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## PLANNING COMMISSION MEETING AGENDA REGULAR MEETING

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

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**February 28, 2023**

**7:00 P.M.**

**Council Chambers**

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1. ROLL CALL
2. APPROVAL OF AGENDA
3. APPROVAL OF MINUTES – February 14, 2023
4. PUBLIC COMMENT – For Items Not on the Agenda

### **PRELIMINARY SITE PLAN APPROVAL**

5. PRELIMINARY SITE PLAN REVIEW (File Number SP JPLN2022-0025) – Proposed Lange View Townhouses, Southeast corner of Livernois and Leetonia (4080 Livernois), Section 15, Currently Zoned NN Neighborhood Node (Node “H”) District.

### **OTHER ITEMS**

6. POTENTIAL PLANNED UNIT DEVELOPMENT (PUD) APPLICATION – Concept Plan discussion, East of Livernois, North of Square Lake (PIN 88-20-03-301-088, 88-20-03-301-025, -024, -023), Section 35, Currently Zoned NN (Neighborhood Node “Q”) and R-1B (One Family Residential) Districts.
7. PUBLIC COMMENT – For Items on the Agenda
8. PLANNING COMMISSION COMMENT
9. ADJOURN

**NOTICE:** People with disabilities needing accommodations for effective participation in this meeting should contact the City Clerk by e-mail at [clerk@troymi.gov](mailto: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

Chair Lambert called the Regular meeting of the Troy City Planning Commission to order at 7:00 p.m. on February 14, 2023, in the Council Chamber of the Troy City Hall. Chair Lambert and Vice Chair Perakis presented opening remarks relative to the role of the Planning Commission and procedure of tonight’s meeting.

1. ROLL CALL

Present:

- Toby Buechner (arrived 7:03 p.m.)
- Carlton M. Faison
- Tyler Fox
- Michael W. Hutson
- Tom Krent
- David Lambert
- Marianna Perakis
- John J. Tagle

Absent:

- Lakshmi Malalahalli

Also Present:

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

2. APPROVAL OF AGENDA

Mr. Savidant announced the applicant for Agenda item #6, potential Planned Unit Development application, has asked that the item be removed from the agenda for personal reasons.

**Resolution # PC-2023-02-011**

- Moved by: Fox
- Support by: Krent

**RESOLVED**, To approve the Agenda as amended.

- Yes: Faison, Fox, Hutson, Krent, Lambert, Perakis, Tagle
- Absent: Malalahalli, Buechner (arrived 7:03 p.m.)

**MOTION CARRIED**

3. APPROVAL OF MINUTES – January 24, 2023

Chair Lambert asked that the January 24, 2023 draft minutes be revised as follows:

- Agenda item #7, Planning Commission Annual Report for 2022, page 7, to correct Kelly Services office building is located on Kirts Boulevard, not Crooks.

**Resolution # PC-2023-02-012**

Moved by: Faison

Support by: Fox

**RESOLVED**, To approve the minutes of the January 24, 2023 Regular meeting as revised.

Yes: All present (8)

Absent: Malalahalli

**MOTION CARRIED**

4. **PUBLIC COMMENT** – For Items Not on the Agenda

There was no one present who wished to speak.

**PRELIMINARY SITE PLAN APPROVAL**

5. **PUBLIC HEARING - PRELIMINARY SITE PLAN REVIEW (File Number SP2022-0027)**  
 – Proposed Estates at Eckford (One Family Residential Cluster), South side of Eckford, West of Rochester (Parcels 88-20-15-252-028, -002, -036, -037, -004, -005), Section 15, Currently Zoned R-1C (One Family Residential) District

Mr. Carlisle reviewed the Preliminary Site Plan application for the proposed Estates at Eckford cluster development. He addressed surrounding land uses and zoning, existing wetlands, applicant’s request to seek six (6) additional units above the parallel plan density by providing 35% of open space, preservation of significant area of onsite wetlands and provision of a 10-foot-wide public bike path that would connect with the Daisy Knight Dog Park on Livernois.

Mr. Carlisle asked the Commission to consider the applicant’s request for relief of required setbacks along the southern property line (Lot 26) and required setbacks to accommodate decks on all units. He asked that the applicant indicate building materials and provide a wetland delineation report and a permit review from EGLE (Environment, Great Lakes & Energy).

In summary, Mr. Carlisle said Planning Commission shall determine if requirements are met to qualify for a cluster development option, if required Cluster Standards (Section 10.04.I) have been met and if the additional number of units is commensurate with the open space being preserved.

Discussion among administration and Planning Commission:

- Clarification on proposed relief of required rear and side yard setbacks.
- Maintenance of trail.
- Purpose of T-turnaround (stub street).

Jim Eppink of J Eppink Partners, Inc. was present to represent Mondrian Properties. He addressed:

- Wetland delineation application and permitting review with EGLE.
- Proposed setbacks for Lot 26 and decks on all units; dimensional measurement of setbacks.
- Alternative to provide at-grade patios instead of decks.
- Density, as relates to parallel plan and by-right cluster development.
- Preservation of 35% open space.
- Intent to dedicate trail to the City of Troy.
- Application meets Master Plan intent by offering missing middle housing.
- Sidewalks and trail system through natural area.

There was discussion, some comments related to:

- Flexibility to offer homeowner patio or deck.
- Lot 26, as relates to setbacks and trailhead.
- Sustainable design features; preservation of quality wetlands, utilization of regional stormwater system by three neighborhoods.
- Process/application with EGLE to mitigate wetlands in three small pocket areas.
- Building materials; first floor brick on four sides; above levels brick, stone and/or hardie board.
- Building envelopes as relates to different home styles.
- Configuration of lots as relates to number of driveways on Eckford.
- Paving of entire gravel portion of Eckford; cost sharing among mutual developers.
- Traffic calming options.
- Trail material; asphalt.

Mr. Eppink agreed to provide patios instead of decks to eliminate the request for relief of setback requirements on all 26 units.

#### PUBLIC HEARING OPENED

- Anthony Kapas, 501 Eckford; addressed concerns with increased density, traffic, water problems and destroying beautiful existing neighborhood. He said the City Council and Planning Department are not listening to concerns expressed by residents and said City should be held accountable for their actions.
- Marilena Chis, 585 Thurber; expressed concerns with density, traffic, increase of students in Troy School District, and that green space is being destroyed, not preserved. She questioned perceived benefits of the development.
- Gary Blanck, 655 Thurber; addressed concerns with losing the natural environment, increased traffic especially related to school activity, and asked about woodland buffer.
- Deanna Tabar, 515 Thurber; addressed concerns with safety and privacy of nature trail, decrease in property values.

#### PUBLIC HEARING CLOSED



Mr. Carlisle addressed woodland buffer as relates to distance in feet to residential.

Mr. Eppink addressed the trail as relates to safety, privacy, maintenance and property values.

Mr. Savidant briefly reviewed the City Traffic Consultant OHM memorandum on anticipated traffic impacts that was included in the agenda packet.

Several Board members addressed the benefit for an applicant to utilize the cluster development option so that wetlands and natural resources can be preserved.

**Resolution # PC-2023-02-013**

Moved by: Fox

Seconded by: Faison

**RESOLVED**, The Planning Commission hereby recommends to the City Council that the proposed Estates of Eckford Site Condominium (One Family Residential Cluster), 26 units/lots, South side of Eckford, West of Rochester (Parcels 88-20-15-252-028, -002, -036, -037, -004, -005), Section 15, approximately 7.56 acres in size, Currently Zoned R-1C (One Family Residential) District, be approved for the following reasons:

1. The cluster development better protects the site's natural resources than if the site were not developed as a cluster.
2. The cluster development better protects the adjacent properties than if the site were not developed as a cluster.
3. The cluster development is compatible with adjacent properties.
4. The site can be adequately served with municipal water and sewer.
5. The cluster development preserves 35% open space, to remain open space in perpetuity.

And approved with the following design considerations:

1. That patios only are provided with no option for decks.
2. That unit #26 be afforded flexibility of the 8-foot encroachment in the required perimeter setback.

**Discussion on the motion on the floor.**

Chair Lambert said he loves the trail and preservation of green space but expressed concern with the number of driveways going on Eckford. He said the City has been assured by the school superintendent in a written memorandum that the Troy School District can accommodate additional students. Chair Lambert stated the Planning Commission does not take into consideration tax revenues in its deliberation of proposed developments.

Mr. Buechner said that all Board members live in the City of Troy and that he has lived in two homes located on different trailways in the City. He shared that his family has never experienced any issues with safety, privacy, or lack of trail maintenance.

Mr. Krent said studies show property values increase for homes located on or near public trails and pathways.

Vote on the motion on the floor.

Yes: Buechner, Faison, Fox, Hutson, Krent, Perakis, Tagle  
 No: Lambert  
 Absent: Malalahalli

**MOTION CARRIED**

**OTHER ITEMS**

6. POTENTIAL PLANNED UNIT DEVELOPMENT (PUD) APPLICATION – Concept Plan discussion, East of Livernois, North of Square Lake (PIN 88-20-03-301-088, 88-20-03-301-025, -024, -023), Section 35, Currently Zoned NN (Neighborhood Node “Q”) and R-1B (One Family Residential) Districts

*(Item removed from Agenda; refer to Resolution # PC-2023-02-011)*

7. PRELIMINARY SITE PLAN REVIEW (SP JPLN2022-0008) – Proposed The Westington II, South of Wattles, East of Crooks (870 Barilane Drive; PIN 88-20-21-101-009), Section 21, Currently Zoned NN (Neighborhood Node “I”) District

Mr. Carlisle reviewed the Preliminary Site Plan application for The Westington II. He addressed changes to the application since its consideration and denial at the January 25, 2022 Planning Commission meeting. He addressed the relationship of the application in context to The Westington Phase I and Hills West apartment developments. Mr. Carlisle addressed natural features, traffic study conclusion that no mitigation is recommended, significant architectural changes in elevations and displayed renderings, one of which showed the site in context of surrounding properties.

In summary, Mr. Carlisle asked the Planning Commission to consider in its deliberation compliance with Design Standards (Section 5.06.E) and Site Plan Review Standards (Section 8.06).

Discussion among administration and Planning Commission:

- Site access via Crooks.
- Bicycle parking spaces.
- Parking; 9 guest spaces, site overparked by 20 spaces.

Present were Project Architect Peter Stuhlreyer of Designhaus Architecture and Traffic Engineer Julie Kroll of Fleis & Vandenbrink.

Mr. Stuhlreyer addressed changes in the application relating to the combination of two buildings to one, reduction in building height, reduction in number of units from 20 to 16, increase of open space, preservation of additional trees, provision of 9 guest spaces, and architectural style of homes reflective of Hills West architecture. Mr. Stuhlreyer said an

application to the Oakland County Road Commission (OCRC) has been submitted requesting to move the access point further south on Crooks. He noted the project civil engineer is present this evening in the audience should the Board have any questions.

There was discussion, some comments related to:

- Landscaping; tree quality and count.
- Detailed architectural features; transitional style between single family and commercial.
- Confirmation by applicant to offer on-site recycling.
- Confirmation by applicant to add bicycle rack to accommodate two bikes.

Chair Lambert opened the floor for public comment. Acknowledging no one was present to speak, Chair Lambert closed the floor for public comment.

Julie Kroll of Fleis & Vandenbrink addressed several questions posed relating to northbound/southbound traffic with conflicting turns as relates to number of cars in queues. She said the study shows no blocking of the proposed site driveway from the Crooks and Wattles intersection. Ms. Kroll said the findings are based on the site driveway in the middle of the development but noted regardless the distance is adequate for either driveway location.

Greg Bono of PEA (from the audience) confirmed that an application was submitted and is under review by the OCRC to consider moving the site driveway further south on Crooks and adjacent to Barilane.

**Resolution # PC-2023-02-014**

Moved by: Krent  
 Seconded by: Fox

**RESOLVED**, That Preliminary Site Plan Approval, pursuant to Article 8 of the Zoning Ordinance, as requested for the proposed The Westington II 16-unit apartment development, South of Wattles, East of Crooks, Section 21, Currently Zoned NN (Neighborhood Node “I”) District, be granted, subject to the following:

1. To install a bike rack that will hold two bicycles.

**Discussion on the motion on the floor.**

Mr. Fox expressed appreciation to the applicant for the preservation of trees.

Mr. Krent thanked the applicant for making improvements to the site.

Chair Lambert expressed appreciation to the applicant for preserving additional trees and reducing the building size. He said the improvements are a better transition to residential to the east and south.

Ms. Perakis thanked the applicant for a much-improved site plan application. She said personally she would prefer to postpone the item until a decision is made by OCRC, and therefore she will be voting no on the motion.

Vote on the motion on the floor.

Yes: Buechner, Faison, Fox, Hutson, Krent, Lambert, Tagle  
No: Perakis  
Absent: Malalahalli

**MOTION CARRIED**

**OTHER ITEMS**

8. PUBLIC COMMENT – For Items on the Agenda

There was no one present who wished to speak.

9. PLANNING COMMISSION COMMENT

There were general comments, some relating to:

- Ms. Dufrane referenced review of the Bylaws and encouraged members to forward any thoughts/suggestions her way.
- Mr. Fox initiated conversation on addressing sustainability in the application process. Mr. Savidant said he would discuss with the City Manager the approach to take to establish sustainability regulations in the Zoning Ordinance.
- Chair Lambert announced Turtle Woods Public Open House, Thursday, February 16, 2023, 4-7 p.m., hosted by Evanswood Church at 2601 E. Square Lake, to discuss Oakland County Parks and Recreation partnership with Six Rivers Land Conservancy to acquire 70 acres for nature preserve.

10. ADJOURN

The Regular meeting of the Planning Commission adjourned at 8:49 p.m.

Respectfully submitted,

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David Lambert, Chair

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Kathy L. Czarnecki, Recording Secretary

**ITEM #5**

DATE: February 23, 2023

TO: Planning Commission

FROM: R. Brent Savidant, Community Development Director

SUBJECT: PRELIMINARY SITE PLAN REVIEW (File Number SP JPLN2022-0025) –  
Proposed Lange View Townhouses, Southeast corner of Livernois and Leetonia  
(4080 Livernois), Section 15, Currently Zoned NN Neighborhood Node (Node “H”)  
District

The petitioner 4080 Troy LLC submitted the above referenced Preliminary Site Plan application for the 9-unit Lange View Estates Townhouses project. The units are proposed to be in one building that is 2 stories in height.

The property is currently zoned NN (Neighborhood Node “H”) District. Townhomes are permitted by right in the NN district. The Planning Commission is responsible for granting Preliminary Site Plan approval for this item.

The Planning Commission considered this item on December 13, 2022 and postponed the item (minutes attached).

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. Minutes from December 13, 2022 Planning Commission Regular meeting (excerpt)

G:\SITE PLANS\SP JPLN2022-0025 LANGE VIEW NEW SUBMITTAL\PC Memo 2023 02 28.docx

**PROPOSED RESOLUTION**

PRELIMINARY SITE PLAN REVIEW (File Number SP JPLN2022-0025) – Proposed Lange View Townhouses, Southeast corner of Livernois and Leetonia (4080 Livernois), Section 15, Currently Zoned NN Neighborhood Node (Node “H”) District

**Resolution # PC-2023-02-**

Moved by:

Seconded by:

**RESOLVED**, That Preliminary Site Plan Approval, pursuant to Article 8 of the Zoning Ordinance, as requested for the proposed Lange View Townhouses, 9 units, located on the Southeast corner of Livernois and Leetonia (4080 Livernois), Section 15, Zoned NN (Neighborhood Node “H”) District, be granted, subject to applicant the following:

\_\_\_\_\_ ) or

(denied, for the following reasons: \_\_\_\_\_ ) or

(postponed, for the following reasons: \_\_\_\_\_ )

Yes:

No:

**MOTION CARRIED/FAILED**





# GIS Online



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



595 0 297 595Feet



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

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Date: November 22, 2021  
May 17, 2022  
November 8, 2022  
February 22, 2023

## Site Plan Review For City of Troy, Michigan

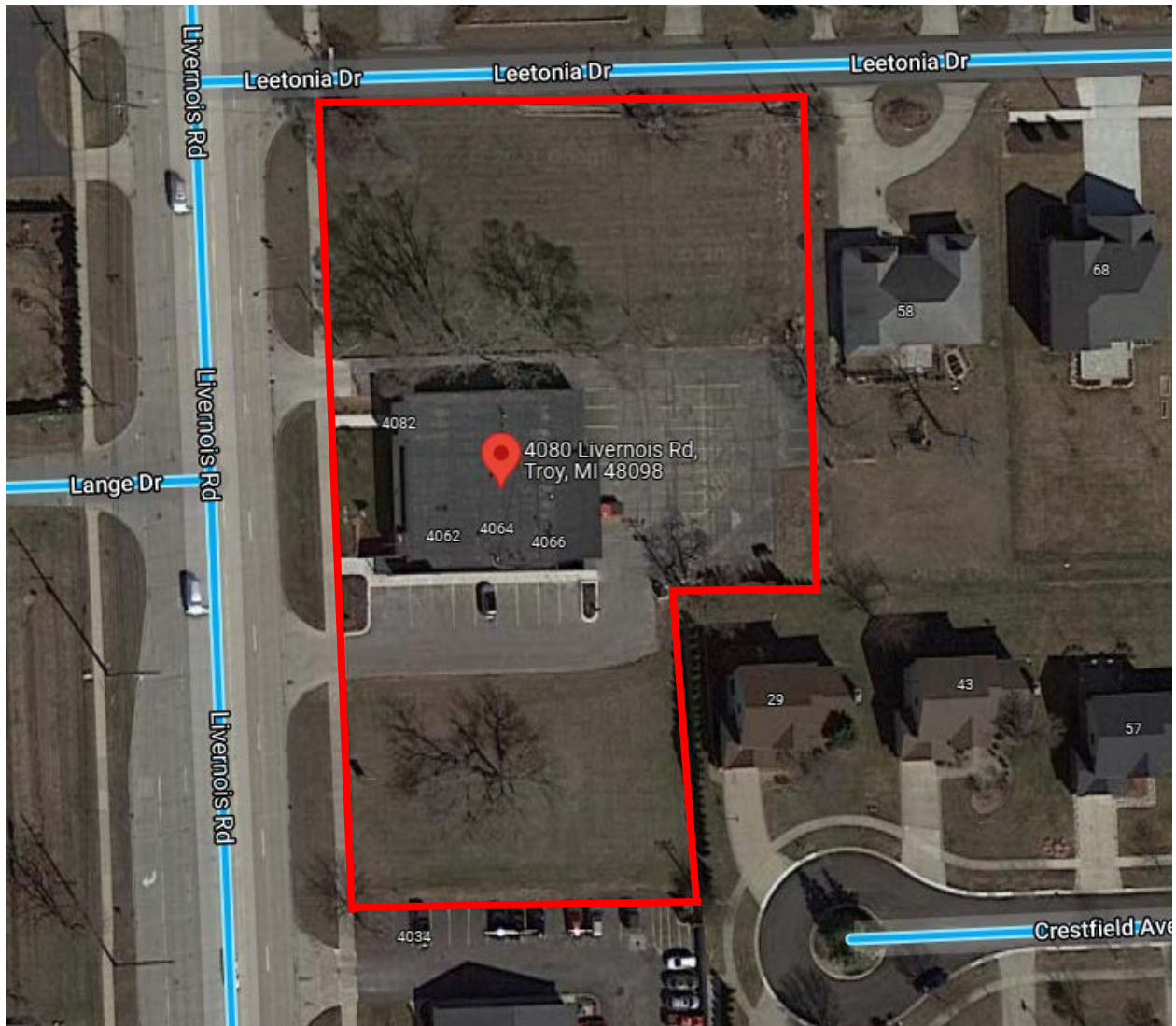
<b>Applicant:</b>	Vince Pangle
<b>Project Name:</b>	Lange View Townhomes
<b>Plan Date:</b>	January 25, 2023
<b>Location:</b>	4080 Livernois Road, Troy, Mi
<b>Zoning:</b>	NN, Neighborhood Node
<b>Action Requested:</b>	Site Plan Approval

### PROJECT AND SITE DESCRIPTION

The proposed development is located on the east side of Livernois Road, just north of Wattles Road. The approximate 1.62-acre parcel of land has an existing one (1) story 7,175 square-foot commercial building; recently improved by new façade. The applicant proposes to incorporate nine (9) townhomes that front on Leetonia onto the site with the existing improved office building, with shared parking and cross-access. There is a third parcel to the south that is undeveloped, with no immediate plans for development.

All vehicular access to the site is via Livernois Road. The applicant shows two (2) access driveways onto Livernois Road. The property is zoned Neighborhood Node (NN) and multiple family residential is a permitted use.





Proposed Uses of Subject Parcel:

Nine (9) townhome units and an office building.

Current Use of Subject Property:

The subject property is currently a one (1) story office building.

Current Zoning:

The property is currently zoned NN, Neighborhood Node District.

Surrounding Property Details:

Direction	Zoning	Use
North	R1-B, Single Family	Single Family Residential

<b>South</b>	NN, Neighborhood Node	Dental Office
<b>East</b>	R1-B, Single Family	Single Family Residential
<b>West</b>	NN, Neighborhood Node / R1-B, Single Family	Church / Liquor Store / Single Family Residential

## NATURAL RESOURCES

**Topography:** A topographic survey has been provided on page C4, shows site has slightly higher elevation on west and slowly decreases eastward toward property line.

**Wetlands:** No wetlands on site.

**Woodlands:** Some of the existing trees on-site will be removed for the new townhome developments and subsequent parking. A landscape Inventory has been provided on page C5.0. No mitigation is required.

**Items to be Addressed:** None.

## PREVIOUS PLANNING COMMISSION REVIEW

This item was last reviewed by the Planning Commission on December 13, 2022. Please see our November 8, 2022 memo for more details. At the December meeting, there was discussion on:

- Architectural style of townhomes, building materials, massing of building.
- Screening of residential property to the east.
- Vision of potential future development of southern parcel.
- Relocation of parking lot light.
- Setback requirements.
- Alternatives to break up massing of building.

At the December 13, 2022, on a vote of 7-0, the item was postponed, so that the applicant can return with the following:

1. A three-dimensional (3D) modeling to show the context of the building with the surrounding buildings.
2. Appropriate building materials showing what the applicant is proposing to use.
3. A revised design that would take away the flatness of the face, the long elevation of the building.
4. Show the screen wall that would be between the residential property to the east and the property in question.

**CHANGES SINCE LAST PLANNING COMMISSION REVIEW**





The applicant has made the following changes to the site plan:

- Added one (1) additional residential unit



**December 2022 Elevation**



**February 2022 Elevation**

- Revised architectural style.
- Added front elevation details to reduce flatness of the face, the long elevation of the building.

- There appears to be no additional details regarding elevations and screen wall along east property line.

## **DESIGN STANDARDS and SITE PLAN REVIEW STANDARDS**

The Neighborhood Node design standards provide the Planning Commission with direction when reviewing the proposed site plan and design features of this development.

### Section 5.06.E Design Standards

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

\*Please see Section 5.06E for standard details

### Section 8.06 Site Plan Review Standards

1. Development shall ensure compatibility to existing commercial districts and provide a transition between land uses.
2. Development shall incorporate the recognized best architectural building practices.
3. Enhance the character, environment, and safety for pedestrians and motorists.

\*Please see Section 8.06 for standard details

Section 5.06.E.3 Transitional Features outlines transitional standards for the Planning Commission to consider:

### 3. Transitional Features

- a) Transitional features are architectural elements, sit features, or alterations to building massing that are used to provide a transition between higher-intensity uses and low- or moderate-density residential areas. These features assist in mitigating potential conflicts between those uses. Transitional features are intended to be used in combination with landscape buffers or large setbacks.
- b) Intensity. A continuum of use intensity, where moderate intensity uses are sited between high-intensity uses and low-intensity uses, shall be developed for multi-building developments. An example would be an office use between commercial and residential uses.
- c) Height and mass. Building height and mass in the form of building step-backs, recess lines or other techniques shall be graduated so that structures with higher-intensity uses are comparable in scale with adjacent structures of lower intensity uses.
- d) Orientation. Primary building façades shall be placed away from residential use.
- e) Architectural features. Similarly sized and patterned architectural features such as windows, doors, arcades, pilasters, cornices, wall offsets, building materials, and other building articulations included on the lower-intensity use shall be incorporated in the transitional features.

## RECOMMENDATIONS

We recommend that the Planning Commission discuss if the applicant has met the following standards:

1. Elevations
2. Screen wall along east property line.
3. Section 5.06.E Design Standards
4. 8.06 Site Plan Review Standards



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



7. PRELIMINARY SITE PLAN REVIEW (File Number SP JPLN2022-0025) – Proposed Lange View Townhouses, Southeast corner of Livernois and Leetonia (4080 Livernois), Section 15, Currently Zoned NN Neighborhood Node (Node “H”) District

Mr. Carlisle said the proposed Lange View Townhomes application was last reviewed by the Planning Commission on May 24, 2022. He reviewed the discussion points at the May meeting and reported that the Planning Commission denied the application because it found the development did not meet the Zoning Ordinance requirements for transition.

Mr. Carlisle reviewed the revisions to the application since last reviewed and displayed comparisons between the May 2022 site plan and the Site Plan before the Board this evening. Mr. Carlisle addressed the changes to the application as identified on page 6 of his report dated November 22, 2022. He addressed concerns with the office site being overparked.

Mr. Carlisle asked the Planning Commission to take into consideration Section 5.06E Design Standards, Section 5.06E (3) Transitional Features and Section 8.06 Site Plan Review Standards, and the following items in its discussion and deliberation:

- Proposed transitional features as it relates to reducing height to two stories but adding an additional unit thus creating one singular massing along Leetonia.
- Proposed changes to architectural style.
- Relief of overall site parking.
- Relocation of parking lot light.

Discussion among administration and Planning Commission:

- Approval process of potential future development of southern parcel.
- No requirement in the Zoning Ordinance to break up massing of a building.
- Resolution of approval should address the required number of barrier-free and bicycle parking spaces.

Vince Pangle, owner of all three parcels, addressed the revisions to the Site Plan application, noticeably the reduction of building height to facilitate Planning Commission concerns.

There was discussion on:

- Architectural style of townhomes, building materials, massing of building.
- Screening of residential property to the east.
- Vision of potential future development of southern parcel.
- Relocation of parking lot light.
- Setback requirements.
- Alternatives to break up massing of building.

Chair Lambert opened the floor for public comment.

- Feiling Li, 58 Leetonia, addressed concerns with architectural style fitting in with the neighborhood, existing drainage and building placement so near Leetonia. She expressed her preference for a six-foot screening wall. Ms. Li thanked the applicant for being open and transparent about the development.
- Yijun Deng, 58 Leetonia, thanked the applicant for being open and communicating with them. He addressed concerns with the existing drainage and expressed his preference for a screening wall.

Chair Lambert closed the floor for public comment.

Mr. Carlisle addressed various setback zoning requirements as relates to different zoning districts.

**Resolution # PC-2022-12-063**

Moved by: Tagle  
 Seconded by: Krent

**RESOLVED**, That Preliminary Site Plan Approval, pursuant to Article 8 of the Zoning Ordinance, as requested for the proposed Lange View Townhouses, 9 units, located on the Southeast corner of Livernois and Leetonia (4080 Livernois), Section 15, Zoned Neighborhood Node (Node “H”) District, be postponed, so that the applicant can return with the following:

1. A three-dimensional (3D) modeling to show the context of the building with the surrounding buildings.
2. Appropriate building materials showing what the applicant is proposing to use.
3. A revised design that would take away the flatness of the face, the long elevation of the building.
4. Show the screen wall that would be between the residential property to the east and the property in question.

