



# CITY OF ANN ARBOR ENGINEERING

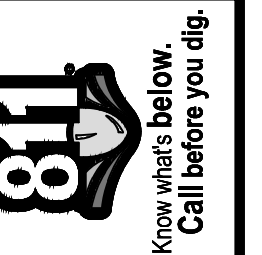
## STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS

### NOTES

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

THE UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS, TELEPHONE, ELECTRICAL POWER, CABLE TV AND FIBER OPTIC LINES ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED PRIOR TO CONSTRUCTION TO LOCATE THESE UTILITIES.

THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE 1994 EDITION OF THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS, ITS DETAILS, WHICH ARE INCLUDED BY REFERENCE, AND THIS PROJECT'S CONTRACT DOCUMENTS. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT.



01	OUT FOR BID	2-10-22	CC,DF	CC,DF	DRAWN	CHECKED
00	FINAL REVIEW	1-12-22			DATE	
	REV.				DESCRIPTION	

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-8647  
www.a2gov.org



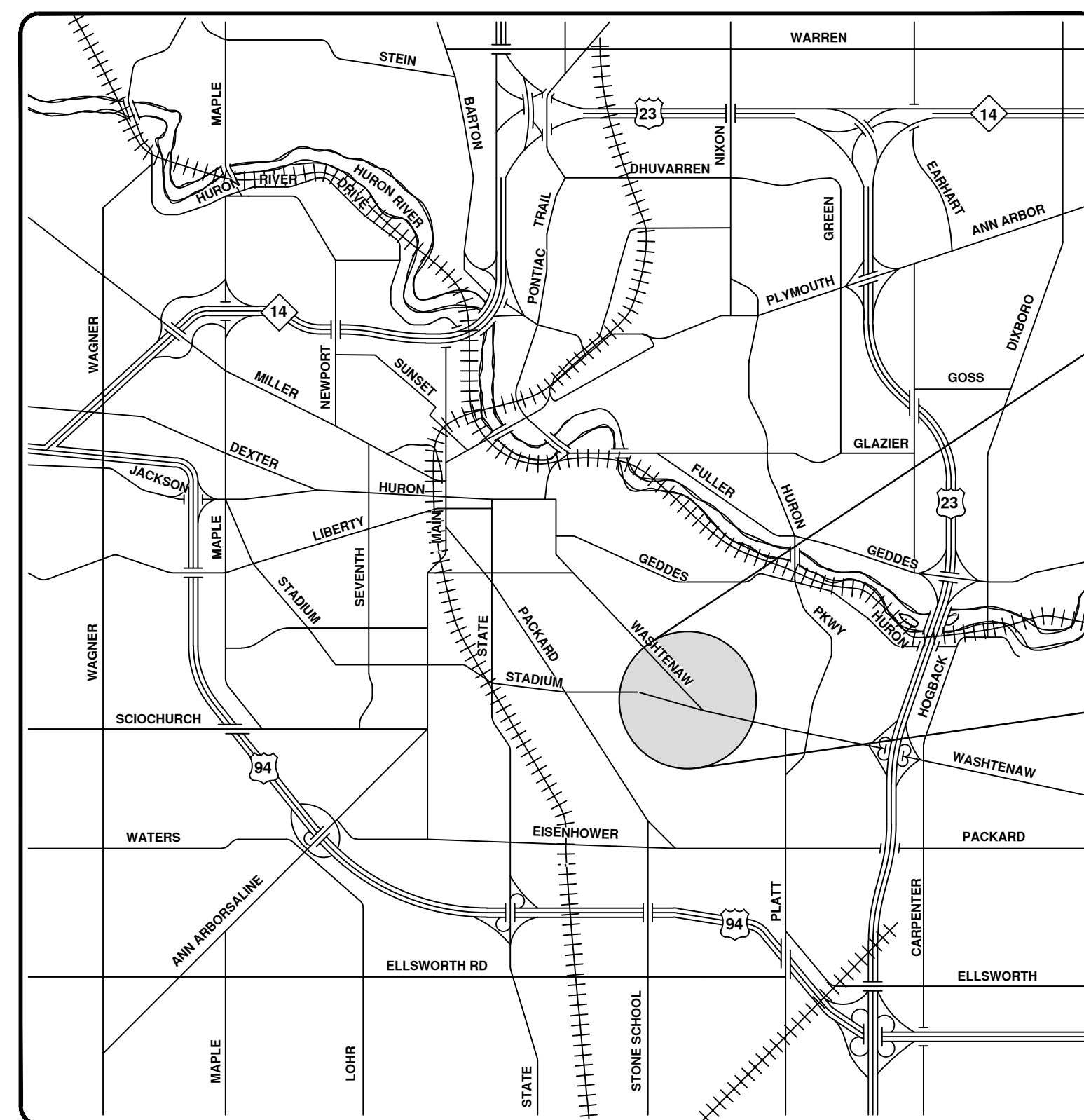
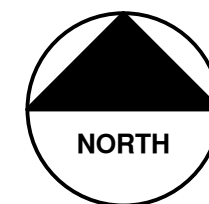
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
SCALE  
DRAWING No. 2021011-1  
SHEET No. 1 OF 37

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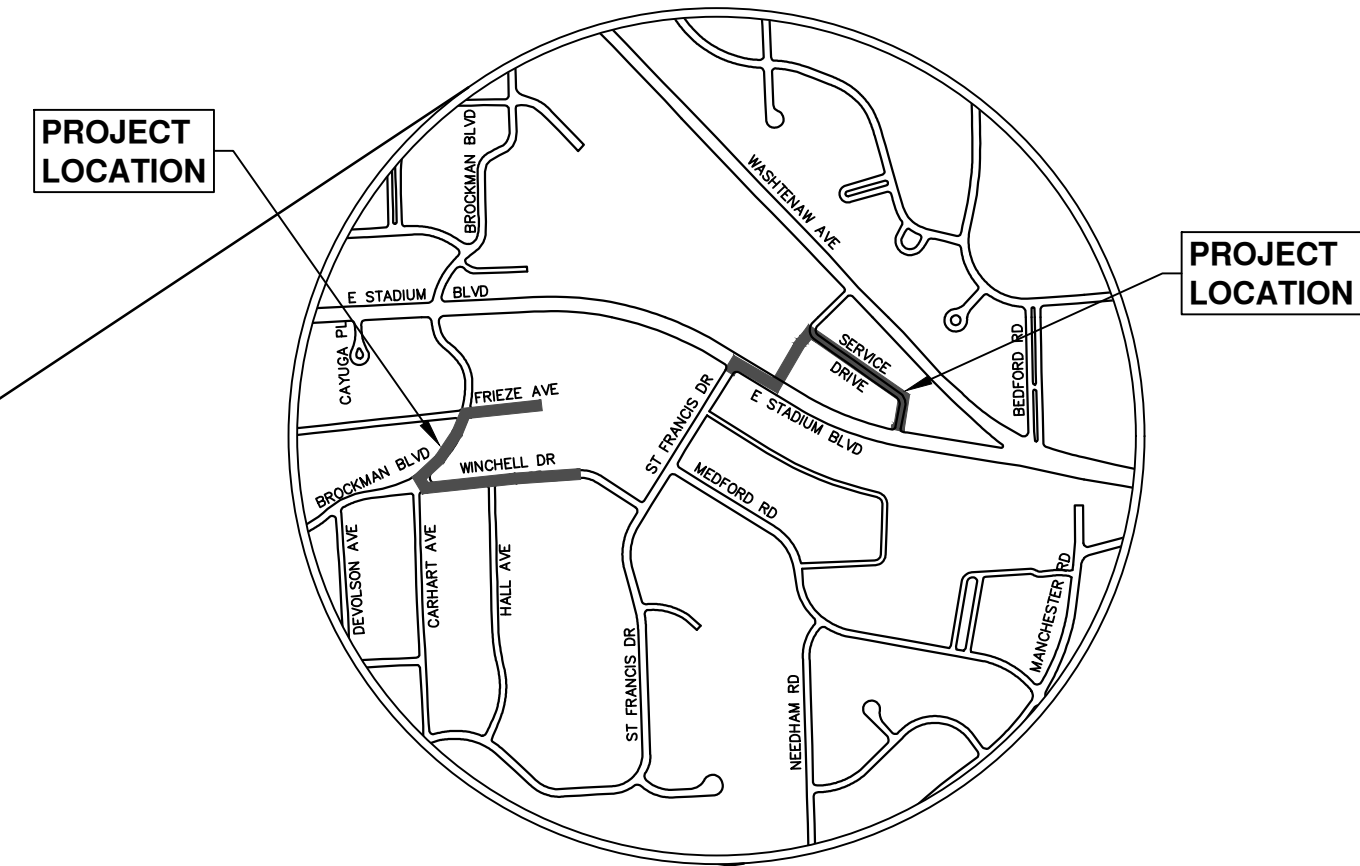
R:\2021011 StadiumWasht Area Util Impr\Plan Production\2021011Cov.dwg - \_o2\_standard bw.stb - Plot Date: 2/9/2022 1:22:07 PM

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
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2	STANDARD NOTES
3	LEGEND
4	WATER MAIN DETAILS
5	STORM SEWER AND TRENCH DETAILS
6	MISC DETAILS
7 - 10	ALTERNATIVE PEDESTRIAN ROUTE DETAILS
11 - 16	E STADIUM BLVD TRAFFIC CONTROL PH I & PH II
17	E STADIUM BLVD WATER MAIN ABANDONMENTS
18	STADIUM SERVICE DR REMOVALS
19 - 21	STADIUM SERVICE DR WATER MAIN PLAN & PROFILE
22 - 24	STADIUM SERVICE DR PROPOSED GRADING PLAN
25	BROCKMAN WINCHELL FRIEZE TRAFFIC CONTROL
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28	FRIEZE AVE WATER MAIN PLAN AND PROFILE
29 - 31	BROCKMAN WINCHELL FRIEZE STORM SEWER
32 - 33	FRIEZE AVE SIDEWALK AND CURB
34	WINCHELL DR WATER MAIN ABANDONMENT
35	WINCHELL DR SIDEWALK AND CURB
36 - 37	BROCKMAN BLVD SIDEWALK AND CURB

ITB 22-15 FILE No. 2021011



VICINITY MAP



PREPARED UNDER THE SUPERVISION OF

*Christopher Carson*  
CHRISTOPHER CARSON, P.E. - MI LICENSE No. 47156  
PROJECT MANAGER

2/10/2022  
DATE

**CONSTRUCTION NOTES:**

- Driveways and entrances to buildings, real property, and the like shall not be blocked except for short durations and only when approved by the Engineer. Vehicular and pedestrian access shall be maintained at all times. It shall be the Contractor's responsibility to coordinate all necessary driveway closures with the property owner(s) and resident(s) in the areas of construction.
- The location and depth of all existing utilities and service leads are to be field verified by the Contractor prior to construction.
- Location and depth of utilities as depicted on the plans is approximate and shown according to the best information available. It is the Contractor's responsibility to excavate ahead and adjust depth of conflict utilities accordingly. Any damage to utilities is the Contractor's responsibility to avoid and/or repair as necessary.
- The Contractor is to take special care to protect the existing water main and be responsible for maintaining consistent water service.
- During non-working hours no trench shall remain open; any open trench shall be properly secured with protective fencing. This work shall be included in the item of work "General Conditions".
- Trenches for new water services shall be excavated to MIOSHA and City of Ann Arbor Public Works requirements.
- City of Ann Arbor Public Works will install the corporation and copper service lead(s) to transfer the connection(s). If an existing water service is found to be failing or is not copper, the lead will be replaced to the curb box by Public Works.
- For the installation of corporations, or any other related activities, the Contractor shall not receive additional compensation for delays due to the scheduling of or coordination with the City of Ann Arbor Public Works.
- The Contractor shall backfill trenches in accordance with Trench Detail specified on plans. This work shall be included in the item of work "Excavate and Backfill for Water Service Tap and Lead". All concrete removals and replacements required for this work will be paid for separately.
- All ductile iron pipe and fittings shall be polyethylene wrapped per ANSI/AWWA C105/A21.5.
- Cor-blw bolts to be used at all mechanical water main joints at hydrants and Megalug fittings.
- The Contractor shall construct, flush, and bacteriologically test the water main per Detailed Specification "Water Main Installation and Testing" and as approved by the Engineer. All chlorinated water shall be discharged directly into an approved sanitary sewer. The Contractor shall supply all necessary hoses, fittings and the like to accomplish this work.
- Water main fittings, other than those specifically listed as separate pay items, which are required to complete the work, such as blow-off assemblies, concrete thrust blocks, solid sleeves and mechanical plugs, shall not be paid for separately, but shall be included in the pipe pay items.
- "No Parking" signs shall be installed by the Contractor at locations as approved or directed by the Engineer. All signs shall be installed in accordance with the detailed specifications.
- Postal delivery and refuse pickup service shall be maintained at all times by the Contractor.
- All fittings, hydrants, valves and castings removed during construction are the property of the City of Ann Arbor. The Contractor within 48 hours shall deliver to City of Ann Arbor Public Works Facility at the W.R. Wheeler Service Center located at 4251 Stone School Road.
- Where street curbs are undermined due to construction activities, they shall be removed and replaced as directed by the Engineer.
- The Contractor shall be responsible for the continuous maintenance of the temporary road surface and soil erosion control measures within the construction area until the full completion of the project. This work shall be included in the item of work "General Conditions".
- All curb, sidewalk, driveway approach removals shall be approved by Engineer before the work is done.
- Sawed sewer pipe connections shall be coupled with a Fernco flexible coupling and a stainless steel shear ring.
- The location of material stock piles and on-site staging areas to be approved by the Engineer.
- For mainline paving, the width of the mat for each pass of the paver shall be not less than 10.5' or greater than 15', as directed by the Engineer. The Engineer will direct the layout of the longitudinal joints during construction.
- All structures shall receive new castings as directed by the Engineer, as specified on the standard casting schedule. The existing castings are the property of the City of Ann Arbor. The Contractor shall deliver to City of Ann Arbor Public Works Facility at the W.R. Wheeler Service Center located at 4251 Stone School Road.
- Payment for drainage structure sumps, where specified, shall be included in the payment for the various drainage structure sizes and or types.
- Where sewer pipes of different sizes or materials are joined, Fernco flexible couplings with stainless steel shear rings shall be used. The Contractor's purchase price for these devices, including shipping, shall be paid as an extra. Prior to payment for this item, the Contractor shall submit receipts for the Engineer's review and approval. All other costs associated with the installation of these devices shall be included in the payment for the sewer.
- Where sewer and water main are to be removed & replaced or added, all pipe shall be installed using Trench Detail detailed in the specifications or shown on Plans. Backfill for sewer and water construction shall be MDOT Granular Material, Class II, Modified.
- Existing street name, guide, and regulatory signs, and mailboxes which conflict with the proposed construction shall be removed prior to construction, stored in a manner which will prevent damage, and re-set in locations as directed by the Engineer. This work will not be paid for separately, but shall be included in "Machine Grading, Modified"
- In areas where edge drain cannot be installed in accordance with City of Ann Arbor Detail SD-TD-11, the edge drain shall be installed at the depth as indicated on the plans, or as directed by Engineer. In no case shall the edge drain be installed at a grade less than 0.50% or at a depth of less than 2' below top of proposed pavement.

**GENERAL**

NOTIFY THE CITY OF ANN ARBOR SOIL EROSION CONTROL OFFICE 48 HOURS PRIOR TO BEGINNING WORK ON THE PROJECT. PHONE: 734-794-6265.

- THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THE SOIL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER AT ALL TIMES DURING CONSTRUCTION. ANY MODIFICATIONS OR ADDITIONS TO THE SOIL EROSION CONTROL MEASURES DUE TO CONSTRUCTION OR CHANGED CONDITIONS SHALL BE AS DIRECTED AND APPROVED BY THE ENGINEER.
- ALL SOIL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE PERMIT REQUIREMENTS OF THE CITY OF ANN ARBOR, CHAPTER 55 ANN ARBOR UNIFIED DEVELOPMENT CODE, CITY OF ANN ARBOR STANDARDS DIVISION VII, THE LAWS OF THE STATE OF MICHIGAN, AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- DAILY, OR AFTER ANY STORM EVENT, INSPECTIONS OF EROSION CONTROL MEASURES SHALL BE MADE BY THE CONTRACTOR. PERIODIC INSPECTIONS MAY BE MADE BY THE ENGINEER TO DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY CORRECTIONS SHALL BE MADE WITHOUT DELAY, AND WITHOUT ADDITIONAL COST TO THE CITY OF ANN ARBOR.
- EROSION AND SEDIMENTATION FROM WORK ON THE SITE SHALL BE CONTAINED ON THE SITE AND NOT BE ALLOWED TO COLLECT ON ANY OFF-SITE AREAS, ROADWAYS OR WATERWAYS.
- ALL MUD/SOIL TRACKED ONTO ROADWAYS FROM THE SITE DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR. IF SO ORDERED, THE CONTRACTOR SHALL PROVIDE AND OPERATE A VACUUM-TYPE STREET SWEEPER, AT NO ADDITIONAL COST TO THE CITY OF ANN ARBOR.
- RESTORATION OF ALL DISTURBED AREAS, INCLUDING PLACEMENT OF TOPSOIL, SEED, FERTILIZER AND MULCH AND/OR SOD SHALL BE PERFORMED WITHIN FIVE (5) DAYS OF THE COMPLETION OF FINAL GRADE.
- CONSTRUCTION OPERATIONS SHALL BE SCHEDULED AND PERFORMED SO THAT PREVENTATIVE SOIL EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO EXCAVATION IN CRITICAL AREAS AND TEMPORARY STABILIZATION MEASURES ARE IN PLACE IMMEDIATELY FOLLOWING BACKFILLING OPERATIONS.
- SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
- PROPER DUST CONTROL SHALL BE MAINTAINED DURING CONSTRUCTION BY USE OF WATER TRUCKS AND/OR DUST PALLATIVE AS REQUIRED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND REMOVAL OF SOME MEASURES UPON AUTHORIZED COMPLETION OF THE PROJECT. FINAL COMPLETION OF PROJECT WILL NOT BE AUTHORIZED UNTIL ALL SITE WORK AND UTILITY CONSTRUCTION IS COMPLETE AND ALL SOILS ARE STABILIZED.
- THE CONTRACTOR SHALL NOT GRADE INTO ADJACENT PROPERTIES. SILT AND PROTECTIVE FENCE SHALL BE INSTALLED AND MAINTAINED TO PREVENT GRADING, EROSION AND SEDIMENTATION INTO THE ADJACENT PROPERTIES.
- TREE PROTECTION FENCING MUST REMAIN INTACT UNTIL RESTORATION OF THE SITE IS COMPLETE.

**SEQUENCE OF EROSION CONTROL MEASURES:**

- THE CONTRACTOR IS TO SUBMIT TO THE ENGINEER, A SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION CONTROL MEASURES FOR REVIEW, COMMENT AND APPROVAL. THIS SCHEDULE IS TO INCLUDE INSPECTION AND REPAIR OF ALL TEMPORARY EROSION CONTROL MEASURES DAILY AND WITHIN 24 HOURS OF A STORM EVENT.

**SAMPLE SOIL EROSION AND SEDIMENTATION CONTROL INSTALLATION MINIMUM REQUIREMENTS:**

- INSTALL SILT FENCE, TREE PROTECTION FENCING, MUD MATS, INLET FILTERS ON EXISTING DRAINAGE FEATURES, AND ALL OTHER TEMPORARY SOIL EROSION CONTROLS, PRIOR TO ANY CLEARING OR EARTH MOVING OPERATION.
  - STRIP AND STOCKPILE TOPSOIL. STABILIZE STOCKPILE AS REQUIRED.
- INSTALL WATER MAINS, STORM AND SANITARY SEWERS, AND OTHER ENCLOSED DRAINAGE FEATURES. NEW INLET FILTERS SHALL BE INSTALLED IMMEDIATELY FOLLOWING INSTALLATION OF NEW DRAINAGE INLETS.
  - PERFORM MACHINE GRADING OPERATIONS AND CONSTRUCT PAVEMENTS (MAINLINE, SIDEWALKS, DRIVES, ETC.).
  - CONTINUALLY MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES, AS REQUIRED TO ALLOW DRAINAGE AND SEDIMENT REMOVAL. REMOVE ANY ACCUMULATED SEDIMENT IMMEDIATELY.
  - COMPLETE ALL FINE GRADING.
  - TEMPORARY SEED AND INSTALL EROSION CONTROL BLANKET IN ALL DISTURBED AREAS.
  - REFER TO LANDSCAPE PLANTING PLANS FOR PERMANENT SITE STABILIZATION.
  - CLEAN OUT STORM SEWER SYSTEMS.
- REMEDY ANY NOTED DEFECTS TO THE SATISFACTION OF THE CITY OF ANN ARBOR'S SOIL EROSION AND SEDIMENTATION CONTROL OFFICIAL.
  - ALL TEMP. SOIL EROSION CONTROL MEASURES MUST BE REMOVED, WITH ENGINEERS APPROVAL, PRIOR TO FINAL INSPECTION

NOTE: THIS SEQUENCE IS FOR INFORMATION ONLY. IT IS INTENDED TO SHOW THE SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THEIR OWN DETAILED CONSTRUCTION SEQUENCE AND SCHEDULE TO THE ENGINEER FOR REVIEW, COMMENT, AND APPROVAL.

**TEMPORARY SEEDING:**

- SEED IN ACCORDANCE WITH PROJECT DRAWINGS AND SPECIFICATIONS.
- ANY DISTURBED AREA NOT PAVED, SEEDED, MULCHED, SODDED OR BUILT UPON BY NOVEMBER 15TH OR JUNE 30TH IS TO BE TEMPORARILY STABILIZED PER SPECIFICATIONS.

THE ESTIMATED COST OF SOIL EROSION AND SEDIMENTATION CONTROL MEASURES, TOPSOIL, SEEDING, AND MULCH = \$35,000

ON SITE SOILS PER THE USDA SOIL SURVEY OF WASHTENAW COUNTY, MICHIGAN:

- BROCKMAN BLVD., WINCHELL DR., FRIEZE AVE.
- WawobC - WAWASEE LOAM, 6 TO 12 PERCENT SLOPES.
- EAST STADIUM BLVD., STADIUM SERVICE DR.
- WawobB - WAWASEE LOAM, 2 TO 6 PERCENT SLOPES
  - WawobC - WAWASEE LOAM, 6 TO 12 PERCENT SLOPES.

**PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION.**

PERMIT	ISSUING AUTHORITY
LANE CLOSURE PERMIT*	CITY OF ANN ARBOR ENGINEERING
"NO PARKING" SIGNS PERMIT*	CITY OF ANN ARBOR ENGINEERING
GRADING/SOIL EROSION & SEDIMENTATION CONTROL PERMIT*	CITY OF ANN ARBOR CUSTOMER SERVICE
RIGHT-OF-WAY PERMIT*	CITY OF ANN ARBOR CUSTOMER SERVICE
M.D.O.T. RIGHT-OF-WAY PERMIT*	MICHIGAN DEPARTMENT OF TRANSPORTATION
* NO COST TO CONTRACTOR	

**PERMITS REQUIRED TO BE OBTAINED BY THE CITY OF ANN ARBOR PRIOR TO THE BEGINNING OF CONSTRUCTION.**

PERMIT	ISSUING AUTHORITY
EGLE WATER MAIN CONSTRUCTION PERMIT	MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

**CONTACT INFORMATION**

PUBLIC UTILITIES	OWNER	CONTACT
WATER		
SANITARY		
STORM	CITY OF ANN ARBOR PUBLIC WORKS W.R. WHEELER SERVICE CENTER 4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	(734) 794-6350
FORESTRY		
SIGNALS		MARK MORENO (734) 794-6361
STREET LIGHTS		
PRIVATE UTILITIES	OWNER	CONTACT
GAS	DTE ENERGY 3150 E. MICHIGAN AVE, YPSILANTI TOWNSHIP, MI 48198	ROBERT CZAPIEWSKI (734) 544-7818
ELECTRIC	DTE ENERGY WESTERN WAYNE SERVICE CENTER 8001 HAGGERTY ROAD BELLEVILLE, MI 48111	ANTHONY IGNASIAK (734) 397-4447
CABLE	COMCAST 27800 FRANKLIN ROAD SOUTHFIELD, MI 48034	RON SOUTHERLAND (313) 999-8300
PHONE	AT&T 550 S. MAPLE ROAD ANN ARBOR, MI 48103	MARC GOODPELL (313) 405-0574
FIBER OPTIC	MCI 2800 N. GLENFILLE ROAD RICHARDSON, TX 75082	DEAN BOYERS (972) 729-6016
FIBER OPTIC	WINDSTREAM 1295 S LINDEN ROAD, SUITE B FLINT, MI 48532	GREG SERICH (810) 244-3500
STREET LIGHTING	DTE ENERGY 8001 HAGGERTY ROAD BELLEVILLE, MI 48111	LANCE ALLEY (734) 397-4188

**WINCHELL, BROCKMAN, FRIEZE BENCHMARKS**

BM #	ELEV	DESCRIPTION
1	897.30	PK NAIL IN NORTH SIDE OF POWER POLE NEAR EAST PROPERTY LINE OF HOUSE#2001
2	894.42	PK NAIL IN NORTH SIDE OF POWER POLE SW CORNER OF WINCHELL & HALL
3	884.20	WEST FLANGE BOLT ON HYDRANT SW COR. WINCHELL & CARHART
4	890.97	PK NAIL IN SOUTH SIDE OF POWER POLE NW CORNER OF FRIEZE & BROCKMAN
5	894.95	PK NAIL IN NORTH SIDE OF POWER POLE, ON EAST PROPERTY LINE OF HOUSE #2114

**STADIUM SERVICE DRIVE BENCHMARKS**

BM #	ELEV	DESCRIPTION
1	867.20	NORTH EAST CORNER BOLT ON ORNAMENTAL LIGHT POLE, IN FRONT OF KINGS KEYBOARD HOUSE
2	876.89	PK NAIL IN SOUTH SIDE OF POWER POLE, SOUTH OF BLDG #2305 IN FRONT OF FARMERS INSURANCE SUITE
3	879.59	PK NAIL IN SOUTH SIDE OF POWER POLE, SW OF BLDG #2320



FC	FC	CHECKED
CCDF	CCDF	DRAWN
2-10-22	1-12-22	DATE
01	00	REV.
OUT FOR BID	FINAL REVIEW	DESCRIPTION

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
P.O. BOX 8647  
ANN ARBOR, MI 48107-8647  
734-794-6410  
www.a3gov.org



CITY OF ANN ARBOR - ENGINEERING  
STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS

SCALE: NTS  
DRAWING No. 2021011-2  
SHEET No.

**EXISTING LEGEND**

- ☼ FIRE HYDRANT
- I GATE VALVE IN BOX
- ⊗ GATE VALVE IN WELL
- ⊙ STOP BOX
- ⊠ WATER VAULT
- ⊙ WELL
- CATCH BASIN (SQ)
- ⊙ CATCH BASIN (RD)
- STORM MANHOLE
- NON-CURB CATCH BASIN (SQ)
- ) END SECTION
- SANITARY MANHOLE
- CLEAN-OUT
- POST
- ◆ PEDESTRIAN SIGNAL
- † SIGN
- HAND HOLE
- ✱ ORNAMENTAL LIGHT
- ✱ FLOOD LIGHT
- ⊙ UNKNOWN MANHOLE
- ⊙ TELEPHONE MANHOLE
- ⊠ TELEPHONE RISER
- ⊙ GAS VALVE
- GAS VENT
- ⊠ GAS BOX
- ⊠ ELECTRICAL RISER
- ⊠ TRANSFORMER
- ♁ UTILITY POLE
- LAMP POLE
- ▽ GUY ANCHOR
- GUY POLE
- ⊙ MONITORING WELL
- ⊠ MAILBOX
- SOIL BORING
- △ TRAVERSE POINT
- ⊕ BENCH MARK
- IRON PIPE
- ⊠ MON BOX

- W --- WATER MAIN
- - - - - WATER MAIN ABANDONED
- R --- STORM SEWER
- - - - - STORM SEWER ABANDONED
- S --- SANITARY SEWER
- - - - - SANITARY SEWER ABANDONED
- G --- GAS MAIN
- - - - - GAS MAIN (DEAD)
- E --- ELECTRICAL OVER HEAD
- U --- ELECTRICAL UNDER GROUND
- e duct bank --- ELECTRICAL DUCT BANK
- oht --- TELEPHONE OVER HEAD
- t --- TELEPHONE UNDER GROUND
- t duct bank --- TELEPHONE DUCT BANK
- ohtv --- CABLE TV OVER HEAD
- tv --- CABLE TV UNDER GROUND
- fo --- FIBER OPTIC
- fo duct bank --- FIBER OPTIC DUCT BANK
- BOUNDARY ---
- /// BUILDING
- CENTERLINE OF DITCH ---
- CENTERLINE/CROWN OF ROAD ---
- 800 --- CONTOUR MAJOR
- 799 --- CONTOUR MINOR
- EDGE OF WATER ---
- FLOODPLAIN ---
- /// FENCE
- GRAVEL ---
- GUARDRAIL ---
- STONE WALL ---
- R.O.W. ---
- TREELINE ---
- WETLAND ---
- EDGE OF BRUSH ---
- HEDGE ---
- TREE (DECIDUOUS)
- TREE (CONIFEROUS)
- SHRUB (DECIDUOUS)
- STUMP
- TREE TO REMAIN & PROTECT (DECIDUOUS)  
CRITICAL ROOT ZONE (C.R.Z.) = DIAMETER BREST HEIGHT (INCHES) X 10
- TREE TO REMAIN & PROTECT (CONIFEROUS)  
CRITICAL ROOT ZONE (C.R.Z.) = DIAMETER BREST HEIGHT (INCHES) X 10

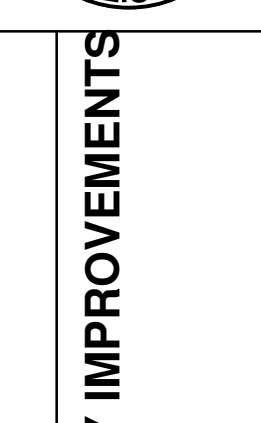
**PROPOSED LEGEND**

- ⊕ HYDRANT (PLAN)
- ⊙ WATER GATE WELL
- ▽ REDUCER
- I WATER GATE VALVE
- ⊙ WATER STOP BOX
- ⊠ WATER VAULT
- INLET
- ⊠ DOUBLE INLET
- INLET JUNCTION CHAMBER
- ROUND CATCH BASIN
- STORM MANHOLE
- ▽ DRAIN ARROW
- ▽ FLARED END SECTION
- SANITARY MANHOLE
- CLEAN-OUT
- BARREL
- ▽ SIGN
- PUSH BUTTON
- HAND HOLE
- W --- WATER MAIN
- R --- STORM SEWER
- S --- SANITARY SEWER
- FO --- FIBER OPTIC
- E --- ELECTRICAL
- CENTERLINE OF DITCH ---
- CENTERLINE OF ROAD ---
- FENCE ---
- GRAVEL ---
- SILT FENCE ---
- PROTECTIVE FENCE ---
- GUARDRAIL ---
- LOT/UNIT ---
- CURB ---
- TEMPORARY GRADING PERMIT ---
- 800 --- CONTOUR MAJOR
- 799 --- CONTOUR MINOR
- WATER EASMENT ---
- STORM EASEMENT ---
- SANITARY EASEMENT ---
- R.O.W. ---
- LIMITS OF CONSTRUCTION ---
- LIMIT OF GRADING ---
- STONE WALL ---
- DETECTABLE WARNING
- ASPHALT
- CONCRETE
- SIDEWALK
- TREE (DECIDUOUS)
- TREE (CONIFEROUS)
- TREE TO BE REMOVED (DECIDUOUS)
- TREE TO BE REMOVED (CONIFEROUS)
- STUMP TO BE REMOVED

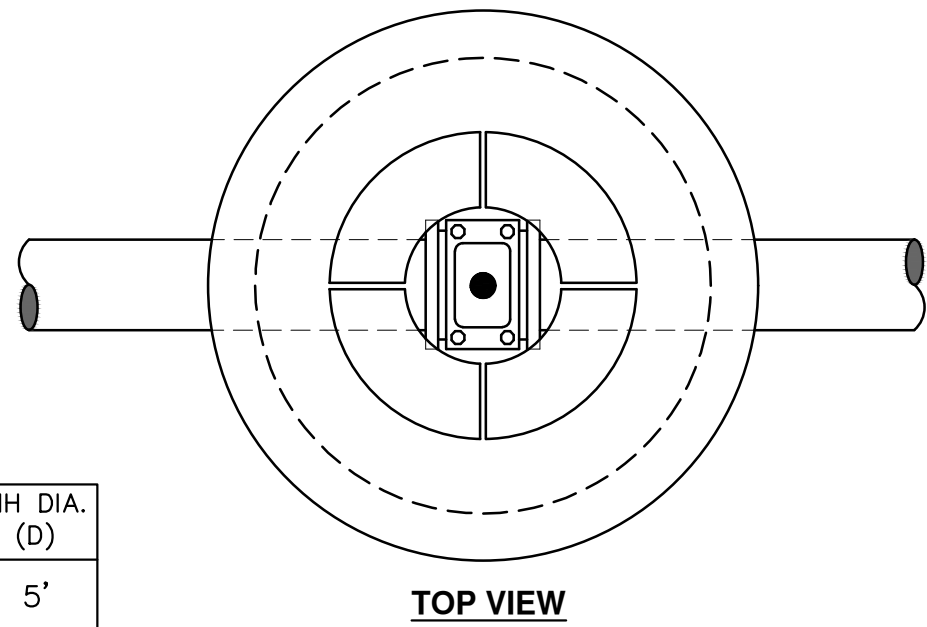


FC	FC	C.C.D.F.	C.C.D.F.
DATE	DATE	DATE	DATE
REV.	REV.	REV.	REV.

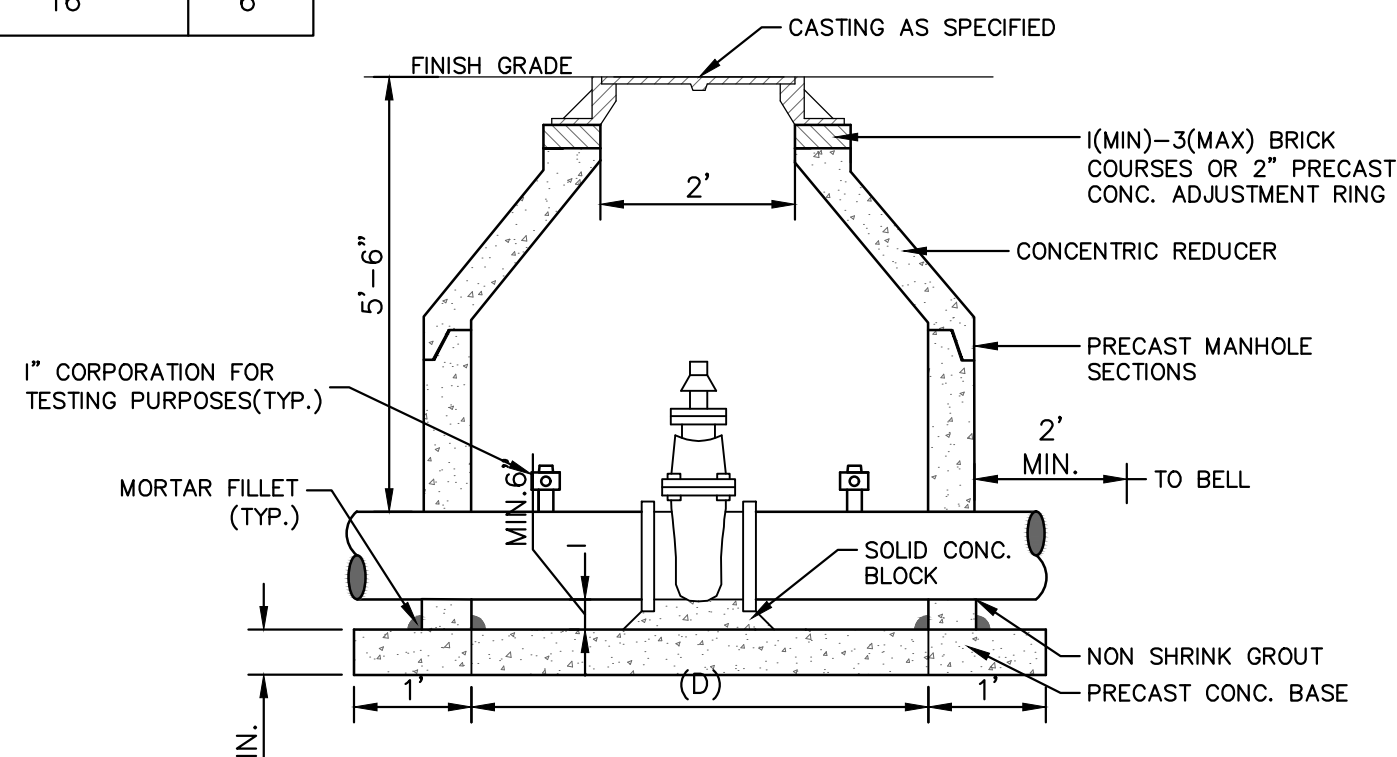
CITY OF ANN ARBOR  
 PUBLIC SERVICES  
 301 EAST HURON STREET  
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 ANN ARBOR 734.794.4410  
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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS**  
 SCALE: NTS  
 DRAWING No. 2021011-3

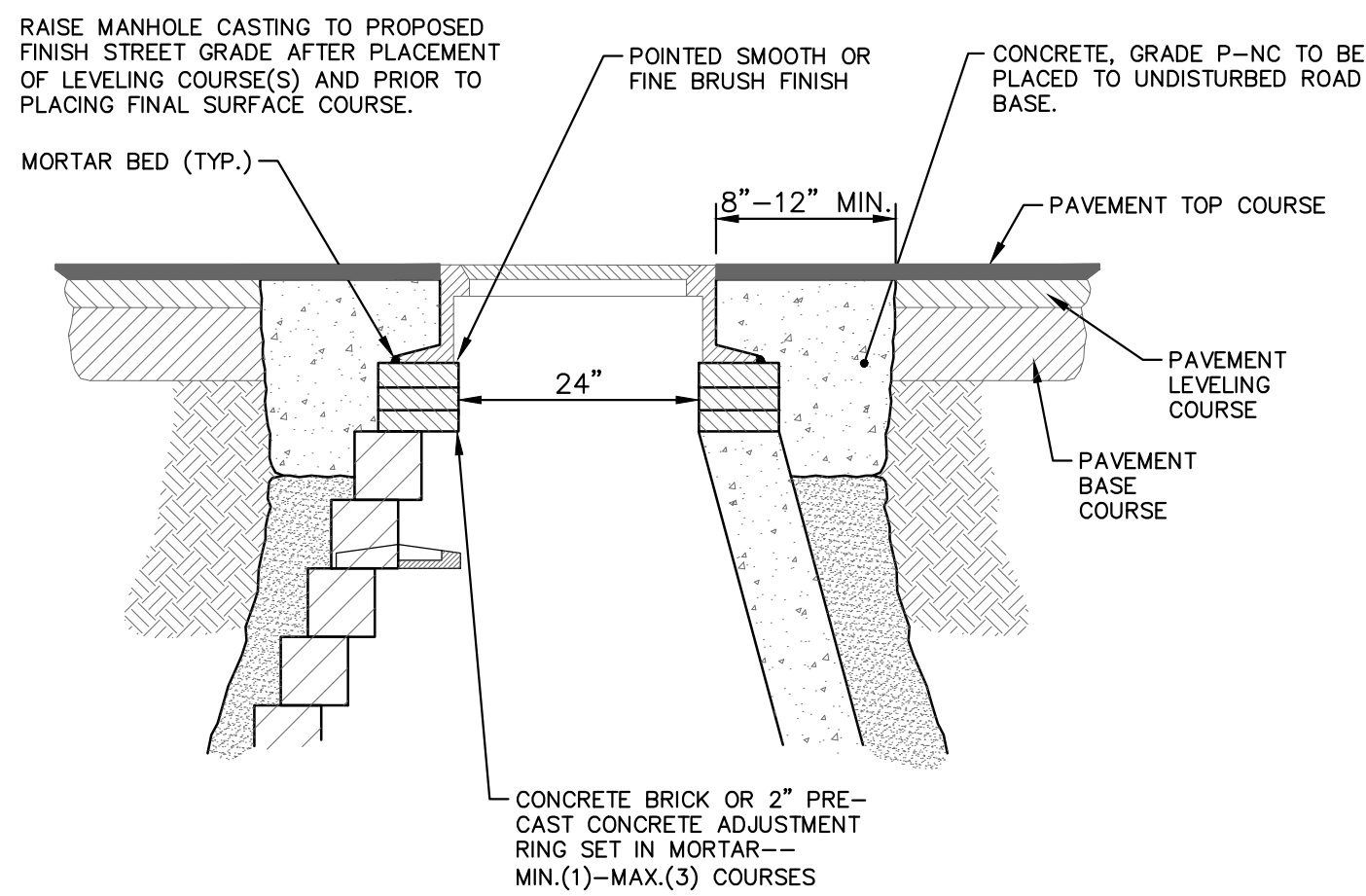


PIPE SIZE	MH DIA. (D)
12" OR LESS	5'
16"	6'



- NOTES:
1. ALL LIFT HOLES AND JOINTS SHALL BE MORTARED BOTH INSIDE AND OUTSIDE
  2. ALL JOINTS SHALL BE MADE WATER TIGHT WITH RUBBER GASKET JOINTS
  3. NO STEPS ARE PERMITTED
  4. MANHOLE SECTIONS SHALL MEET ASTM C-478

**GATE WELL FOR MAIN 16" & SMALLER SD-W-3**



NOTE:  
IF MANHOLE WILL BE PLACED IN GRAVEL ROAD, CASTING TO BE SET 6" TO 8" BELOW ROADWAY GRADE. ALL CONSTRUCTION METHODS SHALL REMAIN AS SHOWN ABOVE.

**MANHOLE CASTING ADJUSTMENT SD-GU-6**

**MINIMUM STANDARDS**

THE MDOT GRADE PI OR P-NC CONCRETE AT THE FITTING FACE SHALL EXTEND TO WITHIN 2 INCHES OF THE BELL AND SHALL EXTEND FROM THE FITTING FACE A MINIMUM OF 2 FEET TO THE UNDISTURBED SOLID GROUND.

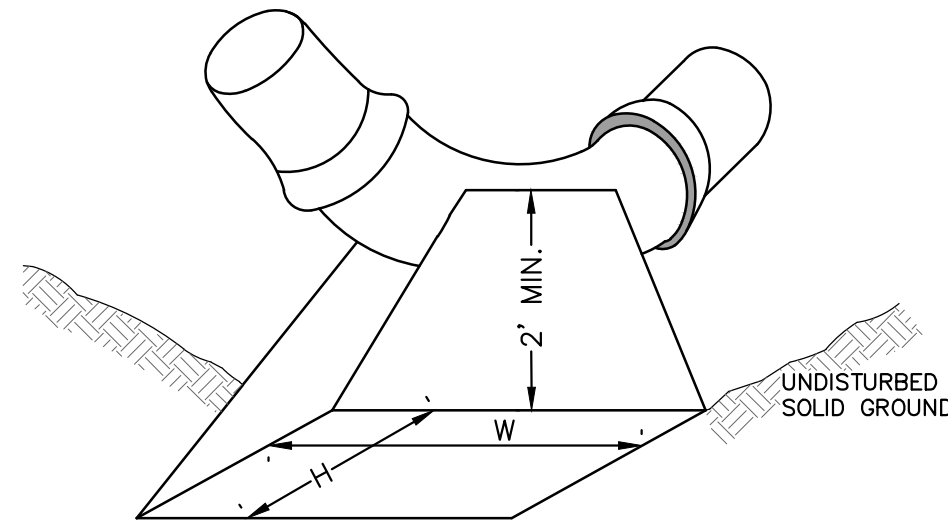
THE DIMENSIONS OF THE THRUST BLOCK AT THE FACE OF THE UNDISTURBED SOLID GROUND SHALL BE AS SHOWN IN THE TABLE BELOW.

IF THERE ISN'T SUFFICIENT SPACE FOR THE INSTALLATION OF THE THRUST BLOCK WITHOUT INTERFERENCE WITH OTHER SERVICES, ANOTHER ARRANGEMENT SATISFACTORY TO THE ENGINEER SHALL BE USED.

