



500 West Big Beaver
Troy, MI 48084
troymi.gov

248.524.3364
planning@troymi.gov

PLANNING COMMISSION MEETING AGENDA REGULAR MEETING

Marianna Perakis, Chair, Lakshmi Malalahalli, Vice Chair
Toby Buechner, Carlton Faison, Tyler Fox, Michael W. Hutson, Tom Krent,
Dave Lambert and John J. Tagle

November 12, 2024

7:00 P.M.

Council Chambers

1. ROLL CALL
2. APPROVAL OF AGENDA
3. APPROVAL OF MINUTES – October 22, 2024
4. PUBLIC COMMENT – For Items Not on the Agenda

SPECIAL USE APPROVAL

5. SPECIAL USE AND PRELIMINARY SITE PLAN REVIEW (SU JPLN2024-025) – Proposed Adult Foster Care Small Group Home (Up to 10 Residents), West side of John R, South side of Abbotsford (5589 John R; PIN 88-20-12-152-003), Section 12, Currently Zoned R-1C (One Family Residential) Zoning District
6. SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW (SU JPLN2024-0007) – Proposed EI CarWash, Northwest corner of Long Lake and Dequindre (2955 & 2995 E Long Lake), Section 12, Currently zoned NN (Neighborhood Node “J”) Zoning District.

PRELIMINARY SITE PLAN APPROVAL

7. PRELIMINARY SITE PLAN REVIEW (SP JPLN2024-0016) – Proposed Elevate Troy Mixed Use Development, South of Big Beaver, East of Todd (1787 & 1985 West Big Beaver; PIN 88-20-29-226-003, -002 & -020), Section 29, Currently Zoned BB (Big Beaver) Zoning District

OTHER ITEMS

8. GENERAL BUSINESS – 2025 MEETING SCHEDULE

NOTICE: People with disabilities needing accommodations for effective participation in this meeting should contact the City Clerk by e-mail at clerk@troymi.gov or by calling (248) 524-3317 at least two working days in advance of the meeting. An attempt will be made to make reasonable accommodations

Televised Live, Government Channel WTRY (10 WideOpenWest and 17 Comcast) Replayed Wednesdays 3:00 pm, 6:00 pm and 11:00 pm

9. PUBLIC COMMENT – For Items on the Agenda
10. PLANNING COMMISSION COMMENT
11. ADJOURN

Chair Perakis called the Regular meeting of the Troy City Planning Commission to order at 7:00 p.m. on October 22, 2024, in the Council Chamber of the Troy City Hall. Chair Perakis presented opening remarks relative to the role of the Planning Commission and procedure for tonight’s meeting.

1. ROLL CALL

Present:

Toby Buechner
Tyler Fox
Michael W. Hutson
Tom Krent
David Lambert
Marianna Perakis

Absent:

Carlton M. Faison
Lakshmi Malalahalli
John J. Tagle

Also Present:

Ben Carlisle, Carlisle Wortman & Associates
R. Brent Savidant, Community Development Director
Julie Quinlan Dufrane, Assistant City Attorney
Kathy L. Czarnecki, Recording Secretary

2. APPROVAL OF AGENDA

Resolution # PC-2024-10-061

Moved by: Fox
Support by: Buechner

RESOLVED, To approve the agenda as prepared.

Yes: All present (6)
Absent: Faison, Malalahalli, Tagle

MOTION CARRIED

3. APPROVAL OF MINUTES – October 8, 2024

Resolution # PC-2024-10-062

Moved by: Krent
Support by: Fox

RESOLVED, To approve the minutes of October 8, 2024 Regular meeting as submitted.

Yes: All present (6)
 Absent: Faison, Malalahalli, Tagle

MOTION CARRIED

4. PUBLIC COMMENT – For Items Not on the Agenda

There was no one present who wished to speak.

SPECIAL USE APPROVALS

Mr. Savidant said each applicant was advised that three Planning Commissioners would be absent from tonight’s meeting. He stated five (5) affirmative votes are required for the Special Use Approval applications and that it is likely each applicant will request a formal postponement until a full Board is present. Mr. Savidant asked the Planning Commission to provide feedback only to each applicant and conduct the public hearing.

Ms. Dufrane stated at no point should the Planning Commission deliberate on either application.

5. PUBLIC HEARING – SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW (SU JPLN2024-0021) – Proposed Residence Inn Hotel, South side of Butterfield, East of Coolidge (2125 and 2155 Butterfield), Section 29, Currently Zoned BB (Big Beaver) Zoning District

Mr. Carlisle reviewed the Special Use Approval and Preliminary Site Plan application for the Residence Inn Hotel. He said the applicant is asking for consideration of a 30-foot front setback to accommodate outdoor seating. Mr. Carlisle is asking the applicant to redesign the site to comply with the parking requirements or seek a parking deviation. He addressed the proposed number of parking spaces as relates to the lot split and shared parking agreement with the office building.

Mr. Carlisle encouraged the applicant to revise the proposed building elevations and building materials to be more in line with the architectural design standards of the Big Beaver form-based district. He addressed Zoning Ordinance Section 5.04.E Big Beaver District Design Standards, Section 8.06 Site Plan Review Design Standards and Section 9.03 Special Use Approval Standards.

Present were Project Architect Scott Bowers and Shawn Namou of Troy Hotel Group.

There was discussion on:

- Parking.
 - Recalculation of required spaces; parking and mechanical space below office building to effectuate potentially one short parking space.
 - Requirements for full restaurant use.
 - Underutilized parking of office space.
 - Flexibility of City ordinance requirements.
 - Consideration by applicant to provide parking study.

- Outdoor seating.
 - Alternative uses of public space; patio, café, coffee shop, full restaurant.
 - Setback in relation to outdoor seating/patio.
 - Accessibility of public space by hotel guests, public, pedestrians.
 - Potential to extend lobby area for larger capacity/use.
- Elevations.
 - Architectural design, building materials to meet Big Beaver zoning district.
 - Higher caliber, sleek, upscale, high-end design and building materials.
 - Marriott flagship brand elements.
- Potential to repurpose hotel in future; condos, apartments.
- Market demand for extended stay hotel.
- Consideration by applicant of incorporate sustainability resources.

PUBLIC HEARING OPENED

There was no one present who wished to speak.

PUBLIC HEARING CLOSED

Mr. Namou asked to postpone the application to a future meeting because there are three members absent.

Resolution # PC-2024-10-063

Moved by: Fox
Seconded by: Lambert

RESOLVED, To postpone Special Use Approval and Preliminary Site Plan Approval for the proposed Residence Inn Hotel, South side of Butterfield, East of Coolidge (2125 and 2155 Butterfield), Section 29, Currently Zoned BB (Big Beaver) District, based on the Planning Commission absences, in lieu of the applicant responding to Planning Commission feedback.

Yes: All present (6)
Absent: Faison, Malalahalli, Tagle

MOTION CARRIED

6. **PUBLIC HEARING – SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW (SU JPLN2024-0007)** – Proposed El Car Wash, Northwest corner of Long Lake and Dequindre (2955 and 2995 E Long Lake), Section 12, Currently Zoned NN (Neighborhood Node “J”) Zoning District

Mr. Carlisle reviewed the Special Use Approval and Preliminary Site Plan application for the El Car Wash. He said the Planning Commission has the authority to grant relief from the build-to-line requirements on both E Long Lake and Dequindre as they relate to the proposed mixed use, two-story building. Mr. Carlisle addressed the use and function of the second floor office space and emphasized its use must not have any affiliation with the car wash use. He suggested discussing with the applicant the excess number of

parking spaces and the number of stacking and vacuum spaces in relation to the Fleis & VandenBrink traffic study.

Mr. Carlisle addressed architectural elevations and building materials, alternatives to seek relief of transparency requirements and pedestrian access to the second floor office use. He addressed Zoning Ordinance Section 5.04.E Big Beaver District Design Standards, Section 8.06 Site Plan Review Design Standards and Section 9.03 Special Use Approval Standards.

Mr. Savidant shared a video presentation prepared by the applicant.

Present were Gabriel Schuchman and Eric Harrison of El Car Wash, Mitchell Harvey of Stonefield Engineering & Design, Eric Meyers of Krieger Klatt Architects, and Julie Kroll of Fleis & VandenBrink.

Mr. Schuchman shared the history of the El Car Wash, its locations in Florida and their up and coming locations throughout Michigan. He addressed their community foundations and local sponsorships. Mr. Schuchman said the second floor of the car wash would be used by local non-profit organizations. He confirmed two interested tenants are *The Rainbow Connection* and *Jenna Kast Believe in Miracles Foundation*.

Ingrid Todt, Executive Director of *The Rainbow Connection*, said their foundation is proud to be a part of the start-up project of the El Car Wash and local communities. She said the office space would be used for their staff and client meetings.

Ms. Kroll said additional traffic from the proposed car wash would be negligible. She said traffic to and from a car wash is considered as pass-by trips. Ms. Kroll said the generation of traffic is not adding to the traffic but only adding to the turning movements at the driveway, redistributing the traffic to the use.

Mr. Harvey addressed the internal and external site circulation, noting they would be working with the RCOC (Road Commission of Oakland County) for designated turn lanes.

Mr. Meyers addressed the architectural design features and color scheme.

There was discussion on:

- Second floor office space.
 - Prominence of entrance.
 - Pedestrian access.
 - Accessible parking spaces.
 - Violation of Zoning Ordinance should there be an affiliation of office use to the car wash use.
 - Signage to promote non-profit organization tenants.
- Feasibility study / market for a car wash.
- Two communications received by residents expressing concern with traffic impact.

- Gateway signage; *Welcome to Troy* sign/logo.
- Architectural building materials and color scheme.
- Compatibility of car wash use in the NN (Neighborhood Node) zoning district.
- Consideration by applicant to engage additional mixed uses to the site.

PUBLIC HEARING OPENED

- Jennifer Brady, 5074 Fedora Drive; spoke in support of the project.

PUBLIC HEARING CLOSED

Mr. Schuchman asked to postpone the item to a future meeting for consideration by a full Board.

Resolution # PC-2024-10-064

Moved by: Buechner
 Seconded by: Fox

RESOLVED, To postpone Special Use Approval and Preliminary Site Plan Approval for the proposed El Car Wash, Northwest corner of Long Lake and Dequindre (2955 and 2995 E Long Lake), Section 12, Currently Zoned NN (Neighborhood Node “J”) District, to a future date for consideration by a full Board.

Yes: All present (6)
 Absent: Faison, Malalahalli, Tagle

MOTION CARRIED

OTHER ITEMS

7. **PUBLIC COMMENT** – For Items on the Agenda

There was no one present who wished to speak.

8. **PLANNING COMMISSION COMMENT**

There were general Planning Commission comments.

9. **ADJOURN**

The Regular meeting of the Planning Commission adjourned at 8:47 p.m.

Respectfully submitted,

Marianna J. Perakis, Chair

Kathy L. Czarnecki, Recording Secretary

[https://d.docs.live.net/2f7ed4fe5f664ea8/Documents/Kathy/COT Planning Commission Minutes/2024/2024 10 22 Draft.docx](https://d.docs.live.net/2f7ed4fe5f664ea8/Documents/Kathy/COT%20Planning%20Commission%20Minutes/2024/2024%2010%2022%20Draft.docx)

ITEM #5

DATE: November 4, 2024

TO: Planning Commission

FROM: R. Brent Savidant, Community Development Director

SUBJECT: SPECIAL USE AND PRELIMINARY SITE PLAN REVIEW (SU JPLN2024-025) – Proposed Adult Foster Care Small Group Home (Up to 10 Residents), West side of John R, South side of Abbotsford (5589 John R; PIN 88-20-12-152-003), Section 12, Currently Zoned R-1C (One Family Residential) Zoning District

5589 John R is presently used as an adult foster family home with an occupancy limit of 6 or fewer foster residents. At the present time there are only six (6) residents. The present use is considered a residential use and is permitted by right in all residential districts. The applicant is proposing an interior buildout of four (4) additional rooms in the garage to accommodate a total of ten (10) residents. The additional resident would change the classification to and Adult Foster Care Small Group Home (between 7 and 12 persons) which requires Special Use Approval.

The Planning Commission held a public hearing on this item on August 27, 2024 but took no action. The project was considered by the Zoning Board of Appeals (ZBA), who granted a variance for two (2) additional units on October 15, 2024. Specifically, the ZBA granted relief from Section 6.02.B, which required a minimum site area for a 10-resident adult foster care facility to be at least 4,000 square feet per resident. The site requirement was 40,000 square feet but the site area is only 34,798.5 square feet.

The applicant seeks special use approval from the Planning Commission for an Adult Foster Care Small Group Home for up to ten (10) residents.

Attachments:

1. Maps
2. Minutes from August 27, 2024 Planning Commission meeting (excerpt)
3. Minutes from October 15, 2024 Zoning Board of Appeals meeting (excerpt, draft)

PROPOSED RESOLUTION

SPECIAL USE AND PRELIMINARY SITE PLAN REVIEW (SU JPLN2024-025) – Proposed Adult Foster Care Small Group Home (Up to 10 Residents), West side of John R, South side of Abbotsford (5589 John R; PIN 88-20-12-152-003), Section 12, Currently Zoned R-1C (One Family Residential) Zoning District

Resolution # PC-2024-11-

Moved by:

Seconded by:

WHEREAS, The applicant received a variance from the Zoning Board of Appeals on October 15, 2024, granting relief from the minimum site area requirements of Section 6.02.B of Chapter 39 Zoning Ordinance; and,

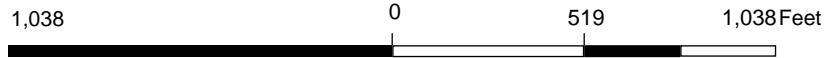
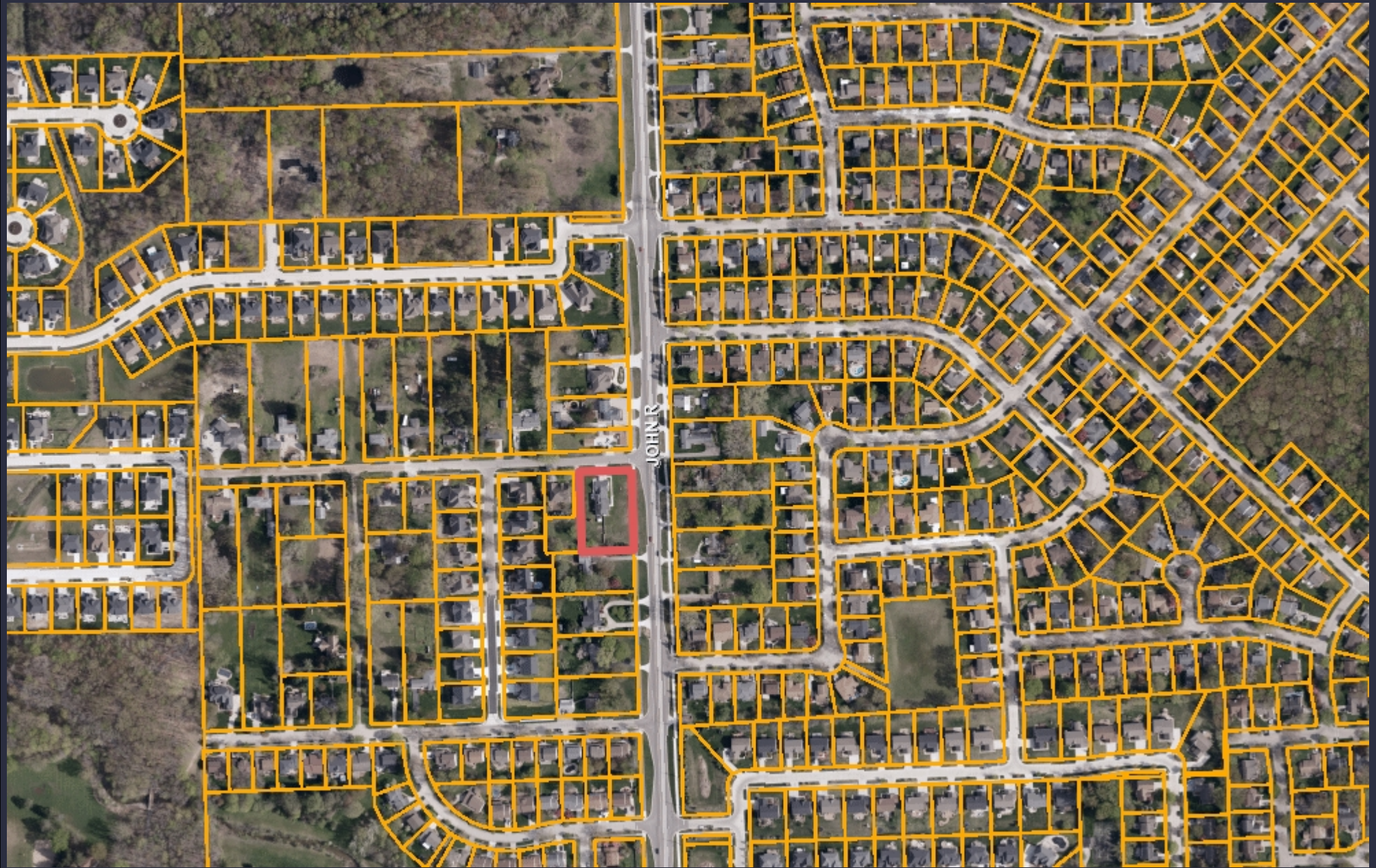
WHEREAS, The variance permits the Adult Foster Care Small Group Home to accommodate up to 10 residents.

RESOLVED, That Special Use Approval and Preliminary Site Plan Approval for the proposed Small Group Home (Up to 10 Residents), West side of John R, South of Abbotsford (5589 John R; PIN 88-20-12-152-003), Section 12, Currently Zoned R-1C (One Family Residential) District, be (granted, subject to the following conditions):

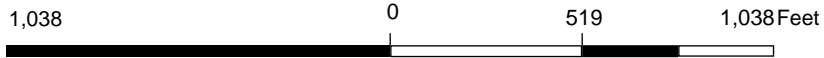
_____) or
(denied, for the following reasons: _____) or
(postponed, for the following reasons: _____)

Yes:
No:
Absent:

MOTION CARRIED / FAILED



Note: The information provided by this application has been compiled from recorded deeds, plats, tax maps, surveys, and other public records and data. It is not a legally recorded map survey. Users of this data are hereby notified that the source information represented should be consulted for verification.



Note: The information provided by this application has been compiled from recorded deeds, plats, tax maps, surveys, and other public records and data. It is not a legally recorded map survey. Users of this data are hereby notified that the source information represented should be consulted for verification.

6. PUBLIC HEARING – SPECIAL USE AND PRELIMINARY SITE PLAN REVIEW (SU JPLN2024-0025) – Proposed Adult Foster Care Small Group Home (Up to 10 Residents), West side of John R, South side of Abbotsford (5589 John R; PIN 88-20-12-152-003), Section 12, Currently Zoned R-1C (One Family Residential) Zoning District

Mr. Savidant reviewed the proposed Adult Foster Care Small Group Home application. He presented an overview of an adult foster care facility as defined in the Zoning Ordinance, State regulations and the applicant's request to add four additional bedrooms for a total of ten (10) residents.

In summary, Mr. Savidant asked the Board to consider the application per Section 15.06 of the Zoning Ordinance, hold a public hearing and provide feedback to the applicant. He said the applicant would be seeking a variance from the Zoning Board of Appeals (ZBA) for relief from the density standards of Section 6.02.B.2 to provide a home for a total of ten (10) residents. Mr. Savidant said the Planning Commission would take appropriate action on the Special Use application following ZBA action.

Some Board members shared personal experiences in seeking special care for their loved ones and expressed support of small group homes that offer adult foster care.

Teresa Sandoval was present. Ms. Sandoval addressed the number of years she has offered her services, State regulations, parking, and the special care she provides her residents. She shared a few personal experiences during her years of service.

PUBLIC HEARING OPENED

There was no one present who wished to speak.

PUBLIC HEARING CLOSED

Mr. Fox addressed the applicant with respect to the ZBA standards applied to an application seeking a variance from the Zoning Board of Appeals.

5. HEARING OF CASES:

- A. 5589 JOHN R, TERESITA SANDOVAL - A variance request from the requirement that the minimum site area for an adult foster care facility be at least 40,000 square feet. The Zoning Ordinance requires 4,000 square feet per resident, and 10 residents are proposed. The site area is 34,798.5 square feet.

Moved by Eisenbacher
Second by Fox

RESOLVED, to grant the request.

Yes: Green, Fox, Kenkre, Chambers, Eisenbacher

No: McCauley, Bossenbroek

MOTION PASSED

Specialist

CITY OF TROY SPECIAL USE REQUEST APPLICATION

CITY OF TROY PLANNING DEPARTMENT
500 W. BIG BEAVER
TROY, MICHIGAN 48084
PHONE: 248-524-3364
FAX: 248-524-3382
E-MAIL: planning@troymi.gov



SPECIAL USE APPROVAL FEE
\$1,800.00

ESCROW FEE
\$1,500.00

REGULAR MEETINGS OF THE CITY PLANNING COMMISSION ARE HELD ON THE SECOND AND FOURTH TUESDAYS OF EACH MONTH AT 7:00 P.M. AT CITY HALL.

APPLICATIONS FOR SPECIAL USE APPROVALS REQUIRING THE SUBMITTAL OF A SITE PLAN SHALL CONFORM TO THE REQUIREMENTS OF THE TROY ZONING ORDINANCE.

A PLANNING COMMISSION PUBLIC HEARING SHALL BE SCHEDULED FOLLOWING A DETERMINATION BY THE PLANNING DEPARTMENT THAT THE SPECIAL USE REQUEST APPLICATION IS COMPLETE AND MEETS THE REQUIREMENTS OF THE TROY ZONING ORDINANCE.

1. NAME OF THE PROPOSED DEVELOPMENT: 5589 John R Rd
2. ADDRESS OF THE SUBJECT PROPERTY: 5589 John R Rd Troy MI 48085
3. ZONING CLASSIFICATION OF SUBJECT PROPERTY: R-1C One family Residential
4. TAX IDENTIFICATION NUMBER(S) OF SUBJECT PROPERTY: 88-20-11-277 -0378038
5. DESCRIPTION OF PROPOSED USE: Adult Foster Care Small Group Home 9 Bedrooms.
6. SECTION OF THE ZONING ORDINANCE UNDER WHICH SPECIAL USE APPROVAL IS SOUGHT: 6.02 and 4.21

<p>7. APPLICANT:</p> <p>NAME <u>Teresita Sandoval</u></p> <p>COMPANY <u>Emmanuel Senior Living</u></p> <p>ADDRESS <u>5589 John R Rd</u></p> <p>CITY <u>Troy</u> STATE <u>MI</u> ZIP <u>48085</u></p> <p>TELEPHONE <u>248 812 9177</u></p> <p>E-MAIL <u>teresitasandoval@gmail.com</u></p>	<p>PROPERTY OWNER:</p> <p>NAME <u>Teresita Sandoval</u></p> <p>COMPANY _____</p> <p>ADDRESS <u>5589 John R Rd</u></p> <p>CITY <u>Troy</u> STATE <u>MI</u> ZIP <u>48085</u></p> <p>TELEPHONE <u>248 812 9177</u></p> <p>E-MAIL <u>teresitasandoval@gmail.com</u></p>
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8. THE APPLICANT BEARS THE FOLLOWING RELATIONSHIP TO THE OWNER OF THE SUBJECT PROPERTY:

Self

9. SIGNATURE OF APPLICANT [Signature] DATE 6/10/24

10. SIGNATURE OF PROPERTY OWNER [Signature] DATE 6/10/24

BY THIS SIGNATURE, THE PROPERTY OWNER AUTHORIZES THE PLACEMENT OF A SIGN ON THE PROPERTY TO INFORM THE PUBLIC OF THE REQUEST FOR SPECIAL USE APPROVAL.

From: [Emmanuel Senior Living](#)
To: [Brent Savidant](#)
Cc: [Jackie Ferencz](#); [George Stroebel](#)
Subject: Re: Special Use Request Application - Emmanuel Senior Living
Date: Thursday, July 11, 2024 8:03:48 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)

Some people who received this message don't often get email from emmanuel seniorliving@gmail.com. [Learn why this is important](#)

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Brent and Jackie,

Thank you for taking the time to talk to us yesterday and explain the process for the special use application.

Just wanted to summarize

Emmanuel Senior Living facility is currently licensed for 6 seniors in 5 existing rooms.

We are seeking to construct 4 more rooms in the current garage. This expansion would enable us to increase the number of seniors we serve from 6 to 10 there will be minimal changes to the property's exterior, as all renovations will be in the inside of the existing garage.

Additionally, we wish to point out that the property spans @ 35,000 square feet; however, there is a city easement at the back of the house and we would like to have this land be incorporated into the property if possible so that we meet the requirements.

Please let me know if you need anything else from us.

Best Regards,

Teresita

Sent from my iPhone

On Jul 10, 2024, at 3:44 PM, Emmanuel Senior Living
<emmanuel seniorliving@gmail.com> wrote:

Thank you Jackie!

GREICHENWHIMER
GOVERNOR

STATE OF MICHIGAN
MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS Q866323

License for Adult Foster Care

Facility Name:
Emmanuel Senior Living LLC
5589 John R Road
Troy, MI 48085

Licensee:
Emmanuel Senior Living, LLC
Suite 177
145 S. Livernois
Rochester Hills, MI 48307

LICENSE NUMBER

AS630348375

EFFECTIVE DATE

02/29/2024

CAPACITY

6

EXPIRATION DATE

02/27/2026

STATUS

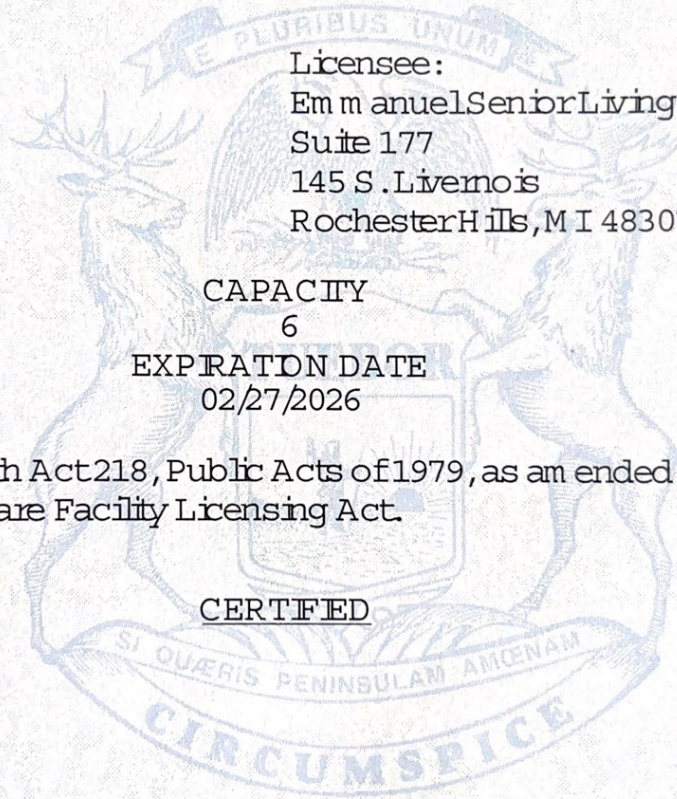
REGULAR

Issued in accordance with Act 218, Public Acts of 1979, as amended,
being the Adult Foster Care Facility Licensing Act.

PROGRAM

Aged
Alzheimers
Physically Handicapped

CERTIFIED



From: [Emmanuel Senior Living](#)
To: [Brent Savidant](#)
Cc: [Jackie Ferencz](#)
Subject: Emmanuel Senior Living - Parking
Date: Thursday, August 1, 2024 4:15:50 PM
Attachments: [support letter next door home.pdf](#)
[Emmanuel Senior Living License .pdf](#)

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Brent,

I trust this email finds you in good health and spirits. As you may know, Emmanuel Senior Living has served as a haven for seniors in our community over the past 11 years, consistently delivering superior care in a secure and cost-effective living environment.

Currently licensed to care for six seniors requiring specialized attention in memory care, including Alzheimer's, as well as those who are aged and physically handicapped, Emmanuel Senior Living takes pride in its high standard of service (please refer to the attached license for more details). We are excited about the opportunity to extend our care to four additional residents, increasing our capacity to a total of ten seniors with the proposed expansion.

I would like to assure you that parking will remain ample and unaffected by this expansion. Our property's driveway can comfortably accommodate six vehicles, and it is worth noting that typically, we observe no more than two cars parked at any given time.

The modest scale of this expansion means we anticipate the need for just one additional caregiver. Consequently, the essence and appearance of the property will be preserved, maintaining the familiar and tranquil environment that has been part of our community's fabric for over a decade.

Should you have any inquiries or need further clarification, please feel free to reach out.

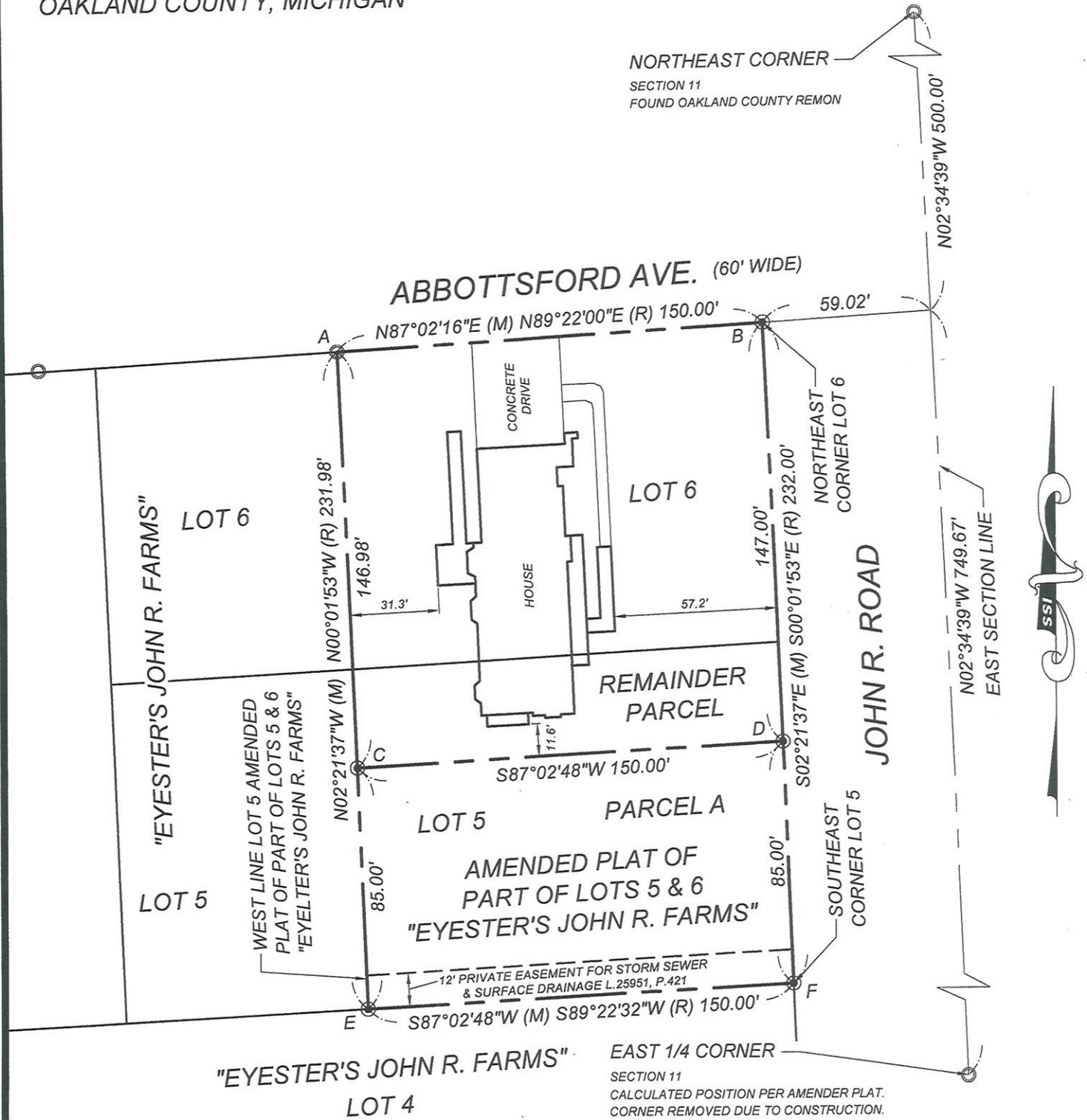
Warm regards,

Teresita Sandoval,

Manager

Emmanuel Senior Living LLC

SECTION 11, T.2 N.-R.11 E.,
 AMENDED PLAT OF PART OF
 LOTS 5 & 6 "EYESTER'S JOHN R. FARMS",
 CITY OF TROY,
 OAKLAND COUNTY, MICHIGAN



I hereby certify that I have surveyed and mapped the above plotted and/or described land on January 21, 2021, and that all of the requirements of Public Act 132 of 1970 as amended have been complied with and is within the acceptable limits of the surveying profession.

Brian M. Bartlett
 Brian M. Bartlett
 Professional Surveyor No. 4001050427

Date: 1/22/21

○ - Found Survey Corner
 ● - Set Survey Corner
 Sheet 1 of 2

0 25 50 100
 SCALE: 1 inch = 50 ft.



SSI
surveying solutions, inc.
 SURVEYING • ENGINEERING • CONSTRUCTION SERVICES
 4471 M-61
 Standish, Michigan 48658
 tel 989-846-6601 fax 989-846-6607

CERTIFICATE OF SURVEY

Teresita Sandoval
 5589 John R
 Troy, Michigan 48085

Date: January 21, 2021
 Drawn By: K. Morley
 Approved By: B. Bartlett
 Project No.: 21094
 Drawing No.: A-12259

SECTION 11, T.2 N.-R.11 E.,
 AMENDED PLAT OF PART OF
 LOTS 5 & 6 "EYSTER'S JOHN R. FARMS",
 CITY OF TROY,
 OAKLAND COUNTY, MICHIGAN

LEGAL DESCRIPTIONS

Parent Parcel:

Liber 52272, Page 368

Situated in the City of Troy, County of Oakland, and State of Michigan, to-wit:

EAST 150 FEET OF LOTS 5 AND 6, JOHN R. FARMS SUBDIVISION, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN LIBER 48 OF PLATS, PAGE 12, OAKLAND COUNTY RECORDS.

MORE RECENTLY DESCRIBED AS FOLLOWS:

LOTS 5 AND 6 OF "AMENDED PLAT OF PART OF LOTS 5 & 6 "EYSTER'S JOHN R. FARMS", AS RECORDED IN LIBER 283 OF PLATS, PAGE 5 OAKLAND COUNTY RECORDS.

Parcel A:

A parcel of land being the South 85.00 feet of Lot 5 of "Amended Plat of Part of Lots 5 & 6 "Eyster's John R. Farms" part of the Northeast 1/4 of Section 11, T.2 N.-R.11 E., City of Troy, Oakland County, Michigan described as follows: Beginning at the Southeast corner of Lot 5 of said Amended Plat; thence S.87°-02'-48"W., on the South line of Lot 5 of said Amended Plat, 150.00 feet to the West line of Lot 5 of said Amended Plat; thence N.02°-21'-37"W., on said West line, 85.00 feet; thence N.87°-02'-48"E., parallel with the South line of Lot 5 of said Amended Plat, 150.00 feet to the East line of Lot 5 of said Amended Plat; thence S.02°-21'-37"E., on said East line, 85.00 feet to the point of beginning.

Remainder Parcel:

A parcel of land in the "Amended Plat of Part of Lots 5 & 6 "Eyster's John R. Farms" part of the Northeast 1/4 of Section 11, T.2 N.-R.11 E., City of Troy, Oakland County, Michigan described as follows: Beginning at the Northeast corner of Lot 6 of said Amended Plat; thence S.02°-21'-37"W., on the East line of Lots 5 and 6 of said Amended Plat, 147.00 feet; thence S.87°-02'-48"W., parallel with the South line of Lot 5 of said Amended Plat, 150.00 feet to the West line of Lot 5 of said Amended Plat; thence N.02°-21'-37"W., on said West line, 146.98 feet to the North line of Lot 6 of said Amended Plat; thence N.87°-02'-16"E., on said North line, 150.00 feet to the point of beginning.

NOTE: The East line of "Amended Plat of Part of Lots 5 & 6 "Eyster's John R. Farms" was assumed as S.02°-21'-37"E.

RELATIVE POSITIONAL PRECISION TABLE

ALLOWABLE (0.07' + 50 PPM)

PT	A	B	C	D	E	F
A		0.078	0.077	0.080	0.082	0.084
B	0.036		0.081	0.077	0.084	0.082
C	0.035	0.024		0.078	0.074	0.079
D	0.033	0.021	0.021		0.079	0.074
E	0.063	0.058	0.057	0.056		0.078
F	0.074	0.069	0.069	0.068	0.087	

Survey Accuracies:

The Relative Positional Precision is the length of the semi-major axis of the error ellipse at a 95 % confidence level at each point and their relation to other points in this survey. This table consists of points that are either found or set for this parcel. Point locations are labeled on this survey drawing.

I hereby certify that I have surveyed and mapped the above plotted and/or described land on January 22, 2021, and that all of the requirements of Public Act 132 of 1970 as amended have been complied with and is within the acceptable limits of the surveying profession.

Brian M. Bartlett

Date: 1/22/21

Brian M. Bartlett
 Professional Surveyor No. 4001050427

Sheet 2 of 2



SSI
surveying solutions, inc.
 SURVEYING • ENGINEERING • CONSTRUCTION SERVICES
 4471 M-61
 Standish, Michigan 48658
 tel 989-846-6601 fax 989-846-6607

CERTIFICATE OF SURVEY


Teresita Sandoval
 5589 John R
 Troy, Michigan 48085

Date: January 21, 2021
 Drawn By: K. Morley
 Approved By: B. Bartlett
 Project No.: 21094
 Drawing No.: A-12259

THIS IS NOT A TAX BILL

Notice of Assessment, Taxable Valuation, and Property Classification

This form is issued under the authority of P.A. 206 of 1893, Sec. 211.24 (c) and Sec.211.34c, as amended. This is a model assessment notice to be used by the local assessor.

FROM CITY OF TROY ASSESSING DEPT KELLY TIMM 500 W BIG BEAVER TROY, MI 48084-5254	PARCEL IDENTIFICATION PARCEL NUMBER: 88-20-11-277-037 PROPERTY ADDRESS: 5589 JOHN R TROY, MI 48085-3857
OWNER'S NAME & ADDRESS/PERSON NAMED ON ASSESSMENT ROLL: *****AUTO**5-DIGIT 48085 5589 JOHN R RD LLC 5589 JOHN R RD TROY, MI 48085-3857 	PRINCIPAL RESIDENCE EXEMPTION % Exempt As "Homeowners Principal Residence": .00% % Exempt As "Qualified Agricultural Property": .00% % Exempt As "MBT Industrial Personal": .00% % Exempt As "MBT Commercial Personal": .00% Exempt As "Qualified Forest Property": <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Exempt As "Development Property": <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

LEGAL DESCRIPTION:
 T2N, R11E, SEC 11
 AMENDED PLAT OF
 PART OF LOTS 5 & 6

ACCORDING TO MCL 211.34c THIS PROPERTY IS CLASSIFIED AS: 401 (RESIDENTIAL-IMPROVED)

PRIOR YEAR'S CLASSIFICATION: 401 (RESIDENTIAL-IMPROVED)

	PRIOR AMOUNT YEAR: 2022	CURRENT TENTATIVE AMOUNT YEAR: 2023	CHANGE FROM PRIOR YEAR TO CURRENT YEAR
1. TAXABLE VALUE:			
2. ASSESSED VALUE:	114,610	120,340	5,730
3. TENTATIVE EQUALIZATION FACTOR: 1.000	220,790	215,020	-5,770
4. STATE EQUALIZED VALUE (SEV):	220,790	215,020	-5,770

5. There WAS or WAS NOT a transfer of ownership on this property in 2022 **WAS NOT**

6. Assessor Change Reason(s):
 MARKET

Please note the two
 Parcels have been
 combined

The 2023 Inflation rate Multiplier is: 1.05

Questions regarding the Notice of Assessment, Taxable Valuation, and Property Classification may be directed to the Following:

Name: KELLY M TIMM	Phone: (248) 524-3311	Email Address: CITYASSESSOR@TROYMI.GOV
-----------------------	--------------------------	---

March Board of Review Appeal Information:

THE MARCH BOARD OF REVIEW WILL BE MEETING ON MARCH 7TH, 2023 FROM 10AM-12PM FOR AN ORGANIZATIONAL MEETING.

THE BOARD OF REVIEW WILL BE IN SESSION TO HEAR APPEALS ON THE FOLLOWING DATES: MONDAY, MARCH 13TH, 2023 (9AM-4PM), TUESDAY, MARCH 14TH, 2023 (1PM-9PM), AND THURSDAY, MARCH 16TH, 2023 (9AM-4PM).

APPOINTMENTS ARE NECESSARY TO APPEAL YOUR ASSESSMENT AND MUST BE SCHEDULED NO LATER THAN 12:00PM (NOON) ON THURSDAY, MARCH 16TH, 2023. PLEASE CALL (248) 524-3311 TO SCHEDULE AN APPOINTMENT


THIS IS NOT A TAX BILL

L-4400

Notice of Assessment, Taxable Valuation, and Property Classification

23047

This form is issued under the authority of P.A. 206 of 1893, Sec. 211.24 (c) and Sec.211.34c, as amended. This is a model assessment notice to be used by the local assessor.

FROM CITY OF TROY ASSESSING DEPT KELLY TIMM 500 W BIG BEAVER TROY, MI 48084-5254	PARCEL IDENTIFICATION PARCEL NUMBER: 88-20-11-277-038 PROPERTY ADDRESS:																				
OWNER'S NAME & ADDRESS/PERSON NAMED ON ASSESSMENT ROLL: *****AUTO**5-DIGIT 48085 5589 JOHN R RD LLC 5589 JOHN R RD TROY, MI 48085-3857 	PRINCIPAL RESIDENCE EXEMPTION % Exempt As "Homeowners Principal Residence": .00% % Exempt As "Qualified Agricultural Property": .00% % Exempt As "MBT Industrial Personal": .00% % Exempt As "MBT Commercial Personal": .00% Exempt As "Qualified Forest Property": <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Exempt As "Development Property": <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																				
LEGAL DESCRIPTION: T2N, R11E, SEC 11 AMENDED PLAT OF PART OF LOTS 5 & 6																					
ACCORDING TO MCL 211.34c THIS PROPERTY IS CLASSIFIED AS: 402 (RESIDENTIAL-VACANT)																					
PRIOR YEAR'S CLASSIFICATION: 402 (RESIDENTIAL-VACANT)																					
	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;"></th> <th style="width:15%;">PRIOR AMOUNT YEAR: 2022</th> <th style="width:15%;">CURRENT TENTATIVE AMOUNT YEAR: 2023</th> <th style="width:10%;">CHANGE FROM PRIOR YEAR TO CURRENT YEAR</th> </tr> </thead> <tbody> <tr> <td>1. TAXABLE VALUE:</td> <td style="text-align: center;">25,620</td> <td style="text-align: center;">26,900</td> <td style="text-align: center;">1,280</td> </tr> <tr> <td>2. ASSESSED VALUE:</td> <td style="text-align: center;">49,610</td> <td style="text-align: center;">51,820</td> <td style="text-align: center;">2,210</td> </tr> <tr> <td>3. TENTATIVE EQUALIZATION FACTOR: 1.000</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4. STATE EQUALIZED VALUE (SEV):</td> <td style="text-align: center;">49,610</td> <td style="text-align: center;">51,820</td> <td style="text-align: center;">2,210</td> </tr> </tbody> </table>		PRIOR AMOUNT YEAR: 2022	CURRENT TENTATIVE AMOUNT YEAR: 2023	CHANGE FROM PRIOR YEAR TO CURRENT YEAR	1. TAXABLE VALUE:	25,620	26,900	1,280	2. ASSESSED VALUE:	49,610	51,820	2,210	3. TENTATIVE EQUALIZATION FACTOR: 1.000				4. STATE EQUALIZED VALUE (SEV):	49,610	51,820	2,210
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5. There WAS or WAS NOT a transfer of ownership on this property in 2022 WAS NOT																					
6. Assessor Change Reason(s): MARKET																					
<p style="font-size: 1.2em; font-family: cursive;">Please note the two parcels have been combined</p>																					

The 2023 Inflation rate Multiplier is: 1.05

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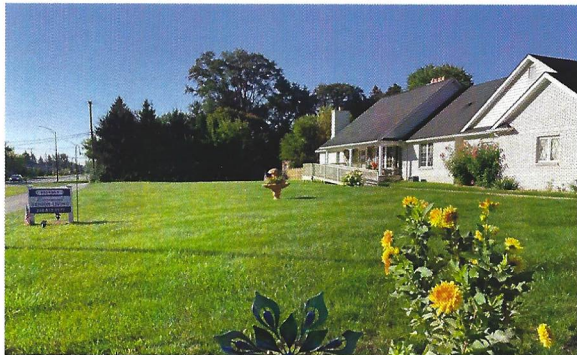
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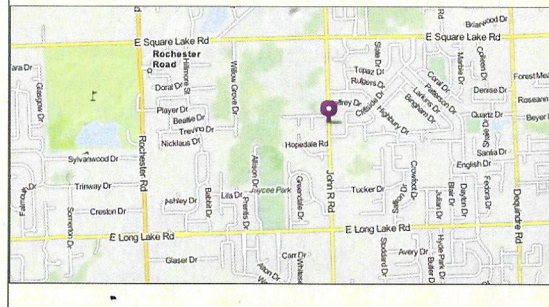




We encourage family members to come and eat with your loved one at the home. If you will call ahead we can accommodate your arrival and we welcome it! Feel free to contact us any time.

Our commitment to you is that your loved one will be safe and cared for like one of our own. We are committed to this. We feel it an honor to be in this business and view these wonderful elderly people as a gift from God to be cared for in a loving way that reflects our personal values and commitment.

CONVENIENTLY LOCATED
IN TROY, MI



We look forward to meeting you and walking around the facility personally with you. It will be a pleasure to share more about our home and the quality care we provide. Please don't hesitate to contact us!

Sincerely,

Emmanuel Senior Living

5589 JOHN R RD
TROY, MICHIGAN 48085
(248) 812 - 9177

www.emmanuelseiorliving.com

WE ARE LICENSED BY THE STATE OF MICHIGAN

AND A PROUD MEMBER OF MALA

EMMANUEL

SENIOR LIVING



Welcome to "Emmanuel Senior Living". Troy Assisted Senior Living with luxurious and extensive services for both independent and assisted living needs. Our family atmosphere and qualified caregivers provide our residents compassionate care, a dignified, safe and secure living environment.



Residents will enjoy the same activities and interests they always have.

Helping them to maintain their positive self-image, sense of purpose, confidence and independence.

We will make sure that your loved one will be active and healthy as possible.

We hope to be welcoming your loved one home soon!

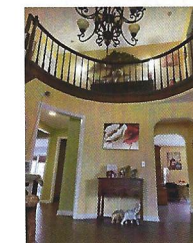
BECAUSE WE CARE

WE PROVIDE OUR RESIDENTS:

- ◆ Dedicated Staff 24/7 365 days
- ◆ Barrier Free Home
- ◆ Medication Management
- ◆ Joyful companionship
- ◆ Three Home Made Meals
- ◆ Low-Calorie Snacks Throughout the Day
- ◆ Personal Care Monitoring
- ◆ Caring Assistance with Daily Activities such as:
Bathing, Dressing, Grooming and Eating
- ◆ Daily Housekeeping Services
- ◆ Laundry Services
- ◆ No smoking facility
- ◆ Transportation Arrangements
- ◆ WIFI
- ◆ Cable TV



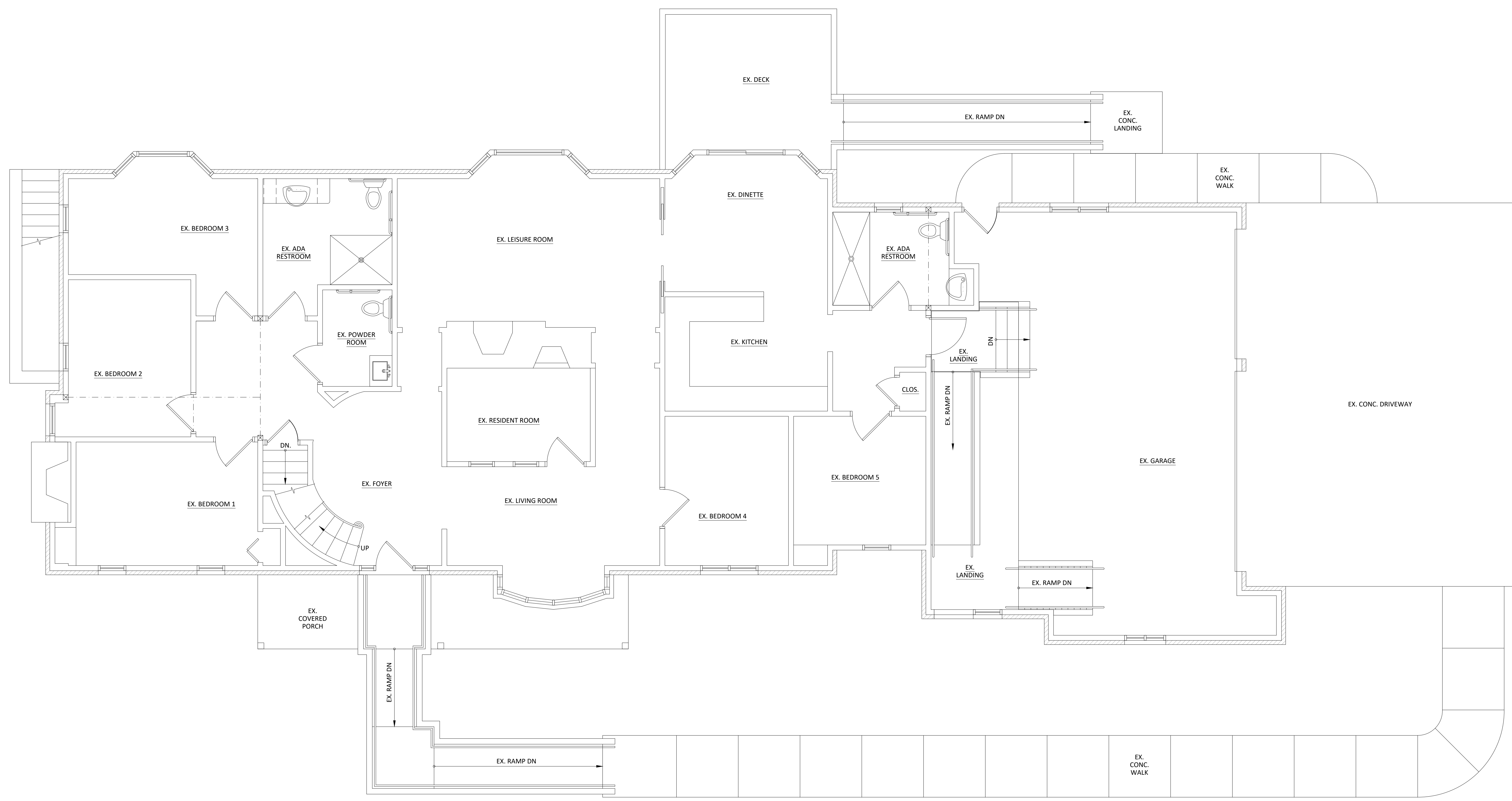
- ◆ Activities:
 - ◆ Exercise, Games, Puzzles, Music, Painting, Drawing and more!
- ◆ Celebrating holidays, birthdays and LIFE!
- ◆ Telephone (free unlimited local and long distance calls in the US)
- ◆ Alarm system monitored and connected to emergency responders



Proposed
 Interior Renovations

**EMMANUEL
 SENIOR LIVING**

5589 JOHN R RD.
 TROY, MI 48085



REV	DATE	AS-BUILT	ISSUED
06-27-2024	AS-BUILT		ISSUED

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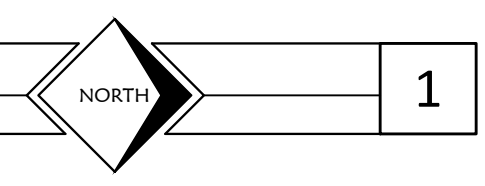


DRAWN BY: MV
 CHECKED BY: BK
 IN CHARGE: BK
 SHEET NAME:
 EXISTING FLOOR PLAN

JOB NO:
24-023

SHEET NO:
A-100

EXISTING FLOOR PLAN
 SCALE: 1/4" = 1'-0"



GENERAL CONSTRUCTION NOTES

- PLAN, SECTION AND DETAIL DIMENSIONS GOVERN. DO NOT SCALE.
- COMPLY FULLY WITH REQUIREMENTS OF OSHA AND OTHER REGULATORY AGENCIES FULLY FOR ALL SAFETY PROVISIONS.
- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE MICHIGAN RESIDENTIAL BUILDING CODE-2003.
- NOTIFY ARCHITECT OF DISCREPANCIES.
- BUILDER SHALL OBTAIN BUILDING AND ENGINEERING PERMITS AS REQUIRED FOR ALL PHASES OF CONSTRUCTION.
- BUILDER SHALL MAINTAIN A SET OF AGENCY APPROVED PLANS ON SITE FOR ALL INSPECTIONS. SHOULD THE PLANS NOT BE ON SITE, INSPECTIONS WILL NOT BE ALLOWED AND ADDITIONAL FEES MAY APPLY. CONTRACTOR TO BE RESPONSIBLE FOR ANY SUCH FEES.
- WORK COVERED WITHOUT INSPECTION MAY BE REQUIRED TO BE UNCOVERED AND INSPECTED, BY ARCHITECT OR INSPECTOR.
- ALL INDIVIDUAL GLAZED AREAS, WHETHER AS AN ASSEMBLY OR SEPARATE, MUST MEET LABELING REQUIREMENTS AS DIRECTED PER CODE TO VERIFY COMPLIANCE WITH SAFETY GLAZING REQUIREMENTS. ALL SUCH GLAZING AND LABELS WILL BE SUBJECT TO FIELD INSPECTION.
- THE CONTRACTOR SHALL PROVIDE WRITTEN CHANGE ORDERS DOCUMENTING ADDITIONAL WORK, OR DELETION OF WORK, PRIOR TO THE CHANGE BEING PERFORMED ON THE JOB.
- ADJACENT LOTS AND STREET SHALL BE MAINTAINED FREE OF DIRT AND DEBRIS DURING CONSTRUCTION.
- BALCONY GUARDS SHALL BE BALUSTERS SPACED NO FARTHER THAN 4" APART PER THE REQUIREMENTS OF THE 2003 MICHIGAN RESIDENTIAL BUILDING CODE SECTION R316.
- FIRESTOP ALL DROPS AND CHASES, ELECTRICAL PLUMBING AND HEATING. APPROVED BY FIRESTOP MATERIAL REQUIRED FOR ALL DROPS AND FLOOR OR CEILING PENETRATIONS AS OUTLINED IN SECTIONS M1801 AND R602 OF 2003 MICHIGAN RESIDENTIAL BUILDING CODE.
- PROVIDE ON-SITE DUMPSTER THROUGHOUT THE DURATION OF THE WORK.
- UNLESS OTHERWISE NOTED INSULATION VALUES SHALL BE THE FOLLOWING: CATHEDRAL CEILINGS SHALL BE R-30, STUD WALLS SHALL BE R-19.
- ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S ACCEPTANCE OF THE WORK. THE CONTRACTOR SHALL MAKE GOOD ANY DEFECTS WITHIN THAT PERIOD AT NO ADDITIONAL COST TO THE OWNER.

GENERAL NOTES

- ALL FEDERAL, STATE AND LOCAL CODES, ORDINANCES, REGULATIONS, ETC. SHALL BE CONSIDERED AS PART OF SPECIFICATIONS FOR THIS BUILDING AND SHALL TAKE PRECEDENCE OVER ANYTHING SHOWN, DESCRIBED, OR IMPLIED WHERE VARIANCES OCCUR.
- DO NOT SCALE DRAWINGS - CONTRACTORS SHALL VERIFY ALL DIMENSIONS.
- ROOF FRAMING SHALL BE COMPRISED OF PRE-ENGINEERED WOOD TRUSSES. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO DESIGNER PRIOR TO CONSTRUCTION. INFILL WITH 2x RAFTERS AS REQ'D.
- ALL FINISH MATERIALS TYPE, MANUFACTURER, MODEL, COLOR SHALL BE AS SPECIFIED BY OWNER.
- CONTRACTOR SHALL PROVIDE 6" ALUM. GUTTERS AND CONDUCTORS W/ CONC. SPLASHBLOCKS AS REQ'D.
- ALL INTERIOR WALLS AS SHOWN SHALL BE 2X4 WOOD STUD FRAMING @ 16" O.C. UNLESS OTHERWISE NOTED.
- ALL INTERIOR WALLS DIMENSIONED 5" ARE ACTUAL 4 1/2" (1/2" G.W.B EA. SIDE 2x4)
- VERIFY WINDOW HEADER HEIGHTS PER PLATE HEIGHT, USE ELEVATIONS.
- PREFABRICATED FIREPLACES AND FLUES ARE TO BE U.L. APPROVED AND INSTALLED PER MANUFACTURERS SPECIFICATIONS.
- ALL MATERIALS, SUPPLIES AND EQUIPMENT TO BE INSTALLED PER MANUFACTURER SPECIFICATIONS AND PER LOCAL CODES AND REQUIREMENTS.
- PROVIDE 1/2" WATER-RESISTANT GYPSUM BOARD AROUND SHOWERS, TUBS AND WHIRLPOOLS.
- WINDOW SPEC. SHALL BE DETERMINED BY OWNER / CONTRACTOR. CONFIRM WINDOW OPENINGS FOR LOCAL EGRESS REQUIREMENTS AND MINIMUM LIGHT AND VENTILATION REQUIREMENTS. MIN 5.7 S.F. NET OPENING - 44" MAX SILL HEIGHT - MIN 24" HGT AND MIN 20" WIDTH.
- STAIR SPECIFICATION - CONSTRUCTED IN ACCORDANCE WITH SECTION R311.7 - MIN 2X12 STRINGER - STAIR WIDTH MIN 36" - HANDRAIL/GUARDRAIL @ 36" AB TREAD NOSING - OPENINGS IN RAIL/BALUSTRADE SHALL COMPLY WITH SECTION R312.3 OPENING LIMITATIONS.
- WIND BRACING SHALL BE IN ACCORDANCE WITH MRC 602.10.
- SMOKE AND CO DETECTORS SHALL BE HARD WIRED TO ELECTRICAL SYSTEM. ALARMS SHALL HAVE BATTERY POWER BACK UP IN CASE OF POWER FAILURE.

STRUCTURAL SPECIFICATIONS

FLOOR LOAD DESIGN		WOOD HEADER SCHEDULE
FLOOR LIVE LOAD	40 PER SF	-UP TO 4'-0" OPENING (2) 2X8
ROOF TRUSS DESIGN		-4'-0" TO 6'-0" OPENING (2) 2X10
TOP CHORD LIVE LOAD	7 PER SF	-6'-0" TO 10'-0" OPENING
AND TOP CHORD DEAD LOAD	10 PER SF	(2) 2X12 UNLESS NOTED OTHERWISE
BOTTOM CHORD DEAD LOAD		
ROOF SNOW LOAD DESIGN		-PROVIDE MIN. (2) 2X4
GROUND SNOW LOAD	20 PER SF	POSTS UNDER ALL HEADER BEARING POINTS.
FLAT ROOF SNOW LOAD	17 PER SF	
SNOW EXPOSURE FACTOR	0.9	-ALL HEADERS SHALL BE GLUED AND NAILED
SNOW LOAD IMPORT FACTOR	1.0	
WIND LOAD DESIGN		
WIND DESIGN SPEED	115 MPH	
WIND LOAD IMPORTANCE FACTOR	1.00	
WIND EXPOSURE	C	
WIND DESIGN PRESSURE	-8.53	
REINFORCED CONCRETE		
FOUNDATION WALLS	3,000 PSI	
	3,000 PSI	
FRAMING LUMBER		
<ul style="list-style-type: none"> STRUCTURAL FLOOR FRAMING BASED ON HEMLOCK NO. 2 OR BETTER FLOOR JOISTS STUDS SHALL BE KILN DRIED SPRUCE/PINE/FIR CONSTRUCTION GRADE. WOOD STRUCTURAL PANEL SHEATHING FOR STRUCTURAL PURPOSES SHALL CONFORM TO DOC PS, DOC PS2, CAS 0437 OR CAS 0325. 		
<p>NOTE: THE TRUSS MANUFACTURER SHALL PROVIDE TRUSS LAYOUTS AND CALCULATIONS NECESSARY FOR ALL TRUSSES, GIRDERS AND FOR ALL OTHER WORK AND MATERIAL THEY PROVIDE.</p>		

FRAMING NOTES

- ALL BLOCKING, HANGERS, AND RIM BOARDS AT THE END SUPPORTS OF JOISTS MUST BE COMPLETELY INSTALLED AND PROPERLY NAILED.
- SUB-FLOOR OR SHEATHING MUST BE COMPLETELY ATTACHED, GLUED OR NAILED TO EACH JOIST BEFORE ADDITIONAL LOADS MAY BE PLACED ON THE SYSTEM.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE HANDLING, INSTALLATION, AND TEMPORARY BRACING IN A GOOD WORKMANLIKE MANNER AND IN ACCORDANCE WITH THE RECOMMENDATIONS SET FORTH IN WTC/TRI'S BDG. COMPONENT SAFETY INFORMATION & PUBLIC THE PRACTICE OF HANDLING. INSTALLATION & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.
- THE ROUGH CARPENTRY CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO THE START OF FABRICATION OR CONSTRUCTION AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
- ALL LUMBER AND FRAMING TECHNIQUES SHALL CONFORM TO APPLICABLE SECTIONS OF THE LATEST SPECIFICATIONS FOR STRESS GRADE LUMBER AND ITS FASTENERS. ALL WORK SHALL CONFORM WITH THE TRUSS PLATE INSTITUTE, AMERICAN PLYWOOD ASSOCIATION AND THE NATIONAL FORESTS PRODUCTS ASSOCIATION.
- ALL FLUSH BEAMS AND JOISTS CONNECTIONS SHALL BE FASTENED WITH AN APPROPRIATE CAPACITY METAL HANGER OR STRAP (NO JOIST ANGLES) OR EQUIVALENT METAL PRODUCT AS APPROVED BY A STRUCTURAL ENGINEER AND (1) TOE NAIL (16D) FOR EACH 1000 LBS. OR AXIAL LOAD OR EACH SUPPORT STUD. POST BASE AND SUPPORT SHALL PROVIDE SUFFICIENT BEARING WITH ENGINEER APPROVED METAL CONNECTOR AND/OR TWO (2) TOE NAILS FOR EACH 1000 LBS. OF AXIAL LOAD OR SUPPORT STUD.
- ALL LUMBER BEARING SHALL PROVIDE SUFFICIENT AREAS REQUIRED BEARING STRENGTH (PSI) TO PROPERLY SEAT MEMBER.
- ALL SHEATHED STUDS SHALL BE LIMITED TO 2250 LBS. OF AXIAL LOAD.
- ALL FLOOR JOISTS, RAFTERS, STUDS, CEILING JOISTS, AND BLOCKING TO BE #2 OR BETTER HEM FIR UNLESS OTHERWISE NOTED. FLOOR JOISTS TO HAVE 1X3 CROSS BRIDGING 8'-0" ON CENTER.
- ALL BUILT UP WOOD POSTS, BEAMS AND GIRDERS SHALL BE NAILED AND/OR BOLTED PER N.D.S.
- ROOF TRUSS FRAMING INDICATED ON THE DRAWINGS IS AN ASSUMED LAYOUT. ROOF TRUSS MANUFACTURER TO SUPPLY THE ARCHITECT WITH TRUSS SHOP DRAWINGS PRIOR TO FABRICATION. ROOF TRUSS MANUFACTURER SHALL REVIEW THE DRAWINGS AND INDICATE TO THE ARCHITECT, PRIOR TO FABRICATION, ANY CHANGE IN BEARING CONDITION THAT WOULD REQUIRE RE-FRAMING THE STRUCTURE TO ACCOMMODATE THE TRUSSES.
- NAILING SCHEDULE FOR PLYWOOD SHEATHING +/- 10d NAILS AT 6" ON CENTER, AT DIAPHRAGM BOUNDARY AND ALONG END SUPPORTING MEMBERS, 10d NAILS AT 12" ON CENTER ALONG INTERMEDIATE FRAMING MEMBERS.
- MICRO-LAM BEAMS (LVL'S) SHALL BE JOINED TOGETHER SHALL BE PER MANUFACTURER'S SPECIFICATIONS. NO SUBSTITUTIONS SHALL BE ACCEPTABLE WITHOUT PRIOR APPROVAL OF THE ARCHITECT.
- INSTALL DOUBLE FLOOR JOISTS UNDER ALL UPPER FLOOR LEVEL PARALLEL PARTITIONS.
- BUILDER SHALL PROVIDE METAL DIAGONAL CORNER AND WIND BRACING AT CORNERS PER CODE 'X' AND 'K' SHAPED BRACING ARE ACCEPTABLE.
- ALL MASONRY VENEER WALLS TO BE PROVIDED WITH WALL TIES AND WEEP HOLES PER CURRENT CODE, AS OUTLINED IN THE 2015 MICHIGAN RESIDENTIAL BUILDING CODE SECTION R606.
- PROVIDE 2X10 DOUBLE HEADER AT ALL INTERIOR DOOR OPENINGS AND 2X10 DOUBLE HEADER AT ALL EXTERIOR DOOR AND WINDOW OPENINGS (UNLESS OTHERWISE SPECIFIED)
- PROVIDE METAL STRAPPED WINDBRACING AT EACH END OF EXTERIOR WALLS (TYPICAL).

CONTACTS

OWNER
EMMANUEL SENIOR LIVING
5589 JOHN R RD.
TROY, MI 48085
CONTACT: Teresita Sandoval
cell (248) 812-9177
emmanuelseiorliving@gmail.com

GENERAL CONTRACTOR
SEBOLD AND KAGE
3155 W BIG BEAVER RD., STE 108
TROY, MI 48084
CONTACT: George Stroebel
office (248) 649-3600
cell (248) 670-2520
george@seboldandkage.com

ARCHITECT OF RECORD
DETROIT ARCHITECTURAL GROUP
30445 NORTHWESTERN HWY. SUITE 360
FARMINGTON HILLS, MI 48334
CONTACT: Brandon Kritzman
office (248) 583-4990
mobile (313) 690-1299
bkritzman@detroitarch.com

CODE COMPLIANCE

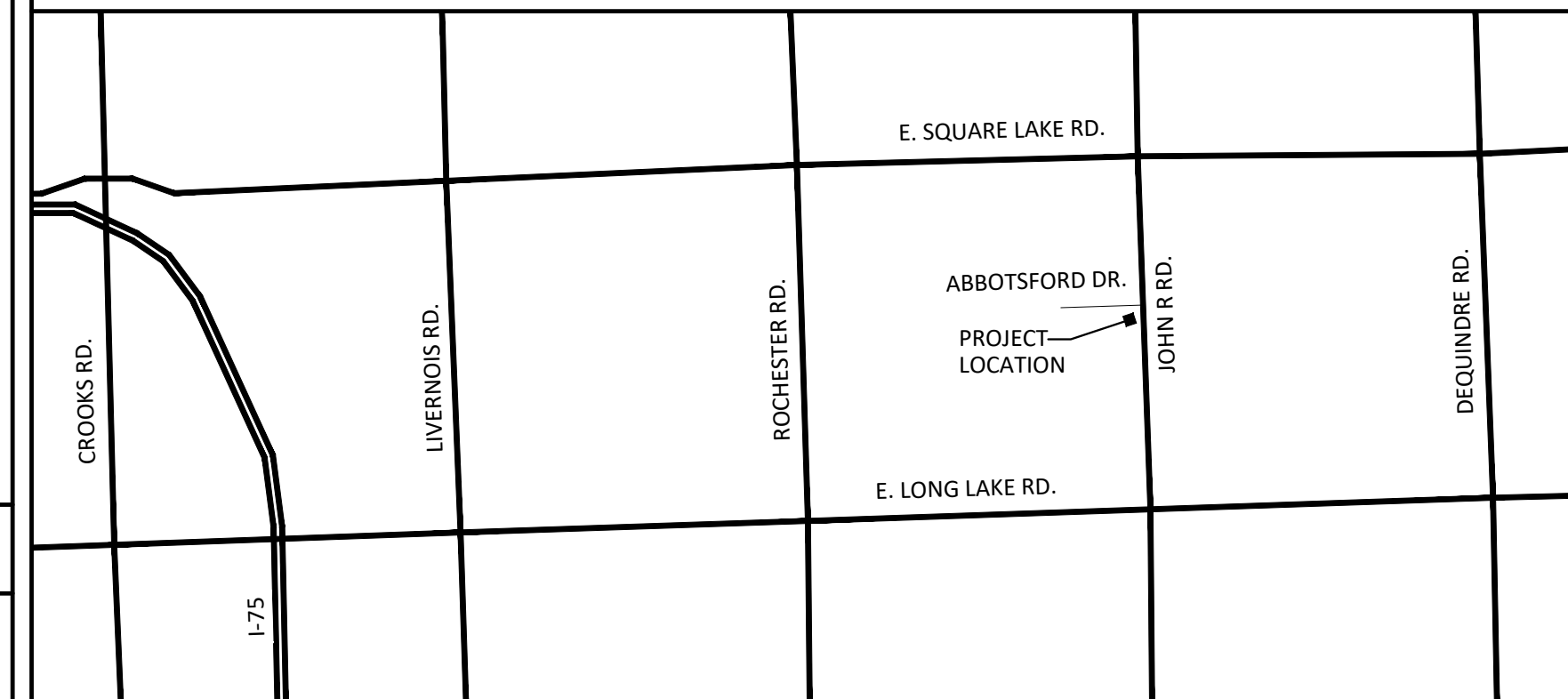
- THIS BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH THE FOLLOWING:
2015 MICHIGAN BUILDING CODE
2015 INTERNATIONAL FIRE CODE
2018 MICHIGAN PLUMBING CODE
2015 MICHIGAN MECHANICAL CODE
2017 NATIONAL ELECTRIC CODE WITH STATE AMENDMENTS (PART 8)
2015 MICHIGAN ENERGY CODE
2009 ICC/ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
2010 NFPA 13 FIRE SUPPRESSION
2010 NFPA 72 FIRE ALARM

PROPOSED
**EMMANUEL SENIOR LIVING
INTERIOR RENOVATIONS**
5589 JOHN R RD.
TROY, MI 48085

INDEX OF DRAWINGS

SHEET	DESCRIPTION	OWNER REVIEW	ISSUED FOR PERMITS																
T-101	TITLE SHEET - GENERAL PROJECT STANDARDS	●	●																
S-101	DEMOLITION AND FRAMING PLANS	●	●																
A-101	COMPOSITE FLOOR PLAN	●	●																
A-201	EXTERIOR ELEVATIONS	●	●																
A-301	SECTIONS AND DETAILS	●	●																

LOCATION MAP



SCOPE OF WORK

- INTERIOR RENOVATION OF EXISTING GARAGE INTO ADDITIONAL BEDROOMS.



Proposed
Interior Renovations

**EMMANUEL
SENIOR LIVING**

5589 JOHN R RD.
TROY, MI 48085

04-11-2024	ISSUED FOR PERMITS	
04-02-2024	OWNER REVIEW	
REV	DATE	ISSUED

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DRAWN BY: MV
CHECKED BY: BK
IN CHARGE: BK
SHEET NAME:
COMPOSITE FLOOR PLANS -
EXISTING AND DEMOLITION

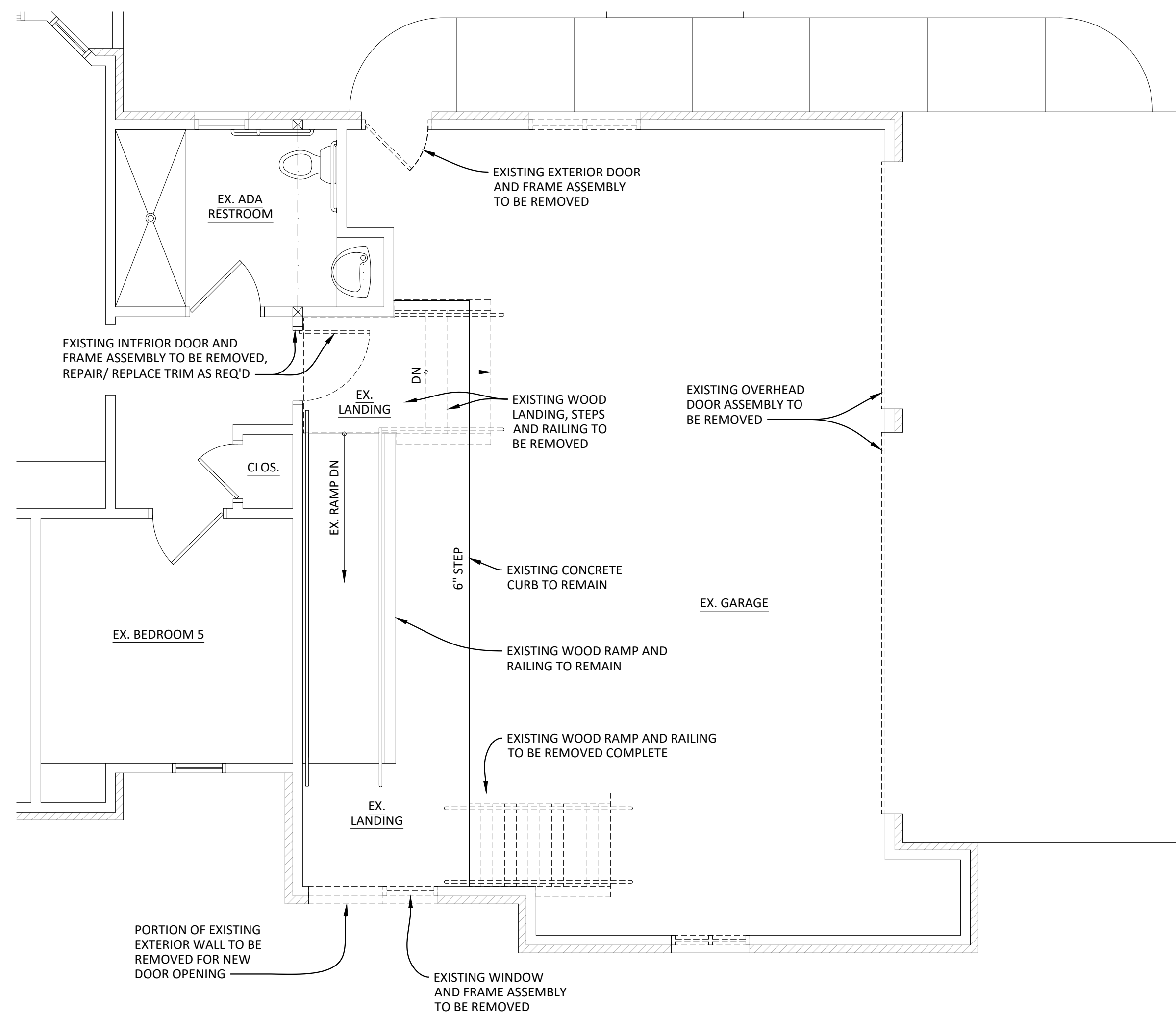
JOB NO:
24-023

SHEET NO:
T-101

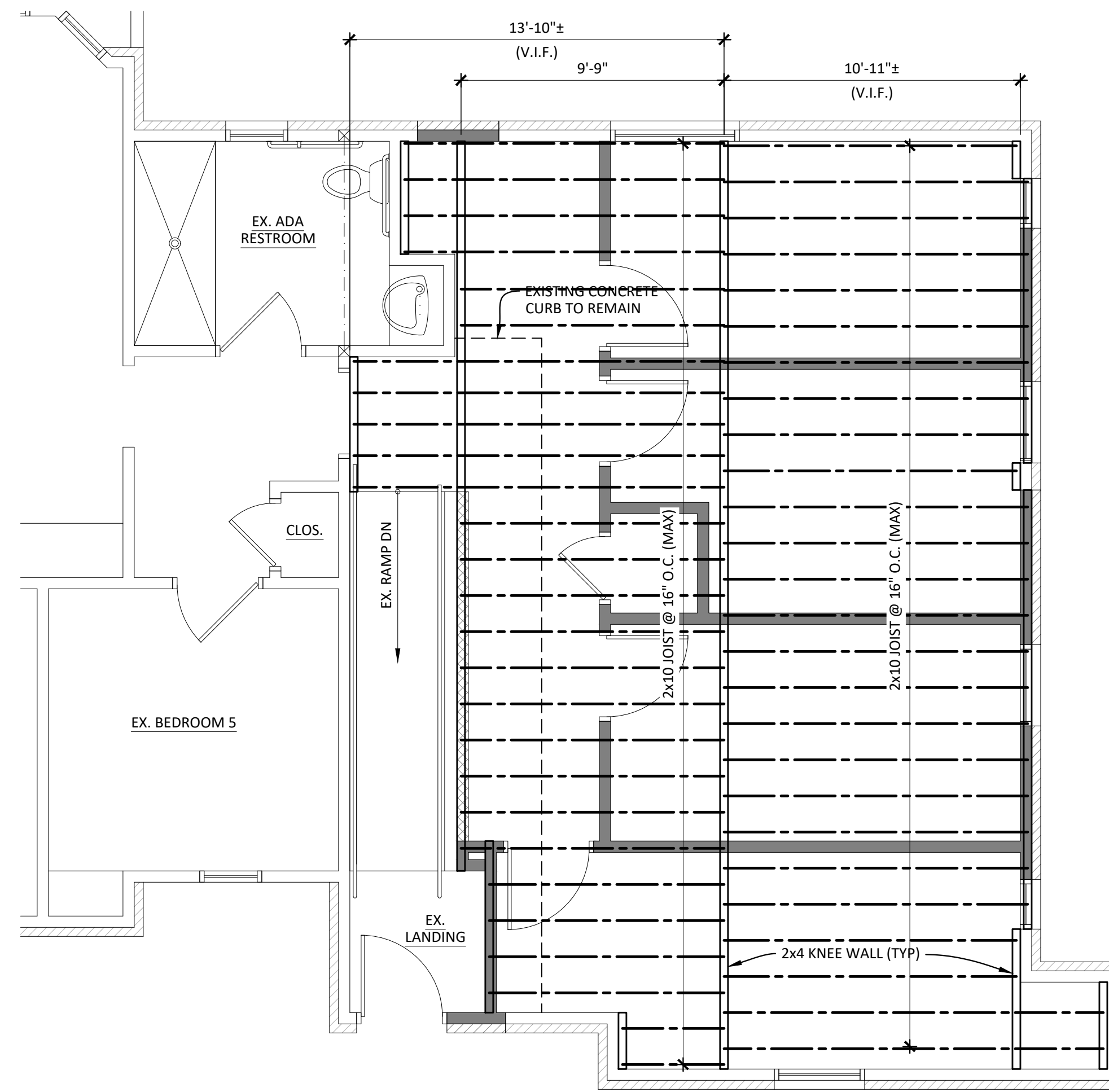
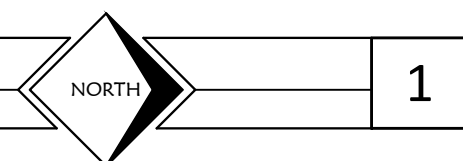
Proposed
 Interior Renovations

**EMMANUEL
 SENIOR LIVING**

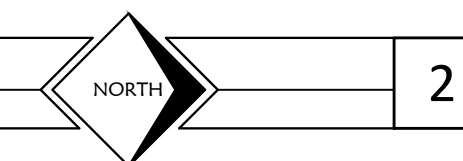
5589 JOHN R RD.
 TROY, MI 48085



DEMOLITION PLAN
 SCALE: 1/4" = 1'-0"



PROPOSED FRAMING PLAN
 SCALE: 1/4" = 1'-0"



REV	DATE	ISSUED
04-11-2024	ISSUED FOR PERMITS	
04-02-2024	OWNER REVIEW	

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DRAWN BY: MV
 CHECKED BY: BK
 IN CHARGE: BK
 SHEET NAME:
 DEMOLITION AND FRAMING PLANS

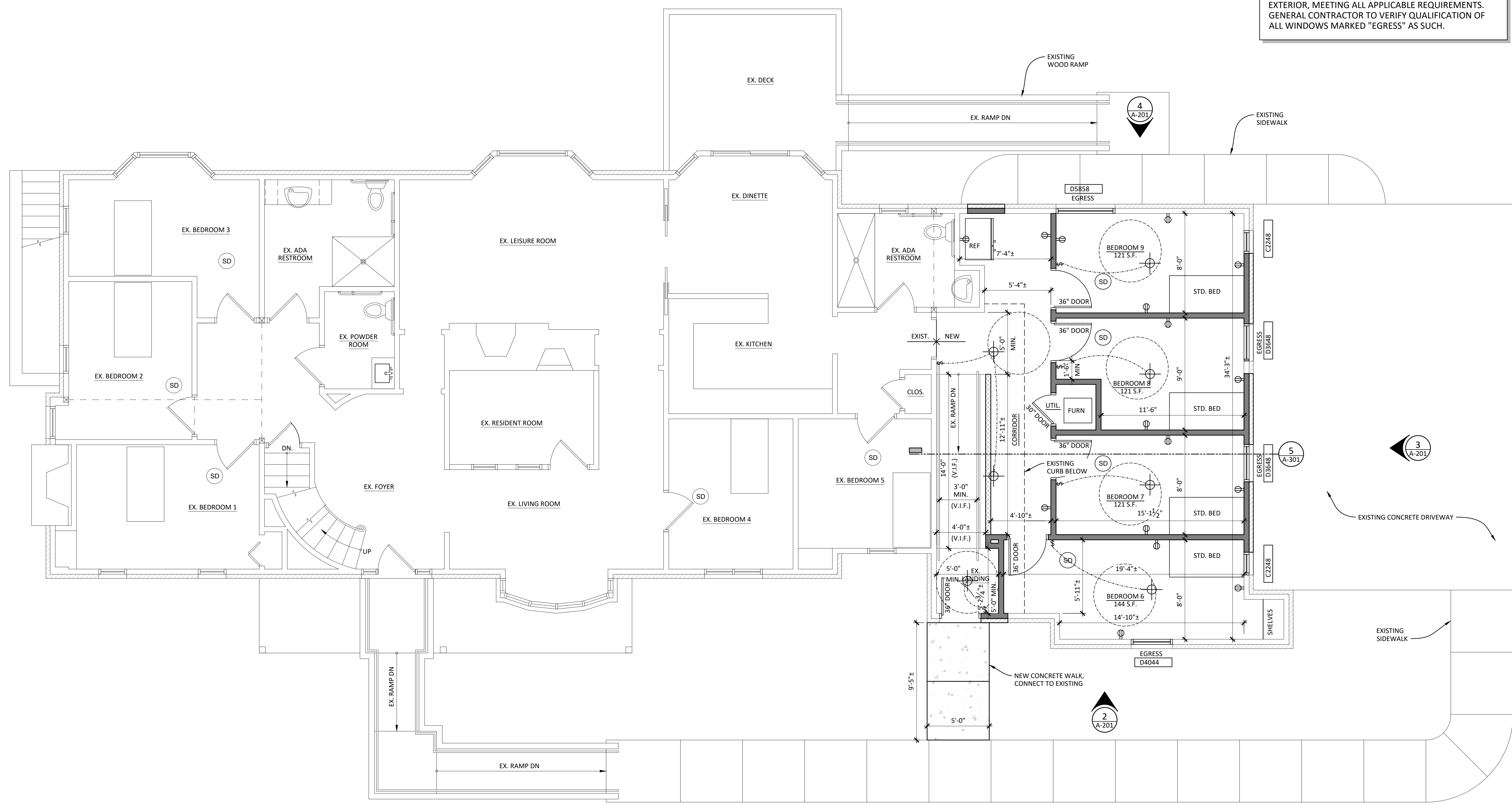
JOB NO:
24-023

SHEET NO:
S-101

LEGEND

- EXISTING WALL
- NEW INTERIOR WALL CONSTRUCTION TO BE 1/2" GYPSUM BOARD ON 2x4 WOOD FRAMING (INSULATED AS NECESSARY)
- NEW EXTERIOR WALL CONSTRUCTION (INFILL) TO BE 1/2" GYPSUM BOARD ON 2x4 WOOD FRAMING (INSULATED) W/ BRICK VENEER
- NEW INTERIOR PARTIAL-HEIGHT WALL CONSTRUCTION TO BE 1/2" GYPSUM BOARD ON 2x4 WOOD FRAMING
- WINDOW TYPE (C= CASEMENT, D= DOUBLE HUNG, F= FIXED)
- SMOKE DETECTOR

NOTE:
 ALL BEDROOMS TO HAVE EGRESS WINDOW DIRECTLY TO EXTERIOR, MEETING ALL APPLICABLE REQUIREMENTS. GENERAL CONTRACTOR TO VERIFY QUALIFICATION OF ALL WINDOWS MARKED "EGRESS" AS SUCH.



