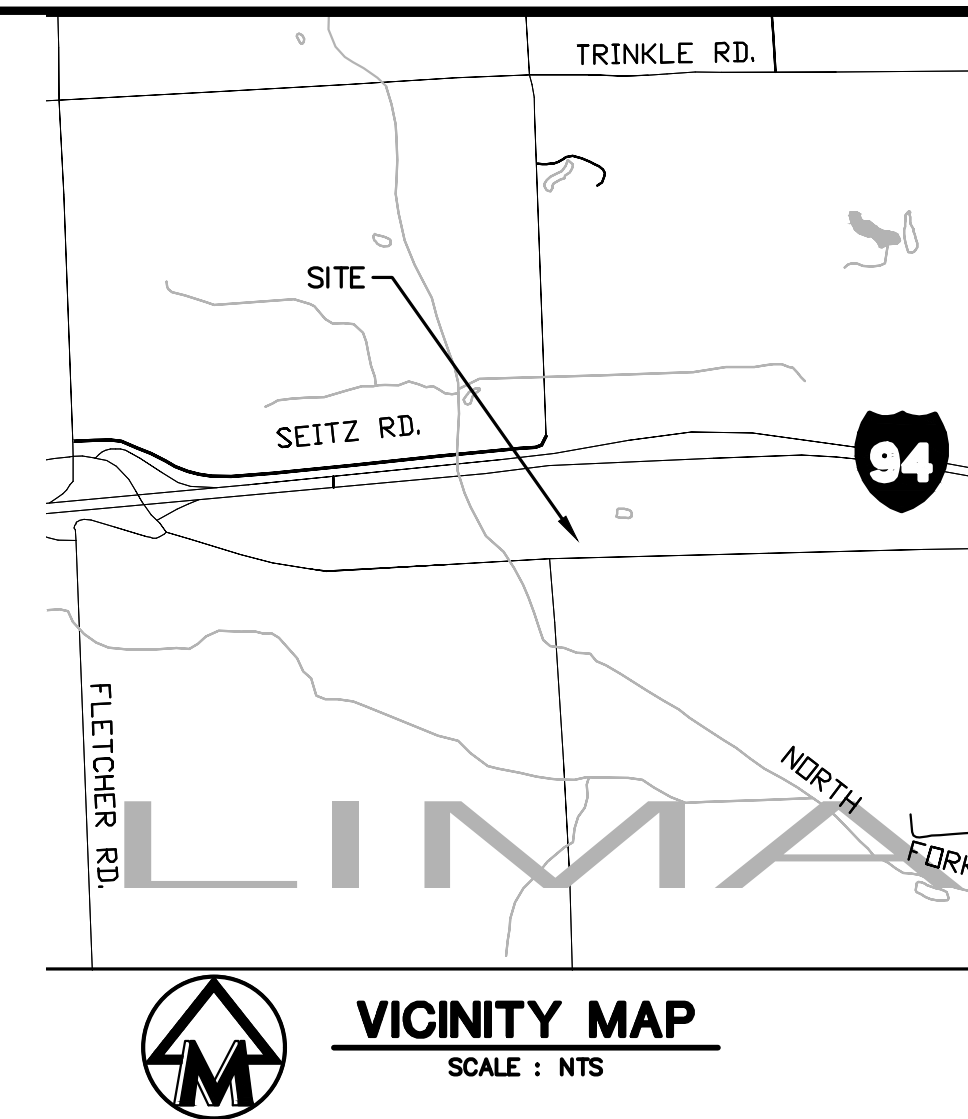


LIMA TOWNSHIP HALL EXPANSION

LIMA TOWNSHIP, WASHTENAW CO., MI

PRELIMINARY SITE PLAN



SITE MAP
SCALE : NTS

SHEET INDEX	
#	SHEET TITLE
01	COVER SHEET
02	EXISTING CONDITIONS & REMOVALS
03	SITE PLAN
04	UTILITY PLAN
05	GRADING PLAN
06	DETAILED GRADING PLAN
07	SITE DETAILS

OWNER/APPLICANT

TOWNSHIP OF LIMA
11452 JACKSON ROAD
DEXTER, MI, 48130
CONTACT: DUANE LUICK
734-475-2246

ENGINEER/SURVEYOR/LANDSCAPE ARCH.

MIDWESTERN CONSULTING, LLC
3815 PLAZA DR.
ANN ARBOR, MI 48108
CONTACT: ADAM LALIK
734-995-0200

ARCHITECT

DANGEROUS ARCHITECTS
104 S MAIN STREET
CHELSEA, MI, 48118
CONTACT: SCOTT MCELRATH
734-475-3660

PROJECT NARRATIVE

LIMA TOWNSHIP HAS REQUESTED PREPARATION OF A PRELIMINARY SITE PLAN FOR THE EXPANSION OF THE TOWNSHIP BUILDING LOCATED AT 11452 JACKSON ROAD. THE EXPANSION CONSISTS OF A SINGLE FLOOR BUILDING EXPANSION AND A WALKOUT BASEMENT.

SITE IMPROVEMENTS INCLUDE 20 PAVED PARKING SPACES, ADA ACCESS AND RAMPS TO THE EXPANDED PORTION OF THE BUILDING. PROJECT INCLUDES A PAVED 2-WAY DRIVEWAY ENTRY WHICH WILL BE CONSTRUCTED AT THE EXISTING APPROVED DRIVEWAY LOCATION.

THE USE OF THE BUILDING EXPANSION WILL BE PRIMARILY FOR TOWNSHIP OFFICIAL OFFICES WITH APPROXIMATELY 6 FULL TIME EMPLOYEES, AND WILL NOT CAUSE A SIGNIFICANT INCREASE IN TRAFFIC GENERATION.

LEGAL DESCRIPTION

OLD SID - G 07-040-002-00 LI 37-2 LOT 11 EXC THE S 25 FT IN WIDTH THEREOF, ALSO ENTIRE LOT 4 BLK 1 VILLAGE OF HARFORD.

AND,

OLD SID - G 07-040-012-00 LI 37-12 LOT 10 EXCEPT S 25 FT BLK 1 VILLAGE OF HARFORD.

AND,

OLD SID - G 07-040-003-00 LI 37-3 LOTS 5, 6 & 7 AND 12, 13 & 14 EXC THE S 25 FT IN WIDTH OF LOTS 12, 13 & 14 BLK 1 VILLAGE OF HARFORD.

SITE DATA

SEE ARCHITECTURAL PLANS FOR APPLICABLE SITE DATA AND ZONING INFORMATION TABLE

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M:\Civ\132_Proj\17192\Construction\1719201.dwg, 3/4/2024, 2:58 PM, Adam J. Lalik, 01 COVER SHEET, MCLLC PDF, p.3 Copyright © 2016, Midwestern Consulting L.L.C. All rights reserved. No part of this drawing may be used or reproduced in any form or by any means, or stored in a database or retrieval system, without prior permission of Midwestern Consulting L.L.C.

LIMA TOWNSHIP HALL EXPANSION

JOB No. 17192	DATE: 03-04-24	01
REVISIONS:	SHEET 01 OF 07	
1	1D CADD: CAD_INITIALS	
2	2D ENG: AJL	
3	3D PM: AJL	
4	4D TECH: TECH_INITIALS	
5	5D /17192CV1	
6	6D	

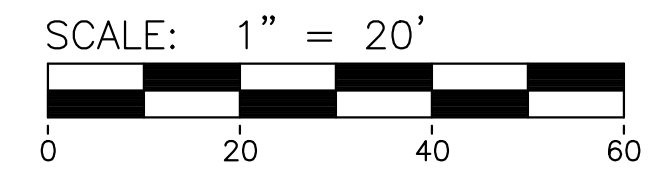
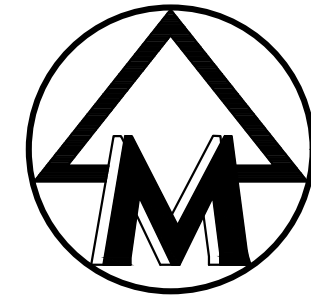


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P.E. #

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LEGEND

- 838 EXIST. CONTOUR
- x836.2 EXIST. SPOT ELEVATION
- U.P. EXIST. UTILITY POLE
- GUY WIRE
- ⊠ ELEC. TRANSFORMER
- O.H. EXIST. OVERHEAD UTILITY LINE
- * EXIST. LIGHT POLE
- ⊠ SIGN
- ☐ MAILBOX
- POST
- ⊙ WELL
- FENCE
- SINGLE TREE
- ☁ TREE OR BRUSH LIMIT
- SECTION CORNER
- TP-1 TEST PIT LOCATION
- F FOUND IRON PIPE
- S FOUND IRON ROD
- FIR FOUND IRON ROD
- △ CONTROL PT.
- ▨ CONCRETE TO BE REMOVED
- ▧ BITUMINOUS TO BE REMOVED
- //// UTILITY TO BE ABANDONED/REMOVED
- |||| CURB TO BE REMOVED
- × TREE TO BE REMOVED
- REL ITEM TO BE RELOCATED
- REM ITEM TO BE REMOVED

TREE LEGEND

- A APPLE
- BO BOX ELDER
- CH CHERRY
- E ELM
- M MAPLE
- P PINE
- S SPRUCE
- W WALNUT

BENCHMARKS:

- #1.) SET SPIKE IN EAST SIDE OF UTILITY POLE, 40'± EAST OF SE CORNER OF TOWNSHIP HALL. ELEVATION=893.49 NAVD 88.
- #2.) SET SPIKE IN EAST FACE OF LIGHTPOLE LOCATED AT NW CORNER OF GRAVEL PARKING LOT. ELEVATION=892.28 NAVD 88.



