



# CITY OF ANN ARBOR ENGINEERING MILLER AVENUE REHABILITATION

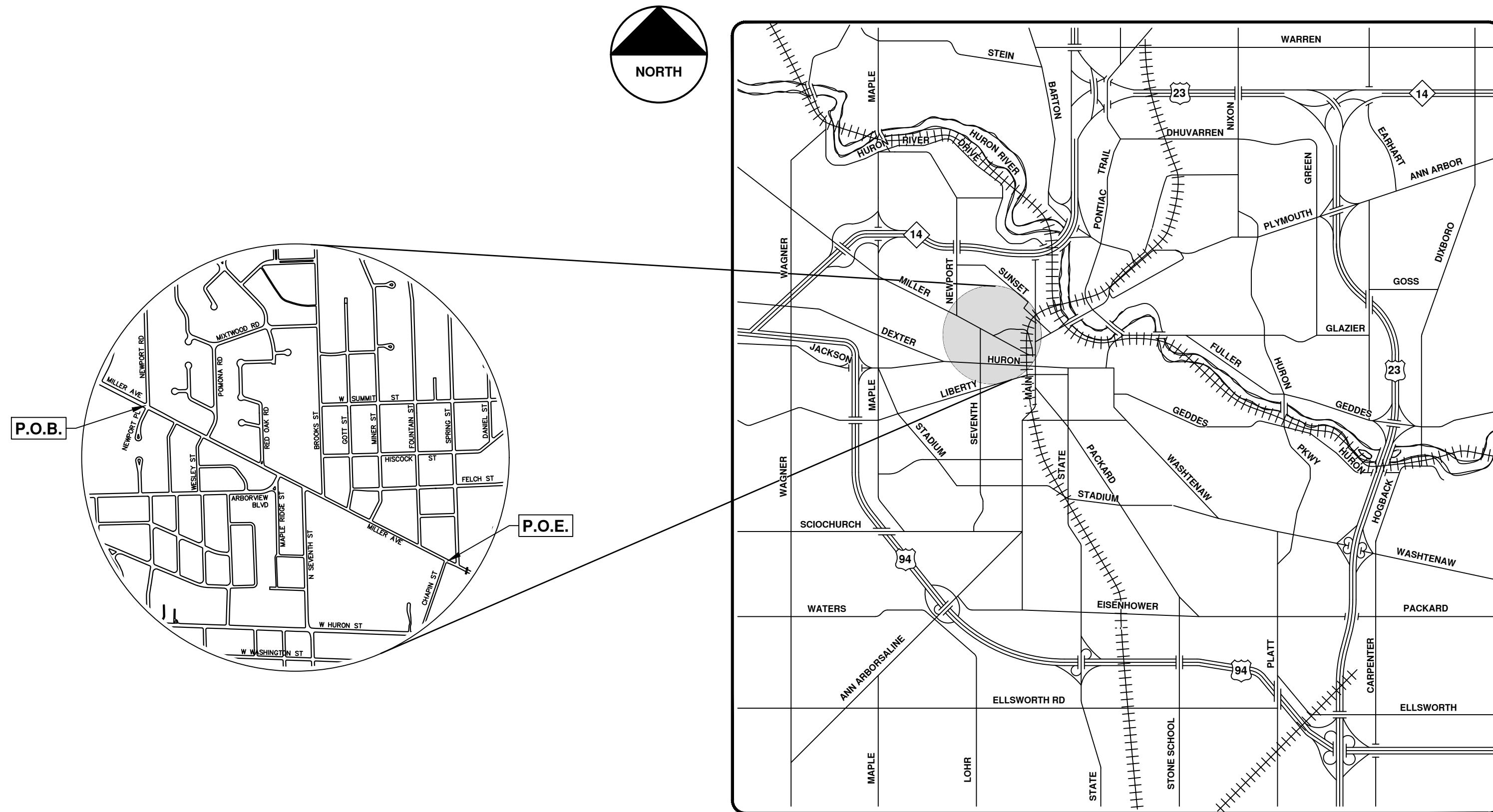
### NOTES

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 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 CITY OF ANN ARBOR PUBLIC SERVICES AREA DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS ("STANDARDS"). THE OMISSION OF ANY STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR OF THEIR OBLIGATION TO CONSTRUCT ITEMS IN COMPLETE ACCORDANCE WITH THOSE STANDARDS.

## ITB No. 4753, FILE No. 2022034



VICINITY MAP

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18	Miller Sections 1
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Detour Route	
22	Phase I Stage I & II (Water Main)
23	Phase II Stage I & II (Water Main)
24	Phase II Stage III (Cycle Track)
Traffic Control - Phase I Stage I (Newport Water Main Conn)	
25	P.O.B. - Sta. 61+00
Traffic Control - Phase I Stage II (Water Main)	
26	P.O.B. - Sta. 61+00
27	Sta. 61+00 - P.O.E.
Traffic Control - Phase I Stage III (Water Main)	
28	P.O.B. - Sta. 61+00
29	Sta. 61+00 - P.O.E.
Traffic Control - Phase II Stage I (Water Main)	
30	P.O.B. - Sta. 80+00
31	Sta. 80+00 - P.O.E.
Traffic Control - Phase II Stage II (Water Main)	
32	P.O.B. - Sta. 80+00
33	Sta. 80+00 - P.O.E.
Traffic Control - Phase II Stage III (Cycle Track)	
34	P.O.B. - Sta. 14+00
35	Sta. 14+00 - Sta. 30+00
36	Sta. 30+00 - Sta. 45+00
37	Sta. 45+00 - Sta. 61+00
38	Sta. 61+00 - Sta. 77+00
39	Sta. 77+00 - P.O.E.
Removals	
40	Sta. 49+13 - Sta. 55+00
41	Sta. 55+00 - Sta. 62+00
42	Sta. 62+00 - Sta. 69+00
43	Sta. 69+00 - Sta. 76+50
44	Sta. 76+50 - Sta. 83+00
45	Sta. 83+00 - Sta. 88+79
Proposed Water Main - Newport to N Seventh - Phase I	
46	Newport and Newport PI Connections
47	Sta. 0+51 - Sta. 3+75
48	Sta. 3+75 - Sta. 8+00
49	Pomona and Wesley Connections and H1 Profile
50	Sta. 8+00 - Sta. 12+50
51	Red Oak Connection and H2 and H3 Profiles
52	Sta. 12+50 - Sta. 16+00

53	Sta. 16+00 - Sta. 18+69
Proposed Water Main - N Seventh to Chapin - Phase II	
54	Gotts Connection and H6 Profile
55	Sta. 7+33 - Sta. 10+50
56	Sta. 10+50 - Sta. 15+00
57	Fountain Connection and H7 and H8 Profiles
58	Sta. 15+00 - Sta. 17+48
Proposed Storm Sewer	
59	R300,R301,R302,R303,R410,R411
60	R400,R401,R404,R407
61	R402,R403,R405,R406,R408,R409
62	R207,R208,R209,R210,211
63	R201 R202 R204 R205
64	R100,R101,R102,R103,R104,R105,R108,R109
65	R106,R107
Road Plan & Profile	
66	Sta. 49+13 - Sta. 52+00
67	Sta. 52+00 - Sta. 55+50
68	Sta. 55+50 - Sta. 59+00
69	Sta. 59+00 - Sta. 62+50
70	Sta. 62+50 - Sta. 66+00
71	Sta. 66+00 - Sta. 69+50
72	Sta. 69+50 - Sta. 73+00
73	Sta. 73+00 - Sta. 76+50
74	Sta. 76+50 - Sta. 80+00
75	Sta. 80+00 - Sta. 84+00
76	Sta. 84+00 - Sta. 88+79
Intersection Grades	
77	Bus Stop Near Newport Pl.
78	Red Oak Rd., Bus Stop Near Arborview Blvd.
79	N Seventh St, Bus Stop Near Gott St
Pavement Markings	
80	P.O.B. - Sta. 55+00
81	Sta. 55+00 - Sta. 62+00
82	Sta. 62+00 - Sta. 69+00
83	Sta. 69+00 - Sta. 76+50
84	Sta. 76+50 - Sta. 83+00
85	Sta. 83+00 - P.O.E.
Permanent Signing	
86	P.O.B. - Sta. 14+00
87	Sta. 14+00 - Sta. 30+00
88	Sta. 30+00 - Sta. 45+00
89	Sta. 45+00 - Sta. 61+00
90	Sta. 61+00 - Sta. 77+00
91	Sta. 77+00 - P.O.E.

Sheet List Table	
Sheet Number	Sheet Title
92	RRFB Crossing - Detail Grades Miller Ave @ Fulmer St
93	RRFB Crossing - Detail Grades Miller Ave @ Hatcher Crescent
94	RRFB Crossing - Detail Grades Miller Ave @ Bruce St
95	RRFB Crossing - Detail Grades Miller Ave @ Saunders Crescent
96	RRFB Crossing - Detail Grades Miller Ave @ Pine Tree Dr
97	RRFB Crossing - Detail Grades Miller Ave @ Newport Rd

Sheet List Table	
Sheet Number	Sheet Title
98 - 132	Miller Ave Cycle Track Maple Road to Newport Road and Chapin Street to First Street



DATE	DESCRIPTION	REV.	CHECKED

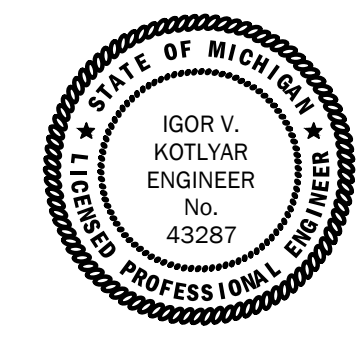
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PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-6647  
www.a2gov.org



**Description:**  
The Miller Avenue Improvement Project consists of installing approximately 2900 feet of new water main and 1700 feet of new storm sewer between Newport Road and Chapin Street including the installation of Cycle Track and the installation of Rectangular Rapid Flashing Beacons (RRFBs) at Miller Ave @ Fulmer St, Miller Ave @ Hatcher Crescent, Miller Ave @ Bruce St, Miller Ave @ Saunders Crescent, Miller Ave @ Pine Tree Dr, and Miller Ave @ Newport Rd. The project also includes the installation of new Rectangular Rapid Flashing Beacons (RRFBs) at Red Oak, along with associated concrete work, pavement markings, and restoration.

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
SCALE  
DRAWING No. 2022034-1  
SHEET No. 1 OF 132

PREPARED UNDER THE SUPERVISION OF  
*Igor V. Kotlyar*  
IGOR V. KOTLYAR, P.E. - MI LICENSE No. 43287  
PROJECT ENGINEER  
04/09/2024  
DATE



*Jane Katherine Allen*  
JANE KATHERINE ALLEN, P.E. - MI LICENSE No. 57254  
PROJECT MANAGER  
04/09/2024  
DATE





**CONSTRUCTION NOTES:**

1. 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.
2. The location and depth of all existing utilities and service leads are to be field verified by the Contractor prior to construction.
3. 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.
4. The Contractor is to take special care to protect the existing water main and be responsible for maintaining consistent water service.
5. 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".
6. Trenches for new water services shall be excavated to MIOSHA and City of Ann Arbor Public Works requirements.
7. 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.
8. 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.
9. 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.
10. 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.
11. "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.
12. Postal delivery and refuse pickup service shall be maintained at all times by the Contractor.
13. 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.
14. Where street curbs are undermined due to construction activities, they shall be removed and replaced as directed by the Engineer.
15. 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".
16. All curb, sidewalk, driveway approach removals shall be approved by Engineer before the work is done.
17. The location of material stock piles and on-site staging areas to be approved by the Engineer.
18. 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.
19. 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.

MILLER AVENUE REHAB BENCHMARKS		
BM #	ELEV	DESCRIPTION
1	797.186	S.W. ANCHOR BOLT ON SUPPORT POLE FOR SIGNALS @ N.E. CORNER OF MILLER AND FIRST
2	792.872	SET RR SPIKE IN S. SIDE OF L.P. ON N. SIDE OF MILLER @ ENTRANCE TO FIRST MILLER BUSINESS CENTER
3	794.390	N.E. CORNER OF MAIL BOX PAD @ N.W. CORNER OF MILLER AND SPRING
4	798.274	SET RR SPIKE IN S. SIDE OF L.P. ON N. SIDE OF MILLER AT CHAPIN
5	818.597	SET RR SPIKE IN S.W. SIDE OF L.P. @ N.E. CORNER OF MILLER AND FOUNTAIN
6	833.388	SET RR SPIKE IN N. SIDE OF U.P. ON S. SIDE OF MILLER ACROSS FROM HSE NO. 620
7	839.564	SET RR SPIKE IN S. SIDE OF U.P. @ N.W. CORNER OF MILLER AND MINER
8	845.877	SET RR SPIKE IN N. SIDE OF L.P. ON S. SIDE OF MILLER IN FRONT OF MILLER APARTMENTS @ 801 MILLER
9	852.358	RR SPIKE IN N. SIDE OF U.P. ON S. SIDE OF MILLER @ BROOKS. (BROOKS STREET PROJECT, BK 1124 P55)
10	855.314	SET RR SPIKE IN N. SIDE OF U.P. @ S.E. CORNER OF MILLER AND SEVENTH
11	845.506	SET RR SPIKE IN S. SIDE OF U.P. ON N. SIDE OF MILLER AT ARBORVIEW
12	852.220	SET RR SPIKE IN N. SIDE OF U.P. ON S. SIDE OF MILLER AT RED OAK
13	864.548	SET RR SPIKE IN N. SIDE OF U.P. ON S. SIDE OF MILLER IN FRONT OF HSE NO. 1107
14	872.353	SET RR SPIKE IN S. SIDE OF U.P. AT NW CORNER OF MILLER AND POMONA
15	881.960	FND 60D NAIL IN N. SIDE OF U.P. ON S. SIDE OF MILLER BETWEEN HSE NO'S 1305 AND 1309
16	889.525	FND BOAT SPIKE IN U.P. @ SE CORNER OF MILLER & LINDA VISTA
17	900.375	SET RR SPIKE IN S. SIDE OF L.P. AT NE CORNER OF MILLER AND NEWPORT

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

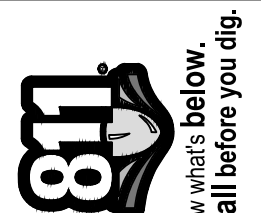
PERMIT	ISSUING AUTHORITY
LANE CLOSURE PERMIT*	CITY OF ANN ARBOR ENGINEERING
"NO PARKING" SIGNS PERMIT*	CITY OF ANN ARBOR ENGINEERING
GRADING/SOIL EROSION & SEDIMENTATION CONTROL PERMIT*	CITY OF ANN ARBOR CUSTOMER SERVICE
RIGHT-OF-WAY PERMIT*	CITY OF ANN ARBOR CUSTOMER SERVICE
* NO COST TO CONTRACTOR	

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

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

**CONTACT INFORMATION**

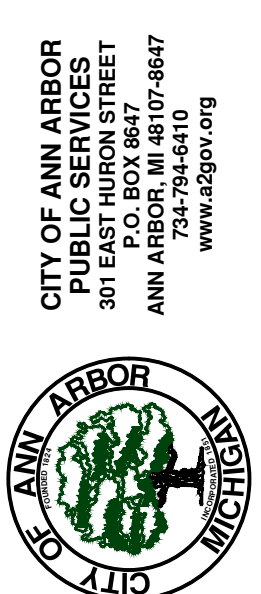
PUBLIC UTILITIES	OWNER	CONTACT
WATER	CITY OF ANN ARBOR PUBLIC WORKS W.R. WHEELER SERVICE CENTER 4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	(734) 794-6350
SANITARY		
STORM		
FORESTRY		
SIGNS SIGNALS STREET LIGHTS		
FIBER OPTIC	CITY OF ANN ARBOR INFORMATION TECHNOLOGY LARCUM CITY HALL 301 E. HURON STREET ANN ARBOR, MI 48107	(734) 794-6550
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	STEPHEN BECK (248) 972-7511
PHONE	AT&T 550 S. MAPLE ROAD ANN ARBOR, MI 48103	STEVEN ALLSHOUSE (734) 996-5381
FIBER OPTIC	MCI/VERIZON 4401 STECKER STREET DEARBORN, MICHIGAN 48126	MARLON REDD (313) 588-0849
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



Know what's below.  
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	DRAWN
	DATE

	DESCRIPTION
	REV.



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PUBLIC SERVICES  
301 EAST HURON STREET  
P.O. BOX 864107  
ANN ARBOR, MI 48108-4110  
734.794.6410  
www.a3gov.org

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

MILLER AVENUE REHABILITATION

NOTES

SCALE: NTS

DRAWING No. 2022034-2

SHEET No.

2 OF 132

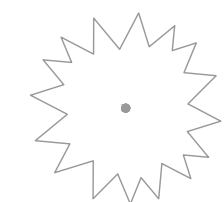


**EXISTING LEGEND**

EX = EXISTING		WATER MAIN
		WATER MAIN ABANDONED
		STORM SEWER
		STORM SEWER ABANDONED
		SANITARY SEWER
		SANITARY SEWER ABANDONED
		GAS MAIN
		GAS MAIN (DEAD)
		ELECTRICAL OVER HEAD
		ELECTRICAL UNDER GROUND
		ELECTRICAL DUCT BANK
		TELEPHONE OVER HEAD
		TELEPHONE UNDER GROUND
		TELEPHONE DUCT BANK
		CABLE TV OVER HEAD
		CABLE TV UNDER GROUND
		FIBER OPTIC
		FIBER OPTIC DUCT BANK
		BOUNDARY
		BUILDING
		CENTERLINE OF DITCH
		CENTERLINE/CROWN OF ROAD
		CONTOUR MAJOR
		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 (DECIDUOUS)



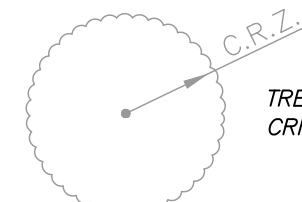
TREE (CONIFEROUS)



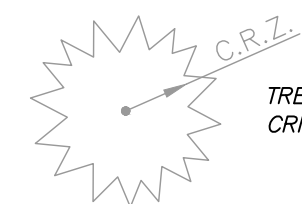
SHRUB (DECIDUOUS)



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**

PROP = PROPOSED		HYDRANT (PLAN)
		REDUCER
		WATER STOP BOX
		INLET
		INLET JUNCTION CHAMBER
		STORM MANHOLE
		SANITARY MANHOLE
		CLEAN-OUT
		BARREL
		PUSH BUTTON

	WATER MAIN
	STORM SEWER
	SANITARY SEWER
	FIBER OPTIC
	ELECTRICAL
	CENTERLINE OF DITCH
	CENTERLINE OF ROAD
	FENCE
	GRAVEL
	SILT FENCE
	PROTECTIVE FENCE
	GUARDRAIL
	LOT/JUNIT
	CURB
	TEMPORARY GRADING PERMIT
	CONTOUR MAJOR
	CONTOUR MINOR
	WATER EASEMENT
	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



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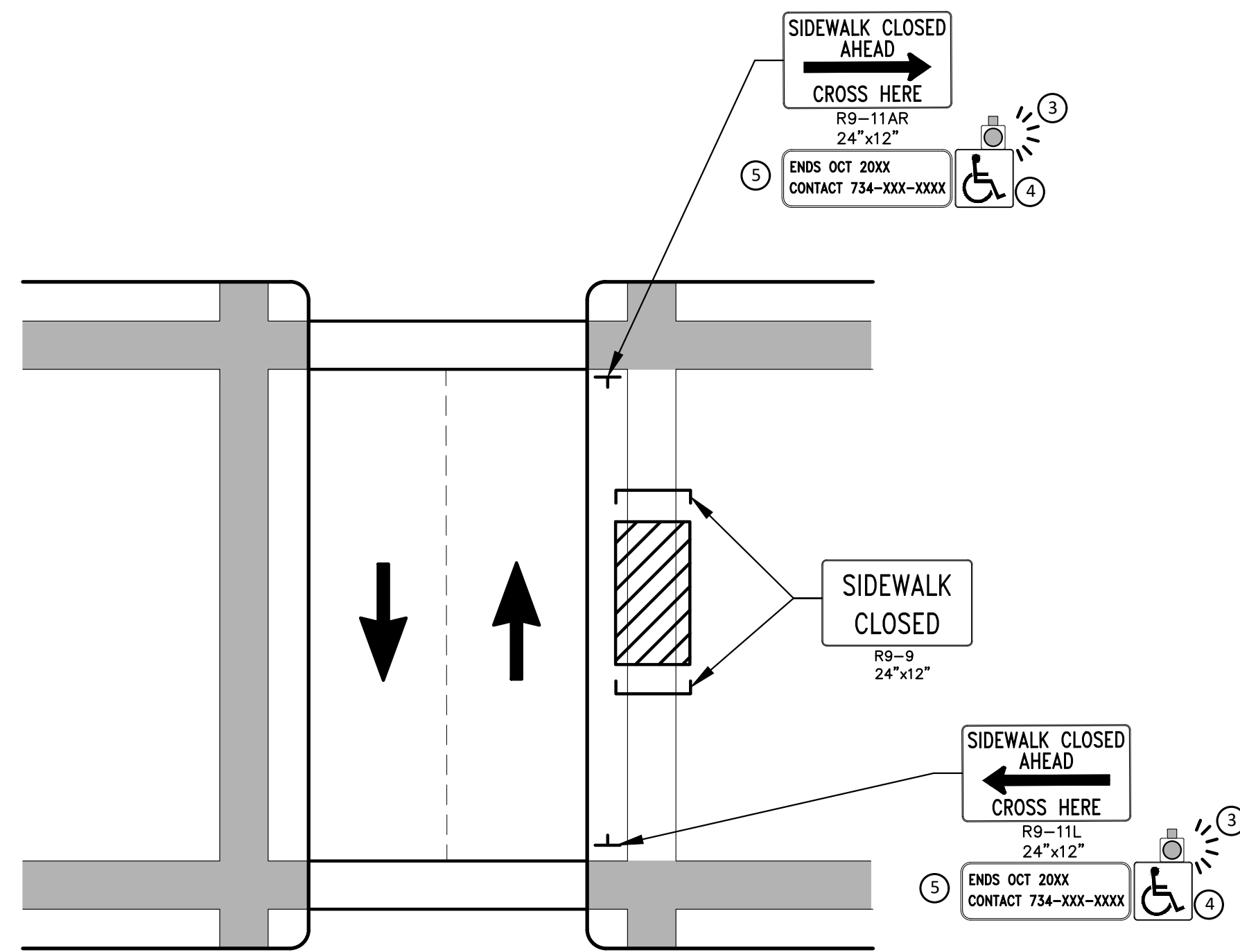


**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER AVENUE REHABILITATION**  
LEGEND

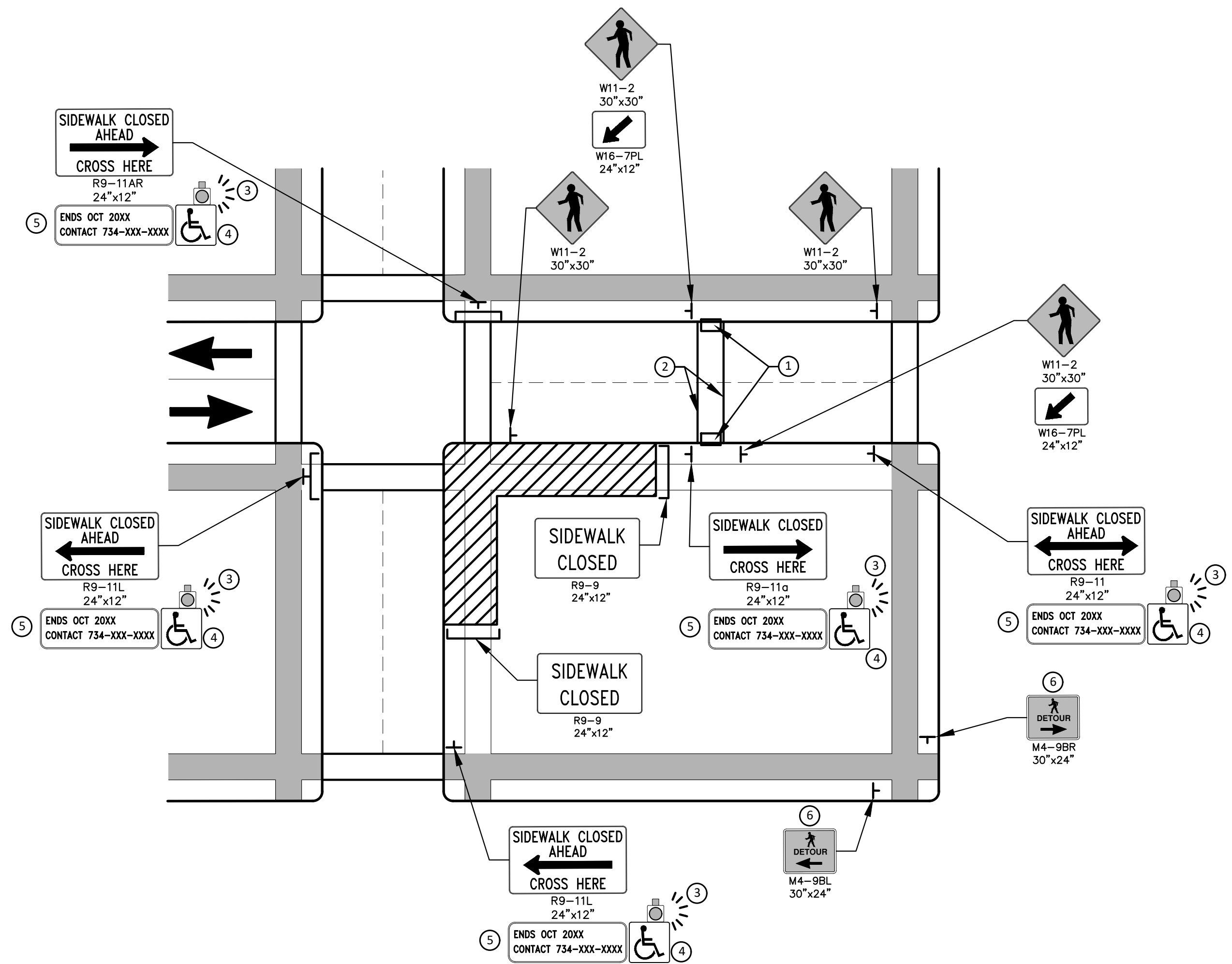
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PEDESTRIAN DETOUR USING OPPOSITE SIDE OF STREET



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.
8. PROVISION OF THE TPAR AND ALL OF ITS ELEMENTS, INCLUDING BUT NOT LIMITED TO, CREATION OF THE TEMPORARY PEDESTRIAN CONTROL PLAN, SIGNS, CHANNELIZING DEVICES, BARRICADES, TEMPORARY PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE ITEM OF WORK "MINOR TRAF DEVICES."

**LEGEND**

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



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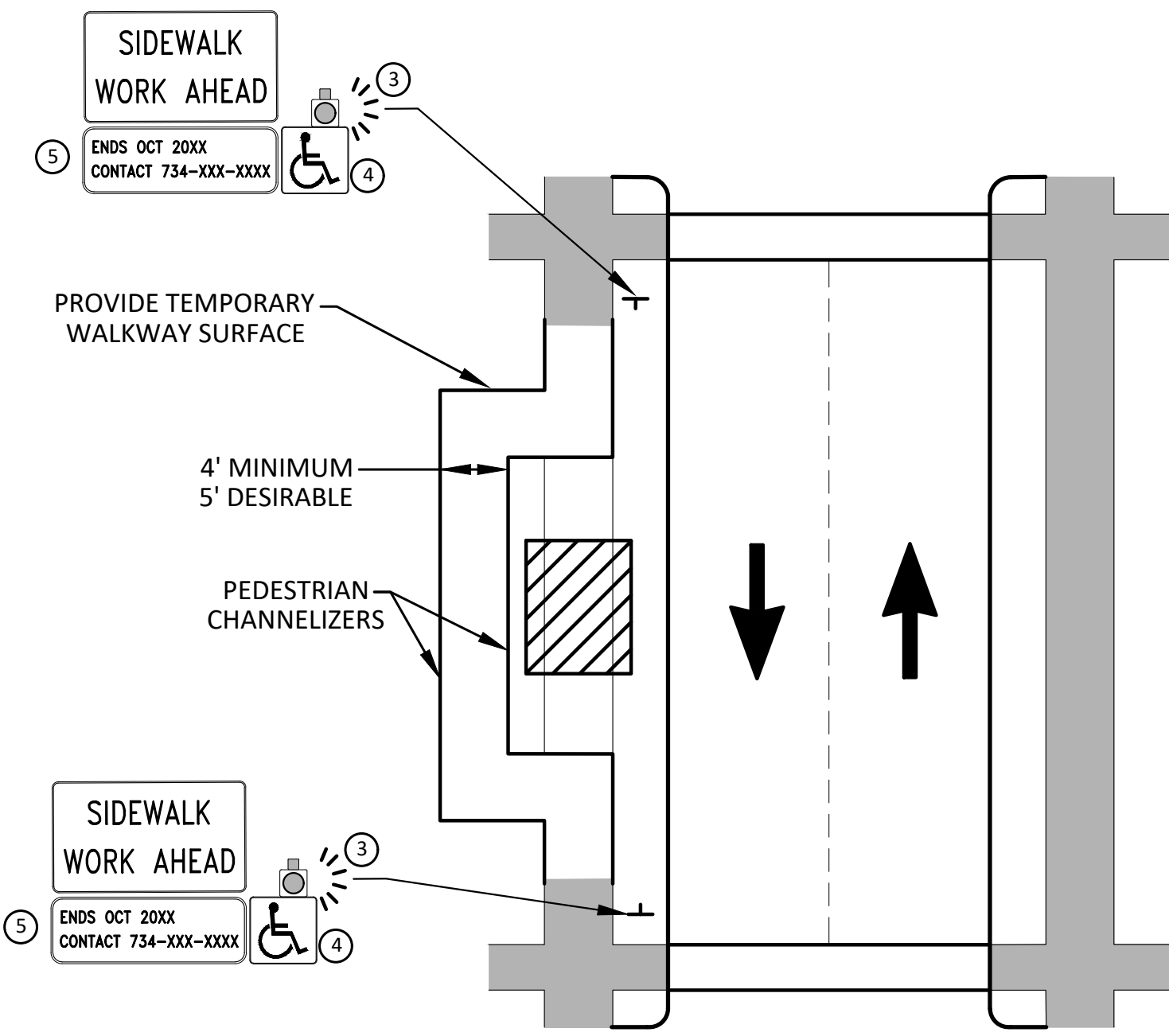


**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER AVENUE REHABILITATION**  
ALTERNATE PEDESTRIAN ROUTE (APR) DETOUR

