

ENVIRONMENTAL IMPACT STATEMENT

2020 Rochester Road

Rochester Hills, Michigan

RH Investments LLC
33477 Woodward Avenue, Suite 800
Birmingham, Michigan 48009

April 13, 2017
PEA Project No. 2016-364



Civil Engineers | Land Surveyors | Landscape Architects

experienced. responsive. passion for quality.

2430 Rochester Court, Suite 100 | Troy, MI 48083 | t: 248.689.9090 | f: 248.689.1044 | www.peainc.com

**2020 Rochester Road
ENVIRONMENTAL IMPACT STATEMENT**

INTRODUCTION

The subject Site is located on the west side of Rochester Road and south of Hamlin Road. It is a 0.42 acre parcel of an overall parcel owned by RH Investments, LLC; it zoned B-5 Automotive Service Business with FB-2 Flex Business Overlay. The Future Land Use Map categorizes the larger parcel as "Business Flexible Use 2." The site is currently developed as an existing gas station. The Applicant intends to demolish the existing gas station building and construct a new full service gas station/convenience store and fueling stations as shown on the attached preliminary site plan (Exhibit A) and elevation drawings (Exhibit B).

**PART I ANALYSIS REPORT
PAST AND PRESENT STATUS OF THE LAND**

A. What are the characteristics of the land, waters, plant and animal life present?

The land is currently developed as an existing gas station with 6 fueling stations and an associated canopy.

Comment on the suitability of the soils for the intended use. Describe the vegetation giving specific locations of specimens of six (6) inch diameter or greater, or areas of unusual interest on parcels of five (5) acres or more. Describe the ground water supply and proposed use. Give the location and extent of wetlands and floodplain. Identify watersheds and drainage patterns.

According to the soils map for Oakland County, the existing soils are suitable for development. The ground water level is unknown at this time but the proposed use will not require use of ground water resources. The Site does not contain any existing floodplain. The existing drainage for the site is self-contained and directed towards an existing enclosed storm sewer system. There is a limited amount of on-site landscaping.

B. Is there any historical or cultural value to the land?

The Site is not shown on the City's historic district map.

C. Are there any man-made structures on the parcels?

An existing 503 square foot gas station building and the associated gas pumps, canopy, and parking spaces. Additionally, there are three (3) underground fuel storage tanks. The three fuel tanks will remain and the proposed construction will account for their presence and future use of the service station. Near the northerly property line there are two (2) underground storm water detention tanks that will remain and service as the site storm water detention upon determination that the tanks meet the city requirements.

D. Are there important scenic features?

No

E. What access to the property is available at this time?

The Site currently has access to Rochester and Hamlin Roads.

F. What utilities are available?

The Site has access to and is served by all necessary utilities.

PART III IMPACT FACTORS

A. What are the natural and urban characteristics of the plan?

1. Total number of acres of undisturbed land.

0.42

2. Number of acres of wetland or water existing.

0.00

3. Number of acres of water to be added.

0.00

4. Number of acres of private open space.

0.10

5. Number of acres of public open space.

0.00

6. Extent of off-site drainage.

There is no off-site drainage.

7. List of any community facilities included in plan.

Pathway in Rochester Road and Hamlin Road right-of-way.

8. How will utilities be provided?

Storm, Sanitary and Water Main will be provided by the existing system located in the adjacent roads (Rochester and Hamlin) and adjacent property.

B. What is the current planning status?

The Applicant has requested preliminary site plan approval with this application.

C. Projected timetable for the proposed project.

The timetable depends on the result of the site plan request. We would seek entitlement during 1st quarter 2017, final plan approvals during 2nd^d quarter of 2017, and starting construction April/May 2017.

D. Describe or map the plan’s special adaptation to the geography.

N/A

E. Relation to surrounding development or areas.

Location	Existing Zoning	Future Land Use Map
<i>Site</i>	<i>B-5 Automotive Service Business</i>	<i>Business Flex Use 2</i>
<i>South of Site</i>	<i>B-2 General Business</i>	<i>Business Flex Use 3</i>
<i>West of Site</i>	<i>B-2 General Business</i>	<i>Business Flex Use 2</i>
<i>North of Site</i>	<i>B-3 Shopping Center Business</i>	<i>Business Flex Use 3</i>

F. Has the project regional impact? Of what extent and nature?

There is no regional impact.

G. Describe anticipated adverse effects during construction and what measures will be taken to minimize the impact.

There are no effects anticipated that would be more adverse than the normally anticipated effects of a construction project. The Applicant will of course adhere to all applicable regulations and requirements during the construction phase including any measures designed to minimize any adverse effects from the customary construction activities.

H. List any possible pollutants.

None are anticipated from the development of the Site.

I. What adverse or beneficial changes must inevitably result from the proposed developments?

Overall, no adverse physical, social or economic changes should result or are inevitable to result from the proposed development. The development of the Site should encourage and result in beneficial changes to the physical, social and economic environment.

1. Physical.

a. Air Quality

No adverse effects are anticipated from the development of the Site.

b. Water effects (pollution, sedimentation, absorption, flow, flooding).

A storm water system conveyance, treatment and storage system will be designed so there are no adverse effects are anticipated from the development of the Site.

c. Wildlife habitat, where applicable. N/A

d. Vegetative cover.

There will be an increase in vegetative cover and proposed plant material.

e. Noise. N/A

f. Night-light. N/A

2. Social.

a. Visual.

The development of the site will improve the visual environment. See Exhibit B, Conceptual Elevations.

b. Traffic.

Traffic will not increase due to the project

c. Modes of transportation (automotive, bicycle, pedestrian, public).

The Site's proximity to residential neighborhoods, its plan to offer neighborhood convenience and the presence of the Pedestrian/Bicycle path along Rochester and Hamlin Roads will promote the use of non-motorized transportation to access the Site from adjacent and nearby residential neighborhoods along with a bicycle rack for parking of these pedestrians.

d. Accessibility of residents to:

- (1) Recreation - N/A
- (2) Schools, libraries - N/A
- (3) Shopping

The proposed improvements of the gas station and convenience store will add to the public ability and option of shopping at this development.

(4) Employment

The proposed improvements of the gas station and convenience store will add to the public ability for additional employment opportunities within the community.

(5) Health facilities. – N/A

3. Economic.

The proposed development would provide positive economic impact on the City of Rochester Hills by adding not only tax dollars to the local economy from the business entity.

a. Influence on surrounding land values.

There should be a positive effect on surrounding values considering the proposed site and architectural design.

b. Growth inducement potential.

The improved retail center and gas station will bring new employment opportunities. The re-development should also spur future developments on the remaining parcels in the area as Rochester Road is a coveted traffic way for residential, retail, hospitality, and other business uses.

c. Off-site costs of public improvements.

There should be no need for offsite public improvements.

d. Proposed tax revenues (assessed valuation).

The development will increase tax revenues.

e. Availability or provisions for utilities.

All utilities are available

J. Additional Factors.

1. In relation to land immediately surrounding the proposed development, what has been done to avoid disrupting existing uses and intended future uses as shown on the Master Plan?

The development will not disrupt existing or future uses. The development is harmonious with the existing and planned land use patterns in the area.

2. What specific steps are planned to revitalize the disturbed or replace the removed, vegetative cover?

The proposed development has a proposed landscaping plan which will meet the City of Rochester Hills standards and provide new landscape plant materials for this project.

3. What beautification steps are built into the development?

Please see attached conceptual elevations. Exhibit B

4. What alternative plans are offered? *N/A*

PART IV SUMMARY

A. Introduction and Background

Please see the Introduction and background of 2020 Rochester Road Project that can be found within our narrative.

The Applicant intends to demolish the existing gas station and construct a new full service gas station and convenience store as shown on the attached preliminary site plan (Exhibit A) and elevation drawings (Exhibit B).

The proposed development furthers many of the City's goals, visions and policies:

- The proposed use will advance the City's vision for a transitional area between the more intensely developed and planned retail business uses on the Northwest quadrant of Hamlin and Rochester Roads and the residential neighborhoods located west and northeast of the Site.*
- The development will encourage the use of non-motorized transportation because of the Site's proximity to the residential population that it is intended to serve and the availability of pedestrian/bicycle paths on Rochester Road.*
- The development also serves the City by implementing the future land use plan for the west side of Rochester Road south of Hamlin Road.*

CONCLUSION

The analysis of the environmental impact of the proposed development leads to the inevitable conclusion that the net effect of the proposed development will enhance rather than harm the environment. The development of the subject Site will have a beneficial environmental effect in the immediate area, surrounding environments and the City as a whole. The proposed site improvements and construction of new building will enhance aesthetic values than the building that now exists on the Site. The development will increase tax revenues and provide residents' retail gas needs. The location's adjacency to residential neighborhoods and pedestrian/bicycle paths accommodates non-motorized transportation. .

Exhibit A

PRELIMINARY SITE PLANS FOR
2020 ROCHESTER RETAIL
 PART OF THE NE 1/4 SECTION 27, T.3N., R.11 E.,
 CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

OWNER/APPLICANT/DEVELOPER:

RH INVESTMENTS LLC
 33477 WOODWARD AVENUE, SUITE 800
 BIRMINGHAM, MI 48009
 CONTACT: SCOTT BARBAT
 PHONE: (248) 914-0444

ARCHITECT:

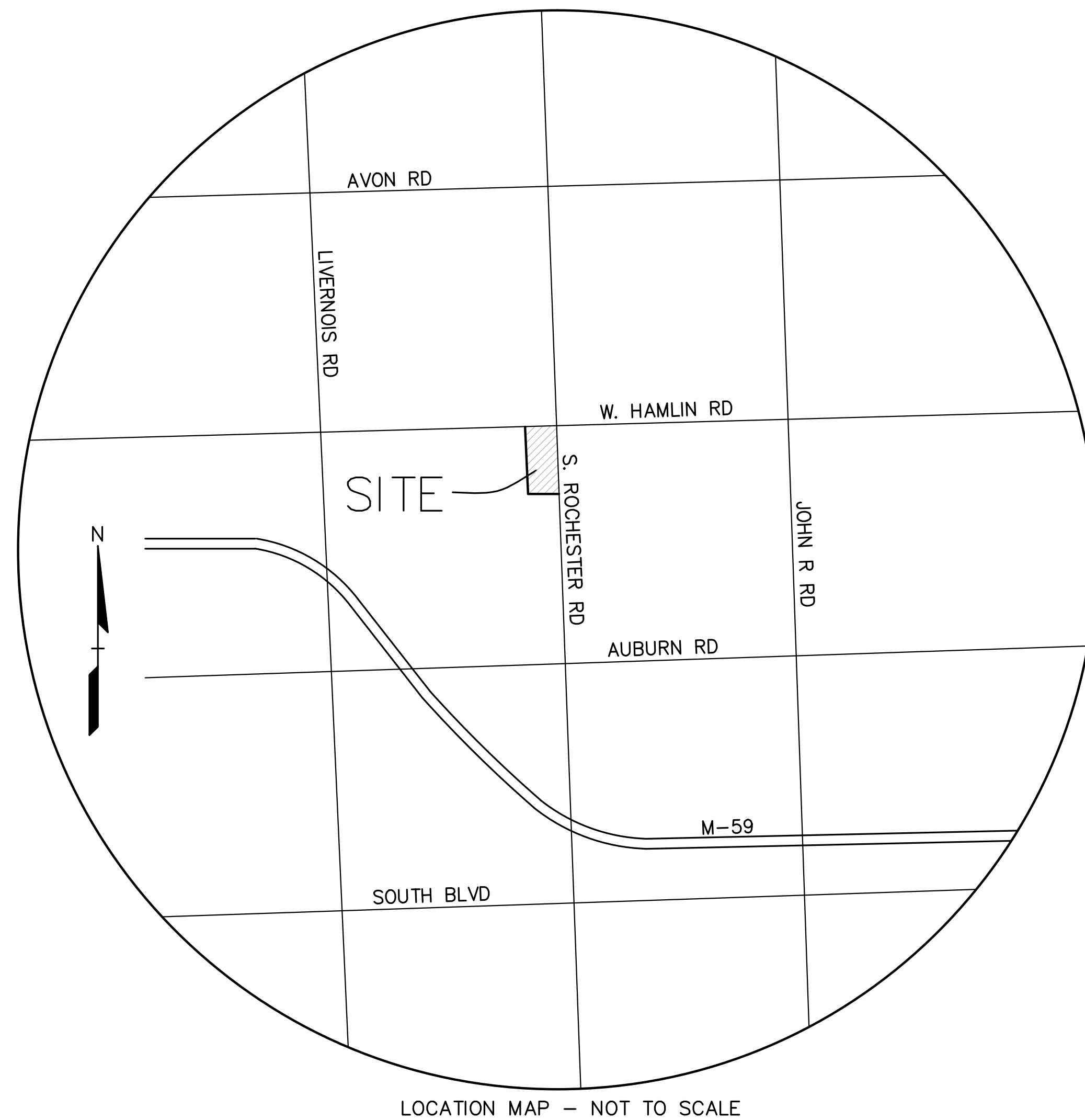
ABRO DESIGN GROUP
 30600 NORTHWESTERN HWY., SUITE 310
 FARMINGTON HILLS, MI 48334
 CONTACT: JOHN ABRO
 PHONE: (248) 254-3834

CIVIL ENGINEER:

PEA, Inc.
 2430 ROCHESTER CT, STE 100
 TROY, MI 48083-1872
 CONTACT: DOUG BRINKER, PE
 PROJECT ENGINEER
 PHONE: (248) 689-9090
 FAX: (248) 689-1044

LANDSCAPE ARCHITECT:

PEA, Inc.
 7927 NEMCO WAY, SUITE 115
 BRIGHTON, MI 48116
 CONTACT: KIMBERLY DIETZEL
 LANDSCAPE ARCHITECT
 PHONE: (517) 546-8583
 FAX: (517) 546-8973



LOCATION MAP - NOT TO SCALE

LEGAL DESCRIPTION
 (per Kern-Tec Topographic Survey, job #10-04408, dated 12/09/2010)

THE LAND SITUATED IN THE CITY OF ROCHESTER HILLS, COUNTY OF OAKLAND, STATE OF MICHIGAN IS DESCRIBED AS FOLLOWS:

THE EAST 130 FEET OF LOT 121 OF THE PLAT OF JUENGL'S ORCHARDS ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 72 OF PLATS, PAGE 32, OAKLAND COUNTY RECORDS.

LEGAL INFORMATION
 (PER TAX RECORD ID#: 15-27-226-012)
 T3N, R11E, SEC 27 JUENGL'S ORCHARDS E 130 FT OF LOT 121

INDEX OF DRAWINGS:

- C-0.0 COVER SHEET
- C-1.0 TOPOGRAPHIC SURVEY
- C-2.0 PRELIMINARY DIMENSION PLAN
- C-3.0 PRELIMINARY GRADING PLAN
- C-4.0 PRELIMINARY UTILITY PLAN
- C-5.0 FIRE TRUCK ACCESS PLAN
- C-6.0 PRELIMINARY DETAILS SHEET
- C-7.0 MDOT DETAILS
- C-8.0 SIGHT DISTANCE PLAN
- L-1 PRELIMINARY LANDSCAPE PLAN

ARCHITECTURAL PLANS:

- A-110 EXTERIOR BUILDING ELEVATIONS AND FLOOR PLAN

EXTERIOR LIGHTING PLANS:

- 1 of 2 PHOTOMETRIC PLAN
- 2 of 2 PHOTOMETRIC DETAILS

NO.	DATE	REVISIONS
1	02/16/2016	REVISED PLANS PER CITY COMMENTS
2	02/17/2016	REVISED PLANS PER PLANNING COMMENTS
3	02/17/2016	REVISED PLANS PER PLANNING COMMENTS
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49	02/17/2016	REVISED PLANS PER PLANNING COMMENTS
50	02/17/2016	REVISED PLANS PER PLANNING COMMENTS

CAUTION!!
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ABRO DESIGN GROUP
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 FARMINGTON HILLS, MI 48334

COVER SHEET
 2020 ROCHESTER RETAIL
 PART OF THE NORTHEAST 1/4 OF SECTION 27, T.3N., R.11E.,
 CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES: DLB/DRW | SUR: DL | P.M. | JPB

ORIGINAL ISSUE DATE:
 FEBRUARY 16, 2016

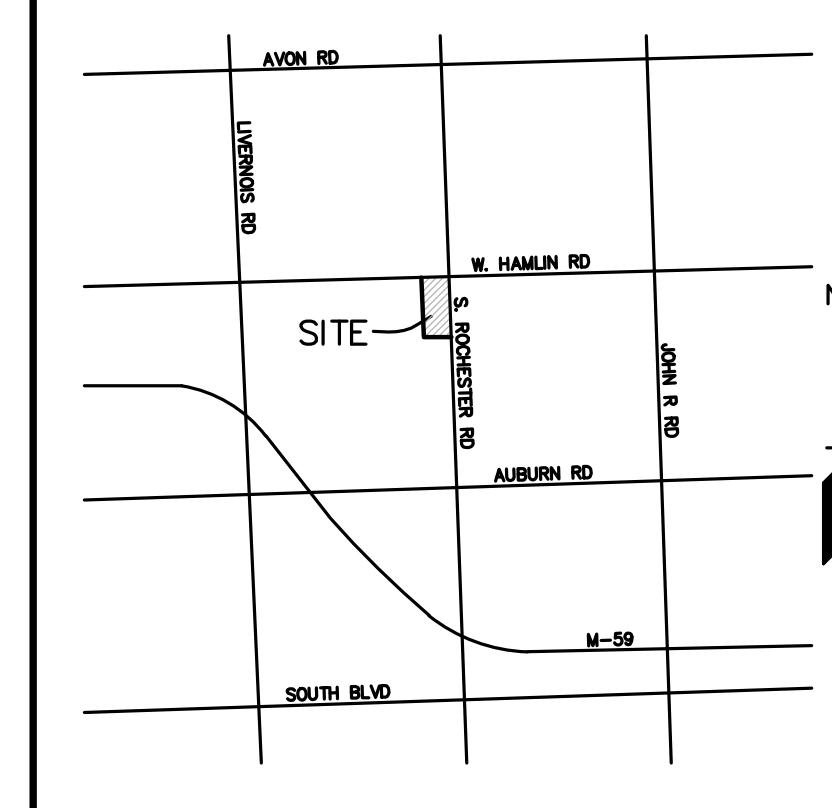
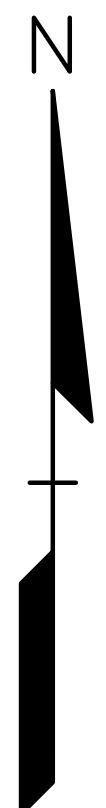
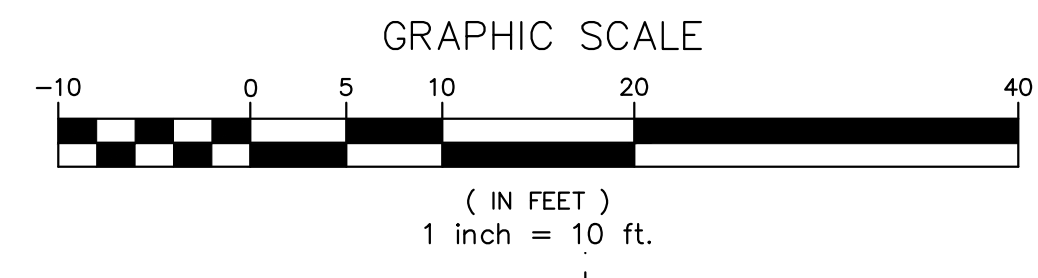
PEA JOB NO. 2016-364

SCALE: 1" = 10'

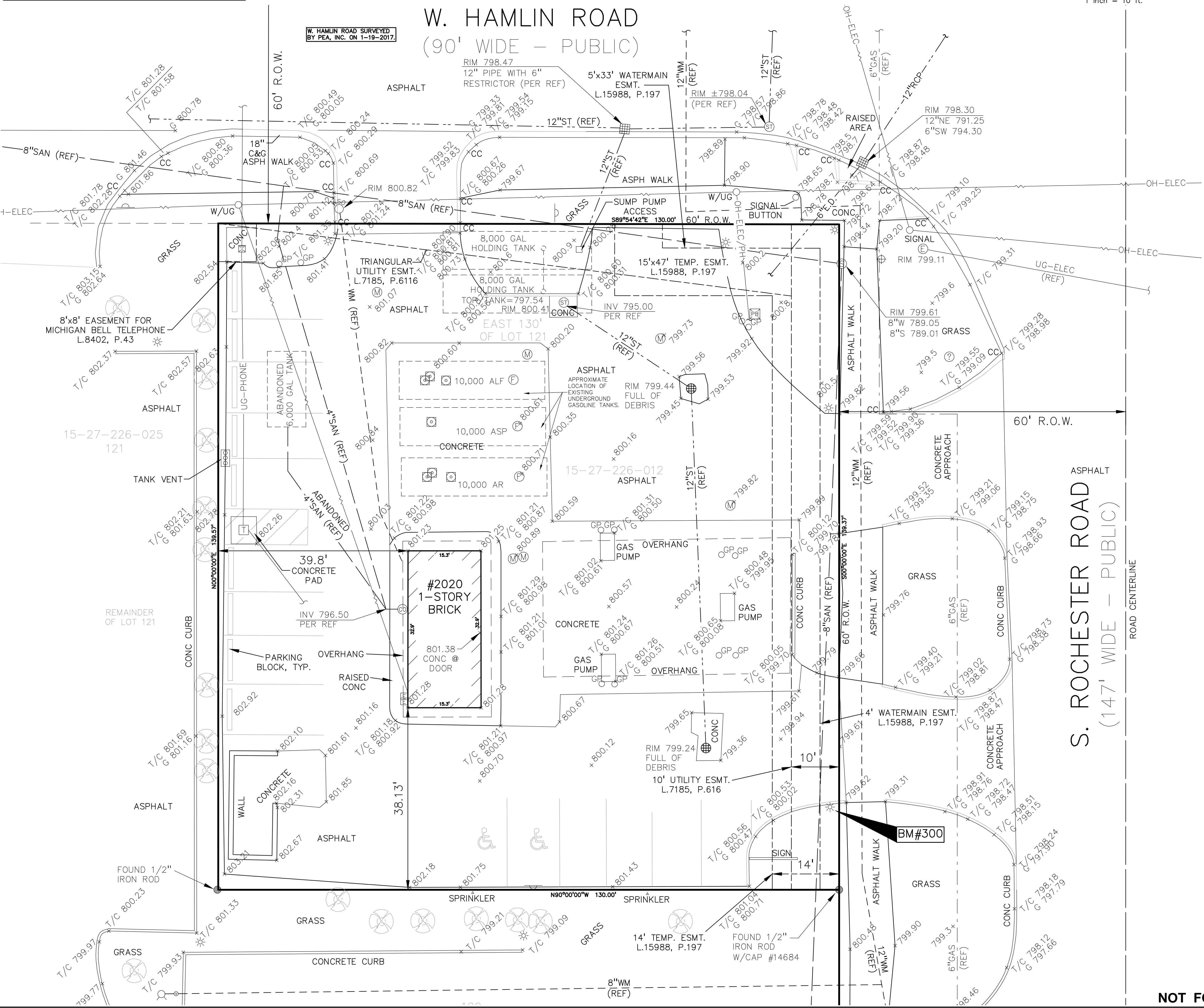
DRAWING NUMBER:
C-0.0

BENCHMARKS
 (per Kem-Tec Topographic Survey, job #10-04408, dated 12/09/2010)
 BM #300 (PER PEA, INC.)
 TOP OF SOUTHEAST BOLT, LIGHT POLE BASE, LOCATED AT THE SOUTHEAST CORNER OF SUBJECT PROPERTY, AS PROVIDED BY CITY OF ROCHESTER HILLS.
 ELEVATION - 801.37 (CITY OF ROCHESTER HILLS B.M. - NAVD 29)

SOIL TYPES:
 CAPAC SANDY LOAM, 0 TO 4 PERCENT SLOPES 0.1 ACRES
 URBAN LAND 0.3 ACRES



NO.	DATE	REVISIONS
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2	3/20/17	REVISED PER PLANNING COMMENTS
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40	3/20/17	REVISED PER PLANNING COMMENTS



LEGEND

● IRON FOUND	⊗ BRASS PLUG SET	⊙ SEC. CORNER FOUND
⊗ NAIL FOUND	⊗ MONUMENT FOUND	⊙ RECORDED
⊗ NAIL & CAP SET	⊗ MONUMENT SET	⊙ MEASURED
		⊙ CALCULATED

EXISTING

- OH-ELEC-W-O: ELEC. PHONE OR CABLE TV O.H. LINE, POLE & GUY WIRE
- UG-CATV: UNDERGROUND CABLE TV, CATV PEDESTAL
- UG-PHONE: TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
- UG-ELEC: ELECTRIC U.G. CABLE, MANHOLE, METER & MANHOLE
- UG-ELEC: GAS MAIN, VALVE & GAS LINE MARKER
- WATERMAIN, HYD. GATE VALVE, TAPPING SLEEVE & VALVE
- SANITARY SEWER, CLEANOUT & MANHOLE
- STORM SEWER, CLEANOUT & MANHOLE
- COMBINED SEWER & MANHOLE
- CATCH BASIN, INLET, YARD DRAIN
- POST INDICATOR VALVE
- WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF
- MALBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
- FUEL FILL, FUEL TANK ACCESS, MONITORING WELL
- TRAFFIC WALK SIGNAL, PUBLIC PAY PHONE
- UNIDENTIFIED STRUCTURE

PROPOSED

- SPOT ELEVATION
- CONTOUR LINE
- FENCE
- GUARD RAIL
- STREET LIGHT
- SIGN
- CONCRETE
- ASPHALT
- GRAVEL SHOULDER
- WETLAND
- STD. HEAVY R.O.W. DUTY ONLY
- STD. HEAVY DEEP DUTY ONLY
- STD. DUTY STRENGTH

REFERENCE DRAWINGS

KEM-TEC & ASSOCIATES
 ANKO, INC. COMPANY
 TOPOGRAPHIC SURVEY #10-04408
 AS-BUILT CONSTRUCTION DRAWINGS, #5730 7-20-1981

LEGAL DESCRIPTION
 (per Kem-Tec Topographic Survey, job #10-04408, dated 12/09/2010)
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 THE EAST 130 FEET OF LOT 121 OF THE PLAT OF JUENGL'S ORCHARDS ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 72 OF PLATS, PAGE 32, OAKLAND COUNTY RECORDS.