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 734-475-2246

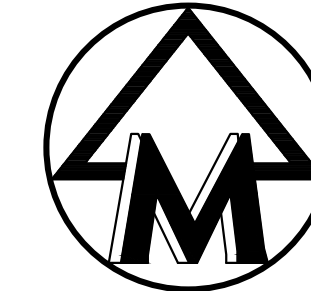
LIMA TOWNSHIP HALL EXPANSION
 PRELIMINARY SITE PLAN
 EXISTING CONDITIONS & REMOVALS
 NA

02

DATE: 03-04-24	SHEET 02 OF 07
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20	ENG. AIL
30	PM. AIL
40	TECH. INITIALS
50	DATE
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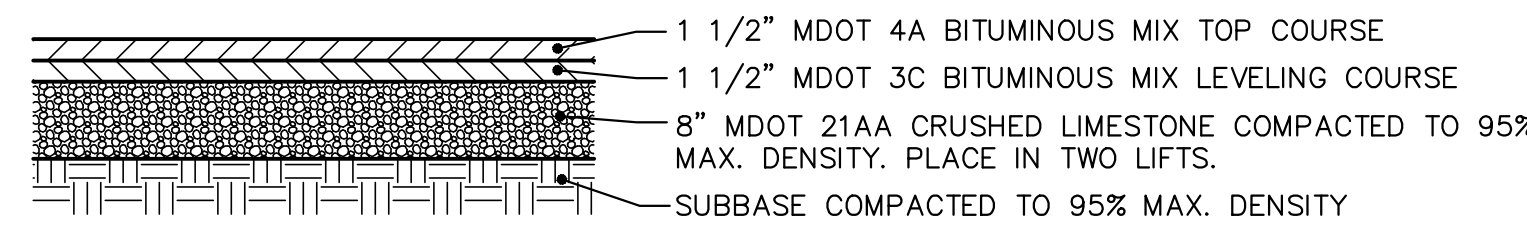


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PRELIMINARY SITE PLAN
SITE PLAN
NA

03

JOB No.	17192
DATE	03-04-24
REV. DATE	SHEET 03 OF 07
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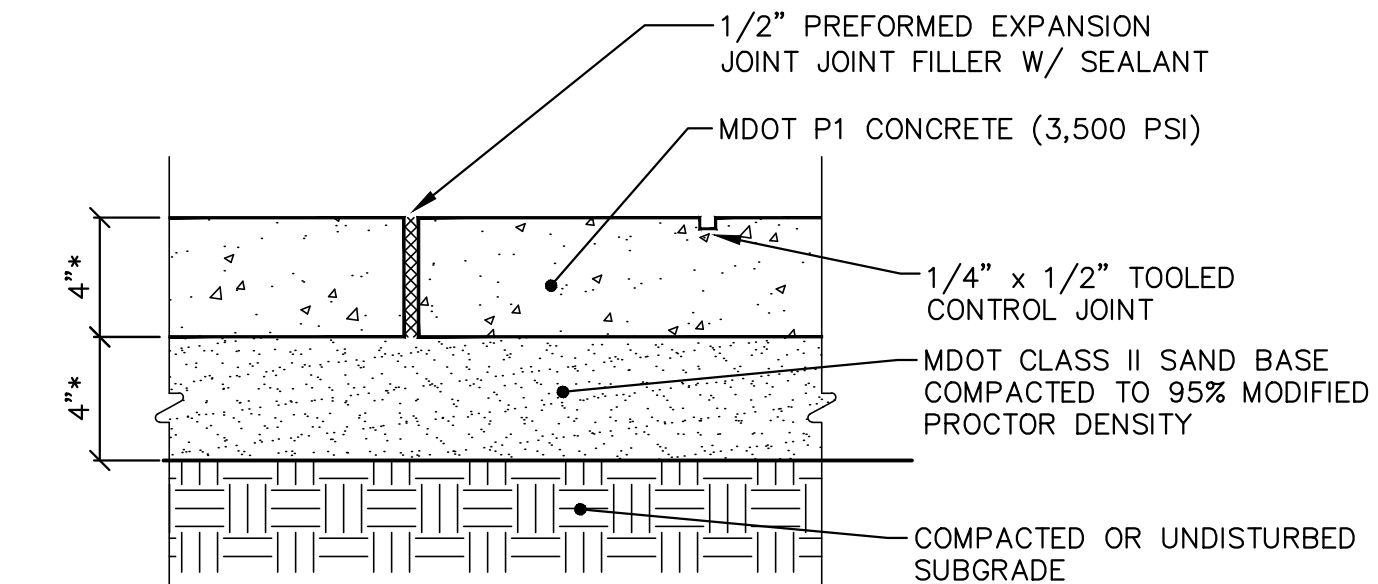
BITUMINOUS PAVEMENT DETAIL
NOT TO SCALE

NOTES

1. ALL DIMENSIONS ARE MEASURED TO THE PAINT LINE OR FACE OF CURB UNLESS OTHERWISE NOTED. ALL RADII DIMENSIONS SHOWN ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
2. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH CURRENT STANDARDS, SPECIFICATIONS, AND GENERAL CONDITIONS OF THE AUTHORITY HAVING JURISDICTION.
3. REFER TO THE ARCHITECTURAL PLANS FOR DETAILS REGARDING THE SCOPE OF WORK FOR THE BUILDING ELEVATIONS, INTERIORS, AND APPURTENANCES.
4. THE CONTRACTOR SHALL CONTACT THE OWNER AND/OR ENGINEER PRIOR TO COMMENCING WORK SHOULD THERE BE ANY FIELD CONFLICTS WITH THE DESIGN INTENT.
5. NO ONSITE TRASH PICKUP. TRASH WILL BE TAKEN TO CURB FOR PICKUP

LEGEND

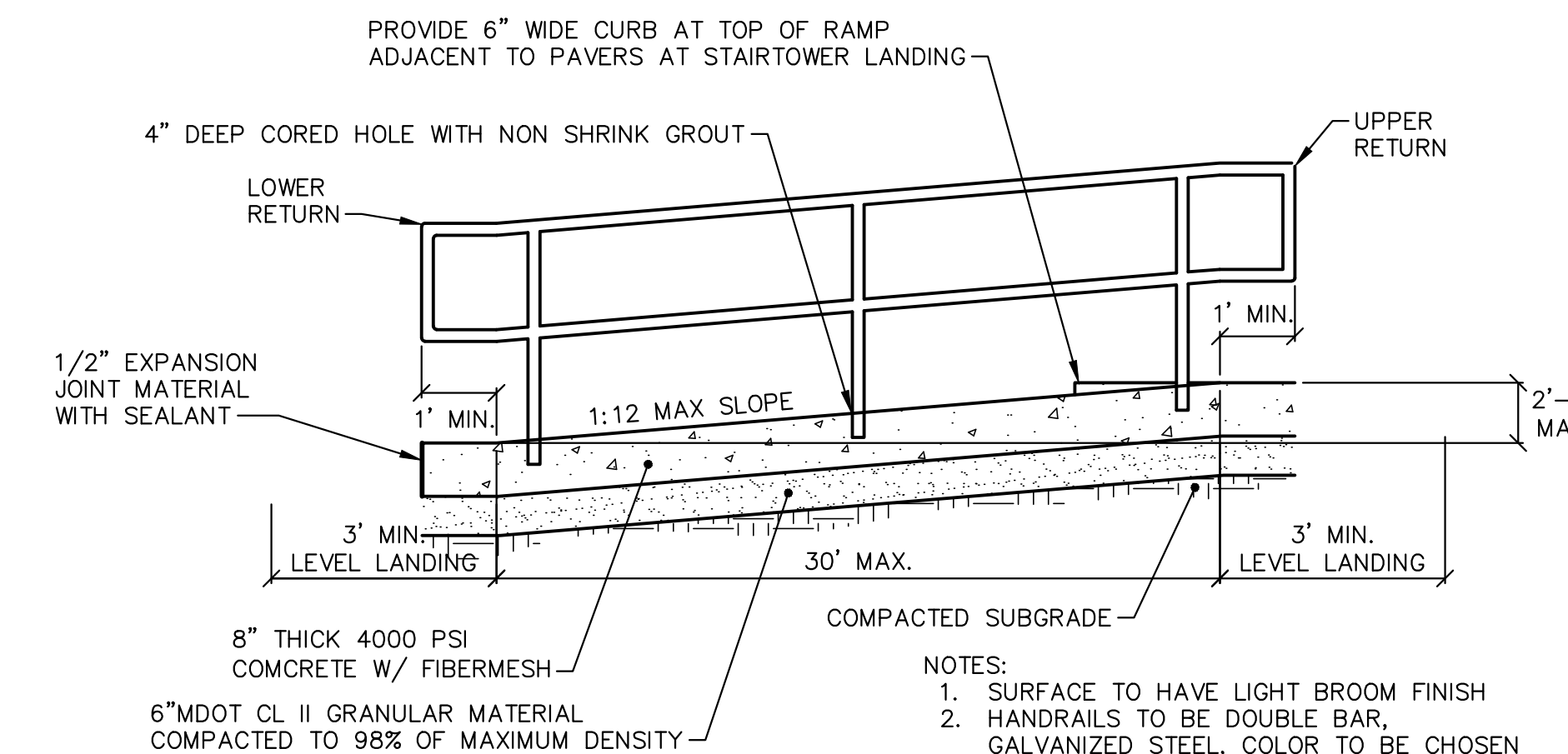
- ⊙ NUMBER OF STANDARD PARKING SPACES IN ROW
- NUMBER OF SMALL CAR PARKING SPACES IN ROW
- ⊕ NUMBER OF BARRIER FREE PARKING SPACES IN ROW
- BF BARRIER FREE PARKING SIGN
- BFV VAN ACCESSIBLE BARRIER FREE PARKING SIGN
- R BARRIER FREE SIDEWALK RAMP
- PROP. CURB & GUTTER
- PROP. BITUMINOUS PAVEMENT
- PROP. CONCRETE PAVEMENT
- SIGN
- PROP. SINGLE LIGHT
- PROP. DOUBLE LIGHT



NOTE:
* INCREASE CONCRETE WALK TO 6" WHEN CROSSING A SINGLE-FAMILY OR DOUBLE-FAMILY DRIVEWAY, AND TO 8" FOR COMMERCIAL DRIVE CROSSINGS. USE 6" CLASS II SAND BASE AT RESIDENTIAL DRIVE CROSSINGS, AND 8" 21AA AGGREGATE BASE (98% MODIFIED PROCTOR) AT COMMERCIAL DRIVE CROSSINGS.

