



500 West Big Beaver
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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

September 26, 2023

7:00 P.M.

Council Chambers

1. ROLL CALL
2. APPROVAL OF AGENDA
3. APPROVAL OF MINUTES – September 12, 2023
4. PUBLIC COMMENT – For Items Not on the Agenda

SPECIAL USE APPROVAL

5. PUBLIC HEARING - SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW (SU JPLN2023-0019) - Proposed Clean Express Car Wash, West side of John R, North of Fourteen Mile (PIN 88-20-35-401-001), Section 35, Zoned GB (General Business) District

PRELIMINARY SITE PLAN APPROVAL

6. PRELIMINARY SITE PLAN APPROVAL (SP JPLN2023-0028) – Proposed John R Gardens Townhome Development, East side of John R, north of Big Beaver (PIN 88-20-23-476-017), Section 23, Zoned MF (Multi-Family Residential) Zoning District.

OTHER ITEMS

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 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 September 12, 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
- Carlton M. Faison
- Tyler Fox
- Michael W. Hutson
- Tom Krent
- David Lambert
- Lakshmi Malalahalli
- Marianna Perakis
- John J. Tagle

Also Present:

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

2. APPROVAL OF AGENDA

Resolution # PC-2023-09-051

Moved by: Tagle
Support by: Faison

RESOLVED, To approve the Agenda as prepared.

Yes: All present (9)

MOTION CARRIED

3. APPROVAL OF MINUTES – August 22, 2023

Resolution # PC-2023-09-052

Moved by: Fox
Support by: Buechner

RESOLVED, To approve the minutes of the August 22, 2023 Regular meeting as submitted.

Yes: All present (9)

MOTION CARRIED

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

There was no one present who wished to speak.

REZONING REQUEST

5. **PUBLIC HEARING – REZONING REQUEST (File Number Z JPLN2023-0016)** – Proposed Encore Development Rezoning, East side of Todd, South of Big Beaver (PIN 88-20-29-226-019 and -020), Section 29, From R-1C (One Family Residential) and P (Vehicular Parking) Districts to BB (Big Beaver) Zoning District

Mr. Carlisle reviewed the Encore Development Rezoning Request. He provided a background of the location, surrounding zoning and ownership of each parcel. Mr. Carlisle reported the application is a straight rezoning request with no conditions, is consistent with the Master Plan and would allow all permitted uses in the Big Beaver zoning district.

In summary, Mr. Carlisle said the Planning Commission should consider public testimony during the public hearing, whether the request meets the Rezoning Standards set forth in Section 16.03 C and make a recommendation to the City Council.

There was a brief discussion on the definition, use and intent of the P (Vehicular Parking) zoning district designation.

Jim Butler of PEA Group and Jason Hamama of Encore Development were present.

Mr. Butler offered specific responses to the five (5) Rezoning Standards set forth in the Zoning Ordinance. He said the applicant intends to construct a mixed-use development. Mr. Butler addressed the future uses of the three parcels to the north that are under the same ownership.

Chair Lambert referenced a previous concept plan presented to the Board for a conditional rezoning of the parcels to include the parcel zoned Office (O) that is under different ownership. He said at that time the Board expressed concerns with a straight rezoning because of its potential impact on adjacent properties.

Mr. Hamama said the parcel under different ownership might come into play in the future as a third phase of the development. He said they are back in front of the Board with a straight rezoning application after a delay resulting from working with a potential free-standing tenant.

PUBLIC HEARING OPENED

There was no one present who wished to speak.

PUBLIC HEARING CLOSED

Ms. Perakis shared her views on a conditional rezoning application versus a straight rezoning application as relates to compatibility with adjacent parcels.

There was discussion, some comments related to:

- Range of permitted uses and building forms in the Big Beaver zoning district.
- Compatibility with adjacent uses; no assurance with straight rezoning.
- Application of Site Plan Review Standards during site plan review and approval process.

Resolution # PC-2023-09-053

Moved by: Faison

Seconded by: Krent

RESOLVED, That the Planning Commission hereby recommends to the City Council that the R-1C (One Family Residential) and P (Vehicular Parking) to BB (Big Beaver) Rezoning Request, as per Section 16.03 of the City of Troy Zoning Ordinance, located on the East side of Todd, South of Big Beaver (PIN 88-20-29-226-019 and -020), within Section 29, being approximately 1.49 acres in size, be **GRANTED**, for the following reasons:

1. The proposed rezoning is consistent with the Master Plan.
2. The proposed rezoning does not appear to cause or increase any nonconformity.
3. If rezoned the property will be capable of accommodating service and facility loads caused by the use of the development.
4. The rezoning does not appear to impact public health, safety, or welfare.
5. The rezoning will ensure compatibility with adjacent uses of land.

Discussion on the motion on the floor.

Mr. Faison said the Resolution does not discount the viewpoint of Ms. Perakis and he respects the comments of Mr. Savidant that site plan review standards would be applied to the site plan application in the approval process.

Mr. Buechner said he values Ms. Perakis’ viewpoint also and that he is interested to see what type of development is proposed.

Ms. Perakis said that with a conditional rezoning the Planning Commission has more control of the type of development and its compatibility with adjacent parcels.

Chair Lambert referenced previous dialogue on the parcels wherein the Board shared that a conditional rezoning would be preferable.

Vote on the motion on the floor.

Yes: Buehner, Faison, Fox, Hutson, Krent, Tagle

No: Lambert, Malalahalli, Perakis

MOTION CARRIED

OTHER ITEMS

6. PUBLIC HEARING – REVISED PRELIMINARY SITE PLAN AND AMENDMENT TO CONDITIONAL REZONING AGREEMENT (JPLN2023-0018) – Proposed Homestead Site Condominiums, East side of Livernois, North of Big Beaver (PIN 88-20-22-301-007, -008 and -009), Section 22, Zoned RT (One Family Attached Residential) Zoning District

Mr. Carlisle reviewed the revised Preliminary Site Plan and Amendment to Conditional Rezoning Agreement for Homestead Site Condominiums. He stated the applicant is seeking to amend the Conditional Rezoning to construct 14 detached homes. Mr. Carlisle presented a comparison of the 2022 plan to 2023 plan, specifically noting the change in unit type, the reduction in the number of units, and a reshaped detention pond. He reported it is a major amendment to the Agreement that is required to come back to the Planning Commission for a recommendation to the City Council.

In summary, Mr. Carlisle asked the Planning Commission to consider public testimony during the public hearing. He asked as part of their deliberations to consider if the plan meets the Rezoning Standards and the Site Plan Review Design Standards and to address site plan items identified in his report dated September 5, 2023.

Jim Eppink of J Eppink Partners Inc. was present to represent Joe Maniaci of Mondrian Properties. Mr. Eppink said key missing items were discovered in the process of marketing homes as proposed in the original plan. He said home buyers are looking for two-car garages, basements for storage and maintenance-free homes with four walls of their own and not an-apartment-style living. Mr. Eppink said the applicant is coming back to the Board with a similar plan as relates to land balance and engineering of the existing floodplain. He noted the homes would be for sale, not rent, there would be public access to the trails and the material of the trails is a combination of asphalt and concrete.

There was discussion, some comments related to:

- Definition of “missing middle” homes.
- Connection and access to the trails; whether public or private, potential to connect to the south.
- Options to accommodate guest parking.
- Alternative locations for overflow parking.
- On-street parking per Fire Department regulations.
- Demographics used in marketing homes.
- Reforestation of trails.
- Maintenance of trails; easement dedicated to City to maintain.
- Material of the trails; asphalt in the rear, concrete in front.

PUBLIC HEARING OPENED

John Phillips, 3302 Frankton; addressed concerns with flooding, loss of wetlands, and connection of the trails to neighboring properties. He said he requested a copy of the site plan from the Planning Department but did not receive it.

PUBLIC HEARING CLOSED

Mr. Savidant apologized to Mr. Phillips that the Planning Department did not respond to his request. He asked Mr. Phillips to meet him at the Planning Department counter after the meeting to give him a copy of the site plan.

Mr. Savidant addressed the concerns expressed by Mr. Phillips with respect to flooding. He stated the proposed development is an opportunity to make improvements to the stormwater flow and flooding issues in the area.

Mr. Savidant cited the Master Plan definition of middle housing.

There was discussion:

- How the original Conditional Rezoning Agreement relates to the proposed amendment.
- Intent of the Resolution templates prepared by the administration.
- How the site plan issues identified in the Planning Consultant report relates to the proposed amendment.
- Applicant’s affirmation to research options for guest parking.
- Conditions offered by applicant in relation to the proposed application amendment.

Mr. Carlisle confirmed the plan meets the parking requirements of the Zoning Ordinance.

Mr. Fox said he does not support the application because of the demographics used in marketing the homes. He would like to see the demographics include a younger and/or a hybrid of generations.

Resolution # PC-2023-09-054

Moved by: Perakis
 Seconded by: Buechner

RESOLVED, That the Planning Commission hereby recommends to the City Council that the proposed request to amend the Conditional Rezoning Agreement and Site Plan, located on the East side of Livernois, North of Big Beaver, within Section 22, being approximately 9.5 acres in size, be **GRANTED**, for the following reasons:

1. The request complies with the Master Plan.
2. The conditions offered by the applicant reasonably protect the adjacent properties.
3. The rezoning would be compatible with surrounding zoning and land use.
4. The site can be adequately served with municipal water and sewer.

BE IT FURTHER RESOLVED, That the Planning Commission recommends the following site plan design considerations:

1. Provide Conditional Rezoning Agreement prior to the City Council consideration.
2. Explore additional guest parking after determining with the Fire Department whether parking is permitted on both sides of the road.

Discussion on the motion on the floor.

Chair Lambert said his concerns with the original plan was that it was not entirely compatible with the neighbors to the south and that he would vote in favor of the amendment before the Board this evening.

Vote on the motion on the floor.

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

MOTION CARRIED

7. PUBLIC COMMENT – For Items on the Agenda

There was no one present who wished to speak.

8. PLANNING COMMISSION COMMENT

There were general Planning Commission comments, some related to:

- Update on Downtown Development Authority (DDA) district landscape project.
- Format of resolution(s) prepared by administration.
- Distribution of informational articles among Planning Commission.
- Presentation by Mr. Savidant at the Oakland County Planners Gathering.

9. ADJOURN

The Regular meeting of the Planning Commission adjourned at 8:40 p.m.

Respectfully submitted,

David Lambert, Chair

Kathy L. Czarnecki, Recording Secretary

ITEM #5

DATE: September 21, 2023

TO: Planning Commission

FROM: R. Brent Savidant, Community Development Director

SUBJECT: PUBLIC HEARING - SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW (SU JPLN2023-0019) - Proposed Clean Express Car Wash, West side of John R, North of Fourteen Mile (PIN 88-20-35-401-001), Section 35, Zoned GB (General Business) District

The petitioner Mannik and Smith Group submitted the above referenced Special Use Approval and Preliminary Site Plan Approval application for a new full-service car wash within an underutilized parking lot at Oakland Mall.

Vehicle auto washes are permitted in the GB district, subject to special use approval.

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

Attachments:

1. Maps
2. Report prepared by Carlisle/Wortman Associates, Inc.
3. Special use application

G:\SPECIAL USE\SU_JPLN2023-0019_CLEAN EXPRESS CAR WASH\PC Memo 09 26 2023.docx

PROPOSED RESOLUTION

PUBLIC HEARING - SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW (SU JPLN2023-0002) - Proposed Clean Express Car Wash, West side of John R, North of Fourteen Mile (PIN 88-20-35-401-001), Section 35, Zoned GB (General Business) District

Resolution # PC-2023-09-

Moved by:

Seconded by:

RESOLVED, That Special Use Approval and Preliminary Site Plan Approval for the proposed Clean Express Car Wash, West side of John R, North of Fourteen Mile (PIN 88-20-35-401-001), Section 35, Currently Zoned GB (General Business) District, be (granted, subject to the following conditions):

1. Provide bicycle parking.
2. Provide 8-foot sidewalk required along John R Road.
3. Relocate dumpster.
4. Provide sidewalk across the north side of lot, to and from John R Road.
5. Add two (2) parking lot trees internal to the parking lot along the western parking area, and one (1) tree along the eastern parking lot area.
6. Stamp plan by licensed landscape architect.

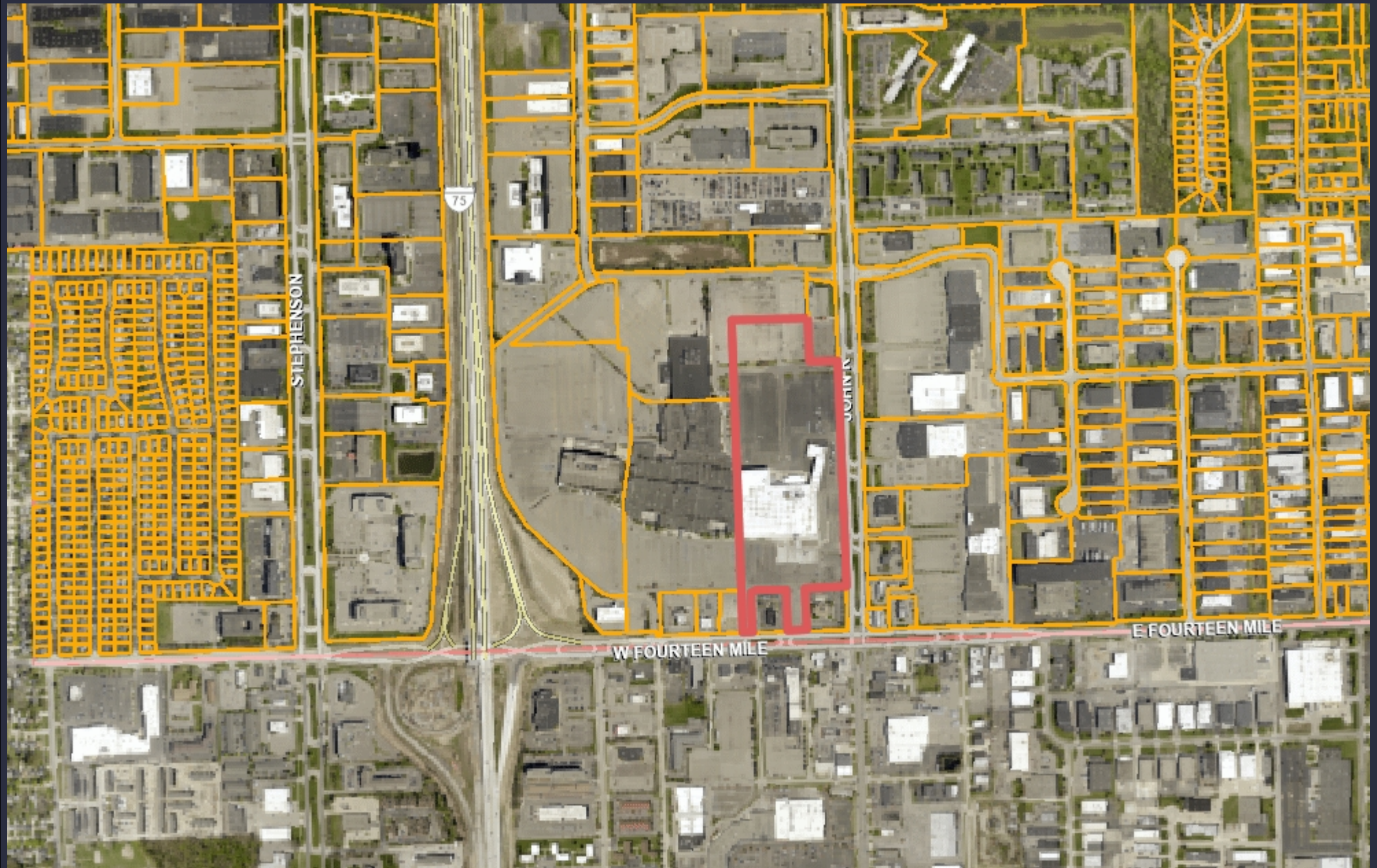
_____) or
 (denied, for the following reasons: _____) or
 (postponed, for the following reasons: _____)

Yes:
 No:
 Absent:

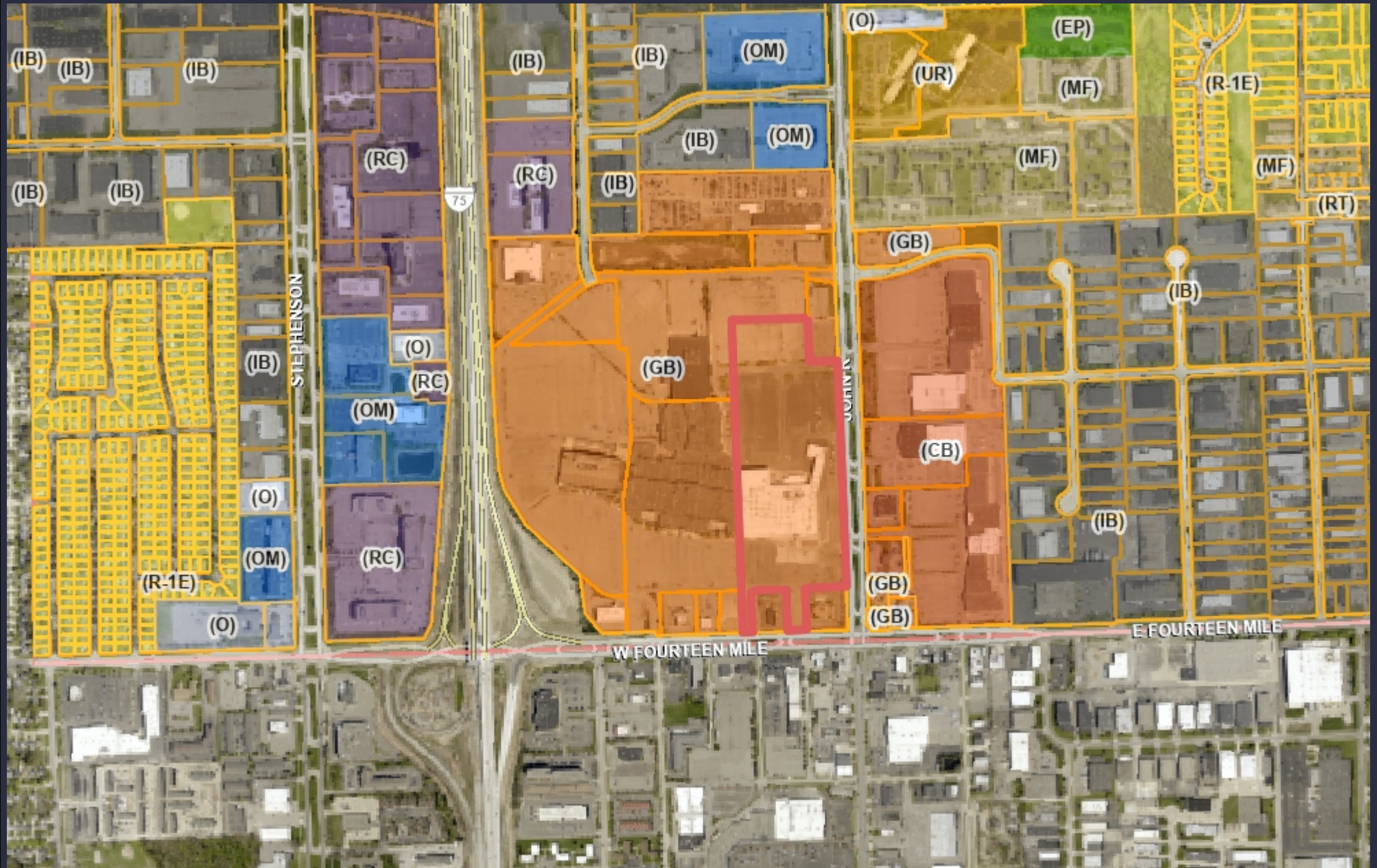
MOTION CARRIED / FAILED



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.



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Carlisle | Wortman
ASSOCIATES, INC.

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

Date: September 20, 2023

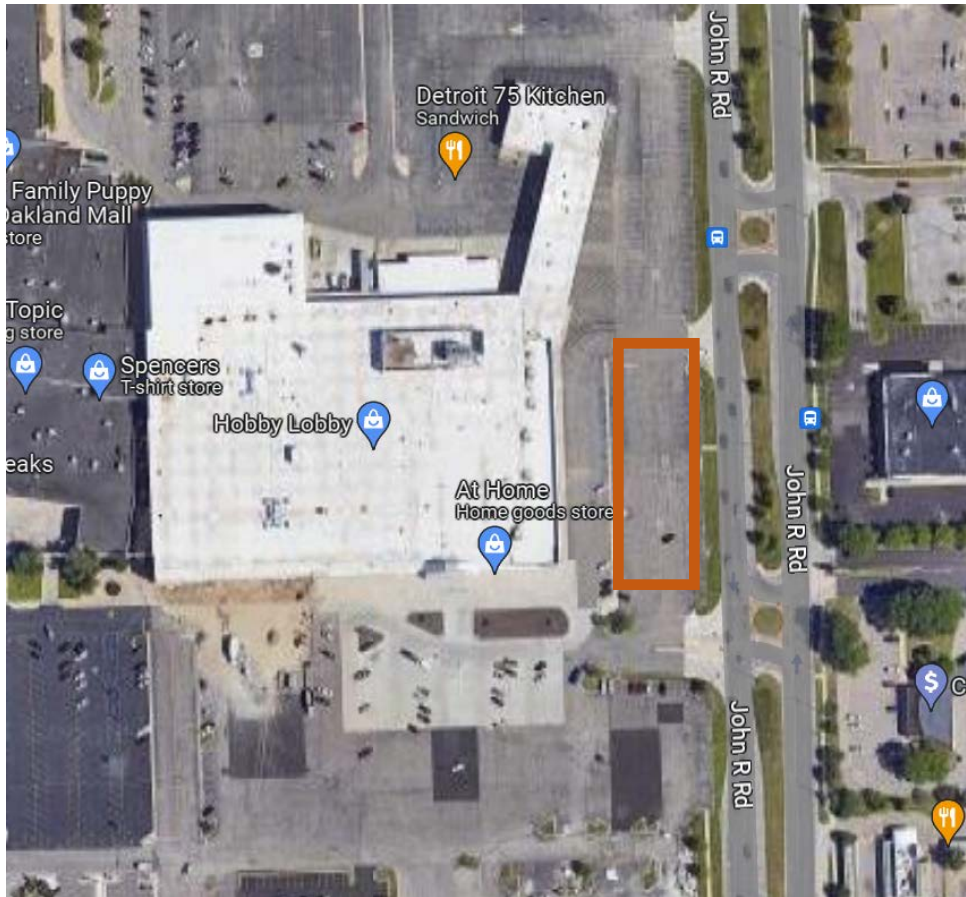
Preliminary Site Plan For City of Troy, Michigan

Applicant:	Mannik and Smith Group
Project Name:	Clean Express Car Wash
Location:	Oakland Mall (outlot adjacent to John R)
Zoning:	GB, General Business
Action Requested:	Preliminary Site Plan Review

SITE/PROJECT DESCRIPTION/CURRENT USE

The applicant has submitted an application for a new car wash to be located in an outlot of Oakland Mall. The proposed outlot is adjacent to John R and in front of the At Home store in the mall. The proposed carwash is 3,600 sq/ft and includes 28 vacuum stations. The parking and vacuum stations are located between the building and the At Home store. The area proposed for development is currently parking.

The site is zoned GB, General Business. A carwash is a special use in the GB district.



NATURAL FEATURES

The site has been graded and developed for use as a parking lot. There are no natural features in the area proposed for development.

Items to be addressed: None.

SITE ARRANGEMENT

The proposed outlot is adjacent to John R and in front of the At Home store in the mall. The proposed carwash is 3,600 sq/ft and includes 28 vacuum stations. The parking and vacuum stations are located between the building and parking for the At Home store. The area proposed for development is currently parking.

Items to be addressed: None.

AREA, WIDTH, HEIGHT, SETBACKS

Section 4.14 establishes the dimensional requirements for GB, General Business District. The requirements of GB Zoning District and the proposed dimensions are shown in the following table.

	Required	Provided	Compliance
Front (John R)	10-feet	10.55-feet	Complies
Side	20-feet /40-feet combined	Over 20-feet and 40-feet combined	Complies
Rear	30-foot minimum setback	Over 30-feet	Complies
Building Height	3-stories, 40 feet in height.	3-stories, 40 feet in height	Complies
Parking Location	NO more than 50% can be in front yard	No more than 50% of parking is located in front yard	Complies

Items to be addressed: None

PARKING

Section 13.06.G of the Zoning Ordinance requires:

	Required	Provided	Compliance
Car Wash	2 spaces, plus 12 stacking spaces per bay for a semi- or fully-automatic wash, 1 stacking space per bay for a self-serve wash, plus 1 space per 1 employee on the largest typical shift	26 vacuum spaces and 3 non-vacuum spaces. Over 12 stacking spaces.	Complies
Barrier Free	1	1	Complies
Bicycle Parking	2	0	Does not comply
Loading	0	0	

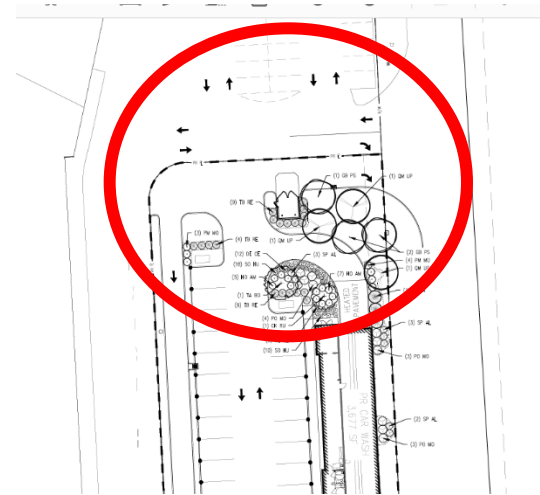
The applicant is not providing any bicycle parking.

Items to be Addressed: Provide bicycle parking.

SITE ACCESS AND CIRCULATION

Internally, the site is curbed to separate the use from general mall parking and circulation.

There are multiple points of access to the carwash area of the site via the exiting Oakland Mall parking lot. Direct access is from John R Road. There is a significant amount of traffic and circulation movement in the area of the direct entrance to the carwash and the access off John R Road. The Planning Commission should discuss with the applicant site circulation, especially around location of car wash entrance.



The City Engineer has reviewed the plan and notes the following:

- 8-foot sidewalk required along John R Road
- Relocate dumpster, access from drive aisle not allowed.
- Provide sidewalk across the north side of lot, to and from John R

There is a significant amount of traffic and circulation movement in the area of the direct entrance to the carwash and the access of John R

Items to be addressed: 1). The Planning Commission should discuss with the applicant site circulation, especially around location of parking lot entrance; 2). Provide 8-foot sidewalk required along John R Road; 3). Relocate dumpster, access from drive aisle not allowed; and 4). Provide sidewalk across the north side of lot, to and from John R Road.

LANDSCAPING

A landscaping plan has been provided on Sheet L101. The following table discusses the development’s compliance with the landscape requirements set forth in Section 13.02.

	Required:	Provided:	Compliance:
Greenbelt Planting			
John R: 1 tree every 30 feet	$328 / 30 = 11$	18 trees	Complies
Parking Lot Landscaping:			
1 tree per 8 parking spaces	$29 / 10 = 4$ trees	4 trees in perimeter of parking area.	Complies with Planning Commission consideration
Overall			
Site landscaping: A minimum of twenty percent (20%) of the site area shall be comprised of landscape	$20\% = 8,540$ sq/ft	Over 20% = 10,332 sq/ft	Complies

material. Up to twenty-five percent (25%) of the required landscape area may be brick, stone, pavers, or other public plaza elements, but shall not include any parking area or required sidewalks.			
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We note that there is a long stretch of parking (with vacuums) that does not have any parking lot landscaping. We recommend that the applicant provide two (2) parking lot trees internal to the parking lot along the western parking area, and one (1) tree along the eastern parking lot area. Parking lot trees in the western parking area will also breakup and help distinguish and define the property and use boundaries of the carwash.

It will require the loss of at least three (3) parking/vacuum space area. Landscape Plan was not stamped by a licensed landscape architect.

Items to be Addressed: 1). Add two (2) parking lot trees internal to the parking lot along the western parking area, and one (1) tree along the eastern parking lot area; and 2). Stamp plan by licensed landscape architect.

PHOTOMETRICS

The applicant proposes three (3) parking lot pole lights and six (6) building lights. Photometric and fixtures comply with ordinance requirements.

Items to be Addressed: None

FLOOR PLAN AND ELEVATIONS

Floor plans and elevations have been provided. The primary material is brick. A rendering shows a color scheme of white brick, natural brick, and green vacuums. The proposed canopy over the pay area is red. The applicant should describe how the color scheme of the canopy matches the color scheme of the building.

The applicant has provided a rendering of a Clean Express carwash, but we note it's not site specific. The applicant should confirm if they propose the general material use and color scheme as shown in the rendering. To better understand architectural details and site context, the applicant should provide a 3-D model of the site in context of the malls buildings and John R.

Items to be Addressed: 1). Applicant should confirm if they propose the general material use and color scheme as shown in the rendering; and 2). Provide site specific 3-D model.

SPECIAL USE STANDARDS

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

Section 9.03 states that before approving any requests for Special Use Approval, the Planning Commission shall consider:

1. *Compatibility with Adjacent Uses.*
2. *Compatibility with the Master Plan.*
3. *Traffic Impact.*
4. *Impact on Public Services.*
5. *Compliance with Zoning Ordinance Standards.*
6. *Impact on the Overall Environment.*
7. *Special Use Approval Specific Requirements.*

SITE PLAN REVIEW STANDARDS

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

Section 8.06 outlines Site Plan Review Design Standards.

Section 8.06 outlines Site Plan Review Design Standards.

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

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

SUMMARY

The Planning Commission is asked to hold a public hearing and consider public testimony. As part of the deliberations, the Planning Commission should discuss the following:

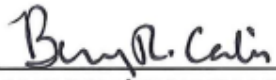
- Site circulation, especially around location of parking lot entrance and consider
- Architecture, material use, and color scheme
- If the plan meets the special use and site plan design standards

If the Planning Commission approves the special use and site plan, the following site plan items should be addressed by the applicant:

1. Provide bicycle parking.
2. Provide 8-foot sidewalk required along John R Road.
3. Relocate dumpster, access from drive aisle not allowed.
4. Provide sidewalk across the north side of lot, to and from John R Road.
5. Add two (2) parking lot trees internal to the parking lot along the western parking area, and one (1) tree along the eastern parking lot area.
6. Stamp plan by licensed landscape architect.
7. Provide site specific 3-D model.

Clean Express Car Wash
September 20, 2023

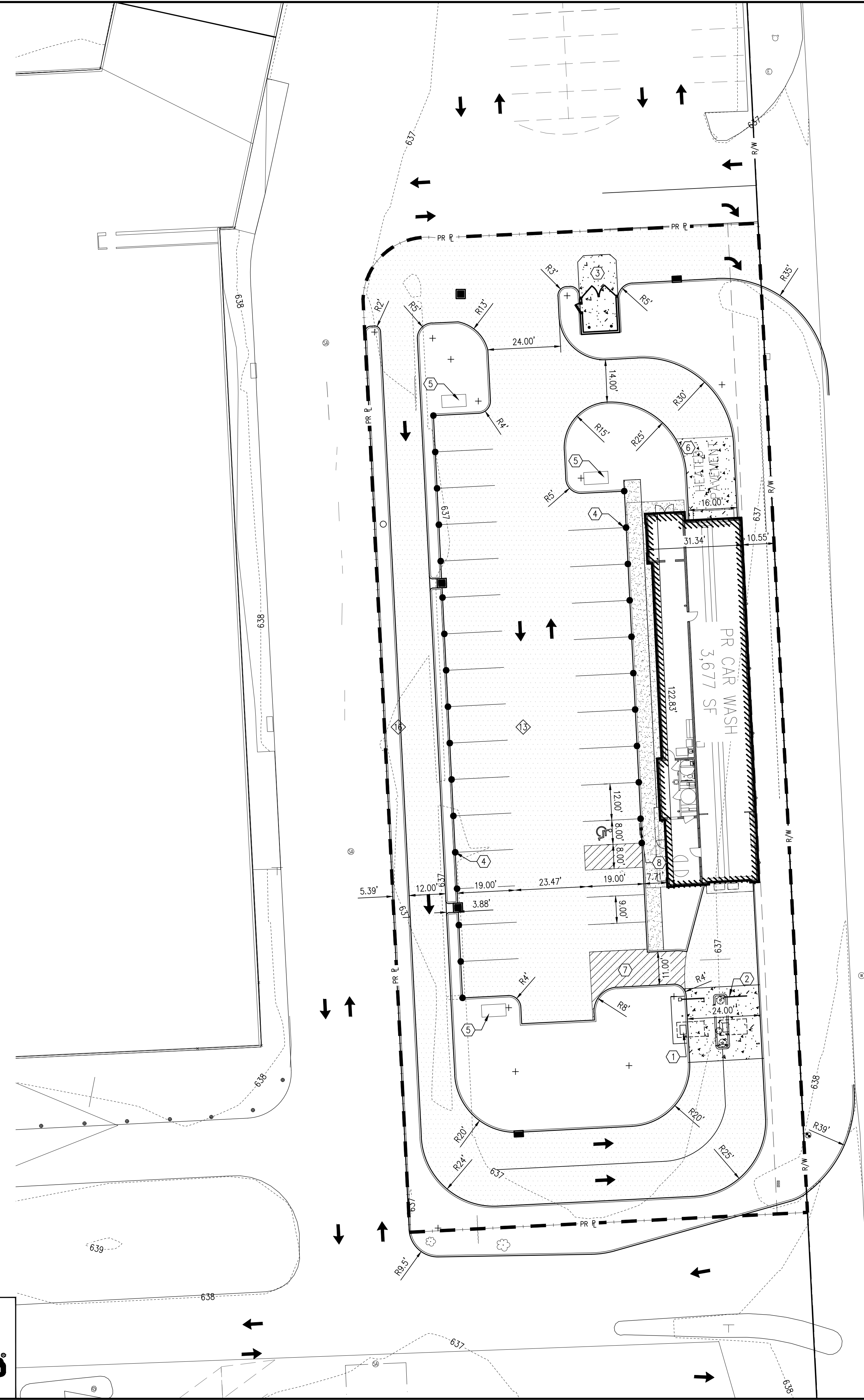
Sincerely,



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

W:\Projects\2024\01_230001_01\98401_23001\100\CA\98401\98401 SITE PLAN.dwg (Last saved: 7/18/2024 11:58 AM) by: jrhaw, plawar, 7/18/2024 11:58 AM

MICHIGAN
Utility Notification
CENTER **811**
811 or
1-800-482-7171
Know What's Below. Call Before You Dig.



LEGEND

- | | |
|--|-------------------------------|
| | PR CONCRETE CURB |
| | PR CURB LIMIT |
| | EX PROPERTY LINE |
| | EX RIGHT-OF-WAY LINE |
| | PR ASPHALT PAVEMENT |
| | PR CONCRETE PAVEMENT |
| | PR CONCRETE SIDEWALK |
| | PR ADA PAINT STRIPING |
| | PR DETECTABLE WARNING SURFACE |
| | PARKING COUNT |
| | EXISTING TREE |
| | PR VACUUM STATION |

CODED NOTES

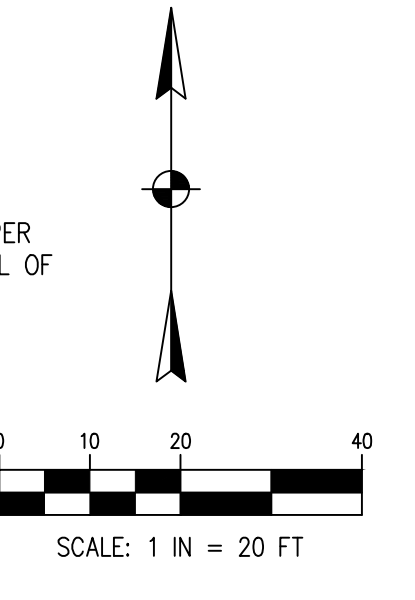
- ① PAY STATION (TYP OF 2)
- ② CLEARANCE BAR (TYP OF 2)
- ③ CONCRETE DUMPSTER PAD
- ④ VACUUM STATION (TYP OF 25)
- ⑤ VACUUM CORRELATOR
- ⑥ HEATED CONCRETE PAVEMENT
- ⑦ ESCAPE LANE
- ⑧ ADA PARKING SIGN

SITE DATA

PARCEL NUMBER	20-35-401-001
PARCEL SIZE	0.98 ACRES
ZONING:	GENERAL BUSINESS GB
EXISTING USE	PARKING
PROPOSED USE	DRIVE-THRU CAR WASH
MAX HEIGHT	2 STORIES-40'
SETBACKS	75' FROM ANY RESIDENTIAL
FRONT	10'
REAR	30'
SIDES: LEAST	20'
SIDES: TOTAL	40' (0' IF BORDERING OTHER BUSINESS DISTRICTS)
PARKING REQUIRED	2 SPACES PLUS 12 STACKING SPACES PER BAY FOR AUTOMATIC CAR WASH, PLUS 1 SPACE PER EMPLOYEE ON THE LARGEST TYP SHIFT
PARKING PROVIDED	29 SPACES

NOTES

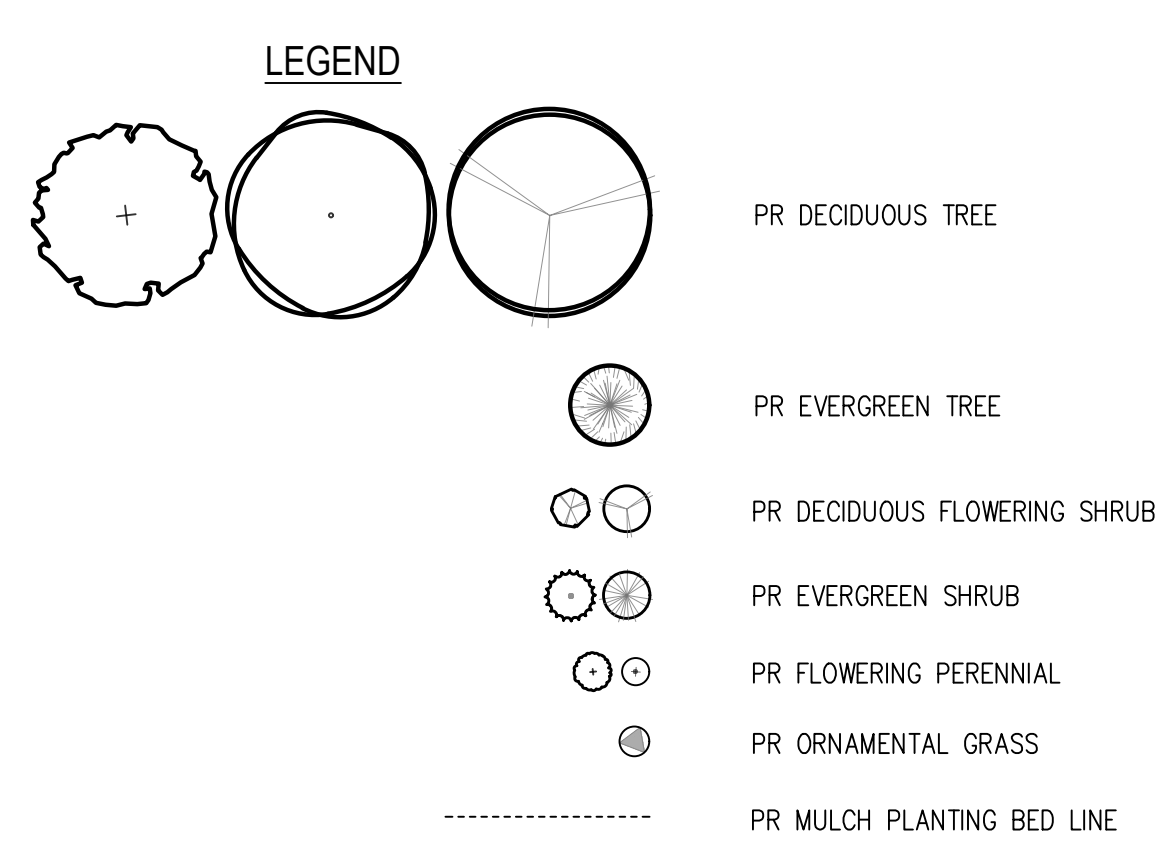
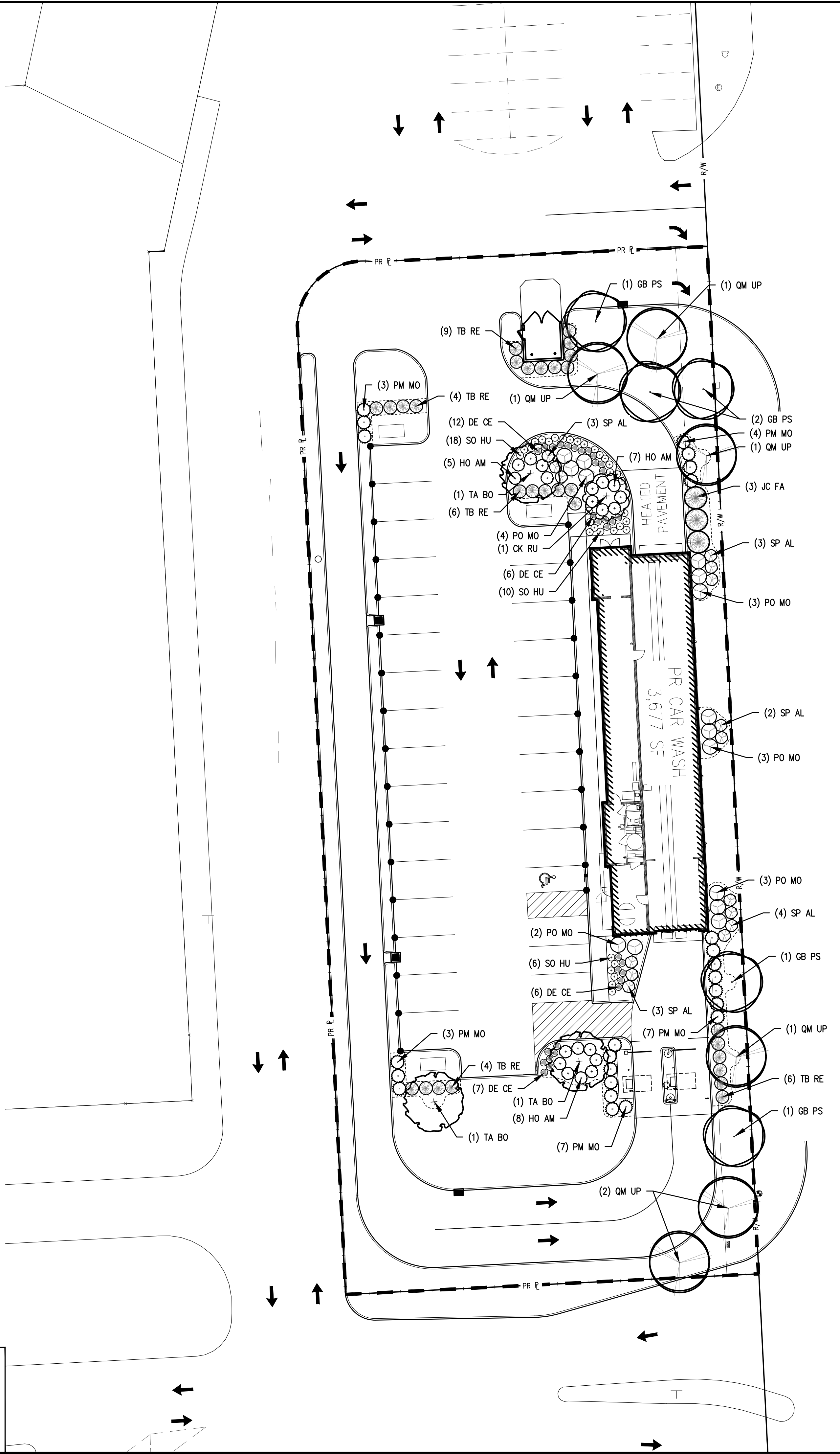
- 1. SEE PHOTOMETRIC PLAN FOR LIGHT POLE LOCATIONS
- 2. ALL PARKING SPACES SHALL BE SINGLE STRIPED WITH FOUR-INCH WIDE STRIPES PER THE STANDARDS IN THE MICHIGAN MANUAL OF UNIFORM TRAFFIC DEVICES.



NO.	DATE	BY	DESCRIPTION	NOT TO BE USED AS CONSTRUCTION DRAWINGS
637 SHEET 625				
DATE: 7/18/2024				
TEL: 313.981.9850				
FAX: 313.981.9859				
PROJECT DATE: 07/18/2023				
PROJECT NO.: 401.2300176	JAR	KIW		
DRAWN BY:				
CHECKED BY:				
TECHNICAL SKILL. CREATIVE SPIRIT.				
Mannik Smith GROUP www.MannikSmithGroup.com				
PREPARED FOR:	EXPRESS Wash Concepts 13375 NATIONAL ROAD SW ETNA, OHIO 43068			
SITE PLAN FOR	CLEAN EXPRESS CAR WASH W 14 MILE ROAD TROY, MI 48063			
PRELIMINARY SITE PLAN				
C200				

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MICHIGAN
Utility Notification
CENTER
811
 811 or
 1-800-482-7171
Know What's Below. Call Before You Dig.



LANDSCAPE CODE REQUIREMENTS

REQUIRED:	PROVIDED:
CITY OF TROY, MI ZONING ORDINANCE, ARTICLE 13: 1. THERE SHALL BE A MINIMUM OF ONE (1) TREE FOR EVERY EIGHT (8) PARKING SPACES. 29 PARKING SPACES / 8 = 3 TREES REQUIRED.	3 TREES PROVIDED.
2. PARKING LOTS THAT FRONT ON A PUBLIC ROADWAY SHALL BE SCREENED BY A LANDSCAPED BERM AT LEAST THREE (3) FEET IN HEIGHT ALONG THE PERIMETER OF THE ROAD RIGHT OF WAY. ALTERNATIVE LANDSCAPE PLANTINGS OR A SOLID WALL THAT DOES NOT EXCEED THREE (3) FEET IN HEIGHT MAY BE APPROVED, WHERE IT IS FOUND THAT SPACE LIMITATIONS OR VISIBILITY FOR VEHICULAR CIRCULATION PREVENT CONSTRUCTION OF A LANDSCAPE BERM.	EVERGREEN SHRUBS PROVIDED TO SCREEN BETWEEN PARKING LOT AND JOHN R RD.
3. A GREENBELT SHALL BE PROVIDED ALONG ALL PUBLIC STREETS UPON WHICH A SITE HAS FRONTAGE. THE GREENBELT SHALL BE LANDSCAPED WITH A MINIMUM OF ONE (1) DECIDUOUS TREE FOR EVERY THIRTY (30) LINEAL FEET, OR FRACTION THEREOF, OF FRONTAGE ABUTTING A PUBLIC ROAD RIGHT-OF-WAY. 326 LINEAL FEET OF STREET FRONTAGE / 30 = 11 TREES REQUIRED.	11 TREES PROVIDED.
4. A MINIMUM OF TWENTY PERCENT (20%) OF THE SITE AREA SHALL BE COMPRISED OF LANDSCAPE MATERIAL. 42,697 SF OF SITE AREA X 20% = 8,540 SF OF LANDSCAPED AREA REQUIRED.	10,332 SF OF LANDSCAPED AREA.
5. SITE AREA LANDSCAPING SHALL BE PROVIDED TO SCREEN POTENTIALLY OBJECTIONABLE SITE FEATURES SUCH AS, BUT NOT LIMITED TO, RETENTION/DETENTION BASINS, LOADING AREAS, AND TRASH AREAS.	EVERGREEN SHRUBS PROVIDED TO SCREEN DUMPSTER AND PAY MACHINES.

