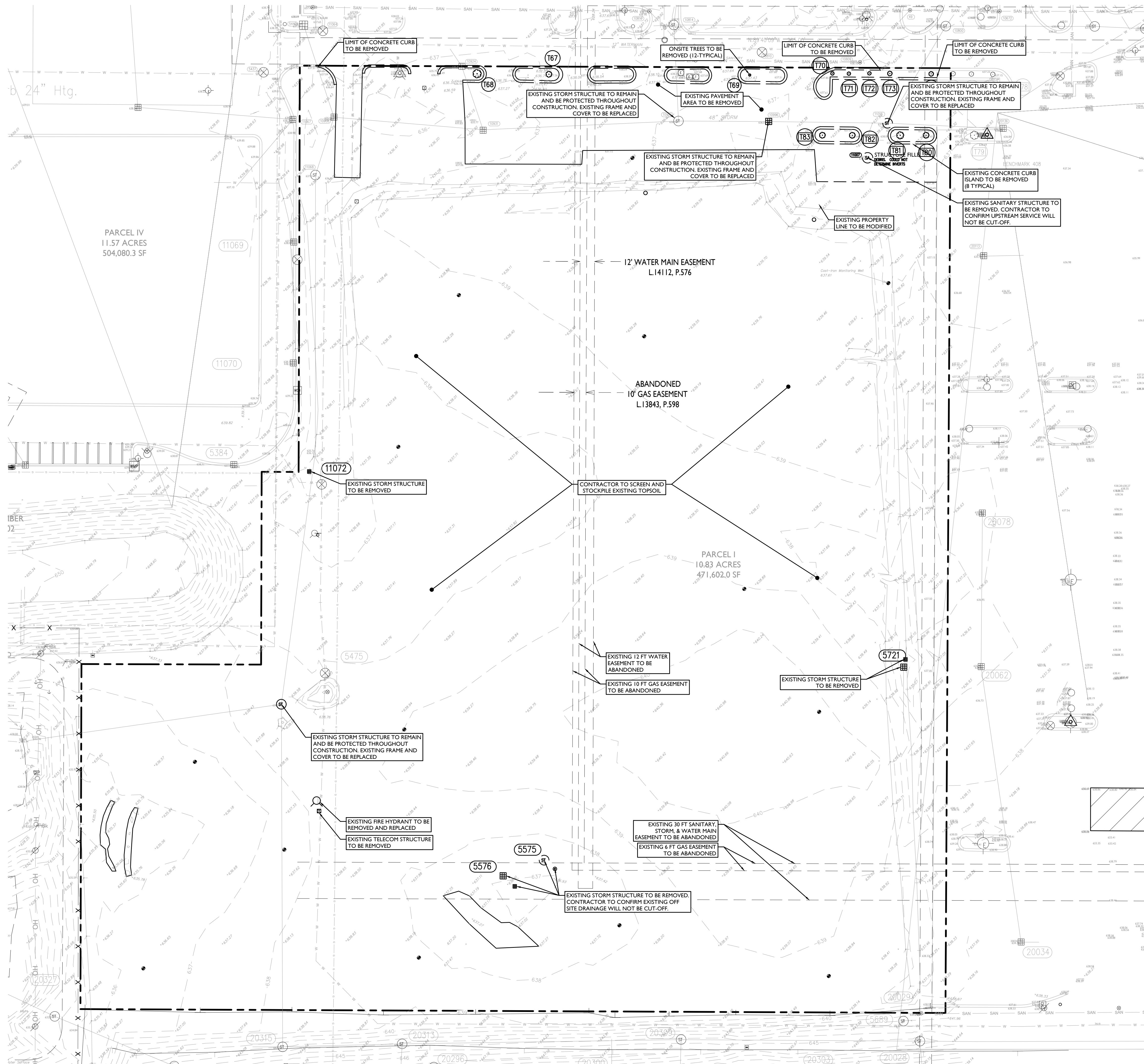
CIVIL SHEET INDEX

DRAWING TITLE	SHEET #
COVER SHEET	C-1
DEMOLITION PLAN	C-2
SITE PLAN (OVERALL)	C-3
SITE PLAN	C-4
GRADING PLAN	C-5
STORMWATER MANAGEMENT PLAN	C-6
UTILITY PLAN	C-7
LIGHTING PLAN	C-8
LANDSCAPING PLAN	C-9 & C-10
LANDSCAPING DETAILS	C-11
CONSTRUCTION DETAILS	C-12 TO C-13
TRUCK EXHIBITS	EX-1 THRU EX-3
ALTA/NSPS LAND TITLE SURVEY	I & 2 OF 2

ARCHITECT SHEET INDEX

DRAWING TITLE	SHEET #
BUILDING A FIRST FLOOR	A101-A
BUILDING B FIRST FLOOR	A101-B
BUILDING A SECOND FLOOR	A102-A
BUILDING B SECOND FLOOR	A102-B
BUILDING A THIRD FLOOR	A103-A
BUILDING B THIRD FLOOR	A103-B
BUILDING A ROOF PLAN	A104-A
BUILDING B ROOF PLAN	A104-B
TYPICAL UNITS	A105
BUILDING A ELEVATIONS	A201-A
BUILDING B ELEVATIONS	A201-B
ACCESSORY BUILDINGS	A111
LOBBY DETAIL	A401

\\P019\19022\19022-SCHOSTAK BROTHERS\CD\19022.DWG



ALL SITE FEATURES ON THIS PLAN ARE TO REMAIN AND BE PROTECTED UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IF SIGNIFICANT DISCREPANCIES ARE DISCERNED BETWEEN THIS PLAN AND FIELD CONDITIONS



Know what's below
Call before you dig.

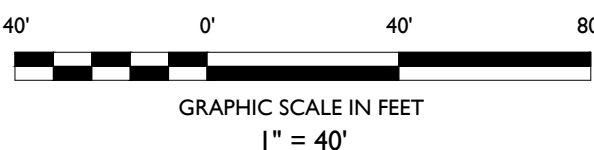
DEMOLITION NOTES

1. THE WORK REFLECTED ON THE DEMOLITION PLAN IS TO PROVIDE GENERAL INFORMATION. TOWARDS THE EXISTING ITEMS TO BE DEMOLISHED AND/OR REMOVED. THE CONTRACTOR IS RESPONSIBLE TO REVIEW THE ENTIRE PLAN SET AND ASSOCIATED REPORTS/REFERENCE DOCUMENTS INCLUDING ALL DEMOLITION ACTIVITIES AND INCIDENTAL TASKS NECESSARY TO COMPLETE THE SITE IMPROVEMENTS.
2. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF DEMOLITION ACTIVITIES.
3. EXPLOSIVES SHALL NOT BE USED UNLESS WRITTEN CONSENT FROM BOTH THE OWNER AND ANY APPLICABLE GOVERNING AGENCY IS OBTAINED. BEFORE THE START OF ANY EXPLOSIVE PROGRAM, THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL LOCAL, STATE, AND FEDERAL PERMITS. ADDITIONALLY, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL SEISMIC TESTING AS REQUIRED AND ANY DAMAGES AS THE RESULT OF SAID DEMOLITION PRACTICES.
4. ALL DEMOLITION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL UTILITIES ARE DISCONNECTED IN ACCORDANCE WITH THE UTILITY AUTHORITY'S REQUIREMENTS PRIOR TO STARTING THE DEMOLITION OF ANY STRUCTURE. ALL EXCAVATIONS ASSOCIATED WITH DEMOLISHED STRUCTURES OR REMOVED TANKS SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO SUPPORT SITE AND BUILDING IMPROVEMENTS. A GEOTECHNICAL ENGINEER SHOULD BE PRESENT DURING BACKFILLING ACTIVITIES TO OBSERVE AND CERTIFY THAT BACKFILL MATERIAL WAS COMPACTED TO A SUITABLE CONDITION.
5. DEMOLISHED DEBRIS SHALL NOT BE BURIED ON SITE. ALL WASTED DEBRIS GENERATED FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL RECORDS OF THE DISPOSAL TO DEMONSTRATE COMPLIANCE WITH THE ABOVE REGULATIONS.

SYMBOL

DESCRIPTION

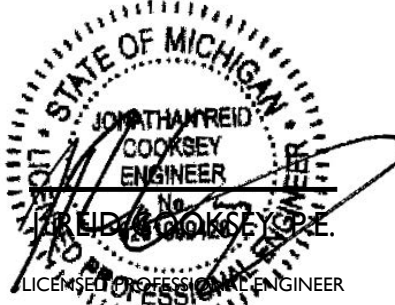
FEATURE TO BE REMOVED / DEMOLISHED



SITE DEVELOPMENT PLANS

Schostak
BROTHERS & COMPANY
WONDERLAND FLATS
PROPOSED RESIDENTIAL DEVELOPMENT

PARCEL IDS: 137-99-0008-010 & 137-99-0004-002
CITY OF LIVONIA
WAYNE COUNTY, MICHIGAN



STONEFIELD
engineering & design

SCALE: 1" = 40' PROJECT ID: M-19052.01

TITLE:

DEMOLITION PLAN

DRAWING:

C-2

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engineering & design

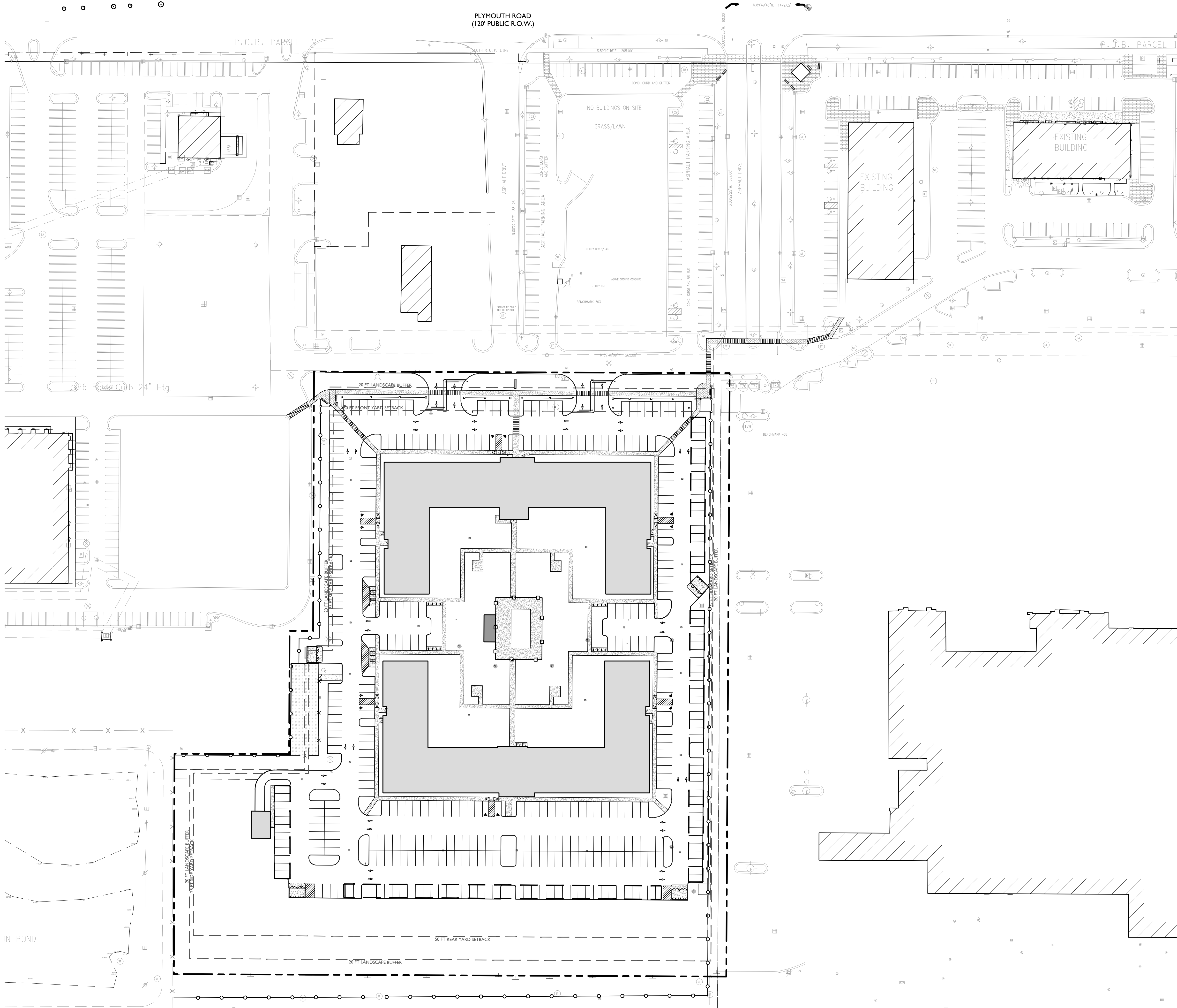
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NOT APPROVED FOR CONSTRUCTION

ISSUE	DATE	BY	DESCRIPTION
I	04/27/2023	MPH	CITY SITE PLAN REVIEW

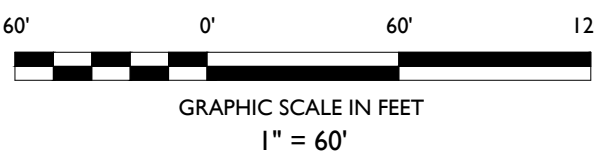
V:\P019\19052\19052-SCHOSTAK BROTHERS-REDLEBELT ROAD AND PLYMOUTH ROAD, LIVONIA, MI\CDR\DOT\19052-03.DWG



SYMBOL	DESCRIPTION
	PROPERTY LINE
	PHASE LINE
	PROPOSED CURB AND GUTTER
	PROPOSED FLUSH CURB
	PROPOSED SIGNS / BOLLARDS
	PROPOSED CARPORT SPACES
	PROPOSED BUILDING
	PROPOSED CONCRETE
	PROPOSED FENCE
	PROPOSED STORM STRUCTURES

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
3. ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC, AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
4. THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
5. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
6. THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
7. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTOR'S EXPENSE.
8. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC, WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
9. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
10. THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
11. THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
12. SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC, BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.



SITE DEVELOPMENT PLANS



PARCEL IDS: 137-99-0008-010 & 137-99-0004-002
CITY OF LIVONIA
WAYNE COUNTY, MICHIGAN



SCALE: 1" = 60' PROJECT ID: M-19052.01

TITLE:
SITE PLAN
(OVERALL)

DRAWING:

C-3

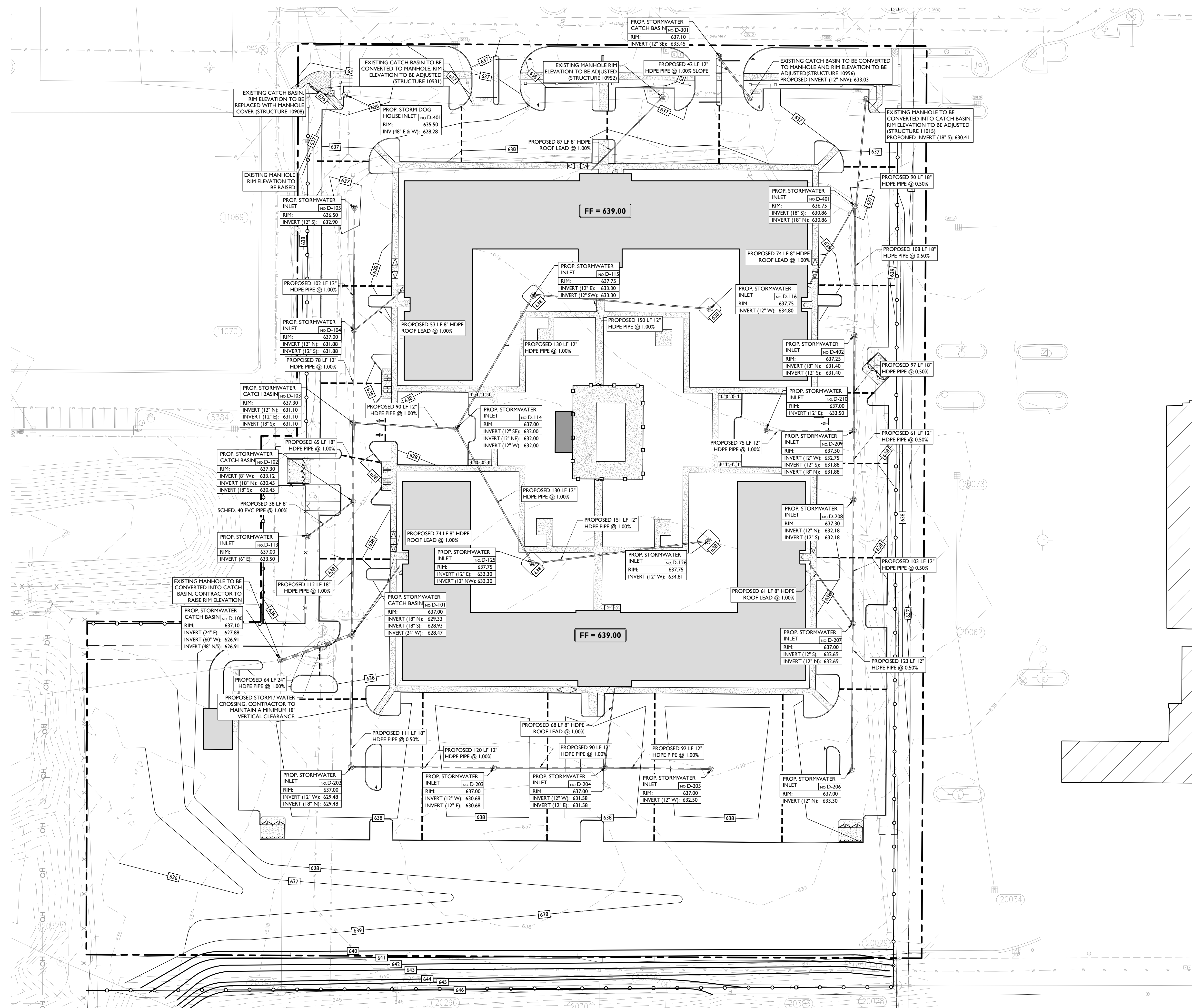
NOT APPROVED FOR CONSTRUCTION

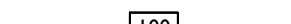
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ISSUE	DATE	BY	DESCRIPTION
1	04/27/2023	MPH	CITY SITE PLAN REVIEW



SYMBOL	DESCRIPTION
	PROPERTY LINE
	PROPOSED GRADING CONTOUR
	PROPOSED GRADING RIDGELINE
	PROPOSED STORMWATER STRUCTURES
	PROPOSED STORMWATER PIPING

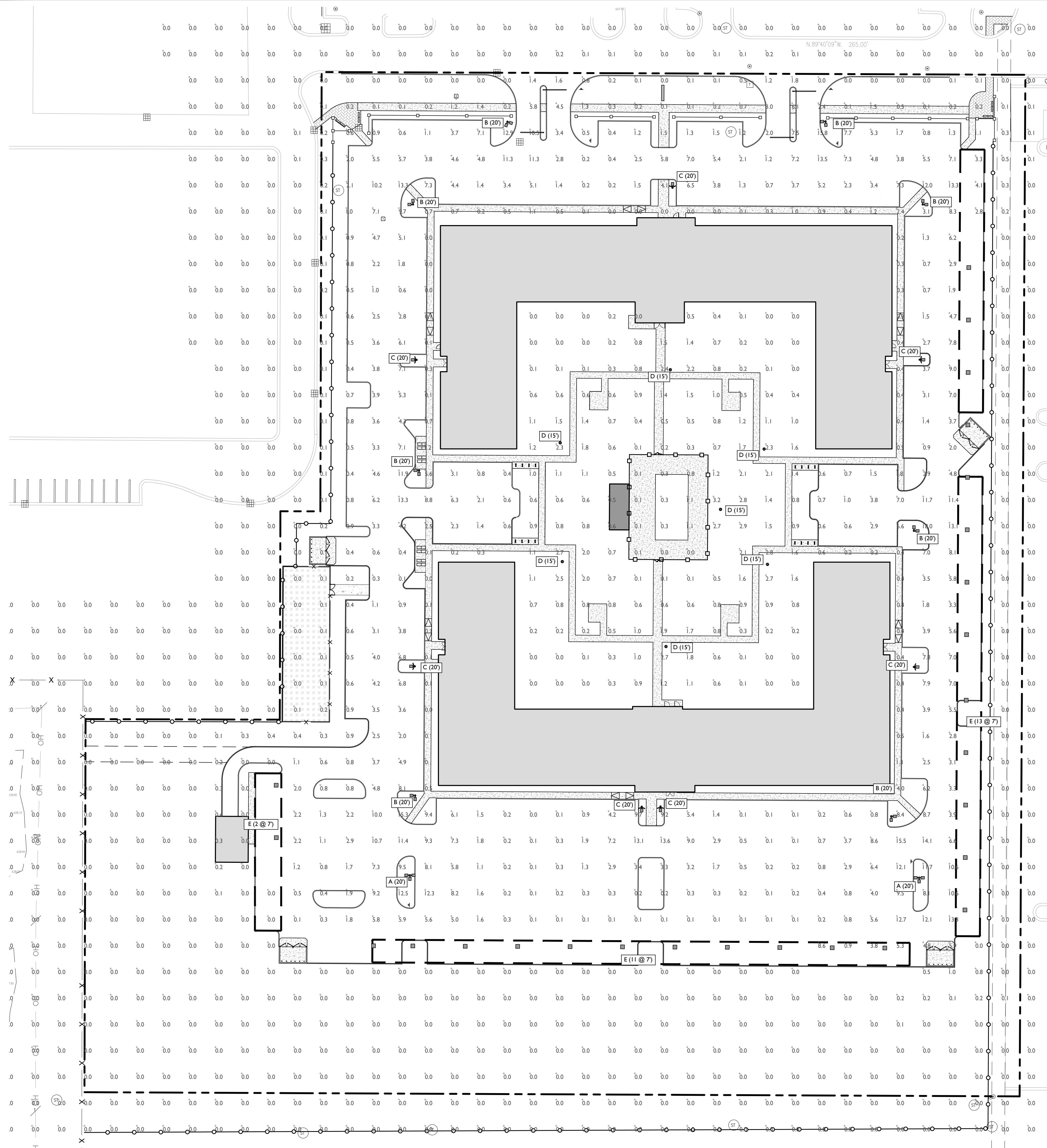
DRAINAGE AND UTILITY NOTES

- I. THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR STORMWATER IMPROVEMENTS.
- J. IN THE EVENT OF A CONFLICT BETWEEN THE ABOVE AND NOTIFIED STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
- K. CONTRACTOR SHALL START CONSTRUCTION OF STORM LINES AT THE LOWEST INVERT AND WORK UP GRADIENT.
- L. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ANY UTILITY WITHIN THE PROJECT AREA.
- M. THE CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THAT SHOWN ON THE PLANS, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY AND CALL AN ENGINEER OR SURVEYOR. THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING.
- N. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE LOCATION OF ALL UTILITIES DETECTED DURING UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE PLANNED LOCATIONS. IF ANY DISCREPANCIES ARE DETECTED, THEY MUST BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

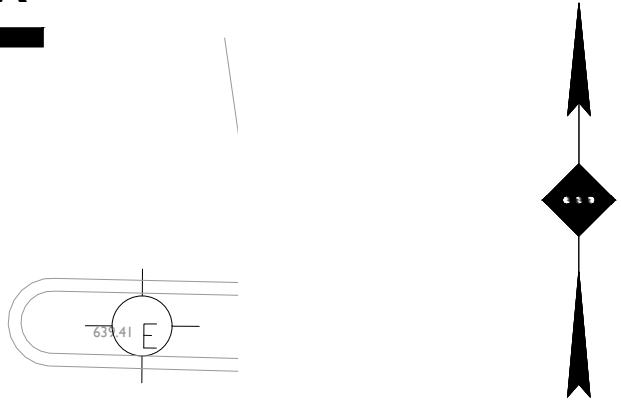
EXCAVATION, SOIL PREPARATION, AND DEWATERING NOTES

1. THE CONTRACTOR IS REQUIRED TO REVIEW THE REFERENCED GEOTECHNICAL DOCUMENTS PRIOR TO CONSTRUCTION, THESE DOCUMENTS SHALL BE CONSIDERED A PART OF THE PLAN SET.
2. THE CONTRACTOR IS REQUIRED TO PREPARE SUBGRADE SOILS AND ALL PROPOSED EXCAVATIONS AND TRENCHES, AS WELL AS EXCAVATIONS IN ACCORDANCE WITH RECOMMENDATIONS BY THE GEOTECHNICAL ENGINEER OF RECORD.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SHORING FOR ALL EXCAVATIONS. THE CONTRACTOR SHALL HAVE THE SHORING DESIGN PREPARED BY A QUALIFIED PROFESSIONAL, SHORING DESIGNS SHALL BE SUBMITTED TO STONEFIELD ENGINEERING & DESIGN, LLC, AND THE OWNER PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL OPEN EXCAVATIONS ARE PERFORMED AND PROTECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE OSHA REGULATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR ANY Dewatering DESIGN AND OPERATIONS, AS REQUIRED, TO CONSTRUCT THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL OBTAIN ANY REQUIRED PERMITS FOR Dewatering OPERATIONS AND GROUNDWATER DISPOSAL.

[illegible]



C-8

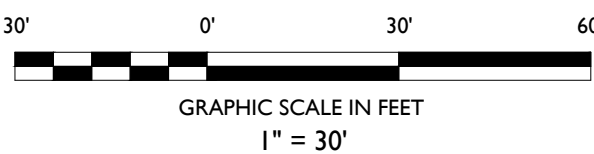


NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE.

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE.

IRRIGATION CONTRACTOR TO PROVIDE A DESIGN FOR AN IRRIGATION SYSTEM SEPARATING PLANTING BEDS FROM LAWN AREA. PRIOR TO CONSTRUCTION, DESIGN IS TO BE SUBMITTED TO THE PROJECT LANDSCAPE DESIGNER FOR REVIEW AND APPROVAL. WHERE POSSIBLE, DRIP IRRIGATION AND OTHER WATER CONSERVATION TECHNIQUES ARE TO BE USED. DESIGN TO PROVIDE IRRIGATION CONTRACTOR TO VERIFY MAXIMUM ON SITE DYNAMIC WATER PRESSURE AVAILABLE. MEASURED IN PSI. PRESSURE REDUCING DEVICES OR BOOSTER PUMPS SHALL BE PROVIDED TO MEET SYSTEM PRESSURE REQUIREMENTS. DESIGN TO SHOW ALL VALVES, PIPING, HEADS, BACKFLOW PREVENTION, METERS, CONTROLLERS, AND SLEEVES WITHIN HARDSCAPE AREAS.

3. THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
4. THE CONTRACTOR SHALL RESEED AND SOFTEN LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED.
5. THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 3 INCH LAYER OF MULCH.
6. THE CONTRACTOR SHALL SLOPE DOWN IN LANDSCAPE RESTORATION AREAS SHALL BE 3 FEET HORIZONTAL TO 1 FOOT VERTICAL (3:1 SLOPE) UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
7. THE CONTRACTOR IS REQUIRED TO LOCATE ALL SPRINKLER HEADS IN LANDSCAPED AREAS. IN ORDER TO PREPARE FOR CONSTRUCTION, THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS AND LINES IN ACCORDANCE WITH OWNER'S DIRECTION WITHIN AREAS OF DISTURBANCE.
8. THE CONTRACTOR SHALL INSURE THAT ALL DISTURBED LANDSCAPED AREAS ARE GRADED TO MEET FLUSH AT THE ELEVATION OF WALKWAYS AND TOP OF CURB ELEVATIONS EXCEPT UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. NO ABOUT CURB IN GRADE ARE PERMITTED IN DISTURBED LANDSCAPING AREAS.



NOT APPROVED FOR CONSTRUCTION



www.stonefieldeng.com

607 Shelby Suite 200, Detroit, MI 48226

Phone 248.247.1115

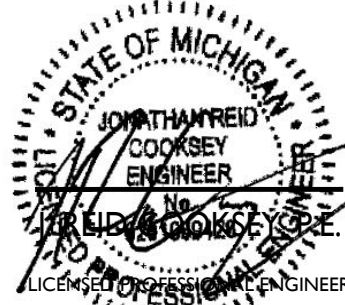
SITE DEVELOPMENT PLANS

WONDERLAND FLATS

PROPOSED RESIDENTIAL DEVELOPMENT

PARCEL IDS: 137-99-0008-010 & 137-99-0004-002

**CITY OF LIVONIA
WAYNE COUNTY, MICHIGAN**

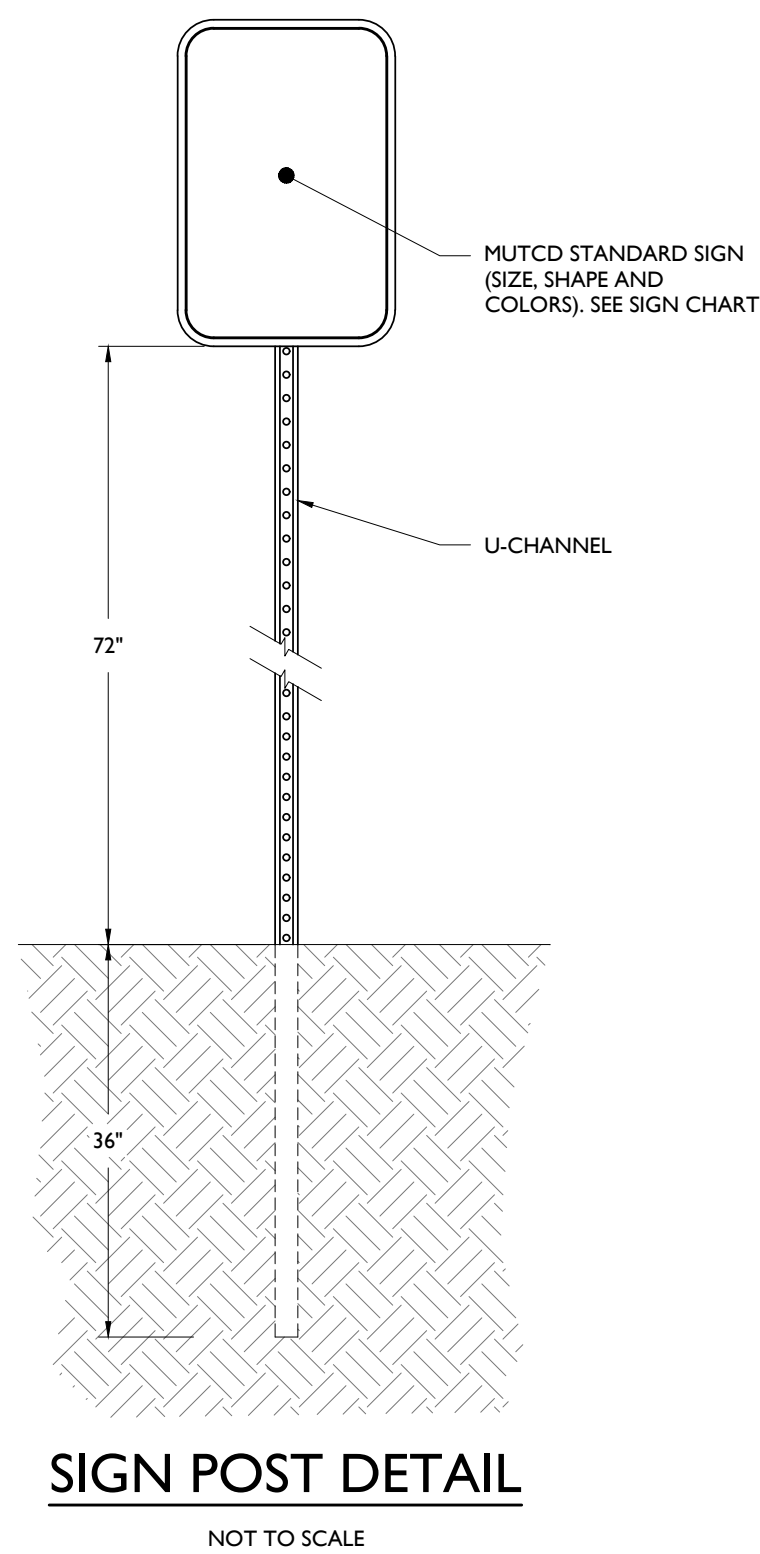
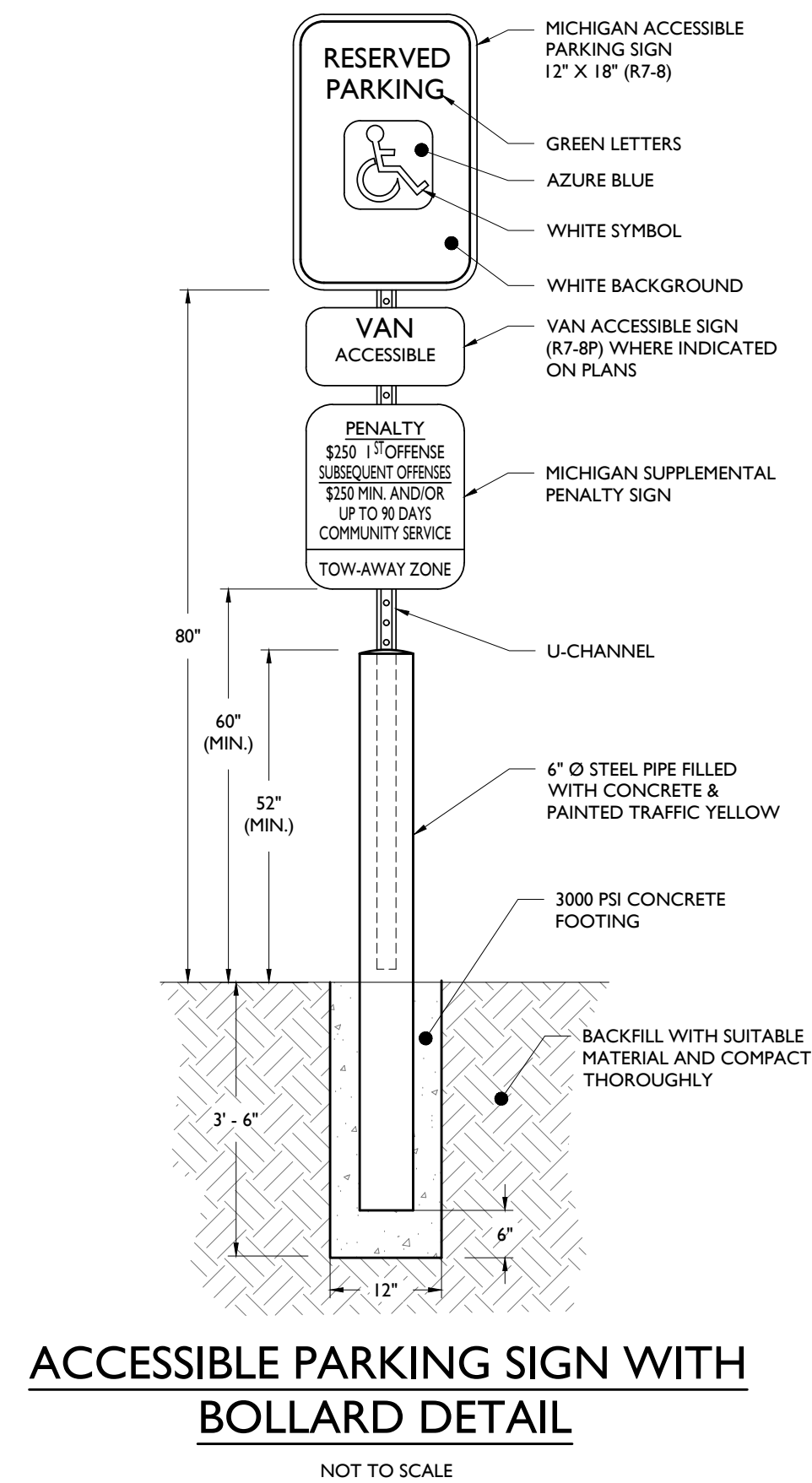


SCALE:	1" = 30'	PROJECT ID: M-19052.0
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LANDSCAPING PLAN

DRAWING:

C-10

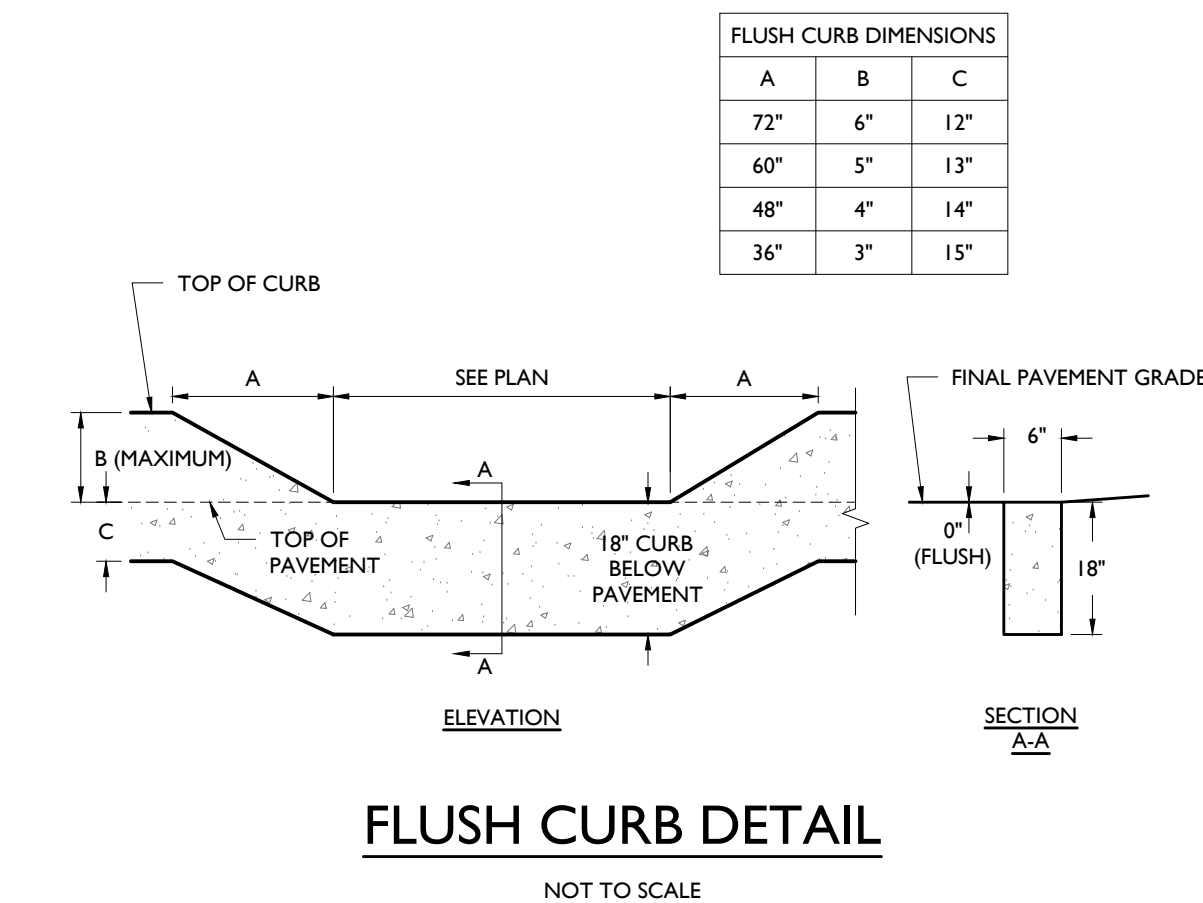
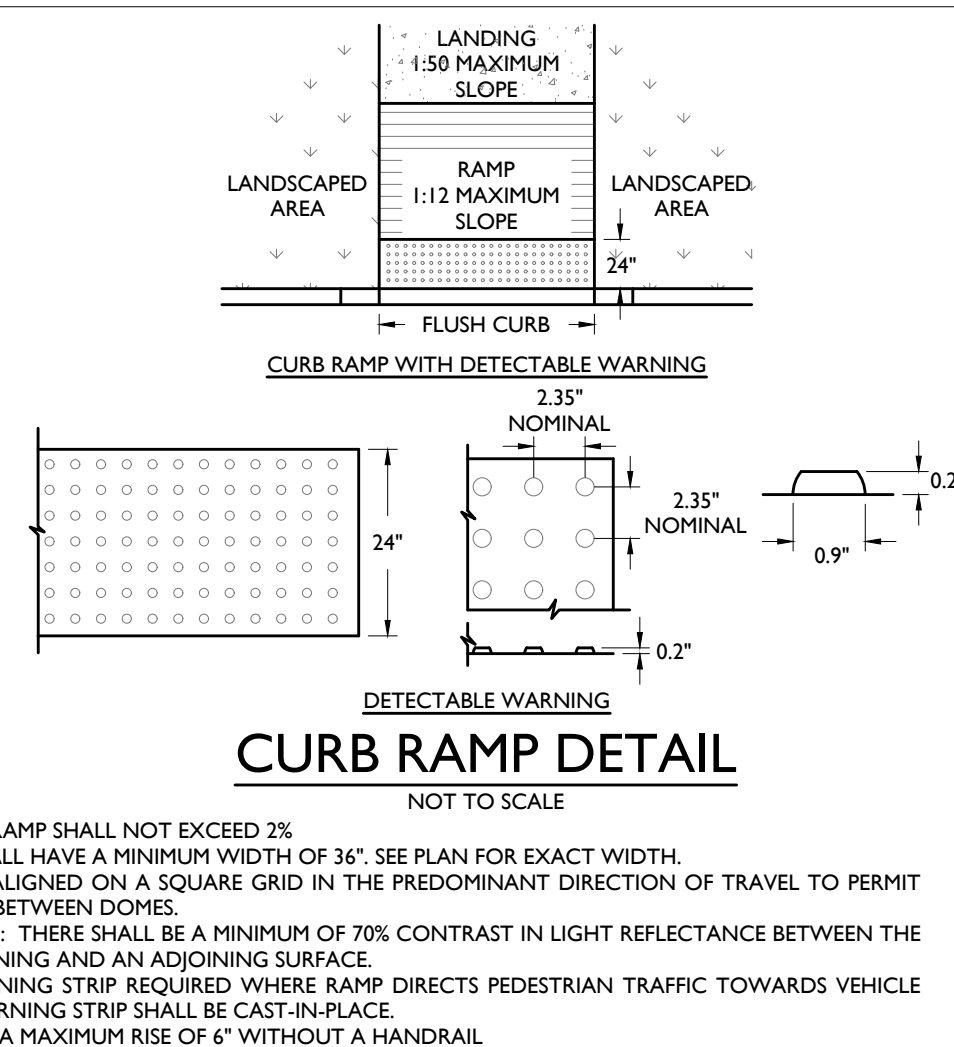
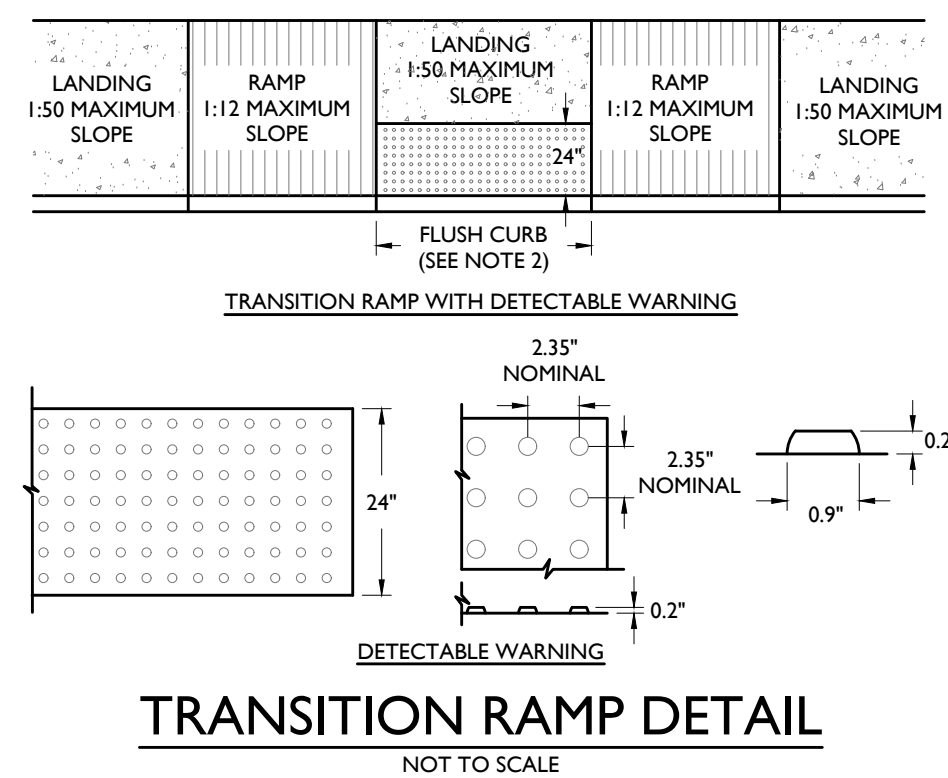
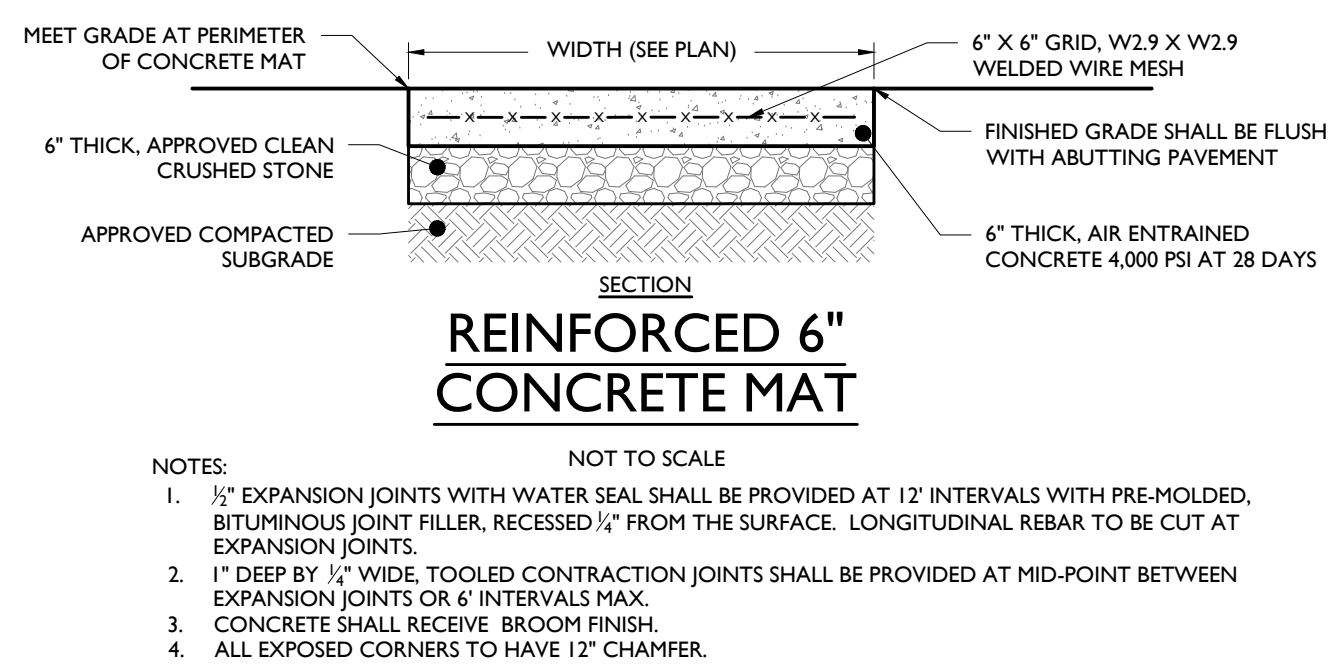
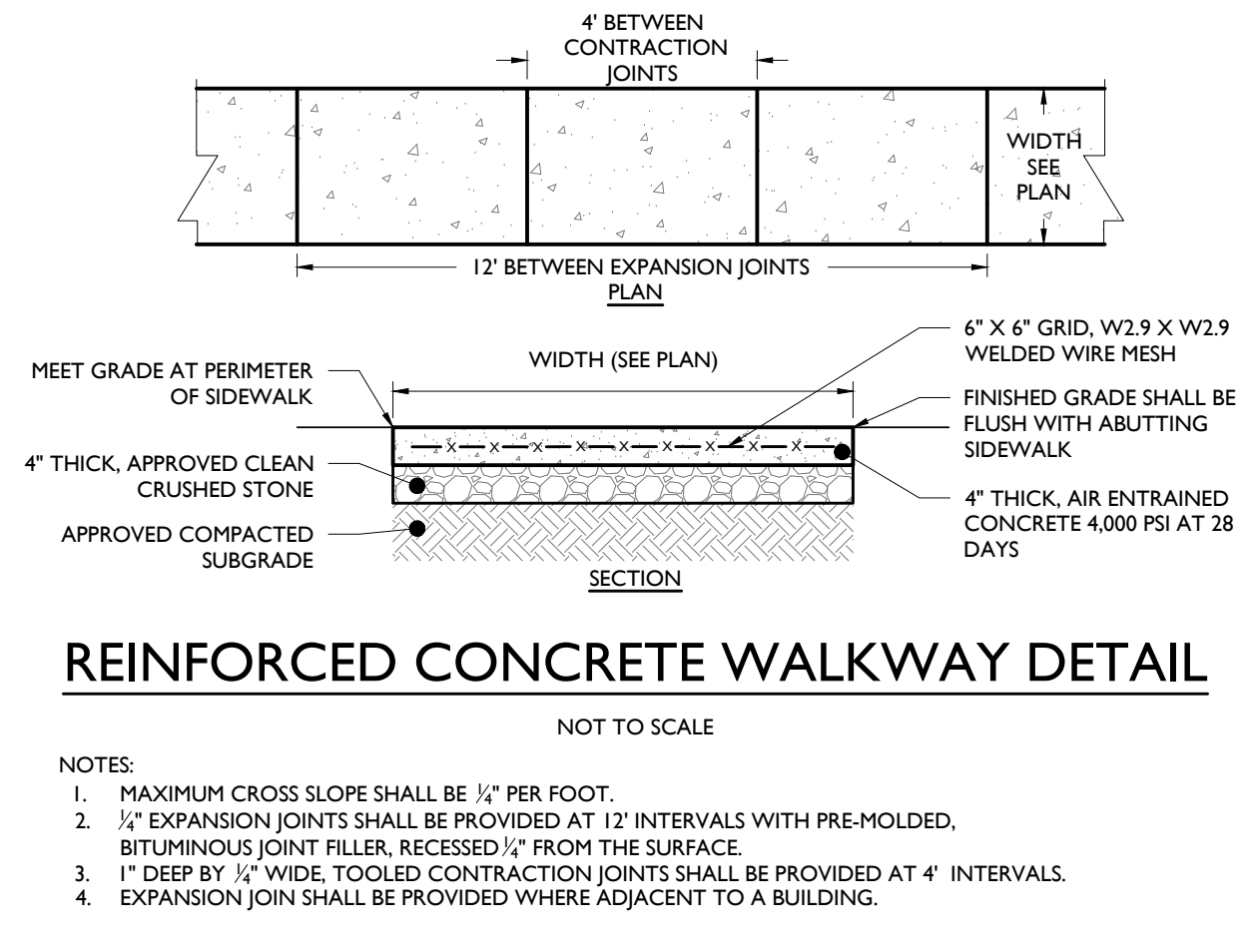
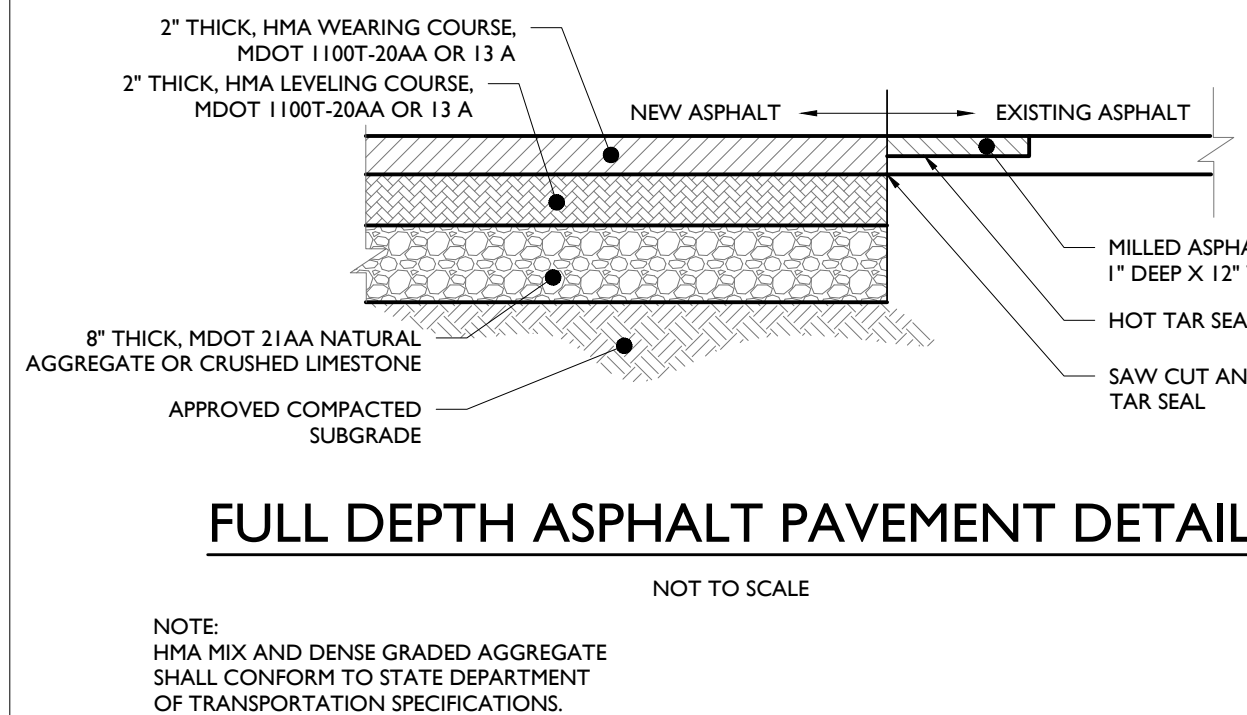
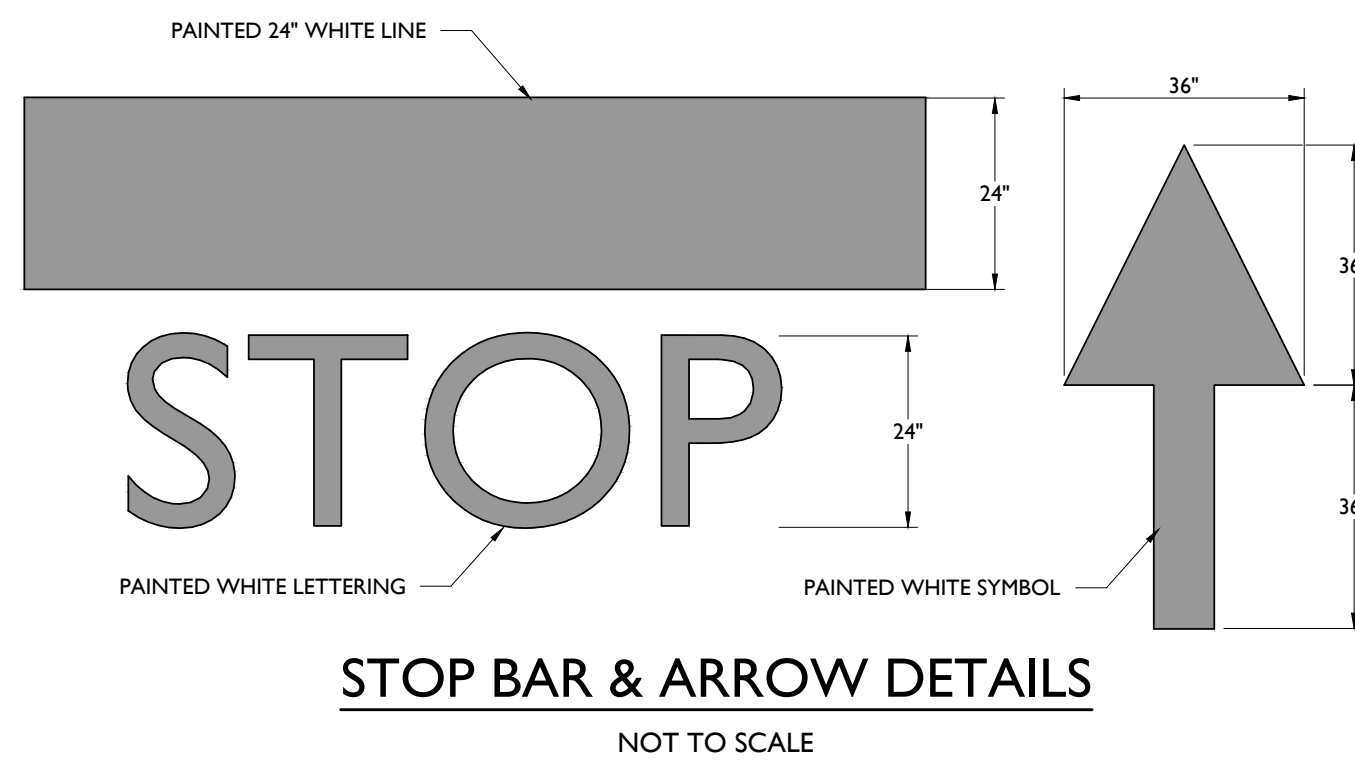
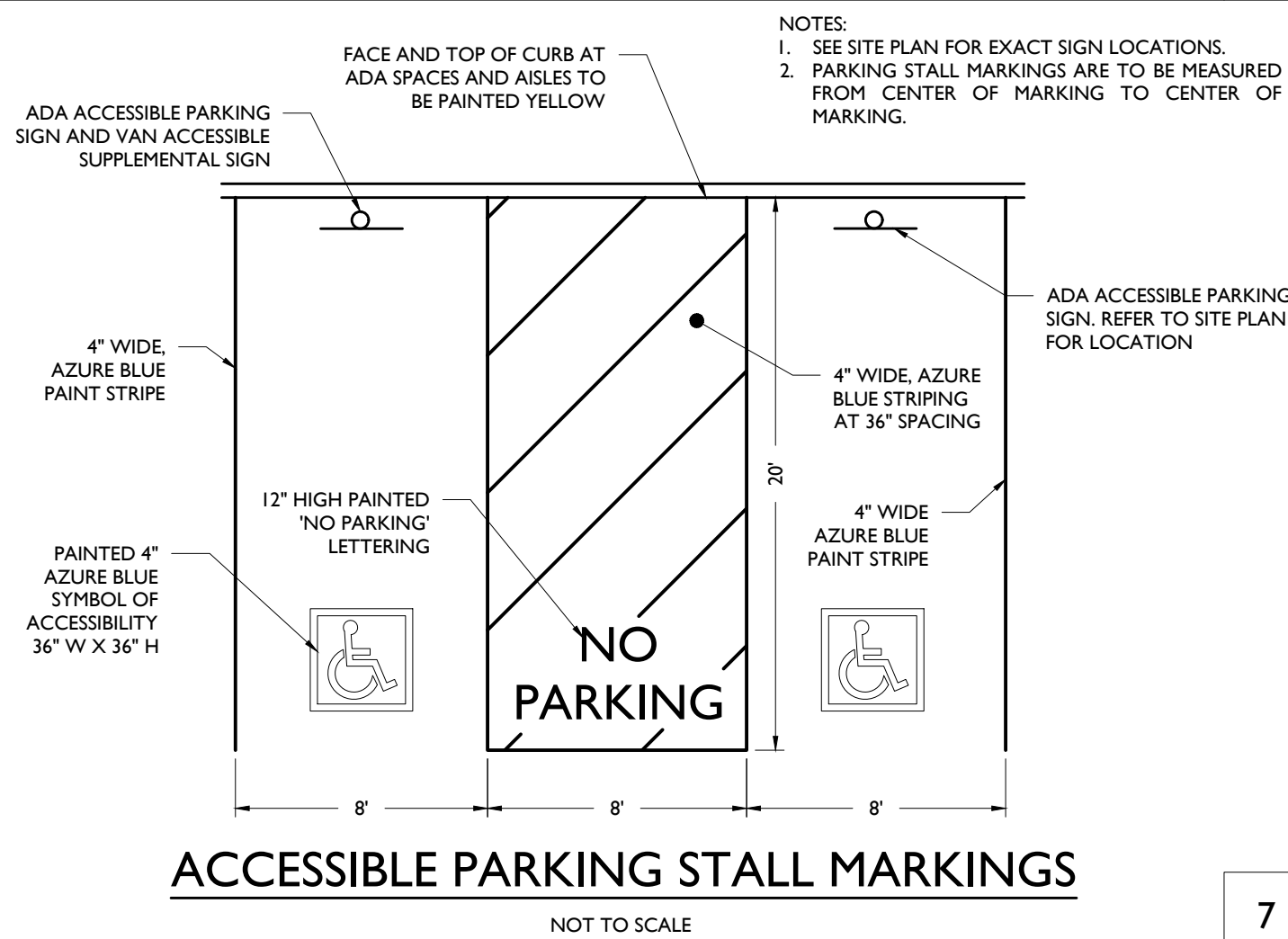
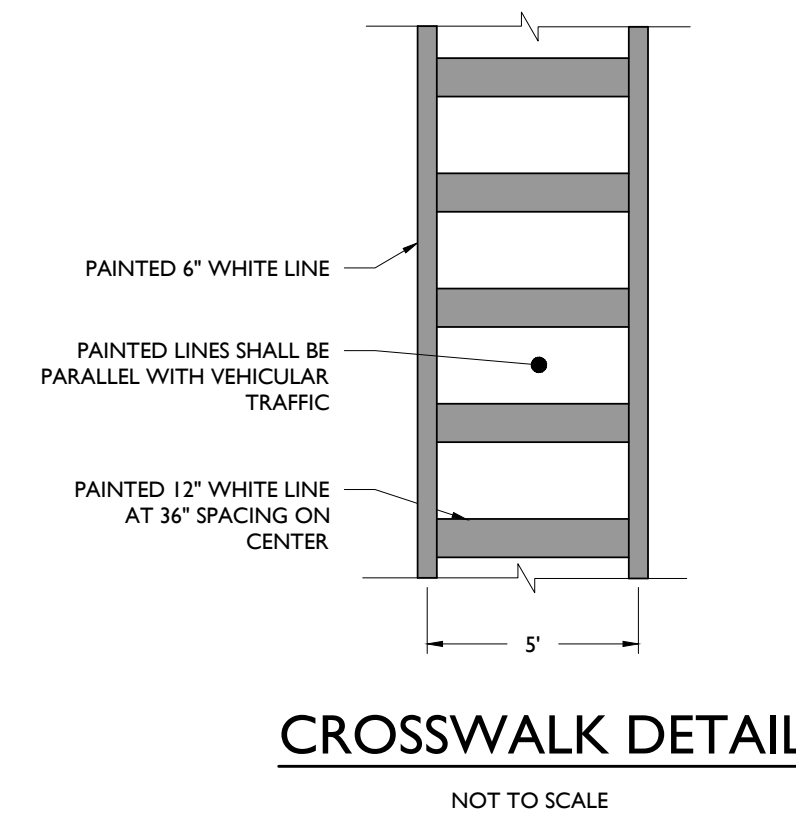
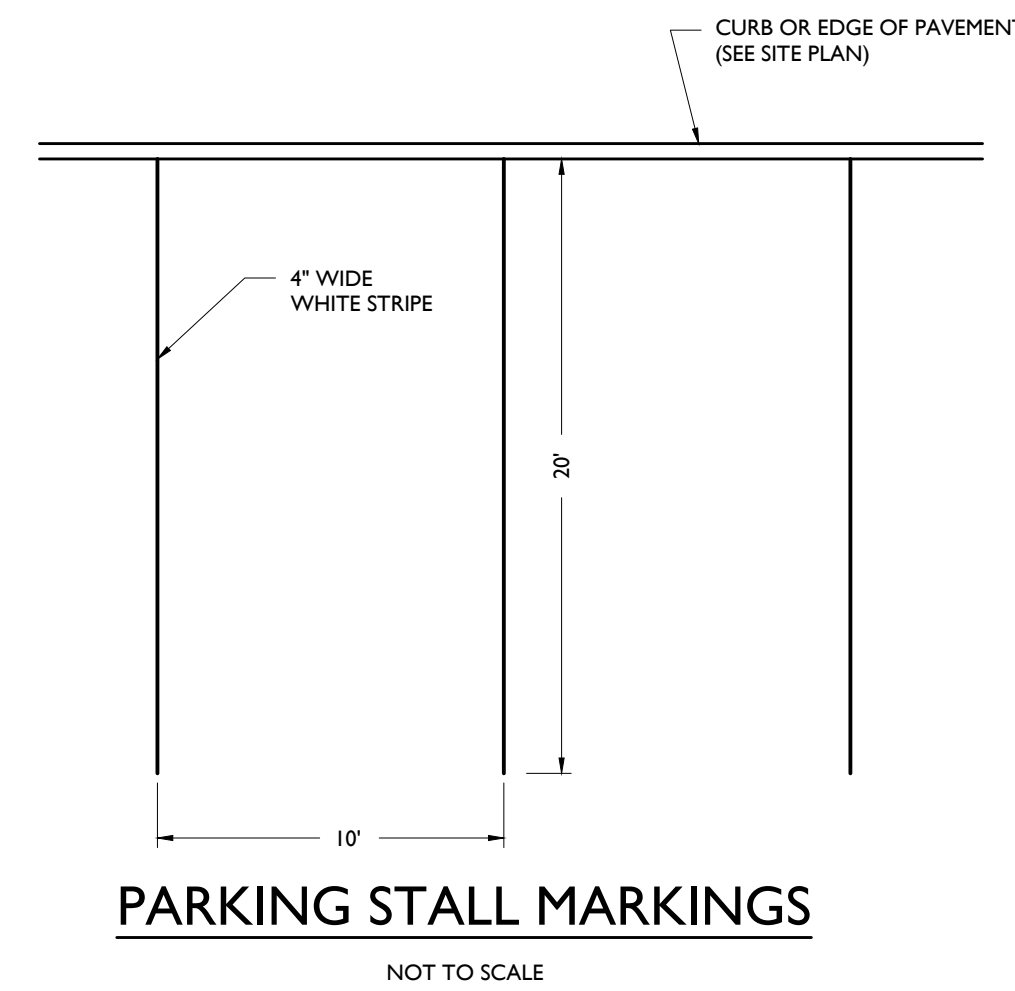


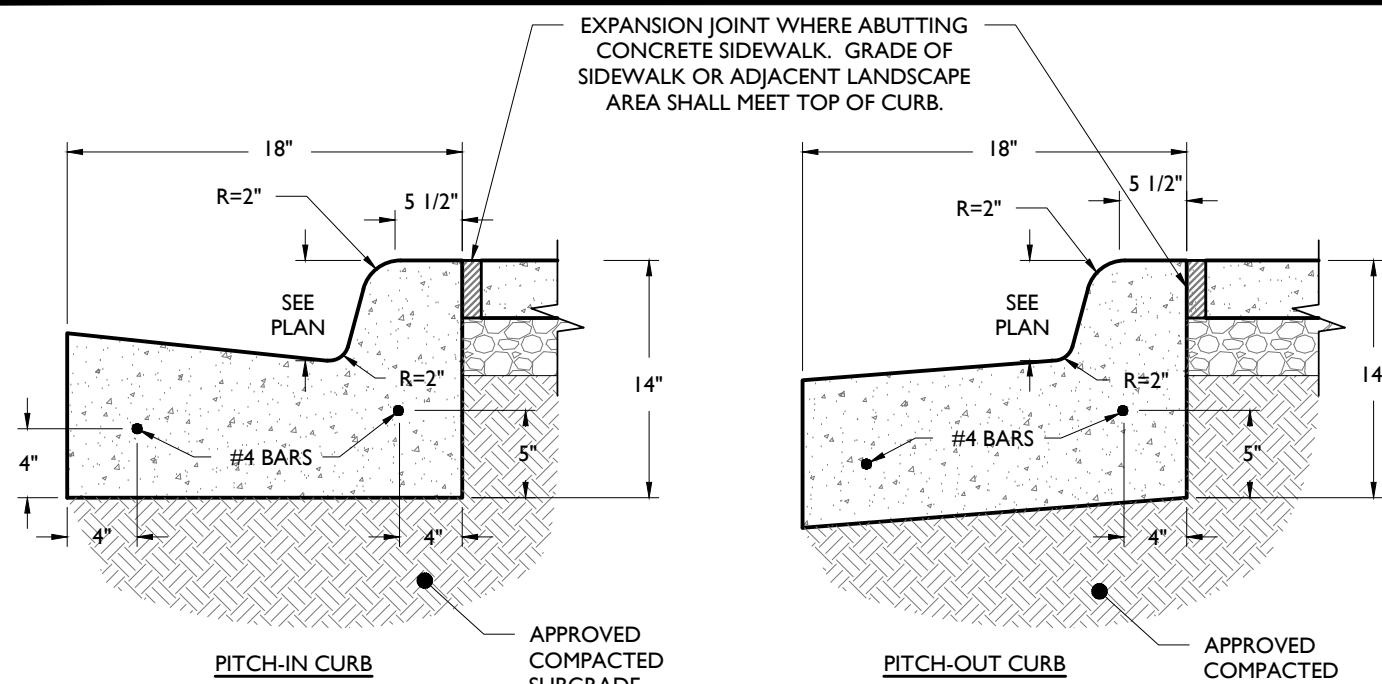
M.U.T.C.D. NUMBER	TEXT	COLOR		SIZE OF SIGN (WIDTH X HEIGHT)	TYPE OF MOUNT
		LEGEND	BACKGROUND		
STOP SIGN (R1-1)		RED	WHITE	36"x36"	GROUND

NOTE:

1. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), EXCEPT AS NOTED
2. ALL SIGNS SHALL BE MOUNTED AS TO NOT OBSTRUCT THE SHAPE OF "STOP" (R1-1) AND "YIELD" (R1-2) SIGNS.

SIGN DATA TABLE

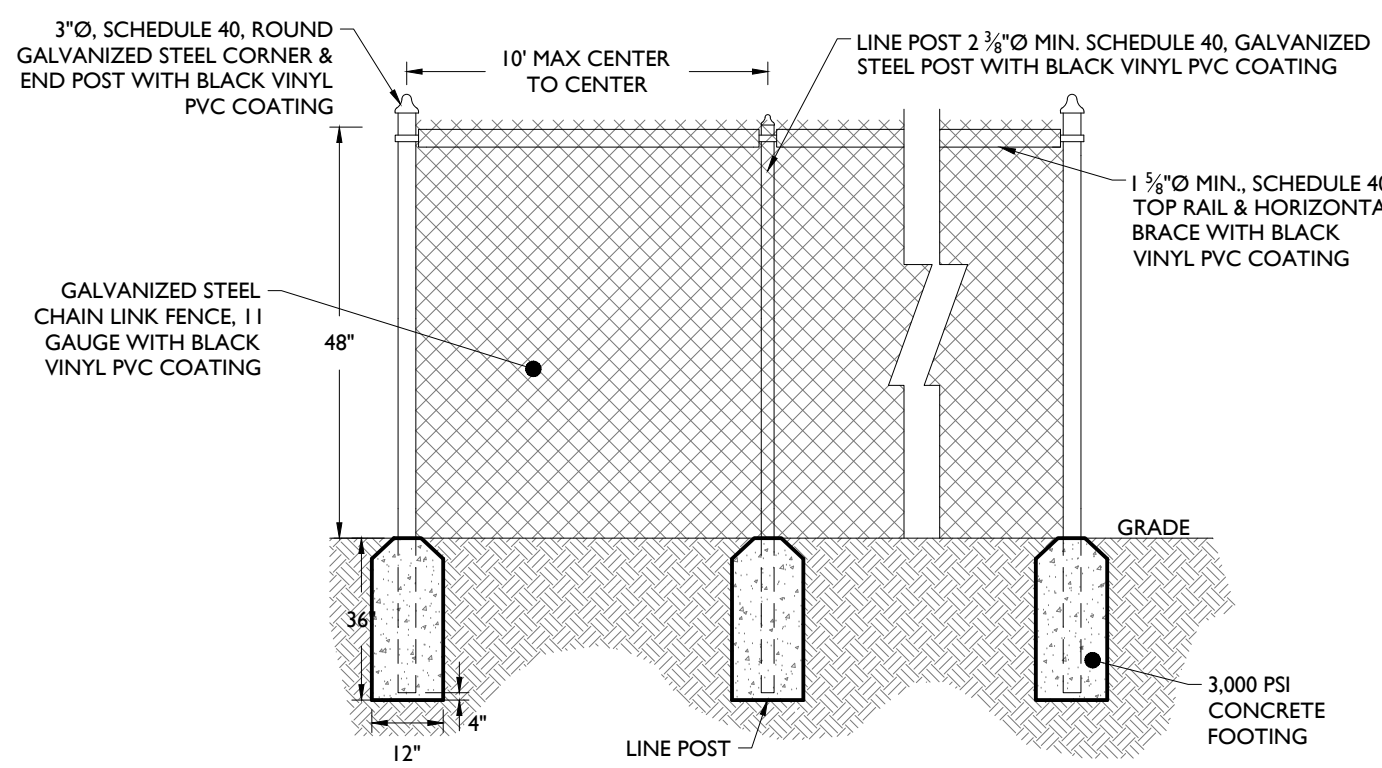




CONCRETE CURB AND GUTTER DETAIL

- NOTES:
- CONCRETE SHALL BE 3500 PSI AT 28 DAYS, AIR-ENTRAINED.
 - TRANSVERSE EXPANSION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM SURFACE.
 - HALF DEPTH CONTRACTION JOINTS SHALL BE PROVIDED AT 10 FOOT INTERVALS.
 - 14" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.