SCALE: N.T.S.  
DRAWING No. 2022034-4

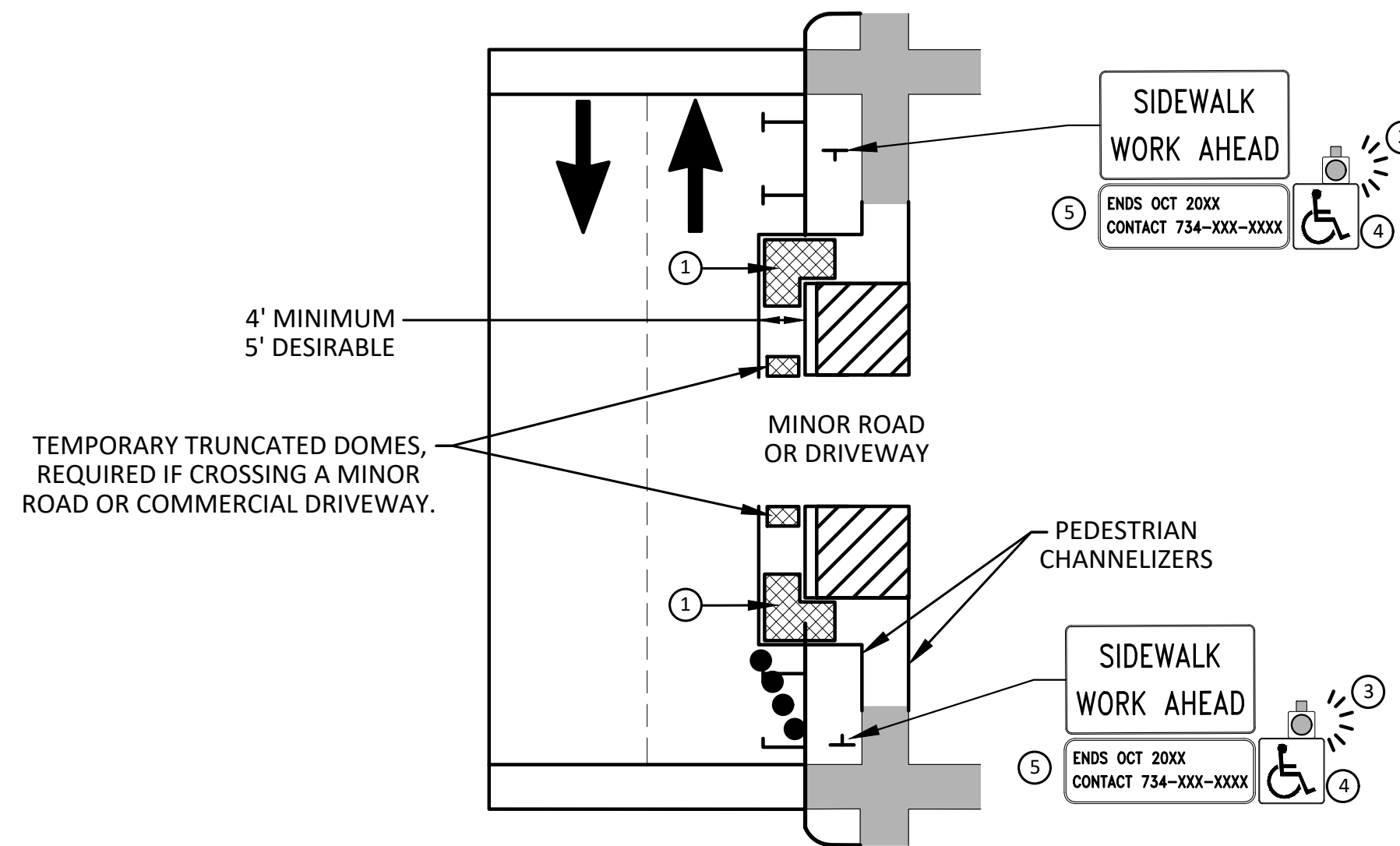


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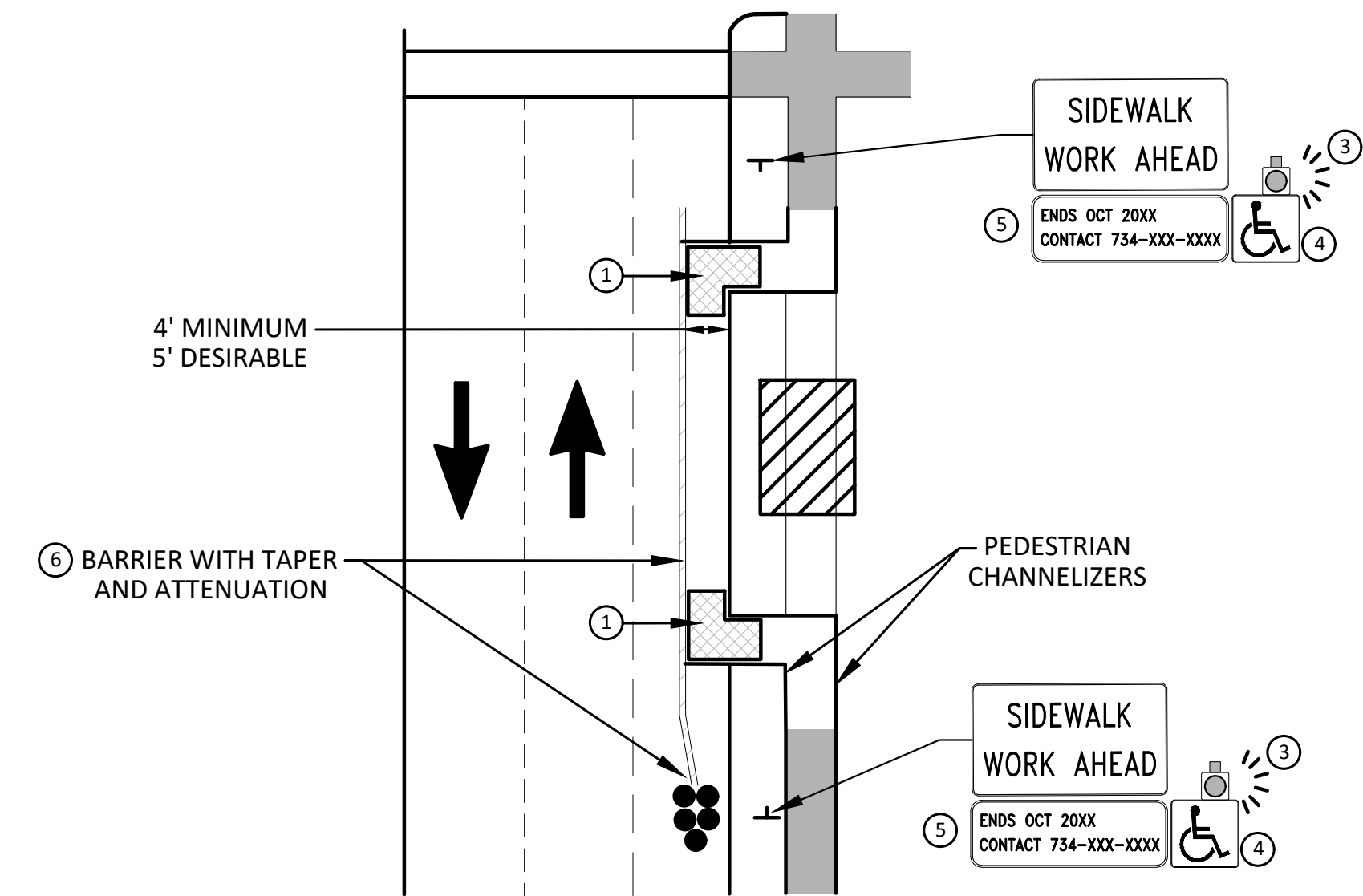


**BYPASS ON ADJACENT AVAILABLE  
RIGHT OF WAY  
BYPASS TYPE A**

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**

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 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.

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. 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



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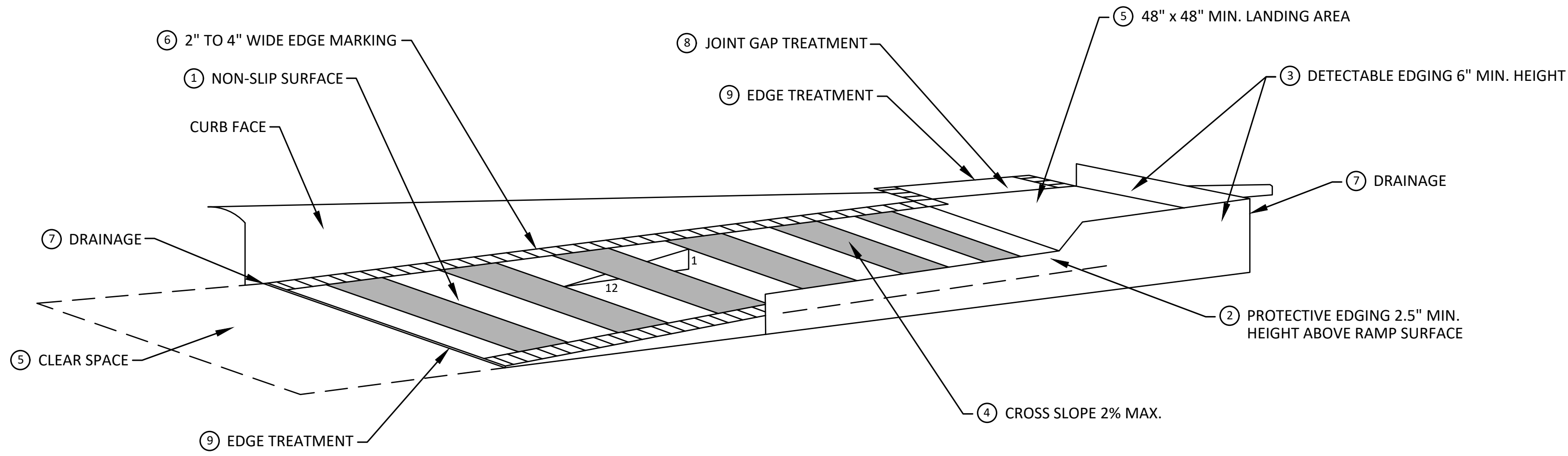
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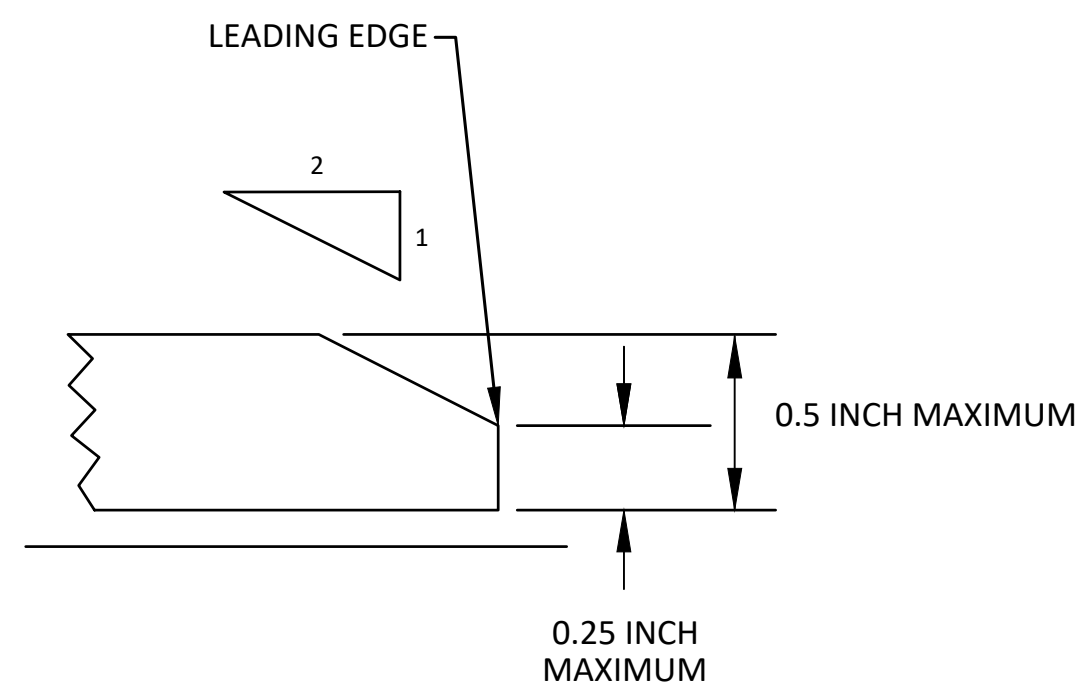
**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER AVENUE REHABILITATION**  
ALTERNATE PEDESTRIAN ROUTE (APR) BYPASS  
SCALE: N.T.S.  
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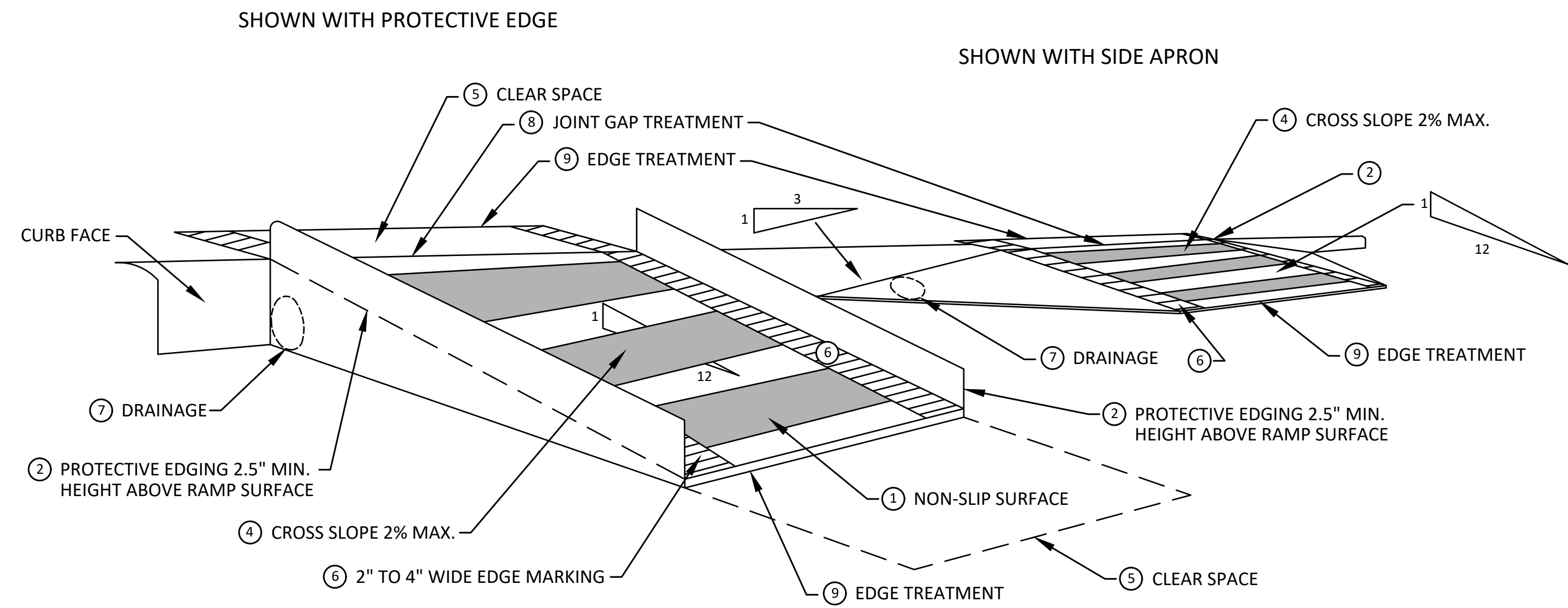
**TEMPORARY CURB RAMP  
PARALLEL TO CURB**



**EDGE TREATMENT**

**SPECIFIC NOTES**

- 1 CURB RAMPS 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 RAMPS 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 RAMPS AND LANDINGS SHALL HAVE A 2% MAX. CROSS SLOPE.
- 4 CLEAR SPACE OF 48" x 48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- 5 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.
- 6 WATER FLOW IN THE GUTTER SYSTEM SHALL NOT BE IMPEDED.
- 7 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- 8 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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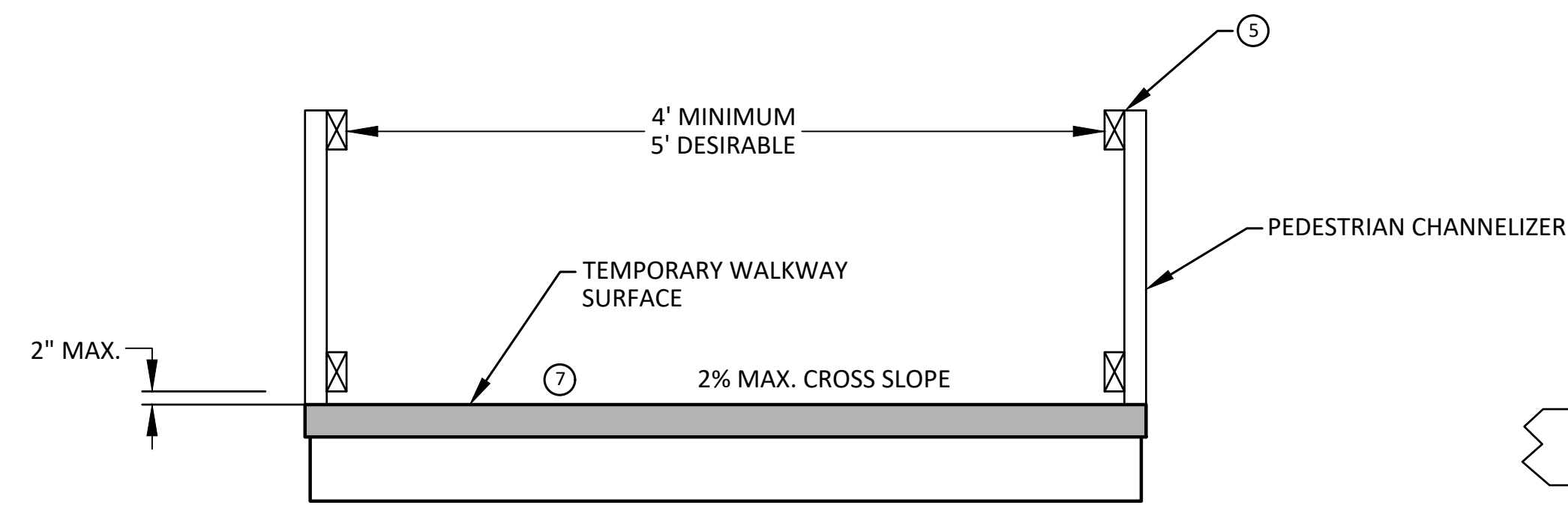


**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER AVENUE REHABILITATION**  
TPAR RAMPS

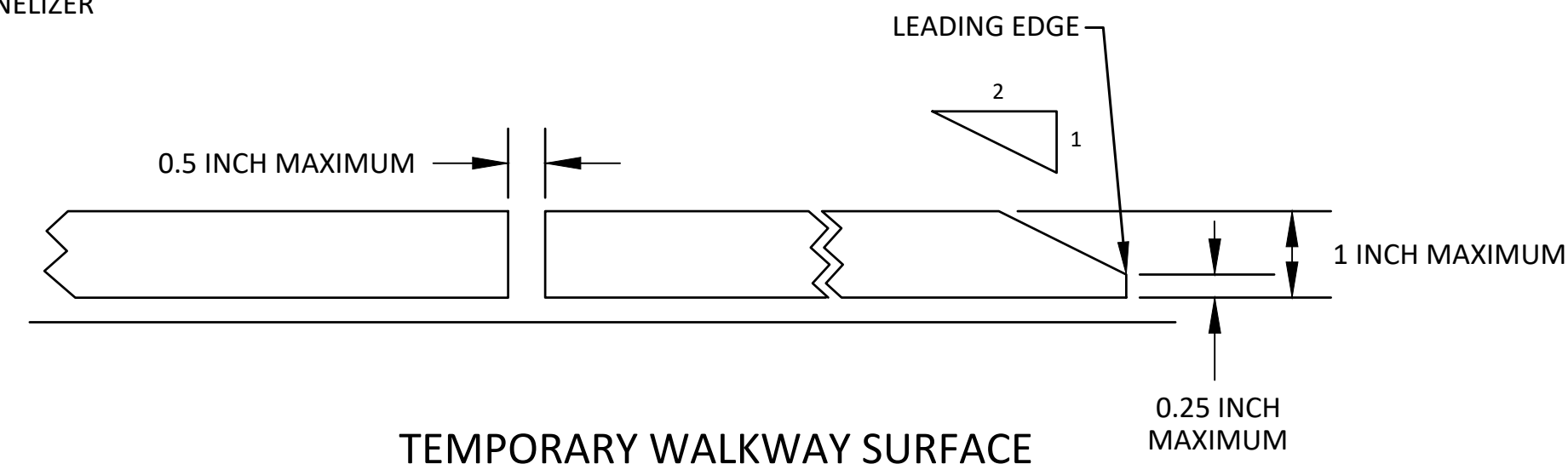
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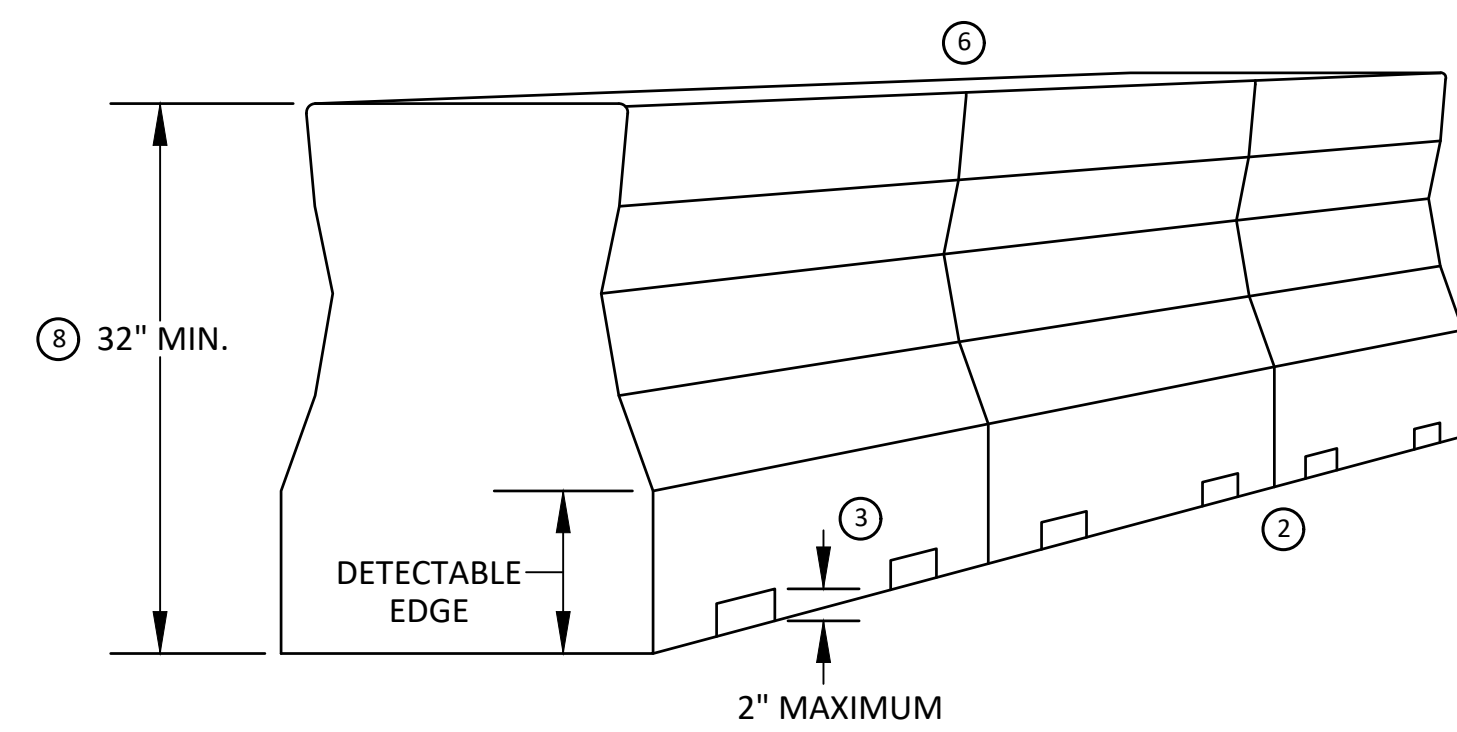
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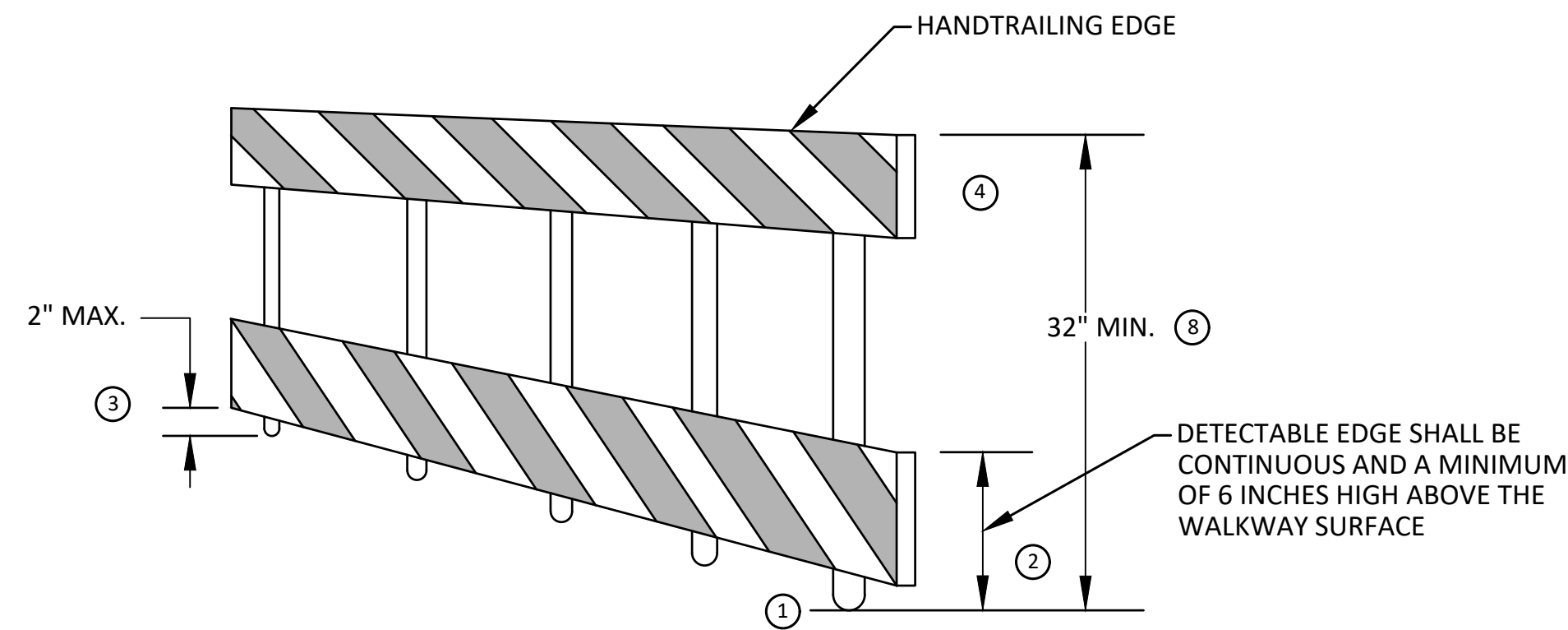
TEMPORARY PEDESTRIAN ACCESS



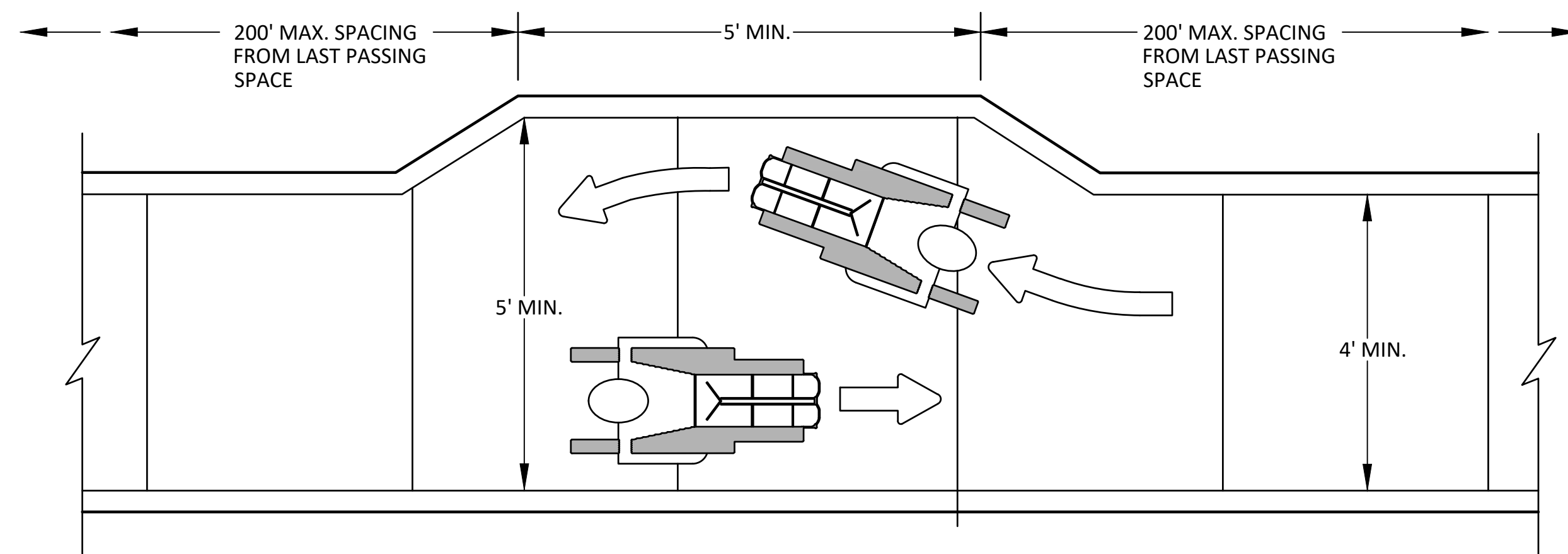
TEMPORARY WALKWAY SURFACE



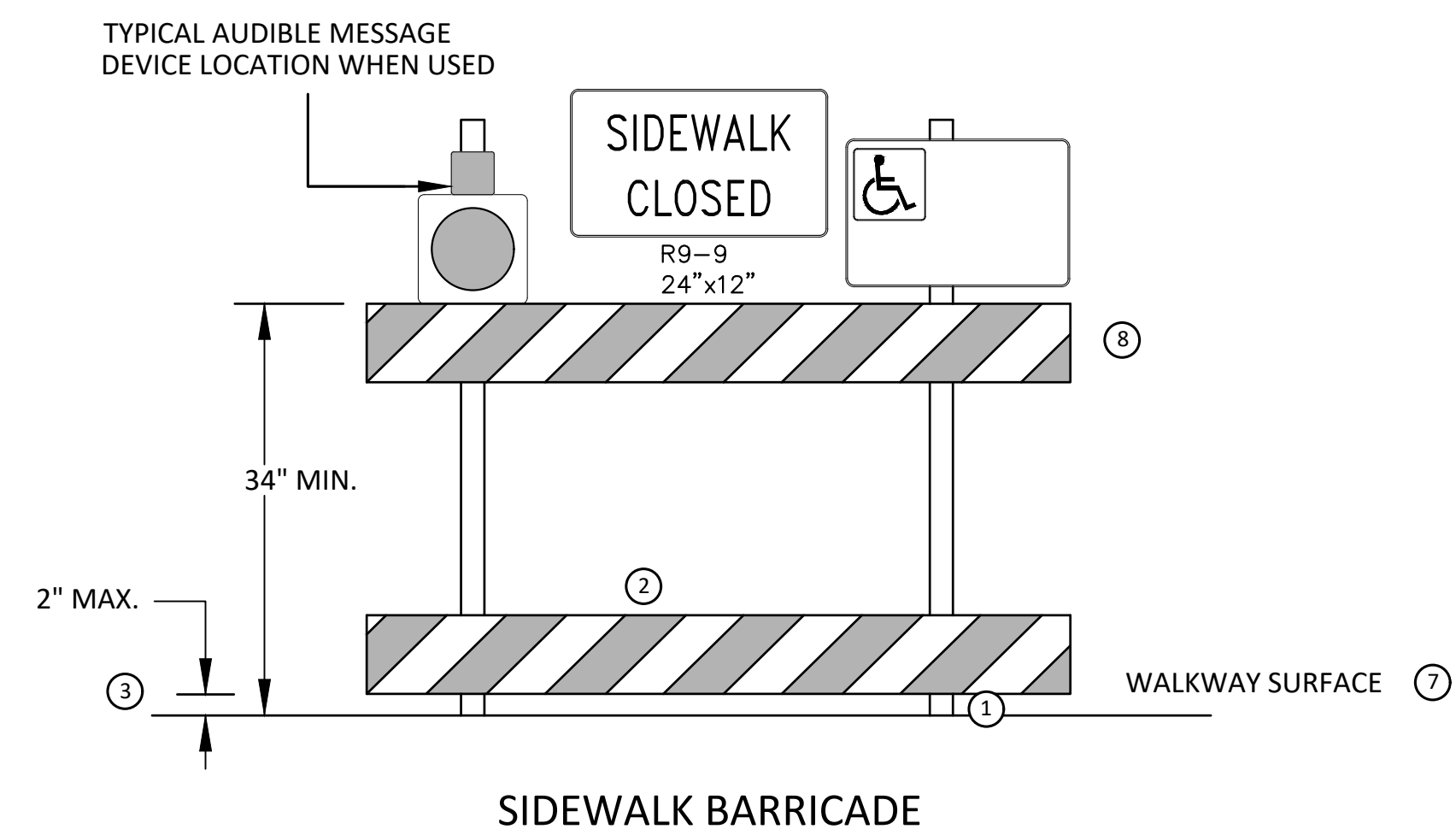
PEDESTRIAN CHANNELIZER USING A BARRIER  
(MINIMUM REQUIREMENTS)



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.

SEE CONSTRUCTION SUBSECTION 2.A FOR ADDITIONAL DETAILS.

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.

5 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.