FITTINGS I.D.	PLUG TEE CROSS		BENDS				HYDRANT	
	W	H	90°	45°	22 1/2°	11 1/4°	W	H
4	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5
6	2.0	1.5	2.0	2.0	2.0	1.0	1.0	2.0
8	2.5	2.0	3.5	2.0	2.0	2.0	1.0	2.5
12	3.5	3.0	5.5	3.0	3.5	2.5	2.0	2.0
16	6.0	3.5	6.0	4.0	5.0	3.0	3.5	2.0

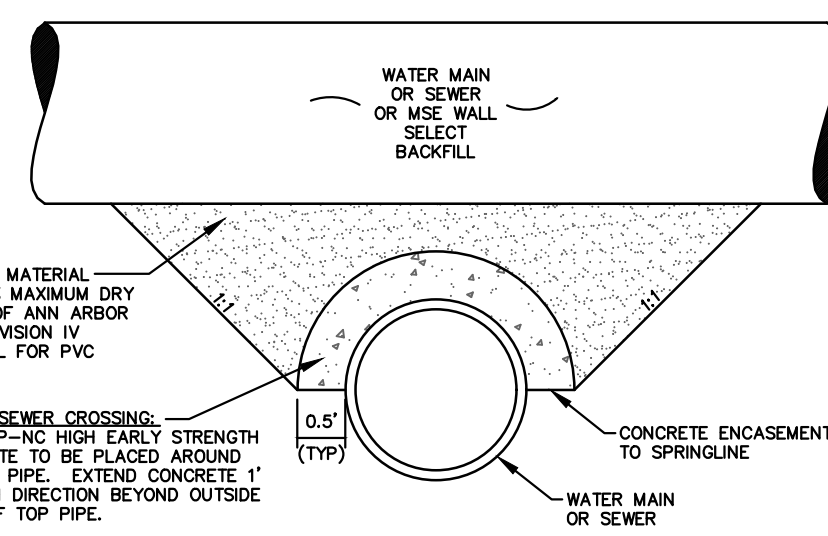
FOR FITTING SIZES LARGER THAN 16", THRUST BLOCK DIMENSIONS SHALL BE AS SPECIFIED BY ENGINEER.

W = WIDTH IN FEET  
H = HEIGHT IN FEET



NOTE:  
THESE ARE MINIMUM STANDARDS. WHERE SOIL CONDITIONS DICTATE, ADJUSTMENTS IN SIZE SHALL BE MADE AS DIRECTED BY THE PUBLIC SERVICES AREA ADMINISTRATOR.

**THRUST BLOCK SD-W-2**

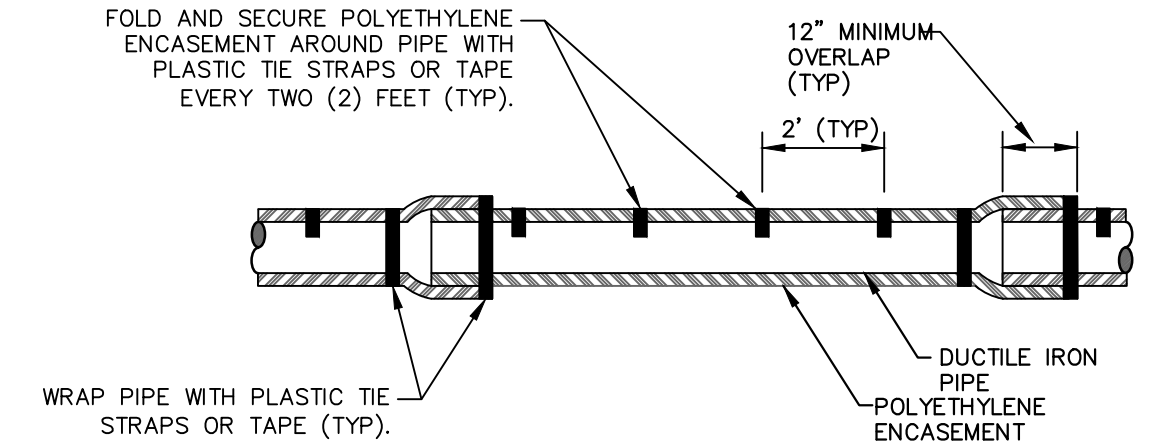


CLASS II GRANULAR MATERIAL COMPACTED TO 95% MAXIMUM DRY DENSITY PER CITY OF ANN ARBOR STANDARDS (SEE DIVISION IV REGARDING BACKFILL FOR PVC SEWERS).

WATER/SEWER CROSSING: GRADE P-NC HIGH STRENGTH CONCRETE TO BE PLACED AROUND BOTTOM PIPE. EXTEND CONCRETE 1' IN EACH DIRECTION BEYOND OUTSIDE EDGE OF TOP PIPE.

APPLIES TO: WATER AND/OR SEWER CROSSINGS WITH LESS THAN 1.5' OF VERTICAL CLEARANCE

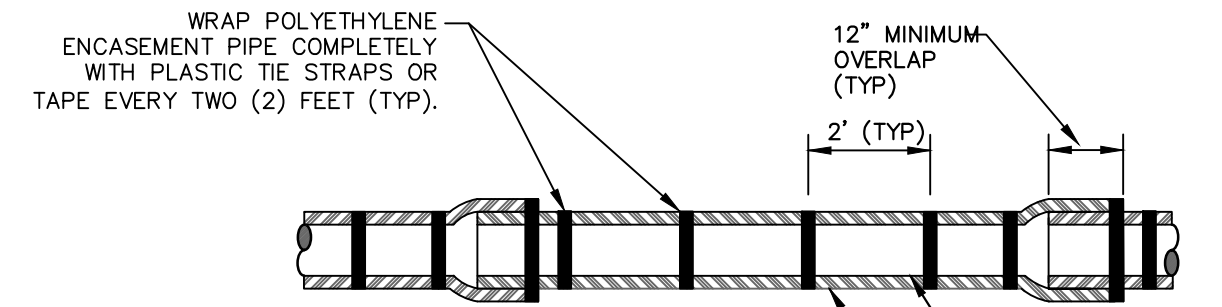
**CONCRETE UTILITY SADDLE**



NOTE: FOLLOW ANSI/AWWA C105/A21.5-05 REVISION OF ANSI/AWWA C105/A21.5-99 FOR CONSTRUCTION AND INSTALLATION METHODS. USE MODIFIED METHOD A

APPLIES TO: POLYETHYLENE WRAPPED D.I. WATERMAIN SEE PLANS FOR LOCATIONS

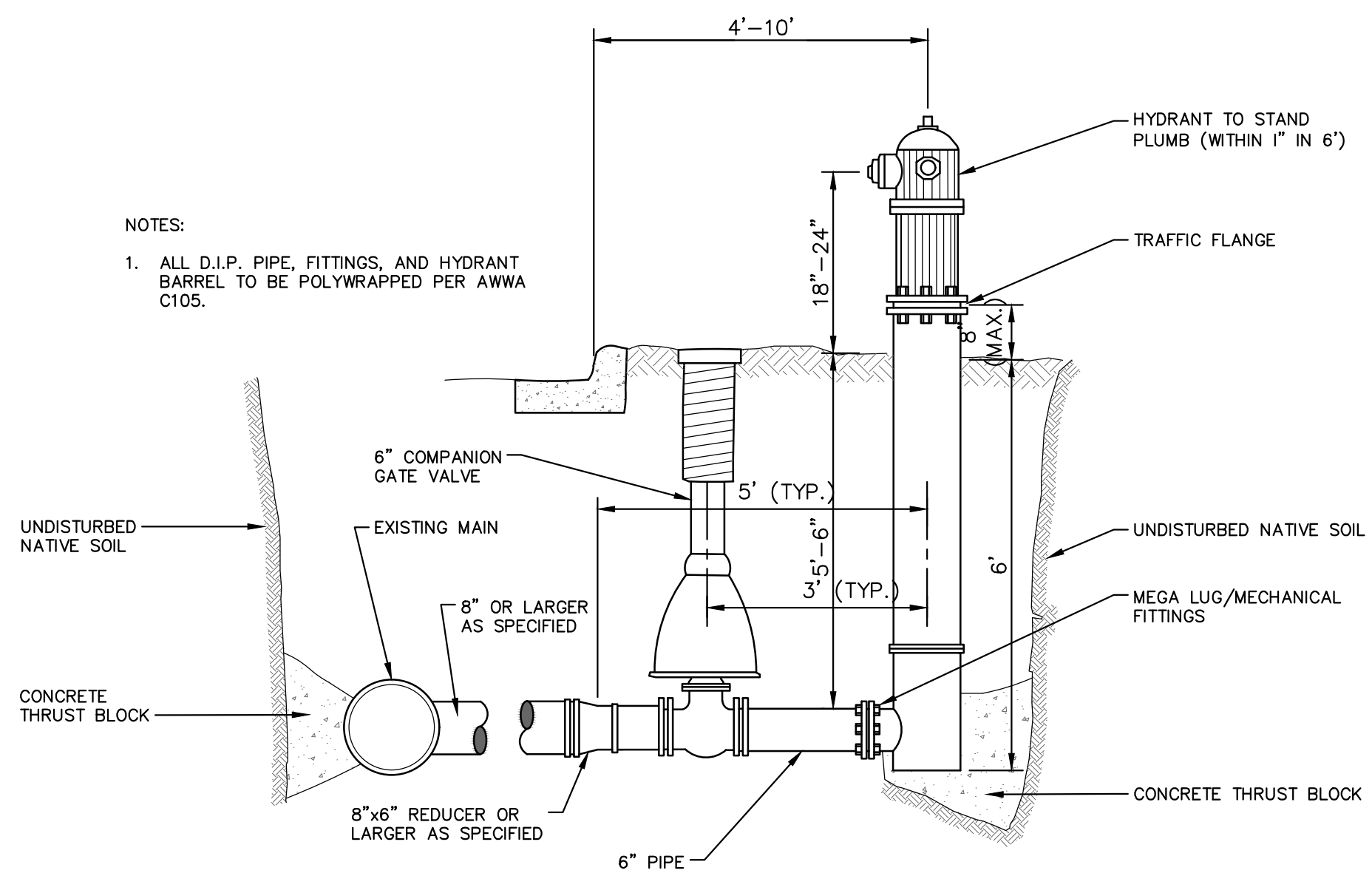
**POLYETHYLENE ENCASEMENT (DRY INSTALLATION)**



NOTE: FOLLOW ANSI/AWWA C105/A21.5-05 REVISION OF ANSI/AWWA C105/A21.5-99 FOR CONSTRUCTION AND INSTALLATION METHODS. USE MODIFIED METHOD A

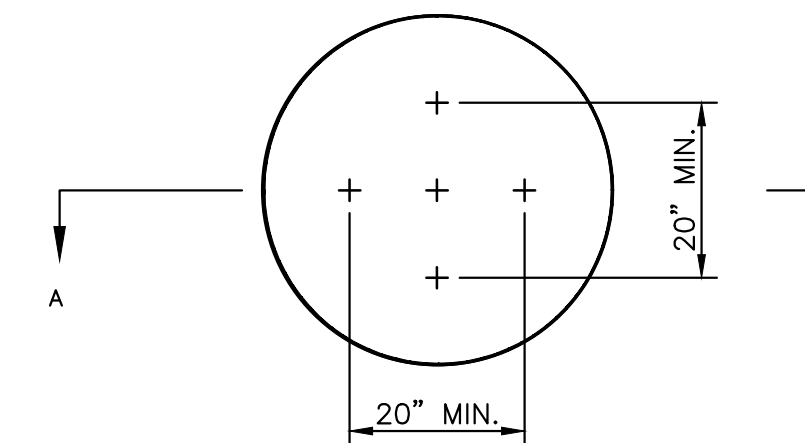
APPLIES TO: POLYETHYLENE WRAPPED D.I. WATERMAIN SEE PLANS FOR LOCATIONS

**POLYETHYLENE ENCASEMENT (WET INSTALLATION)**



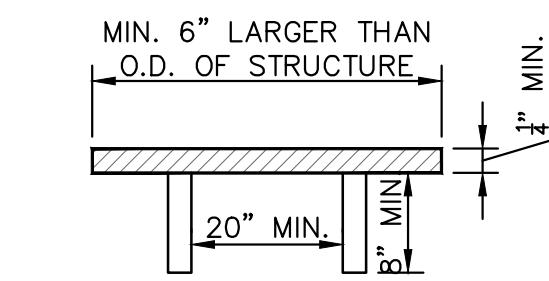
- NOTES:
1. ALL D.I.P. PIPE, FITTINGS, AND HYDRANT BARREL TO BE POLYWRAPPED PER AWWA C105.

**FIRE HYDRANT ASSEMBLY**



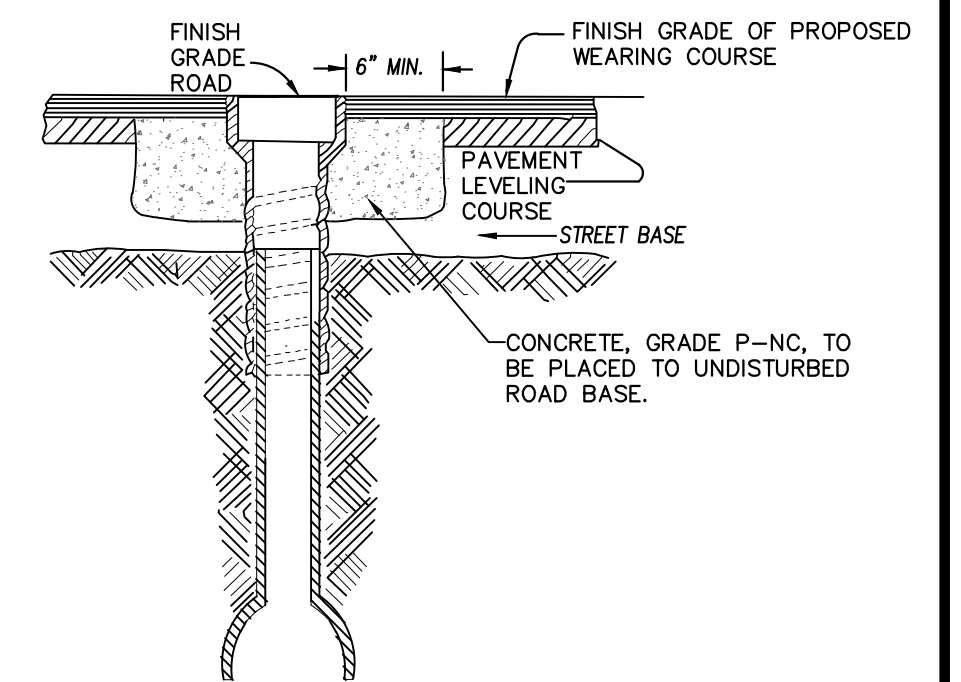
NOTE: PLATE MAY BE CIRCULAR, SQUARE OR RECTANGULAR

SECTION A - A



1/4" MIN. THICKNESS AND SUFFICIENT TO CARRY THE CONSTRUCTION LOAD.

**STRUCTURE PLATE SD-GU-8**



NOTE: RAISE CASTING TO PROPOSED FINISH STREET GRADE AFTER PLACEMENT OF LEVELING COURSE(S) AND PRIOR TO PLACING FINAL SURFACE COURSE

**WATER VALVE BOX ADJUSTMENT**



REV.	DATE	DRAWN	CHECKED
01	2-10-22	CCDF	FC
00	1-12-22	CCDF	FC

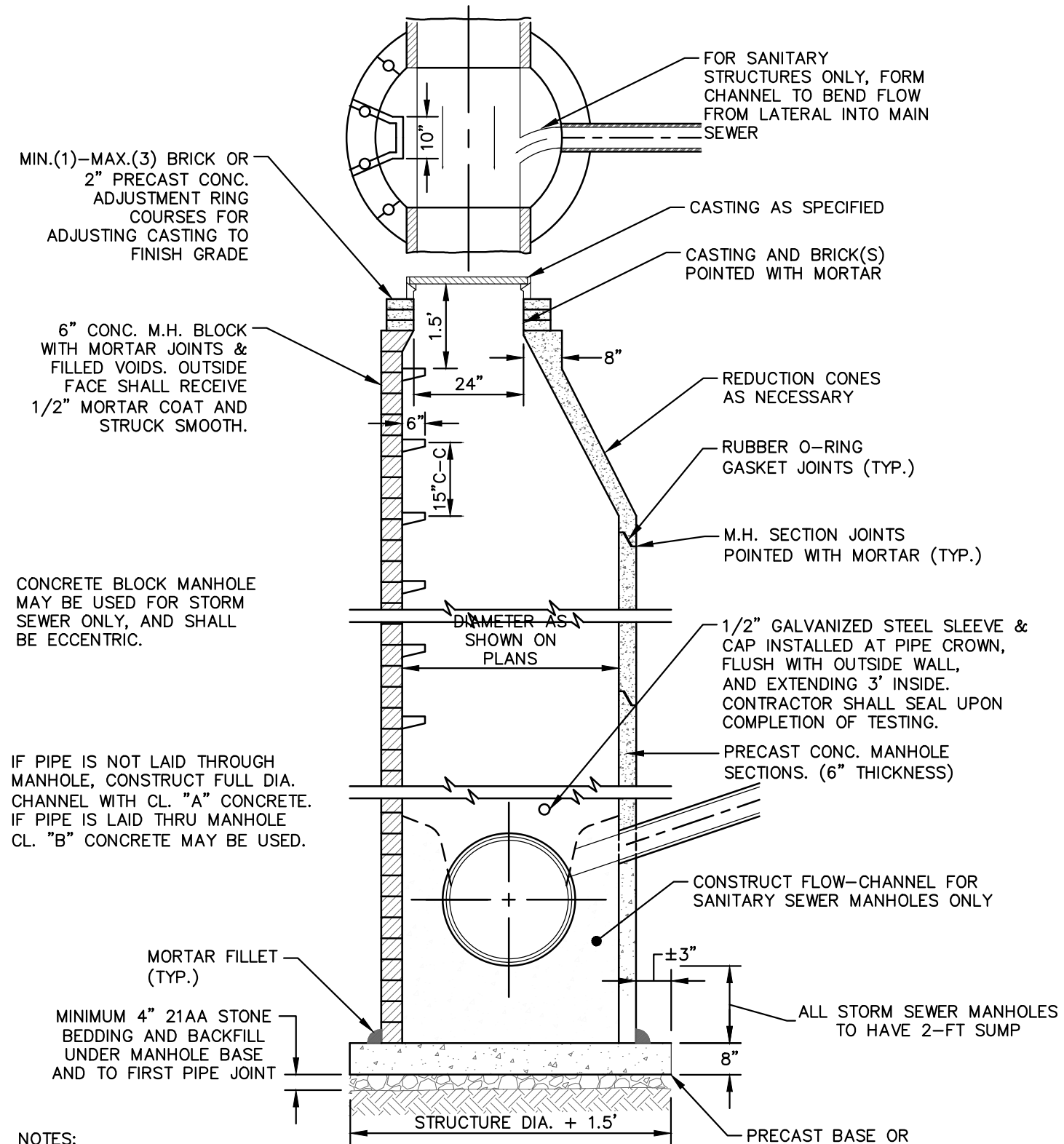
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PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR MI 48106-8647  
www.a3gov.org



CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS  
WATER MAIN DETAILS

SCALE: N.T.S.  
DRAWING No. 2021011-4

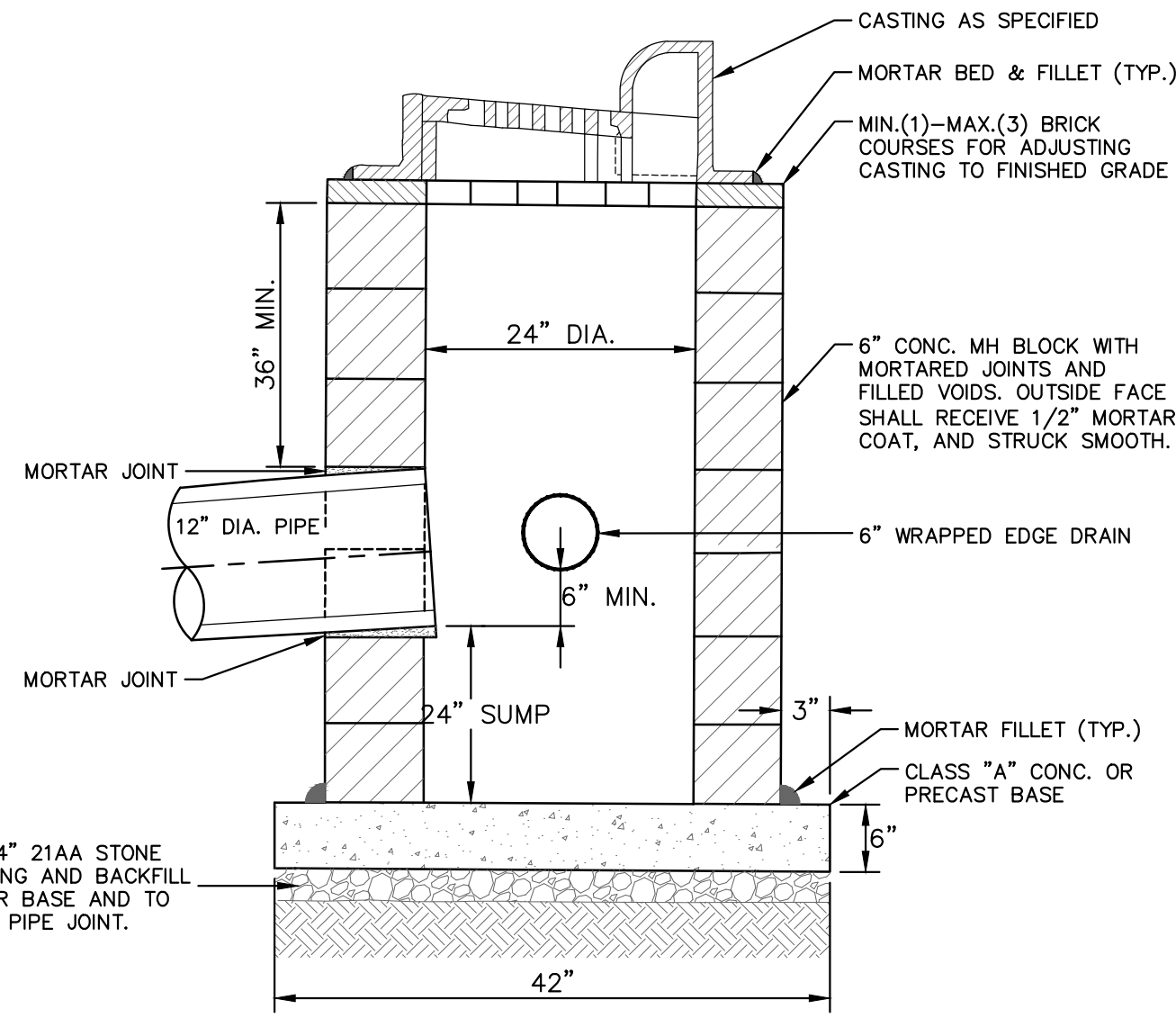
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**NOTES:**

1. ALL SANITARY MANHOLES SHALL BE PRECAST CONCRETE.
2. ALL MANHOLES MUST HAVE ECCENTRIC CONES - BOTH STORM AND SANITARY
3. ALL SANITARY SEWER OPENINGS SHALL BE PRECAST WITH RUBBER BOOT CONNECTIONS.
4. 2' SUMP REQUIRED ON ALL DRAINAGE STRUCTURES.

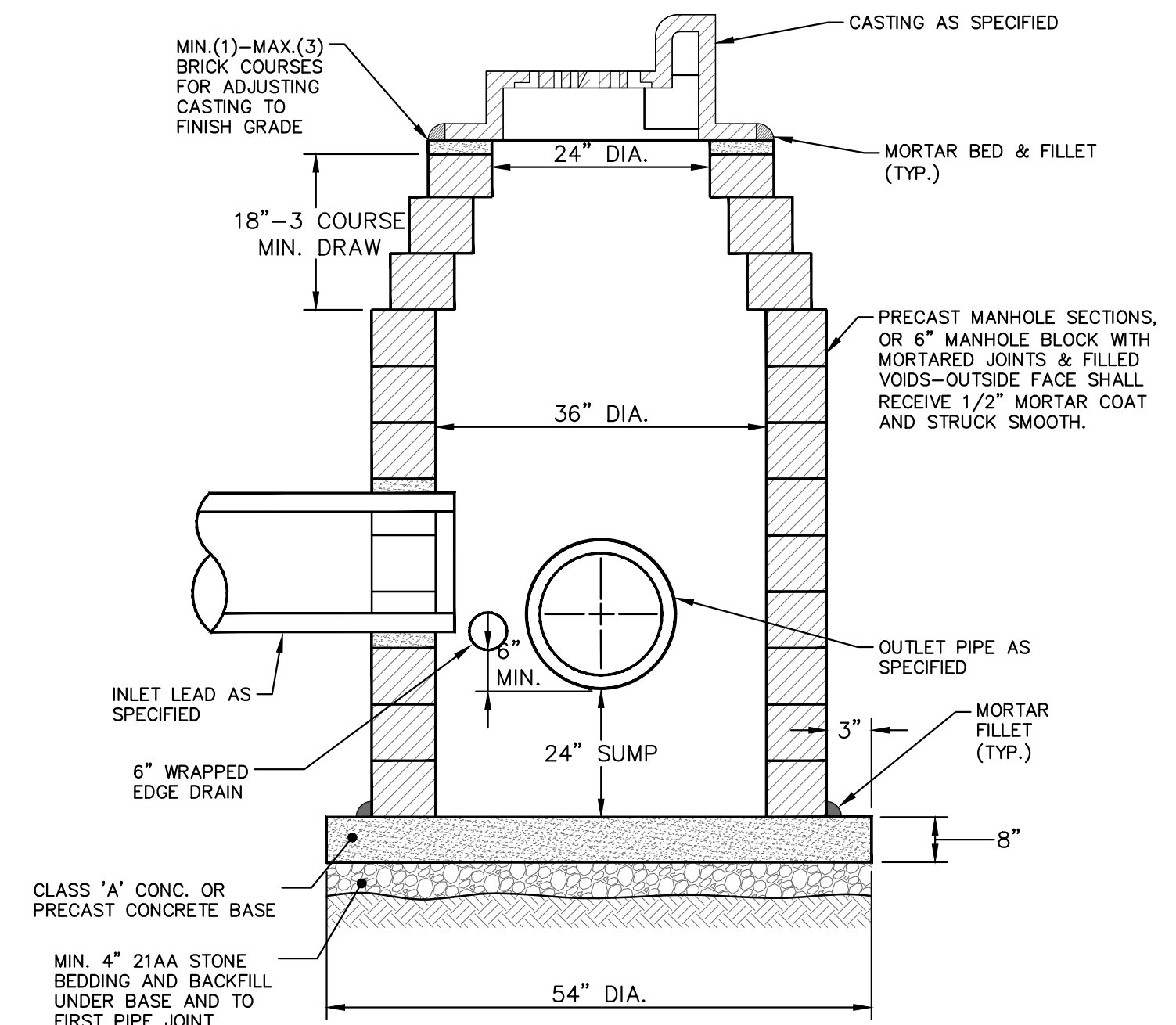
**STANDARD MANHOLE (TYPE I)**



**NOTES:**

1. MAY BE USED WITH ONLY SINGLE OUTLET PIPE, AND NO INLET PIPE
2. FRONT EDGE OF INLET CASTING SHALL BE FLUSH WITH FRONT EDGE OF GUTTER (EDGE-OF-METAL)

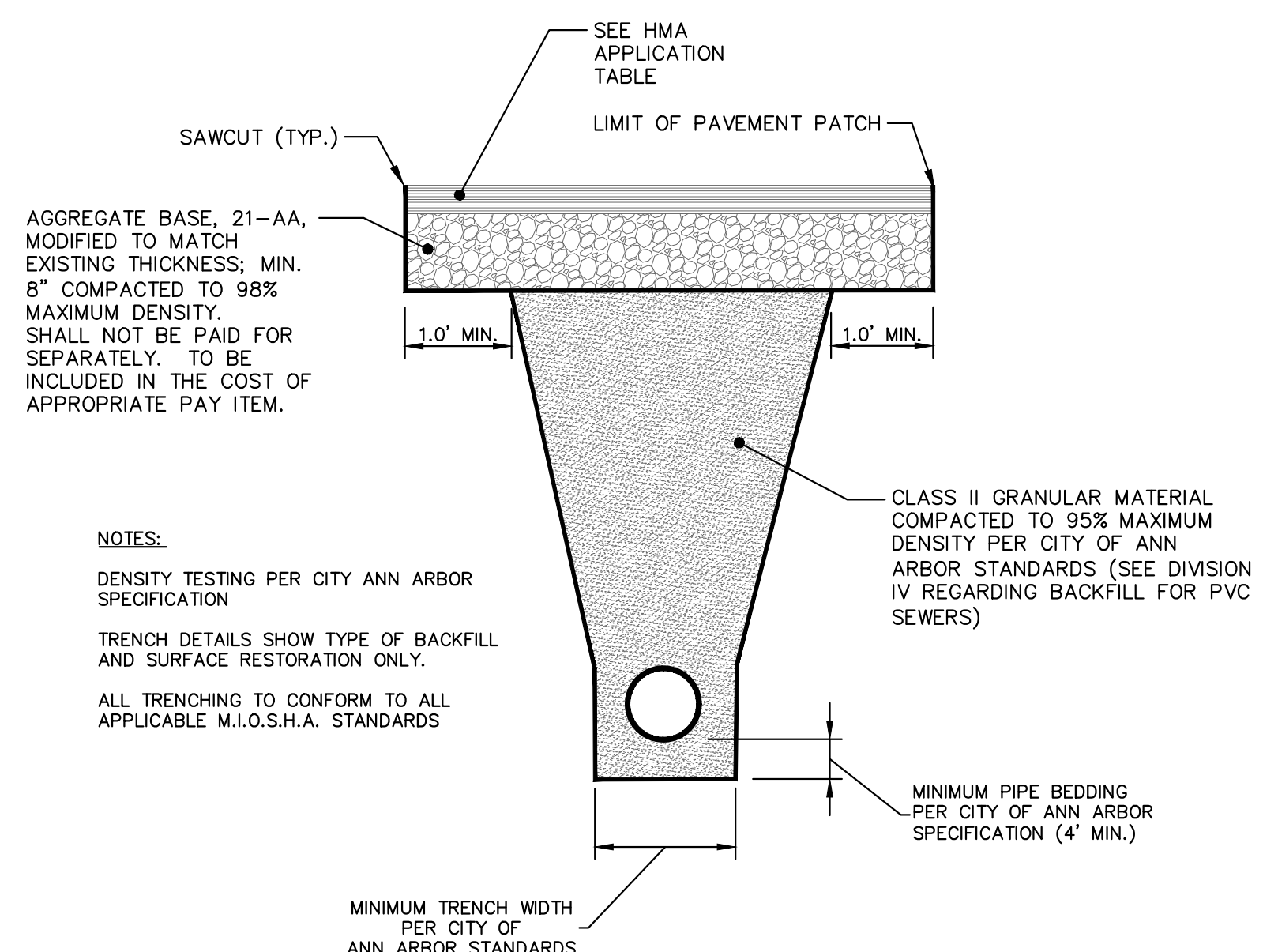
**SINGLE INLET STRUCTURE SD-S-10**



**NOTES:**

1. SHALL BE USED IF SINGLE OUTLET PIPE AND SINGLE INLET PIPE.
2. FRONT EDGE OF INLET CASTING SHALL BE FLUSH WITH FRONT EDGE OF GUTTER (EDGE-OF-METAL)

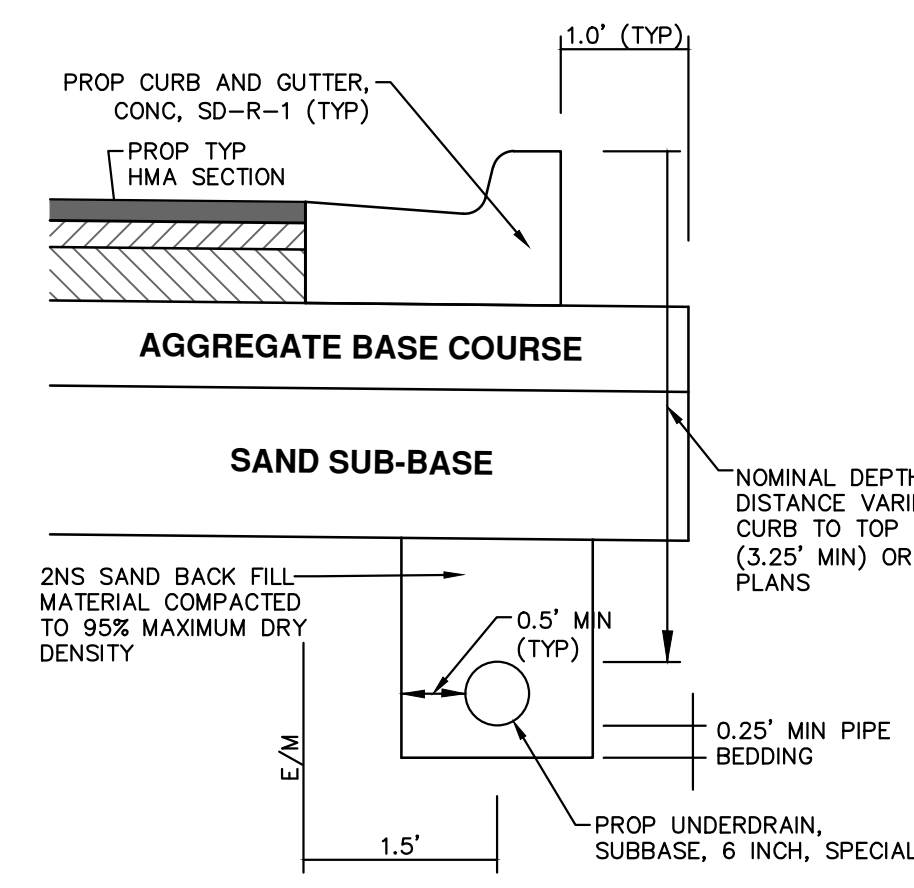
**INLET-JUNCTION CHAMBER SD-S-9**



**NOTES:**

- DENSITY TESTING PER CITY ANN ARBOR SPECIFICATION
- TRENCH DETAILS SHOW TYPE OF BACKFILL AND SURFACE RESTORATION ONLY.
- ALL TRENCHING TO CONFORM TO ALL APPLICABLE M.I.O.S.H.A. STANDARDS

**UTILITY TRENCH-TYPE I SD-TD-1 (MODIFIED)  
(UNDER HMA PAVEMENT)**



**NOTES:**

- IN AREAS WHERE EDGE DRAIN CANNOT BE INSTALLED IN ACCORDANCE WITH THE DETAIL, THE EDGE DRAIN SHALL BE INSTALLED AT THE DEPTH AS INDICATED ON THE PLANS, OR AS DIRECTED BY ENGINEER. IN NO CASE SHALL THE EDGE DRAIN BE INSTALLED AT A GRADE LESS THAN 0.50% OR AT A DEPTH OF LESS THAN 2' BELOW TOP OF PROPOSED PAVEMENT.
- FOR PAVEMENT BASE AND SUBBASE THICKNESS, SEE TYPICAL PAVEMENT CROSS-SECTION(S)
- TRENCH DETAILS SHOW TYPE OF BACKFILL AND SURFACE RESTORATION ONLY
- ALL TRENCHING TO CONFORM TO ALL APPLICABLE M.I.O.S.H.A. STANDARDS

**TRENCH DETAIL FOR UNDER DRAIN  
(UNDER HMA PAVEMENT)**


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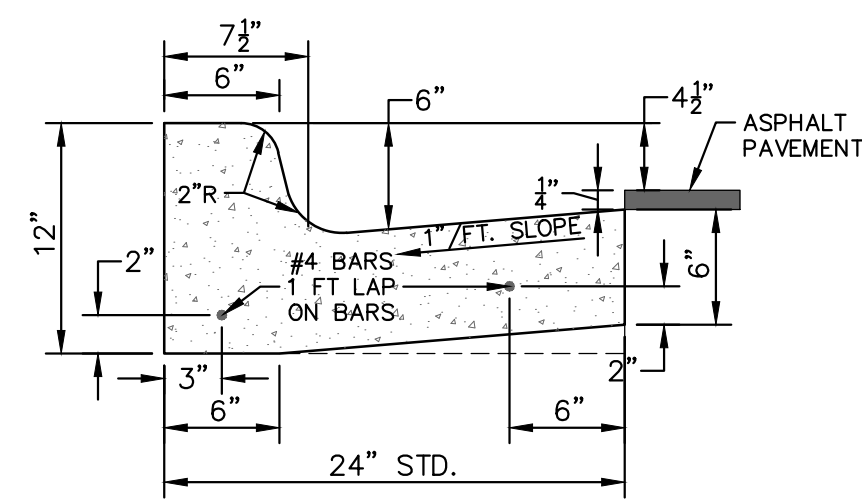


Know what's below.  
Call before you dig.

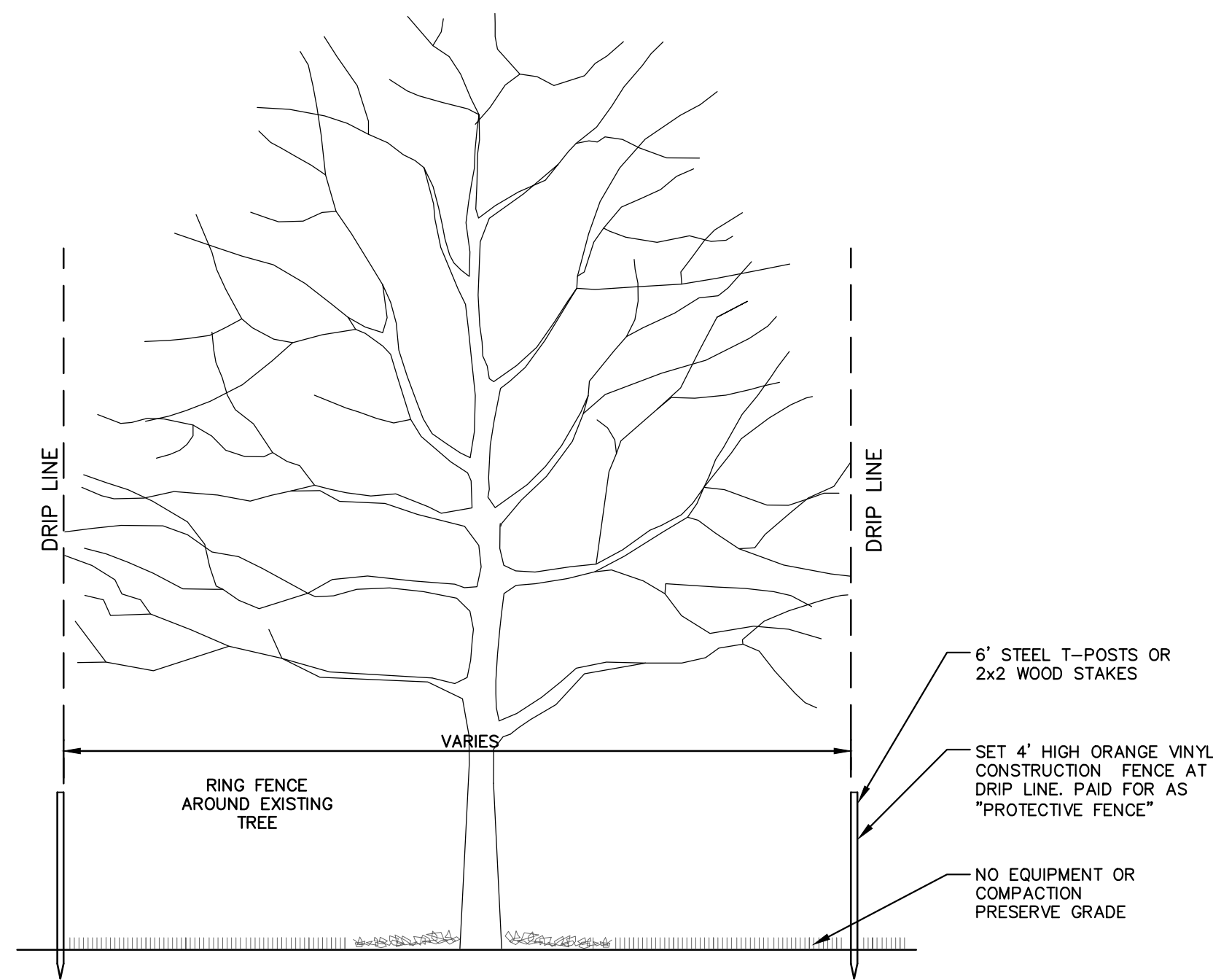
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			2-10-22	1-12-22					
			01	00	REV.	DESCRIPTION			
<p><b>CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING</b></p> <p><b>STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS</b></p> <p><b>STORM SEWER AND TRENCH DETAILS</b></p>									
<p>SCALE: N.T.S.</p> <p>DRAWING No. 2021011-5</p> <p>SHEET No. 5 OF 37</p>									

**CITY OF ANN ARBOR**  
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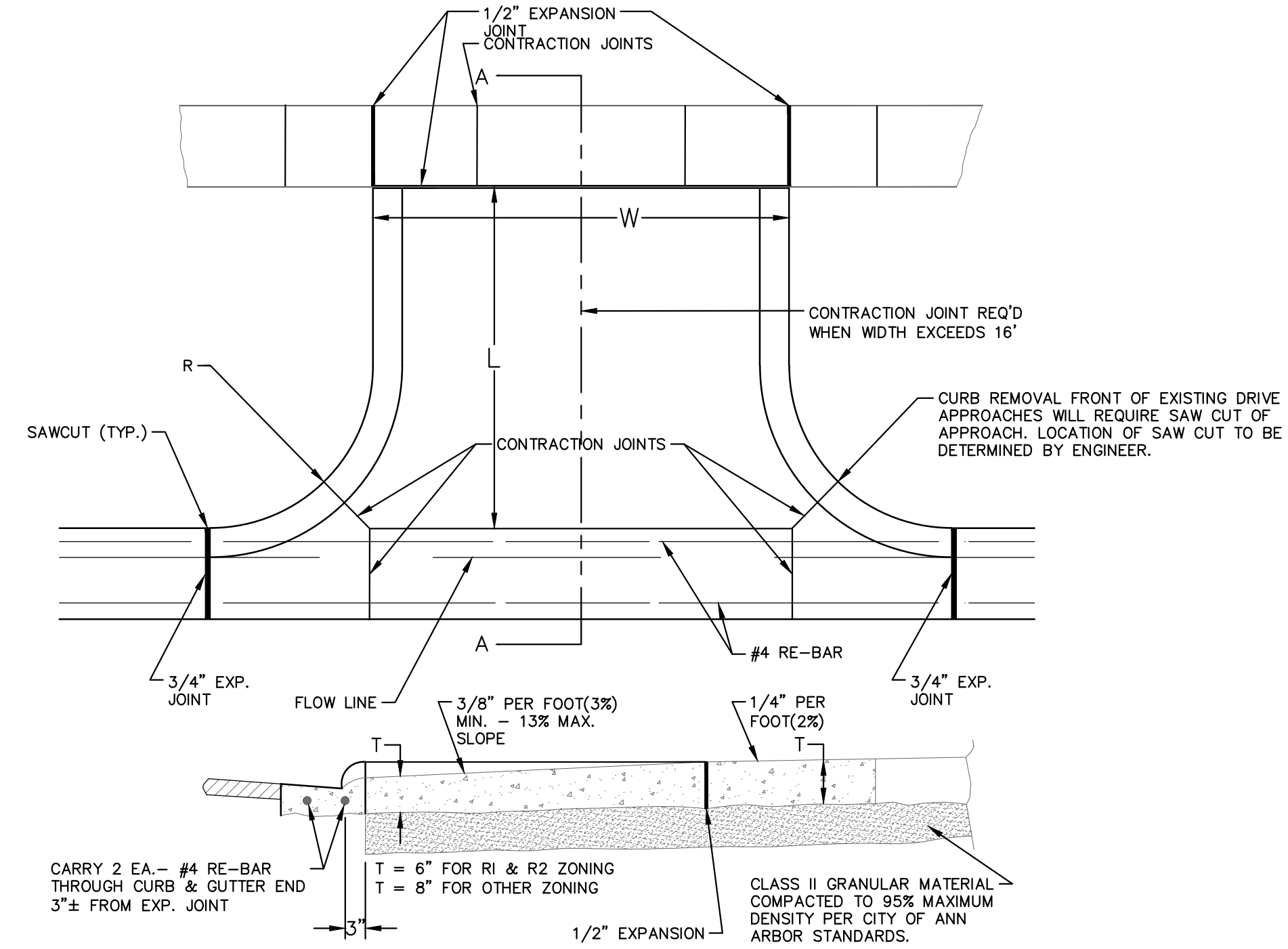




**CURB AND GUTTER, CONC, DET F4, SPECIAL**  
NO SCALE



**TREE PROTECTION DETAIL**



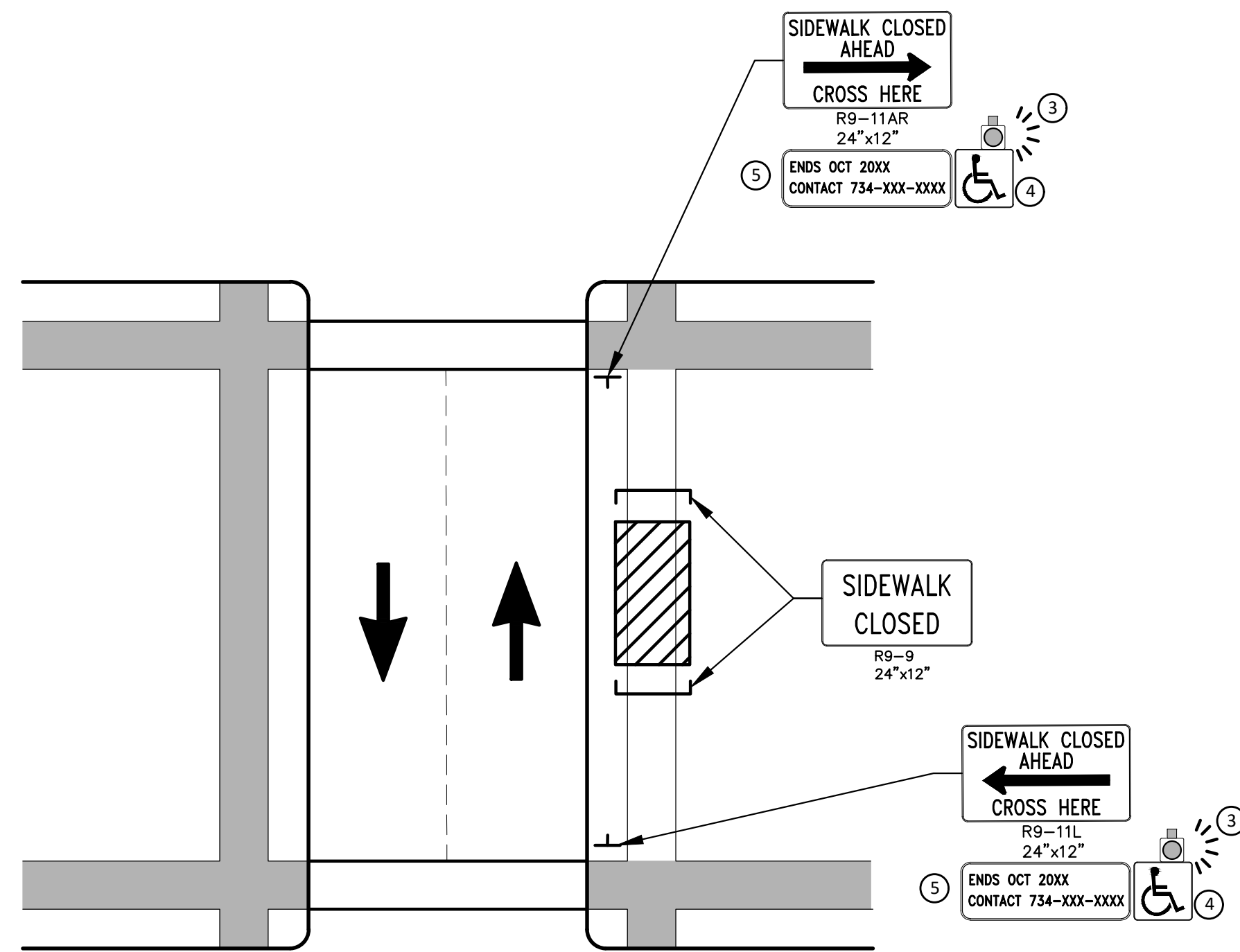
MEASUREMENT OF AREA  
 $W \times L = \text{AREA}$   
 SEC. A-A

NOTE:  
 1. DRIVE APPROACH TO BE CLASS 'A' CONCRETE.  
 2. R(RADIUS) AND W(DRIVE WIDTH) AS REQUIRED FOR ZONING BY CITY CODE  
 3. IF GUTTER IS OVERLAPPED, GUTTER OF THE APPROACH SHALL BE AT SAME ELEVATION AS EXISTING GUTTER AND ASPHALT WEDGE SHALL BE PLACED IN THE APPROACH.