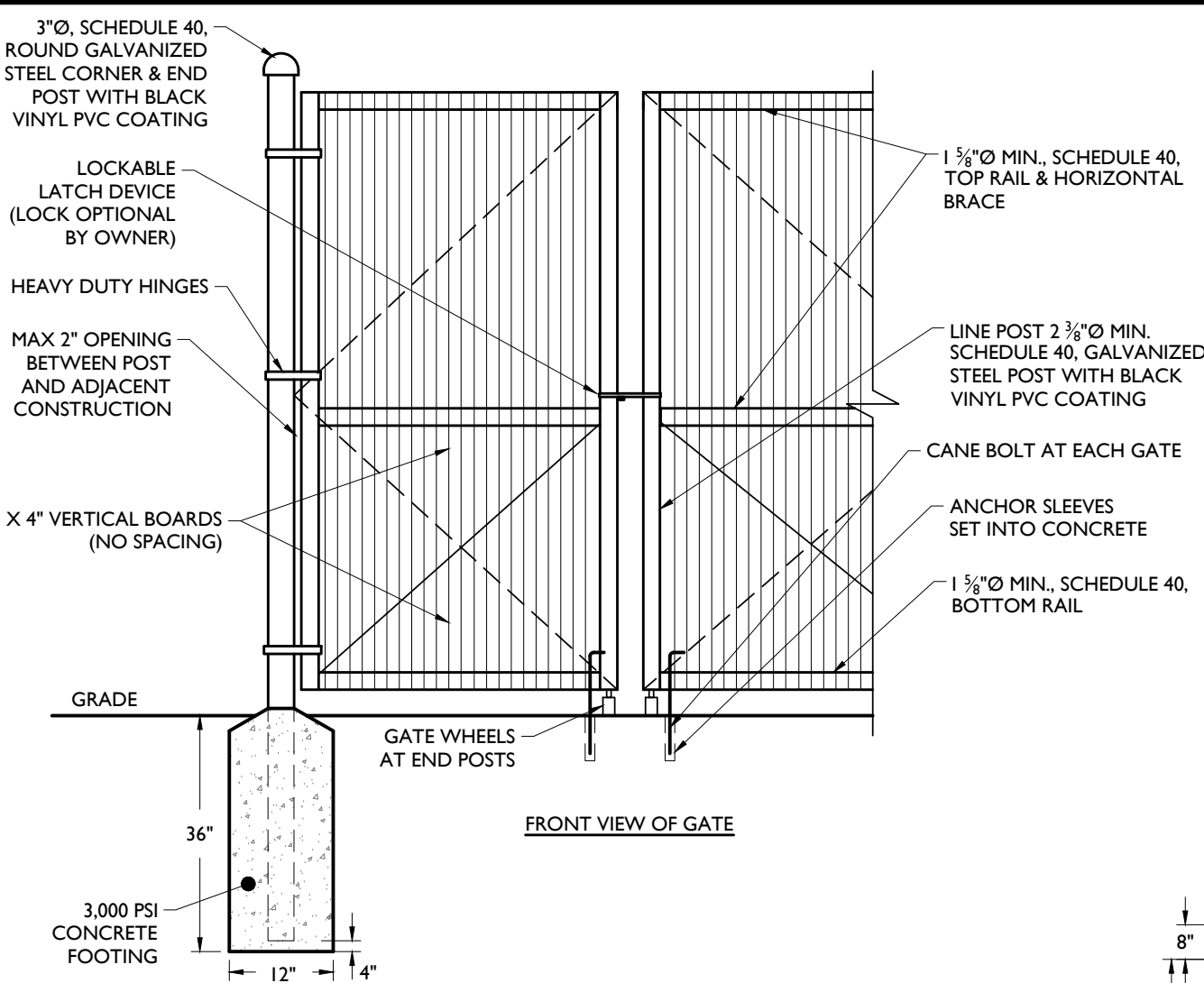
NOT TO SCALE



CHAIN LINK FENCE (DOG PARK)

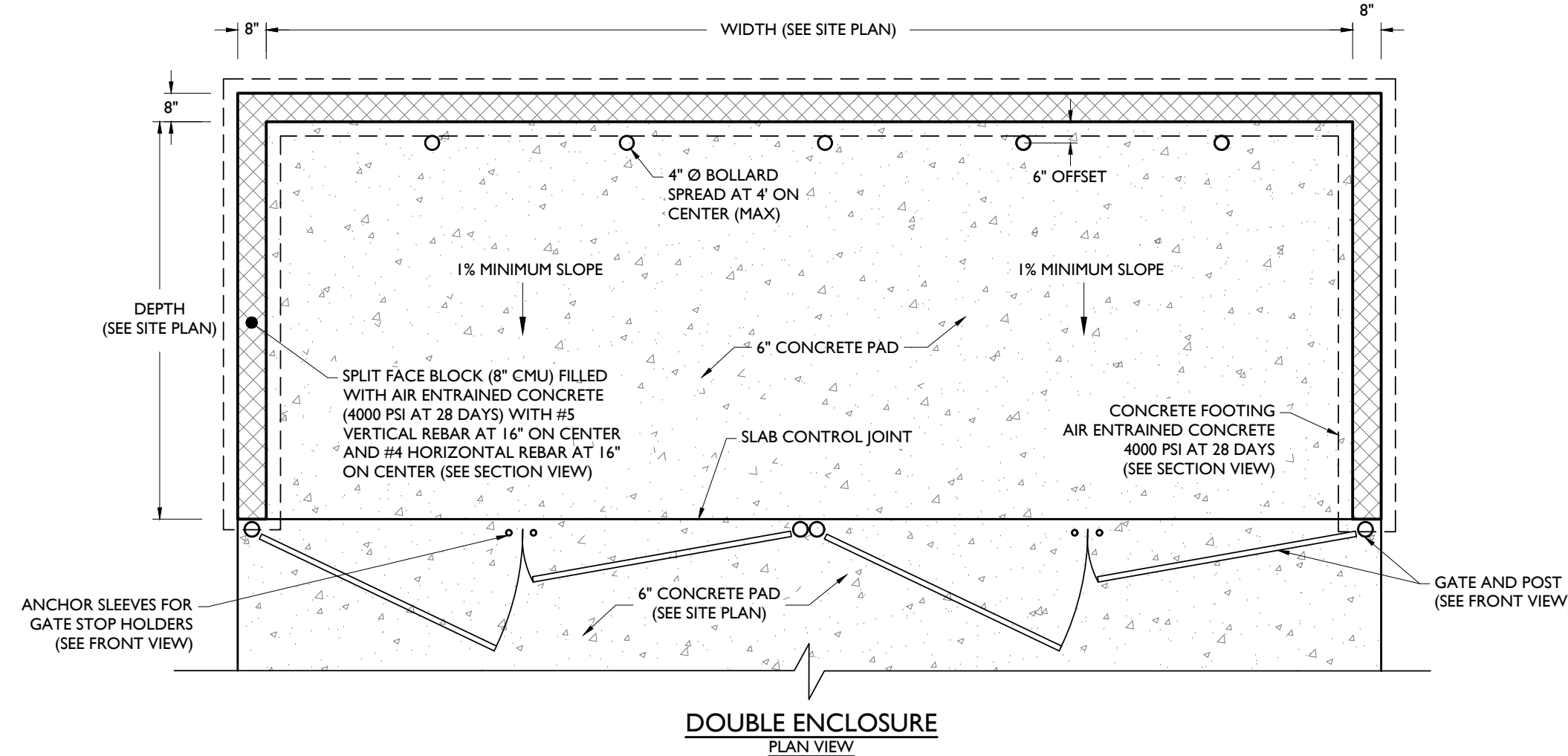
- NOTES:
- CONTRACTOR TO PROVIDE ALL HARDWARE NECESSARY FOR FENCE CONSTRUCTION AND OPERATION, PER SITE DESIGN. INSTALLATION SHALL COMPLY WITH MANUFACTURER'S REQUIREMENTS.
 - FENCE DETAIL ONLY APPLIES TO FENCE WITHOUT PRIVACY SLATS.
 - FENCE TO BE INSTALLED FOLLOWING SITE GRADING.
 - FENCE TO BE INSTALLED ONE FOOT WITHIN PROPERTY LINE WHERE SHOWN ON PROPERTY LINE ON SITE PLAN.
 - VIBRATE OR TAMP BACKFILL FOR CONSOLIDATION SURROUNDING FENCE POSTS.

2



FRONT VIEW OF GATE

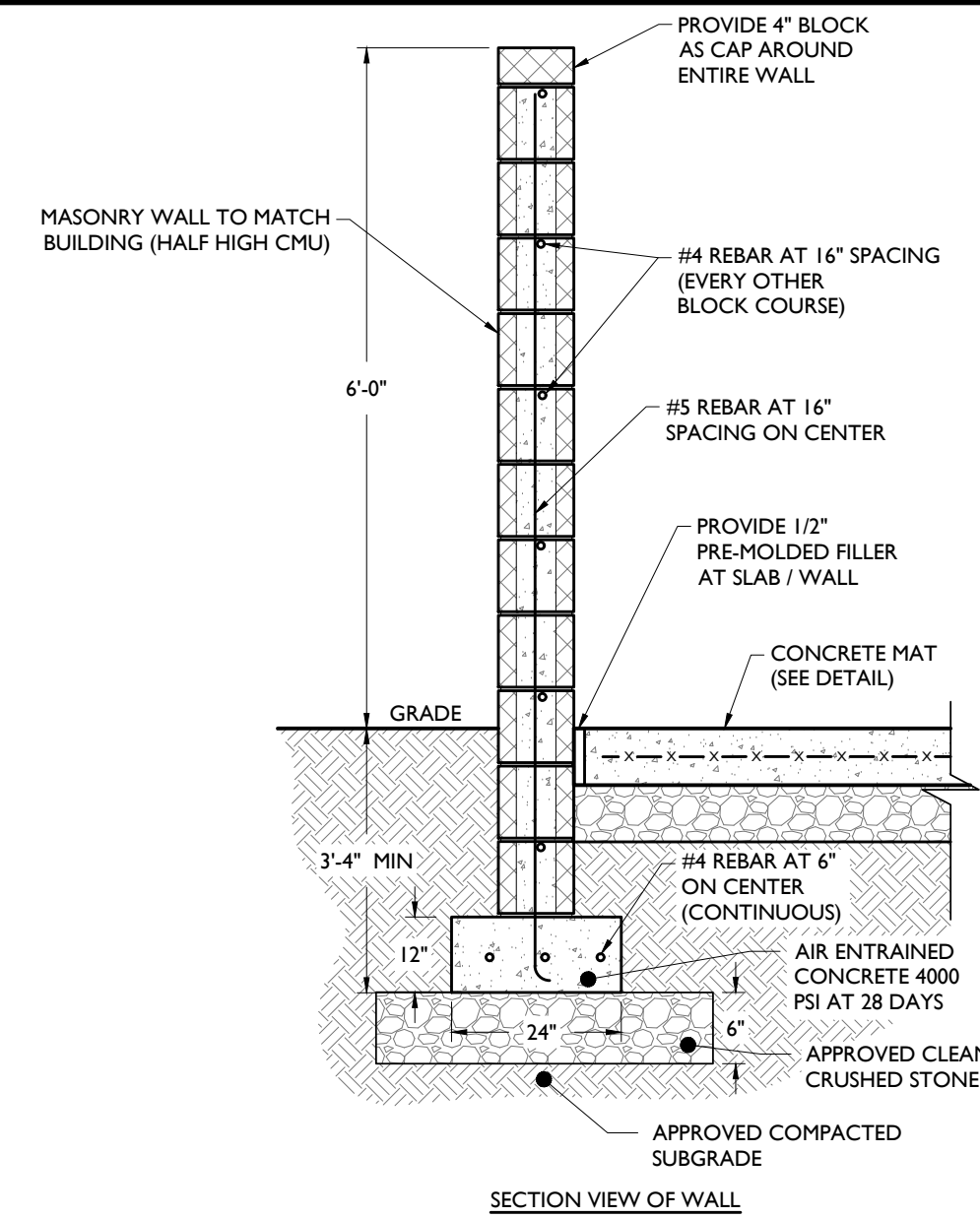
NOTE:
BLOCK COLOR TO MATCH BUILDING
OR AS SPECIFIED BY OWNER



DOUBLE ENCLOSURE

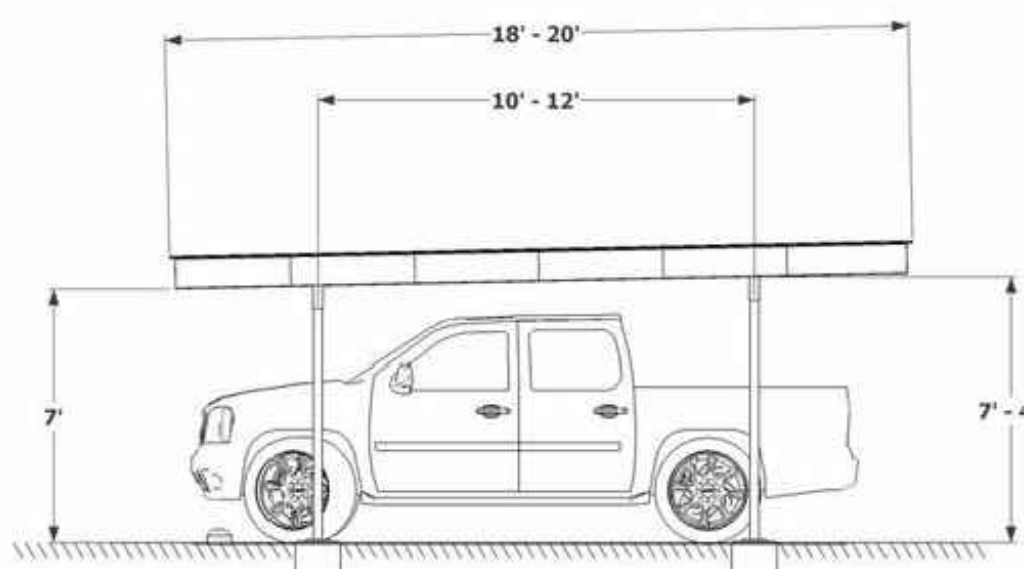
TRASH / RECYCLE ENCLOSURE DETAIL

NOT TO SCALE



SECTION VIEW OF WALL

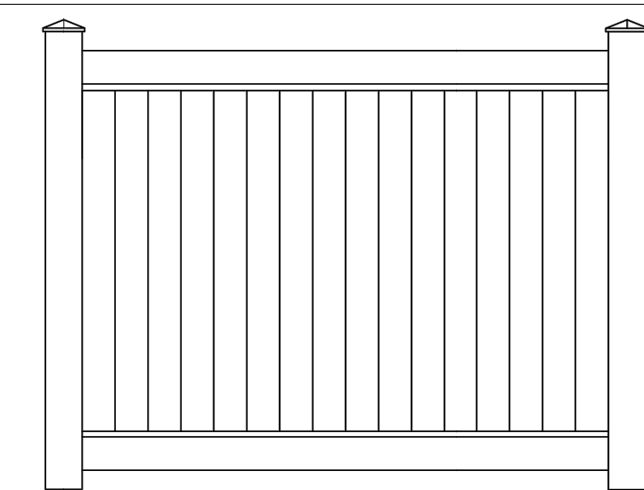
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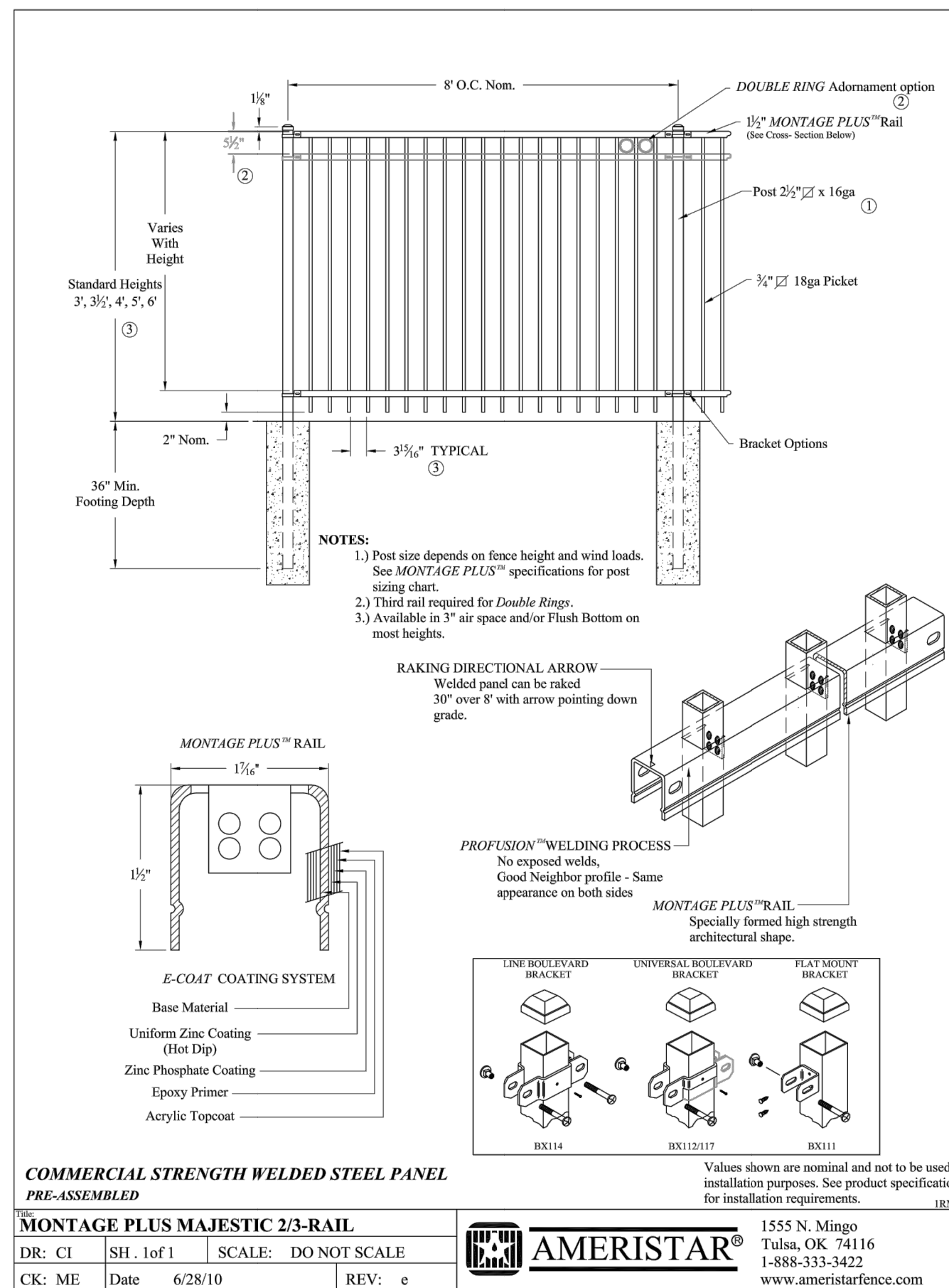
CAR PORT DETAIL

NOT TO SCALE

VINYL FEATURES:
- MAINTENANCE FREE
- WILL NOT PEEL, FLAKE, SPILT OR ROT
- EVER
- REQUIRES NO PAINTING OR STAINING
- GUARANTEED TO LAST A LIFETIME
- IMPERVIOUS TO MOISTURE AND TERMITES
- WILL MAINTAIN ITS BEAUTY YEAR AFTER YEAR
- SAVE MONEY OVER THE LONG TERM
- WILL ENHANCE THE APPEARANCE AND VALUE OF YOUR PROPERTY



4



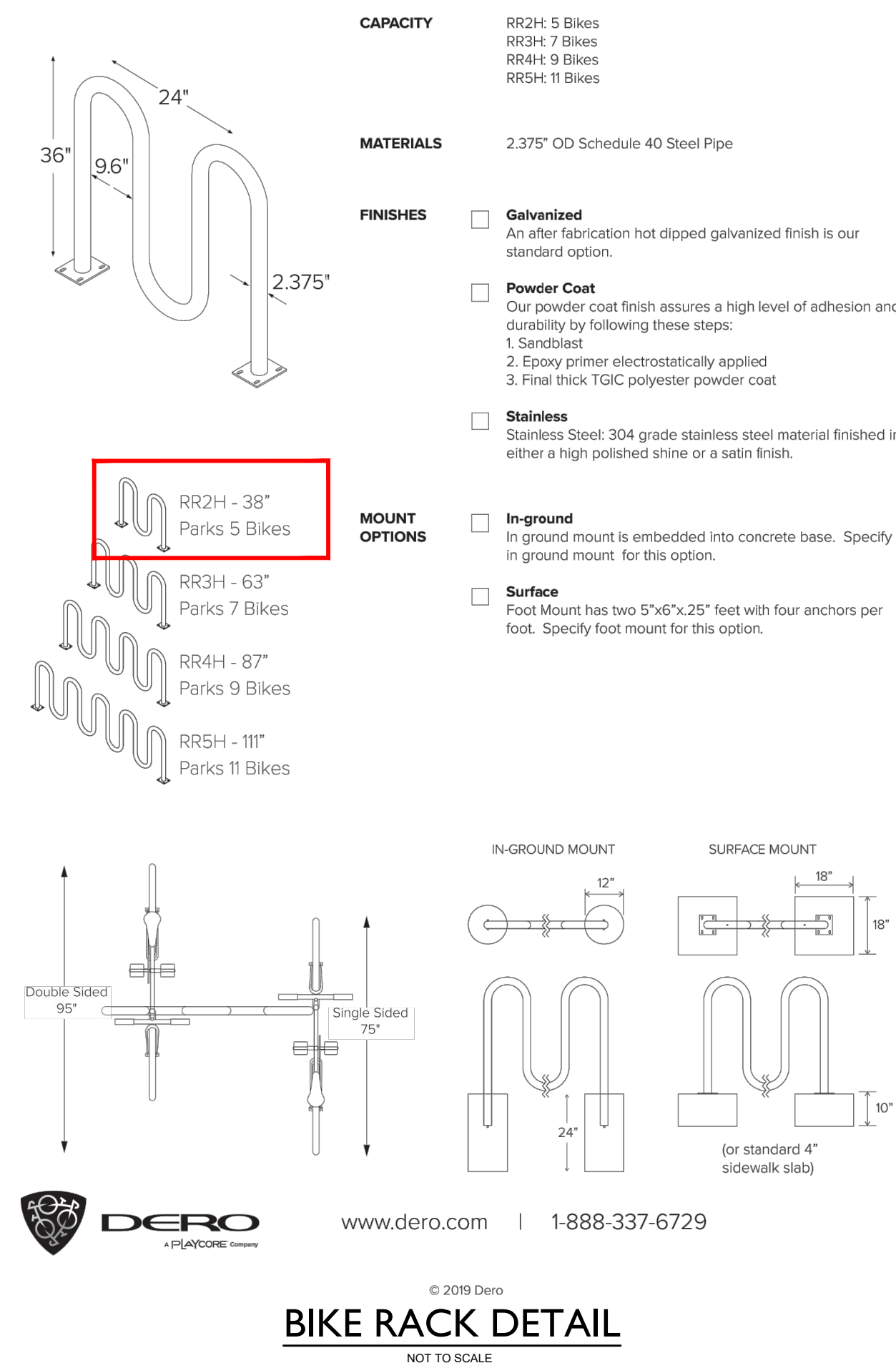
LIGHT POLE INSTALLATION DETAIL

NOT TO SCALE

- NOTES:
- MINIMUM SOIL BEARING PRESSURE OF 1500 PSF, SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.
 - CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATOR.
 - ALL REBAR TO BE NEW GRADE 60 STEEL.
 - PRE-CAST PIERS ACCEPTABLE UPON WRITTEN APPROVAL OF SHOP DRAWING BY ENGINEER.
 - CONCRETE TO BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO INSTALLING LIGHT POLE. POURED CONCRETE MIX REQUIRED TO OBTAIN 80% OF DESIGN STRENGTH PRIOR TO INSTALLING LIGHT POLE.
 - CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4" (WITHIN 1" TOLERANCES).
 - POLE SHALL BE RATED FOR 10 MPH HIGHER THAN MAXIMUM WIND SPEED 33FT ABOVE GROUND FOR THE AREA BASED ON ANS/ASSE 7.93.
 - POUR TO BE TERMINATED AT A FORM.
 - WORK SHALL CONFORM TO ACI BEST PRACTICES FOR APPROPRIATE TEMPERATURE AND WEATHER CONDITIONS.
 - CONTRACTOR TO TEMPORARILY SUPPORT ADJACENT SOIL AND STRUCTURES DURING EXCAVATION IF REQUIRED.

5

ROLLING RACK Submittal Sheet



BIKE RACK DETAIL

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NOT TO SCALE

7

CITY SITE PLAN REVIEW		DESCRIPTION	
BY	DATE	ISSUE	
MPH	04/27/2023	I	

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engineering & design

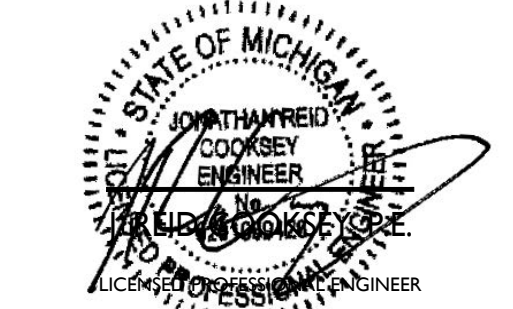
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Princeton, NJ • Tampa, FL • Rutherford, NJ
www.stonefielddeng.com

607 Shelby Suite 200, Detroit, MI 48226
Phone 248.247.1115

Schostak
BROTHERS & COMPANY

WONDERLAND FLATS
PROPOSED RESIDENTIAL DEVELOPMENT

PARCEL IDS: 137-99-0008-010 & 137-99-0004-002
CITY OF LIVONIA
WAYNE COUNTY, MICHIGAN



STONEFIELD
engineering & design

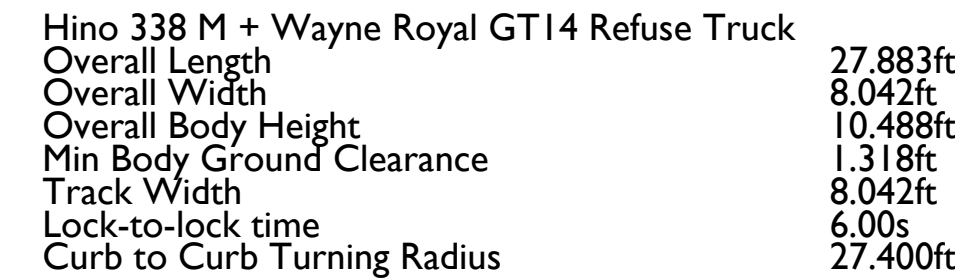
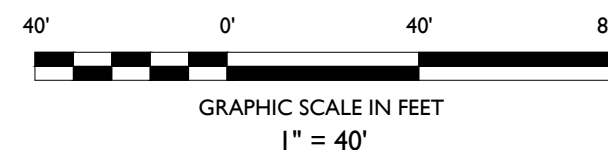
SCALE: AS SHOWN PROJECT ID: M-19052.01

TITLE:

CONSTRUCTION
DETAILS

DRAWING:

C-13

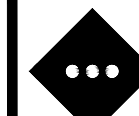
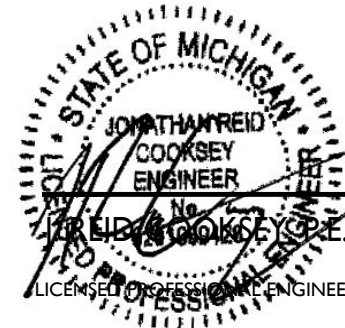


SITE DEVELOPMENT PLANS



WONDERLAND FLATS PROPOSED RESIDENTIAL DEVELOPMENT

PARCEL IDS: 137-99-0008-010 & 137-99-0004-002
CITY OF LIVONIA
WAYNE COUNTY, MICHIGAN



STONEFIELD
engineering & design

SCALE:	1" = 40'	PROJECT ID: M-19052.01
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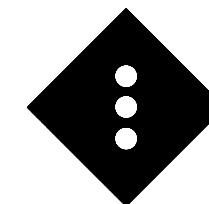
TITLE

**TRUCK EXHIBIT
(TRASH TRUCK)**

DRAWING:

EX-3

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[illegible]

FLOOD ZONE INFORMATION

SUBJECT PROPERTY FALLS IN ZONE "X",
MINIMAL FLOODING, AS SHOWN IN FEMA MAP
26163C0227E, DATED 02/02/2012.

NOTES:

NO EVIDENCE OF RECENT EARTH MOVING WORK ON SITE.

I AM NOT AWARE OF ANY PROPOSED CHANGES IN STREET
RIGHT OF WAY LINES.

UTILITY STATEMENT

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

LEGEND

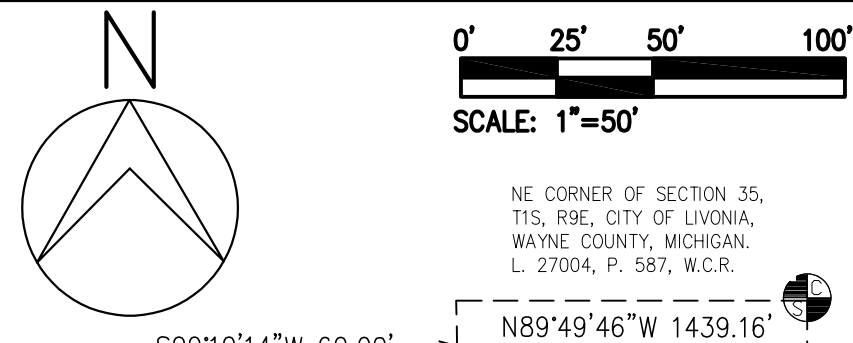
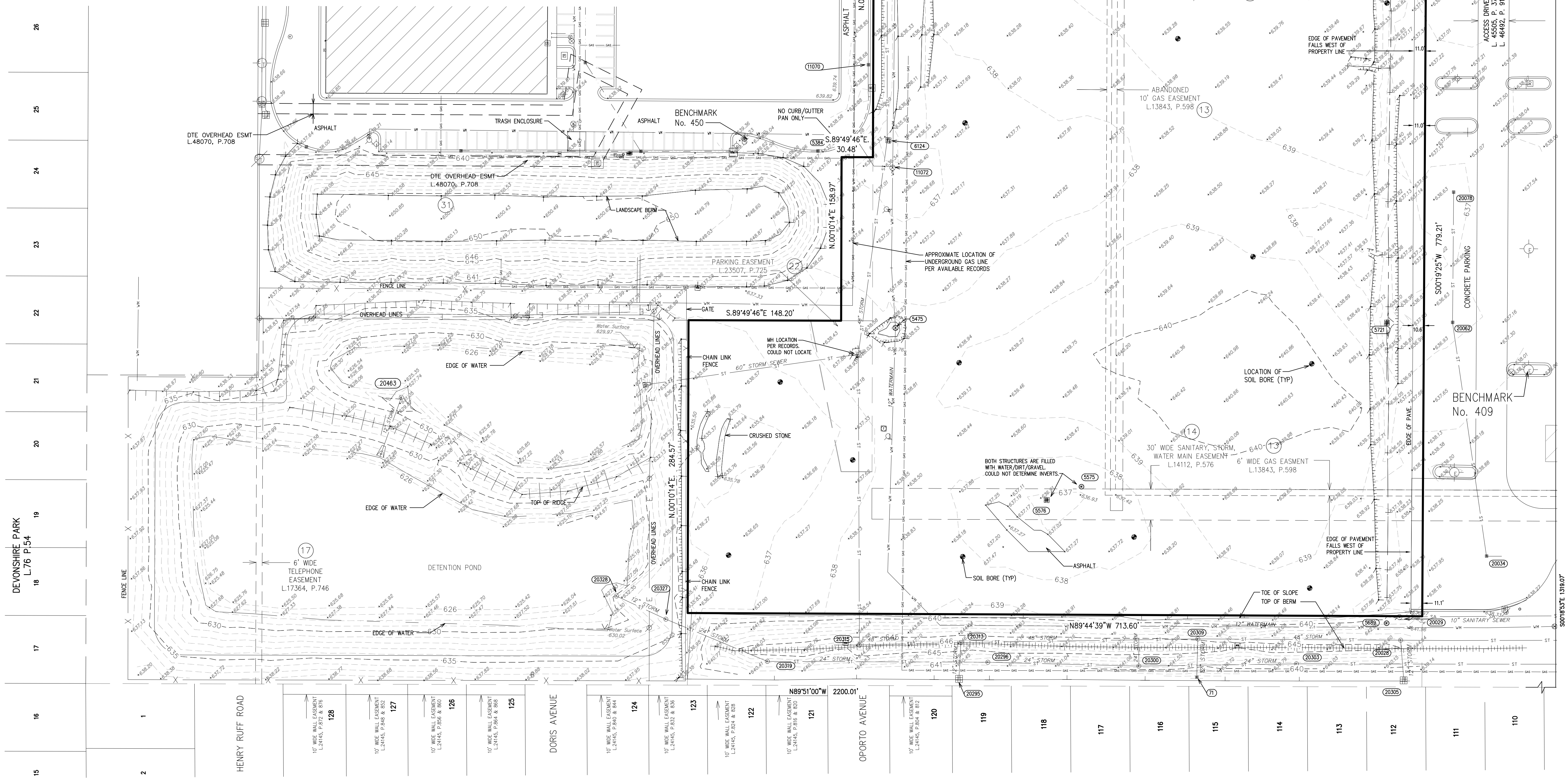
BUILDING		RISER & DOWN SPOUT	
STORM	ST 	PUMP STATION	
SANITARY	SA 	FIRE HYDRANT	
WATERMAIN	WM 	GATE & VALVE, & WELL	
GAS		CISTERN & WELL	
UND. TELEPHONE	T	WATER STOP BOX	
UND. ELECTRICAL	E	SPRINKLER HEAD	
TRAVERSE LINE & TRAVERSE POINT		WATER TOWER BASE & METER PIT	
BENCH MARK SYMBOL		UTILITY POLE	
DEAD TREE		LIGHT POLE	
DECIDUOUS TREE		GUY WIRE ANCHOR	
DECIDUOUS SHRUB		UNDERGROUND MARKER	
CONIFEROUS TREE		RISER	
CONIFEROUS SHRUB		GAS BOX & BLOW OFF	
STUMP		BUILD. CORNER	
SQ. & RD. CATCH BASINS & INLETS IN PAVEMENT		& 1st FLOOR ELEV.	
STORM MANHOLE & PIPE END		C. OF DITCH	
UNSPECIFIED MH.		& TOE OF SLOPE	
		TOP OF BANK & RIDGE	
		TOP OF BERM	
		& TOE OF BERM	
		EDGE OF WATER & WATER SURFACE	
		HEADWALL & RETAINING WALL	
		SIGNS & SIGN POST	
		LOCAL LOW POINT & LOCAL HIGH POINT	
		COLUMN OR PIER	

BENCHMARK

BENCHMARK No. 408
N. END TOP LAMP POLE BASE
ELEVATION 639.62 NAVD 88 DATUM

BENCHMARK NO. 409
CHISELED SQUARE W. TOP OF CONC.
LAMP POLE BASE
ELEVATION 641.24 NAVD 88 DATUM

BENCHMARK No. 415
ARROW ON FIRE HYDRANT
ELEVATION 638.59 NAVD 88 DATUM



NE CORNER OF SECTION 3
T1S, R9E, CITY OF LIVONIA
WAYNE COUNTY, MICHIGAN.
L. 27004, P. 587, W.C.R.



HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

**555 HULET DRIVE
BLOOMFIELD HILLS, MICH**

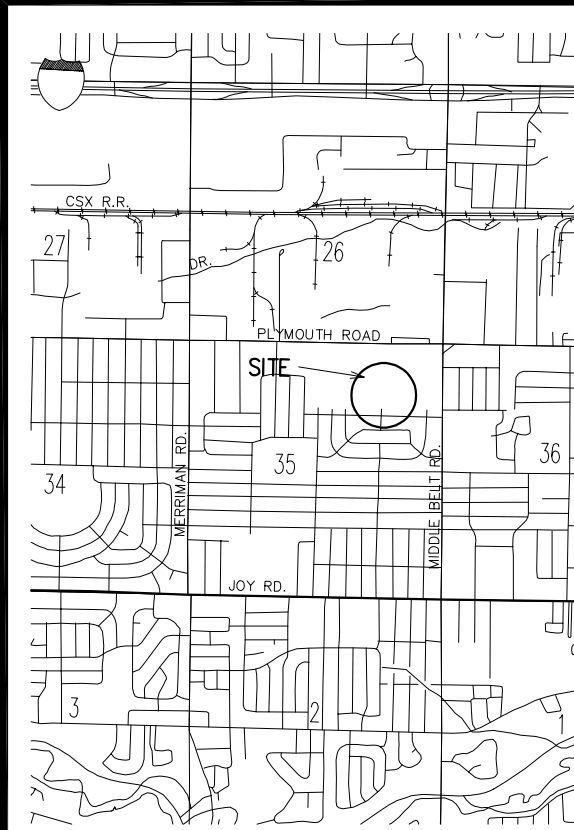
P.O. BOX 824
48303 - 0824

PHONE: (248) 454-6300
FAX (1st. Floor): (248) 454-6312
FAX (2nd. Floor): (248) 454-6355



WEB SITE: [http:// www.hrcengr.com](http://www.hrcengr.com)

DATE	ADDITIONS AND/OR REVISIONS
DESIGNED	
DRAWN	B.PIGGOTT
CHECKED	G.CHALICE
APPROVED	G.CHALICE



CITY OF LIVONIA
WONDERLAND MALL

ALTA/NSPS
LAND TITLE SURVEY

HRC JOB NO. 20190258	SCALE 1"=50'
DATE April 2022	SHEET NO. 1 OF

SANITARY STRUCTURE DATA	
Structure Name	Structure Details
49	RM=637.64 INV IN=623.37 SW 12" TO FROM 10809 INV IN=623.14 W 12" FROM INV OUT=624.4 E 18" TO 10672
5441	RM=637.46 INV IN=625.40 NE 12" FROM INV OUT=624.75 E 12" TO 10816
10672	RM=637.68 INV IN=623.08 W 18" FROM INV OUT=623.07 E 18" TO
10809	RM=638.10 INV IN=624.26 W 12" FROM 10956 INV OUT=624.52 NE 12" TO 49
10816	RM=638.27 INV IN=624.69 W 12" FROM 5441 INV OUT=624.65 SE 12" TO 10956
10956	RM=637.50 INV IN=623.66 NW 12" FROM 10816 INV OUT=623.59 E 12" TO 10809
11007	RM=637.47
20029	RM=639.69 INV IN=629.74 W 12" FROM INV OUT=629.72 E 12" TO

WATER STRUCTURE DATA		
Structure Name	Structure Details	
5437	RIM=638.19 T/P IN=632.26 W 12" DI FROM T/P OUT=632.26 E 12" DI TO	
5475	RIM=636.90 T/P IN=629.89 N 12" DI FROM T/P OUT=629.90 S 12" DI TO	
10810	RIM=638.31 T/P IN=631.95 W 12" DI FROM T/P OUT=631.95 E 12" DI TO	
11064	RIM=638.76 T/P IN=630.21 W 12" DI FROM T/P OUT=630.21 E 12" DI TO	
11072	RIM=636.60 T/P IN=630.60 W 12" DI FROM T/P OUT=630.60 N 12" DI TO	

	STORM	STRUCTURE	DATA
Structure Name	Structure Details		
71	RM=630.73	INV OUT=631.61 N 12" RCP TO 20309	
5026	RM=636.34	INV OUT=631.70 E 12" RCP TO 10871	
5029	RM=636.88	INV IN=632.38 E 12" RCP TO 10817	
		INV OUT=632.93 NW 12" RCP	
5054	RM=635.87	INV OUT=632.72 SW 12" RCP TO 5020	
5384	RM=637.91	INV IN=628.22 E 24" RCP FROM	
		INV OUT=628.11 W 24" RCP TO	
5440	RM=638.07	INV IN=631.61 N 15" RCP FROM	
		INV IN=631.44 W 12" RCP FROM	
		INV OUT=631.30 S 12" RCP TO 10908	
5575	RM=637.14	(FILLED WITH WATER & DIRT)	
5576	RM=636.82	(FILLED WITH WATER & DIRT)	
5689	RM=640.77	(FILLED WITH DEBRIS)	
5721	RM=634.88	INV OUT=632.11 S 12"	
		INV OUT=632.11 S 12"	
6124	RM=634.85	INV IN=626.91 N 48" CONC FROM 51068	
		INV OUT=626.91 S 48" CONC TO	
10692	RM=635.71	INV OUT=632.19 W 12" RCP TO 10691	
10708	RM=635.67	INV IN=632.21 W 12" RCP FROM 10709	
		INV OUT=631.91 E 12" RCP TO 10596	
10709	RM=635.59	INV OUT=632.46 E 12" RCP TO 10708	
10747	RM=635.72	INV OUT=632.60 S 12" RCP TO 10770	
10770	RM=637.75	INV IN=633.40 N 12" RCP FROM 10747	
		INV OUT=633.33 E 12" RCP TO 10598	
10800	RM=630.59	INV IN=630.87 NE 36" RCP FROM	
		INV OUT=630.74 SW 48" RCP TO 11015	
10814	RM=638.42	INV IN=631.85 N 18" RCP FROM 10817	
		INV IN=631.66 W 48" RCP FROM	
		INV IN=631.46 E 48" RCP FROM	
		INV OUT=631.58 S 18" RCP TO 10952	
10818	RM=638.44	INV IN=631.96 N 18" RCP FROM 10831	
		INV IN=631.64 W 12" RCP FROM 5019	
		INV OUT=631.94 S 18" RCP TO 10814	
10831	RM=637.18	INV IN=631.62 N 18" RCP FROM 10850	
		INV IN=631.62 W 12" RCP FROM 10871	
		INV IN=632.63 E 12" RCP FROM	
		INV OUT=631.41 S 18" RCP TO 10817	
10850	RM=637.63	INV IN=631.47 N 18" RCP FROM 10851	
		INV IN=631.47 W 12" RCP FROM 10868	
		INV IN=632.06 E 12" RCP FROM	
		INV OUT=631.53 S 18" RCP TO 10383	
10851	RM=637.81	INV IN=631.97 W 12" RCP FROM 5020	
		INV IN=631.94 NE 12" RCP FROM 10861	
		INV OUT=631.75 W 18" RCP TO 10850	
10859	RM=636.73	INV OUT=632.76 W 12" RCP TO 10851	
10861	RM=637.36	INV IN=632.30 E 12" RCP FROM 5089	
		INV OUT=632.26 SW 12" RCP TO 5019	
10868	RM=635.93	INV IN=631.97 W 12" RCP FROM 5051	
		INV OUT=631.71 E 12" RCP TO 10826	
10871	RM=636.31	INV IN=632.68 W 12" RCP FROM 5020	
		INV OUT=632.01 E 12" RCP TO 10831	
10908	RM=635.93	INV IN=630.79 N 15" RCP FROM 5440	
		INV IN=630.10 W 33" RCP FROM 10681	
		INV OUT=628.21 E 48" RCP TO 10931	

STORM STRUCTURE DATA	
Structure Name	Structure Details
11068	RM=637.11 INV IN=628.53 S 48° RCP FROM 11068 INV OUT=628.48 N 48° RCP TO
11069	RM=637.99 INV IN=628.73 S 12° RCP FROM 11070 INV OUT=632.71 N 12° RCP TO 11067
11070	RM=638.11 INV OUT=633.11 N 12° RCP TO 11069
20028	RM=644.28 INV IN=630.73 S 12° CONC FROM 20305 INV OUT=627.73 W CONC FROM 20306 INV IN=627.63 S 12° RCP FROM 20305
20034	RM=634.73 INV IN=628.67 N 21° RCP FROM 20062 INV OUT=628.83 E 24° RCP TO
20062	RM=635.90 INV IN=631.25 N 15° RCP FROM 20078 INV OUT=631.00 S 21° RCP TO 20034
20078	RM=635.98 INV OUT=631.56 S 15° RCP TO 20062
20113	RM=635.90 INV OUT=631.72 E 12° RCP TO
20136	RM=636.26 INV OUT=630.76 NW 12° RCP TO
20295	RM=636.03 INV IN=632.08 N 12° RCP TO
20296	INV IN=622.92 W 24° RCP FROM 20319 INV OUT=622.70 E 24° RCP TO 20300
20296	RM=641.85 INV IN=622.13 N 24° RCP FROM 20296 INV OUT=622.33 N 24° RCP FROM INV OUT=622.25 E 24° RCP TO 20303
20300	RM=642.35 INV IN=621.91 W 24° RCP FROM 20300 INV OUT=621.79 E 24° RCP TO
20303	RM=642.35 INV IN=621.91 W 24° RCP FROM 20300 INV OUT=621.79 E 24° RCP TO
20305	RM=635.46 INV OUT=631.26 N 12° RCP TO
20309	RM=645.02 INV IN=627.81 E 48° RCP FROM INV IN=631.10 S 12° RCP FROM 71 INV OUT=627.98 W 48° RCP TO 20313
20313	RM=646.87 INV IN=627.85 E 48° RCP FROM 20309 INV OUT=627.75 W 48° RCP TO 20315
20315	RM=647.23 INV IN=627.36 E 48° RCP FROM 20313 INV IN=628.11 W 48° RCP FROM
20319	RM=644.93 INV IN=623.50 W 24° RCP FROM 20327 INV OUT=623.43 E 24° RCP TO 20326
20326	RM=632.57 INV IN=625.15 NW 12° RCP FROM 20328 INV OUT=623.75 E 24° RCP TO 20319
20328	RM=632.82 INV OUT=623.74 SE 12° RCP TO 20327
20463	RM=630.68 T/P=627.48
10924	RM=635.71 INV IN=631.41 NW 12° RCP FROM INV OUT=629.15 S 12° RCP TO 10931
10931	RM=635.77 INV IN=629.07 N 12° RCP FROM 10924 INV IN=629.21 W 48° RCP FROM 10928 INV OUT=629.01 E 48° RCP TO 10952
10952	RM=636.93 INV IN=630.17 N 18° RCP FROM 10814 INV IN=628.43 W 48° RCP FROM 10931 INV OUT=629.43 E 48° RCP TO 10996
10996	RM=636.01 INV IN=628.53 W 48° RCP FROM 10952 INV OUT=628.53 E 48° RCP TO 11015
11015	RM=637.37 INV IN=628.82 E 48° RCP FROM 10996 INV IN=630.06 N 48° RCP FROM 10800 INV OUT=628.82 E 48° RCP TO
11067	RM=636.35 INV IN=633.73 SW 12° RCP FROM INV IN=628.74 NW 33° RCP FROM INV IN=627.54 S 12° RCP FROM 11069 INV OUT=628.75 S 33° RCP TO

PROPERTY DESCRIPTION

Part of the Northeast ¼ of Section 35, Township 1 South, Range 9 East, City of Livonia, Wayne County, Michigan, described as:

Commencing at the Northeast Corner of said Section 35; thence North 89 degrees 49 minutes 46 seconds West 1439.16 feet along the north line of said Section and centerline of Plymouth Road (120 feet wide); thence South 00 degrees 10 minutes 14 seconds West 60.00 feet to the South line of Plymouth Road; thence continuing South 00 degrees 10 minutes 14 seconds West 411.54 feet; thence North 89 degrees 57 minutes 47 seconds West 34.00 feet to the POINT OF BEGINNING; thence South 00 degrees 19 minutes 25 seconds West 779.21 feet; thence North 89 degrees 44 minutes 39 seconds West 713.60 feet; thence North 00 degrees 10 minutes 14 seconds East 284.57 feet; thence South 89 degrees 49 minutes 46 seconds East 148.20 feet; thence North 00 degrees 10 minutes 14 seconds East 158.97 feet; thence South 89 degrees 49 minutes 46 seconds East 30.48 feet; thence North 00 degrees 10 minutes 14 seconds East 335.09 feet; thence South 89 degrees 46 minutes 36 seconds East 537.00 feet to the POINT OF BEGINNING. Containing 473,257.9 SF and/or 10.86 acres.

EXCEPTIONS

- 11 Water Easement in favor of Board of County Road Commissioners of the County of Wayne and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 6221, page 394, Register #C614562, (CANNOT DETERMINE LOCATION DUE TO POOR UNREADABLE DOCUMENT)
- 12 Underground Paved in favor of Michigan Bell Telephone Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 10350, page 682, Register #D44589, as to Parcel IV, (CANNOT DETERMINE LOCATION DUE TO POOR UNREADABLE DOCUMENT)
- 13 Agreement for Right of Way in favor of Consumers Power Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 13643, page 598, Register #C384005, (CANNOT DETERMINE LOCATION DUE TO POOR UNREADABLE DOCUMENT)
- 14 Terms and Conditions contained in Easement as disclosed by instrument recorded in Liber 14112, page 572, Register #E490558, page 572, Register #E490567, and in Liber 14112, page 581, Register #E490568, (AS SHOWN ON SURVEY)
- 15 Release of Right-of-Way in favor of County of Wayne and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 14180, page 497, Register #E50328, as to Parcels I, II and IV, (SHOWN ON SURVEY)
- 16 Terms and Conditions contained in Warranty Deed as disclosed by instrument recorded in Liber 16839, page 70, Register #E34920, as to Parcel IV, (NOT PLOTTABLE)
- 17 Terms and Conditions contained in Easement Right of Way as shown by instrument recorded in Liber 17264, page 745, Register #E637371, as to Parcel III, (SHOWN ON SURVEY)
- 18 Easement in favor of Consumers Power Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 19200, page 933, Register #E632769, as to Parcel II, (SHOWN ON SURVEY)
- 19 Right of Way in favor of Michigan Bell Telephone Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 21399, page 129, Register #E653485, (SHOWN ON SURVEY)
- 20 Right of Way in favor of Michigan Bell Telephone Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 21399, page 130, Register #E653489 and Modification of Right of Way recorded in Liber 21645, page 636, Register #G0738037, (SHOWN ON SURVEY)
- 21 Grant of Easement in favor of The Detroit Edison Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 22458, page 91, (SHOWN ON SURVEY)
- 22 Terms and Conditions contained in Easement Agreement as disclosed by instrument recorded in Liber 23507, page 725, (SHOWN ON SURVEY)
- 23 Terms and Conditions contained in Wall Easement Agreement as disclosed by instrument recorded in Liber 24145, page 804, Liber 24145, page 812, Liber 24145, page 816, Liber 24145, page 820, Liber 24145, page 824, Liber 24145, page 828, Liber 24145, page 848, Liber 24145, page 852, Liber 24145, page 860, Liber 24145, page 864, Liber 24145, page 868, Liber 24145, page 872, and in Liber 24145, page 876, (AS SHOWN ON SURVEY)
- 24 Highway Easement Release for signal pole in favor of Michigan Department of Transportation and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 24610, page 483, as to Parcel II, (SHOWN ON SURVEY)
- 25 Terms and Conditions contained in Beautification Easement Agreement as disclosed by instrument recorded in Liber 34069, page 321, and in Liber 34069, page 339, (SHOWN ON SURVEY)
- 26 Terms and Conditions contained in Easement as disclosed by instrument recorded in Liber 35211, page 153, as to Parcel IV, (SHOWN ON SURVEY)
- 27 Easements, Terms and Conditions contained in Easement Agreement as disclosed by instrument recorded in Liber 45466, page 1201 as to Parcels I and II, (NOT PLOTTABLE)
- 28 Terms and Conditions contained in Grant of Easement as disclosed by instrument recorded in Liber 45466, page 275, as to Parcel I and II, (NOT PLOTTABLE)
- 29 Terms and Conditions contained in Operation and Easement Agreement as disclosed by instrument recorded in Liber 45526, page 375, and in First Amendment to Operation and Easement Agreement as disclosed by instrument recorded in Liber 45692, page 934, (SHOWN ON SURVEY)
- 30 Terms and Conditions contained in Declaration of Covenants, Conditions, Restrictions, and Easements as disclosed by instrument recorded in Liber 46879, page 103, as to Parcel IV, (SHOWN ON SURVEY)
- 31 Detroit Edison Underground Easement (Right of Way) in favor of The Detroit Edison Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 48070, page 700, as to Parcel IV, (SHOWN ON SURVEY)
- 36 Survey by Hubert, Roth and Clark, Inc., dated February 27, 2003, Job No. 20030115, discloses the following:
 - a. Treaty is built over to foot main, which has been abandoned. (NA)
 - b. Partner built between the enclosed mill and The Target Store. (NA)
 - c. Power lines overhead at various locations. (NA)
 - d. Actual paving over the existing areas, gas mains, water sewer, telephone and electrical lines. (NA)
 - e. Building designed as the Montgomery Wards building, encroaches onto the Easement Parcel various points. (NA)
 - f. Building designated as Ward's Automotive Center is built over the easement for sanitary sewer recorded in Liber 14112, page 572, Wayne County Records

NOTE: (THE FOLLOWING WAS SHOWN ON HRC JOB No. 20090336.04, WITH A REVISION DATE OF 07/23/09.)

ASSESSMENTS SCHEDULED FOR TERMINATION PER DEPARTMENTAL INFORMATION AND ESSEMENT DRAWING OF
HUBBELL, ROTH & CLARK DEPICTION DATED 02-09-06., FINAL REVISION 03-02-06.

10" WIDE GAS EASEMENT, L1484, P.598 (ABANDONED LINE)
10" WIDE STORM SEWER EASEMENT, L1412, P.576
20" WIDE SANITARY, STORM, WATER MAIN EASEMENT, L1412, P.572
20" WIDE SANITARY, STORM, WATER MAIN EASEMENT, L1412, P.572
12" WIDE SANITARY SEWER EASEMENT, L1412, P.572
12" WIDE WATER MAIN EASEMENT, L1412, P.576
12" WIDE WATER MAIN EASEMENT, L1412, P.576
20" WIDE WATER MAIN EASEMENT, L1412, P.576
20" WIDE STORM SEWER AND WATER SYSTEM EASEMENT, L1412, P.576
12" WIDE SANITARY, STORM, WATER MAIN EASEMENT, L1412, P.576
20" WIDE SANITARY, STORM, WATER MAIN EASEMENT, L1412, P.576
20" WIDE SANITARY SEWER AND WATER MAIN EASEMENT, L1412, P.576
12" WIDE STORM SEWER EASEMENT, L1412, P.576

SURVEYOR'S CERTIFICATION

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 5, 8, 9, 11, 13, 14, 16, 17, OF TABLE A THEREOF.



GARY M. CHALICE
PROFESSIONAL SURVEYOR No. 55939



HRC
HUBBELL, ROTH & CLARK, INC.
CONSULTING ENGINEERS SINCE 1915

555 HULET DRIVE
BLOOMFIELD HILLS, MICH.

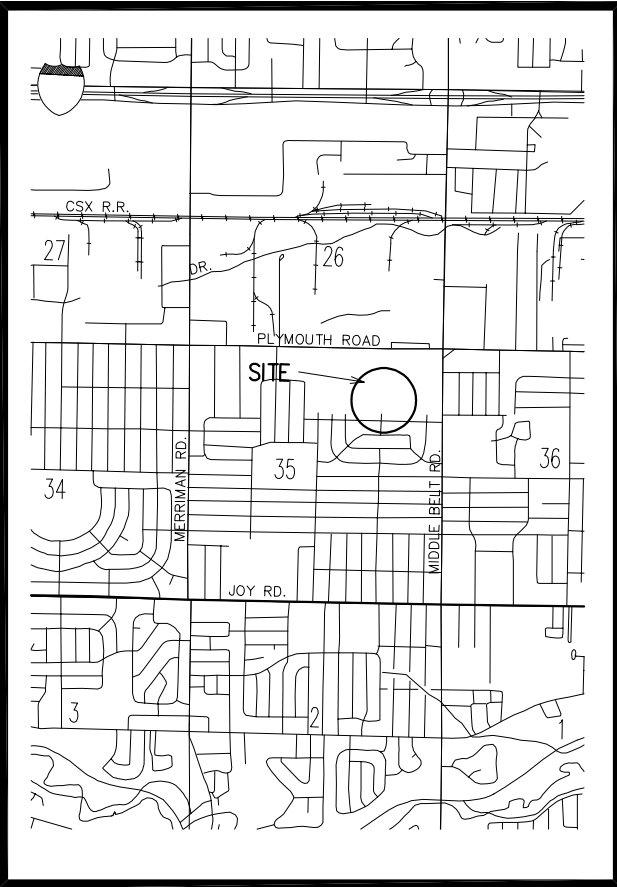
P.O. BOX 824
48303 - 0824

PHONE: (248) 454-6300
FAX (1st. Floor): (248) 454-6312
FAX (2nd. Floor): (248) 454-6359

WEB SITE: <http://www.hrcenr.com>

[illegible]

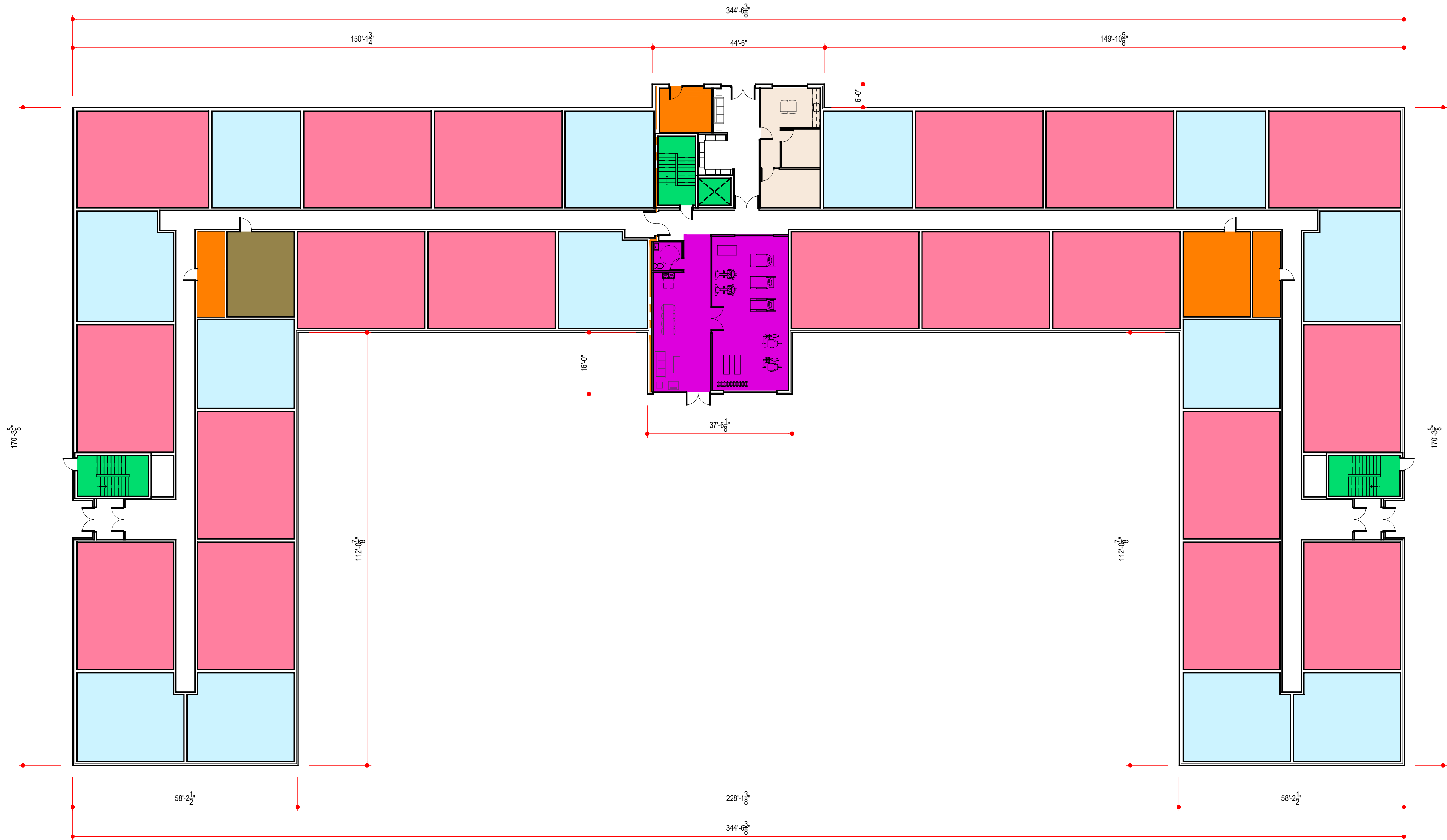
DATE	ADDITIONS AND/OR REVISIONS
DESIGNED	
DRAWN	B.PIGGOTT
CHECKED	G.CHALICE
APPROVED	G.CHALICE



CITY OF LIVONIA
WONDERLAND MALL

ALTA/NSPS
LAND TITLE
SURVEY

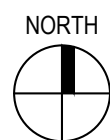
HRC JOB NO. 20190258	SCALE 1"=50'
DATE April 2022	SHEET NO. 2 OF 2



UNIT MATRIX

	1ST FLOOR	2ND FLOOR	3RD FLOOR	TOTAL
ONE BED	13	13	13	39
TWO BED	19	21	21	61
TOTAL	32	34	34	100

1 Building A First Floor
SCALE: 1/16" = 1'



- VERTICAL CIRCULATION
- MECHANICAL/MAINTENANCE
- STORAGE
- ONE BED UNIT
- TWO BED UNIT
- COMMUNITY SPACES
- LEASING OFFICE

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SPA SUBMITTAL	4.22.22
REVISION/ISSUE	DATE

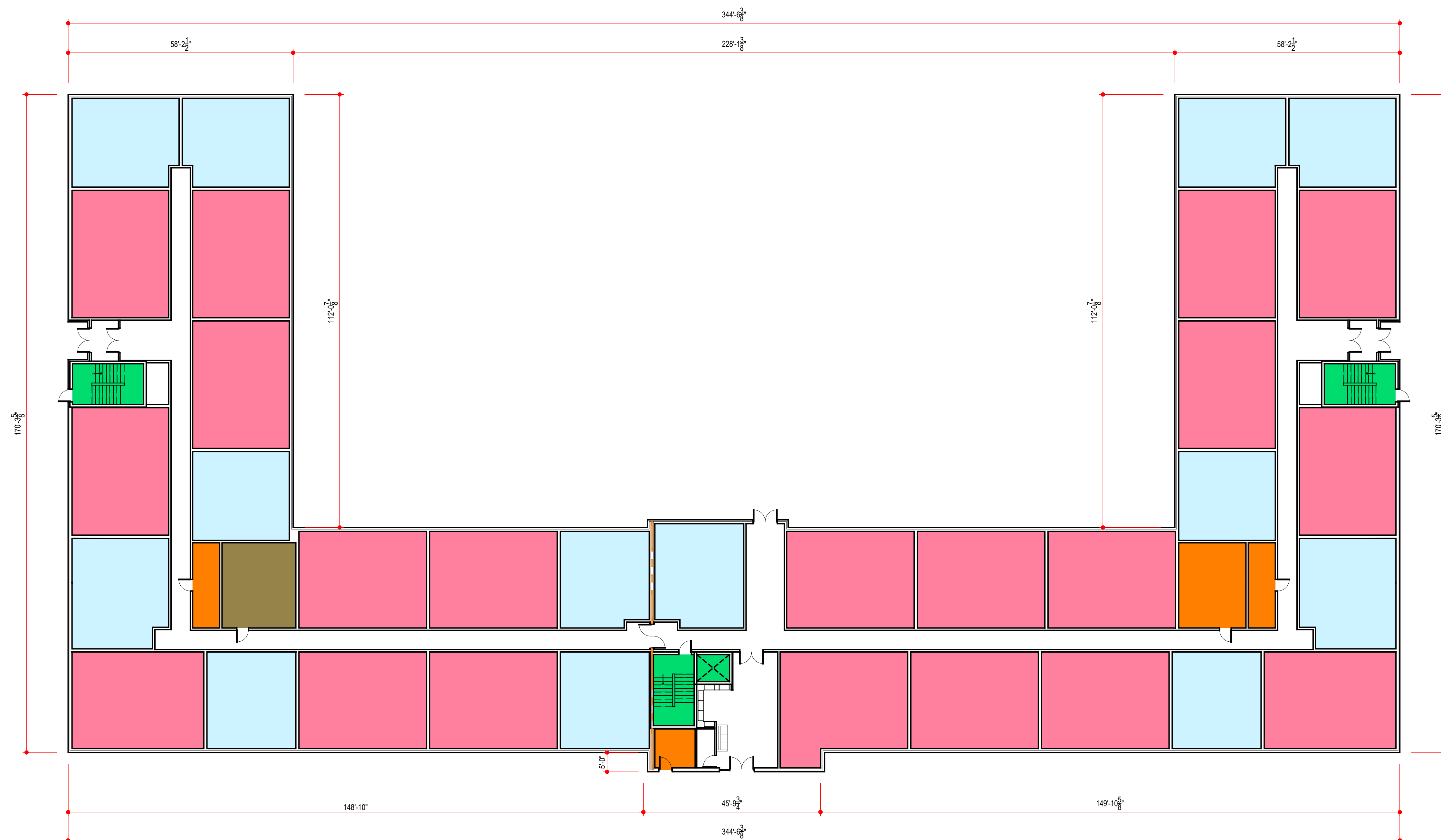
Wonderland Village
11320 Middlebelt Rd.
Livonia, MI 48150

Building A First Floor

A101-A

020014

	1ST FLOOR	2ND FLOOR	3RD FLOOR	TOTAL
ONE BED	13	13	13	39
TWO BED	20	21	21	61
TOTAL	33	34	34	101

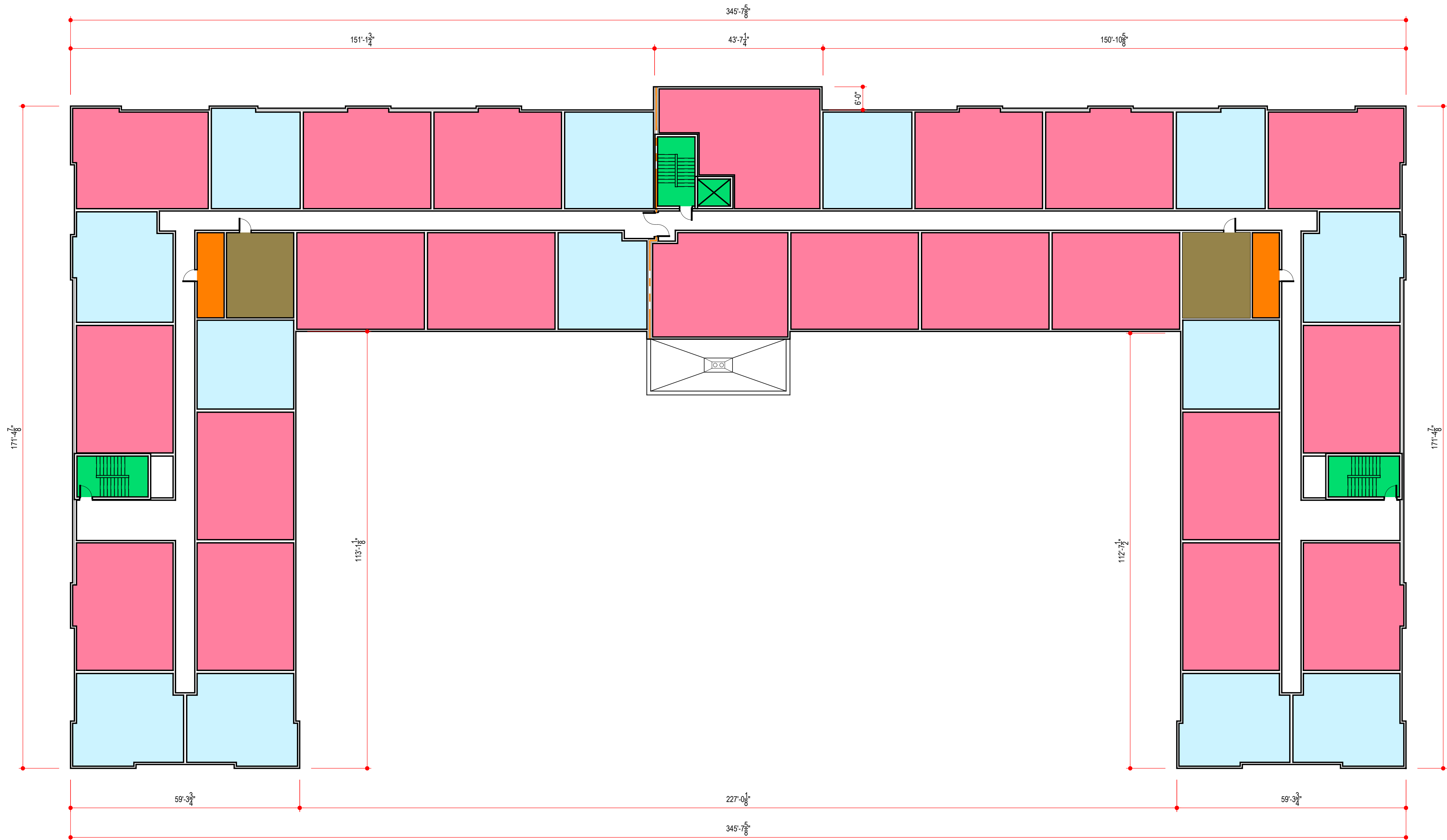


NORTH



- | | | | |
|---|----------------------|---|--------------|
|  | VERTICAL CIRCULATION |  | ONE BED UNIT |
|  | MECHANICAL |  | TWO BED UNIT |
|  | STORAGE | | |