CONCRETE WALK DETAIL

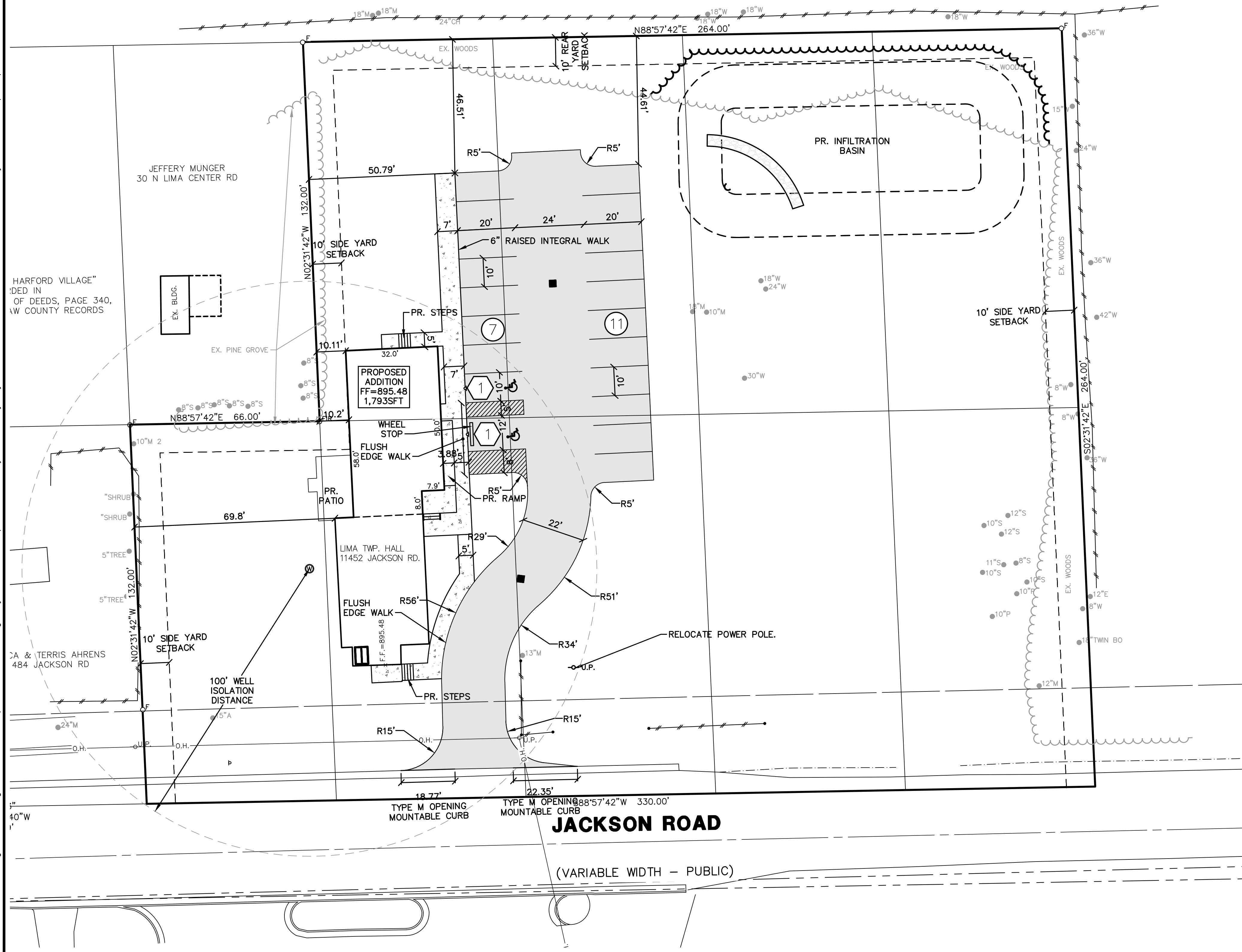
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CONCRETE RAMP WITH RAILS DETAIL

NOT TO SCALE

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W1 - Determining Post-Development Cover Types, Areas, Curve Numbers, and Runoff Coefficients

Cover Type	Soil Type	Area (sft)	Area (ac)	Runoff Coeff. (C)	(C) x (Area)
Building/Pavement		13,550	0.31	0.95	0.30
Grass	B	15,120	0.35	0.25	0.09
Total		28,670	0.66		0.38
Weighted C = (Sum(C) x (Area)) / (Area Total) =					0.58

Cover Type	Soil Type	Area (sft)	Area (ac)	Curve Number	(CN) x (Area)
Grass	B	15,120	0.35	69	0.24
Total		15,120	0.35		0.24
Weighted CN = (Sum(CN) x (Area)) / (Area Total) =					69

Cover Type	Soil Type	Area (sft)	Area (ac)	Curve Number	(CN) x (Area)
Building/Pavement		13,550	0.31	98	0.30
Total		13,550	0.31		0.30
Weighted CN = (Sum(CN) x (Area)) / (Area Total) =					98

W2 - W2 - First Flush Runoff Calculations (Vff)
A. $V_{ff} = 1" \times 1/12" \times 43560 \text{ sft/ac} \times A \times C$ where A = 0.66 and where C = 0.58
 $V_{ff} = 1" \times 1/12" \times 43560 \text{ sft/ac} \times 0.66 \times 0.58 = 1,386 \text{ cft}$ **W3 - W3 - Pre-Development Bankfull Runoff Calculations (Vbf-pre)**
A. 2 year / 24 hour storm event. P = 2.35 in
B. Pre-Development CN. CN = 61
C. S = (1000 / CN) - 10. S = 6,393 in
D. Q = [(P-0.25)^2] / (P+0.85). Q = 0.154 in
E. Total Site Area excluding "Self-Crediting" BMPs. Vbf-pre = 28,670 sft
F. Vbf-pre = Q x (1/12) x Area. Vbf-pre = 367 cft**W4 - W4 - Pervious Cover Post-Development Bankfull Runoff Calculations (Vbf-post)**
A. 2 year / 24 hour storm event. P = 2.35 in
B. Pervious Cover CN From Worksheet 1. CN = 69
C. S = (1000 / CN) - 10. S = 4,493 in
D. Q = [(P-0.25)^2] / (P+0.85). Q = 0.354 in
E. Pervious Cover Area from Worksheet 1. Vbf-post = 15,120 sft
F. Vbf-post = Q x (1/12) x Area. Vbf-post = 447 cft**W5 - W5 - Impervious Cover Post-Development Bankfull Runoff Calculations (Vbf-imp-post)**
A. 2 year / 24 hour storm event. P = 2.35 in
B. Impervious Cover CN From Worksheet 1. CN = 98
C. S = (1000 / CN) - 10. S = 0.204 in
D. Q = [(P-0.25)^2] / (P+0.85). Q = 2.122 in
E. Impervious Cover Area from Worksheet 1. Vbf-imp-post = 13,550 sft
F. Vbf-imp-post = Q x (1/12) x Area. Vbf-imp-post = 2,396 cft**W6 - W6 - Pervious Cover Post-Development 100-Year Runoff Calculations (V100-per-post)**
A. 100 year / 24 hour storm event. P = 5.11 in
B. Pervious Cover CN From Worksheet 1. CN = 69
C. S = (1000 / CN) - 10. S = 4,493 in
D. Q = [(P-0.25)^2] / (P+0.85). Q = 2,038 in
E. Pervious Cover Area from Worksheet 1. V100-per-post = 15,120 sft
F. V100-per-post = Q x (1/12) x Area. V100-per-post = 2,567 cft**W7 - W7 - Impervious Cover Post-Development 100-Year Runoff Calculations (V100-imp-post)**
A. 2 year / 24 hour storm event. P = 5.11 in
B. Impervious Cover CN From Worksheet 1. CN = 98
C. S = (1000 / CN) - 10. S = 0.204 in
D. Q = [(P-0.25)^2] / (P+0.85). Q = 4.873 in
E. Impervious Cover Area from Worksheet 1. V100-imp-post = 13,550 sft
F. V100-imp-post = Q x (1/12) x Area. V100-imp-post = 5,502 cft**W8 - W8 - Time of Concentration (Tc-hrs)**
A. Assume 15-minute minimum time of concentration. Tc = 0.25 hr**W9 - W9 - Runoff Summary & On-Site Infiltration Requirement**
A. Summary from Previous Worksheets
First Flush Volume (Vff) 1,386 cft
Pre-Development Bankfull Runoff Volume (Vbf-pre) 367 cft
Pervious Cover Post-Development Bankfull Volume (Vbf-per-post) 447 cft
Impervious Cover Post-Development Bankfull Volume (Vbf-imp-post) 2,396 cft
Total BF Volume (Vbf-post) 2,842 cft
Pervious Cover Post-Development 100-Year Volume (V100-per-post) 2,567 cft
Impervious Cover Post-Development 100-Year Volume (V100-imp-post) 5,502 cft
Total 100-Year Volume (V100) 8,070 cft
B. Determine Onsite Infiltration Requirement
Subtract the Pre-Development Bankfull from the Post-Development Bankfull Volume
Total Post-Development Bankfull Volume (Vbf-post) 2,842 cft
Pre-Development Bankfull Runoff Volume (Vbf-pre) 367 cft
Bankfull Volume Difference 2,475 cft
Infiltration Requirement (Vinf) 2,475 cft**W10 - W10 - Detention/Retention Requirement**
A. Qp = 238.8 cfs (in sq. mi) 743.63 cfs/in x sq. mi)
B. Total Site Area excluding "Self-Crediting" BMPs. 0.66 ac
C. Q100 = Q100-per + Q100-imp (from W6 and W7, respectively) 6,911 in
D. Peak Flow (PF) = Qp x Q100 x Area / 640 5.28 cfs
E. Delta = PF - 0.15 x Area (ac) 5.19 cfs
F. Vdet = Delta / PF x V100 9.10 cfs
Required Detention not including infiltration credit or penalty. 7,919 cft
Sediment Forebay Volume Required (5% of V100) 403 cft**Retention**
A. Vret = 2 x V100 16,140 cft**W11 - Determine Applicable BMPs and Associated Volume Credits**

Proposed BMP	Area (sft)	Storage Volume (cft) Surface	Design Infil. Rate (in/hr)	Infil. Volume in 6-hr Drawdown (cft)	Total Volume Reduction (cft)
Infiltration Bed	2678		1.50	2,009	2,009
Total Volume Reduction Credit by Proposed Structural BMPs (cft)					2,009
Runoff Volume Infiltration Requirement (Vinf) from W9 (cft)					2,475
Runoff Volume Credit (cft)					0

W13 - W13 - Site Summary of Infiltration & Detention
A. Stormwater Management Summary
Min Infiltration Requirement (Vinf) 2,475 cft
Designed/Provided Infiltration Volume 2,009 cft
% Minimum Required Infiltration Provided 81 %
Total Calculated Detention Volume, Vdet 7,919 cft
Net Required Detention Volume 5,911 cft
(Vdet - Designed/Provided Infiltration Volume)
B. Detention Volume Increase for sites where the required infiltration volume cannot be achieved.
% Required Infiltration NOT Provided 18.8 %
(100% - % Minimum Required Infiltration Provided)
Net % Penalty (20% x % Required Infiltration NOT Provided) 3.8 %
Total Required Detention Volume, including penalty 8,218 cft
[(100% + Net % Penalty) x Net Required Detention Volume]**Detention Outlet Calculations**

Storm Event	Req'd Volume	less Infil. Credit	= Final Volume
First Flush	1,386 cft	- 2,009 cft	= (623) cft
Bankfull	2,842 cft	- 2,009 cft	= 834 cft
100-year	7,919 cft	- 2,009 cft	= 5,911 cft
100-year + Req'd Penalty	8,218 cft	- 2,009 cft	= 6,209 cft
Forebay Volume Required (5% of 100-yr)			= 296 cft