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

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

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



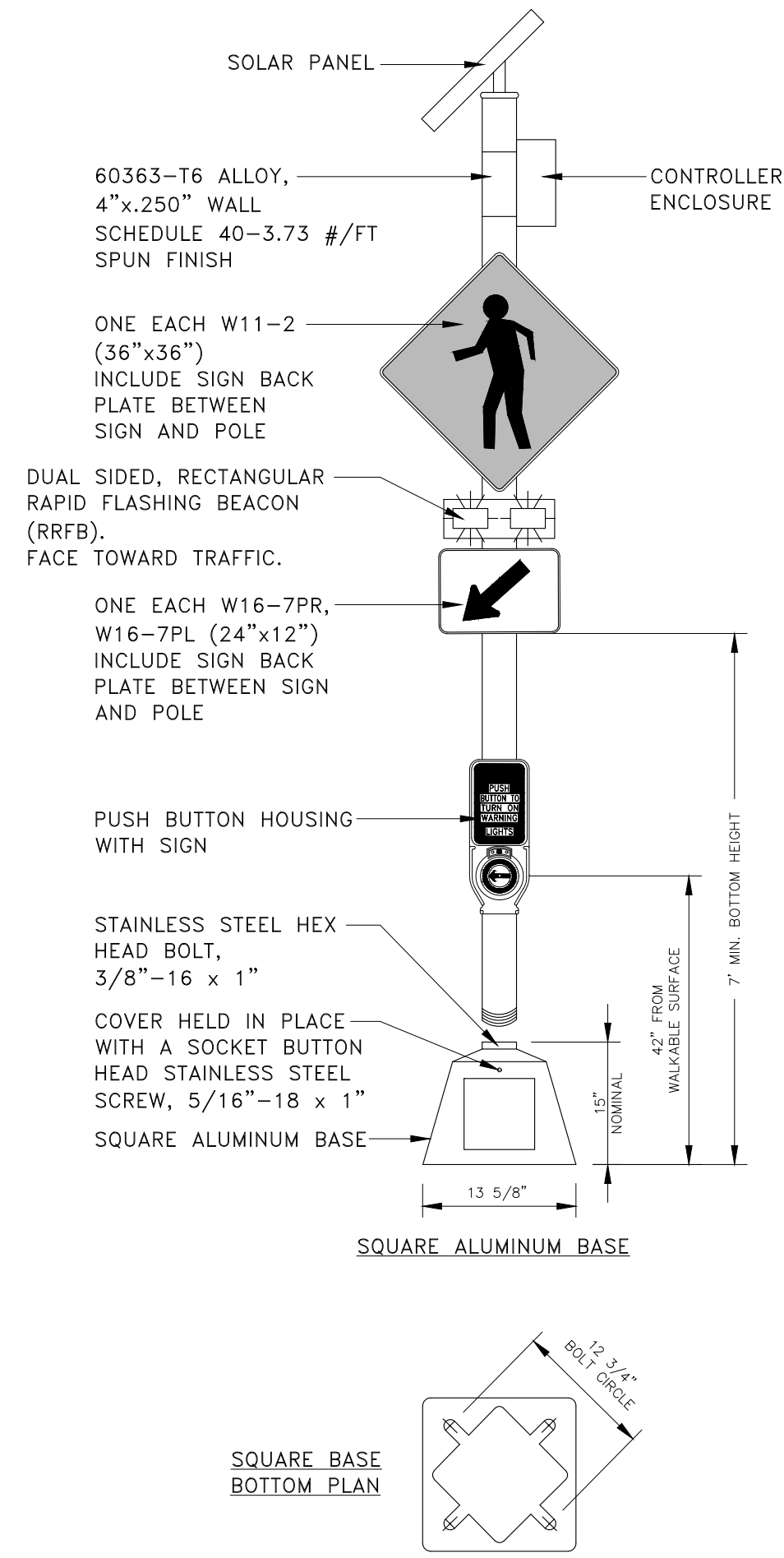
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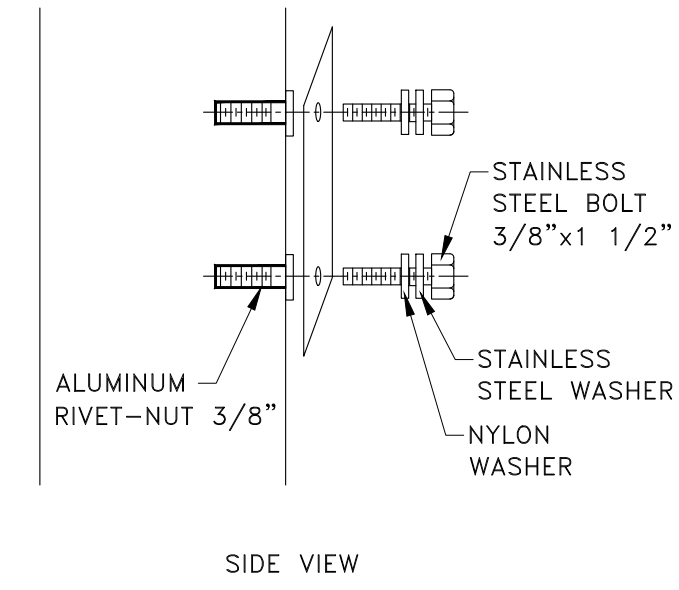


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MILLER AVENUE REHABILITATION  
TPAR WALKWAY DEVICES

SCALE: N.T.S.  
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ALL PEDESTRIAN & PUSHBUTTON SIGNS  
(SIDE MOUNT DETAIL)



**RECTANGULAR RAPID FLASHING BEACON ASSEMBLY**



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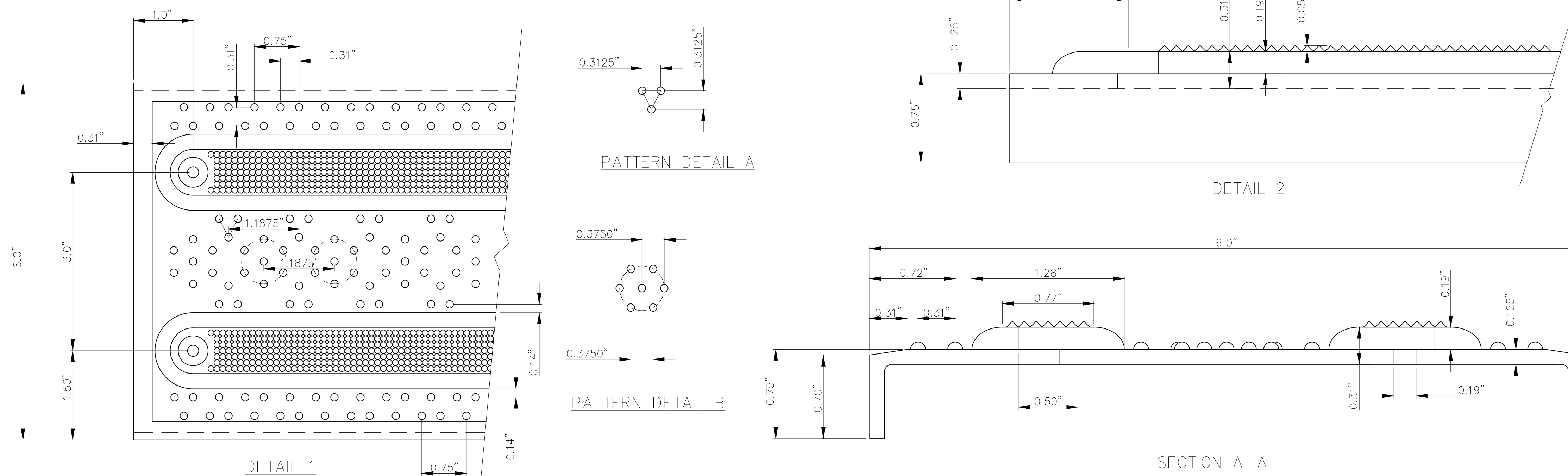
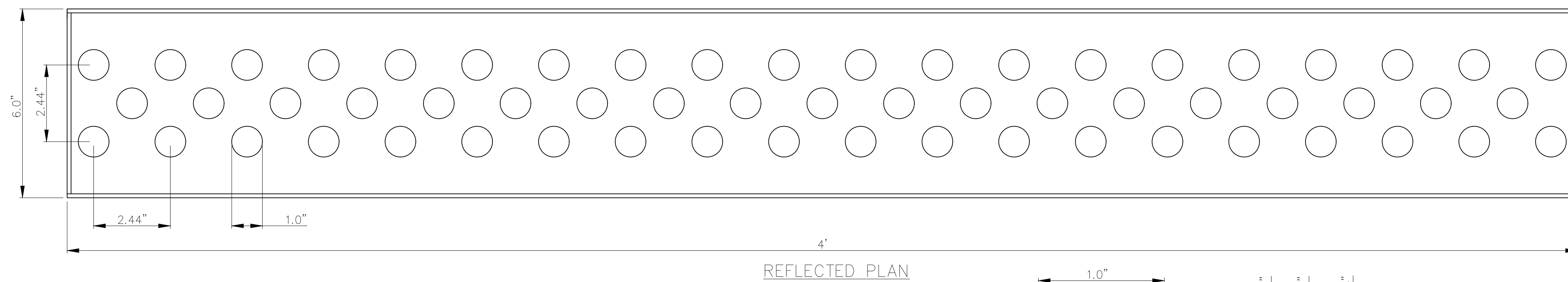
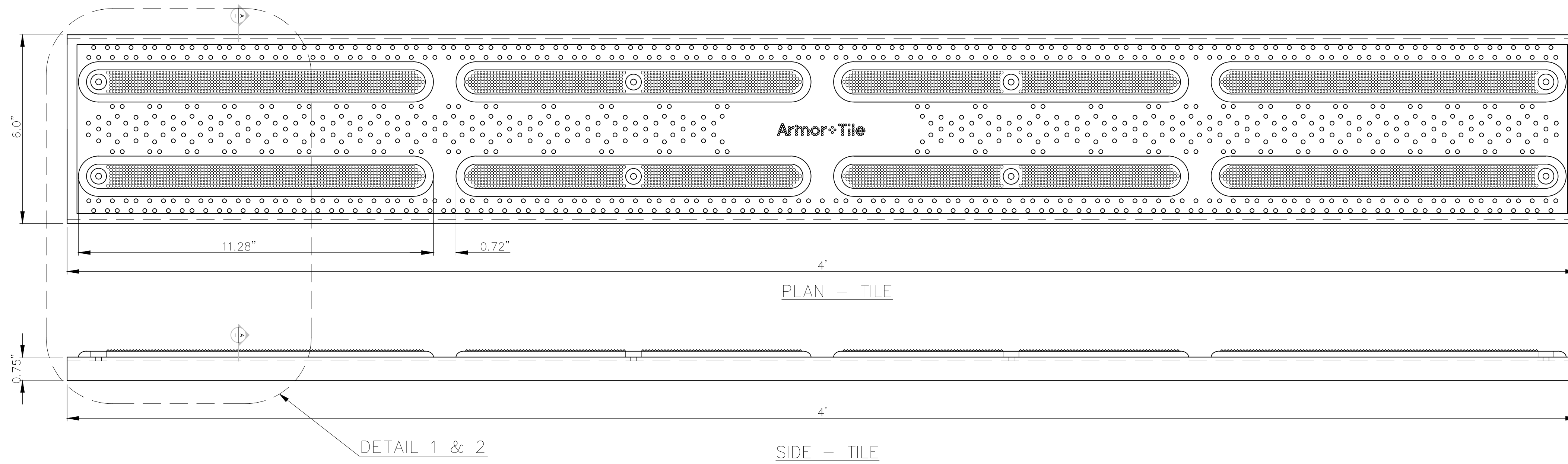
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MILLER AVENUE REHABILITATION  
RECTANGULAR RAPID FLASHING BEACON ASSEMBLY

SCALE: NTS

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 PATENTS MAY APPLY  
 U. S. PATENT NO. 5,303,669, 5,775,835,  
 6,449,790, AND 6,895,622 BS  
 C.D.N. PATENT NO. 2,032,532, 2,070,984  
 US PATENTS PENDING.

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MATERIAL LIST

#	DESCRIPTION	PART No:	QTY
1	ARMOR-TILE	ADD-504	1
2	EXPANSION ANCHOR	ADA-FAST	8
3	ARMOR-BOND	ADA-ADHE-EA	1
4	ARMOR-SEAL	ADA-SEAL-EA	1

No:	DATE	REVISION	APPR.

SCALE

DESIGNED	BY K.S.	DATE 08/90
DRAWN	D.G.	2/22/2006
CHECKED		

PROJECT MANAGER

TRADE DETECTABLE WARNING SURFACE PART No: ADA-D-448

MATERIAL VITRIFIED POLYMER COMPOSITE

SUBJECT

**Armor - Tile™ ADA**  
 SOUND AMPLIFYING DETECTABLE/TACTILE  
 WARNING SURFACE TILE

PROJECT

**Armor - Tile™**  
 DETECTABLE/TACTILE  
 DIRECTIONAL TILE  
 6" x 48" SURFACE APPLIED  
 BAR TILE  
 PLANS AND DETAILS

DRAWING No: ADD-504 REV. No: 0

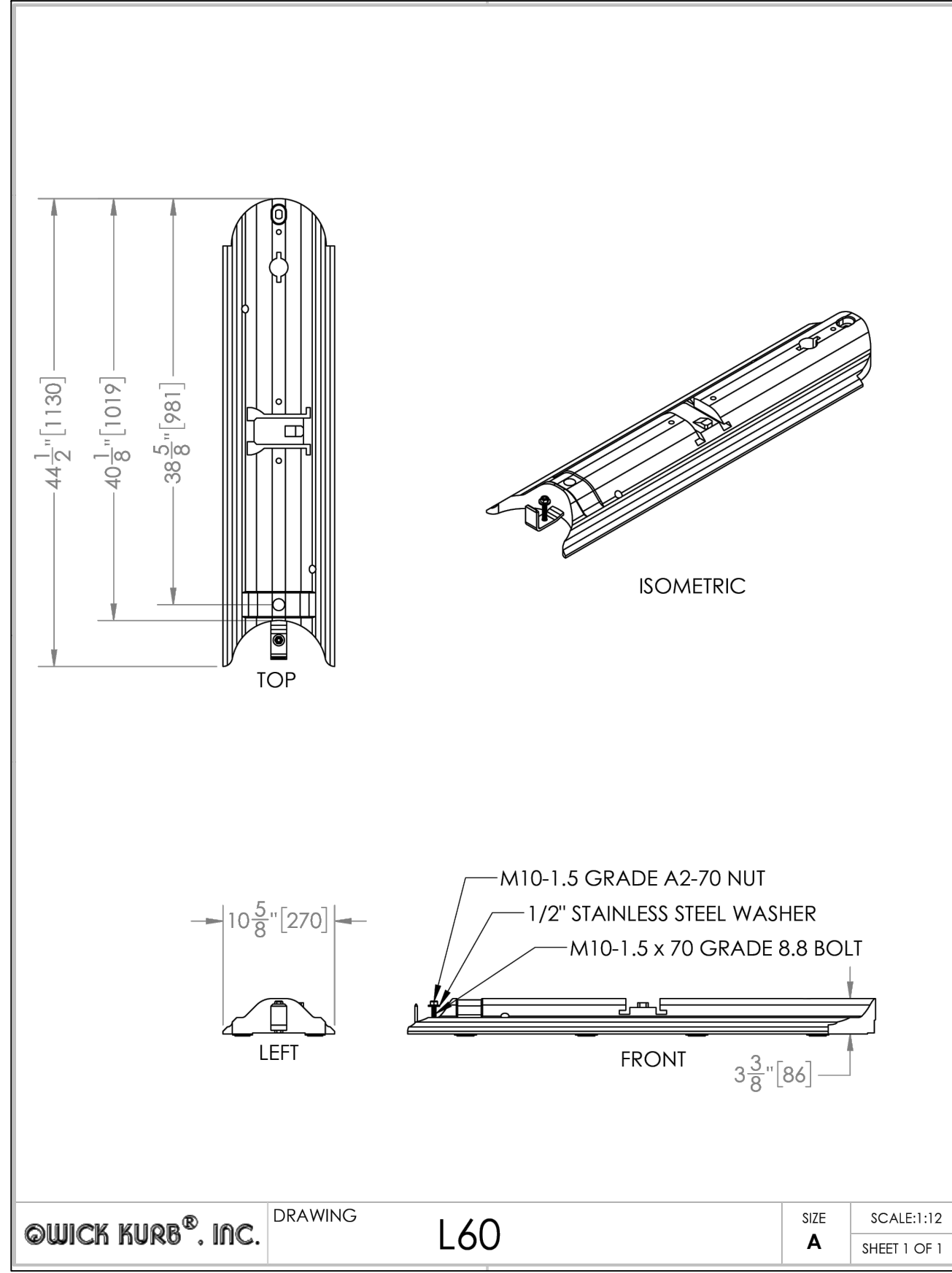


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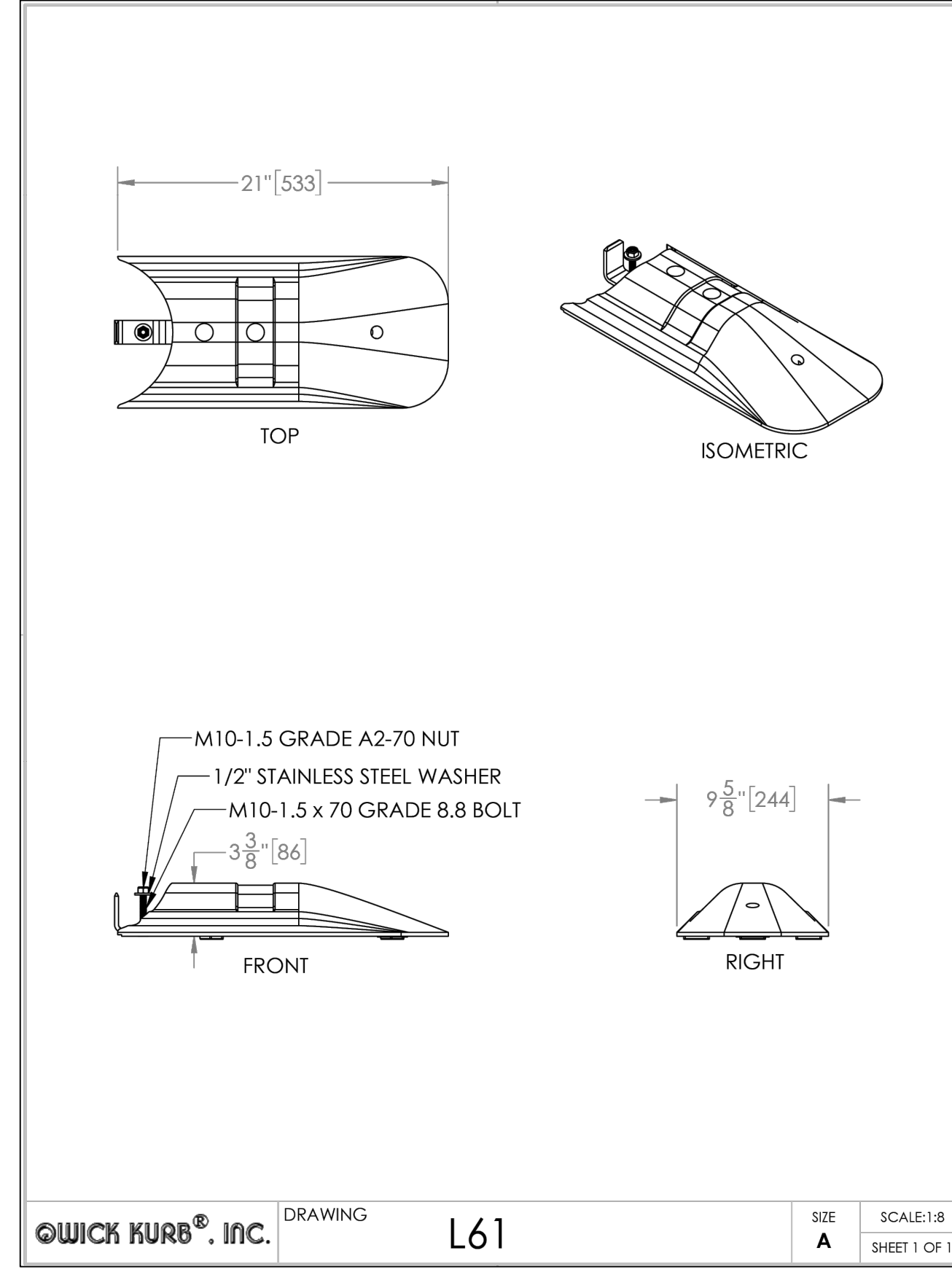


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 MILLER AVENUE REHABILITATION  
 DETECTABLE TACTILE DIRECTIONAL TILE