LANDSCAPE PLANT LIST

ABRV.	QUANTITY	SCIENTIFIC NAME	COMMON NAME	SIZE	REMARKS	TYPE
JC FA	3	JUNIPERUS CHINENSIS 'FAIRVIEW'	FAIRVIEW JUNIPER	5' HEIGHT	B&B	EVERGREEN TREE
GB PS	5	GINKGO BILOBA 'PRINCETON SENTRY'	PRINCETON SENTRY GINKGO	2.5" CALIPER	B&B	DECIDUOUS TREE
QM UP	6	QUERCUS MACROCARPA 'JFS-KW3'	URBAN PINNACLE BUR OAK	2.5" CALIPER	B&B	DECIDUOUS TREE
TA BO	3	TILIA AMERICANA 'BOULEVARD'	BOULEVARD AMERICAN LINDEN	2.5" CALIPER	B&B	DECIDUOUS TREE
CK RU	1	CORNUS KOUSA 'RUTPINK'	SCARLET FIRE CHINESE DOGWOOD	2" CALIPER	B&B	ORNAMENTAL TREE

ABRV.	QUANTITY	SCIENTIFIC NAME	COMMON NAME	SIZE	REMARKS	TYPE
PM MO	24	PINUS MUGO 'MOP'S'	DWARF MUGO PINE	2" SPREAD	CONTAINER	EVERGREEN SHRUB
TB RE	29	TAXUS BACCATA 'REPANDENS'	REPANDENS YEW	2" SPREAD	CONTAINER	EVERGREEN SHRUB
PO MO	15	PHYSOCARPUS OPULIFOLIUS 'MONLO'	DIABOLO NINEBARK	3' HEIGHT	CONTAINER	DECIDUOUS SHRUB
SP AL	15	SPIRAEA ALBA	WHITE MEADOWSWEET	2" SPREAD	CONTAINER	DECIDUOUS SHRUB
HO AM	20	HOSTA 'AUGUST MOON'	AUGUST MOON HOSTA	2 GALLON	CONTAINER	FLOWERING PERENNIAL
SO HU	34	STACHYS OFFICINALIS 'HUMMELO'	BETONY	2 GALLON	CONTAINER	FLOWERING PERENNIAL
DE CE	24	DESCHAMPSIA CESPITOSA	TUFTED FOUNTAIN GRASS	2 GALLON	CONTAINER	ORNAMENTAL GRASS

NOT TO BE USED AS CONSTRUCTION DRAWINGS	PROJECT NO: 4012300176 DRAWN BY: JAR CHECKED BY: KIW
	PROJECT DATE: 07/18/2023
607 SHELBY ST DEPT. OF PUBLIC WORKS TROY, MI 48063 TEL: 313.981.9600 FAX: 313.981.9609	Mannik Smith GROUP www.MannikSmithGroup.com
PREPARED FOR: EXPRESS WASH CONCEPTS 13375 NATIONAL ROAD SW ETNA, OHIO 43086	TECHNICAL SKILL: CREATIVE SPIRIT.
SITE PLAN FOR CLEAN EXPRESS CAR WASH W 14 MILE ROAD TROY, MI 48063	LANDSCAPE PLAN
L100	

FLOOR PLAN CODED NOTES

- WALL MOUNTED FIRE EXTINGUISHER. EXTINGUISHER TO BE: RED ENEMELED FINISH HEAVY DUTY STEEL CYLINDER. UL AND FM APPROVED. ABC MULTI PURPOSE DRY CHEMICAL, 10 LB CAPACITY UL RATED 4A 60B: C. HOSE TYPE, UPRIGHT, SQUEEZE GRIP OPERATION
- INTERIOR WALL LINER PANEL
- 14'-0" x 8'-0" OVERHEAD DOOR
- 10'-0" x 8'-0" OVERHEAD DOOR
- CAR WASH TRENCH, SEE MANUFACTURER'S DRAWINGS
- DECORATIVE AWNING W/ BRACKETS, CENTER OVER WINDOWS / DOORS
- DEDICATED COMMERCIAL GRADE SINK FOR UTILITY SINK
- ANSI COMPLIANT BOTTLED WATER COOLER WITH CUP DISPENSER
- 12" DEEP SHELVING W/ STANDARDS AND BRACKETS
- WIND WALL, P.T. 2x6 WALL W/ 7/16" OSB SHEATHING & LINER PANEL BOTH SIDES
- NOT USED
- UNDER COUNTER REFRIGERATOR
- SERVER RACK, SEE SHEET A5-1
- DOWNSPOUT
- ALUMINUM STOREFRONT SYSTEM, WINDOW HEAD HEIGHT = 8'-0", SEE ELEVATION 1/A5-1, PROVIDE 1" INSULATED GLASS
- NOT USED
- RECEPTIONIST DESK BY OTHERS. ANSI COMPLIANCE IS THE RESPONSIBILITY OF THE DESK DESIGNER
- PROVIDE 2 1/2" METAL Z-FURRING STRIPS @ 24" HORIZONTAL W/ MIN R-13 RIGID INSULATION IN FURRING CAVITIES W/ 5 MIL VAPOR BARRIER
- ANSI COMPLIANT SIGNAGE DESIGNATING UNISEX TOILET ROOM
- COFFEE MAKER, SEE INTERIOR ELEVATION
- MICROWAVE, SEE INTERIOR ELEVATION
- STACKABLE WASHER / DRYER
- ANSI COMPLIANT SIGNAGE DESIGNATING MAXIMUM OCCUPANCY OF 15 PERSONS
- QUIK-BRIK MASONRY CONSTRUCTION
- ANSI COMPLIANT EXIT SIGNAGE, SEE 9/A5-1
- STORAGE CABINETRY, SEE INTERIOR ELEVATION ON SHEET A5-1
- 10'-0" x 8'-0" OVERHEAD DOOR
- HVAC PLATFORM ABOVE, SEE DETAILS ON SHEET A1-3
- 8" CMU WALL
- ROOF ACCESS LADDER, CENTER BELOW ROOF HATCH ABOVE, SEE DETAIL 13/A5-1
- 30"x30" CLEAR LANDING SPACE, CENTERED ON LADDER

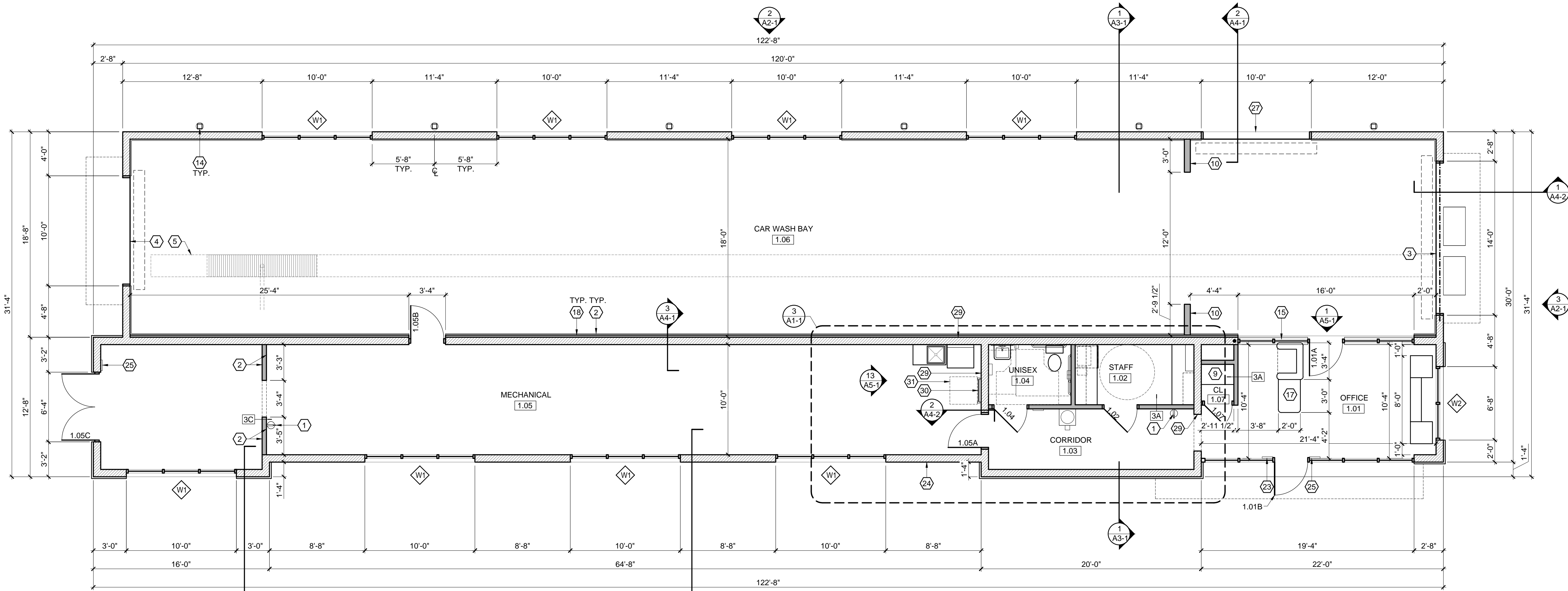
WALL TYPES SCHEDULE

#	ASSEMBLY DESCRIPTION	HR	NOTES
3A	2x4 WOOD STUDS @ 16" O.C. 5/8" GYP BD		FULL HEIGHT PARTITION, TERMINATE GYPSUM BOARD @ UNDERSIDE OF JOISTS. ASSEMBLY THICKNESS = 4 3/4"
3B	2x4 WOOD STUDS @ 16" O.C. 5/8" GYP BD 3" SOUND BATT		FULL HEIGHT PARTITION, TERMINATE GYPSUM BOARD @ UNDERSIDE OF JOISTS. ASSEMBLY THICKNESS = 4 3/4"
3C	2x4 WOOD STUDS @ 16" O.C. 5/8" GYP BD 3" SOUND BATT		FULL HEIGHT PARTITION, TERMINATE GYPSUM BOARD @ BOTTOM OF DECK. ASSEMBLY THICKNESS = 4 3/4"

#	DATE	ISSUED WITH: CHANGE DESCRIPTION



SCALE: 3/16" = 1'-0" (U.N.O.)
 SHEET # / DESCRIPTION
FLOOR PLAN
A1-1
 DATE: 05.17.2023
 PRELIMINARY DESIGN
 SCOTT B. BAKER, LICENSE #14654
 EXPIRATION DATE 12/31/2023
 SBA STUDIOS PROJECT # 2022-407



- PROVIDE MASONRY CONTROL JOINTS PER MANUFACTURER'S INSTRUCTIONS
- ALL GLAZING SHALL HAVE A SHG FACTOR OF .40 AND A U-FACTOR OF .33
- ALL EXTERIOR DIMENSIONS ARE TO MASONRY UNITS / MASONRY OPENINGS, TYP.
- PROVIDE HORIZONTAL JOINT REINFORCING AT 16" O.C. MIN. W1.7 BAR SIZE TYP. LAP MIN. 12", TYP.
- PROVIDE (2) L4 x 3 1/2 x 5/16" LINTEL OVER 36"x24" LOUVERS AND @ LONG WALL OF BUILDING

WINDOW TYPES SCHEDULE

- W1 10'-0" WIDE BY 10'-0" TALL ALUMINUM STOREFRONT WINDOW HEAD HEIGHT = 10'-8" A.F.F.
 - W2 6'-8" WIDE BY 10'-8" TALL ALUMINUM STOREFRONT WINDOW WINDOW HEAD HEIGHT = 10'-8" A.F.F.
- ALL GLAZING SHALL HAVE A SHG FACTOR OF .40 AND A U-FACTOR OF .33

CAR WASH GENERAL NOTES

- CENTERLINE OF EQUIPMENT DOES NOT EQUAL CENTERLINE OF TRENCH
- CENTERLINE OF EQUIPMENT DOES NOT EQUAL CENTERLINE OF ENTRY DOOR
- CENTERLINE OF EQUIPMENT DOES EQUAL CENTERLINE OF EXIT DOOR
- CENTERLINE OF EQUIPMENT DOES EQUAL CENTERLINE OF TUNNEL BAY
- COORDINATE LOCATION OF TRENCH WITH CAR WASH MANUFACTURER'S DRAWINGS

PLAN GENERAL NOTES

- ALL DOORS TO BE 6" FROM ADJACENT WALL U.N.O.
- ALL SIGNS THAT DESIGNATE PERMANENT ROOMS AND SPACES SHALL HAVE RAISED AND BRAILED CHARACTERS AND PICTORIAL SYMBOL SIGNS, FINISH AND CONTRAST, AND MOUNTED 60 INCHES ABOVE THE FINISH FLOOR TO CENTERLINE OF THE SIGN PER ANSI
- ALL INTERIOR STUD WALLS TO BE WALL TYPE '3B', U.N.O.
- PROVIDE MOISTURE RESISTANT GYPSUM BOARD AT ALL TOILET ROOMS

4 FLOOR PLAN

NO.	ROOM NAME	SIZE	ELEV	MAT	RATING	GLASS	HDWR	FRAME	ELEV	MAT	REMARKS
1.01A	OFFICE	3070	02	AL/GS	0-HR	TEMP	SET 01	A	AL	CLOSER	
1.01B	OFFICE	3070	02	AL/GS	0-HR	TEMP	SET 05	B	AL	CLOSER, ENTRY KEY	
1.02	STAFF	3070	03	H.M.	0-HR	TEMP	SET 02	A	H.M.		
1.04	UNISEX	3070	01	H.M.	0-HR	N/A	SET 03	A	H.M.		
1.05A	MECHANICAL	3070	04	H.M.	0-HR	TEMP	SET 04	A	H.M.		
1.05B	MECHANICAL	3070	02	ALUM.	0-HR	N/A	SET 04	B	ALUM.		
1.05C	MECHANICAL	(2) 3070	05	AL/GS	0-HR	TEMP	SET 05	B	H.M.		
1.06	WASH BAY	3070	02	AL/GS	0-HR	TEMP	SET 05	B	ALUM.		
1.07	CLOSET	2670	01	WD	0-HR	N/A	SET 02	N/A	N/A	CUSTOM SLAT WALL DOOR	

- DOOR GENERAL NOTES**
- ALL DOOR HARDWARE TO BE ANSI COMPLIANT LEVER STYLE
 - ALL DOOR HARDWARE TO BE MOUNTED BETWEEN 34" - 48" A.F.F.
 - ALL GLAZING IN NEW DOORS TO BE TEMPERED
 - ALL DOORS TO RECEIVE (3) HINGES
 - ALL DOORS TO RECEIVE (3) SILENCERS
 - ALL DOORS TO RECEIVE DOOR STOP
 - ALL EXTERIOR DOORS TO RECEIVE CLOSER
 - ALL EXTERIOR DOORS TO HAVE ANIS COMPLIANT THRESHOLD (1/4" MAX)
 - ALL EGRESS DOORS SHALL UNLATCH WITH ONLY ONE OPERATION OF THE DOOR HARDWARE, READILY OPERABLE FROM EGRESS SIDE WITHOUT USE OF A KEY OR SPECIAL KNOWLEDGE AND SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING OR TWISTING OF THE WRIST TO OPERATE. 2017 OBC 1010.1.9/1010.1.9.1/1010.1.9.5.
- DOOR HARDWARE SETS**
- SET 01: OFFICE LOCKSET
 - SET 02: STORAGE LOCKSET
 - SET 03: PRIVACY LOCKSET
 - SET 04: PASSAGE LOCKSET
 - SET 05: EXIT LOCKSET
 - SET 06: PUSH / PULL
- KEY ALL DOORS ALIKE

5 DOOR SCHEDULE

NO.	ROOM NAME	FLOOR	SPACE	FLOOR	BASE	NORTH	EAST	SOUTH	WEST	CLG	REMARKS
1.01	OFFICE	WD	VB	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	NO	PAINT BAR JOISTS & ROOF DECK
1.02	STAFF	WD	VB	PT-1	PT-1	PT-1	PT-1	PT-1	PT-1	NO	PAINT BAR JOISTS & ROOF DECK
1.03	CORRIDOR	WD	VB	PT-1	PT-1	PT-1	PT-1	PT-1	PT-1	GYP	
1.04	UNISEX	WD	VB	PT-1	PT-1	PT-1	PT-1	PT-1	PT-1	GYP	6" BASE
1.05	MECHANICAL	NO	NO	PT-1	PT-1	PT-1	PT-1	PT-1	PT-1	NO	PAINT BAR JOISTS & ROOF DECK
1.06	WASH BAY	NO	NO	WL	WL	WL	WL	WL	WL	NO	PAINT BAR JOISTS & ROOF DECK
1.07	STORAGE	WD	VB	PT-1	PT-1	PT-1	PT-1	PT-1	PT-1	NO	PAINT BAR JOISTS & ROOF DECK

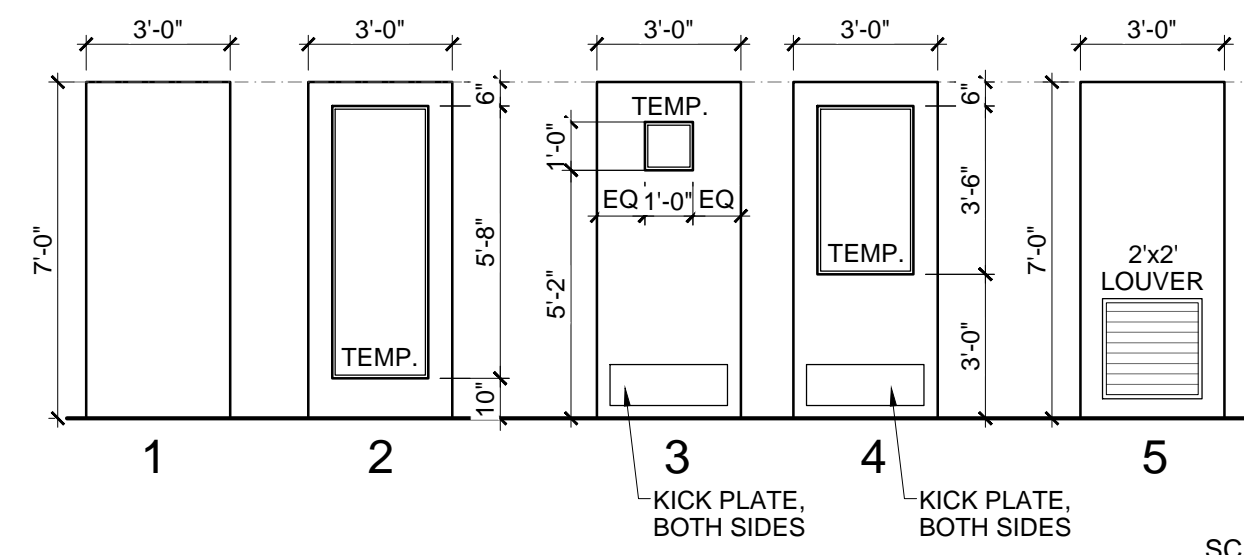
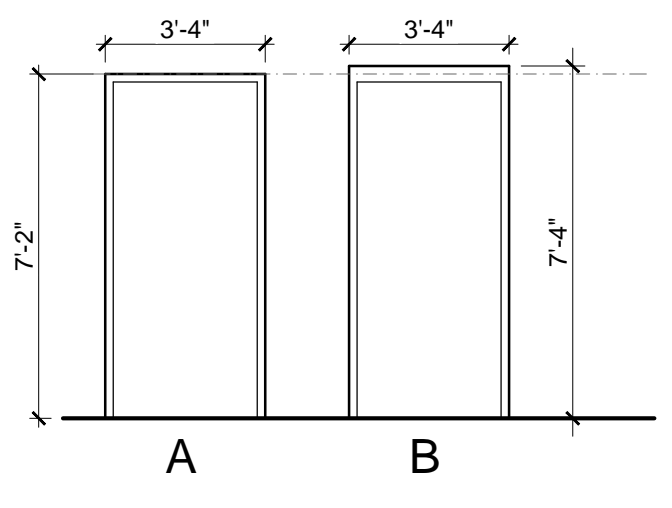
4 FINISH SCHEDULE

FLOORING	BASE	WALLS	CEILING
CPT CARPET VCT VINYL COMP TILE WD SIM WOOD FLR. NO NO FLOORING SIM WOOD FLOOR = AXISCOR PRO12 12x24 URBAN CONCRETE	VB VINYL BASE CT CERAMIC TILE EXG EXG BASE NO NO BASE	PT-1 WHITE PAINT PT-2 BLONDE PAINT SW 6128 WC WALL COVERING EXG EXG WALL FINISH WL WALL LINER PANEL BB BOARD AND BATTEN NO NO FINISH	ACT ACOUSTICAL CEILING TILE GYP SUSPENDED GYPSUM BOARD CEILING WL WALL LINER NO NO CEILING

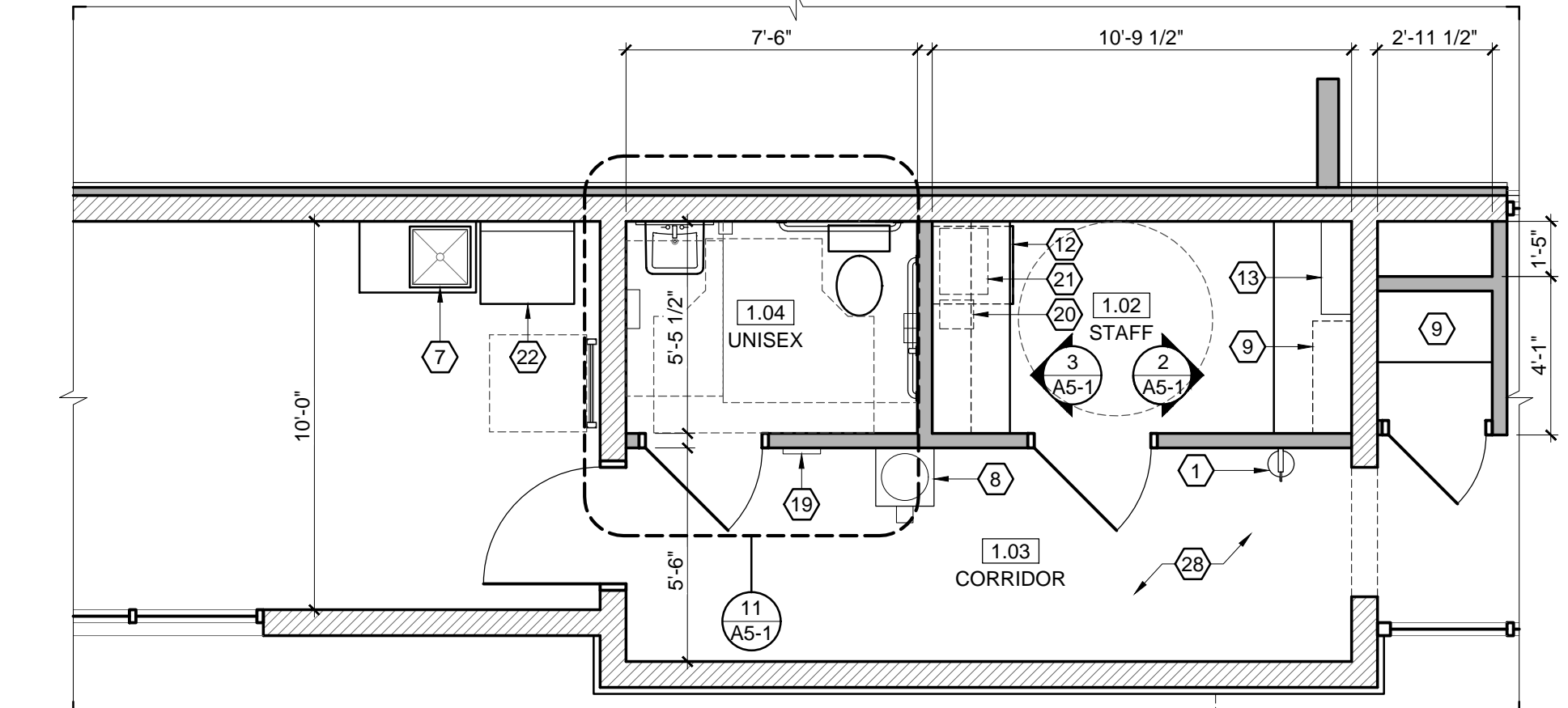
CEILING NOTES

DOOR FRAMES AND ACT CEILING COLOR TO MATCH WALL COLOR IN ALL ROOMS, SEE FINISH SCHEDULE

1 DOOR ELEVATIONS



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



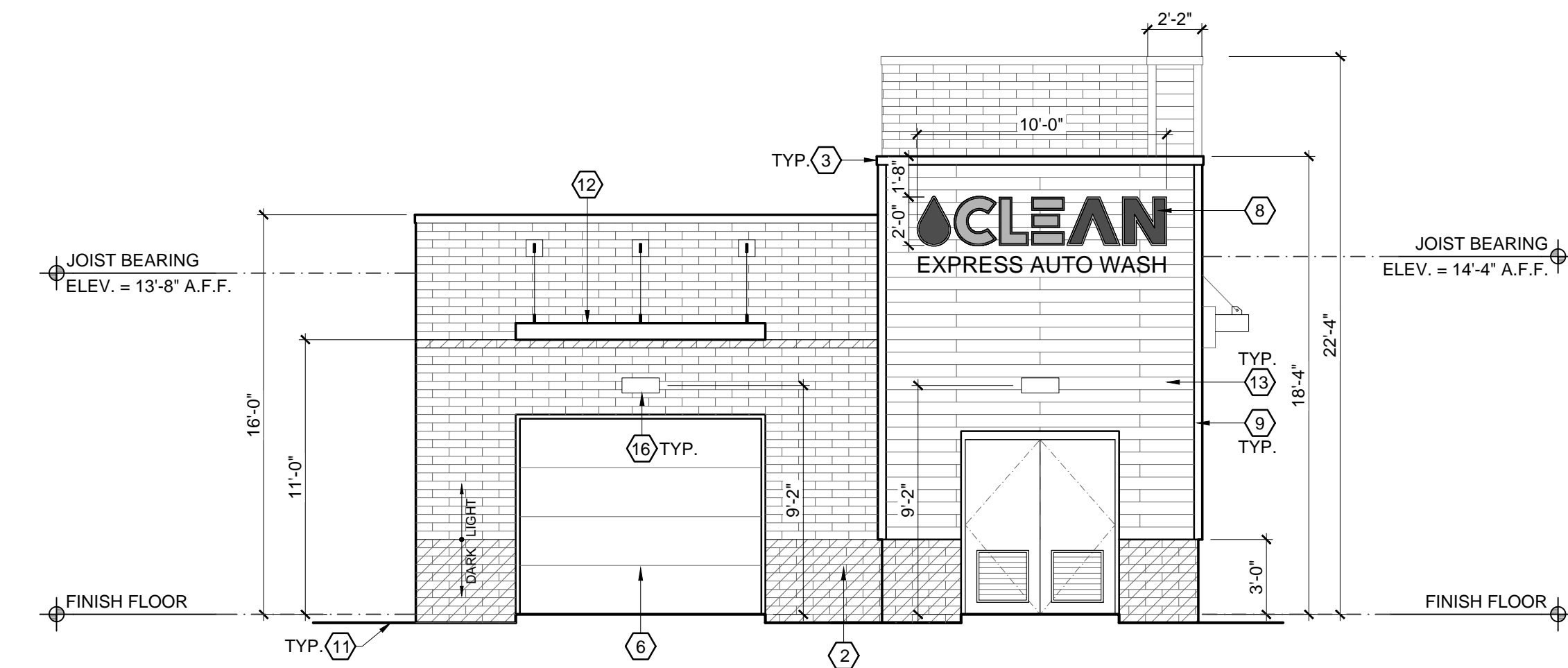
3 ENLARGED FLOOR PLAN

2 FRAME ELEVATIONS

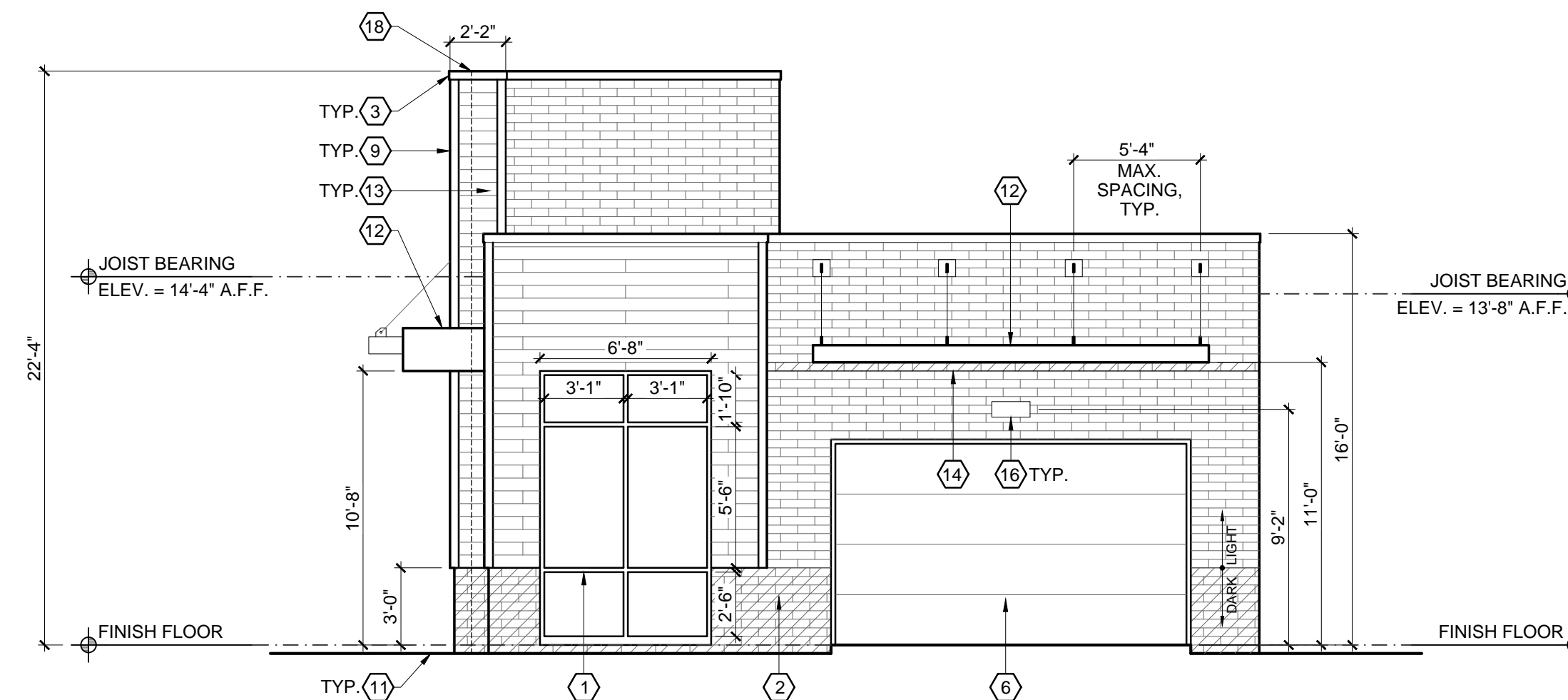
SCALE: 1/4" = 1'-0"

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

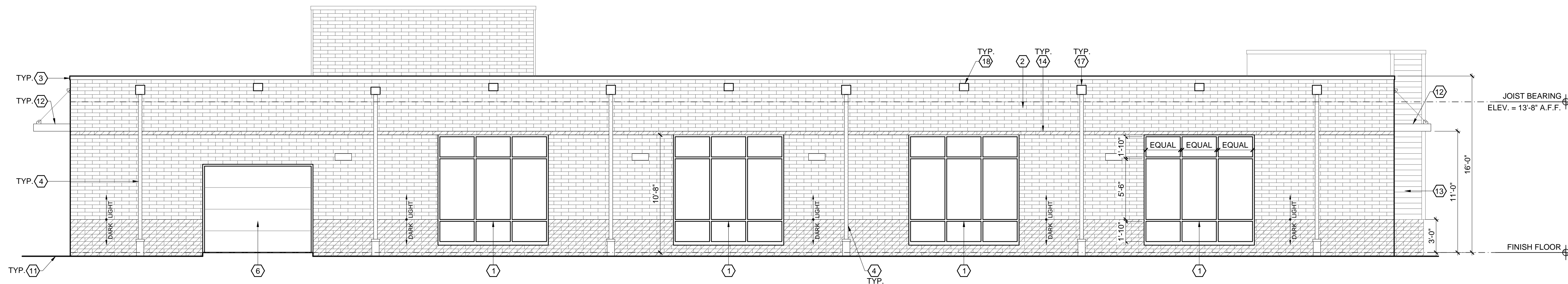
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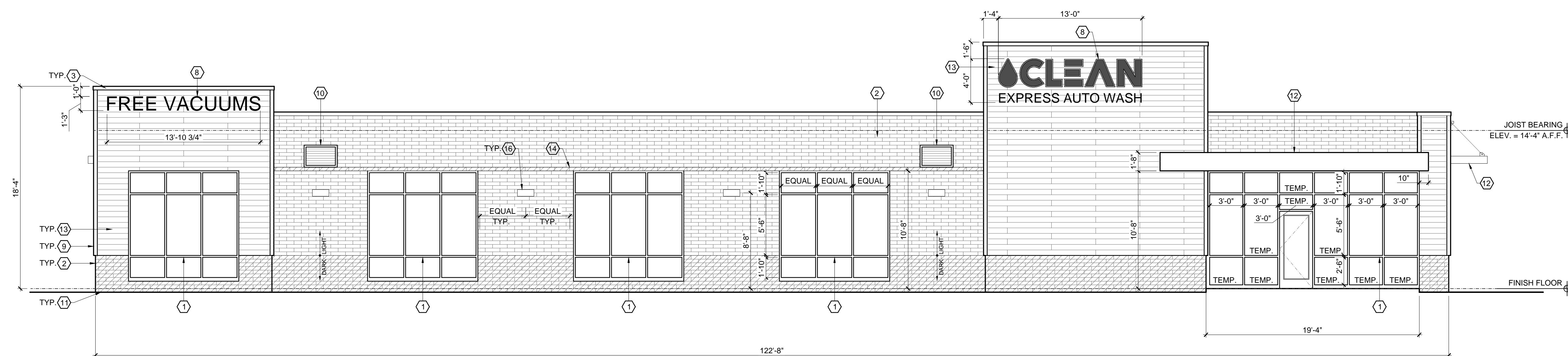
4 EXIT ELEVATION



3 ENTRY ELEVATION



2 SIDE ELEVATION

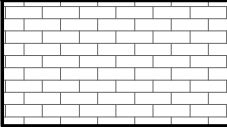
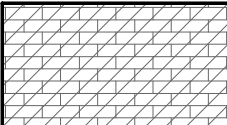
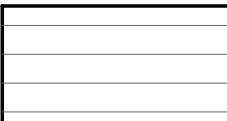


1 SIDE ELEVATION

ELEVATION CODED NOTES

1. ALUMINUM STOREFRONT GLAZING SYSTEM. MANUFACTURER TO DESIGN FOR WIND LOAD REQUIREMENTS PER CODE.
2. QUIK-BRIK CMU CONSTRUCTION. SEE MATERIALS LEGEND. INSTALL CONTROL JOINTS PER MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
3. CONTINUOUS METAL COPING, TYP.
4. 4" METAL DOWNSPOUT
5. NOT USED
6. OVERHEAD DOOR
7. NOT USED
8. SIGNAGE PROVIDED BY OWNER.
9. 1x4 COMPOSITE CORNER TRIM, TYP.
10. 36"x24" METAL WALL LOUVER W/ 2" FRAME. SEE HVAC DRAWINGS. LOCATE SUCH THAT OPENING IS NOT DIRECTLY BENEATH A ROOF JOIST
11. GRADE. COORDINATE W/ CIVIL DRAWINGS.
12. PRE-MANUFACTURED ALUMINUM AWNING. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
13. NICHHA FIBER CEMENT AWP181 HORIZONTAL SIDING.
14. MASONRY BAND IN DARK FINISH TO MATCH BASE OF WALL
15. NOT USED
16. DECORATIVE LIGHT FIXTURE
17. SCUPPER & DOWNSPOUT COLLECTION BOX
18. EMERGENCY OVERFLOW SCUPPER

ELEVATION MATERIAL LEGEND

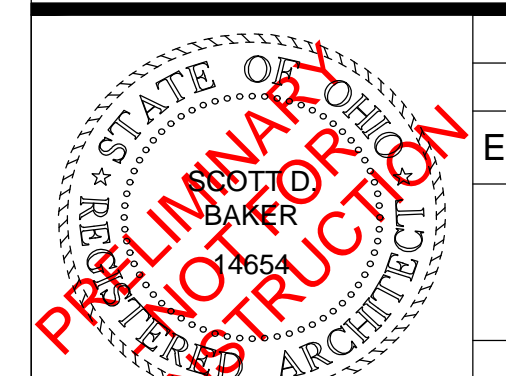
-  QUIK-BRIK (LIGHT FINISH)
-  QUIK-BRIK (DARK FINISH)
-  NICHHA FIBER CEMENT AWP181 HORIZONTAL SIDING

EXTERIOR MATERIAL NOTES:
1. COLOR OF METAL COPING TO MATCH STOREFRONT SYSTEM COLOR

#	DATE	ISSUED WITH: CHANGE DESCRIPTION

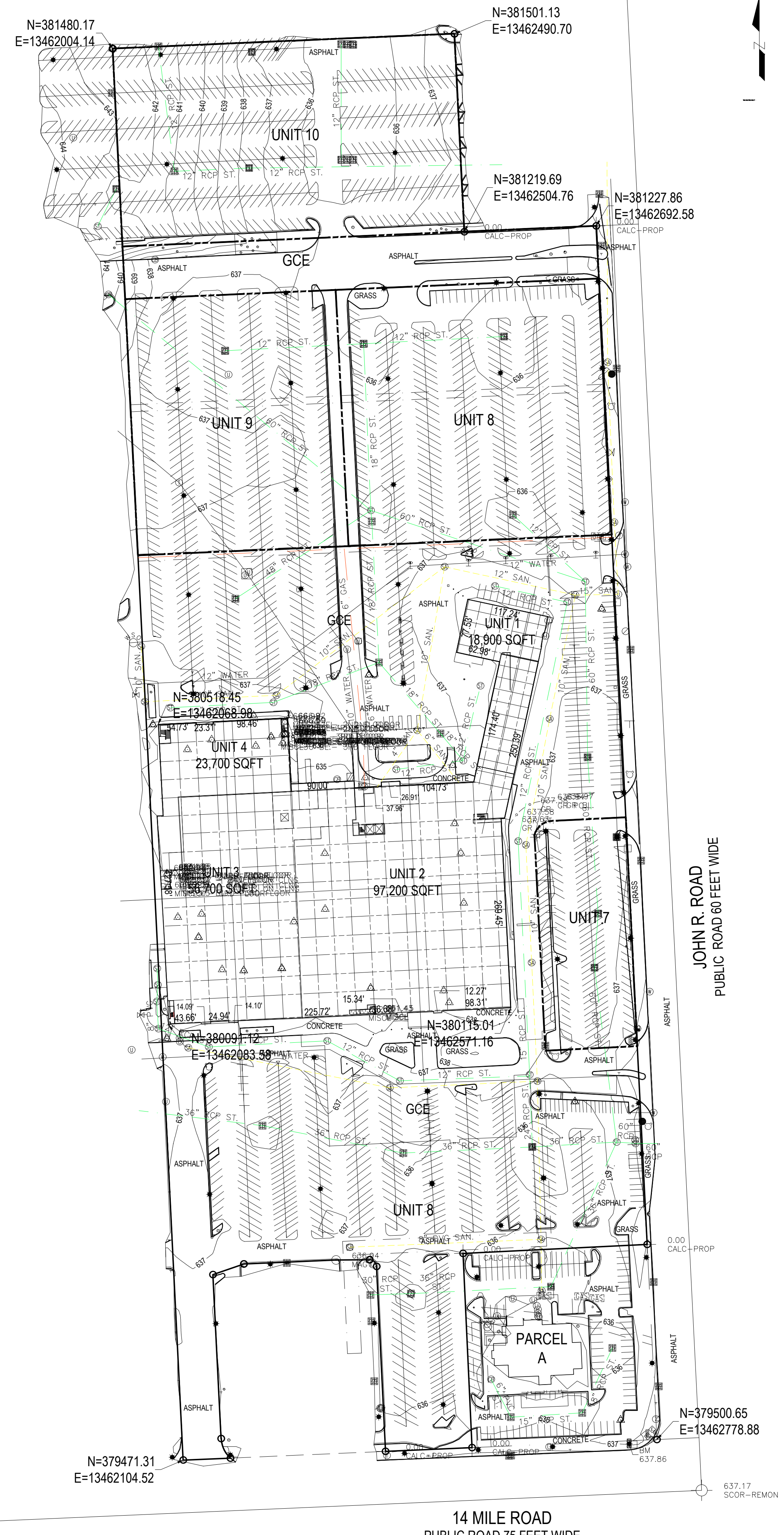
CLEAN
EXPRESS AUTO WASH

SBA
STUDIOS
ARCHITECTURAL DESIGN
614.562.7761 WWW.SBA-STUDIOS.COM



SCALE: 3/16" = 1'-0"
SHEET # / DESCRIPTION
EXTERIOR ELEVATIONS
DATE: 05.17.2023
PRELIMINARY DESIGN
SBA STUDIOS PROJECT # 2022-407

A2-1



LEGEND

- ⊙ SANITARY MANHOLE
- ⊙ WATER MANHOLE
- ⊙ STORM CATCH BASIN
- ⊙ BEE HIVE CATCH BASIN
- ⊙ TELEPHONE MANHOLE
- ⊙ ELECTRIC MANHOLE
- ⊙ LIGHT MANHOLE
- ⊙ UNKNOWN MANHOLE
- ⊙ CLEAN OUT
- ⊙ FIRE HYDRANT
- ⊙ WATER SHUT OFF VALVE
- ⊙ GAS VALVE
- ⊙ GAS BOX
- ⊙ GAS METER
- ⊙ LIGHT BASE
- ⊙ LIGHT POLE
- ⊙ GUY POLE
- ⊙ POWER POLE
- ⊙ GUY WIRE ANCHOR
- ⊙ ELECTRIC BREAKER PANEL
- ⊙ ELECTRIC TRANSFORMER
- ⊙ GAS UTILITY MARKER
- ⊙ FIBER OPTIC UTILITY MARKER
- ⊙ CABLE TV PDESTAL
- ⊙ POST MOUNT SIGN
- ⊙ TREE STUMP
- ⊙ PICNIC TABLE
- ⊙ HANDICAPPED PARKING SPACE
- ⊙ SECTION CORNER
- ⊙ CONTROL POINT
- ⊙ IRON PIPE
- ⊙ IRON PIN
- ⊙ DOWN SPOUT
- ⊙ EXISTING FINISHED FLOOR
- ⊙ SHRUB
- ⊙ TREE
- ⊙ COLUMN
- ⊙ BUILDING LINE
- ⊙ FENCE LINE
- ⊙ STORM LINE
- ⊙ WATER LINE
- ⊙ GAS LINE
- ⊙ OVERHEAD UTILITY LINE
- ⊙ ELECTRIC LINE
- ⊙ TELEPHONE LINE
- ⊙ RIGHT OF WAY LINE
- ⊙ BOUNDARY LINE
- ⊙ SANITARY LINE

THE BASIS OF BEARING IS GRID NORTH, BASED ON THE NAD83 MICHIGAN STATE PLANE COORDINATES, SOUTH ZONE 2113 AS DETERMINED BY USING THE MICHIGAN DEPARTMENT OF TRANSPORTATION MSRN/RTCM SYSTEM. ELEVATIONS ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) ESTABLISHED BY USING THE MICHIGAN DEPARTMENT OF TRANSPORTATION MSRN/RTCM SYSTEM AND GEOID12B.

CONTROL POINTS

PN	NORTHING	EASTING	ELEV.	DESC.
100	379528.57	13462727.30	636.47	CP-MAG
101	379981.50	13462662.18	636.82	CP-MAG
102	380682.85	13462700.35	637.09	CP-MAG
103	380071.55	13462081.35	638.09	CP-MAG1
150	380589.04	13462369.08	636.47	CP MAG
152	380531.38	13462257.36	637.54	CP MAG
153	380442.72	13462363.79	637.75	CP MAG
154	380518.15	13462061.45	638.08	CP MAG
151	380460.20	13462488.15	637.54	CP MAG FD

BENCHMARKS

PN	NORTHING	EASTING	ELEV.	DESC.
200	379495.16	13462739.39	637.86	BM-TOP NE BOLT

SURVEYOR'S CERTIFICATE

I, BETH AILEEN BRAUN, PROFESSIONAL SURVEYOR OF THE STATE OF MICHIGAN, HEREBY CERTIFY: THAT THE SUBDIVISION PLAN KNOWN AS SAWYER/7303 WEST MCNICHOLES, WAYNE COUNTY CONDOMINIUM PLAN NO. AS SHOWN ON THE ACCOMPANYING DRAWINGS, REPRESENTS A SURVEY ON THE GROUND MADE UNDER MY DIRECTION THAT THERE ARE NO EXISTING ENCROACHMENTS UPON THE LANDS AND PROPERTY HEREIN DESCRIBED AS SHOWN.

THAT THE REQUIRED MONUMENTS AND IRON MARKERS HAVE BEEN LOCATED IN THE GROUND AS REQUIRED BY RULES PROMULGATED UNDER SECTION 142 OF ACT NO. 59 OF THE PUBLIC ACTS OF 1978.

THAT THE ACCURACY OF THIS SURVEY IS WITHIN THE LIMITS REQUIRED BY THE RULES PROMULGATED UNDER SECTION 142 OF ACT NO. 59 OF THE PUBLIC ACTS OF 1978.

THAT THE BEARINGS, AS SHOWN ARE NOTED ON SURVEY PLAN AS REQUIRED BY THE RULES PROMULGATED UNDER SECTION 142 OF ACT NO. 59 OF THE PUBLIC ACTS OF 1978.