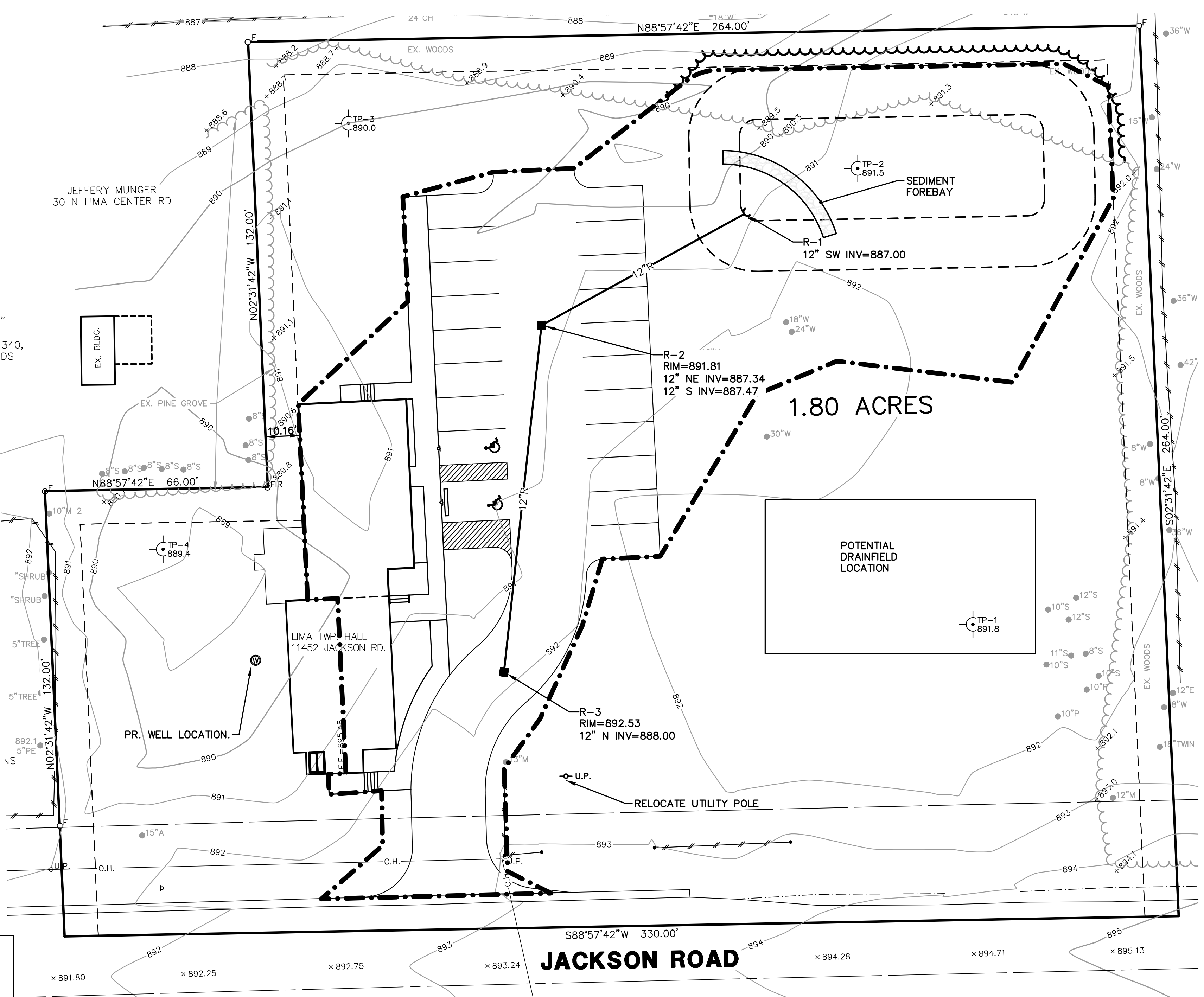
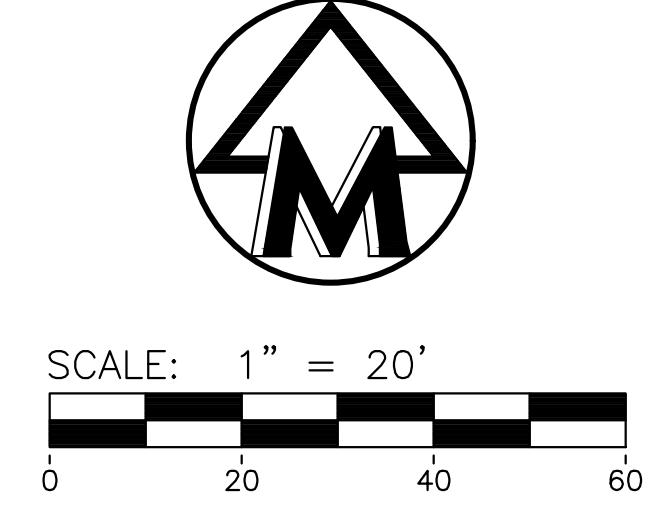
Elevation	Area (sft)	Depth (ft)	Volume (cft)	Cum. Volume (cft)
887.0	2,678	0	0	0
888.0	3,401	1	3,032	3,032
889.0	4,180	1	3,784	6,816
Total Volume =				6,816

Total Storage Volume	8,218 cft
Infiltration Area	2678 sft
Infiltration Rate, Average	1.50 in/hr
Infiltration Flow Rate	334.75 cft/hr
Time to Fully Drain	24.5 hr

This is less than 48 hours max, so the basin complies with the drawdown requirement.

NARRATIVE AND NOTES

1. THE STORMWATER ON SITE WILL BE COLLECTED WITHIN TWO CATCH BASINS ON SITE. THE STORM WATER CONVEYANCE SYSTEM WILL DISCHARGE STORM RUNOFF TO THE PROPOSED INFILTRATION BASIN ON THE NORTH EAST PORTION OF THE SITE. RUNOFF COLLECTED WILL BE INFILTRATED INTO THE SOIL AND DRAW DOWN WITHIN 24.5 HOURS.
2. STORMWATER PIPE TO BE REINFORCED CONCRETE PIPE (RCP)
3. CATCH BASIN STRUCTURES ARE TO BE 4' DIA. PRECAST CONCRETE
4. CB CASTINGS SHALL BE EJIW 1040 W M1 FLAT COVER
5. SEPTIC/DRAINFIELD DESIGN TO BE SUBMITTED UNDER A SEPARATE SUBMITTAL TO THE WASHTENAW COUNTY ENVIRONMENTAL HEALTH DEPARTMENT.
6. ALL NECESSARY PERMITS SHALL BE ACQUIRED THROUGH STATE AND LOCAL AGENCIES FOR THE PROPOSED REPLACEMENT WELL.



838	EXIST. CONTOUR
838	PROP. CONTOUR
× 836.2	EXIST. SPOT ELEVATION
36.60	PROP. SPOT ELEVATION
U.P.	EXIST. UTILITY POLE
U.P.	EXIST. UTILITY POLE W/ TRANS.
GP	EXIST. GUY POLE
GW	GUY WIRE
XT	ELEC. TRANSFORMER
AC	EXIST. AC UNIT
GEN	EXIST. GENERATOR
OH	EXIST. OVERHEAD UTILITY LINE
HP	EXIST. LIGHT POLE
LP	PROP. LIGHT POLE
BL	PROP. BUILDING LIGHT
T	EXIST. TELEPHONE LINE
TEL	PROP. TELEPHONE LINE
E	EXIST. ELECTRIC LINE
EL	PROP. ELECTRIC LINE
G	EXIST. GAS LINE
GG	PROP. GAS LINE
GV	EXIST. GAS VALVE
F.O.	EXIST. FIBER OPTIC LINE
F.O.	PROP. FIBER OPTIC LINE
W	EXIST. WATER MAIN
W	PROP. WATER MAIN
H	EXIST. HYDRANT
H	PROP. HYDRANT
GV	EXIST. GATE VALVE IN BOX
GV	PROP. GATE VALVE IN BOX
GV	EXIST. GATE VALVE IN WELL
GV	PROP. GATE VALVE IN WELL
X	EXIST. CURB STOP & BOX
X	PROP. CURB STOP & BOX
RD	REDUCER
BO	EXIST. BLOW-OFF
BO	PROP. BLOW-OFF
PIV	POST INDICATOR VALVE
PIV	POST INDICATOR VALVE
FDC	EXIST. FIRE DEPARTMENT CONNECTION
FDC	PROP. FIRE DEPARTMENT CONNECTION
K	PROP. KNOXBOX
R	EXIST. STORM SEWER
R	PROP. STORM SEWER
C	EXIST. CATCH BASIN OR INLET
C	PROP. CATCH BASIN OR INLET
B	EXIST. BEEHIVE INLET
B	PROP. BEEHIVE INLET
RD	PROP. ROOF DRAIN END SECTION
HW	HEAD WALL
C	CULVERT
DS	EXIST. DOWNSPOUT
PS	PROP. DOWNSPOUT
S	EXIST. SANITARY SEWER
S	PROP. SANITARY SEWER
C/D	C/L OF DITCH
S	SIDEWALK RAMP
CS	DRAINAGE DIRECTION
CS	CONCRETE SURFACE
EA	ENCLOSED TRASH AREA
S	SIGN
TR	RAILROAD CROSSING SIGN
PM	EXIST. PARKING METER
PM	PROP. PARKING METER
MB	MAILBOX
W	WELL
FG	FENCE
GD	GUARDRAIL
ST	SINGLE TREE
TBL	TREE OR BRUSH LIMIT
SC	SECTION CORNER
SB-1	EXIST. SOIL BORING LOCATION
TP-1	EXIST. TEST PIT LOCATION