Proposed Interior Renovations

EMMANUEL SENIOR LIVING

5589 JOHN R RD.
 TROY, MI 48085

REV	DATE	ISSUED
04-11-2024	ISSUED FOR PERMITS	
04-02-2024	OWNER REVIEW	

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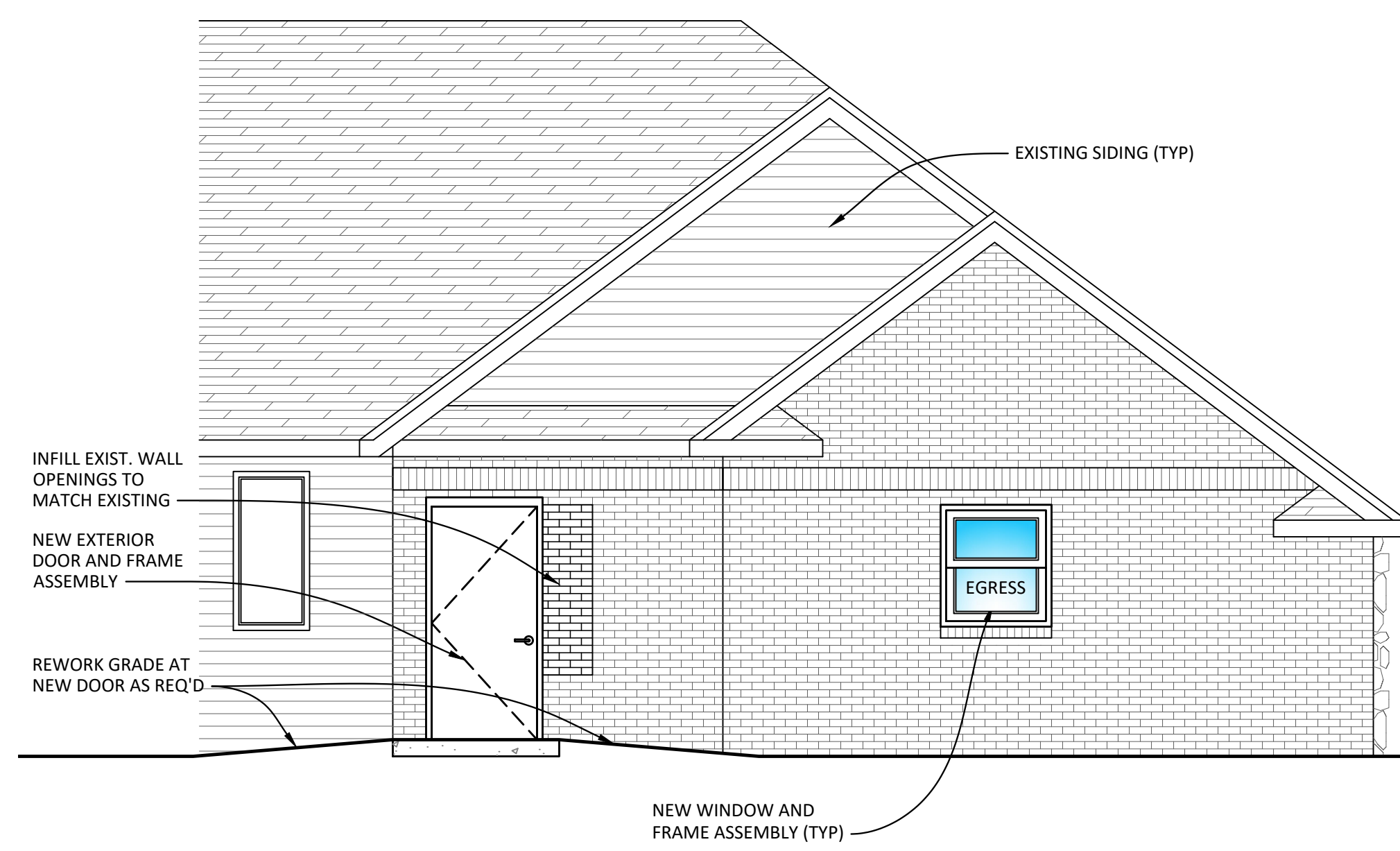
DRAWN BY: MV
 CHECKED BY: BK
 IN CHARGE: BK
 SHEET NAME: COMPOSITE FLOOR PLANS

JOB NO: **24-023**
 SHEET NO: **A-101**

Proposed
 Interior Renovations

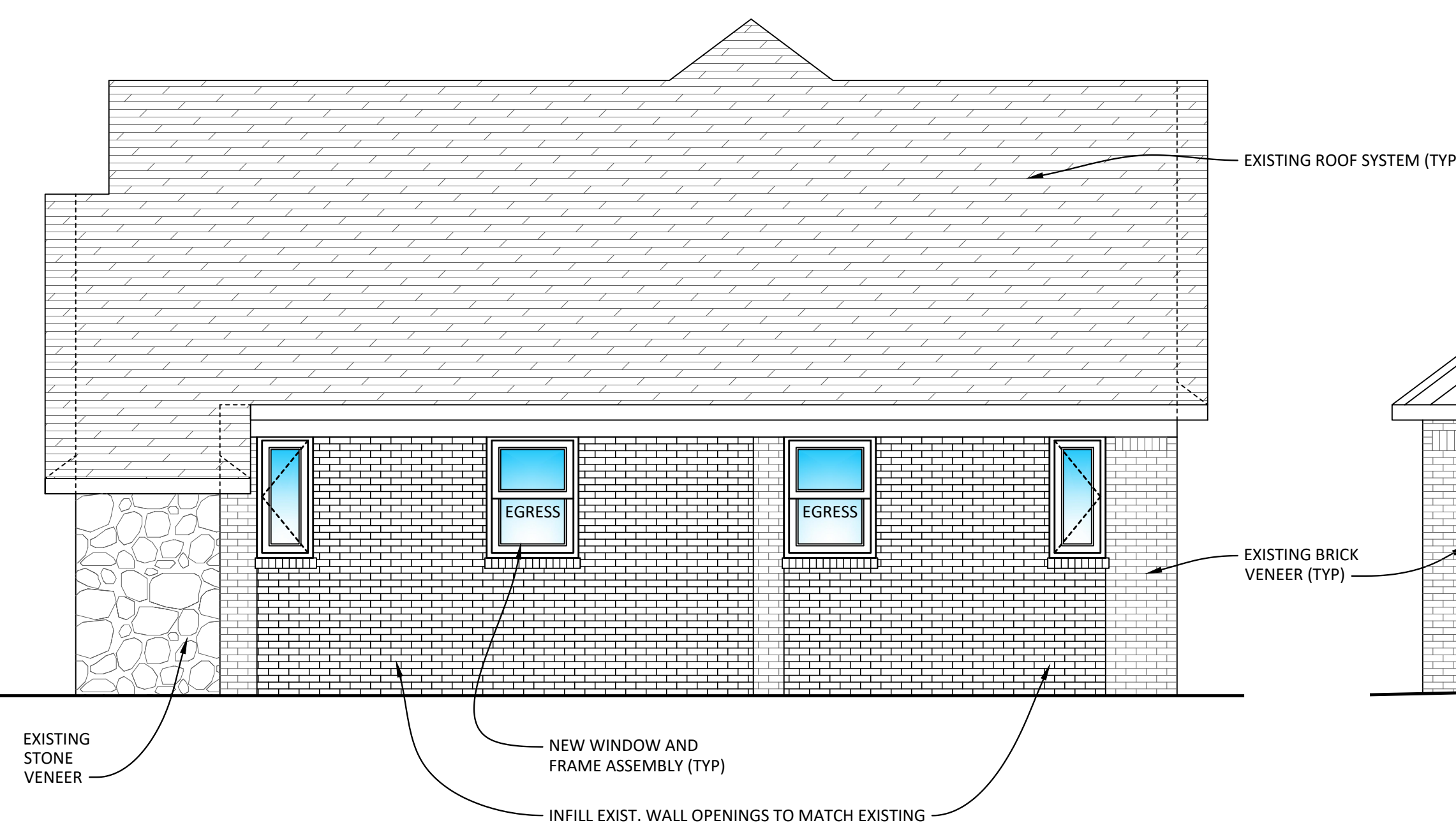
**EMMANUEL
 SENIOR LIVING**

5589 JOHN R RD.
 TROY, MI 48085



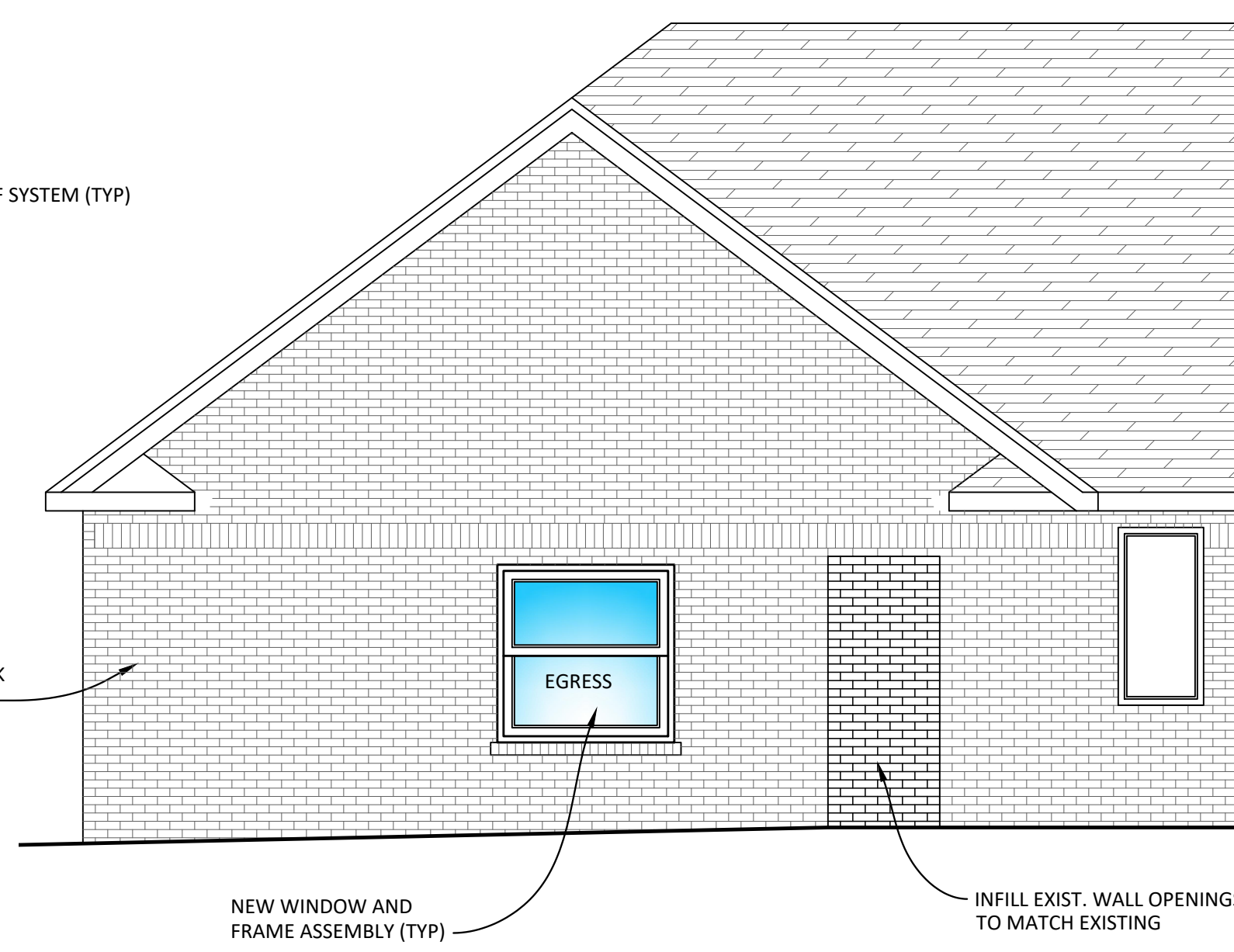
PARTIAL EAST ELEVATION
 SCALE: 1/4" = 1'-0"

2



NORTH ELEVATION
 SCALE: 1/4" = 1'-0"

3



PARTIAL WEST ELEVATION
 SCALE: 1/4" = 1'-0"

4

REV	DATE	ISSUED
04-11-2024	ISSUED FOR PERMITS	
04-02-2024	OWNER REVIEW	

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DRAWN BY: MV
 CHECKED BY: BK
 IN CHARGE: BK
 SHEET NAME:
 EXTERIOR ELEVATIONS

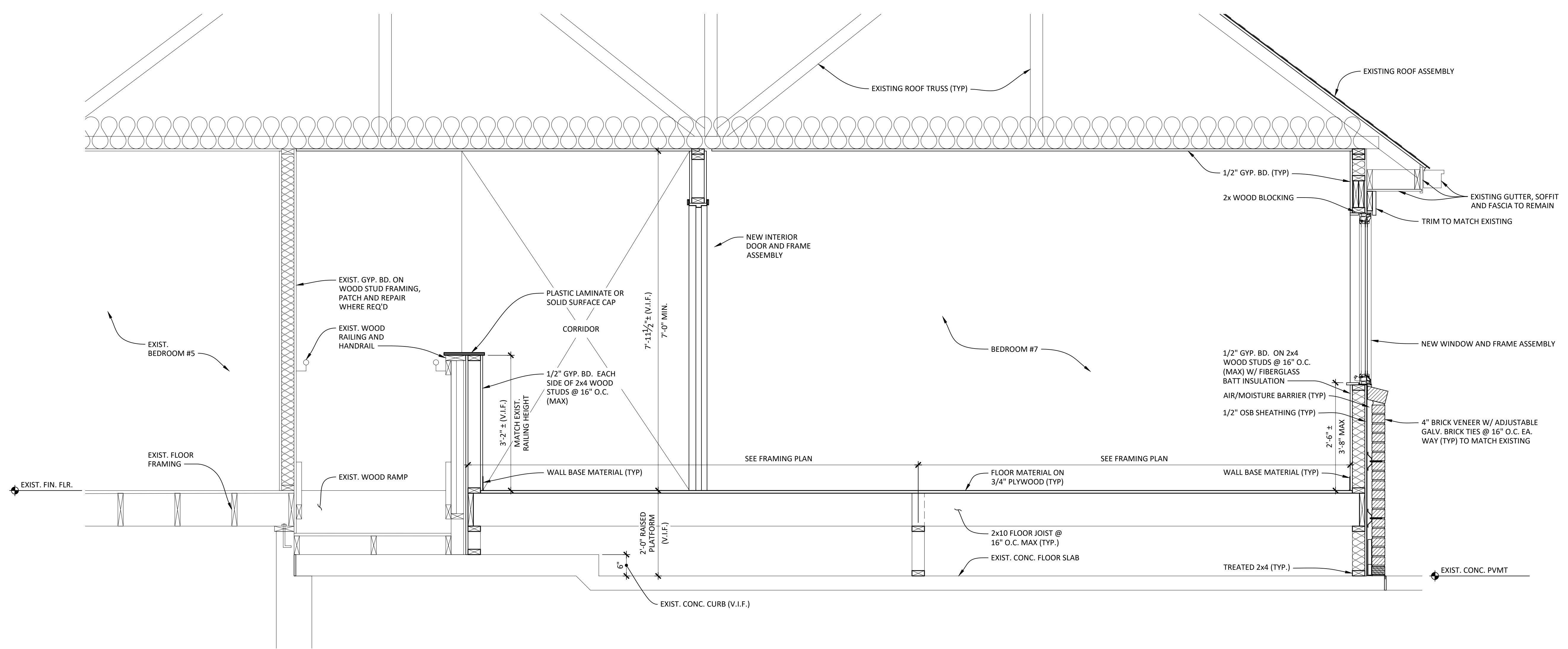
JOB NO:
 24-023

SHEET NO:
 A-201

Proposed
 Interior Renovations

**EMMANUEL
 SENIOR LIVING**

5589 JOHN R RD.
 TROY, MI 48085



SECTION
 SCALE: 3/4" = 1'-0"

04-11-2024	ISSUED FOR PERMITS	
04-02-2024	OWNER REVIEW	
REV	DATE	ISSUED

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DRAWN BY:	MV
CHECKED BY:	BK
IN CHARGE:	BK
SHEET NAME:	SECTIONS AND DETAILS
JOB NO:	24-023
SHEET NO:	A-301

June 27th, 2024

To whom it may concern,

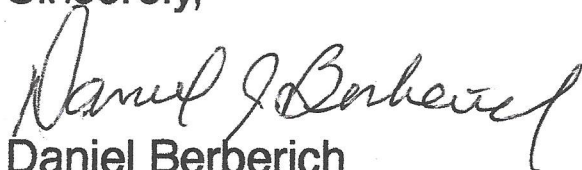
It is with great pleasure that I am writing this support letter for Emmanuel Senior Living owned and operated by Teresita Sandoval, whom I have known since 2013 when she opened the facility next to my home.

In the many years that Emmanuel Senior Living has been in operations providing top quality services to Seniors in our Community I've had numerous occasions to observe her great kindness in provide care to her seniors at Emmanuel Senior Living.

I hereby strongly support Emmanuel Senior Living plans to expand and use their garage in order to have more rooms to provide more affordable and top quality housing to Seniors in our Community.

Please feel free to contact Teresita or me for any additional information.

Sincerely,



Daniel Berberich

(248) 219 5195

1914 Abborsford Dr Troy Mi 48085

August 11, 2024

To whom it may concern:

I am pleased to write this letter of support for Emmanuel Senior Living, located at 5589 John R Road in Troy, owned and operated by Teresita Sandoval. I am writing to express my deep support for the expansion of Emmanuel Senior Living to accommodate more senior residents.

My father, Thomas, has been a senior resident at Emmanuel Senior Living since 2018. He has complex health issues requiring diligent attention as well as ongoing collaboration with different doctors and medical professionals, and he has been very well supported at Emmanuel by Teresita and her team of care workers. Teresita and her team are attentive, organized, and thorough, as well as very caring and thoughtful for all the seniors who live there.

I have been extremely grateful for the presence of Emmanuel Senior Living in the Metro Detroit area, as the home offers high-quality care and attention for my father at a rate that is accessible for his income. My father lives on a fixed income and the cost of living has gone up in every facet of our society. The increased cost of living — and of providing and accessing quality senior care — is increasingly difficult to meet. I believe that it is absolutely essential that we find ways to effectively and affordably support and care for the elderly members of our community.

I am deeply appreciative of Teresita's plan to expand Emmanuel Senior Living in order to keep the costs of care for the elderly at a manageable level for all the seniors who live there.

Teresita and her caregiving staff are dedicated to providing very high-quality care and attention for the seniors under their care, and to making a healthy, comfortable, safe, and pleasant living environment for my father and all the seniors. Teresita's facility is an excellent model of what senior care can be, and the expansion of Emmanuel Senior Living will benefit not only seniors and their families, but the broader community in the Metro Detroit area, by continuing to demonstrate that it is possible to offer quality care that seniors can afford.

If you have any questions, I would be pleased to speak further; I can be reached at 734-645-5857 or evarogers@gmail.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eva Rogers', written in a cursive style.

Eva Rogers

August 13, 2024

To Whom It May Concern:

I am writing in support of the proposed expansion of Emmanuel Senior Living located on John R Road in Troy, Michigan. This expansion would not only be good for the city, but need for available housing for seniors is at an all time high. Community is one of the core values of the City of Troy, Michigan and this is also about community.

In addition, it takes a special person to care for those most vulnerable in our community and Teresita Sandoval accomplishes this with her tireless efforts and her caring and compassionate heart.

Please let me know if there is any way in which I can provide some additional information or insight.

Sincerely,

Brandon Lewandowski
1166 Fairways Boulevard, Troy, MI 48085
BRLewandowski@gmail.com
248-520-7339

August 8, 2024

To whom it may concern:

I am writing to express my full support for the Emmanuel Senior Living facility located on John R in Troy; owned and operated by Teresita Sandoval, whom I have known since 2022.

I have observed her kindness, professionalism, great service, and dedication she provides to her seniors at Emmanuel Senior Living.

I hereby support the facility's plans to expand and use their garage to accommodate four additional rooms to provide more affordable, high quality and more personalized housing to seniors in our community. This is not only a demonstration to Teresita's commitment to enhance the lives of more seniors but also addresses a growing need within our community.

Sincerely,

Ana Jamil
1933 Oak Forest Dr
Troy, MI 48085

Susan Bartram
33762 Colony Park Drive
Farmington Hills, Michigan 48230
(313) 289-1995

August 13, 2024

To Whom It May Concern:

I am writing to support Emmanuel Senior Living, owned and operated by Teresita Sandoval, whom I have known for about 5 years.

In the time that I have known Teresita, I have known her to be kind, compassionate, giving, and resourceful. I am sure that she provides excellent care for those who reside at Emmanuel Senior Living.

I strongly support Emmanuel Senior Living plans to expand and use the garage in order to have more rooms to provide affordable top-quality housing for Seniors in the community.

Sincerely,

A handwritten signature in black ink, appearing to read 'Susan Bartram', with a long horizontal flourish extending to the right.

Susan Bartram

August 12th 2024

To Whom It May Concern,

I am writing to express my wholehearted support for The Emmanuel Senior Living facility and its owner, Ms. Teresa Sandoval. I have had the pleasure of knowing Teresa for 2 years, and I can confidently say that she is one of the most compassionate, dedicated, and professional individuals I have ever met.

The Emmanuel Senior Living facility is not just a place to reside, it is a true home for its residents. Teresa has created an environment where seniors are treated with the utmost respect, care, and dignity. The facility is always maintained to the highest standards, and the staff are not only well-trained but also deeply committed to ensuring the well-being of each resident. The positive and nurturing atmosphere at The Emmanuel Senior Living is a direct reflection of Teresa's values and her unwavering commitment to excellence.

Teresa's plans to expand the facility to accommodate additional residents is a testament to her vision and dedication to providing high-quality care to more seniors in our community. Given the increasing need for reliable and compassionate senior care, I believe this expansion would be an invaluable addition to our area. Teresa's track record of running an outstanding facility speaks for itself, and I have no doubt that these additional residents would receive the same exceptional care and attention that current residents enjoy.

The expansion will undoubtedly benefit our community by providing more seniors with a safe, loving, and professional place to live. I have complete confidence that Teresa will continue to manage the facility with the highest level of integrity and dedication.

Thank you for your time and consideration of this request.

Sincerely,

Aaron Salvador Unzueta Chavez.

2836 Roundtree Dr, Troy MI. 48083

Aug 10th, 2024

To whom it may concern,

RE: Emmanuel Senior Living owned by Teresita Sandoval

In today's world with the increased needs for more senior care, finding quality personal care becomes an even greater concern for many seniors and family members who are considering facilities. I've only known Teresita for a few years, but she is always a warm, genuine and kind human being. Having been to her facility several times you can just see and feel the warmth and caring that she and her staff give her seniors. Her seniors also seem quite content and well taken care of. Even though her facility is not a large capacity facility like many senior care centers, the personal and more one on one care and atmosphere feels very evident.

Teresita is dedicated to providing the best care possible to her seniors, I'm sure that the expansion she is planning will also be carried through with the same professionalism and kindness she is currently providing. More families would be at ease knowing their loved ones are well taken care of.

Sincerely,

Ray Juhl

6025 Walker Drive

Troy, Michigan 48085

From: [BILL GERAZOUNIS](#)
To: [Jackie Ferencz](#)
Subject: Emmanuel senior living expansion
Date: Wednesday, August 7, 2024 9:38:01 PM

[You don't often get email from vasilig@sbcglobal.net. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello,

Just wanted to reach out and let you know, I fully support the expansion, and have known Teresita Sandoval for quite some time now..and she is a very kind, honest, and good person with great intentions.

Hope you can give her the support she needs!

Sent from my iPhone

From: [Josephine Dries](#)
To: [Jackie Ferencz](#)
Subject: support for Emmanuel Senior Living expansion
Date: Monday, August 12, 2024 9:10:41 AM

You don't often get email from jojo@jojodries.com. [Learn why this is important](#)

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To whom it may concern:

I hope this letter finds you well. I am writing to express my full support for the proposed expansion of the Emmanuel Senior Living facility located on John R in Troy. Having known the owner, Teresita Sandoval, for an extended period, I can personally vouch for her exceptional professionalism and her unwavering dedication to the well-being of the residents under her care.

The planned expansion of Emmanuel Senior Living is set to accommodate four additional residents. This development is not only a testament to Teresita's commitment to enhancing the lives of more seniors but also addresses a growing need within our community for specialized senior care services. In these times, when the demand for such care is increasing sharply, it becomes crucial to back facilities that consistently demonstrate outstanding service and wholehearted dedication.

As a reputable and efficiently managed senior home, Emmanuel Senior Living has earned my complete trust in its endeavors for expansion. I am confident that this step will significantly contribute to the betterment of our community by enriching the lives of its senior members.

Should you have any questions, or if there are any concerns I can help address, please do not hesitate to contact me.

Warm regards,
JoJo Dries
Founder, On The Wings of Angels
Jojo@jojodries.com
734-385-6170

From: [Arshad Suri](#)
To: [Jackie Ferencz](#)
Subject: Emmanuel Senior Living facility
Date: Monday, August 12, 2024 2:09:06 PM

You don't often get email from arshad.suri@yahoo.com. [Learn why this is important](#)

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To whom it may concern

I hope this letter finds you well. I am writing to express my full support for the proposed expansion of the Emmanuel Senior Living facility located on John R in Troy. Having known the owner, Teresita Sandoval, for an extended period, I can personally vouch for her exceptional professionalism and her unwavering dedication to the well-being of the residents under her care.

The planned expansion of Emmanuel Senior Living is set to accommodate four additional residents. This development is not only a testament to Teresita's commitment to enhancing the lives of more seniors but also addresses a growing need within our community for specialized senior care services. In these times, when the demand for such care is increasing sharply, it becomes crucial to back facilities that consistently demonstrate outstanding service and wholehearted dedication.

As a reputable and efficiently managed senior home, Emmanuel Senior Living has earned my complete trust in its endeavors for expansion. I am confident that this step will significantly contribute to the betterment of our community by enriching the lives of its senior members.

Should you have any questions, or if there are any concerns I can help address, please do not hesitate to contact me.

Warm regards

Arshad Suri

From: [Kathleen Rogers](#)
To: [Jackie Ferencz](#)
Subject: Request for Expansion of Emmanuel Senior Living
Date: Saturday, August 10, 2024 11:22:25 AM

You don't often get email from kmrogers210@gmail.com. [Learn why this is important](#)

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To Whom It May Concern:

It is an honor to have been asked to provide this letter of support for the proposed expansion of the Emmanuel Senior Living facility located at 5589 John R. Road, Troy, Michigan.

I have had the pleasure of knowing Teresita Sandoval since 2018, when my niece and I were seeking a care facility for my brother following his stroke. Sadly, my brother could no longer live alone and required assistance with his medication and many activities of daily living.

The care my brother has received by Ms. Sandoval and her staff has been exceptional. She cares for each of her residents as if they were her own family member. Additionally, she has the gift of recruiting caregivers who are equally kind and attentive to the residents' needs. Ms. Sandoval's desire to expand her facility to accommodate an additional four residents is commendable, and will respond to the desperate need in our community for quality health care for seniors.

I wholeheartedly support Ms. Sandoval's proposed expansion and have the utmost confidence in her ability to assume this additional responsibility with her usual professionalism and grace.

If you any further questions, please do not hesitate to contact me directly. I can be reached by cell at (248) 909-9144 or via email at kmrogers210@gmail.com.

Sincerely,

Kathleen Rogers
210 Potawatomi Blvd.
Royal Oak, MI 48073

From: [Sherry Price](#)
To: [Jackie Ferencz](#)
Subject: Emmanuel Senior Living
Date: Monday, August 19, 2024 6:55:11 AM

[You don't often get email from priceparty@aol.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Jackie, I'm sorry this is a few days late in writing to you however I wanted to share my thoughts on Emmanuel Senior Living. I live just south of their home on John R Road & I (along many other neighbors in our Laurelwood subdivision) would totally welcome the expansion of their facility! The property is beautiful & always kept neat & clean. It offers beautiful views for the people that live there to enjoy outdoor activities.

Terri, her sister Abby & Sorayas are the kindest people & most loving caregivers that I have ever met! We had the pleasure of working with them briefly & would consider them an asset to our community! Troy could definitely benefit from the TLC in which ESL so proudly offers in their business!

The community is in need of more senior living spaces such as this & I would highly recommend the expansion of their garage to accommodate 4 more beds.

Feel free to reach out to me with any questions you may have!

Sincerely,
Sherry Price

5261 Westmoreland Dr
Troy, MI 48085

248-941-3088

Hidden Harbors Centers

Brian DiBartolomeo

President

31601 Harper Avenue
St. Clair Shores, MI 48082
(248) 289-0803
brian@hiddenharbors.com

Planning Department

City of Troy
500 W. Big Beaver Road
Troy, MI 48084
(248) 524-3364
jackie.ferencz@troymi.gov

August 1, 2024

To Whom It May Concern,

I hope this letter finds you well. I am writing to express my full support for the proposed expansion of the Emmanuel Senior Living facility located on John R in Troy. Having known the owner, Teresita Sandoval, for an extended period, I can personally vouch for her exceptional professionalism and her unwavering dedication to the well-being of the residents under her care.

The planned expansion of Emmanuel Senior Living is set to accommodate four additional residents. This development is not only a testament to Teresita's commitment to enhancing the lives of more seniors but also addresses a growing need within our community for specialized senior care services. In these times, when the demand for such care is increasing sharply, it becomes crucial to back facilities that consistently demonstrate outstanding service and wholehearted dedication.

As a reputable and efficiently managed senior home, Emmanuel Senior Living has earned my complete trust in its endeavors for expansion. I am confident that this step will significantly contribute to the betterment of our community by enriching the lives of its senior members.

Should you have any questions, or if there are any concerns I can help address, please do not hesitate to contact me.

Warm regards,

Brian DiBartolomeo



To whom it may concern

I hope this letter finds you well. I am writing to express my full support for the proposed expansion of the Emmanuel Senior Living facility located on 5589 John R in Troy. Having known the owner, Teresita Sandoval, for an extended period, I can personally attest for her exceptional professionalism and her dedication to the well-being of the Senior Citizens under her care. Mrs Sandoval has consistently demonstrate outstanding service and wholehearted dedication.

The planned expansion of Emmanuel Senior Living is set to accommodate four additional residents. This development is not only a testament to Teresita's commitment to enhancing the lives of more seniors in our community but also addresses a need within our community for specialized senior care services.

In these times, when the demand for such care is increasing sharply, it becomes crucial to back facilities that.

As a reputable and efficiently managed senior home, always kept nice and clean; Emmanuel Senior Living has earned my complete trust in its endeavors for expansion. I am confident that this step will significantly contribute to the betterment of our community by enriching the lives of its senior members.

Should you have any questions, or if there are any concerns I can help address, please do not hesitate to contact me.

Warm regards,

Oracio Gonzalez
586 515 9062

ITEM #6

DATE: November 7, 2024

TO: Planning Commission

FROM: R. Brent Savidant, Community Development Director

SUBJECT: SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW (SU JPLN2024-0007) – Proposed EI Car Wash, Northwest corner of Long Lake and Dequindre (2955 & 2995 E Long Lake), Section 12, Currently zoned NN (Neighborhood Node “J”) Zoning District.

The petitioner Alrig USA submitted the above referenced Special Use Approval and Preliminary Site Plan Approval application for a proposed EI Car Wash with a second-floor office space. Vehicle washes are permitted in the NN district, subject to special use approval.

The Planning Commission held a public hearing for this item on October 22, 2024 and postponed the item at the request of the applicant due to lack of a full board (minutes attached).

The attached report prepared by Carlisle/Wortman Associates, Inc. (CWA), the City's Planning Consultant, summarizes the application. CWA prepared the report with input from various City departments including Planning, Engineering, Public Works and Fire. City Management supports the findings of fact contained in the report and recommends approval of the project, as noted.

Attachments:

1. Maps
2. Report prepared by Carlisle/Wortman Associates, Inc.
3. Minutes from October 22, 2024 Planning Commission meeting (excerpt)
4. Special Use/Preliminary Site Plan application
5. Public comment

PROPOSED RESOLUTION

SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW (SU JPLN2024-0007) – Proposed El CarWash, Northwest corner of Long Lake and Dequindre (2955 & 2995 E Long Lake), Section 12, Currently zoned NN (Neighborhood Node “J”) Zoning District.

Resolution # PC-2024-11-

Moved by:

Seconded by:

RESOLVED, That Special Use Approval and Preliminary Site Plan Approval for the proposed El Car Wash, Northwest corner of Long Lake and Dequindre (2955 and 2995 East Long Lake), Section 12, Currently Zoned NN (Neighborhood Node “J”) District, be (granted, subject to the following conditions):

_____) or

(denied, for the following reasons: _____) or

(postponed, for the following reasons: _____)

Yes:

No:

Absent:

MOTION CARRIED / FAILED



GIS Online



Print Date: 10/14/2024



Note: The information provided by this application has been compiled from recorded deeds, plats, tax maps, surveys, and other public records and data. It is not a legally recorded map survey. Users of this data are hereby notified that the source information represented should be consulted for verification.



GIS Online



Print Date: 10/14/2024



Note: The information provided by this application has been compiled from recorded deeds, plats, tax maps, surveys, and other public records and data. It is not a legally recorded map survey. Users of this data are hereby notified that the source information represented should be consulted for verification.



Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: April 25, 2024
June 19, 2024
August 27, 2024
September 13, 2024
November 5, 2024

Special Use and Preliminary Site Plan For City of Troy, Michigan

Applicant: Samantha Burgner, Alrig USA

Project Name: EL Carwash

Location: 2955 & 2995 E Long Lake Road

Plan Date: October 29, 2024

Zoning: NN, Neighborhood Nodes (“J”)

Action Requested: Special Use and Preliminary Site Plan Approval

SITE DESCRIPTION

An application has been submitted to construct a two-story building at the corner of Long Lake and Dequindre. The applicant intends to remove an existing restaurant and redevelop the 1.5-acre site with a new 6,000 square foot building. The two-story building features an auto wash on the first floor and a small office space on the second floor. Other site features include twenty-five (25) covered vacuum spaces and a public seating area in the southeast corner. Several sustainable design features are incorporated throughout the site, such as permeable pavers, solar panels, recycled water, and environmentally safe detergents.

The site includes two (2) parcels, each zoned NN-Neighborhood Nodes, Site Type A. Under the existing zoning, office space is permitted by right and auto washes require Special Use Approval.

Site Location:



Proposed Use of Subject Parcel:

Two-story 5,000 square foot building, with an auto wash on the first floor and office space on the second floor.

Current Zoning:

The property is currently zoned NN, Neighborhood Nodes (J) Form Based District, Site Type A.

Surrounding Property Details:

Direction	Zoning	Use
North	NN, Neighborhood Nodes (J)	Dental/Medical Offices
South	NN, Neighborhood Nodes (J)	Shell Gas Station
East	City of Sterling Heights	Comerica Bank
West	NN, Neighborhood Nodes (J)	Arby's

NATURAL FEATURES

Topography/Wetlands/Drain: The subject site is not located in a floodplain and contains no wetlands. Most of the site has already been graded for previous development.

Woodlands: A tree inventory provided by the applicant identifies six (6) existing trees on site. Of these, three (3) trees will remain and three (3) trees will be removed. None of the trees on site were found to be Landmark or Woodland, and therefore no tree replacement is required.

Replacement Details		
Protected Tree	Inches Removed	Replacement Required
Landmark	0 inches	0 inches
Woodland	0 inches	0 inches
Preservation/Mitigation	Inches Preserved	Credit
Landmark	0 inches	0 inches
Woodland	0 inches	0 inches
Total	Zero (0) inches required for replacement.	

Items to be Addressed: None.

PREVIOUS PLANNING COMMISSION DISCUSSION

The application was discussed at the October 22nd Planning Commission meeting. There was discussion on:

- Second floor office space.
 - Prominence of entrance.
 - Pedestrian access.
 - Accessible parking spaces.
 - Violation of Zoning Ordinance should there be an affiliation of office use to the car wash use.
 - Signage to promote non-profit organization tenants.
- Feasibility study / market for a car wash.
- Two communications received by residents expressing concern with traffic impact.
- Gateway signage; *Welcome to Troy* sign/logo.
- Architectural building materials and color scheme.
- Compatibility of car wash use in the NN (Neighborhood Node) zoning district.
- Consideration by applicant to engage additional mixed uses to the site.

CHANGES SINCE PLANNING COMMISSION DISCUSSION

The applicant has made the following changes to the plan set since the last Planning Commission review:

1. Reallocated second floor parking adjacent to building. Office users do not have to cross vacuum spaces to enter building.
2. Shorten curb line adjacent to the stacking area to allow for easier turns into the stacking area off E. Long Lake.
3. Added the following additional design features at the hard corner of Dequindre and E. Long Lake:
 - a. Significantly extended/enlarged paved area along both Dequindre and E. Long Lake
 - b. Benches
 - c. Bike repair station
 - d. Seasonal outdoor kitchen/bar

In their narrative the applicant notes a replacement of EIFs with brick. However, the elevations still appear to have a significant amount of EIFs.

Please see our September 13, 2024 Memo for a detailed discussion of the application.

COLORED RENDERINGS

South/West Building Facades



South/East Building Facades



Aerial View (from southwest perspective)



SPECIAL USE APPROVAL STANDARDS

Table 5.06.C-1 illustrates that auto/transportation uses are considered a special use for Neighborhood Nodes Site Type NN:A.

For any special use, according to Section 9.02.D, the Planning Commission shall “...review the request, supplementary materials either in support or opposition thereto, as well as the Planning Department’s report, at a Public Hearing established for that purpose, and shall either grant or deny the request, take action on the request, or grant the request subject to specific conditions.” Section 9.03 states that before approving any requests for Special Use Approval, the Planning Commission shall consider:

1. *Compatibility with Adjacent Uses.*
2. *Compatibility with the Master Plan.*
3. *Traffic Impact.*
4. *Impact on Public Services.*
5. *Compliance with Zoning Ordinance Standards.*
6. *Impact on the Overall Environment. The proposed Special Use shall no*
7. *Special Use Approval Specific Requirements.*

DESIGN STANDARDS AND SITE PLAN REVIEW STANDARDS

Section 8.06 outlines Site Plan Review Design Standards.

1. *Development shall ensure compatibility with existing commercial districts and provide a transition between land uses.*
 - a. *Building design shall enhance the character of the surrounding area in relation to building and parking placement, landscape and streetscape features, and architectural design.*
 - b. *Street fronts shall provide a variety of architectural expression that is appropriate in its context and prevents monotony.*
 - c. *Building design shall achieve a compatible transition between areas with different height, massing, scale, and architectural style.*
2. *Development shall incorporate the recognized best architectural building design practices.*
 - a. *Foster a lasting impact on the community through the provision of high quality design, construction, and detailing.*
 - b. *Provide high quality, durable materials, such as but not limited to stone, brick, glass, and metal. E.I.F.S. or material equivalent shall only be used as an accent material.*
 - c. *Develop buildings with creativity that includes balanced compositions and forms.*

- d. *Design roofs that are appropriate to the architectural style of the building and create an appropriate visual exterior mass of the building given the context of the site.*
 - e. *For commercial buildings, incorporate clearly defined, highly visible customer entrances using features such as canopies, porticos, arcades, arches, wing walls, ground plane elements, and/or landscape planters.*
 - f. *Include community amenities that add value to the development such as patio/seating areas, water features, art work or sculpture, clock towers, pedestrian plazas with park benches or other features located in areas accessible to the public.*
3. *Enhance the character, environment and safety for pedestrians and motorists.*
 - a. *Provide elements that define the street and the pedestrian realm.*
 - b. *Create a connection between the public right of way and ground floor activities.*
 - c. *Create a safe environment by employing design features to reduce vehicular and pedestrian conflict, while not sacrificing design excellence.*
 - d. *Enhance the pedestrian realm by framing the sidewalk area with trees, awnings, and other features.*
 - e. *Improve safety for pedestrians through site design measures.*

SUMMARY

We recommend that the Planning Commission discuss the following:

1. Does the application comply with Section 9.02.D Special Use Standards?
2. Does the application comply with Section 8.06 Site Plan Review Design Standards?
3. Evaluation of documented evidence of excess parking/vacuums.
4. Use of EIFs.

Respectfully,



CARLISLE/WORTMAN ASSOC., INC.
Benjamin R. Carlisle, AICP, LEED AP
President



CARLISLE/WORTMAN ASSOC., INC.
Shana Kot
Community Planner

6. PUBLIC HEARING – SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW (SU JPLN2024-0007) – Proposed El Car Wash, Northwest corner of Long Lake and Dequindre (2955 and 2995 E Long Lake), Section 12, Currently Zoned NN (Neighborhood Node “J”) Zoning District

Mr. Carlisle reviewed the Special Use Approval and Preliminary Site Plan application for the El Car Wash. He said the Planning Commission has the authority to grant relief from the build-to-line requirements on both E Long Lake and Dequindre as they relate to the proposed mixed use, two-story building. Mr. Carlisle addressed the use and function of the second floor office space and emphasized its use must not have any affiliation with the car wash use. He suggested discussing with the applicant the excess number of parking spaces and the number of stacking and vacuum spaces in relation to the Fleis & VandenBrink traffic study.

Mr. Carlisle addressed architectural elevations and building materials, alternatives to seek relief of transparency requirements and pedestrian access to the second floor office use. He addressed Zoning Ordinance Section 5.04.E Big Beaver District Design Standards, Section 8.06 Site Plan Review Design Standards and Section 9.03 Special Use Approval Standards.

Mr. Savidant shared a video presentation prepared by the applicant.

Present were Gabriel Schuchman and Eric Harrison of El Car Wash, Mitchell Harvey of Stonefield Engineering & Design, Eric Meyers of Krieger Klatt Architects, and Julie Kroll of Fleis & VandenBrink.

Mr. Schuchman shared the history of the El Car Wash, its locations in Florida and their up and coming locations throughout Michigan. He addressed their community foundations and local sponsorships. Mr. Schuchman said the second floor of the car wash would be used by local non-profit organizations. He confirmed two interested tenants are *The Rainbow Connection* and *Jenna Kast Believe in Miracles Foundation*.

Ingrid Todt, Executive Director of *The Rainbow Connection*, said their foundation is proud to be a part of the start-up project of the El Car Wash and local communities. She said the office space would be used for their staff and client meetings.

Ms. Kroll said additional traffic from the proposed car wash would be negligible. She said traffic to and from a car wash is considered as pass-by trips. Ms. Kroll said the generation of traffic is not adding to the traffic but only adding to the turning movements at the driveway, redistributing the traffic to the use.

Mr. Harvey addressed the internal and external site circulation, noting they would be working with the RCOC (Road Commission of Oakland County) for designated turn lanes.

Mr. Meyers addressed the architectural design features and color scheme.

There was discussion on:

- Second floor office space.

- Prominence of entrance.
- Pedestrian access.
- Accessible parking spaces.
- Violation of Zoning Ordinance should there be an affiliation of office use to the car wash use.
- Signage to promote non-profit organization tenants.
- Feasibility study / market for a car wash.
- Two communications received by residents expressing concern with traffic impact.
- Gateway signage; *Welcome to Troy* sign/logo.
- Architectural building materials and color scheme.
- Compatibility of car wash use in the NN (Neighborhood Node) zoning district.
- Consideration by applicant to engage additional mixed uses to the site.

PUBLIC HEARING OPENED

- Jennifer Brady, 5074 Fedora Drive; spoke in support of the project.

PUBLIC HEARING CLOSED

Mr. Schuchman asked to postpone the item to a future meeting for consideration by a full Board.

Resolution # PC-2024-10-064

Moved by: Buechner
 Seconded by: Fox

RESOLVED, To postpone Special Use Approval and Preliminary Site Plan Approval for the proposed El Car Wash, Northwest corner of Long Lake and Dequindre (2955 and 2995 E Long Lake), Section 12, Currently Zoned NN (Neighborhood Node “J”) District, to a future date for consideration by a full Board.

Yes: All present (6)
 Absent: Faison, Malalahalli, Tagle

MOTION CARRIED

CARSON FISCHER, P.L.C.

4111 ANDOVER ROAD
WEST - SECOND FLOOR
BLOOMFIELD HILLS, MICHIGAN 48302-1924

ROBERT M. CARSON
ROBERT A. WEISBERG
JEFFREY B. SCHLUSSEL
CHRISTOPHER A. GROSMAN
DAVID E. SCHLACKMAN

OF COUNSEL
AMY CARSON SCHLUSSEL
TELEPHONE
(248) 644-4840
FACSIMILE
(248) 644-1832

October 29, 2024

VIA Email

City of Troy
Planning Department
500 West Big Beaver Road
Troy, Michigan 48084
Attn: Brent Savidant, Community Development Director

**Re: Proposed Auto Wash to be located at 2955 & 2995 East Long Lake Road,
Troy, Michigan (the Property")**

Dear Brent,

As you know, our office is counsel to El Car Wash ("Applicant"). This letter is being sent to supplement Applicant's September 11, 2024 correspondence and to further address comments and concerns raised at the City's October 22, 2024 Planning Commission meeting where consideration of Applicant's application was postponed to a future date.

Based on the suggestions and comments of the Planning Commission members, Applicant is pleased to re-submit a revised Site Development Plan dated October 29, 2024 prepared by Stonefield Engineering & Design (the "Site Plan") with the following material modifications:

1. The required parking for the non-related second-floor office has been relocated to an area immediately adjacent to the separate entryway for this office space and the ADA spaces were relocated closer to the entryway
2. As a result of the office parking relocation, the vacuum spaces have replaced the previous office parking spaces.
3. In order to further enhance the inter-pedestrian connections and communal gathering space, additional benches have been added to the southeast corner of the Property, along with a bike-repair station and an

area designated for the periodic use of an outdoor kitchen/bar for special communal events and occasions.

4. The western drive isle was angled to provide more of a turning radius into the stacking lane along with a yield sign added at the left turn into the stacking lane off Dequindre Rd.
5. Architecturally, Applicant has replaced the building's primary exterior material from EFIS to a more attractive and appealing brick. Additionally, as you will note, there is additional proposed signage for the second-floor space and a high-quality canopy over the second-floor entrance to further "activate" the entrance and provide easier identification for its employees and guests.

Because this mixed-use project includes an auto wash, it must meet the special use standards set forth in Section 9.03 of the City's Zoning Ordinance. More specifically, as related to each of the following criteria to be evaluated by the Planning Commission:

1. **Compatibility with Adjacent Uses.** The proposed mixed uses are intended to complement the neighboring retail and service establishments. Applicant intends to have a local non-profit lease or license the second-floor office space. The auto wash portion of the project is a much-needed amenity for this part of the City that does not have a car wash in close proximity. Additionally, this mixed-use project will enhance, benefit and compliment the surrounding commercial establishments. There is a drive-thru fast-food restaurant to the immediate west of the Property, a medical-services building to the immediate north, and a second fast food restaurant north of that. To the south, across Long Lake Road, is an automobile service and fueling station, with a drug store immediately adjacent to it. East of Dequindre, in Sterling Heights, is a large retail strip center containing various commercial establishments with two separate banking outparcels. An approximately Ten Million Dollar (\$10,000,000) investment in a new state of the art car wash will not unreasonably detract from or reduce the economic viability of any other uses within its vicinity, and in all likelihood, will generate additional investment in this Neighborhood Node and provide an economic boost to its neighbors and the surrounding area.
2. **Compatibility with the Master Plan.** Troy's Master Plan designates the Property and surrounding properties as a "Neighborhood Node" to serve as a

“go to” place to meet the basic needs of the community and to “play a critical role in the daily function, image, and quality of life and continued viability of the City.” The Neighborhood Node should be “where commercial, office, and mixed use development occurs.” This particular Neighborhood Node (Node “G”), designated under the Ordinance as a Site Type NN:A. Accordingly, within this mixed-use project that includes a first-floor auto wash with a separate dedicated non-related second floor office with the intention to lease it to a charitable organization whose focus is improving the lives of those in need embodies the stated desired goal for this particular node to be “[p]redominantly commercial, cater to both local needs and regional traffic, [with] new development and redevelopment should be mostly commercial, identifying opportunities for small office and mixed-use.” Applicant has worked with the City for over a year to present a Site Plan that attempts to bring this vision to fruition. “Auto Uses,” in this specific Site Type, are deemed a special use. According to data compiled by the US Census Bureau, each household in the City has an average of two cars. With a paucity of car washes in this portion of the City, the proposed development will provide a much needed service and amenity for the residents of this specific Neighborhood Node and those commuters traversing the arterial roads.

3. **Traffic Impact.** As noted above and in the Site Plan, the design of the proposed car wash attempts to minimize the negligible impact on traffic it may cause. The Site Plan was designed to account for traffic circulation. From the long access drive, the three stacking lanes, and with the ingress/egress to the Property intentionally located at the furthest points from the intersection, Applicant has gone to great lengths to address any concerns related to traffic. Applicant’s traffic study from Fleis & Vandenbrick confirms that the car wash will not materially increase car volumes on the arterial roads or create any vehicular traffic congestion.
4. **Impact on Public Services.** Based on preliminary investigations, Applicant believes all water, sewer and related utilities are available at the Property or the lot line and are adequate for Applicant’s proposed car wash facility and office space. Applicant’s proposed water reclamation system will minimize the amount of used water going into the City’s storm drainage system.
5. **Compliance with Zoning Ordinance Standards.** The proposed car wash will not create any additional burden to the municipality or its resources. It is not

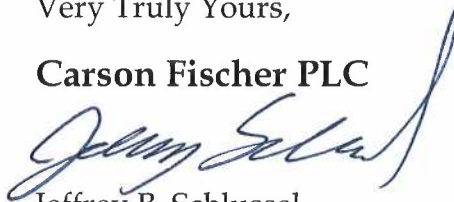
anticipated that there will be an additional need for public safety, public works or other municipal services. The re-development of the Property, and the ability to provide a needed amenity to this area of the City, will be a benefit to the City's residents and the overall economic welfare of the City.

6. **Impact on the Overall Environment.** The redevelopment of the Property can potentially serve as a catalyst for the redevelopment of this particular Neighborhood Node as envisioned by the City's Master Plan. The design and features of the El Car Wash will vastly improve the current vacant land and neglected, dated building currently on the Property. El Car Wash's commitment to the environment is evidenced by its investment in the latest technologies and innovations to conserve and reclaim water, its use of only biodegradable chemicals, and its removal of most waste solids from the limited amounts that are discharged into the sanitary sewer system.
7. **Special Use Approval Specific Requirements.** As detailed on the Site Plan, the proposed car wash satisfies all specific requirements of the City's Zoning Ordinance as it relates the Property or the operation of a car wash thereon.

Applicant looks forward to presenting the further revised Site Plan that incorporates many of the Planning Commission's prior comments and suggestions. Thank you for your attention to this matter and please feel free to contact me with any questions or concerns.

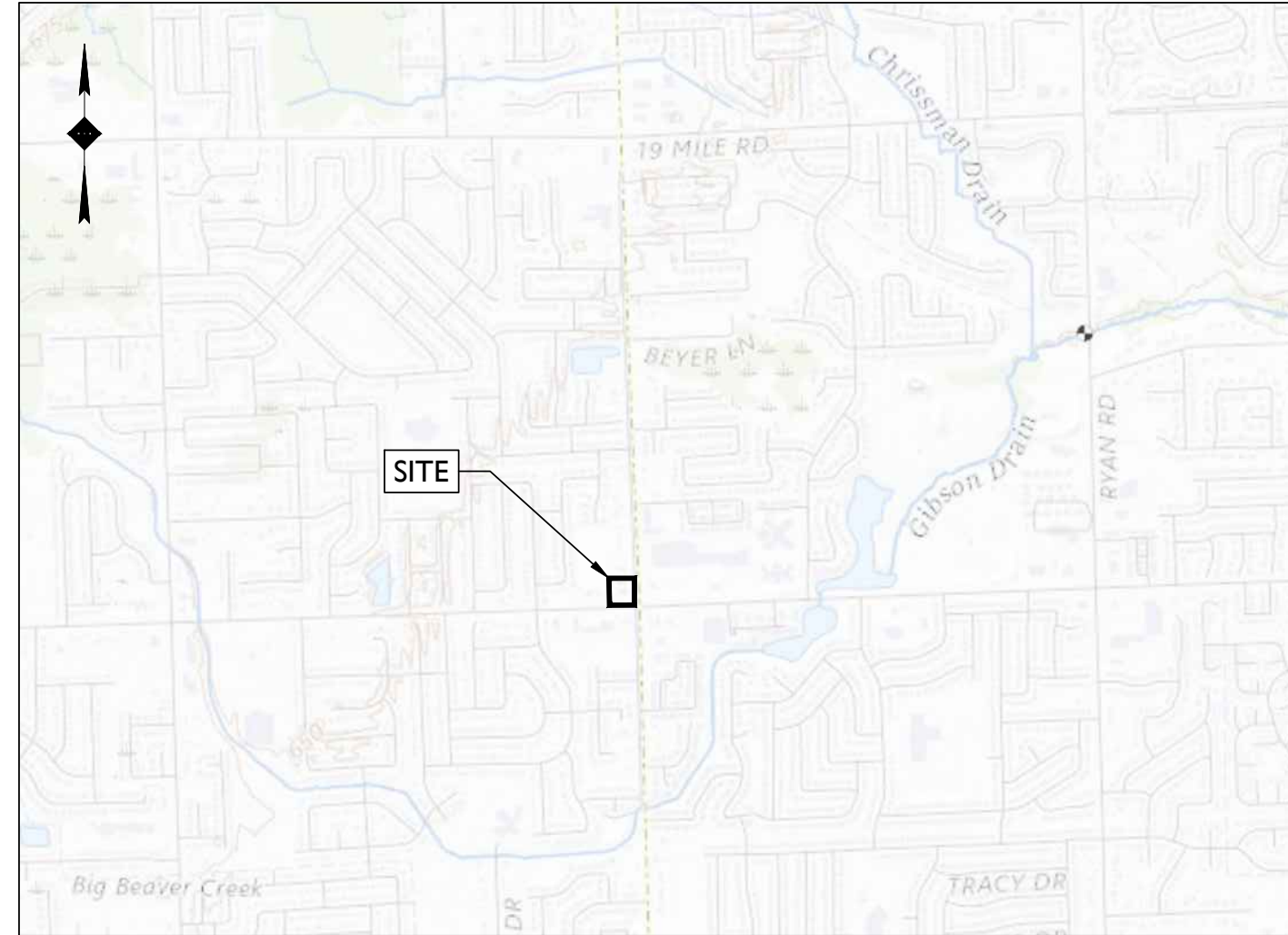
Very Truly Yours,

Carson Fischer PLC



Jeffrey B. Schlussel

cc: Client (w/o enc.)
Stonefield Engineering & Design (w/o enc.)



SOURCE: USGS ONLINE MAPS

LOCATION MAP

SCALE: 1" = 2,000'±

SITE DEVELOPMENT PLANS

FOR

EL CARWASH - E. LONG LAKE

**PROPOSED AUTO WASH
& OFFICE SPACE**

APPLICANT

NATIONAL EXPRESS WASH HOLDCO, LLC
30200 TELEGRAPH ROAD SUITE 205
BINGHAM FARMS, MI 48025
248-646-9999
SBURGNER@ALRIGUSA.COM

PARCEL ID: 20-12-479-045 & 20-12-476-049

2955 & 2995 EAST LONG LAKE ROAD

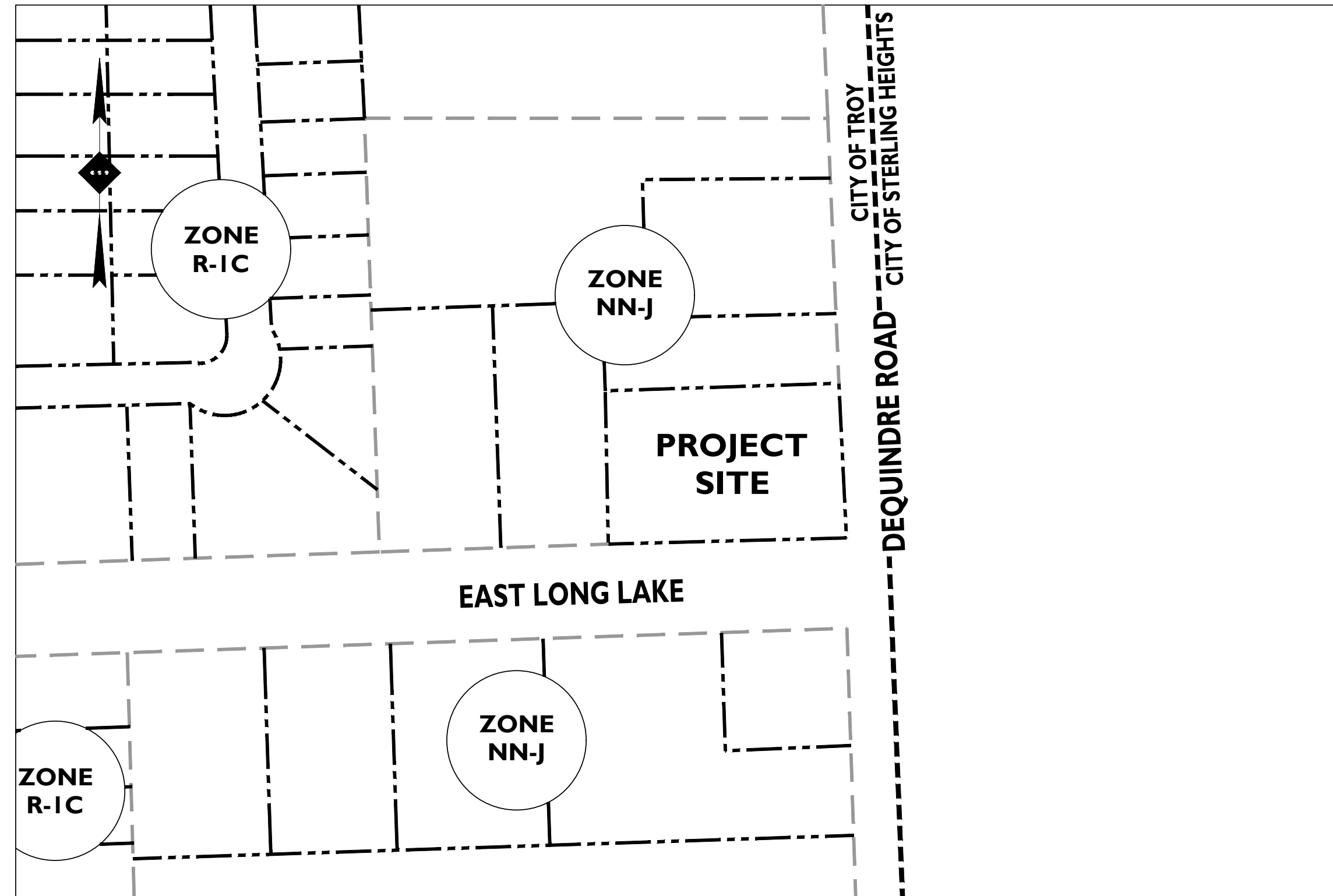
CITY OF TROY, OAKLAND COUNTY, MI 48085



SOURCE: GOOGLE EARTH PRO

AERIAL MAP

SCALE: 1" = 150'±



SOURCE: CITY OF TROY ZONING MAP

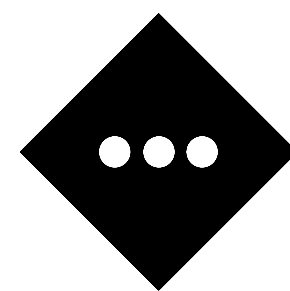
ZONING MAP

SCALE: 1" = 150'±

PLANS PREPARED BY:



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Phone 248.247.1115

PLAN REFERENCE MATERIALS:

- THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
 - ALTA/NSPS TOPOGRAPHIC SURVEY PREPARED BY KEM-TEC A GROUP OF COMPANIES, DATED: 09-27-2023; UPDATED 05-03-2024
 - ARCHITECTURAL PLANS PREPARED BY KREIGER KLATT ARCHITECTS, DATED: 01-19-2024; UPDATED 05-23-2024
 - GEOTECHNICAL REPORT
 - AERIAL MAP OBTAINED FROM GOOGLE EARTH PRO
 - LOCATION MAP OBTAINED FROM USGS ONLINE 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.

SHEET INDEX

DRAWING TITLE	SHEET #
COVER SHEET	C-1
SITE PLAN	C-2
GRADING PLAN	C-3
STORMWATER MANAGEMENT PLAN	C-4
UTILITY PLAN	C-5
LIGHTING PLAN	C-6
LANDSCAPING PLAN	C-7
CONSTRUCTION DETAILS	C-8 & C-9

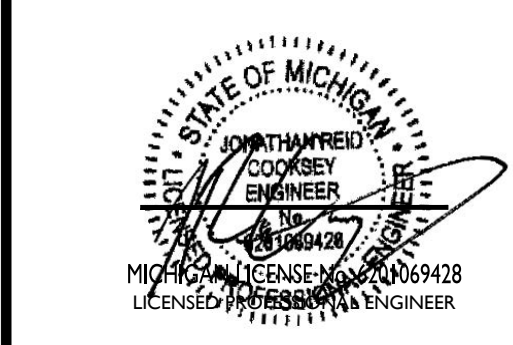
ADDITIONAL SHEETS

DRAWING TITLE	SHEET #
ALTA/NSPS TOPOGRAPHIC SURVEY	1 OF 1

SITE DEVELOPMENT PLANS

**EL CARWASH - E. LONG LAKE
PROPOSED AUTO WASH
& OFFICE SPACE**

PARCEL ID: 20-12-476-045 & 20-12-476-049
2955 & 2995 EAST LONG LAKE ROAD
CITY OF TROY
OAKLAND COUNTY, MI 48085



SCALE: AS SHOWN PROJECT ID: DET-2300163

TITLE:

COVER SHEET

DRAWING:

C-1



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NOT APPROVED FOR CONSTRUCTION

ISSUE	DATE	BY	DESCRIPTION
6	10/27/2024	VF	FOR SPECIAL LAND USE & SITE PLAN RESUBMISSION
5	10/23/2024	MH	REVISED PER SPECIAL LAND USE & SITE PLAN COMMENTS
4	09/10/2024	VF	REVISED PER SPECIAL LAND USE & SITE PLAN COMMENTS
3	07/27/2024	AF	FOR SPECIAL LAND USE & SITE PLAN APPROVAL
2	06/05/2024	VF	REVISED PER CITY COMMENTS
1	02/26/2024	VF & AF	FOR CLIENT REVIEW

LAND USE AND ZONING		
PARCEL ID: 20-12-476-045 & 20-12-476-049		
NEIGHBORHOOD NODE J DISTRICT (NN-J) BUILDING FORM (B)		
PROPOSED USE	SPECIAL APPROVAL LAND USE	
AUTO WASH	PERMITTED USE	
COMMUNITY OFFICE	PERMITTED USE	
ZONING REQUIREMENT	REQUIRED	PROPOSED
MINIMUM LOT AREA	15,000 SF	64,524 SF (± 1.5 AC)
MAXIMUM BUILDING HEIGHT	72 FT (6 STORIES)	32.2 FT (2 STORIES)
MINIMUM BUILDING HEIGHT	24 FT (2 STORIES)	32.2 FT (2 STORIES)
MAXIMUM BUILDING SETBACK	60 FT	30.0 FT
MINIMUM REAR YARD SETBACK	30 FT	118.7 FT
MINIMUM OPEN SPACE	15% (9,679 SF)	32.9% (21,247 SF)
MINIMUM LANDSCAPING	20% (12,905 SF)	32.9% (21,247 SF)
MINIMUM ROW GREENBELT	10 FT	10.2 FT
MINIMUM DRIVEWAY TO INTERSECTION SPACING*	125 FT	233.4 FT
MAXIMUM BUILDING LINE PARKING ⁽¹⁾	100 FT	0 FT
MINIMUM CLEAR VISION	25 FT	25 FT

(*) MEASURED FROM CENTERLINE TO CENTERLINE

- (1) §5.06.E.4.II: FOR A CORNER LOT, SHALL BE NO MORE THAN 50% OF THE SITE'S CUMULATIVE LINEAR FEET ALONG THE REQUIRED BUILDING LINES OR 100 FT, WHICHEVER IS LESS, SHALL BE OCCUPIED BY PARKING. THE BUILDING SHALL BE LOCATED IN THE CORNER OF THE LOT ADJACENT TO THE INTERSECTION.
- (2) §5.06.E.1: THE PRIMARY BUILDING ENTRANCE SHALL BE CLEARLY IDENTIFIABLE AND USEABLE AND LOCATED IN THE FRONT FACADE PARALLEL TO THE STREET.

OFF-STREET PARKING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 13.06.G	AUTO WASH: 2 SPACES PLUS 1 SPACE PER EMPLOYEE (4 EMPLOYEES) (1 SPACE / EMPLOYEE) = 4 SPACES OFFICE: 1 SPACES PER 300 SF OF GFA (2,120 SF) (1 SPACE / 300 SF) = 7 SPACES TOTAL: 2 + 4 + 7 = 13 SPACES	7 SPACES (REG.) 30 SPACES (VAC.) TOTAL: 37 SPACES
§ 13.06.F.3	MAXIMUM PARKING SPACE REQUIREMENT: 20% ABOVE MINIMUM = 16 SPACES ⁽¹⁾	37 SPACES (W)
§ 13.06.G	STACKING SPACE REQUIREMENT: 12 SPACES PER BAY (1 BAY) (12 SPACES / BAY) = 12 SPACES	LANE 1: 7 SPACES LANE 2: 7 SPACES LANE 3: 7 SPACES TOTAL: 21 SPACES 3 EXIT SPACES
§ 13.06.J.4.A	PLUS 2 SPACES AT EXIT FOR DRYING 90° PARKING REQUIREMENT: 9.5 FT X 19 FT W/ 24 FT AISLE	12 FT X 19 FT W/ 24 FT AISLE
§ 13.06.J.7	MINIMUM SIDEWALK WIDTH: 7 FT	7 FT
§ 13.10.D	LOADING SPACE REQUIREMENT: 10 FT X 50 FT OR 500 SF	TO OCCUR OFF HOURS

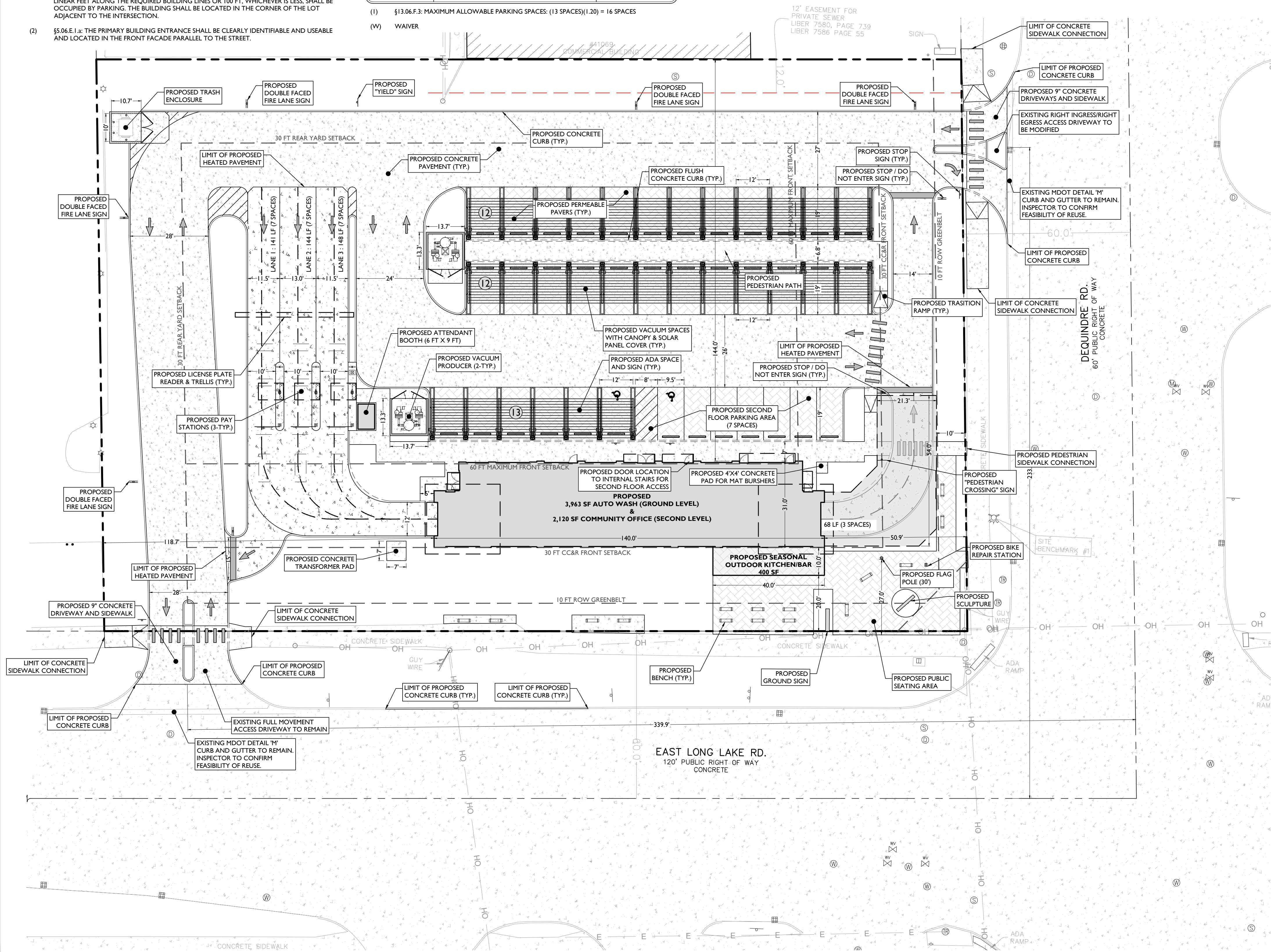
- (1) §13.06.F.3: MAXIMUM ALLOWABLE PARKING SPACES: (13 SPACES) (1.20) = 16 SPACES
- (W) WAIVER

SIGNAGE REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
TABLE 85.02.05	MINIMUM SIGN SETBACK: 0 FT MAXIMUM SIGN HEIGHT: 10 FT	0 FT ≤10 FT
§ 85.03.05	FLAG POLE REQUIREMENTS: SETBACK: TBD MAXIMUM HEIGHT: 30 FT	27.0 FT 30 FT

- (EN) EXISTING NON-CONFORMITY
(TBD) TO BE DETERMINED

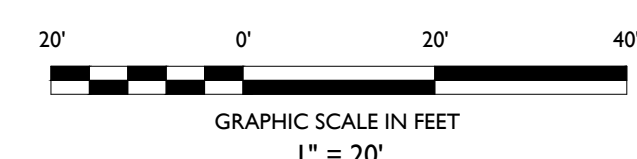
CC&R REQUIREMENTS		
CC&R REQUIREMENT	REQUIRED	PROPOSED
MINIMUM FIRST FLOOR AREA	600 SF	3,963 SF
30 FT FRONT BUILDING SETBACK (E. LONG LAKE)	30 FT	15.0 FT (D)
30 FT FRONT BUILDING SETBACK (DEQUINDRE)	30 FT	10.2 FT (D)

- (D) DEVIANCE



SYMBOL	DESCRIPTION
---	PROPERTY LINE
---	SETBACK LINE
---	PROPOSED CURB
---	PROPOSED FLUSH CURB
---	PROPOSED MOUNTABLE CURB
---	PROPOSED SIGNS / BOLLARDS
---	PROPOSED BUILDING
---	PROPOSED CONCRETE
---	PROPOSED BUILDING DOORS
---	PROPOSED HEATED CONCRETE
---	PROPOSED PERVIOUS CONCRETE PAVERS

- GENERAL NOTES**
- 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.
 - 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.
 - 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.
 - 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.
 - THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
 - 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.
 - 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.
 - CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW BY STONEFIELD ENGINEERING & DESIGN, LLC. WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
 - THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
 - 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.
 - THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
 - 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.



FOR SPECIAL LAND USE & SITE PLAN RESUBMISSION	REVISOR	DATE	DESCRIPTION
VF	10/29/2024		
MH	10/23/2024		
VF	09/10/2024		
AF	07/29/2024		
VF	06/05/2024		
VF & AF	02/26/2024		

NOT APPROVED FOR CONSTRUCTION

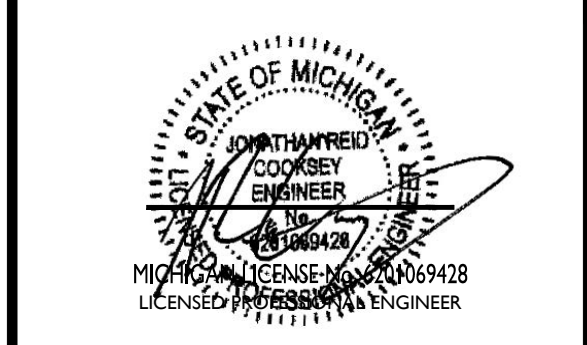
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Phone 248.247.1115

EL CARWASH - E. LONG LAKE
PROPOSED AUTO WASH
& OFFICE SPACE

PARCEL ID: 20-12-476-045 & 20-12-476-049
2955 & 2995 EAST LONG LAKE ROAD
CITY OF TROY
OAKLAND COUNTY, MI 48068



STONEFIELD
engineering & design

SCALE: 1" = 20' PROJECT ID: DET-2300163

TITLE: SITE PLAN

DRAWING: C-2

MANHOLE SCHEDULE

NUM	TYPE	RIM (FT)	SIZE (IN)	DIR	INV ELEV (FT)	NUM	TYPE	RIM (FT)	SIZE (IN)	DIR	INV ELEV (FT)				
11069	STORM MANHOLE	642.68	15	NW	638.43	11734	STORM MANHOLE	642.87	12	SE	636.47				
642.68	15	SW	638.38	642.87	12	NE	639.62	642.87	12	W	636.23				
11079	STORM MANHOLE	643.56	12	E	636.44	11740	CATCH BASIN	642.87	12	NW	638.17				
643.56	15	S	636.46	15000	CATCH BASIN	642.68	12	E	639.68	642.68	12	N	639.68		
11438	CATCH BASIN	641.95	12	E	631.30	642.68	12	N	639.68	15002	CATCH BASIN	641.44	T/WATER	637.94	
11467	CATCH BASIN	642.06	12	N	639.11	15002	CATCH BASIN	641.44	T/WATER	637.94	643.41	15	NE	638.31	
642.06	12	W	639.16	643.41	15	NE	638.31	642.06	15	SE	638.76	643.41	12	S	636.61
642.06	15	SE	638.76	643.41	12	W	636.66	642.45	12	S	639.75	643.41	12	W	636.70
11490	CATCH BASIN	642.45	12	S	639.75	85137	STORM MANHOLE	642.50	14	N	626.70	642.50	12	W	635.40
11571	CATCH BASIN	642.71	12	W	640.31	642.50	14	S	626.40	643.24	15	N	634.14		
11601	CATCH BASIN	642.30	12	E	639.95	642.50	12	W	635.40	643.24	15	S	634.09		
642.30	12	S	638.65	643.24	15	S	634.09	642.42	12	N	639.82	643.24	8	W	635.19
11638	CATCH BASIN	642.42	12	N	639.82	85138	SANITARY MANHOLE	643.24	15	N	634.14	643.24	15	N	633.46
642.42	12	SW	639.72	643.24	8	W	635.19	642.72	12	S	640.52	641.85	12	NW	637.85
11666	CATCH BASIN	642.72	12	S	640.52	85140	STORM MANHOLE	641.85	12	NE	635.25	641.85	12	E	635.25
11695	STORM MANHOLE	643.35	12	N	638.95	643.11	15	N	633.46	643.11	15	N	633.46		
643.35	12	E	636.65	643.11	15	N	633.46	643.35	12	SE	636.75	643.11	18	W	633.41
643.35	12	SE	636.75	643.11	18	W	633.41								

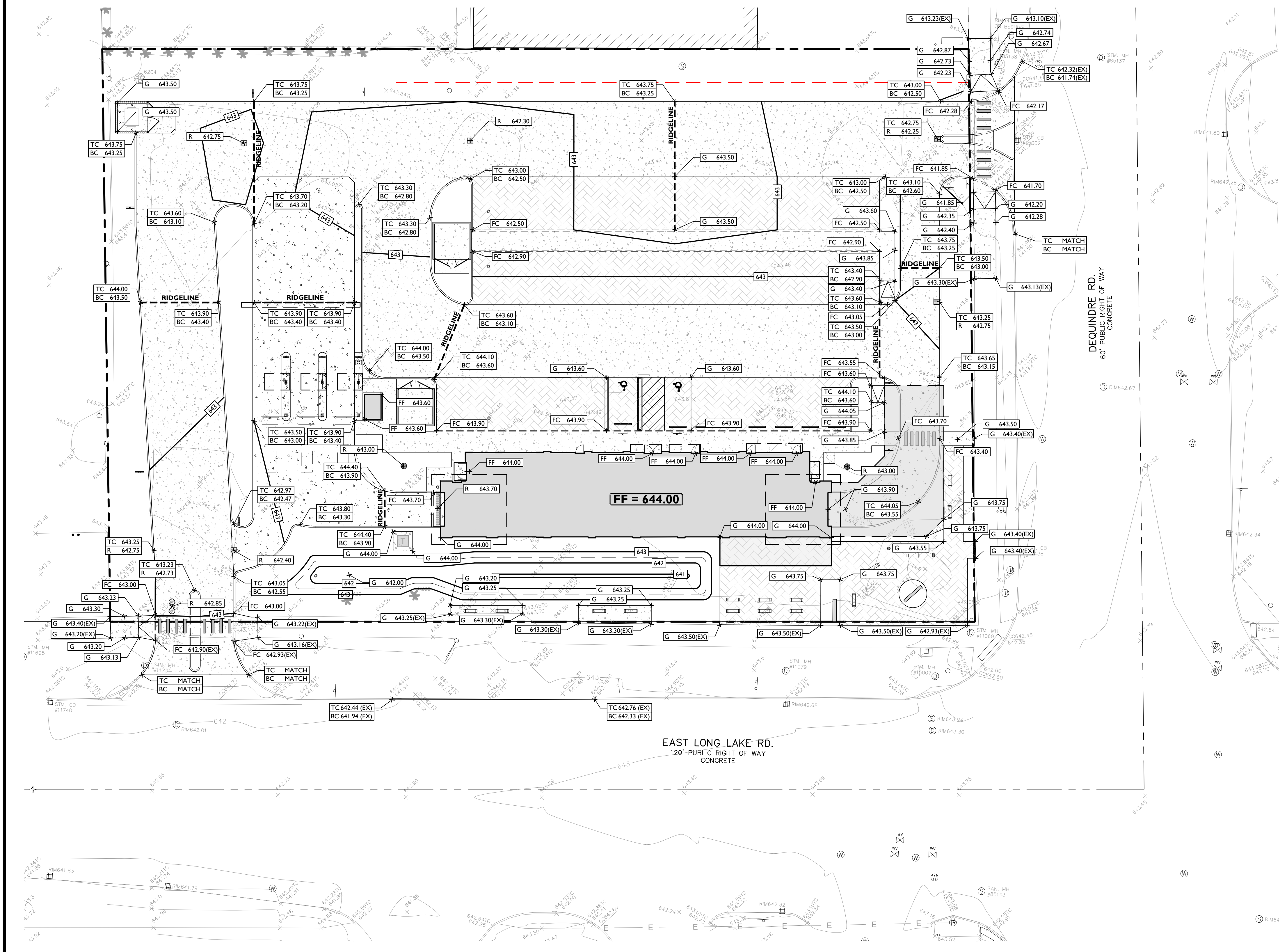
SYMBOL	DESCRIPTION
---	PROPERTY LINE
100	PROPOSED GRADING CONTOUR
---	PROPOSED GRADING RIDGELINE
X G 100.00	PROPOSED GRADE SPOT SHOT
X TC 100.50 BC 100.00	PROPOSED TOP OF CURB / BOTTOM OF CURB SPOT SHOT
X FC 100.00	PROPOSED FLUSH CURB SPOT SHOT
X FF 100.00	PROPOSED FINISHED FLOOR SPOT SHOT

GRADING NOTES

- ALL SOIL AND MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS. ANY GROUNDWATER DE-WATERING PRACTICES SHALL BE PERFORMED UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE DISCHARGE OF DE-WATERED GROUNDWATER. ALL SOIL IMPORTED TO THE SITE SHALL BE CERTIFIED CLEAN FILL. 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 STRUCTURES AND STABILITY OF THE SURROUNDING SOILS.
- PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 4 INCHES TO 7 INCHES ABOVE EXISTING GRADES UNLESS OTHERWISE NOTED. THE CONTRACTOR WILL SUPPLY ALL STAKEOUT CURB GRADE SHEETS TO STONEFIELD 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 ANY APPLICABLE MUNICIPAL, COUNTY, STATE AND/OR UTILITY AUTHORITY REGULATIONS.
- MINIMUM SLOPE REQUIREMENTS TO PREVENT PONDING SHALL BE AS FOLLOWS:
 - CURB GUTTER: 0.50%
 - CONCRETE SURFACES: 1.00%
 - ASPHALT SURFACES: 1.00%
- A MINIMUM SLOPE OF 1:00% SHALL BE PROVIDED AWAY FROM ALL BUILDINGS. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FROM THE BUILDING IS ACHIEVED AND SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IF THIS CONDITION CANNOT BE MET. FOR PROJECTS WHERE BASEMENTS ARE PROPOSED, THE DEVELOPER IS RESPONSIBLE TO DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED STRUCTURE. IF GROUNDWATER IS ENCOUNTERED WITHIN THE BASEMENT AREA, SPECIAL CONSTRUCTION METHODS SHALL BE UTILIZED AND REVIEWED/APPROVED BY THE CONSTRUCTION CODE OFFICIAL. IF SLUMP PUMPS ARE UTILIZED, ALL DISCHARGES SHALL BE CONNECTED DIRECTLY TO THE PUBLIC STORM SEWER SYSTEM WITH APPROVAL FROM THE GOVERNING STORM SEWER SYSTEM AUTHORITY.

ADA NOTES

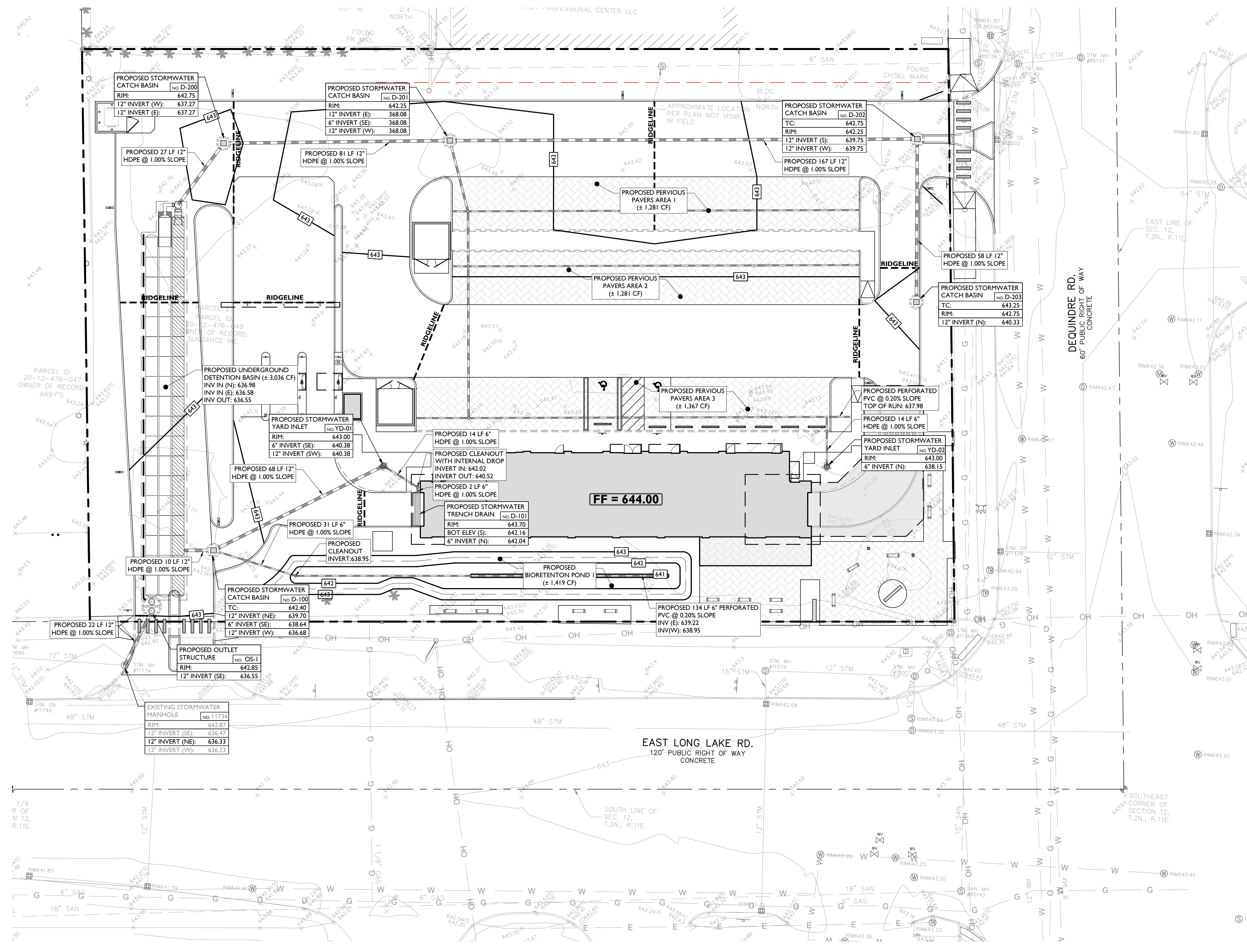
- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION WITHIN THE ADA PARKING SPACES AND ACCESS AISLES.
- THE CONTRACTOR SHALL PROVIDE COMPLIANT SIGNAGE AT ALL ADA PARKING AREAS IN ACCORDANCE WITH STATE GUIDELINES.
- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 5.00% RUNNING SLOPE AND A MAXIMUM OF 2.00% CROSS SLOPE ALONG WALKWAYS 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.
- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION AT ALL LANDINGS, LANDINGS INCLUDE, BUT ARE NOT LIMITED TO, THE TOP AND BOTTOM OF AN ACCESSIBLE RAMP. AT ACCESSIBLE BUILDING ENTRANCES, AT AN AREA IN FRONT OF A WALK-UP ATM, AND AT TURNING SPACES ALONG THE ACCESSIBLE PATH 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 8.33% 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 ALTERATIONS, A CURB RAMP FLARE SHALL NOT HAVE A SLOPE GREATER THAN 8.33% IF A LANDING AREA IS NOT PROVIDED AT THE TOP OF THE RAMP. CURBS RAMPS SHALL NOT RISE MORE THAN 6 INCHES IN ELEVATION WITHOUT A HANDRAIL. THE CLEAR WIDTH OF A CURB RAMP SHALL BE NO LESS THAN 36 INCHES WIDE.
- 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 ELEVATION WITHOUT A LANDING AREA IN BETWEEN RAMP RUNS. LANDING AREAS SHALL ALSO 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 ENSURE A MAXIMUM OF 1/4" INCHES VERTICAL CHANGE IN LEVEL ALONG THE ACCESSIBLE PATH. WHERE A CHANGE IN LEVEL BETWEEN 1/4" INCHES AND 1/2" INCHES EXISTS, CONTRACTOR SHALL ENSURE THAT THE TOP 1/4" INCH CHANGE IN LEVEL IS BEVELED WITH A SLOPE NOT STEEPER THAN 1 UNIT VERTICAL AND 2 UNITS HORIZONTAL (2:1 SLOPE).
- THE CONTRACTOR SHALL ENSURE THAT ANY OPENINGS (GAPS OR HORIZONTAL SEPARATIONS) ALONG THE ACCESSIBLE PATH SHALL NOT ALLOW PASSAGE OF A SPHERE GREATER THAN 1/2" INCH.