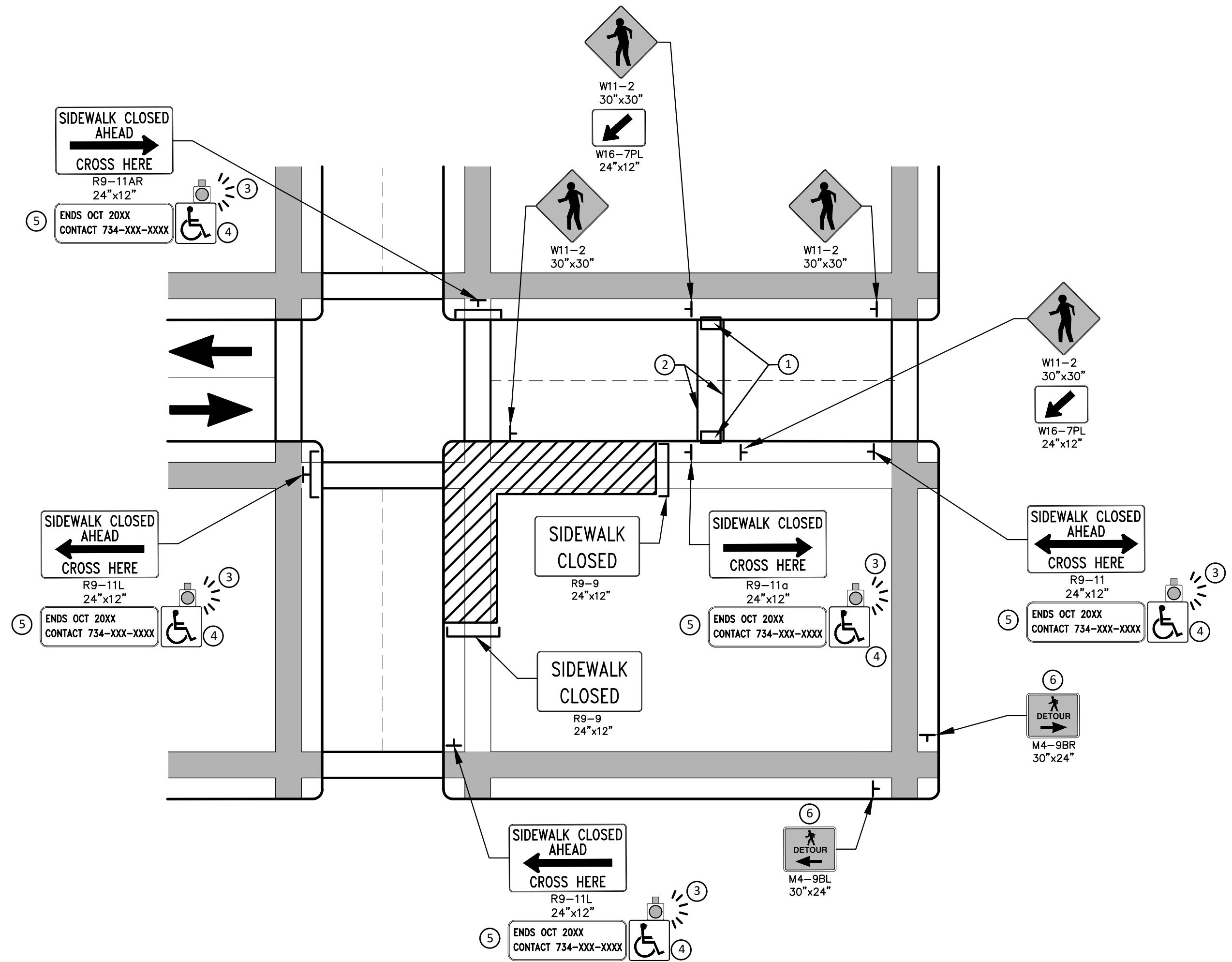
**TYPE 'M' DRIVE APPROACH SD-R-6**

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SHEET No. <b>6 OF 37</b>	DRAWING No. <b>2021011-6</b>	MISC. DETAILS	STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING	SCALE : N.T.S.	DESCRIPTION	CITY OF ANN ARBOR MICHIGAN
DATE 2-10-22	DRAWN CC,DF	REV.	CITY OF ANN ARBOR PUBLIC SERVICES
DATE 1-12-22	CHECKED FC	REV.	CITY OF ANN ARBOR PUBLIC SERVICES
DATE 2-10-22	DRAWN CC,DF	REV.	CITY OF ANN ARBOR PUBLIC SERVICES
DATE 1-12-22	CHECKED FC	REV.	CITY OF ANN ARBOR PUBLIC SERVICES

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PEDESTRIAN DETOUR USING OPPOSITE SIDE OF STREET



OTHER SIDE OF STREET DETOUR OR DETOUR WITH TRAILBLAZING SIGNS  
(FOR CORNER SIDEWALK CLOSURE WITH OPTIONAL TEMPORARY CROSSWALK)

**GENERAL NOTES**

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, THE CONTRACTOR SHALL PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE AN ALTERNATE PEDESTRIAN ROUTE (APR) AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

PROVIDE A SMOOTH, CONTINUOUS, HARD SURFACE THROUGH THE LENGTH OF THE APR. COMPACTED GRAVEL, AGGREGATE, OR SLAG MATERIALS ARE NOT ALLOWED. PROVIDE A FIRM, STABLE, AND SLIP RESISTANT TEMPORARY WALKWAY SURFACE TO COVER SHORT SEGMENTS OF ROUGH, SOFT, OR UNEVEN GROUND.

THE PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED CROSSWALKS SHALL BE COVERED OR DEACTIVATED BY THE CITY OF ANN ARBOR. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE THIS WORK WITH THE ENGINEER A MINIMUM OF 72 HOURS (NOT INCLUDING WEEKENDS & HOLIDAYS) PRIOR TO THE BEGINNING OF WORK THAT REQUIRES A SIDEWALK CLOSURE.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

WHEN THE ENGINEER DETERMINES THAT THE CONTRACTOR'S OPERATIONS OR PLACEMENT OF TRAFFIC CONTROL DEVICES HAS CAUSED A SITUATION THAT THE VISIBILITY OF IS REDUCED ENOUGH TO CREATE A HAZARD, THE TRAFFIC CONTROL DEVICES SHALL BE DELINEATED WITH FLAGS OR OTHER ENGINEER-APPROVED DEVICES AT NO ADDITIONAL COST TO THE PROJECT.

MINIMIZE DISRUPTION TO PEDESTRIANS TO THE MAXIMUM EXTENT FEASIBLE BY PROVIDING AN APR IN THE FOLLOWING ORDER OF PREFERENCE:

1. PROVIDE THE APR ON THE SAME SIDE OF THE STREET AS THE DISRUPTED ROUTE UTILIZING BYPASSES.
2. WHERE IT IS NOT FEASIBLE TO PROVIDE A SAME SIDE APR, PROVIDE A DETOUR ON THE OTHER SIDE OF THE STREET.
3. WHERE IT IS NOT FEASIBLE TO PROVIDE AN APR ON THE OTHER SIDE OF THE ROADWAY, PROVIDE AN APR DETOUR WITH TRAILBLAZING SIGNS AS SHOWN ON THE PROJECT PLANS.

**SPECIFIC NOTES**

1. TEMPORARY CURB RAMPS WITH DETECTABLE WARNINGS.
2. TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
3. AN APPROVED AUDIBLE MESSAGE DEVICE OR TACTILE MESSAGE SHALL BE PROVIDED FOR SIGHT-IMPAIRED PEDESTRIANS.
4. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHOULD BE DISPLAYED WHEN ANY WALKWAY THROUGH A WORK ZONE HAS BEEN DETERMINED TO BE TPAR COMPLIANT. THE SYMBOL OF ACCESSIBILITY SHALL NOT BE DISPLAYED IF PERSONS WITH DISABILITIES SHOULD NOT USE THE PRIMARY TEMPORARY PEDESTRIAN DETOUR. THE REASON FOR THE NON-COMPLIANCE SHALL BE POSTED AND AN ALTERNATE ROUTE SHALL BE POSTED WHEN THE PRIMARY TEMPORARY PEDESTRIAN DETOUR IS NON-COMPLIANT TO TPAR STANDARDS.
5. TYPICAL SIGN MESSAGE FOR A TEMPORARY PEDESTRIAN DETOUR SHALL INCLUDE INFORMATION SUCH AS THE DURATION OF THE WALKWAY RESTRICTIONS (BEGINNING AND/OR END DATES) AND A PROJECT CONTACT NUMBER FOR 24 / 7 QUESTIONS OR REPORTING HAZARDS.
6. PEDESTRIAN DETOUR TRAILBLAZING SIGNS SHALL BE USED IF THE PEDESTRIAN DETOUR IS IN A LOCATION OTHER THAN ACROSS THE STREET FROM THE SIDEWALK CLOSURE.

**PEDESTRIAN TEMPORARY TRAFFIC CONTROL NOTES**

1. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN THROUGH MOVEMENTS FROM ONE END OF THE CONSTRUCTION AREA TO THE OTHER, ON AT LEAST ONE SIDE OF THE STREET DURING CONSTRUCTION. ANY SIDEWALK CLOSURES SHALL MEET THE REQUIREMENTS OF THE MMUTCD, PART 6.
2. PEDESTRIAN ACCESS SHALL BE PROVIDED TO ALL ADJACENT PROPERTIES, BUILDINGS, RESIDENCES AND COMMERCIAL PROPERTIES AT ALL TIMES. THIS MAY INCLUDE TEMPORARY WALKWAYS SPANNING THE CONSTRUCTION AREA.
3. IF SIDEWALKS ARE CLOSED, A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) SHALL BE PROVIDED ON THE SAME SIDE OF THE ROAD AS THE CLOSED SIDEWALK, IF POSSIBLE. SIGNS AND BARRICADES SHALL BE USED TO PROVIDE ADVANCE NOTICE OF THE CLOSURE AND THE ROUTE OF ANY PEDESTRIAN DETOURS. THE TPAR SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4 FEET. IF THE TPAR IS LESS THAN 5 FEET IN WIDTH, A 5 FOOT BY 5 FOOT PASSING SPACE SHALL BE PROVIDED AT LEAST EVERY 200 FEET. THE SURFACE OF THE TPAR SHALL BE SMOOTH AND CONTINUOUS FOR THE LENGTH OF THE TPAR. THE TPAR SHALL MAINTAIN THE SAME LEVEL OF ACCESSIBILITY AND DETECTABILITY AS THE FACILITY THAT IS BEING CLOSED. THE TPAR SHALL NOT LEAD PEDESTRIANS INTO CONFLICTS WITH VEHICLES, EQUIPMENT, OR CONSTRUCTION OPERATIONS.
4. IF THE TPAR IS ADJACENT TO MOVING TRAFFIC, CONSTRUCTION OPERATIONS/EQUIPMENT, OR DROP-OFFS, THEN CRASH WORTHY CHANNELIZING DEVICES THAT MEET THE REQUIREMENTS OF NCHRP 350 AND THE MMUTCD SHALL BE USED.
5. THE CONTRACTOR SHALL NOT STORE OR PLACE ANY CONSTRUCTION MATERIALS, EQUIPMENT OR SIGNS IN THE PEDESTRIAN PATH OF TRAVEL.
6. THE CONTRACTOR'S OPERATIONS SHALL NOT OCCUPY SIDEWALKS EXCEPT WHERE PROPER PROTECTION AND A TPAR HAVE BEEN PROVIDED.
7. WHEN DIRECTED BY THE ENGINEER, OR STATED ON THE PLANS, THE CONTRACTOR SHALL PROVIDE A TEMPORARY PEDESTRIAN TRAFFIC CONTROL PLAN FOR REVIEW AND WRITTEN APPROVAL BY THE ENGINEER A MINIMUM OF THREE WEEKS BEFORE SUCH PLAN IS IMPLEMENTED. THIS PLAN SHALL DETAIL THE CONSTRUCTION PHASING AND SCHEDULE AND THE SPECIFIC METHODS OF MAINTAINING SAFE PEDESTRIAN ACCESS THROUGHOUT THE CONSTRUCTION AREA. THIS PLAN SHALL PROVIDE THE LOCATION AND DETAILS OF TEMPORARY CONSTRUCTION SIGNING, MARKINGS, BARRICADES, CHANNELIZING DEVICES, TPARS AND METHODS TO MAINTAIN ACCESS TO ADJACENT PROPERTIES, BUSINESSES, RESIDENCES, ETC. NO WORK SHALL BE ALLOWED TO BEGIN UNTIL THIS PLAN IS APPROVED BY THE ENGINEER IN WRITING.

**LEGEND**

- SIGN
- EXISTING PEDESTRIAN SURFACE
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- BARRIER
- SIDEWALK BARRICADE
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL DEVICE



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01	2-10-22	CC,DF
00	1-12-22	CC,DF

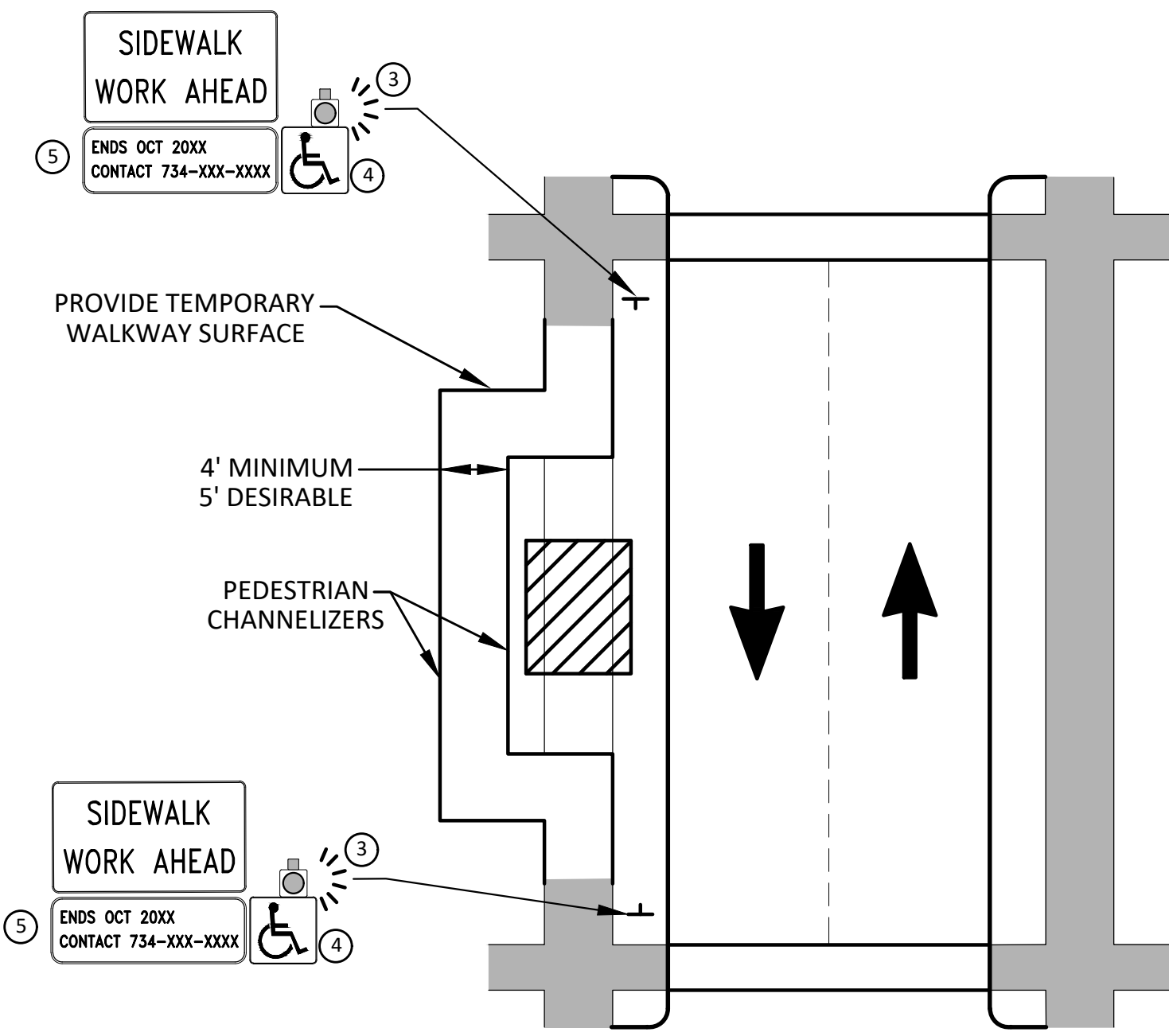
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STADIUM/WASHTEANAW AREA UTILITY IMPROVEMENTS  
ALTERNATE PEDESTRIAN ROUTE (APR) DETOUR

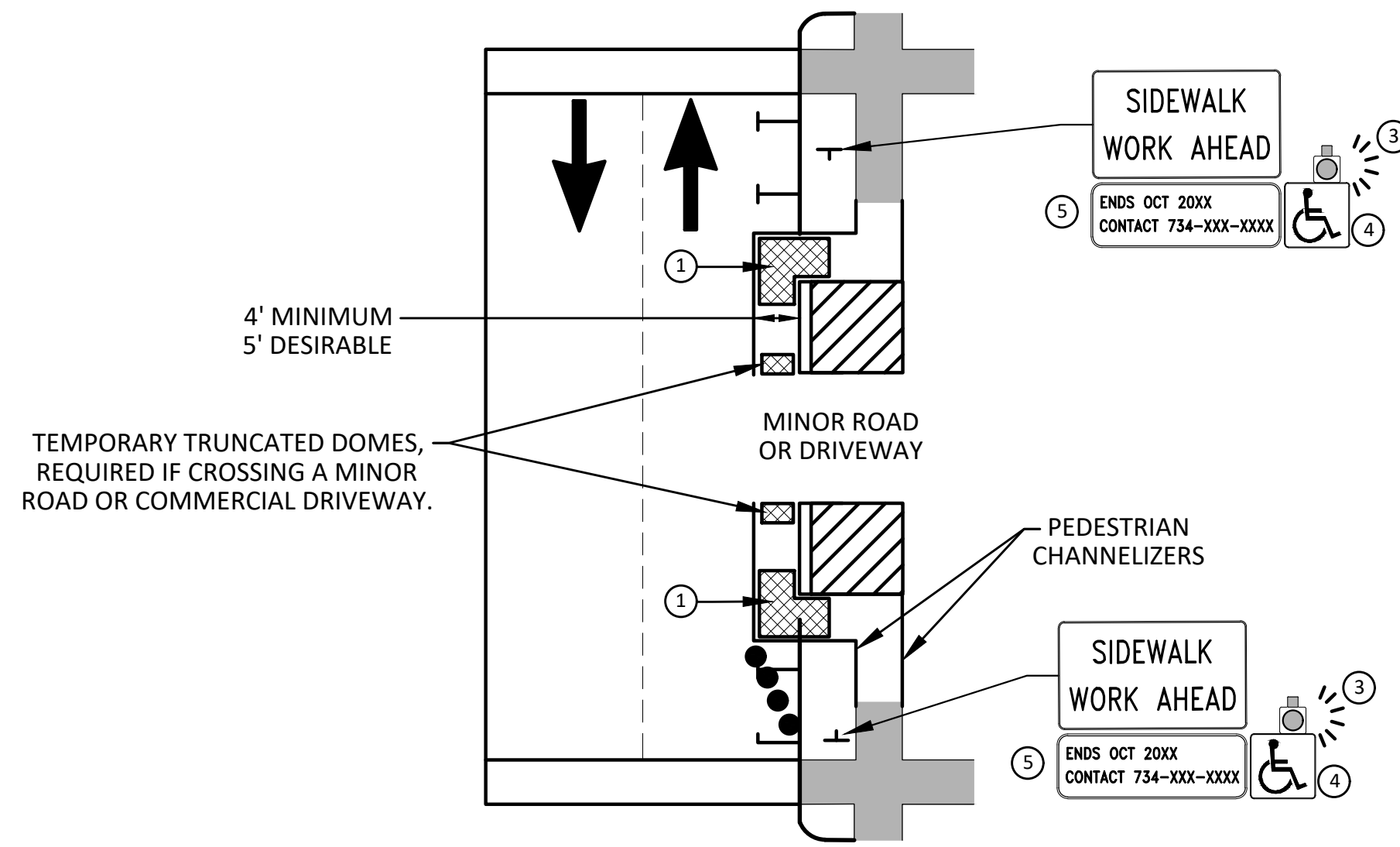
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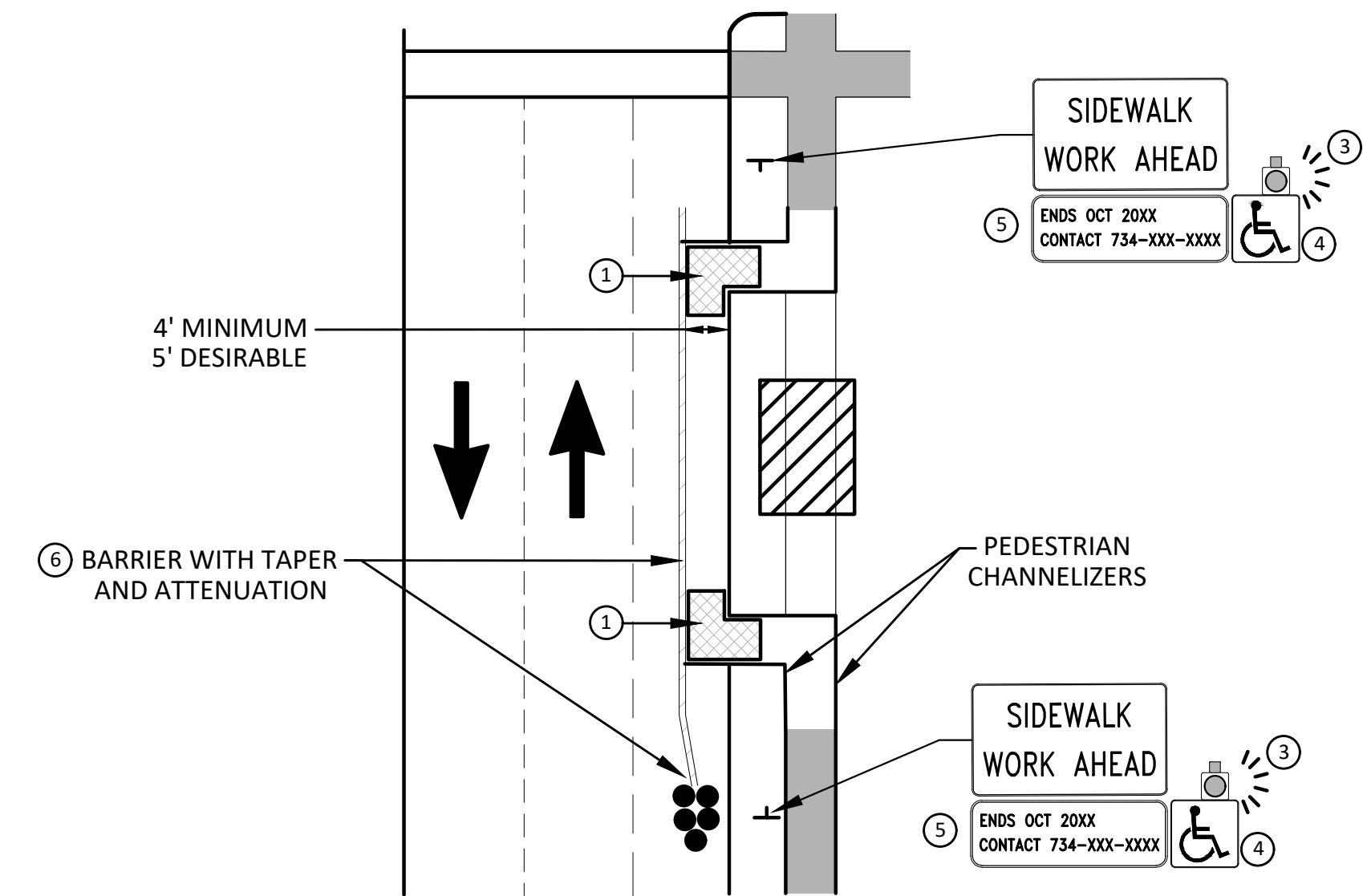


**BYPASS ON ADJACENT AVAILABLE  
RIGHT OF WAY**  
**BYPASS TYPE A**

NOTE: MAY ONLY BE USED ON ROADWAY WITH POSTED  
SPEED OF 45 MPH OR LESS.



**SIDEWALK BYPASS USING PARKING OR  
SHOULDER ON LOW SPEED ROADWAY**  
**BYPASS TYPE B**



**SIDEWALK BYPASS USING  
SHOULDER OR PARKING LANE ON  
HIGH SPEED ROADWAY**  
**BYPASS TYPE C**

**GENERAL NOTES**

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PROVIDE A SMOOTH, CONTINUOUS, HARD SURFACE THROUGH THE LENGTH OF THE APR. COMPACTED GRAVEL, AGGREGATE, OR SLAG MATERIALS ARE NOT ALLOWED. PROVIDE A FIRM, STABLE, AND SLIP RESISTANT TEMPORARY WALKWAY SURFACE TO COVER SHORT SEGMENTS OF ROUGH, SOFT, OR UNEVEN GROUND.

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POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

WHEN THE ENGINEER DETERMINES THAT THE CONTRACTOR'S OPERATIONS OR PLACEMENT OF TRAFFIC CONTROL DEVICES HAS CAUSED A SITUATION THAT THE VISIBILITY OF A TRAFFIC CONTROL DEVICE IS REDUCED ENOUGH TO CREATE A HAZARD, THE TRAFFIC CONTROL DEVICES SHALL BE DELINEATED WITH FLAGS OR OTHER ENGINEER-APPROVED DEVICES AT NO ADDITIONAL COST TO THE PROJECT.

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3. WHERE IT IS NOT FEASIBLE TO PROVIDE AN APR ON THE OTHER SIDE OF THE ROADWAY, PROVIDE AN APR DETOUR WITH TRAILBLAZING SIGNS AS SHOWN ON THE PROJECT PLANS.

**SPECIFIC NOTES**

1. TEMPORARY CURB RAMPS WITH DETECTABLE WARNINGS.
2. S DEVICE TAPER 25 FEET LONG, RECOMMENDED WHEN THE CLOSED AREA WAS USED AS AN INTERMITTENT TRAFFIC LANE OR BYPASS LANE. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
3. AN APPROVED AUDIBLE MESSAGE DEVICE OR TACTILE MESSAGE SHOULD BE PROVIDED FOR SIGHT-IMPAIRED PEDESTRIANS.
4. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE DISPLAYED WHEN ANY WALKWAY THROUGH A WORK ZONE HAS BEEN DETERMINED TO BE TPAR COMPLIANT. THE SYMBOL OF ACCESSIBILITY SHALL NOT BE DISPLAYED IF PERSONS WITH DISABILITIES SHOULD NOT USE THE PRIMARY TEMPORARY PEDESTRIAN DETOUR. THE REASON FOR THE NON-COMPLIANCE SHALL BE POSTED AND AN ALTERNATE ROUTE SHALL BE POSTED WHEN THE PRIMARY TEMPORARY PEDESTRIAN DETOUR IS NON-COMPLIANT TO TPAR STANDARDS.
5. TYPICAL SIGN MESSAGE FOR A TEMPORARY PEDESTRIAN DETOUR SHALL INCLUDE INFORMATION SUCH AS THE DURATION OF THE WALKWAY RESTRICTIONS (BEGINNING AND/OR END DATES) AND A PROJECT CONTACT NUMBER FOR 24 / 7 QUESTIONS OR REPORTING HAZARDS.
6. SEE MMUTCD FOR GUIDANCE ON PLACEMENT AND USAGE OF BARRIER.

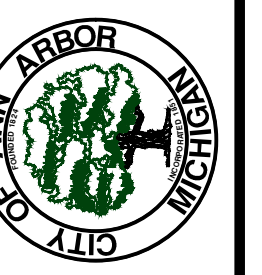
**LEGEND**

- SIGN
- ▨ EXISTING PEDESTRIAN SURFACE
- ▩ WORK AREA
- ▤ PEDESTRIAN CHANNELIZATION DEVICE
- BARRIER
- SIDEWALK BARRICADE
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL DEVICE



FC	CHECKED
CC,DF	DRAWN
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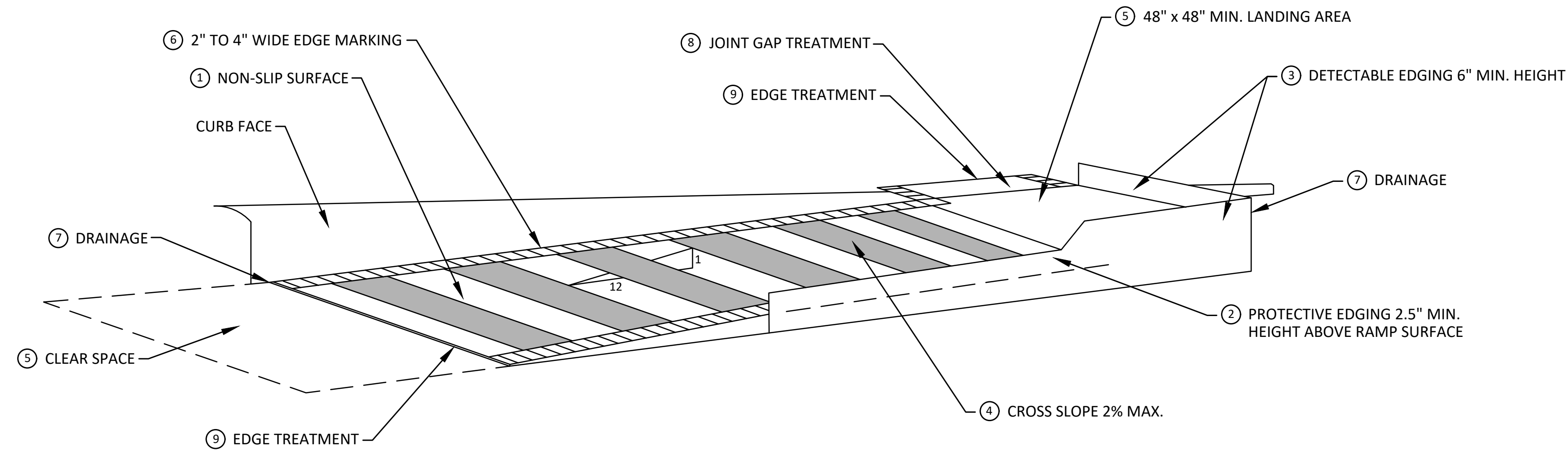
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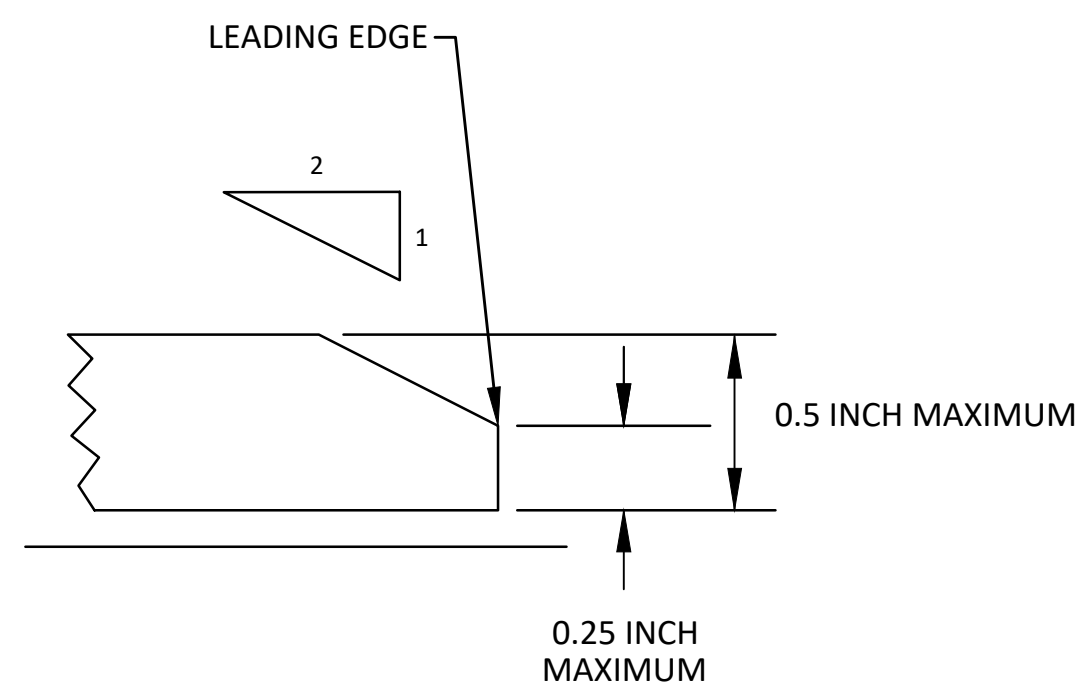
**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**STADIUM/WASHTEANAW AREA UTILITY IMPROVEMENTS**  
**ALTERNATE PEDESTRIAN ROUTE (APR) BYPASS**  
SCALE: N.T.S.  
DRAWING No. 2021011-8



R:\20210111 Frieze\Plan Production\20210111Det1.dwg Dwg Created: 6-Jan-22 -- \_a2\_standard bw.stb -- Plot Date: 9-Feb-22



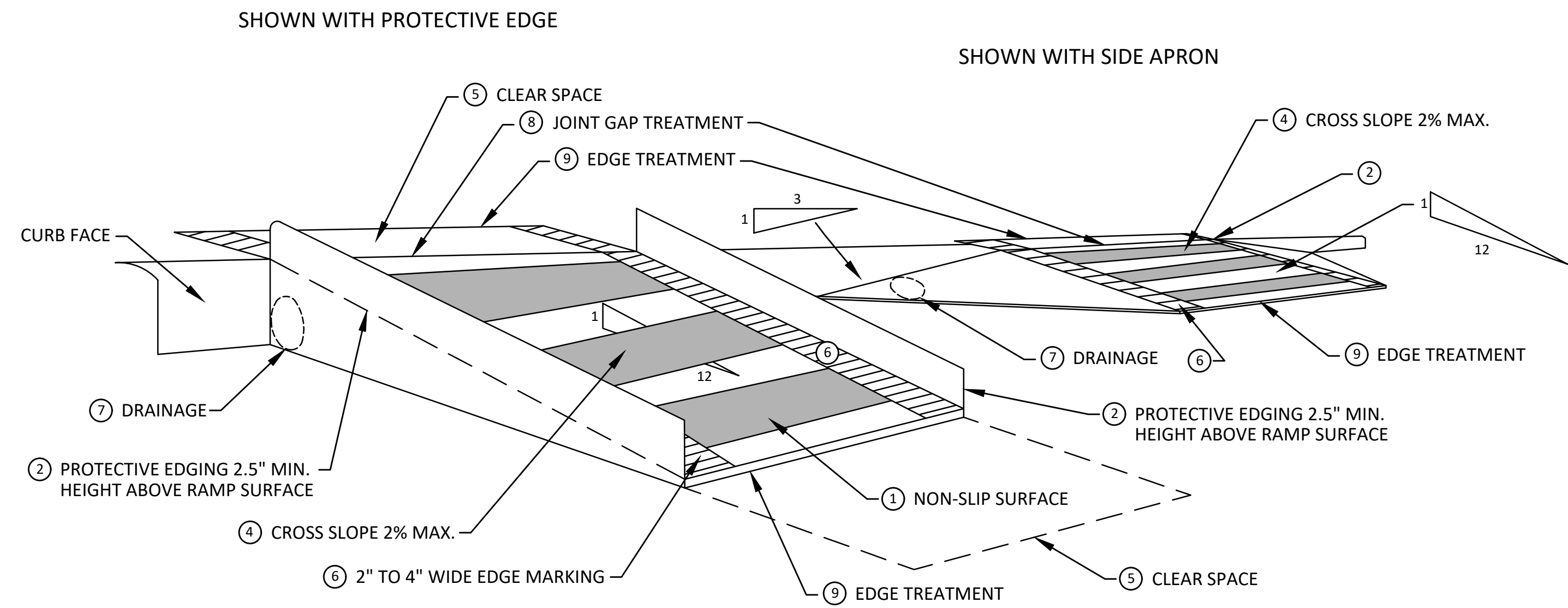
**TEMPORARY CURB RAMP  
PARALLEL TO CURB**



**9 EDGE TREATMENT**

**SPECIFIC NOTES**

- 1 CURB RAMP SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. PROTECTIVE EDGING WITH A 2.5" MIN. HEIGHT ABOVE THE RAMP SHALL BE PLACED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3. PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMP OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- 2 DETECTABLE EDGING ANYTIME A HANDRAIL IS REQUIRED, AND ANYTIME THE PATH CHANGES DIRECTION. THIS INCLUDES A TURN ONTO THE RAMP FROM THE PATH. DETECTABLE EDGING MUST BEGIN A MAXIMUM OF 2.5" ABOVE THE RAMP SURFACE, AND EXTEND AT LEAST 6" ABOVE THE RAMP SURFACE. CONTRASTING COLOR SHALL BE PLACED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- 3 CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A CONTRASTING COLOR, 2" TO 4" WIDE MARKING. THE MARKING IS OPTIONAL WHERE COLOR CONTRASTING EDGING IS USED.
- 4 CURB RAMP AND LANDINGS SHALL HAVE A 2% MAX. CROSS SLOPE.
- 5 CLEAR SPACE OF 48" x 48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- 6 THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A CONTRASTING COLOR, 2" TO 4" WIDE MARKING. THE MARKING IS OPTIONAL WHERE COLOR CONTRASTING EDGING IS USED.
- 7 WATER FLOW IN THE GUTTER SYSTEM SHALL NOT BE IMPEDED.
- 8 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- 9 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHOULD BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2" HEIGHT.



