

# CONSTRUCTION PLANS FOR IRON BELLE TRAIL

## VAN BUREN TOWNSHIP SECTION J

### VAN BUREN TOWNSHIP WAYNE COUNTY, MI



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

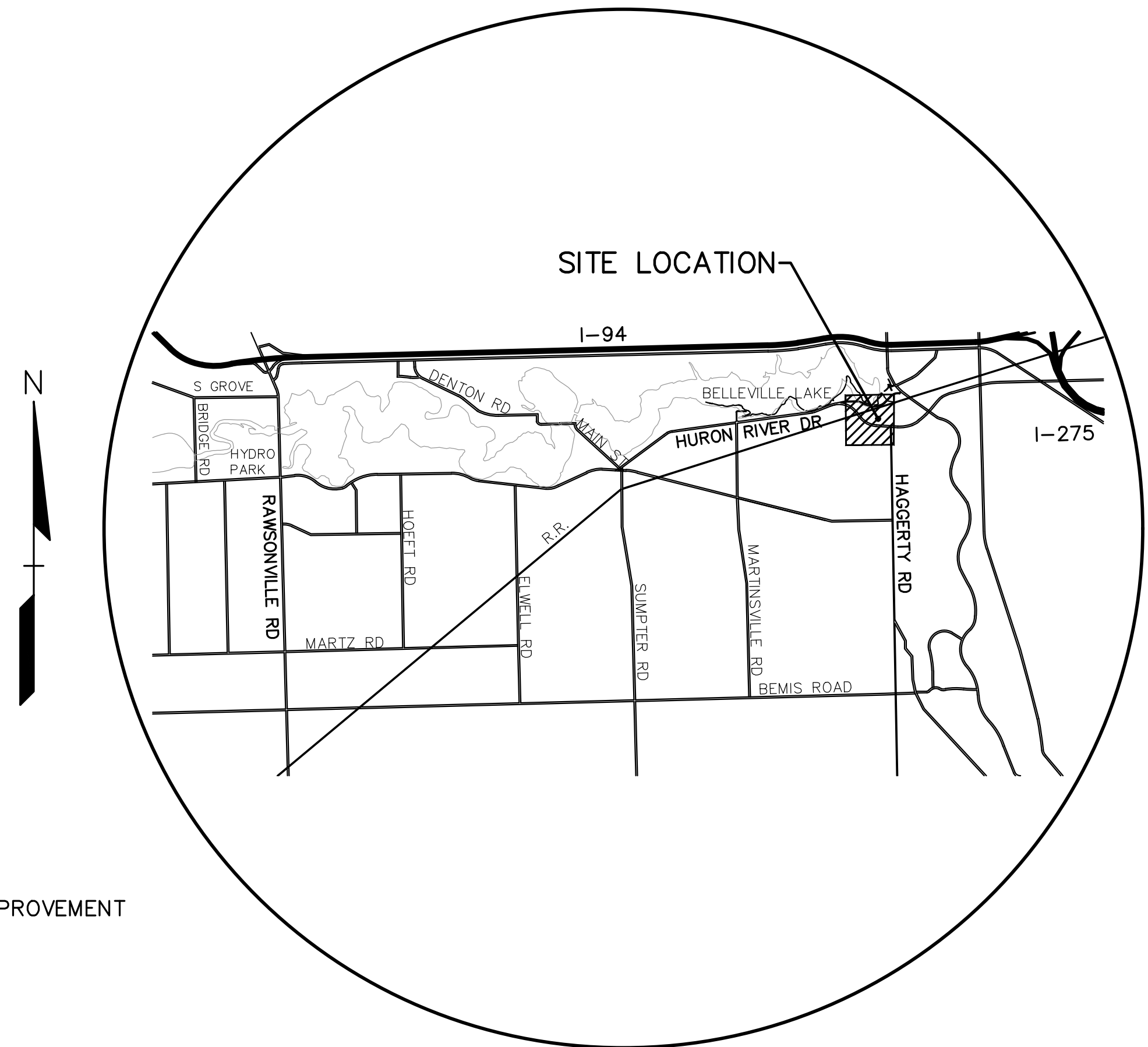
**PROJECT CONTACTS**

**OWNER/APPLICANT/DEVELOPER:**  
VAN BUREN TOWNSHIP  
46425 TYLER ROAD  
VAN BUREN TWP, MI 48111  
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**LANDSCAPE ARCHITECT:**  
PEA, INC.  
7927 NEMCO WAY, SUITE 115  
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**NORFOLK SOUTHERN CORPORATION:**  
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ATLANTA, GA 30308  
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ELDRIDGE.CHAMBERS@NSCORP.COM



**LOCATION MAP**  
NO SCALE

**INDEX OF DRAWINGS:**

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**CLIENT**  
**VAN BUREN TOWNSHIP**  
46425 TYLER ROAD  
VAN BUREN, MICHIGAN



**VAN BUREN**  
CHARTER TOWNSHIP

**PROJECT TITLE**  
**IRON BELLE TRAIL - SECTION J**  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN



REVISIONS	
ORIGINAL ISSUE	12/2/20
REVISION	1/27/21
REVISION	NORFOLK SOUTHERN 11/10/21
REVISION	PER MDOT ORDER 9/01/22
REVISION	PER TWP 1/24/24

ORIGINAL ISSUE DATE:  
DECEMBER 3, 2020

DRAWING TITLE  
**COVER SHEET**

PEA JOB NO.	2020-0095
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

<b>NORFOLK SOUTHERN NOTE:</b>
1. GREAT LAKES DIVISION MP D-21.73.
2. CONTRACTOR SHALL NOTIFY THE WAYNE COUNTY TRAFFIC DEPARTMENT BEFORE STARTING CONSTRUCTION AND FOR ADDITIONAL UNDERGROUND INFORMATION AT (734) 955-2154.
3. ROMULUS, MICHIGAN - NS FILE CX1114226 -HURON RIVER DRIVE AT-GRADE SIDEWALK CONSTRUCTION.
<b>WAYNE COUNTY NOTE:</b>
1. WAYNE COUNTY R 20-656 REVIEW NUMBER.
2. CONTRACTOR SHALL NOTIFY THE WAYNE COUNTY TRAFFIC DEPARTMENT BEFORE STARTING CONSTRUCTION AND FOR ADDITIONAL UNDERGROUND INFORMATION AT (734) 955-2154.

S:\PROJECTS\2020\2020-0095-0095-01-IRON BELLE TRAIL-CONSTRUCTION\C-0.0 COVER-HIT 20-0095.dwg



**NORFOLK SOUTHERN CORPORATION NOTES:**

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES WITHIN THE NORFOLK SOUTHERN RIGHT OF WAY

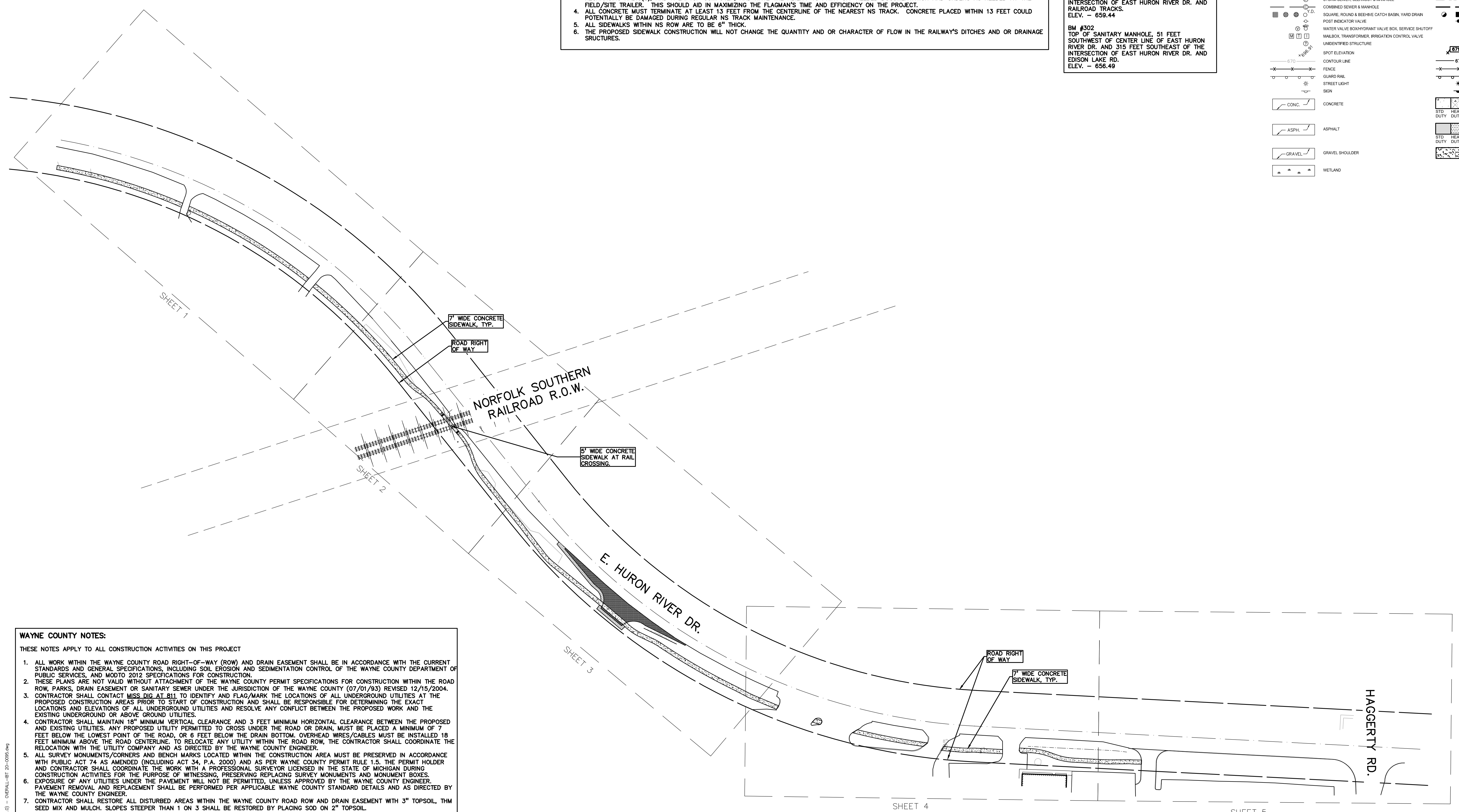
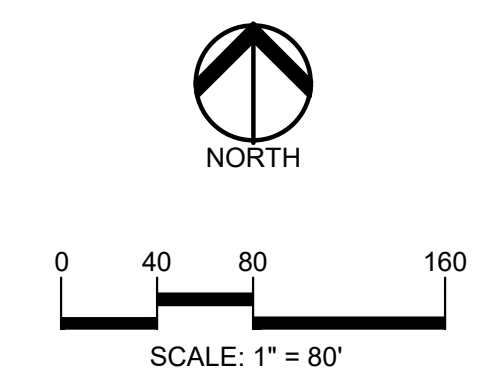
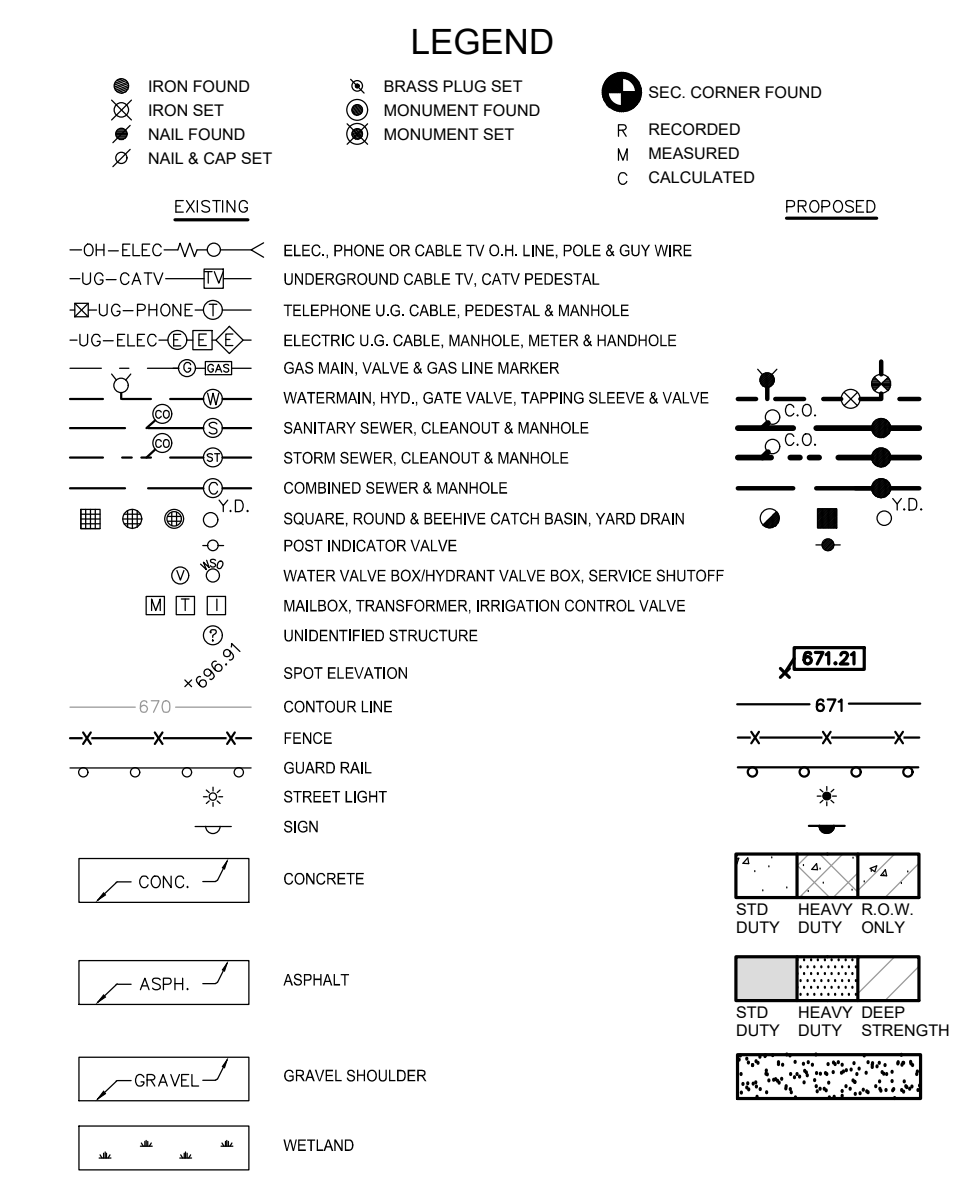
1. ALL WORK TO BE PERFORMED ON, OVER, UNDER OR ADJACENT TO THE RAILROAD RIGHT-OF-WAY SHALL COMPLY WITH THE NORFOLK SOUTHERN RAILWAY COMPANY ("RAILROAD", "NSR" OR "NS") PUBLIC PROJECTS MANUAL (APPENDIX 3, SPECIAL PROVISIONS FOR THE PROTECTION OF RAILWAY INTEREST, AND APPENDIX H1, OVERHEAD GRADE SEPARATION DESIGN CRITERIA). WHEN IN CONFLICT WITH OTHER PROJECT SPECIFICATIONS, THE MORE STRINGENT ONE SHALL APPLY.
2. "ONE CALL" SERVICES DO NOT LOCATE BURIED RAILROAD SIGNAL AND COMMUNICATIONS LINES. THE CONTRACTOR SHALL CONTACT THE RAILROAD'S UNDERGROUND FACILITIES. UPON REQUEST FROM THE CONTRACTOR OR SPONSOR, RAILROAD FORCES WILL LOCATE AND PAINT MARK OR FLAG THE RAILROAD'S UNDERGROUND FACILITIES. (SEE NS PUBLIC PROJECTS MANUAL, APPENDIX E, SECTION 3.D).
3. FOR PROJECTS REQUIRING MORE THAN 30 CONSECUTIVE DAYS OF FLAGGING, CONTRACTOR SHALL PROVIDE THE FLAGMAN A SMALL WORK AREA WITH A DESK/COUNTER AND CHAIR WITHIN THE FIELD/SITE TRAILER, INCLUDING THE USE OF A BATHROOM FACILITIES, WHERE THE FLAGMAN CAN CHECK IN/OUT WITH THE PROJECT, AS WELL AS TO THE FLAGMAN'S HOME TERMINAL. THE WORK AREA SHOULD PROVIDE ACCESS TO TWO (2) ELECTRICAL OUTLETS FOR RECHARGING RADIO(S), AND A LAPTOP COMPUTER, AND HAVE THE ABILITY TO PRINT OFF NEEDED DOCUMENTATION AND ORDERS AS NEEDED AT THE FIELD/SITE TRAILER. THIS SHOULD AID IN MAXIMIZING THE FLAGMAN'S TIME AND EFFICIENCY ON THE PROJECT.
4. ALL CONCRETE MUST TERMINATE AT LEAST 13 FEET FROM THE CENTERLINE OF THE NEAREST NS TRACK. CONCRETE PLACED WITHIN 13 FEET COULD POTENTIALLY BE DAMAGED DURING REGULAR NS TRACK MAINTENANCE.
5. ALL SIDEWALKS WITHIN NS ROW ARE TO BE 6" THICK.
6. THE PROPOSED SIDEWALK CONSTRUCTION WILL NOT CHANGE THE QUANTITY AND OR CHARACTER OF FLOW IN THE RAILWAY'S DITCHES AND OR DRAINAGE STRUCTURES.

**BENCHMARKS**  
 (GPS DERIVED - NAVD 88)

BM #300  
 TOP OF SANITARY MANHOLE, 58 FEET SOUTH OF THE CENTER LINE OF EAST HURON RIVER DR. AND 45 FEET WEST OF THE CENTER LINE OF HAGGERTY RD.  
 ELEV. - 656.26

BM #301  
 TOP OF SANITARY MANHOLE, 48 FEET WEST OF THE CENTER LINE OF THE EAST HURON RIVER DR. AN D190 FEET NORTHWEST OF THE INTERSECTION OF EAST HURON RIVER DR. AND RAILROAD TRACKS.  
 ELEV. - 659.44

BM #302  
 TOP OF SANITARY MANHOLE, 51 FEET SOUTHWEST OF CENTER LINE OF EAST HURON RIVER DR. AND 315 FEET SOUTHEAST OF THE INTERSECTION OF EAST HURON RIVER DR. AND EDISON LAKE RD.  
 ELEV. - 656.49



**WAYNE COUNTY NOTES:**

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT

1. ALL WORK WITHIN THE WAYNE COUNTY ROAD RIGHT-OF-WAY (ROW) AND DRAIN EASEMENT SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND GENERAL SPECIFICATIONS, INCLUDING SOIL EROSION AND SEDIMENTATION CONTROL OF THE WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES, AND MDOT 2012 SPECIFICATIONS FOR CONSTRUCTION.
2. THESE PLANS ARE NOT VALID WITHOUT ATTACHMENT OF THE WAYNE COUNTY PERMIT SPECIFICATIONS FOR CONSTRUCTION WITHIN THE ROAD ROW, PARKS, DRAIN EASEMENT OR SANITARY SEWER UNDER THE JURISDICTION OF THE WAYNE COUNTY (07/01/93) REVISED 12/15/2004.
3. CONTRACTOR SHALL CONTACT MISS DIG AT 811 TO IDENTIFY AND FLAG/MARK THE LOCATIONS OF ALL UNDERGROUND UTILITIES AT THE PROPOSED CONSTRUCTION AREAS PRIOR TO START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS AND ELEVATIONS OF ALL UNDERGROUND UTILITIES AND RESOLVE ANY CONFLICT BETWEEN THE PROPOSED WORK AND THE EXISTING UNDERGROUND OR ABOVE GROUND UTILITIES.
4. CONTRACTOR SHALL MAINTAIN 18" MINIMUM VERTICAL CLEARANCE AND 3 FEET MINIMUM HORIZONTAL CLEARANCE BETWEEN THE PROPOSED AND EXISTING UTILITIES. ANY PROPOSED UTILITY PERMITTED TO CROSS UNDER THE ROAD OR DRAIN, MUST BE PLACED A MINIMUM OF 7 FEET BELOW THE LOWEST POINT OF THE ROAD, OR 6 FEET BELOW THE DRAIN BOTTOM. OVERHEAD WIRES/CABLES MUST BE INSTALLED 18 FEET MINIMUM ABOVE THE ROAD CENTERLINE. TO RELOCATE ANY UTILITY WITHIN THE ROAD ROW, THE CONTRACTOR SHALL COORDINATE THE RELOCATION WITH THE UTILITY COMPANY AND AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
5. ALL SURVEY MONUMENTS/CORNERS AND BENCH MARKS LOCATED WITHIN THE CONSTRUCTION AREA MUST BE PRESERVED IN ACCORDANCE WITH PUBLIC ACT 74 AS AMENDED (INCLUDING ACT 34, P.A. 2000) AND AS PER WAYNE COUNTY PERMIT RULE 1.5. THE PERMIT HOLDER AND CONTRACTOR SHALL COORDINATE THE WORK WITH A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF MICHIGAN DURING CONSTRUCTION ACTIVITIES FOR THE PURPOSE OF WITNESSING, PRESERVING REPLACING SURVEY MONUMENTS AND MONUMENT BOXES.
6. EXPOSURE OF ANY UTILITIES UNDER THE PAVEMENT WILL NOT BE PERMITTED, UNLESS APPROVED BY THE WAYNE COUNTY ENGINEER. PAVEMENT REMOVAL AND REPLACEMENT SHALL BE PERFORMED PER APPLICABLE WAYNE COUNTY STANDARD DETAILS AND AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
7. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS WITHIN THE WAYNE COUNTY ROAD ROW AND DRAIN EASEMENT WITH 3" TOPSOIL, THM SEED MIX AND MULCH. SLOPES STEEPER THAN 1 ON 3 SHALL BE RESTORED BY PLACING SOD ON 2" TOPSOIL.
8. ALL BACKFILLS UNDER OR WITHIN 3 FEET OF THE PROPOSED OR EXISTING PAVEMENT, CURB OR SIDEWALK SHALL CONFORM TO THE WAYNE COUNTY TRENCH "B" BACKFILL REQUIREMENTS. TRENCH "A" BACKFILL MAY BE USED WITHIN THE ROAD ROW AREAS UNDER CONDITIONS OTHER THAN THOSE SPECIFIED FOR TRENCH "B".
9. CONTRACTOR IS RESPONSIBLE FOR RESTORING OR REPLACING ALL DISTURBED LANDSCAPED AREAS, SPRINKLER SYSTEMS, FENCES, SIGNS, MAIL BOXES, ETC. WITHIN THE WAYNE COUNTY ROAD ROW AND / OR AS DIRECTED BY THE COUNTY ENGINEER.
10. CONTRACTOR SHALL MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES OTHERWISE, DETOURING TRAFFIC MUST BE PER APPROVED PLANS, ALL SIGNING AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF M.M.U.T.C.D.
11. MAINTAIN A SAFE AND ADEQUATE TRAVEL ROUTE FOR PEDESTRIANS AT ALL TIMES THROUGHOUT THE PROJECT DURATION.
12. TUNNELING, BORING AND JACKING OPERATIONS SHALL BE IN ACCORDANCE WITH THE WAYNE COUNTY SPECIFICATIONS AND DETAILS. BORE PITS SHALL BE PLACED AT MINIMUM 10 FEET FROM THE BACK OF CURB OR EDGE OF PAVEMENT.
13. REMOVE ALL ABANDONED CONDUITS FROM THE COUNTY ROADS ROW OR AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
14. CONTRACTOR SHALL PROVIDE COLD WEATHER PROTECTION FOR ALL PROPOSED CONCRETE WORK (PAVEMENTS, SIDEWALKS, DRIVE APPROACHES, ETC.) AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
15. OVERNIGHT VEHICLE PARKING AND STORAGE OF CONSTRUCTION MATERIALS AND EQUIPMENT ARE NOT PERMITTED WITHIN THE WAYNE COUNTY ROADS RIGHTS-OF-WAY.
16. CONTRACTOR SHOULD OBTAIN A SOIL EROSION AND SEDIMENTATION CONTROL PERMIT FROM THE WAYNE COUNTY DPS, CONTACT THE WAYNE COUNTY SOIL EROSION OFFICE AT (734) 326-5565, OR THE COMMUNITY HAVING JURISDICTION OVER THE SOIL EROSION PERMIT.
17. CONTRACTOR SHALL NOTIFY THE WAYNE COUNTY TRAFFIC SIGNAL SHOP AT (734) 955-2154.
18. CONTRACTOR SHALL NOTIFY WAYNE COUNTY 72 HOURS PRIOR TO START OF CONSTRUCTION. CONTACT THE PERMIT OFFICE AT (734) 888-2764.

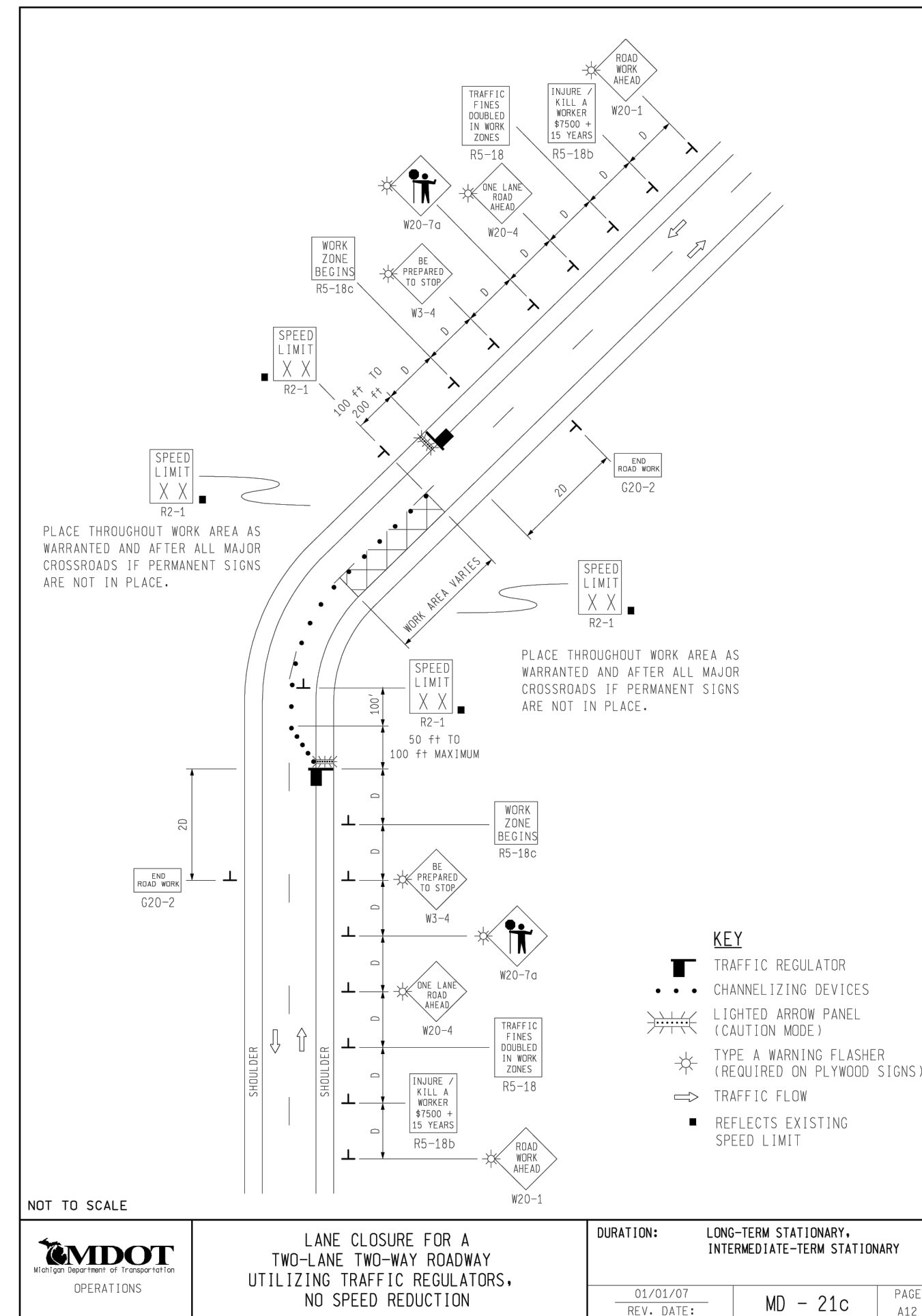
**OVERALL PLAN**

NOT FOR CONSTRUCTION



# TRAFFIC CONTROL PLAN

## E. HURON RIVER DRIVE



**NOTE:**  
REFER TO MDOT MAINTENANCE WORK ZONE TRAFFIC CONTROL GUIDELINES FOR TRAFFIC CONTROL. DEVIATIONS MUST BE APPROVED BY THE ENGINEER.

### DISTANCE BETWEEN TRAFFIC SIGNS "D"

"D" DISTANCES	25	30	35	40	45	50	55	60	65	70
D (FEET)	250	300	350	400	450	500	550	600	650	700

### GUIDELINES FOR LENGTH OF LONGITUDINAL BUFFER SPACE "B"

"B" LENGTHS	25	30	35	40	45	50	55	60	65	70
B (FEET)	50	83	132	181	230	279	329	411	476	542

### MINIMUM MERGING TAPER LENGTH "L" (FEET)

OFFSET FEET	25	30	35	40	45	50	55	60	65	70	TAPER LENGTH "L" IN FEET
8	83	120	163	213	260	300	340	380	420	460	500
9	94	135	184	240	295	340	385	430	475	520	560
10	104	150	204	267	320	370	420	470	520	570	620
11	115	165	225	293	355	415	475	535	595	655	715
12	125	180	245	320	390	460	530	600	670	740	810
13	135	195	266	347	425	505	585	665	745	825	905
14	146	210	286	374	460	545	630	715	800	885	970
15	157	225	307	400	495	590	685	780	875	970	1050

THE FORMULAS FOR THE MINIMUM LENGTH OF A MERGING TAPER IN DERIVING THE "L" VALUES SHOWN IN THE ABOVE TABLES ARE AS FOLLOWS:

**\*L\* =  $W \times S^2$  WHERE POSTED SPEED PRIOR TO THE WORK AREA IS 40 MPH OR LESS**

**\*L\* =  $W \times S$  WHERE POSTED SPEED PRIOR TO THE WORK AREA IS 45 MPH OR GREATER**

L = MINIMUM LENGTH OF MERGING TAPER  
S = POSTED SPEED LIMIT IN MPH PRIOR TO WORK AREA  
W = WIDTH OF OFFSET

### TYPES OF TAPERS

UPSTREAM TAPERS  
MERGING TAPER  
SHIFTING TAPER  
SHOULDER TAPER  
TWO-WAY TRAFFIC TAPER  
DOWNSTREAM TAPERS (USE IS OPTIONAL)

### TAPER LENGTH

L - MINIMUM  
1/2 L - MINIMUM  
1/3 L - MINIMUM  
100' - MAXIMUM  
100' - MINIMUM (PER LANE)

NOT TO SCALE

### LEGEND

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

**EXISTING**

- OH-ELEC- Pole & Guy Wire
- UG-CATV- Underground Cable TV, CATV Pedestal
- UG-PHONE- Telephone U.G. Cable, Pedestal & Manhole
- UG-ELEC- U.G. Cable, Manhole, Meter & Handhole
- Gas Mark, Valve & Gas Line Marker
- Watermark, Hyd., Gate Valve, Tapping Bleeve & Valve
- Sanitary Sewer, Cleanout & Manhole
- Storm Sewer, Cleanout & Manhole
- Combined Sewer & Manhole
- Square, Round & Beehive Catch Basin, Yard Drain
- Post Indicator Valve
- Water Valve, Box, Hydrant Valve Box, Service Shut-off
- Mailbox, Transformer, Irrigation Control Valve
- Unidentified Structure
- Spot Elevation
- Contour Line
- Fence
- Guard Rail
- Street Light
- Sign
- CONC. Concrete
- ASPH. Asphalt
- GRAVEL Gravel Shoulder
- WETLAND

**PROPOSED**

- 310 HEAVY FLOW DUTY ONLY
- 310 HEAVY DEEP DUTY STRENGTH

**PEA GROUP**  
t: 844.813.2949  
www.peagroup.com

**NORTH**

0 40 80 160  
SCALE: 1" = 80'



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CLIENT  
**VAN BUREN TOWNSHIP**  
48425 TYLER ROAD  
VAN BUREN, MICHIGAN

**VAN BUREN**  
CHARTER TOWNSHIP

PROJECT TITLE  
**IRON BELLE TRAIL - SECTION J**  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN

Michigan's Iron Belle Trail

REVISIONS

ORIGINAL ISSUE	12/2/20
REVISION	1/27/21
REVISION	NORFOLK SOUTHERN 11/10/21
REVISION	PER MDOT ORDER 9/01/22
REVISION	PER TWP 1/24/24

ORIGINAL ISSUE DATE:  
DECEMBER 3, 2020

DRAWING TITLE  
**TRAFFIC CONTROL SHEET**

PEA JOB NO.	2020-0095
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

NOT FOR CONSTRUCTION **C-1.2**

S:\PROJECTS\2020\2020-0095-0095-01-VAN BUREN-UMD\CONSTRUCTION\01.01-01-00\NAIL-BIT-20-0095.dwg



**LEGEND**

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

EXISTING	PROPOSED
—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 & MANHOLE
—GAS—	GAS MAIN, VALVE & GAS LINE MARKER
⊗	WATERMAIN, HYD. GATE VALVE, TAPPING BLEEDIE & VALVE
⊗	SANITARY SEWER, CLEANOUT & MANHOLE
⊗	STORM SEWER, CLEANOUT & MANHOLE
⊗	COMBINED SEWER & MANHOLE
⊗	SQUARE, ROUND & BEEHIVE CATCH BASIN, YARD DRAIN
⊗	POST INDICATOR VALVE
⊗	WATER VALVE BODY/HYDRANT VALVE BOX, SERVICE SHUTOFF
⊗	MAILBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
⊗	UNIDENTIFIED STRUCTURE
⊗	SPOT ELEVATION
670	CONTOUR LINE
—	FENCE
—	GUARD RAIL
—	STREET LIGHT
—	SIGN
CONC.	CONCRETE
ASPH.	ASPHALT
GRAVEL	GRAVEL SHOULDER
▲	WETLAND

**DEMOLITION LEGEND:**

ITEM TO BE PROTECTED	⊙
ITEM TO BE REMOVED	⊗
CURB/FENCE REMOVAL	//////
CONCRETE PAVEMENT SIDEWALK AND TREE/BRUSH REMOVAL	XXXXXX
UTILITY REMOVAL	XXXXXX
ASPHALT REMOVAL	XXXXXX
TREE REMOVAL	⊗
SAWCUT LINE	—

**BENCHMARKS**  
(GPS DERIVED - NAVD 88)

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TOP OF SANITARY MANHOLE, 58 FEET SOUTH OF THE CENTER LINE OF EAST HURON RIVER DR. AND 45 FEET WEST OF THE CENTER LINE OF HAGGERTY RD.  
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ELEV. - 656.49

**FLOODPLAIN NOTE:**  
BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X', AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 26163C0354E DATED FEBRUARY, 02, 2012.

**REFERENCE DRAWINGS**

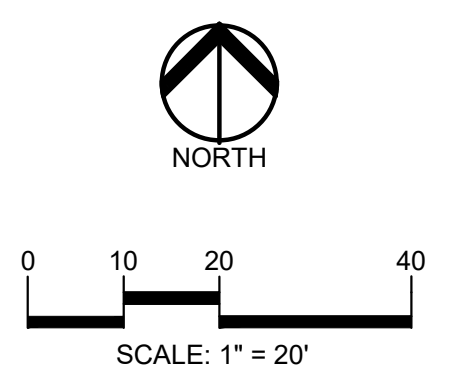
SANITARY SEWER DOWN RIVER SEWAGE DISPOSAL SYSTEM, PART OF CONTRACT NO. 15-SA-6-1, DATED 04/18/2, SHEET 3 OF 7

ELECTRIC DTE ELECTRIC FACILITY MAP #241-200, DATED 04/09/2020

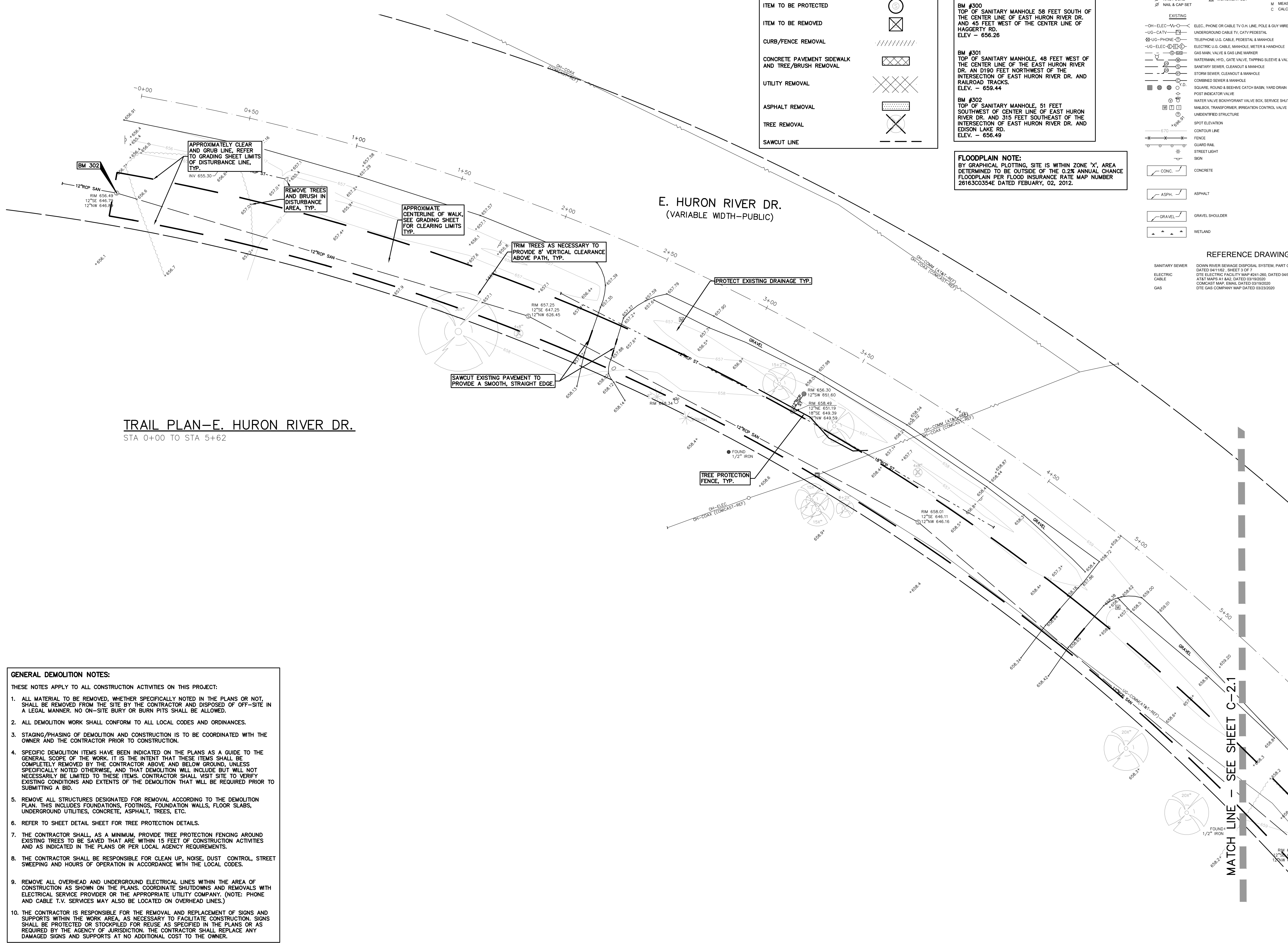
CABLE AT&T MAPS A1 & A2, DATED 03/19/2020

GAS COMCAST MAP 3348, DATED 03/19/2020

DTE GAS COMPANY MAP DATED 03/23/2020



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**TRAIL PLAN—E. HURON RIVER DR.**  
STA 0+00 TO STA 5+62

**GENERAL DEMOLITION NOTES:**

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT:

- ALL MATERIAL TO BE REMOVED, WHETHER SPECIFICALLY NOTED IN THE PLANS OR NOT, SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF OFF-SITE IN A LEGAL MANNER. NO ON-SITE BURY OR BURN PITS SHALL BE ALLOWED.
- ALL DEMOLITION WORK SHALL CONFORM TO ALL LOCAL CODES AND ORDINANCES.
- STAGING/PHASING OF DEMOLITION AND CONSTRUCTION IS TO BE COORDINATED WITH THE OWNER AND THE CONTRACTOR PRIOR TO CONSTRUCTION.
- SPECIFIC DEMOLITION ITEMS HAVE BEEN INDICATED ON THE PLANS AS A GUIDE TO THE GENERAL SCOPE OF THE WORK. IT IS THE INTENT THAT THESE ITEMS SHALL BE COMPLETELY REMOVED BY THE CONTRACTOR ABOVE AND BELOW GROUND, UNLESS SPECIFICALLY NOTED OTHERWISE, AND THAT DEMOLITION WILL INCLUDE BUT WILL NOT NECESSARILY BE LIMITED TO THESE ITEMS. CONTRACTOR SHALL VISIT SITE TO VERIFY EXISTING CONDITIONS AND EXTENTS OF THE DEMOLITION THAT WILL BE REQUIRED PRIOR TO SUBMITTING A BID.
- REMOVE ALL STRUCTURES DESIGNATED FOR REMOVAL ACCORDING TO THE DEMOLITION PLAN. THIS INCLUDES FOUNDATIONS, FOOTINGS, FOUNDATION WALLS, FLOOR SLABS, UNDERGROUND UTILITIES, CONCRETE, ASPHALT, TREES, ETC.
- REFER TO SHEET DETAIL SHEET FOR TREE PROTECTION DETAILS.
- THE CONTRACTOR SHALL, AS A MINIMUM, PROVIDE TREE PROTECTION FENCING AROUND EXISTING TREES TO BE SAVED THAT ARE WITHIN 15 FEET OF CONSTRUCTION ACTIVITIES AND AS INDICATED IN THE PLANS OR PER LOCAL AGENCY REQUIREMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN UP, NOISE, DUST CONTROL, STREET SWEEPING AND HOURS OF OPERATION IN ACCORDANCE WITH THE LOCAL CODES.
- REMOVE ALL OVERHEAD AND UNDERGROUND ELECTRICAL LINES WITHIN THE AREA OF CONSTRUCTION AS SHOWN ON THE PLANS. COORDINATE SHUTDOWNS AND REMOVALS WITH ELECTRICAL SERVICE PROVIDER OR THE APPROPRIATE UTILITY COMPANY. (NOTE: PHONE AND CABLE T.V. SERVICES MAY ALSO BE LOCATED ON OVERHEAD LINES.)
- THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF SIGNS AND SUPPORTS WITHIN THE WORK AREA, AS NECESSARY TO FACILITATE CONSTRUCTION. SIGNS SHALL BE PROTECTED OR STOCKPILED FOR REUSE AS SPECIFIED IN THE PLANS OR AS REQUIRED BY THE AGENCY OF JURISDICTION. THE CONTRACTOR SHALL REPLACE ANY DAMAGED SIGNS AND SUPPORTS AT NO ADDITIONAL COST TO THE OWNER.

**CLIENT**

**VAN BUREN TOWNSHIP**  
46425 TYLER ROAD  
VAN BUREN, MICHIGAN

**VAN BUREN**  
CHARTER TOWNSHIP

PROJECT TITLE

**IRON BELLE TRAIL - SECTION J**  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN



**REVISIONS**

ORIGINAL ISSUE	12/2/20
REVISION 1/27/21	
REVISION NORFOLK SOUTHERN	11/10/21
REVISION PER MDOT ORDER	9/01/22
REVISION PER TWP	1/24/24

ORIGINAL ISSUE DATE:  
DECEMBER 3, 2020

DRAWING TITLE  
**TOPOGRAPHICAL SURVEY & DEMOLITION SHEET**

PEA JOB NO. 2020-0095  
 P.M. JTS  
 DN. JMR  
 DES. JMR  
 DRAWING NUMBER:



**DEMOLITION LEGEND:**

ITEM TO BE PROTECTED	
ITEM TO BE REMOVED	
CURB/FENCE REMOVAL	
CONCRETE PAVEMENT SIDEWALK AND TREE/BRUSH REMOVAL	
UTILITY REMOVAL	
ASPHALT REMOVAL	
TREE REMOVAL	
SAWCUT LINE	

**BENCHMARKS**  
(GPS DERIVED - NAVD 88)

**BM #300**  
TOP OF SANITARY MANHOLE, 58 FEET SOUTH OF THE CENTER LINE OF EAST HURON RIVER DR. AND 45 FEET WEST OF THE CENTER LINE OF HAGGERTY RD.  
ELEV. - 656.26

**BM #301**  
TOP OF SANITARY MANHOLE, 48 FEET WEST OF THE CENTER LINE OF THE EAST HURON RIVER DR. AN D190 FEET NORTHWEST OF THE INTERSECTION OF EAST HURON RIVER DR. AND RAILROAD TRACKS.  
ELEV. - 659.44

**BM #302**  
TOP OF SANITARY MANHOLE, 51 FEET SOUTHWEST OF CENTER LINE OF EAST HURON RIVER DR. AND 315 FEET SOUTHEAST OF THE INTERSECTION OF EAST HURON RIVER DR. AND EDISON LAKE RD.  
ELEV. - 656.49

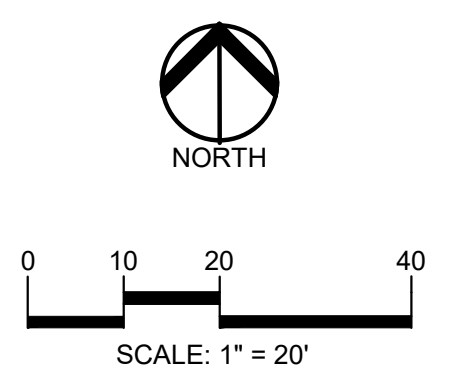
**FLOODPLAIN NOTE:**  
BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X', AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 26163C0354E DATED FEBRUARY, 02, 2012.

**LEGEND**

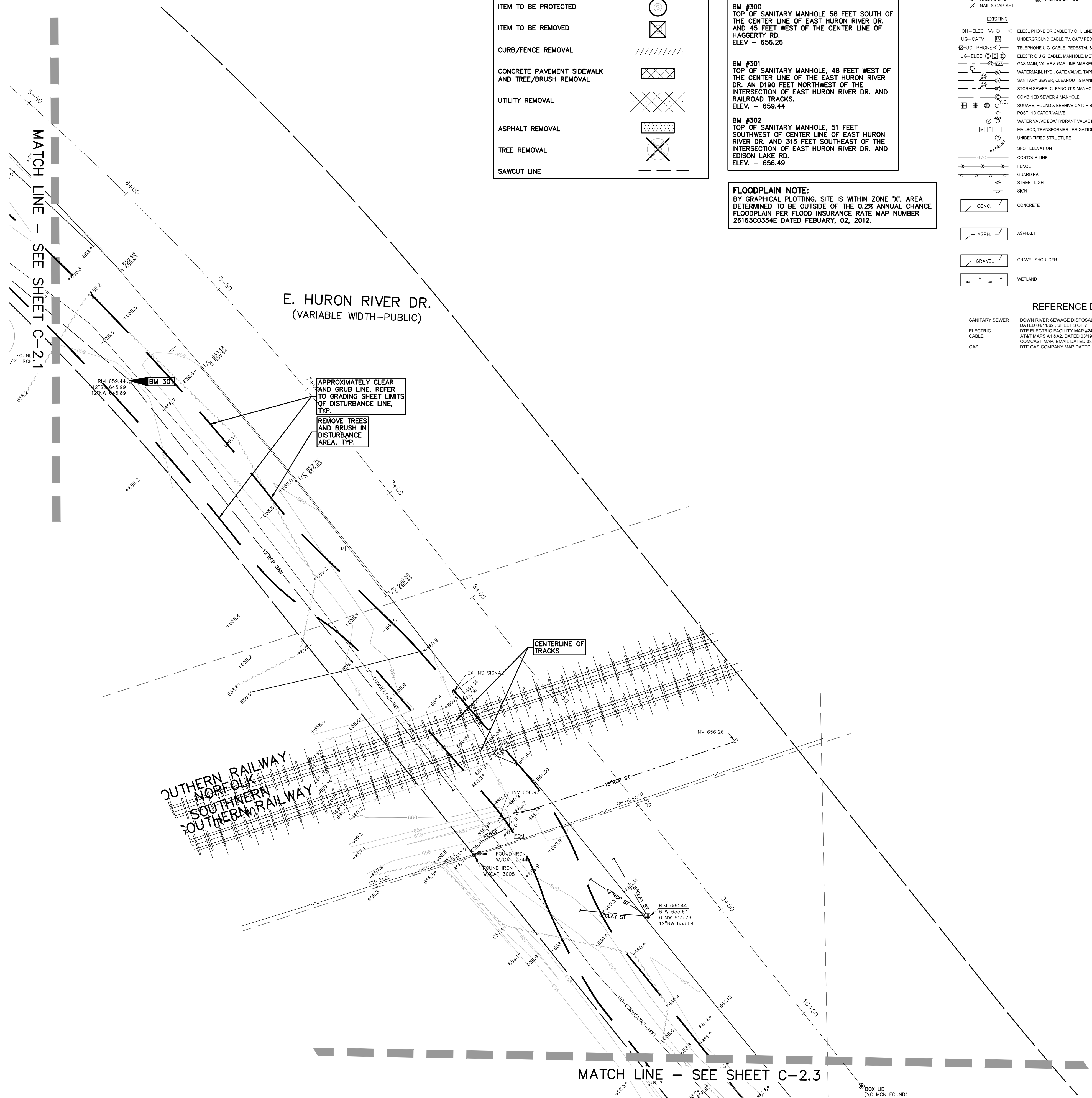
EXISTING	PROPOSED

**REFERENCE DRAWINGS**

SANITARY SEWER	DOWN RIVER SEWAGE DISPOSAL SYSTEM, PART OF CONTRACT NO. 15-5A-6-1, DATED 04/11/02, SHEET 3 OF 7
ELECTRIC	DTE ELECTRIC FACILITY MAP #241-280, DATED 04/09/2020
CABLE	ATA1 MAPS A1 & A2, DATED 03/19/2020
GAS	CONCAST MAP 1594L, DATED 03/19/2020
	DTE GAS COMPANY MAP DATED 03/23/2020



**CAUTION!!**  
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**TRAIL PLAN-E. HURON RIVER DR.**  
STA 5+62 TO STA 10+00

**NOT FOR CONSTRUCTION**

**CLIENT**  
**VAN BUREN TOWNSHIP**  
48425 TYLER ROAD  
VAN BUREN, MICHIGAN

**VAN BUREN**  
CHARTER TOWNSHIP

**PROJECT TITLE**  
**IRON BELLE TRAIL - SECTION J**  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN



**REVISIONS**

ORIGINAL ISSUE	12/2/20	
REVISION	1/27/21	
REVISION	NORFOLK SOUTHERN 11/10/21	
REVISION	PER MDOT ORDER 9/01/22	
REVISION	PER TWP	1/24/24

**ORIGINAL ISSUE DATE:**  
DECEMBER 3, 2020

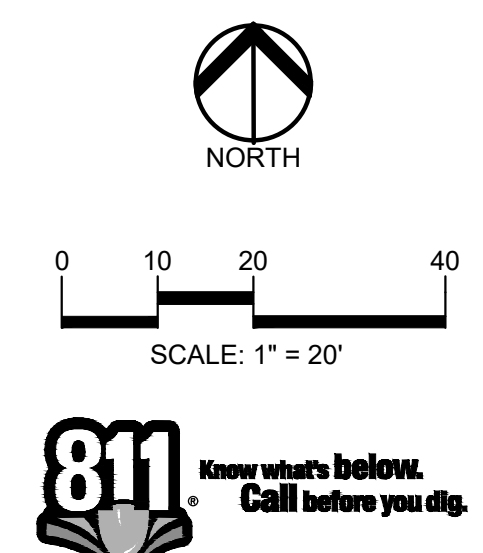
**DRAWING TITLE**  
**TOPOGRAPHICAL SURVEY & DEMOLITION SHEET**

PEA JOB NO.	2020-0095
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

**C-2.2**

S:\PROJECTS\2020\2020-0095-IBT-VAN BUREN-TWP\CONSTRUCTION\22.0 - TPO.DWG-IBT 20-0095.dwg





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CLIENT  
**VAN BUREN TOWNSHIP**  
 48425 TYLER ROAD  
 VAN BUREN, MICHIGAN

  
**VAN BUREN**  
 CHARTER TOWNSHIP

PROJECT TITLE  
**IRON BELLE TRAIL - SECTION J**  
 VAN BUREN TOWNSHIP  
 VAN BUREN, MICHIGAN



REVISIONS	
ORIGINAL ISSUE	12/2/20
REVISION	1/27/21
REVISION	NORFOLK SOUTHERN 11/10/21
REVISION	PER MDOT ORDER 9/01/22
REVISION	PER TWP 1/24/24

ORIGINAL ISSUE DATE:  
 DECEMBER 3, 2020

DRAWING TITLE  
**TOPOGRAPHICAL SURVEY & DEMOLITION SHEET**

PEA JOB NO.	2020-0095
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

**C-2.3**

**NOT FOR CONSTRUCTION**

**LEGEND**

IRON FOUND	BRASS PLUG SET	SEC. CORNER FOUND
IRON SET	MONUMENT FOUND	R. RECORDED
NAIL FOUND	NAIL & CAP SET	M. MEASURED
		C. CALCULATED

**EXISTING**

	ELEC. PHONE OR CABLE TV O.H. LINE, POLE & GUY WIRE
	UNDERGROUND CABLE TV, CATV PEDESTAL
	ELECTRIC U.G. CABLE, PEDESTAL & MANHOLE
	ELECTRIC U.G. CABLE, MANHOLE, METER & HANDHOLE
	GAS MAN. VALVE & GAS LINE MARKER
	WATERMAN. HYD. GATE VALVE, TAPPING BLEEDIE & VALVE
	SANITARY SEWER, CLEANOUT & MANHOLE
	STORM SEWER, CLEANOUT & MANHOLE
	COMBINED SEWER & MANHOLE
	SQUARE, ROUND & BEEHIVE CATCH BASIN, YARD DRAIN
	POST INDICATOR VALVE
	WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF
	MAILBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
	UNIDENTIFIED STRUCTURE
	SPOT ELEVATION
	CONTOUR LINE
	FENCE
	GUARD RAIL
	STREET LIGHT
	SIGN
	CONC.
	ASPH.
	GRAVEL SHOULDER
	WETLAND

**PROPOSED**

	310 HEAVY FLOW DUTY ONLY
	310 HEAVY FLOW DUTY STRENGTH

**REFERENCE DRAWINGS**

SANITARY SEWER	DOWN RIVER SEWAGE DISPOSAL SYSTEM, PART OF CONTRACT NO. 15 SA-6-1, DATED 04/11/02, SHEET 3 OF 7
ELECTRIC	DTE ELECTRIC FACILITY MAP #241-280, DATED 04/09/2020
CABLE	ATA& MAPS A1 842, DATED 03/19/2020
GAS	CONCAST MAP #2948, DATED 03/19/2020
	DTE GAS COMPANY MAP DATED 03/23/2020

**DEMOLITION LEGEND:**

ITEM TO BE PROTECTED	
ITEM TO BE REMOVED	
CURB/FENCE REMOVAL	
CONCRETE PAVEMENT SIDEWALK AND TREE/BRUSH REMOVAL	
UTILITY REMOVAL	
ASPHALT REMOVAL	
TREE REMOVAL	
SAWCUT LINE	

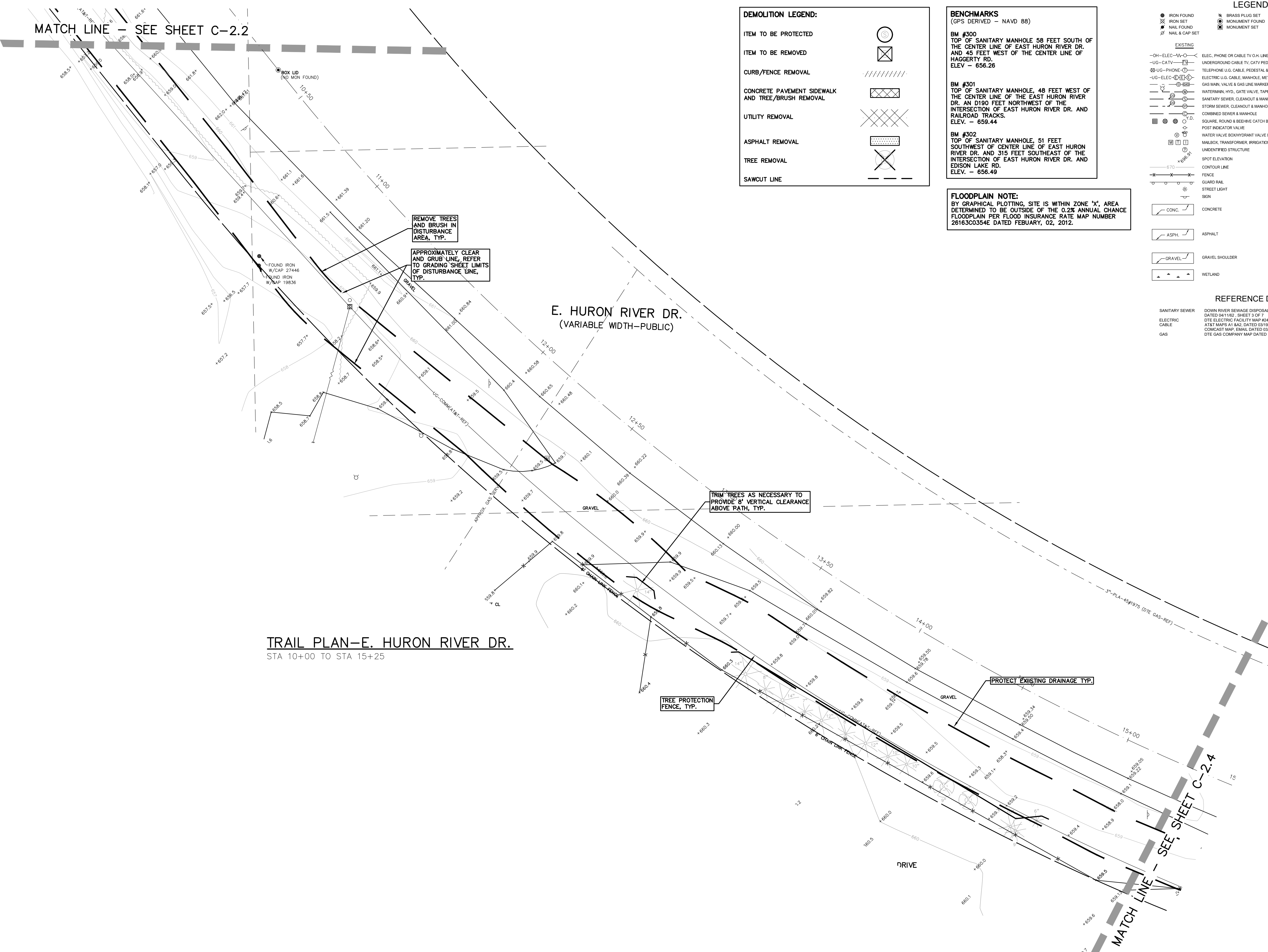
**BENCHMARKS**  
 (GPS DERIVED - NAVD 88)

BM #300  
 TOP OF SANITARY MANHOLE 58 FEET SOUTH OF THE CENTER LINE OF EAST HURON RIVER DR. AND 45 FEET WEST OF THE CENTER LINE OF HAGGERTY RD.  
 ELEV. = 656.26

BM #301  
 TOP OF SANITARY MANHOLE, 48 FEET WEST OF THE CENTER LINE OF THE EAST HURON RIVER DR. AN D190 FEET NORTHWEST OF THE INTERSECTION OF EAST HURON RIVER DR. AND RAILROAD TRACKS.  
 ELEV. = 659.44

BM #302  
 TOP OF SANITARY MANHOLE, 51 FEET SOUTHWEST OF CENTER LINE OF EAST HURON RIVER DR. AND 315 FEET SOUTHWEST OF THE INTERSECTION OF EAST HURON RIVER DR. AND EDISON LAKE RD.  
 ELEV. = 656.49

**FLOODPLAIN NOTE:**  
 BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X', AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 26163C0354E DATED FEBRUARY, 02, 2012.