<p>FOR SPECIAL LAND USE & SITE PLAN RESUBMISSION</p> <p>REVISED PER SPECIAL LAND USE & SITE PLAN COMMENTS</p> <p>FOR SPECIAL LAND USE & SITE PLAN APPROVAL</p> <p>REVISED PER CITY COMMENTS</p> <p>FOR CLIENT REVIEW</p>	<p>DESCRIPTION</p> <p>BY</p> <p>DATE</p> <p>ISSUE</p>
<p>6 10/27/2024</p> <p>5 10/23/2024</p> <p>4 09/10/2024</p> <p>3 07/29/2024</p> <p>2 06/05/2024</p> <p>1 02/26/2024</p>	<p>VF</p> <p>MH</p> <p>VF</p> <p>AF</p> <p>VF</p> <p>VF & AF</p>
<p>NOT APPROVED FOR CONSTRUCTION</p>	
<p>STONEFIELD engineering & design</p> <p>Birmingham, MI • New York, NY • Salem, MA Princeton, NJ • Tampa, FL • Rutherford, NJ www.stonefielddesign.com</p> <p>555 S. Old Woodward Avenue, Suite 12L, Birmingham, MI 48009 Phone 248.247.1115</p>	
<p>SITE DEVELOPMENT PLANS</p> <p>EL CARWASH - E. LONG LAKE PROPOSED AUTO WASH & OFFICE SPACE</p> <p>PARCEL ID: 20-12-476-046 & 20-12-476-049 2955 & 2995 EAST LONG LAKE ROAD CITY OF TROY OKLAHOMA COUNTY, MI 48068</p>	
<p>STONEFIELD engineering & design</p> <p>SCALE: 1" = 20' PROJECT ID: DET-2300163</p> <p>TITLE:</p> <p>GRADING PLAN</p> <p>DRAWING:</p> <p>C-3</p>	

MANHOLE SCHEDULE

NUM	TYPE	RIM (FT)	SIZE (IN)	DIR	INV ELEV (FT)	NUM	TYPE	RIM (FT)	SIZE (IN)	DIR	INV ELEV (FT)
11069	STORM MANHOLE	642.68	15	NW	638.43	11734	STORM MANHOLE	642.87	12	SE	636.47
		642.68	15	SW	638.38			642.87	15	NE	639.62
11079	STORM MANHOLE	643.56	12	E	636.44	11740	CATCH BASIN	642.87	12	W	636.23
		643.56	15	S	636.46	15000	CATCH BASIN	642.68	12	E	639.68
11438	CATCH BASIN	641.95	12	E	631.30	15002	CATCH BASIN	642.68	12	N	639.68
11467	CATCH BASIN	642.06	12	N	639.11	15007	STORM MANHOLE	643.41	15	NE	638.31
		642.06	12	W	639.16			643.41	12	S	636.61
11490	CATCH BASIN	642.45	12	S	639.75	85137	STORM MANHOLE	643.41	12	W	636.66
11571	CATCH BASIN	642.71	12	W	640.31			642.50	54	N	636.70
11601	CATCH BASIN	642.30	12	E	639.95			642.50	12	W	635.40
		642.30	12	S	638.85	85138	SANITARY MANHOLE	643.24	15	N	634.14
11638	CATCH BASIN	642.42	12	N	639.82			643.24	8	W	635.19
		642.42	15	SW	639.72			641.85	12	NW	637.85
11666	CATCH BASIN	642.72	12	S	640.52	85140	STORM MANHOLE	641.85	12	E	635.25
11695	STORM MANHOLE	643.35	12	N	638.95			641.85	12	SE	637.70
		643.35	12	E	636.65	85143	SANITARY MANHOLE	643.11	15	N	633.46
		643.35	12	SE	636.75			643.11	18	W	633.41



SYMBOL	DESCRIPTION
---	PROPERTY LINE
---	PROPOSED GRADING CONTOUR
---	PROPOSED GRADING RIDGELINE
---	PROPOSED STORMWATER STRUCTURES
---	PROPOSED STORMWATER PIPING
---	PROPOSED UNDERGROUND OUTLET STRUCTURE

DRAINAGE AND UTILITY NOTES

- THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR STORMWATER IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
- CONTRACTOR SHALL START CONSTRUCTION OF STORM LINES AT THE LOWEST INVERT AND WORK UP GRADIENT.
- THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

EXCAVATION, SOIL PREPARATION, AND DEWATERING NOTES

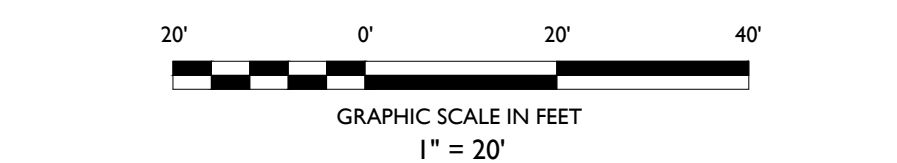
- THE CONTRACTOR IS REQUIRED TO REVIEW THE REFERENCED GEOTECHNICAL DOCUMENTS PRIOR TO CONSTRUCTION. THESE DOCUMENTS SHALL BE CONSIDERED A PART OF THE PLAN SET.
- THE CONTRACTOR IS REQUIRED TO PREPARE SUBGRADE SOILS BENEATH ALL PROPOSED IMPROVEMENTS AND BACKFILL ALL EXCAVATIONS IN ACCORDANCE WITH RECOMMENDATIONS BY THE GEOTECHNICAL ENGINEER OF RECORD.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SHORING FOR ALL EXCAVATIONS AS REQUIRED. CONTRACTOR SHALL HAVE THE SHORING DESIGN PREPARED BY A QUALIFIED PROFESSIONAL SHORING DESIGNER. THE CONTRACTOR SHALL OBTAIN ANY REQUIRED PERMITS FOR DEWATERING OPERATIONS AND GROUNDWATER DISPOSAL.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL OPEN EXCAVATIONS ARE PERFORMED AND PROTECTED IN ACCORDANCE WITH THE LATEST OSHA REGULATIONS.
- 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.

STORMWATER INFILTRATION BMP CONSTRUCTION NOTES

- PRIOR TO THE START OF CONSTRUCTION, ANY AREA DESIGNATED TO BE USED FOR AN INFILTRATION BMP (BASIN, BIOTENTION AREA, ETC.) SHALL BE FENCED OFF AND SHALL NOT BE UTILIZED AS STORAGE FOR CONSTRUCTION EQUIPMENT OR AS A STOCKPILE AREA FOR CONSTRUCTION MATERIALS. NO ACTIVITY SHALL BE PERMITTED WITHIN THE INFILTRATION BASIN AREA UNLESS RELATED TO THE CONSTRUCTION OF THE INFILTRATION BASIN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL SUBCONTRACTORS OF BASIN RESTRICTIONS.
- THE CONTRACTOR SHALL MAKE EVERY EFFORT, WHERE PRACTICAL, TO AVOID SUBGRADE SOIL COMPACTION IN THE AREAS DESIGNATED TO BE USED FOR AN INFILTRATION BMP.
- ALL EXCAVATION WITHIN THE LIMITS OF ANY INFILTRATION BMP SHALL BE PERFORMED WITH THE LIGHTEST PRACTICAL EXCAVATION EQUIPMENT. ALL EXCAVATION EQUIPMENT SHALL BE PLACED OUTSIDE THE LIMITS OF THE BASIN. WHERE FEASIBLE, THE USE OF LIGHT-WEIGHT, RUBBER-TIRED EQUIPMENT (LESS THAN 8 PSI APPLIED TO THE GROUND SURFACE) IS RECOMMENDED WITHIN THE BASIN LIMITS.
- THE SEQUENCE OF SITE CONSTRUCTION SHALL BE COORDINATED WITH BASIN CONSTRUCTION TO ADHERE TO SEQUENCING LIMITATIONS.
- DURING THE FINAL GRADING OF AN INFILTRATION BASIN, THE BOTTOM OF THE BASIN SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW AND THEN SMOOTHED OUT WITH A LEVELING DRAW OR EQUIVALENT GRADING EQUIPMENT. ALL GRADING EQUIPMENT SHALL BE LOCATED OUTSIDE OF THE BASIN BOTTOM WHERE FEASIBLE.
- FOLLOWING CONSTRUCTION OF AN INFILTRATION BASIN, SOIL INFILTRATION TESTING BY A LICENSED GEOTECHNICAL ENGINEER IS REQUIRED TO CERTIFY COMPLIANCE WITH THE DESIGN INFILTRATION RATES IN ACCORDANCE WITH APPENDIX E OF THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION'S BEST MANAGEMENT PRACTICES MANUAL, LATEST EDITION. IF THE FIELD INFILTRATION RATES ARE LOWER THAN THE RATE USED DURING DESIGN, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING IMMEDIATELY TO DETERMINE THE APPROPRIATE COURSE OF ACTION.
- THE CONTRACTOR SHALL NOTIFY THE MUNICIPALITY TO DETERMINE IF WITNESS TESTING IS REQUIRED DURING INFILTRATION BASIN EXCAVATION AND/OR SOIL INFILTRATION TESTING.

STORMWATER UNDERGROUND BMP CONSTRUCTION NOTES

- THE CONTRACTOR SHALL INSTALL AND BACKFILL THE UNDERGROUND BMP IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
- UNDERGROUND BASINS SHALL UTILIZE A STONE BACKFILL WITH A MINIMUM VOID RATIO OF 40%.
- NO CONSTRUCTION LOADING OVER UNDERGROUND BASINS IS PERMITTED UNTIL BACKFILL IS COMPLETE PER THE MANUFACTURER'S SPECIFICATIONS. NO VEHICLES SHALL BE STAGED OR OPERATE FROM A FIXED POSITION OVER THE BASIN.



FOR SPECIAL LAND USE & SITE PLAN RESUBMISSION	REVISOR	DATE	DESCRIPTION
VF	MH	10/27/2024	BY
VF	VF	10/23/2024	DATE
VF	AF	09/10/2024	ISSUE
VF	VF	07/29/2024	
VF & AF	VF & AF	06/05/2024	
		02/26/2024	

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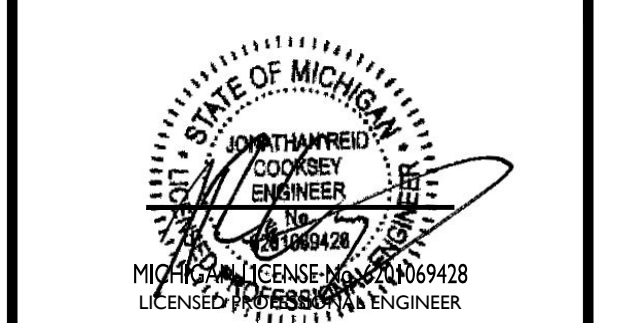
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Phone 248.247.1115

SITE DEVELOPMENT PLANS

EL CARWASH - E. LONG LAKE
PROPOSED AUTO WASH
& OFFICE SPACE

PARCEL ID: 20-12-476-045 & 20-12-476-049
2955 & 2995 EAST LONG LAKE ROAD
CITY OF TROY
OKLAHOMA COUNTY, MI 48068



STONEFIELD
engineering & design

SCALE: 1" = 20' PROJECT ID: DET-2300163

TITLE: **STORMWATER MANAGEMENT PLAN**

DRAWING: **C-4**

FOR SPECIAL LAND USE & SITE PLAN RESUBMISSION	FOR SPECIAL LAND USE & SITE PLAN COMMENTS	FOR SPECIAL LAND USE & SITE PLAN APPROVAL	FOR CLIENT REVIEW	DATE	BY	ISSUE	DESCRIPTION
VF	MH	VF	AF				
6	10/27/2024	5	10/23/2024	4	09/10/2024	3	07/29/2024
2	06/05/2024	1	02/26/2024				

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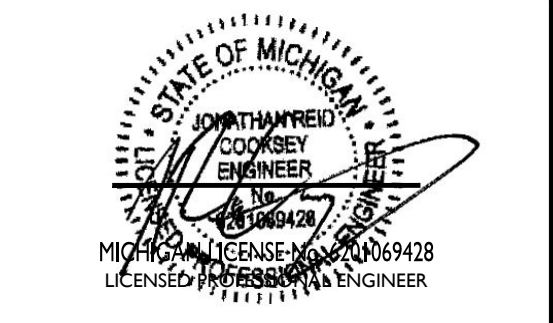
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SITE DEVELOPMENT PLANS

EL CARWASH - E. LONG LAKE
PROPOSED AUTO WASH
& OFFICE SPACE

PARCEL ID: 20-12-476-045 & 20-12-476-049
2955 & 2995 EAST LONG LAKE ROAD
CITY OF TROY
OAKLAND COUNTY, MI 48065



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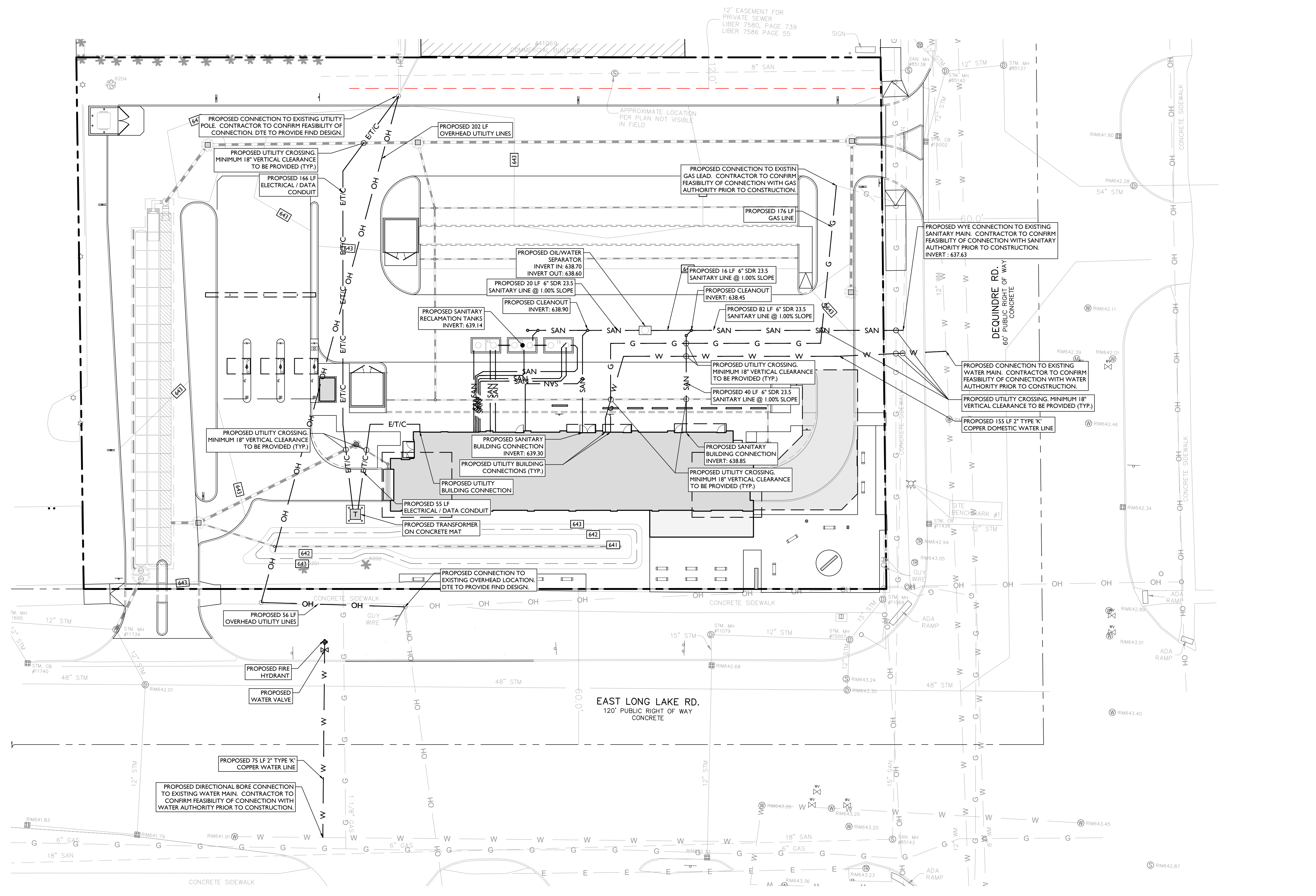
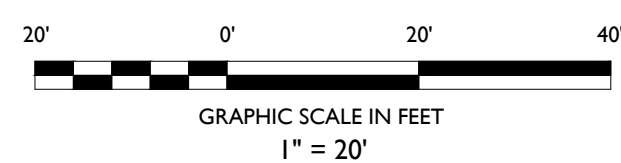
SCALE: 1" = 20' PROJECT ID: DET-2300163

TITLE: **UTILITY PLAN**

DRAWING: **C-5**

SYMBOL	DESCRIPTION
---	PROPERTY LINE
SAN	PROPOSED SANITARY LATERAL
W	PROPOSED DOMESTIC WATER SERVICE
E/T/C	PROPOSED ELECTRICAL/DATA CONDUITS
OH	PROPOSED OVERHEAD WIRES
G	PROPOSED GAS LINE
○	PROPOSED SANITARY MANHOLE / CLEANOUT
◻	PROPOSED TRANSFORMER ON CONCRETE PAD WITH BOLLARDS

- DRAINAGE AND UTILITY NOTES**
- THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING.
 - THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
 - THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY EXISTING UTILITY IDENTIFIED TO REMAIN WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
 - A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
 - ALL WATER LINES SHALL BE VERTICALLY SEPARATED ABOVE SANITARY SEWER LINES BY A MINIMUM DISTANCE OF 18 INCHES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
 - THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR WATER AND SANITARY SEWER CONNECTION IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
 - THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNING AUTHORITY.
 - CONTRACTOR SHALL START CONSTRUCTION OF ANY SANITARY SEWER AT THE LOWEST INVERT AND WORK UP-GRADE.
 - THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT HAVE BEEN CAPPED, ABANDONED, OR RELOCATED BASED ON THE DEMOLITION/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
 - THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

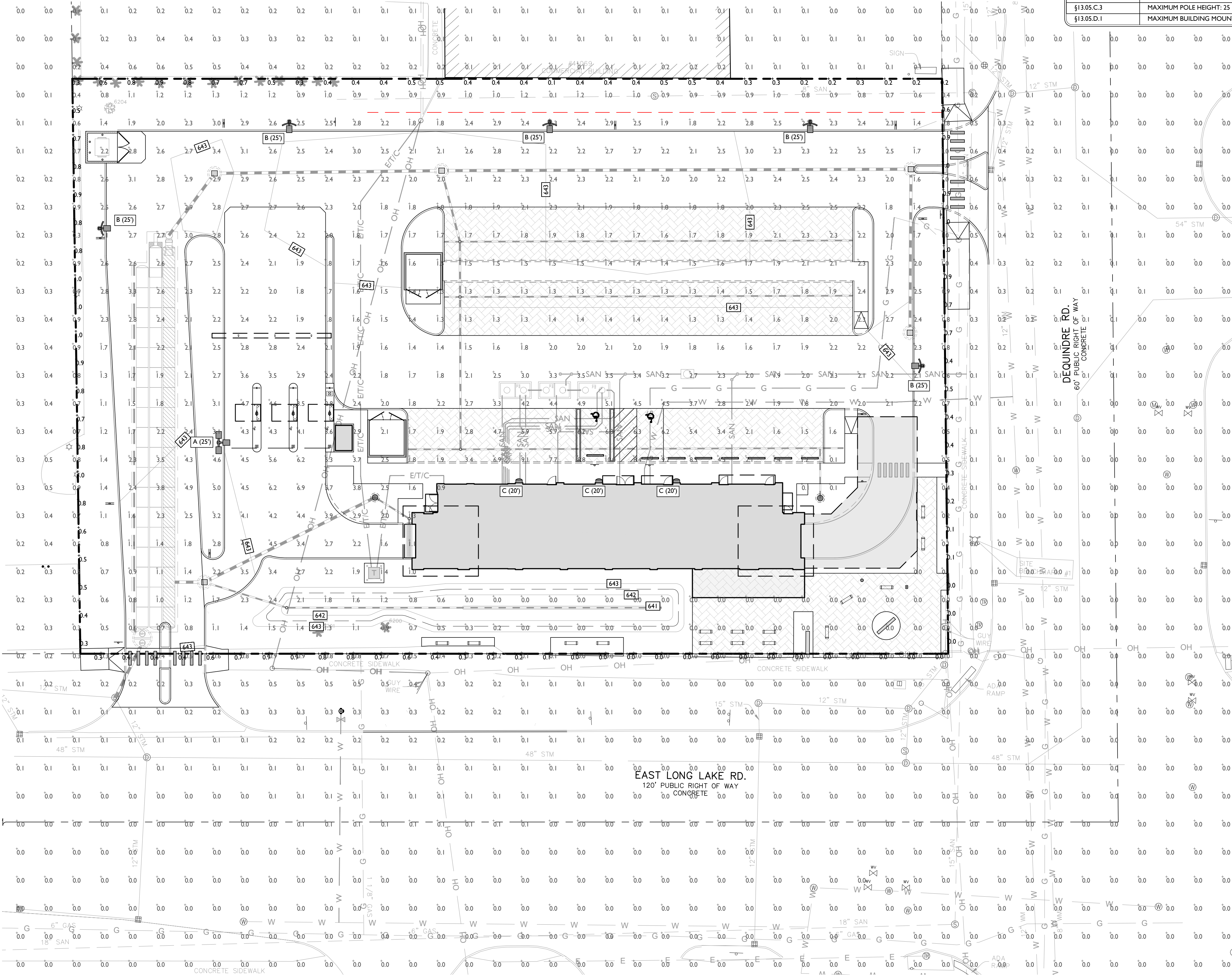


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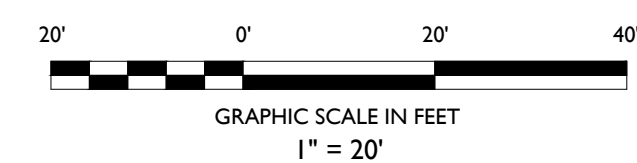
PROPOSED LUMINAIRE SCHEDULE							
SYMBOL	LABEL	QUANTITY	SECURITY LIGHTING	DISTRIBUTION	LLF	MANUFACTURER	IES FILE
	A	1	EATON LUMARK PREVAIL AND FIXTURE COMBO W/ HOUSE SIDE SHIELD (3 FIXTURES @ 90°)	TYPE IV	0.9	EATON	PRV-C40-D-UNV-T4-BZ-7030-HSS
	B	5	EATON LUMARK PREVAIL AND FIXTURE COMBO W/ HOUSE SIDE SHIELD	TYPE IV	0.9	EATON	PRV-C40-D-UNV-T4-BZ-7030-HSS
	C	3	XTOR CROSSTOUR MAXX LED WALL SCONCE (XTOR I2BRL)	TYPE II	0.9	EATON	XTOR I2BRL

LIGHTING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§13.05.C.2	LIGHT LEVELS:	
	MAXIMUM DURING BUSINESS HOURS: 20 FC	10.0 FC
	MAXIMUM AFTER BUSINESS HOURS: 10 FC	10.0 FC
§13.05.C.3	NON-RESIDENTIALLY ZONED PROPERTY LINE: 1 FC	1.0 FC
	MAXIMUM POLE HEIGHT: 25 FT	25 FT
§13.05.D.1	MAXIMUM BUILDING MOUNTING HEIGHT: 20 FT	20 FT

SYMBOL	DESCRIPTION
A (XX')	PROPOSED LIGHTING FIXTURE (MOUNTING HEIGHT)
XX	PROPOSED LIGHTING INTENSITY (FOOTCANDLES)



- 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 ELECTRICAL 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.



FOR SPECIAL LAND USE & SITE PLAN RESUBMISSION	FOR SPECIAL LAND USE & SITE PLAN COMMENTS	FOR SPECIAL LAND USE & SITE PLAN APPROVAL	FOR CLIENT REVIEW	DESCRIPTION
VF	MH	VF	VF	BY
10/27/2024	10/27/2024	09/10/2024	07/29/2024	DATE
6	5	4	3	ISSUE
			1	
			2	
			3	
			4	
			5	
			6	

NOT APPROVED FOR CONSTRUCTION

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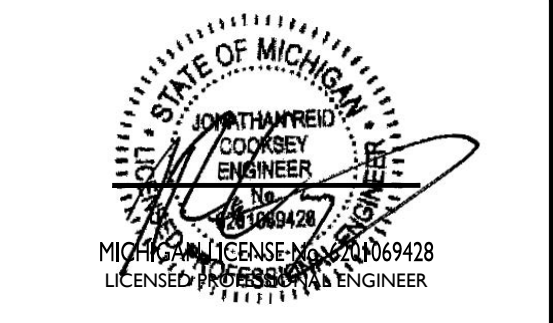
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555 S. Old Woodward Avenue, Suite 12L, Birmingham, MI 48009
Phone 248.247.1115

SITE DEVELOPMENT PLANS

EL CARWASH - E. LONG LAKE
PROPOSED AUTO WASH
& OFFICE SPACE

PARCEL ID: 20-12-476-045 & 20-12-476-049
2955 & 2995 EAST LONG LAKE ROAD
CITY OF TROY
OAKLAND COUNTY, MI 48068



STONEFIELD
engineering & design

SCALE: 1" = 20' PROJECT ID: DET-2300163

TITLE:
LIGHTING PLAN

DRAWING:
C-6

TREE INVENTORY SCHEDULE ⁽¹⁾										
TREE #	SIZE (DBH)	CANOPY RADIUS (FT)	BOTANICAL NAME	COMMON NAME	CONDITION	COMMENTS	HEALTH SCORE	REGULATED ⁽¹⁾	LANDMARK ⁽²⁾	INDICATION
6200	14"	±10'	PICEA GUNGENS	COLORADO SPRUCE	POOR	DYING TOP, STUNTED GROWTH, THINNING CANOPY, EXCESSIVE FITCH ON TRUNK	43%	N (C)	NO	TO REMAIN
6201	14"	±10'	PICEA GUNGENS	COLORADO SPRUCE	FAIR	STUNTED AND THINNING FOLIAGE	-	-	NO	TO REMAIN
6202	6'/67"...	±15'	MALUS SPP.	CRABAPPLE / APPLE	FAIR	CONTORTED CROWN	-	-	NO	TO BE REMOVED
6203	7"	±10'	ULMUS PUMILA	SIBERIAN ELM	FAIR	DEAD BRANCHES	-	N (SP)	NO	TO BE REMOVED
6204	10"	±7'	ACER PLATANOIDES	NORWAY MAPLE	POOR	50% OR MORE DEAD AND STUNTED NEW GROWTH	40%	N (C, SP)	NO	TO REMAIN
6205	5.5"	-	MALUS SPP.	CRABAPPLE / APPLE	-	-	-	N (S)	NO	TO BE REMOVED

(1) TREE INVENTORY WAS COMPLETED BY KEM-TEC 05/03/2024.
 (1) N (C) - NOT REGULATED DUE TO CONDITION
 N (SP) - NOT REGULATED DUE TO SPECIES
 N (S) - NOT REGULATED DUE TO SIZE
 (2) PER § 13.07.E.1., ONLY LANDMARK OR WOODLAND TREES REQUIRE REPLACEMENT.
 NO LANDMARK OR WOODLAND TREES ARE INDICATED TO BE REMOVED.

TREE REPLACEMENT REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 13.07.E.1.a.	WOODLAND TREES 50% OF THE ORIGINAL DBH OF WOODLAND TREES REMOVED SHALL BE REPLACED	N/A: NO WOODLAND TREES TO BE REMOVED
§ 13.07.E.1.b.	LANDMARK TREES 100% OF THE ORIGINAL DBH OF LANDMARK TREES REMOVED SHALL BE REPLACED	N/A: NO LANDMARK TREES TO BE REMOVED

N/A NOT APPLICABLE

PLANT SCHEDULE						
SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
DECIDUOUS TREES						
	ACE	4	ACER RUBRUM	RED MAPLE	2.5" - 3" CAL	B&B
	GIN	12	GINKGO BILOBA 'PRINCETON SENTRY'	PRINCETON SENTRY MAIDENHAIR TREE	2.5" - 3" CAL	B&B
	GLE	3	GLEDTISIA TRIACANTHOS 'ENERMIS'	HONEY LOCUST	2.5" - 3" CAL	B&B
	TIL	2	TILIA AMERICANA	AMERICAN LINDEN	2.5" - 3" CAL	B&B
EVERGREEN TREES						
	ABI	4	ABIES CONCOLOR	WHITE FIR	5' - 6' HT	B&B
	JSG	130	JUNIPERUS VIRGINIANA 'JIN SELECT GREEN'	EMERALD FEATHER™ EASTERN REDCEDAR	5' - 6' HT	B&B
	PIC	3	PICEA ABIES	NORWAY SPRUCE	5' - 6' HT	B&B
EVERGREEN SHRUBS						
	BUX	6	BUXUS X 'GREEN GEM'	GREEN GEM BOXWOOD	24" - 30"	POT
	PRU	12	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKEN ENGLISH LAUREL	24" - 30"	POT
GRASSES						
	LIR	29	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILYTURF	1 GAL	POT, 18" O.C.
PERENNIALS						
	RUD	11	RUDBECKIA FULGIDA 'LITTLE GOLDSTAR'	LITTLE GOLDSTAR CONEFLOWER	1 GAL	POT, 18" O.C.

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE.

LANDSCAPING AND BUFFER REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 13.02.D.2.b.	FRONTAGE LANDSCAPING: MINIMUM 10 FT GREENBELT 1 TREE FOR EVERY 30 FT OF ROAD FRONTAGE EAST LONG LAKE (310 LF) (310 FT) / (1 TREE / 30 FT) = 11 TREES DEQUINDRE ROAD (205 LF) (205 FT) / (1 TREE / 30 FT) = 7 TREES	10.0 FT 11 TREES 7 TREES
§ 13.02.B.2.c.	SCREENING BETWEEN LAND USES: NORTHERN USER SCREENING - USE GROUP 3: NARROW EVERGREEN TREE: 1 TREE PER 5 LINEAL FEET (310 LF) / (1 TREE / 5 LF) = 62 TREES LARGE EVERGREEN TREE: 1 TREE PER 10 LINEAL FEET (310 LF) / (1 TREE / 10 LF) = 31 TREES	62 TREES 20 TREES (W)
TABLE 13.02-A	WESTERN USER SCREENING - USE GROUP 5: 1 TREE PER 10 LINEAL FEET OR 1 TREE PER 3 LINEAL FEET (205 LF) / (1 TREE / 3 LF) = 68 TREES	68 TREES
§ 13.02.C.2.a.	1 TREE PER 8 PARKING SPACES (36 SPACES) / (1 TREE / 8 SPACES) = 5 TREES	5 TREES
§ 13.02.C.b.	MINIMUM CURBED ISLAND AREA - 200 SF	COMPLIES
§ 13.02.E.1.a.	MINIMUM SITE LANDSCAPING - 20% (64,538 SF) * (0.2) = 12,907 SF	21,247 SF (32.9%)

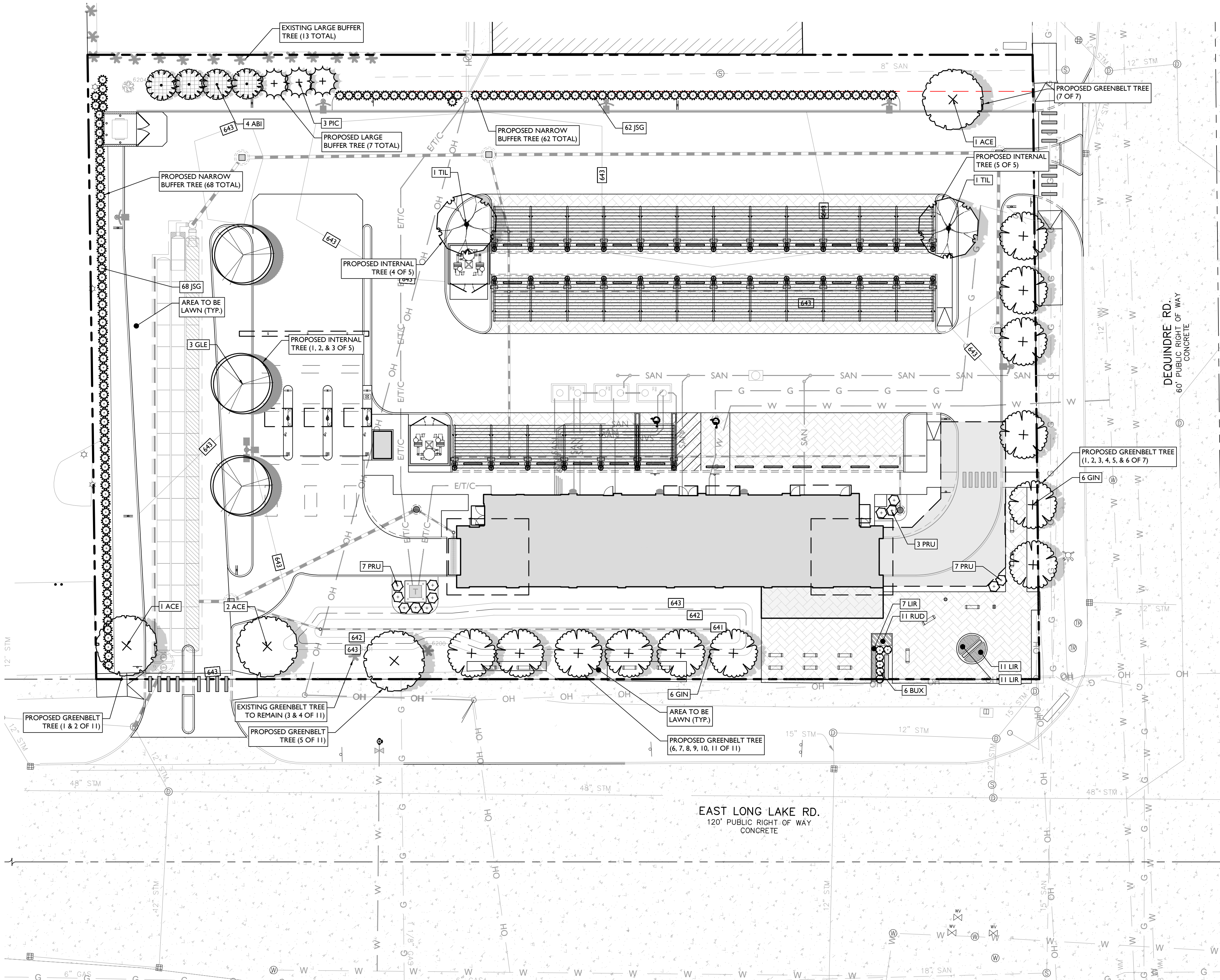
(W) DESIGN WAIVER

IRRIGATION NOTE:

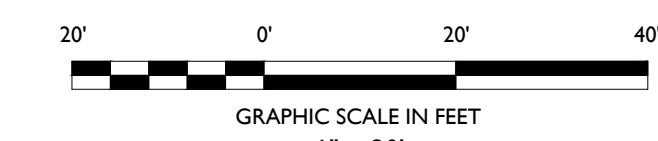
IRRIGATION CONTRACTOR TO PROVIDE A DESIGN FOR AN IRRIGATION SYSTEM SEPARATING PLANTING BEDS FROM LAWN AREA PRIOR TO CONSTRUCTION. DESIGN IS TO BE SUBMITTED TO THE PROJECT LANDSCAPE DESIGNER FOR REVIEW AND APPROVAL. WHERE POSSIBLE, DRIP IRRIGATION AND OTHER WATER CONSERVATION TECHNIQUES SUCH AS RAIN SENSORS SHALL BE IMPLEMENTED. 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.

LANDSCAPING NOTES

- THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED.
- THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 3 INCH LAYER OF MULCH.
- THE MAXIMUM SLOPE ALLOWABLE IN LANDSCAPE RESTORATION AREAS SHALL BE 3 FEET HORIZONTAL TO 1 FOOT VERTICAL (3:1 SLOPE) UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- THE CONTRACTOR IS REQUIRED TO LOCATE ALL SPRINKLER HEADS IN AREA OF LANDSCAPING DISTURBANCE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS AND LINES IN ACCORDANCE WITH OWNER'S DIRECTION WITHIN AREAS OF DISTURBANCE.
- THE CONTRACTOR SHALL ENSURE 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.



Know what's below
Call before you dig.



DATE	ISSUE	DESCRIPTION
10/29/2024	6	FOR SPECIAL LAND USE & SITE PLAN RESUBMISSION
10/23/2024	5	REVISED PER SPECIAL LAND USE & SITE PLAN COMMENTS
09/10/2024	4	REVISED PER SPECIAL LAND USE & SITE PLAN COMMENTS
07/29/2024	3	FOR SPECIAL LAND USE & SITE PLAN APPROVAL
06/05/2024	2	REVISED PER CITY COMMENTS
02/26/2024	1	FOR CLIENT REVIEW

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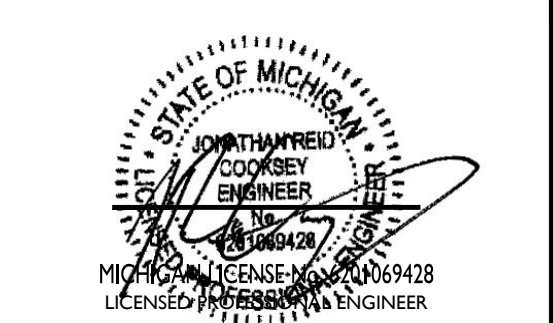
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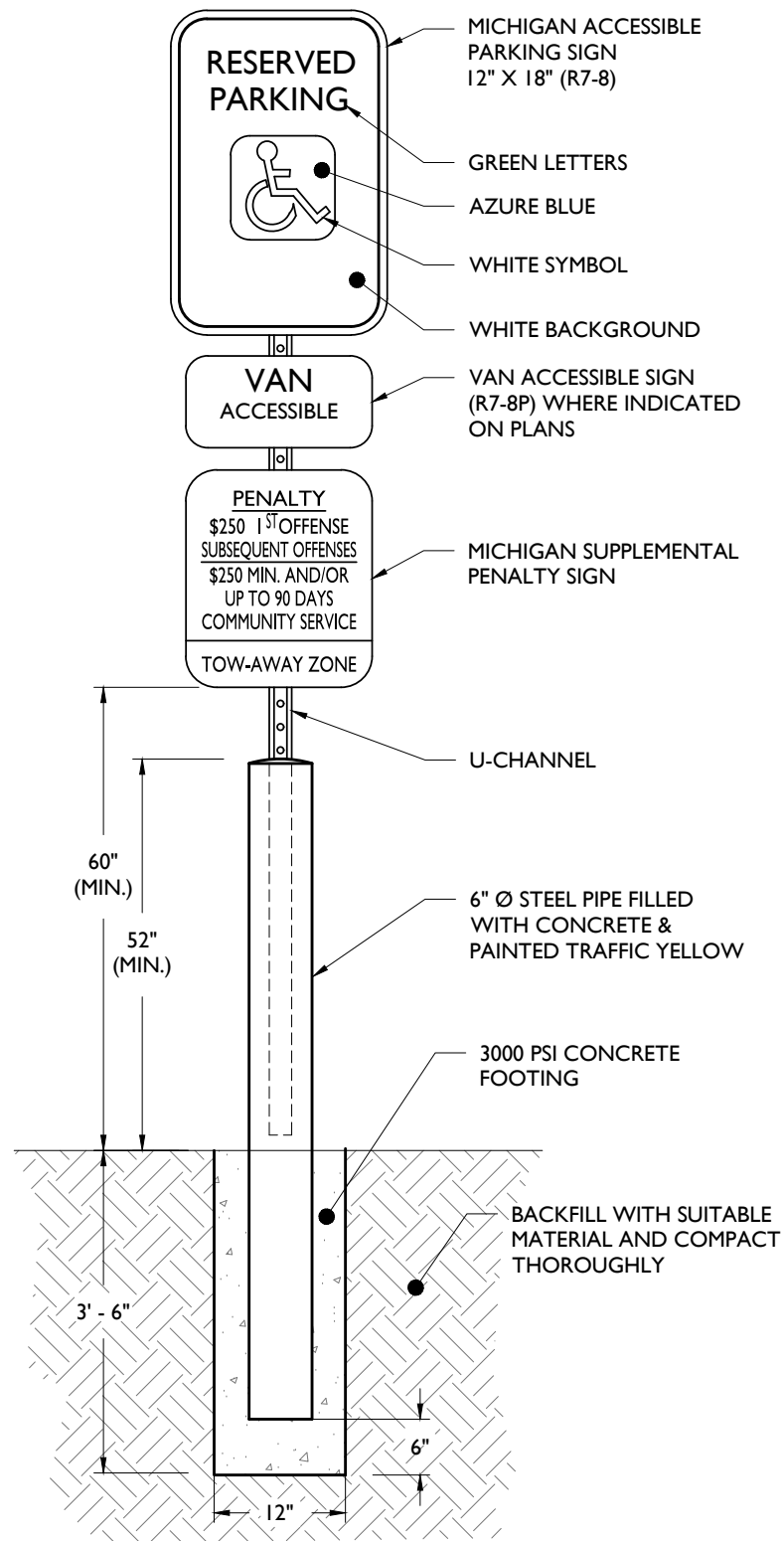


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SCALE: 1" = 20' PROJECT ID: DET-2300163

TITLE:
LANDSCAPING PLAN

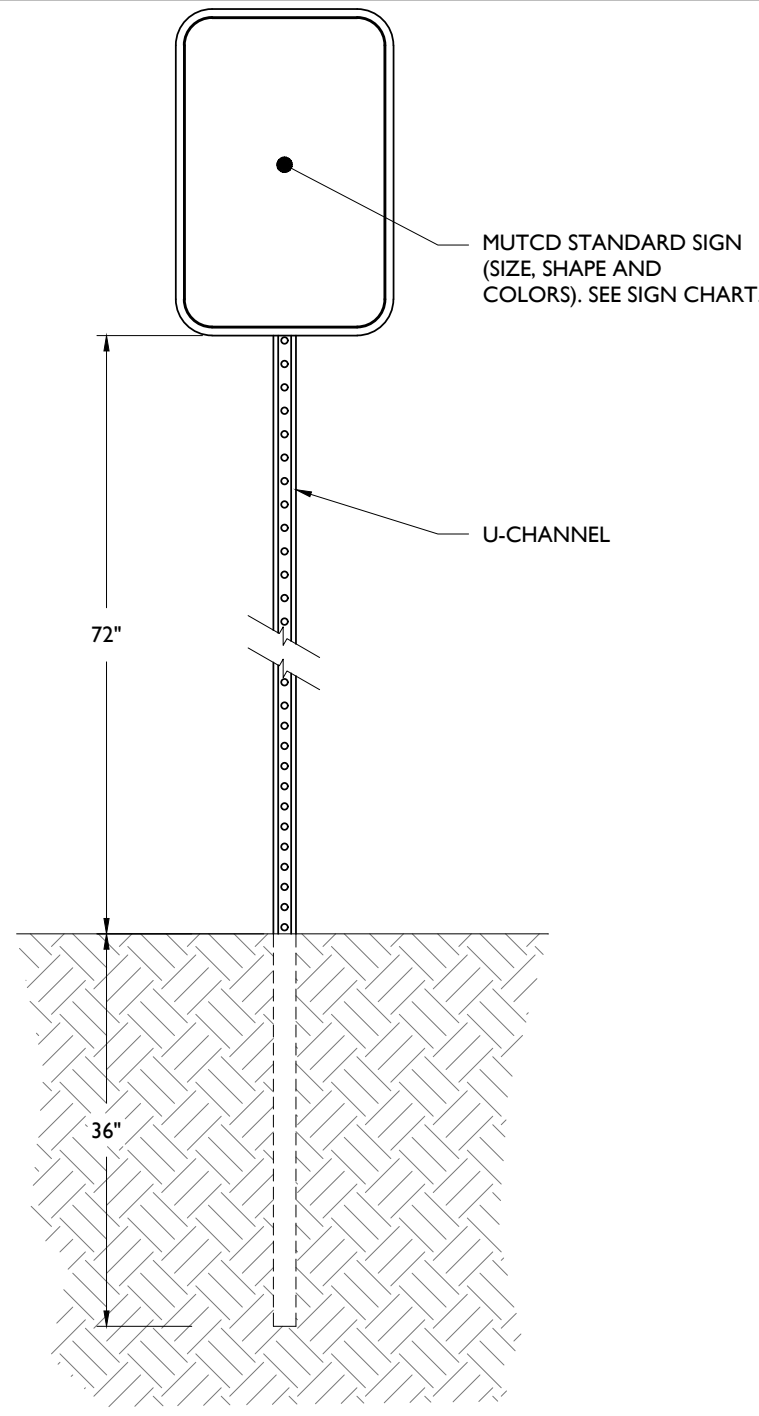
DRAWING:
C-7



ACCESSIBLE PARKING SIGN WITH BOLLARD DETAIL

NOT TO SCALE

1



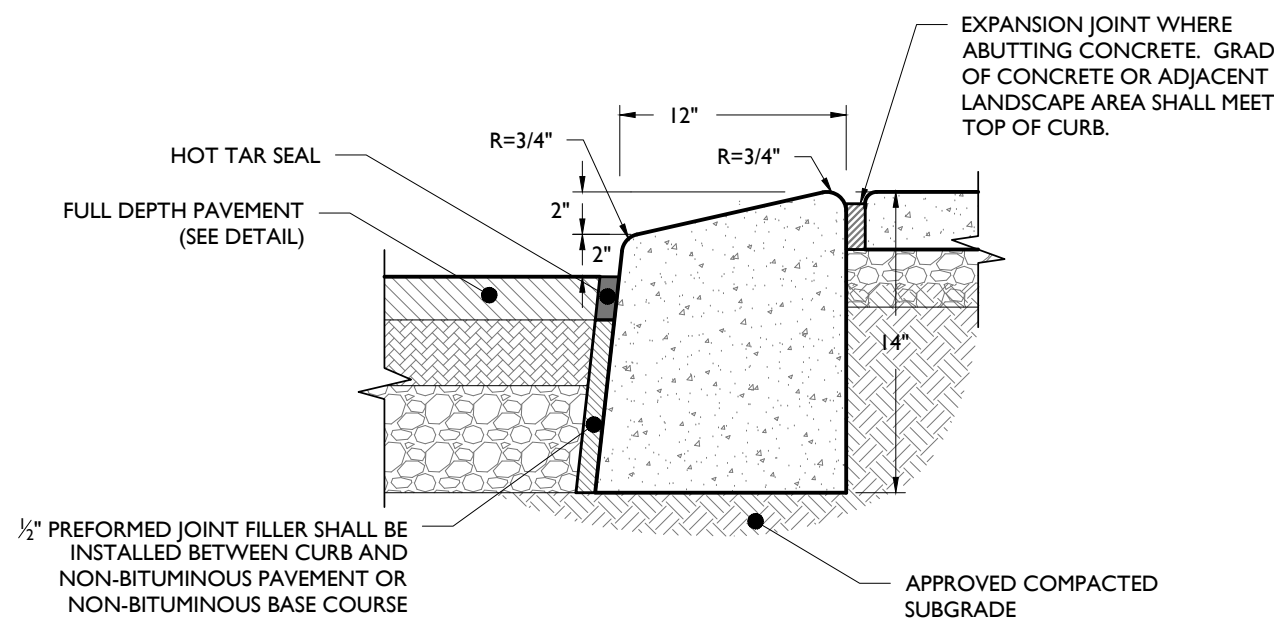
M.U.T.C.D. NUMBER	TEXT	COLOR		SIZE OF SIGN (WIDTH X HEIGHT)	TYPE OF MOUNT
		LEGEND	BACKGROUND		
STOP SIGN (R1-1)		RED	WHITE	36"x36"	GROUND
DO NOT ENTER (R5-1)		RED	WHITE	30"x30"	GROUND

SIGN POST DETAIL & SIGN DATA TABLE

NOT TO SCALE

2

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.

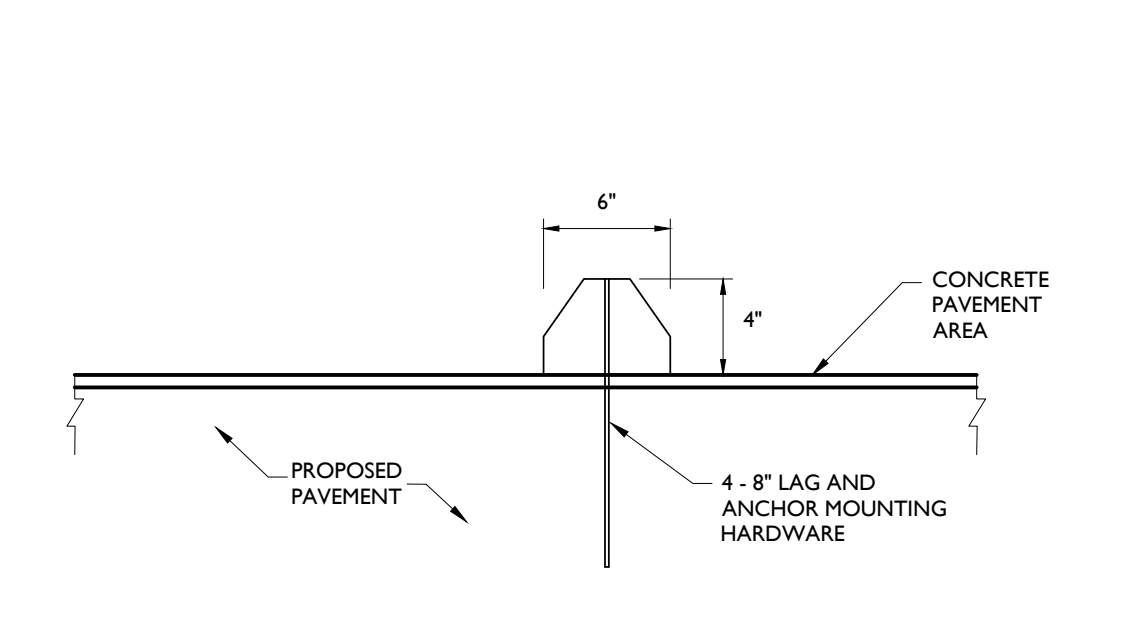


MOUNTABLE CONCRETE CURB DETAIL

NOT TO SCALE

9

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. 18" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.



RUBBER WHEEL STOP DETAIL

NOT TO SCALE

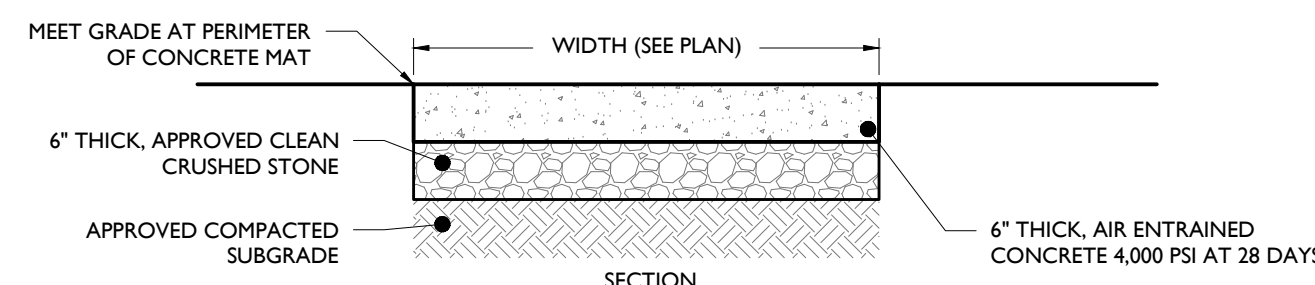
10

NOTES:
1. WHEEL STOP SHALL BE 6' LONG.
2. WHEEL STOP SHALL BE PREFABRICATED "6" TRAFFIC SAFETY STORE RUBBER PARKING BLOCK OR APPROVED EQUIVALENT.

PAVEMENT STRIPING & MARKINGS NOTES:

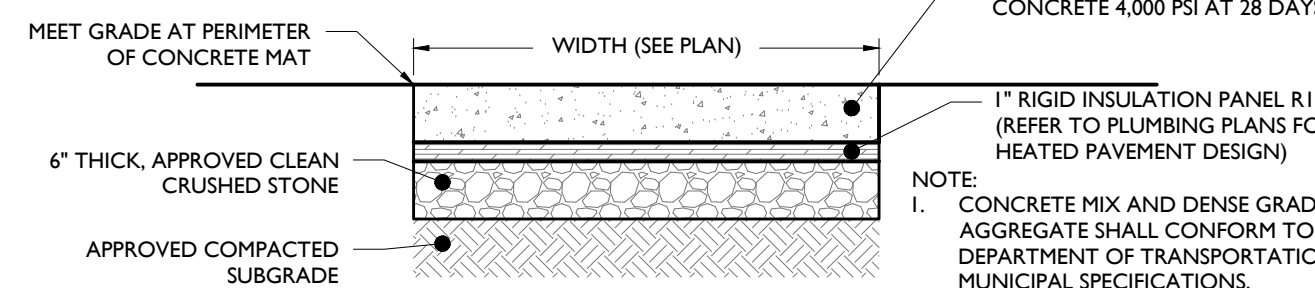
- ALL SIGNING AND STRIPING IN EXISTING CONDITION IN CONFLICT WITH THE PROPOSED DESIGN PLAN SHALL BE REMOVED.
- ALL PROPOSED SIGNING AND STRIPING SHALL CONFORM TO THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
- PAVEMENT STRIPING AND MARKINGS SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL, COUNTY AND STATE REQUIREMENTS.
- UNLESS OTHERWISE SPECIFIED, ALL STRIPING AND MARKINGS IN THE PUBLIC RIGHT-OF-WAY SHALL BE OF THERMOPLASTIC PAINT OR PREFORMED THERMOPLASTIC MARKINGS.
- UNLESS OTHERWISE SPECIFIED, ON SITE PARKING STALL STRIPING, FIRE LANE STRIPING AND DIRECTIONAL ARROWS SHALL BE EPOXY PAINT. ON SITE STOP BARS, "DO NOT ENTER" BARS, AND ASSOCIATED LETTERING SHALL BE THERMOPLASTIC PAINT OR PREFORMED THERMOPLASTIC MARKINGS.

13



CONCRETE PAVEMENT

NOT TO SCALE



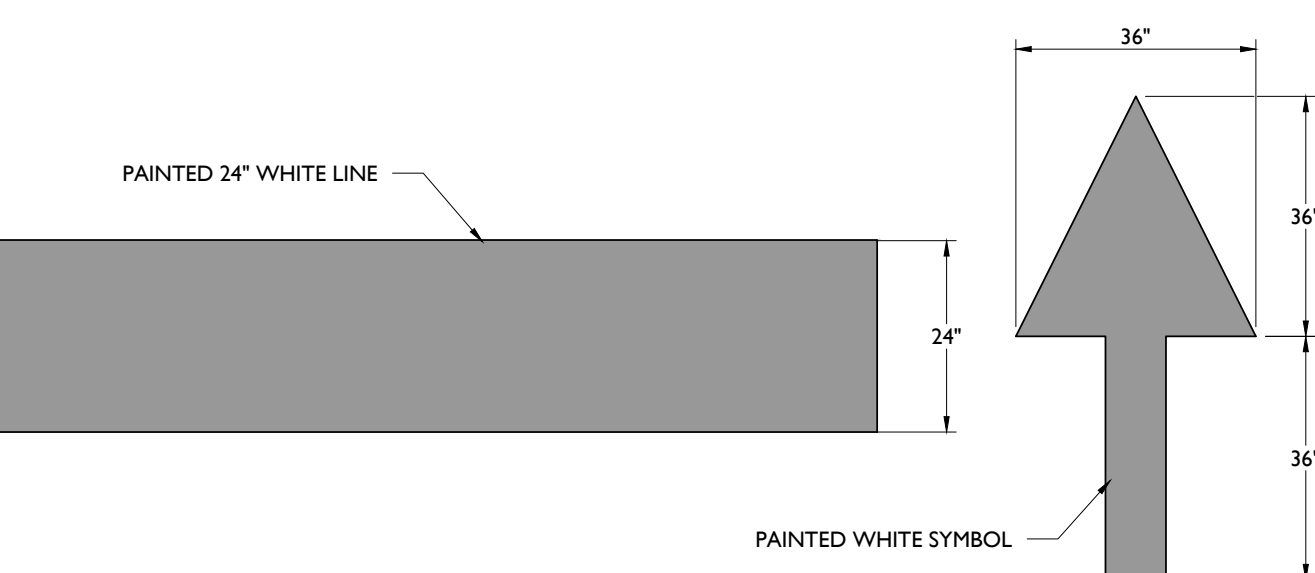
HEATED CONCRETE PAVEMENT

*HEATED PAVEMENT TO BE DESIGN BY OTHERS

NOT TO SCALE

14

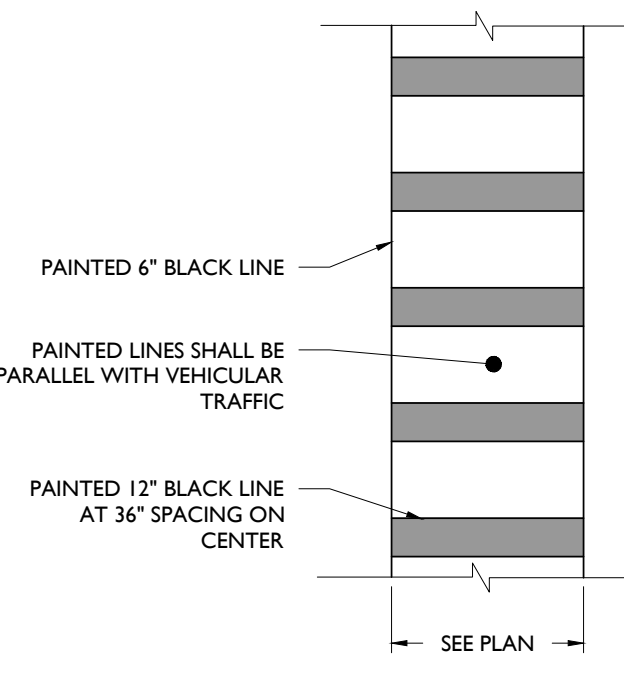
NOTE:
1. CONCRETE MIX AND DENSE GRADED AGGREGATE SHALL CONFORM TO STATE DEPARTMENT OF TRANSPORTATION OR MUNICIPAL SPECIFICATIONS.
2. REFER TO GEOTECHNICAL REPORT FOR FINAL/RECOMMENDED PAVEMENT DESIGN.



STOP BAR & ARROW DETAILS

NOT TO SCALE

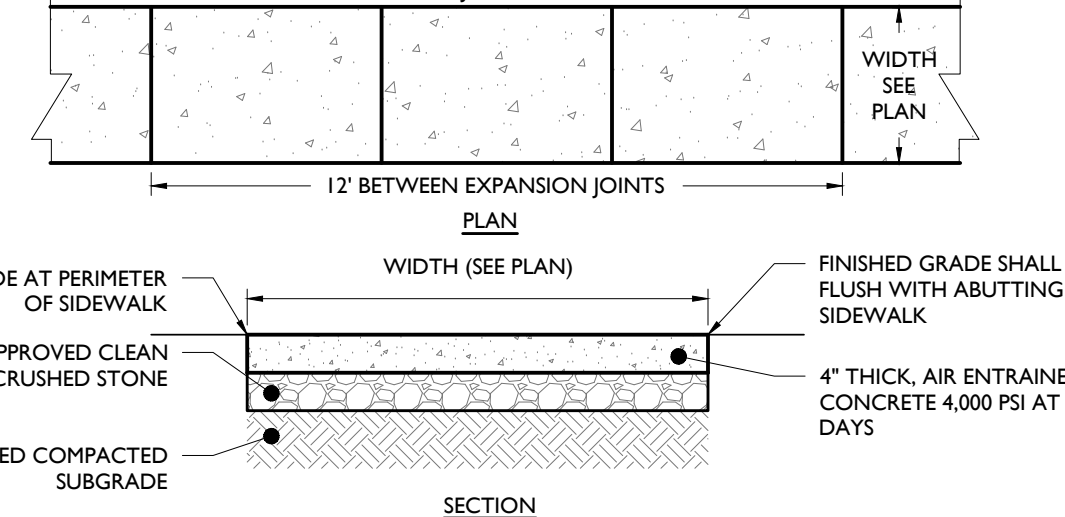
11



CROSSWALK DETAIL

NOT TO SCALE

12

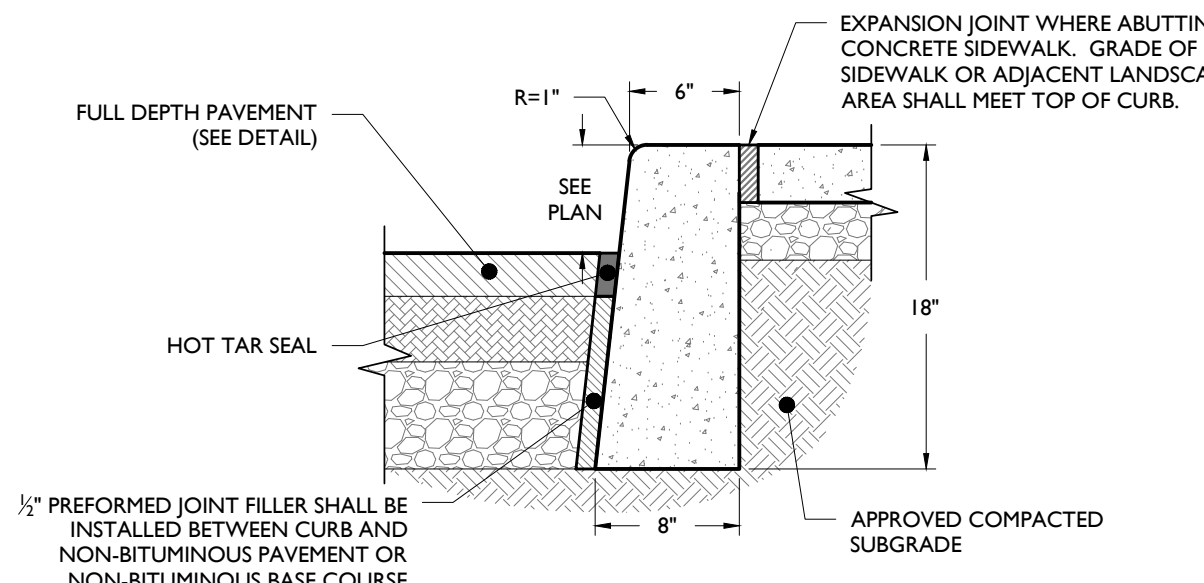


CONCRETE WALKWAY DETAIL

NOT TO SCALE

3

NOTES:
1. MAXIMUM CROSS SLOPE SHALL BE 1/4" PER FOOT.
2. 1/2" EXPANSION JOINTS SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM SURFACE.
3. 1" DEEP BY 1/2" WIDE, TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT 4' INTERVALS.
4. EXPANSION JOINT SHALL BE PROVIDED WHERE ADJACENT TO A BUILDING.

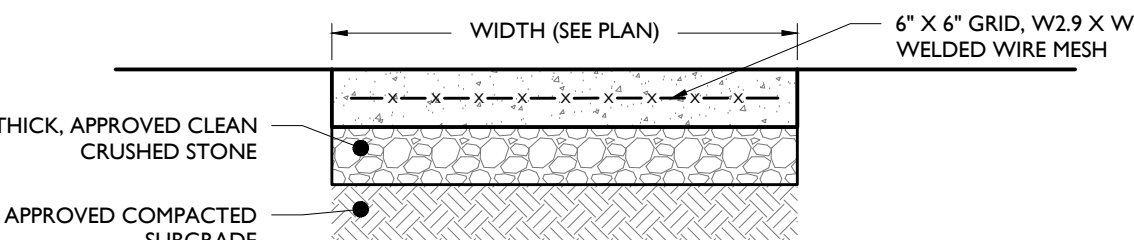


CONCRETE CURB DETAIL

NOT TO SCALE

5

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. 18" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.



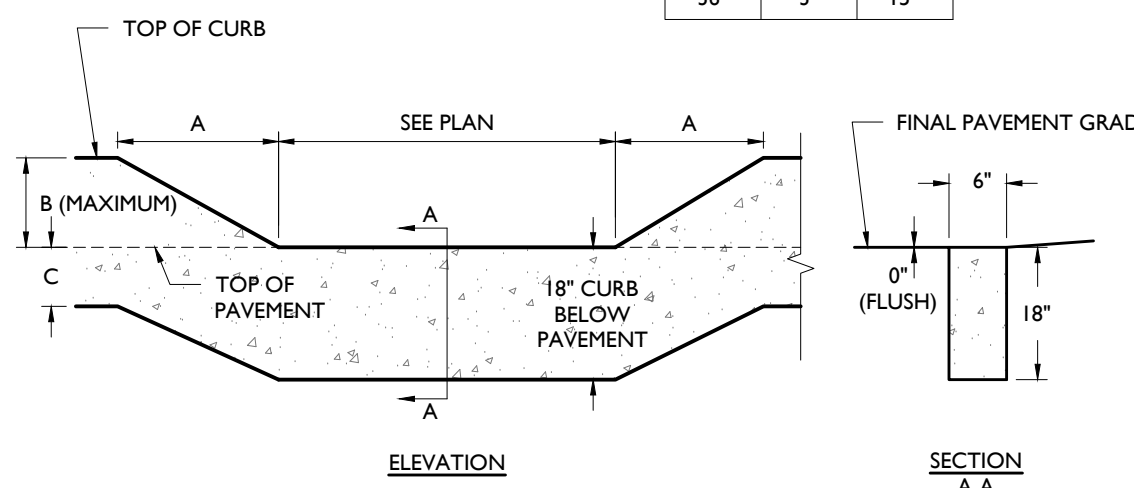
REINFORCED 6" CONCRETE MAT

NOT TO SCALE

4

NOTES:
1. 1/2" EXPANSION JOINTS WITH WATER SEAL SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM THE SURFACE. LONGITUDINAL REBAR TO BE CUT AT EXPANSION JOINTS.
2. 1" DEEP BY 1/2" WIDE, TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT MID-POINT BETWEEN EXPANSION JOINTS OR 6' INTERVALS MAX.
3. CONCRETE SHALL RECEIVE BROOK FINISH.
4. ALL EXPOSED CORNERS TO HAVE 12" CHAMFER.

A	B	C
72"	6"	12"
60"	5"	13"
48"	4"	14"
36"	3"	15"



FLUSH CURB DETAIL

NOT TO SCALE

6

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. 18" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.

NO.	DATE	ISSUE	BY	DESCRIPTION
6	10/27/2024	VF		FOR SPECIAL LAND USE & SITE PLAN RESUBMISSION
5	10/23/2024	MH		REVISED PER SPECIAL LAND USE & SITE PLAN COMMENTS
4	09/10/2024	VF		REVISED PER SPECIAL LAND USE & SITE PLAN COMMENTS
3	07/29/2024	AF		FOR SPECIAL LAND USE & SITE PLAN APPROVAL
2	06/05/2024	VF		REVISED PER CITY COMMENTS
1	02/26/2024	VF & AF		FOR CLIENT REVIEW

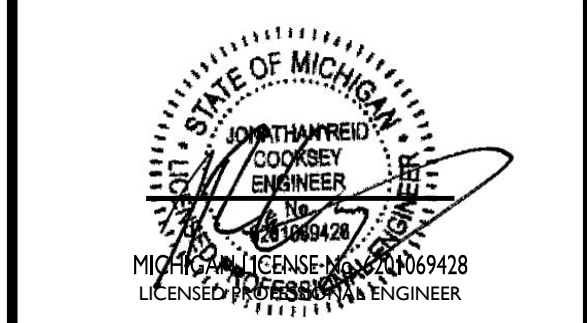
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EL CARWASH - E. LONG LAKE PROPOSED AUTO WASH & OFFICE SPACE

PARCEL ID: 20-12-476-045 & 20-12-476-049
2955 & 2995 EAST LONG LAKE ROAD
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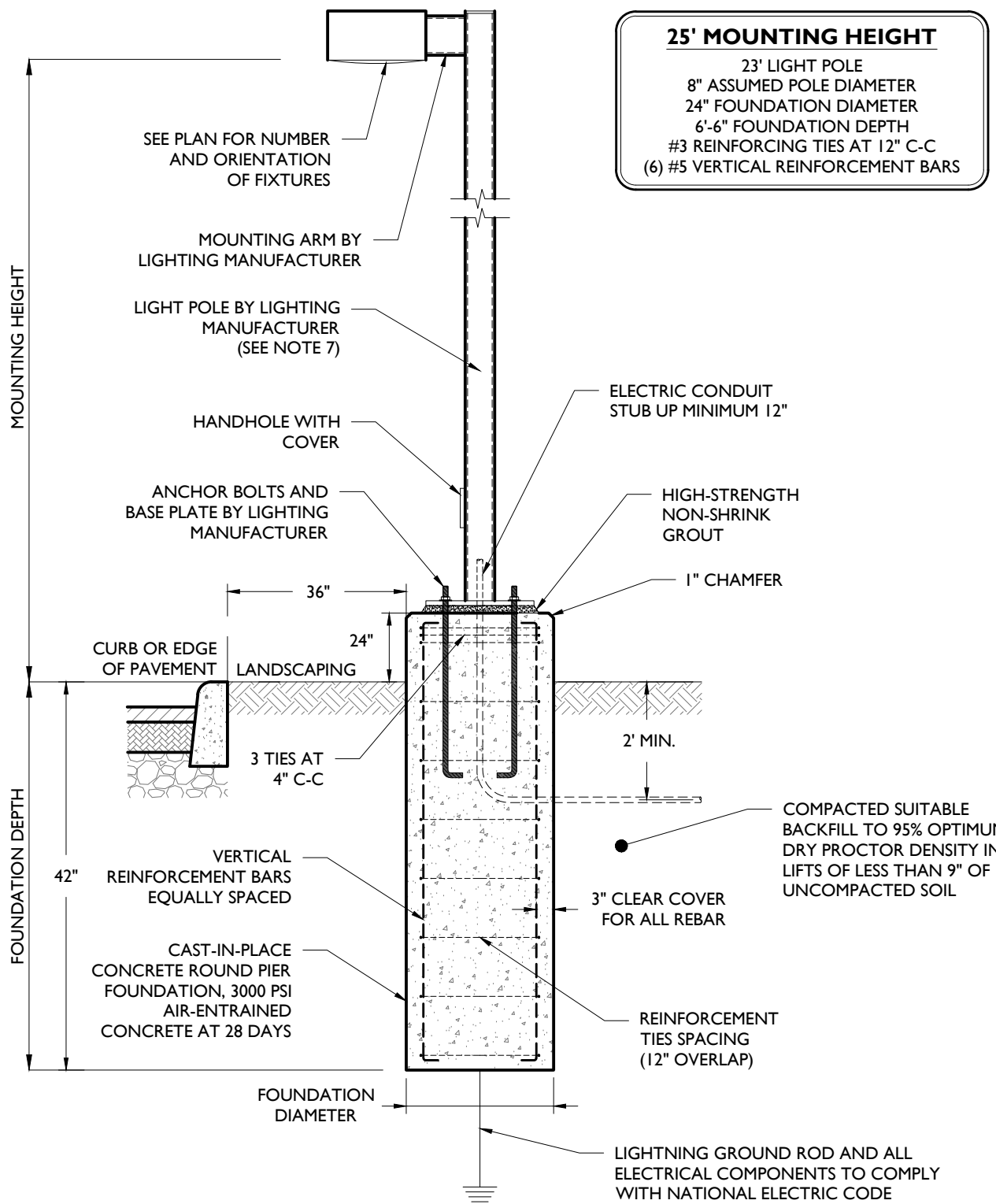
SCALE: AS SHOWN PROJECT ID: DET-2300163

CONSTRUCTION DETAILS

DRAWING:

C-8

V:\02301021\2301021-EL CARWASH & OFFICE SPACE\2301021-EL CARWASH & OFFICE SPACE.dwg, T:\02301021\2301021-EL CARWASH & OFFICE SPACE.dwg



LIGHT POLE INSTALLATION DETAIL

- 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" TOLERANCE).
 7. POLE SHALL BE RATED FOR 10 MPH HIGHER THAN MAXIMUM WIND SPEED 33FT ABOVE GROUND FOR THE AREA BASED ON ANSIFANCE 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.

DESCRIPTION
The Prevail™ LED pole and fixture combination makes selection and installation of poles and fixtures simple. Included in the die-cast Prevail area, site and roadway luminaire with standard mounting arm, square straight steel pole, anchor bolts, base cover, template and hardware. Stock configurations are available in single and dual fixture combinations. The Prevail luminaire delivers a new level of versatility and value in patent pending, architectural design that delivers energy savings greater than 85% and replaces 100-400W metal halide fixtures. The Prevail fixture and pole combo is ideal for general area/retail lighting applications.

CONTROL #

Control #	Type	Date
Project		
Comments		
Prepared by		

CONSTRUCTION
Construction is comprised of a heavy-duty, single-piece die-cast aluminum housing in dark bronze polyester powder paint. The die-cast aluminum door is tethered to provide easy access to the driver if replacement is required. The optics is mounted on a versatile, aluminum plate that dissipates heat from the LEDs resulting in long life of the fixture. The fixture is IP66 and 30 vibration rated (ANSI C136.31).

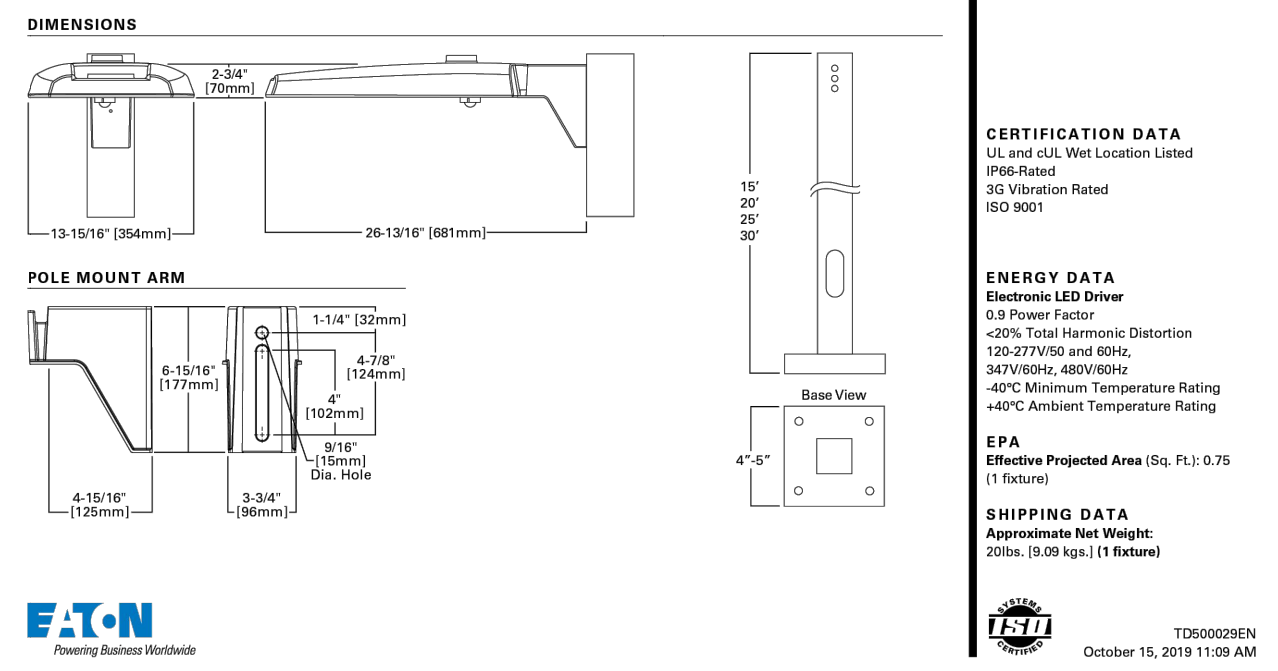
Optics
Available in Type III and IV distributions with lumen packages ranging from 7,000 to 20,000 nominal lumens. Light engine configurations consist of 1 or 2 high-efficiency LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L70,000 hours at 25°C) per IESNA TM-21. For the ultimate level of spill light control, an optional house side shield accessory can be field or factory installed.

Electrical
Available in 120-277V 50/60Hz, 100W/USA surge protection standard. 0-10V dimming driver is standard with leads external to the fixture to accommodate controls capability such as dimming and occupancy. Suitable for ambient temperatures from -40°C to 40°C.

Mounting
The versatile, patent pending, standard mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Removal of the door on the standard mounting arm enables round pole mounting.

Finish
Housing and cast parts finished in five-stage super TiO2 polyester bronze powder coat paint, 2.5 mil nominal thickness for superior protection against fading and wear.

Warranty
Five-year warranty.



CERTIFICATION DATA
UL and cUL Wet Location Listed
IP66 Rated
30 Vibration Rated
100-900

ENERGY DATA
Electronic LED Driver
0.9 Power Factor
±20% Total Harmonic Distortion
120-277V/50 and 60Hz
347V/60Hz, 480V/60Hz
40°C Minimum Temperature Rating
44°C Ambient Temperature Rating

EPA
Effective Projected Area (Sq. Ft.) 0.75
(1 Fixture)

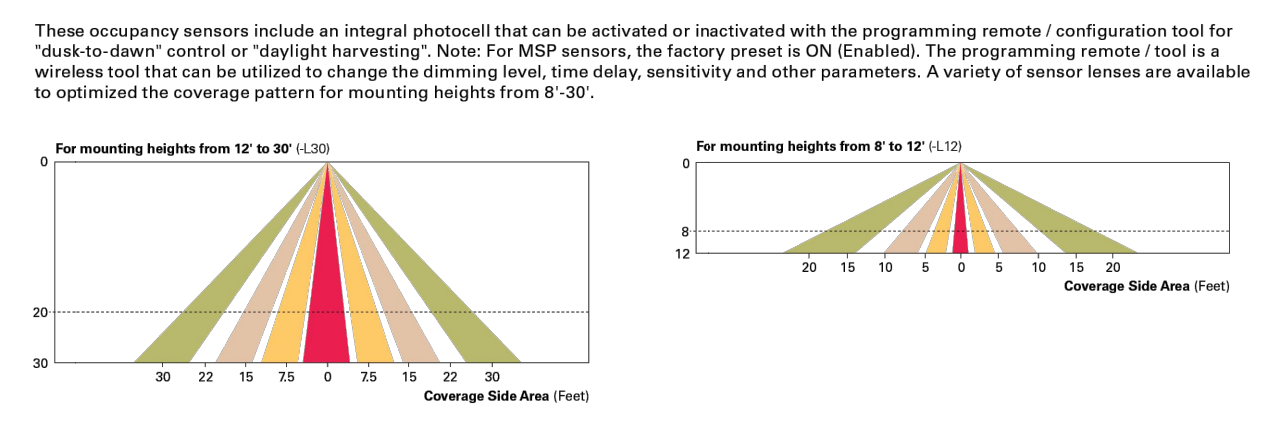
SHIPPING DATA
Approximate Net Weight:
20lbs. (9.09 kg) (1 Fixture)

CONTROL OPTIONS
0-10V (0)
This fixture is offered standard with 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocentric (PER and PER2)
Photocentric receptives provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7 pin standards can be utilized with the PER receptacle.

Dimming Occupancy Sensor (MS/DIM-LXX)
These sensors are factory installed in the luminaire housing. When a sensor for dimming operation (DIM) is selected, the luminaire will dim down to approximately 50 percent power after five minutes of no activity detected. When activity is detected, the luminaire returns to full light output.

These occupancy sensors include an integral photocell that can be activated or inactivated with the programming remote / configuration tool for "dusk-to-dawn" control or "daylight harvesting". Note: For MSP sensors, the factory preset is ON (Enabled). The programming remote / tool is a wireless tool that can be utilized to change the dimming level, time delay, sensitivity and other parameters. A variety of sensor lenses are available to optimize the coverage pattern for mounting heights from 8' to 30'.



POWER AND LUMENS

Light Engine	C15	C25	C40	C55
Nominal Power (Watts)	57W	87W	143W	163W
Input Current @ 120V (A)	0.43	0.80	1.09	1.32
Input Current @ 277V (A)	0.19	0.35	0.48	0.57
Lumens	7,111	13,183	17,144	20,050
Type III BUG Rating	E1-U0-G2	E2-U0-G3	E3-U0-G4	E3-U0-G4
Type IV BUG Rating	E1-U0-G3	E2-U0-G4	E2-U0-G4	E3-U0-G5

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (90,000 Hours)	Theoretical L30 (Hours)
25°C	> 91.30%	> 184,000
40°C	> 87.59%	> 134,000

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
30°C	1.02
35°C	1.01
38°C	1.00
40°C	0.99

ORDERING INFORMATION
Sample Number: PFRV1-C25-T3-15-NA18

Series**	Number of Fixtures	Light Engine	Distribution	Pole Height	Maximum Wind Zone (MPH)	Options (Add as Suffix)	Accessories (Order Separately)
PFRV1-Prevail	1-1	C15-(1) LED 5,100	T3-Type III	15'-10"	8-90	Blank-00	HS/VERO-House Side Shield†
Prevail Pole and Fixture	2-3	Nominal Lumens: C25-(2) LED 13,100	T4-Type IV	15'-10"	8-90	Blank-00	
Combo	4-4	Nominal Lumens: C40-(2) LED 17,100 Nominal Lumens: C55-(2) LED 20,000		26'-10"	8-100		

Options (Add as Suffix):
 NAB-No Anchor Bolts (Used when ordered separately)
 MS/DIM-LED-Integrated Sensor for Dimming Operation, 1" 12" Mounting Height
 MS/DIM-LIB-Integrated Sensor for Dimming Operation, 1" 12" Mounting Height
 PER-NAEMA 7PIN Twistlock Photocentric Receptacle*
 PER-NAEMA 7PIN Twistlock Photocentric Receptacle*

Accessories (Order Separately):
 HS/VERO-House Side Shield†

NOTES: 1. 6000 CC, Standard Bronze, 120-277V, 0-10V dimming, 2 Standard mount arms included with fixture. Supplied with straight steel shaft, anchor bolts, template, base cover and hardware. † HSS not available with 100 lumen package. † HSS not an option. † Not some factory installed. † Distorted as a field installable accessory, most other quantity one per 4000 LED. † HSS not available with MSP option.

SHIPPING DATA
Approximate Net Weight:
20lbs. (9.09 kg) (1 Fixture)

LIGHT FIXTURE SPECIFICATION (A, B, & C)

DESCRIPTION
The patented Lumark Crosstour™ MAXX LED wall pack series of luminaires provides low profile architectural style with super bright, energy efficient LEDs. The rugged die-cast aluminum construction, back box with secure lock hinges, stainless steel hardware along with a sealed and gasketed optical compartment make Crosstour impervious to contaminants. The Crosstour MAXX wall luminaire is ideal for wall surface, inverted mount for facade/canopy illumination, perimeter and area lighting. Typical applications include pedestrian walkways, building entrances, multi-use facilities, industrial facilities, perimeter parking areas, storage facilities, institutions, schools and loading docks.

CONTROL #

Control #	Type	Date
Project		
Comments		
Prepared by		

CONSTRUCTION
Low-profile LED design with rugged one-piece, die-cast aluminum back box and hinged removable door. Matching housing styles incorporate both a full cutoff and reflective lens design. Full cutoff and reflective lens models are available in 50W, 81W and 102W. Patent pending secure lock hinges feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes four 1/2" NPT threaded conduit entry points. The back box is secured by four lag bolts (supplied by others). External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Not recommended for car wash applications.

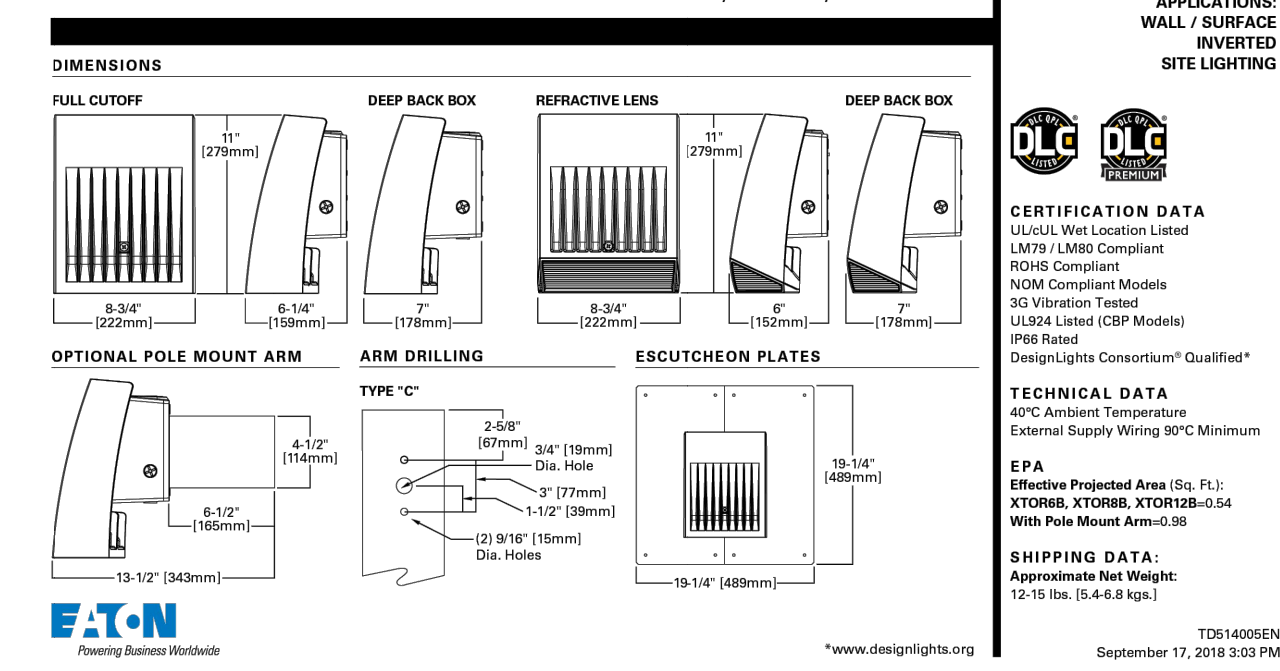
Optical
Silicone sealed optical LED chamber incorporates a custom engineered reflector providing high-efficiency illumination. Full cutoff models integrate an impact-resistant molded reflective prism optical lens assembly meeting requirements for Dark Sky compliance. Reflective lens models incorporate a molded lens.