**TEMPORARY CURB RAMP  
PERPENDICULAR TO CURB**



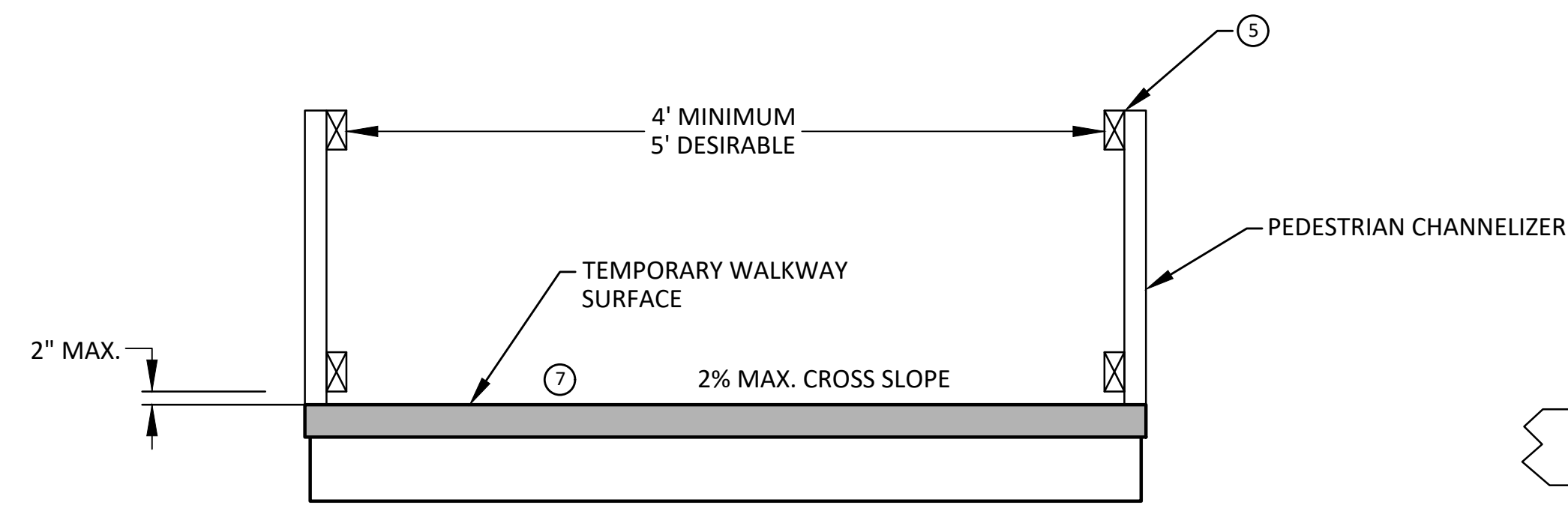
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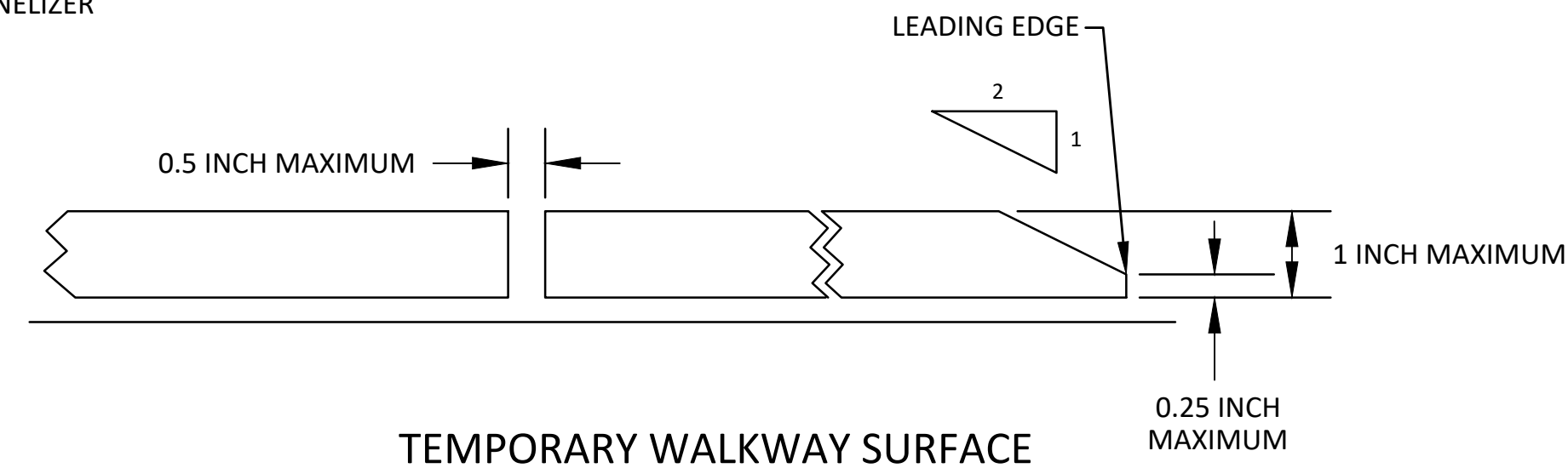


**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS  
TPAR RAMPS  
SCALE: N.T.S.  
DRAWING No. 2021011-9

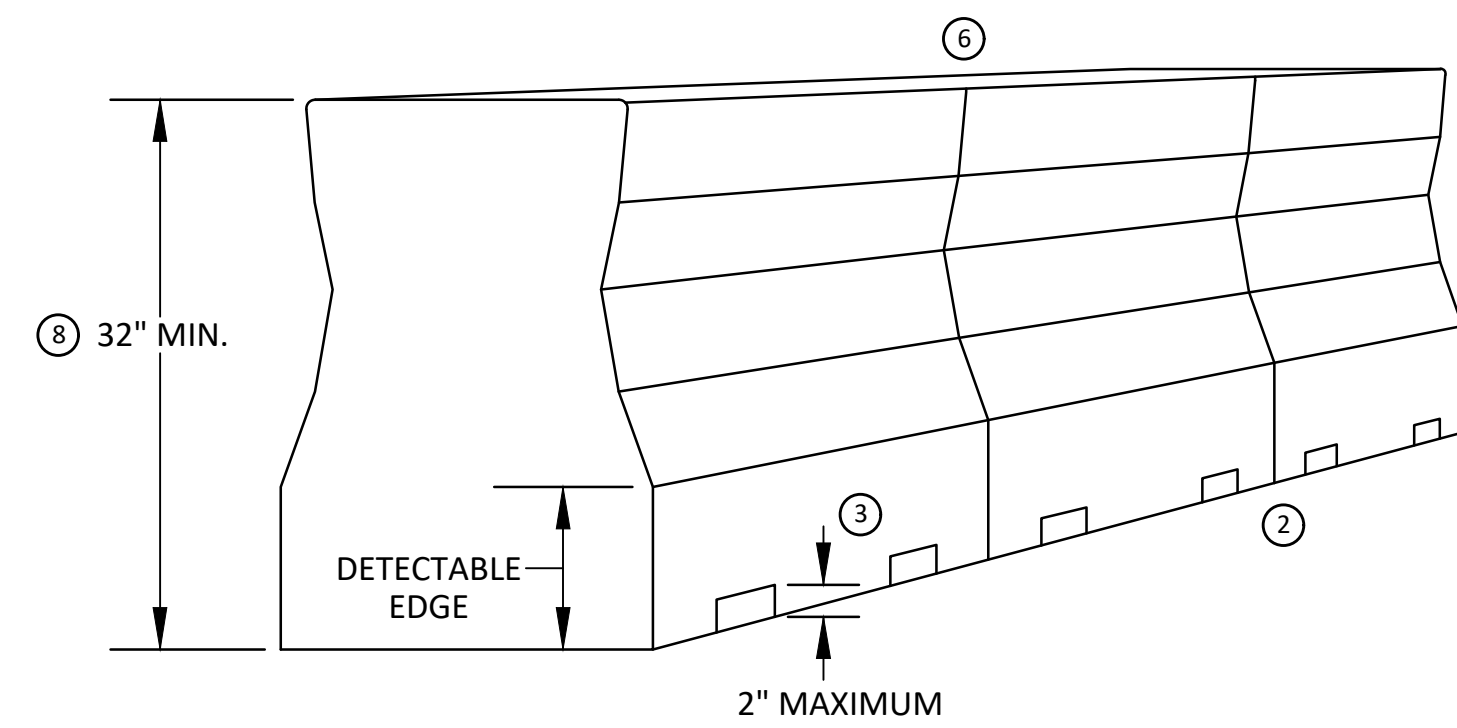
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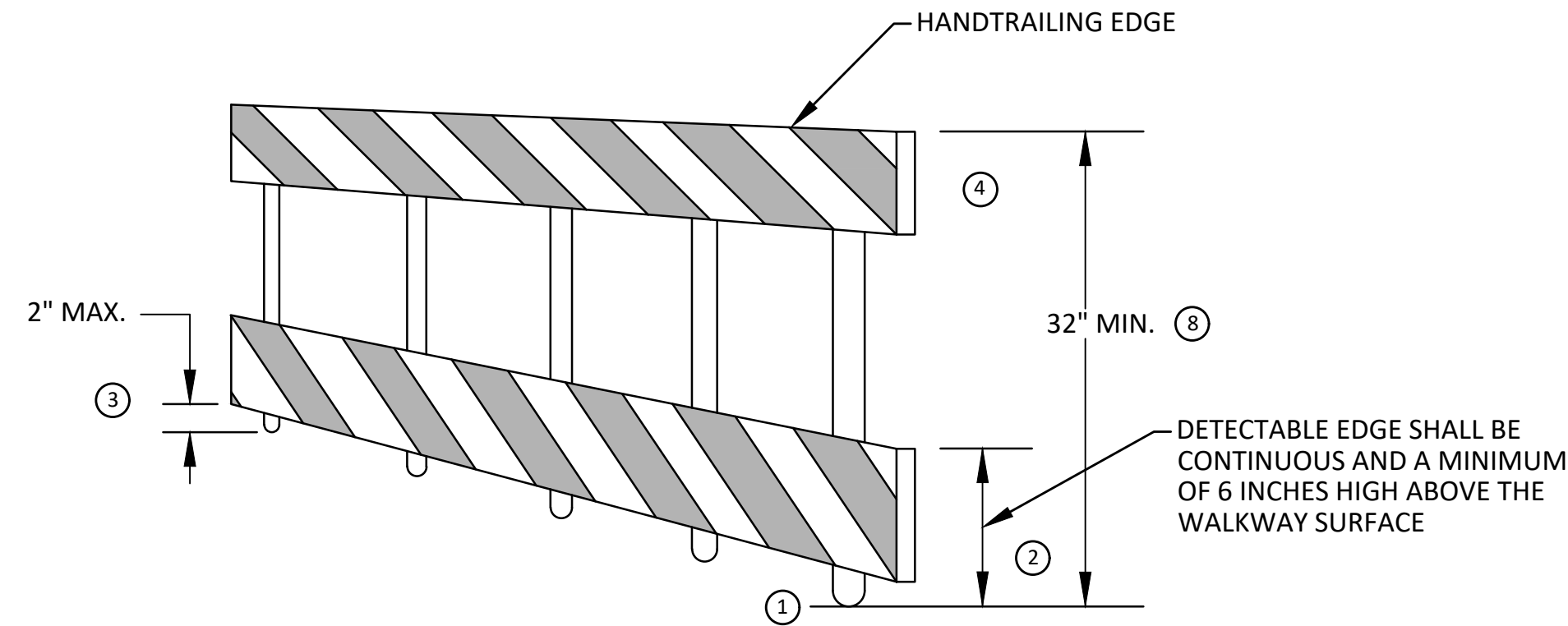
TEMPORARY PEDESTRIAN ACCESS



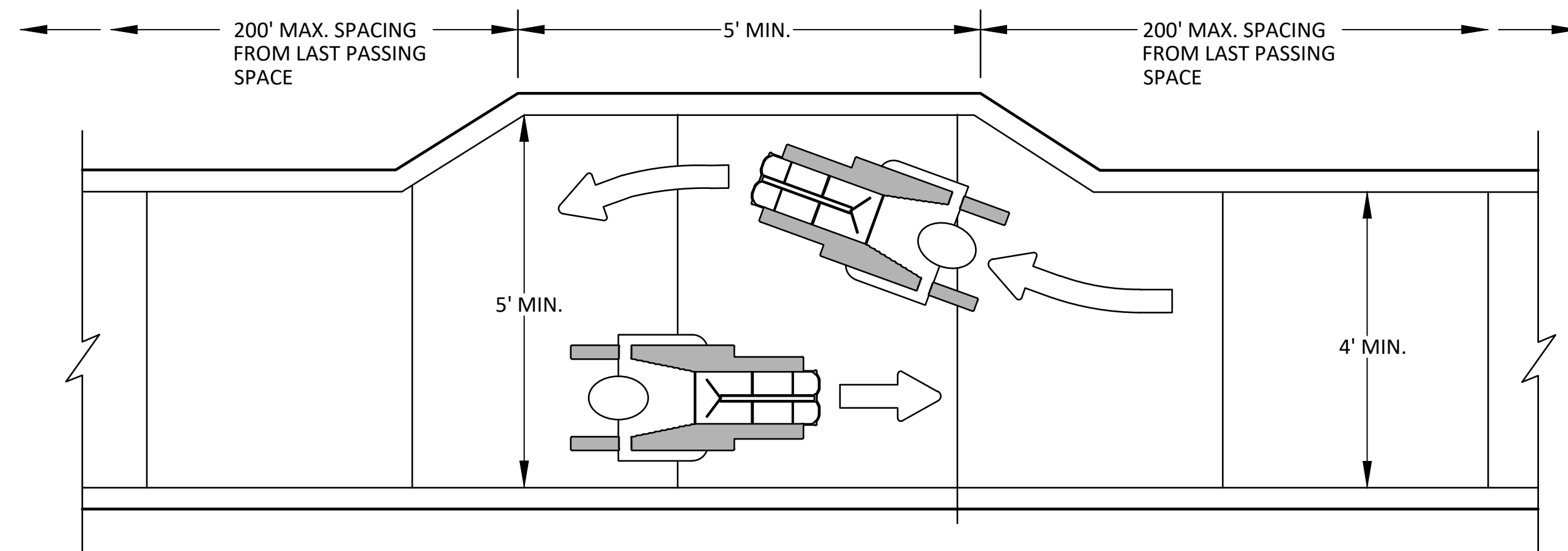
TEMPORARY WALKWAY SURFACE



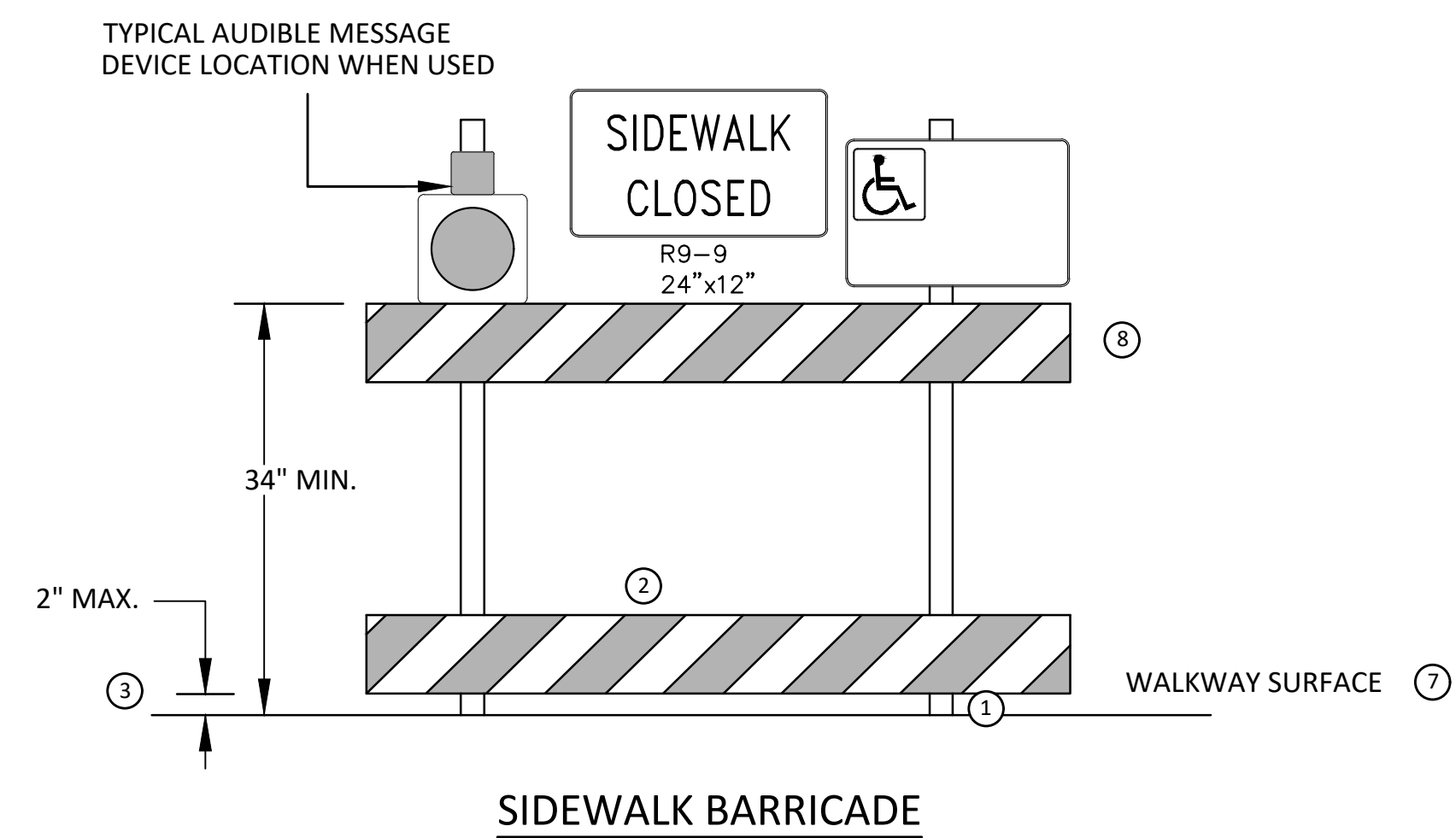
PEDESTRIAN CHANNELIZER USING A BARRIER (MINIMUM REQUIREMENTS)



PEDESTRIAN CHANNELIZER (MINIMUM REQUIREMENTS)



NARROW TEMPORARY PEDESTRIAN ACCESS ROUTE PASSING DETAIL



SIDEWALK BARRICADE

GENERAL NOTES

RAILINGS OR OTHER OBJECTS MAY PROTRUDE A MAXIMUM OF 4 INCHES INTO THE WALKWAY CLEAR SPACE WHEN LOCATED A MINIMUM OF 27 INCHES ABOVE THE WALKWAY SURFACE.

ANY PEDESTRIAN DEVICES USED TO PROVIDE POSITIVE PROTECTION FOR PEDESTRIANS OR WORKERS SHALL MEET NCHRP 350 CRASHWORTHY REQUIREMENTS APPROPRIATE FOR THE BARRIER'S APPLICATION.

BARRICADES SHALL BE PLACED CONTINUOUSLY ACROSS THE ENTIRE WIDTH OF THE WALKWAY SURFACE BEING CLOSED.

SPECIFIC NOTES

1 ANY TRIPPING HAZARD IN THE WALKWAY NEEDS A DETECTABLE EDGE. BALLAST SHALL BE LOCATED BEHIND OR INTERNAL TO THE DEVICE. ANY SUPPORT ON THE FRONT OF THE DEVICE SHALL NOT EXTEND INTO THE 48 INCH MINIMUM WALKWAY CLEAR SPACE AND SHALL NOT EXCEED 0.5 INCHES IN HEIGHT ABOVE THE WALKWAY SURFACE.

2 DETECTABLE EDGES SHALL BE CONTINUOUS AND A MINIMUM OF 6 INCHES IN HEIGHT ABOVE WALKWAY SURFACE AND HAVE COLOR MARKINGS CONTRASTING WITH THE WALKWAY SURFACE.

3 DEVICES SHALL NOT BLOCK WATER DRAINAGE FROM THE WALKWAY. A GAP HEIGHT OR OPENING FROM THE WALKWAY SURFACE UP TO A MAXIMUM OF 2 INCHES IS ALLOWED FOR DRAINAGE PURPOSES.

4 PROVIDE A HANDRAIL ON BOTH SIDES OF THE RAMP IF THE RAMP IS NOT EXPOSED TO VEHICLE TRAFFIC AND HAS A TOTAL RISE GREATER THAN 6 INCHES, AND A LENGTH GREATER THAN 72 INCHES.

- ENSURE THE HANDRAIL IS 1.25 AND 1.5 INCHES WIDE AND CONFIGURED TO BE A "GRASPABLE" CROSS-SECTION.

5 WHEN THE RAMP IS EXPOSED TO TRAFFIC, IN LIEU OF HANDRAILS, USE A PROTECTIVE EDGE 2.5 INCHES MINIMUM HEIGHT ABOVE THE RAMP SURFACE OR 1:10 FLARE ON BOTH SIDES OF THE RAMP.

6 ALL DEVICES SHALL BE FREE OF SHARP OR ROUGH EDGES, AND FASTENERS (BOLTS) SHALL BE ROUNDED TO PREVENT HARM TO HANDS, ARMS OR CLOTHING OF PEDESTRIANS.

7 ALL DEVICES USED TO CHANNELIZE PEDESTRIAN FLOW SHOULD INTERLOCK SUCH THAT GAPS DO NOT ALLOW PEDESTRIANS TO STRAY FROM THE INTENDED CHANNELIZED PATH.

8 A WALKWAY SURFACE SHALL BE FIRM, STABLE, AND SLIP RESISTANT. COMPACTED GRAVEL, AGGREGATE, OR SLAG MATERIALS ARE NOT ALLOWED.

9 LONGITUDINAL CHANNELIZING DEVICES FOR PEDESTRIANS SHALL BE 32 INCHES IN HEIGHT OR GREATER.



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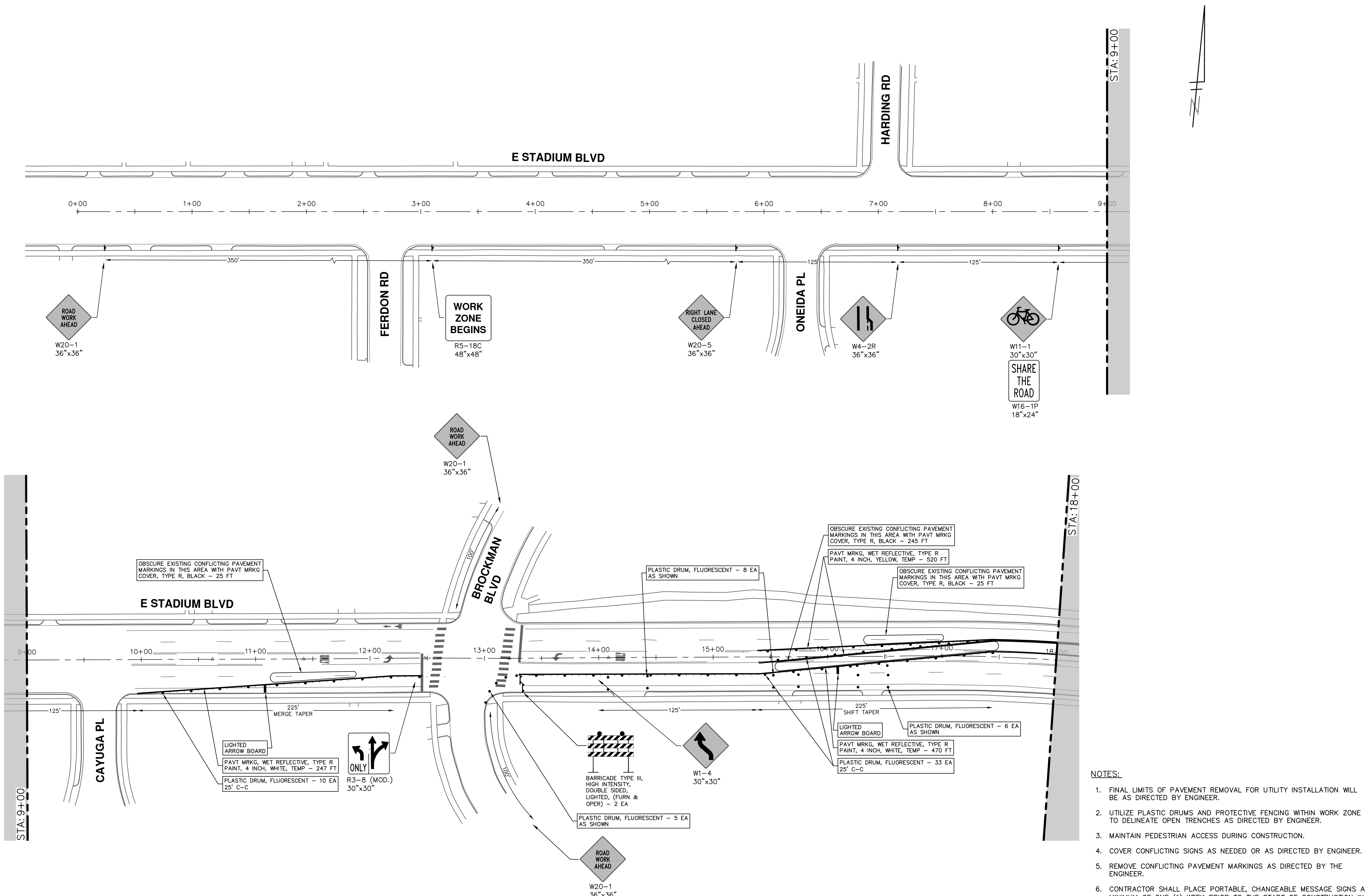
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS  
TPAR WALKWAY DEVICES

SCALE: N.T.S.  
DRAWING No. 2021011-10

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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS**

E STADIUM BLVD TRAFFIC CONTROL PH I

STA. 0+00 - STA. 18+00

SCALE: 1" = 40'

DRAWING No. **2021011-11**

SHEET No. **11 OF 37**

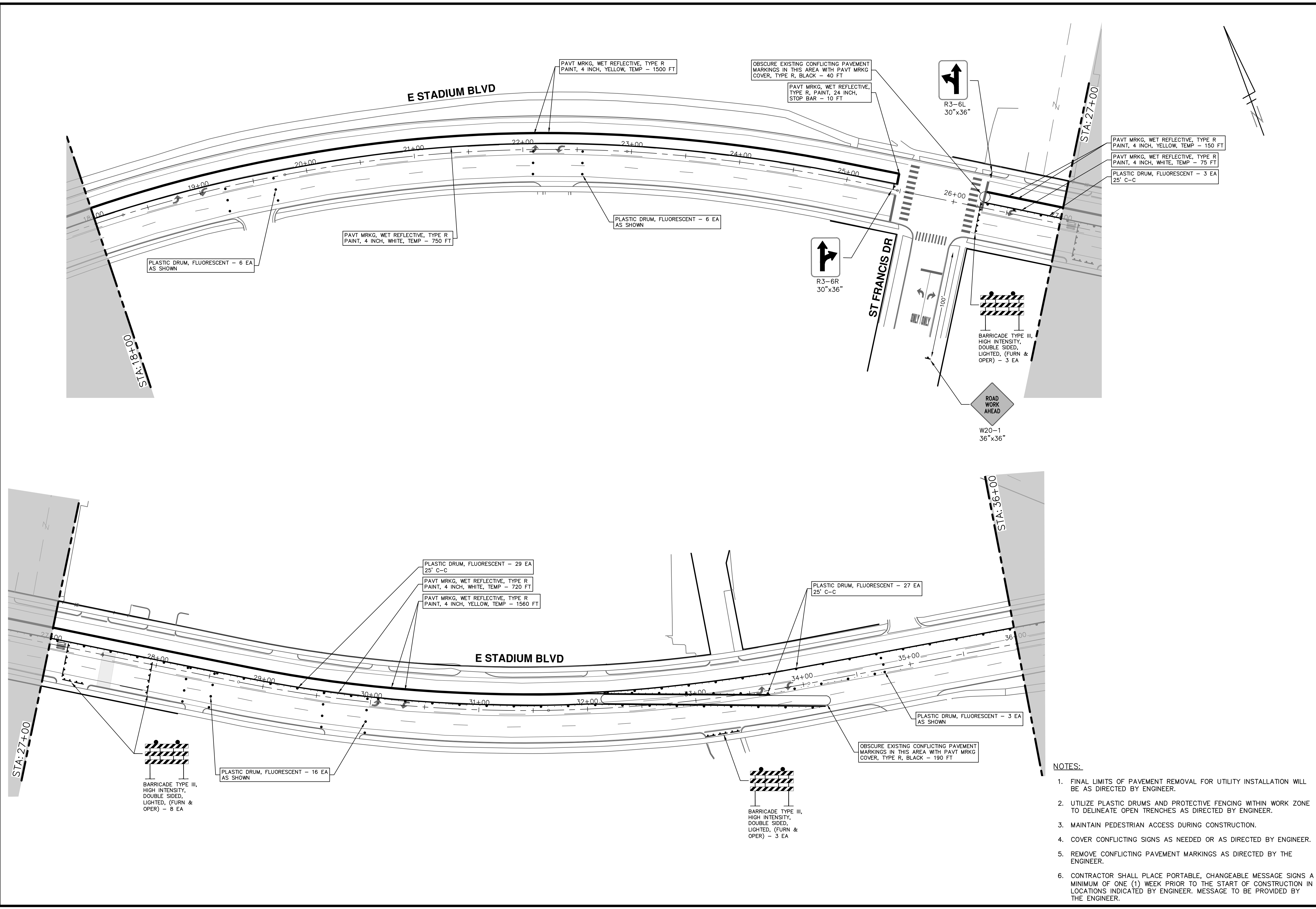
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**CITY OF ANN ARBOR MICHIGAN**

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- NOTES:**
1. FINAL LIMITS OF PAVEMENT REMOVAL FOR UTILITY INSTALLATION WILL BE AS DIRECTED BY ENGINEER.
  2. UTILIZE PLASTIC DRUMS AND PROTECTIVE FENCING WITHIN WORK ZONE TO DELINEATE OPEN TRENCHES AS DIRECTED BY ENGINEER.
  3. MAINTAIN PEDESTRIAN ACCESS DURING CONSTRUCTION.
  4. COVER CONFLICTING SIGNS AS NEEDED OR AS DIRECTED BY ENGINEER.
  5. REMOVE CONFLICTING PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER.
  6. CONTRACTOR SHALL PLACE PORTABLE, CHANGEABLE MESSAGE SIGNS A MINIMUM OF ONE (1) WEEK PRIOR TO THE START OF CONSTRUCTION IN LOCATIONS INDICATED BY ENGINEER. MESSAGE TO BE PROVIDED BY THE ENGINEER.

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS**

E STADIUM BLVD TRAFFIC CONTROL PH I

STA. 18+00 - STA. 36+00

SCALE: 1" = 40'

DRAWING No. 2021011-12

SHEET No. 12 OF 37

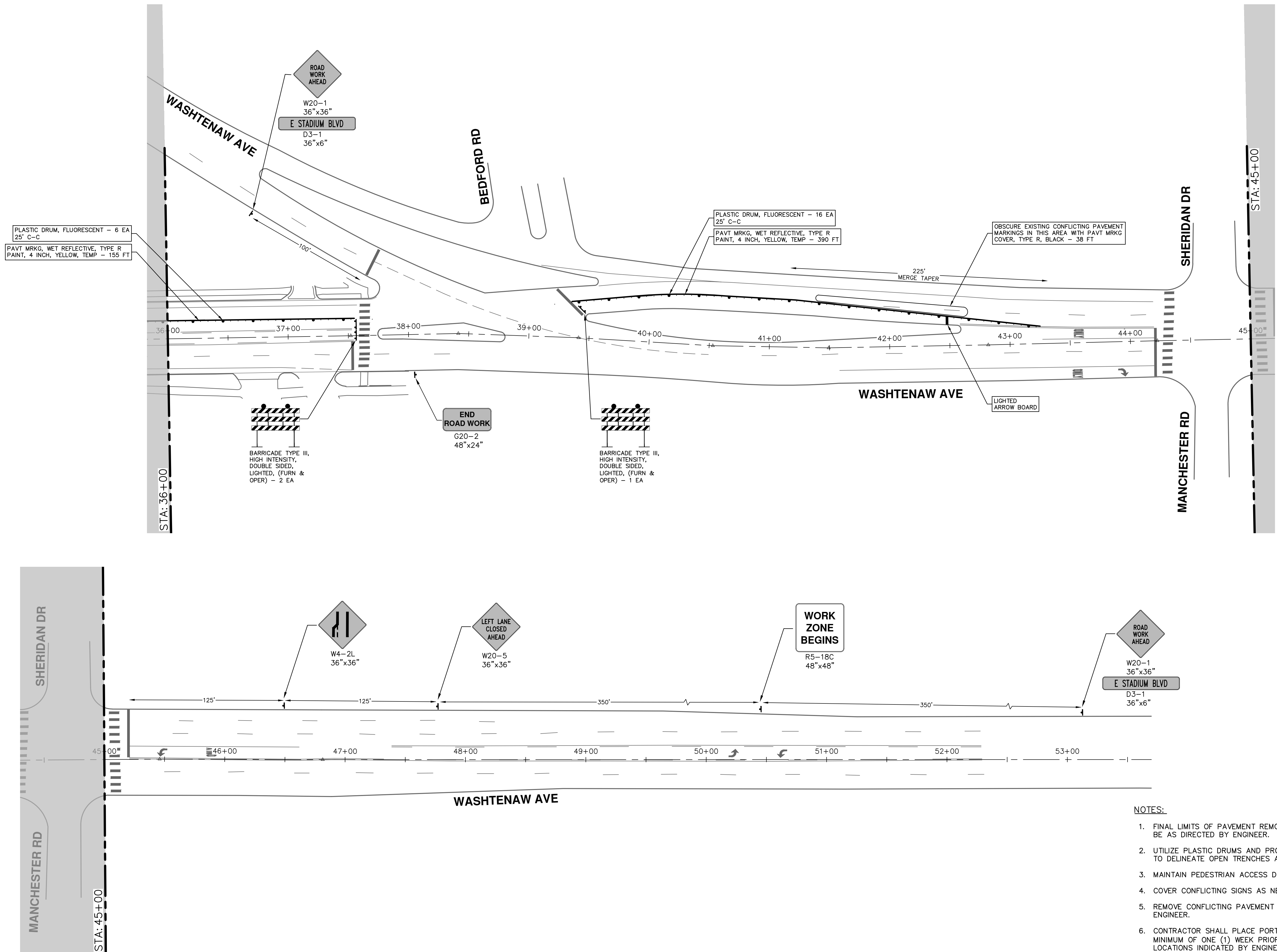
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00	FINAL REVIEW	1-12-22	CC/DF	FC

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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS**

E STADIUM BLVD TRAFFIC CONTROL PH I

STA. 36+00 - STA. 53+00

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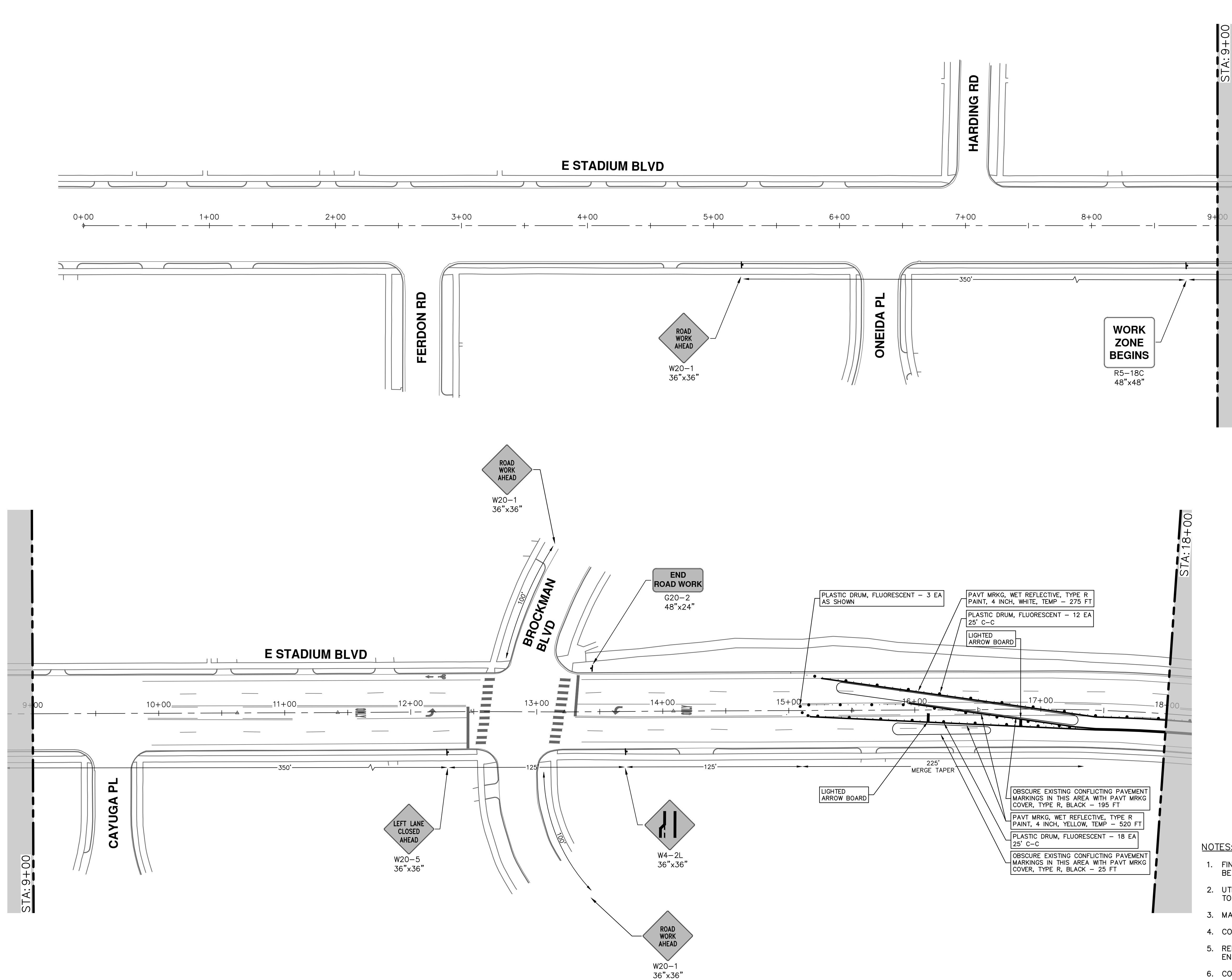
CITY OF ANN ARBOR  
MICHIGAN

SCALE: 1" = 40'

DRAWING No. 2021011-13


SHEET No. 13 OF 37

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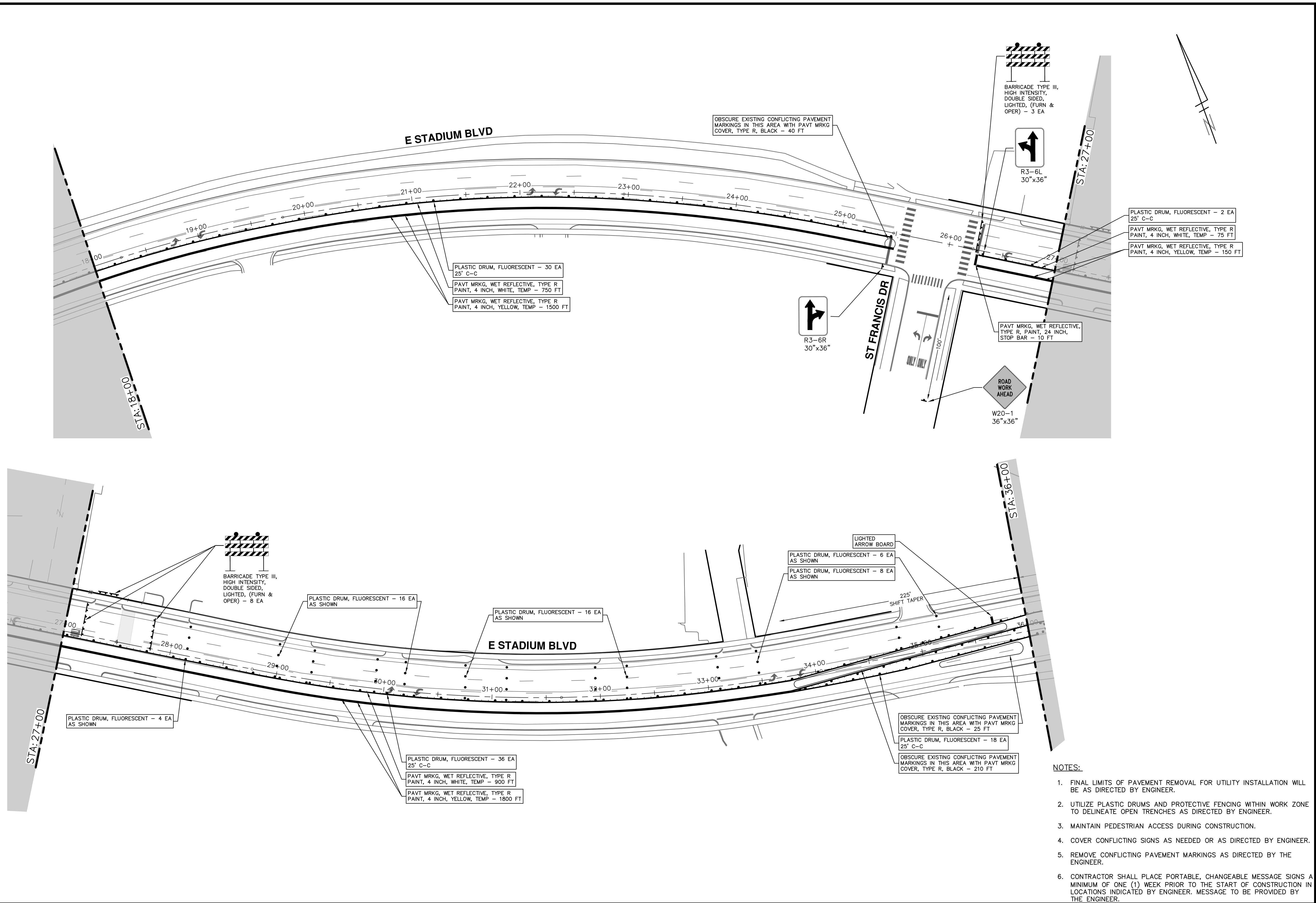
**NOTES:**

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 <p><b>CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING</b>  <b>STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS</b>          E STADIUM BLVD TRAFFIC CONTROL PH II</p>		<p>STA. 0+00 - STA. 18+00</p>
<p>SCALE: 1" = 40'</p>	<p>DRAWING No. 2021011-14</p>	<p>SHEET No. 14 OF 37</p>
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<p>00 FINAL REVIEW</p>	<p>1-12-22</p>	<p>CC,DF</p>
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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS**

**E STADIUM BLVD TRAFFIC CONTROL PH II**

STA. 18+00 - STA. 36+00

SCALE: 1" = 40'

DRAWING No. 2021011-15

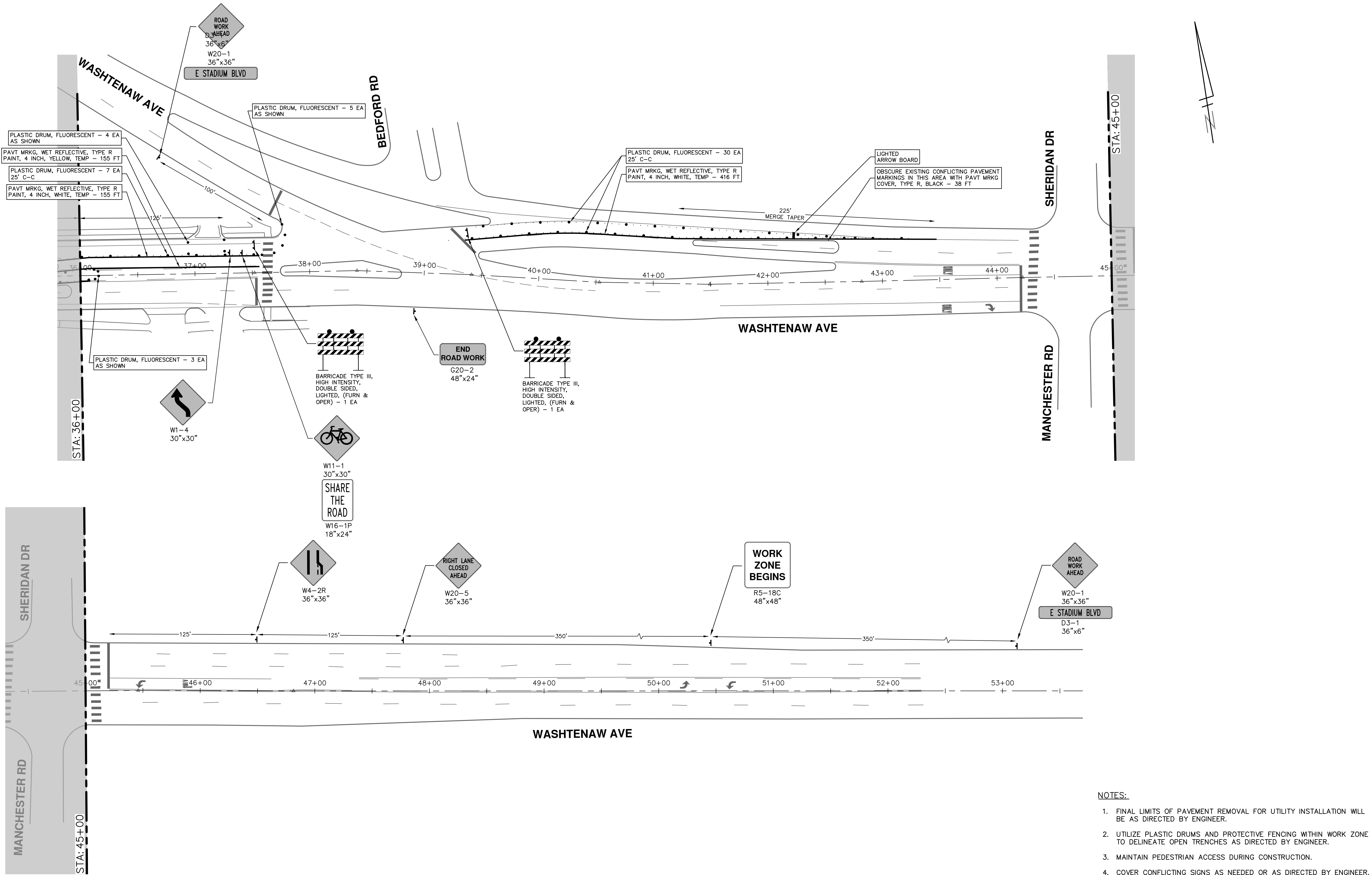
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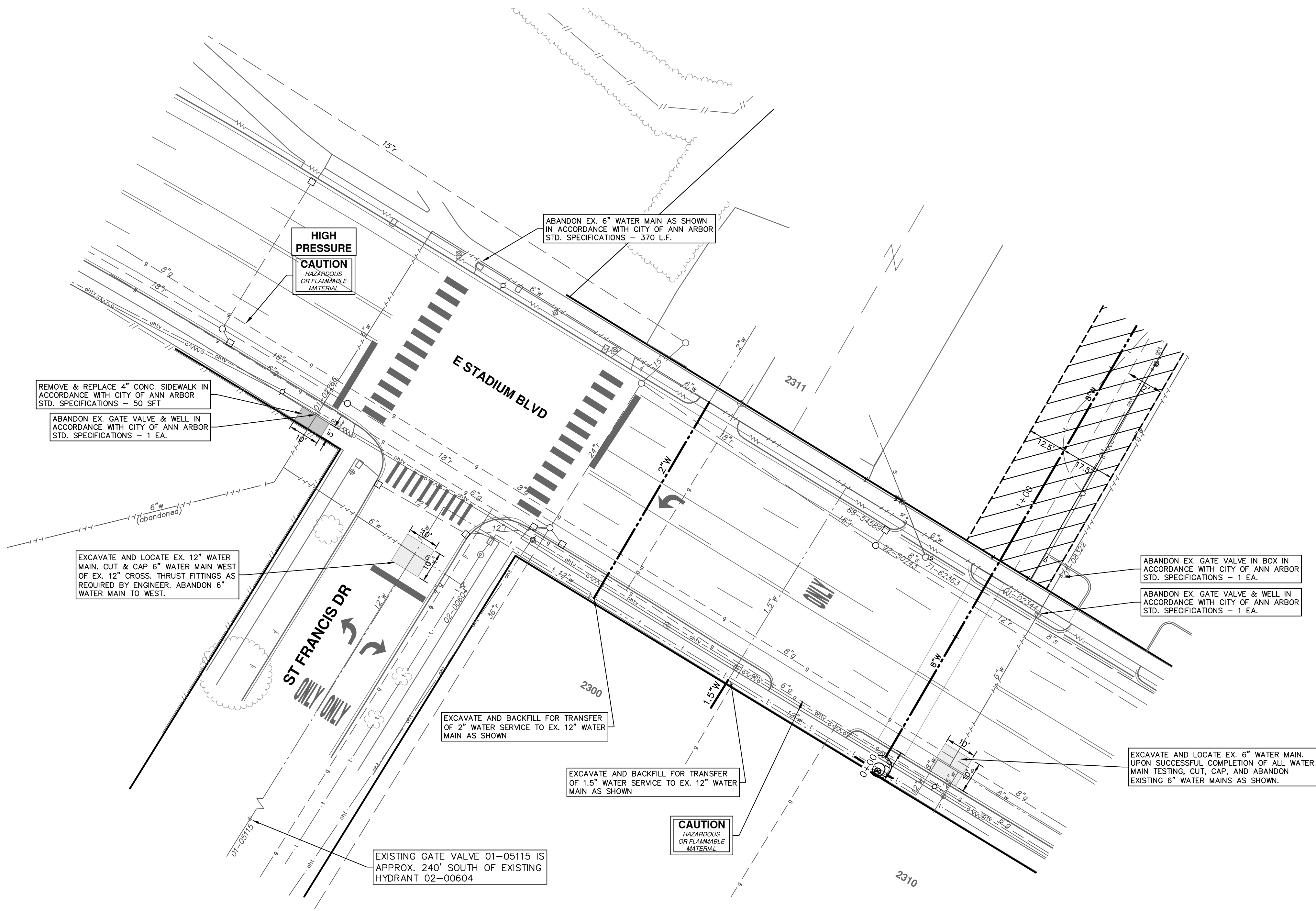
**NOTES:**

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SCALE: 1" = 40' DRAWING No. 2021011-16 SHEET No. 16 OF 37					



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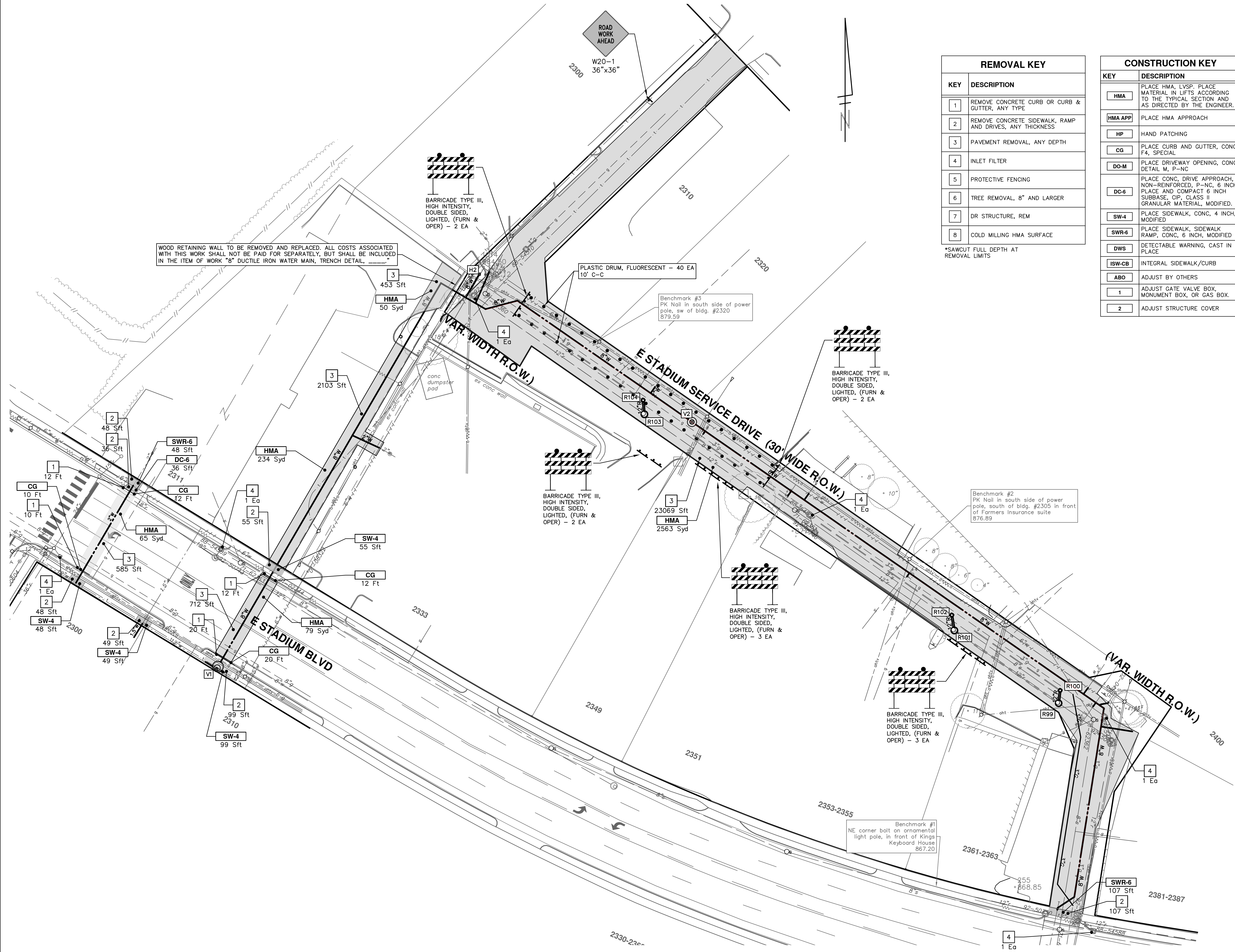


**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS**

SCALE PLAN: 1" = 20'  
DRAWING No. 2021011-17

WATER MAIN ABANDONMENTS

R:\2021011 StadiumWasht Area Util Impr\Plan Production\2021011Rem.dwg Dwg Created: 9-Feb-22 - \_g2 standard b.w.stb - Plot Date: 9-Feb-22



WOOD RETAINING WALL TO BE REMOVED AND REPLACED. ALL COSTS ASSOCIATED WITH THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE ITEM OF WORK "8" DUCTILE IRON WATER MAIN, TRENCH DETAIL.