MATCH LINE - SEE SHEET C-2.2

**TRAIL PLAN - E. HURON RIVER DR.**  
 STA 10+00 TO STA 15+25

MATCH LINE - SEE SHEET C-2.4







**DEMOLITION LEGEND:**

ITEM TO BE PROTECTED	
ITEM TO BE REMOVED	
CURB/FENCE REMOVAL	
CONCRETE PAVEMENT SIDEWALK AND TREE/BRUSH REMOVAL	
UTILITY REMOVAL	
ASPHALT REMOVAL	
TREE REMOVAL	
SAWCUT LINE	

**BENCHMARKS**  
(GPS DERIVED - NAVD 88)

**BM #300**  
TOP OF SANITARY MANHOLE 58 FEET SOUTH OF THE CENTER LINE OF EAST HURON RIVER DR. AND 45 FEET WEST OF THE CENTER LINE OF HAGGERTY RD.  
ELEV. - 656.26

**BM #301**  
TOP OF SANITARY MANHOLE, 48 FEET WEST OF THE CENTER LINE OF THE EAST HURON RIVER DR. AN D190 FEET NORTHWEST OF THE INTERSECTION OF EAST HURON RIVER DR. AND RAILROAD TRACKS.  
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TOP OF SANITARY MANHOLE, 51 FEET SOUTHWEST OF CENTER LINE OF EAST HURON RIVER DR. AND 315 FEET SOUTHEAST OF THE INTERSECTION OF EAST HURON RIVER DR. AND EDISON LAKE RD.  
ELEV. - 656.49

**FLOODPLAIN NOTE:**  
BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X', AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 26163C0354E DATED FEBRUARY, 02, 2012.

**LEGEND**

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

**EXISTING**

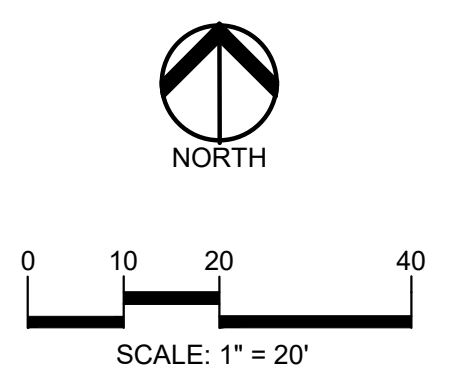
- OH-ELEC-W-W-ELEC. PHONE OR CABLE TV O.H. LINE, POLE & GUY WIRE
- UG-CATV-UNDERGROUND CABLE TV, CATV PEDESTAL
- UG-PHONE-TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
- UG-ELEC-ELECTRIC U.G. CABLE, MANHOLE, METER & HANDHOLE
- GAS-MAN. VALVE & GAS LINE MARKER
- WATER-MAN. HYD. GATE VALVE, TAPPING BLEEDIE & VALVE
- SANITARY SEWER, CLEANOUT & MANHOLE
- STORM SEWER, CLEANOUT & MANHOLE
- COMBINED SEWER & MANHOLE
- SQUARE, ROUND & BEEHIVE CATCH BASIN, YARD DRAIN
- POST INDICATOR VALVE
- WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF
- MALBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
- UNIDENTIFIED STRUCTURE
- SPOT ELEVATION
- CONTOUR LINE
- FENCE
- GUARD RAIL
- STREET LIGHT
- SIEN

**PROPOSED**

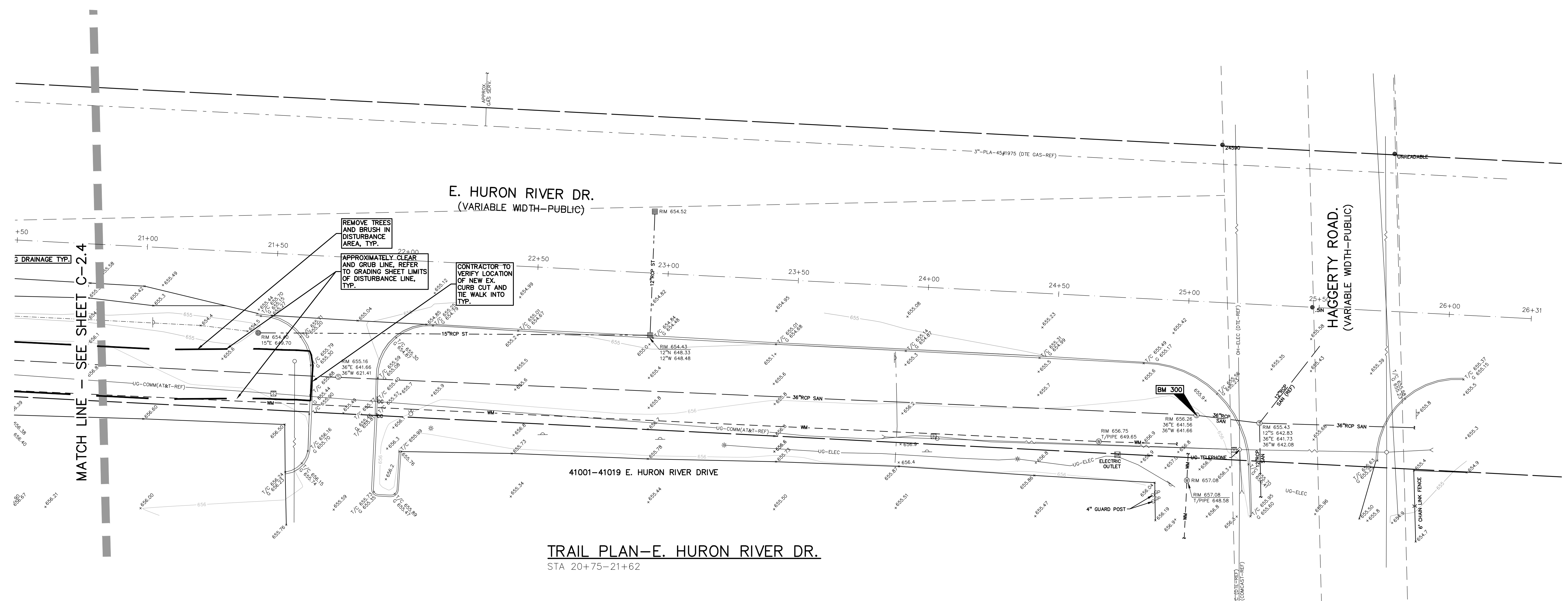
- CONC. CONCRETE
- ASPH. ASPHALT
- GRAVEL GRAVEL SHOULDER
- WETLAND
- STD. HEAVY FLOW DUTY
- STD. HEAVY BEEP DUTY STRENGTH

**REFERENCE DRAWINGS**

- SANITARY SEWER DOWN RIVER SEWAGE DISPOSAL SYSTEM, PART OF CONTRACT NO. 15 SA-6-1, DATED 04/11/02, SHEET 3 OF 7
- ELECTRIC DTE ELECTRIC FACILITY MAP #241-280, DATED 04/09/2020
- CABLE AT&T MAPS A1 842, DATED 03/19/2020
- GAS COMCAST MAP (SMALL) DATED 03/19/2020
- DTE GAS COMPANY MAP DATED 03/23/2020



**CAUTION!**  
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**CLIENT**

**VAN BUREN TOWNSHIP**  
46425 TYLER ROAD  
VAN BUREN, MICHIGAN

**VAN BUREN**  
CHARTER TOWNSHIP

**PROJECT TITLE**

**IRON BELLE TRAIL - SECTION J**  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN



**REVISIONS**

ORIGINAL ISSUE	12/2/20
REVISION 1	1/27/21
REVISION NORFOLK SOUTHERN	11/10/21
REVISION PER MDOT ORDER	9/01/22
REVISION PER TWP	1/24/24

**ORIGINAL ISSUE DATE:**  
DECEMBER 3, 2020

**DRAWING TITLE**  
**TOPOGRAPHICAL SURVEY & DEMOLITION SHEET**

PEA JOB NO.	2020-0095
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

**NOT FOR CONSTRUCTION**

**C-2.5**

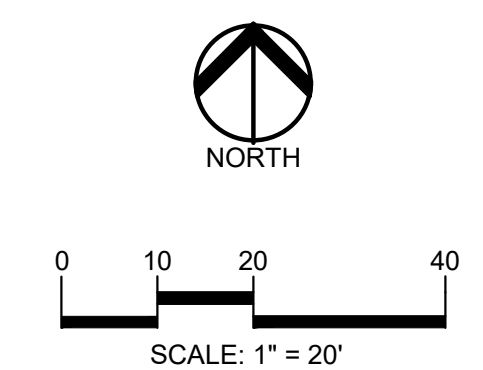












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CLIENT  
**VAN BUREN TOWNSHIP**  
 48425 TYLER ROAD  
 VAN BUREN, MICHIGAN

**VAN BUREN**  
 CHARTER TOWNSHIP

PROJECT TITLE  
**IRON BELLE TRAIL - SECTION J**  
 VAN BUREN TOWNSHIP  
 VAN BUREN, MICHIGAN



REVISIONS	
ORIGINAL ISSUE	12/2/20
REVISION	1/27/21
REVISION	NORFOLK SOUTHERN 11/10/21
REVISION	PER MDOT ORDER 9/01/22
REVISION	PER TWP 1/24/24

ORIGINAL ISSUE DATE:  
 DECEMBER 3, 2020

DRAWING TITLE  
**DIMENSION AND PAVING SHEET**

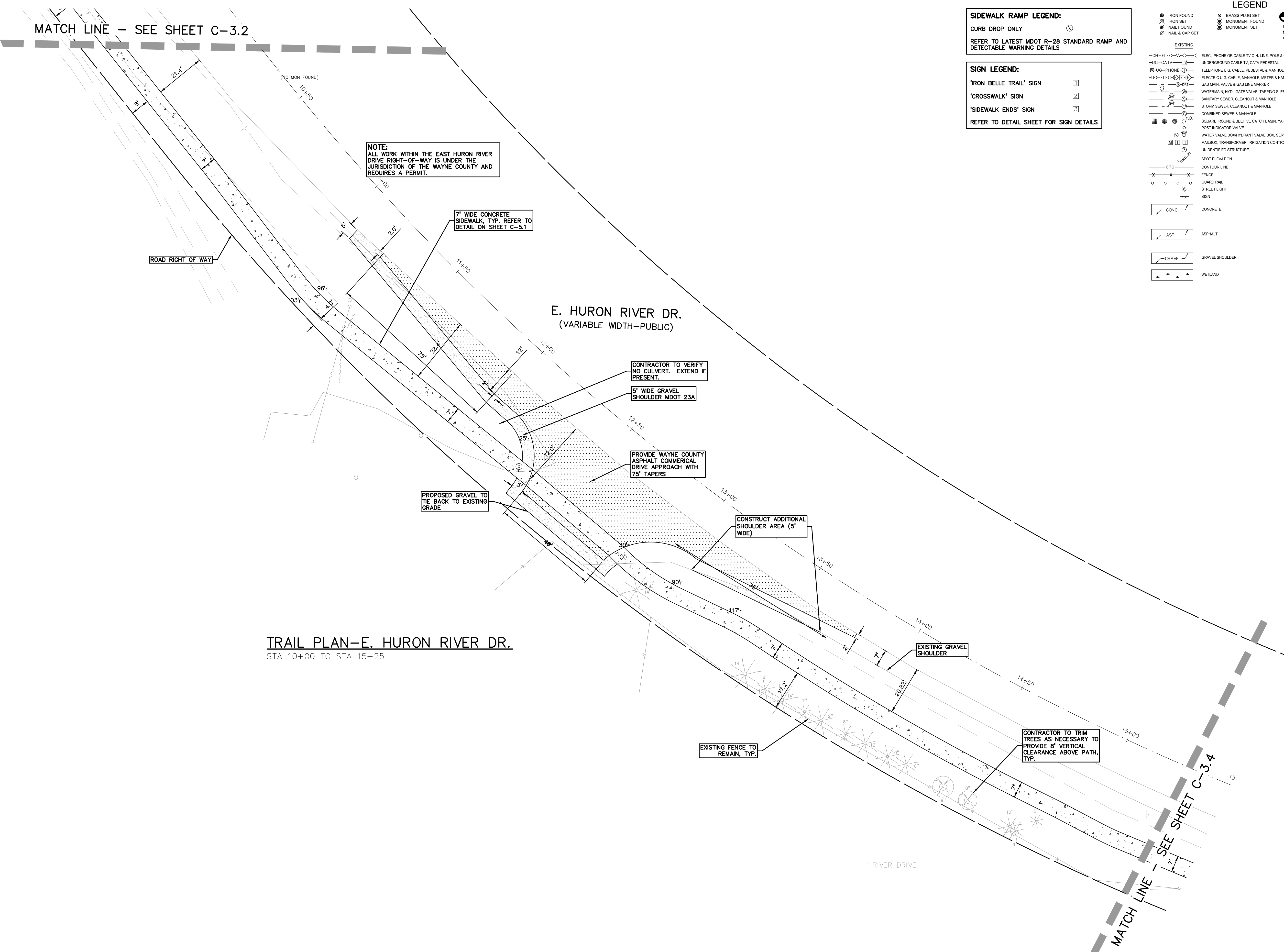
PEA JOB NO.	2020-0095
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

**C-3.3**

**NOT FOR CONSTRUCTION**

- SIDEWALK RAMP LEGEND:**  
 CURB DROP ONLY (X)  
 REFER TO LATEST MDOT R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS
- SIGN LEGEND:**  
 'IRON BELLE TRAIL' SIGN (1)  
 'CROSSWALK' SIGN (2)  
 'SIDEWALK ENDS' SIGN (3)  
 REFER TO DETAIL SHEET FOR SIGN DETAILS

- LEGEND**
- |              |                  |                     |
|--------------|------------------|---------------------|
| ● IRON FOUND | ⊗ BRASS PLUG SET | ⊙ SEC. CORNER FOUND |
| ⊗ IRON SET   | ⊗ MONUMENT FOUND | R RECORDED          |
| ⊗ NAIL FOUND | ⊗ NAIL & CAP SET | M MEASURED          |
|              |                  | C CALCULATED        |
- EXISTING**
- OH-ELEC- Pole & Guy Wire
  - UG-CATV- Underground Cable TV, CATV Pedestal
  - UG-PHONE- Telephone U.G. Cable, Pedestal & Manhole
  - UG-ELEC- U.G. Cable, Manhole, Meter & Handhole
  - Gas Mark, Valve & Gas Line Marker
  - Watermark, Hyd., Gate Valve, Tapping Bleeve & Valve
  - Sanitary Sewer, Cleanout & Manhole
  - Storm Sewer, Cleanout & Manhole
  - Combined Sewer & Manhole
  - Square, Round & Beehive Catch Basin, Yard Drain
  - Post Indicator Valve
  - Water Valve, Backflow Valve Box, Service Shutoff
  - Mailbox, Transformer, Irrigation Control Valve
  - Unidentified Structure
  - Spot Elevation
  - Contour Line
  - Fence
  - Guard Rail
  - Street Light
  - Sign
  - CONC. Concrete
  - ASPH. Asphalt
  - GRAVEL Gravel Shoulder
  - WETLAND Wetland
- PROPOSED**
- 671.21
  - 671
  - 3TD Heavy Flow Duty Only
  - 3TD Heavy Flow Duty Only
  - 3TD Heavy Flow Duty Strength



**TRAIL PLAN-E. HURON RIVER DR.**  
 STA 10+00 TO STA 15+25

MATCH LINE - SEE SHEET C-3.2

MATCH LINE - SEE SHEET C-3.4

**NOTE:**  
 ALL WORK WITHIN THE EAST HURON RIVER DRIVE RIGHT-OF-WAY IS UNDER THE JURISDICTION OF THE WAYNE COUNTY AND REQUIRES A PERMIT.

7' WIDE CONCRETE SIDEWALK, TYP. REFER TO DETAIL ON SHEET C-5.1

CONTRACTOR TO VERIFY NO CULVERT. EXTEND IF PRESENT.  
 5' WIDE GRAVEL SHOULDER MDOT 23A

PROVIDE WAYNE COUNTY ASPHALT COMMERCIAL DRIVE APPROACH WITH 75' TAPERS

CONSTRUCT ADDITIONAL SHOULDER AREA (5' WIDE)

PROPOSED GRAVEL TO TIE BACK TO EXISTING GRADE

EXISTING FENCE TO REMAIN, TYP.

CONTRACTOR TO TRIM TREES AS NECESSARY TO PROVIDE 8' VERTICAL CLEARANCE ABOVE PATH, TYP.

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**SIDEWALK RAMP LEGEND:**  
 CURB DROP ONLY  
 REFER TO LATEST MDOT R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS

**SIGN LEGEND:**  
 'IRON BELLE TRAIL' SIGN  
 'CROSSWALK' SIGN  
 'SIDEWALK ENDS' SIGN  
 REFER TO DETAIL SHEET FOR SIGN DETAILS

**LEGEND**

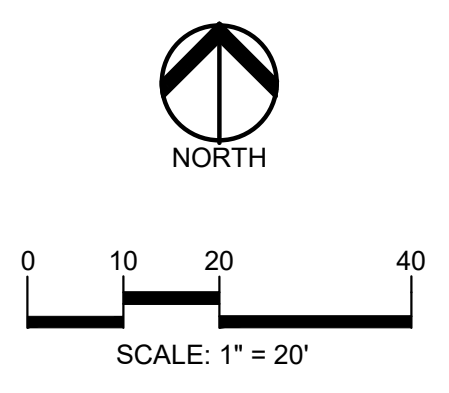
● IRON FOUND	⊗ BRASS PLUG SET	⊙ SEC. CORNER FOUND
⊗ IRON SET	⊗ MONUMENT FOUND	⊙ RECORDED
⊗ NAIL FOUND	⊗ NAIL & CAP SET	⊙ MEASURED
⊗ NAIL & CAP SET		⊙ CALCULATED

**EXISTING**

- OH-ELEC- 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 Mark, Valve & Gas Line Marker
- Watermark, Hydr., Gate Valve, Tapping Bleeve & Valve
- Sanitary Sewer, Cleanout & Manhole
- Storm Sewer, Cleanout & Manhole
- Combined Sewer & Manhole
- Square, Round & Beehive Catch Basin, Yard Drain
- Post Indicator Valve
- Water Valve Box/Hydrant Valve Box, Service Shutoff
- Mailbox, Transformer, Irrigation Control Valve
- Unidentified Structure
- Spot Elevation
- Contour Line
- Fence
- Guard Rail
- Street Light
- Sign
- CONC. CONCRETE
- ASPH. ASPHALT
- GRAVEL GRAVEL SHOULDER
- WETLAND WETLAND

**PROPOSED**

- 310 HEAVY FLOW DUTY ONLY
- 310 HEAVY FLOW DUTY STRENGTH



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

CLIENT  
**VAN BUREN TOWNSHIP**  
 48425 TYLER ROAD  
 VAN BUREN, MICHIGAN

**VAN BUREN**  
 CHARTER TOWNSHIP

PROJECT TITLE  
**IRON BELLE TRAIL - SECTION J**  
 VAN BUREN TOWNSHIP  
 VAN BUREN, MICHIGAN



**REVISIONS**

ORIGINAL ISSUE	12/2/20
REVISION	1/27/21
REVISION	NORFOLK SOUTHERN 11/10/21
REVISION	PER MDOT ORDER 9/01/22
REVISION	PER TWP 1/24/24

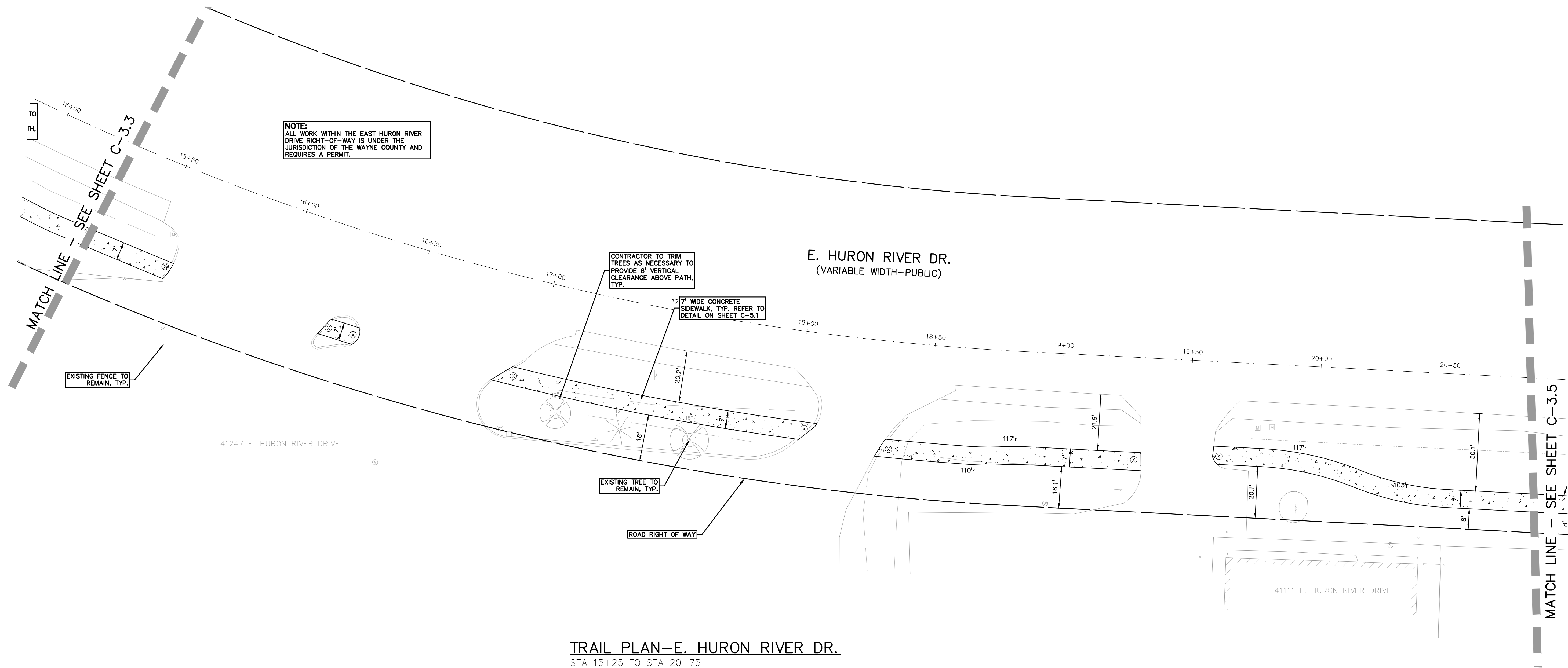
ORIGINAL ISSUE DATE:  
 DECEMBER 3, 2020

DRAWING TITLE  
**DIMENSION AND PAVING SHEET**

PEA JOB NO.	2020-0095
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

**NOT FOR CONSTRUCTION**

**C-3.4**



**TRAIL PLAN—E. HURON RIVER DR.**  
 STA 15+25 TO STA 20+75

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**SIDEWALK RAMP LEGEND:**  
CURB DROP ONLY  
REFER TO LATEST MDOT R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS

**SIGN LEGEND:**  
'IRON BELLE TRAIL' SIGN  
'CROSSWALK' SIGN  
'SIDEWALK ENDS' SIGN  
REFER TO DETAIL SHEET FOR SIGN DETAILS

**LEGEND**

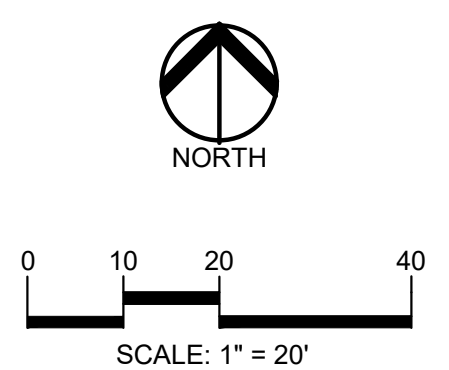
● IRON FOUND	⊗ BRASS PLUG SET	⊙ SEC. CORNER FOUND
⊗ IRON SET	⊗ MONUMENT FOUND	R RECORDED
⊗ NAIL FOUND	⊗ NAIL & CAP SET	M MEASURED
⊗ NAIL & CAP SET		C CALCULATED

**EXISTING**

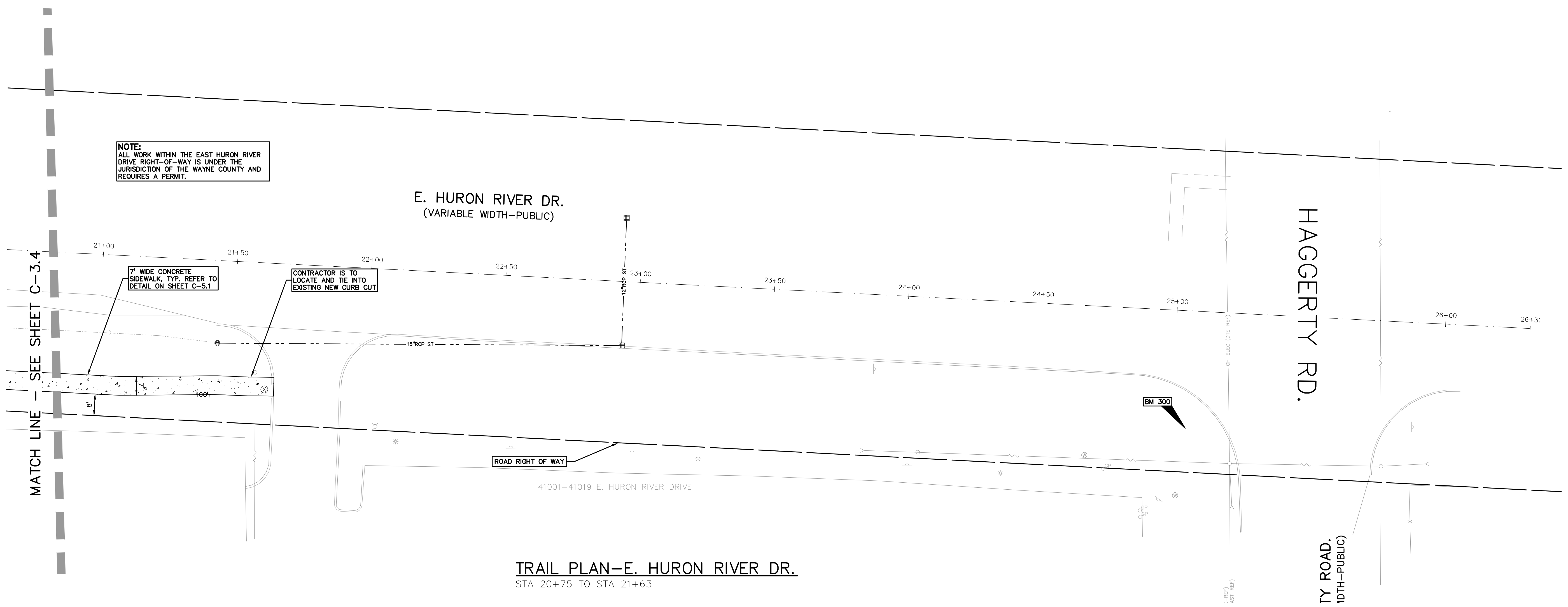
- OH-ELEC- Pole & Guy Wire
- UG-CATV- Underground Cable TV, CATV Pedestal
- UG-PHONE- Telephone U.G. Cable, Pedestal & Manhole
- UG-ELEC- Electric U.G. Cable, Manhole, Meter & Handhole
- Gas Main, Valve & Gas Line Marker
- Watermain, Hyd., Gate Valve, Tapping Bleeve & Valve
- Sanitary Sewer, Cleanout & Manhole
- Storm Sewer, Cleanout & Manhole
- Combined Sewer & Manhole
- Square, Round & Beehive Catch Basin, Yard Drain
- Post Indicator Valve
- Water Valve, Box, Hydrant Valve Box, Service Shutoff
- Manhole, Transformer, Irrigation Control Valve
- Unidentified Structure
- Spot Elevation
- Contour Line
- Fence
- Guard Rail
- Street Light
- Sign

**PROPOSED**

- CONC. CONCRETE
- ASPH. ASPHALT
- GRAVEL GRAVEL SHOULDER
- WETLAND WETLAND
- 310 HEAVY FLOW DUTY ONLY
- 310 HEAVY FLOW DUTY STRENGTH



**CAUTION!**  
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**TRAIL PLAN-E. HURON RIVER DR.**  
STA 20+75 TO STA 21+63

CLIENT  
**VAN BUREN TOWNSHIP**  
48425 TYLER ROAD  
VAN BUREN, MICHIGAN

PROJECT TITLE  
**IRON BELLE TRAIL - SECTION J**  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN



**REVISIONS**

ORIGINAL ISSUE	12/2/20
REVISION 1/27/21	
REVISION NORFOLK SOUTHERN	11/10/21
REVISION PER MDOT ORDER	9/01/22
REVISION PER TWP	1/24/24

ORIGINAL ISSUE DATE:  
DECEMBER 3, 2020

DRAWING TITLE  
**DIMENSION AND PAVING SHEET**

PEA JOB NO.	2020-0095
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

**NOT FOR CONSTRUCTION** **C-3.5**

S:\PROJECTS\2020-0095-0095-01-VAN BUREN-TWP\CONSTRUCTION\0310 - DIM-RT-20-0095.dwg



**EROSION CONTROL QUANTITIES:**

SILT FENCE	2225	LF
INLET FILTERS	3	EA
PERMANENT SEEDING	2880	S.Y.

**SYMBOLS: GRADING**

PROPOSED SPOT ELEVATION:  
TYPICALLY TOP OF PAVEMENT IN PAVED AREAS, GUTTER GRADE IN CURB LINES.

PROPOSED CONTOUR LINE — 922 —

ABBREVIATIONS:  
T/C = TOP OF CURB  
G = GUTTER GRADE  
T/P = TOP OF PAVEMENT  
T/S = TOP OF SIDEWALK  
T/W = TOP OF WALL  
B/W = BOTTOM OF WALL  
F.G. = FINISH GRADE  
R.M. = RIM ELEVATION

**EARTHWORK BALANCING NOTE:**

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

**BENCHMARKS**  
(GPS DERIVED — NAVD 88)

BM #300  
TOP OF SANITARY MANHOLE 58 FEET SOUTH OF THE CENTER LINE OF EAST HURON RIVER DR. AND 45 FEET WEST OF THE CENTER LINE OF HAGGERTY RD.  
ELEV. — 656.26

BM #301  
TOP OF SANITARY MANHOLE, 48 FEET WEST OF THE CENTER LINE OF THE EAST HURON RIVER DR. AN D190 FEET NORTHWEST OF THE INTERSECTION OF EAST HURON RIVER DR. AND RAILROAD TRACKS.  
ELEV. — 659.44

BM #302  
TOP OF SANITARY MANHOLE, 51 FEET SOUTHWEST OF CENTER LINE OF EAST HURON RIVER DR. AND 315 FEET SOUTHWEST OF THE INTERSECTION OF EAST HURON RIVER DR. AND EDISON LAKE RD.  
ELEV. — 659.49

**LEGEND**

**EXISTING**

- OH-ELEC: WIRE: 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: U.G. CABLE, MANHOLE, METER & MANHOLE
- GAS: GAS MAIN, VALVE & GAS LINE MARKER
- WATER: WATERMAIN, HYD. GATE VALVE, TAPPING BLEND & VALVE
- SEWER: SANITARY SEWER, CLEANOUT & MANHOLE
- STORM: STORM SEWER, CLEANOUT & MANHOLE
- COMBINED: COMBINED SEWER & MANHOLE
- SQUARE: SQUARE, ROUND & BEEHIVE CATCH BASIN, YARD DRAIN
- POST: POST INDICATOR VALVE
- WATER: WATER VALVE, BACKFLOW PREVENTER VALVE BOX, SERVICE SHUTOFF
- MAIL: MAILBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
- UNIDENTIFIED: UNIDENTIFIED STRUCTURE
- SPOT: SPOT ELEVATION
- CONC.: CONCRETE
- ASPH.: ASPHALT
- GRAVEL: GRAVEL SHOULDER
- WETLAND: WETLAND

**PROPOSED**

- IRON FOUND: IRON FOUND
- IRON SET: IRON SET
- NAIL FOUND: NAIL FOUND
- NAIL & CAP SET: NAIL & CAP SET
- BRASS PLUG SET: BRASS PLUG SET
- MONUMENT FOUND: MONUMENT FOUND
- MONUMENT SET: MONUMENT SET
- SEC. CORNER FOUND: SEC. CORNER FOUND
- R. RECORDED: R. RECORDED
- M. MEASURED: M. MEASURED
- C. CALCULATED: C. CALCULATED
- 310: 310 HEAVY FLOW DUTY ONLY
- STD: STD HEAVY DEEP DUTY STRENGTH

**REFERENCE DRAWINGS**

SANITARY SEWER: DOWN RIVER SEWAGE DISPOSAL SYSTEM, PART OF CONTRACT NO. 15 SA-6-1, DATED 04/11/02, SHEET 3 OF 7

ELECTRIC CABLE: DTE ELECTRIC FACILITY MAP #241-200, DATED 04/09/2020

GAS: AT&T MAPS A1 & A2, DATED 03/10/2020  
CONCAST MAP: TRAIL, DATED 03/10/2020  
DTE GAS COMPANY MAP DATED 03/23/2020

**PEA GROUP**

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**CLIENT**  
VAN BUREN TOWNSHIP  
48425 TYLER ROAD  
VAN BUREN, MICHIGAN

**VAN BUREN CHARTER TOWNSHIP**

**PROJECT TITLE**  
IRON BELLE TRAIL - SECTION J  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN

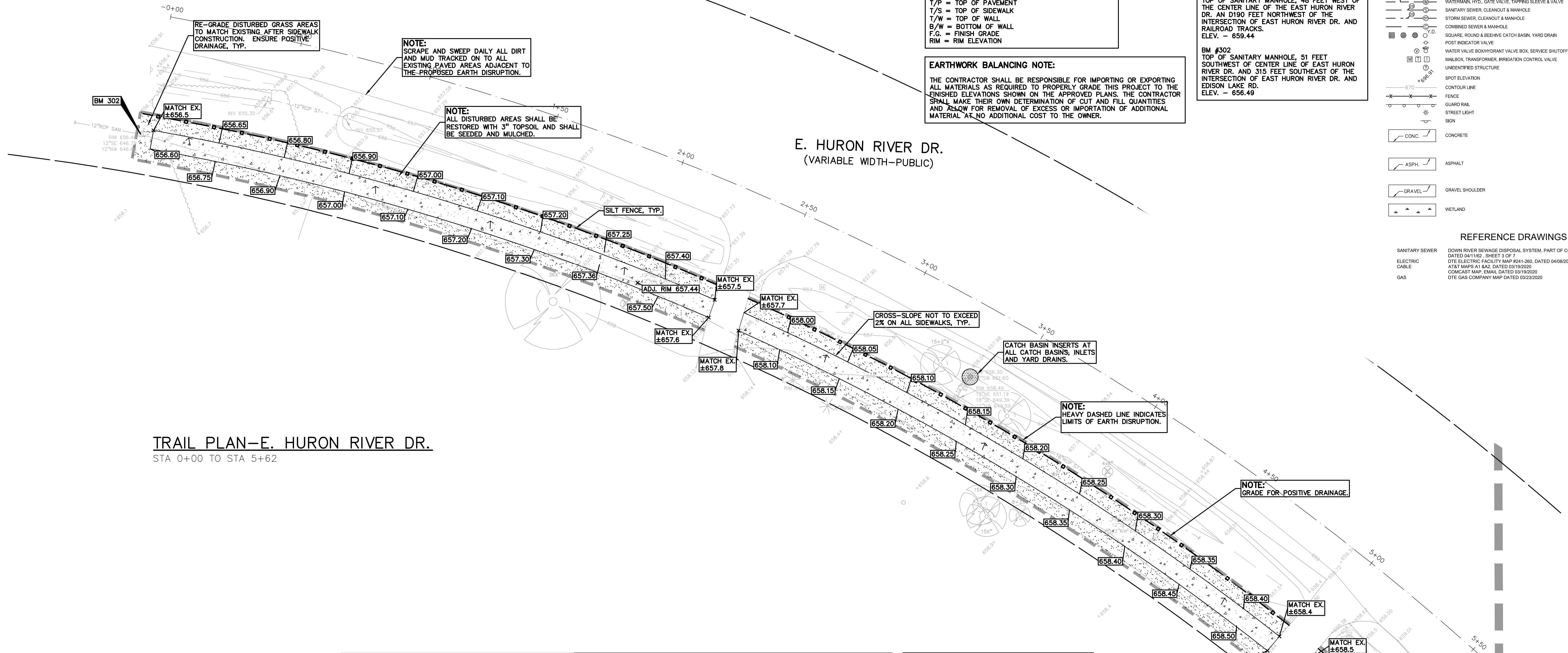
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REVISION	PER MDOT ORDER 9/01/22
REVISION	PER TWP
	1/24/24

**ORIGINAL ISSUE DATE:**  
DECEMBER 3, 2020

**DRAWING TITLE**  
GRADING SHEET

**PEA JOB NO.** 2020-0095  
**P.M.** JTS  
**DN.** JMR  
**DES.** JMR  
**DRAWING NUMBER:**



**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 AUTHORIZED PUBLIC AGENCY OF JURISDICTION. AN EROSION CONTROL PERMIT MUST BE SECURED FROM WAYNE COUNTY PRIOR TO CONSTRUCTION.
- REFER TO SOIL EROSION CONTROL PLAN FOR ADDITIONAL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND NOTES.
- ALL SLOPE EXCEEDING 1:4 MUST BE STABILIZED BY SODDING OR BY PLACING A MULCH BLANKET PEGGED IN PLACE OVER SEED.
- ALL DISTURBED AREAS OUTSIDE OF THE RIGHT-OF-WAY SHALL BE SEEDDED AND MULCHED OR SODDED. 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 THIRD PARTY TESTING COMPANY, THAT ARE TO BE WITHIN THE ZONE OF INFLUENCE OF PROPOSED BUILDINGS OR PAVEMENT SHALL BE COMPLETELY EXCAVATED AND BACKFILLED WITH SUITABLE MATERIAL.
- ON-SITE FILL CAN BE USED IF THE SPECIFIED COMPACTION REQUIREMENTS CAN BE ACHIEVED. IF ON-SITE SOIL IS USED, IT SHOULD BE CLEAN AND FREE OF FROZEN SOIL, ORGANICS, OR OTHER DELETERIOUS MATERIALS.
- THE FINAL SUBGRADE/EXISTING AGGREGATE BASE SHOULD BE THOROUGHLY PROOF ROLLED USING A FULLY LOADED TANDEM AXLE TRUCK OR FRONT END LOADER UNDER THE OBSERVATION OF A GEOTECHNICAL/PAVEMENT ENGINEER. LOOSE OR YIELDING AREAS THAT CANNOT BE MECHANICALLY STABILIZED SHOULD BE REINFORCED USING GEOGRIDS OR REMOVED AND REPLACED WITH ENGINEERED FILL OR AS DICTATED BY FIELD CONDITIONS.
- SUBGRADE UNDERCUTTING, INCLUDING BACKFILLING SHALL BE PERFORMED TO REPLACE MATERIALS SUSCEPTIBLE TO FROST HEAVING AND UNSTABLE SOIL CONDITIONS. ANY EXCAVATIONS THAT MAY BE REQUIRED BELOW THE TOPSOIL IN FILL AREAS OR BELOW SUBGRADE IN CUT AREAS WILL BE CLASSIFIED AS SUBGRADE UNDERCUTTING.
- SUBGRADE UNDERCUTTING SHALL BE PERFORMED WHERE NECESSARY AND THE EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. ANY SUBGRADE UNDERCUTTING SHALL BE BACKFILLED AS RECOMMENDED IN THE GEOTECHNICAL ENGINEERING REPORT FOR THE PROJECT.
- ANY SUB-GRADE WATERING REQUIRED TO ACHIEVE REQUIRED DENSITY SHALL BE CONSIDERED INCIDENTAL TO THE JOB.
- MINOR ADJUSTMENTS TO STRUCTURE COVERS (<6") IS CONSIDERED INCIDENTAL TO CONSTRUCTION.

**SYMBOLS: EROSION CONTROL**

- SILT FENCE (REFER TO DETAIL ON SHEET C-6.1 SHEET)
- INLET FILTER (REFER TO DETAIL ON SHEET C-6.1 SHEET)
- EROSION CONTROL BLANKETS
- APPROXIMATE SEEDING & MULCH BLANKET RESTORATION LOCATIONS
- LIMITS OF DISTURBANCE

**STREET CLEANING SCHEDULE**

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
SCRAPE STREETS		X	X	X	X	X	X
SWEEP STREETS				X			

**QUANTITIES THIS SHEET:**

AREA OF DISTURBANCE	1.1	AC
TOPSOIL SURFACE, FURNISH LM 3"	85	CYD
TOPSOIL SURFACE, PLACE	2515	SYD
SEED AND MULCH	2515	SYD
EROSION CONTROL, SILT FENCE	251	LF
EROSION CONTROL, INLET FILTER	2	EA

**SOIL EROSION MAINTENANCE SCHEDULE AND NOTES:**

THE CONTRACTOR SHALL CONTACT WAYNE COUNTY SOIL EROSION OFFICE 48 HOURS BEFORE WORK IS TO BEGIN (734-328-3936).

THE CONTRACTOR SHALL INSPECT THE SOIL EROSION AND SEDIMENTATION CONTROL DEVICES ONCE EACH WEEK AND/OR WITHIN 24 HOURS OF A RAINFALL EVENT WHICH RESULTS IN A STORM WATER DISCHARGE FROM THE SITE. THE FOLLOWING STEPS SHALL BE IMPLEMENTED IF ANY DAMAGE HAS OCCURRED.

- ANY DEBRIS OR DIRT ON ANY PAVED AREA RESULTING FROM CONSTRUCTION TRAFFIC SHALL BE CLEANED IN A PROMPT MANNER BY THE CONTRACTOR. THE CONSTRUCTION DRIVE SHALL BE CLEANED AT THE END OF EACH DAY.
- ALL DIRT AND MUD TRACKED ONTO PAVED AREAS SHALL BE REMOVED DAILY BY SCRAPING. STREET SWEEPING IS REQUIRED WEEKLY.
- SILT FENCE MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY BUILT UP SEDIMENT WHEN THE SEDIMENT HEIGHT ACCUMULATES TO 1/3 TO 1/2 OF THE HEIGHT OF THE FENCE. THE CONTRACTOR IS RESPONSIBLE TO REMOVE, REPLACE, RETRENCH OR REBACKFILL THE SILTATION FENCE SHOULD IT FALL OR BE DAMAGED DURING CONSTRUCTION.
- INLET FILTER MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY ACCUMULATED SILT OR OTHER DEBRIS. THE REMOVAL OF SILT SHOULD BE WITH THE USE OF A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL. IF INLET FILTERS CAN NOT BE CLEANED OR ARE DAMAGED, THEN THE FABRIC MUST BE REPLACED.
- A WATER TRUCK SHALL BE AVAILABLE TO WATER DOWN THE SITE ON A DAILY BASIS AS REQUIRED TO MAINTAIN DUST CONTROL.

**FINAL INSPECTION AND CERTIFICATE OF COMPLETION REQUIREMENTS:**

- ALL ITEMS ON APPROVED SESC PLAN AND PERMIT MUST BE COMPLETED.
- ALL DISTURBED EARTH MUST BE PERMANENTLY STABILIZED WITH VEGETATION OR HARD SURFACE.
- ACCUMULATED SEDIMENT MUST BE REMOVED FROM THE SITE AND AFFECTED STORM SEWER SYSTEM.
- ALL TEMPORARY SESC DEVICES MAY BE REMOVED AFTER CERTIFICATE OF COMPLETION.

**NOT FOR CONSTRUCTION**

**C-4.1**



**LEGEND**

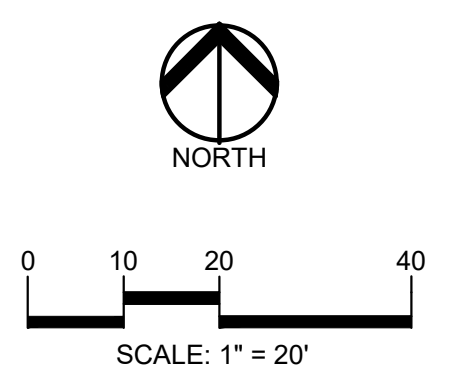
● IRON FOUND	⊗ BRASS PLUG SET	⊙ SEC. CORNER FOUND
⊗ IRON SET	⊙ MONUMENT FOUND	⊙ R. RECORDED
⊗ NAIL FOUND	⊙ MONUMENT SET	⊙ M. MEASURED
⊗ NAIL & CAP SET		⊙ C. CALCULATED

— 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 & MANHOLE
⊗ GAS VALVE	GAS VALVE & GAS LINE MARKER
⊗ WATERMAN	WATERMAN, HYD. GATE VALVE, TAPPING BLEEVE & VALVE
⊗ SANITARY SEWER	SANITARY SEWER, CLEANOUT & MANHOLE
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⊗ UNIDENTIFIED STRUCTURE	UNIDENTIFIED STRUCTURE
⊗ SPOT ELEVATION	SPOT ELEVATION
— 670 —	CONTOUR LINE
— X —	FENCE
— X —	GUARD RAIL
— X —	STREET LIGHT
— X —	SIGN
— CONC. —	CONCRETE
— ASPH. —	ASPHALT
— GRAVEL —	GRAVEL SHOULDER
— WETLAND —	WETLAND

⊗ 310	HEAVY FLOW DUTY
⊗ 310	HEAVY FLOW DUTY ONLY
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⊗ 310	HEAVY BEEP DUTY STRENGTH



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CLIENT  
**VAN BUREN TOWNSHIP**  
46425 TYLER ROAD  
VAN BUREN, MICHIGAN

**VAN BUREN**  
CHARTER TOWNSHIP

PROJECT TITLE  
**IRON BELLE TRAIL - SECTION J**  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN



REVISIONS	
ORIGINAL ISSUE	12/2/20
REVISION	1/27/21
REVISION	NORFOLK SOUTHERN 11/10/21
REVISION	PER MDOT ORDER 9/01/22
REVISION	PER TWP 1/24/24

ORIGINAL ISSUE DATE:  
DECEMBER 3, 2020

DRAWING TITLE  
**GRADING SHEET**

PEA JOB NO.	2020-0095
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

**C-4.2**

**SYMBOLS: GRADING**

PROPOSED SPOT ELEVATION:  
TYPICALLY TOP OF PAVEMENT IN PAVED AREAS, GUTTER GRADE IN CURB LINES.

PROPOSED CONTOUR LINE

ABBREVIATIONS:  
T/C = TOP OF CURB  
G = GUTTER GRADE  
T/P = TOP OF PAVEMENT  
T/S = TOP OF SIDEWALK  
T/W = TOP OF WALL  
B/W = BOTTOM OF WALL  
F.G. = FINISH GRADE  
RIM = RIM ELEVATION

**EARTHWORK BALANCING NOTE:**

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— EROSION CONTROL BLANKETS

— APPROXIMATE SEEDING RESTORATION LOCATIONS

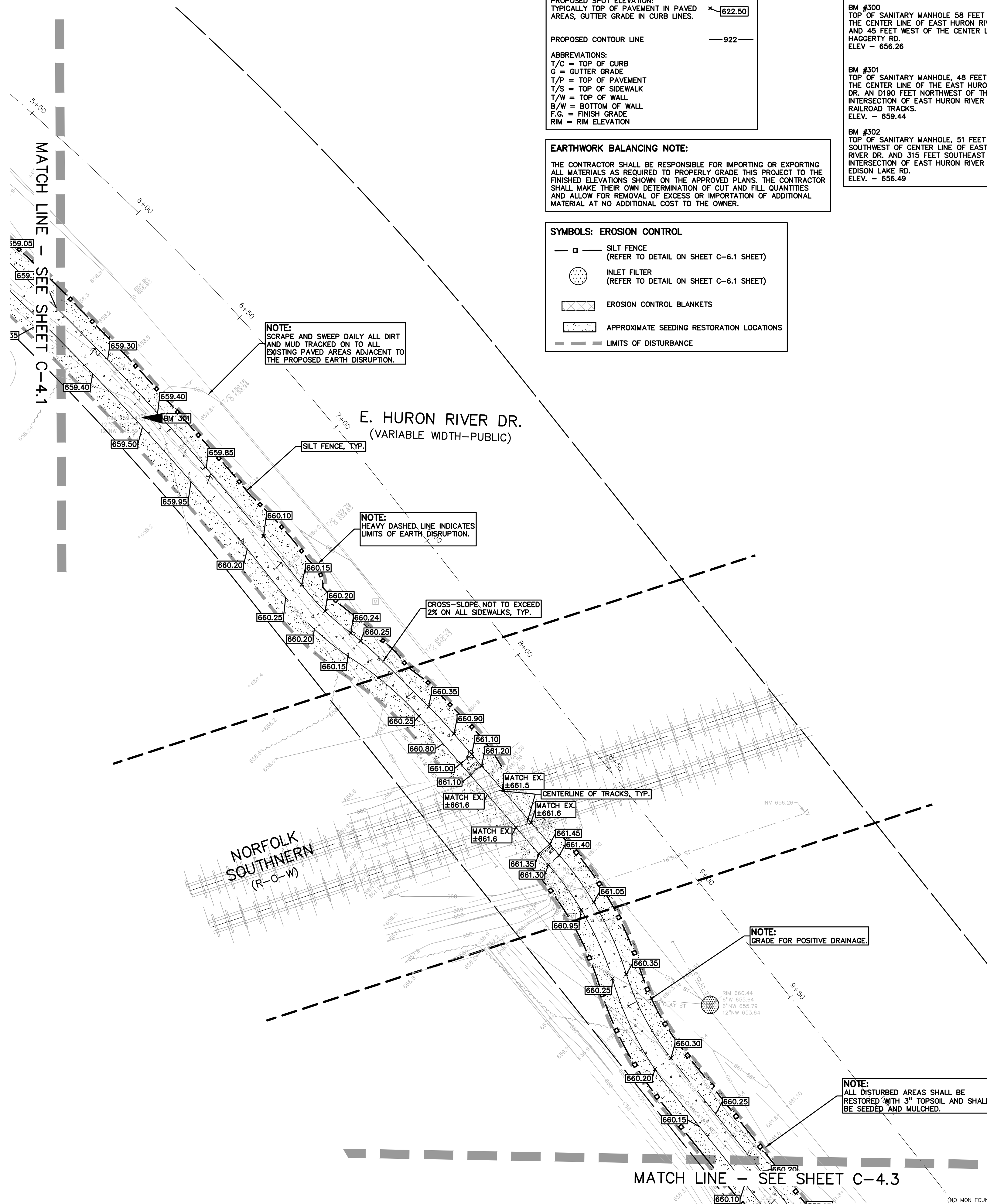
— LIMITS OF DISTURBANCE

**BENCHMARKS**  
(GPS DERIVED - NAVD 88)

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TOP OF SANITARY MANHOLE 58 FEET SOUTH OF THE CENTER LINE OF EAST HURON RIVER DR. AND 45 FEET WEST OF THE CENTER LINE OF HAGGERTY RD.  
ELEV. - 656.26

**BM #301**  
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ELEV. - 656.44

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ELEV. - 656.49

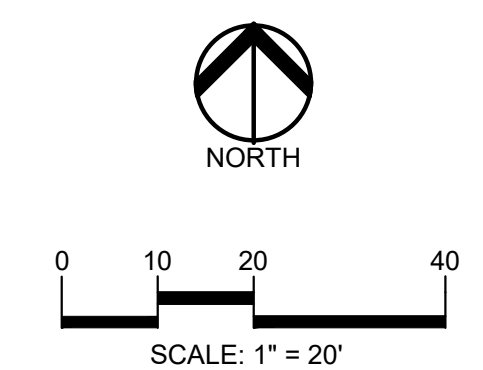


**TRAIL PLAN—E. HURON RIVER DR.**  
STA 5+62 TO STA 10+00

**NOT FOR CONSTRUCTION**

S:\PROJECTS\2020\2020-0095-81-VAN BUREN-TWP\CONSTRUCTION\C4.0 - GRADING-81-20-0095.dwg





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 48425 TYLER ROAD  
 VAN BUREN, MICHIGAN

**VAN BUREN**  
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PROJECT TITLE  
**IRON BELLE TRAIL - SECTION J**  
 VAN BUREN TOWNSHIP  
 VAN BUREN, MICHIGAN



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ORIGINAL ISSUE DATE:  
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DRAWING TITLE  
**GRADING SHEET**

PEA JOB NO.	2020-0095
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

**NOT FOR CONSTRUCTION** **C-4.3**

**LEGEND**

- |                 |                  |                     |
|-----------------|------------------|---------------------|
| ● IRON FOUND    | ⊗ BRASS PLUG SET | ⊙ SEC. CORNER FOUND |
| ⊗ IRON SET      | ⊗ MONUMENT FOUND | R RECORDED          |
| ⊗ NAL FOUND     | ⊗ MONUMENT SET   | M MEASURED          |
| ⊗ NAL & CAP SET |                  | C CALCULATED        |
- 
- |   |   |
|---|---|
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| — SPOT ELEVATION                                      |   |
| — CONTOUR LINE  |   |
| — FENCE   |   |
| — GUARD RAIL  |   |
| — STREET LIGHT  |   |
| — SIGN  |   |
| — CONC.   | CONCRETE  |
| — ASPH.   | ASPHALT   |
| — GRAVEL  | GRAVEL SHOULDER                                   |
| — WETLAND   | WETLAND   |

**REFERENCE DRAWINGS**

- SANITARY SEWER DOWN RIVER SEWAGE DISPOSAL SYSTEM, PART OF CONTRACT NO. 15-SA-6-1, DATED 04/11/02, SHEET 3 OF 7
- DTE ELECTRIC FACILITY MAP #241-280, DATED 04/09/2020
- ATAI MAPS A1 & A2, DATED 03/19/2020
- CONCAST MAP, 1584L, DATED 03/19/2020
- DTE GAS COMPANY MAP DATED 03/23/2020

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 T/P = TOP OF PAVEMENT  
 T/S = TOP OF SIDEWALK  
 T/W = TOP OF WALL  
 B/W = BOTTOM OF WALL  
 F.G. = FINISH GRADE  
 R.M. = RIM ELEVATION

**EARTHWORK BALANCING NOTE:**

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

**SYMBOLS: EROSION CONTROL**

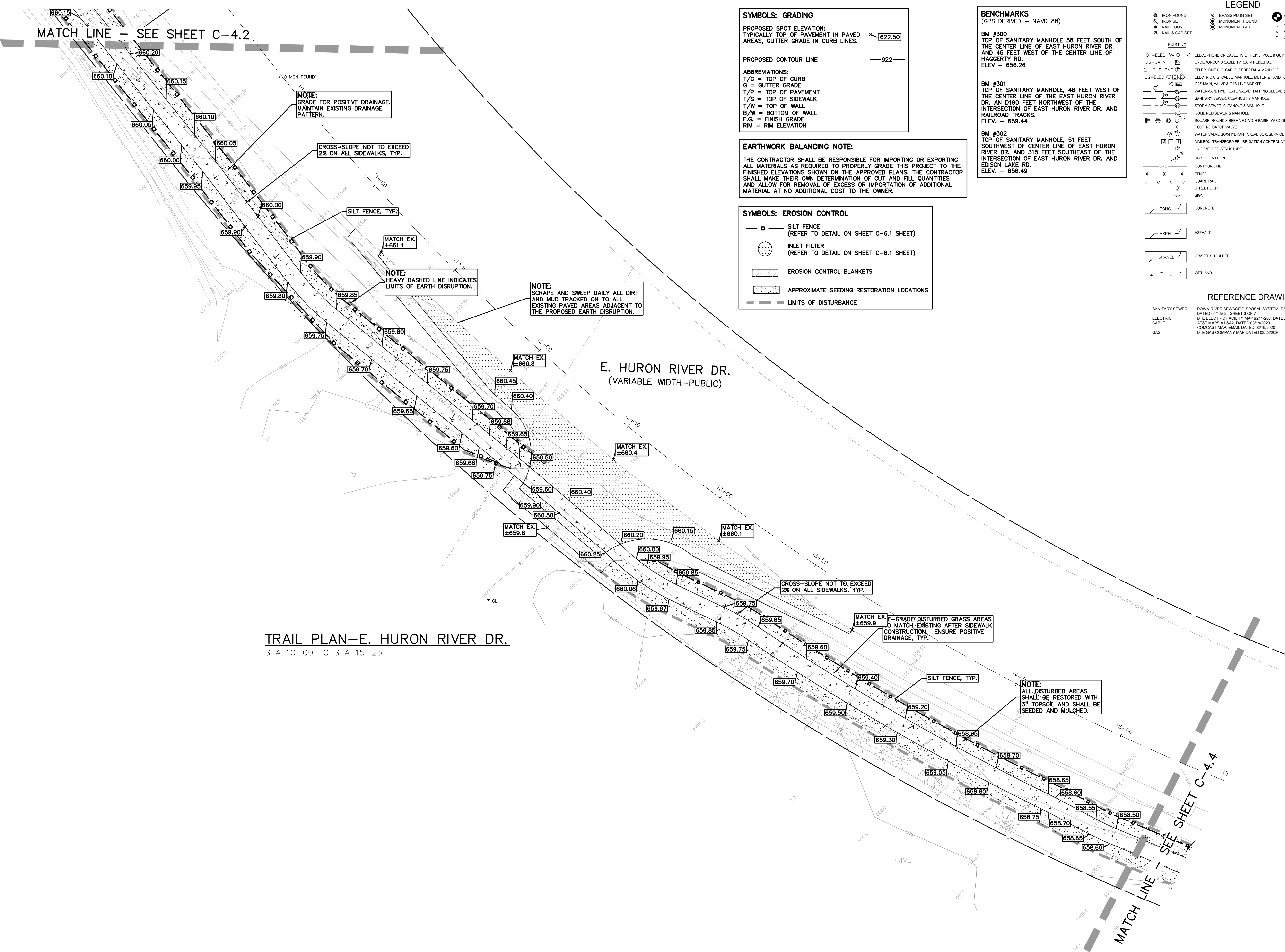
— SILT FENCE (REFER TO DETAIL ON SHEET C-6.1 SHEET)

— INLET FILTER (REFER TO DETAIL ON SHEET C-6.1 SHEET)

— EROSION CONTROL BLANKETS

— APPROXIMATE SEEDING RESTORATION LOCATIONS

— LIMITS OF DISTURBANCE



**TRAIL PLAN - E. HURON RIVER DR.**  
 STA 10+00 TO STA 15+25

**E. HURON RIVER DR.**  
 (VARIABLE WIDTH - PUBLIC)

S:\PROJECTS\2020\2020-0095-0095-BT-VAN-BUREN-TWP\CONSTRUCTION\C4.3 - GRADING-BT-20-0095.dwg



**SYMBOLS: GRADING**

PROPOSED SPOT ELEVATION:  
TYPICALLY TOP OF PAVEMENT IN PAVED AREAS, GUTTER GRADE IN CURB LINES.  $\times$  622.50

PROPOSED CONTOUR LINE  $\text{---}$  922

ABBREVIATIONS:  
T/C = TOP OF CURB  
G = GUTTER GRADE  
T/P = TOP OF PAVEMENT  
T/S = TOP OF SIDEWALK  
T/W = TOP OF WALL  
B/W = BOTTOM OF WALL  
F.G. = FINISH GRADE  
R.M. = RIM ELEVATION

**EARTHWORK BALANCING NOTE:**

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**SYMBOLS: EROSION CONTROL**

SILT FENCE (REFER TO DETAIL ON SHEET C-6.1 SHEET)

INLET FILTER (REFER TO DETAIL ON SHEET C-6.1 SHEET)