LEGAL INFORMATION
 (PER TAX RECORD ID# 15-27-226-012)
 T3N, R11E, SEC 27 JUENGL'S ORCHARDS E 130 FT OF LOT 121

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 30600 NORTHWESTERN HIGHWAY, SUITE 310
 FARMINGTON HILLS, MI 48334

TOPOGRAPHIC SURVEY
2020 ROCHESTER RETAIL
 PART OF THE NORTHEAST 1/4 OF SECTION 27, T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES. DLB/DWJ SUR. DL P.M. JPB
 S:\PROJECTS\2016\2016364\DWG\SITE PLAN\V-BASE-16364.DWG

ORIGINAL ISSUE DATE:
 FEBRUARY 16, 2016

PEA JOB NO. 2016-364

SCALE: 1" = 10'

DRAWING NUMBER:
C-1.0

NOT FOR CONSTRUCTION

CITY FILE #: 99-028.3

FIRE DEPARTMENT NOTES:

- CONSTRUCTION SITES SHALL BE SAFEGUARDED IN ACCORDANCE WITH IFC CHAPTER 14.
- OPEN BURNING IS NOT PERMITTED, INCLUDING THE BURNING OF TRASH, DEBRIS, OR LAND CLEARING MATERIALS. OPEN BURNING FOR WARMING OF SAND AND/OR WATER FOR THE PREPARATION OF MORTAR SHALL BE WITHIN CITY OF ROCHESTER HILLS BURNING PERMIT GUIDELINES. CONTACT ROCHESTER HILLS FIRE DEPARTMENT FOR PERMIT INFORMATION. FIRE PREVENTION ORDINANCE CHAPTER 58, SECTION 503.
- FIRE LANES SHALL BE DESIGNATED BY THE FIRE CODE OFFICIAL, AND SHALL BE CONSPICUOUSLY POSTED ON BOTH SIDES OF THE FIRE LANE, WITH FIRE LANE SIGNS SPACED NOT MORE THAN 100 FEET APART. NO STOPPING, STANDING, PARKING, FIRE LANE, AND IN CONFORMANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. FIRE PREVENTION ORDINANCE CHAPTER 58, SECTION 506.
- A KNOX KEY SYSTEM SHALL BE INSTALLED AT EACH BUILDING IN A LOCATION APPROVED BY THE FIRE CODE OFFICIAL. ORDERING INFORMATION IS AVAILABLE KNOXBOX.COM." IFC 2006 SEC. 506

SIDEWALK RAMP LEGEND:

SIDEWALK RAMP 'TYPE P'

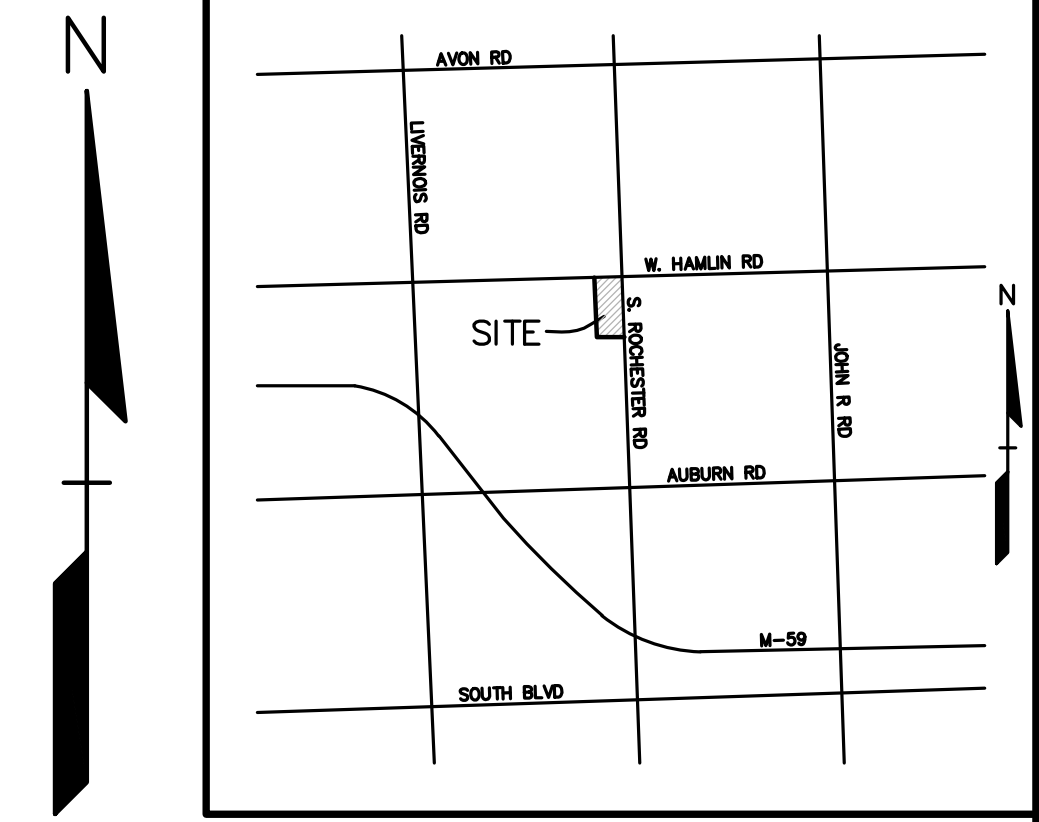
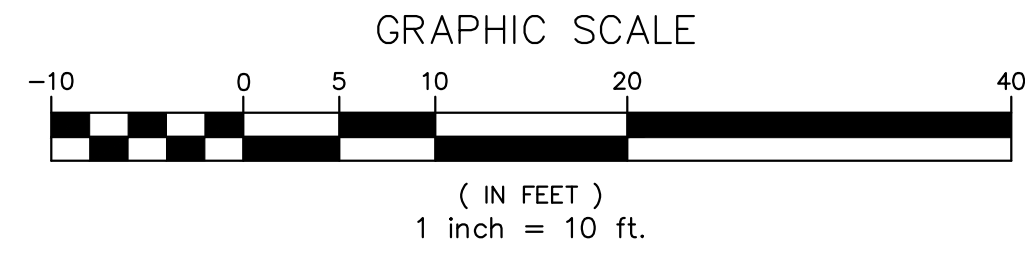
SIDEWALK RAMP 'TYPE R'

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

ACCESSIBLE DOOR LEGEND:

INDICATES ACCESSIBLE ACCESS DOOR

REFER TO ARCHITECTURAL PLANS FOR FURTHER DETAILS.



NO.	DATE	REVISIONS
1	4/13/17	ISSUE
2	5/20/17	REVISED PER PLANNING COMMENTS
3	6/1/17	REVISED PER PERMITS COMMENTS
4	6/1/17	REVISED PER PERMITS COMMENTS

W. HAMLIN ROAD
(90' WIDE - PUBLIC)

NOTE:
ALL WORK WITHIN THE S. ROCHESTER ROAD RIGHT-OF-WAY IS UNDER THE JURISDICTION OF M.D.O.T. AND REQUIRES A PERMIT. WORK WITHIN THE W. HAMLIN ROAD RIGHT-OF-WAY IS UNDER THE JURISDICTION OF THE CITY OF ROCHESTER HILLS.

SIGN LEGEND:

'NO STOPPING STANDING PARKING' SIGN

'FIRE LANE' SIGN

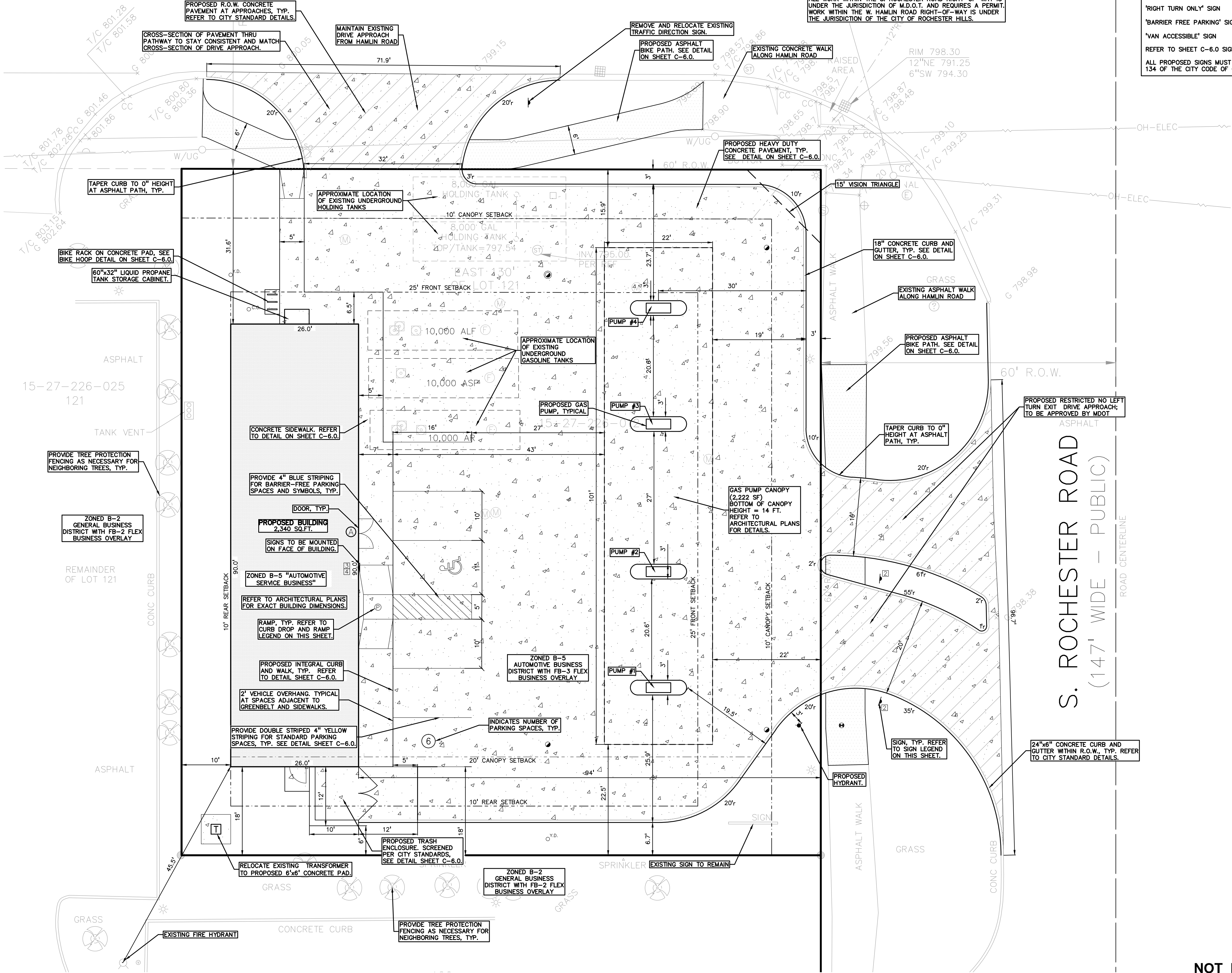
'RIGHT TURN ONLY' SIGN

'BARRIER FREE PARKING' SIGN

'VAN ACCESSIBLE' SIGN

REFER TO SHEET C-6.0 SIGN DETAILS

ALL PROPOSED SIGNS MUST MEET CHAPTER 134 OF THE CITY CODE OF ORDINANCES.



LEGEND

	IRON FOUND		BRASS PLUG SET		SEC. CORNER FOUND
	IRON SET		MONUMENT FOUND		RECORDED
	NAIL FOUND		MONUMENT SET		MEASURED
	NAIL & CAP SET		PROPOSED		CALCULATED

	OH-ELEC		ELEC. PHONE OR CABLE TV G.H. LINE, POLE & GUY WIRE
	UG-CATV		TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
	UG-ELEC		ELECTRIC U.G. CABLE, MANHOLE, METER & MANHOLE
	GAS		GAS MAIN, VALVE & GAS LINE MARKER
	WATERMAIN		GATE VALVE, TAPPING SLEEVE & VALVE
	SANITARY		SANITARY SEMER, CLEANOUT & MANHOLE
	STORM		STORM SEMER, CLEANOUT & MANHOLE
	COMBINED		COMBINED SEMER & MANHOLE
	CATCH BASIN		CATCH BASIN, INLET, YARD DRAIN
	POST INDICATOR		POST INDICATOR VALVE
	WATER VALVE BOX		HYDRANT VALVE BOX, SERVICE SHUTOFF
	MALBOX		MALBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
	FUEL TANK		FUEL TANK ACCESS, MONITORING WELL
	TRAFFIC SIGNAL		TRAFFIC SIGNAL, PUBLIC PAY PHONE
	UNDETERMINED		UNDETERMINED STRUCTURE
	SPOT ELEVATION		CONTOUR LINE
	FENCE		GUARD RAIL
	STREET LIGHT		SIGN
	CONCRETE		ASPHALT
	ASPHALT		GRAVEL SHOULDER
	WETLAND		STD HEAVY R.O.W. DUTY
	STD HEAVY DUTY STRENGTH		STD HEAVY DUTY STRENGTH

REFERENCE DRAWINGS

REM-TEC & ASSOCIATES TOPOGRAPHIC SURVEY #10-04408
AKO, INC. COMPANY AS-BUILT CONSTRUCTION DRAWINGS, #5730 7-20-1981

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.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF ROCHESTER HILLS CURRENT STANDARDS AND REGULATIONS.
- THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- ANY WORK WITHIN THE STREET OR HIGHWAY RIGHT-OF-WAYS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION AND SHALL NOT BEGIN UNTIL ALL NECESSARY PERMITS HAVE BEEN ISSUED FOR THE WORK.
- ALL SIGNS MUST MEET SECTION 138-8.603 AND CHAPTER 134 OF THE CITY CODE OF ORDINANCES AND BE APPROVED UNDER A SEPARATE PERMIT ISSUED BY THE BUILDING DEPARTMENT.

SITE DATA TABLE:

SITE AREA: 0.42 ACRES (±18,128 SQ.FT.) NET AND GROSS

ZONING: B-5, AUTOMOTIVE SERVICE BUSINESS

PROPOSED USE: GAS STATION/RETAIL (2,700 SF)

BUILDING TYPE: II-B

BUILDING INFORMATION:
MAXIMUM ALLOWABLE BUILDING HEIGHT = 2 STORIES / 30 FEET
PROPOSED BUILDING HEIGHT = 1 STORY / 19 FEET

BUILDING FOOTPRINT AREA = 2,340 SQ.FT.

BUILDING SETBACK REQUIREMENTS:

B-5 ZONING DISTRICT:	FRONT SETBACK (EAST):	FRONT SETBACK (NORTH):	REAR SETBACK (SOUTH):	REAR SETBACK (WEST):
20 FEET REQUIRED	20 FEET REQUIRED	10 FEET REQUIRED	10 FEET REQUIRED	
94' PROVIDED	31.55' PROVIDED	18' PROVIDED	10' PROVIDED	

CANOPY SETBACKS:

FRONT SETBACK (EAST):	FRONT SETBACK (NORTH):	REAR SETBACK (SOUTH):
10 FEET REQUIRED	10 FEET REQUIRED	20 FEET REQUIRED
22' PROVIDED	15.89' PROVIDED	22.54' PROVIDED

MAXIMUM CANOPY COVERAGE ALLOWED = 40%
PROPOSED CANOPY COVERAGE = (2,222 / 18,128) = 12.3%
PROPOSED CANOPY HEIGHT = 14'

PARKING SETBACK: 10 FEET REQUIRED 18' PROVIDED

PARKING CALCULATIONS:
RETAIL = 1 SPACE PER 300 S.F. OF FLOOR AREA
TOTAL RETAIL PARKING REQUIRED = 2,340/300 = 8 SPACES
TOTAL PARKING REQUIRED = 8 SPACES
TOTAL PROPOSED PARKING SPACES = 14 SPACES INC. 1 H/C SPACES

CAUTION!
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CONTRACTOR CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERAL ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONDITIONS DURING THE COURSE OF CONSTRUCTION AND COMPLETE RESPONSIBILITY FOR JOB SITE SAFETY AND PROTECTION OF ALL PERSONS AND PROPERTY THAT IS NEARBY SHALL BE MADE TO APPLICABLE CONTRACTS AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION CONTRACTOR'S RESPONSIBILITIES TO THE INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.

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ABRO DESIGN GROUP
30600 NORTHWESTERN HIGHWAY, SUITE 310
FARMINGTON HILLS, MI 48334

PRELIMINARY DIMENSION PLAN
2020 ROCHESTER RETAIL
PART OF THE NORTHEAST 1/4 OF SECTION 27, T. 3N., R. 11E.,
CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES. DLD/DRW | DN. DLD/DRW | SUR. DL | P.M. JPB

ORIGINAL ISSUE DATE:
FEBRUARY 16, 2016

PEA JOB NO. 2016-364

SCALE: 1" = 10'

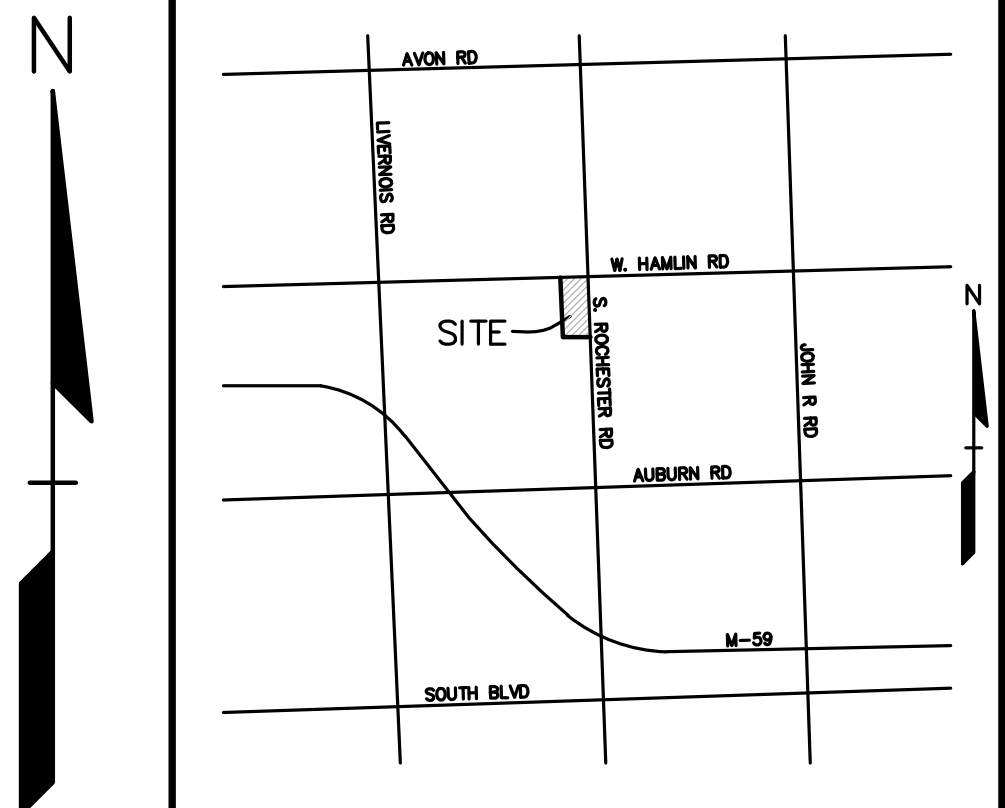
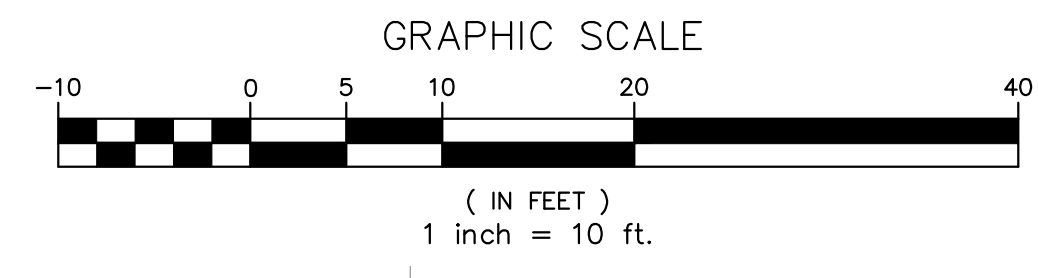
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C-2.0

NOT FOR CONSTRUCTION

CITY FILE #: 99-028.3

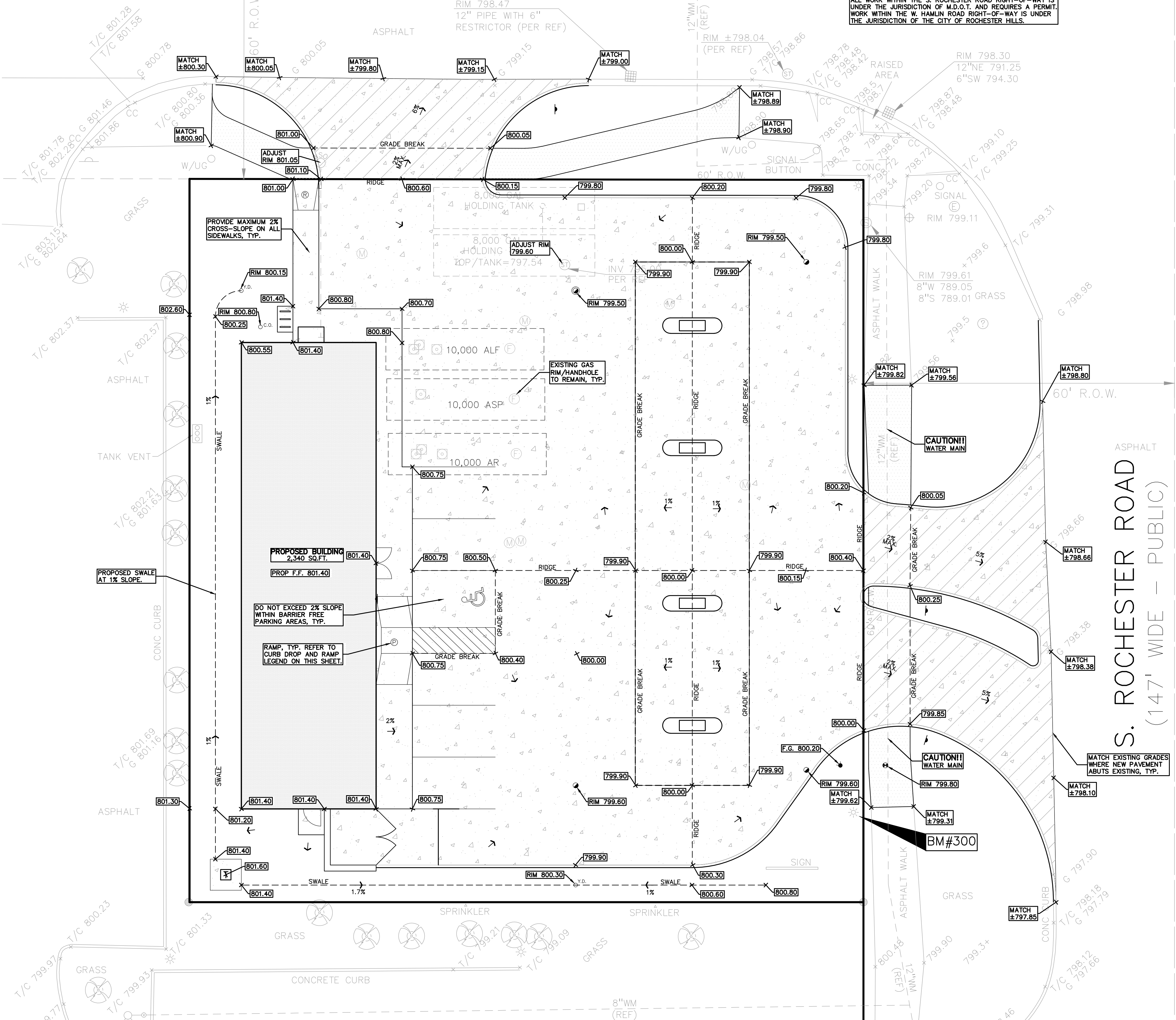
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W. HAMLIN ROAD (90' WIDE - PUBLIC)



NO.	DATE	REVISIONS
1	4/13/17	REVISED PER PLANNING COMMENTS
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LEGEND

● IRON FOUND	○ BRASS PLUG SET	○ SEC. CORNER FOUND
⊗ NAIL FOUND	⊗ MONUMENT FOUND	⊗ RECORDED
⊗ NAIL & CAP SET	⊗ MONUMENT SET	⊗ MEASURED
		○ CALCULATED

— OH-ELEC—	ELEC. PHONE OR CABLE TV O.H. LINE, POLE & GUY WIRE
— UG-CATV—	UNDERGROUND CABLE TV, CATV PEDESTAL
— UG-PHONE—	TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
— UG-ELEC—	ELECTRIC U.G. CABLE, MANHOLE, METER & HANDHOLE
— GAS—	GAS MAIN, VALVE & GAS LINE MARKER
— WATER—	WATERMAIN, HYD. GATE VALVE, TAPPING SLEEVE & VALVE
— SANITARY—	SANITARY SEWER, CLEANOUT & MANHOLE
— STORM—	STORM SEWER, CLEANOUT & MANHOLE
— COMB'D—	COMB'D SEWER & MANHOLE
— CATCH BASIN—	CATCH BASIN, INLET, WARD DRAIN
— POST INDICATOR—	POST INDICATOR VALVE
— WATER VALVE BOX—	WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF
— MALBOX—	MALBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
— FUEL TANK—	FUEL TANK, ACCESS, MONITORING WELL
— TRAFFIC SIGNAL—	TRAFFIC SIGNAL, PUBLIC PAY PHONE
— UNDEVELOPED STRUCTURE—	UNDEVELOPED STRUCTURE
— SPOT ELEVATION—	SPOT ELEVATION
— CONTOUR LINE—	CONTOUR LINE
— FENCE—	FENCE
— GUARD RAIL—	GUARD RAIL
— STREET LIGHT—	STREET LIGHT
— SIGN—	SIGN
— CONC.—	CONCRETE
— ASPHL.—	ASPHALT
— GRAVEL—	GRAVEL SHOULDER
— WETLAND—	WETLAND

CAUTION!!
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REFERENCE DRAWINGS

REM-TEC & ASSOCIATES
AKMD, INC. COMPANY

TOPOGRAPHIC SURVEY #10-04408
AS-BUILT CONSTRUCTION DRAWINGS, #5730 7-20-1981

SIDEWALK RAMP LEGEND:

SIDEWALK RAMP "TYPE P" ⊙
SIDEWALK RAMP "TYPE R" ⊙

REFER TO THE 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 — 695 —

EARTHWORK BALANCING NOTE:

THIS PLAN IS NOT A BALANCED GRADING PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPORTING OR EXPORTING 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.

ALL GRADES ARE TO TOP OF PAVEMENT UNLESS OTHERWISE NOTED. ADD 0.50' TO OBTAIN TOP OF CURB ELEVATION.

- ### 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 ROCHESTER HILLS AND OAKLAND COUNTY. AN EROSION CONTROL PERMIT MUST BE SECURED FROM THE CITY PRIOR TO CONSTRUCTION.
 - ALL DISTURBED AREAS SHALL BE SEEDED 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.