SPA SUBMITTAL	4.22.22
REVISION/ISSUE	DATE



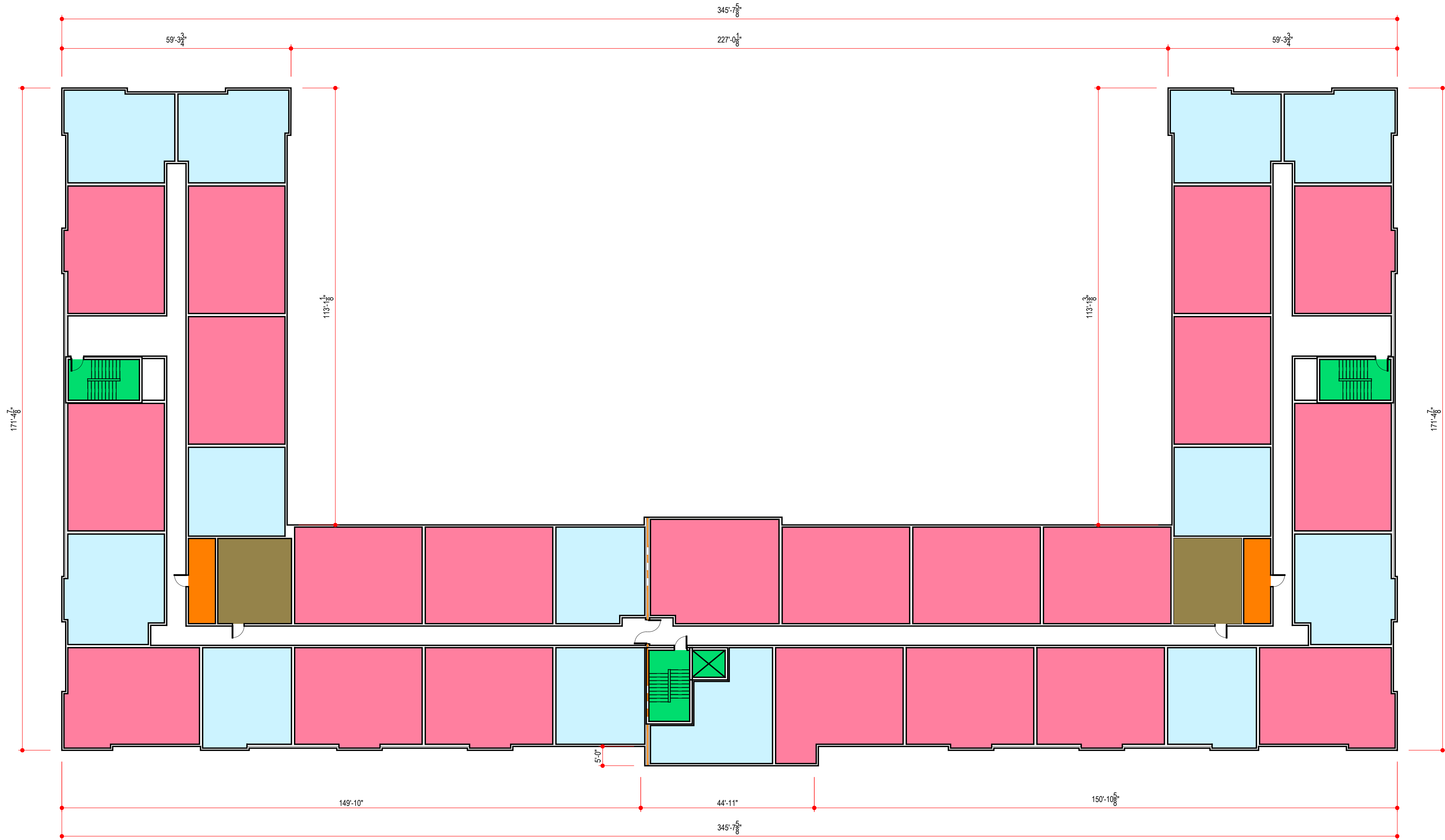
1 Building A Second Floor
SCALE: 1/16" = 1'



- VERTICAL CIRCULATION
- MECHANICAL
- STORAGE
- ONE BED UNIT
- TWO BED UNIT

UNIT MATRIX

	1ST FLOOR	2ND FLOOR	3RD FLOOR	TOTAL
ONE BED	13	13	13	39
TWO BED	19	21	21	61
TOTAL	32	34	34	100



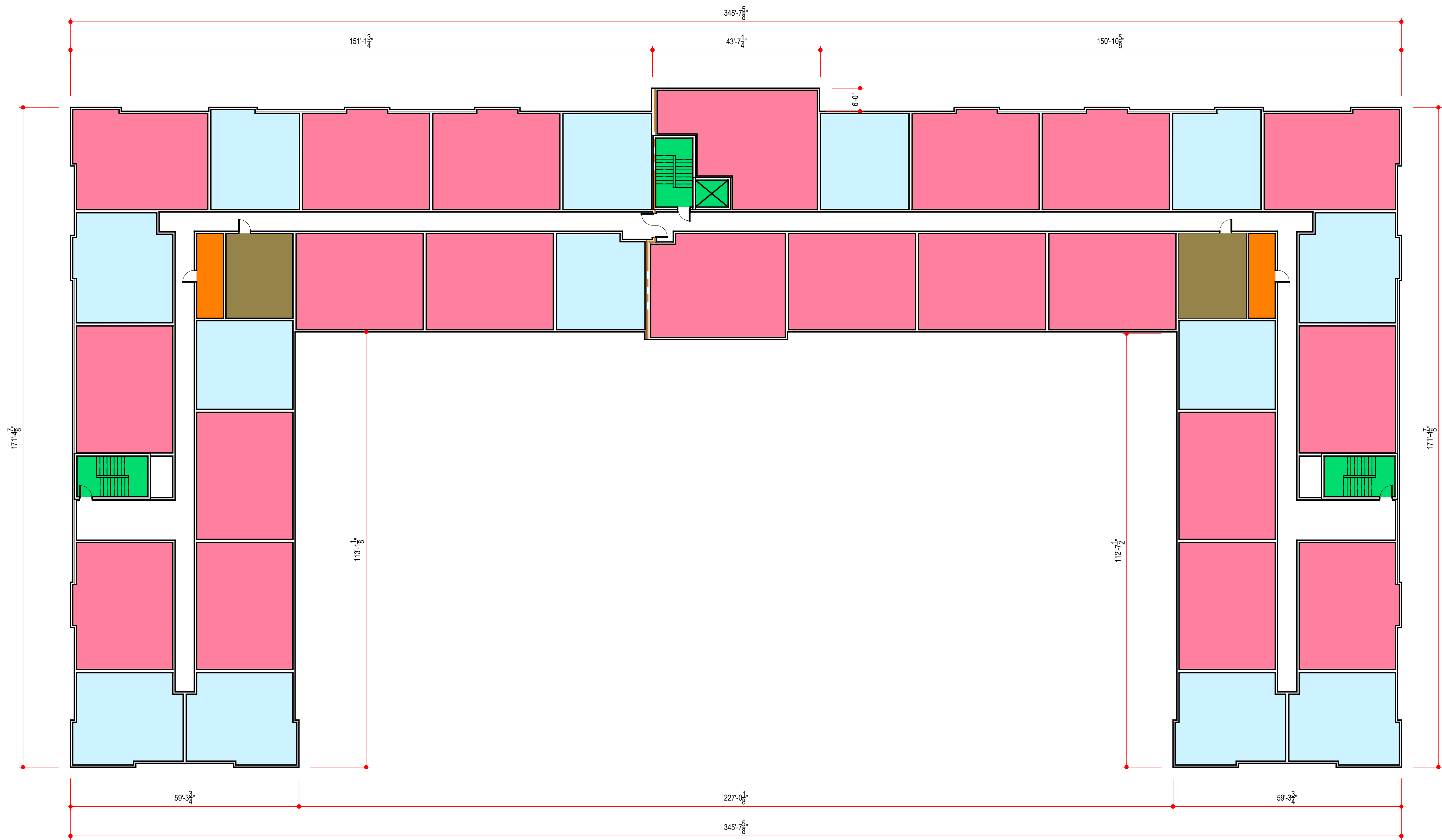
1 Building B Second Floor
SCALE: 1/16" = 1'



- VERTICAL CIRCULATION
- MECHANICAL
- STORAGE
- ONE BED UNIT
- TWO BED UNIT

UNIT MATRIX

	1ST FLOOR	2ND FLOOR	3RD FLOOR	TOTAL
ONE BED	13	13	13	39
TWO BED	20	21	21	61
TOTAL	33	34	34	101



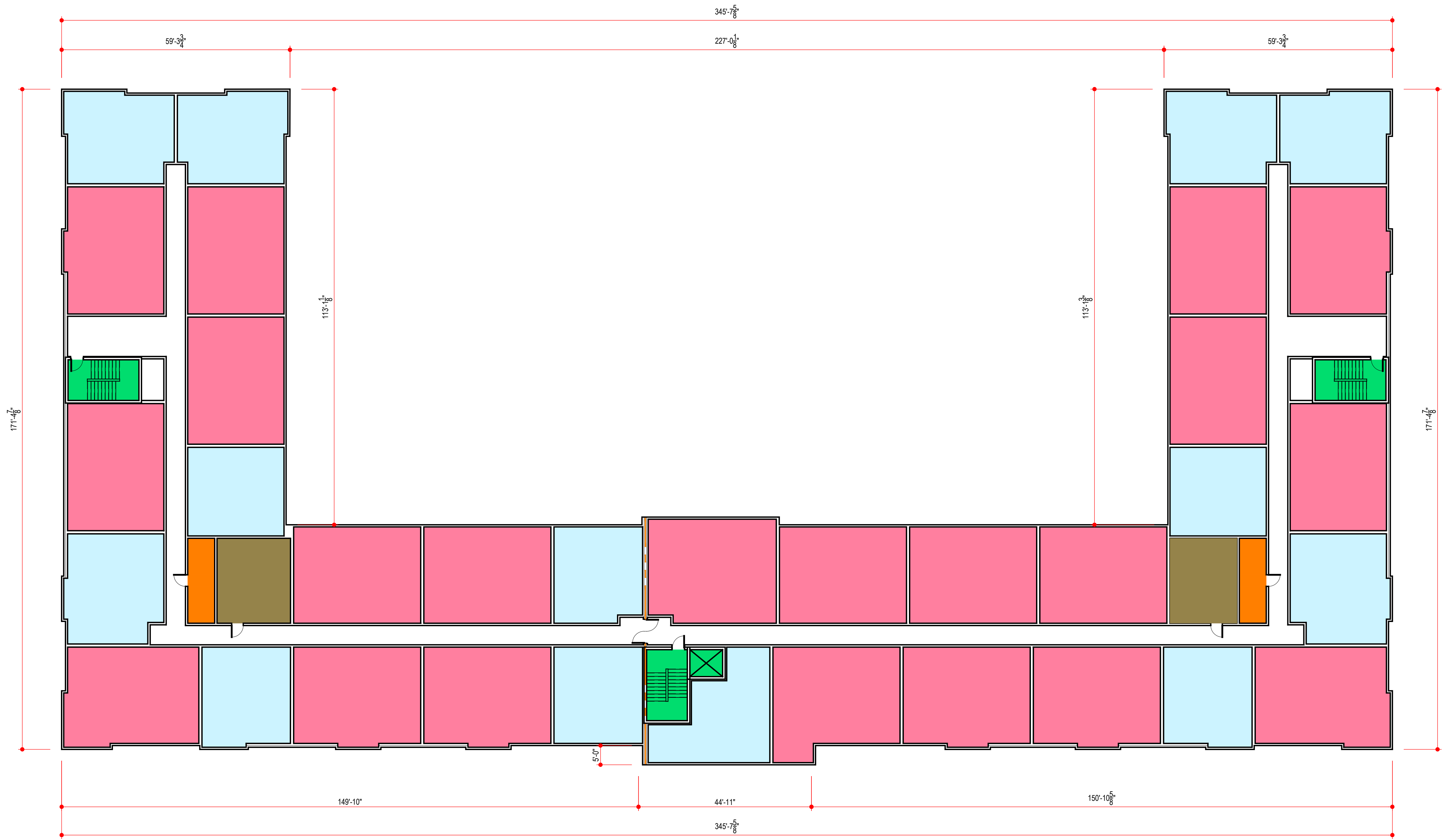
1 Building A Third Floor
SCALE: 1/16" = 1'



- VERTICAL CIRCULATION
- MECHANICAL
- STORAGE
- ONE BED UNIT
- TWO BED UNIT

UNIT MATRIX

	1ST FLOOR	2ND FLOOR	3RD FLOOR	TOTAL
ONE BED	13	13	13	39
TWO BED	19	21	21	61
TOTAL	32	34	34	100



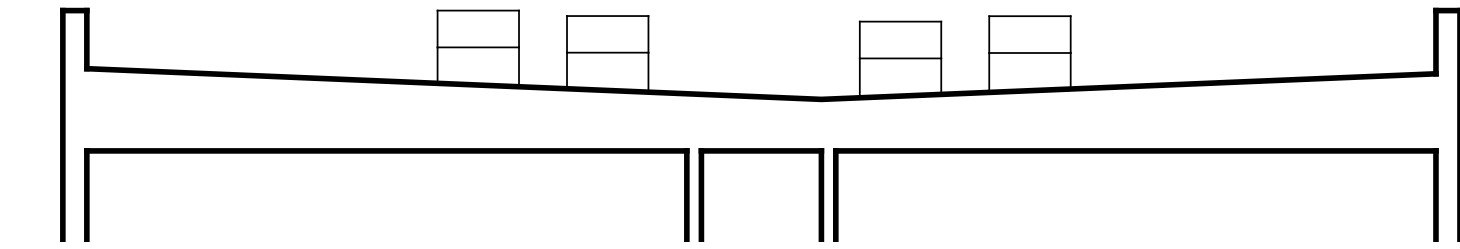
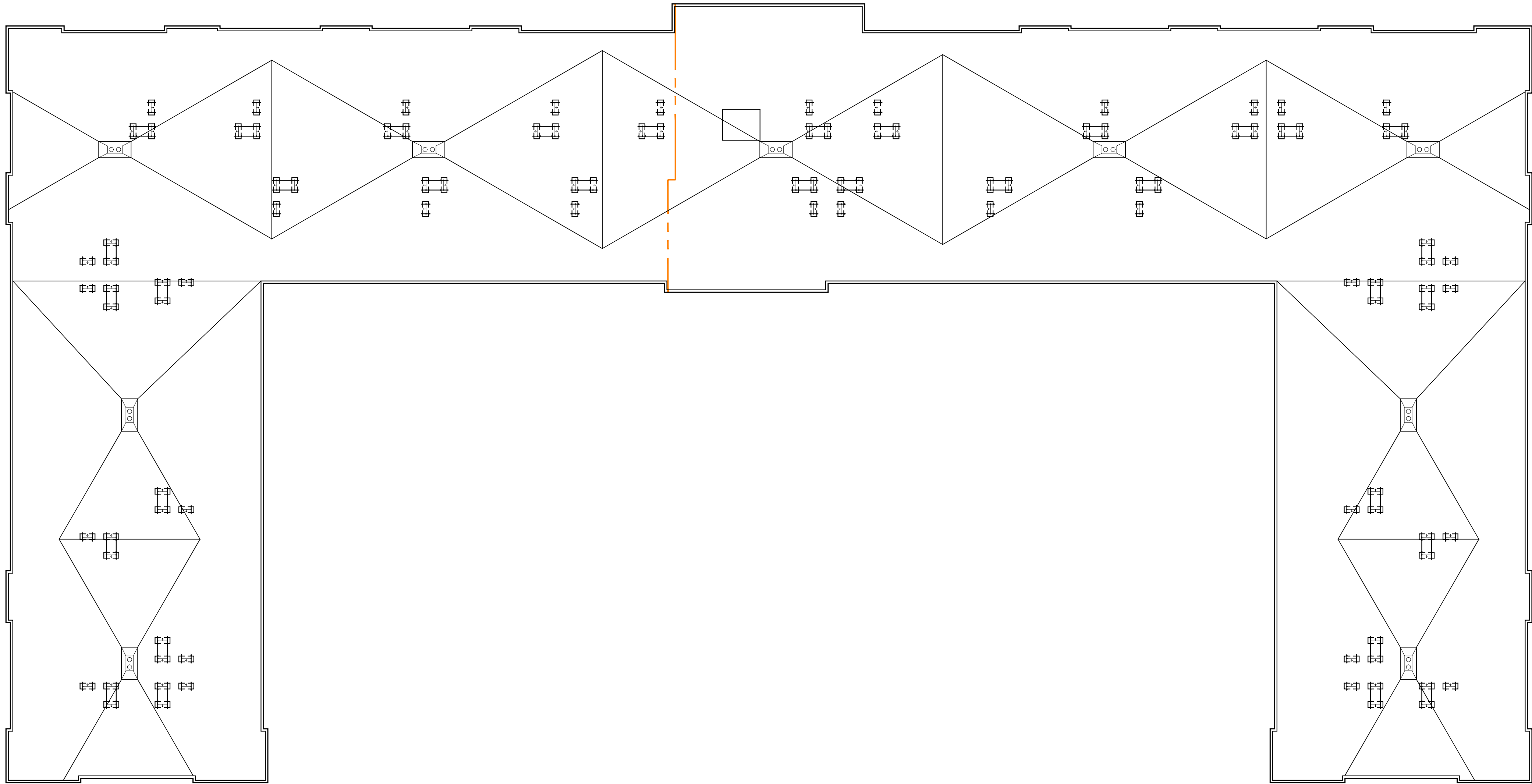
1 Building B Third Floor
SCALE: 1/16" = 1'

- VERTICAL CIRCULATION
- MECHANICAL
- STORAGE
- ONE BED UNIT
- TWO BED UNIT



UNIT MATRIX

	1ST FLOOR	2ND FLOOR	3RD FLOOR	TOTAL
ONE BED	13	13	13	39
TWO BED	20	21	21	61
TOTAL	33	34	34	101



NOTE: TOP OF MECHANICAL UNITS BELOW PARAPET

2 Mechanical Screen
SCALE: 1/8" = 1'

1 Building A Roof Plan
SCALE: 1/16" = 1'



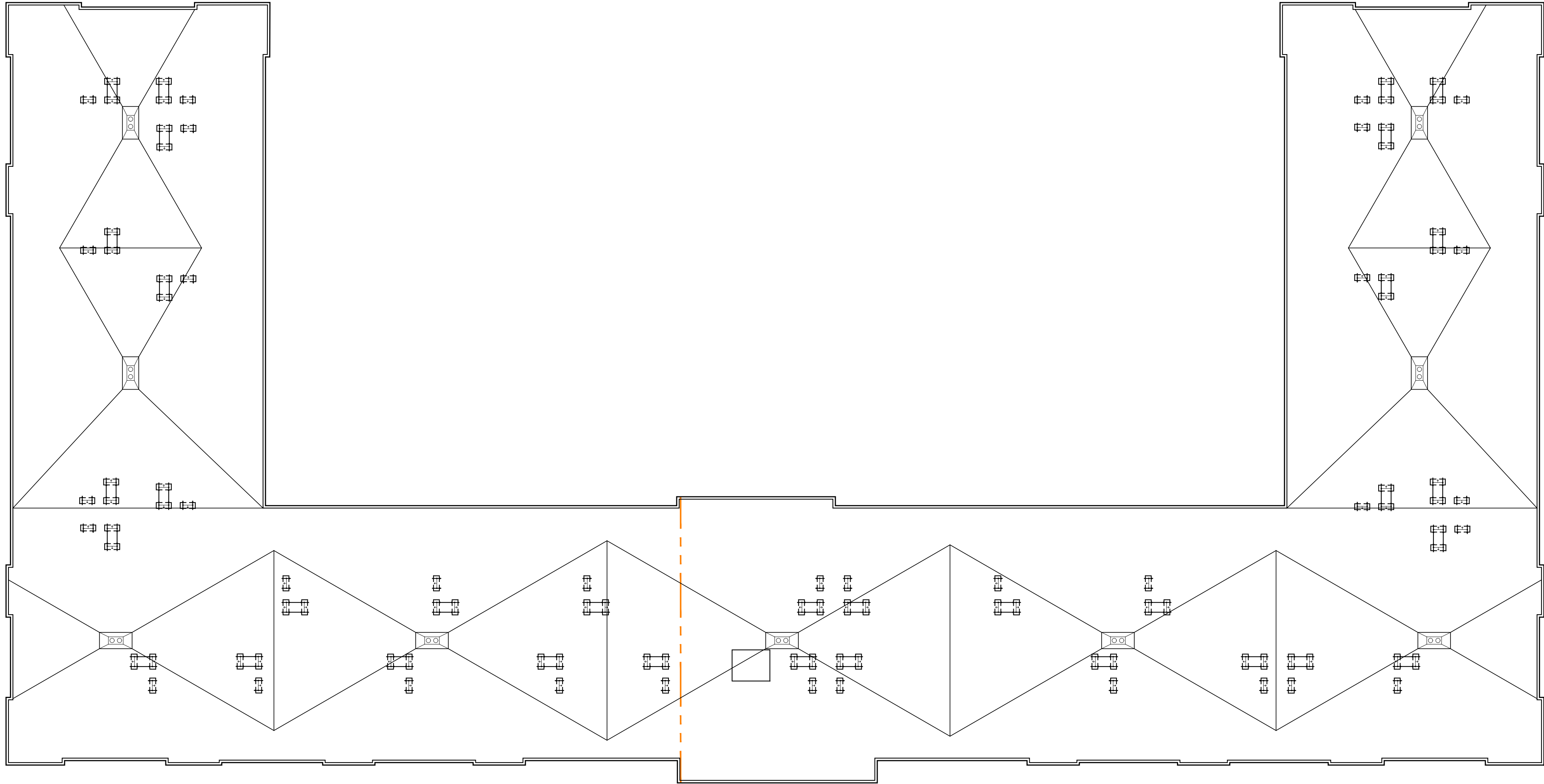
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SPA SUBMITTAL	4.22.22	
REVISION/ISSUE	DATE	

Wonderland Village
11320 Middlebelt Rd.
Livonia, MI 48150

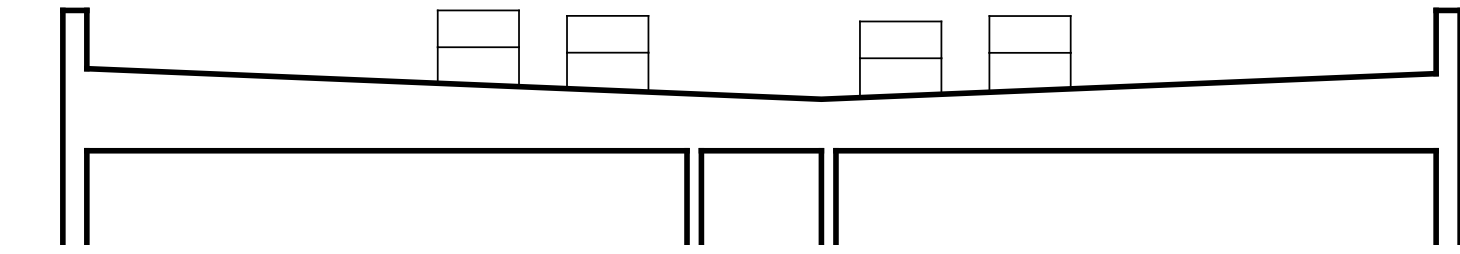
Building A Roof Plan

A104-A

020014



1 Building B Roof Plan
SCALE: 1/16" = 1'

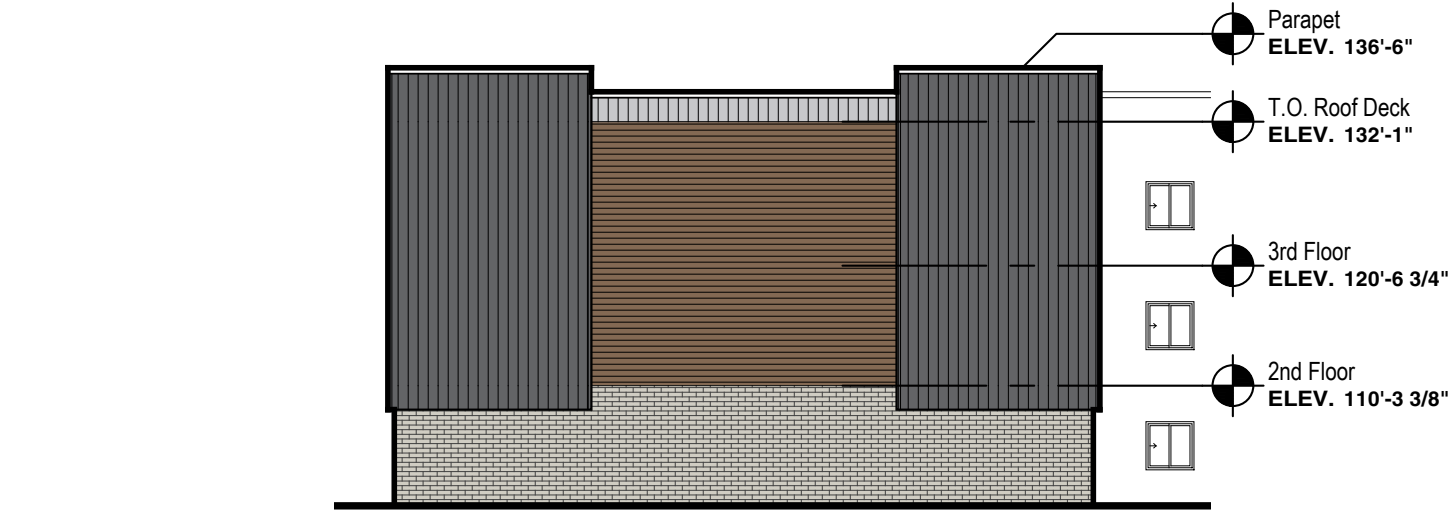


NOTE: TOP OF MECHANICAL UNITS BELOW PARAPET

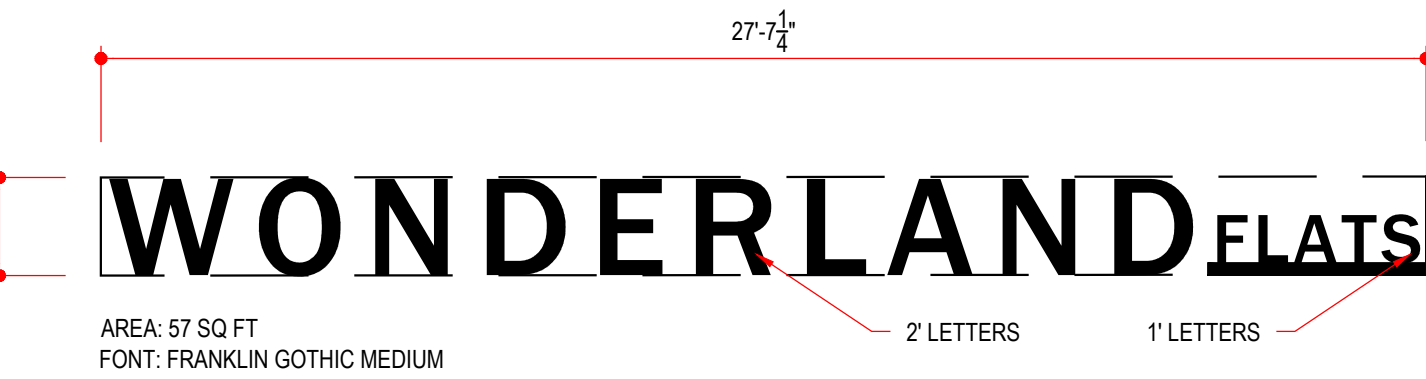
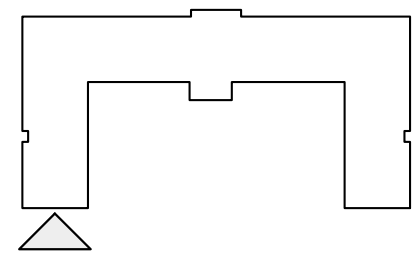
2 Mechanical Screen
SCALE: 1/8" = 1'

Wonderland Village 11320 Middlebelt Rd. Livonia, MI 48150		Building B Roof Plan
A104-B		
020014		

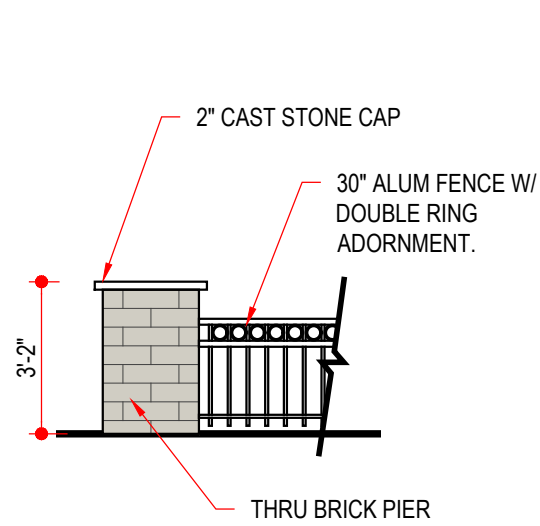
REVISION/ISSUE	DATE
SPA SUBMITTAL	4.22.22



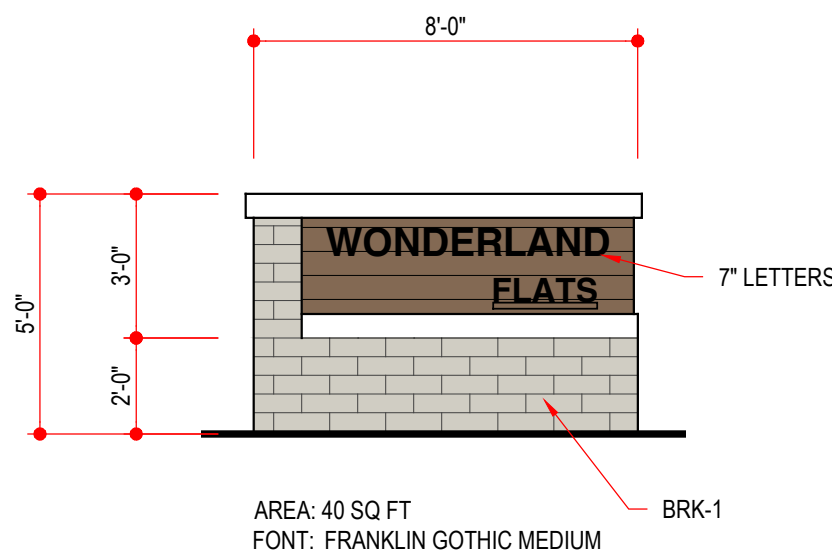
9 Building A South Elevation West Wing
SCALE: 1/16" = 1'



6 Building Sign
SCALE: 1/4" = 1'



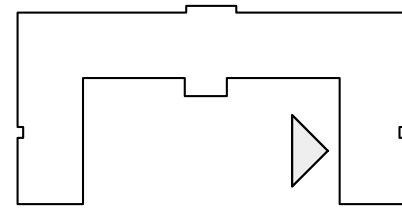
3 Decorative Fence Detail
SCALE: 1/4" = 1'



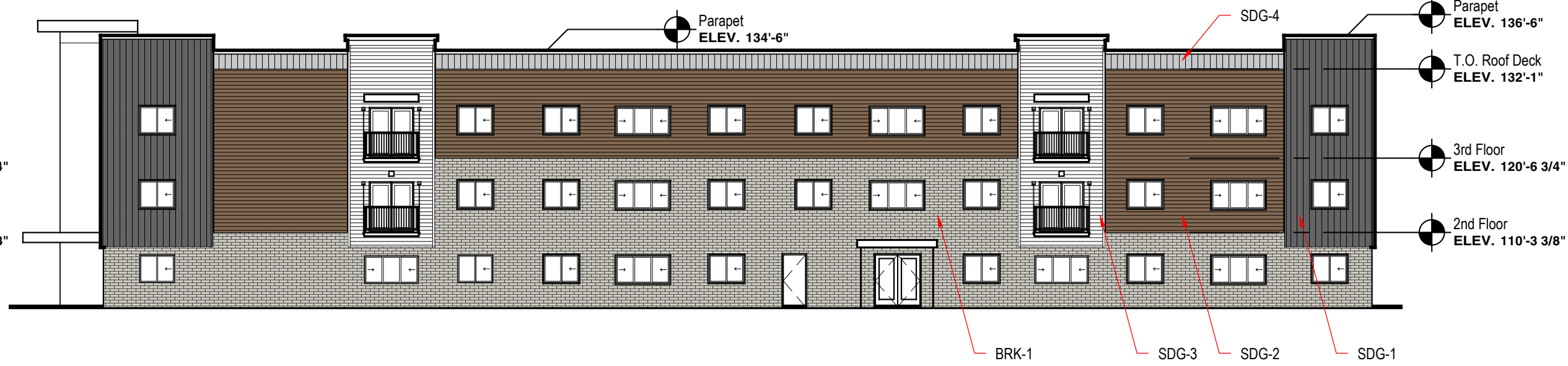
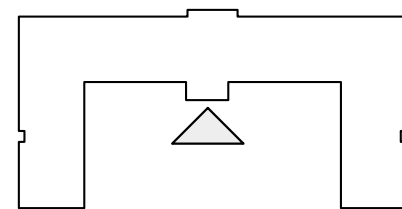
2 Monument Sign
SCALE: 1/4" = 1'



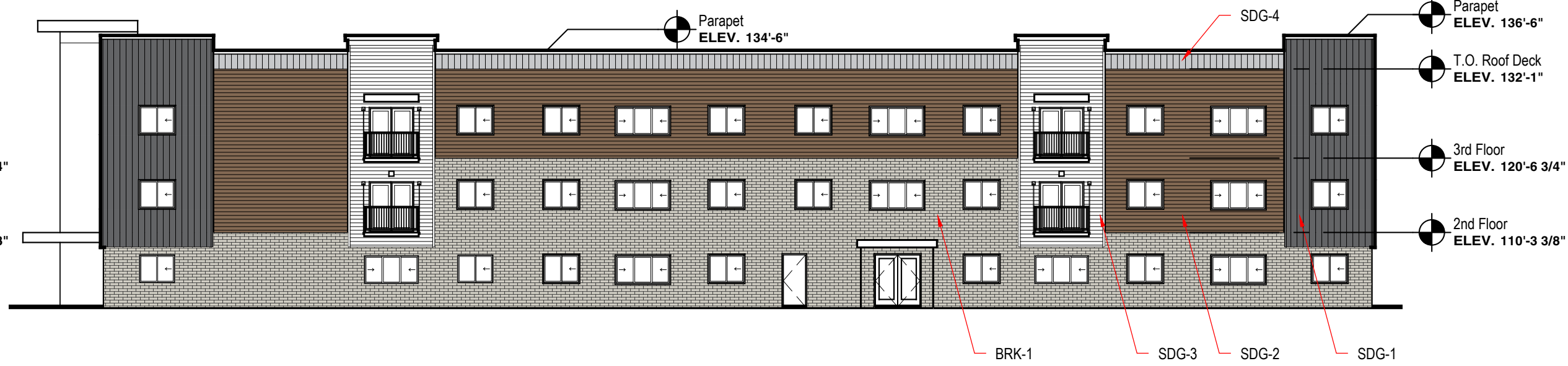
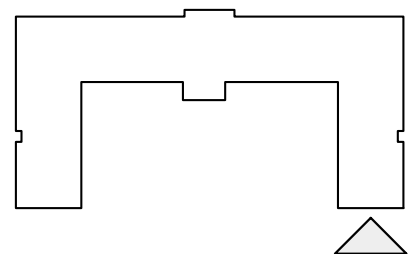
11 Building A East Courtyard Elevation
SCALE: 1/16" = 1'



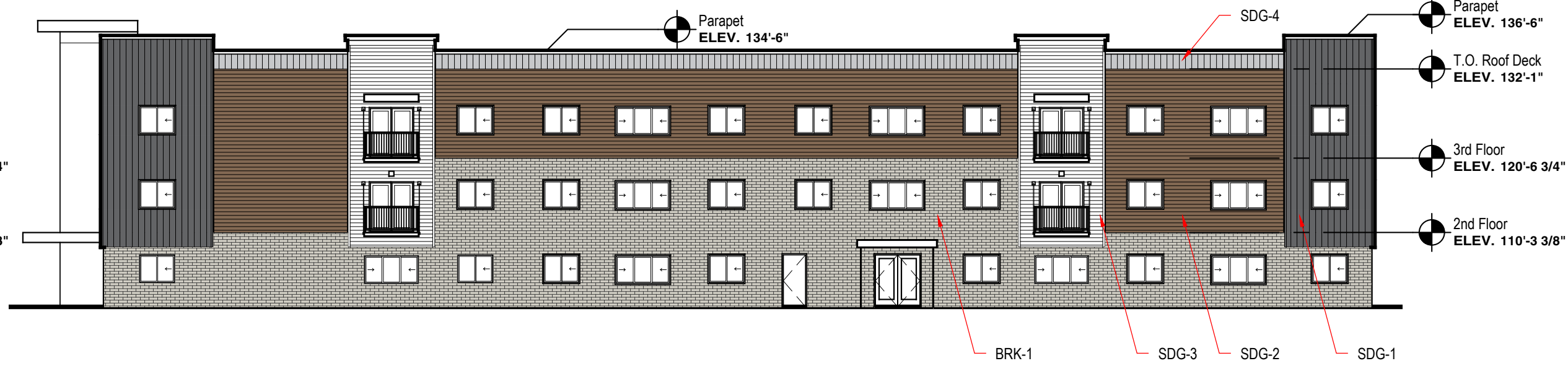
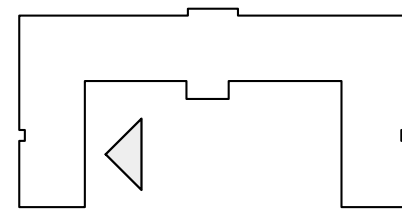
8 Building A South Courtyard Elevation
SCALE: 1/16" = 1'



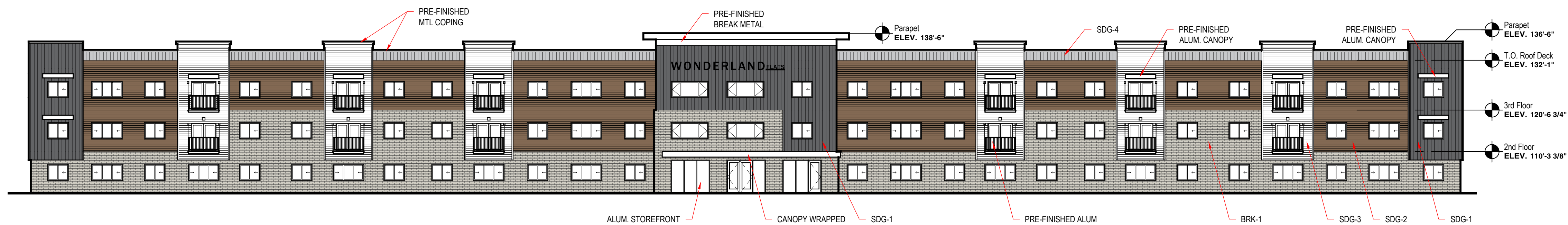
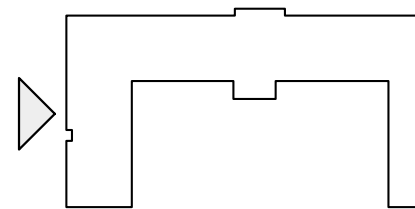
7 Building A South Elevation East Wing
SCALE: 1/16" = 1'



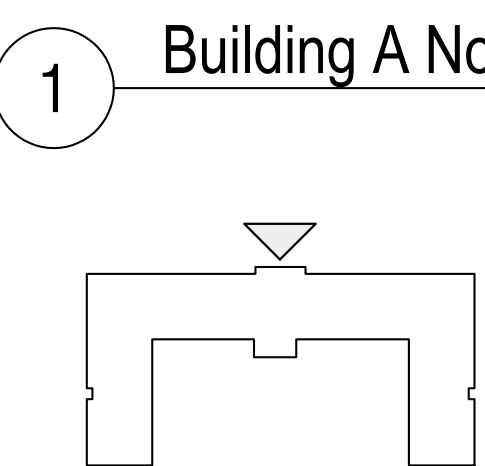
5 Building A West Courtyard Elevation
SCALE: 1/16" = 1'



4 Building A West Elevation
SCALE: 1/16" = 1'



1 Building A North Elevation
SCALE: 1/16" = 1'

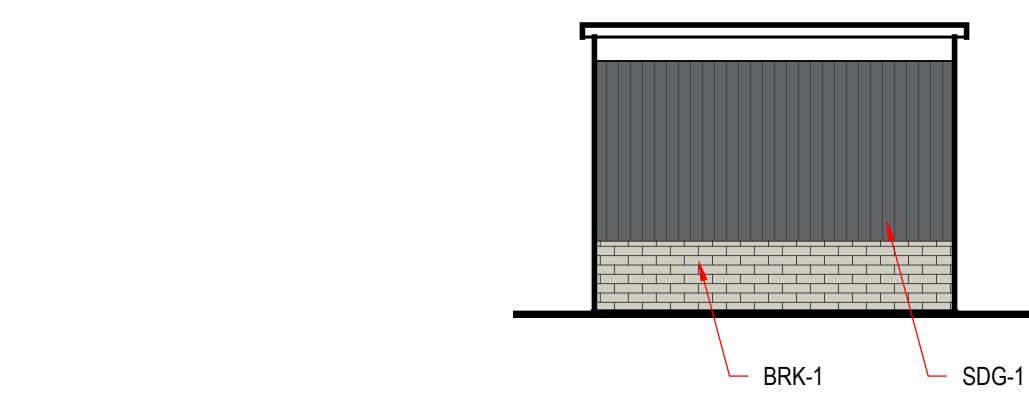


BRK-1 BRICK VENEER MFR: TBD SIZE: UTILITY	SDG-1 VINYL BOARD AND BATTEN MFR: CERTAINTED SIZE: 7" COLOR: SLATE	SDG-2 VINYL SIDING MFR: CERTAINTED SIZE: DOUBLE 4" COLOR: RUSTIC BLEND	SDG-3 VINYL SIDING MFR: CERTAINTED SIZE: DOUBLE 4" COLOR: COLONIAL WHITE	SDG-4 VINYL BOARD AND BATTEN MFR: CERTAINTED SIZE: 7" COLOR: STERLING GRAY
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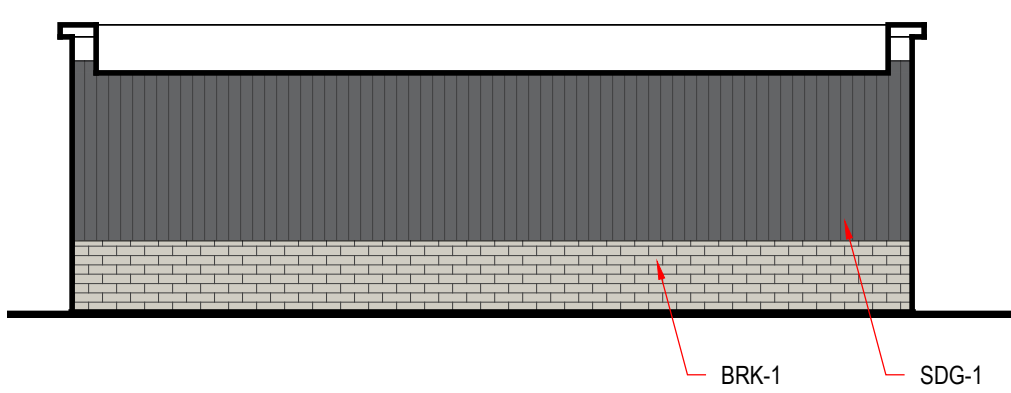
*MANUFACTURER AND COLORS MAY BE ADJUSTED AT TIME OF CONSTRUCTION BASED ON PRODUCT AVAILABILITY



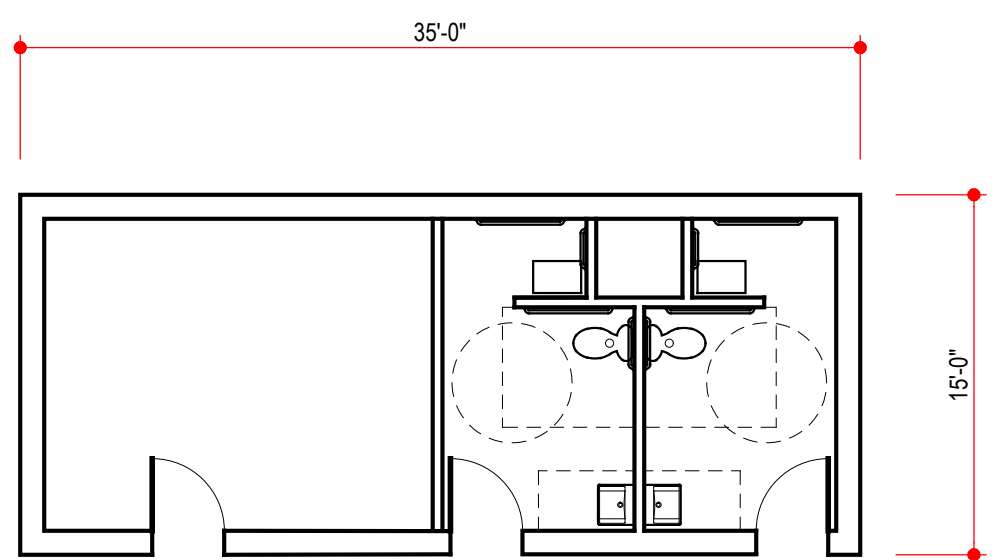
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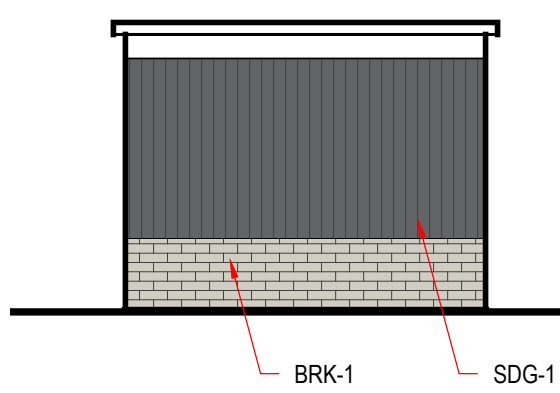
10 Pool House South Elevation
SCALE: 1/8" = 1'



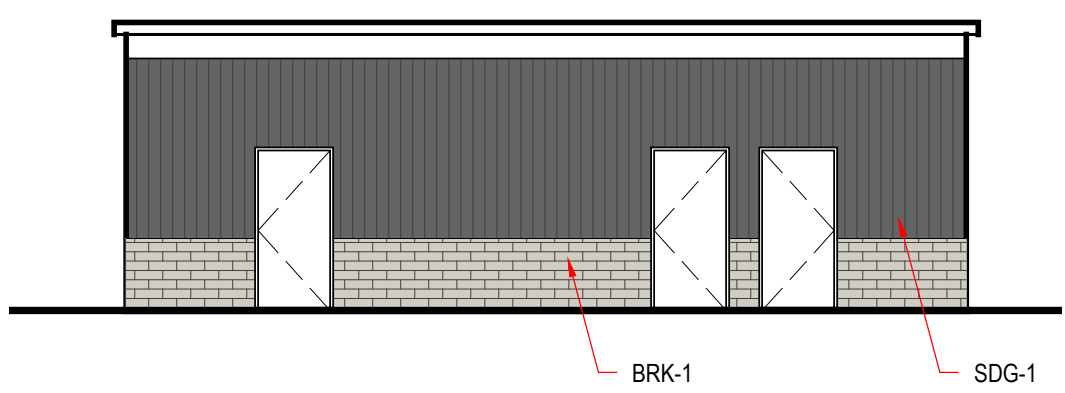
9 Pool House West Elevation
SCALE: 1/8" = 1'



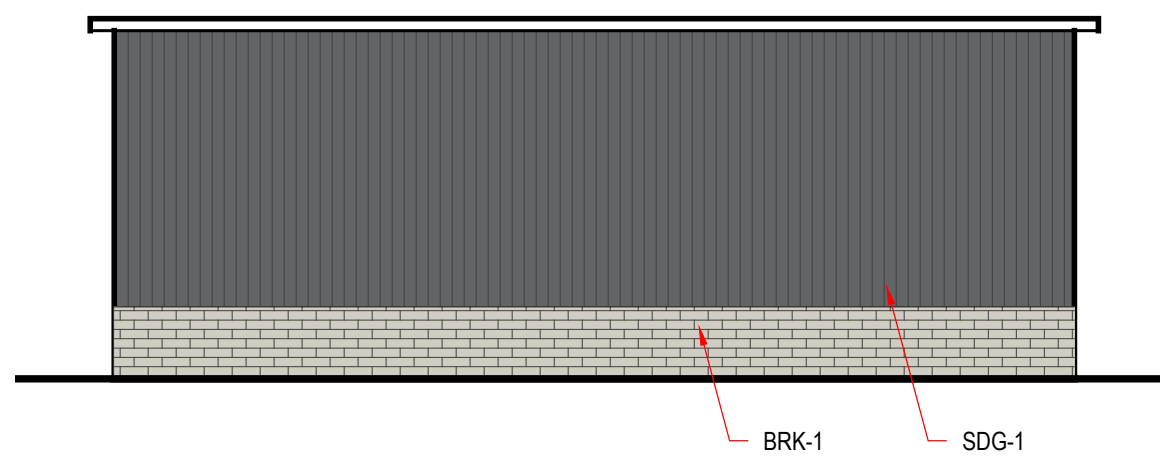
6 Pool House Floor Plan
SCALE: 1/8" = 1'



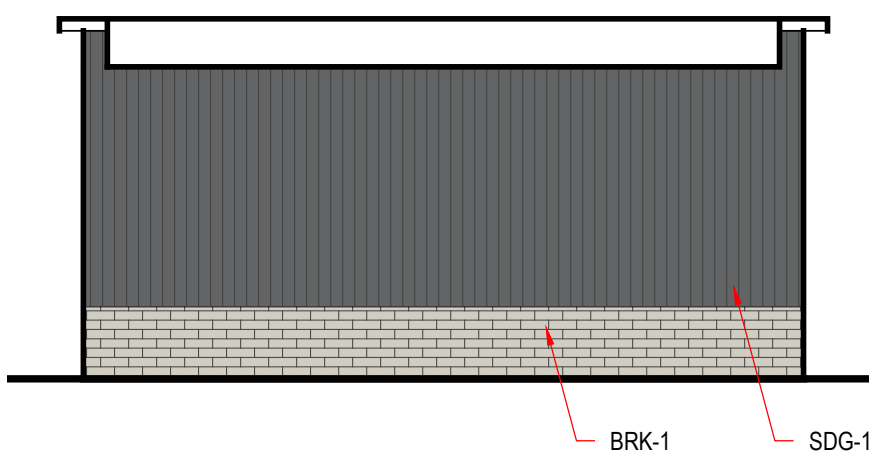
8 Pool House North Elevation
SCALE: 1/8" = 1'



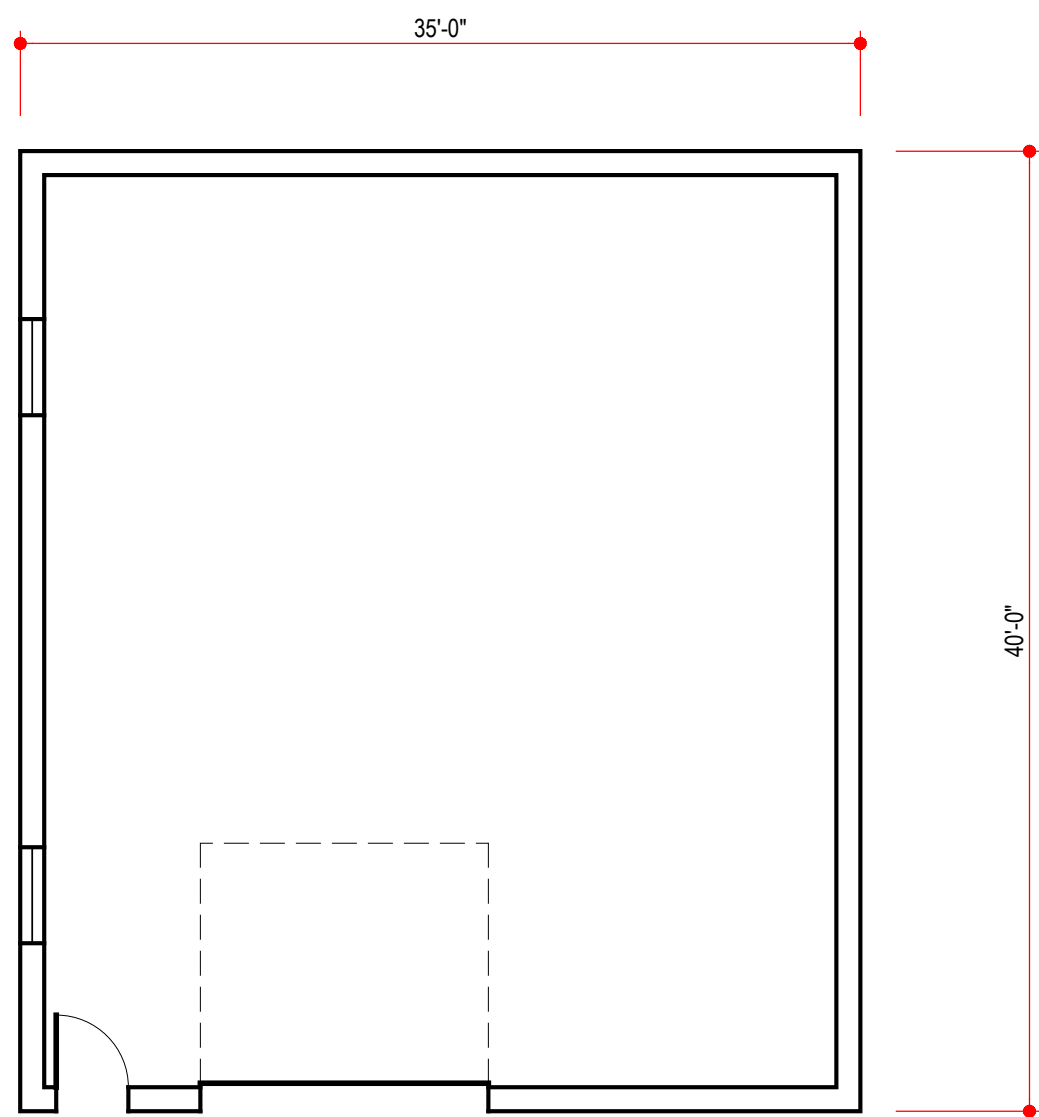
7 Pool House East Elevation
SCALE: 1/8" = 1'



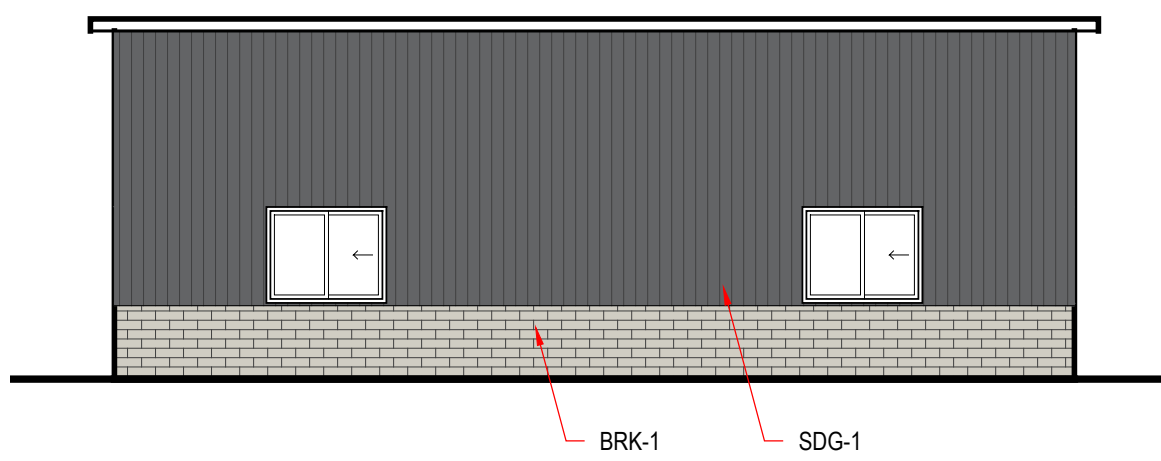
5 Maintenance Garage West Elevation
SCALE: 1/8" = 1'



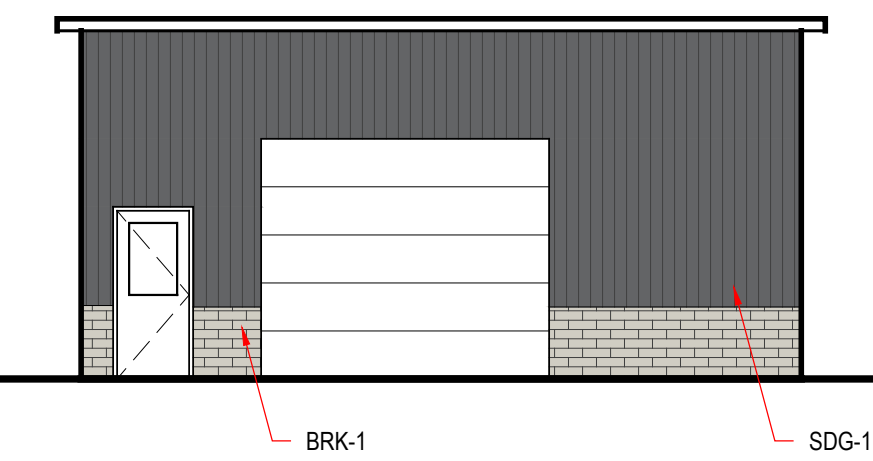
4 Maintenance Garage South Elevation
SCALE: 1/8" = 1'



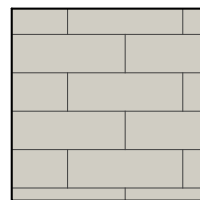
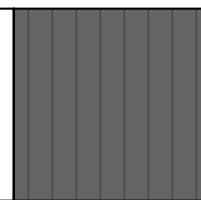
1 Maintenance Garage Floor Plan
SCALE: 1/8" = 1'



3 Maintenance Garage East Elevation
SCALE: 1/8" = 1'



2 Maintenance Garage North Elevation
SCALE: 1/8" = 1'

	BRK-1 BRICK VENEER MFR: TBD SIZE: UTILITY		SDG-1 VINYL BOARD AND BATTEN MFR: CERTANTEED SIZE: 7" COLOR: SLATE
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*MANUFACTURER AND COLORS MAY BE ADJUSTED AT TIME OF CONSTRUCTION BASED ON PRODUCT AVAILABILITY

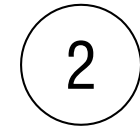
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REVISION/ISSUE	DATE

Wonderland Village
11320 Middlebelt Rd.
Livonia, MI 48150

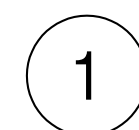
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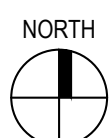
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NORTH

A circular compass rose with a vertical line and a horizontal line intersecting at the center. The top half is shaded black, and the bottom half is white. The word "NORTH" is written above the circle.

SCALE: 1/4" = 1'



Wonderland Village
11320 Middlebelt Rd.
Livonia, MI 48150

Lobby Detail

A401

020014



WONDERLAND FLATS

LIVONIA, MI

APRIL 22, 2022

OWNER: MIDDLEBELT PLYMOUTH VENTURE LLC

DEVELOPER:

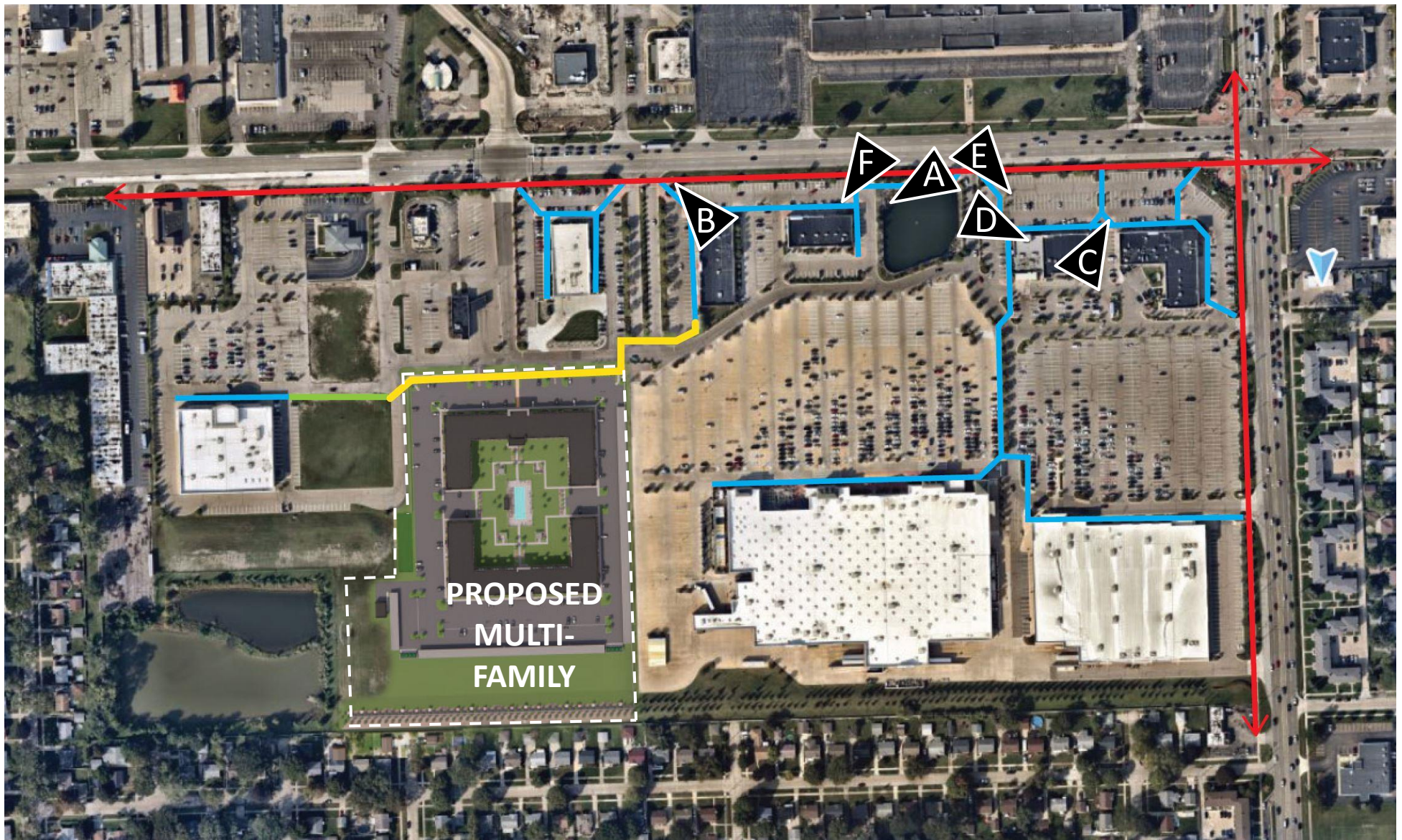


ARCHITECT:



CIVIL ENGINEER &
LANDSCAPE ARCHITECT:



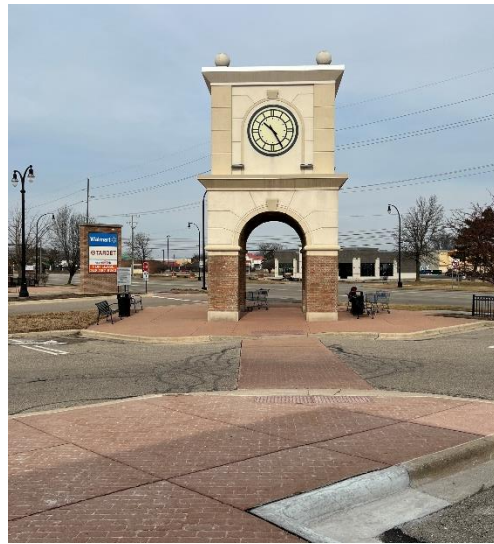


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|  | EXISTING ROAD PEDESTRIAN PATH |  | PROPOSED PEDESTRIAN PATH |
|  | EXISTING DEVELOPMENT PEDESTRIAN PATH |  | FUTURE PEDESTRIAN PATH |

MIXED USE PEDESTRIAN CIRCULATION



A



B



C



D

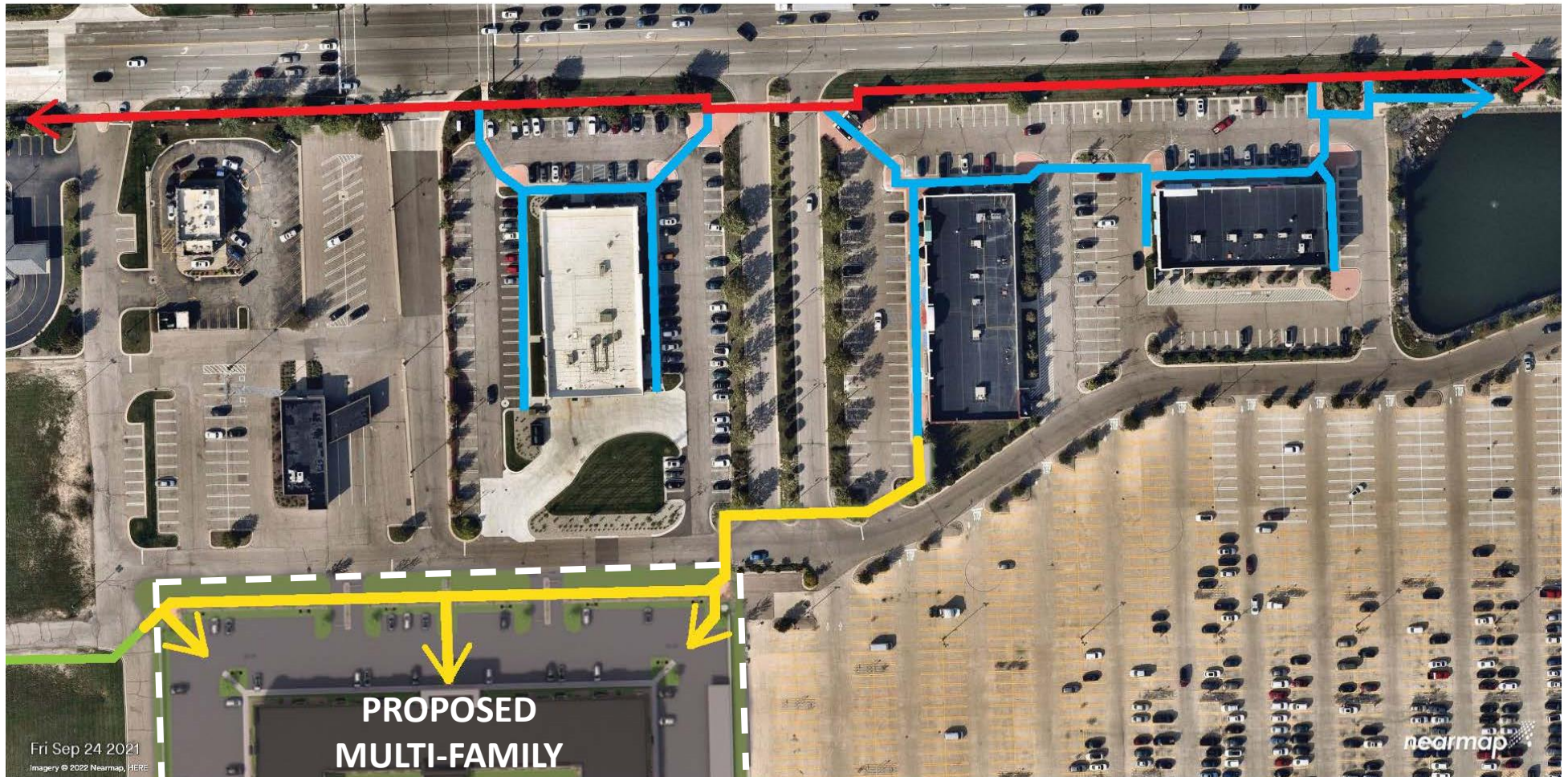


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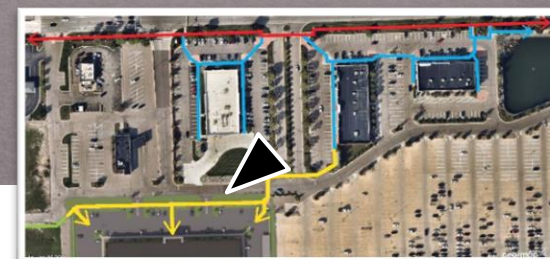
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EXISTING MIXED USE PATH CONNECTIVITY AND SITTING AREAS



- | | | | |
|---|--------------------------------------|---|--------------------------|
|  | EXISTING ROAD PEDESTRIAN PATH |  | PROPOSED PEDESTRIAN PATH |
|  | EXISTING DEVELOPMENT PEDESTRIAN PATH |  | FUTURE PEDESTRIAN PATH |

PROPOSED MULTI-FAMILY PEDESTRIAN CONNECTIVITY TO RETAIL MIXED USE



PROPOSED VEHICULAR SECURITY GATE



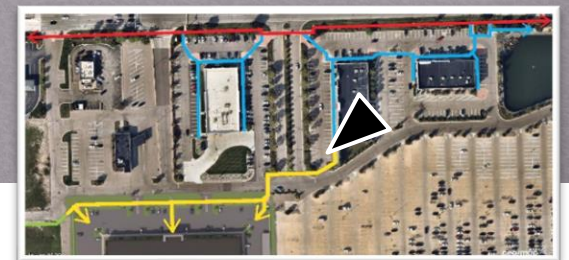
PERSPECTIVE OF MIXED USE PROPOSED PEDESTRIAN CONNECTION



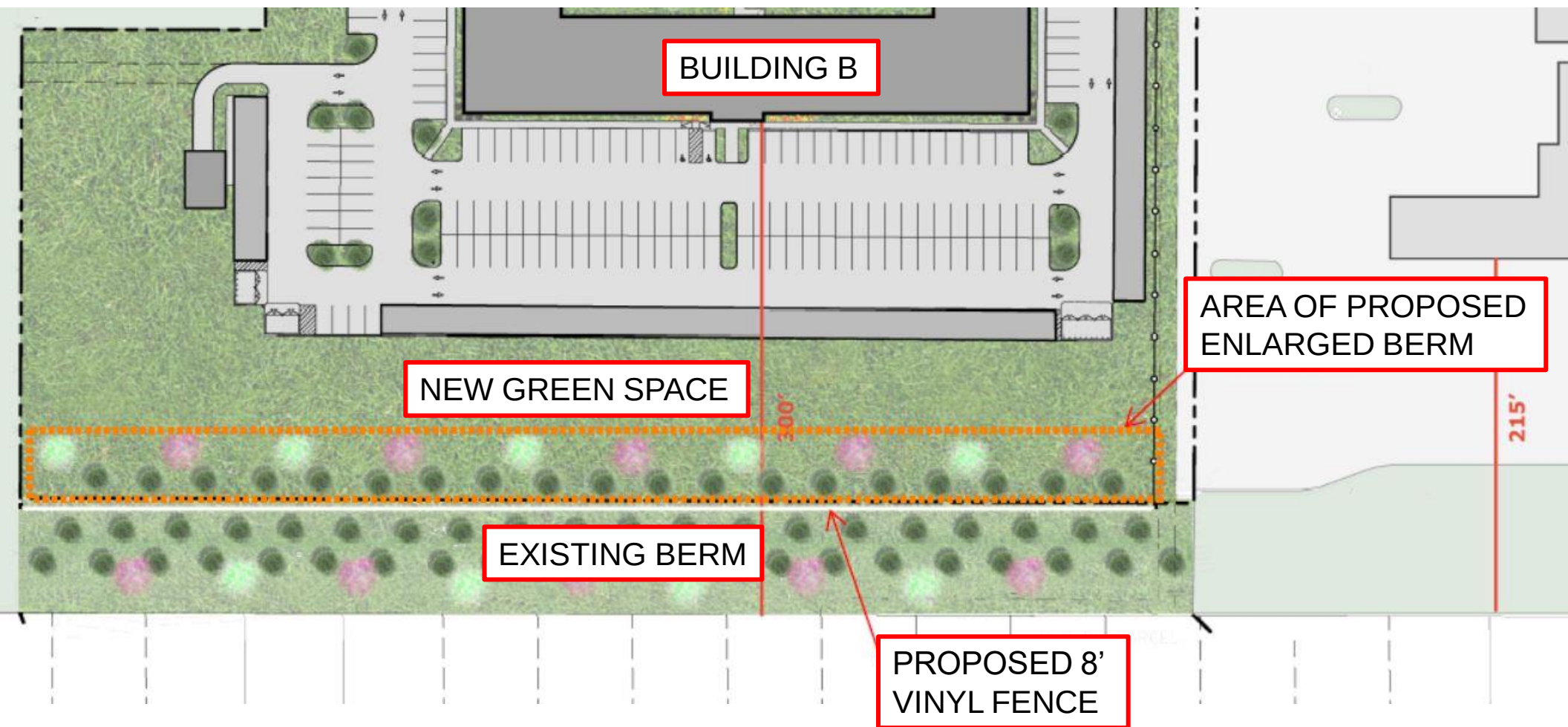
PERSPECTIVE OF MIXED USE PROPOSED PEDESTRIAN CONNECTION



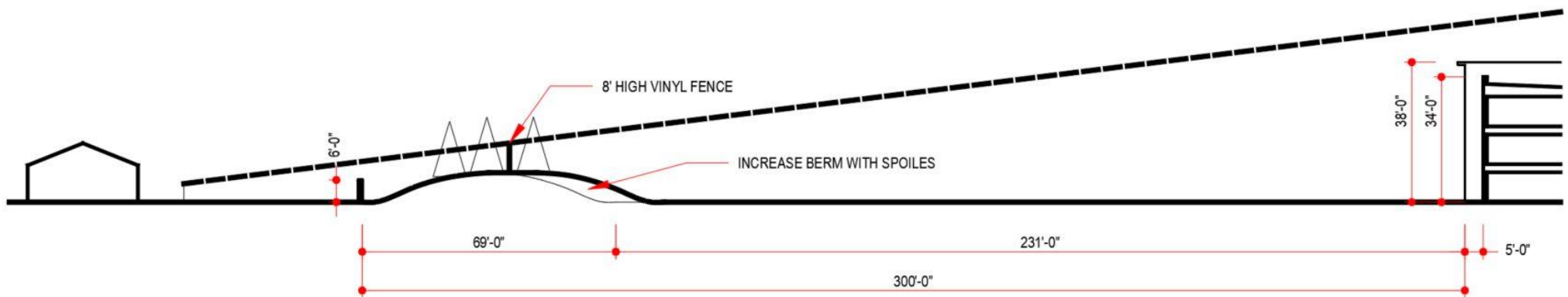
PERSPECTIVE OF MIXED USE PROPOSED PEDESTRIAN CONNECTION



PERSPECTIVE OF MIXED USE PROPOSED PEDESTRIAN CONNECTION



REAR BERM ENHANCEMENT



VIEW FROM BACKYARD OF SINGLE-FAMILY HOUSES



VIEW FROM THIRD FLOOR OF APARTMENTS



PERSPECTIVE VIEW OF BUILDING A – FROM PLYMOUTH RD



PERSPECTIVE VIEW OF BUILDING A – FROM PLYMOUTH RD



PERSPECTIVE VIEW OF BUILDING B – FROM SINGLE FAMILY



AERIAL VIEW



COURTYARD AERIAL VIEW



COURTYARD NIGHT VIEW



COURTYARD POOL PERSPECTIVE



COURTYARD PERSPECTIVE



PACKAGE PICK UP SITE AMENITY

DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

TODD J. ZILINCIK, P.E.
CITY ENGINEER

DAVID W. LEAR, P.E.
ASST. CITY ENGINEER



MAUREEN MILLER BROSNAN
MAYOR

DONALD R ROHRAFF
DIRECTOR OF PUBLIC WORKS

12973 FARMINGTON ROAD
LIVONIA, MICHIGAN 48150
(734) 466-2571
FAX: (734) 466-2195

May 5, 2022

Mr. Scott Miller
Planner IV
City of Livonia

Re: Petition 2022-04-08-02 – #29707 & #30273 Plymouth Road

Dear Mr. Miller:

In accordance with your request, the Engineering Division has reviewed the above referenced petition. We have no objections to the proposed project at this time. The parcels are assigned the addresses of **#29707 and #30273 Plymouth Road**. The legal descriptions submitted by the owner for the proposed project appears to be correct, and should be used to describe the parcel if approved, although the owner will need to split and combine properties to be able to develop the lot as shown.