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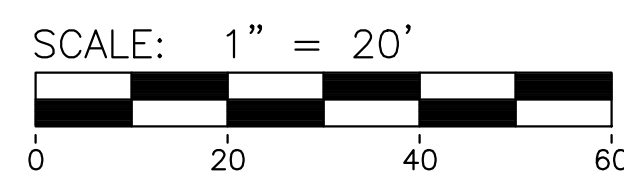
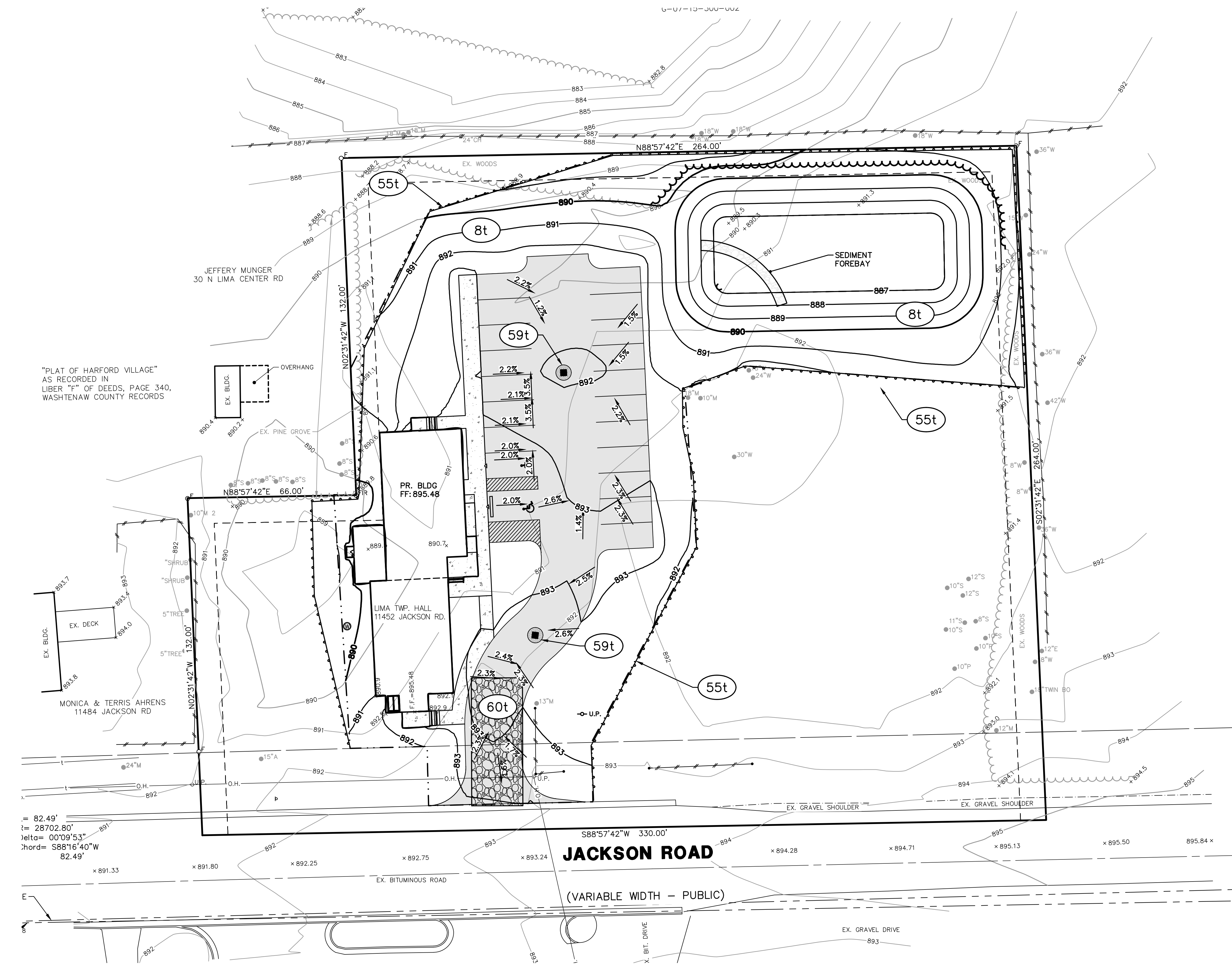
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04

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DATE: 03-04-24
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36.60x	PROP. SPOT ELEVATION
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⊠	GUY WIRE
⊠	ELEC. TRANSFORMER
⊠	EXIST. AC UNIT
⊠	EXIST. GENERATOR
OH	EXIST. OVERHEAD UTILITY LINE
*	EXIST. LIGHT POLE
*	PROP. LIGHT POLE
t	EXIST. TELEPHONE LINE
e	EXIST. ELECTRIC LINE
g	EXIST. GAS LINE
g	EXIST. GAS VALVE
f.o.	EXIST. FIBER OPTIC LINE
w	EXIST. WATER MAIN
w	PROP. WATER MAIN
+	EXIST. HYDRANT
+	PROP. HYDRANT
+	EXIST. GATE VALVE IN BOX
+	PROP. GATE VALVE IN BOX
+	EXIST. GATE VALVE IN WELL
+	PROP. GATE VALVE IN WELL
+	EXIST. CURB STOP & BOX
+	PROP. CURB STOP & BOX
+	REDUCER
+	EXIST. BLOW-OFF
+	PROP. BLOW-OFF
+	POST INDICATOR VALVE
+	POST INDICATOR VALVE
+	THRUST BLOCK
+	PROP. KNOXBOX
+	EXIST. FIRE DEPARTMENT CONNECTION
+	PROP. FIRE DEPARTMENT CONNECTION
+	EXIST. STORM SEWER
+	PROP. STORM SEWER
+	EXIST. CATCH BASIN OR INLET
+	PROP. CATCH BASIN OR INLET
+	EXIST. BEEHIVE INLET
+	PROP. BEEHIVE INLET
+	EXIST. CLEANOUT
+	PROP. CLEANOUT
+	C/L OF DITCH
+	DRAINAGE DIRECTION
+	SIGN
+	SINGLE TREE
+	TREE OR BRUSH LIMIT
+	FENCE
+	SILTFENCE
+	LIMITS OF DISTURBANCE
+	CONSTRUCTION FENCE
FF	FINISH FLOOR ELEVATION
GF	GARAGE FLOOR ELEVATION
BFF	BASEMENT FINISH FLOOR ELEVATION

SOIL EROSION CONTROL MEASURES

8	SODDING
55	GEOTEXTILE SILT FENCE
59	C.B./INLET FILTER
60	MUD TRACKING MAT

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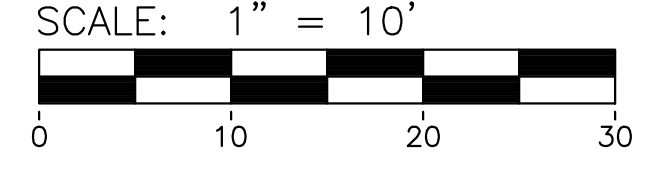
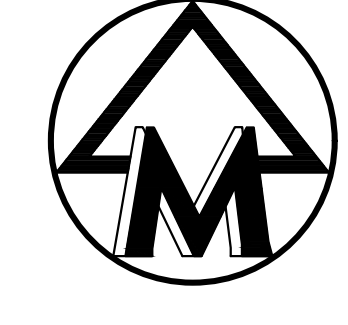
LIMA TOWNSHIP HALL EXPANSION
 PRELIMINARY SITE PLAN
 GRADING PLAN
 NA

05

JOB No. **17192**
 DATE: 03-04-24
 SHEET 05 OF 07
 REVISIONS:
 1. CADD: CAD, INITIALS
 2. ENG: AIL
 3. PM: AIL
 4. TECH: TECH, INITIALS
 5. 17192SP1
 6. 80

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LEGEND	
	EXIST. CONTOUR
	PROP. CONTOUR
	EXIST. SPOT ELEVATION
	PROP. SPOT ELEVATION
	EXIST. UTILITY POLE
	EXIST. UTILITY POLE W/ TRANS.
	GUY WIRE
	ELEC. TRANSFORMER
	EXIST. AC UNIT
	EXIST. GENERATOR
	EXIST. OVERHEAD UTILITY LINE
	EXIST. LIGHT POLE
	PROP. LIGHT POLE
	EXIST. TELEPHONE LINE
	EXIST. ELECTRIC LINE
	EXIST. GAS LINE
	EXIST. GAS VALVE
	EXIST. WATER MAIN
	PROP. WATER MAIN
	EXIST. HYDRANT
	PROP. HYDRANT
	EXIST. GATE VALVE IN BOX
	PROP. GATE VALVE IN BOX
	EXIST. GATE VALVE IN WELL
	PROP. GATE VALVE IN WELL
	EXIST. CURB STOP & BOX
	PROP. CURB STOP & BOX
	REDUCER
	EXIST. BLOW-OFF
	PROP. BLOW-OFF
	POST INDICATOR VALVE
	POST INDICATOR VALVE
	THRUST BLOCK
	PROP. KNOXBOX
	EXIST. FIRE DEPARTMENT CONNECTION
	PROP. FIRE DEPARTMENT CONNECTION
	EXIST. STORM SEWER
	PROP. STORM SEWER
	EXIST. CATCH BASIN OR INLET
	PROP. CATCH BASIN OR INLET
	EXIST. BEEHIVE INLET
	PROP. BEEHIVE INLET
	PROP. ROOF DRAIN
	END SECTION
	HEAD WALL
	CULVERT
	EXIST. DOWNSPOUT
	PROP. DOWNSPOUT
	EXIST. SANITARY SEWER
	PROP. SANITARY SEWER
	EXIST. CLEANOUT
	PROP. CLEANOUT
	C/L OF DITCH
	DRAINAGE DIRECTION
	SIGN
	SINGLE TREE
	TREE OR BRUSH LIMIT
	FENCE
	SILT FENCE
	LIMITS OF DISTURBANCE
	CONSTRUCTION FENCE
	FF
	GF
	BFF