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2430 Rochester Ct. Ste 100
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www.peainc.com

ABRO DESIGN GROUP
30600 NORTHWESTERN HIGHWAY, SUITE 310
FARMINGTON HILLS, MI 48334

**PRELIMINARY GRADING PLAN
2020 ROCHESTER RETAIL**
PART OF THE NORTHEAST 1/4 OF SECTION 27, T. 3N., R. 11E.,
CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES. DLEB/DW/ SUR. DL P.M. JPB
S:\PROJECTS\2016\2016364\DWG\SITE PLAN\W-BASE-16364.DWG

ORIGINAL ISSUE DATE:
FEBRUARY 16, 2016

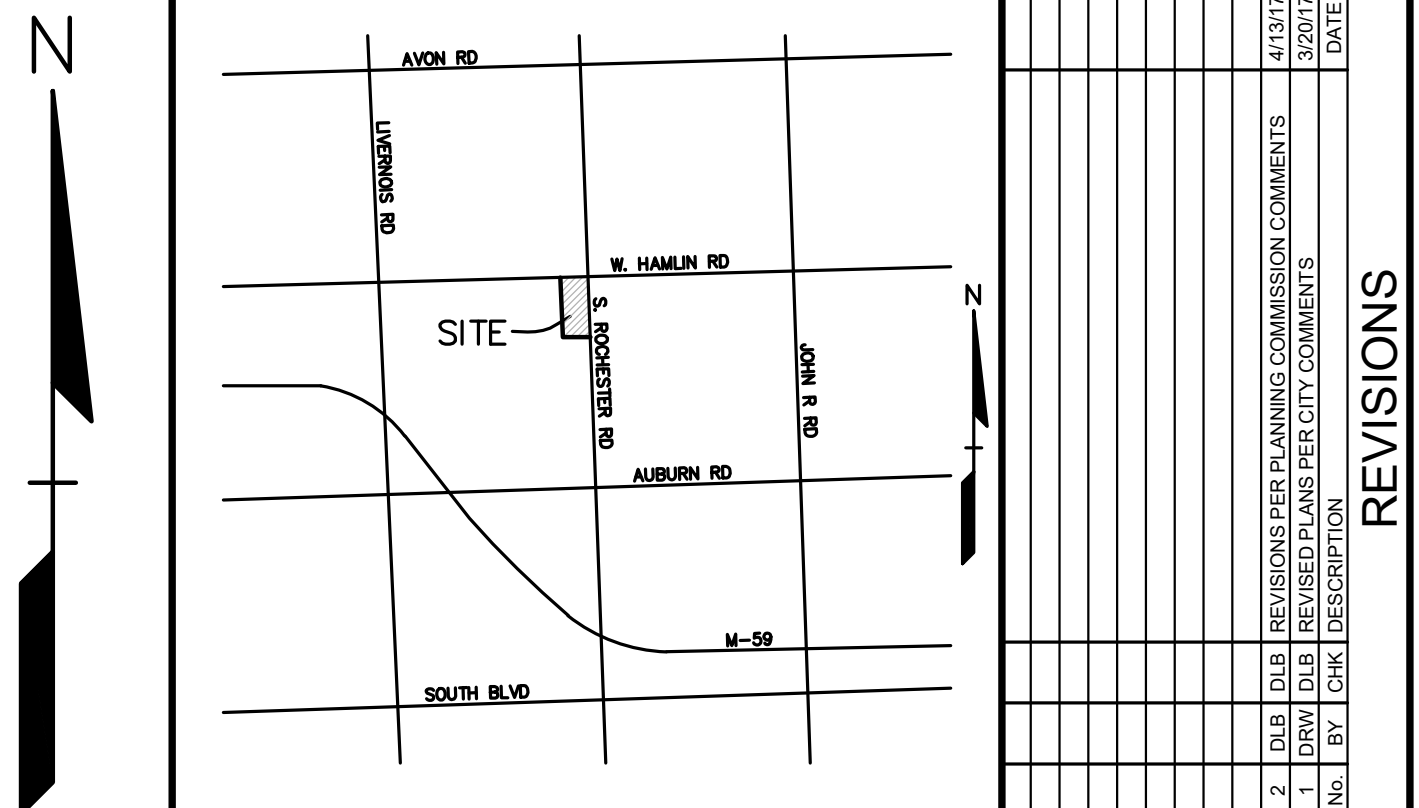
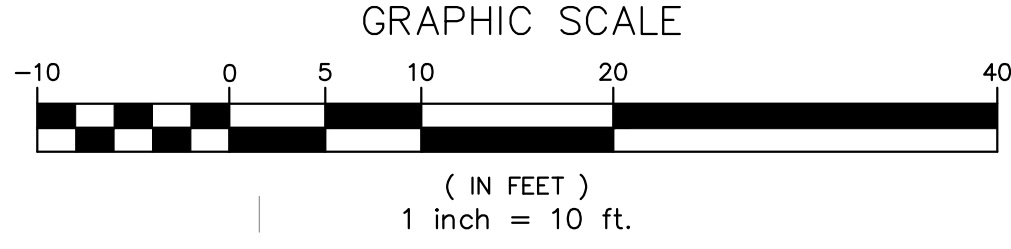
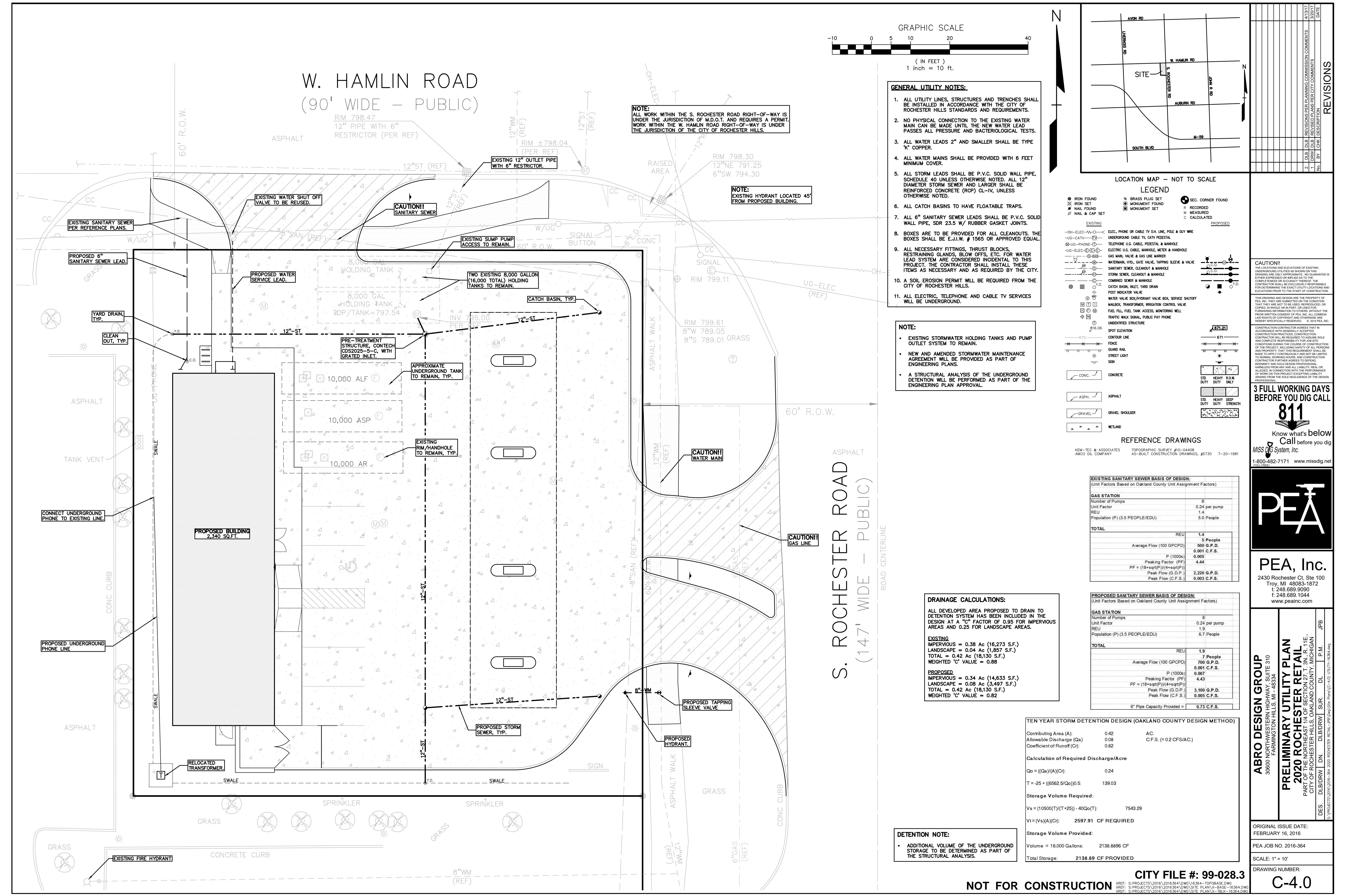
PEA JOB NO. 2016-364

SCALE: 1" = 10'

DRAWING NUMBER:
C-3.0

NOT FOR CONSTRUCTION

CITY FILE #: 99-028.3



GENERAL UTILITY NOTES:

1. ALL UTILITY LINES, STRUCTURES AND TRENCHES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF ROCHESTER HILLS STANDARDS AND REQUIREMENTS.
2. NO PHYSICAL CONNECTION TO THE EXISTING WATER MAIN CAN BE MADE UNTIL THE NEW WATER LEAD PASSES ALL PRESSURE AND BACTERIOLOGICAL TESTS.
3. ALL WATER LEADS 2" AND SMALLER SHALL BE TYPE 'K' COPPER.
4. ALL WATER MAINS SHALL BE PROVIDED WITH 6 FEET MINIMUM COVER.
5. ALL STORM LEADS SHALL BE P.V.C. SOLID WALL PIPE, SCHEDULE 40 UNLESS OTHERWISE NOTED. ALL 12" DIAMETER STORM SEWER AND LARGER SHALL BE REINFORCED CONCRETE (RCP) CL-IV, UNLESS OTHERWISE NOTED.
6. ALL CATCH BASINS TO HAVE FLOATABLE TRAPS.
7. ALL 6" SANITARY SEWER LEADS SHALL BE P.V.C. SOLID WALL PIPE, SDR 23.5 W/ RUBBER GASKET JOINTS.
8. BOXES ARE TO BE PROVIDED FOR ALL CLEANOUTS. THE BOXES SHALL BE E.I.W. # 1565 OR APPROVED EQUAL.
9. ALL NECESSARY FITTINGS, THRUST BLOCKS, RESTRAINING GLANDS, BLOW OFFS, ETC. FOR WATER LEAD SYSTEM ARE CONSIDERED INCIDENTAL TO THIS PROJECT. THE CONTRACTOR SHALL INSTALL THESE ITEMS AS NECESSARY AND AS REQUIRED BY THE CITY.
10. A SOIL EROSION PERMIT WILL BE REQUIRED FROM THE CITY OF ROCHESTER HILLS.
11. ALL ELECTRIC, TELEPHONE AND CABLE TV SERVICES WILL BE UNDERGROUND.

NOTE:

- EXISTING STORMWATER HOLDING TANKS AND PUMP OUTLET SYSTEM TO REMAIN.
- NEW AND AMENDED STORMWATER MAINTENANCE AGREEMENT WILL BE PROVIDED AS PART OF ENGINEERING PLANS.
- A STRUCTURAL ANALYSIS OF THE UNDERGROUND DETENTION WILL BE PERFORMED AS PART OF THE ENGINEERING PLAN APPROVAL.

LEGEND

● IRON FOUND	⊗ BRASS PLUG SET	⊙ SEC. CORNER FOUND
⊗ NAIL FOUND	⊗ MONUMENT FOUND	⊗ MEASURED
⊗ NAIL & CAP SET	⊗ MONUMENT SET	⊗ CALCULATED

— OH-ELEC—	ELEC. PHONE OR CABLE TV O.H. LINE, P.O. BOX & GUY WIRE
— UG-CATV—	UNDERGROUND CABLE TV, CATV PEDESTAL
— UG-ELEC—	TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
— UG-ELEC—	ELECTRIC U.G. CABLE, MANHOLE, METER & MANHOLE
— UG-ELEC—	GAS MAIN, VALVE & GAS LINE MARKER
— UG-ELEC—	WATERMAIN, HYD. GATE VALVE, TAPPING SLEEVE & VALVE
— UG-ELEC—	SANITARY SEWER, CLEANOUT & MANHOLE
— UG-ELEC—	STORM SEWER, CLEANOUT & MANHOLE
— UG-ELEC—	CATCH BASIN, INLET, FLOW DRAIN
— UG-ELEC—	POST INDICATOR VALVE
— UG-ELEC—	WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF
— UG-ELEC—	MALBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
— UG-ELEC—	FUEL FILL, FUEL TANK ACCESS, MONITORING WELL
— UG-ELEC—	TRAFFIC WALK SIGNAL, PUBLIC PAY PHONE
— UG-ELEC—	UNDERGROUND STRUCTURE
— UG-ELEC—	SPOT ELEVATION
— UG-ELEC—	CONTOUR LINE
— UG-ELEC—	FENCE
— UG-ELEC—	GUARD RAIL
— UG-ELEC—	STREET LIGHT
— UG-ELEC—	SIGN
— UG-ELEC—	CONCRETE
— UG-ELEC—	ASPHALT
— UG-ELEC—	GRAVEL SHOULDER
— UG-ELEC—	WETLAND

REFERENCE DRAWINGS

REM-TEC & ASSOCIATES TOPOGRAPHIC SURVEY #10-04408
 AKCO, INC. COMPANY AS-BUILT CONSTRUCTION DRAWINGS, #5730 7-20-1981

EXISTING SANITARY SEWER BASIS OF DESIGN:
 (Unit Factors Based on Oakland County Unit Assignment Factors)

GAS STATION	
Number of Pumps	6
Unit Factor	0.24 per pump
REU	1.4
Population (P) (3.5 PEOPLE/EDU)	5.0 People
TOTAL	REU 1.4
	5 People
	Average Flow (100 GPCPD)
	500 G.P.D.
	0.001 C.F.S.
	P (1000s) 0.005
	Peaking Factor (PF) 4.44
	PF = (18+sqrt(P))/(4+sqrt(P))
	Peak Flow (G.D.P.) 2,220 G.P.D.
	Peak Flow (C.F.S.) 0.003 C.F.S.

PROPOSED SANITARY SEWER BASIS OF DESIGN:
 (Unit Factors Based on Oakland County Unit Assignment Factors)

GAS STATION	
Number of Pumps	6
Unit Factor	0.24 per pump
REU	1.9
Population (P) (3.5 PEOPLE/EDU)	6.7 People
TOTAL	REU 1.9
	7 People
	Average Flow (100 GPCPD)
	700 G.P.D.
	0.001 C.F.S.
	P (1000s) 0.007
	Peaking Factor (PF) 4.43
	PF = (18+sqrt(P))/(4+sqrt(P))
	Peak Flow (G.D.P.) 3,100 G.P.D.
	Peak Flow (C.F.S.) 0.005 C.F.S.
	6" Pipe Capacity Provided = 0.73 C.F.S.

DRAINAGE CALCULATIONS:

ALL DEVELOPED AREA PROPOSED TO DRAIN TO DETENTION SYSTEM HAS BEEN INCLUDED IN THE DESIGN AT A "C" FACTOR OF 0.95 FOR IMPERVIOUS AREAS AND 0.25 FOR LANDSCAPE AREAS.

EXISTING
 IMPERVIOUS = 0.38 Ac (16,273 S.F.)
 LANDSCAPE = 0.04 Ac (1,857 S.F.)
 TOTAL = 0.42 Ac (18,130 S.F.)
 WEIGHTED 'C' VALUE = 0.88

PROPOSED
 IMPERVIOUS = 0.34 Ac (14,833 S.F.)
 LANDSCAPE = 0.08 Ac (3,497 S.F.)
 TOTAL = 0.42 Ac (18,330 S.F.)
 WEIGHTED 'C' VALUE = 0.82

TEN YEAR STORM DETENTION DESIGN (OAKLAND COUNTY DESIGN METHOD)

Contributing Area (A)	0.42	AC
Allowable Discharge (Qa)	0.08	C.F.S. (= 0.2 CFS/AC)
Coefficient of Runoff (C)	0.82	
Calculation of Required Discharge/Acre		
Qo = ((Qa)(A)(C))	0.24	
T = 25 + ((6562.5/Qo)0.5)	139.03	
Storage Volume Required:		
Vs = (10500(T)(T+25)) - 40Qo(T)	7543.29	
Vt = (Vs)(A)(C)	2597.91	CF REQUIRED
Storage Volume Provided:		
Volume = 16,000 Gallons:	2138.896	CF
Total Storage:	2138.89	CF PROVIDED

DETENTION NOTE:

- ADDITIONAL VOLUME OF THE UNDERGROUND STORAGE TO BE DETERMINED AS PART OF THE STRUCTURAL ANALYSIS.

REVISIONS

NO.	DATE	DESCRIPTION
1	4/13/17	REVISED PER PLANNING COMMENTS
2	5/20/17	REVISED PER PLANNING COMMENTS
3	6/1/17	REVISED PER PLANNING COMMENTS

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 FARMINGTON HILLS, MI 48334

**PRELIMINARY UTILITY PLAN
 2020 ROCHESTER RETAIL**
 PART OF THE NORTHEAST 1/4 OF SECTION 27, T. 3N., R. 11E.,
 CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES. DLD/DRW. SUR. DL P.M. JPB

ORIGINAL ISSUE DATE:
 FEBRUARY 16, 2016

PEA JOB NO. 2016-364

SCALE: 1" = 10'

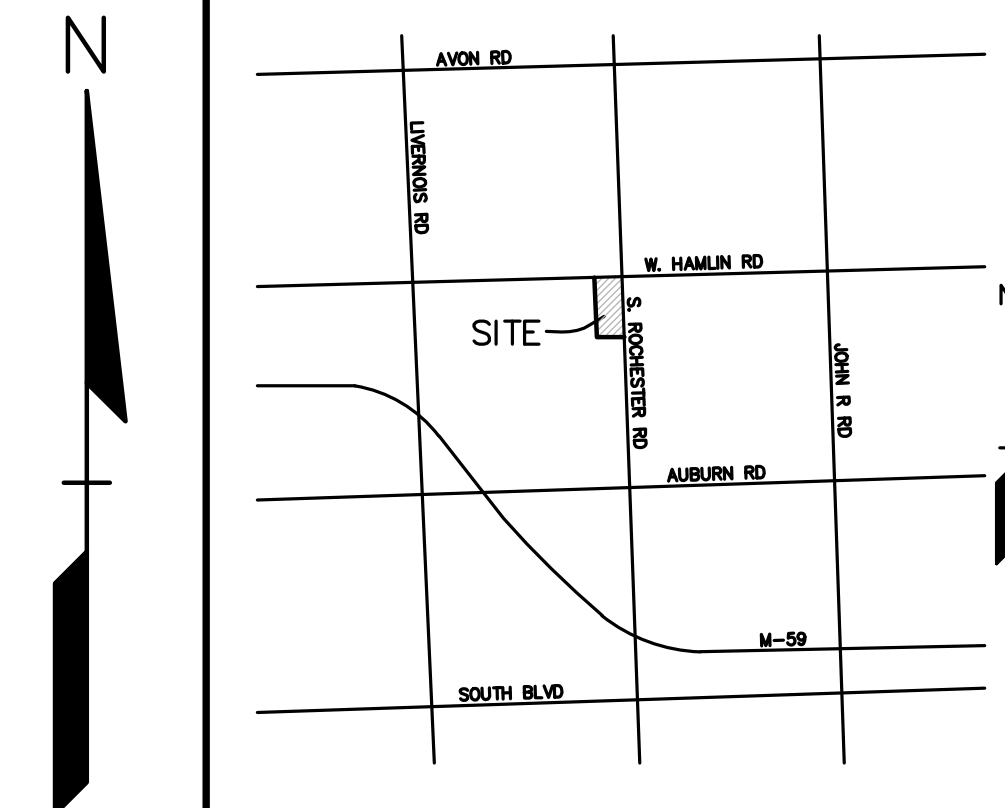
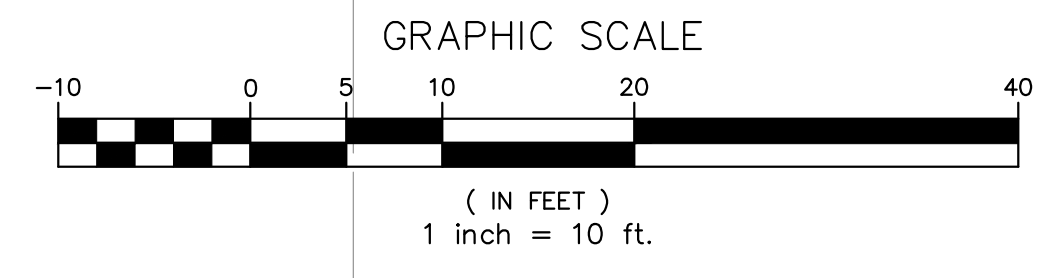
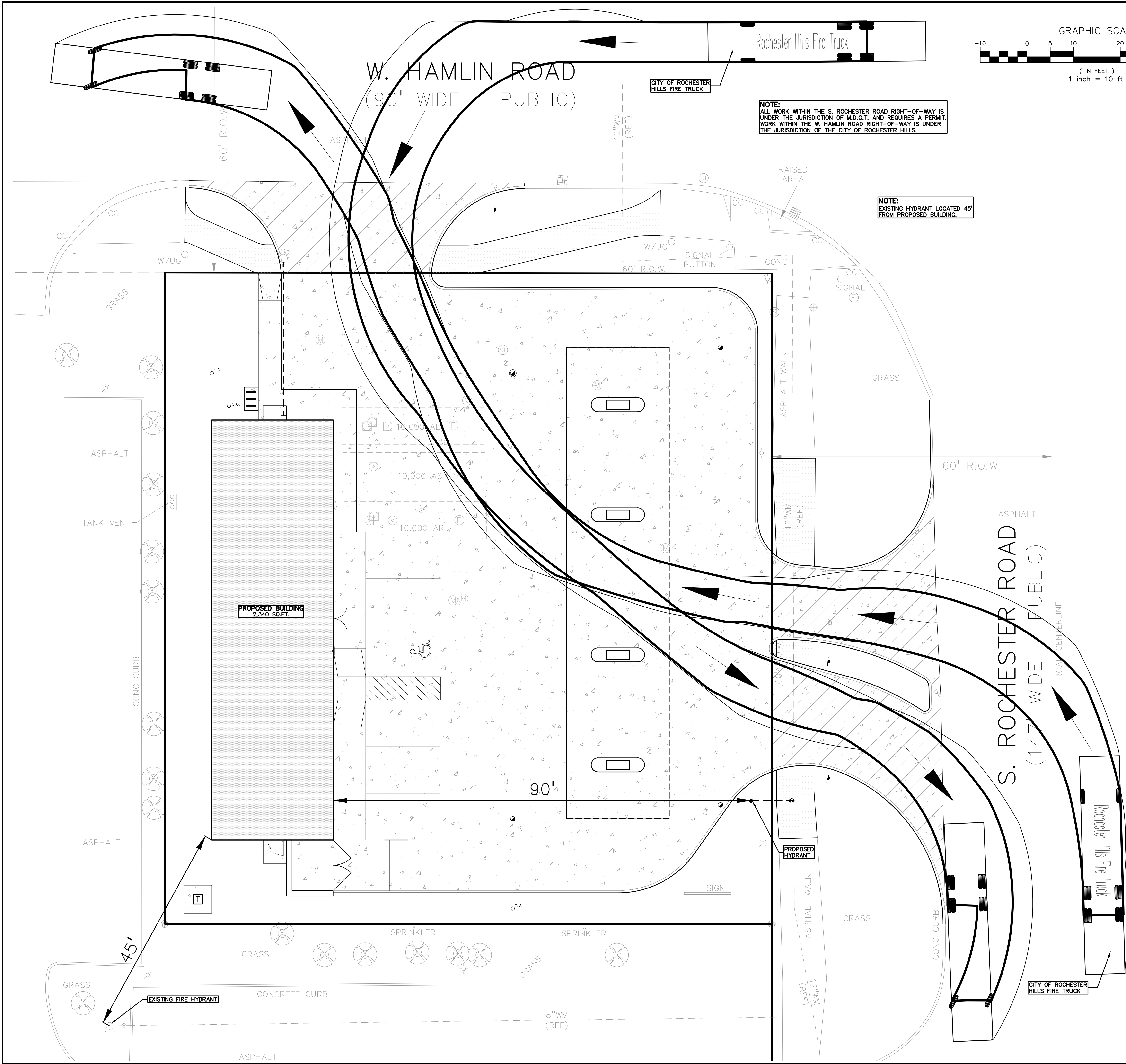
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NOT FOR CONSTRUCTION

CITY FILE #: 99-028.3

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LEGEND

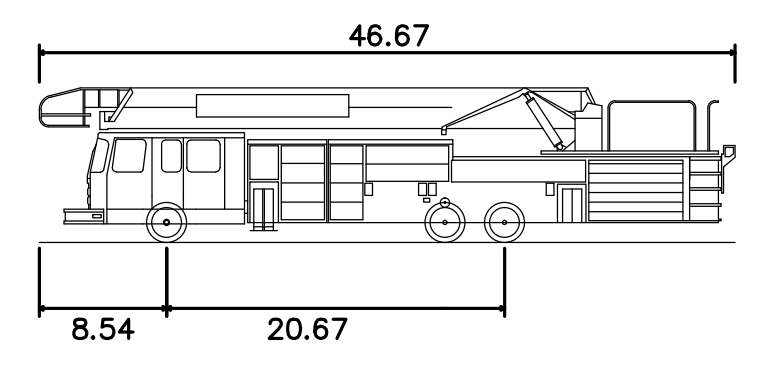
● IRON FOUND	⊗ BRASS PLUG SET	⊙ SEC. CORNER FOUND
⊗ NAIL FOUND	⊗ MONUMENT FOUND	⊙ RECORDED
⊗ NAIL & CAP SET	⊗ MONUMENT SET	⊙ MEASURED
		⊙ CALCULATED

EXISTING	PROPOSED
—OH—ELEC—W—C—	ELEC. PHONE OR CABLE TV O.H. LINE, POLE & GUY WIRE
—UG—CATV—	UNDERGROUND CABLE TV, CATV PEDESTAL
—UG—PHONE—	TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
—UG—ELEC—	ELECTRIC U.G. CABLE, MANHOLE, METER & HANDHOLE
—GAS—	GAS MAIN, VALVE & GAS LINE MARKER
—WATER—	WATERMAIN, HYD. GATE VALVE, TAPPING SLEEVE & VALVE
—SANITARY—	SANITARY SEWER, CLEANOUT & MANHOLE
—STORM—	STORM SEWER, CLEANOUT & MANHOLE
—COMBID—	COMBID SEWER & MANHOLE
—CATCH BASIN—	CATCH BASIN, INLET, YARD DRAIN
—POST INDICATOR—	POST INDICATOR VALVE
—WATER VALVE BOX—	WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF
—MOTOR BOX—	MOTOR BOX, TRANSFORMER, IRRIGATION CONTROL VALVE
—FUEL TANK—	FUEL TANK, FILL, TANK ACCESS, MONITORING WELL
—TRAFFIC SIGNAL—	TRAFFIC SIGNAL, PUBLIC PAY PHONE
—UNDERST. STRUCTURE—	UNDERST. STRUCTURE
—SPOT ELEVATION—	SPOT ELEVATION
—CONTOUR LINE—	CONTOUR LINE
—FENCE—	FENCE
—GUARD RAIL—	GUARD RAIL
—STREET LIGHT—	STREET LIGHT
—SIGN—	SIGN
—CONC.—	CONCRETE
—ASPH.—	ASPHALT
—GRAVEL—	GRAVEL SHOULDER
—WETLAND—	WETLAND

REFERENCE DRAWINGS

KEM-TEC & ASSOCIATES
LAND SURVEYING COMPANY

TOPOGRAPHIC SURVEY #10-04408
AS-BUILT CONSTRUCTION DRAWINGS, #5730 7-20-1981



Rochester Hills Fire Truck

Overall Length 46.67ft
Overall Width 8.50ft
Min Wheel Radius 42.5ft

- 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.
 - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF ROCHESTER HILLS CURRENT STANDARDS AND REGULATIONS.
 - THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
 - ANY WORK WITHIN THE STREET OR HIGHWAY RIGHT-OF-WAYS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION AND SHALL NOT BEGIN UNTIL ALL NECESSARY PERMITS HAVE BEEN ISSUED FOR THE WORK.
 - ALL SIGNS MUST MEET SECTION 138-8.603 AND CHAPTER 134 OF THE CITY CODE OF ORDINANCES AND BE APPROVED UNDER A SEPARATE PERMIT ISSUED BY THE BUILDING DEPARTMENT.