Emergency Egress
Optional integral cold weather battery emergency egress includes emergency operation test switch available in 50W and 81W models only, an AC ON indicator light and a premium extended rated sealed maintenance-free nickel-metal hydride battery pack. The separate emergency lighting LEDs are wired to provide redundant emergency lighting. Listed to UL Standard 924, Emergency Lighting.

Area and Site Pole Mounting
Optional extruded aluminum 8-1/2" arm features internal ball guides for supplied twin support rods, allowing for easy positioning of the fixture during installation to pole. Supplied with round plate adapter plate. Optional tenon adapter fits 2-3/8" or 3-1/2" O.D. Tenon.

Finish
Crosstour MAXX is protected with a super TiO2 polyester powder coat paint. Super TiO2 powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty
Five-year warranty.



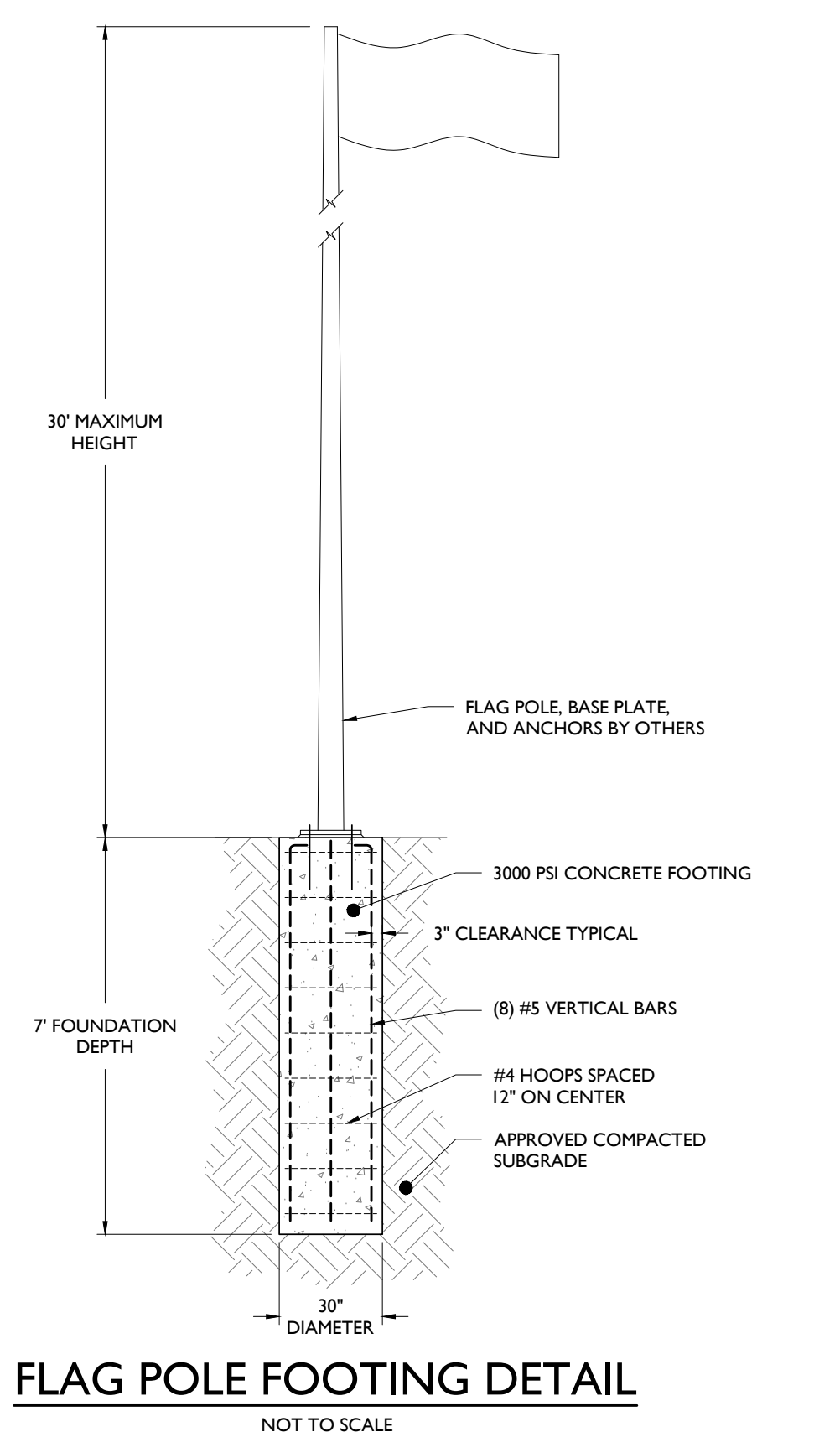
CERTIFICATION DATA
UL and cUL Wet Location Listed
UL919 LMB Compliant
ROHS Compliant
NOM Compliant Models
30 Vibration Tested
UL924 Listed (CSF Models)
IP66 Rated
Design-Lights Consortium™ Qualified†

TECHNICAL DATA
40°C Ambient Temperature
External Supply Wiring 90°C Minimum

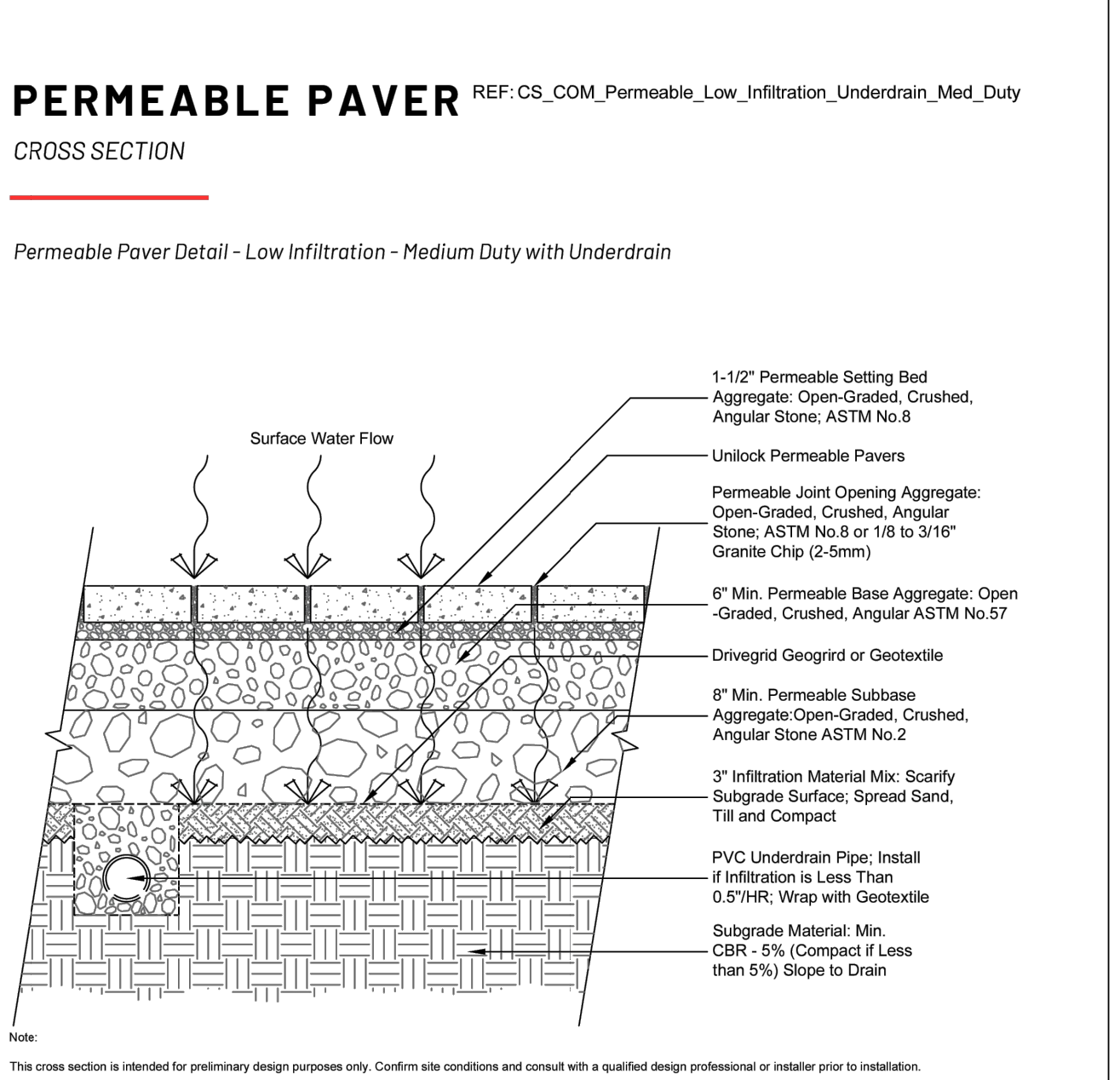
EPA
Effective Projected Area (Sq. Ft.) 1.0
STONE, XTONE, XTORUB-054
With Pole Mount Arm-36

SHIPPING DATA:
Approximate Net Weight:
12-15 lbs. (5.4-6.8 kg)

LIGHT FIXTURE SPECIFICATION (D)



FLAG POLE FOOTING DETAIL



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UNILOCK PAVERS & WALLS

PERMEABLE PAVER REF: CS_COM_Permeable_Low_Infiltration_Underdrain_Med_Duty CROSS SECTION

Permeable Paver Detail - Low Infiltration - Medium Duty with Underdrain

Note: This cross section is intended for preliminary design purposes only. Confirm site conditions and consult with a qualified design professional or installer prior to installation.

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Phone 248.247.1115

NOT APPROVED FOR CONSTRUCTION

EL CARWASH - E. LONG LAKE PROPOSED AUTO WASH & OFFICE SPACE

SCALE: AS SHOWN PROJECT ID:DET-2300163

TITLE: CONSTRUCTION DETAILS

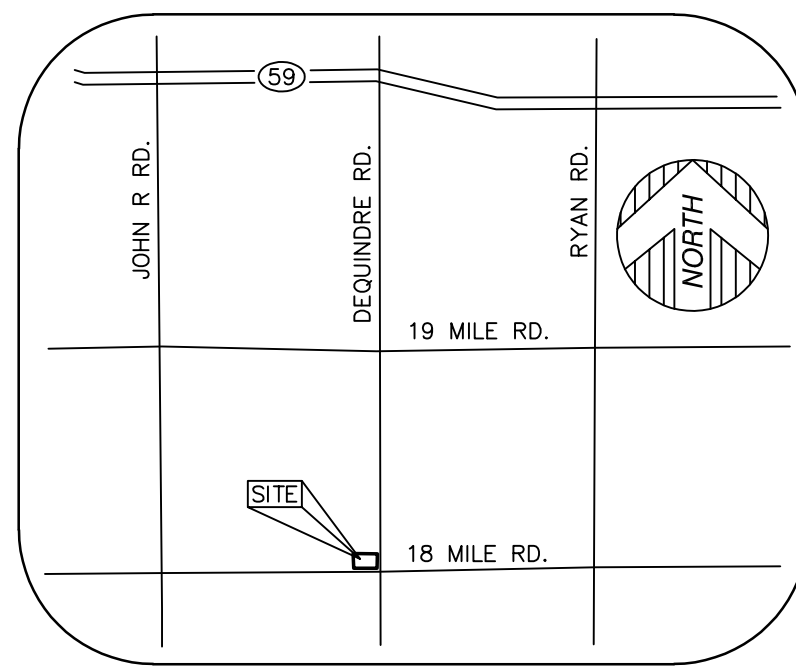
DRAWING: C-9

STONEFIELD engineering & design

SCALE: AS SHOWN PROJECT ID:DET-2300163

TITLE: CONSTRUCTION DETAILS

DRAWING: C-9



VICINITY MAP
(NOT TO SCALE)

PARKING

HANDICAP PARKING = 3 STALLS
STANDARD PARKING = 64 STALLS

PARCEL AREA

PARCEL 1:
42,027± SQUARE FEET = 0.97± ACRES

PARCEL 2:
21,497± SQUARE FEET = 0.49± ACRES

TOTAL:
63,524± SQUARE FEET = 1.46± ACRES

BASIS OF BEARING

NORTH 89°32'26" WEST, BEING THE NORTH LINE OF EAST LONG LAKE RD., AS DESCRIBED.

BENCHMARK

SITE BENCHMARK #1
ARROW ON HYDRANT AT NORTHWEST CORNER OF LONG LAKE & DEQUINDE RD
ELEVATION = 645.38' (NAVD 88)

SURVEYOR'S NOTE

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES OTHER THAN THE STRUCTURE INVENTORY SHOWN HEREON.

LEGEND

SET 1/2" REBAR WITH CAP P.S. 47976
SET MAG NAIL
FOUND MONUMENT (AS NOTED)
FOUND SECTION CORNER (AS NOTED)
RECORD AND MEASURED DIMENSION
RECORD DIMENSION
MEASURED DIMENSION
GROUND ELEVATION
ELECTRIC PANEL
TRANSFORMER
UTILITY POLE
GAS VALVE
LIGHT POLE WITH STREET LAMP
CABLE TV RISER
TRAFFIC SIGNAL
TRAFFIC SIGNAL MANHOLE
SANITARY MANHOLE
ROUND CATCH BASIN
SQUARE CATCH BASIN
STORM DRAIN MANHOLE
FIRE HYDRANT
WATER GATE MANHOLE
WATER VALVE
UNKNOWN MANHOLE
BOLLARD
FLAGPOLE
LIGHTPOST/LAMP POST
SINGLE POST SIGN
DOUBLE POST SIGN
HANDICAP PARKING
DECIDUOUS TREE (AS NOTED)
CONIFEROUS TREE (AS NOTED)
PARCEL BOUNDARY LINE
PLATTED LOT LINE
ADJOINER PARCEL LINE
EASEMENT (AS NOTED)
EASEMENT CENTERLINE
BUILDING
BUILDING OVERHANG
ASPHALT CURB
CONCRETE CURB
RAISED CONCRETE
PARKING
EDGE OF CONCRETE (CONC.)
EDGE OF ASPHALT (ASPH.)
FENCE (AS NOTED)
WALL (AS NOTED)
OVERHEAD UTILITY LINE
UNDERGROUND CABLE
GAS LINE
SANITARY LINE
STORM LINE
WATER LINE
BUILDING AREA
ASPHALT
CONCRETE

MANHOLE SCHEDULE

NUM	TYPE	RIM (FT)	SIZE (IN)	DIR	INV ELEV (FT)	NUM	TYPE	RIM (FT)	SIZE (IN)	DIR	INV ELEV (FT)
11069	STORM MANHOLE	642.68	15	NW	638.43	11734	STORM MANHOLE	642.87	12	SE	636.47
		642.68	15	SW	638.38			642.87	15	NE	639.62
11079	STORM MANHOLE	643.56	12	E	636.44	11740	CATCH BASIN	642.87	12	NW	638.17
		643.56	15	S	636.46	15000	CATCH BASIN	642.68	12	E	639.68
11438	CATCH BASIN	641.95	12	E	631.30			642.68	12	N	639.68
11467	CATCH BASIN	642.06	12	N	639.11	15002	CATCH BASIN	641.44	7	WATER	637.94
		642.06	12	W	639.16	15007	STORM MANHOLE	643.41	12	SE	638.31
		642.06	15	SE	638.76			643.41	12	W	636.61
11490	CATCH BASIN	642.45	12	S	639.75			642.50	54	N	626.70
11571	CATCH BASIN	642.71	12	W	640.31	85137	STORM MANHOLE	642.50	54	S	626.40
11601	CATCH BASIN	642.30	12	E	639.95			643.24	15	N	634.14
		642.30	12	S	638.65	85138	SANITARY MANHOLE	643.24	15	S	634.09
11638	CATCH BASIN	642.42	12	N	639.82			643.24	8	W	635.19
		642.42	15	SW	639.72			641.85	12	NW	637.85
11666	CATCH BASIN	642.72	12	S	640.52	85140	STORM MANHOLE	641.85	12	E	635.25
11695	STORM MANHOLE	643.35	12	N	638.95			641.85	12	SE	637.70
		643.35	12	E	636.65			643.11	15	N	633.46
		643.35	12	SE	636.75	85143	SANITARY MANHOLE	643.11	18	W	633.41

ZONING REGULATIONS

GB - GENERAL BUSINESS DISTRICT

*MINIMUM LOT SIZE - N/A

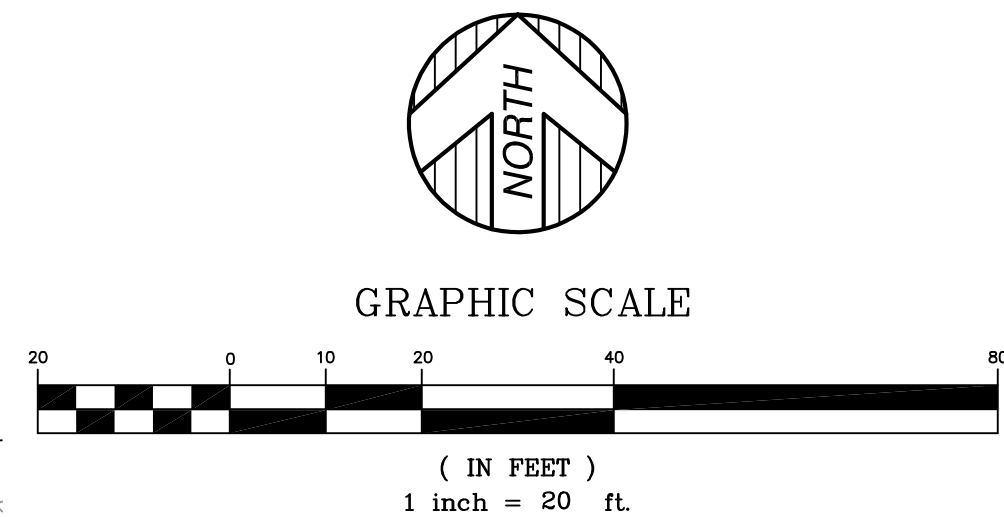
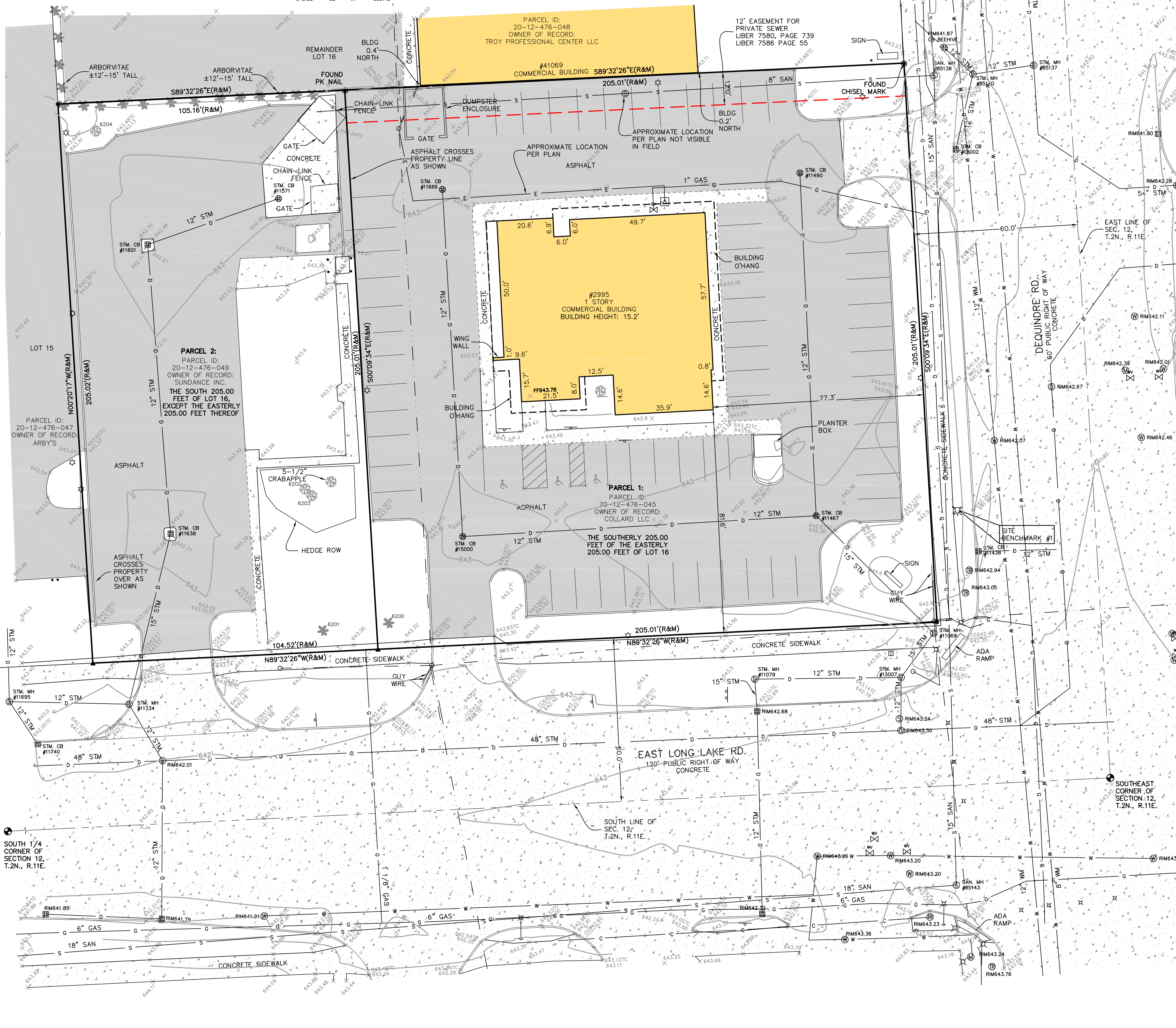
*MINIMUM LOT WIDTH - N/A

*MAXIMUM LOT COVERAGE - N/A

*REQUIRED MINIMUM SETBACK LINES -
FRONT - 10 FEET
LEAST ONE SIDE - 20 FEET
TOTAL TWO SIDES - 40 FEET
REAR - 30 FEET

*MAXIMUM HEIGHT - 40 FEET/3 STORIES

NOTE: ALL ZONING INFORMATION IS TAKEN FROM THE CITY OF TROY WEBSITE. ALL ZONING INFORMATION MUST BE VERIFIED FOR COMPLETENESS WITH CURRENT ZONING REGULATIONS.



PROPERTY DESCRIPTION

THE LAND SITUATED IN THE CITY OF TROY, COUNTY OF OAKLAND, STATE OF MICHIGAN, IS DESCRIBED AS FOLLOWS:
PARCEL 1: THE SOUTHERLY 205.00 FEET OF THE EASTERLY 205.00 FEET OF LOT 16, JENNINGS SUBDIVISION, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN LIBER 59 OF PLATS, PAGE 8, OAKLAND COUNTY RECORDS.
PARCEL 2: THE SOUTHERLY 205 FEET OF LOT 16, EXCEPT THE EASTERLY 205 FEET THEREOF, JENNINGS SUBDIVISION, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN LIBER 59 OF PLATS, PAGE 8, OAKLAND COUNTY RECORDS, BEING MORE PARTICULARLY DESCRIBED AS: BEGINNING AT A POINT ON THE NORTHERLY LINE OF EAST LONG LAKE ROAD (120 FEET WIDE) DISTANT NORTH 89 DEGREES 32 MINUTES 26 SECONDS WEST, 205.01 FEET ALONG SAID NORTHERLY LINE, FROM THE SOUTHEAST CORNER OF LOT 16, SAID CORNER BEING ALSO THE INTERSECTION OF THE WESTERLY LINE OF DEQUINDE ROAD, (120 FEET WIDE) WITH THE NORTHERLY LINE OF SAID EAST LONG LAKE ROAD, PROCEEDING THENCE NORTH 89 DEGREES 32 MINUTES 26 SECONDS WEST, 104.52 FEET ALONG SAID NORTHERLY LINE; THENCE NORTH 00 DEGREES 20 MINUTES 17 SECONDS WEST, 205.02 FEET; THENCE SOUTH 89 DEGREES 32 MINUTES 26 SECONDS EAST, 105.16 FEET; THENCE SOUTH 00 DEGREES 09 MINUTES 34 SECONDS EAST, 205.01 FEET TO THE POINT OF BEGINNING.

TITLE REPORT NOTE

PARCEL 1: ONLY THOSE EXCEPTIONS CONTAINED WITHIN THE FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT NO. 10135-109499, DATED 07/25/23, AND RELISTED BELOW WERE CONSIDERED FOR THIS SURVEY. NO OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.
7. COVENANTS, CONDITIONS AND RESTRICTIONS AND OTHER PROVISIONS AS CONTAINED IN INSTRUMENT RECORDED IN LIBER 2758, PAGE 663, OAKLAND COUNTY RECORDS, PLEASE BE ADVISED THAT ANY PROVISION CONTAINED IN THIS DOCUMENT, OR IN A DOCUMENT THAT IS ATTACHED, LINKED, OR REFERENCED IN THIS DOCUMENT, THAT UNDER APPLICABLE LAW ILLEGALLY DISCRIMINATES AGAINST A CLASS OF INDIVIDUALS BASED UPON PERSONAL CHARACTERISTICS SUCH AS RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, FAMILIAL STATUS, DISABILITY, NATIONAL ORIGIN, OR ANY OTHER LEGALLY PROTECTED CLASS, IS ILLEGAL AND UNENFORCEABLE. (SEE DOCUMENT FOR TERMS AND CONDITIONS)
8. SUBJECT TO THE EASEMENTS, RESTRICTIONS AND RESERVATIONS CONTAINED IN THE JENNINGS SUBDIVISION PLAT RECORDED AT LIBER 59, PAGE(S) 8, OAKLAND COUNTY RECORDS,(NONE)
17. EASEMENT FOR PRIVATE SEWER, AND THE TERMS, CONDITIONS AND PROVISIONS CONTAINED THEREIN, RECORDED IN LIBER 7580, PAGE 739 AND LIBER 7586, PAGE 55, (AS SHOWN)

PARCEL 2: ONLY THOSE EXCEPTIONS CONTAINED WITHIN THE FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT NO. 10135-109499, DATED 07/25/23, AND RELISTED BELOW WERE CONSIDERED FOR THIS SURVEY. NO OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.
7. COVENANTS, CONDITIONS AND RESTRICTIONS AND OTHER PROVISIONS AS CONTAINED IN INSTRUMENT RECORDED IN LIBER 2758, PAGE 663, OAKLAND COUNTY RECORDS, PLEASE BE ADVISED THAT ANY PROVISION CONTAINED IN THIS DOCUMENT, OR IN A DOCUMENT THAT IS ATTACHED, LINKED, OR REFERENCED IN THIS DOCUMENT, THAT UNDER APPLICABLE LAW ILLEGALLY DISCRIMINATES AGAINST A CLASS OF INDIVIDUALS BASED UPON PERSONAL CHARACTERISTICS SUCH AS RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, FAMILIAL STATUS, DISABILITY, NATIONAL ORIGIN, OR ANY OTHER LEGALLY PROTECTED CLASS, IS ILLEGAL AND UNENFORCEABLE. (SEE DOCUMENT FOR TERMS AND CONDITIONS)
8. SUBJECT TO THE EASEMENTS, RESTRICTIONS AND RESERVATIONS CONTAINED IN THE JENNINGS SUBDIVISION PLAT RECORDED AT LIBER 59, PAGE(S) 8, OAKLAND COUNTY RECORDS,(NONE)
16. EASEMENT FOR PRIVATE SEWER, AND THE TERMS, CONDITIONS AND PROVISIONS CONTAINED THEREIN, RECORDED IN LIBER 7580, PAGE 739 AND LIBER 7586, PAGE 55, (AS SHOWN)

SURVEYOR'S CERTIFICATION

TO NATIONAL EXPRESS WASH II LLC, A DELAWARE LIMITED LIABILITY COMPANY, FIRST AMERICAN TITLE INSURANCE COMPANY & TITLE CONNECT, LLC

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 1, 2, 3, 4, 5, 6A, 6B, 7A, 7B1, 7C, 8, 9, 11A, 11B, 13, 14, 16, 17, 18 AND 19 OF TABLE A, THEREOF. THE FIELD WORK WAS COMPLETED ON 09/01/23.

DATE OF PLAT OR MAP: 09/15/23

ANTHONY T. SYCKO, JR., P.S.
PROFESSIONAL SURVEYOR
MICHIGAN LICENSE NO. 47976
22556 GRATIOT AVE., EASTPOINTE, MI 48021
TSycko@kemtec-survey.com

ALTA / NSPS LAND TITLE SURVEY
PREPARED FOR: ALRIG USA
2955 & 2995 EAST LONG LAKE RD., TROY, MICHIGAN
PART OF SECTION 12,
TOWN 2 NORTH, RANGE 11 EAST

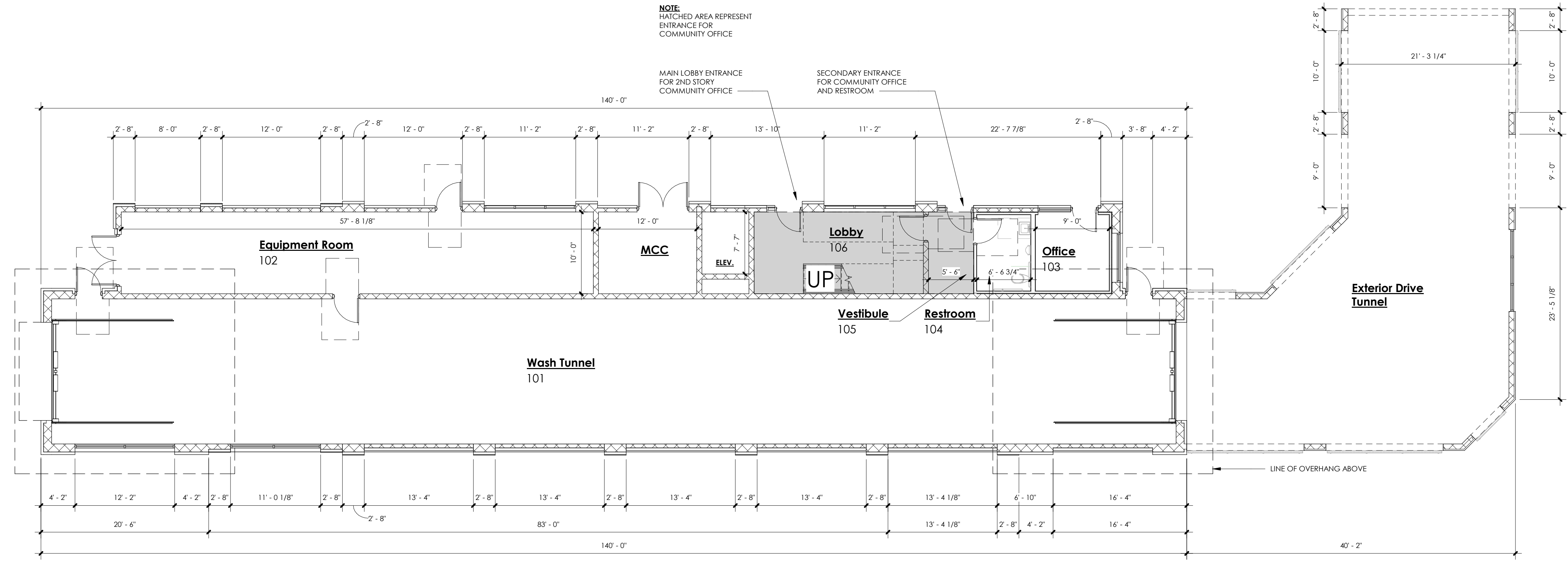
DATE	BY	REVISION	DESCRIPTION
09-03-24	JOM	1	ADDED TREE SURVEY
09-27-23	JO	2	UTILITIES REVISED PER REVIEW COMMENT
09-15-23	ATS	1	DATE
09-13-23	LU	1	DATE

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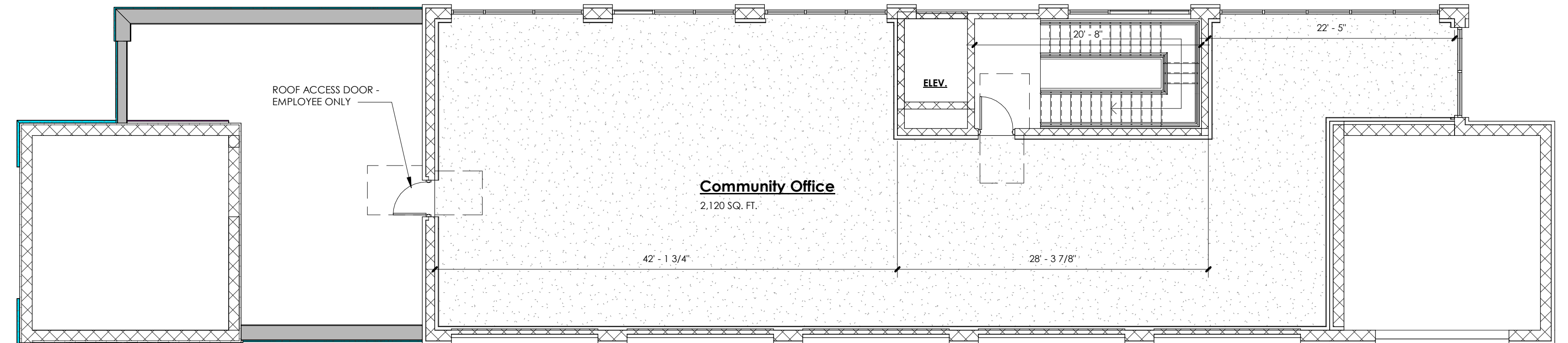
Client:
El Car Wash East Long Lake LLC
30200 Telegraph Rd., Suite 205
Bingham Farms, MI 48025

Project:
El Car Wash
2995 E. Long Lake
Troy, MI 48065

Issued	Description	By
01.19.2024	Initial Client Review	
05.23.2024	Site Plan Review	
07.12.2024	Planning Comments	
08.02.2024	Site Plan Review	
10.29.2024	Site Plan Review Updates	



First Floor Plan
1/8" = 1'-0"



Second Floor Plan
1/8" = 1'-0"

PRELIMINARY NOT FOR CONSTRUCTION

Seal: _____

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow: _____

Sheet Title:
Floor Plan

Project Number:
23-132

Scale:
1/8" = 1'-0"

Sheet Number:

A.101

TRANSPARENCY REQUIREMENTS						
FACADE	FRONT OR SIDE	TRANSPARENCY REQ.**	TOTAL AREA	GLAZING / DOOR SQ. FT. / %	GREEN SCREEN/CLEAR OPENING / %**	MEETS REQUIREMENTS: YES/NO
NORTH	SIDE YARD	30%	2,844 SQ. FT.	363 SQ. FT. / 12.7%	284 SQ. FT. / 10.0%	YES - SEE COMMENTS BELOW
SOUTH	FRONT YARD	50%	2,843 SQ. FT.	524 SQ. FT. / 18.4%	279 SQ. FT. / 9.8%	YES - SEE COMMENTS BELOW
WEST	SIDE YARD	30%	502 SQ. FT.	205 SQ. FT. / 40.6%	0 SQ. FT. / 0%	YES
EAST	FRONT YARD	50%	827 SQ. FT.	87 SQ. FT. / 10.5%	204 SQ. FT. / 24.7%	YES - SEE COMMENTS BELOW

NOTES:

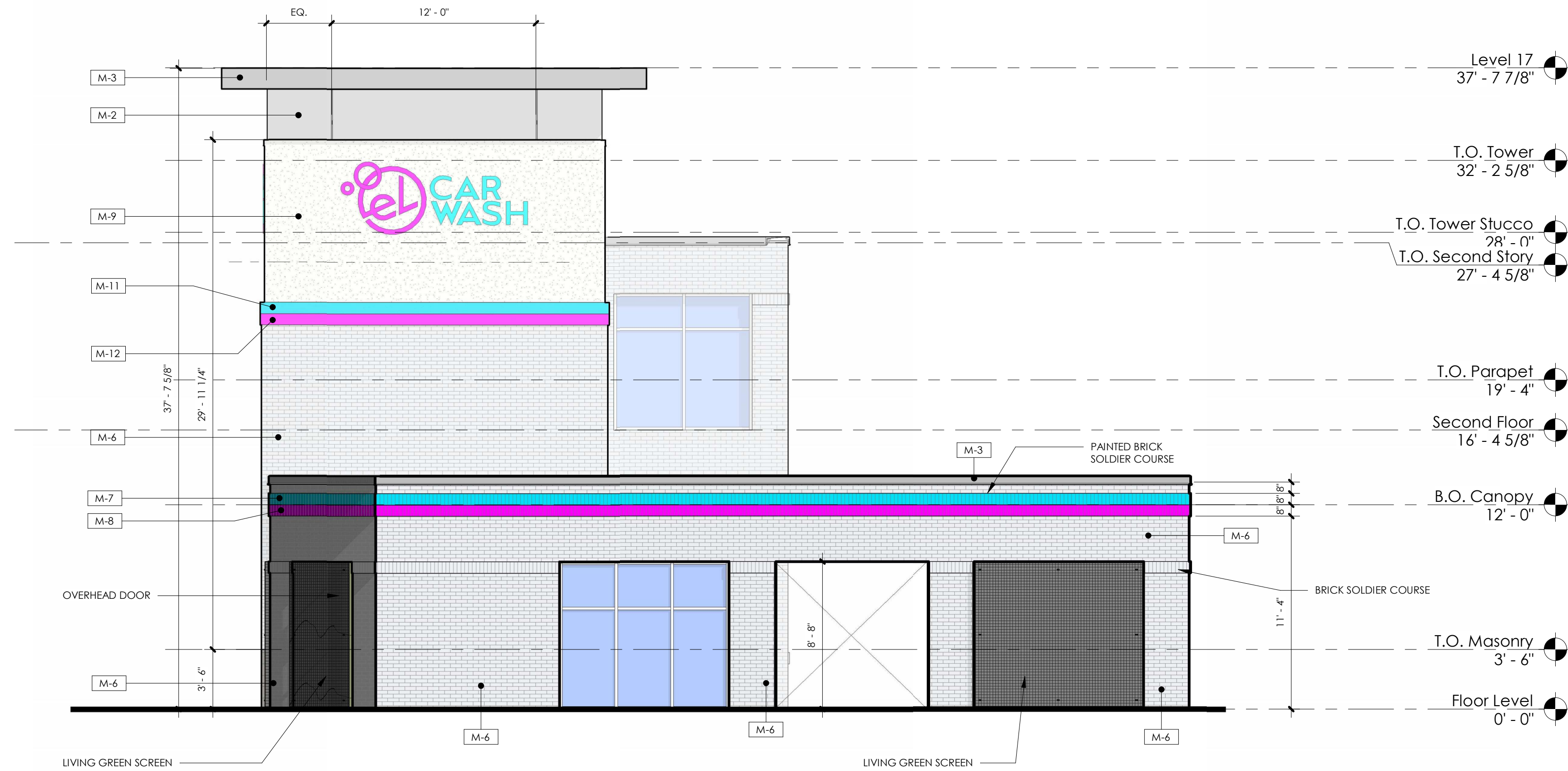
* Transparency Requirements: Per Section 5.06 - Neighborhood Nodes District, section E.2.A states the transparency requirement apply to the first floor of a building only. Additionally, "Transparency Alternatives" may be used for up to 80% of the requirements on front facades when used in combination and the wall design may be used for up to 100% of the requirement for side street/yard requirements.
 ** Green Screens or planter walls count towards one of the wall design alternatives per Section 2.8.1.F.

- North Facade.
 - The additional 490 sq. ft. required to meet the 30% requirement is completed using the wall design alternatives. This takes into account a series of green living wall screens (l), variations in material module, pattern, and/or color (d), and a system of horizontal and vertical scaling elements such as: soldier courses, horizontal bands, and brick pilasters. The wall design alternative can account for up to 80% of the transparency requirement.
- South Facade.
 - The additional 897.5 sq. ft. required to meet the 50% requirement is completed using the wall design alternatives and outdoor seating, which can account for 80% of the required transparent area. This takes into account a series of green living wall screens (l), variations in material module, pattern, and/or color (d), and a system of horizontal and vertical scaling elements such as: soldier courses, horizontal bands, and brick pilasters. The wall design alternative can account for up to 710.5 sq. ft. while the outdoor seating accounts for the remaining.
- West Facade.
 - The West facade is covered by the percentage of glazing/door currently shown.
- East Facade.
 - The 413.5 sq. ft. required to meet the 50% requirement is completed using the wall design alternatives and outdoor seating of the corner. Transparency requirements may account for 80% of the required wall space. Glazing/Door space is required to be at least 82.7 sq. ft. which we meet. The Wall design alternatives take into account a series of green living wall screens (l), variations in material module, pattern, and/or color (d), and a system of horizontal and vertical scaling elements such as: soldier courses, horizontal bands, and brick pilasters. The wall design alternative can account for up to 50% of the transparency requirement. The remaining square footage is covered by outdoor seating areas.

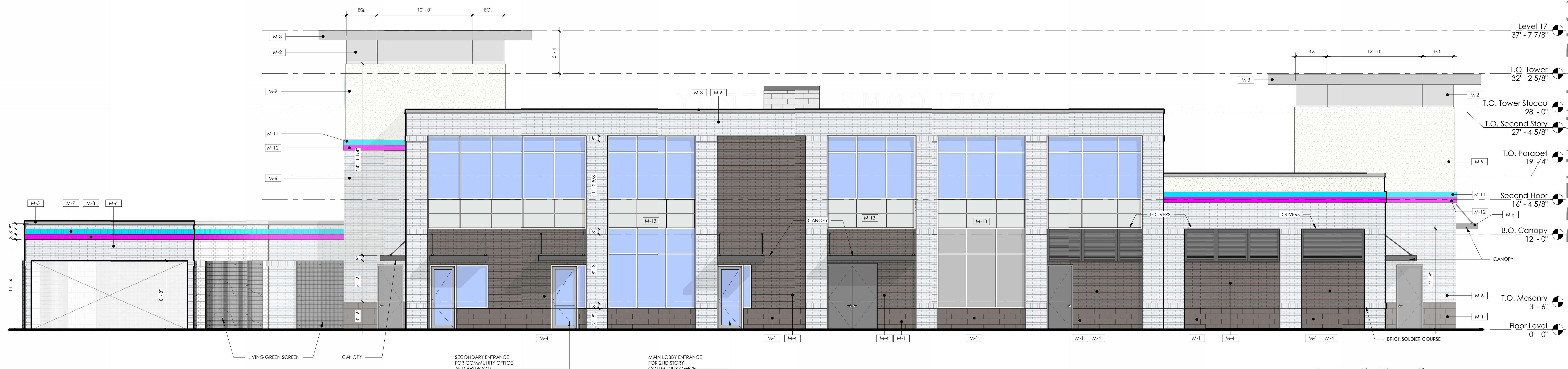
EXTERIOR MATERIAL SCHEDULE :

M-1	DESCRIPTION: DOUBLE TITAN BRICK (GLEN-GERY) FINISH / COLOR: PAINTED "GAUNTLET GREY"
M-2	DESCRIPTION: ALUM. COMPOSITE PANEL BASIS OF DESIGN: APOLIC FINISH / COLOR: REFLECTIVE MIRROR
M-3	DESCRIPTION: METAL FLASHINGS BASIS OF DESIGN: PAC-CLAD (24 GA) FINISH / COLOR: SILVER
M-4	DESCRIPTION: BRICK BASIS OF DESIGN: GLEN-GERY FINISH / COLOR: PAINTED "GAUNTLET GREY"
M-5	DESCRIPTION: PREF-AB CANOPY BASIS OF DESIGN: MASA EXTRUDED R' J 366-FLAT SORTRE FEDERAL STANDARD GREY
M-6	DESCRIPTION: BRICK BASIS OF DESIGN: GLEN-GERY FINISH / COLOR: ASPEN WHITE
M-7	DESCRIPTION: BRICK (SOLDIER COURSE) FINISH / COLOR: PAINTED - PANTONE 3252 (CYAN)
M-8	DESCRIPTION: BRICK (SOLDIER COURSE) FINISH / COLOR: PAINTED - LOGO COLOR (MAGENTA)
M-9	DESCRIPTION: EIFS BASIS OF DESIGN: STO CORP. FINISH / COLOR: HIGH REFLECTIVE WHITE SW 7527 (WHITE)
M-10	DESCRIPTION: HORIZONTAL FLAT FIN METAL SIDING PANELS BASIS OF DESIGN: MICELROY FINISH / COLOR: SLATE GRAY
M-11	DESCRIPTION: EIFS BASIS OF DESIGN: STO CORP. FINISH / COLOR: PANTONE 3252 (CYAN)
M-12	DESCRIPTION: EIFS BASIS OF DESIGN: STO CORP. FINISH / COLOR: PAINTED LOGO COLOR (MAGENTA)
M-13	DESCRIPTION: ALUM. COMPOSITE PANEL BASIS OF DESIGN: APOLIC FINISH / COLOR: RHINESTONE SW7656

NOTE: SUBMIT SAMPLES OF ALL SELECTED MATERIALS TO OWNER & ARCHITECT FOR APPROVAL PRIOR TO ORDERING.



2 East Elevation
3/16" = 1'-0"



1 North Elevation
3/16" = 1'-0"

KRIEGER KLATT ARCHITECTS
2120 E. 11 Mile Rd. | Royal Oak, MI 48067
P: 248.414.9270 F: 248.414.9275
www.kriegerklatt.com

Client:
El Car Wash East Long Lake LLC
30200 Telegraph Rd., Suite 205
Bingham Farms, MI 48025

Project:
El Car Wash
2995 E. Long Lake
Troy, MI 48065

Issued	Description	By
01.19.2024	Initial Client Review	
05.23.2024	Site Plan Review	
07.12.2024	Planning Comments	
08.02.2024	Site Plan Review	
10.29.2024	Site Plan Review Updates	

Seal:

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

Sheet Title:
Exterior Elevations

Project Number:
23-132

Scale:
As Indicated

Sheet Number:
A.200

PRELIMINARY NOT FOR CONSTRUCTION

TRANSPARENCY REQUIREMENTS						
FACADE	FRONT OR SIDE	TRANSPARENCY REQ.*	TOTAL AREA	GLAZING / DOOR SQ. FT. / %	GREEN SCREEN/CLEAR OPENING / %**	MEETS REQUIREMENTS, YES/NO
NORTH	SIDE YARD	30%	2,844 SQ. FT	343 SQ. FT / 12.7%	284 SQ. FT / 10.0%	YES - SEE COMMENTS BELOW
SOUTH	FRONT YARD	50%	2,843 SQ. FT	524 SQ. FT / 18.4%	279 SQ. FT / 9.8%	YES - SEE COMMENTS BELOW
WEST	SIDE YARD	30%	502 SQ. FT	205 SQ. FT / 40.6%	0 SQ. FT / 0%	YES
EAST	FRONT YARD	50%	827 SQ. FT	87 SQ. FT / 10.5%	204 SQ. FT / 24.7%	YES - SEE COMMENTS BELOW

NOTES:

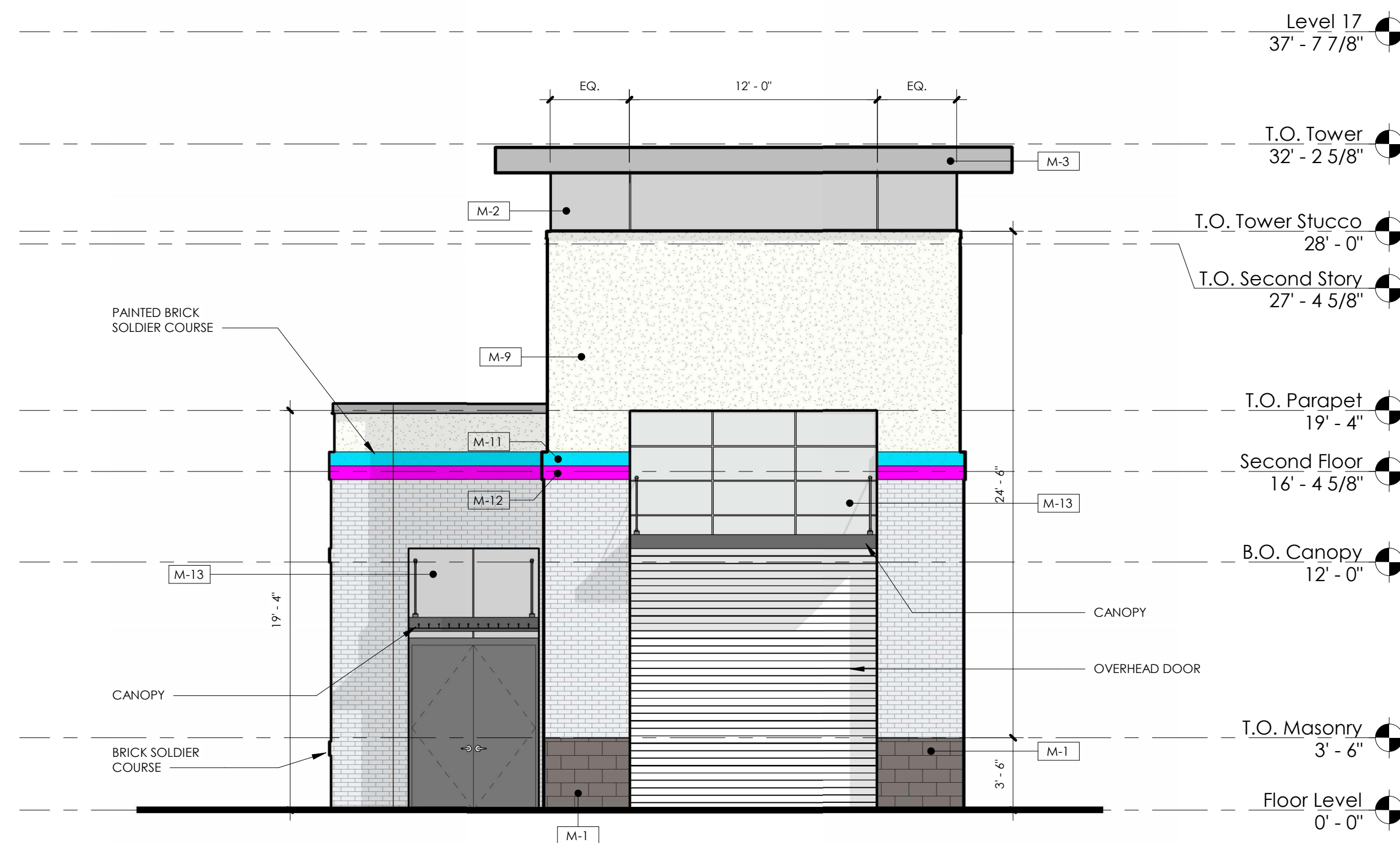
* Transparency Requirements: Per Section 2.04 - Neighborhood Nodes District, Section E.2.A states the transparency requirement apply to the first floor of a building only. Additionally, "Transparency Alternatives" may be used for up to 80% of the requirements on front facades when used in combination and the wall design may be used for up to 100% of the requirement for side street requirements.
 ** Green Screens or planter walls count towards one of the wall design alternatives per Section 2.8.J.F.

- North Facade
 - The additional 490 sq. ft. required to meet the 30% requirement is completed using the wall design alternatives. This takes into account a series of green living wall screens (I), variations in material module, pattern, and/or color (d), and a system of horizontal and vertical scaling elements such as: soldier courses, horizontal bands, and brick pilasters. The wall design alternative can account for up to 80% of the transparency requirement.
- South Facade
 - The additional 897.5 sq. ft. required to meet the 50% requirement is completed using the wall design alternatives and outdoor seating, which can account for 80% of the required transparent area. This takes into account a series of green living wall screens (I), variations in material module, pattern, and/or color (d), and a system of horizontal and vertical scaling elements such as: soldier courses, horizontal bands, and brick pilasters. The wall design alternative can account for up to 710.5 sq. ft. while the outdoor seating accounts for the remaining.
- West Facade
 - The West facade is covered by the percentage of glazing/door currently shown.
- East Facade
 - The 413.5 sq. ft. required to meet the 50% requirement is completed using the wall design alternatives and outdoor seating of the corner. Transparency requirements may account for 80% of the required wall space. Glazing/Door space is required to be at least 82.7 sq. ft. which we meet. The wall design alternatives take into account a series of green living wall screens (I), variations in material module, pattern, and/or color (d), and a system of horizontal and vertical scaling elements such as: soldier courses, horizontal bands, and brick pilasters. The wall design alternative can account for up to 50% of the transparency requirement. The remaining square footage is covered by outdoor seating areas.

EXTERIOR MATERIAL SCHEDULE:

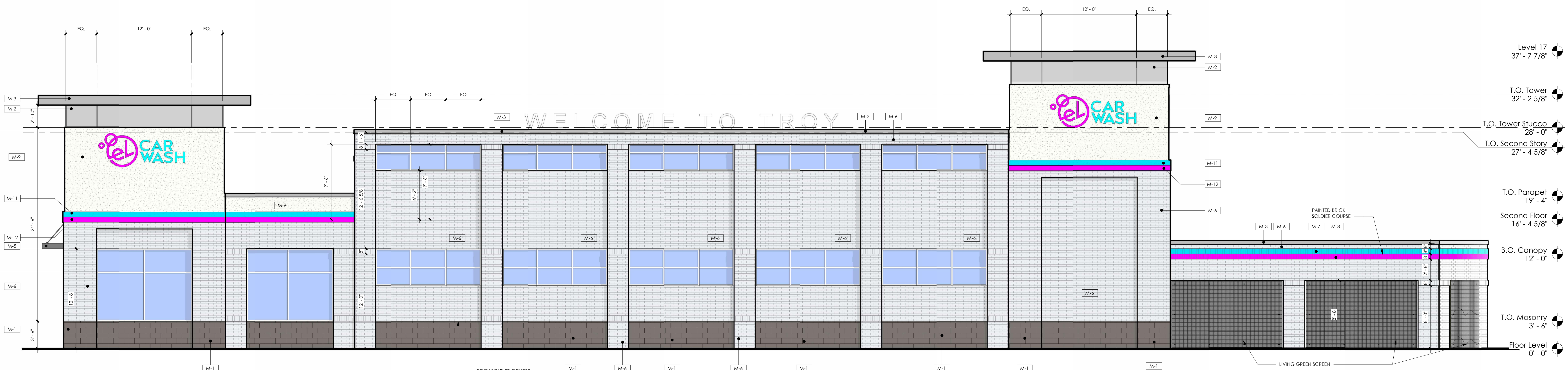
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M-5	DESCRIPTION: PRE-FAB CANOPY BASE OF DESIGN: HANSA FINISH / COLOR: EXTRUDECK 8" J 3X6 FLAT SOFFIT FEDERAL STANDARD GREY
M-6	DESCRIPTION: BRICK BASE OF DESIGN: GLEN-GERY FINISH / COLOR: APEX WHITE
M-7	DESCRIPTION: BRICK (SOLDIER COURSE) FINISH / COLOR: PAINTED - PANTONE 3252 (CYAN)
M-8	DESCRIPTION: BRICK (SOLDIER COURSE) FINISH / COLOR: PAINTED - LOGO COLOR (MAGENTA)
M-9	DESCRIPTION: EPS BASE OF DESIGN: STO CORP. FINISH / COLOR: HIGH REFLECTIVE WHITE SW 7737 (WHITE)
M-10	DESCRIPTION: HORIZONTAL FLAT FW BASE OF DESIGN: METAL SIDING PANELS FINISH / COLOR: SLATE GRAY
M-11	DESCRIPTION: EPS BASE OF DESIGN: STO CORP. FINISH / COLOR: PANTONE 3252 (CYAN)
M-12	DESCRIPTION: EPS BASE OF DESIGN: STO CORP. FINISH / COLOR: PAINTED LOGO COLOR (MAGENTA)
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NOTE: SUBMIT SAMPLES OF ALL SELECTED MATERIALS TO OWNER & ARCHITECT FOR APPROVAL PRIOR TO ORDERING.



West Elevation

3/16" = 1'-0"



South Elevation

3/16" = 1'-0"

KRIEGER KLATT ARCHITECTS
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Sheet Title:
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 23-132

Scale:
 As Indicated

Sheet Number:

A.201

PRELIMINARY NOT FOR CONSTRUCTION



e CAR WASH

WELCOME TO TROY

e CAR WASH



WELCOME TO TROY

CAR WASH

CAR WASH

TBD - TENANT

TROY











CAR WASH



WELCOME TO ROXY

CAR WASH

CAR WASH

TBD - TENANT

ROXY



WELCOME TO TROY

CAR WASH

CAR WASH

CAR WASH
TBD - TENANT

TROY



October 18, 2024

Brent Savidant
City of Troy Community Development Director
500 W Big Beaver Rd.
Troy, MI 48084

Dear Brent,

My name is Paula Kast and I am the Executive Director of the Jenna Kast Believe in Miracles Foundation, a grassroots nonprofit founded in Troy in 2005. For nearly 20 years we have been granting wishes for children with life-threatening illness in Michigan. We are deeply grateful for the ongoing support from the community that has made our work possible.

I'm writing to express my support for the construction of the new El Car Wash on Long Lake in Troy, MI. We are excited to welcome this business into our community and look forward to the opportunity for our non-profit to partner with them.

Additionally, we are eager to utilize the upstairs space for meetings and small events, which will further strengthen our collaboration. After speaking with Gabe and reviewing the plans, I believe this business will provide significant value to our community, not only through its services but also through its strong commitment to community involvement.

Thank you for your consideration of this project

Sincerely,

Paula Kast
paula@believeinmiracles.org
248-633-5109

Enriching the lives of Michigan children

From: [john kelly](#)
To: [Planning](#)
Subject: Land Use Public Comment
Date: Monday, June 17, 2024 10:31:23 PM

You don't often get email from jkelly177@yahoo.com. [Learn why this is important](#)

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Subject: Land Use Public Comments El Carwash E. Long Lake

Planning@troymi.gov

As resident of Stoneridge Subdivision, I am concerned with the proposed building of a car wash in this area for several reasons:

- 1) Safety, the traffic at the intersection of Dequindre and E. Long Lake has significantly increased in the past couple of years. I have witnessed numerous accidents. I fear with vehicles pulling in and out at the corner, at a greater frequency than today, (i.e. the slower restaurant traffic) would increase the risk of more accidents. Also, a lot of pedestrians use the sidewalk, with the in and out traffic, the sidewalk would be constantly blocked.
- 2) Related to the first point, congestion would likely increase. As a Troy resident in the vicinity, I drive through this intersection on workdays and weekends. It is way too busy. The turn lanes at the intersection are many cars deep, it will only get worse with a constant flow of traffic pulling in and out (i.e. so close to the intersection). The traffic flow does not make sense.
- 3) Since I have lived in the Stoneridge, that corner has been a restaurant. My children have had field trips from Wass Elementary to those restaurants. Other building/businesses, restaurants and medical offices, serve the local community. A car wash provides minimal benefit to this family-oriented subdivision.

Every car wash in the vicinity is in a more business / high traffic area. Some Examples

- 1) South Rochester Rd , before Big Beaver (Picanos)
- 2) Rochester Rd (Rochester Hill), north of M59 , across from Target (Jax Kar)
- 3) Mound Rd South 17 mile (Ace Auto)

4) Recommend this corner be reserved for restaurants and offices.

5) Please respond if clarification is needed (including resident address)

Thank you

John Kelly
Troy Resident
Stoneridge Subdivision

From: [papadea](#)
To: [Planning](#)
Subject: Car wash proposal
Date: Tuesday, June 25, 2024 5:16:18 PM

You don't often get email from papadea@aol.com. [Learn why this is important](#)

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Planning Department, Planning Commission and City Council:

I am writing in opposition to the car wash being proposed at 2995 E Long Lake Rd in Troy. Car washes historically create a great deal of traffic as I am sure the traffic study will indicate. This intersection is extremely busy and dangerous. There are a great deal of cars speeding down Dequindre Road all day and night well in excess of the speed limit.

This property is currently zoned "N-N" or "Neighborhood Node" and would require a special land use for approval of the car wash. The Zoning Ordinance Section 9.03 lists the Special Use Standards that the project must meet for approval. Out of the 7 criteria items - the project would impact most of them especially Traffic Impact, Impact on the Overall Environment, Compatibility with Adjacent Uses and presumably the Master Plan.

We urge you to deny the development and look for a more suitable use.

*Sincerely,
Stratton and Denise Dorozenski
Owners and residents of
Avalon Meadows Condominioums
18 mile and Dequindre*

Sent from my iPhone

ITEM #7

DATE: November 4, 2024

TO: Planning Commission

FROM: R. Brent Savidant, Community Development Director

SUBJECT: PRELIMINARY SITE PLAN REVIEW (SP JPLN2024-0016) – Proposed Elevate Troy Mixed Use Development, South of Big Beaver, East of Todd (1787 & 1985 West Big Beaver; PIN 88-20-29-226-003, -002 & -020), Section 29, Currently Zoned BB (Big Beaver) Zoning District

The petitioner Encore Big Beaver, LLC submitted the above referenced Preliminary Site Plan application for a mixed-use development featuring studio apartments, 1-2 bedroom apartments and restaurant. The Planning Commission is authorized to approve this Preliminary Site Plan.

The attached report prepared by Carlisle/Wortman Associates, Inc. (CWA), the City's Planning Consultant, summarizes the project. CWA prepared the report with input from various City departments including Planning, Engineering, Public Works and Fire. City Management supports the findings of fact contained in the report and the recommendations included therein.

Attachments:

1. Maps
2. Report prepared by Carlisle/Wortman Associates, Inc.
3. Anticipated Traffic Impacts, Memo prepared by OHM Advisors, dated June 25, 2024.
4. Preliminary Site Plan Application.

PROPOSED RESOLUTION

Resolution # PC-2024-11-

Moved by:

Support by:

RESOLVED, That Preliminary Site Condominium Approval, pursuant to Article 8 of the Zoning Ordinance, as requested for the proposed Somerset Park Apartments Administration and Learning Center and New Golf Cart Storage Garage, East of Coolidge, south of Big Beaver (2401 Golfview John R; PIN 88-20-29-176-002), Section 29, Currently Zoned MF (Multiple Family) Zoning District:

1. Relocate dumpster to a space that will not impede traffic.
2. Provide trash enclosure screening compliant with Section 13.03.

_____) or

(denied, for the following reasons: _____) or

(postponed, for the following reasons: _____)

Yes:

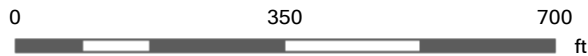
No:

Absent:

MOTION CARRIED



GIS Online



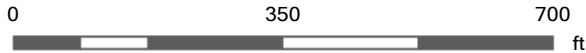
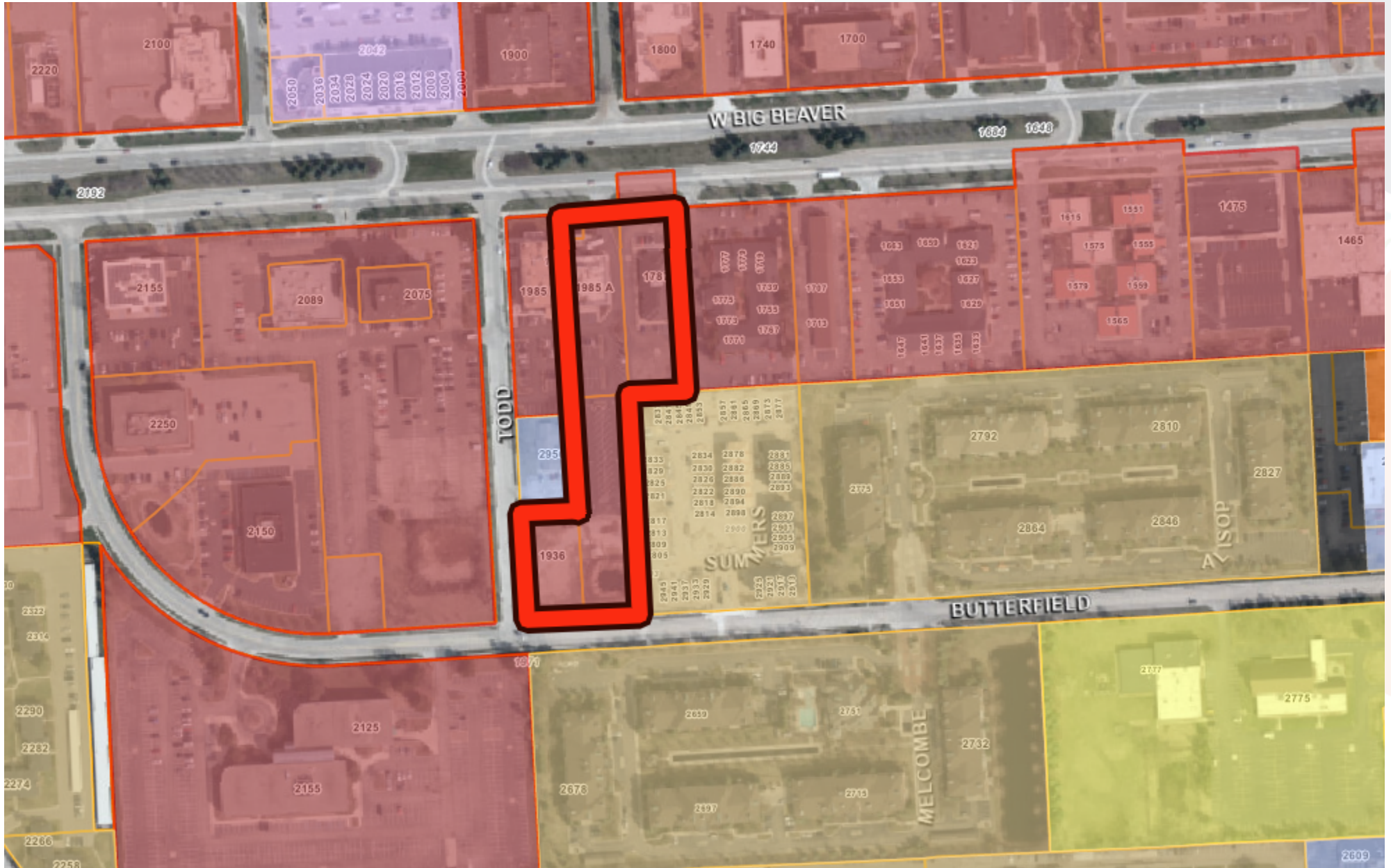
Print Date: 11/4/2024



Note: The information provided by this application has been compiled from recorded deeds, plats, tax maps, surveys, and other public records and data. It is not a legally recorded map survey. Users of this data are hereby notified that the source information represented should be consulted for verification.



GIS Online



Print Date: 11/4/2024



Note: The information provided by this application has been compiled from recorded deeds, plats, tax maps, surveys, and other public records and data. It is not a legally recorded map survey. Users of this data are hereby notified that the source information represented should be consulted for verification.



Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: July 9, 2024
October 16, 2024
November 4, 2024

Preliminary Site Plan

For

City of Troy, Michigan

Applicant: Jason Hamama (Encore Companies)

Project Name: Elevate Troy

Location: 1787 W Big Beaver Rd & 1985 W Big Beaver Rd

Plan Date: October 30, 2024

Zoning: BB, Big Beaver

Action Requested: Preliminary Site Plan Approval

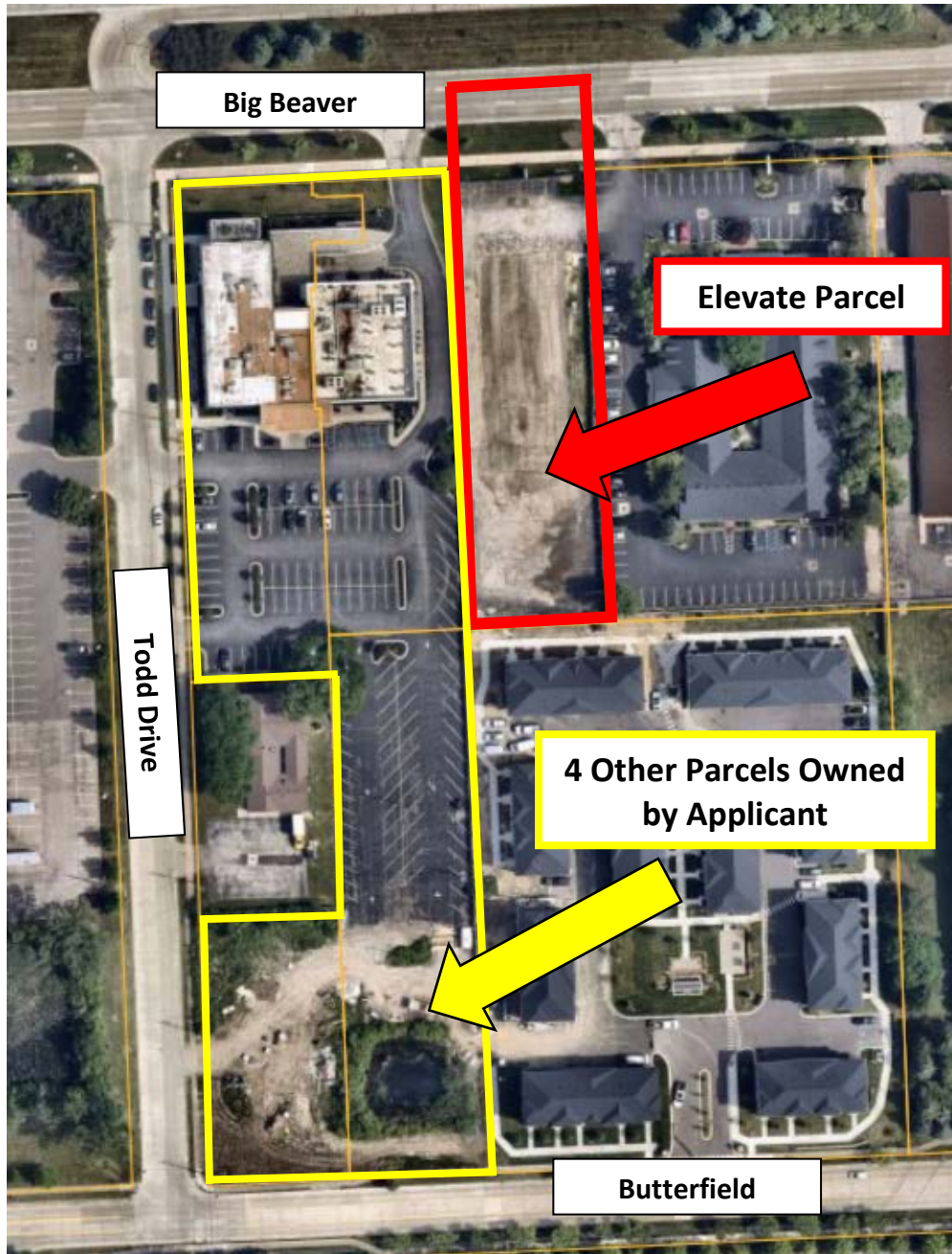
PROJECT AND SITE DESCRIPTION

An application has been submitted for a mixed-use development on Big Beaver, near the intersection of W Big Beaver and Todd Drive. The proposed development is 5-stories tall and includes a mix of retail and residential uses. On the first floor, two (2) retail storefronts abut Big Beaver and one (1) parking garage is connected directly behind. Above the parking garage, there are four (4) floors of luxury style apartments. Total building area is 105,543 square feet with a total of sixty-five (65) apartments.

While the new mixed-use building is located on one (1) parcel, the full project encompasses five (5) separate parcels. The applicant owns the subject parcel, as well as four (4) other nearby parcels. A shared parking agreement is proposed.

All five (5) parcels are zoned BB, Big Beaver Formed Based District and qualify as Site Type C. Big Beaver is "Street Type A" and Todd Drive is "Street Type C". Both retail and upper-story residential are permitted uses in this district.

Site Location:



Size of Subject Site:

0.83 acres.

Proposed Use of Subject Site:

5-story mixed-use building, including retail and residential apartments.

Current Zoning:

BB, Big Beaver Form Based District. Site Type C, Street Type A (Big Beaver).

Surrounding Property Details:

Direction	Zoning	Use
North	BB, Big Beaver	MLS & Co. Public Accountants
South	MF, Multiple Family	Center Court Luxury Townhomes
East	BB, Big Beaver	Heritage Square Office Suites
West	BB, Big Beaver	Benihana Steakhouse

NATURAL FEATURES

A tree inventory has been provided identifying thirty-four (34) trees on site. Of these thirty-four (34) trees, seven (7) are Woodland and zero (0) are Landmark trees. The applicant's tree replacement plan is compliant and outlined in the table below.

Replacement Details		
Protected Tree	Inches Removed	Replacement Required
Landmark	0 inches	0 inches
Woodland	30 inches	15 inches
Preservation/Mitigation	Inches Preserved	Credit
Landmark	0 inches	0 inches
Woodland	43 inches	43 inches
Total	Zero (0) inches required for replacement.	

Items to be Addressed: None.

AREA, WIDTH, HEIGHT, SETBACKS

The site is regulated by dimensional standards of Building Form D:

	Required	Provided	Compliance
Front (Big Beaver)	10-foot build-to-line	10 feet	Complies
Side (east, west)	N/A, building may be placed up to property line	East: 10 feet West: N/A	Complies
Rear (south)	40 feet minimum	40 feet	Complies
Building Height	35 feet minimum, 66 feet maximum	5 stories, 69 feet	Complies. See description below
Open Space	15%	16.96%	Complies
Parking Location	Surface parking shall be located in a rear yard or side yard; parking for residential tenants may be provided in integrated garages or below-grade parking.	Parking located in side yard, integrated garage, and on separate parcels	See Discussion Below

Building Height:

Most of the building meets the building height requirement of sixty-six (66) feet. Section 7.08 allows roof structures to exceed the maximum building height by up to ten (10) feet where elevators and stairways are located. The applicant has confirmed that, where proposed, the additional three (3) feet are proposed where stairs and elevators are located.

Parking Location:

Primary parking for apartment residents is available in the first floor parking garage. Parking spaces for retail patrons are available in the side yard on the west side of the building. On three (3) additional parcels to the west and southwest, the applicant seeks shared parking for the subject site and adjacent mixed-use building including retail, office, and restaurant uses. The applicant owns all referenced parcels. See parking section for more information.

Items to be Addressed: None

PARKING

	Required	Provided	Compliance
Existing Building (Benihanas, Jeweler, Office)			
<u>Retail:</u> 1 space per 250 SF of gross floor area	6,207 SF/250= 25 spaces	272 spaces on site with 8 spaces proposed as parking on Todd	Seeking shared parking relief through the Planning Commission.
<u>Restaurant:</u> 1 space per each 2 seats based on max seating capacity	246 seats/2= 123 spaces		
<u>Office:</u> 1 space per 300 SF of gross floor area	13,414 SF/300= 45 spaces		
Proposed Building (Mixed Use)			
<u>Residential:</u> 1 space per each efficiency unit + 2 spaces per each dwelling unit	13 efficiency*1= 13 + 52 dwelling*2= 104 = 117 residential spaces	272 spaces on site with 8 spaces proposed as parking on Todd	See Discussion Below
<u>Retail:</u> 1 space per 250 SF of gross floor area	5,149 SF/250= 21 spaces		
TOTAL REQUIRED PARKING= 331 SPACES			

The applicant owns the subject parcel, as well as four (4) other nearby parcels. Between these five (5) sites, there is a mix of residential, retail, office, and restaurant uses. The applicant proposes to utilize shared parking across these sites. We note that joint parking with abutting properties can be permitted under the condition that a shared parking agreement is provided in a form acceptable to the City Attorney and executed and recorded by the parties sharing the parking. Please note that the applicant is proposing 8 spaces along the Todd, a city owned street. They are asking to allow those 8 spaces to count towards their parking requirements.

A shared parking study was conducted by Tetra Tech and a Trip Generation Study was conducted by OHM. These studies are provided under separate cover and should be reviewed by the Planning Commission.

Barrier-Free and Bicycle Parking:

The proposed plan is compliant with barrier-free and bicycle parking requirements. Eight (8) barrier-free spaces are required and sixteen (16) have been provided. Two (2) spaces for bikes are required and six (6) have been provided.

Items to be Addressed: 1). Planning Commission evaluation of shared parking request; and 2). If the Planning Commission approves the shared parking request, a shared parking agreement shall be approved by the City Attorney.

ACCESS AND CIRCULATION

Vehicular Access:

The subject site currently has two (2) points of access: one (1) off Big Beaver and one (1) off Todd Drive. Overall, vehicular circulation is sufficient. However, more information is needed on the one-way drive heading northbound near the west side of the site. An aisle width of eleven (11) feet is provided in this area, but the angle of these parking spaces is unclear. We ask the applicant to confirm the angle of these spaces to ensure compliance with Table 13.06-B.

Pedestrian Access:

A sidewalk is proposed along the Big Beaver frontage and then continues in a relatively straight line through the center of the site (from the front to the rear). No sidewalk is provided along the west or south sides of the parking lot. With that said, safe pedestrian access throughout the large parking lot is minimal.

Items to be Addressed: 1). Confirm angle of the parking spaces where the 11-foot wide drive aisle is proposed (west side of the site).

TRAFFIC

OHM performed a Trip Generation Study and found that the amount of traffic generated from the proposed site will not provide excessive impacts to Big Beaver Road or the surrounding roadway network.

Items to be Addressed: None.

LANDSCAPING

A landscape plan has been provided on Sheet L-1.0. The following table discusses the development's compliance with the landscape requirements set forth in Section 13.02.

	Required	Provided	Compliance
Greenbelt			
1 tree per every 30 lineal feet of frontage	Big Beaver: 106 LF/30= 4 trees Butterfield: 212 LF/30= 7 trees	Big Beaver: 4 trees Butterfield: 7 trees	Complies

	Todd Dr: 200 LF/30= 7 trees	Todd Dr: 7 trees	
Parking Lot Trees			
1 tree per every 8 parking spaces	173 spaces/8 = 22 trees	22 trees	See Discussion Below
Tree Replacement			
Woodland: for trees with DBH 6 inches or larger, 50% of the original DBH removed Landmark: 100% of original DBH removed	30 inches Woodland trees removed = 15 inches replacement	43 inches Woodland preservation credit	Complies
Overall Site Landscaping			
A minimum of 20% of the site area shall be comprised of landscape material.	36,289 SF * 20% = 7,257.8 SF	12,743 SF	Complies

Parking Lot Trees:

The applicant proposes a total of twenty-two (22) parking lot trees, with approximately seven (7) located along the lot perimeter. Parking lot trees should be arranged in curbed islands within the parking lot; although, the Planning Commission has the authority to approve landscaping at the perimeter of the parking lot. Section 13.02.C.2.d. states the following:

“An equivalent amount of landscape plantings at the perimeter of parking lots may be approved where landscaping within parking lots would be impractical due to the size of the parking lot, detrimental to safe and efficient traffic flow, or would create an unreasonable burden for maintenance and snowplowing, provided all other landscaping requirements are met.”

Please note that any additional requirement will require the removal of parking spaces, which would impact the shared parking agreement.

Stormwater Retention/Detention:

A stormwater management plan has been provided on Sheet C-8.0 and is being reviewed by the City Engineer.

Trash Enclosure:

An internal trash room located on the west side of the building will be used by apartment residents. Additionally, an outdoor dumpster is shown west of the apartment building, behind the Benihana restaurant. We have concerns about the opening of this trash enclosure encroaching into the drive aisle. The applicant should consider relocating the dumpster to a space that will not impede traffic.

Lastly, the applicant proposes to screen the dumpster with shrubs; however, Section 13.03 requires trash containers to be screened with a wall and gate, constructed of durable material compatible with the architectural materials used in the site development. Screening shrubs may be used in addition to the required durable materials.

Mechanical Equipment:

All mechanical equipment is located internally. No screening is required.

Items to be Addressed: 1). Planning Commission evaluation of perimeter parking lot trees; 2). Relocate dumpster to a space that will not impede traffic; and 3). Provide trash enclosure screening compliant with Section 13.03.

PHOTOMETRICS

Four (4) types of downward-directed light fixtures are proposed throughout the site, in the parking garage, around the retail stores, and across the parking lot. All proposed fixture heights and lighting levels throughout the site comply with ordinance standards.

Items to be Addressed: None.

FLOOR PLAN AND ELEVATIONS

The proposed mixed-use development is 5-stories tall and includes two (2) retail storefronts and sixty-five (65) luxury apartments.

First Floor (22,331 SF):

The first floor is mostly comprised of two (2) retail storefronts abutting Big Beaver and one (1) parking garage connected directly behind. The first floor also includes the apartment lobby, trash room, retail lobby room, and a maintenance room.

Second Floor (22,166 SF):

Seventeen (17) apartment units are provided on the second floor. The applicant proposes a mix of studio, one (1) bedroom, and two (2) bedroom style apartments. Other rooms on the second floor include a trash room, co-working room, gym, locker room with restroom and sauna, common space, and an outdoor terrace.

Third Floor & Fourth Floor (22,166 SF each):

The third and fourth floors are largely arranged in the same manner. Each floor has twenty-one (21) units including studio, one (1) bedroom, and two (2) bedroom style apartments. Each floor also has a trash room and two (2) closets off the hallway.

Fifth Floor (15,714 SF):

The fifth floor has six (6) penthouse style apartments. The fifth floor also features a 1,927 square foot game room and speakeasy, 286 square foot “private room”, and a large outdoor terrace which wraps around most of the floor perimeter.

Apartment Sizes by Unit Type:

- Studio: 628-641 SF
- One-bedroom: 860-975 SF
- Two-bedroom: 1,083-1,179 SF
- Penthouse: 1,753-2,058 SF

Elevations:

Overall building height is 5-stories, 69 feet.

Building Materials:

Several building materials are proposed for the Elevate exterior. Proposed materials include burnished CMU veneer, stone veneer, metal panels, and metal coping, as well as glazed windows, full-lite entry doors, full-lite overhead (parking garage) doors, and a curtain wall system. Full-lite doors refer to doors comprised of mostly glass with a frame around the perimeter. A curtain wall system is normally used to protect a building exterior from natural elements. Proposed colors include black and light gray.

Items to be Addressed: None.

TRANSPARENCY REQUIREMENTS

Facade	Transparency Required	Provided	Compliance
North (Big Beaver) (Ground Floor)	575.5 SF * 50%= 287.75 SF	428 SF	Complies
West	1,754 SF* 30%= 526.2 SF	451 SF + 398 SF with Wall Design Alternatives (b), (c), and (d)	Complies with approval of transparency alternative.

The table above displays transparency calculations provided by the applicant. To fulfill transparency requirements for the west side façade, the applicant proposes the use of transparency alternatives (b), (c), and (d):

- (b) System of horizontal and vertical scaling elements such as: belt course, string courses, cornice, and pilasters.
- (c) System of horizontal and vertical reveals not less than one (1) inch in width/depth.

- (d) Variations in material module, pattern, and/or color.

Items to be Addressed: 1). Planning Commission consideration of wall design alternatives.

COLORED RENDERINGS

Elevate, NW Perspective, Big Beaver Entrance



DESIGN STANDARDS AND SITE PLAN REVIEW STANDARDS

The Big Beaver design standards as well as Site Plan review standards provide the Planning Commission with direction when reviewing the proposed site plan and design features of this development.

Section 5.04.E. outlines Design Standards:

1. *Building Orientation and Entrance*
2. *Ground Story Activation*
3. *Transitional Features*
4. *Site Access, Parking, and Loading*

Please see Section 5.04.E for standard details.

Section 8.06 outlines Site Plan Review Design Standards.

1. *Development shall ensure compatibility to existing commercial districts and provide a transition between land uses.*
 - a. *Building design shall enhance the character of the surrounding area in relation to building and parking placement, landscape and streetscape features, and architectural design.*
 - b. *Street fronts shall provide a variety of architectural expression that is appropriate in its context and prevents monotony.*
 - c. *Building design shall achieve a compatible transition between areas with different height, massing, scale, and architectural style.*

2. *Development shall incorporate the recognized best architectural building design practices.*
 - a. *Foster a lasting impact on the community through the provision of high quality design, construction, and detailing.*
 - b. *Provide high quality, durable materials, such as but not limited to stone, brick, glass, and metal. E.I.F.S. or material equivalent shall only be used as an accent material.*
 - c. *Develop buildings with creativity that includes balanced compositions and forms.*
 - d. *Design roofs that are appropriate to the architectural style of the building and create an appropriate visual exterior mass of the building given the context of the site.*
 - e. *For commercial buildings, incorporate clearly defined, highly visible customer entrances using features such as canopies, porticos, arcades, arches, wing walls, ground plane elements, and/or landscape planters.*
 - f. *Include community amenities that add value to the development such as patio/seating areas, water features, art work or sculpture, clock towers, pedestrian plazas with park benches or other features located in areas accessible to the public.*

3. *Enhance the character, environment and safety for pedestrians and motorists.*
 - a. *Provide elements that define the street and the pedestrian realm.*
 - b. *Create a connection between the public right of way and ground floor activities.*
 - c. *Create a safe environment by employing design features to reduce vehicular and pedestrian conflict, while not sacrificing design excellence.*
 - d. *Enhance the pedestrian realm by framing the sidewalk area with trees, awnings, and other features.*
 - e. *Improve safety for pedestrians through site design measures.*

SUMMARY

Overall, we strongly support the Troy Elevate development as it adds a vertical mixed-use element to the Big Beaver corridor. As part of the discussion, the Planning Commission should consider the following items:

1. *Compliance with Section 5.04.E. Big Beaver Design Standards*
2. *Compliance with Section 8.06 Site Plan Review Design Standards*
3. *Planning Commission evaluation of shared parking request*
4. *If the Planning Commission approves the shared parking request, a shared parking agreement shall be approved by the City Attorney.*
5. *Planning Commission evaluation of perimeter parking lot trees.*
6. *Planning Commission consideration of wall design alternatives.*

If the Planning Commission approves the project, we recommend the following conditions:

1. *Confirm angle of the parking spaces where the 11-foot wide drive aisle is proposed (west side of the site).*
2. *Relocate dumpster to a space that will not impede traffic.*
3. *Provide trash enclosure screening compliant with Section 13.03.*

Sincerely,



CARLISLE/WORTMAN ASSOC., INC.
Benjamin R. Carlisle, AICP, LEED AP
President



CARLISLE/WORTMAN ASSOC., INC.
Shana Kot
Community Planner



memorandum

Date: June 25, 2024

To: Scott Finlay, PE

From: Stephen Dearing, PE, PTOE & Lauren Hull, EIT

Re: Proposed Elevate Troy Development

The Elevate Troy development is proposed on the southwest corner of Big Beaver Road and Crooks Road in conjunction with an existing site. The existing site contains a building with 6,207 square-feet of retail, a restaurant with 246 seats, and a 13,414 square-foot office space. The proposed site contains 2,462 square-feet of retail, a restaurant with 50 seats, 52 studio / one-bed apartment units, and 38 two-bed / penthouse apartments. This proposed site will have four access points. Of these access points, one is proposed along Todd Drive just north of Butterfield Road. There is an existing access point along Big Beaver Road that is being modified, while the remaining two are existing along Todd Dr and not being modified.