(DATE) _____

BETH AILEEN BRAUN, PS
PROFESSIONAL SURVEYOR
REGISTRATION NO. 4001052461
MANNIK AND SMITH GROUP
2365 HAGGERTY ROAD SOUTH
CANTON, MI 48188

STRUCTURE INVENTORY

TMH 61021151 RIM ELEV.: 636.53'	CB 61521125 RIM ELEV.: 635.62'	SMH 21166028 RIM ELEV.: 637.20'	CB 62621509 RIM ELEV.: 635.03'	SMH 62621008 RIM ELEV.: 637.29'	STMH 61121772 RIM ELEV.: 637.66'
TMH 61021124 RIM ELEV.: 636.97'	24" RCP W 629.62'	10" PVC W 623.60'	12" RCP N 630.33'	10" PVC ESE 622.29'	12" RCP SE 360.71'
WMH 61121388 RIM ELEV.: 638.29'	24" RCP E 629.27'	10" PVC ENE 623.50'	12" RCP E 630.23'	10" PVC S 622.54'	12" RCP W 364.76'
STMH 61121450 RIM ELEV.: 637.28'	4" PVC E 633.12'	STMH 21122026 RIM ELEV.: 637.36'	CB 211771134 RIM ELEV.: 637.50'	10" PVC S/W 622.29'	SMH 61521071 RIM ELEV.: 636.42'
FULL OF WATER 631.49' TOP OF VALVE	4" PVC W 632.97'	6" HDP W 636.16'	CB 61621722 RIM ELEV.: 635.36'	10" PVC SE 622.87'	MINERAL DEPOSIT 10" VCP S 625.87'
STMH 61121451 RIM ELEV.: 637.95'	60" RCP W 621.15'	8" RCP SSW 632.21'	CB 21166567 RIM ELEV.: 635.85'	STMH 61621732 RIM ELEV.: 635.44'	CB 61521096 RIM ELEV.: 635.98'
60" RCP E 621.05'	60" N/A E 621.28'	12" RCP E 632.16'	OUTLET BLOCKED BY MINERAL FORMATION	12" RCP SSE 627.64'	12" RCP SSW 631.18'
CB 200002 RIM ELEV.: 635.18'	54" N/A N 621.68'	SMH 21166025 RIM ELEV.: 637.94'	4" PVC E	6" VCP ESE 630.34'	4" CPP NNE 633.18'
15" RCP SSW 659.53'	36" RCP W 627.63'	SMH 61521127 RIM ELEV.: 636.88'	4" PVC W	STMH 61621595 RIM ELEV.: 637.81'	CB 61525416 RIM ELEV.: 635.63'
18" RCP NW 359.23'	36" RCP SSW 626.73	LINED WITH MINERAL MATERIAL	STMH 21166568 RIM ELEV.: 636.23	MINERAL FORMATION BLOCKED OUTLET	4" PVC W 633.23'
4" CPP N 360.98'	SMH 21166560 RIM ELEV.: 636.97'	SMH 21166560 RIM ELEV.: 636.97'	GIANT MINERAL FRIMATION BLOCKS PIPES	12" RCP ESE 633.21'	24" RCP E 629.23'
4" CPP SE 360.98'	SMH 61621382 RIM ELEV.: 637.30'	8" VCP NW 645.18'	TMH 21166537 RIM ELEV.: 636.43'	SMH 61621681 RIM ELEV.: 637.26'	STMH 61521370 RIM ELEV.: 637.40'
CB 200001 RIM ELEV.: 635.23'	10" N/A N 623.60'	STMH 61521127 RIM ELEV.: 637.87'	FILLED WITH WATER FELT CABLES	15" PVC S 619.71'	12" RCP NW 631.90'
4" CPP NNW 632.23'	10" N/A S 623.70'	4" VCP S 631.98'	TMH 21166538 RIM ELEV.: 636.34'	STMH 6162148 RIM ELEV.: 636.79'	SMH 61521369 RIM ELEV.: 637.33
12" VCP W 361.08'	SMH 61621371 RIM ELEV.: 637.14'	4" VCP ENE 631.98'	MINERAL BUILD UP FELT CABLES	48" RCP S 623.09'	10" PVC W 626.38'
15" VCP NE 630.58'	CB 62621460 RIM ELEV.: 642.07'	SMH 61621370 RIM ELEV.: 637.23'	CB 21166532 RIM ELEV.: 635.99'	48" RCP NW 621.99'	10" PVC E 626.28'
6" PVC NNW 631.23'	12" RCP W 635.57'	15" RCP S 630.88'	MINERALS BLOCKS PIPES 48" RCP ENE 625.34'	SMH 61621549 RIM ELEV.: 636.90'	4" PVC S 634.57'
CB 200000 RIM ELEV.: 635.38	10" N/A N 622.69'	4" VCP NNW 631.68'	48" RCP WSW 625.69'	10" PVC SSW 620.70'	STMH 61521574 RIM ELEV.: 637.82'
12" VCP E 631.02'	CB 62621456 RIM ELEV.: 641.23'	4" CPP SSW 633.38'	6" VCP E 633.33'	12" PVC ENW 621.55'	4" PVC N 634.82'
4" CPP NNW 633.38'	STMH 61621370 RIM ELEV.: 637.23'	4" CPP SE 633.38'	6" VCP W 633.33'	15" PVC ESE 619.80'	6" PVC S 634.72'
4" CPP SE 633.38'	12" RCP NW 629.53'	CB 61621195 RIM ELEV.: 636.09'	STMH 61621550 RIM ELEV.: 637.20'	STMH 61621572 RIM ELEV.: 637.78'	STMH 61521579 RIM ELEV.: 637.81'
CB 61121310 RIM ELEV.: 634.92'	12" RCP E 630.23'	PACKED WITH MINERAL MATERIAL AND FILLED WITH WATER	WMH 21166153 RIM ELEV.: 636.55	CB 61621557 RIM ELEV.: 635.90'	6" PVC N 634.06'
HAS MINERAL STALAGTIGHT 36" RCP NE 627.02'	12" RCP NW 629.53'	CB 62621453 RIM ELEV.: 636.91'	FULL OF WATER TOP OF VALVE 630.70	CB 61621557 RIM ELEV.: 635.90'	8" PVC S 633.86'
36" RCP W 627.67'	12" RCP NW 629.53'	CB 62621493 RIM ELEV.: 640.81'	CB 61621557 RIM ELEV.: 635.90'	MINERAL BUILD UP 12" RCP E 631.40'	STMH 61521359 RIM ELEV.: 638.12'
4" PVC E 633.42'	12" RCP E 630.23'	12" RCP N 630.11'	STMH 61621574 RIM ELEV.: 637.82'	MINERAL BUILD UP 12" RCP E 631.40'	8" PVC N 632.67'
4" PVC W 633.52'	12" RCP E 630.42'	12" RCP E 630.11'	CB 21166720 RIM ELEV.: 635.49'	4" VCP N 633.25'	12" RCP SSW 632.12'
SMH 61121301 RIM ELEV.: 635.35'	CB 62621444 RIM ELEV.: 635.02'	CB 61621195 RIM ELEV.: 636.09'	BLOCKED BY MINERAL FORMATIONS	4" VCP S 633.25'	6" PVC NE 632.67'
10" PVC N 625.55'	12" RCP N 629.44'	CB 62621453 RIM ELEV.: 636.91'	CB 61621557 RIM ELEV.: 635.90'	CB 61521157 RIM ELEV.: 636.92'	WMH 61521366 RIM ELEV.: 637.10'
10" PVC SSW 625.75'	12" RCP N 629.44'	CB 62621500 RIM ELEV.: 637.22	STMH 61621550 RIM ELEV.: 637.20'	PACKED SOLID WITH SEDIMENT	FULL OF WATER AND SEDIMENT
10" PVC SSW 630.25'	12" RCP E 630.42'	CB 62621096 RIM ELEV.: 636.75'	CB 62621096 RIM ELEV.: 636.75'	STMH 61121394 RIM ELEV.: 637.24'	FEELS LIKE TOP OF VALVE 632.60'
CB 61521062 RIM ELEV.: 634.62'	CB 62621444 RIM ELEV.: 635.02'	CB 62621277 RIM ELEV.: 635.90	CB 62621096 RIM ELEV.: 636.75'	12" RCP NW 629.53'	MH 61621529 RIM ELEV.: 637.02'
FULL OF SEDIMENT AND DEBRIS 36" RCP E 627.57'	12" RCP N 629.44'	48" RCP ESE 622.35'	CB 62621278 RIM ELEV.: 635.67'	12" RCP NW 629.53'	15" RCP W 619.77'
4" PVC E 632.27'	12" RCP N 629.44'	PIPE BLOCKED BY MINERAL FORMATION	CB 62621278 RIM ELEV.: 635.67'	12" RCP NW 629.53'	15" RCP N 619.67'
4" PVC W 632.27'	12" RCP N 629.44'	48" N/A SW 625.80'	CB 62621278 RIM ELEV.: 635.67'	12" RCP NW 629.53'	SMH 61621631 RIM ELEV.: 636.86'
4" CPP SE 632.57'	12" RCP N 629.44'	18" RCP S 638.10	CB 62621278 RIM ELEV.: 635.67'	12" RCP NW 629.53'	15" PVC S 619.36'
SMH 61121535 RIM ELEV.: 635.91'	CB 62621442 RIM ELEV.: 634.63'	CB 62621278 RIM ELEV.: 635.67'	CB 62621278 RIM ELEV.: 635.67'	12" RCP NW 629.53'	15" PVC N 619.26'
10" VCP N 625.41'	12" RCP W 629.78'	CB 62621442 RIM ELEV.: 634.63'	CB 62621278 RIM ELEV.: 635.67'	12" RCP NW 629.53'	SMH 200003 RIM ELEV.: 637.09'
10" VCP W 625.46'	12" RCP W 629.78'	12" RCP W 628.49'	CB 21166155 RIM ELEV.: 636.16'	12" RCP NW 629.53'	4" VCP NE 632.39'
10" VCP S 6225.46'	12" RCP W 629.78'	12" RCP E 628.59'	MINERAL FORMATIONS	12" RCP NW 629.53'	12" RCP S 632.39'
	STMH 21162228 RIM ELEV.: 637.21'	12" RCP N 629.44'	CB 61121395 RIM ELEV.: 635.54'	12" RCP NW 629.53'	STMH 21162145 RIM ELEV.: 637.76'
	12" RCP E 632.41	12" RCP N 629.44'	18" RCP ESE 631.01'	24" RCP N 628.84'	4" VCP NE 633.06'
	6" VCP NNE 632.31	12" RCP N 629.44'	18" RCP SSW 630.26'	4" PVC W 628.84'	12" RCP S 633.06'
	STMH 21166027 RIM ELEV.: 637.20'	12" RCP N 629.44'	4" PVC N 633.66'	4" PVC E 632.64'	
	18" RCP NE 630.95'	12" RCP N 629.44'	4" PVC S 633.86'		
	10" VCP W 625.46'	8" CPP S N/A			
	10" VCP S 6225.46'	UNKNOWN OUTLET HOLE 628.63'			



NO. _____ DATE _____ BY _____ DESCRIPTION _____

2365 HAGGERTY ROAD SOUTH
CANTON, MI 48188
TEL: 734-397-3100
FAX: 734-397-3131

PROJECT NO.: M4820018
DRAWN BY: OCC
CHECKED BY: BAB

07/30/2021

TECHNICAL SKILL
CREATIVE SPIRIT

Mannik
Smith
Group

www.MannikSmithGroup.com

PREPARED FOR:
MKIEZI INVESTMENTS,
888 W BIG BEAVER ROAD

OAKLAND MALL CONDOMINIUM

FLOOR PLAN
SECOND FLOOR

TROY MICHIGAN

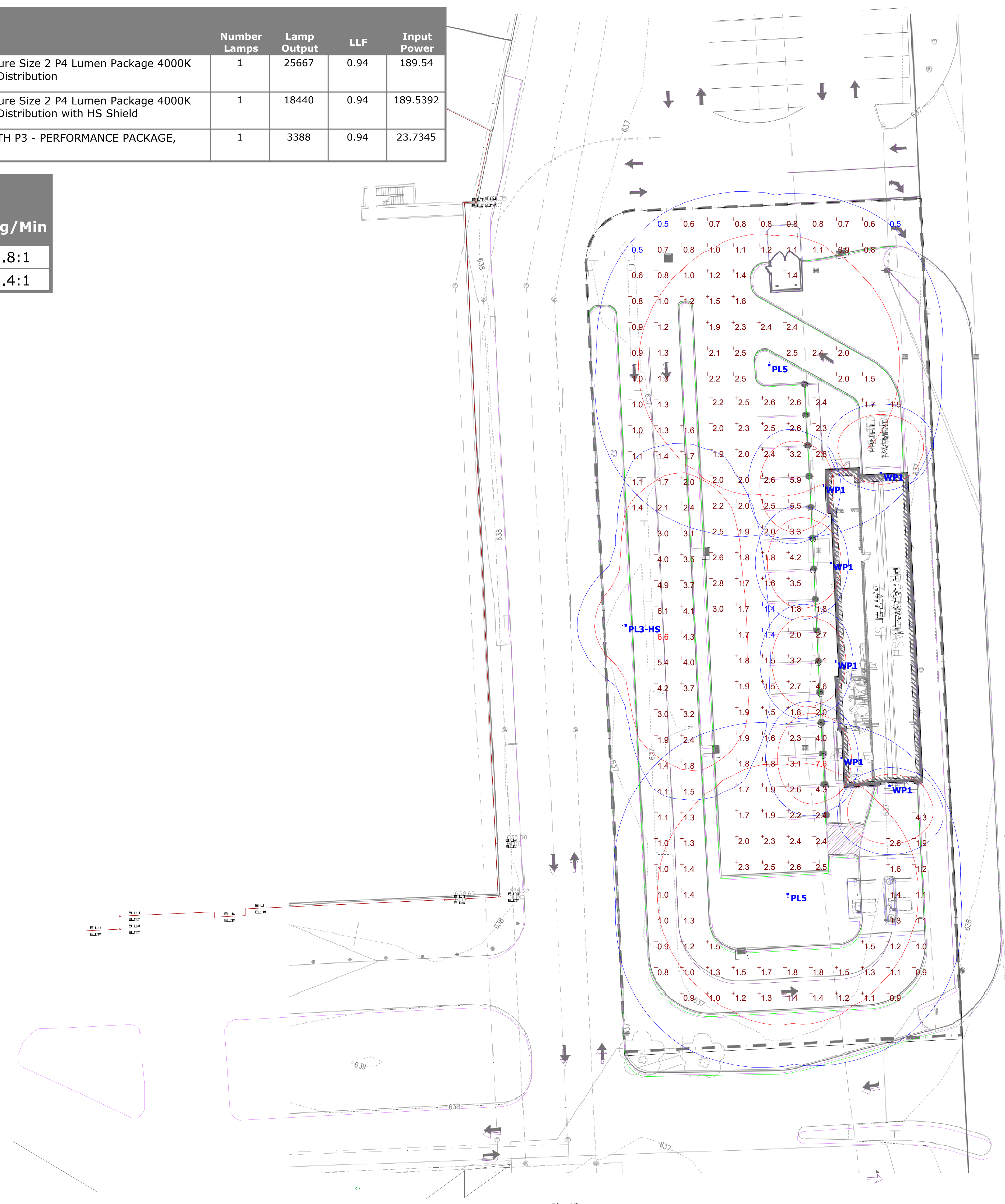
6

Schedule										
Symbol	Label	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power	
⊗	PL5	2	Lithonia Lighting	RSX2 LED P4 40K R5	RSX Area Fixture Size 2 P4 Lumen Package 4000K CCT Type R5 Distribution	1	25667	0.94	189.54	
⊗	PL3-HS	1	Lithonia Lighting	RSX2 LED P4 40K R3 HS	RSX Area Fixture Size 2 P4 Lumen Package 4000K CCT Type R3 Distribution with HS Shield	1	18440	0.94	189.5392	
⊗	WP1	6	Lithonia Lighting	ARC2 LED P3 40K	ARC2 LED WITH P3 - PERFORMANCE PACKAGE, 4000K	1	3388	0.94	23.7345	

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
PARKING & VACUUM SPACES	+	2.5 fc	7.6 fc	1.4 fc	5.4:1	1.8:1
DRIVING LANES	+	1.7 fc	6.6 fc	0.5 fc	13.2:1	3.4:1

Note

1. AREA LIGHTS MOUNTED AT 22' AFG
2. 20' POLE ON A 2' POLE BASE
3. WALL FIXTURES MOUNTED AT 10' AFG



DISCLAIMER
LIGHTING SYSTEMS OF COLUMBUS SHALL NOT BE HELD RESPONSIBLE FOR ANY ISSUES THAT MAY ARISE DURING THE INSTALLATION PROCESS DUE TO SPECIFIC FIELD COMPLICATIONS OR APPLICATIONS. OUR CALCULATIONS ARE PROVIDED AS A PROFESSIONAL COURTESY AND ARE BASED ON THE ILLUMINATING ENGINEERING SOCIETY RECOMMENDED PRACTICES AND ARE NOT NECESSARILY FULLY VETTED FOR CODE COMPLIANCE. IT IS THE RESPONSIBILITY OF THE ASSIGNED ENGINEER OF RECORD TO REVIEW AND APPROVE THE DRAWINGS, PRODUCTS AND INSTALLATION METHODS INCLUDING CONTROLS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE ENGINEER IS ULTIMATELY RESPONSIBLE FOR THE CODE COMPLIANT DESIGN THAT GETS BUILT, AND LIGHTING SYSTEMS OF COLUMBUS SHALL NOT BE HELD LIABLE FOR ANY ISSUES THAT MAY OCCUR DURING OR AFTER THE INSTALLATION.











STATEMENT OF COMPATIBILITY

The site of the project is located in the out-lot of Oakland Mall located on W 14 mile Road. The site is currently zoned GB (general business). The project has been designed with the intent to comply with section 9.03 of the Troy zoning ordinance.

Compatibility with Adjacent uses. The intended special use will not have a greater detrimental impact when compared to impact of permitted uses.

Traffic Impact: The special use has been designed in a manner which will minimize the impact of traffic. Changes to trip generation will not create a major access issue for the surrounding parking lot or 14 mile road. Parking lot circulation is maintained by the drive aisle alongside the site. Pedestrian access from neighboring lots and 14 Mile road will be accommodated.

Compliance with Zoning Ordinance Standards. The special use has been designed to meet stated intent of the zoning district's applicable ordinance standards.

Impact on the Overall environment. The proposed special use will not unreasonably impact the quality of natural features of the environment in comparison to the impacts associated with typical permitted uses. The existing site is paved parking lot and the car wash as a special use will not create any unusual environmental impacts.

Why is Clean Express the perfect addition to your community?

- **Sites:**

- Our buildings are modern, beautiful, and custom designed to fit in with the neighborhood. They're also meticulously maintained by dedicated staff, raising the appearance of the area.
- Inside, our state-of-the-art equipment is energy efficient, recycles water, and uses environmentally friendly solutions.
- The noise is also contained inside, resulting in a sound footprint lower than normal traffic.



- **Location:**

- We have dozens of sites next to residential areas and are a great neighbor.
- Our business is a spontaneous purchase, meaning its typically just local traffic.
- When it comes to vehicles, our conveyor system naturally spaces them to prevent issues.
- Our professional designs limit traffic output and congestion.



- **Employment:**

- Each site employs dozens of people in the community, creating careers and offering pathways for advancement.
- This includes other industries like landscaping, vending, construction, and local suppliers. Jobs that stay in your community!



- **Fundraising:**

- It's not enough to simply work in the area, we are a part of it.
- Each site partners with local charities for fundraising.
- We do quarterly drives that donate thousands of dollars to community organizations; all with the goal of being a positive force for our neighbors.



- **Quality Business:**

- Our number one priority is customer service.
- We have the highest rated, highest quality wash around.





RSX2 LED Area Luminaire

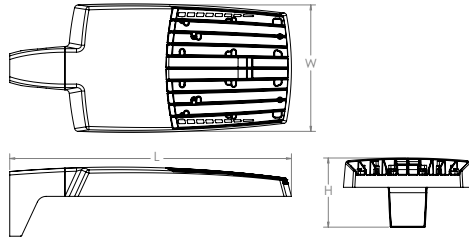


Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA (ft²@0°):	0.69 ft ² (0.06 m ²)
Length:	29.3" (74.4 cm) (SPA mount)
Width:	13.4" (34.0 cm)
Height:	3.0" (7.6 cm) Main Body 7.2" (18.3 cm) Arm
Weight: (SPA mount)	30.0 lbs (13.6 kg)



Introduction

The new RSX LED Area family delivers maximum value by providing significant energy savings, long life and outstanding photometric performance at an affordable price. The RSX2 delivers 11,000 to 31,000 lumens allowing it to replace 250W to 1000W HID luminaires.

The RSX features an integral universal mounting mechanism that allows the luminaire to be mounted on most existing drill hole patterns. This "no-drill" solution provides significant labor savings. An easy-access door on the bottom of mounting arm allows for wiring without opening the electrical compartment. A mast arm adaptor, adjustable integral slipfitter and other mounting configurations are available.

Ordering Information

EXAMPLE: RSX2 LED P6 40K R3 MVOLT SPA DDBXD

RSX2 LED					
Series	Performance Package	Color Temperature	Distribution	Voltage	Mounting
RSX2 LED	P1	30K 3000K	R2 Type 2 Wide	MVOLT (120V-277V) ²	SPA Square pole mounting (3.0" min. SQ pole for 1 at 90°, 3.5" min. SQ pole for 2, 3, 4 at 90°)
	P2	40K 4000K	R3 Type 3 Wide	HVOLT (347V-480V) ³	RPA Round pole mounting (3.2" min. dia. RND pole for 2, 3, 4 at 90°, 3.0" min. dia. RND pole for 1 at 90°, 2 at 180°, 3 at 120°)
	P3	50K 5000K	R3S Type 3 Short	XVOLT (277V-480V) ⁴	MA Mast arm adaptor (fits 2-3/8" OD horizontal tenon)
	P4		R4 Type 4 Wide	(use specific voltage for options as noted)	IS Adjustable slipfitter (fits 2-3/8" OD tenon) ⁶
	P5		R4S Type 4 Short		WBA Wall bracket ¹
	P6		R5 Type 5 Wide ¹		WBASC Wall bracket with surface conduit box
			R5S Type 5 Short ¹		AASP Adjustable tilt arm square pole mounting ⁶
			AFR Automotive Front Row		AARP Adjustable tilt arm round pole mounting ⁶
			AFRR90 Automotive Front Row Right Rotated	AAWB Adjustable tilt arm with wall bracket ⁶	AAWSC Adjustable tilt arm wall bracket and surface conduit box ⁶
			AFRL90 Automotive Front Row Left Rotated		

Options	Finish
<p>Shipped Installed</p> <p>HS House-side shield⁷</p> <p>PE Photocontrol, button style^{8,9}</p> <p>PEX Photocontrol external threaded, adjustable^{9,10}</p> <p>PER7 Seven-wire twist-lock receptacle only (no controls)^{9,11,12,13}</p> <p>CE34 Conduit entry 3/4" NPT (Qty 2)</p> <p>SF Single fuse (120, 277, 347)⁵</p> <p>DF Double fuse (208, 240, 480)⁵</p> <p>SPD20KV 20KV Surge pack (10KV standard)</p> <p>FAO Field adjustable output^{9,13}</p> <p>DMG 0-10V dimming extend out back of housing for external control (control ordered separate)^{9,13}</p> <p>DS Dual switching^{9,14}</p>	<p>Shipped Installed</p> <p>*Standalone and Networked Sensors/Controls (factory default settings, see table page 9)</p> <p>NLTAIR2 nLight AIR generation 2^{13,15,16}</p> <p>PIRHN Networked, Bi-Level motion/ambient sensor (for use with NLTAIR2)^{13,16,17}</p> <p>BAA Buy America(n) Act Compliant</p> <p>*Note: PIRHN with nLight Air can be used as a standalone dimming sensor with out-of-box settings or as a wireless networked solution. See factory default settings table. Sensor coverage pattern is affected when luminaire is tilted.</p> <p>Shipped Separately (requires some field assembly)</p> <p>EGS External glare shield⁶</p> <p>EGFV External glare full visor (360° around light aperture)⁷</p> <p>BS Bird spikes¹⁸</p>
	<p>DDBXD Dark Bronze</p> <p>DBLXD Black</p> <p>DNAXD Natural Aluminum</p> <p>DWHXD White</p> <p>DBBTXD Textured Dark Bronze</p> <p>DBLBXD Textured Black</p> <p>DNATXD Textured Natural Aluminum</p> <p>DWHGXD Textured White</p>



Ordering Information

Accessories

Ordered and shipped separately.

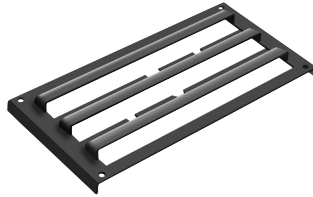
RSX2HS	RSX2 House side shield (includes 2 shields)
RSX2EGS (FINISH) U	External glare shield (specify finish)
RSX2HSFRR (FINISH) U	RSX2 House side shields for AFR rotated optics (includes 2 shields)
RSX2EGFV (FINISH) U	External glare full visor (specify finish)
RSXRPA (FINISH) U	RSX Universal round pole adaptor plate (specify finish)
RSXWBA (FINISH) U	RSX WBA wall bracket (specify finish) ¹
RSXSBCB (FINISH) U	RSX Surface conduit box (specify finish, for use with WBA, WBA not included)
DLL127F 1.5 JU	Photocell -SSL twist-lock (120-277V) ¹⁹
DLL347F 1.5 CULJU	Photocell -SSL twist-lock (347V) ¹⁹
DLL480F 1.5 CULJU	Photocell -SSL twist-lock (480V) ¹⁹
DSHORT SBK U	Shorting cap ¹⁹

NOTES

- Any Type 5 distribution, is not available with WBA.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
- XVOLT driver not available with P1. XVOLT driver operates on any line voltage from 277V-480V (50/60 Hz). XVOLT not available with fusing (SF or DF) and not available with PE or PEX.
- Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
- Maximum tilt is 90° above horizontal.
- It may be ordered as an accessory.
- Requires MVOLT or 347V.
- Not available in combination with other light sensing control options (following options cannot be combined: PE, PEX, PER7, FAO, DMG, DS, PIRHN).
- Requires 120V, 208V, 240V, or 277V.

- Twistlock photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included. Dimming leads capped for future use.
- For units with option PER7, the mounting must be restricted to +/- 45° from horizontal aim per ANSI C136.10-2010.
- Two or more of the following options cannot be combined including DMG, DS, PER7, FAO and PIRHN.
- DS only available on performance package P5 and P6.
- Must be ordered with PIRHN.
- Requires MVOLT or HVOLT.
- Must be ordered with NLTAIR2. For additional information on PIRHN visit [here](#).
- Must be ordered with fixture for factory pre-drilling.
- Requires luminaire to be specified with PER7 option. Ordered and shipped as a separate line item from Acuity Brands Controls.

External Shields



House Side Shield



External Glare Shield

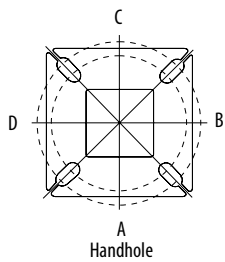


External 360 Full Visor

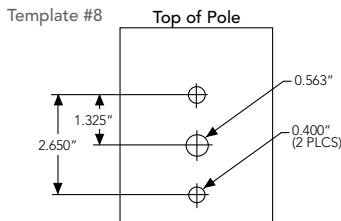
Pole/Mounting Information

Accessories including bullhorns, cross arms and other adapters are available under the accessories tab at Lithonia's Outdoor Poles and Arms product page. Click here to visit [Accessories](#).

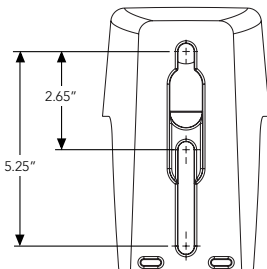
HANDHOLE ORIENTATION



RSX POLE DRILLING



RSX STANDARD ARM & ADJUSTABLE ARM



Round Tenon Mount - Pole Top Slipfitters

Tenon O.D.	RSX Mounting	Single	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2 - 3/8"	RPA, AARP	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 320	AS3-5 390	AS3-5 490
2 - 7/8"	RPA, AARP	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	RPA, AARP	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

Drill/Side Location by Configuration Type

Drilling Template	Mounting Option	Single	2 @ 180	2 @ 90	3 @ 120	3 @ 90	4 @ 90
	Head Location	Side B	Side B & D	Side B & C	Round Pole Only	Side B, C & D	Side A, B, C & D
#8	Drill Nomenclature	DM19AS	DM28AS	DM29AS	DM32AS	DM39AS	DM49AS

RSX2 - Luminaire EPA

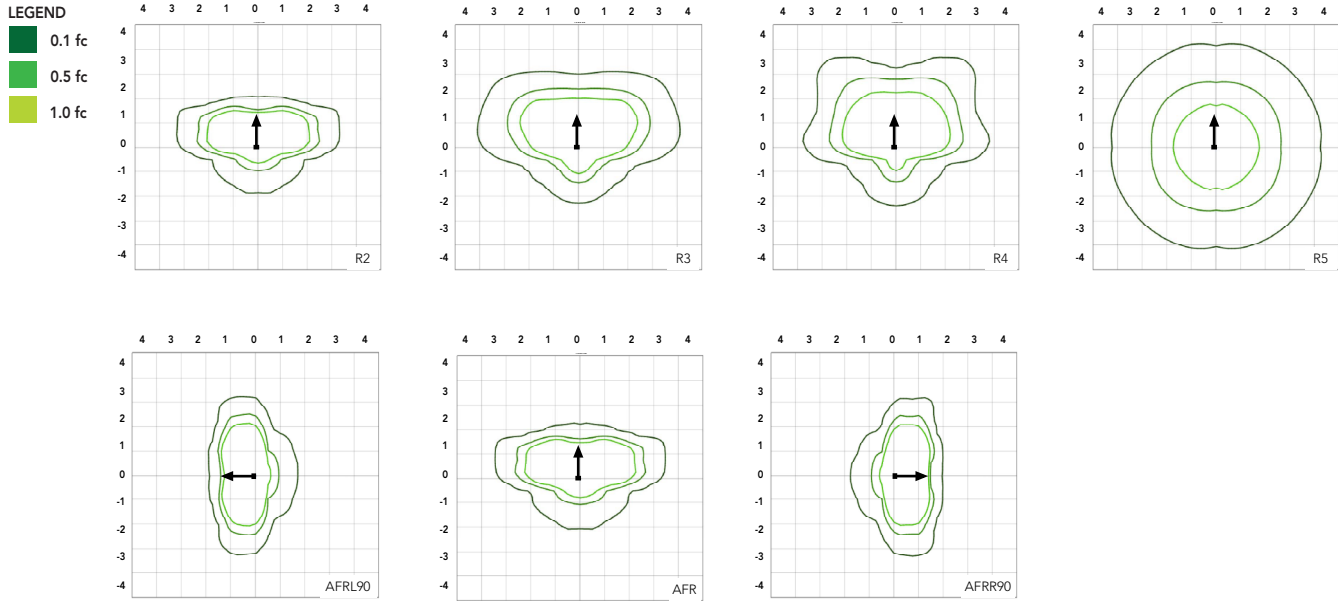
*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single	2 @ 90	2 @ 180	3 @ 90	3 @ 120	4 @ 90	2 Side by Side	3 Side by Side	4 Side by Side
SPA - Square Pole Adaptor	0.69	1.22	1.27	1.8	1.61	2.39	1.37	2.06	2.74
RPA - Round Pole Adaptor	0.74	1.27	1.37	1.9	1.71	2.49	1.42	2.16	2.84
MA - Mast Arm Adaptor	0.61	1.14	1.11	1.64	1.45	2.23	1.29	1.9	2.58
IS - Integral Slipfitter AASP/AARP - Adjustable Arm Square/Round Pole	0.69	1.22	1.27	1.8	1.61	2.39	1.37	2.06	2.74
	10°	0.53	1.06	1.05	1.58	1.37	2.08	1.06	1.59
	20°	0.52	1.02	1.03	1.52	1.33	2.02	1.03	1.55
	30°	0.64	1.11	1.18	1.63	1.45	2.21	1.27	1.91
	40°	0.81	1.21	1.35	1.74	1.65	2.39	1.62	2.43
	45°	0.91	1.25	1.5	1.81	1.75	2.48	1.82	2.73
	50°	1.34	1.83	2.17	2.61	2.56	3.62	2.68	4.02
	60°	2.2	2.97	3.57	4.24	4.17	5.89	4.41	6.61
	70°	2.86	4.13	4.7	5.89	5.71	8.21	5.71	8.57
	80°	3.4	5.13	5.67	7.34	7.09	10.21	6.79	10.19
	90°	3.85	5.96	6.55	8.58	8.31	11.88	7.70	11.56

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's RSX Area homepage.

Isofootcandle plots for the RSX2 LED P6 40K. Distances are in units of mounting height (30').



Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).

Ambient	Ambient	Lumen Multiplier
0°C	32°F	1.05
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97
45°C	113°F	0.96
50°C	122°F	0.95

Electrical Load

Performance Package	System Watts (W)	Current (A)					
		120V	208V	240V	277V	347V	480V
P1	71W	0.59	0.34	0.30	0.26	0.20	0.15
P2	111W	0.93	0.53	0.46	0.40	0.32	0.23
P3	147W	1.23	0.70	0.61	0.53	0.42	0.31
P4	187W	1.55	0.90	0.78	0.68	0.53	0.38
P5	210W	1.75	1.01	0.87	0.76	0.60	0.44
P6	244W	2.03	1.17	1.01	0.88	0.70	0.51

Projected LED Lumen Maintenance

Operating Hours	50,000	75,000	100,000
Lumen Maintenance Factor	>0.97	>0.95	>0.92

Values calculated according to IESNA TM-21-11 methodology and valid up to 40°C.

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

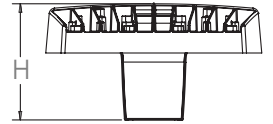
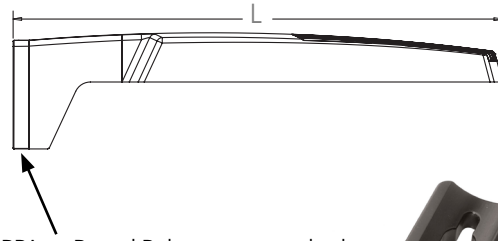
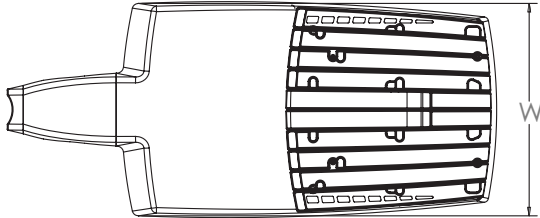
Performance Package	System Watts	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
			Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	71W	R2	10,040	2	0	1	139	11,031	2	0	1	153	11,031	2	0	1	153
		R3	10,005	2	0	2	141	10,992	2	0	2	155	10,992	2	0	2	155
		R3S	10,271	2	0	2	143	11,285	2	0	2	157	11,285	2	0	2	157
		R4	10,136	2	0	2	143	11,136	2	0	2	157	11,136	2	0	2	157
		R4S	9,779	2	0	2	138	10,744	2	0	2	151	10,744	2	0	2	151
		R5	10,271	4	0	2	145	11,285	4	0	2	159	11,285	4	0	2	159
		R5S	10,544	3	0	1	149	11,585	3	0	2	163	11,585	3	0	2	163
		AFR	10,026	2	0	1	141	11,016	2	0	1	155	11,016	2	0	1	155
		AFRR90	10,122	3	0	2	140	11,121	3	0	2	154	11,121	3	0	2	154
		AFRL90	10,164	3	0	2	141	11,167	3	0	2	155	11,167	3	0	2	155
P2	111W	R2	15,712	2	0	2	138	17,263	2	0	2	151	17,263	2	0	2	151
		R3	15,657	2	0	3	141	17,202	3	0	3	155	17,202	3	0	3	155
		R3S	16,075	2	0	2	141	17,661	2	0	2	155	17,661	2	0	2	155
		R4	15,862	2	0	3	143	17,427	2	0	3	157	17,427	2	0	3	157
		R4S	15,304	2	0	2	138	16,815	2	0	2	151	16,815	2	0	2	151
		R5	16,075	4	0	2	145	17,661	5	0	3	159	17,661	5	0	3	159
		R5S	16,502	4	0	2	149	18,130	4	0	2	163	18,130	4	0	2	163
		AFR	15,691	2	0	2	141	17,240	2	0	2	155	17,240	2	0	2	155
		AFRR90	15,841	3	0	3	139	17,404	4	0	3	153	17,404	4	0	3	153
		AFRL90	15,907	3	0	3	139	17,477	4	0	3	153	17,477	4	0	3	153
P3	147W	R2	19,855	3	0	2	132	21,814	3	0	2	145	21,814	3	0	2	145
		R3	19,785	3	0	3	135	21,737	3	0	4	148	21,737	3	0	4	148
		R3S	20,312	3	0	3	135	22,317	3	0	3	149	22,317	3	0	3	149
		R4	20,044	3	0	3	136	22,022	3	0	4	150	22,022	3	0	4	150
		R4S	19,339	3	0	3	132	21,247	3	0	3	145	21,247	3	0	3	145
		R5	20,313	5	0	3	138	22,317	5	0	3	152	22,317	5	0	3	152
		R5S	20,852	4	0	2	142	22,910	4	0	2	156	22,910	4	0	2	156
		AFR	19,828	3	0	2	135	21,785	3	0	2	148	21,785	3	0	2	148
		AFRR90	20,017	4	0	3	133	21,992	4	0	3	147	21,992	4	0	3	147
		AFRL90	20,101	4	0	3	134	22,084	4	0	3	147	22,084	4	0	3	147
P4	187W	R2	22,836	3	0	2	120	25,090	3	0	2	132	25,090	3	0	2	132
		R3	22,756	3	0	4	122	25,002	3	0	4	134	25,002	3	0	4	134
		R3S	23,363	3	0	3	123	25,668	3	0	3	135	25,668	3	0	3	135
		R4	23,054	3	0	4	123	25,329	3	0	4	135	25,329	3	0	4	135
		R4S	22,243	3	0	3	119	25,059	3	0	3	134	25,059	3	0	3	134
		R5	23,363	5	0	3	125	25,669	5	0	4	137	25,669	5	0	4	137
		R5S	23,983	4	0	2	128	26,350	4	0	2	141	26,350	4	0	2	141
		AFR	22,806	3	0	2	122	25,056	3	0	2	134	25,056	3	0	2	134
		AFRR90	23,023	4	0	3	121	25,295	4	0	3	133	25,295	4	0	3	133
		AFRL90	23,120	4	0	3	122	25,401	4	0	3	134	25,401	4	0	3	134
P5	210W	R2	26,141	3	0	2	122	28,721	3	0	2	135	28,721	3	0	2	135
		R3	26,049	3	0	4	124	28,620	3	0	4	136	28,620	3	0	4	136
		R3S	26,744	3	0	3	125	29,383	3	0	4	138	29,383	3	0	4	138
		R4	26,390	3	0	4	126	28,994	3	0	4	138	28,994	3	0	4	138
		R4S	25,462	3	0	3	121	27,974	3	0	3	133	27,974	3	0	3	133
		R5	26,744	5	0	4	127	29,383	5	0	4	140	29,383	5	0	4	140
		R5S	27,454	4	0	2	131	30,163	4	0	2	144	30,163	4	0	2	144
		AFR	26,106	3	0	2	124	28,682	3	0	2	137	28,682	3	0	2	137
		AFRR90	26,354	4	0	3	123	28,955	5	0	3	136	28,955	5	0	3	136
		AFRL90	26,465	4	0	3	124	29,077	5	0	3	136	29,077	5	0	3	136
P6	244W	R2	27,646	3	0	2	112	30,374	3	0	2	123	30,374	3	0	2	123
		R3	27,549	3	0	4	113	30,267	3	0	4	124	30,267	3	0	4	124
		R3S	28,283	3	0	3	115	31,075	3	0	4	126	31,075	3	0	4	126
		R4	27,909	3	0	4	114	30,663	3	0	4	126	30,663	3	0	4	126
		R4S	26,928	3	0	3	110	29,585	3	0	3	121	29,585	3	0	3	121
		R5	28,284	5	0	4	116	31,075	5	0	4	127	31,075	5	0	4	127
		R5S	29,035	4	0	2	119	31,900	5	0	3	131	31,900	5	0	3	131
		AFR	27,608	3	0	2	112	30,332	3	0	2	123	30,332	3	0	2	123
		AFRR90	27,872	4	0	3	113	30,622	5	0	3	124	30,622	5	0	3	124
		AFRL90	27,989	4	0	3	113	30,751	5	0	3	125	30,751	5	0	3	125

Dimensions & Weights

Luminaire Weight by Mounting Type

Mounting Configuration	Total Luminaire Weight
SPA	30 lbs
RPA	32 lbs
MA	30 lbs
WBA	33 lbs
WBASC	36 lbs
IS	33 lbs
AASP	33 lbs
AARP	35 lbs
AAWB	36 lbs
AAWSC	39 lbs

RSX2 with Round Pole Adapter (RPA)

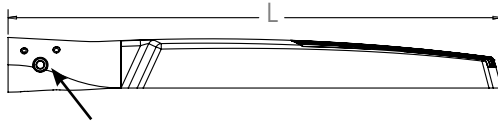
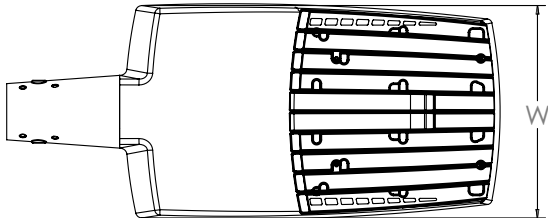


Length: 30.3" (77.0 cm)
 Width: 13.4" (34.0 cm)
 Height: 3.0" (7.6 cm) Main Body
 7.2" (18.3 cm) Arm

Note: RPA — Round Pole mount can also be used to mount on square poles by omitting the round pole adapter plate shown here.



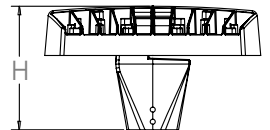
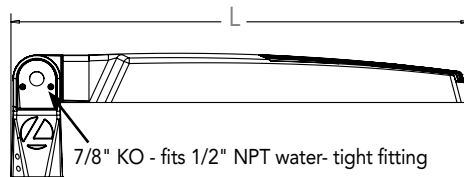
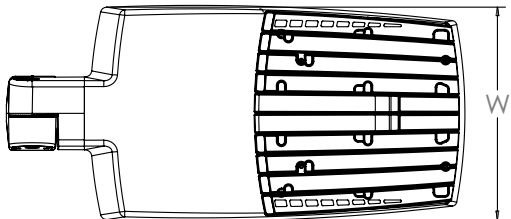
RSX2 with Mast Arm Adapter (MA)



Length: 30.6" (77.7 cm)
 Width: 13.4" (34.0 cm)
 Height: 3.0" (7.6 cm) Main Body
 3.5" (8.9 cm) Arm

7/16" locking thru bolt/nut provided

RSX2 with Adjustable Slipfitter (IS)

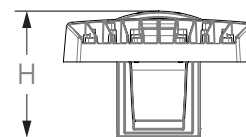
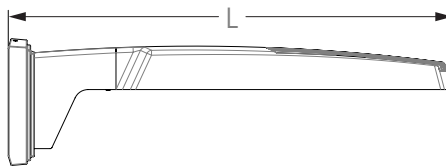
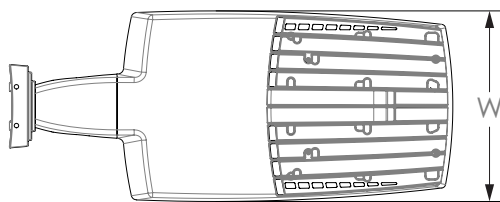


Length: 28.3" (71.9 cm)
 Width: 13.4" (34.0 cm)
 Height: 3.0" (7.6 cm) Main Body
 7.6" (19.3 cm) Arm

7/8" KO - fits 1/2" NPT water-tight fitting

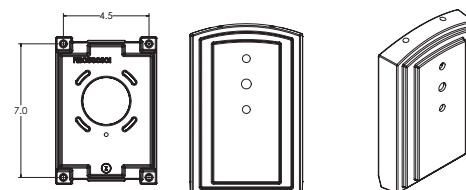
Dimensions

RSX2 with Wall Bracket (WBA)

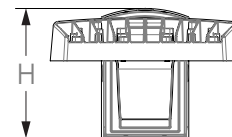
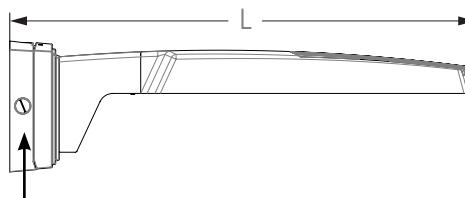
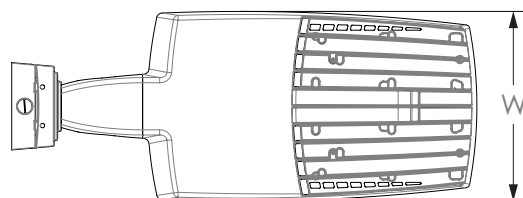


Length: 31.2" (79.2 cm)
 Width: 13.4" (41.7 cm)
 Height: 3.0" (7.6 cm) Main Body
 8.9" (22.6 cm) Arm

Wall Bracket (WBA) Mounting Detail



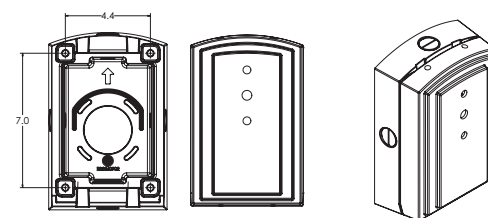
RSX2 with Wall Bracket with Surface Conduit Box (WBASC)



3/4" NPT taps with plugs - Qty (4) provided

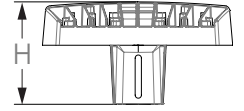
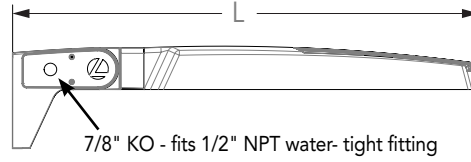
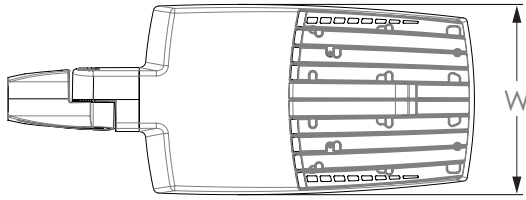
Length: 32.8" (83.3 cm)
 Width: 13.4" (41.7 cm)
 Height: 3.0" (7.6 cm) Main Body
 9.2" (23.4 cm) Arm

Surface Conduit Box (SCB) Mounting Detail

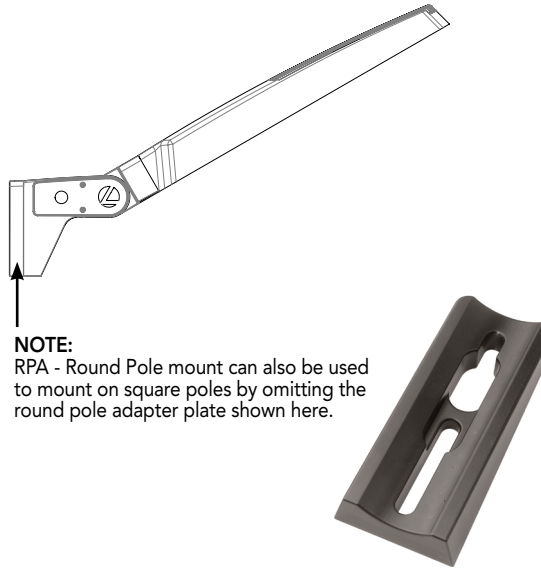


Dimensions

RSX2 with Adjustable Tilt Arm - Square or Round Pole (AASP or AARP)



Length: 32.8" (83.3 cm) **AASP**
 33.8" (85.9 cm) **AARP**
 Width: 13.4" (34.0 cm)
 Height: 3.0" (7.6 cm) Main Body
 7.2" (18.2 cm) Arm



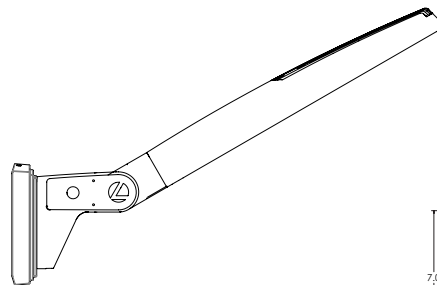
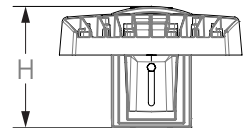
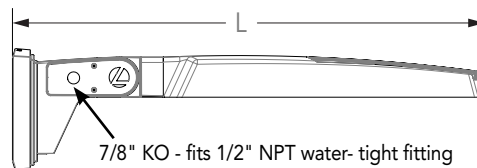
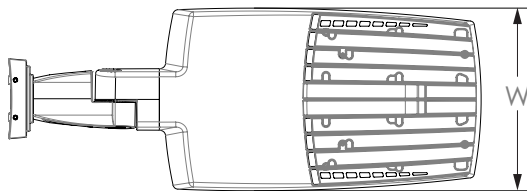
NOTE:
 RPA - Round Pole mount can also be used to mount on square poles by omitting the round pole adapter plate shown here.

Notes

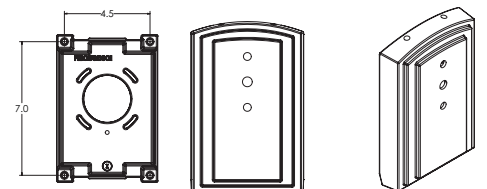
AASP: Requires 3.0" min. square pole for 1 at 90°. Requires 3.5" min. square pole for mounting 2, 3, 4 at 90°.

AARP: Requires 3.2" min. dia. round pole for 2, 3, 4 at 90°. Requires 3.0" min. dia. round pole for mounting 1 at 90°, 2 at 180°, 3 at 120°.