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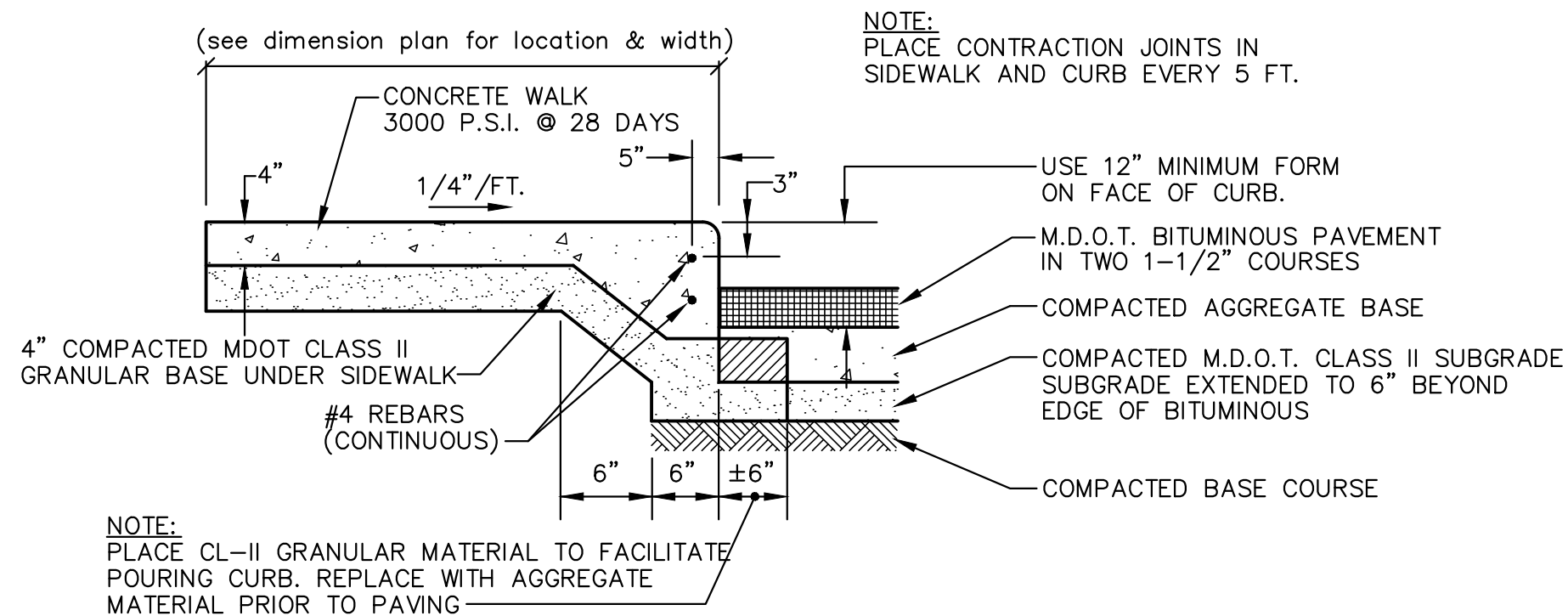
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LIMA TOWNSHIP HALL EXPANSION
 PRELIMINARY SITE PLAN
 DETAILED GRADING PLAN
 NA

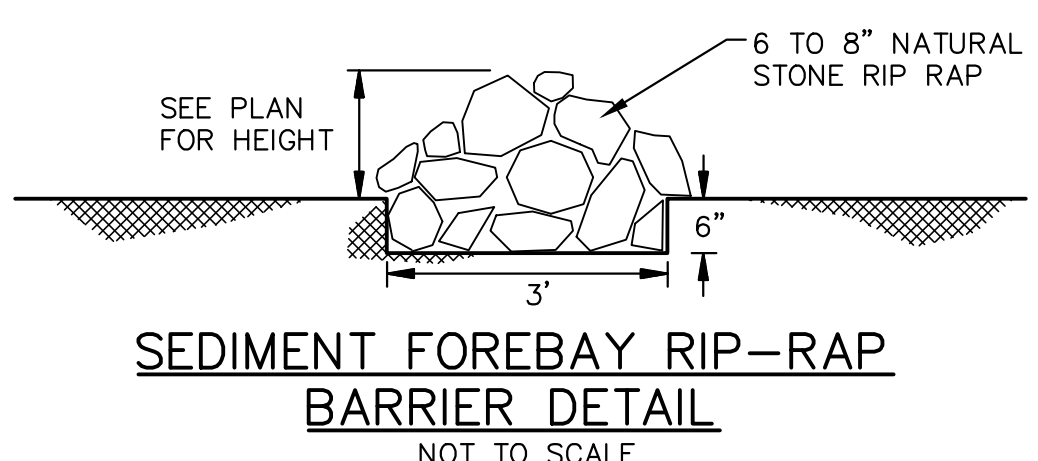
06

JOB No.	17192
DATE	03-04-24
REV. DATE	SHEET 06 OF 07
REV. DATE	CADD: CAD_INITIALS
REV. DATE	2D: ENG. AIL
REV. DATE	3D: PM: AIL
REV. DATE	40: TECH: INITIALS
REV. DATE	40: TECH: INITIALS
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REV. DATE	40: TECH: INITIALS

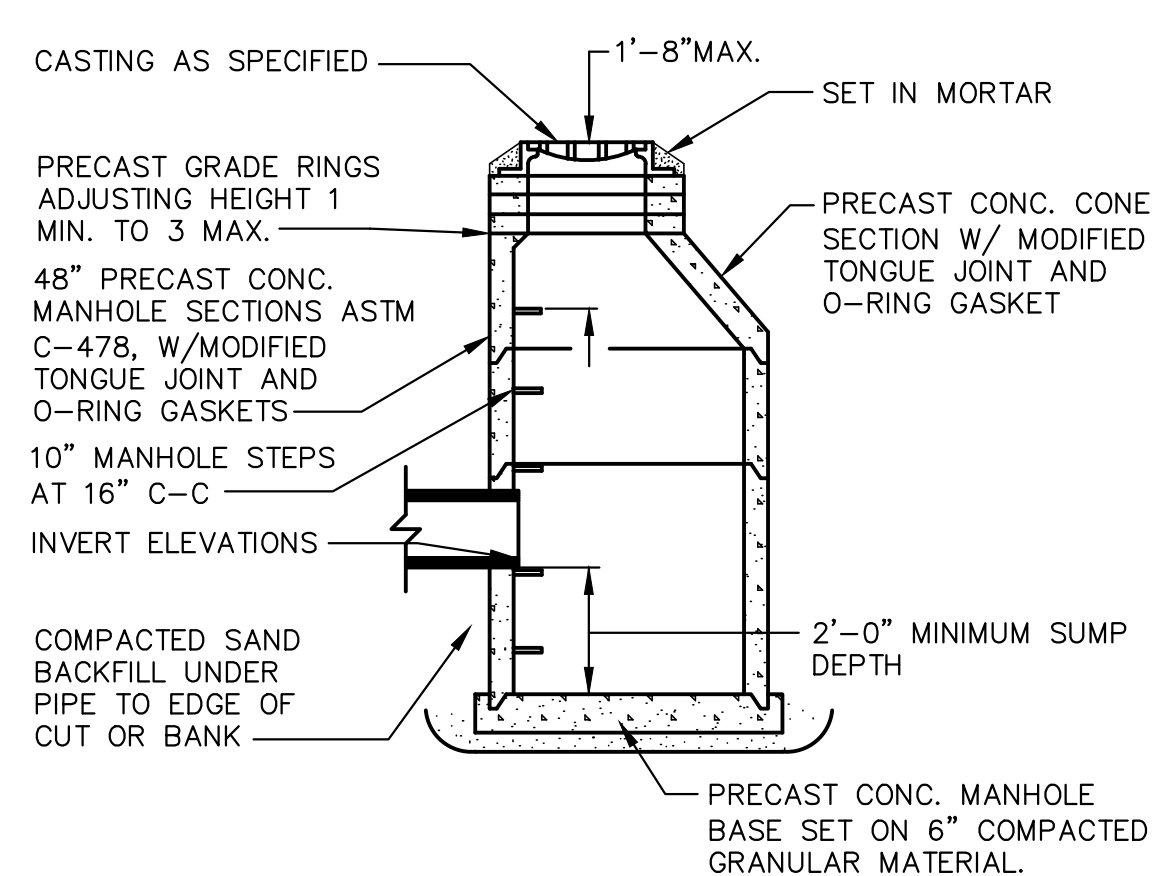
MA:\civil\132_Proj\17192\Construction\1719201.dwg, 3/4/2024, 3:00 PM, Adam J. Leilk, 07 SITE DETAILS, MLLC PDF ps3
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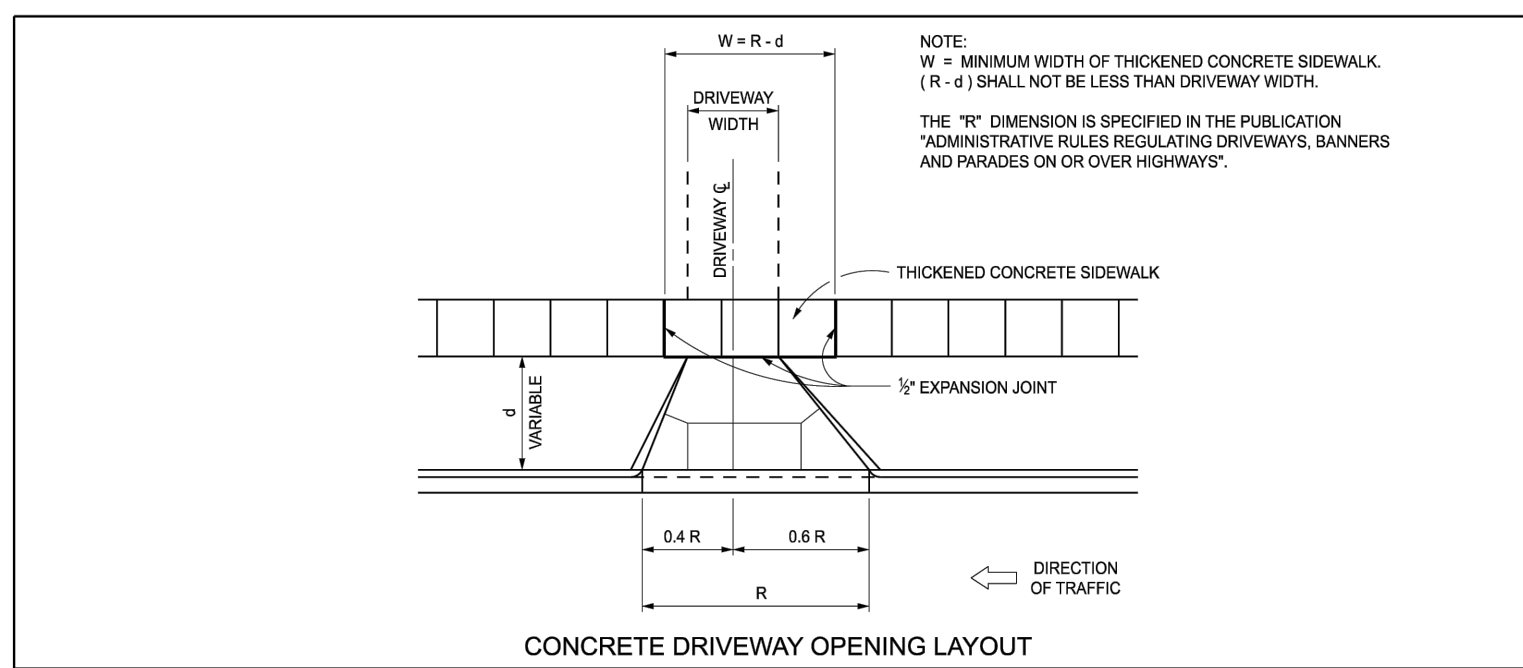
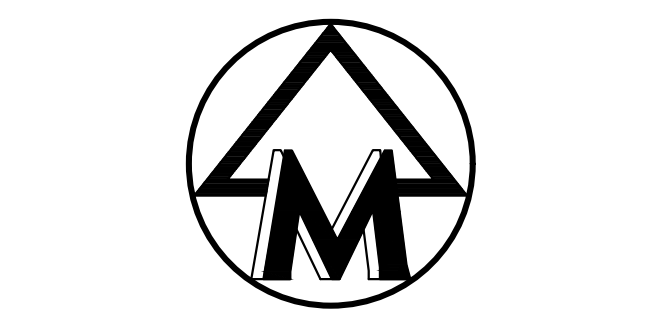
TYPICAL INTEGRAL WALK & CURB
NOT TO SCALE