EROSION CONTROL BLANKETS

APPROXIMATE SEEDING RESTORATION LOCATIONS

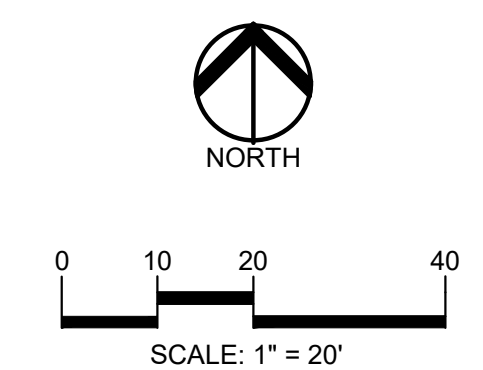
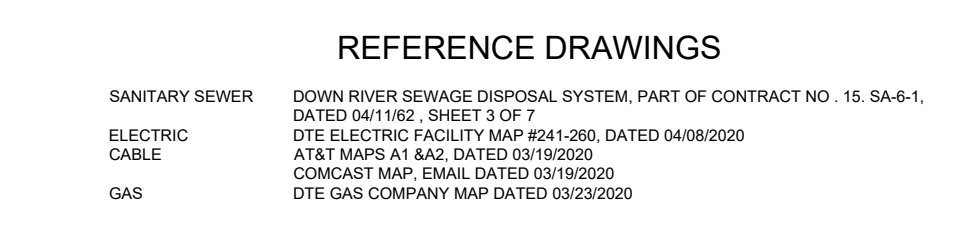
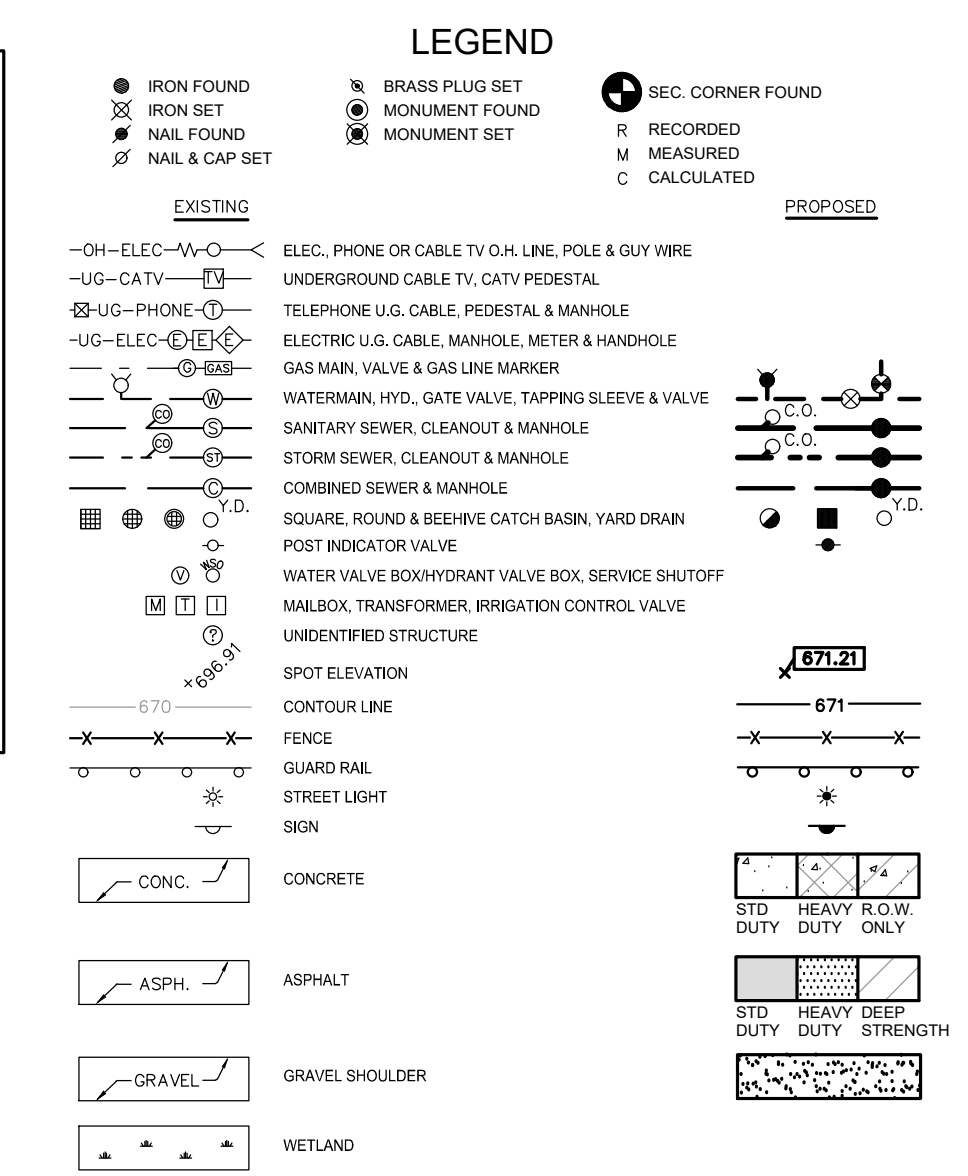
LIMITS OF DISTURBANCE

**BENCHMARKS**  
(GPS DERIVED - NAVD 88)

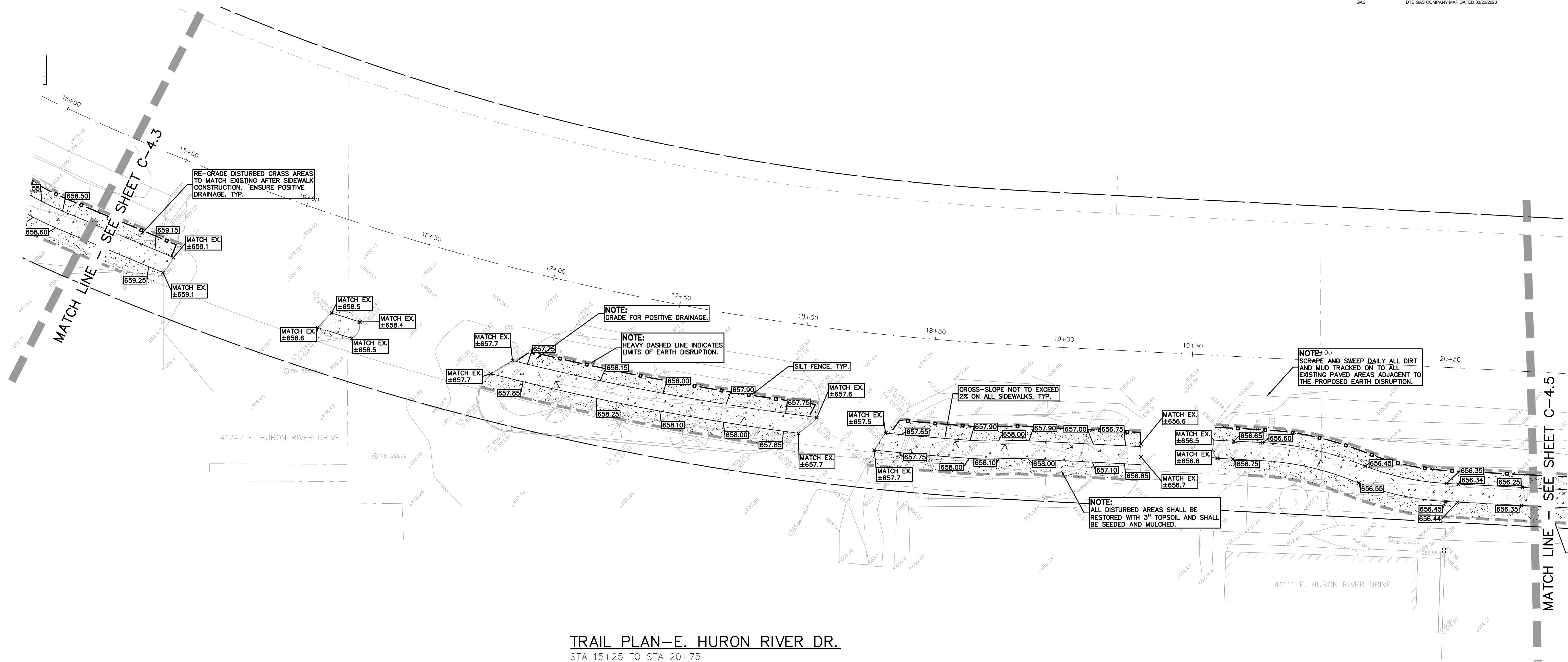
BM #300  
TOP OF SANITARY MANHOLE, 58 FEET SOUTH OF THE CENTER LINE OF EAST HURON RIVER DR. AND 45 FEET WEST OF THE CENTER LINE OF HAGGERTY RD.  
ELEV. - 656.26

BM #301  
TOP OF SANITARY MANHOLE, 48 FEET WEST OF THE CENTER LINE OF THE EAST HURON RIVER DR. AN D190 FEET NORTHWEST OF THE INTERSECTION OF EAST HURON RIVER DR. AND RAILROAD TRACKS.  
ELEV. - 659.44

BM #302  
TOP OF SANITARY MANHOLE, 51 FEET SOUTHWEST OF CENTER LINE OF EAST HURON RIVER DR. AND 315 FEET SOUTHWEST OF THE INTERSECTION OF EAST HURON RIVER DR. AND EDISON LAKE RD.  
ELEV. - 659.49



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



**TRAIL PLAN-E. HURON RIVER DR.**  
STA 15+25 TO STA 20+75

CLIENT  
**VAN BUREN TOWNSHIP**  
48425 TYLER ROAD  
VAN BUREN, MICHIGAN

**VAN BUREN**  
CHARTER TOWNSHIP

PROJECT TITLE  
**IRON BELLE TRAIL - SECTION J**  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN



**REVISIONS**

ORIGINAL ISSUE	12/2/20
REVISION 1/27/21	
REVISION NORFOLK SOUTHERN	11/10/21
REVISION PER MDOT ORDER	9/01/22
REVISION PER TWP	1/24/24

ORIGINAL ISSUE DATE:  
DECEMBER 3, 2020

DRAWING TITLE  
**GRADING SHEET**

PEA JOB NO.	2020-0095
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

**NOT FOR CONSTRUCTION** **C-4.4**

S:\PROJECTS\2020-0095-0095-01-VAN BUREN-TWP\CONSTRUCTION\24.0 - GRADING - 20-0095.dwg



**SYMBOLS: GRADING**

PROPOSED SPOT ELEVATION:  
TYPICALLY TOP OF PAVEMENT IN PAVED AREAS, GUTTER GRADE IN CURB LINES. 622.50

PROPOSED CONTOUR LINE  922

ABBREVIATIONS:  
T/C = TOP OF CURB  
G = GUTTER GRADE  
T/P = TOP OF PAVEMENT  
T/S = TOP OF SIDEWALK  
T/W = TOP OF WALL  
B/W = BOTTOM OF WALL  
F.G. = FINISH GRADE  
RIM = RIM ELEVATION

**EARTHWORK BALANCING NOTE:**

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**SYMBOLS: EROSION CONTROL**

SILT FENCE  
(REFER TO DETAIL ON SHEET C-6.1 SHEET)

INLET FILTER  
(REFER TO DETAIL ON SHEET C-6.1 SHEET)

EROSION CONTROL BLANKETS

APPROXIMATE SEEDING RESTORATION LOCATIONS

LIMITS OF DISTURBANCE

**BENCHMARKS**  
(GPS DERIVED - NAVD 88)

**BM #300**  
TOP OF SANITARY MANHOLE 58 FEET SOUTH OF THE CENTER LINE OF EAST HURON RIVER DR. AND 45 FEET WEST OF THE CENTER LINE OF HAGGERTY RD.  
ELEV. - 656.26

**BM #301**  
TOP OF SANITARY MANHOLE, 48 FEET WEST OF THE CENTER LINE OF THE EAST HURON RIVER DR. AN D190 FEET NORTHWEST OF THE INTERSECTION OF EAST HURON RIVER DR. AND RAILROAD TRACKS.  
ELEV. - 659.44

**BM #302**  
TOP OF SANITARY MANHOLE, 51 FEET SOUTHWEST OF CENTER LINE OF EAST HURON RIVER DR. AND 315 FEET SOUTHEAST OF THE INTERSECTION OF EAST HURON RIVER DR. AND EDISON LAKE RD.  
ELEV. - 656.49

**LEGEND**

● IRON FOUND	⊗ BRASS PLUG SET	⊙ SEC. CORNER FOUND
⊗ IRON SET	⊗ MONUMENT FOUND	⊙ R. RECORDED
⊗ NAL FOUND	⊗ NAL & CAP SET	⊙ M. MEASURED
⊗ NAL & CAP SET		⊙ C. CALCULATED

**EXISTING**

- 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 MAN. VALVE & GAS LINE MARKER
- ⊗ WATERMAN. HYD. GATE VALVE, TAPPING BLEEDIE & VALVE
- ⊗ SANITARY SEWER, CLEANOUT & MANHOLE
- ⊗ STORM SEWER, CLEANOUT & MANHOLE
- ⊗ COMBINED SEWER & MANHOLE
- ⊗ SQUARE, ROUND & BEEHIVE CATCH BASIN, YARD DRAIN
- ⊗ POST INDICATOR VALVE
- ⊗ WATER VALVE BODY/HYDRANT VALVE BOX, SERVICE SHUTOFF
- ⊗ MAILBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
- ⊗ UNIDENTIFIED STRUCTURE

**PROPOSED**

- 670 CONTOUR LINE
- 671 CONTOUR LINE
- CONC. CONCRETE
- ASPH. ASPHALT
- GRAVEL GRAVEL SHOULDER
- WETLAND WETLAND
- 310 HEAVY FLOW DUTY ONLY
- 310 HEAVY BEEP DUTY STRENGTH

**REFERENCE DRAWINGS**

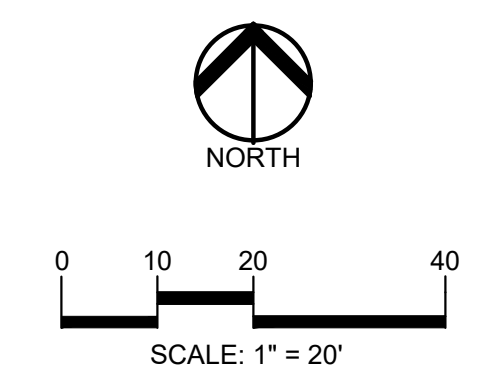
SANITARY SEWER DOWN RIVER SEWAGE DISPOSAL SYSTEM, PART OF CONTRACT NO. 15-SA-6-1, DATED 04/18/22, SHEET 3 OF 7

ELECTRIC DTE ELECTRIC FACILITY MAP #241-200, DATED 04/09/2020

CABLE AT&T MAPS A1 842, DATED 03/19/2020

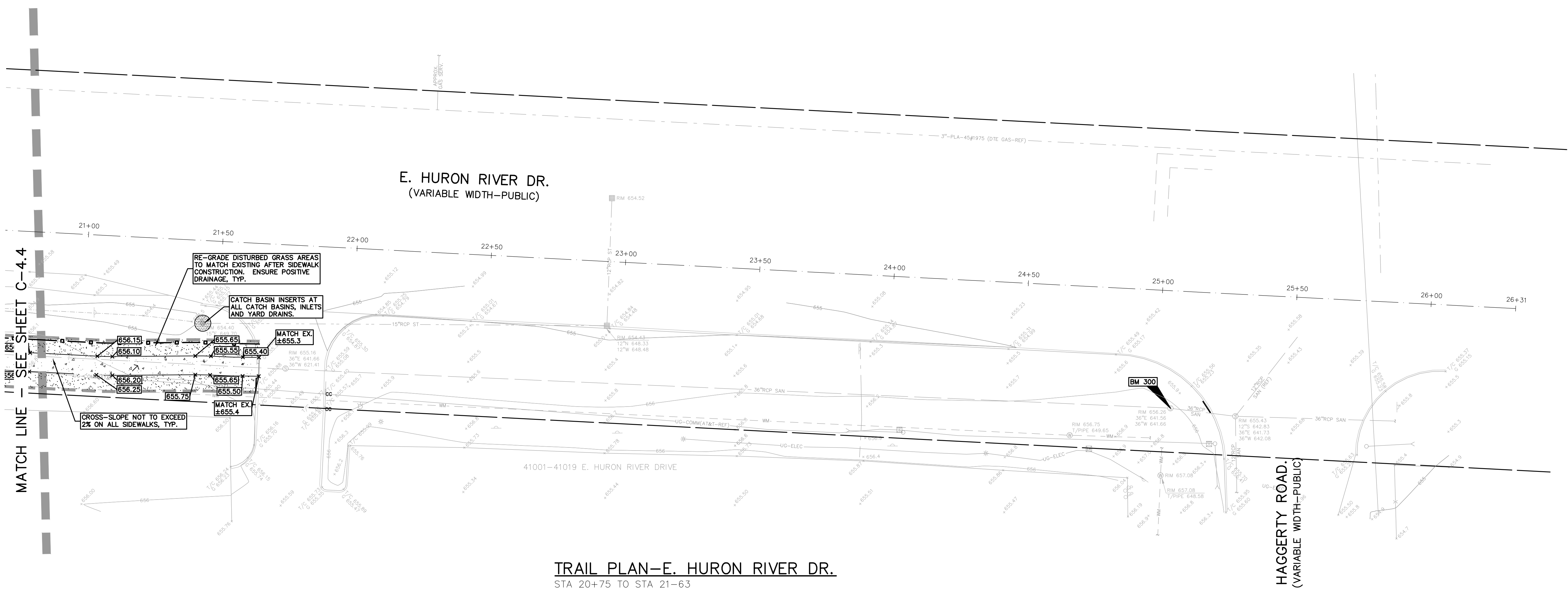
GAS COMCAST MAP (SHAL) DATED 03/19/2020

DTE GAS COMPANY MAP DATED 03/23/2020



**CAUTION!**

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**TRAIL PLAN-E. HURON RIVER DR.**  
STA 20+75 TO STA 21-63

CLIENT

**VAN BUREN TOWNSHIP**  
48425 TYLER ROAD  
VAN BUREN, MICHIGAN

**VAN BUREN**  
CHARTER TOWNSHIP

PROJECT TITLE

**IRON BELLE TRAIL - SECTION J**  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN



**REVISIONS**

ORIGINAL ISSUE	12/2/20
REVISION 1/27/21	
REVISION NORFOLK SOUTHERN	11/10/21
REVISION PER MDOT ORDER	9/01/22
REVISION PER TWP	1/24/24

ORIGINAL ISSUE DATE:  
DECEMBER 3, 2020

DRAWING TITLE  
**GRADING SHEET**

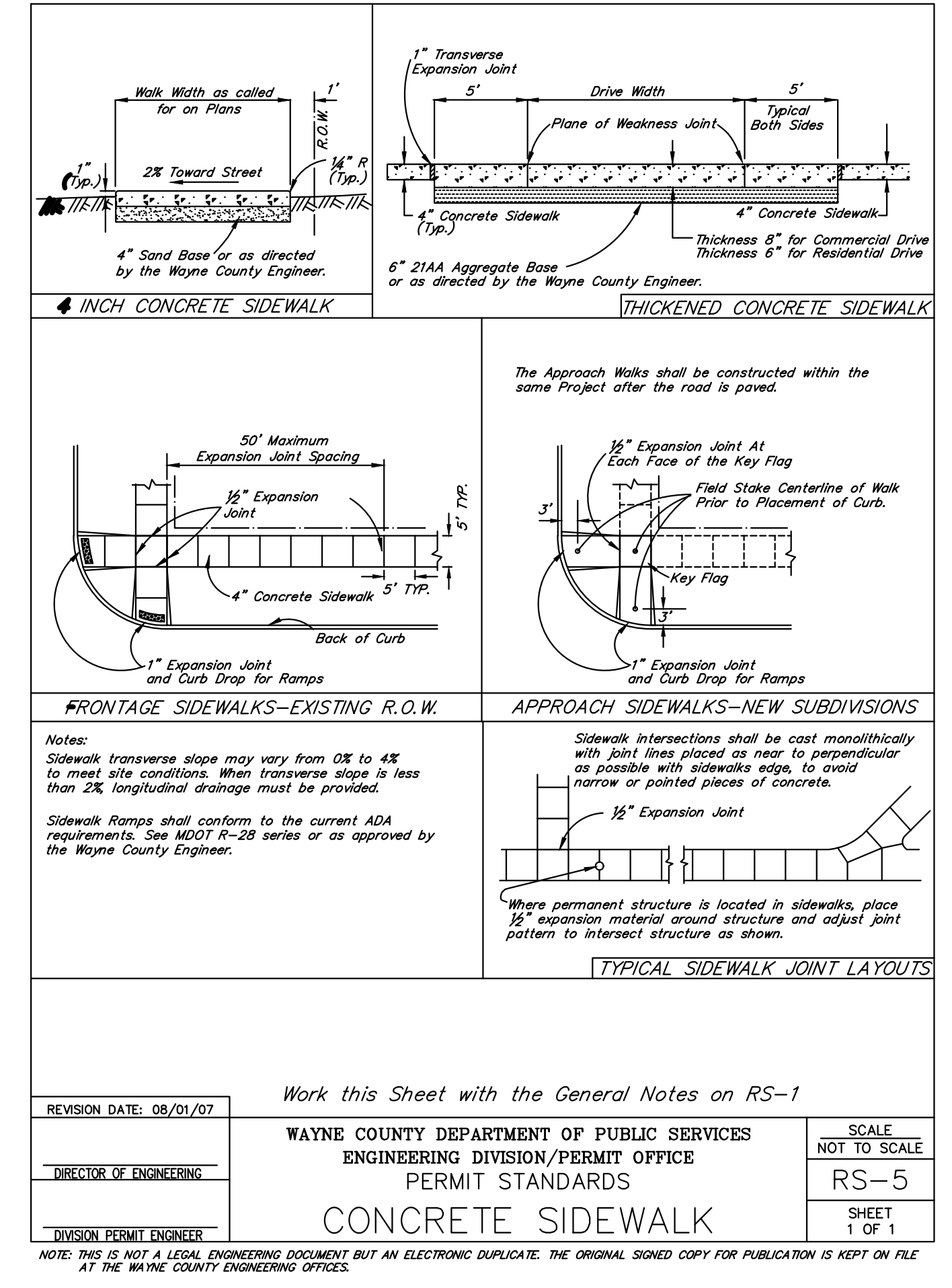
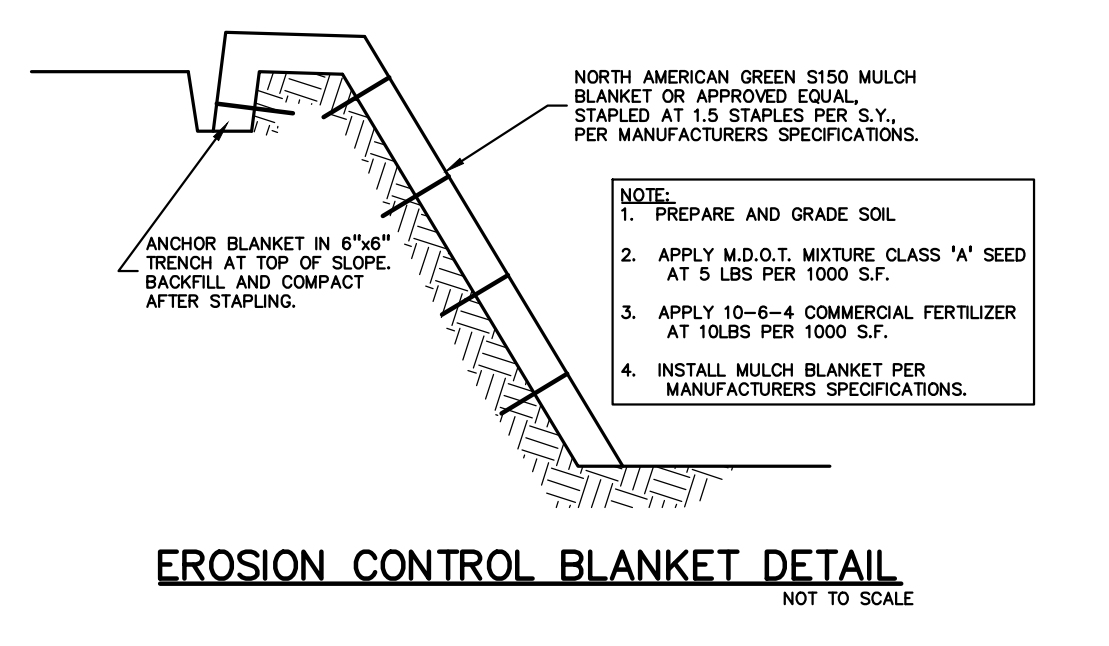
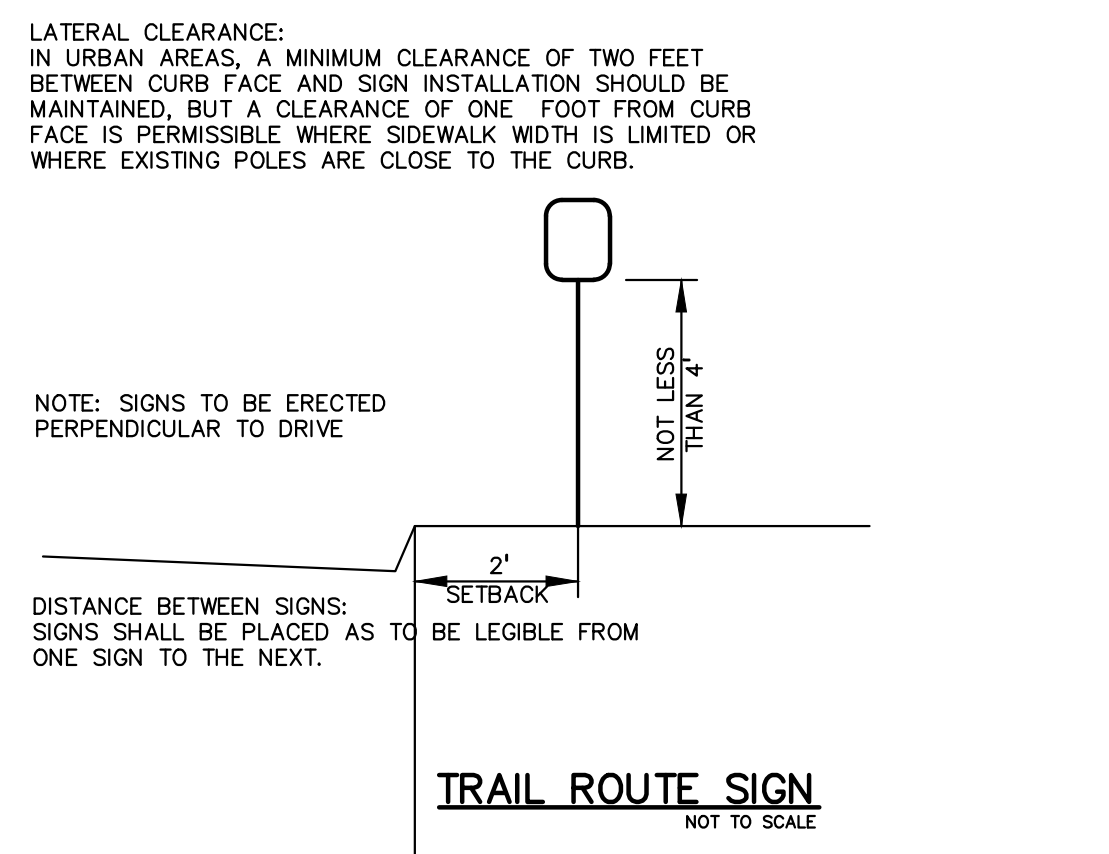
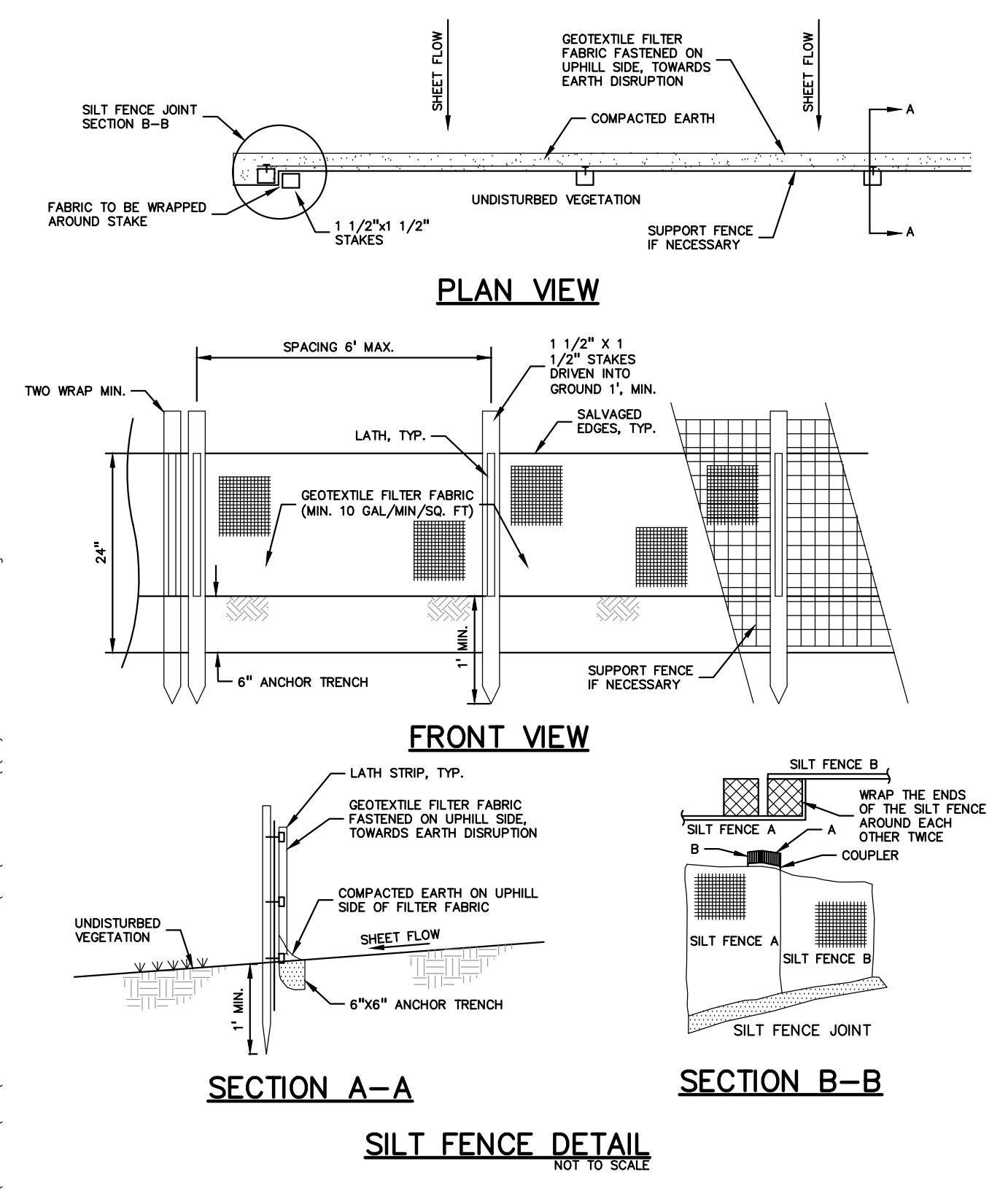
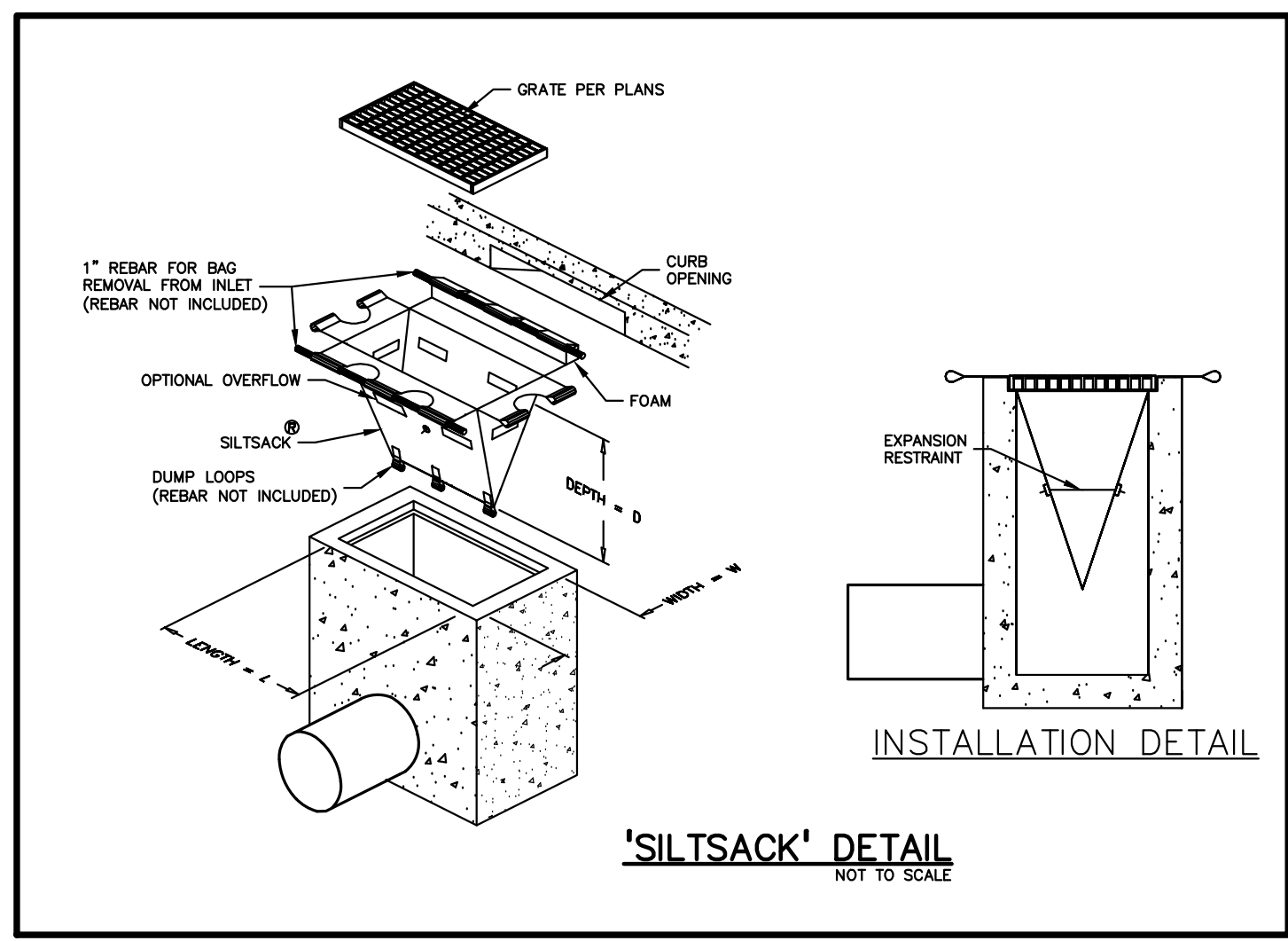
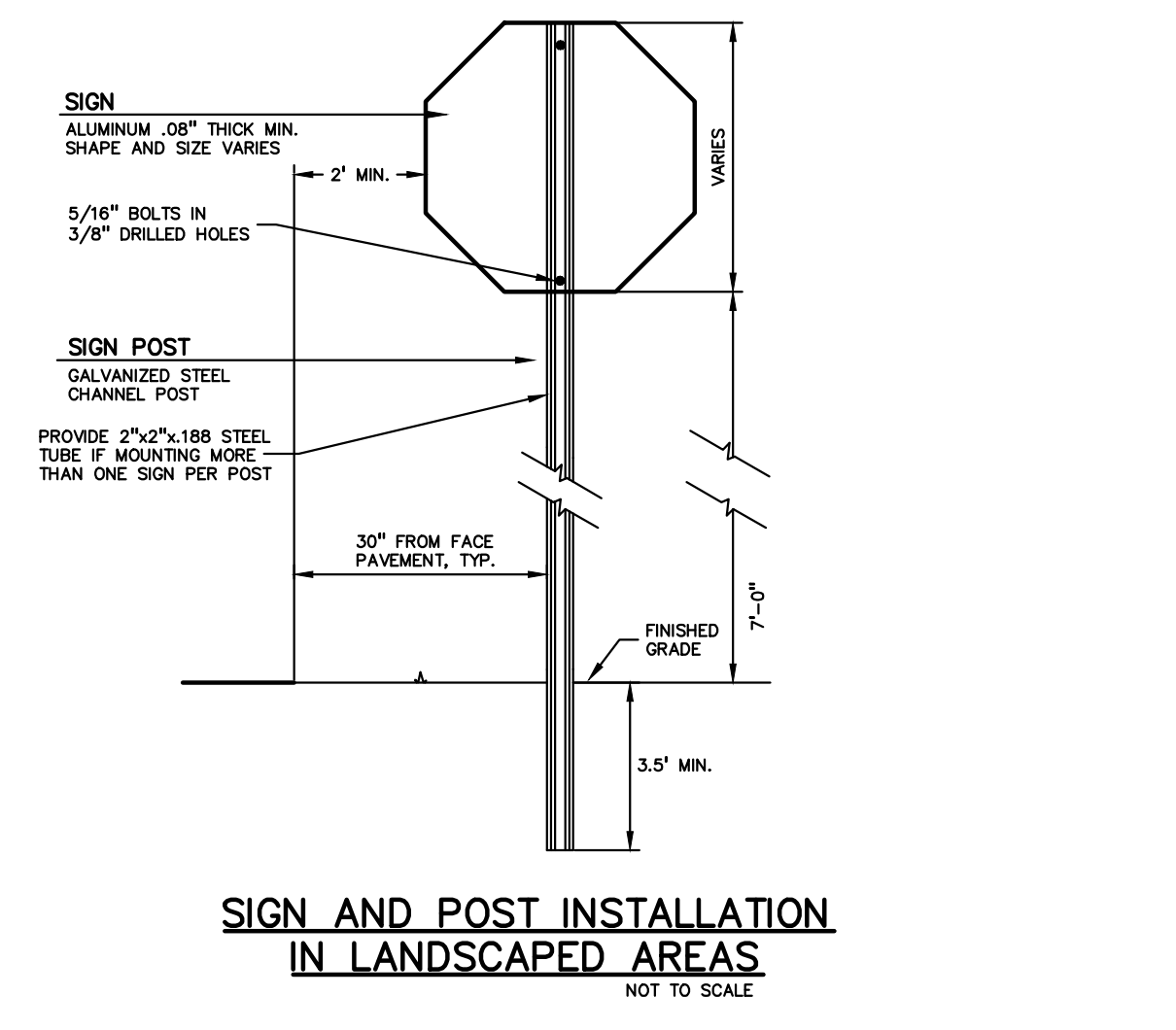
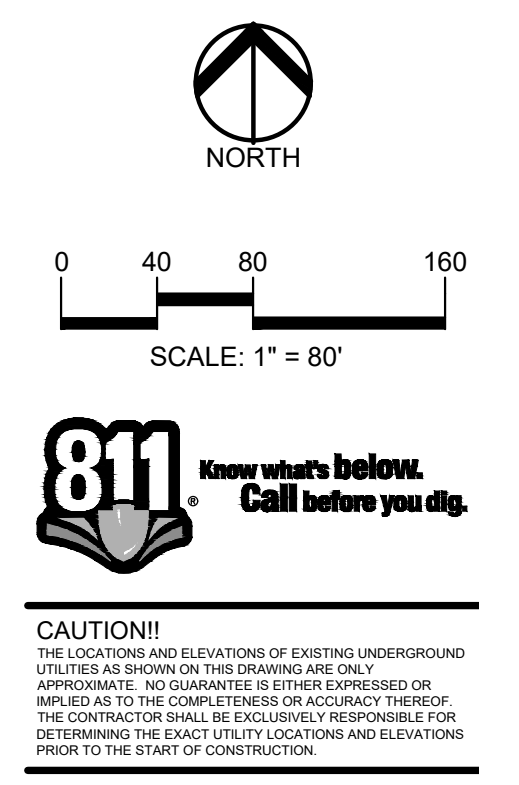
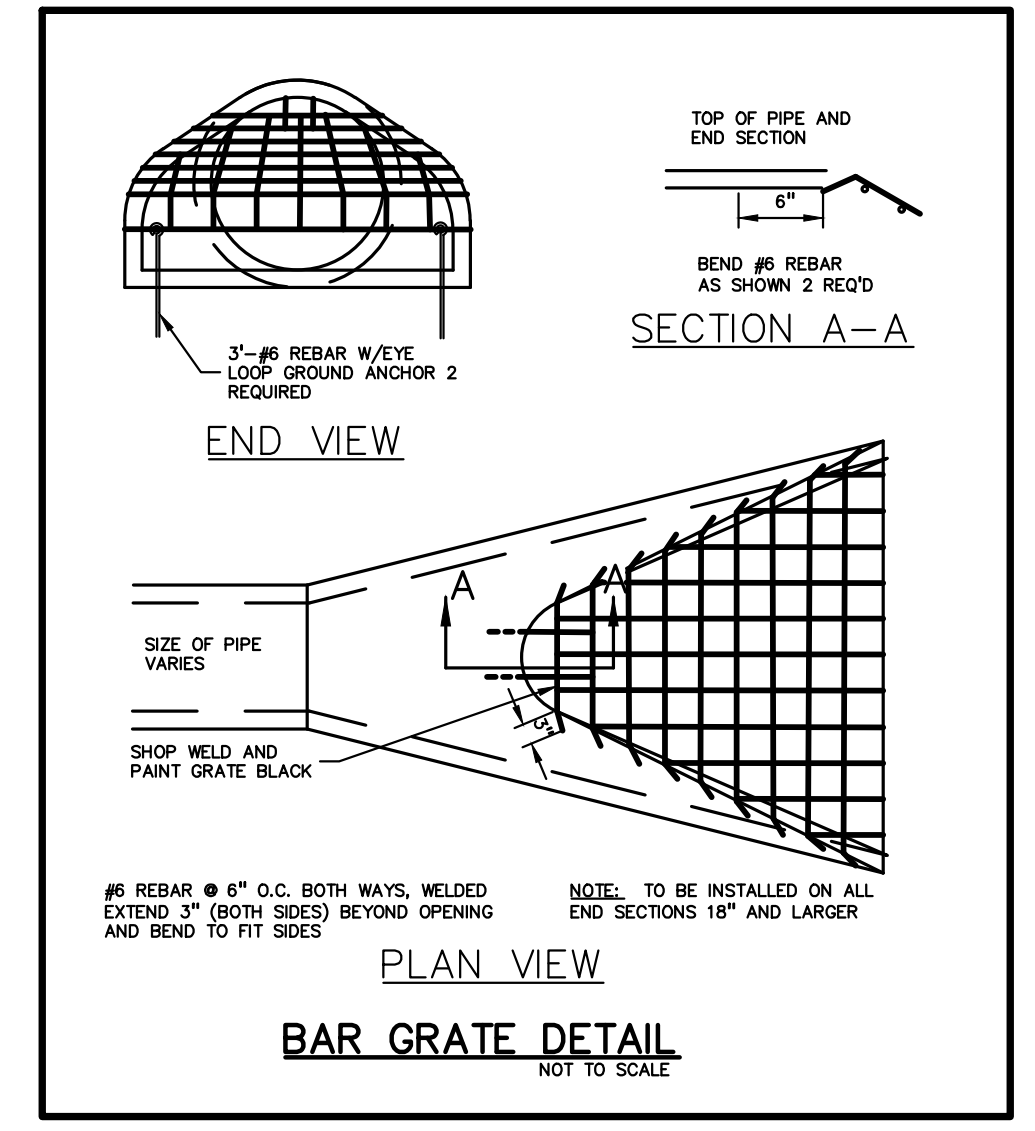
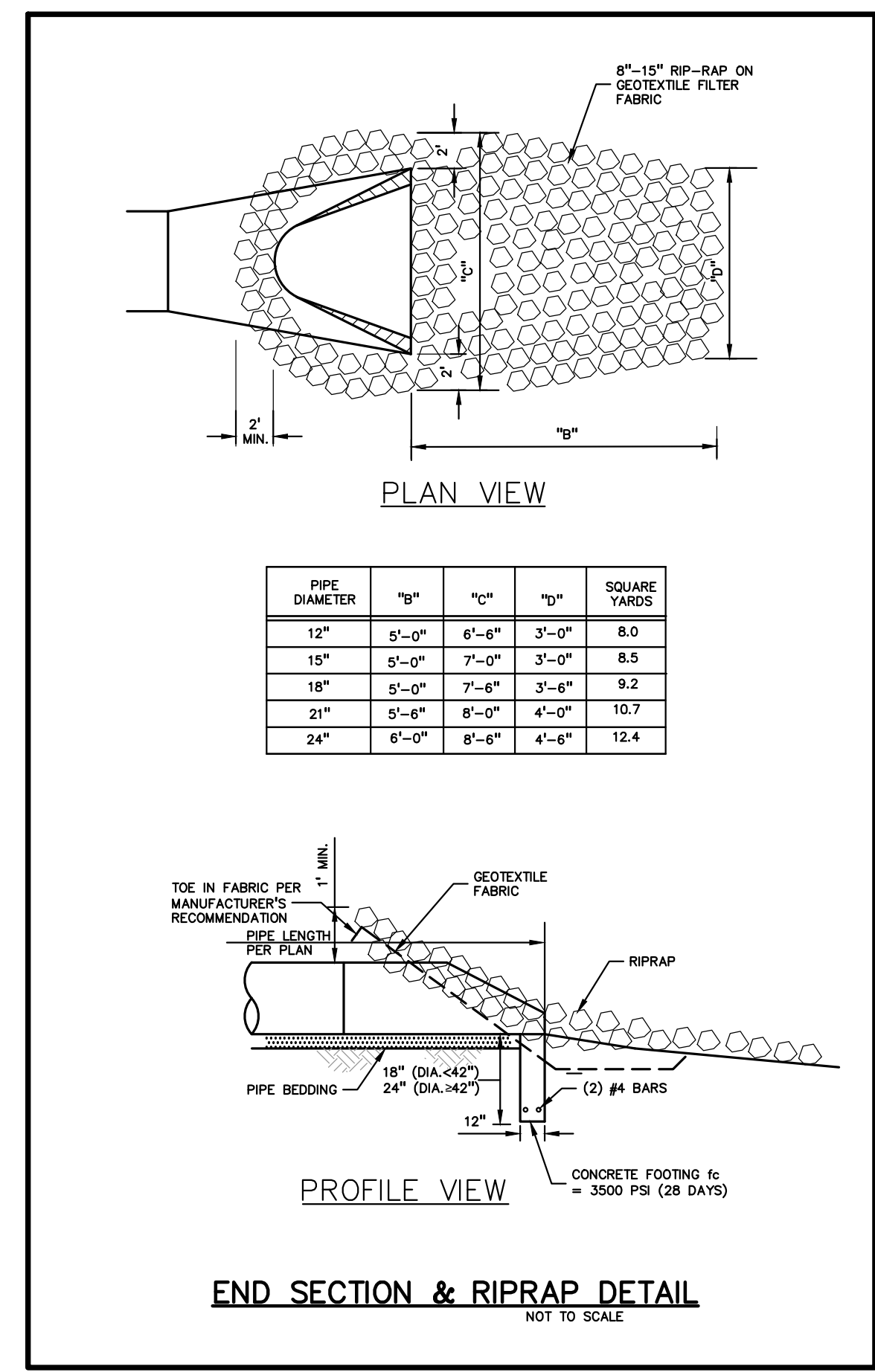
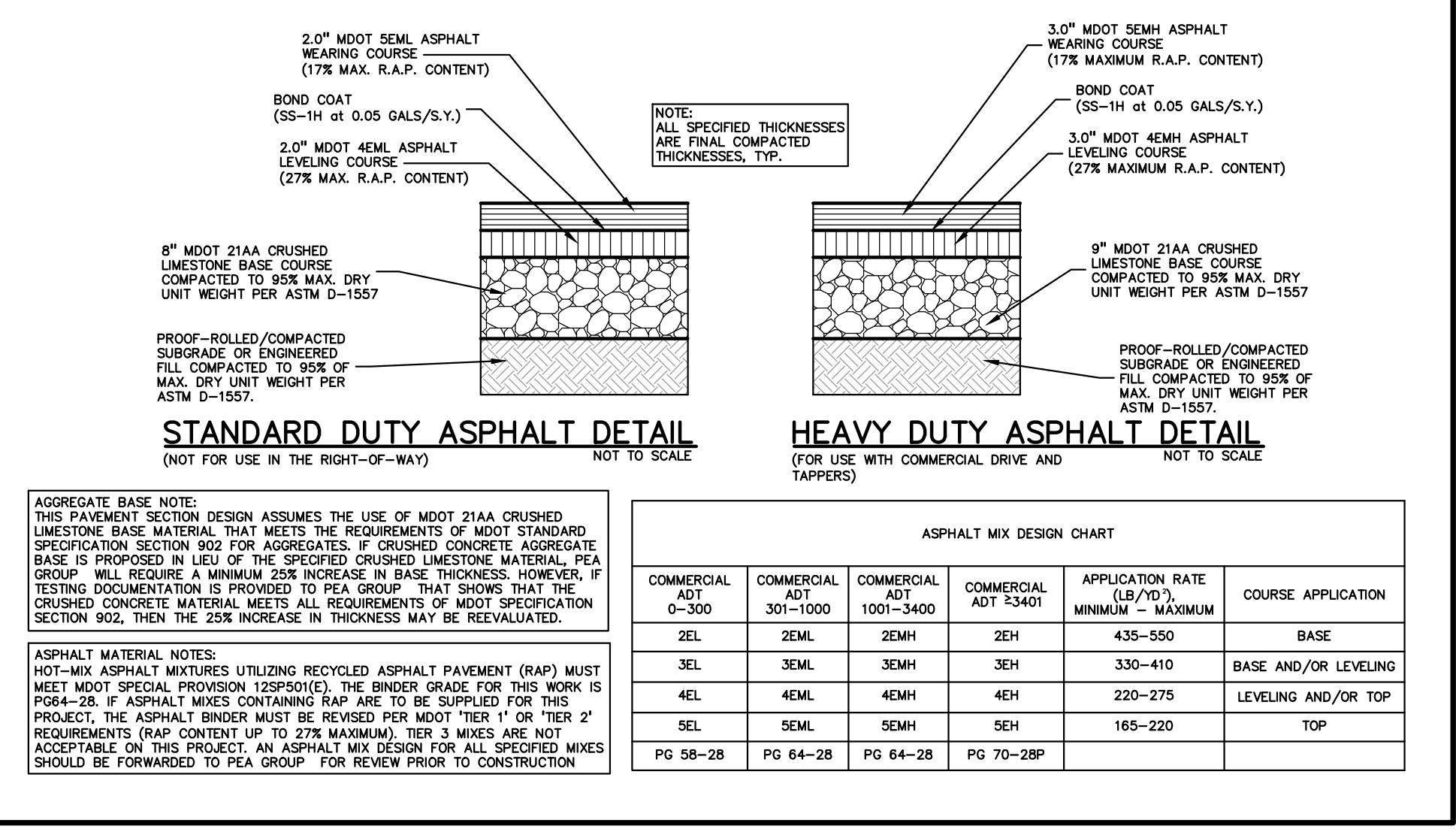
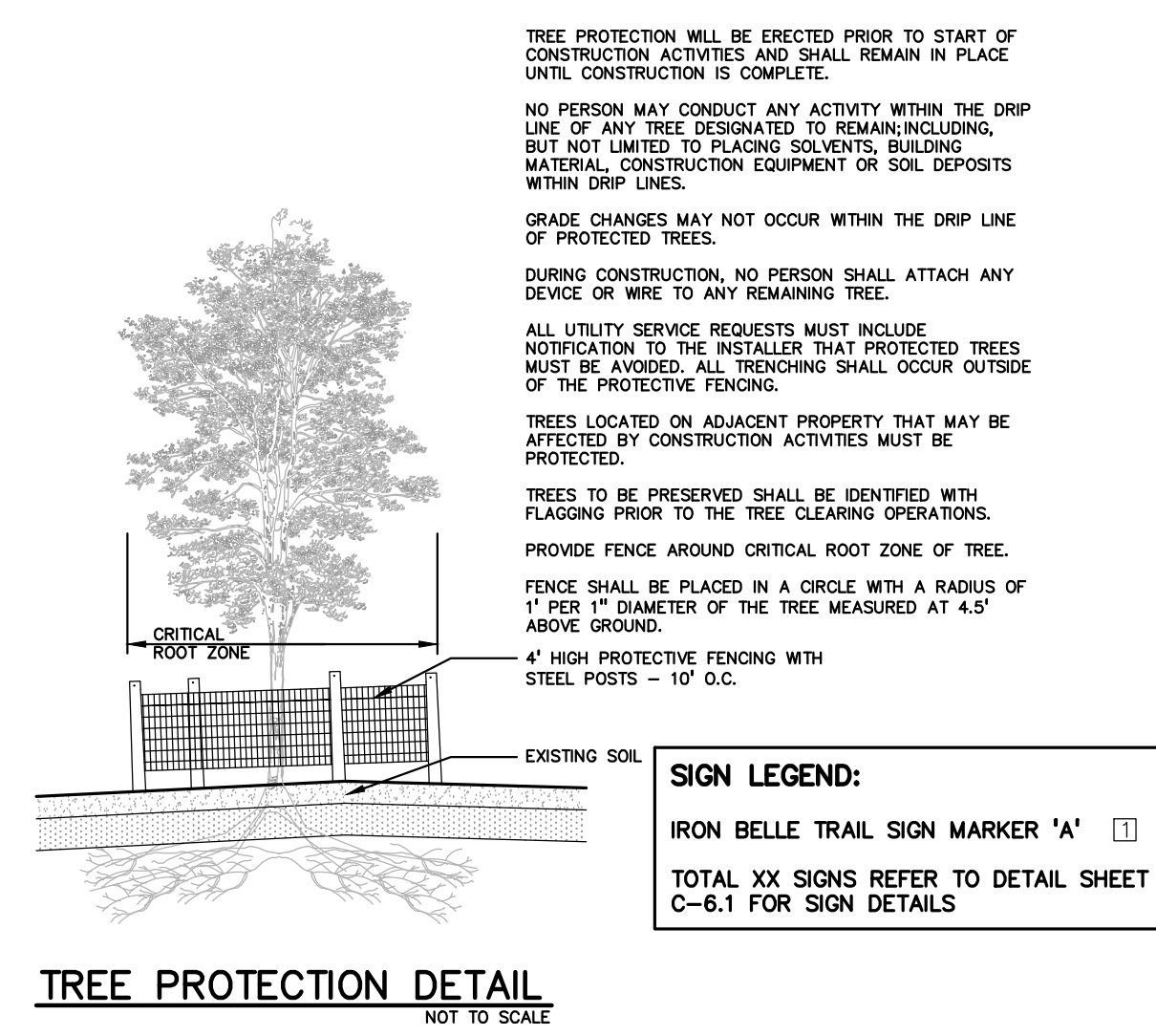
PEA JOB NO.	2020-0095
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

**NOT FOR CONSTRUCTION**

**C-4.5**

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**REVISIONS**

ORIGINAL ISSUE	12/2/20
REVISION 1/27/21	
REVISION NORFOLK SOUTHERN	11/10/21
REVISION PER MDOT ORDER	9/01/22
REVISION PER TWP	1/24/24