Yes: All present (7)  
 Absent: Hutson, Perakis

**MOTION CARRIED**

# LANGE VIEW TOWNHOUSES

## OFFICE AND RESIDENTIAL DEVELOPMENT

### SECTION 15, T02N - R11E

### CITY OF TROY, OAKLAND COUNTY, MICHIGAN

#### DRAWING INDEX

- C1.0 COVER SHEET
- SV1 TOPOGRAPHIC SURVEY
- C2.0 REMOVAL PLAN
- C2.1 TREE SURVEY
- C3.0 OVERALL SITE PLAN
- C4.0 GRADING PLAN
- C4.1 UTILITY PLAN
- C4.2 STORMWATER DETAILS
- C4.3 STORMWATER DETAILS 2
- C5.0 LANDSCAPING PLAN
- C6.0 SITE DETAILS 1
- C6.1 SITE DETAILS 2
- E1.0 PHOTOMETRIC PLAN
- A1 FLOOR PLANS
- A2 ELEVATIONS
- A3 ELEVATIONS
- A4 UNIT PLANS

#### OWNER

4080 TROY LLC  
4080 LIVERNOIS ROAD  
TROY, MI 48098

#### CIVIL ENGINEER

REDRIDGE ENGINEERING, LLC  
RICHARD FOSGITT, PE  
2807 HIGHBROOK DR  
MIDLAND, MI 48642  
PHONE: (989) 513-4058

LEGEND	
○	MONUMENT / SECTION CORNER
●	FOUND PROPERTY IRON
○	SET PROPERTY IRON W/CAP NO.26454
⊕	SET MAG NAIL
⊗	EXISTING CATCHBASIN
⊙	EXISTING MANHOLE/CATCHBASIN
○	EXISTING MANHOLE
⊕	EXISTING HYDRANT
M	EXISTING VALVE
SAN	EXISTING SANITARY SEWER
STM	EXISTING STORM SEWER
WTR	EXISTING WATERMAIN
X	EXISTING FENCE LINE
ELEC	EXISTING UNDERGROUND ELECTRIC LINE
GAS	EXISTING UNDERGROUND GAS LINE
TELE	EXISTING UNDERGROUND TELEPHONE LINE
CHIL	EXISTING CENTERLINE
OH	EXISTING OVERHEAD ELECTRICAL WIRES
D	EXISTING MAILBOX/NEWSPAPER BOX
▲	EXISTING SIGN
●	EXISTING DECIDUOUS TREES
●	EXISTING CONIFEROUS TREES
⊕	EXISTING UTILITY POWER POLE
⊕	EXISTING TELEPHONE RISER
○	EXISTING BOLLARD
○	EXISTING LIGHT POLE
○	EXISTING GAS METER
⊕	EXISTING TRANSFORMER
⊕	EXISTING FLAGPOLE
⊕	EXISTING GRASS SURFACE
⊕	EXISTING BITUMINOUS SURFACE
⊕	EXISTING CONCRETE SURFACE

BENCHMARKS	
B.M. #1 - ARROW ON FLANGE OF HYDRANT, COR OF LEETONIA AVE & LIVERNOIS RD	ELEV. 687.33 NAVD 88

ZONING INFORMATION	
ZONED NN (NEIGHBORHOOD NODE)	NODE H - LIVERNOIS & W. WATILES INTERSECTION
STREET TYPE NN: A(LIVERNOIS) AND TYPE NN: B (LEETONIA)	SITE TYPE NN: B

FLOODPLAIN INFORMATION	
CITY OF TROY, COMMUNITY NO. 260180	OAKLAND COUNTY, MICHIGAN
MAP NUMBER: 26125C0534F	EFFECTIVE DATE: 9/29/2006
FLOOD ZONE: X	AREA OF MINIMAL FLOOD HAZARD (PER FIRM)

UTILITY CONTACTS	
<b>TELEPHONE</b> AT & T 54 N. MILL ST. P.O. BOX 32 PONTIAC, MI 48642	<b>GAS AND ELECTRIC</b> CONSUMERS ENERGY GAS INFORMATION MGMT 1030 FEATHERSTONE RD. PONTIAC, MI 48342
<b>ZONING</b> CITY OF TROY ZONING & PLANNING 500 W. BIG BEAVER RD TROY, MICHIGAN 48084 (248) 524-3364	<b>WATER/SEWER</b> CITY OF TROY TROY DPW 4683 ROCHESTER RD TROY, MICHIGAN 48085 (248) 524-3392

#### SITE INFORMATION

SITE ADDRESS  
4080 LIVERNOIS ROAD  
TROY, MI 48098-4721

ZONING CLASSIFICATION  
NN - NEIGHBORHOOD NODE

TAX IDENTIFICATION NUMBER  
88-20-15-353-053

#### PROPRIETOR

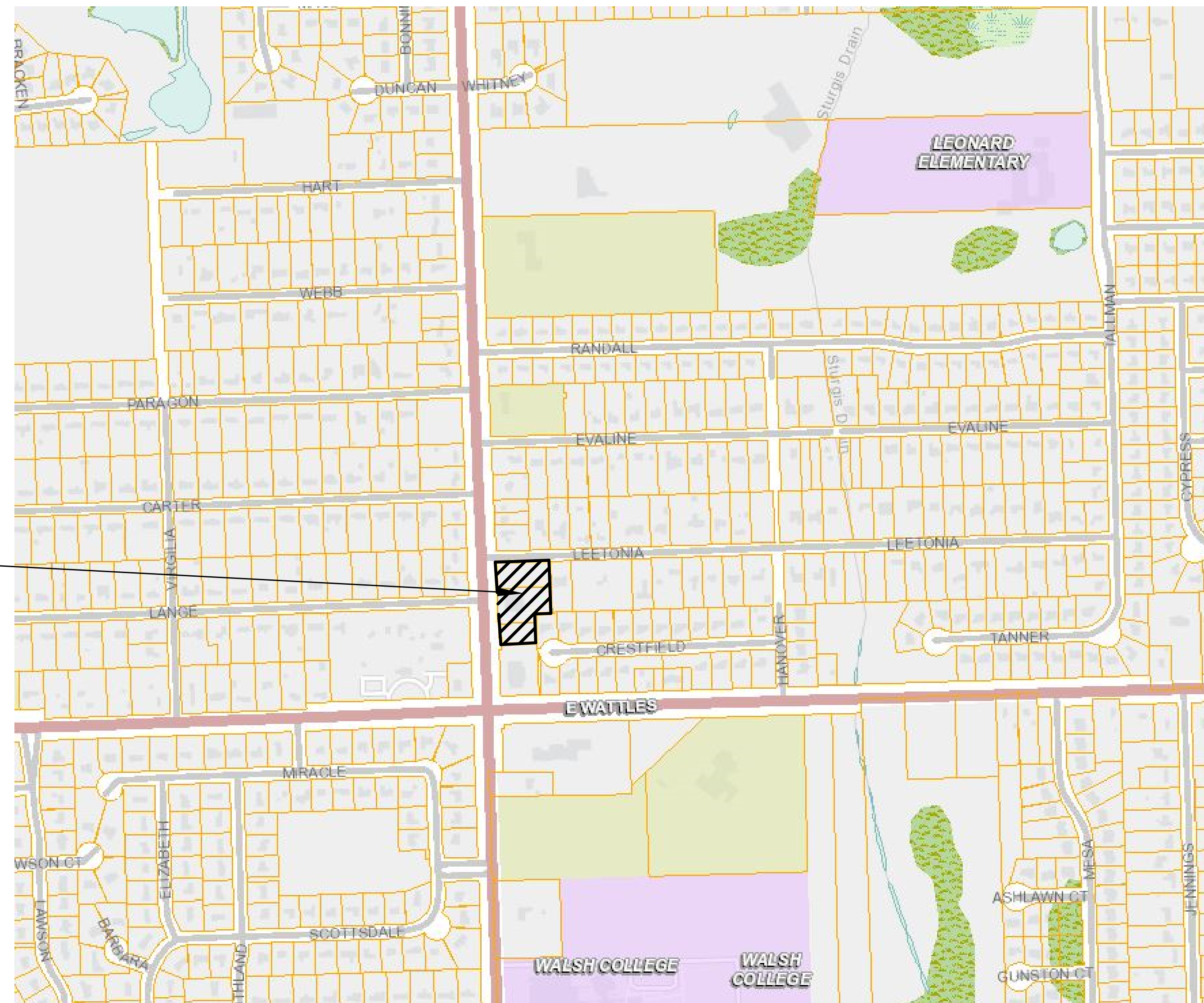
STRATEGIC PROPERTY SERVICES, LLC  
ATTN: VINCE PANGLE  
4080 LIVERNOIS ROAD  
TROY, MI 48098

#### SURVEYOR

D&M SITE, INC.  
401 BALSAM STREET  
CARROLLTON, MI 48624  
(989) 752-6500

#### ENGINEER

REDRIDGE ENGINEERING, LLC  
RICHARD FOSGITT, P.E.  
2807 HIGHBROOK DRIVE  
MIDLAND, MI 48642  
(989) 513-4058



LOCATION MAP

SITE

**UTILITY NOTE**  
THE UTILITY LOCATIONS AS HEREON SHOWN ARE BASED ON FIELD OBSERVATIONS AND A CAREFUL REVIEW OF MUNICIPAL AND UTILITY RECORDS. HOWEVER, IT IS NOT POSSIBLE TO DETERMINE THE PRECISE SIZE, LOCATION, DEPTH, PRESSURE, OR ANY OTHER CHARACTERISTICS OF UNDERGROUND UTILITIES, TANKS OR SEPTIC FIELDS WITHOUT EXCAVATION. THEREFORE, WE CANNOT GUARANTEE THE ACCURACY OF COMPLETENESS OF THE BURIED UTILITY INFORMATION HEREON SHOWN. THE CONTRACTOR SHALL CALL MISS DIG (1-800-482-7171) A MINIMUM OF THREE WORKING DAYS PRIOR TO ANY EXCAVATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THESE UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND MAKE EVERY EFFORT TO PROTECT AND/OR RELOCATE THEM AS REQUIRED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER/SURVEYOR AS SOON AS POSSIBLE IN THE EVENT A DISCREPANCY IS FOUND.



Know what's below.  
Call before you dig.



PROJECT LOG	
DESIGN/CONSTRUCTION REVIEW	04-17-13
UPDATED SITE PLAN REVIEW	08-21-13
REVISED LAYOUT	04-04-14

REDRIDGE ENGINEERING, LLC  
2807 HIGHBROOK DRIVE, MIDLAND, MI 48642  
989-513-4058 RFOSGITT@REDRIDGE-ENG.COM

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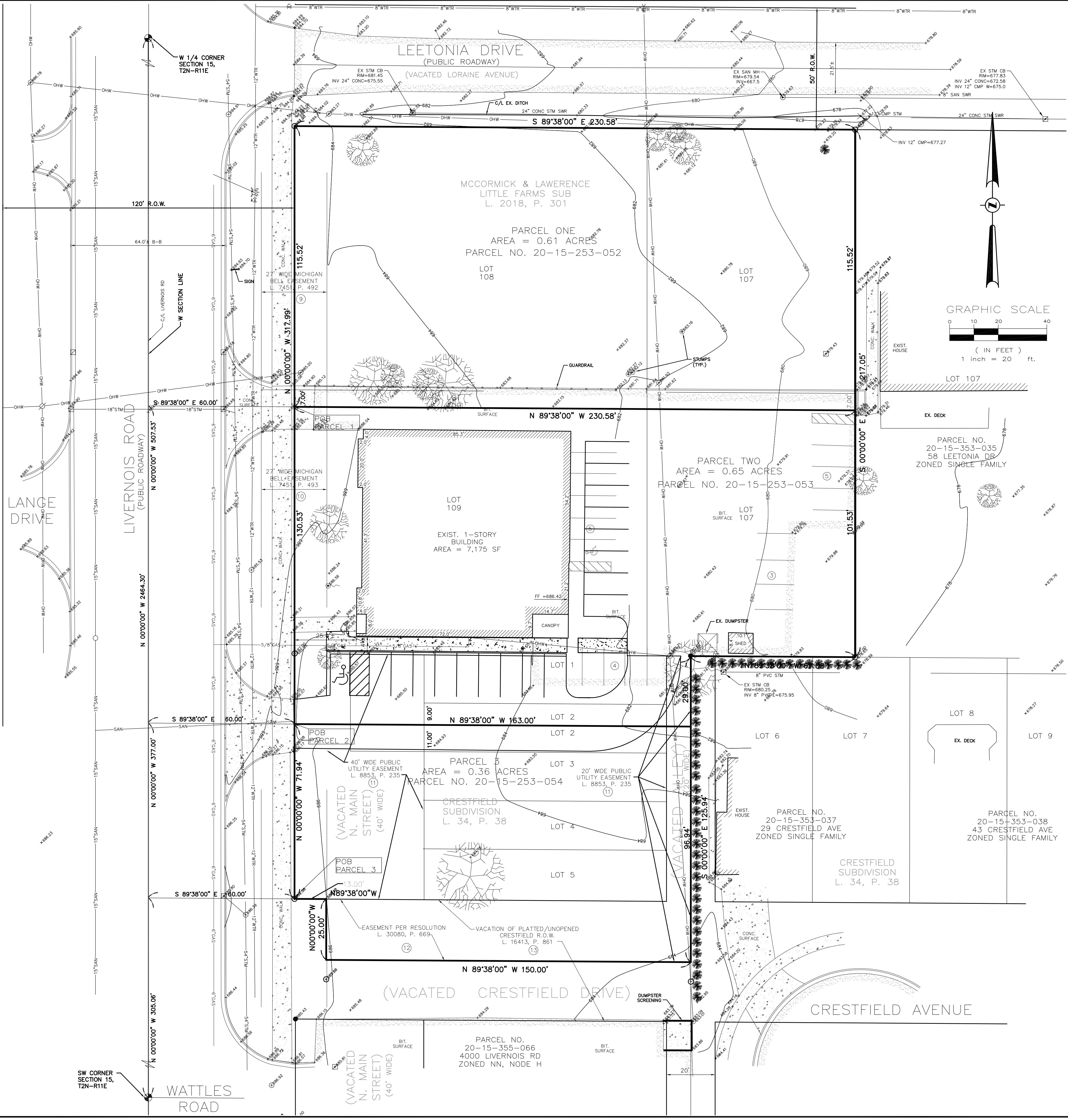
LANGE VIEW TOWNHOUSES  
STRATEGIC PROPERTY SERVICES, LLC  
4080 LIVERNOIS ROAD  
CITY OF TROY, MICHIGAN  
OAKLAND COUNTY, MICHIGAN

TITLE SHEET

C1.0  
180401



2018-236 - 10-29-16  
NOT PUBLISHED. ALL RIGHTS RESERVED. D AND M SITE



**UTILITY CONTACTS**

<b>TELEPHONE</b> AT & T 54 N. MILL ST. P.O. BOX 32 PONTIAC, MI 48642	<b>GAS AND ELECTRIC</b> CONSUMERS ENERGY GAS INFORMATION MGMT 1030 FEATHERSTONE RD. PONTIAC, MI 48342
<b>ZONING</b> CITY OF TROY ZONING & PLANNING 500 W. BIG BEAVER RD TROY, MICHIGAN 48084 (248) 524-3364	<b>WATER/SEWER</b> CITY OF TROY TROY DPW 4693 ROCHESTER RD TROY, MICHIGAN 48085 (248) 524-3392

**FURNISHED PROPERTY DESCRIPTIONS**

**ATA NATIONAL TITLE GROUP, LLC**  
FILE NO.: 63-18594696-GCM  
DATE: JUNE 01, 2018, AT 8:00 AM

**PARCEL I:**  
THE NORTH 108.52 FEET OF THE WEST 86 FEET OF LOT 107, ALSO LOT 108, EXCEPT THE WEST 27 FEET, MCCORMICK & LAWRENCE LITTLE FARMS SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 20, PAGE 30 OF PLATS, OAKLAND COUNTY RECORDS.

**AND**  
LOT 109, EXCEPT THE WEST 27 FEET AND SOUTH 108.53 FEET OF THE WEST 86 FEET OF LOT 107, MCCORMICK & LAWRENCE LITTLE FARMS SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 20, PAGE 30 OF PLATS, OAKLAND COUNTY RECORDS.

**AND LOTS 1 AND 2, AND ADJACENT 1/2 OF VACATED ALLEY AND ALL VACATED MAIN STREET, CRESTFIELD SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 34, PAGE 38 OF PLATS, OAKLAND COUNTY RECORDS.**

**AND**  
THE NORTH 40 FEET OF THE SOUTH 406 FEET OF THE EAST 13 FEET OF THE WEST 73 FEET OF THE SOUTHWEST 1/4 OF SECTION 15, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN, ALSO NORTH 1/2 OF VACATED CRESTFIELD AVE ADJACENT TO SAME.

**PARCEL II:**  
LOTS 3, 4, 5, AND ALL ADJACENT MAIN STREET AND WEST 1/2 OF VACATED ALLEY ADJACENT THERETO, CRESTFIELD SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 34, PAGE 38 OF PLATS, OAKLAND COUNTY RECORDS.

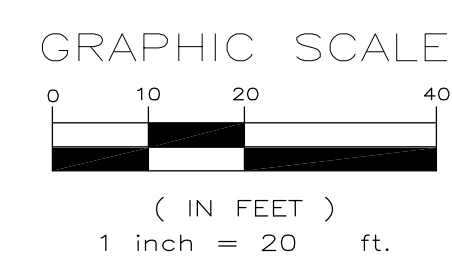
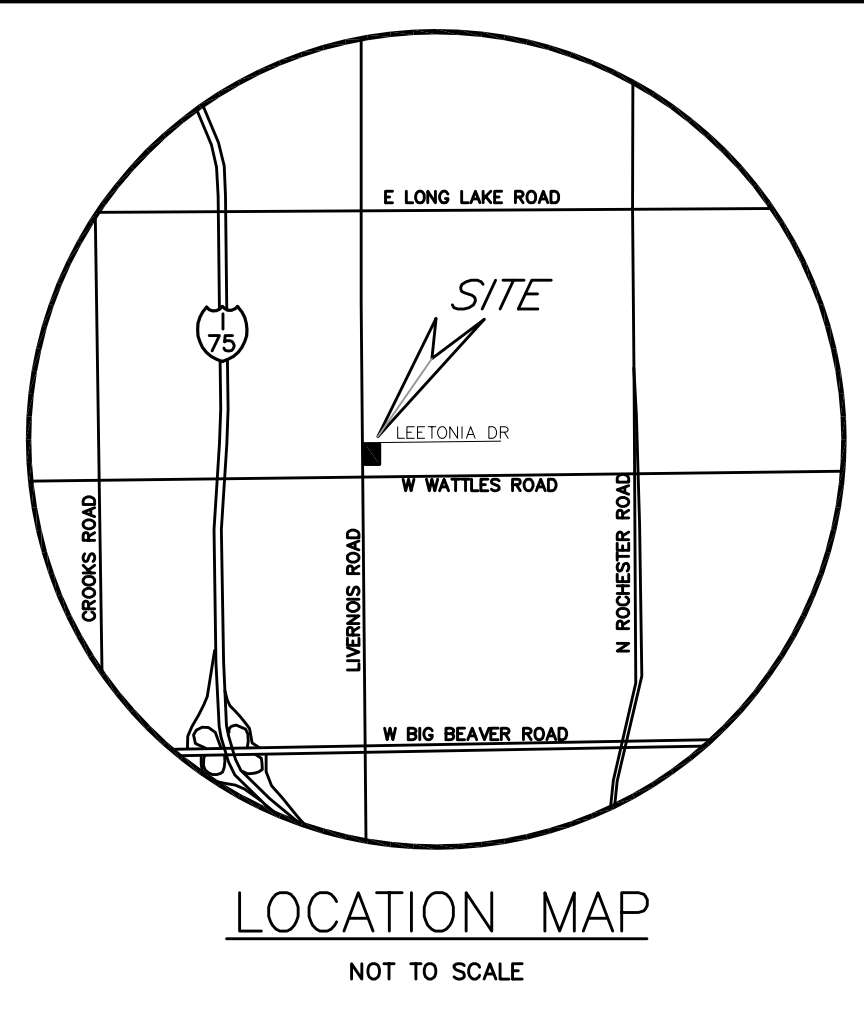
**AND**  
THE SOUTH 60.94 FEET OF NORTH 100.94 FEET OF SOUTH 406 FEET OF EAST 13 FEET OF WEST 73 FEET OF SOUTHWEST 1/4 OF SECTION 15, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN, ALSO NORTH 1/2 OF VACATED CRESTFIELD AVE ADJACENT TO SAME.

**SPLIT PARCEL DESCRIPTION**

**PARCEL ONE (20-15-253-052)**  
PART OF LOTS 107, 108 AND THE NORTH 7.00 FEET OF LOT 109 OF MCCORMICK & LAWRENCE LITTLE FARMS SUBDIVISION, BEING FURTHER DESCRIBED AS: COMMENCING AT THE SOUTHWEST CORNER OF SECTION 15, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN; THENCE N 00°00'00" W, 507.53 FEET ALONG THE WEST LINE OF SAID SECTION; THENCE S 89°38'00" E, 60.00 FEET TO THE POINT OF BEGINNING; THENCE N 00°00'00" W, 115.52 FEET; TO THE SOUTHERLY RIGHT OF WAY LINE OF LEETONIA DRIVE; THENCE S 89°38'00" E, 230.58 FEET ALONG SAID SOUTHERLY LINE; THENCE S 00°00'00" W, 115.52 FEET; THENCE N 89°38'00" W, 230.58 FEET EASTERLY RIGHT OF WAY LINE OF LIVERNOIS ROAD; TO THE POINT OF BEGINNING, CONTAINING 0.61 ACRES, MORE OR LESS, AND SUBJECT TO ANY AND ALL EASEMENTS AND/OR RIGHTS-OF-WAY WHETHER USED, IMPLIED OR OF RECORD.

**PARCEL TWO (20-15-253-03)**  
PART OF LOTS 107, 108 OF MCCORMICK & LAWRENCE LITTLE FARMS SUBDIVISION, ALSO LOT 1, THE NORTH 9.00 FEET OF LOT 2 OF CRESTFIELD SUBDIVISION ALSO PART OF THE VACATED MAIN STREET AND PART OF THE VACATED ALLEY ADJACENT THERETO, AND PART OF THE SOUTHWEST 1/4 OF SECTION 15, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN, BEING FURTHER DESCRIBED AS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION; THENCE N 00°00'00" W, 377.00 FEET ALONG THE WEST LINE OF SAID SECTION; THENCE S 89°38'00" E, 60.00 FEET TO THE POINT OF BEGINNING; THENCE N 00°00'00" W, 130.53 FEET; ALONG SAID RIGHT OF WAY LINE; THENCE S 89°38'00" E, 230.58 FEET; THENCE S 00°00'00" E, 101.53 FEET; THENCE N 89°38'00" W, 67.58 FEET; THENCE S 00°00'00" E, 29.00 FEET; THENCE N 89°38'00" W, 63.00 FEET TO THE EASTERLY RIGHT OF WAY LINE OF LIVERNOIS ROAD AND THE POINT OF BEGINNING, CONTAINING 0.65 ACRES, MORE OR LESS, AND SUBJECT TO ANY AND ALL EASEMENTS AND/OR RIGHTS-OF-WAY WHETHER USED, IMPLIED OR OF RECORD.

**PARCEL THREE (20-15-253-054)**  
THE SOUTH 11.00 FEET OF LOT 2, AND LOTS 3, 4, AND 5 OF THE VACATED ALLEY AND ALSO PART OF VACATED CRESTFIELD DRIVE THERETO OF CRESTFIELD SUBDIVISION AS RECORDED IN LIBER 34, PAGE 38 OF PLATS OAKLAND COUNTY RECORDS. AND PART OF THE SOUTHWEST 1/4 OF SECTION 15, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN, BEING FURTHER DESCRIBED AS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION; THENCE N 00°00'00" W, 305.06 FEET ALONG THE WEST LINE OF SAID SECTION; THENCE S 89°38'00" E, 60.00 FEET TO THE POINT OF BEGINNING; THENCE N 00°00'00" W, 71.94 FEET ALONG SAID RIGHT OF WAY LINE; THENCE S 89°38'00" E, 163.00 FEET; THENCE S 00°00'00" E, 96.94 FEET TO THE CENTERLINE OF VACATED CRESTFIELD DRIVE; THENCE N 89°38'00" W, 150.00 FEET ALONG SAID CENTERLINE; THENCE N 00°00'00" W, 25.00 FEET; THENCE N 89°38'00" W, 13.00 FEET TO THE POINT OF BEGINNING, CONTAINING 0.36 ACRES, MORE OR LESS, AND SUBJECT TO ANY AND ALL EASEMENTS AND/OR RIGHTS-OF-WAY WHETHER USED, IMPLIED OR OF RECORD.



**SCHEDULE "B" EXCEPTIONS**

**ATA NATIONAL TITLE GROUP, LLC**  
FILE NO.: 63-18594696-GCM  
DATE: JUNE 01, 2018, AT 8:00 AM

⑨ RIGHT OF WAY GRANTED TO MICHIGAN BELL TELEPHONE COMPANY RECORDED MARCH 1, 1979 IN LIBER 7451, PAGE 492, OAKLAND COUNTY RECORDS. COVERS LOT 108, MCCORMICK & LAWRENCE LITTLE FARMS ONLY. -AS SHOWN; AFFECTS PARCEL I

⑩ RIGHT OF WAY GRANTED TO MICHIGAN BELL TELEPHONE COMPANY RECORDED MARCH 1, 1979 IN LIBER 7451, PAGE 493, OAKLAND COUNTY RECORDS. COVERS ALL OF LOT 109 AND SOUTH 108.53 FEET OF THE WEST 86 FEET OF LOT 107, MCCORMICK & LAWRENCE LITTLE FARMS ONLY. -AS SHOWN; AFFECTS PARCEL I

⑪ EASEMENT FOR PUBLIC UTILITIES OVER THAT PORTION OF SUBJECT PROPERTY INCLUDED IN THE VACATED ALLEY AND VACATED STREET AS EVIDENCED BY INSTRUMENT RECORDED IN LIBER 8853, PAGE 235, OAKLAND COUNTY RECORDS. -AS SHOWN; AFFECTS PARCEL I

⑫ TERMS AND CONDITIONS OF RESOLUTION RECORDED JULY 24, 2003 IN LIBER 30080, PAGE 669, OAKLAND COUNTY RECORDS. -AS SHOWN; AFFECTS PARCEL II

⑬ TERMS AND CONDITIONS OF RESOLUTION RECORDED JULY 8, 1998 IN LIBER 16413, PAGE 861, OAKLAND COUNTY RECORDS. -AS SHOWN; AFFECTS PARCEL II

14. TERMS, CONDITIONS AND PROVISIONS WHICH ARE RECITED IN WATER AGREEMENT RECORDED IN LIBER 2125, PAGE 87, OAKLAND COUNTY RECORDS. -DOES NOT AFFECT SUBJECT PROPERTY

**LEGEND**

	MONUMENT / SECTION CORNER
	FOUND PROPERTY IRON
	SET PROPERTY IRON W/CAP NO.26454
	SET MAG NAIL
	EXISTING CATCHBASIN
	EXISTING MANHOLE/CATCHBASIN
	EXISTING MANHOLE
	EXISTING HYDRANT
	EXISTING VALVE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING WATERMAIN
	EXISTING FENCE LINE
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING UNDERGROUND GAS LINE
	EXISTING UNDERGROUND TELEPHONE LINE
	EXISTING CENTERLINE
	EXISTING OVERHEAD ELECTRICAL WIRES
	EXISTING MAILBOX/NEWSPAPER BOX
	EXISTING SIGN
	EXISTING DECIDUOUS TREES
	EXISTING CONIFEROUS TREES
	EXISTING UTILITY POWER POLE
	EXISTING TELEPHONE RISER
	EXISTING BOLLARD
	EXISTING LIGHT POLE
	EXISTING GAS METER
	EXISTING TRANSFORMER
	EXISTING FLAGPOLE
	EXISTING GRASS SURFACE
	EXISTING BITUMINOUS SURFACE
	EXISTING CONCRETE SURFACE

**BENCHMARKS**

B.M. #1 ARROW ON FLANGE OF HYDRANT, COR OF LEETONIA AVE & LIVERNOIS RD  
ELEV. 687.33 NAVD 88

**ZONING INFORMATION**

ZONED NN (NEIGHBORHOOD NODE)  
NODE H - LIVERNOIS W WATLES INTERSECTION  
STREET TYPE NN(LIVERNOIS) AND TYPE NN:B (LEETONIA)  
SITE TYPE NN:B

**FLOODPLAIN INFORMATION**

CITY OF TROY, COMMUNITY NO. 260180  
OAKLAND COUNTY, MICHIGAN  
MAP NUMBER: 26125C0534F  
EFFECTIVE DATE: 9/29/2006  
FLOOD ZONE: X  
AREA OF MINIMAL FLOOD HAZARD (PER FIRM)

PREPARED UNDER THE SUPERVISION OF:

**D & M SITE INC.**  
Surveying, Inspection, Testing, Engineering  
401 BALSAM STREET PO BOX 159 CARROLLTON, MICHIGAN 48724  
PHONE (989) 752-6656 FAX (989) 752-6666