- FIRE DEPARTMENT NOTES:**
- CONSTRUCTION SITES SHALL BE SAFEGUARDED IN ACCORDANCE WITH IFC CHAPTER 14.
 - OPEN BURNING IS NOT PERMITTED, INCLUDING THE BURNING OF TRASH, DEBRIS, OR LAND CLEARING MATERIALS. OPEN BURNING FOR WARMING OF SAND AND/OR WATER FOR THE PREPARATION OF MORTAR SHALL BE WITHIN CITY OF ROCHESTER HILLS BURNING PERMIT GUIDELINES. CONTACT ROCHESTER HILLS FIRE DEPARTMENT FOR PERMIT INFORMATION. FIRE PREVENTION ORDINANCE CHAPTER 58, SECTION 503.
 - FIRE LANES SHALL BE DESIGNATED BY THE FIRE CODE OFFICIAL, AND SHALL BE CONSPICUOUSLY POSTED ON BOTH SIDES OF THE FIRE LANE, WITH FIRE LANE SIGNS SPACED NOT MORE THAN 100 FEET APART, TWO STOPPING, STANDING, PARKING, FIRE LANE, AND IN CONFORMANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. FIRE PREVENTION ORDINANCE CHAPTER 58, SECTION 506.
 - NO FIRE PROTECTION PROPOSED FOR BUILDING INTERIOR
 - EXISTING FIRE HYDRANTS ADJACENT TO SITE PROVIDE ADEQUATE PROTECTION COVERAGE PER ROCHESTER HILLS REQUIREMENTS.

REVISIONS

NO.	DATE	DESCRIPTION
1	4/13/17	REVISED PER PLANNING COMMENTS
2	5/20/17	REVISED PER PLANNING COMMENTS
3	6/1/17	REVISED PER PLANNING COMMENTS
4	6/1/17	REVISED PER PLANNING COMMENTS
5	6/1/17	REVISED PER PLANNING COMMENTS
6	6/1/17	REVISED PER PLANNING COMMENTS
7	6/1/17	REVISED PER PLANNING COMMENTS
8	6/1/17	REVISED PER PLANNING COMMENTS
9	6/1/17	REVISED PER PLANNING COMMENTS
10	6/1/17	REVISED PER PLANNING COMMENTS

CAUTION!

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FIRE TRUCK ACCESS PLAN
2020 ROCHESTER RETAIL
PART OF THE NORTHEAST 1/4 OF SECTION 27, T. 3N., R. 11E.,
CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

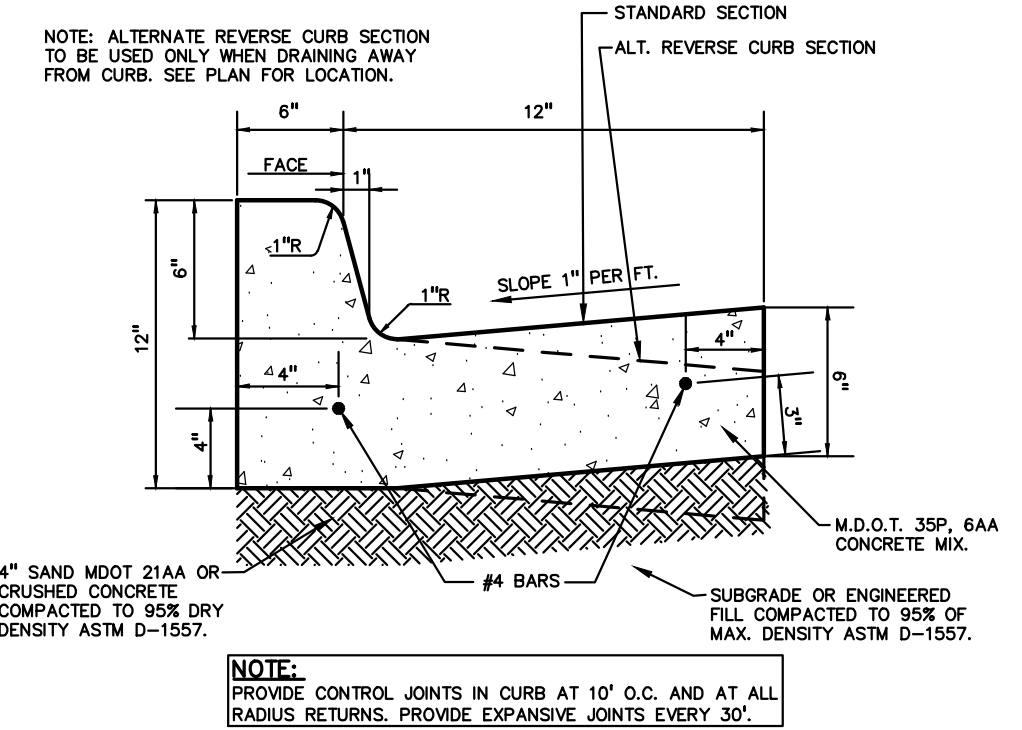
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ORIGINAL ISSUE DATE:
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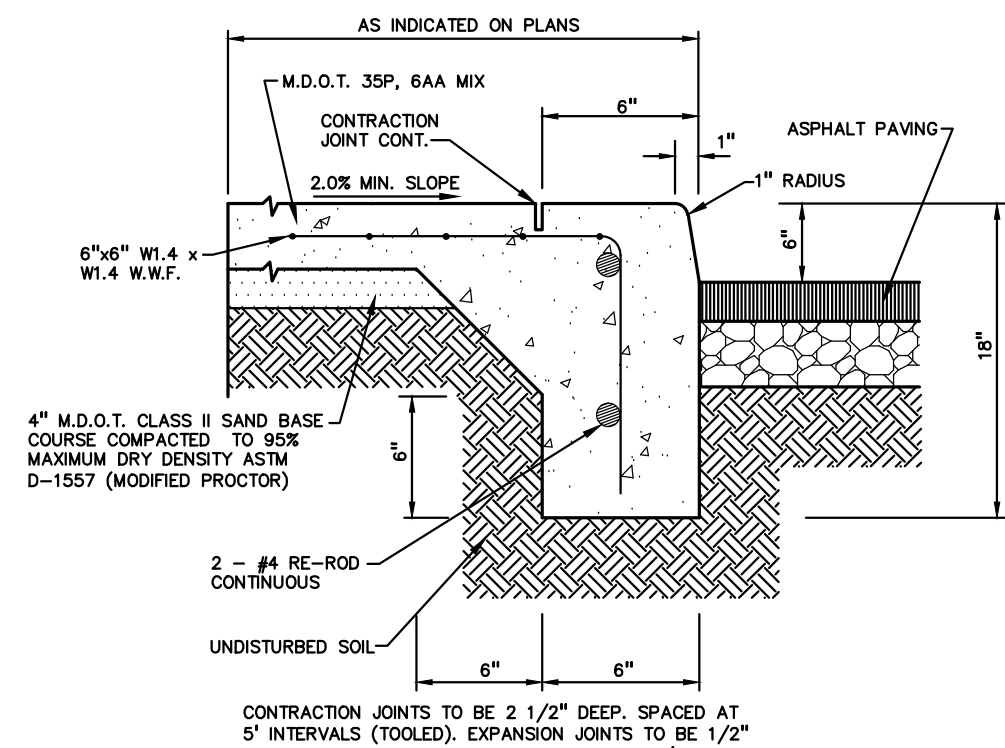
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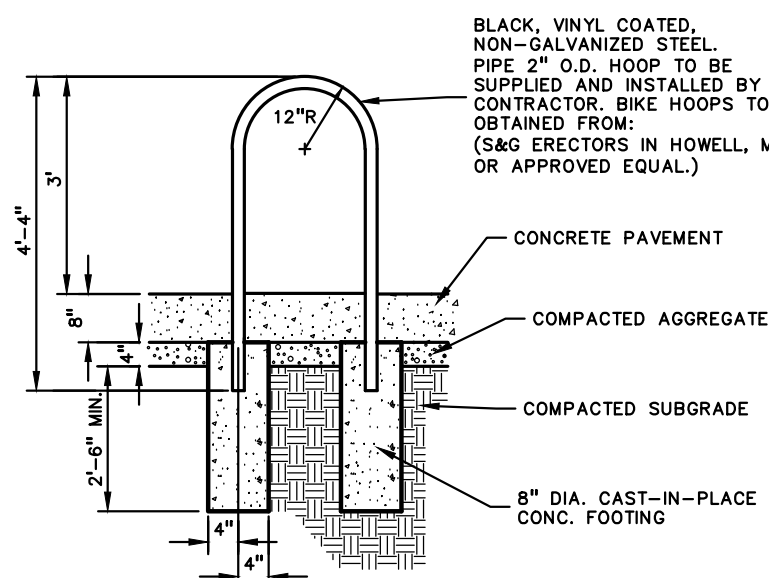
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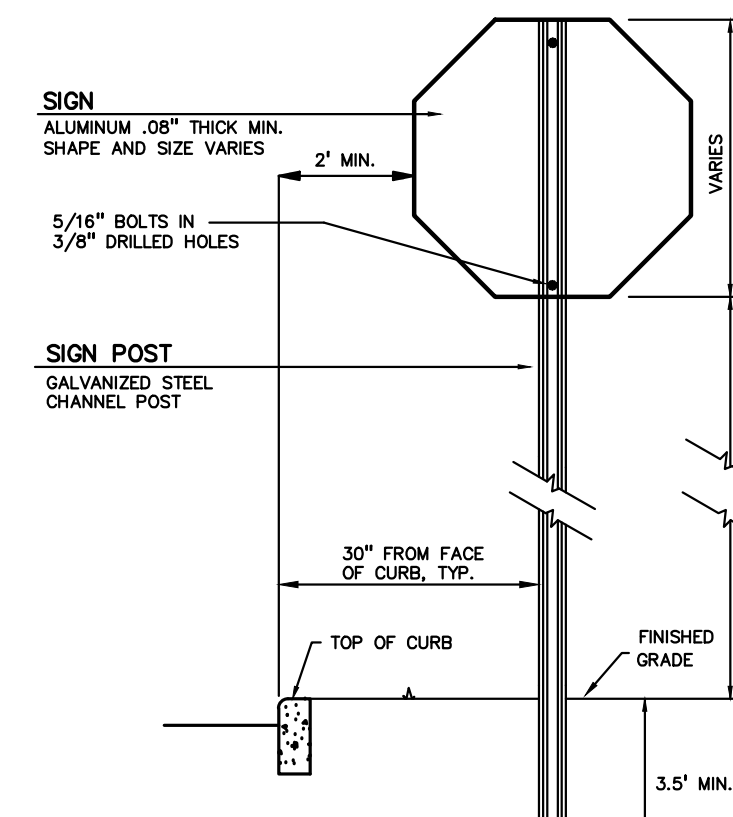
18"x6" STANDARD CONCRETE CURB AND GUTTER
NOT TO SCALE



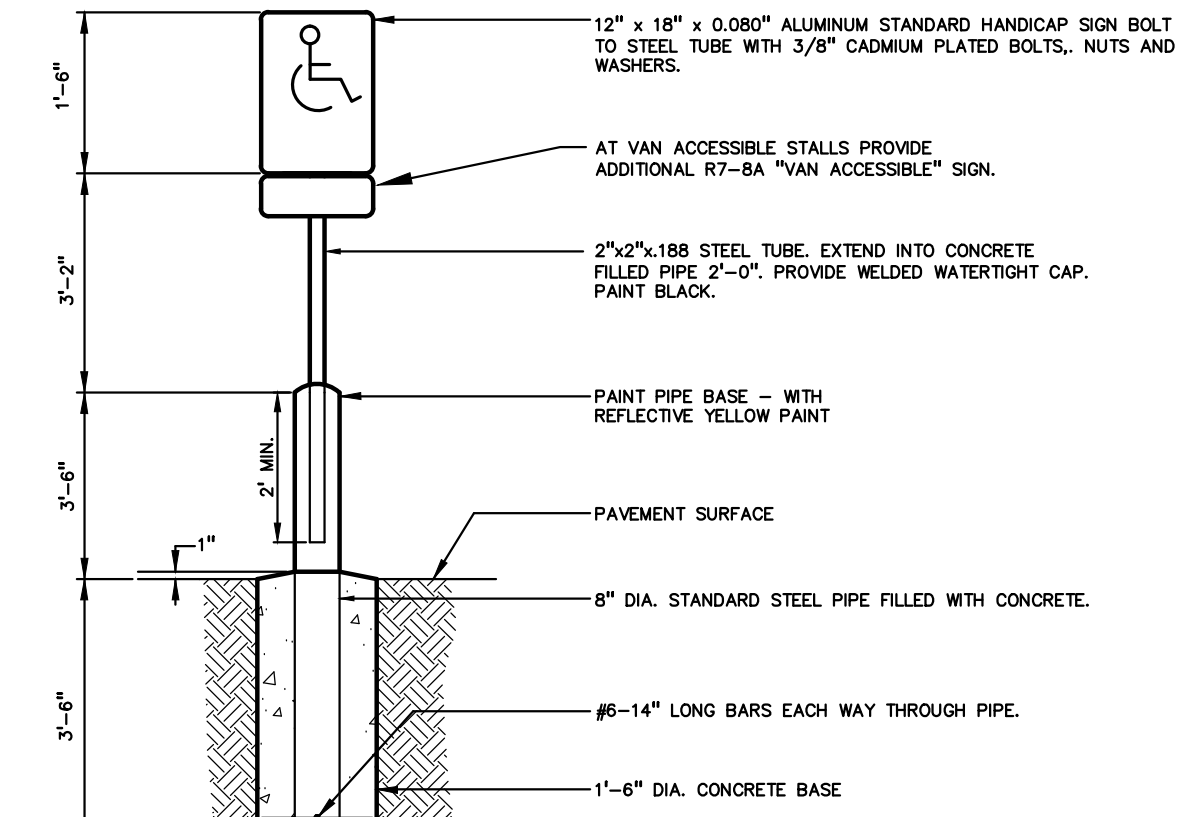
INTEGRAL CURB AND SIDEWALK
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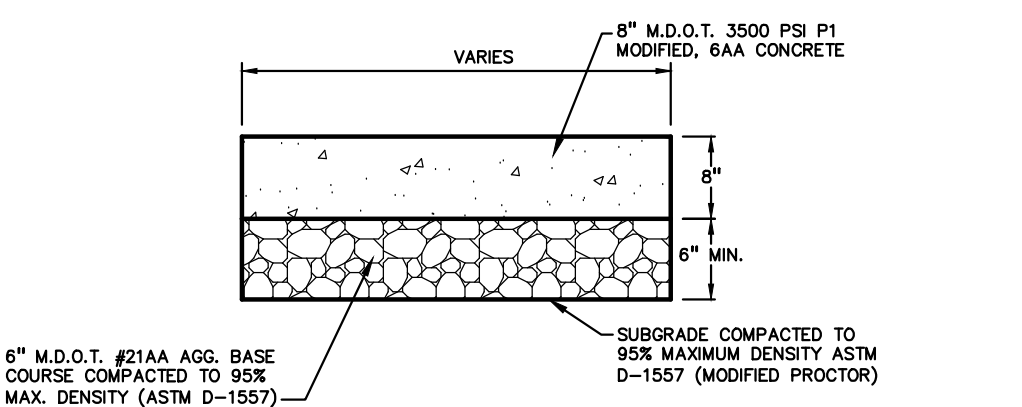
BIKE HOOP DETAIL
NOT TO SCALE



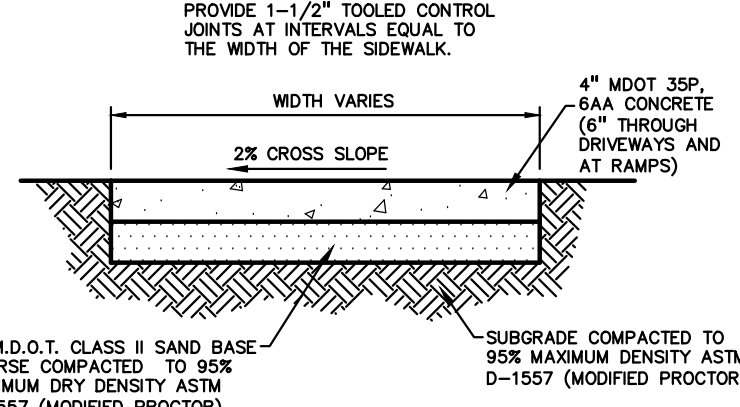
SIGN AND POST INSTALLATION IN LANDSCAPED AREAS
NOT TO SCALE



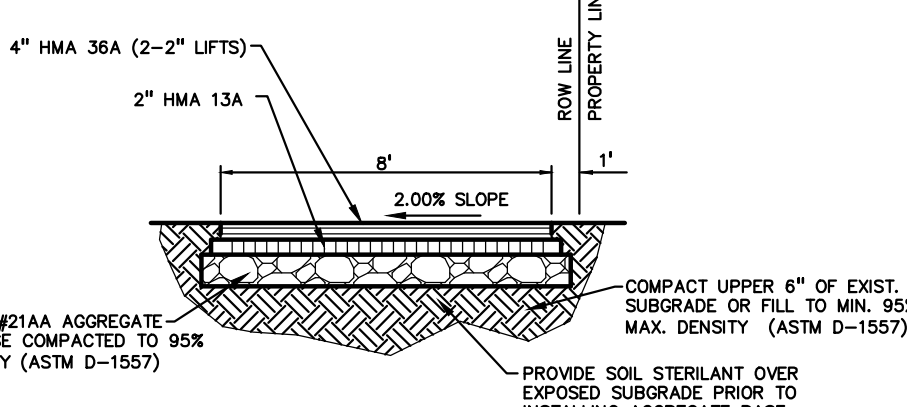
SIGN AND POST INSTALLATION IN PAVED AREAS
NOT TO SCALE



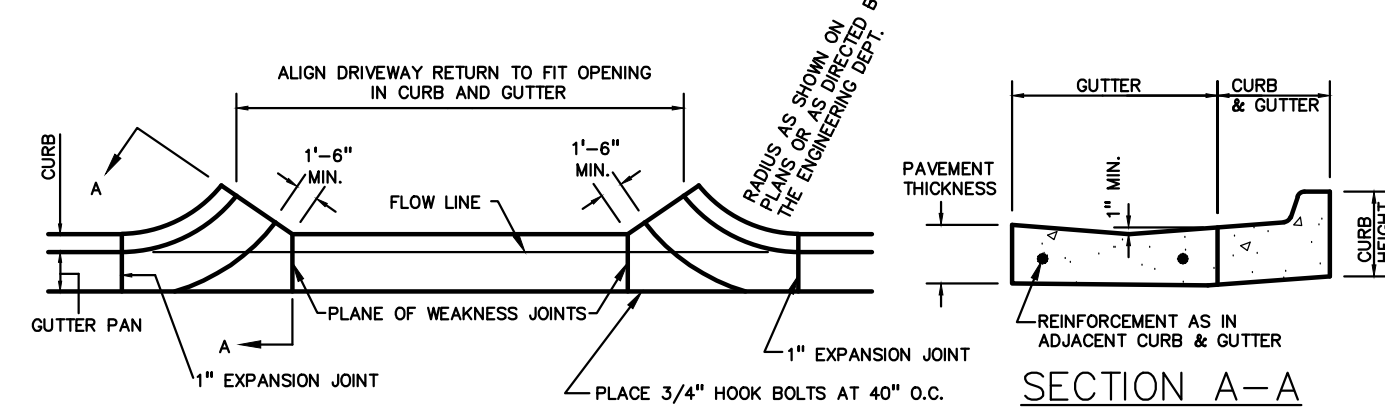
HEAVY DUTY CONCRETE DETAIL
NOT TO SCALE



CONCRETE SIDEWALK
NOT TO SCALE



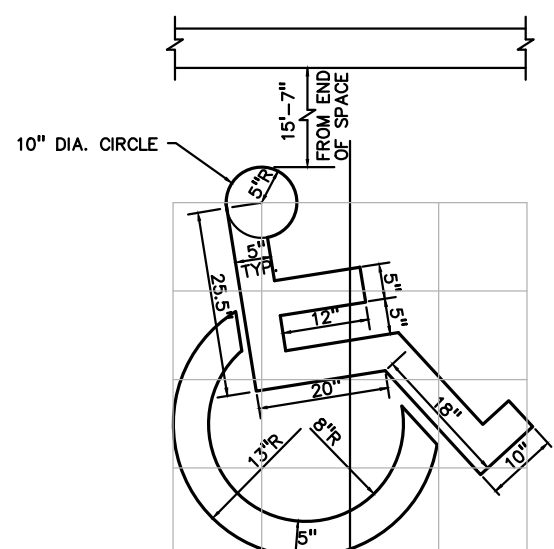
ASPHALT BIKE PATH DETAIL
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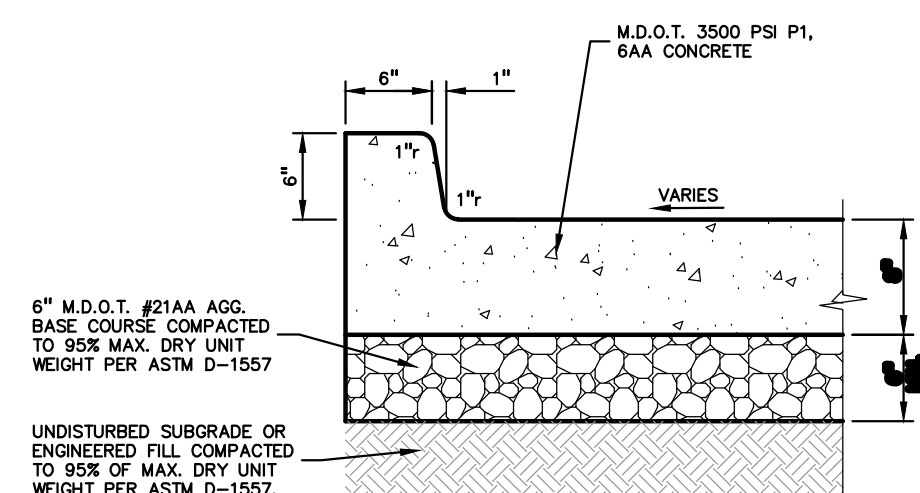
M.D.O.T. DRIVEWAY OPENING-DETAIL 'M'
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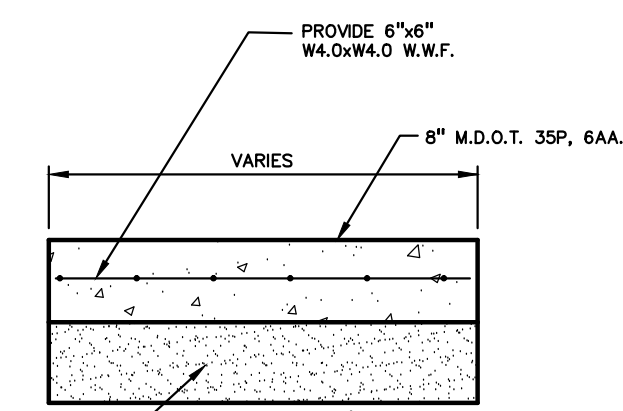
BARRIER FREE PARKING SIGN DETAIL
NOT TO SCALE



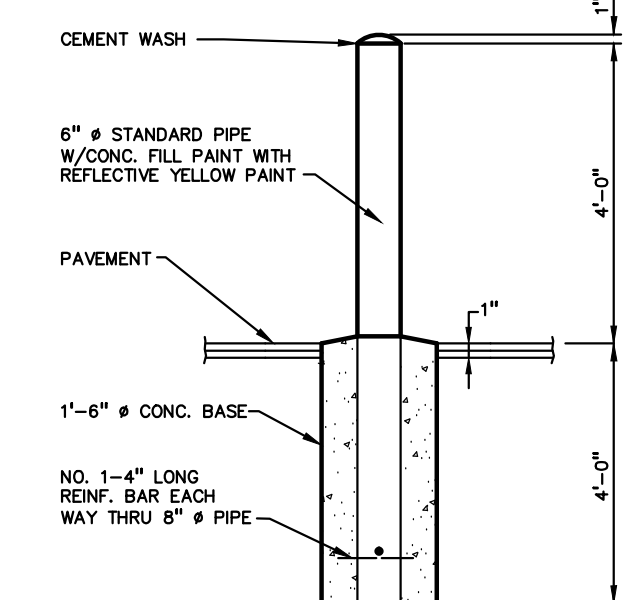
STANDARD "BARRIER FREE" SYMBOL FOR PARKING SPACE
NOT TO SCALE



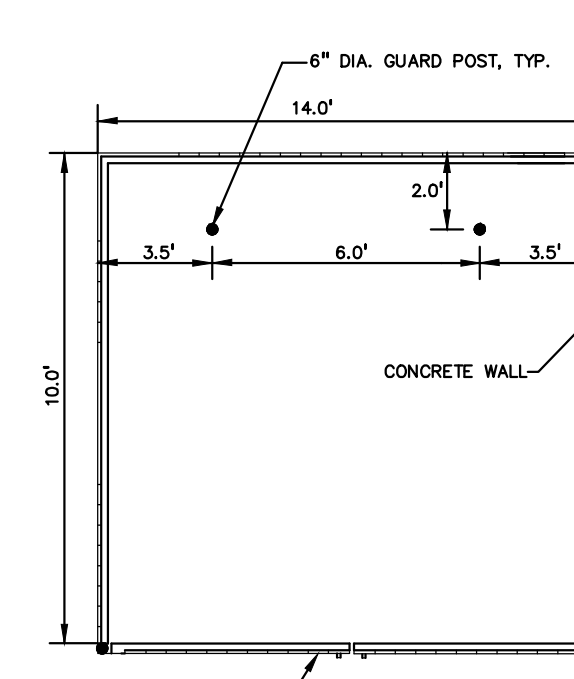
CONCRETE PAVEMENT WITH INTEGRAL CURB
NOT TO SCALE