ROAD WORK AHEAD  
W20-1  
36" x 36"

BARRICADE TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, (FURN & OPER) - 2 EA

PLASTIC DRUM, FLUORESCENT - 40 EA  
10' C-C

Benchmark #3  
PK Nail in south side of power pole, sw of bldg. #2320  
879.59

BARRICADE TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, (FURN & OPER) - 2 EA

BARRICADE TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, (FURN & OPER) - 2 EA

BARRICADE TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, (FURN & OPER) - 3 EA

BARRICADE TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, (FURN & OPER) - 3 EA

Benchmark #1  
NE corner bolt on ornamental light pole, in front of Kings Keyboard House  
867.20

Benchmark #2  
PK Nail in south side of power pole, south of bldg. #2305 in front of Farmers Insurance suite  
876.89

Benchmark #4  
PK Nail in south side of power pole, south of bldg. #2305 in front of Farmers Insurance suite  
876.89

REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB & GUTTER, ANY TYPE
2	REMOVE CONCRETE SIDEWALK, RAMP AND DRIVES, ANY THICKNESS
3	PAVEMENT REMOVAL, ANY DEPTH
4	INLET FILTER
5	PROTECTIVE FENCING
6	TREE REMOVAL, 8" AND LARGER
7	DR STRUCTURE, REM
8	COLD MILLING HMA SURFACE

\*SAWCUT FULL DEPTH AT REMOVAL LIMITS

CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, LVSP. PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	PLACE HMA APPROACH
HP	HAND PATCHING
CG	PLACE CURB AND GUTTER, CONC, F4, SPECIAL
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL, MODIFIED.
SW-4	PLACE SIDEWALK, CONC, 4 INCH, MODIFIED
SWR-6	PLACE SIDEWALK, SIDEWALK RAMP, CONC, 6 INCH, MODIFIED
DWS	DETECTABLE WARNING, CAST IN PLACE
ISW-CB	INTEGRAL SIDEWALK/CURB
ABO	ADJUST BY OTHERS
1	ADJUST GATE, VALVE BOX, MONUMENT BOX, OR GAS BOX.
2	ADJUST STRUCTURE COVER

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS**

STADIUM SERVICE DR

REMOVALS

SCALE PLAN: 1" = 30'

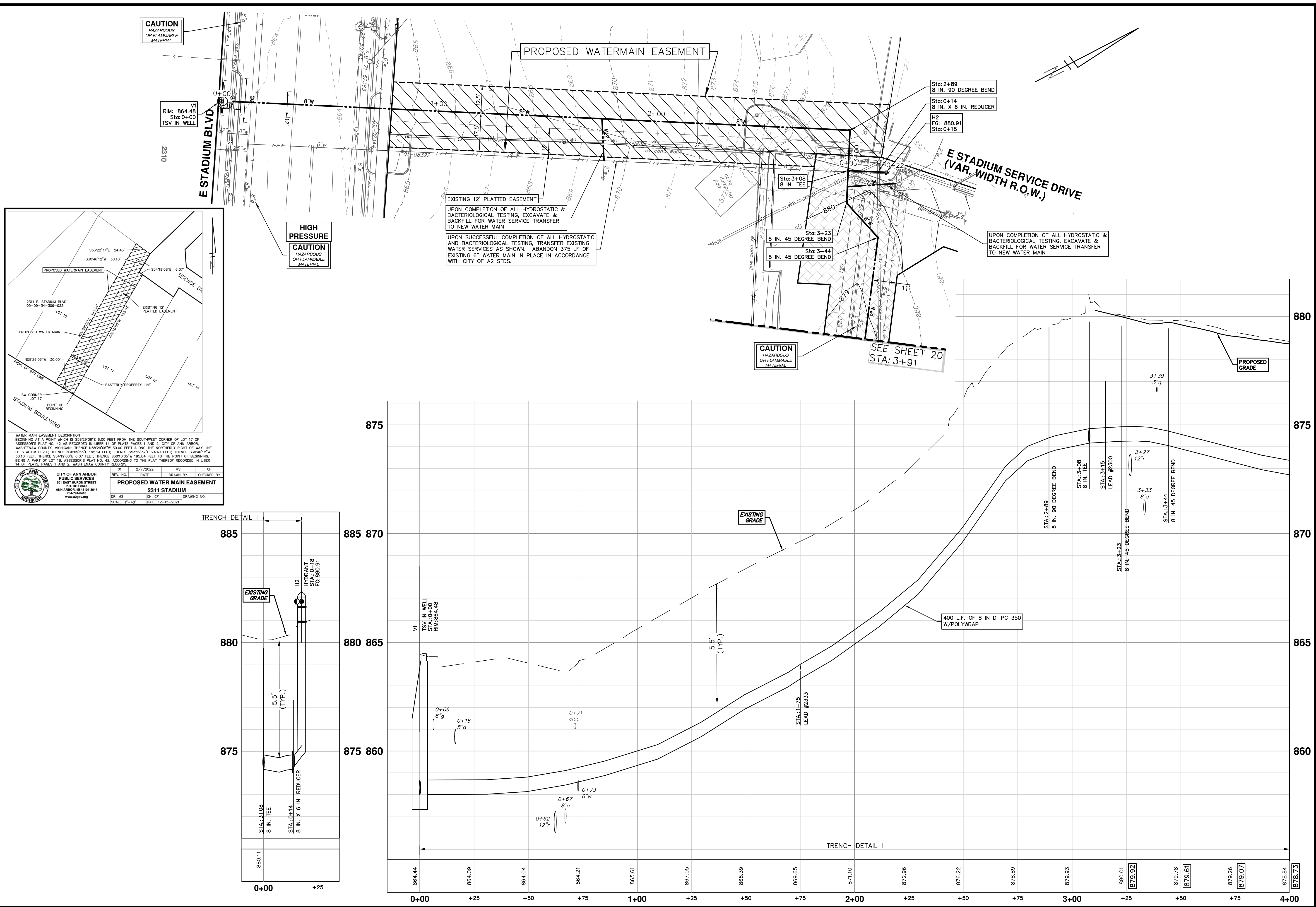
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00	FINAL REVIEW	CCDF	CCDF	1-12-22	DRAWN
00	REV.				CHECKED

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS**

**STADIUM SERVICE DR WATER MAIN PLAN AND PROFILE**

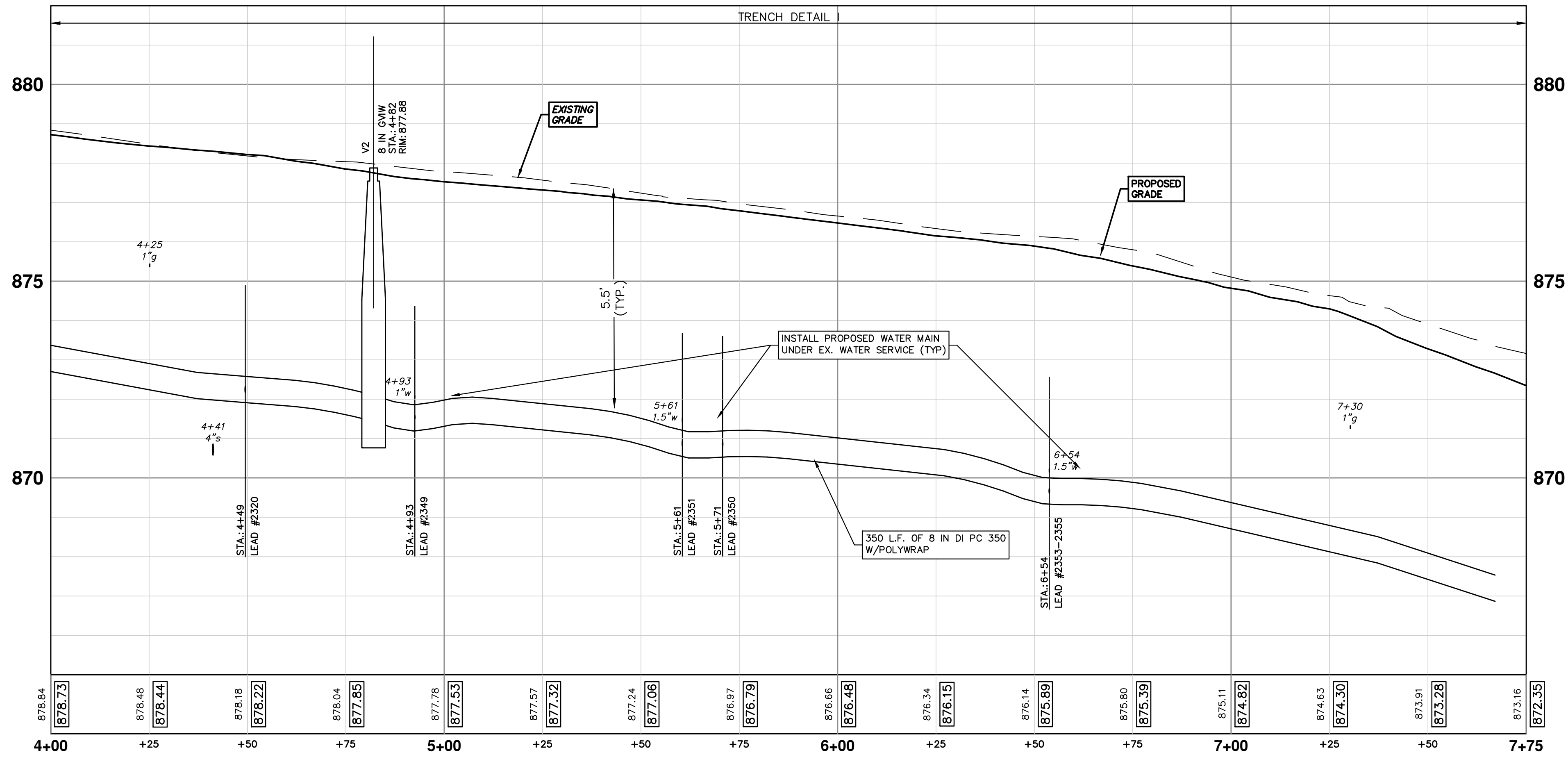
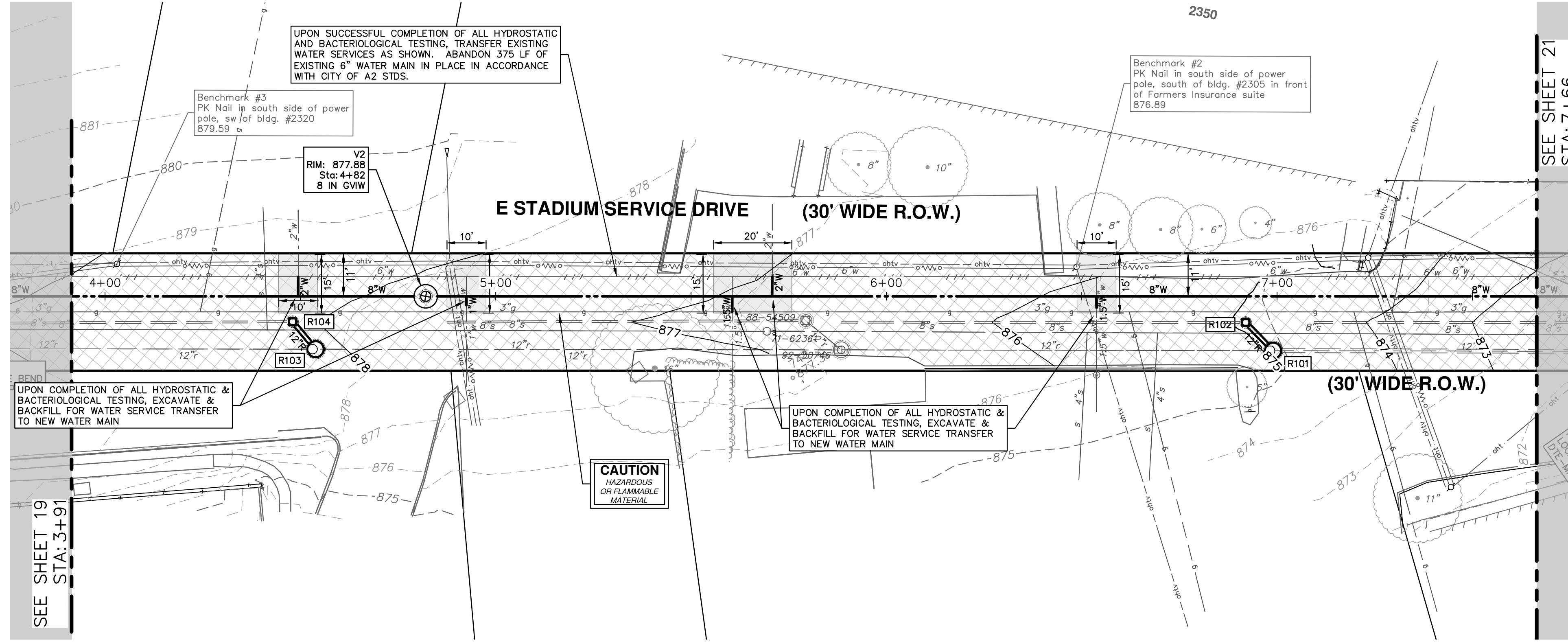
SCALE PLAN: 1" = 20'  
 PROFILE: 1" = 2'

DRAWING No. **2021011-19**

SHEET No. **19 OF 37**

STA. 0+00 - STA. 4+00

**CITY OF ANN ARBOR PUBLIC SERVICES**  
 301 EAST HURON STREET  
 ANN ARBOR, MI 48107-8647  
 ANN ARBOR 734.794.6410  
 www.a3gov.org



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

01	OUT FOR BID	CCDF	FC
00	FINAL REVIEW	CCDF	FC
	REV.	DATE	CHECKED
		1-12-22	DRAWN
		2-10-22	CCDF

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-8647  
www.a2gov.org

**CITY OF ANN ARBOR MICHIGAN**

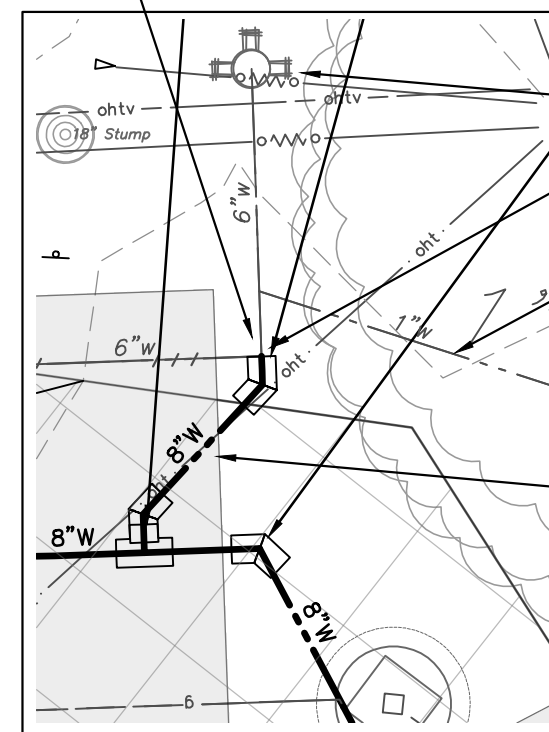
**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS  
STADIUM SERVICE DR WATER MAIN PLAN AND PROFILE  
STA. 4+00 - STA. 7+75

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'

DRAWING No. 2021011-20

SHEET No. 20 OF 37

HYDRANT RE-CONNECTION DETAIL



WHERE EXISTING WATER MAIN IS EXPOSED FOR A CONNECTION OR APPURTENANCE INSTALLATION, THE CONTRACTOR SHALL INSTALL ONE SACRIFICIAL ANODE ON THE EXISTING PIPE. IF THE NEW FITTING IS INSTALLED IN-LINE WITH THE EXISTING MAIN, SUCH AS AT A CUT-IN TEE OR VALVE INSERTION, ONE ANODE SHALL BE INSTALLED ON THE EXISTING PIPE TO EACH SIDE OF THE NEW FITTING. EACH ANODE INSTALLED ON EXISTING WATER MAIN WILL BE PAID FOR AS "SACRIFICIAL ANODE, XX LB"

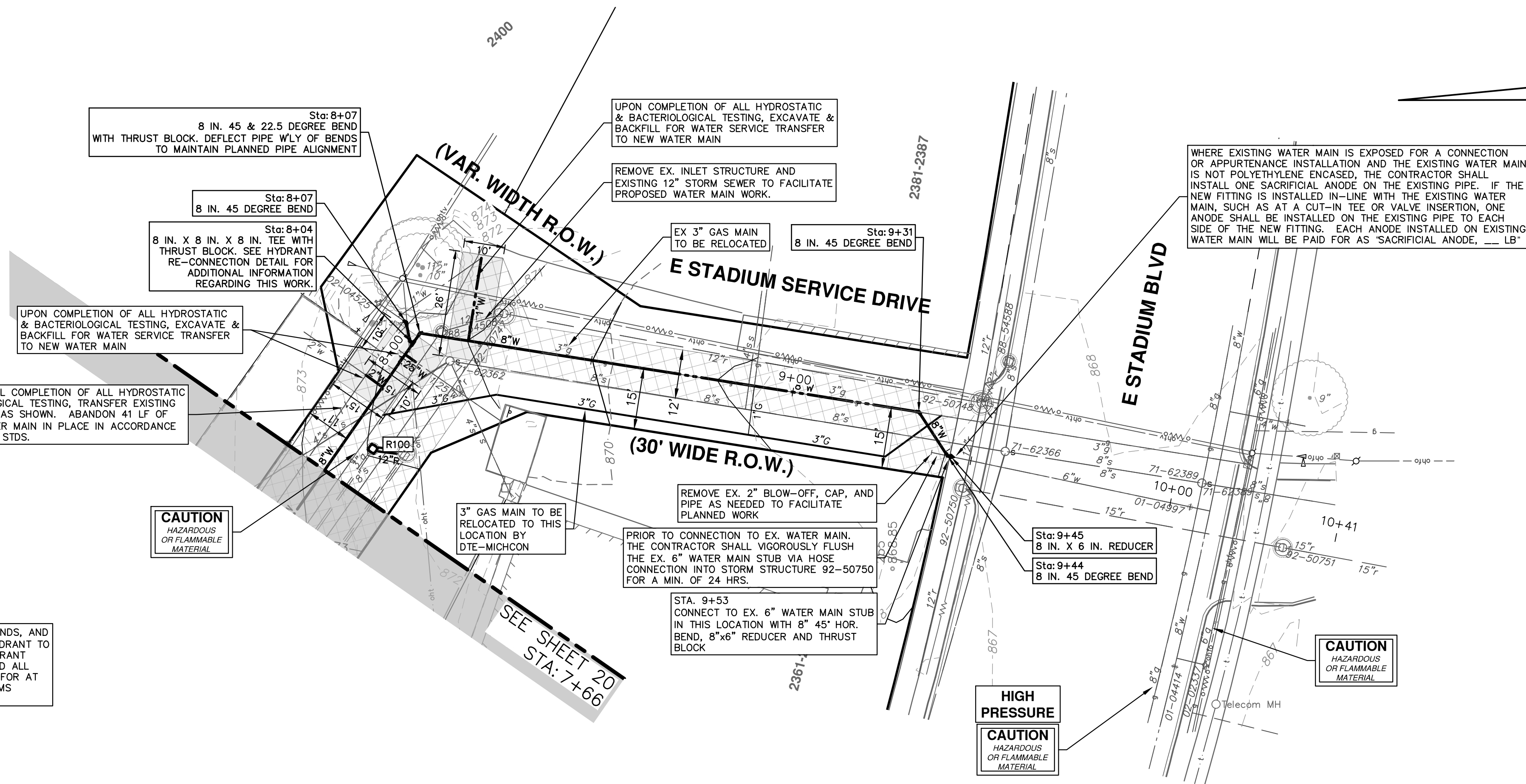
UPON SUCCESSFUL COMPLETION OF ALL HYDROSTATIC AND BACTERIOLOGICAL TESTING, TRANSFER EXISTING WATER SERVICES AS SHOWN. ABANDON 41 LF OF EXISTING 6" WATER MAIN IN PLACE IN ACCORDANCE WITH CITY OF A2 STDS.

EX. HYDRANT #4525  
 REMOVE EX. 6" 90° BEND & THRUST BLOCK. CONNECT TO EX. 6" WATER W/LONG PATTERN SOLID SLEEVE  
 REMOVE EX. WATER SERVICE FROM HYDRANT LEAD AND TRANSFER TO REVISED LOCATION AS SHOWN ELSEWHERE ON THIS PLAN SHEET.

INSTALL 8" PC 350 D.I.P. W/POLYWRAP, 45° BENDS, AND AN 8"x6" REDUCER TO RECONNECT THE EX. HYDRANT TO THE PROPOSED WATER MAIN. RE-CONNECT HYDRANT AFTER THE PROPOSED WATER MAIN HAS PASSED ALL REQUIRED TESTING. THIS WORK SHALL BE PAID FOR AT THE CORRESPONDING UNIT PRICES FOR THE ITEMS INSTALLED.

**CAUTION**  
 HAZARDOUS OR FLAMMABLE MATERIAL

SEE SHEET 20  
 STA. 7+66



Sta: 8+07  
 8 IN. 45 & 22.5 DEGREE BEND WITH THRUST BLOCK. DEFLECT PIPE W/LY OF BENDS TO MAINTAIN PLANNED PIPE ALIGNMENT

Sta: 8+07  
 8 IN. 45 DEGREE BEND

Sta: 8+04  
 8 IN. X 8 IN. X 8 IN. TEE WITH THRUST BLOCK. SEE HYDRANT RE-CONNECTION DETAIL FOR ADDITIONAL INFORMATION REGARDING THIS WORK.

UPON COMPLETION OF ALL HYDROSTATIC & BACTERIOLOGICAL TESTING, EXCAVATE & BACKFILL FOR WATER SERVICE TRANSFER TO NEW WATER MAIN

REMOVE EX. INLET STRUCTURE AND EXISTING 12" STORM SEWER TO FACILITATE PROPOSED WATER MAIN WORK.

EX 3" GAS MAIN TO BE RELOCATED

Sta: 9+31  
 8 IN. 45 DEGREE BEND

WHERE EXISTING WATER MAIN IS EXPOSED FOR A CONNECTION OR APPURTENANCE INSTALLATION AND THE EXISTING WATER MAIN IS NOT POLYETHYLENE ENCASED, THE CONTRACTOR SHALL INSTALL ONE SACRIFICIAL ANODE ON THE EXISTING PIPE. IF THE NEW FITTING IS INSTALLED IN-LINE WITH THE EXISTING WATER MAIN, SUCH AS AT A CUT-IN TEE OR VALVE INSERTION, ONE ANODE SHALL BE INSTALLED ON THE EXISTING PIPE TO EACH SIDE OF THE NEW FITTING. EACH ANODE INSTALLED ON EXISTING WATER MAIN WILL BE PAID FOR AS "SACRIFICIAL ANODE, XX LB"

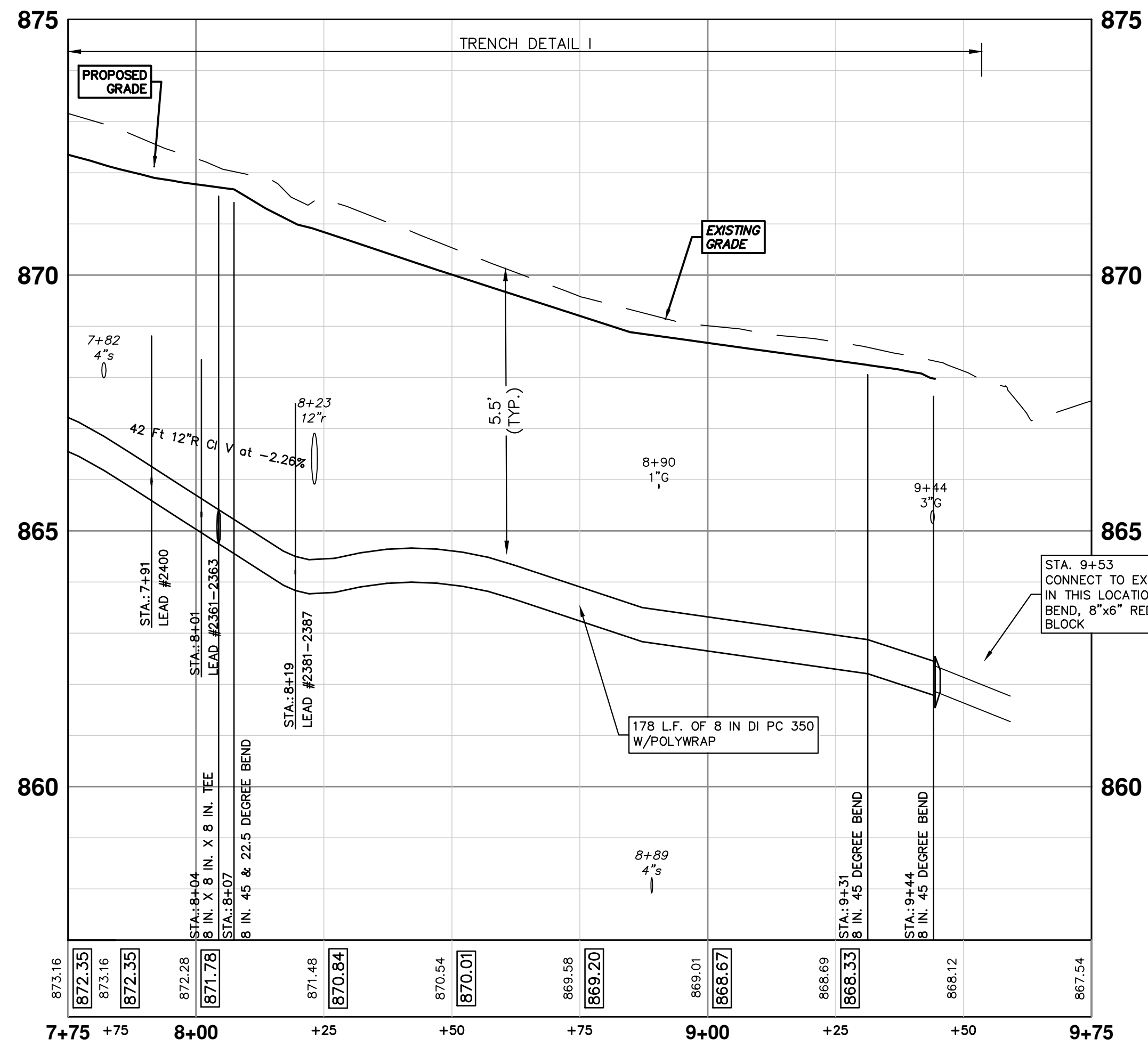
REMOVE EX. 2" BLOW-OFF, CAP, AND PIPE AS NEEDED TO FACILITATE PLANNED WORK

PRIOR TO CONNECTION TO EX. WATER MAIN, THE CONTRACTOR SHALL VIGOROUSLY FLUSH THE EX. 6" WATER MAIN STUB VIA HOSE CONNECTION INTO STORM STRUCTURE 92-50750 FOR A MIN. OF 24 HRS.

STA. 9+53  
 CONNECT TO EX. 6" WATER MAIN STUB IN THIS LOCATION WITH 8" 45° HOR. BEND, 8"x6" REDUCER AND THRUST BLOCK

Sta: 9+45  
 8 IN. X 6 IN. REDUCER  
 Sta: 9+44  
 8 IN. 45 DEGREE BEND

**CAUTION**  
 HAZARDOUS OR FLAMMABLE MATERIAL



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

01	OUT FOR BID	2-10-22	CCDF	FC	CHECKED
00	FINAL REVIEW	1-12-22	CCDF	FC	DRAWN
	REV.	DATE	DESCRIPTION		

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**STADIUM/WASHTEANAW AREA UTILITY IMPROVEMENTS**

STADIUM SERVICE DR WATER MAIN PLAN AND PROFILE

SCALE PLAN: 1" = 20'  
 PROFILE: 1" = 2'

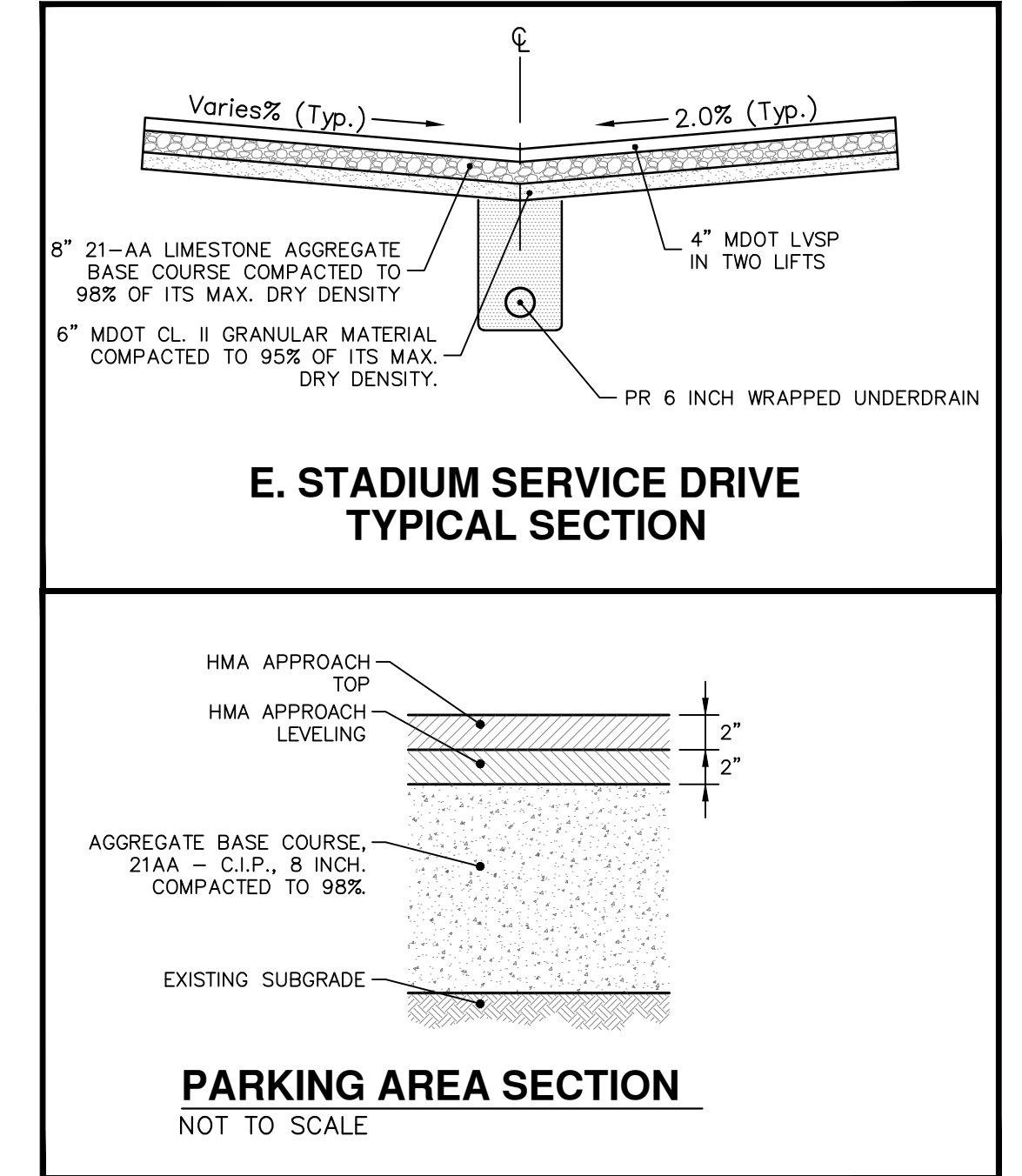
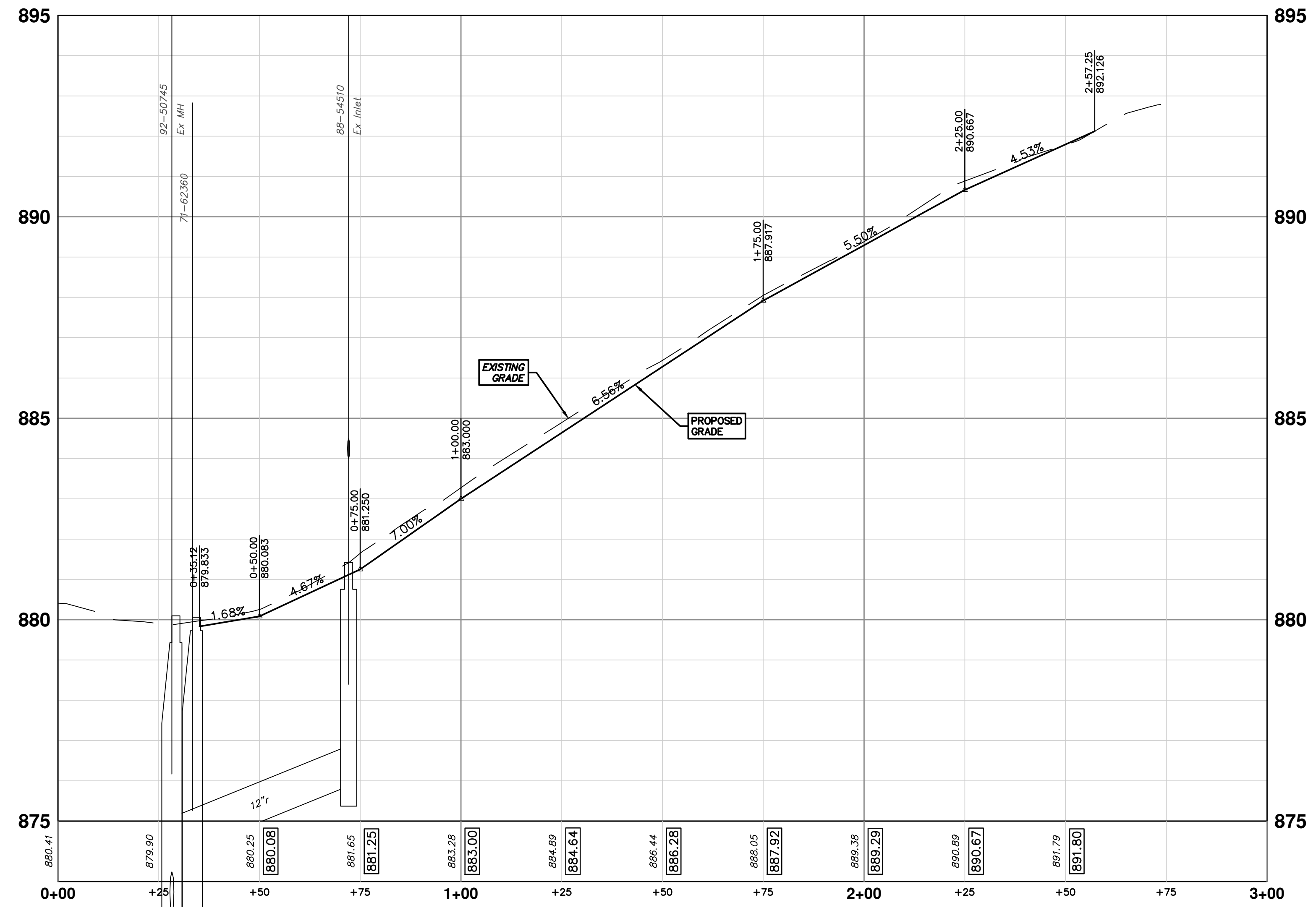
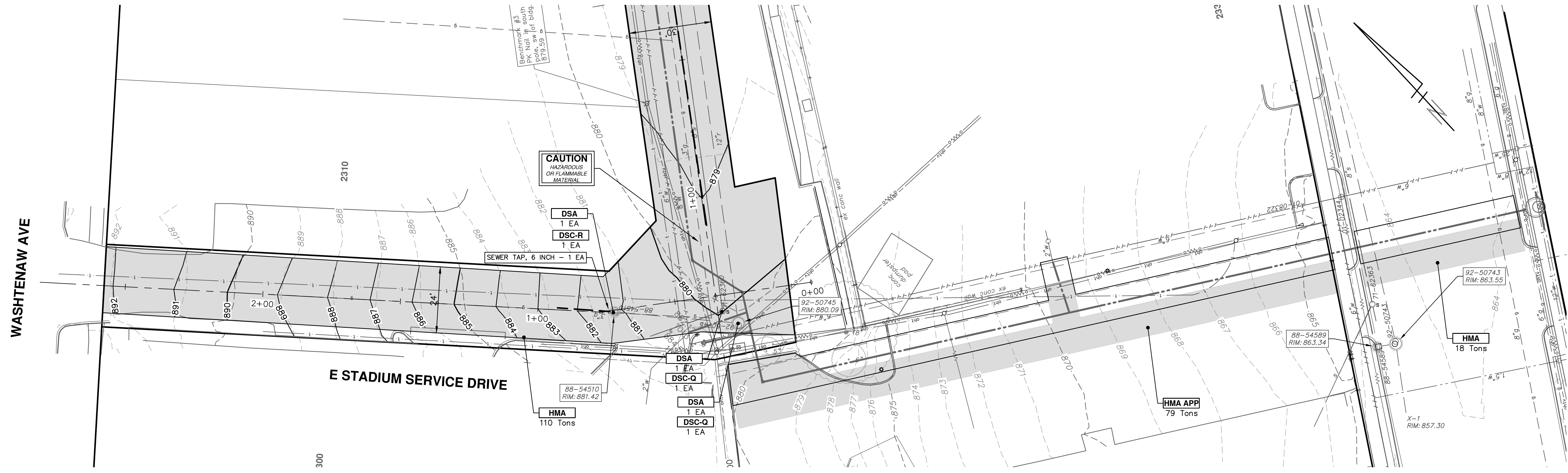
DRAWING NO. 2021011-21

SHEET NO. 21 OF 37

**CITY OF ANN ARBOR**  
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 301 EAST HURON STREET  
 P.O. BOX 8647  
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 WWW.A2GOV.ORG

**STA. 7+75 - STA. 9+53**

R:\2021011 StadiumWasht Area Util Impr\Plan Production\2021011PRd.dwg Dwg Created: 19-Jan-22 - \_a2 standard bw.stb - Plot Date: 9-Feb-22



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

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	OUT FOR BID	2-10-22	CCDF	FC
00	FINAL REVIEW	1-12-22	CCDF	FC

**CITY OF ANN ARBOR PUBLIC SERVICES**  
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 ANN ARBOR, MI 48106-1647  
 www.a2gov.org