**SV1**  
2018.236

4080 LIVERNOIS ROAD  
SECTION 15, TOWN-R11E  
CITY OF TROY  
OAKLAND COUNTY, MICHIGAN

PROPERTY SURVEY

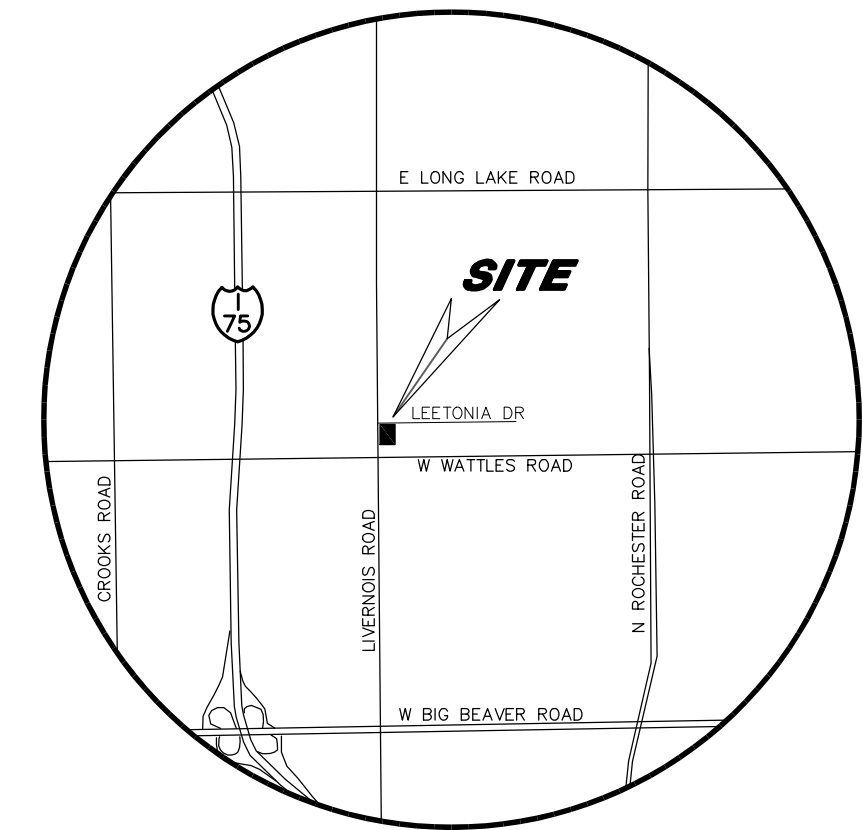
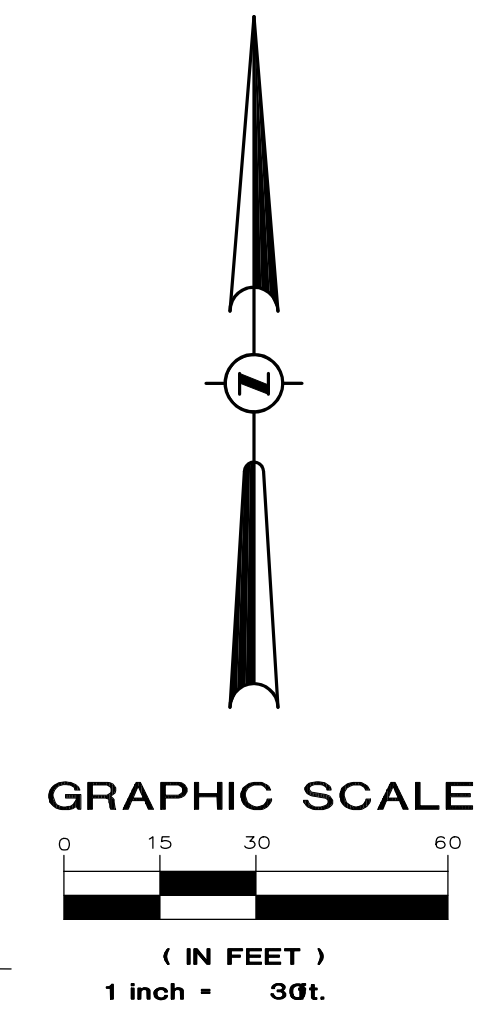
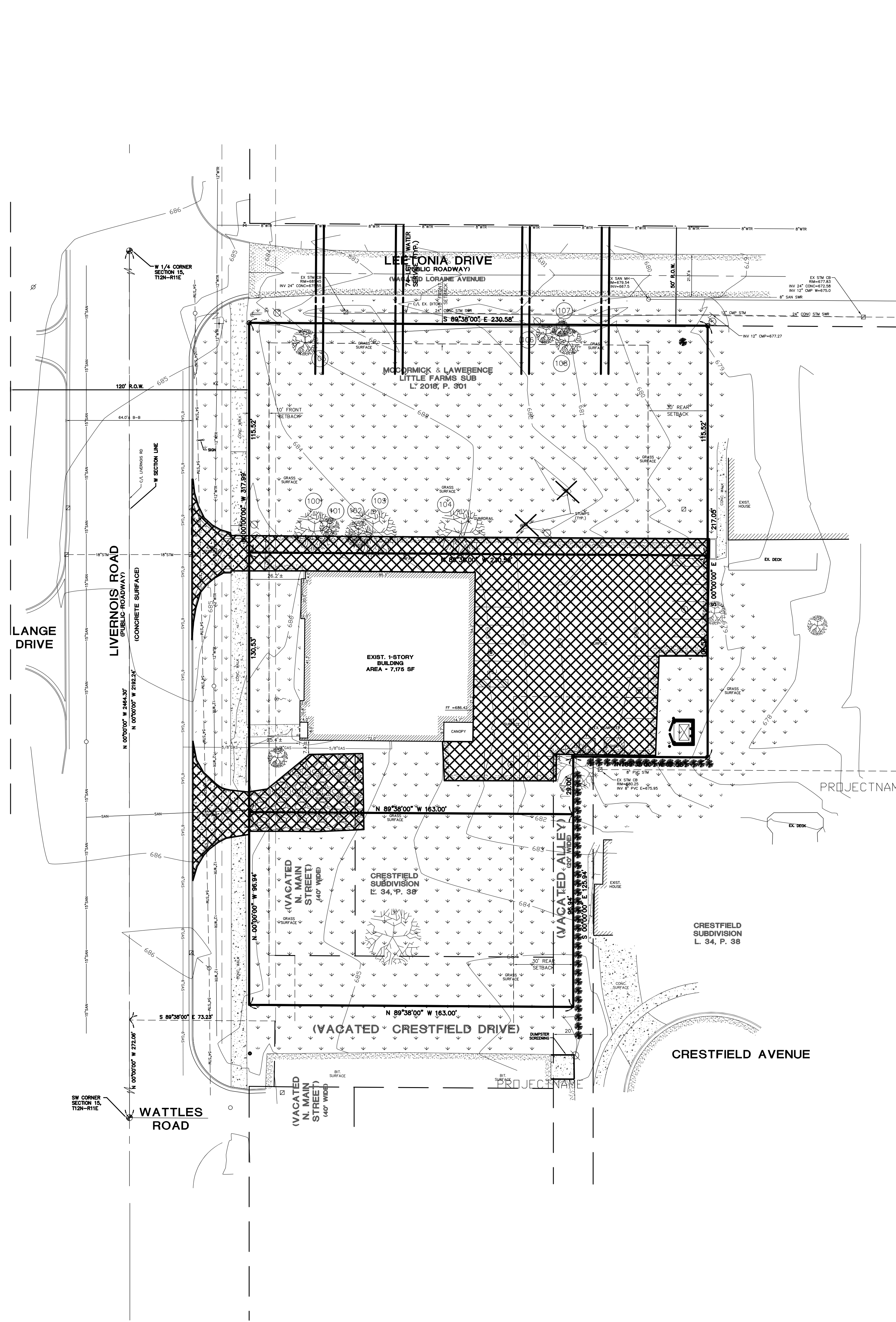
GREAT LAKES FAMILY LLC  
5070 NEW KING ST. SUITE 375  
TROY, MICHIGAN 48098  
(248) 312-7200

PROJECT LOG

PROJECT START	08-20-18
PROJECT END	04-19-19
REVISED BOUNDARY	05-23-19
REVISED PARCEL 3	06-14-19
REVISED DESCRIPTIONS	07-12-19
REVISED PARCEL DESCRIPTIONS	

FILE: 2018-236  
PROJECT MGR: JDM  
DESIGNED BY: DGG  
DRAWN BY: DGG  
CHECKED BY: JDM  
SCALE: 1"=20'  
SHEET: 1 OF 1





LOCATION MAP NOT TO SCALE

LEGEND	
	MONUMENT / SECTION CORNER
	FOUND PROPERTY IRON
	SET PROPERTY IRON W/CAP NO.26454
	SET MAG NAIL
	EXISTING CATCHBASIN
	EXISTING MANHOLE/CATCHBASIN
	EXISTING MANHOLE
	EXISTING HYDRANT
	EXISTING VALVE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING WATERMAIN
	EXISTING FENCE LINE
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING UNDERGROUND GAS LINE
	EXISTING UNDERGROUND TELEPHONE LINE
	EXISTING CENTERLINE
	EXISTING OVERHEAD ELECTRICAL WIRES
	EXISTING MAILBOX/NEWSPAPER BOX
	EXISTING SIGN
	EXISTING DECIDUOUS TREES
	EXISTING CONIFEROUS TREES
	EXISTING UTILITY POWER POLE
	EXISTING TELEPHONE RISER
	EXISTING BOLLARD
	EXISTING LIGHT POLE
	EXISTING GAS METER
	EXISTING TRANSFORMER
	EXISTING FLAGPOLE
	EXISTING GRASS SURFACE
	EXISTING BITUMINOUS SURFACE
	EXISTING CONCRETE SURFACE

UTILITY CONTACTS	
<b>TELEPHONE</b> AT & T 54 N. MILL ST. P.O. BOX 32 PONTIAC, MI 48642	<b>GAS AND ELECTRIC</b> CONSUMERS ENERGY GAS INFORMATION MGMT 1030 FEATHERSTONE RD. PONTIAC, MI 48342
<b>ZONING</b> CITY OF TROY ZONING & PLANNING 500 W. BIG BEAVER RD TROY, MICHIGAN 48084 (248) 524-3364	<b>WATER/SEWER</b> CITY OF TROY TROY DPW 4693 ROCHESTER RD TROY, MICHIGAN 48085 (248) 524-3392

**UTILITY NOTE**

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**ZONING INFORMATION**

ZONED NN (NEIGHBORHOOD NODE)  
NODE H - LIVERNOIS & W. WATTLES INTERSECTION  
STREET TYPE NN:A (LIVERNOIS) AND TYPE NN:B (LEETONIA)  
SITE TYPE NN:B

**PROPRIETOR**

STRATEGIC PROPERTY SERVICES, LLC  
ATTN: VINCE PANGLE  
5750 NEW KING STREET, STE 350  
TROY, MI 48098

**SURVEYOR**

D&M SITE, INC.  
401 BALSAM STREET  
CARROLLTON, MI 48624  
(989) 752-6500

**ENGINEER**

REDRIDGE ENGINEERING, LLC  
RICHARD FOSGITT, P.E.  
2807 Highbrook Drive  
Midland, MI 48642  
(989) 513-4058



PROJECT LOG	DATE	DESCRIPTION
DESIGN/ISSUE/REVISE/REVISION	04-17-23	ISSUE/ISSUE/REVISE/REVISION
REVISED SITE PLAN REVIEW	08-31-23	REVISED SITE PLAN REVIEW
REVISED SITE PLAN REVIEW	04-04-24	REVISED SITE PLAN REVIEW

FILE #	OVERALL	PROJ MGR	DESIGN BY	DRAWN BY	CHECKED BY	SCALE	SHEET
	RF	RF	RF	RF	RF	1"=30'	1 OF 1

REDRIDGE ENGINEERING, LLC  
2807 Highbrook Drive, Midland, MI 48642  
989-513-4058 RFOSGITT@REDRIDGE-ENG.COM

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**LONG VIEW TOWNHOUSES**  
**STRATEGIC PROPERTY SERVICES, LLC**  
4088 LIVERNOIS ROAD  
CITY OF TROY  
OAKLAND COUNTY, MICHIGAN

**DEMOLITION PLAN**

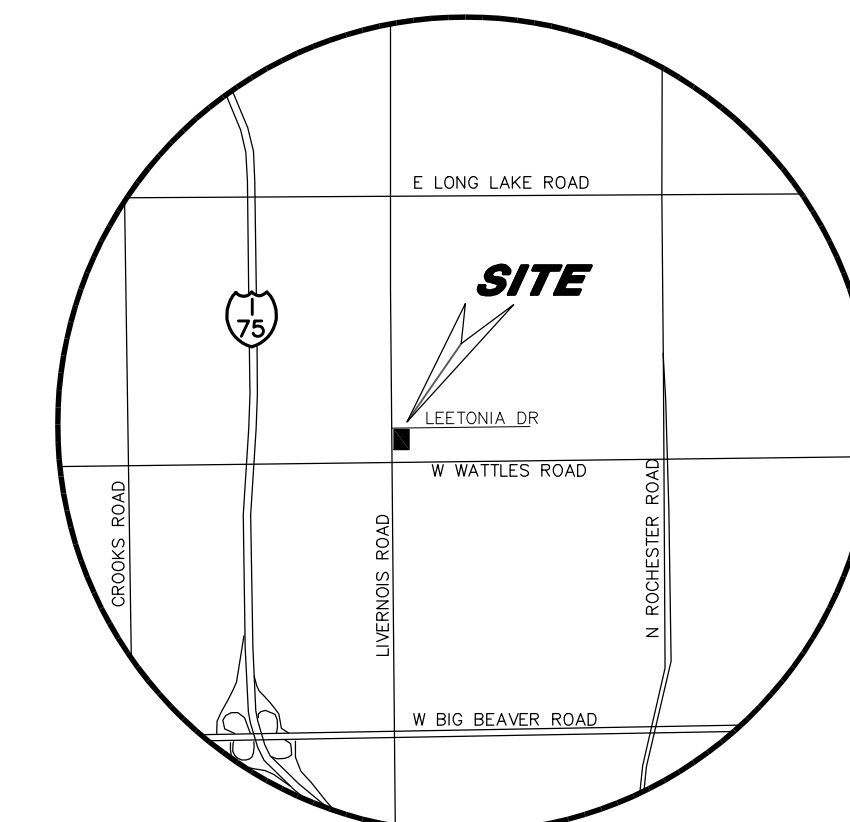
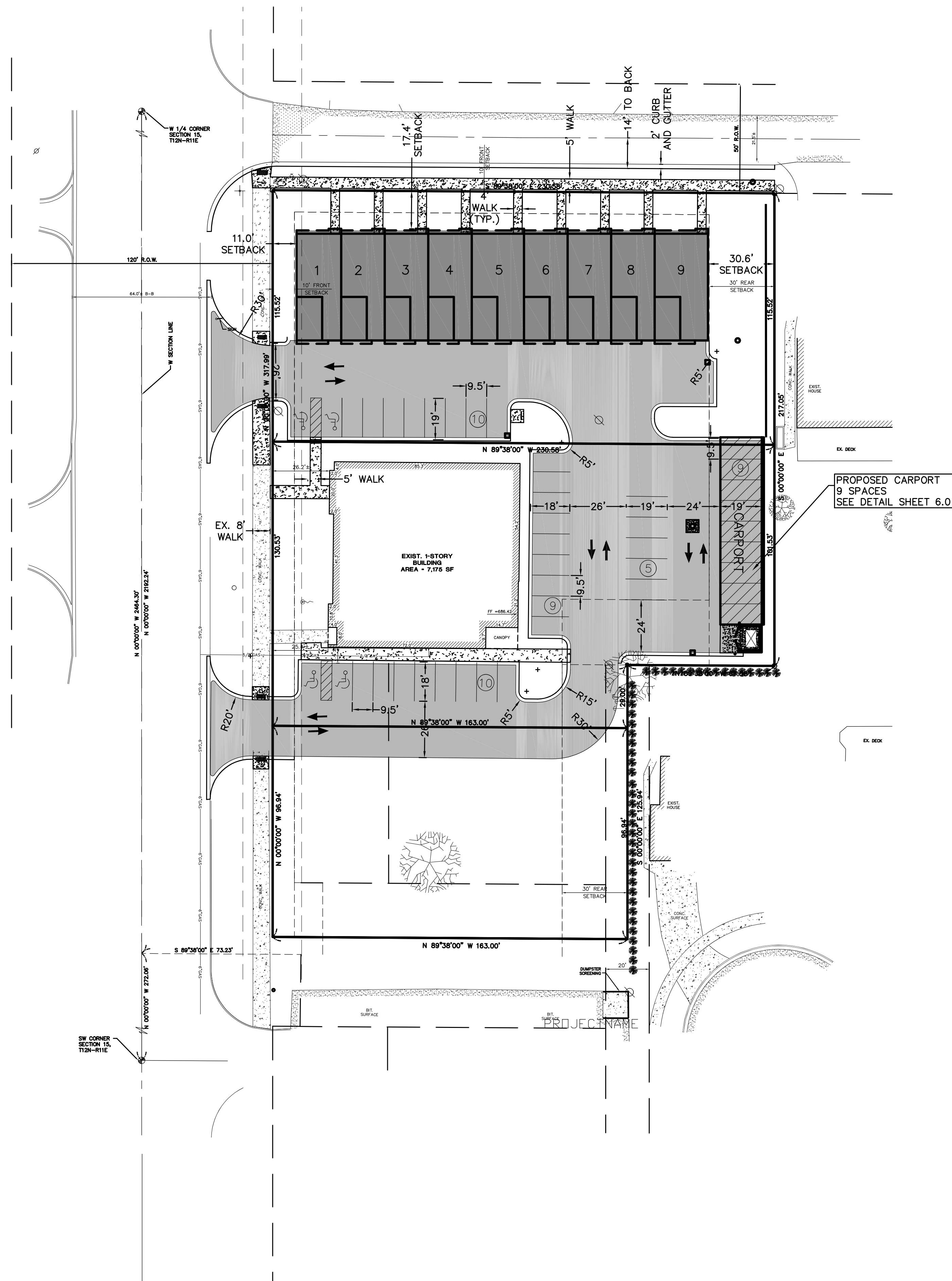
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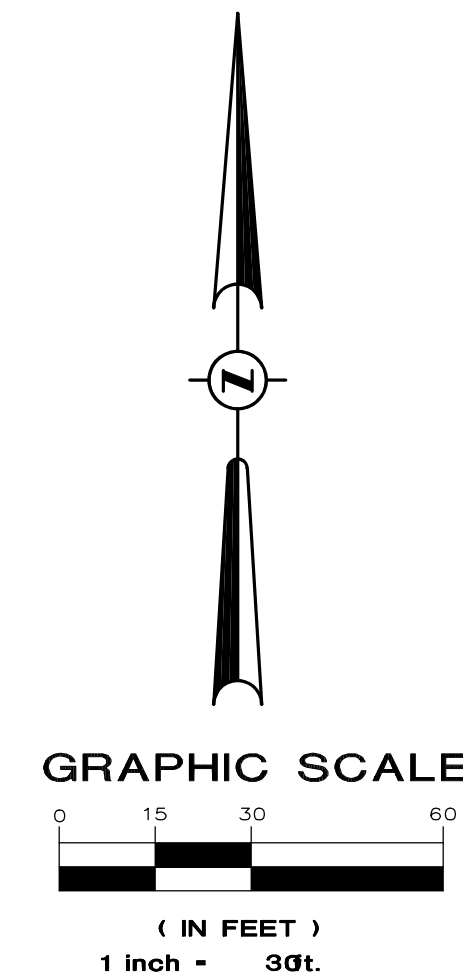




# OVERALL SITE PLAN: LANGE VIEW TOWNHOUSES



**LOCATION MAP**  
NOT TO SCALE



LEGEND	
⊙	MONUMENT / SECTION CORNER
⊙	FOUND PROPERTY IRON
⊙	SET PROPERTY IRON W/CAP NO.26454
⊙	SET MAG NAIL
⊙	EXISTING CATCHBASIN
⊙	EXISTING MANHOLE/CATCHBASIN
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⊙	EXISTING HYDRANT
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⊙	EXISTING SIGN
⊙	EXISTING DECIDUOUS TREES
⊙	EXISTING CONIFEROUS TREES
⊙	EXISTING UTILITY POWER POLE
⊙	EXISTING TELEPHONE RISER
⊙	EXISTING BOLLARD
⊙	EXISTING LIGHT POLE
⊙	EXISTING GAS METER
⊙	EXISTING TRANSFORMER
⊙	EXISTING FLAGPOLE
⊙	EXISTING GRASS SURFACE
⊙	EXISTING BITUMINOUS SURFACE
⊙	EXISTING CONCRETE SURFACE

### BULK REGULATIONS

	REQUIRED: NEIGHBORHOOD NODE SITE TYPE NN-B BUILDING FORM C	PROVIDED
GROSS SITE AREA	1.62 ACRES	1.62 ACRES
USABLE BUILDING AREA	1.22 ACRES	1.22 ACRES
REQUIRED OPEN SPACE	MIN. 15%	28,000 SFT 38.7%
LOT COVERAGE BY ALL BLDGS.	MAX. 30%	16,675 SFT 23.5%
BUILDING HEIGHT MAX.	55 FEET	24 FEET

PROPOSED SETBACKS		
FRONT (W.)	10'	11.0'
FRONT (N.)	10'	17.4'
REAR (E.)	30'	30.6'
SIDE (S)	0'	NA

\* SETBACK TO EXISTING BUILDING (TO REMAIN)

### STORMWATER DETENTION DATA

DRAINAGE AREA: 1.31 AC  
 DEVELOPED % IMPERV: 0.96 AC (73.2%)  
 ALLOWABLE RELEASE RATE: 0.2 CFS/AC = 0.26 CFS  
 25-YR DETENTION STORAGE REQD: 9,106 CFT  
 PROPOSED DETENTION: UG DETENTION ~9,200 CFT

### PAVEMENT TYPE

STANDARD DUTY

### PARKING

REQUIRED NUMBER OF PARKING SPACES:

	REQUIREMENT	BUILDING AREA	REQUIRED PARKING
OFFICE/PROF.	1 SPACE FOR EACH 300 SQ FT OF FLOOR AREA	7,175 GSFT	24 SPACES
SINGLE-FAMILY	2 SPACES PER UNIT	9 UNITS	18 SPACES
TOTAL SPACES REQUIRED			40 SPACES
TOTAL SPACES PROVIDED			43 SPACES

TOTAL HANDICAP SPACES = 2 VAN ACCESSIBLE + 2 STANDARD = 4 SPACES

### FLOODPLAIN INFORMATION

CITY OF TROY, COMMUNITY NO. 260180  
 OAKLAND COUNTY, MICHIGAN  
 MAP NUMBER: 26125C0534F  
 EFFECTIVE DATE: 9/29/2006  
 FLOOD ZONE: X  
 AREA OF MINIMAL FLOOD HAZARD (PER FIRM)

### ZONING INFORMATION

ZONED NN (NEIGHBORHOOD NODE)  
 NODE H - LIVERNOIS & W. WATTLES INTERSECTION  
 STREET TYPE NN:A(LIVERNOIS) AND TYPE NN:B (LEETONIA)  
 SITE TYPE NN:B

### PROPRIETOR

STRATEGIC PROPERTY SERVICES, LLC  
 ATTN: VINCE PANGLE  
 4080 LIVERNOIS  
 TROY, MI 48098

### SURVEYOR

D&M SITE, INC.  
 401 BALSAM STREET  
 CARROLLTON, MI 48624  
 (989) 752-6500

### ENGINEER

REDRIDGE ENGINEERING, LLC  
 RICHARD FOSGITT, P.E.  
 2807 HIGHBROOK DRIVE  
 MIDLAND, MI 48642  
 (989) 513-4058



PROJECT LOG	FILE #	OVERALL	PROJ MGR:	DESIGN BY:	DRAWN BY:	CHECKED BY:	SCALE:	SHEET:
PRELIMINARY LAYOUT FOR REVIEW	04-17-22	RF	RF	RF	RF	RF	1"=30'	1 OF 1
UPDATED SITE PLAN REVIEW	04-13-22	RF	RF	RF	RF	RF	NONE	
UPDATED SITE PLAN REVIEW	04-24-22	RF	RF	RF	RF	RF		
UPDATED SITE PLAN REVIEW	04-24-22	RF	RF	RF	RF	RF		
REVISED LAYOUT	04-19-22	RF	RF	RF	RF	RF		

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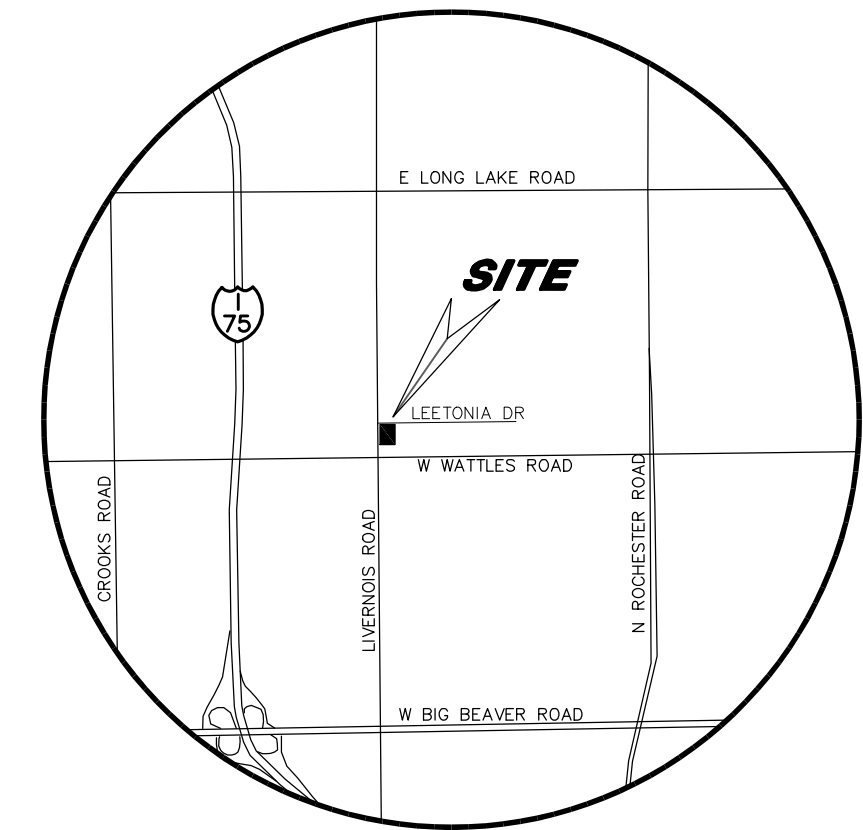
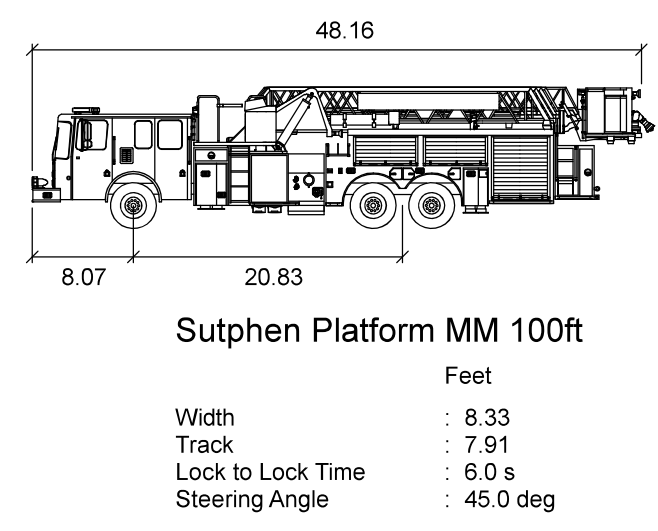
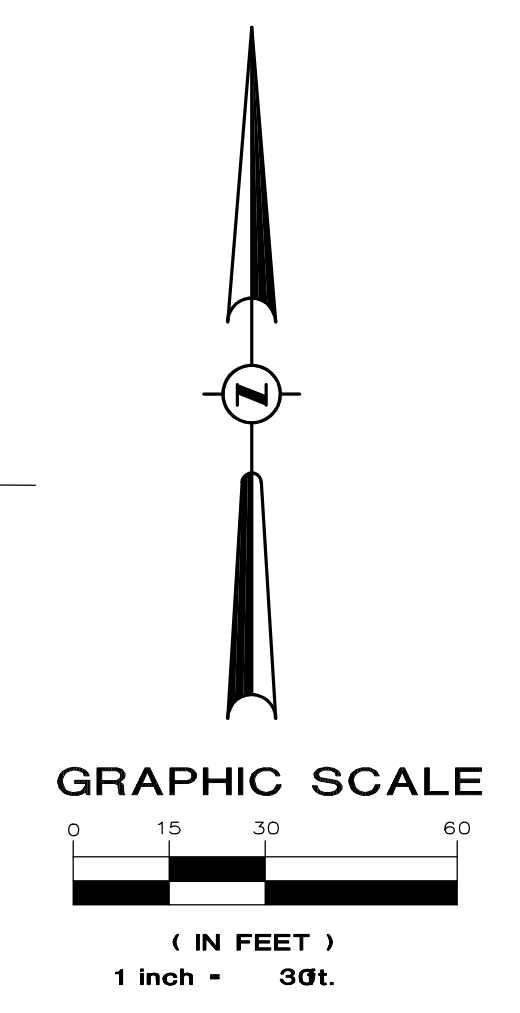
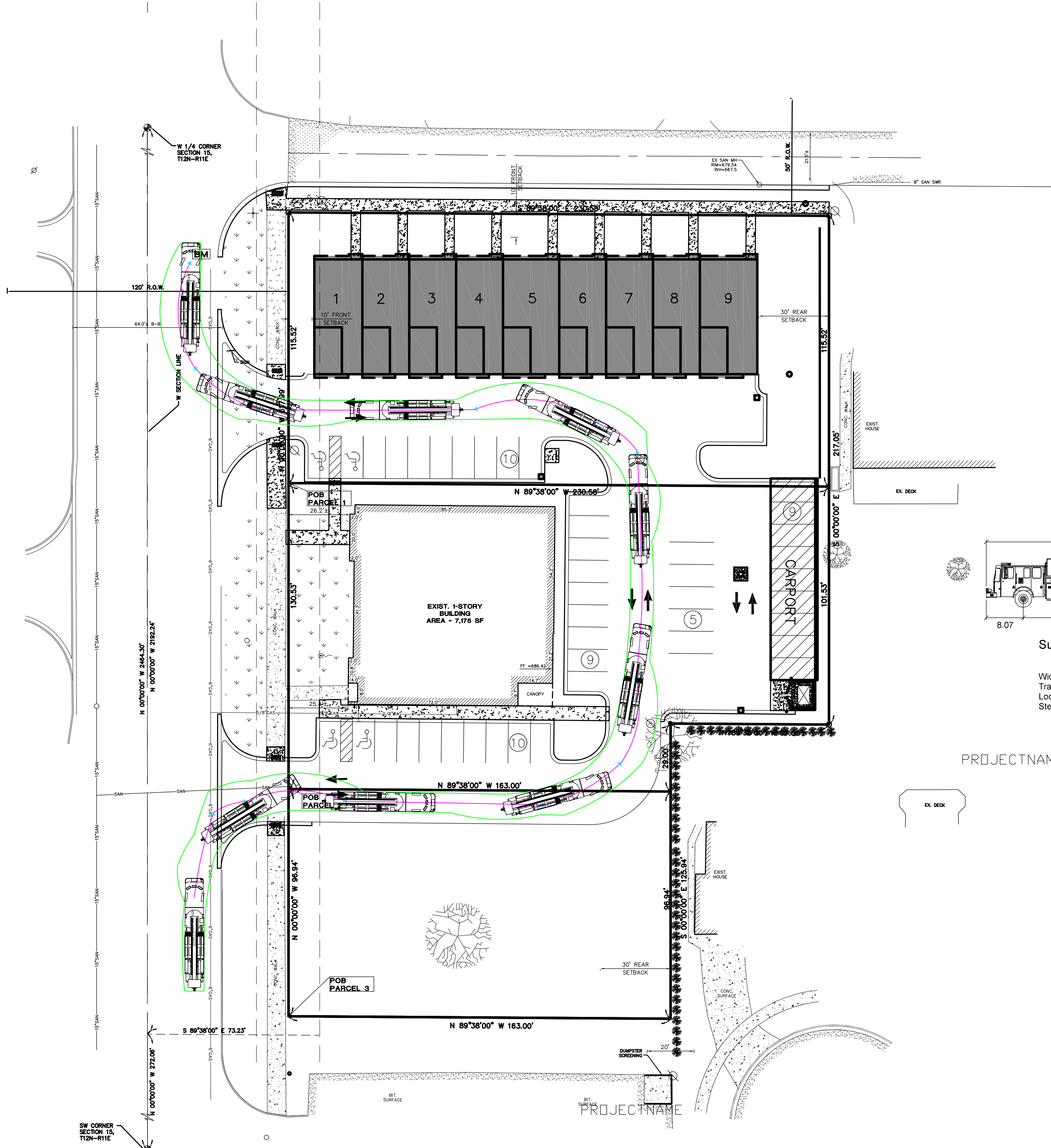
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LANGE VIEW TOWNHOUSES  
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 4080 LIVERNOIS ROAD  
 TROY, MI 48098  
 OAKLAND COUNTY, MICHIGAN