ORIGINAL ISSUE DATE:  
 DECEMBER 3, 2020

DRAWING TITLE  
**DETAIL SHEET**

PEA JOB NO. 2020-0095

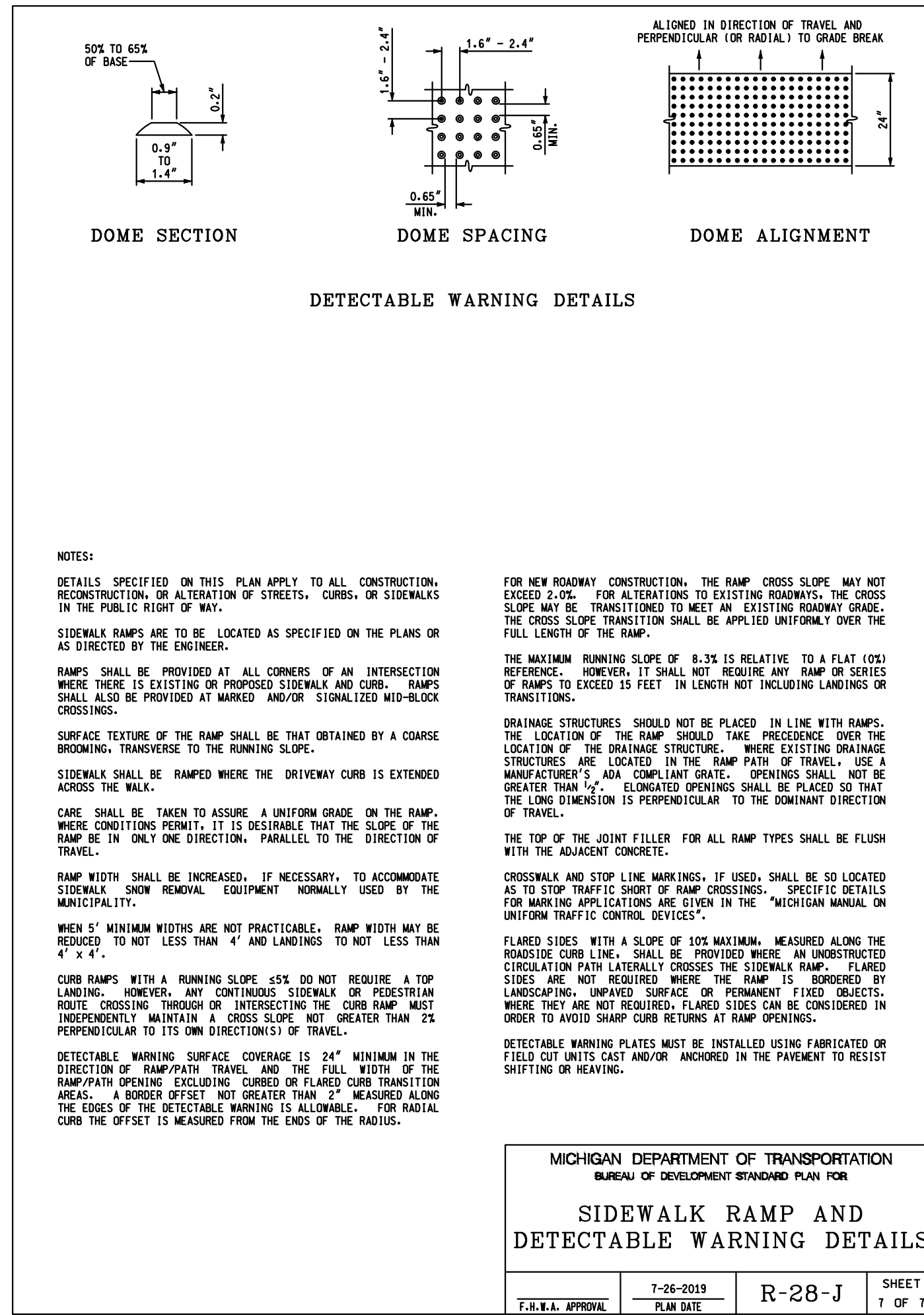
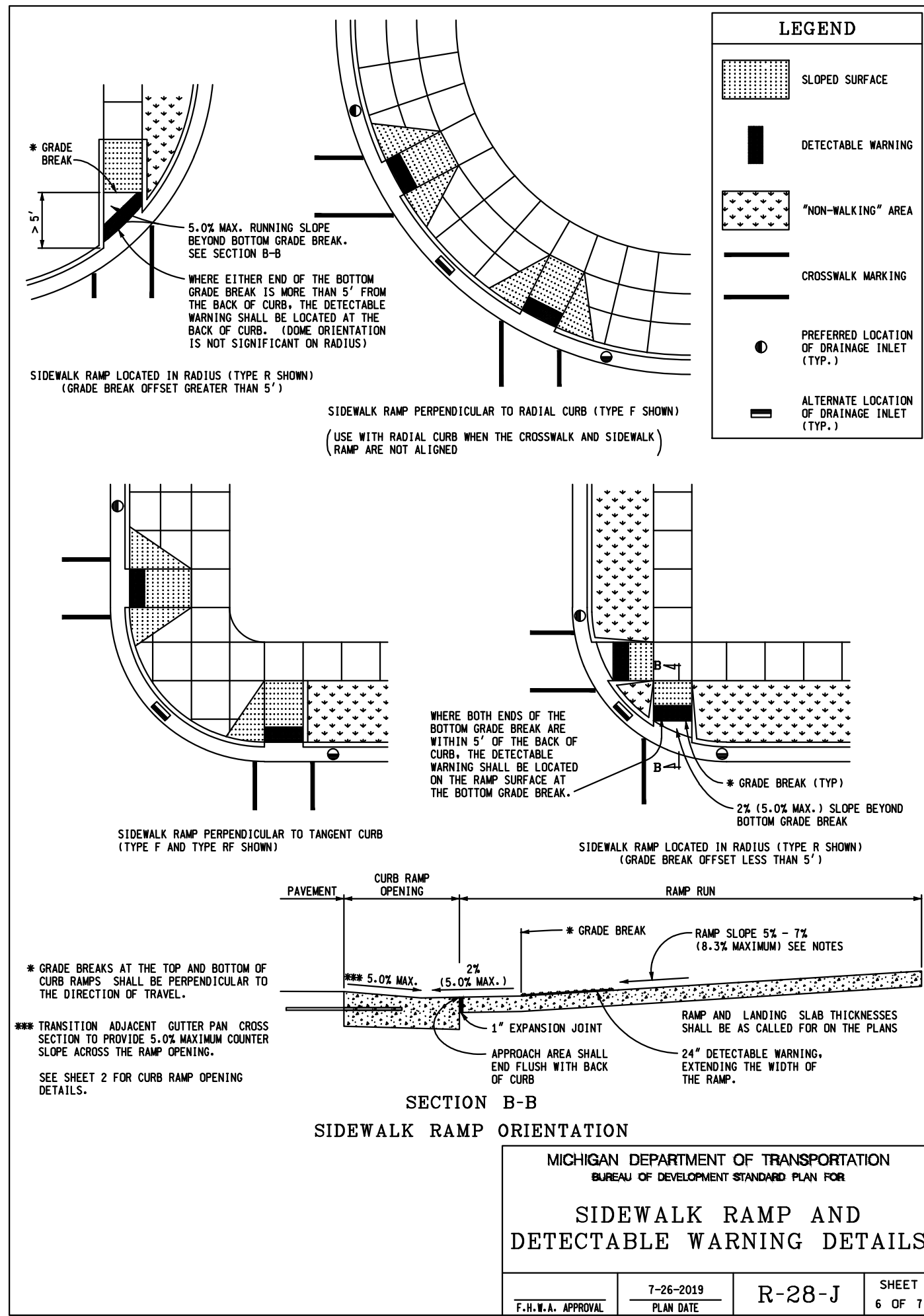
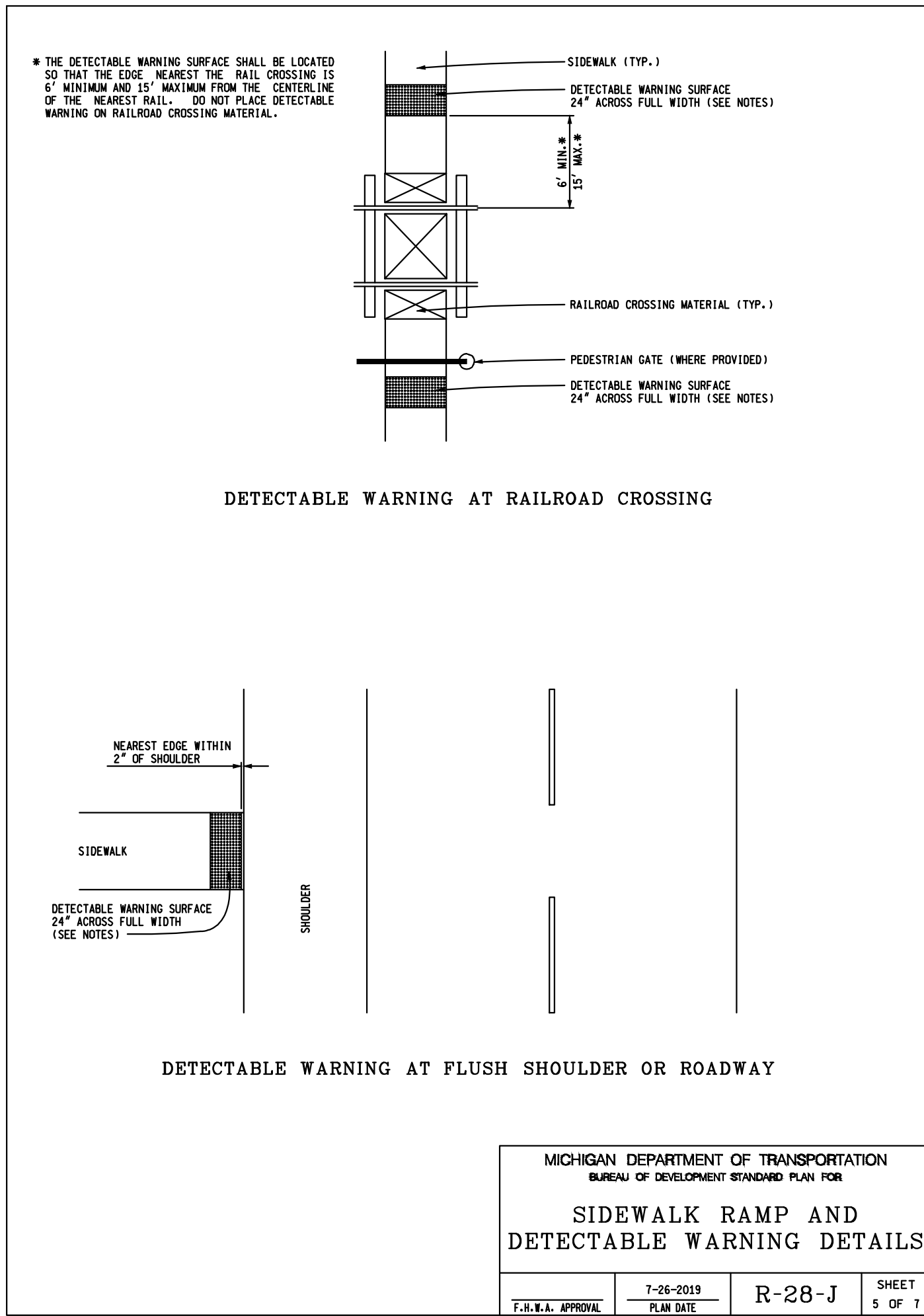
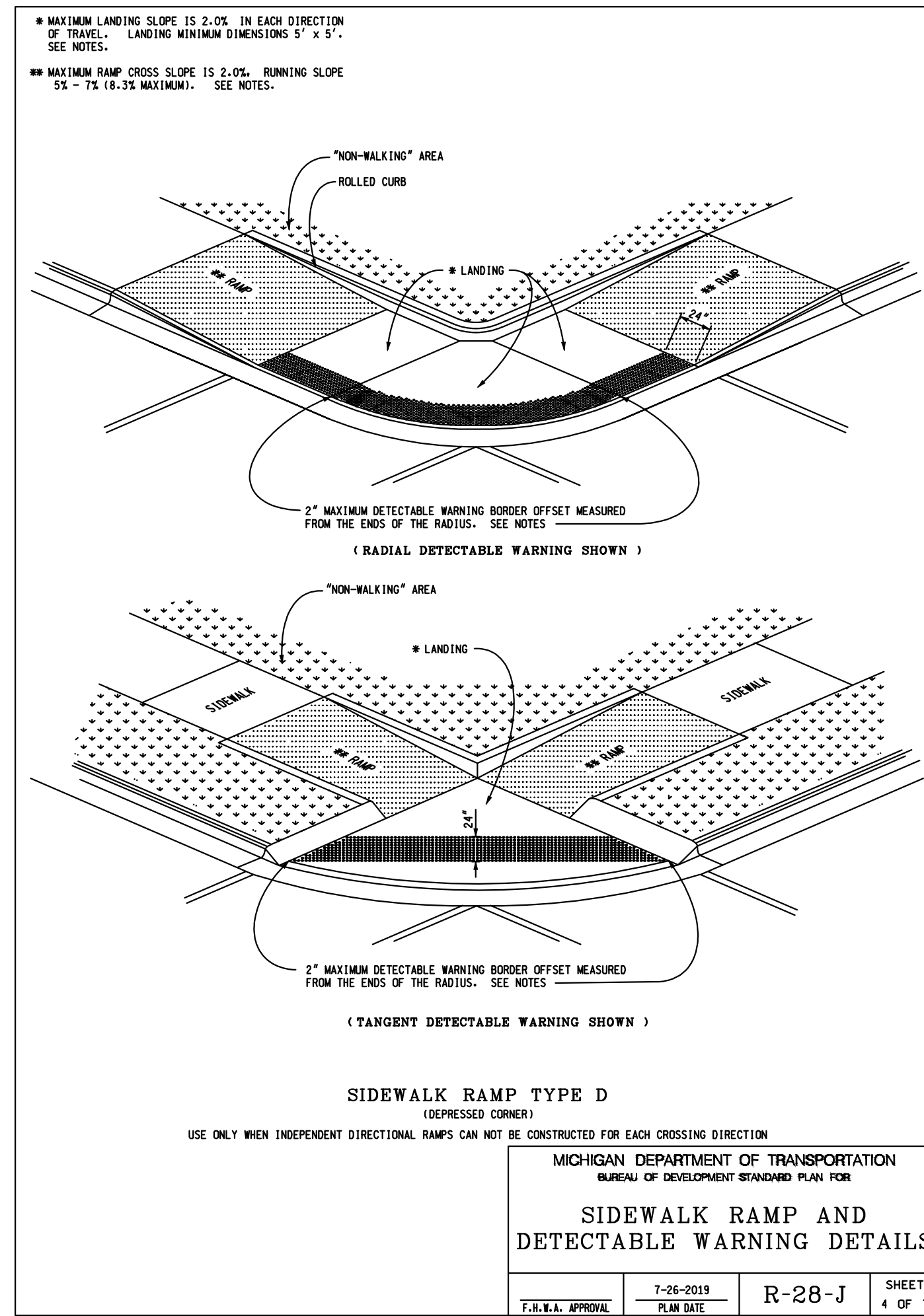
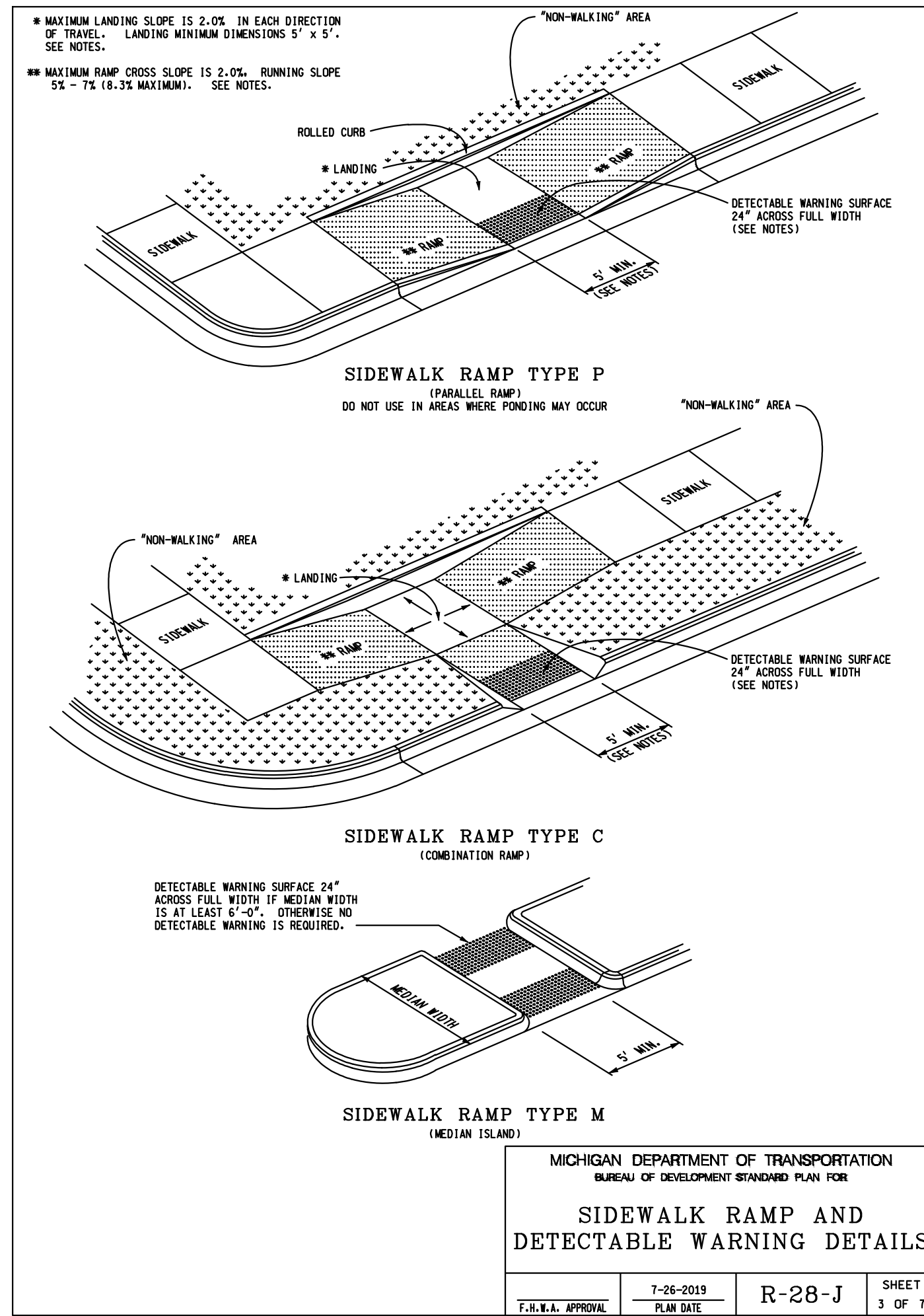
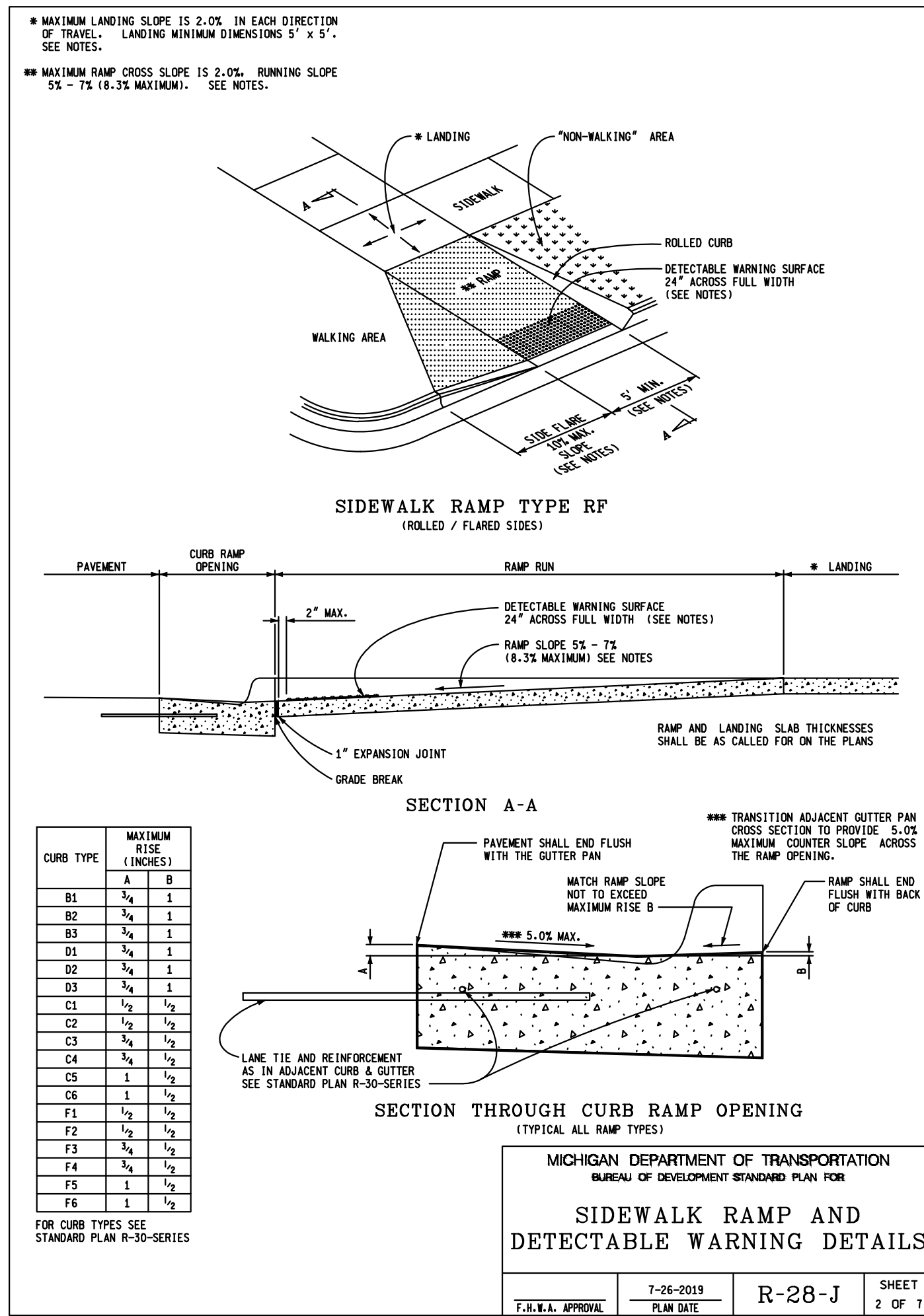
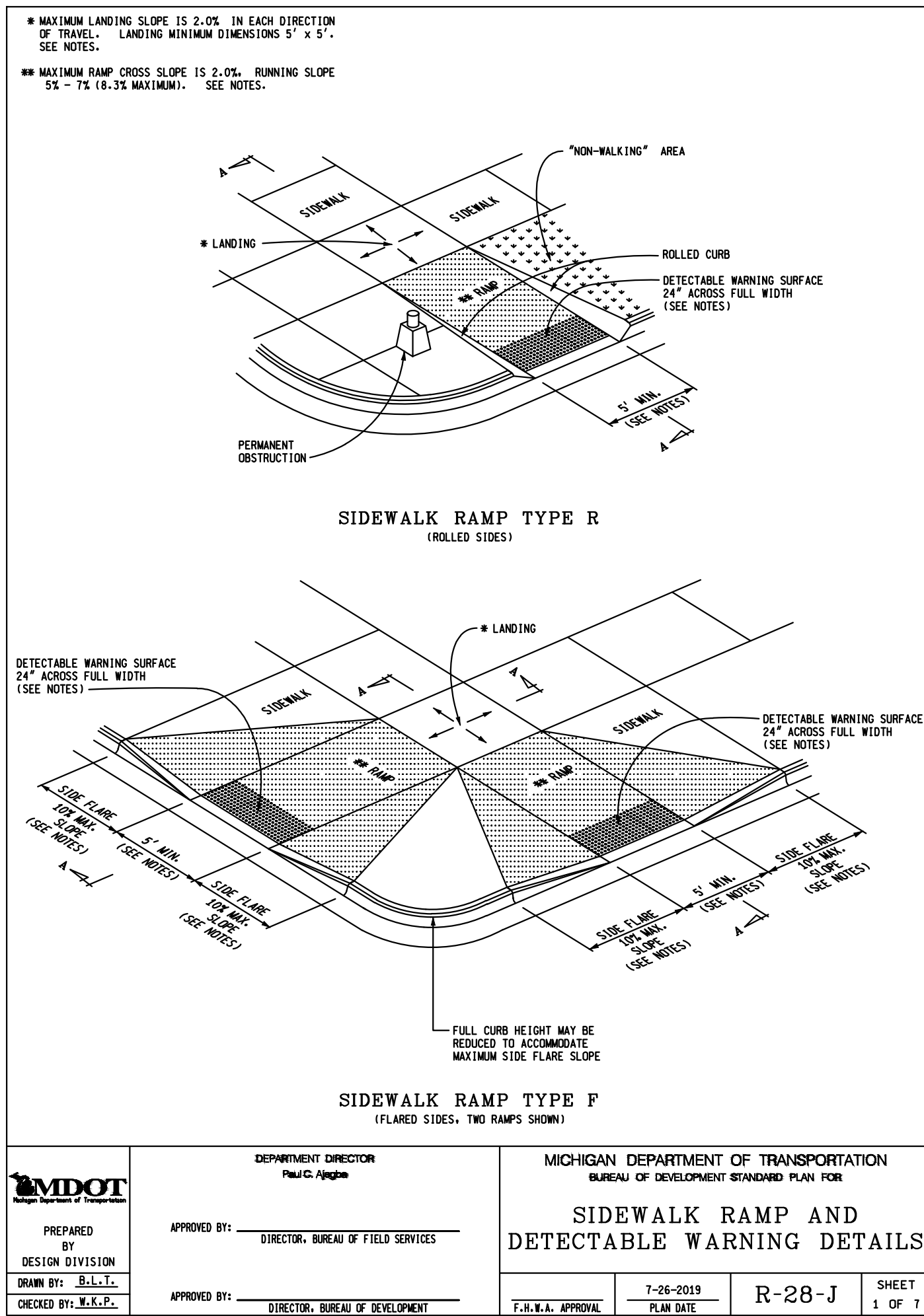
P.M. JTS

DN. JMR

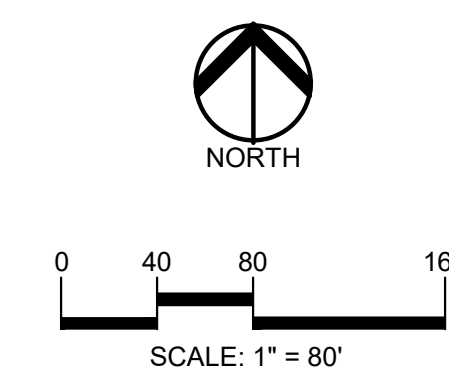
DES. JMR

DRAWING NUMBER:









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All transverse joints in the concrete pavement shall extend entirely through the integral curb and be of the same kind and thickness as provided for the pavement.  
The joint material shall be pre-cut so as to conform to the geometric shape and cross sectional area of the curb, and shall be placed in contact with the filler material in the pavement.  
Integral curbs, which are placed as part of a concrete base course pavement shall have transverse plane of weakness joints, formed by placing a pre-molded bituminous filler 1/4 inch thick, entirely through the curb, in exact alignment with all joints in the base course pavement. The joint material shall be pre-cut so as to conform to the geometric shape and cross sectional area of the curb.  
The edges of all transverse joints in the integral curb shall be rounded with an approved finishing tool having a radius of 1/4 inch.

**INTEGRAL STRAIGHT CURB**

CONCRETE PAVEMENT TYPE 3 CONCRETE BASE COURSE TYPE 4

**INTEGRAL STRAIGHT CURB W/REVERSE GUTTER PAN**

Note: Reverse Gutter Pan to be used on island within Cul-De-Sacs and Eyebrows as indicated on Intersection details.

REVISION DATE: 08/01/07  
WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES  
ENGINEERING DIVISION/PERMIT OFFICE  
PERMIT STANDARDS  
CURB AND CURB & GUTTER DETAILS  
SCALE: NOT TO SCALE  
RS-3  
SHEET 1 OF 3

**MOUNTABLE CURB AND GUTTER**

**STRAIGHT CURB AND GUTTER**

NOTES:  
PLANE OF WEAKNESS JOINTS SHALL BE PLACED BETWEEN EXPANSION JOINTS AT APPROXIMATELY 10' INTERVALS.  
EXPANSION JOINTS SHALL BE PLACED 10' EACH SIDE OF ALL CATCH BASINS AND AT THE ENDS OF RADI AT ALL STREET RETURNS AND SEALED WITH HOT-POURED RUBBER ASPHALT COMPOUND.  
MATCH CONCRETE PAVEMENT JOINTS NOT TO EXCEED 25' SPACINGS.  
"T" IS THE DEPTH OF PROPOSED CURB AND GUTTER SECTION THAT SHALL MATCH THE THICKNESS OF PROPOSED PAVEMENT, UNLESS OTHERWISE DIRECTED BY THE WAYNE COUNTY ENGINEER OR AS SHOWN ON APPROVED PLANS.  
OMIT LANE TIES WHEN PLACING CURB NEXT TO HMA PAVEMENT.  
PLACE 1" FIBER JOINT FILTER AT 400' MAXIMUM INTERVALS.

WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1

REVISION DATE: 08/01/07  
WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES  
ENGINEERING DIVISION/PERMIT OFFICE  
PERMIT STANDARDS  
CURB AND CURB & GUTTER DETAILS  
SCALE: NO SCALE  
RS-3  
SHEET 2 OF 3

**STRAIGHT CURB & GUTTER**

**MOUNTABLE CURB & GUTTER**

SECTION A - A

NOTES:  
CONSTRUCT THE DRIVE APPROACH WITH 8" NON-REINFORCED CONCRETE ON 6" OF 21AA AGGREGATE BASE COURSE COMPACTED IN PLACE (CIP) OR 6" HMA LEVELING ON 9" OF 21AA AGGREGATE BASE COURSE (CIP). CURBS SHALL BE CONSTRUCTED WITH HEIGHT VARYING FROM 6" AT BACK OF CURB TO 0" HEIGHT AT FACE OF SIDEWALK OR RIGHT-OF-WAY LINE.  
INBOUND OR OUTBOUND RADIUS SHALL BE REDUCED TO 5' FOR ONE-WAY TRAFFIC DRIVE APPROACH.  
DRIVE APPROACH SHALL NOT ENDOUR ACROSS PROPERTY LINE EXTENDED WITHOUT WRITTEN APPROVAL FROM THE ADJOINING PROPERTY OWNER.

WORK THIS SHEET WITH "S" SERIES STANDARDS.

REVISION DATE: 08/01/07  
WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES  
ENGINEERING DIVISION/PERMIT OFFICE  
PERMIT STANDARDS  
CURB AND CURB & GUTTER DETAILS  
SCALE: NO SCALE  
RS-3  
SHEET 3 OF 3

**COMMERCIAL DRIVE APPROACH**

SECTION A-A  
NOT TO SCALE

NOTES:  
CONSTRUCT THE DRIVE APPROACH WITH 8" NON-REINFORCED CONCRETE ON 6" OF 21AA AGGREGATE BASE COURSE COMPACTED IN PLACE (CIP) OR 6" HMA LEVELING ON 9" OF 21AA AGGREGATE BASE COURSE (CIP). CURBS SHALL BE CONSTRUCTED WITH HEIGHT VARYING FROM 6" AT BACK OF CURB TO 0" HEIGHT AT FACE OF SIDEWALK OR RIGHT-OF-WAY LINE.  
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DRIVE APPROACH SHALL NOT ENDOUR ACROSS PROPERTY LINE EXTENDED WITHOUT WRITTEN APPROVAL FROM THE ADJOINING PROPERTY OWNER.

WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1 AND D-6 SHEET 2-2.

REVISION DATE: 08/01/07  
WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES  
ENGINEERING DIVISION/PERMIT OFFICE  
PERMIT STANDARDS  
COMMERCIAL DRIVE APPROACH  
SCALE: NOT TO SCALE  
D-6  
SHEET 1 OF 2

**CURB DETAIL "A" (CURB CUT)**

**CURB DETAIL "B" (CURB REPLACEMENT W/ DROP)**

**CURB DETAIL "C" (CURB REPLACEMENT)**

WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1.

REVISION DATE: 08/01/07  
WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES  
ENGINEERING DIVISION/PERMIT OFFICE  
PERMIT STANDARDS  
CURB DETAIL A, B, C  
SCALE: NOT TO SCALE  
D-7  
SHEET 1 OF 3

**CONCRETE CURB CAP**

Concrete Curb Cap will be done after milling and prior to the replacement of HMA resurfacing. Minimum length of Concrete Curb Cap shall be 5 feet.

NOTE: THIS IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL SIGNED COPY FOR PUBLICATION IS KEPT ON FILE AT THE WAYNE COUNTY ENGINEERING OFFICES.

REVISION DATE: 07/02/2008  
WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES  
ENGINEERING DIVISION/PERMIT OFFICE  
PERMIT STANDARDS  
CONCRETE CURB CAP  
SCALE: NOT TO SCALE  
D-7  
SHEET 2 OF 3

**INTEGRAL CONCRETE CURB CAP & WALK**

NOTE:  
Remove existing curb to a minimum of 1 inch below existing pavement surface. If an existing longitudinal sidewalk joint is more than 3'-6" from the curb face, the sidewalk shall be sawed for the Integral Concrete Curb Cap & Walk section. If an existing longitudinal sidewalk joint is closer than 3'-6" from the curb face, the sidewalk shall be removed and replaced outside the Integral Concrete Curb Cap & Walk section. Sidewalk removal and replacement shall be in accordance with the Specifications.  
Integral Concrete Curb Cap & Walk (Patching) is curb and walk less than 25 feet in continuous length. Minimum length of patches will be 5 feet.

NOTE: THIS IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL SIGNED COPY FOR PUBLICATION IS KEPT ON FILE AT THE WAYNE COUNTY ENGINEERING OFFICES.

REVISION DATE: 07/02/2008  
WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES  
ENGINEERING DIVISION/PERMIT OFFICE  
PERMIT STANDARDS  
INTEGRAL CONCRETE CURB CAP & WALK  
SCALE: NOT TO SCALE  
D-7  
SHEET 3 OF 3

**COMMERCIAL DRIVE APPROACH**

SECTION "A - A"

WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1.

REVISION DATE: 08/01/07  
WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES  
ENGINEERING DIVISION/PERMIT OFFICE  
PERMIT STANDARDS  
COMMERCIAL DRIVE APPROACH  
SCALE: NOT TO SCALE  
D-6  
SHEET 2 OF 2

CLIENT  
**VAN BUREN TOWNSHIP**  
48425 TYLER ROAD  
VAN BUREN, MICHIGAN

PROJECT TITLE  
**IRON BELLE TRAIL - SECTION J**  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN

REVISIONS

ORIGINAL ISSUE	12/2/20
REVISION 1/27/21	
REVISION NORFOLK SOUTHERN	11/10/21
REVISION PER MDT ORDER	9/01/22
REVISION PER TWP	1/24/24

ORIGINAL ISSUE DATE:  
DECEMBER 3, 2020  
DRAWING TITLE  
**DETAIL SHEET**

PEA JOB NO.	2020-0095
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	



CONSTRUCTION PLANS

# IRON BELLE TRAIL SECTION K

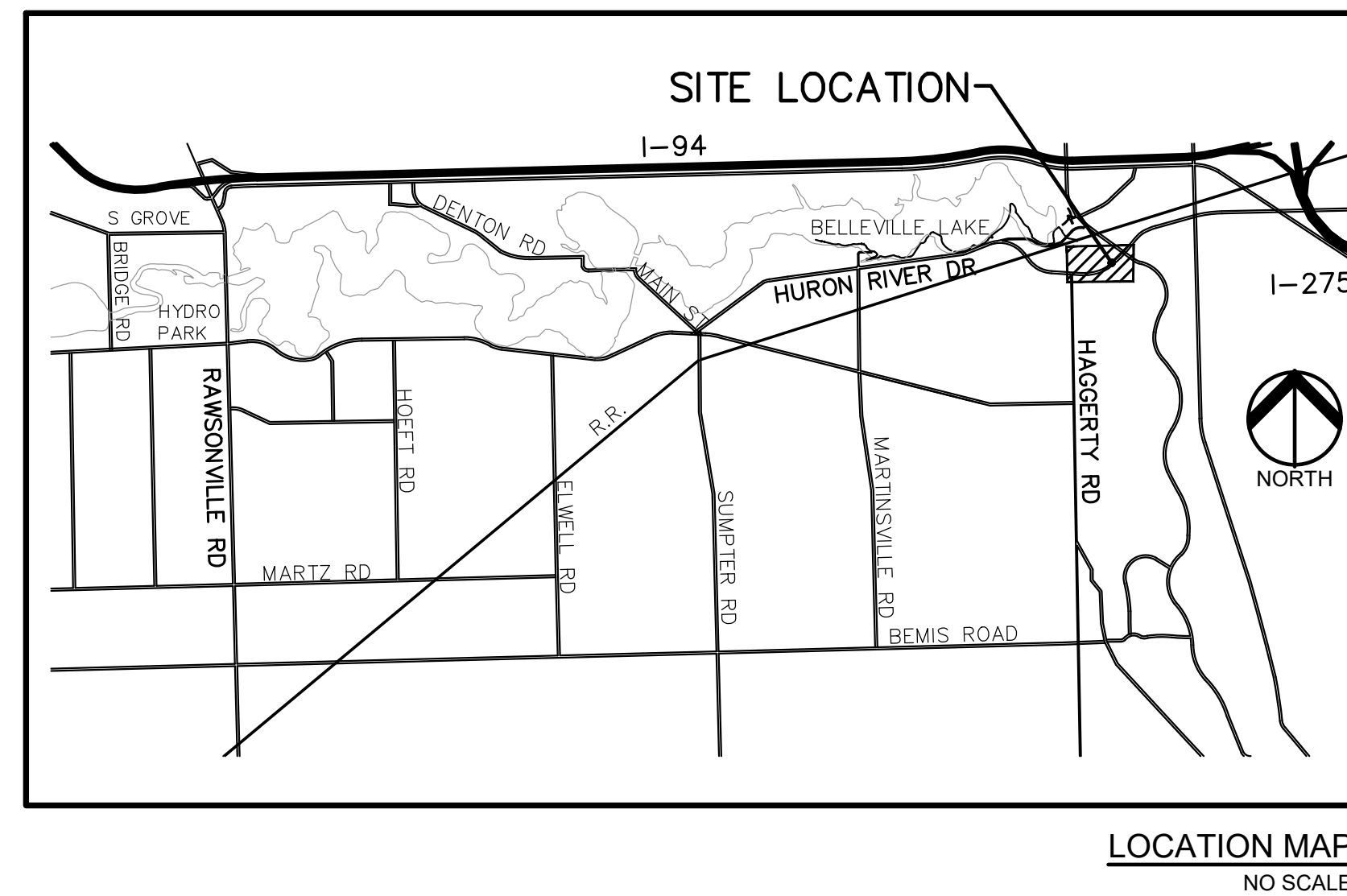
VAN BUREN TOWNSHIP  
WAYNE COUNTY, MICHIGAN



PERMIT / APPROVAL SUMMARY		
DATE SUBMITTED	DATE APPROVED	PERMIT / APPROVAL

**WAYNE COUNTY DPS GENERAL NOTES:**

- ALL WORK WITHIN THE WAYNE COUNTY ROAD RIGHT-OF-WAY (ROW) AND DRAIN EASEMENT SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND GENERAL SPECIFICATIONS, INCLUDING SOIL EROSION AND SEDIMENTATION CONTROL OF THE WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES, AND MDOIT 2012 SPECIFICATIONS FOR CONSTRUCTION.
- THESE PLANS ARE NOT VALID WITHOUT ATTACHMENT OF THE WAYNE COUNTY PERMIT SPECIFICATIONS FOR CONSTRUCTION WITHIN THE ROAD ROW, PARKS, DRAIN EASEMENT OR SANITARY SEWER UNDER JURISDICTION OF THE WAYNE COUNTY (07/19/93) REVISED 12/15/2004
- CONTRACTOR SHALL CONTACT **MISS DIG AT 811** TO IDENTIFY AND FLAG / MARK THE LOCATIONS OF ALL UNDERGROUND UTILITIES AT THE PROPOSED CONSTRUCTION AREAS PRIOR TO START OF CONSTRUCTION, AND SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS AND ELEVATIONS OF ALL UNDERGROUND UTILITIES, AND RESOLVE ANY CONFLICT BETWEEN THE PROPOSED WORK AND THE EXISTING UNDERGROUND OR ABOVEGROUND UTILITIES.
- CONTRACTOR SHALL MAINTAIN 18" MINIMUM VERTICAL CLEARANCE AND 3 FEET MINIMUM HORIZONTAL CLEARANCE BETWEEN THE PROPOSED AND EXISTING UTILITIES. ANY PROPOSED UTILITY PERMITTED TO CROSS UNDER THE ROAD OR DRAIN, MUST BE PLACED A MINIMUM OF 7 FEET BELOW THE LOWEST POINT OF THE ROAD, OR 6 FEET BELOW THE DRAIN BOTTOM. OVERHEAD WIRE/CABLES MUST BE INSTALLED 18 FEET MINIMUM ABOVE THE ROAD CENTERLINE. TO RELOCATE ANY UTILITY WITHIN THE ROAD ROW, THE CONTRACTOR SHALL COORDINATE THE RELOCATION WITH THE UTILITY COMPANY AND AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
- ALL SURVEY MONUMENTS / CORNERS AND BENCH MARKS LOCATED WITHIN THE CONSTRUCTION AREA MUST BE PRESERVED IN ACCORDANCE WITH PUBLIC ACT 74 AS AMENDED (INCLUDING ACT 34, P.A. 2000) AND AS PER WAYNE COUNTY PERMIT RULE 1.S. THE PERMIT HOLDER AND CONTRACTOR SHALL COORDINATE THE WORK WITH A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF MICHIGAN DURING CONSTRUCTION ACTIVITIES FOR THE PURPOSE OF WITNESSING, PRESERVING OR REPLACING SURVEY MONUMENTS AND MONUMENT BOXES.
- EXPOSURE OF ANY UTILITIES UNDER THE PAVEMENT WILL NOT BE PERMITTED, UNLESS APPROVED BY THE WAYNE COUNTY ENGINEER. PAVEMENT REMOVAL AND REPLACEMENT SHALL BE PERFORMED PER APPLICABLE WAYNE COUNTY STANDARD DETAILS AS AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
- CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS WITHIN THE WAYNE COUNTY ROAD ROW AND DRAIN EASEMENT WITH 3" TOPSOIL, 1MM SEED MIX AND MULCH. SLOPES STEEPER THAN 1 ON 3 SHALL BE RESTORED BY PLACING SOD ON 2" TOPSOIL.
- ALL BACKFILLS UNDER OR WITHIN 3 FEET OF THE PROPOSED OR EXISTING PAVEMENT, CURB OR SIDEWALK SHALL CONFORM TO THE WAYNE COUNTY TRENCH "B" BACKFILL REQUIREMENTS. TRENCH "A" BACKFILL MAY BE USED WITHIN THE ROAD ROW AREAS UNDER CONDITIONS OTHER THAN THOSE SPECIFIED FOR TRENCH "B".
- CONTRACTOR IS RESPONSIBLE FOR RESTORING OR REPLACING ALL DISTURBED LANDSCAPED AREAS, SPRINKLER SYSTEMS, FENCES, SIGNS, MAIL BOXES, ETC. WITHIN THE WAYNE COUNTY ROAD ROW AND / OR AS DIRECTED BY THE COUNTY ENGINEER.
- CONTRACTOR SHALL MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES. OTHERWISE, DETOURING TRAFFIC MUST BE PER APPROVED PLANS. ALL SIGNING AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF M.M.U.T.C.D.
- MAINTAIN A SAFE AND ADEQUATE TRAVEL ROUTE FOR PEDESTRIANS AT ALL TIMES THROUGHOUT THE PROJECT DURATION.
- TUNNELING, BORING AND JACKING OPERATIONS SHALL BE IN ACCORDANCE WITH THE WAYNE COUNTY SPECIFICATIONS AND DETAILS. BORE PITS SHALL BE PLACED AT MINIMUM 10 FEET FROM THE BACK OF CURB OR EDGE OF PAVEMENT.
- REMOVE ALL ABANDONED CONDUITS FROM THE COUNTY ROADS ROW OR AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
- CONTRACTOR SHALL PROVIDE COLD WEATHER PROTECTION FOR ALL PROPOSED CONCRETE WORK (PAVEMENTS, SIDEWALKS, DRIVE APPROACHES, ETC.) AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
- OVERNIGHT VEHICLE PARKING AND STORAGE OF CONSTRUCTION MATERIALS AND EQUIPMENTS ARE NOT PERMITTED WITHIN THE WAYNE COUNTY ROADS RIGHTS-OF-WAY.
- CONTRACTOR SHOULD OBTAIN SOIL EROSION AND SEDIMENTATION CONTROL PERMIT FROM THE WAYNE COUNTY DPS. CONTACT THE WAYNE COUNTY SOIL EROSION OFFICE AT (734) 326-3936, OR THE COMMUNITY HAVING JURISDICTION OVER THE SOIL EROSION PERMIT.
- CONTRACTOR SHALL NOTIFY THE WAYNE COUNTY TRAFFIC SIGNAL SHOP AT (734) 955-2161 AT LEAST 72 HOURS PRIOR TO START OF WORK AT OR NEAR ANY SIGNALIZED INTERSECTIONS.
- CONTRACTOR SHALL NOTIFY WAYNE COUNTY 72 HOURS PRIOR TO START OF CONSTRUCTION. CONTACT THE PERMIT OFFICE AT (734) 858-2761.



Sheet List Table	
Sheet Number	Sheet Title
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C-1.1	OVERALL SHEET
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C-2.3	TOPOGRAPHICAL SURVEY AND DEMOLITION PLAN
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C-4.4	GRADING PLAN
C-5.1	DETAIL SHEET
C-5.2	DETAIL SHEET

**PROJECT DESCRIPTION:**

THIS PROJECT IS PART OF THE IRON BELLE TRAIL PROJECT. IT CONSISTS OF CONSTRUCTING APPROXIMATELY 10,984 SFT (.25 AC) OF SIDEWALK ALONG EAST HURON RIVER DRIVE AND 1000 SFT OF ASPHALT PATH ALONG METROPOLITAN PARKWAY. MODIFICATIONS TO THE TRAFFIC SIGNAL AT THE INTERSECTION ARE INCLUDED WITH THIS PROJECT. THIS PROJECT WILL CONNECT INTO SECTION J (PREVIOUSLY APPROVED) WHEN THE TRAFFIC LIGHT AT EAST HURON RIVER DRIVE AND HAGGERTY ROAD IS INSTALLED AT A FUTURE DATE.

**WAYNE COUNTY NOTE:**

- WAYNE COUNTY R 23-0084 REVIEW NUMBER.

**DESIGN TEAM**

<b>OWNER/APPLICANT/DEVELOPER</b>	<b>CIVIL ENGINEER</b>
VAN BUREN TOWNSHIP 46425 TYLER ROAD VAN BUREN TWP, MI 48111 CONTACT: ELIZABETH RENAUD PHONE: (734) 699 - 8900 EXT. 9258 CELL: (734) 787-0542 EMAIL: ERENAUD@VANBUREN-MI.ORG	PEA GROUP 7927 NEMCO WAY, STE. 115 BRIGHTON, MI 48116 CONTACT: JILL RICKARD, PE PHONE: 844.813.2949 EMAIL: JRICKARD@PEAGROUP.COM
<b>LANDSCAPE ARCHITECT</b>	
PEA GROUP 7927 NEMCO WAY, STE. 115 BRIGHTON, MI 48116 CONTACT: JEFF SMITH, PLA, LEED AP PHONE: 844.813.2949 EMAIL: JSMITH@PEAGROUP.COM	



REVISIONS	
DESCRIPTION	DATE
ORIGINAL ISSUE DATE	12/12/2022
REVISIONS PER TOWNSHIP	8/8/2023
REVISIONS PER WAYNE COUNTY REVIEW	8/24/2023

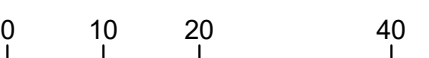


NOT FOR CONSTRUCTION





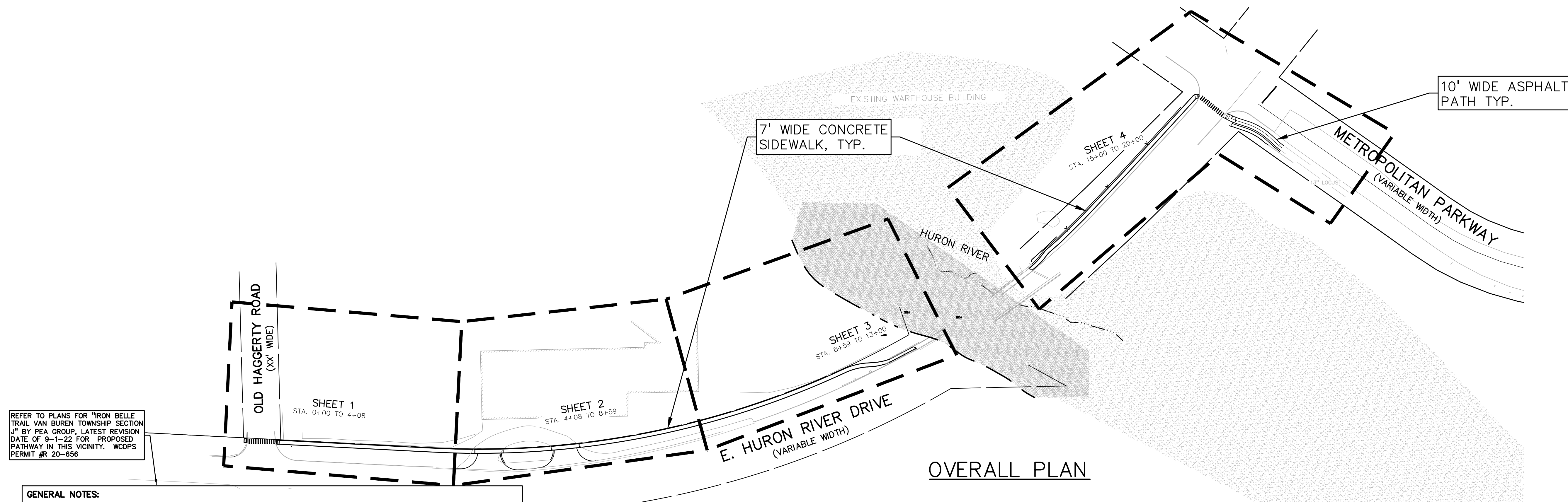
NORTH



SCALE: 1" = 20'



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



REFER TO PLANS FOR "IRON BELLE TRAIL VAN BUREN TOWNSHIP SECTION J" BY PEA GROUP, LATEST REVISION DATE OF 9-1-22 FOR PROPOSED PATHWAY IN THIS VICINITY. WCDPS PERMIT # 20-656

**OVERALL PLAN**

**GENERAL NOTES:**

- THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
- ALL CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT OSHA, WAYNE COUNTY AND MUNICIPALITY STANDARDS AND REGULATIONS.
  - THE CONTRACTOR SHALL NOTIFY THE TOWNSHIP ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
  - THE CONTRACTOR SHALL CONTACT THE ENGINEER SHOULD THEY ENCOUNTER ANY DESIGN ISSUES DURING CONSTRUCTION. IF THE CONTRACTOR MAKES DESIGN MODIFICATIONS WITHOUT THE WRITTEN DIRECTION OF THE DESIGN ENGINEER, THE CONTRACTOR DOES SO AT HIS OWN RISK.
  - ALL NECESSARY PERMITS, TESTING, BONDS AND INSURANCES ETC., SHALL BE PAID FOR BY THE CONTRACTOR. THE OWNER SHALL PAY FOR ALL TOWNSHIP INSPECTION FEES.
  - THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE 811/ONE CALL UTILITY LOCATING CENTER, THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF NO NOTIFICATION IS GIVEN AND DAMAGE RESULTS, SAID DAMAGE WILL BE REPAIRED AT SOLE EXPENSE OF THE CONTRACTOR. IF EXISTING UTILITY LINES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.
  - CONTRACTOR SHALL VERIFY THAT THE PLANS AND SPECIFICATIONS ARE THE VERY LATEST PLANS AND SPECIFICATIONS AND FURTHERMORE, VERIFY THAT THESE PLANS AND SPECIFICATIONS HAVE BEEN APPROVED. ALL ITEMS CONSTRUCTED BY THE CONTRACTOR PRIOR TO RECEIVING FINAL APPROVAL, HAVING TO BE ADJUSTED OR RE-DONE, SHALL BE AT THE CONTRACTORS EXPENSE. SHOULD THE CONTRACTOR ENCOUNTER A CONFLICT BETWEEN THESE PLANS AND/OR SPECIFICATIONS, THEY SHALL SEEK CLARIFICATION IN WRITING FROM THE ENGINEER BEFORE COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO SHALL BE AT SOLE EXPENSE TO THE CONTRACTOR.
  - ANY WORK WITHIN THE STREET OR HIGHWAY RIGHTS-OF-WAY 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 PROPERTIES OR FACILITIES IN THE SURROUNDING AREAS, PUBLIC OR PRIVATE, DESTROYED OR OTHERWISE DISTURBED DUE TO CONSTRUCTION, SHALL BE REPLACED AND/OR RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR.
  - THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADING, SIGNAGE, LIGHTS AND TRAFFIC CONTROL DEVICES TO PROTECT THE WORK AND SAFELY MAINTAIN TRAFFIC IN ACCORDANCE WITH LOCAL REQUIREMENTS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION). THE DESIGN ENGINEER, OWNER, TOWNSHIP AND STATE SHALL NOT BE HELD LIABLE FOR ANY CLAIMS RESULTING FROM ACCIDENTS OR DAMAGES CAUSED BY THE CONTRACTOR'S FAILURE TO COMPLY WITH TRAFFIC AND PUBLIC SAFETY REGULATIONS DURING THE CONSTRUCTION PERIOD.
  - THE USE OF CRUSHED CONCRETE IS PROHIBITED ON THE PROJECT WITHIN 100 FEET OF ANY WATER COURSE (STREAM, RIVER, COUNTY DRAIN, ETC.) AND LAKE, REGARDLESS OF THE APPLICATION OR LOCATION OF THE WATER COURSE OR LAKE RELATIVE TO THE PROJECT LIMITS.
  - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST THE TOP OF ALL EXISTING AND PROPOSED STRUCTURES (MANHOLES, CATCH BASINS, INLETS, GATE WELLS ETC.) WITHIN GRADED AND /OR PAVED AREAS TO FINAL GRADE SHOWN ON THE PLANS. ALL SUCH ADJUSTMENTS SHALL BE INCIDENTAL TO THE JOB AND WILL NOT BE PAID FOR SEPARATELY.

**GENERAL GRADING AND EARTHWORK NOTES:**

- THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT
- CONTRACTOR SHALL 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 AUTHORIZED PUBLIC AGENCY OF JURISDICTION, AN EROSION CONTROL PERMIT MUST BE SECURED FROM THE COUNTY PRIOR TO CONSTRUCTION.
  - ALL EARTHWORK AND GRADING OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE SOILS INVESTIGATION AND REPORT.
  - REFER TO SOIL EROSION CONTROL PLAN FOR ADDITIONAL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND NOTES.
  - THE DETENTION BASIN SIDE SLOPES AND ALL SLOPE EXCEEDING 1:6 MUST BE STABILIZED BY SODDING OR BY PLACING A MULCH BLANKET PEGGED IN PLACE OVER SEED.
  - ALL DISTURBED AREAS SHALL BE 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 THIRD PARTY TESTING COMPANY, THAT ARE TO BE WITHIN THE ZONE OF INFLUENCE OF PROPOSED BUILDINGS OR PAVEMENT SHALL BE COMPLETELY EXCAVATED AND BACKFILLED WITH SUITABLE MATERIAL.
  - ON-SITE FILL CAN BE USED IF THE SPECIFIED COMPACTION REQUIREMENTS CAN BE ACHIEVED. IF ON-SITE SOIL IS USED, IT SHOULD BE CLEAN AND FREE OF FROZEN SOIL, ORGANICS, OR OTHER DELETERIOUS MATERIALS.
  - THE FINAL SUBGRADE/EXISTING AGGREGATE BASE SHOULD BE THOROUGHLY PROOFROLLED USING A FULLY LOADED TANDUM AXLE TRUCK OR FRONT END LOADER UNDER THE OBSERVATION OF A GEOTECHNICAL/PAVEMENT ENGINEER. LOOSE OR YIELDING AREAS THAT CANNOT BE MECHANICALLY STABILIZED SHOULD BE REINFORCED USING GEORIGIDS OR REMOVED AND REPLACED WITH ENGINEERED FILL OR AS DICTATED BY FIELD CONDITIONS.
  - SUBGRADE UNDERCUTTING, INCLUDING BACKFILLING SHALL BE PERFORMED TO REPLACE MATERIALS SUSCEPTIBLE TO FROST HEAVING AND UNSTABLE SOIL CONDITIONS. ANY EXCAVATIONS THAT MAY BE REQUIRED BELOW THE TOPSOIL IN FILL AREAS OR BELOW SUBGRADE IN CUT AREAS WILL BE CLASSIFIED AS SUBGRADE UNDERCUTTING.
  - SUBGRADE UNDERCUTTING SHALL BE PERFORMED WHERE NECESSARY AND THE EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. ANY SUBGRADE UNDERCUTTING SHALL BE BACKFILLED AS RECOMMENDED IN THE GEOTECHNICAL ENGINEERING REPORT FOR THE PROJECT.
  - ANY SUB-GRADE WATERING REQUIRED TO ACHIEVE REQUIRED DENSITY SHALL BE CONSIDERED INCIDENTAL TO THE JOB.

**GENERAL UTILITY NOTES:**

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE TOWNSHIP/COUNTY.
- ALL TRENCHES UNDER OR WITHIN THREE (3) FEET OR THE FORTY-FIVE (45) DEGREE ZONE OF INFLUENCE LINE OF EXISTING AND/OR PROPOSED PAVEMENT, BUILDING PAD OR DRIVE APPROACH SHALL BE BACKFILLED WITH SAND COMPACTED TO AT LEAST NINETY-FIVE (95) PERCENT OF MAXIMUM UNIT WEIGHT (ASTM D-1557). ALL OTHER TRENCHES TO BE COMPACTED TO 90% OR BETTER.
- WHERE EXISTING MANHOLES OR SEWER PIPE ARE TO BE TAPPED, DRILL HOLES 4" CENTER TO CENTER, AROUND PERIPHERY OF OPENING TO CREATE A PLANE OF WEAKNESS JOINT BEFORE BREAKING SECTION OUT.
- THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING UTILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION WITHOUT UNCOVERING AND MEASURING. THE DESIGN ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN. CONTRACTOR SHALL FIELD VERIFY UTILITIES.
- THE CONTRACTOR SHALL COORDINATE TO ENSURE ALL REQUIRED PIPES, CONDUITS, CABLES AND SLEEVES ARE PROPERLY PLACED FOR THE INSTALLATION OF GAS, ELECTRIC, PHONE, CABLE, IRRIGATION, ETC. IN SUCH A MANNER THAT WILL FACILITATE THEIR PROPER INSTALLATION PRIOR TO THE PLACEMENT OF THE PROPOSED PAVEMENT AND LANDSCAPING.
- PIPE LENGTHS INDICATED ARE FROM CENTER OF STRUCTURE AND TO END OF FLARED END SECTION UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL INSPECT ALL EXISTING PUBLIC STORM SEWER, SANITARY SEWER AND WATER MAIN STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION AND WITH THE GOVERNING AGENCY INSPECTOR PRIOR TO ESTABLISHING FINAL GRADE. NOTIFY THE ENGINEER, OWNER/DEVELOPER, AND GOVERNING AGENCY IF STRUCTURE IS DEEMED TO BE STRUCTURALLY UNSOUND AND/OR IN NEED OF REPAIR.

**STORM SEWER NOTES:**

- ALL STORM SEWER 12" DIAMETER OR LARGER SHALL BE REINFORCED CONCRETE PIPE (RCP C-76) CLASS IV WITH MODIFIED TONGUE AND GROOVE JOINT WITH RUBBER GASKETS UNLESS SPECIFIED OTHERWISE (ASTM C-443).

**PAVING NOTES:**

- IN AREAS WHERE NEW PAVEMENTS ARE BEING CONSTRUCTED, THE TOPSOIL AND SOIL CONTAINING ORGANIC MATTER SHALL BE REMOVED PRIOR TO PAVEMENT CONSTRUCTION.
- CONSTRUCTION TRAFFIC SHOULD BE MINIMIZED ON THE NEW PAVEMENT. IF CONSTRUCTION TRAFFIC IS ANTICIPATED ON THE PAVEMENT STRUCTURE, THE INITIAL LIFT THICKNESS COULD BE INCREASED AND PLACEMENT OF THE FINAL LIFT COULD BE DELAYED UNTIL THE MAJORITY OF THE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED. THIS ACTION WILL ALLOW REPAIR OF LOCALIZED FAILURE, IF ANY DOES OCCUR, AS WELL AS REDUCE LOAD DAMAGE ON THE PAVEMENT SYSTEM.
- ALL EXPANSION JOINTS AND CONCRETE PAVEMENT JOINTS TO BE SEALED.
- CONCRETE PAVEMENT JOINTING - UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION:
  - WHERE PROPOSED CONCRETE ABUTS A STRUCTURE, PROVIDE A MINIMUM 1/2" EXPANSION JOINT. THE JOINT FILLER BOARD MUST BE AT LEAST THE FULL DEPTH OF THE CONCRETE AND HELD DOWN A 1/2" TO ALLOW FOR SEALING.
  - WHERE PROPOSED CONCRETE ABUTS EXISTING CONCRETE OR IN BETWEEN POURS OF PROPOSED CONCRETE (CONSTRUCTION JOINT), PROVIDE 5/8" DOWELS EVERY 30" CENTER TO CENTER HALF WAY ALONG THE THICKNESS OF THE PROPOSED PAVEMENT. ALTERNATE DOWELS SIZES AND SPACING MUST BE APPROVED THE ENGINEER PRIOR TO COMMENCING WORK AND VIA THE SUBMITTAL PROCESS.
  - WHERE PROPOSED CONCRETE ABUTS EXISTING OR PROPOSED SIDEWALK OR CURBING, PROVIDE A MINIMUM 1/2" EXPANSION JOINT.
  - CONTROL LONGITUDINAL AND/OR TRANSVERSE JOINTS SHALL BE PLACED TO PROVIDE PANELS WITHIN THE PAVEMENT AS SQUARE AS POSSIBLE WITH THE FOLLOWING MAXIMUM SPACING PARAMETERS:
    - 6-INCH THICK CONCRETE PAVEMENT: 12' X 12'
    - 8-INCH THICK CONCRETE PAVEMENT: 15' X 15'
    - IRREGULAR-SHAPED PANELS MAY REQUIRE THE USE OF REINFORCING MESH OR FIBER MESH AS DETERMINED BY THE ENGINEER. THE USE OF MESH MUST BE APPROVED THE ENGINEER PRIOR TO COMMENCING WORK AND VIA THE SUBMITTAL PROCESS.
    - IF A JOINT PLAN IS NOT PROVIDED IN THE PLANS, THE CONTRACTOR SHALL SUBMIT ONE TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCING WORK AND VIA THE SUBMITTAL PROCESS.
- CONCRETE CURBING JOINTING - UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION
  - JOINTS WHEN ADJACENT TO ASPHALT PAVEMENT
    - PLACE CONTRACTION JOINTS AT 10' INTERVALS
    - PLACE 1/2" EXPANSION JOINT AT CATCH BASINS, EXISTING AND PROPOSED SIDEWALK OR EXISTING CURBING.
    - PLACE 1" EXPANSION JOINT:
      - AT SPRING POINTS OF INTERSECTIONS OR ONE OF THE END OF RADIUS LOCATIONS IN A CURVE
      - AT 400' MAXIMUM INTERVALS ON STRAIGHT RUNS
      - AT THE END OF RADIUS AT OPPOSITE ENDS IN A CURBED LANDSCAPE ISLAND
  - PLACE CONTRACTION JOINTS OPPOSITE ALL TRANSVERSE CONTRACTION JOINTS IN PAVEMENT
    - PLACE 1/2" EXPANSION JOINT AT CATCH BASINS, EXISTING AND PROPOSED SIDEWALK OR EXISTING CURBING.
    - PLACE 1" EXPANSION JOINT OPPOSITE ALL TRANSVERSE EXPANSION JOINTS IN PAVEMENT
    - CURB AND GUTTER AND CONCRETE SHALL BE TIED TOGETHER SIMILAR TO A LONGITUDINAL LANE TIE JOINT (MDOT B1 JOINT)
  - IN BETWEEN POURS OF PROPOSED CONCRETE CURBING (CONSTRUCTION JOINT):
    - CARRY THE REBAR CONTINUOUSLY BETWEEN POURS
    - IF THE REBAR IS NOT LONG ENOUGH TO CARRY CONTINUOUSLY, THEN THE TWO PIECES OF REBAR PER THE LATEST MDOT SPECIFICATIONS
- CONCRETE SIDEWALK JOINTING - UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION
  - PLACE TRANSVERSE CONTRACTION JOINTS EQUAL TO THE WIDTH OF THE WALK WHEN WIDTH IS LESS THAN 8'
  - PLACE TRANSVERSE AND LONGITUDINAL CONTRACTION JOINTS EQUAL TO 1/2 THE WIDTH OF THE WALK WHEN WIDTH IS EQUAL TO OR GREATER THAN 8'
  - PLACE 1" EXPANSION JOINT WHERE ABUTTING SIDEWALK RAMP AND/OR RADIUS IN INTERSECTION
  - PLACE TRANSVERSE 1/2" EXPANSION JOINT AT MAXIMUM OF 100' SPACING
  - PLACE 1/2" EXPANSION JOINT WHEN ABUTTING A FIXED STRUCTURE, OTHER PAVEMENT (CONCRETE PAVEMENT AND DRIVE APPROACHES), UTILITY STRUCTURES, LIGHT POLE BASES AND COLUMNS

**CONSTRUCTION MATERIAL SUBMITTALS**

UNLESS REQUIRED OTHERWISE IN THE PROJECT SPECIFICATIONS, THE CONTRACTOR SHALL ONLY SUBMIT THE FOLLOWING CONSTRUCTION MATERIAL SUBMITTALS, AS APPLICABLE TO THE PLANS, FOR REVIEW BY THE ENGINEER. UNLESS APPROVED IN ADVANCE AND IN WRITING BY THE ENGINEER, ANY MATERIAL SUBMITTALS PROVIDED TO THE ENGINEER FOR REVIEW IN ADDITION TO THIS LIST SHALL BE RETURNED TO THE CONTRACTOR WITHOUT A REVIEW BEING PERFORMED.