**CITY OF ANN ARBOR MICHIGAN**

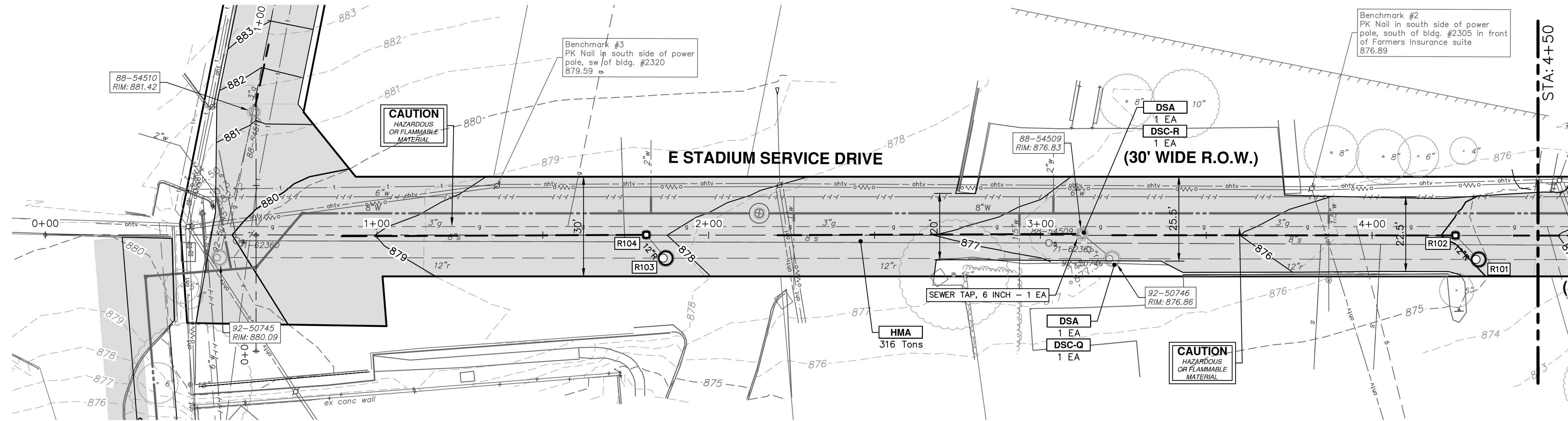
**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS**  
 STADIUM SERVICE DR PROPOSED GRADING PLAN  
 STA. 0+00 - STA. 3+00

SCALE PLAN: 1" = 20'  
 PROFILE: 1" = 2'

DRAWING No. **2021011-22**

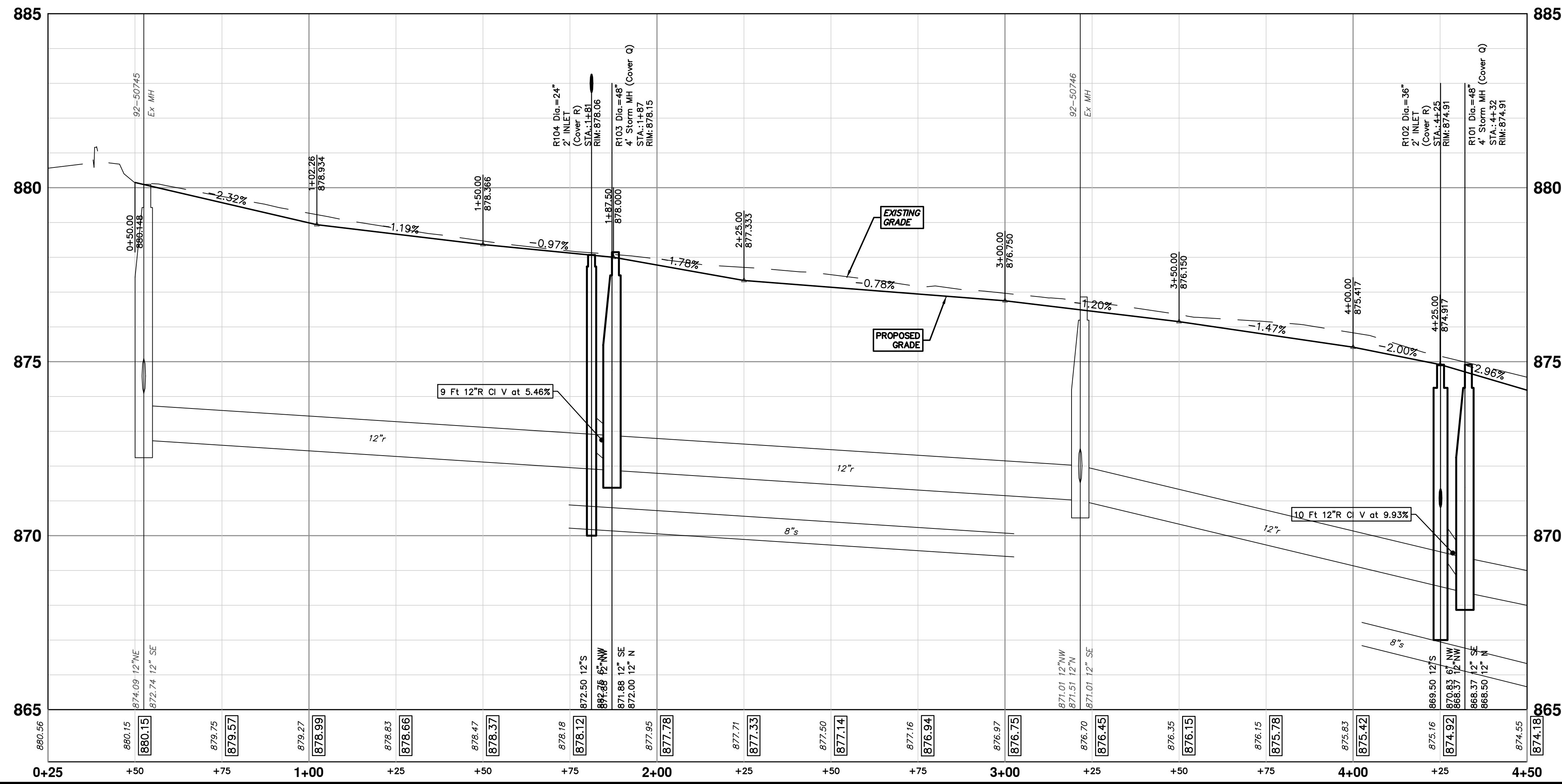
SHEET No. **22 OF 37**

R:\2021011 StadiumWasht Area Util Impr\Plan Production\2021011PRd.dwg Dwg Created: 19-Jan-22 - \_a2 standard bw.stb - Plot Date: 9-Feb-22



STORM SEWER STRUCTURE TABLE						
STRUCTURE	UTILITY STATION	INVERT ELEVATION, SIZE & DIRECTION	TOP OF CASTING ELEVATION	DEPTH (Feet)	SIZE	APPLICATION/CONSTRUCTION
R101	4+32	12" SE 868.37 12" N 868.50 12" NW 868.37	874.91	6.55	48" Dia.	4' Storm MH (Cover Q)
R103	1+87	12" SE 871.88 12" N 872.00 12" NW 871.88	878.15	6.27	48" Dia.	4' Storm MH (Cover Q)

STORM STRUCTURE TABLE					
STRUCTURE	TYPE	RIM	INVERTS	PIPE	SUMP
R102	2' INLET (Cover R)	874.91	12"S 869.50 6"NW 870.83	10 LF OF 12" @ 9.93% 104 LF OF 6" @ 1.57%	2'
R104	2' INLET (Cover R)	878.06	12"S 872.50 6"NW 882.75	9 LF OF 12" @ 5.46% 92 LF OF 6" @ 8.22%	2'



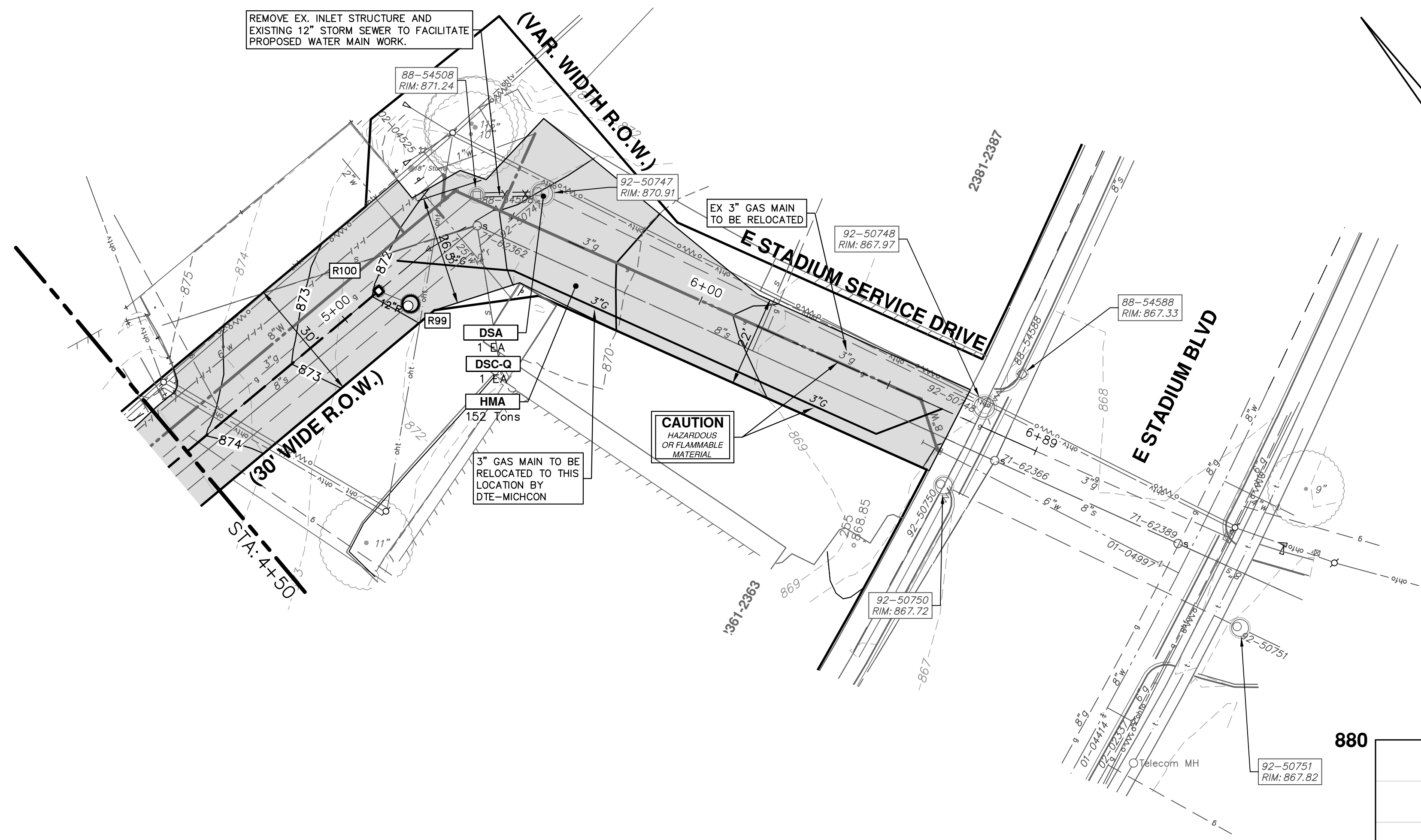
**811**  
Know what's below. Call before you dig.

01 OUT FOR BID 2-10-22 CCDF  
00 FINAL REVIEW 1-12-22 CCDF  
REV. DATE DESCRIPTION

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS  
STADIUM SERVICE DR PROPOSED GRADING PLAN  
STA. 0+25 - STA. 4+50

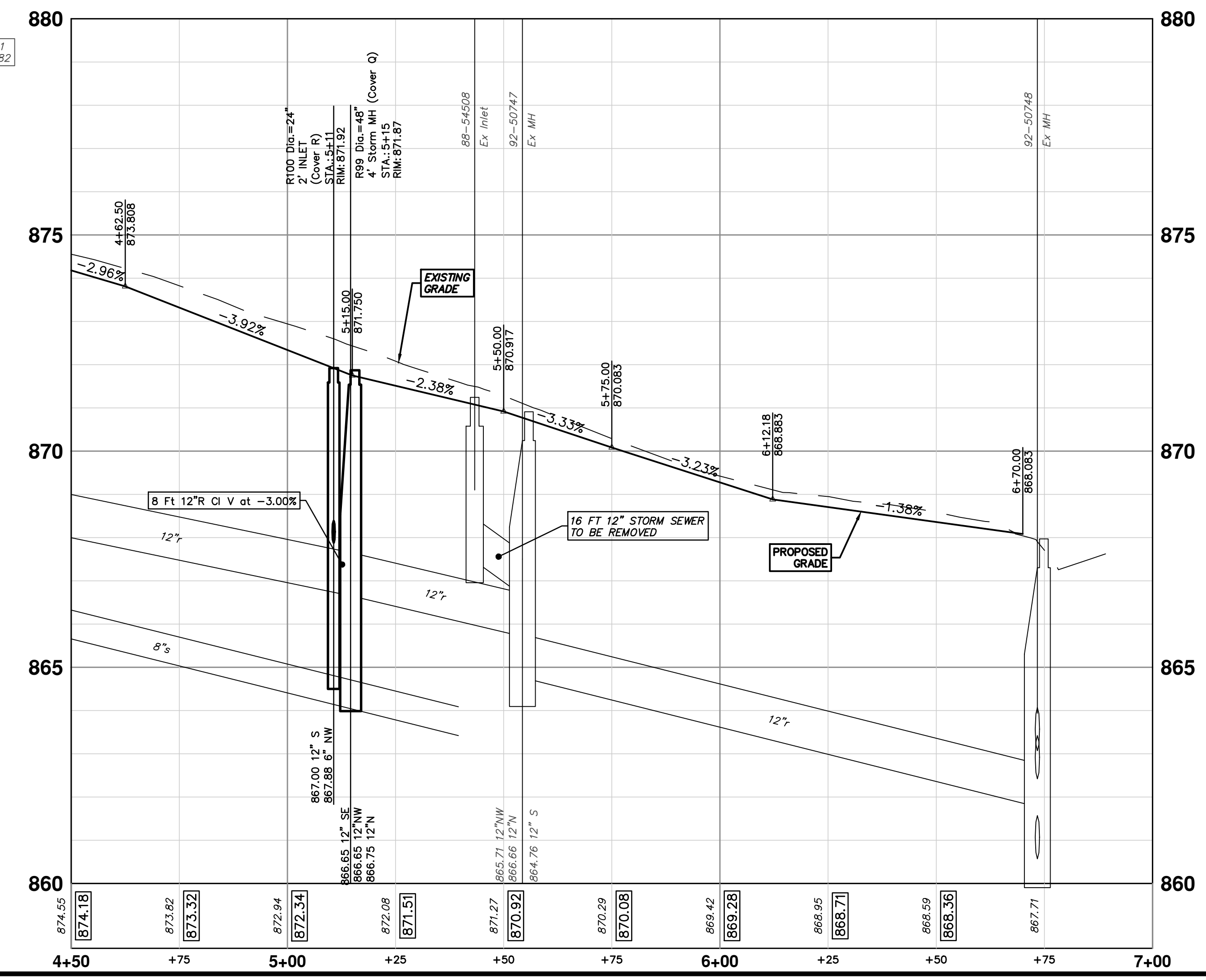
SCALE PLAN: #####  
PROFILE: 1" = 2'  
DRAWING NO. 2021011-23

SHEET NO. 23 OF 37



STORM SEWER STRUCTURE TABLE						
STRUCTURE	UTILITY STATION	INVERT ELEVATION, SIZE & DIRECTION	TOP OF CASTING ELEVATION	DEPTH (Feet)	SIZE	APPLICATION/CONSTRUCTION
92-50747	5+54	12" S 864.76 12" NW 865.71 12" N 866.66	870.91	6.15	60" Dia.	Ex MH
R99	5+15	12" SE 866.65 12" NW 866.65 12" N 866.75	871.87	7.22	48" Dia.	4' Storm MH (Cover Q)

STORM STRUCTURE TABLE					
STRUCTURE	TYPE	RIM	INVERTS	PIPE	SUMP
R100	2' INLET (Cover R)	871.92	12"S 867.00 6"NW 867.88	8 LF OF 12" @ 3.00% 68 LF OF 6" @ 3.64%	2'



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

01	OUT FOR BID	2-10-22	CC,DF	FC	CHECKED
00	FINAL REVIEW	1-12-22	CC,DF	FC	DRAWN
	REV.				DESCRIPTION

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS  
STADIUM SERVICE DR PROPOSED GRADING PLAN

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'

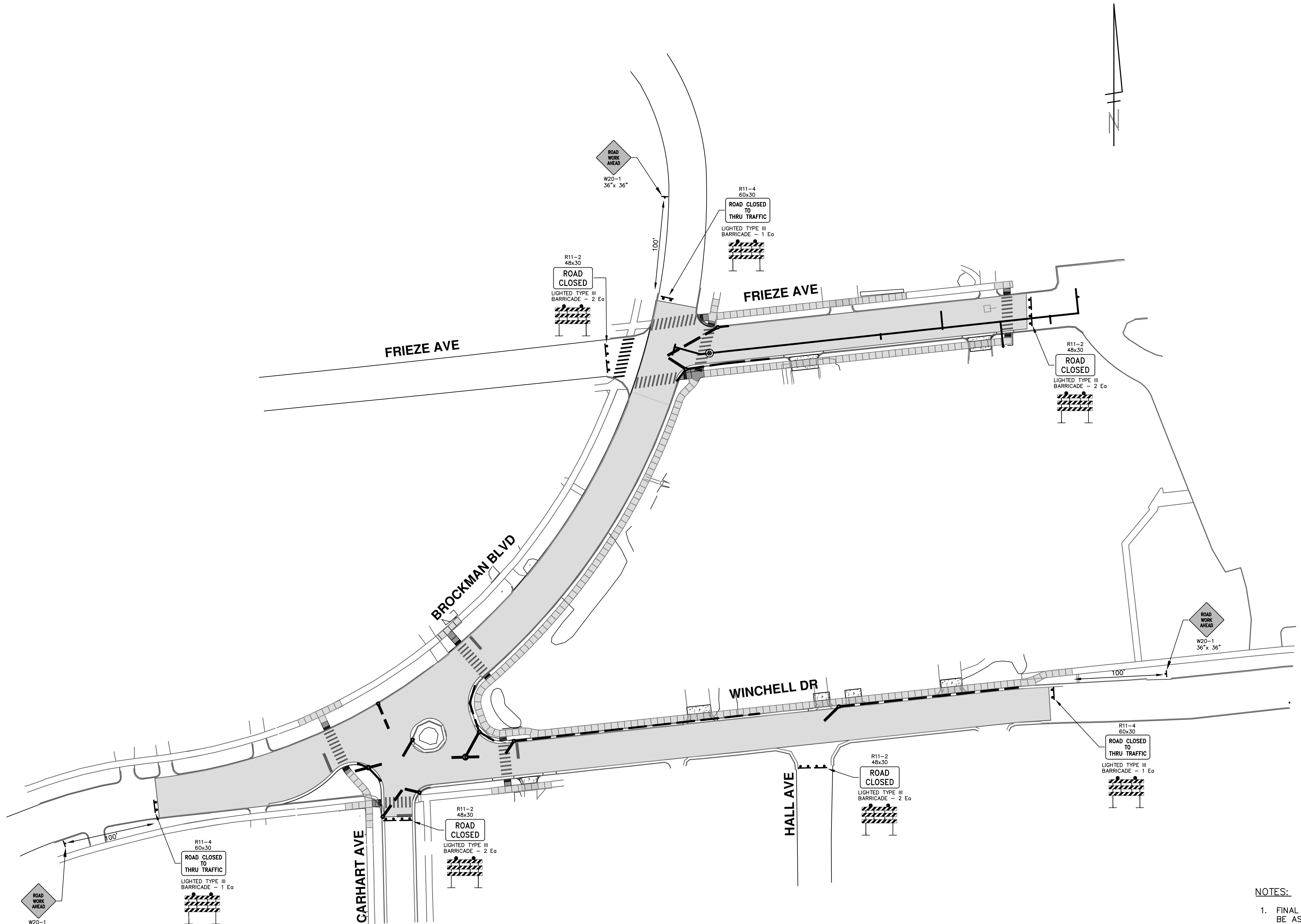
DRAWING No. **2021011-24**

STA. 4+50 - POE

SHEET No. **24 OF 37**



R:\20210111 Frieze\Plan Production\20210111Mtrf.dwg Dwg Created: 1-Feb-22 - \_a2 standard bw.stb - Plot Date: 9-Feb-22



**ADDITIONAL SIGNAGE FOR WATER MAIN TIE-IN AT STREET INTERSECTIONS**

SIGN	NUMBER	QUANTITY
ROAD CLOSED	R11-2 48"x30"	3

BARRICADE, TYPE III, HIGH INTENSITY, LIGHTED - 7 EACH

- NOTES:**
1. FINAL LIMITS OF PAVEMENT REMOVAL FOR UTILITY INSTALLATION WILL BE AS DIRECTED BY ENGINEER.
  2. UTILIZE PLASTIC DRUMS AND PROTECTIVE FENCING WITHIN WORK ZONE TO DELINEATE OPEN TRENCHES AS DIRECTED BY ENGINEER.
  3. MAINTAIN PEDESTRIAN ACCESS DURING CONSTRUCTION.
  4. COVER CONFLICTING SIGNS AS NEEDED OR AS DIRECTED BY ENGINEER.
  5. REMOVE CONFLICTING PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER.
  6. CONTRACTOR SHALL PLACE PORTABLE, CHANGEABLE MESSAGE SIGNS A MINIMUM OF ONE (1) WEEK PRIOR TO THE START OF CONSTRUCTION IN LOCATIONS INDICATED BY ENGINEER. MESSAGE TO BE PROVIDED BY THE ENGINEER.

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS**

BROCKMAN BLVD WINCHELL DR FRIEZE AVE

TRAFFIC CONTROL

SCALE PLAN: 1" = 150'

DRAWING No. 2021011-25

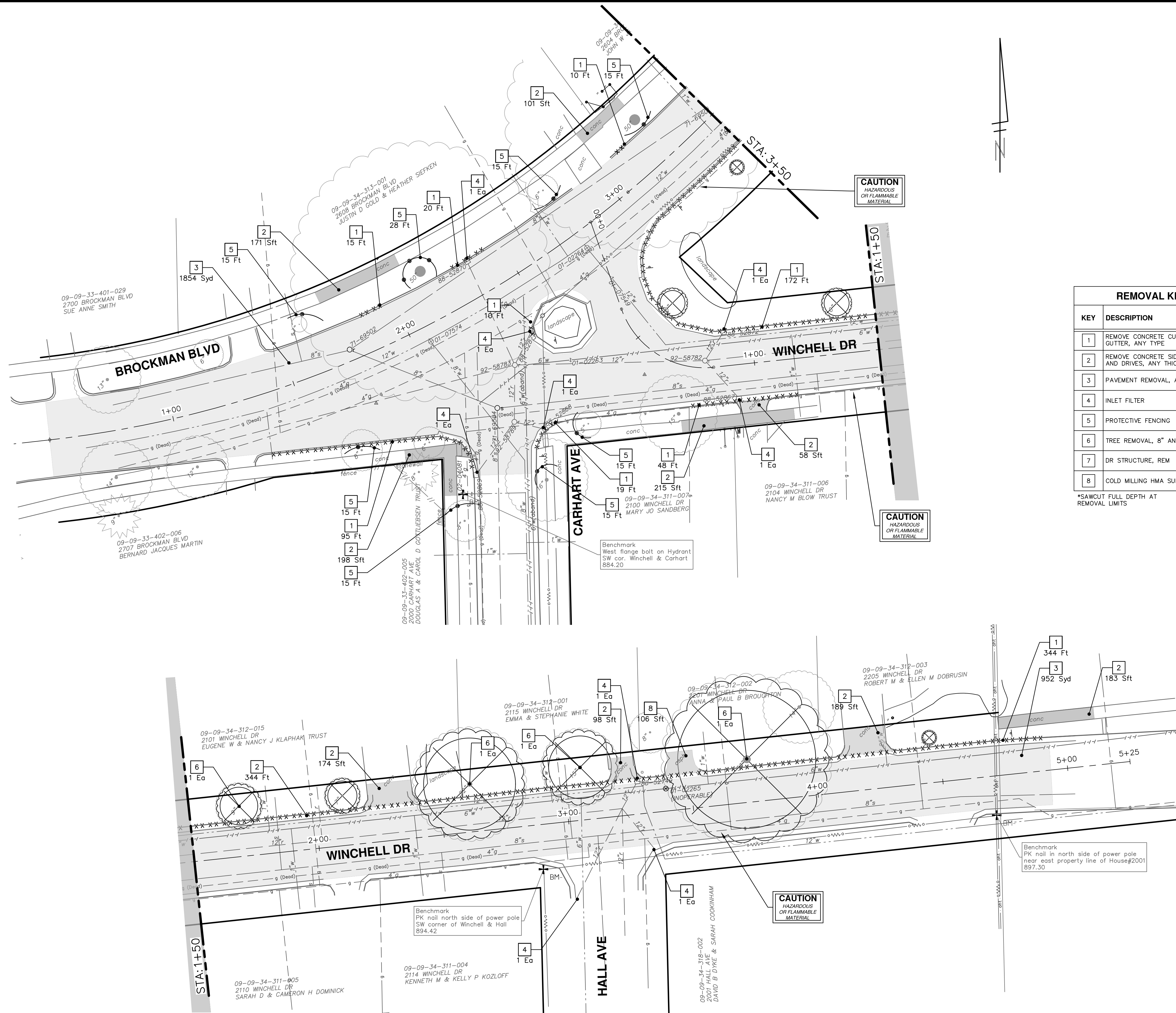
SHEET No. 25 OF 37

**811**  
Know what's below.  
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REV.	DATE	DESCRIPTION
01	2-10-22	OUT FOR BID
00	1-12-22	FINAL REVIEW


CITY OF ANN ARBOR  
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 ANN ARBOR 734-794-4410  
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R:\2021011 Frieze\Plan Production\2021011Rem.dwg Dwg Created: 9-Feb-22 - \_a2 standard bw.sib - Plot Date: 9-Feb-22



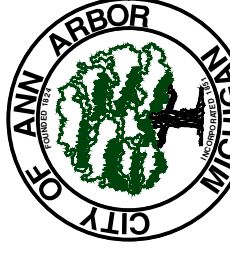
REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB & GUTTER, ANY TYPE
2	REMOVE CONCRETE SIDEWALK, RAMP AND DRIVES, ANY THICKNESS
3	PAVEMENT REMOVAL, ANY DEPTH
4	INLET FILTER
5	PROTECTIVE FENCING
6	TREE REMOVAL, 8" AND LARGER
7	DR STRUCTURE, REM
8	COLD MILLING HMA SURFACE

\*SAWCUT FULL DEPTH AT REMOVAL LIMITS



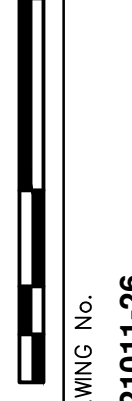
Know what's below.  
Call Before you dig.

01	OUT FOR BID	CCDF	FC	CHECKED
00	FINAL REVIEW	CCDF	FC	CHECKED
			DATE	DATE



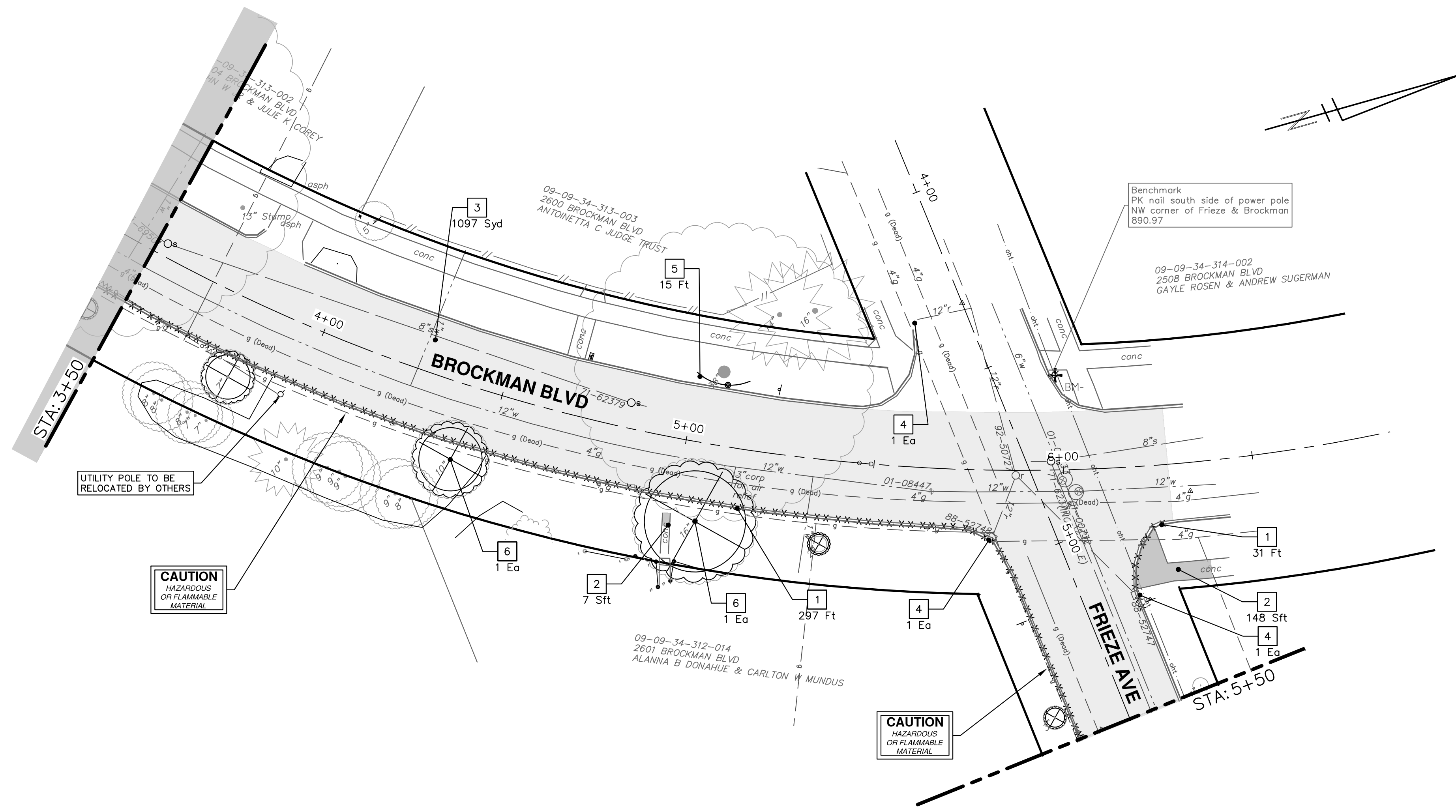
**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS**  
 WINCHELL BROCKMAN FRIEZE REMOVALS  
 BROCKMAN BLVD AND WINCHELL DR

SCALE: 1" = 20'



DRAWING No. **2021011-26**  
 SHEET No. **26 OF 37**

R:\2021011 Frieze\Plan Production\2021011Rem.dwg Dwg Created: 9-Feb-22 - \_a2\_standard bw.stb - Plot Date: 9-Feb-22



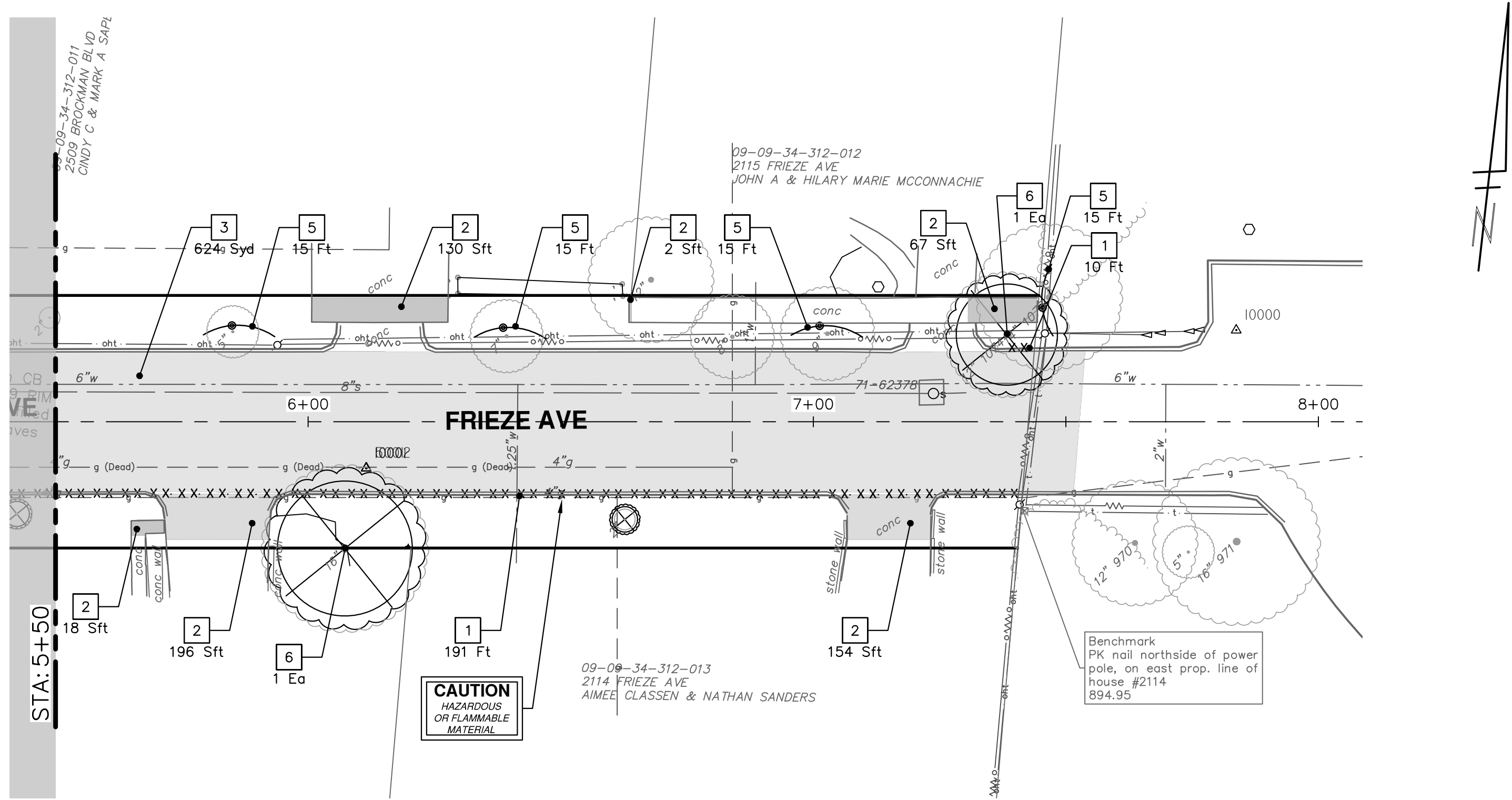
UTILITY POLE TO BE RELOCATED BY OTHERS

**CAUTION**  
HAZARDOUS  
OR FLAMMABLE  
MATERIAL

**CAUTION**  
HAZARDOUS  
OR FLAMMABLE  
MATERIAL

REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB & GUTTER, ANY TYPE
2	REMOVE CONCRETE SIDEWALK, RAMP AND DRIVES, ANY THICKNESS
3	PAVEMENT REMOVAL, ANY DEPTH
4	INLET FILTER
5	PROTECTIVE FENCING
6	TREE REMOVAL, 8" AND LARGER
7	DR STRUCTURE, REM
8	COLD MILLING HMA SURFACE

\*SAWCUT FULL DEPTH AT REMOVAL LIMITS



**CAUTION**  
HAZARDOUS  
OR FLAMMABLE  
MATERIAL

Benchmark  
PK nail northside of power pole, on east prop. line of house #2114  
894.95

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

REV.	DATE	DESCRIPTION
01	2-10-22	OUT FOR BID
00	1-12-22	FINAL REVIEW

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS**

WINCHELL BROCKMAN FRIEZE REMOVALS

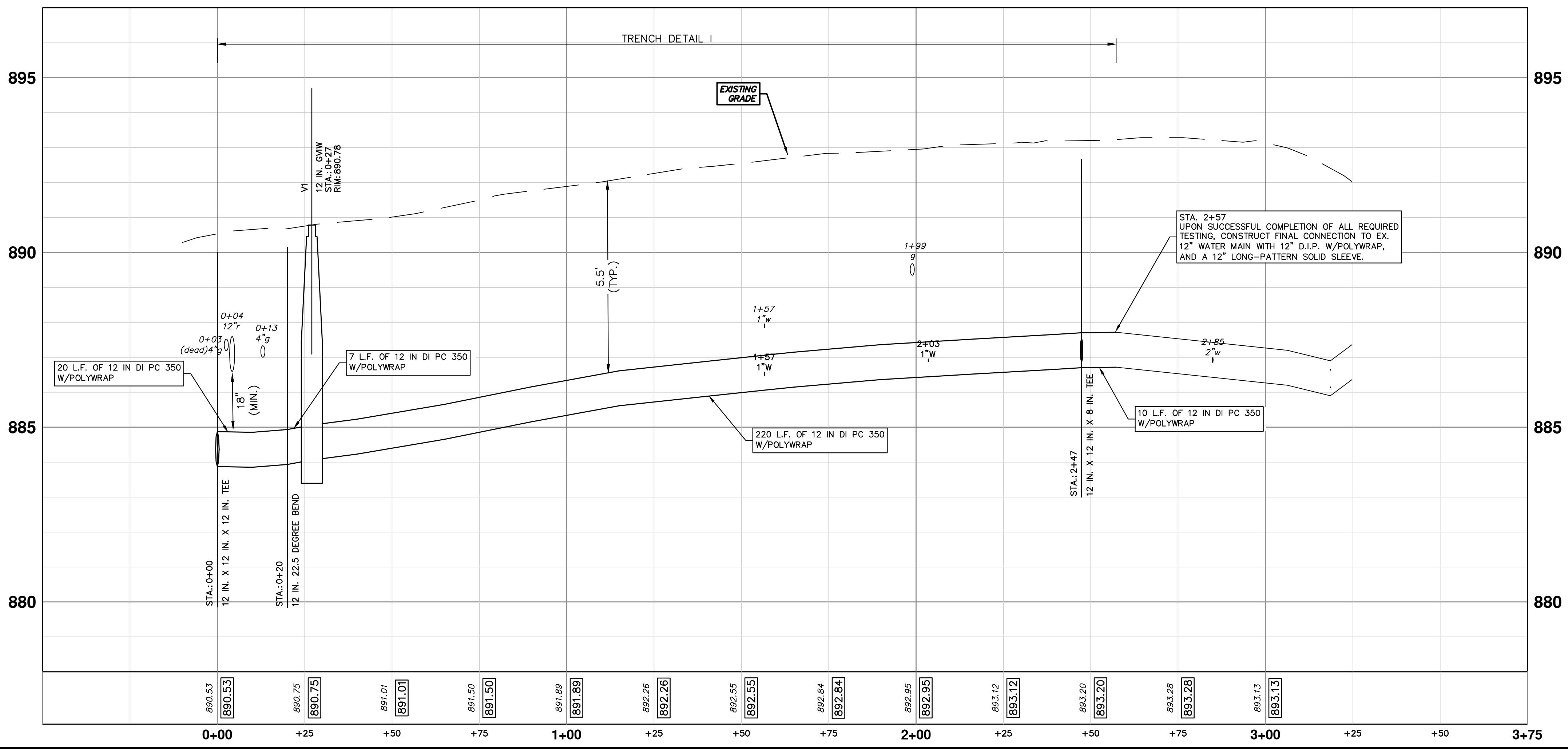
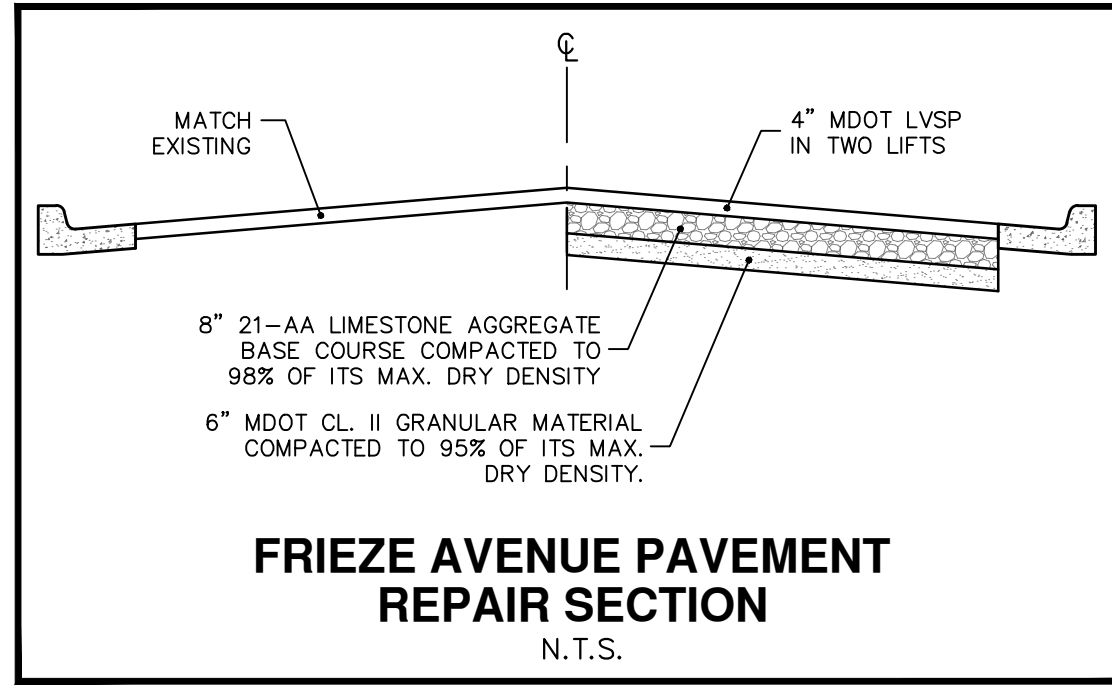
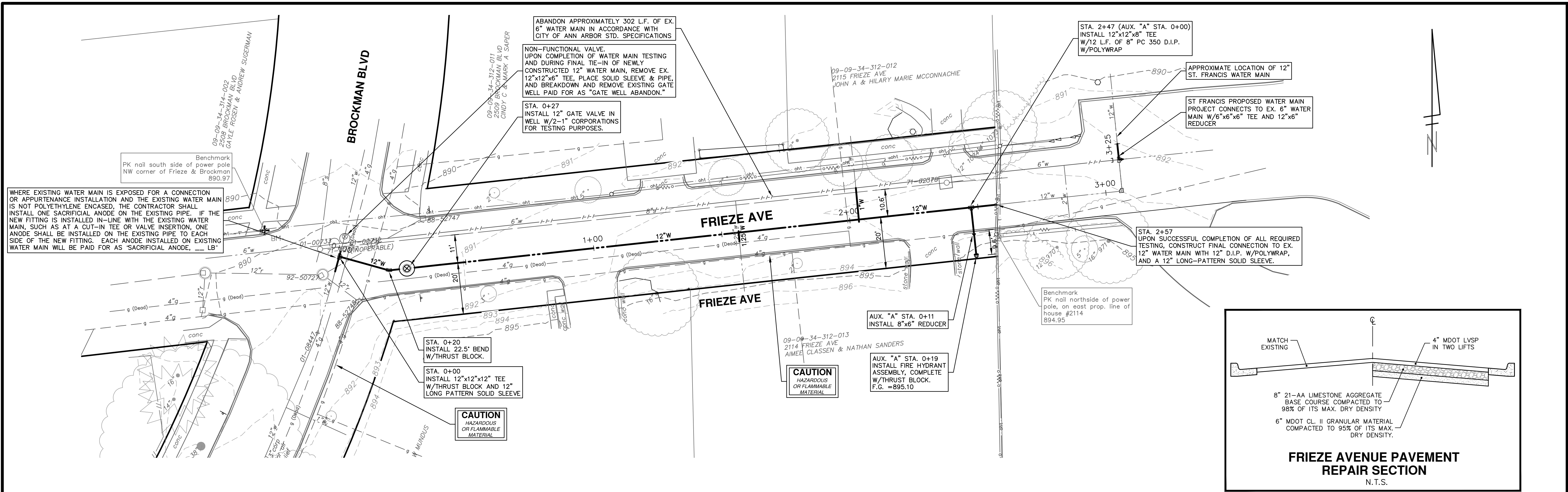
BROCKMAN BLVD AND FRIEZE AVE

SHEET No. **27 OF 37**

SCALE: 1" = 20'

DRAWING No. **2021011-27**

R:\2021011 Frieze\Plan Production\2021011Watr.dwg Dwg Created: 1-Feb-22 - \_a2 standard bw.stb - Plot Date: 9-Feb-22