OVERALL SITE PLAN

**C3.0**  
 180401





**LOCATION MAP**  
NOT TO SCALE

LEGEND	
	MONUMENT / SECTION CORNER
	FOUND PROPERTY IRON
	SET PROPERTY IRON W/CAP NO.26454
	SET MAG NAIL
	EXISTING CATCHBASIN
	EXISTING MANHOLE/CATCHBASIN
	EXISTING MANHOLE
	EXISTING HYDRANT
	EXISTING VALVE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING WATERMAIN
	EXISTING FENCE LINE
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING UNDERGROUND GAS LINE
	EXISTING UNDERGROUND TELEPHONE LINE
	EXISTING CENTERLINE
	EXISTING OVERHEAD ELECTRICAL WIRES
	EXISTING MAILBOX/NEWSPAPER BOX
	EXISTING SIGN
	EXISTING DECIDUOUS TREES
	EXISTING CONIFEROUS TREES
	EXISTING UTILITY POWER POLE
	EXISTING TELEPHONE RISER
	EXISTING BOLLARD
	EXISTING LIGHT POLE
	EXISTING GAS METER
	EXISTING TRANSFORMER
	EXISTING FLAGPOLE
	EXISTING GRASS SURFACE
	EXISTING BITUMINOUS SURFACE
	EXISTING CONCRETE SURFACE

**PROPRIETOR**  
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**ENGINEER**  
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(989) 513-4058



PROJECT LOG
DESIGN LAYOUT DATE: 04-17-23
REVISED DATE: 04-24-23
REVISED LAYOUT: 10-10-23

FILE #	OVERALL	PROJ MGR	DESIGN BY	DRAWN BY	CHECKED BY	SCALE	SHEET
	RF	RF	RF	RF	RF	1"=30'	1 OF 1

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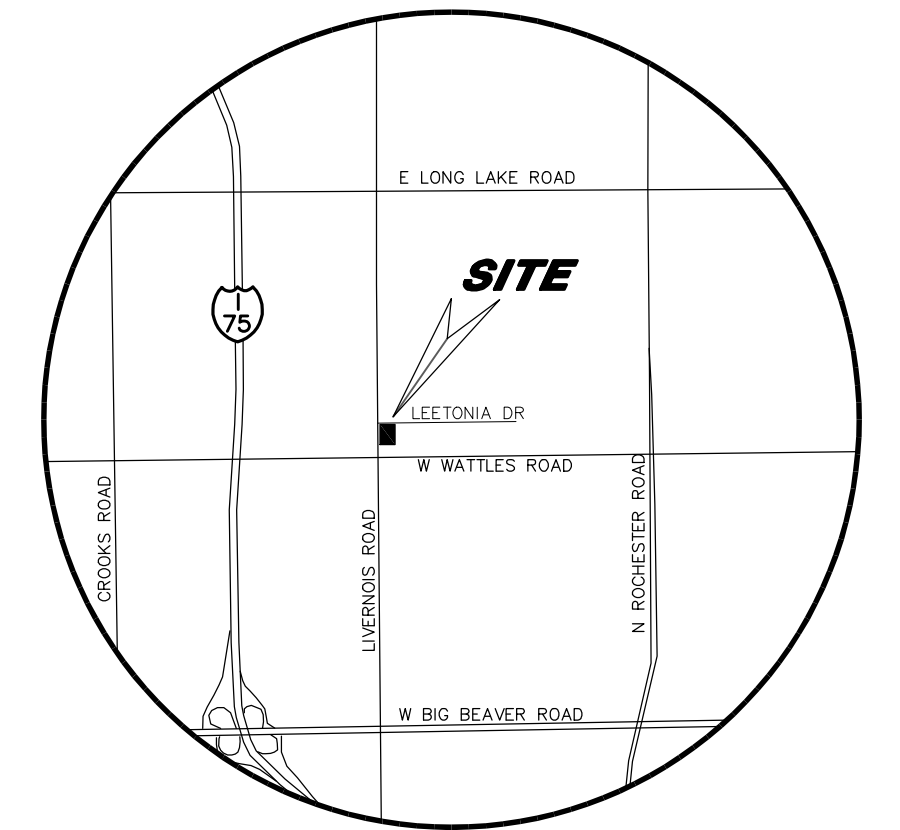
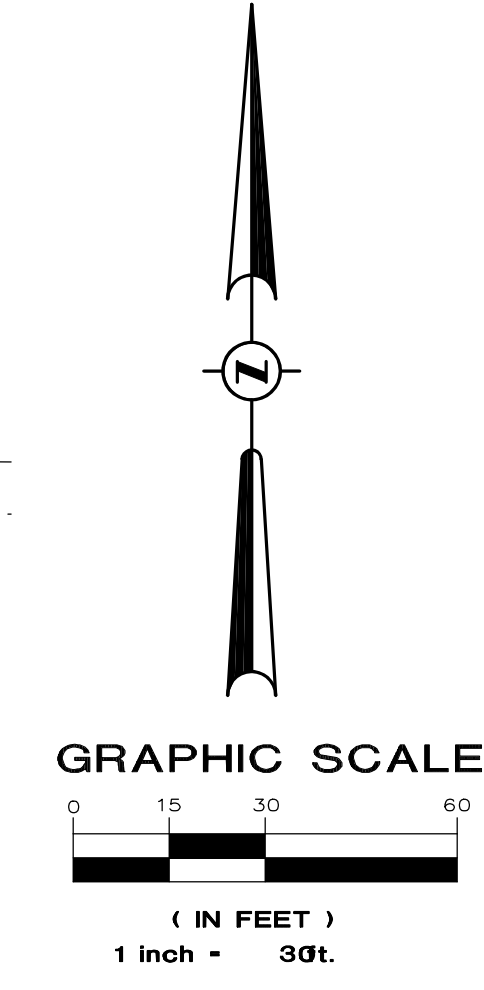
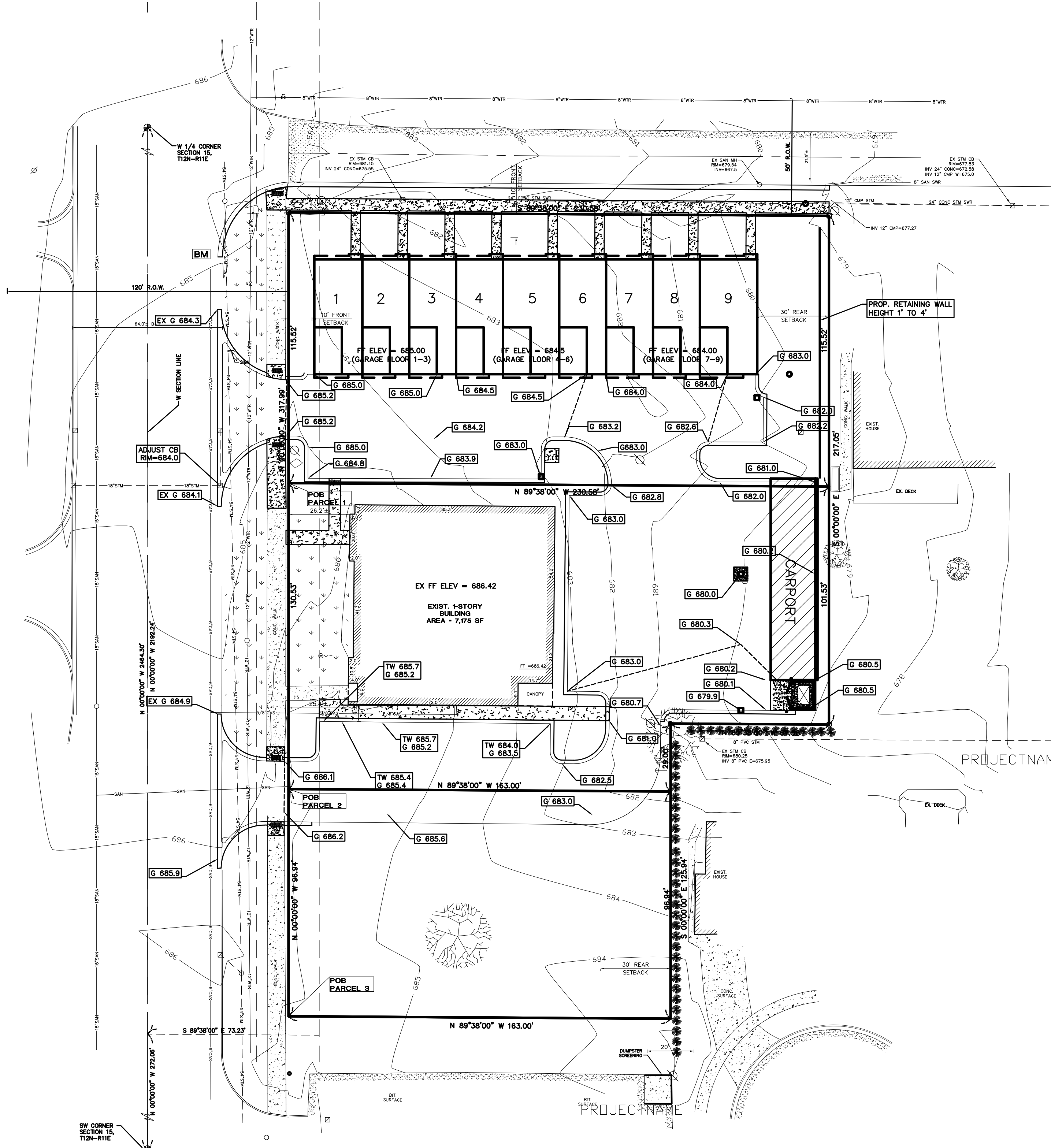
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**STRATEGIC PROPERTY SERVICES, LLC**  
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CITY OF LANSING  
OAKLAND COUNTY, MICHIGAN

**TURNING PLAN**

**C3.1**  
180401





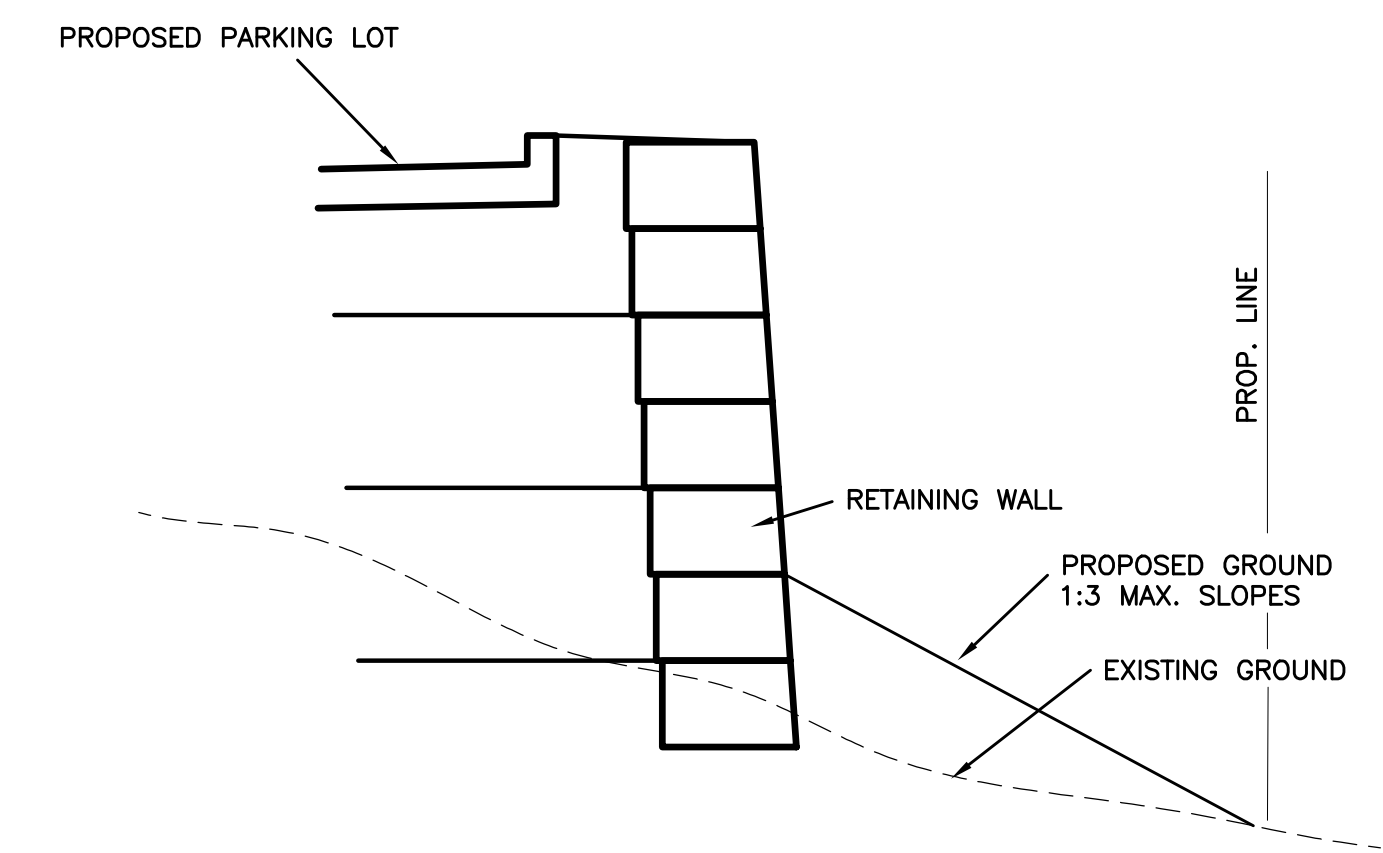
LOCATION MAP  
NOT TO SCALE

LEGEND	
	MONUMENT / SECTION CORNER
	FOUND PROPERTY IRON
	SET PROPERTY IRON W/CAP NO.26454
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	EXISTING LIGHT POLE
	EXISTING GAS METER
	EXISTING TRANSFORMER
	EXISTING FLAGPOLE
	EXISTING GRASS SURFACE
	EXISTING BITUMINOUS SURFACE
	EXISTING CONCRETE SURFACE

G XXX.X DENOTES PAVEMENT GRADE (EDGE OF METAL)  
 W XXX.X DENOTES SIDEWALK GRADE

SITE GRADING NOTES

1. GRADING BASIS OF DESIGN:  
PAVEMENT MIN. 1.0% SLOPE  
CURB AND GUTTER MIN. 0.50% SLOPE
2. CONTRACTOR TO PROVIDE SOIL EROSION CONTROL MEASURES AS NECESSARY TO PREVENT ANY EROSION OR SEDIMENTATION. PROTECT ALL DRAINAGE STRUCTURES WITH SILT FENCE, SURFACE SEDIMENT SUMPS, OR OTHER APPROVED MEASURES.
3. PROPOSED RETAINING WALL SHALL BE REDI-ROCK OR APPROVED EQUAL. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF RETAINING WALL FOR APPROVAL BY OWNER AND TOWNSHIP ENGINEER.



EAST RETAINING WALL SECTION

**PROPRIETOR**  
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**ENGINEER**  
 REDRIDGE ENGINEERING, LLC  
 RICHARD FOSGITT, P.E.  
 2807 HIGHBROOK DRIVE  
 MIDLAND, MI 48642  
 (989) 513-4058



PROJECT LOG	DATE	DESCRIPTION
ISSUED FOR PERMIT	04-17-23	
REVISED PERMIT	08-31-23	
REVISED PERMIT	10-10-23	

FILE #	OVERALL	PROJ MGR	DESIGN BY	DRAWN BY	CHECKED BY	SCALE	SHEET
	RF	RF	RF	RF	RF	1"=30'	1 OF 1

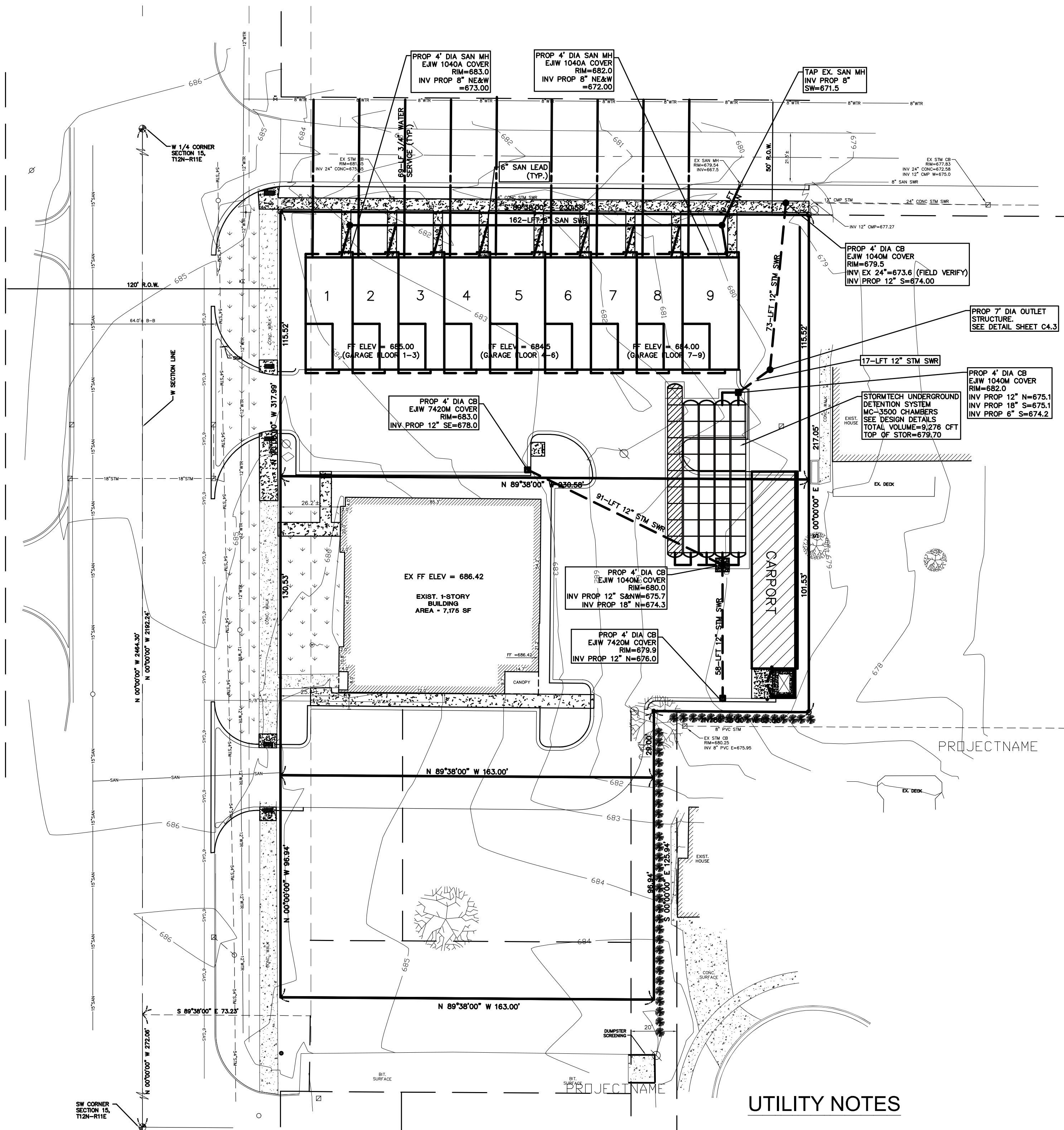
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**LANGE VIEW TOWNHOUSES**  
**STRATEGIC PROPERTY SERVICES, LLC**  
 4088 LIVERNOS ROAD  
 CITY OF TROY  
 OAKLAND COUNTY, MICHIGAN

GRADING PLAN





**UTILITY NOTES**

- ALL 12" AND LARGER STORM SEWER SHALL BE DUAL WALL HDPE PIPE INSTALLED WITH FULL SAND BACKFILL PER CITY STD. DETAILS. ALL STORM SEWER SHALL BE CONSTRUCTED WITH PREMIUM GASKETED JOINTS.
- ALL 6" STORM ROOF LEADS SHALL BE PVC SDR-26 PIPE.
- WATER SERVICE SHALL BE TYPE K COPPER SERVICE WITH FULL SAND BACKFILL.
- SANITARY SEWER LEADS SHALL BE PVC SDR-26 PIPE INSTALLED WITH FULL SAND BACKFILL AND BEDDING PER CITY STANDARD DETAILS.
- ALL DRAINAGE STRUCTURE CASTINGS LOCATED WITHIN BITUMINOUS PAVEMENT SHALL HAVE CONCRETE COLLARS PER THE SITE DETAILS.
- SANITARY AND WATER BASIS OF DESIGN: 8.0 REU.

**Stormwater Detention Calculations**

Input Data		Per city of Troy Requirements	
Return Period	25-yr		
Ai (acres)	0.96		
A (acres)	1.31		

Detention Area Calculations		Per city of Troy Requirements	
I, Intensity of Rainfall	= 1.2256		
Qa, Allowable Runoff	= 0.262	0.2 cfs/ac	
Qo, Maximum Outflow	= 0.262	cfs	
T, Storage Time	= 150.42	min	
Vs, Volume of Storage per Ai	= 9485	cft	
Vt, Total Storage Required	= 9106	cft	

Detention Volume Required	
	<b>= 9106 cft</b>

Formulas/Definitions	
A, Acreage of Site	
Ai, Proposed Imp. Acres (After Construction)	
Ci, Impervious Run-off Coef	= 0.90
Cp, Pervious Run-off Coef	= 0.15
I, Intensity of Rainfall	= 2.15/(25+1)
Qa, Allowable Runoff	= Ci I Ai + Cp I Ap
Qo, Maximum Outflow	= Qa/Ai
T, Storage Time	= [(8062.5/Qo)^0.5]-25
Vs, Volume of Storage per Ai	= (12900xT)/(T+25) - 4000T
Vt, Total Storage Required	= Vs x Ai

**User Inputs**

Chamber Model:	MC-3500
Outlet Control Structure:	Yes
Project Name:	Livernois Site 2 copy
Engineer:	Richard Fosgitt
Project Location:	Michigan
Measurement Type:	Imperial
Required Storage Volume:	9100 cubic ft.
Stone Porosity:	40%
Stone Foundation Depth:	9 in.
Stone Above Chambers:	12 in.
Average Cover Over Chambers:	18 in.
Design Constraint Dimensions:	(80 ft. x 100 ft.)

**Results**

**System Volume and Bed Size**

Installed Storage Volume:	9276.06 cubic ft.
Storage Volume Per Chamber:	109.90 cubic ft.
Number of Chambers Required:	46
Number of End Caps Required:	10
Chamber Rows:	5
Maximum Length:	81.55 ft.
Maximum Width:	36.08 ft.
Approx. Bed Size Required:	2797.01 square ft.

**System Components**

Amount of Stone Required:	377.01 cubic yards
Volume of Excavation (Not including Fill):	569.76 cubic yards

**Restrictor Sizing Calculations**

Detention Pond		
Qa, Allowable Runoff	0.262	cfs
Pass through (existing)	0.000	cfs
Total Release Rate	0.262	cfs
Design High Water Elev	679.20	Top of stone
Downstream Water Surface	675.60	Exist 24" outlet full
Computed Head, h	3.60	ft
C (coefficient)	0.62	

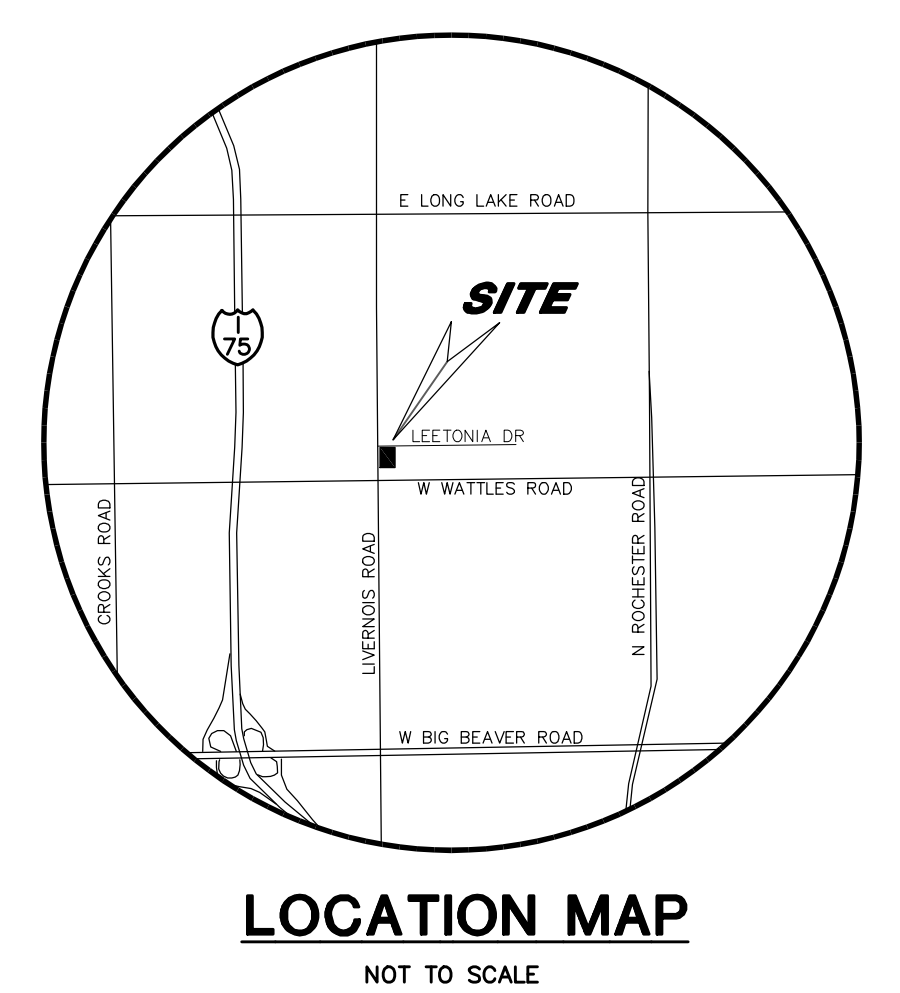
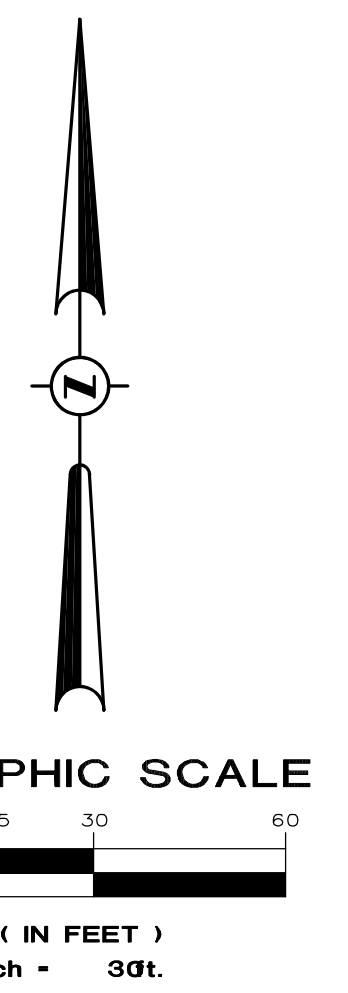
  

Restrictor Sizing Calculations		
Q = CA (2gh)^0.5 (cfs)		
A, Area of Pipe	0.0278	sq ft
r, Radius of Pipe	0.0940	ft
d, Diameter of Pipe (ft)	0.1880	ft
d, diameter of Pipe (in)	2.2558	in

Restrictor Size Required	2.26	in
Actual Restrictor Size	2.250	in
Actual Release Rate	0.261	cfs

**O.K.**



**LEGEND**

○	MONUMENT / SECTION CORNER
●	FOUND PROPERTY IRON
○	SET PROPERTY IRON W/CAP NO.26454
○	SET MAG NAIL
○	EXISTING CATCHBASIN
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○	EXISTING TRANSFORMER
○	EXISTING FLAGPOLE
○	EXISTING GRASS SURFACE
○	EXISTING BITUMINOUS SURFACE
○	EXISTING CONCRETE SURFACE



**PROJECT LOG**

DATE	DESCRIPTION
08-17-23	ISSUE/REVISION
08-21-23	UPDATED SITE PLAN REVIEW
04-04-23	REVISED LAYOUT
10-10-22	

FILE #:	OVERALL
PROJ MGR:	RLF
DESIGN BY:	RLF
DRAWN BY:	RLF
CHECKED BY:	
SCALE:	1"=30'
SHEET:	1 OF 1

REDRIDGE ENGINEERING, LLC  
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 989-513-4058 RFOSGITT@REDRIDGE-ENG.COM

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 CITY CENTER  
 OAKLAND COUNTY, MICHIGAN

**PROPRIETOR**  
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 TROY, MI 48098

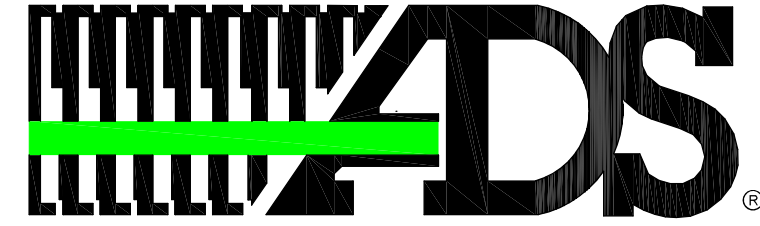
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**ENGINEER**  
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**C4.1**  
 180401

UTILITY PLAN





ADVANCED DRAINAGE SYSTEMS, INC.

4080 LIVERNOIS SITE

TROY, MI



MC-3500 STORMTECH CHAMBER SPECIFICATIONS

- 1. CHAMBERS SHALL BE STORMTECH MC-3500.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a...

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

- 1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE 'STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE'.

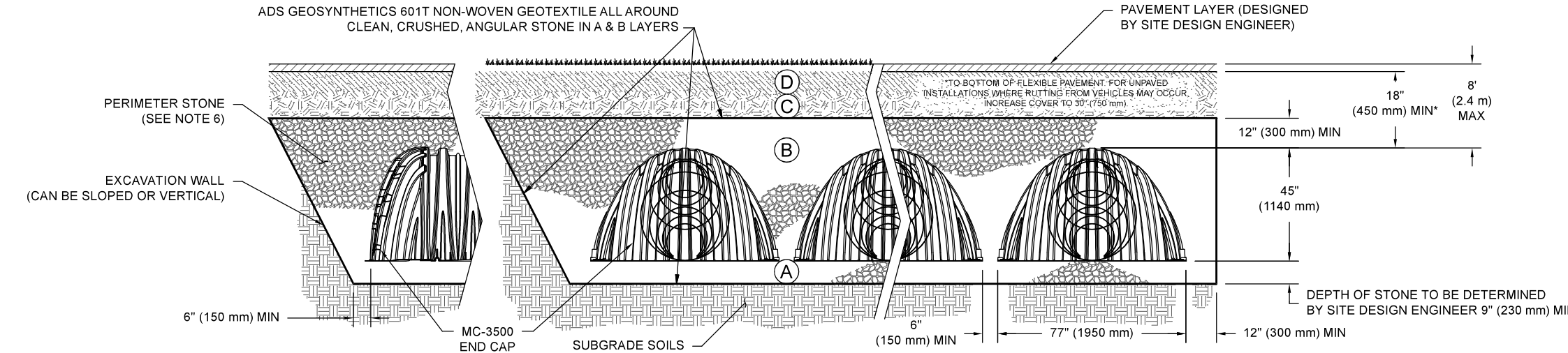
NOTES FOR CONSTRUCTION EQUIPMENT

- 1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE 'STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE'.
2. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED.
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

Table with 4 columns: MATERIAL LOCATION, DESCRIPTION, AASHTO MATERIAL CLASSIFICATIONS, COMPACTION / DENSITY REQUIREMENT. Rows A-D describe fill materials for foundation stone, embedment stone, and final fill.

- PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR...
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR A LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS...

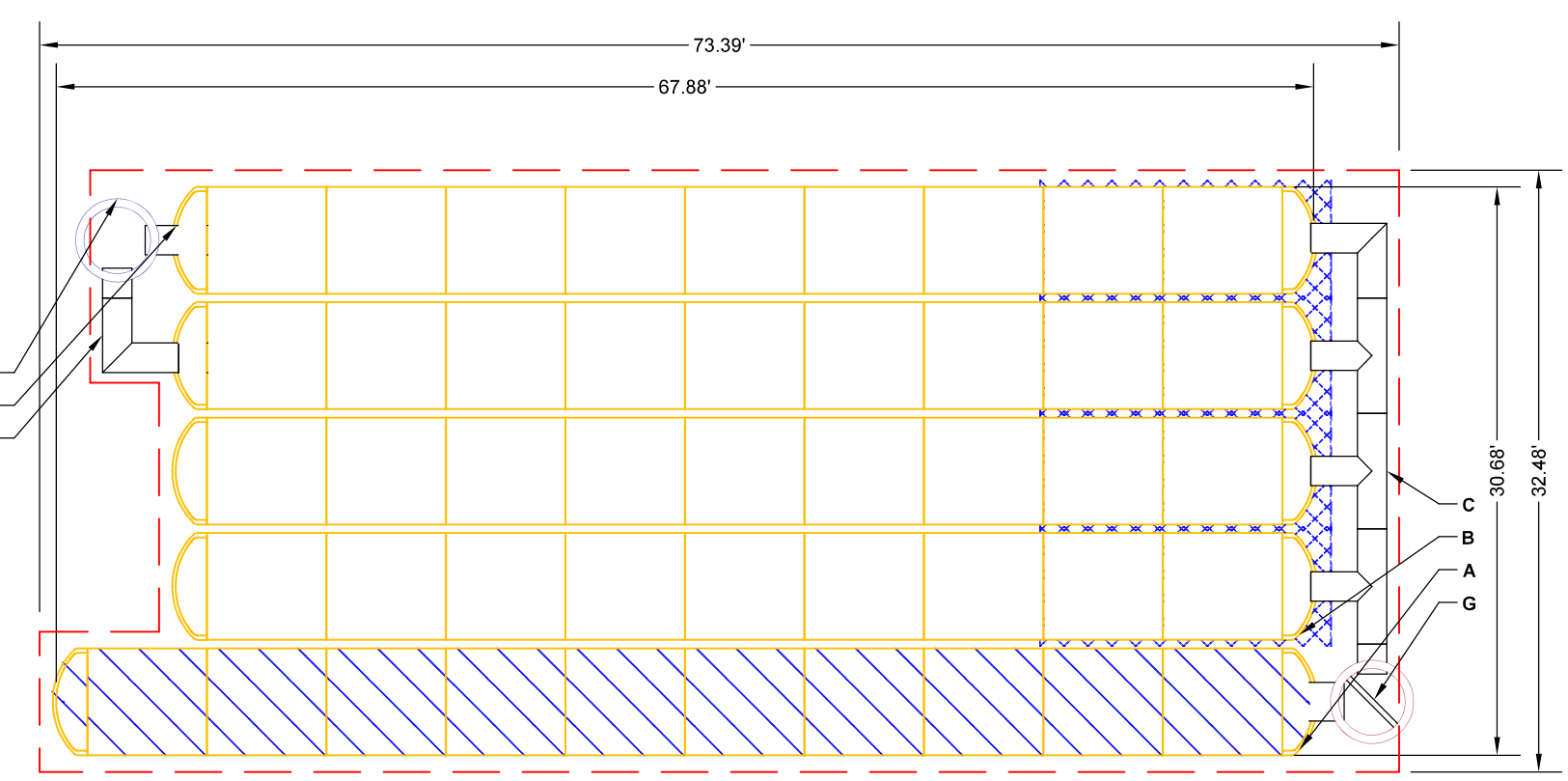


NOTES:

- 1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a. 'STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS' CHAMBER CLASSIFICATION 48x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 'STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS'.

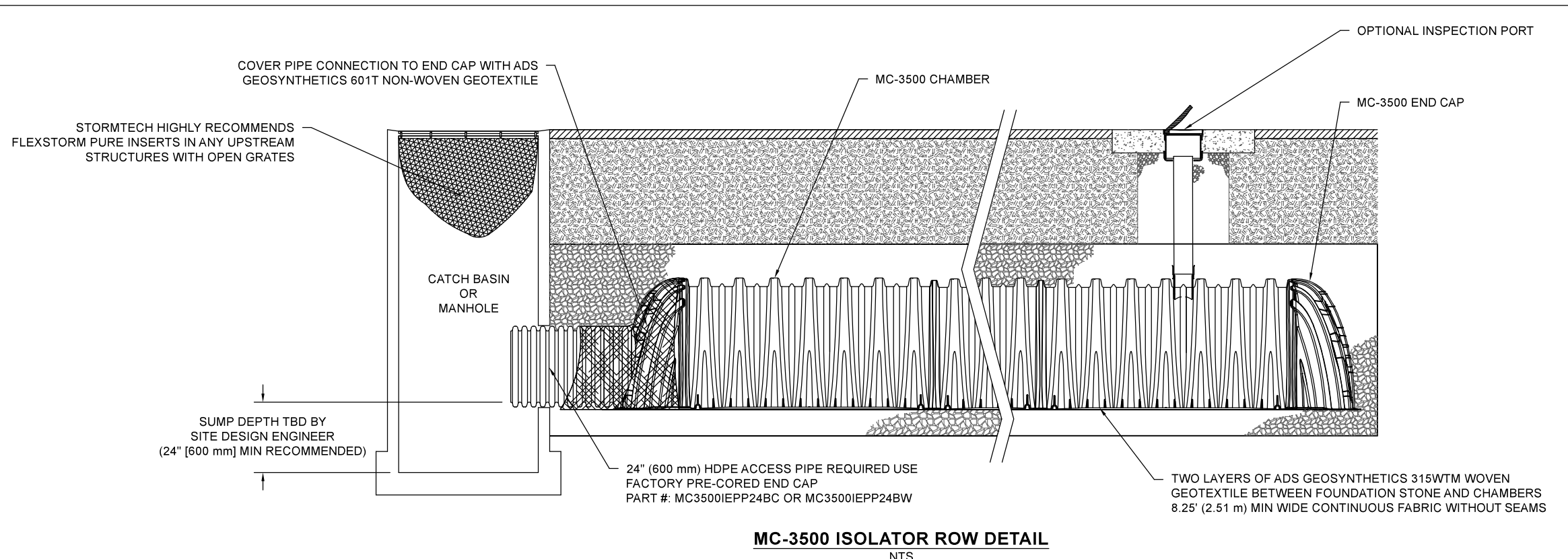
Table with 2 columns: PROPOSED LAYOUT, PROPOSED ELEVATIONS. Lists items like STORMTECH MC-3500 CHAMBERS, END CAPS, STONE ABOVE, STONE BELOW, STONE VOID, etc.

Table with 5 columns: PART TYPE, ITEM ON LAYOUT, DESCRIPTION, INVERT, MAX FLOW. Lists components like PREFABRICATED END CAP, MANIFOLD, PIPE CONNECTION, etc.



- NOTES:
- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH SHEET #7 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.

Project information block including: LIVERNOIS SITE 2 COPY, TROY, MI, DRAWN: RF, CHECKED: N/A, DATE, PROJECT #, SHEET 2 OF 5.



- INSPECTION & MAINTENANCE:
STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
A. INSPECTION PORTS (IF PRESENT)
A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
A.3. USING A FLASHLIGHT AND STADIUM ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG

- NOTES:
1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

Project information block including: LIVERNOIS SITE 2 COPY, TROY, MI, DRAWN: RF, CHECKED: N/A, DATE, PROJECT #, SHEET 4 OF 5.

RICHARD L. FOSGITT, P.E.

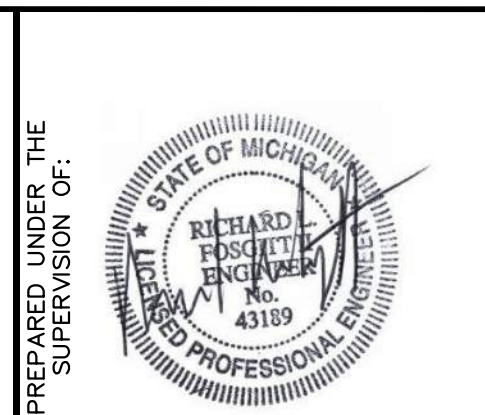


Table with 2 columns: PROJECT LOG, FILE # OVERALL. Includes dates for design, construction, and as-built review.

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TROY, MI 48063
OAKLAND COUNTY, MICHIGAN

C4.2
180401
STORMWATER DETAILS



### MC-3500 TECHNICAL SPECIFICATION

**NOMINAL CHAMBER SPECIFICATIONS**

SIZE (W X H X INSTALLED LENGTH)	77.0\" X 45.0\" X 86.0\"	(1956 mm X 1143 mm X 2184 mm)
CHAMBER STORAGE	108.9 CUBIC FEET	(3.11 m <sup>3</sup> )
MINIMUM INSTALLED STORAGE*	175.0 CUBIC FEET	(4.96 m <sup>3</sup> )
WEIGHT	134 lbs.	(60.8 kg)

**NOMINAL END CAP SPECIFICATIONS**

SIZE (W X H X INSTALLED LENGTH)	75.0\" X 45.0\" X 22.2\"	(1905 mm X 1143 mm X 564 mm)
END CAP STORAGE	14.9 CUBIC FEET	(0.42 m <sup>3</sup> )
MINIMUM INSTALLED STORAGE*	45.1 CUBIC FEET	(1.28 m <sup>3</sup> )
WEIGHT	49 lbs.	(22.2 kg)

\*ASSUMES 12\" (305 mm) STONE ABOVE, 9\" (229 mm) STONE FOUNDATION, 6\" SPACING BETWEEN CHAMBERS, 6\" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"  
 STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"  
 END CAPS WITH A WELDED CROWN PLATE END WITH "C"  
 END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC3500EPP09T	0\" (150 mm)	33.21\" (844 mm)	---
MC3500EPP09B	---	---	0.66\" (17 mm)
MC3500EPP09T	8\" (200 mm)	31.16\" (791 mm)	---
MC3500EPP09B	---	---	0.81\" (21 mm)
MC3500EPP10T	10\" (250 mm)	29.04\" (738 mm)	---
MC3500EPP10B	---	---	0.93\" (24 mm)
MC3500EPP12T	12\" (300 mm)	26.36\" (670 mm)	---
MC3500EPP12B	---	---	1.35\" (34 mm)
MC3500EPP15T	15\" (375 mm)	23.39\" (594 mm)	---
MC3500EPP15B	---	---	1.50\" (38 mm)
MC3500EPP18T	18\" (450 mm)	20.03\" (509 mm)	---
MC3500EPP18B	---	---	1.77\" (45 mm)
MC3500EPP16W	---	14.48\" (368 mm)	---
MC3500EPP24T	24\" (600 mm)	---	2.06\" (52 mm)
MC3500EPP24B	---	---	2.75\" (70 mm)
MC3500EPP24W	---	---	---
MC3500EPP30B	30\" (750 mm)	---	---

CUSTOM PRECURED INVERTS ARE AVAILABLE UPON REQUEST  
 INVENTORIED MANIFOLDS INCLUDE 12-24\" (300-600 mm) SIZE ON SIZE AND 15-48\" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP OUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10\" (250 mm). THE INVERT LOCATION IN COLUMN "B" ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

NOTE: ALL DIMENSIONS ARE NOMINAL

LIVERNOIS SITE 2 COPY

REV. DATE DESCRIPTION

1. 08/21/21 TROT, MI

2. 08/21/21 RF

3. 08/21/21

4. 08/21/21

5. 08/21/21

6. 08/21/21

7. 08/21/21

8. 08/21/21

9. 08/21/21

10. 08/21/21

11. 08/21/21

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**LANDSCAPE MAINTENANCE PLAN:**

ALL SCREENING ELEMENTS AND PLANT MATERIALS SHALL BE MAINTAINED IN ACCORDANCE WITH THIS SITE PLAN, AND THE FOLLOWING:

A. SCREENING ELEMENTS AND PLANT MATERIALS SHALL BE INSTALLED IN A MANNER CONSISTENT WITH AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS

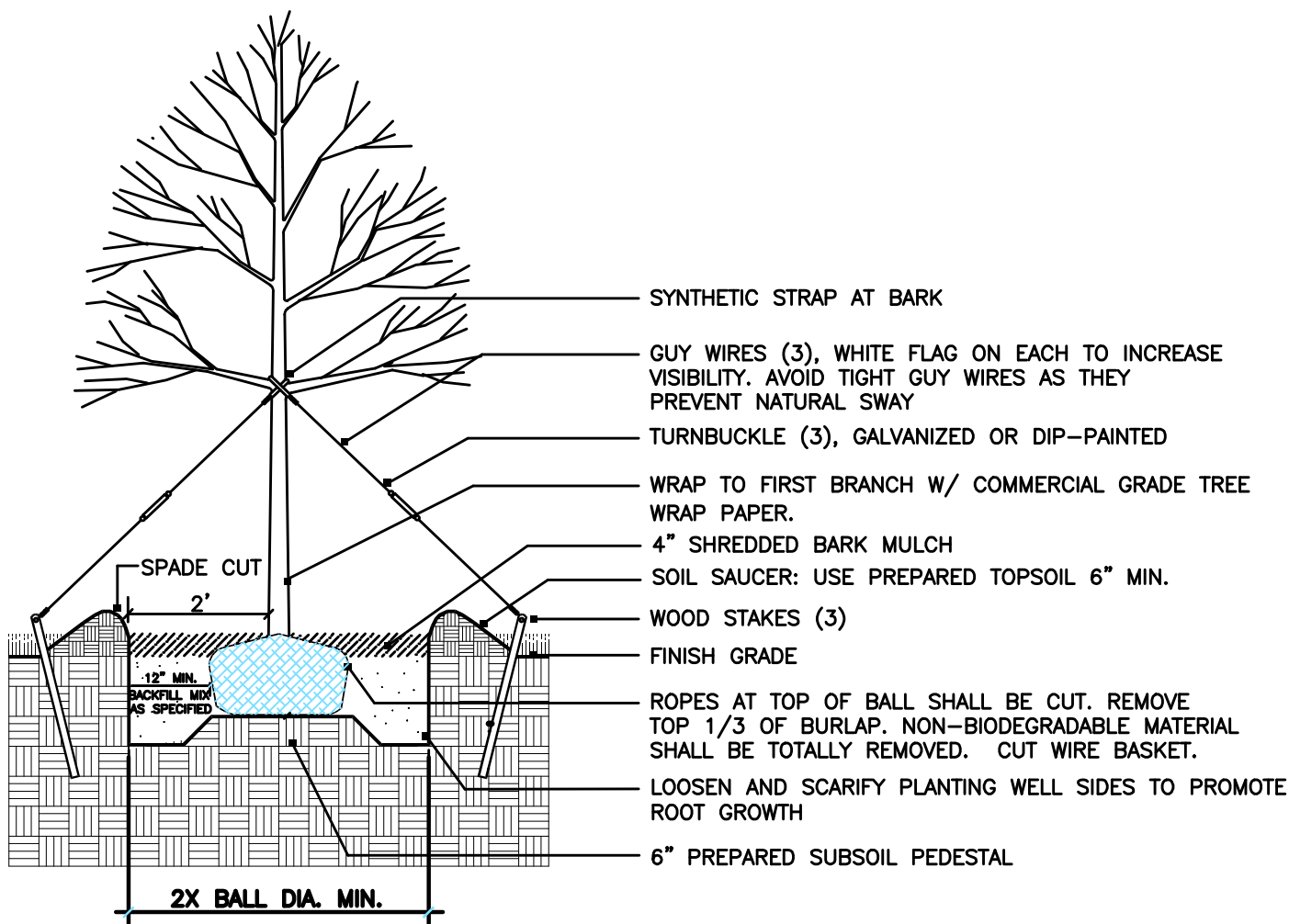
B. IN ADDITION TO THE WATERING-IN REQUIRED AT THE TIME OF PLANTING, WATER, CULTIVATE, AND REMOVE GRASS AND WEEDS AROUND EACH PLANT AT LEAST 5 TIMES DURING THE FIRST FULL YEAR GROWING SEASON TO ENSURE HEALTHY PLANTING GROWTH. DURING EACH WATERING AND CULTIVATION, REMOVE GRASS AND WEEDS WITHIN THE MULCH RING. CUT GRASS TO 3 INCHES HIGH. INSPECT LANDSCAPING AND REMOVE INSECT INFESTATIONS OR DISEASE DAMAGE TO THE PLANTS AND PRUNE DEAD WOOD.

C. DURING THE FIRST AND SECOND WATERING OF THE SECOND GROWING SEASON, USE A NITROGEN-ENRICHED SOLUTION AS PART OF WATERING. APPLY FERTILIZER BEFORE JULY 7. AT THE FIRST WATERING OF THE SECOND GROWING SEASON, REMOVE AND DISPOSE OF THE GUYING MATERIAL, WRAPPING MATERIAL, IDENTIFICATION TAGS, AND INSPECTION TAGS. AT THE FINAL WATERING, REPLENISH THE MULCH AROUND THE PLANTS TO A DEPTH OF 4-6 INCHES.

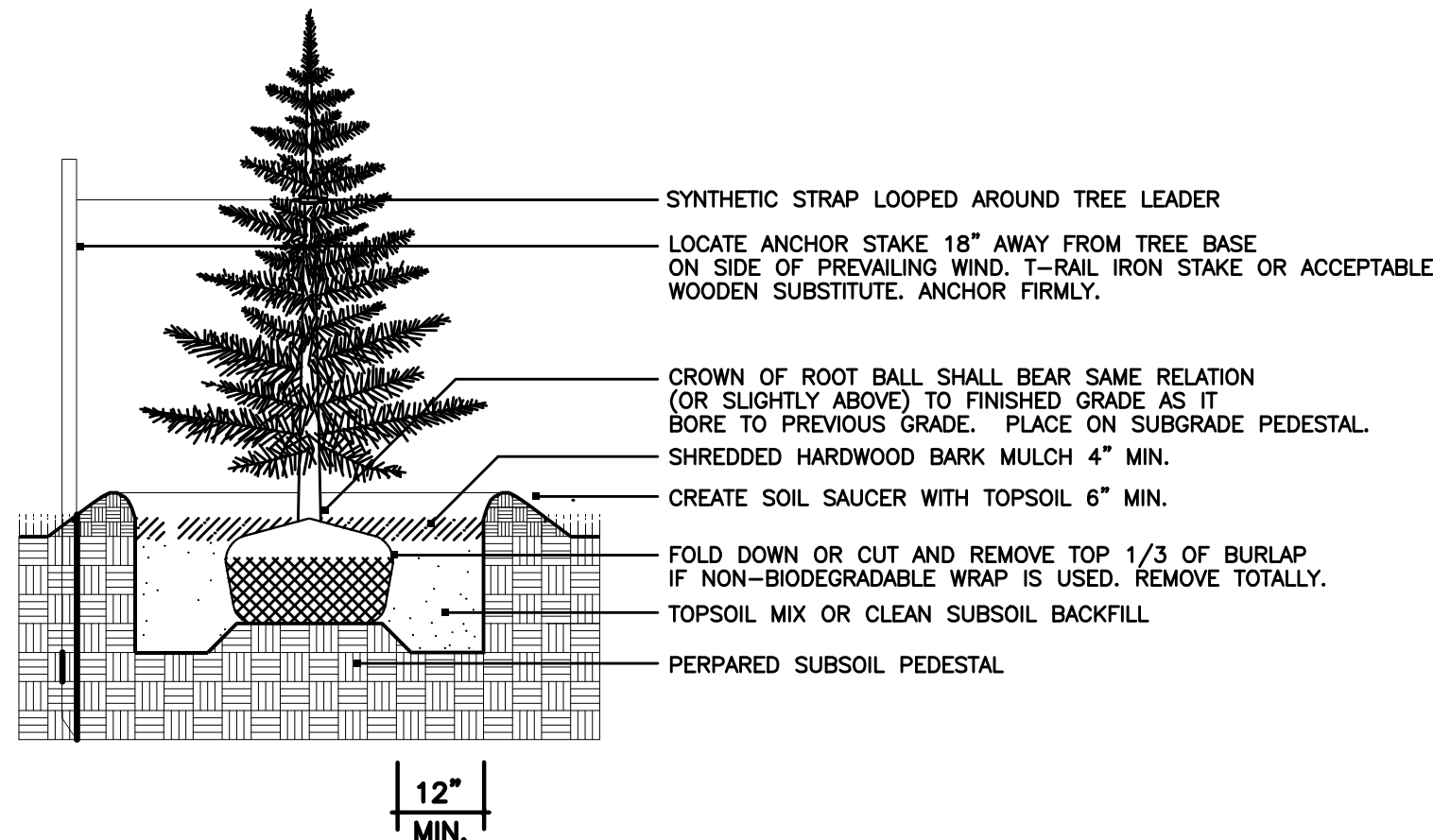
D. PRUNING OF PLANT MATERIALS SHALL BE LIMITED TO THE MINIMUM NECESSARY TO ENSURE PROPER MATURATION OF PLANTS TO ACHIEVE THEIR INTENDED PURPOSE. ENSURE AN ARBORIST, CERTIFIED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE, PRUNES BRANCHES BEFORE PLANTING. DO NOT USE PRUNING PAINT. PRUNE DECIDUOUS TREES TO REMOVE DEAD WOOD AND BROKEN BRANCHES. PRUNE EVERGREENS TO REMOVE BROKEN OR DAMAGED BRANCHES. PRUNE SHRUBS TO FORM AN OUTLINE CONFORMING TO THE GENERAL SHAPE OF THE SHRUB TYPE.

E. PLANT MATERIALS SHALL BE KEPT IN A NEAT, ORDERLY AND HEALTHY GROWING CONDITION, FREE FROM WEEDS, DEBRIS AND REFUSE. ALL REQUIRED PLANTINGS SHALL BE PLANTED AND MAINTAINED AS SHOWN. OWNER SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF DEAD OR DISEASED PLANT MATERIALS.

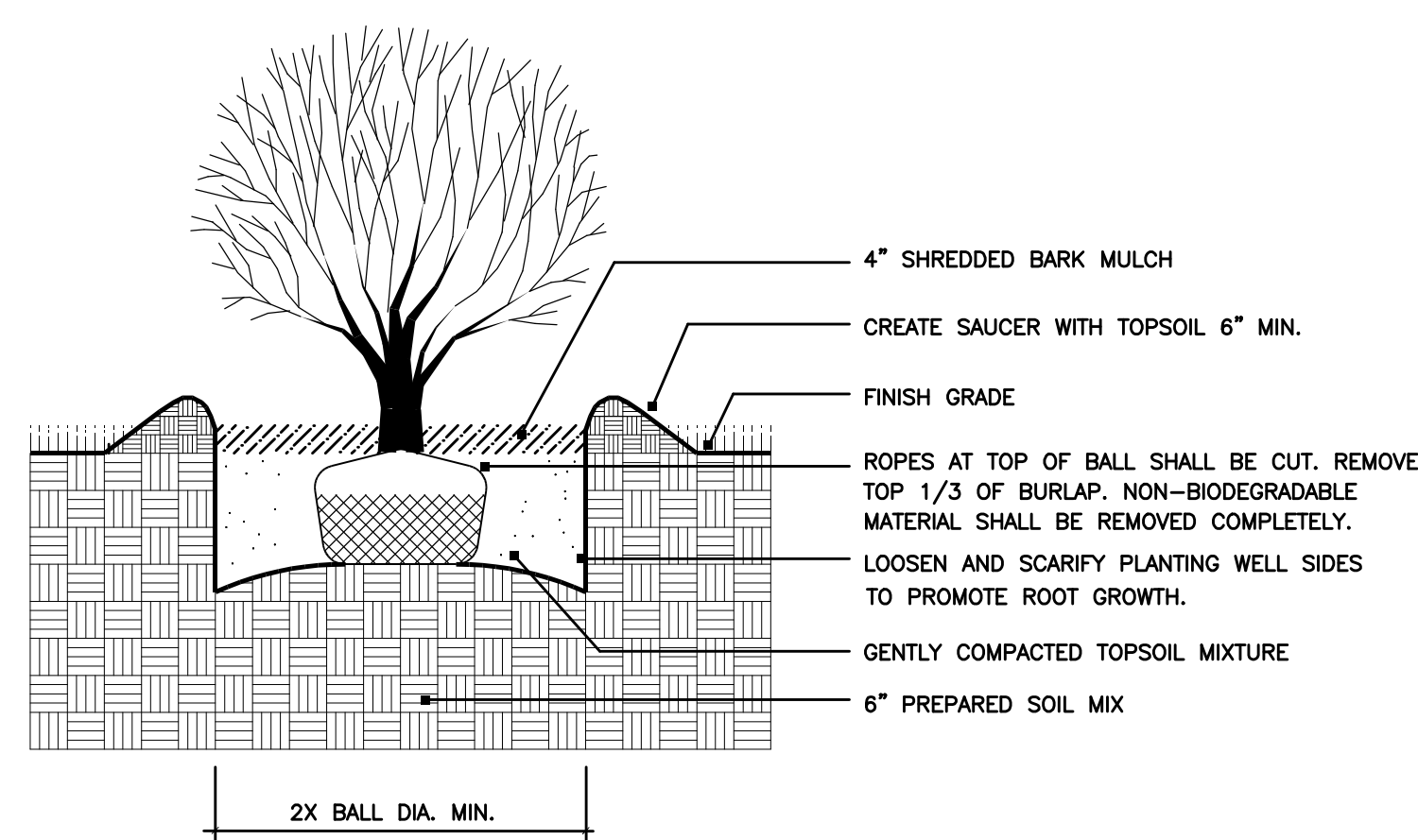
F. THE REPLACEMENT OR REMOVAL OF ANY PLANT MATERIALS IN A MANNER NOT CONSISTENT WITH THIS SITE PLAN IS NOT PERMITTED WITHOUT CITY APPROVAL.