RSX2 with Adjustable Tilt Arm with Wall Bracket (AAWB)



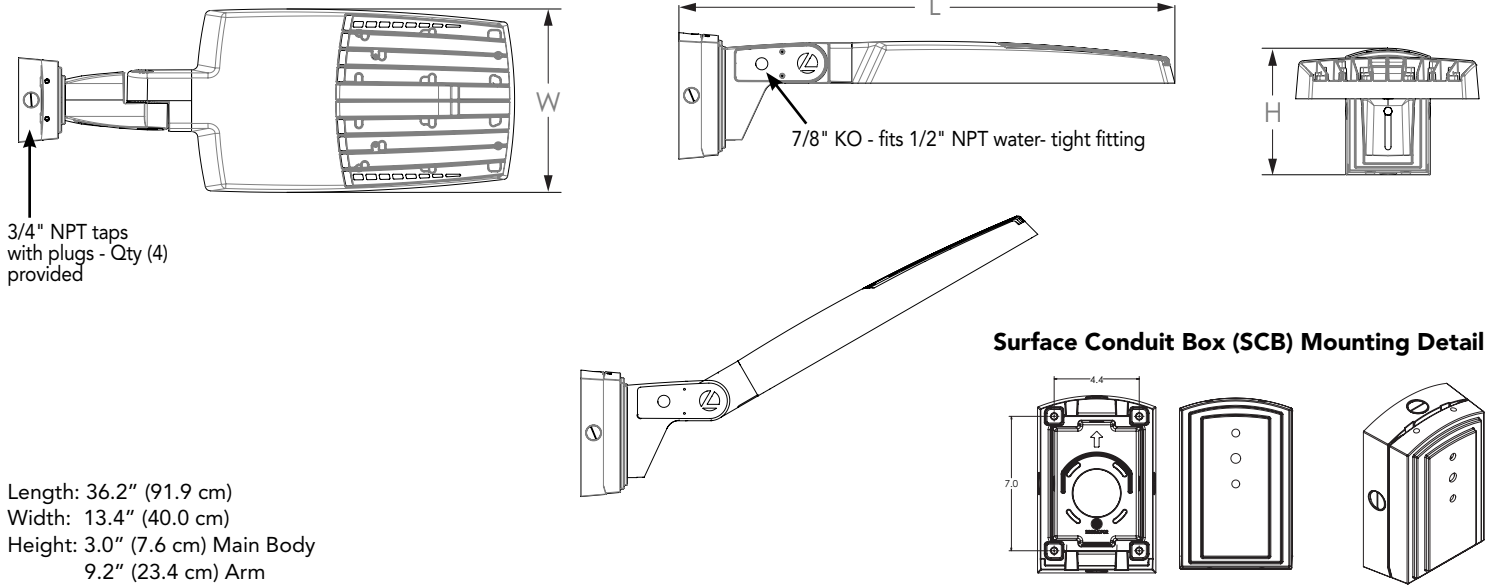
Wall Bracket (WBA) Mounting Detail



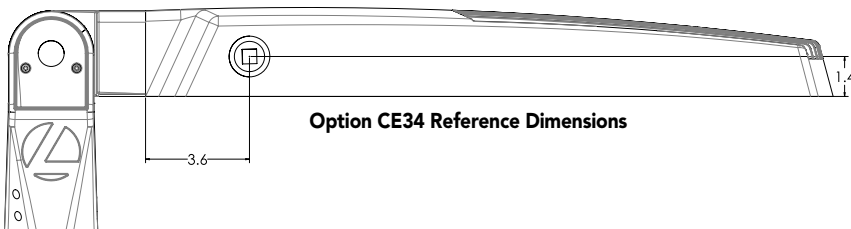
Length: 34.7" (88.0 cm)
 Width: 13.4" (34.0 cm)
 Height: 3.0" (7.6 cm) Main Body
 8.9" (22.6 cm) Arm

Dimensions

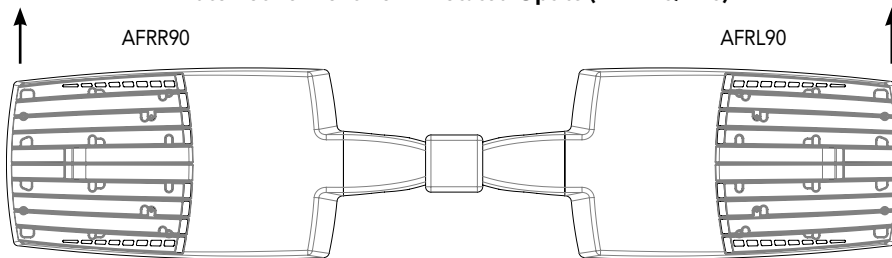
RSX2 with Adjustable Tilt Arm with Wall Bracket and Surface Conduit Box (AAWSC)



Additional Reference Drawings

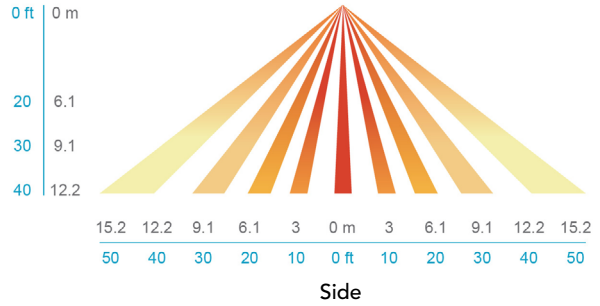
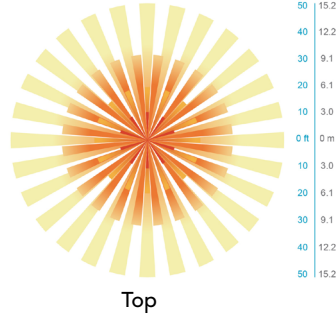
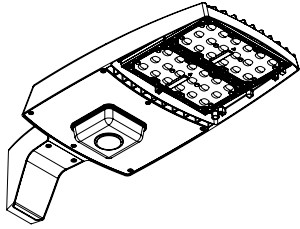


Automotive Front Row - Rotated Optics (AFRL90/R90)



(Example: 2@180 - arrows indicate direction of light exiting the luminaire)

NLTAIR2 PIRHN nLight Sensor Coverage Pattern



Motion Sensor Default Settings - Option PIRHN						
Option	Dimmed State (unoccupied)	High Level (when occupied)	Photocell Operation	Dwell Time (occupancy time delay)	Ramp-up Time (from unoccupied to occupied)	Ramp-down Time (from occupied to unoccupied)
NLTAIR2 PIRHN	Approx. 30% Output	100% Output	Enabled @ 1.5FC	7.5 minutes	3 seconds	5 minutes

*Note: NLTAIR2 PIRHN default settings including photocell set-point, high/low dim rates, and occupancy sensor time delay are all configurable using the Clarity Pro App. Sensor coverage pattern shown with luminaire at 0°. Sensor coverage pattern is affected when luminaire is tilted.

FEATURES & SPECIFICATIONS

INTENDED USE

The RSX LED area luminaire is designed to provide a long-lasting, energy-efficient solution for the one-for-one replacement of existing metal halide or high pressure sodium lighting. The RSX2 delivers 11,000 to 31,000 lumens and is ideal for replacing 250W to 1000W HID pole-mounted luminaires in parking lots and other area lighting applications.

CONSTRUCTION AND DESIGN

The RSX LED area luminaire features a rugged die-cast aluminum main body that uses heat-dissipating fins and flow-through venting to provide optimal thermal management that both enhances LED performance and extends component life. Integral "no drill" mounting arm allows the luminaire to be mounted on existing pole drillings, greatly reducing installation labor. The light engines and housing are sealed against moisture and environmental contaminants to IP66. The low-profile design results in a low EPA, allowing pole optimization. Vibration rated per ANSI C136.31: 3G Mountings: Include SPA, RPA, MA, IS, AASP, AARP rated for 3G vibration. 1.5G Mountings: Include WBA, WBASC, AAWB and AAWSC rated for 1.5G vibration.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures superior adhesion as well as a minimum finish thickness of 3 mils. The result is a high-quality finish that is warranted not to crack or peel.

OPTICS

Precision acrylic refractive lenses are engineered for superior application efficiency, distributing the light to where it is needed most. Available in short and wide pattern distributions including Type 2, Type 3, Type 3S, Type 4, Type 4S, Type 5, Type 5S, AFR (Automotive Front Row) and AFR rotated AFRR90 and ARFL90.

ELECTRICAL

Light engine(s) configurations consist of high-efficacy LEDs mounted on metal-core circuit boards and aluminum heat sinks to maximize heat dissipation. Light engines are IP66 rated. LED lumen maintenance is >L92/100,000 hours. CCT's of 3000K, 4000K and 5000K (minimum 70 CRI) are available. Class 1 electronic drivers ensure system power factor >90% and THD <20%. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The RSX LED area luminaire has a wide assortment of control options. Dusk to dawn controls include MVOLT and 347V button-type photocells and NEMA twist-lock photocell receptacles.

nLIGHT AIR CONTROLS

The RSX LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing with photocontrol functionality and is suitable for mounting heights up to 40 feet. No commissioning is required when using factory default settings that provide basic stand-alone motion occupancy dimming that is switched on and off with a built-in photocell. See chart above for motion sensor default out-of-box settings. For more advanced wireless functionality, such as group dimming, nLight AIR can be commissioned using a smartphone and the easy-to-use CLAIRITY app. nLight AIR equipped luminaires can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclipse. Additional information about nLight Air can be found [here](#).

INSTALLATION

Integral "no-drill" mounting arm allows for fast, easy mounting using existing pole drillings. Select the "SPA" option for square poles and the "RPA" option to mount to round poles. Note, the RPA mount can also be used for mounting to square poles by omitting the RPA adapter plate. Select the "MA" option to attach the luminaire to a 2 3/8" horizontal mast arm or the "IS" option for an adjustable slipfitter that mounts on a 2 3/8" OD tenon. The adjustable slipfitter has an integral junction box and offers easy installation. Can be tilted up to 90° above horizontal. Additional mountings are available including a wall bracket, adjustable tilt arm for direct-to-pole and wall and a surface conduit box for wall mount applications.

LISTINGS

CSA Certified to meet U.S. and Canadian standards. Suitable for wet locations. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only. US Patent No. D882, 146S

BUY AMERICAN

Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.



ARC2 LED

Architectural Wall Luminaire



Catalog Number

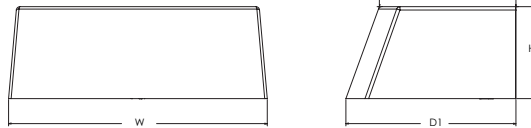
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

- Depth (D1):** 9.25"
- Depth (D2):** 7.5"
- Height:** 5"
- Width:** 14"
- Weight:** 11 lbs
(without options)



Introduction

The Lithonia Lighting ARC LED wall-mounted luminaires provide both architectural styling and visually comfortable illumination while providing the high energy savings and low initial costs for quick financial payback.

ARC2 delivers up to 6,500 lumens with a soft, non-pixelated light source, creating a visually comfortable environment. It offers integrated emergency battery backup options, including an 8W cold temperature option, making it suitable for pedestrian scale applications in any environment.

ARC LED Family Overview

Luminaire	Standard EM, 0°C	Cold EM, -20°C	Approximate Lumens (4000K)				
			P1	P2	P3	P4	P5
ARC1 LED	4W	--	1,500	2,000	3,000	--	--
ARC2 LED	4W	8W	1,500	2,000	3,000	4,000	6,500

Ordering Information

EXAMPLE: ARC2 LED P2 40K MVOLT PE DDBXD

Series	Package	Color Temperature	Voltage	Options	Finish
ARC2 LED	P1 1,500 Lumens	30K 3000K	MVOLT 347 ¹	E4WH Emergency battery backup, CEC compliant (4W, 0°C min) ¹	DDBXD Dark bronze
	P2 2,000 Lumens	40K 4000K		E8WC Emergency battery backup, CEC compliant (8W, -20°C min) ¹	DBLXD Black
	P3 3,000 Lumens	50K 5000K		PE Button type photocell for dusk-to-dawn operation	DNAXD Natural aluminum
	P4 4,000 Lumens			DMG 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately) ²	DWHXD White
	P5 6,500 Lumens			SPD6KV 6kV surge protection ¹	DSSXD Sandstone
			FAO Field adjustable light output device. Allows for easy adjustment to the desired light levels, from 20% to 100% ²	DDBTXD Textured dark bronze	
				DBLTXD Textured black	
				DNATXD Textured natural aluminum	
				DWHGXD Textured white	
				DSSTXD Textured sandstone	

Accessories

Ordered and shipped separately.

- WSBBW DDBXD U Surface - mounted back box (specify finish)

NOTES

- 1 347V not available with E4WH, E8WC and SPD6KV.
- 2 FAO not available with DMG.



COMMERCIAL OUTDOOR

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ARC2 LED
Rev. 08/31/21

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	30K (3000K, 80 CRI)					40K (4000K, 80 CRI)					50K (5000K, 80 CRI)				
		Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P1	11W	1,502	142	0	0	1	1,587	150	0	0	1	1,598	151	0	0	1
P2	16W	2,250	140	0	0	1	2,377	147	0	0	1	2,393	148	0	0	1
P3	24W	3,206	135	0	0	1	3,387	143	0	0	1	3,410	144	0	0	1
P4	30W	3,903	128	1	0	1	4,124	136	1	0	1	4,152	136	1	0	1
P5	51W	6,260	122	1	0	1	6,615	129	1	0	1	6,659	130	1	0	1

Electrical Load

Performance Package	System Watts	Current (A)				
		120V	208V	240V	277V	347V
P1	11W	0.090	0.055	0.049	0.046	0.045
P2	16W	0.141	0.081	0.072	0.064	0.059
P3	24W	0.202	0.117	0.103	0.091	0.079
P4	30W	0.280	0.162	0.144	0.128	0.095
P5	51W	0.471	0.272	0.239	0.212	0.158

Lumen Output in Emergency Mode (4000K, 80 CRI)

Option	Lumens
E4WH	693
E8WC	1,413

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient	Lumen Multiplier
0°C / 32°F	1.04
10°C / 50°F	1.03
20°C / 68°F	1.01
25°C / 77°F	1.00
30°C / 86°F	0.99
40°C / 104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11). To calculate LMF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

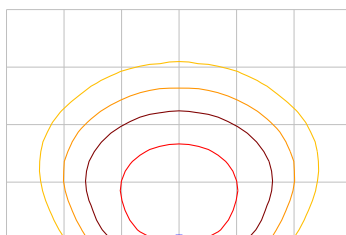
Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.96	>0.93	>0.88

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting ARC LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards.

LEGEND

- 0.25 fc
- 0.5 fc
- 1.0 fc
- 3.0 fc



ARC2 LED P3 40K

MH = 15ft
Grid = 15ft x 15ft

Emergency Egress Options

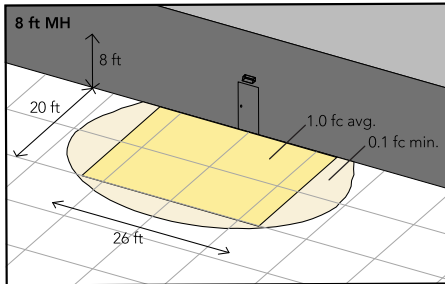
Emergency Battery Backup

The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product. All emergency battery backup configurations include an independent secondary driver with an integral relay to immediately detect loss of normal power and automatically energize the luminaire. The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time normal power is lost and maintain a minimum of 60% of the light output at the end of 90 minutes.

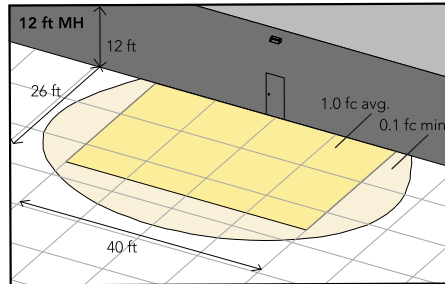
Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9

The example below shows illuminance of 1 fc average and 0.1 fc minimum in emergency mode.

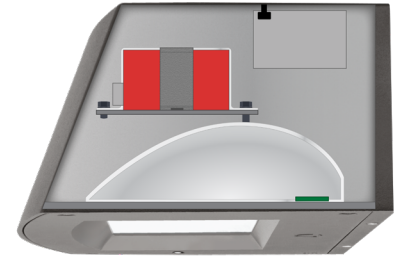
Grid = 10ft x 10ft



ARC2 LED 40K MVOLT E4WH



ARC2 LED 40K MVOLT E8WC



Self-contained solution for clean aesthetic

Mounting, Options & Accessories

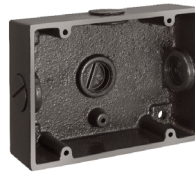


E4WH and E8WC – Emergency Battery Backup

D = 6.5"

H = 5"

W = 11"



BBW – Standard Back Box

D = 1.5"

H = 4"

W = 5.5"

For surface conduit applications.
3/4" conduit entry holes.

FEATURES & SPECIFICATIONS

INTENDED USE

The clean architectural shape of the ARC LED was designed for applications such as hospitals, schools, malls, restaurants, and commercial buildings. The long-life LEDs and driver make this luminaire nearly maintenance-free.

CONSTRUCTION

The die-cast aluminum housing and door act as heat sinks to optimize thermal transfer from the light engine and driver to promote long-life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP65 rating for the luminaire.

FINISH

Exterior painted parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS

Recessed lens to cut off high angle light and reduce glare. Combination of diffused lens and reflector design has low surface brightness creating a visually comfortable environment with great distribution. LEDs are fully hidden from view to eliminate pixelization and harsh glare. The ARC LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine consists of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long-life (up to L88/100,000 hours at 25°C). The electronic driver has a power factor of >90%, THD <20%. Luminaire is 0-10V dimmable.

INSTALLATION

The universal wall plate, supplied with the luminaire, fits multiple size junction boxes and supports it during wiring for easy installation. Built-in wet location wiring compartment on the luminaire to accommodate wiring connections for applications with no junction box. Design can withstand up to a 1.5 G vibration load rating per ANSI C136.31.

LISTINGS

CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International DarkSky Association (IDA) Fixture Seal of approval (FSA) is available for all products on this page utilizing 3000K color temperature only. Rated for -40°C minimum ambient.

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

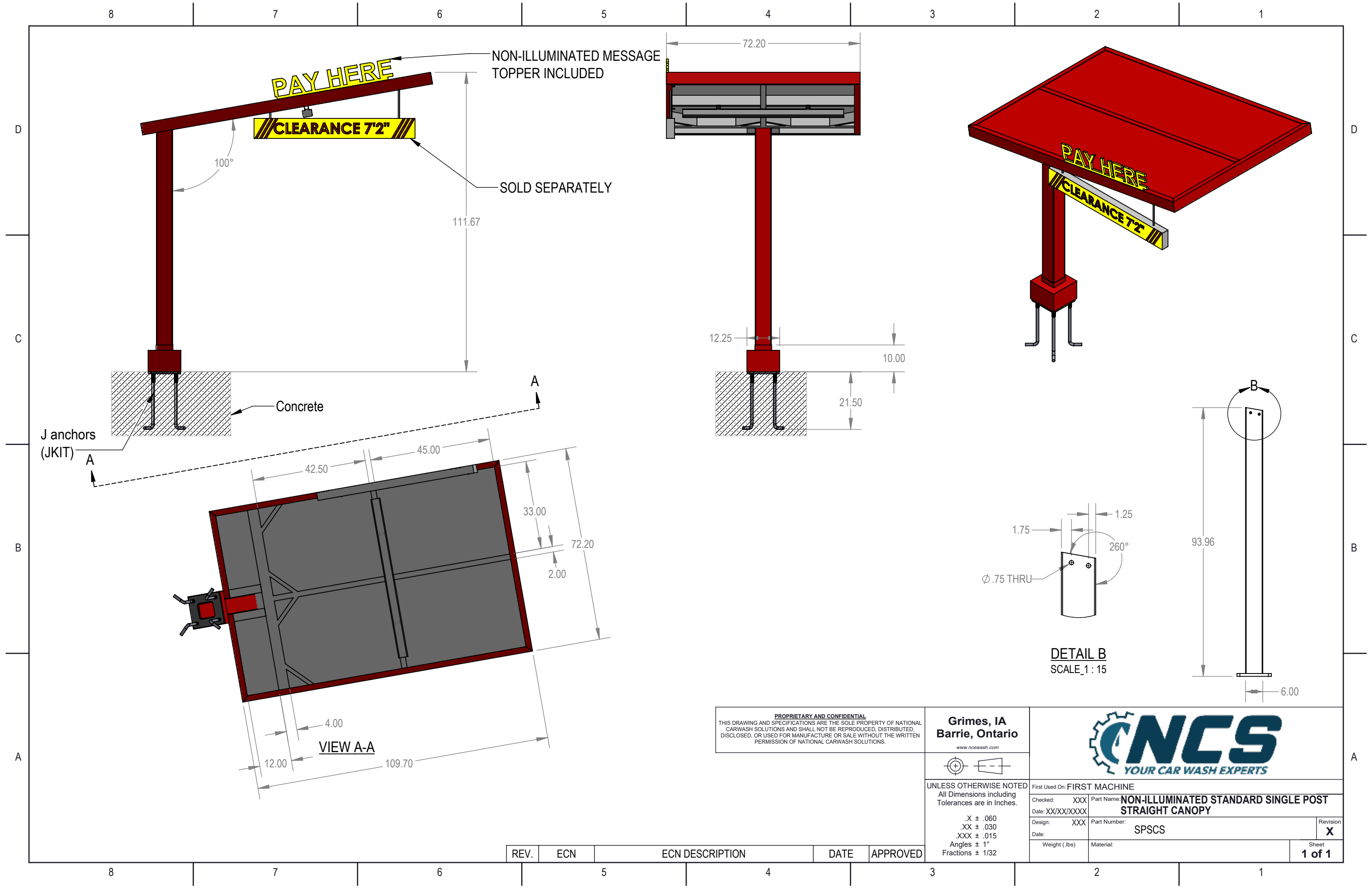
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ARC2 LED
Rev. 08/31/21



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 www.ncswash.com



UNLESS OTHERWISE NOTED
 All Dimensions including Tolerances are in Inches.
 .X ± .060
 .XX ± .030
 .XXX ± .015
 Angles ± 1°
 Fractions ± 1/32

First Used On: FIRST MACHINE	
Checked: XXX	Part Name: NON-ILLUMINATED STANDARD SINGLE POST STRAIGHT CANOPY
Date: XX/XX/XXXX	Revision: X
Design: XXX	Part Number: SPSCS
Date:	Material:
Weight (lbs):	Sheet 1 of 1

REV.	ECN	ECN DESCRIPTION	DATE	APPROVED

FEATURES & SPECIFICATIONS

INTENDED USE — These specifications are for USA standards only. Square Straight Steel is a general purpose light pole for up to 39-foot mounting heights. This pole provides a robust yet cost effective option for mounting area lights and floodlights.

CONSTRUCTION — **Pole Shaft:** The pole shaft is of uniform dimension and wall thickness and is made of a weldable-grade, hot-rolled, commercial-quality steel tubing with a minimum yield of 55 KSI (11-gauge, .1196"), or 50 KSI (7-gauge, .1793"). Shaft is one-piece with a full-length longitudinal high-frequency electric resistance weld. Uniformly square in cross-section with flat sides, small corner radii and excellent torsional qualities. Available shaft widths are 4", 5" and 6".

Pole Top: A flush non-metallic black top cap is provided for all poles that will receive drilling patterns for side-mount luminaire arm assemblies or when ordered with PT option.

Handhole: A reinforced handhole with grounding provision is provided at 18" from the base on side A. Positioning the handhole lower may not be possible and requires engineering review; consult Tech Support-Outdoor for further information. Every handhole includes a cover and cover attachment hardware. The handhole has a nominal dimension of 2.5" x 5".

Base Cover: A durable ABS plastic two-piece full base cover, finished to match the pole, is provided with each pole assembly. Additional base cover options are available upon request.

Anchor Base/ Bolts: Anchor base is fabricated from steel that meets ASTM A36 standards and can be altered to match existing foundations; consult factory for modifications. Anchor bolts are manufactured to ASTM F1554 Standards grade 55, (55 KSI minimum yield strength and tensile strength of 75-95 KSI). Top threaded portion (nominal 12") is hot-dipped galvanized per ASTM A-153.

HARDWARE — All structural fasteners are high-strength galvanized carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

FINISH — Extra durable standard powder-coat finishes include Dark Bronze, White, Black, Medium Bronze and Natural Aluminum colors. Classic finishes include Sandstone, Charcoal Gray, Tennis Green, Bright Red and Steel Blue colors. Architectural Colors and Special Finishes are available by quote and include, but are not limited to Hot-dipped Galvanized, Paint over Hot-dipped Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes. Factory-applied primer paint finish is available for customer field-paint applications.

BUY AMERICAN — Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

INSTALLATION — **Do not** erect poles without having fixtures installed. Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use Lithonia Lighting factory templates. If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage. Lithonia Lighting is not responsible for the foundation design.

WARRANTY — 1-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

Catalog Number
Notes
Type



Anchor Base Poles

SSS

SQUARE STRAIGHT STEEL



SSS Square Straight Steel Poles

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: SSS 20 5C DM19 DDB

Series	Nominal fixture mounting height	Nominal shaft base size/wall thickness ²	Mounting ³	Options	Finish ¹¹	
SSS ¹	10'-39' (for 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.) See technical information table for complete ordering information.)	4C 4" 11g (.1196") 4G 4" 7g (.1793") 5C 5" 11g (.1196") 5G 5" 7g (.1793") 6G 6" 7g (.1793") See technical information table for complete ordering information.)	Tenon mounting PT Open top (includes top cap) T20 2-3/8" O.D. (2" NPS) T25 2-7/8" O.D. (2-1/2" NPS) T30 3-1/2" O.D. (3" NPS) T35 4" O.D. (3-1/2" NPS) KAC/KAD/KSE/KSF/KVR/KVF Drill mounting DM19 1 at 90° DM28 2 at 180° DM28 PL 2 at 180° with one side plugged DM29 2 at 90° DM39 3 at 90° DM49 4 at 90° CSX/DSX/RSX/AERIS™/OMERO™/HLA/KAX Drill mounting DM19AS 1 at 90° DM28AS 2 at 180° DM29AS 2 at 90° DM39AS 3 at 90° DM49AS 4 at 90° RAD drill mounting DM19RAD 1 at 90° DM28RAD 2 at 180° DM29RAD 2 at 90° DM39RAD 3 at 90° DM49RAD 4 at 90° ESX Drill mounting DM19ESX 1 at 90° DM28ESX 2 at 180° DM29ESX 2 at 90° DM39ESX 3 at 90° DM49ESX 4 at 90°	AERIS™ Suspend drill mounting^{4,5} DM19AST_ 1 at 90° DM28AST_ 2 at 180° DM29AST_ 2 at 90° DM39AST_ 3 at 90° DM49AST_ 4 at 90° OMERO™ Suspend drill mounting^{4,5} DM19MRT_ 1 at 90° DM28MRT_ 2 at 180° DM29MRT_ 2 at 90° DM39MRT_ 3 at 90° DM49MRT_ 4 at 90°	Shipped installed VD Vibration damper HAXy Horizontal arm bracket (1 fixture) ^{6,7} FDLxy Festoon outlet less electrical ⁶ CPL12/xy 1/2" coupling ⁶ CPL34/xy 3/4" coupling ⁶ CPL1/xy 1" coupling ⁶ NPL12/xy 1/2" threaded nipple ⁶ NPL34/xy 3/4" threaded nipple ⁶ NPL1/xy 1" threaded nipple ⁶ EHHxy Extra handhole ^{6,8} NEC NEC 410.30 compliant gasketed handhole (Not UL Labeled) IC Interior coating ⁹ L/AB Less anchor bolts (Include when anchor bolts are not needed) TP Tamper resistant handhole cover fasteners UL UL listed with label (Includes NEC compliant cover) BAA Buy America(n) Act Compliant ¹⁰	Standard colors DDBXD Dark bronze DWHXD White DBLXD Black DMBXD Medium bronze DNAXD Natural aluminum Classic colors DSS Sandstone DGC Charcoal gray DTG Tennis green DBR Bright red DSB Steel blue Architectural Colors and Special Finishes Galvanized, Paint over Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes available.

NOTES:

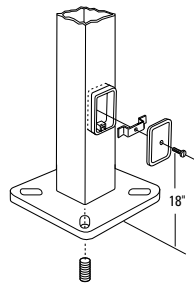
- Handhole covers (HHC), full base covers (FBC) and top caps (TC) shipped separately. No need to call out in nomenclature. For additional parts please order as replacements.
- Wall thickness will be signified with a "C" (11 Gauge) or a "G" (7-Gauge) in nomenclature. "C" - 0.1196" | "G" - 0.1793".
- PT open top poles include top cap. When ordering tenon mounting and drill mounting for the same pole, follow this example: DM28/T20. The combination includes a required extra handhole.
- Refer to the fixture spec sheet for the correct drilling template pattern and orientation compatibility.
- Insert "1" or "2" to designate fixture size; e.g. DM19AST2.
- Specify location and orientation when ordering option.
For "x": Specify the height above the base of pole in feet or feet and inches; separate feet and inches with a "-".
Example: 5ft = 5 and 20ft 3in = 20-3
For "y": Specify orientation from handhole (A,B,C,D)
Refer to the Handhole Orientation diagram below.
Example: 1/2" coupling at 5' 8", orientation C = CPL12/5-8C
- Horizontal arm is 18" x 2-3/8" O.D. tenon standard, with radius curve providing 12" rise and 2-3/8" O.D. If ordering two horizontal arm at the same height, specify with HAXxy. Example: HA20BD.
- Combination of tenon-top and drill mount includes extra handhole. EHH does not include cover, order replacement part if needed.
- Provides enhanced corrosion resistance.
- Use when mill certifications are required.
- Additional colors available; see www.lithonia.com/archcolors or Architectural Colors brochure (Form No. 794.3). Available by formal quote only, consult factory for details.

SSS Square Straight Steel Poles

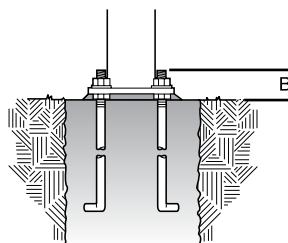
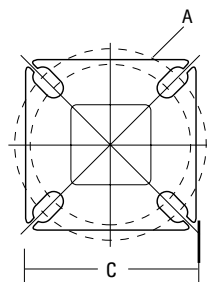
TECHNICAL INFORMATION — EPA (ft ²) with 1.3 gust													
Catalog Number	Nominal Shaft Length (ft.)*	Pole Shaft Size (Base in. x Top in. x ft.)	Wall thick (in)	Gauge	EPA (ft ²) with 1.3 gust						Bolt circle (in)	Bolt size (in. x in. x in.)	Approximate ship weight (lbs.)
					80 MPH	Max. weight	90 MPH	Max. weight	100 MPH	Max. weight			
SSS 10 4C	10	4.0 x 10.0	0.1196	11	30.6	765	23.8	595	18.9	473	8-9	3/4 x 18 x 3	75
SSS 12 4C	12	4.0 x 12.0	0.1196	11	24.4	610	18.8	470	14.8	370	8-9	3/4 x 18 x 3	90
SSS 14 4C	14	4.0 x 14.0	0.1196	11	19.9	498	15.1	378	11.7	293	8-9	3/4 x 18 x 3	100
SSS 16 4C	16	4.0 x 16.0	0.1196	11	15.9	398	11.8	295	8.9	223	8-9	3/4 x 18 x 3	115
SSS 18 4C	18	4.0 x 18.0	0.1196	11	12.6	315	9.2	230	6.7	168	8-9	3/4 x 18 x 3	125
SSS 20 4C	20	4.0 x 20.0	0.1196	11	9.6	240	6.7	167	4.5	150	8-9	3/4 x 18 x 3	140
SSS 20 4G	20	4.0 x 20.0	0.1793	7	14	350	11	275	8	200	8-9	3/4 x 30 x 3	198
SSS 20 5C	20	5.0 x 20.0	0.1196	11	17.7	443	12.7	343	9.4	235	10-12	1 x 36 x 4	185
SSS 20 5G	20	5.0 x 20.0	0.1793	7	28.1	703	21.4	535	16.2	405	10-12	1 x 36 x 4	265
SSS 25 4C	25	4.0 x 25.0	0.1196	11	4.8	150	2.6	100	1	50	8-9	3/4 x 18 x 3	170
SSS 25 4G	25	4.0 x 25.0	0.1793	7	10.8	270	7.7	188	5.4	135	8-9	3/4 x 30 x 3	245
SSS 25 5C	25	5.0 x 25.0	0.1196	11	9.8	245	6.3	157	3.7	150	10-12	1 x 36 x 4	225
SSS 25 5G	25	5.0 x 25.0	0.1793	7	18.5	463	13.3	333	9.5	238	10-12	1 x 36 x 4	360
SSS 30 4G	30	4.0 x 30.0	0.1793	7	6.7	168	4.4	110	2.6	65	8-9	3/4 x 30 x 3	295
SSS 30 5C	30	5.0 x 30.0	0.1196	11	4.7	150	2	50	--	--	10-12	1 x 36 x 4	265
SSS 30 5G	30	5.0 x 30.0	0.1793	7	10.7	267	6.7	167	3.9	100	10-12	1 x 36 x 4	380
SSS 30 6G	30	6.0 x 30.0	0.1793	7	19	475	13.2	330	9	225	11-13	1 x 36 x 4	520
SSS 35 5G	35	5.0 x 35.0	0.1793	7	5.9	150	2.5	100	--	--	10-12	1 x 36 x 4	440
SSS 35 6G	35	6.0 x 35.0	0.1793	7	12.4	310	7.6	190	4.2	105	11-13	1 x 36 x 4	540
SSS 39 6G	39	6.0 x 39.0	0.1793	7	7.2	180	3	75	--	--	11-13	1 x 36 x 4	605

* EPA values are based ASCE 7-93 wind map. For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

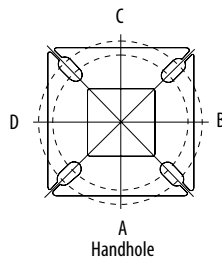
BASE DETAIL



POLE DATA								
Shaft base size	Bolt circle A	Bolt projection B	Base diameter C	Base plate thickness	Template description	Anchor bolt description	Anchor bolt and template number	Anchor bolt description
4"C	8" - 9"	3.25" - 3.75"	8" - 8.25"	0.75"	ABTEMPLATE PJ50004	AB18-0	ABSSS-4C	3/4"x18"x3"
4"G	8" - 9"	3.38" - 3.75"	8" - 8.25"	0.875"	ABTEMPLATE PJ50004	AB30-0	ABSSS-4G	3/4"x30"x3"
5"	10" - 12"	3.5" - 4"	11"	1"	ABTEMPLATE PJ50010	AB36-0	ABSSS-5	1"x36"x4"
6"	11" - 13"	4" - 4.50"	12.5"	1"	ABTEMPLATE PJ50011	AB36-0	N/A	1"x36"x4"



HANDHOLE ORIENTATION



Default DM19 is on side B.

IMPORTANT INSTALLATION NOTES:

- Do not erect poles without having fixtures installed.
- Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use Lithonia Lighting factory templates.
- If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage.
- Lithonia Lighting is not responsible for the foundation design.

ITEM #6

DATE: September 21, 2023

TO: Planning Commission

FROM: R. Brent Savidant, Community Development Director

SUBJECT: PRELIMINARY SITE PLAN APPROVAL (JPLN2023-0028) – Proposed John R Gardens Townhome Development, East side of John R, north of Big Beaver (PIN 88-20-23-476-017), Section 23, Zoned MF (Multi-Family Residential) Zoning District.

The petitioner Troy Sports Center, LLC. submitted the above referenced Preliminary Site Plan application for a 118-unit townhome development. The property is currently zoned MF (Multi-Family) Zoning District. Two-story attached residential units are permitted by right in the MF district. The Planning Commission is responsible for granting Preliminary Site Plan approval for this item.

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. Preliminary site plan

G:\SITE PLANS\SP_JPLN2023-0028_JOHN R COMMONS TOWNHOME DEVELOPMENT\PC Memo 2023 09 26.docx

PROPOSED RESOLUTION

PRELIMINARY SITE PLAN APPROVAL (JPLN2023-0028) – Proposed John R Gardens Townhome Development, East side of John R, north of Big Beaver (PIN 88-20-23-476-017), Section 23, Zoned MF (Multi-Family Residential) Zoning District.

Resolution # PC-2023-09-

Moved by:

Seconded by:

RESOLVED, That Preliminary Site Plan Approval, pursuant to Article 8 of the Zoning Ordinance, as requested for the proposed John R Gardens Townhome Development, located on the East side of John R, North of Big Beaver, Section 23, Zoned MF (Multi-Family Residential) District, be granted, subject to applicant the following:

1. Confirm tree removal and mitigation calculations.
2. Consider additional screening options including screen wall in addition to landscaping.
3. Show outdoor seating area on the site plan.
4. Consider additional outdoor and common amenities to complement the neighborhood atmosphere.
5. Provide scalable (CAD) elevations to ensure setbacks are met.
6. All architectural drawings shall be sealed and signed by a State of Michigan Professional Architect.
7. Indicate location of bicycle parking.
8. Provide signage for fire apparatus access roads and indicate access roads on plans.
9. Realign crosswalks along northern ring roads.
10. Add crosswalks along southern ring road.
11. Address OHMs circulation comments.
12. Add one (1) large evergreen tree to the western property line landscape screening.
13. Add three (3) deciduous trees along the north side of Nancy Bostwick Drive.
14. Provide trash enclosure with appropriate screening on site plan OR provide note highlighting individual trash pickup service via weekly pickup.
15. Provide full screened building light fixture.
16. Provide building elevations on all four sides that are dimensional.
17. Provide samples, swatches, or manufacturer’s specification sheets of the predominant proposed exterior materials and colors of all buildings and permanent structures, including walls and fences.
18. All architectural drawings shall be sealed and signed by a State of Michigan Professional Architect.
19. Provide 3-D renderings from John R and internal to the development.

_____) or

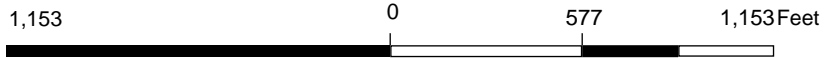
(denied, for the following reasons: _____) or

(postponed, for the following reasons: _____)

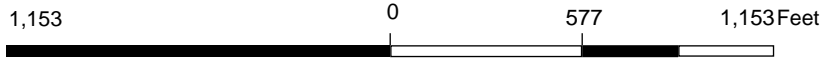
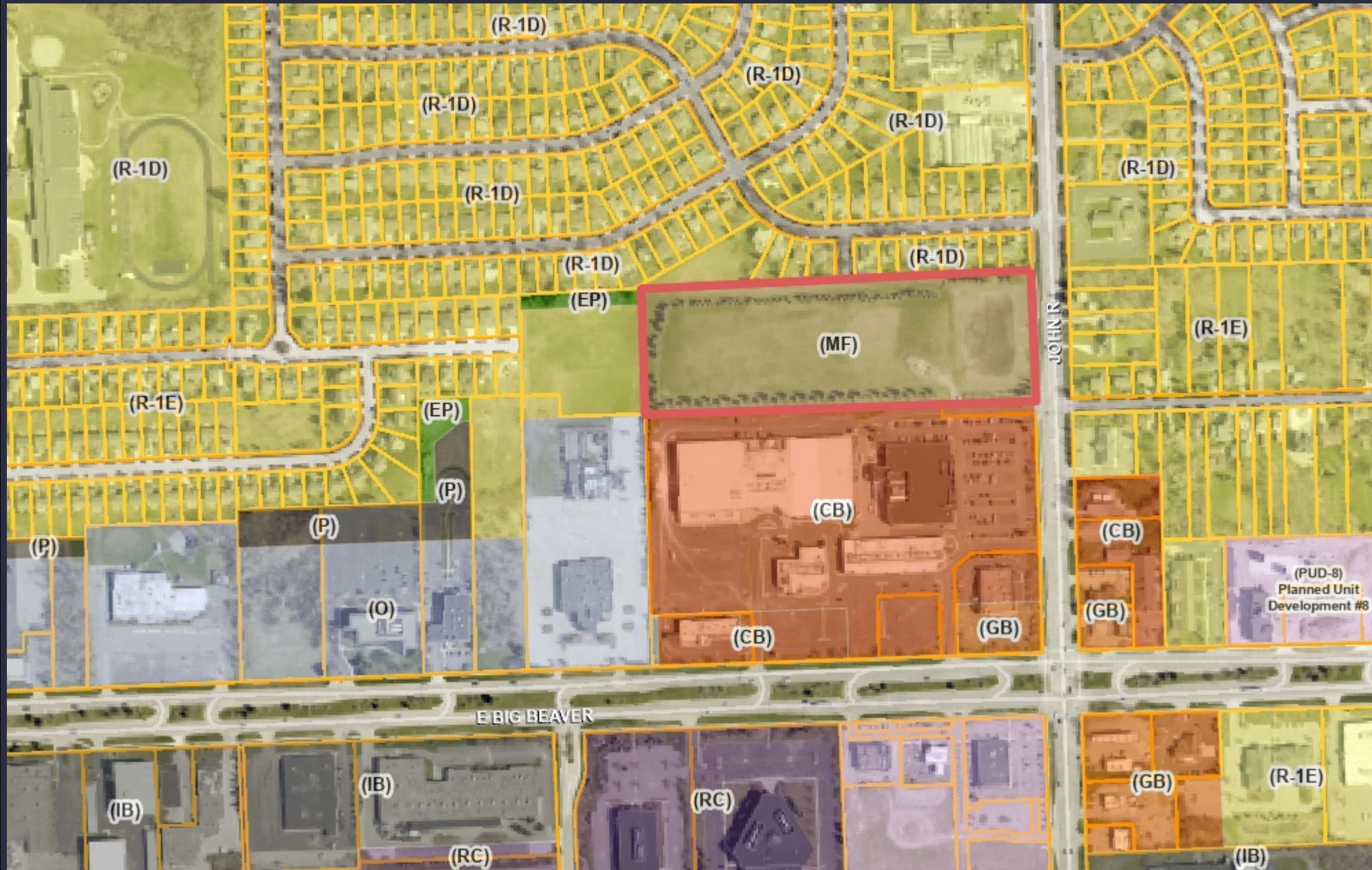
Yes:

No:

MOTION CARRIED/FAILED



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



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



Carlisle | Wortman
ASSOCIATES, INC.

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

Date: September 18, 2023

**Preliminary Site Plan
For
City of Troy, Michigan**

Applicant: Troy Sports Center, LLC & JSD Real Estate, LLC

Project Name: John R Townhome Development

Plan Date: August 18, 2012

Location: Eastside of John R Road, North of Big Beaver

Zoning: MF, Multiple Family Residential

Action Requested: Preliminary Site Plan Approval

PROJECT AND SITE DESCRIPTION

An application has been submitted for a proposed multiple family building on the east side of John R Road just north of Big Beaver. The subject site is 11.86 acres. The site is currently vacant and used in part as stormwater detention.

The applicant is requesting approval of one hundred eighteen (118) units. The one hundred eighteen (118) units are distributed in twenty (20) buildings. The proposed residential use is permitted in the MF, Multiple Family district. The development is accessed via one proposed egress/ingress along Nancy Bostwick Drive as well as a secondary egress/ingress drive located at the western end of the development connecting to the Troy Sports Complex retail center. The site is served with internal private roadways.

The site is currently one parcel. There are no existing structures on the site.

Location of subject site:

East side of John R Road, north of Big Beaver Road.

Location and Aerial Image of Subject Site



Size of subject site:

The property is 11.68 acres in area.

Proposed use of subject site:

The proposed use is for one hundred eighteen (118) units.

Current use of subject site:

The property currently is vacant.

Current Zoning:

The property is currently zoned MF, Multiple Family Residential District.

Surrounding Property Details:

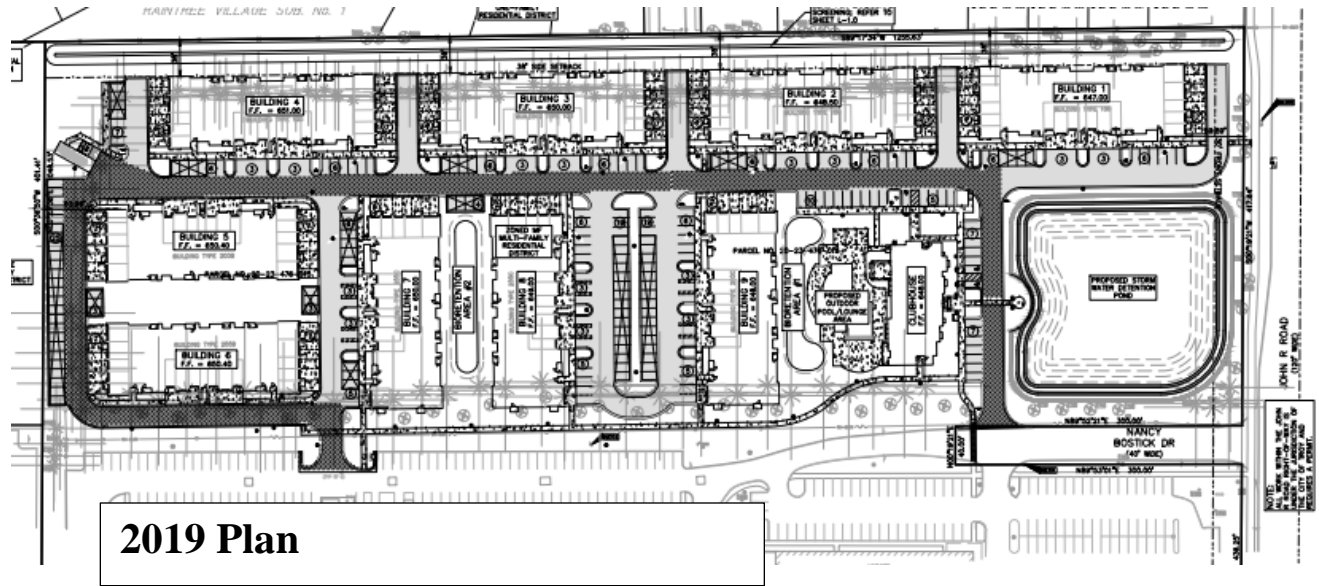
<u>Direction</u>	<u>Zoning</u>	<u>Use</u>
North	R1-D, One Family Residential District	Single Family Housing
South	CB, Community Business	Retail and Commercial Recreation
East	R1-E, One Family Residential District	Single Family Housing
West	R1-E, One Family Residential District	BWW Soccer Fields (Recreation)

PREVIOUS PLANNING COMMISSION REVIEW

The application was first reviewed by the Planning Commission on Mach 12, 2019, and April 23, 2019. The Planning Commission held discussion on:

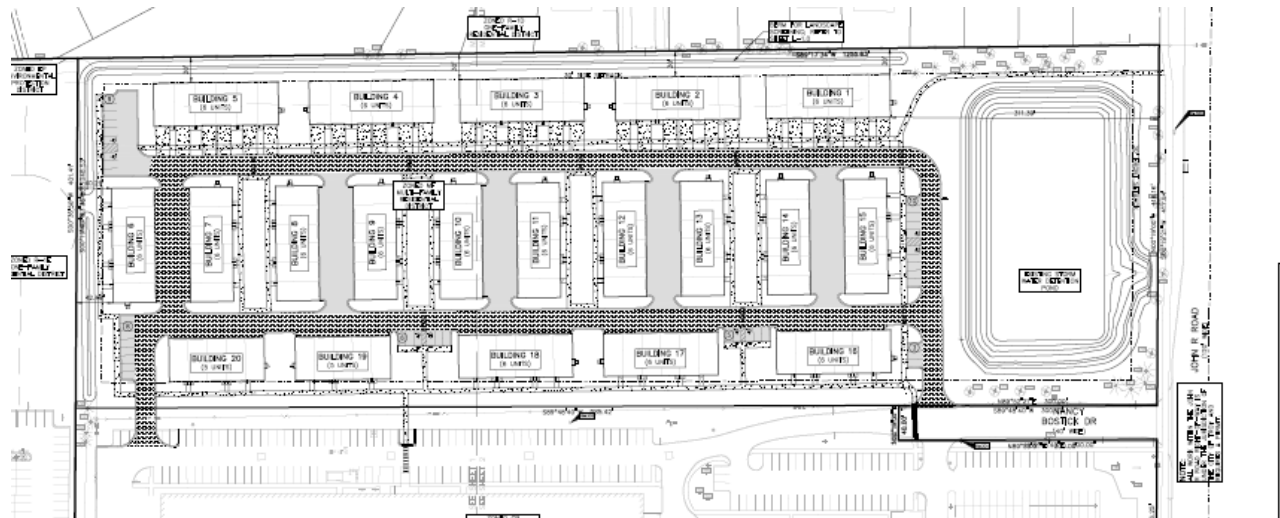
- City Traffic Consultant review of site access and circulation; depth and focus of traffic study
- Lack of green space
- Density of urban residential zoning in relation to surrounding areas
- Architectural design, scaled-down transitional features to single family residential
- Comparison of multiple family and urban residential zoning as relates to density, building height, number of stories
- Safety concerns as relates to existing parking, sidewalks, rear access to hockey facility
- Creating a designated lane from existing retail parking to apartment development
- Garages and covered carports
- Water feature and pond
- Snow removal

At the April 23, 2019 meeting, the Planning Commission on a vote of 7-2 moved to recommend denial of the rezoning to the City Council. On the recommendation of the Planning Commission, the City Council denied the rezoning.