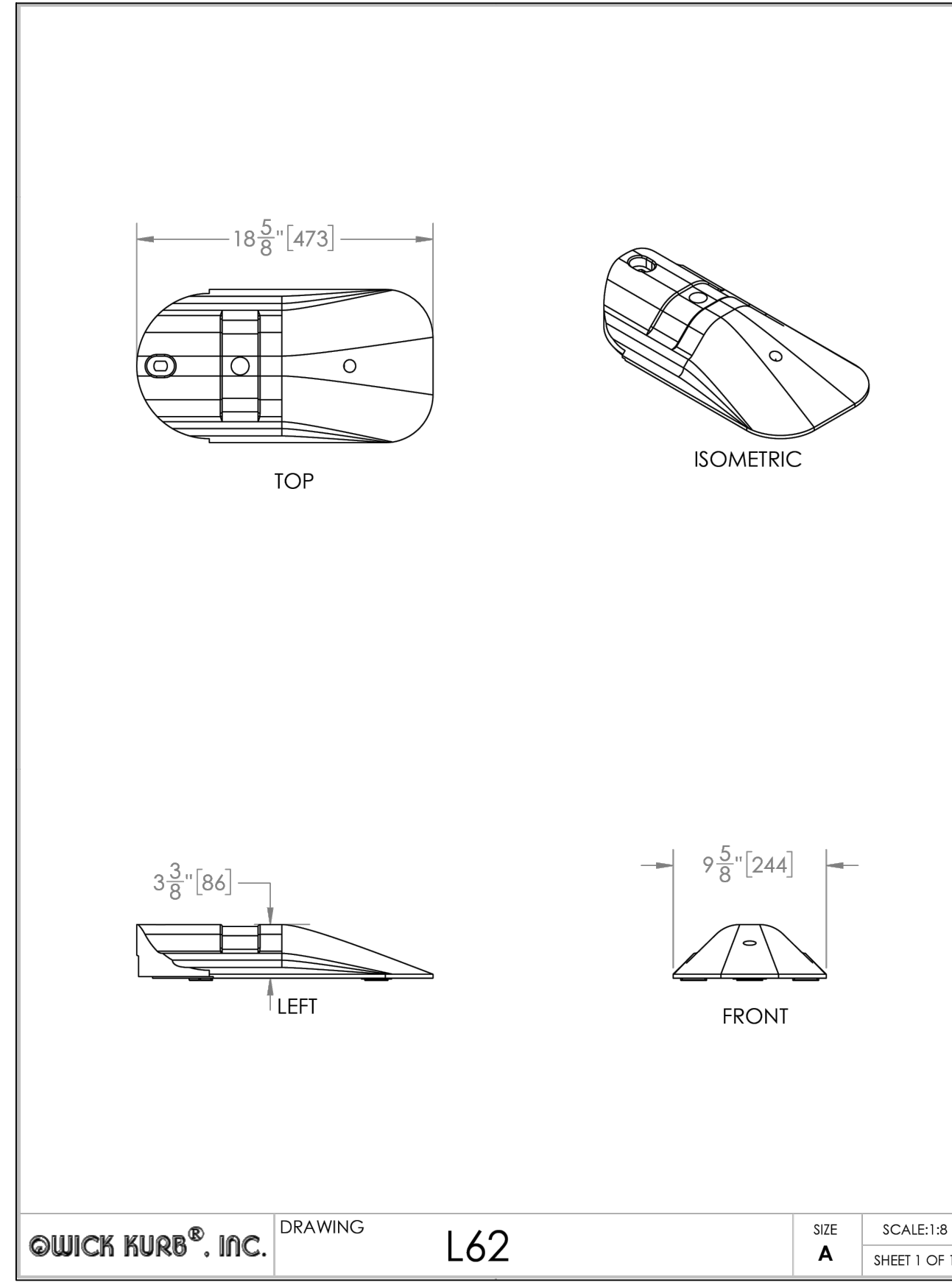
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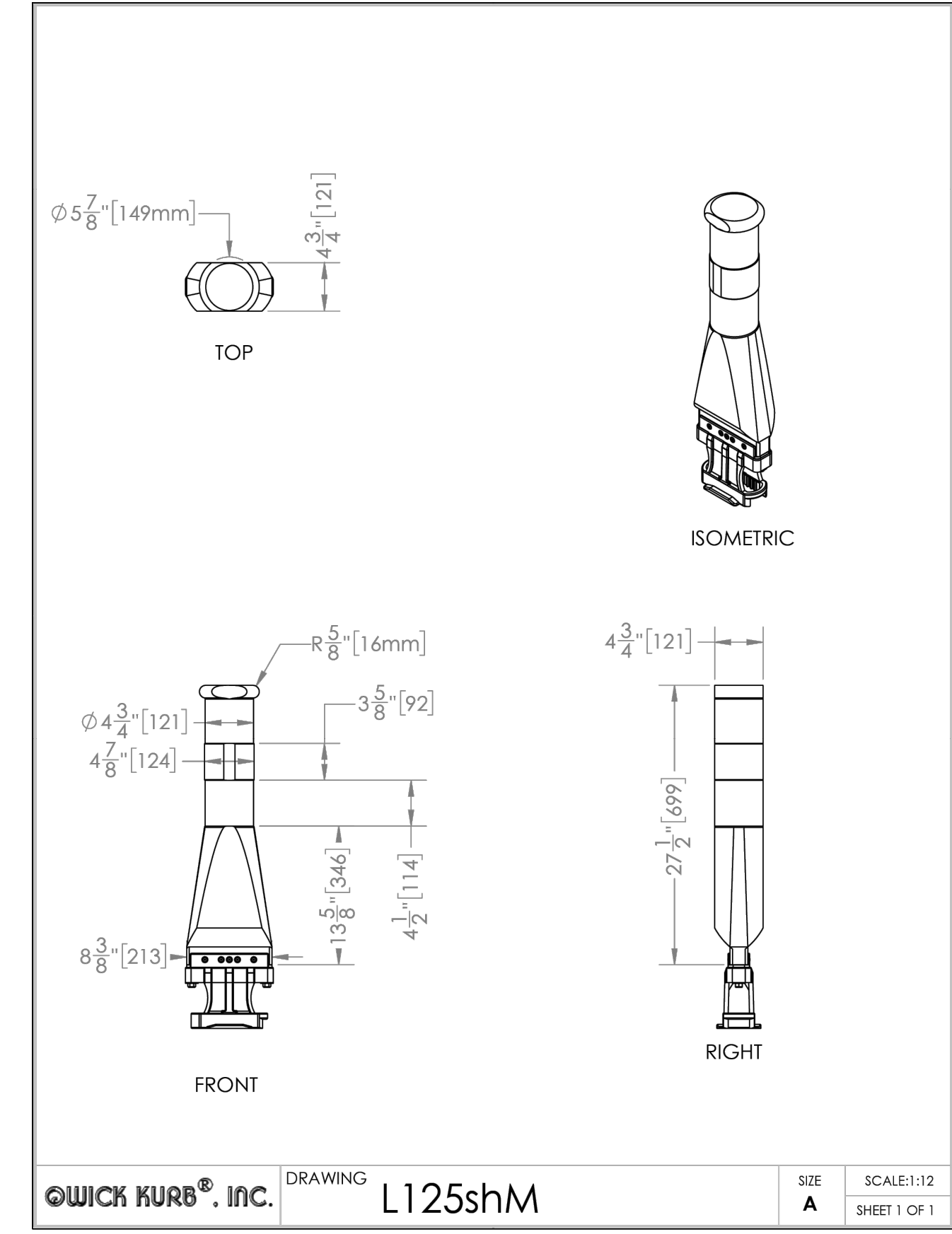
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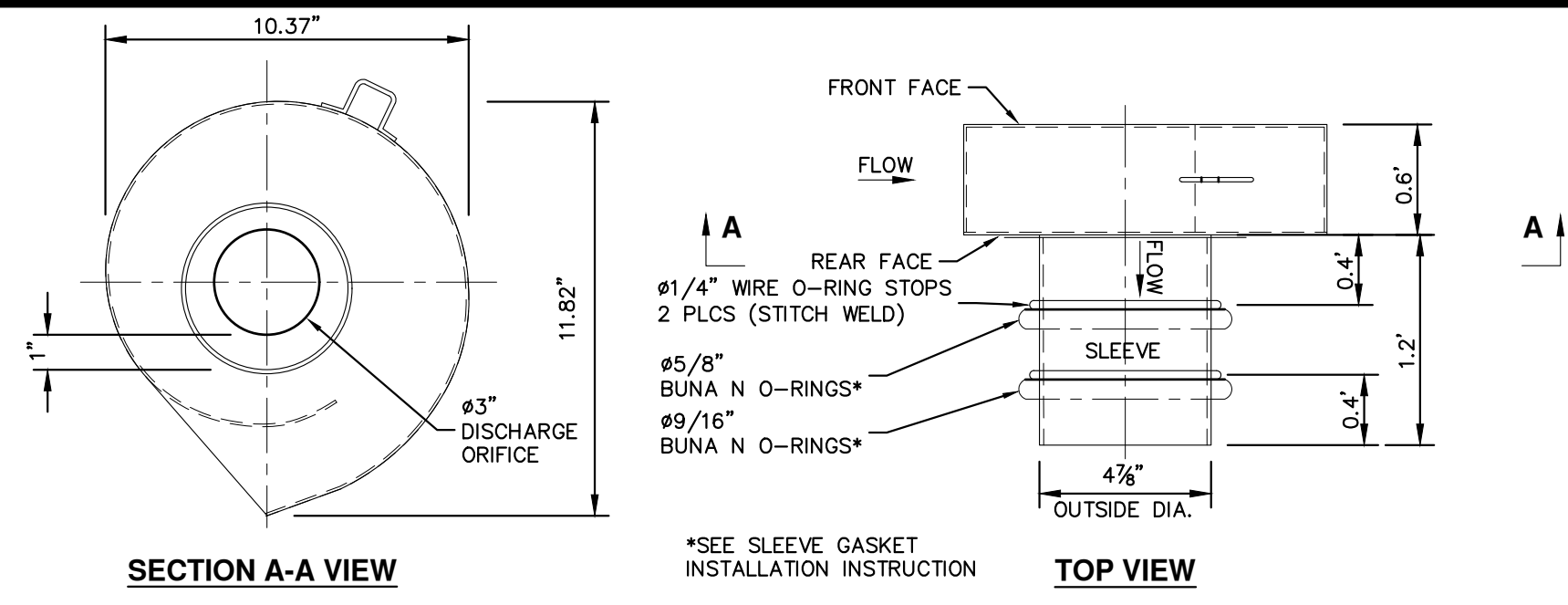
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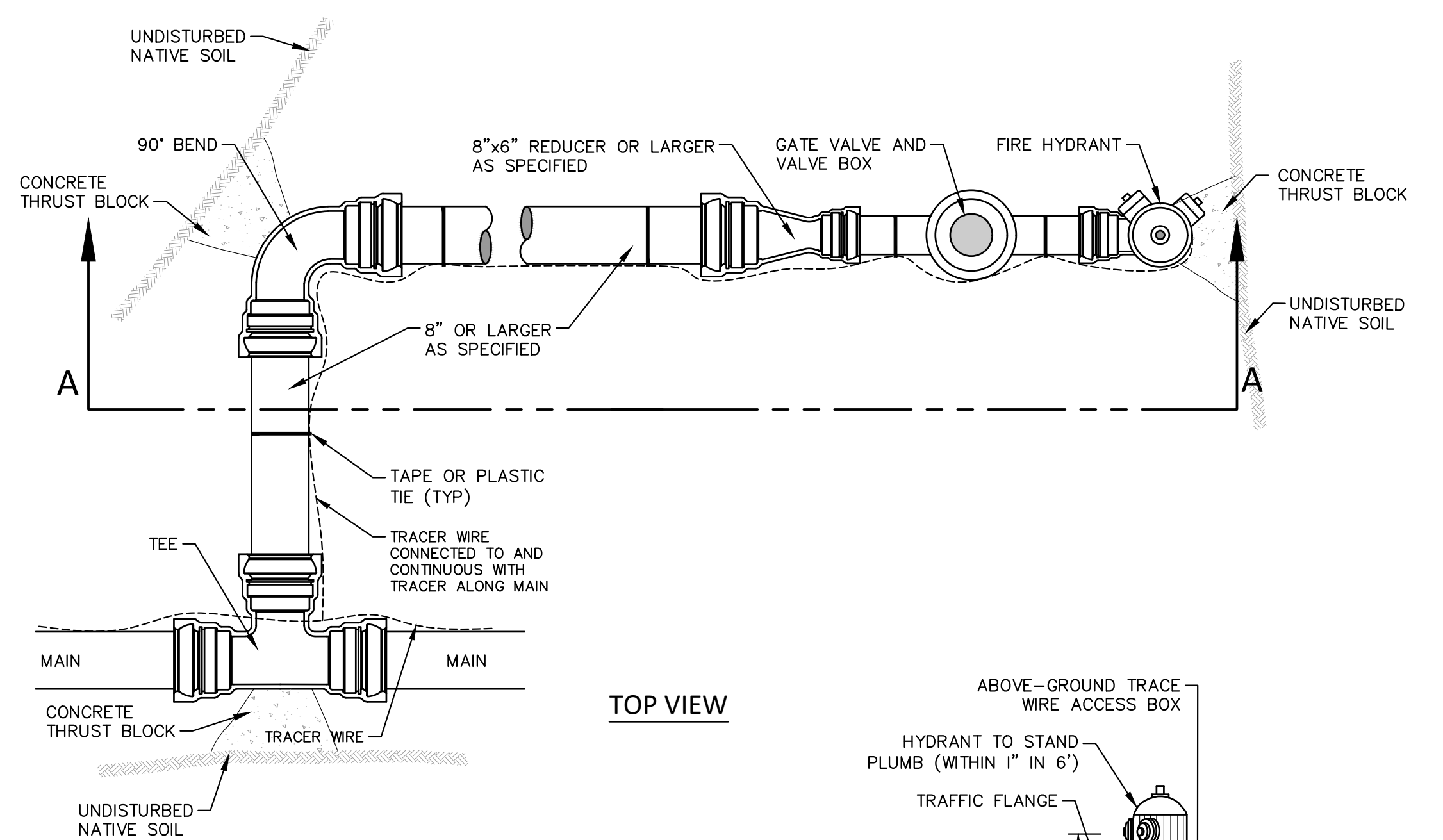
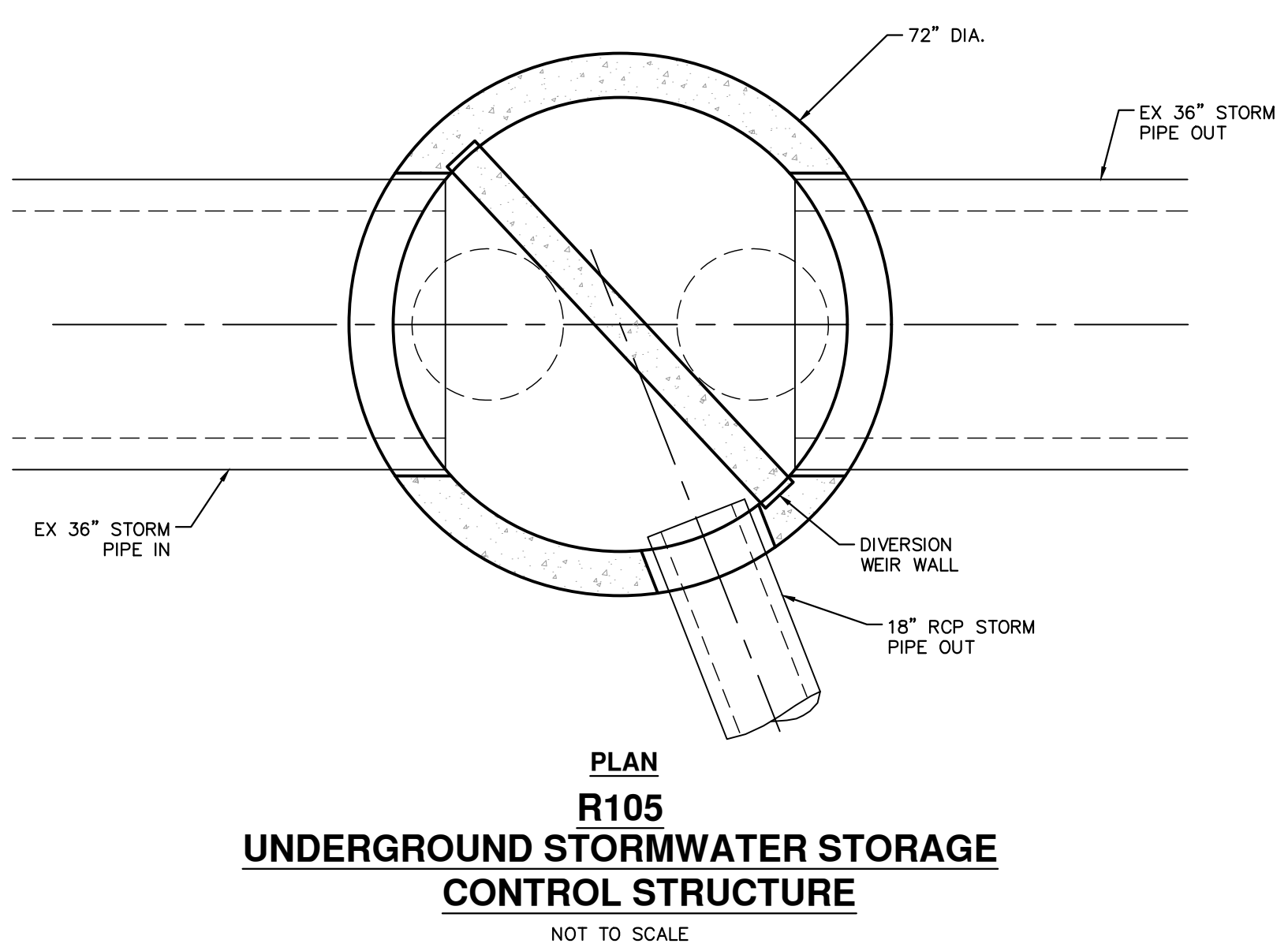
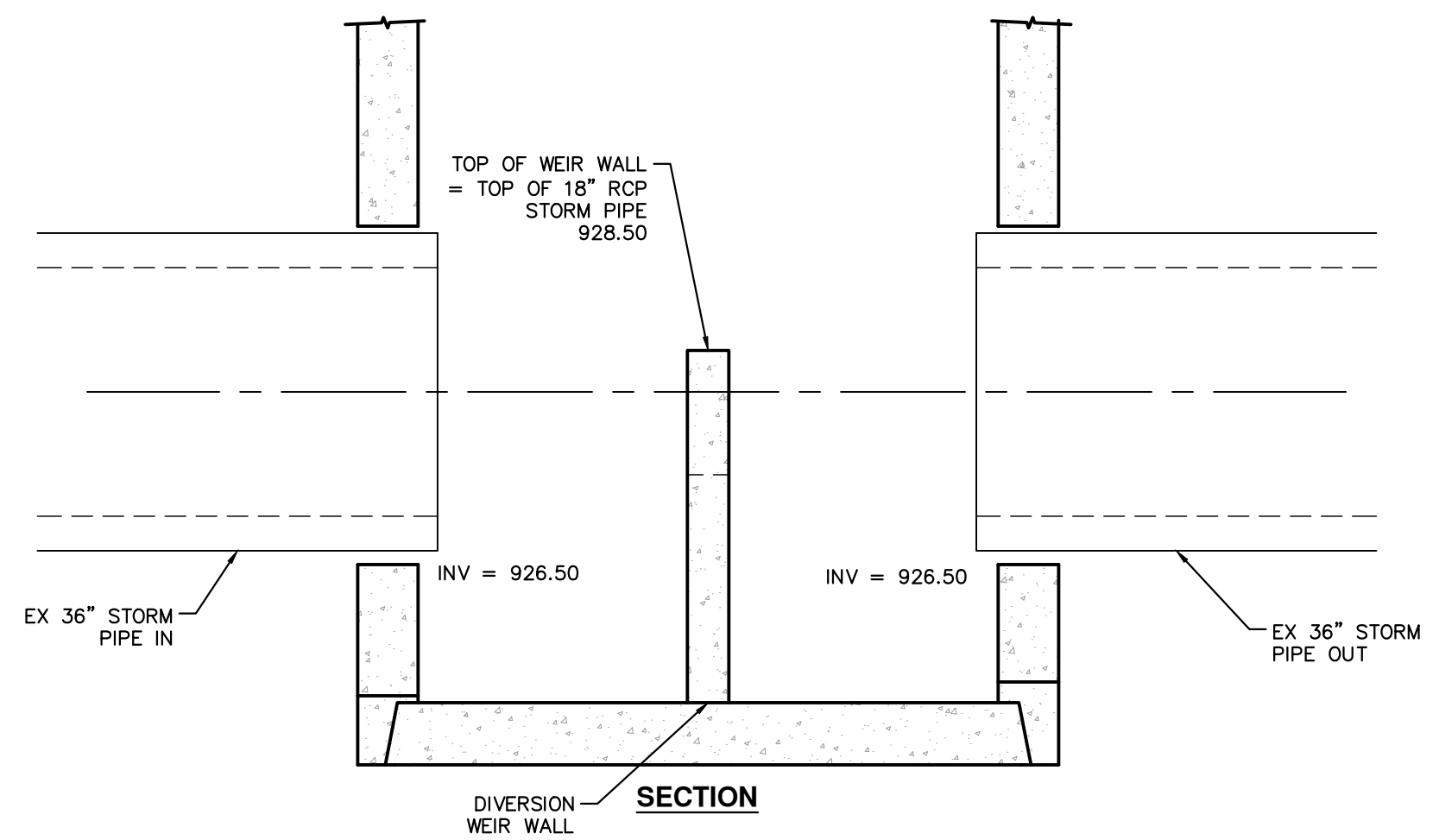
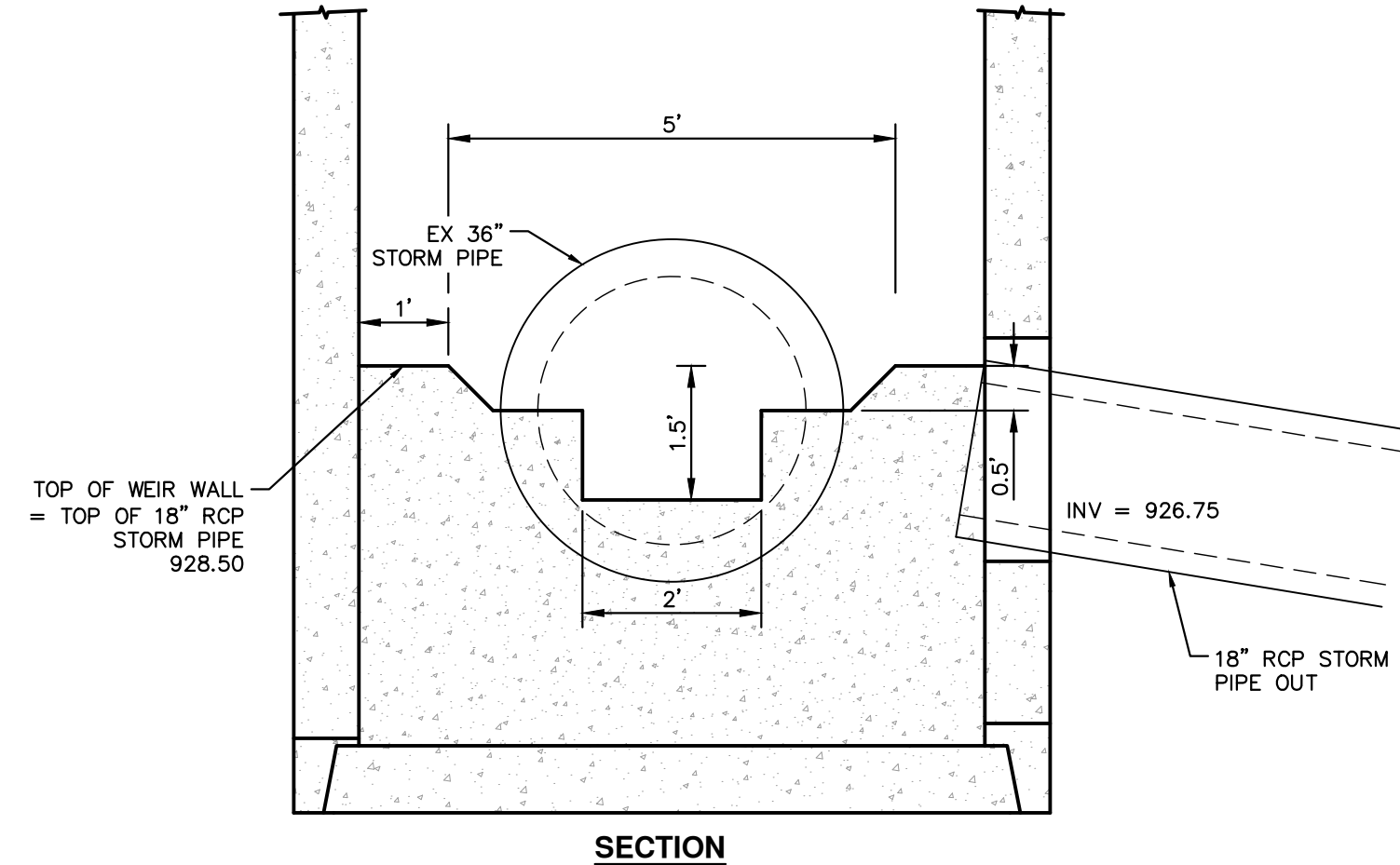
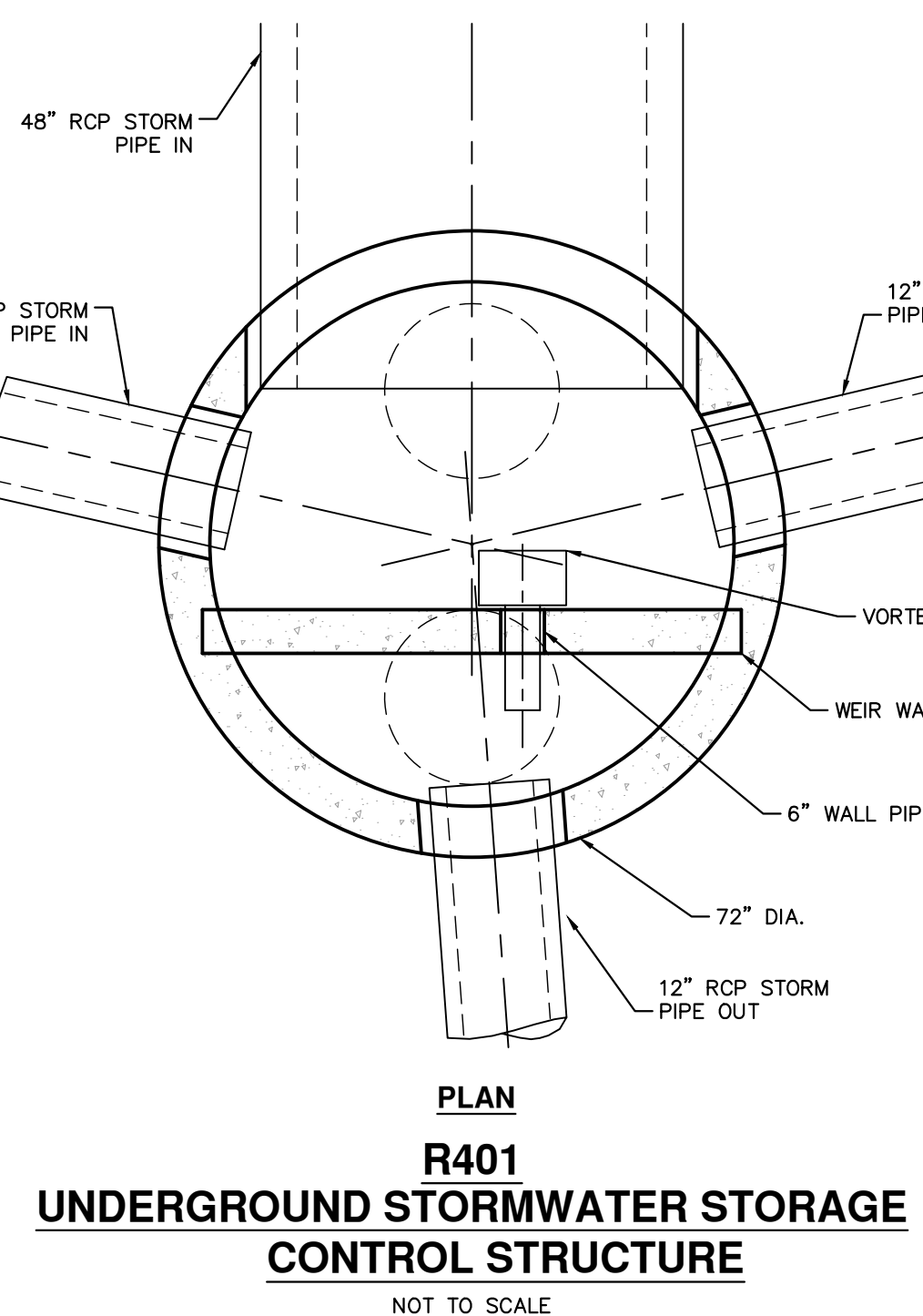
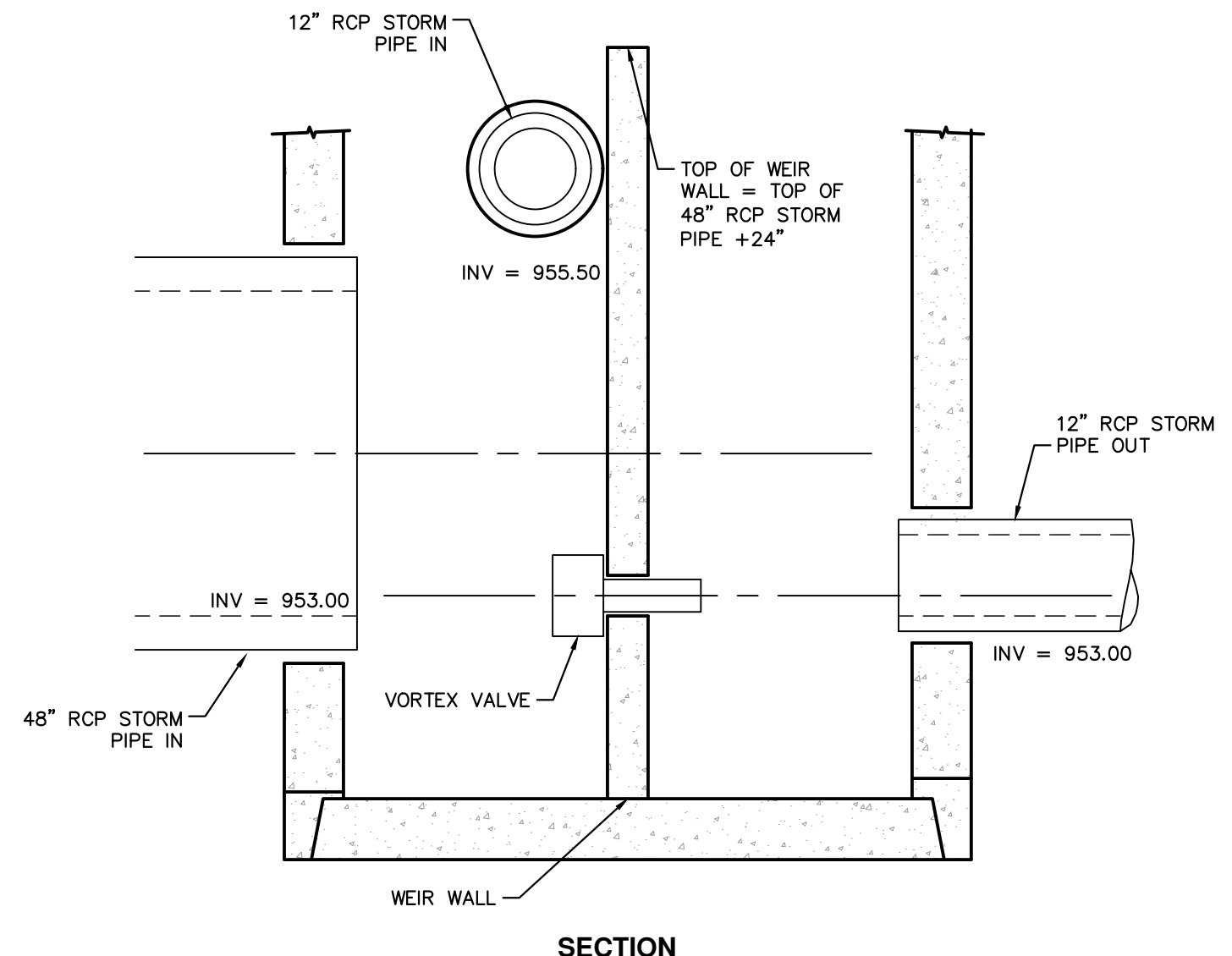
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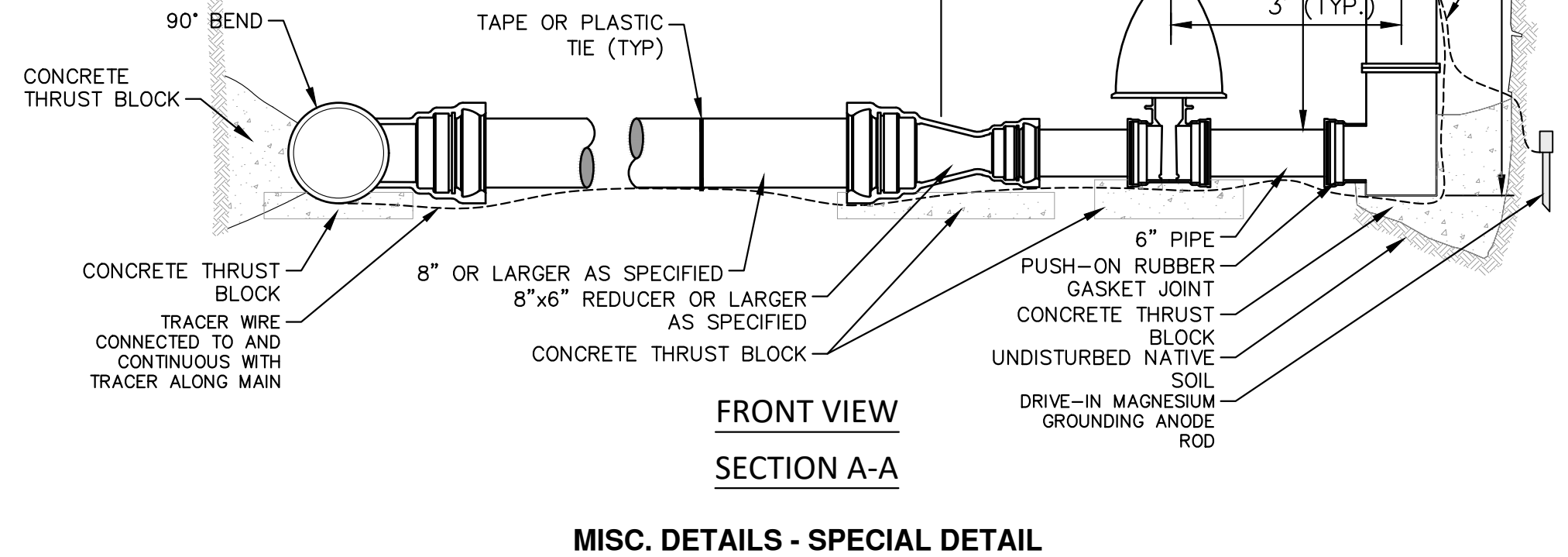


- NOTES:
- ALL WELDS CONTINUOUS UNLESS NOTED OTHERWISE.
  - MATERIALS:
    - 12 GA. 304L STAINLESS STEEL
    - (1) #5/8" AND (1) #9/16" BUNA N, 50 DUREMETER O-RINGS.
  - MANUFACTURE HOUSING AND BYPASS DOOR AND ASSEMBLE PER DRAWING "2 mm FLUIDIC-AMP FABRICATION DETAILS FA1012-FA2023 HOUSING AND INLET"
  - DISCHARGE ORIFICE LOCATED REAR FACE. #4" BYPASS OPENING LOCATED FRONT FACE.
  - INCLUDES 20' BYPASS DOOR PULL CABLE.

**FLUIDIC-AMP VORTEX VALVE MODEL FA1012 WITH SLEEVE ATTACHMENT FOR Ø6" OPENING**  
**FABRICATION DRAWING**



- NOTES:
- ALL D.I.P. PIPE, FITTINGS, AND HYDRANT BARREL TO BE POLYWRAPPED PER AWWA C105.
  - ALL HYDRANTS SHALL HAVE ONE 5" STORZ CONNECTION AND ONE 3/8" THREADED PUMPER CONNECTION.
  - ALL PIPE JOINTS SHALL BE RESTRAINED WITH THRUST BLOCKS AND LOCKING GASKETS



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DESCRIPTION	REV.	

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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER AVENUE REHABILITATION**  
 MISC. DETAILS

SCALE: NTS  
 DRAWING No. 2022034-11  
 SHEET No. 11 OF 132

**PROJECT SUMMARY**

- DESIGN PARAMETERS**
- PRE-TREATMENT METHOD = Hydrodynamic Separator
  - STORAGE VOLUME REQUIRED = 6712ft<sup>3</sup>
  - INVERT DEPTH = 6ft
  - MANIFOLD DIAMETER = 18in.
  - SPACING BETWEEN CHAMBERS = 5.6in.
  - SIDE PERIMETER STONE WIDTH = 12in.
  - END PERIMETER STONE WIDTH = 12in.
  - TOP PERIMETER STONE WIDTH = 6in.
  - BOTTOM PERIMETER STONE WIDTH = 6in.
  - STONE POROSITY = 40%

- SYSTEM DETAILS**
- TOTAL ELBOW MANIFOLDS = 1
  - TOTAL TEE MANIFOLDS = 7
  - TOTAL START CHAMBERS = 8
  - TOTAL MID CHAMBERS = 64
  - TOTAL END CHAMBERS = 8
  - TOTAL NUMBER OF CHAMBERS = 80
  - NUMBER OF ROWS = 8
  - CHAMBERS PER ROW = 10
  - CHAMBER STORAGE VOLUME = 3792ft<sup>3</sup>
  - MANIFOLD STORAGE VOLUME = 111.4ft<sup>3</sup>
  - BACKFILL STORAGE VOLUME = 2809.28ft<sup>3</sup>
  - TOTAL STORAGE PROVIDED = 6712.68ft<sup>3</sup>

- SYSTEM DIMENSIONS AND OTHER MATERIALS**
- RECTANGULAR FOOTPRINT = 78.41x39.53ft
  - TOTAL EXCAVATION = 746.23y<sup>3</sup>
  - STONE BACKFILL = 260.12y<sup>3</sup>
  - REMAINING BACKFILL TO PAVEMENT = 341.55y<sup>3</sup>
  - WOVEN GEOTEXTILE QTY = 0y<sup>2</sup>
  - NON-WOVEN GEOTEXTILE QTY = 344.42y<sup>2</sup>
  - SCOUR PROTECTION FITTING = 38.53x7.5ft
  - APPROXIMATE TRUCKLOADS = 1

**GENERAL NOTES**

1. ALL ELEVATIONS, DIMENSIONS AND LOCATIONS OF RISERS AND INLETS SHALL BE VERIFIED BY THE ENGINEER OF RECORD.
2. PRIOR TO INSTALLATION OF THE CHAMBERMAXX SYSTEM A PRE-CONSTRUCTION MEETING SHALL BE CONDUCTED. THOSE REQUIRED TO ATTEND ARE THE SUPPLIER OF THE SYSTEM, THE GENERAL CONTRACTOR, SUB-CONTRACTORS AND THE ENGINEER.
3. CHAMBERMAXX CHAMBERS ARE MANUFACTURED FROM POLYPROPYLENE PLASTIC.
4. CHAMBERMAXX SYSTEM TO MEET AASHTO HS20/HS25 LIVE LOADING, PER AASHTO LRFD SECTION 12.
5. ACCESS COVERS TO MEET AASHTO HS20/HS25 LIVE LOADING.
6. MINIMUM COVER IS 18-INCHES TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. FOR COVER HEIGHTS GREATER THAN 96-INCHES CONTACT YOUR LOCAL REPRESENTATIVE.
7. ALL PARTS PROVIDED BY CONTECH UNLESS OTHERWISE NOTED.
8. FOR INFORMATION ON PRE-TREATMENT SYSTEMS, REFERENCE CONTECH PRE-TREATMENT SYSTEM STANDARD DETAILS OR CONTACT YOUR LOCAL REPRESENTATIVE.
9. CHAMBERMAXX BY CONTECH ENGINEERED SOLUTIONS (800) 925-5240

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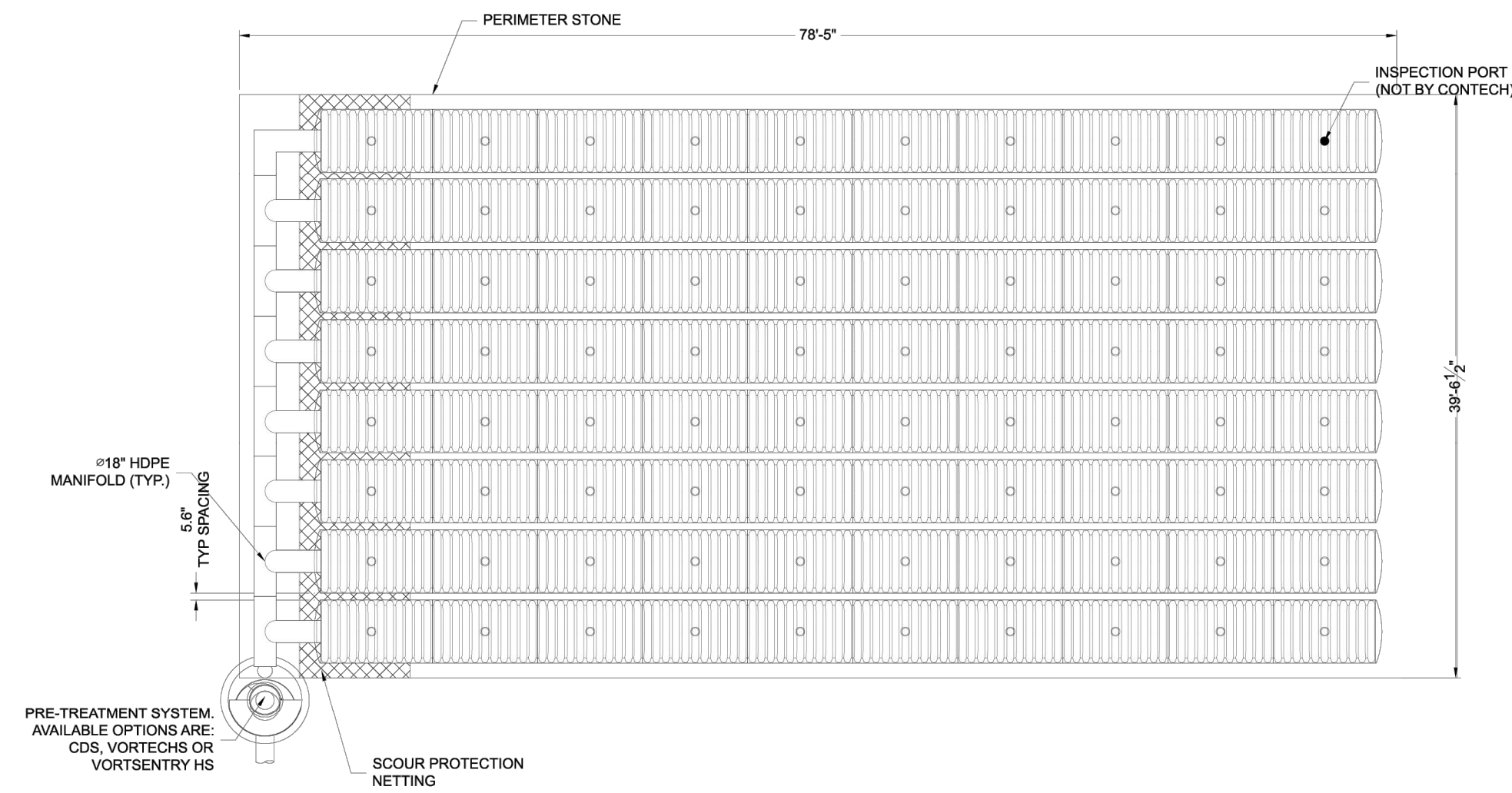
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CHAMBERMaxx®  
CONTECH  
DYODS  
DRAWING