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

01	OUT FOR BID	2-10-22	CC.DF	FC	CHECKED
00	FINAL REVIEW	1-12-22	CC.DF	FC	DRAWN
REV.	DESCRIPTION	DATE	DRAWN	CHECKED	

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**STADIUM/WASHTEANAW AREA UTILITY IMPROVEMENTS**

**FRIEZE AVE WATER MAIN PLAN AND PROFILE**

**STA. 0+00 - STA. 2+84**

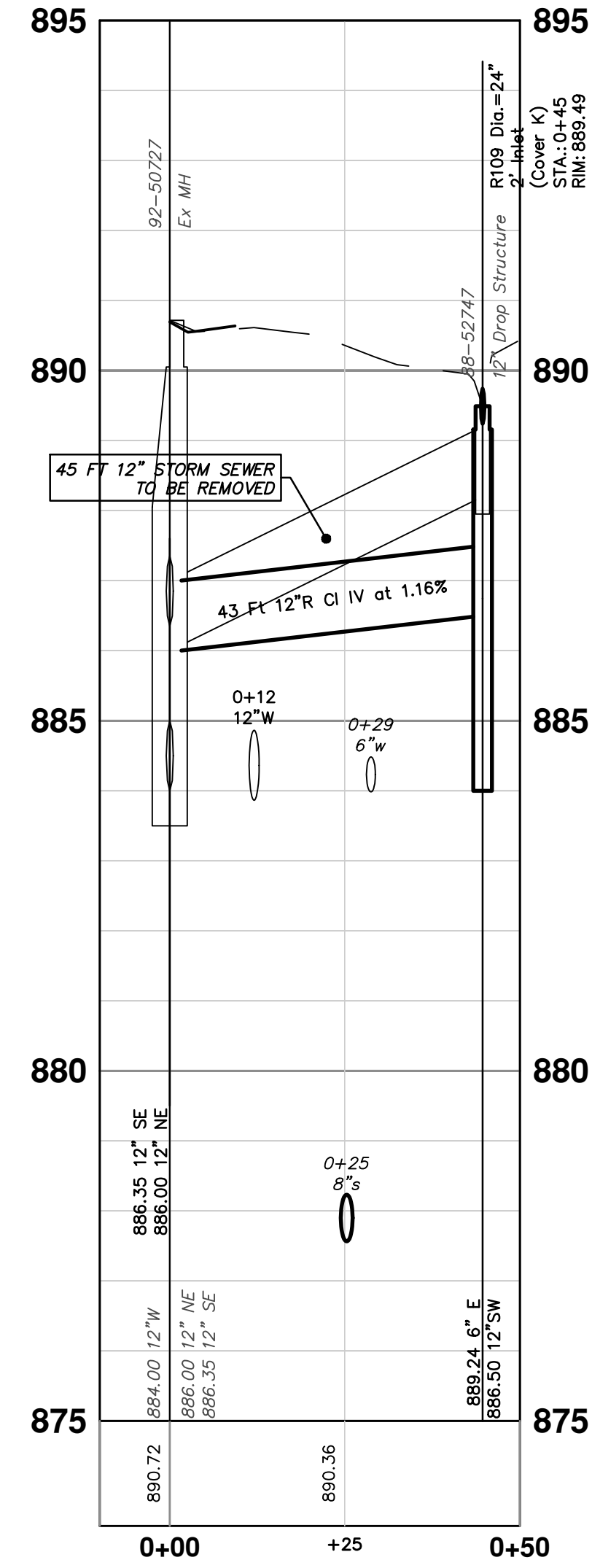
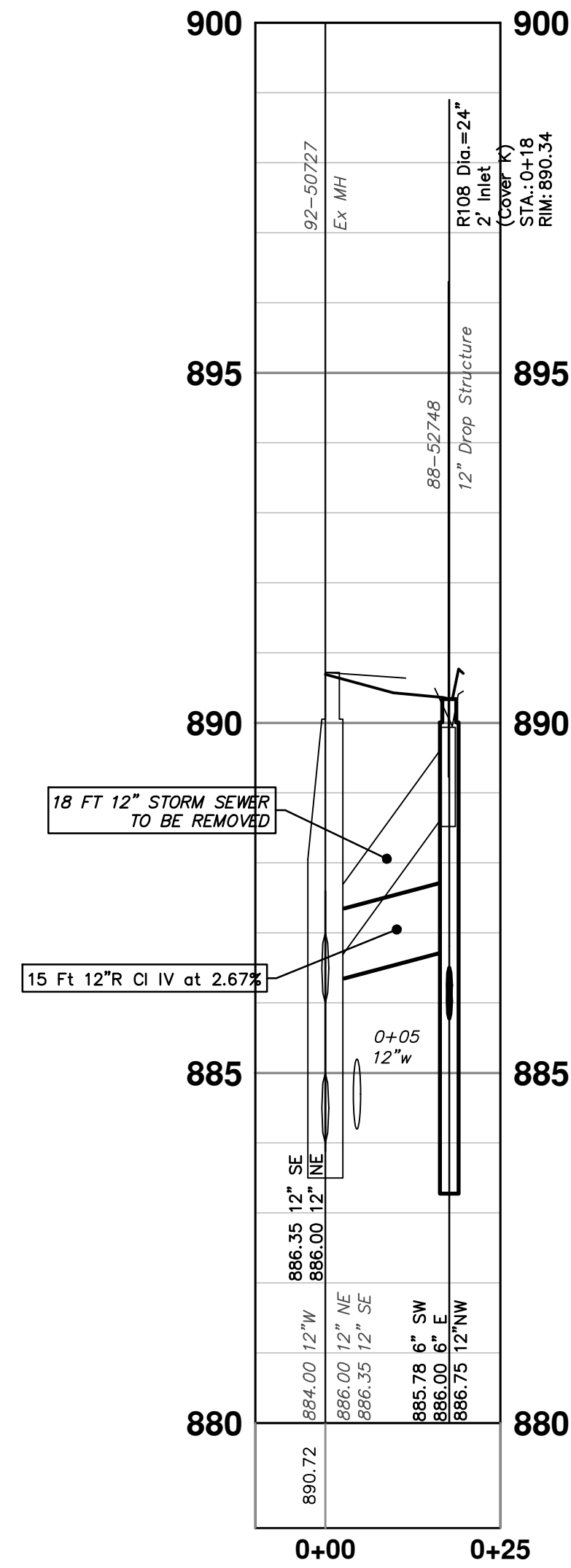
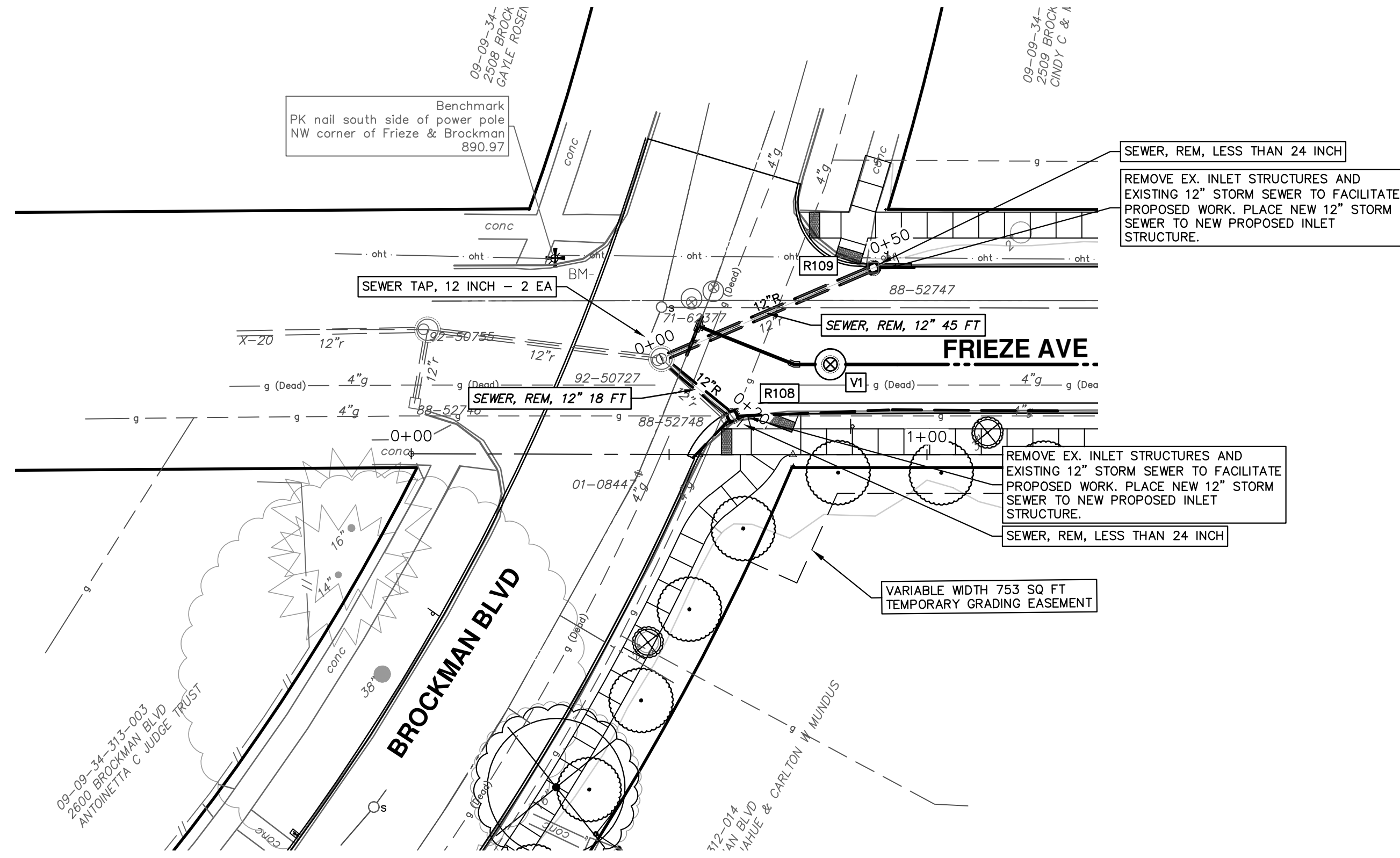
**CITY OF ANN ARBOR PUBLIC SERVICES 301 EAST HURON STREET ANN ARBOR MI 48106-1007 734.794.6410 www.a3gov.org**

**SCALE PLAN: 1" = 20'**

**PROFILE: 1" = 2'**

**DRAWING NO. 2021011-28**

**SHEET NO. 28 OF 37**



STRUCTURE	DEPTH (Feet)	REMOVE
88-52747	1.29	12" Drop Structure
88-52748	1.17	12" Drop Structure

STRUCTURE	UTILITY STATION	INVERT ELEVATION, SIZE & DIRECTION	TOP OF CASTING ELEVATION	DEPTH (Feet)	SIZE	APPLICATION/CONSTRUCTION
R108	0+18	6" SW 885.78 6" E 886.00 12" NW 886.75	890.34	6.56	24" Dia.	2' Inlet (Cover K)
R109	0+45	6" E 889.24 12" SW 886.50	889.49	4.99	24" Dia.	2' Inlet (Cover K)
92-50727	0+00	12" NE 886.00 12" SE 886.35 12" W 884.00	890.72	6.72	48" Dia.	Ex MH

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS

WINCHELL BROCKMAN FRIEZE STORM SEWER

FRIEZE AVE

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'

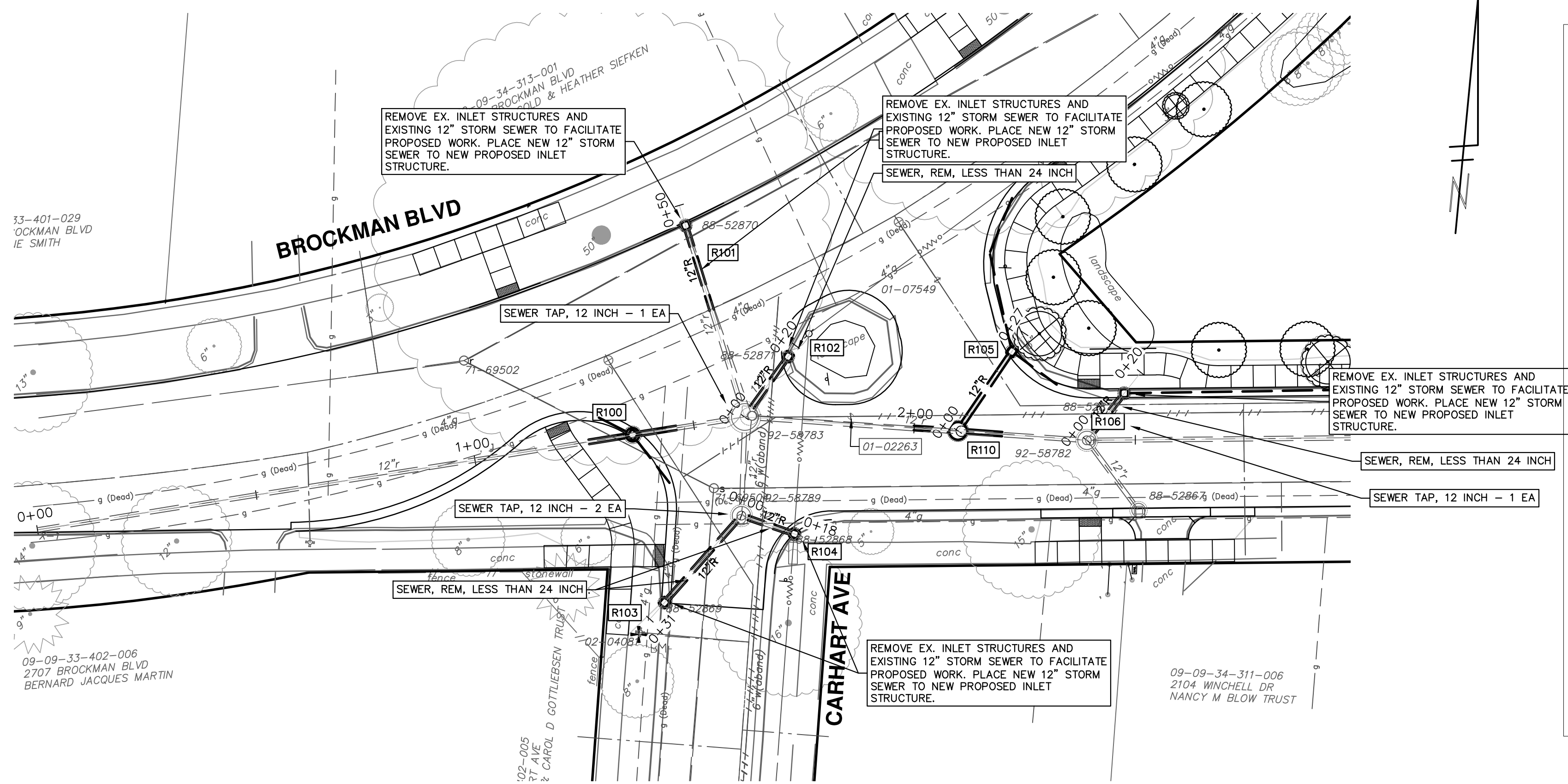
DRAWING No. 2021011-29

SHEET No. 29 OF 37

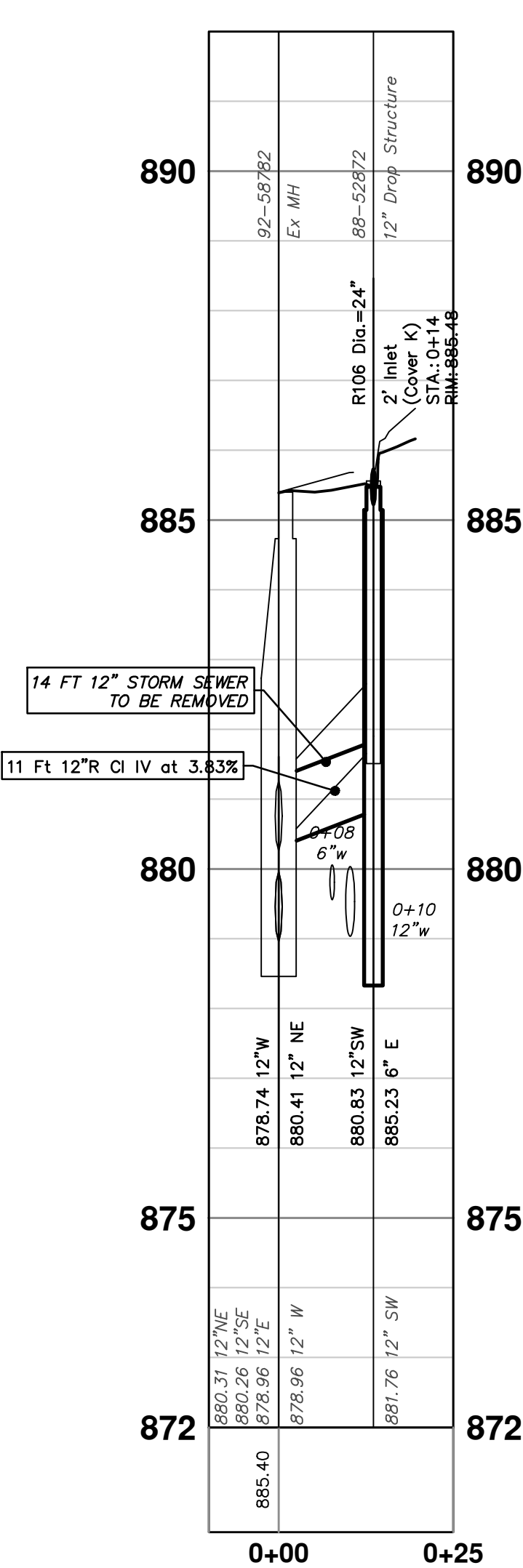
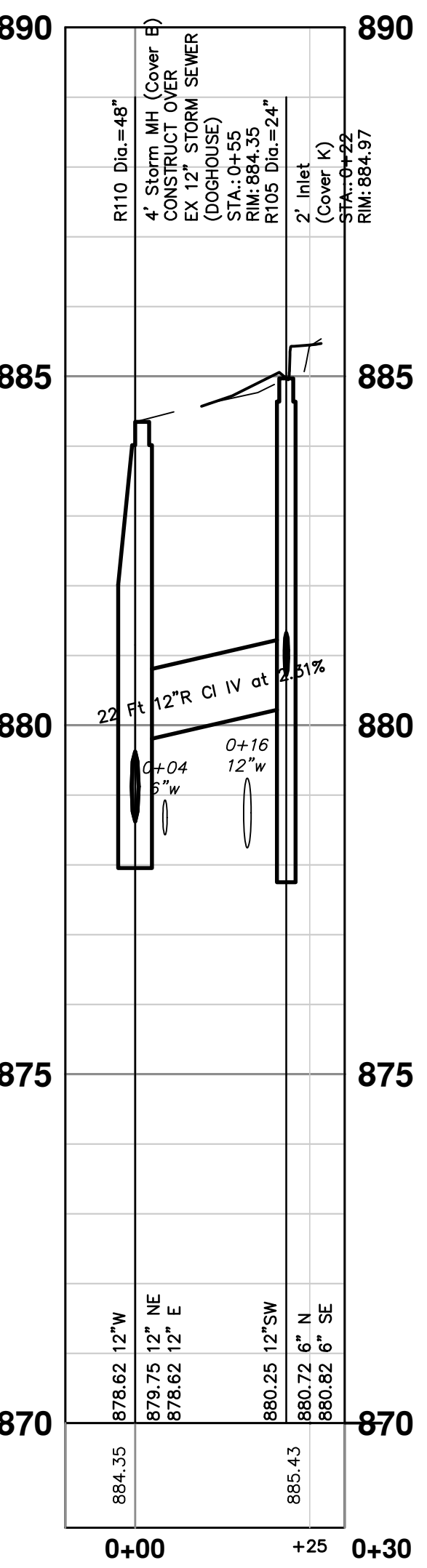
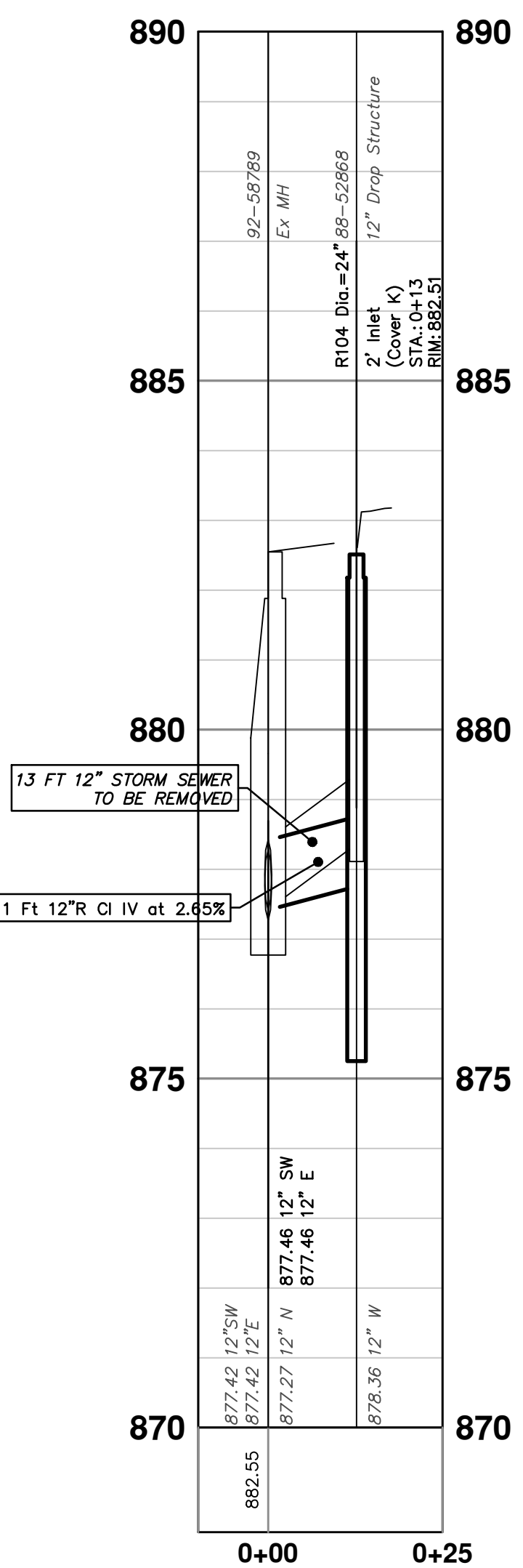
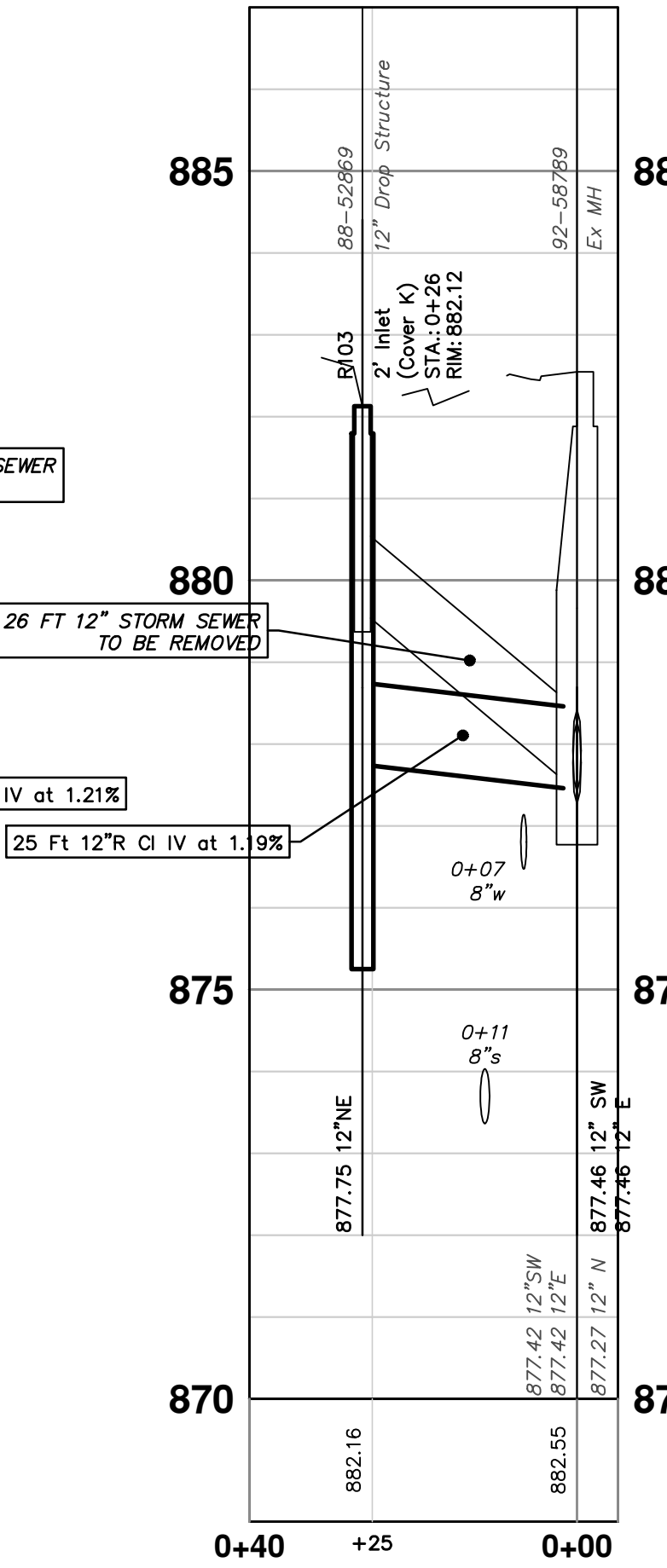
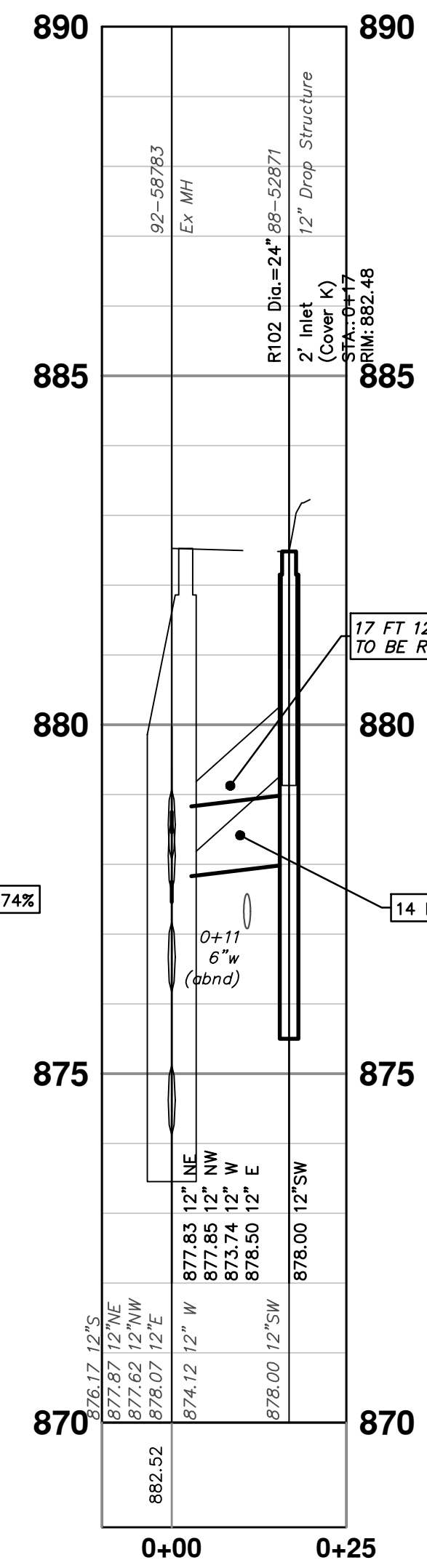
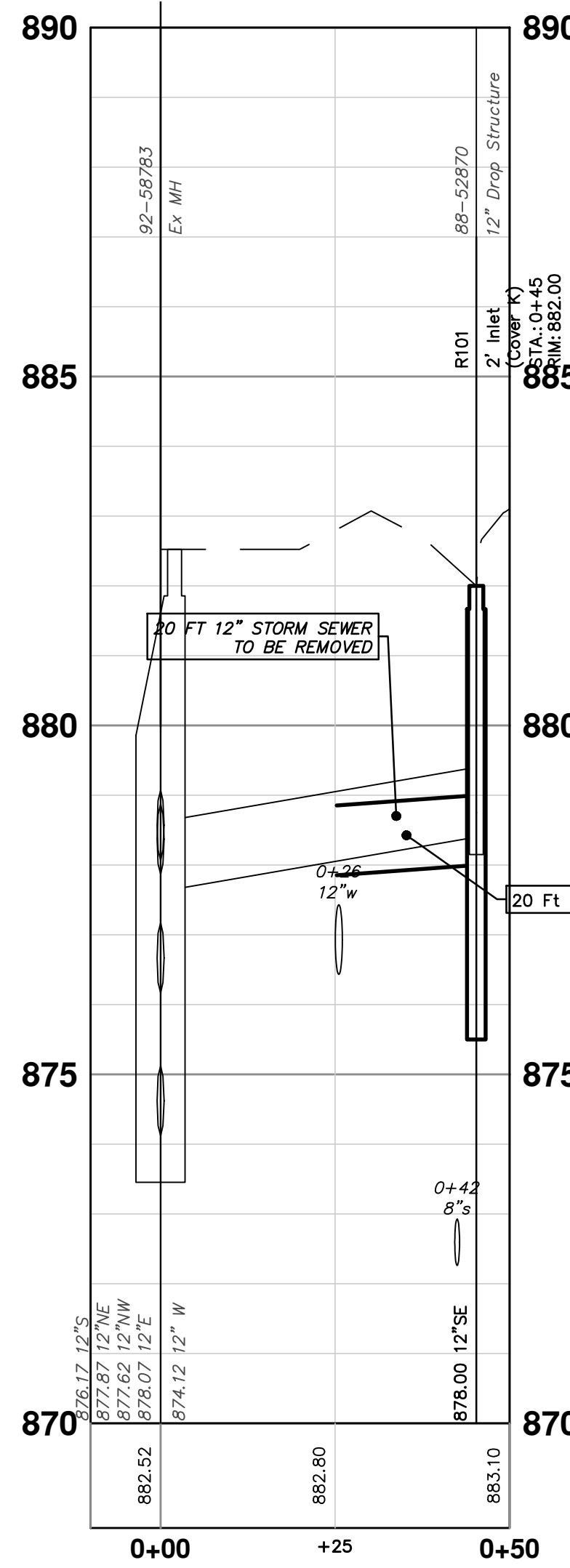
CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-8647  
www.a2gov.org

DATE: 2-10-22  
DRAWN: CC,DF  
CHECKED: FC,FC

REV. 00 FINAL REVIEW  
01 OUT FOR BID



STORM SEWER STRUCTURE TABLE						
STRUCTURE	UTILITY STATION	INVERT ELEVATION, SIZE & DIRECTION	TOP OF CASTING ELEVATION	DEPTH (Feet)	SIZE	APPLICATION/CONSTRUCTION
R100	1+36	12" E 873.50 6" SE 877.81 6" W 877.66 12" W 873.50	881.79	10.29	36" Dia.	3' Inlet Junction (Cover K) 2' Inlet (Cover K) CONSTRUCT OVER EX 12" STORM SEWER (DOGHOUSE)
R101	0+45	12" SE 878.00	882.00	6.00	24" Dia.	2' Inlet (Cover K)
R102	0+17	12" SW 878.00	882.48	6.48	24" Dia.	2' Inlet (Cover K)
R103	0+26	12" NE 877.75	882.12	6.37	24" Dia.	2' Inlet (Cover K)
R104	0+13	12" W 877.75	882.51	6.76	24" Dia.	2' Inlet (Cover K)
R105	0+22	6" N 880.72 6" SE 880.82 12" SW 880.25	884.97	6.72	24" Dia.	2' Inlet (Cover K)
R106	0+14	6" E 885.23 12" SW 880.83	885.48	6.65	24" Dia.	2' Inlet (Cover K)
R110	0+55	12" NE 879.75 12" E 878.62 12" W 878.62	884.35	5.73	48" Dia.	4' Storm MH (Cover B) CONSTRUCT OVER EX 12" STORM SEWER (DOGHOUSE)



EXISTING STORM SEWER STRUCTURE REMOVAL TABLE		
STRUCTURE	DEPTH (Feet)	REMOVE
88-52872	3.80	12" Drop Structure
88-52870	3.60	12" Drop Structure
88-52869	2.50	12" Drop Structure
88-52871	3.10	12" Drop Structure
88-52868	4.15	12" Drop Structure

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS

WINCHELL BROCKMAN FRIEZE STORM SEWER

BROCKMAN BLVD & WINCHELL DR

SHEET No. 30 OF 37

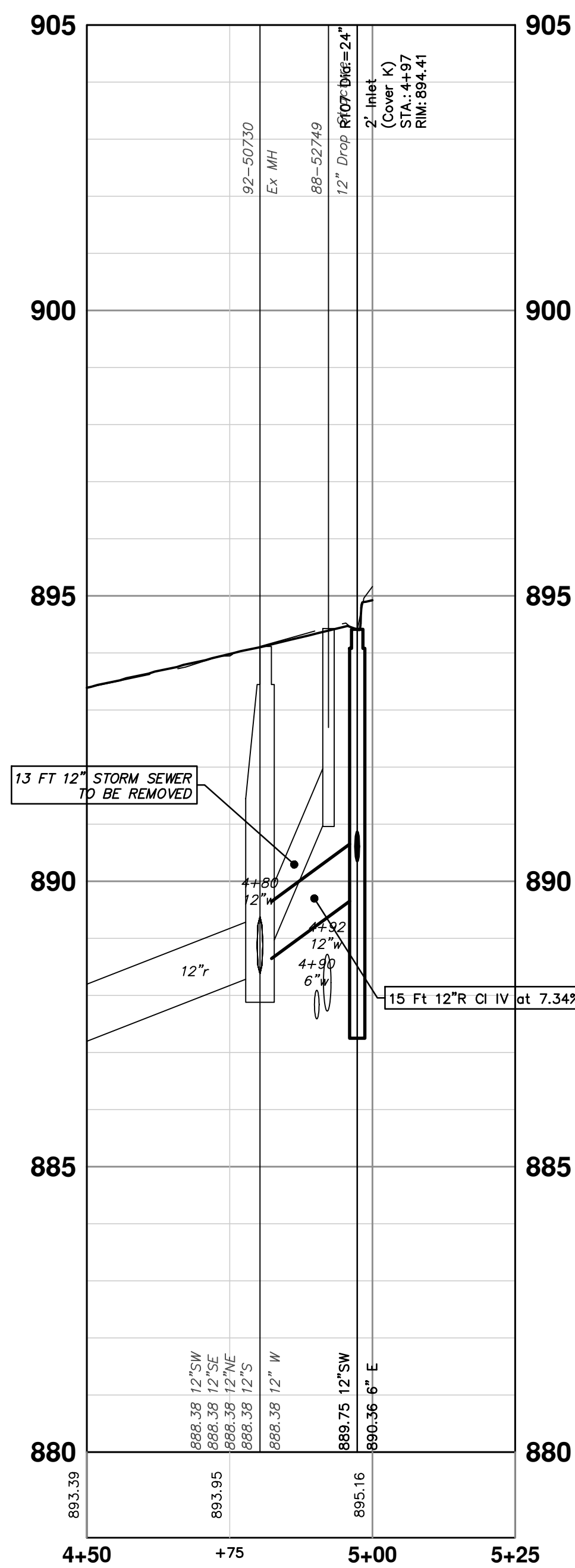
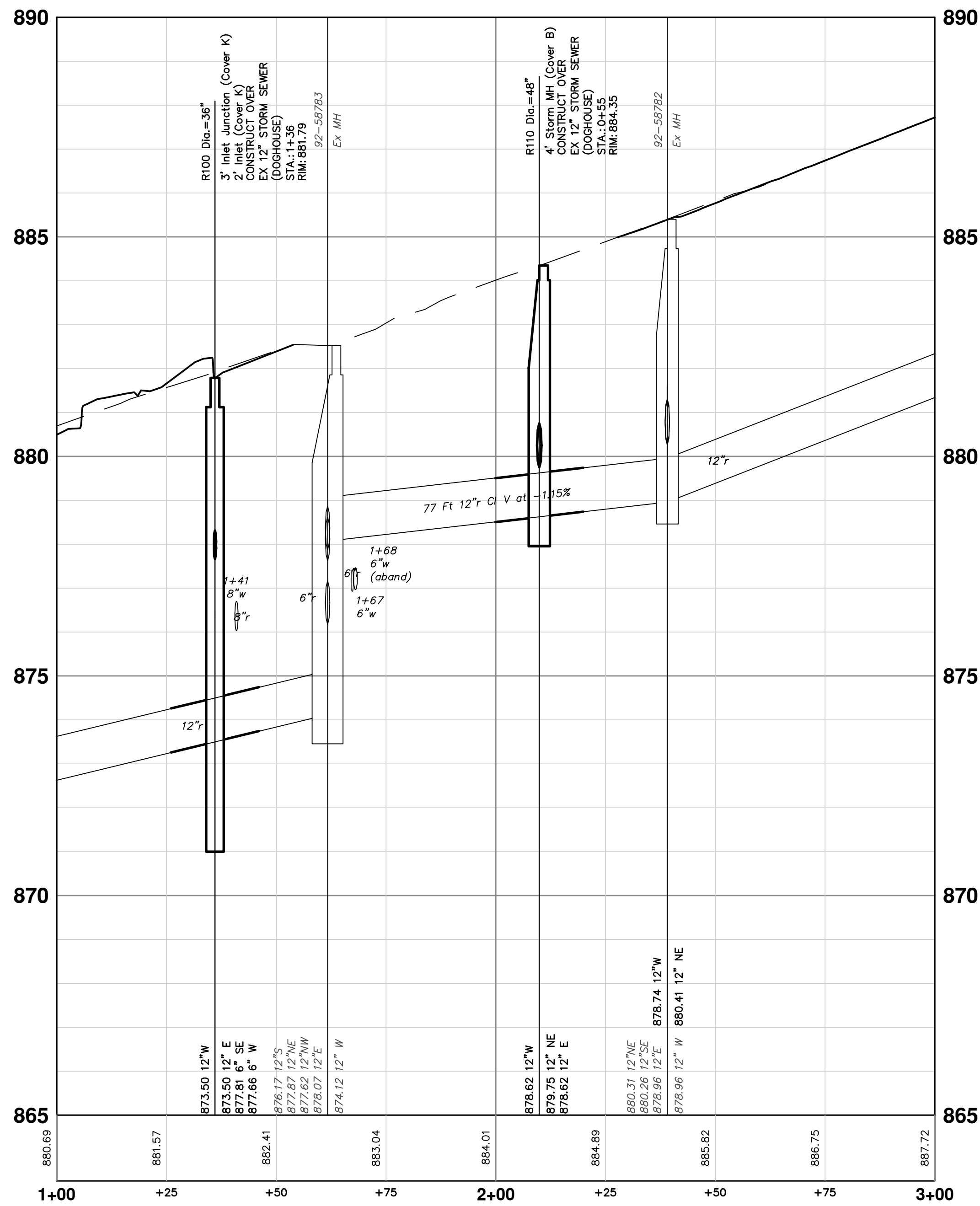
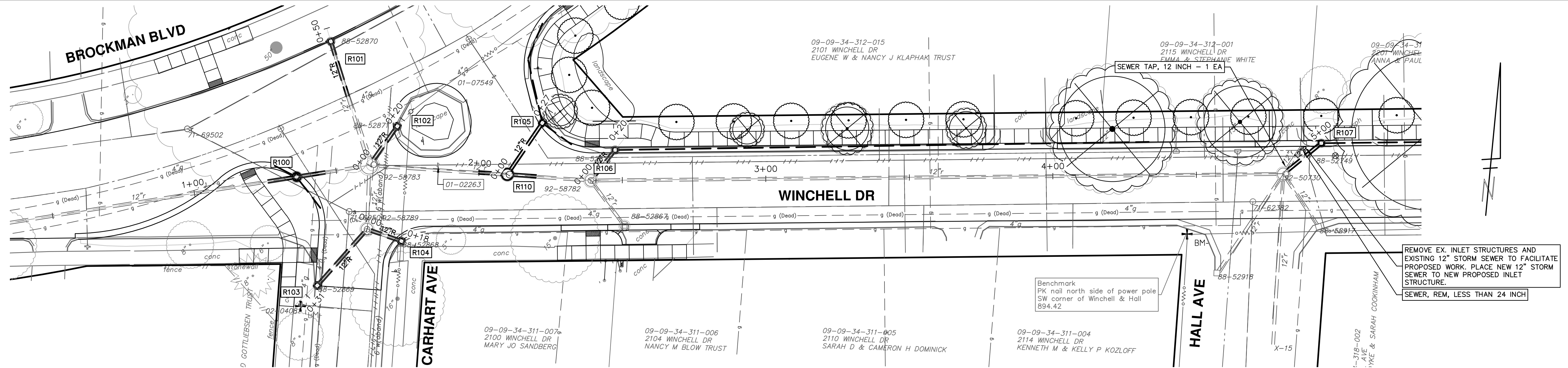
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ANN ARBOR, MI 48106-8647  
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SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'

DRAWING No. 2021011-30

R:\2021011 Frieze\Plan Production\2021011stmm.dwg Dwg Created: 3-Feb-22 - \_a2 standard bw.stb - Plot Date: 9-Feb-22



**EXISTING STORM SEWER STRUCTURE REMOVAL TABLE**

STRUCTURE	DEPTH (Feet)	REMOVE
88-52749	3.22	12" Drop Structure

**STORM SEWER STRUCTURE TABLE**

STRUCTURE	UTILITY STATION	INVERT ELEVATION, SIZE & DIRECTION	TOP OF CASTING ELEVATION	DEPTH (Feet)	SIZE	APPLICATION / CONSTRUCTION
R107	4+97	6" E 890.36 12" SW 889.75	894.41	6.66	24" Dia.	2' Inlet (Cover K)

**811**  
Know what's below.  
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01 OUT FOR BID  
00 FINAL REVIEW

2-10-22  
1-12-22

CC.DF  
CC.DF

DATE  
DRAWN

DESCRIPTION  
CHECKED

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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'

DRAWING No. 2021011-31

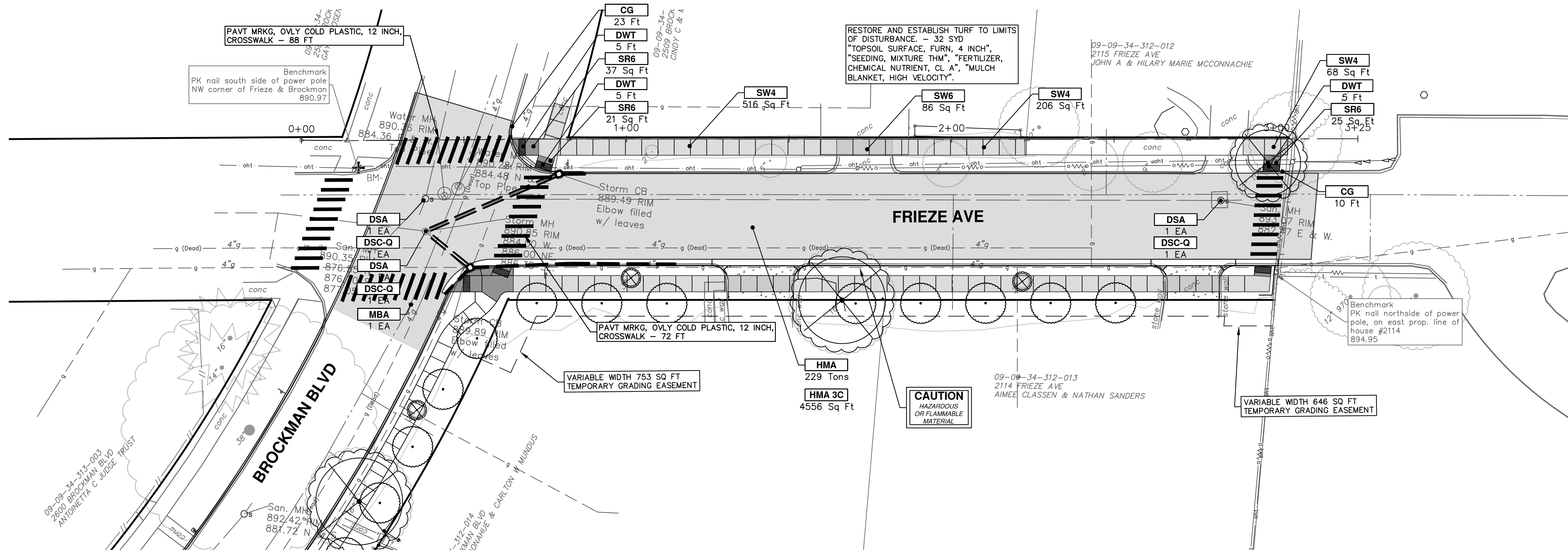
SHEET No. 31 OF 37

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ANN ARBOR, MI 48106-0647  
www.aagov.org