2019 Plan

CHANGES SINCE LAST REVIEW



The site plan has significantly changed since the last Planning Commission review:

- Reduced the number of units from 247 to 118 units. By reducing the number of units, the applicant is not seeking a rezoning.
- Aligned the south side of the site with five (5) apartment buildings.
- Reshaped detention pond.
- Eliminated recreational area and clubhouse.
- Reduced height of buildings to 25-feet (see height section for more details).

NATURAL RESOURCES

Topography – The site is relatively flat with minor elevation changes.

Woodlands – The applicant has submitted a tree survey. Trees on site include Bradford Pear, White Spruce, Blue Spruce, Ginkgo, Sugar Maple, Norway Spruce, Silver Maple, Scotch Pine, White Pine, Norway Maple, Weeping Willow, Austrian Pine, Red Pine, and Cottonwood. The Existing Tree List on sheet T-1.2 shows one hundred ninety-one (191) woodland trees, nine (9) invasive trees and sixteen (16) landmark trees currently on the site. We note that it appears that the applicant is removing a number of landmark trees that their table indicates that they are saving. Specifically, trees identified as number 1910-1928. The applicant should confirm tree removal and mitigation calculations.

Wetlands/Floodplain: The site is not encumbered with wetlands or located in a floodplain.

Items to be Addressed: *Confirm tree removal and mitigation calculations*

SITE ARRANGEMENT

The one hundred eighteen (118) units are distributed in twenty (20) buildings. The development is accessed off Nancy Bostwick Drive which is off John R Road. The site is also served by an entrance/exit via the abutting commercial center to the south. An internal ring-private drive circulates traffic within the site.

Two buildings concepts, “A” and “B” are shown on the architectural sheets. Concept A provides for private garages located in the rear of the unit with access off north/south alley drives. Concept A is proposed for buildings six (6) through twenty (20). Buildings six (6) through fifteen (15) are located along the center of the development running north to south and face the adjacent building. Buildings sixteen (16) through twenty (20) face the southern lot line with garages oriented along the northern end of the units. Concept B provides for private garages located in the front of the unit with access from the primary ring road servicing the site. Concept B is proposed for buildings one (1) through five (5) which are located along the north lot line and face the primary private ring road to the south.

Buildings sixteen (16) through twenty (20) front on the backside of the Kroger parking lot and the backside/loading area/service area of the shopping center. The applicant is proposing to screen this area with a row of spruce evergreens, which complies with minimum screening requirement. We note that in the future residents will likely have concerns about noise, odor, and lighting. The applicant should consider additional screening options, including additional landscaping and a screen wall.

We note that other than sidewalks and a small outdoor seating area (between building 16 and 17), there are no site amenities. Please note that outdoor seating area is shown on the landscape plan but not on the site plan. The site plan should be amended to show the outdoor seating area. In addition, the applicant should consider adding additional outdoor and common amenities to the site.

Items to be Addressed: *1). Consider additional screening options including screen wall in addition to landscaping; 2). Show outdoor seating area on the site plan; and 3). Consider additional outdoor and common amenities to complement the neighborhood atmosphere.*

AREA, WIDTH, HEIGHT, SETBACKS

Required and Provided Dimensions:

Table 4.08.C establishes the requirements for the MF, Multiple Family District. The site abuts single family housing to the north which requires stricter height and density regulations. The requirements and the proposed dimensions are as follows:

	<u>Required / Allowed:</u>	<u>Provided:</u>	<u>Compliance:</u>
Front	30 feet	311 feet	Complies
Rear	30 feet	40 feet	Complies
Side (northern property line)	30 feet	30 feet	Complies
Setbacks Adjacent to Residential	Where a property is abutting a one-family or one-family attached district, all setbacks abutting said district shall be equal to the height of the building.	2 stories, (25ft shown on sheet C-2.0 but no height measurement provided on architectural sheets)	Cannot Confirm
Density	10 units an acre	9.95 units an acre	Complies
Maximum Height	2 stories / 25ft	2 stories, (25ft shown on sheet C-2.0 but no height measurement provided on architectural sheets)	Cannot confirm
Maximum Lot Area Covered by Buildings	35%	25.83 %	Complies
Minimum Floor Area per Unit	1,000 sq/ft for three bedroom	Over 1,650-1,750 sq/ft per unit	Complies
Distance between Buildings	30 feet	30 feet – 78 feet	Complies
Recreation Space. (450) square feet per dwelling unit. Such recreational facilities may include, but not be limited to, swimming pools, tennis courts, playgrounds, picnic areas, playfields, and jogging trails.	450 sq/ft x 118 = 53,100 sq/ft.	59,045 sq/ft.	Complies

Sheet C-2.0 details recreation space as “walks, picnic areas, and misc. open space”. Sheet L-1.0 details outdoor recreation areas including “pergolas, outdoor seating, and firepits”.

We noted that the applicant has provided black and white renderings but has not provided scalable (CAD) elevations in order for us to confirm building height.

Items to be addressed: (1) Provide scalable (CAD) elevations to ensure setbacks are met. (2) All architectural drawings shall be sealed and signed by a State of Michigan Professional Architect.

SITE ACCESS AND CIRCULATION

Vehicular Access:

Primary site access is directly from Nancy Bostwick Drive with secondary access from the commercial center to the south. Vehicular circulation is provided via an internal drive. The Fire Department notes that the applicant shall provide signage for fire apparatus access roads and indicate access roads on plans.

A traffic study was not required as part of Engineering review.

Pedestrian Circulation:

The applicant is providing a complete pedestrian circulation system within development with access to John R Road, Nancy Bostwick Drive and the commercial center. Four (4) crosswalks along the northern ring road conflict with driveways of buildings two through five. These should be realigned to connect with the northern sidewalk. In addition, the applicant should add crosswalks between buildings seventeen and eighteen and buildings nineteen and twenty that lead from the southern border sidewalk through the greenspace between those buildings north to the common area between buildings seven and eight as well as buildings eleven and twelve.

OHM has reviewed the circulation plan and offers the following additional comments:

- Sidewalk ramps are only provided at some of the crosswalks. These should be provided at all crosswalks.
- The accessible parking spaces should be spaced out throughout the site to provide access for all users. The southwest set of parking spaces does not have any accessible parking spaces provided. Add at least one accessible parking space there.
- It is preferred that sidewalk is not adjacent to the curb/roadway. Providing a buffer space is ideal. This applies to the sidewalk segments between townhomes 7 and 8, 9 and 10, 11 and 12, and 13 and 14.
- The signs for the accessible parking spaces should be placed behind the sidewalk in the grass.
- The driveway in the southwest corner of the site seems to eliminate several parking spaces for the adjacent site. Has this been agreed upon/coordinated with the adjacent site?

Items to be Addressed: 1). Provide signage for fire apparatus access roads and indicate access roads on plans; 2). Realign crosswalks along northern ring roads; 3). Add crosswalks along southern ring road; and 4). Address OHMs circulation comments.

PARKING

Section 13.06.G of the Zoning Ordinance requires:

	Required	Provided
MF Multiple Family: 2 spaces per unit	118 Units = 236 spaces	236 spaces within garages + 41 at-grade guest spaces
Barrier Free	8	8
Bicycle Parking	2	0
Loading	0	0
Total	236 automobile + 0 bicycle	277 spaces + 0 bicycle

Details for bike racks are provided on sheet L-1.2 however their location is absent from any site plan sheets.

Items to be Addressed: Indicate location of bicycle parking.

LANDSCAPING

Landscaping is regulated by Section 13.02:

	Required:	Provided:	Compliance:
<u>John R Road and Nancy Bostwick Drive Street Trees:</u> The Ordinance requires that the greenbelt shall be landscaped with a minimum of one (1) deciduous tree for every thirty (30) lineal feet, or fraction thereof, of frontage abutting a public road right-of-way.	John R Road 416 feet = 14 trees	14 trees	Complies
	NBD 300 feet = 10 trees	7 trees	Does not comply
<u>Site landscaping:</u> A minimum of twenty (20%) of the site area shall be comprised of landscape material. Up to twenty-five percent (25%) of the required landscape area may be brick, stone, pavers, or other public plaza elements, but shall not include any parking area or required sidewalks.	20%	33%	Complies
<u>Screening between uses:</u> Table 13.02A and 13.02B set forth screening requirements relating to adjacent land uses. Applicant selected one (1) large evergreen tree per ten (10) lineal feet.	North: 126 trees West: 41 trees South: 96 trees	North: 126 trees West: 40 trees South: 96 trees	Does not comply. One additional tree is needed along west property line
Parking Lot Trees: 1 per 8 spaces	337 spaces = 43 trees	43 trees	Complies

The applicant is proposing planted landscaping for all screening requirements but has indicated existing private fences along the northern property line.

Grading:

The applicant is proposing a two-to-three-foot berm along the northern and western property line. In addition, the applicant is proposing evergreen planting on top of berm.

Transformer / Trash Enclosure:

No trash enclosures were shown on drawings as well as no notes regarding refuse services.

Equipment:

Mechanical equipment, including HVAC, are not shown on the plans. If placed at grade, applicant should indicate screening.

Items to be Addressed: 1). Add one (1) large evergreen tree to the western property line landscaped screening; 2). Add three (3) deciduous trees along the north side of Nancy Bostwick Drive; and 3). Provide trash enclosure with appropriate screening on site plan OR provide note highlighting individual trash pickup service via weekly pickup.

LIGHTING

The applicant has provided limited lighting details on sheet SL-1.0. The information provided shows the proposed light fixture to be attached to the buildings. There is a note indicating fixtures are to be directed away from neighboring properties and roadways; however we note that the light source of the proposed building light is visible and not screened. Applicant shall replace fixture with full screened fixture.

The applicant is not proposing any parking lot lighting.

Items to be Addressed: Provide full screened building light fixture

FLOOR PLANS AND ELEVATIONS

The applicant has submitted limited floor plans and rendering. Drawings include concept facade elevations only without exterior dimensions. Building materials are not provided. Floor plans are included but only provide general dimensions for larger areas such as bedrooms and living spaces. Dimensions for bathrooms, closets, hallways, etc. are not provided. All architectural drawings are missing seals and signatures.

In addition, the applicant should provide 3-D rendering of the site. The renderings should include a view from John R, as well as internal to the development to confirm if landscaping and berm is sufficient to properly screen existing neighborhood.

Items to be Addressed: 1) Provide building elevations on all four sides that are dimensional; 2). Provide samples, swatches, or manufacturer's specification sheets of the predominant proposed exterior materials and colors of all buildings and permanent structures, including walls and fences; 3). All architectural drawings shall be sealed and signed by a State of Michigan Professional Architect; and 4). Provide 3-D renderings from John R and internal to the development.

SITE PLAN REVIEW STANDARDS

Section 8.06 outlines Site Plan Review Design Standards.

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

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

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

Items to be Addressed: *Planning Commission to consider if site plan standards have been met.*

RECOMMENDATIONS

The Planning Commission should review the development and confirm if the site plan standards have been met. If the Planning Commission grants preliminary site plan approval, we recommend that the following items be addressed by the applicant as part of the final site plan submittal.

1. Confirm tree removal and mitigation calculations.
2. Consider additional screening options including screen wall in addition to landscaping.

3. Show outdoor seating area on the site plan.
4. Consider additional outdoor and common amenities to complement the neighborhood atmosphere.
5. Provide scalable (CAD) elevations to ensure setbacks are met.
6. All architectural drawings shall be sealed and signed by a State of Michigan Professional Architect.
7. Indicate location of bicycle parking.
8. Provide signage for fire apparatus access roads and indicate access roads on plans.
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15. Provide full screened building light fixture.
16. Provide building elevations on all four sides that are dimensional.
17. Provide samples, swatches, or manufacturer's specification sheets of the predominant proposed exterior materials and colors of all buildings and permanent structures, including walls and fences.
18. All architectural drawings shall be sealed and signed by a State of Michigan Professional Architect.
19. Provide 3-D renderings from John R and internal to the development.



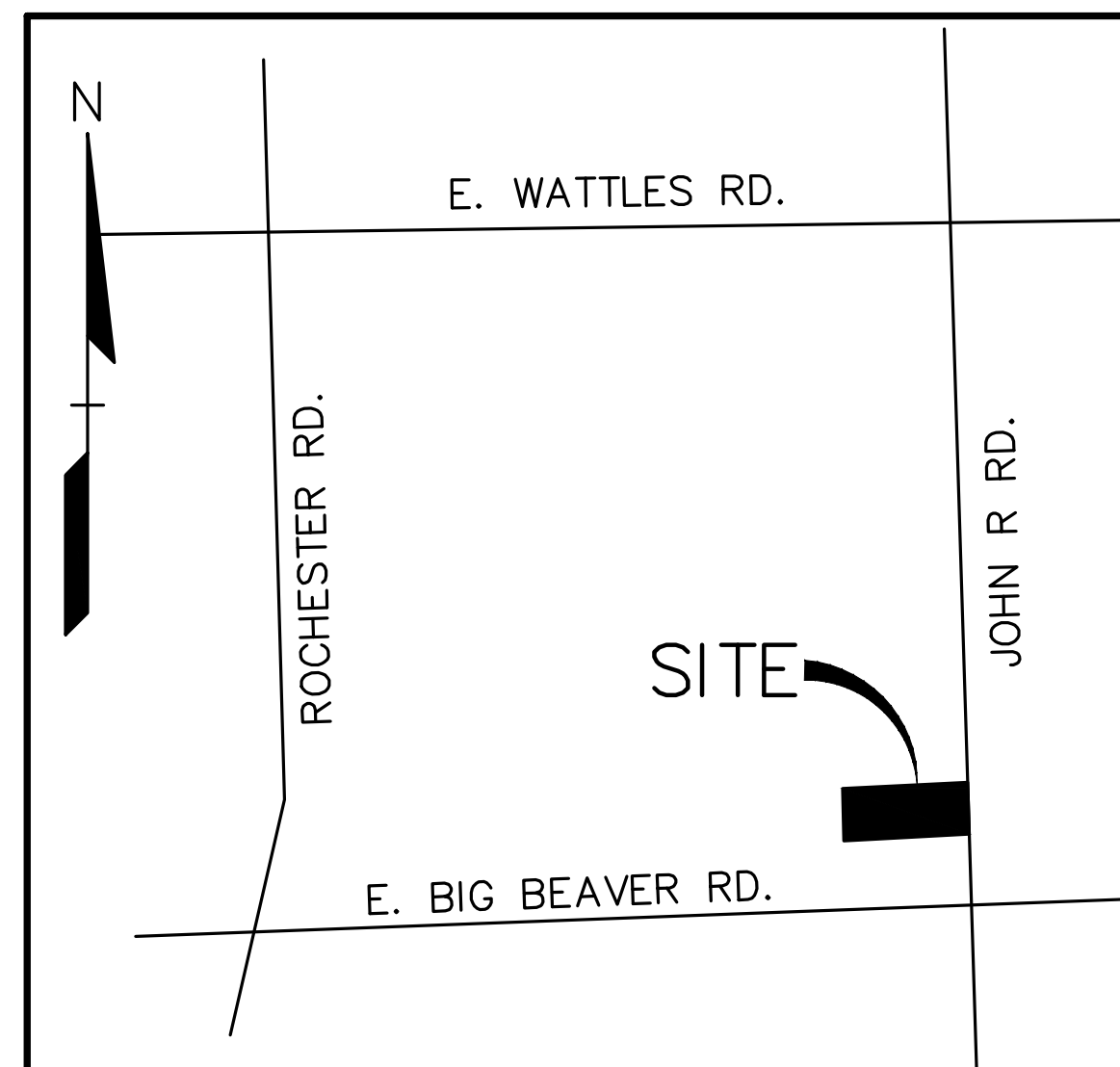
CARLISLE/WORTMAN ASSOC., INC.

Benjamin R. Carlisle, LEED AP, AICP

PRELIMINARY SITE PLANS

JOHN R COMMONS TOWNHOME DEVELOPMENT

PART OF THE 1/4 SECTION 23, T.2N, R.11E
CITY OF TROY, OAKLAND COUNTY, MICHIGAN



LOCATION MAP
NO SCALE

INDEX OF DRAWINGS	
NUMBER	TITLE
C-0.0	COVER SHEET
C-1.1	TOPOGRAPHIC SURVEY
C-1.2	TOPOGRAPHIC SURVEY
C-2.0	OVERALL SITE PLAN
C-2.1	PRELIMINARY SITE PLAN
C-2.2	PRELIMINARY SITE PLAN
C-3.1	PRELIMINARY GRADING PLAN
C-3.2	PRELIMINARY GRADING PLAN
C-4.1	PRELIMINARY UTILITY PLAN
C-4.2	PRELIMINARY UTILITY PLAN
C-5.0	NOTES AND DETAILS
L-1.0	PRELIMINARY LANDSCAPE PLAN - WEST
L-1.1	PRELIMINARY LANDSCAPE PLAN - EAST
L-1.2	LANDSCAPE DETAILS
T-1.0	TREE SURVEY PLAN - WEST
T-1.1	TREE SURVEY PLAN - EAST
T-1.2	EXISTING TREE LIST
SL-1.0	LIGHTING PLAN
	FIRST FLOOR PLAN
	SECOND FLOOR PLAN
	ELEVATION CONCEPTS - BUILDING TYPE A
	ELEVATION CONCEPT - BUILDING TYPE B

DESIGN TEAM

OWNER/APPLICANT/DEVELOPER

TROY SPORTS CENTER, LLC & JSD REAL ESTATE, LLC
1819 EAST BIG BEAVER ROAD
TROY, MI 48063
CONTACT: DENNIS BOSTICK
PHONE: 248.709.4001
EMAIL: DENNISBOSTICK@ATT.NET

CIVIL ENGINEER

PEA GROUP
1849 POND RUN
AUBURN HILLS, MI 48326
CONTACT: GREG BONO, PE
PHONE: 844.813.2949
EMAIL: GBONO@PEAGROUP.COM

ARCHITECT

BRIAN NEEPER ARCHITECTURE P.C.
630 N. OLD WOODWARD SUITE 203
BIRMINGHAM, MI 48009
CONTACT: BRIAN NEEPER
PHONE: 248.259.1784

LANDSCAPE ARCHITECT

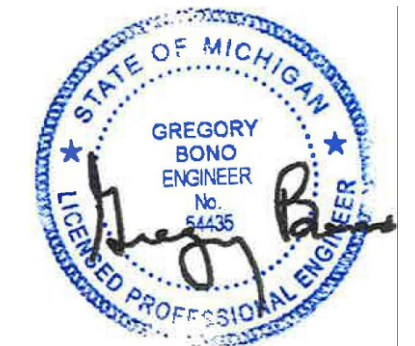
PEA GROUP
7927 NEMCO WAY, STE. 115
BRIGHTON, MI 48116
CONTACT: JEFF SMITH, PLA, LEED AP
PHONE: 844.813.2949
EMAIL: JSMITH@PEAGROUP.COM



REVISIONS	
DESCRIPTION	DATE
ORIGINAL ISSUE DATE	8/18/2023



NOT FOR CONSTRUCTION



0 20 40 80
 SCALE: 1" = 40'



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

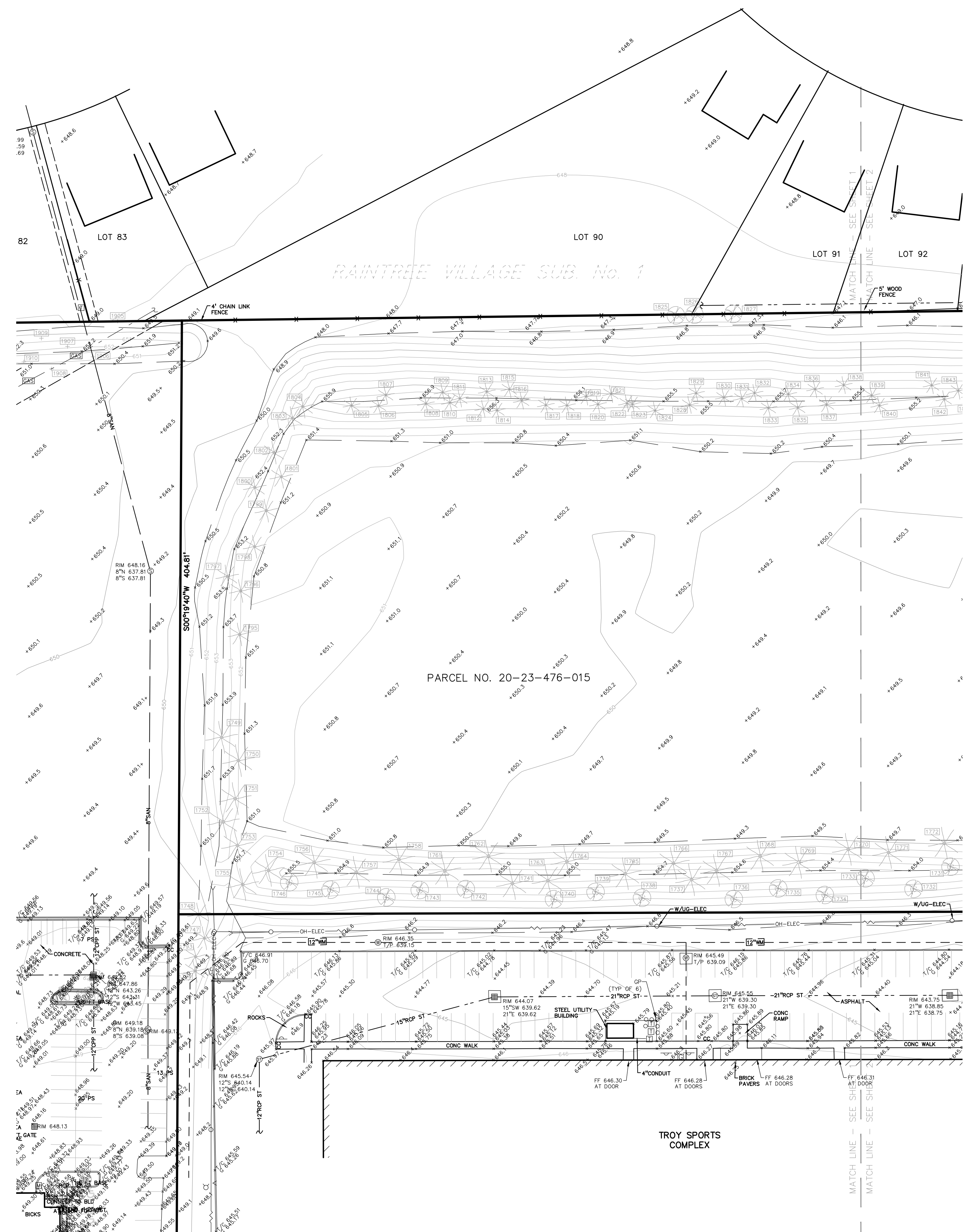
CLIENT
TROY SPORTS CENTER, LLC
 1819 EAST BIG BEAVER ROAD
 TROY, MI 48063

PROJECT TITLE
JOHN R COMMONS TOWNHOME DEVELOPMENT
 PART OF THE SE 1/4 OF SECTION 23, T. 2N., R. 11E., TROY, OAKLAND COUNTY, MI

REVISIONS	

ORIGINAL ISSUE DATE:
 AUGUST 18, 2023
 DRAWING TITLE
TOPOGRAPHIC SURVEY

PEA JOB NO.	18-0034
P.M.	G.M.B.
DN.	C.N.R.
DES.	G.M.B.
DRAWING NUMBER:	



LEGAL DESCRIPTION (20-23-476-015)
 (Per City of Troy Assessing)
 T2N, R11E, SEC 23 LASIER GARDENS SUB LOTS 1, 2 & 3 EXC E 7 FT TAKEN FOR JOHN R RD, ALSO N 96 FT OF LOT 4 EXC E 7 FT TAKEN FOR JOHN R RD, ALSO N 96 FT OF LOT 7, ALSO LOTS 8 TO 34 INCL EXC S 49 FT OF LOTS 15, 16, 25 & 26 TAKEN FOR BIG BEAVER RD, ALSO EXC PART OF LOTS 2, 9, 12 & VAC MANHATTAN AVE DESC AS BEG AT PT DIST N 00-15-00 E 102 FT & S 89-48-40 W 60 FT & N 00-15-00 E 766.33 FT FROM SE SEC COR; TH N 00-15-00 E 40 FT, TH S 89-48-00 W 300 FT, TH S 00-15-00 W 40 FT, TH N 89-48-40 E 300 FT TO BEG, ALSO LOTS 37 TO 40 INCL, ALSO ALL OF VAC MANHATTAN, ALGER, BRONX, BELLINGHAM & WALFORD AVES ADJ TO SAME EXC E 27 FT OF VAC MANHATTAN AVE ADJ TO LOT 6, ALSO EXC E 27 FT OF VAC MANHATTAN AVE ADJ TO LOT 7 EXC N 96 FT, ALSO EXC W 1/2 OF VAC BRONX AVE ADJ TO LOT 35, ALSO EXC E 7 FT OF VAC WALFORD AVE, ALSO PART OF LOT 4, PART OF LOT 7 & PART OF VAC MANHATTAN AVE DESC AS BEG AT PT DIST N 00-15-00 E 102 FT & S 89-48-00 W 329.14 FT FROM SE SEC COR; TH S 89-48-40 W 2.86 FT, TH N 00-15-00 E 330 FT, TH N 89-48-40 E 272 FT, TH S 00-15-00 W 4.30 FT, TH N 89-45-00 W 211.18 FT, TH S 52-13-38 W 73.56 FT, TH S 00-15-00 W 282.45 FT TO BEG

BENCHMARKS
 (GPS DERIVED - NAVD88)
BM #300
 ARROW ON HYDRANT WEST SIDE JOHN R ROAD 11' OF B/CURB, AND 95' SOUTH OF NORTH PROPERTY LINE OF SITE.
 ELEV. - 648.05
BM #301
 NAG NAIL ON NORTH SIDE OF CONCRETE LIGHT POLE BASE 21' SOUTH OF CENTERLINE NANCY BOSTICK DRIVE, AND 29' EAST OF ENTRANCE TO KROGER PARKING LOT FROM SAID DRIVE.
 ELEV. - 648.13
BM #302
 ARROW ON HYDRANT FLANGE 6' NORTH OF B/CURB FOR PARKING ALONG NANCY BOSTICK DRIVE, AND ±80' WEST OF EAST BUILDING LINE OF TROY SPORTS COMPLEX.
 ELEV. - 647.09

FLOODPLAIN NOTE:
 BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X', AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 26125C0553G, DATED JANUARY 16, 2009.

NOT FOR CONSTRUCTION

C-1.1

\\work\proj\PROJECTS\2018\2018-034 JOHN R COMMONS-PB\DWG\SITE PLANS\C-1.01 TOPO-180034.dwg PLOT DATE: 6/19/2023 BY: Chelsea Rich



0 20 40 80
SCALE: 1" = 40'



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CLIENT
TROY SPORTS CENTER, LLC
1819 EAST BIG BEAVER ROAD
TROY, MI 48063

PROJECT TITLE
JOHN R COMMONS TOWNHOME DEVELOPMENT
PART OF THE SE 1/4 OF SECTION 23. T. 2N., R. 11E., TROY, OAKLAND COUNTY, MI

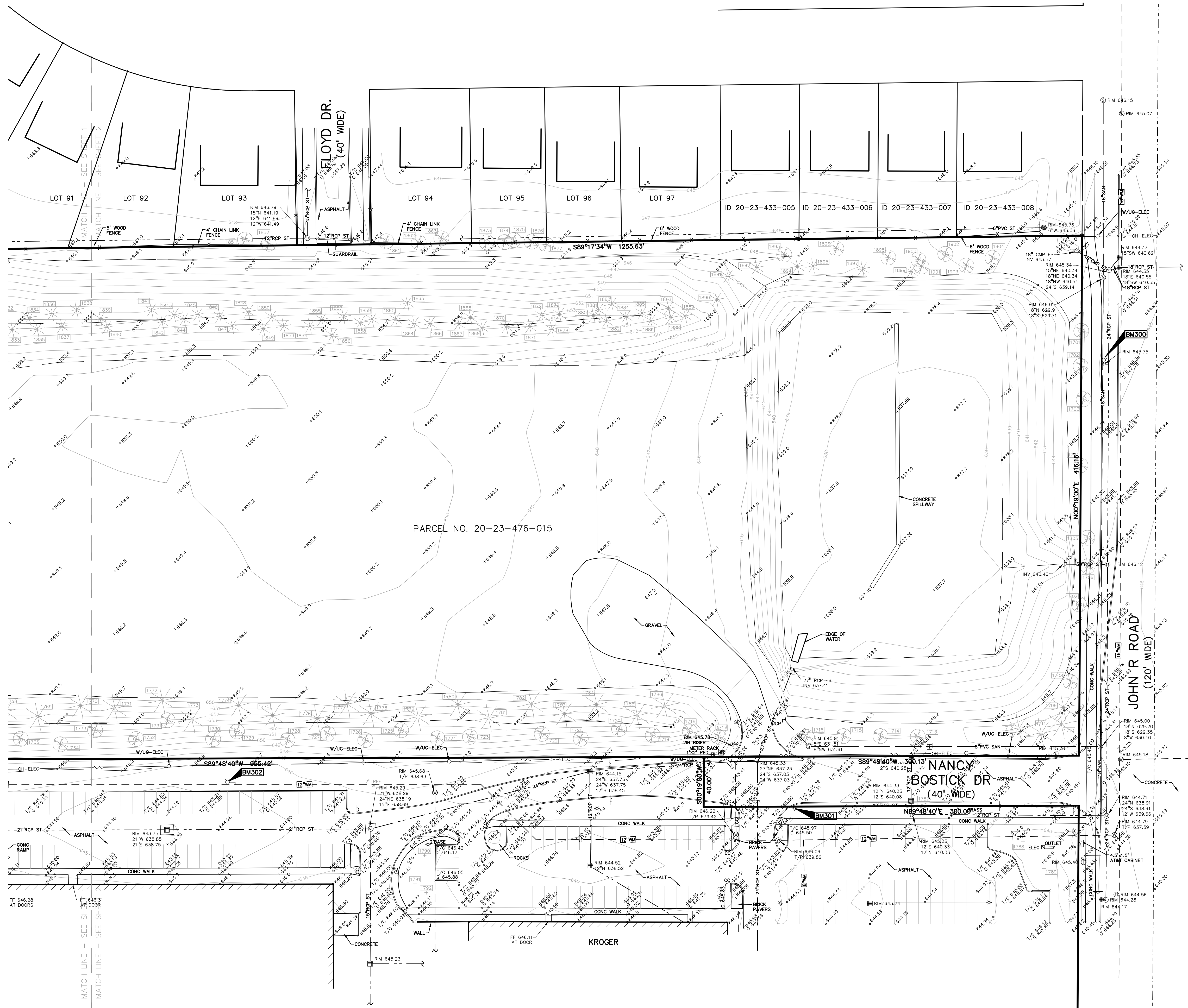
REVISIONS

ORIGINAL ISSUE DATE:
AUGUST 18, 2023

DRAWING TITLE
TOPOGRAPHIC SURVEY

PEA JOB NO. 18-0034
P.M. G.M.B.
DN. G.N.R.
DES. C.M.B.
DRAWING NUMBER:

NOT FOR CONSTRUCTION **C-1.2**



LEGAL DESCRIPTION (20-23-476-015)
(Per City of Troy Assessing)

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ELEV. - 648.05

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ELEV. - 648.13

BM #302
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ELEV. - 647.09

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\\works\paw\PROJECTS\2018\2018-034 JOHN R COMMONS - PBD\DWG\SITE PLAN\23-C-1.01 TOPO-180034.dwg PLOT DATE: 8/17/2023 BY: Chelsea Rich

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- GENERAL NOTES:**
- THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
- ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.
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0 30 60 120
SCALE: 1" = 60'



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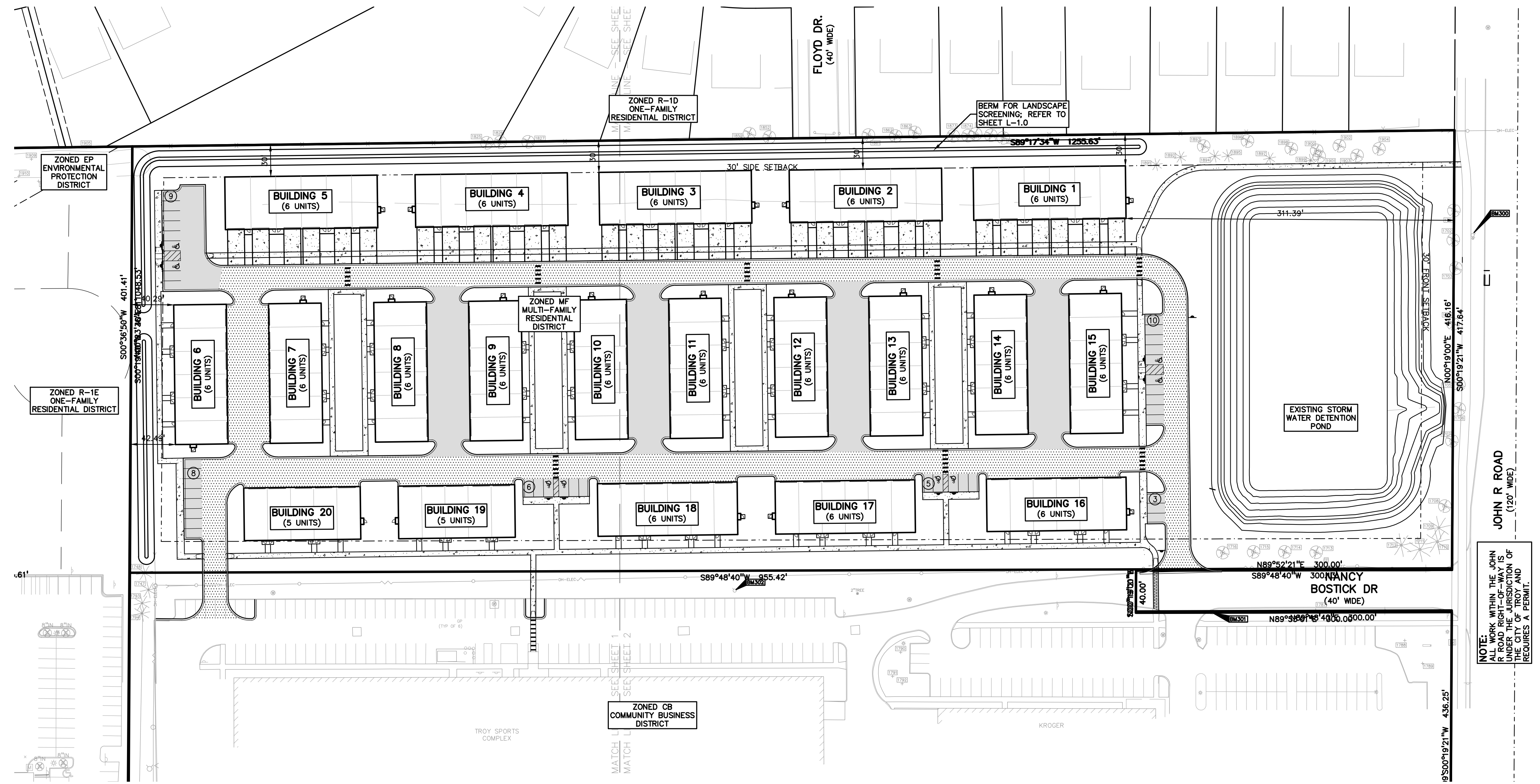
CLIENT
TROY SPORTS CENTER, LLC
1819 EAST BIG BEAVER ROAD
TROY, MI 48063

PROJECT TITLE
JOHN R COMMONS TOWNHOME DEVELOPMENT
PART OF THE SE 1/4 OF SECTION 23, T. 2N., R. 11E, TROY, OAKLAND COUNTY, MI

REVISIONS

ORIGINAL ISSUE DATE:
AUGUST 18, 2023
DRAWING TITLE
OVERALL SITE PLAN

PEA JOB NO. 18-0034
P.M. G.M.B.
DN. C.N.R.
DES. G.M.B.
DRAWING NUMBER:



SITE DATA TABLE:

SITE AREA: 11.86 AC (516,625 SF) NET AND GROSS
ZONING: MF, (MULTI-FAMILY RESIDENTIAL)
PROPOSED USE: MULTI-FAMILY RESIDENTIAL (118-UNIT DEVELOPMENT)

BUILDING INFORMATION:
BUILDING HEIGHT = 25 FEET (2 STORIES)
BUILDING TYPE A (FRONT GARAGE) = 7,233 SF
BUILDING TYPE B (6-UNIT REAR GARAGE) = 6,633 SF
BUILDING TYPE C (5-UNIT REAR GARAGE) = 5,533 SF

MAXIMUM BUILDING LOT COVERAGE = 35%
PROPOSED BUILDING LOT COVERAGE:
= 7,233 x 5 + 6,633 x 13 + 5,533 x 2
= 133,460 SF = 25.83%
516,625 SF

SETBACK REQUIREMENTS:	REQUIRED	PROPOSED
FRONT SETBACK (EAST):	30 FEET	311.39 FEET
SIDE SETBACK (NORTH):	30 FEET	30 FEET
REAR SETBACK (WEST):	30 FEET	40.29 FEET

PARKING CALCULATIONS:
MULTI-FAMILY RESIDENTIAL = 2 SPACES PER DWELLING UNIT
PARKING REQUIRED:
= 118 UNITS x 2 SPACES/UNIT = 236 SPACES

PARKING PROVIDED:
BUILDINGS 1-5:
12 GARAGE SPACES x 5 = 60 SPACES
12 DRIVEWAY SPACES x 5 = 60 SPACES
BUILDINGS 6-20:
12 GARAGE SPACES x 13 = 156 SPACES
10 GARAGE SPACES x 2 = 20 SPACES

GUEST PARKING:
SURFACE SPACES = 41 SPACES

TOTAL PARKING PROVIDED: 337 SPACES

RECREATION SPACE:
MULTI-FAMILY RESIDENTIAL = 450 SF PER DWELLING UNIT
REQUIRED:
= 118 UNITS x 450 SF/UNIT = 53,100 SF

PROVIDED:
= 59,045 SF (WALKS, PICNIC AREAS, AND MISC. OPEN SPACE)

NOTE:
ALL WORK WITHIN THE JOHN R ROAD RIGHT-OF-WAY IS UNDER THE JURISDICTION OF THE CITY OF TROY AND REQUIRES A PERMIT.

BENCHMARKS
(GPS DERIVED - NAVD88)

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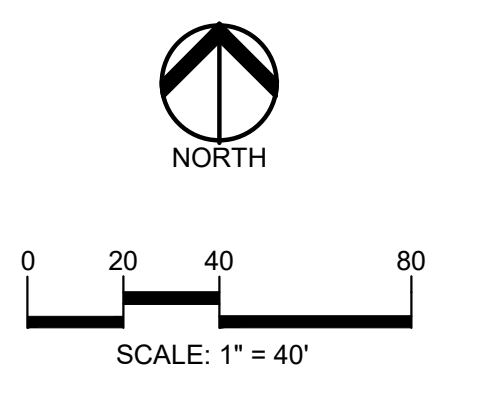
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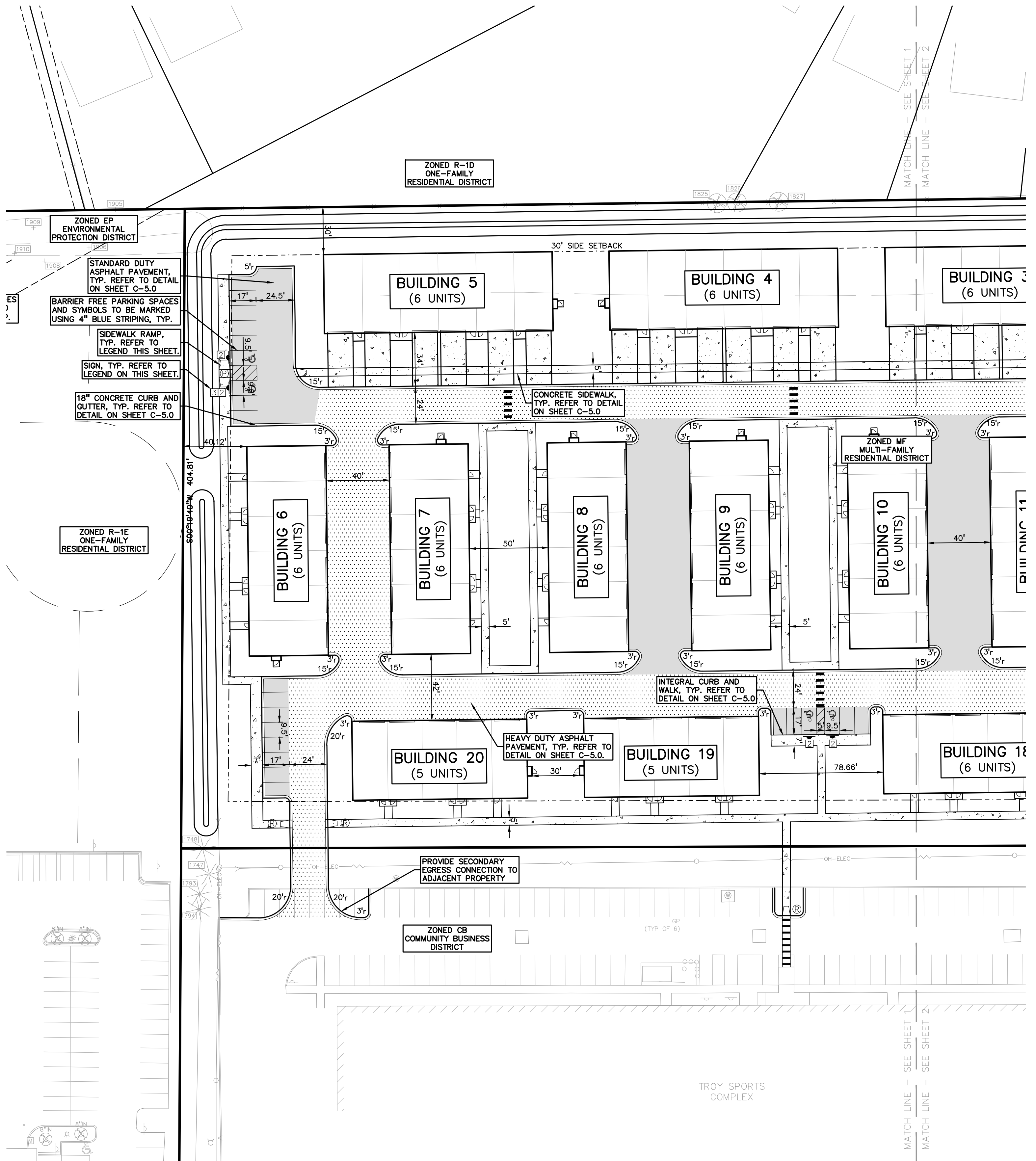
LEGEND:

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

PEA GROUP
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SIDEWALK RAMP LEGEND:

SIDEWALK RAMP 'TYPE R'	[Symbol]
SIDEWALK RAMP 'TYPE P'	[Symbol]

REFER TO LATEST M.D.O.T. R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS

SIGN LEGEND:

'STOP' SIGN	[Symbol]
'BARRIER FREE PARKING' SIGN	[Symbol]
'VAN ACCESSIBLE' SIGN	[Symbol]

REFER TO SHEET C-5.0 FOR SIGN DETAILS

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CLIENT
TROY SPORTS CENTER, LLC
1819 EAST BIG BEAVER ROAD
TROY, MI 48063

PROJECT TITLE
JOHN R COMMONS TOWNHOME DEVELOPMENT
PART OF THE SE 1/4 OF SECTION 23, T. 2N., R. 11E., SEC. 23, TOWN OF TROY, OHIO

REVISIONS	
ORIGINAL ISSUE DATE:	AUGUST 18, 2023
DRAWING TITLE	PRELIMINARY SITE PLAN
PEA JOB NO.	18-0034
P.M.	G.M.B.
DN.	C.N.R.
DES.	G.M.B.
DRAWING NUMBER:	

NOT FOR CONSTRUCTION **C-2.1**

\\pea\proj\projects\2018\2018-034 JOHN R COMMONS-TOWNHOME SITE PLANS\C-2.1 SITE-180034.dwg PLOT DATE: 8/18/2023 BY: Danielle Rich

BENCHMARKS
(GPS DERIVED - NAVD88)

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ELEV. - 647.09

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LEGEND:

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

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STATE OF MICHIGAN
GREGORY BOND
ENGINEER
No. 4435
LICENSED PROFESSIONAL ENGINEER

NORTH

0 20 40 80
SCALE: 1" = 40'

811 Know what's below.
Call before you dig.

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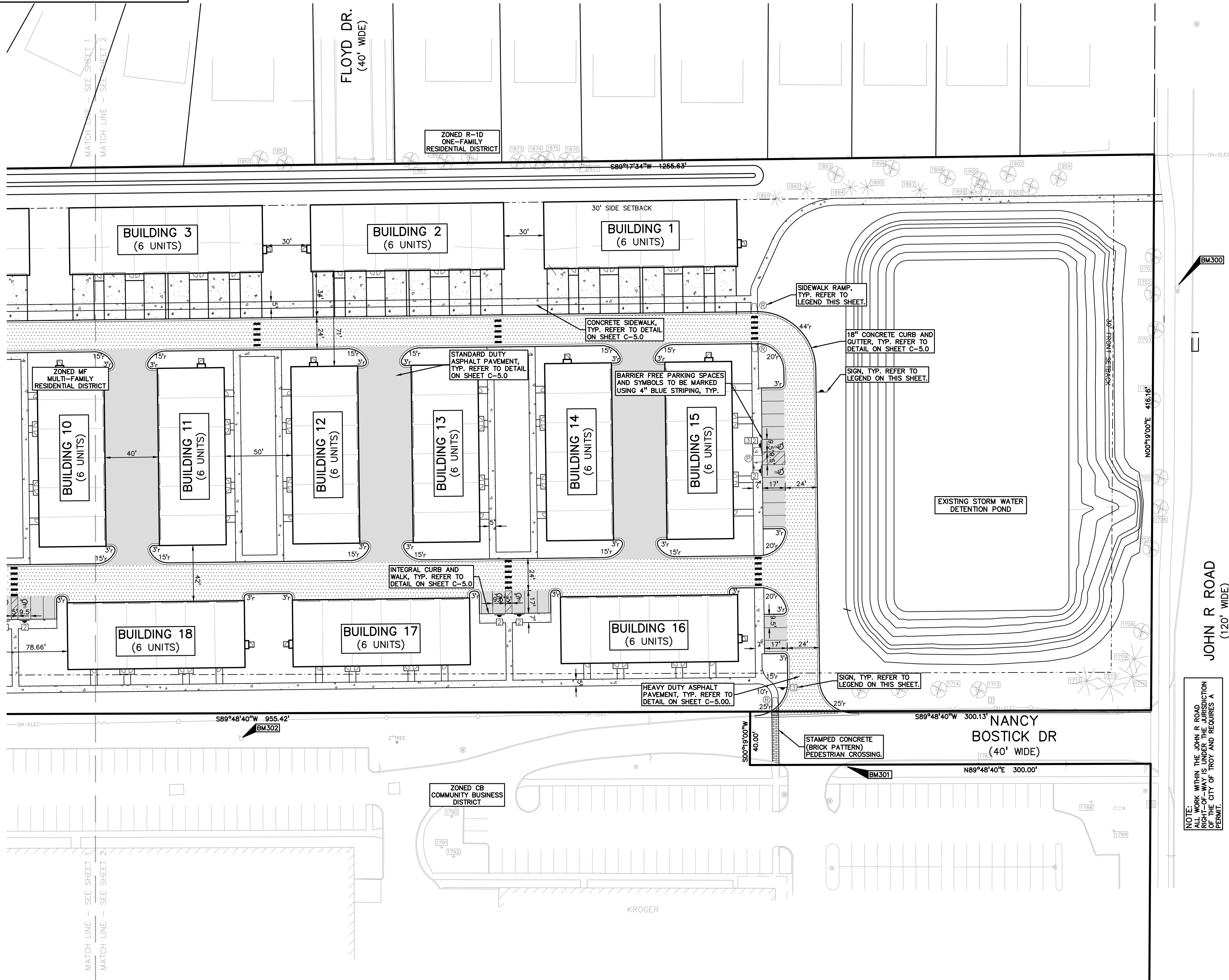
PROJECT TITLE
JOHN R COMMONS TOWNHOME DEVELOPMENT
PART OF THE SE 1/4 OF SECTION 23, T. 2N., R. 11E, E. 1/2, SEC. 23, TOWNSHIP 2 NORTH, RANGE 11 EAST, COUNTY OF DADE, FLORIDA

REVISIONS

ORIGINAL ISSUE DATE:
AUGUST 18, 2023

DRAWING TITLE
PRELIMINARY SITE PLAN

PEA JOB NO. 18-0034
P.M. G.M.B.
DN. C.N.R.
DES. G.M.B.
DRAWING NUMBER:



SIDEWALK RAMP LEGEND:

- SIDEWALK RAMP 'TYPE R'
- SIDEWALK RAMP 'TYPE P'

REFER TO LATEST M.D.O.T. R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS

SIGN LEGEND:

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ALL WORK WITHIN THE JOHN R ROAD RIGHT-OF-WAY IS UNDER THE JURISDICTION OF THE CITY OF TROY AND REQUIRES A PERMIT.