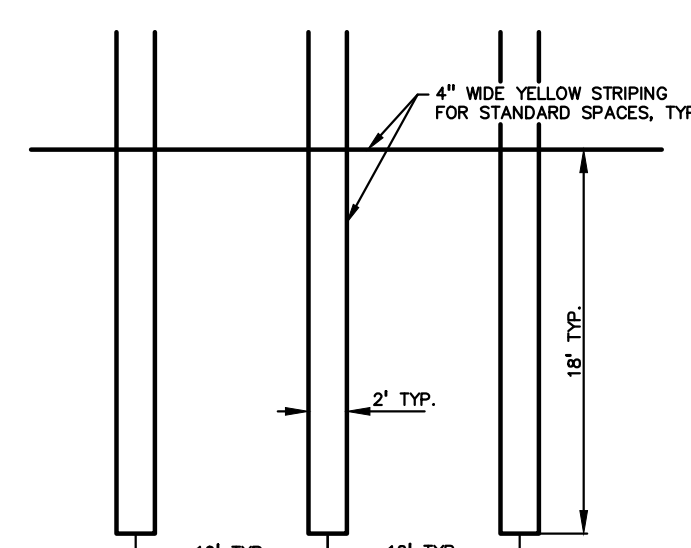
HEAVY DUTY CONCRETE PAD DETAIL
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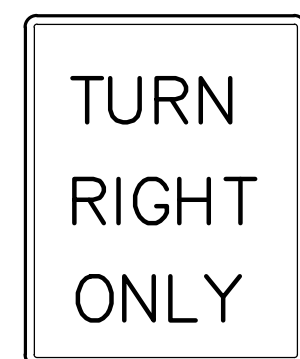
6" DIA. GUARD POST DETAIL
NOT TO SCALE



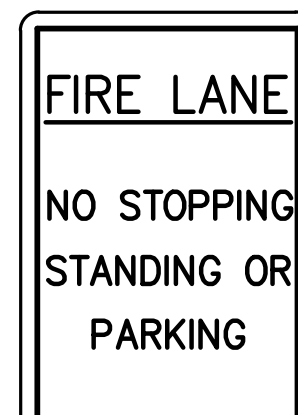
PLAN VIEW
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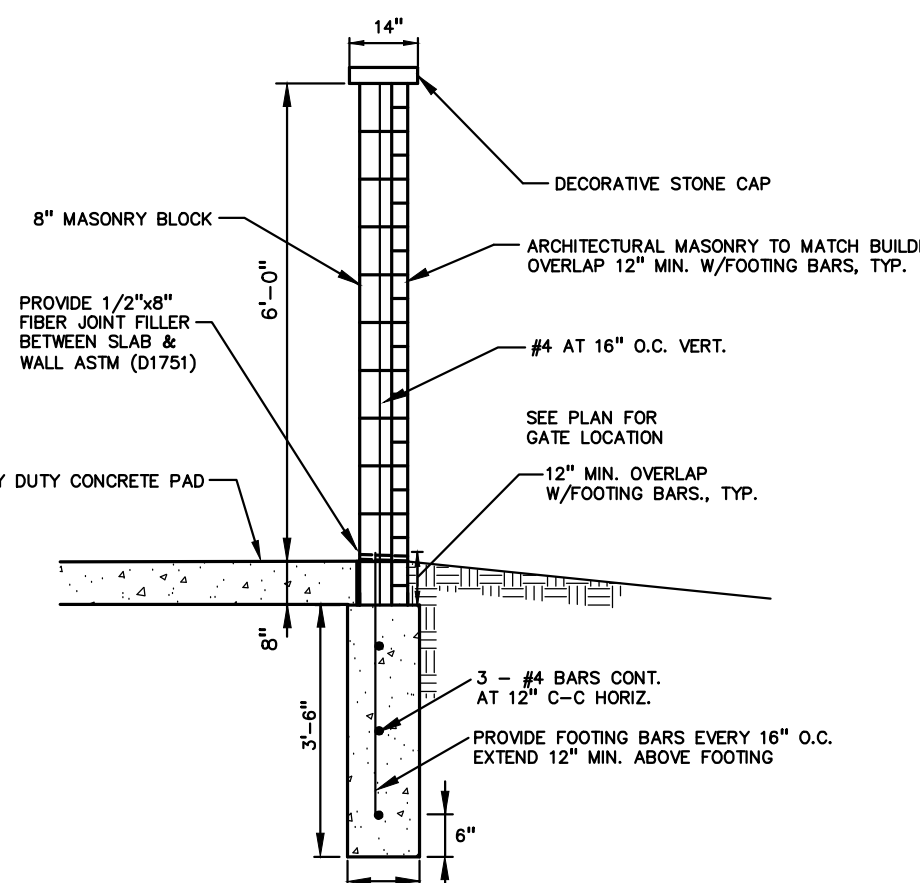
DOUBLE STRIPING DETAIL
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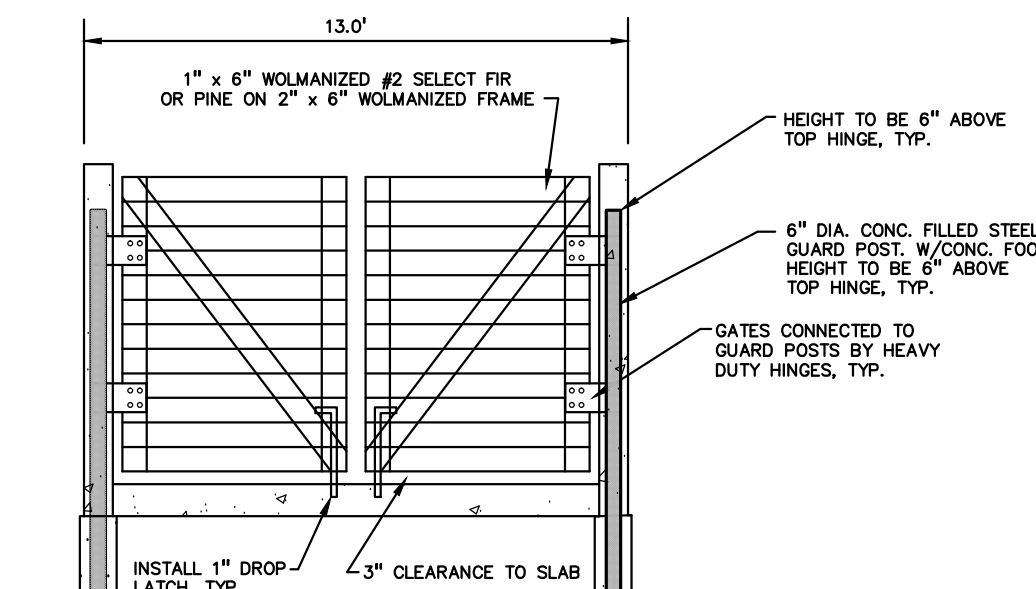
TURN RIGHT ONLY SIGN DETAIL
NOT TO SCALE



NO PARKING SIGN DETAIL
NOT TO SCALE



DUMPSTER ENCLOSURE WALL CROSS SECTION



TRASH ENCLOSURE GATE DETAIL
NOT TO SCALE

TRASH ENCLOSURE DETAILS
NOT TO SCALE

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PRELIMINARY DETAILS SHEET
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DES: DLB/DWJ SUR DL P/M JPB
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ORIGINAL ISSUE DATE:
FEBRUARY 16, 2016

PEA JOB NO. 2016-364

SCALE: 1" = 10'

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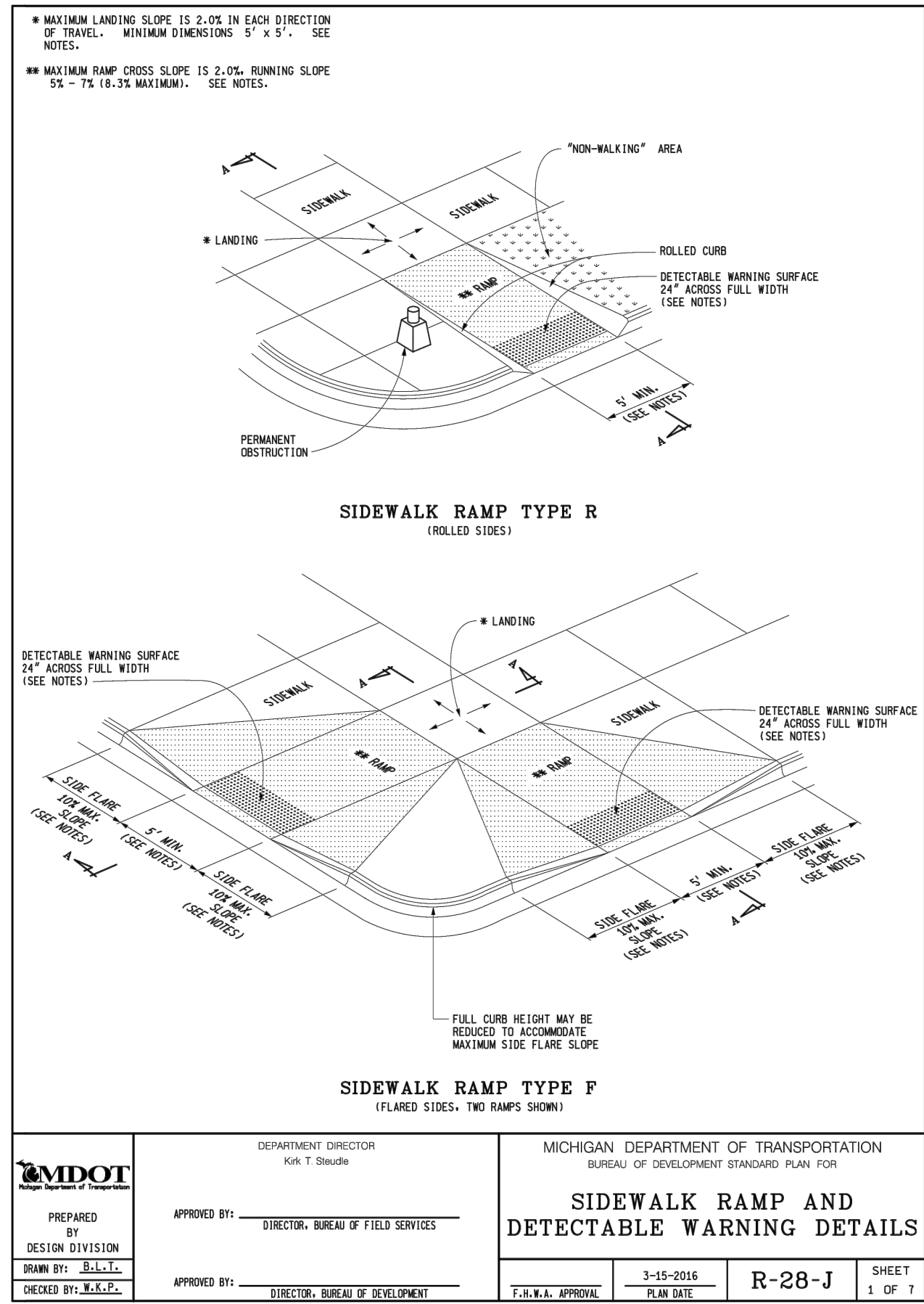
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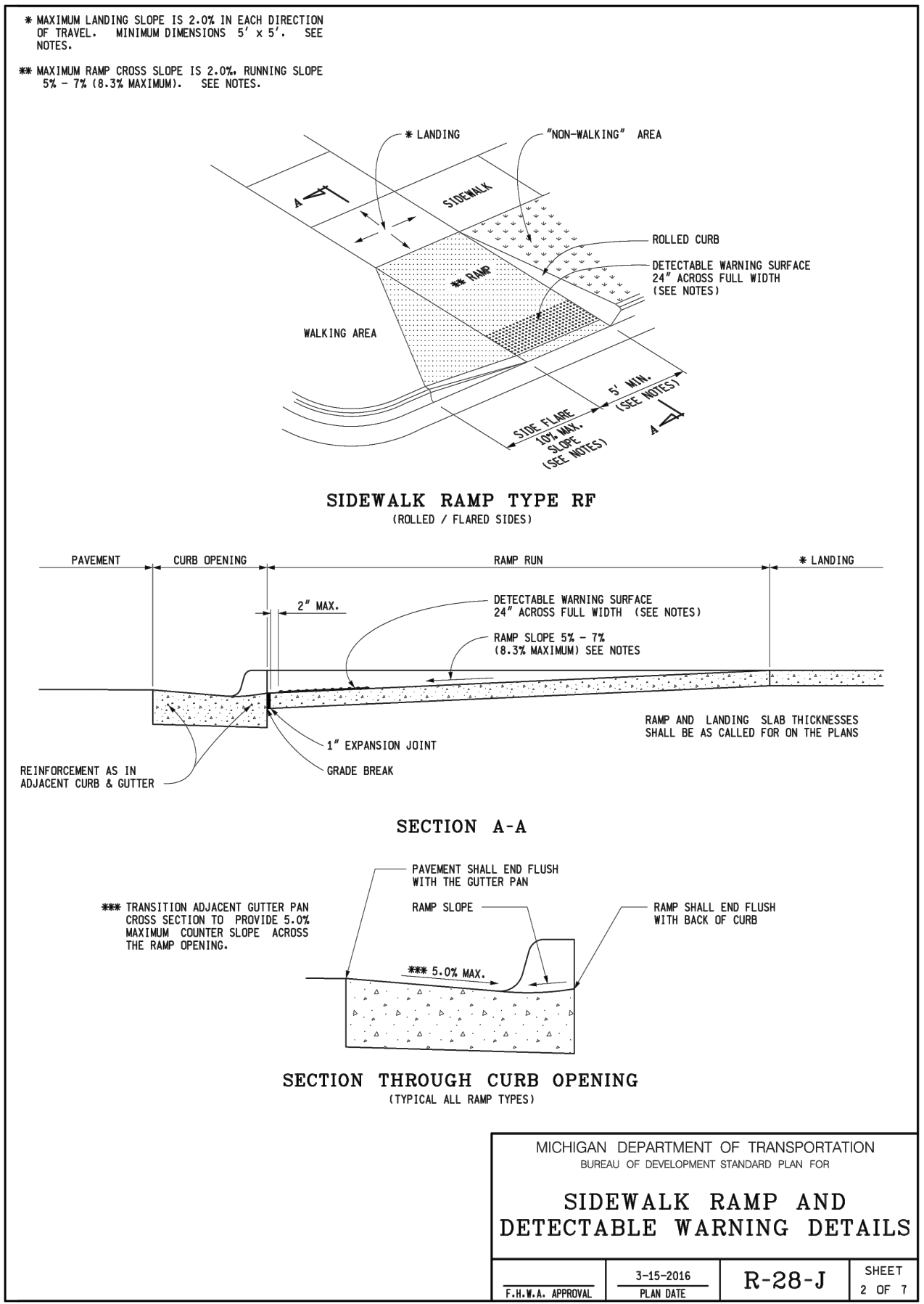
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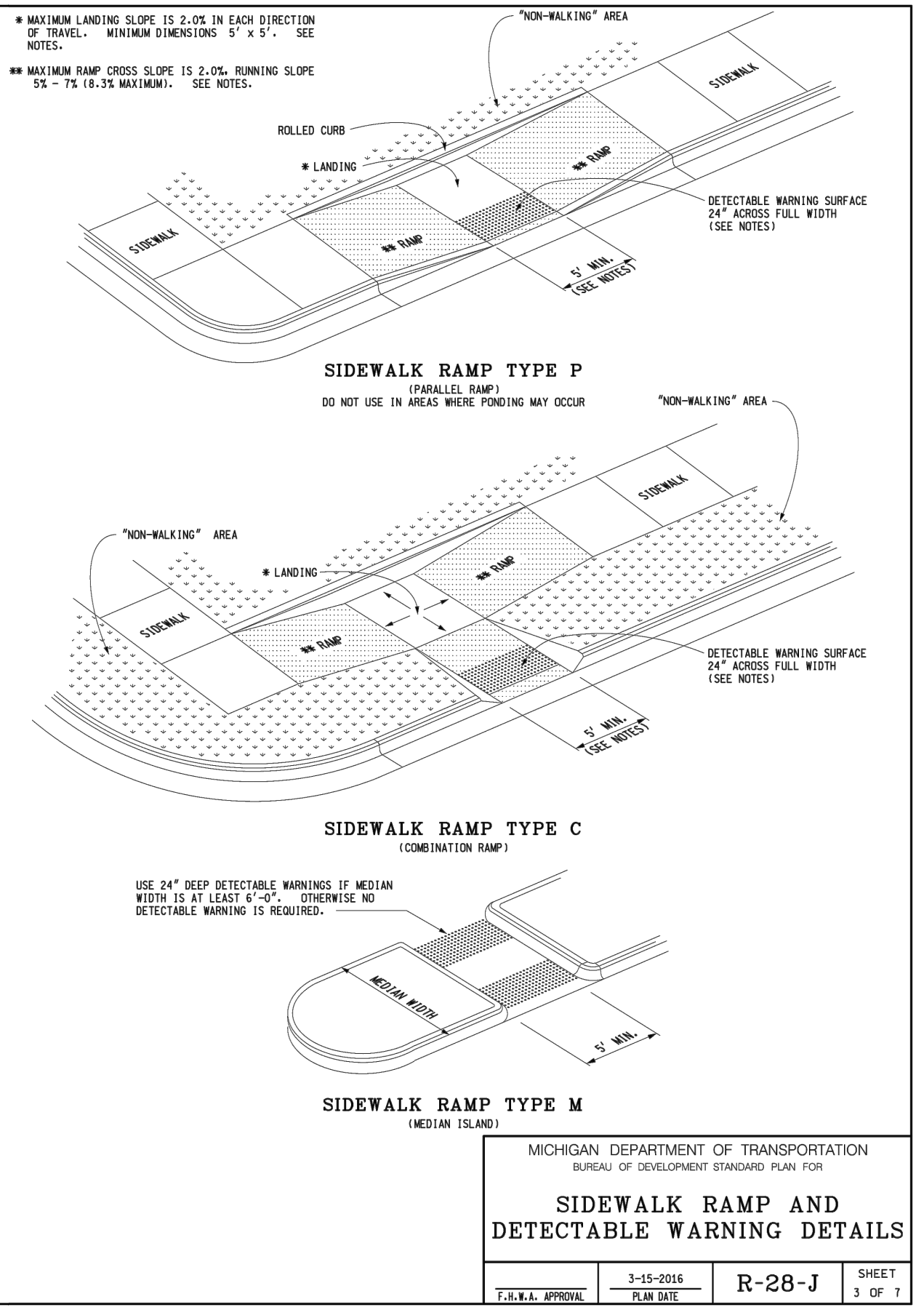
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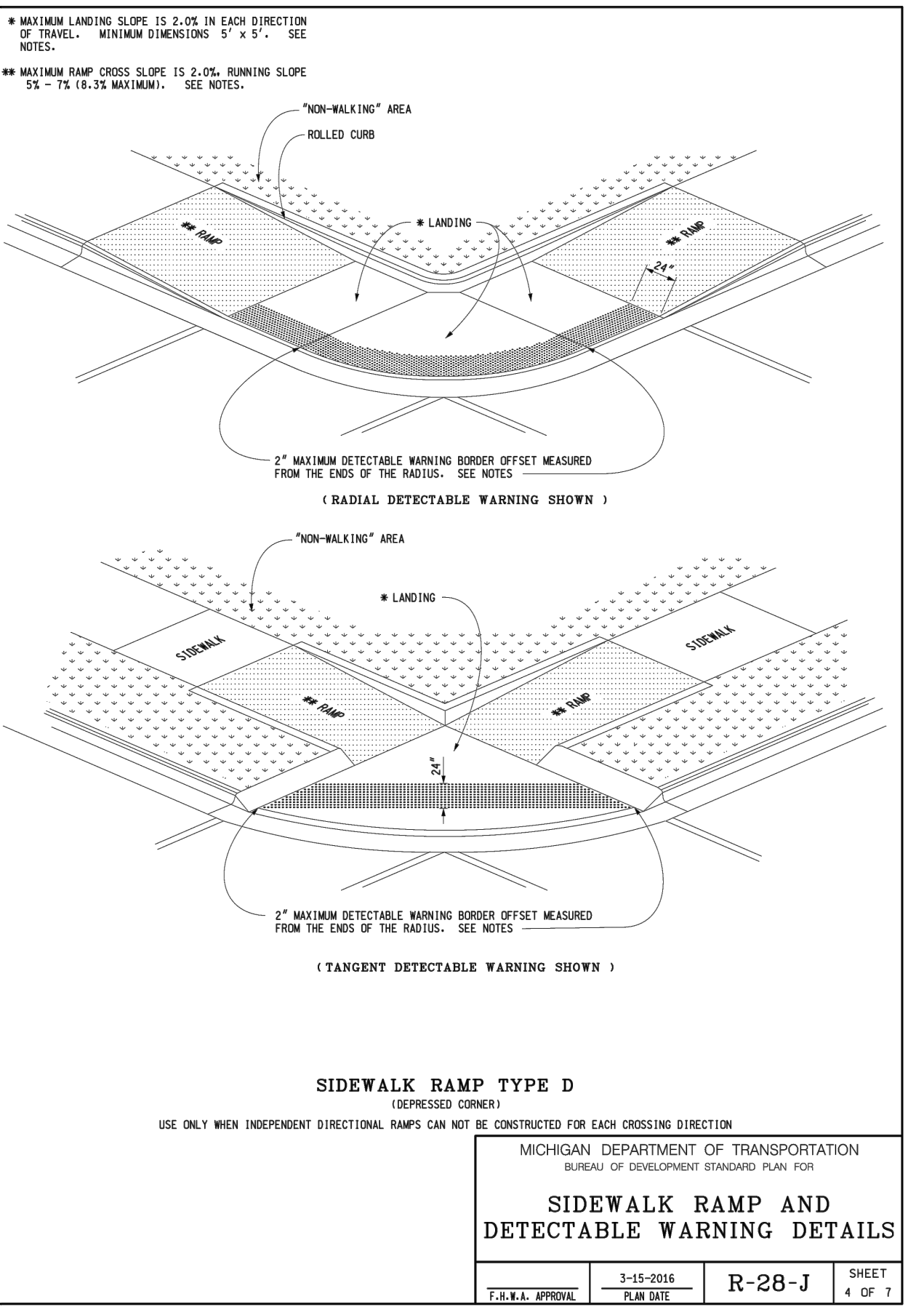
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APPROVED BY:	DIRECTOR, BUREAU OF FIELD SERVICES	APPROVED BY:	DIRECTOR, BUREAU OF DEVELOPMENT
DATE:	3-15-2016	DATE:	3-15-2016
PROJECT NO.:	R-28-J	PROJECT NO.:	R-28-J
SHEET NO.:	1 OF 7	SHEET NO.:	1 OF 7



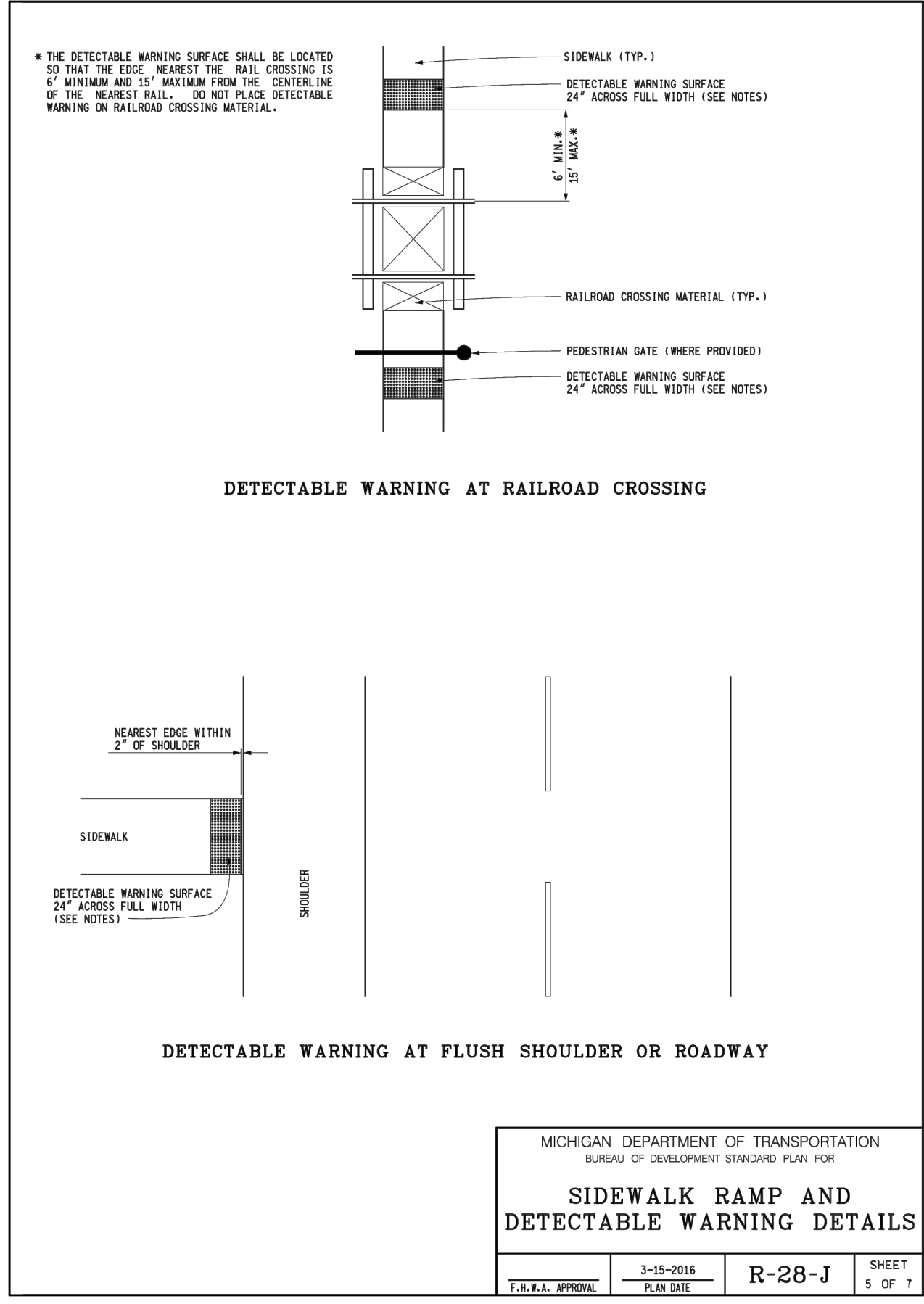
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DATE:	3-15-2016	DATE:	3-15-2016
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SHEET NO.:	2 OF 7	SHEET NO.:	2 OF 7