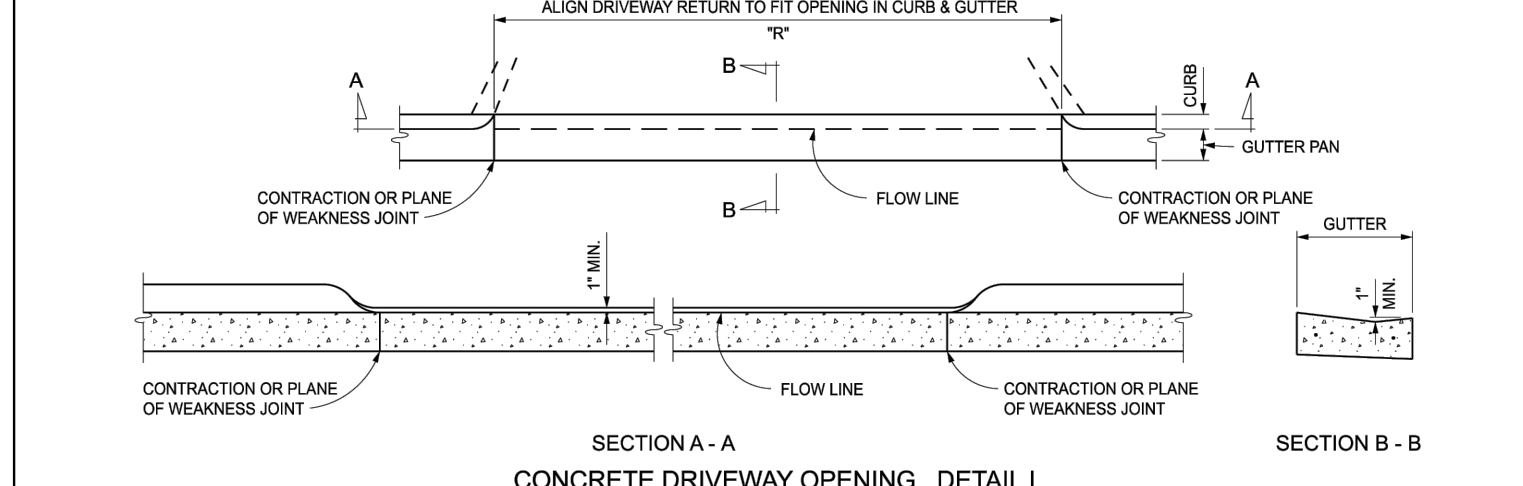
SEDIMENT FOREBAY RIP-RAP
BARRIER DETAIL
NOT TO SCALE