- SOIL EROSION AND SEDIMENTATION CONTROL MEASURES
- UTILITY TRENCH BACKFILL MATERIAL WITH ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER
- RIP RAP MATERIAL WITH ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER
- STORM AND SANITARY SEWER PIPING INCLUDING JOINTS
- STORM AND SANITARY SEWER STRUCTURES
- STORM AND SANITARY SEWER STRUCTURE FRAME AND COVERS INCLUDING CLEAN OUTS
- PAVEMENT AGGREGATE BASE MATERIAL WITH ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER
  - CONCRETE MIX DESIGN REVIEW CHECKLIST (FORM 2000)
  - SUPERPAVE MIX DESIGN CHECKLIST (FORM 1862)
  - MARSHALL MIX DESIGN CHECKLIST (FORM 1849)
- SITE FENCING AND GATES INCLUDING FOOTINGS
- SITE RAILINGS INCLUDING FOOTING OR EMBEDMENTS
- ANY ITEMS SHOWN IN THE PLANS OR DETAIL SHEETS THAT SPECIFICALLY STATE FOR THE CONTRACTOR TO SUBMIT A SHOP DRAWING TO THE ENGINEER FOR REVIEW. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO:
  - RETAINING WALL MATERIAL AND STRUCTURAL CALCULATIONS
  - TRENCH DRAIN MATERIAL AND SHOP DRAWING DEPICTING THE LAYOUT OF THE SYSTEM
  - ANY SPECIALITY ITEMS SHOWN IN THE PLANS OR DETAIL SHEETS THAT SPECIFICALLY DO NOT STATE FOR THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING TO THE ENGINEER FOR REVIEW BUT THE CONTRACTOR REQUESTS TO BE REVIEWED. THE CONTRACTOR'S REQUEST FOR REVIEW MUST BE IN WRITING AND APPROVED BY THE ENGINEER PRIOR TO SUBMITTING THE INFORMATION.

**CLIENT**

**VAN BUREN TOWNSHIP**  
4625 TYLER ROAD  
VAN BUREN, MICHIGAN



**PROJECT TITLE**

**IRON BELLE TRAIL SECTION K**  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN



**REVISIONS**

ORIGINAL ISSUE	12-12-2022
REVISED PER TOWNSHIP	8-8-2023
REVISED PER WC REVIEW	8-24-2023

**ORIGINAL ISSUE DATE:**

DECEMBER 12, 2022

**DRAWING TITLE**

**OVERALL SHEET**

PEA JOB NO. 2022-0652

P.M. JTS

DN. JMR

DES. JMR

DRAWING NUMBER:

**C-1.1**

**NOT FOR CONSTRUCTION**



**FLOODPLAIN:**  
(Per Flood Insurance Rate Map Number 26163C0358E, effective February 2, 2012)

BY GRAPHICAL PLOTTING, THE SITE LIES WITHIN:

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD (The 1% annual chance flood (100 year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.)

ZONE A - No Base Flood Elevations determined.

OTHER AREAS  
ZONE X - Area to be determined outside of the 0.2% annual chance floodplain.

**BENCHMARKS**  
(GPS DERIVED - NAVD88)

BM #300  
TOP OF SANITARY MANHOLE, 58 FEET SOUTH OF THE CENTER LINE OF EAST HURON RIVER DR. AND 45 FEET WEST OF THE CENTER LINE OF HAGGERTY RD.  
ELEV. - 656.26

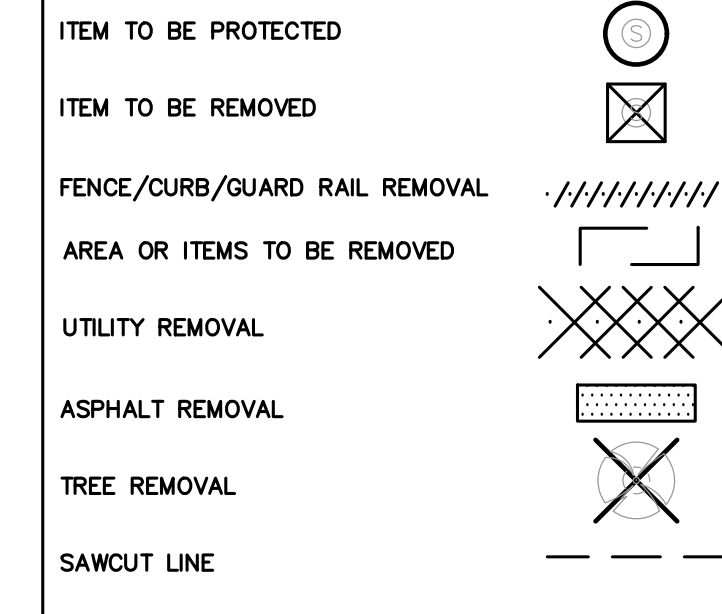
BM #301  
MAG NAIL IN THE NORTH FACE OF A POWER POLE LOCATED AT THE SOUTH CORNER OF HURON RIVER DR & HAGGERTY RD/METRO PKWY.  
ELEV. - 652.80

**GENERAL DEMOLITION NOTES:**

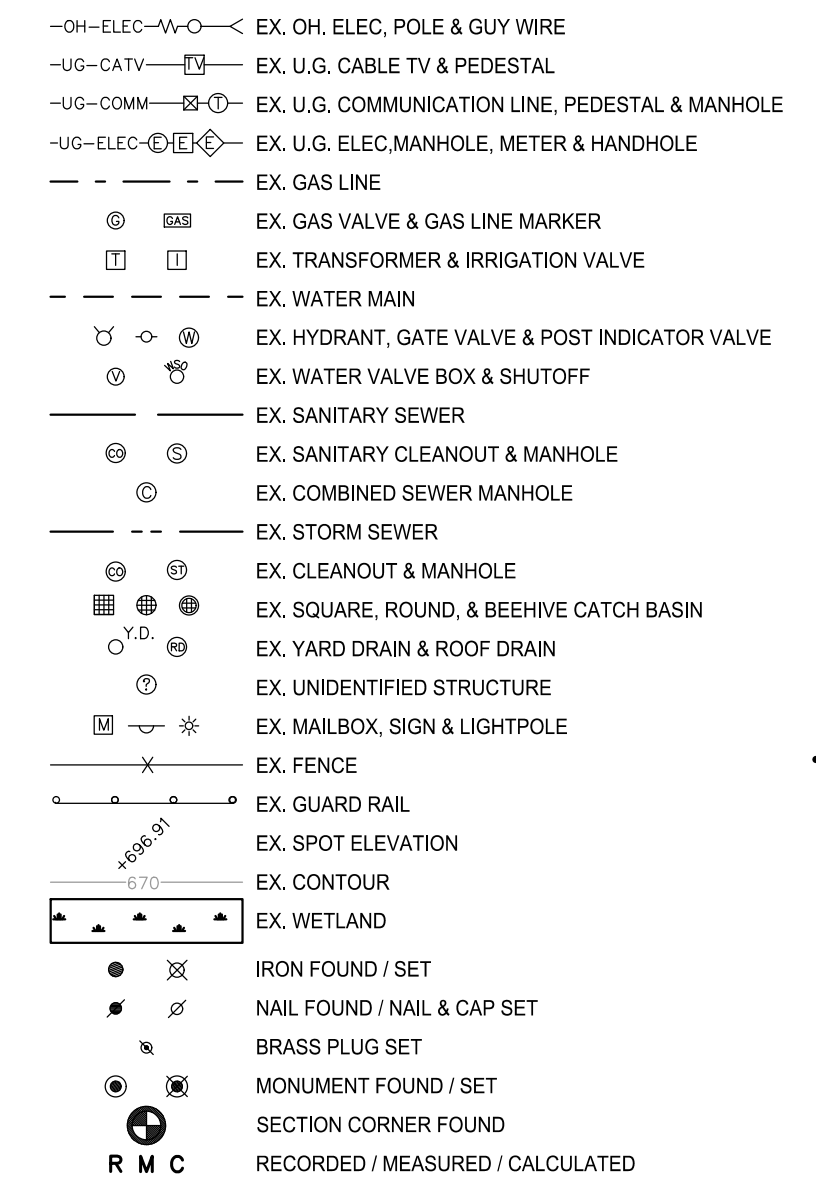
THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT:

- ALL MATERIAL TO BE REMOVED, WHETHER SPECIFICALLY NOTED IN THE PLANS OR NOT, SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF OFF-SITE IN A LEGAL MANNER. NO ON-SITE BURY OR BURN PITS SHALL BE ALLOWED.
- ALL DEMOLITION WORK SHALL CONFORM TO ALL LOCAL CODES AND ORDINANCES.
- STAGING/PHASING OF DEMOLITION AND CONSTRUCTION IS TO BE COORDINATED WITH THE OWNER AND THE CONTRACTOR PRIOR TO CONSTRUCTION.
- SPECIFIC DEMOLITION ITEMS HAVE BEEN INDICATED ON THE PLANS AS A GUIDE TO THE GENERAL SCOPE OF THE WORK. IT IS THE INTENT THAT THESE ITEMS SHALL BE COMPLETELY REMOVED BY THE CONTRACTOR ABOVE AND BELOW GROUND, UNLESS SPECIFICALLY NOTED OTHERWISE, AND THAT DEMOLITION WILL INCLUDE BUT WILL NOT NECESSARILY BE LIMITED TO THESE ITEMS. CONTRACTOR SHALL VISIT SITE TO VERIFY EXISTING CONDITIONS AND EXTENTS OF THE DEMOLITION THAT WILL BE REQUIRED PRIOR TO SUBMITTING A BID.
- REMOVE ALL STRUCTURES DESIGNATED FOR REMOVAL ACCORDING TO THE DEMOLITION PLAN. THIS INCLUDES FOUNDATIONS, FOOTINGS, FOUNDATION WALLS, FLOOR SLABS, UNDERGROUND UTILITIES, CONCRETE, ASPHALT, TREES, ETC.
- REFER TO SHEET C-5.2 FOR TREE PROTECTION DETAILS.
- THE CONTRACTOR SHALL, AS A MINIMUM, PROVIDE TREE PROTECTION FENCING AROUND EXISTING TREES TO BE SAVED THAT ARE WITHIN 15 FEET OF CONSTRUCTION ACTIVITIES AND AS INDICATED IN THE PLANS OR PER LOCAL AGENCY REQUIREMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN UP, NOISE, DUST CONTROL, STREET SWEEPING AND HOURS OF OPERATION IN ACCORDANCE WITH THE LOCAL CODES.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES, SIGNAGE, MARKINGS, LIGHTS AND OTHER TRAFFIC CONTROL DEVICES TO PROTECT THE WORK ZONE AND SAFELY MAINTAIN TRAFFIC PER AGENCY REQUIREMENTS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANIES TO CONFIRM THAT UTILITY LEADS HAVE BEEN TAKEN OUT OF SERVICE PRIOR TO DEMOLITION.
- ALL BUILDING GAS LEADS, METERS AND ASSOCIATED EQUIPMENT SHALL BE REMOVED AS SHOWN ON THE PLANS. COORDINATE ALL ASSOCIATED WORK WITH THE APPROPRIATE UTILITY COMPANY.
- REMOVE ALL OVERHEAD AND UNDERGROUND ELECTRICAL LINES WITHIN THE AREA OF CONSTRUCTION AS SHOWN ON THE PLANS. COORDINATE SHUTDOWNS AND REMOVALS WITH ELECTRICAL SERVICE PROVIDER OR THE APPROPRIATE UTILITY COMPANY. (NOTE: PHONE AND CABLE T.V. SERVICES MAY ALSO BE LOCATED ON OVERHEAD LINES.)
- THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF SIGNS AND SUPPORTS WITHIN THE WORK AREA, AS NECESSARY TO FACILITATE CONSTRUCTION. SIGNS SHALL BE PROTECTED OR STOCKPILED FOR REUSE AS SPECIFIED IN THE PLANS OR AS REQUIRED BY THE AGENCY OF JURISDICTION. THE CONTRACTOR SHALL REPLACE ANY DAMAGED SIGNS AND SUPPORTS AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE 811/ONE CALL UTILITY LOCATING CENTER, THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- TREES REMOVED WITHIN UNDER PROPOSED WALK ARE TO BE STUMPED.

**DEMOLITION LEGEND:**



**LEGEND:**



**REFERENCE DRAWINGS:**

WATER MAIN WAYNE COUNTY PLAT DATED 4/11/68  
STORM SEWER AT&T DATED 3/19/20  
ELECTRIC DTE DATED 4/08/20  
COMMUNICATION COMCAST DATED 3/19/20  
GAS DTE GAS EMAIL DATED 10/27/22



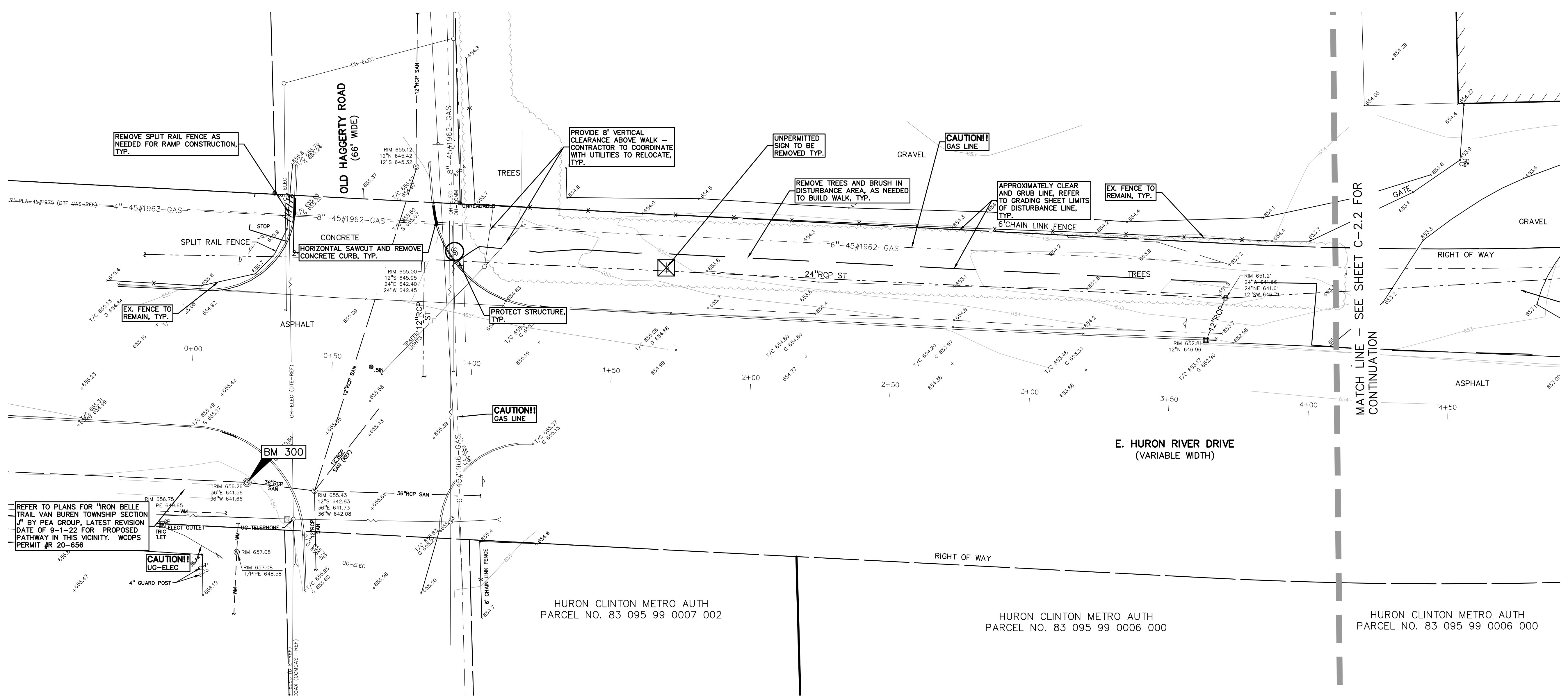
T: 844.813.2949  
www.peagroup.com



SCALE: 1" = 20'



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



TRAIL PLAN-E. HURON RIVER DR.  
STA 0+000 STA 4+08

CLIENT  
VAN BUREN TOWNSHIP  
4825 TYLER ROAD  
VAN BUREN, MICHIGAN



PROJECT TITLE  
IRON BELLE TRAIL  
SECTION K  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN



**REVISIONS**

ORIGINAL ISSUE	12-12-2022
REVISED PER TOWNSHIP	8-8-2023
REVISED PER WC REVIEW	8-24-2023

ORIGINAL ISSUE DATE:  
DECEMBER 12, 2022

DRAWING TITLE

**TOPOGRAPHICAL SURVEY AND DEMOLITION PLAN**

PEA JOB NO.	2022-0652
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

NOT FOR CONSTRUCTION C-2.1

S:\PROJECTS\2022\0652-0652-BT-SECTION-K\DWG\CONSTRUCTION\C-2.01.TPO & DEMO 22-0652.dwg



**FLOODPLAIN:**  
(Per Flood Insurance Rate Map Number 26163C0358E, effective February 2, 2012)

BY GRAPHICAL PLOTTING, THE SITE LIES WITHIN:

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD  
The 1% annual chance flood (100 year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

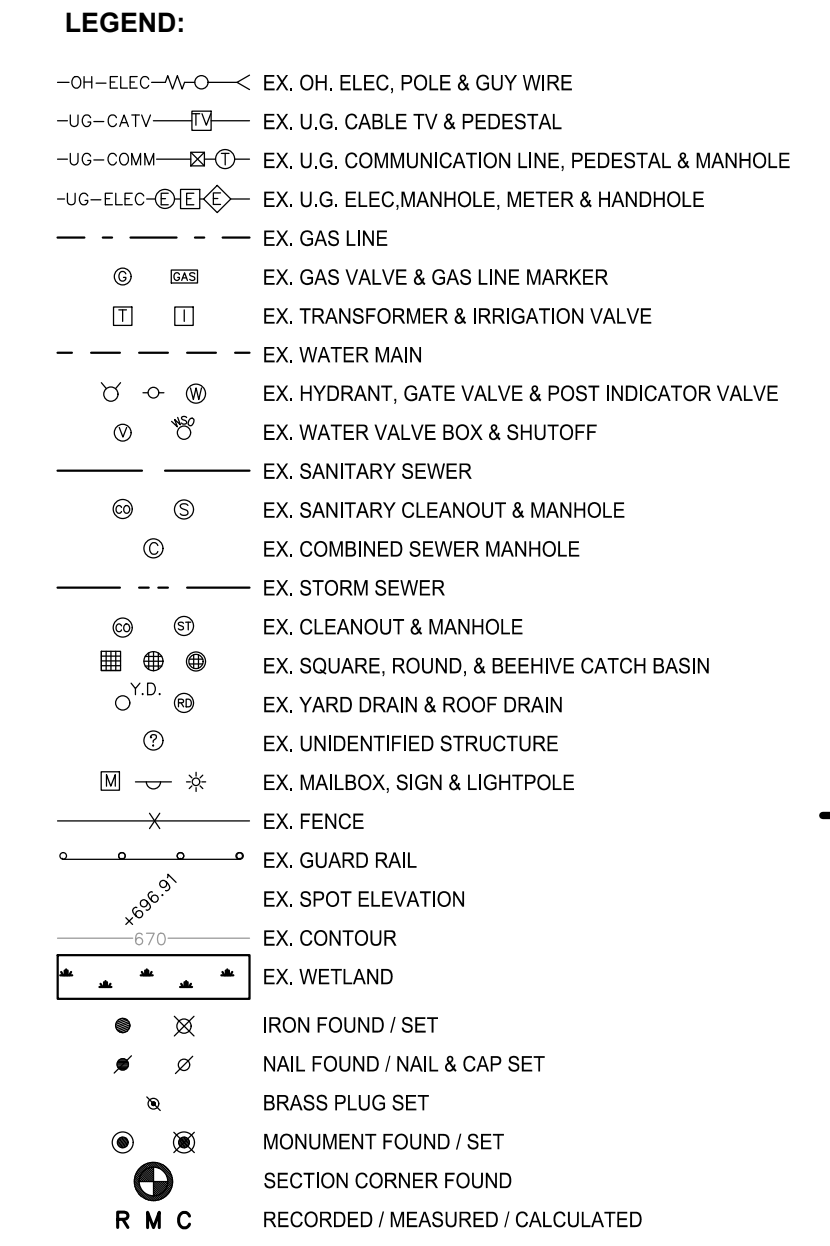
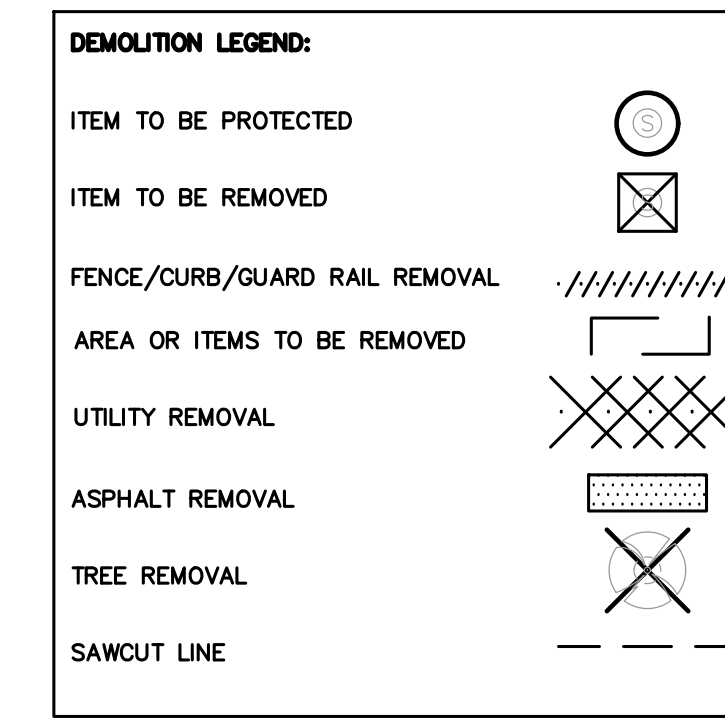
ZONE A - No Base Flood Elevations determined.

OTHER AREAS  
ZONE X - Area to be determined outside of the 0.2% annual chance floodplain.

**BENCHMARKS**  
(GPS DERIVED - NAVD88)

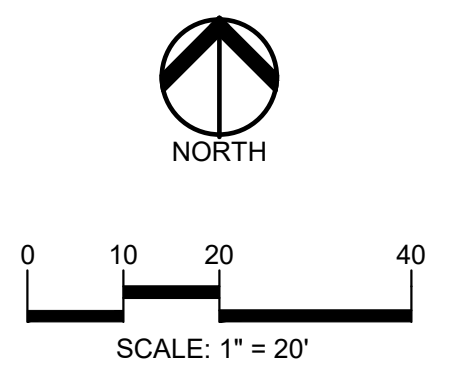
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ELEV. - 656.26

BM #301  
MAG NAIL IN THE NORTH FACE OF A POWER POLE LOCATED AT THE SOUTH CORNER OF HURON RIVER DR & HAGGERTY RD/METRO PKWY.  
ELEV. - 652.80

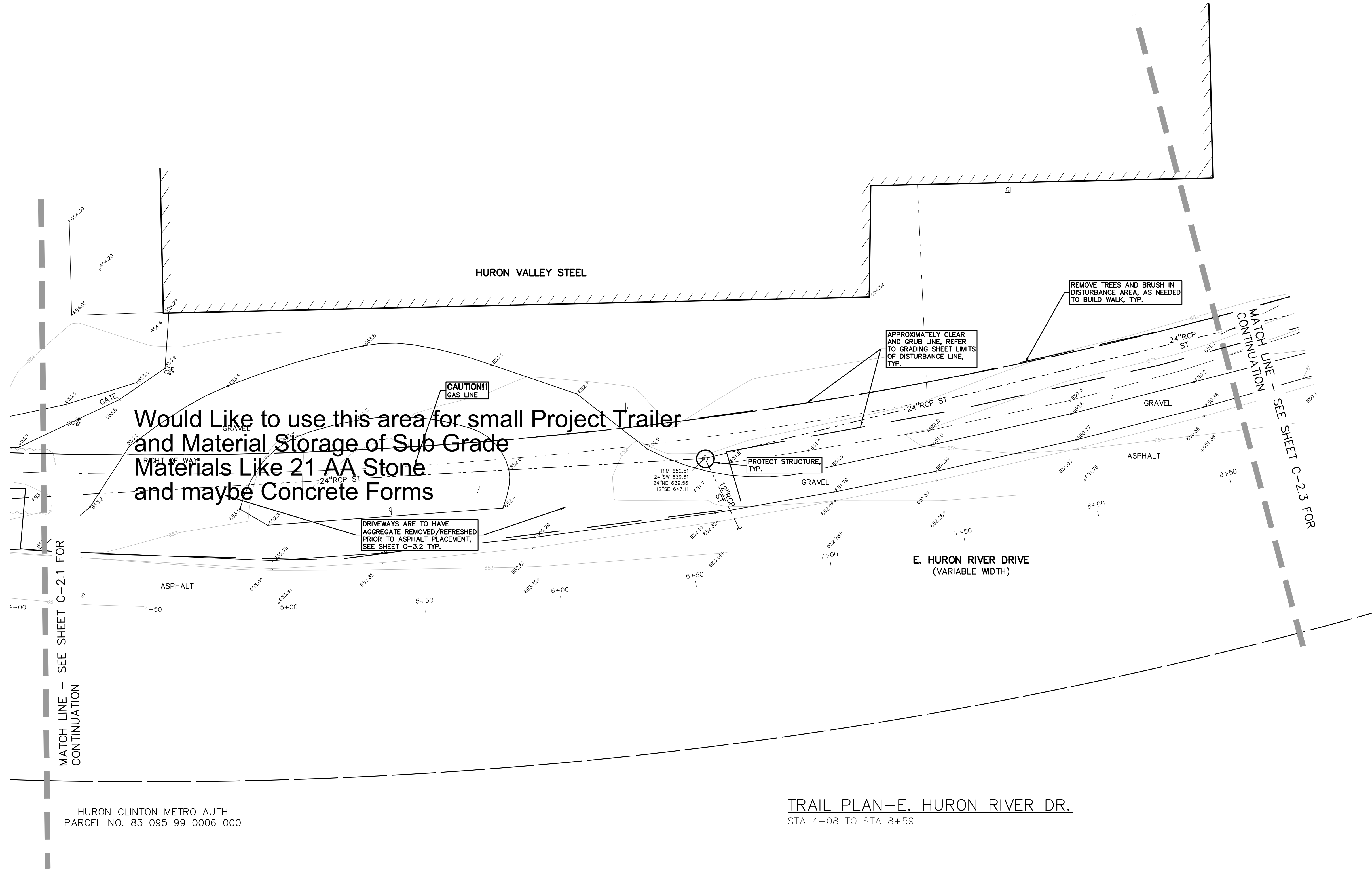


**REFERENCE DRAWINGS:**

- WATER MAIN NO INFORMATION AS OF 11/03/22
- SANITARY SEWER WAYNE COUNTY PLAT DATED 4/11/68
- STORM SEWER AT&T DATED 3/19/20
- ELECTRIC DTE DATED 4/08/20
- COMMUNICATION COMCAST DATED 3/19/20
- GAS DTE GAS EMAIL DATED 10/27/22



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**CLIENT**  
VAN BUREN TOWNSHIP  
48425 TYLER ROAD  
VAN BUREN, MICHIGAN

**PROJECT TITLE**  
IRON BELLE TRAIL  
SECTION K  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN



**REVISIONS**

ORIGINAL ISSUE	12-12-2022
REVISED PER TOWNSHIP	8-8-2023
REVISED PER WC REVIEW	8-24-2023

ORIGINAL ISSUE DATE:  
DECEMBER 12, 2022

**TOPOGRAPHICAL SURVEY AND DEMOLITION PLAN**

PEA JOB NO.	2022-0652
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

**NOT FOR CONSTRUCTION** C-2.2

S:\PROJECTS\2022\0652-0652-BT-SECTION-K\DWG\CONSTRUCTION\C-2.01.TPO & DEMO 22-0652.dwg



**FLOODPLAIN:**  
 (Per Flood Insurance Rate Map Number 26163C0358E, effective February 2, 2012)

BY GRAPHICAL PLOTTING, THE SITE LIES WITHIN:

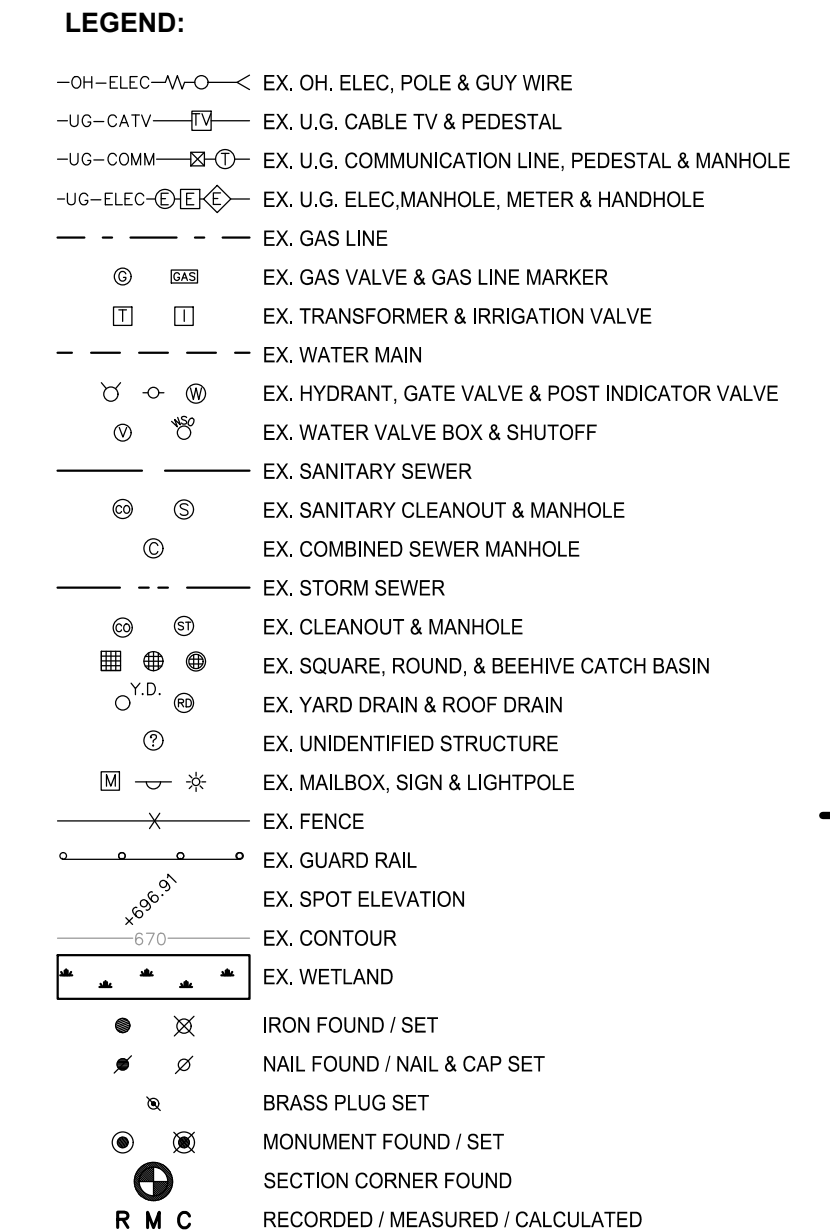
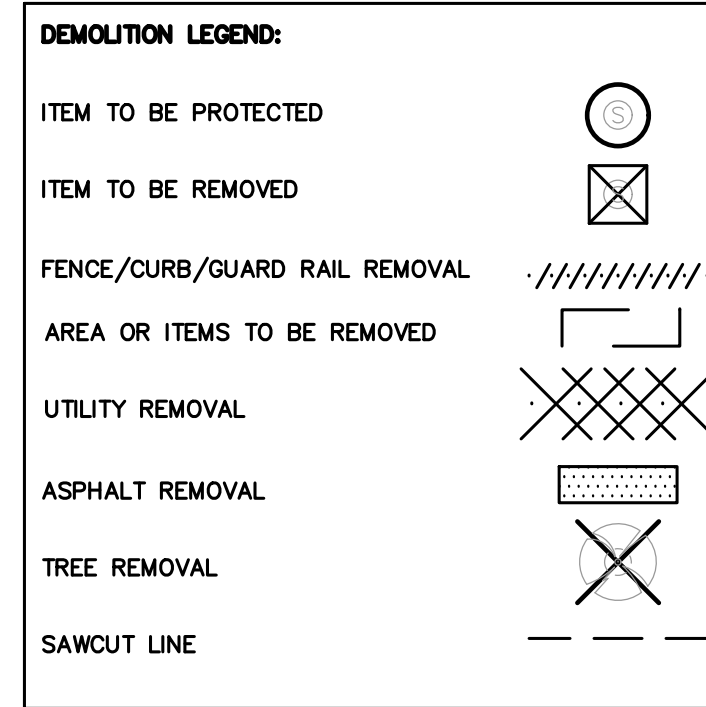
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- ZONE A - No Base Flood Elevations determined.
- OTHER AREAS
- ZONE X - Area to be determined outside of the 0.2% annual chance floodplain.

**BENCHMARKS**  
 (GPS DERIVED - NAVD88)

**BM #300**  
 TOP OF SANITARY MANHOLE, 58 FEET SOUTH OF THE CENTER LINE OF EAST HURON RIVER DR. AND 45 FEET WEST OF THE CENTER LINE OF HAGGERTY RD.  
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**BM #301**  
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 ELEV. - 652.80



**REFERENCE DRAWINGS:**

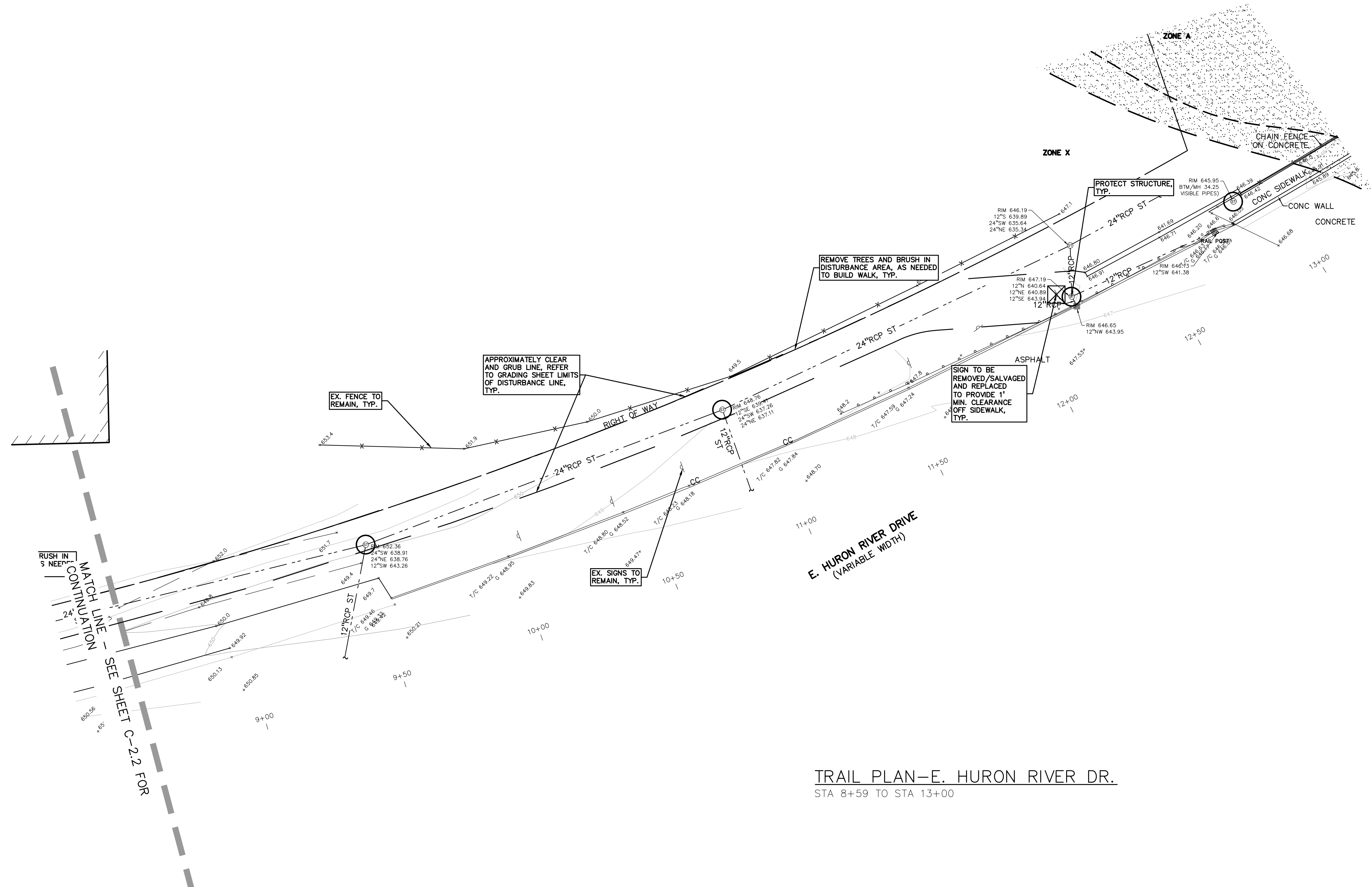
WATER MAIN	NO INFORMATION AS OF 11/03/22
SANITARY SEWER	WAYNE COUNTY PLAT DATED 4/11/168
STORM SEWER	AT&T DATED 3/19/20
ELECTRIC	DTE DATED 4/08/20
COMMUNICATION	COMCAST DATED 3/19/20
GAS	DTE GAS EMAIL DATED 10/27/22

**PEA GROUP**  
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0 10 20 40  
 SCALE: 1" = 20'

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

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**TRAIL PLAN - E. HURON RIVER DR.**  
 STA 8+59 TO STA 13+00

**CLIENT**  
**VAN BUREN TOWNSHIP**  
 48425 TYLER ROAD  
 VAN BUREN, MICHIGAN

**PROJECT TITLE**  
**IRON BELLE TRAIL SECTION K**  
 VAN BUREN TOWNSHIP  
 VAN BUREN, MICHIGAN

**REVISIONS**

ORIGINAL ISSUE	12-12-2022
REVISED PER TOWNSHIP	8-8-2023
REVISED PER WC REVIEW	8-24-2023

ORIGINAL ISSUE DATE:  
 DECEMBER 12, 2022

DRAWING TITLE  
**TOPOGRAPHICAL SURVEY AND DEMOLITION PLAN**

PEA JOB NO.	2022-0652
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

**NOT FOR CONSTRUCTION** **C-2.3**

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- WAYNE COUNTY CONSTRUCTION NOTES:**
1. SAWCUT FULL DEPTH THE EXISTING PAVEMENT TO THE NEAREST JOINT WITHIN WAYNE COUNTY ROAD RIGHT-OF-WAY AND REMOVE THE EXISTING PAVEMENT AND CURBS AS DIRECTED BY WAYNE COUNTY ENGINEER.
  2. CONSTRUCT WAYNE COUNTY ROAD PAVEMENT PER WAYNE COUNTY STANDARDS DETAIL "PR-1" OR "PR-2" AS APPLICABLE, OR AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
  3. PLACE 9" OF 21AA AGGREGATE COMPACTED TO MINIMUM 95% DENSITY OF MAXIMUM UNIT WEIGHT OR AS DIRECTED BY WAYNE COUNTY ENGINEER.
  4. CONSTRUCT WAYNE COUNTY ROAD PAVEMENT REPAIRS WITH MINIMUM OF 2.0" HMA TOP (F) ON MINIMUM 10" NON-REINFORCED CONCRETE WC 35 P MIX (3500 PSI AT 28 DAYS) AND INTEGRAL STRAIGHT CURB TYPE "4" AS PER WAYNE COUNTY STANDARD DETAIL "RS-3" OR AS DIRECTED BY WAYNE COUNTY ENGINEER.
  5. TIE THE NEW PAVEMENT TO THE EXISTING PAVEMENT WITH #5 EPOXY COATED BARS AT MAXIMUM 43-INCH ON CENTER LONGITUDINALLY AND AT 18-INCH ON CENTER TRANSVERSELY AS PER WAYNE COUNTY STANDARD DETAIL "RS-2" OR AS DIRECTED BY THE COUNTY ENGINEER.
  6. PLACE THE CONSTRUCTION JOINTS OF THE NEW PAVEMENT TO MATCH THE EXISTING PAVEMENT JOINTS OR AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
  7. REPLACE ANY DAMAGED CURBS AS A RESULT OF THIS PROJECT ACTIVITY AS PER WAYNE COUNTY STANDARD DETAIL "D-7" OR AS DIRECTED BY THE COUNTY ENGINEER.
  8. ANY DAMAGED UNDERDRAIN AS A RESULT OF THIS PROJECT ACTIVITY SHALL BE RECONSTRUCTED AS PER WAYNE COUNTY DETAIL "S-14" OR AS DIRECTED BY THE COUNTY ENGINEER.
  9. ANY DAMAGED SIDEWALK AS A RESULT OF THIS PROJECT ACTIVITY SHALL BE RECONSTRUCTED AS PER WAYNE COUNTY DETAIL "RS-5" OR AS DIRECTED BY THE COUNTY ENGINEER.
  10. MAINTAIN A MAXIMUM 2% TRANSVERSE SLOPE ON THE SIDEWALK.
  11. ANY DAMAGED SIDEWALK RAMPS SHOULD BE REPLACED TO MATCH THE ADA REQUIREMENTS AS PER MDOT STANDARD DETAIL "R-28-1".
  12. STRUCTURE ADJUSTMENT SHALL BE DETERMINED AT THE SITE BY WAYNE COUNTY ENGINEER.
  13. RELOCATE, RESTORE, OR REPLACE ANY TRAFFIC SIGNS THAT ARE AFFECTED BY THIS CONSTRUCTION AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
  14. RELOCATE ANY EXISTING UTILITY THAT IS IN CONFLICT WITH THE PROPOSED WORK AS DIRECTED BY THE COUNTY ENGINEER AND UTILITY COMPANY REPRESENTATIVE.

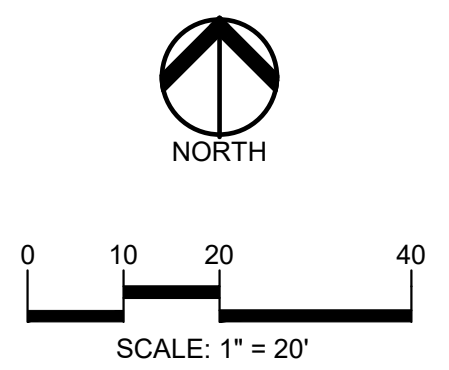
- GENERAL NOTES:**
- THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
1. ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.
  2. WAYNE COUNTY ENGINEER WILL DETERMINE THE LOCATION OF ALL SIGNS THAT ARE REMOVED AND RELOCATED AS PART OF THIS PROJECT.
  3. REFER TO NOTES & DETAILS SHEET FOR ON-SITE PAVING DETAILS.
  4. REFER TO NOTES & DETAILS SHEET FOR ON-SITE SIDEWALK RAMP DETAILS.

- SIDEWALK RAMP LEGEND:**
- SIDEWALK RAMP 'TYPE R' (R)
  - SIDEWALK RAMP 'TYPE F' (F)
  - SIDEWALK RAMP 'TYPE P' (P)
  - SIDEWALK RAMP 'TYPE C' (C)
  - SIDEWALK RAMP 'TYPE D' (D)
  - CURB DROP ONLY (X)
- REFER TO LATEST MDOT R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS

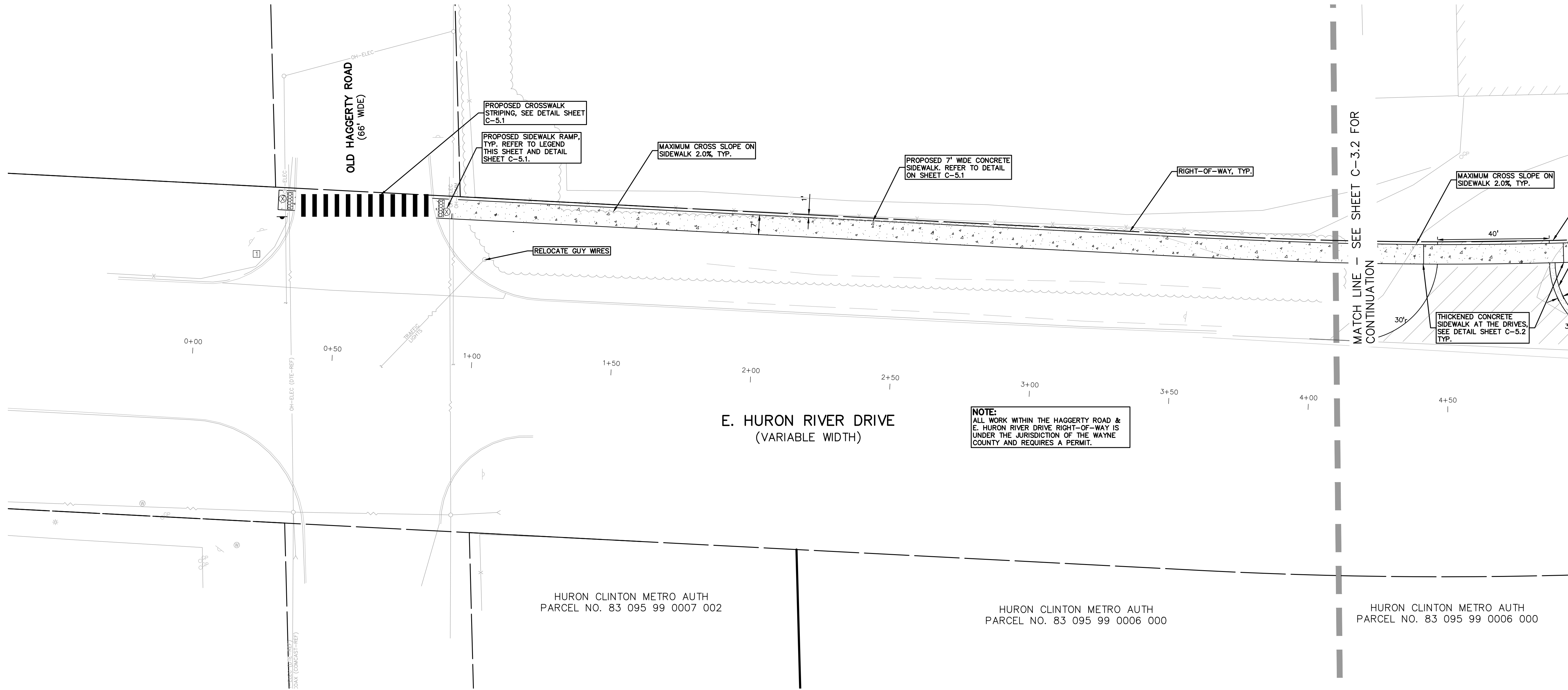
- SIGN LEGEND:**
- REMOVED AND RELOCATED SIGN (S)
- REFER TO DETAIL SHEET FOR SIGN DETAILS

**LEGEND:**

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



**CAUTION!!**  
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**NOTE:**  
 ALL WORK WITHIN THE HAGGERTY ROAD & E. HURON RIVER DRIVE RIGHT-OF-WAY IS UNDER THE JURISDICTION OF THE WAYNE COUNTY AND REQUIRES A PERMIT.

**TRAIL PLAN—E. HURON RIVER DR.**  
 STA 0+00 TO STA 4+08

**CLIENT**  
**VAN BUREN TOWNSHIP**  
 48425 TYLER ROAD  
 VAN BUREN, MICHIGAN

**PROJECT TITLE**  
**IRON BELLE TRAIL**  
**SECTION K**  
 VAN BUREN TOWNSHIP  
 VAN BUREN, MICHIGAN



**REVISIONS**

ORIGINAL ISSUE	12-12-2022
REVISED PER TOWNSHIP	8-8-2023
REVISED PER WC REVIEW	8-24-2023

**ORIGINAL ISSUE DATE:**  
 DECEMBER 12, 2022

**DRAWING TITLE**  
**DIMENSIONAL PAVING PLAN**

PEA JOB NO.	2022-0652
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

**NOT FOR CONSTRUCTION**

**C-3.1**

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

- ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.
- REFER TO NOTES & DETAILS SHEET FOR ON-SITE PAVING DETAILS.
- REFER TO NOTES & DETAILS SHEET FOR ON-SITE SIDEWALK RAMP DETAILS.

**SIDEWALK RAMP LEGEND:**

- SIDEWALK RAMP 'TYPE R' (R)
- SIDEWALK RAMP 'TYPE F' (F)
- SIDEWALK RAMP 'TYPE P' (P)
- SIDEWALK RAMP 'TYPE C' (C)
- SIDEWALK RAMP 'TYPE D' (D)
- CURB DROP ONLY (X)

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

**SIGN LEGEND:**

- REMOVED AND RELOCATED SIGN (S)

REFER TO DETAIL SHEET FOR SIGN DETAILS

**LEGEND:**

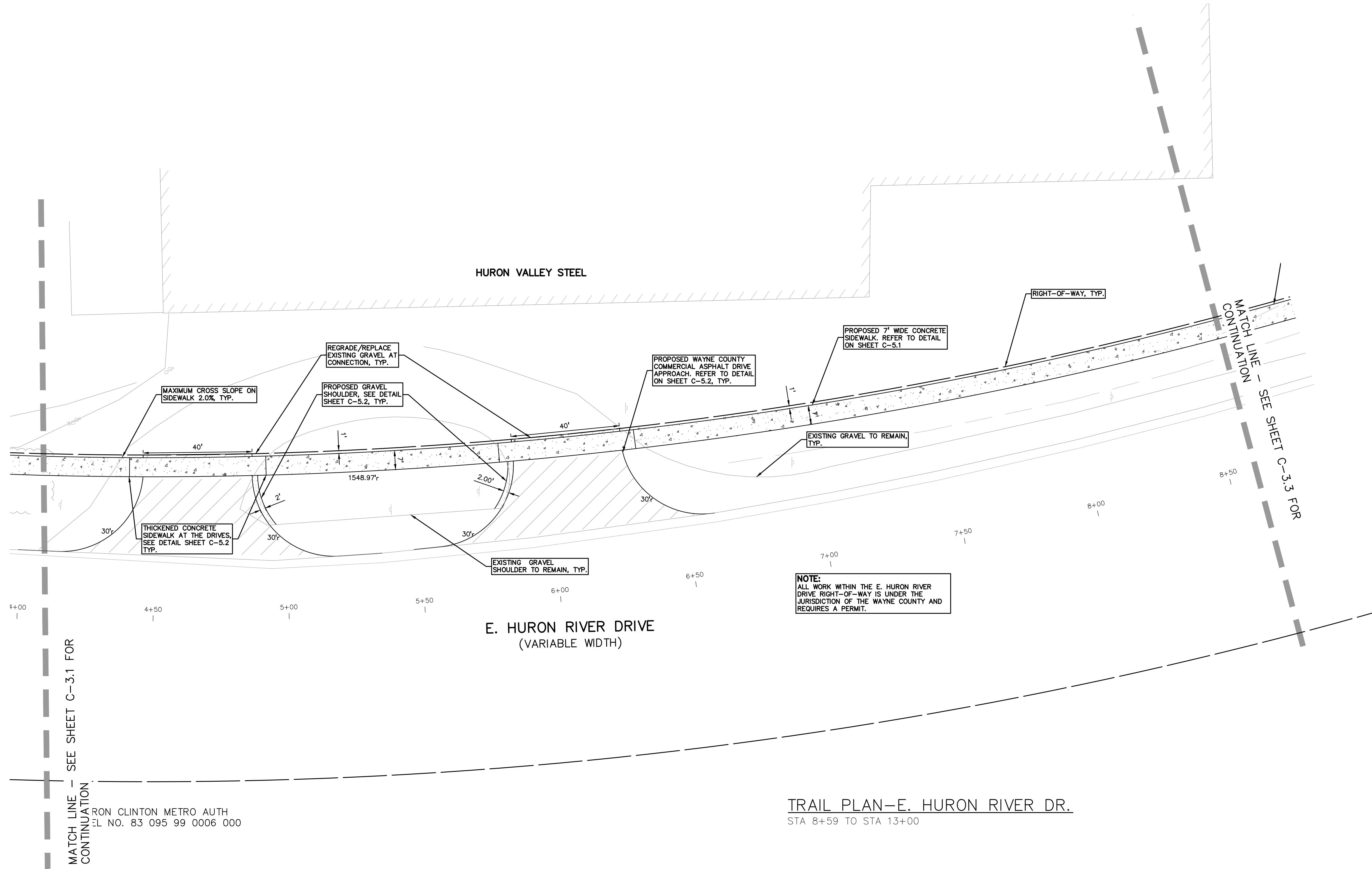
- CONCRETE PAVEMENT (STD DUTY, HEAVY DUTY, R.O.W ONLY)
- ASPHALT PAVEMENT (STD DUTY, HEAVY DUTY, DEEP DUTY STRENGTH)
- GRAVEL
- WETLAND
- CONCRETE CURB AND GUTTER
- REVERSE GUTTER PAN
- SETBACK LINE
- SIGN LIGHTPOLE
- FENCE
- GUARD RAIL

NORTH

0 10 20 40  
SCALE: 1" = 20'

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

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**NOTE:**  
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**TRAIL PLAN-E. HURON RIVER DR.**  
STA 8+59 TO STA 13+00

**CLIENT**  
VAN BUREN TOWNSHIP  
48425 TYLER ROAD  
VAN BUREN, MICHIGAN

**PROJECT TITLE**  
IRON BELLE TRAIL  
SECTION K  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN

**REVISIONS**

ORIGINAL ISSUE	12-12-2022
REVISED PER TOWNSHIP	8-8-2023
REVISED PER WC REVIEW	8-24-2023

**ORIGINAL ISSUE DATE:**  
DECEMBER 12, 2022

**DRAWING TITLE**  
**DIMENSIONAL PAVING PLAN**

PEA JOB NO.	2022-0652
P.M.	JTS
DN.	JMR
DES.	JMR

DRAWING NUMBER:

S:\PROJECTS\2022\0652-0602-BT-SECTION-K\DWG\CONSTRUCTION\C-3.01.DWG 22-0602.dwg



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

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2. REFER TO NOTES & DETAILS SHEET FOR ON-SITE PAVING DETAILS.
3. REFER TO NOTES & DETAILS SHEET FOR ON-SITE SIDEWALK RAMP DETAILS

**SIDEWALK RAMP LEGEND:**

- SIDEWALK RAMP 'TYPE R' (R)
- SIDEWALK RAMP 'TYPE F' (F)
- SIDEWALK RAMP 'TYPE P' (P)
- SIDEWALK RAMP 'TYPE C' (C)
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REFER TO LATEST MDOT R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS

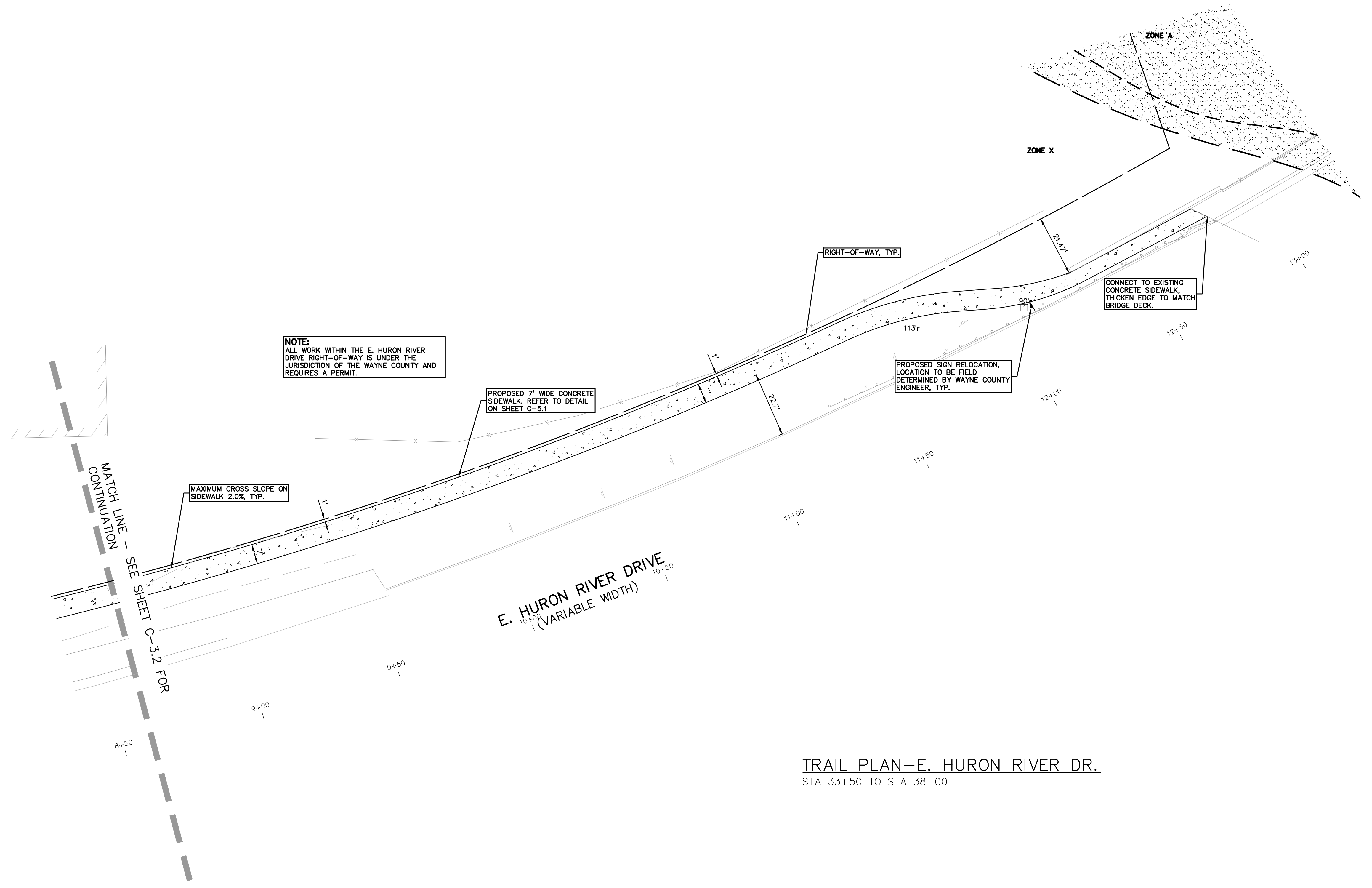
**LEGEND:**

- CONCRETE PAVEMENT
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- FENCE
- GUARD RAIL

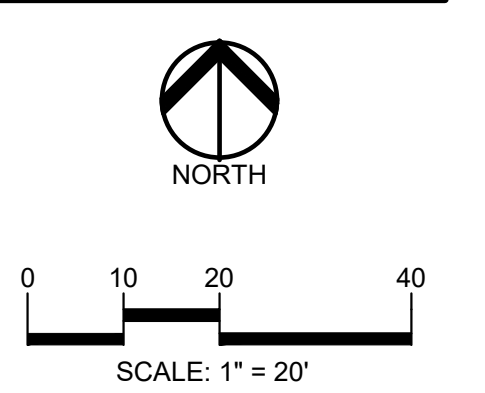
**SIGN LEGEND:**

- REMOVED AND RELOCATED SIGN (R)

REFER TO DETAIL SHEET FOR SIGN DETAILS



**TRAIL PLAN—E. HURON RIVER DR.**  
 STA 33+50 TO STA 38+00



**CAUTION!!**  
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**CLIENT**  
**VAN BUREN TOWNSHIP**  
 48425 TYLER ROAD  
 VAN BUREN, MICHIGAN

**PROJECT TITLE**  
**IRON BELLE TRAIL SECTION K**  
 VAN BUREN TOWNSHIP  
 VAN BUREN, MICHIGAN



**REVISIONS**

ORIGINAL ISSUE	12-12-2022
REVISED PER TOWNSHIP	8-8-2023
REVISED PER WC REVIEW	8-24-2023

ORIGINAL ISSUE DATE:  
 DECEMBER 12, 2022

DRAWING TITLE  
**DIMENSIONAL PAVING PLAN**

PEA JOB NO.	2022-0652
P.M.	JTS
DN.	JMR
DES.	JMR

DRAWING NUMBER:

S:\PROJECTS\2022\0652-0652-BT-SECTION-K\DWG\CONSTRUCTION\C-3.01.DWG 22-0652.dwg







**BENCHMARKS**  
(GPS DERIVED - NAVD88)

BM #300  
TOP OF SANITARY MANHOLE, 58 FEET SOUTH OF THE CENTER LINE OF EAST HURON RIVER DR. AND 45 FEET WEST OF THE CENTER LINE OF HAGGERTY RD.  
ELEV. - 656.26

BM #301  
MAG NAIL IN THE NORTH FACE OF A POWER POLE LOCATED AT THE SOUTH CORNER OF HURON RIVER DR & HAGGERTY RD/METRO PKWY.  
ELEV. - 652.80

**SYMBOLS: EROSION CONTROL**

- □ — SILT FENCE  
(REFER TO DETAIL ON SHEET C-6.1 SHEET)
- INLET FILTER  
(REFER TO DETAIL ON SHEET C-6.1 SHEET)
- APPROXIMATE SEEDING RESTORATION LOCATIONS
- — — LIMITS OF DISTURBANCE

**GENERAL SITE CONDITIONS:**

1. TOTAL DISTURBED AREA = ± 0.48 ACRES

**SOIL EROSION CONTROL NOTES:**

1. ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO STANDARDS AND SPECIFICATIONS OF THE WAYNE COUNTY.
2. DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR FOR EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES, AND ANY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
3. EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
4. CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES WHEN REQUIRED AND AS DIRECTED ON THESE PLANS. REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES, AND OTHER EARTH CHANGES HAVE BEEN ACCOMPLISHED AND A CERTIFICATE OF COMPLETION HAS BEEN ISSUED BY THE WAYNE COUNTY FOR THE SESC PERMIT.
5. STAGING THE WORK SHALL BE DONE BY THE CONTRACTOR AS DIRECTED IN THESE PLANS AND AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH.
6. SOIL EROSION CONTROL PRACTICES SHALL BE ESTABLISHED IN EARLY STAGES OF CONSTRUCTION BY THE CONTRACTOR. SEDIMENT CONTROL PRACTICES SHALL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF SILT OFF THE SITE.