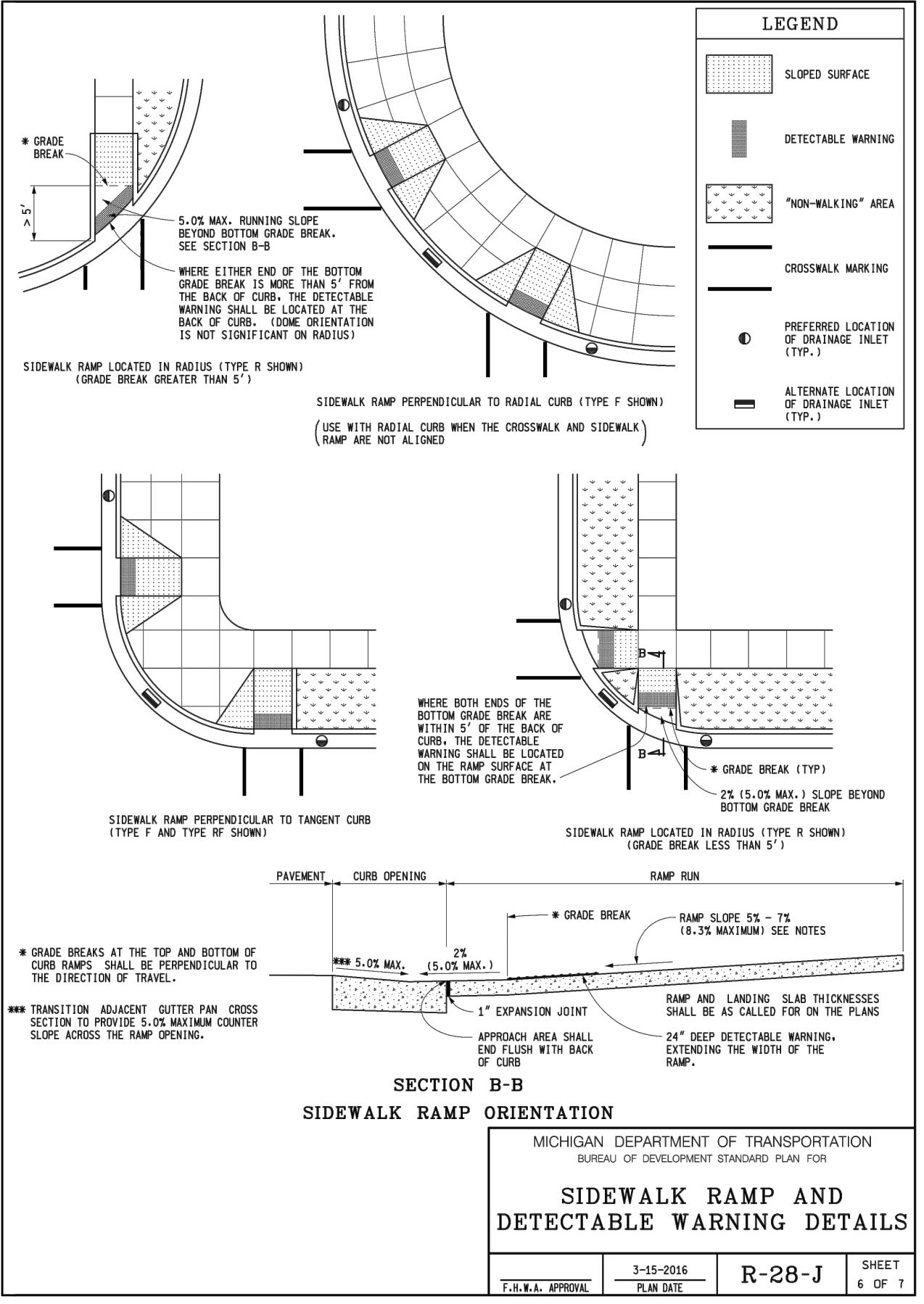
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DATE:	3-15-2016	DATE:	3-15-2016
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SHEET NO.:	3 OF 7	SHEET NO.:	3 OF 7



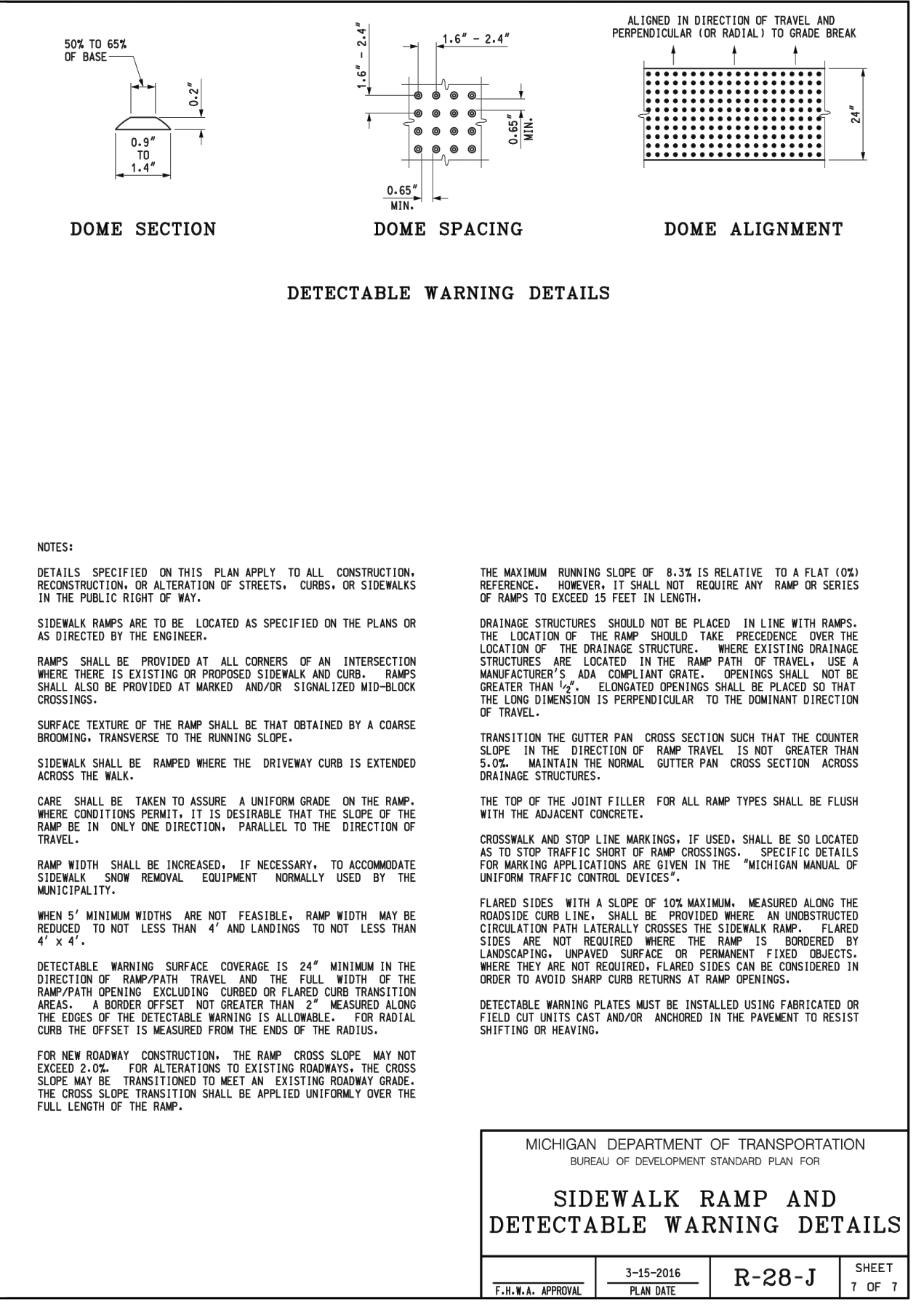
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APPROVED BY:	DIRECTOR, BUREAU OF FIELD SERVICES	APPROVED BY:	DIRECTOR, BUREAU OF DEVELOPMENT
DATE:	3-15-2016	DATE:	3-15-2016
PROJECT NO.:	R-28-J	PROJECT NO.:	R-28-J
SHEET NO.:	4 OF 7	SHEET NO.:	4 OF 7



MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR SIDEWALK RAMP AND DETECTABLE WARNING DETAILS		MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR SIDEWALK RAMP AND DETECTABLE WARNING DETAILS	
APPROVED BY:	DIRECTOR, BUREAU OF FIELD SERVICES	APPROVED BY:	DIRECTOR, BUREAU OF DEVELOPMENT
DATE:	3-15-2016	DATE:	3-15-2016
PROJECT NO.:	R-28-J	PROJECT NO.:	R-28-J
SHEET NO.:	5 OF 7	SHEET NO.:	5 OF 7



MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR SIDEWALK RAMP AND DETECTABLE WARNING DETAILS		MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR SIDEWALK RAMP AND DETECTABLE WARNING DETAILS	
APPROVED BY:	DIRECTOR, BUREAU OF FIELD SERVICES	APPROVED BY:	DIRECTOR, BUREAU OF DEVELOPMENT
DATE:	3-15-2016	DATE:	3-15-2016
PROJECT NO.:	R-28-J	PROJECT NO.:	R-28-J
SHEET NO.:	6 OF 7	SHEET NO.:	6 OF 7



MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR SIDEWALK RAMP AND DETECTABLE WARNING DETAILS		MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR SIDEWALK RAMP AND DETECTABLE WARNING DETAILS	
APPROVED BY:	DIRECTOR, BUREAU OF FIELD SERVICES	APPROVED BY:	DIRECTOR, BUREAU OF DEVELOPMENT
DATE:	3-15-2016	DATE:	3-15-2016
PROJECT NO.:	R-28-J	PROJECT NO.:	R-28-J
SHEET NO.:	7 OF 7	SHEET NO.:	7 OF 7

NO.	DATE	DESCRIPTION
1	4/13/17	REVISIONS PER PLANNING COMMENTS
2	4/13/17	REVISIONS PER PLANNING COMMENTS
3	4/13/17	REVISIONS PER PLANNING COMMENTS
4	4/13/17	REVISIONS PER PLANNING COMMENTS

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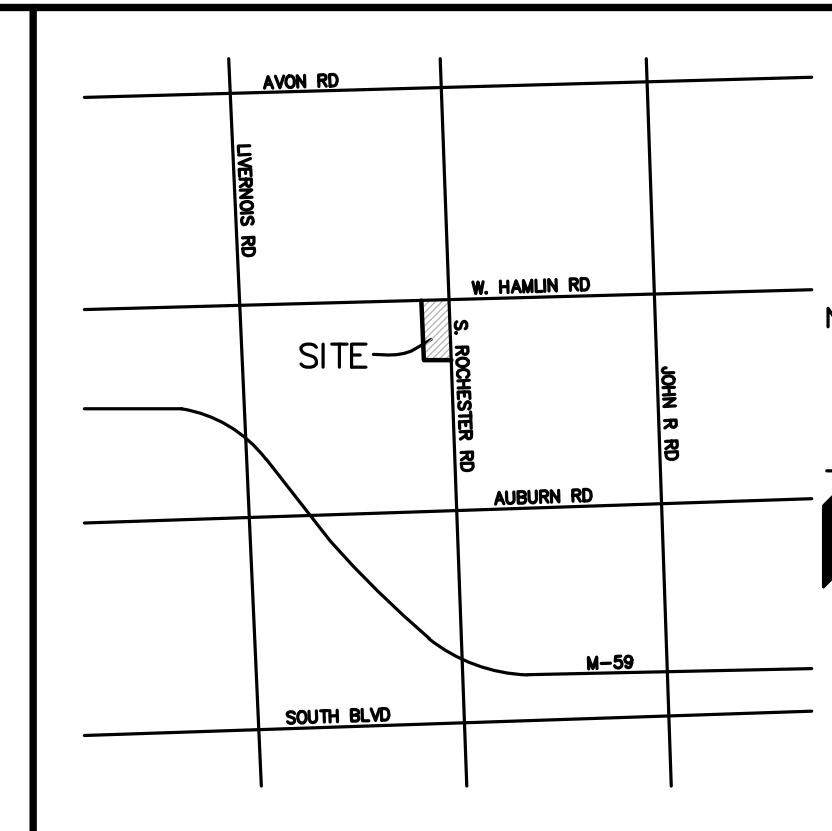
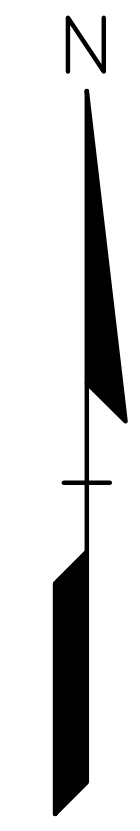
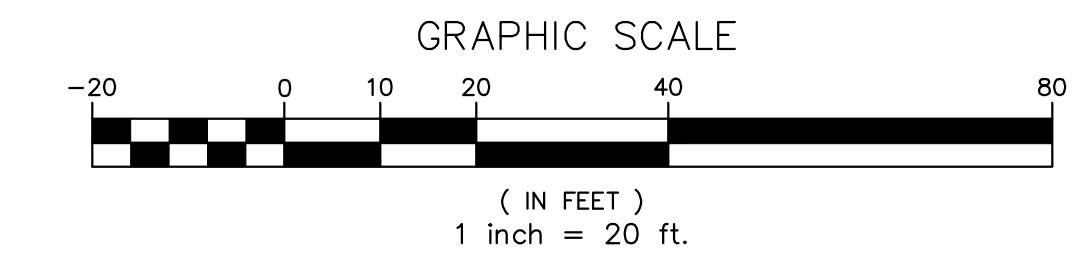
DES.	DLB/DWR	DL	PM
DRW.	DLB/DWR	DL	PM
CHECKED BY:	DLB/DWR	DL	PM
DATE:	3-15-2016	DATE:	3-15-2016
PROJECT NO.:	R-28-J	PROJECT NO.:	R-28-J
SHEET NO.:	8 OF 7	SHEET NO.:	8 OF 7

ORIGINAL ISSUE DATE:
 FEBRUARY 16, 2016

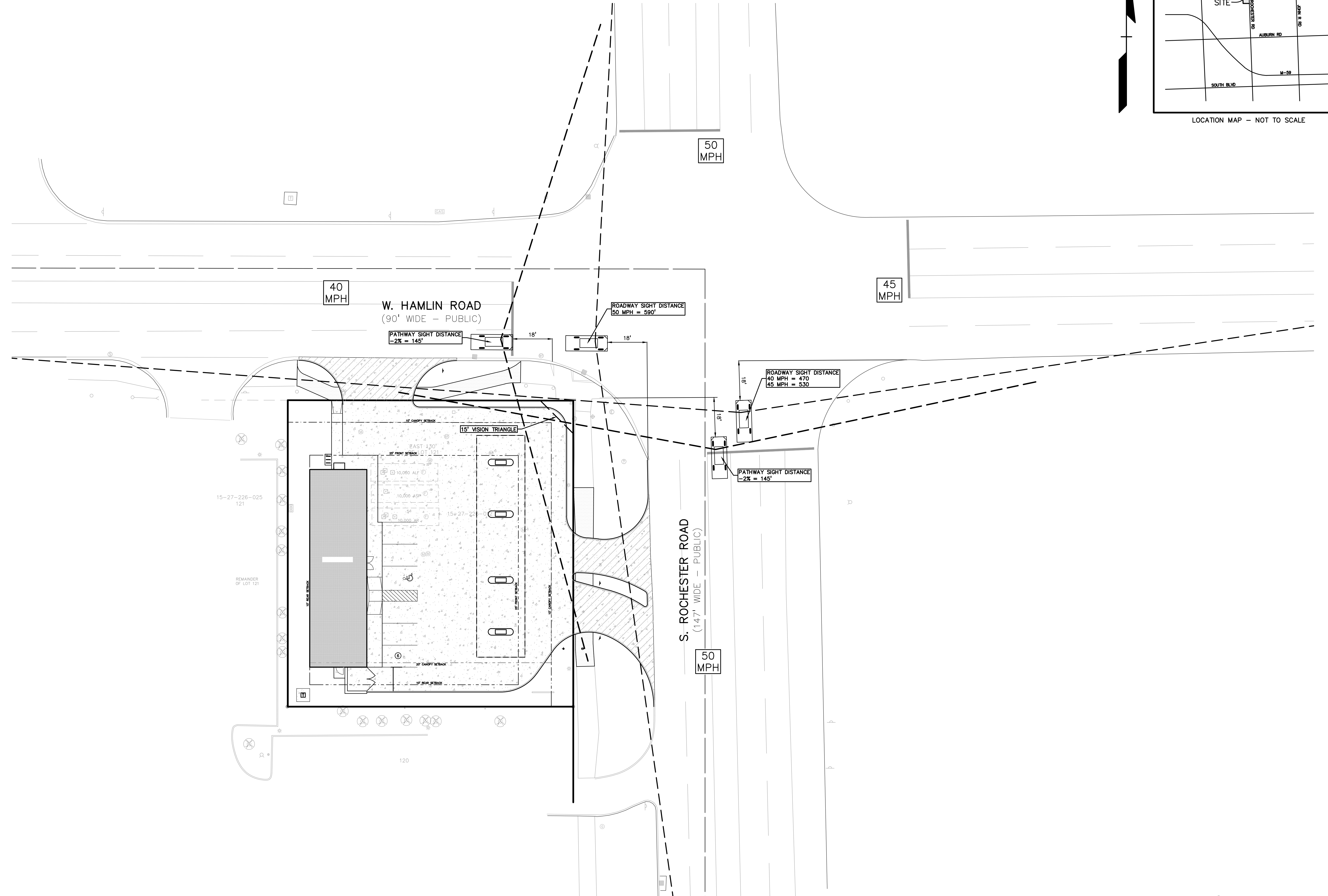
PEA JOB NO. 2016-364

SCALE: 1" = 10'

DRAWING NUMBER:
C-7.0



NO.	DATE	REVISIONS
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ABRO DESIGN GROUP 30600 NORTHWESTERN HIGHWAY, SUITE 310 FARMINGTON HILLS, MI 48334	SIGHT DISTANCE PLAN 2020 ROCHESTER RETAIL PART OF THE NORTHEAST 1/4 OF SECTION 27, T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN	DES. DLB/DRW/ SUR. DL P.M. JPB
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ORIGINAL ISSUE DATE:
 FEBRUARY 16, 2016

PEA JOB NO. 2016-364

SCALE 1" = 10'

DRAWING NUMBER:
C-8.0

CITY OF ROCHESTER HILLS NOTES:

TREE PLANTING RESTRICTIONS:

Prior approval is required to plant any tree or shrub on the public right-of-way. All trees and shrubs must be planted at least 10' from the edge of the public road. Shade trees and ornamental trees must be planted at least 10' from the edge of the public roadway. No trees or shrubs may be planted within the triangular area formed at the intersection of any street right-of-way lines at a distance along each line of 25' from their point of intersection. No trees or shrubs may be planted in the triangular area formed at the intersection of any driveway with a public roadway at a distance along each line of 15' from their point of intersection. All trees and shrubs must be planted at least 10' from any fire hydrant. Shade and evergreen trees must be at least 15' away from the nearest overhead wire. Trees must be planted a minimum of 5' from an underground utility, unless the city's Landscape Architect requires a greater distance. These requirements are incorporated into the plan.

CLOSING COMMENT:

Prior to the release of the performance bond, the City of Rochester Hills Forestry Division needs to inspect all trees, existing or planted, to identify any that pose a hazard to the safe use of the public right-of-way. Forestry may require the developer to remove, and possibly replace, any such trees.

PER CITY OF ROCHESTER HILLS MAINTENANCE AGREEMENT:

Section 138-12.109 Maintenance

The owner of the property shall be responsible for all maintenance of site landscaping, as follows:

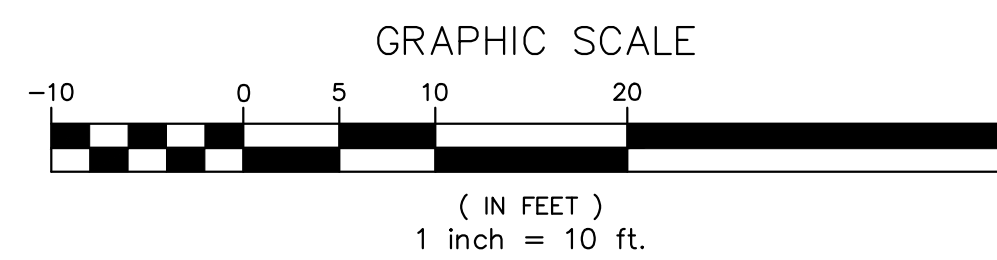
- Landscaping shall be kept in a neat, orderly and healthy growing condition, free from debris and refuse.
- Pruning shall be minimal at the time of installation, only to remove dead or diseased branches. Subsequent pruning shall assure proper maturation of plants to achieve their approved purpose.
- All dead, damaged, or diseased plant material shall be removed immediately and replaced within six (6) months after it dies or in the next planting season, whichever occurs first. For purposes of this Section, the planting season for deciduous plants shall be between March 1 and June 1 and from October 1 until the prepared soil becomes frozen. The planting season for evergreen plants shall be between March 1 and June 1. Plant material installed to replace dead or diseased material shall be as close as practical to the size of the material it is intended to replace. The City may notify property owners of the need to replace dead, damaged, or diseased material.
- The approved landscape plan shall be considered a permanent record and integral part of the Site Plan Approval. Unless otherwise approved in accordance with the aforementioned procedures, any revisions to or removal of plant materials, or non-compliance with the maintenance requirements of this Section 138-12.109 will place the parcel in non-conformity with the approved landscape plan and be a violation of this Ordinance.
- If protected trees are damaged, a fine shall be issued on an inch-by-inch basis at a monetary rate as defined by the Forestry Department.

DECIDUOUS TREE PLANT LIST:

QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
1	AP3	Columnar Norway Maple	<i>Acer platanoides 'Columnare'</i>	3" Cal.	B&B
1	AR3	Armstrong Maple	<i>Acer rubrum 'Armstrong'</i>	3" Cal.	B&B
3	MR3	Red baron Crab	<i>Malus 'Red Baron' columnar</i>	3" Cal.	B&B
1	QB3	Regal Prince Oak	<i>Quercus robur x bicolor 'Long'</i>	3" Cal.	B&B
1	QR3	Crimson Spire Oak	<i>Quercus robur x alba 'Crimschmidt'</i>	3" Cal.	B&B
1	TC3	Greenspire Linden	<i>Tilia cordata 'Greenspire'</i>	3" Cal.	B&B

SHRUB PLANT LIST:

27	PO30	Abbotswood Potentilla	<i>Potentilla fruticosa 'Abbotswood'</i>	30" Ht.	Cont.
10	PM36	Diablo Ninebark	<i>Physocarpus opulifolius 'Monlo'</i>	36" Ht.	Cont.
36	SP30	Little Princess Japanese Spirea	<i>Spiraea japonica 'Little Princess'</i>	30" Ht.	Cont.
18	SM36	Miss Kim Lilac	<i>Syringa patula 'Miss Kim'</i>	36" Ht.	Cont.
12	TM30	Hicks Yew	<i>Taxus x media 'Hicksii'</i>	30" Ht.	Cont.



LANDSCAPE CALCULATIONS:

PER CITY OF ROCHESTER HILLS ZONING ORDINANCE, ZONED B-5
STREET RIGHTS OF WAY LANDSCAPING
 REQUIRED: 1 DEC. TREE/ 35 LF + 1 ORN. TREE/ 60 LF OF RIGHT OF WAY
 HAMLIN ROAD: 130 LF/ 25 LF = 5 DEC. TREES & 2 ORN.
 S. ROCHESTER ROAD: 139 LF/ 25 LF = 6 DEC. TREES & 2 ORN.
 PROVIDED: 5 DEC. TREES, 3 ORN. TREES, AND 34 SHRUBS

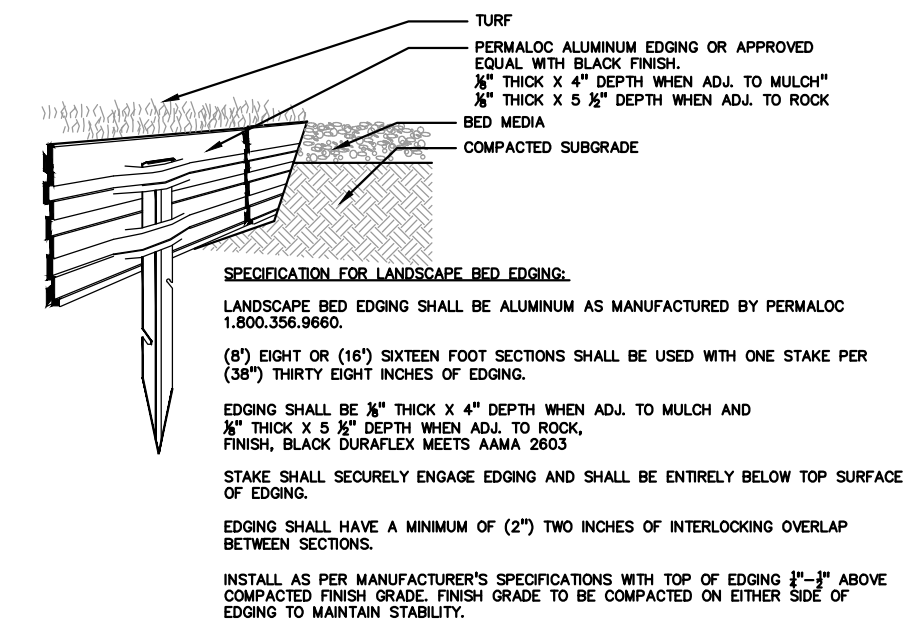
*NOTE: DUE TO THE LOCATION OF THE OVERHEAD UTILITY LINE ALONG HAMLIN ROAD AND SETBACK REQUIREMENTS (BY THE CITY OF ROCHESTER HILLS) FROM PUBLIC SIDEWALKS, UTILITY LINES AND EASEMENTS TREE PLANTINGS ARE RELOCATED ELSEWHERE ON SITE WHERE ALL SETBACK REQUIREMENTS CAN BE MET. THE 6 DEC. AND 1 ORN. REMAINING REQUIRED TREES THAT DO NOT FIT ON SITE, FUNDS TO PUT INTO TREE FUND.

OUTDOOR AMENITY SPACE
 REQUIRED: MINIMUM 2% GROSS LAND AREA OF THE DEVELOPMENT TO BE OUTDOOR AMENITY SPACE. GROSS LAND AREA: 18129 SF * .02 = 363 SF REQUIRED.
 PROVIDED: 630 SF (3.5%) GREEN SPACE IN THE NORTHWEST CORNER OF THE SITE.