The proposed development is currently serviced by water main, sanitary and storm sewers, which may need to be extended to service any new development. The submitted drawings do not indicate any utility connections or calculations, so we do not have any knowledge of impacts to the existing systems at this time. The existing site has a mix of public and private utilities, which may require additional easements or relocations to provide sanitary and water service to a new parcel.

It should be noted that should the project move forward, the proposed construction will be required to meet the Wayne County Stormwater Ordinance, including revised detention requirements. A full review of the proposed development will be completed when plans are submitted for permitting.

Should you have any additional questions on this matter, please feel free to contact myself at (734) 466-2608 or the City Engineer, Mr. Todd Zilincik at (734) 466-2561. If you would prefer, you can e-mail either of us at dlear@livonia.gov or tzilincik@livonia.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Lear", is written over a horizontal line.

David W. Lear, P.E.
Assistant City Engineer

cc: 2021 Petition File

DEPARTMENT OF PUBLIC SAFETY
LIVONIA FIRE & RESCUE

DAVE HEAVENER
FIRE CHIEF



MAUREEN MILLER BROSNAN
MAYOR

14910 FARMINGTON ROAD
LIVONIA, MICHIGAN 48154-5419
734-466-2444
734-466-2082 fax

DATE: May 17, 2022

TO: Scott O. Miller, Planner IV

FROM: Livonia Fire Prevention Division

SUBJECT: Petition 2022-04-08-02 29707, 30273 Plymouth Rd. Wonderland Flats

This office has reviewed the site plan submitted in connection with a request to construct a commercial building on property located at the above referenced address.

We have no objections to this proposal with the following stipulations:

1. Subject building(s) are to be provided with an automatic sprinkler system, fire alarm system and onsite hydrants shall be located between 50 feet and 100 feet from the Fire Department connection.
2. Hydrant spacing shall be consistent with City of Livonia Ordinances.
3. A fire access road shall be provided with not less than 20 feet of unobstructed width and have a minimum of 13 feet 6 inches of vertical clearance in accordance to 18.2.3.4.1.1 and 18.2.3.4.1.2 of NFPA 1, 2015.
4. Knox Box installation is required for Fire Department access through the gate and the buildings.

A further detailed plan review will take place when this division receives an official plan set.

Sincerely,

Brian Kukla

Brian Kukla-Fire Marshal

DEPARTMENT OF PUBLIC SAFETY
DIVISION OF POLICE

THOMAS GORALSKI
CHIEF OF POLICE

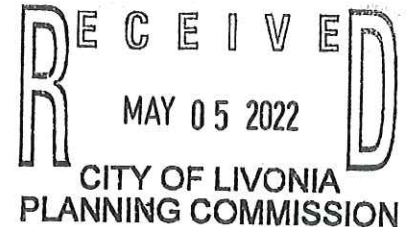


MAUREEN MILLER BROSNAN
MAYOR

15050 Farmington Road
Livonia, Michigan 48154-5499
(734) 466-2470
FAX: (734) 261-2265

May 4, 2022

Mr. Scott Miller
City of Livonia Planning Dept
33000 Civic Center Drive
Livonia, MI 48154



Re: Petition 2022-04-08-02 - 29707 & 30273 Plymouth Rd

Mr. Miller,
I have reviewed the plans in connection with the petition. Concerning is the large volume of residents mixed in a busy commercial area. I foresee many of the residents wishing to walk to the Walmart and Target locations. I do not see any sidewalks or other traffic control measures. Without any, I am concerned with the safety of the residents/pedestrian traffic.

Please feel free to contact me, should you have any questions.

Sincerely,

FOR THE CHIEF OF POLICE,

Scott Sczepanski, Sergeant
Traffic Bureau
(734) 466-2107

INSPECTION DEPARTMENT

BUILDING
HEATING
PLUMBING
ELECTRICAL
ZONING
ENVIRONMENTAL PROTECTION
ORDINANCE ENFORCEMENT



MAUREEN MILLER BROSNAN
MAYOR

JEROME A. HANNA
DIRECTOR

33000 CIVIC CENTER DRIVE
LIVONIA, MICHIGAN 48154-3097
(734) 466-2580
FAX: (734) 466-2095

Date: June 3, 2022

To: Scott O. Miller

From: Jerome Hanna

RE: Petition 2022-04-08-02 – 29707 & 30273 Plymouth Road

Pursuant to your request, the above referenced Petition has been reviewed.

This Department has no objections to this Petition.

I trust this provides the requested information.

Jerome Hanna

Jerome Hanna
Director of Inspection

DEPARTMENT OF FINANCE

Michael T. Slater
DIRECTOR OF FINANCE

Connie Kumpula
CHIEF ACCOUNTANT



MAUREEN MILLER BROSNAN
MAYOR

33000 CIVIC CENTER DRIVE
LIVONIA, MICHIGAN 48154-3097
(734) 466-2260
FAX: (734) 421-1807

May 3, 2022

Mr. Scott O. Miller
Planning Commission
33000 Civic Center Drive
Livonia, MI 48154

Petition 2022-04-08-02 - 29707 & 30273 Plymouth Road

Dear Mr. Miller,

I have reviewed the address connected with the above noted petition. As there are no outstanding amounts receivable (general or water and sewer), I have no objections to the proposal.

Please contact me if you have any further questions.

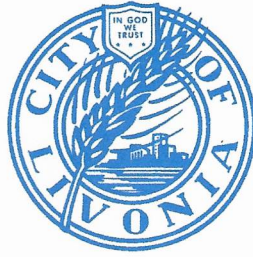
Very truly yours,


Connie Kumpula
Chief Accountant

CK: jw

OFFICE OF THE TREASURER

LYNDA L. SCHEEL
CITY TREASURER



33000 CIVIC CENTER DRIVE
LIVONIA, MICHIGAN 48154-3060
(734) 466-2245
FAX: (734) 421-7230

May 3, 2022

Mr. Scott Miller – Planner IV
Planning Commission
City of Livonia

Re: Petition 2022-04-08-02

29707 & 30273 Plymouth Road
Middlebelt Plymouth Venture LLC

Dear Mr. Miller,

In accordance with your request, the Treasurer's Office has reviewed the name and addresses connected with the above noted petition. At this time there are no taxes due, therefore I have no objections to the proposal.

Sincerely,


Lynda L. Scheel
Treasurer, City of Livonia

**OTHER ITEMS
RELATED TO THE
PETITION**



Wonderland Residential Development Traffic Impact Study

Project No. 220740
June 2, 2022

FINAL

Wonderland Residential Development Traffic Impact Study

**Prepared For:
Schostak Brothers & Company Inc.
Livonia, MI**

**June 2, 2022
Project No. 220740**

Final

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Appendix 1 – Traffic Volume Data
Appendix 2 – Existing LOS Output Reports
Appendix 3 – Background LOS Output Reports
Appendix 4 – Trip Generation Calculations
Appendix 5 – Future LOS Output Reports

List of Abbreviations/Acronyms

AADT	Average Annual Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
AWSC	All-Way Stop Control
City	City of Livonia
DU	Dwelling Units
EB	Eastbound
ETCDG	(MDOT) Electronic Traffic Control Device Guidelines
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LCT	Livonia Community Transit
MDOT	Michigan Department of Transportation
MMUTCD	Michigan Manual on Uniform Traffic Control Devices
MPH	Miles per Hour
NB	Northbound
NEMA	National Electrical Manufacturing Association
LOS	Level of Service
LUC	Land Use Code
SB	Southbound
SEMCOG	Southeast Michigan Council of Governments
SF	Square Foot
TDMS	Transportation Data Management System
TIS	Traffic Impact Study
TMC	Turning Movement Count
TWLTL	Two-Way Left Turn Lane
WB	Westbound
WCDPS	Wayne County Department of Public Services
SMART	Suburban Mobility Authority for Regional Transportation
DDOT	Detroit Department of Transportation

References

The Highway Capacity Manual, 6th Edition. (2016). Washington, DC: Transportation Research Board (TRB).
The Highway Capacity Manual: 2000. (2000). Washington, DC: Transportation Reserach Board (TRB).
Trip Generation Handbook, 3rd Edition. (2017). Washington DC: Institute of Transportation Engineers (ITE).
Trip Generation Manual, 11th Edition. (2021). Washington DC: Institute of Transportation Engineers (ITE).

Executive Summary

Fishbeck has completed a TIS related to a proposed residential development located along the south side of Plymouth Road, west of Middlebelt Road in the City of Livonia (City), Wayne County, Michigan. The existing site is south of Bank of America and BioLife Plasma Services and is currently vacant. The development will be completed and assumed to be open and fully operational in 2024.

The site will share access within the existing commercial development. The primary access point is on Plymouth Road at Tech Center Drive.

Vehicular, pedestrian, and cyclist TMCs were collected at the study intersection on Thursday, April 28, 2022 during the weekday a.m. (7 a.m. to 9 a.m.) and p.m. (4 p.m. to 6 p.m.) peak periods of the roadway network. There is one known project in the site vicinity that would add additional traffic volumes or alter traffic patterns within the study network. The following developments were included:

- Livonia Shoppes/Chick-fil-A

Site-generated traffic was forecast using the information and methodologies specified in the latest version of Trip Generation (Trip Generation Manual, 11th Edition, 2021),. The existing traffic volumes, site layout, and engineering judgement were used to develop a trip distribution model for the a.m. and p.m. peak hours for the new traffic that will be generated by the proposed development. Additionally, directions of origin, surrounding residential densities, and commuting patterns were considered.

Capacity analyses were conducted for existing, background, and total future conditions based on HCM 6th Edition (The Highway Capacity Manual, 6th Edition, 2016) methodologies using Synchro traffic analysis software. Synchro network models were also simulated using SimTraffic to evaluate network operations including intersection queueing.

Based on the findings of the HCM operational analyses and site traffic generation, there are no recommended existing, background, and future improvements to the study intersections to mitigate traffic impacts.

The opinions, findings, and conclusions expressed in this TIS are those of Fishbeck and not necessarily those of the Owner/Applicant, MDOT, WCDPS, or the City of Livonia.

Fishbeck Project Manager

Brandon Hayes, PE, P.Eng., PTOE
Fishbeck



Brandon M. Hayes, PE,
P.Eng., PTOE
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1.0 Introduction

1.1 Project Overview

On behalf of Schostak Brothers & Company Inc., Fishbeck has conducted a TIS related to a proposed residential development located along the south side of Plymouth Road, west of Middlebelt Road in the City of Livonia (City), Wayne County, Michigan. The existing site is south of Bank of America and BioLife Plasma Services and is currently vacant. The development will be completed and assumed to be open and fully operational in 2024.

The site will have shared access within the commercial development. The primary access point is on Plymouth Road at Tech Center Drive.

The project location and study intersections are indicated in Figure 1.

Figure 1 – Project Location and Study Network



1.2 Study Methodology

The objectives of this TIS were to determine what impacts, if any, the proposed project will have on adjacent roadway traffic operations, and to develop recommendations for any improvements necessary to mitigate the project impacts on the studied intersections. Study analyses were completed relative to typical weekday a.m. and p.m. peak periods.

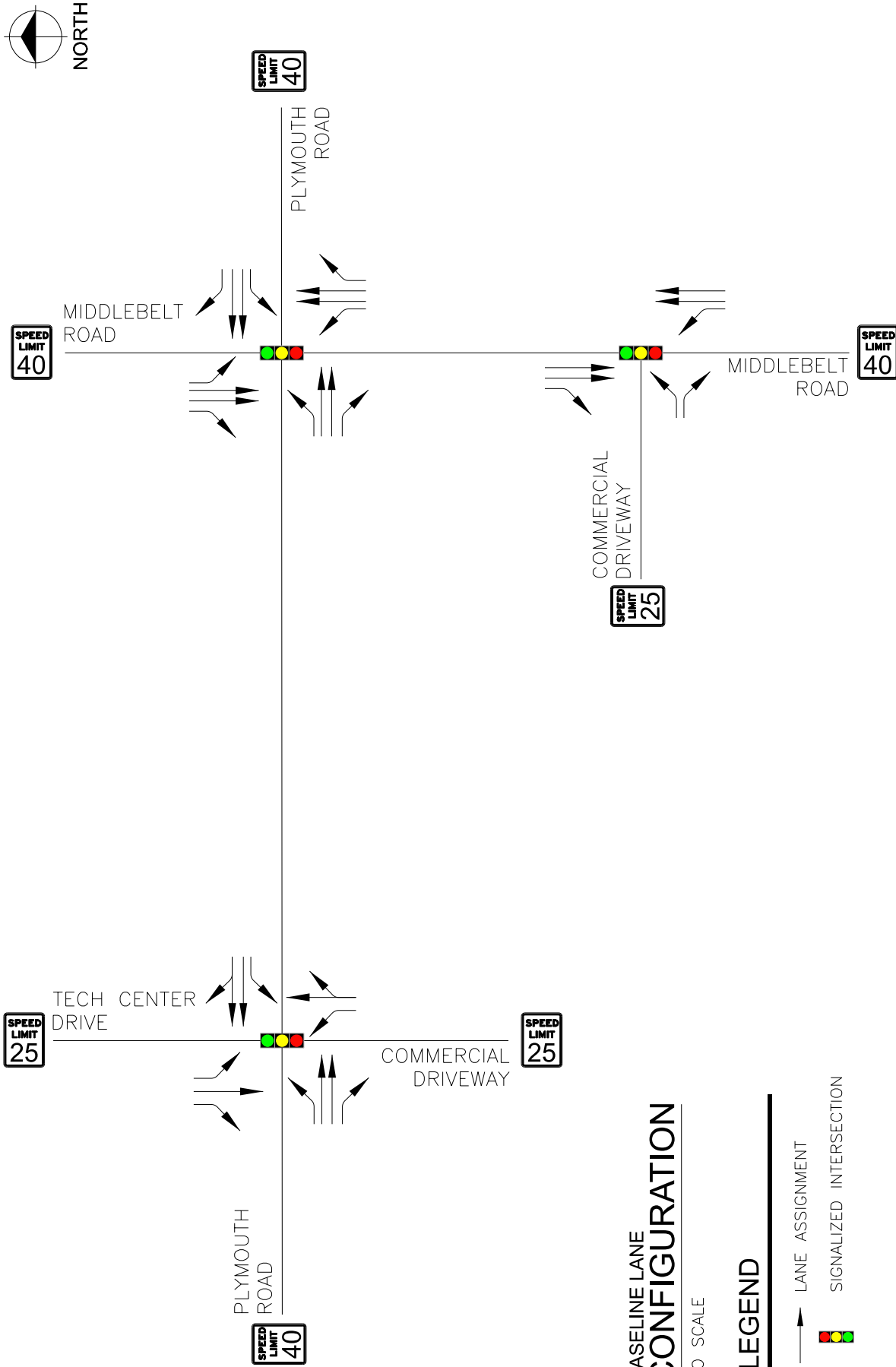
This study was conducted according to the methodologies and guidance published by ITE, AASHTO, MDOT, WCDPS, and the City of Livonia.

1.3 Intersection Characteristics

Based on the type and size of the proposed development and the likely area of influence for the site trips, traffic operations were analyzed for the following intersections:

1. Plymouth Road & Middlebelt Road (signalized)
2. Plymouth Road & Tech Center Drive/Commercial Driveway (signalized; shared site access point)
3. Middlebelt Road & Commercial Driveway (signalized; shared site access point)

The existing intersection lane configurations, traffic controls, and posted speed limits are indicated in Figure 2.



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accurate for any
other size.

Wonderland Residential Development

Livonia, MI 48150

Traffic Impact Study

PROJECT NO.
220740

FIGURE NO.

2

1.4 Roadway Characteristics

The characteristics of the study area roadways and signalized intersections are described in Table 1 and Table 2 below. These data points were referenced from the SEMCOG Traffic Volumes and Road Jurisdiction online maps.

Table 1 – Roadway Characteristics

Roadway	Jurisdiction	Speed Limit (MPH)	Number of Lanes	Roadway Classification	Direction	AADT (vpd)
Plymouth Road	MDOT	40	5	Other Principal Arterial	2-way	21,300, west of Middlebelt Road
					2-way	19,400, east of Middlebelt Road
Middlebelt Road	WCDPS	40	6, north of Plymouth Road	Other Principal Arterial	2-way	18,800, north of Plymouth Road
			5, south of Plymouth Road		2-way	21,400, south of Plymouth Road

Table 2 – Signal Characteristics

Intersection	Jurisdiction	Left Turn Phasing			
		NB	SB	EB	WB
Plymouth Road & Middlebelt Road	MDOT	Permitted & Protected	Permitted & Protected	Permitted & Protected	Permitted & Protected
Plymouth Road & Tech Center Drive/Commercial Driveway	MDOT	Permitted	Permitted	Permitted	Permitted
Middlebelt Road & Commercial Driveway	WCDPS	Permitted	Permitted	Permitted	Permitted

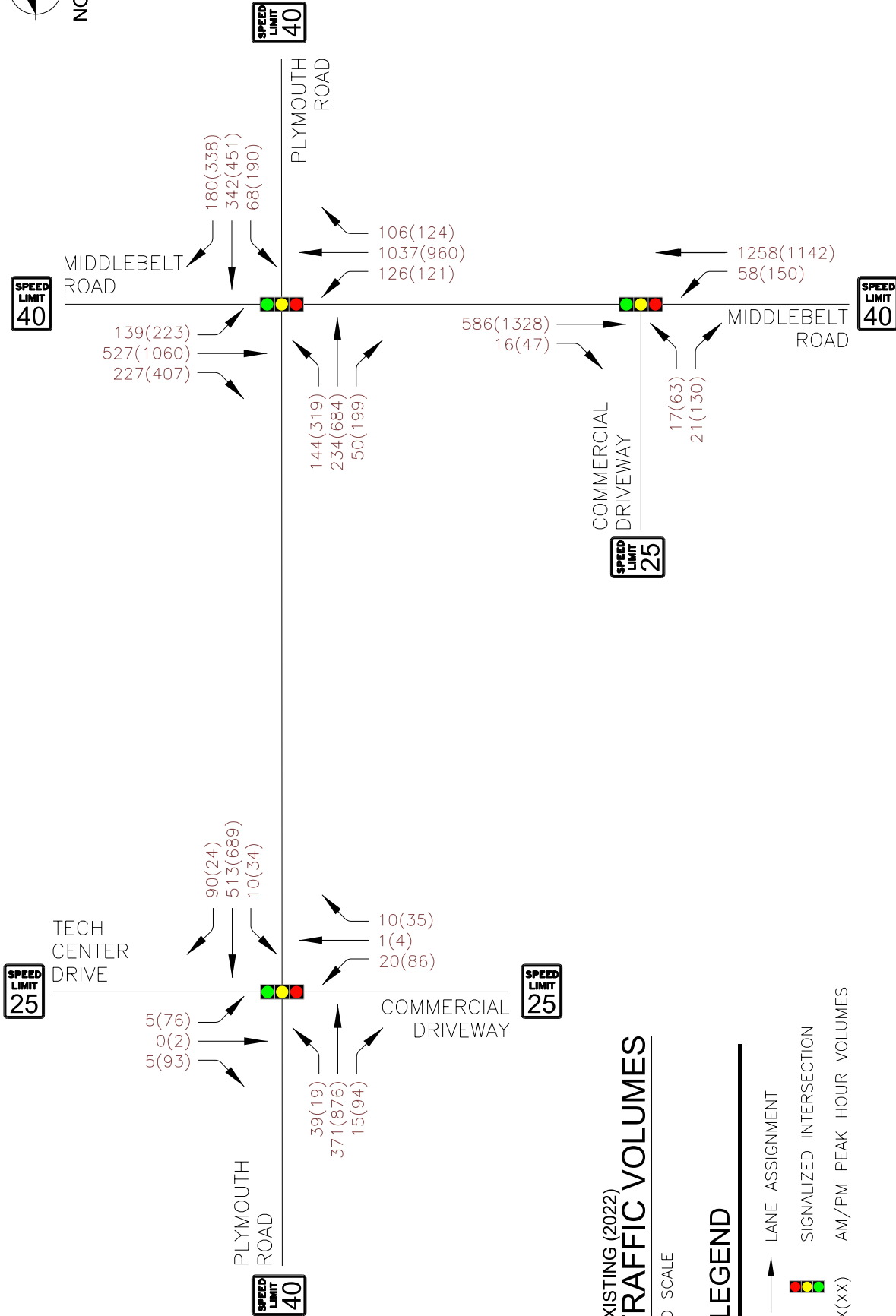
1.5 Existing Traffic Volumes

Vehicular, pedestrian, and cyclist TMCs were collected at the following study intersection during the weekday a.m. (7 to 9 a.m.) and p.m. (4 to 6 p.m.) peak periods of the road network on Thursday, April 28, 2022:

- Plymouth Road and Middlebelt Road
- Plymouth Road & Tech Center Drive/Commercial Driveway
- Middlebelt Road & Commercial Driveway

Due to the impact of COVID-19, current traffic volume data may not be representative of typical operations. Historical traffic data from the MDOT TDMS website were reviewed. Based on this review, there was no compelling evidence to apply an adjustment factor to the collected TMCs. Fishbeck also reviewed the traffic counts used in the Livonia Chick-fil-A study during the COVID adjustment analysis. The 2022 raw traffic counts were generally greater than the normalized 2021 traffic counts used in the Chick-fil-A study, indicating a full recovery of traffic volumes on the adjacent road network.

Traffic volume information can be found in Appendix 1, which include heavy vehicle and pedestrian crossing data. The existing traffic volumes used in this study are shown in Figure 3.



Wonderland Residential Development

Livonia, MI 48150

Traffic Impact Study

PROJECT NO.
220740

FIGURE NO.

3



Hard copy is Intended to be 8.5"x11" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

1.6 Multimodal Characteristics

The primary transportation system user in the study area is vehicular traffic. Accordingly, this study focuses on the potential impacts to the vehicle transportation network. Conservatively in this respect, all users of the site are assumed to travel to/from the site by passenger vehicle; however, there are limited multimodal facilities in the vicinity of the project.

Livonia Community Transit (LCT) is the area transit agency with service for passengers coming into Livonia from Suburban Mobility Authority for Regional Transportation (SMART) and Detroit Department of Transportation (DDOT) bus systems. Passengers are shuttled to and from SMART and DDOT to select Livonia bus stops. These are similar fixed route transit services. The proposed project is not expected to have any impact on the existing or planned transit or non-motorized facilities in the site vicinity.

There is currently sidewalk adjacent to the site. Sidewalk is located on both sides of Plymouth Road and Middlebelt Road.

At both intersections of Plymouth Road and Middlebelt Road and Plymouth Road and Tech Center Drive/Commercial Driveway, all legs of the intersection have pedestrian signals with pushbuttons crossing the east and west legs. There are sidewalk ramps on all quadrants of the intersection. There are no pedestrian signals at the intersection of Middlebelt Road and Commercial Driveway. There are sidewalk ramps crossing the west leg.

2.0 Existing Conditions Analysis

2.1 Traffic Operations Analysis Methodology

Synchro was used to perform HCM operational analyses during the a.m. and p.m. peak hours for all the intersections within this study. According to the most recent editions of the HCM (The Highway Capacity Manual, 6th Edition, 2016), LOS is a qualitative measure describing operational conditions of a traffic stream or intersection. LOS ranges from A to F, with LOS A representing desirable traffic operations characterized by low delay and LOS F representing extremely poor traffic operations characterized by excessive delays and long vehicle queues. LOS D is generally considered acceptable for most areas. Table 3 presents the HCM criteria for various LOS for unsignalized and signalized intersections.

Table 3 – LOS Criteria

LOS	Average Stopped Vehicle Delay (seconds)	
	Unsignalized	Signalized
A	≤ 10	≤ 10
B	$> 10 \text{ and } \leq 15$	$> 10 \text{ and } \leq 20$
C	$> 15 \text{ and } \leq 25$	$> 20 \text{ and } \leq 35$
D	$> 25 \text{ and } \leq 35$	$> 35 \text{ and } \leq 55$
E	$> 35 \text{ and } \leq 50$	$> 55 \text{ and } \leq 80$
F	> 50	> 80

2.3 Existing Conditions Traffic Analysis

Synchro models for the existing network were created based on the existing roadway configurations and traffic controls. Where applicable, data concerning the existing intersection and roadway lane configurations, geometry, and traffic control that were observed in the field were entered in the models. The traffic signal timing permit for the signalized intersections were provided by WCDPS for use in the models.

The resulting LOS and delay for the existing conditions are shown in Table 4.

Table 4 – LOS Analysis for Existing Conditions

Approach/Lane Group	LOS/Delay (s)	
	a.m. Peak Hour	p.m. Peak Hour
Plymouth Road & Middlebelt Road (Signalized)		
EB Plymouth Road	D 36.5	E 57.6
WB Plymouth Road	C 27.8	D 38.5
NB Middlebelt Road	D 51.0	D 51.1
SB Middlebelt Road	D 38.6	E 58.1
Overall	D 41.5	D 52.5
Plymouth Road & Tech Center Drive/Commercial Driveway (Signalized)		
EB Plymouth Road	A 1.9	A 4.6
WB Plymouth Road	A 2.2	A 0.5
NB Commercial Driveway	D 51.2	D 46.2
SB Tech Center Drive	D 50.3	D 46.5
Overall	A 4.2	A 8.3
Middlebelt Road & Commercial Driveway (Signalized)		
EB Commercial Driveway	D 43.5	D 43.4
NB Middlebelt Road	A 2.5	A 4.4
SB Middlebelt Road	A 1.7	A 3.4
Overall	A 2.9	A 5.7

Further analysis of the LOS results for existing conditions revealed that most movements, approaches, and intersections are expected to operate at an acceptable LOS D or better during both the a.m. and p.m. peak hours, with the following exceptions:

- Plymouth Road and Middlebelt Road
 - The EB approach/left turn movement operates at LOS E and LOS F, respectively, during the p.m. peak hour.
 - The WB left turn movement operates at LOS E during the p.m. peak hour.
 - The NB left turn movement operates at LOS E during the p.m. peak hour.
 - The SB approach/SB through movement operates at LOS E in the p.m. peak hour. The SB left turn movement operates at LOS E and LOS F during the a.m. and p.m. peak hour, respectively.

The eastbound and southbound approaches at Plymouth Road and Middlebelt Road present poor LOS/delay during the p.m. peak hour. Traffic signal timing favors Plymouth Road (east/west), while there is greater traffic volume on Middlebelt Road (north/south). Optimizing the traffic signal timing and cycle length could alleviate the delay. Updating the cycle length could trigger an optimization of the entire Plymouth Road corridor in order to resolve the issue while maintaining consistent and appropriate cycle lengths at all coordinated signalized intersections along the corridor.

SimTraffic simulations were also reviewed to observe network operations and vehicle queues. For existing conditions, study network operations are acceptable, without significant vehicle queues or spill-back from available storage lanes. 95th percentile queue lengths for the turning movements exceeded the provided storage length at the NB right turn lane during both peak hours. The EB left-turn lane exceeds a 500' storage length during the p.m. peak hour. This lane is a two-way left-turn lane (TWLTL) which vehicles can use up to the Plymouth Road and Tech Center Drive intersection. See Appendix 2 for the existing conditions LOS reports and queueing analysis reports.

3.0 Background Conditions Analysis

Historical traffic data on the MDOT TDMS website and previous studies within the City of Livonia were referenced in order to determine the applicable growth rate for the existing traffic volumes to the project build-out year in 2024. Based on this review, a background growth rate of 0.5% was utilized. In addition, one (1) background development was identified and included in the background traffic conditions. This background development has been approved and is currently under construction. The trip generation listed below is using the Trip Generation, 10th Edition, 2017. The results of the trip generation forecasts for the background developments are provided below in Table 5.

Table 5 – Trip Generation for Background Developments

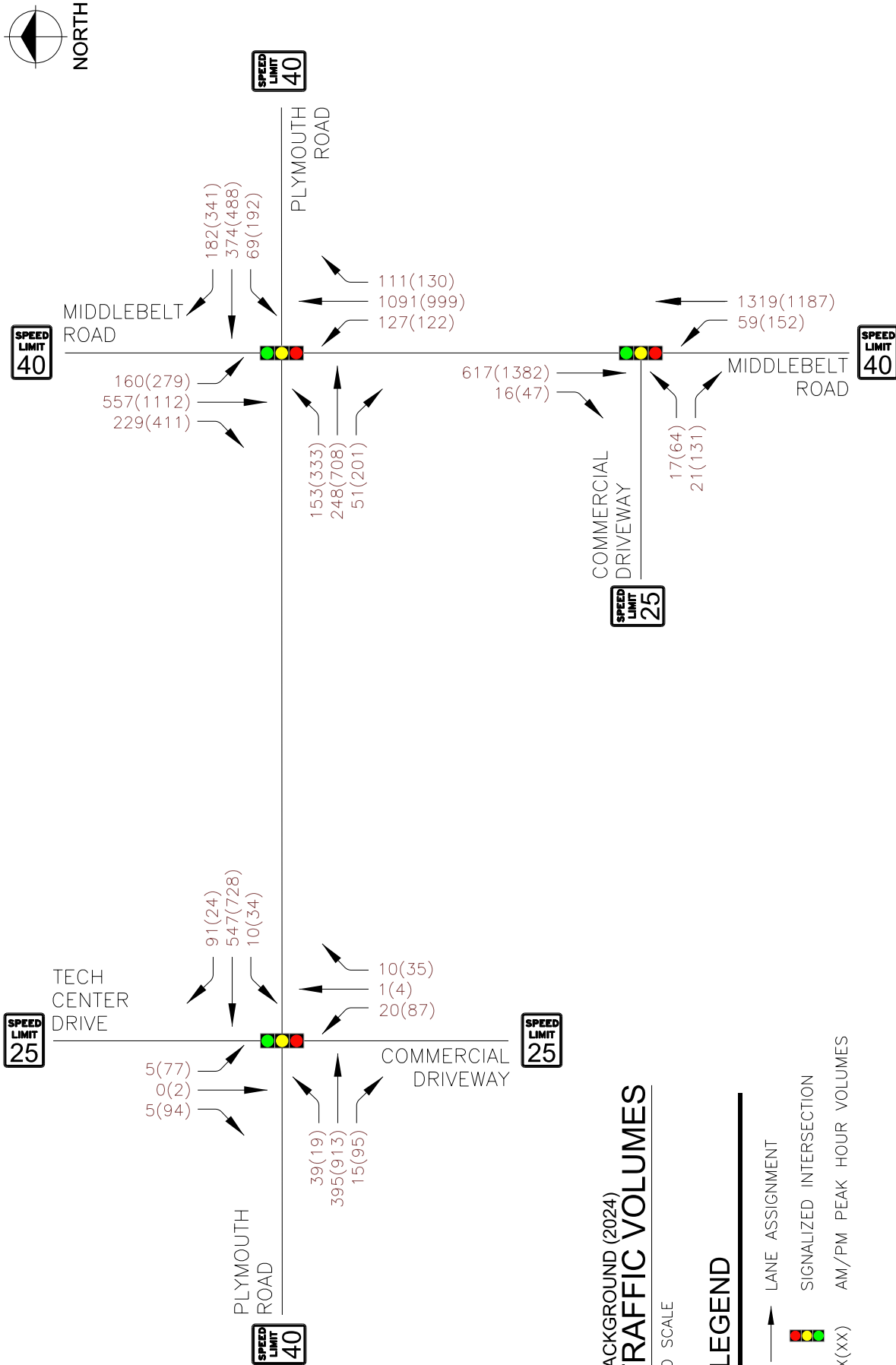
Development	ITE Land Use	Land Use Code	Units		a.m. Peak Hour			p.m. Peak Hour			Weekday
					In	Out	Total	In	Out	Total	
Livonia Shoppes/Chick-fil-A	Shopping Center	820	50,388	sf	16	10	26	51	56	107	1,061
	Supermarket	850	40,417	sf	92	62	154	202	195	397	4,078
	Fast-Food Restaurant with Drive-Through Window	934	2,000	sf	41	40	81	34	32	66	944
	Chick-fil-A ¹	N/A	4,995	sf	51	54	105	143	137	280	-
	Total				200	166	366	430	420	850	6,083
	Internal Capture Reductions: 10% AM (9% In, 11% Out); 28% PM (28% In, 29% Out)				18	18	36	120	120	240	-
	Total External Trips				186	142	328	227	233	460	6,083
	Pass-By Rates, LUC 820: 34% PM				0	0	0	17	19	36	-
	Pass-By Rates, LUC 850: 36% PM				0	0	0	73	70	143	-
	Pass-By Rates, LUC 934: 49% AM; 50% PM				20	20	40	17	16	33	-
	Pass-By Rates, Chick-fil-A ² : 40% AM; 40% PM				20	22	42	57	55	112	-
	Total New Trips				142	106	248	146	140	286	6,083

¹Source: Driveway counts generated by multiplying driveway counts by AECOM at Chick-fil-A, South Bend, IN, Thursday, December 15, 2016 with a size of 4,730 SF by 106 percent to be proportional to the 4,995 SF proposed development.

²Pass-By rates are provided by AECOM from the Chick-fil-A in South Bend, IN.

Square feet (sf)

These trips were distributed through the road network as described in the Livonia Chick-fil-A TIS report prepared by ROWE Professional Services Company. The total background traffic volumes are shown in Figure 4.



Hard copy is Intended to be 8.5"x11" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

3.1 Background Conditions Traffic Analysis

The resulting LOS and delay for the background conditions are shown in Table 6.

Table 6 – LOS Analysis for Background Conditions

Approach/Lane Group	LOS/Delay (s)	
	a.m. Peak Hour	p.m. Peak Hour
Plymouth Road & Middlebelt Road (Signalized)		
EB Plymouth Road	D 37.5	E 65.2
WB Plymouth Road	C 28.1	D 39.2
NB Middlebelt Road	E 60.4	E 56.5
SB Middlebelt Road	D 46.1	F 82.0
Overall	D 47.6	E 63.5
Plymouth Road & Tech Center Drive/Commercial Driveway (Signalized)		
EB Plymouth Road	A 1.9	A 4.7
WB Plymouth Road	A 2.3	A 0.5
NB Commercial Driveway	D 51.2	D 46.1
SB Tech Center Drive	D 50.3	D 46.5
Overall	A 4.2	A 8.2
Middlebelt Road & Commercial Driveway (Signalized)		
EB Commercial Driveway	D 43.5	D 43.5
NB Middlebelt Road	A 2.7	A 4.7
SB Middlebelt Road	A 1.7	A 3.5
Overall	A 3.0	A 5.9

Further analysis of the LOS results for background conditions revealed that most movements, approaches, and intersections are expected to continue to operate at an acceptable LOS D or better during both the a.m. and p.m. peak hours, with the following exceptions:

- Plymouth Road and Middlebelt Road
 - The EB approach/left turn movement operates at LOS E and LOS F, respectively, during the p.m. peak hour.
 - The WB left turn movement operates at LOS E during the p.m. peak hour.
 - The NB approach/through movement operates at LOS E and LOS F, respectively, during the a.m. peak hour. The NB approach/through and left turn movements operate at LOS E during the p.m. peak hour.
 - The SB approach/SB through movement operates at LOS F in the p.m. peak hour. The SB left turn movement operates at LOS F during the a.m. and p.m. peak hours.

SimTraffic simulations were also reviewed to observe network operations and vehicle queues. For background conditions, study network operations continue to be acceptable, without significant vehicle queues or spill-back from available storage lanes at most locations except the intersection of Plymouth Road and Middlebelt Road. During the p.m. peak hour, spill-back is shown for the EB and SB left turns. 95th percentile queue lengths for the EB and SB left turn turning movements exceed the provided storage length of 500 feet for the two-way left turn lanes (TWLTL) during the p.m. peak hour. The NB right turn lane 95th percentile queue length exceeds the provided storage length for both a.m. and p.m. peak hours. See Appendix 3 for the background conditions LOS reports and queueing analysis reports.

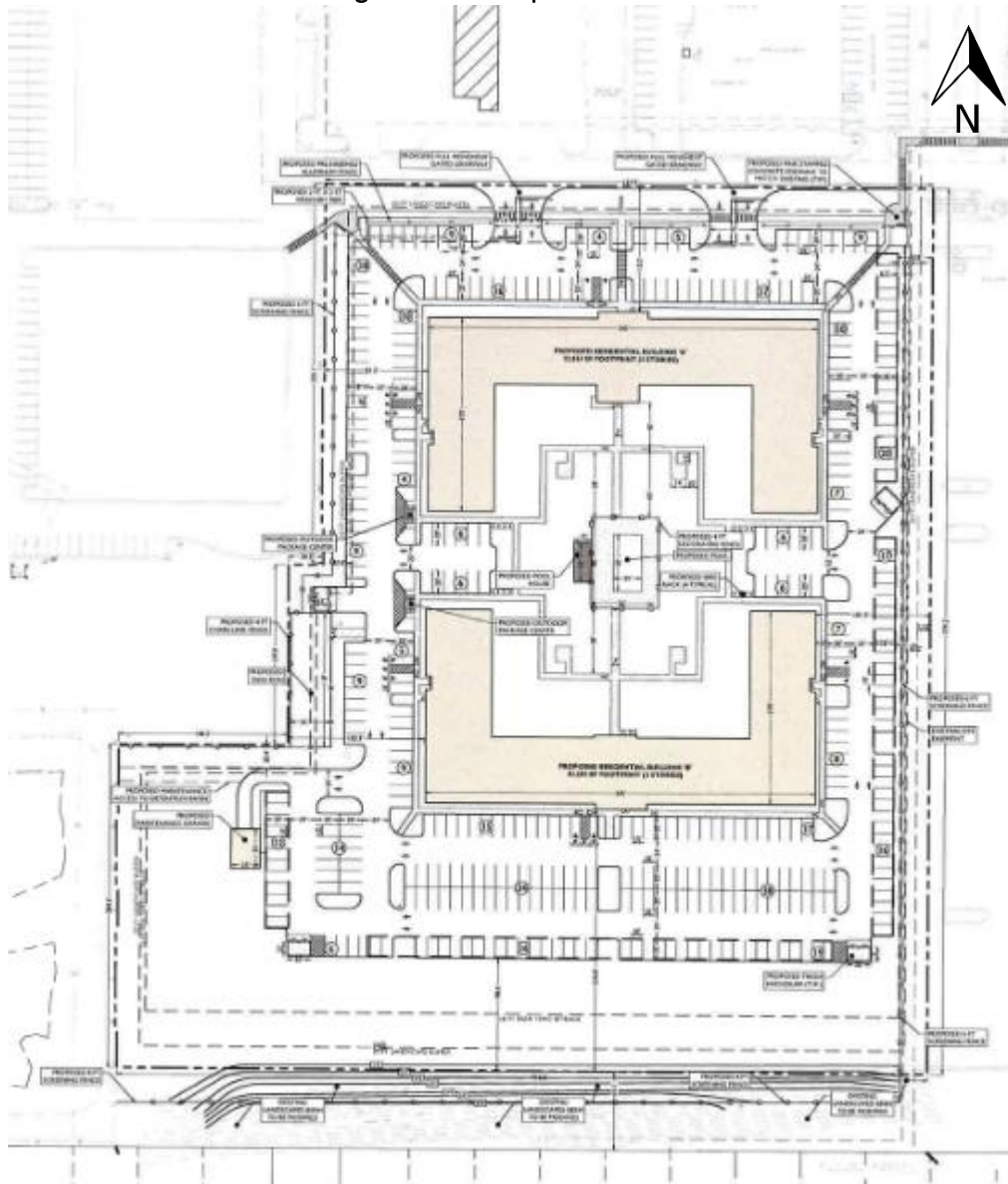
Poor LOS/delay and queueing at the Plymouth Road and Middlebelt Road intersection is due to timing favoring Plymouth Road (east/west), while there is more traffic volume on Middlebelt Road (north/south). A traffic signal optimization of both the cycle length and traffic signal splits could improve traffic operations. As previously

stated, updating the cycle length could trigger an optimization of the entire Plymouth Road corridor in order to resolve the issue while maintaining consistent and appropriate cycle lengths at all coordinated signalized intersections along the corridor.

4.0 Site Traffic Characteristics

A representation of the current conceptual site plan is provided in Figure 5 below.

Figure 5 – Conceptual Site Plan



4.1 Trip Generation

Using the information and methodologies specified in the latest version of Trip Generation (Trip Generation Manual, 11th Edition, 2021), Fishbeck forecast the weekday a.m. and p.m. peak hour trips associated with the proposed development.

In multi-use developments, not all the trips generated are from sources outside the boundaries of the development but are rather trips that are “internally captured” within the site, meaning that a vehicle may visit several components of a mixed-use development in a single trip. The methodology presented in the Trip Generation Handbook (Trip Generation Handbook, 3rd Edition, 2017) was followed to determine an appropriate internal capture rate for the proposed development. To be conservative, it is assumed all traffic forecasted by the development will use the external network. Therefore, no internal capture was used in the analysis, despite the possibility that a small number of trips from the residential development would originate from and be destined to locations within the mixed-used development.

Table 7 presents the resulting trip generation for the development. Refer to Appendix 4 for additional details related to the trip generation.

Table 7 – Trip Generation for Proposed Development

ITE Land Use	Land Use Code	Units	a.m. Peak Hour			p.m. Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Multifamily Housing (Low Rise)	220	201 DU	20	65	85	67	40	107	1,364

Dwelling Unit (DU)

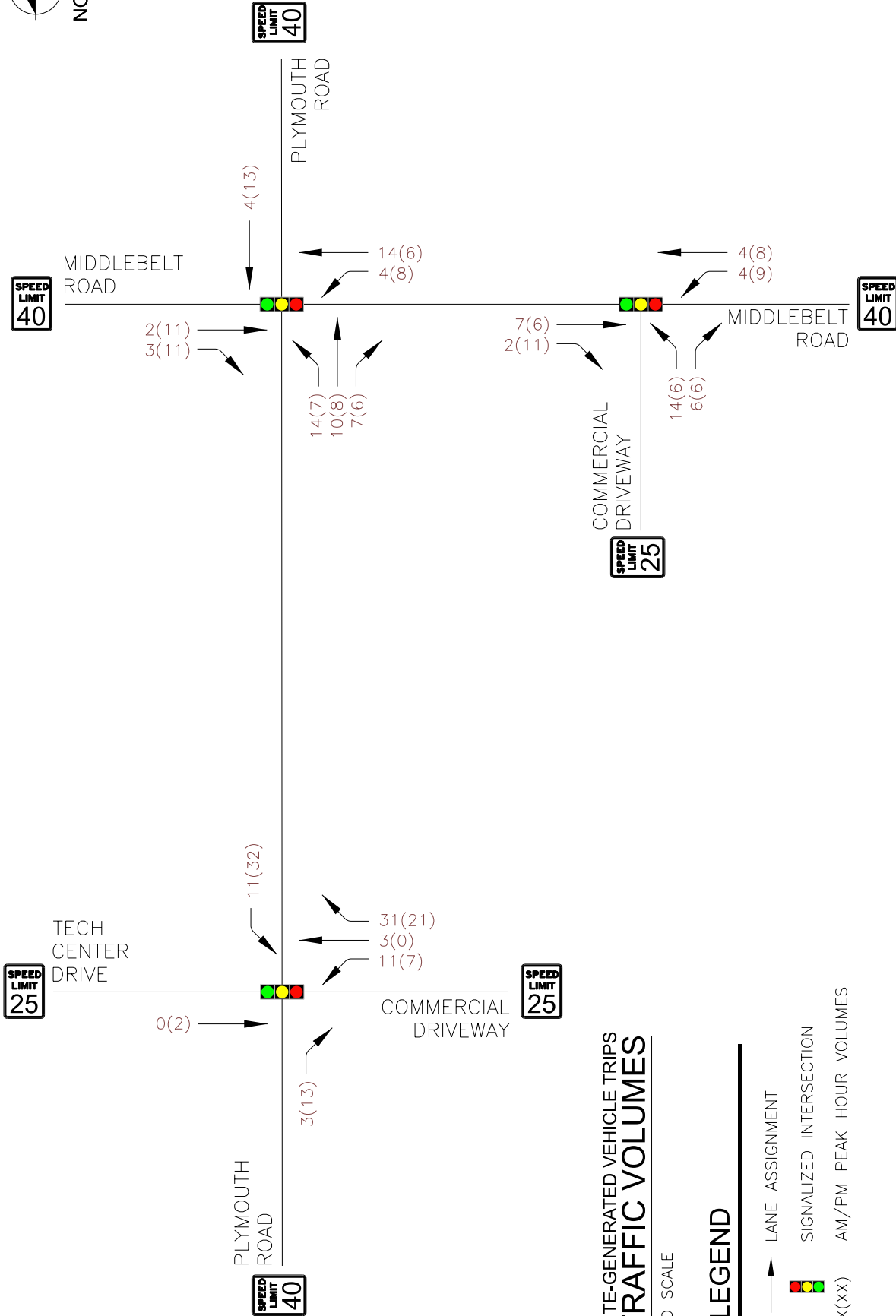
4.2 Trip Distribution

The directions that site traffic will travel to and from were based upon existing traffic patterns during the a.m. and p.m. peak hours. The existing traffic patterns reflect the gravity between origins and destinations in the study area, and therefore an accurate indication of where the proposed trips would be coming from and going to. **Error! Reference source not found.** Table 8 – Trip provides the probable distribution based on the existing traffic patterns.

Table 8 – Trip Distribution

Direction	Via	New Trips			
		a.m. Peak Hour		p.m. Peak Hour	
		To	From	To	From
North	Middlebelt Road	44%	28%	32%	33%
	Tech Center Drive	4%	0%	1%	4%
South	Middlebelt Road	20%	41%	29%	25%
East	Plymouth Road	15%	18%	21%	19%
West	Plymouth Road	17%	13%	17%	19%

The trip distribution for the site is shown in Figure 6 below. These trips were added to the background volumes (Figure 4) to result in the future conditions volumes in Figure 7.



Wonderland Residential Development

Livonia, MI 48150

Traffic Impact Study

PROJECT NO.
220740

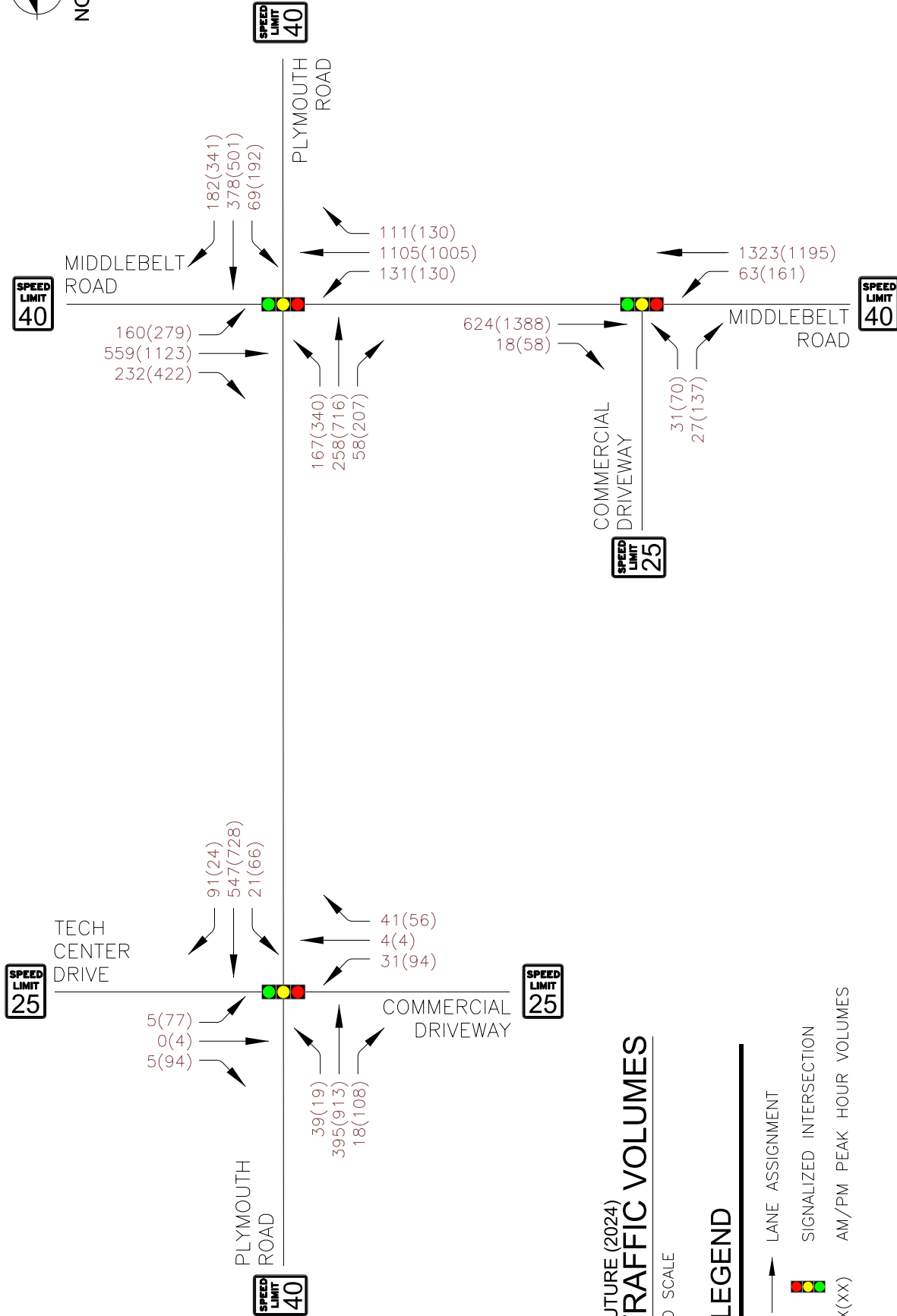
FIGURE NO.

6



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other size.

Wonderland Residential Development

Livonia, MI 48150

Traffic Impact Study

PROJECT NO.
220740

FIGURE NO.

7

5.0 Future Conditions Analysis

5.1 Turn Lane Warrants

A typical TIS would include an evaluation in accordance with MDOT and WCDPS requirements to determine if left turn passing lanes or right turn deceleration lanes are required at the site driveways. At the existing driveway locations for the residential development, there are TWLTL and right turn storage lane already present. Therefore, turn lane warrant analysis was not required for this TIS.

5.2 Future Conditions Traffic Analysis

The resulting LOS and delay for the future conditions are shown in Table 9.

Table 9 – LOS Analysis for Future Conditions

Approach/Lane Group	LOS/Delay (s)	
	a.m. Peak Hour	p.m. Peak Hour
Plymouth Road & Middlebelt Road (Signalized)		
EB Plymouth Road	D 38.3	E 68.8
WB Plymouth Road	C 28.2	D 39.4
NB Middlebelt Road	E 63.4	E 57.8
SB Middlebelt Road	D 46.0	F 83.8
Overall	D 48.8	E 65.4
Plymouth Road & Tech Center Drive/Commercial Driveway (Signalized)		
EB Plymouth Road	A 2.2	A 5.2
WB Plymouth Road	A 2.5	A 0.6
NB Commercial Driveway	D 53.4	D 44.9
SB Tech Center Drive	D 51.0	D 45.9
Overall	A 6.9	A 8.8
Middlebelt Road & Commercial Driveway (Signalized)		
EB Commercial Driveway	D 42.5	D 44.2
NB Middlebelt Road	A 3.2	A 5.1
SB Middlebelt Road	A 2.1	A 3.5
Overall	A 4.0	A 6.3

Further analysis of the LOS results for future conditions revealed that most movements, approaches, and intersections are expected to continue to operate at an acceptable LOS D or better during both the a.m. and p.m. peak hours, with the following exceptions:

- Plymouth Road and Middlebelt Road
 - The EB approach/left turn movement operates at LOS E and LOS F, respectively, during the p.m. peak hour.
 - The WB left turn movement operates at LOS E during the p.m. peak hour.
 - The NB approach/through movement operates at LOS E and LOS F, respectively, during the a.m. peak hour. The NB approach/through and left turn movements operate at LOS E during the p.m. peak hour.
 - The SB approach/SB through movement operates at LOS F in the p.m. peak hour. The SB left turn movement operates at LOS F during the a.m. and p.m. peak hours.
- Plymouth Road and Tech Center Drive/Commercial Driveway
 - The NB shared through/right turn movement operates at LOS E during the a.m. peak hour.

Overall, from background to future conditions, LOS for the overall intersections and approaches did not experience a major increase with the addition of the forecasted site-generated vehicle traffic.

SimTraffic simulations were also reviewed to observe network operations and vehicle queues. For future conditions, study network operations continue to be acceptable, without significant vehicle queues or spill-back from available storage lanes at most locations except the intersection of Plymouth Road and Middlebelt Road. During the p.m. peak hour, spill-back is shown for the EB and SB left turns. 95th percentile queue lengths for EB and SB left turn movements exceed the provided storage length of 500 feet for the TWLTL during the p.m. peak hour. The NB right turn lane 95th percentile queue length exceeds the provided storage length for both a.m. and p.m. peak hours. During the p.m. peak hour, at the intersection of Plymouth Road and Tech Center Drive/Commercial Driveway, the SB left turn lane queue length exceeds the provided storage length by approximately 20 feet. Also, during the p.m. peak hour, at the intersection of Middlebelt Road and Commercial Driveway, the EB right turn lane queue length exceeds the provided storage length by approximately 40 feet. See Appendix 5 for the future conditions LOS reports and queueing analysis reports.

The 95th percentile queue lengths were reviewed at the development access driveways. At the intersection of Plymouth Road and Tech Center Drive/Commercial Driveway, the queue length for the NB approach are less than 65 feet (3 vehicles) and 110 feet (4 vehicles) during the a.m. and p.m. peak hours, respectively. At the intersection of Middlebelt Road and Commercial Driveway, the queue length for the EB approach are less than 65 feet (3 vehicles) and 95 feet (4 vehicles) during the a.m. and p.m. peak hours, respectively. If one of the access points in this study have long queues presented, there are minor driveways with access to both Plymouth Road and Middlebelt Road within the mixed-used development.

The forecasted trips from the proposed residential development has little effect on the intersection of Plymouth Road and Middlebelt Road traffic operations. **Table 10** displays the comparison of the intersection of Plymouth Road and Middlebelt for the background and future conditions. The results indicate approximate delay increases of one (1) second and two (2) seconds at the intersection for the a.m. and p.m. peak hours, respectively.

Table 10 – Comparison of Background and Future Conditions at Plymouth Road and Middlebelt Road

Approach/Lane Group	Background Conditions		Future Conditions	
	LOS/Delay (s)		LOS/Delay (s)	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
Plymouth Road & Middlebelt Road (Signalized)				
EB Plymouth Road	D 37.5	E 65.2	D 38.3	E 68.8
WB Plymouth Road	C 28.1	D 39.2	C 28.2	D 39.4
NB Middlebelt Road	E 60.4	E 56.5	E 63.4	E 57.8
SB Middlebelt Road	D 46.1	F 82.0	D 46.0	F 83.8
Overall	D 47.6	E 63.5	D 48.8	E 65.4

As a result of the analysis indicated that the proposed development will have a negligible effect on traffic operations within the study network, there are no recommended mitigations for the future conditions.

6.0 Findings and Recommendations

The analyses conducted for this TIS indicate that the proposed development will not result in any significant impact to the adjacent road network. The proposed site access configuration is appropriate and will acceptably facilitate site ingress and egress. These conclusions are supported by the following key findings:

1. 95th percentile queue length exceeds the available storage length at several locations, including the NB right turn lane and EB and SB left turn lanes. However, these approaches each have a TWLTL and the queue spill-backs occur in the background and future conditions during the p.m. peak hour only.

2. Lane configurations and physical capacity are appropriate within the study area.
3. Neither existing nor planned transit or non-motorized facilities in the site vicinity will be impacted by the project.

Based on the findings of the HCM operational analyses and site traffic generation, there are no recommended existing, background, and future improvements to the study intersections to mitigate traffic impacts.

Appendix 1

Traffic Volume Data

Plymouth Road & Middlebelt Road - 4 RTOR - TMC

Thu Apr 28, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944249, Location: 42.369172, -83.333077



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Plymouth Eastbound							Plymouth Westbound						
Time	L	T	R	U	RR	App	Ped*	L	T	R	U	RR	App	Ped*
2022-04-28 7:00AM	24	43	3	0	4	74	0	31	57	12	0	23	123	0
7:15AM	36	46	4	0	7	93	0	20	54	27	0	16	117	0
7:30AM	32	54	4	0	7	97	0	17	90	22	0	19	148	0
7:45AM	42	68	4	0	7	121	0	21	101	25	0	19	166	0
Hourly Total	134	211	15	0	25	385	0	89	302	86	0	77	554	0
8:00AM	43	62	6	0	9	120	0	13	91	38	0	19	161	0
8:15AM	27	50	6	0	7	90	0	17	60	25	0	13	115	0
8:30AM	35	40	7	0	13	95	0	18	76	33	0	19	146	0
8:45AM	48	89	7	0	3	147	0	17	73	47	0	17	154	7
Hourly Total	153	241	26	0	32	452	0	65	300	143	0	68	576	7
4:00PM	72	179	15	0	20	286	0	60	119	70	0	27	276	0
4:15PM	76	201	31	0	9	317	1	36	109	70	0	17	232	1
4:30PM	92	156	43	0	15	306	2	43	108	62	0	20	233	3
4:45PM	72	148	30	0	19	269	0	56	114	64	0	20	254	3
Hourly Total	312	684	119	0	63	1178	3	195	450	266	0	84	995	7
5:00PM	79	179	31	0	21	310	0	55	120	55	0	30	260	3
5:15PM	82	137	40	0	22	281	0	69	108	50	0	30	257	0
5:30PM	58	126	30	0	12	226	0	47	99	47	0	27	220	0
5:45PM	85	129	24	0	8	246	0	41	90	35	0	23	189	0
Hourly Total	304	571	125	0	63	1063	0	212	417	187	0	110	926	3
Total	903	1707	285	0	183	3078	3	561	1469	682	0	339	3051	17
% Approach	29.3%	55.5%	9.3%	0%	5.9%	-	-	18.4%	48.1%	22.4%	0%	11.1%	-	-
% Total	5.7%	10.9%	1.8%	0%	1.2%	19.6%	-	3.6%	9.3%	4.3%	0%	2.2%	19.4%	-
Lights	882	1664	277	0	179	3002	-	537	1420	633	0	331	2921	-
% Lights	97.7%	97.5%	97.2%	0%	97.8%	97.5%	-	95.7%	96.7%	92.8%	0%	97.6%	95.7%	-
Articulated Trucks	2	10	4	0	1	17	-	8	21	30	0	3	62	-
% Articulated Trucks	0.2%	0.6%	1.4%	0%	0.5%	0.6%	-	1.4%	1.4%	4.4%	0%	0.9%	2.0%	-
Buses and Single-Unit Trucks	19	33	4	0	3	59	-	16	28	19	0	5	68	-
% Buses and Single-Unit Trucks	2.1%	1.9%	1.4%	0%	1.6%	1.9%	-	2.9%	1.9%	2.8%	0%	1.5%	2.2%	-
Pedestrians	-	-	-	-	-	-	2	-	-	-	-	-	-	15
% Pedestrians	-	-	-	-	-	-	66.7%	-	-	-	-	-	-	88.2%
Bicycles on Crosswalk	-	-	-	-	-	-	1	-	-	-	-	-	-	2
% Bicycles on Crosswalk	-	-	-	-	-	-	33.3%	-	-	-	-	-	-	11.8%

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Plymouth Road & Middlebelt Road - 4 RTOR - TMC

Thu Apr 28, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944249, Location: 42.369172, -83.333077



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Middlebelt Northbound								Middlebelt Southbound								
Time	L	T	R	U	RR	App	Ped*		L	T	R	U	RR	App	Ped*		Int
2022-04-28 7:00AM	21	176	11	0	10	218	0		22	136	32	0	24	214	0		629
7:15AM	30	232	10	0	11	283	0		23	128	35	0	12	198	0		691
7:30AM	38	266	7	0	11	322	1		30	134	22	0	29	215	0		782
7:45AM	31	287	16	0	22	356	0		30	140	27	0	27	224	0		867
Hourly Total	120	961	44	0	54	1179	1		105	538	116	0	92	851	0		2969
8:00AM	30	245	8	0	16	299	1		42	141	34	0	29	246	0		826
8:15AM	27	239	7	0	19	292	0		37	112	32	0	27	208	0		705
8:30AM	29	214	6	0	14	263	0		38	124	39	0	11	212	0		716
8:45AM	33	205	2	0	11	251	6		34	122	31	0	34	221	2		773
Hourly Total	119	903	23	0	60	1105	7		151	499	136	0	101	887	2		3020
4:00PM	23	247	7	0	17	294	2		42	246	50	0	38	376	0		1232
4:15PM	33	280	14	0	10	337	0		50	283	55	0	45	433	0		1319
4:30PM	32	253	18	0	16	319	5		61	275	61	0	43	440	0		1298
4:45PM	33	233	12	0	16	294	9		62	252	54	0	40	408	0		1225
Hourly Total	121	1013	51	0	59	1244	16		215	1056	220	0	166	1657	0		5074
5:00PM	23	194	19	0	19	255	3		50	250	63	0	46	409	0		1234
5:15PM	24	173	9	0	18	224	0		52	268	66	0	32	418	0		1180
5:30PM	26	220	21	0	14	281	2		47	258	62	0	43	410	0		1137
5:45PM	31	190	13	0	19	253	1		47	275	61	0	39	422	0		1110
Hourly Total	104	777	62	0	70	1013	6		196	1051	252	0	160	1659	0		4661
Total	464	3654	180	0	243	4541	30		667	3144	724	0	519	5054	2		15724
% Approach	10.2%	80.5%	4.0%	0%	5.4%	-	-		13.2%	62.2%	14.3%	0%	10.3%	-	-		-
% Total	3.0%	23.2%	1.1%	0%	1.5%	28.9%	-		4.2%	20.0%	4.6%	0%	3.3%	32.1%	-		-
Lights	442	3588	173	0	241	4444	-		626	3046	704	0	508	4884	-		15251
% Lights	95.3%	98.2%	96.1%	0%	99.2%	97.9%	-		93.9%	96.9%	97.2%	0%	97.9%	96.6%	-		97.0%
Articulated Trucks	6	24	2	0	0	32	-		20	37	9	0	7	73	-		184
% Articulated Trucks	1.3%	0.7%	1.1%	0%	0%	0.7%	-		3.0%	1.2%	1.2%	0%	1.3%	1.4%	-		1.2%
Buses and Single-Unit Trucks	16	42	5	0	2	65	-		21	61	11	0	4	97	-		289
% Buses and Single-Unit Trucks	3.4%	1.1%	2.8%	0%	0.8%	1.4%	-		3.1%	1.9%	1.5%	0%	0.8%	1.9%	-		1.8%
Pedestrians	-	-	-	-	-	-	28		-	-	-	-	-	-	2		
% Pedestrians	-	-	-	-	-	-	93.3%		-	-	-	-	-	-	100%		-
Bicycles on Crosswalk	-	-	-	-	-	-	2		-	-	-	-	-	-	0		
% Bicycles on Crosswalk	-	-	-	-	-	-	6.7%		-	-	-	-	-	-	0%		-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Plymouth Road & Middlebelt Road - 4 RTOR - TMC

Thu Apr 28, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

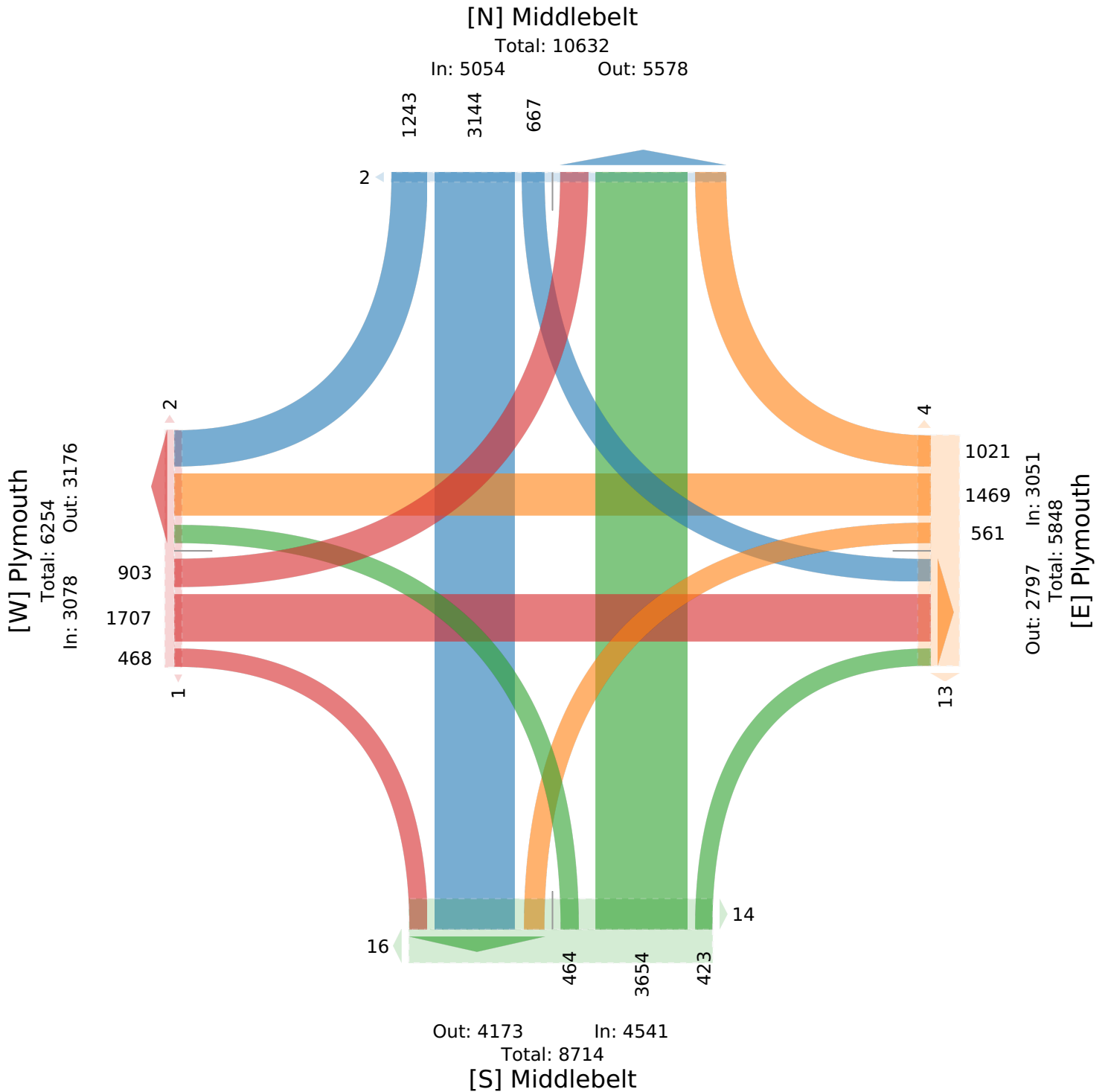
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944249, Location: 42.369172, -83.333077



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Plymouth Road & Middlebelt Road - 4 RTOR - TMC

Thu Apr 28, 2022

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944249, Location: 42.369172, -83.333077