**SOIL EROSION MAINTENANCE SCHEDULE AND NOTES:**

THE CONTRACTOR SHALL INSPECT THE SOIL EROSION AND SEDIMENTATION CONTROL DEVICES ONCE EACH WEEK AND/OR WITHIN 24 HOURS OF A RAINFALL EVENT WHICH RESULTS IN A STORM WATER DISCHARGE FROM THE SITE. THE FOLLOWING STEPS SHALL BE IMPLEMENTED IF ANY DAMAGE HAS OCCURRED.

1. ANY DEBRIS OR DIRT ON ANY PAVED AREA RESULTING FROM CONSTRUCTION TRAFFIC SHALL BE CLEANED IN A PROMPT MANNER BY THE CONTRACTOR. THE CONSTRUCTION DRIVE SHALL BE CLEANED AT THE END OF EACH DAY.
2. ALL DIRT AND MUD TRACKED ONTO PAVED AREAS SHALL BE REMOVED DAILY BY SCRAPING. STREET SWEEPING IS REQUIRED WEEKLY.
3. SILT FENCE MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY BUILT UP SEDIMENT WHEN THE SEDIMENT HEIGHT ACCUMULATES TO 1/3 TO 1/2 OF THE HEIGHT OF THE FENCE. THE CONTRACTOR IS RESPONSIBLE TO REMOVE, REPLACE, RETRENCH OR REBACKFILL THE SILTATION FENCE SHOULD IT FALL OR BE DAMAGED DURING CONSTRUCTION.
4. INLET FILTER MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY ACCUMULATED SILT OR OTHER DEBRIS. THE REMOVAL OF SILT SHOULD BE WITH THE USE OF A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL. IF INLET FILTERS CAN NOT BE CLEANED OR ARE DAMAGED, THEN THE FABRIC MUST BE REPLACED.
5. A WATER TRUCK SHALL BE AVAILABLE TO WATER DOWN THE SITE ON A DAILY BASIS AS REQUIRED TO MAINTAIN DUST CONTROL.

**STREET CLEANING SCHEDULE**

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
SCRAPE STREETS		X	X	X	X	X	X
SWEEP STREETS				X			

**EROSION CONTROL QUANTITIES:**

AREA DISTURBED = .71 AC.  
SILT FENCE 1655 LF  
INLET FILTERS 5 EA.  
3" TOPSOIL, SEED & MULCH 1855 S.Y.

**FINAL INSPECTION AND CERTIFICATE OF COMPLETION REQUIREMENTS:**

1. ALL ITEMS ON APPROVED SESC PLAN AND PERMIT MUST BE COMPLETED.
2. ALL DISTURBED EARTH MUST BE PERMANENTLY STABILIZED WITH VEGETATION OR HARD SURFACE.
3. ACCUMULATED SEDIMENT MUST BE REMOVED FROM THE ENTIRE STORM SEWER SYSTEM.
4. ACCUMULATED SEDIMENT MUST BE REMOVED FROM THE SEDIMENTATION BASIN.
5. ALL TEMPORARY SESC DEVICES MAY BE REMOVED AFTER CERTIFICATE OF COMPLETION.

**GRADING LEGEND:**

- +986.91— EXISTING SPOT ELEVATION
- 622.50— PROPOSED SPOT ELEVATION: TYPICALLY TOP OF PAVEMENT IN PAVED AREAS, GUTTER GRADE IN CURB LINES.
- 670— EXISTING CONTOUR
- 922— PROPOSED CONTOUR
- — — PROPOSED REVERSE GUTTER PAN
- — — PROPOSED RIDGE LINE
- — — PROPOSED SWALE/DITCH

**ABBREVIATIONS**

- T/C = TOP OF CURB
  - T/P = TOP OF PAVEMENT
  - T/S = TOP OF SIDEWALK
  - T/W = TOP OF WALL
  - G = GUTTER GRADE
  - F.G. = FINISH GRADE
  - RM = RIM ELEVATION
  - B/W = BOTTOM OF WALL
- REFER TO GRADING NOTES ON SHEET C-1.1.

**EARTHWORK BALANCING NOTE:**

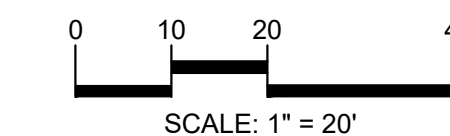
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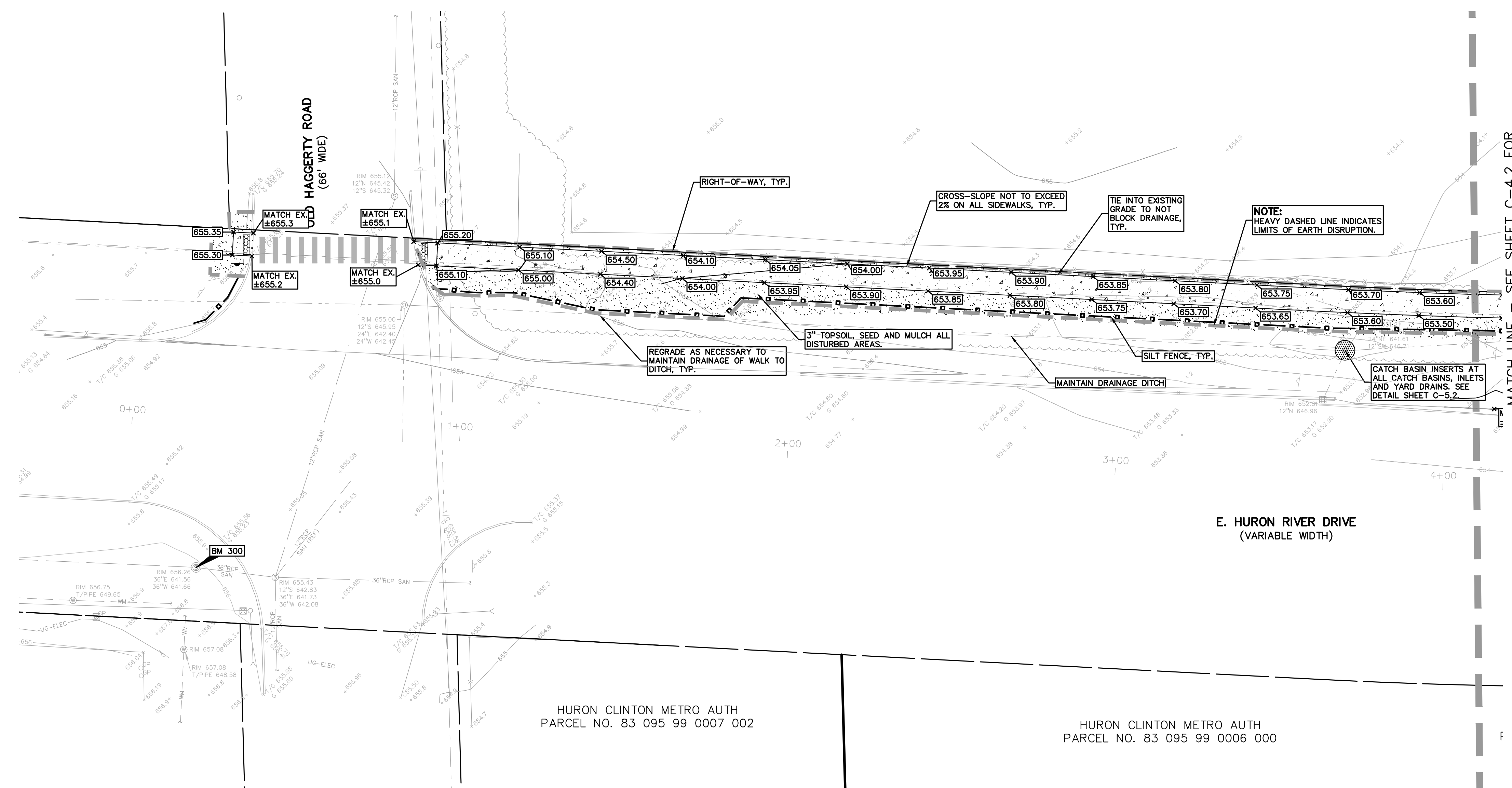
t: 844.813.2949  
www.peagroup.com



NORTH

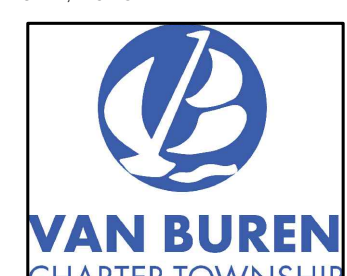


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**TRAIL PLAN—E. HURON RIVER DR.**  
STA 0+00 TO STA 4+08

CLIENT  
**VAN BUREN TOWNSHIP**  
4825 TYLER ROAD  
VAN BUREN, MICHIGAN



PROJECT TITLE  
**IRON BELLE TRAIL SECTION K**  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN



**REVISIONS**

REVISIONS	DATE
ORIGINAL ISSUE	12-12-2022
REVISED PER TOWNSHIP	8-8-2023
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ORIGINAL ISSUE DATE:  
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DRAWING TITLE  
**GRADING PLAN**

PEA JOB NO.	2022-0652
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

NOT FOR CONSTRUCTION **C-4.1**

S:\PROJECTS\2022\0652-0652-BT-SECTION-K\DWG\CONSTRUCTION\C-4.1 GRADING 22-0652.dwg



**BENCHMARKS**  
(GPS DERIVED - NAVD88)

BM #300  
TOP OF SANITARY MANHOLE, 58 FEET SOUTH OF THE CENTER LINE OF EAST HURON RIVER DR. AND 45 FEET WEST OF THE CENTER LINE OF HAGGERTY RD.  
ELEV. - 656.26

BM #301  
MAG NAIL IN THE NORTH FACE OF A POWER POLE LOCATED AT THE SOUTH CORNER OF HURON RIVER DR & HAGGERTY RD/METRO PKWY.  
ELEV. - 652.80

**SYMBOLS: EROSION CONTROL**

- SILT FENCE  
(REFER TO DETAIL ON SHEET C-6.1 SHEET)
- INLET FILTER  
(REFER TO DETAIL ON SHEET C-6.1 SHEET)
- APPROXIMATE SEEDING RESTORATION LOCATIONS
- LIMITS OF DISTURBANCE

**GRADING LEGEND:**

- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION:  
TYPICALLY TOP OF PAVEMENT  
IN PAVED AREAS, GUTTER GRADE  
IN CURB LINES.
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED REVERSE GUTTER PAN
- PROPOSED RIDGE LINE
- PROPOSED SWALE/DITCH

**ABBREVIATIONS**

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- F.G. = FINISH GRADE
- RIM = RIM ELEVATION
- B/W = BOTTOM OF WALL

REFER TO GRADING NOTES ON SHEET C-1.1.

**PEA GROUP**  
t: 844.813.2949  
www.peagroup.com

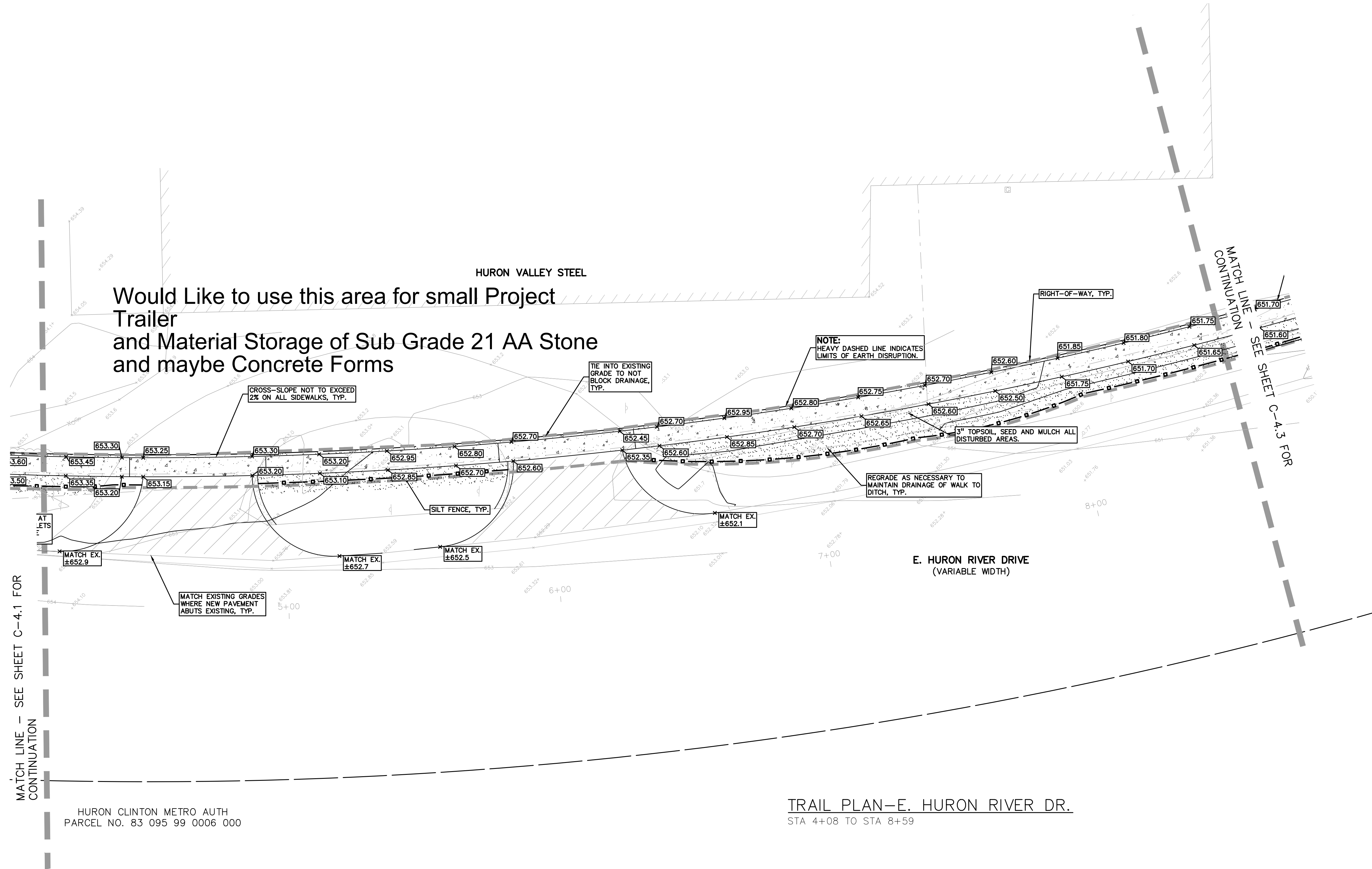
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NORTH

0 10 20 40  
SCALE: 1" = 20'

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

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Would Like to use this area for small Project Trailer and Material Storage of Sub Grade 21 AA Stone and maybe Concrete Forms

**TRAIL PLAN-E. HURON RIVER DR.**  
STA 4+08 TO STA 8+59

**CLIENT**  
VAN BUREN TOWNSHIP  
4825 TYLER ROAD  
VAN BUREN, MICHIGAN

**VAN BUREN CHARTER TOWNSHIP**

**PROJECT TITLE**  
IRON BELLE TRAIL  
SECTION K  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN

**REVISIONS**

ORIGINAL ISSUE	12-12-2022
REVISED PER TOWNSHIP	8-8-2023
REVISED PER WC REVIEW	8-24-2023

ORIGINAL ISSUE DATE:  
DECEMBER 12, 2022

DRAWING TITLE  
**GRADING PLAN**

PEA JOB NO.	2022-0652
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

NOT FOR CONSTRUCTION **C-4.2**

S:\PROJECTS\2022\0652-0652 BT SECTION K\DWG\CONSTRUCTION\C-4.01 GRAD 22-0652.dwg

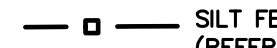


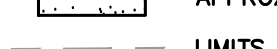


**BENCHMARKS**  
(GPS DERIVED - NAVD88)

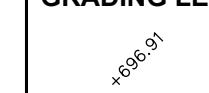
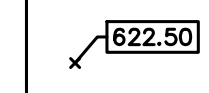

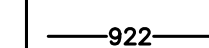

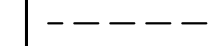
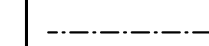
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ELEV. - 656.26

BM #301  
MAG NAIL IN THE NORTH FACE OF A POWER POLE LOCATED AT THE SOUTH CORNER OF HURON RIVER DR & HAGGERTY RD/METRO PKWY.  
ELEV. - 652.80

**SYMBOLS: EROSION CONTROL**

-  SILT FENCE  
(REFER TO DETAIL ON SHEET C-6.1 SHEET)
-  INLET FILTER  
(REFER TO DETAIL ON SHEET C-6.1 SHEET)
-  APPROXIMATE SEEDING RESTORATION LOCATIONS
-  LIMITS OF DISTURBANCE

**GRADING LEGEND:**

-  EXISTING SPOT ELEVATION
-  PROPOSED SPOT ELEVATION: TYPICALLY TOP OF PAVEMENT IN PAVED AREAS, GUTTER GRADE IN CURB LINES.
-  EXISTING CONTOUR
-  PROPOSED CONTOUR
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**ABBREVIATIONS**


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REFER TO GRADING NOTES ON SHEET C-1.1.

**PEA GROUP**  
t: 844.813.2949  
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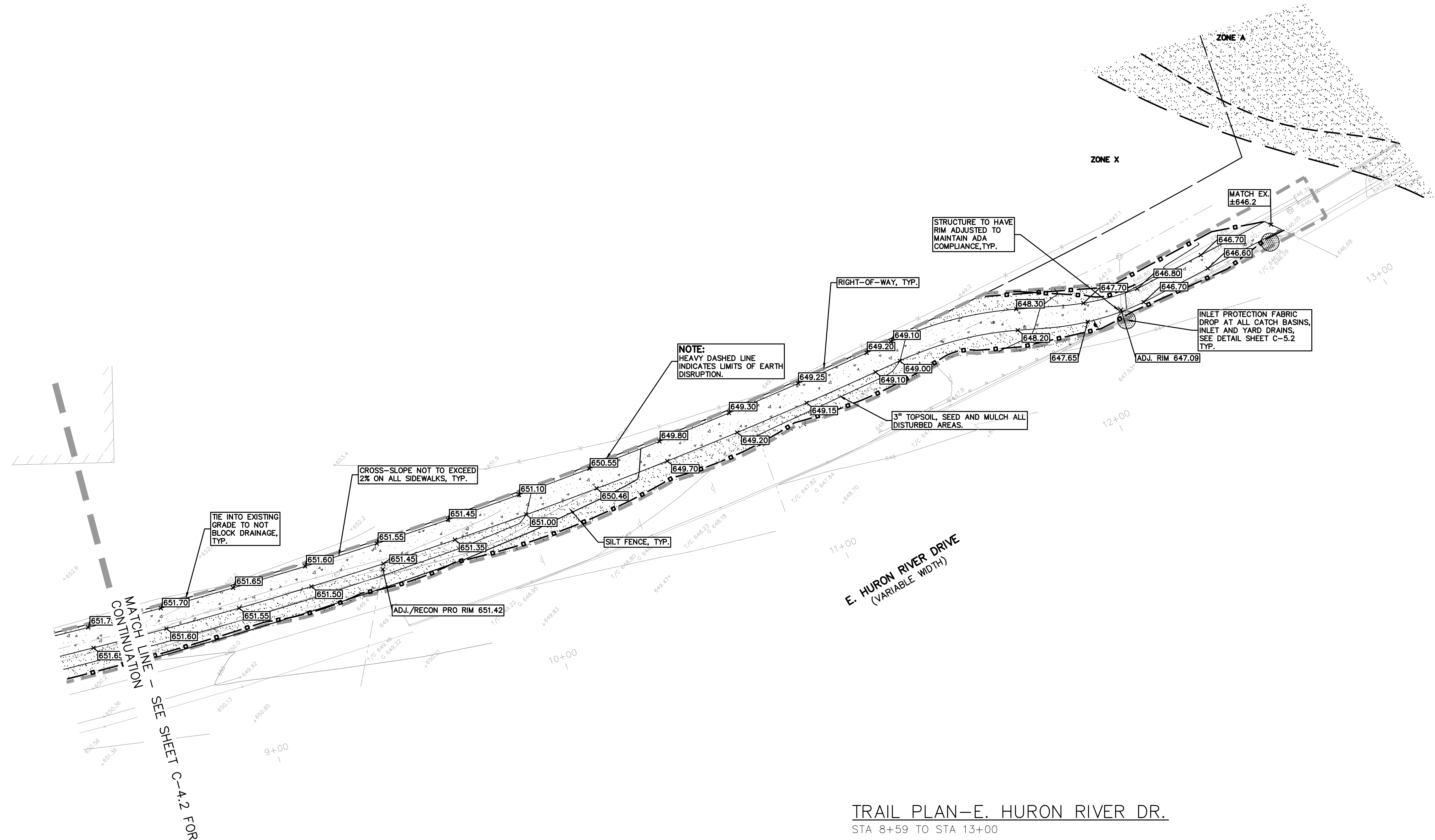
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NORTH

  
SCALE: 1" = 20'

  
Know what's below. Call before you dig.

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**TRAIL PLAN—E. HURON RIVER DR.**  
STA 8+59 TO STA 13+00

CLIENT  
**VAN BUREN TOWNSHIP**  
48425 TYLER ROAD  
VAN BUREN, MICHIGAN

  
**VAN BUREN CHARTER TOWNSHIP**

PROJECT TITLE  
**IRON BELLE TRAIL SECTION K**  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN



**REVISIONS**

ORIGINAL ISSUE	12-12-2022
REVISED PER TOWNSHIP	8-8-2023
REVISED PER WC REVIEW	8-24-2023

ORIGINAL ISSUE DATE:  
DECEMBER 12, 2022

DRAWING TITLE  
**GRADING PLAN**

PEA JOB NO.	2022-0652
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

NOT FOR CONSTRUCTION **C-4.3**

S:\PROJECTS\2022\0652-0652-BT-SECTION-K\DWG\CONSTRUCTION\C-4.3 GRADING 22-0652.dwg



**BENCHMARKS**  
(GPS DERIVED - NAVD88)

**BM #300**  
TOP OF SANITARY MANHOLE, 58 FEET SOUTH OF THE CENTER LINE OF EAST HURON RIVER DR. AND 45 FEET WEST OF THE CENTER LINE OF HAGGERTY RD.  
ELEV. - 656.26

**BM #301**  
MAG NAIL IN THE NORTH FACE OF A POWER POLE LOCATED AT THE SOUTH CORNER OF HURON RIVER DR & HAGGERTY RD/METRO PKWY.  
ELEV. - 652.80

**SYMBOLS: EROSION CONTROL**

- □ — SILT FENCE (REFER TO DETAIL ON SHEET C-6.1 SHEET)
- INLET FILTER (REFER TO DETAIL ON SHEET C-6.1 SHEET)
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- ▬ LIMITS OF DISTURBANCE

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**ABBREVIATIONS**

T/C = TOP OF CURB      G = GUTTER GRADE  
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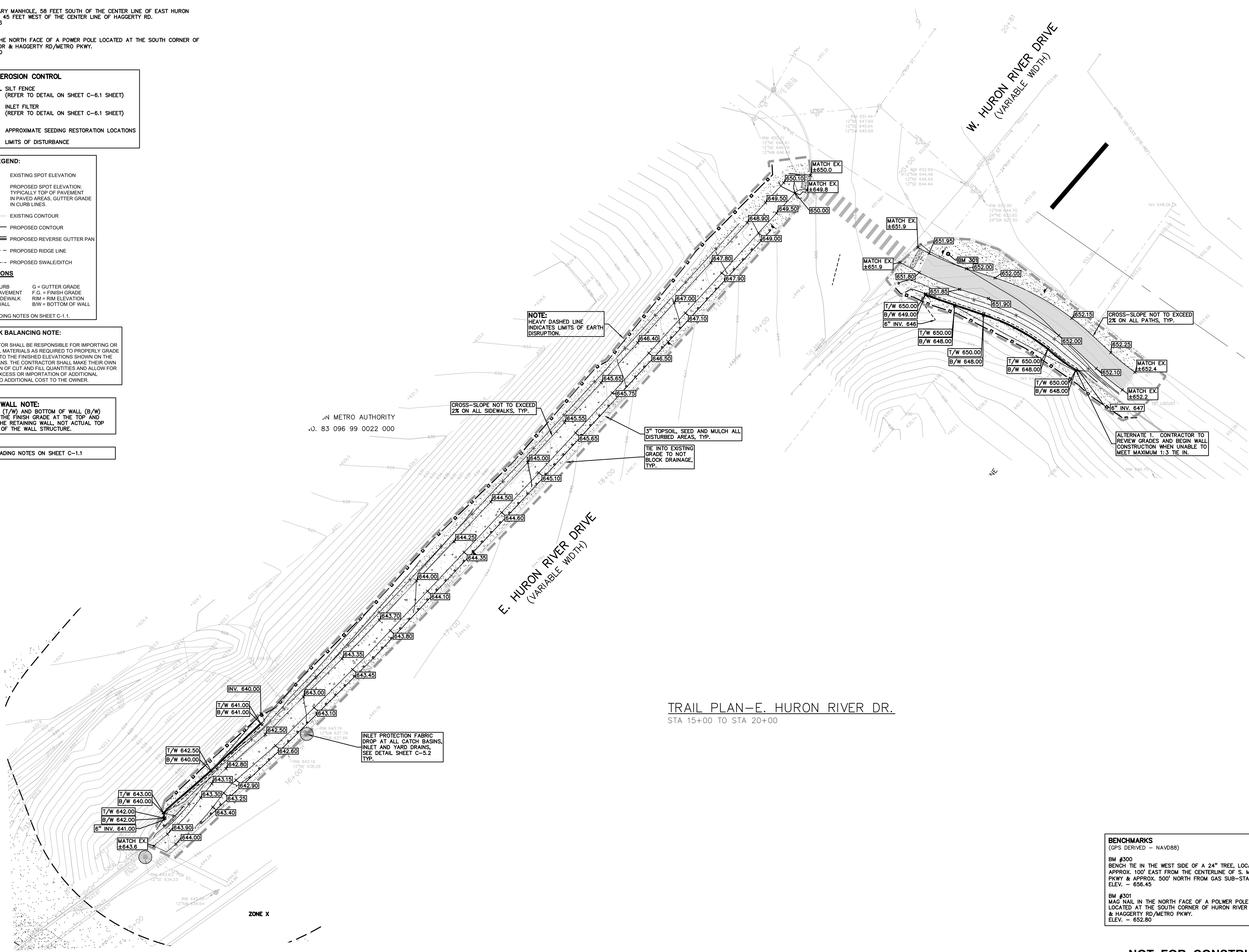
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**RETAINING WALL NOTE:**

TOP OF WALL (T/W) AND BOTTOM OF WALL (B/W) GRADES ARE THE FINISH GRADE AT THE TOP AND BOTTOM OF THE RETAINING WALL, NOT ACTUAL TOP AND BOTTOM OF THE WALL STRUCTURE.

REFER TO GRADING NOTES ON SHEET C-1.1

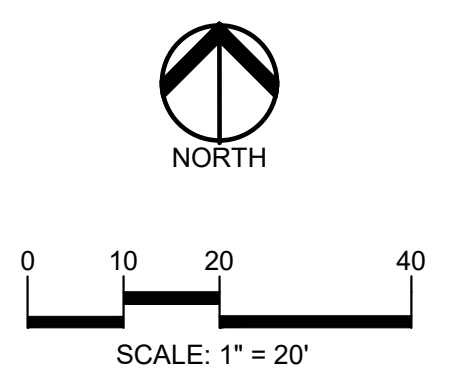


**TRAIL PLAN—E. HURON RIVER DR.**  
STA 15+00 TO STA 20+00

**BENCHMARKS**  
(GPS DERIVED - NAVD88)

**BM #300**  
BENCH TIE IN THE WEST SIDE OF A 24" TREE, LOCATED APPROX. 100' EAST FROM THE CENTERLINE OF S. METRO PKWY & APPROX. 500' NORTH FROM GAS SUB-STATION.  
ELEV. - 656.45

**BM #301**  
MAG NAIL IN THE NORTH FACE OF A POWER POLE LOCATED AT THE SOUTH CORNER OF HURON RIVER DR & HAGGERTY RD/METRO PKWY.  
ELEV. - 652.80



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CLIENT  
**VAN BUREN TOWNSHIP**  
48425 TYLER ROAD  
VAN BUREN, MICHIGAN



PROJECT TITLE  
**IRON BELLE TRAIL SECTION K**  
VAN BUREN TOWNSHIP  
VAN BUREN, MICHIGAN



**REVISIONS**

ORIGINAL ISSUE	12-12-2022
REVISED PER TOWNSHIP	8-8-2023
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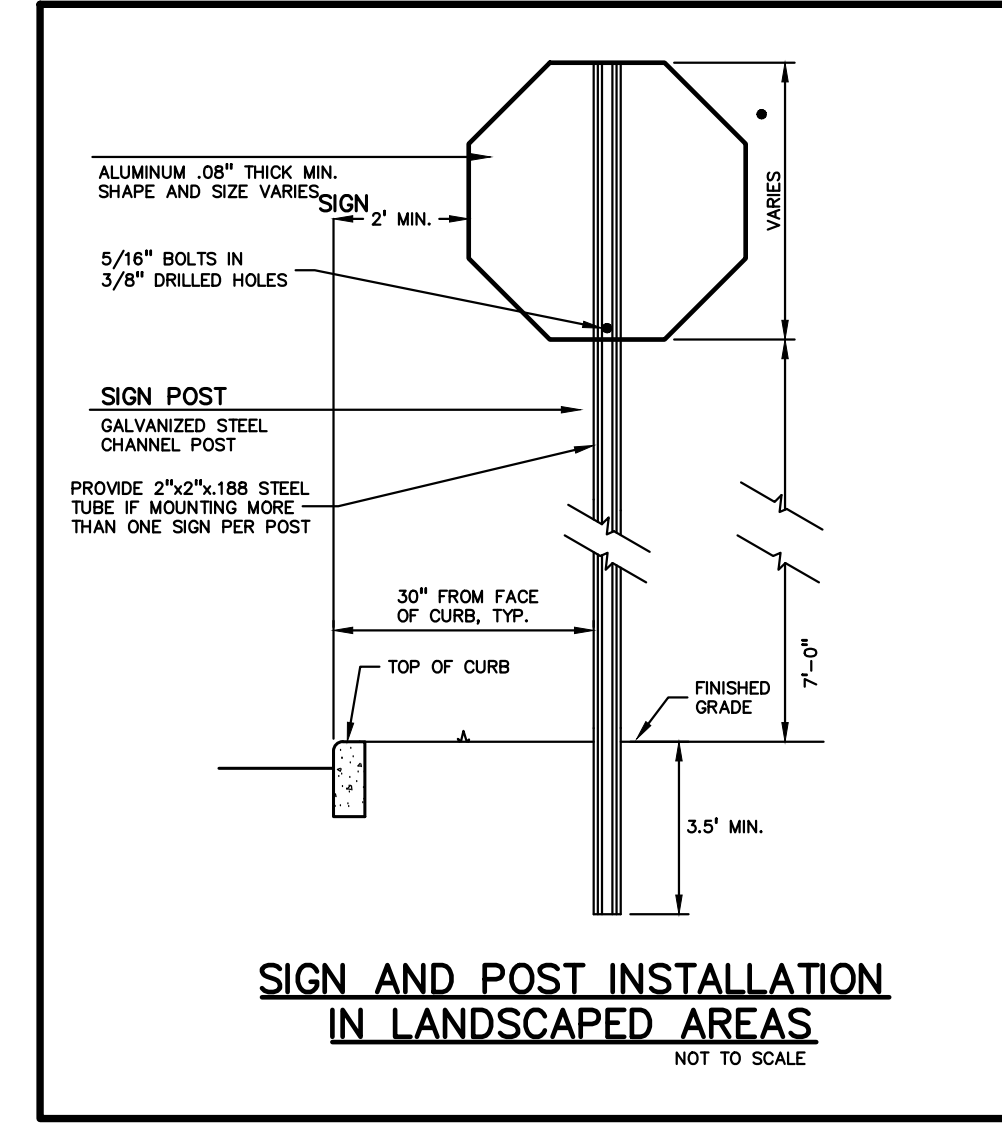
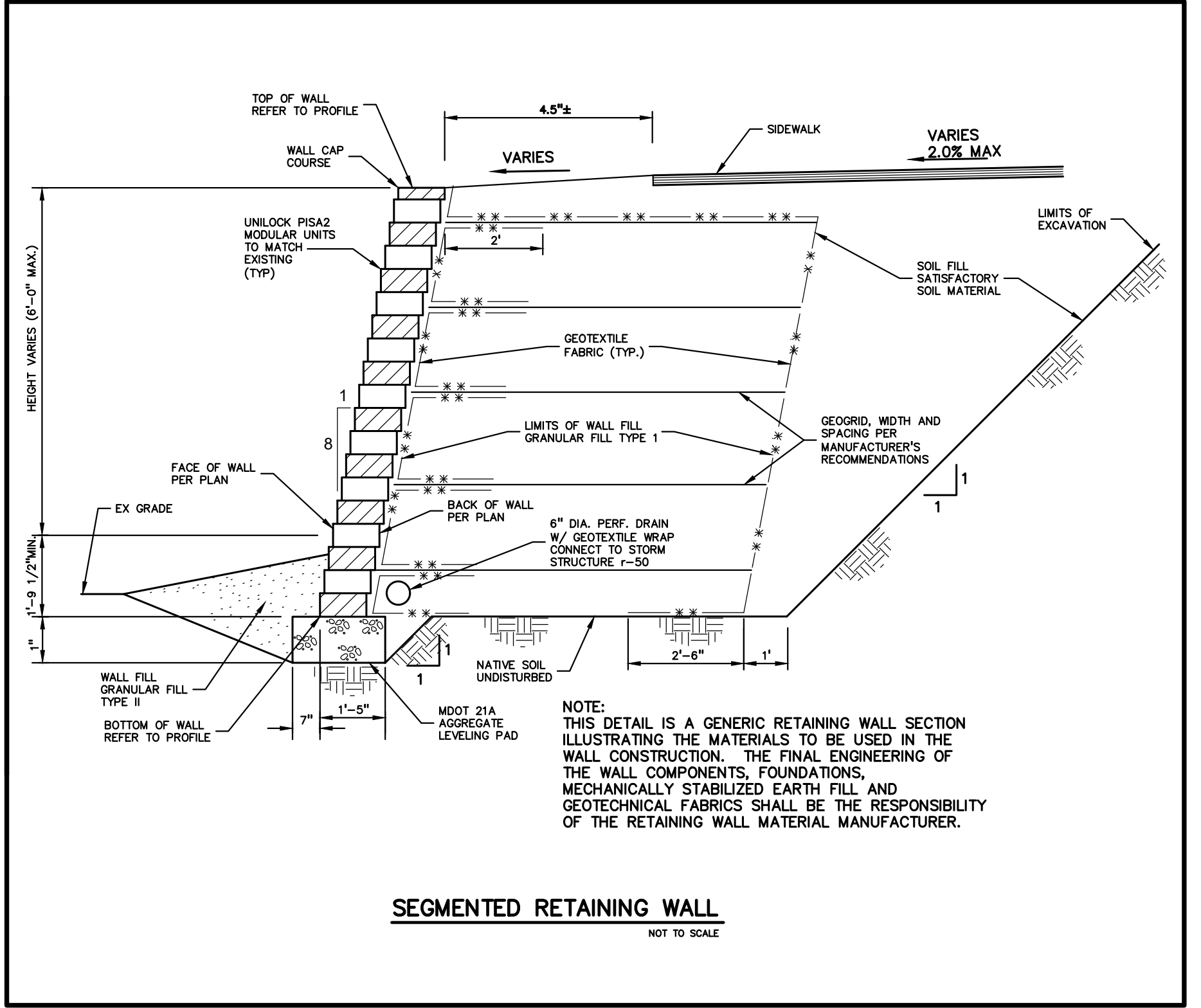
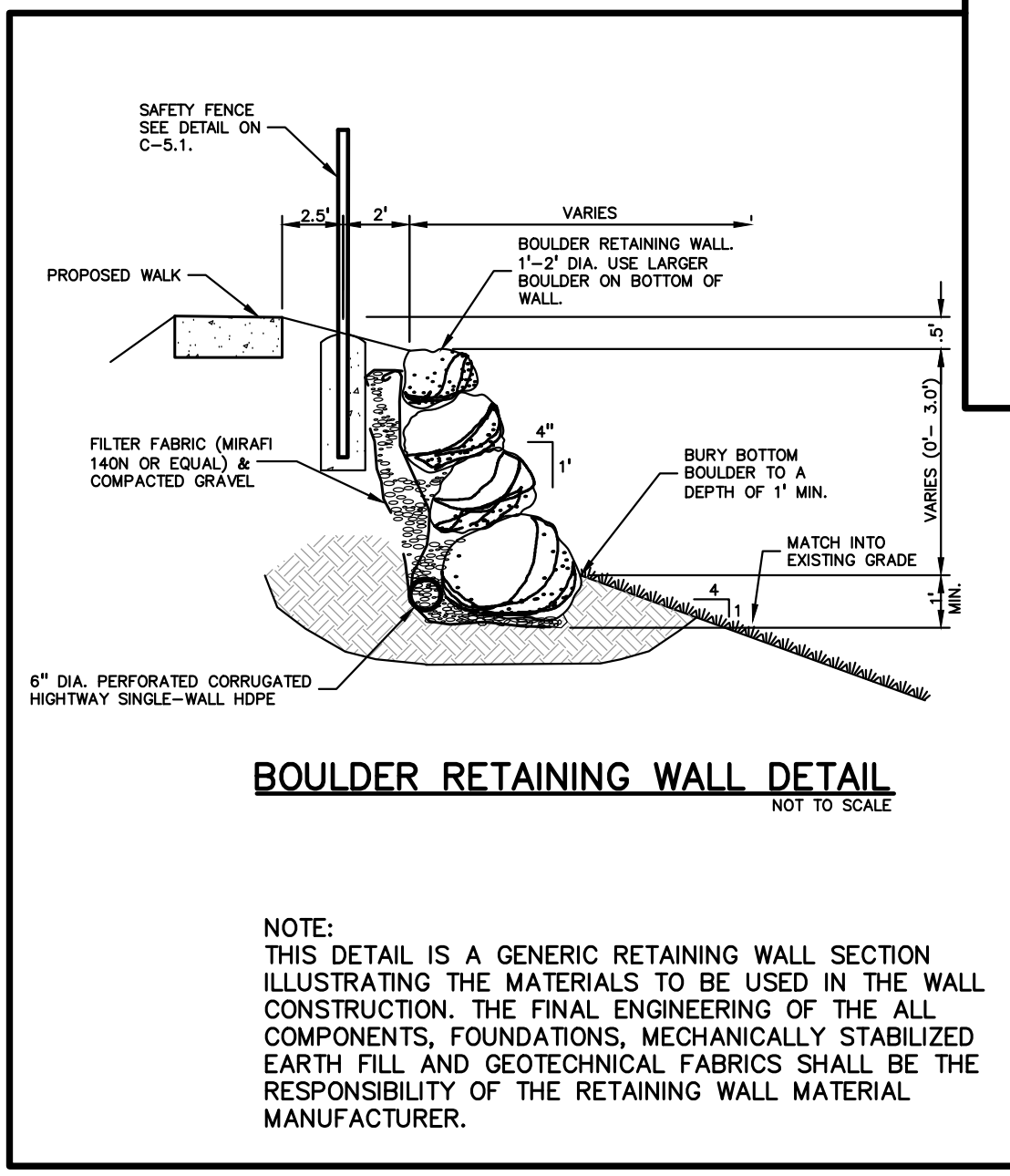
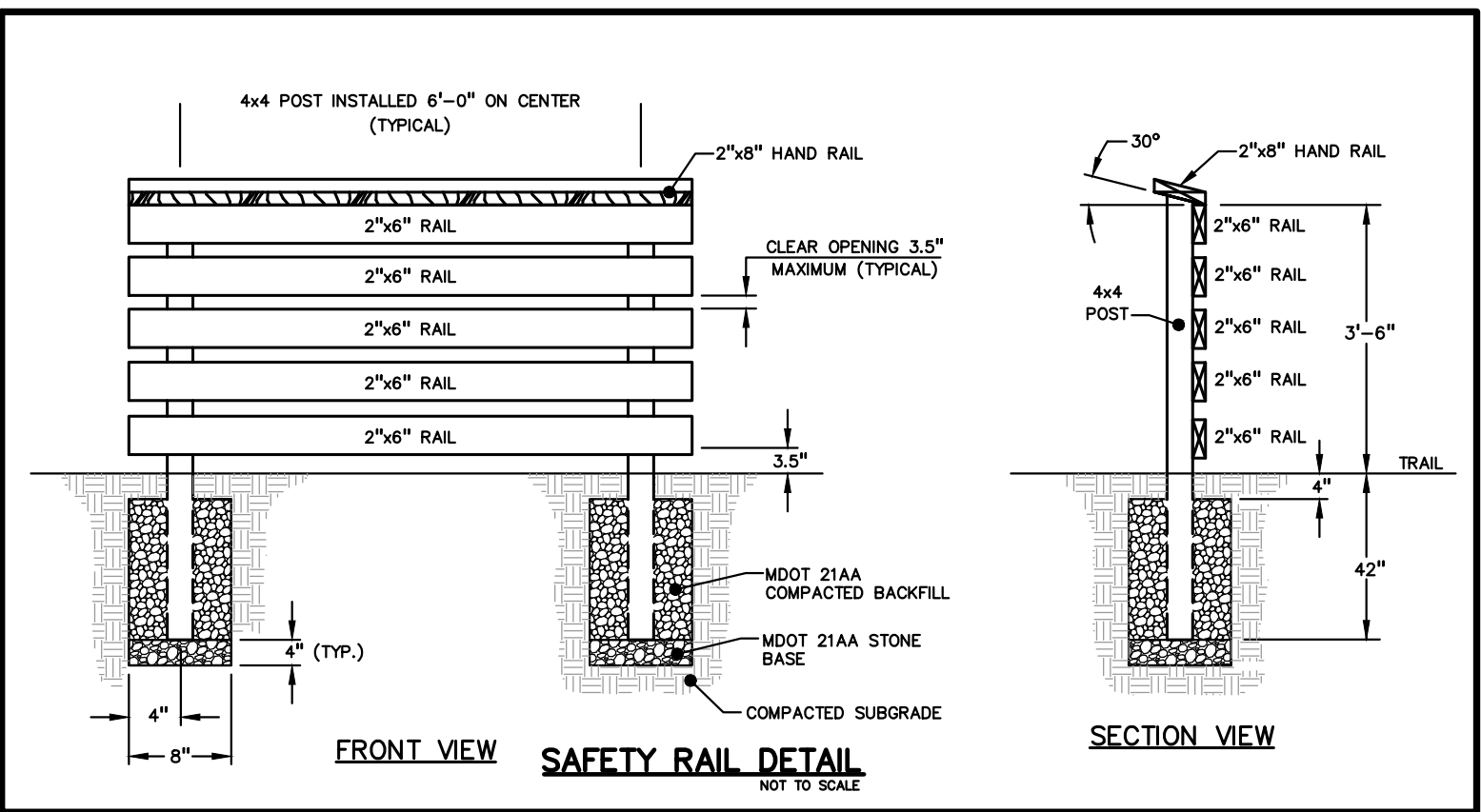
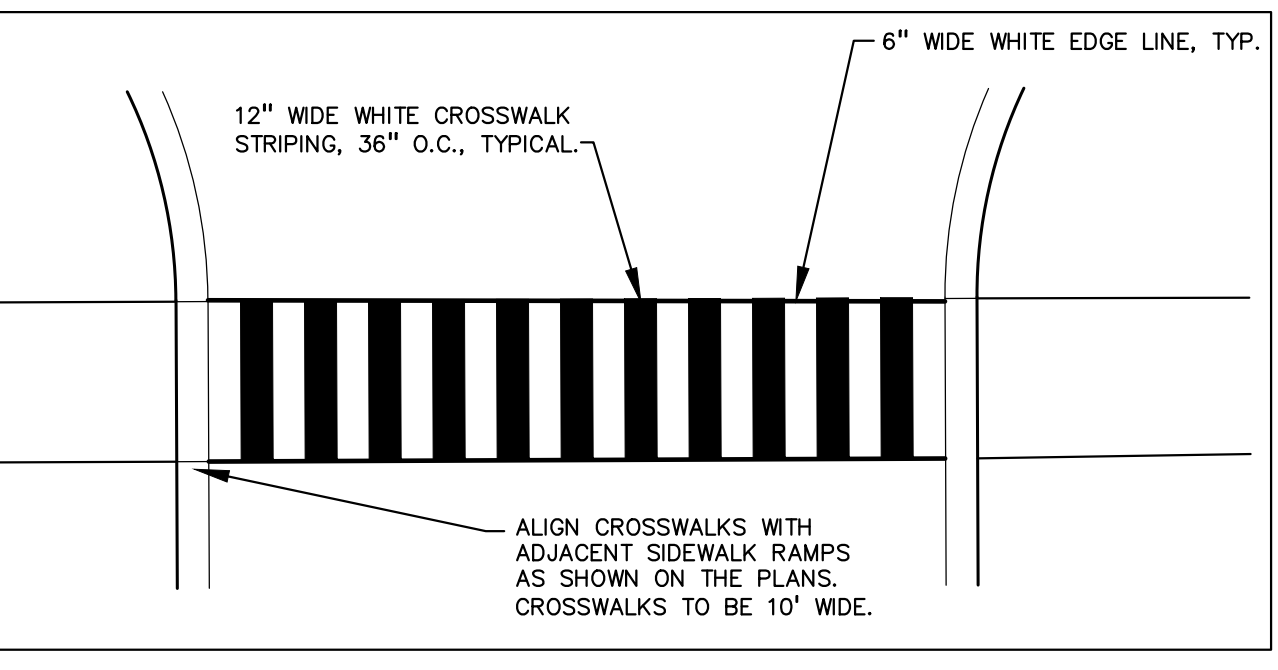
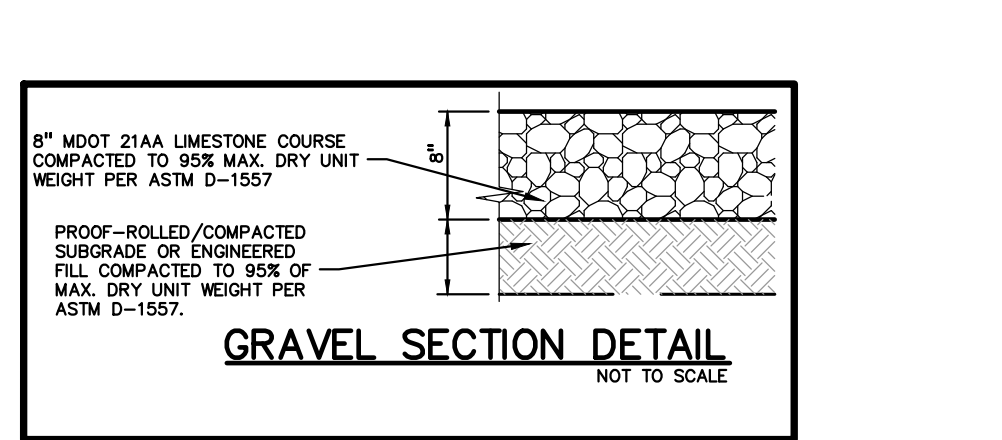
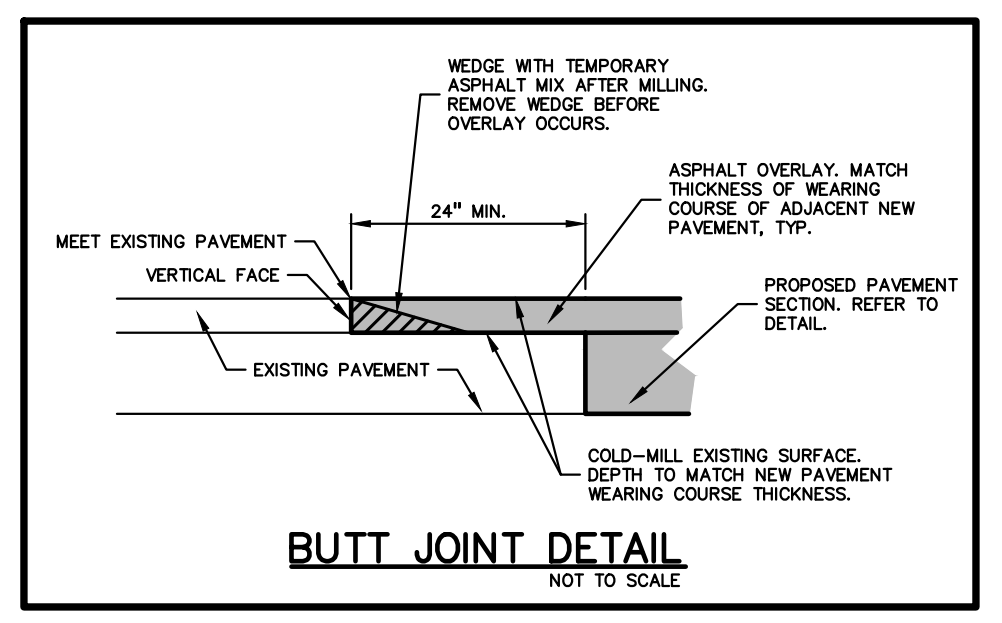
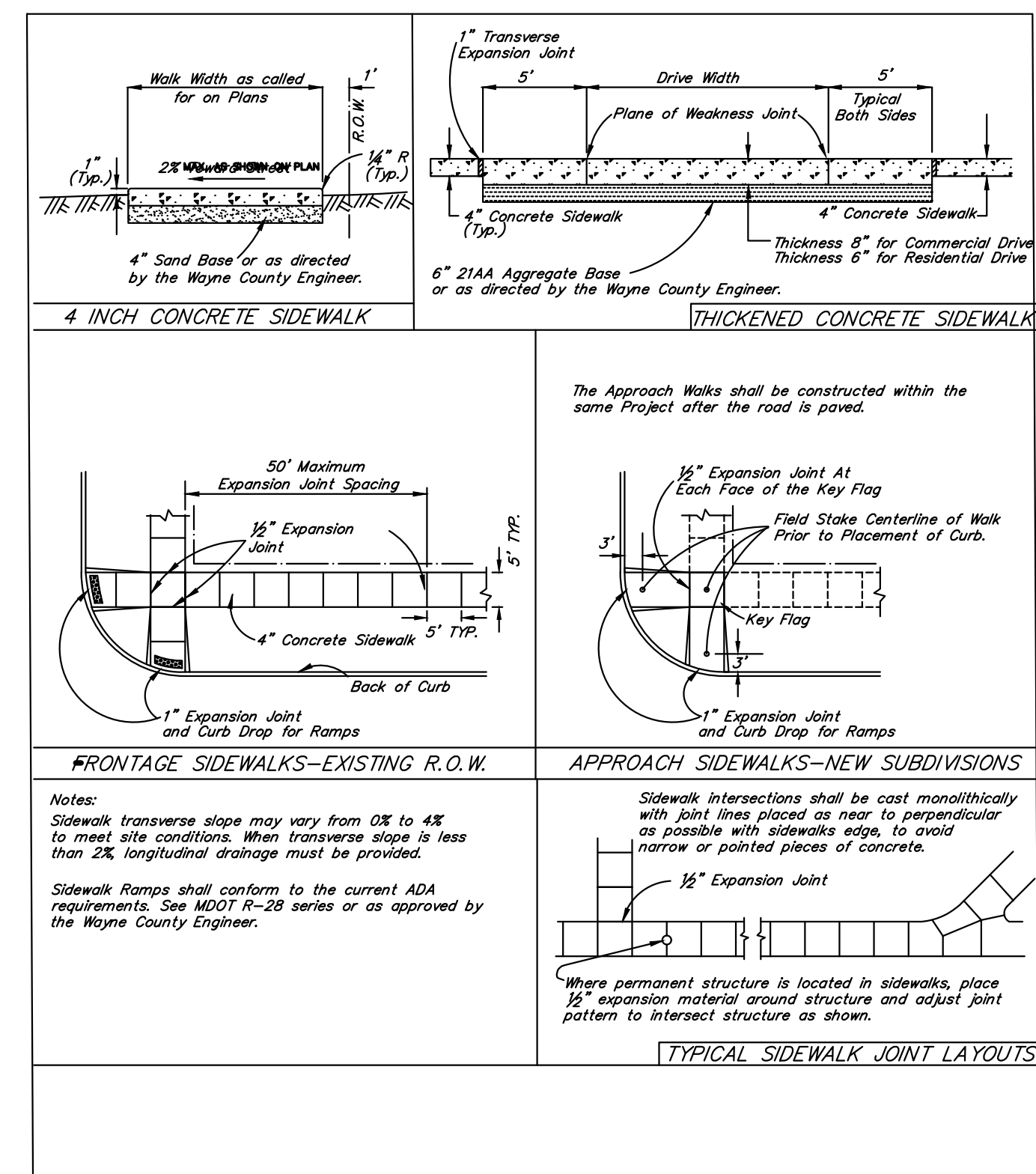
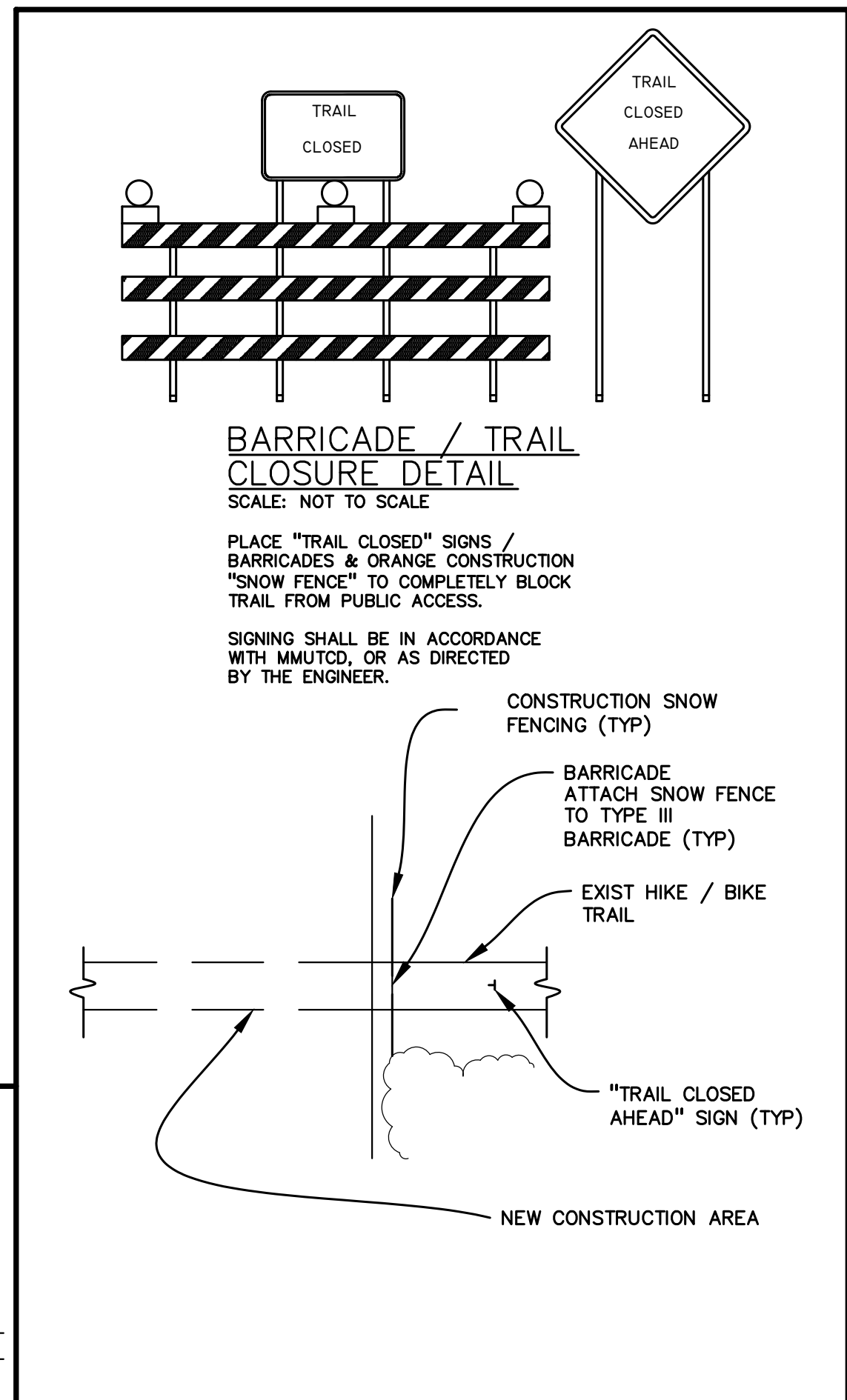
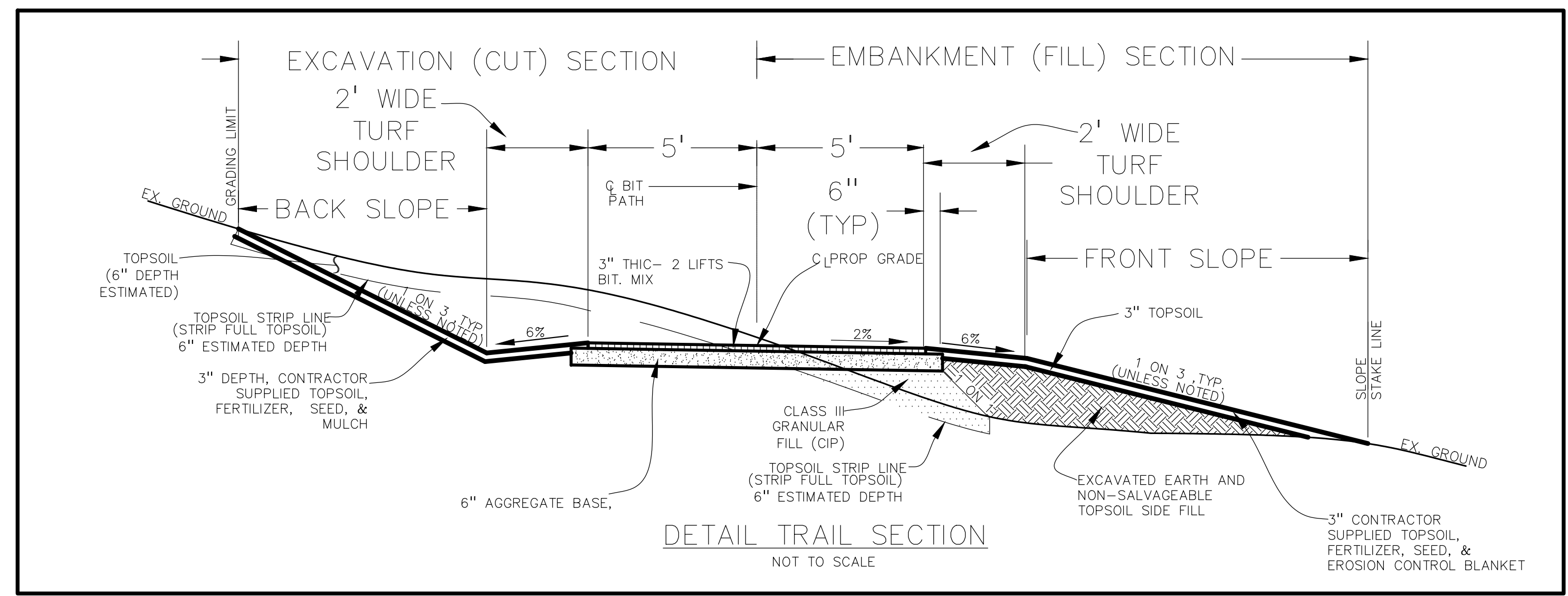
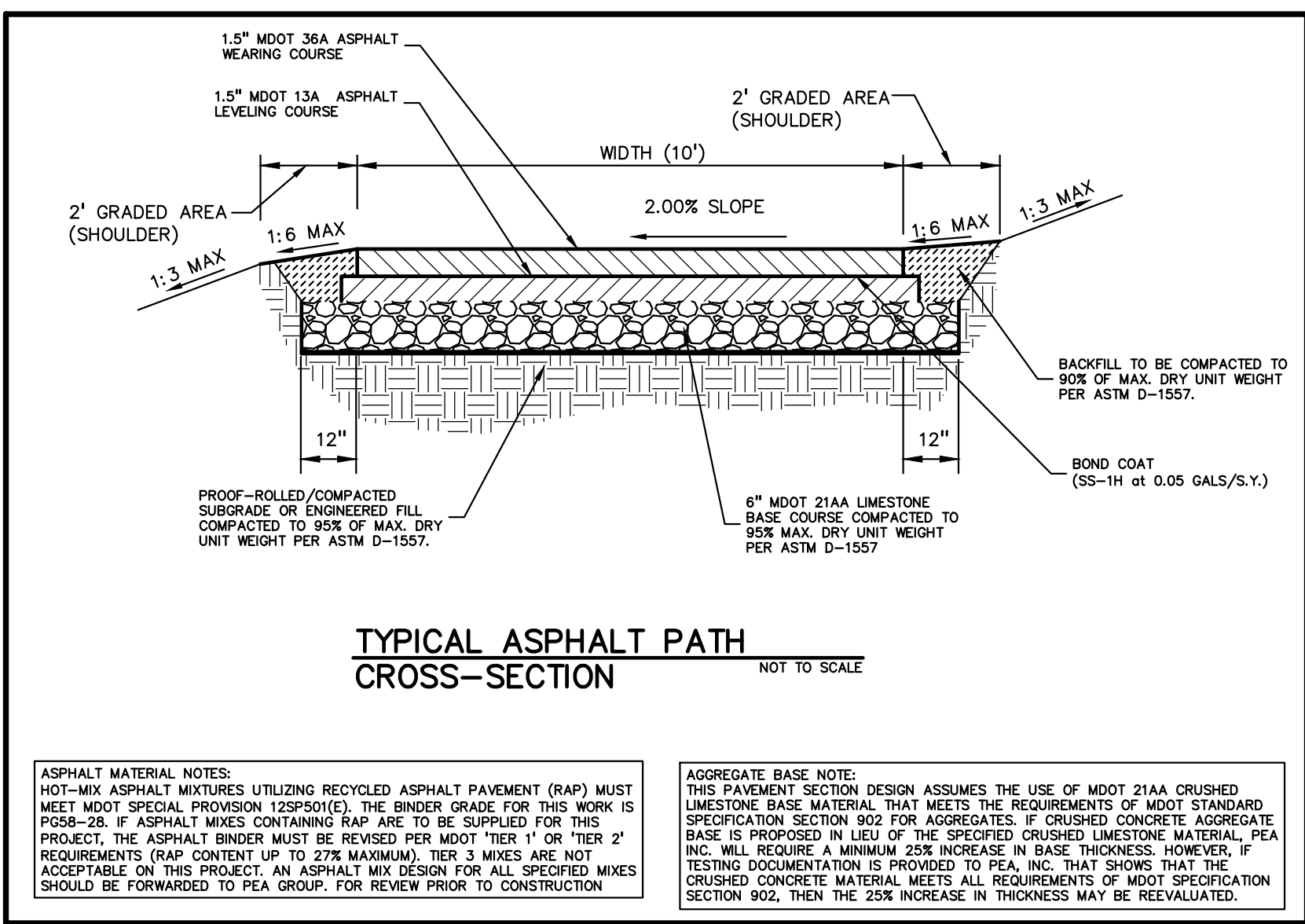
ORIGINAL ISSUE DATE:  
DECEMBER 12, 2022

DRAWING TITLE  
**GRADING PLAN**

PEA JOB NO.	2022-0652
P.M.	JTS
DN.	JMR
DES.	JMR
DRAWING NUMBER:	

S:\PROJECTS\2022\0652-0652-0652-0652-0652-0652\SECTION K\DWG\CONSTRUCTION\C-4.4 GRAD C-2-0652.dwg











### TRAFFIC SIGNAL HEAD SYMBOLS

- 12" L.E.D. VEHICLE TRAFFIC SIGNAL (ONE WAY)
- BAGGED OR COVERED 12" L.E.D. VEHICLE TRAFFIC SIGNAL (ONE WAY)
- 12" L.E.D. VEHICLE TRAFFIC SIGNAL (ONE WAY) WITH SPECIAL TURNING MOVEMENT (LEFT TURN SHOWN)
- 12" L.E.D. VEHICLE TRAFFIC SIGNAL (TWO WAY: BACK TO BACK)
- 12" L.E.D. VEHICLE TRAFFIC SIGNAL (THREE WAY)
- 12" L.E.D. VEHICLE TRAFFIC SIGNAL (FOUR WAY)
- 12" L.E.D. PROGRAMMABLE VEHICLE TRAFFIC SIGNAL (ONE WAY)

### PEDESTRIAN RELATED SYMBOLS

- 12" L.E.D. PEDESTRIAN TRAFFIC SIGNAL (ONE WAY)
- 12" L.E.D. PEDESTRIAN TRAFFIC SIGNAL (TWO WAY: AT ANGLE TO EACH OTHER)
- PEDESTRIAN PUSHBUTTON

### IN GROUND TRAFFIC SIGNAL EQUIPMENT

- 30 INCH ROUND PRECAST TRAFFIC SIGNAL HANDHOLE
- 36 INCH ROUND PRECAST TRAFFIC SIGNAL HANDHOLE
- OTHER TRAFFIC SIGNAL HANDHOLE
- ALUMINUM PEDESTRIAN PEDESTAL
- ANCHOR BASE STEEL STRAIN POLE AND FOUNDATION (POLE LENGTH & FOUNDATION SIZE AS CALLED OUT)
- MAST ARM POLE (SIZE AS CALLED FOR ON PLAN SHEET)

### TRAFFIC CONTROLLER SYMBOLS

- BASE MOUNTED TRAFFIC CONTROLLER
- POLE MOUNTED TRAFFIC CONTROLLER
- GLOBAL POSITIONING SYSTEM (GPS) MODULE

### CASE SIGN SYMBOLS

- CASE SIGN (1 WAY OR 2 WAY)
- CASE SIGN (3 WAY OR 4 WAY)

### VEHICLE DETECTION SYMBOLS

- VEHICLE DETECTION CAMERA
- OMNI-DIRECTIONAL ANTENNA
- RADIO RECEIVER FOR WIRELESS VEHICLE DETECTION
- UNI-DIRECTIONAL ANTENNA
- WIRELESS VEHICLE DETECTION SENSOR
- TRAFFIC VEHICLE DETECTION LOOP
- OPTICOM PRE-EMPTION

### MISCELLANEOUS (PLAN VIEW)

- ROAD SIGN WITH FLASHING SIGN OPTICAL (ONE WAY)
- SIDEWALK TURNING SPACE, PROPOSED. (2% MAX GRADE WITH 2% MAX CROSS SLOPE)
- A.D.A DETECTABLE WARNING SURFACE
- PUSHBUTTON LANDING, PROPOSED. (2% MAX GRADE WITH 2% MAX CROSS SLOPE) POSITION WITH SIDEWALK DIRECTION

### RAILROAD SYMBOLS

- RAILROAD CONTROL BOX
- RAIL ROAD SIGNAL ON POLE
- RAIL ROAD SIGNAL ON CANTILEVER

### CABLE DIAGRAM SYMBOLS

- COILED UP WIRE (FOR CONNECTION BY OTHERS)
- STAINLESS STEEL SERVICE DISCONNECT
- METERED ELECTRIC SERVICE
- ELECTRIC GROUND
- T.S. # SIGNAL HEAD
- C.S. # ILLUMINATED CASE SIGN

### ELECTRICAL LINE STYLES

- CABLE, OVERHEAD
- CABLE, DIRECT BURIAL
- CABLE, EXISTING TO BE REMOVED
- CABLE, EXISTING TO BE ABANDONED
- CABLE, TWISTED PAIR
- CONDUIT, EXISTING
- CONDUIT, EXISTING, UNDER GROUND
- CONDUIT, EXISTING TO BE ABANDONED
- CONDUIT, EXISTING, SUSPENDED
- CONDUIT, PROPOSED, DIRECT BURIAL
- CONDUIT, PROPOSED, ENCASED
- CONDUIT, PROPOSED, DIRECTIONAL BORED
- CONDUIT, IN BRIDGE





## GENERAL NOTES

### UTILITIES

#### **MISS DIG/UNDERGROUND UTILITY NOTIFICATION**

For the protection of underground utilities and in conformance with MCL 460.171 et seq, the Contractor shall contact MISS DIG System, Inc. by phone at 811 or 800-482-7171 or via the web at either [elocate.missdig.org](http://elocate.missdig.org) for single address or [rte.missdig.org](http://rte.missdig.org), a minimum of 3 work days prior to excavating, excluding weekends and holidays.