To determine the expected trips generated from this site, ITE's Trip Generation website was used. Given the variety of uses within the proposed site, multiple land use codes were utilized. Land use code 221 – Multifamily Housing (Mid-Rise) was used since the building is proposed to have 5 stories. Land use code 932 - High-Turnover (Sit-Down) Restaurant was used for the restaurant. Lastly, land use code 851 – Convenience Store was used for the proposed retail space. The convenience store land use code was assumed for the proposed retail space since it has a high average rate to be conservative and fits well within the proposed square footage shown on the site.

Table 1. Trips Generated

	AM Peak			PM Peak		
	In	Out	Total	In	Out	Total
52 Apartments	4	15	19	13	8	21
19 Apartments	2	5	7	5	3	8
50 Seats	12	11	23	11	9	20
2,462 sft	77	77	154	62	59	121
Total	95	108	203	91	79	170

As shown in the table above, all of the land use codes provide a minimal addition in trips to the surrounding network, except for the proposed retail. Note that the proposed retail may produce less trips than expected once an exact land use code is determined. With multiple available driveways for proposed development traffic to use, traffic will disperse and find the most effective way in and out of the site.

Overall, the amount of traffic generated from this proposed site will not provide excessive impacts to Big Beaver Road or the surrounding roadway network.

CODE DATA	
PROJECT IDENTIFICATION	<input type="checkbox"/> ADDRESS - 1787 W Big Beaver Troy, MI 48084 <input type="checkbox"/> PROPERTY ID - 88-20-29-226-003 <input type="checkbox"/> OTHER: -
PROJECT TYPE	<input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> ALTERATION <input type="checkbox"/> TENANT IMPROVEMENT <input type="checkbox"/> ADDITION <input type="checkbox"/> FACADE RENOVATION <input type="checkbox"/> REPAIR
PROJECT DESCRIPTION	5 STORY MIXED-USE DEVELOPMENT COMPOSED OF RETAIL/FOOD TENANTS AND SURFACE PARKING ON THE 1ST FLOOR, WITH 4 STORIES OF MULTI-FAMILY RESIDENTIAL ABOVE TO INCLUDE A ROOFTOP DECK & LOUNGE AMONG OTHER TENANT AMENITIES.
APPLICABLE CODES	BUILDING 2015 MICHIGAN BUILDING CODE FIRE 2015 INTERNATIONAL FIRE CODE MECHANICAL 2021 MICHIGAN MECHANICAL CODE PLUMBING 2021 MICHIGAN PLUMBING CODE ELECTRICAL 2022 NATIONAL ELECTRIC CODE ELECTRICAL 2023 NEC (PART 8 AMENDMENTS)
DIFFERED SUBMITTALS	<input type="checkbox"/> FIRE PROTECTION <input type="checkbox"/> CONVEYANCE <input type="checkbox"/> FIRE ALARM <input type="checkbox"/> PRE-ENG. TRUSSES <input type="checkbox"/> INTERIOR ELEMENTS <input type="checkbox"/> PRE-ENG. BUILDING <input type="checkbox"/> MEP <input type="checkbox"/> -
CHAPTER 3 USE AND OCCUPANCY	
BUILDING USE	<input type="checkbox"/> SINGLE USE <input type="checkbox"/> MIXED USE <input type="checkbox"/> MIXED OCCUPANCY SEPARATION <input type="checkbox"/> SEE CHAPTER 5 DATA
OCCUPANCY CLASSIFICATION	<input type="checkbox"/> A1 <input type="checkbox"/> H1 <input type="checkbox"/> M <input type="checkbox"/> A2 <input type="checkbox"/> H2 <input type="checkbox"/> R1 <input type="checkbox"/> A3 <input type="checkbox"/> H3 <input type="checkbox"/> R2 <input type="checkbox"/> A4 <input type="checkbox"/> H4 <input type="checkbox"/> R3 <input type="checkbox"/> A5 <input type="checkbox"/> H5 <input type="checkbox"/> R4 <input type="checkbox"/> B <input type="checkbox"/> I <input type="checkbox"/> S1 <input type="checkbox"/> E <input type="checkbox"/> II <input type="checkbox"/> S2 <input type="checkbox"/> F1 <input type="checkbox"/> F2 <input type="checkbox"/> K3 <input type="checkbox"/> U <input type="checkbox"/> -
<input type="checkbox"/> FIRST FLOOR = A2 / B / S1 <input type="checkbox"/> SECOND FLOOR = A2 / B / R2 <input type="checkbox"/> THIRD FLOOR = R2 <input type="checkbox"/> FOURTH FLOOR = R2 <input type="checkbox"/> FIFTH FLOOR = A2 / R2	
CHAPTER 4 DETAILED REQUIREMENTS PER OCCUPANCY	
DETAILED REQUIREMENTS	<input type="checkbox"/> THIS CHAPTER IS NOT APPLICABLE <input type="checkbox"/> APPLICABLE AS NOTED
CHAPTER 5 GENERAL BUILDING AREA AND HEIGHTS	
BUILDING HEIGHT	<input type="checkbox"/> HEIGHT EXCEPTIONS NOT APPLIED <input type="checkbox"/> HEIGHT EXCEPTION APPLIED <input type="checkbox"/> ALLOWABLE HEIGHT 75'-0" <input type="checkbox"/> ALLOWABLE STORES 5
FRONTAGE INCREASE	<input type="checkbox"/> FRONTAGE INCREASE NOT APPLIED <input type="checkbox"/> FRONTAGE INCREASE APPLIED PER CALCULATION $I_F = [P/P - 0.25] W/30 =$ $I_F = (892/692 - 0.25) 30/30 = 0.75$
MIXED OCCUPANCY SEPARATION	<input type="checkbox"/> USE SEPARATION NOT REQUIRED <input type="checkbox"/> USE SEPARATION REQUIRED <input type="checkbox"/> SEE TABLE TO THE RIGHT
BUILDING AREA	<input type="checkbox"/> SINGLE STORY <input type="checkbox"/> MULTI-STORY <input type="checkbox"/> SINGLE OCC. <input type="checkbox"/> SINGLE OCC. / ACCESSORY <input type="checkbox"/> MIXED OCC. NON-SEPARATED <input type="checkbox"/> MIXED OCC. SEPARATED <input type="checkbox"/> UNLIMITED AREA BUILDING <input type="checkbox"/> PODIUM STYLE BUILDING
<input type="checkbox"/> MOST RESTRICTIVE USE R2 <input type="checkbox"/> TABULAR VALUE <input type="checkbox"/> FRONTAGE INCREASE 48,000 <input type="checkbox"/> TOTAL ALLOWABLE 48,000 <input type="checkbox"/> ALLOWABLE AREA PER FLOOR 48,000 <input type="checkbox"/> TOTAL BUILDING 103,295	
<input type="checkbox"/> ACTUAL BUILDING AREA <input type="checkbox"/> FIRST FLOOR 22,200 SF <input type="checkbox"/> SECOND FLOOR 22,740 SF <input type="checkbox"/> THIRD FLOOR 22,740 SF <input type="checkbox"/> THRD FLOOR 22,740 SF <input type="checkbox"/> TOTAL 103,295 SF	
CHAPTER 6 TYPES OF CONSTRUCTION	
CONSTRUCTION TYPE	<input type="checkbox"/> IA <input type="checkbox"/> IB <input type="checkbox"/> IIA <input type="checkbox"/> IIB <input type="checkbox"/> IIA <input type="checkbox"/> IIB <input type="checkbox"/> IIA <input type="checkbox"/> IIB <input type="checkbox"/> IV <input type="checkbox"/> VA <input type="checkbox"/> VB <input type="checkbox"/> COMBUSTIBLE <input type="checkbox"/> NON-COMBUSTIBLE <input type="checkbox"/> PROTECTED <input type="checkbox"/> UNPROTECTED
FIRE RATING OF BUILDING ELEMENTS	<input type="checkbox"/> PRIMARY STRUCTURAL FRAME <input type="checkbox"/> BEARING WALLS - EXTERIOR <input type="checkbox"/> BEARING WALLS - INTERIOR <input type="checkbox"/> NON BEARING WALL - EXTERIOR <input type="checkbox"/> FLOOR CONSTRUCTION <input type="checkbox"/> ROOF CONSTRUCTION
FIRE RATING OF EXTERIOR WALL	<input type="checkbox"/> LESS THAN 5 FT <input type="checkbox"/> 5 FT TO LESS THAN 10 FT <input type="checkbox"/> 10 FT TO LESS THAN 30 FT <input type="checkbox"/> OVER 30 FT
CHAPTER 7 FIRE AND SMOKE PROTECTION	
SHAFT ENCLOSURES	<input type="checkbox"/> NOT REQUIRED <input type="checkbox"/> REQUIRED
FIRE RATED ASSEMBLIES	<input type="checkbox"/> FIRE WALL (FW) <input type="checkbox"/> EXIT PASSAGEWAY (EP) <input type="checkbox"/> FIRE AREA SEPARATION (FAS) <input type="checkbox"/> MALL TENANT WALLS (MTW) <input type="checkbox"/> SMOKE PARTITION (SP) <input type="checkbox"/> ACCESSIBLE CONCEALED SPACE SIGNAGE
THERMAL AND SOUND INSULATION	<input type="checkbox"/> MUST MEET ASTM E84 or UL 723 <input type="checkbox"/> FLAME SPREAD FS-25 <input type="checkbox"/> SMOKE DENSITY SD-50
CHAPTER 8 INTERIOR FINISHES	
INTERIOR FINISH MATERIALS	<input type="checkbox"/> CLASS A FS-0-25 SD-0-450 <input type="checkbox"/> CLASS B FS-06-75 SD-0-450 <input type="checkbox"/> CLASS C FS-76-200 SD-0-450
CHAPTER 9 FIRE PROTECTION SYSTEMS	
FIRE PROTECTION SYSTEM	<input type="checkbox"/> REQUIRED <input type="checkbox"/> NOT REQUIRED <input type="checkbox"/> DEFERRED SUBMITTAL
FIRE ALARM SYSTEM	<input type="checkbox"/> REQUIRED <input type="checkbox"/> NOT REQUIRED
CHAPTER 10 MEANS OF EGRESS	
MINIMUM NUMBER OF EXITS REQUIRED	<input type="checkbox"/> 1 EXIT <input type="checkbox"/> 2 EXITS - OCC. LOAD PER STORY LIMITED TO 500 <input type="checkbox"/> 3 EXIST - OCC. LOAD PER STORY 500-1000 <input type="checkbox"/> 4 EXITS - OCC. LOAD PER STORY OVER 1000
EXITS PROVIDED	4
MAXIMUM TRAVEL DISTANCE	<input type="checkbox"/> 75 FT <input type="checkbox"/> 100 FT <input type="checkbox"/> 125 FT <input type="checkbox"/> 150 FT <input type="checkbox"/> 175 FT <input type="checkbox"/> 200 FT <input type="checkbox"/> 250 FT <input type="checkbox"/> 300 FT <input type="checkbox"/> 400 FT
MINIMUM CORRIDOR WIDTH	<input type="checkbox"/> 2 PER OCCUPANT = 4.2" <input type="checkbox"/> 50 OCCUPANTS OR MORE = 44" <input type="checkbox"/> 49 OCCUPANT OR LESS = 36"
MINIMUM STAIR WIDTH	<input type="checkbox"/> 3 PER OCCUPANT = <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/> 50 OCCUPANTS OR MORE = 44" <input type="checkbox"/> 49 OCCUPANT OR LESS = 36"
ROOF ACCESS	<input type="checkbox"/> 1 STORY - ACCESS VIA LADDER <input type="checkbox"/> LESS THAN 4 STORIES ABOVE GRADE <input type="checkbox"/> 4 STORIES OR MORE ABOVE GRADE <input type="checkbox"/> MINIMUM 1 ROOF HATCH <input type="checkbox"/> EXTEND ONE STAIR MINIMUM



STATEMENT OF SELECTED DESIGN PROFESSIONAL

THESE CONSTRUCTION DOCUMENTS WERE PREPARED FOR COMPLIANCE WITH THE MICHIGAN CONSTRUCTION CODES IN EFFECT AT THE TIME OF PERMIT SUBMITTAL. ALL ENGINEERS, CONTRACTORS AND SUPPLIERS INVOLVED WITH THIS PROJECT SHALL COMPLY WITH THE SAME CODES ISSUED AND APPROVED CODE MODIFICATIONS AND/OR MUNICIPAL CONSTRUCTION BOARDS OF APPEALS RULINGS AND WHENEVER REQUIRED SHALL PROVIDE SHOP DRAWINGS AND SUBMITTALS CLEARLY DESCRIBING COMPLIANCE TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR REVIEW AND APPROVAL.

REGISTERED DESIGN PROFESSIONAL IN CHARGE:
 PETER STUHLREYER, A.I.A.
 MICHIGAN IDENTIFICATION # 44668
 DESIGNHAUS ARCHITECTURE

PROJECT TEAM

OWNER
 ENCORE COMPANIES
 1985 W BIG BEAVER RD., SUITE 300
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 DESIGNHAUS ARCHITECTURE
 3300 AUBURN RD.
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 PROJECT MANAGER: SAL LORENZANO
 PROJECT ARCHITECT:
 PETER STUHLREYER, A.I.A.

CIVIL ENGINEER
 PEA GROUP
 1849 POND RUN
 AUBURN HILLS, MI 48326
 T: 248.689.9090
 CONTACT: JAMES P. BUTLER, PE

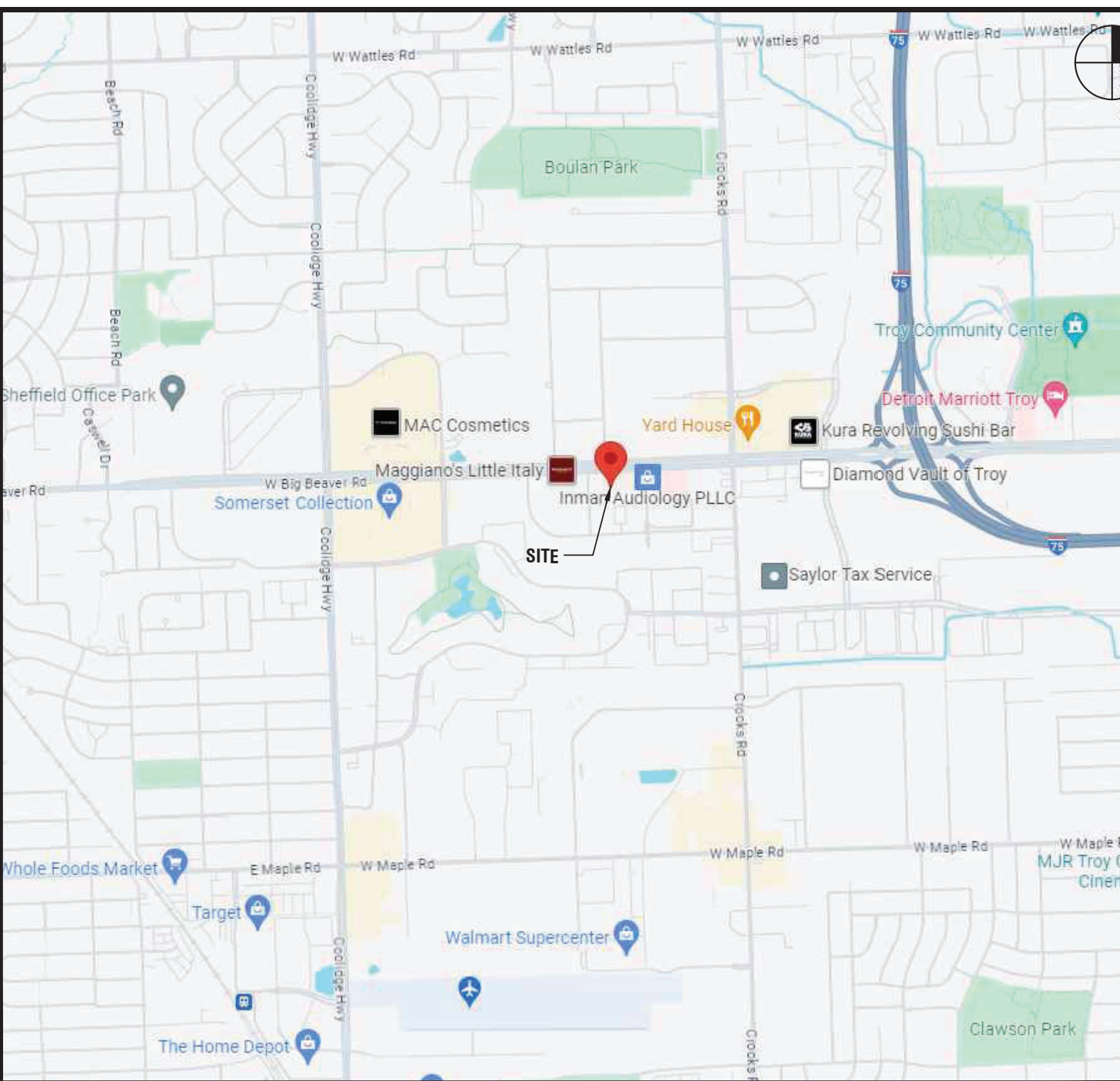
INDEX OF DRAWINGS

SP#	Re-Submittal	Date	Sheet Number	Sheet Title
SPA	Re-Submittal 2	10/29/24		
SPA	Re-Submittal	08/26/24		
	Site Plan Approval	05/10/24		
	Pre-App Meeting	01.23.24		
<input type="checkbox"/> SHEET ISSUED <input type="checkbox"/> REVISED <input checked="" type="checkbox"/> SHEET REISSUED				
General				
	G1.1			Title Sheet & Index
Civil				
	C0.0			Cover Sheet
	C1.0			Topographic Survey
	C3.0			Preliminary Site Layout & Paving Plan
	C4.0			Preliminary Grading Plan
	C6.0			Preliminary Utility Plan
	C8.0			Stormwater Management Plan
	C9.0			Notes and Details
	C9.1			Underground Detention Details
	L1.0			Preliminary Landscape Plan
	L1.1			Landscape Specifications
	T1.0			Tree Preservation Plan
Site & Site Photometric				
	AS1.1			Architectural Site Plan
	1 of 1			Photometric Site Lighting Plan
Architectural				
	A1.1			First Floor Plan
	A1.2			Second Floor Plan
	A1.3			Third Floor Plan
	A1.4			Fourth Floor Plan
	A1.5			Fifth Floor Plan
	A2.1			Elevations
	A2.2			Elevations
	A4.1			Enlarged Studio Unit Plans
	A4.2			Enlarged 1-Bedroom Unit Plans
	A4.3			Enlarged 2-Bedroom Unit Plans
	A4.4			Enlarged 2-Bedroom Unit Plans
	A4.5			Enlarged Penthouse I Unit Plans
	A4.6			Enlarged Penthouse J Unit Plans
	A4.7			Enlarged Penthouse K Unit Plans
	A4.8			Enlarged Penthouse L Unit Plans
	A4.9			Enlarged Penthouse M Unit Plans
	A4.10			Enlarged Penthouse N Unit Plans
	A10.0			Graphic Illustrations
	A10.1			Graphic Illustrations

REVISION NOTES

NO.	DATE	DESCRIPTION

LOCATION MAP



Elevate Troy

1787 W Big Beaver

Troy, MI 48084

3300 AUBURN RD., SUITE 300
 AUBURN HILLS, MI 48326
 T: 248.601.4422 F: 248.453.5854
 WWW.DESIGNHAUS.COM
 INFO@DESIGNHAUS.COM



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Elevate Troy
 1787 W Big Beaver
 Troy, MI 48084

Title Sheet & Index

022019

G1.1

BENCHMARKS
(GPS DERIVED - NAVD88)

BM #300
ARROW ON A HYDRANT W/DIMPLE LOCATED ON THE SOUTH SIDE OF W. BIG BEAVER ROAD APPROX. 58'± NORTHEAST OF THE NORTHEAST BUILDING CORNER OF 1985 W. BIG BEAVER ROAD.
ELEV. - 732.71

BM #301
ARROW ON A HYDRANT W/DIMPLE LOCATED IN THE MEDIAN OF W. BI BEAVER ROAD, ACROSS FROM 1985 W. BIG BEAVER ROAD.
ELEV. - 729.83

BM #302
ARROW ON A HYDRANT W/DIMPLE LOCATED ON THE SOUTH SIDE OF BUTTERFIELD ROAD, ACROSS FROM TODD DRIVE.
ELEV. - 720.86

FLOODPLAIN NOTE:
BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X'. AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 26125-05411, DATED SEPTEMBER 29, 2006.

LEGAL DESCRIPTION:
(Per First American Title Insurance Company commitment TC-13-60063, Commitment date 03-12-18)

The land is described as follows:
The following described premises situated in the City of Troy, County of Oakland and State of Michigan, to-wit:
Parcel 1
Part of Lot 1, Supervisor's Plat of Butterfield Farm, as recorded in Liber 48, Page 44 of Plats, Oakland County Records, particularly described as: Beginning at a point on the lot line common to Lots 1 and 2 which is South 150.00 feet from the Northeast corner of said Lot 1; thence West 4.12 feet; thence South 90.00 feet; thence East 4.12 feet to the East line of Lot 1; thence North along said lot line 90.00 feet to the point of beginning.

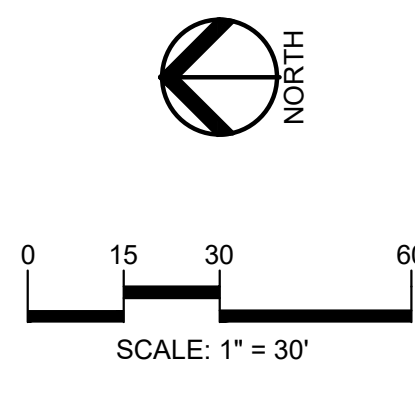
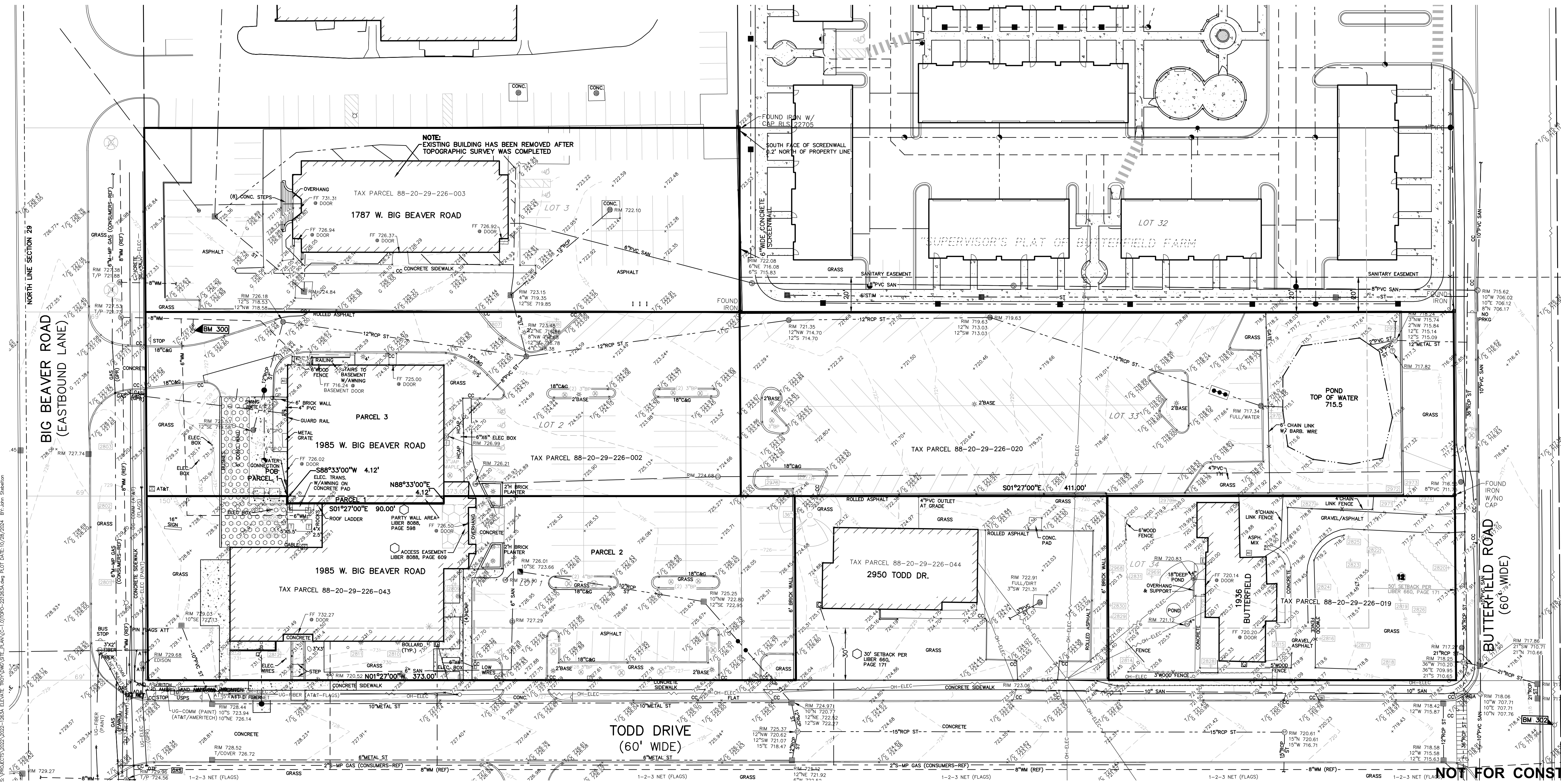
ALSO
Lot 2, except the North 69 feet, Supervisor's Plat of Butterfield Farm, as recorded in Liber 48, Page 44 of Plats, Oakland County Records.

Parcel 2
Lot 1, except the North 69 feet and also except that part described as: Beginning at a point on the lot line common to Lots 1 and 2 which is South 150.00 feet from the Northeast corner of said Lot 1; thence West 4.12 feet; thence South 90.00 feet; thence East 4.12 feet to the East line of Lot 1; thence North along said lot line 90.00 feet to the point of beginning, also the North 31 feet of Lot 34, Supervisor's Plat of Butterfield Farm, as recorded in Liber 48, Page 44 of Plats, Oakland County Records.

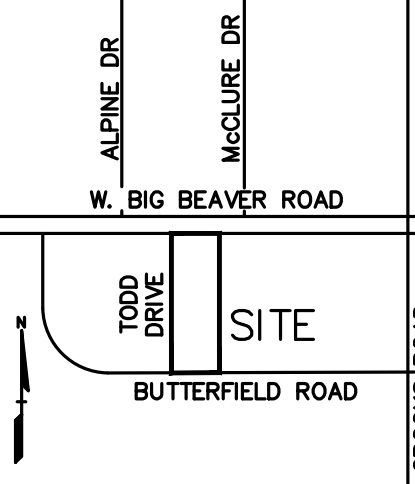
Parcel 3
Lot 33, Supervisor's Plat of Butterfield Farm, as recorded in Liber 48, Page 44 of Plats, Oakland County Records.

Tax Parcel 88-20-29-226-019
Lot 34 excluding the North 211 feet, Supervisor's Plat of Butterfield Farm, as recorded in Liber 48, Page 44 of Plats, Oakland County Records

- LEGEND:**
- OH-ELEC-W-O- EX. OH. ELEC. POLE & GUY WIRE
 - UG-CATV- EX. U.G. CABLE TV & PEDESTAL
 - UG-COMM- EX. U.G. COMMUNICATION LINE, PEDESTAL & MANHOLE
 - UG-ELEC- EX. U.G. ELEC. MANHOLE, METER & HANDHOLE
 - - - - - EX. GAS LINE
 - ⊕ EX. GAS VALVE & GAS LINE MARKER
 - ⊞ EX. TRANSFORMER & IRRIGATION VALVE
 - - - - - EX. WATER MAIN
 - ⊕ EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE
 - ⊕ EX. WATER VALVE BOX & SHUTOFF
 - ⊕ EX. SANITARY SEWER
 - ⊕ EX. SANITARY CLEANOUT & MANHOLE
 - ⊕ EX. COMBINED SEWER MANHOLE
 - - - - - EX. STORM SEWER
 - ⊕ EX. CLEANOUT & MANHOLE
 - ⊕ EX. SQUARE, ROUND & BEEHIVE CATCH BASIN
 - ⊕ EX. YARD DRAIN, U.G. DRAIN & DOWNSPOUT
 - ⊕ EX. UNIDENTIFIED STRUCTURE
 - ⊕ EX. MAILBOX, SIGN, LIGHTPOLE & GUARD POST
 - - - - - EX. FENCE
 - - - - - EX. GUARD RAIL
 - ⊕ EX. DEC. TREE, CONIFEROUS TREE & SHRUB
 - ⊕ EX. TREE TAG & TREE LINE
 - ⊕ EX. SPOT ELEVATION
 - - - - - EX. CONTOUR
 - - - - - EX. WETLAND
- ⊕ IRON FOUND / SET
 - ⊕ NAIL FOUND / NAIL & CAP SET
 - ⊕ BRASS PLUG SET
 - ⊕ MONUMENT FOUND / SET
 - ⊕ SECTION CORNER FOUND
 - R M C RECORDED / MEASURED / CALCULATED



CAUTION!!
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.



CLIENT
ENCORE DEVELOPMENT
1787 WEST BIG BEAVER
TROY, MICHIGAN 48064

PROJECT TITLE
ELEVATE TROY MIXED USE DEVELOPMENT
BIG BEAVER ROAD
CITY OF TROY, MICHIGAN

REVISIONS	
CITY COMMENTS	8-28-24
CITY COMMENTS	10-24-24

ORIGINAL ISSUE DATE:
MAY 13, 2024

DRAWING TITLE
TOPOGRAPHIC SURVEY

PEA JOB NO.	2022-1263
P.M.	JPB
DN.	JKS
DES.	JKS
DRAWING NUMBER:	

C-1.0

NOT FOR CONSTRUCTION

BENCHMARKS
(GPS DERIVED - NAVD88)

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ALSO
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Parcel 3
Lot 33, Supervisor's Plat of Butterfield Farm, as recorded in Liber 48, Page 44 of Plats, Oakland County Records.

Tax Parcel 88-20-29-226-019
Lot 34 excluding the North 211 feet, Supervisor's Plat of Butterfield Farm, as recorded in Liber 48, Page 44 of Plats, Oakland County Records

LEGEND:

- OH-ELEC-W-O EX. OH. ELEC. POLE & GUY WIRE
- UG-CATV EX. U.G. CABLE TV & PEDESTAL
- UG-COMM EX. U.G. COMMUNICATION LINE, PEDESTAL & MANHOLE
- UG-ELEC EX. U.G. ELEC. MANHOLE, METER & HANDHOLE
- EX. GAS LINE
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- EX. TRANSFORMER & IRRIGATION VALVE
- EX. WATER MAIN
- EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE
- EX. WATER VALVE BOX & SHUTOFF
- EX. SANITARY SEWER
- EX. SANITARY CLEANOUT & MANHOLE
- EX. COMBINED SEWER MANHOLE
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- EX. YARD DRAIN, U.G. ROOF DRAIN & DOWNSPOUT
- EX. UNIDENTIFIED STRUCTURE
- EX. MAILBOX, SIGN, LIGHTPOLE & GUARD POST
- EX. FENCE
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- EX. WETLAND
- IRON FOUND / SET
- NAIL FOUND / NAIL & CAP SET
- BRASS PLUG SET
- MONUMENT FOUND / SET
- SECTION CORNER FOUND
- R M C RECORDED / MEASURED / CALCULATED

SIDEWALK RAMP LEGEND:

SIDEWALK RAMP 'TYPE R'
CURB DROP ONLY

REFER TO LATEST MDOT R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS

SIGN LEGEND:

'NO PARKING FIRE LANE' SIGN
'STOP' SIGN
'BARRIER FREE PARKING' SIGN
'VAN ACCESSIBLE' SIGN
'DO NOT ENTER'

REFER TO DETAIL SHEET FOR SIGN DETAILS

GENERAL NOTES:
THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.

- ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.
- 'NO PARKING-FIRE LANE' SIGNS SHALL BE POSTED ALONG ALL FIRE LANES AT 100 FOOT INTERVALS OR AS DIRECTED BY THE FIRE OFFICIAL.
- REFER TO NOTES & DETAILS SHEET FOR ON-SITE PAVING DETAILS.
- REFER TO NOTES & DETAILS SHEET FOR ON-SITE SIDEWALK RAMP DETAILS

LEGEND:

- CONCRETE PAVEMENT
- ASPHALT PAVEMENT
- GRAVEL
- WETLAND
- CONCRETE CURB AND GUTTER
- REVERSE GUTTER PAN
- SETBACK LINE
- SIGN LIGHTPOLE
- FENCE
- GUARD RAIL

SITE DATA TABLE:

SITE AREA: 0.83 ACRES (36,289 SF.) NET AND GROSS

ZONING: 'BB' BIG BEAVER ROAD DISTRICT

PROPOSED USE: STUDIO APARTMENTS (13)
1 BEDROOM APARTMENTS (37)
2 BEDROOM & PENTHOUSE APARTMENTS (15)
RETAIL = 5,149 SQ FT

BUILDING INFORMATION:
MAXIMUM ALLOWABLE BUILDING HEIGHT = 66'
PROPOSED BUILDING HEIGHT = 66'

BUILDING FOOTPRINT AREA = 7,289 S.F.

BUILDING LOT COVERAGE = 20.08% (7,289 / 36,289)

OPEN SPACE REQUIRED = 15%

OPEN SPACE PROVIDED = 16.96% (6,155 / 36,289)

SETBACK REQUIREMENTS:

REQUIRED:	PROPOSED:
FRONT: 60'	10.12'
SIDE: 10'	10.00'
REAR: 30'	40.00'

PARKING CALCULATIONS:

EXISTING BUILDING RETAIL (6,207 SF.) = 1 SPACE PER 250 SF. = 6,207 SF./250 = 25 SPACES

RESTAURANT (246 SEATS) = 1 SPACE PER 2 SEATS INDOOR = 246 SEATS/2 = 123 SPACES

OFFICE (13,414 SF.) = 1 SPACE PER 300 SF. = 13,414 SF./300 = 45 SPACES

PROPOSED BUILDING RETAIL (5,149 SF.) = 1 SPACE PER 250 SF. = 5,149 SF./250 = 21 SPACES

STUDIO APARTMENTS = 1 SPACE PER STUDIO = 1 x 13 STUDIOS = 13 SPACES

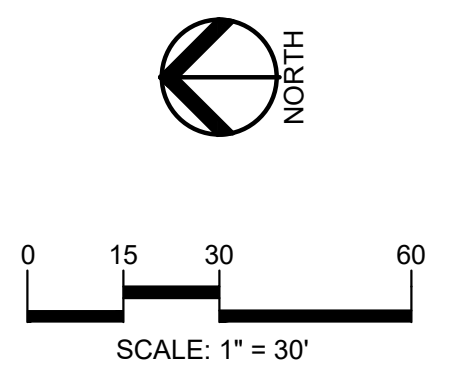
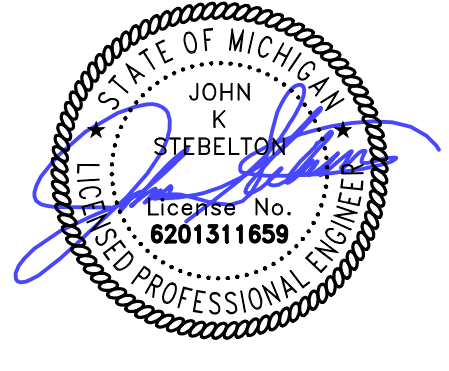
1, 2 BED & PENTHOUSE = 2 SPACES PER 1, 2 BED & PENTHOUSE = 2 x 52 1, 2 BED & PENTHOUSE = 104 SPACES

TOTAL REQUIRED PARKING = 331 SPACES

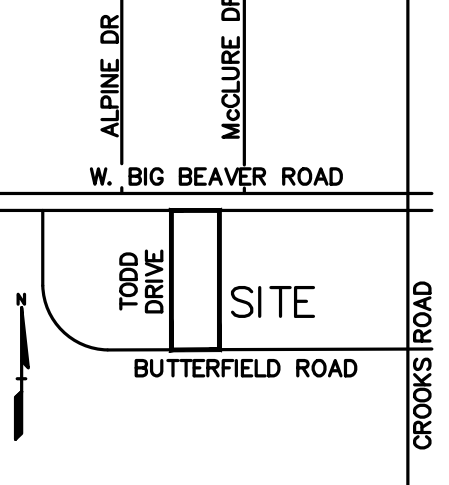
TOTAL PROPOSED PARKING SPACES = 280 (INC. 16 H/C SPACES + 8 PARALLEL ALONG TODD DRIVE)

REFER TO SHARED PARKING STUDY COMPLETED BY TETRA TECH TO SUPPORT THE REDUCTION IN REQUIRED PARKING.

SITE SOILS INFORMATION:
ACCORDING TO THE USDA NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY FOR OAKLAND COUNTY, THE SITE CONSISTS OF THE FOLLOWING SOIL TYPES:
AQUENTS, SANDY, LOAMY, UNDULATING
SELFRICE LOAMY SAND



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CLIENT
ENCORE DEVELOPMENT
1787 WEST BIG BEAVER
TROY, MICHIGAN 48064

PROJECT TITLE
ELEVATE TROY MIXED USE DEVELOPMENT
BIG BEAVER ROAD
CITY OF TROY, MICHIGAN

REVISIONS

CITY COMMENTS	DATE
	8-28-24
	10-24-24

ORIGINAL ISSUE DATE:
MAY 13, 2024

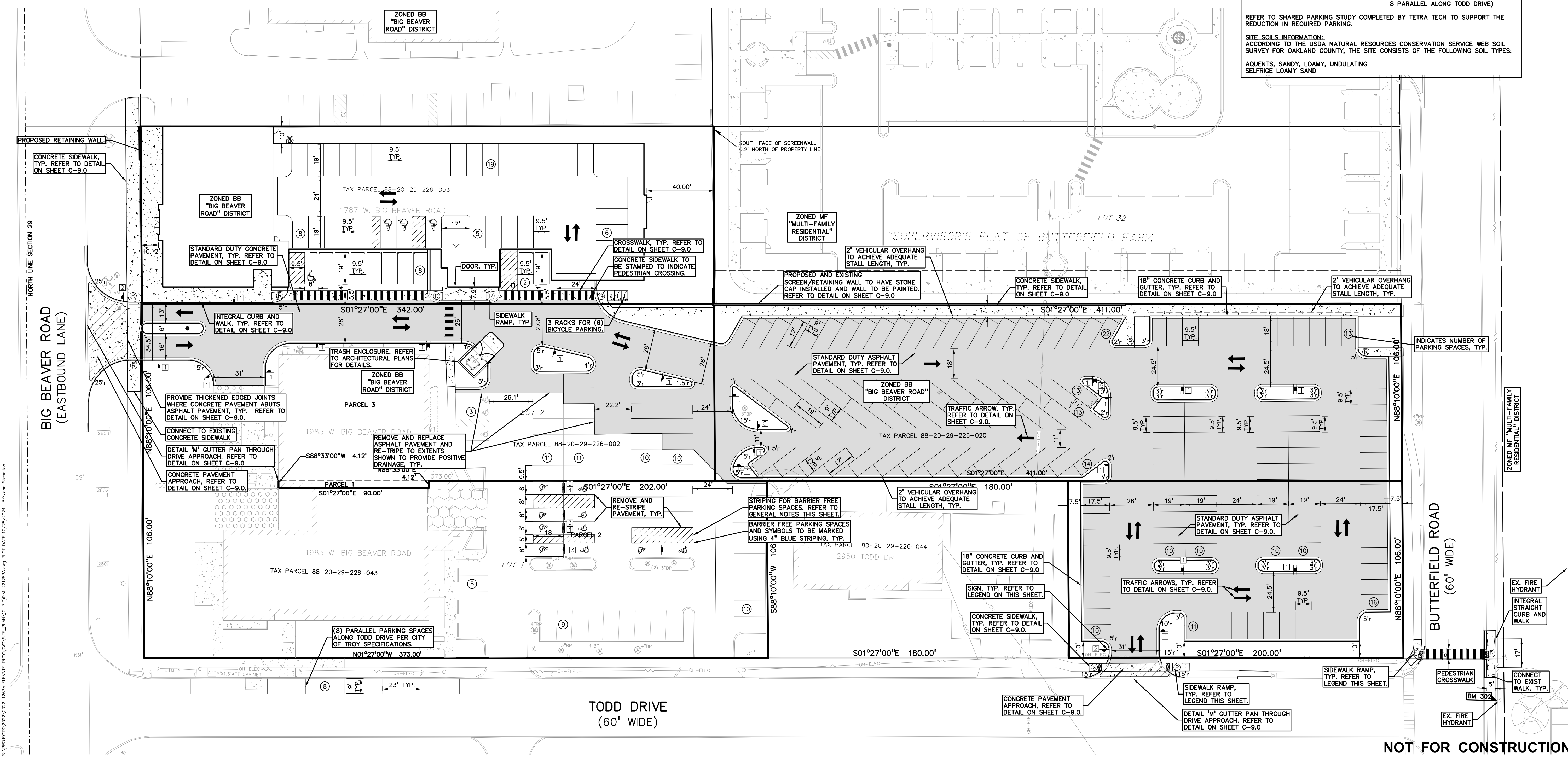
DRAWING TITLE
PRELIMINARY SITE PLAN

PEA JOB NO. 2022-1263

P.M.	JPB
DN	JKS
DES.	JKS

DRAWING NUMBER:

C-3.0



TODD DRIVE
(60' WIDE)

NOT FOR CONSTRUCTION

S:\PROJECTS\2022-1263-1264_ELEVATE_TROY\DWG\SITE_PLAN\C-3.000-C-3.000-220630.dwg PLOT DATE: 10/29/2024 BY: JPB, JKS

BENCHMARKS
(GPS DERIVED - NAVD88)

BM #300
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ELEV. - 732.71

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ELEV. - 729.83

BM #302
ARROW ON A HYDRANT W/DIMPLE LOCATED ON THE SOUTH SIDE OF BUTTERFIELD ROAD, ACROSS FROM TODD DRIVE.
ELEV. - 720.86

FLOODPLAIN NOTE:
BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE "X". AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 26125-0541, DATED SEPTEMBER 29, 2006.

LEGAL DESCRIPTION:
(Per First American Title Insurance Company commitment TC-13-60063, Commitment date 03-12-18)

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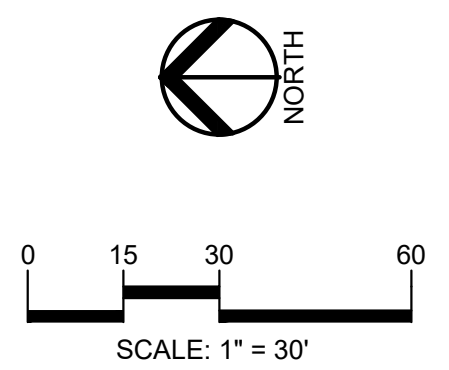
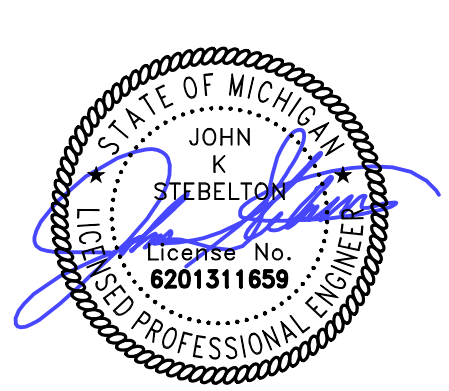
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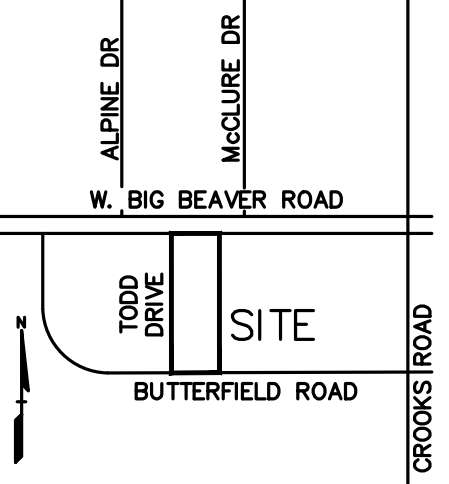
- GRADING LEGEND:**
- ⊕ EXISTING SPOT ELEVATION
 - ⊕ TYPICALLY TOP OF PAVEMENT IN PAVED AREAS, GUTTER GRADE IN CURB LINES.
 - - - - - EXISTING CONTOUR
 - - - - - PROPOSED CONTOUR
 - - - - - PROPOSED REVERSE GUTTER PAN
 - - - - - PROPOSED RETAINING LINE
 - - - - - PROPOSED SWALE/DITCH
- ABBREVIATIONS**
- T/C = TOP OF CURB
 - T/S = TOP OF SIDEWALK
 - T/W = TOP OF WALL
 - B/W = BOTTOM OF WALL
 - G = GUTTER GRADE
 - FF = FINISH FLOOR
 - FG = FINISH GRADE
 - RM = RIM ELEVATION
- REFER TO GRADING NOTES ON THIS SHEET

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t: 844.813.2949
www.peagroup.com



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CLIENT
ENCORE DEVELOPMENT
1787 WEST BIG BEAVER
TROY, MICHIGAN 48064

PROJECT TITLE
ELEVATE TROY MIXED USE DEVELOPMENT
BIG BEAVER ROAD
CITY OF TROY, MICHIGAN

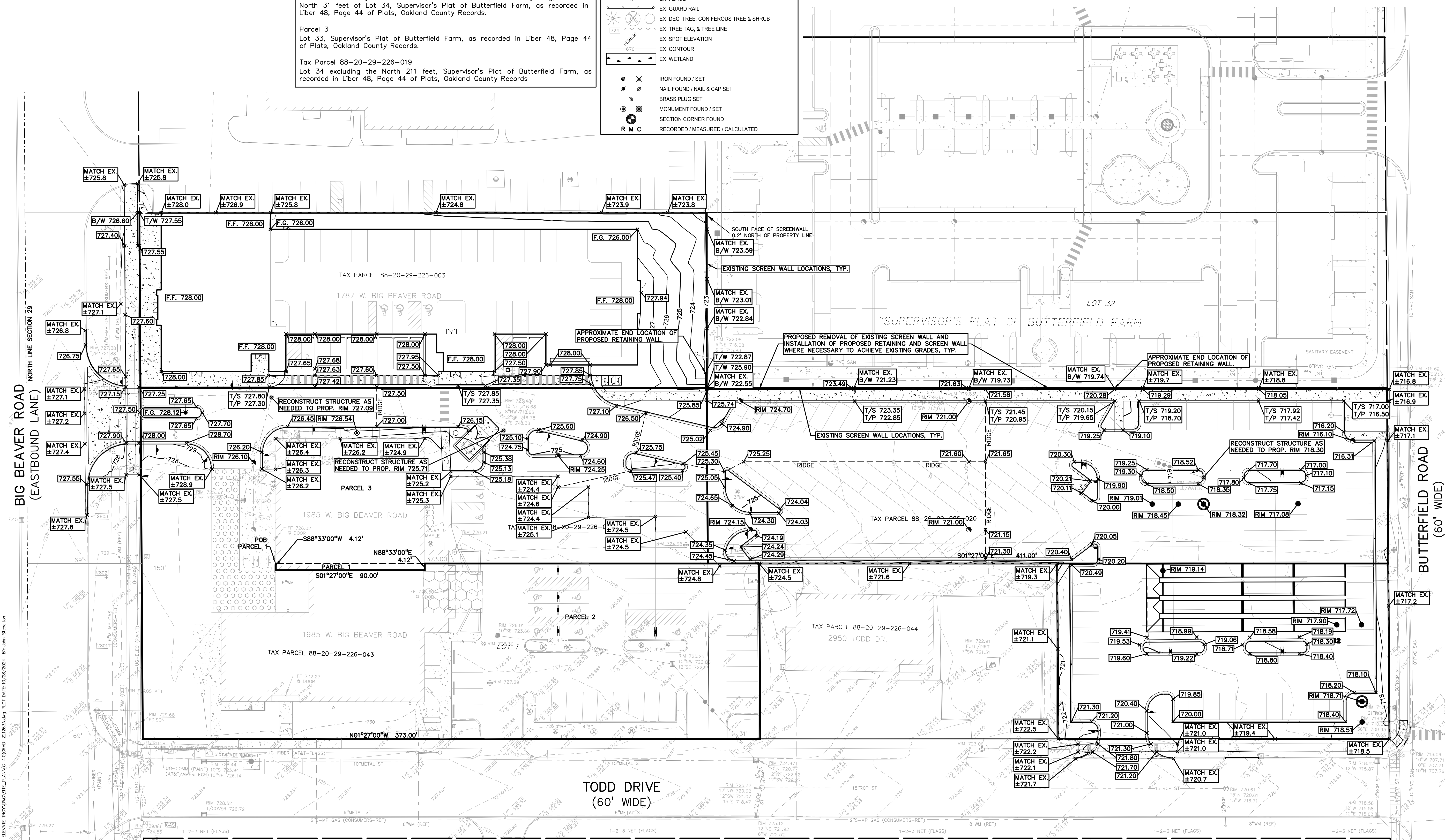
REVISIONS

CITY COMMENTS	8-28-24
CITY COMMENTS	10-24-24

ORIGINAL ISSUE DATE:
MAY 13, 2024

DRAWING TITLE
PRELIMINARY GRADING PLAN

PEA JOB NO.	2022-1263
P.M.	JPB
DN	JKS
DES.	JKS
DRAWING NUMBER:	



NOT FOR CONSTRUCTION **C-4.0**

S:\PROJECTS\2022-2024\185A_ELEVATE_TROY\DWG\SITE_PLAN\C-4_001-001-2024.dwg PLOT DATE: 10/29/2024 8:11am Revision

BENCHMARKS
(GPS DERIVED - NAVD88)

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ELEV. - 729.83

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ELEV. - 720.86

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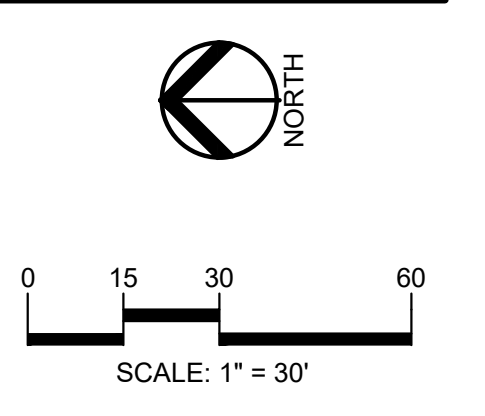
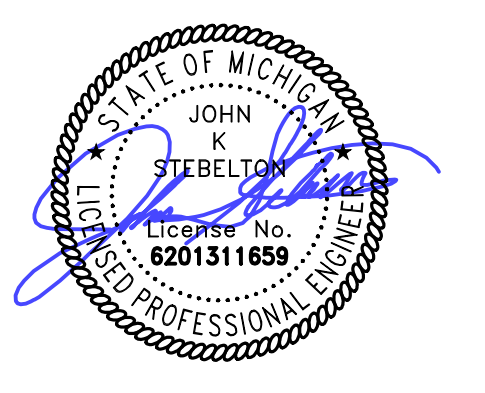
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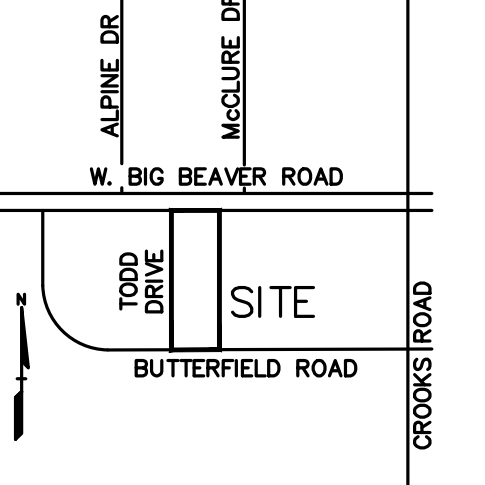
- UTILITY LEGEND:**
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 - ⊕ EX. UNIDENTIFIED STRUCTURE
 - - - - - PROPOSED WATER MAIN
 - ⊕ PROPOSED HYDRANT AND GATE VALVE
 - ⊕ PROPOSED TAPPING SLEEVE, VALVE & WELL
 - ⊕ PROPOSED POST INDICATOR VALVE
 - ⊕ PROPOSED SANITARY SEWER
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 - - - - - PROPOSED STORM SEWER
 - ⊕ PROPOSED STORM SEWER CLEANOUT & MANHOLE
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TROY, MICHIGAN 48064

PROJECT TITLE
ELEVATE TROY MIXED USE DEVELOPMENT
BIG BEAVER ROAD
CITY OF TROY, MICHIGAN

REVISIONS

CITY COMMENTS	8-28-24
CITY COMMENTS	10-24-24

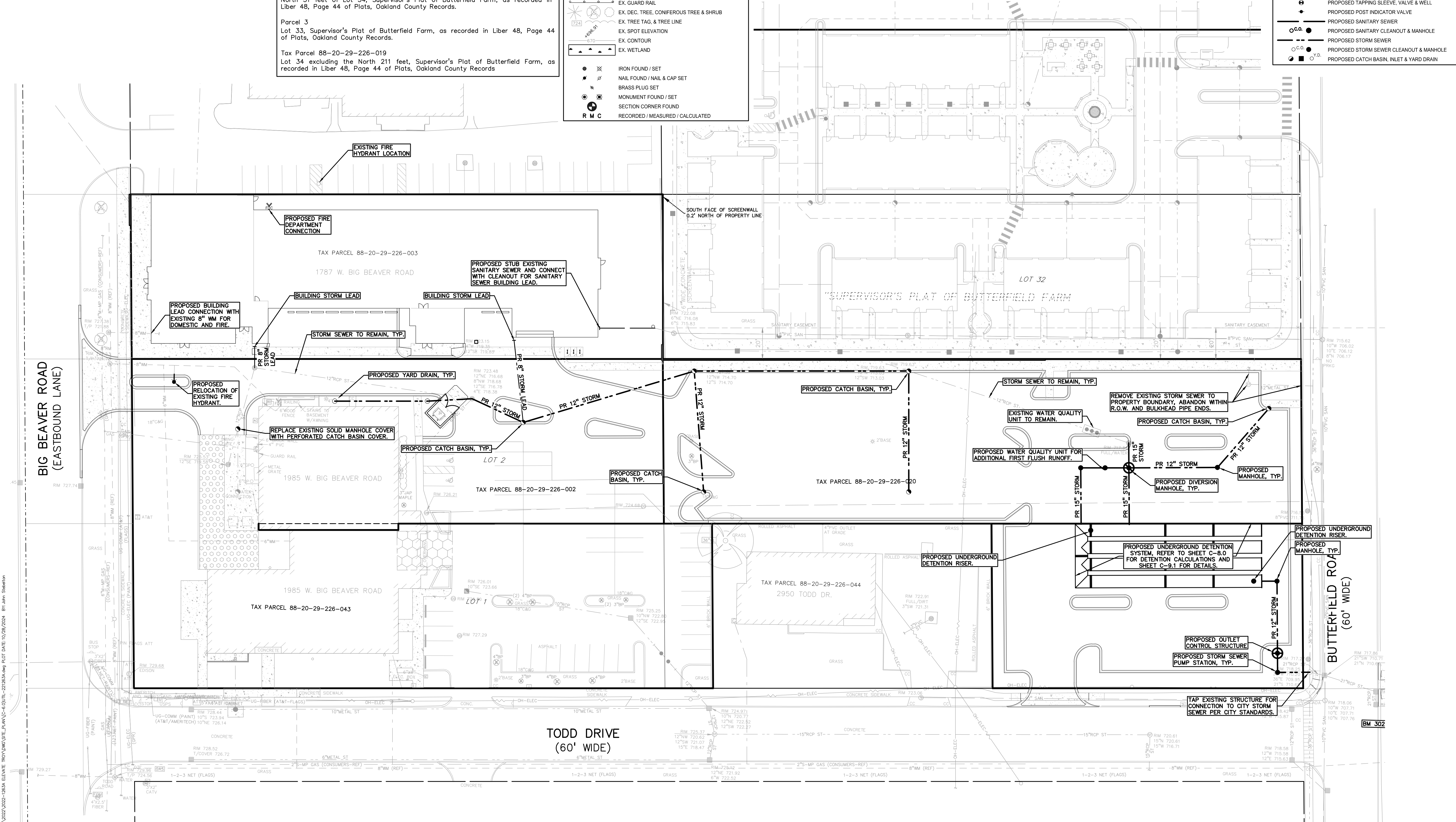
ORIGINAL ISSUE DATE:
MAY 13, 2024

DRAWING TITLE
PRELIMINARY UTILITY PLAN

PEA JOB NO. 2022-1263

P.M.	JPB
DN.	JKS
DES.	JKS

DRAWING NUMBER:



NOT FOR CONSTRUCTION **C-6.0**

S:\PROJECTS\2022\0202-1263-1263A-ELEVATE TROY\DWG\SITE_PLAN\C-6.0\PL-C-6.0.dwg DATE: 10/29/2024 BY: JAM Sheehan

BENCHMARKS
(GPS DERIVED - NAVD88)

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Lot 33, Supervisor's Plat of Butterfield Farm, as recorded in Liber 48, Page 44 of Plats, Oakland County Records.

Tax Parcel 88-20-29-226-019
Lot 34 excluding the North 211 feet, Supervisor's Plat of Butterfield Farm, as recorded in Liber 48, Page 44 of Plats, Oakland County Records

- LEGEND:**
- OH-ELEC-W-O- EX. OH. ELEC. POLE & GUY WIRE
 - UG-CATV EX. U.G. CABLE TV & PEDESTAL
 - UG-COMM EX. U.G. COMMUNICATION LINE, PEDESTAL & MANHOLE
 - UG-ELEC EX. U.G. ELEC. MANHOLE, METER & HANDHOLE
 - - - - - EX. GAS LINE
 - ⊕ EX. GAS VALVE & GAS LINE MARKER
 - ⊞ EX. TRANSFORMER & IRRIGATION VALVE
 - EX. WATER MAIN
 - ⊕ EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE
 - ⊕ EX. WATER VALVE BOX & SHUTOFF
 - ⊕ EX. SANITARY SEWER
 - ⊕ EX. SANITARY CLEANOUT & MANHOLE
 - ⊕ EX. COMBINED SEWER MANHOLE
 - ⊕ EX. STORM SEWER
 - ⊕ EX. CLEANOUT & MANHOLE
 - ⊕ EX. SQUARE, ROUND & BEEHIVE CATCH BASIN
 - ⊕ EX. YARD DRAIN, U.G. ROOF DRAIN & DOWNSPOUT
 - ⊕ EX. UNIDENTIFIED STRUCTURE
 - ⊕ EX. MAILBOX, SIGN, LIGHTPOLE & GUARD POST
 - ⊕ EX. FENCE
 - ⊕ EX. GUARD RAIL
 - ⊕ EX. DEC. TREE, CONIFEROUS TREE & SHRUB
 - ⊕ EX. TREE TAG & TREE LINE
 - ⊕ EX. SPOT ELEVATION
 - ⊕ EX. CONTOUR
 - ⊕ EX. WETLAND
 - ⊕ IRON FOUND / SET
 - ⊕ NAIL FOUND / NAIL & CAP SET
 - ⊕ BRASS PLUG SET
 - ⊕ MONUMENT FOUND / SET
 - ⊕ SECTION CORNER FOUND
 - ⊕ R M C RECORDED / MEASURED / CALCULATED

RUNOFF CALCULATIONS:

1787 W. BIG BEAVER ROAD (EAST)

EXISTING SITE
TOTAL AREA = 36,289 SF
TOTAL IMPERVIOUS AREA = 30,094 SF
TOTAL PERVIOUS AREA = 6,195 SF

PROPOSED SITE
TOTAL AREA = 36,289 SF
TOTAL IMPERVIOUS AREA = 32,062 SF
TOTAL PERVIOUS AREA = 4,227 SF

NET CALCULATIONS
TOTAL AREA CONSIDERED FOR 25-YR = 36,289 SF
36,289 - (32,062 - 30,094) = 4,227 SF
36,289 - (1,968) = 34,321 SF
= 0.79 AC

PERVIOUS CONSIDERED FOR 25-YR
= 4,227 SF
= 0.10 AC

TOTAL AREA CONSIDERED FOR 100-YEAR
NET ADDITIONAL IMPERVIOUS = 1,968 SF
= 0.05 AC

VOLUME TOTALS
25 YEAR STORAGE REQUIRED = 6,551 CF
100 YEAR STORAGE REQUIRED = 605 CF
TOTAL VOLUME REQUIRED = 7,156 CF

Impervious Area: 0.69 acre C = 0.95
Greenbelt Area: 0.10 acre C = 0.20
Total Area (A): 0.79 acre
Weighted Coefficient of Runoff (C): 0.86

25 YEAR STORM DETENTION DESIGN (OAKLAND COUNTY DESIGN METHOD) EXISTING 1787 W. BIG BEAVER ROAD (EAST)

Contributing Area (A): 0.79 AC
Allowable Discharge (Qa): 0.16 C.F.S. (= 0.2 CFS/AC)
Coefficient of Runoff (Cr): 0.86

Calculation of Required Discharge/Acre
 $Q_0 = ((Q_a)/(A))(Cr)$ = 0.23
 $T = -25 * ((8062.5/Q_0))^{0.5}$ = 161.20

Storage Volume Required:
 $V_s = (12900(T)/(T+25)) - 40Q_0(T)$ = 9668.46
 $V_t = (V_s)(A)(Cr)$ = 6551 CF

Proposed 100 YEAR

Natural Greenspace area:	0.00 acre	C = 0.20
Select NCRS Soil type:	B	
Improved Greenspace area:	0.00 acre	C = 0.20
Select NCRS Soil type:	B	
Wooded Area:	0.00 acre	C = 0.20
Select NCRS Soil type:	B	
Impervious Area:	0.05 acre	C = 0.95
Greenbelt Area:	0.00 acre	C = 0.00
Total Area (A):	0.05 acre	
Weighted Coefficient of Runoff (C):	0.95	

Design Requirements

CPRC Extended Detention: V _{ED} =	296 cf
CPRC Allowable Outlet Rate: Q _{VED} =	0.00 cfs
100-Year Storage Volume, V _{100S} =	605 cf
100-Year Allowable Outlet Rate: Q _{VRR} =	0.01 cfs

RUNOFF CALCULATIONS:

1985 W. BIG BEAVER ROAD (WEST)

EXISTING SITE
TOTAL AREA = 106,850 SF
TOTAL IMPERVIOUS AREA = 63,624 SF
TOTAL PERVIOUS AREA = 43,226 SF

PROPOSED SITE
TOTAL AREA = 106,850 SF
TOTAL IMPERVIOUS AREA = 91,556 SF
TOTAL PERVIOUS AREA = 15,294 SF

NET CALCULATIONS
TOTAL AREA CONSIDERED FOR 25-YR = 106,850 SF
106,850 - (91,556 - 63,624) = 78,918 SF
106,850 - (27,932) = 78,918 SF
= 1.81 AC

PERVIOUS CONSIDERED FOR 25-YR
= 15,294 SF
= 0.35 AC

TOTAL AREA CONSIDERED FOR 100-YEAR
NET ADDITIONAL IMPERVIOUS = 27,932 SF
= 0.64 AC

VOLUME TOTALS
25 YEAR STORAGE REQUIRED = 13,854 CF
100 YEAR STORAGE REQUIRED = 8,727 CF
TOTAL VOLUME REQUIRED = 22,581 CF

Impervious Area: 1.46 acre C = 0.95
Greenbelt Area: 0.35 acre C = 0.20
Total Area (A): 1.81 acre
Weighted Coefficient of Runoff (C): 0.80

25 YEAR STORM DETENTION DESIGN (OAKLAND COUNTY DESIGN METHOD) EXISTING 1985 W. BIG BEAVER ROAD (WEST)

Contributing Area (A): 1.81 AC
Allowable Discharge (Qa): 0.36 C.F.S. (= 0.2 CFS/AC)
Coefficient of Runoff (Cr): 0.80

Calculation of Required Discharge/Acre
 $Q_0 = ((Q_a)/(A))(Cr)$ = 0.25
 $T = -25 * ((8062.5/Q_0))^{0.5}$ = 154.58

Storage Volume Required:
 $V_s = (12900(T)/(T+25)) - 40Q_0(T)$ = 9558.34
 $V_t = (V_s)(A)(Cr)$ = 13854 CF

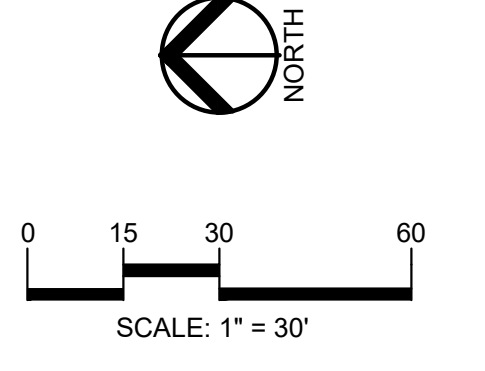
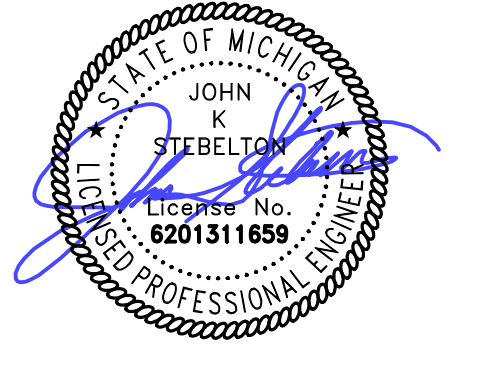
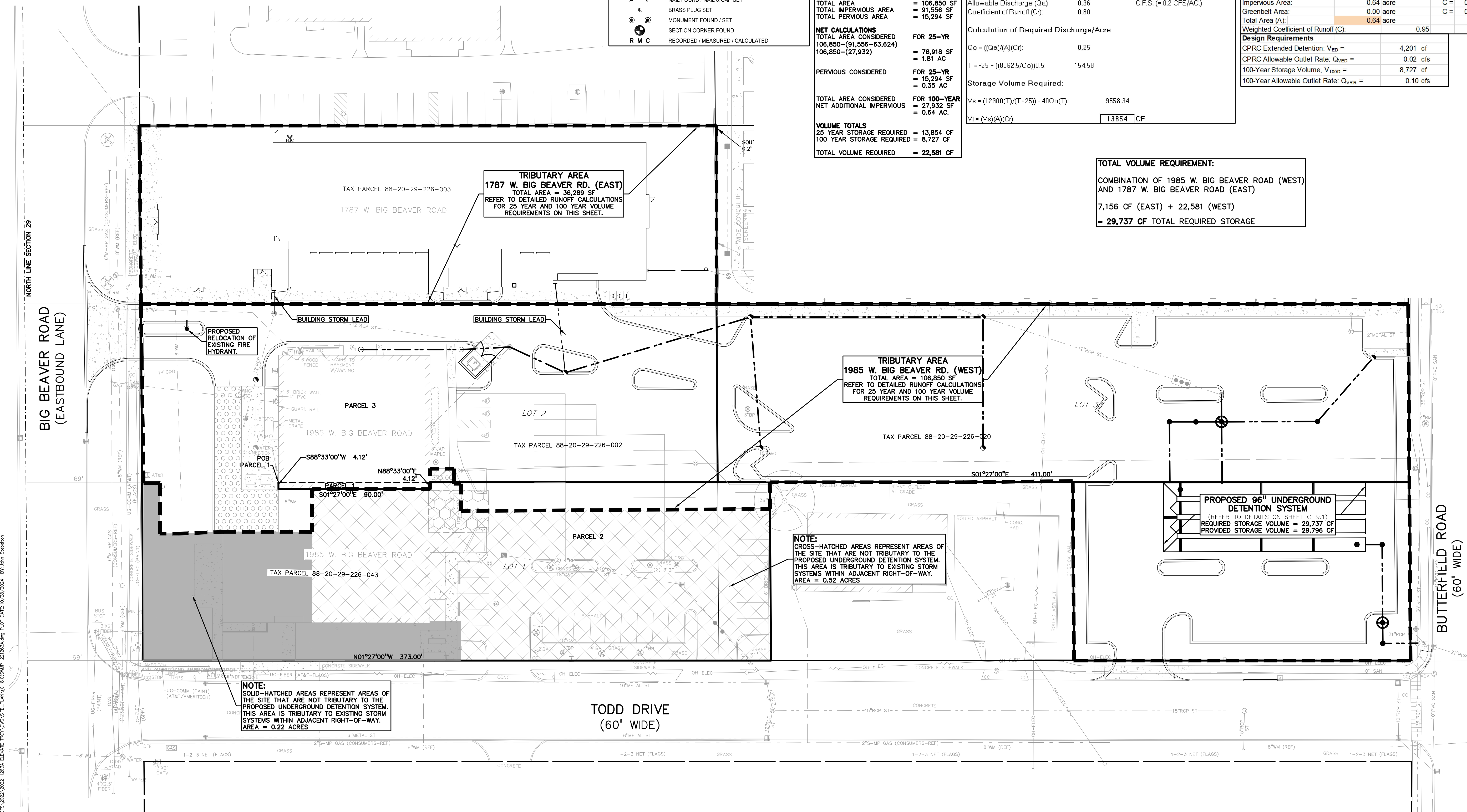
Proposed 100 YEAR

Natural Greenspace area:	0.00 acre	C = 0.20
Select NCRS Soil type:	B	
Improved Greenspace area:	0.00 acre	C = 0.20
Select NCRS Soil type:	B	
Wooded Area:	0.00 acre	C = 0.20
Select NCRS Soil type:	B	
Impervious Area:	0.64 acre	C = 0.95
Greenbelt Area:	0.00 acre	C = 0.00
Total Area (A):	0.64 acre	
Weighted Coefficient of Runoff (C):	0.95	

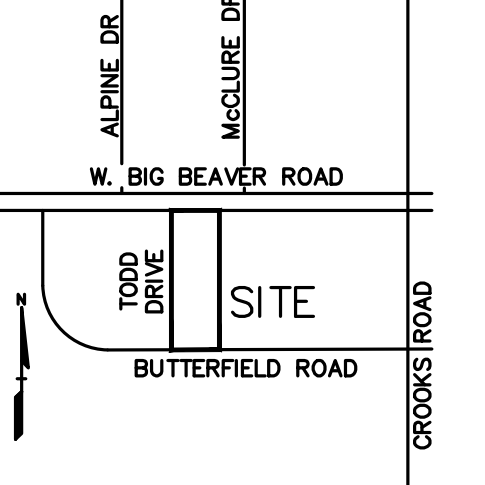
Design Requirements

CPRC Extended Detention: V _{ED} =	4,201 cf
CPRC Allowable Outlet Rate: Q _{VED} =	0.02 cfs
100-Year Storage Volume, V _{100S} =	8,727 cf
100-Year Allowable Outlet Rate: Q _{VRR} =	0.10 cfs

TOTAL VOLUME REQUIREMENT:
COMBINATION OF 1985 W. BIG BEAVER ROAD (WEST) AND 1787 W. BIG BEAVER ROAD (EAST)
7,156 CF (EAST) + 22,581 (WEST)
= 29,737 CF TOTAL REQUIRED STORAGE



CAUTION!!
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.



CLIENT
ENCORE DEVELOPMENT
1787 WEST BIG BEAVER
TROY, MICHIGAN 48064

PROJECT TITLE
ELEVATE TROY MIXED USE DEVELOPMENT
BIG BEAVER ROAD
CITY OF TROY, MICHIGAN

REVISIONS

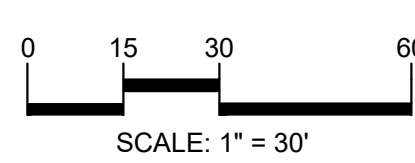
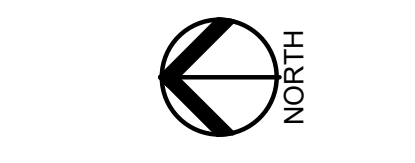
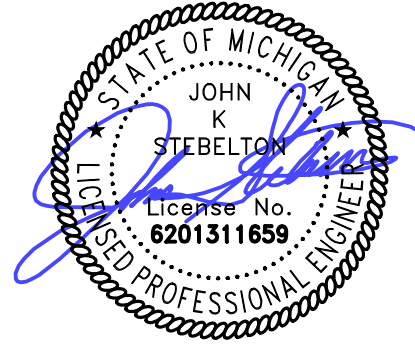
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CITY COMMENTS	10-24-24

ORIGINAL ISSUE DATE:
MAY 13, 2024

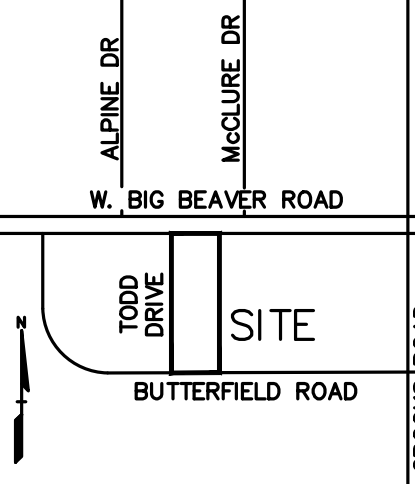
DRAWING TITLE
STORMWATER MANAGEMENT PLAN

PEA JOB NO.	2022-1263
P.M.	JPB
DN.	JKS
DES.	JKS
DRAWING NUMBER:	

NOT FOR CONSTRUCTION **C-8.0**



CAUTION!!
THE LOCATION AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATION AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.



CLIENT
ENCORE DEVELOPMENT
1787 WEST BIG BEAVER
TROY, MICHIGAN 48064

PROJECT TITLE
ELEVATE TROY MIXED USE DEVELOPMENT
BIG BEAVER ROAD
CITY OF TROY, MICHIGAN

REVISIONS

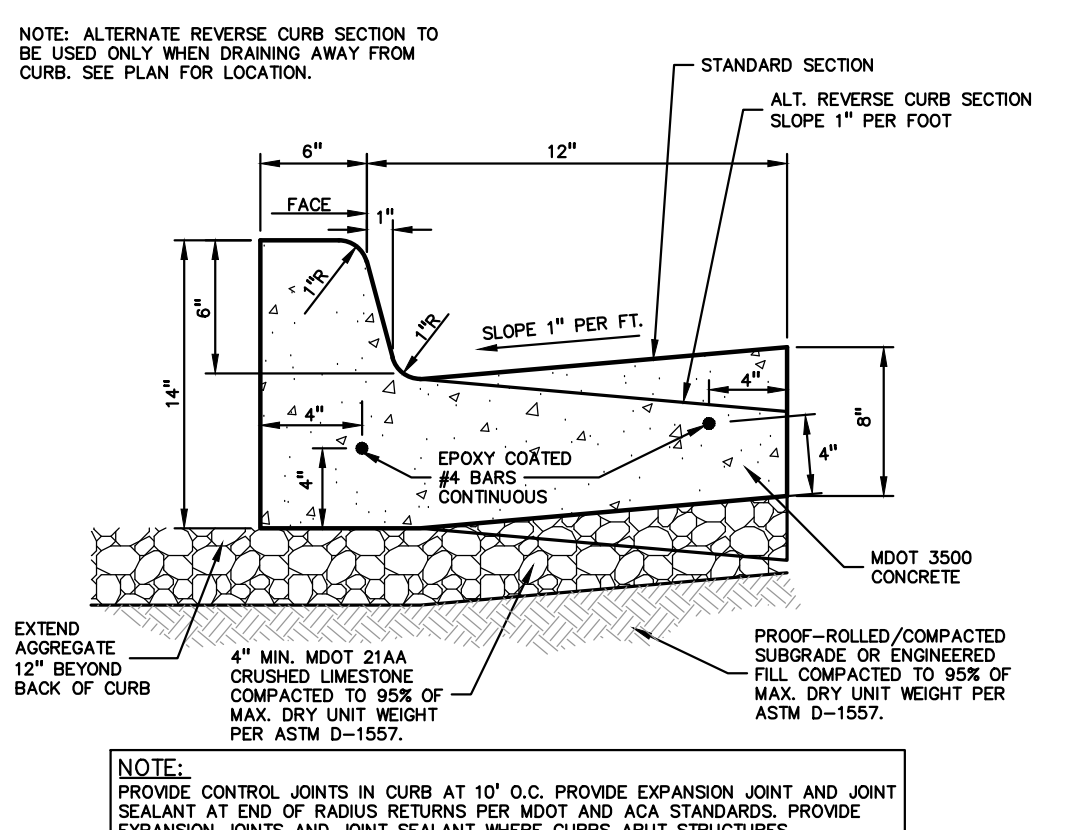
CITY COMMENTS	8-28-24
CITY COMMENTS	10-24-24

ORIGINAL ISSUE DATE:
MAY 13, 2024

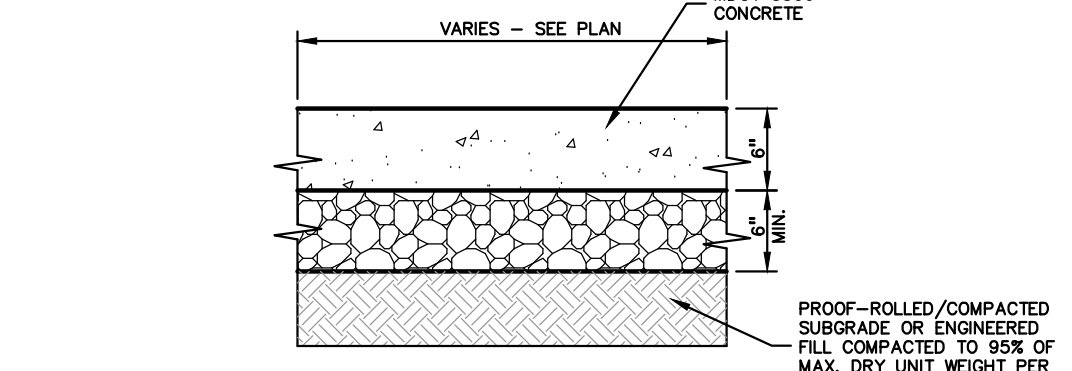
DRAWING TITLE
NOTES AND DETAILS

PEA JOB NO.	2022-1263
P.M.	JPB
JNS	JNS
DES.	JKS
DRAWING NUMBER:	

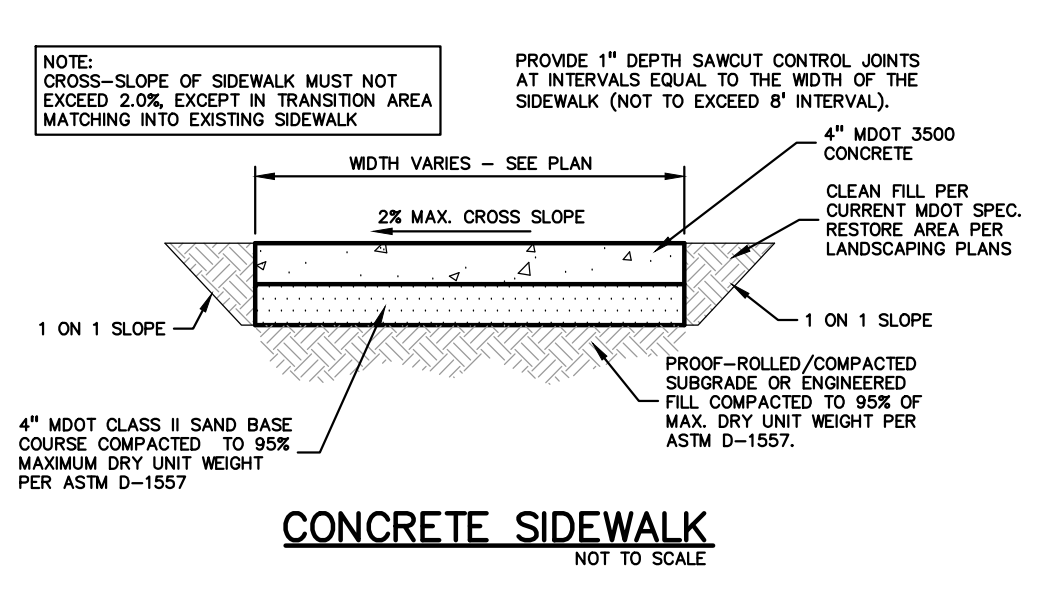
NOT FOR CONSTRUCTION C-9.0



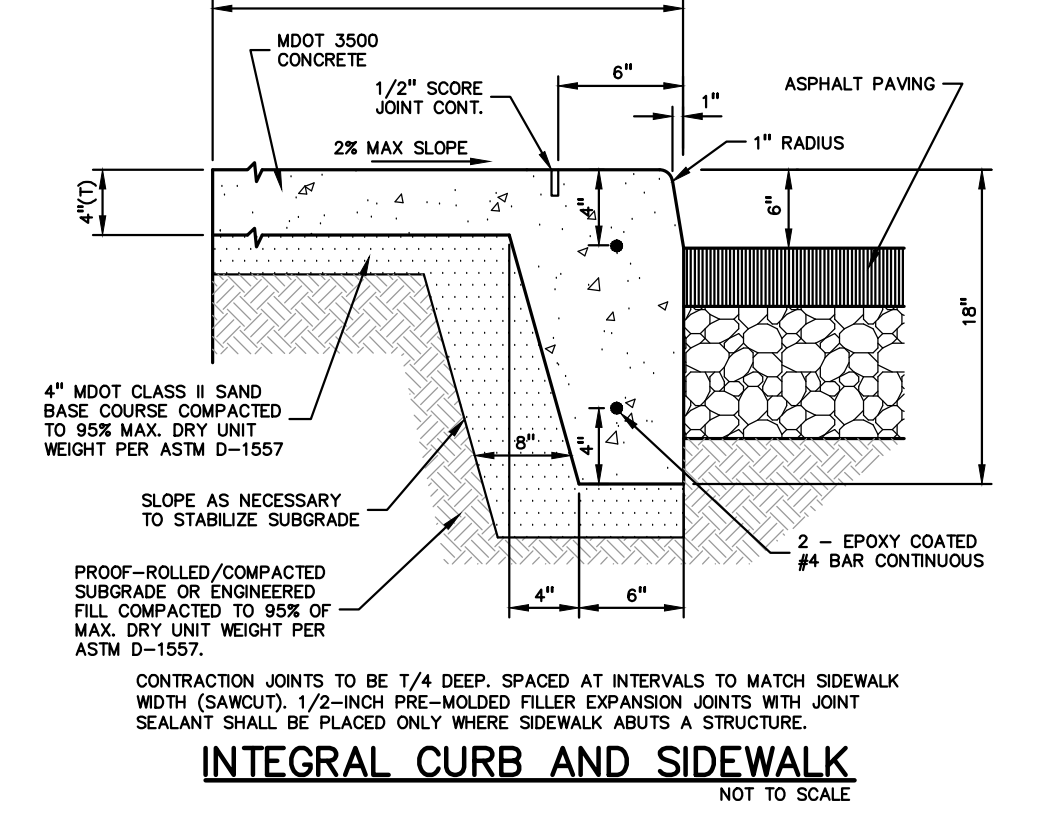
18"x8" STANDARD CONCRETE CURB AND GUTTER
NOT TO SCALE



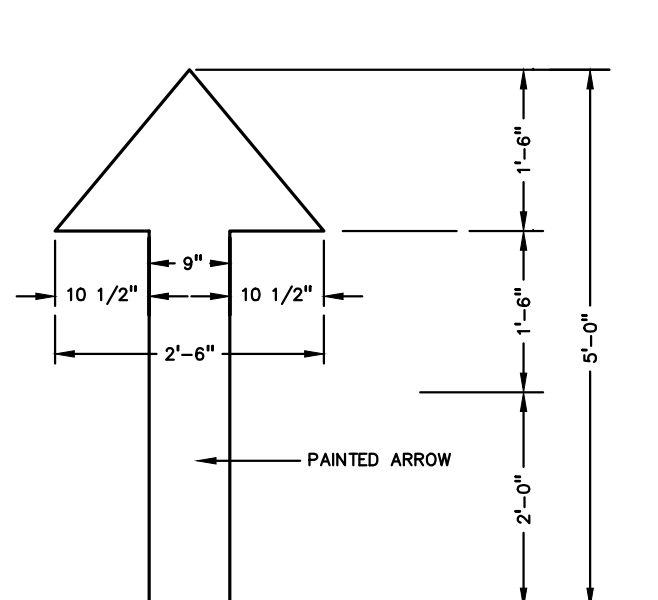
STANDARD DUTY CONCRETE CURB
NOT TO SCALE



CONCRETE SIDEWALK
NOT TO SCALE



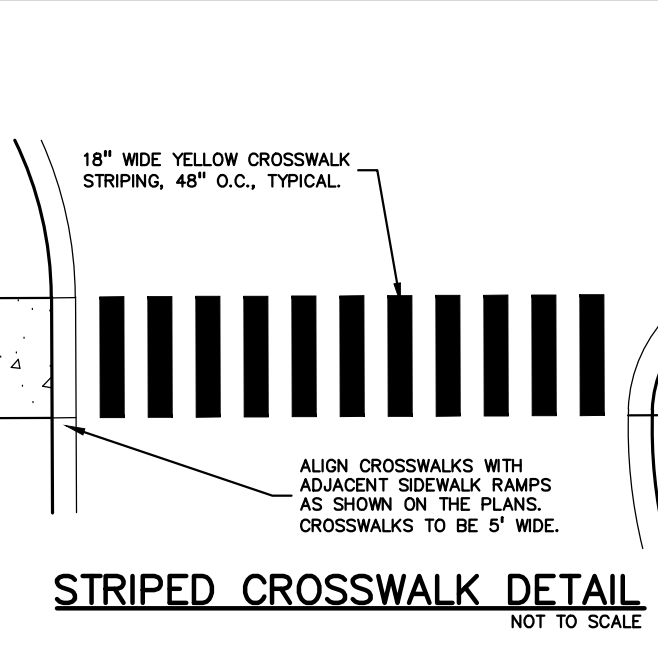
INTEGRAL CURB AND SIDEWALK
NOT TO SCALE



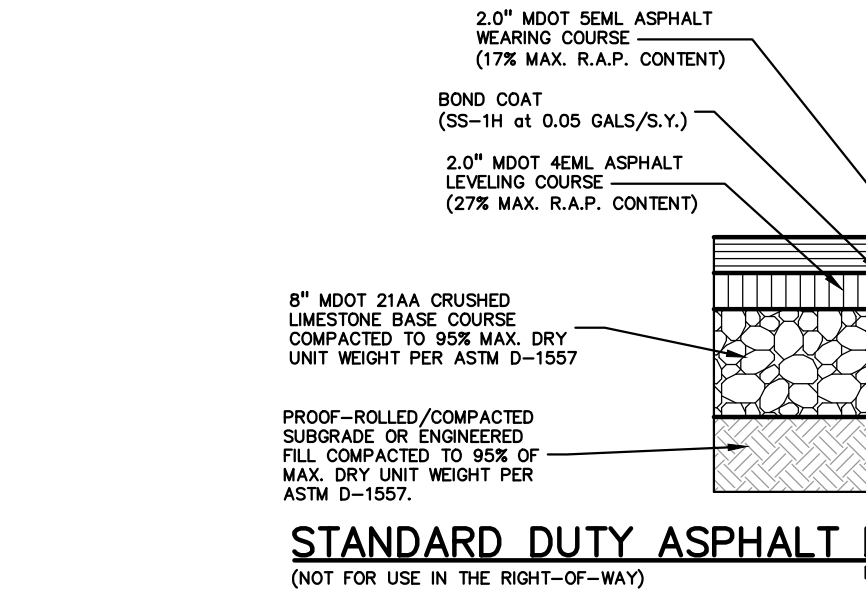
PAINTED DIRECTIONAL ARROW
NOT TO SCALE



NO PARKING SIGN DETAIL
NOT TO SCALE

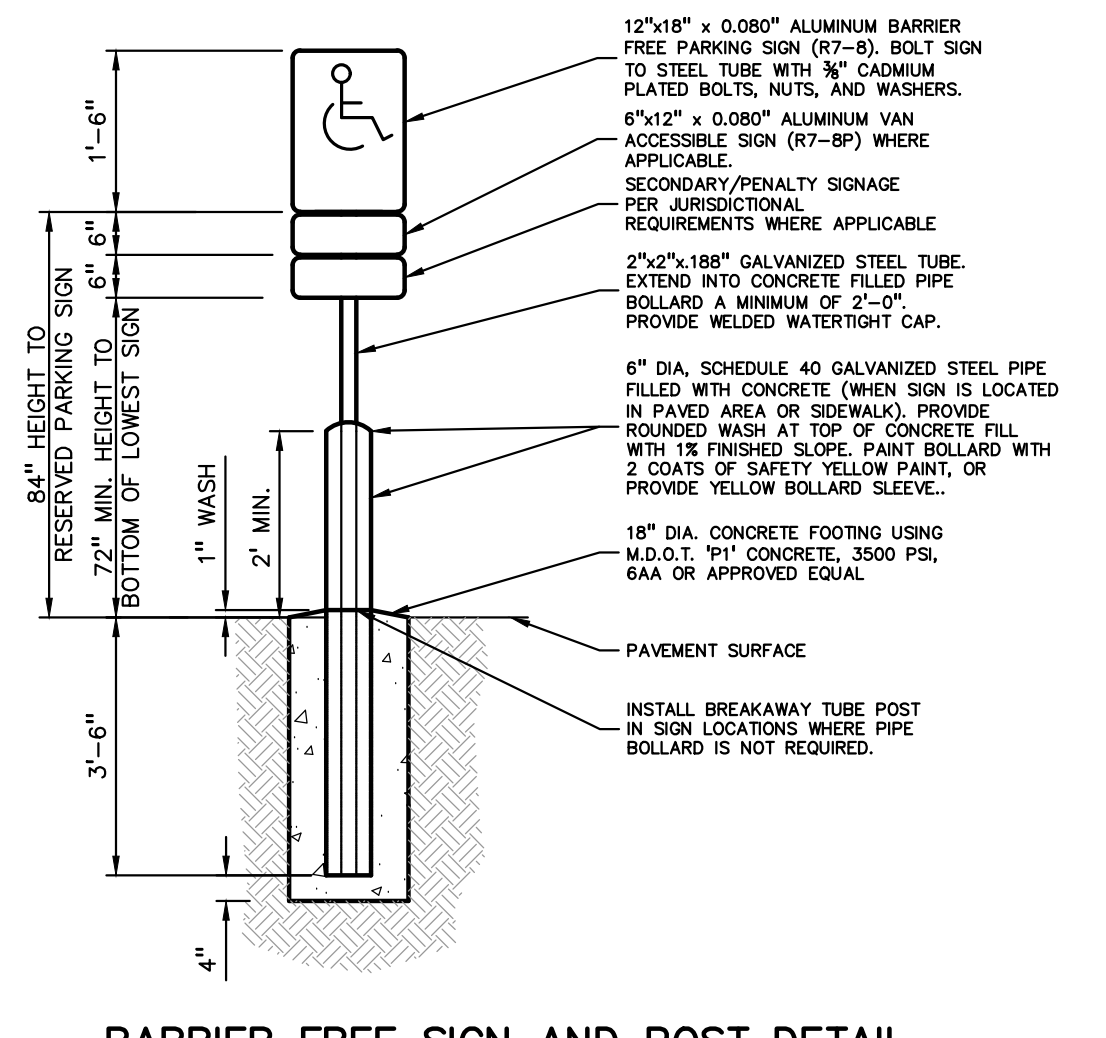


STRIPED CROSSWALK DETAIL
NOT TO SCALE

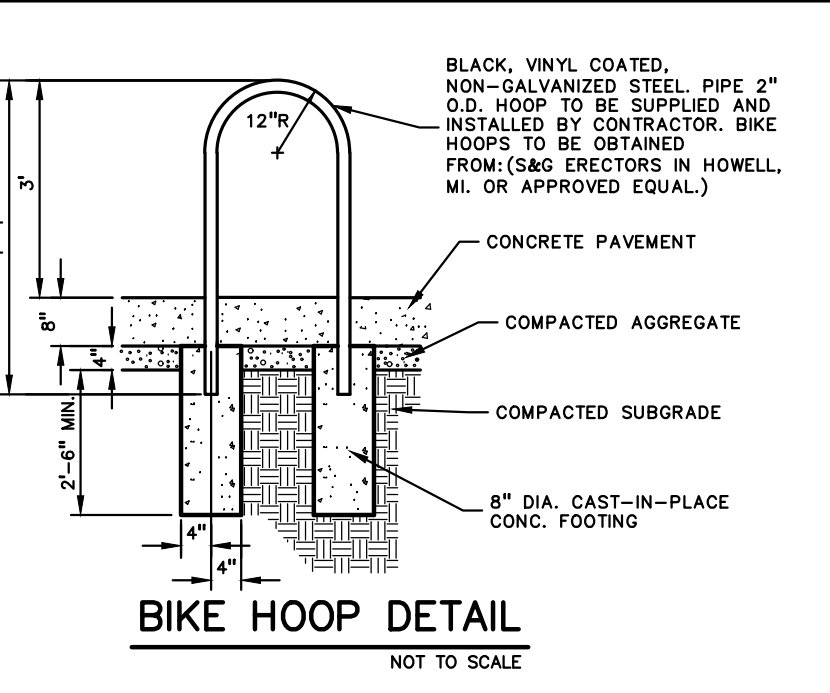


STANDARD DUTY ASPHALT DETAIL
(NOT FOR USE IN THE RIGHT-OF-WAY)
NOT TO SCALE

- BARRIER FREE SIGN NOTES:**
- ONE SIGN IS REQUIRED AT EACH BARRIER FREE PARKING SPACE.
 - ALL SIGNS SHALL COMPLY WITH THE LATEST STANDARDS OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD).
 - WHEN TWO BARRIER FREE PARKING SPACES ARE ADJACENT AND FACING EACH OTHER, TWO SIGNS ARE REQUIRED, BUT CAN BE MOUNTED ON THE SAME POST.
 - SIGN POSTS SHALL BE 2" NOM. SQUARE 14-GAUGE GALVANIZED STEEL TUBE WITH 7/16" HOLES AT 1" CENTERS. POSTS SHALL TELESCOPE INSIDE ANCHOR POSTS A MINIMUM OF 12".
 - ANCHOR POSTS SHALL BE 2.25" NOM. SQUARE 12-GAUGE GALVANIZED STEEL POST, A MINIMUM OF 3 FEET LONG.
 - IF THESE NOTES AND DETAILS CONFLICT WITH LOCAL CODES AND ORDINANCES, THE STRICTER REQUIREMENT SHOULD BE USED.
 - ALTERNATE MATERIALS MAY BE USED IF IN COMPLIANCE WITH A.D.A. GUIDELINES AND LOCAL REQUIREMENTS.