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Plymouth Eastbound							Plymouth Westbound						
Time	L	T	R	U	RR	App	Ped*	L	T	R	U	RR	App	Ped*
2022-04-28 7:30AM	32	54	4	0	7	97	0	17	90	22	0	19	148	0
7:45AM	42	68	4	0	7	121	0	21	101	25	0	19	166	0
8:00AM	43	62	6	0	9	120	0	13	91	38	0	19	161	0
8:15AM	27	50	6	0	7	90	0	17	60	25	0	13	115	0
Total	144	234	20	0	30	428	0	68	342	110	0	70	590	0
% Approach	33.6%	54.7%	4.7%	0%	7.0%	-	-	11.5%	58.0%	18.6%	0%	11.9%	-	-
% Total	4.5%	7.4%	0.6%	0%	0.9%	13.5%	-	2.1%	10.8%	3.5%	0%	2.2%	18.6%	-
PHF	0.837	0.860	0.833	-	0.833	0.884	-	0.810	0.847	0.724	-	0.921	0.889	-
Lights	140	218	18	0	28	404	-	63	320	97	0	67	547	-
% Lights	97.2%	93.2%	90.0%	0%	93.3%	94.4%	-	92.6%	93.6%	88.2%	0%	95.7%	92.7%	-
Articulated Trucks	1	2	0	0	0	3	-	3	8	10	0	1	22	-
% Articulated Trucks	0.7%	0.9%	0%	0%	0%	0.7%	-	4.4%	2.3%	9.1%	0%	1.4%	3.7%	-
Buses and Single-Unit Trucks	3	14	2	0	2	21	-	2	14	3	0	2	21	-
% Buses and Single-Unit Trucks	2.1%	6.0%	10.0%	0%	6.7%	4.9%	-	2.9%	4.1%	2.7%	0%	2.9%	3.6%	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Plymouth Road & Middlebelt Road - 4 RTOR - TMC

Thu Apr 28, 2022

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944249, Location: 42.369172, -83.333077



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Middlebelt Northbound								Middlebelt Southbound								
Time	L	T	R	U	RR	App	Ped*		L	T	R	U	RR	App	Ped*	Int	
2022-04-28 7:30AM	38	266	7	0	11	322	1		30	134	22	0	29	215	0		782
7:45AM	31	287	16	0	22	356	0		30	140	27	0	27	224	0		867
8:00AM	30	245	8	0	16	299	1		42	141	34	0	29	246	0		826
8:15AM	27	239	7	0	19	292	0		37	112	32	0	27	208	0		705
Total	126	1037	38	0	68	1269	2		139	527	115	0	112	893	0		3180
% Approach	9.9%	81.7%	3.0%	0%	5.4%	-	-		15.6%	59.0%	12.9%	0%	12.5%	-	-		-
% Total	4.0%	32.6%	1.2%	0%	2.1%	39.9%	-		4.4%	16.6%	3.6%	0%	3.5%	28.1%	-		-
PHF	0.829	0.903	0.594	-	0.773	0.891	-		0.827	0.934	0.846	-	0.966	0.908	-		0.917
Lights	122	1015	35	0	67	1239	-		124	500	112	0	108	844	-		3034
% Lights	96.8%	97.9%	92.1%	0%	98.5%	97.6%	-		89.2%	94.9%	97.4%	0%	96.4%	94.5%	-		95.4%
Articulated Trucks	1	8	1	0	0	10	-		5	7	1	0	4	17	-		52
% Articulated Trucks	0.8%	0.8%	2.6%	0%	0%	0.8%	-		3.6%	1.3%	0.9%	0%	3.6%	1.9%	-		1.6%
Buses and Single-Unit Trucks	3	14	2	0	1	20	-		10	20	2	0	0	32	-		94
% Buses and Single-Unit Trucks	2.4%	1.4%	5.3%	0%	1.5%	1.6%	-		7.2%	3.8%	1.7%	0%	0%	3.6%	-		3.0%
Pedestrians	-	-	-	-	-	-	2		-	-	-	-	-	-	0		-
% Pedestrians	-	-	-	-	-	-	100%		-	-	-	-	-	-	-		-
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0		-
% Bicycles on Crosswalk	-	-	-	-	-	-	0%		-	-	-	-	-	-	-		-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Plymouth Road & Middlebelt Road - 4 RTOR - TMC

Thu Apr 28, 2022

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944249, Location: 42.369172, -83.333077



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

[N] Middlebelt

Total: 2254

In: 893

Out: 1361

227

527

139

[W] Plymouth

Total: 1123
In: 428 Out: 695

144
234
50

180
342
68

Out: 479 In: 590
Total: 1069

[E] Plymouth

1

126

1037

1

Out: 645

In: 1269

Total: 1914

[S] Middlebelt

Plymouth Road & Middlebelt Road - 4 RTOR - TMC

Thu Apr 28, 2022

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944249, Location: 42.369172, -83.333077



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Plymouth Eastbound							Plymouth Westbound						
Time	L	T	R	U	RR	App	Ped*	L	T	R	U	RR	App	Ped*
2022-04-28 4:15PM	76	201	31	0	9	317	1	36	109	70	0	17	232	1
4:30PM	92	156	43	0	15	306	2	43	108	62	0	20	233	3
4:45PM	72	148	30	0	19	269	0	56	114	64	0	20	254	3
5:00PM	79	179	31	0	21	310	0	55	120	55	0	30	260	3
Total	319	684	135	0	64	1202	3	190	451	251	0	87	979	10
% Approach	26.5%	56.9%	11.2%	0%	5.3%	-	-	19.4%	46.1%	25.6%	0%	8.9%	-	-
% Total	6.3%	13.5%	2.7%	0%	1.3%	23.7%	-	3.7%	8.9%	4.9%	0%	1.7%	19.3%	-
PHF	0.867	0.851	0.785	-	0.762	0.948	-	0.848	0.940	0.896	-	0.725	0.941	-
Lights	316	675	131	0	63	1185	-	188	437	242	0	86	953	-
% Lights	99.1%	98.7%	97.0%	0%	98.4%	98.6%	-	98.9%	96.9%	96.4%	0%	98.9%	97.3%	-
Articulated Trucks	0	4	2	0	1	7	-	2	4	3	0	0	9	-
% Articulated Trucks	0%	0.6%	1.5%	0%	1.6%	0.6%	-	1.1%	0.9%	1.2%	0%	0%	0.9%	-
Buses and Single-Unit Trucks	3	5	2	0	0	10	-	0	10	6	0	1	17	-
% Buses and Single-Unit Trucks	0.9%	0.7%	1.5%	0%	0%	0.8%	-	0%	2.2%	2.4%	0%	1.1%	1.7%	-
Pedestrians	-	-	-	-	-	-	2	-	-	-	-	-	-	8
% Pedestrians	-	-	-	-	-	-	66.7%	-	-	-	-	-	-	80.0%
Bicycles on Crosswalk	-	-	-	-	-	-	1	-	-	-	-	-	-	2
% Bicycles on Crosswalk	-	-	-	-	-	-	33.3%	-	-	-	-	-	-	20.0%

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Plymouth Road & Middlebelt Road - 4 RTOR - TMC

Thu Apr 28, 2022

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944249, Location: 42.369172, -83.333077



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Middlebelt Northbound							Middlebelt Southbound							
Time	L	T	R	U	RR	App	Ped*	L	T	R	U	RR	App	Ped*	Int
2022-04-28 4:15PM	33	280	14	0	10	337	0	50	283	55	0	45	433	0	1319
4:30PM	32	253	18	0	16	319	5	61	275	61	0	43	440	0	1298
4:45PM	33	233	12	0	16	294	9	62	252	54	0	40	408	0	1225
5:00PM	23	194	19	0	19	255	3	50	250	63	0	46	409	0	1234
Total	121	960	63	0	61	1205	17	223	1060	233	0	174	1690	0	5076
% Approach	10.0%	79.7%	5.2%	0%	5.1%	-	-	13.2%	62.7%	13.8%	0%	10.3%	-	-	-
% Total	2.4%	18.9%	1.2%	0%	1.2%	23.7%	-	4.4%	20.9%	4.6%	0%	3.4%	33.3%	-	-
PHF	0.917	0.857	0.829	-	0.803	0.894	-	0.899	0.936	0.925	-	0.946	0.960	-	0.962
Lights	114	941	63	0	61	1179	-	213	1039	226	0	173	1651	-	4968
% Lights	94.2%	98.0%	100%	0%	100%	97.8%	-	95.5%	98.0%	97.0%	0%	99.4%	97.7%	-	97.9%
Articulated Trucks	1	7	0	0	0	8	-	4	11	2	0	0	17	-	41
% Articulated Trucks	0.8%	0.7%	0%	0%	0%	0.7%	-	1.8%	1.0%	0.9%	0%	0%	1.0%	-	0.8%
Buses and Single-Unit Trucks	6	12	0	0	0	18	-	6	10	5	0	1	22	-	67
% Buses and Single-Unit Trucks	5.0%	1.3%	0%	0%	0%	1.5%	-	2.7%	0.9%	2.1%	0%	0.6%	1.3%	-	1.3%
Pedestrians	-	-	-	-	-	-	15	-	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	88.2%	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	2	-	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	11.8%	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Plymouth Road & Middlebelt Road - 4 RTOR - TMC

Thu Apr 28, 2022

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

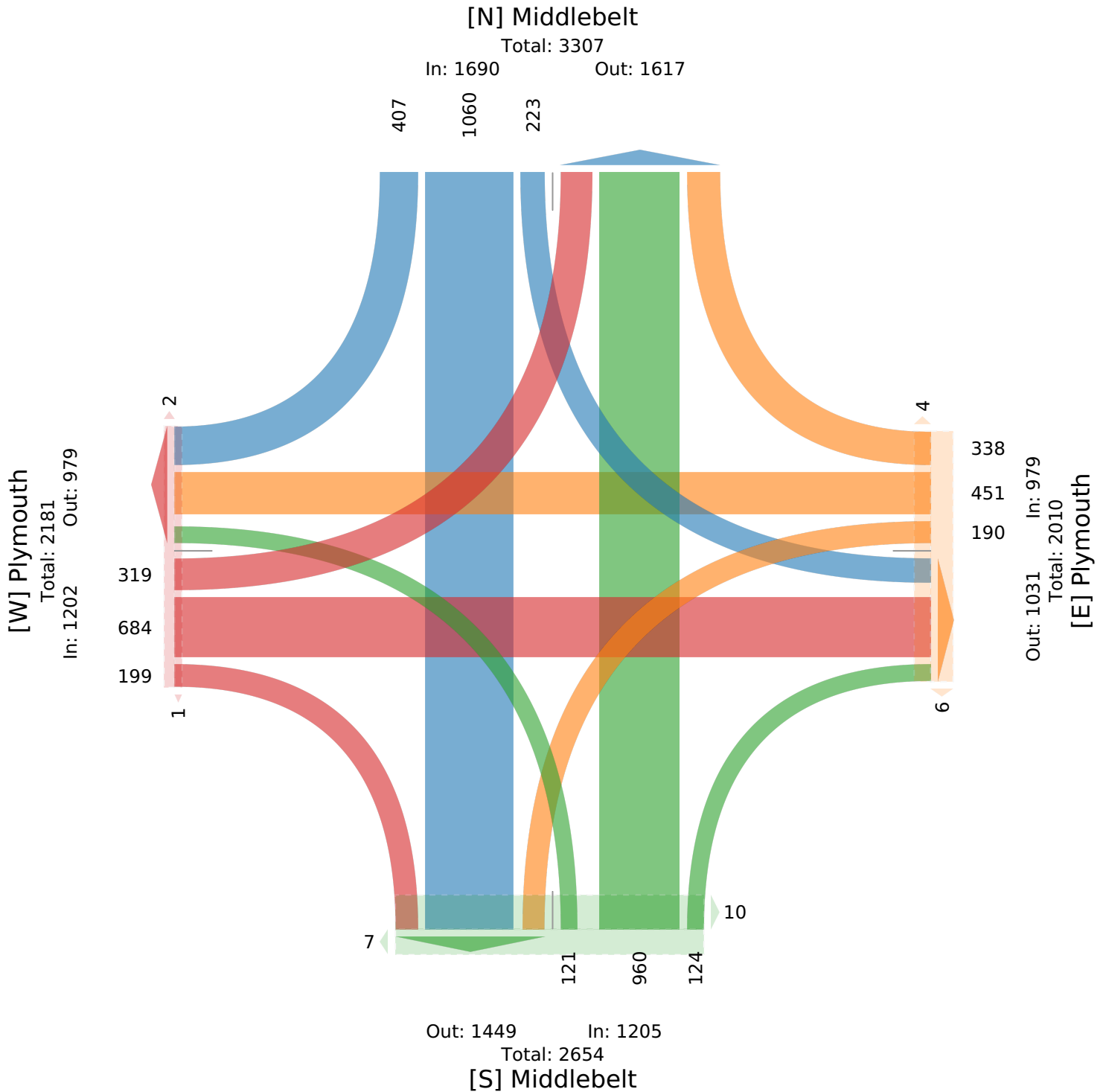
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944249, Location: 42.369172, -83.333077



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Plymouth Road and existing commercial drivew... - TMC

Thu Apr 28, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944250, Location: 42.369009, -83.339629



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Plymouth Eastbound							Plymouth Westbound						
Time	L	T	R	U	RR	App	Ped*	L	T	R	U	RR	App	Ped*
2022-04-28 7:00AM	7	70	1	0	0	78	0	5	87	19	0	1	112	0
7:15AM	6	74	2	0	1	83	0	2	101	11	0	6	120	0
7:30AM	9	84	3	0	0	96	0	0	130	16	0	4	150	0
7:45AM	10	97	6	0	0	113	0	1	149	20	0	7	177	0
Hourly Total	32	325	12	0	1	370	0	8	467	66	0	18	559	0
8:00AM	9	105	4	0	1	119	0	4	129	17	0	9	159	0
8:15AM	11	85	1	0	0	97	0	5	105	13	0	4	127	0
8:30AM	9	84	8	0	2	103	0	3	96	14	0	3	116	0
8:45AM	12	112	7	0	1	132	0	3	110	18	0	4	135	1
Hourly Total	41	386	20	0	4	451	0	15	440	62	0	20	537	1
4:00PM	9	214	17	0	4	244	0	6	174	8	0	0	188	0
4:15PM	4	259	23	0	4	290	0	9	183	2	0	2	196	0
4:30PM	3	208	17	0	3	231	0	8	175	2	0	1	186	0
4:45PM	3	195	21	0	5	224	0	11	157	8	0	1	177	0
Hourly Total	19	876	78	0	16	989	0	34	689	20	0	4	747	0
5:00PM	3	213	9	0	3	228	0	5	170	3	0	2	180	0
5:15PM	3	214	14	0	5	236	0	6	168	0	0	2	176	0
5:30PM	2	172	15	0	3	192	0	11	145	4	0	1	161	0
5:45PM	2	191	14	0	2	209	0	9	148	6	0	0	163	0
Hourly Total	10	790	52	0	13	865	0	31	631	13	0	5	680	0
Total	102	2377	162	0	34	2675	0	88	2227	161	0	47	2523	1
% Approach	3.8%	88.9%	6.1%	0%	1.3%	-	-	3.5%	88.3%	6.4%	0%	1.9%	-	-
% Total	1.7%	40.5%	2.8%	0%	0.6%	45.6%	-	1.5%	38.0%	2.7%	0%	0.8%	43.0%	-
Lights	102	2315	159	0	33	2609	-	88	2128	159	0	47	2422	-
% Lights	100%	97.4%	98.1%	0%	97.1%	97.5%	-	100%	95.6%	98.8%	0%	100%	96.0%	-
Articulated Trucks	0	17	0	0	0	17	-	0	44	0	0	0	44	-
% Articulated Trucks	0%	0.7%	0%	0%	0%	0.6%	-	0%	2.0%	0%	0%	0%	1.7%	-
Buses and Single-Unit Trucks	0	45	3	0	1	49	-	0	55	2	0	0	57	-
% Buses and Single-Unit Trucks	0%	1.9%	1.9%	0%	2.9%	1.8%	-	0%	2.5%	1.2%	0%	0%	2.3%	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	1
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100%
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0%

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Plymouth Road and existing commercial drivew... - TMC

Thu Apr 28, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944250, Location: 42.369009, -83.339629



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Tech Center Northbound								Tech Center Southbound								
Time	L	T	R	U	RR	App	Ped*		L	T	R	U	RR	App	Ped*	Int	
2022-04-28 7:00AM	2	0	1	0	2	5	0		1	0	0	0	0	1	0		196
7:15AM	8	2	2	0	2	14	0		2	0	0	0	0	2	0		219
7:30AM	3	0	2	0	1	6	0		0	0	1	0	0	1	0		253
7:45AM	9	0	1	0	1	11	1		0	0	0	0	0	0	0		301
Hourly Total	22	2	6	0	6	36	1		3	0	1	0	0	4	0		969
8:00AM	7	1	1	0	3	12	0		4	0	2	0	1	7	0		297
8:15AM	1	0	0	0	1	2	0		1	0	1	0	0	2	0		228
8:30AM	8	0	3	0	1	12	0		2	0	2	0	0	4	0		235
8:45AM	7	0	1	0	2	10	1		5	0	3	0	0	8	3		285
Hourly Total	23	1	5	0	7	36	1		12	0	8	0	1	21	3		1045
4:00PM	22	2	8	0	3	35	1		22	0	12	0	16	50	1		517
4:15PM	24	1	4	0	2	31	0		14	0	15	0	6	35	0		552
4:30PM	17	0	3	0	5	25	2		21	0	8	0	13	42	0		484
4:45PM	23	1	6	0	4	34	1		19	2	14	0	9	44	1		479
Hourly Total	86	4	21	0	14	125	4		76	2	49	0	44	171	2		2032
5:00PM	29	2	6	0	3	40	2		23	2	10	0	10	45	0		493
5:15PM	34	2	7	0	5	48	0		10	4	16	0	5	35	0		495
5:30PM	23	1	0	0	4	28	3		8	0	8	0	5	21	0		402
5:45PM	31	0	5	0	2	38	0		8	0	5	0	3	16	0		426
Hourly Total	117	5	18	0	14	154	5		49	6	39	0	23	117	0		1816
Total	248	12	50	0	41	351	11		140	8	97	0	68	313	5		5862
% Approach	70.7%	3.4%	14.2%	0%	11.7%	-	-		44.7%	2.6%	31.0%	0%	21.7%	-	-		-
% Total	4.2%	0.2%	0.9%	0%	0.7%	6.0%	-		2.4%	0.1%	1.7%	0%	1.2%	5.3%	-		-
Lights	245	12	49	0	41	347	-		136	8	97	0	67	308	-		5686
% Lights	98.8%	100%	98.0%	0%	100%	98.9%	-		97.1%	100%	100%	0%	98.5%	98.4%	-		97.0%
Articulated Trucks	0	0	1	0	0	1	-		0	0	0	0	0	0	-		62
% Articulated Trucks	0%	0%	2.0%	0%	0%	0.3%	-		0%	0%	0%	0%	0%	0%	-		1.1%
Buses and Single-Unit Trucks	3	0	0	0	0	3	-		4	0	0	0	1	5	-		114
% Buses and Single-Unit Trucks	1.2%	0%	0%	0%	0%	0.9%	-		2.9%	0%	0%	0%	1.5%	1.6%	-		1.9%
Pedestrians	-	-	-	-	-	-	6		-	-	-	-	-	-	5		
% Pedestrians	-	-	-	-	-	-	54.5%		-	-	-	-	-	-	100%		-
Bicycles on Crosswalk	-	-	-	-	-	-	5		-	-	-	-	-	-	0		
% Bicycles on Crosswalk	-	-	-	-	-	-	45.5%		-	-	-	-	-	-	0%		-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Plymouth Road and existing commercial drivew... - TMC

Thu Apr 28, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

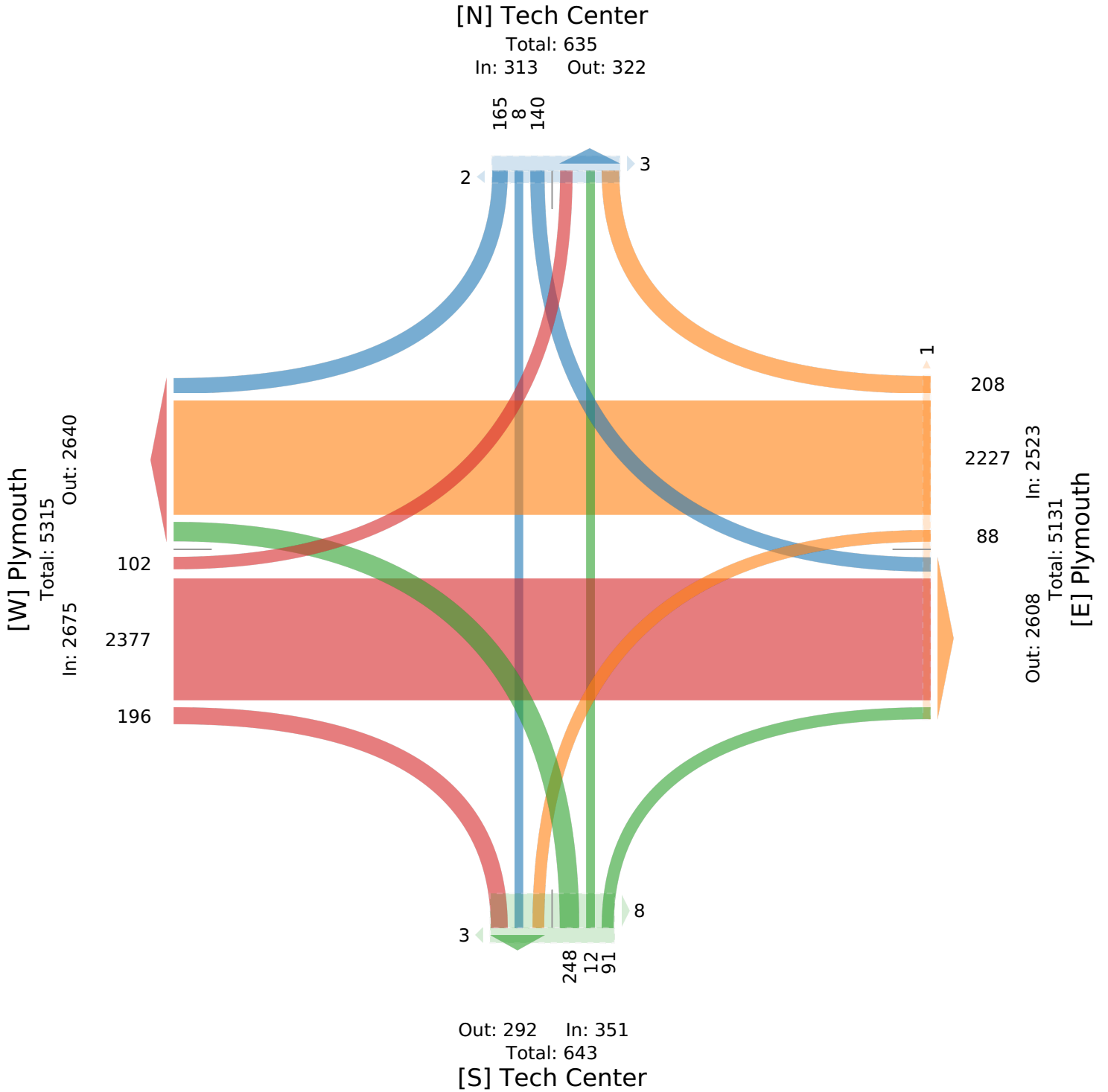
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944250, Location: 42.369009, -83.339629



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Plymouth Road and existing commercial drivew... - TMC

Thu Apr 28, 2022

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944250, Location: 42.369009, -83.339629



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Plymouth Eastbound								Plymouth Westbound							
Time	L	T	R	U	RR	App	Ped*		L	T	R	U	RR	App	Ped*	
2022-04-28 7:30AM	9	84	3	0	0	96	0		0	130	16	0	4	150	0	
7:45AM	10	97	6	0	0	113	0		1	149	20	0	7	177	0	
8:00AM	9	105	4	0	1	119	0		4	129	17	0	9	159	0	
8:15AM	11	85	1	0	0	97	0		5	105	13	0	4	127	0	
Total	39	371	14	0	1	425	0		10	513	66	0	24	613	0	
% Approach	9.2%	87.3%	3.3%	0%	0.2%	-	-		1.6%	83.7%	10.8%	0%	3.9%	-	-	
% Total	3.6%	34.4%	1.3%	0%	0.1%	39.4%	-		0.9%	47.5%	6.1%	0%	2.2%	56.8%	-	
PHF	0.886	0.883	0.583	-	0.250	0.893	-		0.500	0.861	0.825	-	0.667	0.866	-	
Lights	39	347	14	0	1	401	-		10	482	65	0	24	581	-	
% Lights	100%	93.5%	100%	0%	100%	94.4%	-		100%	94.0%	98.5%	0%	100%	94.8%	-	
Articulated Trucks	0	3	0	0	0	3	-		0	14	0	0	0	14	-	
% Articulated Trucks	0%	0.8%	0%	0%	0%	0.7%	-		0%	2.7%	0%	0%	0%	2.3%	-	
Buses and Single-Unit Trucks	0	21	0	0	0	21	-		0	17	1	0	0	18	-	
% Buses and Single-Unit Trucks	0%	5.7%	0%	0%	0%	4.9%	-		0%	3.3%	1.5%	0%	0%	2.9%	-	
Pedestrians	-	-	-	-	-	-	0		-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-		-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-		-	-	-	-	-	-	-	

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Plymouth Road and existing commercial drivew... - TMC

Thu Apr 28, 2022

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944250, Location: 42.369009, -83.339629



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Tech Center Northbound								Tech Center Southbound								
Time	L	T	R	U	RR	App	Ped*		L	T	R	U	RR	App	Ped*		Int
2022-04-28 7:30AM	3	0	2	0	1	6	0		0	0	1	0	0	1	0		253
7:45AM	9	0	1	0	1	11	1		0	0	0	0	0	0	0		301
8:00AM	7	1	1	0	3	12	0		4	0	2	0	1	7	0		297
8:15AM	1	0	0	0	1	2	0		1	0	1	0	0	2	0		228
Total	20	1	4	0	6	31	1		5	0	4	0	1	10	0		1079
% Approach	64.5%	3.2%	12.9%	0%	19.4%	-	-		50.0%	0%	40.0%	0%	10.0%	-	-		-
% Total	1.9%	0.1%	0.4%	0%	0.6%	2.9%	-		0.5%	0%	0.4%	0%	0.1%	0.9%	-		-
PHF	0.556	0.250	0.500	-	0.500	0.646	-		0.313	-	0.500	-	0.250	0.357	-		0.896
Lights	19	1	4	0	6	30	-		4	0	4	0	1	9	-		1021
% Lights	95.0%	100%	100%	0%	100%	96.8%	-		80.0%	0%	100%	0%	100%	90.0%	-		94.6%
Articulated Trucks	0	0	0	0	0	0	-		0	0	0	0	0	0	-		17
% Articulated Trucks	0%	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	0%	-		1.6%
Buses and Single-Unit Trucks	1	0	0	0	0	1	-		1	0	0	0	0	1	-		41
% Buses and Single-Unit Trucks	5.0%	0%	0%	0%	0%	3.2%	-		20.0%	0%	0%	0%	0%	10.0%	-		3.8%
Pedestrians	-	-	-	-	-	-	1		-	-	-	-	-	-	0		
% Pedestrians	-	-	-	-	-	-	100%		-	-	-	-	-	-	-		-
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0		
% Bicycles on Crosswalk	-	-	-	-	-	-	0%		-	-	-	-	-	-	-		-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Plymouth Road and existing commercial drivew... - TMC

Thu Apr 28, 2022

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944250, Location: 42.369009, -83.339629



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

[N] Tech Center

Total: 140

In: 10 Out: 130

55

[W] Plymouth

Total: 963
In: 425 Out: 538

39
371
15

90
513
10

Out: 386 In: 613

Total: 999

[E] Plymouth

Out: 25 In: 31
Total: 56

[S] Tech Center

1
20
10

Plymouth Road and existing commercial drivew... - TMC

Thu Apr 28, 2022

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944250, Location: 42.369009, -83.339629



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Plymouth Eastbound								Plymouth Westbound							
Time	L	T	R	U	RR	App	Ped*		L	T	R	U	RR	App	Ped*	
2022-04-28 4:00PM	9	214	17	0	4	244	0		6	174	8	0	0	188	0	
4:15PM	4	259	23	0	4	290	0		9	183	2	0	2	196	0	
4:30PM	3	208	17	0	3	231	0		8	175	2	0	1	186	0	
4:45PM	3	195	21	0	5	224	0		11	157	8	0	1	177	0	
Total	19	876	78	0	16	989	0		34	689	20	0	4	747	0	
% Approach	1.9%	88.6%	7.9%	0%	1.6%	-	-		4.6%	92.2%	2.7%	0%	0.5%	-	-	
% Total	0.9%	43.1%	3.8%	0%	0.8%	48.7%	-		1.7%	33.9%	1.0%	0%	0.2%	36.8%	-	
PHF	0.528	0.846	0.848	-	0.800	0.853	-		0.773	0.941	0.625	-	0.500	0.953	-	
Lights	19	860	76	0	16	971	-		34	660	20	0	4	718	-	
% Lights	100%	98.2%	97.4%	0%	100%	98.2%	-		100%	95.8%	100%	0%	100%	96.1%	-	
Articulated Trucks	0	7	0	0	0	7	-		0	7	0	0	0	7	-	
% Articulated Trucks	0%	0.8%	0%	0%	0%	0.7%	-		0%	1.0%	0%	0%	0%	0.9%	-	
Buses and Single-Unit Trucks	0	9	2	0	0	11	-		0	22	0	0	0	22	-	
% Buses and Single-Unit Trucks	0%	1.0%	2.6%	0%	0%	1.1%	-		0%	3.2%	0%	0%	0%	2.9%	-	
Pedestrians	-	-	-	-	-	-	0		-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-		-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-		-	-	-	-	-	-	-	

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Plymouth Road and existing commercial drivew... - TMC

Thu Apr 28, 2022

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944250, Location: 42.369009, -83.339629



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Tech Center Northbound								Tech Center Southbound								
Time	L	T	R	U	RR	App	Ped*		L	T	R	U	RR	App	Ped*	Int	
2022-04-28 4:00PM	22	2	8	0	3	35	1		22	0	12	0	16	50	1		517
4:15PM	24	1	4	0	2	31	0		14	0	15	0	6	35	0		552
4:30PM	17	0	3	0	5	25	2		21	0	8	0	13	42	0		484
4:45PM	23	1	6	0	4	34	1		19	2	14	0	9	44	1		479
Total	86	4	21	0	14	125	4		76	2	49	0	44	171	2		2032
% Approach	68.8%	3.2%	16.8%	0%	11.2%	-	-		44.4%	1.2%	28.7%	0%	25.7%	-	-		-
% Total	4.2%	0.2%	1.0%	0%	0.7%	6.2%	-		3.7%	0.1%	2.4%	0%	2.2%	8.4%	-		-
PHF	0.896	0.500	0.656	-	0.700	0.893	-		0.864	0.250	0.817	-	0.688	0.855	-		0.920
Lights	84	4	20	0	14	122	-		74	2	49	0	44	169	-		1980
% Lights	97.7%	100%	95.2%	0%	100%	97.6%	-		97.4%	100%	100%	0%	100%	98.8%	-		97.4%
Articulated Trucks	0	0	1	0	0	1	-		0	0	0	0	0	0	-		15
% Articulated Trucks	0%	0%	4.8%	0%	0%	0.8%	-		0%	0%	0%	0%	0%	0%	-		0.7%
Buses and Single-Unit Trucks	2	0	0	0	0	2	-		2	0	0	0	0	2	-		37
% Buses and Single-Unit Trucks	2.3%	0%	0%	0%	0%	1.6%	-		2.6%	0%	0%	0%	0%	1.2%	-		1.8%
Pedestrians	-	-	-	-	-	-	1		-	-	-	-	-	-	2		
% Pedestrians	-	-	-	-	-	-	25.0%		-	-	-	-	-	-	100%		-
Bicycles on Crosswalk	-	-	-	-	-	-	3		-	-	-	-	-	-	0		
% Bicycles on Crosswalk	-	-	-	-	-	-	75.0%		-	-	-	-	-	-	0%		-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Plymouth Road and existing commercial drivew... - TMC

Thu Apr 28, 2022

PM Peak (4 PM - 5 PM) - Overall Peak Hour

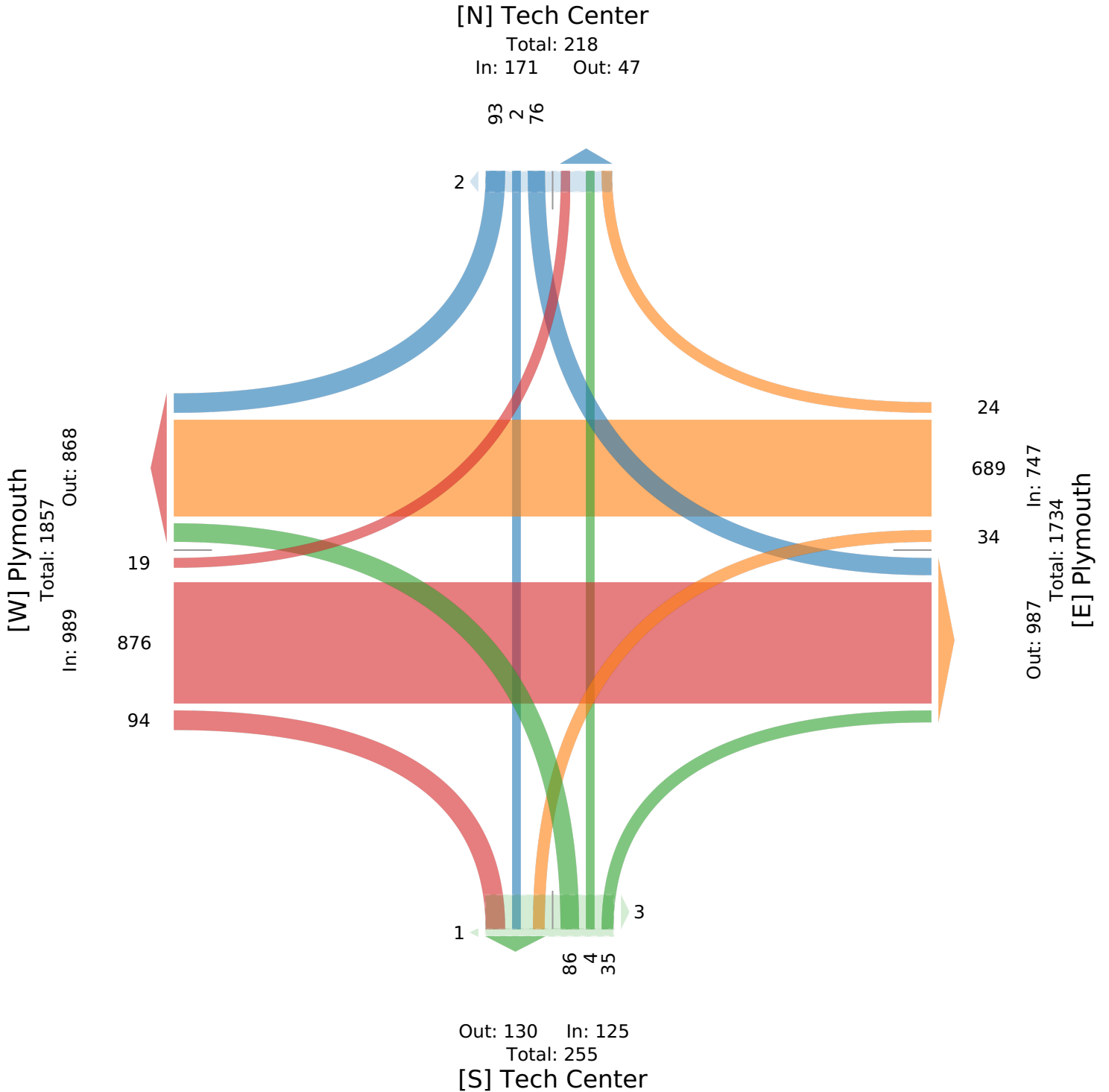
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944250, Location: 42.369009, -83.339629



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Middlebelt Road and existing commercial driv... - TMC

Thu Apr 28, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944251, Location: 42.366805, -83.332945



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Eastbound						Middlebelt Northbound					Middlebelt Southbound						
Time	L	R	U	RR	App	Ped*	L	T	U	App	Ped*	T	R	U	RR	App	Ped*	Int
2022-04-28 7:00AM	2	1	0	2	5	0	9	221	0	230	0	171	2	0	0	173	0	408
7:15AM	2	0	0	3	5	0	4	272	0	276	0	154	1	0	0	155	0	436
7:30AM	0	0	0	1	1	0	3	332	0	335	0	153	2	0	0	155	0	491
7:45AM	3	2	0	3	8	0	18	361	0	379	0	166	2	0	0	168	2	555
Hourly Total	7	3	0	9	19	0	34	1186	0	1220	0	644	7	0	0	651	2	1890
8:00AM	6	0	0	5	11	0	26	289	0	315	0	135	3	0	1	139	0	465
8:15AM	8	2	0	8	18	1	11	276	0	287	0	132	7	0	1	140	1	445
8:30AM	4	4	0	5	13	0	21	261	0	282	0	142	4	0	2	148	0	443
8:45AM	4	2	0	8	14	2	23	248	0	271	0	133	4	0	0	137	0	422
Hourly Total	22	8	0	26	56	3	81	1074	0	1155	0	542	18	0	4	564	1	1775
4:00PM	15	16	0	12	43	0	35	281	0	316	0	318	10	0	1	329	0	688
4:15PM	21	19	0	16	56	0	46	310	0	356	0	313	15	0	1	329	0	741
4:30PM	14	12	0	18	44	2	22	266	0	288	0	363	11	0	1	375	0	707
4:45PM	13	14	0	23	50	0	47	285	0	332	0	334	7	0	1	342	0	724
Hourly Total	63	61	0	69	193	2	150	1142	0	1292	0	1328	43	0	4	1375	0	2860
5:00PM	11	15	0	23	49	0	34	229	0	263	0	335	5	0	3	343	0	655
5:15PM	16	16	0	17	49	0	33	200	0	233	0	365	15	0	2	382	0	664
5:30PM	20	14	0	24	58	0	33	237	0	270	0	321	7	0	3	331	0	659
5:45PM	13	10	0	20	43	2	39	237	0	276	0	312	13	0	3	328	0	647
Hourly Total	60	55	0	84	199	2	139	903	0	1042	0	1333	40	0	11	1384	0	2625
Total	152	127	0	188	467	7	404	4305	0	4709	0	3847	108	0	19	3974	3	9150
% Approach	32.5%	27.2%	0%	40.3%	-	-	8.6%	91.4%	0%	-	-	96.8%	2.7%	0%	0.5%	-	-	-
% Total	1.7%	1.4%	0%	2.1%	5.1%	-	4.4%	47.0%	0%	51.5%	-	42.0%	1.2%	0%	0.2%	43.4%	-	-
Lights	148	126	0	187	461	-	401	4215	0	4616	-	3705	105	0	18	3828	-	8905
% Lights	97.4%	99.2%	0%	99.5%	98.7%	-	99.3%	97.9%	0%	98.0%	-	96.3%	97.2%	0%	94.7%	96.3%	-	97.3%
Articulated Trucks	2	1	0	1	4	-	0	38	0	38	-	50	1	0	0	51	-	93
% Articulated Trucks	1.3%	0.8%	0%	0.5%	0.9%	-	0%	0.9%	0%	0.8%	-	1.3%	0.9%	0%	0%	1.3%	-	1.0%
Buses and Single-Unit Trucks	2	0	0	0	2	-	3	52	0	55	-	92	2	0	1	95	-	152
% Buses and Single-Unit Trucks	1.3%	0%	0%	0%	0.4%	-	0.7%	1.2%	0%	1.2%	-	2.4%	1.9%	0%	5.3%	2.4%	-	1.7%
Pedestrians	-	-	-	-	-	7	-	-	-	-	0	-	-	-	-	-	3	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	0%	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Middlebelt Road and existing commercial driv... - TMC

Thu Apr 28, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

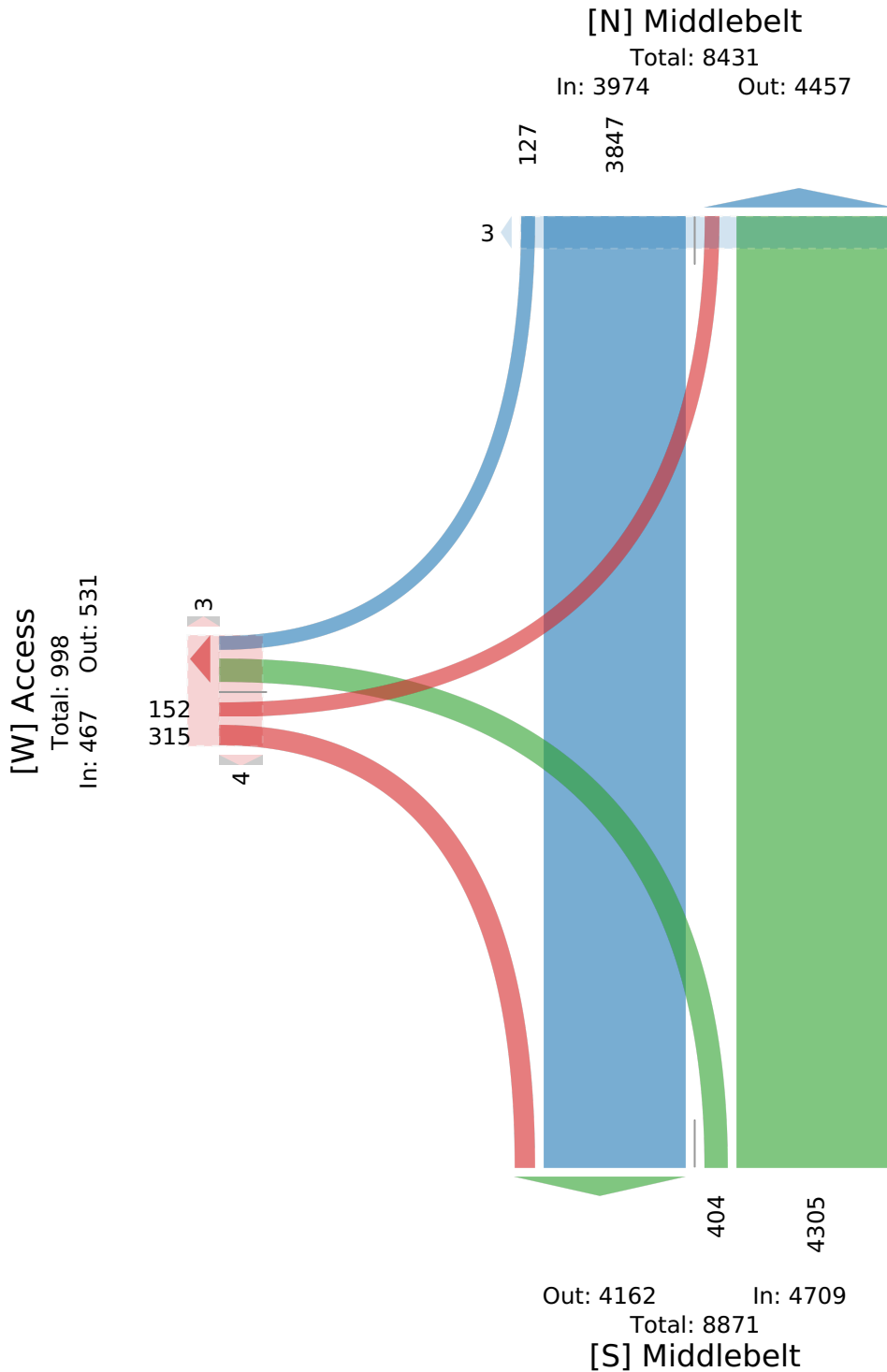
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944251, Location: 42.366805, -83.332945



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Middlebelt Road and existing commercial driv... - TMC

Thu Apr 28, 2022

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944251, Location: 42.366805, -83.332945



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Eastbound						Middlebelt Northbound					Middlebelt Southbound							
Time	L	R	U	RR	App	Ped*	L	T	U	App	Ped*	T	R	U	RR	App	Ped*	Int	
2022-04-28 7:30AM	0	0	0	1	1	0	3	332	0	335	0	153	2	0	0	155	0	491	
7:45AM	3	2	0	3	8	0	18	361	0	379	0	166	2	0	0	168	2	555	
8:00AM	6	0	0	5	11	0	26	289	0	315	0	135	3	0	1	139	0	465	
8:15AM	8	2	0	8	18	1	11	276	0	287	0	132	7	0	1	140	1	445	
Total	17	4	0	17	38	1	58	1258	0	1316	0	586	14	0	2	602	3	1956	
% Approach	44.7%	10.5%	0%	44.7%	-	-	4.4%	95.6%	0%	-	-	97.3%	2.3%	0%	0.3%	-	-	-	
% Total	0.9%	0.2%	0%	0.9%	1.9%	-	3.0%	64.3%	0%	67.3%	-	30.0%	0.7%	0%	0.1%	30.8%	-	-	
PHF	0.531	0.500	-	0.531	0.528	-	0.558	0.871	-	0.868	-	0.883	0.500	-	0.500	0.896	-	0.881	
Lights	16	4	0	17	37	-	58	1227	0	1285	-	554	14	0	2	570	-	1892	
% Lights	94.1%	100%	0%	100%	97.4%	-	100%	97.5%	0%	97.6%	-	94.5%	100%	0%	100%	94.7%	-	96.7%	
Articulated Trucks	0	0	0	0	0	-	0	16	0	16	-	9	0	0	0	9	-	25	
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	1.3%	0%	1.2%	-	1.5%	0%	0%	0%	1.5%	-	1.3%	
Buses and Single-Unit Trucks	1	0	0	0	1	-	0	15	0	15	-	23	0	0	0	23	-	39	
% Buses and Single-Unit Trucks	5.9%	0%	0%	0%	2.6%	-	0%	1.2%	0%	1.1%	-	3.9%	0%	0%	0%	3.8%	-	2.0%	
Pedestrians	-	-	-	-	-	1	-	-	-	-	0	-	-	-	-	-	3		
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	100%	-	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0		
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	0%		

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Middlebelt Road and existing commercial driv... - TMC

Thu Apr 28, 2022

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 944251, Location: 42.366805, -83.332945

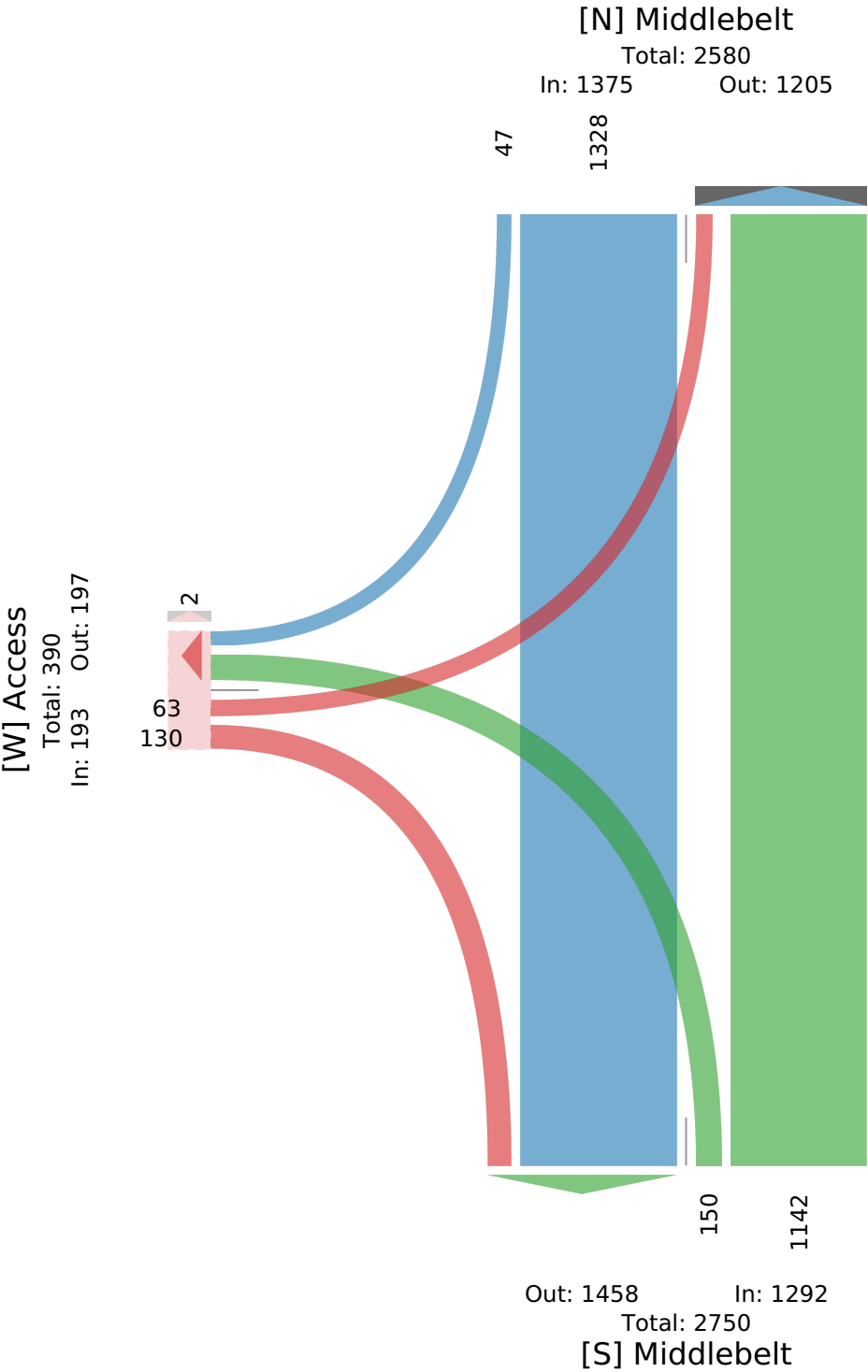


Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Eastbound						Middlebelt Northbound						Middlebelt Southbound						
Time	L	R	U	RR	App	Ped*	L	T	U	App	Ped*		T	R	U	RR	App	Ped*	Int
2022-04-28 4:00PM	15	16	0	12	43	0	35	281	0	316	0		318	10	0	1	329	0	688
4:15PM	21	19	0	16	56	0	46	310	0	356	0		313	15	0	1	329	0	741
4:30PM	14	12	0	18	44	2	22	266	0	288	0		363	11	0	1	375	0	707
4:45PM	13	14	0	23	50	0	47	285	0	332	0		334	7	0	1	342	0	724
Total	63	61	0	69	193	2	150	1142	0	1292	0		1328	43	0	4	1375	0	2860
% Approach	32.6%	31.6%	0%	35.8%	-	-	11.6%	88.4%	0%	-	-		96.6%	3.1%	0%	0.3%	-	-	-
% Total	2.2%	2.1%	0%	2.4%	6.7%	-	5.2%	39.9%	0%	45.2%	-		46.4%	1.5%	0%	0.1%	48.1%	-	-
PHF	0.750	0.803	-	0.750	0.862	-	0.798	0.921	-	0.907	-		0.915	0.717	-	1.000	0.917	-	0.965
Lights	62	61	0	68	191	-	149	1125	0	1274	-		1296	41	0	4	1341	-	2806
% Lights	98.4%	100%	0%	98.6%	99.0%	-	99.3%	98.5%	0%	98.6%	-		97.6%	95.3%	0%	100%	97.5%	-	98.1%
Articulated Trucks	0	0	0	1	1	-	0	4	0	4	-		21	1	0	0	22	-	27
% Articulated Trucks	0%	0%	0%	1.4%	0.5%	-	0%	0.4%	0%	0.3%	-		1.6%	2.3%	0%	0%	1.6%	-	0.9%
Buses and Single-Unit Trucks	1	0	0	0	1	-	1	13	0	14	-		11	1	0	0	12	-	27
% Buses and Single-Unit Trucks	1.6%	0%	0%	0%	0.5%	-	0.7%	1.1%	0%	1.1%	-		0.8%	2.3%	0%	0%	0.9%	-	0.9%
Pedestrians	-	-	-	-	-	2	-	-	-	-	0		-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-		-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	0		-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-		-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Middlebelt Road and existing commercial driv... - TMC
Thu Apr 28, 2022
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,
Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 944251, Location: 42.366805, -83.332945





Transportation Data Management System

Disclaimer: The Michigan Department of Transportation (MDOT) works with individual agencies (cities/villages, counties, metropolitan planning organizations (MPOs), regional planning organizations (RPOs), and other areas of MDOT) to identify existing traffic count programs and/or traffic data. [... more](#)

List View

All DIRs

Report Center

Record	1	of 1	Goto Record	go
Location ID	82-5604	MPO ID	46560	
Type	SPOT	HPMS ID		
On NHS	Yes	On HPMS	No	
LRS ID	1604102	LRS Loc Pt.	11.306	
SF Group	Urban	Route Type	9	
AF Group	South	Route	14	
GF Group	Urban	Active	Yes	
Class Dist Grp	9_014_003	Category		
Seas Clss Grp				
WIM Group				
QC Group	Default			
Funct'l Class	(3) Other Principal Arterial	Milepost		
Located On	PLYMOUTH RD			
Loc On Alias	Old M 14			
	100 FT. W OF MIDDLE BELT RD			
More Detail				
STATION DATA				

Directions: 2-WAY EB WB ?

AADT ?

Year	AADT	DHV-30	K %	D %	PA	BC	Src
2021	18,502 ³				17,687 (96%)	815 (4%)	Grown from 2020
2020	16,258 ³				15,836 (97%)	422 (3%)	Grown from 2019
2019	20,348 ³				19,819 (97%)	529 (3%)	Grown from 2018
2018	20,450 ³				19,918 (97%)	532 (3%)	Grown from 2017
2017	20,450						

VOLUME COUNT

	Date	Int	Total
	Tue 12/5/2017	15	22,913
	Mon 12/4/2017	15	23,112

VOLUME TREND ?

Year	Annual Growth
2021	14%
2020	-20%
2019	0%
2018	0%

CLASSIFICATION

	Date	Int	Total
No Data			

NOTES/FILES

	Note	Date
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Transportation Data Management System

Volume Count Report

LOCATION INFO	
Location ID	82-5604
Type	SPOT
Funct'l Class	3
Located On	PLYMOUTH RD
Loc On Alias	Old M 14
Direction	2-WAY
County	Wayne
Community	LIVONIA
MPO ID	46560
HPMS ID	
Agency	MDOT

COUNT DATA INFO	
Count Status	Accepted
Start Date	Tue 12/5/2017
End Date	Wed 12/6/2017
Start Time	5:00:00 PM
End Time	5:00:00 PM
Direction	2-WAY
Notes	
Station	4433
Study	
Speed Limit	
Description	
Sensor Type	Axle/Tube
Source	CombineVolumeCountsIncremental
Latitude,Longitude	

INTERVAL:15-MIN					
Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	41	28	13	11	93
1:00-2:00	16	16	12	4	48
2:00-3:00	7	13	8	18	46
3:00-4:00	11	11	14	19	55
4:00-5:00	18	17	35	63	133
5:00-6:00	75	93	111	146	425
6:00-7:00	139	116	179	291	725
7:00-8:00	255	278	347	384	1,264
8:00-9:00	349	375	295	307	1,326
9:00-10:00	271	243	239	291	1,044
10:00-11:00	296	294	327	341	1,258
11:00-12:00	341	377	408	400	1,526
12:00-13:00	485	457	397	419	1,758
13:00-14:00	432	373	376	344	1,525
14:00-15:00	375	385	425	417	1,602
15:00-16:00	401	416	455	387	1,659
16:00-17:00	445	437	513	535	1,930
17:00-18:00	523	536	457	521	2,037
18:00-19:00	442	398	383	313	1,536
19:00-20:00	306	238	217	244	1,005
20:00-21:00	225	203	191	181	800
21:00-22:00	165	125	117	109	516
22:00-23:00	109	127	89	70	395
23:00-24:00	61	66	46	34	207
Total					22,913
AADT					19,960
AM Peak	11:30-12:30				1,750
PM Peak	16:30-17:30				2,107

Intersection	Time period	Year	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EBRR	WBRR	NBRR	SBRR	NBPED
#1 - Plymouth Road & Middlebelt Road	AM Peak 04/28/22		PHF	0.88			0.89			0.89			0.91							
			% Heavy	6%			7%			2%			6%							
		2022	Existing	144	234	50	68	342	180	126	1037	106	139	527	227	30	70	68	112	2
		2022	Existing Adj.	144	234	50	68	342	180	126	1037	106	139	527	227					
		2024	Background	145	236	51	69	345	182	127	1047	107	140	532	229					
			Bckgrd. Dev. A	8	12			29			44	4	20	25						
			Bckgrd. Dev. B																	
			Bckgrd. Dev. C																	
			Total Background	153	248	51	69	374	182	127	1091	111	160	557	229					
			Site Generated	14	10	7		4		4	14			2	3					
			Pass By																	
			Total Site Gen	14	10	7	0	4	0	4	14	0	0	2	3					
			Total Future	167	258	58	69	378	182	131	1105	111	160	559	232					

Count Date: 4/28/2022
Count Year: 2022
Existing Adj. Year: 2022

Existing Adjustment Rate: 1.00
Growth Rate: 0.5%
Buildout Year: 2024
Scenario: AM Peak

Bckgrd. Dev. A: Livonia Chick-fil-A
Bckgrd. Dev. B:
Bckgrd. Dev. C:

Intersection	Time period	Year	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EBRR	WBRR	NBRR	SBRR	
#2 - Plymouth Road & Tech Center/Commercial DW	AM Peak 04/28/22		PHF	0.89			0.87			0.65			0.60							
			% Heavy	6%			5%			3%			10%							
		2022	Existing	39	371	15	10	513	90	20	1	10	5	0	5	1	24	6	1	
		2022	Existing Adj.	39	371	15	10	513	90	20	1	10	5	0	5					
		2024	Background	39	375	15	10	518	91	20	1	10	5	0	5					
			Bckgrd. Dev. A		20			29												
			Bckgrd. Dev. B																	
			Bckgrd. Dev. C																	
			Total Background	39	395	15	10	547	91	20	1	10	5	0	5					
			Site Generated			3	11			11	3	31		0						
			Pass By																	
			Total Site Gen	0	0	3	11	0	0	11	3	31	0	0	0					
			Total Future	39	395	18	21	547	91	31	4	41	5	0	5					

Intersection	Time period	Year	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EBRR	WBRR	NBRR	SBRR	EBPED	SBPE		
#3 - Middlebelt Road & Commercial DW	AM Peak 04/28/22		PHF	0.60						0.87			0.90										
			% Heavy	3%						2%			5%										
		2022	Existing	17		21					58	1258		586	16		17	0	0	2	1	3	
		2022	Existing Adj.	17		21					58	1258		586	16								
		2024	Background	17		21					59	1271		592	16								
			Bckgrd. Dev. A									48		25									
			Bckgrd. Dev. B																				
			Bckgrd. Dev. C																				
			Total Background	17		21					59	1319		617	16								
			Site Generated	14		6					4	4		7	2								
			Pass By																				
			Total Site Gen	14		6					4	4		7	2								
			Total Future	31		27					63	1323		624	18								

Intersection	Time period	Year	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EBRR	WBRR	NBRR	SBRR	EBPED	WBPED	NBPED
#1 - Plymouth Road & Middlebelt Road	PM Peak 04/28/22		PHF	0.95			0.94			0.89			0.95									
			% Heavy	1%			3%			2%			2%									
		2022	Existing	319	684	199	190	451	338	121	960	124	223	1060	407	64	87	61	174	3	10	17
		2022	Existing Adj.	319	684	199	190	451	338	121	960	124	223	1060	407							
		2024	Background	322	691	201	192	456	341	122	970	125	225	1071	411							
			Bckgrd. Dev. A	11	17			32			29	5	54	41								
			Bckgrd. Dev. B																			
			Bckgrd. Dev. C																			
			Total Background	333	708	201	192	488	341	122	999	130	279	1112	411							
			Site Generated	7	8	6		13		8	6			11	11							
			Pass By																			
			Total Site Gen	7	8	6	0	13	0	8	6	0	0	11	11							
			Total Future	340	716	207	192	501	341	130	1005	130	279	1123	422							

Count Date: 4/28/2022
Count Year: 2022
Existing Adj. Year: 2022

Existing Adjustment Rate: 1.00
Growth Rate: 0.5%
Buildout Year: 2024
Scenario: PM Peak

Bckgrd. Dev. A: Livonia Chick-fil-A
Bckgrd. Dev. B:
Bckgrd. Dev. C:

Intersection	Time period	Year	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EBRR	WBRR	NBRR	SBRR	NBPED	SBPED
#2 - Plymouth Road & Tech Center/Commercial DW	PM Peak 04/28/22		PHF	0.85			0.95			0.89			0.86								
			% Heavy	2%			4%			2%			1%								
		2022	Existing	19	876	94	34	689	24	86	4	35	76	2	93	16	4	14	44	4	2
		2022	Existing Adj.	19	876	94	34	689	24	86	4	35	76	2	93						
		2024	Background	19	885	95	34	696	24	87	4	35	77	2	94						
			Bckgrd. Dev. A		28			32													
			Bckgrd. Dev. B																		
			Bckgrd. Dev. C																		
			Total Background	19	913	95	34	728	24	87	4	35	77	2	94						
			Site Generated			13	32			7	0	21		2							
			Pass By																		
			Total Site Gen	0	0	13	32	0	0	7	0	21	0	2	0						
			Total Future	19	913	108	66	728	24	94	4	56	77	4	94						

Intersection	Time period	Year	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EBRR	WBRR	NBRR	SBRR	EBPED
#3 - Middlebelt Road & Commercial DW	PM Peak 04/28/22		PHF	0.86						0.91			0.92							
			% Heavy	1%						1%			3%							
		2022	Existing	63		130				150	1142			1328	47	69	0	0	4	2
		2022	Existing Adj.	63		130				150	1142			1328	47					
		2024	Background	64		131				152	1153			1341	47					
			Bckgrd. Dev. A								34			41						
			Bckgrd. Dev. B																	
			Bckgrd. Dev. C																	
			Total Background	64		131				152	1187			1382	47					
			Site Generated	6		6				9	8			6	11					
			Pass By																	
			Total Site Gen	6		6				9	8			6	11					
			Total Future	70		137				161	1195			1388	58					

Appendix 2

Existing LOS Output Reports

HCM 6th Signalized Intersection Summary

1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

2022 Existing Conditions
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	234	50	68	342	180	126	1037	106	139	527	227
Future Volume (veh/h)	144	234	50	68	342	180	126	1037	106	139	527	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1906	1906	1906	1891	1891	1891	1969	1969	1969	1906	1906	1906
Adj Flow Rate, veh/h	164	266	23	76	384	123	142	1165	43	153	579	126
Peak Hour Factor	0.88	0.88	0.88	0.89	0.89	0.89	0.89	0.89	0.89	0.91	0.91	0.91
Percent Heavy Veh, %	6	6	6	7	7	7	2	2	2	6	6	6
Cap, veh/h	384	1215	542	443	1205	538	330	1221	544	189	1182	613
Arrive On Green	0.02	0.11	0.11	0.05	0.34	0.34	0.06	0.33	0.33	0.06	0.33	0.33
Sat Flow, veh/h	1816	3622	1616	1801	3593	1602	1875	3741	1665	1816	3622	1613
Grp Volume(v), veh/h	164	266	23	76	384	123	142	1165	43	153	579	126
Grp Sat Flow(s),veh/h/ln	1816	1811	1616	1801	1796	1602	1875	1870	1665	1816	1811	1613
Q Serve(g_s), s	0.0	7.4	1.4	0.0	8.7	6.1	0.0	33.5	2.0	4.5	14.1	0.0
Cycle Q Clear(g_c), s	0.0	7.4	1.4	0.0	8.7	6.1	0.0	33.5	2.0	4.5	14.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	384	1215	542	443	1205	538	330	1221	544	189	1182	613
V/C Ratio(X)	0.43	0.22	0.04	0.17	0.32	0.23	0.43	0.95	0.08	0.81	0.49	0.21
Avail Cap(c_a), veh/h	384	1215	542	443	1205	538	330	1221	544	189	1182	613
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	35.8	33.1	27.2	27.2	26.3	37.2	36.2	25.6	49.2	29.7	22.9
Incr Delay (d2), s/veh	3.4	0.4	0.1	0.8	0.7	1.0	4.0	16.9	0.3	30.0	1.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	3.4	0.6	1.5	3.8	2.4	3.7	17.4	0.8	5.4	6.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	36.2	33.3	28.1	27.9	27.3	41.2	53.1	25.9	79.2	31.2	23.7
LnGrp LOS	D	D	C	C	C	C	D	D	C	E	C	C
Approach Vol, veh/h	453			583			1350			858		
Approach Delay, s/veh	36.5			27.8			51.0			38.6		
Approach LOS	D			C			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	43.0	13.0	42.0	12.0	43.0	13.0	42.0				
Change Period (Y+Rc), s	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1				
Max Green Setting (Gmax), s	* 5.9	* 37	* 6.9	* 36	* 5.9	* 37	* 6.9	* 36				
Max Q Clear Time (g_c+I1), s	2.0	9.4	6.5	35.5	2.0	10.7	2.0	16.1				
Green Ext Time (p_c), s	0.0	1.7	0.0	0.3	0.1	2.8	0.1	4.0				

Intersection Summary

HCM 6th Ctrl Delay 41.5
HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
1074: Commercial DW (PB)/Tech Center Dr (PB) & Plymouth Rd

2022 Existing Conditions
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	371	15	10	513	90	20	1	10	5	0	5
Future Volume (veh/h)	39	371	15	10	513	90	20	1	10	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1906	1906	1906	1922	1922	1922	1953	1953	1953	1844	1844	1844
Adj Flow Rate, veh/h	44	417	16	11	590	75	31	2	6	8	0	6
Peak Hour Factor	0.89	0.89	0.89	0.87	0.87	0.87	0.65	0.65	0.65	0.60	0.60	0.60
Percent Heavy Veh, %	6	6	6	5	5	5	3	3	3	10	10	10
Cap, veh/h	659	3016	1345	822	2714	344	137	22	66	127	94	80
Arrive On Green	0.83	0.83	0.83	0.83	0.83	0.83	0.05	0.05	0.05	0.05	0.00	0.05
Sat Flow, veh/h	746	3622	1616	933	3260	414	1399	430	1291	1318	1844	1563
Grp Volume(v), veh/h	44	417	16	11	330	335	31	0	8	8	0	6
Grp Sat Flow(s),veh/h/ln	746	1811	1616	933	1826	1848	1399	0	1721	1318	1844	1563
Q Serve(g_s), s	1.4	2.4	0.2	0.2	4.1	4.1	2.4	0.0	0.5	0.6	0.0	0.4
Cycle Q Clear(g_c), s	5.5	2.4	0.2	2.6	4.1	4.1	2.4	0.0	0.5	1.1	0.0	0.4
Prop In Lane	1.00		1.00	1.00		0.22	1.00		0.75	1.00		1.00
Lane Grp Cap(c), veh/h	659	3016	1345	822	1520	1538	137	0	88	127	94	80
V/C Ratio(X)	0.07	0.14	0.01	0.01	0.22	0.22	0.23	0.00	0.09	0.06	0.00	0.08
Avail Cap(c_a), veh/h	659	3016	1345	822	1520	1538	589	0	645	553	691	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.4	1.7	1.6	2.0	1.9	1.9	50.7	0.0	49.8	50.3	0.0	49.7
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.0	0.3	0.3	0.8	0.0	0.4	0.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	0.0	0.0	0.9	0.9	0.9	0.0	0.2	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.6	1.8	1.6	2.0	2.2	2.2	51.5	0.0	50.2	50.5	0.0	50.1
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h		477			676			39			14	
Approach Delay, s/veh		1.9			2.2			51.2			50.3	
Approach LOS		A			A			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		97.6		12.4		97.6		12.4				
Change Period (Y+Rc), s		6.0		* 6.8		6.0		* 6.8				
Max Green Setting (Gmax), s		56.0		* 41		56.0		* 41				
Max Q Clear Time (g_c+I1), s		7.5		4.4		6.1		3.1				
Green Ext Time (p_c), s		3.3		0.1		4.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				4.2								
HCM 6th LOS				A								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary
2001: Middlebelt Rd & Commercial DW

2022 Existing Conditions
AM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	 	
Traffic Volume (veh/h)	17	21	58	1258	586	16
Future Volume (veh/h)	17	21	58	1258	586	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1953	1953	1969	1969	1922	1922
Adj Flow Rate, veh/h	28	7	67	1446	651	16
Peak Hour Factor	0.60	0.60	0.87	0.87	0.90	0.90
Percent Heavy Veh, %	3	3	2	2	5	5
Cap, veh/h	84	75	692	3114	3040	1353
Arrive On Green	0.05	0.05	0.83	0.83	0.83	0.83
Sat Flow, veh/h	1860	1655	769	3839	3748	1626
Grp Volume(v), veh/h	28	7	67	1446	651	16
Grp Sat Flow(s),veh/h/ln	1860	1655	769	1870	1826	1626
Q Serve(g_s), s	1.3	0.4	1.8	9.5	3.3	0.1
Cycle Q Clear(g_c), s	1.3	0.4	5.0	9.5	3.3	0.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	84	75	692	3114	3040	1353
V/C Ratio(X)	0.33	0.09	0.10	0.46	0.21	0.01
Avail Cap(c_a), veh/h	393	349	692	3114	3040	1353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	41.2	2.1	2.1	1.5	1.3
Incr Delay (d2), s/veh	2.3	0.5	0.3	0.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.2	0.2	1.2	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.9	41.7	2.3	2.6	1.7	1.3
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	35			1513	667	
Approach Delay, s/veh	43.5			2.5	1.7	
Approach LOS	D			A	A	
Timer - Assigned Phs	2			4		6
Phs Duration (G+Y+Rc), s	79.9			10.1		79.9
Change Period (Y+Rc), s	5.0			6.0		5.0
Max Green Setting (Gmax), s	60.0			19.0		60.0
Max Q Clear Time (g_c+I1), s	11.5			3.3		5.3
Green Ext Time (p_c), s	16.1			0.0		4.8
Intersection Summary						
HCM 6th Ctrl Delay			2.9			
HCM 6th LOS			A			

Intersection: 1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	191	122	120	54	125	176	144	133	344	432	418	275
Average Queue (ft)	87	52	52	15	36	88	64	54	135	301	290	90
95th Queue (ft)	170	98	99	40	84	150	124	104	334	438	430	269
Link Distance (ft)		804	804			923	923			345	345	
Upstream Blk Time (%)									0	9	9	
Queuing Penalty (veh)									0	61	60	
Storage Bay Dist (ft)	500			545	500			205	400			200
Storage Blk Time (%)									0	9	28	
Queuing Penalty (veh)									1	12	30	

Intersection: 1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	232	241	220	119
Average Queue (ft)	113	148	119	43
95th Queue (ft)	215	225	199	85
Link Distance (ft)		921	921	921
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	500			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 1074: Commercial DW (PB)/Tech Center Dr (PB) & Plymouth Rd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	R
Maximum Queue (ft)	56	68	24	7	33	50	76	54	31	36	36
Average Queue (ft)	16	12	3	0	4	9	21	16	6	3	3
95th Queue (ft)	43	43	15	4	19	34	62	43	23	18	19
Link Distance (ft)		921	921			816	816		320		
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	495			500	500			130		65	65
Storage Blk Time (%)										0	0
Queuing Penalty (veh)										0	0

Intersection: 2001: Middlebelt Rd & Commercial DW

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	R
Maximum Queue (ft)	46	24	57	106	86	94	89	17
Average Queue (ft)	10	9	18	23	14	6	6	1
95th Queue (ft)	33	26	45	80	56	35	34	8
Link Distance (ft)	320			873	873	373	373	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		50	500					150
Storage Blk Time (%)	1	0						
Queuing Penalty (veh)	0	0						

Zone Summary

Zone wide Queuing Penalty: 164

HCM 6th Signalized Intersection Summary
1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