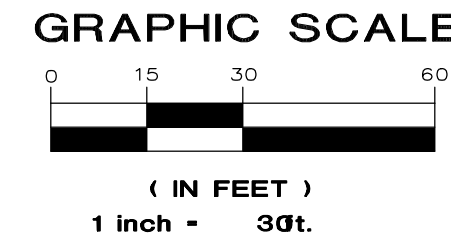
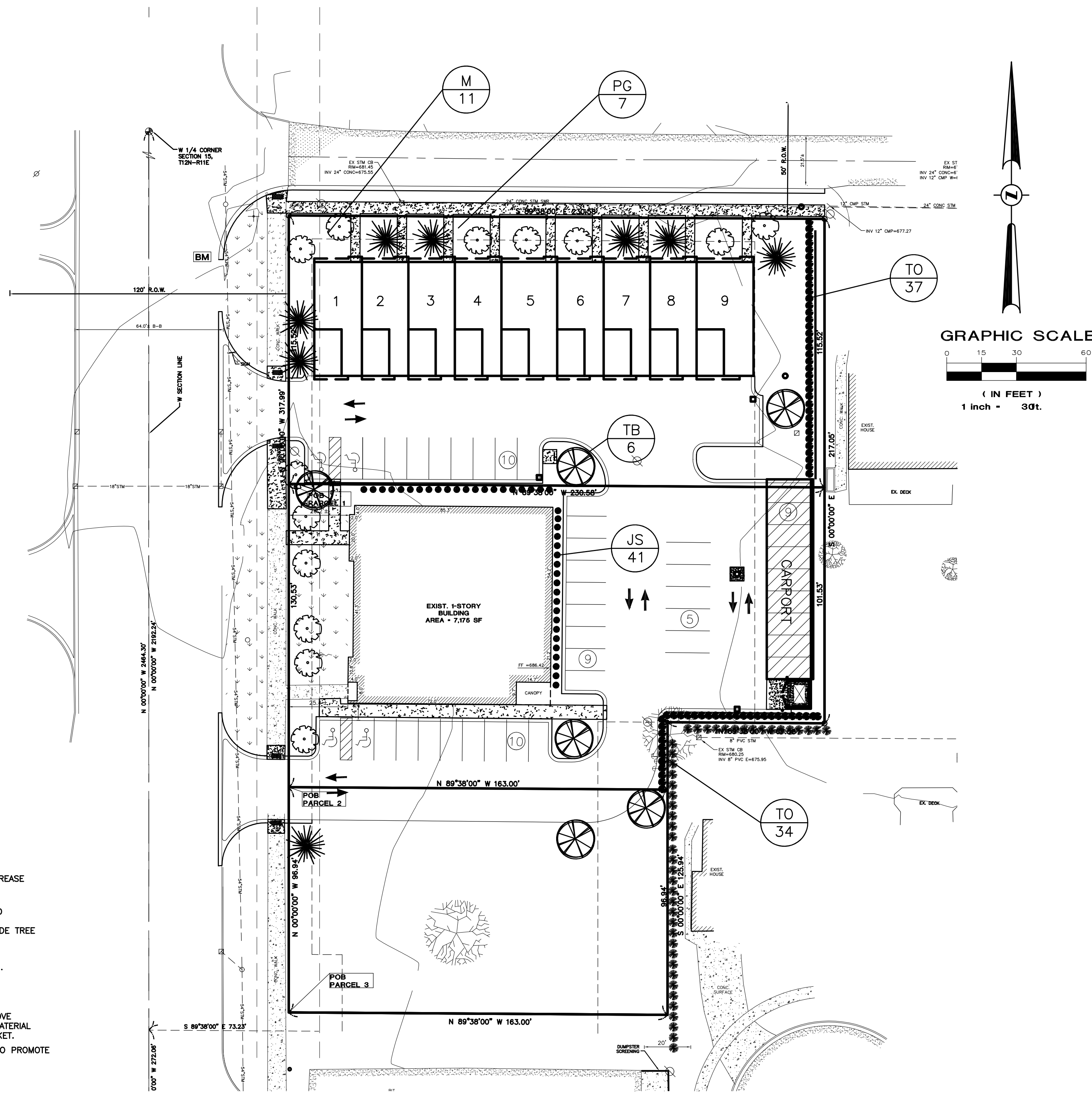
**TYPICAL TREE PLANTING DETAIL**  
NOT TO SCALE



**TYPICAL EVERGREEN PLANTING DETAIL**  
NOT TO SCALE



**TYPICAL SHRUB PLANTING DETAIL**  
NOT TO SCALE



**NOTES:**

- BARK MULCH AREAS NOTED ON PLANS SHALL CONSIST OF 4" DEPTH OF SHREDDED HARDWOOD BARK MULCH.
- A SIX FOOT DIAMETER SHREDDED HARDWOOD BARK MULCH RING SHALL BE PLACED AROUND ALL PROPOSED PLANTINGS NOT DESIGNATED FOR PLANTERS.
- ALL PLANT MATERIAL AND PLANTINGS SHALL CONFORM TO ANSI 260.1 OR CURRENT EDITION.
- AREAS NOT SPECIFIED WITH PLANT MATERIAL SHALL BE FINE GRADED AND SEEDED FOR TURF ESTABLISHMENT.
- CONTRACTOR/LANDSCAPE CONTRACTOR SHALL COORDINATE FINAL PLACEMENT OF ALL PLANT MATERIAL LOCATIONS FOR APPROVAL BY ENGINEER IN RELATION TO FINAL UTILITY PLACEMENT.
- WHERE A DISCREPANCY IS FOUND BETWEEN EXISTING FIELD CONDITIONS AND/OR REQUIRED LANDSCAPING WORK, NOTIFY OWNER OR ENGINEER FOR CLARIFICATION IMMEDIATELY.
- ALL EXCESS EXCAVATED MATERIALS AND DEBRIS, WHICH ARE NOT ACCEPTED FOR DISPOSAL ON SITE BY THE OWNER SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF LEGALLY OFFSITE.
- PLANT DECIDUOUS PLANTS FROM MARCH 1 TO MAY 15 AND FROM OCTOBER 1 UNTIL THE PREPARED SOIL FREEZES. IF UNUSUAL PLANTING CONDITIONS EXIST OR IF USING CONTAINER-GROWN MATERIAL, THE ENGINEER MAY ALTER THESE PLANTING SEASONS. PLANT EVERGREEN PLANTS FROM MARCH 1 TO JUNE 1.
- SEEDING SHALL OCCUR FROM APRIL 15 THROUGH OCTOBER 10. DORMANT SEEDING IS PERMITTED AFTER NOVEMBER 15, BUT NOT ON FROZEN GROUND.
- ALL TURF ESTABLISHMENT SHALL BE DONE BY HYDROSEEDING WITH A COMMERCIAL MIXTURE INCLUDING SEED, FERTILIZER, AND MULCH. SEED MIX SHALL BE APPROVED FOR HEAVY SOIL IN FULL SUN CONDITIONS AND APPLIED AT A MINIMUM RATE OF 400 LBS PER ACRE.
- THE OWNER SHALL BE RESPONSIBLE TO MAINTAIN ALL LANDSCAPING PER THE MAINTENANCE PLAN CONTAINED HEREIN AND IN ACCORDANCE WITH ALL CITY REQUIREMENTS.
- CONTRACTOR TO BE FAMILIAR WITH AND ADHERE TO ALL LANDSCAPING REQUIREMENTS OUTLINED IN ARTICLE 13, SECTION 13.02 LANDSCAPING, OF THE CITY OF TROY ZONING ORDINANCE.

**LANDSCAPING REQUIREMENTS**

REQUIRED SITE LANDSCAPING:	REQUIREMENT	REQUIREMENT	PROVIDED
13.02.B SCREENING BETWEEN USES: REQUIRED: ABUTS RESID. ADJ. TO OFFICE TO THE EAST, ALT. 1 OR ALT. 2 PROVIDED: ALT. 1, 1 NARROW EVG. PER 3 FT. & SCREEN WALL	315 LFT 71 TREES AND SCREEN WALL	WALL AND 71 TREES	
13.02.E GENERAL SITE LANDSCAPE: REQUIRED: 20% OF SITE AREA SHALL BE LANDSCAPE MATERIAL 41,820 SFT X 20% = 8,364 SFT REQUIRED	8,364 SFT 20.0%	14,197 SFT 33.9%	
13.02.C LANDSCAPING WITHIN PARKING LOTS: REQUIRED: 1 TREE FOR EVERY 8 SPACES, 200 SFT MIN CURBED ISLANDS	43 SPACES 6 TREES	6 TREES	
13.02.D GREENBELT STANDARDS: REQUIRED: 1 TREE FOR EVERY 30 LFT	500 LFT 17 TREES	17 TREES	



THIS LANDSCAPE PLAN HAS BEEN REVIEWED BY WESLEY K. LANDON, A LANDSCAPE ARCHITECT LICENSED IN THE STATE OF MICHIGAN (LICENSE NO. 3901001603), AND DETERMINED TO BE COMPLETE BASED ON THE CITY OF TROY ZONING ORDINANCE SECTION 13.02 - LANDSCAPING.

**LANDSCAPE PLANTING SCHEDULE**

SYM	KEY	QUANTITY	SIZE	BOTANICAL NAME	COMMON NAME	NOTES
TO	71	6' TALL	THUJA OCCIDENTALIS 'TECHNY'	TECHNY ARBORVITAE	BALLED IN BURLAP	
PG	7	6' TALL	PICEA GLAUCA	MONTROSE CHARM	BALLED IN BURLAP	
M	11	2 1/2" CALIPER	MALUS 'PRAIRIEFIRE'	PRAIRIEFIRE CRABAPPLE	BALLED IN BURLAP	
TB	6	2 1/2" CALIPER	TILIA AMERICANA 'BOULEVARD'	BOULEVARD LINDEN	BALLED IN BURLAP	
JS	41	2.5 QT 24" HT.	JUNIPERUS SABINA 'BROADMORE'	BROADMORE JUNIPER	4' ON CENTER	

**PROPRIETOR**

STRATEGIC PROPERTY SERVICES, LLC  
ATTN: VINCE PANGLE  
5750 NEW KING STREET, STE 350  
TROY, MI 48098

**SURVEYOR**

D&M SITE, INC.  
401 BALSAM STREET  
CARRLTON, MI 48624  
(989) 752-6500

**ENGINEER**

REDRIDGE ENGINEERING, LLC  
RICHARD FOSGITT, P.E.  
2807 HIGHBROOK DRIVE  
MIDLAND, MI 48642  
(989) 513-4058

**LEGEND**

●	MONUMENT / SECTION CORNER
○	FOUND PROPERTY IRON
⊙	SET PROPERTY IRON W/CAP NO.26454
⊙	SET MAG NAIL
⊙	EXISTING CATCHBASIN
⊙	EXISTING MANHOLE/CATCHBASIN
⊙	EXISTING MANHOLE
⊙	EXISTING HYDRANT
⊙	EXISTING VALVE
—	EXISTING SANITARY SEWER
—	EXISTING STORM SEWER
—	EXISTING WATERMAIN
—	EXISTING FENCE LINE
—	EXISTING UNDERGROUND ELECTRIC LINE
—	EXISTING UNDERGROUND GAS LINE
—	EXISTING UNDERGROUND TELEPHONE LINE
—	EXISTING CENTERLINE
—	EXISTING OVERHEAD ELECTRICAL WIRES
—	EXISTING MAILBOX/NEWSPAPER BOX
—	EXISTING SIGN
●	EXISTING DECIDUOUS TREES
●	EXISTING CONIFEROUS TREES
●	EXISTING UTILITY POWER POLE
●	EXISTING TELEPHONE RISER
●	EXISTING BOLLARD
●	EXISTING LIGHT POLE
●	EXISTING GAS METER
●	EXISTING TRANSFORMER
●	EXISTING FLAGPOLE
●	EXISTING GRASS SURFACE
●	EXISTING BITUMINOUS SURFACE
●	EXISTING CONCRETE SURFACE



**PROJECT LOG**

DATE	DESCRIPTION
08-21-21	ISSUE/REVISION
08-23-22	ISSUE/REVISION
10-10-22	ISSUE/REVISION

FILE # OVERALL  
PROJ MGR: RLF  
DESIGN BY: RLF  
DRAWN BY: RLF  
CHECKED BY: RLF  
SCALE: 1"=30'  
NONE  
SHEET: 1 OF 1

REDRIDGE ENGINEERING, LLC  
2807 HIGHBROOK DRIVE, MIDLAND, MI 48642  
989-513-4058 RFOSGITT@REDRIDGE-ENG.COM

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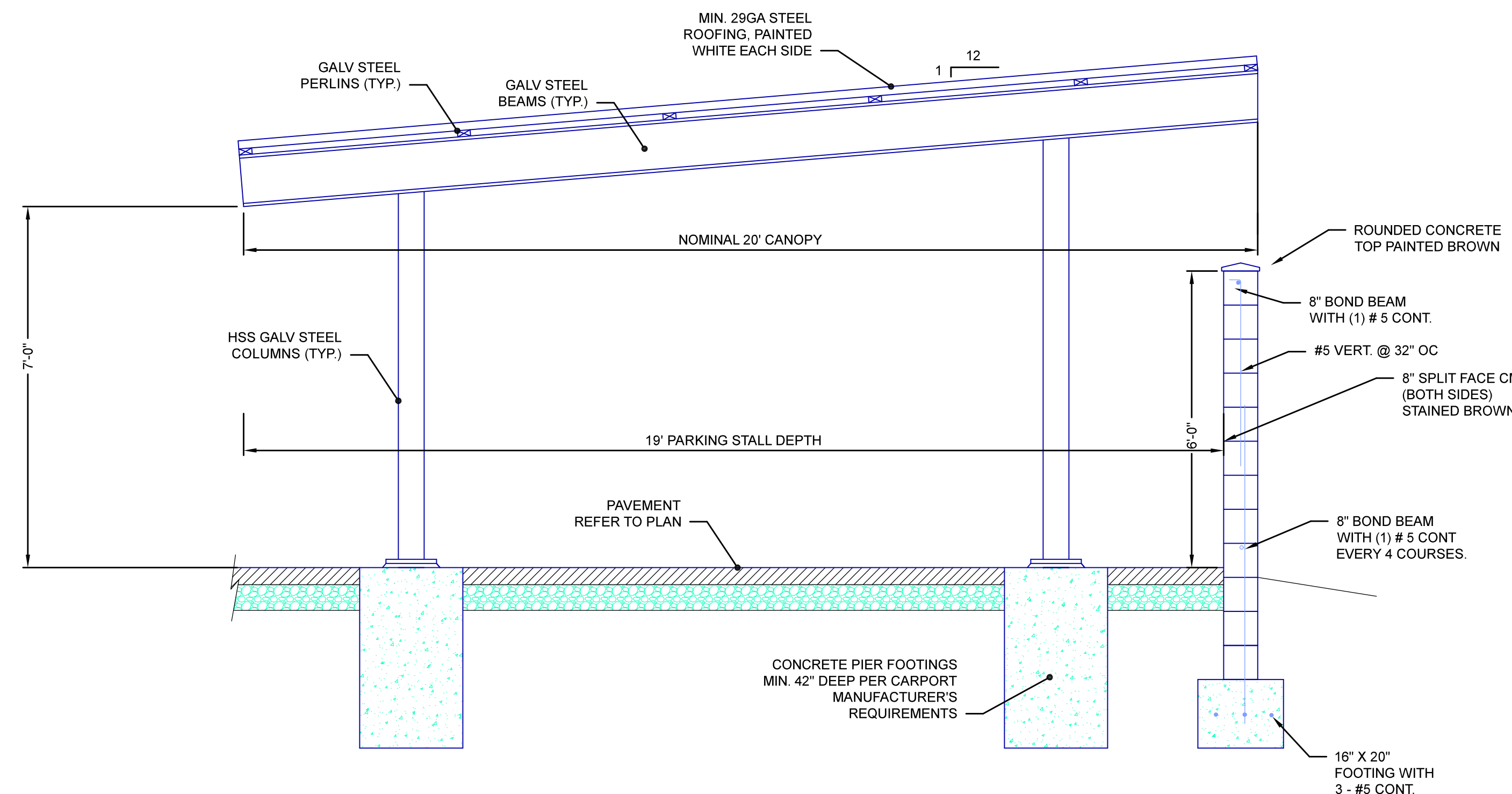
**LANGE VIEW TOWNHOUSES**  
**STRATEGIC PROPERTY SERVICES, LLC**  
4088 LIVERMORE ROAD  
TROY, MICHIGAN  
OAKLAND COUNTY, MICHIGAN

**OVERALL LANDSCAPING PLAN**

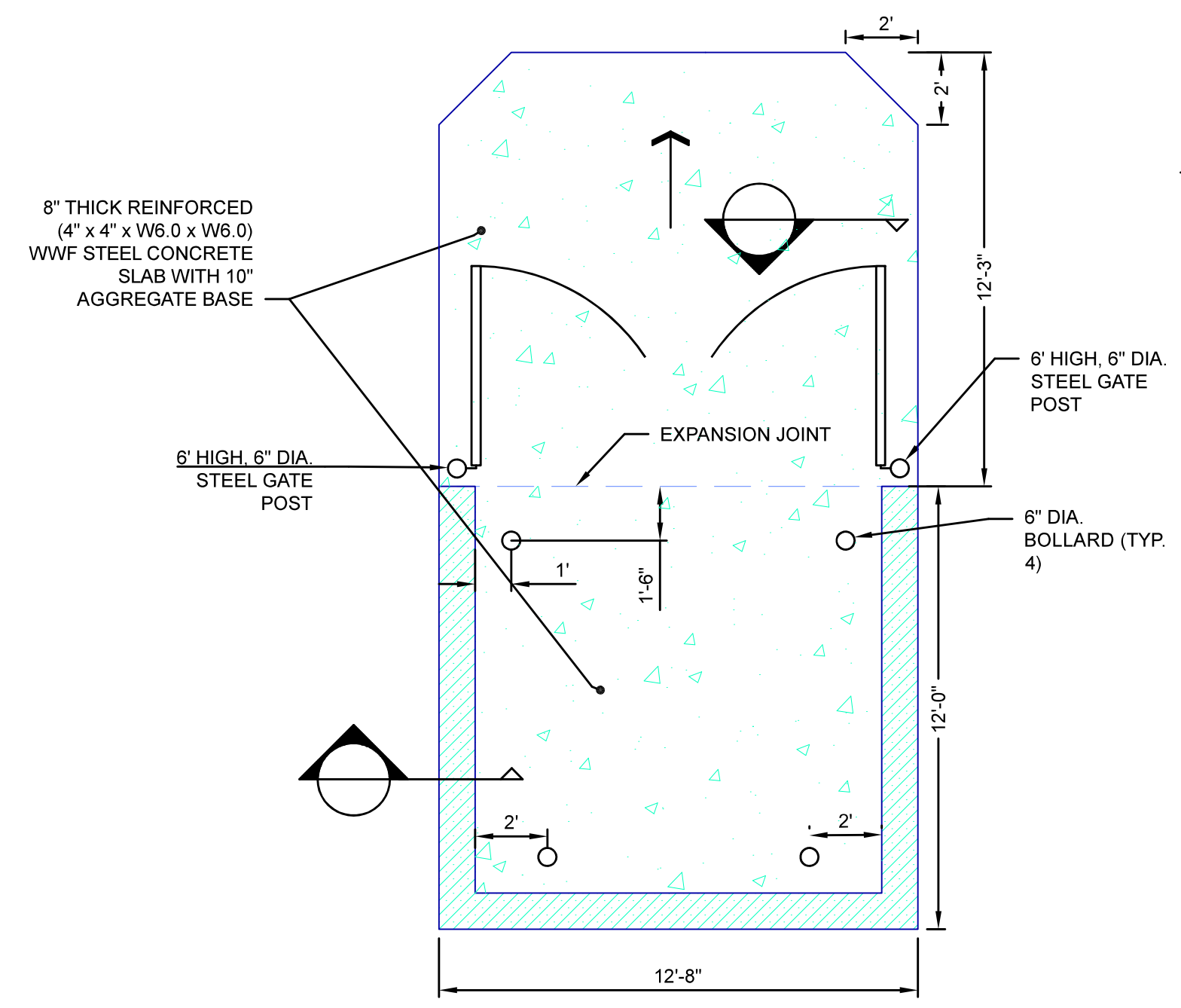
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180401

RICHARD L. FOSGITT, P.E.  
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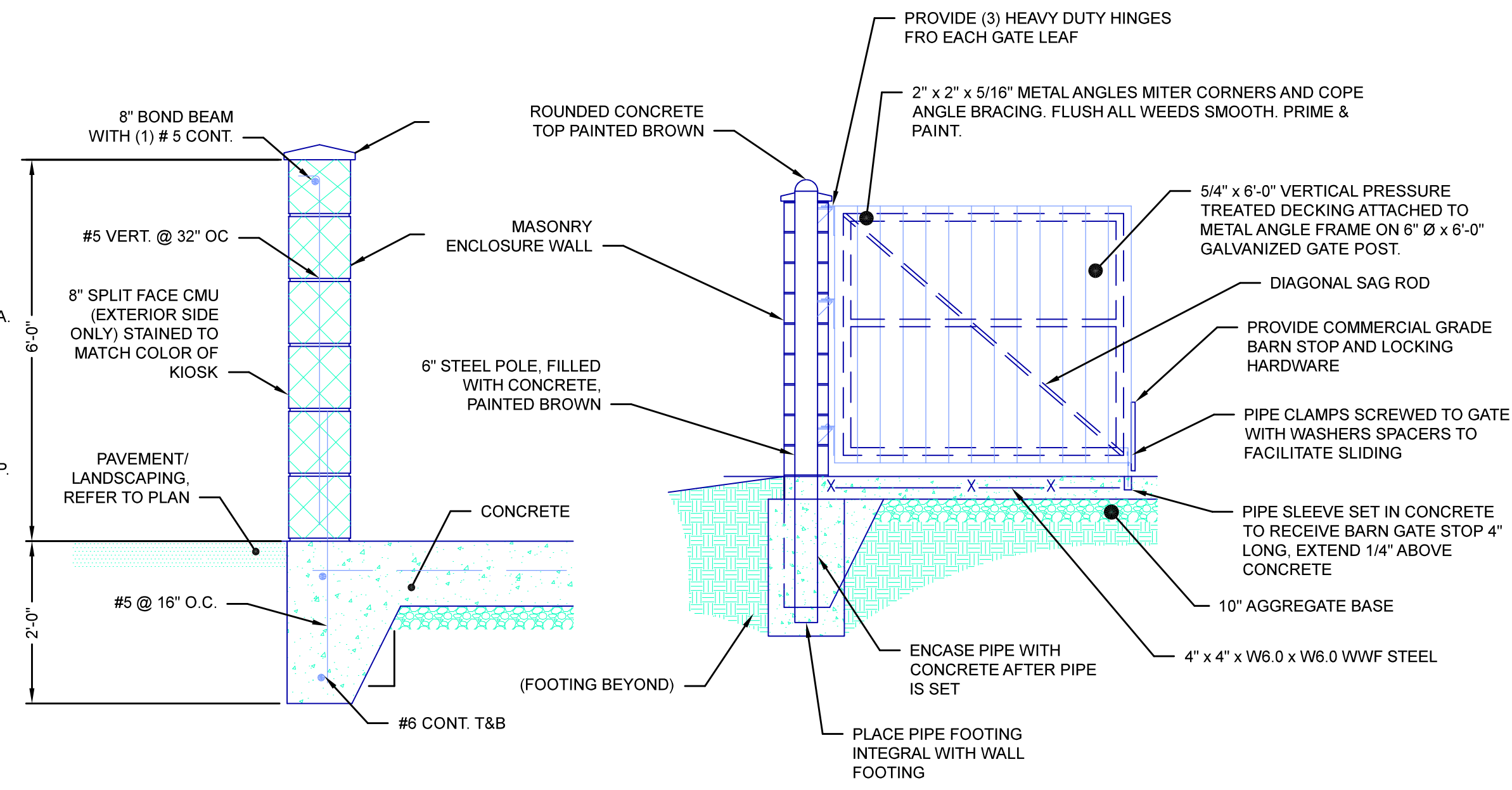




**1**  
C6.0  
**PROPOSED CARPORT DETAIL**  
SCALE: NTS



**A**  
C6.0  
**DUMPSTER ENCLOSURE DETAIL**  
SCALE: NTS



**B**  
C6.0  
**MASONRY WALL DETAIL**  
SCALE: NTS

**C**  
C6.0  
**DUMPSTER ENCLOSURE GATE DETAIL**  
SCALE: NTS

PREPARED UNDER THE SUPERVISION OF:  
RICHARD L. FOSGITT  
No. 43189  
PROFESSIONAL ENGINEER  
STATE OF MICHIGAN

PROJECT LOG	
DESIGN/CONSTRUCTION PERMIT	04-17-22
REVISED PERMIT	04-24-22
REVISED LAYOUT	10-10-22
FILE # OVERALL	RF
PROJ MGR:	RF
DESIGN BY:	RF
DRAWN BY:	RF
CHECKED BY:	NONE
SCALE:	NONE
SHEET:	1 OF 1

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SITE DETAILS 1

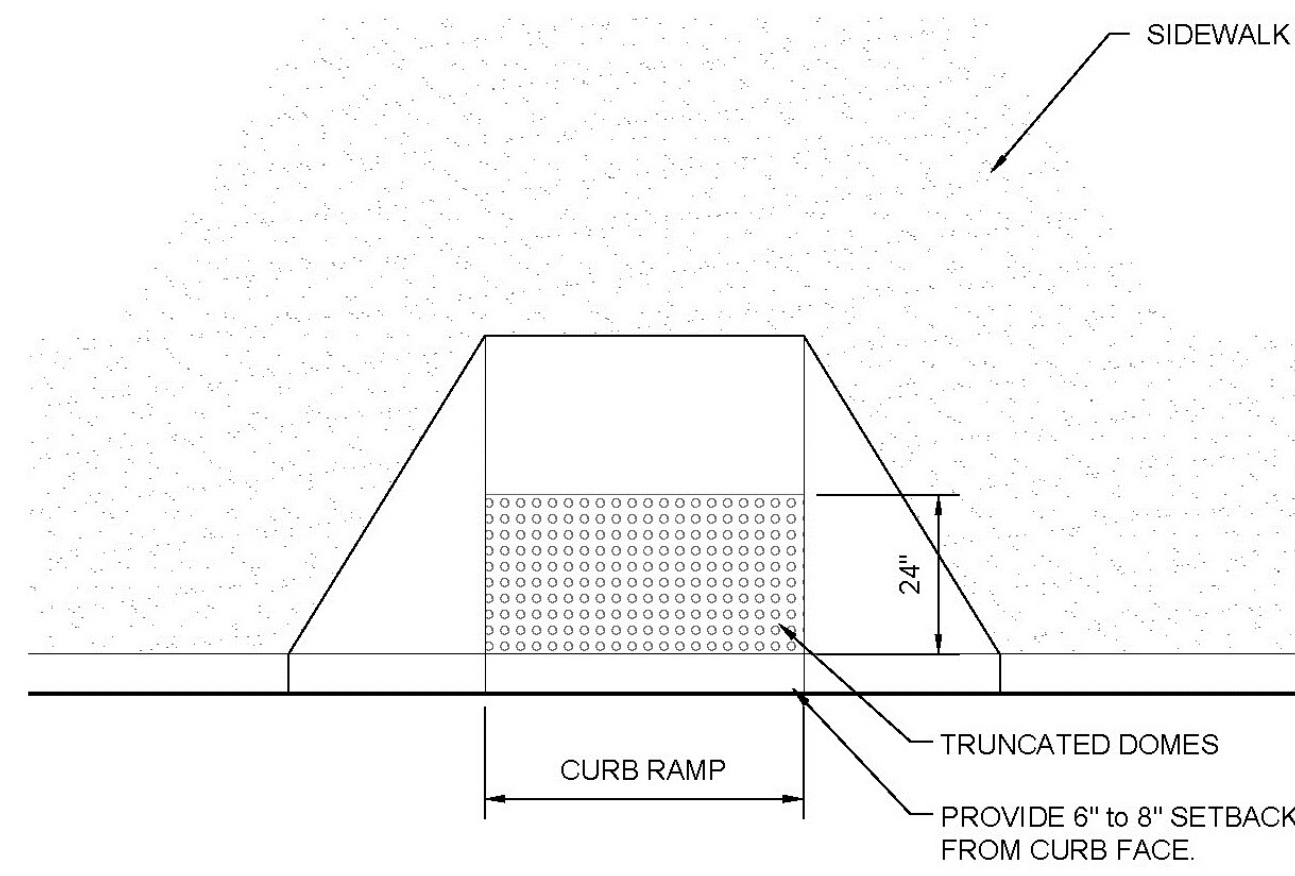


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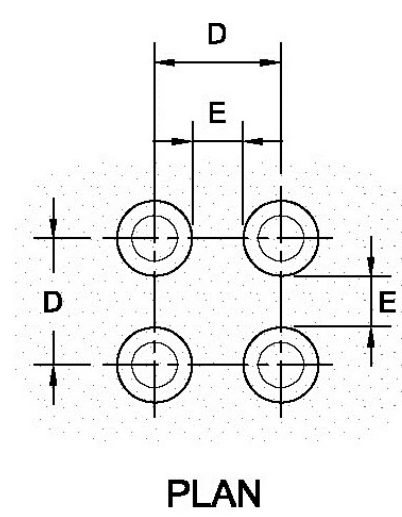
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180401

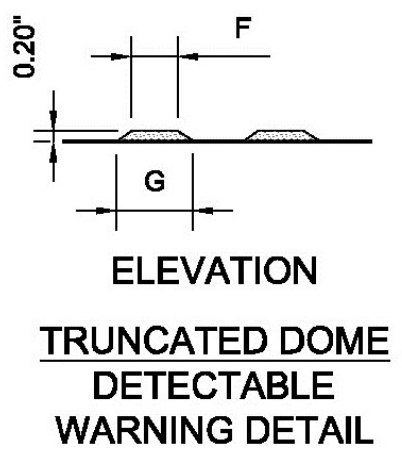




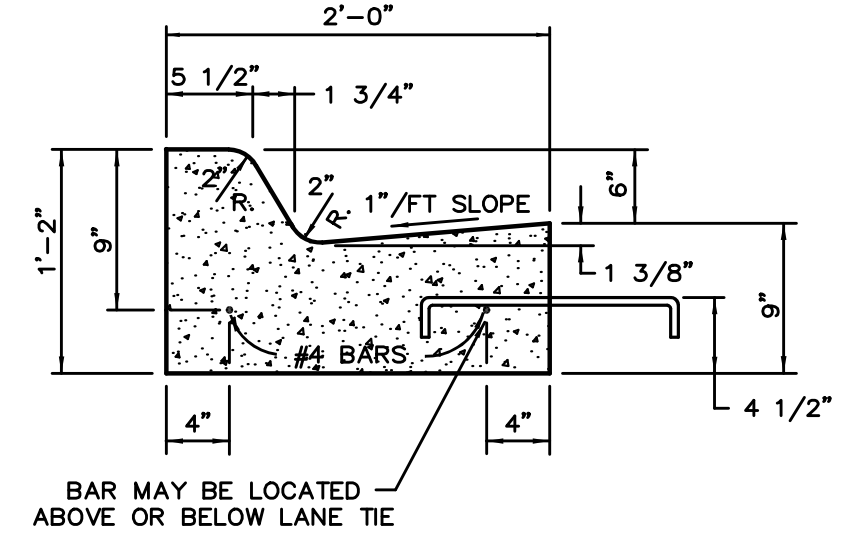
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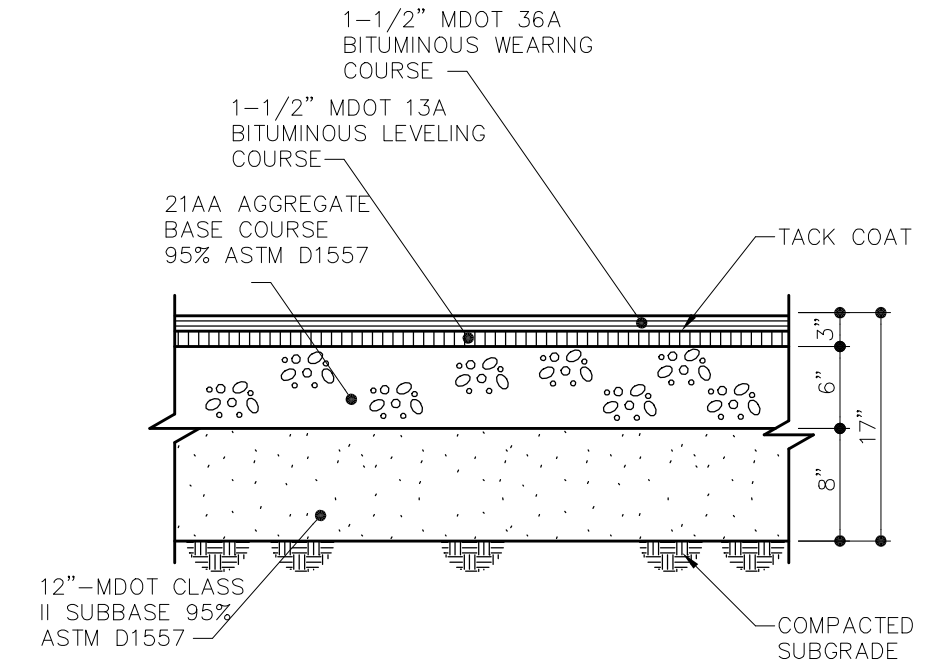
	MIN.	MAX.
D	1.60"	2.40"
E	.85"	1.50"
F	.45"	.80"
G	.90"	1.40"