NOT FOR CONSTRUCTION **C-2.2**

\\works\proj\projects\2018\2018-034 JOHN R COMMONS-PB\DWG\SITE PLANS\C-2.1 SITE-180034.dwg PLOT DATE: 8/18/2023 BY: Danielle Rich

BENCHMARKS
(GPS DERIVED - NAVD88)


BM #300
ARROW ON HYDRANT WEST SIDE JOHN R ROAD 11' OF B/CURB, AND 95' SOUTH OF NORTH PROPERTY LINE OF SITE.
ELEV. - 648.05


BM #301
MAG NAIL ON NORTH SIDE OF CONCRETE LIGHT POLE BASE 21' SOUTH OF CENTERLINE NANCY BOSTICK DRIVE, AND 29' EAST OF ENTRANCE TO KROGER PARKING LOT FROM SAID DRIVE.
ELEV. - 648.13

BM #302
ARROW ON HYDRANT FLANGE 6' NORTH OF B/CURB FOR PARKING ALONG NANCY BOSTICK DRIVE, AND ±80' WEST OF EAST BUILDING LINE OF TROY SPORTS COMPLEX.
ELEV. - 647.09

FLOODPLAIN NOTE:
BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X', AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 2612503536, DATED JANUARY 16, 2009.

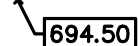
SIDEWALK RAMP LEGEND:

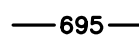
SIDEWALK RAMP 'TYPE R' 

SIDEWALK RAMP 'TYPE P' 

REFER TO LATEST M.D.O.T. R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS

SYMBOLS: GRADING

PROPOSED SPOT GRADE ELEVATION. ALL GRADES INDICATED ARE TOP OF PAVEMENT UNLESS OTHERWISE NOTED. 

PROPOSED CONTOUR LINE 

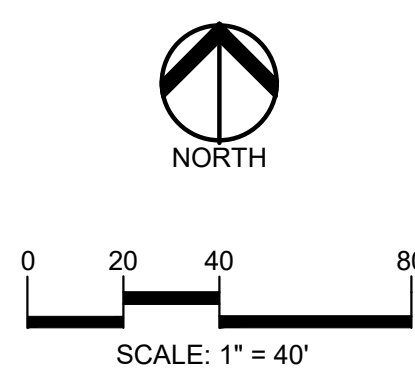
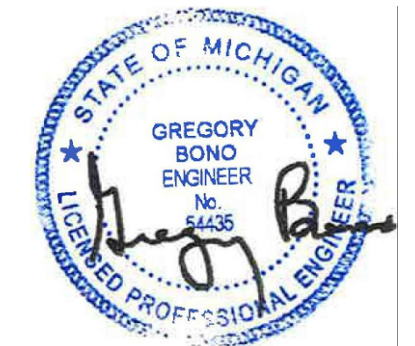
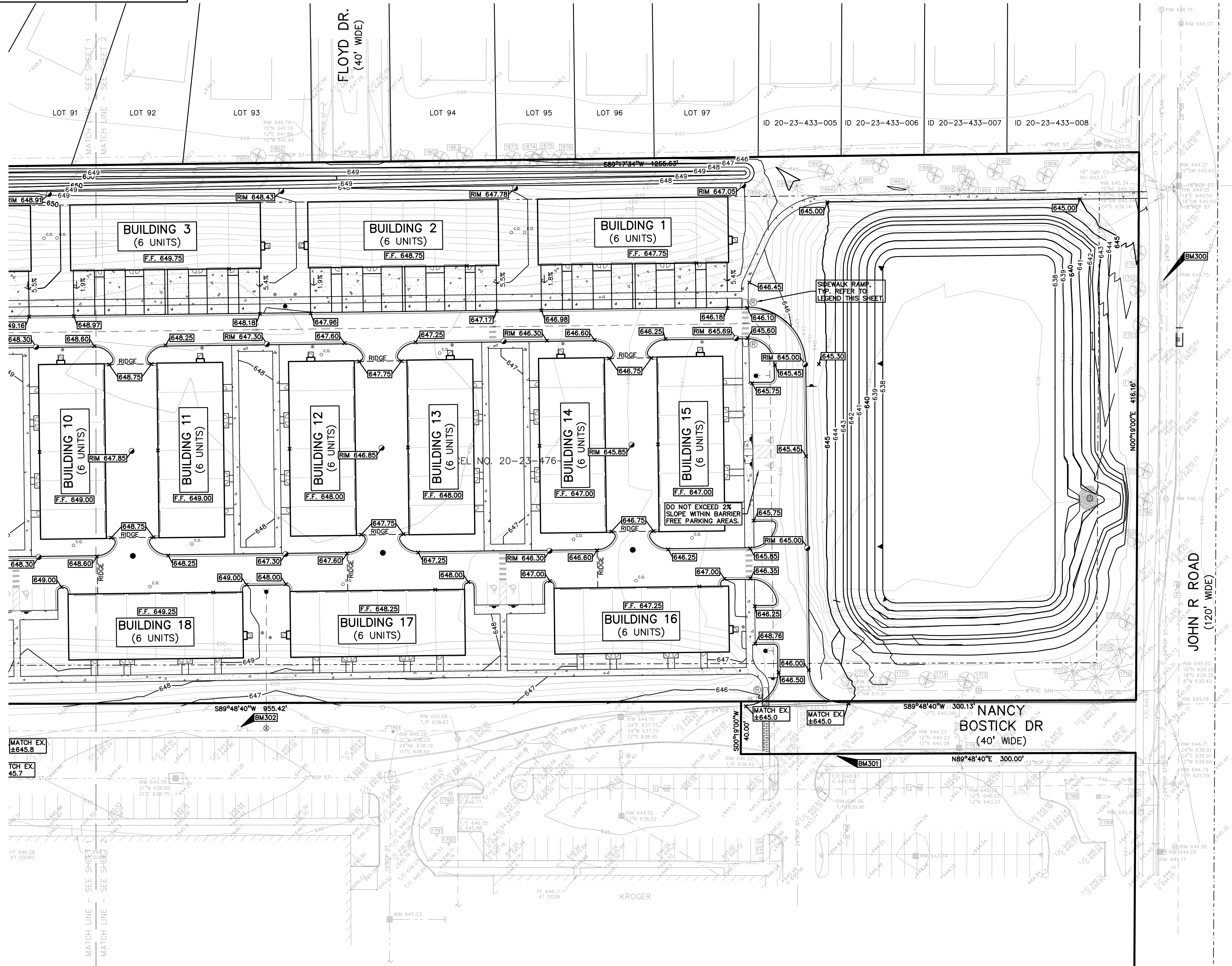
EARTHWORK BALANCING NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPORTING OR EXPORTING ALL MATERIALS AS REQUIRED TO PROPERLY GRADE THIS PROJECT TO THE FINISHED ELEVATIONS SHOWN ON THE APPROVED PLANS. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF CUT AND FILL QUANTITIES AND ALLOW FOR REMOVAL OF EXCESS OR IMPORTATION OF ADDITIONAL MATERIAL AT NO ADDITIONAL COST TO THE OWNER.

GENERAL GRADING AND EARTHWORK NOTES:

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT

- CONTRACTOR TO FIELD VERIFY ALL EXISTING TREES AND BRUSH AND REMOVE ALL THAT ARE NECESSARY TO GRADE SITE.
- ALL GRADES ARE TO TOP OF PAVEMENT UNLESS OTHERWISE NOTED.
- THE STAGING OF CONSTRUCTION ACTIVITIES SHALL OCCUR ONLY WITHIN THE SITE BOUNDARIES. ANY CONSTRUCTION ACTIVITIES OUTSIDE OF THE SITE BOUNDARIES SHALL BE AT THE SOLE RESPONSIBILITY AND RISK OF THE CONTRACTOR.
- ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL MEET THE REQUIREMENTS OF THE CITY OF TROY. AN EROSION CONTROL PERMIT MUST BE SECURED FROM THE CITY PRIOR TO CONSTRUCTION.
- ALL EARTHWORK AND GRADING OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE SOILS INVESTIGATION AND REPORT.
- THE DETENTION BASIN SIDE SLOPES AND ALL SLOPE EXCEEDING 1:6 MUST BE STABILIZED BY SODDING OR BY PLACING A MULCH BLANKET PEGGED IN PLACE OVER SEED.
- ALL DISTURBED AREAS SHALL BE SEEDDED AND MULCHED OR SODDED IN ACCORDANCE WITH THE LANDSCAPE PLANS. PROVIDE A MINIMUM OF 3" OF TOPSOIL IN THESE AREAS UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL NOTE EXISTING UNDERGROUND UTILITIES WITHIN AND ADJACENT TO THE SITE. BACKFILL FOR EXISTING UTILITY TRENCHES SHALL BE EXAMINED CRITICALLY. ANY TRENCHES FOUND TO HAVE SOFT, UNSTABLE OR UNSUITABLE BACKFILL MATERIAL, IN THE OPINION OF THE GEOTECHNICAL ENGINEER, THAT ARE TO BE WITHIN THE ZONE OF INFLUENCE OF PROPOSED BUILDINGS OR PAVEMENT SHALL BE COMPLETELY EXCAVATED AND BACKFILLED WITH SUITABLE MATERIAL.



CAUTION!!
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CLIENT
TROY SPORTS CENTER, LLC
1815 EAST BIG BEAVER ROAD
TROY, MI 48063

PROJECT TITLE
JOHN R COMMONS TOWNHOME DEVELOPMENT
PART OF THE SE 1/4 OF SECTION 23, T. 2N., R. 11E., TROY, OAKLAND COUNTY, MI

REVISIONS

ORIGINAL ISSUE DATE:
AUGUST 18, 2023

DRAWING TITLE
PRELIMINARY GRADING PLAN

PEA JOB NO. 18-0034
P.M. G.M.B.
DN. C.N.R.
DES. G.M.B.
DRAWING NUMBER:

NOT FOR CONSTRUCTION **C-3.2**

\\work\pea\projects\2018\2018-034 JOHN R COMMONS - PRELIM GRADING PLAN (C-3.2) GRAD-180034.dwg PLOT DATE: 8/15/2023 BPI: Chris Rahn

BENCHMARKS
(GPS DERIVED - NAVD88)

BM #300
ARROW ON HYDRANT WEST SIDE JOHN R ROAD 11' OF B/CURB, AND 95' SOUTH OF NORTH PROPERTY LINE OF SITE.
ELEV. = 648.05

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SAND BACKFILL NOTE:
ALL UTILITIES UNDER PAVEMENT OR WITHIN 3' OF THE EDGE OF PAVEMENT (OR WITHIN THE 45° LINE OF INFLUENCE OF PAVEMENT) SHALL HAVE M.D.O.T. CLASS II GRANULAR BACKFILL COMPACTED TO 95% MAX. DRY DENSITY (ASTM D-1557).

PUBLIC UTILITY EASEMENTS:
ALL SANITARY SEWERS 8" AND LARGER IN DIAMETER ARE TO BE PUBLIC AND SHALL BE LOCATED IN A 20' WIDE EASEMENT. ALL WATER MAIN SHALL BE LOCATED IN A 20' WIDE EASEMENT.

UTILITY LEGEND:

	EX. OH. ELEC. POLE & GUY WIRE
	EX. U.G. CABLE TV & PEDESTAL
	EX. U.G. COMMUNICATION LINE, PEDESTAL & MANHOLE
	EX. U.G. ELEC. MANHOLE, METER & HANDHOLE
	EX. GAS LINE
	EX. GAS VALVE & GAS LINE MARKER
	EX. TRANSFORMER & IRRIGATION VALVE
	EX. WATER MAIN
	EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE
	EX. WATER VALVE BOX & SHUTOFF
	EX. SANITARY SEWER
	EX. SANITARY CLEANOUT & MANHOLE
	EX. COMBINED SEWER MANHOLE
	EX. STORM SEWER
	EX. CLEANOUT & MANHOLE
	EX. SQUARE, ROUND, & BEEHIVE CATCH BASIN
	EX. YARD DRAIN & ROOF DRAIN
	EX. UNIDENTIFIED STRUCTURE
	PROPOSED WATER MAIN
	PROPOSED HYDRANT AND GATE VALVE
	PROPOSED TAPPING SLEEVE, VALVE & WELL
	PROPOSED POST INDICATOR VALVE
	PROPOSED SANITARY SEWER
	PROPOSED SANITARY CLEANOUT & MANHOLE
	PROPOSED STORM SEWER
	PROPOSED STORM SEWER CLEANOUT & MANHOLE
	PROPOSED CATCH BASIN, INLET & YARD DRAIN

PEA GROUP
t: 844.813.2949
www.peagroup.com

NORTH

0 20 40 80
SCALE: 1" = 40'

811 Know what's below. Call before you dig.

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CLIENT
TROY SPORTS CENTER, LLC
1819 EAST BIG BEAVER ROAD
TROY, MI 48063

PROJECT TITLE
JOHN R COMMONS TOWNHOME DEVELOPMENT
PART OF THE SE 1/4 OF SECTION 23, T. 2N., R. 11E., TROY, OAKLAND COUNTY, MI

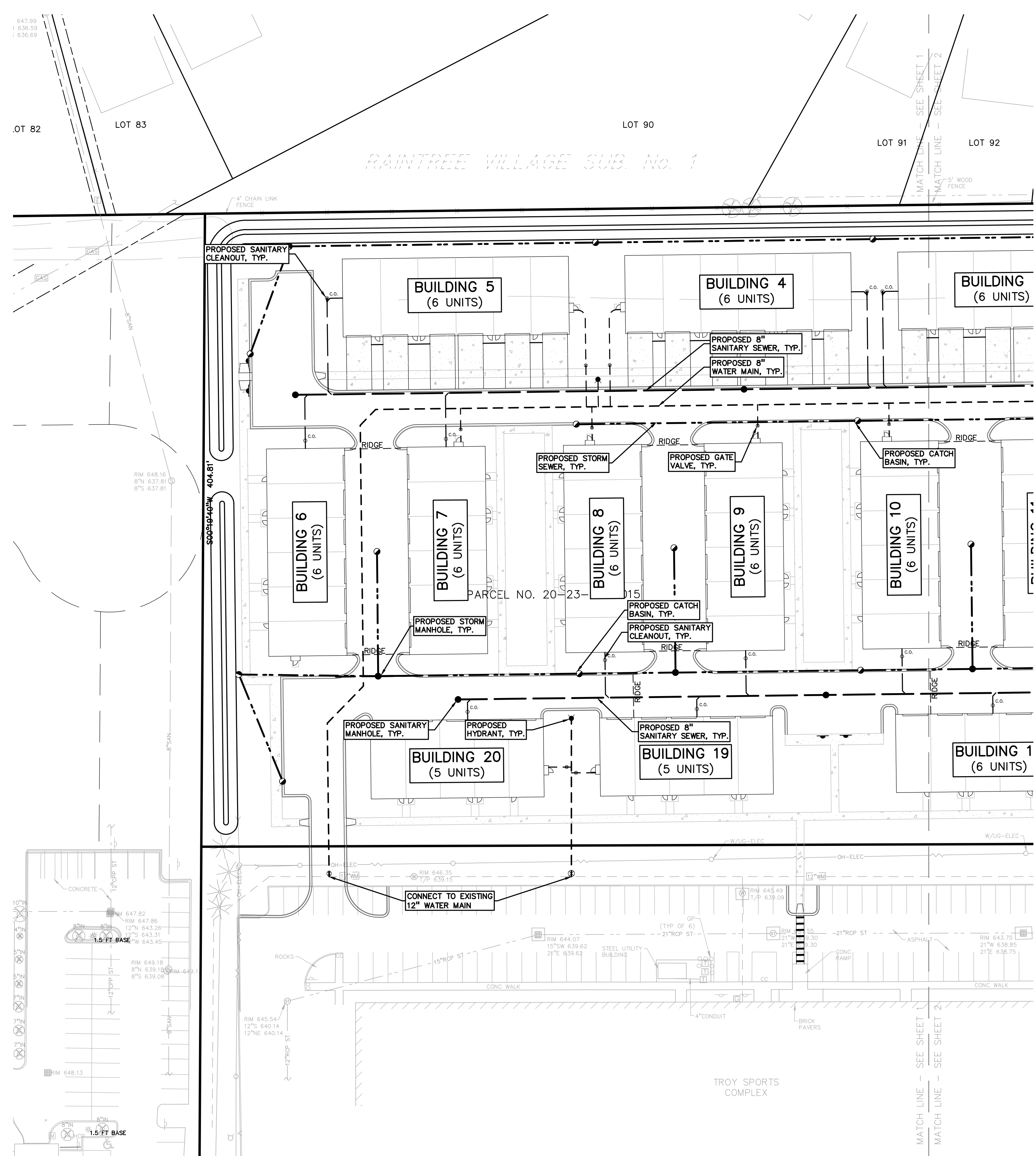
REVISIONS

NO.	DATE	DESCRIPTION

ORIGINAL ISSUE DATE:
AUGUST 18, 2023

DRAWING TITLE
PRELIMINARY UTILITY PLAN

PEA JOB NO.	18-0034
P.M.	G.M.B.
DN.	C.N.R.
DES.	G.M.B.
DRAWING NUMBER:	



NOT FOR CONSTRUCTION **C-4.1**

\\work\paw\projects\2018\2018-034 JOHN R COMMONS-PB\DWG\SITE PLANS\C-4.0 UTIL-180034.dwg PLOT DATE: 8/18/2023 BY: Donnie Rich

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OH-ELEC-W-O	EX. OH. ELEC. POLE & GUY WIRE
UG-CATV	EX. U.G. CABLE TV & PEDESTAL
UG-COMM	EX. U.G. COMMUNICATION LINE, PEDESTAL & MANHOLE
UG-ELEC-M-H	EX. U.G. ELEC. MANHOLE, METER & HANDHOLE
EX. GAS LINE	EX. GAS LINE
EX. GAS VALVE & GAS LINE MARKER	EX. GAS VALVE & GAS LINE MARKER
EX. TRANSFORMER & IRRIGATION VALVE	EX. TRANSFORMER & IRRIGATION VALVE
EX. WATER MAIN	EX. WATER MAIN
EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE	EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE
EX. WATER VALVE BOX & SHUTOFF	EX. WATER VALVE BOX & SHUTOFF
EX. SANITARY SEWER	EX. SANITARY SEWER
EX. SANITARY CLEANOUT & MANHOLE	EX. SANITARY CLEANOUT & MANHOLE
EX. COMBINED SEWER MANHOLE	EX. COMBINED SEWER MANHOLE
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EX. SQUARE, ROUND, & BEEHIVE CATCH BASIN	EX. SQUARE, ROUND, & BEEHIVE CATCH BASIN
EX. YARD DRAIN & ROOF DRAIN	EX. YARD DRAIN & ROOF DRAIN
EX. UNIDENTIFIED STRUCTURE	EX. UNIDENTIFIED STRUCTURE
PROPOSED WATER MAIN	PROPOSED WATER MAIN
PROPOSED HYDRANT AND GATE VALVE	PROPOSED HYDRANT AND GATE VALVE
PROPOSED TAPPING SLEEVE, VALVE & WELL	PROPOSED TAPPING SLEEVE, VALVE & WELL
PROPOSED POST INDICATOR VALVE	PROPOSED POST INDICATOR VALVE
PROPOSED SANITARY SEWER	PROPOSED SANITARY SEWER
PROPOSED SANITARY CLEANOUT & MANHOLE	PROPOSED SANITARY CLEANOUT & MANHOLE
PROPOSED STORM SEWER	PROPOSED STORM SEWER
PROPOSED STORM SEWER CLEANOUT & MANHOLE	PROPOSED STORM SEWER CLEANOUT & MANHOLE
PROPOSED CATCH BASIN, INLET & YARD DRAIN	PROPOSED CATCH BASIN, INLET & YARD DRAIN

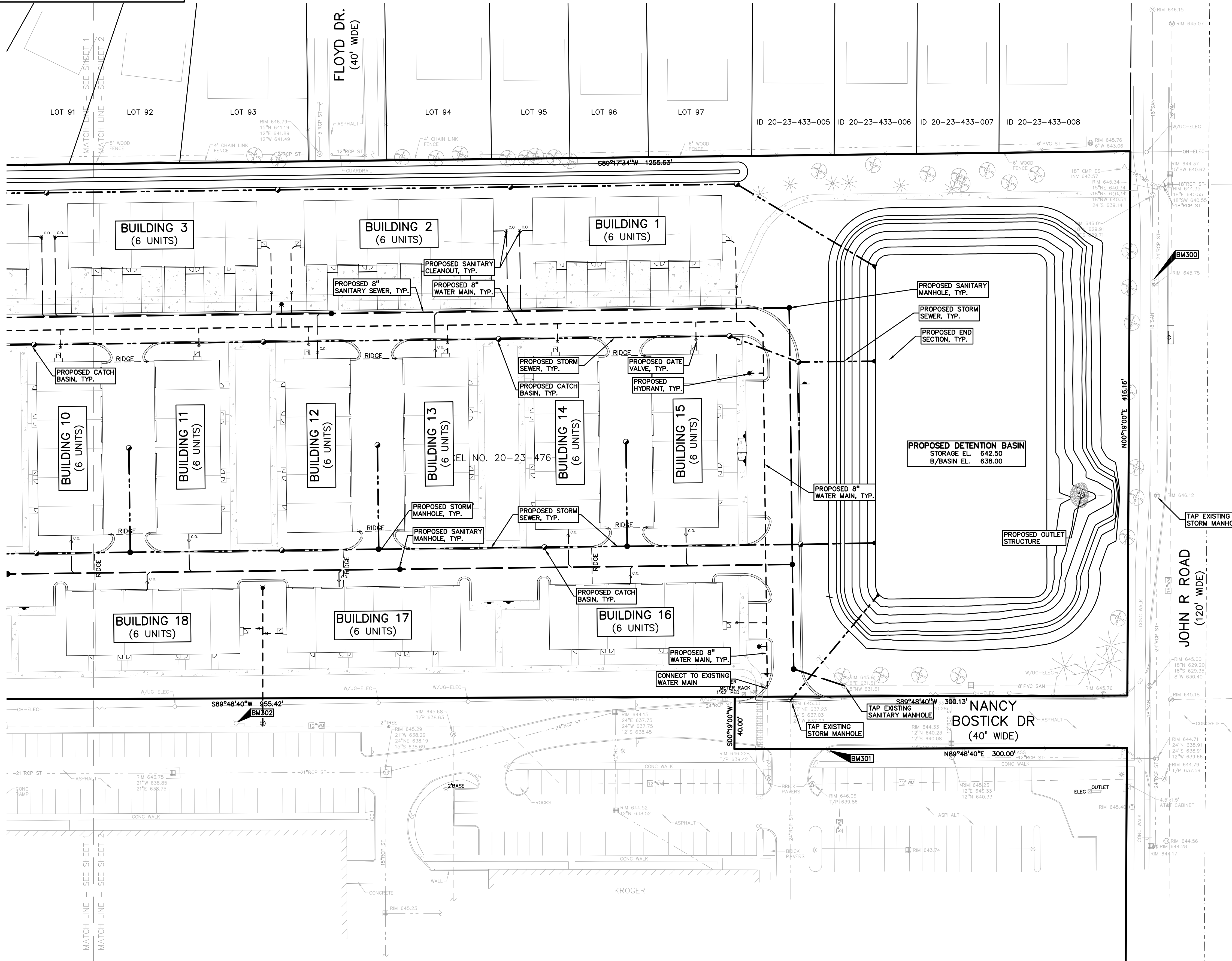
PEA GROUP
t: 844.813.2949
www.peagroup.com



SCALE: 1" = 40'



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Rainfall Intensity

Time of Concentration (T _c)	20.00 min
Since 15 < T _c < 60, use intensity equation	
I ₁ = 30.2 / ((T + 9.17) ^{0.81})	1.97 in/hr
I ₁₀ = 50.12 / ((T + 9.17) ^{0.81})	3.26 in/hr
I ₁₀₀ = 83.3 / ((T + 9.17) ^{0.81})	5.42 in/hr

CPVC: Channel Protection Volume Control Volume

V_{cpvc} = (4719)/CA
43,095 cf

CPRC: Channel Protection Rate Control Volume: Extended Detention

VED = (6897)/CA
62,985 cf

CPRC Allowable Outlet Rate

Q_{VED} = V_{ED} / (48*60*60)
0.36 cfs

Water Quality Control

Forebay Volume = (545)/CA
4,977 cf

Forebay Release Rate: Q_{VF} = V_F / (48*60*60)
0.03 cfs

100-Year Allowable Outlet Rate

Since 2 < A < 100, Q_{VRR} = 1.1055-0.206*ln(A)
Q_{VRR} = 0.60 cfs/ac

100-Year Peak Allowable Discharge

Area, A = 11.86 ac
Q_{100P} = Q_{VRR}(A)
7.07 cfs

100-Year Runoff Volume

V_{100R} = (18,985)/CA
173,376 cf

100-Year Peak Inflow

Q_{100IN} = C_I(I₁₀₀)A
49.50 cfs

Storage Curve Factor (Vs/Vr)

R = 0.206-0.15 * ln(Q_{100P}/Q_{100IN})
0.498

100-Year Storage Volume

V_s = R(V_{100R})
86,341 cf

Infiltration will be provided. CPVC can be deducted:

V₁₀₀ = V_s - V_{cpvc}
86,341 cf

EXISTING VOLUME FROM TROY SPORTS DEVELOPMENT

V_{TROYS} = 111,472 cf

DETENTION VOLUME REQUIRED = 197,813 cf

Design Requirements

CPRC Extended Detention: V _{ED} =	62,985 cf
CPRC Allowable Outlet Rate: Q _{VED} =	0.36 cfs
100-Year Storage Volume, V _{100R} =	197,813 cf
100-Year Allowable Outlet Rate: Q _{VRR} =	7.07 cfs
100 Year Peak Inflow: Q _{100IN} =	49.50 cfs

Detention Basin

CPRC Storage Elevation:	639.62	62,985 cf	
100-yr Storage Elevation:	642.31	197,813 cf	
Elev. (ft)	Area (sf)	Vol. (cf)	Total Vol. (cf)
638.00	34,362	0	0
639.00	39,349	36,856	36,856
640.00	44,758	42,054	78,910
641.00	50,391	47,575	126,484
642.00	56,439	53,415	179,899
642.50	59,300	28,935	208,833
643.50	freeboard	0	208,833
Bottom Elevation of Pond:			638.00

CLIENT
TROY SPORTS CENTER, LLC
1819 EAST BIG BEAVER ROAD
TROY, MI 48063

PROJECT TITLE
JOHN R COMMONS TOWNHOME DEVELOPMENT
PART OF THE SE 1/4 OF SECTION 23, T. 2N., R. 11E., E. 1/2, KROGER TRACT, TROY, OAKLAND COUNTY, MI

REVISIONS

NO.	DATE	DESCRIPTION

ORIGINAL ISSUE DATE:
AUGUST 18, 2023

DRAWING TITLE
PRELIMINARY UTILITY PLAN

PEA JOB NO. 18-0034
P.M. G.M.B.
DN. C.N.R.
DES. G.M.B.
DRAWING NUMBER:

NOT FOR CONSTRUCTION **C-4.2**

\\pea\proj\PROJECTS\2018\2018-034 JOHN R COMMONS-PRELIM UTILITY PLAN(C-4.2) UTIL-180034.dwg PLOT DATE: 8/18/2023 BY: Danielle Rich



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CLIENT
TROY SPORTS CENTER, LLC
 1069 EAST BIG BEAVER ROAD
 TROY, MI 48063

PROJECT TITLE
JOHN R COMMONS TOWNHOME DEVELOPMENT
 PART OF THE SE 1/4 OF SECTION 23, T. 2N., R. 11E., E. 1/2, S. 1/4
 TROY, OAKLAND COUNTY, MI

REVISIONS

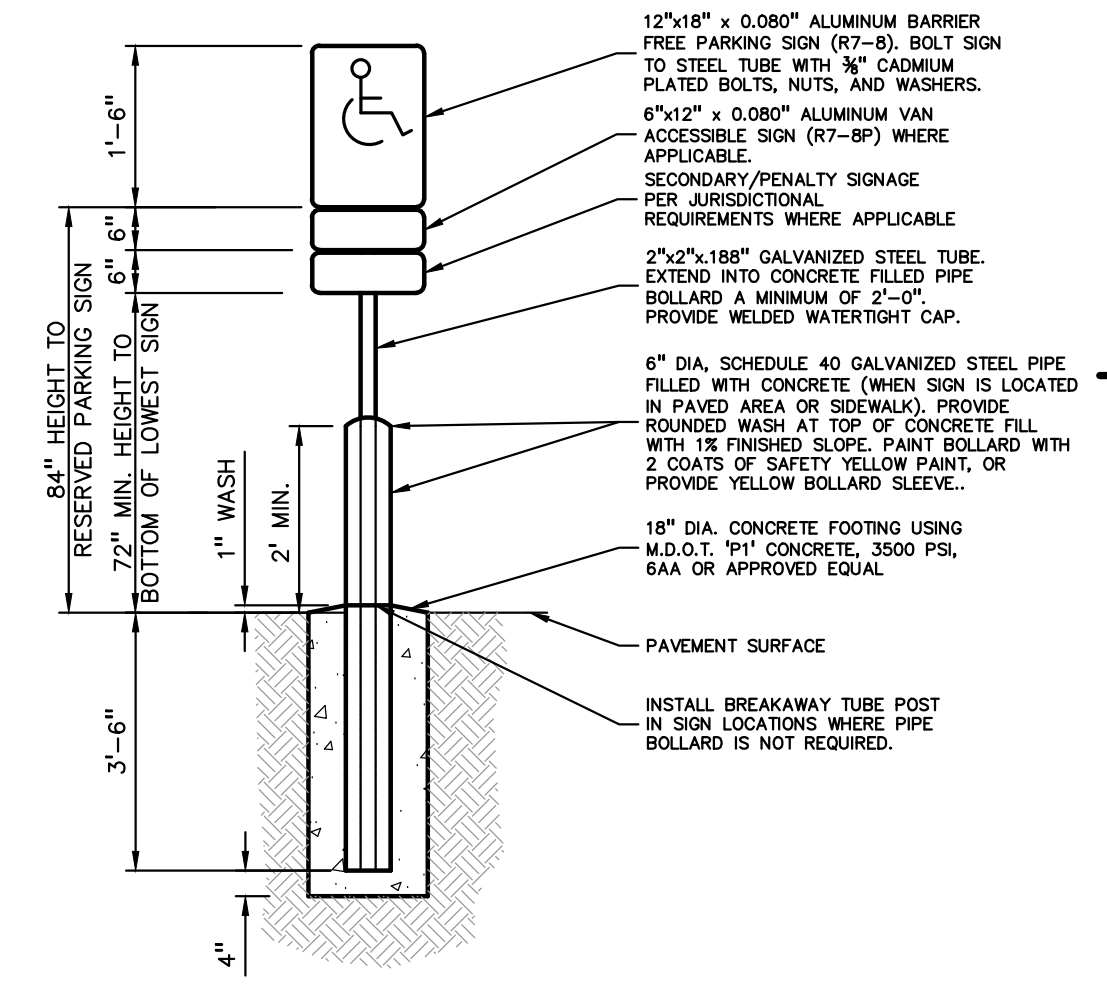
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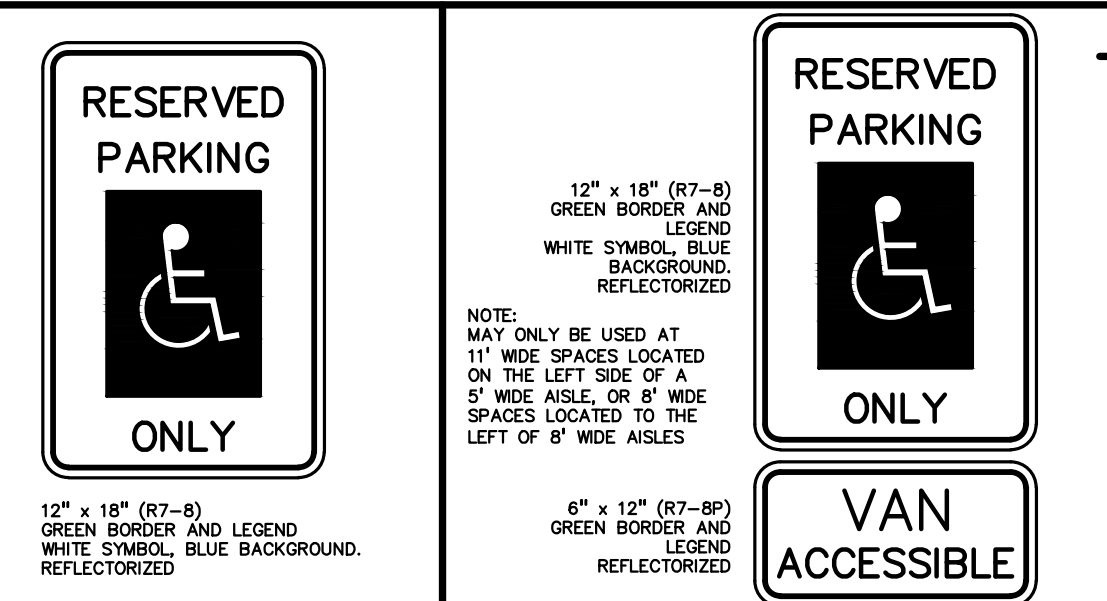
NOTES AND DETAILS

PEA JOB NO.	18-0034
P.M.	G.M.B.
DN.	C.N.R.
DES.	G.M.B.
DRAWING NUMBER:	

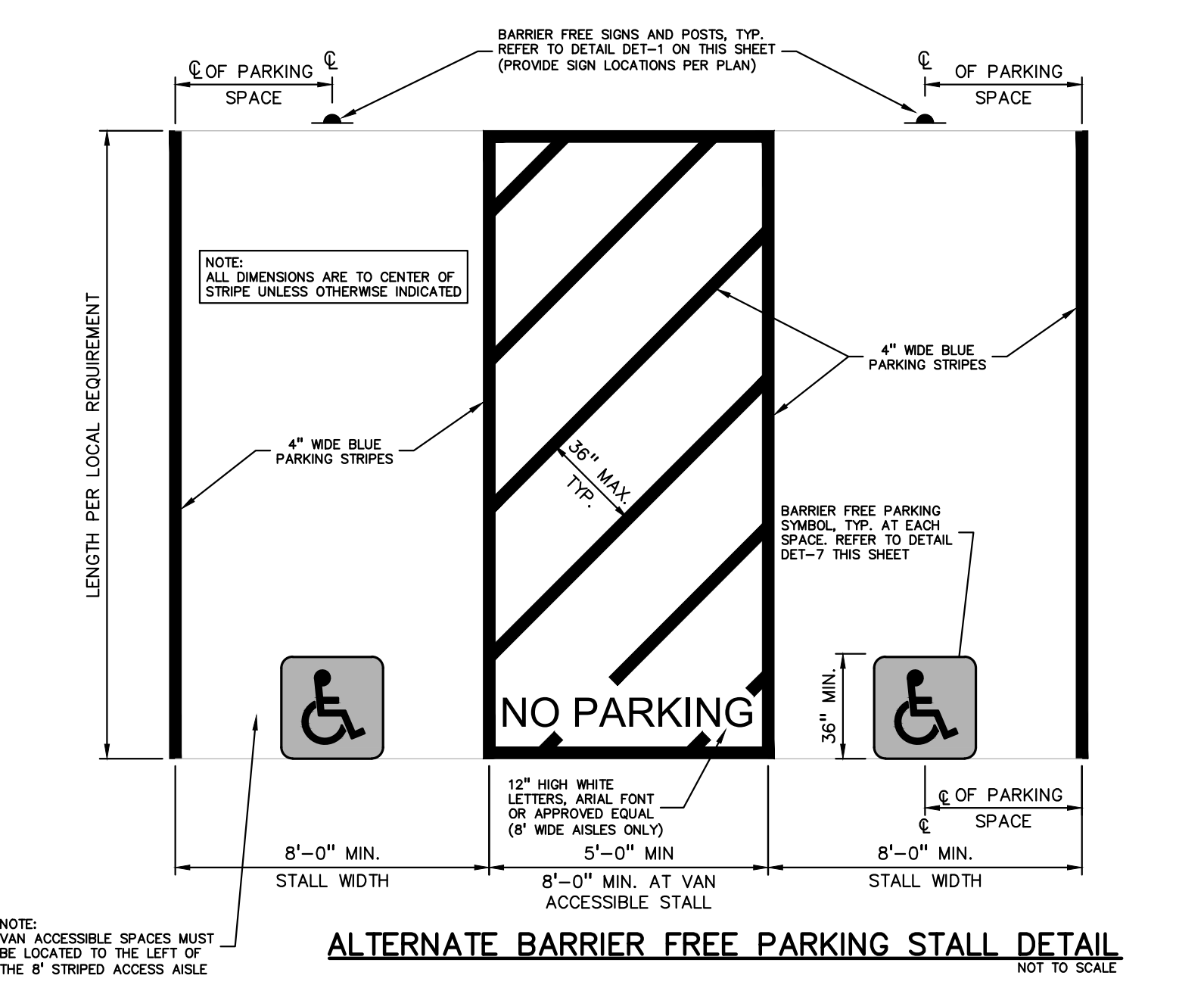
- BARRIER FREE SIGN NOTES:**
- ONE SIGN IS REQUIRED AT EACH BARRIER FREE PARKING SPACE.
 - ALL SIGNS SHALL COMPLY WITH THE LATEST STANDARDS OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD).
 - WHEN TWO BARRIER FREE PARKING SPACES ARE ADJACENT AND FACING EACH OTHER, TWO SIGNS ARE REQUIRED,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



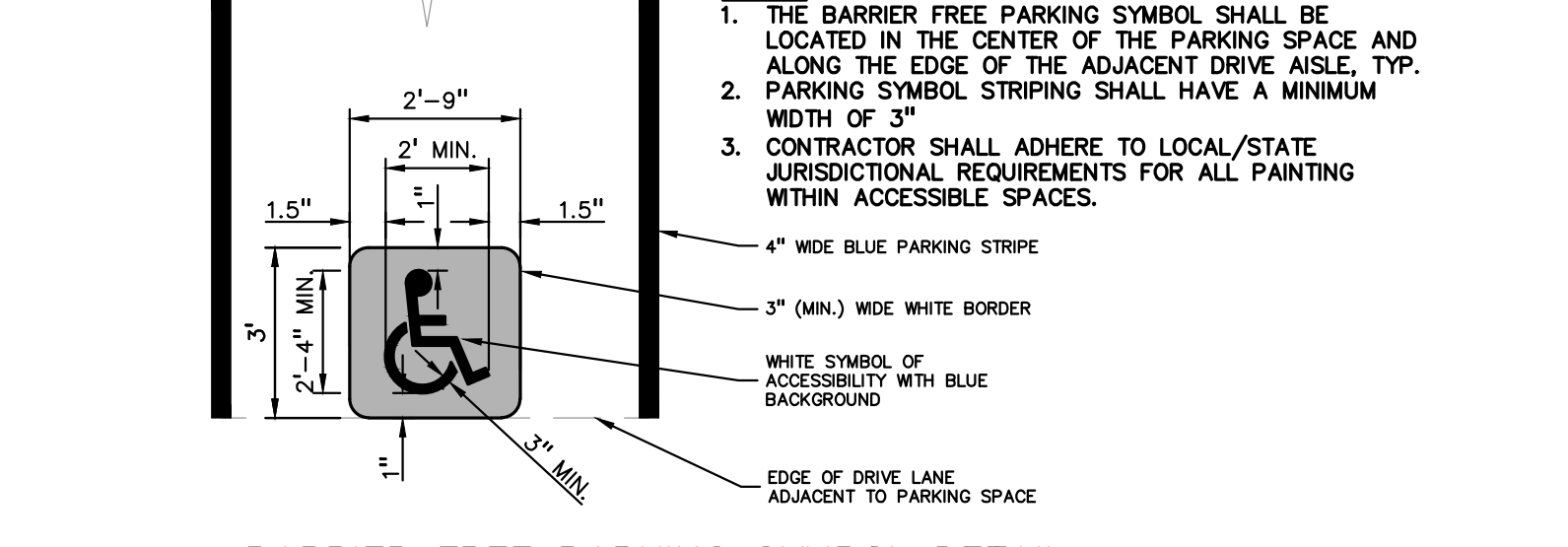
BARRIER FREE SIGN AND POST DETAIL
 NOT TO SCALE



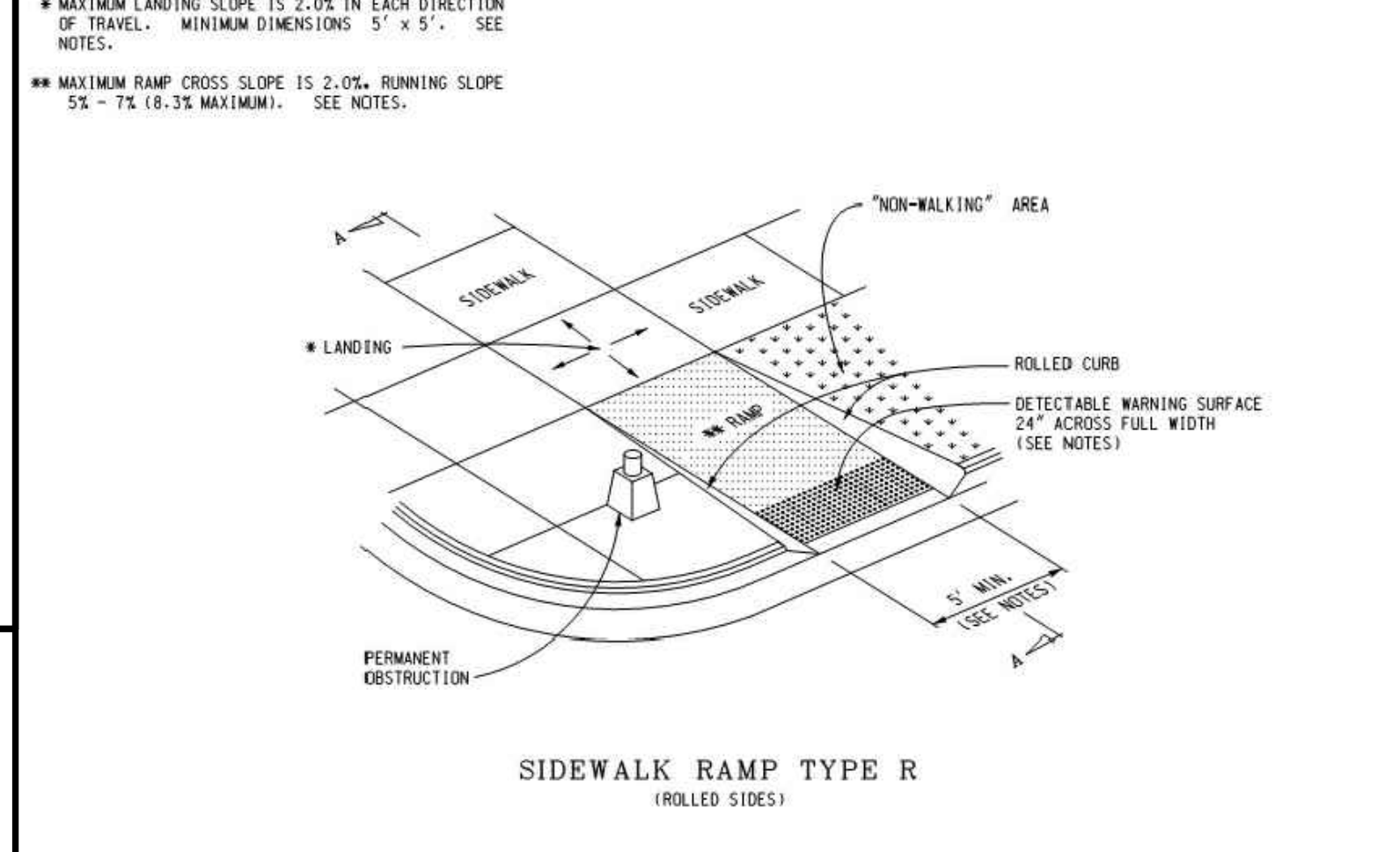
BARRIER FREE PARKING SIGN DETAIL
 NOT TO SCALE