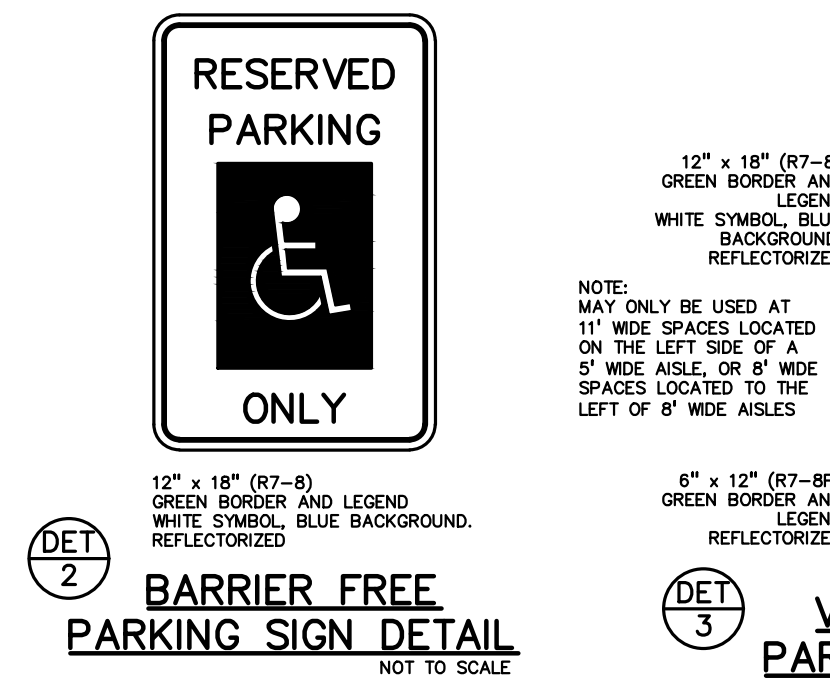
BARRIER FREE SIGN AND POST DETAIL
NOT TO SCALE



BIKE HOOP DETAIL
NOT TO SCALE



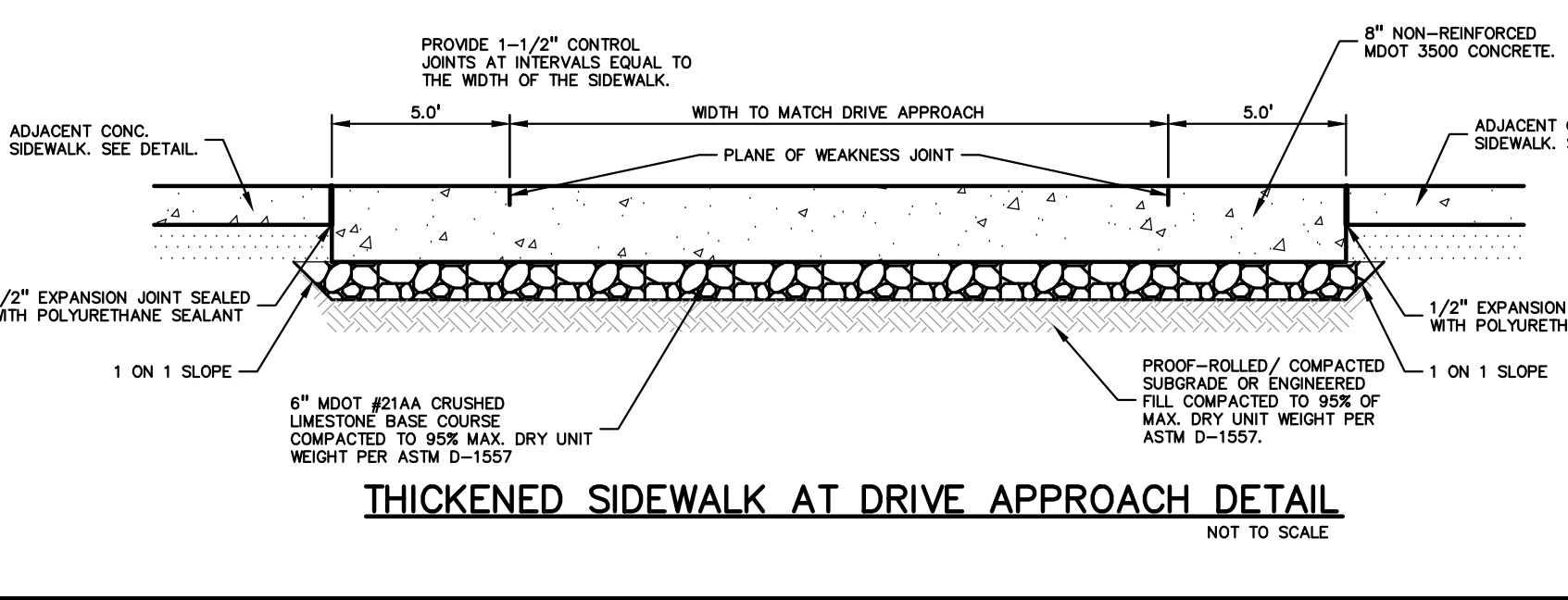
DO NOT ENTER SIGN DETAIL
NOT TO SCALE



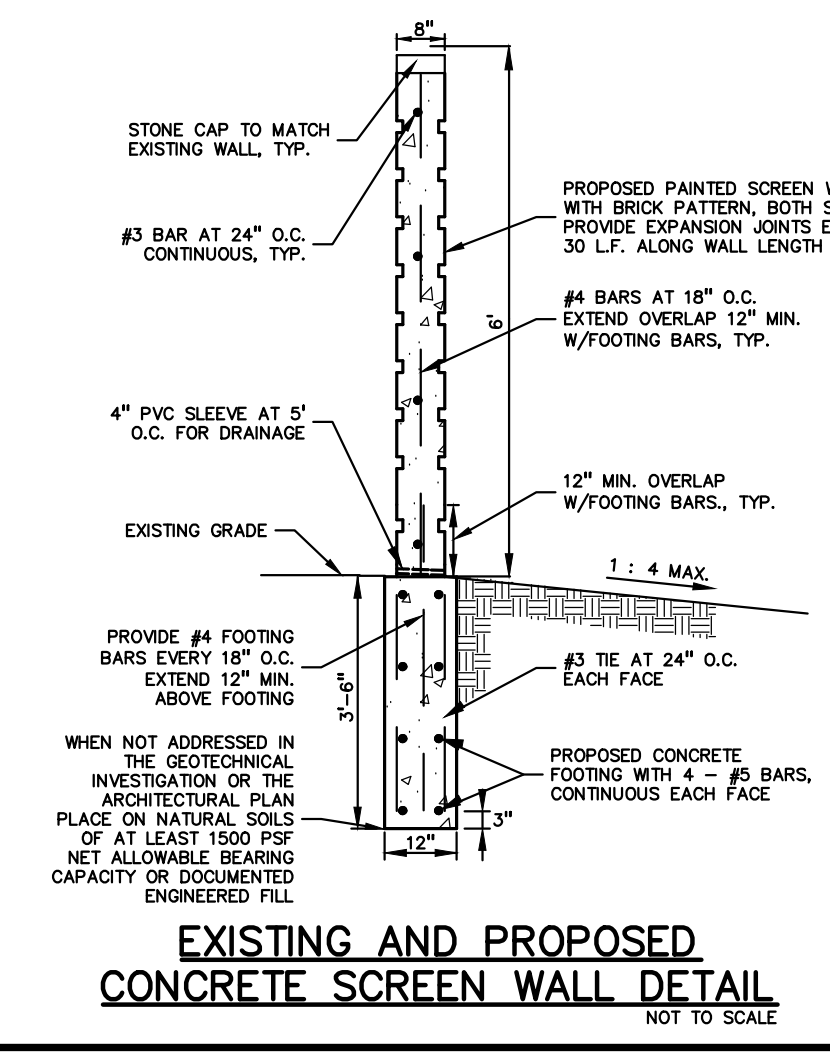
BARRIER FREE PARKING SIGN DETAIL
NOT TO SCALE



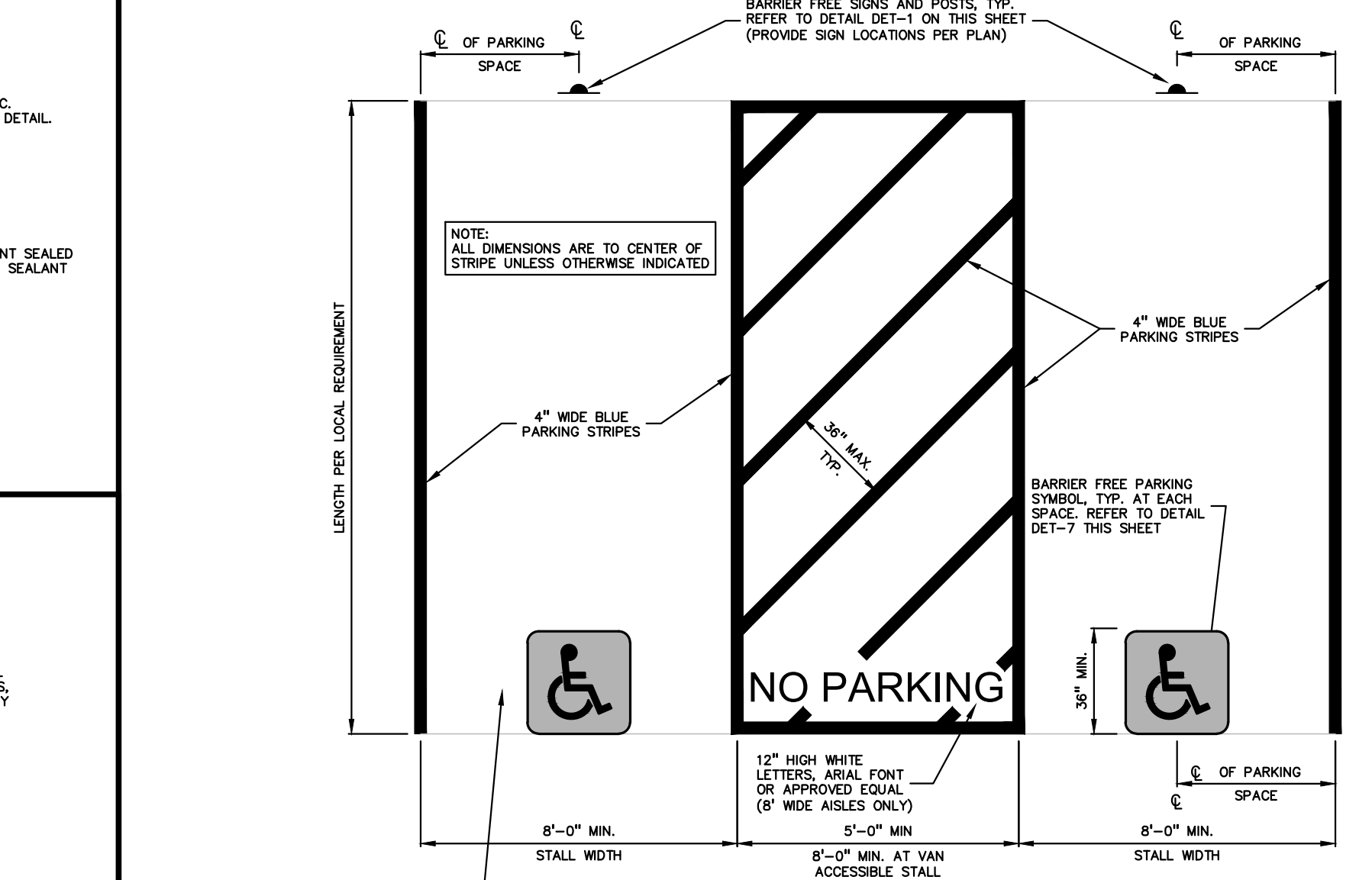
VAN ACCESSIBLE PARKING SIGN DETAIL
NOT TO SCALE



THICKENED SIDEWALK AT DRIVE APPROACH DETAIL
NOT TO SCALE



EXISTING AND PROPOSED CONCRETE SCREEN WALL DETAIL
NOT TO SCALE



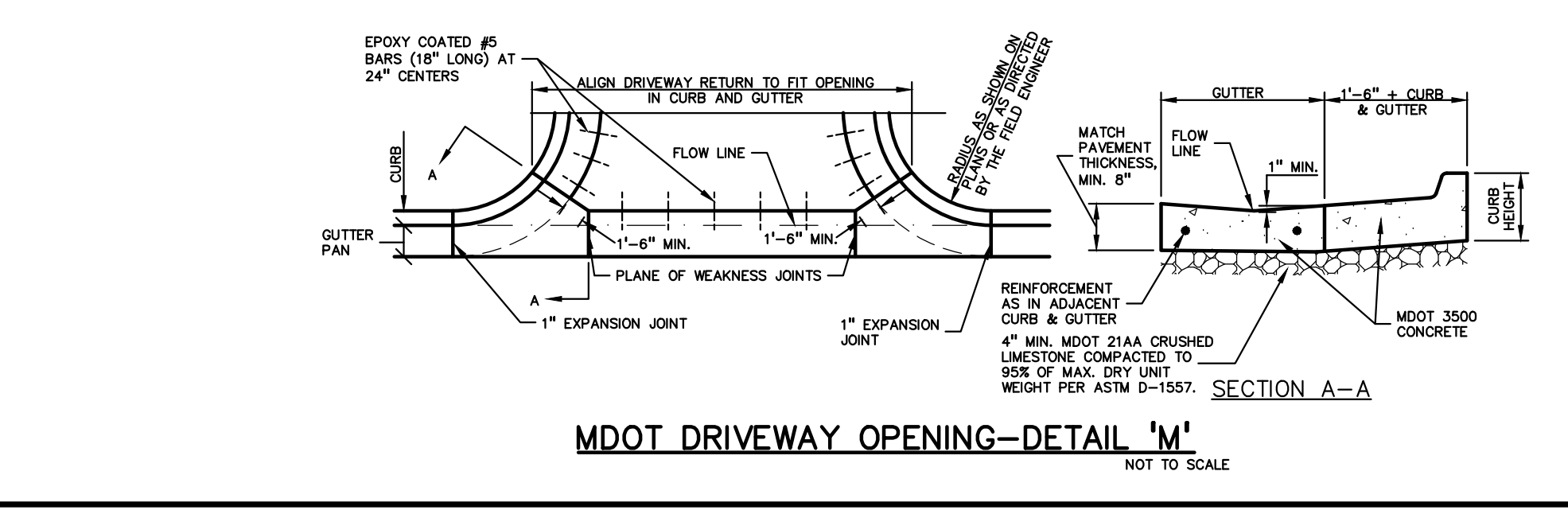
ALTERNATE BARRIER FREE PARKING STALL DETAIL
NOT TO SCALE

AGGREGATE BASE NOTE:
THIS PAVEMENT SECTION DESIGN ASSUMES THE USE OF MDOT 21AA CRUSHED LIMESTONE BASE MATERIAL THAT MEETS THE REQUIREMENTS OF MDOT STANDARD SPECIFICATION SECTION 902 FOR AGGREGATES. IF CRUSHED CONCRETE AGGREGATE BASE IS PROPOSED IN LIEU OF THE SPECIFIED CRUSHED LIMESTONE MATERIAL, PEA GROUP WILL REQUIRE A MINIMUM 25% INCREASE IN BASE THICKNESS. HOWEVER, IF TESTING DOCUMENTATION IS PROVIDED TO PEA GROUP THAT SHOWS THAT THE CRUSHED CONCRETE MATERIAL MEETS ALL REQUIREMENTS OF MDOT SPECIFICATION SECTION 902, THEN THE 25% INCREASE IN THICKNESS MAY BE REEVALUATED.

ASPHALT MATERIAL NOTES:
HOT-MIX ASPHALT MIXTURES UTILIZING RECYCLED ASPHALT PAVEMENT (RAP) MUST MEET MDOT SPECIAL PROVISION 12SP301(E). THE BINDER GRADE FOR THIS WORK IS PG8-28. IF ASPHALT MIXES CONTAINING RAP ARE TO BE SUPPLIED FOR THIS PROJECT, THE ASPHALT BINDER MUST BE REVISED FOR MDOT 'TIER 1' OR 'TIER 2' REQUIREMENTS (RAP CONTENT UP TO 27% MAXIMUM). TIER 2 MIXES ARE NOT ACCEPTABLE ON THIS PROJECT. AN ASPHALT MIX DESIGN FOR ALL SPECIFIED MIXES SHOULD BE FORWARDED TO PEA GROUP FOR REVIEW PRIOR TO CONSTRUCTION.

ASPHALT MIX DESIGN CHART

COMMERCIAL ADT 0-300	COMMERCIAL ADT 301-1000	COMMERCIAL ADT 1001-3400	COMMERCIAL ADT 3401	APPLICATION RATE (LB/10')	COURSE APPLICATION
2EL	2EML	2EMH	2EH	435-550	BASE
3EL	3EML	3EMH	3EH	330-410	BASE AND/OR LEVELING
4EL	4EML	4EMH	4EH	220-275	LEVELING AND/OR TOP
5EL	5EML	5EMH	5EH	165-220	TOP
PG 58-28	PG 64-28	PG 64-28	PG 70-28P		



MDOT DRIVEWAY OPENING-DETAIL 'M'
NOT TO SCALE

PROJECT SUMMARY

CALCULATION DETAILS

- LOADING = HS20S18S
APPROX. LINEAR FOOTAGE = 489 LF

STORAGE SUMMARY

- STORAGE VOLUME REQUIRED = 29,737 CF
PIPE STORAGE VOLUME = 24,580 CF
BACKFILL STORAGE VOLUME = 5,216 CF
TOTAL STORAGE PROVIDED = 29,796 CF

PIPE DETAILS

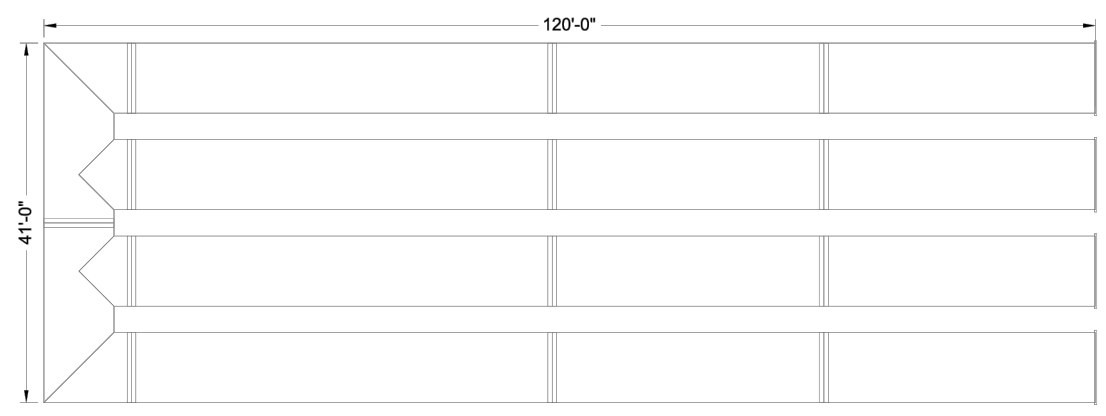
- DIAMETER = 8"
CORROSION = 5x1
GAGE = 16
COATING = AL72
WALL TYPE = SOLID
BARREL SPACING = 30"

BACKFILL DETAILS

- WIDTH AT ENDS = 12"
ABOVE PIPE = 0"
WIDTH AT SIDES = 12"
BELOW PIPE = 0"

NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
ALL RISERS AND STUBS ARE 2 1/2" x 1/2" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
RISERS TO BE FIELD TRIMMED TO GRADE.
QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAIL PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
THE PROJECT SUMMARY IS REFLECTIVE OF THE DIVYOS DESIGN. QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.



ASSEMBLY SCALE: 1" = 20'

CONTECH ENGINEERED SOLUTIONS LLC logo and contact information.

CONTECH CMP DETENTION SYSTEMS logo and contact information.

DYO45522 Elevate Troy UG-DET Troy, MI DETENTION SYSTEM

Revision table with columns for PROJECT NO., REV. NO., DATE, and DESCRIPTION.

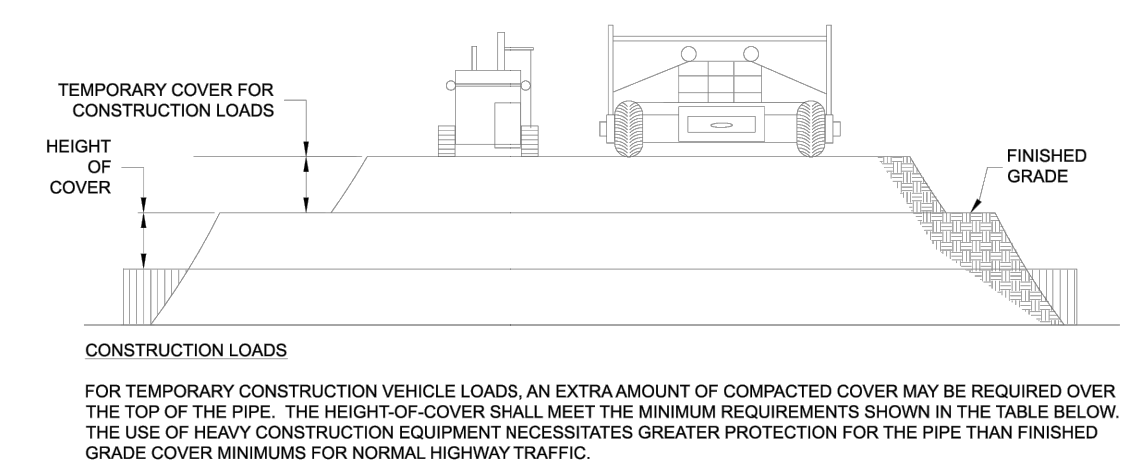
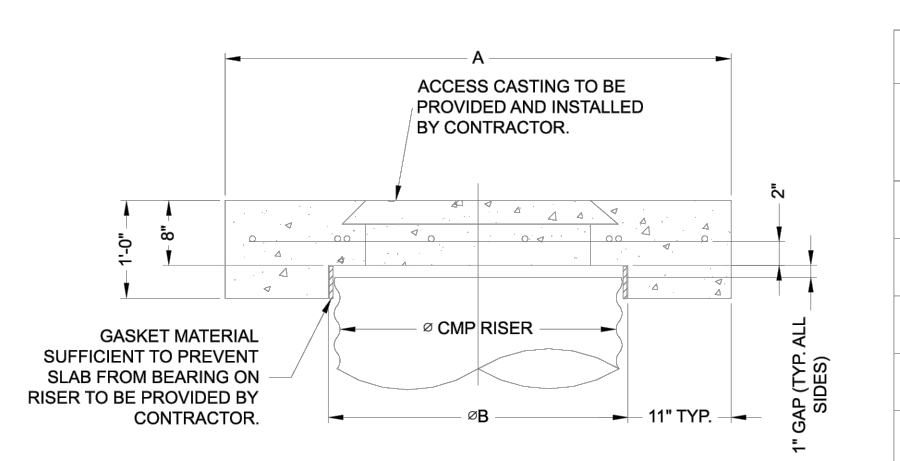


Table with columns for PIPE SPAN INCHES and AXLE LOADS (kips), showing minimum cover requirements.

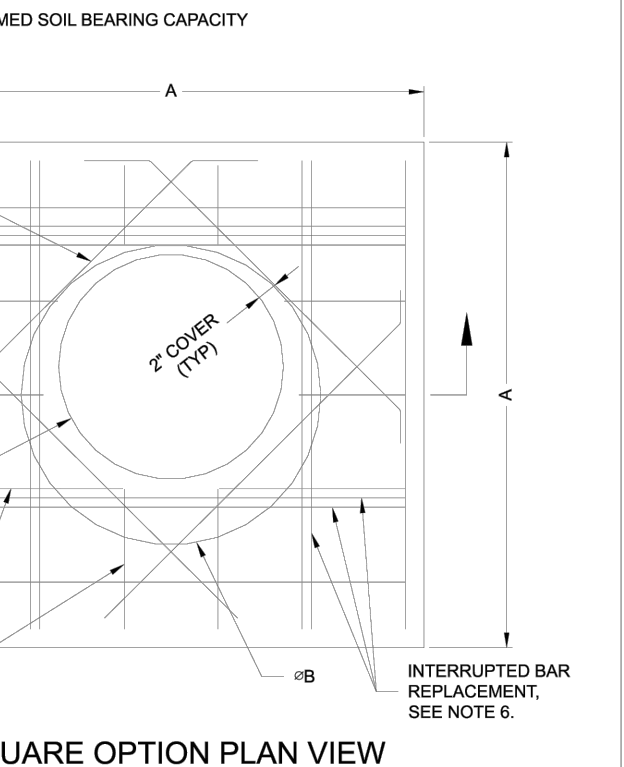
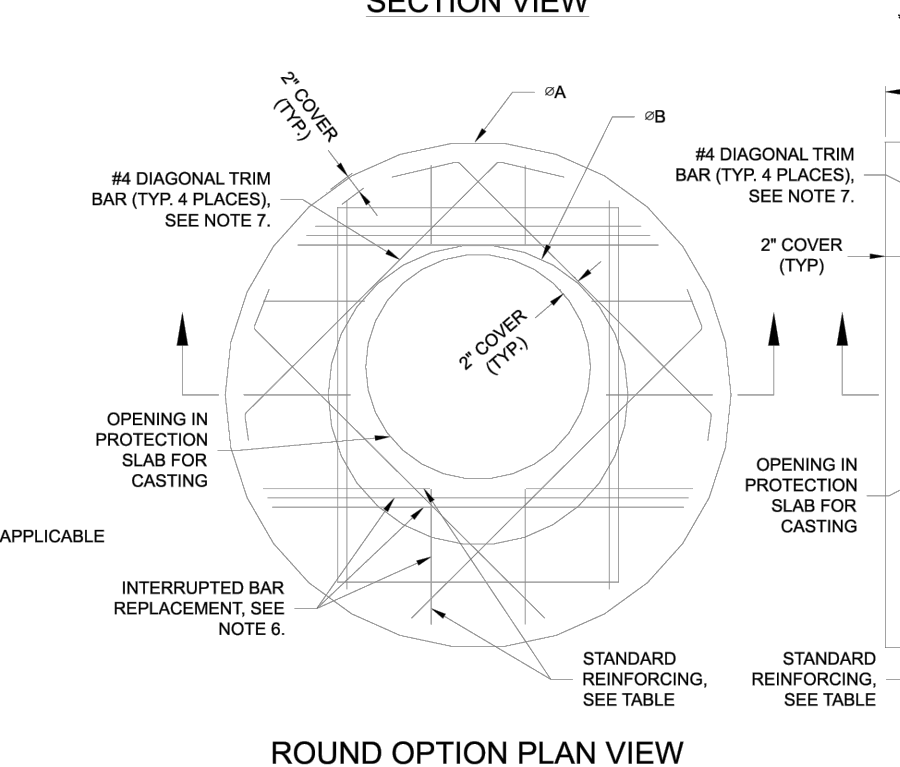
CONSTRUCTION LOADING DIAGRAM SCALE: N.T.S.

SPECIFICATION FOR DESIGNED DETENTION SYSTEM:

SCOPE: THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE DESIGNED DETENTION SYSTEM DETAILED IN THE PROJECT PLANS.
MATERIAL: THE MATERIAL SHALL CONFORM TO THE APPLICABLE REQUIREMENTS LISTED BELOW.
ALUMINIZED TYPE 2: AASHTO M-36 OR ASTM A-760
GALVANIZED: AASHTO M-36 OR ASTM A-760
ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-274 OR ASTM A-92.
THE GALVANIZED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-218 OR ASTM A-929.
THE POLYMER COATED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-268 OR ASTM A-742.
THE ALUMINUM COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-197 OR ASTM B-744.
CONSTRUCTION LOADS: CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NCSPP GUIDELINES.



REINFORCING TABLE with columns for CMP RISER, A, B, REINFORCING, and BEARING PRESSURE (PSF).



- NOTES: 1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION. 2. DESIGN LOAD HS25. 3. EARTH COVER = 1' MAX. 4. CONCRETE STRENGTH = 3,500 psi. 5. REINFORCING STEEL = ASTM A615, GRADE 60. 6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE. 7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING. BEND BARS AS REQUIRED TO MAINTAIN BAR COVER. 8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR. 9. DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.

MANHOLE CAP DETAIL SCALE: N.T.S.

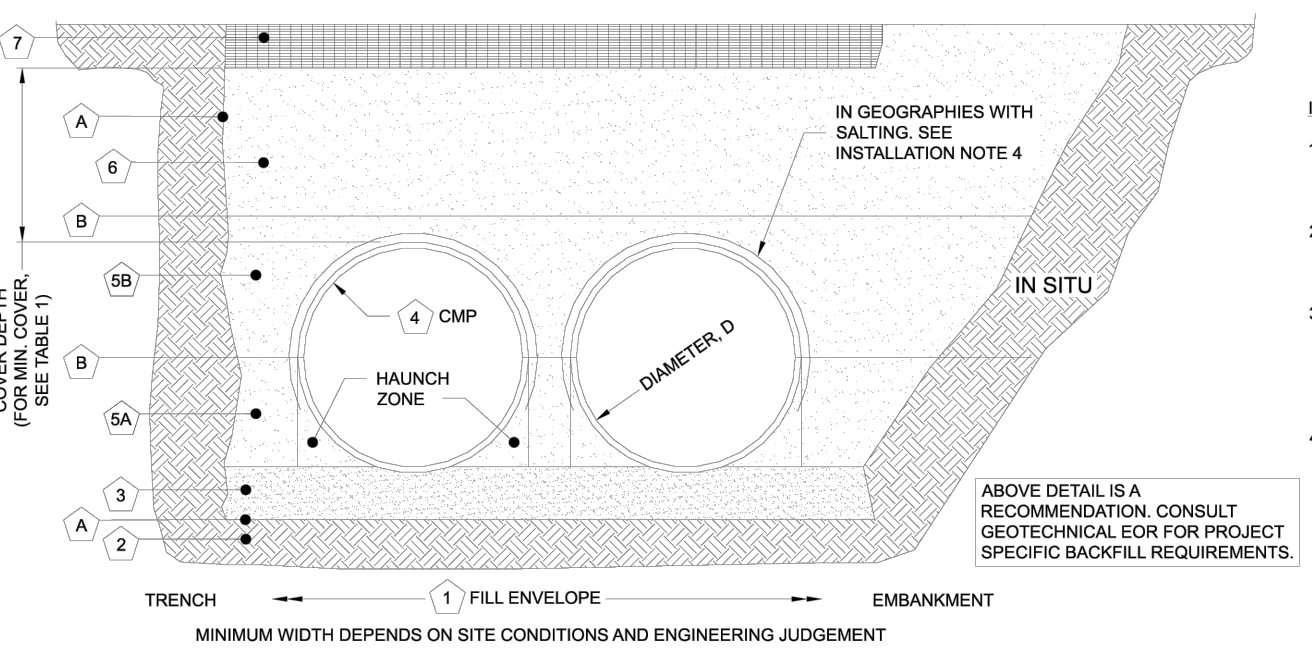
CONTECH ENGINEERED SOLUTIONS LLC logo and contact information.

CONTECH CMP DETENTION SYSTEMS logo and contact information.

DYO45522 Elevate Troy UG-DET Troy, MI DETENTION SYSTEM

Revision table with columns for PROJECT NO., REV. NO., DATE, and DESCRIPTION.

TABLE 1: DIAMETER, D MIN. COVER CORR. PROFILE



- INSTALLATION NOTES: 1. WHEN PLACING THE FIRST LIFTS OF BACKFILL IT IS IMPORTANT TO MAKE SURE THAT THE BACKFILL IS PROPERLY COMPACTED UNDER AND AROUND THE PIPE HAUNCHES. 2. OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS, AS APPROVED BY SITE ENGINEER. 3. BACKFILL USING CONTROLLED LOW-STRENGTH MATERIAL (CLSM 'FLASH FILL' OR 'FLOWABLE FILL') MAY BE USED WHEN THE SPACING BETWEEN THE PIPES WILL NOT ALLOW FOR PLACEMENT AND ADEQUATE COMPACTION OF THE BACKFILL CONTACT CONTECH FOR FURTHER EVALUATION. 4. IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, A GEOMEMBRANE BARRIER IS RECOMMENDED OVER THE UPPER HALF OF THE PIPE. THE GEOMEMBRANE LNER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.

CMP DETENTION AND CMP DRAINAGE STANDARD BACKFILL SPECIFICATIONS

Table with columns for MATERIAL LOCATION, MATERIAL SPECIFICATION, and DESCRIPTION, detailing requirements for fill envelope, foundation, bedding, and backfill.

NOTES: 1. FOR MULTIPLE BARREL INSTALLATIONS, THE RECOMMENDED STANDARD SPACING BETWEEN PARALLEL PIPE RUNS SHALL BE THE PIPE DIAMETER (2 BUT NOT LESS THAN 12" FOR DIAMETERS < 72", FOR 72" AND LARGER DIAMETERS, THE MINIMUM SPACING IS 30". CONTACT YOUR CONTECH REPRESENTATIVE FOR NONSTANDARD SPACING. 2. APPROVED REGIONAL EQUIVALENTS FOR SECTION A INCLUDE CA-7, MDOT 20, 343, OR 21A3 STONE OR GRAVEL; #57, MDOT 6A, 20, 30, 303.

MANUFACTURER RECOMMENDED BACKFILL

CONTECH ENGINEERED SOLUTIONS LLC logo and contact information.

CONTECH CMP DETENTION SYSTEMS logo and contact information.

DYO45522 Elevate Troy UG-DET Troy, MI DETENTION SYSTEM

Revision table with columns for PROJECT NO., REV. NO., DATE, and DESCRIPTION.

CMP DETENTION INSTALLATION GUIDE

PROPER INSTALLATION OF A FLEXIBLE UNDERGROUND DETENTION SYSTEM WILL ENSURE LONG-TERM PERFORMANCE. THE CONFIGURATION OF THESE SYSTEMS OFTEN REQUIRES SPECIAL CONSTRUCTION PRACTICES THAT DIFFER FROM CONVENTIONAL FLEXIBLE PIPE CONSTRUCTION. CONTECH ENGINEERED SOLUTIONS STRONGLY SUGGESTS SCHEDULING A PRE-CONSTRUCTION MEETING WITH YOUR LOCAL SALES ENGINEER TO DETERMINE IF ADDITIONAL MEASURES, NOT COVERED IN THIS GUIDE, ARE APPROPRIATE FOR YOUR SITE.

FOUNDATION

CONSTRUCT A FOUNDATION THAT CAN SUPPORT THE DESIGN LOADING APPLIED BY THE PIPE AND ADJACENT BACKFILL WEIGHT AS WELL AS MAINTAIN ITS INTEGRITY DURING CONSTRUCTION. IF SOFT OR UNSUITABLE SOILS ARE ENCOUNTERED, REMOVE THE POOR SOILS DOWN TO A SUITABLE DEPTH AND THEN BUILD UP TO THE APPROPRIATE ELEVATION WITH A COMPACTED BACKFILL MATERIAL. THE STRUCTURAL FILL MATERIAL GRADATION SHOULD NOT ALLOW THE MIGRATION OF FINES, WHICH CAN CAUSE SETTLEMENT OF THE DETENTION SYSTEM OR PAVEMENT ABOVE. IF THE STRUCTURAL FILL MATERIAL IS NOT COMPATIBLE WITH THE UNDERLYING SOILS AN ENGINEERING FABRIC SHOULD BE USED AS A SEPARATOR. IN SOME CASES, USING A STIFF REINFORCING GEOTEXTILE REDUCES OVER EXCAVATION AND REPLACEMENT FILL QUANTITIES.

BACKFILL PLACEMENT

MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL-LIFTING, RODDING, AIR TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS. MINIMUM MINIMUM COVER LIMITED TO 12" LIFT PER LAYER.

GEOMEMBRANE BARRIER

A SITE'S RESISTIVITY MAY CHANGE OVER TIME WHEN VARIOUS TYPES OF SALTING AGENTS ARE USED, SUCH AS ROAD SALTS FOR DRIVING AGENTS. IF SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE, A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE LNER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM THE USE OF SUCH AGENTS INCLUDING PREMATURE CORROSION AND REDUCED ACTUAL SERVICE LIFE. THE PROJECT'S ENGINEER OF RECORD IS TO EVALUATE WHETHER SALTING AGENTS WILL BE USED ON OR NEAR THE PROJECT SITE, AND USE HIS/HER BEST JUDGEMENT TO DETERMINE IF ANY ADDITIONAL PROTECTIVE MEASURES ARE REQUIRED. BELOW IS A TYPICAL DETAIL SHOWING THE PLACEMENT OF A GEOMEMBRANE BARRIER FOR PROJECTS WHERE SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE.

CONSTRUCTION LOADING

WHEN FLOWABLE FILL IS USED, YOU MUST PREVENT PIPE FLOATATION. TYPICALLY SMALL LIFTS ARE PLACED BETWEEN THE PIPES AND THEN ALLOWED TO SET UP PRIOR TO THE PLACEMENT OF THE NEXT LIFT. THE ALLOWABLE THICKNESS OF THE CLSM LIFT IS A FUNCTION OF A PROPER BALANCE BETWEEN THE UPLIFT FORCE OF THE CLSM, THE OPPOSING WEIGHT OF THE PIPE, AND THE EFFECT OF OTHER RESTRAINING MEASURES. THE PIPE CAN CARRY LIMITED LIFT PRESSURE WITHOUT PIPE DISTORTION OR DISPLACEMENT, WHICH ALSO AFFECTS THE CLSM LIFT THICKNESS. YOUR LOCAL CONTECH SALES ENGINEER CAN HELP DETERMINE THE PROPER LIFT THICKNESS.

ADDITIONAL CONSIDERATIONS

BECAUSE MOST SYSTEMS ARE CONSTRUCTED BELOW-GRADE, RAINFALL CAN RAPIDLY FILL THE EXCAVATION, POTENTIALLY CAUSING FLOATION AND MOVEMENT OF THE PREVIOUSLY PLACED PIPES. TO HELP MITIGATE POTENTIAL PROBLEMS, IT IS BEST TO START THE INSTALLATION AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR THE WATER TO ESCAPE. TEMPORARY DIVERSION MEASURES MAY BE REQUIRED FOR HIGH FLOWS DUE TO THE RESTRICTED NATURE OF THE OUTLET PIPE.

IN-SITU TRENCH WALL

IF EXCAVATION IS REQUIRED, THE TRENCH WALL NEEDS TO BE CAPABLE OF SUPPORTING THE LOAD THAT THE PIPE SHEDS AS THE SYSTEM IS LOADED. IF SOILS ARE NOT CAPABLE OF SUPPORTING THESE LOADS, THE PIPE CAN DEFLECT PERFORM A SIMPLE SOIL PRESSURE CHECK USING THE APPLIED LOADS TO DETERMINE THE LIMITS OF EXCAVATION BEYOND THE SPRING LINE OF THE OUTER MOST PIPES. IN MOST CASES THE REQUIREMENTS FOR A SAFE WORK ENVIRONMENT AND PROPER BACKFILL PLACEMENT AND COMPACTION TAKE CARE OF THIS CONCERN.

BACKFILL PLACEMENT

MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL-LIFTING, RODDING, AIR TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS. MINIMUM MINIMUM COVER LIMITED TO 12" LIFT PER LAYER.

CONSTRUCTION LOADING

TYPICALLY, THE MINIMUM COVER SPECIFIED FOR A PROJECT ASSUMES H-20 LIVE LOAD. BECAUSE CONSTRUCTION LOADS OFTEN EXCEED DESIGN LIVE LOADS, INCREASED TEMPORARY MINIMUM COVER REQUIREMENTS ARE NECESSARY. SINCE CONSTRUCTION EQUIPMENT VARIES FROM JOB TO JOB, IT IS BEST TO ADDRESS EQUIPMENT SPECIFIC MINIMUM COVER REQUIREMENTS WITH YOUR LOCAL CONTECH SALES ENGINEER DURING YOUR PRE-CONSTRUCTION MEETING.

ADDITIONAL CONSIDERATIONS

BECAUSE MOST SYSTEMS ARE CONSTRUCTED BELOW-GRADE, RAINFALL CAN RAPIDLY FILL THE EXCAVATION, POTENTIALLY CAUSING FLOATION AND MOVEMENT OF THE PREVIOUSLY PLACED PIPES. TO HELP MITIGATE POTENTIAL PROBLEMS, IT IS BEST TO START THE INSTALLATION AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR THE WATER TO ESCAPE. TEMPORARY DIVERSION MEASURES MAY BE REQUIRED FOR HIGH FLOWS DUE TO THE RESTRICTED NATURE OF THE OUTLET PIPE.

CMP DETENTION SYSTEM INSPECTION AND MAINTENANCE

UNDERGROUND STORMWATER DETENTION AND INFILTRATION SYSTEMS MUST BE INSPECTED AND MAINTAINED AT REGULAR INTERVALS FOR PURPOSES OF PERFORMANCE AND LONGEVITY. INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE OF CMP DETENTION SYSTEMS AND IS EASILY PERFORMED. CONTECH RECOMMENDS ONGOING ANNUAL INSPECTIONS. SITES WITH HIGH TRASH LOAD OR SMALL OUTLET CONTROL ORIFICES MAY NEED MORE FREQUENT INSPECTIONS. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE ON SITE SPECIFIC ACTIVITIES RATHER THAN THE SIZE OR CONFIGURATION OF THE SYSTEM.

MAINTENANCE

CMP DETENTION SYSTEMS SHOULD BE CLEANED WHEN AN INSPECTION REVEALS ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE ORIFICE. ACCUMULATED SEDIMENT AND TRASH CAN TYPICALLY BE EVACUATED THROUGH THE MANHOLE OVER THE OUTLET ORIFICE. IF MAINTENANCE IS NOT PERFORMED AS RECOMMENDED, SEDIMENT AND TRASH MAY ACCUMULATE IN FRONT OF THE OUTLET ORIFICE. MANHOLE COVERS SHOULD BE SECURELY SEATED FOLLOWING CLEANING ACTIVITIES. CONTECH SUGGESTS THAT ALL SYSTEMS BE DESIGNED WITH AN ACCESS/INSPECTION MANHOLE SITUATED AT OR NEAR THE INLET AND THE OUTLET ORIFICE. SHOULD IT BE NECESSARY TO GET INSIDE THE SYSTEM TO PERFORM MAINTENANCE ACTIVITIES, ALL APPROPRIATE PRECAUTIONS REGARDING CONFINED SPACE ENTRY AND OSHA REGULATIONS SHOULD BE FOLLOWED.

ADDITIONAL CONSIDERATIONS

BECAUSE MOST SYSTEMS ARE CONSTRUCTED BELOW-GRADE, RAINFALL CAN RAPIDLY FILL THE EXCAVATION, POTENTIALLY CAUSING FLOATION AND MOVEMENT OF THE PREVIOUSLY PLACED PIPES. TO HELP MITIGATE POTENTIAL PROBLEMS, IT IS BEST TO START THE INSTALLATION AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR THE WATER TO ESCAPE. TEMPORARY DIVERSION MEASURES MAY BE REQUIRED FOR HIGH FLOWS DUE TO THE RESTRICTED NATURE OF THE OUTLET PIPE.

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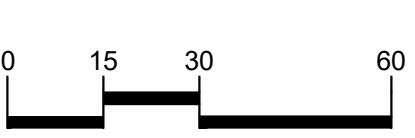
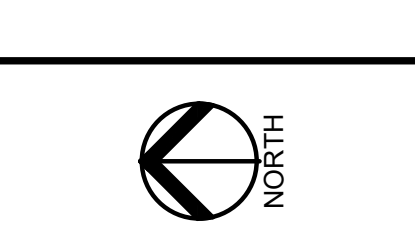
CONTECH CMP DETENTION SYSTEMS logo and contact information.

DYO45522 Elevate Troy UG-DET Troy, MI DETENTION SYSTEM

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PEA GROUP logo and contact information.

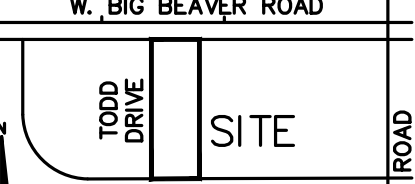
Professional Engineer seal for John K. Stibelto.



811 logo with text 'Know what's below. Call before you dig.'

CAUTION!! THE LOCATION 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 FULLY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

ALPINE DRIVE and MCCLURE DRIVE labels.



CLIENT: ENCORE DEVELOPMENT, 1787 WEST BIG BEAVER TROY, MICHIGAN 48064

PROJECT TITLE: ELEVATE TROY MIXED USE DEVELOPMENT, BIG BEAVER ROAD CITY OF TROY, MICHIGAN

REVISIONS table with columns for CITY COMMENTS and dates.

ORIGINAL ISSUE DATE: MAY 13, 2024

DRAWING TITLE: UG-DET DETAILS

Table with columns for PEA JOB NO., DATE, P.M., D.N., DES., and DRAWING NUMBER.

NOT FOR CONSTRUCTION

C-9.1

TREE PLANT LIST:					
QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
3	AR2.5	Armstrong Gold Maple	<i>Acer rubrum JFS-KW78'PP 25301 (columnar, 12'x40'ht.)</i>	2.5" Cal.	B&B
6	GP2.5	Princeton Sentry Ginkgo	<i>Ginkgo biloba 'Princeton Sentry' (columnar, 15'x40'ht.)</i>	2.5" Cal.	B&B
2	GT2.5	Skyline Honeylocust	<i>Gleditsia triacanthos 'Skyline' Inermis</i>	2.5" Cal.	B&B
5	QS2.5	Streetspire Oak	<i>Quercus robur x alba 'JFS-KW1QX' (columnar, 14'x 45'ht.)</i>	2.5" Cal.	B&B
5	SR2.5	Japanese Tree Lilac	<i>Syringa reticulata 'Ivory silk' (15'x 20ht. utility tree)</i>	2.5" Cal.	B&B
7	TC2.5	Corinthian Linden	<i>Tilia cordata 'Corzam' (15'x 45'ht.)</i>	2.5" Cal.	B&B
6	UF2.5	Frontier Elm	<i>Ulmus 'Frontier'</i>	2.5" Cal.	B&B
34	Total Dec.				
SHRUB PLANT LIST:					
QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
9	JH6	Hetz Columnar Juniper	<i>Juniperus chinensis 'Hetzii Columnaris'</i>	6'	B&B
35	SN30	Neon Flash Spirea	<i>Spiraea japonica 'Neon Flash'</i>	30" Ht.	Cont.
49	TM30	Dense Yew	<i>Taxus x media 'Densiformis'</i>	30" Ht.	Cont.
93	Total Shrubs				
PERENNIAL PLANT LIST:					
QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
12	CA	Feather Reed Grass	<i>Calamagrostis x acutiflora 'Karl Foerster'</i>	1 Gal.	Cont.
12	Total per.				

LANDSCAPE CALCULATIONS:
 PER CITY OF TROY ZONING ORDINANCE: BB-BIG BEAVER FORMED BASE DISTRICT: USE APARTMENTS, RESTAURANT, OFFICE SITE TYPE C, STREET TYPE A, USE GROUP 5.

PARKING LOT LANDSCAPING:
 REQUIRED: 1 TREE / 8 PARKING SPACES
 165 NEW SURFACE PARKING SPACES W/IN LIMITS OF CONST./ 8 = 21 TREES IN PARKING LOT ISLANDS

PROVIDED: 19 PROPOSED TREES (IN PARKING ISLANDS WHEN UTILITIES ALLOW) 2 EXISTING TREES AND CONTINUOUS SHRUB HEDGE ALONG TODD DR. AND BUTTERFIELD RD.

GREENBELT:
 REQUIRED: 1 TREE / 30 LF OF FRONTAGE

W. BIG BEAVER RD.: 106 LF FRONTAGE/30 = 4 TREES
 TODD ROAD: 200 LF FRONTAGE/30 = 7 TREES
 BUTTERFIELD RD.: 212 LF FRONTAGE/30 = 7 TREES

PROVIDED: W. BIG BEAVER RD.: 2 PROPOSED, 2 EXISTING TREES
 TODD DR.: 7 PROPOSED
 BUTTERFIELD RD.: 6 PROPOSED, 1 EXISTING TREE

GENERAL SITE LANDSCAPE:
 REQUIRED: 15% OF SITE AREA SHALL BE LANDSCAPE MATERIAL
 36,289 SQ FT • 15% = 5,443.35 SQ FT

PROVIDED: 15,572 SQ FT OF SOFT-SCAPE (LAWN & PLANT BEDS) (43 % SOFT-SCAPE PROVIDED)

KEY:

- = PARKING LOT TREES
- = GREENBELT TREES
- = SCREENING SHRUBS
- = IRRIGATED SOD LAWN
- = 4" DEPTH SHREDDED HARDWOOD MULCH OVER WEED MAT
- = 5" DEPTH ROCK OVER WEED MAT SEE SHT. L-1.1 FOR DETAIL.

PLANT BEDS AND SOD LAWN AREAS TO BE IRRIGATED
 TREES TO BE LOCATED MINIMUM OF 5' OFF UTILITY LINES TYP.

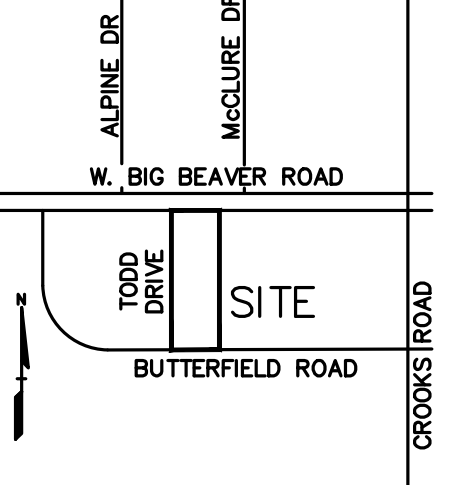
SEE SHT. T-1.0 FOR TREE PRESERVATION PLAN
 SEE SHT. L-1.1 FOR LANDSCAPE DETAILS

PEA GROUP
 t: 844.813.2949
 www.peagroup.com



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CLIENT
ENCORE DEVELOPMENT
 1787 WEST BIG BEAVER
 TROY, MICHIGAN 48064

PROJECT TITLE
ELEVATE TROY MIXED USE DEVELOPMENT
 BIG BEAVER ROAD
 CITY OF TROY, MICHIGAN

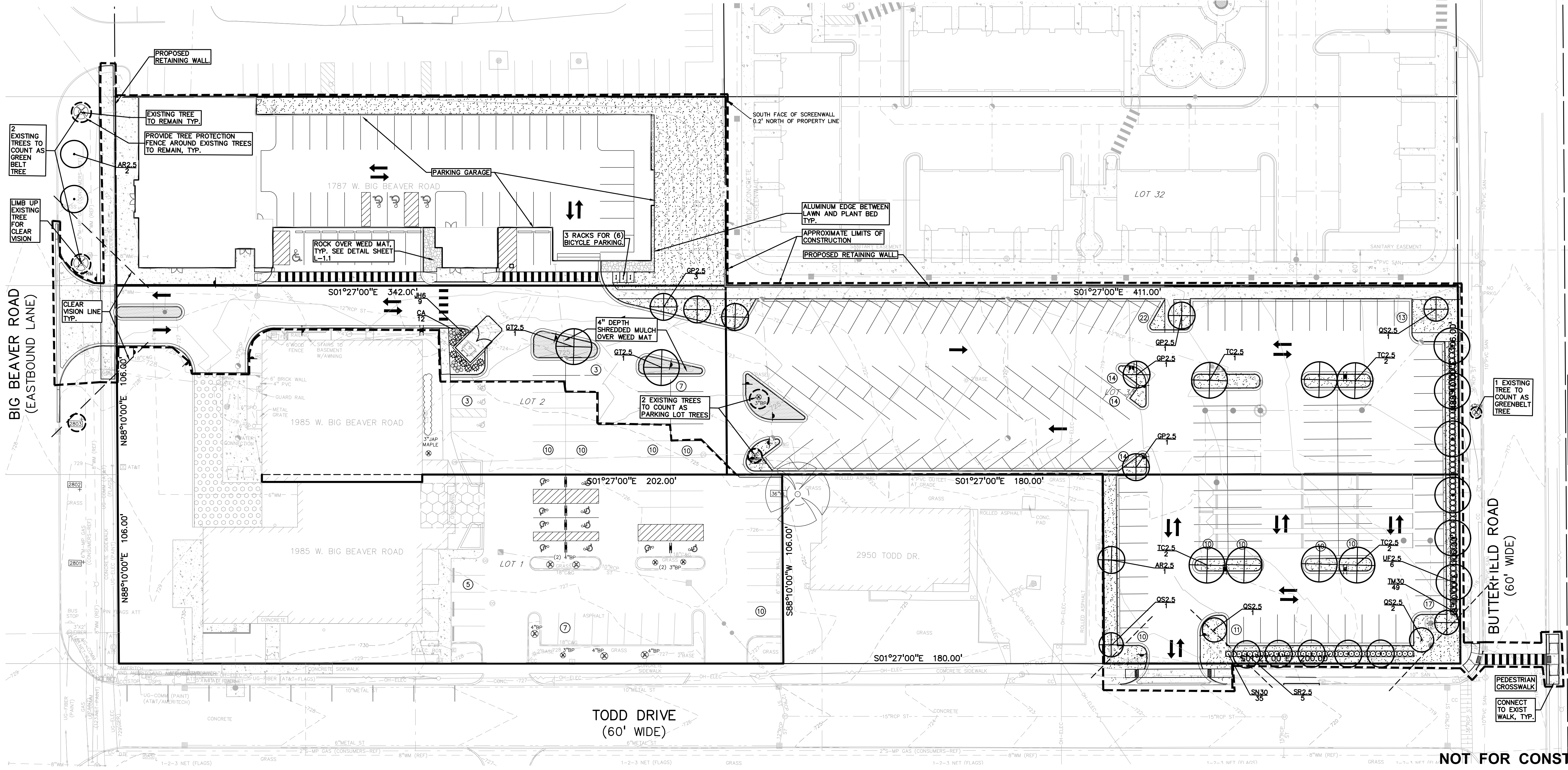
ZONED MF "MULTI-FAMILY RESIDENTIAL" DISTRICT

REVISIONS	
CITY COMMENTS	8-28-24
CITY COMMENTS	10-24-24

ORIGINAL ISSUE DATE:
 MAY 13, 2024

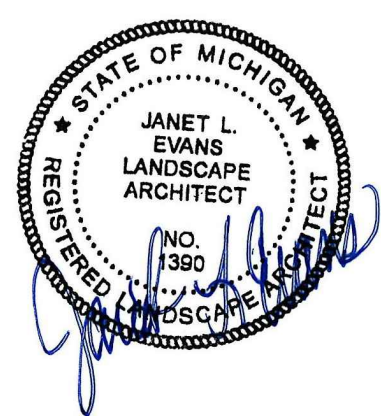
DRAWING TITLE
PRELIMINARY LANDSCAPE PLAN

PEA JOB NO. 2022-1263
 P.M. JPB
 DN. CL
 DES. JLE
 DRAWING NUMBER:



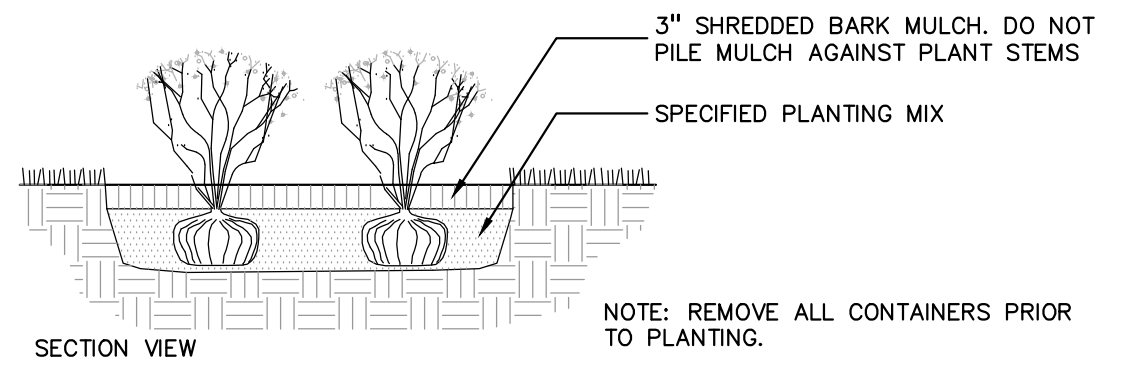
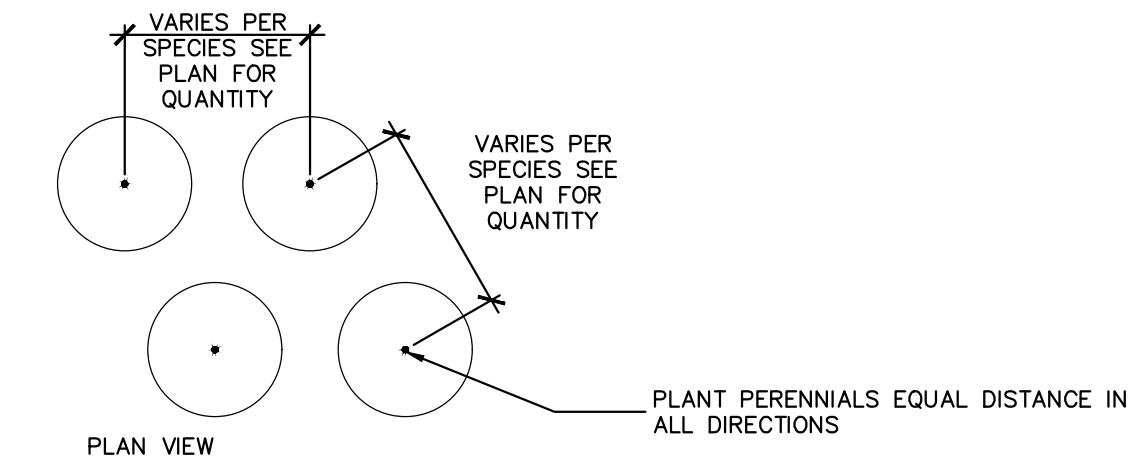
S:\PROJECTS\2022\2022-1263-ELAVI.ELEVATE TROY\DWG\SITE_PLAN\L-1.0.LANDSCAPE-2218A.dwg PLOT DATE: 10/29/2024 BY: Charlotte L. Eberence

NOT FOR CONSTRUCTION L-1.0



GENERAL PLANTING NOTES:

- LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING SITE CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS.
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON HIS/HER PHASE OF WORK. ELECTRIC, GAS, TELEPHONE, CABLE TELEVISION MAY BE LOCATED BY CALLING MISS DIG 1-800-482-7171. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF CONTRACTOR. CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES ON THE JOB AND SHALL REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNER'S REPRESENTATIVE PRIOR TO COMMENCING.
- ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSERY STOCK AND SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMEN STANDARD FOR NURSERY STOCK. ALL LANDSCAPE MATERIAL SHALL BE NORTHERN GROWN, NO. 1. GRADE.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK.
- THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
- ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
- ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER; TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED.
- ALL MULTI STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS. ONE SIDED TREES OR THOSE WITH THIN OR OPEN CROWNS SHALL NOT BE ACCEPTED.
- ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE GROWING SEASONS.
- ALL TREES TO HAVE CLAY OR CLAY LOAM BALLS, TREES WITH SAND BALLS WILL BE REJECTED.
- NO MACHINERY IS TO BE USED WITHIN THE DRIP LINE OF EXISTING TREES; HAND GRADE ALL LAWN AREAS WITHIN THE DRIP LINE OF EXISTING TREES.
- ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT MATERIAL.
- IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM ALL BUILDINGS.
- ALL PLANTING BEDS SHALL RECEIVE 3" SHREDDED HARDWOOD BARK MULCH WITH PRE EMERGENT, SEE SPECIFICATIONS. SHREDDED PALETTE AND DYED MULCH WILL NOT BE ACCEPTED.
- ALL LANDSCAPED AREAS SHALL RECEIVE 3" COMPACTED TOPSOIL.
- SEE SPECIFICATIONS FOR ADDITIONAL COMMENTS, REQUIREMENTS, PLANTING PROCEDURES AND WARRANTY STANDARDS.
- FOR NON-LAWN SEED MIX AREAS, AS NOTED ON PLAN, BRUSH MOW ONCE SEASONALLY FOR INVASIVE SPECIES CONTROL.
- CONTRACTOR SHALL NOT INSTALL PLANTS UNDER BUILDING OVERHANG AND SHALL NOTIFY LANDSCAPE ARCHITECT IF DRAWINGS CONFLICT WITH BUILDING OVERHANGS.
- TREES SHALL NOT CONFLICT/ BLOCK PROPOSED REGULATORY/ DIRECTION SIGNAGE, MONUMENT SIGNS, ADDRESS OR LIGHT POLES. SHIFT TREES AS NECESSARY TYP.



3 PERENNIAL PLANTING DETAIL

SCALE: 1" = 2'-0"

TREE PROTECTION WILL BE ERECTED PRIOR TO START OF CONSTRUCTION ACTIVITIES AND SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.

NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE DRIP LINE OF ANY TREE DESIGNATED TO REMAIN, INCLUDING, BUT NOT LIMITED TO PLACING SOLVENTS, BUILDING MATERIAL, CONSTRUCTION EQUIPMENT OR SOIL DEPOSITS WITHIN DRIP LINES.

GRADE CHANGES MAY NO OCCUR WITHIN THE DRIP LINE OF PROTECTED TREES.

DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE TO ANY REMAINING TREE.

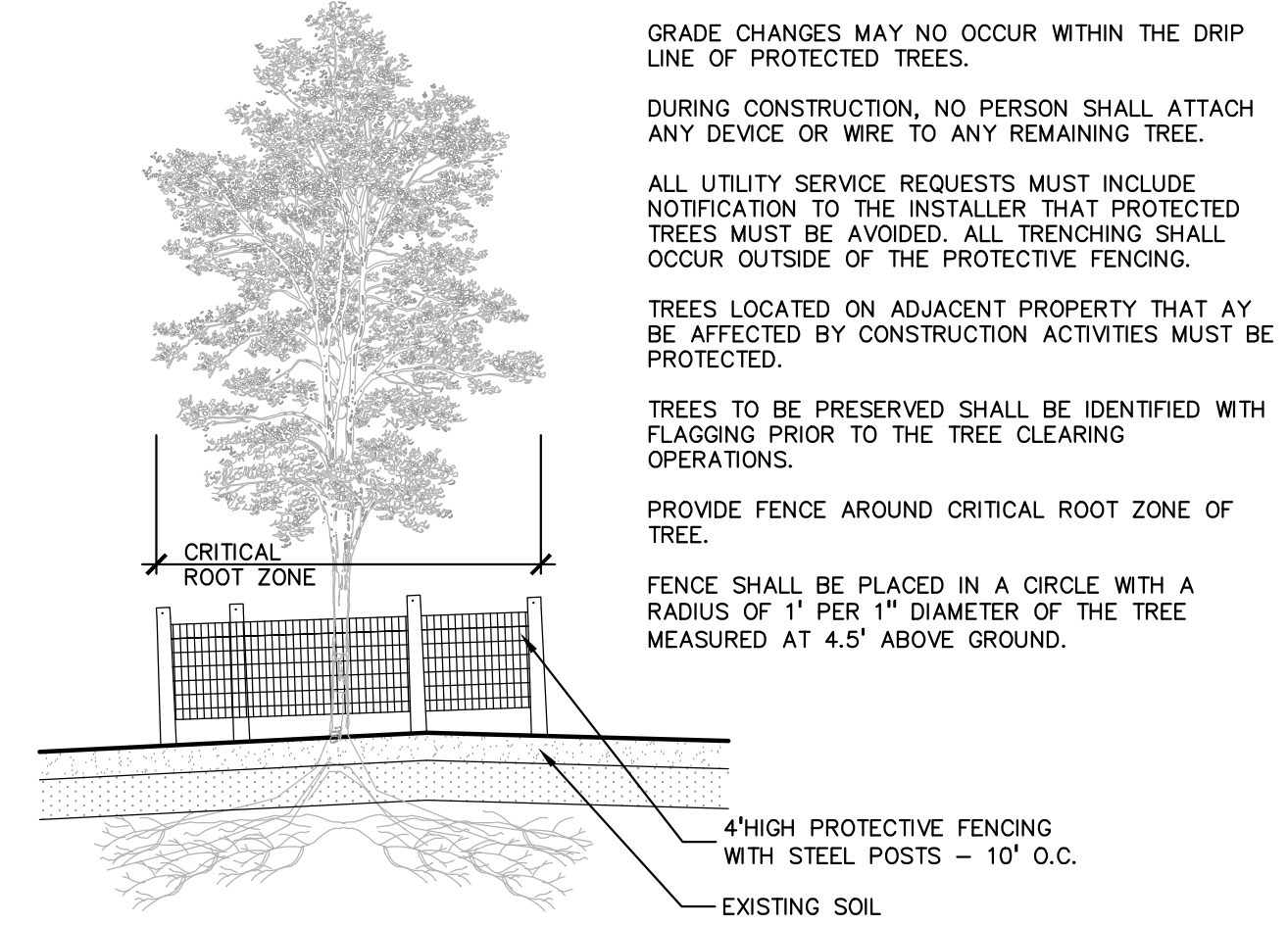
ALL UTILITY SERVICE REQUESTS MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE OF THE PROTECTIVE FENCING.

TREES LOCATED ON ADJACENT PROPERTY THAT AY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED.

TREES TO BE PRESERVED SHALL BE IDENTIFIED WITH FLAGGING PRIOR TO THE TREE CLEARING OPERATIONS.

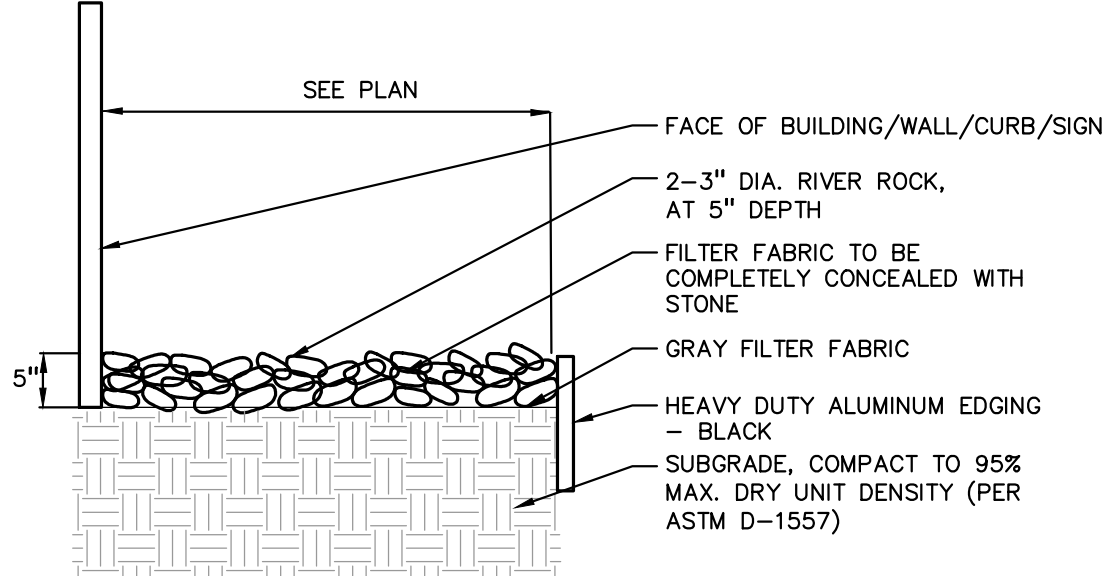
PROVIDE FENCE AROUND CRITICAL ROOT ZONE OF TREE.

FENCE SHALL BE PLACED IN A CIRCLE WITH A RADIUS OF 1' PER 1" DIAMETER OF THE TREE MEASURED AT 4.5' ABOVE GROUND.



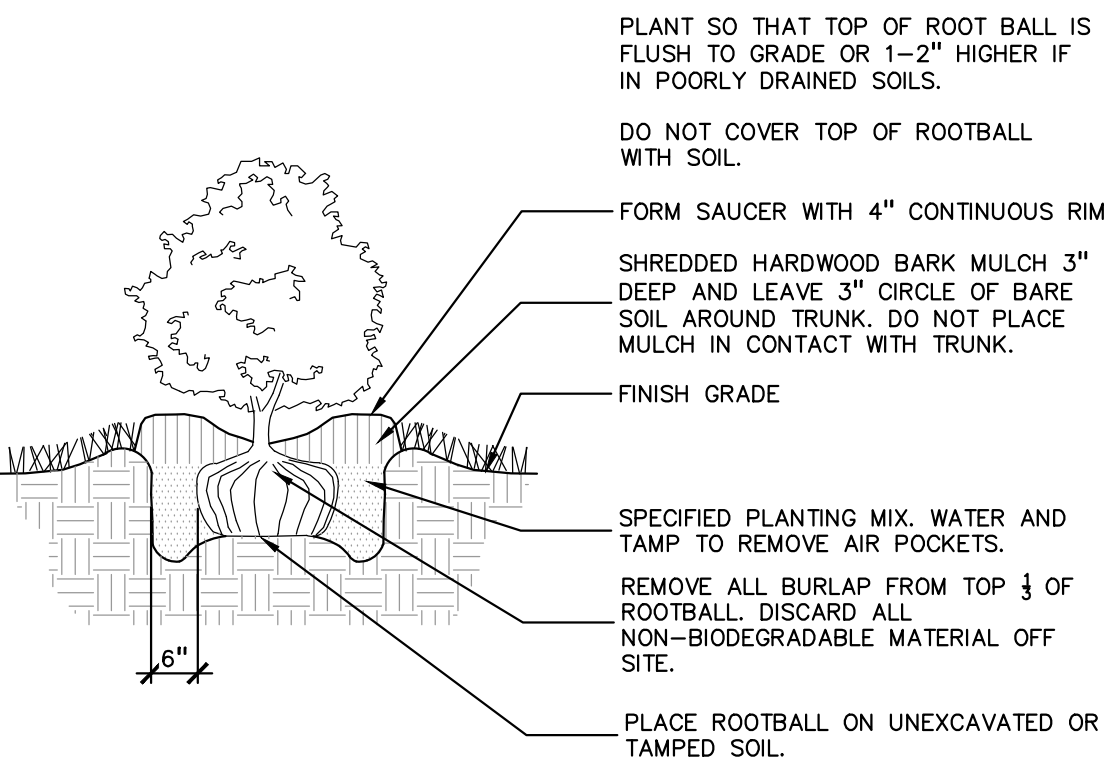
2 TREE PROTECTION DETAIL

SCALE: 1" = 3'-0"



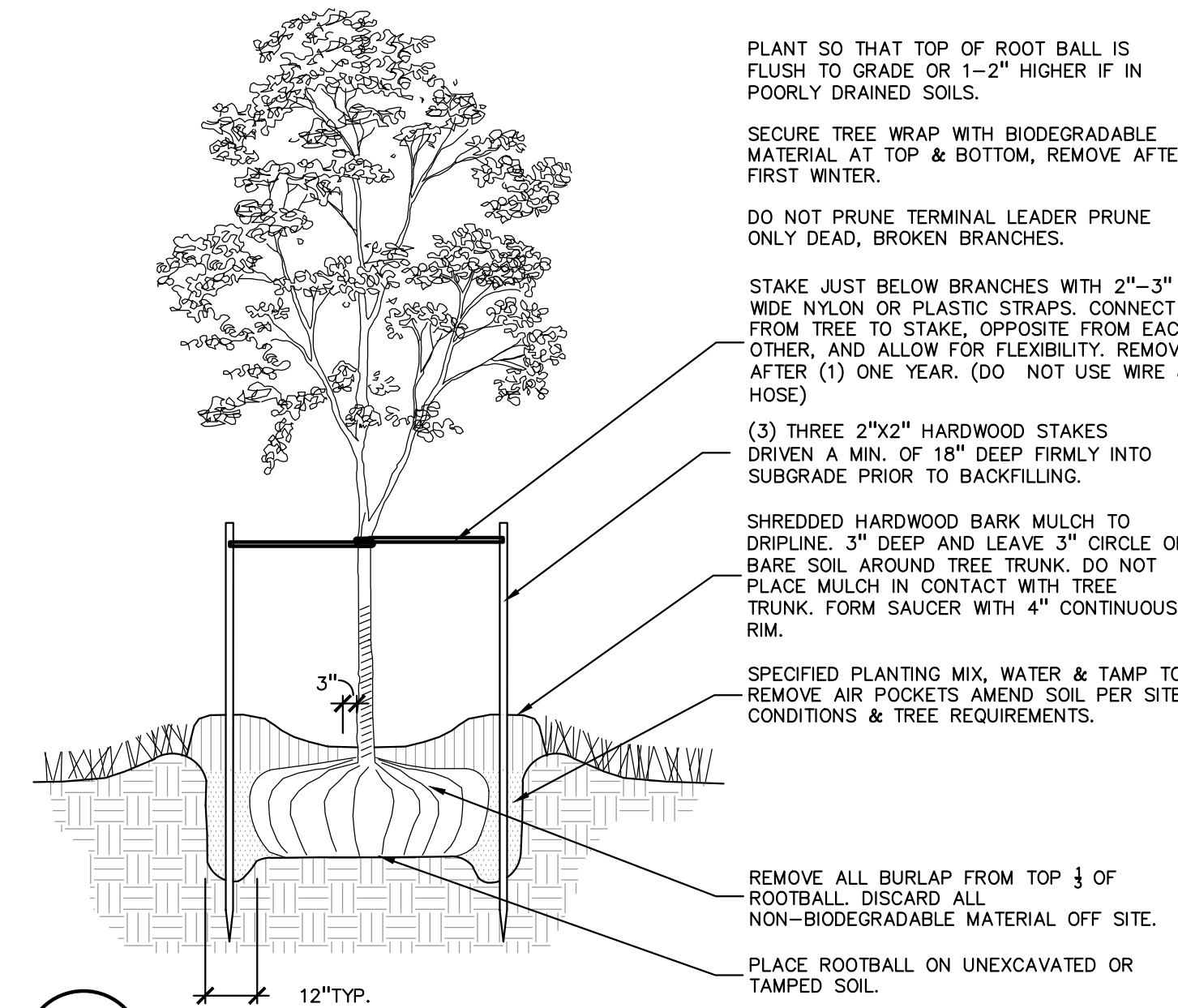
5 ROCK EDGE DETAIL

NOT TO SCALE



4 SHRUB PLANTING DETAIL

SCALE: 1" = 2'-0"

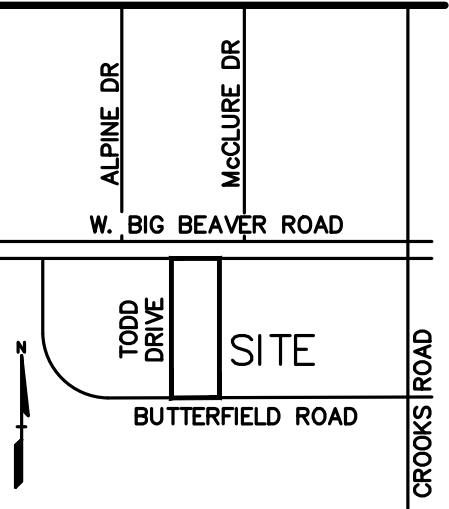


1 DECIDUOUS TREE PLANTING DETAIL

SCALE: 1" = 3'-0"



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REVISIONS	
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CITY COMMENTS	10-24-24

ORIGINAL ISSUE DATE:
MAY 13, 2024

DRAWING TITLE

LANDSCAPE DETAILS

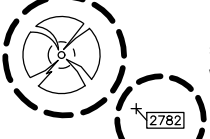
PEA JOB NO.	2022-1263
P.M.	JPB
DN	CAL
DES.	JLE
DRAWING NUMBER:	


NOTE TREES # 2814-2876 WERE RECENTLY REMOVED FOR FUTURE DEVELOPMENT AT SOUTH END OF SITE AT BUTTERFIELD AND TODD DRIVE

TAG NO.	CODE	DBH	COMMON NAME	LATIN NAME	COND	NOTE	CLASS	SAVE / REMOVE	ON-SITE
2801	RM	11	Red Maple	Acer rubrum	Good		WOODLAND	S	Y
2802	RM	10	Red Maple	Acer rubrum	Good		WOODLAND	S	Y
2803	RM	8	Red Maple	Acer rubrum	Good		WOODLAND	S	Y
2807	HL	9	Honeylocust	Gleditsia triacanthos	Good		WOODLAND	R	Y
2808	HL	12	Honeylocust	Gleditsia triacanthos	Good		WOODLAND	R	Y
2814	BX	12	Box elder	Acer negundo	Good		INVASIVE	R	Y
2815	BX	13	Box elder	Acer negundo	Good	x3	INVASIVE	R	Y
2816	SM	10	Silver Maple	Acer saccharinum	Good		INVASIVE	R	Y
2817	SM	8	Silver Maple	Acer saccharinum	Good	x3	INVASIVE	R	Y
2818	NM	24	Norway Maple	Acer platanoides	Good		INVASIVE	R	Y
2819	MR	8	Red Mulberry	Morus rubra	Good	x2	INVASIVE	R	Y
2820	CT	23	Cottonwood	Populus deltoides	Good		INVASIVE	R	Y
2821	BX	12	Box elder	Acer negundo	Good	x2	INVASIVE	S	Y
2822	CT	15	Cottonwood	Populus deltoides	Good		INVASIVE	R	Y
2823	A	6	#N/A	#N/A	Good	x2	#N/A	R	Y
2824	BX	13	Box elder	Acer negundo	Fair		INVASIVE	R	Y
2825	MR	15	Red Mulberry	Morus rubra	Good	x2	INVASIVE	R	Y
2826	MR	6	Red Mulberry	Morus rubra	Good		INVASIVE	R	Y
2827	BX	14	Box elder	Acer negundo	Good		INVASIVE	R	Y
2828	BX	19	Box elder	Acer negundo	Good		INVASIVE	R	Y
2829	MR	9	Red Mulberry	Morus rubra	Good	x4	INVASIVE	R	Y
2830	BX	8	Box elder	Acer negundo	Poor		INVASIVE	R	Y
2831	ee	17	Siberian Elm	Ulmus pumila	Good		INVASIVE	R	Y
2968	CT	22	Cottonwood	Populus deltoides	Good		INVASIVE	R	Y
2969	CT	16	Cottonwood	Populus deltoides	Good		INVASIVE	R	Y
2970	BX	11	Box elder	Acer negundo	Good	x3	INVASIVE	R	Y
2971	BX	8	Box elder	Acer negundo	Good		INVASIVE	R	Y
2972	BX	14	Box elder	Acer negundo	Good		INVASIVE	R	Y
2973	SM	10	Silver Maple	Acer saccharinum	Good		INVASIVE	R	Y
2974	BX	7	Box elder	Acer negundo	Good	x2	INVASIVE	R	Y
2975	EE	14	Siberian Elm	Ulmus pumila	Poor	x2	INVASIVE	R	Y
2976	BX	10	Box elder	Acer negundo	Good		INVASIVE	R	Y
2977	HL	9	Honeylocust	Gleditsia triacanthos	Good	x3	WOODLAND	R	Y
2978	HL	14	Honeylocust	Gleditsia triacanthos	Good		WOODLAND	S	Y

WOODLAND TREES FAIR OR BETTER CONDITION	
WOODLAND TREES REMOVED:	3 (REPLACE AT 50% OF REMOVED DBH)
30" DBH x 0.5 =	15" REPLACEMENT
WOODLAND TREES SAVED:	4 (CREDIT OF 2X DBH)
EXEMPT TREES (NO REPLACEMENT REQUIRED FOR EXEMPT TREES)	
SAVED EXEMPT TREES:	1 Trees
EXEMPT TREES ON SITE:	25 Trees
43" WOODLAND CREDIT; TREE CREDIT EXISTS THEREFORE NO REPLACEMENT REQ'D.	