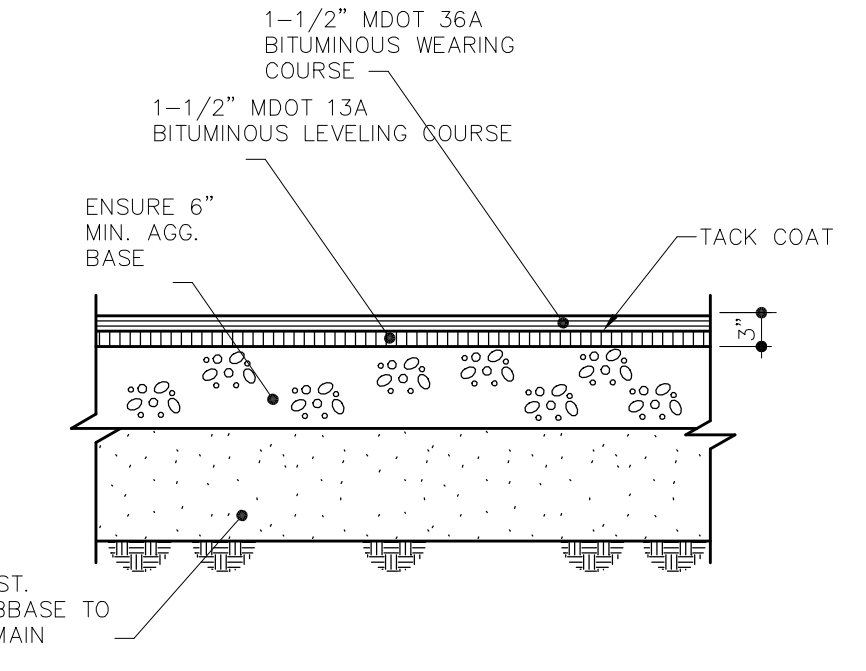
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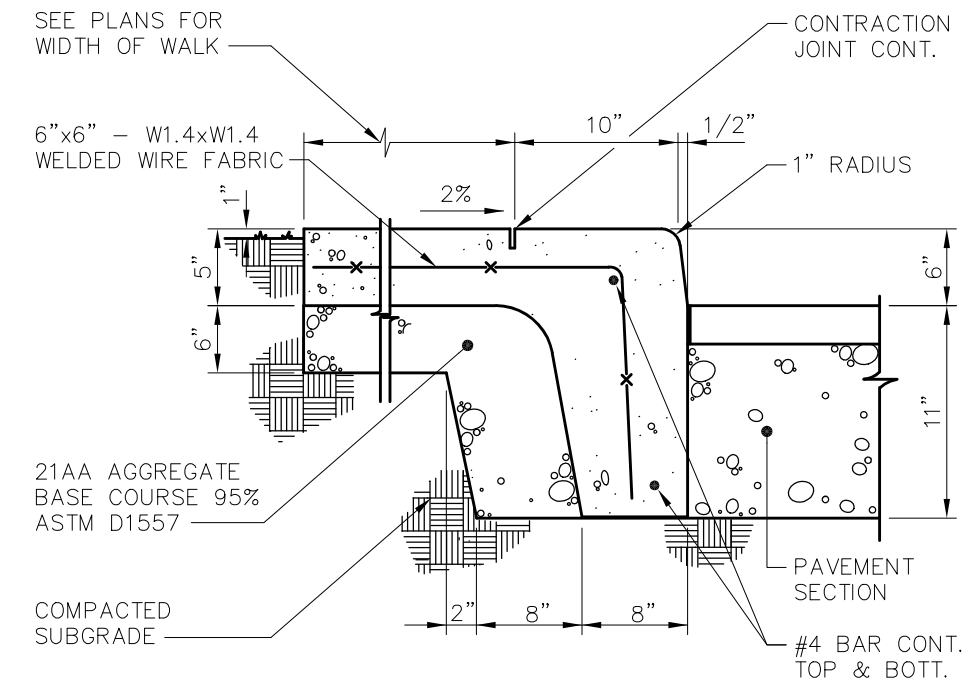
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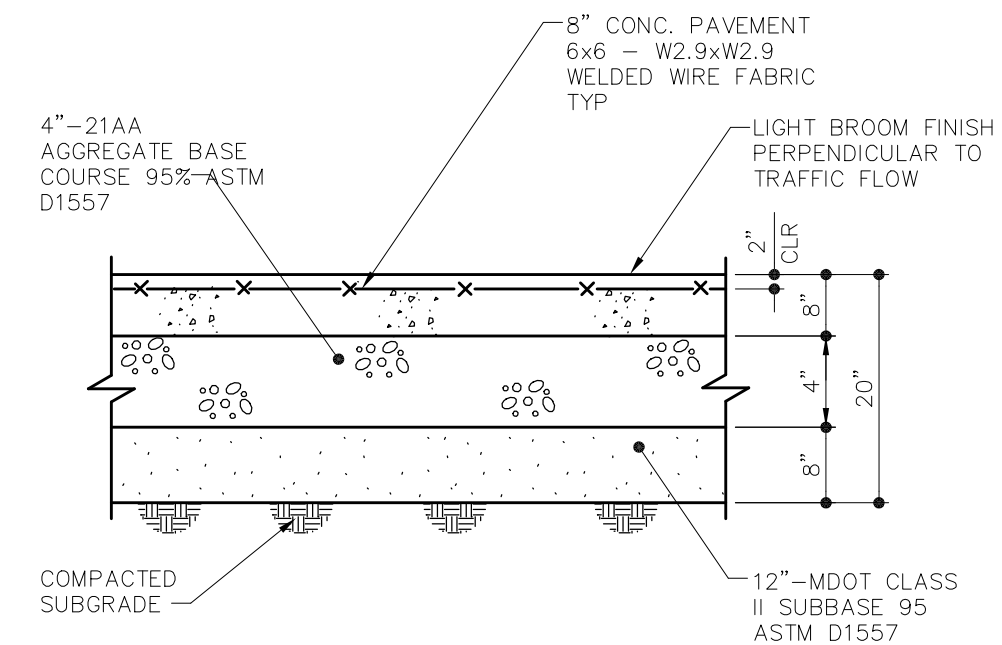
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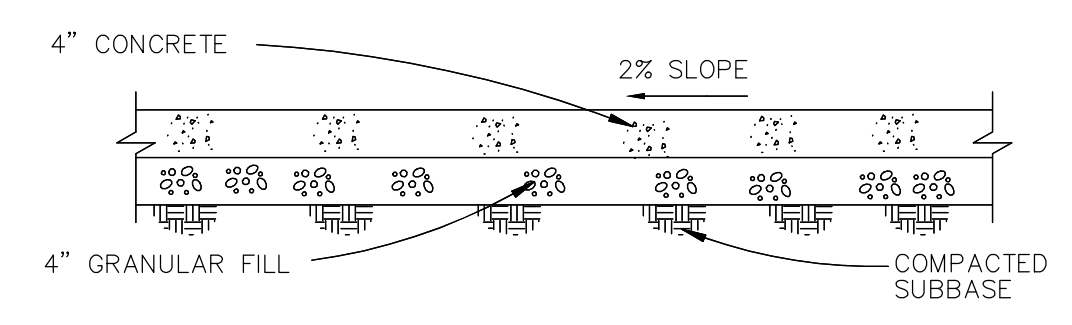
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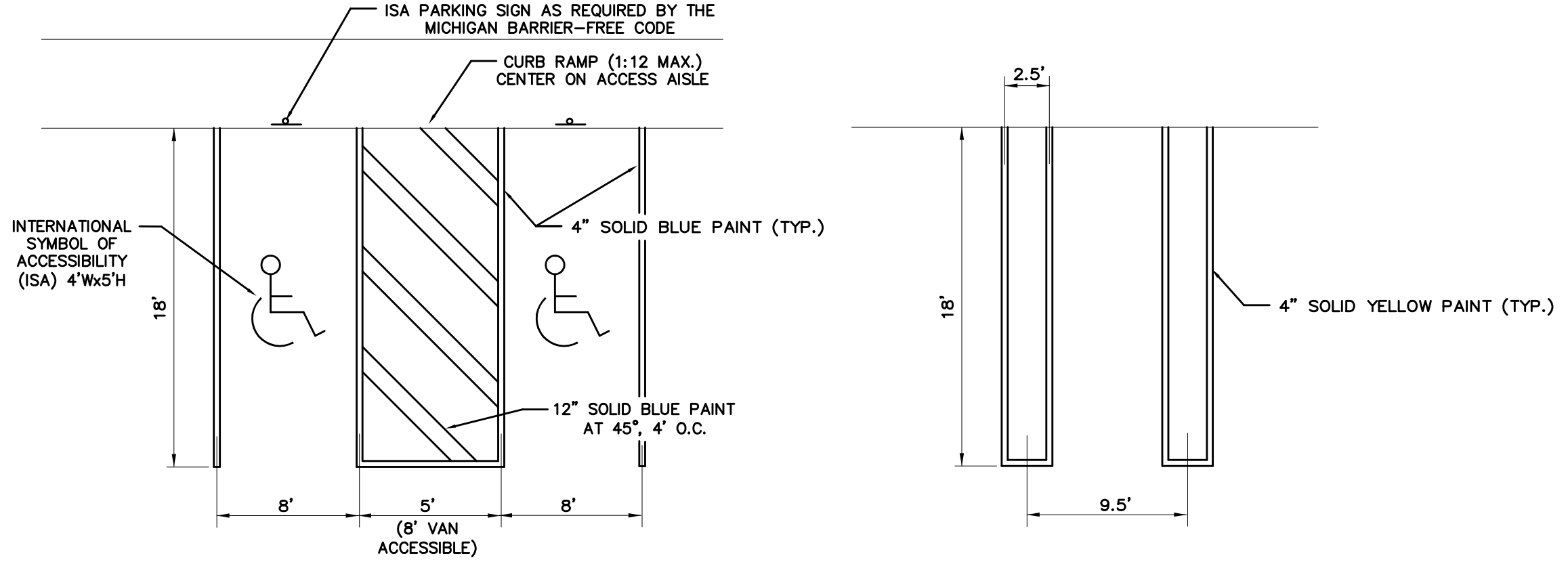
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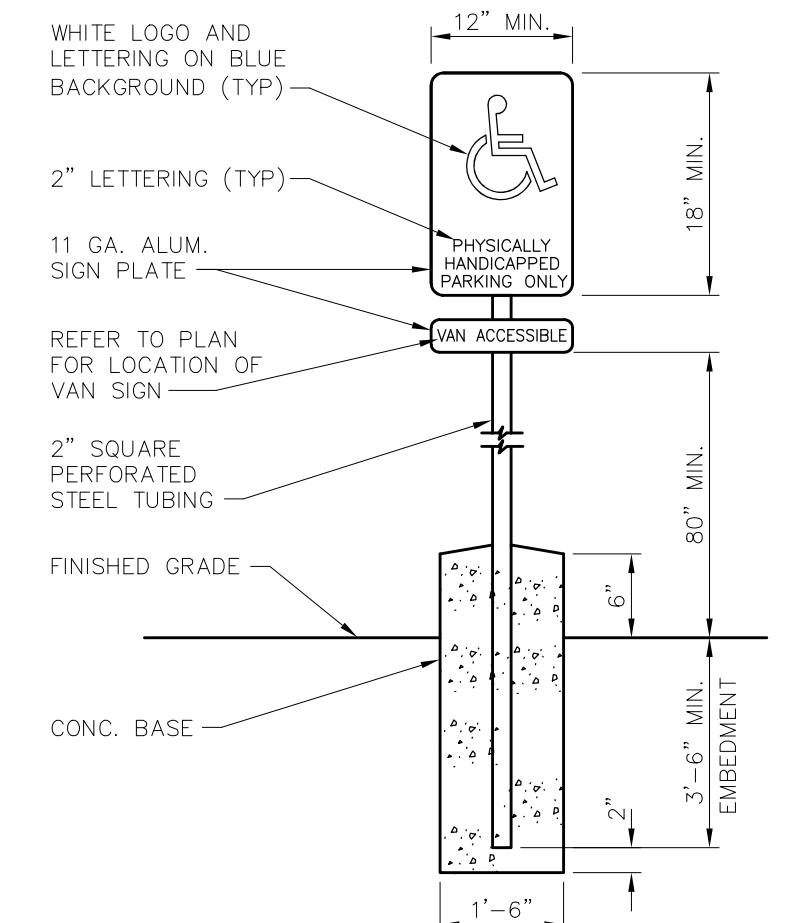
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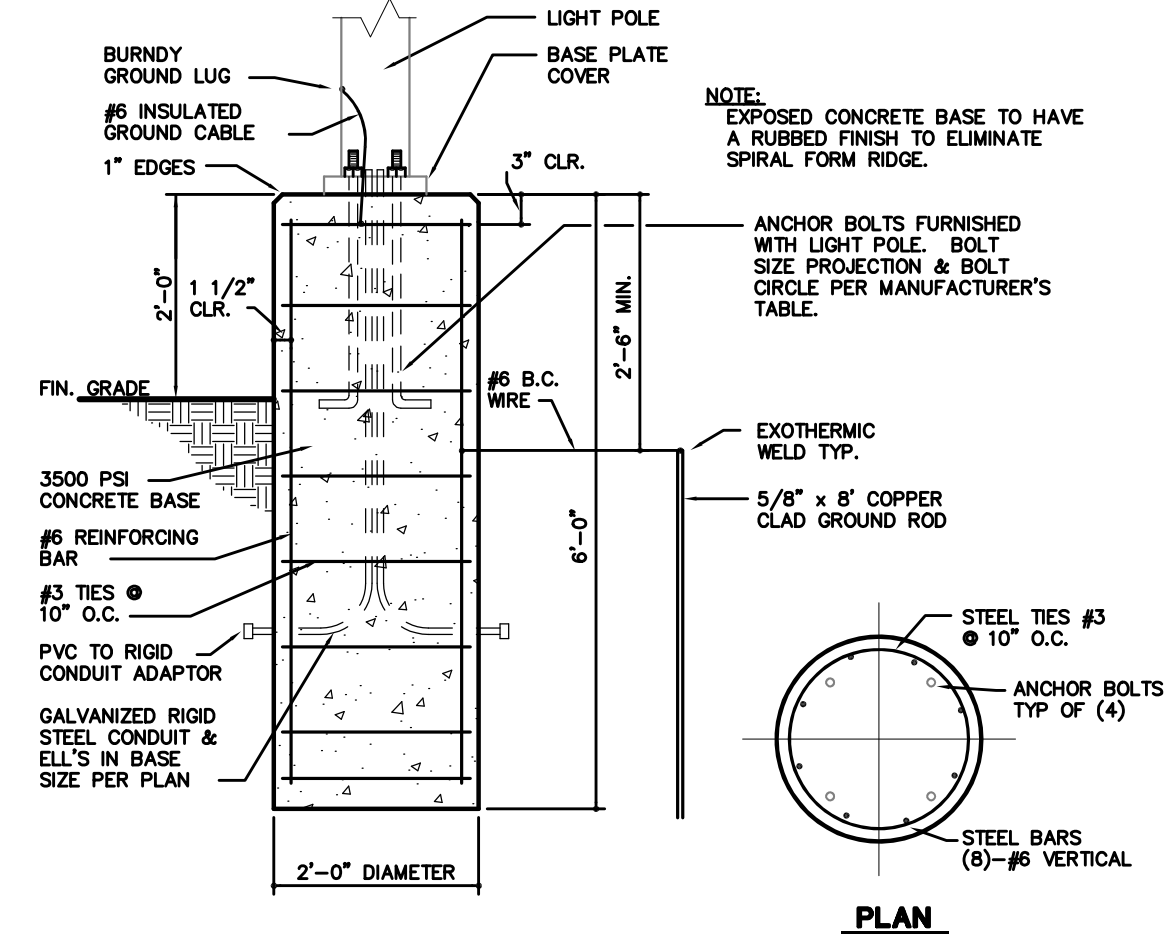
**CONCRETE WALK**  
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**BARRIER-FREE PAVEMENT MARKING DETAIL PAVEMENT MARKING DETAIL**



**TYPICAL HANDICAP SIGN**  
NO SCALE



**LOT LIGHT POLE CONCRETE BASE DETAIL**  
NO SCALE



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PROJECT LOG	DATE	DESCRIPTION
DESIGN	04-17-21	ISSUE FOR PERMIT
REVISED	04-24-22	REVISED LAYOUT
REVISED	10-10-22	REVISED LAYOUT

FILE # OVERALL: RLF  
PROJ MGR: RLF  
DESIGN BY: RLF  
DRAWN BY: RLF  
CHECKED BY: NONE  
SCALE: NONE  
SHEET: 1 OF 1

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SITE DETAILS 2

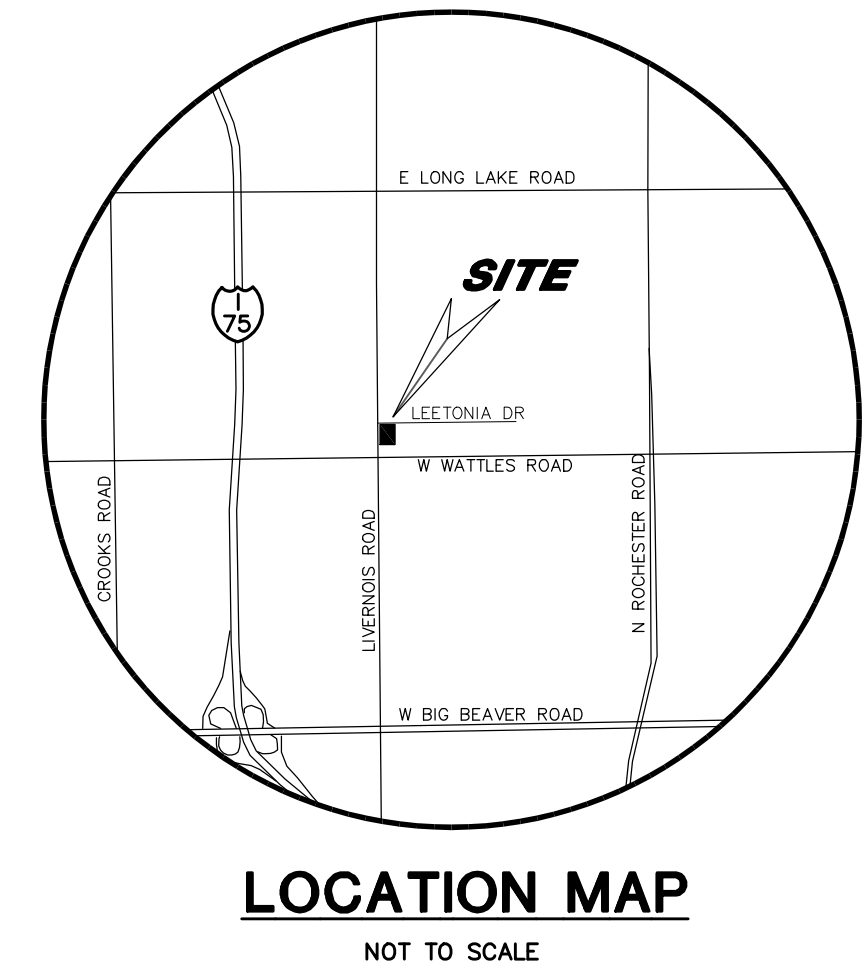
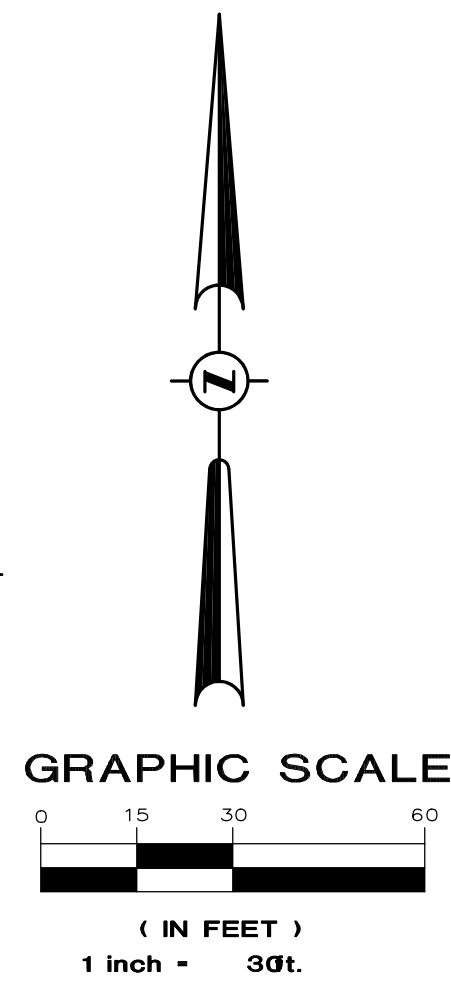
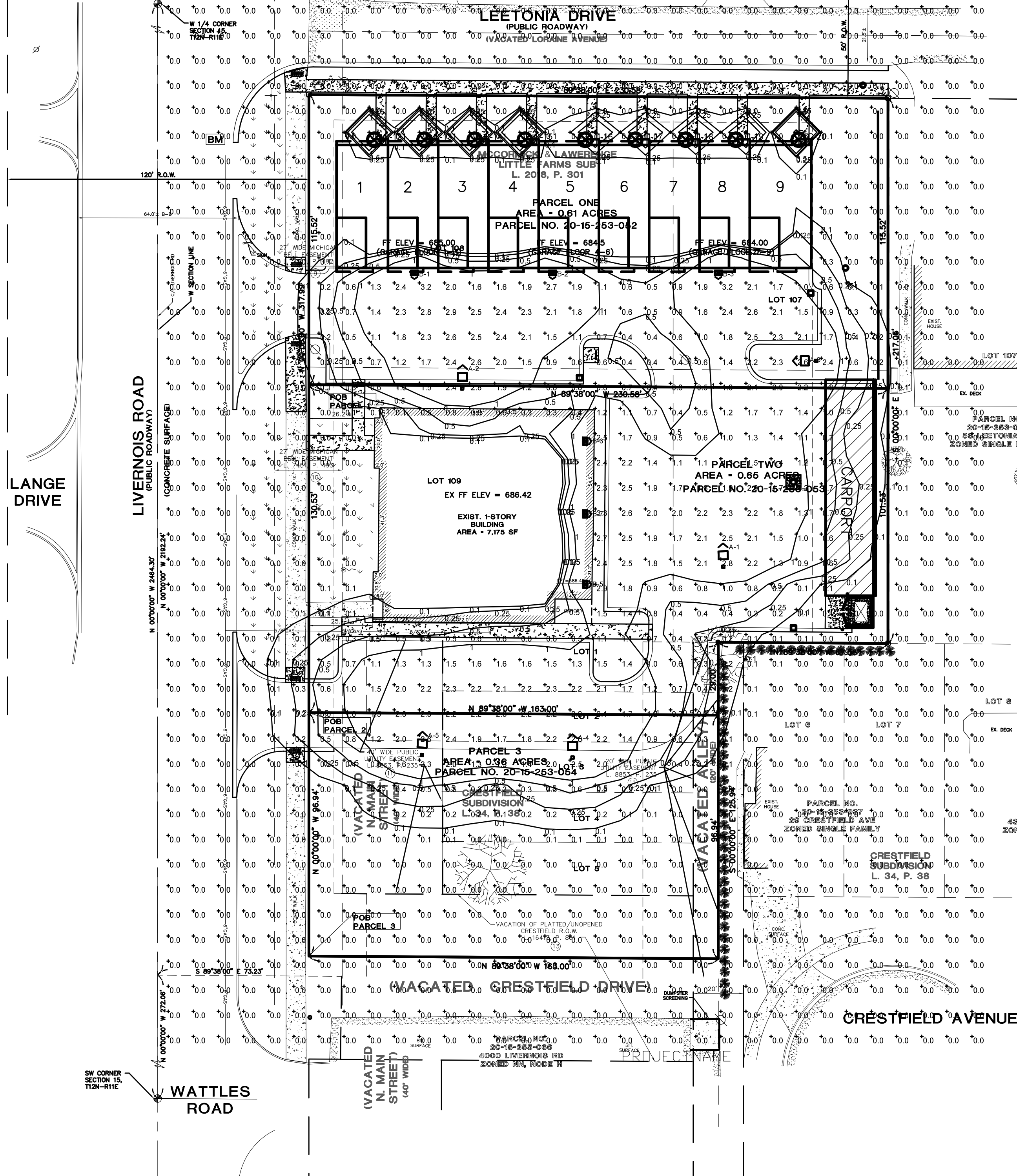


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180401





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PROJECT LOG	DATE	DESCRIPTION
UPDATE SITE PLAN	08-14-17	
UPDATE SITE PLAN REVIEW	04-24-22	
REVISED LAYOUT	10-10-22	

FILE #:	OVERALL
PROJ. MGR.:	RLF
DESIGN BY:	RLF
DRAWN BY:	RLF
CHECKED BY:	None
SCALE:	1"=30'
SHEET:	1 OF 1

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 OAKLAND COUNTY, MICHIGAN  
 PHOTOMETRIC PLAN

Label	Symbol	Quantity	Notes
A	(Symbol)	1	...
B	(Symbol)	1	...
C	(Symbol)	1	...

Statistics	Description	Symbol	Avg	Max	Min	MaxMin	AvgMin
Calc Zone #2			0.4 ft	5.5 ft	0.0 ft	N/A	N/A

Luminaire Locations										
No.	Label	X	Y	Z	MH	Orientation	Tilt	X	Y	Z
1	A	165.00	155.00	20.00	20.00	0.00	0.00	164.98	154.14	0.00
2	A	81.00	326.00	20.00	20.00	0.00	0.00	81.00	327.14	0.00
3	A	202.00	237.00	20.00	20.00	270.00	0.00	200.86	237.00	0.00
4	A	105.00	79.00	20.00	20.00	0.00	0.00	105.00	80.15	0.00
5	A	45.00	80.00	20.00	20.00	0.00	0.00	45.03	81.14	0.00
1	B	42.00	272.00	10.00	10.00	180.00	0.00	42.00	272.00	0.00
2	B	97.00	272.00	10.00	10.00	180.00	0.00	97.00	272.00	0.00
3	B	163.00	272.00	10.00	10.00	180.00	0.00	163.00	272.00	0.00
5	B	110.00	325.00	7.00	7.00	0.00	0.00	110.00	325.00	0.00
6	B	110.00	205.00	10.00	10.00	90.00	0.00	110.00	205.00	0.00
7	B	110.00	176.00	10.00	10.00	90.00	0.00	110.00	176.00	0.00
12	C	26.00	325.00	7.00	7.00	0.00	0.00	26.00	325.00	0.00
13	C	48.00	325.00	7.00	7.00	0.00	0.00	48.00	325.00	0.00
14	C	86.00	325.00	7.00	7.00	0.00	0.00	86.00	325.00	0.00
15	C	86.00	325.00	7.00	7.00	0.00	0.00	86.00	325.00	0.00
16	C	110.00	325.00	7.00	7.00	0.00	0.00	110.00	325.00	0.00
17	C	130.00	325.00	7.00	7.00	0.00	0.00	130.00	325.00	0.00
18	C	150.00	325.00	7.00	7.00	0.00	0.00	150.00	325.00	0.00
19	C	170.00	325.00	7.00	7.00	0.00	0.00	170.00	325.00	0.00
20	C	195.00	325.00	7.00	7.00	0.00	0.00	195.00	325.00	0.00

### D-Series Size 1 LED Area Luminaire

**Specifications**  
 BPA: 101 ft  
 Length: 33"  
 Width: 13"  
 Height H1: 7.12"  
 Height H2: 3.12"  
 Weight: 27 lbs

**Introduction**  
 The modern styling of the D-Series is making an statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for retrofitting up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 40% and expected service life of over 100,000 hours.

**Ordering Information** EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAR2 PRRH DBXID

Series	Model	Color Temperature	Beam Spread	Mounting	Finish
DSX1 LED	P7	40K	T3M	MVOLT	SPA
	P7	40K	T3M	MVOLT	SPA
	P7	40K	T3M	MVOLT	SPA
	P7	40K	T3M	MVOLT	SPA
	P7	40K	T3M	MVOLT	SPA

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### WEDGE LED Architectural Wall Sconce

**Specifications**  
 Depth (D1): 7"  
 Depth (D2): 1.5"  
 Height: 9"  
 Width: 11.5"  
 Weight: without optional: 13.5 lbs

**Introduction**  
 The WEDGE LED family is designed to meet specific every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean, modern design comes in four sizes with luminaire packages ranging from 1,200 to 25,000 lumens, providing a four size wide solution. Embedded with Lithonia's ALR wireless controls, the WEDGE family provides additional energy savings and code compliance. WEDGE2 delivers up to 6,000 lumens with a soft, non-polluted light source, creating a visually comfortable environment. When combined with multiple integrated emergency battery backup options, including an 18650 Li-ion battery option, the WEDGE2 becomes the ideal wall-mounted lighting solution for pedestrian scale applications in any environment.