### SIGNALS

#### **PREVIOUS GENERAL NOTES**

Some notes previously included in "General Notes" are now located within the Frequently Used Special Provision titled "Traffic Signal Work - Construction Methods".

#### **MAINTAINING AGENCY CONTACT INFORMATION**

- Wayne County Department of Public Services: (734-955-2346)

#### **NOTIFICATIONS TO MAINTAINING AGENCIES**

Contact Wayne County Department of Public Services seven working days prior to start of construction and seven working days prior to signal activation.

#### **CABINET SET UP AND CONTROLLER TIMING**

Contractor shall deliver where required to the appropriate maintaining agency, the T.S. Cabinet and Controller for set up and timing. Contractor shall pick-up cabinet from the appropriate maintaining agency when ready for installation.

#### **FACILITIES NOT ON PLANS**

Existing O.H. & T.S. facilities are not necessarily shown on plans.

#### **CONTINUOUS TRAFFIC SIGNAL OPERATION**

Proposed T.S. shall be put into operation at time of removal of existing T.S. facilities, contractor shall notify Wayne County Department of Public Services if unable to maintain T.S. in an operable condition at all times.

#### **UNDERGROUND UTILITY SEPARATION**

A minimum clearance of 3'-6" horizontal & 1'-0" vertical must be maintained between proposed facilities & existing U.G. water facilities.

#### **SIGNAL EQUIPMENT DISPOSAL**

Disposal of all traffic signal equipment is included in the removal pay items and shall also include the following:

- Notification to Wayne County Department of Public Services that traffic signal equipment is being removed.
- Temporary storage of equipment in a dumpster on site (or as directed by the Engineer) allowing Wayne County Department of Public Services 48 hours to salvage any equipment.
- Proper disposal of any equipment containing environmentally sensitive materials (mercury relay switches for example)
- Disabling or destruction of all remaining equipment to the satisfaction of the engineer such that it cannot be reused or resold.
- Proper disposal of all remaining equipment.

#### **PLAN DEVIATIONS DURING CONSTRUCTION**

No changes from plans in location of supporting structures signal head placement or traffic signal equipment will be allowed without prior approval of the Wayne County Department of Public Services (734-955-2346).

#### **POLE BAND CLAMP ACCEPTANCE**

The current basis of acceptance for this material is now part of the QPL (Qualified Product List). This can be found in the materials Acceptance Requirements Table, published in the MQAP and repeated for convenience in the Materials Source Guide.

#### **INNERDUCT**

Contractor must install a continuous flexible non-metallic tubing (innerduct) for low voltage communication type cable from the device to the controller cabinet. Innerduct is not required if communication cable is 600V rated.

#### **SIGNAL HEAD LANDING POINT**

Ensure each traffic signal head assembly has its own landing point with all neutrals connected together with a metal type jumper.

### ENVIRONMENTAL

#### **PROTECTED TURTLES**

Historical records for protected turtles exist within or near this project. These turtle species warrant special consideration as they are rare in Michigan. In the event turtles are observed within the construction zone, move the turtle(s) into adjacent vegetative cover, away from physical work activities. If possible, please take a photo and immediately contact the Engineer.

### MAINTENANCE OF TRAFFIC

#### **TRAFFIC CONTROL**

Contractor shall be responsible for all necessary construction staging and traffic control devices required for constructing the plans as shown, and will not be paid for separately.

## NOTES APPLYING TO STANDARD PLANS

Where the following items are called for on the plans, they are to be constructed according to the standard plan listed below opposite each item unless otherwise indicated.

Title	Plan No.
<b>STATEWIDE TRAFFIC SIGNALS</b>	
WOOD POLE GUYS AND SETTING DEPTH	SIG-050-A *
CONTROLLER CABINET MOUNTED ON STEEL OR WOOD POLES	SIG-100-A *
POLE MOUNTED TS CONTROLLER CABINET	SIG-111-A *
GLOBAL POSITIONING SYSTEM (GPS) MODULE	SIG-120-A *
HANDHOLE- PRECAST, POLYMER CONCRETE	SIG-240-A *
CONDUIT (DIRECT BURIAL/ENCASED)	SIG-250-A *
PEDESTAL MOUNTED SIGNAL DISPLAYS	SIG-330-A *
PEDESTRIAN PUSH BUTTON DETAILS	SIG-400-A *
<b>WAYNE COUNTY TRAFFIC SIGNALS</b>	
COLOR CODE WIRING / EQUIPMENT GROUNDING	WC-026-A *
COLOR CODE FOR WIRING CONNECTING SIGNAL LAMPS	WC-026-B *
PEDESTAL FOUNDATION & SIGNAL MOUNTING DETAILS	WC-028-B *
TYPICAL POLE MTD PEDESTRIAN SIGNALS	WC-029-C *

\* Denotes Special Detail

## SHEET INDEX

Section 1 - Road Plans	
Title Sheet	1
General Notes	2
Signal Removal Plan	3
Signal Install Plan	4
Standard Details	5 - 25

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )

NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



NO SCALE

DATE: 08/16/21

DESIGNED BY: K. RAMAKERS:

FILE: Note\_Sheet 2012.doc

CHECKED BY: K. MAZUREK

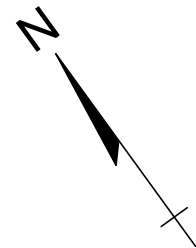
#### **NOTE SHEET**

HAGGERTY ROAD AND HURON RIVER DRIVE  
VAM BUREN TOWNSHIP, WAYNE COUNTY

DRAWING SHEET

NOTE 002 SECT 1

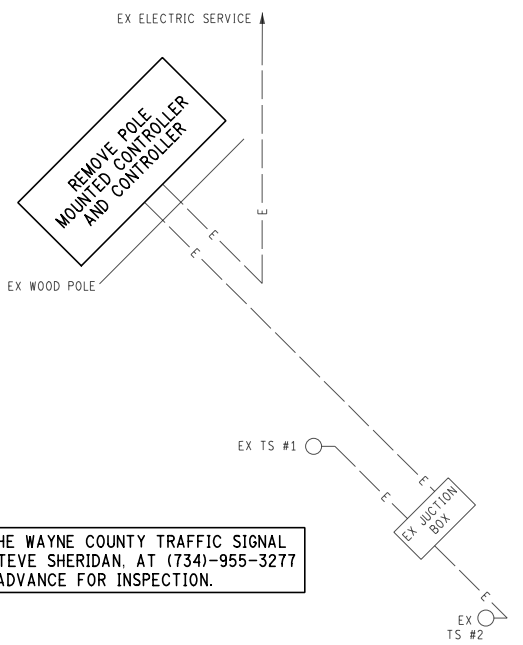
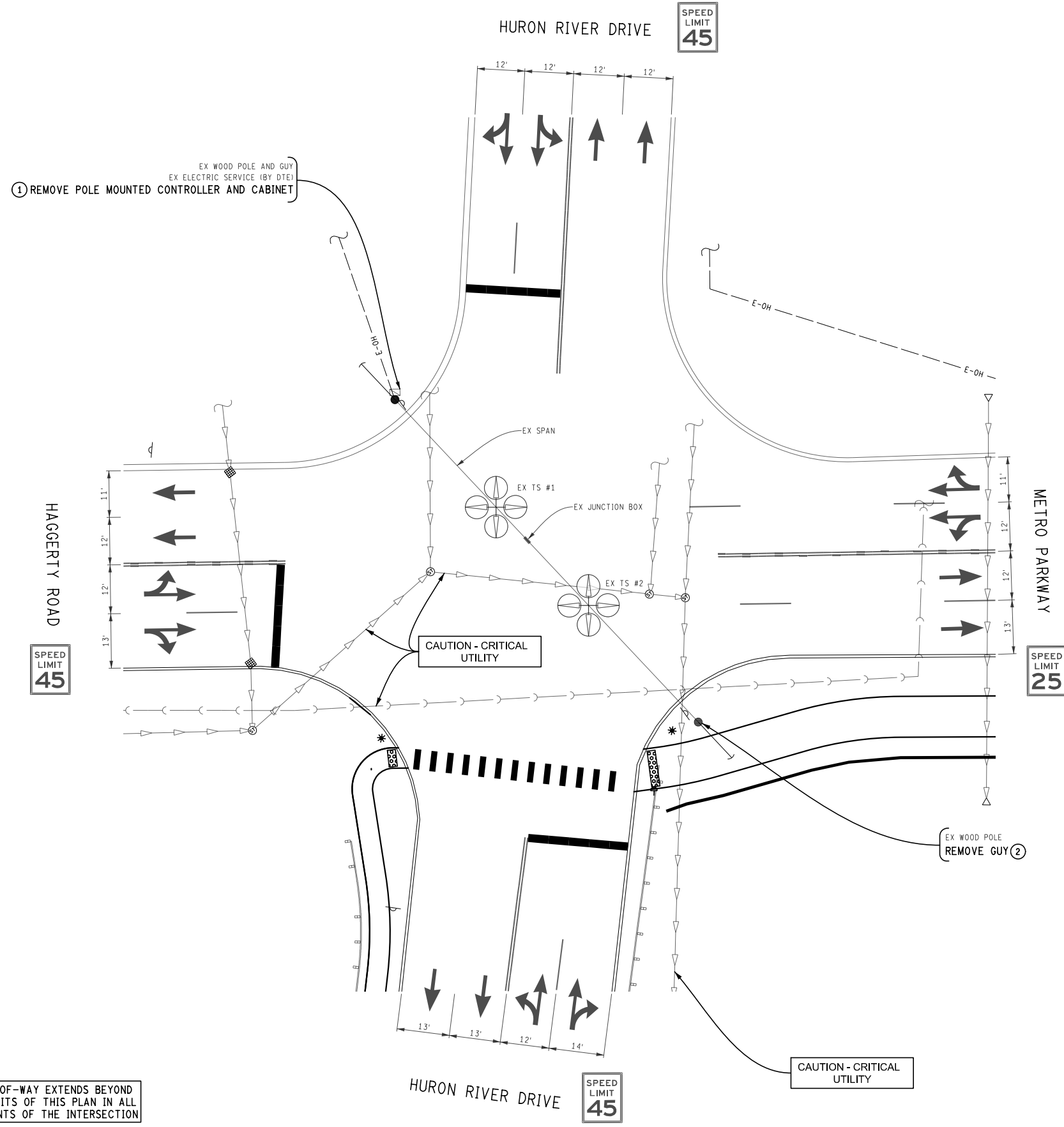




EX  
TS #1  
TS #2

(R)  
(Y)  
(G)

FACING NORTH  
FACING SOUTH  
FACING EAST  
FACING WEST



CONTACT THE WAYNE COUNTY TRAFFIC SIGNAL FOREMAN, STEVE SHERIDAN, AT (734)-955-3277 7 DAYS IN ADVANCE FOR INSPECTION.

REMOVAL CABLING DIAGRAM  
NOT TO SCALE

LIST OF MATERIAL		
NO.	ITEM	QUANTITIES
①	Controller and Cabinet, Rem	1 Ea
②	Guy, Rem	1 Ea

RIGHT-OF-WAY EXTENDS BEYOND THE LIMITS OF THIS PLAN IN ALL QUADRANTS OF THE INTERSECTION

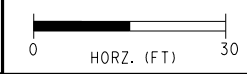
SCALE SHOWN IS CORRECT WHEN PLOTTED AT 11" X 17". NOT TO SCALE OTHERWISE.

SIGNALS	
OPENINGS:	24
CYCLIC WATTS:	3600
STEADY WATTS:	0
PLAN:	SL-108 iv

PLAN REVISIONS ( SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION
	03/20/17		FOR BIDS				

TRAFFIC SIGNAL REMOVAL PLAN  
VAN BUREN TOWNSHIP, WAYNE COUNTY

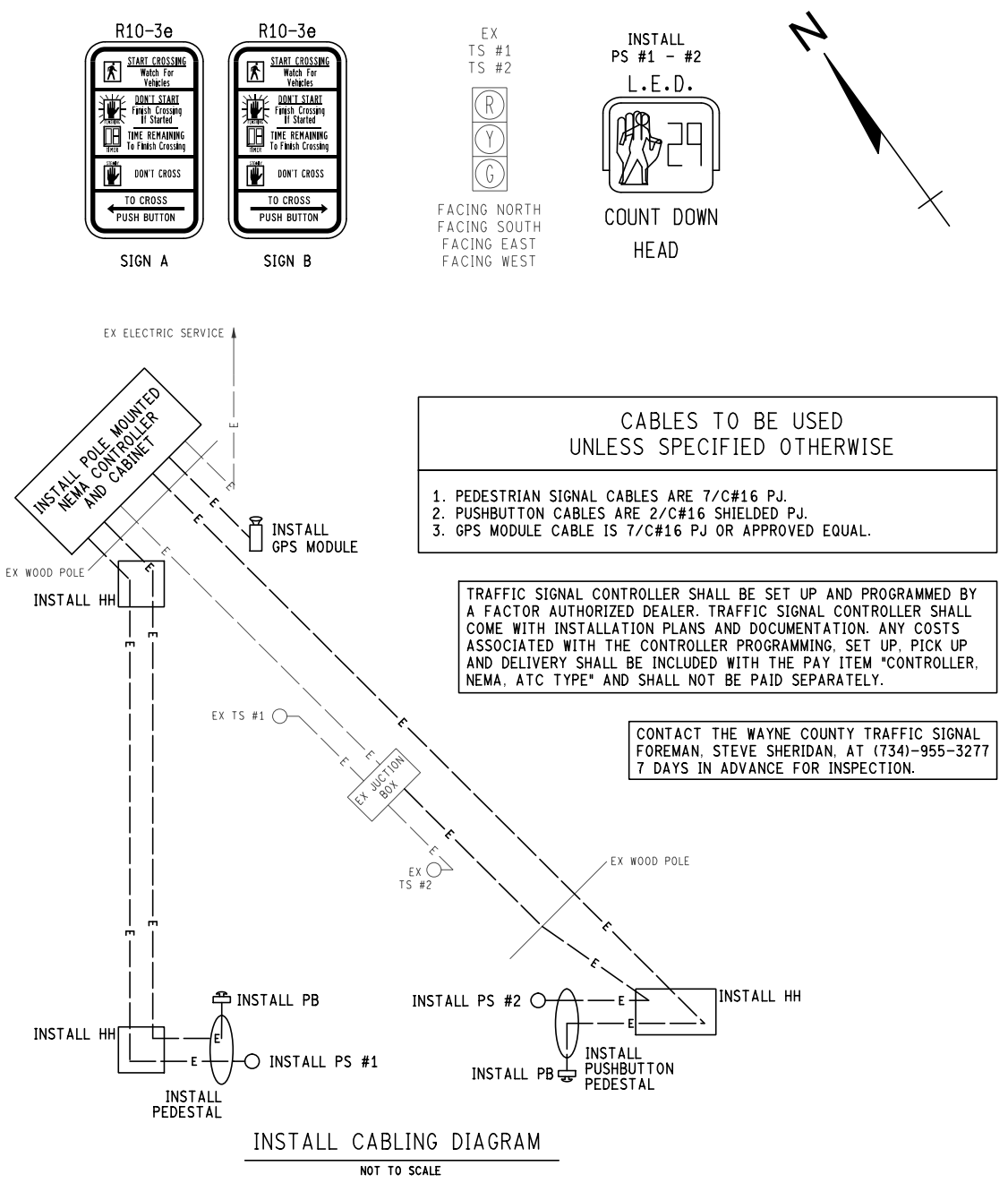
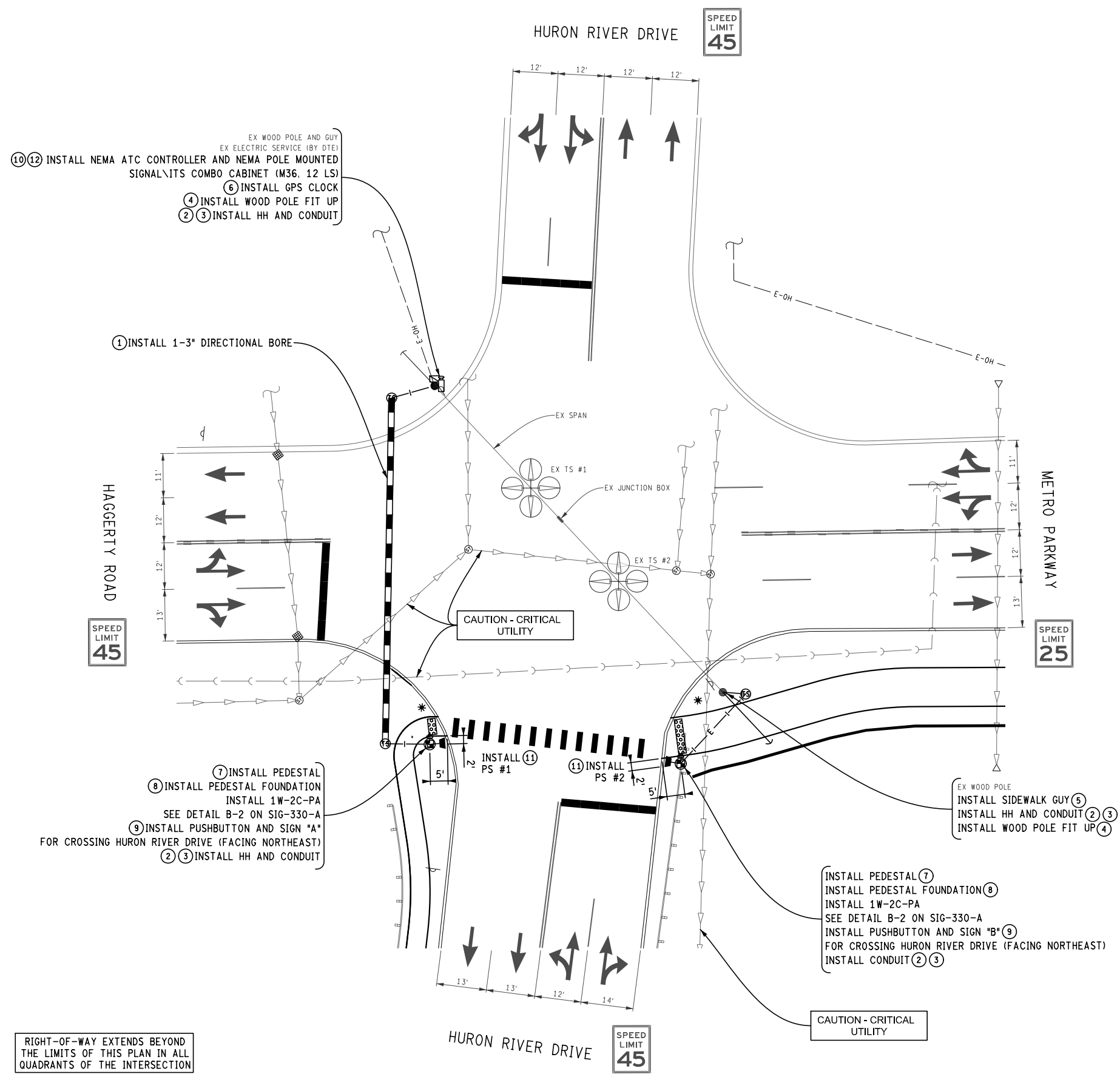
DATE: 08/24/21  
DRAWN BY: K. RAMAKERS CHECKED BY: K. MAZUREK  
FILE: SIGNAL\_REMOVE\_001.DGN



HAGGERTY ROAD AND HURON RIVER DRIVE  
VAN BUREN TOWNSHIP, WAYNE COUNTY

DRAWING SHEET  
SIGNAL 003 SECT 1





**CABLES TO BE USED UNLESS SPECIFIED OTHERWISE**

1. PEDESTRIAN SIGNAL CABLES ARE 7/C#16 PJ.
2. PUSHBUTTON CABLES ARE 2/C#16 SHIELDED PJ.
3. GPS MODULE CABLE IS 7/C#16 PJ OR APPROVED EQUAL.

TRAFFIC SIGNAL CONTROLLER SHALL BE SET UP AND PROGRAMMED BY A FACTOR AUTHORIZED DEALER. TRAFFIC SIGNAL CONTROLLER SHALL COME WITH INSTALLATION PLANS AND DOCUMENTATION. ANY COSTS ASSOCIATED WITH THE CONTROLLER PROGRAMMING, SET UP, PICK UP AND DELIVERY SHALL BE INCLUDED WITH THE PAY ITEM "CONTROLLER, NEMA, ATC TYPE" AND SHALL NOT BE PAID SEPARATELY.

CONTACT THE WAYNE COUNTY TRAFFIC SIGNAL FOREMAN, STEVE SHERIDAN, AT (734)-955-3277 7 DAYS IN ADVANCE FOR INSPECTION.

LIST OF MATERIAL		
NO.	ITEM	QUANTITIES
①	Conduit, Directional Bore, 1, 3 inch	90 Ft
②	Conduit, DB, 1, 1 1/2 inch	55 Ft
③	Hh, Round	3 Ea
④	Wood Pole, Fit Up, TS Cable Pole	2 Ea
⑤	Pole Guy	1 Ea
⑥	Global Positioning System Module	1 Ea
⑦	Pedestal, Alum	2 Ea
⑧	Pedestal, Fdn	2 Ea
⑨	Pushbutton and Sign	2 Ea
⑩	Cabinet, NEMA Type	1 Ea
⑪	TS, Pedestrian, One Way Pedestal Mtd (LED) Countdown	2 Ea
⑫	Controller, NEMA, ATC Type	1 Ea

SCALE SHOWN IS CORRECT WHEN PLOTTED AT 11" X 17". NOT TO SCALE OTHERWISE.

EX WOOD POLE AND GUY  
EX ELECTRIC SERVICE (BY DTE)  
⑩⑫ INSTALL NEMA ATC CONTROLLER AND NEMA POLE MOUNTED SIGNAL/ITS COMBO CABINET (M36, 12 LS)  
⑥ INSTALL GPS CLOCK  
④ INSTALL WOOD POLE FIT UP  
②③ INSTALL HH AND CONDUIT

① INSTALL 1-3" DIRECTIONAL BORE

⑦ INSTALL PEDESTAL  
⑧ INSTALL PEDESTAL FOUNDATION  
INSTALL 1W-2C-PA  
SEE DETAIL B-2 ON SIG-330-A  
⑨ INSTALL PUSHBUTTON AND SIGN "A"  
FOR CROSSING HURON RIVER DRIVE (FACING NORTHEAST)  
②③ INSTALL HH AND CONDUIT

EX WOOD POLE  
INSTALL SIDEWALK GUY ⑤  
INSTALL HH AND CONDUIT ②③  
INSTALL WOOD POLE FIT UP ④  
INSTALL PEDESTAL ⑦  
INSTALL PEDESTAL FOUNDATION ⑧  
INSTALL 1W-2C-PA  
SEE DETAIL B-2 ON SIG-330-A  
INSTALL PUSHBUTTON AND SIGN "B" ⑨  
FOR CROSSING HURON RIVER DRIVE (FACING NORTHEAST)  
INSTALL CONDUIT ②③

RIGHT-OF-WAY EXTENDS BEYOND THE LIMITS OF THIS PLAN IN ALL QUADRANTS OF THE INTERSECTION

PLAN REVISIONS ( SUBMITTAL DATE: )			
NO.	DATE	AUTH	DESCRIPTION
03/20/17			FOR BIDS

TRAFFIC SIGNAL INSTALL PLAN  
VAN BUREN TOWNSHIP, WAYNE COUNTY

DATE: 08/24/21  
DRAWN BY: K. RAMAKERS CHECKED BY: K. MAZUREK  
FILE: SIGNAL\_INSTALL\_001.DGN

**TETRA TECH**

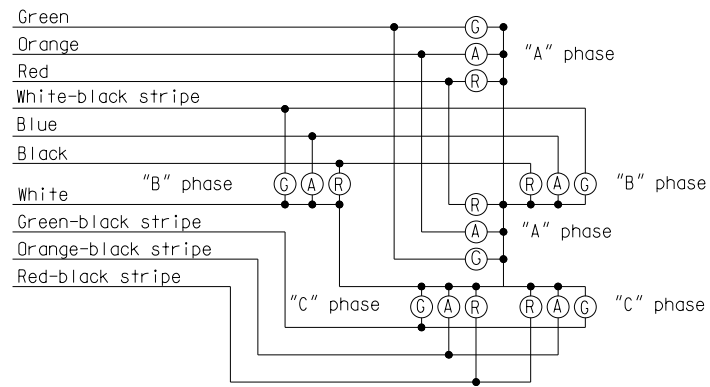
0 HORZ. (FT) 30

HAGGERTY ROAD AND HURON RIVER DRIVE  
VAN BUREN TOWNSHIP, WAYNE COUNTY

SIGNALS  
OPENINGS: 26  
CYCLIC WATTS: 3622  
STEADY WATTS: 0  
PLAN: SL-108 iv

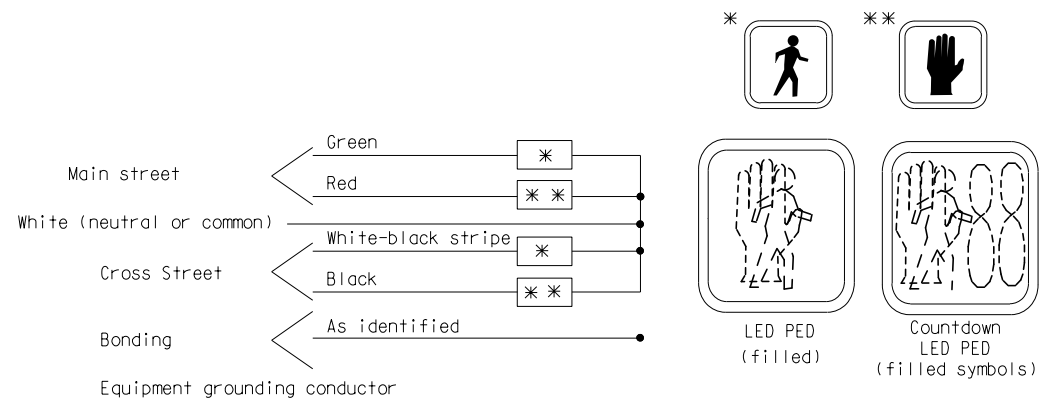
DRAWING SHEET  
SIGNAL 004  
SECT 1





**COLOR CODE FOR WIRING CONNECTING TRAFFIC SIGNAL LAMPS**

NOTE: No splices allowed between traffic signal head and controller.

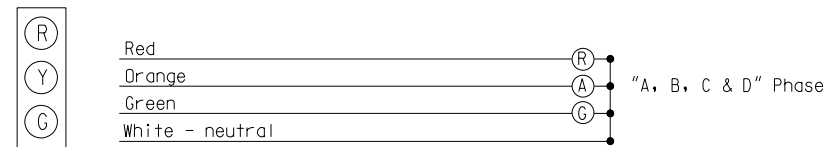


**COLOR CODE FOR WIRING CONNECTING PEDESTRIAN SIGNAL LAMPS  
( WALKING PERSON - HAND SYMBOL )**

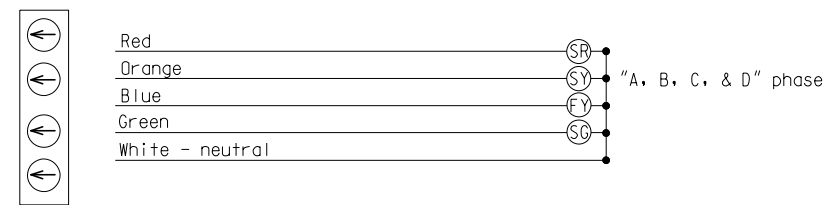
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	ENGINEER OF DELIVERY	MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN FOR <b>COLOR CODE WIRING/          EQUIPMENT GROUNDING</b>	PLAN DATE	<b>WC-026-A</b>	SHEET 1 of 6
	ENGINEER OF DEVELOPMENT				
PREPARED BY TRAFFIC AND SAFETY	(SPECIAL DETAIL)				
DRAWN BY: DJF	FHWA APPROVAL DATE				
CHECKED BY:					

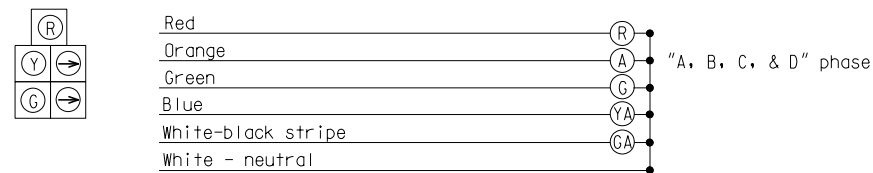


**STANDARD - 3 COLOR SIGNAL DISPLAY**



SR = Steady  
 SY = Steady Yellow  
 FY = Flashing Yellow  
 SG = Steady Green

**FLASHING YELLOW ARROW (FYA) - 4 COLOR SIGNAL DISPLAY**



R = Red Ball  
 A = Yellow Ball  
 G = Green Ball  
 YA = Yellow Arrow  
 GA = Green Arrow

**DOG HOUSE W/RIGHT TURNS - 5 COLOR SIGNAL DISPLAY**

**COLOR CODE FOR WIRING CONNECTING TRAFFIC SIGNAL LAMPS**

NOT TO SCALE

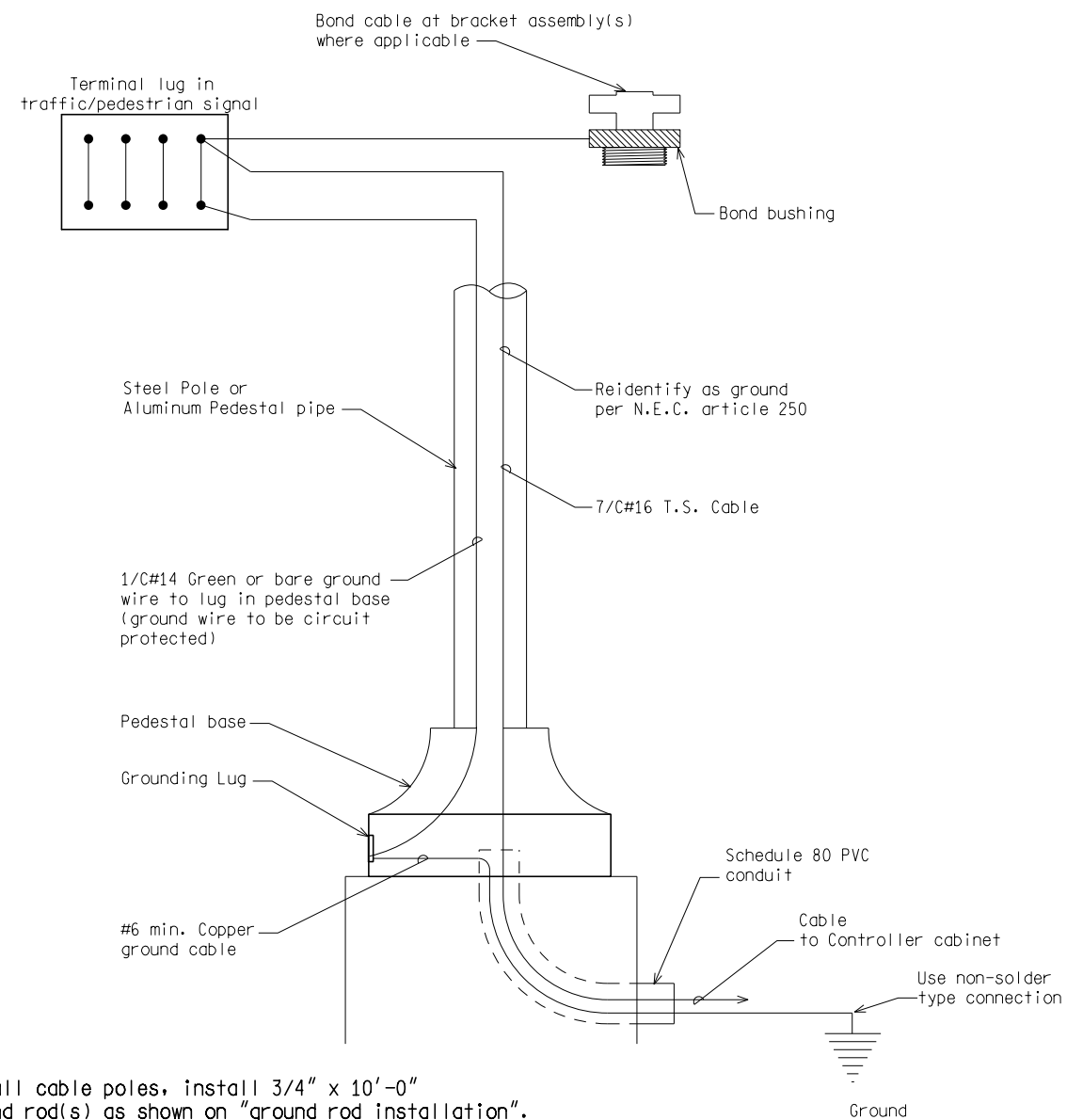
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File: PW:RD/TR/Signals/Web/WC SD/Final	Rev. 10/21/14			

AS-LET PLAN REVISIONS							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE:	CS:	DRAWING	SHEET
DESIGN UNIT:	JN:		
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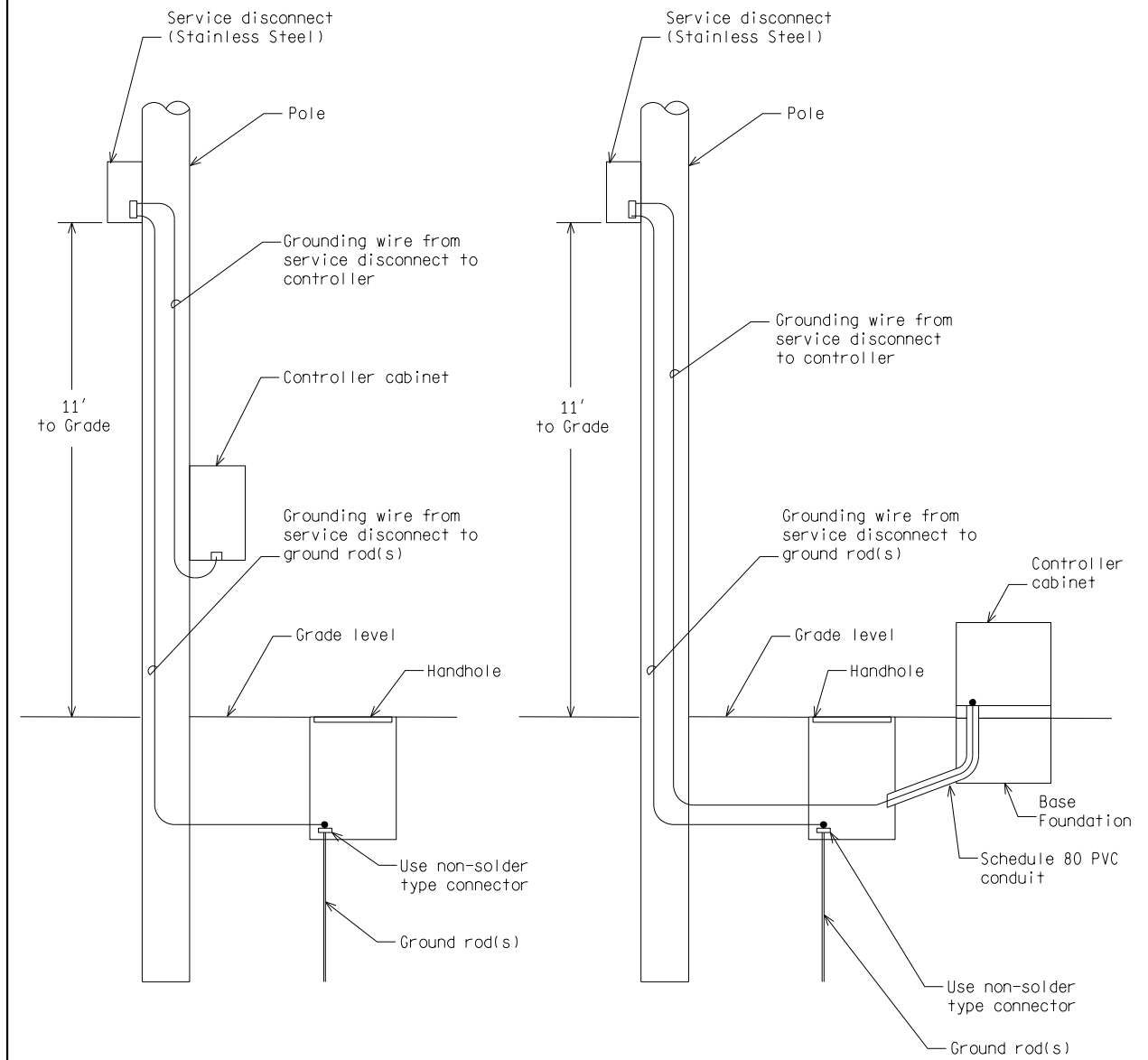


NOTE:  
For all cable poles, install 3/4" x 10'-0" ground rod(s) as shown on "ground rod installation". Connect ground rod(s) with #6 min. copper wire to messenger wire with non-solder type connection.

STEEL POLE/PEDESTAL GROUNDING DETAIL

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN		(SPECIAL DETAIL) FHWA APPROVAL DATE	WC-026-A	SHEET 3 of 6
File: PW:RD/TR/Signals/Web/WC SD/Final		Rev. 10/21/14	PLAN DATE	



GROUNDING

Install 3/4" x 10'-0" copper clad ground rod(s) as required to provide less than 10 OHM resistance to ground.  
Grounding wire #6 AWG min. bare copper grounding wire shall be installed to meet N.E.C. and utility company specs.

Ground wire from disconnect to ground rod to be in moulding (wood pole or post) or inside the pole (steel). Ground wire from disconnect to controller cabinet to be in conduit (wood pole, wood post, and steel pole).

CONTROLLER CABINET GROUNDING DETAIL

NOT TO SCALE

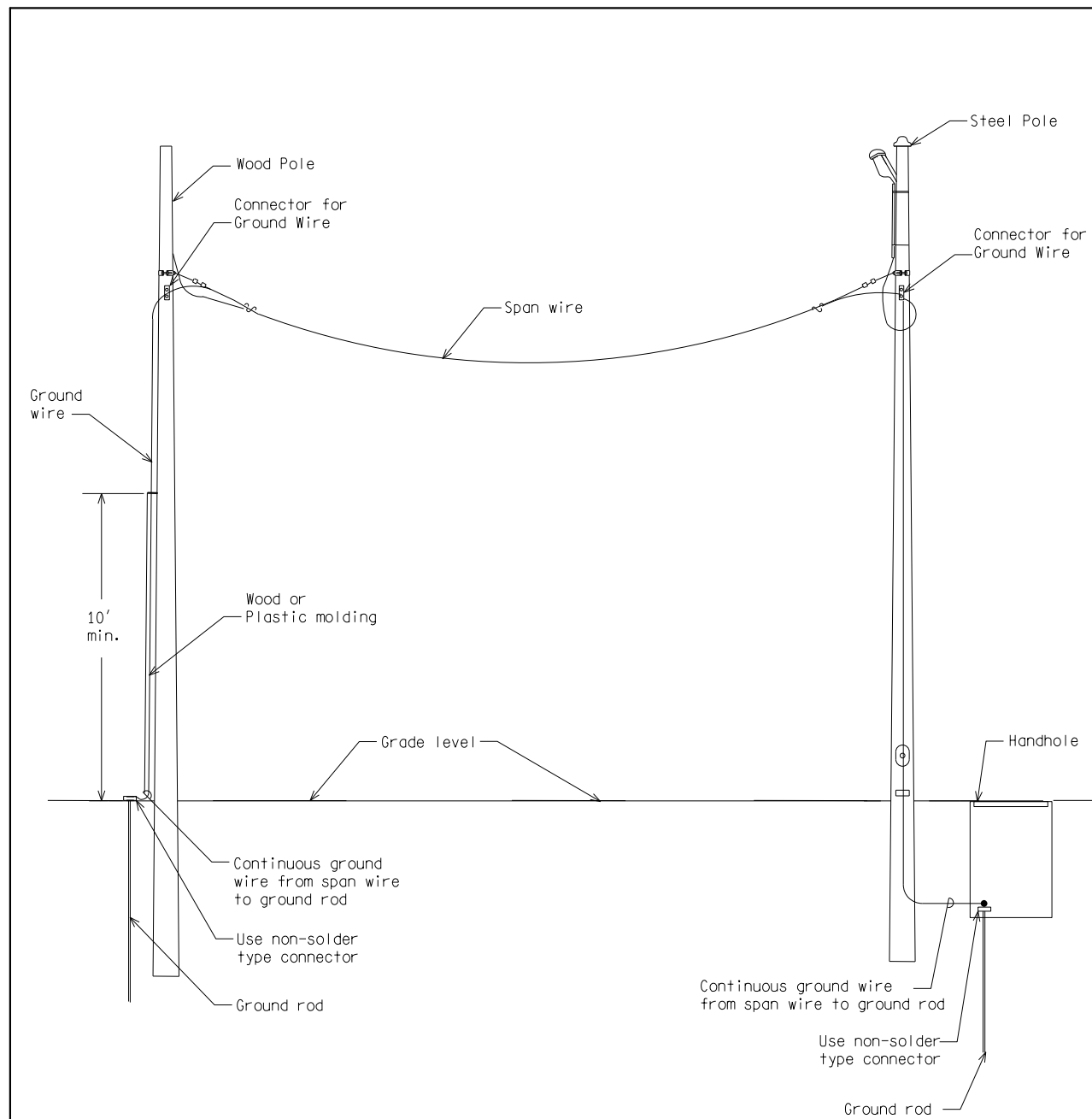
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File: PW:RD/TR/Signals/Web/WC SD/Final		Rev. 10/21/14	PLAN DATE	

AS-LET PLAN REVISIONS							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



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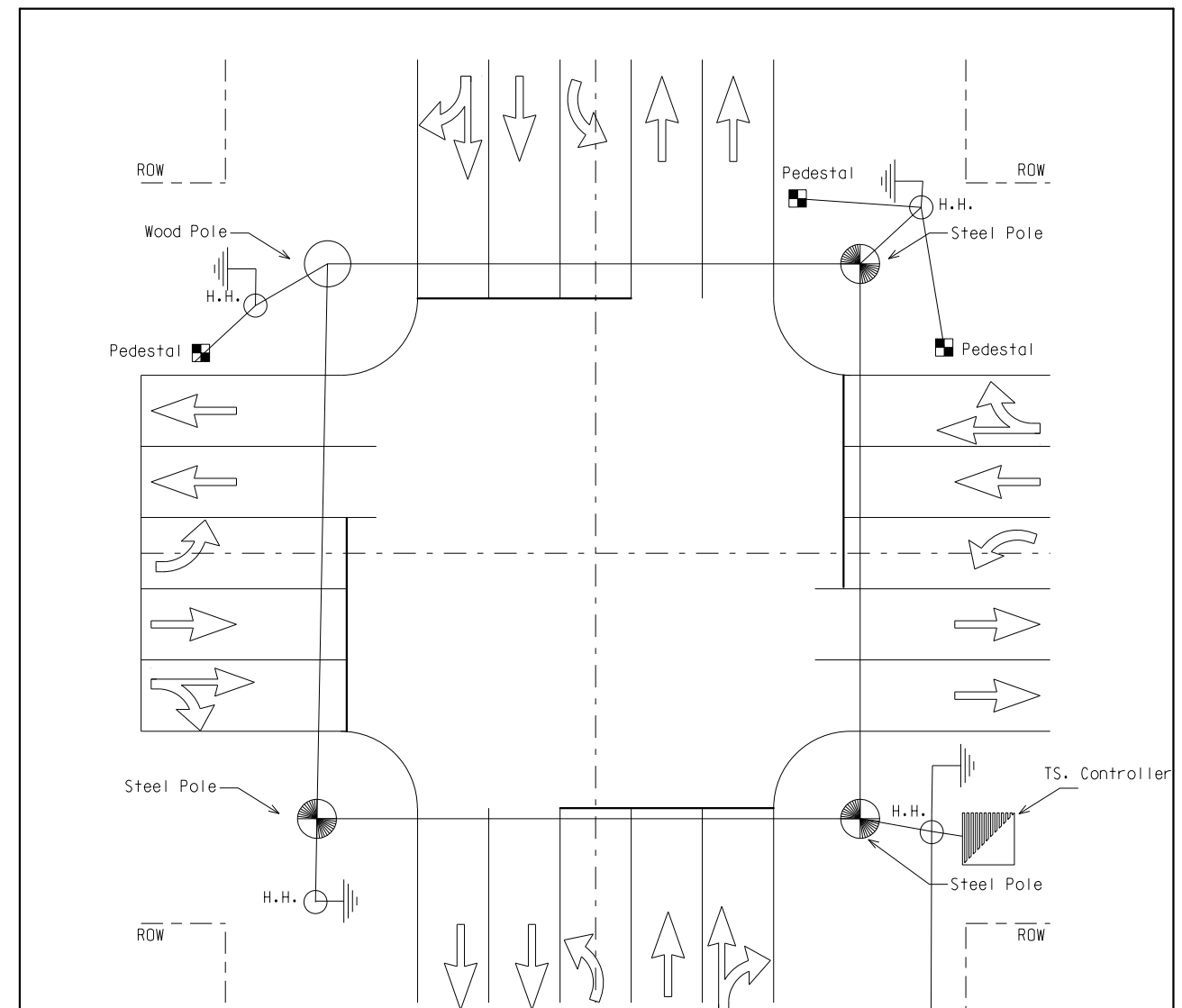




SPAN WIRE GROUNDING DETAIL

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN		(SPECIAL DETAIL) FHWA APPROVAL DATE	WC-026-A	SHEET 5 of 6
File: PW:RD/TR/Signals/Web/WC_SD/Final		Rev. 10/21/14	PLAN DATE	



- 1) All ground rods shall be 3/4" x 10' in length copperclad.
- 2) Ground rods shall be drive straight down, so that only the required portions of of the ground rod is exposed to attach the ground wires.
- 3) All ground rods shall be connected to each other or to a span wire with a single #6 AWG copper conductor.
- 4) Each ground wire attaching to a ground rod shall have its own approved acorn type connector.
- 5) Do not install any ground rods within 10' of any other ground rods from other grounding.
- 6) The grounding system shall measure 10 ohms or less.
- 7) A separate #6 AWG copper ground is required from the service disconnect (safety switch) to the ground bussbar in the controller cabinet.
- 8) Ground rod for each steel pole, wood pole, pedestal and/or traffic signal controller cabinet shall be located in the adjacent handhole as indicated on the plans or as directed by the Engineer.
- 9) All metal bases must be connected to a ground rod with a #6 ground wire.