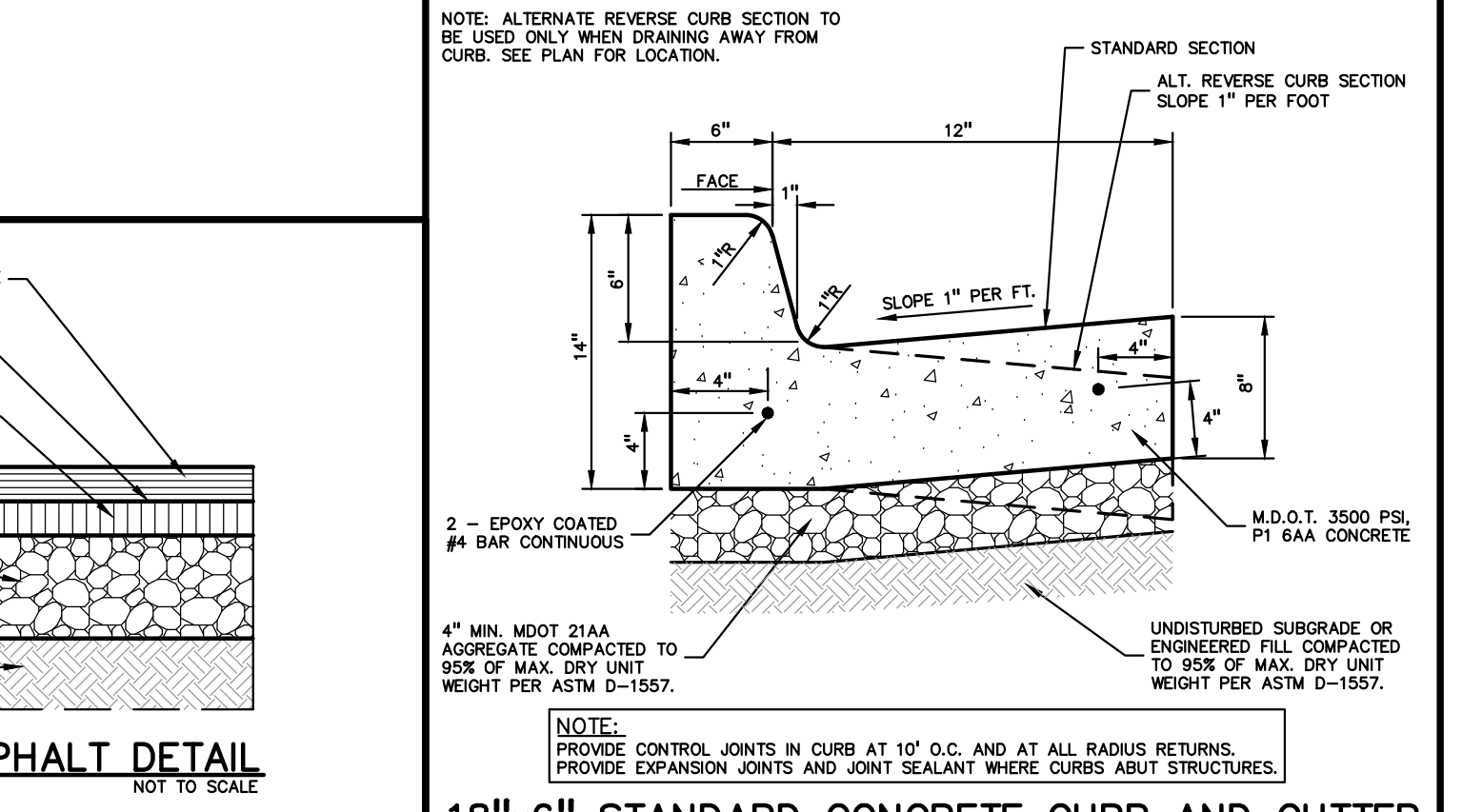
ALTERNATE BARRIER FREE PARKING STALL DETAIL
 NOT TO SCALE



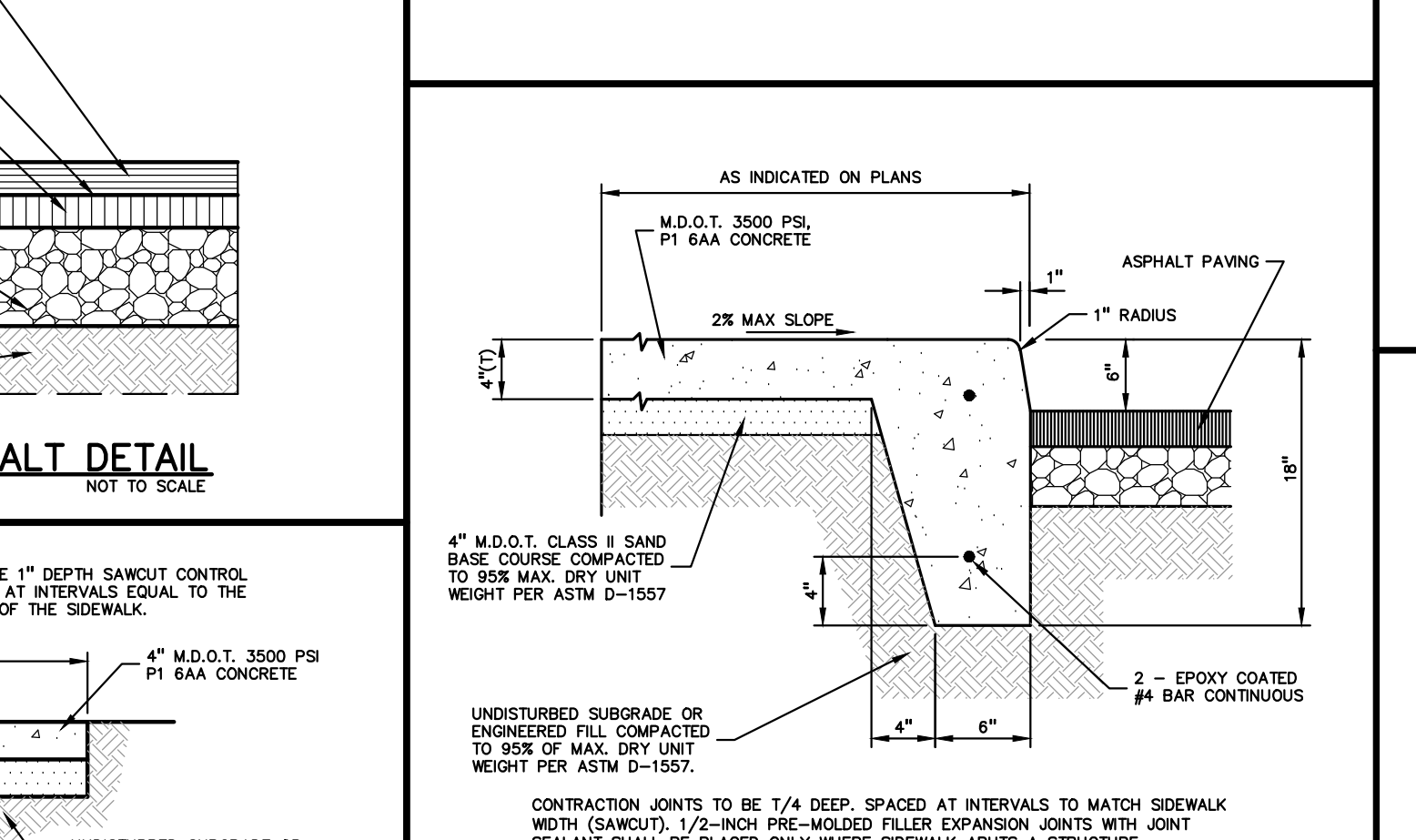
BARRIER FREE PARKING SYMBOL DETAIL (INTERNATIONAL SYMBOL OF ACCESSIBILITY)
 NOT TO SCALE



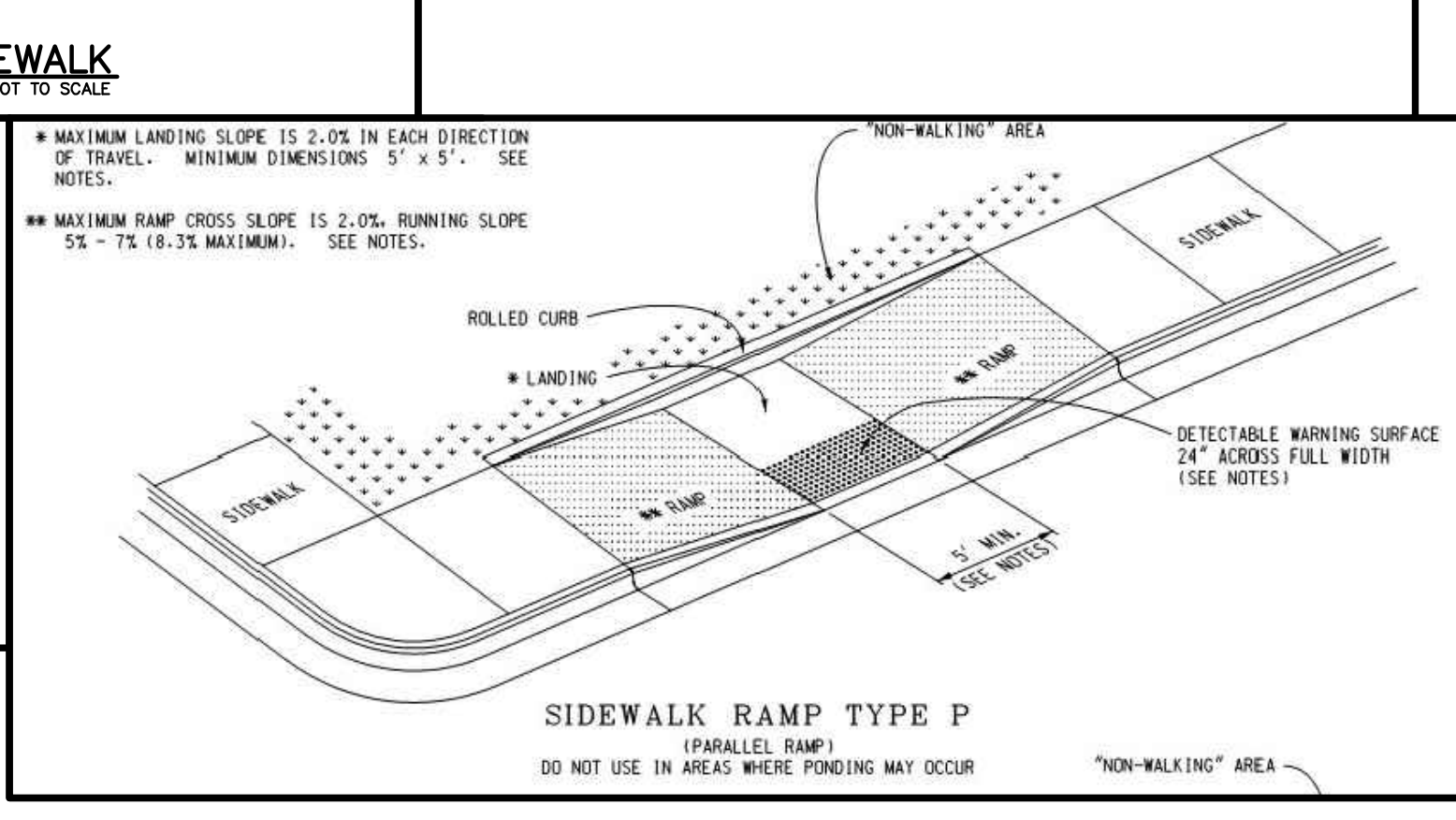
SIDEWALK RAMP TYPE R (ROLLED SIDES)



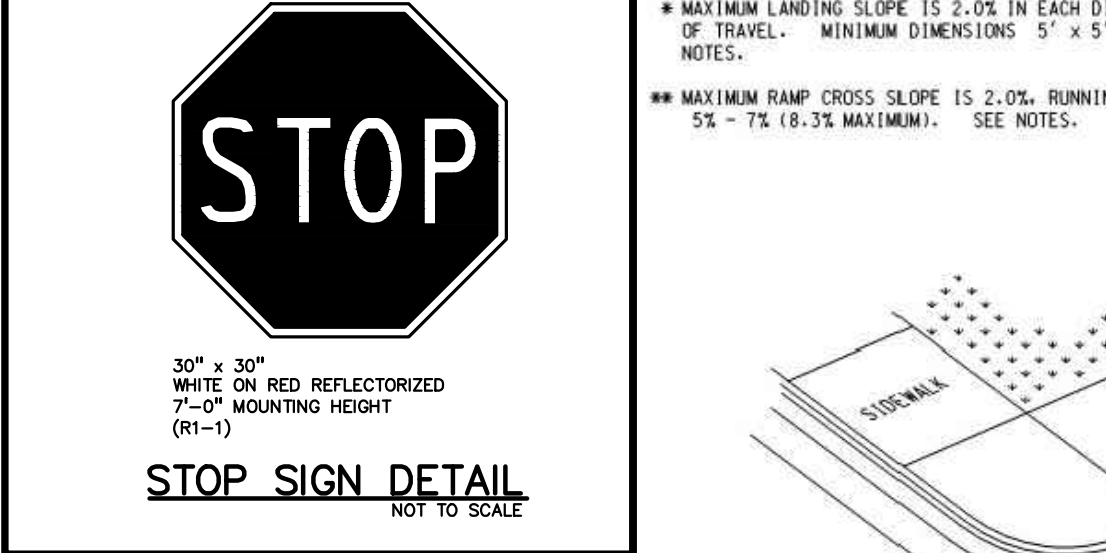
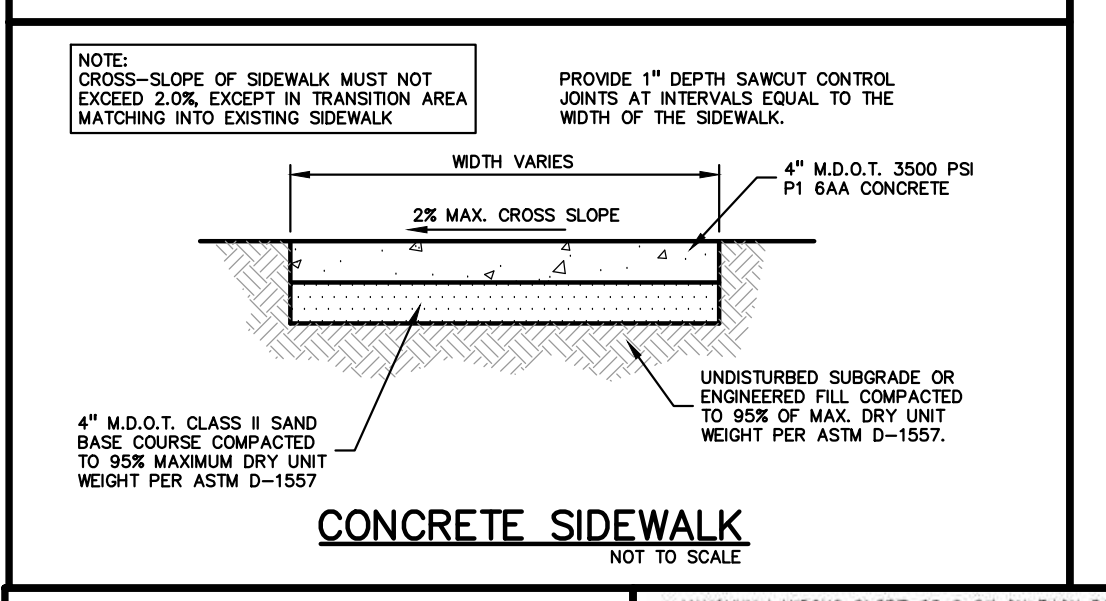
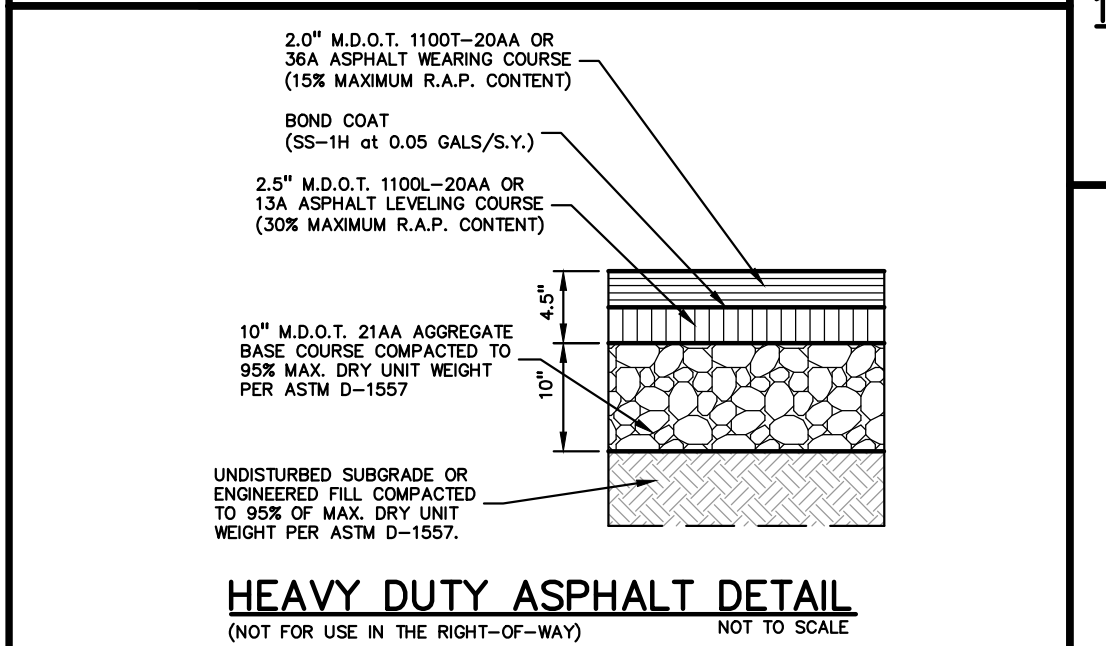
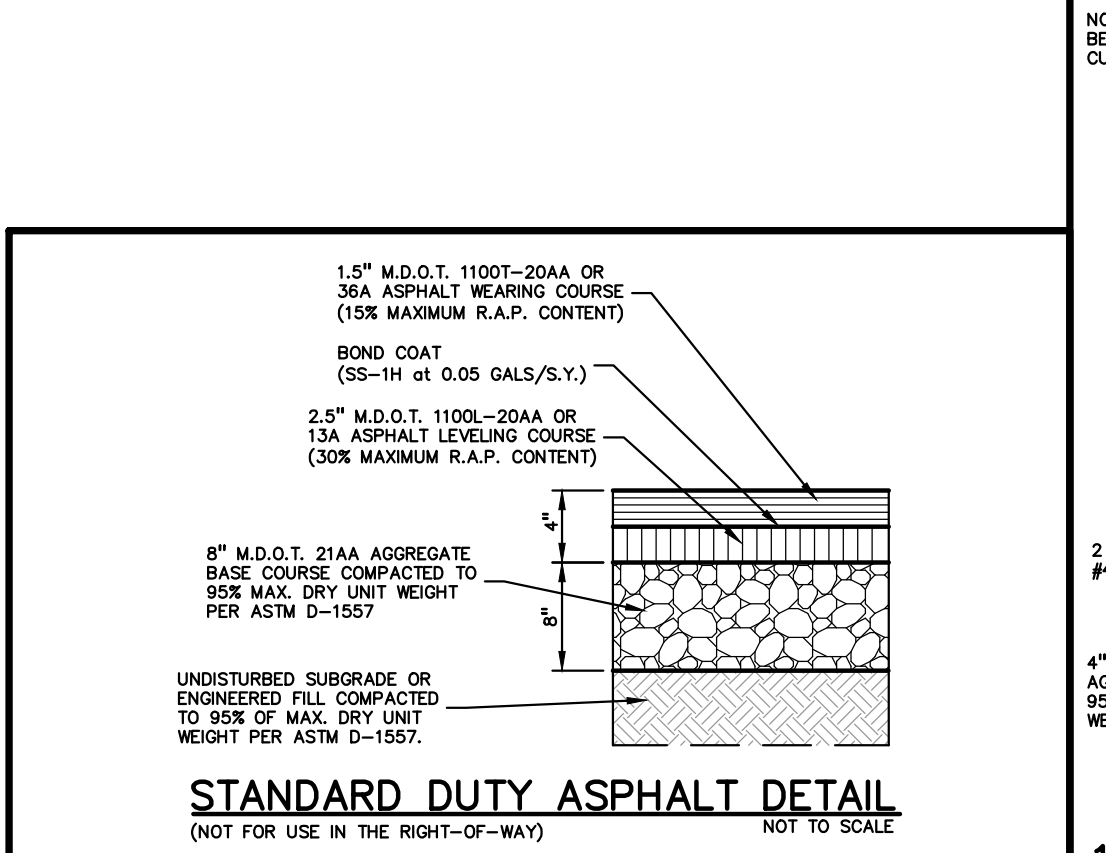
18"x6" STANDARD CONCRETE CURB AND GUTTER
 NOT TO SCALE



INTEGRAL CURB AND SIDEWALK
 NOT TO SCALE



SIDEWALK RAMP TYPE P (PARALLEL RAMP)
 DO NOT USE IN AREAS WHERE PONDING MAY OCCUR



STOP SIGN DETAIL
 NOT TO SCALE

MODIFIED 18"x6" CONCRETE CURB AND GUTTER DETAIL TO BE USED IN BARRIER FREE AREAS
 NOT TO SCALE

NOT FOR CONSTRUCTION

C-5.0

WOODLAND TREES			
WOODLAND TREES REMOVED:	115	(REPLACE AT 50% OF REMOVED DBH)	
1080" DBH x 0.5 =	540"	REPLACEMENT	
WOODLAND TREES SAVED:	32	(CREDIT OF 2X DBH)	
326 DBH x 2 =	652"	CREDIT	
540 -	652	=	-112
0" DBH REQUIRED FOR REPLACEMENT			
LANDMARK TREES			
LANDMARK TREES REMOVED:	1	(REPLACE AT 100% OF REMOVED DBH)	
18" DBH x 1 =	18"	REPLACEMENT	
LANDMARK TREES SAVED:	13	(CREDIT OF 2X DBH)	
272" DBH x 2 =	544"	CREDIT	
18 -	544	=	-526
0" DBH REQUIRED FOR REPLACEMENT			
EXEMPT TREES			
(NO REPLACEMENT REQUIRED FOR EXEMPT TREES)			
SAVED EXEMPT TREES:	8	Trees	
EXEMPT TREES ON SITE:	8	Trees	
TOTAL SAVED TREES 6" AND ABOVE ON SITE:		53	Trees

L-1.0

DECIDUOUS TREE PLANT LIST:

QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
2	AR2.5	Bowhall Maple	<i>Acer rubrum 'Bowhall'</i>	2.5" Cal.	B&B
2	AS2.5	Green Mountain Sugar Maple	<i>Acer saccharum 'Green Mountain'</i>	2.5" Cal.	B&B
3	GT2.5	Skyline Honeylocust	<i>Gleditsia triacanthos 'Skyline' Inermis</i>	2.5" Cal.	B&B
7	PA2.5	Encore London Planetree	<i>Platanus x acerifolia 'Encore'</i>	2.5" Cal.	B&B
2	QR2.5	Red Oak	<i>Quercus rubra</i>	2.5" Cal.	B&B
5	TC2.5	Greenspire Linden	<i>Tilia cordata 'Greenspire'</i>	2.5" Cal.	B&B
21	TOTAL DEC.				

EVERGREEN TREE PLANT LIST:

QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
19	PA8	Norway Spruce	<i>Picea abies</i>	8" Ht.	B&B
31	PG8	Black Hills Spruce	<i>Picea glauca 'Densata'</i>	8" Ht.	B&B
28	PO8	Serbian Spruce	<i>Picea omorika</i>	8" Ht.	B&B
19	PM8	Douglas Fir	<i>Pseudotsuga menziesii</i>	8" Ht.	B&B
5	PS8	Eastern White pine	<i>Pinus strobus</i>	8" Ht.	B&B
14	TC8	Canadian Hemlock	<i>Tsuga canadensis</i>	8" Ht.	B&B
116	TOTAL EVG.				

KEY:

- = BUFFER TREES / EVERGREEN SCREENING BETWEEN USES
- = PARKING LOT TREES
- = GREENBELT / ROW TREES AND INTERNAL ROAD TREES
- = IRRIGATED SEED LAWN
- = NON-IRRIGATED SEED LAWN
- = EXISTING TREE TO REMAIN
- = TREE PROTECTION FENCING

NOTE: TREES SHALL BE PLACED AT A MINIMUM OF 5' AWAY FROM UTILITY LEADS. SEE SHEETS T-1.0 - T-1.2 FOR EXISTING TREE INFORMATION

PEA GROUP
t: 844.813.2949
www.peagroup.com

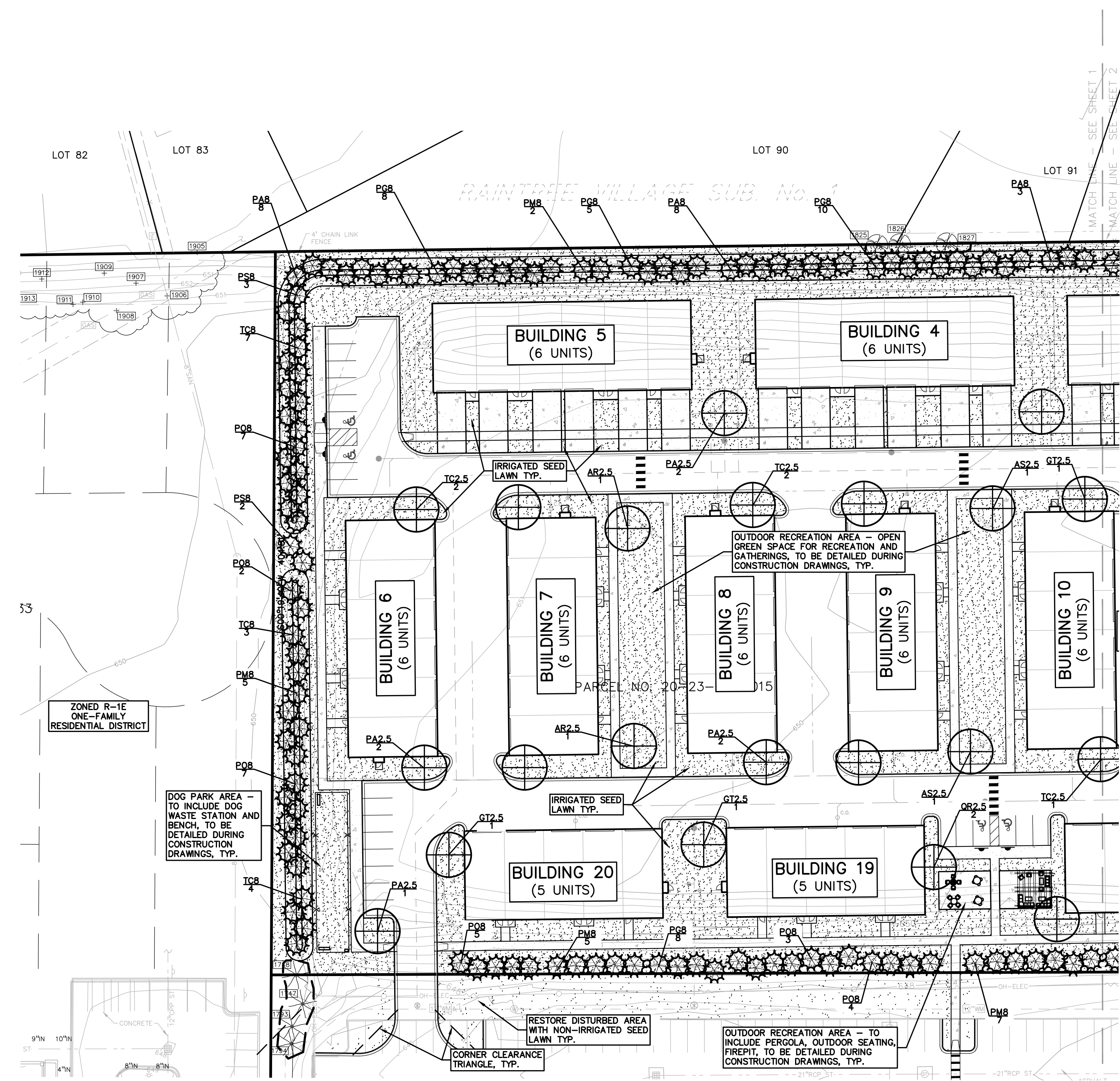
STATE OF MICHIGAN
JANET L. EWANS
LANDSCAPE ARCHITECT
NO. 3380
PROFESSIONAL SEAL

NORTH

0 20 40 80
SCALE: 1" = 40'

811 Know what's below. Call before you dig.

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

LANDSCAPE CALCULATIONS:
PER CITY OF TROY ZONING ORDINANCE: MF - MULTIFAMILY RESIDENTIAL

5.03 C-1a. GENERAL SITE LANDSCAPE
REQUIRED: 20% OF SITE AREA SHALL BE LANDSCAPE MATERIAL
516,625 SF * 20% = 103,325 SQ FT REQUIRED

PROVIDED: 173,048 SQ FT LANDSCAPE

13.02 B. SCREENING BETWEEN USES
R-1D TO NORTH SIDE OF SITE.
REQUIRED: 1 NARROW EVG. TREE/3 FT OR 1 LARGE EVG. TREE/10 LF
NORTH SIDE: 1,255.63 LF /10 = 125.6 LARGE EVG.
WEST SIDE: 401.41 LF /10 = 40.1 LARGE EVG.
SOUTH SIDE: 959 LF /10 = 95.9

PROVIDED: NORTH SIDE: 120 LARGE EVG. AND 6 EXISTING EVG. TREES
WEST SIDE: 40 LARGE EVG.
SOUTH SIDE: 72 LARGE EVG. AND 24 NARROW EVG.

13.02 C. PARKING LOT LANDSCAPE
REQUIRED: 13.02 C2 = 1 TREE PER 8 SPACES
337 PARKING SPACES / 8 = 42.25 TREES REQUIRED
REQUIRED: 5.03 B-1 = SCREENING HEDGE IF VISIBLE TO PUBLIC ROAD

PROVIDED: 43 TREES
PROVIDED: LANDSCAPE HEDGE SCREEN WHERE VISIBLE ON JOHN R. RD

13.02 D2 = GREENBELT / ROW
REQUIRED: 1 TREE / 30 LF OF FRONTAGE TO PUBLIC RD.
JOHN R. ROAD = 417.64 LF FRONTAGE / 30 = 13.9 TREES
PROVIDED: 3 PROPOSED TREES AND 11 EXISTING TREES TO REMAIN ALONG JOHN R. ROAD

PER CITY OF TROY ZONING ORDINANCE: **SOUTH EAST END OF SITE**

INTERNAL PUBLIC ROADS STREET TREES
REQUIRED: 1 TREE / 50 LF (BOTH SIDES RD.)
NANCY BOSTICK DRIVE: 300 LF / 50 LF = 6 TREES + 2 (BOTH SIDES RD.) = 12 TREES

PROVIDED: 1 PROPOSED TREE AND 11 EXISTING TREES ON BOTH SIDES OF NANCY BOSTICK DRIVE TO REMAIN

TREE REPLACEMENT:

WOODLAND TREES:
WOODLAND TREES REMOVED (115 TREES): REPLACE AT 50% OF REMOVED DBH
1080" DBH x .5 = 540" REPLACEMENT

WOODLAND TREES SAVED (32 TREES): CREDIT OF 2X DBH
326" DBH x 2 = 652" CREDIT
540" - 652" = -112" NO REPLACEMENT REQUIRED

LANDMARK TREES:
LANDMARK TREES REMOVED (1 TREES): REPLACE AT 100% OF REMOVED DBH
18" DBH x 1 = 18" REPLACEMENT

LANDMARK TREES SAVED (13 TREES): CREDIT OF 2X DBH
272" x 2 = 544" CREDIT
18" - 544" = -526" NO REPLACEMENT REQUIRED

NOTE: TREES SHALL BE PLACED AT A MINIMUM OF 5' AWAY FROM UTILITY LEADS.

CLIENT

TROY SPORTS CENTER, LLC
1819 EAST BEAVER ROAD
TROY, MI 48063

PROJECT TITLE

JOHN R COMMONS TOWNHOME DEVELOPMENT
PART OF THE SE 1/4 OF SECTION 23, T. 2N., R. 11E. TROY, OAKLAND COUNTY, MI

REVISIONS

ORIGINAL ISSUE DATE:
AUGUST 18, 2023

DRAWING TITLE

PRELIMINARY LANDSCAPE PLAN - WEST

PEA JOB NO. 18-0034
P.M. G.M.B.
DN. BGG
DES. JLE
DRAWING NUMBER:

\\work\pea\projects\2018\2018-034 JOHN R COMMONS TOWNHOME DEVELOPMENT\LANDSCAPE PLAN\H04-L1.0 LANDSCAPE PLAN\H04-L1.0 LANDSCAPE PLAN - WEST.dwg PLOT DATE: 8/18/2023 8:18:48pm Gmshk

FOR ALL SEED MIXES, PROVIDE EROSION MAT ON SLOPES AND AREAS OF WASH OUT TYP.
INSTALL AND PREP PER MANUFACTURER'S SPECIFICATIONS.
NO INVASIVE SPECIES PERMITTED, USE ONLY SPECIES NATIVE TO COUNTY.

Low-profile Prairie Seed Mix
Stantec Native Plant Nursery 574-586-2412
stantec.com/native-plant-nursery

Botanical Name	Common Name
Permanent Grasses:	
<i>Bouteloua curtipendula</i>	Side Oats Grama
<i>Carex spp.</i>	Prairie Carex Mix
<i>Elymus canadensis</i>	Canada Wild Rye
<i>Koeleria pyramidata</i>	June Grass
<i>Panicum virgatum</i>	Switch Grass
<i>Schizachyrium scoparium</i>	Little Bluestem

Temporary Cover:	Common Oat
<i>Avena sativa</i>	Annual Rye
<i>Lolium multiflorum</i>	

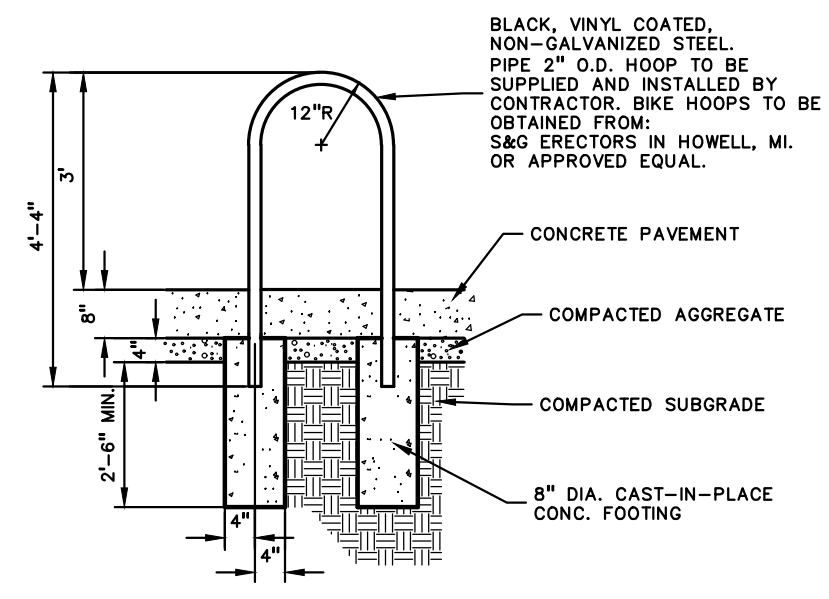
Forbs:	Lead Plant
<i>Amorpha canescens</i>	Thimbleweed
<i>Anemone cylindrica</i>	Common Milkweed
<i>Asclepias syriaca</i>	Butterfly Milkweed
<i>Asclepias tuberosa</i>	White Wild Indigo
<i>Baptisia alba</i>	Partridge Pea
<i>Chamaecrista fasciculata</i>	Sand Coreopsis
<i>Coreopsis lanceolata</i>	Purple Prairie Clover
<i>Coreopsis palmata</i>	White Prairie Clover
<i>Dalea candida</i>	Purple Prairie Clover
<i>Dalea purpurea</i>	Illinois Sensitive Plant
<i>Desmanthus illinoensis</i>	Broad-Leaved Purple Coneflower
<i>Echinacea purpurea</i>	Rattlesnake Master
<i>Eryngium yuccifolium</i>	Round-Head Bush Clover
<i>Lespedeza capitata</i>	Rough Blazing Star
<i>Liatis aspera</i>	Wild Lupine
<i>Lupinus perennis</i>	Wild Bergamot
<i>Monarda fistulosa</i>	Stiff Goldenrod
<i>Oligoneuron rigidum</i>	Wild Quinine
<i>Parthenium integrifolium</i>	Foxglove Beard Tongue
<i>Penstemon digitalis</i>	Hairy Beard Tongue
<i>Penstemon hirsutus</i>	Common Mountain Mint
<i>Pycnanthemum virginianum</i>	Yellow Coneflower
<i>Ratibida pinnata</i>	Black-Eyed Susan
<i>Rudbeckia hirta</i>	Prairie Dock
<i>Rudbeckia subtomentosa</i>	Showy Goldenrod
<i>Silphium terebinthinaceum</i>	Heath Aster
<i>Solidago speciosa</i>	Smooth Blue Aster
<i>Symphytichum ericoides</i>	New England Aster
<i>Symphytichum laeve</i>	Common Spiderwort
<i>Symphytichum novae-angliae</i>	Hoary Vervain
<i>Tradescantia ohioensis</i>	Ironweed (Various Mix)
<i>Verbena stricta</i>	Culvers Root
<i>Vernonia spp.</i>	
<i>Veronicastrum virginicum</i>	

Stormwater Seed Mix
Stantec Native Plant Nursery 574-586-2412
stantec.com/native-plant-nursery

Botanical Name	Common Name
Permanent Grasses/Sedges/Rushes:	
<i>Bolboschoenus fluviatilis</i>	River Bulrush
<i>Carex cristatella</i>	Crested Oval Sedge
<i>Carex lurida</i>	Bottlebrush Sedge
<i>Carex vulpinoidea</i>	Brown Fox Sedge
<i>Elymus virginicus</i>	Virginia Wild Rye
<i>Glyceria striata</i>	Fowl Manna Grass
<i>Juncus effusus</i>	Common Rush
<i>Leersia oryzoides</i>	Rice Cut Grass
<i>Panicum virgatum</i>	Switch Grass
<i>Schoenoplectus tabernaemontani</i>	Softstem Bulrush
<i>Scirpus atrovirens</i>	Dark Green Rush
<i>Scirpus cyperinus</i>	Wool Grass

Temporary Cover:	Common Oat
<i>Avena sativa</i>	Annual Rye
<i>Lolium multiflorum</i>	

Forbs & Shrubs:	Water Plantain (Various Mix)
<i>Ailona spp.</i>	Swamp Milkweed
<i>Asclepias incarnata</i>	Bidens (Various Mix)
<i>Bidens spp.</i>	Sneezeweed
<i>Helenium autumnale</i>	Blue Flag
<i>Iris virginica</i>	Common Water Horehound
<i>Lycopus americanus</i>	Monkey Flower
<i>Mimulus ringens</i>	Riddell's Goldenrod
<i>Oligoneuron riddellii</i>	Ditch Stonecrop
<i>Penthorum sedoides</i>	Pinkweed (Various Mix)
<i>Polygonum spp.</i>	Sweet Black-Eyed Susan
<i>Rudbeckia subtomentosa</i>	Brown-Eyed Susan
<i>Rudbeckia triloba</i>	Common Arrowhead
<i>Sagittaria latifolia</i>	Wild Senna
<i>Senna hebecarpa</i>	New England Aster
<i>Symphytichum novae-angliae</i>	Purple Meadow Rue
<i>Thalictrum dasycarpum</i>	



8 BIKE RACK DETAIL, OR EQUAL
NOT TO SCALE

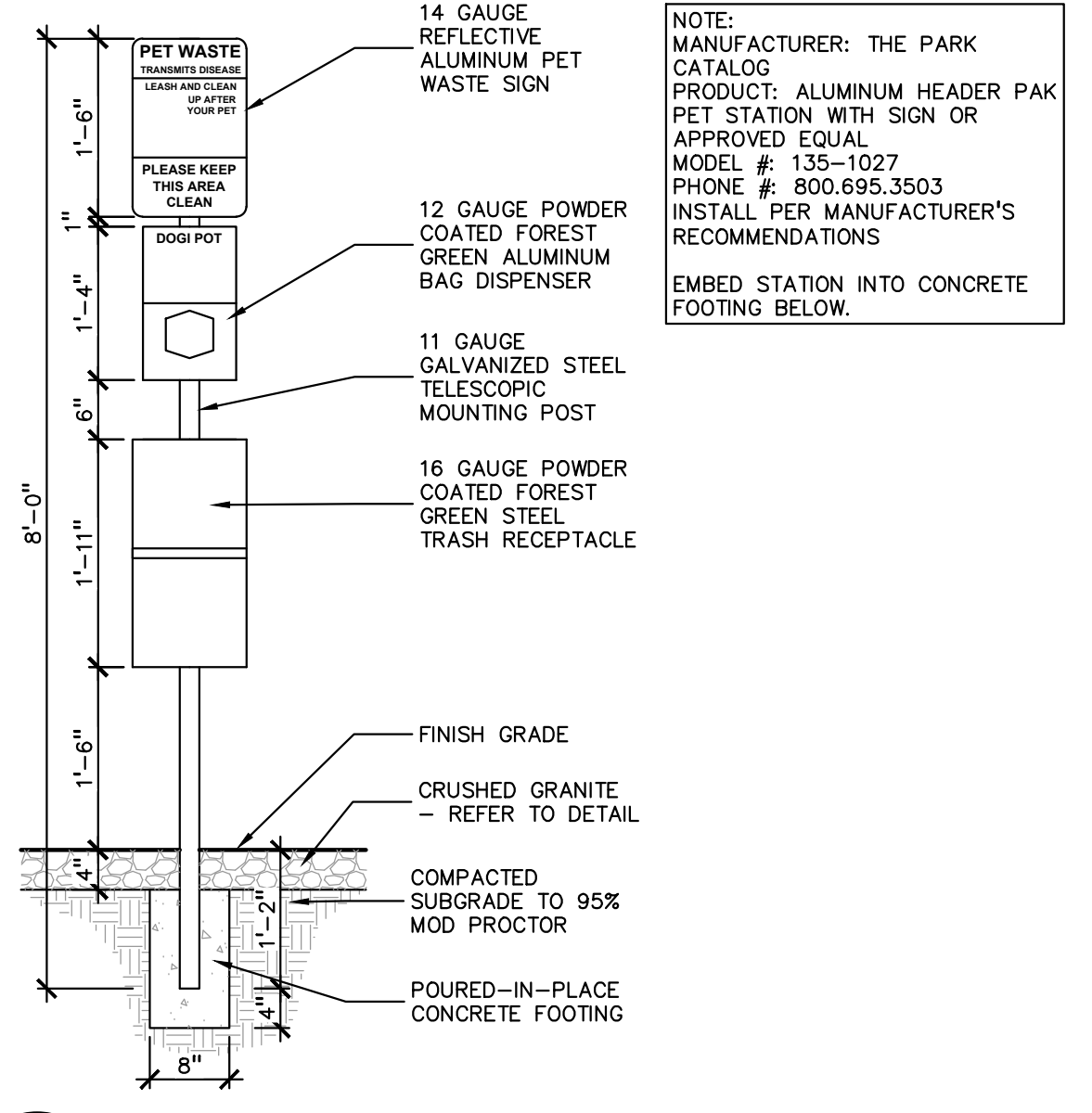


BENCH: 72" PLAINWELL, ALUMINUM BY: LANDSCAPE FORMS OR APPROVED EQUAL PHONE: 800-521-2546
COLOR: TITANIUM OR SILVER, POWDER COATED, OWNER TO SELECT/APPROVE COLOR QUANTITY: X, QTY. TO BE APPROVED BY OWNER

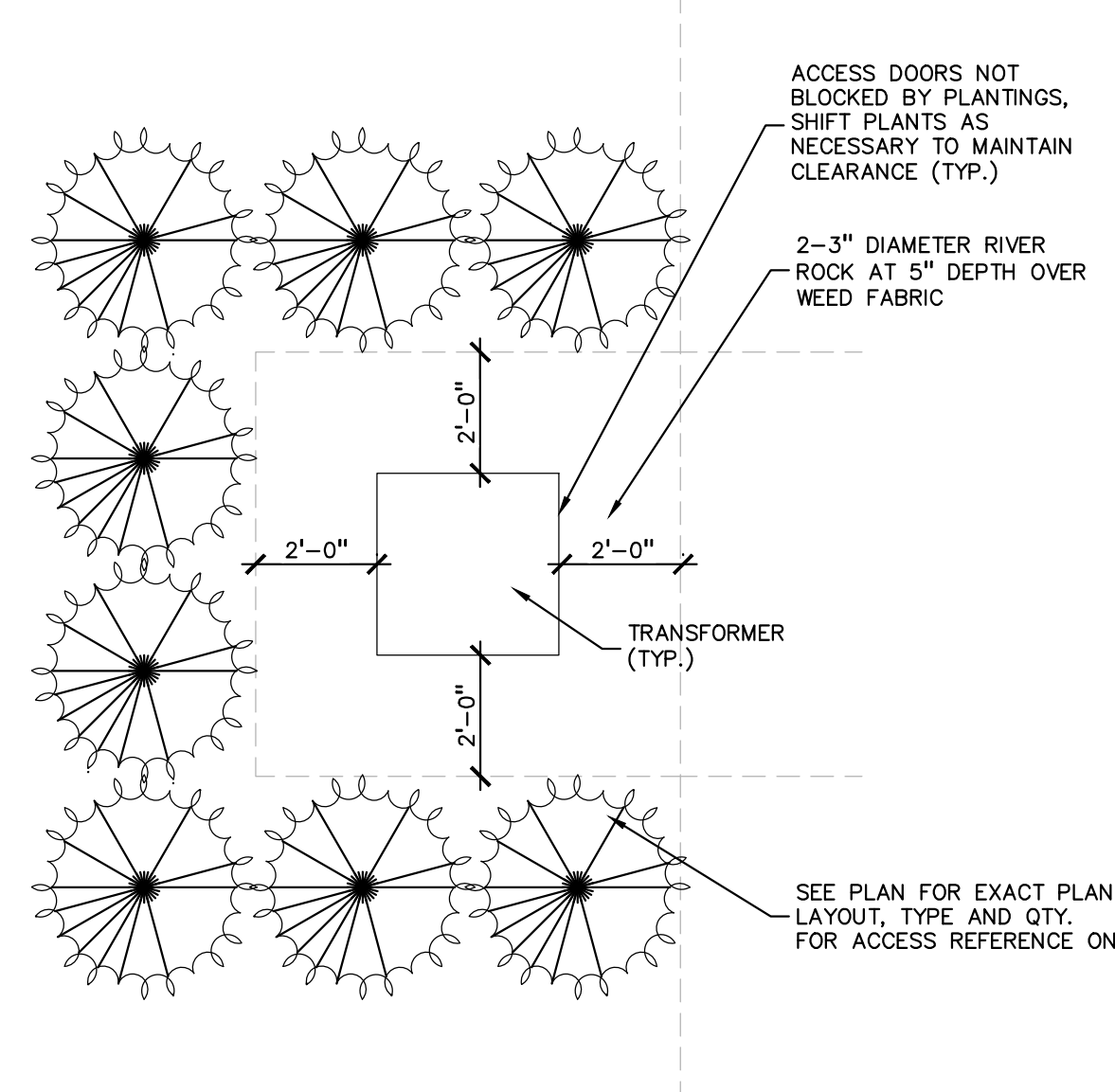


LITTER CONTAINER: PLAINWELL, ALUMINUM WITH SIDE OPEN LID AT 30"x38" HIGH BY: LANDSCAPE FORMS OR APPROVED EQUAL PHONE: 800-521-2546
COLOR: TITANIUM OR SILVER, POWDER COATED, OWNER TO SELECT/APPROVE COLOR QUANTITY: X, QTY. TO BE APPROVED BY OWNER