ASSEMBLY  
SCALE: 1"=10'

DYO47180 Miller Ave  
West Park  
Ann Arbor, MI  
CHAMBERMAXX

PROJECT No.	SEQ. No.	DATE
32607	47180	03/05/2024
DESIGNED BY	DRAWN BY	
DYO	DYO	
CHECKED BY	APPROVED BY	
DYO	DYO	
SHEET No.	D1 OF D4	



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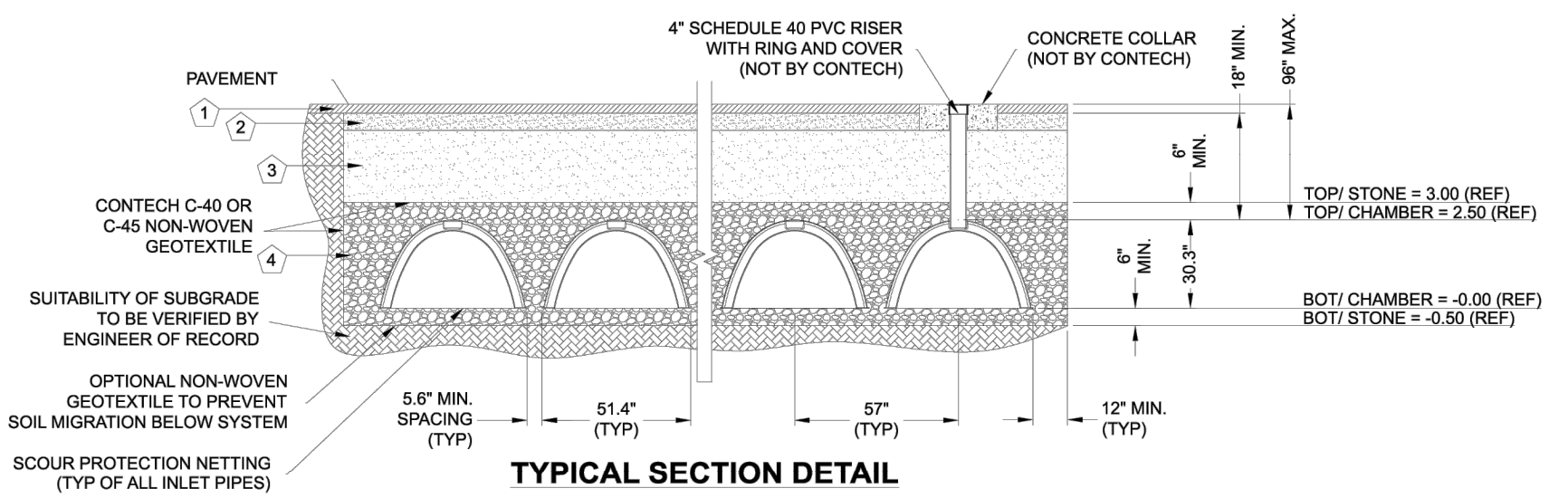
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**MILLER AVENUE REHABILITATION**  
CONTECH CHAMBERMAXX

SCALE PLAN: 1" = 5'  
DRAWING No.  
2022034-12



**INSTALLATION NOTES**

1. CHAMBERMAXX INSTALLATION GUIDE TO BE REVIEWED BY CONTRACTOR PRIOR TO INSTALLATION.
2. PRIOR TO PLACING BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, UNSUITABLE MATERIAL SHALL BE REMOVED AND BROUGHT BACK TO GRADE WITH FILL MATERIAL AS APPROVED BY THE ENGINEER OF RECORD. ONCE THE FOUNDATION PREPARATION IS COMPLETE, THE BEDDING MATERIAL CAN BE PLACED.
3. THE SCOUR PROTECTION NETTING TO EXTEND 1'-0" BEYOND OUTSIDE EDGE OF INLET CHAMBERS.
4. COVER ANY OPEN VOID SPACES GREATER THAN 3/4" ON CHAMBERS WITH A NON-WOVEN GEOTEXTILE TO PREVENT INFILTRATION OF BACKFILL MATERIAL.
5. STONE EMBEDMENT MATERIAL SHALL BE INSTALLED TO 95% STANDARD PROCTOR DENSITY AND PLACED IN 6-INCH TO 8-INCH LIFTS SUCH THAT THERE IS NO MORE THAN A TWO LIFT DIFFERENTIAL BETWEEN ANY OF THE CHAMBERS AT ANY TIME. GRANULAR BACKFILL MATERIAL SHALL BE COMPACTED TO 90% SPD. BACKFILLING SHALL BE ADVANCED ALONG THE LENGTH OF THE CHAMBER ROWS AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING AND DISPLACEMENT OF THE CHAMBERS. THE MINIMUM CHAMBER SPACING MUST BE MAINTAINED.
6. REFER TO CHAMBERMAXX INSTALLATION GUIDE FOR TEMPORARY CONSTRUCTION LOADING GUIDELINES.
7. IT IS ALWAYS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.
8. GENERAL INSTALLATION METHODS AND MATERIALS TO BE IN ACCORDANCE WITH ASTM D2321.



**TYPICAL SECTION DETAIL**  
NOT TO SCALE

**KEY:**

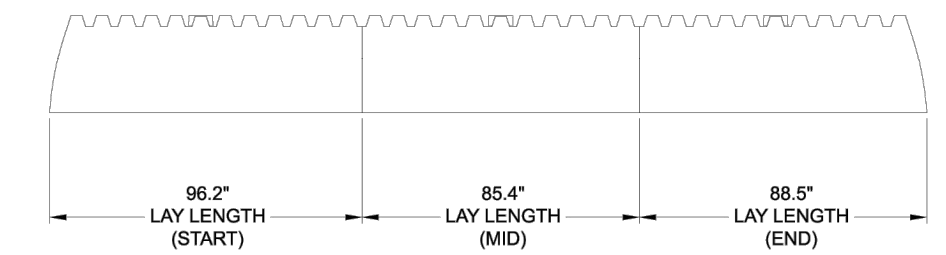
1. FLEXIBLE PAVEMENT.
2. GRANULAR ROAD BASE.
3. ANY SUITABLE NATIVE OR GENERAL BACKFILL. SEE ENGINEER PLANS.
4. THE BACKFILL MATERIAL SHALL BE FREE-DRAINING ANGULAR WASHED STONE 3/4" - 2" PARTICLE SIZE. MATERIAL SHALL BE PLACED IN 8"-10" MAXIMUM LIFTS. MATERIAL SHALL BE WORKED INTO THE CHAMBER SPACING BY MEANS OF SHOVEL-SLICING, RODDING, AIR-TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS. COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE PROJECT ENGINEER OR THEIR REPRESENTATIVE IS SATISFIED WITH THE LEVEL OF COMPACTION. INADEQUATE COMPACTION CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY CHAMBER IN THE SYSTEM AT ALL TIMES DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

EQUIPMENT USED TO PLACE AND COMPACT THE BACKFILL SHALL BE OF A SIZE AND TYPE SO AS NOT TO DISTORT, DAMAGE, OR DISPLACE THE CHAMBERS. ATTENTION MUST BE GIVEN TO PROVIDING ADEQUATE MINIMUM COVER FOR SUCH EQUIPMENT, AND MAINTAIN BALANCED LOADING ON ALL CHAMBERS IN THE SYSTEM, DURING ALL SUCH OPERATIONS.

OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. CONTACT YOUR LOCAL CONTECH REPRESENTATIVE FOR DETAILS.

CHAMBERMAXX DESIGN DETAILS			
FEATURE	START CHAMBER	MIDDLE CHAMBER	END CHAMBER
OVERALL CHAMBER HEIGHT - IN	30.3	30.3	30.3
OVERALL CHAMBER WIDTH - IN	51.4	51.4	51.4
ACTUAL LENGTH - IN	96.4	91.0	92.0
INSTALLED LAY LENGTHS - IN	96.2	85.4	88.5
CHAMBER STORAGE VOLUME - CF	50.2	47.2	46.2
CHAMBER STORAGE PER LINEAR FOOT - CF/LF	6.3	6.6	6.3
*MIN. INSTALLED CHAMBER VOLUME - CF	78.1	75.1	74.1
*MIN. INSTALLED CHAMBER VOLUME PER LINEAR FOOT - CF/LF	9.7	10.6	10.0
CHAMBER WEIGHT - LB	83	73	76

\*6" OF STONE ABOVE AND BELOW CHAMBER, 5.6" CHAMBER SPACING AND 40% POROSITY



**TYPICAL ELEVATION VIEW**  
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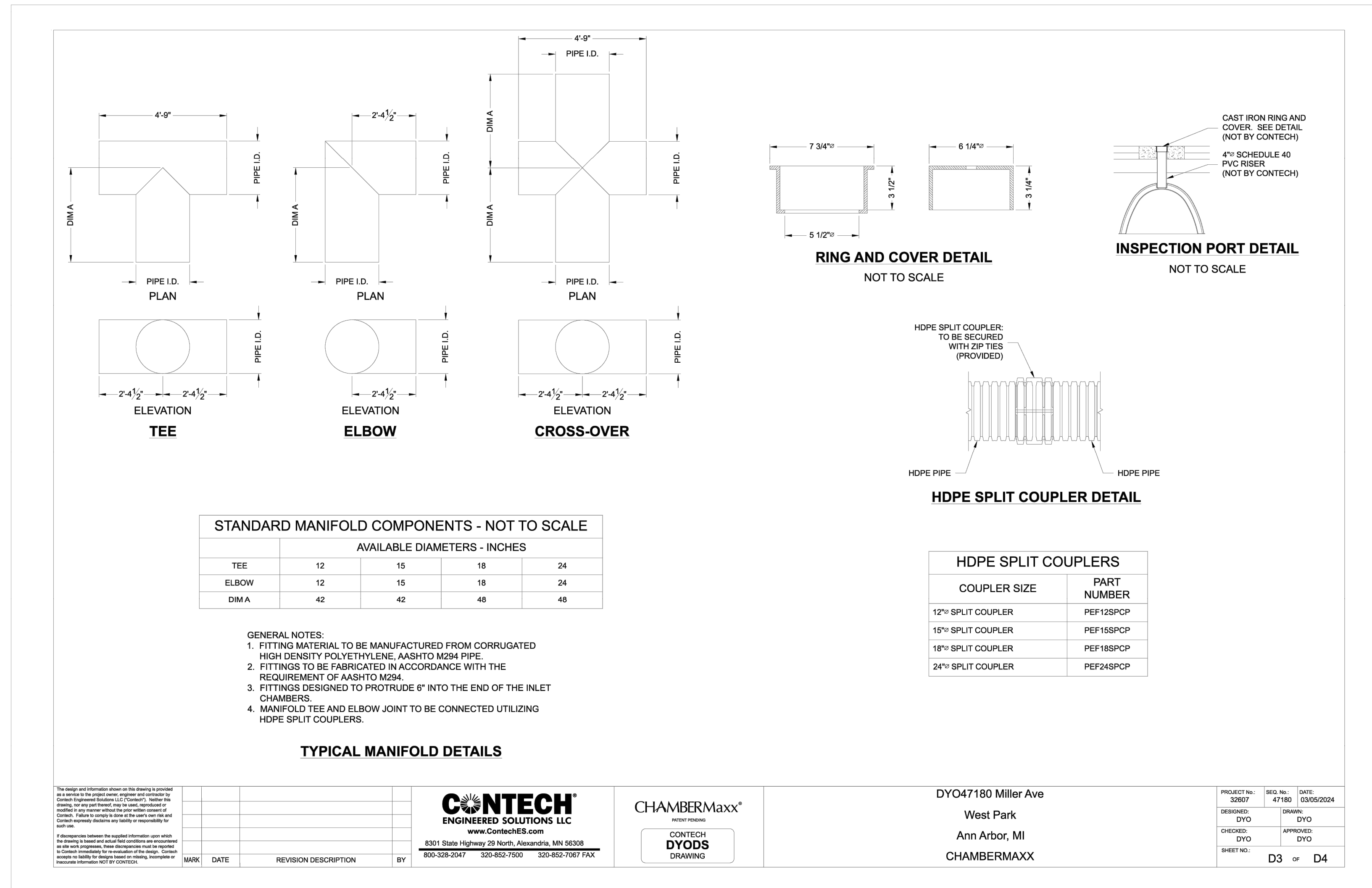
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Ann Arbor, MI  
CHAMBERMAXX

PROJECT No.	SEG. No.	DATE
30907	47180	03/05/2024

DESIGNED	DRAWN
DYO	DYO

CHECKED	APPROVED
DYO	DYO

SHEET No. **D2** of **D4**



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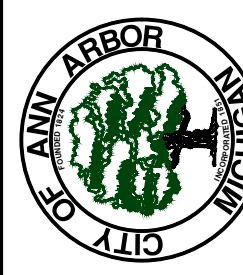
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PROJECT NO.	REV. NO.	DATE
32507	47180	03/05/2024
DESIGNED BY	DYO	DYO
CHECKED BY	DYO	APPROVED BY
SHEET NO.	D3	OF D4



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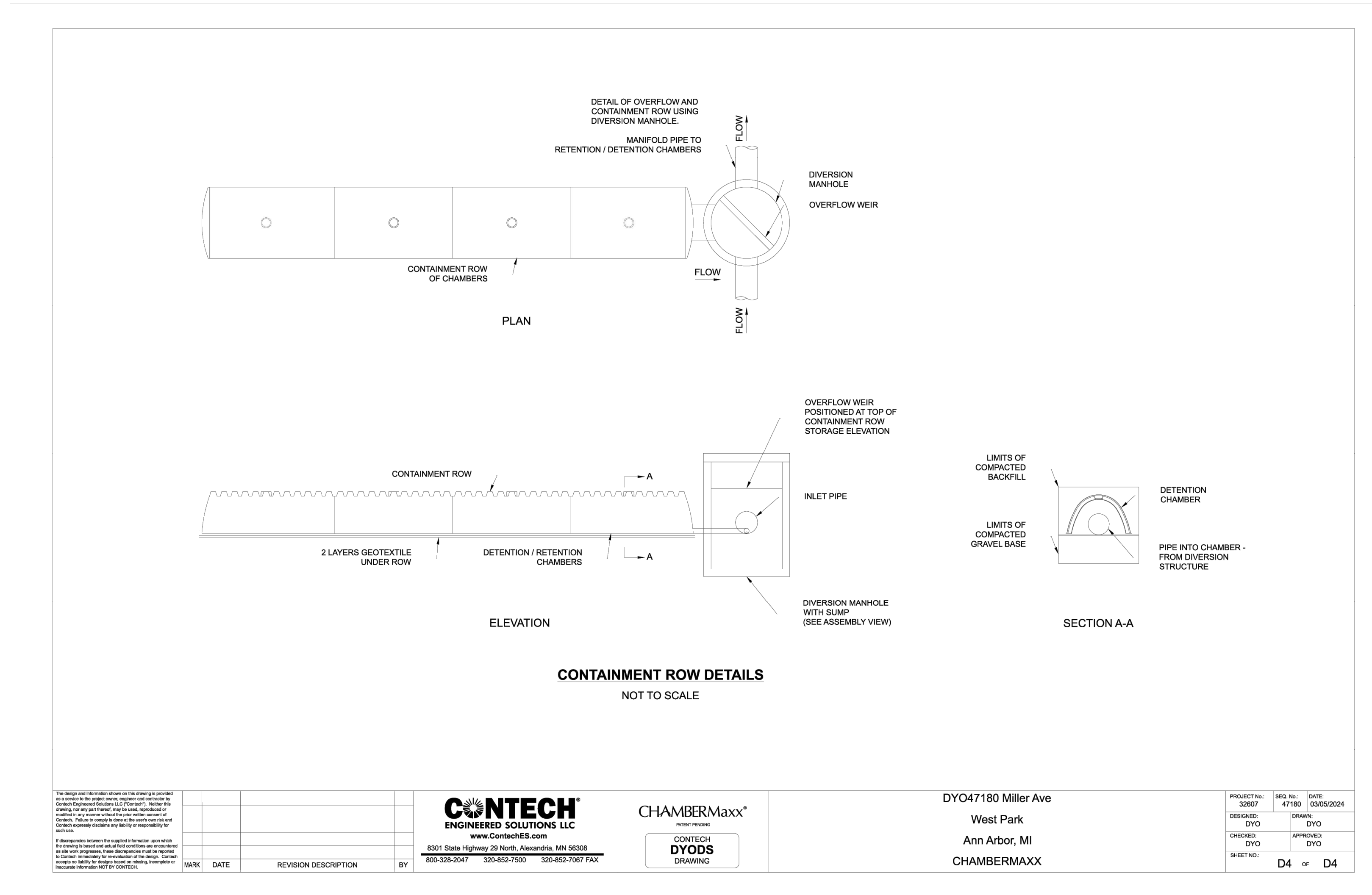


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER AVENUE REHABILITATION  
CONTECH CHAMBERMAXX

SCALE PLAN: N.T.S.  
DRAWING No. 2022034-14

REV.	DESCRIPTION	DATE	DRAWN	CHECKED





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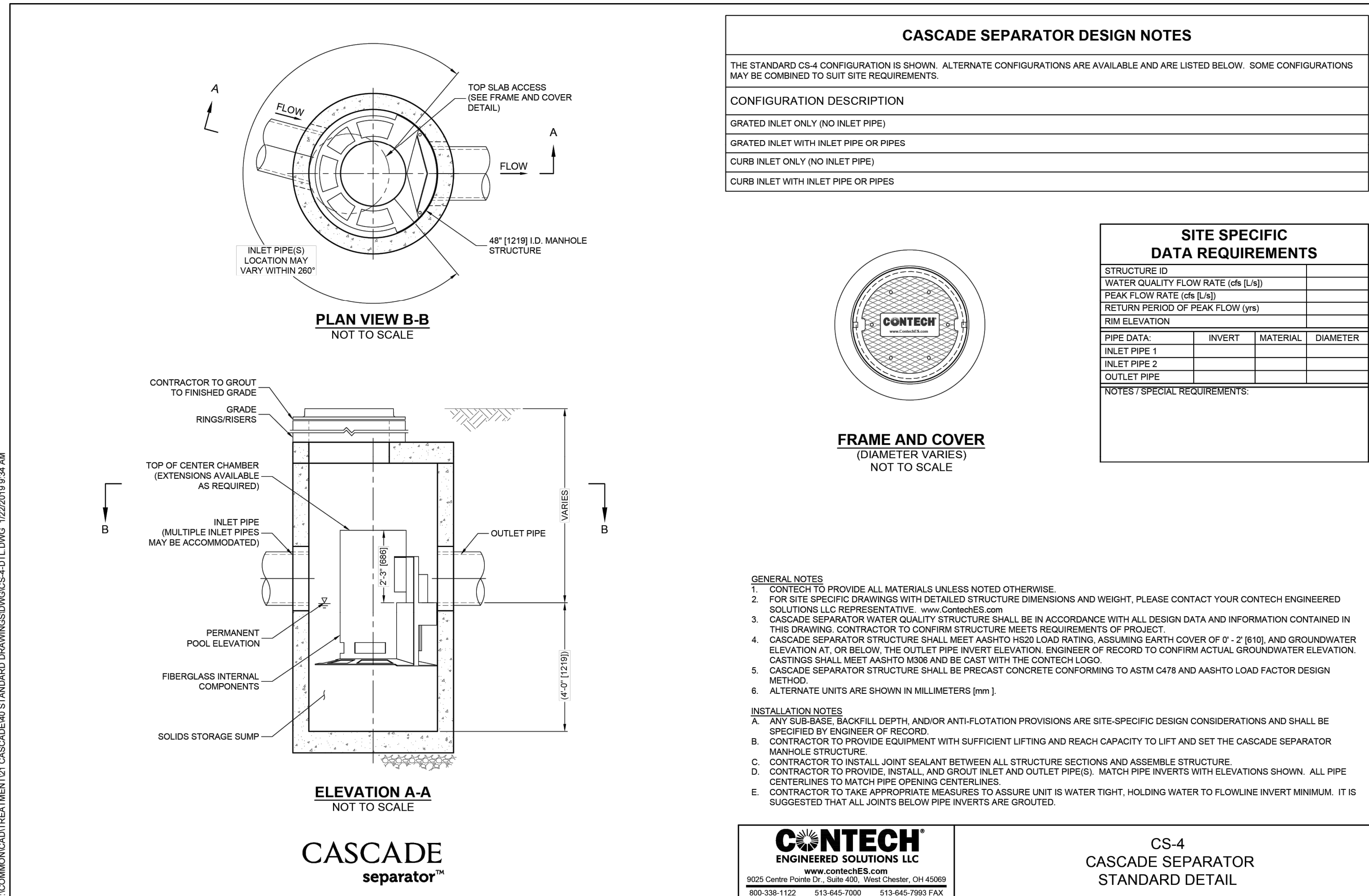
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CHAMBERMAXX

PROJECT No:	32607	SEQ. No.:	47180	DATE:	03/05/2024
DESIGNED:	DYO	DRAWN:	DYO	APPROVED:	DYO
CHECKED:	DYO	APPROVED:	DYO		
SHEET No.:	D4 of D4				

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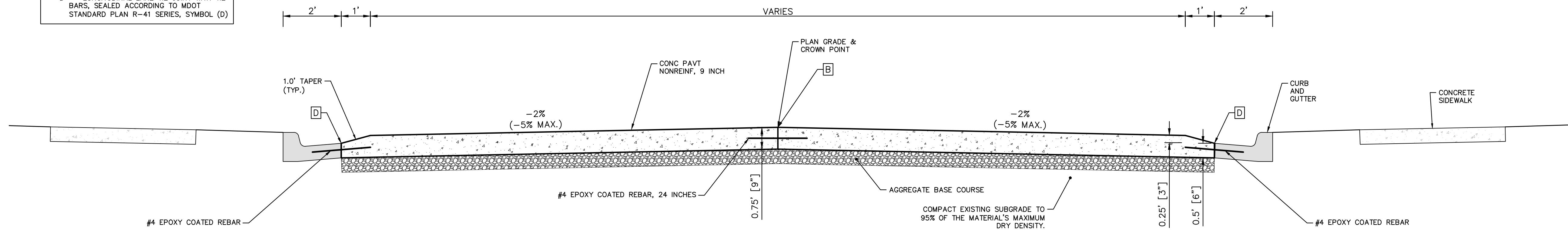


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 MILLER AVENUE REHABILITATION  
 CONTECH CASCADE SEPARATOR

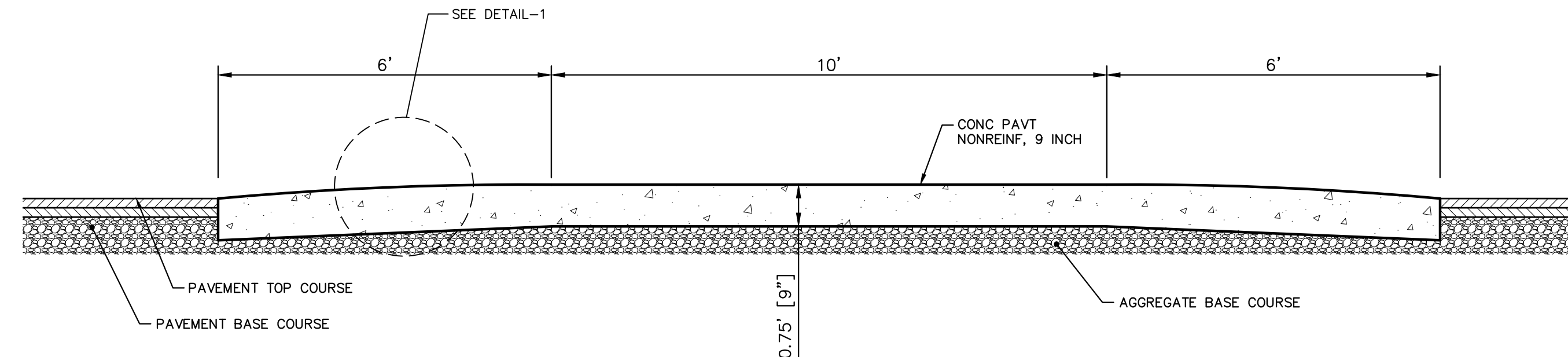
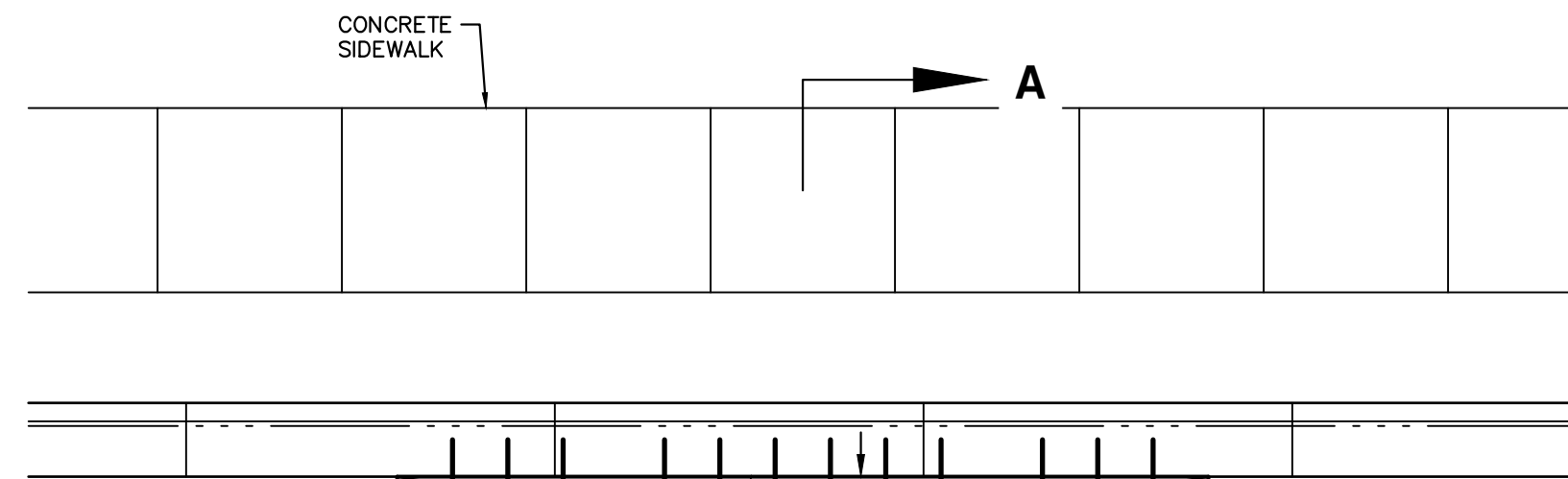
SCALE PLAN: N.T.S.  
 DRAWING No. 2022034-16



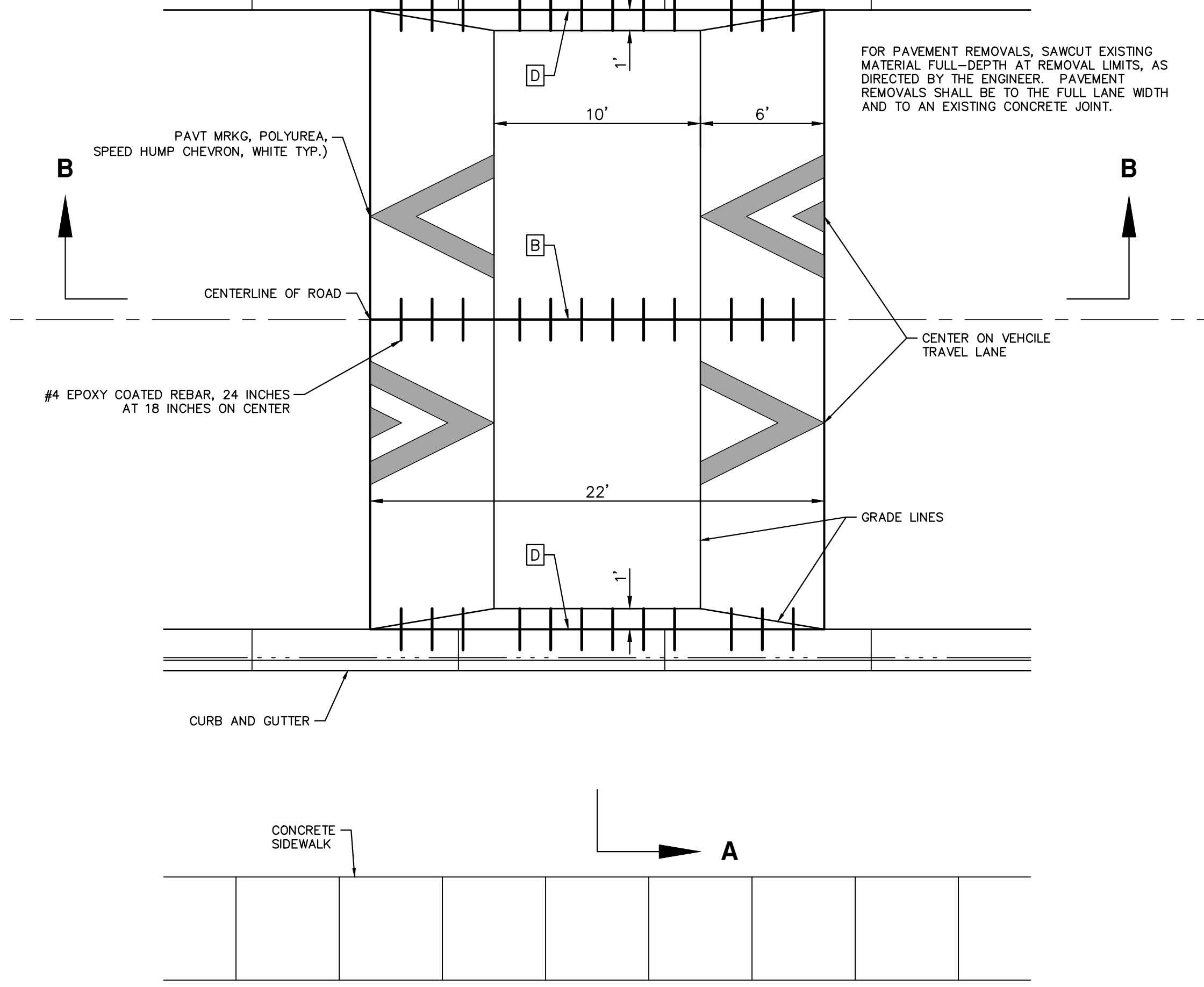
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 D - LONGITUDINAL LANE TIE JOINT WITH TIE BARS, SEALED ACCORDING TO MDOT STANDARD PLAN R-41 SERIES, SYMBOL (D)



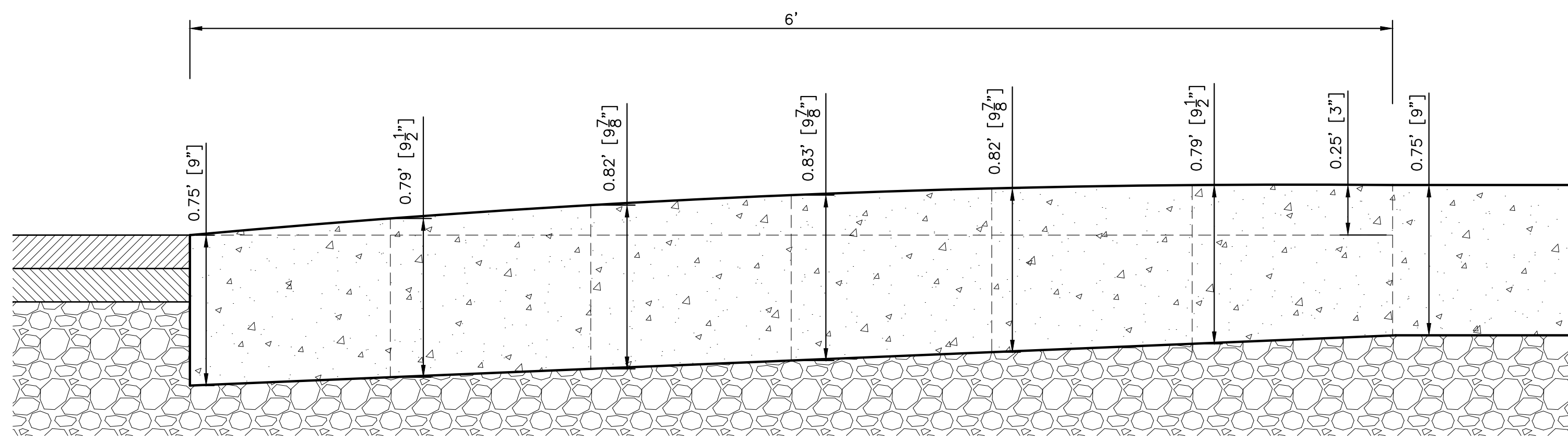
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**SECTION B-B**  
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**PLAN VIEW**  
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**DETAIL - 1**