2022 Existing Conditions
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	684	199	190	451	338	121	960	124	223	1060	407
Future Volume (veh/h)	319	684	199	190	451	338	121	960	124	223	1060	407
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1984	1984	1984	1953	1953	1953	1969	1969	1969	1969	1969	1969
Adj Flow Rate, veh/h	336	720	142	202	480	267	136	1079	70	235	1116	245
Peak Hour Factor	0.95	0.95	0.95	0.94	0.94	0.94	0.89	0.89	0.89	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	3	3	3	2	2	2	2	2	2
Cap, veh/h	339	1196	529	268	1177	520	240	1153	506	248	1153	610
Arrive On Green	0.02	0.10	0.10	0.06	0.32	0.32	0.09	0.31	0.31	0.09	0.31	0.31
Sat Flow, veh/h	1890	3770	1666	1860	3711	1640	1875	3741	1641	1875	3741	1641
Grp Volume(v), veh/h	336	720	142	202	480	267	136	1079	70	235	1116	245
Grp Sat Flow(s),veh/h/ln	1890	1885	1666	1860	1856	1640	1875	1870	1641	1875	1870	1641
Q Serve(g_s), s	6.7	20.1	8.6	2.5	11.2	14.6	3.3	30.8	3.4	9.0	32.4	5.1
Cycle Q Clear(g_c), s	6.7	20.1	8.6	2.5	11.2	14.6	3.3	30.8	3.4	9.0	32.4	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	339	1196	529	268	1177	520	240	1153	506	248	1153	610
V/C Ratio(X)	0.99	0.60	0.27	0.75	0.41	0.51	0.57	0.94	0.14	0.95	0.97	0.40
Avail Cap(c_a), veh/h	339	1196	529	268	1177	520	240	1153	506	248	1153	610
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.1	42.6	37.5	45.4	29.4	30.6	46.2	37.0	27.5	48.1	37.5	25.5
Incr Delay (d2), s/veh	46.8	2.2	1.2	17.8	1.0	3.6	9.4	15.0	0.6	45.3	19.9	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	10.4	3.9	6.4	5.0	6.1	4.0	15.9	1.4	9.1	17.3	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.9	44.9	38.7	63.2	30.5	34.2	55.5	52.0	28.1	93.3	57.4	27.5
LnGrp LOS	F	D	D	E	C	C	E	D	C	F	E	C
Approach Vol, veh/h	1198			949			1285			1596		
Approach Delay, s/veh	57.6			38.5			51.1			58.1		
Approach LOS	E			D			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	41.0	16.0	40.0	13.0	41.0	16.0	40.0				
Change Period (Y+Rc), s	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1				
Max Green Setting (Gmax), s	* 6.9	* 35	* 9.9	* 34	* 6.9	* 35	* 9.9	* 34				
Max Q Clear Time (g_c+I1), s	4.5	22.1	11.0	32.8	8.7	16.6	5.3	34.4				
Green Ext Time (p_c), s	0.1	4.2	0.0	0.7	0.0	3.7	0.1	0.0				

Intersection Summary

HCM 6th Ctrl Delay	52.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
1074: Commercial DW (PB)/Tech Center Dr (PB) & Plymouth Rd

2022 Existing Conditions
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	876	94	34	689	24	86	4	35	76	2	93
Future Volume (veh/h)	19	876	94	34	689	24	86	4	35	76	2	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1969	1969	1969	1938	1938	1938	1969	1969	1969	1984	1984	1984
Adj Flow Rate, veh/h	22	1031	92	36	725	21	97	4	23	88	2	57
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.89	0.89	0.89	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	4	4	4	2	2	2	1	1	1
Cap, veh/h	609	2846	1269	396	2779	80	228	31	177	216	244	205
Arrive On Green	0.76	0.76	0.76	1.00	1.00	1.00	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	715	3741	1668	494	3653	106	1332	251	1442	1382	1984	1665
Grp Volume(v), veh/h	22	1031	92	36	365	381	97	0	27	88	2	57
Grp Sat Flow(s),veh/h/ln	715	1870	1668	494	1841	1919	1332	0	1693	1382	1984	1665
Q Serve(g_s), s	0.8	10.0	1.5	1.1	0.0	0.0	7.6	0.0	1.6	6.7	0.1	3.4
Cycle Q Clear(g_c), s	0.8	10.0	1.5	11.1	0.0	0.0	7.7	0.0	1.6	8.2	0.1	3.4
Prop In Lane	1.00		1.00	1.00		0.06	1.00		0.85	1.00		1.00
Lane Grp Cap(c), veh/h	609	2846	1269	396	1400	1460	228	0	208	216	244	205
V/C Ratio(X)	0.04	0.36	0.07	0.09	0.26	0.26	0.43	0.00	0.13	0.41	0.01	0.28
Avail Cap(c_a), veh/h	609	2846	1269	396	1400	1460	563	0	634	563	743	624
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.2	4.3	3.3	0.7	0.0	0.0	45.7	0.0	43.0	46.7	42.4	43.8
Incr Delay (d2), s/veh	0.1	0.4	0.1	0.5	0.5	0.4	1.3	0.0	0.3	1.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.0	0.4	0.0	0.2	0.2	2.6	0.0	0.7	2.4	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.4	4.7	3.4	1.1	0.5	0.4	47.0	0.0	43.3	47.9	42.4	44.5
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	D	D
Approach Vol, veh/h	1145				782				124			
Approach Delay, s/veh	4.6				0.5				46.2			
Approach LOS	A				A				D			
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	89.7			20.3			89.7			20.3		
Change Period (Y+Rc), s	6.0			* 6.8			6.0			* 6.8		
Max Green Setting (Gmax), s	56.0			* 41			56.0			* 41		
Max Q Clear Time (g_c+I1), s	12.0			9.7			13.1			10.2		
Green Ext Time (p_c), s	9.4			0.4			5.5			0.4		

Intersection Summary

HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
2001: Middlebelt Rd & Commercial DW

2022 Existing Conditions
PM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	 	
Traffic Volume (veh/h)	63	130	150	1142	1328	47
Future Volume (veh/h)	63	130	150	1142	1328	47
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1984	1953	1953
Adj Flow Rate, veh/h	73	71	165	1255	1443	47
Peak Hour Factor	0.86	0.86	0.91	0.91	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	3	3
Cap, veh/h	143	127	321	3024	2977	1328
Arrive On Green	0.08	0.08	0.80	0.80	0.80	0.80
Sat Flow, veh/h	1890	1682	356	3870	3809	1655
Grp Volume(v), veh/h	73	71	165	1255	1443	47
Grp Sat Flow(s),veh/h/ln	1890	1682	356	1885	1856	1655
Q Serve(g_s), s	3.3	3.7	25.2	8.9	11.3	0.5
Cycle Q Clear(g_c), s	3.3	3.7	36.5	8.9	11.3	0.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	143	127	321	3024	2977	1328
V/C Ratio(X)	0.51	0.56	0.51	0.41	0.48	0.04
Avail Cap(c_a), veh/h	399	355	321	3024	2977	1328
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	40.1	8.8	2.6	2.9	1.8
Incr Delay (d2), s/veh	2.8	3.8	5.8	0.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.6	2.0	1.7	2.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.8	43.9	14.6	3.1	3.5	1.9
LnGrp LOS	D	D	B	A	A	A
Approach Vol, veh/h	144			1420	1490	
Approach Delay, s/veh	43.4			4.4	3.4	
Approach LOS	D			A	A	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	77.2		12.8		77.2	
Change Period (Y+Rc), s	5.0		6.0		5.0	
Max Green Setting (Gmax), s	60.0		19.0		60.0	
Max Q Clear Time (g_c+I1), s	38.5		5.7		13.3	
Green Ext Time (p_c), s	12.3		0.3		15.3	
Intersection Summary						
HCM 6th Ctrl Delay			5.7			
HCM 6th LOS			A			

Intersection: 1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	574	672	583	164	275	199	229	226	344	413	410	275
Average Queue (ft)	386	288	250	64	131	108	107	102	121	269	263	88
95th Queue (ft)	630	647	545	128	237	171	182	183	267	388	386	257
Link Distance (ft)		804	804			923	923			345	345	
Upstream Blk Time (%)		1	0						0	2	3	
Queuing Penalty (veh)		8	3						0	15	21	
Storage Bay Dist (ft)	500			545	500			205	400			200
Storage Blk Time (%)	23	0	0				0	1	0	2	22	
Queuing Penalty (veh)	79	0	0				1	2	0	3	28	

Intersection: 1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	502	543	552	224
Average Queue (ft)	214	376	362	92
95th Queue (ft)	424	550	536	175
Link Distance (ft)		921	921	921
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	500			
Storage Blk Time (%)		3		
Queuing Penalty (veh)		7		

Intersection: 1074: Commercial DW (PB)/Tech Center Dr (PB) & Plymouth Rd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	T	R
Maximum Queue (ft)	35	213	181	36	72	94	114	138	93	126	56	70
Average Queue (ft)	10	87	51	9	20	24	38	61	20	48	4	29
95th Queue (ft)	29	173	125	27	53	70	87	116	53	94	27	55
Link Distance (ft)		921	921			816	816		320		476	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	495			500	500			130		65		65
Storage Blk Time (%)								2		9	0	0
Queuing Penalty (veh)								1		9	0	0

Intersection: 2001: Middlebelt Rd & Commercial DW

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	R
Maximum Queue (ft)	166	120	194	169	139	219	237	124
Average Queue (ft)	48	47	79	71	48	73	77	10
95th Queue (ft)	109	91	149	144	110	173	185	57
Link Distance (ft)	320			873	873	373	373	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		50	500					150
Storage Blk Time (%)	15	7					1	
Queuing Penalty (veh)	20	4					1	

Zone Summary

Zone wide Queuing Penalty: 203

Appendix 3

Background LOS Output Reports

HCM 6th Signalized Intersection Summary

1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

2024 Background Conditions

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	248	51	69	374	182	127	1091	111	160	557	229
Future Volume (veh/h)	153	248	51	69	374	182	127	1091	111	160	557	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1906	1906	1906	1891	1891	1891	1969	1969	1969	1906	1906	1906
Adj Flow Rate, veh/h	174	282	24	78	420	125	143	1226	49	176	612	129
Peak Hour Factor	0.88	0.88	0.88	0.89	0.89	0.89	0.89	0.89	0.89	0.91	0.91	0.91
Percent Heavy Veh, %	6	6	6	7	7	7	2	2	2	6	6	6
Cap, veh/h	369	1215	542	435	1205	538	319	1221	544	179	1182	613
Arrive On Green	0.02	0.11	0.11	0.05	0.34	0.34	0.06	0.33	0.33	0.06	0.33	0.33
Sat Flow, veh/h	1816	3622	1616	1801	3593	1602	1875	3741	1665	1816	3622	1613
Grp Volume(v), veh/h	174	282	24	78	420	125	143	1226	49	176	612	129
Grp Sat Flow(s),veh/h/ln	1816	1811	1616	1801	1796	1602	1875	1870	1665	1816	1811	1613
Q Serve(g_s), s	0.0	7.8	1.5	0.0	9.7	6.2	0.0	35.9	2.2	6.7	15.1	0.0
Cycle Q Clear(g_c), s	0.0	7.8	1.5	0.0	9.7	6.2	0.0	35.9	2.2	6.7	15.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	369	1215	542	435	1205	538	319	1221	544	179	1182	613
V/C Ratio(X)	0.47	0.23	0.04	0.18	0.35	0.23	0.45	1.00	0.09	0.98	0.52	0.21
Avail Cap(c_a), veh/h	369	1215	542	435	1205	538	319	1221	544	179	1182	613
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	36.0	33.2	27.7	27.5	26.3	38.4	37.0	25.7	50.2	30.0	23.0
Incr Delay (d2), s/veh	4.3	0.4	0.2	0.9	0.8	1.0	4.5	26.8	0.3	62.5	1.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	3.6	0.6	1.6	4.2	2.4	3.9	20.2	0.9	7.6	6.6	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.9	36.4	33.3	28.6	28.3	27.4	42.9	63.8	26.0	112.7	31.7	23.8
LnGrp LOS	D	D	C	C	C	C	D	F	C	F	C	C
Approach Vol, veh/h	480			623			1418			917		
Approach Delay, s/veh	37.5			28.1			60.4			46.1		
Approach LOS	D			C			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	43.0	13.0	42.0	12.0	43.0	13.0	42.0				
Change Period (Y+Rc), s	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1				
Max Green Setting (Gmax), s	* 5.9	* 37	* 6.9	* 36	* 5.9	* 37	* 6.9	* 36				
Max Q Clear Time (g_c+I1), s	2.0	9.8	8.7	37.9	2.0	11.7	2.0	17.1				
Green Ext Time (p_c), s	0.0	1.8	0.0	0.0	0.2	3.1	0.1	4.2				

Intersection Summary

HCM 6th Ctrl Delay 47.6

HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

2024 Background Conditions

1074: Commercial DW (PB)/Tech Center Dr (PB) & Plymouth Rd

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	395	15	10	547	91	20	1	10	5	0	5
Future Volume (veh/h)	39	395	15	10	547	91	20	1	10	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1906	1906	1906	1922	1922	1922	1953	1953	1953	1844	1844	1844
Adj Flow Rate, veh/h	44	444	16	11	629	77	31	2	6	8	0	6
Peak Hour Factor	0.89	0.89	0.89	0.87	0.87	0.87	0.65	0.65	0.65	0.60	0.60	0.60
Percent Heavy Veh, %	6	6	6	5	5	5	3	3	3	10	10	10
Cap, veh/h	635	3016	1345	802	2727	333	137	22	66	127	94	80
Arrive On Green	0.83	0.83	0.83	0.83	0.83	0.83	0.05	0.05	0.05	0.05	0.00	0.05
Sat Flow, veh/h	718	3622	1616	910	3275	400	1399	430	1291	1318	1844	1563
Grp Volume(v), veh/h	44	444	16	11	350	356	31	0	8	8	0	6
Grp Sat Flow(s),veh/h/ln	718	1811	1616	910	1826	1850	1399	0	1721	1318	1844	1563
Q Serve(g_s), s	1.5	2.6	0.2	0.3	4.4	4.4	2.4	0.0	0.5	0.6	0.0	0.4
Cycle Q Clear(g_c), s	5.9	2.6	0.2	2.8	4.4	4.4	2.4	0.0	0.5	1.1	0.0	0.4
Prop In Lane	1.00		1.00	1.00		0.22	1.00		0.75	1.00		1.00
Lane Grp Cap(c), veh/h	635	3016	1345	802	1520	1540	137	0	88	127	94	80
V/C Ratio(X)	0.07	0.15	0.01	0.01	0.23	0.23	0.23	0.00	0.09	0.06	0.00	0.08
Avail Cap(c_a), veh/h	635	3016	1345	802	1520	1540	589	0	645	553	691	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.5	1.8	1.6	2.0	1.9	1.9	50.7	0.0	49.8	50.3	0.0	49.7
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.0	0.4	0.4	0.8	0.0	0.4	0.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	0.0	0.0	0.9	0.9	0.9	0.0	0.2	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.7	1.9	1.6	2.1	2.3	2.3	51.5	0.0	50.2	50.5	0.0	50.1
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h		504			717			39			14	
Approach Delay, s/veh		1.9			2.3			51.2			50.3	
Approach LOS		A			A			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		97.6		12.4		97.6		12.4				
Change Period (Y+Rc), s		6.0		* 6.8		6.0		* 6.8				
Max Green Setting (Gmax), s		56.0		* 41		56.0		* 41				
Max Q Clear Time (g_c+I1), s		7.9		4.4		6.4		3.1				
Green Ext Time (p_c), s		3.5		0.1		4.7		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				4.2								
HCM 6th LOS				A								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary

2001: Middlebelt Rd & Commercial DW

2024 Background Conditions
AM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	 	
Traffic Volume (veh/h)	17	21	59	1319	617	16
Future Volume (veh/h)	17	21	59	1319	617	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1953	1953	1969	1969	1922	1922
Adj Flow Rate, veh/h	28	7	68	1516	686	16
Peak Hour Factor	0.60	0.60	0.87	0.87	0.90	0.90
Percent Heavy Veh, %	3	3	2	2	5	5
Cap, veh/h	84	75	671	3114	3040	1353
Arrive On Green	0.05	0.05	0.83	0.83	0.83	0.83
Sat Flow, veh/h	1860	1655	744	3839	3748	1626
Grp Volume(v), veh/h	28	7	68	1516	686	16
Grp Sat Flow(s),veh/h/ln	1860	1655	744	1870	1826	1626
Q Serve(g_s), s	1.3	0.4	1.9	10.3	3.5	0.1
Cycle Q Clear(g_c), s	1.3	0.4	5.4	10.3	3.5	0.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	84	75	671	3114	3040	1353
V/C Ratio(X)	0.33	0.09	0.10	0.49	0.23	0.01
Avail Cap(c_a), veh/h	393	349	671	3114	3040	1353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	41.2	2.1	2.1	1.6	1.3
Incr Delay (d2), s/veh	2.3	0.5	0.3	0.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.2	0.2	1.3	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.9	41.7	2.4	2.7	1.7	1.3
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	35			1584	702	
Approach Delay, s/veh	43.5			2.7	1.7	
Approach LOS	D			A	A	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	79.9		10.1		79.9	
Change Period (Y+Rc), s	5.0		6.0		5.0	
Max Green Setting (Gmax), s	60.0		19.0		60.0	
Max Q Clear Time (g_c+I1), s	12.3		3.3		5.5	
Green Ext Time (p_c), s	17.4		0.0		5.2	
Intersection Summary						
HCM 6th Ctrl Delay			3.0			
HCM 6th LOS			A			

Intersection: 1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	190	134	132	59	104	186	172	129	344	436	431	275
Average Queue (ft)	92	59	61	15	36	101	79	53	143	334	329	127
95th Queue (ft)	167	110	116	41	85	166	149	103	352	472	467	329
Link Distance (ft)		804	804			923	923			345	345	
Upstream Blk Time (%)									0	17	17	
Queuing Penalty (veh)									0	115	114	
Storage Bay Dist (ft)	500			545	500			205	400			200
Storage Blk Time (%)							0		0	17	38	
Queuing Penalty (veh)							0		1	22	43	

Intersection: 1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	339	291	239	120
Average Queue (ft)	168	161	137	46
95th Queue (ft)	303	246	214	90
Link Distance (ft)		921	921	921
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	500			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 1074: Commercial DW (PB)/Tech Center Dr (PB) & Plymouth Rd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	R
Maximum Queue (ft)	57	85	37	11	36	52	70	77	22	38	30
Average Queue (ft)	15	16	3	1	3	7	13	18	6	5	4
95th Queue (ft)	43	56	19	8	17	31	47	53	22	22	18
Link Distance (ft)		921	921			816	816		320		
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	495			500	500			130		65	65
Storage Blk Time (%)								0		0	
Queuing Penalty (veh)								0		0	

Intersection: 2001: Middlebelt Rd & Commercial DW

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	R
Maximum Queue (ft)	55	43	78	173	132	87	117	12
Average Queue (ft)	11	11	20	34	24	7	9	1
95th Queue (ft)	37	32	55	120	91	42	54	7
Link Distance (ft)	320			873	873	373	373	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		50	500					150
Storage Blk Time (%)	3	0					0	
Queuing Penalty (veh)	1	0					0	

Zone Summary

Zone wide Queuing Penalty: 295

HCM 6th Signalized Intersection Summary

2024 Background Conditions

1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	333	708	201	192	488	341	122	999	130	279	1112	411
Future Volume (veh/h)	333	708	201	192	488	341	122	999	130	279	1112	411
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1984	1984	1984	1953	1953	1953	1969	1969	1969	1969	1969	1969
Adj Flow Rate, veh/h	351	745	145	204	519	270	137	1122	77	294	1171	250
Peak Hour Factor	0.95	0.95	0.95	0.94	0.94	0.94	0.89	0.89	0.89	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	3	3	3	2	2	2	2	2	2
Cap, veh/h	326	1196	529	261	1177	520	234	1153	506	240	1153	610
Arrive On Green	0.02	0.10	0.10	0.06	0.32	0.32	0.09	0.31	0.31	0.09	0.31	0.31
Sat Flow, veh/h	1890	3770	1666	1860	3711	1640	1875	3741	1641	1875	3741	1641
Grp Volume(v), veh/h	351	745	145	204	519	270	137	1122	77	294	1171	250
Grp Sat Flow(s),veh/h/ln	1890	1885	1666	1860	1856	1640	1875	1870	1641	1875	1870	1641
Q Serve(g_s), s	6.9	20.8	8.8	3.1	12.2	14.8	3.7	32.6	3.7	9.9	33.9	5.4
Cycle Q Clear(g_c), s	6.9	20.8	8.8	3.1	12.2	14.8	3.7	32.6	3.7	9.9	33.9	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	326	1196	529	261	1177	520	234	1153	506	240	1153	610
V/C Ratio(X)	1.08	0.62	0.27	0.78	0.44	0.52	0.58	0.97	0.15	1.23	1.02	0.41
Avail Cap(c_a), veh/h	326	1196	529	261	1177	520	234	1153	506	240	1153	610
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.7	42.9	37.6	45.9	29.8	30.7	46.4	37.6	27.6	48.6	38.0	25.6
Incr Delay (d2), s/veh	71.3	2.4	1.3	20.3	1.2	3.7	10.3	20.8	0.6	133.1	30.5	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.1	10.9	3.9	6.6	5.5	6.2	4.0	17.6	1.5	15.0	19.7	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	118.0	45.4	38.9	66.3	31.0	34.4	56.6	58.4	28.3	181.7	68.5	27.6
LnGrp LOS	F	D	D	E	C	C	E	E	C	F	F	C
Approach Vol, veh/h	1241			993			1336			1715		
Approach Delay, s/veh	65.2			39.2			56.5			82.0		
Approach LOS	E			D			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	41.0	16.0	40.0	13.0	41.0	16.0	40.0				
Change Period (Y+Rc), s	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1				
Max Green Setting (Gmax), s	* 6.9	* 35	* 9.9	* 34	* 6.9	* 35	* 9.9	* 34				
Max Q Clear Time (g_c+I1), s	5.1	22.8	11.9	34.6	8.9	16.8	5.7	35.9				
Green Ext Time (p_c), s	0.1	4.2	0.0	0.0	0.0	4.0	0.1	0.0				

Intersection Summary

HCM 6th Ctrl Delay 63.5

HCM 6th LOS E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

1074: Commercial DW (PB)/Tech Center Dr (PB) & Plymouth Rd

2024 Background Conditions

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	913	95	34	728	24	87	4	35	77	2	94
Future Volume (veh/h)	19	913	95	34	728	24	87	4	35	77	2	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1969	1969	1969	1938	1938	1938	1969	1969	1969	1984	1984	1984
Adj Flow Rate, veh/h	22	1074	93	36	766	21	98	4	23	90	2	58
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.89	0.89	0.89	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	4	4	4	2	2	2	1	1	1
Cap, veh/h	588	2841	1267	379	2780	76	230	31	179	217	246	207
Arrive On Green	0.76	0.76	0.76	1.00	1.00	1.00	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	688	3741	1668	473	3660	100	1331	251	1442	1382	1984	1665
Grp Volume(v), veh/h	22	1074	93	36	385	402	98	0	27	90	2	58
Grp Sat Flow(s),veh/h/ln	688	1870	1668	473	1841	1920	1331	0	1693	1382	1984	1665
Q Serve(g_s), s	0.9	10.7	1.6	1.2	0.0	0.0	7.7	0.0	1.6	6.8	0.1	3.5
Cycle Q Clear(g_c), s	0.9	10.7	1.6	11.8	0.0	0.0	7.8	0.0	1.6	8.4	0.1	3.5
Prop In Lane	1.00		1.00	1.00		0.05	1.00		0.85	1.00		1.00
Lane Grp Cap(c), veh/h	588	2841	1267	379	1398	1458	230	0	210	217	246	207
V/C Ratio(X)	0.04	0.38	0.07	0.09	0.28	0.28	0.43	0.00	0.13	0.41	0.01	0.28
Avail Cap(c_a), veh/h	588	2841	1267	379	1398	1458	563	0	634	563	743	624
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.3	4.5	3.4	0.8	0.0	0.0	45.6	0.0	42.9	46.6	42.2	43.7
Incr Delay (d2), s/veh	0.1	0.4	0.1	0.5	0.5	0.5	1.3	0.0	0.3	1.3	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.2	0.4	0.1	0.2	0.2	2.6	0.0	0.7	2.4	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.4	4.8	3.5	1.3	0.5	0.5	46.9	0.0	43.1	47.9	42.2	44.4
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	D	D
Approach Vol, veh/h	1189				823				125			
Approach Delay, s/veh	4.7				0.5				46.1			
Approach LOS	A				A				D			
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	89.5			20.5			89.5			20.5		
Change Period (Y+Rc), s	6.0			* 6.8			6.0			* 6.8		
Max Green Setting (Gmax), s	56.0			* 41			56.0			* 41		
Max Q Clear Time (g_c+l1), s	12.7			9.8			13.8			10.4		
Green Ext Time (p_c), s	10.0			0.4			5.9			0.4		

Intersection Summary

HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
2001: Middlebelt Rd & Commercial DW

2024 Background Conditions
PM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	64	131	152	1187	1382	47
Future Volume (veh/h)	64	131	152	1187	1382	47
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1984	1953	1953
Adj Flow Rate, veh/h	74	72	167	1304	1502	47
Peak Hour Factor	0.86	0.86	0.91	0.91	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	3	3
Cap, veh/h	143	127	305	3024	2976	1328
Arrive On Green	0.08	0.08	0.80	0.80	0.80	0.80
Sat Flow, veh/h	1890	1682	336	3870	3809	1655
Grp Volume(v), veh/h	74	72	167	1304	1502	47
Grp Sat Flow(s),veh/h/ln	1890	1682	336	1885	1856	1655
Q Serve(g_s), s	3.4	3.7	29.5	9.4	12.1	0.5
Cycle Q Clear(g_c), s	3.4	3.7	41.6	9.4	12.1	0.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	143	127	305	3024	2976	1328
V/C Ratio(X)	0.52	0.57	0.55	0.43	0.50	0.04
Avail Cap(c_a), veh/h	399	355	305	3024	2976	1328
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	40.2	9.9	2.7	3.0	1.8
Incr Delay (d2), s/veh	2.9	3.9	6.9	0.5	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.7	2.2	1.8	2.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.9	44.0	16.8	3.1	3.6	1.9
LnGrp LOS	D	D	B	A	A	A
Approach Vol, veh/h	146			1471	1549	
Approach Delay, s/veh	43.5			4.7	3.5	
Approach LOS	D			A	A	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	77.2		12.8		77.2	
Change Period (Y+Rc), s	5.0		6.0		5.0	
Max Green Setting (Gmax), s	60.0		19.0		60.0	
Max Q Clear Time (g_c+I1), s	43.6		5.7		14.1	
Green Ext Time (p_c), s	10.7		0.3		16.3	
Intersection Summary						
HCM 6th Ctrl Delay			5.9			
HCM 6th LOS			A			

Intersection: 1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	575	826	859	166	285	199	219	249	344	417	413	275
Average Queue (ft)	518	576	545	70	144	126	122	104	129	307	304	147
95th Queue (ft)	695	1054	1051	131	245	195	197	193	306	433	433	342
Link Distance (ft)		804	804			923	923			345	345	
Upstream Blk Time (%)		25	12						0	7	8	
Queuing Penalty (veh)		154	74						0	46	51	
Storage Bay Dist (ft)	500			545	500			205	400			200
Storage Blk Time (%)	68	0					1	1	0	7	32	
Queuing Penalty (veh)	240	0					2	2	0	9	42	

Intersection: 1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	574	897	846	784
Average Queue (ft)	489	689	631	246
95th Queue (ft)	701	1114	1068	777
Link Distance (ft)		921	921	921
Upstream Blk Time (%)		26	5	2
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)	500			
Storage Blk Time (%)	53	8		
Queuing Penalty (veh)	294	22		

Intersection: 1074: Commercial DW (PB)/Tech Center Dr (PB) & Plymouth Rd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	T	R
Maximum Queue (ft)	44	190	175	45	55	106	130	136	100	112	88	71
Average Queue (ft)	9	90	56	10	19	24	40	60	23	51	9	28
95th Queue (ft)	32	177	132	30	46	75	91	113	62	95	51	53
Link Distance (ft)		921	921			816	816		320		476	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	495			500	500			130		65		65
Storage Blk Time (%)								1		10	0	0
Queuing Penalty (veh)								0		9	0	0

Intersection: 2001: Middlebelt Rd & Commercial DW

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	R
Maximum Queue (ft)	132	120	174	151	117	234	268	152
Average Queue (ft)	47	51	81	71	55	74	79	11
95th Queue (ft)	98	96	153	133	113	180	193	66
Link Distance (ft)	320			873	873	373	373	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		50	500					150
Storage Blk Time (%)	16	9					2	
Queuing Penalty (veh)	21	6					1	

Zone Summary

Zone wide Queuing Penalty: 976

Appendix 4

Trip Generation Calculations

Trip Generation - Weekday Summary												
ITE Code	ITE Rate Description	Unit	Amount	AM			PM			Weekday		
				Ingress	Egress	Total	Ingress	Egress	Total	Ingress	Egress	Total
ITE 220	Multifamily Housing (Low-Rise)	DU	201	20	65	85	67	40	107	682	682	1364
Total Trips				20	65	85	67	40	107	682	682	1364
Total Pass-by				-	-	-	-	-	-	-	-	-
Internal Trip Share 0%				-	-	-	-	-	-	-	-	-
Total New Trips				20	65	85	67	40	107	682	682	1364
ITE Trip Generation Rates - Weekday												
ITE Code	ITE Rate Description	Unit	Amount	R2	Rate	Std. Dev	Pass-by	# Studies	Notes			
ITE 220	Multifamily Housing (Low-Rise)	DU	201									
AM	T = 0.31 (X) + 22.85		85	0.79	0.40	0.12	0%	49	Use equation; R2>0.75, large number of studies			
PM	T = 0.43 (X) + 20.55		107	0.84	0.51	0.15	0%	59	Use equation; R2>0.75, large number of studies			
Weekday	T = 6.41 (X) + 75.31		1364	0.86	6.74	1.79	0%	22	Use equation; R2>0.75, large number of studies			
				AM			PM			Weekday		
				Ingress	Egress	Total	Ingress	Egress	Total	Ingress	Egress	Total
Directional Distribution				24%	76%	100%	63%	37%	100%	50%	50%	100%
Volume Distribution				20	65	85	67	40	107	682	682	1364

Land Use: 220

Multifamily Housing (Low-Rise)

Description

Low-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have two or three floors (levels). Various configurations fit this description, including walkup apartment, mansion apartment, and stacked townhouse.

- A walkup apartment typically is two or three floors in height with dwelling units that are accessed by a single or multiple entrances with stairways and hallways.
- A mansion apartment is a single structure that contains several apartments within what appears to be a single-family dwelling unit.
- A fourplex is a single two-story structure with two matching dwelling units on the ground and second floors. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.
- A stacked townhouse is designed to match the external appearance of a townhouse. But, unlike a townhouse dwelling unit that only shares walls with an adjoining unit, the stacked townhouse units share both floors and walls. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.

Multifamily housing (mid-rise) (Land Use 221), multifamily housing (high-rise) (Land Use 222), affordable housing (Land Use 223), and off-campus student apartment (low-rise) (Land Use 225) are related land uses.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

For the three sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.72 residents per occupied dwelling unit.

For the two sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96.2 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip

generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

For the three sites for which data were provided for both occupied dwelling units and residents, there was an average of 2.72 residents per occupied dwelling unit.

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1980s, the 1990s, the 2000s, the 2010s, and the 2020s in British Columbia (CAN), California, Delaware, Florida, Georgia, Illinois, Indiana, Maine, Maryland, Massachusetts, Minnesota, New Jersey, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, and Washington.

Source Numbers

188, 204, 237, 300, 305, 306, 320, 321, 357, 390, 412, 525, 530, 579, 583, 638, 864, 866, 896, 901, 903, 904, 936, 939, 944, 946, 947, 948, 963, 964, 966, 967, 1012, 1013, 1014, 1036, 1047, 1056, 1071, 1076

Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 22

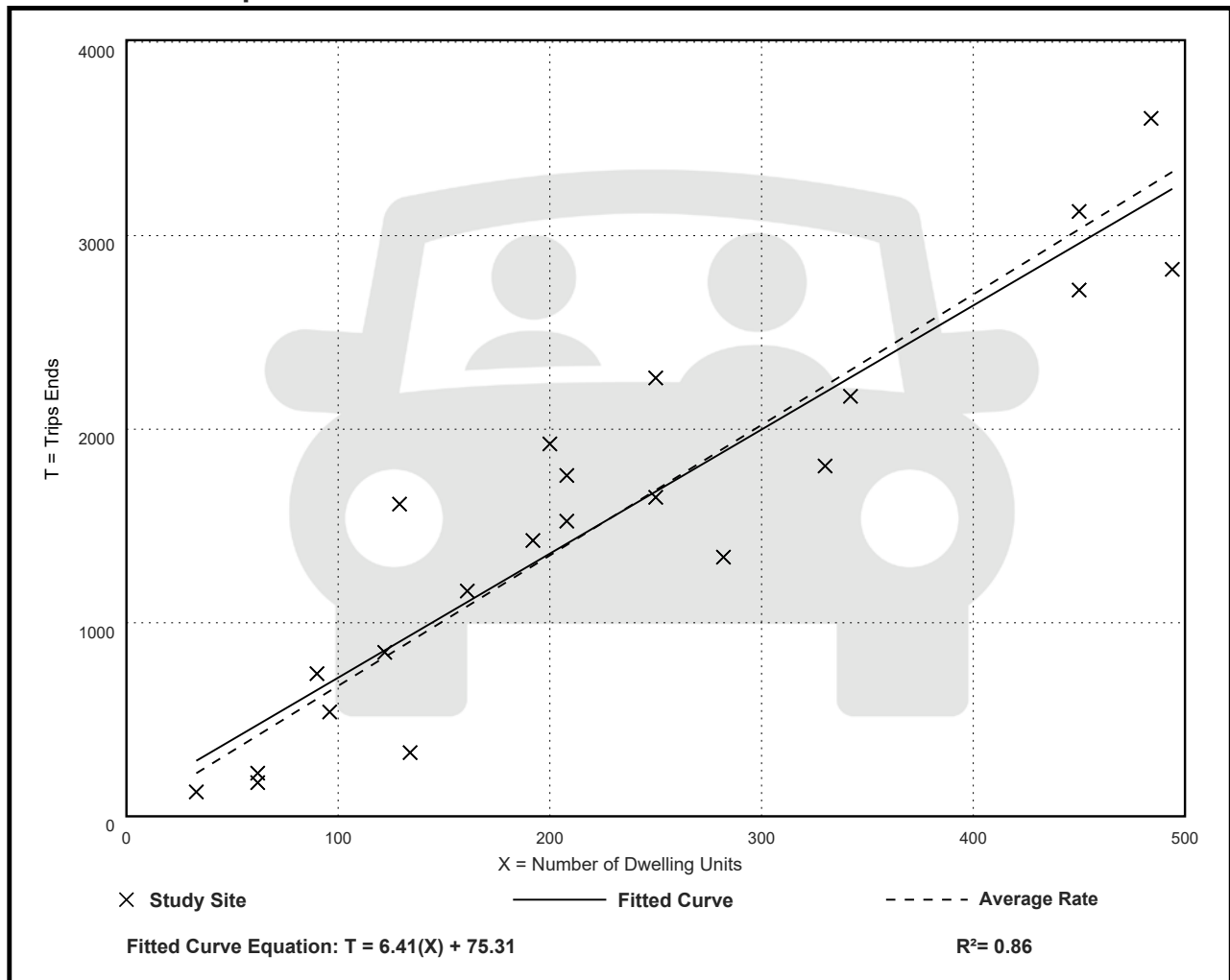
Avg. Num. of Dwelling Units: 229

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.74	2.46 - 12.50	1.79

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 49

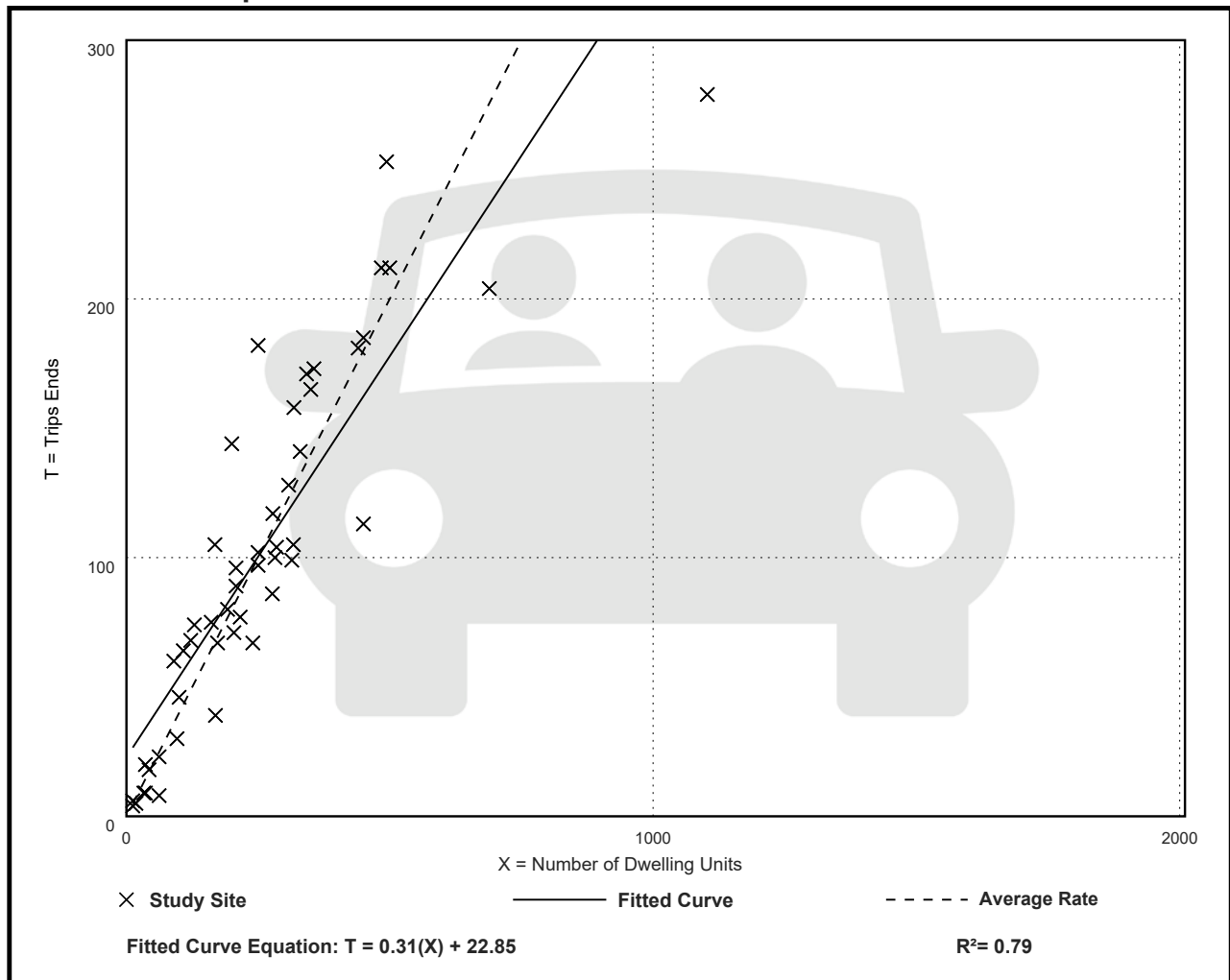
Avg. Num. of Dwelling Units: 249

Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 59

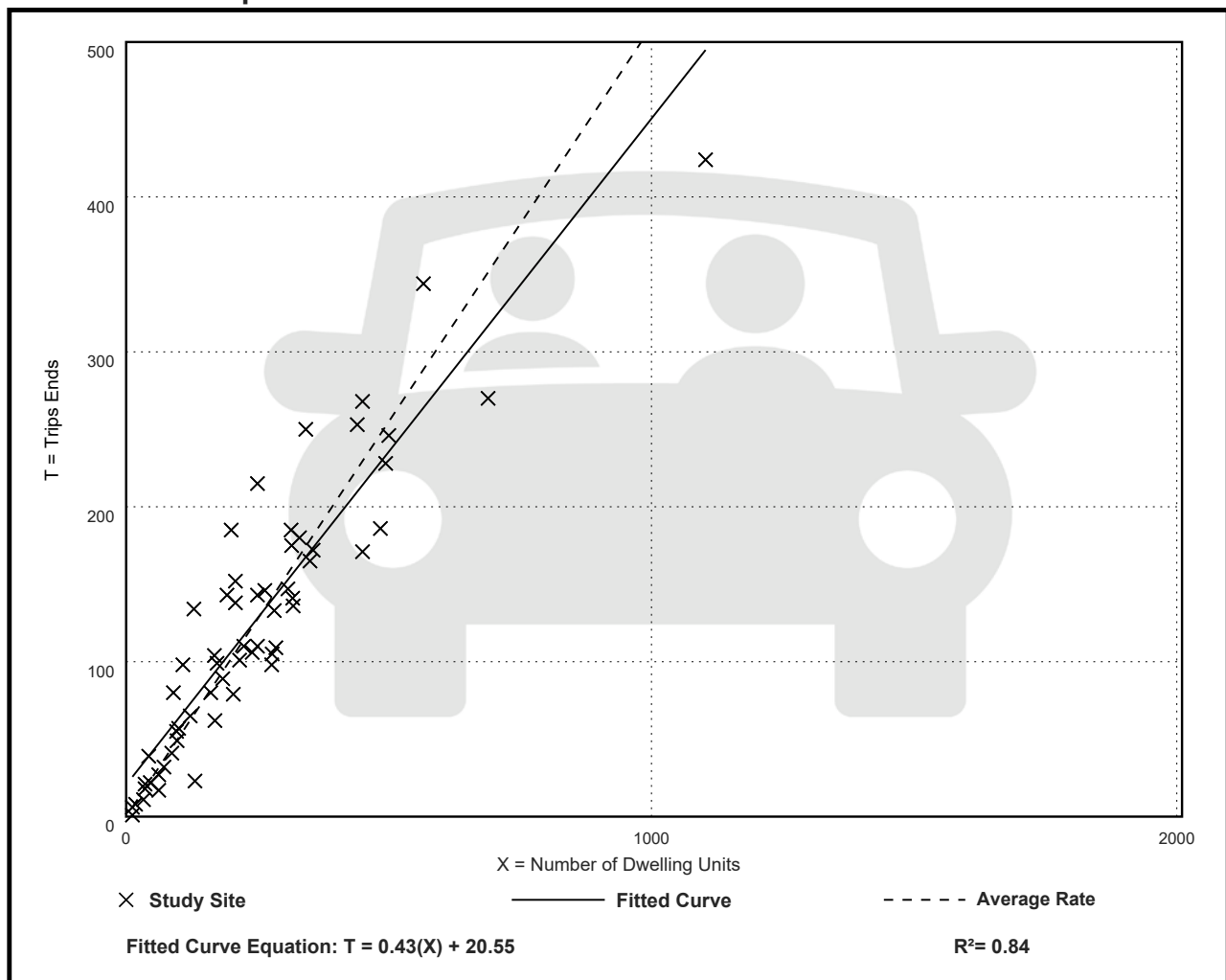
Avg. Num. of Dwelling Units: 241

Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 40

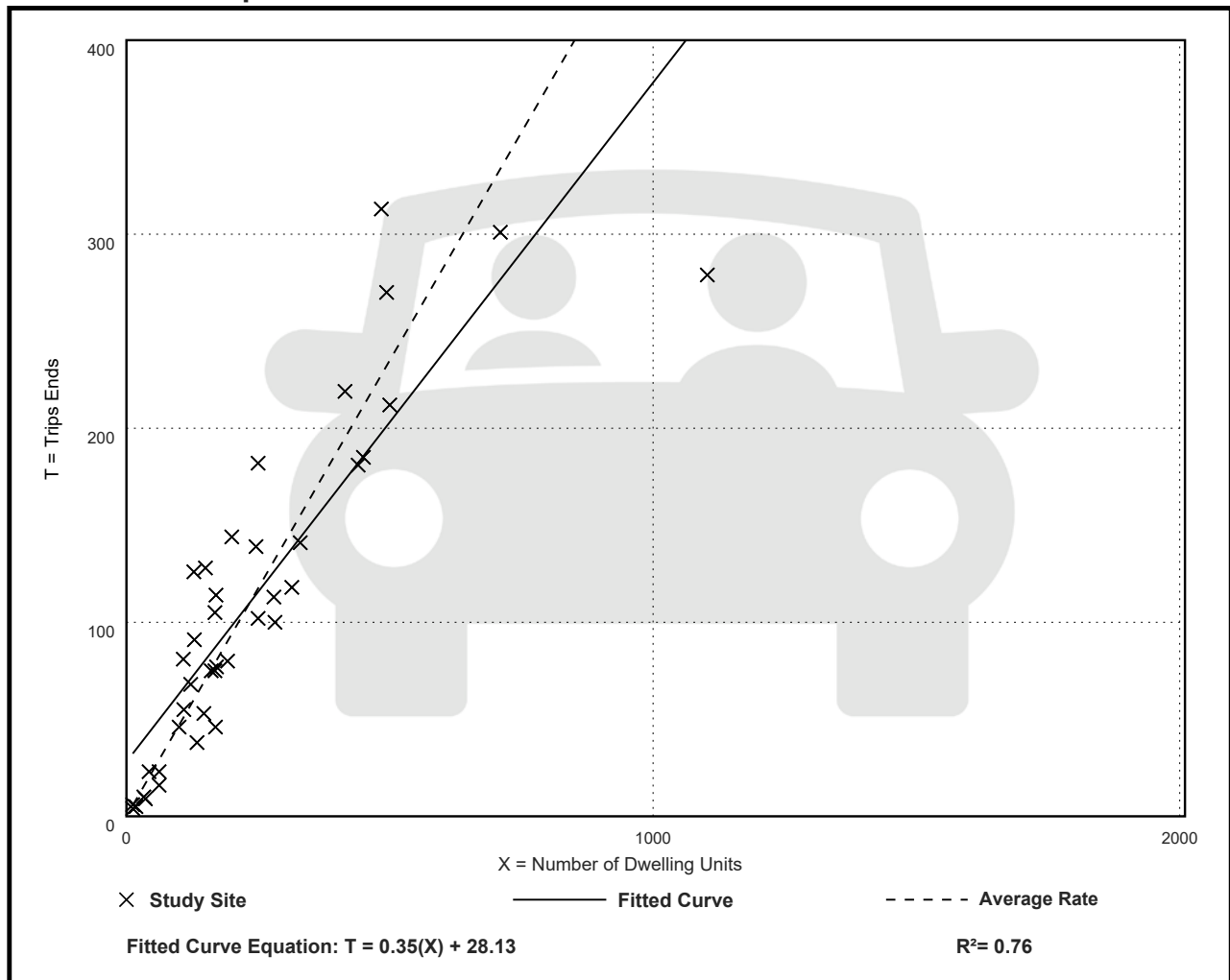
Avg. Num. of Dwelling Units: 234

Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.47	0.25 - 0.98	0.16

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 38

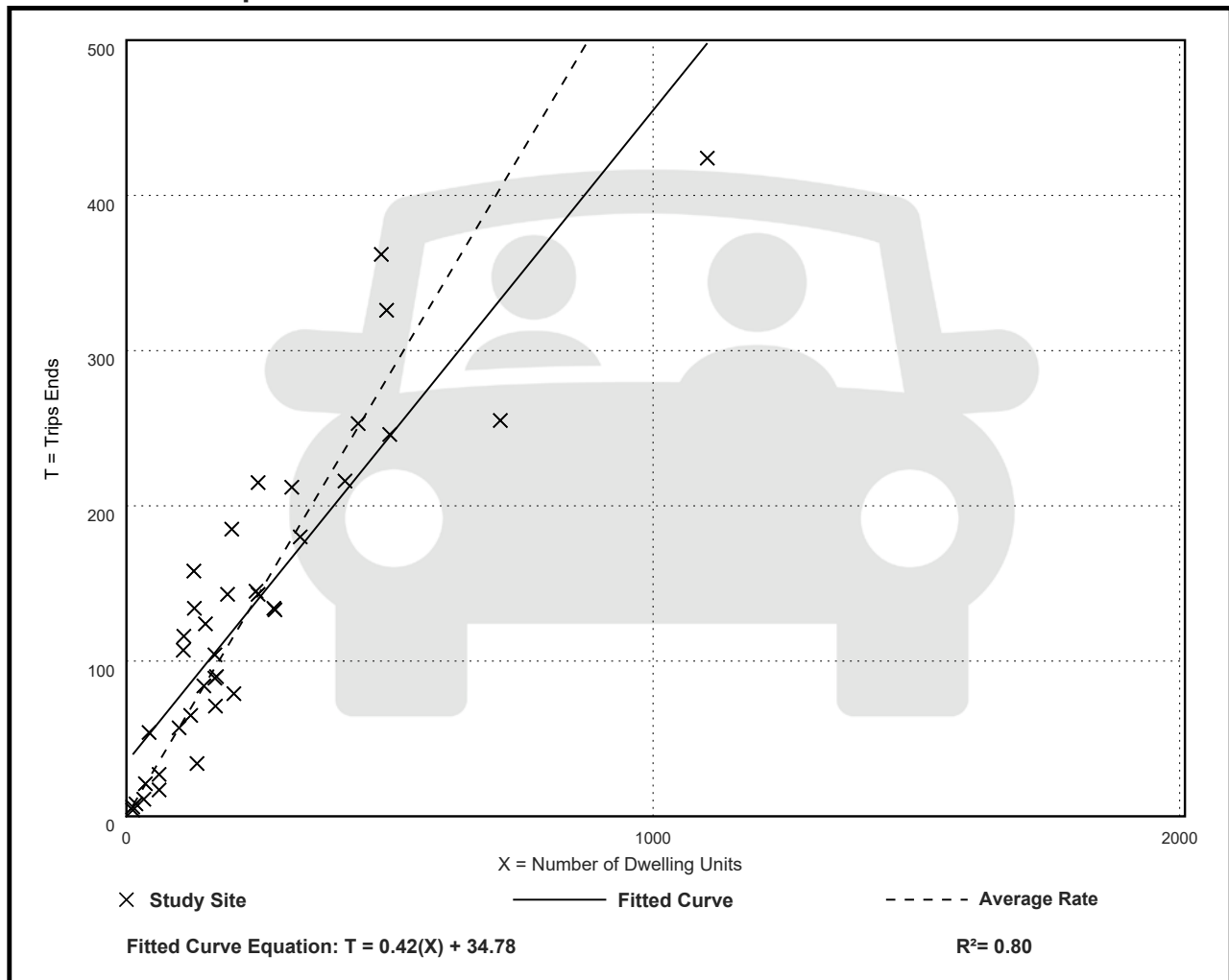
Avg. Num. of Dwelling Units: 231

Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.25 - 1.26	0.20

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Saturday

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Dwelling Units: 282

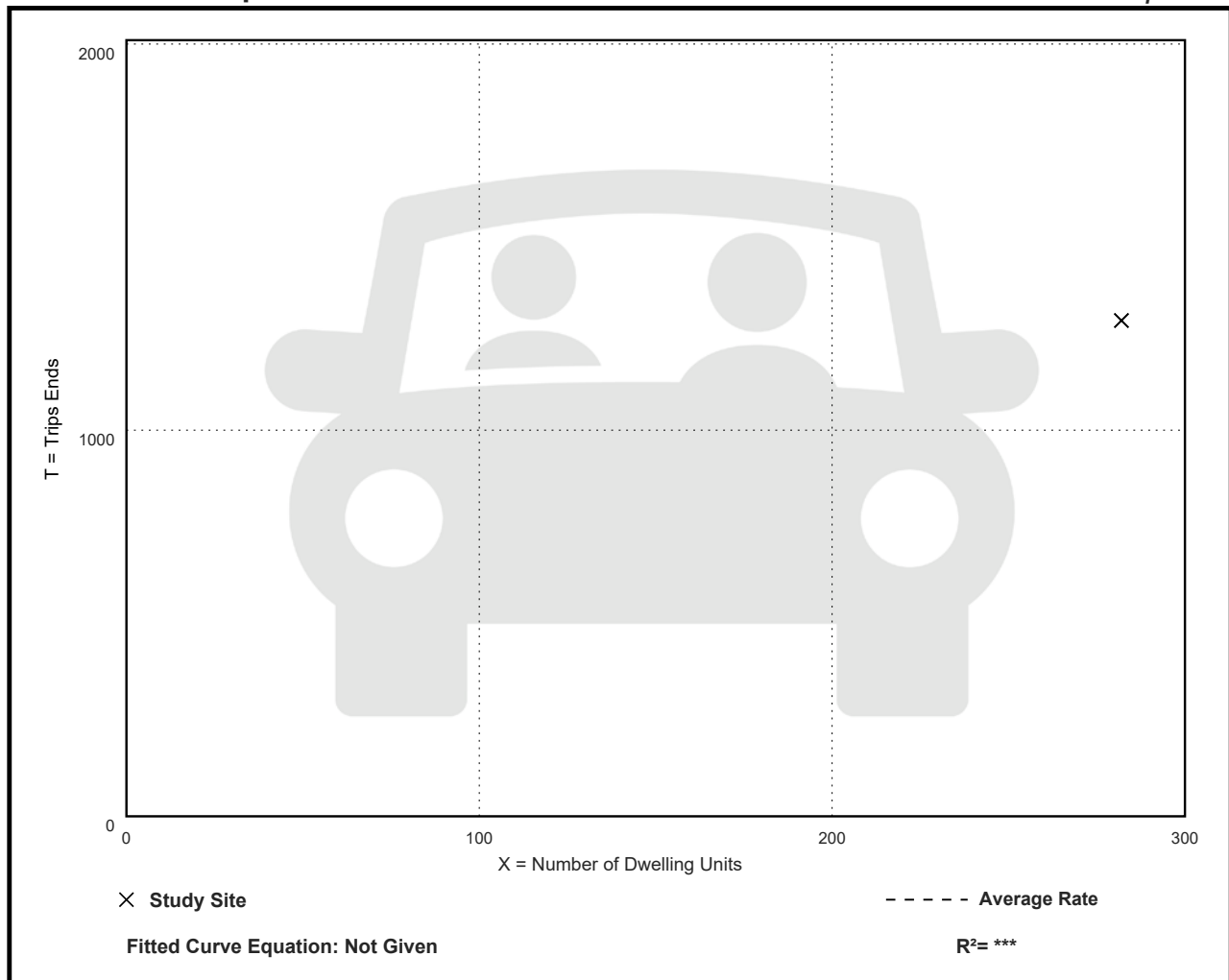
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.55	4.55 - 4.55	***

Data Plot and Equation

Caution – Small Sample Size



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Dwelling Units: 282

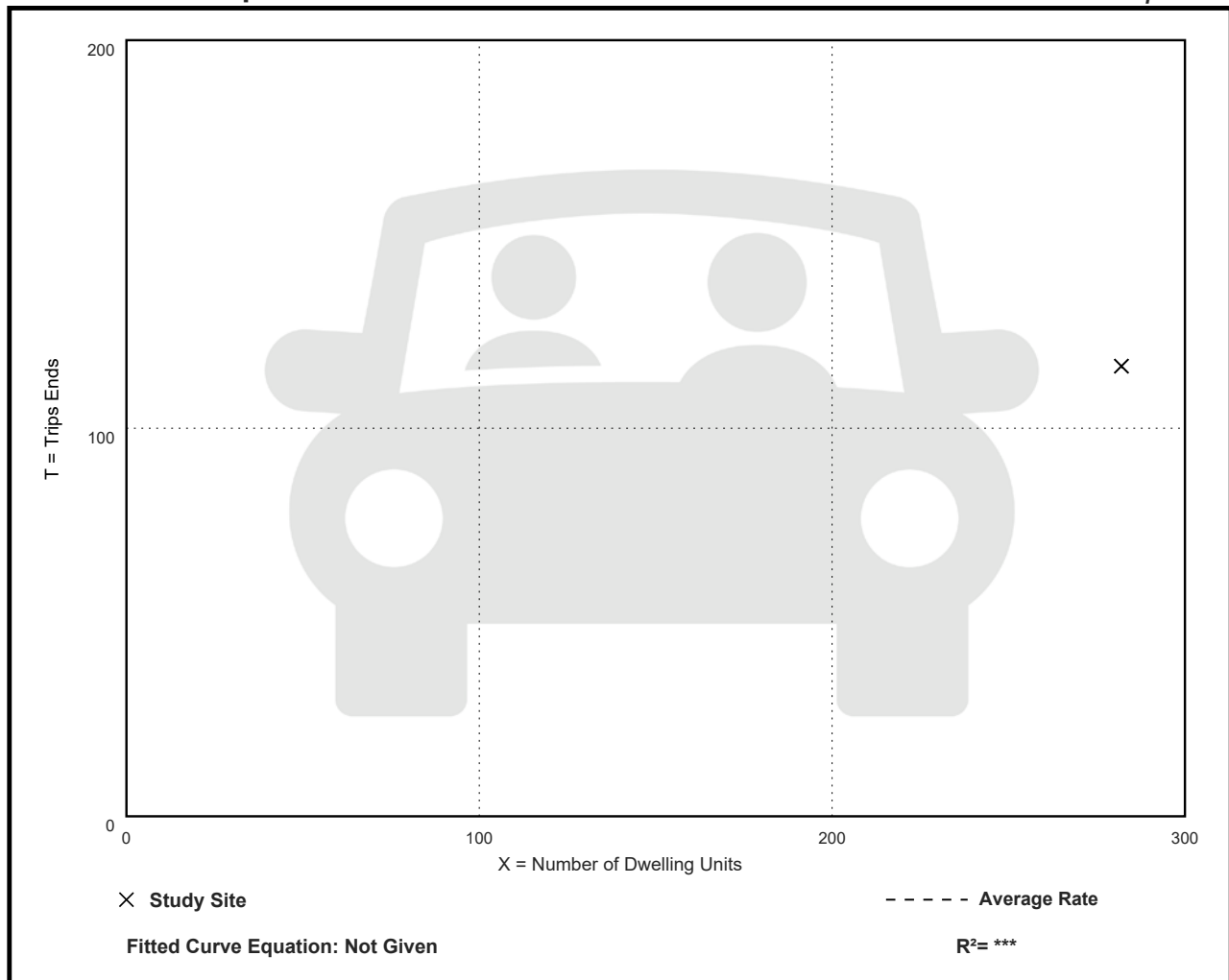
Directional Distribution: Not Available

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.41	0.41 - 0.41	***

Data Plot and Equation

Caution – Small Sample Size



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Sunday

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Dwelling Units: 282

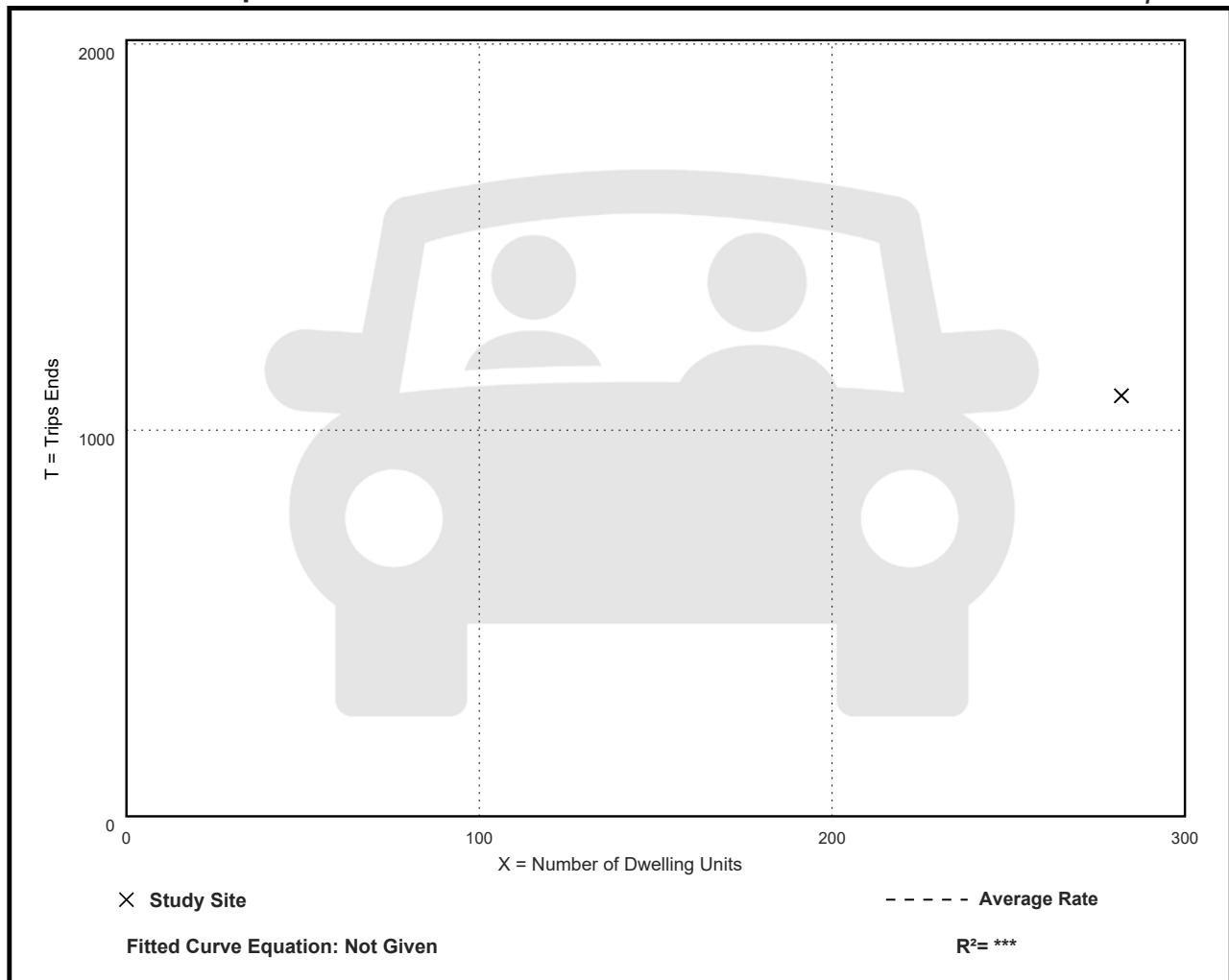
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
3.86	3.86 - 3.86	***

Data Plot and Equation

Caution – Small Sample Size



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Sunday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Dwelling Units: 282

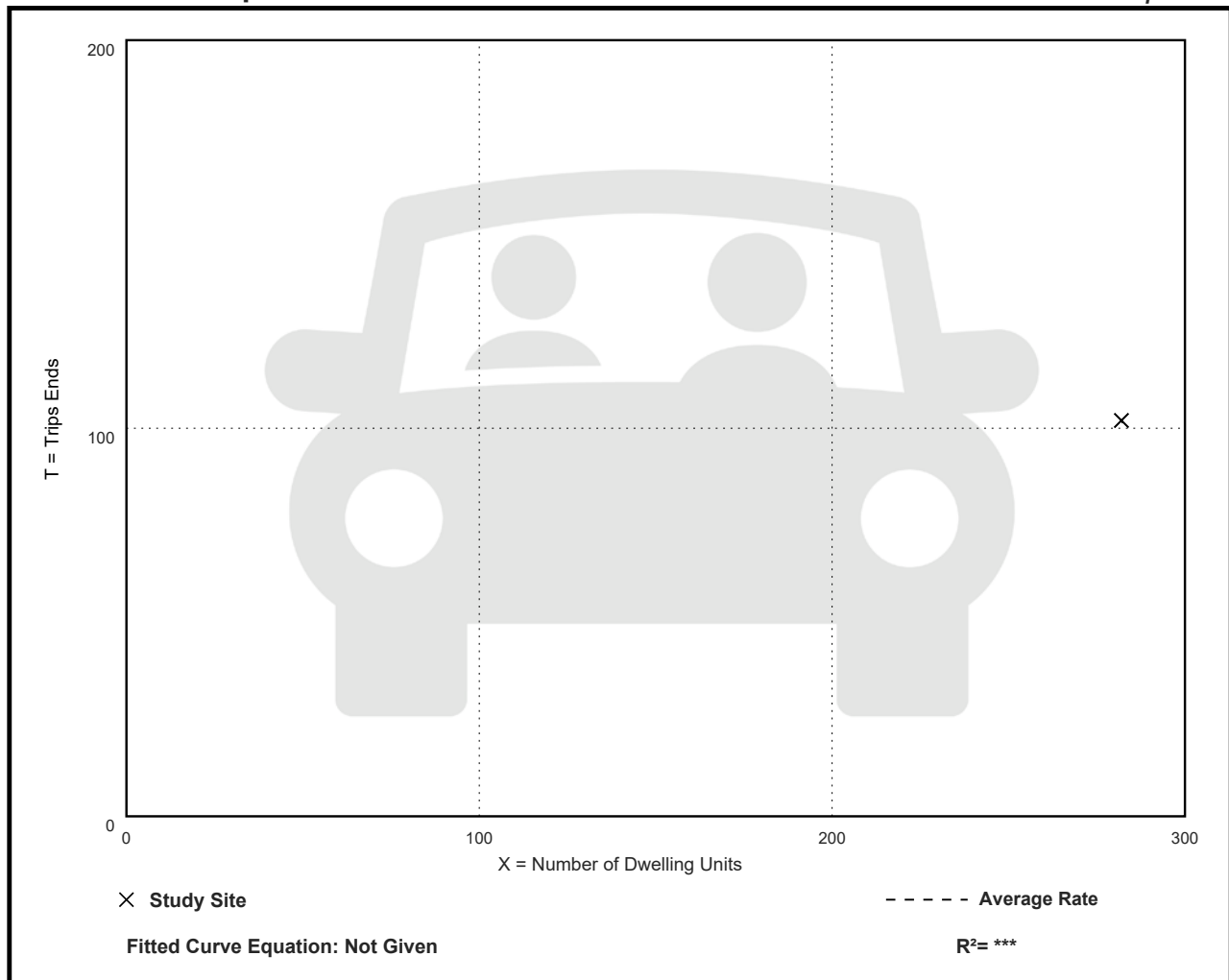
Directional Distribution: Not Available

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.36	0.36 - 0.36	***

Data Plot and Equation

Caution – Small Sample Size



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Residents

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Residents: 177

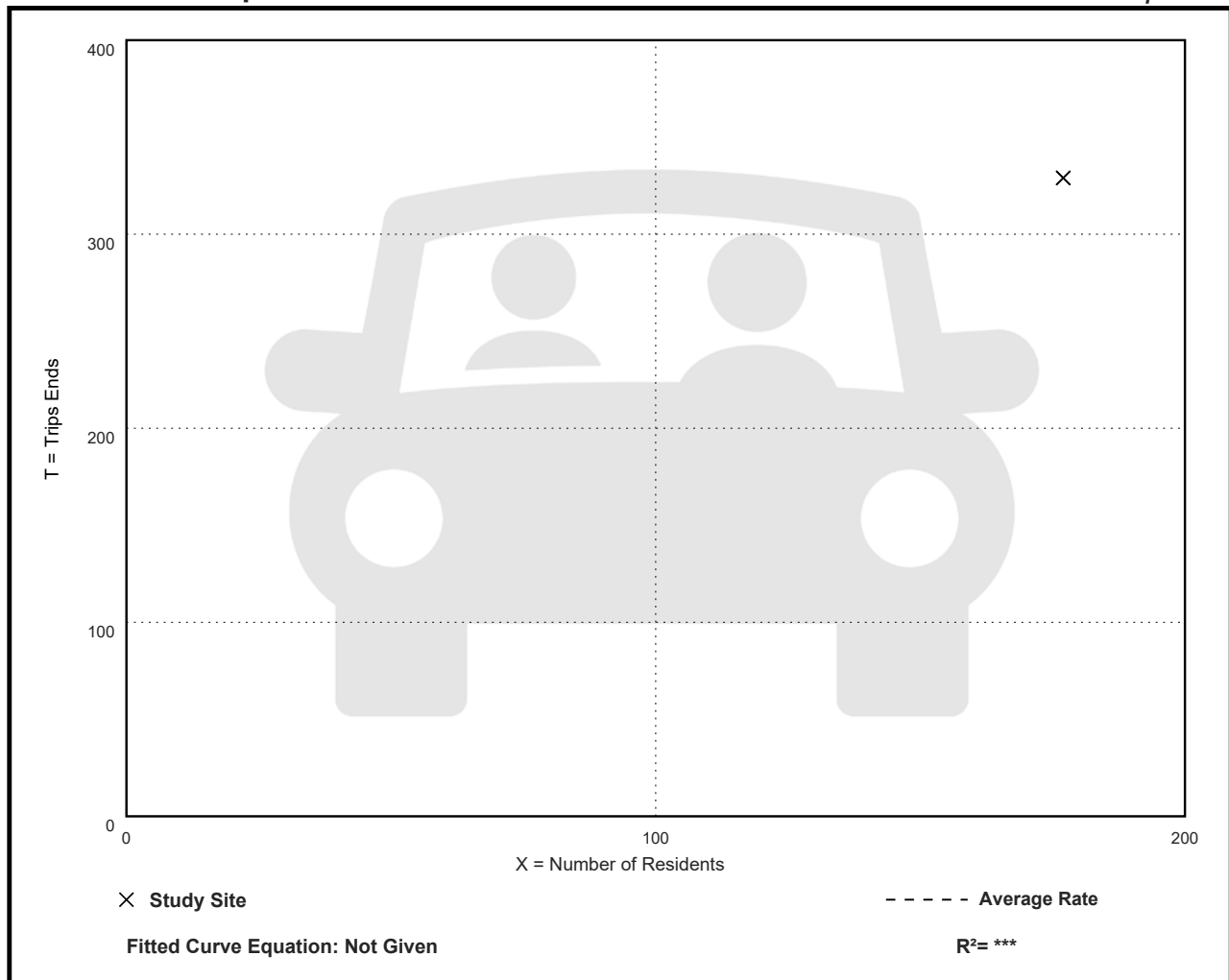
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Resident