**WEDGE LED Family Overview**

Series	Model	Color Temperature	Beam Spread	Mounting	Finish
WEDGE1 LED	Wall Sconce	40K	40°	90°	Black
WEDGE2 LED	Wall Sconce	40K	40°	90°	Black
WEDGE3 LED	Wall Sconce	40K	40°	90°	Black
WEDGE4 LED	Wall Sconce	40K	40°	90°	Black

**Ordering Information** EXAMPLE: WJ2 LED P1 40K BOCI VF MVOLT SRM DBXID

Series	Model	Color Temperature	Beam Spread	Mounting	Finish
WJ2 LED	P1	40K	BOCI	VF	MVOLT
	P1	40K	BOCI	VF	MVOLT
	P1	40K	BOCI	VF	MVOLT
	P1	40K	BOCI	VF	MVOLT
	P1	40K	BOCI	VF	MVOLT

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### OLLWD & OLLWU LED WALL CLEMEN LIGHT

**Features & Specifications**  
 Provides years of performance free maintenance for outdoor use in residential & commercial applications. Ideal applications such as lighting walkways and stairs for safety and security.  
**ENVIRONMENT**  
 Cast aluminum housing with corrosion resistant parts in either dark bronze or white finish.  
**OPERATION**  
 100% LED.  
**ELECTRICAL**  
 MVOLT system on pole voltage from 120-277V. Operating temperature: 40°C/104°F.  
**INSTALLATION**  
 Surface needs to support garden box (specified by others).  
**LISTINGS**  
 UL Listed in U.S. and Canada safety standards for walk locations.  
**WARRANTY**  
 5-year limited warranty. This limited warranty provided and other statements in this specification shall not be a part of this bid. All other terms and conditions are disclosed. Complete warranty terms located at: www.lithonia.com/resources/technical-specifications/ollwd-ollwu-walkway-light

**Ordering Information** EXAMPLE: OLLWD LED P1 40K MVOLT DBX

Series	Performance Package	Color Temperature (CCT)	Voltage	Finish
OLLWD LED	Downlight	40K	MVOLT	Dark Bronze
OLLWD LED	Up-Downlight	40K	120V	White

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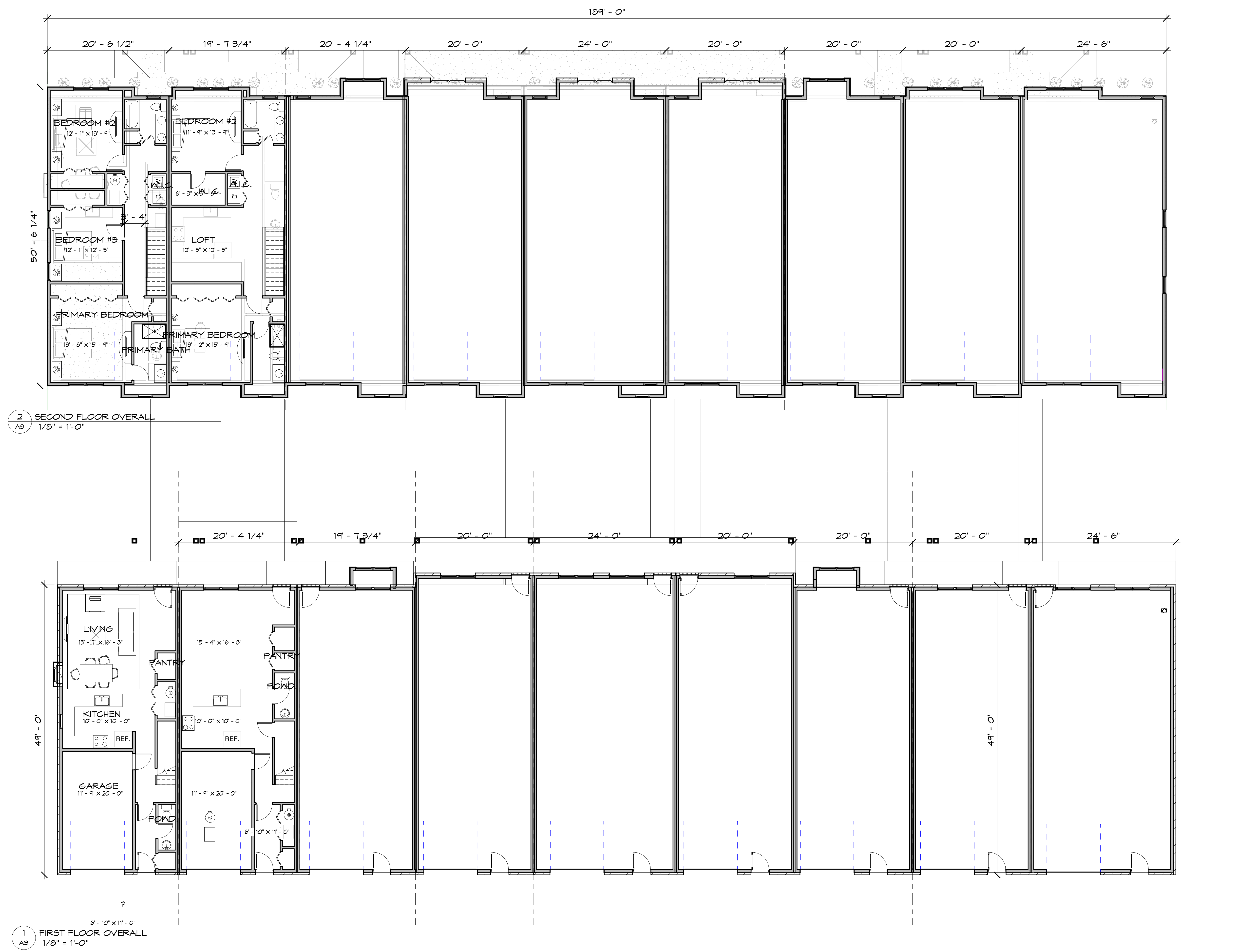
**PROPRIETOR**  
 STRATEGIC PROPERTY SERVICES, LLC  
 ATTN: VINCE PANGLE  
 5750 NEW KING STREET, STE 350  
 TROY, MI 48068

**SURVEYOR**  
 D&M SITE, INC.  
 401 BALSAM STREET  
 CARROLLTON, MI 48624  
 (989) 752-6500

**ENGINEER**  
 REDRIDGE ENGINEERING, LLC  
 RICHARD FOSGITT, P.E.  
 2807 HIGHBROOK DRIVE  
 MIDLAND, MI 48642  
 (989) 513-4058

**E1.0**  
 180401









**View from Northwest**

**Lange View**

MGA Project Number 22309      February 6, 2023

**Moiseev/Gordon Associates, Inc.**  
4351 Delemere Court      Royal Oak, MI 48073

[www.mga-architects.net](http://www.mga-architects.net)  
248.549.4500 voice 248.549.7300 faxes

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Client:

**GFA**  
Development

Project Title:

**Lange View**  
Townhouses

Troy, MI

Sheet Title:

**ELEVATIONS**

Project Number: 22304

Drawn By:

Checked By:

Approved By:  
Date: 06-03-2022

Issued:

City Review	08-31-22
SPA	09-14-22
Revised	01-25-23

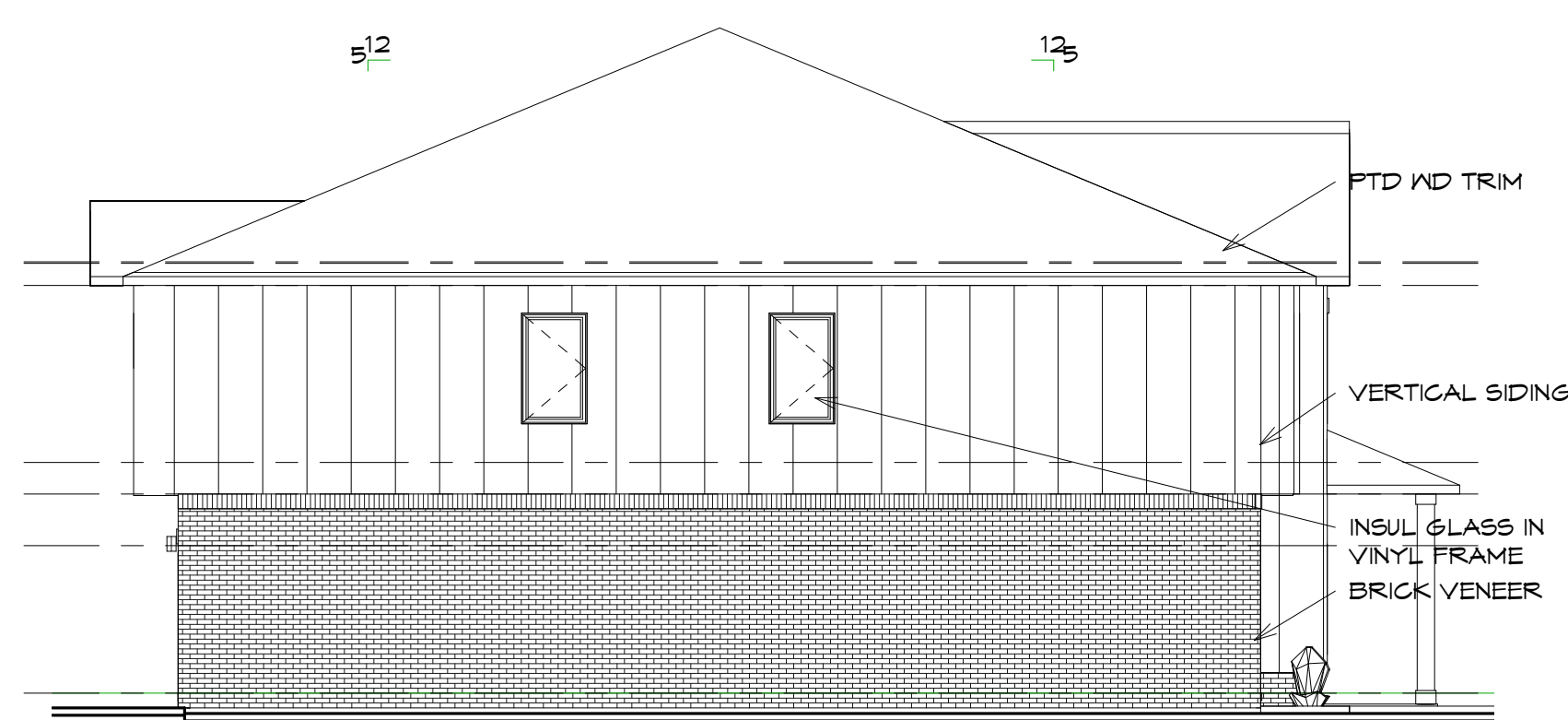
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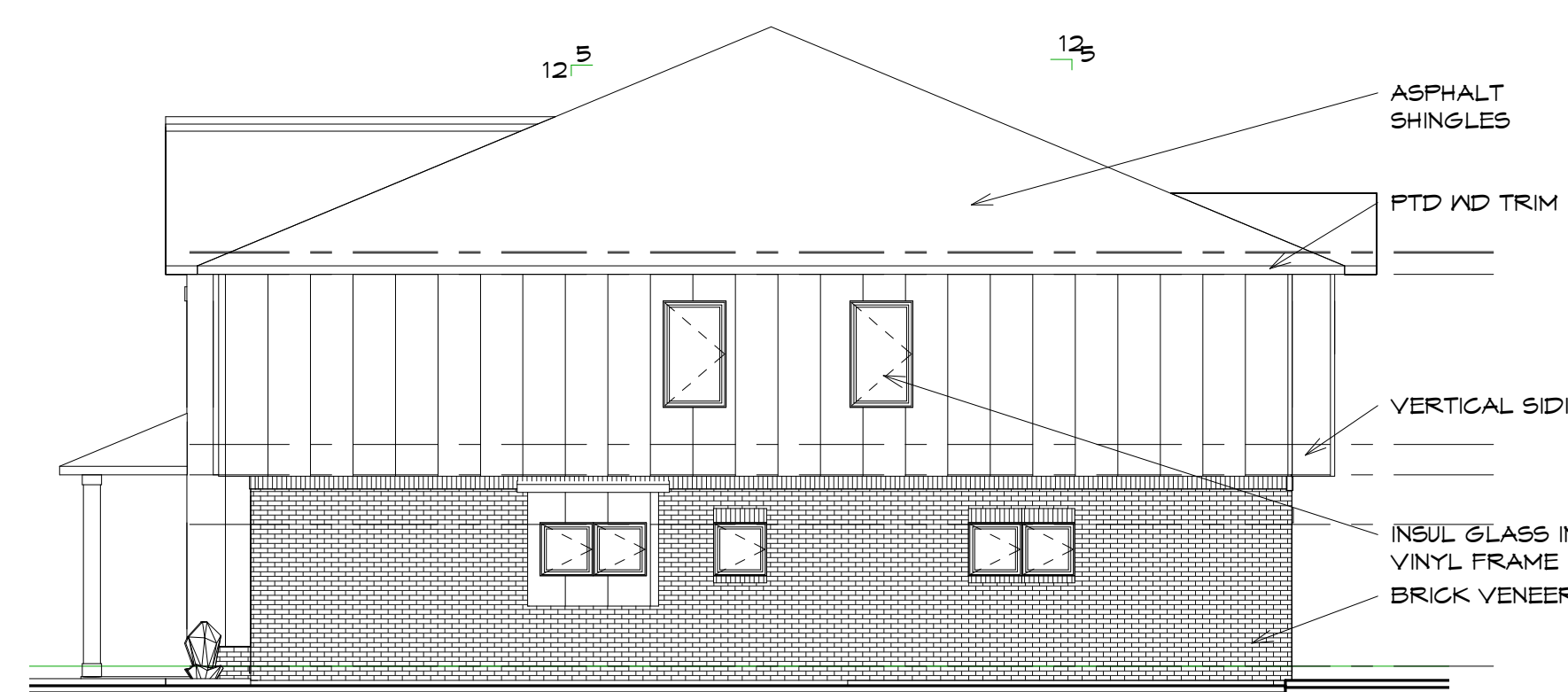
PRELIMINARY NOT  
FOR CONSTRUCTION



1 NORTH ELEVATION  
1/8" = 1'-0"



3 EAST ELEVATION  
1/8" = 1'-0"



4 WEST ELEVATION  
1/8" = 1'-0"



2 SOUTH ELEVATION  
1/8" = 1'-0"

**ITEM #6**

DATE: February 22, 2023

TO: Planning Commission

FROM: R. Brent Savidant, Community Development Director

SUBJECT: POTENTIAL PLANNED UNIT DEVELOPMENT (PUD) APPLICATION – Concept Plan discussion, East of Livernois, North of Square Lake (PIN 88-20-03-301-088, 88-20-03-301-025, -024, -023), Section 35, Currently Zoned NN (Neighborhood Node “Q”) and R-1B (One Family Residential) Districts.

The owner of the subject parcel, GFA, is interested in developing a mixed use (residential only) PUD on the site. Planning Department was provided a conceptual site plan describing the potential project.

The site is 5.48 acres in area. Three single family homes presently sit on the property. A PUD would provide the applicant with some flexibility with potential project uses moving forward. The attached memo summarizes the project.

The Planning Commission reviewed a concept at the July 26, 2022 Regular meeting and provided feedback. The applicant revised the concept based on Planning Commission feedback and requested another opportunity to present to the board.

A formal application has not been submitted. The applicant seeks input and direction from the Planning Commission on this matter, prior to moving forward. Formal action is not required.

Please be prepared to discuss this item at the December 13, 2022 Regular meeting.

Attachments:

1. Maps
2. Minutes from July 26, 2022 Planning Commission Regular meeting.
3. Memo from Carlisle/Wortman Associates, Inc.
4. Miscellaneous information provided by applicant

G:\PUDs\Potential Project\GFA Livernois & Square Lake\PC Memo 02 28 2023.docx









## OTHER ITEMS

6. POTENTIAL PLANNED UNIT DEVELOPMENT (PUD) APPLICATION – Concept Plan Discussion, East of Livernois, North of Square Lake (PIN 88-20-03-301-088, 88-20-03-301-025, -024, -023), Section 35, Currently Zoned NN (Neighborhood Node “Q”) and R-1B (One Family Residential) Districts

Mr. Carlisle presented a brief background of the Planned Unit Development application. He addressed the mixed zoning and the 14-unit attached townhome development that was granted approval in 2018. Mr. Carlisle said the applicant is seeking to amend the previously approved plan to incorporate four additional parcels into an overall development of the site. Mr. Carlisle said the concept plan is only for discussion and no action would be taken this evening. He said it is too early in the process to determine data with respect to Zoning Ordinance requirements.

Mr. Carlisle read revised language recently drafted by the Master Plan Neighborhood Node Steering Committee for Neighborhood Node “Q” that relates to primary uses and character of the neighborhood node.

Applicant Gary Abitheira addressed his vision of incorporating the additional parcels with the townhome development and shared his thoughts on various placements of the PUD housing types to blend with the townhomes.

There was discussion, some comments related to:

- Previously approved development; housing types, timing and validity of approval, currently in engineering process.
- Existing homes; historical in nature, not listed in Historic Preservation Chapter.
- Neighborhood Node “Q” toured by Planning Commission and City Council.
- Public benefit; preservation of two existing homes, housing types offered.
- Intent of PUD development; provide flexibility from Zoning Ordinance regulations to allow a more creative and negotiable product.
- Board members expressed opposition to 3-story tall buildings.
- Applicant encouraged to:
  - Create more green space.
  - Retain “old Troy” feel of neighborhood.
  - Create a community feel, a village.
  - Create a different and unique development.
  - Let element of historical homes shine on their own.





**Carlisle | Wortman**  
ASSOCIATES, INC.

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

**To:** Troy Planning Commission  
Brent Savidant, Community Development Director

**From:** Ben Carlisle, AICP

**Date:** December 6, 2022

**RE:** GFA Square Lake Concept Review

A concept plan has submitted a Planned Unit Development (PUD) for adjacent to the northeast corner of the intersection of Square Lake and Livernois. The concept plan includes a total of forty-eight (48) units with a mix of housing types. Additional amenities include preservation of two

existing homes on site, homes with first floor master, stormwater management, and small play area. The part of this site that is zoned FB, Form-Based was approved for a fourteen (14) unit attached townhome project. See section below for more information. This project has been expanded to include four parcels currently zoned R-1B.



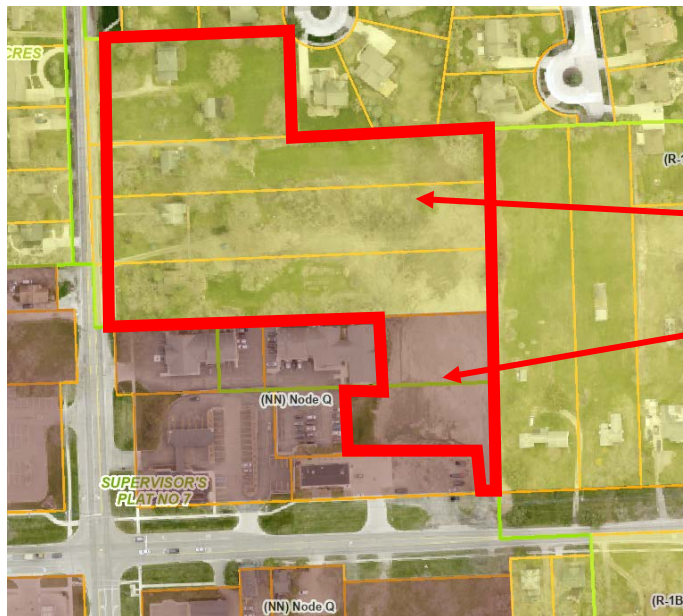
## Housing Types

As noted, the project proposes a mix of housing types:

Type	Number	Notes
Preservation of Existing Single-Family Homes	2	Existing homes on site
Single Family Ranch Homes	4	First Floor Master
Two-Story Attached (first floor Master)	9	First Floor Master
Two-Story Attached Townhome	27	
Two-Story Duplexes	6	
<b>Total</b>	<b>48</b>	

## Zoning

The site includes a mix of Form-based zoning and R-1B. The preservation of the single-family homes, the inclusion of the new homes, and the mix of other housing products require this site to be developed as a Planned Unit Development.



Four parcels added to the development

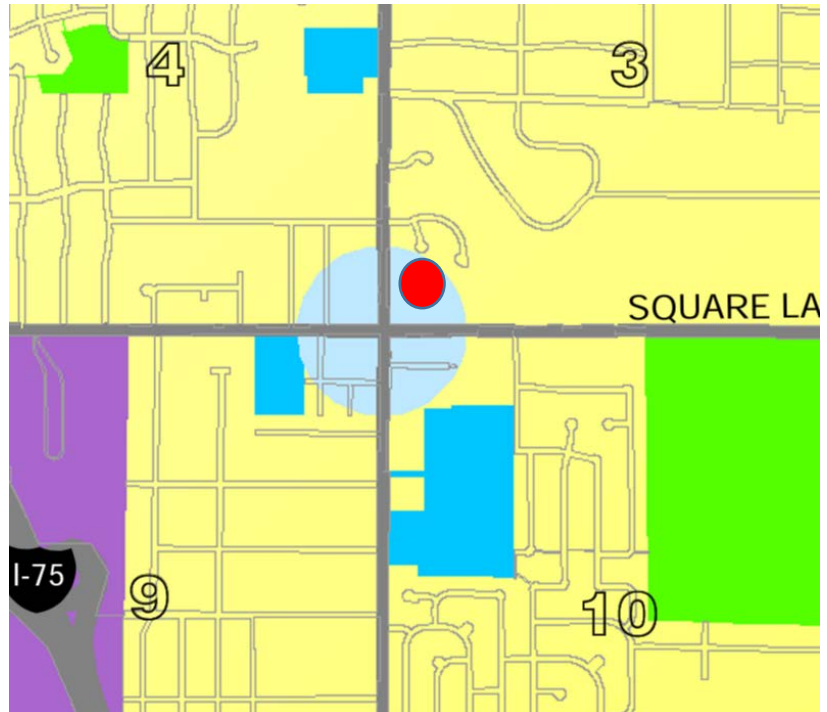
Part of site approved for fourteen (14) unit attached townhome project.

## Master Plan

The site is designated as Neighborhood Node on the future land use plan. The Neighborhood Node master plan designation is not parcel specific, but rather shown as a concentric circle approximately within a 1,000 foot radius of the intersection.

Elements of neighborhood node include:

- Neighborhood Nodes are the concentrated, commercial and mixed-use centers situated at major intersections of Troy thoroughfares.
- Development will be denser and taller than the surrounding area, encouraging visual prominence to signal a gathering space.
- Nodes should be generally confined to a 1,000 foot radius from a major intersection.
- The nodes provide uses and spaces that attract and welcome neighborhood residents.
- Buildings should be separated from the right-of-way line by a landscaped greenbelt, one lane of off-street parking or a pedestrian walk, or a combination of these.
- Primary parking areas will be located within rear or interior side yards.
- Off-street parking should be screened from the public right-of-way by a knee wall or low decorative fence with a hedge of plantings.
- Walks will connect adjacent developments and the public sidewalks.
- Well-defined crosswalks with timed signalization will permit safe crossings.
- Flexible use of space allowing modest outdoor gathering spaces, such as plazas, will be encouraged.
- Buildings should be between two and three stories, although one-story structures accommodating gas stations or other special situations may be permitted.
- One-story buildings should have a minimum exterior height of sixteen feet.
- A ground level story should have a minimum height of twelve feet from finished floor to finished ceiling.
- Facades facing major thoroughfares will be treated as fronts and should have a minimum of half transparent glass and special architectural design treatments.
- Fenestration (the arrangement of windows and doors) should be highlighted through the use of awnings, overhangs or trim detailing.

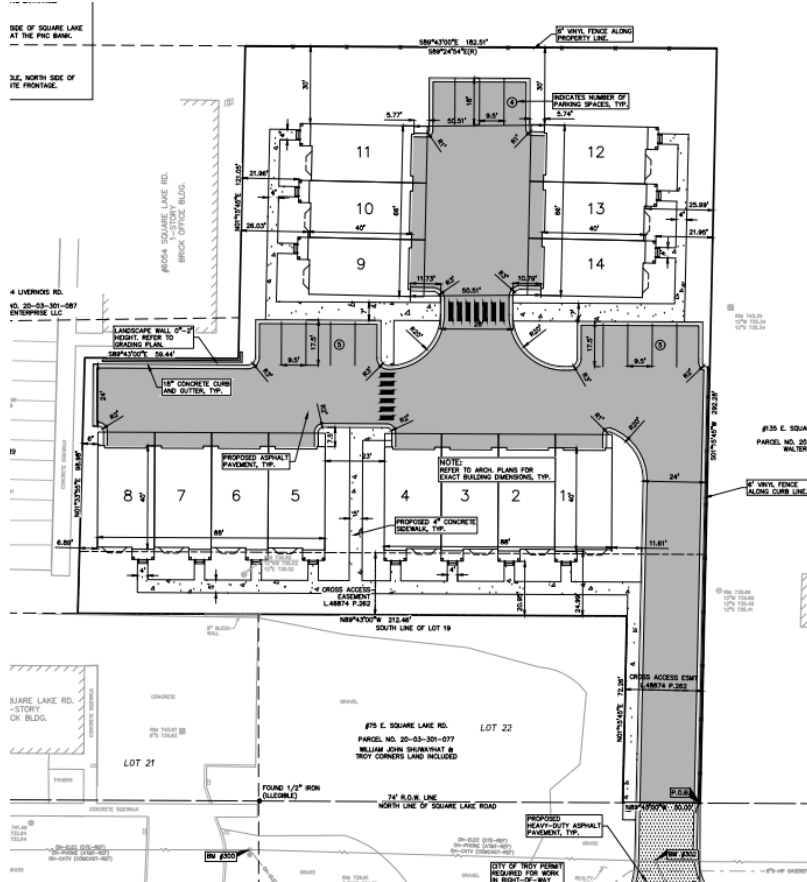


- Lighting will be carefully managed so as not to encroach on adjacent residential areas.

Please note that Planning Commission is considering amendments to the Master Plan section for neighborhood node, including modifying many of these elements.

### Approved Plan

As noted the following 14-unit townhome development was approved in 2018.



2018 approved 14-unit site plan

## **Concept Plan**

The Concept Plan was first reviewed by the Planning Commission in July. Discussion included:

- Previously approved development, housing types, timing and validity of approval, currently in engineering process
- Existing homes; historical in nature, and listed in Historic Preservation Chapter
- Neighborhood Node “Q” toured by Planning Commission and City Council
- Public benefit, preservation of two existing homes, housing types offered
- Intent of PUD development, provide flexibility from Zoning Ordinance regulations to allow a more creative and negotiable product
- Planning Commission members expressed opposition to 3-story tall buildings
- Applicant was encouraged to:
  - Create more green space
  - Retain “old Troy” feel of neighborhood
  - Create a community feel, a village
  - Create a different and unique development
  - Let element of historical homes shine on their own

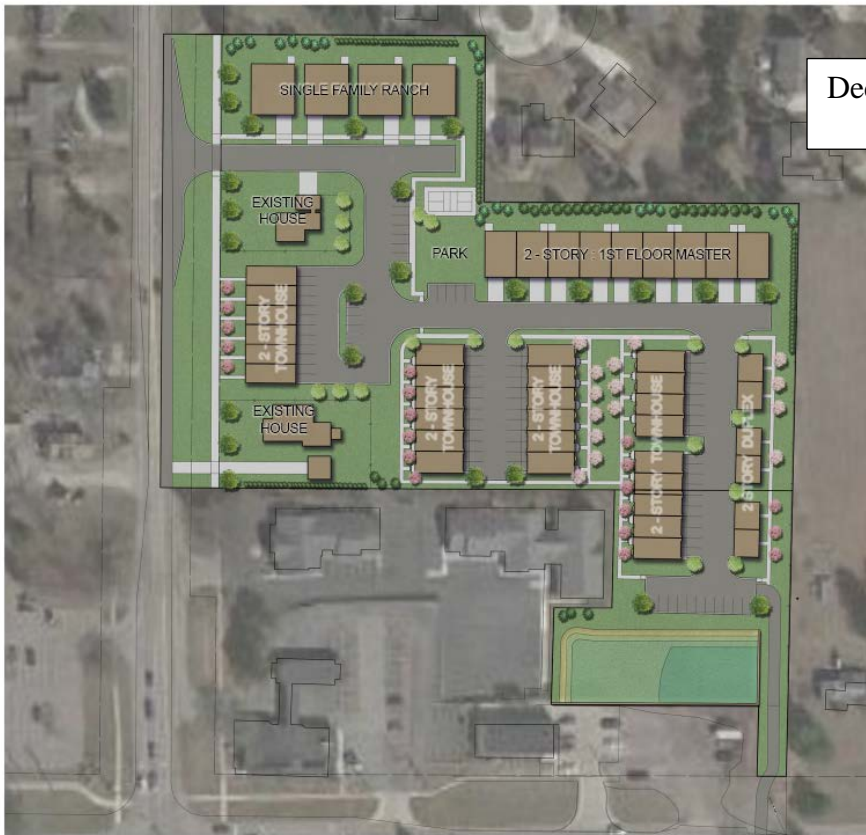
The applicant has submitted a revised concept plan. Significant changes to the plan include:

- Reduced height of all units to not exceed two-stories
- Reduced number of units by 3
- Added duplex unit type
- Added internal park





July 2022 Plan



December 2022 Plan

GFA Square Lake



## **PUD Standards**

A Planned Unit Development project is viewed as an integrated development concept. To that end, the provisions of this Article are not intended to be used as a device for avoiding the zoning requirements that would otherwise apply, but rather to allow flexibility and mixture of uses, and to improve the design, character and quality of new development. The use of a Planned Unit Development to permit variations from other requirements of this Ordinance shall only be approved when such approval results in improvements to the public health, safety and welfare in the area affected, and in accordance with the intent of this Article.

As set forth in Section 11.01, the intent of the Planned Unit Development option is to permit flexibility in the design and use of residential and non-residential land which, through the implementation of an overall development plan, when applicable to the site, will:

1. Encourage developments that will result in a long-term contribution to social, environmental and economic sustainability in the City of Troy.
2. Permit development patterns that respond to changing public and private needs.
3. Encourage flexibility in design and use that will result in a higher quality of development and a better overall project than would be accomplished under conventional zoning, and which can be accommodated without sacrificing established community values.
4. Provide for the long-term protection and/or preservation of natural resources, natural features, and/or historic and cultural resources.
5. Promote the efficient use and conservation of energy.
6. Encourage the use, redevelopment and improvement of existing sites where current ordinances do not provide adequate protection and safeguards for the site or its surrounding areas, or where current ordinances do not provide the flexibility to consider redevelopment, replacement, or adaptive re-use of existing structures and sites.
7. Provide for enhanced housing, employment, recreation, and shopping opportunities for the citizens of Troy.
8. Ensure the compatibility of design and use between various components within the PUD and with neighboring properties and uses.
9. Ensure development that is consistent with the intent of the Master Plan.

### **Details:**

The concept plan is very conceptual. Details such as architectural quality, elevations, material selection, building height, and onsite amenities are very important and will be reviewed in detail if this project moves forward.

### Questions for the Planning Commission Consideration

1. Has the revised plan addressed the concerns of the Planning Commission?
2. Is the proposed plan consistent with the Master Plan?
3. Does the Planning Commission support the proposed mix of housing types? Are there additionally types or changes in types that the Planning Commission thinks should be considered?
4. Is the proposed plan consistent with the PUD standards?
5. Are there site plan changes that the applicant should consider?
6. Are there other considerations that should be discussed with the applicant?

I look forward to discussing this plan at your December meeting.

Sincerely,



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





LIVERNOIS ROAD

SQUARE LAKE ROAD

GFA Square Lake

2017-009  
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