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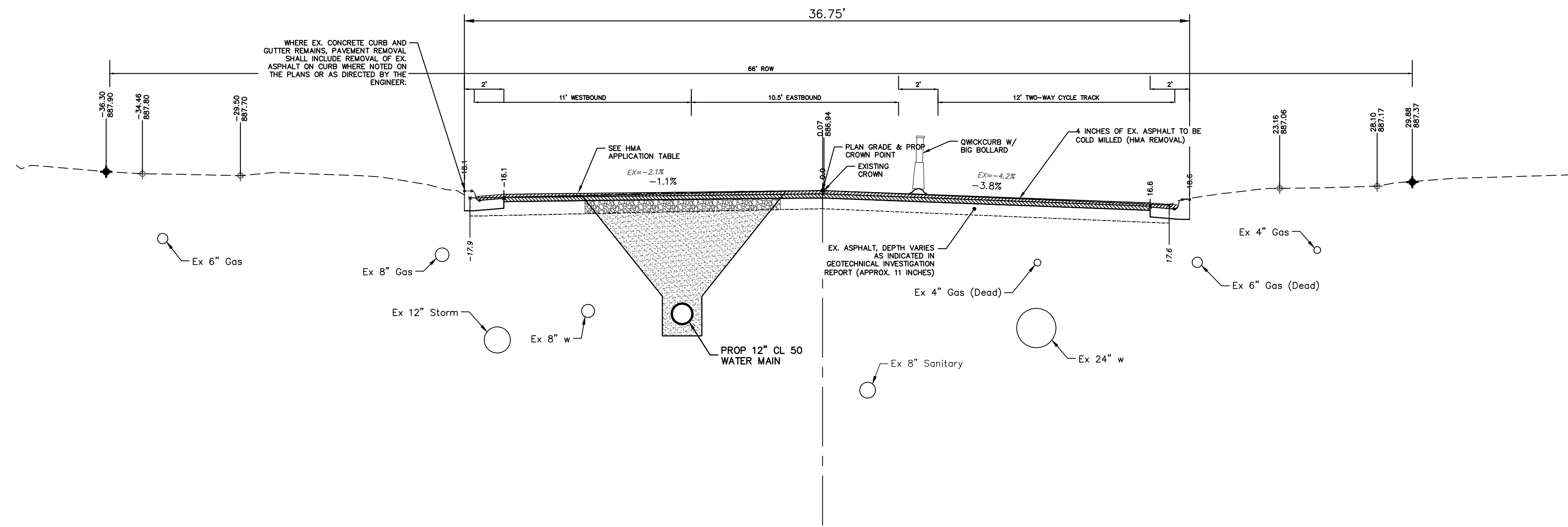
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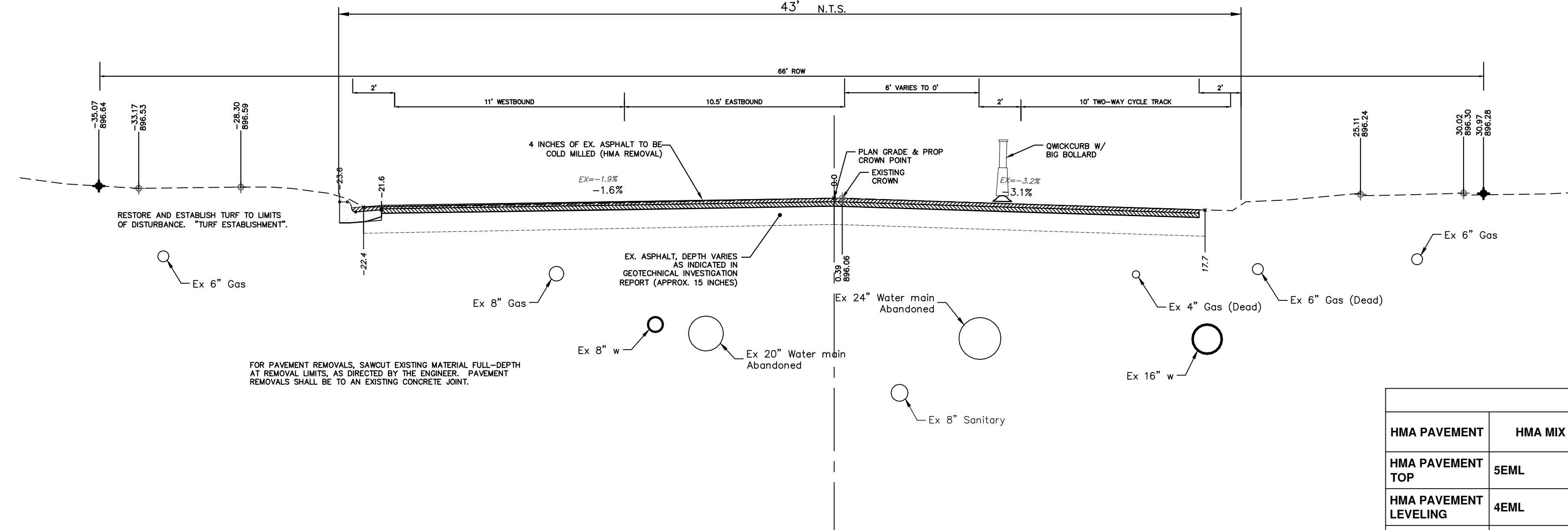
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**MILLER AVENUE REHABILITATION**  
 CONCRETE SPEED TABLE DETAIL

SCALE PLAN: 2:1  
 DRAWING No. 2022034-17

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**MILLER AVENUE  
TYPICAL SECTION**  
STA. 50+75 TO 58+50  
43' N.T.S.



RESTORE AND ESTABLISH TURF TO LIMITS OF DISTURBANCE. "TURF ESTABLISHMENT".

FOR PAVEMENT REMOVALS, SAWCUT EXISTING MATERIAL FULL-DEPTH AT REMOVAL LIMITS, AS DIRECTED BY THE ENGINEER. PAVEMENT REMOVALS SHALL BE TO AN EXISTING CONCRETE JOINT.

**MILLER AVENUE  
TYPICAL SECTION**  
P.O.B. TO STA. 50+75  
N.T.S.

HMA APPLICATION ESTIMATE						
HMA PAVEMENT	HMA MIX	RATE OF APPLICATION	THICKNESS (INCHES)	AWI (MIN.)	BINDER	LOCATION/NOTES
HMA PAVEMENT TOP	5EML	220 LB/SYD	2.0	220 (TOP)	PG 64-28	TOP COURSE
HMA PAVEMENT LEVELING	4EML	275 LB/SYD	2.5	-	PG 64-28	LEVELING COURSE
HMA APPROACH TOP	4EML	220 LB/SYD	2	220 (TOP)	PG 64-28	TOP COURSE
HMA APPROACH LEVELING	4EML	220 LB/SYD	2	-	PG 64-28	LEVELING COURSE
HAND PATCHING	4EML	0 - 440 LB/SYD			PG 64-28	HAND PATCHING
ASPHALT EMULSION	SS-1h	0.05 - 0.15 GAL/SYD	-	-	-	INCLUDE IN COST OF HMA ITEM

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**MILLER AVENUE REHABILITATION**

MILLER SECTIONS 1

PROFILE: 1" = 4'  
SCALE PLAN: 1" = 4'  
DRAWING No. 2022034-1B

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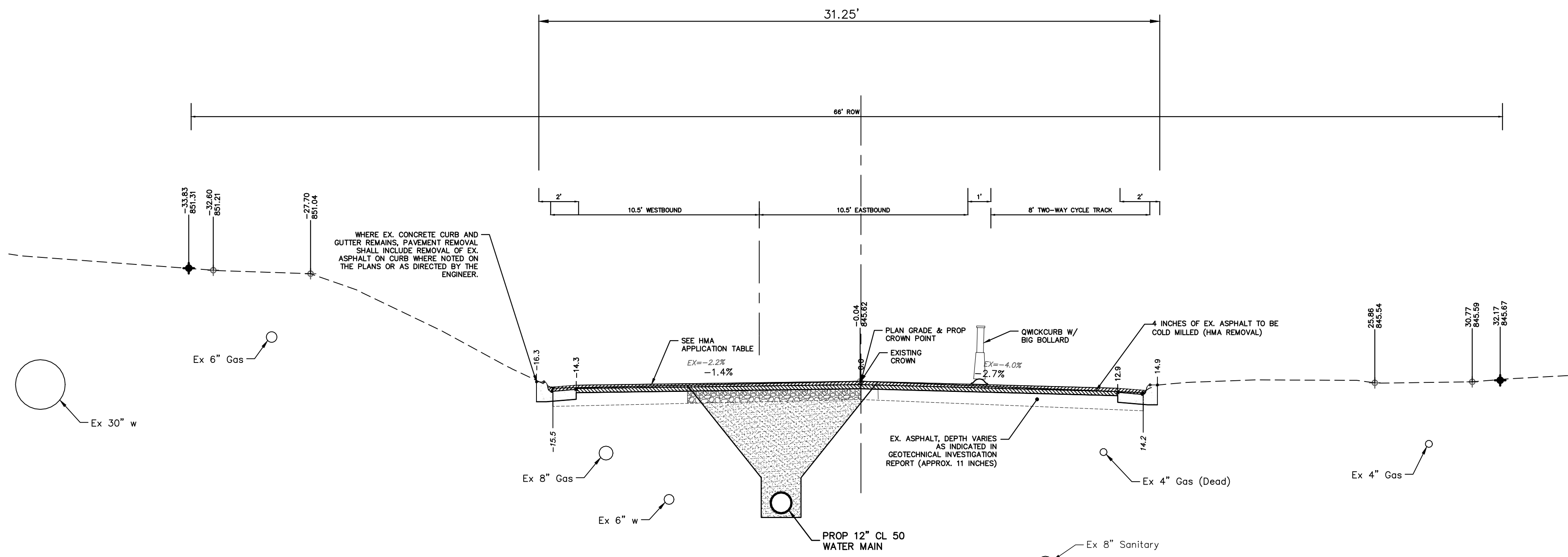
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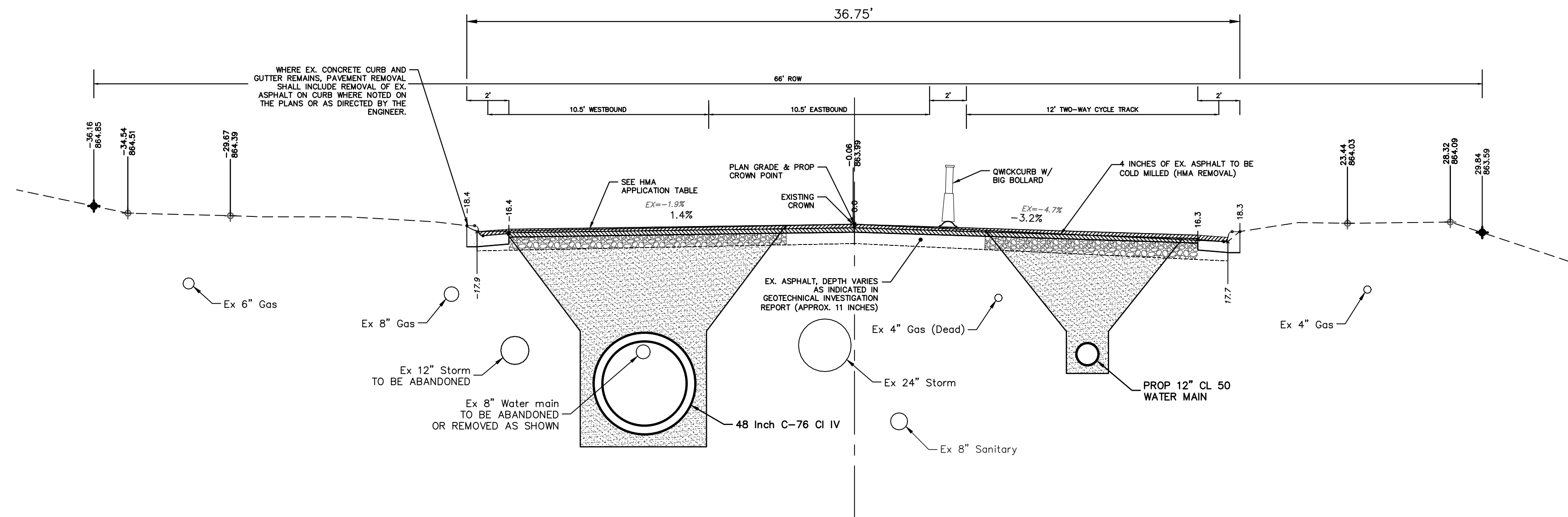
SHEET No. 18 OF 132



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**MILLER AVENUE  
TYPICAL SECTION**  
STA. 63+85 TO 68+75  
N.T.S.



**MILLER AVENUE  
TYPICAL SECTION**  
STA 58+50 TO STA.63+85  
N.T.S.



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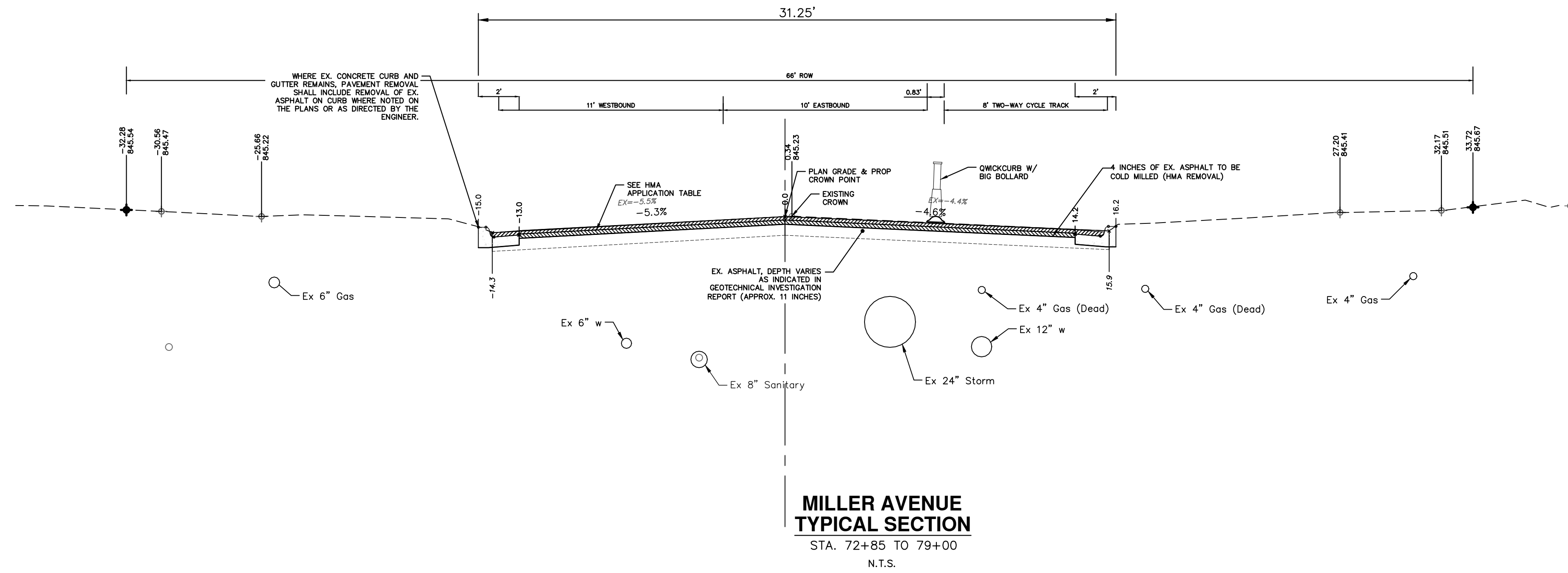


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER AVENUE REHABILITATION  
MILLER SECTIONS 2

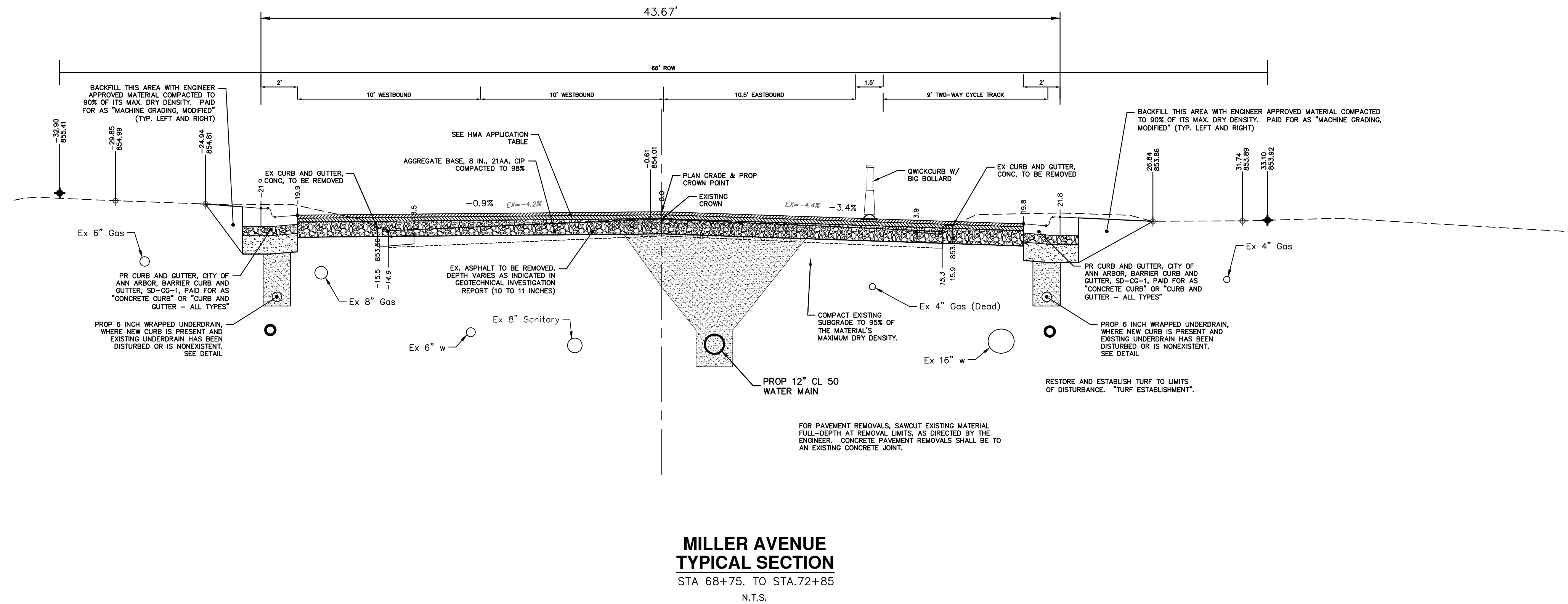
SCALE PLAN: 1" = 4'  
PROFILE: 1" = 4'  
DRAWING No. 2022034-19

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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**MILLER AVENUE  
TYPICAL SECTION**  
STA. 72+85 TO 79+00  
N.T.S.



**MILLER AVENUE  
TYPICAL SECTION**  
STA 68+75 TO STA.72+85  
N.T.S.



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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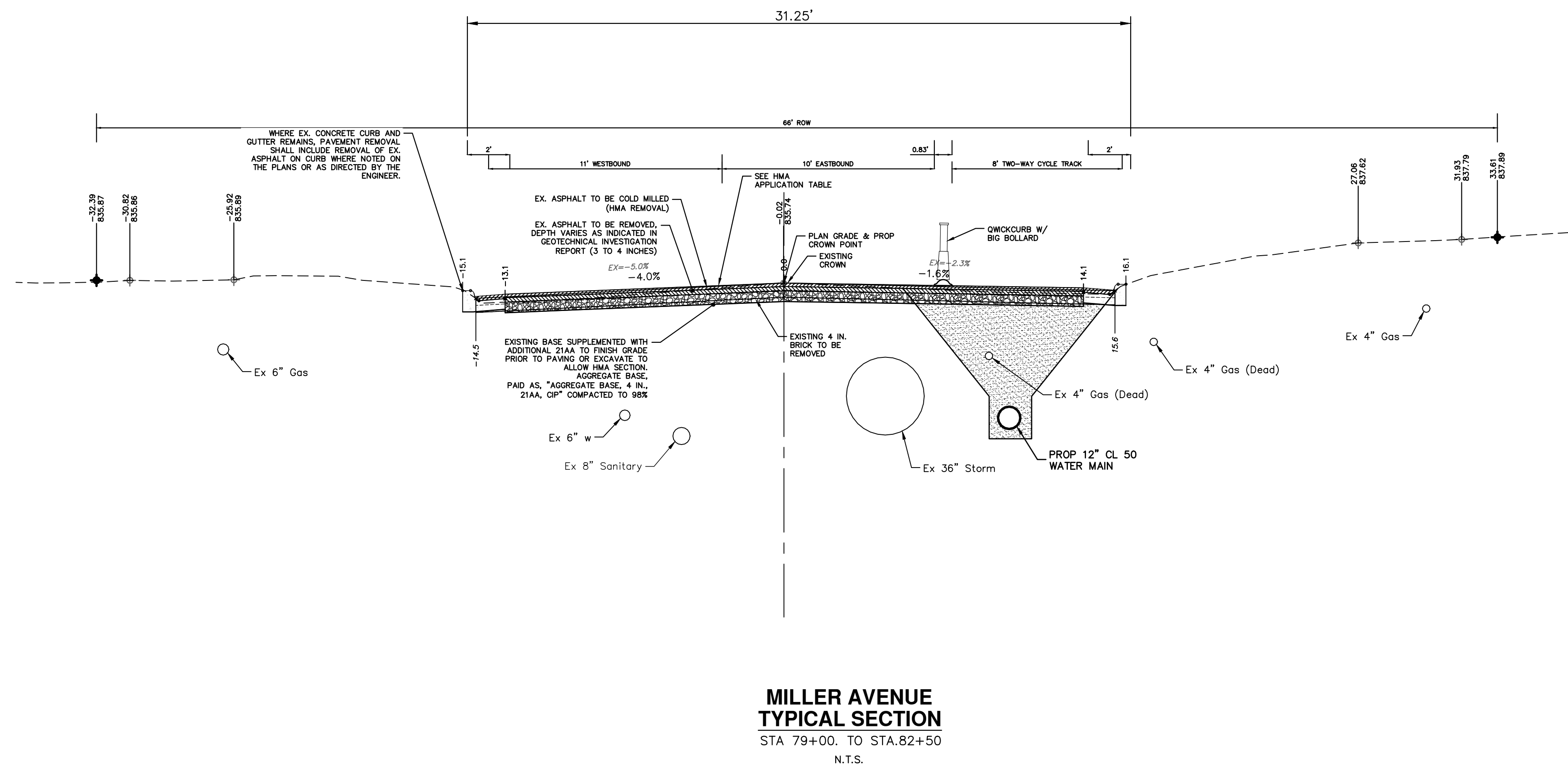
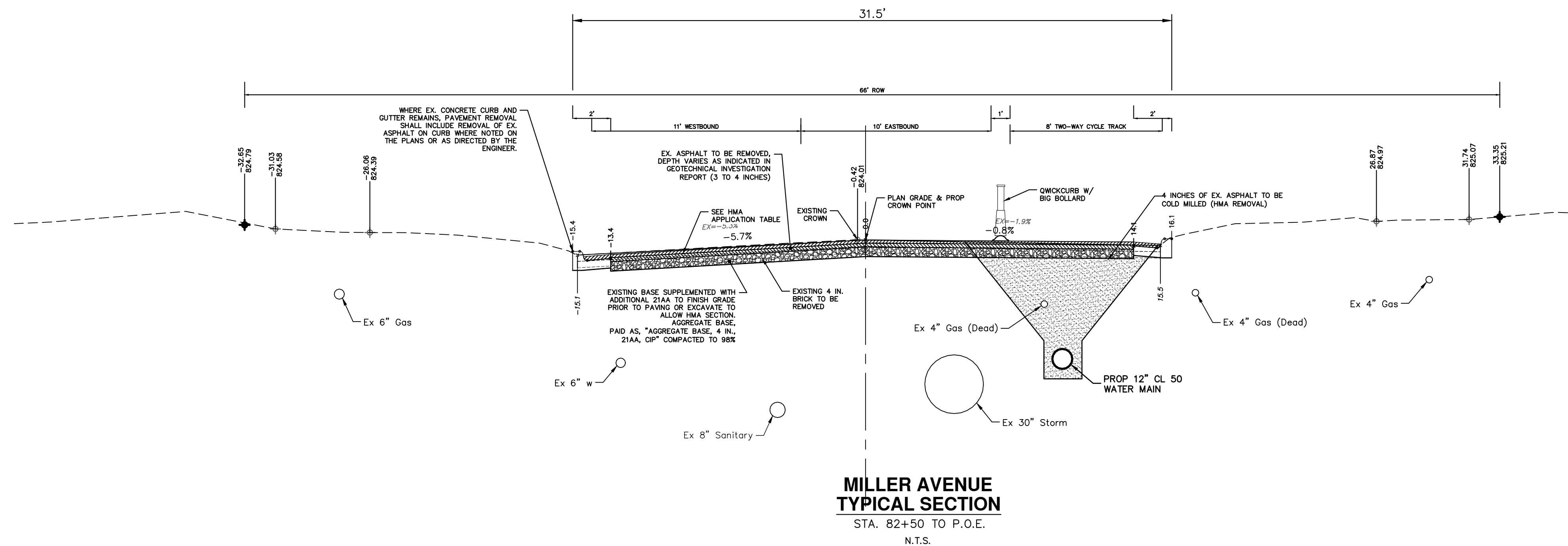


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**MILLER AVENUE REHABILITATION**  
MILLER SECTIONS 3

SCALE PLAN: 1" = 4'  
PROFILE: 1" = 4'  
DRAWING No. 2022034-20



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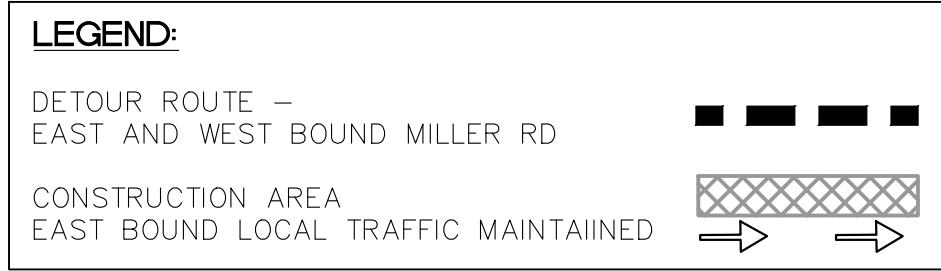
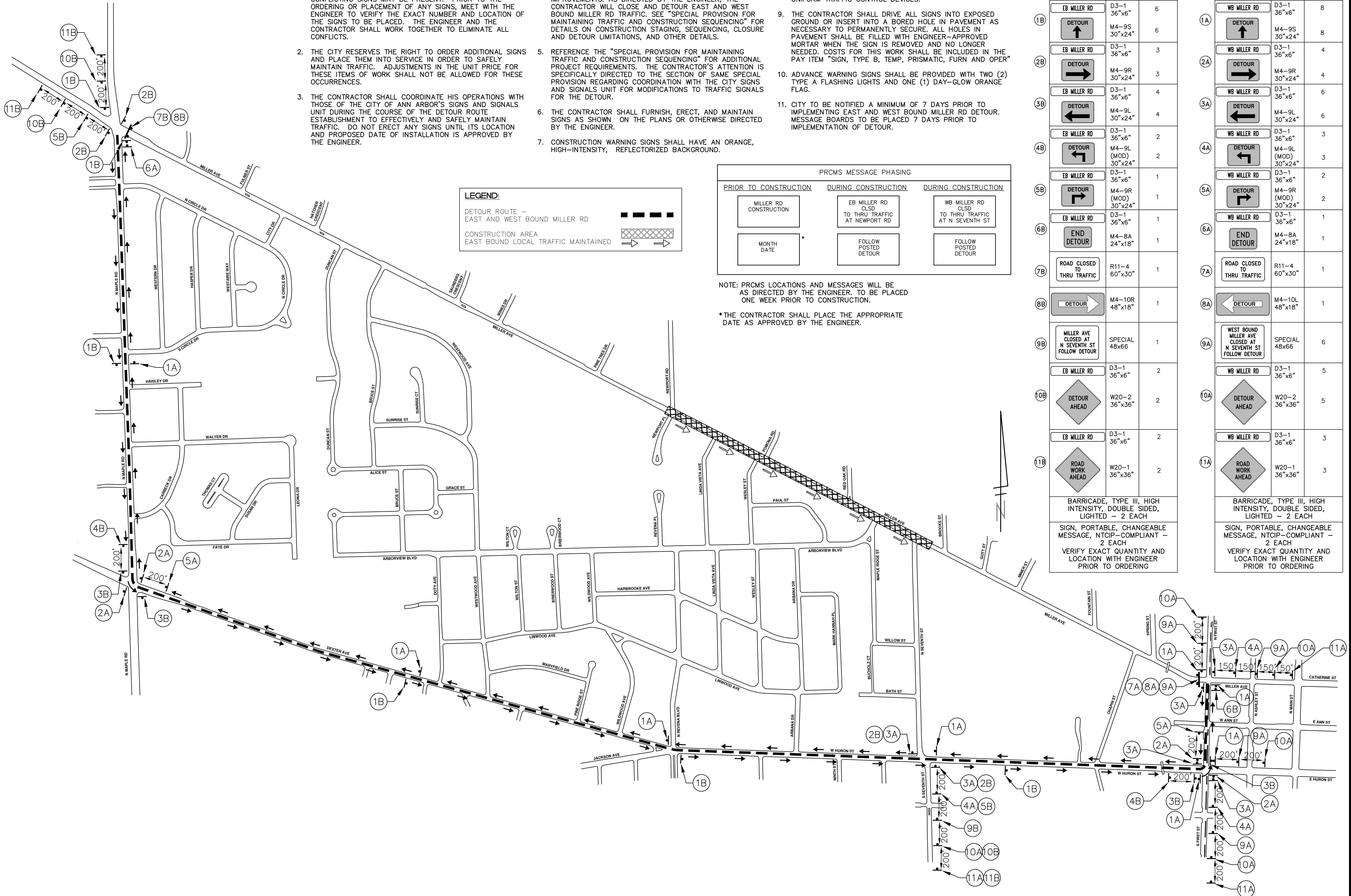
**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER AVENUE REHABILITATION**  
MILLER SECTIONS 4

SCALE PLAN: 1" = 4'  
PROFILE: 1" = 4'  
DRAWING No. 2022034-21



**DETOUR CONSTRUCTION NOTES:**

1. DEPENDING ON THE DETOUR ROUTE THAT IS PUT IN PLACE, CONFLICTING SIGNS MAY BE PRESENT. PRIOR TO THE ORDERING OR PLACEMENT OF ANY SIGNS, MEET WITH THE ENGINEER TO VERIFY THE EXACT NUMBER AND LOCATION OF THE SIGNS TO BE PLACED. THE ENGINEER AND THE CONTRACTOR SHALL WORK TOGETHER TO ELIMINATE ALL CONFLICTS.
2. THE CITY RESERVES THE RIGHT TO ORDER ADDITIONAL SIGNS AND PLACE THEM INTO SERVICE IN ORDER TO SAFELY MAINTAIN TRAFFIC. ADJUSTMENTS IN THE UNIT PRICE FOR THESE ITEMS OF WORK SHALL NOT BE ALLOWED FOR THESE OCCURRENCES.
3. THE CONTRACTOR SHALL COORDINATE HIS OPERATIONS WITH THOSE OF THE CITY OF ANN ARBOR'S SIGNS AND SIGNALS UNIT DURING THE COURSE OF THE DETOUR ROUTE ESTABLISHMENT TO EFFECTIVELY AND SAFELY MAINTAIN TRAFFIC. DO NOT ERECT ANY SIGNS UNTIL ITS LOCATION AND PROPOSED DATE OF INSTALLATION IS APPROVED BY THE ENGINEER.
4. THE DETOUR IS TO BE IN PLACE DURING MILLER RD IMPROVEMENTS, AS DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL CLOSE AND DETOUR EAST AND WEST BOUND MILLER RD TRAFFIC. SEE "SPECIAL PROVISION FOR MAINTAINING TRAFFIC AND CONSTRUCTION SEQUENCING" FOR DETAILS ON CONSTRUCTION STAGING, SEQUENCING, CLOSURE AND DETOUR LIMITATIONS, AND OTHER DETAILS.
5. REFERENCE THE "SPECIAL PROVISION FOR MAINTAINING TRAFFIC AND CONSTRUCTION SEQUENCING" FOR ADDITIONAL PROJECT REQUIREMENTS. THE CONTRACTOR'S ATTENTION IS SPECIFICALLY DIRECTED TO THE SECTION OF SAME SPECIAL PROVISION REGARDING COORDINATION WITH THE CITY SIGNS AND SIGNALS UNIT FOR MODIFICATIONS TO TRAFFIC SIGNALS FOR THE DETOUR.
6. THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN SIGNS AS SHOWN ON THE PLANS OR OTHERWISE DIRECTED BY THE ENGINEER.
7. CONSTRUCTION WARNING SIGNS SHALL HAVE AN ORANGE, HIGH-INTENSITY, REFLECTORIZED BACKGROUND.
8. SIGNS SHALL CONFORM TO THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
9. THE CONTRACTOR SHALL DRIVE ALL SIGNS INTO EXPOSED GROUND OR INSERT INTO A BORED HOLE IN PAVEMENT AS NECESSARY TO PERMANENTLY SECURE. ALL HOLES IN PAVEMENT SHALL BE FILLED WITH ENGINEER-APPROVED MORTAR WHEN THE SIGN IS REMOVED AND NO LONGER NEEDED. COSTS FOR THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "SIGN, TYPE B, TEMP, PRISMATIC, FURN AND OPER".
10. ADVANCE WARNING SIGNS SHALL BE PROVIDED WITH TWO (2) TYPE A FLASHING LIGHTS AND ONE (1) DAY-GLOW ORANGE FLAG.
11. CITY TO BE NOTIFIED A MINIMUM OF 7 DAYS PRIOR TO IMPLEMENTING EAST AND WEST BOUND MILLER RD DETOUR. MESSAGE BOARDS TO BE PLACED 7 DAYS PRIOR TO IMPLEMENTATION OF DETOUR.