Average Rate	Range of Rates	Standard Deviation
1.86	1.86 - 1.86	***

Data Plot and Equation

Caution – Small Sample Size



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Residents

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 9

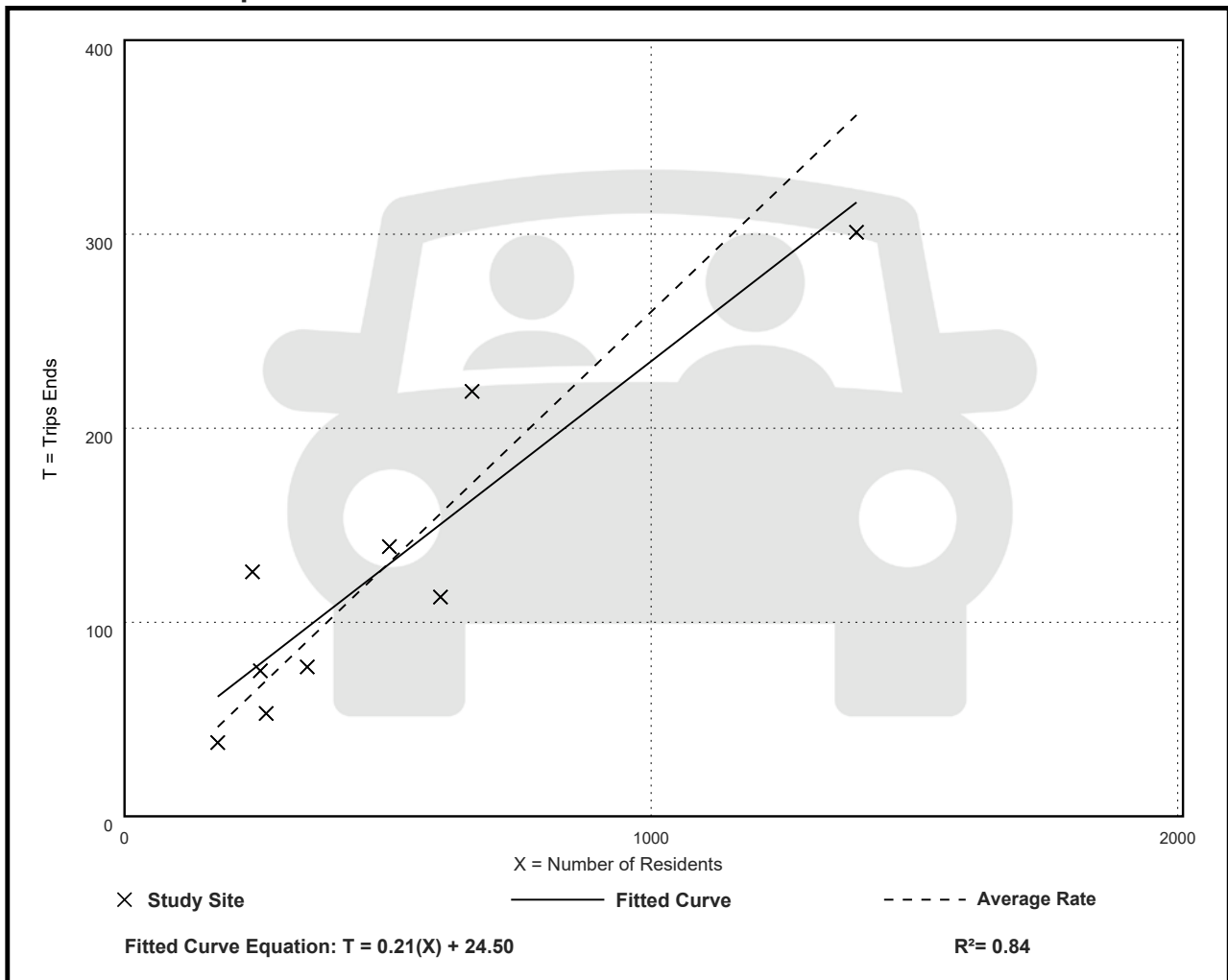
Avg. Num. of Residents: 494

Directional Distribution: 17% entering, 83% exiting

Vehicle Trip Generation per Resident

Average Rate	Range of Rates	Standard Deviation
0.26	0.19 - 0.52	0.08

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Residents

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 9

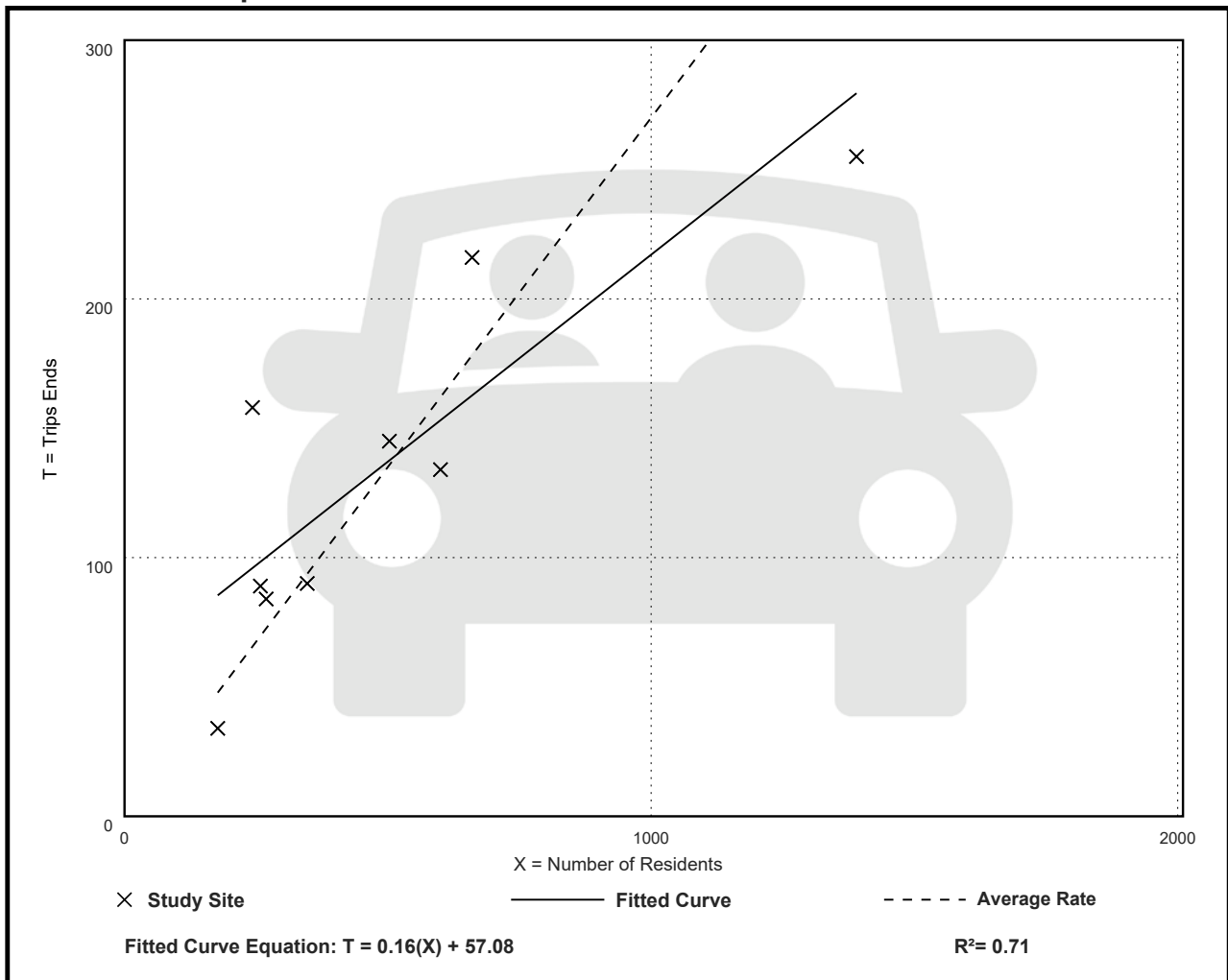
Avg. Num. of Residents: 494

Directional Distribution: 66% entering, 34% exiting

Vehicle Trip Generation per Resident

Average Rate	Range of Rates	Standard Deviation
0.27	0.18 - 0.65	0.11

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Walk+Bike+Transit Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 8

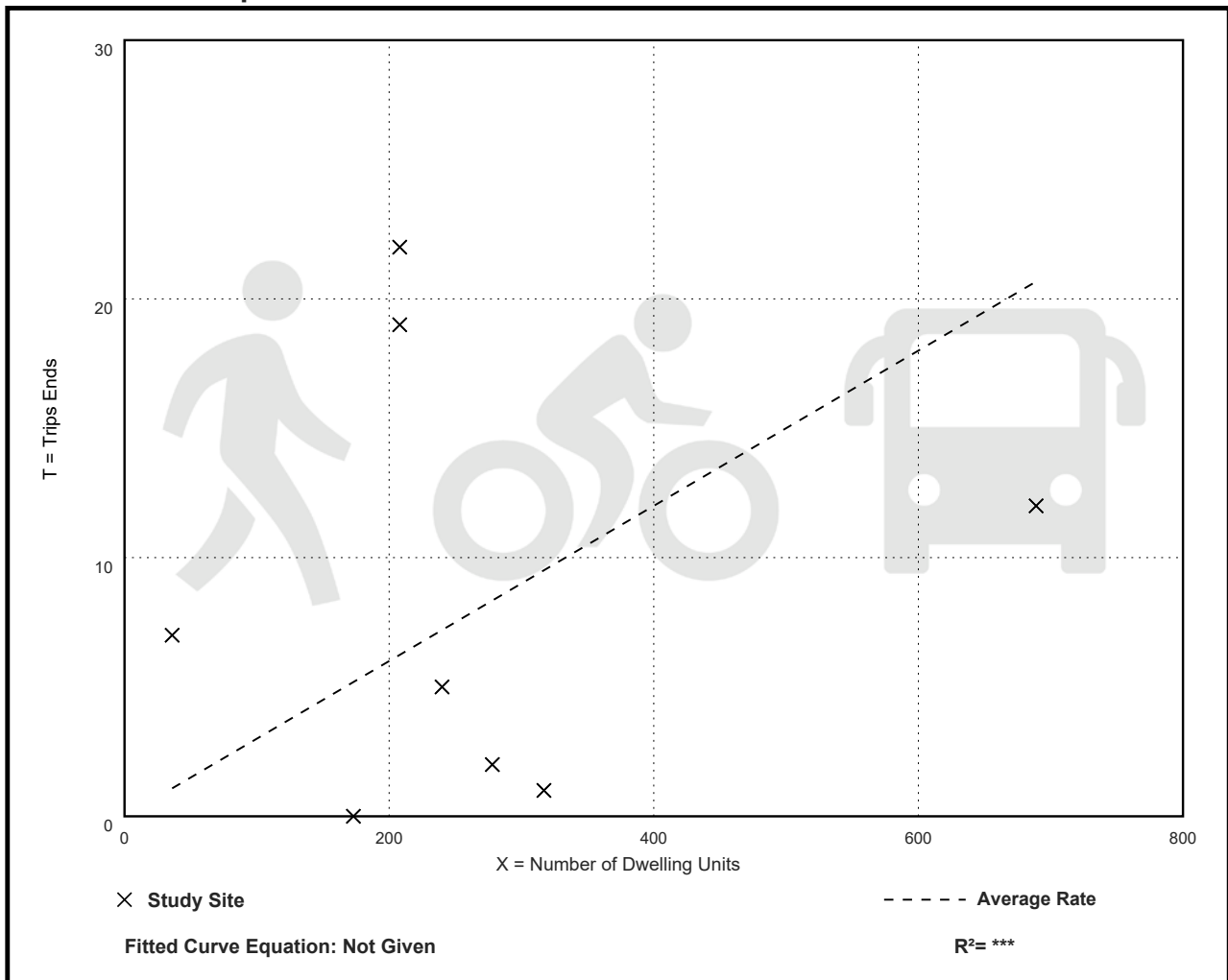
Avg. Num. of Dwelling Units: 269

Directional Distribution: 43% entering, 57% exiting

Walk+Bike+Transit Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.03	0.00 - 0.19	0.04

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Walk+Bike+Transit Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 10

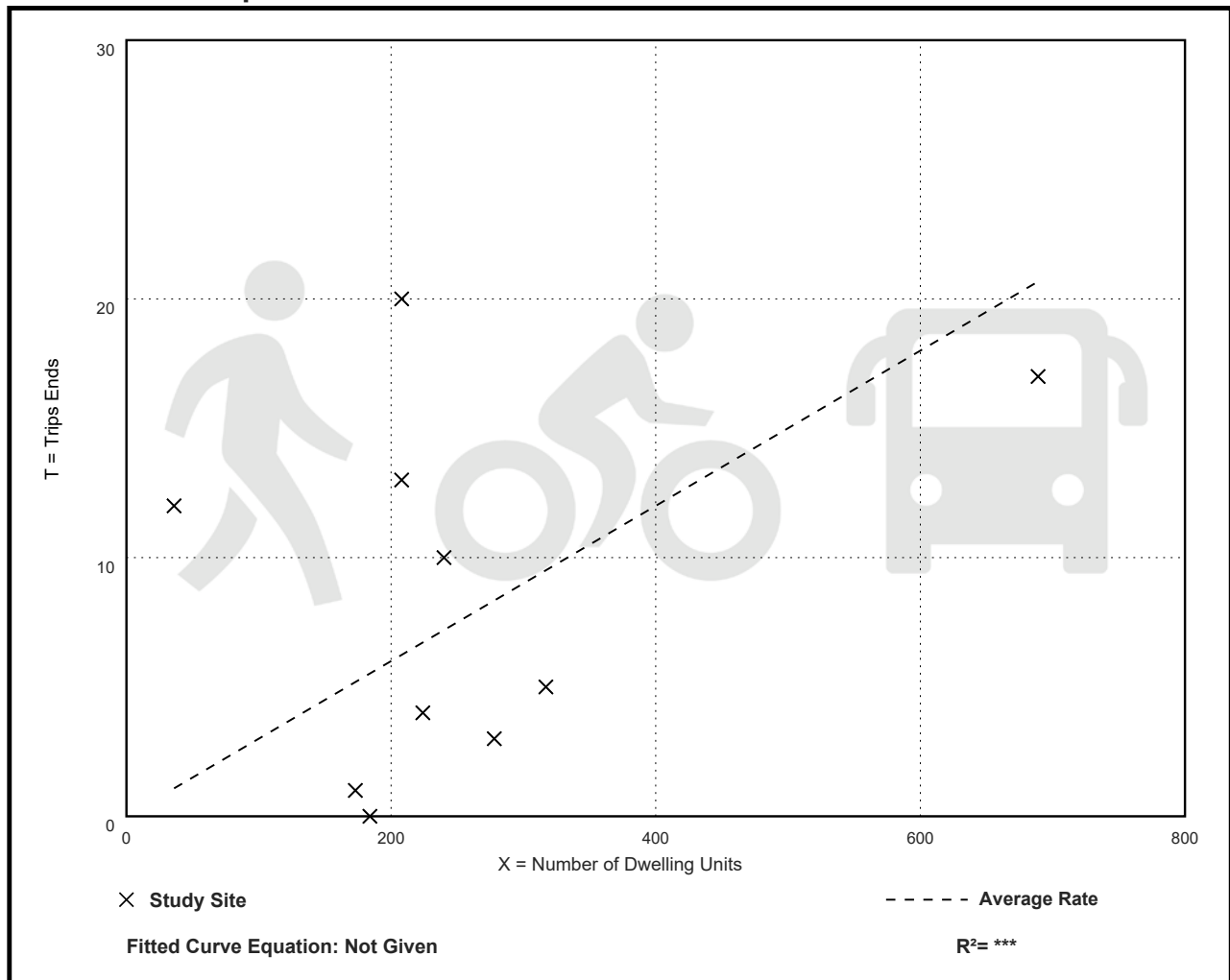
Avg. Num. of Dwelling Units: 256

Directional Distribution: 50% entering, 50% exiting

Walk+Bike+Transit Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.03	0.00 - 0.33	0.05

Data Plot and Equation



Multifamily Housing (Low-Rise) Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 9

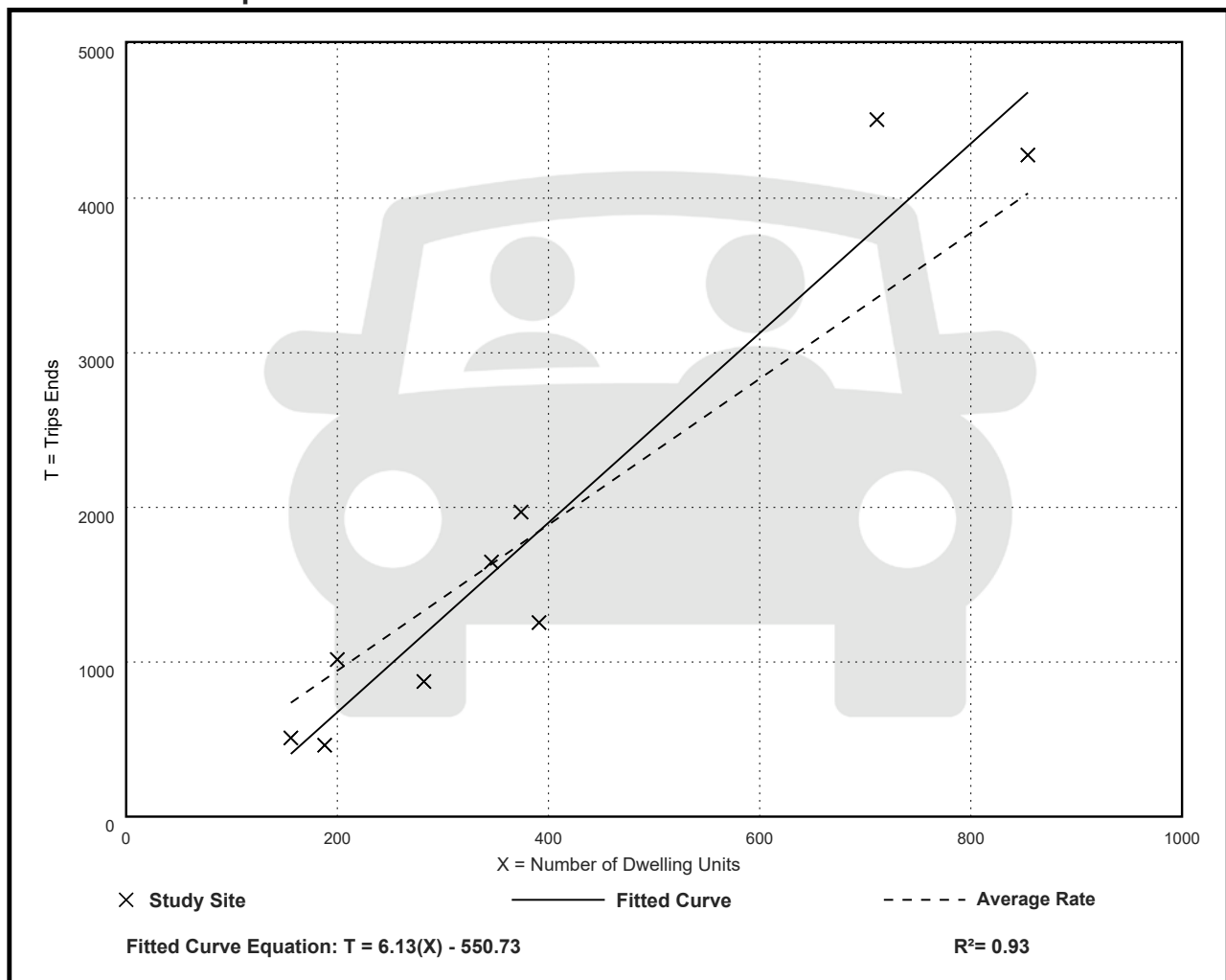
Avg. Num. of Dwelling Units: 389

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.72	2.46 - 6.34	1.27

Data Plot and Equation



Multifamily Housing (Low-Rise) Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Dwelling Units: 374

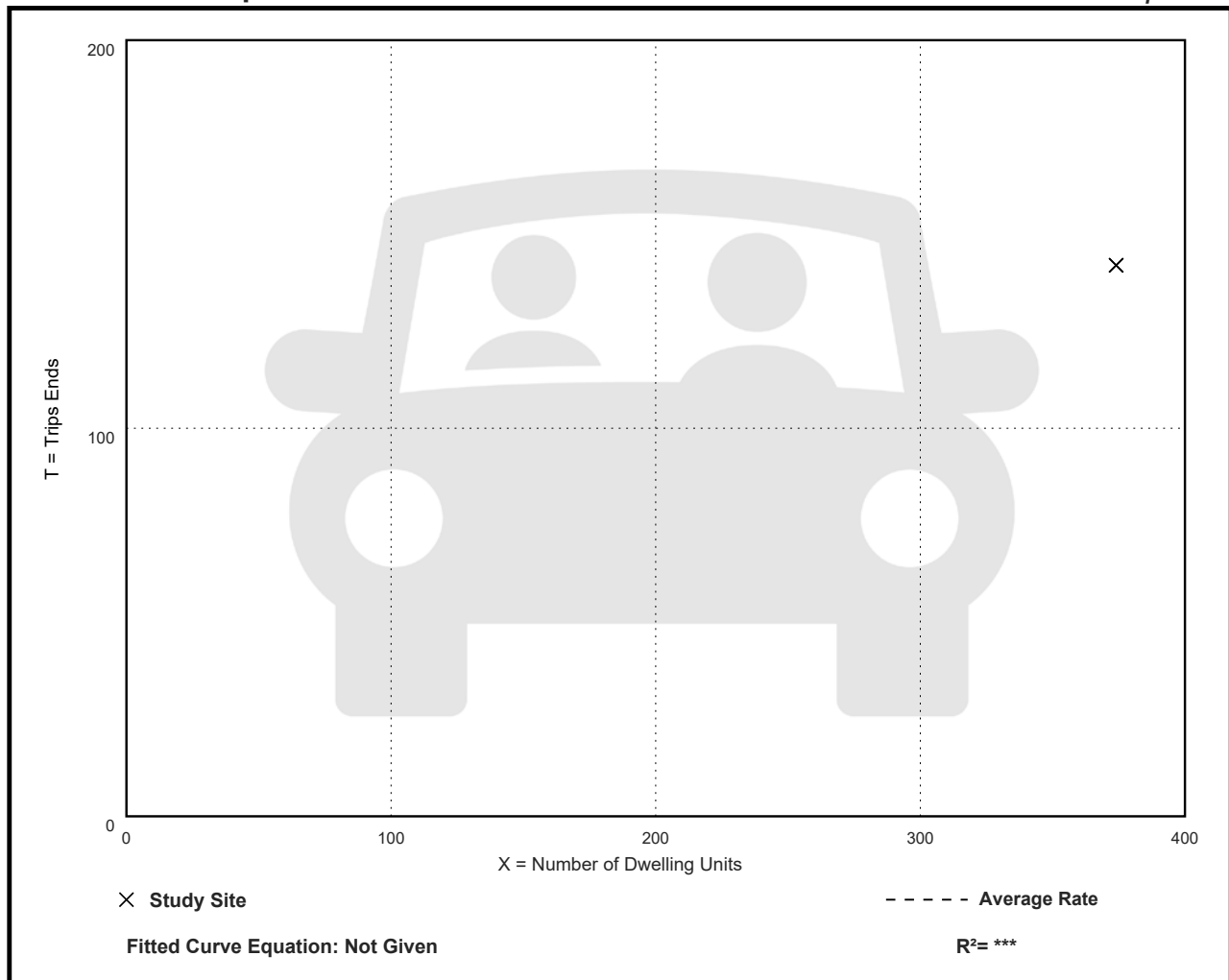
Directional Distribution: 29% entering, 71% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.38	0.38 - 0.38	***

Data Plot and Equation

Caution – Small Sample Size



Multifamily Housing (Low-Rise) Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Dwelling Units: 374

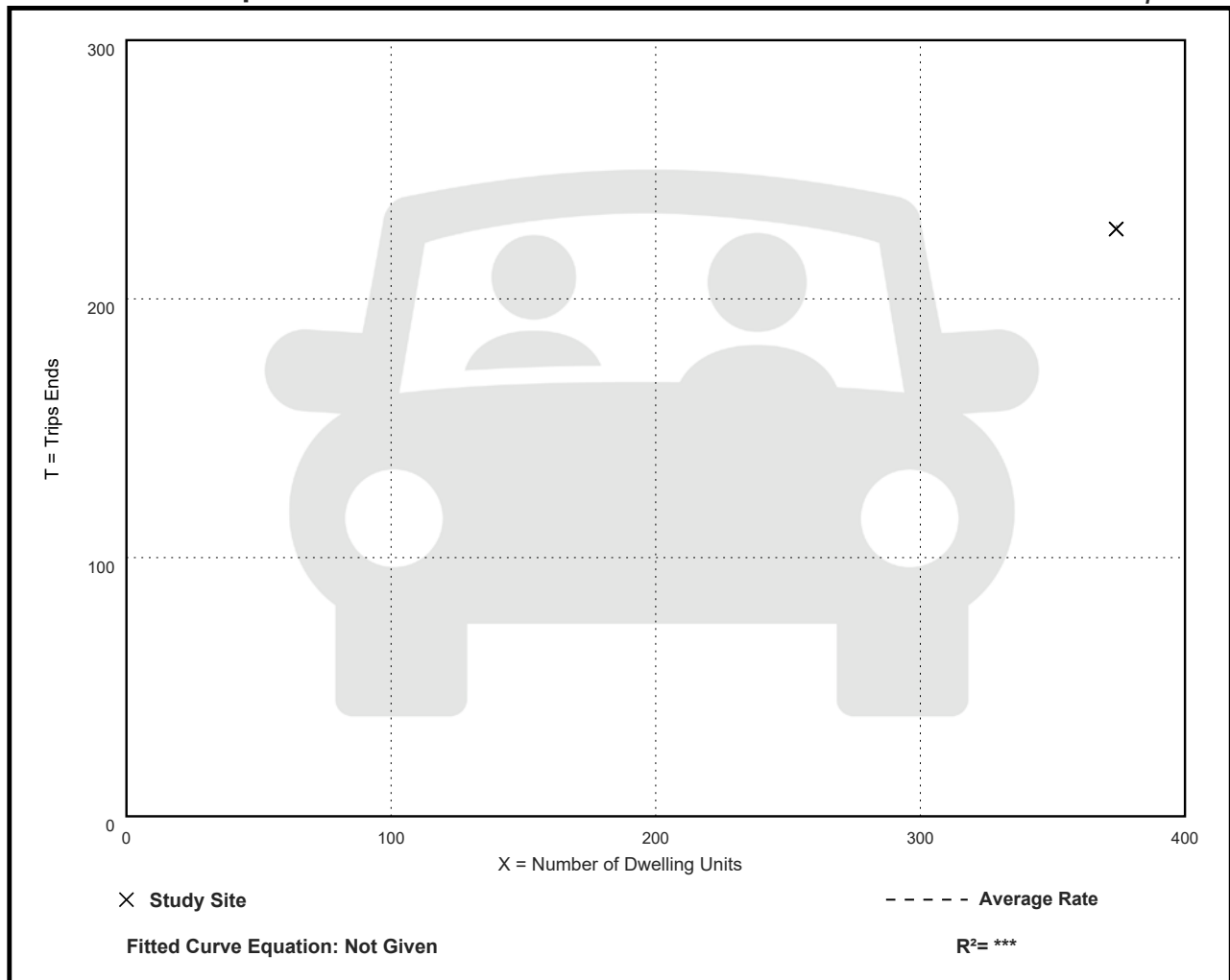
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.61	0.61 - 0.61	***

Data Plot and Equation

Caution – Small Sample Size



Multifamily Housing (Low-Rise) Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Dwelling Units: 374

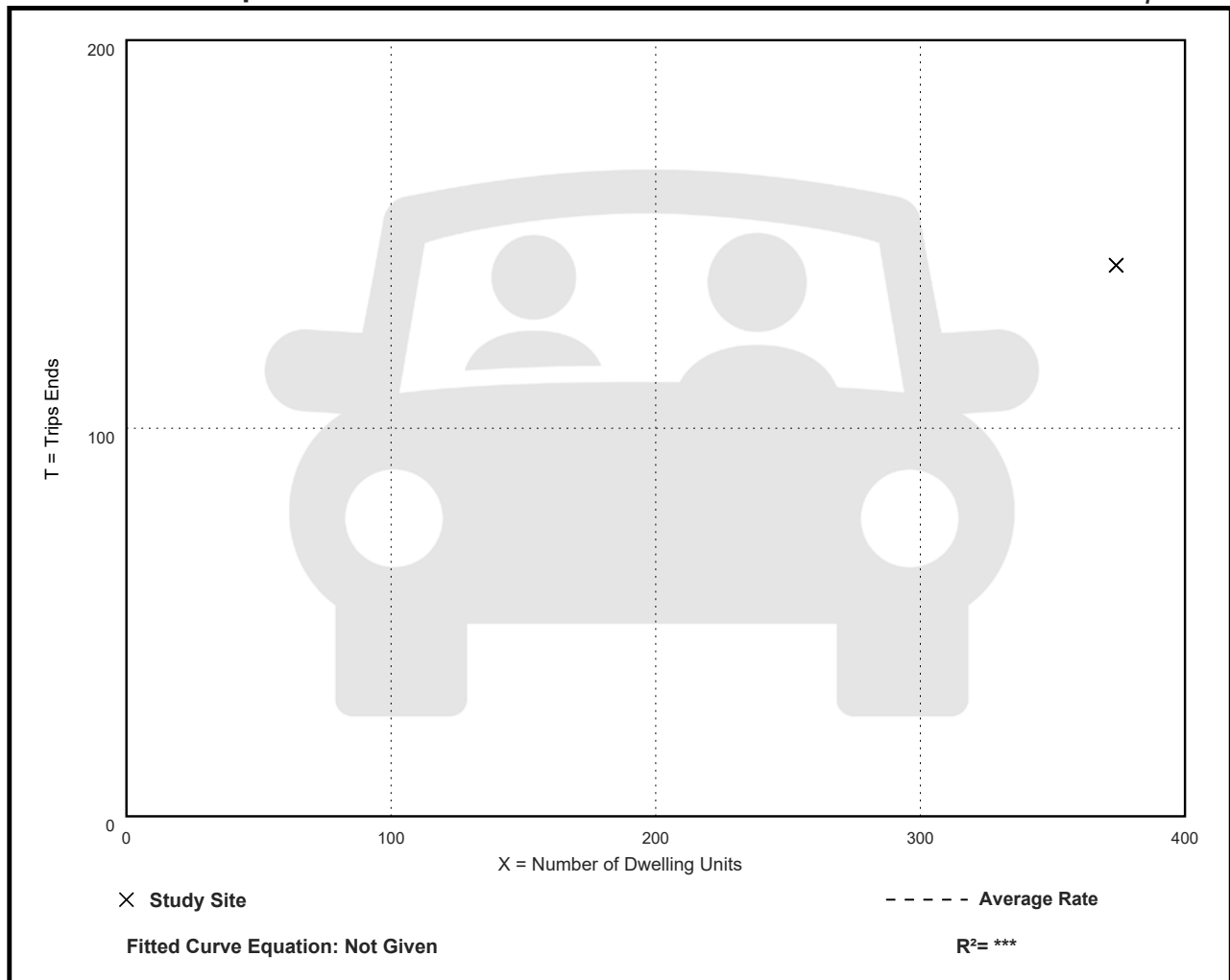
Directional Distribution: 29% entering, 71% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.38	0.38 - 0.38	***

Data Plot and Equation

Caution – Small Sample Size



Multifamily Housing (Low-Rise) Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Dwelling Units: 374

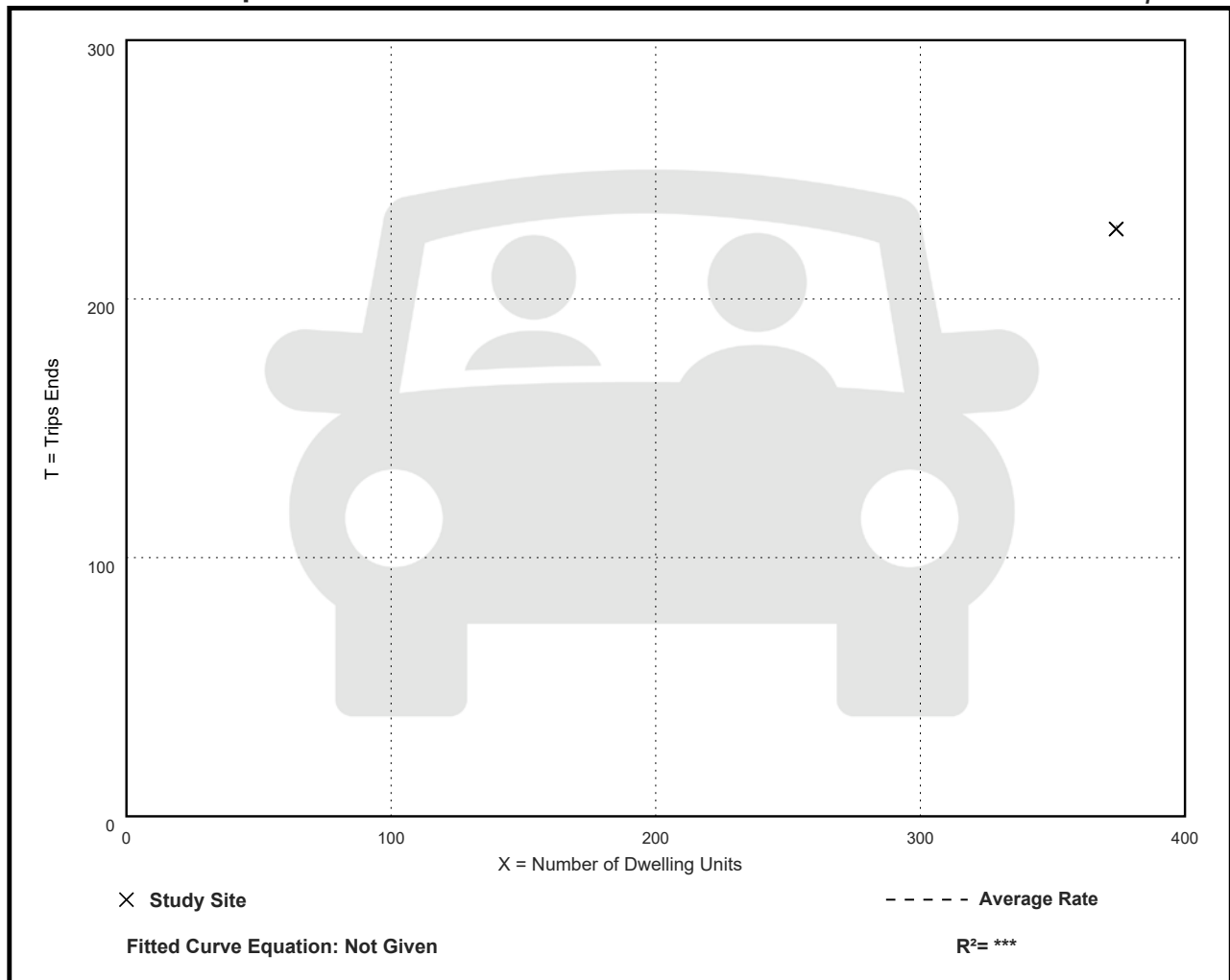
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.61	0.61 - 0.61	***

Data Plot and Equation

Caution – Small Sample Size



Appendix 5

Future LOS Output Report

HCM 6th Signalized Intersection Summary

1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

2024 Future Conditions

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	258	58	69	378	182	131	1105	111	160	559	232
Future Volume (veh/h)	167	258	58	69	378	182	131	1105	111	160	559	232
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1906	1906	1906	1891	1891	1891	1969	1969	1969	1906	1906	1906
Adj Flow Rate, veh/h	190	293	32	78	425	125	147	1242	49	176	614	132
Peak Hour Factor	0.88	0.88	0.88	0.89	0.89	0.89	0.89	0.89	0.89	0.91	0.91	0.91
Percent Heavy Veh, %	6	6	6	7	7	7	2	2	2	6	6	6
Cap, veh/h	367	1215	542	427	1205	538	318	1221	544	179	1182	613
Arrive On Green	0.02	0.11	0.11	0.05	0.34	0.34	0.06	0.33	0.33	0.06	0.33	0.33
Sat Flow, veh/h	1816	3622	1616	1801	3593	1602	1875	3741	1665	1816	3622	1613
Grp Volume(v), veh/h	190	293	32	78	425	125	147	1242	49	176	614	132
Grp Sat Flow(s),veh/h/ln	1816	1811	1616	1801	1796	1602	1875	1870	1665	1816	1811	1613
Q Serve(g_s), s	0.0	8.1	2.0	0.0	9.8	6.2	0.0	35.9	2.2	6.7	15.1	0.2
Cycle Q Clear(g_c), s	0.0	8.1	2.0	0.0	9.8	6.2	0.0	35.9	2.2	6.7	15.1	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	367	1215	542	427	1205	538	318	1221	544	179	1182	613
V/C Ratio(X)	0.52	0.24	0.06	0.18	0.35	0.23	0.46	1.02	0.09	0.98	0.52	0.22
Avail Cap(c_a), veh/h	367	1215	542	427	1205	538	318	1221	544	179	1182	613
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	36.1	33.4	27.9	27.5	26.3	38.8	37.0	25.7	50.2	30.1	23.0
Incr Delay (d2), s/veh	5.1	0.5	0.2	0.9	0.8	1.0	4.8	30.2	0.3	62.5	1.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	3.8	0.8	1.6	4.2	2.4	4.0	20.7	0.9	7.6	6.6	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.8	36.6	33.6	28.9	28.4	27.4	43.6	67.2	26.0	112.7	31.7	23.8
LnGrp LOS	D	D	C	C	C	C	D	F	C	F	C	C
Approach Vol, veh/h	515			628			1438			922		
Approach Delay, s/veh	38.3			28.2			63.4			46.0		
Approach LOS	D			C			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	43.0	13.0	42.0	12.0	43.0	13.0	42.0				
Change Period (Y+Rc), s	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1				
Max Green Setting (Gmax), s	* 5.9	* 37	* 6.9	* 36	* 5.9	* 37	* 6.9	* 36				
Max Q Clear Time (g_c+I1), s	2.0	10.1	8.7	37.9	2.0	11.8	2.0	17.1				
Green Ext Time (p_c), s	0.0	1.9	0.0	0.0	0.2	3.1	0.1	4.2				

Intersection Summary

HCM 6th Ctrl Delay 48.8

HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

1074: Commercial DW (PB)/Tech Center Dr (PB) & Plymouth Rd

2024 Future Conditions
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (veh/h)	39	395	18	21	547	91	31	4	41	5	0	5
Future Volume (veh/h)	39	395	18	21	547	91	31	4	41	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1906	1906	1906	1922	1922	1922	1953	1953	1953	1844	1844	1844
Adj Flow Rate, veh/h	44	444	19	24	629	77	48	6	54	8	0	6
Peak Hour Factor	0.89	0.89	0.89	0.87	0.87	0.87	0.65	0.65	0.65	0.60	0.60	0.60
Percent Heavy Veh, %	6	6	6	5	5	5	3	3	3	10	10	10
Cap, veh/h	625	2976	1327	788	2691	329	152	10	94	100	115	97
Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.06	0.06	0.06	0.06	0.00	0.06
Sat Flow, veh/h	718	3622	1616	907	3275	400	1399	168	1513	1258	1844	1563
Grp Volume(v), veh/h	44	444	19	24	350	356	48	0	60	8	0	6
Grp Sat Flow(s),veh/h/ln	718	1811	1616	907	1826	1850	1399	0	1681	1258	1844	1563
Q Serve(g_s), s	1.6	2.7	0.2	0.6	4.7	4.7	3.7	0.0	3.8	0.7	0.0	0.4
Cycle Q Clear(g_c), s	6.3	2.7	0.2	3.4	4.7	4.7	3.7	0.0	3.8	4.5	0.0	0.4
Prop In Lane	1.00		1.00	1.00		0.22	1.00		0.90	1.00		1.00
Lane Grp Cap(c), veh/h	625	2976	1327	788	1500	1520	152	0	104	100	115	97
V/C Ratio(X)	0.07	0.15	0.01	0.03	0.23	0.23	0.32	0.00	0.57	0.08	0.00	0.06
Avail Cap(c_a), veh/h	625	2976	1327	788	1500	1520	589	0	630	493	691	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.9	2.0	1.8	2.3	2.2	2.2	50.1	0.0	50.2	52.4	0.0	48.6
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.1	0.4	0.4	1.2	0.0	4.9	0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.6	0.0	0.1	1.1	1.1	1.3	0.0	1.8	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.1	2.1	1.8	2.4	2.5	2.5	51.3	0.0	55.1	52.7	0.0	48.8
LnGrp LOS	A	A	A	A	A	A	D	A	E	D	A	D
Approach Vol, veh/h		507			730			108			14	
Approach Delay, s/veh		2.2			2.5			53.4			51.0	
Approach LOS		A			A			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		96.4		13.6		96.4		13.6				
Change Period (Y+Rc), s		6.0		* 6.8		6.0		* 6.8				
Max Green Setting (Gmax), s		56.0		* 41		56.0		* 41				
Max Q Clear Time (g_c+I1), s		8.3		5.8		6.7		6.5				
Green Ext Time (p_c), s		3.5		0.5		4.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				6.9								
HCM 6th LOS				A								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary
2001: Middlebelt Rd & Commercial DW

2024 Future Conditions
AM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	 	
Traffic Volume (veh/h)	31	27	63	1323	624	18
Future Volume (veh/h)	31	27	63	1323	624	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1953	1953	1969	1969	1922	1922
Adj Flow Rate, veh/h	52	17	72	1521	693	18
Peak Hour Factor	0.60	0.60	0.87	0.87	0.90	0.90
Percent Heavy Veh, %	3	3	2	2	5	5
Cap, veh/h	119	106	648	3044	2972	1323
Arrive On Green	0.06	0.06	0.81	0.81	0.81	0.81
Sat Flow, veh/h	1860	1655	738	3839	3748	1626
Grp Volume(v), veh/h	52	17	72	1521	693	18
Grp Sat Flow(s),veh/h/ln	1860	1655	738	1870	1826	1626
Q Serve(g_s), s	2.4	0.9	2.2	11.5	3.9	0.2
Cycle Q Clear(g_c), s	2.4	0.9	6.2	11.5	3.9	0.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	119	106	648	3044	2972	1323
V/C Ratio(X)	0.44	0.16	0.11	0.50	0.23	0.01
Avail Cap(c_a), veh/h	393	349	648	3044	2972	1323
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.6	39.8	2.6	2.6	1.9	1.6
Incr Delay (d2), s/veh	2.5	0.7	0.3	0.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.4	0.3	1.9	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.1	40.5	3.0	3.2	2.1	1.6
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	69			1593	711	
Approach Delay, s/veh	42.5			3.2	2.1	
Approach LOS	D			A	A	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	78.2		11.8		78.2	
Change Period (Y+Rc), s	5.0		6.0		5.0	
Max Green Setting (Gmax), s	60.0		19.0		60.0	
Max Q Clear Time (g_c+I1), s	13.5		4.4		5.9	
Green Ext Time (p_c), s	17.5		0.1		5.2	
Intersection Summary						
HCM 6th Ctrl Delay			4.0			
HCM 6th LOS			A			

Intersection: 1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	226	116	128	92	106	191	173	165	344	421	426	275
Average Queue (ft)	111	60	62	21	37	101	77	54	165	332	323	117
95th Queue (ft)	194	103	110	57	83	167	153	115	377	464	461	315
Link Distance (ft)		804	804			923	923			345	345	
Upstream Blk Time (%)									0	13	13	
Queuing Penalty (veh)									0	90	94	
Storage Bay Dist (ft)	500			545	500			205	400			200
Storage Blk Time (%)							0	0	0	13	35	
Queuing Penalty (veh)							0	0	1	17	39	

Intersection: 1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	264	248	228	116
Average Queue (ft)	138	150	124	46
95th Queue (ft)	241	222	206	88
Link Distance (ft)		921	921	921
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	500			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 1074: Commercial DW (PB)/Tech Center Dr (PB) & Plymouth Rd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	R
Maximum Queue (ft)	61	75	56	14	35	56	74	88	62	35	34
Average Queue (ft)	15	21	6	1	7	11	27	26	22	5	4
95th Queue (ft)	42	62	30	8	27	40	68	64	46	23	20
Link Distance (ft)		921	921			816	816		320		
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	495			500	500			130		65	65
Storage Blk Time (%)										0	0
Queuing Penalty (veh)										0	0

Intersection: 2001: Middlebelt Rd & Commercial DW

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	R
Maximum Queue (ft)	72	46	57	139	127	117	122	23
Average Queue (ft)	25	12	20	45	29	14	14	2
95th Queue (ft)	61	33	50	114	86	59	60	12
Link Distance (ft)	320			873	873	373	373	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		50	500					150
Storage Blk Time (%)	8	0					0	
Queuing Penalty (veh)	2	0					0	

Zone Summary

Zone wide Queuing Penalty: 245

HCM 6th Signalized Intersection Summary

1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

2024 Future Conditions
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	340	716	207	192	501	341	130	1005	130	279	1123	422
Future Volume (veh/h)	340	716	207	192	501	341	130	1005	130	279	1123	422
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1984	1984	1984	1953	1953	1953	1969	1969	1969	1969	1969	1969
Adj Flow Rate, veh/h	358	754	151	204	533	270	146	1129	77	294	1182	261
Peak Hour Factor	0.95	0.95	0.95	0.94	0.94	0.94	0.89	0.89	0.89	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	3	3	3	2	2	2	2	2	2
Cap, veh/h	322	1196	529	259	1177	520	234	1153	506	238	1153	610
Arrive On Green	0.02	0.10	0.10	0.06	0.32	0.32	0.09	0.31	0.31	0.09	0.31	0.31
Sat Flow, veh/h	1890	3770	1666	1860	3711	1640	1875	3741	1641	1875	3741	1641
Grp Volume(v), veh/h	358	754	151	204	533	270	146	1129	77	294	1182	261
Grp Sat Flow(s),veh/h/ln	1890	1885	1666	1860	1856	1640	1875	1870	1641	1875	1870	1641
Q Serve(g_s), s	6.9	21.1	9.2	3.3	12.6	14.8	4.3	32.9	3.7	9.9	33.9	6.1
Cycle Q Clear(g_c), s	6.9	21.1	9.2	3.3	12.6	14.8	4.3	32.9	3.7	9.9	33.9	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	322	1196	529	259	1177	520	234	1153	506	238	1153	610
V/C Ratio(X)	1.11	0.63	0.29	0.79	0.45	0.52	0.62	0.98	0.15	1.23	1.03	0.43
Avail Cap(c_a), veh/h	322	1196	529	259	1177	520	234	1153	506	238	1153	610
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	43.1	37.7	46.1	29.9	30.7	46.5	37.7	27.6	48.6	38.0	25.8
Incr Delay (d2), s/veh	83.5	2.5	1.4	21.2	1.3	3.7	11.9	22.0	0.6	135.7	33.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.0	11.0	4.1	6.7	5.7	6.2	4.3	17.9	1.5	15.1	20.1	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	130.4	45.6	39.1	67.3	31.2	34.4	58.4	59.7	28.3	184.3	71.2	28.0
LnGrp LOS	F	D	D	E	C	C	E	E	C	F	F	C
Approach Vol, veh/h	1263			1007			1352			1737		
Approach Delay, s/veh	68.8			39.4			57.8			83.8		
Approach LOS	E			D			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	41.0	16.0	40.0	13.0	41.0	16.0	40.0				
Change Period (Y+Rc), s	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1	* 6.1				
Max Green Setting (Gmax), s	* 6.9	* 35	* 9.9	* 34	* 6.9	* 35	* 9.9	* 34				
Max Q Clear Time (g_c+I1), s	5.3	23.1	11.9	34.9	8.9	16.8	6.3	35.9				
Green Ext Time (p_c), s	0.1	4.2	0.0	0.0	0.0	4.1	0.1	0.0				

Intersection Summary

HCM 6th Ctrl Delay 65.4
HCM 6th LOS E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

1074: Commercial DW (PB)/Tech Center Dr (PB) & Plymouth Rd

2024 Future Conditions
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	913	108	66	728	24	94	4	56	77	4	94
Future Volume (veh/h)	19	913	108	66	728	24	94	4	56	77	4	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1969	1969	1969	1938	1938	1938	1969	1969	1969	1984	1984	1984
Adj Flow Rate, veh/h	22	1074	108	69	766	21	106	4	47	90	5	58
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.89	0.89	0.89	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	4	4	4	2	2	2	1	1	1
Cap, veh/h	579	2793	1246	366	2733	75	244	18	211	214	272	228
Arrive On Green	0.75	0.75	0.75	1.00	1.00	1.00	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	688	3741	1668	467	3660	100	1328	131	1544	1354	1984	1667
Grp Volume(v), veh/h	22	1074	108	69	385	402	106	0	51	90	5	58
Grp Sat Flow(s),veh/h/ln	688	1870	1668	467	1841	1920	1328	0	1675	1354	1984	1667
Q Serve(g_s), s	0.9	11.2	1.9	2.8	0.0	0.0	8.3	0.0	3.0	7.0	0.2	3.4
Cycle Q Clear(g_c), s	0.9	11.2	1.9	14.0	0.0	0.0	8.5	0.0	3.0	10.0	0.2	3.4
Prop In Lane	1.00		1.00	1.00		0.05	1.00		0.92	1.00		1.00
Lane Grp Cap(c), veh/h	579	2793	1246	366	1374	1433	244	0	229	214	272	228
V/C Ratio(X)	0.04	0.38	0.09	0.19	0.28	0.28	0.43	0.00	0.22	0.42	0.02	0.25
Avail Cap(c_a), veh/h	579	2793	1246	366	1374	1433	560	0	627	536	743	624
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.6	5.0	3.8	1.0	0.0	0.0	44.7	0.0	42.3	46.7	41.1	42.4
Incr Delay (d2), s/veh	0.1	0.4	0.1	1.1	0.5	0.5	1.2	0.0	0.5	1.3	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.5	0.6	0.1	0.2	0.2	2.8	0.0	1.3	2.4	0.1	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.8	5.4	3.9	2.1	0.5	0.5	46.0	0.0	42.7	48.0	41.1	43.0
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	D	D
Approach Vol, veh/h	1204			856			157			153		
Approach Delay, s/veh	5.2			0.6			44.9			45.9		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	88.1			21.9			88.1			21.9		
Change Period (Y+Rc), s	6.0			* 6.8			6.0			* 6.8		
Max Green Setting (Gmax), s	56.0			* 41			56.0			* 41		
Max Q Clear Time (g_c+I1), s	13.2			10.5			16.0			12.0		
Green Ext Time (p_c), s	10.0			0.6			6.5			0.5		
Intersection Summary												
HCM 6th Ctrl Delay	8.8											
HCM 6th LOS	A											
Notes												

HCM 6th Signalized Intersection Summary

2001: Middlebelt Rd & Commercial DW

2024 Future Conditions
PM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	70	137	161	1195	1388	58
Future Volume (veh/h)	70	137	161	1195	1388	58
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1984	1953	1953
Adj Flow Rate, veh/h	81	79	177	1313	1509	59
Peak Hour Factor	0.86	0.86	0.91	0.91	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	3	3
Cap, veh/h	144	128	300	3022	2974	1327
Arrive On Green	0.08	0.08	0.80	0.80	0.80	0.80
Sat Flow, veh/h	1890	1682	330	3870	3809	1655
Grp Volume(v), veh/h	81	79	177	1313	1509	59
Grp Sat Flow(s),veh/h/ln	1890	1682	330	1885	1856	1655
Q Serve(g_s), s	3.7	4.1	34.8	9.5	12.2	0.7
Cycle Q Clear(g_c), s	3.7	4.1	47.0	9.5	12.2	0.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	144	128	300	3022	2974	1327
V/C Ratio(X)	0.56	0.62	0.59	0.43	0.51	0.04
Avail Cap(c_a), veh/h	399	355	300	3022	2974	1327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	40.3	10.9	2.7	3.0	1.8
Incr Delay (d2), s/veh	3.4	4.7	8.3	0.5	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.9	2.6	1.8	2.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.5	45.0	19.1	3.2	3.6	1.9
LnGrp LOS	D	D	B	A	A	A
Approach Vol, veh/h	160			1490	1568	
Approach Delay, s/veh	44.2			5.1	3.5	
Approach LOS	D			A	A	
Timer - Assigned Phs	2			4		6
Phs Duration (G+Y+Rc), s	77.1			12.9		77.1
Change Period (Y+Rc), s	5.0			6.0		5.0
Max Green Setting (Gmax), s	60.0			19.0		60.0
Max Q Clear Time (g_c+l1), s	49.0			6.1		14.2
Green Ext Time (p_c), s	8.0			0.3		16.5
Intersection Summary						
HCM 6th Ctrl Delay			6.3			
HCM 6th LOS			A			

Intersection: 1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	575	817	837	156	269	203	245	235	344	422	413	275
Average Queue (ft)	479	447	426	66	137	122	119	116	148	300	301	116
95th Queue (ft)	655	938	919	130	246	194	198	207	341	440	440	302
Link Distance (ft)		804	804			923	923			345	345	
Upstream Blk Time (%)		16	7						0	11	12	
Queuing Penalty (veh)		100	46						0	74	80	
Storage Bay Dist (ft)	500			545	500			205	400			200
Storage Blk Time (%)	43	0					0	1	0	11	31	
Queuing Penalty (veh)	154	1					1	3	1	15	41	

Intersection: 1006: Middlebelt Rd (PB)/Middlebelt Rd (PB) & Plymouth Rd

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	575	944	926	876
Average Queue (ft)	500	695	650	265
95th Queue (ft)	696	1104	1055	798
Link Distance (ft)		921	921	921
Upstream Blk Time (%)		22	6	4
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)	500			
Storage Blk Time (%)	53	16		
Queuing Penalty (veh)	294	44		

Intersection: 1074: Commercial DW (PB)/Tech Center Dr (PB) & Plymouth Rd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	T	R
Maximum Queue (ft)	39	186	158	42	84	95	115	124	91	112	73	88
Average Queue (ft)	11	85	52	11	32	22	38	61	25	47	9	33
95th Queue (ft)	34	168	125	33	69	68	90	109	61	87	43	65
Link Distance (ft)		921	921			816	816		320		476	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	495			500	500			130		65		65
Storage Blk Time (%)								1		8	0	1
Queuing Penalty (veh)								0		8	0	0

Intersection: 2001: Middlebelt Rd & Commercial DW

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	R
Maximum Queue (ft)	112	112	217	191	176	234	255	48
Average Queue (ft)	44	50	87	75	59	69	79	10
95th Queue (ft)	91	91	167	152	134	168	184	34
Link Distance (ft)	320			873	873	373	373	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		50	500					150
Storage Blk Time (%)	16	8					1	
Queuing Penalty (veh)	22	5					1	

Zone Summary

Zone wide Queuing Penalty: 890

From: [Frank Lupu](#)
To: [Planning](#)
Cc: [Mayor Maureen Miller Brosnan](#); [Toy, Laura](#); [Morgan, Scott](#); [McCullough, Brandon](#); [Donovic, Rob](#); [Jolly, Jim](#); [McIntyre, Kathleen](#); [Bahr, Scott](#)
Subject: 2022-04-08-02
Date: Tuesday, June 7, 2022 6:30:47 AM

Honorary Planning Commissioners,

I am not sure why there is another petition number for this project. Also, I don't understand why we as residents on Orangelawn did not receive notice of this meeting in the mail as we have in the past.

I would like to inform you that all of our objections that were raised under petition number 2020-08-01-06 are the same and continue over to this petition.

In the past the Schostak organization has stated that they have met with residents in the area regarding this project. I am not sure who they have talked to as the neighbors I have asked were not contacted. Usually with a project with objections like we have the developer would talk to the residents.

Another concern I have regarding this project is the sewer system. Has a study been done regarding whether or not the system can handle this type of project. If it has been done where can a copy be obtained? If it hasn't been done will it be done?

Frank Lupu
29864 Orangelawn
Sent from my iPad

UNAPPROVED MINUTES

1

MINUTES OF THE 1,188th PUBLIC HEARINGS AND REGULAR MEETING HELD BY THE CITY PLANNING COMMISSION OF THE CITY OF LIVONIA

On Tuesday, June 7, 2022, the City Planning Commission of the City of Livonia held its 1,188th Public Hearing and Regular Meetings in the Livonia City Hall, 33000 Civic Center Drive, Livonia, Michigan.

Mr. Ian Wilshaw, Chairman, called the meeting to order at 7 p.m.

Members present: David Bongero Sam Caramagno Glen Long
 Betsy McCue Carol Smiley Peter Ventura
 Ian Wilshaw

Members absent: None

Mr. Mark Taormina, Planning Director, and Stephanie Reece, Program Supervisor, were also present.

Chairman Wilshaw informed the audience that if a petition on tonight's agenda involves a rezoning request, this Commission makes a recommendation to the City Council who, in turn, will hold its own public hearing and make the final determination as to whether a petition is approved or denied. The Planning Commission holds the only public hearing on a request for preliminary plat and/or vacating petition. The Commission's recommendation is forwarded to the City Council for the final determination as to whether a plat is accepted or rejected. If a petition requesting a waiver of use or site plan approval is denied tonight, the petitioner has ten days in which to appeal the decision, in writing, to the City Council. Resolutions adopted by the City Planning Commission become effective seven (7) days after the date of adoption. The Planning Commission and the professional staff have reviewed each of these petitions upon their filing. The staff has furnished the Commission with both approving and denying resolutions, which the Commission may, or may not, use depending on the outcome of the proceedings tonight.

ITEM #2 PETITION 2022-04-08-02 Middlebelt Plymouth Venture

Mr. Caramagno, Secretary, announced the next item on the agenda, Petition 2022-04-08-02 submitted by Middlebelt Plymouth Venture L.L.C. requesting approval pursuant to Sections 3.08 and 6.04 of The Livonia Vision 21 Zoning Ordinance, as amended, to construct an apartment complex (Wonderland Flats), consisting of two (2) buildings and 201 units, on the properties at 29707 & 30273 Plymouth Road, located on the south side of Plymouth

Road between Middlebelt Road and Milburn Avenue in the Northeast ¼ of Section 35.

Mr. Taormina: Thank you. This is a request to construct an apartment complex called Wonderland Flats. The site consists of 10.86 acres of vacant land at Wonderland Village. The site is between the Walmart and the LA Fitness, which is on the south side of Plymouth Road. The property is currently under consideration to be rezoned from C-2 (General Business) to NM2 (Neighborhood Multifamily). Council gave first reading to the rezoning on March 23, 2022. Apartments up to four stories in height are treated as a permitted use within the NM2 district. The proposed site plan shows two apartment buildings. Both are three stories in height and have similar ground floor areas as well as usable floor areas of 33,500 square feet and 100,000 square feet, respectively. The north building is referred to as Building A and the south building is Building B. Building A would contain 100 one- and two-bedroom units, and Building B has 101 one- and two-bedroom units, for a total of 201 apartments. This represents an overall density of 18.5 dwelling units per acre. The usable floor area of both buildings, combined, is about 160,000 square feet, which equals roughly 33.8% of the total site area. All yard bulk, height, and area requirements of the NM2 district would be met. The buildings are C-shaped and would mirror one another creating a 1.6-acre central courtyard and common area that would include an inground swimming pool and pool house. Both buildings would have central lobbies containing a mailroom and elevators. Building A's lobby is larger and includes a lounge, gym, restrooms, and a leasing and manager's office. Additional entrances and exits with staircases are shown at the east and west ends of both buildings. Additionally, each floor would include storage rooms, and each floor would have a mix of both one- and two-bedroom apartments. Altogether, the proposed number of one-bedroom units is 78, which is about 39% of the total number of units, and the total number of two-bedroom units is 123, which represents 61% of the overall number of units. A typical two-bedroom unit measures 825 square feet, whereas the one-bedroom unit is roughly 575 square feet. In terms of the architecture, the exterior building materials mostly include a combination of brick and vinyl siding. The elevations of the first floor and portions of the second floor show a brick veneer, while the remaining parts of the second floor, and all of the third floor show four different colors and two different styles of vinyl siding. A mix of full balconies and Juliet style balconies are shown on only a portion of the units facing the exterior of the complex. The building

height would be 36-½ feet measured from the finished grade to the top edge of the highest point on the parapet wall. The roof deck is roughly 2-½ to 4-½ feet below the top of the parapet. This is to help conceal the rooftop units. The edge of the roof would contain a prefinished metal coping, and the pool house and the maintenance garage would be constructed of similar materials. Extending across the rear of the property is a landscape berm and screen wall. To improve the visual barrier between the apartments and the single-family homes to the south, the berm would be widened and two more rows of evergreen trees as well as an eight-foot-high obscuring fence would be added. The distance between the wall and the closest apartment building would be about 300 feet, and from the base of the berm to the edge of the parking lot of the apartment complex the distance is roughly 100 feet. This area would be maintained as a grassy open space. Access to the site would be from two driveways, both of which are at the north end of the apartment complex. These driveways interconnect with internal roads that run both north and east across the Wonderland village, interconnecting with the other retail establishments and to the signalized intersections at Plymouth and Middle Belt Roads. For parking, the ordinance requires two spaces per apartment for a total of 402 parking spaces. The site plan shows 400 available parking spaces. Carports are provided for 102 cars and are shown along the east and south sides of the complex. A total of four dumpsters would serve the apartment complex. Two are on the east and west sides of the parking lots between the buildings and the other two are in the southeast and southwest corners of the parking lot. The wall surrounding the containers would be six feet in height and constructed out of masonry to match the buildings. For site lighting, the exterior lighting for the parking lots would consist of ground mounted LED light fixtures that would be at a height of 20 feet. Minimal lighting is shown in the courtyard. The plan shows seven (7) fixtures altogether. For stormwater management, all runoff would be directed to the existing storm system and to an offsite detention pond, which is in the southwest corner of the Wonderland Village development. There are several pedestrian connections shown on the plan. A network of internal sidewalks would connect to a new walkway that would extend across the north end of the property. This sidewalk would be extended further east where it would connect to the other sidewalks that link with the various retail buildings, including the Walmart, Target, as well as the sidewalks along both Plymouth and Middle Belt Roads. Fencing would be installed around the perimeter of the complex. The plans show a proposed six-foot

screening fence on the west and the east sides of the development. On top of the berm that runs along the southern boundary, the plan shows a proposed eight-foot screening fence. Along the front, the plans show a more decorative prefinished aluminum fence with 2' x 2' masonry columns. Also shown are gated driveways leading into and out of the complex that would allow for full movement. Regarding signage, multifamily developments are permitted one wall sign totaling 20 square feet and one ground sign totaling 20 square feet having a maximum height of five feet. These plans show that the main identification sign on the building would be roughly 57 square feet and the ground sign 40 square feet. Thus, both signs are currently oversized based on what the ordinance recommends and would have to be approved by the Zoning Board of Appeals. Mr. Chairman, that is the end of my initial comments. With that, Mr. Chairman, I can read out the departmental correspondence.

Mr. Wilshaw: Yes, please.

Mr. Taormina: The first item is from the Engineering Division, dated May 5, 2022, which reads as follows: *"In accordance with your request, the Engineering Division has reviewed the above referenced petition. We have no objections to the proposed project at this time. The parcels are assigned the addresses of #29707 and #30273 Plymouth Road. The legal descriptions submitted by the owner for the proposed project appears to be correct and should be used to describe the parcel if approved, although he owner will need to slit and combine properties to be able to develop the lot as shown. The proposed development is currently serviced by water main, sanitary and storm sewers, which may need to be extended to service any new development. The submitted drawings do not indicate any utility connections or calculations, so we do not have any knowledge of impacts to the existing systems at this time. The existing site has a mix of public and private utilities, which may require additional easements or relocations to provide sanitary and water service to a new parcel. It should be noted that should the project move forward, the proposed construction will be required to meet the Wayne County Stormwater Ordinance, including revised detention requirements. A full review of the proposed development will be completed when plans are submitted for permitting."* The letter is signed by David W. Lear, P.E., Assistant City Engineer. The next letter is from the Livonia Fire & Rescue Division, dated May 17, 2022, which reads as follows: *"This office has reviewed the site plan submitted in connection with a request to construct a*

commercial building on property located at the above referenced address. We have no objections to this proposal with the following stipulations: 1. Subject building(s) are to be provided with an automatic sprinkler system, fire alarm system and onsite hydrants shall be located between 50 feet and 100 feet from the Fire Department connection. 2. Hydrant spacing shall be consistent with City of Livonia Ordinances. 3.

A fire access road shall be provided with not less than 20 feet of unobstructed width and have a minimum of 13 feet 6 inches of vertical clearance in accordance to 18.2.3.4.1.1 and 18.2.3.4.1.2 of NFPA 1, 2015. 4. Knox Box installation is required for Fire Department access through the gate and the buildings. A further detailed plan review will take place when this division receives an official plan set.” The letter is signed by Brian Kukla, Fire Marshal. The next letter is from the Division of Police, dated May 4, 2022, which reads as follows: *“I have reviewed the plans in connection with the petition. Concerning is the large volume of residents mixed in a busy commercial area. I foresee many of the residents wishing to walk to the Walmart and Target locations. I do not see any sidewalks or other traffic control measures. Without any, I am concerned with the safety of the residents/pedestrian traffic.”* The letter is signed by Scott Szczepanski, Sergeant, Traffic Bureau. The next letter is from the Inspection Department, dated June 3, 2022, which reads as follows: *“Pursuant to your request, the above-referenced petition has been reviewed. This Department has no objections to this petition.”* The letter is signed by Jerome Hanna, Director of Inspection. The next letter is from the Finance Department, dated May 3, 2022, which reads as follows: *“I have reviewed the addresses connected with the above noted petition. As there are no outstanding amounts receivable, general or water and sewer, I have no objections to the proposal.”* The letter is signed by Connie Kumpula, Chief Accountant. The next letter is from the Treasurer’s Department, dated May 3, 2022, which reads as follows: *“In accordance with your request, the Treasurer’s Office has reviewed the address connected with the above noted petition. At this time, there are no outstanding amounts receivable for taxes. Therefore, I have no objections to the proposal.”* The letter is signed by Lynda Scheel, Treasurer. Next, we have two email correspondence from residents. The first is from Frank Lupu, 29864 Orangelawn, Livonia, MI, dated Tuesday, June 7, 2022, and it reads: *“Honorary Planning Commissioners, I am not sure why there is another petition number for this project. Also, I don’t understand why we as residents on Orangelawn did not receive notice of this meeting in the mail as we have in the past. I would like to inform you that*

all of our objections that were raised under petition number 2020-08-01-06 are the same and continue over to this petition. In the past the Schostak organization has stated that they have met with residents in the area regarding this project. I am not sure who they have talked to as the neighbors I have asked were not contacted. Usually with a project with objections like we have the developer would talk to the residents. Another concern I have regarding this project is the sewer system. Has a study been done regarding whether or not the system can handle this type of project. If it has been done where can a copy be obtained? If it hasn't been done will it be done?" The last email correspondence comes from Crystal Iverson, 9880 Orangelawn, Livonia, MI, dated June 7, 2022, it reads: "Good Morning, Mr. Taormina, I wanted to express my continued concern about the change of zoning and the proposed apartment buildings being requested to be built directly behind my house. I would ask that at tonight's meeting my concern and objection to both related petitions be raised and voiced. My fiancé and I are a young couple both with professional jobs. Given the current changing work environment, we are both lucky enough to work from home. While this has been a blessing for our family, the potential for significant construction right behind my house is of large concern to me. My office window directly faces the proposed worksite. Not only am I still concerned about my quality of life, personal and family safety, housing values of the neighborhood, power and sewer stability, increased crime and disruption, etc. I am now additionally concerned that construction so near my home/office will directly impact my household's ability to work without extensive interruption, something that I should be afforded without question when working inside of my own home. I would guess that others in the neighborhood have also transitioned to a work-from-home model and are likely impacted as well (for example, at least one of my direct neighbors whose back yard is also directly in line of the proposed construction is also in this position). Thank you for your consideration". That is the extent of the correspondence.

Mr. Wilshaw: Great, thank you, Mr. Taormina. Any questions for our planning staff? I don't see any questions from any of the commissioners for our planning staff so thank you, Mr. Taormina. Our petitioner is here this evening and his representatives, if you'd like to come forward, and we'll get started with you for this petition. I want to give you an opportunity to give us some additional background information. Good evening, Mr. Schostak.

Jeff Schostak, 17800 Laurel Park Place Dr., Livonia, MI. It's nice to see you all again. We've made a lot of improvements since our last meeting here as I won't go into all the details. We have some experts that will kind of walk through it a little more, and obviously, Mark Taormina did a great job of kind of highlighting a lot of things that we've changed since our last meeting. But just to kind of highlight a few things on the overall project, and just hearing some of the emails come through is, you know, this is a \$30 million dollar investment of a brand-new economic development in southeast Livonia. This is a three-story low-rise apartment project. This is high end. This is Class A apartments. These are rents that range from \$1,200 to \$1,700 a month. These are people with good jobs, that'll be good neighbors in the area. I know it was talked about with one of the residents who apparently did not get the memo, but we did meet with the residents, and one of the big things that came out of the meeting that we had with the residents was privacy. Mark just highlighted that on our most recent renderings here. But we added two more rows of evergreen trees plus the fence and there's no sight line at all from the third-floor apartments into the homes. It cannot be seen. So, that was something that came out of meeting with the residents, and we appreciated that feedback because they were, frankly, right about that. So, we're glad we did that. And then just with us today...there's been some questions over this whole process from the operations perspective. So, we have Justin Dunckel, who's the President of Paragon Management, who manages our apartments, as well as many other apartments in town. We also have Michael Labadie, from Fishbeck, who conducted the traffic study that we sent over last week. So, Mike is here. If there's any questions on the traffic study, he can answer that. And then we also have our architect Mark Shovers, who will walk through some of the additional changes we made. So of course, we're here to answer any more questions you have, but with that, I'm going to hand it over to Justin Dunckel from Paragon to just go over some of the operational questions that have come up.

Mr. Wilshaw: Thank you, Mr. Schostak. Good evening, Mr. Dunckel.

Justin Dunckel, President of Paragon Properties Company, 32400 Telegraph Road, Bingham Farms, MI. We are an owner and manager of just over 4000 units in the metropolitan region. In the whole scheme of things, probably a smaller property management shop. We own about 90% of what we manage. We do understand, you know, what it's like to be an owner of multifamily. I do have a, a very small client list of third-party

contracts with, you know, I'm gonna tell you, I've been doing this for a long time. The people that I do business with that do not have apartments that I own, they're good, honest people. I've, you know, I've always made a point of doing business with really good people. Happy to be here and talk shop with you. There's not a lot of people in my life that want to talk about property management, so I definitely could talk with you about it all night. I thought maybe I kind of just start with the kind of 10,000-foot level, just the state of the apartment business right now and maybe get down a little bit more granular. There are some recurring questions that I think that have been asked of the petitioner as they relate to property management. So, just to reiterate, you know, we are a locally owned and managed property management firm. I do manage another apartment community for the petitioner. I have about 125 employees. They are all employees of our company. We manage apartment communities anywhere from 200 units, up to 900 units. 90% of my staff are our field people. So, they are salespeople. They are management personnel, and they are maintenance personnel. All of our developments, as would be the case with this development, They have an onsite management team and I do know that that's a question that's been asked, you know, will there be eyes on this? Absolutely. I believe it was talked about. There's going to be a leasing and management office there that will be open six (6) to seven (7) days a week. There will be an onsite manager. There will be a salesperson. There will be a maintenance crew here. Probably a groundskeeping or porter type crew that works at the property. Typically, either the manager or the maintenance supervisor will reside at the property. I can't think of one of my existing properties where one of the two does not exist. So, there's always a representative of the company at the property 24 hours a day. The state of the apartment industry, as a whole, as I'm sure you've seen that the housing market is just crazy right now. And I'm sure you've heard the same thing. We have in this country, in the state and in the metro...there is a huge lack of housing out there right now. To put it in perspective for you, and again, I manage 4,000 apartments as of yesterday. I checked all my stats, right, Monday, that starts the week, as of yesterday, I had four apartments available in a 4,000-unit portfolio. The demand is there. I'm a little bit older than you probably think, but I'm also fortunate enough that I've seen several economic cycles. I saw the economic cycle in the early to mid-90s. I saw the, you know, the growth of the apartment business of the housing business of the economy. I also, you know, survived through the downturn of 2008, and what came along with that, through all those

periods. I've been with Paragon properties for going on 18 years, and the 10 years prior to that I worked for a large, very large property management company. This is what I do. This is how I feed my family in this business. The business, you know, I think there have been, you know, some discussion just about where the rents are. As Mr. Schostak mentioned to you, this is a Class A apartment community with rents \$1,200 to \$1,600. In my world, those are not exorbitant rents. You know, to put it in perspective for you, we use a ratio typically, a rent to income ratio of around a third, you know, 30 to 35% of the annual income. You're really looking at people, you know, with household incomes in the \$60,000 to \$80,000 range. So, I definitely think you know, it's affordable, particularly in a city like Livonia. One of the other items that has been brought to my attention is some concerns about just our rules and regulations and the occupancy of the apartments. There tends to be a concern, you know that multi-generational families will live there, there's just going to be too many people. I will tell you that not only do we have strict lease agreements and rules and regulations, the rule of thumb in the apartment business, typically traditionally, for most professional landlords, is two occupants per bedroom. One bedroom apartment, two people, two-bedroom apartment, max of four people, and we do follow that same standard. I will tell you that HUD, HUD sees things a little bit differently. You know, I take a fair housing class every year and I know the HUD regulations pretty well. Every once in a while, there will be a municipality that will have rules a little bit different that will not only go by the bedroom size, but they will also go by the square footage size. So, I do have some apartments that are, you know, two bedrooms that are 1,200-1,300 square feet, that HUD tells me that we have to allow five people. I will tell you just on my knowledge of the HUD rules and regulations and the size of the apartments that have been presented here and proposed here, this will follow the two per one bedroom and the four per two-bedroom rule. Besides the onsite management and our consistency in, you know, holding those standards, we do in all the municipalities, and it will be the same as Livonia, we are subject to a rental inspection from the city. So that's a good gut check, right, to keep things going. We have lender inspections. We have insurance inspections. We are pretty regulated, and candidly, you know, just from an asset preservation standpoint, it's not in our best interest. The more people in the smaller the space, the bigger the damage, the bigger the opportunity for problems. So that is a very, very predictable methodology in our business. I'll talk to you a little bit about our approval standards and our screening standards.