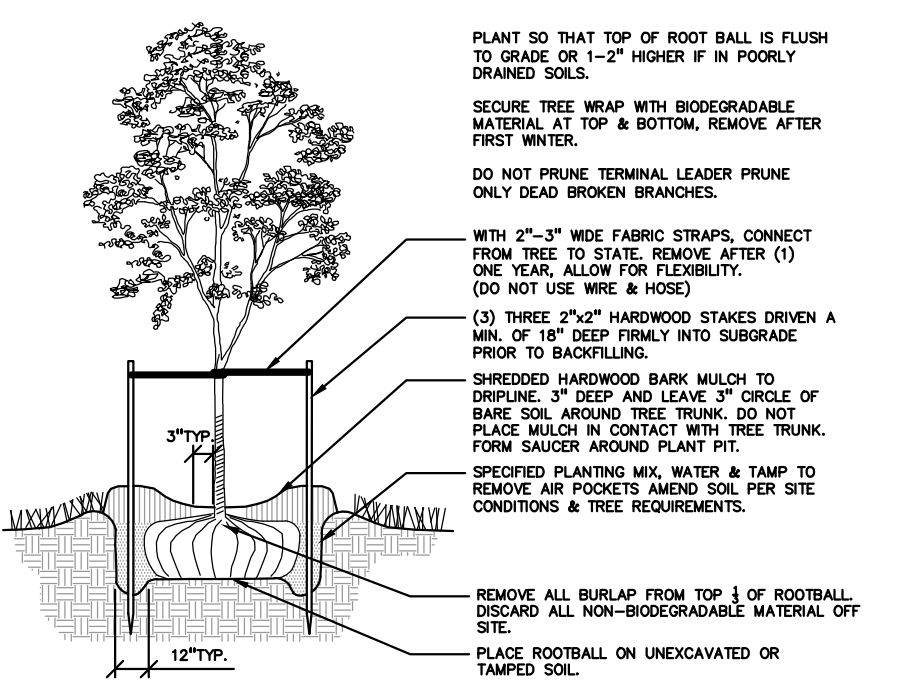
LANDSCAPING AND BUFFERING FOR B-5 ZONING
 REQUIRED: 1.5 DEC. TREE/ 100 LF, 1 EVG. TREE/ 100 LF, AND 4 SHRUBS/ 100 LF OF PROPERTY LINE.
 SOUTH: 130 LF/ 100 LF = 1.3 * 1.5 = 2 DEC., 1 EVG. TREE AND 4 SHRUBS
 WEST: 139 LF/ 100 LF = 1.39 * 1.5 = 2 DEC., 1 EVG. TREE AND 4 SHRUBS.
 PROVIDED: 8 SHRUBS
 *NOTE: DUE TO LACK OF SPACE ON SITE THE 4 DEC. AND 2 EVG. TREES REMAINING REQUIRED TREES THAT DO NOT FIT ON SITE, FUNDS TO PUT INTO TREE FUND.

LANDSCAPING AND BUFFERING FOR FR-3 OVERLAY DISTRICT
 REQUIRED: 25' SETBACK FROM ARTERIAL STREETS WITH 10' BUFFER WIDTH. 2 DEC./100 LF, 4 ORN. TREES/100 LF, AND 12 SHRUBS/100 LF.
 269/100 LF = 5 DEC., 11 ORN. TREES, AND 32 SHRUBS.
 PROVIDED: 32 SHRUBS, 25 THAT DO NOT FIT BETWEEN PARKING LOT CURB AND SIDEWALK TO BE RELOCATED ELSEWHERE ON THE SITE (14 ALONG SOUTH PROPERTY AND 7 ALONG THE WEST).
 *NOTE: DUE TO LACK OF SPACE ON SITE THE 5 DEC. AND 11 ORN. TREES REMAINING REQUIRED TREES THAT DO NOT FIT ON SITE, FUNDS TO PUT INTO TREE FUND.

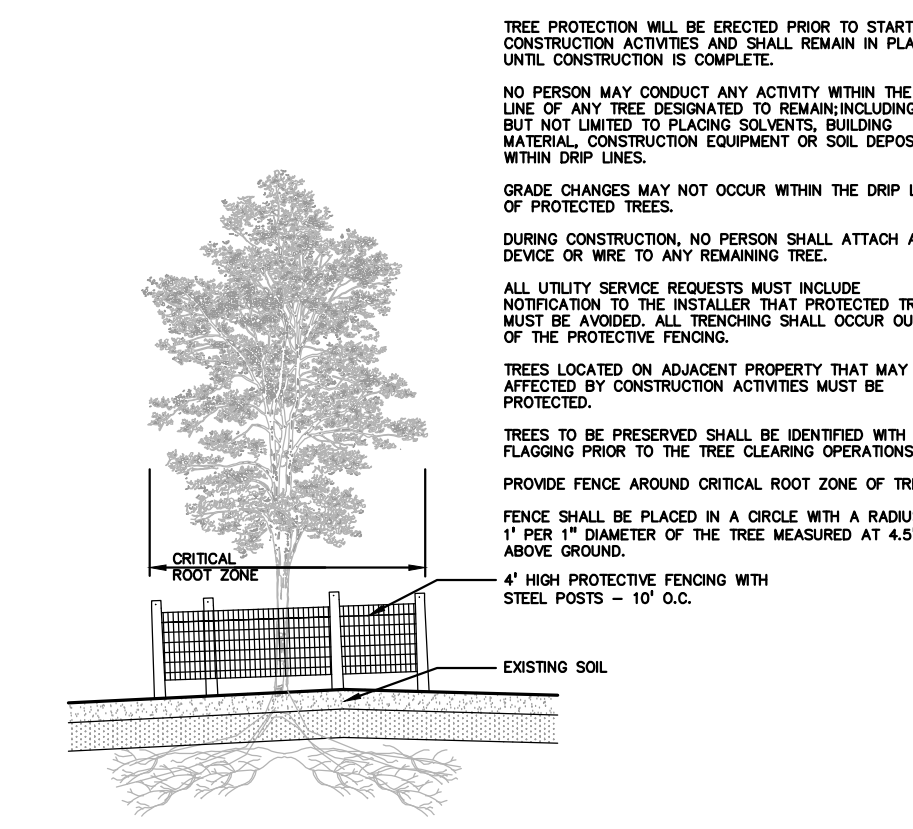
A TOTAL OF \$5,974 WILL BE CONTRIBUTED TO THE TREE FUND (AT \$206 PER TREE) IN LIEU OF 15 DEC., 12 ORN. AND 12 EVG. TREES THAT WILL NOT FIT ON SITE



ALUMINUM EDGE DETAIL



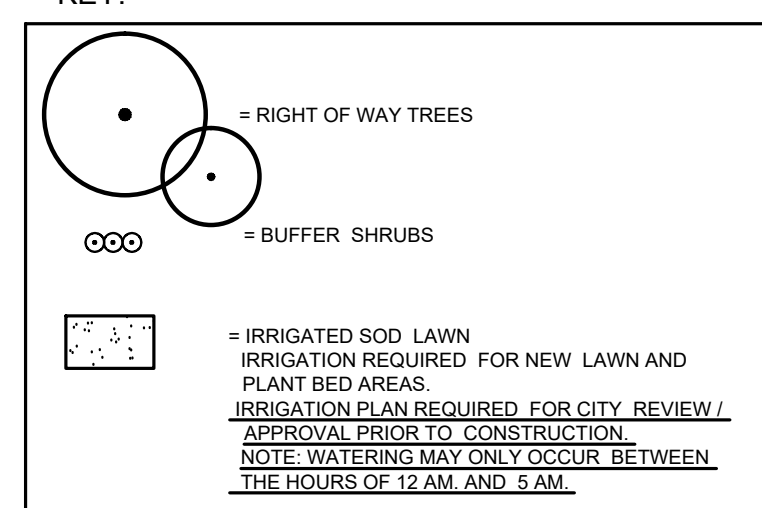
SHRUB PLANTING DETAIL



TREE PROTECTION DETAIL



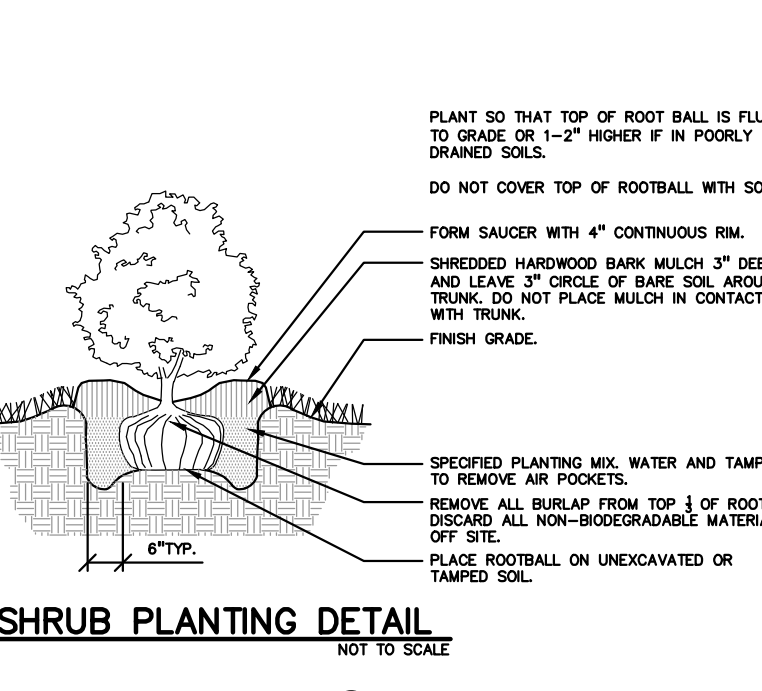
LOCATION MAP - NOT TO SCALE



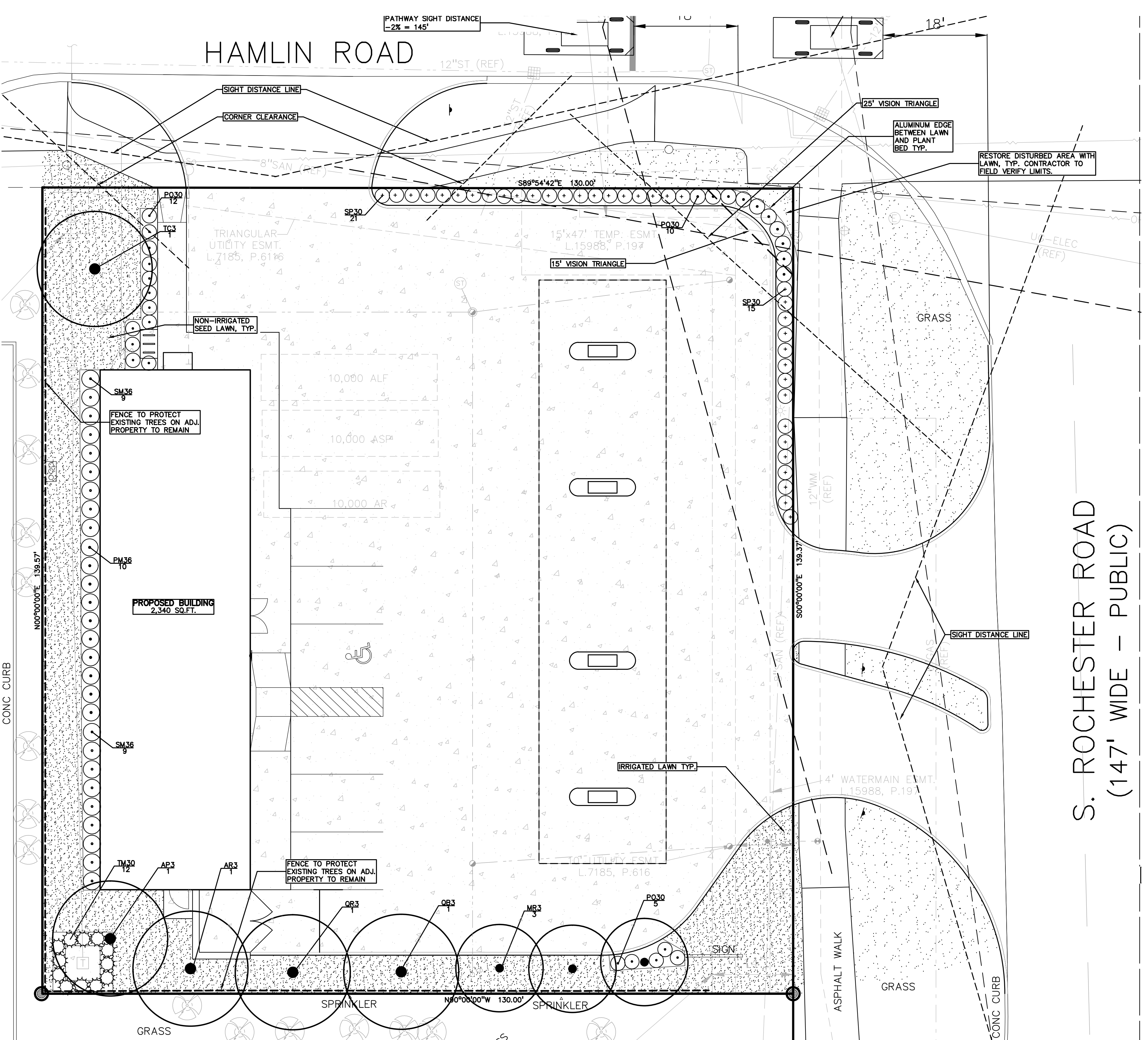
GENERAL PLANTING NOTES:

- LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING SITE CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS.
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON HIS/HER PHASE OF WORK. ELECTRIC, GAS, TELEPHONE, CABLE TELEVISION MAY BE LOCATED BY CALLING MISS DIG 1-800-482-7171. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF CONTRACTOR. CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES ON THE JOB AND SHALL REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNER'S REPRESENTATIVE PRIOR TO COMMENCING.
- ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSERY STOCK AND SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMEN STANDARD FOR NURSERY STOCK. ALL LANDSCAPE MATERIAL SHALL BE NORTHERN GROWN, NO. 1 GRADE.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK.
- THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
- ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
- ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER; TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED.
- ALL MULTI STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS. ONE SIDED TREES OR THOSE WITH THIN OR OPEN CROWNS SHALL NOT BE ACCEPTED.
- ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE GROWING SEASONS.
- ALL TREES TO HAVE CLAY OR CLAY LOAM BALLS, TREES WITH SAND BALLS WILL BE REJECTED.
- NO MACHINERY IS TO BE USED WITHIN THE DRIP LINE OF EXISTING TREES. HAND GRADE ALL LAWN AREAS WITHIN THE DRIP LINE OF EXISTING TREES.
- ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT MATERIAL.
- IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM ALL BUILDINGS.
- ALL PLANTING BEDS SHALL RECEIVE 3" SHREDDED HARDWOOD BARK MULCH, WITH PRE EMERGENT, SEE SPECIFICATIONS. SHREDDED PALLETTE 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.

KEY:

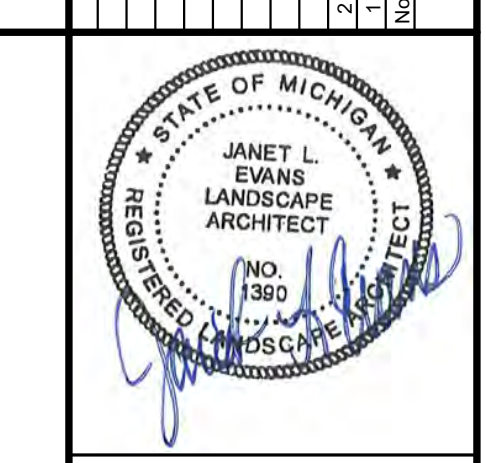


SHRUB PLANTING DETAIL



REVISIONS

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PRELIMINARY LANDSCAPE PLAN
2020 ROCHESTER RETAIL
 PART OF THE NORTHEAST 1/4 OF SECTION 27, T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN
 DES: DLB/DWJ/LSR DL: DLB/DWJ/LSR JPB
 ORIGINAL ISSUE DATE: FEBRUARY 16, 2016
 PEA JOB NO. 2016-364
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 DRAWING NUMBER: L-1.0

NOT FOR CONSTRUCTION

CITY FILE #: 99-028.3

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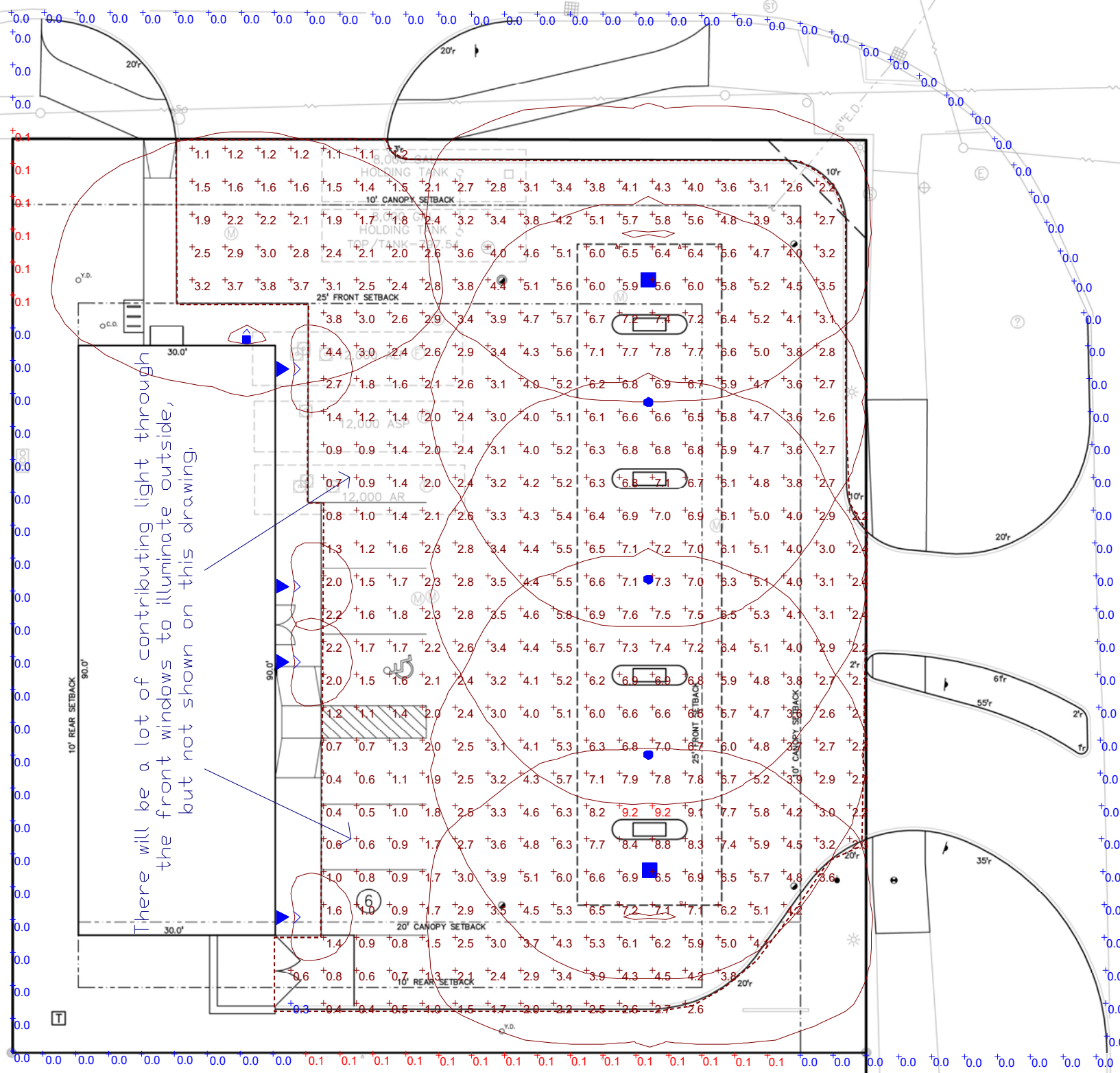
W. HAMLIN ROAD
(90' WIDE - PUBLIC)



2020 Rochester Road - Rochester Hills MI

Designer
A. Wood
Date
3/20/2017
Scale
As Shown
Drawing No.

Summary



S. ROCHESTER ROAD
(147' WIDE - PUBLIC)



2020 Rochester Road - Rochester Hills MI

Schedule									
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Lumens Per Lamp	Light Loss Factor	Wattage
	C3	2	PHILIPS GARDCO	SFC-3-80LA-CW	SFC WITH TYPE 3 OPTICS, NW, CLEAR GLASS LENS	LEDGINE 2.2 LIGHT ARRAY OF 48 LEDs (LUXEON R) DRIVEN AT 530mA	8198	0.95	80
	C5	3	PHILIPS GARDCO	SFC-5W-105LA-CW	SFC WITH TYPE 5W OPTICS, NW, CLEAR GLASS LENS	LEDGINE 2.2 LIGHT ARRAY OF 64 LEDs (LUXEON R) DRIVEN AT 530mA	10054	0.95	103.5
	WShb X	1	PHILIPS GARDCO	ECF-S-32L-530-CW-G2-4	EcoForm Area LED ECF - Small, 32 LEDs, 4000K, Type 4 Optics	(2) LEDGINE 3.1 LIGHT ARRAY OF 16 LEDs (LUXEON T) DRIVEN AT 530mA	6319	0.95	54
	WScnc	4	OCL ORIGINAL CAST LIGHTING INC - ST. LOUIS, MISSOURI	AUSW-18-7-X-1BQ-1	1/39W BIAX LAMP 4x6.75x18" VERTICAL WALL SCONCE LUMINAIRE ALUMINUM HOUSING w/WHITE REFLECTOR & ACRYLIC DIFFUSER UNIVERSAL BALLAST #C242UNVSE WATTS=31 REFL=88%		2850	0.85	31

Note
 1. Canopy Lights at 14' above grade.
 2. Wall mounted shoebox at 14' above grade.
 3. Sconces at 6-8' above grade.

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking Lot	+	3.9 fc	9.2 fc	0.3 fc	30.7:1	13.0:1
Prop Line @ 5'	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A

Designer
A. Wood
Date
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Summary

Exhibit B

TAG	MATERIAL	MANUFACTURE	COLOR/ MODEL	SIZE	REMARKS/ NOTES
1	CUSTOM NATURAL LIVINGSTONE ON-TABS WALL SYSTEM	CUSTOM STONE WORKS	BUFF-GROUT TO MATCH STONE	120 X 12 H X 24 W	CONTACT: OMAK FABRICATION
2	CERAMIC UNIT - EXTERIOR STRUCTURAL WALL W/ ACUTE SHIELD (W/ ANTI-BEULING)	GRAND BLANC CERAMIC PRODUCTS	ROUBRON SPANISH GRAY GROUT	120 X 4 H X 16 W	CONTACT: KIM HUNT (616) 894-1530
3	BURNISHED MASONRY UNIT - EXTERIOR STRUCTURAL WALL	GRAND BLANC CERAMIC PRODUCTS	EXARISTON - SPANISH GRAY GROUT	120 X 8 H X 16 W	CONTACT: KIM HUNT (616) 894-1530
4	ALUMINUM COMPOSITE PANEL SYSTEM	OMEGA PANEL MOD. LAMINATION INC.	BRIGHT SILVER	SEE WALL SECTIONS	CONTACT: TOM OLSON (734) 773-9288
5	EPS - CORNICE	DRYVIT SYSTEM OR DRYPAL SYSTEM FINISH BY SHERWIN	BRUSHED GRAY 8.5 W/ BRUSHED BY SHERWIN	SEE WALL SECTIONS	SEE WALLS, SPECIFICATIONS FOR DETAILS
6	GAS PUMP	BY SHELL SUPPLIER			
7	FRAMING FINISH W/ METAL FRAMING	SIMBBELLA	UNFIN	REFER TO FLOOR PLAN FOR FINISH	PROVIDE COLOR TO PLANNER
8	CLEAR INSULATED GLASS IN DARK BRONZE ALUMINUM FRAME SYSTEM (TYPICAL)	TUBELINE	CLEAR ANOD. ALUM / BRUSHED METAL	SEE SHEET A-8.1 FOR DETAILS	SEE WALLS, SPECIFICATIONS FOR DETAILS
9	NON-MOUNT THERMANT DOOR ENTRY W/ 10" HIGH SECTION PANEL	TUBELINE	COLOR TO MATCH SYSTEMS - 1 FACET 1 BND	SEE SHEET A-8.1 FOR DETAILS	SEE WALLS, SPECIFICATIONS FOR DETAILS
10	SHELL ACM FLASHING	BY SHELL SUPPLIER			
11	EXTERIOR DECORATIVE WALL MOUNTED SCIENCE	OCA ARCHITECTURAL	LED ALLURE / SILVER	24" HIGH X 6" WIDE	SEE MANUFACTURE SPECIFICATIONS FOR DETAILS
12	ALUMINUM SHADING DEVICE	GREEN HECK	METALIC / ANODIZED ALUM FINISH	REFER TO WALL SECTIONS	SEE WALLS, SPECIFICATIONS FOR DETAILS
13	WIRE MESH SCREENING (1" X 1" GRID) W/ BRUSHED VINYL GREEN FINISH				

BUILDING CODE COMPLIANCE & GENERAL INFO	
BUILDING CODE:	<ul style="list-style-type: none"> - 2012 MICHIGAN BUILDING CODE - AMERICAN NATIONAL STANDARD - ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES (ICC/ANSI A117.1-2009) - 2012 MICHIGAN ELECTRICAL CODE - 2012 MICHIGAN FIRE CODE - 2012 MICHIGAN MECHANICAL CODE - 2012 MICHIGAN PLUMBING CODE - MPCA 70 - 2012 MICHIGAN ELECTRICAL CODE - 2012 MICHIGAN MECHANICAL CODE - 2012 MICHIGAN FIRE CODE
PROJECT DESCRIPTION:	PROPOSED NEW 2,700 SF SINGLE STORY RETAIL BUILDING & WAREHOUSES FOR THE PROPOSED GAS STATION.
BUILDING AREA INFORMATION:	<ul style="list-style-type: none"> USE GROUP: 8 (BUSINESS) GROSS FLOOR AREA: 2,700 G.S.F. CONSTRUCTION TYPE: I.R. NON-SPRINKLED BUILDING HEIGHT AND AREA: 2,700 SF BUILDING AREA: 23 FEET MAX PROPOSED HEIGHT (FEET):
PLUMBING FIXTURE COUNT:	1 RESTROOM WILL BE PROVIDED BY LANDLORD W/ DRINKING FOUNTAIN. TENANT TO SUBMIT PLUMBING AFFIDAVIT FROM CHAPTER 4 (MPC 2012) AND SHALL NOT EXCEED AN OCCUPANT LOAD OF 15.