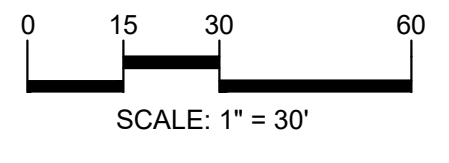
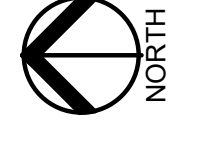
KEY:

 = EXISTING TREE / TAG TO REMAIN WITH TREE PROTECTION FENCING

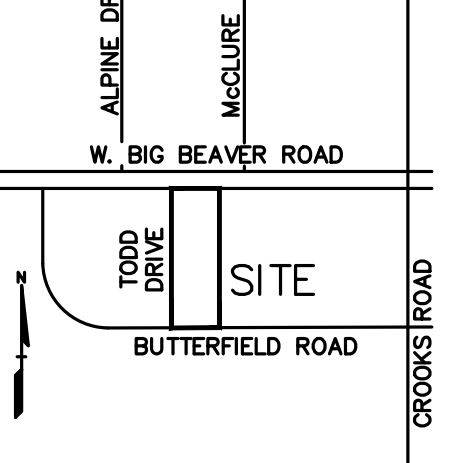
 = EXISTING TREE / TAG TO BE REMOVED

**NOTE: R = DENOTES TREE TO BE REMOVED
S = TREE TO BE SAVED**

NOTE:
TREE PROTECTION MUST BE INSTALLED AND INSPECTED PRIOR TO ANY RELEASE OF DEMO PERMITS.



CAUTION!!
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE AS TO ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.



CLIENT
ENCORE DEVELOPMENT
1787 WEST BIG BEAVER
TROY, MICHIGAN 48064

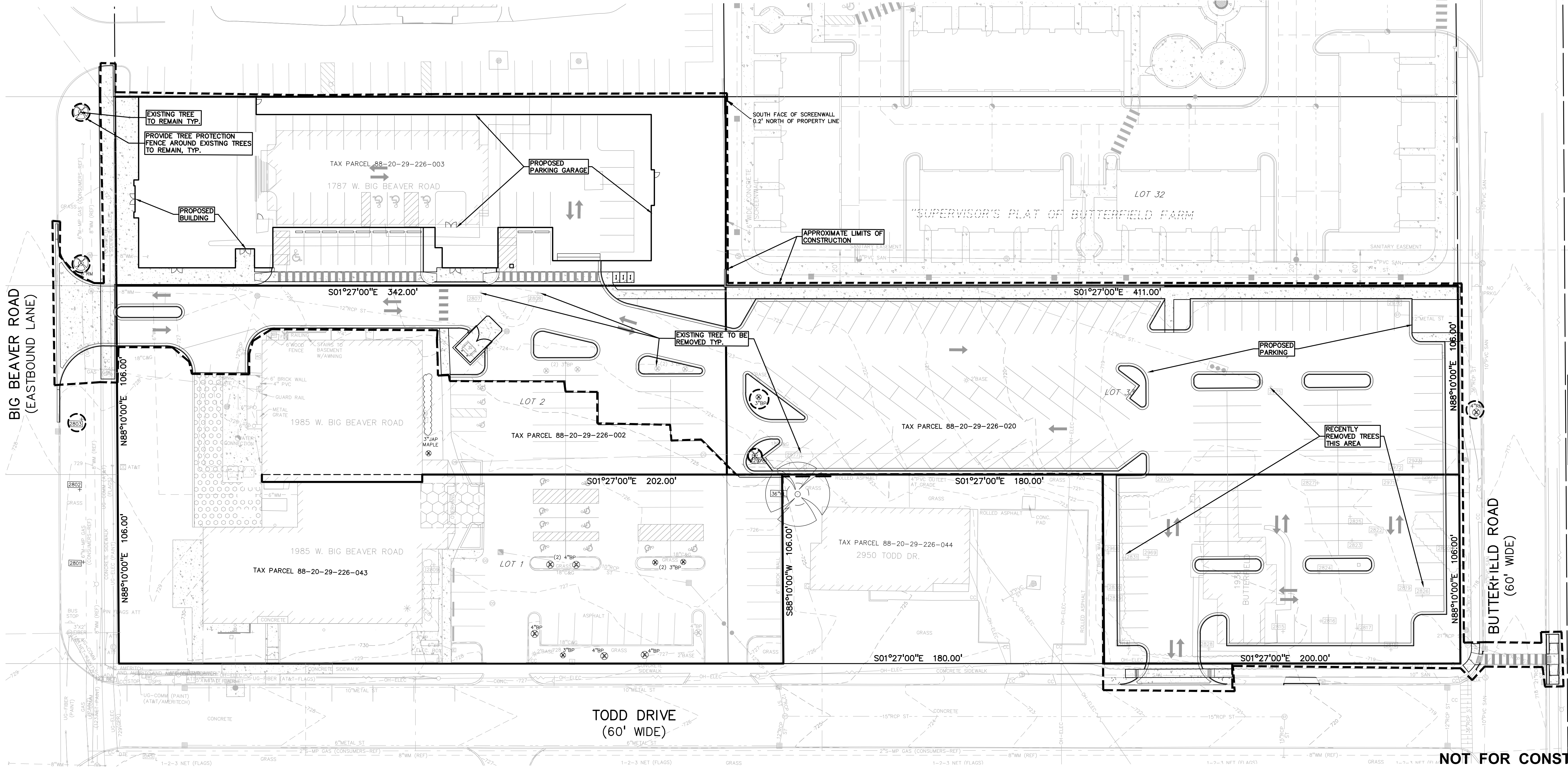
PROJECT TITLE
ELEVATE TROY MIXED USE DEVELOPMENT
BIG BEAVER ROAD
CITY OF TROY, MICHIGAN

REVISIONS	
CITY COMMENTS	8-28-24
CITY COMMENTS	10-24-24

ORIGINAL ISSUE DATE:
MAY 13, 2024

DRAWING TITLE
TREE PRESERVATION PLAN

PEA JOB NO.	2022-1263
P.M.	JPB
DN	CL
DES.	JLE
DRAWING NUMBER:	



NOT FOR CONSTRUCTION

S:\PROJECTS\2022-1263-ELEVATE TROY\DWG\SITE_PLAN\T-1.0 TREE PRESERVATION PLAN-221030.dwg PLOT DATE: 10/20/2024 BY: Charlotte L. Espersen

Unit Mix					
Type	2nd Floor	3rd Floor	4th Floor	5th Floor	Total
Studio	3	4	6	0	13
1 Bedroom	13	14	10	0	37
2 Bedroom	1	3	5	0	9
Penthouse	0	0	0	6	6
Total	17	21	21	6	65

PLAN LEGEND	
	RETAIL TENANTS
	APARTMENT LOBBY
	APARTMENT PARKING
	CIRCULATION
	MAINTENANCE / FIRE RISER
	TRASH ROOM

SITE DATA + ZONING

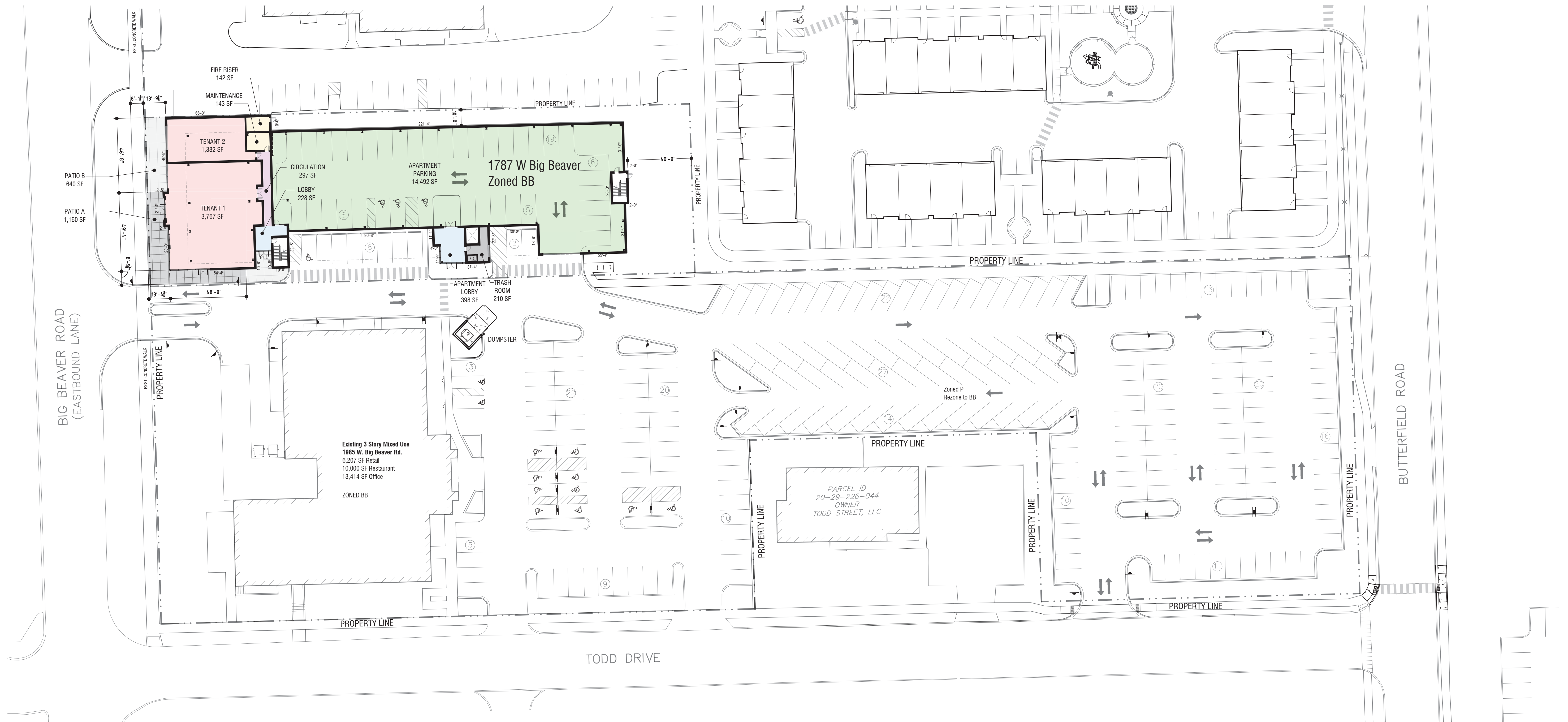
Address	1787 W Big Beaver Rd. Troy, MI 48084	
Parcel ID	88-20-29-226-003	
Zoning	BB	
Parcel Area	0.83 Acres (36,289 SF)	
Zoning District	Big Beaver Corridor	
Street Type	A	
Site Type	C	
Building Form	B (Table 5.03.B.2)	
Proposed Mix Use	Residential/Lodging + Retail + QSR Restaurant	
Regulation	Required	Provided
Setbacks	Front 60' Max, 0' Min Sides 0' Rear 40' Min.	Front 9'-9" Sides 0' - East 10' - West Rear 40'
Building Height	Max 66' / 6 Story Min 24' / 2 Story 1st Floor 14' Min. Height	66' / 5 Stories 1st Floor Height - 18'-0"
Building Area	1st Floor 22,331 sf 2nd Floor 22,166 sf 3rd Floor 22,166 sf 4th Floor 22,166 sf 5th Floor 15,714 sf	TOTAL 104,543 SF

BUILDING DESIGN REQUIREMENTS

Regulation	Required (Measured between 2' & 8' A.F.F.)	Provided (Measured between 2' & 8' A.F.F.)
Facade Transparency	Frontage Min. 50% Doors + Windows	Frontage Facade Area - 575.5 sf Glazed Area - 428 sf Total % - 74.4%
	Side Yard Min. 30% Glazing	Side Yard (East) Facade Area - 1,754 sf Glazed Area - 237.2 sf Total % - 13.5%
Alternative Transparency Criteria may account for <80%	1.) Wall Design: Provide a minimum of 3 of the following: a) Structural Expression b) System of horizontal & vertical scaling elements c) System of horizontal & vertical reveals > 1" d) Variations in material, module, pattern, or color. e) System of integrated architectural ornamentation f) Green screen or planter walls g) Translucent, fritted, patterned, or colored glazing	Alt. Criteria - (b,c,d) - 742.83 sf
		Side Yard (West) Facade Area - 1,754 sf Glazed Area - 451 sf Total % - 25.7% Alt. Criteria - (b,c,d) - 398 sf
		Rear Yard Not Required

PARKING CALCULATIONS

EXISTING BUILDING: 1985 W. BIG BEAVER RD.			
OCCUPANCY	SF	CALCULATION	REQD SPACES
RETAIL	6,207 SF	1 SPACE PER 250 SF 6,207 SF / 250 = 25	25
RESTAURANT SEATS	246	1 SPACE PER 2 SEATS 246 SEATS / 2 = 123	123
OFFICE	13,414 SF	1 SPACE PER 300 SF 13,414 SF / 300 = 45	45
PROPOSED BUILDING: 1787 W. BIG BEAVER RD.			
RETAIL	5,149 SF	1 SPACE PER 250 SF 5,149 SF / 250 = 21	21
STUDIO APTS.	13 UNITS	1 SPACE PER STUDIO 13 UNITS x 1 = 13	13
1 & 2 BD & PENTHOUSE UNITS	52 UNITS	2 SPACES PER UNIT 52 UNITS x 2 = 104	104
PARKING REQUIREMENTS:			
TOTAL REQUIRED PARKING			331
TOTAL PROPOSED PARKING SPACES			220
HANDICAP UNITS			16
GENERAL NOTES:			
REFER TO SHARD PARKING STUDY COMPLETED BY TETRA TECH TO SUPPORT THE REDUCTION IN REQUIRED PARKING.			



3300 AUBURN RD., SUITE 300
AUBURN HILLS, MI 48326
T: 248.601.4422 F: 248.453.5854
WWW.DESIGNHAUS.COM
INFO@DESIGNHAUS.COM

DESIGNHAUS EST 1998
ARCHITECTURE

SPA Re-Submittal 2	10/29/24
SPA Re-Submittal	08/26/24
Site Plan Approval	05/10/24
Pre-App Meeting	01.23.24
ISSUANCE	DATE

Elevate Troy
1787 W Big Beaver
Troy, MI 48084

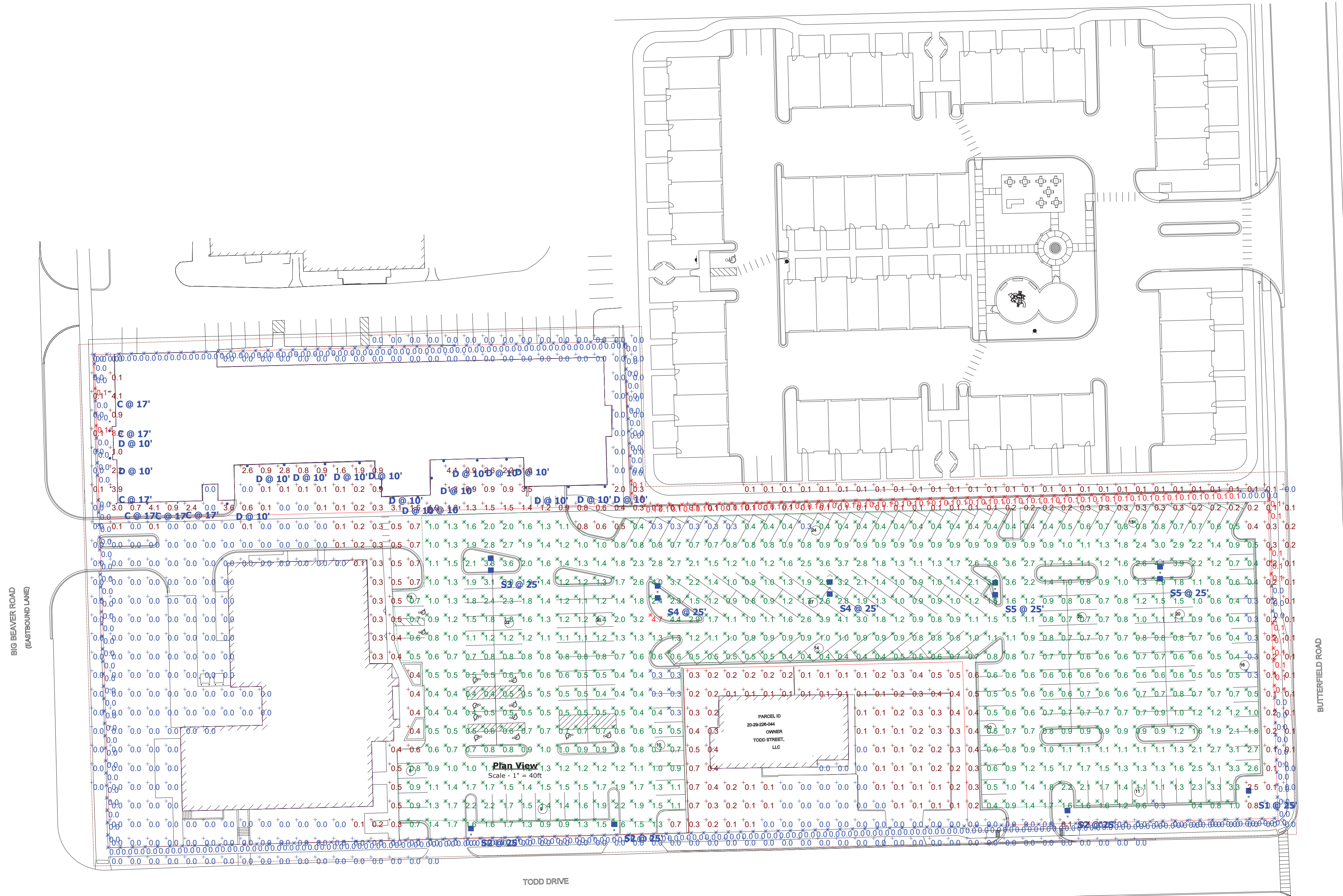
Architectural Site Plan

022019
AS1.1

AS1.1 Architectural Site Plan.dwg

10/29/2024

DH User



ENVIRONMENTALLY FRIENDLY, ENERGY EFFICIENT

- Low power factor for saving high voltage line & space
- Compliant with IESNA E-10
- Low energy with high light output (high efficacy)
- RoHS Compliant (Restriction of Hazardous Substances)
- Mercury Free (No Mercury)
- UL 157105 Qualified for Energy Efficient

PRODUCT SPECIFICATIONS

ACULUX AX4 SERIES | 4" APERTURE

HYPERBOLIC / ALZAK / CYLINDER / T15 / T15M / T15S / T15S+ / T15S+M / T15S+M+

OPTICS

ACULUX offers a wide range of optics to meet your needs. From a simple reflector to a complex multi-faceted optic, we have you covered. Our optics are designed to provide uniform lighting and are available in a variety of finishes.

ELECTRICAL

ACULUX offers a wide range of electrical options to meet your needs. From a simple on-off switch to a complex dimming system, we have you covered. Our electrical options are designed to provide uniform lighting and are available in a variety of finishes.

INSTALLATION

ACULUX offers a wide range of installation options to meet your needs. From a simple surface mount to a complex recessed mount, we have you covered. Our installation options are designed to provide uniform lighting and are available in a variety of finishes.

ORDERING INFORMATION

ACULUX offers a wide range of ordering options to meet your needs. From a simple surface mount to a complex recessed mount, we have you covered. Our ordering options are designed to provide uniform lighting and are available in a variety of finishes.

ACULUX

AX4 SERIES | 4" APERTURE

HYPERBOLIC / ALZAK / CYLINDER / T15 / T15M / T15S / T15S+ / T15S+M / T15S+M+

TRIM STYLES

Reflector

Bevel

EXCEPTIONAL PERFORMANCE FROM A RECESSED APERTURE

- 4" Round Recessed Aperture
- Available in a variety of finishes
- Available in a variety of colors
- Available in a variety of materials
- Available in a variety of shapes
- Available in a variety of sizes
- Available in a variety of quantities
- Available in a variety of locations
- Available in a variety of environments
- Available in a variety of applications
- Available in a variety of industries
- Available in a variety of markets
- Available in a variety of regions
- Available in a variety of countries
- Available in a variety of languages
- Available in a variety of currencies
- Available in a variety of units
- Available in a variety of systems
- Available in a variety of protocols
- Available in a variety of standards
- Available in a variety of specifications
- Available in a variety of requirements
- Available in a variety of conditions
- Available in a variety of situations
- Available in a variety of circumstances
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- Available in a variety of protocols
- Available in a variety of standards
- Available in a variety of specifications
- Available in a variety of requirements
- Available in a variety of conditions
- Available in a variety of situations
- Available in a variety of circumstances

PERFORMANCE

Trim Style	Beam Angle	Watts	Beam Diameter	Footcandle
Reflector	30°	10	1.5"	100
Reflector	30°	10	2.0"	75
Reflector	30°	10	2.5"	60
Reflector	30°	10	3.0"	50
Reflector	30°	10	3.5"	45
Reflector	30°	10	4.0"	40
Reflector	30°	10	4.5"	35
Reflector	30°	10	5.0"	30
Reflector	30°	10	5.5"	25
Reflector	30°	10	6.0"	20
Reflector	30°	10	6.5"	15
Reflector	30°	10	7.0"	10
Reflector	30°	10	7.5"	5
Reflector	30°	10	8.0"	5
Reflector	30°	10	8.5"	5
Reflector	30°	10	9.0"	5
Reflector	30°	10	9.5"	5
Reflector	30°	10	10.0"	5
Reflector	30°	10	10.5"	5
Reflector	30°	10	11.0"	5
Reflector	30°	10	11.5"	5
Reflector	30°	10	12.0"	5
Reflector	30°	10	12.5"	5
Reflector	30°	10	13.0"	5
Reflector	30°	10	13.5"	5
Reflector	30°	10	14.0"	5
Reflector	30°	10	14.5"	5
Reflector	30°	10	15.0"	5
Reflector	30°	10	15.5"	5
Reflector	30°	10	16.0"	5
Reflector	30°	10	16.5"	5
Reflector	30°	10	17.0"	5
Reflector	30°	10	17.5"	5
Reflector	30°	10	18.0"	5
Reflector	30°	10	18.5"	5
Reflector	30°	10	19.0"	5
Reflector	30°	10	19.5"	5
Reflector	30°	10	20.0"	5
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Reflector	30°	10	22.0"	5
Reflector	30°	10	22.5"	5
Reflector	30°	10	23.0"	5
Reflector	30°	10	23.5"	5
Reflector	30°	10	24.0"	5
Reflector	30°	10	24.5"	5
Reflector	30°	10	25.0"	5
Reflector	30°	10	25.5"	5
Reflector	30°	10	26.0"	5
Reflector	30°	10	26.5"	5
Reflector	30°	10	27.0"	5
Reflector	30°	10	27.5"	5
Reflector	30°	10	28.0"	5
Reflector	30°	10	28.5"	5
Reflector	30°	10	29.0"	5
Reflector	30°	10	29.5"	5
Reflector	30°	10	30.0"	5
Reflector	30°	10	30.5"	5
Reflector	30°	10	31.0"	5
Reflector	30°	10	31.5"	5
Reflector	30°	10	32.0"	5
Reflector	30°	10	32.5"	5
Reflector	30°	10	33.0"	5
Reflector	30°	10	33.5"	5
Reflector	30°	10	34.0"	5
Reflector	30°	10	34.5"	5
Reflector	30°	10	35.0"	5
Reflector	30°	10	35.5"	5
Reflector	30°	10	36.0"	5
Reflector	30°	10	36.5"	5
Reflector	30°	10	37.0"	5
Reflector	30°	10	37.5"	5
Reflector	30°	10	38.0"	5
Reflector	30°	10	38.5"	5
Reflector	30°	10	39.0"	5
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Reflector	30°	10	41.0"	5
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Reflector	30°	10	42.5"	5
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Reflector	30°	10	45.0"	5
Reflector	30°	10	45.5"	5
Reflector	30°	10	46.0"	5
Reflector	30°	10	46.5"	5
Reflector	30°	10	47.0"	5
Reflector	30°	10	47.5"	5
Reflector	30°	10	48.0"	5
Reflector	30°	10	48.5"	5
Reflector	30°	10	49.0"	5
Reflector	30°	10	49.5"	5
Reflector	30°	10	50.0"	5

FLANGE STYLES

Self Flanged

Flangeless (Square)

Flangeless (Round / Hex)

D-Series Size 1 LED Area Luminaire

Introduction

The D-Series Size 1 LED Area Luminaire is a high-performance, high-efficiency lighting fixture designed for use in a variety of applications. It features a compact, square design and is available in a variety of finishes and colors. The D-Series Size 1 LED Area Luminaire is designed to provide uniform lighting and is available in a variety of quantities.

Specifications

- Length: 10.0"
- Width: 10.0"
- Height: 1.5"
- Weight: 1.5 lbs
- Material: Aluminum
- Finish: Matte Black
- Color: Warm White
- Beam Angle: 30°
- Beam Diameter: 1.5"
- Footcandle: 100
- Watts: 10
- Efficiency: 100 lm/w
- Life Span: 50,000 hours
- Dimming: Yes
- Adjustable: No
- Mounting: Surface Mount
- Aperture: 4"
- Optic: Reflector
- Material: Aluminum
- Finish: Matte Black
- Color: Warm White
- Beam Angle: 30°
- Beam Diameter: 1.5"
- Footcandle: 100
- Watts: 10
- Efficiency: 100 lm/w
- Life Span: 50,000 hours
- Dimming: Yes
- Adjustable: No
- Mounting: Surface Mount
- Aperture: 4"
- Optic: Reflector

Ordering Information

EXAMPLE: DSX1 LED P3 40K 70CRI RCCO

Part No.	Part Name	Quantity	Unit Price	Total Price
DSX1	DSX1 LED P3 40K 70CRI RCCO	1	101.17	101.17
DSX1	DSX1 LED P3 40K 70CRI RCCO	3	10340.00	31020.00
DSX1	DSX1 LED P3 40K 70CRI T4M	1	13968.00	13968.00
DSX1	DSX1 LED P1 40K 70CRI T1S	2	8104.00	16208.00
DSX1	DSX1 LED P1 40K 70CRI T1S	2	8104.00	16208.00
DSX1	DSX1 LED P1 40K 70CRI T1S	1	7760.00	7760.00

Statistics

Description	Symbol	Avg	Max	Min	Avg/Min	Max/Min
Overall	+	0.7 fc	8.9 fc	0.0 fc	N/A	N/A
Parking Lot	X	1.2 fc	4.7 fc	0.3 fc	4.0:1	15.7:1
Boundary @ 5'	X	0.0 fc	0.1 fc	0.0 fc	N/A	N/A

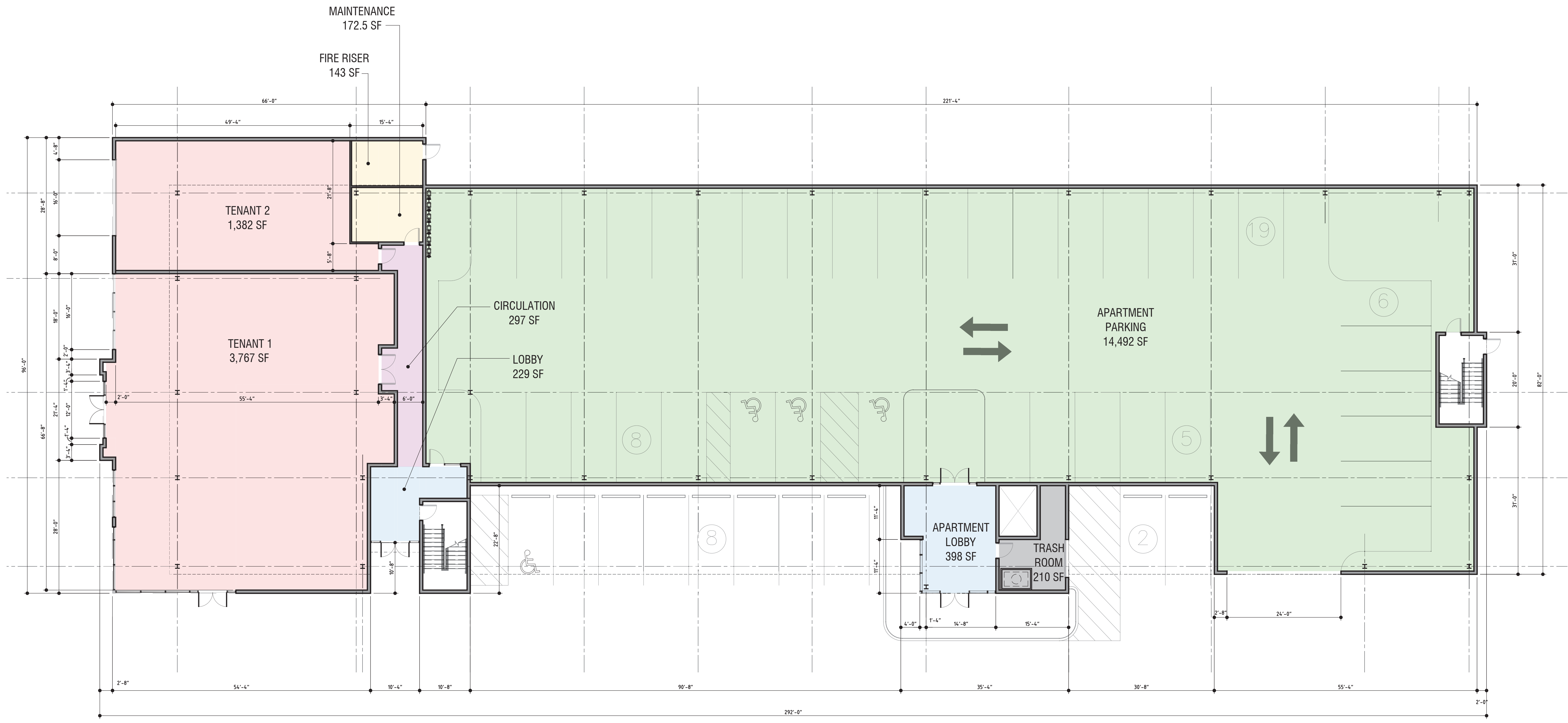
Schedule

Symbol	Label	Image	QTY	Manufacturer	Catalog	Description	Lamp Output	LLF	Input Power
C	C		6	Aculux	AX4 D 08LM WDM HALR 90CRI 35D GZ1 MVOLT 40BV BD	4" Round Recessed Downlight 800 Lumens WarmDim 90+ CRI 35 degree Bevel Black Diffuse Beam Location	461	1	16.3136
D	D		17	Indy	LC6S 08LM 35K MVOLT W G4 80CRI ZT HWS CS	INDY 6" DIA. L-LED 800LM, 35K 80 CRI, CYLINDER SINGLE WALL WASHER W/ CLEAR SPECULAR ALZAK (CS) HYPERBOLIC REFLECTOR, DIFFUSE KICKER & FROSTED DIMPLED GLASS LENS	547	1	7.53
S1	S1		1	Lithonia Lighting	DSX1 LED P3 40K 70CRI RCCO	D-Series Size 1 Area Luminaire P3 Performance Package 4000K CCT 70 CRI Right Corner Cutoff Extreme Backlight Control	10101	0.9	102.17
S2	S2		3	Lithonia Lighting	DSX1 LED P3 40K 70CRI BLC4	D-Series Size 1 Area Luminaire P3 Performance Package 4000K CCT 70 CRI Type 4 Extreme Backlight Control	10340	0.9	102.17
S3	S3		1	Lithonia Lighting	DSX1 LED P3 40K 70CRI T4M	D-Series Size 1 Area Luminaire P3 Performance Package 4000K CCT 70 CRI Type 4 Medium	13968	0.9	204.34
S4	S4		2	Lithonia Lighting	DSX1 LED P1 40K 70CRI T1S	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 70 CRI Type 1 Short	8104	0.9	101.8
S5	S5		2	Lithonia Lighting	[...]	[...]	[...]	0.9	101.8
			1	Lithonia Lighting	DSX1 LED P1 40K 70CRI T1FM	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 70 CRI Forward Throw	7760	0.9	50.9

Unit Mix					
Type	2nd Floor	3rd Floor	4th Floor	5th Floor	Total
Studio	3	4	6	0	13
1 Bedroom	13	14	10	0	37
2 Bedroom	1	3	5	0	9
Penthouse	0	0	0	6	6
Total	17	21	21	6	65

PLAN LEGEND	
[Pink Box]	STUDIO UNIT
[Light Red Box]	1 BEDROOM UNIT
[Light Green Box]	2 BEDROOM UNIT
[Yellow Box]	PENTHOUSE UNIT
[Light Blue Box]	LOBBY / COMMON SPACE
[Orange Box]	GYM
[Grey Box]	CO-WORKING ROOM
[Dark Green Box]	SAUNA
[Dark Grey Box]	JANITOR CLOSET / TRASH ROOM
[White Box]	TERRACE

Unit Mix							
Unit	Area	Type	2nd Floor	3rd Floor	4th Floor	5th Floor	Total
A	628 SF	Studio	1	1	1	0	3
B	641 SF	Studio	2	3	5	0	10
C	860 SF	1 Bedroom	11	12	10	0	33
D	975 SF	1 Bedroom	2	2	0	0	4
E	1,083 SF	2 Bedroom	0	1	1	0	2
F	1,100 SF	2 Bedroom	1	1	1	0	3
G	1,223 SF	2 Bedroom	0	0	2	0	2
H	1,179 SF	2 Bedroom	0	1	1	0	2
I	1,753 SF	Penthouse	0	0	0	1	1
J	1,513 SF	Penthouse	0	0	0	1	1
K	1,684 SF	Penthouse	0	0	0	1	1
L	1,789 SF	Penthouse	0	0	0	1	1
M	1,896 SF	Penthouse	0	0	0	1	1
N	2,058 SF	Penthouse	0	0	0	1	1
TOTAL	61,862 SF		17	21	21	6	65



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ARCHITECTURE
 3300 AUBURN RD, SUITE 300
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ISSUANCE	DATE
SPA Re-Submittal 2	10/29/24
SPA Re-Submittal	08/26/24
Site Plan Approval	05/10/24
Pre-App Meeting	01.23.24

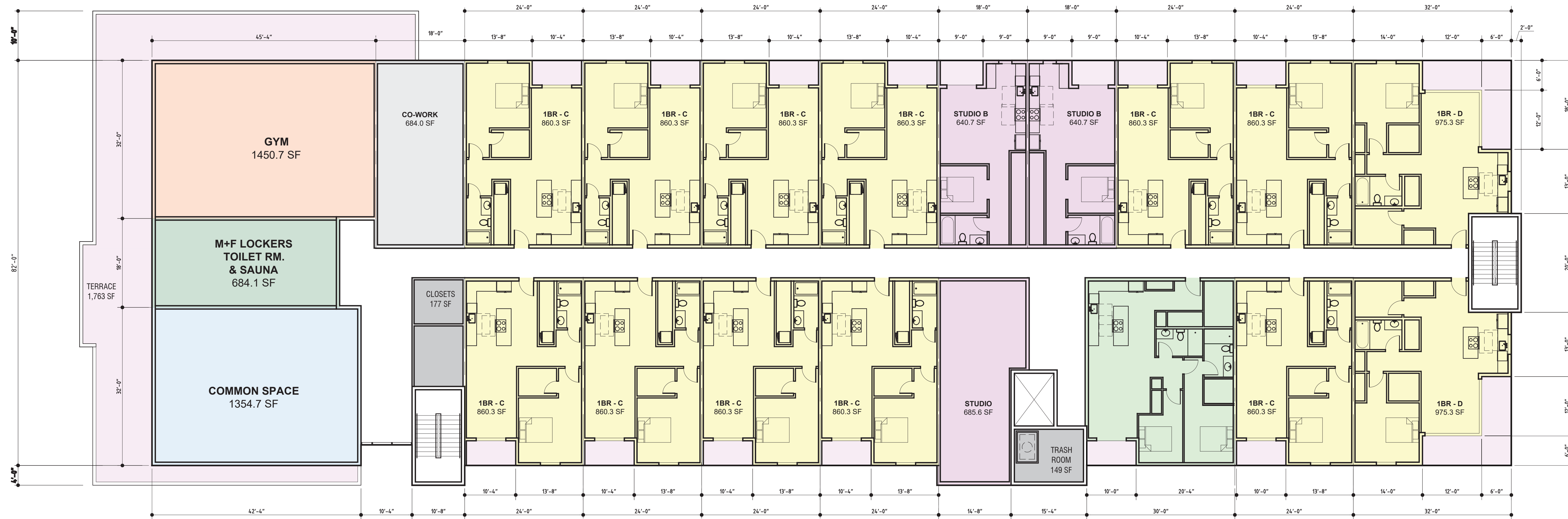
Elevate Troy
 1787 W Big Beaver
 Troy, MI 48064
First Floor Plan
 022019
A1.1

10/29/2024 A1.1 First Floor Plan.dwg Brian Helbert

Unit Mix					
Type	2nd Floor	3rd Floor	4th Floor	5th Floor	Total
Studio	3	4	6	0	13
1 Bedroom	13	14	10	0	37
2 Bedroom	1	3	5	0	9
Penthouse	0	0	0	6	6
Total	17	21	21	6	65

PLAN LEGEND	
[Purple Box]	STUDIO UNIT
[Pink Box]	1 BEDROOM UNIT
[Green Box]	2 BEDROOM UNIT
[Yellow Box]	PENTHOUSE UNIT
[Light Blue Box]	LOBBY / COMMON SPACE
[Orange Box]	GYM
[Light Grey Box]	CO-WORKING ROOM
[Dark Green Box]	SAUNA
[Dark Grey Box]	JANITOR CLOSET / TRASH ROOM
[Light Purple Box]	TERRACE

Unit Mix							
Unit	Area	Type	2nd Floor	3rd Floor	4th Floor	5th Floor	Total
A	628 SF	Studio	1	1	1	0	3
B	641 SF	Studio	2	3	5	0	10
C	860 SF	1 Bedroom	11	12	10	0	33
D	975 SF	1 Bedroom	2	2	0	0	4
E	1,083 SF	2 Bedroom	0	1	1	0	2
F	1,100 SF	2 Bedroom	1	1	1	0	3
G	1,223 SF	2 Bedroom	0	0	2	0	2
H	1,179 SF	2 Bedroom	0	1	1	0	2
I	1,753 SF	Penthouse	0	0	0	1	1
J	1,513 SF	Penthouse	0	0	0	1	1
K	1,684 SF	Penthouse	0	0	0	1	1
L	1,789 SF	Penthouse	0	0	0	1	1
M	1,896 SF	Penthouse	0	0	0	1	1
N	2,058 SF	Penthouse	0	0	0	1	1
TOTAL	61,862 SF		17	21	21	6	65



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SPA Re-Submittal 2	10/29/24
SPA Re-Submittal	08/26/24
Site Plan Approval	05/10/24
Pre-App Meeting	01.23.24
ISSUANCE	DATE

Elevate Troy
 1787 W Big Beaver
 Troy, MI 48064
Second Floor Plan
 022019
A1.2

1 Second Floor Plan

SCALE: 3/32" = 1'
 NORTH

Brian Helbert
 10/29/2024
 A1.2 Second Floor Plan.dwg

Unit Mix					
Type	2nd Floor	3rd Floor	4th Floor	5th Floor	Total
Studio	3	4	6	0	13
1 Bedroom	13	14	10	0	37
2 Bedroom	1	3	5	0	9
Penthouse	0	0	0	6	6
Total	17	21	21	6	65

PLAN LEGEND	
[Purple Box]	STUDIO UNIT
[Pink Box]	1 BEDROOM UNIT
[Green Box]	2 BEDROOM UNIT
[Yellow Box]	PENTHOUSE UNIT
[Light Blue Box]	LOBBY / COMMON SPACE
[Orange Box]	GYM
[Light Grey Box]	CO-WORKING ROOM
[Dark Green Box]	SAUNA
[Dark Grey Box]	JANITOR CLOSET / TRASH ROOM
[Light Purple Box]	TERRACE

Unit Mix							
Unit	Area	Type	2nd Floor	3rd Floor	4th Floor	5th Floor	Total
A	628 SF	Studio	1	1	1	0	3
B	641 SF	Studio	2	3	5	0	10
C	860 SF	1 Bedroom	11	12	10	0	33
D	975 SF	1 Bedroom	2	2	0	0	4
E	1,083 SF	2 Bedroom	0	1	1	0	2
F	1,100 SF	2 Bedroom	1	1	1	0	3
G	1,223 SF	2 Bedroom	0	0	2	0	2
H	1,179 SF	2 Bedroom	0	1	1	0	2
I	1,753 SF	Penthouse	0	0	0	1	1
J	1,513 SF	Penthouse	0	0	0	1	1
K	1,684 SF	Penthouse	0	0	0	1	1
L	1,789 SF	Penthouse	0	0	0	1	1
M	1,896 SF	Penthouse	0	0	0	1	1
N	2,058 SF	Penthouse	0	0	0	1	1
TOTAL	61,862 SF		17	21	21	6	65



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ISSUANCE	DATE
SPA Re-Submittal 2	10/29/24
SPA Re-Submittal	08/26/24
Site Plan Approval	05/10/24
Pre-App Meeting	01.23.24
ISSUANCE	DATE

Elevate Troy
 1787 W Big Beaver
 Troy, MI 48064
Fourth Floor Plan
 022019
A1.4

1 Fourth Floor Plan

SCALE: 3/32" = 1'

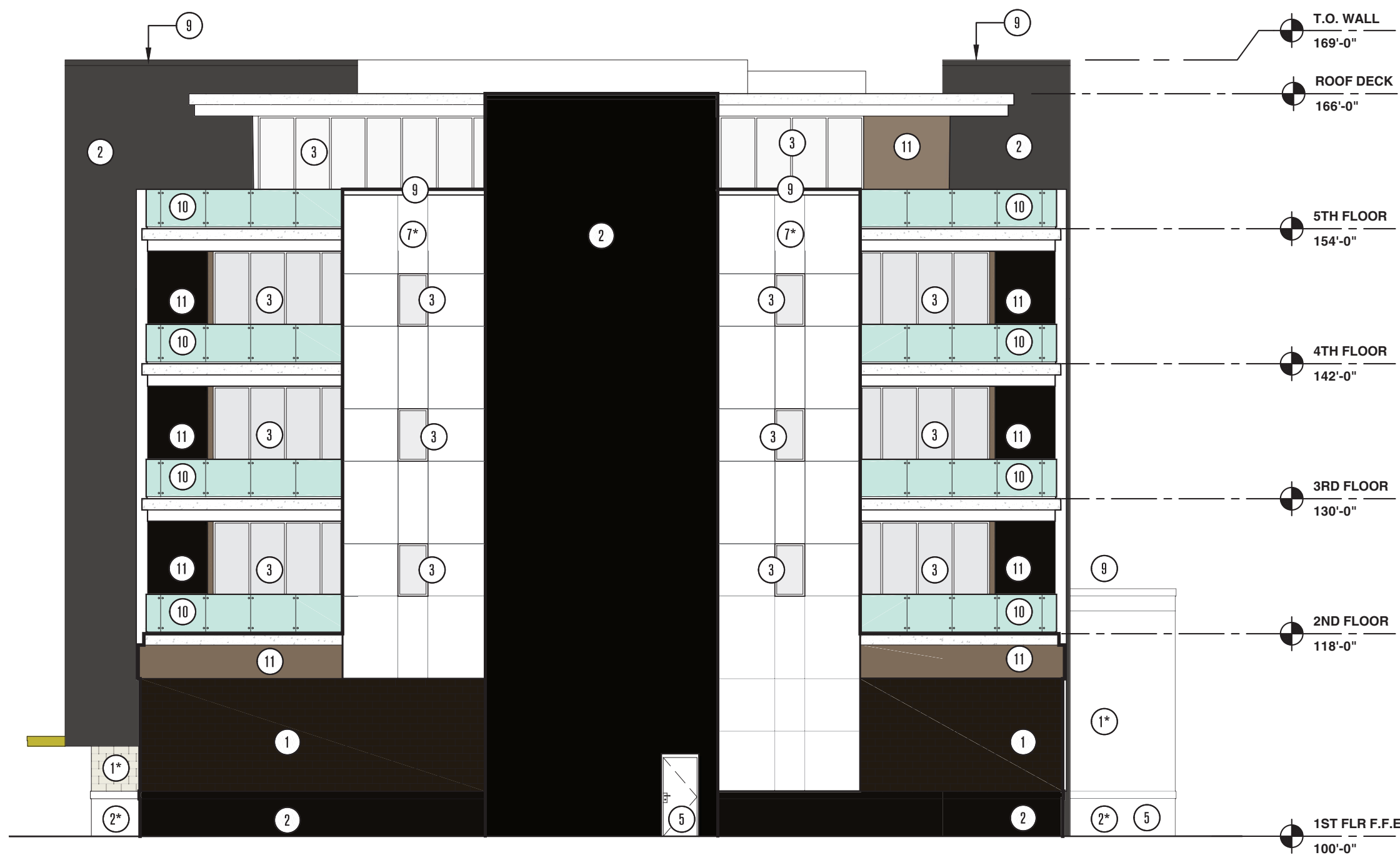


A1.4 Fourth Floor Plan.dwg

10/29/2024

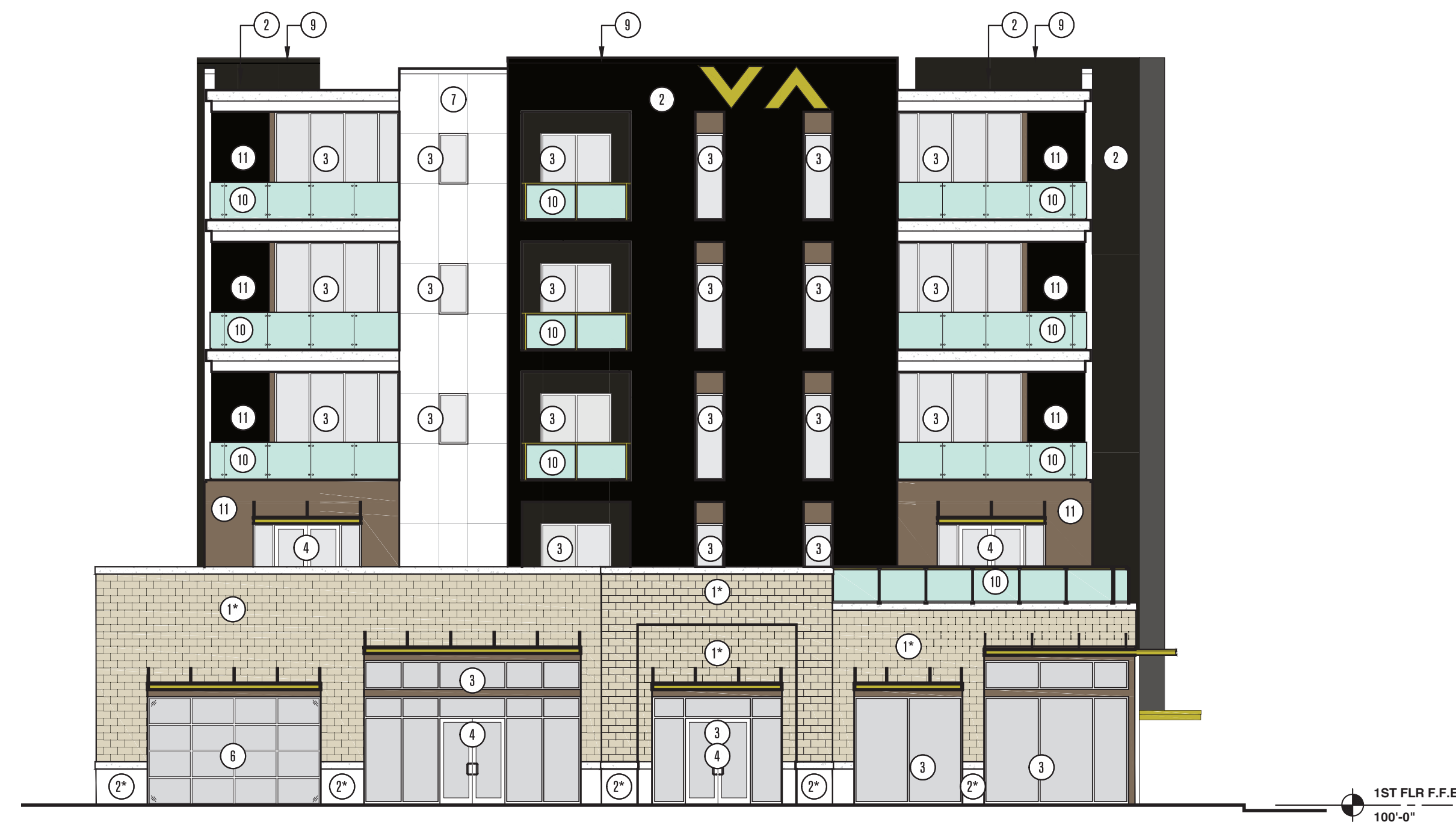
Brian Helbert

Material Legend	
Symbol	Description
(1)	Burnished CMU Veneer Black
(1*)	* Burnished CMU Veneer Light Gray
(2)	Stone Veneer Black
(2*)	* Stone Veneer Light Gray
(3)	Glazing
(4)	Full-Lite Entry Door
(5)	Metal Egress Door
(6)	Overhead Door - Full Lite
(7)	Metal Panel White
(8)	Metal Panel Black
(9)	Prefinished Metal Coping
(10)	Glass Railing
(11)	Metal Panel Med.Bronze
(12)	Curtain Wall System
(13)	Decorative Masonry Opening



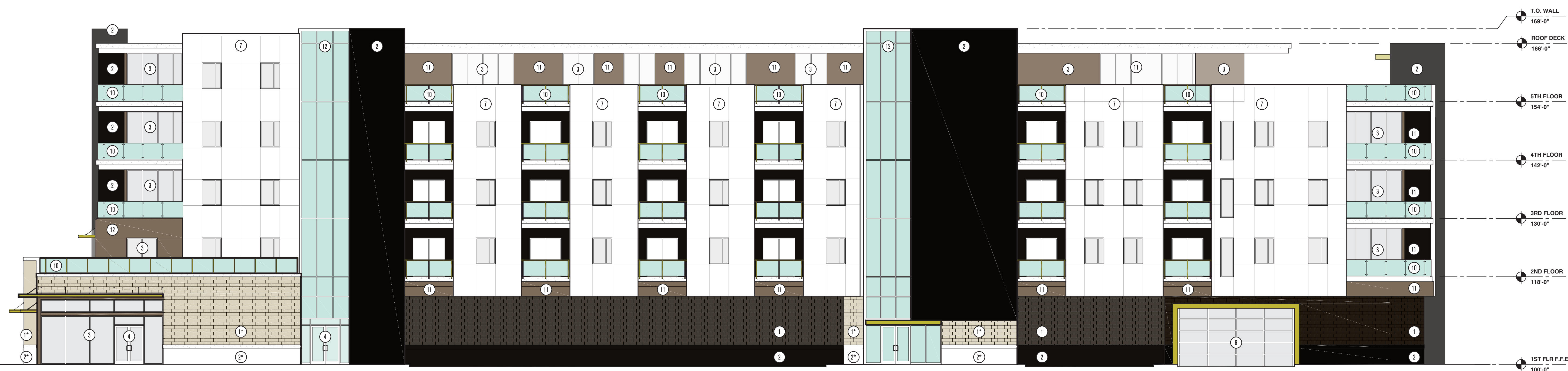
3 South Elevation

SCALE: 3/32" = 1"



2 North Elevation

SCALE: 3/32" = 1"

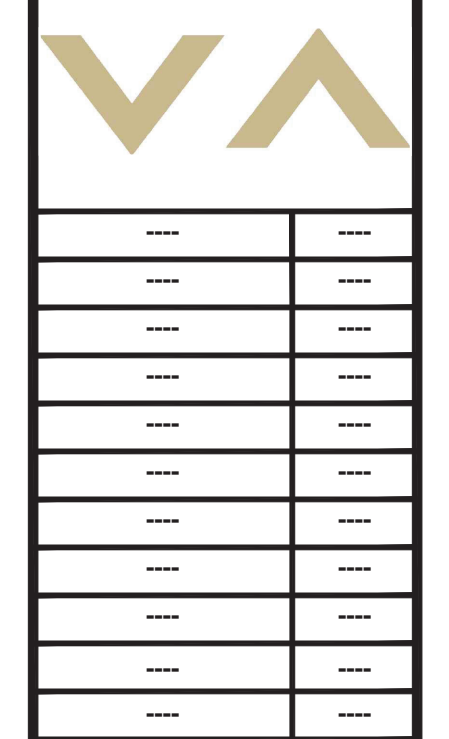


1 West Elevation

SCALE: 3/32" = 1"

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ISSUANCE	DATE
Pre-App Meeting	01.23.24
Site Plan Approval	05/10/24
SPA Re-Submittal	08/26/24
SPA Re-Submittal 2	10/29/24

Elevate Troy
1787 W Big Beaver
Troy, MI 48064

Elevations

022019

A2.1

Material Legend	
Symbol	Description
①	Burnished CMU Veneer Black
①*	* Burnished CMU Veneer Light Gray
②	Stone Veneer Black
②*	* Stone Veneer Light Gray
③	Glazing
④	Full-Lite Entry Door
⑤	Metal Egress Door
⑥	Overhead Door - Full Lite
⑦	Metal Panel White
⑧	Metal Panel Black
⑨	Prefinished Metal Coping
⑩	Glass Railing
⑪	Metal Panel Med.Bronze
⑫	Curtain Wall System
⑬	Decorative Masonry Opening

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ARCHITECTURE

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SPA Re-Submittal 2	10/29/24
SPA Re-Submittal	08/26/24
Site Plan Approval	05/10/24
Pre-App Meeting	01.23.24
ISSUANCE	DATE

A2.2 Elevations.dwg

10/29/2024

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1 East Elevation

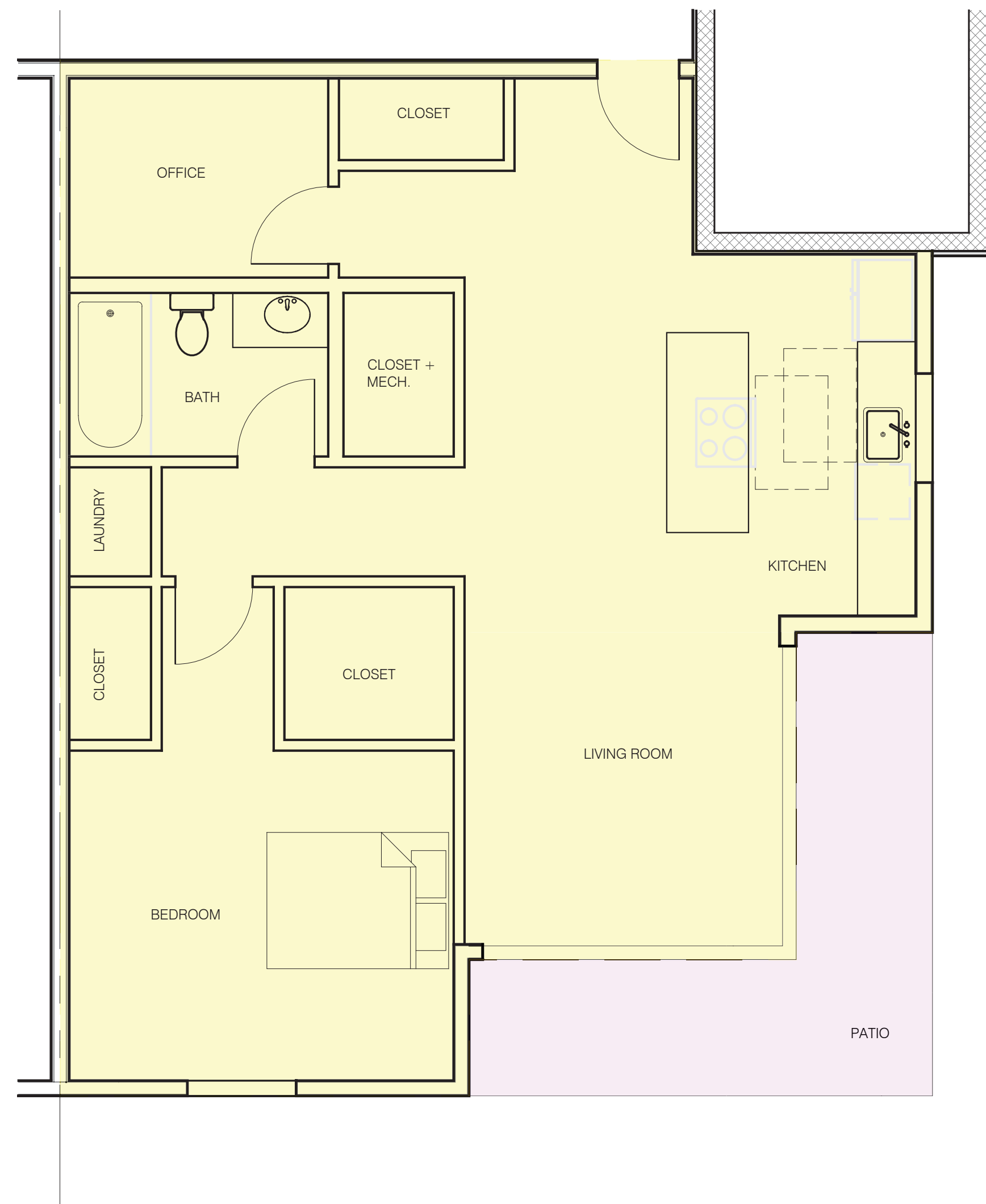
SCALE: 3/32" = 1'

Elevate Troy
1787 W Big Beaver
Troy, MI 48064

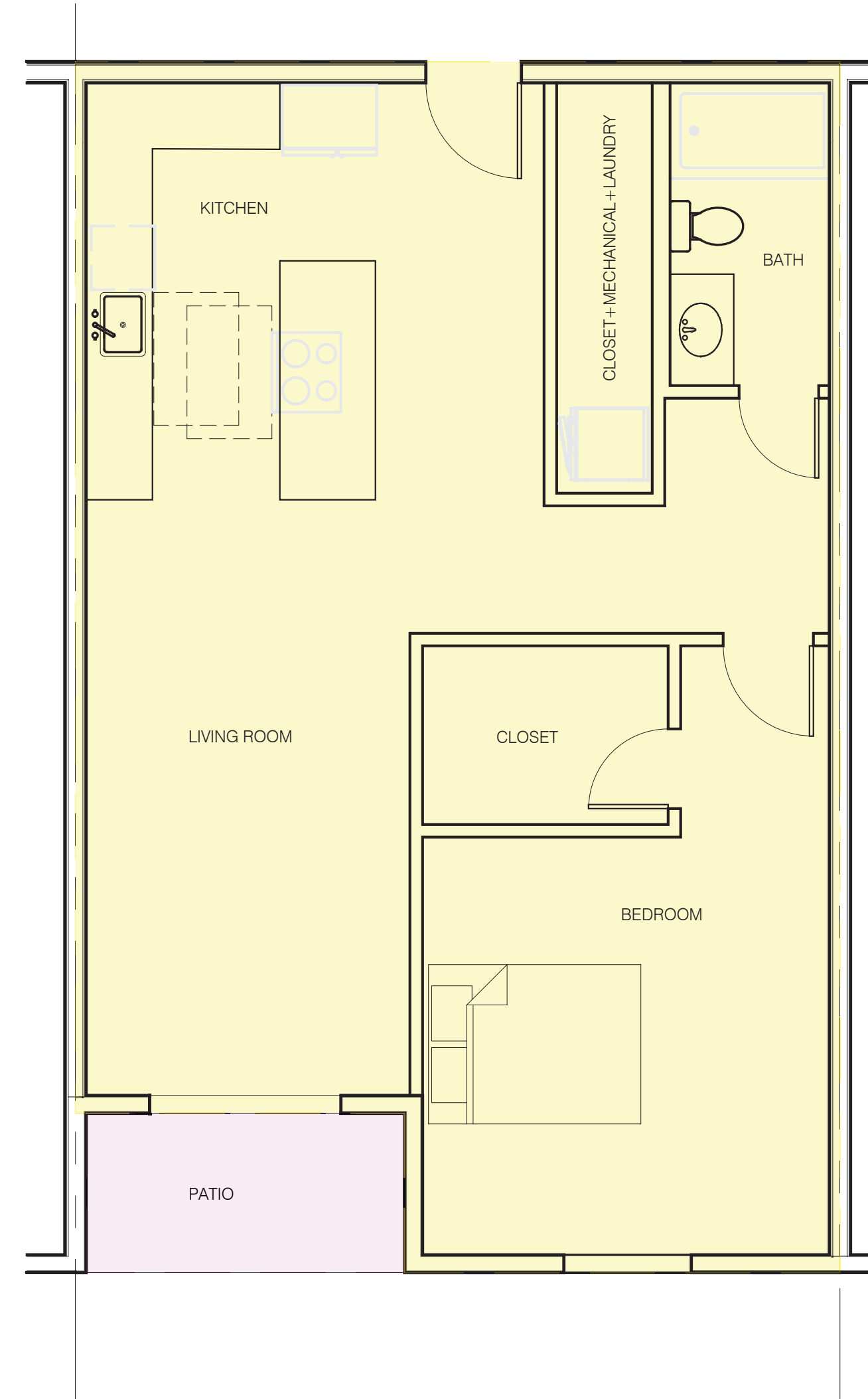
Elevations

022019

A2.2



1-BEDROOM D
1010 SQ. FT.



1-BEDROOM C
860 SQ. FT.

Elevate Troy
1787 W Big Beaver
Troy, MI 48064

Enlarged 1-Bedroom Unit Plans

022019

A4.2

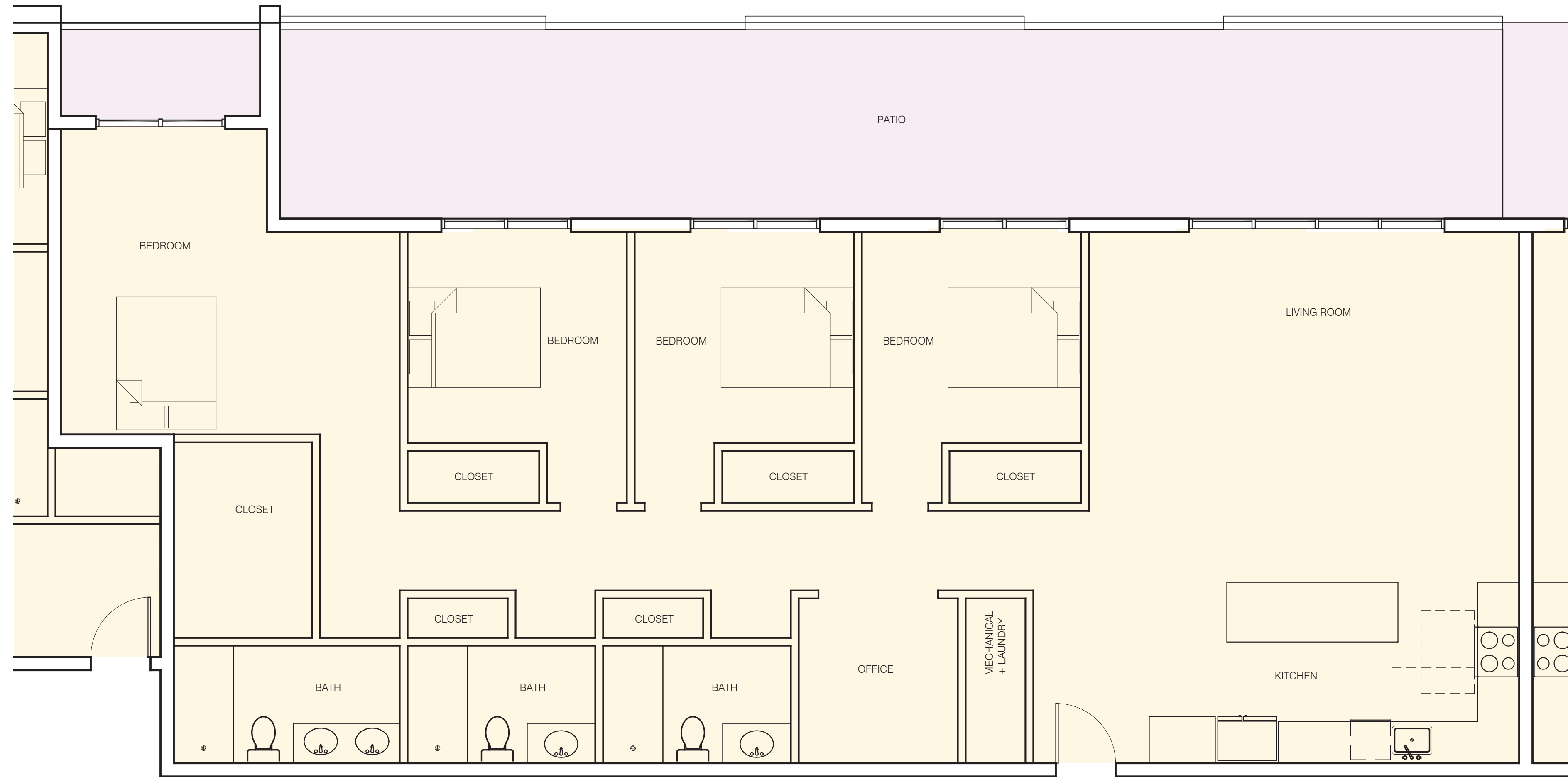
ISSUANCE	DATE
Pre-App Meeting	01.23.24
Site Plan Approval	05/10/24
SPA Re-Submittal	08/26/24
SPA Re-Submittal 2	10/29/24

VA

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PENTHOUSE M
1916 SQ. FT.



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SPA Re-Submittal 2	10/29/24
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ISSUANCE	DATE

Elevate Troy
1767 W Big Beaver
Troy, MI 48064
Enlarged Penthouse M Unit Plans

022019
A4.9

PENTHOUSE N
1972 SQ. FT.



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Pre-App Meeting	01.23.24
ISSUANCE	DATE

Elevate Troy
1767 W Big Beaver
Troy, MI 48064
Enlarged Penthouse N Unit Plans

022019
A4.10

A4.10 Enlarged Unit Plans.dwg

10/29/2024

Brian Helbert

1 N UNIT ENLARGED PLAN

SCALE: 1/4" = 1'-0"



4 Render 4 | Southwest Perspective, Parking



3 Render 3 | Northeast Perspective, Big Beaver West-Bound



2 Render 2 | Southeast Perspective, Parking



1 Render 1 | Northwest Perspective, Big Beaver Entrance

EST 1998
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SPA Re-Submittal 2	10/29/24
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ISSUANCE	DATE

Elevate Troy
 1787 W Big Beaver
 Troy, MI 48064
 Graphic Illustrations

022019
A10.0

A10.0_Graphic_Illustrations.dwg
 10/29/2024
 Brian Helbert



4 Render 4 | Rooftop Terrace Perspective



3 Render 3 | Rooftop Terrace Perspective



2 Render 2 | Rooftop Terrace Entry & Overhang



1 Render 1 | Rooftop Terrace Plan Perspective

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SPA Re-Submittal 2	10/29/24
SPA Re-Submittal	08/26/24
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ISSUANCE	DATE

Elevate Troy
1767 W Big Beaver
Troy, MI 48064
Graphic Illustrations

022019
A10.1



May 21, 2024

Mr. Jason Hamama
Encore Development
1985 W. Big Beaver Road, Suite 300
Troy, Michigan 48084

**Re: Proposed 1787 W. Big Beaver Road Elevate Troy Mixed-Use Development
Shared Parking Analysis
City of Troy, Michigan
200-620772-24001**

Dear Mr. Hamma:

Tetra Tech (Tt) has completed our shared parking analysis for the proposed Elevate Troy development to be located in the southeast quadrant of Big Beaver Road and Todd Drive, based on the site plan dated May 13, 2024, which is attached to this memo. As we understand it, currently the site has an existing 246-seat quality restaurant, 6,207 sq. ft. of retail space, and 13,414 sq. ft. of office space, and proposes an additional 2,462 sq. ft. of retail space, a 50-seat breakfast\lunch only restaurant, 52 studio\1-bedroom apartments and 19 2-bedroom\penthouse apartments. This study has been completed in accordance with typical requirements of a shared parking analysis within the City of Troy.

Planned Operations – 50-Seat Restaurant

According to discussions with your office, the proposed 50-seat restaurant is currently planned to be occupied by a restaurant specializing in breakfast\brunch meals. This type of restaurant typically operates from 6:30 a.m. to 2:30 p.m. only, does not operate during the late-afternoon or evening periods, and it is our understanding that this is the planned operations for this facility.

Shared Parking Analysis

The Urban Land Institute (ULI) shared parking methodologies were implemented to determine an accurate parking demand for the proposed site. It is common for retail and restaurants to have varying peak hourly and monthly parking demands, as well as being shared destinations (e.g., a customer who shops at the retail stores may also visit a restaurant). Therefore, a shared parking analysis is necessary to accurately determine the amount in which the number of required parking spaces could be reduced by, as compared to the sum of the individual parking requirements for each land use on the site.



The City of Troy accepts Shared Parking methodology, but requires that the analysis be performed utilizing City of Troy parking requirements for the base parking determination, but using ULI rates for Time-Of-Day, weekday and weekend, and monthly adjustments factors. The following parking rates within the ULI spreadsheet were adjusted to match City of Troy ordinance requirements.

<u>Land Use</u>	<u>Original ULI Parking Rate</u>	<u>City of Troy Parking Rate</u>
Retail (<400 ksf)	2.90/sq. ft. visitor weekday 0.70/sq. ft. employee weekday 3.20/sq. ft. visitor weekend 0.80/sq. ft. employee weekend	1 space/250 sq. ft. or 4 spaces/ksf
Fine/Casual Dining	13.25/sq. ft. visitor weekday 2.25/sq. ft. employee weekday 15.25/sq. ft. visitor weekend 2.50/sq. ft. employee weekend	1 space/2 seats
Family Restaurant	15.25/sq. ft. visitor weekday 2.15/sq. ft. employee weekday 15.00/sq. ft. visitor weekend 2.10/sq. ft. employee weekend	1 space/2 seats
Office <25 ksf	0.30/sq. ft. visitor weekday 3.50/sq. ft. employee weekday 0.03/sq. ft. visitor weekend 0.35/sq. ft. employee weekend	1 space/300 sq. ft. or 3.33 spaces/ksf
Residential, Suburban		
Studio Efficiency	0.10/unit visitor weekday 0.85/unit employee weekday 0.15/unit visitor weekend 0.85/unit employee weekend	1 space/unit
2 Bedrooms	0.10/unit visitor weekday 1.65/unit employee weekday 0.15/unit visitor weekend 1.65/unit employee weekend	2 spaces/unit

Ratios of employee and visitor parking to the total parking requirement were determined for each land use, and applied to the City of Troy rates to determine the split of required ordinance parking between employee and visitor uses. Refer to the attached “Conversion Worksheet, ULI Default Parking Rates to City of Troy Ordinance Parking Requirements: spreadsheet for the conversion calculations.



Additionally, since the breakfast\brunch restaurant, classified as a Family Restaurant within the ULI analysis, will not be open in the late afternoon or evening, hourly adjustment factors between 5:00 p.m. and midnight were set to zero, reflecting that the restaurant is closed. Although the restaurant would be open only until 2:30 p.m., this was assumed to be the latest they would accept customers, and that so-called late-arrivers and staff (after-hours cleaning and other duties) would have left by 5:00 p.m. at the latest.

Tetra Tech analyzed the differences in activity patterns, which include monthly and time of day variances, for each land use. This is because the various land uses of the Elevate Troy site do not have peak utilization during the same time periods. Time-of-Day factors for weekdays and weekends and monthly adjustment factors for the various land uses can be found in the attached ULI Shared Parking spreadsheets. Additionally, it was assumed that the residential units would be 100% reserved, meaning that the residential units would have dedicated parking that could not be used by the other uses on the site.

The next step of the analysis was to determine the critical parking periods for the site. All hours of operation from 6:00 a.m. to midnight were analyzed for each month of the year (including an additional late December analysis). The result showed that the month of December has the highest peak demands of the year. Furthermore, the overall peak time of the day for the entire site was determined to be 1:00 p.m. for weekdays and 12:00 p.m. during weekends. Therefore, the overall peak period of the proposed site would be a weekday afternoon in December, resulting in a maximum demand of 278 required parking spaces (the weekday peak period would require 256 parking spaces). Detailed tables can be found in the attached ULI Shared Parking spreadsheets.

Based on the above analysis, the overall peak period of the proposed site would be a weekday afternoon in December, resulting in a maximum of 278 required parking spaces based on the proposed site plan, resulting in a parking surplus of 1 space.



Conclusions and Recommendations

The proposed Elevate Troy mixed-use development consists of an existing 246-seat quality restaurant, 6,207 sq. ft. of retail space, and 13,414 sq. ft. of office space, and proposes an additional 2,462 sq. ft. of retail space, a 50-seat breakfast\brunch only restaurant, 52 studio\1-bedroom apartments and 19 2-bedroom\penthouse apartments. The current site plan dated May 13, 2024 indicates 279 parking spaces throughout the site.

Tetra Tech utilized ULI shared parking reductions for monthly and hourly variances between land uses, based on City of Troy parking ordinance requirements, which results in the peak time period to be a weekend evening in the month of December requiring a maximum of 278 parking spaces.

Please see the PEA Group site plan for the proposed layout of the site.

We trust that this letter fulfills your current transportation needs regarding your site. If you have any questions, please feel free to call our office at (810)-220-2112.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Kyle W. Ramakers', written in a cursive style.

Kyle W. Ramakers, P.E., PTOE
Transportation Engineer

200-620772-24001

O:\Projects\Brighton\IER\620772\200-620772-24001\Docs\Reports\Encore_Shared-Parking_Troy-Ltr.docx

SITE PLAN

BENCHMARKS
(GPS DERIVED - NAVD88)

BM #300
ARROW ON A HYDRANT W/DIMPLE LOCATED ON THE SOUTH SIDE OF W. BIG BEAVER ROAD APPROX. 58'± NORTHEAST OF THE NORTHEAST BUILDING CORNER OF 1985 W. BIG BEAVER ROAD.
ELEV. - 732.71

BM #301
ARROW ON A HYDRANT W/DIMPLE LOCATED IN THE MEDIAN OF W. BI BEAVER ROAD, ACROSS FROM 1985 W. BIG BEAVER ROAD.
ELEV. - 729.83

BM #302
ARROW ON A HYDRANT W/DIMPLE LOCATED ON THE SOUTH SIDE OF BUTTERFIELD ROAD, ACROSS FROM TODD DRIVE.
ELEV. - 720.86

FLOODPLAIN NOTE:
BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X'. AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 26125-0541F, DATED SEPTEMBER 29, 2006.

LEGAL DESCRIPTION:
(Per First American Title Insurance Company commitment TC-13-60063, Commitment date 03-12-18)

The land is described as follows:
The following described premises situated in the City of Troy, County of Oakland and State of Michigan, to-wit:
Parcel 1
Part of Lot 1, Supervisor's Plat of Butterfield Farm, as recorded in Liber 48, Page 44 of Plats, Oakland County Records, particularly described as: Beginning at a point on the lot line common to Lots 1 and 2 which is South 150.00 feet from the Northeast corner of said Lot 1; thence West 4.12 feet; thence South 90.00 feet; thence East 4.12 feet to the East line of Lot 1; thence North along said lot line 90.00 feet to the point of beginning.

ALSO
Lot 2, except the North 69 feet, Supervisor's Plat of Butterfield Farm, as recorded in Liber 48, Page 44 of Plats, Oakland County Records.

Parcel 2
Lot 1, except the North 69 feet and also except that part described as: Beginning at a point on the lot line common to Lots 1 and 2 which is South 150.00 feet from the Northeast corner of said Lot 1; thence West 4.12 feet; thence South 90.00 feet; thence East 4.12 feet to the East line of Lot 1; thence North along said lot line 90.00 feet to the point of beginning, also the North 31 feet of Lot 34, Supervisor's Plat of Butterfield Farm, as recorded in Liber 48, Page 44 of Plats, Oakland County Records.

Parcel 3
Lot 33, Supervisor's Plat of Butterfield Farm, as recorded in Liber 48, Page 44 of Plats, Oakland County Records.

Tax Parcel 88-20-29-226-019
Lot 34 excluding the North 211 feet, Supervisor's Plat of Butterfield Farm, as recorded in Liber 48, Page 44 of Plats, Oakland County Records

LEGEND:

-OH-ELEC-W-O-	EX. OH. ELEC. POLE & GUY WIRE
-UG-CATV-	EX. U.G. CABLE TV & PEDESTAL
-UG-COM-	EX. U.G. COMMUNICATION LINE, PEDESTAL & MANHOLE
-UG-ELEC-	EX. U.G. ELEC. MANHOLE, METER & HANDHOLE
- - - - -	EX. GAS LINE
⊕	EX. GAS VALVE & GAS LINE MARKER
⊞	EX. TRANSFORMER & IRRIGATION VALVE
—	EX. WATER MAIN
⊕	EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE
⊕	EX. WATER VALVE BOX & SHUTOFF
⊕	EX. SANITARY SEWER
⊕	EX. SANITARY CLEANOUT & MANHOLE
⊕	EX. COMBINED SEWER MANHOLE
⊕	EX. STORM SEWER
⊕	EX. CLEANOUT & MANHOLE
⊕	EX. SQUARE, ROUND & BEEHIVE CATCH BASIN
⊕	EX. YARD DRAIN, U.G. ROOF DRAIN & DOWNSPOUT
⊕	EX. UNIDENTIFIED STRUCTURE
⊕	EX. MAILBOX, SIGN, LIGHTPOLE & GUARD POST
—	EX. FENCE
—	EX. GUARD RAIL
⊕	EX. DEC. TREE, CONIFEROUS TREE & SHRUB
⊕	EX. TREE TAG & TREE LINE
⊕	EX. SPOT ELEVATION
⊕	EX. CONTOUR
⊕	EX. WETLAND
⊕	IRON FOUND / SET
⊕	NAIL FOUND / NAIL & CAP SET
⊕	BRASS PLUG SET
⊕	MONUMENT FOUND / SET
⊕	SECTION CORNER FOUND
R M C	RECORDED / MEASURED / CALCULATED

SIDEWALK RAMP LEGEND:

SIDEWALK RAMP 'TYPE R'
CURB DROP ONLY

REFER TO LATEST MDOT R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS

SIGN LEGEND:

'NO PARKING FIRE LANE' SIGN
'STOP' SIGN
'BARRIER FREE PARKING' SIGN
'VAN ACCESSIBLE' SIGN

REFER TO DETAIL SHEET FOR SIGN DETAILS

GENERAL NOTES:
THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.

- ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.
- 'NO PARKING-FIRE LANE' SIGNS SHALL BE POSTED ALONG ALL FIRE LANES AT 100 FOOT INTERVALS OR AS DIRECTED BY THE FIRE OFFICIAL.
- REFER TO NOTES & DETAILS SHEET FOR ON-SITE PAVING DETAILS.
- REFER TO NOTES & DETAILS SHEET FOR ON-SITE SIDEWALK RAMP DETAILS

LEGEND:

STD DUTY	HEAVY DUTY	R.O.W. ONLY	CONCRETE PAVEMENT
STD DUTY	HEAVY DUTY	DEEP STRENGTH	ASPHALT PAVEMENT
STD DUTY	HEAVY DUTY	DEEP STRENGTH	GRAVEL
▲ ▲ ▲ ▲			WETLAND
—			CONCRETE CURB AND GUTTER
—			REVERSE GUTTER PAN
- - - - -			SETBACK LINE
⊕			SIGN LIGHTPOLE
⊕			FENCE
⊕			GUARD RAIL

SITE DATA TABLE:

SITE AREA: 0.83 ACRES (36,289 SF.) NET AND GROSS

ZONING: 'BB' BIG BEAVER ROAD DISTRICT

PROPOSED USE: STUDIO & 1 BEDROOM APARTMENTS (52)
2 BEDROOM & PENTHOUSE APARTMENTS (19)
RESTAURANT = 50 SEATS
RETAIL = 2,462 SQ FT

BUILDING INFORMATION:
MAXIMUM ALLOWABLE BUILDING HEIGHT = 72' (5 STORIES)
PROPOSED BUILDING HEIGHT = 72' (5 STORIES)

BUILDING FOOTPRINT AREA = 7,289 S.F.

BUILDING LOT COVERAGE = 20.08% (7,289 / 36,289)

OPEN SPACE REQUIRED = 15%

OPEN SPACE PROVIDED = 16.96% (6,155 / 36,289)

SETBACK REQUIREMENTS:

FRONT:	60'	REQUIRED:	10.12'	PROPOSED:	10.12'
SIDE:	10'	REQUIRED:	10.00'	PROPOSED:	10.00'
REAR:	30'	REQUIRED:	10.13'	PROPOSED:	10.13'

PARKING CALCULATIONS:

EXISTING BUILDING
RETAIL (6,207 SF.) = 1 SPACE PER 250 SF. = 6,207 SF./250 = 25 SPACES

RESTAURANT (246 SEATS) = 1 SPACE PER 2 SEATS INDOOR = 246 SEATS/2 = 123 SPACES

OFFICE (13,414 SF.) = 1 SPACE PER 300 SF. = 13,414 SF./300 = 45 SPACES

PROPOSED BUILDING
RETAIL (2,462 SF.) = 1 SPACE PER 250 SF. = 2,462 SF./250 = 10 SPACES

RESTAURANT (50 SEATS) = 1 SPACE PER 2 SEATS = 50 SEATS/2 = 25 SPACES

STUDIO & 1 BED APARTMENTS = 1 SPACE PER STUDIO & 1 BED = 1 x 52 STUDIOS & 1 BED = 52 SPACES

2 BED & PENTHOUSE APARTMENTS = 2 SPACES PER 2 BED & PENTHOUSE = 2 x 19 2 BED & PENTHOUSE = 38 SPACES

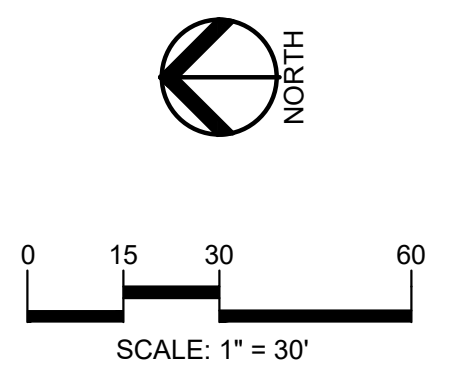
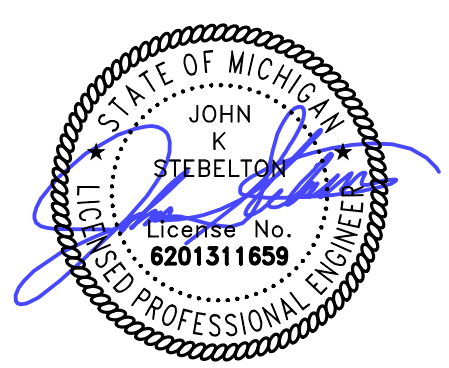
TOTAL REQUIRED PARKING = 318 SPACES

TOTAL PROPOSED PARKING SPACES = 279 INC. 16 H/C SPACES

REFER TO SHARED PARKING STUDY COMPLETED BY TETRA TECH TO SUPPORT THE REDUCTION IN REQUIRED PARKING.

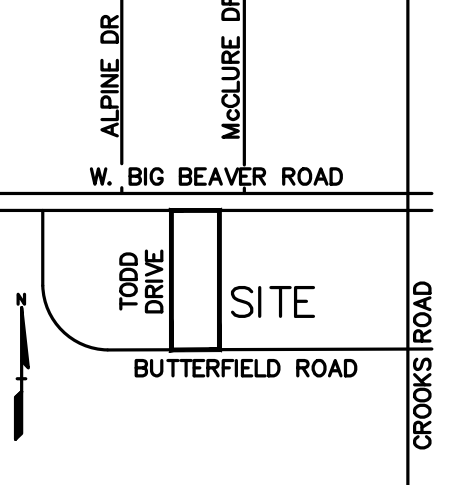
SITE SOILS INFORMATION:
ACQUENTS, SANDY, LOAMY, UNDULATING
SELFRIGE LOAMY SAND

PEA GROUP
t: 844.813.2949
www.peagroup.com



811 Know what's below. Call before you dig.

CAUTION!!
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.