SYSTEM GROUNDING DETAIL

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN		(SPECIAL DETAIL) FHWA APPROVAL DATE	WC-026-A	SHEET 6 of 6
File: PW:RD/TR/Signals/Web/WC_SD/Final		Rev. 10/21/14	PLAN DATE	

AS-LET PLAN REVISIONS							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE:	CS:	DRAWING	SHEET
DESIGN UNIT:	JN:		
FILE:	TSC:		



CONDUCTOR COLOR	7/C	12/C	16/C	20/C
GREEN	A Ø GREEN	A Ø GREEN	A Ø GREEN	A Ø GREEN
ORANGE	A Ø YELLOW	A Ø YELLOW	A Ø YELLOW	A Ø YELLOW
RED	A Ø RED	A Ø RED	A Ø RED	A Ø RED
WHITE W/ BLACK TRACER	B Ø GREEN	B Ø GREEN	B Ø GREEN	B Ø GREEN
BLUE	B Ø YELLOW	B Ø YELLOW	B Ø YELLOW	B Ø YELLOW
BLACK	B Ø RED	B Ø RED	B Ø RED	B Ø RED
WHITE	COMMON	COMMON	COMMON	COMMON
GREEN W/ BLACK TRACER		C Ø GREEN	C Ø GREEN	C Ø GREEN
ORANGE W/ BLACK TRACER		C Ø YELLOW	C Ø YELLOW	C Ø YELLOW
RED W/ BLACK TRACER		C Ø RED	C Ø RED	C Ø RED
BLUE W/ BLACK TRACER		CASE SIGN COMMON	CASE SIGN COMMON	CASE SIGN COMMON
BLACK W/ WHITE TRACER		CASE SIGN	CASE SIGN	CASE SIGN
GREEN W/ WHITE TRACER			W-1	W-1
RED W/ WHITE TRACER			DW-1	DW-1
BLUE W/ WHITE TRACER			W-2	W-2
BLACK W/ RED TRACER			DW-2	DW-2
WHITE W/ RED TRACER				D Ø GREEN
ORANGE W/ RED TRACER				D Ø YELLOW
BLUE W/ RED TRACER				D Ø RED
RED W/GREEN TRACER				FLASHING YELLOW

WHEN USING CABLES FOR PEDESTRIAN SIGNALS, USE GREEN & RED FOR **W-1** WALK AND DON'T WALK, AND USE WHITE W/ BLACK TRACER AND BLACK FOR **W-2** WALK AND DON'T WALK

NOT TO SCALE

File: PW:RD/TR/Signals/Web/WC SD/Final

Rev. 10/21/14



PREPARED BY  
TRAFFIC AND SAFETY

DRAWN BY:  
CHECKED BY:

ENGINEER OF DELIVERY

ENGINEER OF DEVELOPMENT

FHWA APPROVAL DATE

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN FOR  
**COLOR CODE FOR WIRING  
CONNECTING SIGNAL LAMPS**

PLAN DATE

WC-026-B

SHEET  
1 of 1

AS-LET PLAN REVISIONS

NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



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DATE:

DESIGN UNIT:

TSC:

CS:

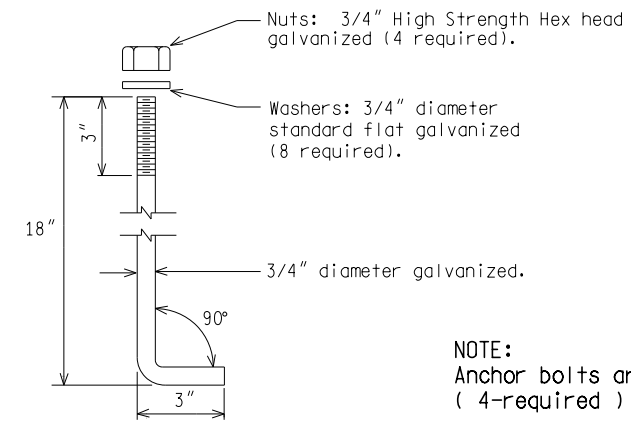
JN:

DRAWING SHEET









NOTE:  
Anchor bolts are to be ASTM A-307 steel  
( 4-required )

ANCHOR BOLT DETAIL

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	( SPECIAL DETAIL ) FHWA APPROVAL DATE		WC-028-B	SHEET 3 of 3
File: PW:RD/TR/Signals/Web/WC SD/Final	Rev. 10/21/14	PLAN DATE		

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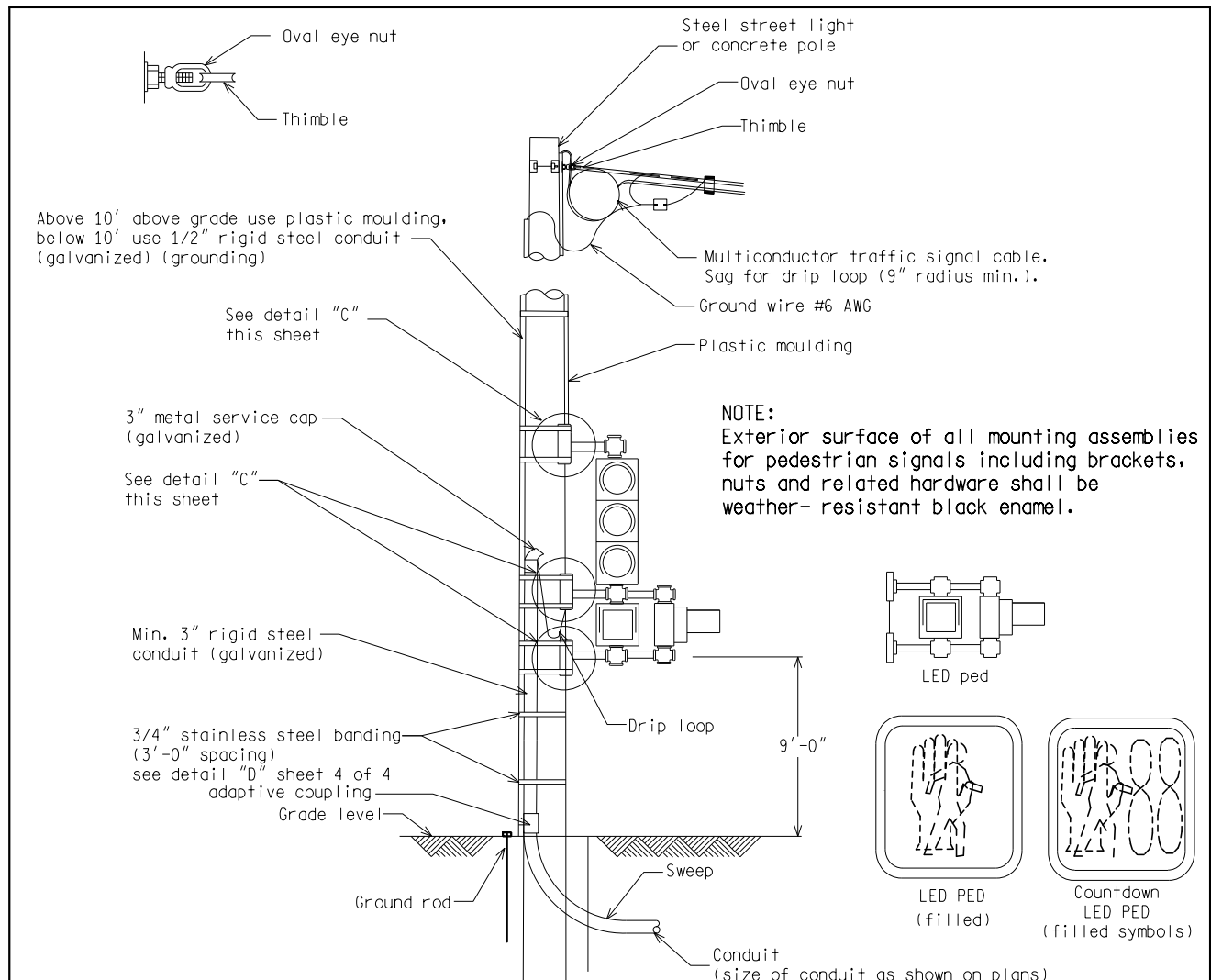
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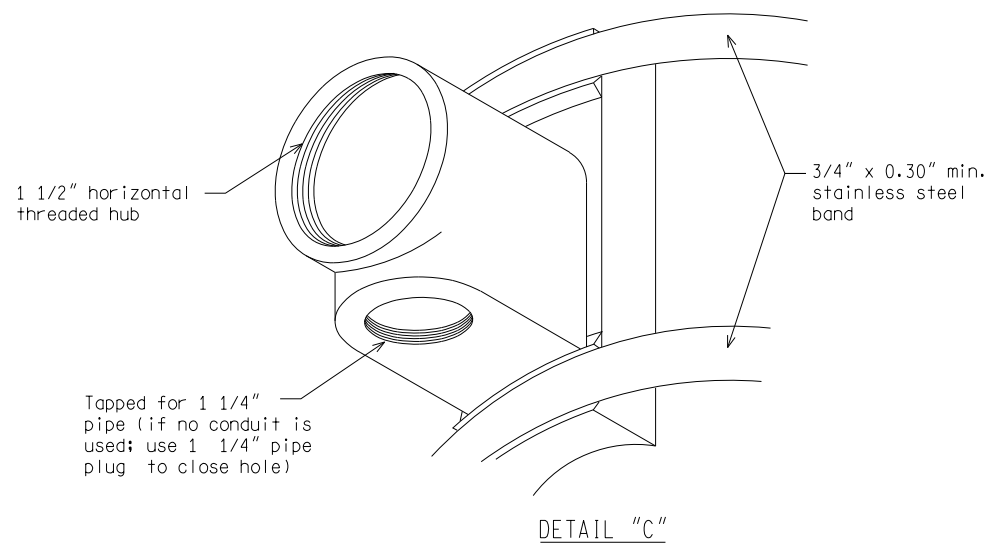








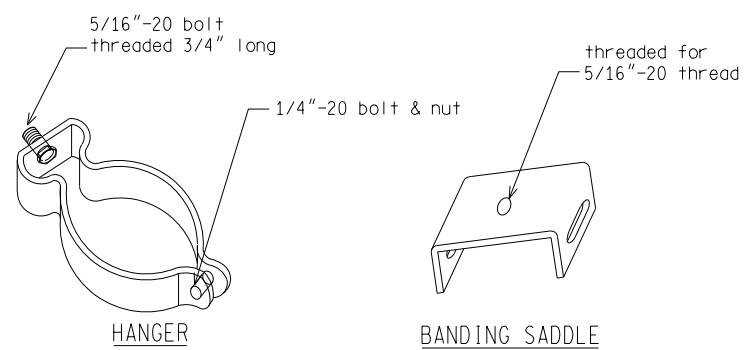
(STEEL STREET POLE OR CONCRETE POLE)



DETAIL "C"

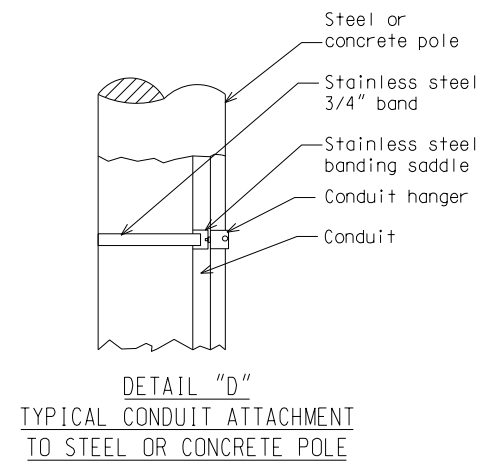
NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE	PLAN DATE	WC-029-C	SHEET 3 of 4
File: PW:RD/TR/Signals/WC SD/Final	Rev. 10/21/14			



HANGER  
To fit conduit size hanger as called for on plans (zinc plated)

BANDING SADDLE



DETAIL "D"  
TYPICAL CONDUIT ATTACHMENT TO STEEL OR CONCRETE POLE

NOT TO SCALE

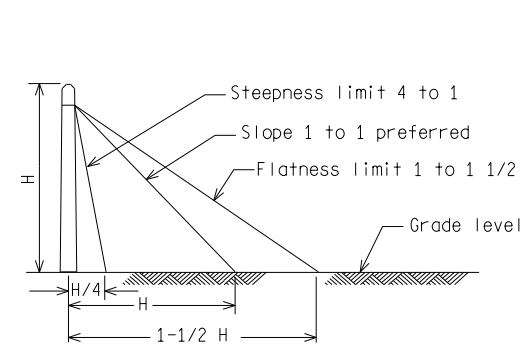
MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE	PLAN DATE	WC-029-C	SHEET 4 of 4
File: PW:RD/TR/Signals/WC SD/Final	Rev. 10/21/14			

AS-LET PLAN REVISIONS							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

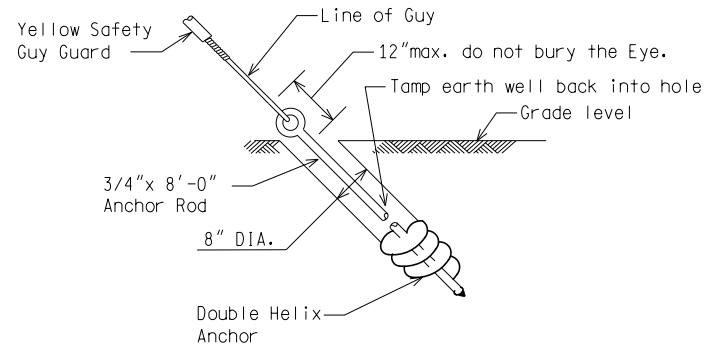


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DESIGN UNIT:	JN:		
FILE:	TSC:		

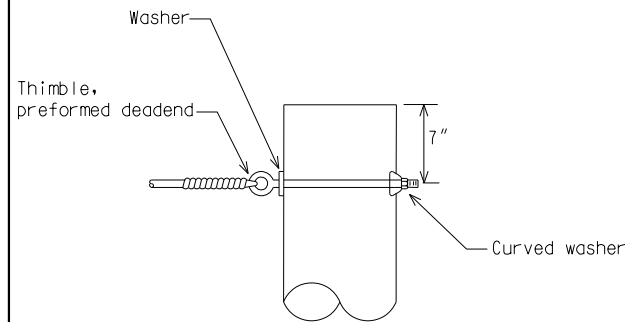




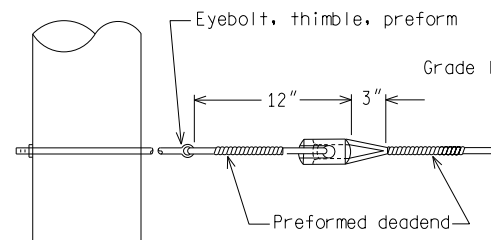
**SLOPE LIMITS FOR ANCHOR GUYS**



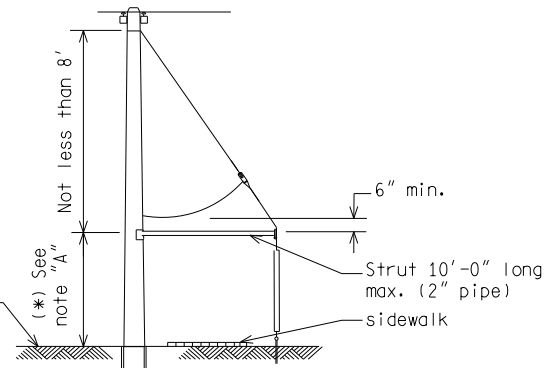
**NOTE:**  
Use screw anchor or Double Helix anchor according to soil condition as directed by the Engineer.



**POLE GUY**

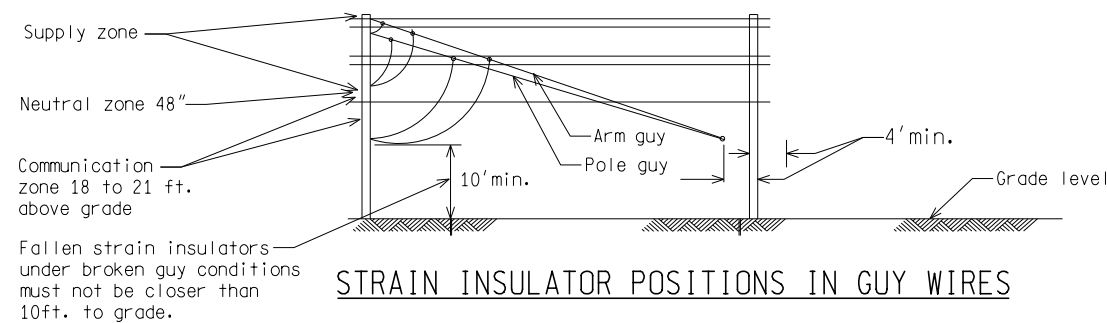


**ARM GUY**



**GUY STRUT**

(\* NOTE: "A"  
This dimension to be 10' unless otherwise specified.



**STRAIN INSULATOR POSITIONS IN GUY WIRES**

NOT TO SCALE

File: RefDoc/TR/Signals/Web/Sp Det/F in/SIG050A.dgn Rev. 02/16/17



PREPARED BY  
TRAFFIC AND SAFETY

DRAWN BY: DJF

CHECKED BY:

ENGINEER OF DELIVERY

ENGINEER OF DEVELOPMENT

(SPECIAL DETAIL)  
FHWA APPROVAL DATE

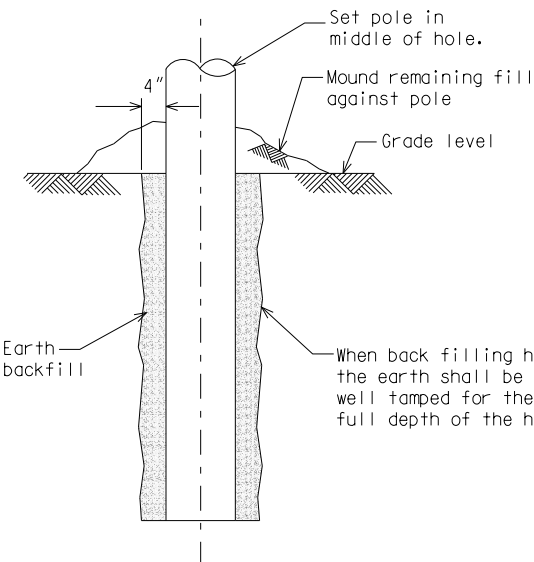
MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN FOR

**WOOD POLE GUYS  
AND SETTING DEPTH**

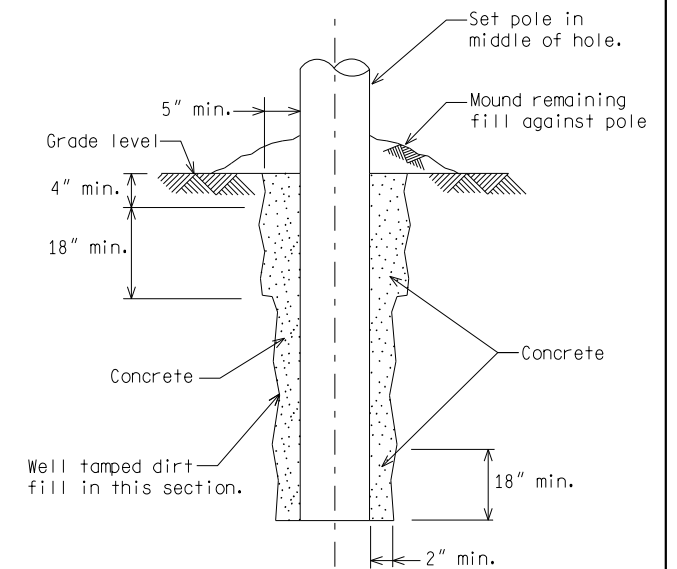
PLAN DATE

SIG-050-A

SHEET  
1 of 2



**WOOD POLE INSTALLATION**



**SELF SUPPORTING WOOD POLE  
IN CONCRETE**

POLE HEIGHT	SETTING DEPTH
30'	6.0'
35'	6.0'
40'	6.0'
45'	6.5'
50'	7.0'
55'	7.5'
60'	8.0'

**WOOD POLE SETTING DEPTHS**

Reference Standard Specification for Construction Section 819.03

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN

(SPECIAL DETAIL)  
FHWA APPROVAL DATE

File: RefDoc/TR/Signals/Web/Sp Det/F in/SIG050A.dgn Rev. 02/16/17

PLAN DATE

SIG-050-A

SHEET  
2 of 2

AS-LET PLAN REVISIONS

NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



FILE:

DATE:

DESIGN UNIT:

TSC:

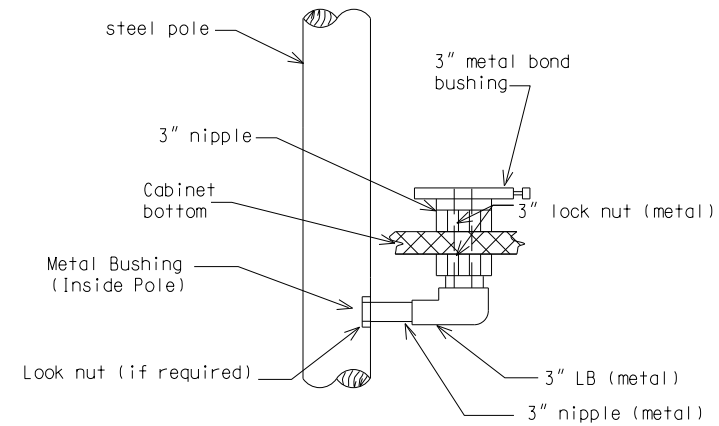
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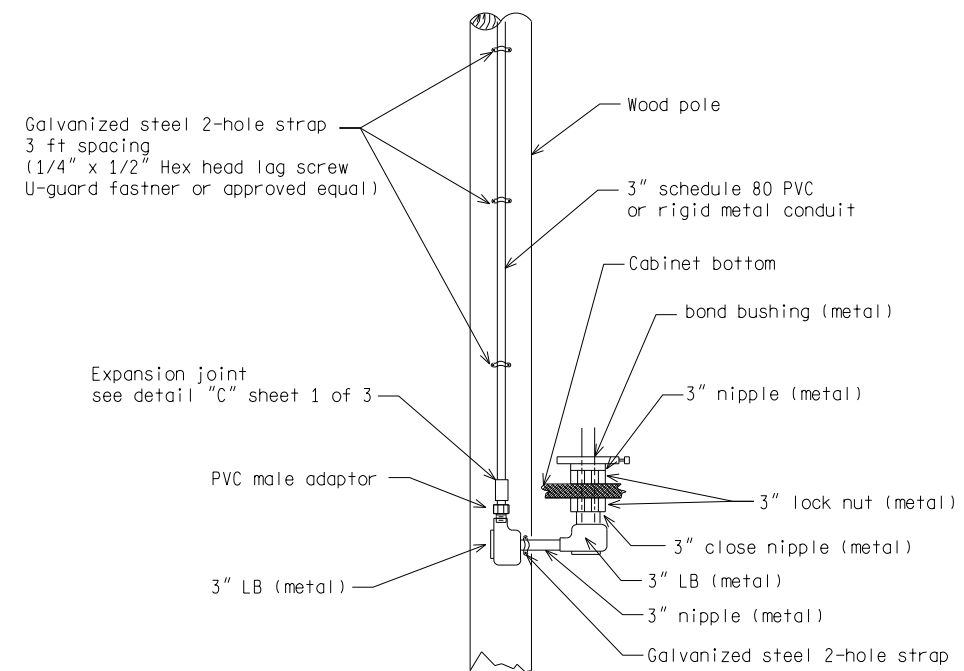
DRAWING SHEET







CONTROLLER CABINET MOUNTED ON STEEL POLE DETAIL "A"



CONTROLLER CABINET MOUNTED ON WOOD POLE DETAIL "B"

**NOTE:**  
 The distance between LB's as shown on this detail is for clarity of the drawing only. Actual distance between LB's shall be minimized as is practical to the installation.

**NOTE:**  
 If rigid metal conduit is used, the conduit must be bonded according to the current N.E.C.

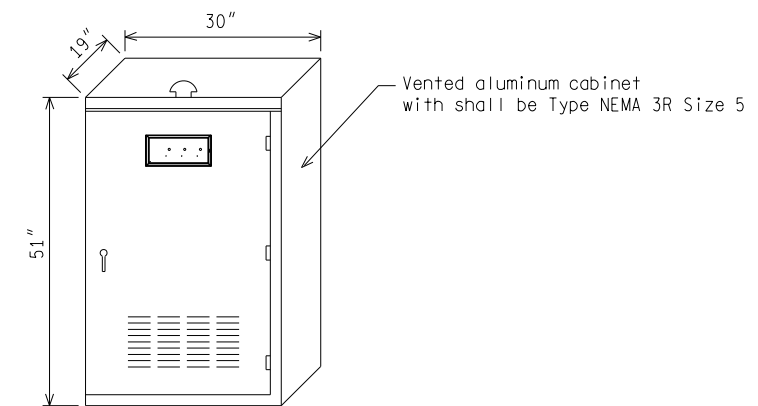
NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE	PLAN DATE	SIG-100-A	SHEET 3 of 3
File: RefDoc/TR/Signals/Web/Sp Det/Fin/SIG100A.dgn Rev. 02/16/17				

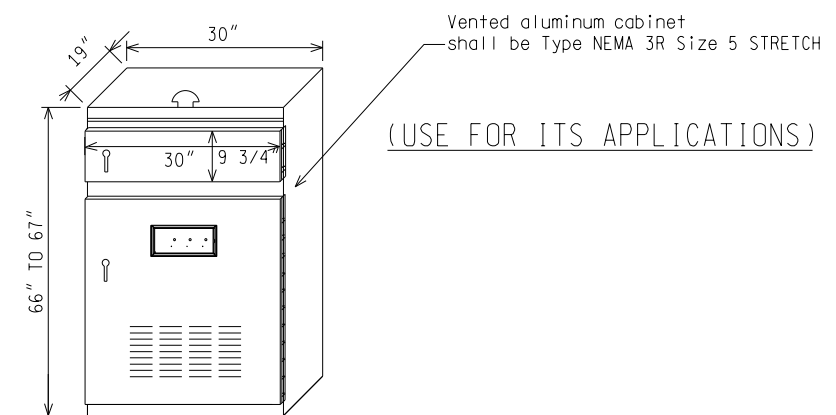
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NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE:	CS:	DRAWING	SHEET
DESIGN UNIT:	JN:		
FILE:	TSC:		



POLE MOUNTED TRAFFIC SIGNAL CONTROLLER CABINET



POLE MOUNTED TRAFFIC SIGNAL ITS CONTROLLER CABINET (IF USED)

NOT TO SCALE

File: RefDoc/TR/Signals/Web/Sp Det/Fin/SIG111A.dgn Rev: 02/16/17



PREPARED BY  
TRAFFIC AND SAFETY

DRAWN BY:  
CHECKED BY:

ENGINEER OF DELIVERY

ENGINEER OF DEVELOPMENT  
(SPECIAL DETAIL )  
FHWA APPROVAL DATE

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN FOR  
**POLE MOUNTED T.S.  
CONTROLLER CABINET/FOUNDATIONS**

PLAN DATE

SIG-111-A

SHEET  
1 of 1

AS-LET PLAN REVISIONS							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



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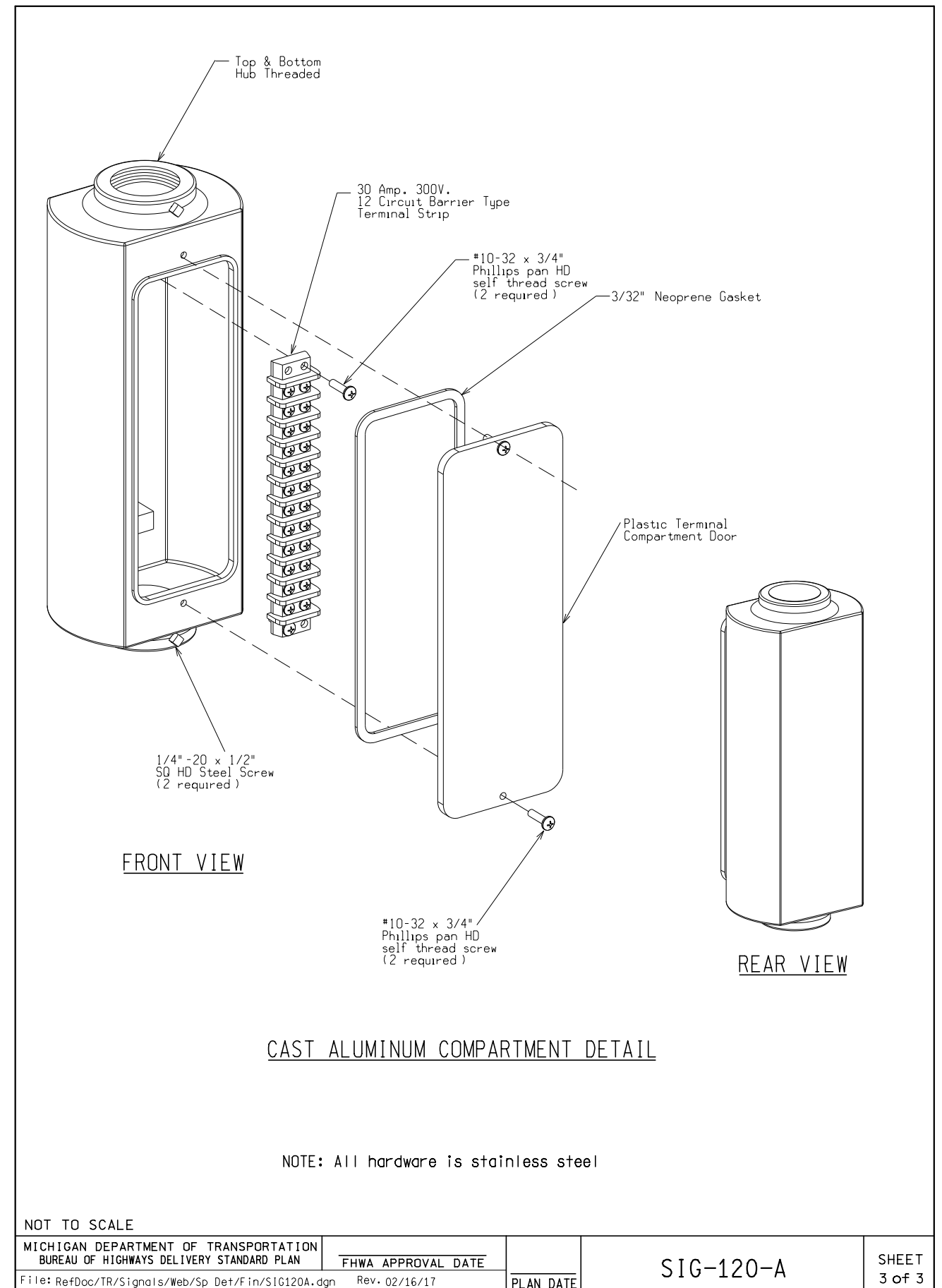
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TSC:

CS:  
JN:

DRAWING SHEET







AS-LET PLAN REVISIONS							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE:	CS:	DRAWING	SHEET
DESIGN UNIT:	JN:		
TSC:			
FILE:			

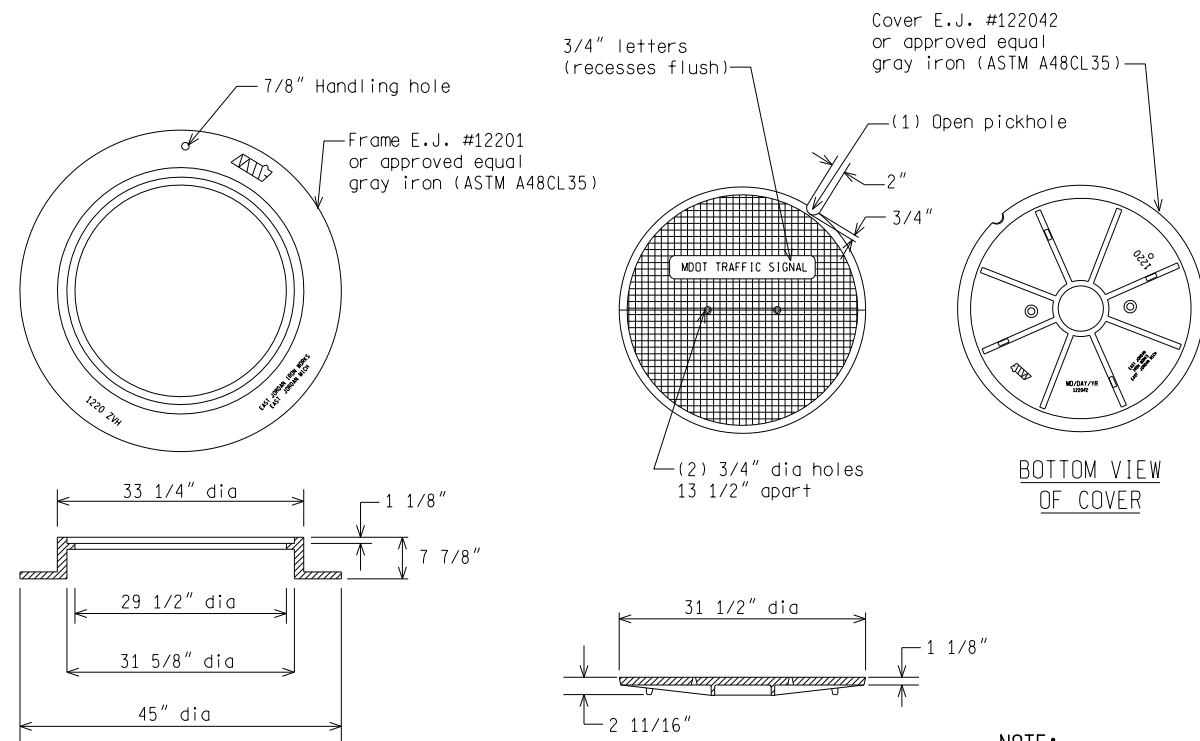








NOTE:  
Logo imprint on cover shall read "MDOT Traffic Signal" for MDOT installations



FRAME SECTION  
**MANHOLE FRAME  
(HEAVY DUTY)**  
Estimated weight 410 lbs

NOTE:  
Machined surface

COVER SECTION  
**MANHOLE COVER  
(HEAVY DUTY)**  
Estimated weight 245 lbs

NOTE:  
Machined surface

4' x 4' x 4' PRECAST CONCRETE HANDHOLE

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN  
File: RefDoc/TR/Signals/Web/Sp Det/Fin/SIG240A.dgn Rev. 02/16/17

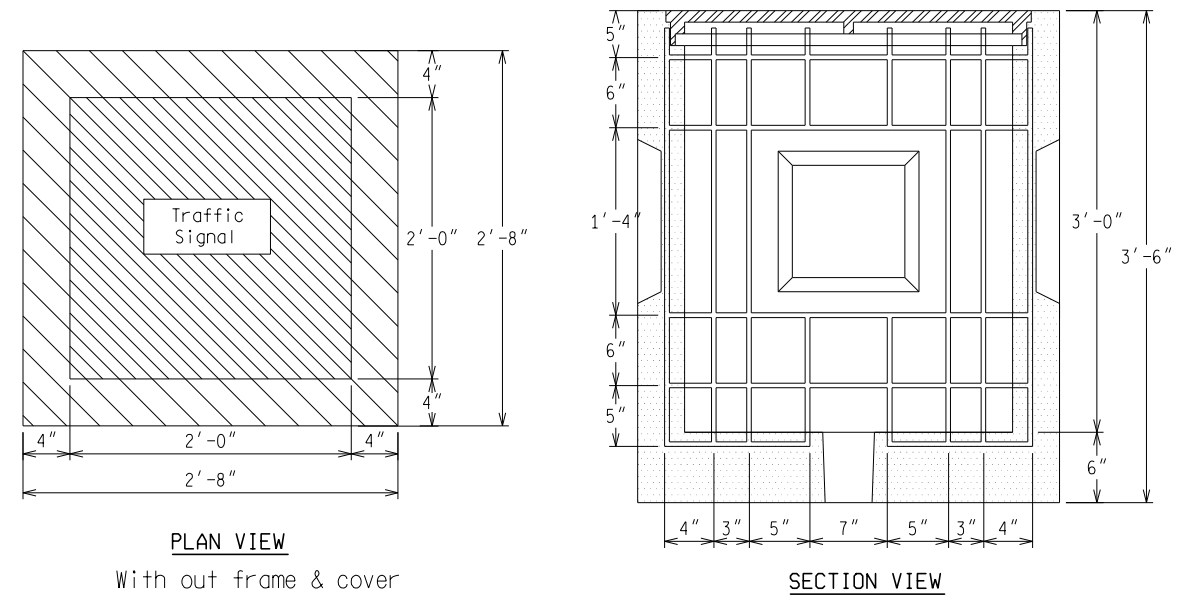
(SPECIAL DETAIL)  
FHWA APPROVAL DATE

PLAN DATE

SIG-240-A

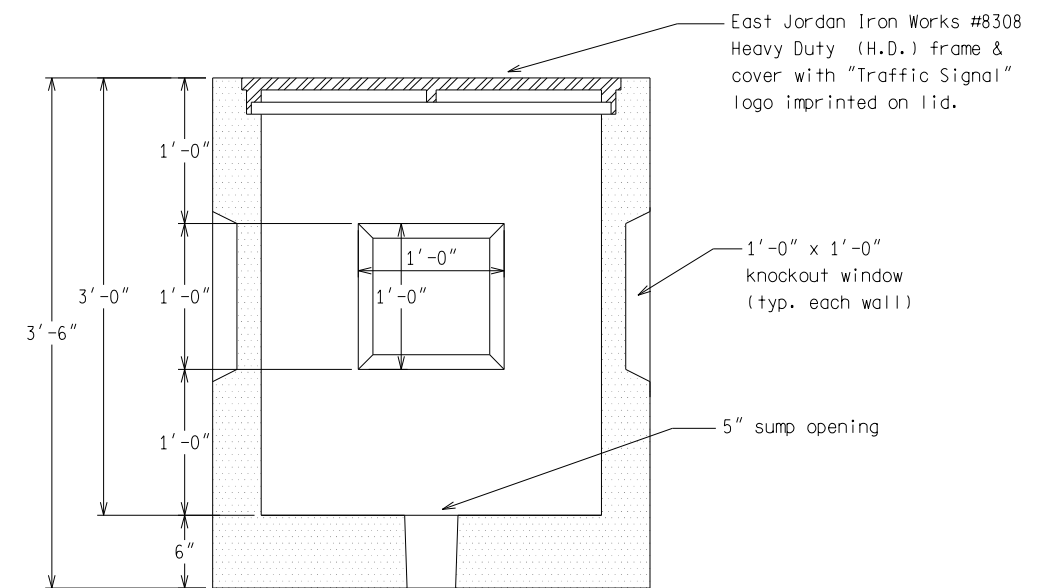
SHEET  
5 of 6

Concrete: 4500 p.s.i. @ 28 days  
Reinforcement: Grade 60 rebar  
All bars are #4



PLAN VIEW  
With out frame & cover

SECTION VIEW  
Typ. reinforcement all walls



SECTION VIEW

2' x 2' SQUARE x 3' HANDHOLE

For use on Oakland County roads only.

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN  
File: RefDoc/TR/Signals/Web/Sp Det/Fin/SIG240A.dgn Rev. 02/16/17

(SPECIAL DETAIL)  
FHWA APPROVAL DATE

PLAN DATE

SIG-240-A

SHEET  
6 of 6

AS-LET PLAN REVISIONS

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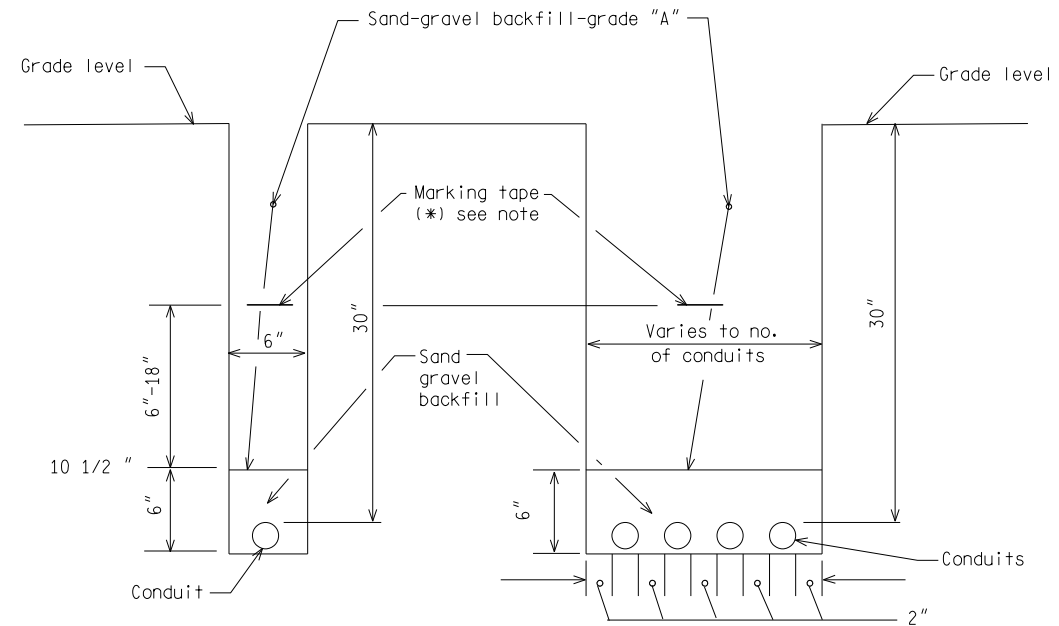


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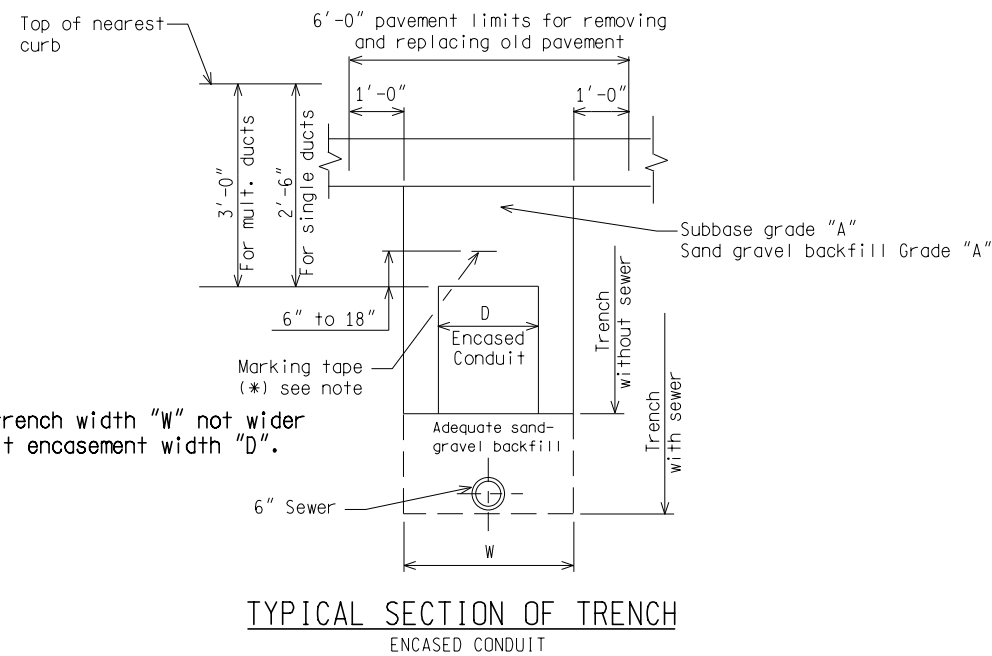
CS:  
JN:

DRAWING SHEET



(\*) NOTE:  
Marking tape shall have proper logo as supplied by the Engineer and installed by the Contractor.

DIRECT BURIAL CONDUIT(S)/CABLE(S)



TYPICAL SECTION OF TRENCH ENCASED CONDUIT

NOT TO SCALE

File: RefDoc/TR/Signals/Web/Sp Det/Fin/SIG250A.dgn Rev. 02/16/17

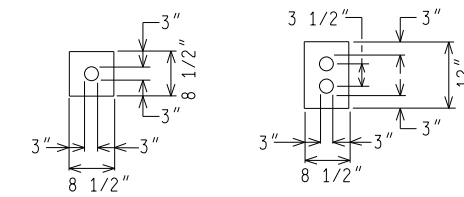
**MDOT**  
Michigan Department of Transportation  
PREPARED BY  
TRAFFIC AND SAFETY  
DRAWN BY: DJF  
CHECKED BY:

ENGINEER OF DELIVERY  
ENGINEER OF DEVELOPMENT  
(SPECIAL DETAIL)  
FHWA APPROVAL DATE

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN FOR  
**CONDUIT**  
(DIRECT BURIAL/ENCASED)

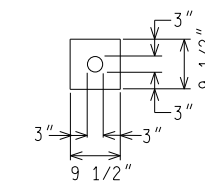
SIG-250-A

SHEET  
1 of 2

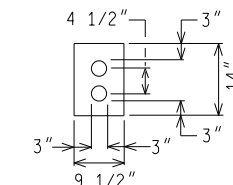


1 2" CONDUIT

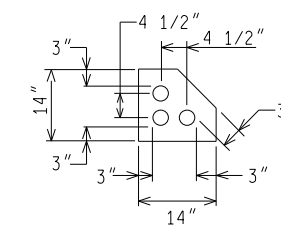
2 2" CONDUIT



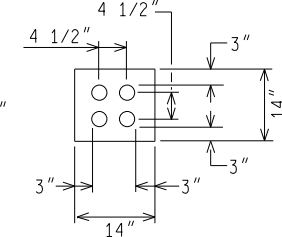
ONE 2 1/2" CONDUIT



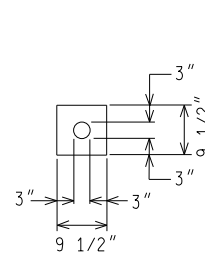
TWO 2 1/2" CONDUIT



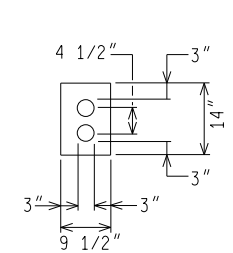
THREE 2 1/2" CONDUIT



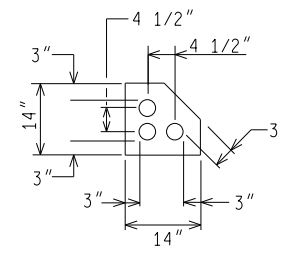
FOUR 2 1/2" CONDUIT



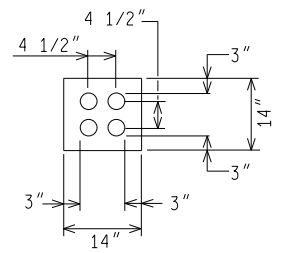
1 3" CONDUIT



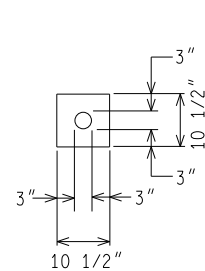
2 3" CONDUIT



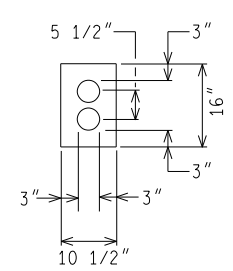
3 3" CONDUIT



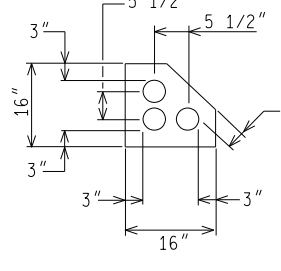
4 3" CONDUIT



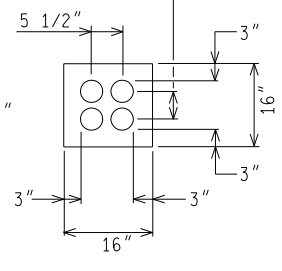
1 4" CONDUIT



2 4" CONDUIT



3 4" CONDUIT



4 4" CONDUIT

ENCASED CONDUIT SECTIONS

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN

(SPECIAL DETAIL)  
FHWA APPROVAL DATE

File: RefDoc/TR/Signals/Web/Sp Det/Fin/SIG250A.dgn Rev. 02/16/17

PLAN DATE

SIG-250-A

SHEET  
2 of 2

AS-LET PLAN REVISIONS

NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



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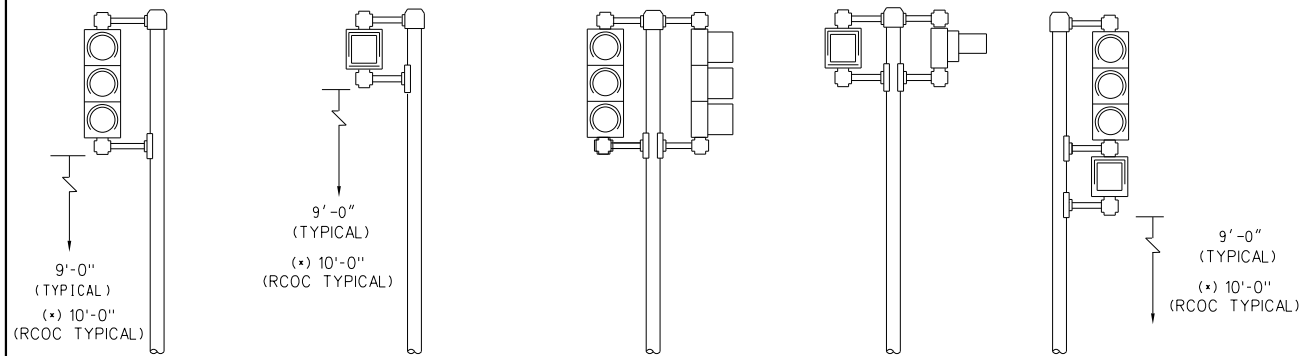
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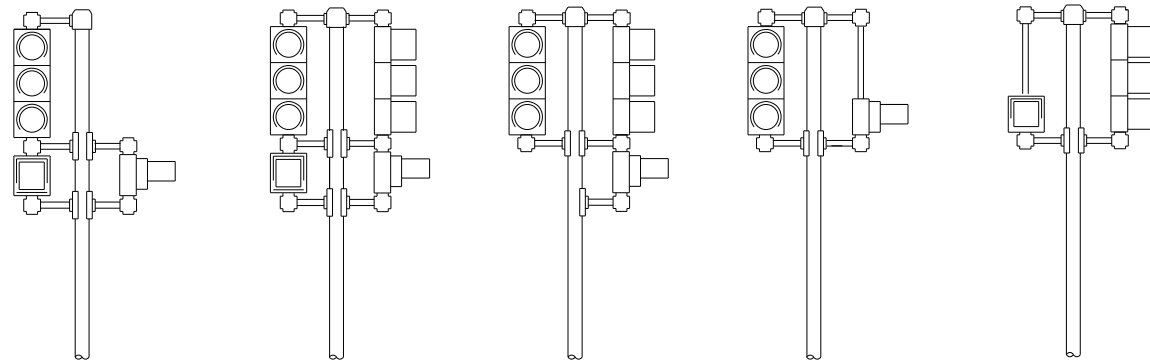
DRAWING SHEET



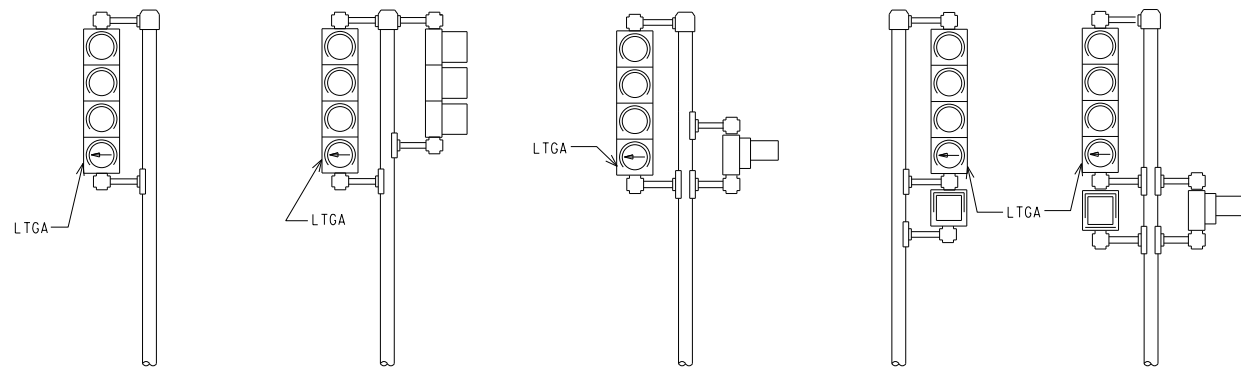
(\* Refer to Note 4 on Sheet 2 of 2.



DETAIL "A-2"      DETAIL "B-2"      DETAIL "C-2"      DETAIL "D-2"      DETAIL "E-2"

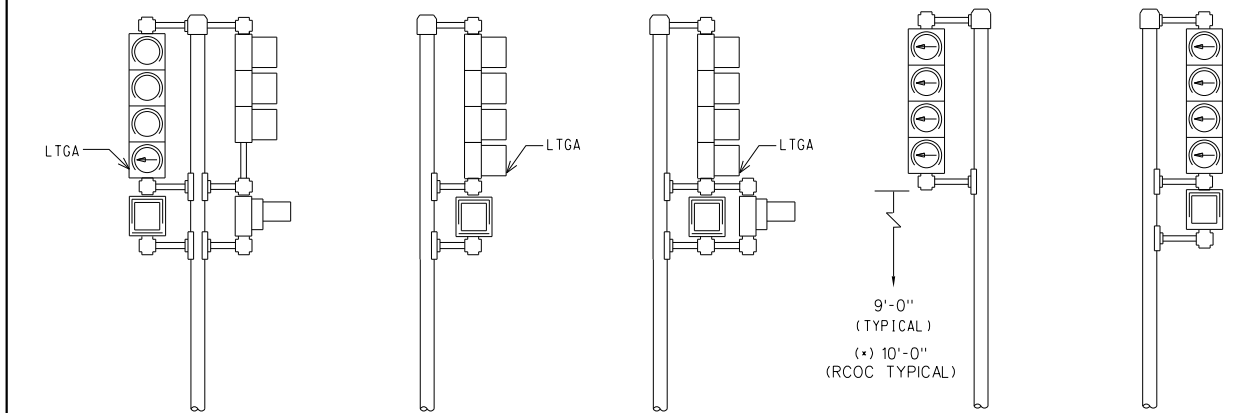


DETAIL "F-2"      DETAIL "G-2"      DETAIL "H-2"      DETAIL "I-2"      DETAIL "J-2"



DETAIL "K-2"      DETAIL "L-2"      DETAIL "M-2"      DETAIL "N-2"      DETAIL "O-2"

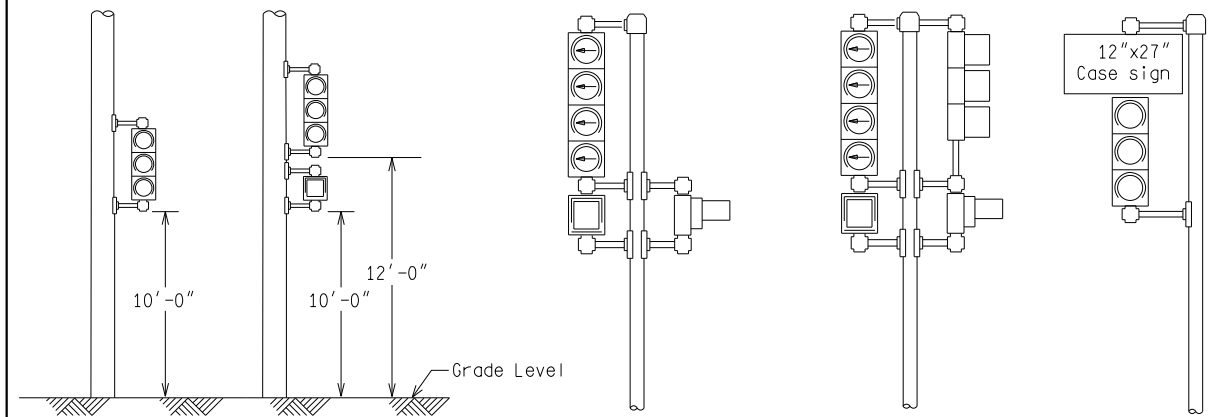
Left Turn Green Arrow (LTGA)



DETAIL "P-2"      DETAIL "Q-2"      DETAIL "R-2"      DETAIL "S-2"      DETAIL "T-2"

Left Turn Green Arrow (LTGA)

Flashing Yellow Arrow (FYA)



RCOC Mounting Detail (\* see note)      DETAIL "U-2"      DETAIL "V-2"      DETAIL "Typical"

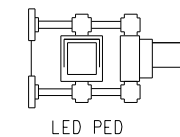
NOTE:  
1) Pipe assembly shall be such length and height as to accommodate traffic signals and pedestrian signals for proper maintenance and clear vehicular and pedestrian viewing.

2) Pipe assembly shall be of such length and height as to accommodate an illuminated (12"x27") case sign for proper maintenance and clear vehicular viewing.

3) Bracket lengths are 16 inches for LED pedestrian signals and for LED pedestrian countdown signals.

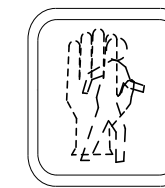
4) Tolerance within +/- 1/8" for bracketing.

(\* For projects maintained by the Road Commission for Oakland County (RCOC), use the bottom heights and bracket assemblies as shown for the RCOC mounting detail.

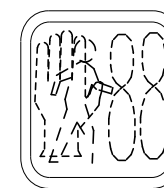


LED PED

NOTE:  
Walking person and hand symbol are filled.



LED PED (filled)



Countdown LED PED (filled symbols)

NOT TO SCALE

File: RefDoc/TR/Signals/Web/Sp Det/F in/SIG330A.dgn Rev. 02/16/17



ENGINEER OF DELIVERY

PREPARED BY TRAFFIC AND SAFETY

ENGINEER OF DEVELOPMENT

DRAWN BY:

(SPECIAL DETAIL)

CHECKED BY:

FHWA APPROVAL DATE

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN FOR

PEDESTAL MOUNTED  
SIGNAL DISPLAYS

SIG-330-A

SHEET 1 of 2

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN

(SPECIAL DETAIL)  
FHWA APPROVAL DATE

File: RefDoc/TR/Signals/Web/Sp Det/F in/SIG330A.dgn Rev. 02/16/17

PLAN DATE

SIG-330-A

SHEET 2 of 2

AS-LET PLAN REVISIONS

NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



FILE:

DATE:

CS:

DESIGN UNIT:

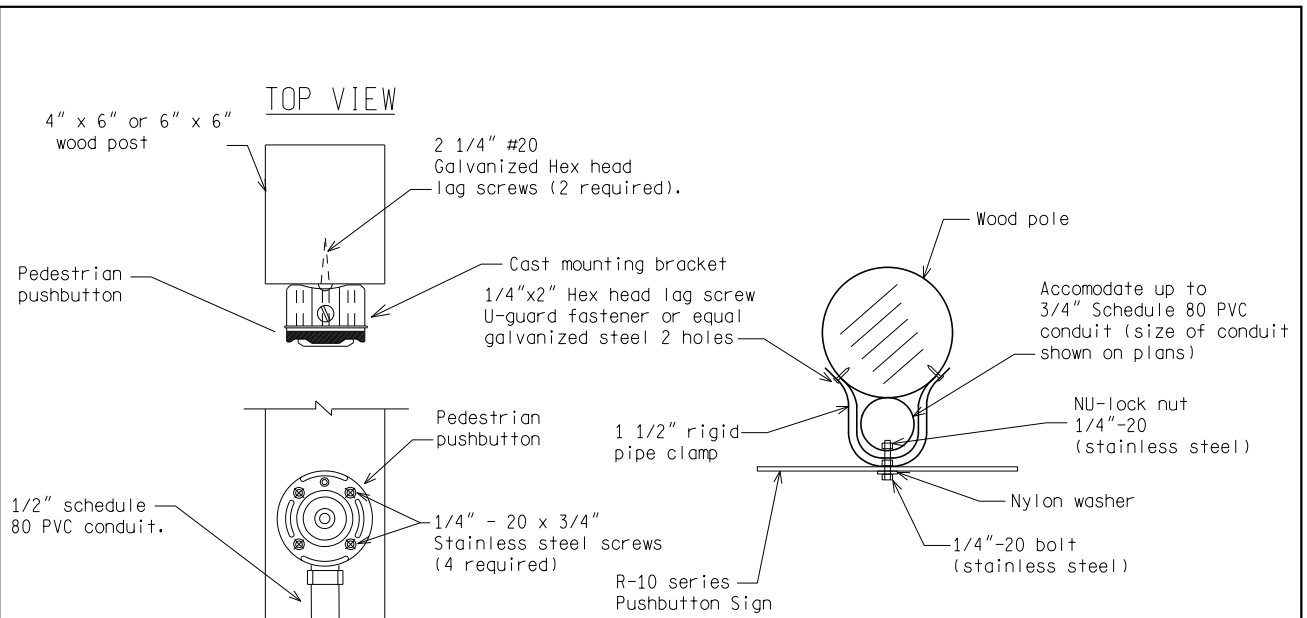
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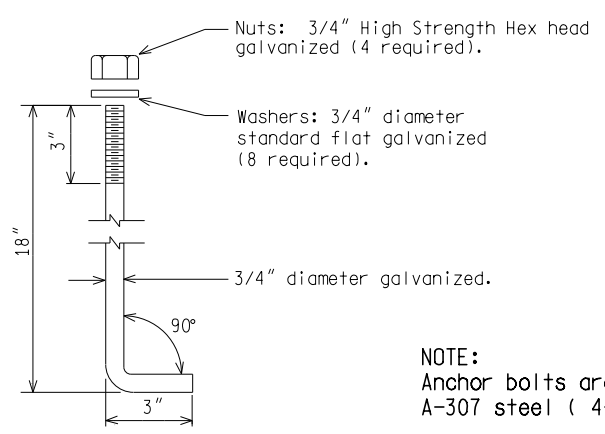






**PEDESTRIAN PUSHBUTTON SIGN INSTALLATION ON WOOD POLE**

**PEDESTRIAN PUSHBUTTON INSTALLATION ON WOOD POST**

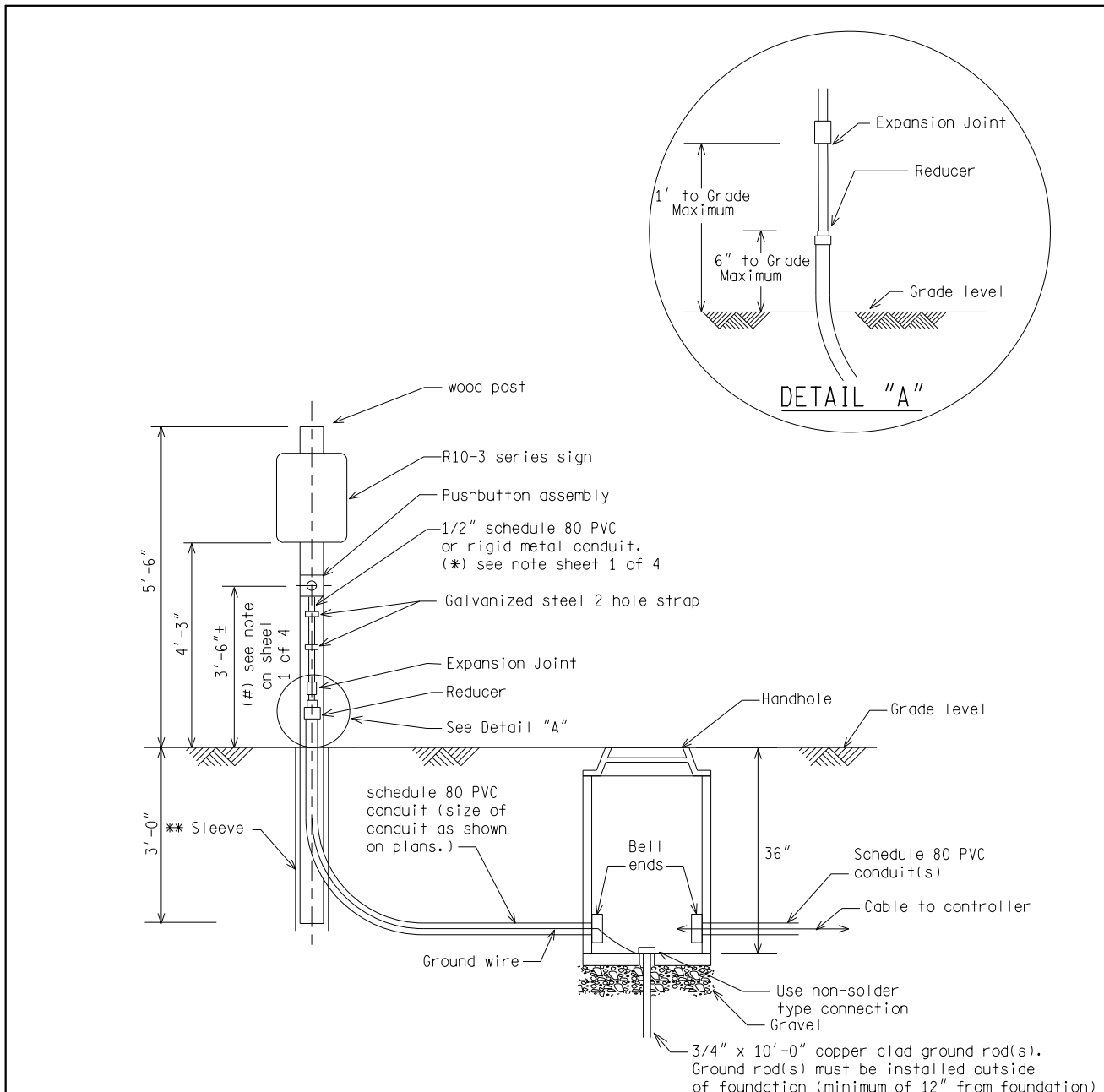


**NOTE:**  
Anchor bolts are to be ASTM A-307 steel ( 4-required )

**ANCHOR BOLT DETAIL**

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN		(SPECIAL DETAIL) FHWA APPROVAL DATE		<b>SIG-400-A</b>	SHEET 3 of 4
File: RefDoc/TR/Signals/Web/Sp Det/F in/SIG400A.dgn		Rev. 02/16/17	PLAN DATE		



**PUSHBUTTON & WOOD POST**

\*\* Refer to Standard Plan for Wood Posts

NOT TO SCALE

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File: RefDoc/TR/Signals/Web/Sp Det/F in/SIG400A.dgn		Rev. 02/16/17	PLAN DATE		

AS-LET PLAN REVISIONS									DATE:	CS:	DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION		DESIGN UNIT:	JN:		
									TSC:			
								FILE:				