They are very stringent. You know, again, in the apartment business, income, housing reference, credit, those are the traditional things. We do something...we go a little bit above and beyond that. So we've actually subscribed to a service that is called ID verify where we actually verify identities. Believe it or not over the last two to three years, ID fraud has become a real problem in a lot of businesses. So, that has been a very good service that we use to verify identities of who is living in these apartments. I will assure you that every week I see people that are getting kicked out of the application pool because they have fraudulent apps. The other thing we use is a service called snapped with two p's. That is an income verification tool. It's very easy these days to do a Google search and go out there and try to figure out how to get a fake pay stub, and you'll be able to do so in about 30 seconds. So, this actually uses artificial intelligence technology. It's always evolving. It can spot the fraudulent pay stubs, bank statements, just through watermarks, and through, you know, different lines and cuts on that. So, that has been a wonderful, you know, service that we've been using to just keep things honest, and to keep things clean and have the people that deserve to live at these apartments, live at these apartments. So, the other thing that I know has come up also has just been the overall security of the apartment community. I'm thrilled. And I've actually...that in the petition, I think there's information in there about the state-of-the-art security cameras that are going to be installed at this development. So, besides having a gated entry system, you know, for ingress and egress to the apartment community, this community will be outfitted with state-of-the-art security cameras. Exterior cameras, door cameras. There are actually license plate readers on these cameras. I've recently in the last couple of years...I've retrofitted some of our older apartment communities with the security cameras. And I will tell you that they're absolutely amazing. The video quality they have, I can get really technical with you here, they have facial recognition technology. So, in the event that the police have someone that they're looking for or there's a problem and they have a photo, you can put it into this video, this facial recognition technology, and it can literally track them throughout a development. It can track them from development to development. It's pretty slick. That being said, at almost all of my apartment communities, and I believe the same would be here for Wonderland flats, is we still use an after-hours security patrol. So, when the office staff heads home at, you know, six, seven o'clock, we will typically still have a security service on the property. They do rotating patrols. They are definitely there. We give the residents their

phone numbers. Our residents will call them from anything, anything from, you know, getting an escort from their car to their apartment. They'll help them carry in groceries. But it's just nice to have a presence. They actually do lockouts. Sometimes they can do lockouts, if people get locked out of their apartment. So that's been a very good thing, you know, to have at the various apartment communities and I think it would definitely, you know, serve this development very well. The other thing I wanted to touch on today, it actually was suggested I guess, isn't in the presentation and I definitely have heard this question before regarding apartment developments is just the trash, right? You know, dumpsters and stuff like that. Really, there is a formula, right? If I go to any one of the carriers and I say I have this many apartments that are this size, you know, how many dumpsters do I need, there's a formula there. It says you need six to eight dumpsters. They need to go here, here and here, and this is what the frequency is, Not an exact science. It's really something that, you know, we have to, to look at, because we're there every day from an operation standpoint, and just understand, you know, the frequency. It does not behoove us though, as owners and operators of apartments to have trash strewn all over the place. These are renters by choice, At this rent level, these are renters by choice. They definitely have high standards, as do we. So, I do not want to downplay the significance of that concern. But definitely, I mean, I, again, I can always look, and I can tweak number of containers. I can tweak the frequency of pickups, just to make sure that it is addressed. So, again, I could definitely talk property management with you all night, but I'd love to answer any questions you may have anything else specific.

Mr. Wilshaw: I think you've had given a wonderful presentation, Mr. Dunckel, of both the state of the industry, and then this, addressing some of the concerns about this site. So, I appreciate that. Let me first go to our commissioners and see if there's any questions for either you or any of the other representatives from this project and then we'll get the appropriate people to answer those questions.

Ms. Smiley: Good evening. Do you manage any properties in Livonia?

Mr. Dunckel: We do not manage any properties in Livonia. About 10 years ago and I am failing on the name of it. We did manage a property in Livonia. I do have two apartment communities that we own and manage in Westland.

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- Ms. Smiley: Okay. And do you have any senior complexes?
- Mr. Dunckel: No. They're all traditional. No senior housing. I do have one mobile home park that we manage.
- Ms. Smiley: How about...well, you mentioned HUD. For a 575 square foot apartment, how many people could live in there?
- Mr. Dunckel: It would be two.
- Ms. Smiley: It would be two.
- Mr. Dunckel: It would follow the bedroom rule.
- Ms. Smiley: Okay. So that would be a one bedroom?
- Mr. Dunckel: It would be a one bedroom. When you start getting into large one bedroom, and 850 and 900 square feet, is when it's actually...I will bore you to death, there's the HUD guidelines, and then there was the Keating memorandum that was actually run through...it's when they start to do an equation with, you know, number of people relative to square footage, the bedroom sizes.
- Ms. Smiley: Okay, and then the 575 square foot, \$1,200, does that seem about average for rent?
- Mr. Dunckel: It does. Your rents have been escalating at an amazing clip over the last few years. But you know, really, that's particularly with new development, you know, new modern development with state-of-the-art cameras and amenities and finishes, you know, granite finishes and hardware, and stuff like that. That's definitely what I'm seeing. In my rents across my portfolio, I have what I would call everywhere from Class A apartments, right? Renters by choice, to Class C apartments, which are renters by necessity. So, I'm seeing anywhere from, you know, \$1.30 to \$1.40 a square foot for the renters by necessity, you know, to excess of, you know, \$2 a square foot. I will tell you that the demand is just as strong on the entry level as it is on the...just as strong on the high end of the rent level that it is on a low end.
- Ms. Smiley: So, this is over \$2 per square foot?
- Mr. Dunckel: Yeah. Yeah. I'm actually seeing stuff in Troy, Washington Township probably approaching over \$3 a square foot. I feel

very, I've got to operate. This is right, yeah. So, the developers done and the owners done and then and then it falls either comes to meet to operate it, that's where I make my money. That's how that's how my business runs is. And I'm very comfortable with the pro forma that has been put together here. I've been very realistic about an expense pro forma that has been put together here, which, you know, equate to a net operating income, and, you know, create a viable business. Yeah, I'm very, very comfortable. You'd be surprised. I'm actually getting. I got two bedrooms in West Side right now that are about \$1,500. And they were built in 1969. And how bigger apartment they're about 950 square feet for a two bedroom.

Ms. Smiley: 950 square foot and two bedroom is 825?

Mr. Dunckel: Yeah.

Ms. Smiley: Okay. And that's in Westland?

Mr. Dunckel: It is.

Ms. Smiley: Thank you.

Mr. Wilshaw: Thank you, Miss Smiley. Any other questions for this representative? Do you want to pull your mic down, sir? Oh, so audience can hear you. Thanks.

Mr. Bongero: This one goes back to Mr. Schostak. You had mentioned you had a meeting with the neighbors? How many neighbors attended that?

Mr. Schostak: There was four or five.

Mr. Bongero: Four or five, okay. Okay, what was the feeling they were saying? Like, no way?

Mr. Schostak: I think they had a obviously varying opinions. Privacy was kind of the big topic was, you know, we live behind here, and you know, how is that gonna affect that. And that's why we came to the conclusion of adding the layers of trees. And then there was some overall just different thoughts and ideas. Walkability came up a little bit, which we've improved. That also came up in some of the meetings here with council, as well, but I mean, that was the general sense of it. It was arranged by a couple of the councilman. And, you know, obviously, we'd like more people to

show up. But you know, that's what we had. And so, we tried to respond to what they told us.

Mr. Bongero: Oh, just saying that mailer went out to basically everybody in the neighborhood or you know I mean...

Mr. Wilshaw: Let's not talk from the audience, just so that right now we're talking between commissioners and the petitioner. We will give you all a chance to speak so you can address those issues.

Mr. Bongero: I'm just trying to get, like, did it go out to everybody? Such a low turnout. Did everybody know? You know what I mean? It seems like there's a lot opposition, so I would expect they would have been there to talk but maybe some of them didn't want to.

Mr. Schostak: Yeah, I mean, obviously it clearly appears that people did not get the invite. I don't know specifically how it was sent out, you know, two Councilman set it up and, you know, invited different folks through whatever different groups and ways to get people in Livonia and people came that came.

Mr. Bongero: Yeah, I guess I just have...changing it a little bit. The vinyl siding...Mark, is it common that a building like this in our city would have vinyl? Do you see much vinyl?

Mr. Taormina: In terms of apartment complexes, it's very rare.

Mr. Bongero: Very rare. I guess that would be one of my main concerns is vinyl. I think a more rigid, you know, veneer would be more suitable. I don't know why they picked vinyl. Is there a reason just for expense or?

Mr. Schostak: There's a couple of reasons. Mark will come up and answer.

Mark Shovers, Spire Design Group Architect, 115 East Fourth Street, Rochester, Michigan. The vinyl was picked up...so they've come out over the years with different vinyl's that have more texture to them, more patterns to them. This isn't just your run of the mill residential siding. So, we're getting the board and batten looks. We're getting stained wood looks out of it. The benefits to vinyl over, like Hardy or these other materials are...hardy is great, but you still had to paint it. It still peels. Southside of a facade, it's not going to last. You'll be up their painting it every five to ten years. This is going to last for 30 years untouched. You can power wash it. You can spray soap on it, you can keep it clean.

It's a much longer, more durable product to maintain the colors and the look of the building.

Mr. Bongero: Okay. Yeah, I'm familiar with vinyl, I am for sure. You know, you get the ripples in it when the heat expands it. I just think that on this size, my opinion, vinyl should not be on that building. Just to me, it just doesn't seem like it's suitable. But that's my opinion. And I don't know if it's not common with the rest of developments that we're seeing? I keep looking back at the Haggerty development over at Haggerty and Eight Mile. I was there tonight and there's doesn't appear to be any vinyl on it. It just seems like it's going to longevity wise, I think it's going to hold up better. But that's my opinion. Thanks for your time.

Mr. Wilshaw: Thank you Mr. Bongero. Any other questions for our petitioners' representatives?

Mr. Ventura: I'm not sure who the question is for, so I'll just ask it generally. HUD was mentioned in the presentation by Mr. Dunckel. Do you plan to have this project qualify for Section Eight financing and/or occupancy?

Mr. Schostak: No, not Section 8. Section 8 and HUD are kind of two separate things. This is nowhere near Section 8. This is high end Class A apartments. We haven't lined up all the financing yet. We will most likely work with Comerica Bank, who is the lender on the property. But no, this will never in any fashion be a Section 8 apartment complex for what we're building. Could never afford that.

Mr. Ventura: Thank you. Mr. Dunckel mentioned onsite management, and it sounded to me like those would be maintenance people, is that correct?

Mr. Dunckel: Maintenance, as well as office staff. So, there will be salespeople as well as management personnel

Mr. Ventura: Overnight, however, who's on the property?

Mr. Dunckel: So overnight, typically, my belief is that there's going to be at least one person from the staff, and it typically is either a manager or a maintenance person that's living there. We do perform 24-hour emergency maintenance. So, there is an efficiency there simply to have a maintenance person on site. As far as overnight. That's where we get into the after our security patrol,

Mr. Ventura: How do you how do you plan to control access to the site? You said it is gated? Are the guards at the gate?

Mr. Dunckel: Yeah. So, the front entry, so the two points of entry will be gated entries. The traditional schedule on the gates at other apartment communities I manage that have them is we may adjust it seasonally, a little bit, right, in the summer, but typically, gates are down or closed from 6pm to 6am, and then they open up while people are going to work, and while package deliveries are coming in. Again, we can kind of get an idea and adjust it accordingly.

Mr. Ventura: So, there is no controlled or restricted access during the day?

Mr. Dunckel: I can keep it controlled during the day. You know, my experience has been particularly with a number of delivery drivers, FedEx, UPS, Amazon that are coming in, that actually creates even more of a backup, trying to use a gated entry system during the day and then it flows back out into the residential streets

Mr. Ventura: I'm really concerned about security. So, there's no guard personnel at the gate. It's not...

Mr. Dunckel: It's not a manned entry. There will be the license plate readers, the cameras at the gate. And those are all the time.

Mr. Ventura: Okay. Tell us a little bit more about ID verify. I mean, how do we know that somebody's a legal resident of the country or of the state?

Mr. Dunckel: So, security numbers, state IDs, driver's license. I can't necessarily get super granular with you regarding how it works, but it's pretty, you know...I will tell you it's been...it's pretty sophisticated. And I do I see enough instances...I've seen particularly in the last couple years of fraud of...this is stuff I wasn't catching five years ago. So, I'm very, very confident in the service.

Mr. Ventura: Okay, thank you. Mr. Dunckel. Thank you, Mr. Chairman.

Mr. Wilshaw: Thank you, Mr. Ventura. Any other questions for our petitioner?

Mr. Long: Mr. Dunckel, if you could stay there. Thank you very much for your presentation. I thought it was very thorough. I had a

question about going back to number of residents in an apartment. And you know, they come in, they sign the lease, you know, you think that you only have two people living there. But there's more in there because you have cameras on them, and you realize that, so then what? What's your process? What happens?

Mr. Dunckel: You ask them politely. You call them. You meet with them. You explain the violation, and you try to do it the amicable way, and when that doesn't work, you know, you do serve them with a 30-day lease violation because they're, you know, they're violating the terms of the lease and over occupying the apartment.

Mr. Long: Okay, so that's a 30-day process?

Mr. Dunckel: So, you know, it is a 30-day process. There's a seven-day notice to quit in the housing business that has typically has to do with non-payment of rent. Other things would be handled in a 30 day. So, they're expedited. A 30 days is actually expedited a little bit more so than a non-rent payment case. So, it's going to be violent acts, drugs, lease violations, things like that. It's just a little bit faster process to move through the court system.

Mr. Long: Okay. I appreciate the education. Given your experience in your large portfolio, If you're getting over occupancy, is it happening...these are upscale, but they're a little bit smaller apartment...is it more likely to get over occupancy in a smaller apartment or a larger apartment, is it more driven by location?

Mr. Dunckel: I wish there was a hard and fast rule. I will tell you as a general statement, it is something that I rarely encounter. Onsite management is pretty diligent, you know, between the cameras, they just know what's going on, you know, as you as you can imagine. You know, the department management personnel end up being therapists and counselors and you know, everything else. So, we know these people pretty well. The Postal Service Worker loves to come in and tell you when they're delivering mail to apartments of people that they don't know...the UPS driver a lot, you know, because they like to come in and take your coffee and our candy and our cookies. And so, they love to spill the tea on what's going on there. But honestly, it was so long...it's really rare. And it doesn't have a specific face. Small apartment, large apartment, geographic. I can tell you some stories, maybe you know, war stories. But yeah, it's really not a thing. The city inspections that we have by the municipalities, they're great. Again, they love to come in and tell us what they

see. We're going, you know, I think we actually go into these apartments possibly too much, right? You know, we're doing bi-annual inspections. We're changing furnace filters. We've got eyes on quite a bit.

Mr. Long: Great. I appreciate that. Thank you very much.

Mr. Wilshaw: Thank you. Thank you, Mr. Long. Any other questions for petitioner?

Mr. Caramagno: I think most of my questions are for Mr. Dunckel. You're very knowledgeable, obviously, and what you do. So, a couple of questions about the challenges of this property or other properties that you manage or have managed? What are some of the items that habitual problems?

Mr. Dunckel: Paychecks, fraud for applicants and ID fraud. You know, I'm going to have a recency bias here, right, particularly over the last couple of years. So it has made our screening process much more arduous. But, again, I'd rather put in the time there than have the problem after the fact. You know, at any given time, you're gonna have some rent collection challenges. It knows no faces, right. But you know, whether the rents are \$2,000 a month or \$700 a month, you can always count on having to chase, you know, some people here and there for rent, so I wish I could give you some more. It's so routine to me.

Mr. Caramagno: With that being said, how long will you chase money? You're gonna let someone go out one month, two months, three months out? How far are you going to let them stay?

Mr. Dunckel: I will give somebody a flyer on their late fees one time, and we will file a case on them immediately. So, we use some dunning letters and phone calls, we tried to do this the right way, the first time around. It's all about you know, it's all about screening them the right way, first time around. Don't let people in that have no business affording the rent. That doesn't do you any favors down the road when you're trying to collect it. But we are very disciplined with our managers when they're sitting down and, you know, moving somebody in, you know, not to be callous about the business, but you know, as a landlord, we have many obligations to our residents. We have many, many obligations to fix the apartment and upkeep and quiet enjoyment. They have one obligation to us and that's to pay their rent on time. Contractually as we agreed upon. So, you

know, we're a little bit more eloquent when we talk about it at lease signing.

Mr. Caramagno: Okay, and how about when they gotta get put out? What do you...you evict them? You schedule that eviction? How does that work? Because there's only a couple of elevators in these buildings. So how does that tie up the process for people coming in?

Mr. Dunckel: So, you know, the process is you file a seven day, you have a court hearing, actually today in the current environment, in almost all the courts now, a mandatory second hearing. So, you do not get a judgment at your first court hearing. Since COVID, has been upon us, there's been a mandatory second court hearing. I would say probably 80% of the time the defendant does not show for the court hearing, and you are given a default judgment. You then have a waiting period before you can get a writ of restitution signed by the judge. You have to then wait a few days after that written restitution and in the meantime, we're in contact with the local bailiff with the court systems. I will say...I'm gonna say probably 75% of the time the delinquent resident does end up moving out on their own when they start realizing that it's a reality, They do move out on their own, which means that there is not chaos, there is not a problem with the elevators, there isn't a problem with, you know, stuff being put on the curb. In those rare occasions where somebody does need to be set out, it's all hands-on deck. It's interesting, you know, depending on the rules and the municipality, you know, sometimes it's the bailiff and the bailiff's team, they have to do everything. There are other municipalities where the maintenance team can also participate just to help expedite the process.

Mr. Caramagno: Okay. Vehicles on the site. Abandoned vehicles. Perhaps vehicles that aren't plated. What is your process in other locations?

Mr. Dunckel: That is actually another function that our security company does keep track of. We have an interface with most of them with their technology and it interfaces with our rent rolls, and also our resident profiles, which means they do no license plates, they do no registrations of vehicles. So unauthorized vehicles, the most obvious ones are the flat tires. You know, bad parking jobs, those are pretty easy to tag, you know, some of them do take a little bit more, you know. The ones that have been sitting there for 20-30 days and you start to realize it. You have to dig a

little bit deeper on that. But, you know, we engage with private towing companies in the event that we do have to tow vehicles. So, it's just having eyes on stuff all the time.

Mr. Caramagno: That's good. For your personal business, what is the term for you to manage your property? So, you're coming in expected to manage Wonderland Flats? For what term? Two years?

Mr. Dunckel: Okay, I was wondering, are you asking me compensation or duration?

Mr. Caramagno: Well, I will say I don't care about that, but what is your term managing this property? Is it two years, a five-year contract? What is it? How long term are you in this deal?

Mr. Dunckel: So, the initial management contracts are all one year. They auto renew. To put it in perspective for you, in my other property that I do manage for the Schostak Group or the petitioner, the management contract is going on 17 years.

Mr. Caramagno: So, you have a long-term relationship, obviously. The Schostak Group is comfortable with you, and you are apparently comfortable with them as well.

Mr. Dunckel: I'm comfortable with them, and I hope they would say the same.

Mr. Caramagno: Okay. The last question I've got...I've got a couple more actually. How about kids in this complex? Where will the school bus pick them up at?

Mr. Dunckel: So, that's typically something that as the development progresses along, in one sense, a census of school aged attending children is kind of determined. We end up working typically with the schools. Most of our, and I know for sure, for sure, our two Westland properties for example, they have a bus stop at the property. That they will actually come into the apartment community. They'll have a designated area. Typically, it is by the leasing and management office. We will set up some benches for the parents to sit. It's great. I've done this for so many years. The kids get off the bus, they run in the office, they steal all your candy. You know, but it's precious. Right? You know, but it's good because the parents feel comfortable. Right? Bus pickup time, bus drop off time, we're there, right? We've got people there. Eyes on them.

Mr. Caramagno: Okay, and the last question I've got, again, with all your knowledge, you said you managed a former Livonia apartment complex, but you don't remember where it is. Let me ask you this, and I'd like you to think about where that is, because I'd like to know. And secondly, how come you don't manage it anymore?

Mr. Dunckel: So, do you know Mitchell Blesnic? Anybody? What property did he own? It was on Plymouth Road, and I don't know if he still owns it.

Mr. Taormina: Plymouth Woods?

Mr. Dunckel: Yeah? Does that sound right, Plymouth Woods?

Mr. Caramagno: The name Plymouth Woods. What? What does that mean? That doesn't resonate...Where is Plymouth Woods at?

Mr. Schostak: Within probably a five-minute drive of our property.

Mr. Caramagno: Plymouth is pretty simple. It goes from Inkster to 275.

Mr. Dunckel: Give me two minutes and I'll figure out what property it is. I will answer your question though about the management. So, it was about 10 years ago, and the patriarch of the family had reduced his multifamily portfolio to a point where it did not make sense for him to have an in-house management company. He actually had two sons in college at that time. And so, I actually knew that it was a short-term assignment relatively I actually managed a property for him in Livonia. I managed a property in Plymouth. Two properties in Saginaw. It was like a five-property portfolio. And I knew that it was...I was actually going to, when his sons graduated from U of M, it was their intention to go into the family business and begin a management company. So, when the first one graduated, I actually hired him and mentored him and really kind of taught him how to run a property management company and then his younger brother graduated, and they are now back in the management business. They manage their own apartments. So that was how the divorce happened. I knew it was coming from the beginning.

Mr. Caramagno: Thank you.

Mr. Dunckel: I'm gonna figure out the property for you.

Mr. Caramagno: Good. Okay.

Mr. Wilshaw: Thank you, Mr. Caramagno. Plymouth Woods is located on the south side of Plymouth Road between Newburgh and Eckles across from McKesson.

Mr. Caramagno: Okay, thank you.

Mr. Wilshaw: Whether that's the property in question, I don't know. But that is where Plymouth Woods is. Is there any other questions for our petitioner?

Mr. Bongero: Just one quick question. Is this a smoke free apartment complex?

Mr. Dunckel: It will be? Yep. Yeah. You know, for the most part, we've been moving in that direction for probably about the last five to seven years. You know, the older apartment communities are a little bit harder. Yeah. Out of the gate. Very easy. Thanks.

Mr. Wilshaw: Okay. Any other questions from any of the commissioners? If not, I'm just going to ask a couple of brief questions. We'll start with you, Mr. Dunckel. Hopefully you can answer these. If not, you can punt it to one of your other team.

Mr. Dunckel: I will and I'm looking this up right now. I'm going to have this answer for you.

Mr. Wilshaw: All right, if you can multitask. We can do two things at once here. Is there any discussion about EV charge ports or EV charging, which is of course electrical vehicles, at the site? Because that's kind of where things are going.

Mr. Dunckel: It definitely is.

Mr. Wilshaw: This is a big problem for apartment complexes

Mr. Dunckel: I've actually retrofitted again, some of the some of our older apartment communities. We haven't gone terribly in depth on the discussion, I think, you know, the question is how many? What is appropriate?

Mr. Wilshaw: Okay. Do you know if those would be provided by the complex? Or is that something that then they would have to pay.

Mr. Dunckel: Where I have them currently, I'm not charging for them. It's an amenity.

Mr. Wilshaw: Okay. So, you have these some of the other sites?

Mr. Dunckel: Yep.

Mr. Wilshaw: Okay, something to consider for the developer and the petitioner to think about, because it's really the way of the world, I guess. The other question is regarding the housing values of the surrounding area, this may be a difficult question for you to answer, but because you do have an immense knowledge of rental apartment business, obviously, but in your experience, when you have a development like this, what does it do to the value of the houses and housing in the surrounding area? Well, I mean, does it impact it positively or negatively?

Mr. Dunckel: In an upscale apartment development brings people. People spend money. They put money into the local community. You know, so correlation does that have on values? I'm theorizing to you, by the way right now, you know, but it creates confidence, consumer confidence, you know. As we know, the single-family housing market is pretty reliant upon its own set of competitors to determine the values. You know, I think we're all very fortunate right now that, you know, values have rebounded really well, and are doing well. I will tell you without a question, that it brings a heck of a lot more value than a vacant piece of land. You know, it's a definitely, you know, a high income, nice looking, you know, development. So, I think that it is, this is something that will enhance the neighborhood, this is my opinion.

Mr. Wilshaw: Okay, that's your opinion and it is perfectly fine. We appreciate that. You're gonna hear lots of opinions tonight, and so it is always good to know yours as well. Thank you, Mr. Dunckel. If there's no other questions for our petitioners...

Mr. Caramagno: I've got another. This is probably not for Mr. Dunckel. This is probably for Jeff and his team. In one of the letters, we heard about the visual, and the interruption during construction, if this moves forward, would the fence and the trees go up last, or will the fence and the trees go up before construction of the building to provide a buffer zone?

Mr. Dunckel: Woodridge apartments on Middle Belt. Yeah, 18242 Middle Belt. Woodridge. It was about 10 years ago,

Mr. Wilshaw: Middle Belt between Seven and Eight Mile probably.

Mr. Shovers: In regard to the fencing is for privacy during construction, we would be willing to do that. As soon as possible. There is some utilities under that berm that we have to get to. A watermain comes out there that we're gonna be tapping off of, so as soon as that work is done there and we're not digging up the berm anymore, we'd be more than willing to put in the berm and provide that buffer as soon as possible.

Mr. Caramagno: So, this goes through sooner than later you'd see that visual assistance to keep getting the neighbors off the construction and all the activity there.

Mr. Shovers: Yeah, from my estimation, that work could happen before we even go vertical, because they're gonna do all the utility work. So before we're going vertical, that fence would be in.

Mr. Caramagno: The trees also?

Mr. Shovers: The trees, yes. Yes.

Mr. Wilshaw: Thank you. So, Mr. Caramagno, Woodridge apartments is on Middle Belt, just by Curtis. So, between Six and Seven, yeah. Bless you. Just we have that figured out. Thank you. If there's no other questions from any of our commissioners, one more shot, I will then go to the audience. Anyone wishing to speak for or against this petition is welcome to come forward to either one of our podiums, and we're going to ask that, of course, each resident start with their name and address for our record, And because there probably will be multiple people wishing to speak I just ask that you try to keep your comments somewhat brief so that we can get everybody an opportunity to speak. Good evening, sir.

Steven Weldon, 29912 Orangelawn, Livonia, MI. Even though it's June and it's almost summertime, we've had a lot of snow here tonight. Must be a little weather change. On the one hand, the whole purpose of the NM2 change was supposed to be a downtown environment to bring people and families into this area. The Livonia Vision 21. That doesn't fit with what this apartment complex represents. It doesn't have any kind of walkways for people to come here, to be attracted to here. It doesn't provide the intermix of both architecture and retail, and then residential that you might see downtown in Detroit now. So, the question is,

why are we putting in a strict apartment complex that doesn't fit with that vision? That's what this panel addressed previously, before it was passed on to the City Council, and you all voted unanimously, no. The same arguments still exist. The issues of traffic, we're already seeing huge flows of traffic with all the recent development that's going on here. You're gonna have Chick fil A. You've got a plasma center, and some other kinds of things coming on. So, you've got, again, all the utilities that have to be addressed. The sewer system. I was checking recently the floodplain for this area has been pretty good for us. We haven't had any sewer backups into our basements and things like that. With this when you get 200 plus units with people, and this is from experience, my brother had several apartment complexes. You get some of these people, and they violate how they're supposed to put toiletry stuff down the commode, and they flush it and it backs up. Well, then that starts to pile up and back up the rest of that area. So, then all the sudden, you get these floods. And now we're going to...Livonia is going to have some issues with the residents that have had peaceful conditions with their basements. And all of the sudden what's going to address that? Is Mr. Schostak and his company going to be responsible for that, because he's going to have the benefit of all these rentals, and yet, we're going to pay the price. So, we're going to have more traffic, not only with the traffic we got now, you're going to add 200 units, which each one can have potentially two vehicles or with the two bedrooms, you could have more. And then as far as the Paragon personnel was representing, again, from experience, you're going to get people that violate those rules. They don't care. They're going to sublet their apartment. Just to say that these are high level class A apartments, look at where this area is, this is not a high draw like over at Laurel park where you might put something like that, and the high end, people want to live in that area. You've got Walmart. You've got Target, and you've got a bunch of low little stores in here. That's not going to draw the people that want to pay that kind of price. So, you're going to get the people that can take advantage that will say, Oh, I'll get two or three roommates and that's what a lot of them do and then you get more traffic they don't care about. And again, it's being gated and there's licensed, like, they're gonna say, Oh, this is my guest. This is my girlfriend. You're not going to challenge them. And so if this place doesn't produce with enough rentals, what happens? Well, usually it's staffing management company reduces how many people are there to manage the place, then you get one person that's not going to challenge people. So you've got, again, the question becomes, does this really fit with the Livonia Vision 21? No, it doesn't. As

he mentioned with the...Mr. Bongero had mentioned with the vinyl, well, vinyl breaks down from the sunlight. Ultraviolet has an impact on it. So, then it starts to get faded. So again, what Mr. Schostak has done in the past, and if you look at the current berm, that was never built to the specifications that he had promised. That was supposed to be 13 feet tall. It's barely nine and a half. The trees, some of the trees in my backyard and in my neighbor's, we've got weeds growing up through the tree. I've got one tree literally on a 45-degree angle. Not very attractive. If I was wanting to sell my home, they'll look at that condition and go what's going on back here. So, if he was going to put in this berm and everything else first, then let's make sure that he's going to hold to the specifications that's there, not do it shortchanged, and then no one inspects, and we're stuck with low level and stuff that isn't done right. And that'd be probably the same thing with the vinyl. Again, he's promised a lot of things and then he fails to do it. I feel he shortchanges a lot of things. He's brought in stuff, and we've paid the price for it. We had that Jeepers where we had the issues with that. The police, again, that's a point that was brought up. We had violations. Now we're going to have a really ungated but gated area. You're going to have school buses trying to pick up kids where there's no real walkway. People trying to get...again, this is not the Vision 21 that is supposed to be. This really needs to go back and say put in some residential, I'm sorry, retail type of businesses. That's what would fit there. Now we're trying to fit in and have to deal with all the potential repercussions. Again, the traffic is going to be even worse. We don't know about the floodplain. And then God forbid you get a couple people that get kicked out. It's been in the news, they get pissed off, they set the apartment on fire. And if you've got a three-story building over here behind with residents that catches on fire, with the wind drift that we get coming over the berms. Good God, that fire department is not going to get here in time to cover not only the apartment complex, but all the houses that can catch on fire. That's us dealing with that, and then you guys will also be going, what did we do wrong? So, one of the things that you guys mentioned early on is that your staff came up with proposals for pro and con, I'd like to have that published, where we can review it and say, what are those details? What is it that you guys considered? That was given to you to say, this is a good thing for Livonia Vision. And lastly, the last part I want to bring up and I'm sorry, it's one of those things. I'm getting older. So, the thought that I had in my mind has disappeared. If I could I'd like to come back. You mentioned as well, how big, how many units was that that he was managing 10 years ago? Was it a

simple like 16 unit? Who knows? I don't know. Again, looking at his experience...but he put on a good story. But again, the reality is, most of the people that if they're gonna violate it, they're gonna violate it. So, we're going to deal with that aspect as well. But for now, thank you very much.

Mr. Wilshaw: Thank you, Mr. Weldon. Next, we have another gentleman on my right. Good evening, sir.

Bill Schmidt, 29688 McIntyre, Livonia, MI. A couple streets behind the proposed development. I am opposed to the development. And I'm very curious about the notion that this is going to be high end luxury housing. Now, I want you to picture yourself, young striver. Let's say you're an accountant or an attorney or a young doctor, you're a big pro. You're striving in the first part of your life, you're a renter, because you're a renter by choice. You call up your new girlfriend, Betsy. Come on over to my new place. I live in the Walmart parking lot. I live in a Walmart parking lot. It's right by the plasma donation place. It's pretty high end. You're a striver. Pretty impressive. You're calling Betsy on the phone. Come on over to my new digs. I don't think we're gonna get high end, luxury. Strivers. And in fact, we're so sure that we're not going to get luxury high end strivers that we built in a lot of firewalls, to keep out what, (inaudible). So, in five or ten or 17 years, or in 50 years or 70 years to match the age of the houses that are right behind it, what's the management property going to do then? We're looking really long term, way, way down. And there's no guarantee that the property manager in 50 years, in 40 years, 30 years, in 10 years is going to have the same standards that Mr. Dunckel has. None. No guarantee. No guarantee and you're asking the residents in that neighborhood in the debonair neighborhood that will put their 30-year mortgages onto things. That's their guarantee. Every month, they put down their promise. That's their guarantee. But we have no guarantee with who's going to be the property manager or even the property owner. In any number of years, it's open ended. So, I'm asking you, I'm asking you to look way down on the other end of that, that telescope, and ask yourself in 40 years, what's this property going to be like? Who's going to be living in there? Who can guarantee who's going to be living there? We don't know. And our firewall, our firewall against this development, that Mr. Dunckel has built several, because we apparently have to be very afraid of the kind of people that would move into such an apartment, that we have those many firewalls. Our firewall against this development are you folks. You are our guarantee. You turned this development down

before. You looked in your hearts, you said, this doesn't fit. It just doesn't fit. It doesn't fit in Livonia. There are no high rise, multi-unit rental units in Section 36, or 35, or 34. There just aren't any. And this is going to sit there, and it's going to attract more rental units in any open little spit of land that we can find.

Mr. Wilshaw: You are at five minutes Mr. Schmidt?

Mr. Schmidt: Oh, thank you. Sorry. I didn't mean to overstate.

Mr. Wilshaw: It's okay. It's okay. Appreciate it.

Mr. Schmidt: Thank you very much. Vote no, we're counting on you.

Mr. Wilshaw: I appreciate your comments. Thank you, Mr. Schmidt. Next person. Good evening, ma'am.

Cheryl Lupu, 29864. Orangelawn, Livonia, MI. I have to agree with everything he just said. That was pretty awesome about the firewalls, and we have lived there for many of years, and we still haven't gotten any thing resolved with the trucks running behind our homes and the vibrations from the trucks from our homes, nor that wall has ever been maintained. It's crumbling behind our homes. At one time, they have knocked our fence down and that was never replaced either. My husband just kind of straightened it up and kind of left it like that. We were never even asked if it needed to be taken care of. I'm tired of always having to ask you guys, please don't do this because it's our backyard, it is not your backyard. And our backyards mean something to us. We like to have our families over. We'd like to enjoy our backyards. And it's bad enough we have to call the police over these trucks. And I have my phone with all these pictures that these trucks never go away. And we're still calling and we're using our police for this matter which we shouldn't be private property, right? But here we go. And the police can't remove these trucks either because they have a delivery. Well, that's not our problem. They tell them to shut the trucks off, and then as soon as the police leave, they restart them. So, here we go with all of this issue also again. So now we're going to have more people on this berm, looking into our yards, let alone up high above looking into our yards. It's just an ongoing thing that we don't need in our backyards. There's no privacy. Where's the privacy laws anymore? There is none. The dogs and the people you know, it's just there's a lot going on. And we've had enough we've...I think we've dealt with enough. Let this project go somewhere

else. Sorry, but that's just my own opinion. It just doesn't look good. Thank you.

Mr. Wilshaw: Thank you Miss Lupu. Good evening.

Jeanne Sullivan, 29944 Orangelawn, Livonia, MI. I'm directly behind this proposed site. It's too bad we don't have interjection between them and you and us because so many questions I have like, why do we have another petition number? Do we have two petitions now for the same property? Or is this just a continuation? That confused me, as well as a lot of other people. I'd like to know...It's been brought up before that when this first started, we went and canvassed a lot of our neighbors and asked them, you know, how did they feel about it? We walked at the neighborhoods and talked to people. We got a petition of everybody that was opposed to rezoning this because they didn't want this high rise behind us. We turned in petitions and signatures, and nobody ever talks about that. It's like it all got swept under the rug. Like, did we not bring forth a number of people with signatures saying they didn't want this. That it was against what they wanted for Livonia. That's kind of a...sorry, I've got a lack of words here in my head, but the other thing that I think is really important to me is, we've been through this before. We get a lot of very empty promises. It all sounds real, real nice, fine and dandy, when you're talking about it's going to be this, it's going to be this, it's going to be this, and it all sounds wonderful and beautiful until you start to think about been this route before. Oh, we're gonna give you all these trees. I know behind my house; I never got all those trees that they're talking about. They're going to upkeep the property. There's a sidewalk that runs right behind that wall, you can't find the sidewalk. The wall has graffiti on it. There are shopping carts back there and trash. These were all things that they said that they were going to take care of. And then it comes back to their management. So, the property that we have, they're going to totally ignore again so they can look at the new property. It just isn't making sense. It's not fitting. We have a new Amazon coming in there. We have got a Chick fil A coming in there. We've got massive accidents there all the time. The traffic is horrendous. granted a lot of buildings and it's all good things. Again, I have to bring up with the high rise, when you're...this high rise is going to look right into the AutoZone, at Walmart where they are working on cars. Sure, if you're staring at Plymouth Road, it's probably going to be nice. But people coming down Plymouth Road aren't going to be attracted to that particular piece of property that has apartments on it. It's like...just doesn't fit. They're either going

into Walmart's; they're going into Target's. I know if I had children, I wouldn't want them coming in and out of there. The traffic that goes through there that cuts behind Walmart and behind Target, people that live around there or shop there a lot, know that they can avoid traffic if they go through, and they go out the other entrance or they go out this entrance. There's many entrances coming in and out of there that are being inundated. It says no turn, no left turn no right turn, still left, right turn, left turn, left turn, I worry about the people that are going to leave this apartment and go across to shop. You get old grandma going across and that's me. I don't want...I don't run that fast and I don't want to be dodging cars. I wouldn't want to be dodging cars. We're supposed to be able to walk that shopping center in the first place. It was supposed to be a walkable community. There's no walking there. You head for the store you want to go to. Nobody just strolls through unless maybe you stop at Menchie's to get an ice cream or something. But it's not a walkable area. So, I don't know how they're going to make this a walkable area. My other concern is, again, our retention pond. Our retention pond protects us. It keeps us from being flooded. And so many people have been flooded over the past few years. It's a big protection for us. They're already talking about tapping into the water, sewage that we already have that runs underneath the berm. They're going to tap into that. I'm wondering how much more pressure it's going to put on our retention pond. I worry about the neighborhood. Promises need to be put into writing so that the city has recourse to go after them when it's not being done. We've called about our berm. We've called about the trees. It goes in one ear and out the other. So, the city needs to have some kind of recourse to go after them and say, look, we're getting complaints. This isn't being done. Do something about it. It's up to you guys.

Mr. Wilshaw: Thank you, Ms. Sullivan, and before you leave, I just wanted to explain for your benefit and maybe for anyone else in the audience who doesn't quite understand the process thoroughly, because we do this every day, you know, this is our job, not yours. So just so you understand why you may see two different petition numbers, and you may say that, hey, we already went through this process, and you did. You provided signatures and petitions in the past to this board and to the City Council. The way the process works is, initially, the petitioner came to us for a rezoning of this property. It was already zoned to be commercial, and they wanted to rezone it for residential use. So that was the first process. That was the first petition number that you saw, and when you presented signatures of opposition and

so on to that, that was for that process. That's all part of that record for that rezoning. The rezoning came through us and we gave a recommendation for or against that, and then it goes on to City Council. City Council had an initial meeting on it, and then they hold the item waiting for...so, they haven't finished the rezoning process. They're waiting for the site plan that we're dealing with tonight to catch up to it. So now, here's the second petition that that's been filed by the petitioner, which is for the site plan, which is the details of what the buildings look like, how they're laid out, you know, all these types of details. We're going to again, make a recommendation for or against that and that will go to City Council. City Council will then start bringing these two items together, the rezoning and the site plan and make their final decision. But all the information that was provided to us previously, the letters that we've received, the signatures and so on, they're all part of that record that haven't gone away. We still have them in our record here. So, we haven't forgotten about it, okay?

Ms. Sullivan: Okay, I have just one more thing. We had a really elaborate visual display of their site plan already. That's why we got so confused because the zoning was one thing, but now we already saw this visual of what their intention was, I thought that was their site plan.

Mr. Wilshaw: That's understandable. What happens typically during the rezoning request is they will offer a conceptual site plan. It is a concept of what they intend on putting on the property. It's not the final plan. It's not fully worked out. It just shows how the property could be laid out in that particular zoning. Which is why when you see this one, in the case, the petitioner has increased the size of the berm, they've added some additional screening, they've made changes to that site plan that you saw before, trying to fine tune it and hopefully make it a better plan for the community. So, that's kind of why you see this happen twice. I hope that makes sense.

Ms. Sullivan: It does. It does. And I'm just gonna reiterate one thing. It's one thing to say you're going to do it, it's another thing to follow through.

Mr. Wilshaw: Definitely. Thanks. Appreciate that. Thank you. Next, we have another person on my right. Good evening, ma'am.

Nancy Haverland, 29928 Orangelawn Street, Livonia, MI. I'm probably going to repeat some of the things people said. One of my concerns is where it's being placed. I went and looked at the one on Haggerty Road, and I think it's a fit. They have nice restaurants. They have nice shopping and things over there, but where we are at, to be like next to a Walmart, which actually we have a high crime Walmart and Target. I don't actually know anybody who even shops there. We personally do not, and especially after five or six in the evening, but like somebody would want to live there and drive past the blood plasma and live by the Walmart and the Target, it just doesn't fit to me. The Vision 21 I think is great. I think, and like I said, I saw the one on Haggerty, I think it's a perfect fit. I do not think this is a fit. So, I'm sure I'm repeating what some people already said, but we really feel this way, and I hope you do too. Thanks.

Mr. Wilshaw: I appreciate your comments. Thank you. Good evening, ma'am.

Cheryl Mc Nall, 29961 Orangelawn, Livonia, MI. I have resided there since 1966. We've seen a lot of change, a lot of promise and I feel that this project property is not a fit at all. It's very dangerous for very many reasons, and I feel like this corner is really being overextended. Now we're talking 200 apartments, anywhere from four to 600 approved people. Okay. May I please...

Mr. Wilshaw: Please address your questions to us.

Ms. Mc Nall: I am curious to know how the management team, how extended are they? Overextended? If we're going to add anywhere from 600 to 800 more people on their very fat portfolio, and Mr. Schostak, how many properties does he own? And how does this benefit Livonia or us? Right now, our major concern is the children and the residents of the area. Okay, we don't want to see any accidents. We don't want to see any fatalities, especially with a child. This is really important, because people aren't paying attention. They're on their phone. They're not watching where they're going, where they're driving, I mean, even Wonderland now, with the way all the different entrance ways start. It's pretty confusing, and if a new family moves in or several, you know, they're not going to know where they're going, and there's going to be some trouble. But, not only that, they are going to get bored. You're talking six to 800 people, one courtyard, one pool. How many people will that pool fit? And how many people will that courtyard entertain? How loud is the volume going to be? I live directly in back of that wall. I look at it. I will look at this out my living room window. I will view this

building every day. Every day. I've been here 54 years. Excuse me for a moment while I gather myself here. I want to present this properly. No one can afford anything these days. Who's to say that they won't start this project and not be able to complete it, due to outrageous economic times. Trucks cannot provide needed materials because of skyrocketing gas prices, and in turn, making it almost impossible to meet any deadlines with everything so uncertain right now. We don't even know. Right now, Walmart has no food by the way. We can't feed our own families and ourselves right now. I just went shopping and everything's bare and it's not getting any better. It's been like this for about a year. There's not enough food at Walmart to feed these people. I just thought that is an outstanding point. The stores can't handle the volume. The subdivision can't handle it. Livonia Police can't handle the crime rate. And when you dig up that berm, I can't handle big rats in my yard like when they tore up Jeffries. We all had rats in our backyards, didn't we? We did. They're gonna mess the sewer system. They're gonna dig up all the nature in that field, and where's it gonna go? In our backyard. I've seen dead rats on my street. I don't want to do it again. I mean, they are bigger than my pups seriously, but all in all, the economy really has me worried and if something goes halt right in the middle of this project, then what do we have? An empty half-built project that is going nowhere. Thousands of millions of dollars lost. Nothing gained. This is a chance Livonia is taking and I think the risk is way too big. Livonia is not going to make a profit on it. Livonia is going to have to enforce more law, more fire, more everything. And right now we can't get building materials or anything to survive on your own as far as anything. I mean, who's to say we're going to water in a year. We don't know where we're going. This isn't a good idea. And I really don't see anybody paying that kind of money for 500 some odd square foot to live in a parking lot next to Walmart. There's no pride in that, and I'm sorry, I don't think classy people will do that. Thank you so much for your time and consideration. Please take the children in consideration.

Mr. Wilshaw: Perfectly. Thank you. Appreciate your comments. Any questions that are asked for the petitioner, we will try to get those answered by the petitioner at the end of this time. So, thank you. Good evening, sir.

Michael Haverland, 29928 Orangelawn Street, Livonia, MI This project is directly behind me. The first issue I want to address is that meeting between the residents on Orangelawn and Schostak. None of us were invited to that meeting. I talked to all the neighbors, not

one of us were invited to this so called meaning or whatever it was. I just wanted to say that after I left the Marine Corps I settled in Livonia, and I've been there 50 years. I've raised a family. I help raise two grandchildren. What they want to propose behind us is not a fit. It just isn't. There were promises made a few...many years back, that they would have two rows of trees behind our homes. To this day, I don't have the second row. It's never been addressed. We asked that they put in a sprinkler system. They did. They did a good job. The only thing is they forgot to turn it on. So, I personally over the years have called City of Livonia Ordinance 40 times and said, please have them cut the weeds. It's just barren back there. It just...this is a continuation of what we have now, and we still don't have what they promised. This is not a fit. This doesn't belong behind us. This, as I said, this is directly behind my property. This is going to be outrageous. I just say please vote no, please.

Mr. Wilshaw: Thank you, Mr. Haverland. Thank you for your service too.

Mr. Wilshaw: Good evening, ma'am.

Victoria Kowaleski, 29960 Orangelawn, Livonia, MI. I am directly behind the proposed zoning change. Obviously, this is my last opportunity to speak to you folks on this issue. And I'll speak as quickly as possible. First of all, regarding the meeting that was set up to meet with the Schostak people at Mamma Mia restaurant on Plymouth Road in Livonia. Again, none of these neighbors that showed up today whose properties are being affected, were notified. None of us. This is directly...my address is 29960. Compare that to the address of the project. This is in my backyard. I was not alerted. In fact, I was told afterward that they were looking for people who had positive reactions to the project. So, I guess that's probably why I was left out. When I last addressed this commission, I said that many of you are aware of better suited properties for this project, and I know that at least one person on the panel had agreement and shook their head. In our Livonia home, we raised two brilliant sons. One a Churchill graduate, one a Franklin graduate, and both have become independent business owners. One in Redford with offices across the state, and one in Livonia. I'm very proud to say that both have thriving businesses. My children grew up in Livonia family first, my very best friend of 30 years and neighbor grew up in the same home she lives in today. In her Livonia home, she raised three children. One who grew up to be one of Livonia's finest. My next-door neighbor grew up and graduated from Livonia schools. My other next-door neighbor and her

daughter have been living in Livonia for over 30 years. Her daughter attended Livonia schools. Livonia family first. This is what is referred to as an established strong and healthy neighborhood. An apartment complex is not a neighborhood, it's a complex. The petitioner wants a zoning change. The zoning change for the property directly behind our houses. He's asked for a change from C-2 (General Business) to NM2 (Neighborhood multifamily). It's not a neighborhood. It's a minimum three story, 201 apartment building. It's not part of any neighborhood. I happen to believe this is just to provide shoppers to every business on the corner of Plymouth and Middle Belt. Again, I say the developers own representative said at a prior meeting, this project will help the surrounding businesses survive. So, I remind all here that this is about the developer's financial interest and ultimately his pocket. He hasn't kept the promises he made years ago, when he tore down the Wonderland mall and put up the Wonderland Village. Two staggered rows of pines to obscure and shield our homes from light at night and to buffer truck noise etcetera. Promises made and promises broken. So, my dear Livonia Planning Commission, here's my question, why are future residents of an apartment complex, more important than the concerns of the current citizenry and even our property values? We are the true existing neighborhood. We are saying no to this ridiculous project and literally saying the words not in my backyard. Please don't break the promise of Livonia family first. As I said at the last meeting, Livonia family first and this was at a Council meeting. Show us with your vote. I close with this. Thank you for this opportunity to speak. May God bless and keep us all. And if you are a believer, please pray for the people of the Ukraine. #I stand with Ukraine. Good evening.

Mr. Wilshaw: Thank you, Ms. Kowaleski. Gentleman over on my left.

Michael Mc Nall, 29961 Orangelawn, Livonia, MI I thought I'd be a little different. Give this podium some attention.

Mr. Wilshaw: Yeah, it's kind of kind of neglected today.

Mr. Mc Nall: I am right across the street from Vicki, and as my wife was saying, we look...our front window faces into this project. I guess some of the concerns I have a lot of people have already brought up. Families saying no. I live in a Walmart parking lot. They're gonna have children. They're gonna go to school. They're gonna meet friends that live in the neighborhood. Okay, I'm gonna go to the park and play with Joey I googled it today

it's one mile around Wonderland down Orangelawn or one mile around down Milburn to get to Devonaire Park walking, or driving or walking. It's one mile. It's a 25-minute walk. You're gonna want your kids to walk and half of it to the Wonderland parking lot. I think it's ridiculous and dangerous. It was touched on, right now the shelves at Walmart are pretty empty. You're going to put this building and now people are gonna go there to shop there. They can't handle the volume now. A lot of people mentioned they don't shop Walmart at now. So, they're gonna go somewhere else to shop. I've lived here since...I moved here from Wisconsin when I was five. I'm 64. I've lived here for 59 years. I grew up with Wonderland being an open-air mall. It was great. It was fun, especially in the winter. They enclosed it. I was disappointed. They tore it down. So, they were going to build a new open-air mall. Fantastic. This isn't what I expected. You can't walk from one store to another. I mean, even walking from Walmart to Target to hike. I'm really disappointed with what they did with it. I'm not sure this is a great idea either. It's dangerous for kids. It's not a good thing. I mean, the people that live there like I think Jeanne had mentioned, one side is going to be looking into Walmart's garage. The other side is going to be looking at a back wall. One side is to look at Plymouth Road, which isn't bad. The other side is going to be looking at a water retention ditch. I can't see people paying that kind of money for that kind of a thing. I just don't think it'll work. I guess that's all I've got to say right now.

Mr. Wilshaw: Well, thanks for your comments, Mr. McNall. Anyone else in our audience? I see another gentleman coming forward. There we go. We got one over here. Good evening, sir.

Dan Schekel, 29161 Grandon, Livonia, MI. I am about half a mile or so from where the site's going to be. A couple concerns I have with this is, this is a 201 unit in that area. It's a pretty good size unit for that area. And I love how it's described as high-end apartment complexes. luxury complexes. Now, not when you're putting it in with the same buildings with Walmart, Target and all that. I don't see Macy's. I don't see Kohl's. I don't see any of the more Jacobson's...any of that around there. No, we got the low end stores, and that's what we have is low end apartments, you can say all you want, \$1,300 for an apartment nowadays is cheap. Okay, so we're not talking high-end and we're not talking luxury. Let's go compare it to the apartments on the north side. I think they're probably a little more expensive. It doesn't fit in the area, as many of the people here have said. Putting in an apartment complex in the middle of a shopping center, that's basically what

you're doing. It's in the middle of a shopping center. Makes no sense. I don't see too many people...and they've mentioned wanting to come in here and look around and go wow, what a place to live. I mean, god Walmart is right next door, but what can be better? No, this isn't Livonia, what would be I'd consider anything...it's lowering everything in the area. And it looks like in this side of Livonia, the southside of Livonia, we're going to fill every nook and cranny we can with whatever we can. But you look at what they're building on the north side. Things are a whole lot different. And I think maybe people on the south end of the Livonia, really start to need to get a little more attention. Okay, that's all I have to say.

Mr. Wilshaw: Thank you, Mr. Schekel. Appreciate that. Anyone else in our audience wishing to speak for or against this item? I don't see anyone else coming forward. Thank you, everyone for speaking and going through this. I'm going to give an opportunity for our petitioner to come back to the podium and address anything that was discussed, or if there's any questions that we may have additionally for the petitioner, Mr. Schostak, did you want to address anything that you had heard?

Mr. Schostak: Yeah, then we also have our traffic study. Okay. Questions and comments on that? So, Mike, if you want to kick that off, then I'll answer some of the questions.

Mr. Wilshaw: Alright, sounds good. Thank you, Mr. Schostak. Good evening, sir.

Mike Labadie, Fishbeck. Fishbeck is a consulting firm if you didn't know that. I don't know if you've all had the study long enough to try to dig into it or not.

Mr. Wilshaw: We do have it in our packet. So that was provided to us. Thank you.

Mr. Labadie: So, I don't know if we want to go blow by blow or page by page with that, but how much any of you know about doing traffic studies, what they include or anything like that. So, I'll just tell you that there is an accepted practice methodology that you have to go through. So, we did that. We confirm the scope of the work, and which intersections to study and things like that with MDOT, who owns Plymouth and Wayne County, who owns Middle Belt. So, if there were comments or questions or issues that they knew about, they would have asked us to incorporate that into the study. So, we did that. The studies, when you

collect traffic data, let's say we went out there last week or two weeks ago, or whatever it was, that would be kind of an existing conditions analysis. And you'll see in the study, there's stuff in there about level of service and delays and level service A is good, and F is not good. D is considered acceptable, that kind of thing. So, there's an existing conditions analysis from when we collected the data. But then, what you have to do is you have to grow the traffic and add things that are going to be in the background that are going to happen between the time we collected the data and the time the development is complete. So, there's a time period in there where other things that we know about are going to be in there, but also just in general traffic tends to grow over...well depends on where you are, but for the most part Southeast Michigan, that's what happens. So, you can look up data and you can look up information from SEMCOG and places like that to get some sort of a growth factor. In particular, we knew about the Chick fil A and redevelopment of that site. So, we incorporated that on top of growing the traffic to the completion date of the project. So, you have an existing background and background is everything except the development. So, you get an idea of what it's going to look like and how well the intersections are going to operate up to the point when you add the traffic for this site. So that's basically the impact of this development would be the difference between background, and in the study, it shows the future. So, I don't know if you had a chance to look at that, but the numbers are not...this is not going to be a development believe it or not, obviously, and people are going to start throwing things maybe, but this is not going to generate a lot of traffic that with two or three access points, to create any significant differences in delay or level of service. Just to give you an idea, the background, morning peak hour at the intersection of Plymouth and Middle Belt, that overall intersection operates at 47.6 seconds of delay. You kind of wonder how you get that close with the calculations. I guess I wonder that sometimes too. But it is accepted practice. They've got a lot of really cool computer models and programs and simulations you can look at to figure that out. That's the morning peak hour, and then the afternoon peak hour is 63.5, both of those, the 47 is D, the 63 is E, but that's how that intersection will operate without this development four or five years from now. In the future, when you add this development traffic to that intersection, and the other intersections, you end up with only 48.8 in the morning. Not very much. A few seconds of delay overall. And 65.4. That's in those studies that are in the tables in the study. The impact of this on that intersection is not very great. Kind of another rule of thumb,

and you might not view this as necessarily pertinent, but maybe it is, I don't know. Maybe you're trying to draw some traffic conclusions out of this. If for example, we built a 100,000 square foot shopping plaza there, instead of the apartment building. In the morning peak hour, we would have total 96 more trips for the shopping center than you would for the apartment. So, another 100 more trips. So, would you notice that in an hour in the morning peak hour, the shopping center, or even at that intersection, maybe not. It's only a couple of cars. One in the morning for 60 minutes. In the afternoon, though, the p.m. peak hour is a market difference. You'd have over 440 more trips with a 100,000 square foot shopping center than you will with this development. That's a big difference that makes or breaks it. That's not good. That's an important number to kind of keep in mind. This is a good traffic planning thing to do, because the differences are significant. I don't know if 100,000 square foot shopping center or shopping plazas necessarily by right are able to be built there. It kind of looks like it would be. I'm just throwing that out there. On Saturday and Sunday, the differences are unbelievable. On a Saturday, it's 7,186 trips less to build this than have 100,000 square foot shopping center, and on Sundays. It is 3,510. Those numbers are big. That's a difference that you'll be able to feel easily from the standpoint of the operation of the two driveways that are signalized. They work well and they're going to continue to work well background and in future. The impact at Middle Belt and Plymouth, like I said, is minimal. Now if I didn't do that analysis for a shopping center traffic, I just gave you those numbers just to kind of get an idea of the difference in traffic. Do you have any questions?

Mr. Wilshaw: Thank you Mr. Labadie. I tend to find this stuff fascinating because I spent 10 years on our Traffic Commission reading traffic studies. So, I kind of enjoy this stuff, but I know for most people, this kind of makes their eyes water. It's the nature of the business, but I think it's safe to assume that what your executive summary, in your general summary is saying is that the anticipated traffic impact to this, from this development, as a residential development, is significantly less than it would be if it was a commercial development. Is that correct? That the simple one liner version of this? Okay.

Mr. Labadie; That is exactly it.

Mr. Wilshaw: All right. Good. Mr. Long.

- Mr. Long: Just a couple questions about the study. So, your current study was done a couple of weeks ago. That's where you gathered all your all your data in the last few weeks, month?
- Mr. Labadie: Let's go with about three or four weeks. That's when we collected the data.
- Mr. Long: Sure. And with that data, we graded out to a D and an E. If I heard you correctly, I'm assuming that's on a scale similar to School A through F. Is that for...
- Mr. Labadie: It passes? Yes.
- Mr. Long: Okay.
- Mr. Labadie: That's just at the intersection of Plymouth and Middle Bel.t
- Mr. Long: I understand. Are you aware of any studies done prior? Do you have access to any of them, any data that was collected in 2018, 2019? Anything like that? Are you just living off the data that you collected in 2022?
- Mr. Labadie: That's an odd question. If I had data...if data is more than two years old. It's not valid.
- Mr. Long: Okay. Two years, though. It's been a strange two years, though, and my concern is...
- Mr. Labadie: I understand what your concerns. I did the study for the Chick fil A site, too. And so that data, I think was collected just prior to all of us hunkering down for a year, so we did compare the 2022 stuff with the Chick fil A data, and it has grown. So, we're coming out of our bunkers now, but for the most part in the State of Michigan right now, MDOT and most of the road agencies and cities feel as though traffic is pretty much back to where it ought to be. There are some COVID adjustments that some communities have asked for. They've been pretty remote from here, but in Southeast Michigan it is kind of like game on and actually the volumes are higher than they were before we hunkered down. That was kind of interesting problem, but it feels like it took me forever to get over here today.
- Mr. Long: I was curious about that because you said that you added in your...you took the historic data, and then you started adding in for what you project the additional usage would be, and I was wondering if there was any addition in for other people...we had

some of the residents testified earlier how they work from home now. I know a lot of people in Livonia that are working from home now. I don't know if they'll ever go back or if they were, but I didn't know if that was factored in at all. When you did your adjustment for the new traffic out of the apartment complex, was there any additional adjustment for...

Mr. Labadie: If anything, it would be more conservative, right? If I forecast the trips based on data from the Institute of Transportation Engineers that was collected, all these other sites across the country, not as many people were working from home back then. I'm not sure that the work from home thing is long term at all. That's kind of what I've been reading about it. Because it is kind of important in my business. This comes up all the time. And for whatever reason there's an awful lot of people working from home sometimes. And yet the volumes are higher, prior to COVID starting.

Mr. Long: Yeah, it's a lot to sort through. So, I just was curious about

Mr. Labadie: There's no fatal flaw or any outlandish estimate one way or another. Either high or low. I don't think from this. based on what we...

Mr. Long: I wasn't trying to imply that there was. I was just trying to understand the data collection and what we were looking at. Thank you, Mr. Chairman.

Mr. Wilshaw: Thank you, Mr. Long. Good discussion. It is interesting to know how COVID does affect these things. Any other questions for our traffic engineer that's up here? I think, think you're all set. Mr. Labadie. Thank you. I'm going to go to Mr. Schostak.

Mr. Schostak: I'll try to do the best I can here, as we've all been here for a little while, so I don't want to take up too much more of your time, I'll try to answer a lot of the comments and questions we heard from the residents. Just to kind of add on to our traffic engineers point, this is a much more lower impact use than what the current zoning allows. And, you know, we have this building 300 feet back from the berm, where the current zoning obviously allows much closer, 60 to 80 feet. A lot of the concerns I heard from the residents of truck noises, you know, that's not going to be an issue with our multifamily development. One from the distance away, and of course, we don't have the same delivery trucks that Walmart and Target have, or the dumpsters that are behind the buildings near the berm. You know, that's we're

obviously again, 300 feet away. Residential dumpsters, the way we're going to monitor them is more weekly turnover, or even more so as needed. Few times weekly is what I meant to say. So, I think that a lot of the concerns are on kind of the current situation. Look, obviously, you know, there's questions about the berm and you know, what's been up kept and all that sort of thing. You know, a lot of I think the comments were at Walmart, and Target and, you know, they own that. They control that. We're obviously willing to work with the city and those companies to try to get them to do more. But, you know, we don't control that. That is their property. What we're obviously wanting and willing to do here is increase the berm like we've talked about to make it better, and to the extent we could do that even more so outside of our property, we would, but that is not something that we control. That is Walmart and Target's property. Then just on the overall fit, you know, I mean, the Livonia 21 Vision tags this property as mixed use, while the rest of the property is commercial development. This is now the residential portion, you know, so we feel that this fits in with what the Livonia 21 Vision outline is what they wanted to see here, and we believe it is a good fit. Also, with Chick Fil A and Amazon Fresh, opening up down the street, you know, there's been a lot of criticism that oh, it's next to Walmart. It's next to the plasma center, but I mean, I think Chick Fil A and Amazon coming into this neighborhood says a lot about this neighborhood. I mean, companies want to be here. You know, I disagree that no one wants to be here because it's next to a Walmart. So, I think that there are things happening here. This is a 30 plus million-dollar development in this part of Livonia. I would like to think that is a good thing that's going to bring jobs. That's going to bring good economic activity to the area that you know is continuing to see some activity with Amazon, and Chick Fil A. Lastly, we're 102-year-old company. We are based in Livonia. We've been doing business in Livonia for 50 plus years. I am the fourth generation of my family to do business here. We're not a fly by night developer. I know people, maybe in the crowd, will say otherwise, but we're going to do what we say here, and we want the city to hold us to whatever we need to do. And, you know, we think that this is a nice development, and we would really love to have your support here. So, thank you.

Mr. Wilshaw: Thank you. Before you leave, Mr. Schostak. Let me see if there's any questions for you from our commission. Is there any commissioners with questions for our petitioner? If not, I do have one question. Maybe it's best for the architect to address, but you're welcome to as well, Mr. Schostak. Did you want to

detail the sightlines and how that's been addressed? That was one thing that was brought up a number of times and you had made some changes recently in your plans to deal with sightlines. So, I'm going to let Mark...I think he's got a cross section, and then I'll let Mr. Shovers talk about that a little bit. Thank you.

Mr. Shovers: Yeah, so with the increase in the berm and with adding the third row of trees, it allowed us a larger flat area on top to where we get two rows of trees up against the residents with ornamental trees. So now it's just not evergreens we're looking at. They get color in the springtime, and then we're putting in this eight-foot vinyl fence, so that provides 100% visual buffer between it. So, as you can see from that diagram, there is no visibility of the building, the line of sight is over the top of the roof.

Mr. Wilshaw: Okay, and then how is that area going to be maintained in terms of making sure it's cut and that there's no access to it from...are residents going to be walking in that area, that berm area, how is that going to work?

Mr. Shovers: Sure, Mr. Taormina, if you can go to slide four. So, the whole rear area towards the residents is enclosed. There is a chain link fence on the eastern portion, so residents or people wandering at Walmart, the truck drivers, they can't get back there. So, we're trying to provide as much privacy and security as possible. There will be a gate in that area to allow somebody to go in there and maintain it with a lawn mower, go in there and pull weeds and do all that maintenance that you'd have to do on a weekly basis. So, there will be access there for the maintenance, it will be locked so that only maintenance can go in there.

Mr. Wilshaw: Okay. All right. Good. I appreciate you detailing that for us. I think that's covers...the only question I had for you. Thank you for that. Is there any other comments or questions from any commissioners? Ms. McCue.

Ms. McCue: Just to restate one thing. I think this is what you were saying earlier, but just that Schostak will be responsible for maintaining this property. Am I correct? They're going to do the maintenance. I know you said Walmart and Target, it's owned by Walmart and Target, and I get that part, but it's going to be underneath. Schostak's responsibility to maintain all of that area that we just talked about?

Mr. Shovers: This berm, that is correct.

Ms. McCue: Under management...I don't know who, but it's going to be under their name. We can't stand in here and say it's Walmart, its Target. It's...

Mr. Schostak; Just to answer that...Yes, is the answer your question, Betsy. And then the only reason we don't have those other ones, Walmart and Target, is Walmart and Target generally, almost every time they buy, they demand to buy the real estate. When they buy the real estate, of course, they're going to maintain it. You know, these are our apartments. We're not selling the apartments. They're not condos to the residents. So, our onsite management from the commercial side that's already on the property in tandem with Justin Dunckel and Paragons team. So yes, Schostak.

Ms. McCue: I just think that's an important differentiation to make. So, thank you.

Mr. Wilshaw: Thank you, Ms. McCue. Any other questions or comments from any of the commissioners? If not, I think I can go to our commissioners and look for a motion.

(An audience member yelled out a question as to how long the construction would take)

Mr. Wilshaw: That's a question...I normally don't really take questions, you know, thrown out from the audience, but it's a fair question. So, I am going to just ask Mr. Schostak or one of his representatives if he would.

Mr. Schostak: Approximately 15 months.

Mr. Wilshaw: A 15-month project. Okay. Thank you. Again, I'm going to go to the commission and look for a motion

Mr. Wilshaw: On a motion by Caramagno, seconded by Bongero, it was:

RESOLVED, That City Planning Commission does hereby recommend to City Council that Petition 2022-04-08-02 submitted by Middlebelt Plymouth Venture L.L.C. requesting approval pursuant to Sections 3.08 and 6.04 of The Livonia Vision 21 Zoning Ordinance, as amended, to construct an apartment complex (Wonderland Flats), consisting of two (2) buildings and 201 units, on the properties at 29707 & 30273

Plymouth Road, located on the south side of Plymouth Road between Middlebelt Road and Milburn Avenue in the Northeast ¼ of Section 35, be approved, subject to the following conditions:

1. That the Site Plan identified as Drawing C-4, dated June 1, 2022, as revised, prepared by Stonefield Engineering & Design, is hereby approved and shall be adhered to.
2. All parking spaces, except the required barrier free parking, shall be doubled striped and shall be ten (10) feet in width, as required, and the number and location of the barrier free parking space(s) shall be provided at the direction of the Inspection Department.
3. That the Landscaping Plans, identified as Drawings C-9 and C-10, and the Landscaping Details plan, identified as Drawing C-11, all dated April 27, 2022, prepared by Stonefield Engineering & Design, are hereby approved and shall be adhered to.
4. That all disturbed lawn areas shall be sodded in lieu of hydroseeding.
5. That underground sprinklers are to be provided for all landscaped and sodded areas and all planted materials shall be installed to the satisfaction of the Inspection Department and thereafter permanently maintained in a healthy condition.
6. That the Building Elevations Plans, identified as A201-A, A201-B and A111, all dated April 22, 2022, prepared by Spire Design Group, are hereby approved and shall be adhered to, **except that a majority of the apartment units shall contain full balconies, and either masonry (brick or burnished block), metal panels or fiber-cement siding shall replace all areas shown having vinyl siding.**
7. That the three walls of the trash dumpster areas shall be constructed out of the same brick used in the construction of the buildings or in the event a poured wall is substituted, the wall's design, texture and color shall match that of the buildings. The enclosure gates shall be of solid panel steel construction or durable, long-lasting solid panel fiberglass.

8. That the location and/or orientation of the dumpster enclosure on the west side of the buildings shall be adjusted similar to the dumpster enclosure on the east side to improve access and safety.
9. That all light fixtures shall not exceed twenty feet (20') in height and shall be shielded to minimize glare trespassing on adjacent properties and roadways.
10. That the network of sidewalks within the apartment complex shall connect with the pedestrian sidewalks and pathways of the adjacent retail establishments.
11. That the Petitioner shall install a gate or other type of opening along east side of the complex to allow residents of Wonderland Flats to access the adjacent retail property.
12. That prior to any building construction permits being issued, the existing berm along the rear of the site shall be widened on its north side and an eight foot (8') high obscuring fence and additional trees shall be installed, as shown on the approved plans.
13. That the issues as outlined in the correspondence dated May 17, 2022, from the Fire Marshal, including providing automatic sprinkler systems, fire alarm systems, on-site hydrants and a fire access road, shall be resolved to the satisfaction of the Department of Public Safety Livonia Fire & Rescue.
14. That only conforming signage is approved with this petition, and any additional signage shall be separately submitted for review and approval by the Zoning Board of Appeals.
15. That no LED light band or exposed neon shall be permitted on this site including, but not limited to, the building or around the windows.
16. That the specific plans referenced in this approving resolution shall be submitted to the Inspection Department at the time the building permits are applied for; and
17. Pursuant to Section 13.13 of the Livonia Vision 21 Zoning Ordinance, this approval is valid for a period of one year only from the date of approval by City Council, and unless

a building permit is obtained, this approval shall be null and void at the expiration of said period.

A roll call vote on the foregoing resolution resulted in the following:

AYES: Caramagno, Bongero
NAYS: Smiley, McCue, Ventura, Long, Wilshaw
ABSENT: None
ABSTAIN: None

Mr. Wilshaw, Chairman, declared the motion failed due to lack of support.

Mr. Wilshaw: Is there any discussion?

Mr. Wilshaw: No. Motion fails. And we now have the floor open again for another motion.

On a motion by Ventura, seconded by Smiley, it was adopted:

#06-34-2022 **RESOLVED**, That City Planning Commission does hereby recommend to City Council that Petition 2022-04-08-02 submitted by Middlebelt Plymouth Venture L.L.C. requesting approval pursuant to Sections 3.08 and 6.04 of The Livonia Vision 21 Zoning Ordinance, as amended, to construct an apartment complex (Wonderland Flats), consisting of two (2) buildings and 201 units, on the properties at 29707 & 30273 Plymouth Road, located on the south side of Plymouth Road between Middlebelt Road and Milburn Avenue in the Northeast ¼ of Section 35, be denied, for the following reasons

1. That the petitioner has failed to affirmatively show that the proposed use is in compliance with all of the special and general waiver use standards and requirements as set forth in Sections 3.08, 6.04 and 13.13 of the Livonia Vision 21 Zoning Ordinance.
2. That too many issues remain unresolved, including increase traffic concerns, building architecture, signage, site layout, compatibility with the surrounding retail uses and the close proximity to the adjacent residential neighborhood.
3. That the site lacks the capacity to handle the intensity associated with a 201-unit apartment complex and would therefore be detrimental to and not in harmony with the character of the surrounding commercial center and adjacent neighborhood.

4. That the apartment complex would create significant adverse impacts on adjoining parcels, public services, and community planning efforts.
5. That the proposal conflicts with the spirit and intent of the Zoning Ordinance to promote and encourage a balanced and appropriate mix of uses, and
6. That the petitioner has failed to comply with all the concerns deemed necessary for the safety and welfare of the City and its residents.

A roll call vote on the foregoing resolution resulted in the following:

AYES: Ventura, Smiley, McCue, Long, Wilshaw
NAYS: Caramagno, Bongero
ABSENT: None
ABSTAIN: None

Mr. Wilshaw, Chairman, declared the motion is carried and the foregoing resolution adopted.

Mr. Wilshaw: The motion passes, and that will be a recommendation of a denial on this petition. The petitioner will have 10 days in which to appeal this decision in writing to city council. Is that correct, Mr. Taormina? All right. So that's your next course of action for our residents who came with thank you for coming this evening. And I do realize that if the petitioner does choose to appeal this to City Council, you may want to be aware of when that meeting takes place, and kind of go to that as well. Thank you all. Thank you to the petitioner for coming.