CLIENT
ENCORE DEVELOPMENT
1787 WEST BIG BEAVER
TROY, MICHIGAN 48064

PROJECT TITLE
ELEVATE TROY MIXED USE DEVELOPMENT
BIG BEAVER ROAD
CITY OF TROY, MICHIGAN

REVISIONS

NO.	DATE	DESCRIPTION

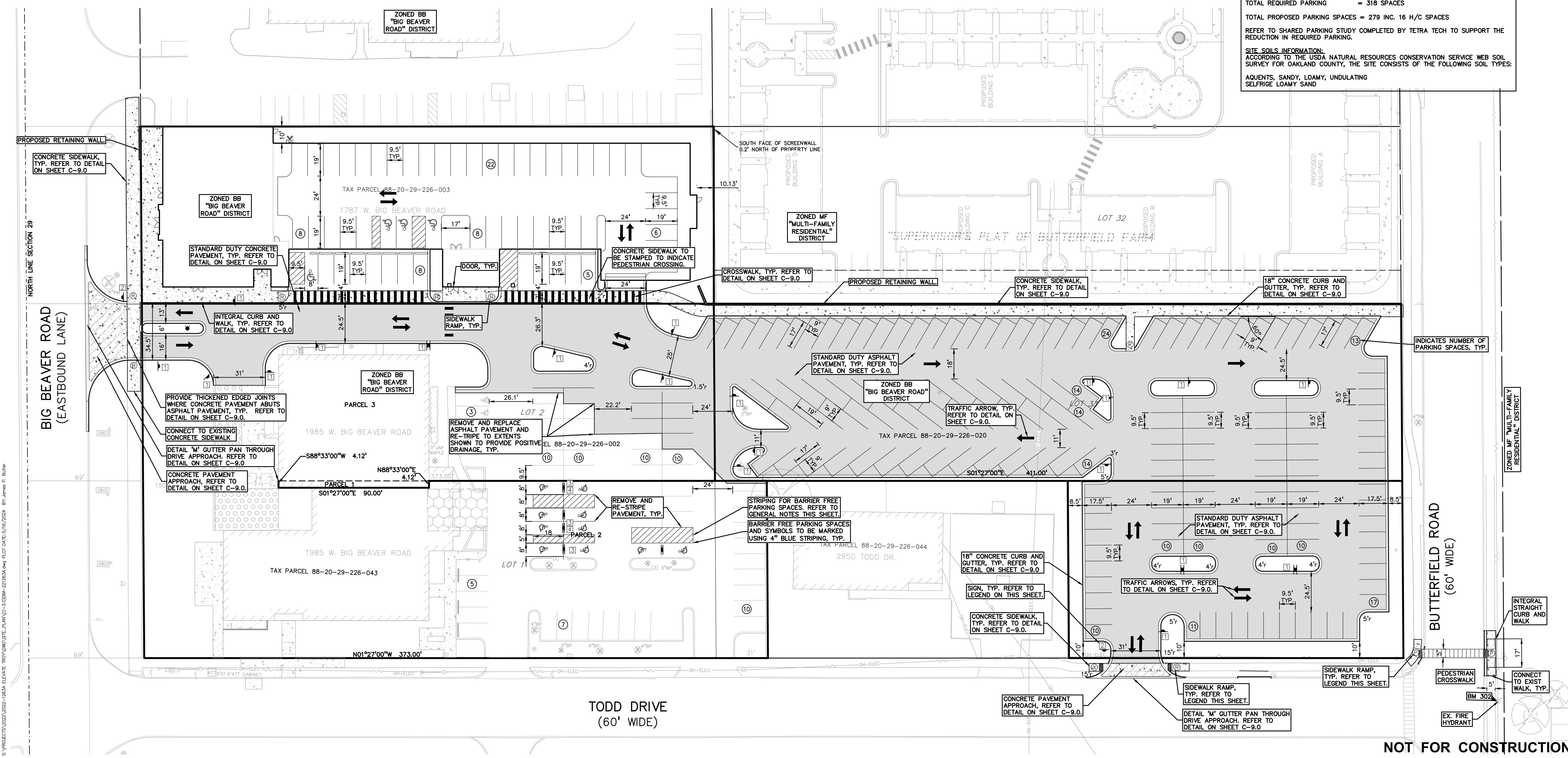
ORIGINAL ISSUE DATE:
MAY 13, 2024

DRAWING TITLE
PRELIMINARY SITE PLAN

PEA JOB NO. 2022-1263
P.M. JPB
DN. JKS
DES. JKS

DRAWING NUMBER:

C-3.0



TODD DRIVE
(60' WIDE)

NOT FOR CONSTRUCTION

S:\PROJECTS\2022-1263-1264_ELEVATE_TROY\MIXED_USE_PLAN\C-3.000-220630.dwg PLOT DATE: 5/16/2024 BY: JAMES P. BULLER

ULI TO CITY OF TROY

PARKING RATE

**CONVERSION
SPREADSHEET**

CONVERSION WORKSHEET, ULI DEFAULT PARKING RATES TO CITY OF TROY ORDINANCE PARKING REQUIREMENTS

Land Use	Weekday			Weekend			Unit
	Visitor	Employee	Total	Visitor	Employee	Total	
Retail							
Retail (<400 ksf)	3.20	0.80	4.00	3.20	0.80	4.00	ksf
Discount Stores/Superstores	3.40	0.85	4.25	3.80	0.95	4.75	ksf
Home Improvement Stores/Garden	3.10	0.80	3.90	3.45	0.90	4.35	ksf
Food and Beverage							
Fine/Casual Dining	0.43	0.07	0.50	0.43	0.07	0.50	seats
Family Restaurant	15.25	2.15	17.40	15.00	2.10	17.10	seats
Fast Casual/Fast Food	12.30	1.99	14.29	12.34	1.95	14.29	seats
Bar/Lounge/Night Club	15.25	1.25	16.50	17.50	1.50	19.00	ksf
Hotel and Residential							
Convention (100 to 200 sq ft/key)	0.00	0.00	0.00	5.50	0.00	5.50	kfs
Convention (> 200 sq ft/key)	5.50	0.50	6.00	5.50	0.50	6.00	ksf
Residential, Suburban							
Studio Efficiency	0.00	1.00	1.00	0.00	1.00	1.00	units
1 Bedroom	0.00	1.00	1.00	0.00	1.00	1.00	units
2 Bedrooms	0.00	2.00	2.00	0.00	2.00	2.00	units
3+ Bedrooms	0.10	2.50	2.60	0.15	2.50	2.65	units
3+ Bedrooms	0.10	2.50	2.60	0.15	2.50	2.65	units
Active Senior Housing	0.55	0.30	0.85	0.42	0.30	0.72	units
Office							
Office <25 ksf	0.26	3.07	3.33	0.26	3.07	3.33	ksf
Office 25 to 100 ksf	0.32	3.62	3.93	0.03	0.36	0.39	ksf
Office =100 ksf	0.25	3.15	3.40	0.03	0.32	0.35	ksf
Office 100 to 500 ksf	0.26	3.29	3.55	0.03	0.33	0.36	ksf
Office >500 ksf	0.20	2.60	2.80	0.02	0.26	0.28	ksf
Open Plan/High Density Office	0.25	5.75	6.00	0.03	0.58	0.61	ksf
Medical/Dental Office	3.00	1.60	4.60	0.00	0.00	0.00	ksf
Day Care Center	1.75	2.00	3.75	0.00	0.00	0.00	ksf
Bank (Drive In Branch)	3.50	2.50	6.00	3.00	1.75	4.75	ksf

4 spaces per ksf = 1 space per 250 sf; Used same ratio for Weekday as provided for Weekend

ULI Rates based on KSF						Ratios of ULI Rates of Visitors and Employees						Converting ULI ksf Ratios to Troy Seating					
Weekday			Weekend			Weekday			Weekend			Weekday			Weekend		
Visitor	Employee	Total	Visitor	Employee	Total	Visitor	Employee	Total	Visitor	Employee	Total	Visitor	Employee	Total	Visitor	Employee	Total
13.25	2.25	15.50	15.25	2.50	17.75	0.854839	0.145161	1.000000	0.859155	0.140845	1.000000	0.43	0.07	0.500000	0.43	0.07	0.500000
15.25	2.15	17.40	15.00	2.10	17.10	0.876437	0.123563	1.000000	0.877193	0.122807	1.000000	0.44	0.06	0.500000	0.44	0.06	0.500000
12.40	2.00	14.40	12.70	2.00	14.70	0.861111	0.138889	1.000000	0.863946	0.136054	1.000000	12.3	1.99	14.29000	12.34	1.95	14.29000
14.28571 = 1000/70																	

ULI Rates based on Units						Ratios of ULI Rates of Visitors and Employees						Converting ULI Ratios to Troy					
Weekday			Weekend			Weekday			Weekend			Weekday			Weekend		
Visitor	Employee	Total	Visitor	Employee	Total	Visitor	Employee	Total	Visitor	Employee	Total	Visitor	Employee	Total	Visitor	Employee	Total
0.10	0.85	0.95	0.15	0.85	1.00	0.105263	0.894737	1.000000	0.15	0.85	1.000000	0	1	1.000000	0	1	1.000000
0.10	0.90	1.00	0.15	0.90	1.05	0.1	0.9	1.000000	0.142857	0.857143	1.000000	0	1	1.000000	0	1	1.000000
0.10	1.65	1.75	0.15	1.65	1.80	0.057143	0.942857	1.000000	0.083333	0.916667	1.000000	0	2	2.000000	0	2	2.000000

ULI Rates based on KSF						Ratios of ULI Rates of Visitors and Employees						Converting ULI Ratios to Troy					
Weekday			Weekend			Weekday			Weekend			Weekday			Weekend		
Visitor	Employee	Total	Visitor	Employee	Total	Visitor	Employee	Total	Visitor	Employee	Total	Visitor	Employee	Total	Visitor	Employee	Total
0.30	3.50	3.80	0.03	0.35	0.38	0.078947	0.921053	1.000000	0.078947	0.921053	1.000000	0.26	3.07	3.330000	0.26	3.07	3.330000
3.333333																	

Troy Ordinance
 1 spaces per each efficiency unit
 2 spaces per each dwelling unit

Original revisions based on Troy ordinance requirements
 Additional revisions based on Troy ordinance requirements, May 3, 2024

Overall residential parking ratio: 1.25 spaces per unit

3 efficiency units space 1.2500 Overall ratio
 1 dwelling units spaces
 4

40 efficiency units space 1.24528
 13 dwelling units spaces
 53

**ULI SHARED
PARKING ANALYSIS**

**SPREADSHEETS &
GRAPHS**

Project: 200-620772-24001
 Description: Encore Development Troy

Shared Parking Demand Summary																		
Peak Month: DECEMBER -- Peak Period: 1 PM, WEEKDAY																		
Land Use	Project Data		Weekday					Weekend					Weekday			Weekend		
			Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Peak Hr Adj	Peak Mo Adj	Estimated Parking Demand	Peak Hr Adj	Peak Mo Adj	Estimated Parking Demand
	Quantity	Unit										1 PM	December		12 PM	December		
Retail																		
Retail (<400 ksf)	8,669	sf GLA	3.20	100%	95%	3.04	ksf GLA	3.20	100%	96%	3.07	ksf GLA	100%	100%	27	100%	100%	27
Employee			0.80	100%	99%	0.79		0.80	100%	99%	0.79		100%	100%	7	100%	100%	7
Food and Beverage																		
Fine/Casual Dining	246	seats	0.43	100%	98%	0.42	ksf GLA	0.43	100%	97%	0.42	ksf GLA	75%	100%	78	50%	100%	51
Employee			0.07	100%	99%	0.07		0.07	100%	99%	0.07		90%	100%	16	75%	100%	13
Family Restaurant	50	seats	0.44	100%	98%	0.43	ksf GLA	0.44	100%	97%	0.43	ksf GLA	90%	100%	19	100%	100%	21
Employee			0.06	100%	99%	0.06		0.06	100%	99%	0.06		100%	100%	4	100%	100%	4
Entertainment and Institutions																		
Hotel and Residential																		
Residential, Suburban																0%		
Studio Efficiency	52	units	0.00	100%	100%	0.00	unit	0.00	100%	100%	0.00	unit	40%	100%	-	68%	100%	-
1 Bedroom		units	0.00	100%	100%	0.00	unit	0.00	100%	100%	0.00	unit	40%	100%	-	68%	100%	-
2 Bedrooms	19	units	0.00	100%	100%	0.00	unit	0.00	100%	100%	0.00	unit	40%	100%	-	68%	100%	-
3+ Bedrooms		units	0.00	100%	100%	0.00	unit	0.00	100%	100%	0.00	unit	40%	100%	-	68%	100%	-
Reserved	100%	res spaces	1.27	100%	100%	1.27	unit	1.27	100%	100%	1.27	unit	100%	100%	90	100%	100%	90
Visitor	71	units	0.10	100%	100%	0.10	unit	0.15	100%	100%	0.15	unit	20%	100%	2	20%	100%	2
Office																		
Office <25 ksf	13,414	sf GFA	0.26	100%	100%	0.26	ksf GFA	0.26	100%	100%	0.26	ksf GFA	45%	100%	2	90%	100%	4
Reserved		empl	0.00	100%	100%	0.00		0.00	100%	100%	0.00		100%	100%	-	100%	100%	-
Employee			3.07	100%	95%	2.93		3.07	100%	95%	2.93		85%	100%	34	90%	100%	36
Additional Land Uses																		
															Customer/Visitor	127	Customer	105
															Employee/Resident	61	Employee/Resident	60
															Reserved	90	Reserved	90
															Total	278	Total	256

Project: 200-620772-24001
 Description: Encore Development Troy
 Projected Parking Supply: 279

NOTE: Enter project information in the table below. It automatically transfers TOTAL quantities (Col note if you change units for ratio, be sure to change the calculation of maximum spaces)
 Insert supply by zone and type on Zonal Analysis page to calculate surplus/deficits
 See table to calculate local zoning requirements to right.
 Note you can also insert supply by zone and type of space on Zonal Analysis Sheet

Land Use	Quantity	Maximum Parking Demand	
		Weekday	Weekend
Retail			
Retail (<400 ksf) Employee	8,669 sf GLA	28	28
Retail (400 to 600 ksf) Employee	- sf GLA	7	7
Retail (600 ksf to 1,000 ksf) Employee	- sf GLA	0	0
Retail (1,000 ksf to 2,000 ksf) Employee	- sf GLA	0	0
Retail (over 2,000 ksf) Employee	- sf GLA	0	0
Supermarket/Grocery Employee	- sf GLA	0	0
Pharmacy Employee	- sf GLA	0	0
Discount Stores/Superstores Employee	- sf GLA	0	0
Home Improvement Stores/Garden Employee	- sf GLA	0	0
Food and Beverage			
Fine/Casual Dining Employee	246 sf GLA	106	106
Family Restaurant Employee	50 sf GLA	22	22
Fast Casual/Fast Food Employee	- sf GLA	0	0
Bar/Lounge/Night Club Employee	- sf GLA	0	0
Entertainment and Institutions			
Family Entertainment Employee	- sf GLA	0	0
Active Entertainment Employee	- sf GLA	0	0
Amusement Park/Water Park Employee	- sf GLA	0	0
Adult Active Entertainment Employee	- sf GLA	0	0
Cinema Employee	- seats	0	0
Specialty Movie Theatre Employee	- seats	0	0
Live Theater Employee	- seats	0	0
Outdoor Amphitheater Employee	- seats	0	0
Public Park/Destination Open Space Employee	- acre	0	0
Museum/Aquarium Employee	- sf GLA	0	0
Arena Employee	- seats	0	0
Pro Football Stadium Employee	- seats	0	0
Pro Baseball Stadium Employee	- seats	0	0
Health Club Employee	- sf GLA	0	0
Public Library Employee	- sf GLA	0	0
Convention Center Employee	- sf GLA	0	0
Hotel and Residential			
Hotel-Business	- keys	0	0
Hotel-Leisure	- keys	0	0
Hotel Employees	- keys	0	0
Restaurant/Lounge	- sf GLA	0	0
Meeting/Banquet (0 to 20 sq ft/key)	- sf GLA	0	0
Meeting/Banquet (20 to 50 sq ft/key)	- sf GLA	0	0
Meeting/Banquet (50 to 100 sq ft/key)	- sf GLA	0	0
Convention (100 to 200 sq ft/key)	- sf GLA	0	0
Convention (> 200 sq ft/key)	- sf GLA	0	0
Restaurant/Meeting Employees	- sf GLA	0	0
Residential, Suburban			
Studio Efficiency	52 units	0	0
1 Bedroom	- units	0	0
2 Bedrooms	19 units	0	0
3+ Bedrooms	- units	0	0
Reserved	100% res spaces	90	90
Visitor	71 units	8	11
Residential, Urban			
Studio Efficiency	- units	0	0
1 Bedroom	- units	0	0
2 Bedrooms	- units	0	0
3+ Bedrooms	- units	0	0
Reserved	100% res spaces	0	0
Visitor	- units	0	0
Active Senior Housing Residents	- units	0	0
Office			
Office <25 ksf Reserved Employee	13,414 sf GFA weekday only =1, 24/7: 2 42	4 empl 42	4 empl 42
Office 25 to 100 ksf Reserved Employee	- sf GFA weekday only =1, 24/7: 2 0	empl 0	empl 0
Office =100 ksf Reserved Employee	- sf GFA weekday only =1, 24/7: 2 0	empl 0	empl 0
Office 100 to 500 ksf Reserved Employee	- sf GFA weekday only =1, 24/7: 2 0	empl 0	empl 0
Office >500 ksf Reserved Employee	- sf GFA weekday only =1, 24/7: 2 0	empl 0	empl 0
Open Plan/High Density Office Reserved Employee	- sf GFA weekday only =1, 24/7: 2 0	empl 0	empl 0
Medical/Dental Office Employee	- sf GFA	0	0
Day Care Center Employee	- sf GFA	0	0
Bank (Drive In Branch) Employee	- sf GFA	0	0
Additional Land Uses			
Additional Land Use 1 Employee	-	0	0
Additional Land Use 2 Employee	-	0	0
Additional Land Use 3 Employee	-	0	0
Additional Land Use 4 Employee	-	0	0
SUM		329	332

Land Use	Unit	Zone 1		TOTAL	Zone 1
		Quantity of Land U			
Retail					
Retail (<400 ksf) Employee	sf GLA	8,669	8,669	100%	100%
Retail (400 to 600 ksf) Employee	sf GLA	-	-	0%	0%
Retail (600 ksf to 1,000 ksf) Employee	sf GLA	-	-	0%	0%
Retail (1,000 ksf to 2,000 ksf) Employee	sf GLA	-	-	0%	0%
Retail (over 2,000 ksf) Employee	sf GLA	-	-	0%	0%
Supermarket/Grocery Employee	sf GLA	-	-	0%	0%
Pharmacy Employee	sf GLA	-	-	0%	0%
Discount Stores/Superstores Employee	sf GLA	-	-	0%	0%
Home Improvement Stores/Garden Employee	sf GLA	-	-	0%	0%
Food and Beverage					
Fine/Casual Dining Employee	sf GLA	246	246	100%	100%
Family Restaurant Employee	sf GLA	50	50	100%	100%
Fast Casual/Fast Food Employee	sf GLA	-	-	0%	0%
Bar/Lounge/Night Club Employee	sf GLA	-	-	0%	0%
Entertainment and Institutions					
Family Entertainment Employee	sf GLA	-	-	0%	0%
Active Entertainment Employee	sf GLA	-	-	0%	0%
Amusement Park/Water Park Employee	sf GLA	-	-	0%	0%
Adult Active Entertainment Employee	sf GLA	-	-	0%	0%
Cinema Employee	seats	-	-	0%	0%
Specialty Movie Theatre Employee	seats	-	-	0%	0%
Live Theater Employee	seats	-	-	0%	0%
Outdoor Amphitheater Employee	seats	-	-	0%	0%
Public Park/Destination Open Space Employee	acre	-	-	0%	0%
Museum/Aquarium Employee	sf GLA	-	-	0%	0%
Arena Employee	seats	-	-	0%	0%
Pro Football Stadium Employee	seats	-	-	0%	0%
Pro Baseball Stadium Employee	seats	-	-	0%	0%
Health Club Employee	sf GLA	-	-	0%	0%
Public Library Employee	sf GLA	-	-	0%	0%
Convention Center Employee	sf GLA	-	-	0%	0%
Hotel and Residential					
Hotel-Business	keys	-	-	0%	0%
Hotel-Leisure	keys	-	-	0%	0%
Hotel Employees	keys	-	-	0%	0%
Restaurant/Lounge	sf GLA	-	-	0%	0%
Meeting/Banquet (0 to 20 sq ft/key)	sf GLA	-	-	0%	0%
Meeting/Banquet (20 to 50 sq ft/key)	sf GLA	-	-	0%	0%
Meeting/Banquet (50 to 100 sq ft/key)	sf GLA	-	-	0%	0%
Convention (100 to 200 sq ft/key)	sf GLA	-	-	0%	0%
Convention (> 200 sq ft/key)	sf GLA	-	-	0%	0%
Restaurant/Meeting Employees	sf GLA	-	-	0%	0%
Residential, Suburban					
Studio Efficiency	units	52	52	100%	100%
1 Bedroom	units	-	-	0%	0%
2 Bedrooms	units	19	19	100%	100%
3+ Bedrooms	units	-	-	0%	0%
Reserved	units	71	71	100%	100%
Visitor	units	71	71	100%	100%
Residential, Urban					
Studio Efficiency	units	-	-	0%	0%
1 Bedroom	units	-	-	0%	0%
2 Bedrooms	units	-	-	0%	0%
3+ Bedrooms	units	-	-	0%	0%
Reserved	units	-	-	0%	0%
Visitor	units	-	-	0%	0%
Active Senior Housing Residents	units	-	-	0%	0%
Office					
Office <25 ksf Reserved Employee	sf GFA empl Employee	13,414 empl 42	13,414 empl 42	100% 100%	100% 100%
Office 25 to 100 ksf Reserved Employee	sf GFA empl Employee	- empl 0	- empl 0	0% 0%	0% 0%
Office =100 ksf Reserved Employee	sf GFA empl Employee	- empl 0	- empl 0	0% 0%	0% 0%
Office 100 to 500 ksf Reserved Employee	sf GFA empl Employee	- empl 0	- empl 0	0% 0%	0% 0%
Office >500 ksf Reserved Employee	sf GFA empl Employee	- empl 0	- empl 0	0% 0%	0% 0%
Open Plan/High Density Office Reserved Employee	sf GFA empl Employee	- empl 0	- empl 0	0% 0%	0% 0%
Medical/Dental Office Employee	sf GFA Employee	- 0	- 0	0% 0%	0% 0%
Day Care Center Employee	sf GFA Employee	- 0	- 0	0% 0%	0% 0%
Bank (Drive In Branch) Employee	sf GFA Employee	- 0	- 0	0% 0%	0% 0%
Additional Land Uses					
Additional Land Use 1 Employee	- Employee	- 0	- 0	0% 0%	0% 0%
Additional Land Use 2 Employee	- Employee	- 0	- 0	0% 0%	0% 0%
Additional Land Use 3 Employee	- Employee	- 0	- 0	0% 0%	0% 0%
Additional Land Use 4 Employee	- Employee	- 0	- 0	0% 0%	0% 0%

Land Use	Quantity	Parking Ratio	Unit for ratio	Maximum Spaces	Permitted Adjustment	Required Spaces	Shared Parking 3rd Edition			
							At Base Ratio	With Driving & Captive	Weekday	Weekend
Retail/Dining/Entertainment										
Retail (<400 ksf) Employee	8,669 sf GLA	4 ksf GLA	35	100%	35	28	27	27	27	27
Retail (400 to 600 ksf) Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Retail (600 ksf to 1,000 ksf) Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Retail (1,000 ksf to 2,000 ksf) Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Retail (over 2,000 ksf) Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Supermarket/Grocery Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Pharmacy Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Discount Stores/Superstores Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Home Improvement Stores/Garden Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Food and Beverage										
Fine/Casual Dining Employee	246 Seats	0.5 seat	123	100%	123	106	0	78	51	18
Family Restaurant Employee	50 sf GLA	0.5 seat	1	100%	1	22	0	19	23	4
Fast Casual/Fast Food Employee	0 sf GLA	14.286 ksf GLA	0	100%	0	0	0	0	0	0
Bar/Lounge/Night Club Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Entertainment and Institutions										
Family Entertainment Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Active Entertainment Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Amusement Park/Water Park Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Adult Active Entertainment Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Cinema Employee	0 seats	seat	0	100%	0	0	0	0	0	0
Specialty Movie Theatre Employee	0 seats	seat	0	100%	0	0	0	0	0	0
Live Theater Employee	0 seats	seat	0	100%	0	0	0	0	0	0
Outdoor Amphitheater Employee	0 seats	seat	0	100%	0	0	0	0	0	0
Public Park/Destination Open Space Employee	0 acre	seat	0	100%	0	0	0	0	0	0
Museum/Aquarium Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Arena Employee	0 seats	seat	0	100%	0	0	0	0	0	0
Pro Football Stadium Employee	0 seats	seat	0	100%	0	0	0	0	0	0
Pro Baseball Stadium Employee	0 seats	seat	0	100%	0	0	0	0	0	0
Health Club Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Public Library Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Convention Center Employee	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Hotel and Residential										
Hotel-Business	0 keys	key	0	100%	0	0	0	0	0	0
Hotel-Leisure	0 keys	key	0	100%	0	0	0	0	0	0
Hotel Employees	0 keys	key	0	100%	0	0	0	0	0	0
Restaurant/Lounge	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Meeting/Banquet (0 to 20 sq ft/key)	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Meeting/Banquet (20 to 50 sq ft/key)	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Meeting/Banquet (50 to 100 sq ft/key)	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Convention (100 to 200 sq ft/key)	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Convention (> 200 sq ft/key)	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Restaurant/Meeting Employees	0 sf GLA	ksf GLA	0	100%	0	0	0	0	0	0
Residential, Suburban										
Studio Efficiency	52 units	1 unit	52	100%	52	0	0	0	0	0
1 Bedroom	0 units	unit	0	100%	0	0	0	0	0	0
2 Bedrooms	19 units	2 unit	38	100%	38	0	0	0	0	0
3+ Bedrooms	0 units	unit	0	100%	0	0	0			

Project: 200-620772-24001
Description: Encore Development Troy

Monthly Comparison Summary								
Month	Weekday							
	Overall Pk		AM Peak Hr		PM Peak Hr		Eve Peak Hr	
	Time	Demand	Time	Demand	Time	Demand	Time	Demand
January	12 PM	254	11 AM	223	12 PM	254	7 PM	231
February	12 PM	254	11 AM	223	12 PM	254	7 PM	230
March	12 PM	268	11 AM	232	12 PM	268	7 PM	244
April	12 PM	263	11 AM	229	12 PM	263	7 PM	239
May	12 PM	269	11 AM	233	12 PM	269	7 PM	245
June	12 PM	265	11 AM	231	12 PM	265	7 PM	241
July	12 PM	264	11 AM	229	12 PM	264	7 PM	241
August	12 PM	265	11 AM	230	12 PM	230	7 PM	242
September	12 PM	257	11 AM	226	12 PM	257	7 PM	234
October	12 PM	262	11 AM	229	12 PM	262	7 PM	238
November	12 PM	261	11 AM	229	12 PM	261	7 PM	237
December	1 PM	278	11 AM	241	1 PM	278	7 PM	257
Late December	1 PM	262	11 AM	224	1 PM	262	7 PM	239

Monthly Comparison Summary								
Month	Weekend							
	Overall Pk		AM Peak Hr		PM Peak Hr		Eve Peak Hr	
	Time	Demand	Time	Demand	Time	Demand	Time	Demand
January	12 PM	233	11 AM	203	12 PM	233	8 PM	224
February	12 PM	233	11 AM	203	12 PM	233	8 PM	223
March	12 PM	244	11 AM	210	12 PM	244	8 PM	237
April	12 PM	240	11 AM	207	12 PM	240	8 PM	232
May	12 PM	245	11 AM	210	12 PM	245	8 PM	238
June	12 PM	242	11 AM	209	12 PM	242	8 PM	233
July	12 PM	240	11 AM	207	12 PM	240	8 PM	234
August	12 PM	241	11 AM	207	12 PM	241	8 PM	234
September	12 PM	236	11 AM	205	12 PM	236	8 PM	226
October	12 PM	240	11 AM	207	12 PM	240	8 PM	231
November	12 PM	239	11 AM	209	12 PM	239	8 PM	229
December	12 PM	256	11 AM	218	12 PM	256	8 PM	242
Late December	1 PM	237	11 AM	198	1 PM	237	8 PM	234

Project: 200-620772-24001

Description: Encore Development Troy

Distribution of Weekday Demand by Zone									
Land Use	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Total
Retail									
Retail (<400 ksf)	27	0	0	0	0	0	0	0	27
Employee	7	0	0	0	0	0	0	0	7
Food and Beverage									
Fine/Casual Dining	78	0	0	0	0	0	0	0	78
Employee	16	0	0	0	0	0	0	0	16
Fast Casual/Fast Food	0	0	0	0	0	0	0	0	0
Employee	0	0	0	0	0	0	0	0	0
Entertainment and Institutions									
Hotel and Residential									
Residential, Suburban									
Studio Efficiency	0	0	0	0	0	0	0	0	0
1 Bedroom	0	0	0	0	0	0	0	0	0
2 Bedrooms	0	0	0	0	0	0	0	0	0
3+ Bedrooms	0	0	0	0	0	0	0	0	0
Reserved	90	0	0	0	0	0	0	0	90
Visitor	2	0	0	0	0	0	0	0	2
Office									
Office <25 ksf	2	0	0	0	0	0	0	0	2
Reserved	0	0	0	0	0	0	0	0	0
Employee	34	0	0	0	0	0	0	0	34
Additional Land Uses									

Distribution of Weekend Demand			
Land Use	Zone 1	Zone 2	Zone 3
Retail			
Retail (<400 ksf)	27	0	0
Employee	7	0	0
Food and Beverage			
Fine/Casual Dining	51	0	0
Employee	13	0	0
Fast Casual/Fast Food	0	0	0
Employee	0	0	0
Entertainment and Institutions			
Hotel and Residential			
Residential, Suburban			
Studio Efficiency	0	0	0
1 Bedroom	0	0	0
2 Bedrooms	0	0	0
3+ Bedrooms	0	0	0
Reserved	90	0	0
Visitor	2	0	0
Office			
Office <25 ksf	4	0	0
Reserved	0	0	0
Employee	36	0	0
Additional Land Uses			

Project: 200-620772-24001
 Description: Encore Development Troy

Projected Parking Supply: 279

Land Use	Driving Adjustments			
	Weekday		Weekend	
	Daytime	Evening	Daytime	Evening
Retail				
Retail (<400 ksf)	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Retail (400 to 600 ksf)	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Retail (600 ksf to 1,000 ksf)	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Retail (1,000 ksf to 2,000 ksf)	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Retail (over 2,000 ksf)	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Supermarket/Grocery	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Pharmacy	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Discount Stores/Superstores	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Home Improvement Stores/Garden	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Food and Beverage				
Fine/Casual Dining	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Family Restaurant	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Fast Casual/Fast Food	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Bar/Lounge/Night Club	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Entertainment and Institutions				
Family Entertainment	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Active Entertainment	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Amusement Park/Water Park	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Adult Active Entertainment	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Cineplex	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Specialty Movie Theatre	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Live Theater	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Outdoor Amphitheater	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Public Park/Destination Open Space	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Museum/Aquarium	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Arena	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Pro Football Stadium	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Pro Baseball Stadium	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Health Club	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Public Library	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Convention Center	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Hotel and Residential				
Hotel-Business	59%	59%	69%	69%
Hotel-Leisure	50%	50%	50%	50%
Hotel Employees	100%	100%	100%	100%
Restaurant/Lounge	63%	63%	54%	54%
Meeting/Banquet (0 to 20 sq ft/key)	68%	68%	68%	68%
Meeting/Banquet (20 to 50 sq ft/key)	68%	68%	68%	68%
Meeting/Banquet (50 to 100 sq ft/key)	68%	68%	68%	68%
Convention (100 to 200 sq ft/key)	68%	68%	68%	68%
Convention (> 200 sq ft/key)	68%	68%	68%	68%
Restaurant/Meeting Employees	100%	100%	100%	100%
Residential, Suburban				
Studio Efficiency	100%	100%	100%	100%
1 Bedroom	100%	100%	100%	100%
2 Bedrooms	100%	100%	100%	100%
3+ Bedrooms	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Visitor	100%	100%	100%	100%
Residential, Urban				
Studio Efficiency	100%	100%	100%	100%
1 Bedroom	100%	100%	100%	100%
2 Bedrooms	100%	100%	100%	100%
3+ Bedrooms	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Visitor	100%	100%	100%	100%
Active Senior Housing	100%	100%	100%	100%
Resident	100%	100%	100%	100%
Office				
Office <25 ksf	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Office 25 to 100 ksf	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Office ~100 ksf	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Office 100 to 500 ksf	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Office >500 ksf	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Open Plan/High Density Office	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Medical/Dental Office	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Day Care Center	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Bank (Drive In Branch)	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Additional Land Uses				
Additional Land Use 1	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Additional Land Use 2	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Additional Land Use 3	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Additional Land Use 4	100%	100%	100%	100%
Employee	100%	100%	100%	100%

Insert default driving adjustment values below. These values estimate the % of Customers/Visitors and Employees/Residents that are parking at the site.
WARNING: The table below may be used to auto-populate the table to the left, the values in which will be used in the model.
 Driving adjustments for customers of retail, dining and supermarket can be different depending upon the use. Driving adjustments for residential visitors could also be different. Check and override in the table at left to ensure project specific accuracy.

	Driving Adjustments Sub-Routine			
	Weekday		Weekend	
	DayTime	Evening	Daytime	Evening
Residents (vehicle ownership)	100%	100%	100%	100%
Service (Non-office) Employees	100%	100%	100%	100%
Office Employees	100%	100%	100%	100%
Retail/Dining & Misc Customers	100%	100%	100%	100%
Entertainment Customers ¹	100%	100%	100%	100%
Event Attendees ²	100%	100%	100%	100%

¹Large venues may have more tour/coach/school bus arrivals

Suggested Driving Ratios per 3rd Edition Shared Parking
 Reduced by 10% as baseline ratios 2020 reflecting TNC use.
LOWER FURTHER FOR TNC USE AS APPROPRIATE

	Second Edition		TNC reduction
	Weekday	Weekend	
Guest Rooms			
Typical business hotel suburban location	59%	69%	
Airport hotel	49%	53%	66% 77% 0.9
Downtown hotel with paid and/or valet pkg	40%	46%	54% 59% 0.9
Resort hotel	50%	50%	
Restaurant/Lounge			
Typical business hotel suburban location	63%	54%	70% 60% 0.9
Airport hotel	72%	72%	80% 80% 0.9
Downtown hotel with paid and/or valet pkg	47%	40%	
Resort hotel	50%	50%	
Meeting/Conference			
Typical business hotel suburban location	68%	68%	75% 75% 0.9
Airport hotel	81%	36%	90% 40% 0.9
Downtown hotel with paid and/or valet pkg	45%	45%	
Resort hotel	50%	50%	

set for suburban

Project: 300-620772-24001
 Description: Encore Development Troy

Projected Parking Supply: 279

Land Use	Captive Ratio Adjustments			
	Weekday		Weekend	
	Daytime	Evening	Daytime	Evening
Retail				
Retail (<400 ksf)	95%	93%	96%	92%
Employee	99%	99%	99%	98%
Retail (400 to 600 ksf)	93%	93%	96%	92%
Employee	99%	99%	99%	98%
Retail (600 ksf to 1,000 ksf)	95%	93%	96%	92%
Employee	99%	99%	99%	98%
Retail (1,000 ksf to 2,000 ksf)	95%	93%	96%	92%
Employee	99%	99%	99%	98%
Retail (over 2,000 ksf)	95%	93%	96%	92%
Employee	99%	99%	99%	98%
Supermarket/Grocery	95%	93%	96%	92%
Employee	99%	99%	99%	98%
Pharmacy	95%	93%	96%	92%
Employee	99%	99%	99%	98%
Discount Stores/Superstores	95%	93%	96%	92%
Employee	99%	99%	99%	98%
Home Improvement Stores/Garden	95%	93%	96%	92%
Employee	99%	99%	99%	98%
Food and Beverage				
Fine/Casual Dining	98%	98%	97%	98%
Employee	99%	99%	99%	98%
Family Restaurant	98%	98%	97%	98%
Employee	99%	99%	99%	98%
Fast Casual/Fast Food	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Bar/Lounge/Night Club	98%	98%	97%	98%
Employee	99%	99%	99%	98%
Entertainment and Institutions				
Family Entertainment	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Active Entertainment	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Amusement Park/Water Park	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Adult Active Entertainment	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Cineplex	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Specialty Movie Theatre	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Live Theatre	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Outdoor Amphitheater	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Public Park/Destination Open Space	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Museum/Aquarium	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Arena	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Pro Football Stadium	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Pro Baseball Stadium	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Health Club	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Public Library	95%	93%	96%	92%
Employee	99%	99%	99%	98%
Convention Center	100%	100%	100%	100%
Employee	99%	99%	99%	98%
Hotel and Residential				
Hotel/Business	100%	100%	100%	100%
Hotel/Lesure	100%	100%	100%	100%
Hotel/Employee	100%	100%	100%	100%
Restaurant/Lounge	90%	90%	90%	90%
Meeting/Banquet (0 to 20 sq ft/Key)	60%	60%	70%	70%
Meeting/Banquet (20 to 50 sq ft/Key)	60%	60%	70%	70%
Meeting/Banquet (50 to 100 sq ft/Key)	60%	60%	70%	70%
Convention (100 to 200 sq ft/Key)	60%	60%	70%	70%
Convention (> 200 sq ft/Key)	60%	60%	70%	70%
Restaurant/Meeting Employees	100%	100%	100%	100%
Residential, Suburban				
Studio Efficiency	100%	100%	100%	100%
1 Bedroom	100%	100%	100%	100%
2 Bedrooms	100%	100%	100%	100%
3+ Bedrooms	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Visitor	100%	100%	100%	100%
Residential, Urban				
Studio Efficiency	100%	100%	100%	100%
1 Bedroom	100%	100%	100%	100%
2 Bedrooms	100%	100%	100%	100%
3+ Bedrooms	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Visitor	100%	100%	100%	100%
Active Senior Housing	100%	100%	100%	100%
Residents	99%	99%	99%	98%
Office				
Office <25 ksf	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Employee	95%	95%	95%	95%
Office 25 to 100 ksf	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Employee	95%	95%	95%	95%
Office >100 ksf	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Employee	95%	95%	95%	95%
Office 100 to 500 ksf	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Employee	95%	95%	95%	95%
Office >500 ksf	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Employee	95%	95%	95%	95%
Open Plan/High Density Office	100%	100%	100%	100%
Reserved	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Medical/Dental Office	100%	100%	100%	100%
Employee	95%	95%	95%	95%
Day Care Center	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Bank (Drive In Branch)	100%	100%	100%	100%
Employee	95%	95%	95%	95%
Additional Land Uses				
Additional Land Use 1	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Additional Land Use 2	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Additional Land Use 3	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Additional Land Use 4	100%	100%	100%	100%
Employee	100%	100%	100%	100%

WARNING: The percentages below are default values. Check all percentages to ensure project-specific accuracy.

Driver is counted as parked for column K when someone in car goes and visits venue in columns L through S, reducing those venues' parking demand. Hotel must be manually adjusted go to Line 72.

Counted as parked at	Non-Captive Adjustment Sub-Routine									
	To fast food	To dining	To shopping	To health club	To entertainment	To convention ctr	To events	To bank	To Medical Office	To work Office
% Retail Customers who go	5%	0%	0%	0%	2%	0%	0%	0%	0%	0%
% Dining Customers who go	0%	0%	1%	0%	2%	0%	0%	0%	0%	0%
% Entertainment Customers who go to	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
% Event Customers who go to	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
% Convention Customers	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%
% Hotel Guests who go	10%	10%	1%	1%	5%	20%	5%	0%	0%	0%
% Hotel Banquet who go	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
% Residents who go	5%	2%	1%	5%	1%	1%	1%	1%	5%	5%
% Service Employees who go	15%	1%	1%	1%	0%	0%	1%	0%	0%	0%
% Professional Employees who go	10%	2%	1%	5%	0%	0%	1%	0%	0%	0%

Captive Entertainment customers due to families splitting up and visiting multiple venues. Car is counted as parked at destination of driver. Public Library uses Retail as captive for Customers.

Unadjusted Parking Demand	Weekday		Weekend	
	Daytime	Evening	Daytime	Evening
Retail Customers	26.0	22.4	28	19.9
Dining Customers	79.8	106	62	100.7
Fast Food Customers	0	0	0	0
Entertainment Customers	0	0	0	0
Event Attendees	0	0	0	0
Health Club Customers	0	0	0	0
Convention Ctr	0	0	0	0
Hotel Guests	0	0	0	0
Hotel Banquet	30	83	58.1	72
Residents	27.2	25	24.5	23.6
Service Employees	19.121911	6.177147	24.708388	0
Medical Office Patients	0	0	0	0
Bank Customers	0	0	0	0
Captive				
Retail Customers	1.21209653	1.52089735	1.18654294	1.485
Dining Customers	1.77443862	1.63354294	1.90917176	1.676
Fast Food Customers	11.1221931	8.637747	10.4708588	8.12
Entertainment Customer	2.49	2.188	2.383	2.126
Event Attendees	0.35	0.63	0.583	0.72
Health Club Customers	3.89209653	3.58389735	4.2829294	3.718
Convention Ctr	0.18	0.315	0.2925	0.36
Service Employees	0.18	0.315	0.2925	0.36
Office Employees	1.8	3.15	2.925	3.6
Medical Office Patients	0.06652193	0.08117747	0.049208388	0.0236
Bank Customers	0.111209653	0.15389735	0.24654294	0.118
Non-Captive Ratio				
Retail Customers	95.1%	93.2%	95.9%	92.4%
Dining Customers	97.8%	98.5%	96.9%	98.3%
Fast Food Customers	100.0%	100.0%	100.0%	100.0%
Entertainment Customers	100.0%	100.0%	100.0%	100.0%
Event Attendees	100.0%	100.0%	100.0%	100.0%
Health Club Customers	100.0%	100.0%	100.0%	100.0%
Convention Ctr	100.0%	100.0%	100.0%	100.0%
Service Employees	99.8%	98.7%	98.8%	98.5%
Office Employees	95.4%	95.4%	95.4%	95.4%
Medical Office Patients	100.0%	100.0%	100.0%	100.0%
Bank Customers	100.0%	100.0%	100.0%	100.0%

Suggested Non-captive adjustments per 3rd Edition Shared Parking

	Weekday	Weekend
Guest Rooms	always	100%
Restaurant/Lounge		100%
Typical business hotel suburban location		90%
Airport hotel		90%
Downtown hotel with paid and/or valet pkg		90%
Resort hotel		90%
Meeting/Conference		70%
Typical business hotel suburban location		60%
Airport hotel		80%
Downtown hotel with paid and/or valet pkg		60%
Resort hotel		25%

Typically little or no adjustment to resident or visitor parking demand

Typically little or no adjustment to office visitor parking demand except in downtown environments

adjust captive ratios appropriately No default is recommended

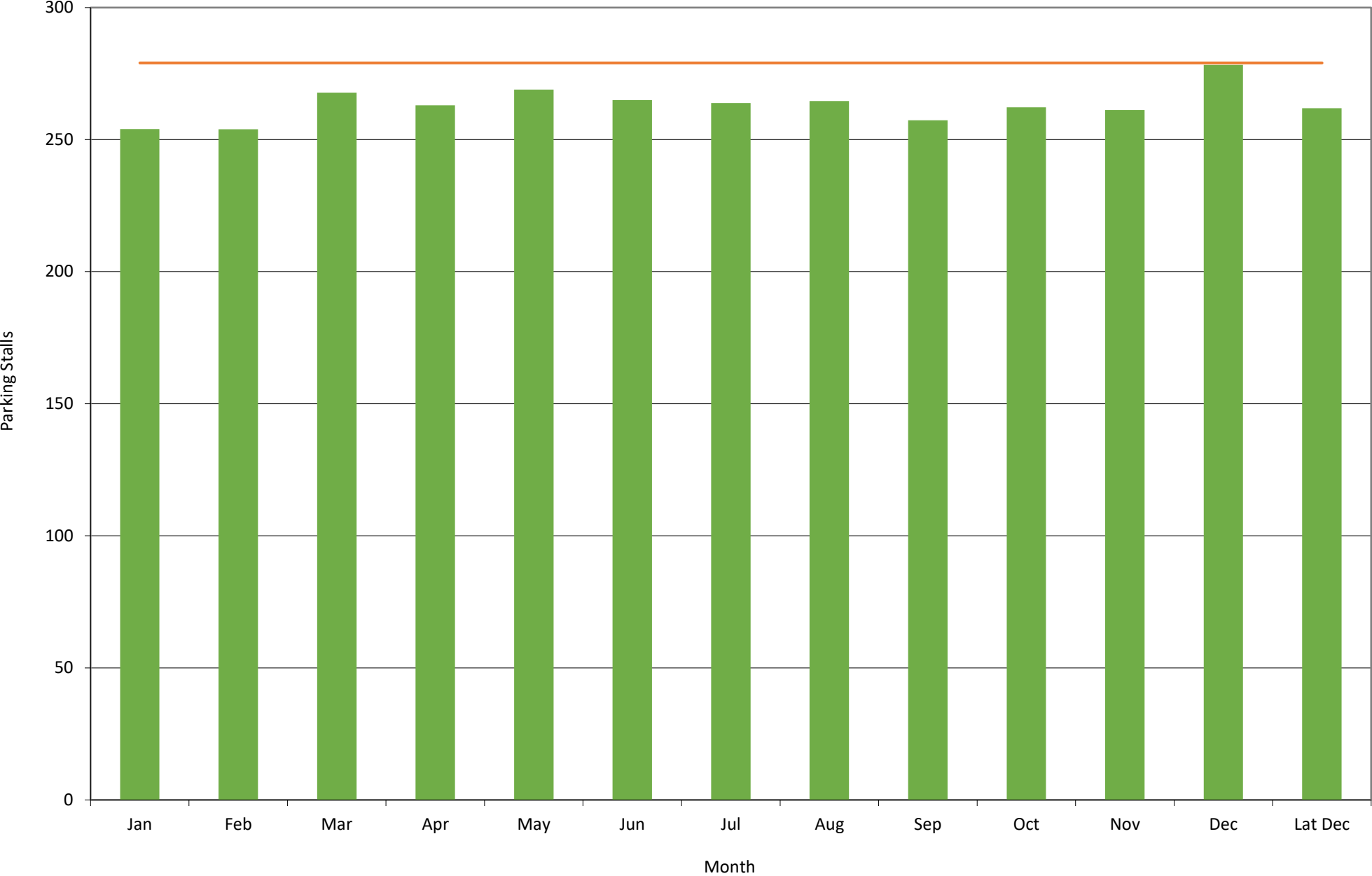
is counted parked at event, no captive to other venues

Adjust % of hotel guests who go to convention center as appropriate for project

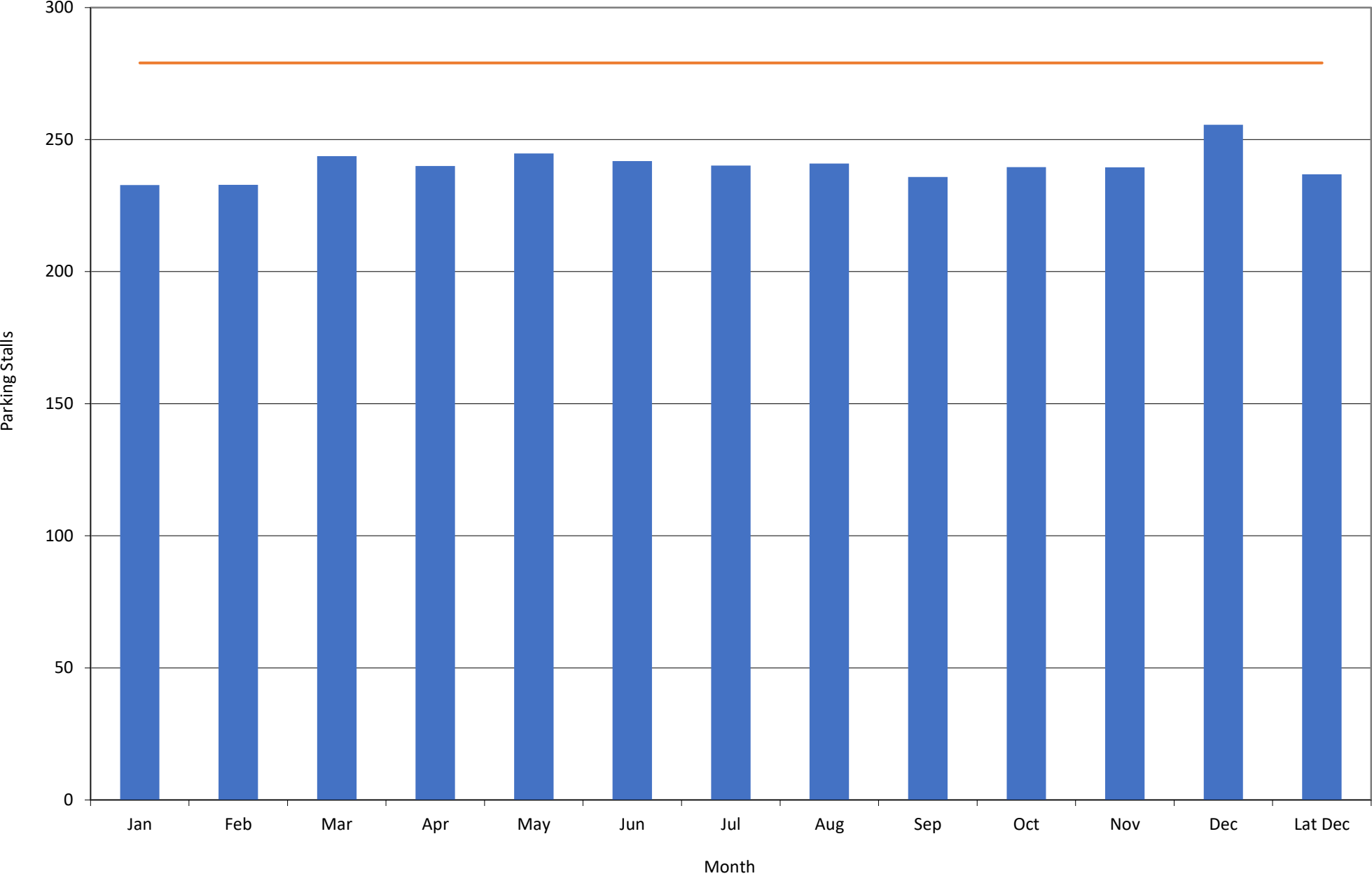
Combined Monthly Adjustments													
Land Use	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Late Dec
Retail													
Retail (<400 ksf)	59%	61%	70%	67%	72%	72%	70%	73%	66%	69%	76%	100%	85%
Employee	69%	71%	79%	77%	82%	82%	80%	83%	76%	78%	86%	100%	95%
Retail (400 to 600 ksf)	59%	61%	70%	67%	72%	72%	70%	73%	66%	69%	76%	100%	85%
Employee	69%	71%	79%	77%	82%	82%	80%	83%	76%	78%	86%	100%	95%
Retail (600 ksf to 1,000 ksf)	59%	61%	70%	67%	72%	72%	70%	73%	66%	69%	76%	100%	85%
Employee	69%	71%	79%	77%	82%	82%	80%	83%	76%	78%	86%	100%	95%
Retail (1,000 ksf to 2,000 ksf)	59%	61%	70%	67%	72%	72%	70%	73%	66%	69%	76%	100%	85%
Employee	69%	71%	79%	77%	82%	82%	80%	83%	76%	78%	86%	100%	95%
Retail (over 2,000 ksf)	59%	61%	70%	67%	72%	72%	70%	73%	66%	69%	76%	100%	85%
Employee	69%	71%	79%	77%	82%	82%	80%	83%	76%	78%	86%	100%	95%
Supermarket/Grocery	93%	86%	94%	92%	97%	94%	96%	95%	92%	95%	95%	100%	95%
Employee	100%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Pharmacy	89%	85%	92%	89%	91%	89%	89%	90%	88%	92%	89%	100%	95%
Employee	99%	95%	100%	99%	100%	99%	98%	99%	98%	100%	98%	100%	100%
Discount Stores/Superstores	72%	72%	79%	76%	81%	79%	79%	81%	74%	79%	85%	100%	90%
Employee	82%	82%	88%	86%	91%	89%	89%	91%	84%	89%	95%	100%	100%
Home Improvement Stores/Garden	63%	62%	79%	90%	100%	92%	87%	84%	80%	85%	80%	75%	65%
Employee	72%	71%	89%	100%	100%	100%	97%	94%	90%	94%	90%	85%	75%
Food and Beverage													
Fine/Casual Dining	88%	87%	98%	94%	99%	94%	96%	96%	89%	93%	89%	100%	95%
Employee	99%	98%	100%	100%	100%	100%	100%	100%	99%	100%	100%	100%	100%
Family Restaurant	88%	87%	98%	94%	99%	94%	96%	96%	89%	93%	89%	100%	95%
Employee	99%	98%	100%	100%	100%	100%	100%	100%	99%	100%	100%	100%	100%
Fast Casual/Fast Food	85%	85%	97%	95%	99%	98%	100%	100%	93%	96%	92%	96%	95%
Employee	96%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Bar/Lounge/Night Club	87%	87%	100%	93%	97%	94%	97%	96%	94%	98%	92%	96%	95%
Employee	95%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Entertainment and Institutions													
Family Entertainment	20%	26%	36%	50%	23%	45%	87%	68%	22%	25%	20%	48%	100%
Employee	50%	50%	50%	60%	50%	55%	97%	78%	50%	50%	50%	58%	100%
Active Entertainment	79%	90%	91%	100%	60%	70%	72%	76%	70%	72%	74%	60%	100%
Employee	89%	100%	100%	100%	70%	80%	82%	86%	80%	82%	84%	70%	100%
Amusement Park/Water Park	79%	90%	91%	100%	60%	70%	72%	76%	70%	72%	74%	60%	100%
Employee	89%	100%	100%	100%	70%	80%	82%	86%	80%	82%	84%	70%	100%
Adult Active Entertainment	85%	86%	95%	92%	96%	95%	98%	99%	91%	96%	93%	100%	95%
Employee	95%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Cineplex	50%	50%	45%	33%	55%	50%	75%	55%	25%	25%	55%	55%	100%
Employee	60%	60%	55%	50%	65%	60%	85%	65%	50%	50%	65%	65%	100%
Specialty Movie Theatre	50%	50%	45%	33%	55%	50%	75%	55%	25%	25%	55%	55%	100%
Employee	60%	60%	55%	50%	65%	60%	85%	65%	50%	50%	65%	65%	100%
Live Theater	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	100%	100%
Employee	75%	70%	90%	100%	95%	90%	85%	80%	75%	85%	90%	85%	100%
Outdoor Amphitheater	0%	0%	0%	10%	100%	100%	100%	100%	100%	50%	10%	10%	0%
Employee	10%	10%	10%	50%	100%	100%	100%	100%	100%	60%	50%	50%	10%
Public Park/Destination Open Space	25%	25%	50%	75%	100%	100%	100%	100%	100%	100%	75%	75%	25%
Employee	50%	50%	60%	85%	100%	100%	100%	100%	100%	100%	85%	85%	50%
Museum/Aquarium	20%	26%	36%	50%	23%	45%	87%	68%	22%	25%	20%	48%	100%
Employee	50%	50%	50%	60%	50%	55%	97%	78%	50%	50%	50%	58%	100%
Arena	90%	100%	100%	100%	100%	75%	0%	0%	60%	65%	90%	100%	95%
Employee	100%	100%	100%	100%	100%	100%	10%	10%	75%	75%	100%	100%	100%
Pro Football Stadium	0%	0%	0%	0%	67%	67%	67%	67%	100%	100%	100%	100%	100%
Employee	10%	10%	10%	10%	10%	10%	10%	10%	100%	10%	10%	100%	80%
Pro Baseball Stadium	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	10%	100%	0%
Employee	10%	10%	25%	90%	100%	100%	100%	100%	100%	100%	10%	100%	10%
Health Club	100%	95%	85%	70%	65%	65%	65%	70%	80%	85%	85%	100%	95%
Employee	100%	100%	95%	80%	75%	75%	75%	80%	90%	95%	95%	100%	0%
Public Library	75%	75%	80%	85%	90%	90%	90%	90%	95%	95%	90%	65%	50%
Employee	85%	85%	85%	90%	95%	95%	90%	95%	100%	100%	95%	65%	45%
Convention Center	75%	100%	90%	55%	60%	50%	45%	75%	80%	85%	100%	100%	0%
Employee	85%	100%	100%	65%	70%	60%	55%	85%	90%	95%	100%	100%	0%
Hotel and Residential													
Hotel-Business	60%	75%	90%	100%	95%	95%	95%	85%	90%	95%	80%	60%	55%
Hotel-Leisure	80%	90%	100%	100%	90%	90%	100%	100%	75%	75%	75%	50%	100%
Hotel Employees	80%	90%	100%	100%	90%	90%	100%	100%	75%	75%	75%	50%	100%
Restaurant/Lounge	85%	86%	95%	92%	96%	95%	98%	99%	91%	96%	93%	100%	95%
Meeting/Banquet (0 to 20 sq ft/key)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Meeting/Banquet (20 to 50 sq ft/key)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Meeting/Banquet (50 to 100 sq ft/key)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Convention (100 to 200 sq ft/key)	75%	100%	90%	55%	60%	50%	45%	75%	80%	85%	100%	100%	0%
Convention (> 200 sq ft/key)	75%	100%	90%	55%	60%	50%	45%	75%	80%	85%	100%	100%	0%
Restaurant/Meeting Employees	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Residential, Suburban	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
Studio Efficiency	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
1 Bedroom	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
2 Bedrooms	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
3+ Bedrooms	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Visitor	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
Residential, Urban	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
Studio Efficiency	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
1 Bedroom	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
2 Bedrooms	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
3+ Bedrooms	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Visitor	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
Active Senior Housing Residents	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Office													
Office <25 ksf	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Employee	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Office 25 to 100 ksf	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Employee	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Office =100 ksf	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Employee	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Office 100 to 500 ksf	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Employee	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Office >500 ksf	100%	100%	100%	100%	10								

Time-of-Day Factors for Weekday Demand																					
Land Use		6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM	
Retail Typical	Visitors	1%	5%	15%	35%	60%	75%	100%	100%	95%	85%	85%	85%	90%	80%	65%	45%	15%	5%	0%	
December	Visitors	1%	5%	15%	30%	55%	75%	90%	100%	100%	95%	80%	85%	90%	90%	85%	50%	30%	10%	0%	
Late December	Visitors	1%	5%	10%	20%	40%	65%	90%	100%	100%	100%	95%	85%	70%	55%	40%	25%	15%	5%	0%	
All	Employees	10%	15%	25%	45%	75%	95%	100%	100%	100%	100%	100%	100%	100%	100%	90%	60%	40%	20%	0%	
Supermarket/Grocery	Visitors	5%	20%	30%	50%	60%	67%	85%	90%	95%	97%	100%	100%	100%	85%	55%	35%	20%	5%	5%	
	Employees	20%	30%	40%	80%	90%	100%	100%	100%	100%	100%	100%	100%	80%	50%	35%	20%	20%	20%	20%	
Pharmacy	Visitors	5%	20%	30%	60%	60%	67%	85%	90%	95%	97%	100%	100%	100%	85%	55%	35%	20%	5%	5%	
	Employees	20%	30%	40%	80%	90%	100%	100%	100%	100%	100%	100%	100%	80%	50%	35%	20%	20%	20%	20%	
Discount Stores/Superstores	Visitors	15%	35%	45%	65%	75%	85%	100%	100%	100%	100%	95%	85%	75%	60%	45%	30%	10%	5%	1%	
	Employees	25%	45%	55%	75%	85%	100%	100%	100%	100%	100%	100%	95%	85%	70%	55%	40%	20%	20%	20%	
Home Improvement Stores/Garden	Visitors	15%	20%	35%	55%	85%	99%	100%	99%	98%	90%	85%	80%	75%	60%	50%	30%	10%	0%	0%	
	Employees	25%	30%	45%	65%	95%	100%	100%	100%	100%	100%	95%	90%	85%	70%	60%	40%	20%	0%	0%	
Fine/Casual Dining	Visitors	0%	0%	0%	0%	15%	40%	75%	75%	65%	40%	50%	75%	95%	100%	100%	95%	75%	25%	25%	
	Employees	0%	20%	50%	75%	90%	90%	90%	90%	90%	75%	75%	100%	100%	100%	100%	100%	100%	85%	35%	
Family Restaurant	Visitors	25%	50%	60%	75%	85%	90%	100%	90%	50%	45%	45%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employees	50%	75%	90%	90%	100%	100%	100%	100%	100%	75%	75%	0%	0%	0%	0%	0%	0%	0%	0%	
Fast Casual/Fast Food	Visitors	5%	10%	20%	30%	55%	85%	100%	100%	90%	60%	55%	60%	85%	80%	50%	30%	20%	10%	5%	
	Employees	20%	20%	30%	40%	75%	100%	100%	100%	95%	70%	60%	70%	90%	90%	60%	40%	30%	20%	20%	
Bar/Lounge/Night Club	Visitors	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	50%	75%	100%	100%	75%	50%	
	Employees	0%	0%	0%	5%	5%	5%	10%	10%	10%	20%	45%	70%	100%	100%	100%	100%	100%	90%	60%	
Family Entertainment	Visitors	0%	0%	0%	0%	45%	65%	85%	95%	100%	95%	90%	70%	60%	45%	0%	0%	0%	0%	0%	
	Employees	0%	0%	5%	25%	75%	100%	100%	100%	100%	100%	100%	80%	70%	55%	10%	5%	5%	5%	5%	
Active Entertainment	Visitors	0%	0%	0%	0%	25%	65%	85%	90%	95%	95%	90%	95%	100%	95%	90%	65%	10%	0%	0%	
	Employees	5%	5%	5%	25%	75%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	75%	10%	5%	5%	
Adult Active Entertainment	Visitors	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	50%	75%	100%	100%	100%	100%	
	Employees	0%	0%	0%	5%	5%	5%	5%	10%	10%	10%	20%	45%	70%	100%	100%	100%	100%	100%	100%	
All Movies Typical	Visitors	0%	0%	0%	0%	0%	0%	20%	45%	55%	55%	55%	60%	60%	80%	100%	100%	80%	65%	40%	
Late December	Visitors	0%	0%	0%	0%	0%	0%	35%	60%	75%	80%	80%	80%	70%	80%	100%	100%	85%	70%	55%	
All	Employees	0%	0%	0%	0%	10%	50%	60%	60%	75%	75%	100%	100%	100%	100%	100%	100%	100%	70%	50%	
Live Theater	Visitors	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	25%	100%	100%	0%	0%	0%	
	Employees	0%	10%	10%	20%	20%	30%	30%	30%	30%	30%	30%	30%	100%	100%	100%	30%	10%	5%	5%	
Outdoor Amphitheater	Visitors	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	25%	100%	100%	0%	0%	0%	
	Employees	0%	10%	10%	20%	20%	30%	30%	30%	30%	30%	30%	30%	100%	100%	100%	30%	10%	5%	5%	
Public Park/Destination Open Space	Visitors	1%	5%	10%	25%	50%	65%	85%	95%	100%	95%	90%	70%	90%	100%	100%	80%	50%	10%	10%	
	Employees	5%	10%	25%	50%	75%	100%	100%	100%	100%	100%	100%	80%	100%	100%	100%	100%	100%	60%	20%	
Museum/Aquarium	Visitors	0%	0%	0%	0%	45%	65%	85%	95%	100%	95%	90%	85%	60%	30%	10%	0%	0%	0%	0%	
	Employees	5%	5%	5%	25%	75%	100%	100%	100%	100%	100%	100%	80%	75%	10%	5%	0%	0%	5%	5%	
Arena	Visitors	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	10%	25%	100%	100%	85%	0%	0%	
No Matinee	Employees	0%	10%	10%	20%	20%	30%	30%	30%	30%	30%	30%	30%	100%	100%	100%	30%	10%	5%	5%	
Pro Football Stadium 8 PM Start	Visitors	0%	0%	0%	1%	1%	1%	5%	5%	5%	5%	5%	10%	50%	100%	100%	85%	25%	0%	0%	
	Employees	0%	10%	10%	20%	20%	30%	30%	30%	30%	30%	30%	30%	100%	100%	100%	100%	25%	10%	10%	
Pro Baseball Stadium	Visitors	0%	0%	0%	1%	1%	1%	5%	5%	5%	5%	5%	10%	50%	100%	100%	85%	25%	0%	0%	
	Employees	0%	0%	0%	5%	5%	5%	5%	5%	5%	5%	5%	10%	50%	100%	100%	100%	100%	100%	100%	
Health Club	Visitors	70%	40%	40%	70%	70%	80%	60%	70%	70%	70%	80%	90%	100%	90%	80%	70%	35%	10%	0%	
	Employees	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%	100%	75%	50%	20%	20%	20%	0%	
Public Library	Visitors	0%	0%	0%	100%	100%	98%	98%	78%	72%	65%	70%	79%	60%	50%	40%	0%	0%	0%	0%	
	Employees	0%	10%	50%	100%	100%	100%	100%	100%	100%	100%	100%	90%	75%	50%	20%	10%	0%	0%	0%	
Day Care Center	Visitors	0%	2%	25%	75%	20%	20%	20%	20%	20%	20%	20%	100%	50%	20%	5%	0%	0%	0%	0%	
	Employees	0%	50%	75%	90%	90%	90%	90%	90%	90%	100%	100%	100%	60%	40%	10%	0%	0%	0%	0%	
Convention Center	Visitors	0%	0%	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	50%	30%	30%	10%	0%	0%	0%	
	Employees	5%	30%	33%	33%	100%	100%	100%	100%	100%	100%	90%	70%	40%	25%	20%	20%	5%	0%	0%	
Hotel-Business	Visitors	95%	90%	80%	70%	60%	60%	55%	60%	60%	65%	70%	75%	75%	80%	85%	95%	100%	100%	100%	
Hotel-Leisure	Visitors	95%	95%	90%	80%	70%	70%	65%	65%	70%	70%	75%	80%	85%	90%	95%	95%	100%	100%	100%	
Employee	Employees	10%	30%	100%	100%	100%	100%	100%	100%	100%	100%	70%	70%	40%	20%	20%	20%	20%	10%	5%	
Restaurant/Lounge	Visitors	0%	10%	30%	10%	5%	10%	5%	100%	33%	10%	10%	30%	55%	60%	70%	67%	60%	40%	30%	
Meeting/Banquet (< 100 sq ft/key)	Visitors	0%	0%	30%	60%	60%	60%	65%	65%	65%	65%	65%	100%	100%	100%	100%	100%	50%	0%	0%	
Convention (> 100 sq ft/key)	Visitors	0%	0%	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	50%	30%	30%	10%	0%	0%	0%	
Employee	Employees	10%	10%	60%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Residential Guest	Visitors	0%	10%	20%	20%	20%	20%	20%	20%	20%	20%	20%	40%	60%	100%	100%	100%	80%	50%	50%	
Resident Reserved	Residents	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Resident Suburban	Residents	95%	80%	67%	55%	50%	45%	40%	40%	40%	40%	45%	50%	60%	70%	80%	85%	95%	97%	100%	
Resident Urban	Residents	95%	85%	75%	65%	60%	55%	50%	50%	50%	55%	60%	65%	70%	75%	80%	85%	95%	97%	100%	
Active Senior Housing	Visitors & Employees	95%	97%	100%	100%	99%	98%	98%	99%	98%	100%	99%	94%	96%	98%	97%	97%	97%	98%	98%	
	Residents	95%	97%	100%	100%	99%	98%	98%	99%	98%	100%	99%	94%	96%	98%	97%	97%	97%	98%	98%	
Office	Visitors	0%	1%	20%	60%	100%	45%	15%	45%	95%	45%	15%	10%	5%	2%	1%	0%	0%	0%	0%	
	Employees Unreserved	3%	15%	50%	90%	100%	85%	85%	95%	95%	85%	60%	25%	15%	5%	3%	1%	0%	0%	0%	
	Employees Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Medical/Dental Office	Visitors	0%	0%	90%	90%	100%	100%	30%	90%	100%	100%	90%	80%	67%	30%	15%	0%	0%	0%	0%	
	Employees	0%	20%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	67%	30%	15%	0%	0%	0%	0%	
Bank (Drive In Branch)	Visitors	0%	0%	50%	90%	100%	50%	50%	50%	70%	50%	80%	100%	0%	0%	0%	0%	0%	0%	0%	
	Employees	0%	0%	60%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	
Additional Land Use 1	Visitors	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employees	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Additional Land Use 2	Visitors	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employees	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Additional Land Use 3	Visitors	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employees	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Additional Land Use 4	Visitors	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employees	0%																			

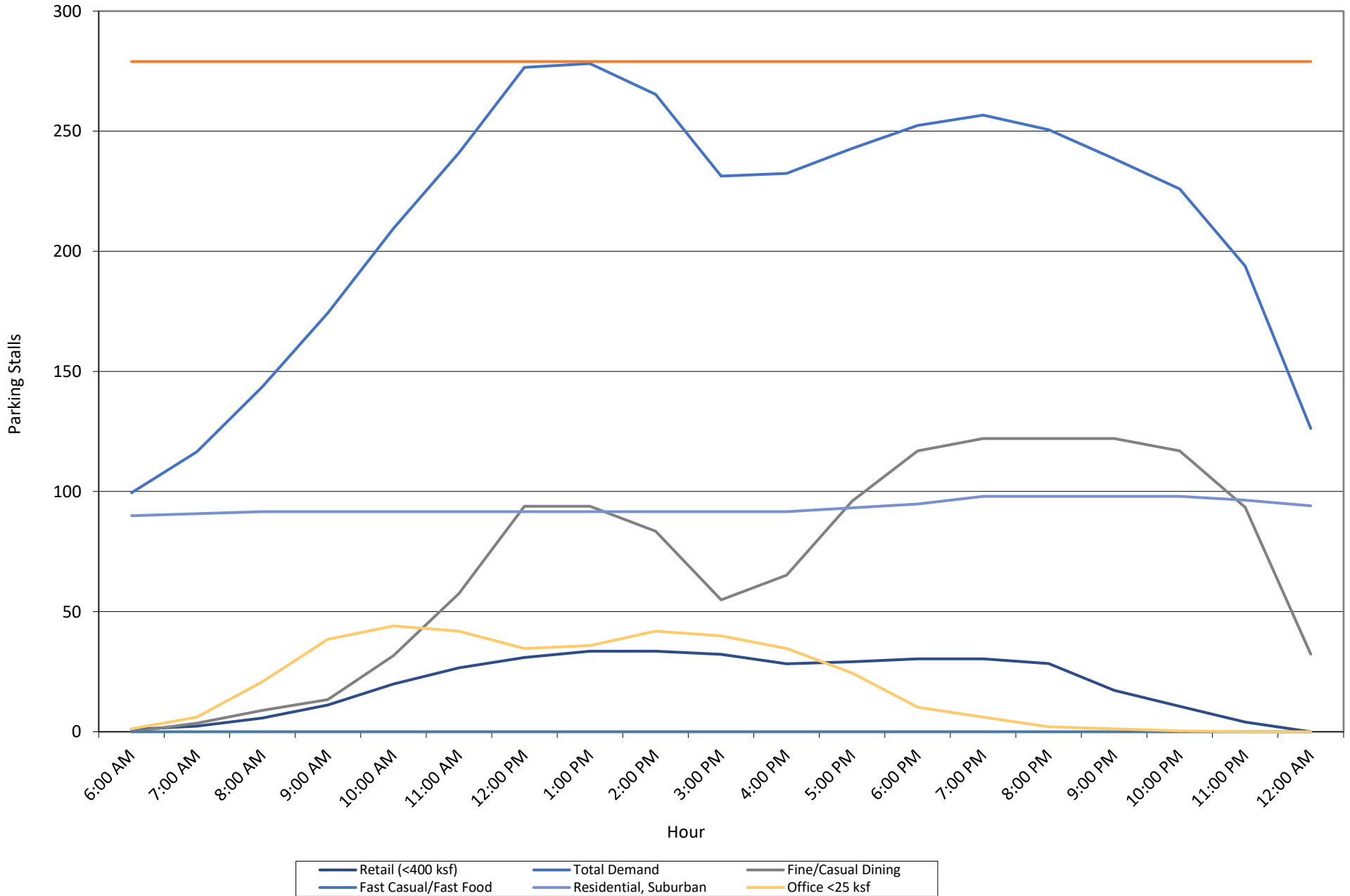
Weekday Month-by-Month Estimated Parking Demand



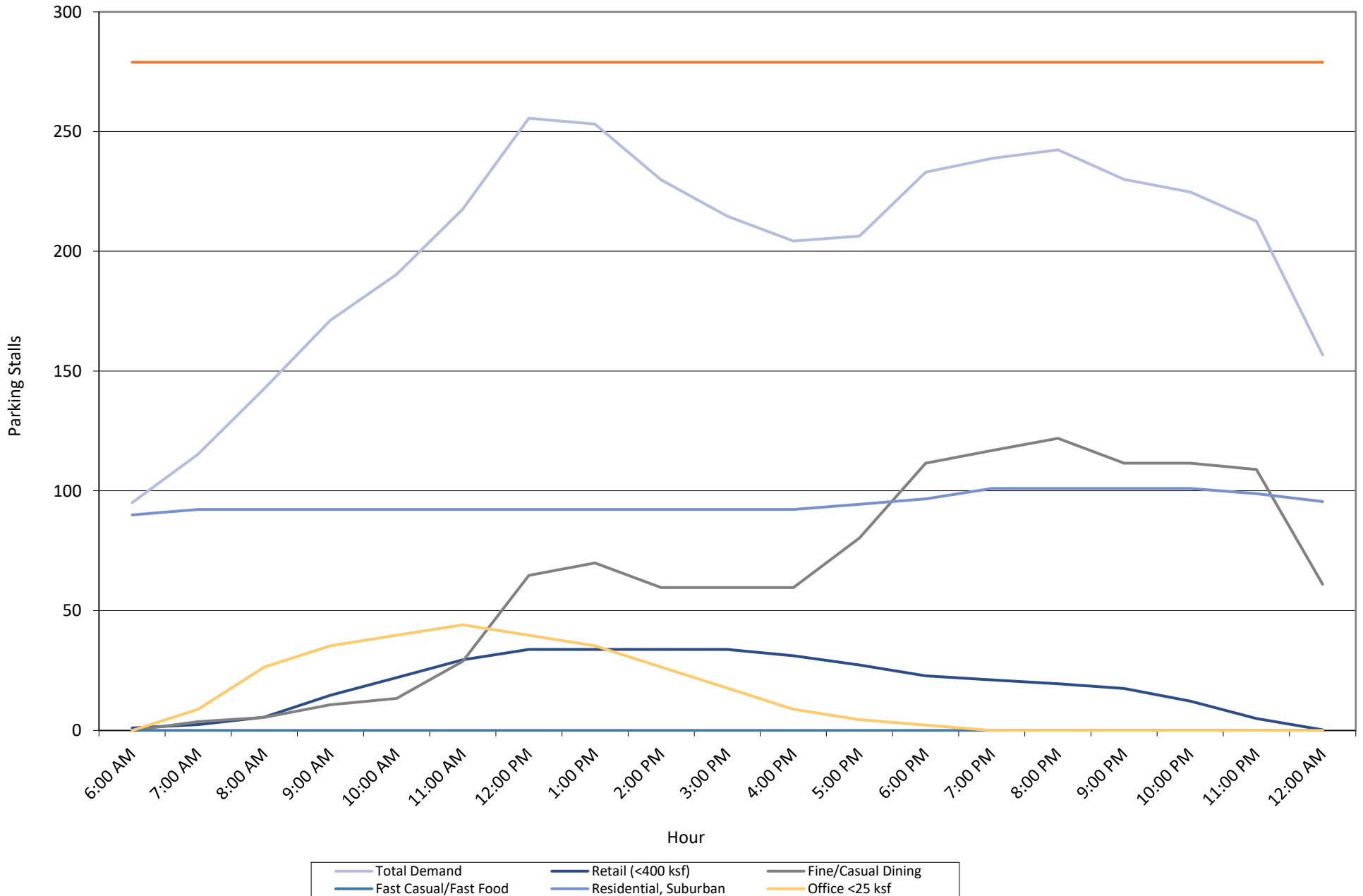
Weekend Month-by-Month Estimated Parking Demand



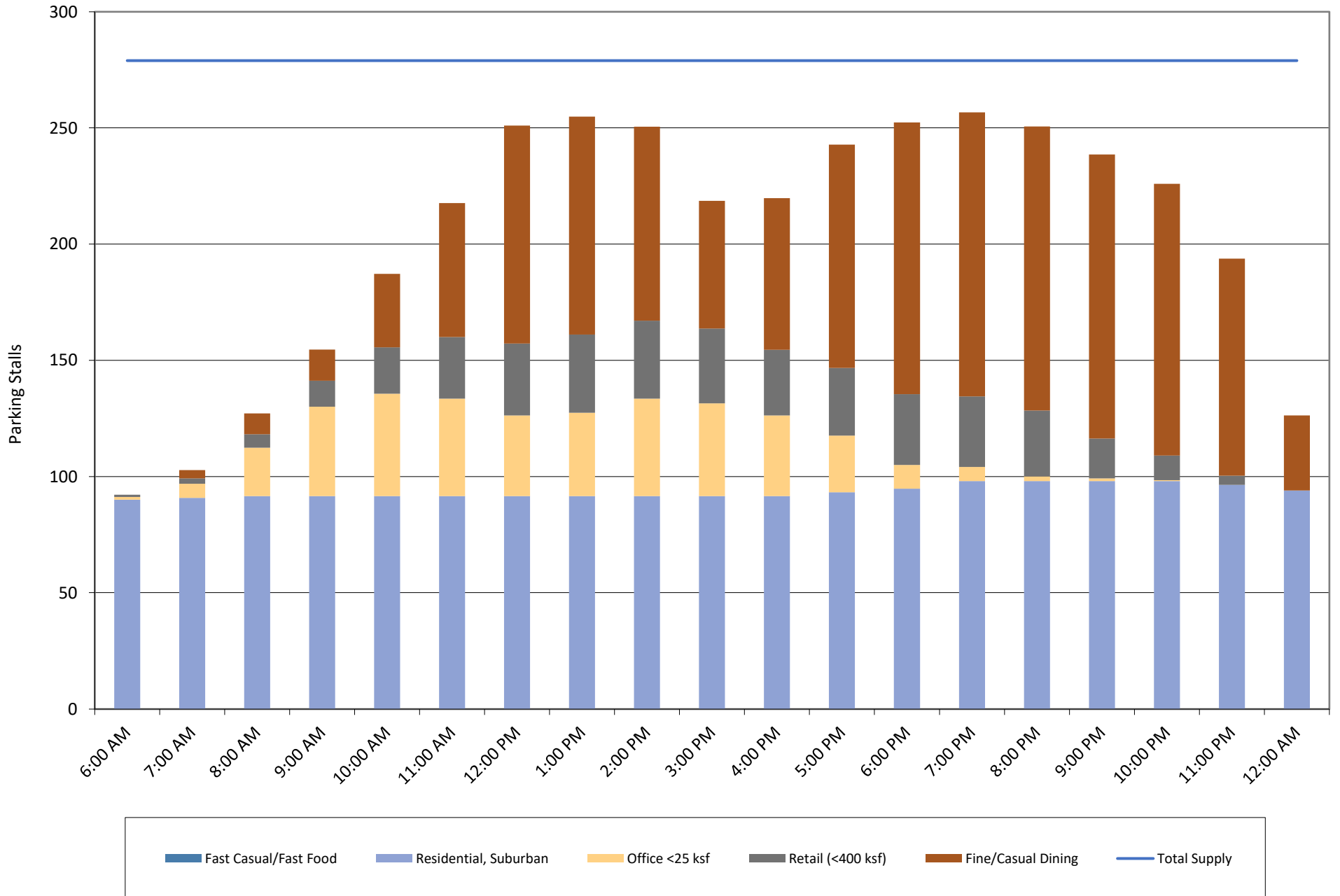
Peak Month Daily Parking Demand by Hour (Weekday)



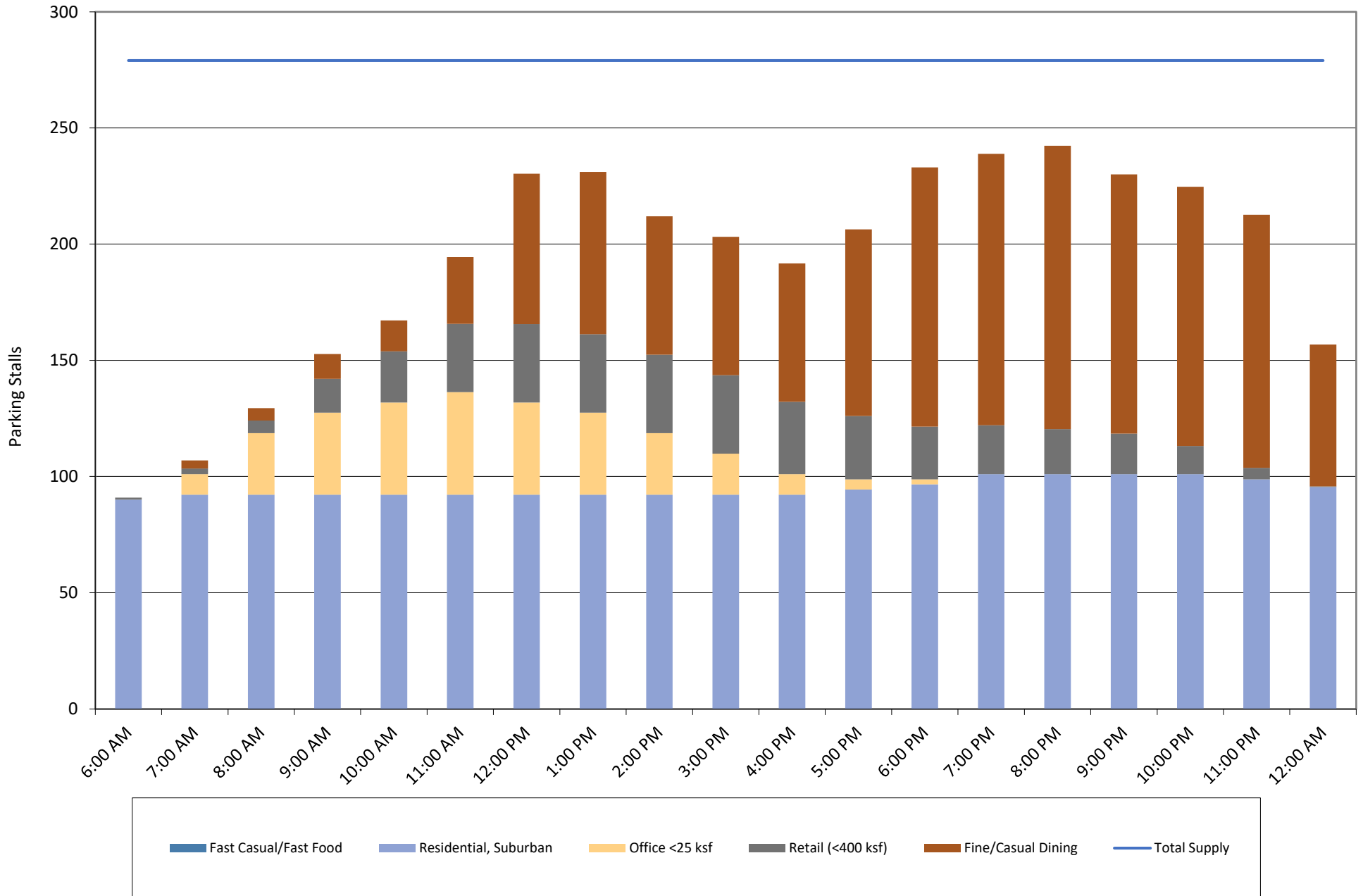
Peak Month Daily Parking Demand by Hour (Weekend)



Peak Month Daily Parking Demand by Hour (Weekday)



Peak Month Daily Parking Demand by Hour (Weekend)



ITEM #8

DATE: November 5, 2024
TO: Planning Commission
FROM: R. Brent Savidant, Community Development Director
SUBJECT: GENERAL BUSINESS – 2025 MEETING SCHEDULE

Near the end of every calendar year, the Planning Commission is asked to approve the Planning Commission meeting schedule for the upcoming year by resolution. The schedule is then added to the City website calendar and posted at City Hall as per the Open Meetings Act.

You will note that only one meeting is proposed for December. The second meeting in December (December 23) is two days before Christmas and it is anticipated that many members may be out of town.

The proposed 2025 Planning Commission Meeting Schedule is attached for your information.

Attachment:

1. Proposed 2025 Planning Commission Meeting Schedule

**CITY OF TROY
MICHIGAN
PUBLIC NOTICE
CITY PLANNING COMMISSION**

In accordance with the provisions of the Michigan State Law, Notice is hereby given that the Planning Commission of the City of Troy will hold Public Meetings in the City Hall, 500 West Big Beaver Road, Troy, Michigan, (248) 524-3364, on the following dates:

2025 PLANNING COMMISSION REGULAR MEETING DATES

January 14 January 28	July 8 July 22
February 11 February 25	August 12 August 26
March 11 March 25	September 9 September 23
April 8 April 22	October 14 October 28
May 13 May 27	November 11 November 25
June 10 June 24	December 9

All meetings are held in City Hall and are open to the public.
The Agenda and City website will reflect any changes in meeting times and/or rooms.

Regular Planning Commission meetings begin at 7:00 p.m. and are held in the Council Board Room. Meetings are subject to be held in the Council Chamber based on anticipated audience capacity.

This notice is hereby posted as required by Section 4 of the Open Meetings Act (MCLA 15.261 et seq.)

R. Brent Savidant, AICP
Community Development Director

Posted:

NOTICE: People with disabilities needing accommodations for effective participation in this meeting should contact the City Clerk by e-mail at clerk@troymi.gov or by calling (248) 524-3316 at least two working days in advance of the meeting. An attempt will be made to make reasonable accommodations.