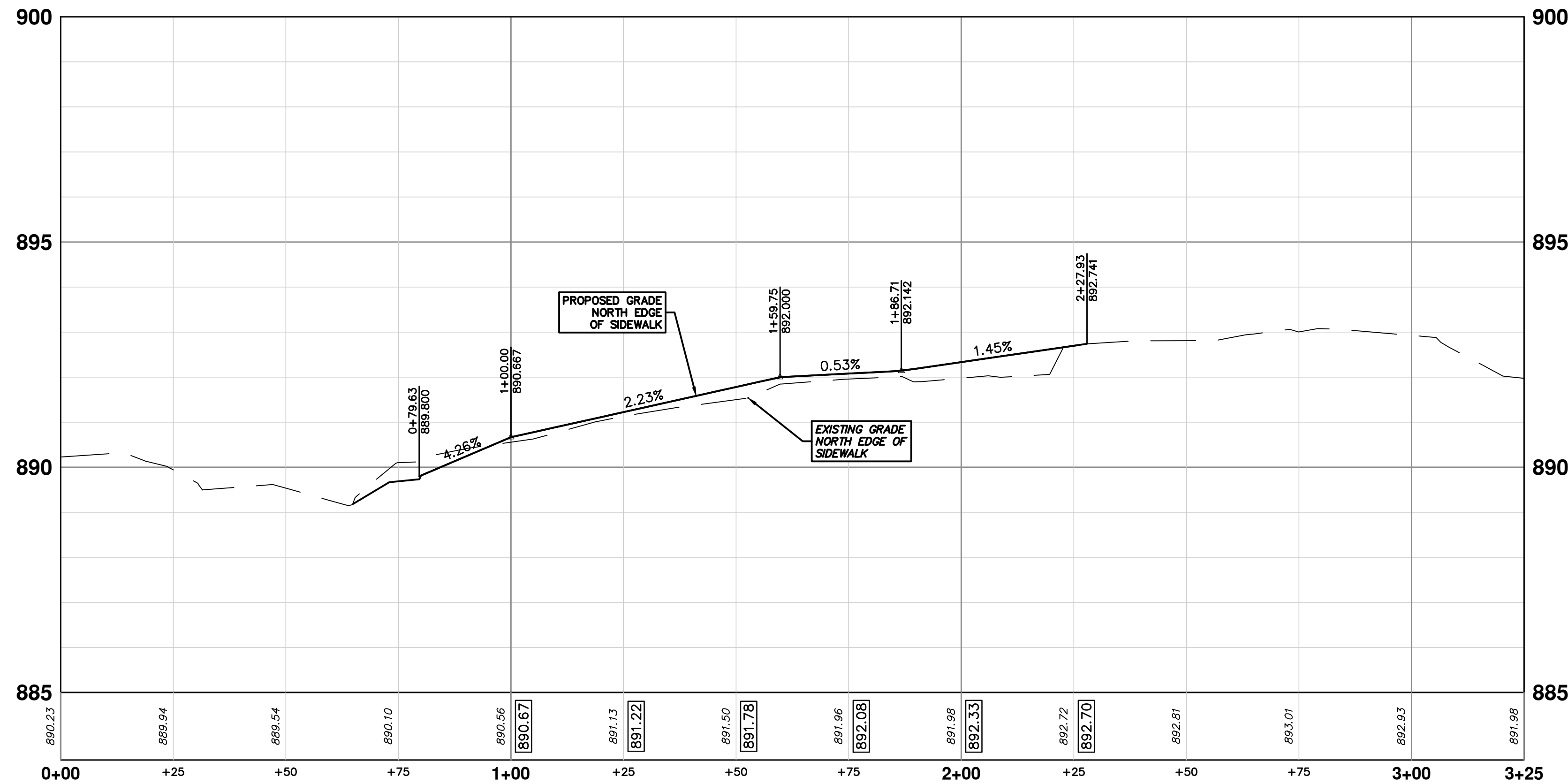
**ANN ARBOR MICHIGAN**

WINCHELL BROCKMAN FRIEZE STORM SEWER

WINCHELL DR

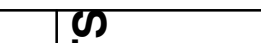


CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, LVSP. PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	PLACE HMA APPROACH
HP	HAND PATCHING
CG	PLACE CURB AND GUTTER, CONC, F4, SPECIAL
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL, MODIFIED.
SW-4	PLACE SIDEWALK, CONC, 4 INCH, MODIFIED
SWR-6	PLACE SIDEWALK, SIDEWALK RAMP, CONC, 6 INCH, MODIFIED
DWS	DETECTABLE WARNING, CAST IN PLACE
ISW-CB	INTEGRAL SIDEWALK/CURB
ABO	ADJUST BY OTHERS
1	ADJUST GATE VALVE BOX, MONUMENT BOX, OR GAS BOX.
2	ADJUST STRUCTURE COVER



REV	DATE	DESCRIPTION
01	2-10-22	OUT FOR BID
00	1-12-22	FINAL REVIEW

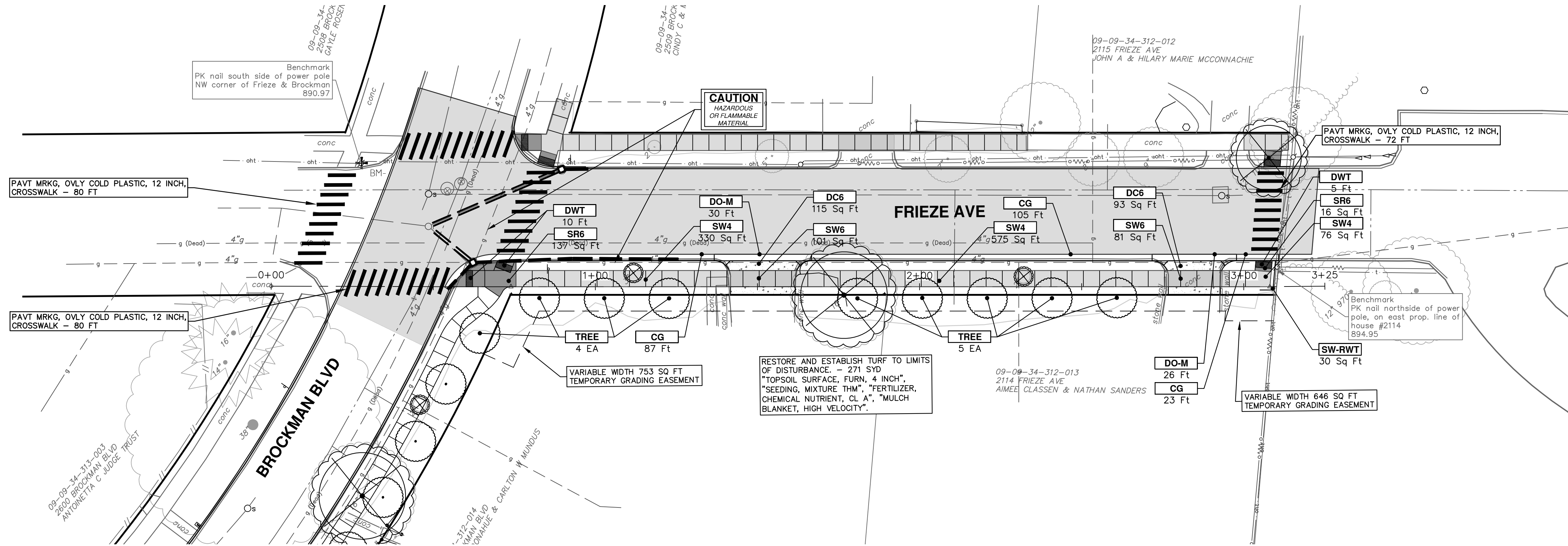
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PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-1000  
734.794.4110  
www.a3gov.org



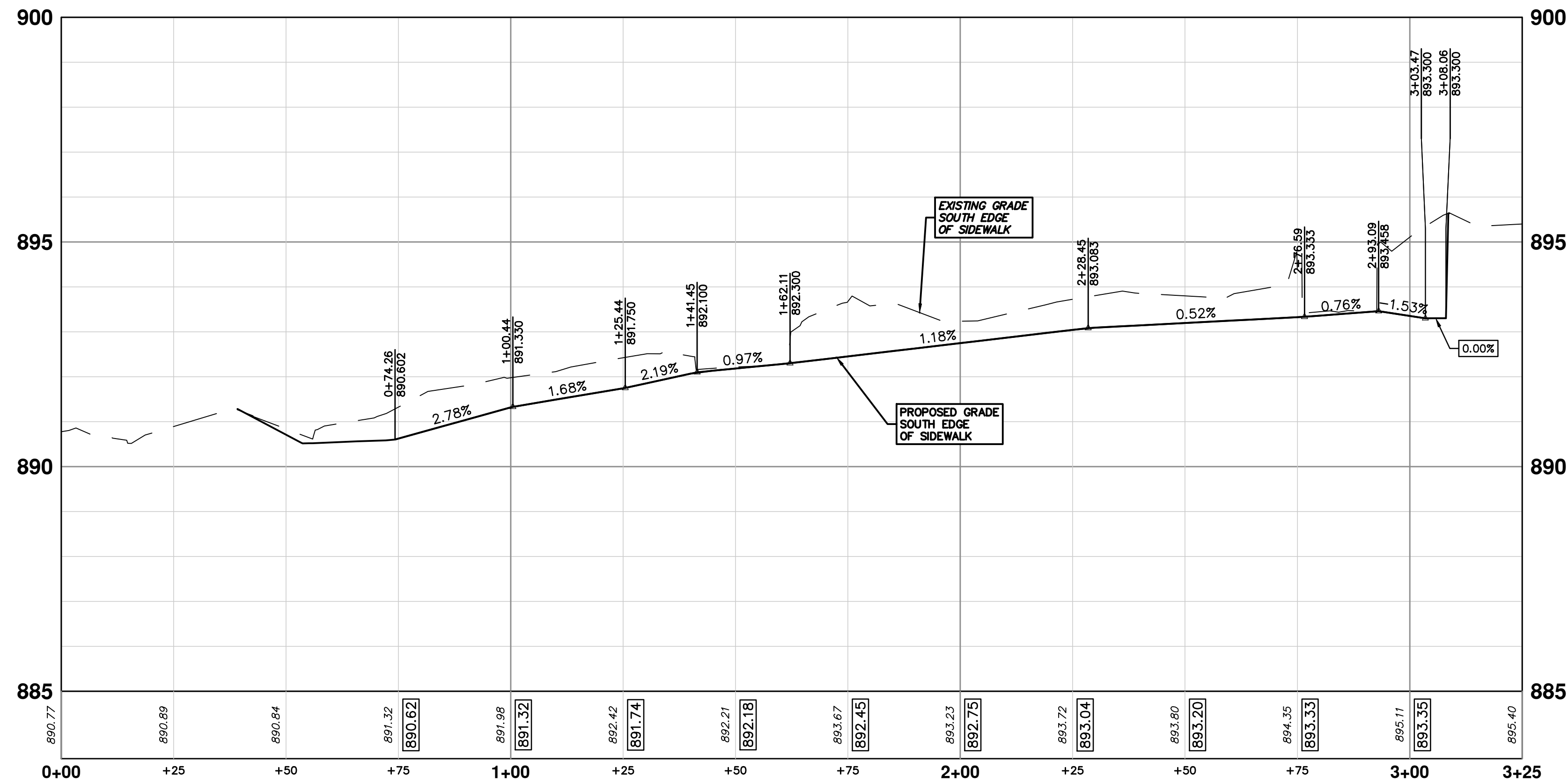
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS  
FRIEZE SIDEWALK AND CURB  
FRIEZE AVE SIDEWALK LEFT



R:\2021011 Frieze\Plan Production\2021011Prsw.dwg Dwg Created: 3-Feb-22 - \_a2 standard bw.stb - Plot Date: 9-Feb-22



CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, LVSP. PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	PLACE HMA APPROACH
HP	HAND PATCHING
CG	PLACE CURB AND GUTTER, CONC, F4, SPECIAL
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CP, CLASS II GRANULAR MATERIAL, MODIFIED.
SW-4	PLACE SIDEWALK, CONC, 4 INCH, MODIFIED
SWR-6	PLACE SIDEWALK, SIDEWALK RAMP, CONC, 6 INCH, MODIFIED
DWS	DETECTABLE WARNING, CAST IN PLACE
ISW-CB	INTEGRAL SIDEWALK/CURB
ABO	ADJUST BY OTHERS
1	ADJUST GATE VALVE BOX, MONUMENT BOX, OR GAS BOX.
2	ADJUST STRUCTURE COVER



TREES SHOWN SHALL BE PLANTED AS A MIX OF SPECIES WITH THE MAJORITY BEING LARGE SHADE TREES INTERMIXED WITH MEDIUM AND SMALL TREES. LARGE SHADE TREES TO BE 2.5 INCH DIAMETER AND THE SMALLER TREES SHALL BE PLANTED AS 2.5 INCH DIAMETER "TREE FORM".

TOTAL TREES SHOWN = 38  
LARGE SHADE TREES (L) = 26

- LATIN NAME (MATURE SIZE) - COMMON NAME:
- Gleditsia triacanthos inermis 'Skyline' (L) - Honeylocust
  - Gymnocladus dioica (L) - Kentucky coffeetree
  - Liquidambar styraciflua (M) - Sweetgum
  - Liriodendron tulipifera (L) - Tuliptree
  - Nyssa sylvatica (M) - Blackgum
  - Ostrya virginiana (M) - Ironwood
  - Quercus rubra (L) - Red oak
  - Quercus macrocarpa (L) - Bur oak
  - Amelanchier canadensis, tree form (S) - Serviceberry
  - Celtis occidentalis (L) - Hackberry
  - Cercis canadensis (S) - Redbud
  - Cornus florida (S) - flowering dogwood



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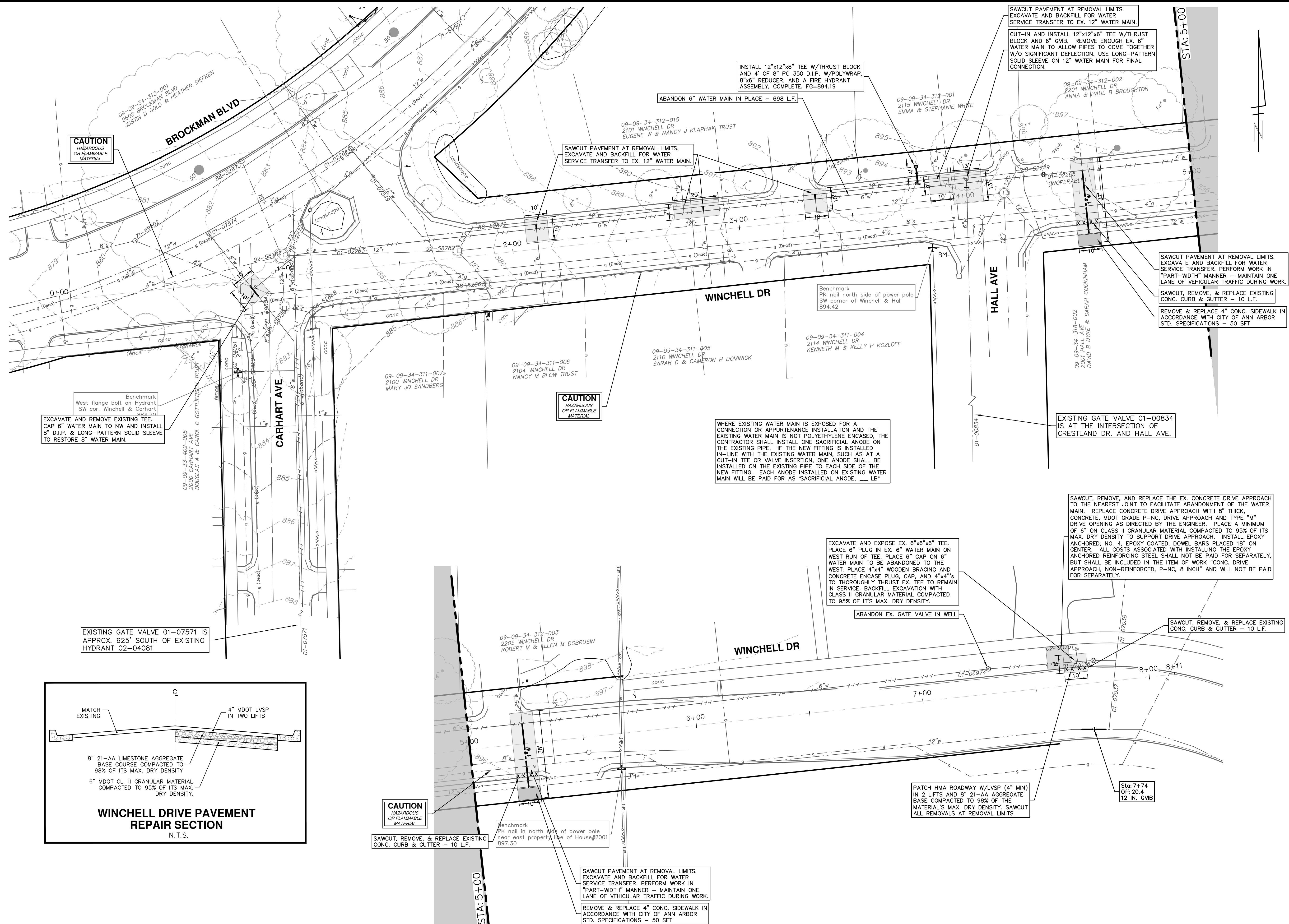
REV	DATE	DESCRIPTION
01	2-10-22	OUT FOR BID
00	1-12-22	FINAL REVIEW

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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
STADIUM/WASHTEENAW AREA UTILITY IMPROVEMENTS  
FRIEZE SIDEWALK AND CURB  
FRIEZE AVE SIDEWALK RIGHT  
SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'  
DRAWING No. 2021011-33

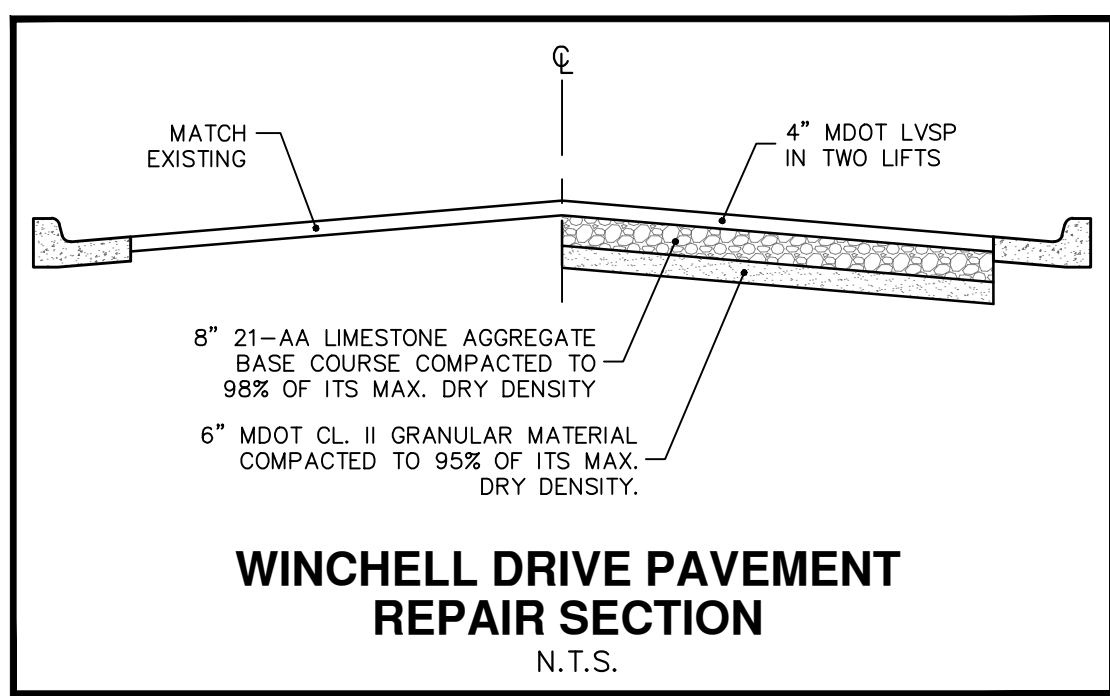
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CAUTION  
HAZARDOUS  
OR FLAMMABLE  
MATERIAL

CAUTION  
HAZARDOUS  
OR FLAMMABLE  
MATERIAL

CAUTION  
HAZARDOUS  
OR FLAMMABLE  
MATERIAL



**811**  
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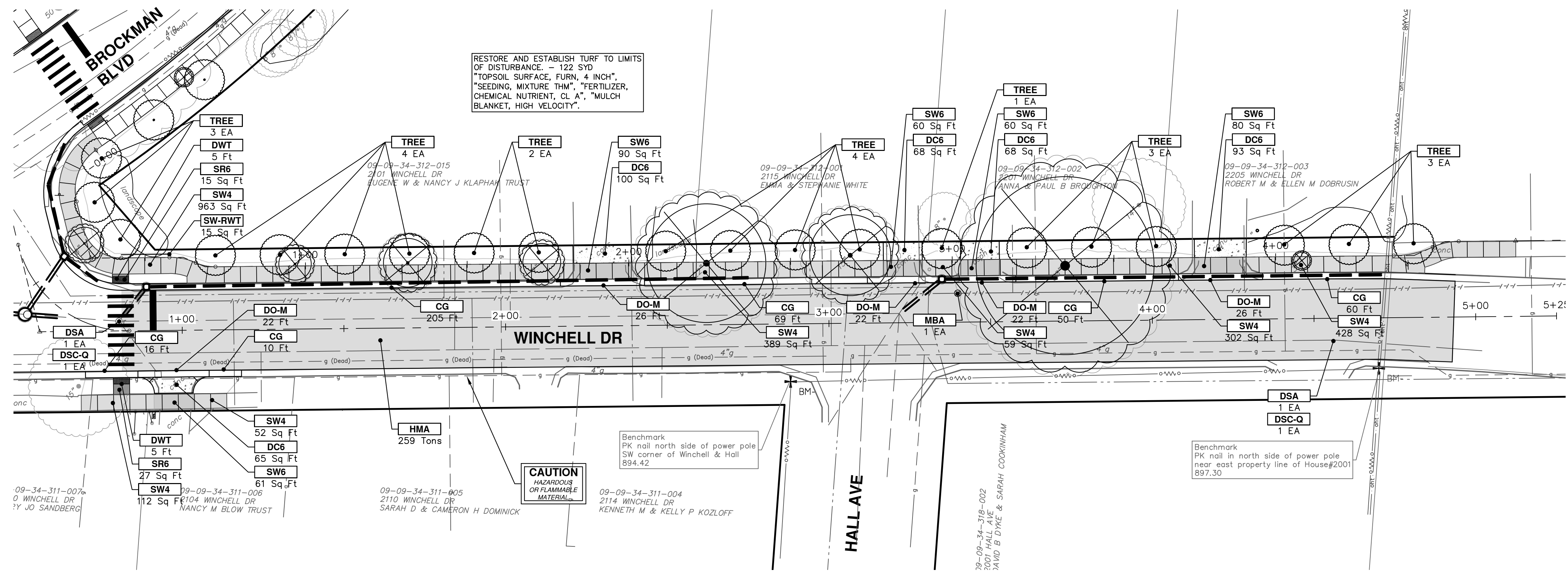
REV.	DATE	DESCRIPTION
01	2-10-22	OUT FOR BID
00	1-12-22	FINAL REVIEW
		DRAWN
		CHECKED
		FC
		CCDF

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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**STADIUM/WASHTEENAW AREA UTILITY IMPROVEMENTS**  
WINCHELL DR WATER MAIN ABANDONMENT

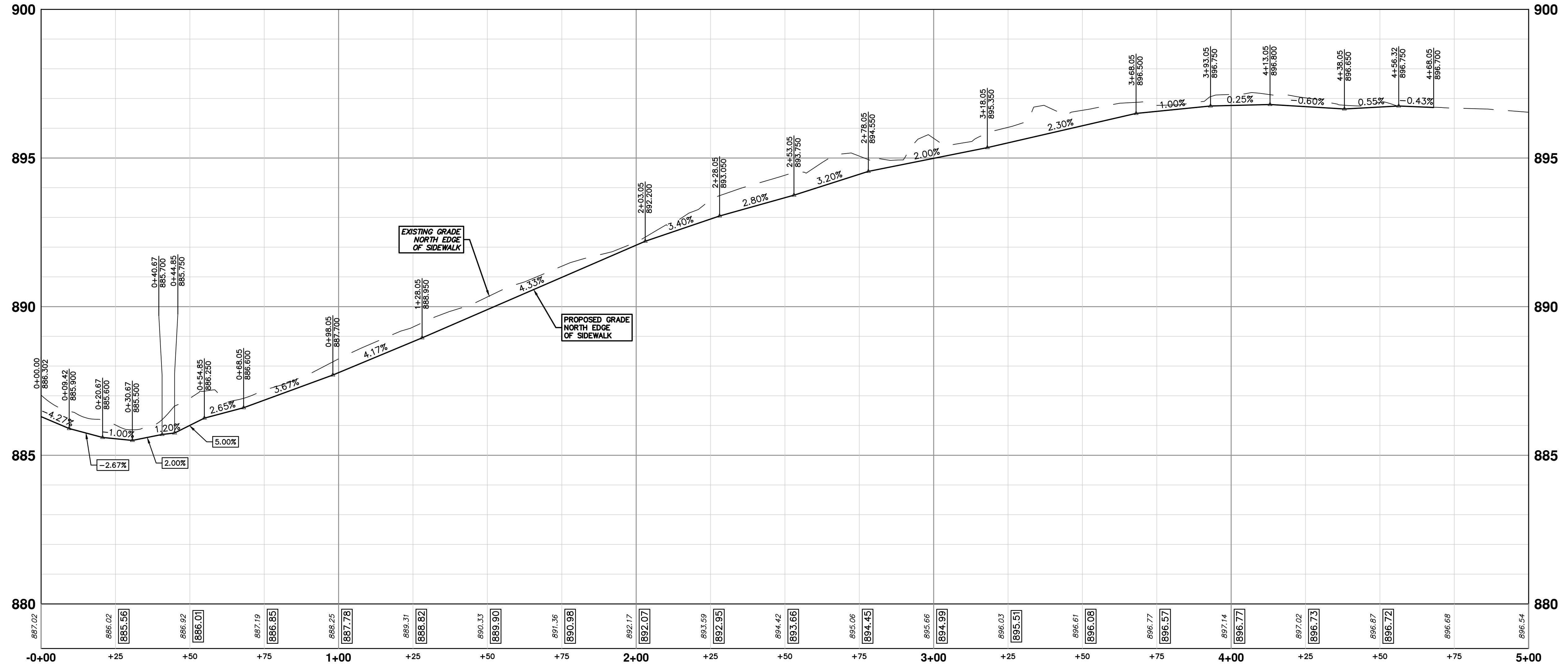
STA. 0+00 - STA. 8+00

SCALE: 1" = 20'  
DRAWING NO. 2021011-34  
SHEET NO. 34 OF 37



RESTORE AND ESTABLISH TURF TO LIMITS OF DISTURBANCE. - 122 SYD  
 \*TOPSOIL SURFACE, FURN, 4 INCH\*  
 \*SEEDING MIXTURE THM, \*FERTILIZER, CHEMICAL NUTRIENT, CL A\*, \*MULCH BLANKET, HIGH VELOCITY\*"

CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, LVSP. PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	PLACE HMA APPROACH
HP	HAND PATCHING
CG	PLACE CURB AND GUTTER, CONC, F4, SPECIAL
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL, MODIFIED.
SW-4	PLACE SIDEWALK, CONC, 4 INCH, MODIFIED
SWR-6	PLACE SIDEWALK, SIDEWALK RAMP, CONC, 6 INCH, MODIFIED
DWS	DETECTABLE WARNING, CAST IN PLACE
ISW-CB	INTEGRAL SIDEWALK/CURB
ABO	ADJUST BY OTHERS
1	ADJUST GATE VALVE BOX, MONUMENT BOX, OR GAS BOX.
2	ADJUST STRUCTURE COVER



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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS

WINCHELL SIDEWALK AND CURB

WINCHELL DR SIDEWALK

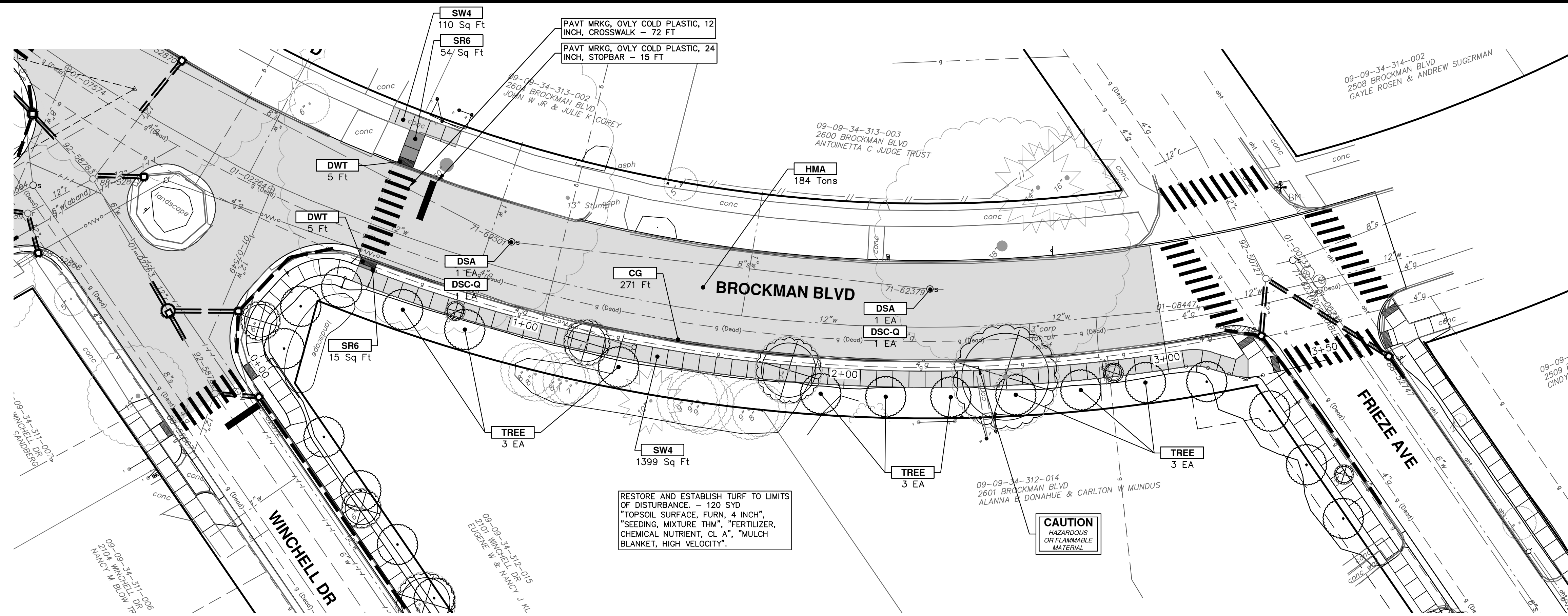
SCALE PLAN: 1" = 20'  
 PROFILE: 1" = 2'

DRAWING NO. 2021011-35

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SHEET No. 35 OF 37

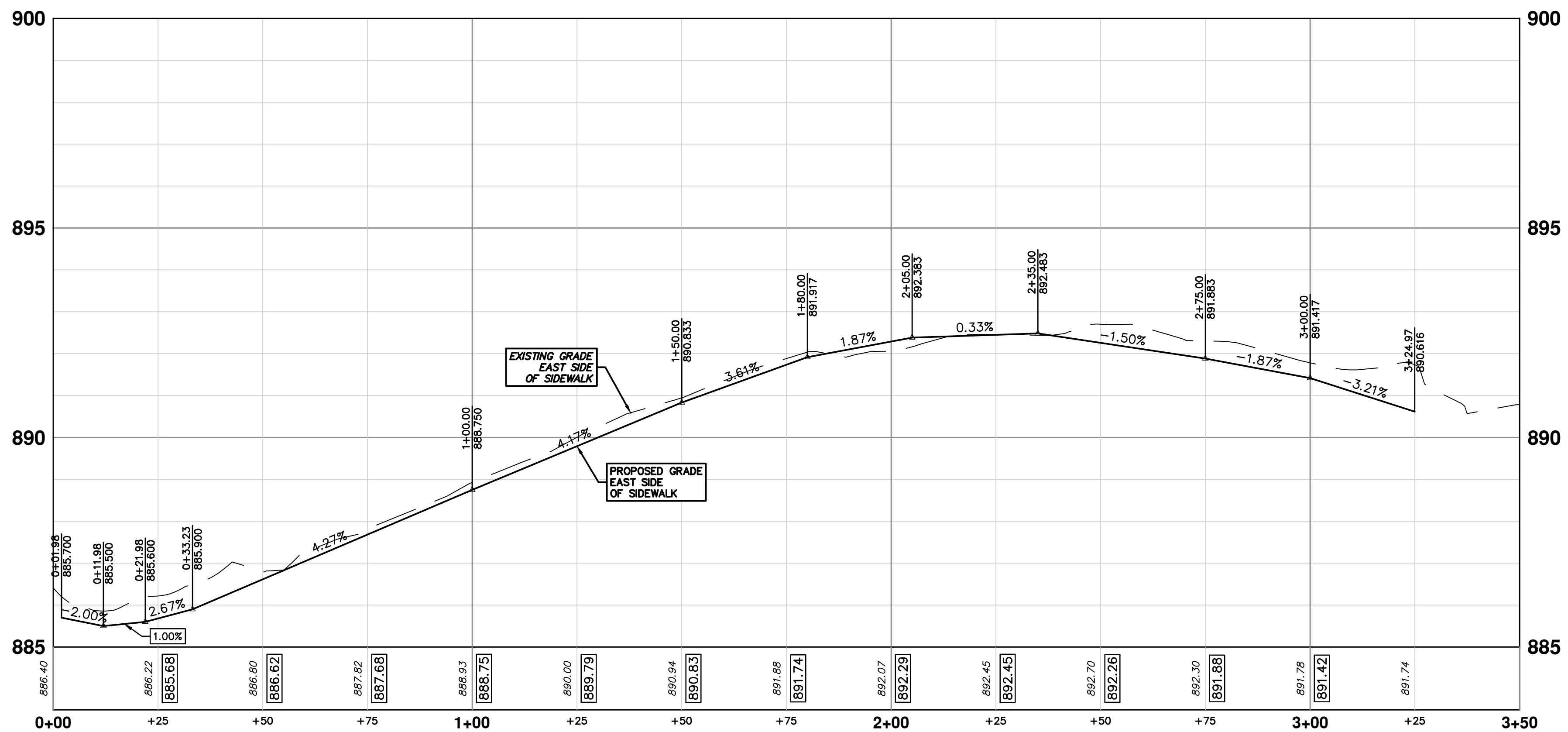
DATE: 2-10-22  
 DRAWN: CCDF  
 CHECKED: FC



RESTORE AND ESTABLISH TURF TO LIMITS OF DISTURBANCE. - 120 SYD "TOPSOIL SURFACE, FURN, 4 INCH", "SEEDING, MIXTURE THM", "FERTILIZER, CHEMICAL NUTRIENT, CL A", "MULCH BLANKET, HIGH VELOCITY".

CAUTION HAZARDOUS OR FLAMMABLE MATERIAL

CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, LVSP. PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	PLACE HMA APPROACH
HP	HAND PATCHING
CG	PLACE CURB AND GUTTER, CONC, F4, SPECIAL
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NG, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL, MODIFIED.
SW-4	PLACE SIDEWALK, CONC, 4 INCH, MODIFIED
SWR-6	PLACE SIDEWALK, SIDEWALK RAMP, CONC, 6 INCH, MODIFIED
DWS	DETECTABLE WARNING, CAST IN PLACE
ISW-CB	INTEGRAL SIDEWALK/CURB
ABO	ADJUST BY OTHERS
1	ADJUST GATE VALVE BOX, MONUMENT BOX, OR GAS BOX.
2	ADJUST STRUCTURE COVER



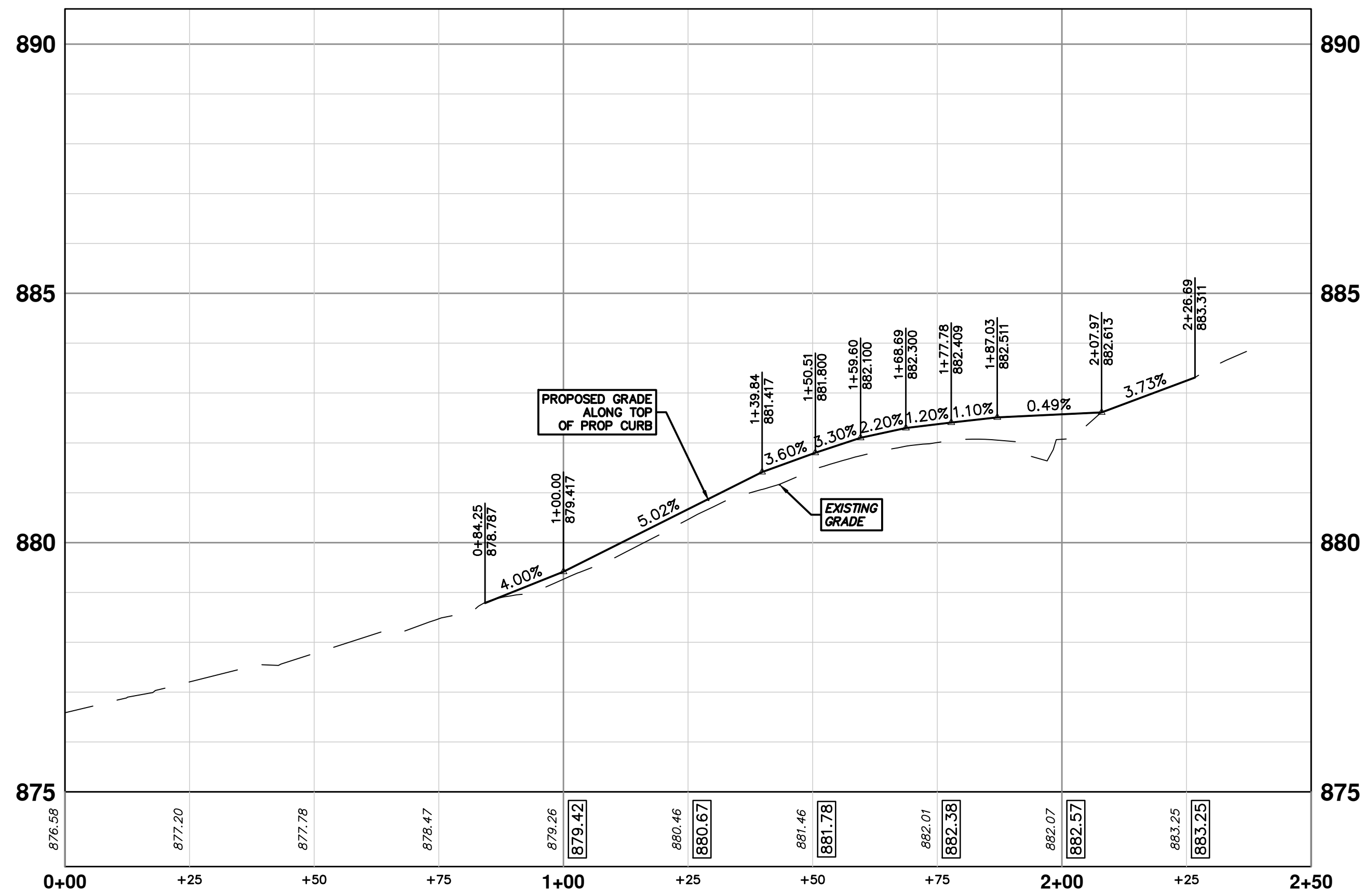
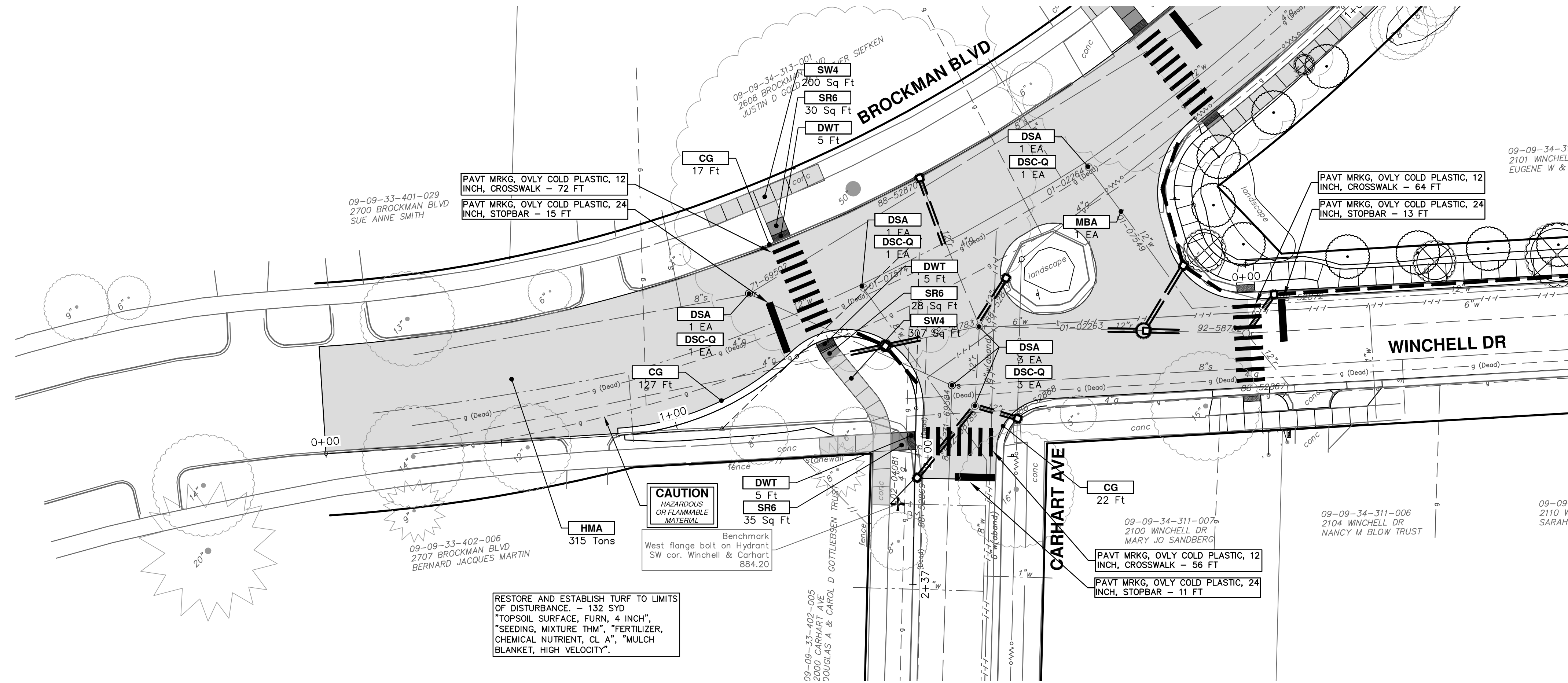
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01	OUT FOR BID	2-10-22	CCDF	FC	CHECKED
00	FINAL REVIEW	1-12-22	CCDF	FC	DRAWN
REV.	DESCRIPTION	DATE	DRAWN	DATE	CHECKED

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS  
BROCKMAN SIDEWALK & CURB  
BROCKMAN BLVD SIDEWALK

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'

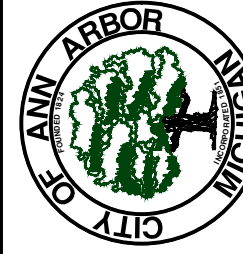
DRAWING NO. 2021011-36  
SHEET NO. 36 OF 37



CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, LVSP. PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	PLACE HMA APPROACH
HP	HAND PATCHING
CG	PLACE CURB AND GUTTER, CONC, F4, SPECIAL
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NG, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL, MODIFIED.
SW-4	PLACE SIDEWALK, CONC, 4 INCH, MODIFIED
SWR-6	PLACE SIDEWALK, SIDEWALK RAMP, CONC, 6 INCH, MODIFIED
DWS	DETECTABLE WARNING, CAST IN PLACE
ISW-CB	INTEGRAL SIDEWALK/CURB
ABO	ADJUST BY OTHERS
1	ADJUST GATE VALVE BOX, MONUMENT BOX, OR GAS BOX.
2	ADJUST STRUCTURE COVER



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STADIUM/WASHTENAW AREA UTILITY IMPROVEMENTS  
BROCKMAN SIDEWALK & CURB  
BROCKMAN BLVD BUMPOUT

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'  
DRAWING No. 2021011-37

REV.	DATE	DESCRIPTION
01	2-10-22	OUT FOR BID
00	1-12-22	FINAL REVIEW
		DRAWN
		CHECKED
		FC
		CCDF