**PRCMS MESSAGE PHASING**

PRIOR TO CONSTRUCTION	DURING CONSTRUCTION	DURING CONSTRUCTION
MILLER RD CONSTRUCTION	EB MILLER RD CLSD TO THRU TRAFFIC AT NEWPORT RD	WB MILLER RD CLSD TO THRU TRAFFIC AT N SEVENTH ST
MONTH DATE *	FOLLOW POSTED DETOUR	FOLLOW POSTED DETOUR

NOTE: PRCMS LOCATIONS AND MESSAGES WILL BE AS DIRECTED BY THE ENGINEER. TO BE PLACED ONE WEEK PRIOR TO CONSTRUCTION.

\*THE CONTRACTOR SHALL PLACE THE APPROPRIATE DATE AS APPROVED BY THE ENGINEER.

**EAST BOUND MILLER RD**

SIGN	NUMBER	QUANTITY
EB MILLER RD	D3-1 36"x6"	6
DETOUR	M4-9S 30"x24"	6
EB MILLER RD	D3-1 36"x6"	3
DETOUR	M4-9R 30"x24"	3
EB MILLER RD	D3-1 36"x6"	4
DETOUR	M4-9L 30"x24"	4
EB MILLER RD	D3-1 36"x6"	2
DETOUR	M4-9L (MOD) 30"x24"	2
EB MILLER RD	D3-1 36"x6"	1
DETOUR	M4-9R (MOD) 30"x24"	1
EB MILLER RD	D3-1 36"x6"	1
END DETOUR	M4-8A 24"x18"	1
ROAD CLOSED TO THRU TRAFFIC	R11-4 60"x30"	1
DETOUR	M4-10R 48"x18"	1
MILLER AVE CLOSED AT N SEVENTH ST FOLLOW DETOUR	SPECIAL 48x66	1
EB MILLER RD	D3-1 36"x6"	2
DETOUR AHEAD	W20-2 36"x36"	2
EB MILLER RD	D3-1 36"x6"	2
ROAD WORK AHEAD	W20-1 36"x36"	2
BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED - 2 EACH		
SIGN, PORTABLE, CHANGEABLE MESSAGE, NTCIP-COMPLIANT - 2 EACH		
VERIFY EXACT QUANTITY AND LOCATION WITH ENGINEER PRIOR TO ORDERING		

**WEST BOUND MILLER RD**

SIGN	NUMBER	QUANTITY
WB MILLER RD	D3-1 36"x6"	8
DETOUR	M4-9S 30"x24"	8
WB MILLER RD	D3-1 36"x6"	4
DETOUR	M4-9R 30"x24"	4
WB MILLER RD	D3-1 36"x6"	6
DETOUR	M4-9L 30"x24"	6
WB MILLER RD	D3-1 36"x6"	3
DETOUR	M4-9L (MOD) 30"x24"	3
WB MILLER RD	D3-1 36"x6"	2
DETOUR	M4-9R (MOD) 30"x24"	2
WB MILLER RD	D3-1 36"x6"	1
END DETOUR	M4-8A 24"x18"	1
ROAD CLOSED TO THRU TRAFFIC	R11-4 60"x30"	1
DETOUR	M4-10L 48"x18"	1
WEST BOUND MILLER AVE CLOSED AT N SEVENTH ST FOLLOW DETOUR	SPECIAL 48x66	6
WB MILLER RD	D3-1 36"x6"	5
DETOUR AHEAD	W20-2 36"x36"	5
WB MILLER RD	D3-1 36"x6"	3
ROAD WORK AHEAD	W20-1 36"x36"	3
BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED - 2 EACH		
SIGN, PORTABLE, CHANGEABLE MESSAGE, NTCIP-COMPLIANT - 2 EACH		
VERIFY EXACT QUANTITY AND LOCATION WITH ENGINEER PRIOR TO ORDERING		

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

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER AVENUE REHABILITATION**  
 DETOUR ROUTE  
 PHASE I (STAGE I & II (WATER MAIN))

**CITY OF ANN ARBOR PUBLIC SERVICES**  
 301 EAST HURON STREET  
 P.O. BOX 8647  
 ANN ARBOR, MI 48107-8647  
 ANN ARBOR: 734.794.4410  
 WWW.A2gov.ORG

CITY OF ANN ARBOR MICHIGAN

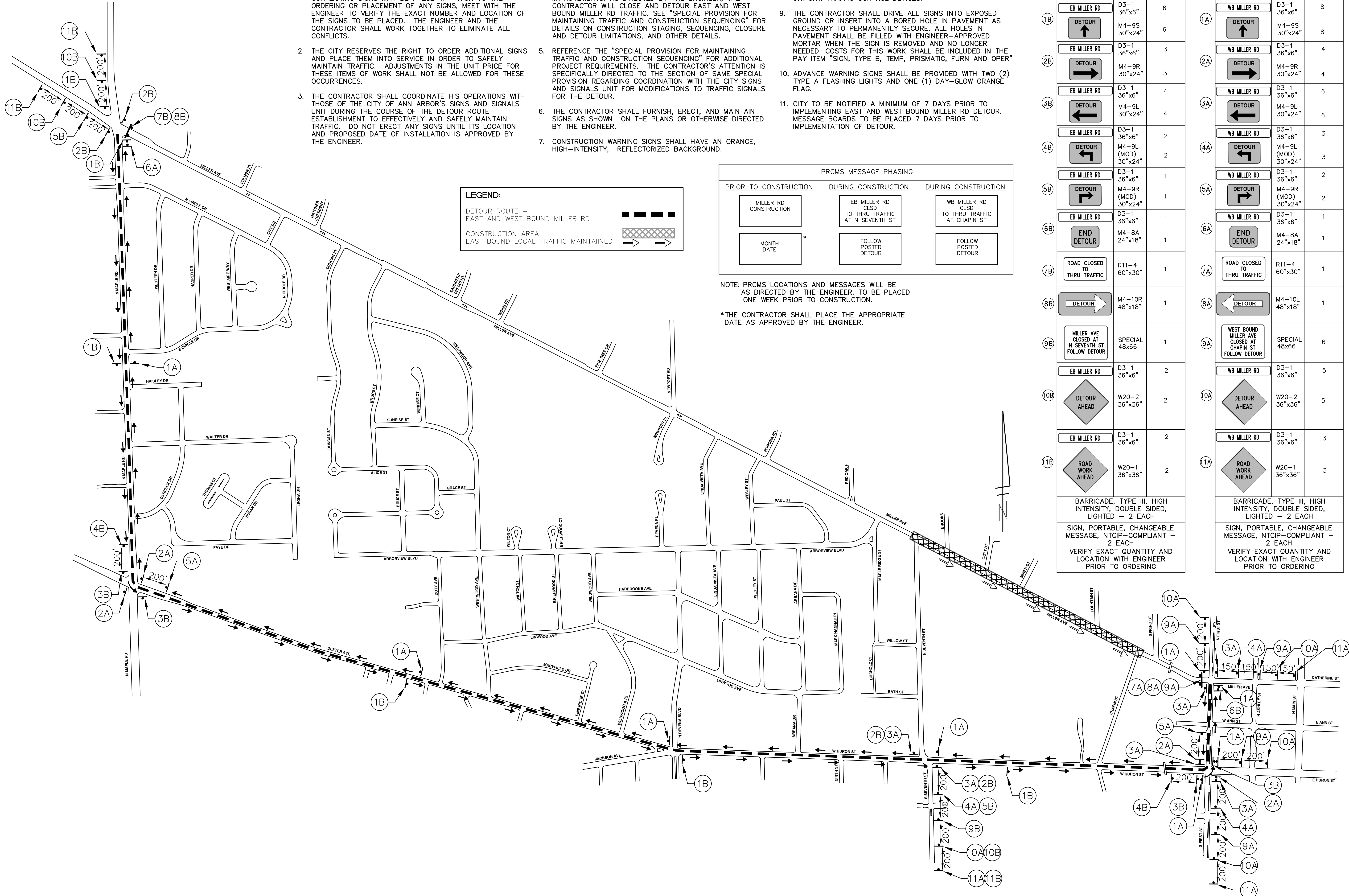
SCALE PLAN: 1" = 300'  
 DRAWING No. 2022034-22  
 SHEET No. 22 OF 132

REV.	DESCRIPTION	DATE	DRAWN	CHECKED



**DETOUR CONSTRUCTION NOTES:**

1. DEPENDING ON THE DETOUR ROUTE THAT IS PUT IN PLACE, CONFLICTING SIGNS MAY BE PRESENT. PRIOR TO THE ORDERING OR PLACEMENT OF ANY SIGNS, MEET WITH THE ENGINEER TO VERIFY THE EXACT NUMBER AND LOCATION OF THE SIGNS TO BE PLACED. THE ENGINEER AND THE CONTRACTOR SHALL WORK TOGETHER TO ELIMINATE ALL CONFLICTS.
2. THE CITY RESERVES THE RIGHT TO ORDER ADDITIONAL SIGNS AND PLACE THEM INTO SERVICE IN ORDER TO SAFELY MAINTAIN TRAFFIC. ADJUSTMENTS IN THE UNIT PRICE FOR THESE ITEMS OF WORK SHALL NOT BE ALLOWED FOR THESE OCCURRENCES.
3. THE CONTRACTOR SHALL COORDINATE HIS OPERATIONS WITH THOSE OF THE CITY OF ANN ARBOR'S SIGNS AND SIGNALS UNIT DURING THE COURSE OF THE DETOUR ROUTE ESTABLISHMENT TO EFFECTIVELY AND SAFELY MAINTAIN TRAFFIC. DO NOT ERECT ANY SIGNS UNTIL ITS LOCATION AND PROPOSED DATE OF INSTALLATION IS APPROVED BY THE ENGINEER.
4. THE DETOUR IS TO BE IN PLACE DURING MILLER RD IMPROVEMENTS, AS DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL CLOSE AND DETOUR EAST AND WEST BOUND MILLER RD TRAFFIC. SEE "SPECIAL PROVISION FOR MAINTAINING TRAFFIC AND CONSTRUCTION SEQUENCING" FOR DETAILS ON CONSTRUCTION STAGING, SEQUENCING, CLOSURE AND DETOUR LIMITATIONS, AND OTHER DETAILS.
5. REFERENCE THE "SPECIAL PROVISION FOR MAINTAINING TRAFFIC AND CONSTRUCTION SEQUENCING" FOR ADDITIONAL PROJECT REQUIREMENTS. THE CONTRACTOR'S ATTENTION IS SPECIFICALLY DIRECTED TO THE SECTION OF SAME SPECIAL PROVISION REGARDING COORDINATION WITH THE CITY SIGNS AND SIGNALS UNIT FOR MODIFICATIONS TO TRAFFIC SIGNALS FOR THE DETOUR.
6. THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN SIGNS AS SHOWN ON THE PLANS OR OTHERWISE DIRECTED BY THE ENGINEER.
7. CONSTRUCTION WARNING SIGNS SHALL HAVE AN ORANGE, HIGH-INTENSITY, REFLECTORIZED BACKGROUND.
8. SIGNS SHALL CONFORM TO THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
9. THE CONTRACTOR SHALL DRIVE ALL SIGNS INTO EXPOSED GROUND OR INSERT INTO A BORED HOLE IN PAVEMENT AS NECESSARY TO PERMANENTLY SECURE. ALL HOLES IN PAVEMENT SHALL BE FILLED WITH ENGINEER-APPROVED MORTAR WHEN THE SIGN IS REMOVED AND NO LONGER NEEDED. COSTS FOR THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "SIGN, TYPE B, TEMP, PRISMATIC, FURN AND OPER".
10. ADVANCE WARNING SIGNS SHALL BE PROVIDED WITH TWO (2) TYPE A FLASHING LIGHTS AND ONE (1) DAY-GLOW ORANGE FLAG.
11. CITY TO BE NOTIFIED A MINIMUM OF 7 DAYS PRIOR TO IMPLEMENTING EAST AND WEST BOUND MILLER RD DETOUR. MESSAGE BOARDS TO BE PLACED 7 DAYS PRIOR TO IMPLEMENTATION OF DETOUR.



**PRCMS MESSAGE PHASING**

PRIOR TO CONSTRUCTION	DURING CONSTRUCTION	DURING CONSTRUCTION
MILLER RD CONSTRUCTION	EB MILLER RD CLSD TO THRU TRAFFIC AT N SEVENTH ST	WB MILLER RD CLSD TO THRU TRAFFIC AT CHAPIN ST
MONTH DATE *	FOLLOW POSTED DETOUR	FOLLOW POSTED DETOUR

NOTE: PRCMS LOCATIONS AND MESSAGES WILL BE AS DIRECTED BY THE ENGINEER. TO BE PLACED ONE WEEK PRIOR TO CONSTRUCTION.

\*THE CONTRACTOR SHALL PLACE THE APPROPRIATE DATE AS APPROVED BY THE ENGINEER.

**EAST BOUND MILLER RD**

SIGN	NUMBER	QUANTITY
EB MILLER RD	D3-1 36"x6"	6
DETOUR	M4-9S 30"x24"	6
EB MILLER RD	D3-1 36"x6"	3
DETOUR	M4-9R 30"x24"	3
EB MILLER RD	D3-1 36"x6"	4
DETOUR	M4-9L 30"x24"	4
EB MILLER RD	D3-1 36"x6"	2
DETOUR	M4-9L (MOD) 30"x24"	2
EB MILLER RD	D3-1 36"x6"	1
DETOUR	M4-9R (MOD) 30"x24"	1
EB MILLER RD	D3-1 36"x6"	1
END DETOUR	M4-8A 24"x18"	1
ROAD CLOSED TO THRU TRAFFIC	R11-4 60"x30"	1
DETOUR	M4-10R 48"x18"	1
MILLER AVE CLOSED AT N SEVENTH ST FOLLOW DETOUR	SPECIAL 48x66	1
EB MILLER RD	D3-1 36"x6"	2
DETOUR AHEAD	W20-2 36"x36"	2
EB MILLER RD	D3-1 36"x6"	2
ROAD WORK AHEAD	W20-1 36"x36"	2
BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED - 2 EACH		
SIGN, PORTABLE, CHANGEABLE MESSAGE, NTOIP-COMPLIANT - 2 EACH		
VERIFY EXACT QUANTITY AND LOCATION WITH ENGINEER PRIOR TO ORDERING		

**WEST BOUND MILLER RD**

SIGN	NUMBER	QUANTITY
WB MILLER RD	D3-1 36"x6"	8
DETOUR	M4-9S 30"x24"	8
WB MILLER RD	D3-1 36"x6"	4
DETOUR	M4-9R 30"x24"	4
WB MILLER RD	D3-1 36"x6"	6
DETOUR	M4-9L 30"x24"	6
WB MILLER RD	D3-1 36"x6"	3
DETOUR	M4-9L (MOD) 30"x24"	3
WB MILLER RD	D3-1 36"x6"	2
DETOUR	M4-9R (MOD) 30"x24"	2
WB MILLER RD	D3-1 36"x6"	1
END DETOUR	M4-8A 24"x18"	1
ROAD CLOSED TO THRU TRAFFIC	R11-4 60"x30"	1
DETOUR	M4-10L 48"x18"	1
WEST BOUND MILLER AVE CLOSED AT CHAPIN ST FOLLOW DETOUR	SPECIAL 48x66	6
WB MILLER RD	D3-1 36"x6"	5
DETOUR AHEAD	W20-2 36"x36"	5
WB MILLER RD	D3-1 36"x6"	3
ROAD WORK AHEAD	W20-1 36"x36"	3
BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED - 2 EACH		
SIGN, PORTABLE, CHANGEABLE MESSAGE, NTOIP-COMPLIANT - 2 EACH		
VERIFY EXACT QUANTITY AND LOCATION WITH ENGINEER PRIOR TO ORDERING		

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

REV.	DATE	DRAWN	CHECKED	DESCRIPTION

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER AVENUE REHABILITATION**  
 DETOUR ROUTE  
 PHASE II STAGE I & II (WATER MAIN)

CITY OF ANN ARBOR  
 PUBLIC SERVICES  
 301 EAST HURON STREET  
 ANN ARBOR, MI 48107-8647  
 ANN ARBOR: 734.794.4410  
 WWW.A2gov.ORG

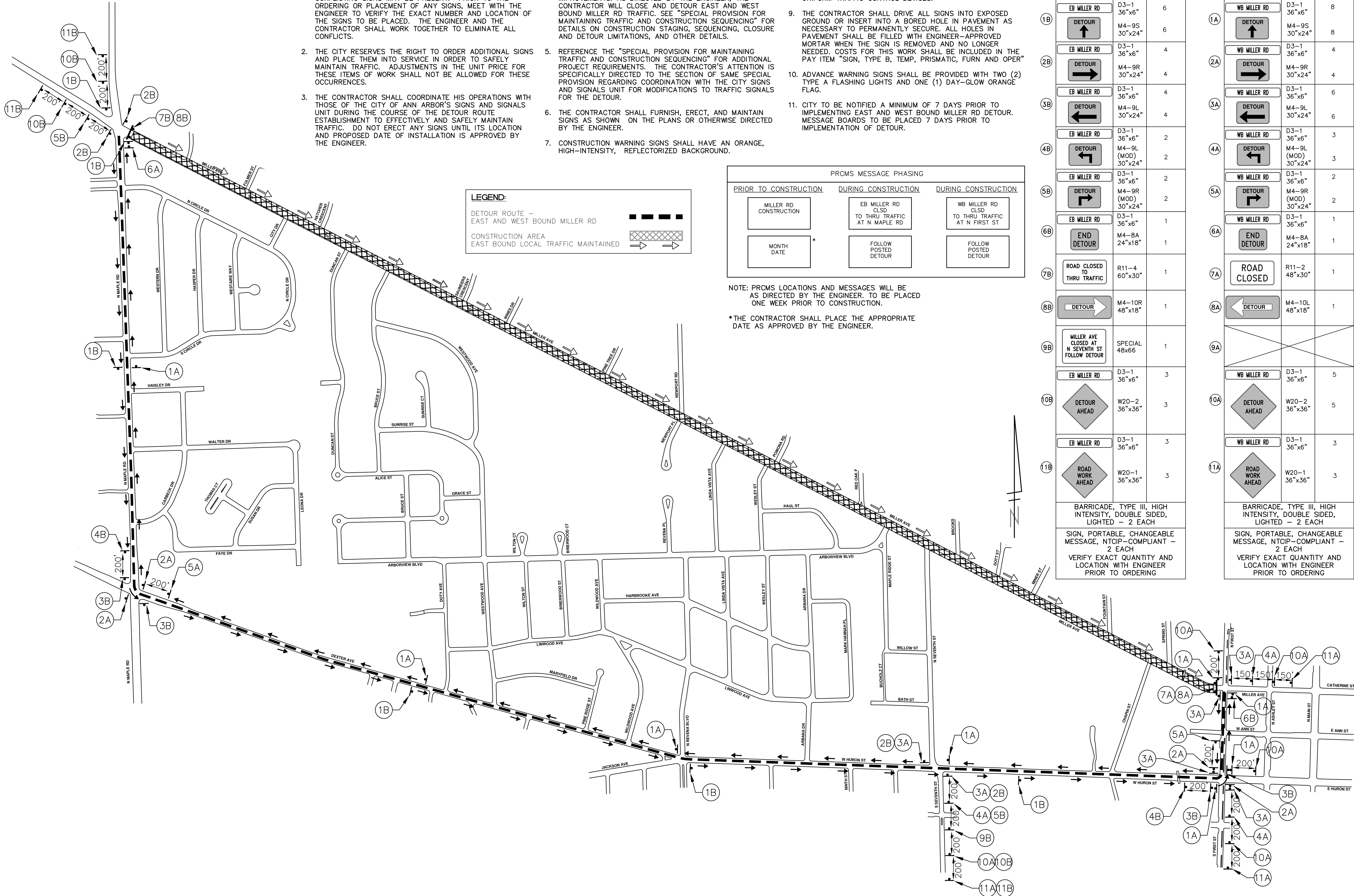
CITY OF ANN ARBOR MICHIGAN

SCALE PLAN: 1" = 300'  
 DRAWING No. 2022034-23  
 SHEET No. 23 OF 132



**DETOUR CONSTRUCTION NOTES:**

1. DEPENDING ON THE DETOUR ROUTE THAT IS PUT IN PLACE, CONFLICTING SIGNS MAY BE PRESENT. PRIOR TO THE ORDERING OR PLACEMENT OF ANY SIGNS, MEET WITH THE ENGINEER TO VERIFY THE EXACT NUMBER AND LOCATION OF THE SIGNS TO BE PLACED. THE ENGINEER AND THE CONTRACTOR SHALL WORK TOGETHER TO ELIMINATE ALL CONFLICTS.
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4. THE DETOUR IS TO BE IN PLACE DURING MILLER RD IMPROVEMENTS, AS DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL CLOSE AND DETOUR EAST AND WEST BOUND MILLER RD TRAFFIC. SEE "SPECIAL PROVISION FOR MAINTAINING TRAFFIC AND CONSTRUCTION SEQUENCING" FOR DETAILS ON CONSTRUCTION STAGING, SEQUENCING, CLOSURE AND DETOUR LIMITATIONS, AND OTHER DETAILS.
5. REFERENCE THE "SPECIAL PROVISION FOR MAINTAINING TRAFFIC AND CONSTRUCTION SEQUENCING" FOR ADDITIONAL PROJECT REQUIREMENTS. THE CONTRACTOR'S ATTENTION IS SPECIFICALLY DIRECTED TO THE SECTION OF SAME SPECIAL PROVISION REGARDING COORDINATION WITH THE CITY SIGNS AND SIGNALS UNIT FOR MODIFICATIONS TO TRAFFIC SIGNALS FOR THE DETOUR.
6. THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN SIGNS AS SHOWN ON THE PLANS OR OTHERWISE DIRECTED BY THE ENGINEER.
7. CONSTRUCTION WARNING SIGNS SHALL HAVE AN ORANGE, HIGH-INTENSITY, REFLECTORIZED BACKGROUND.
8. SIGNS SHALL CONFORM TO THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
9. THE CONTRACTOR SHALL DRIVE ALL SIGNS INTO EXPOSED GROUND OR INSERT INTO A BORED HOLE IN PAVEMENT AS NECESSARY TO PERMANENTLY SECURE. ALL HOLES IN PAVEMENT SHALL BE FILLED WITH ENGINEER-APPROVED MORTAR WHEN THE SIGN IS REMOVED AND NO LONGER NEEDED. COSTS FOR THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "SIGN, TYPE B, TEMP, PRISMATIC, FURN AND OPER"
10. ADVANCE WARNING SIGNS SHALL BE PROVIDED WITH TWO (2) TYPE A FLASHING LIGHTS AND ONE (1) DAY-GLOW ORANGE FLAG.
11. CITY TO BE NOTIFIED A MINIMUM OF 7 DAYS PRIOR TO IMPLEMENTING EAST AND WEST BOUND MILLER RD DETOUR. MESSAGE BOARDS TO BE PLACED 7 DAYS PRIOR TO IMPLEMENTATION OF DETOUR.



**LEGEND:**

- DETOUR ROUTE - EAST AND WEST BOUND MILLER RD
- CONSTRUCTION AREA
- EAST BOUND LOCAL TRAFFIC MAINTAINED

**PRCMS MESSAGE PHASING**

PRIOR TO CONSTRUCTION	DURING CONSTRUCTION	DURING CONSTRUCTION
MILLER RD CONSTRUCTION	EB MILLER RD CLSD TO THRU TRAFFIC AT N MAPLE RD	WB MILLER RD CLSD TO THRU TRAFFIC AT N FIRST ST
MONTH DATE	FOLLOW POSTED DETOUR	FOLLOW POSTED DETOUR

NOTE: PRCMS LOCATIONS AND MESSAGES WILL BE AS DIRECTED BY THE ENGINEER. TO BE PLACED ONE WEEK PRIOR TO CONSTRUCTION.

\*THE CONTRACTOR SHALL PLACE THE APPROPRIATE DATE AS APPROVED BY THE ENGINEER.

**EAST BOUND MILLER RD**

SIGN	NUMBER	QUANTITY
EB MILLER RD	D3-1 36"x6"	6
DETOUR	M4-9S 30"x24"	6
EB MILLER RD	D3-1 36"x6"	4
DETOUR	M4-9R 30"x24"	4
EB MILLER RD	D3-1 36"x6"	4
DETOUR	M4-9L 30"x24"	4
EB MILLER RD	D3-1 36"x6"	2
DETOUR	M4-9L (MOD) 30"x24"	2
EB MILLER RD	D3-1 36"x6"	2
DETOUR	M4-9R (MOD) 30"x24"	2
EB MILLER RD	D3-1 36"x6"	1
END DETOUR	M4-8A 24"x18"	1
ROAD CLOSED TO THRU TRAFFIC	R11-4 60"x30"	1
DETOUR	M4-10R 48"x18"	1
MILLER AVE CLOSED AT N SEVENTH ST FOLLOW DETOUR	SPECIAL 48x66	1
EB MILLER RD	D3-1 36"x6"	3
DETOUR AHEAD	W20-2 36"x36"	3
EB MILLER RD	D3-1 36"x6"	3
ROAD WORK AHEAD	W20-1 36"x36"	3
BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED - 2 EACH		
SIGN, PORTABLE, CHANGEABLE MESSAGE, NTCIP-COMPLIANT - 2 EACH		
VERIFY EXACT QUANTITY AND LOCATION WITH ENGINEER PRIOR TO ORDERING		

**WEST BOUND MILLER RD**

SIGN	NUMBER	QUANTITY
WB MILLER RD	D3-1 36"x6"	8
DETOUR	M4-9S 30"x24"	8
WB MILLER RD	D3-1 36"x6"	4
DETOUR	M4-9R 30"x24"	4
WB MILLER RD	D3-1 36"x6"	6
DETOUR	M4-9L 30"x24"	6
WB MILLER RD	D3-1 36"x6"	3
DETOUR	M4-9L (MOD) 30"x24"	3
WB MILLER RD	D3-1 36"x6"	2
DETOUR	M4-9R (MOD) 30"x24"	2
WB MILLER RD	D3-1 36"x6"	1
END DETOUR	M4-8A 24"x18"	1
ROAD CLOSED	R11-2 48"x30"	1
DETOUR	M4-10L 48"x18"	1
WB MILLER RD	D3-1 36"x6"	5
DETOUR AHEAD	W20-2 36"x36"	5
WB MILLER RD	D3-1 36"x6"	3
ROAD WORK AHEAD	W20-1 36"x36"	3
BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED - 2 EACH		
SIGN, PORTABLE, CHANGEABLE MESSAGE, NTCIP-COMPLIANT - 2 EACH		
VERIFY EXACT QUANTITY AND LOCATION WITH ENGINEER PRIOR TO ORDERING		

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

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER AVENUE REHABILITATION  
DETOUR ROUTE  
PHASE II STAGE III (CYCLE TRACK)

CITY OF ANN ARBOR PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48107-8647  
ANN ARBOR 734.794.4410  
www.a3gov.org

CITY OF ANN ARBOR MICHIGAN

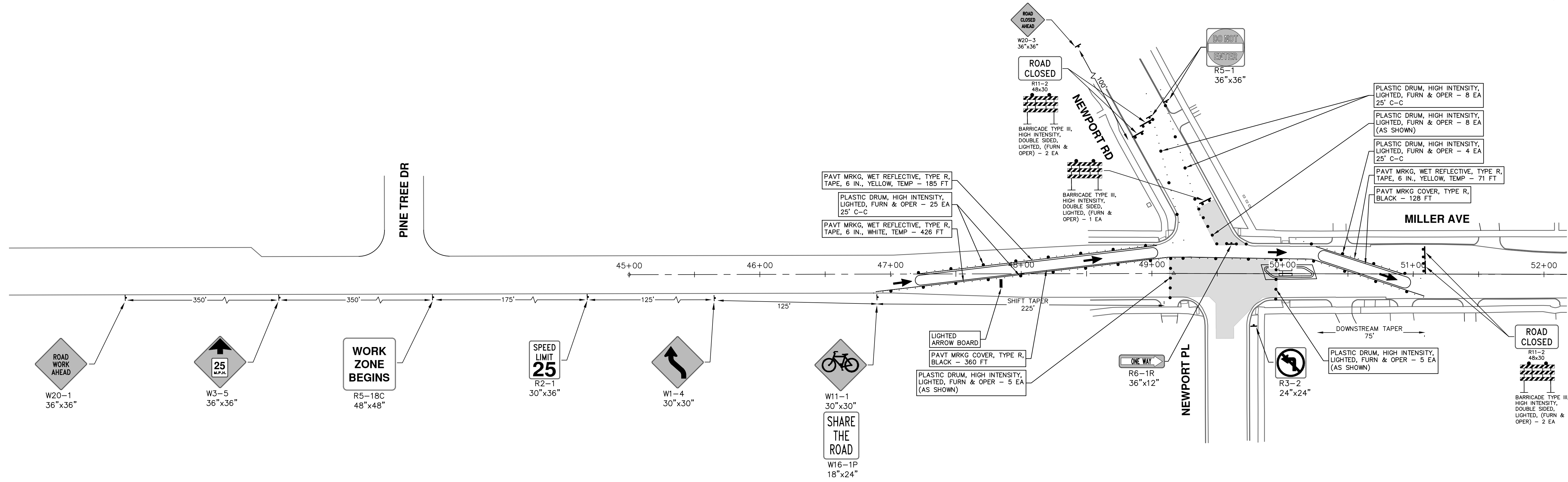
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER AVENUE REHABILITATION  
DETOUR ROUTE  
PHASE II STAGE III (CYCLE TRACK)