4' DIA. CATCH BASIN
NOT TO SCALE

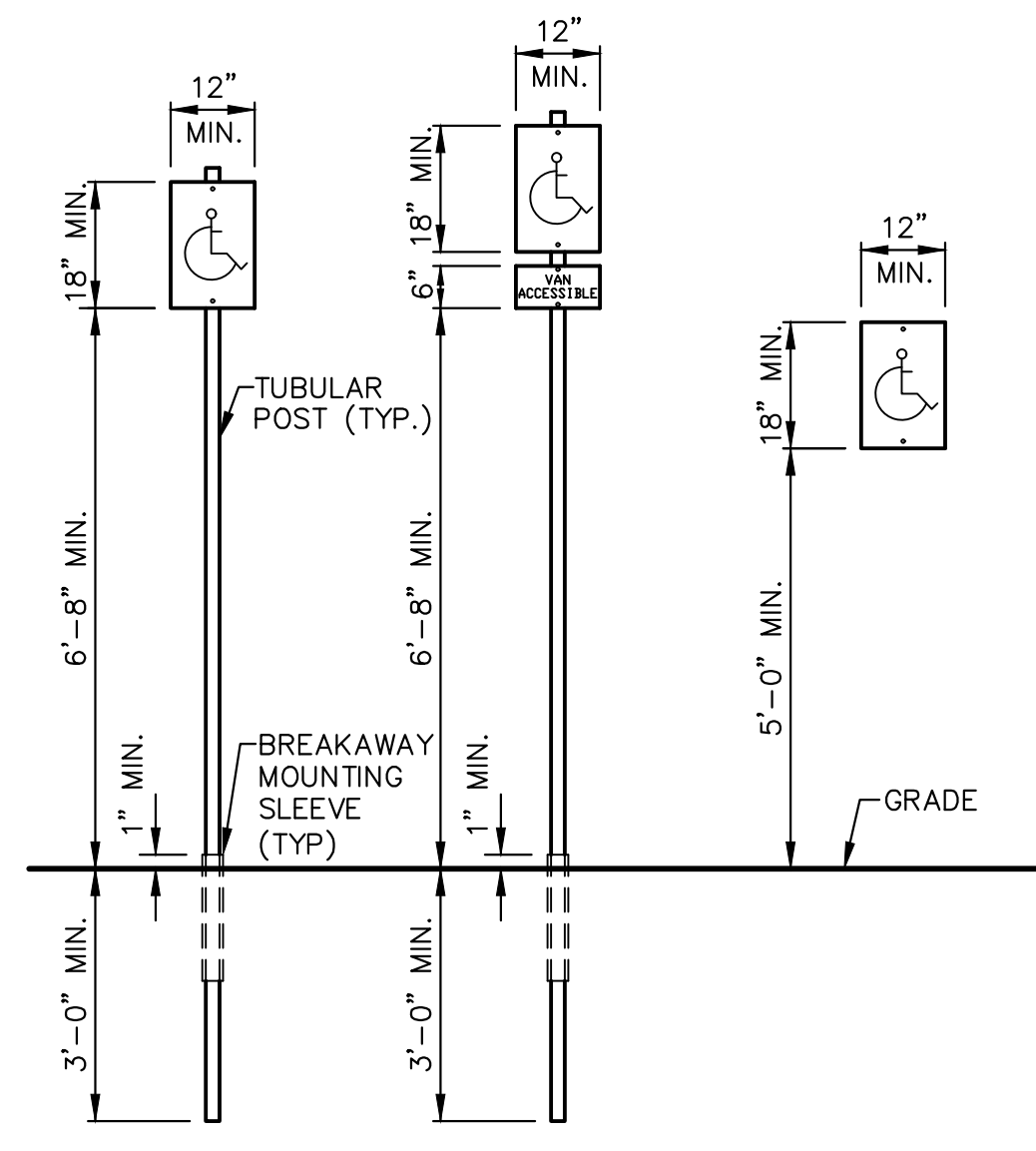


CONCRETE DRIVEWAY OPENING LAYOUT

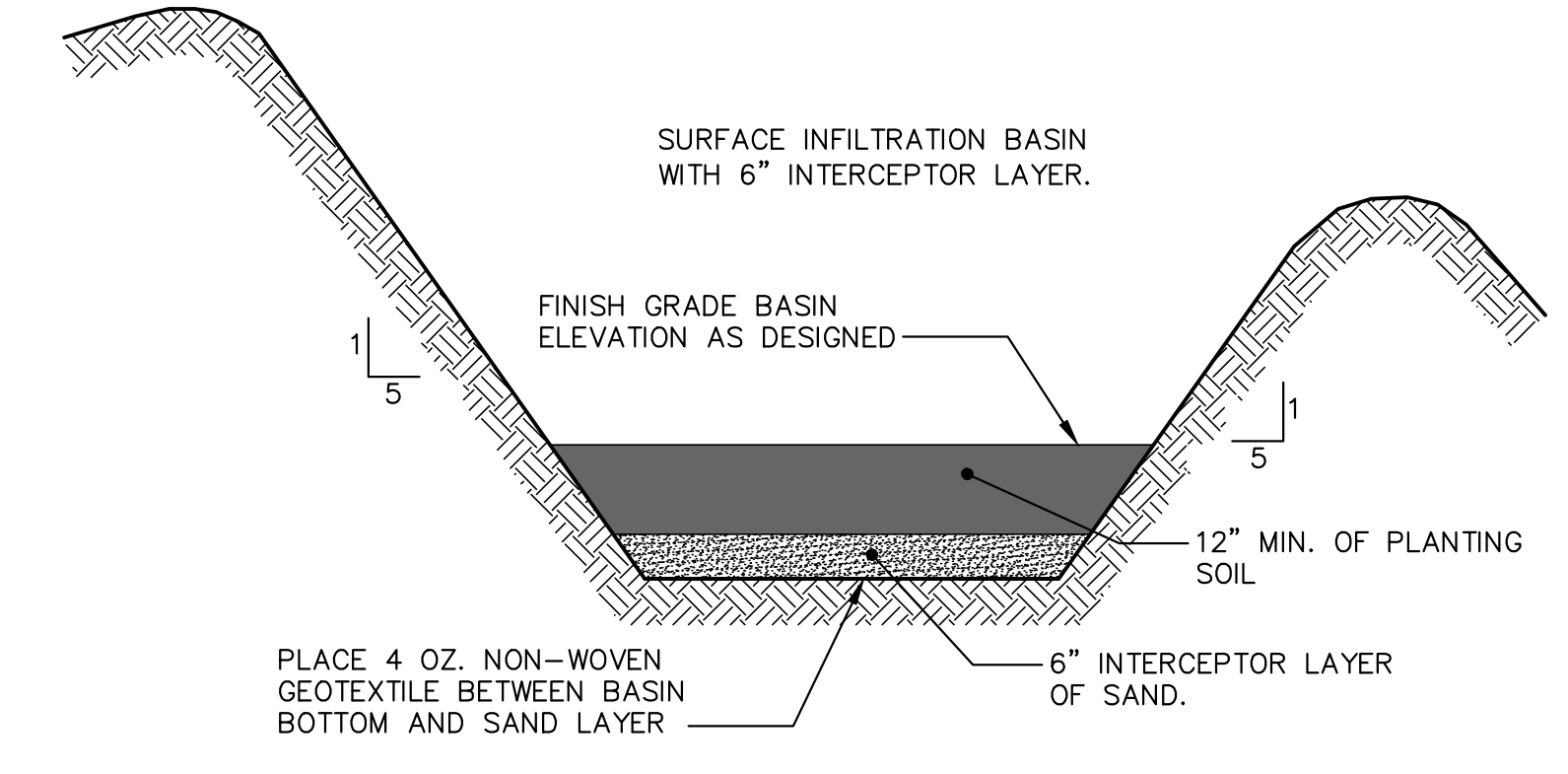


CONCRETE DRIVEWAY OPENING, DETAIL L

CONCRETE DRIVEWAY OPENING, DETAIL M



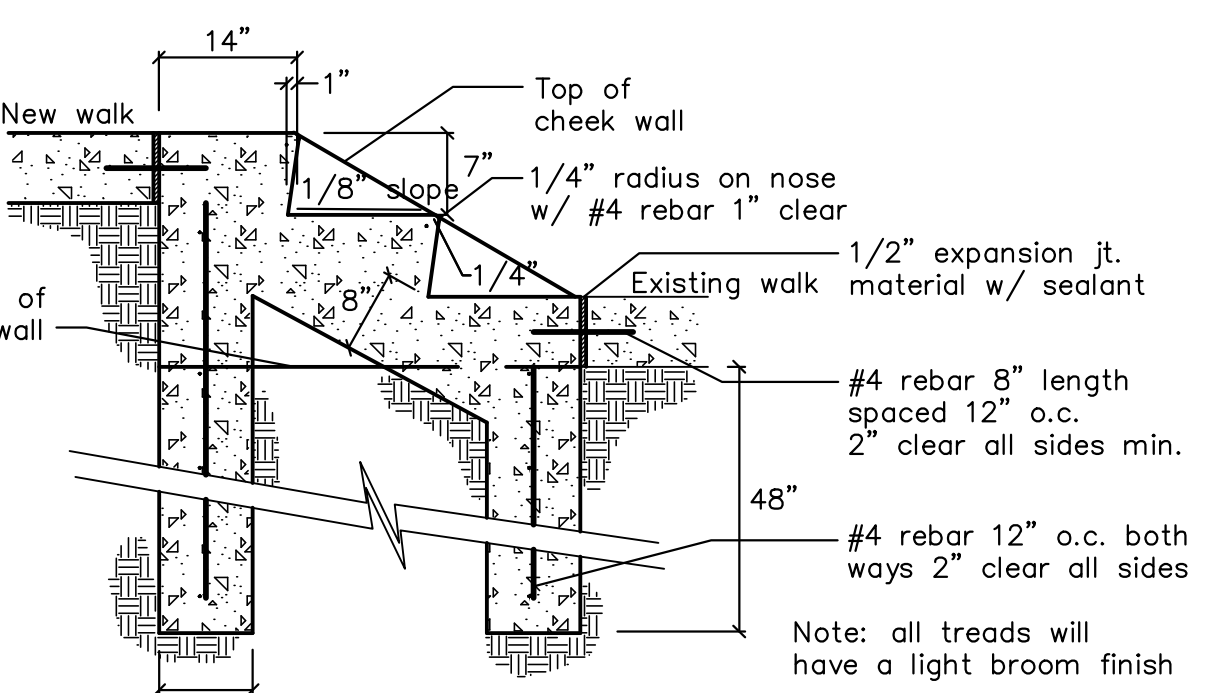
POST MOUNTED SIGNS WALL MOUNTED SIGNS
TYPICAL HANDICAP PARKING SIGNS
SCALE: 1/2" = 1'-0"



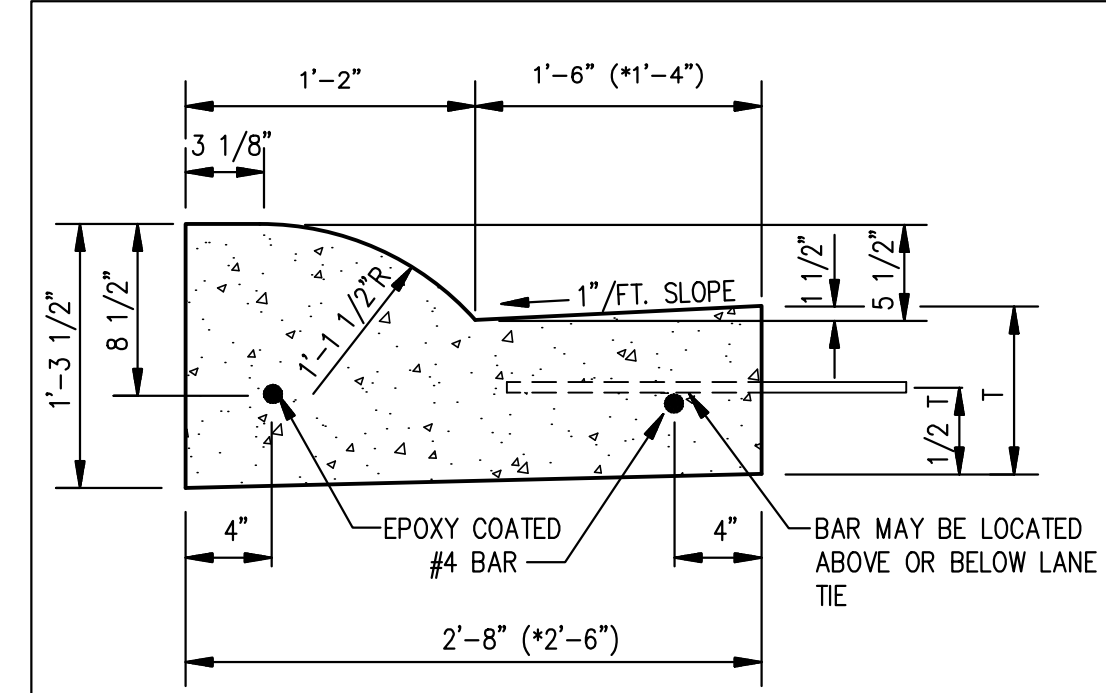
INFILTRATION BASIN WITH INTERCEPTOR LAYER CROSS SECTION
SCALE: NTS

NOTES:
1. THE SAND LAYER AND GEOTEXTILE SHALL NOT BE PLACED IN THE BOTTOM OF THE INFILTRATION BASIN UNTIL ONSITE SOIL STABILIZATION IS IMMINENT TO PREVENT THE SILTING OF THE SAND LAYER DURING THE CONSTRUCTION PERIOD.
2. THE BOTTOM OF THE POND SHALL BE EXCAVATED TO A POINT 6 INCHES HIGHER THAN THE SUB BASE GRADE AND SHALL REMAIN AT THAT ELEVATION UNTIL ONSITE SOIL STABILIZATION IS IMMINENT AND THE SAND LAYER IS PLANNED TO BE INSTALLED. AT THAT TIME THE FINAL 6 INCHES OF MATERIAL SHALL BE REMOVED, ALONG WITH ANY SILTS THAT HAVE ACCUMULATED, LEAVING A CLEAN, SANDY BOTTOM. THE ENGINEER SHALL BE CONTACTED FOR INSPECTION PRIOR TO GEOTEXTILE AND SAND LAYER PLACEMENT.

MDOT MICHIGAN DEPARTMENT OF TRANSPORTATION	STANDARD PLAN FOR DRIVEWAY OPENINGS & APPROACHES, AND CONCRETE SIDEWALK	R-29-J	SHEET 2 OF 4
DEPARTMENT DIRECTOR SHARLEY C. WEFERICH, PE	(SPECIAL DETAILS) FHWA APPROVAL	11/08/2023 PLAN DATE	

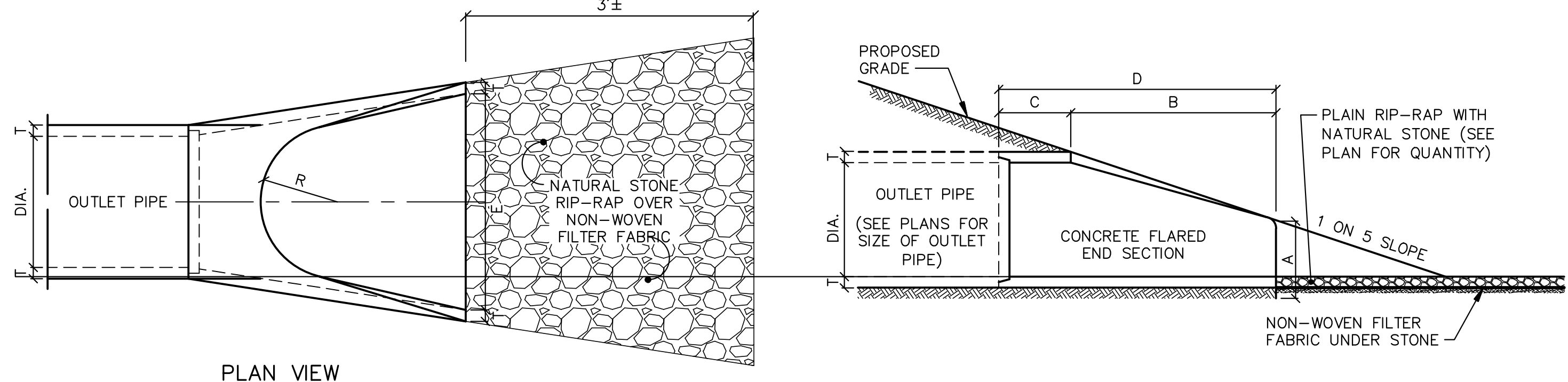


CONCRETE STEP DETAIL
NOT TO SCALE



DETAIL	DIMENSION	LANE TIES	CONCRETE CU. YD./LIN. FT.	CONCRETE CU. YD./LIN. FT.
B1	9"	AS SHOWN	0.0900	(*0.0855)
B2	9"	OMITTED	0.0900	(*0.0855)
B3	10"	AS SHOWN	0.0941	(*0.0894)

MDOT TYPE B
CONCRETE CURB & GUTTER
NOT TO SCALE



DIA.	T	A	B	C	D	E	K	R
12"	7"	7"	2"	4'-0 1/8"	6'-0 3/8"	2'-0"	13"	9"
15"	2 1/4"	9 1/2"	2'-3"	3'-10"	6'-1"	2'-6"	15"	11"
18"	2 1/2"	1'-0 1/2"	2'-3"	3'-10"	6'-1"	3'-0"	18"	12"

CONCRETE FLARED END SECTION
NOT TO SCALE

13p

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LIMA TOWNSHIP HALL EXPANSION
PRELIMINARY SITE PLAN
SITE DETAILS
NA

07

DATE: 03-04-24	SHEET 07 OF 07
REV. DATE	CADD: CAD_INITIALS
1	20
2	20
3	20
4	20
5	20
6	20
7	20
8	20
9	20
10	20

JOB No. 17192