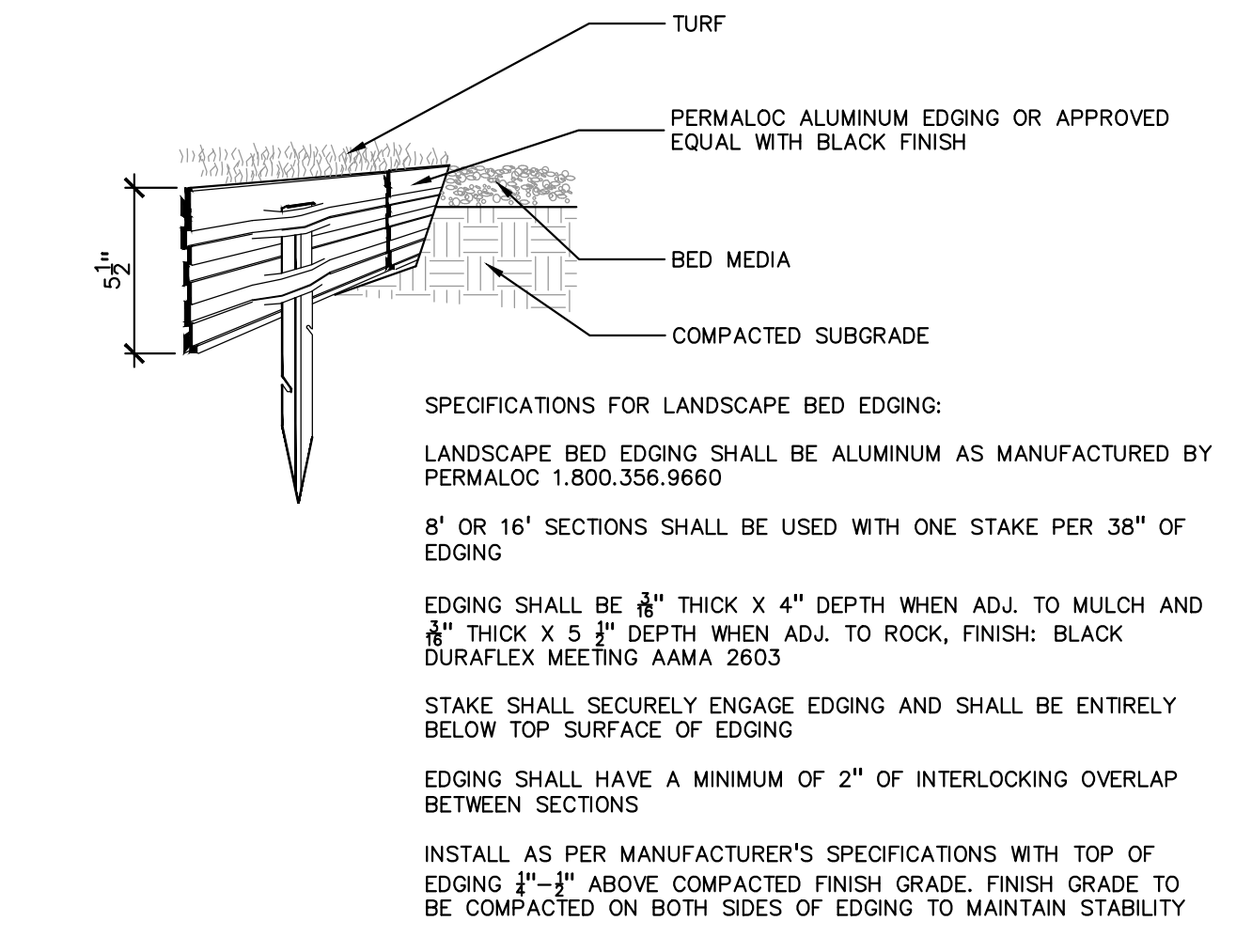
7 BENCH AND LITTER IMAGE DETAIL, OR EQUAL
NOT TO SCALE



6 PET STATION DETAIL, OR EQUAL
SCALE: 1 1/2" = 1'-0"

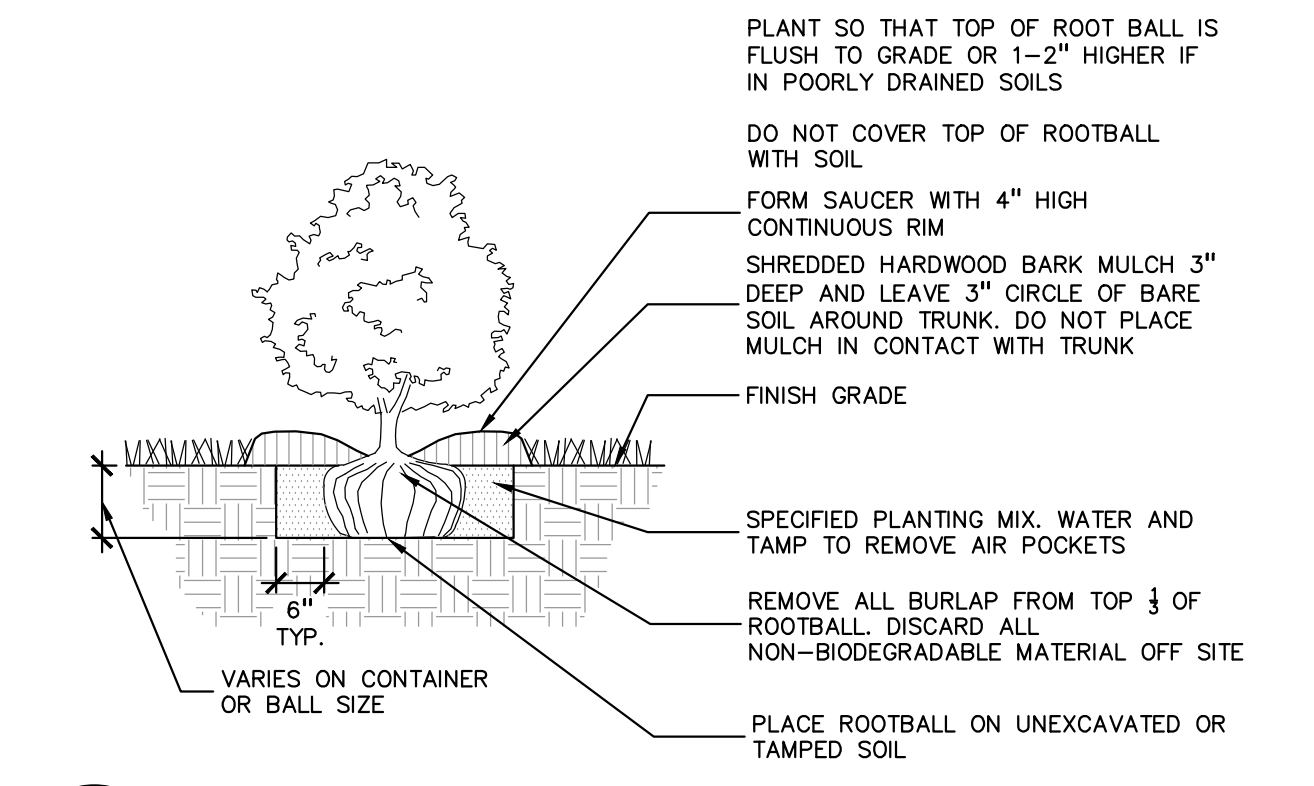


5 TRANSFORMER SCREENING DETAIL
SCALE: 1" = 3'-0"

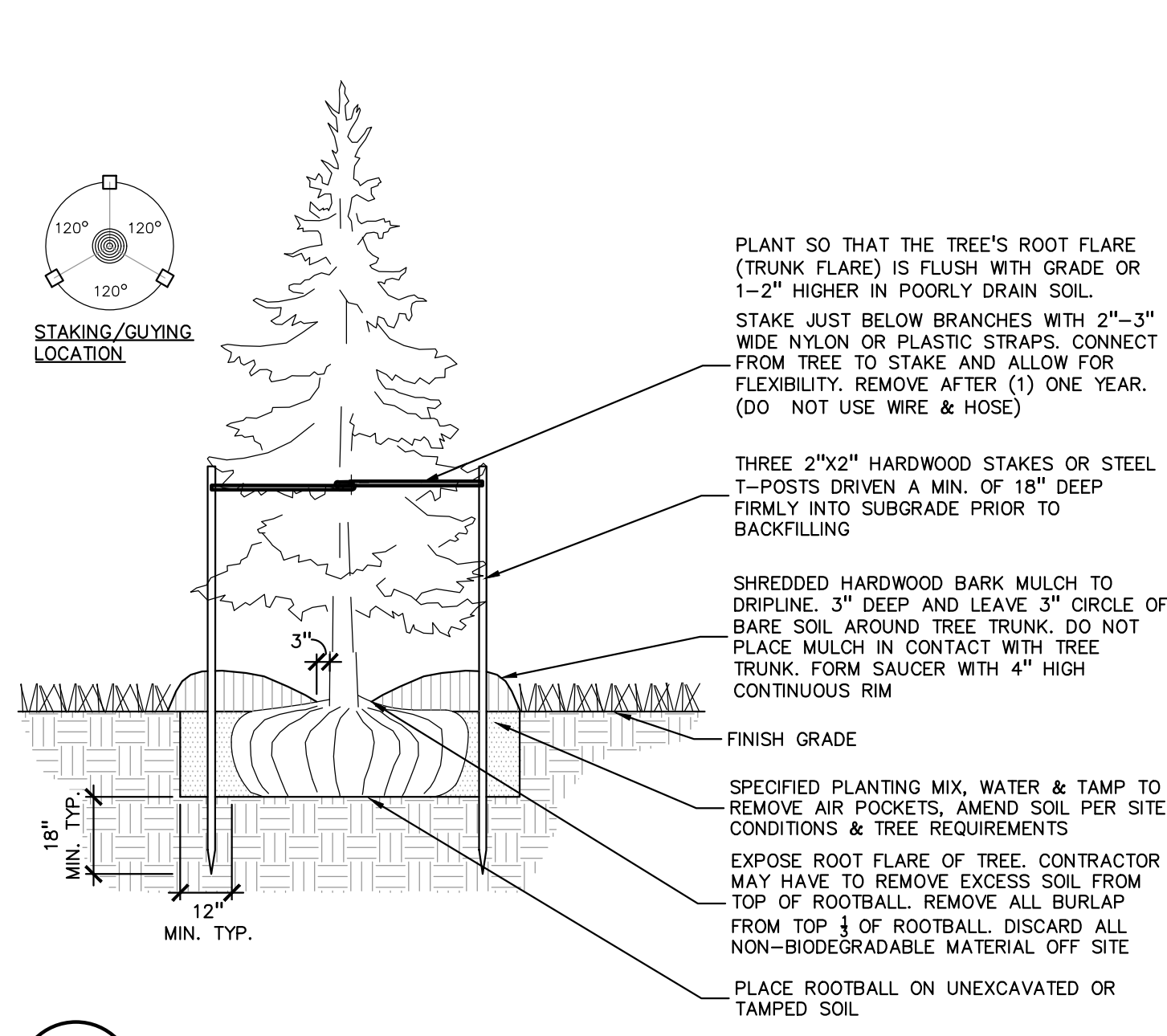


4 ALUMINUM EDGE DETAIL
SCALE: 1/2" = 1'-0"

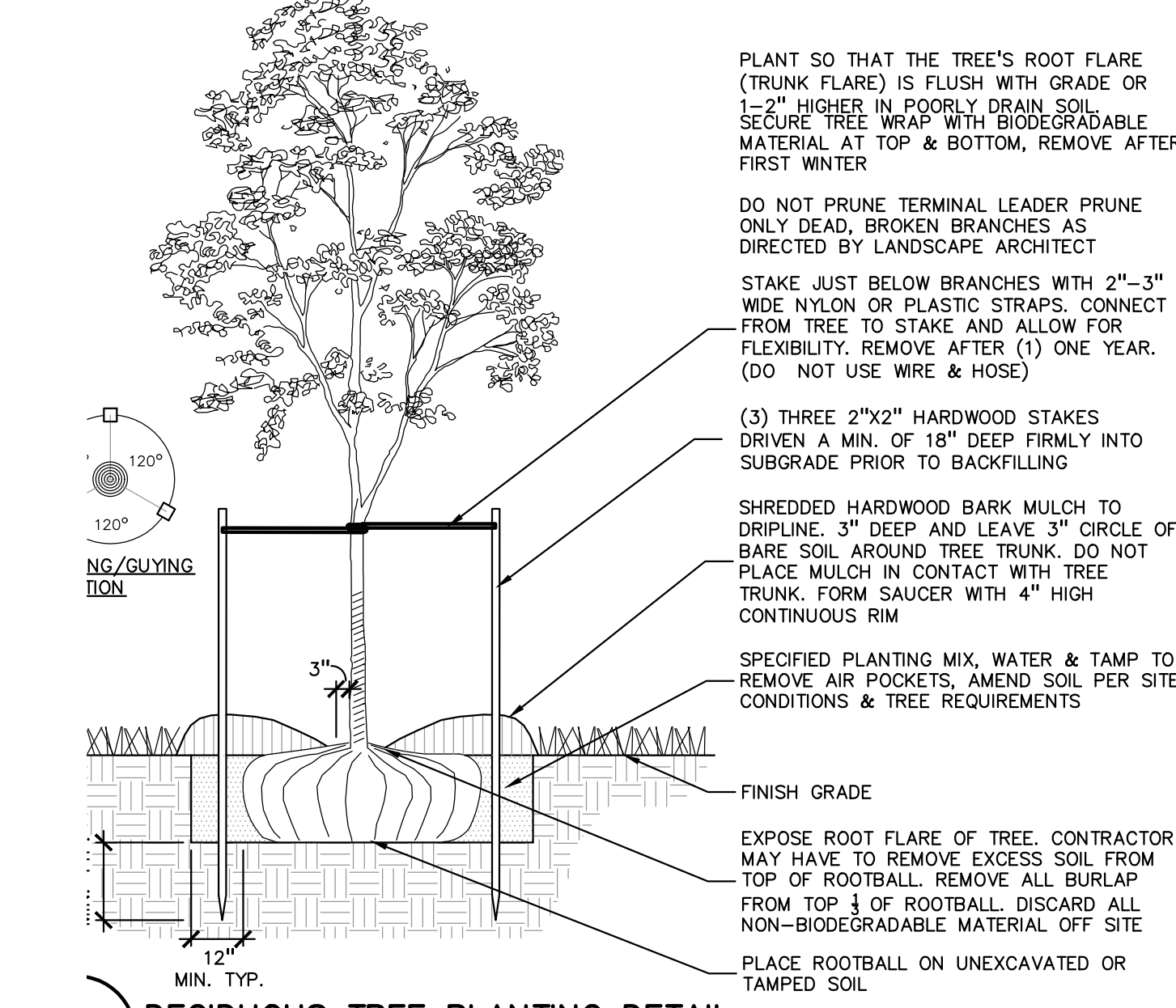
NOTE: MANUFACTURER: THE PARK CATALOG
PRODUCT: ALUMINUM HEADER PAK PET STATION WITH SIGN OR APPROVED EQUAL
MODEL #: 135-1027
PHONE #: 800.695.3503
INSTALL PER MANUFACTURER'S RECOMMENDATIONS
EMBED STATION INTO CONCRETE FOOTING BELOW.



3 SHRUB PLANTING DETAIL
SCALE: 1" = 2'-0"



2 EVERGREEN TREE PLANTING DETAIL
SCALE: 1" = 3'-0"



DECIDUOUS TREE PLANTING DETAIL
SCALE: 1" = 3'-0"

PEA GROUP
t: 844.813.2949
www.peagroup.com



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CLIENT
TROY SPORTS CENTER, LLC
1619 EAST BIG BEAVER ROAD
TROY, MI 48063

PROJECT TITLE
JOHN R COMMONS TOWNHOME DEVELOPMENT
PART OF THE SE 1/4 OF SECTION 23, T. 2N., R. 11E, TROY, OAKLAND COUNTY, MI

REVISIONS

ORIGINAL ISSUE DATE:
AUGUST 18, 2023

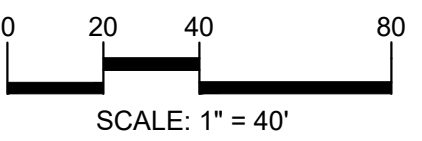
DRAWING TITLE
LANDSCAPE DETAILS

PEA JOB NO.	18-0034
P.M.	G.M.B.
DN.	BGG
DES.	JLE
DRAWING NUMBER:	

NOT FOR CONSTRUCTION

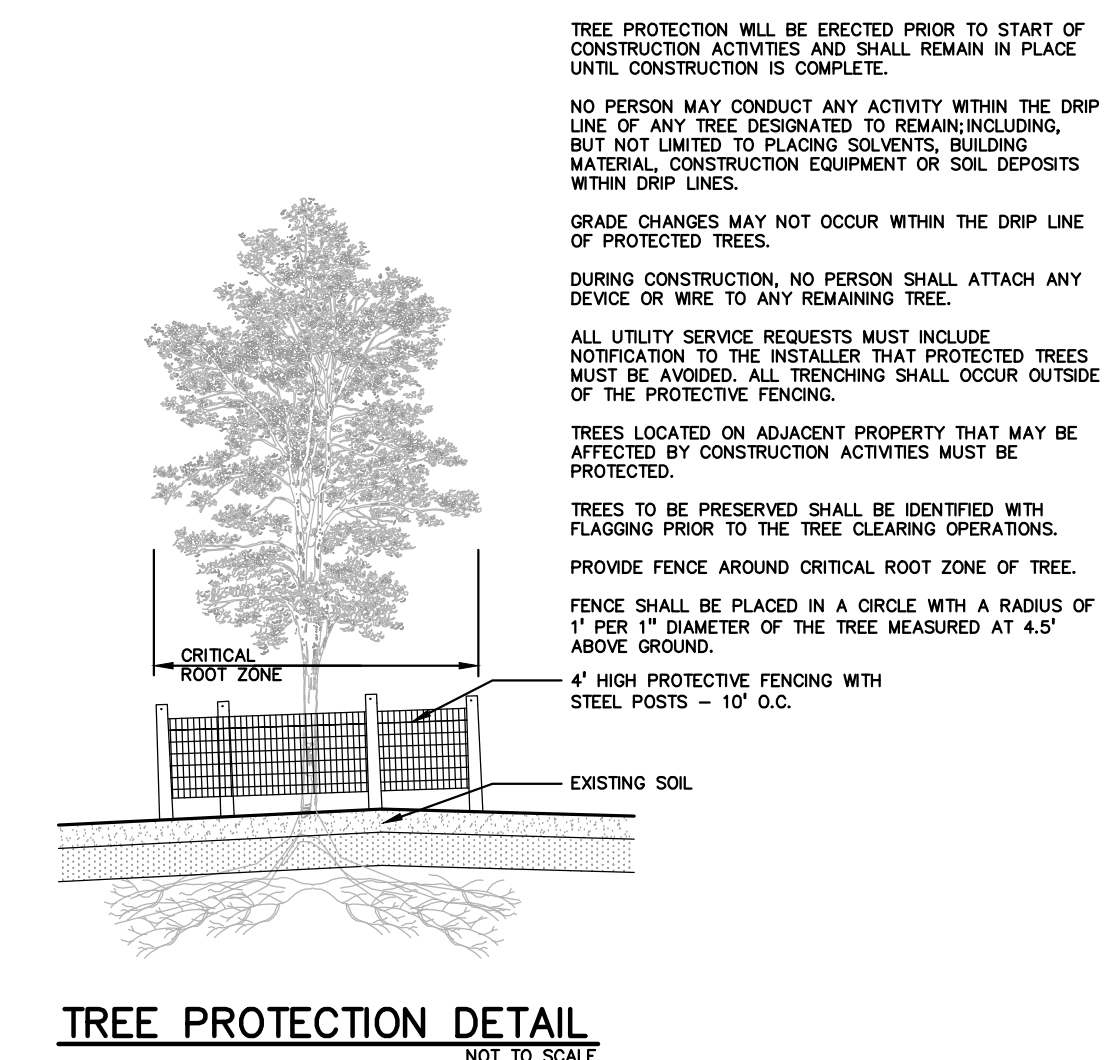
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\\pea\c\proj\PROJECTS\2018\2018-004 JOHN R COMMONS-48\DWGS\SITE PLANS\1-10 LANDSCAPE DETAILS\18034.DWG (LOT) DATE: 8/18/2023 BY: Brian G. Givens



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KEY:
 = EXISTING TREE TO BE REMOVED
 = EXISTING TREE TO REMAIN
 = TREE PROTECTION FENCING
 SEE SHEET T-1.2 FOR EXISTING TREE LIST
 SEE SHEET L-1.0 FOR REPLACEMENT CALCULATIONS



TREE PROTECTION WILL BE ERRECTED PRIOR TO START OF CONSTRUCTION ACTIVITIES AND SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
 NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE DRIP LINE OF ANY TREE DESIGNATED TO REMAIN INCLUDING, BUT NOT LIMITED TO PLACING SOLVENTS, BUILDING MATERIAL, CONSTRUCTION EQUIPMENT OR SOIL DEPOSITS WITHIN DRIP LINES.
 GRADE CHANGES MAY NOT OCCUR WITHIN THE DRIP LINE OF PROTECTED TREES.
 DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE TO ANY REMANNING TREE.
 ALL UTILITY SERVICE REQUESTS MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE OF THE PROTECTIVE FENCING.
 TREES LOCATED ON ADJACENT PROPERTY THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED.
 TREES TO BE PRESERVED SHALL BE IDENTIFIED WITH FLAGGING PRIOR TO THE TREE CLEARING OPERATIONS.
 PROVIDE FENCE AROUND CRITICAL ROOT ZONE OF TREE. FENCE SHALL BE PLACED IN A CIRCLE WITH A RADIUS OF 1' PER 1" DIAMETER OF THE TREE MEASURED AT 4.5' ABOVE GROUND.
 4' HIGH PROTECTIVE FENCING WITH STEEL POSTS - 10' O.C.



CLIENT
TROY SPORTS CENTER, LLC
1819 EAST BIG BEAVER ROAD
TROY, MI 48063

PROJECT TITLE
JOHN R COMMONS TOWNHOME DEVELOPMENT
PART OF THE SE 1/4 OF SECTION 23, T. 2N., R. 11E., E. 72ND AVE.
TROY, OAKLAND COUNTY, MI

REVISIONS	

ORIGINAL ISSUE DATE:
AUGUST 18, 2023

DRAWING TITLE
TREE SURVEY PLAN - WEST

PEA JOB NO.	18-0034
P.M.	G.M.B.
DN.	BGG
DES.	JLE
DRAWING NUMBER:	



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CLIENT
TROY SPORTS CENTER, LLC
1819 EAST BEAVER ROAD
TROY, MI 48063

PROJECT TITLE
JOHN R COMMONS TOWNHOME DEVELOPMENT
PART OF THE SE 1/4 OF SECTION 23, T. 2N., R. 11E., TOWNSHIP 23N., RANGE 11E., COUNTY, MI

REVISIONS

ORIGINAL ISSUE DATE:
AUGUST 18, 2023

DRAWING TITLE

EXISTING TREE LIST

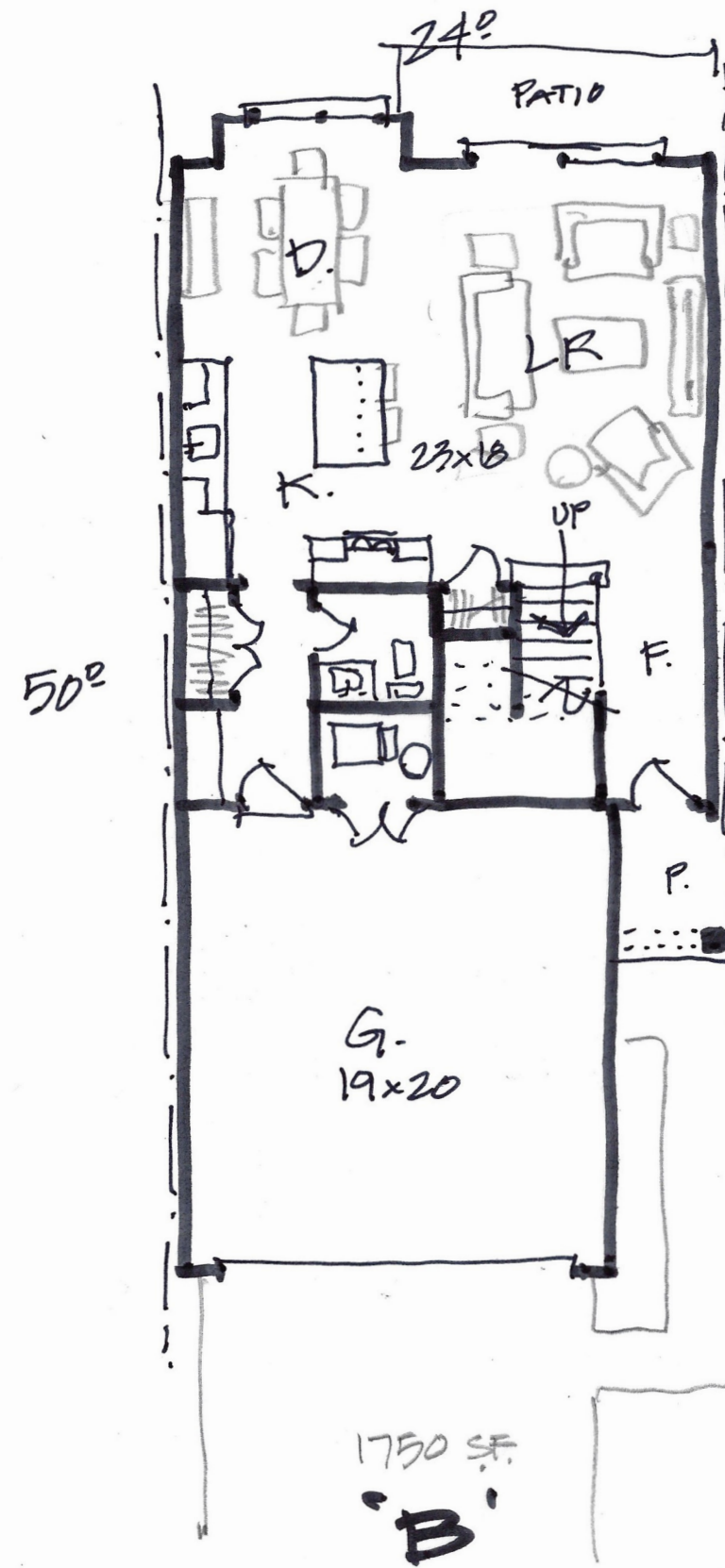
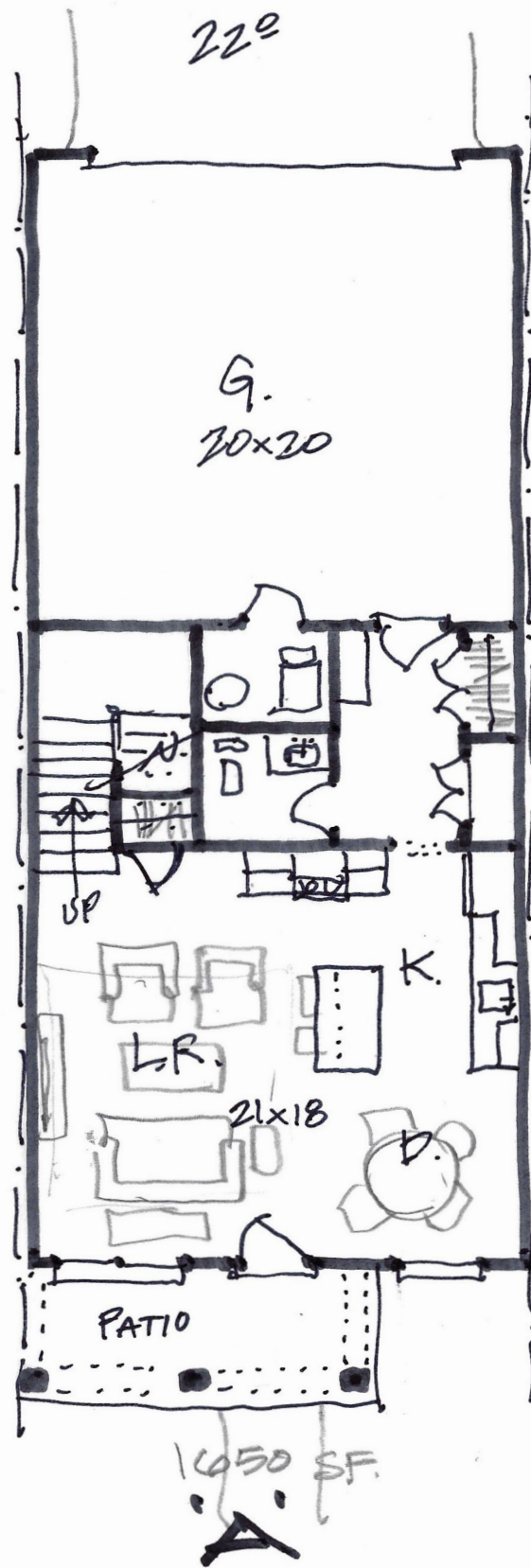
PEA JOB NO.	18-0034
P.M.	G.M.B.
DN.	BGG
DES.	JLE
DRAWING NUMBER:	

NOT FOR CONSTRUCTION

T-1.2

TAG NO.	CODE	DBH	COMMON NAME	LATIN NAME	COND	COMMENT	CLASS	SAVE / REMOVE	ON-SITE	REPLACE
1701	BP	15	Bradford Pear	Pyrus calleryana	Fair		INVASIVE	S	Y	
1702	BP	13	Bradford Pear	Pyrus calleryana	Fair		INVASIVE	S	Y	
1703	BP	15	Bradford Pear	Pyrus calleryana	Fair		INVASIVE	S	N	
1704	BP	15	Bradford Pear	Pyrus calleryana	Fair		INVASIVE	S	Y	
1705	BP	14	Bradford Pear	Pyrus calleryana	Fair		INVASIVE	S	N	
1706	BP	14	Bradford Pear	Pyrus calleryana	Poor		INVASIVE	S	N	
1707	BP	11	Bradford Pear	Pyrus calleryana	Fair		INVASIVE	S	Y	
1708	WS	8	White Spruce	Picea glauca	Poor		WOODLAND	S	Y	
1709	BS	10	Blue Spruce	Picea pungens	Fair		WOODLAND	S	Y	
1710	BS	9	Blue Spruce	Picea pungens	Good		WOODLAND	S	Y	
1711	BS	12	Blue Spruce	Picea pungens	Good		WOODLAND	S	Y	
1712	WS	12	White Spruce	Picea glauca	Fair		WOODLAND	S	Y	
1713	G	6	Ginkgo	Ginkgo biloba	Good		WOODLAND	S	Y	
1714	G	6	Ginkgo	Ginkgo biloba	Good		WOODLAND	S	Y	
1715	G	6	Ginkgo	Ginkgo biloba	Good		WOODLAND	S	Y	
1716	G	6	Ginkgo	Ginkgo biloba	Poor		WOODLAND	S	Y	
1717	SU	8	Sugar Maple	Acer saccharum	Poor		WOODLAND	R	Y	
1718	SU	10	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1719	SU	10	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1720	SU	6	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1721	SU	9	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1722	SU	9	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1723	SU	6	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1724	SU	8	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1725	SU	9	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1726	SU	8	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1727	SU	9	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1728	SU	9	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1729	SU	10	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1730	SU	10	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1731	SU	10	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1732	SU	8	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1733	SU	10	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1734	SU	10	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1735	SU	10	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1736	SU	9	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1737	SU	10	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1738	SU	9	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1739	SU	8	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1740	SU	9	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1741	SU	9	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1742	SU	10	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1743	SU	10	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1744	SU	8	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1745	SU	8	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1746	SU	8	Sugar Maple	Acer saccharum	Good		WOODLAND	R	Y	REPLACE
1747	BS	11	Blue Spruce	Picea pungens	Good		WOODLAND	S	Y	
1748	WS	11	White Spruce	Picea glauca	Good		WOODLAND	S	Y	
1749	WS	16	White Spruce	Picea glauca	Fair		WOODLAND	R	Y	REPLACE
1750	WS	9	White Spruce	Picea glauca	Very Poor		WOODLAND	R	Y	
1751	BS	16	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1752	BS	18	Blue Spruce	Picea pungens	Fair		LANDMARK	R	Y	REPLACE
1753	BS	16	Blue Spruce	Picea pungens	Poor		WOODLAND	R	Y	
1754	BS	16	Blue Spruce	Picea pungens	Good		WOODLAND	R	Y	REPLACE
1755	WS	10	White Spruce	Picea glauca	Fair		WOODLAND	R	Y	REPLACE
1756	BS	11	Blue Spruce	Picea pungens	Good		WOODLAND	R	Y	REPLACE
1757	BS	12	Blue Spruce	Picea pungens	Good		WOODLAND	R	Y	REPLACE
1758	WS	14	White Spruce	Picea glauca	Poor		WOODLAND	R	Y	
1759	WS	13	White Spruce	Picea glauca	Fair		WOODLAND	R	Y	REPLACE
1760	WS	14	White Spruce	Picea glauca	Good		WOODLAND	R	Y	REPLACE
1761	BS	13	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1762	BS	16	Blue Spruce	Picea pungens	Good		WOODLAND	R	Y	REPLACE
1763	BS	16	Blue Spruce	Picea pungens	Good		WOODLAND	R	Y	REPLACE
1764	BS	16	Blue Spruce	Picea pungens	Good		WOODLAND	R	Y	REPLACE
1765	BS	16	Blue Spruce	Picea pungens	Good		WOODLAND	R	Y	REPLACE
1766	WS	10	White Spruce	Picea glauca	Poor		WOODLAND	R	Y	
1767	BS	11	Blue Spruce	Picea pungens	Very Poor		WOODLAND	R	Y	
1768	BS	16	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1769	BS	12	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1770	BS	12	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1771	BS	12	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1772	BS	13	Blue Spruce	Picea pungens	Good		WOODLAND	R	Y	REPLACE
1773	BS	12	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1774	BS	12	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1775	BS	14	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1776	BS	12	Blue Spruce	Picea pungens	Good		WOODLAND	R	Y	REPLACE
1777	BS	12	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1778	BS	11	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1779	NS	9	Norway Spruce	Picea Abies	Poor		WOODLAND	R	Y	
1780	NS	10	Norway Spruce	Picea Abies	Poor		WOODLAND	R	Y	
1781	NS	11	Norway Spruce	Picea Abies	Poor		WOODLAND	R	Y	
1782	NS	13	Norway Spruce	Picea Abies	Good		WOODLAND	R	Y	REPLACE
1783	NS	8	Norway Spruce	Picea Abies	Fair		WOODLAND	R	Y	REPLACE
1784	NS	10	Norway Spruce	Picea Abies	Fair		WOODLAND	R	Y	REPLACE
1785	NS	8	Norway Spruce	Picea Abies	Poor		WOODLAND	R	Y	
1786	NS	10	Norway Spruce	Picea Abies	Fair		WOODLAND	R	Y	REPLACE
1787	G	8	Ginkgo	Ginkgo biloba	Good		WOODLAND	S	N	
1788	BS	7	Blue Spruce	Picea pungens	Fair		WOODLAND	S	Y	
1789	BS	7	Blue Spruce	Picea pungens	Fair		WOODLAND	S	Y	
1790	NS	11	Norway Spruce	Picea Abies	Fair		WOODLAND	S	Y	
1791	BS	7	Blue Spruce	Picea pungens	Poor		WOODLAND	S	Y	
1792	BS	8	Blue Spruce	Picea pungens	Poor		WOODLAND	S	Y	
1793	NS	14	Norway Spruce	Picea Abies	Good		WOODLAND	S	Y	
1794	NS	12	Norway Spruce	Picea Abies	Good		WOODLAND	S	Y	
1795	BS	16	Blue Spruce	Picea pungens	Good		WOODLAND	R	Y	REPLACE
1796	BS	13	Blue Spruce	Picea pungens	Good		WOODLAND	R	Y	REPLACE
1797	WS	12	White Spruce	Picea glauca	Fair		WOODLAND	R	Y	REPLACE
1798	BS	10	Blue Spruce	Picea pungens	Poor		WOODLAND	R	Y	
1799	WS	10	White Spruce	Picea glauca	Fair		WOODLAND	R	Y	REPLACE
1800	BS	13	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1801	BS	12	Blue Spruce	Picea pungens	Poor		WOODLAND	R	Y	
1802	BS	10	Blue Spruce	Picea pungens	Poor		WOODLAND	R	Y	
1803	BS	9	Blue Spruce	Picea pungens	Good		WOODLAND	R	Y	REPLACE
1804	BS	9	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1805	WS	8	White Spruce	Picea glauca	Fair		WOODLAND	R	Y	REPLACE
1806	WS	8	White Spruce	Picea glauca	Fair		WOODLAND	R	Y	REPLACE
1807	WS	8	White Spruce	Picea glauca	Fair		WOODLAND	R	Y	REPLACE
1808	BS	7	Blue Spruce	Picea pungens	Good		WOODLAND	R	Y	REPLACE
1809	BS	7	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1810	BS	8	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1811	BS	8	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1812	BS	7	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1813	BS	8	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1814	BS	6	Blue Spruce	Picea pungens	Poor		WOODLAND	R	Y	
1815	BS	8	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1816	BS	7	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1817	BS	8	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1818	BS	7	Blue Spruce	Picea pungens	Poor		WOODLAND	R	Y	
1819	BS	9	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1820	BS	6	Blue Spruce	Picea pungens	Poor		WOODLAND	R	Y	

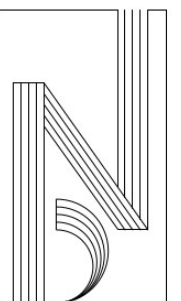
TAG NO.	CODE	DBH	COMMON NAME	LATIN NAME	COND	COMMENT	CLASS	SAVE / REMOVE	ON-SITE	REPLACE
1821	BS	9	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1822	WS	6	White Spruce	Picea glauca	Fair		WOODLAND	R	Y	REPLACE
1823	BS	8	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1824	BS	7	Blue Spruce	Picea pungens	Poor		WOODLAND	R	Y	
1825	SM	6	Silver Maple	Acer saccharum	Good		INVASIVE	S	Y	
1826	SC	16	Scotch Pine	Pinus sylvestris	Fair		WOODLAND	S	Y	
1827	WF	16	(Eastern) White Pine	Pinus strobus	Fair		WOODLAND	S	Y	
1828	BS	7	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1829	BS	8	Blue Spruce	Picea pungens	Fair		WOODLAND	R	Y	REPLACE
1830	WS	7	White Spruce	Picea glauca	Fair		WOODLAND	R	Y	REPLACE
1831	WS	6	White Spruce	Picea glauca	Poor		WOODLAND	R	Y	
1832	WS	6	White Spruce	Picea glauca	Poor		WOODLAND	R	Y	
1833	WS	6	White Spruce	Picea glauca	Poor		WOODLAND	R	Y	
1834	WS	6	White Spruce	Picea glauca	Poor		WOODLAND	R	Y	
1835	WS	6	White Spruce	Picea glauca	Fair		WOODLAND	R	Y	REPLACE
1836	BS	6	Blue Spruce	Picea pungens	Good		WOODLAND	R	Y	REPLACE
1837	WS	6	White Spruce	Picea glauca	Poor		WOODLAND	R	Y	
1838	WS	7	White Spruce	Picea glauca	Fair		WOODLAND	R	Y	REPLACE
1839	WS	8	White Spruce	Picea glauca	Fair		WOODLAND	R	Y	REPLACE
1840	WS	6	White Spruce	Picea glauca	Fair		WOODLAND	R	Y	REPLACE
1841	BS	8	Blue Spruce	Picea pungens	Good					

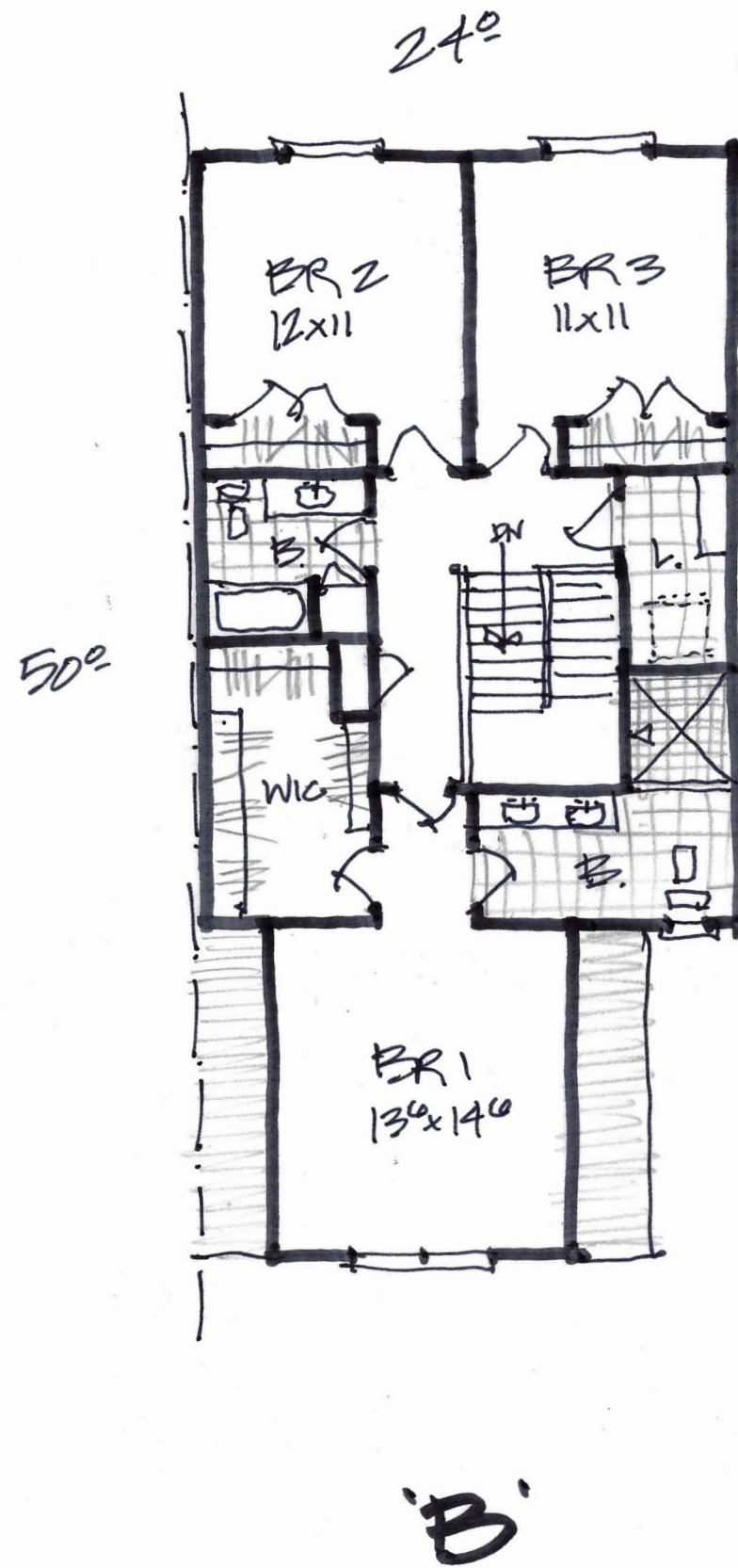
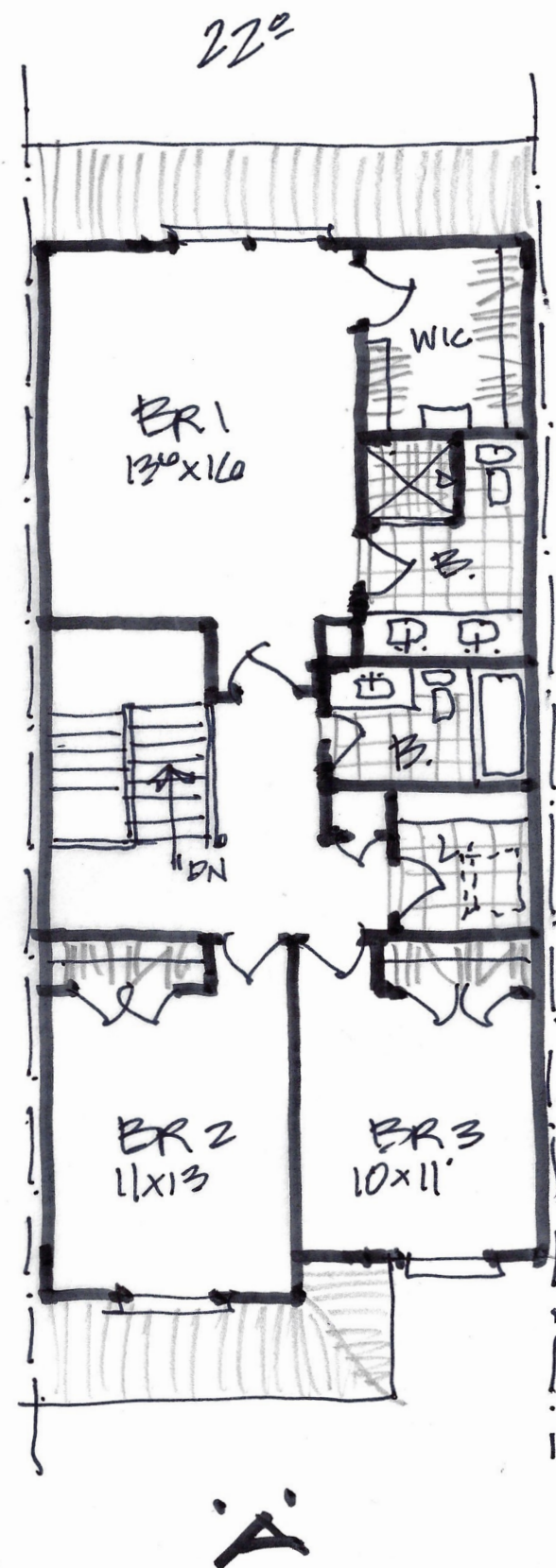


FIRST FLOOR PLAN
John R Townhome Concepts

Troy, Michigan

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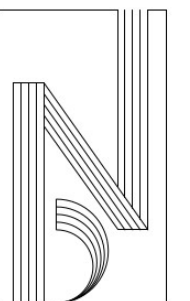


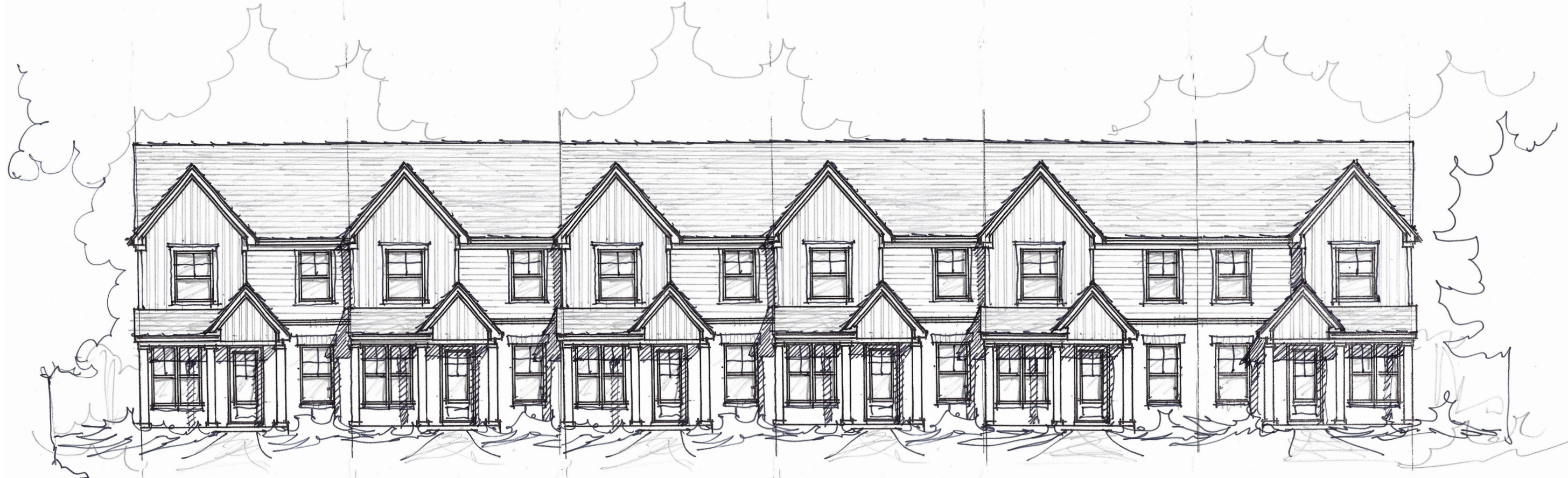


SECOND FLOOR PLAN
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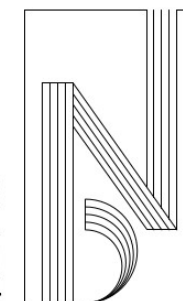




ELEVATION CONCEPTS — BUILDING TYPE A
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ELEVATION CONCEPT — BUILDING TYPE B
John R Townhome Concepts

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