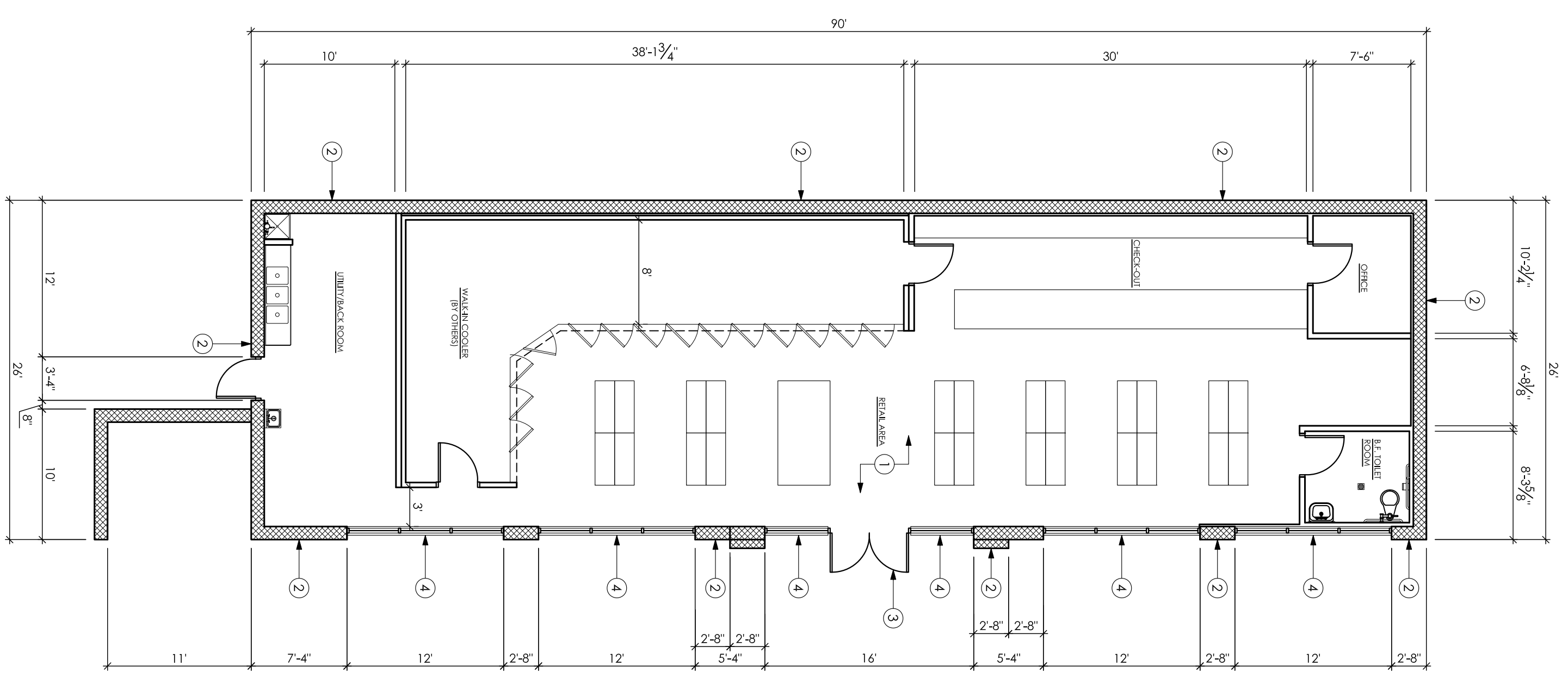
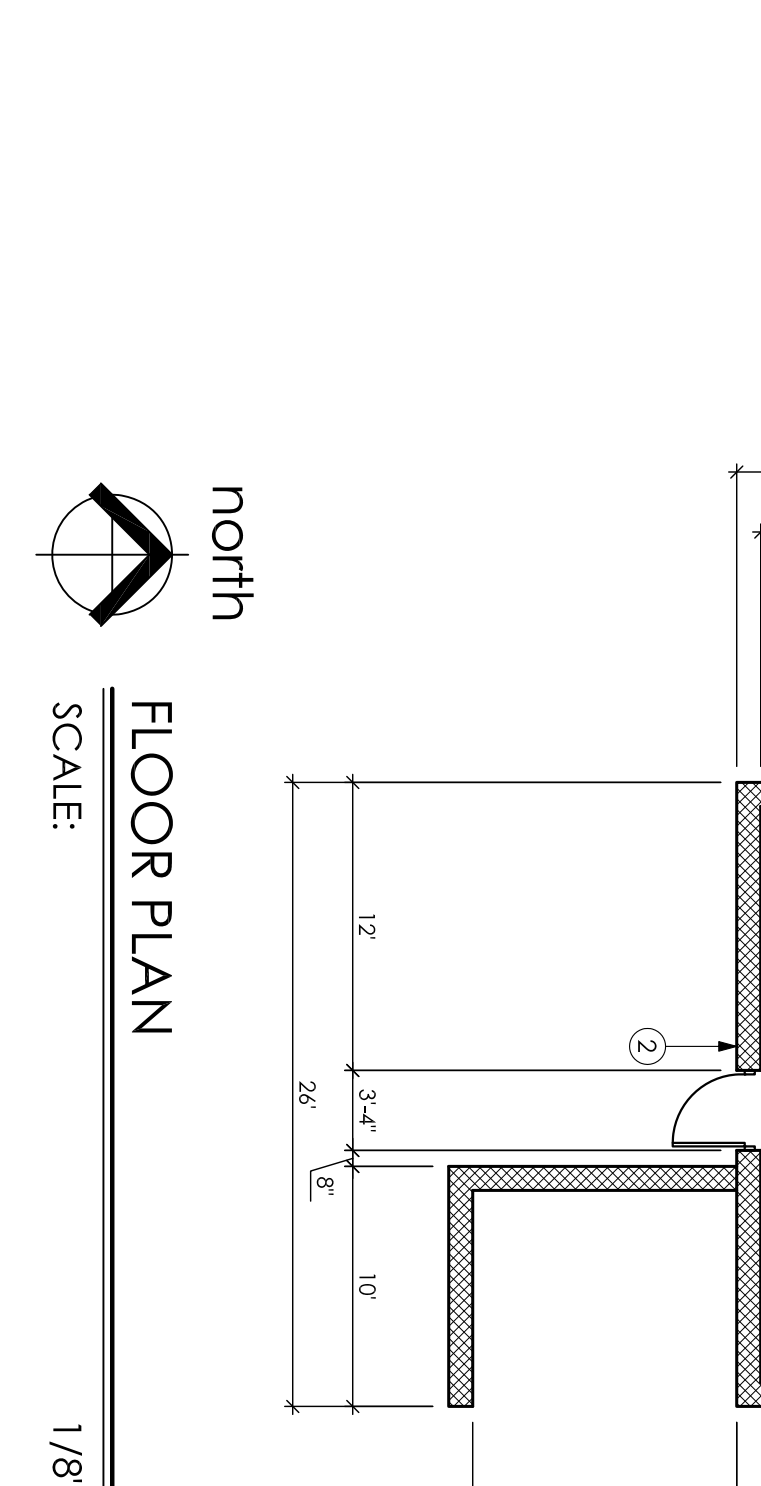
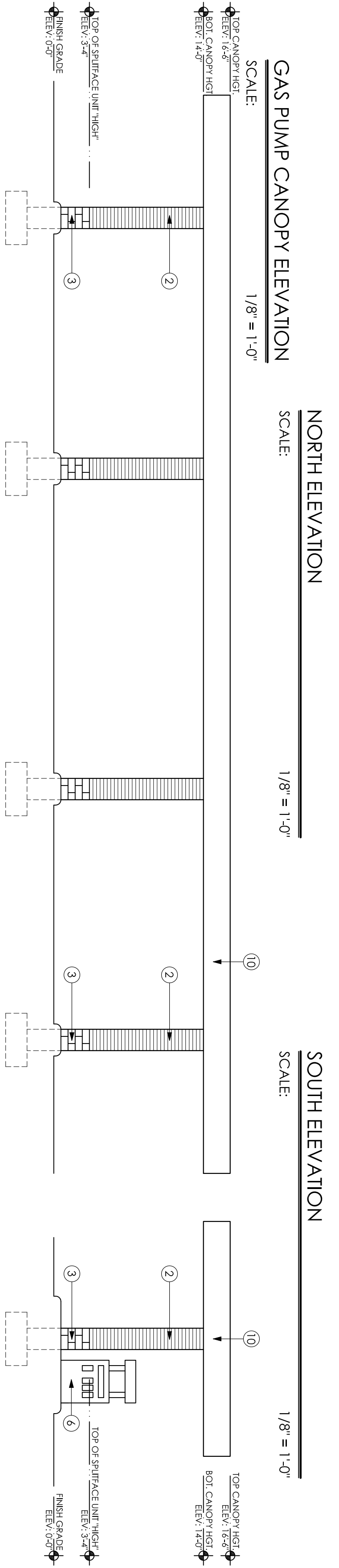
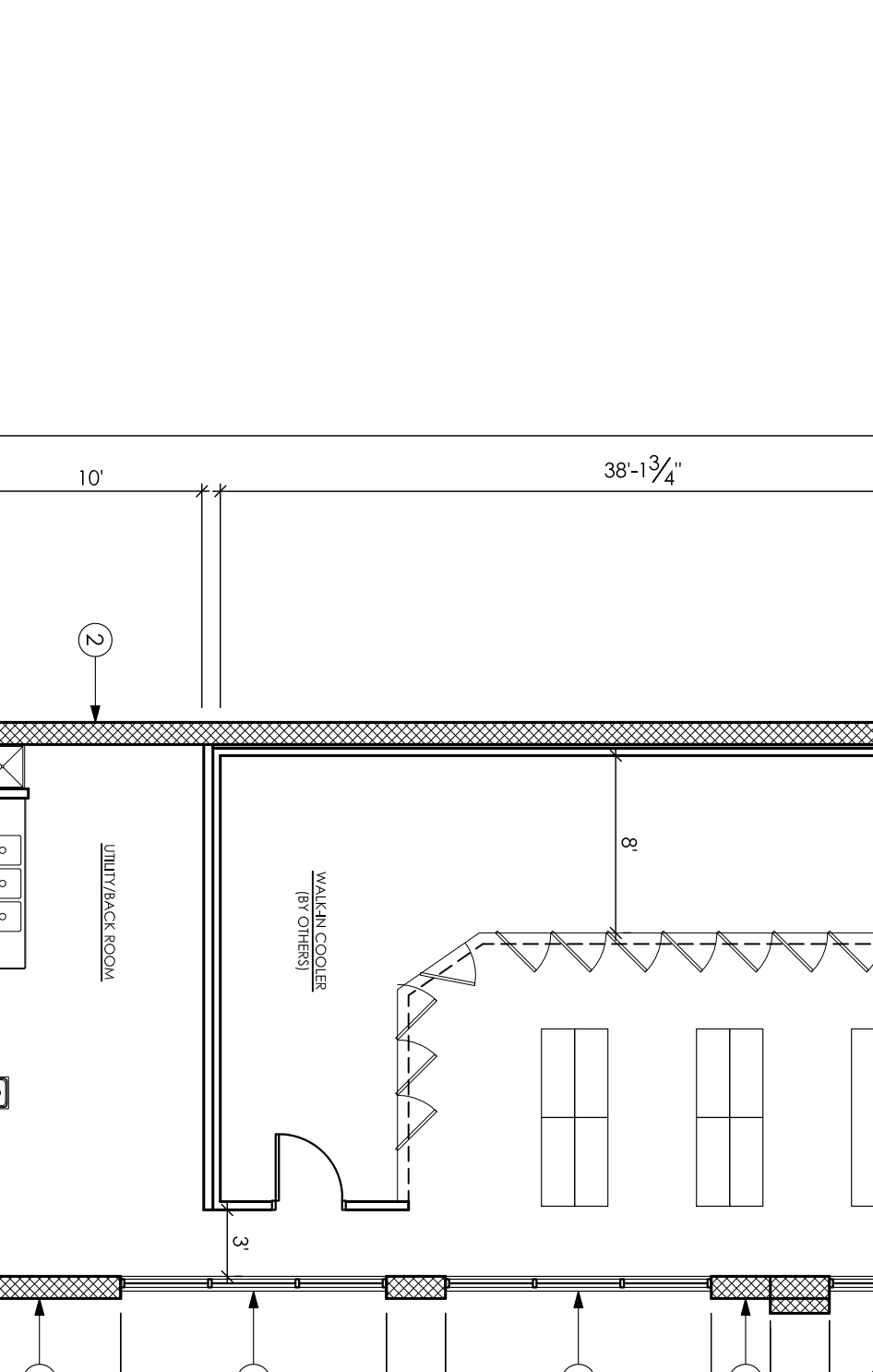
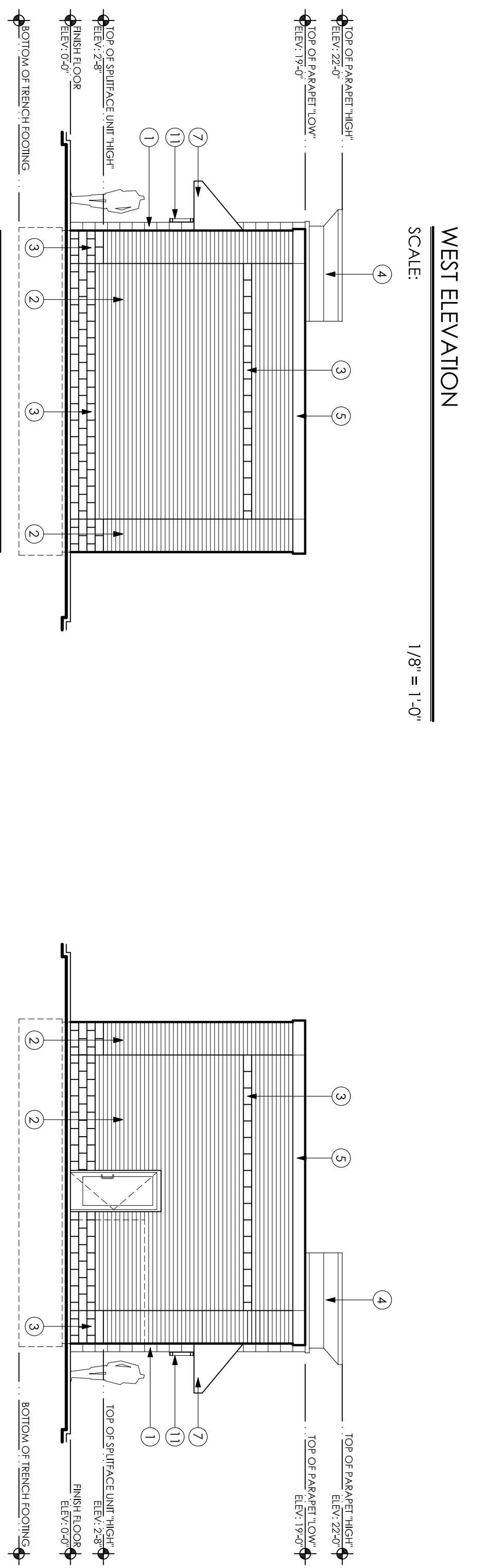
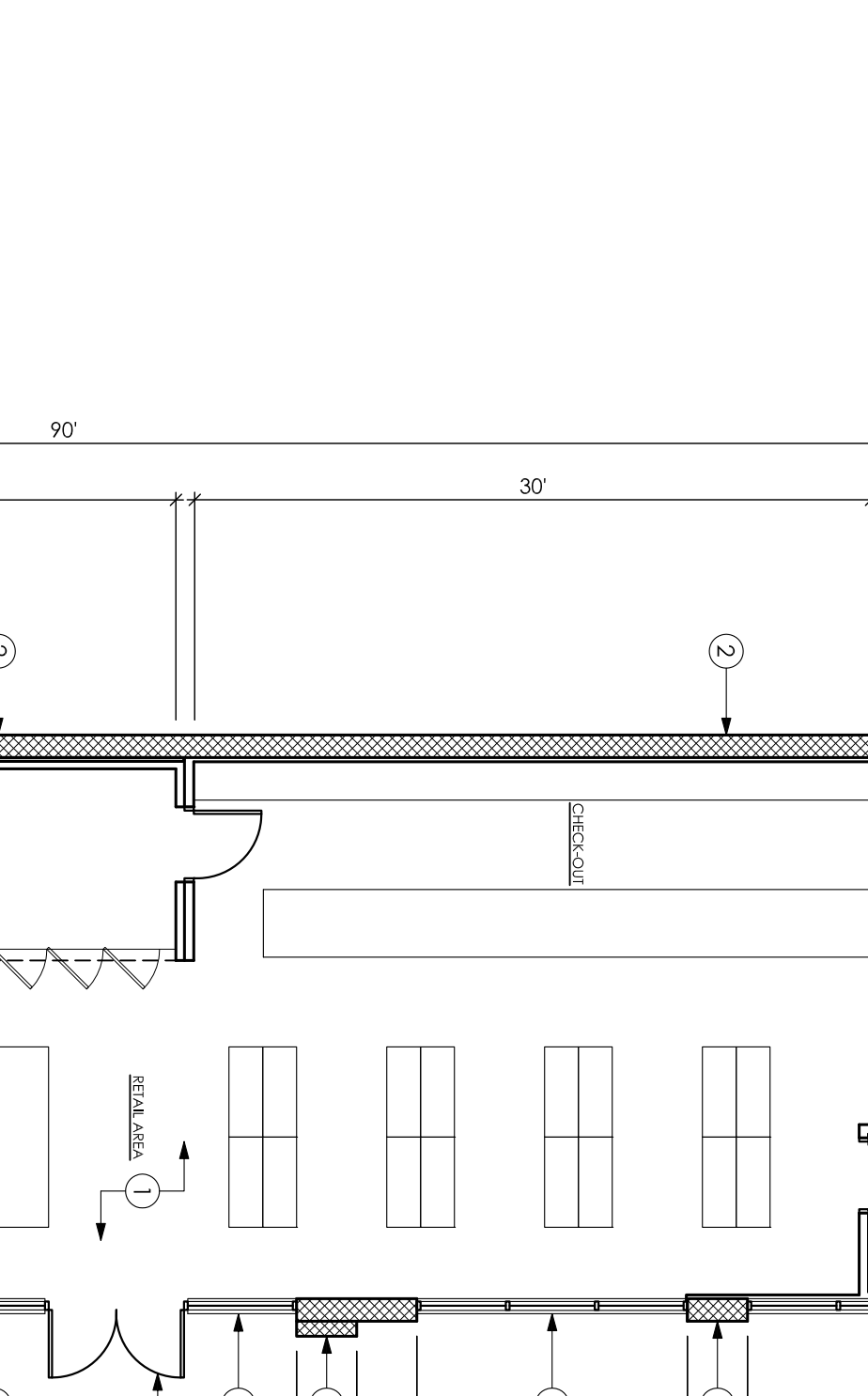
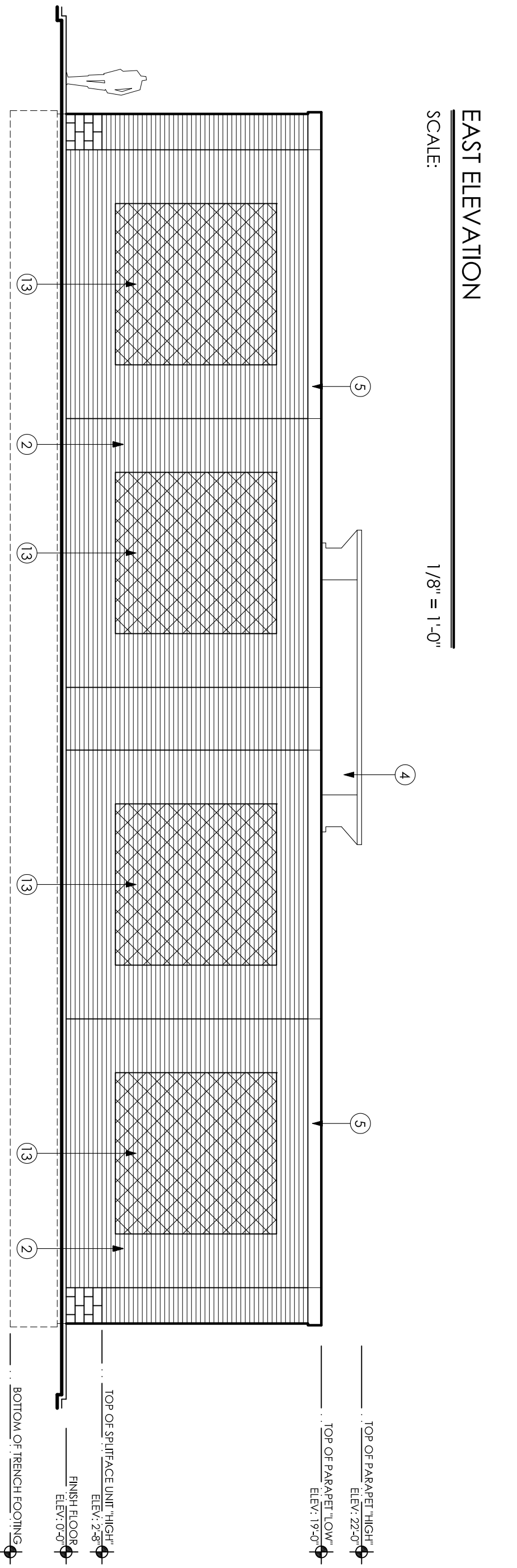
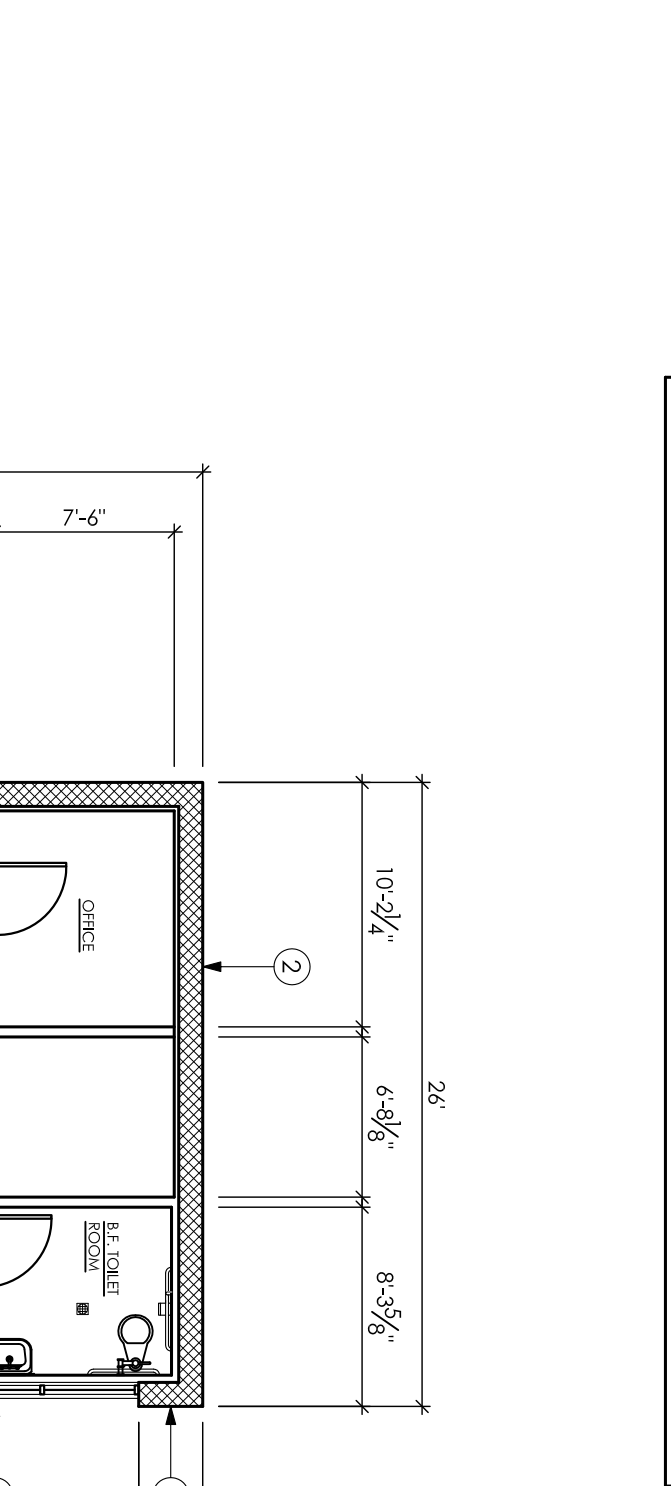
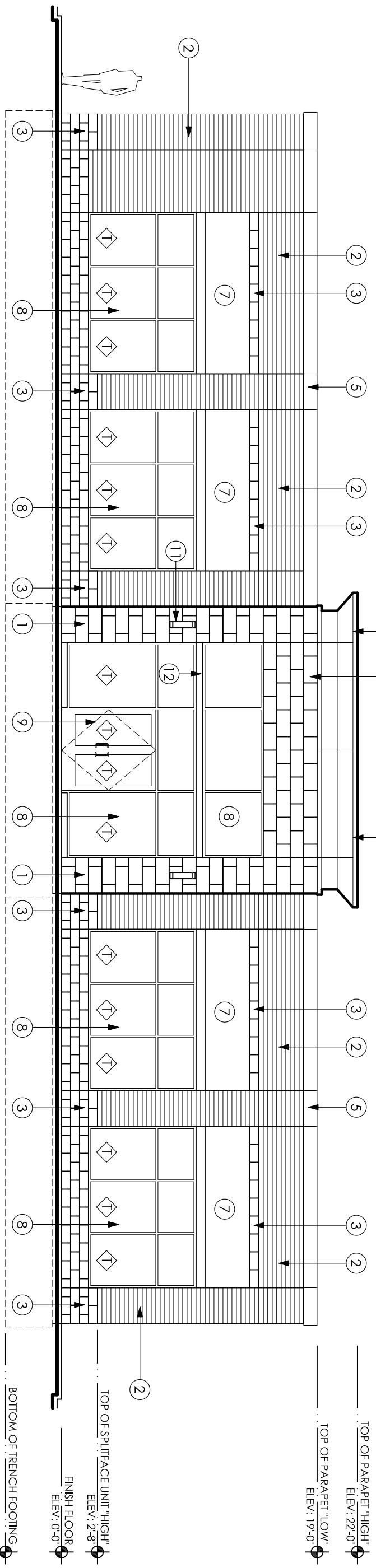
FLOOR NOTES:	
1	#7 REINFORCED CONC. SLAB W/ M.I. X 1 X 1 W 4 W.F. (WIRE FABRIC) OVER 6" MIN. NON-BEAR SLAB OF 4" CONC. REFER TO WALL SECTIONS & FOUNDATION PLAN FOR DETAILS.
2	CLEAR EXTERIOR STRUCTURAL WALL - 10" C/W/LOAD GROUT SOLID. EXTEND INTO BENCH FOOTINGS (TYP.) REFER TO FOUNDATION AND WALL SECTIONS FOR DETAILS.
3	CLEAR INSULATED GLASS IN ANODIZED ALUMINUM FRAME ENTRY DOOR.
4	CLEAR INSULATED GLASS IN ANODIZED ALUMINUM FRAME STRUCTURAL WINDOW WALL SYSTEM.

ABRO ARCHITECTURE INTERIORS PLANNING

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FARMINGTON HILLS, MI 48334
P. 248-254-3834 F. 248-671-2772
WWW.ABRODESIGNGROUP.COM

PROJECT:
GAS STATION

- GAS STATION RENOVATION -
2020 ROCHESTER ROAD,
ROCHESTER HILLS, MI 48307



north
FLOOR PLAN
SCALE: 1/8\"/>

SHEET NO: A-110

PROJECT NO: 102516

DATE: 03.01.17 **ISSUE:** SITE PLAN REVIEW

04.13.17 REVISED SITE PLAN REVIEW

DO NOT SCALE DRAWINGS
USE FIGURED DIMENSIONS ONLY

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