SCALE PLAN: 1" = 300'  
DRAWING No. 2022034-24  
SHEET No. 24 OF 132

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

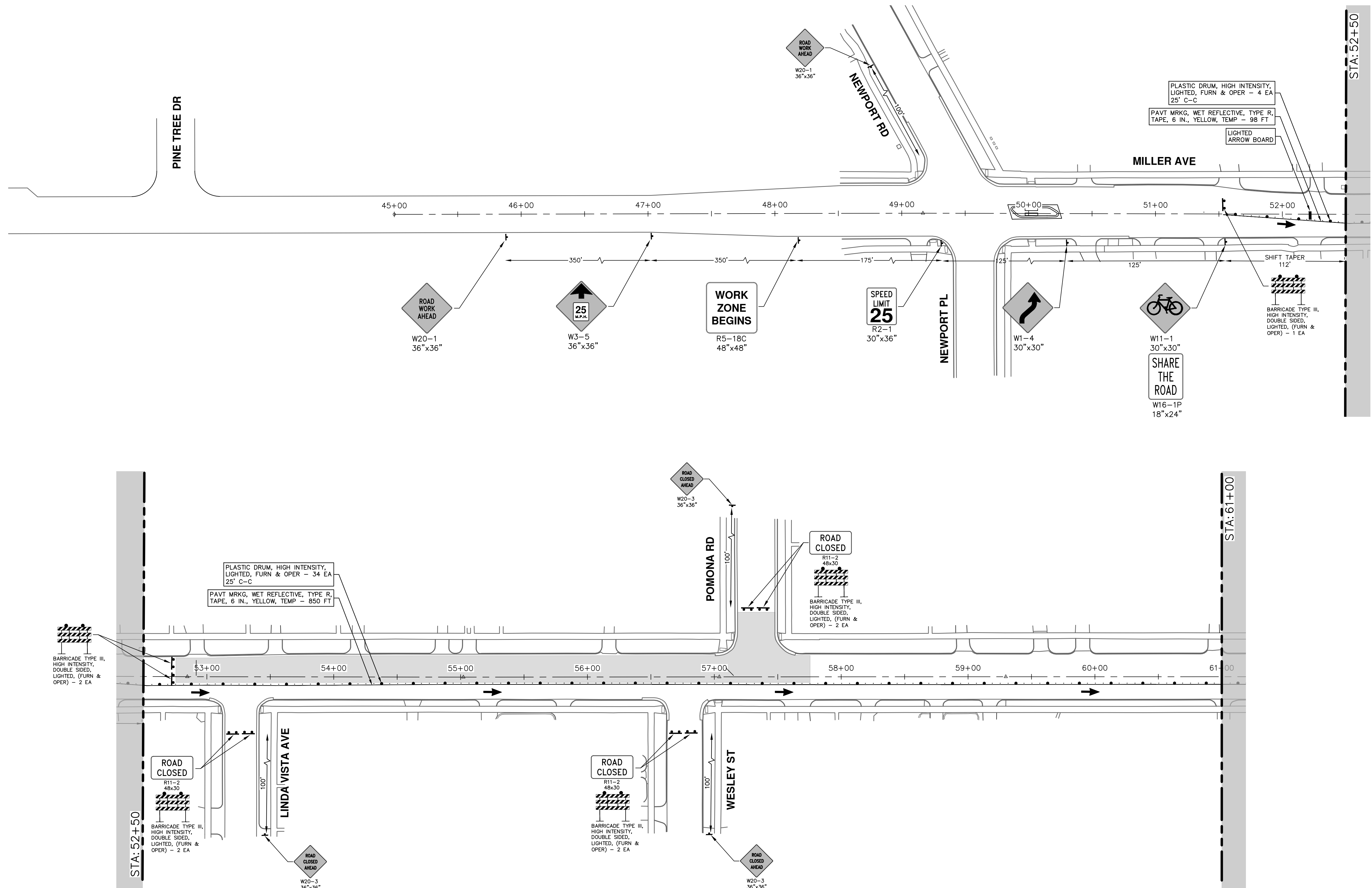


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DATE	CHECKED
DATE	DRAWN
DATE	REV.
DESCRIPTION	REV.
<p>CITY OF ANN ARBOR PUBLIC SERVICES 301 EAST HURON STREET ANN ARBOR, MI 48106-0647 www.a2gov.org</p>	
<p><b>CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING</b> <b>MILLER AVENUE REHABILITATION</b> TRAFFIC CONTROL - PHASE I STAGE I (NEWPORT WATER MAIN CONN)</p>	
SCALE: 1" = 40'	P.O.B. - STA. 61+00
DRAWING No. <b>2022034-25</b>	
SHEET No.	
<b>25 OF 132</b>	

R:\2022034\_Miller Ave Rehab\Plan Production\2022034M1trfA.dwg Dwg Created: 26-Mar-24 - \_a2\_standard bw.stb - Plot Date: 30-Aug-24



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

**MILLER AVENUE REHABILITATION**

TRAFFIC CONTROL - PHASE I STAGE II (WATER MAIN)

P.O.B. - STA. 61+00

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

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48107-8647  
www.a2gov.org

**CITY OF ANN ARBOR MICHIGAN**

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

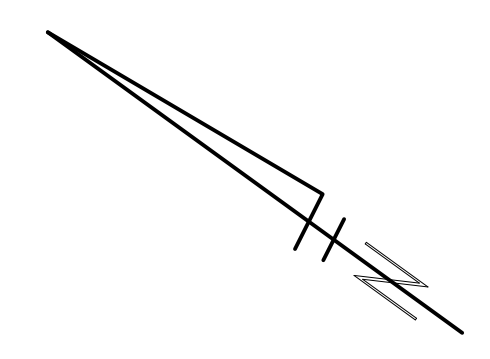
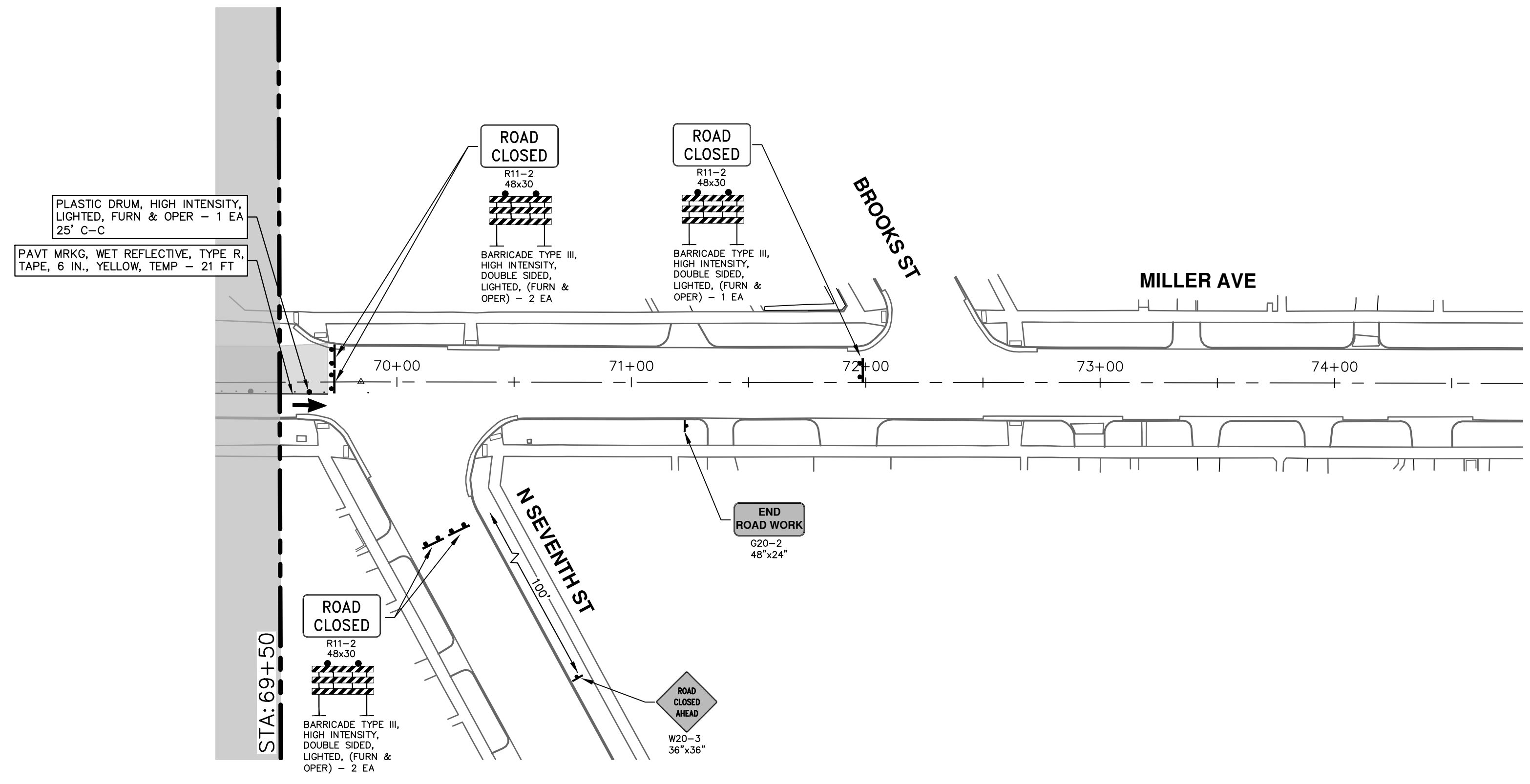
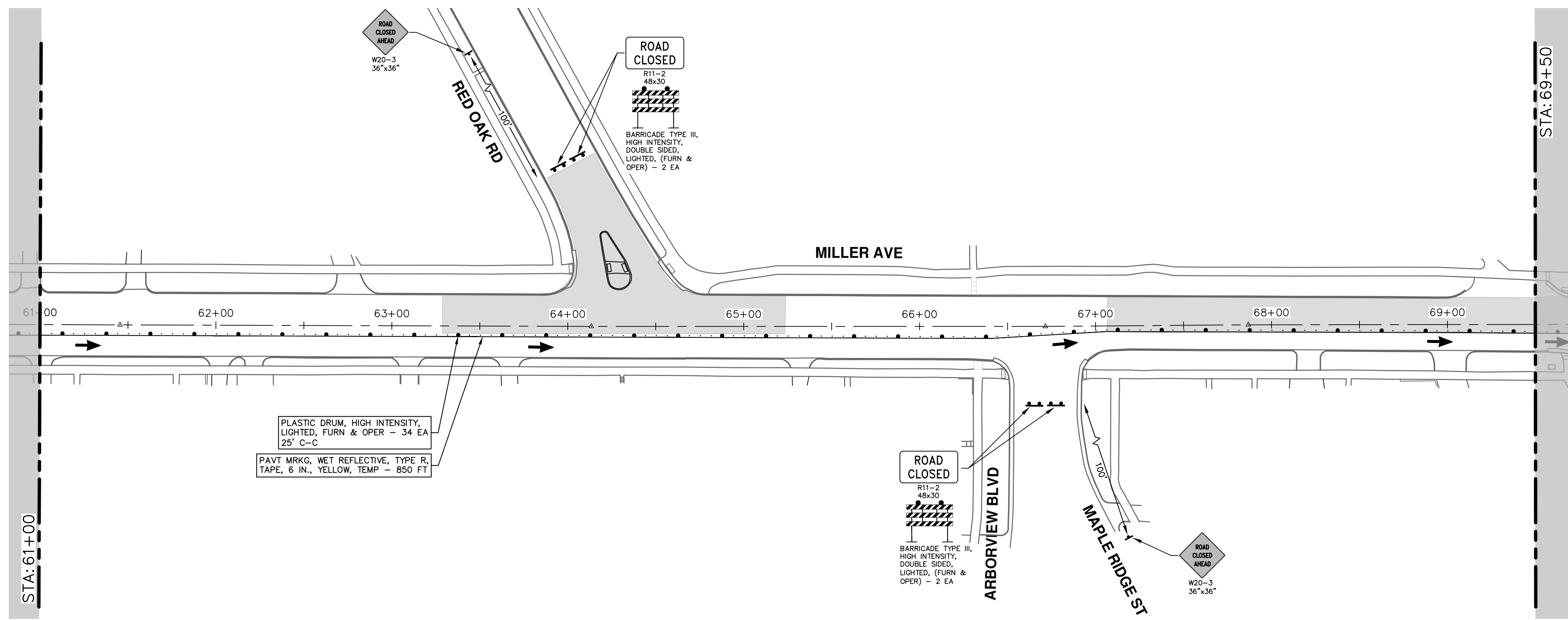
SHEET No. **26 OF 132**

SCALE: 1" = 40'

DRAWING No. **2022034-26**



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

**MILLER AVENUE REHABILITATION**

TRAFFIC CONTROL - PHASE I STAGE II (WATER MAIN)

SCALE: 1" = 40'

DRAWING No. 2022034-27

SHEET No. 27 OF 132

STA. 61+00 - P.O.E.

www.a2gov.org

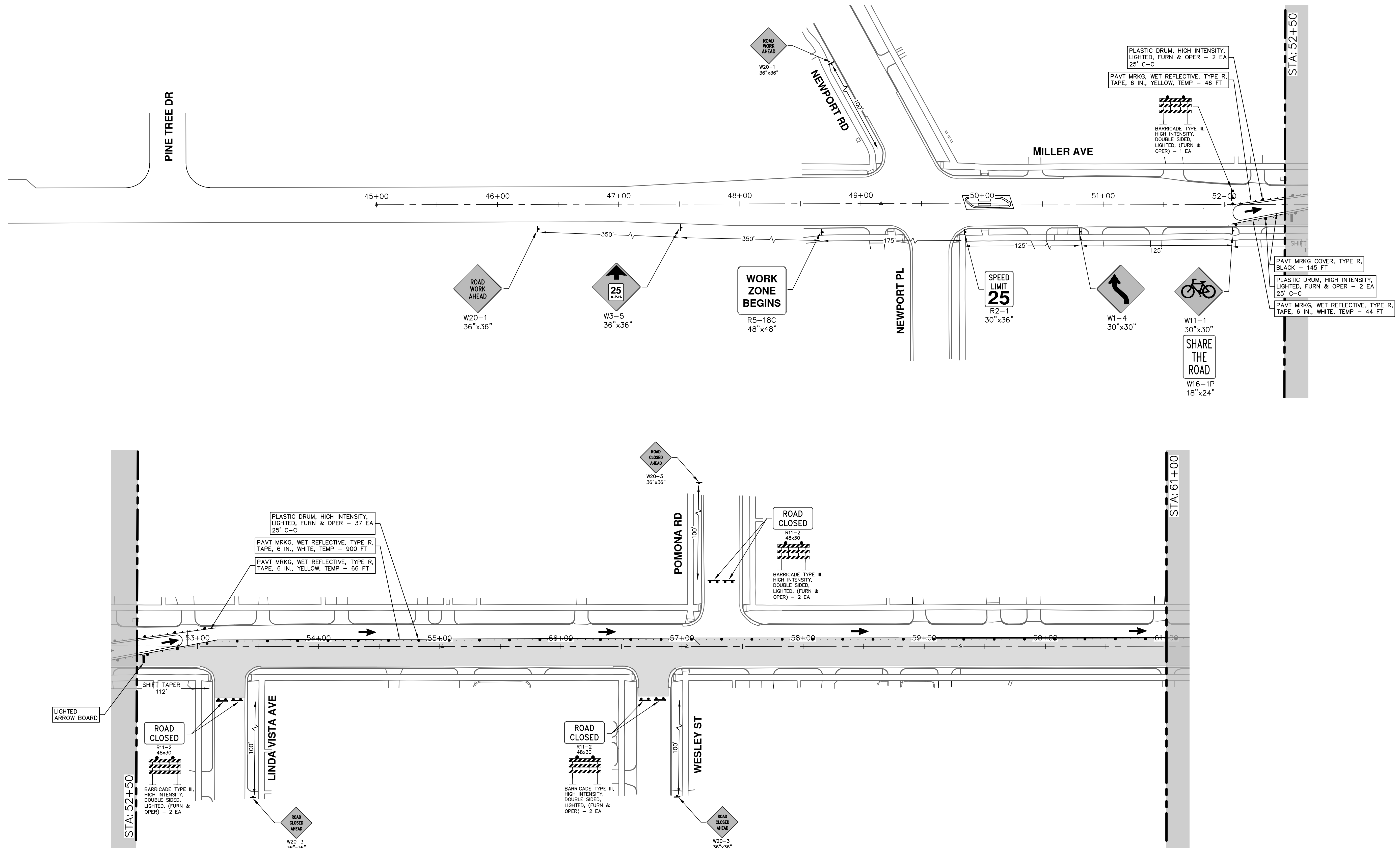
ANN ARBOR MICHIGAN

CITY OF ANN ARBOR  
PUBLIC SERVICES  
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REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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R:\2022034\_Miller Ave Rehab\Plan Production\2022034MtrfA1.dwg Dwg Created: 2-May-24 - \_a2\_standard bw.stb - Plot Date: 30-Aug-24



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

**MILLER AVENUE REHABILITATION**

TRAFFIC CONTROL - PHASE I STAGE III (WATER MAIN)

SCALE: 1" = 40'

DRAWING No. 2022034-28

P.O.B. - STA. 61+00

28 OF 132

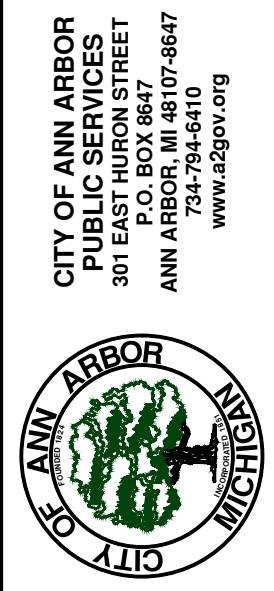
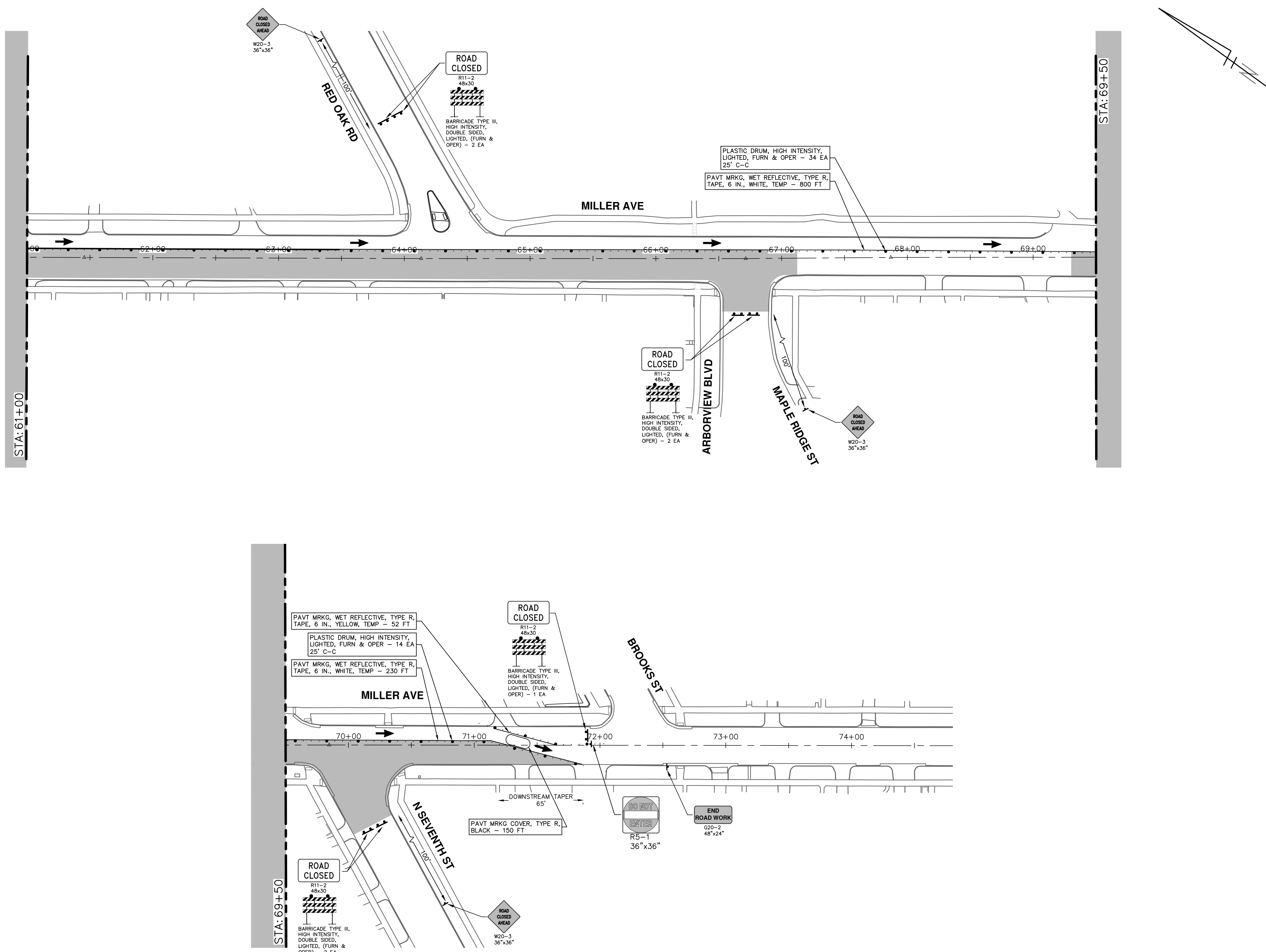
REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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ANN ARBOR 734.794.6410  
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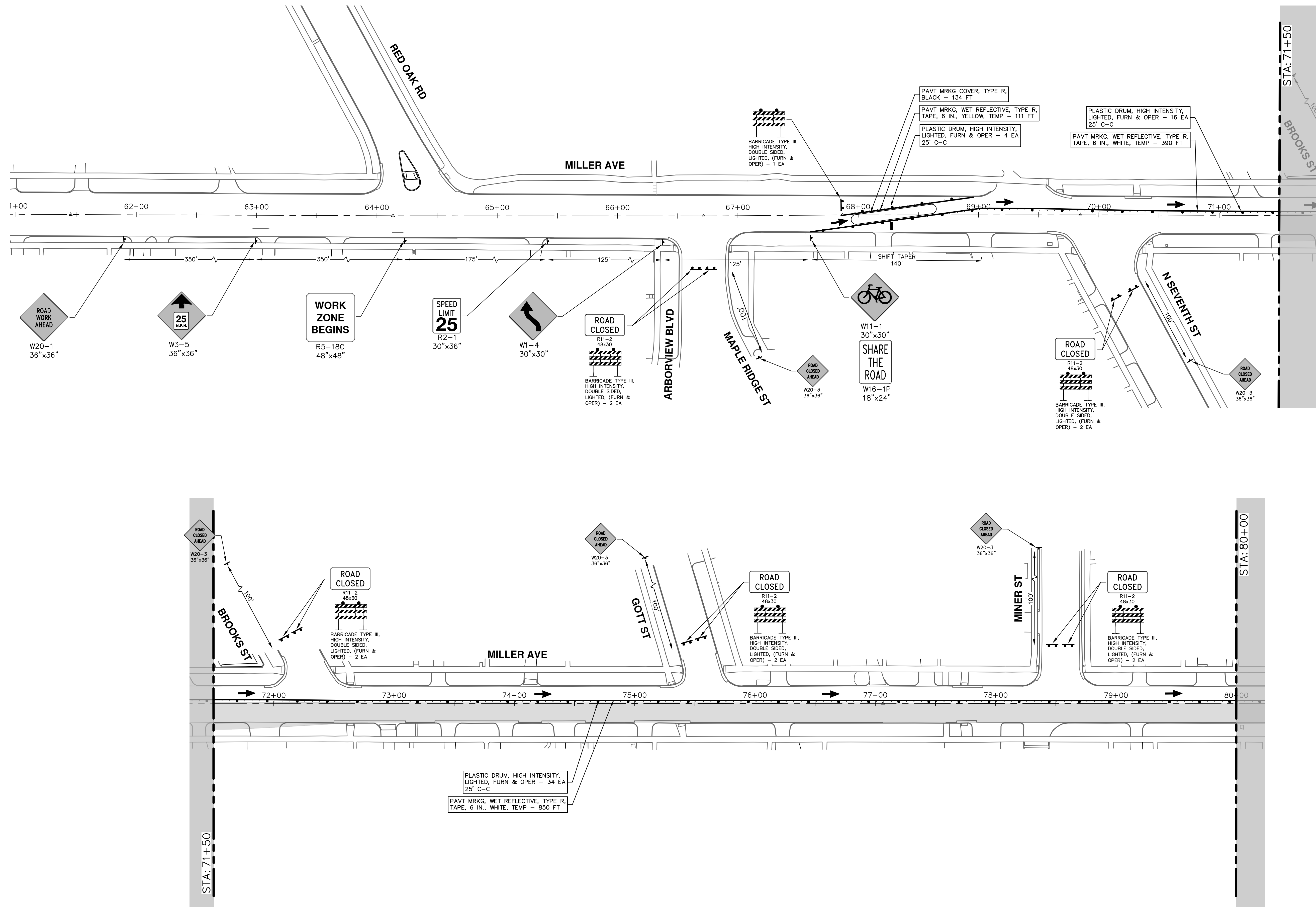


**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER AVENUE REHABILITATION**  
 TRAFFIC CONTROL - PHASE I (STAGE III (WATER MAIN))

SCALE: 1" = 40'  
 DRAWING No. 2022034-29

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

R:\2022034\_Miller\_Ave\_Rehab\Plan\_Production\2022034Mtrf1C.dwg Dwg Created: 29-Mar-24 - \_a2\_standard\_bw.stb - Plot Date: 30-Aug-24



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

**MILLER AVENUE REHABILITATION**

TRAFFIC CONTROL - PHASE II STAGE I (WATER MAIN)

SCALE: 1" = 40'

DRAWING No. 2022034-30

SHEET No. 30 OF 132

P.O.B. - STA. 80+00

City of Ann Arbor Michigan

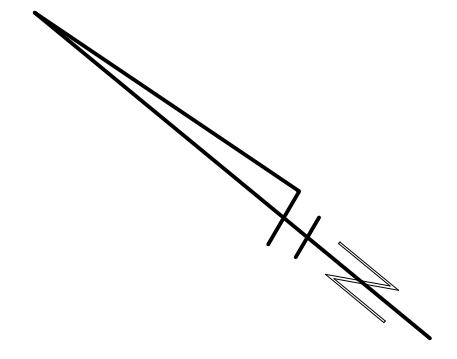
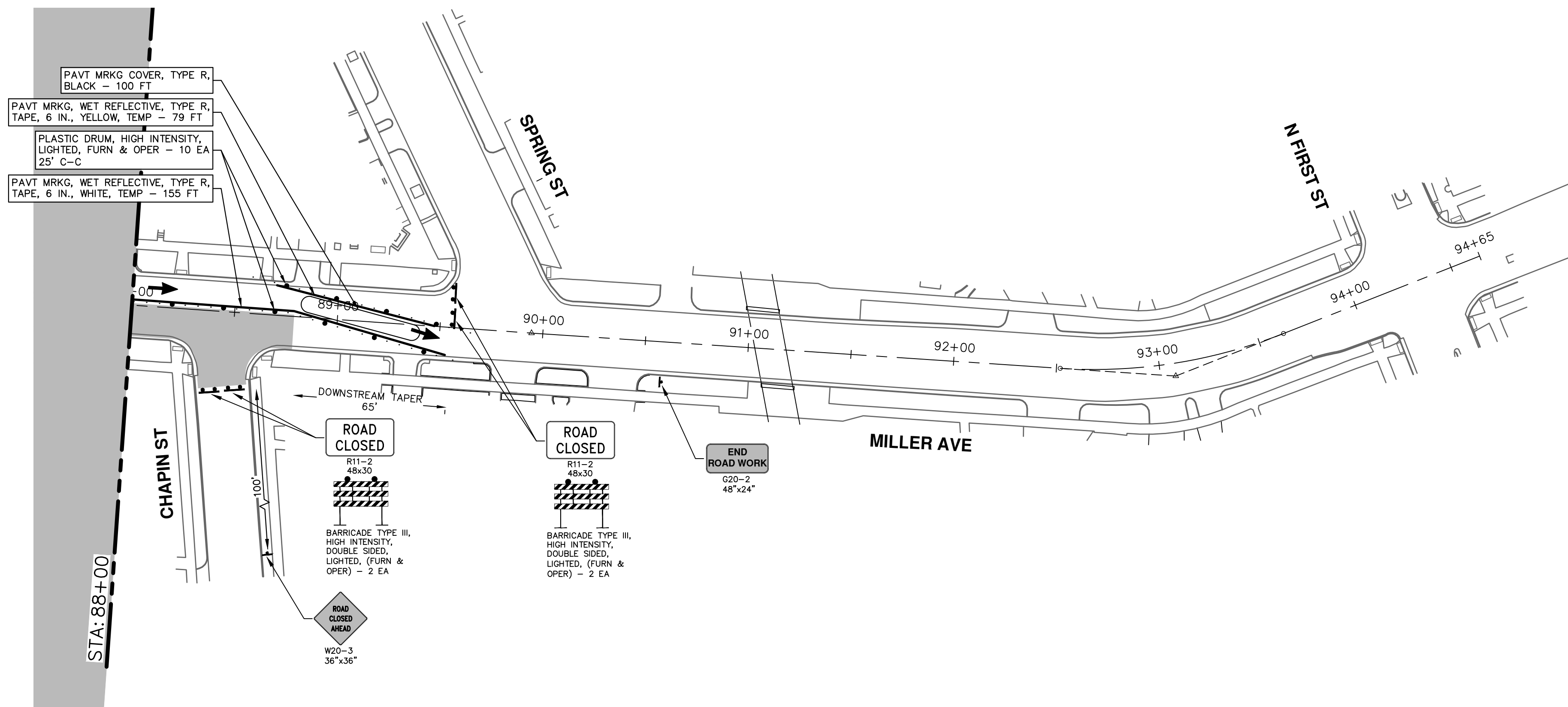
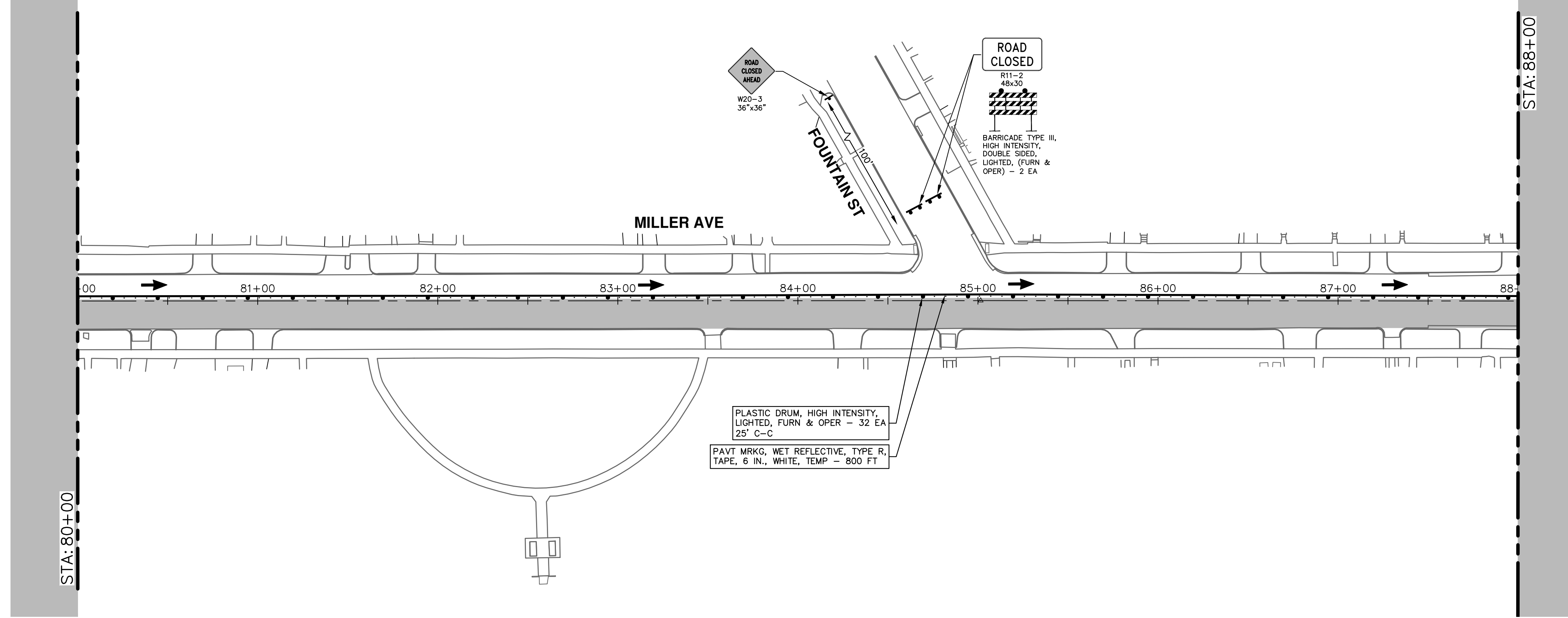
CITY OF ANN ARBOR  
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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**MILLER AVENUE REHABILITATION**

TRAFFIC CONTROL - PHASE II STAGE I (WATER MAIN)

SCALE: 1" = 40'

DRAWING No. 2022034-31

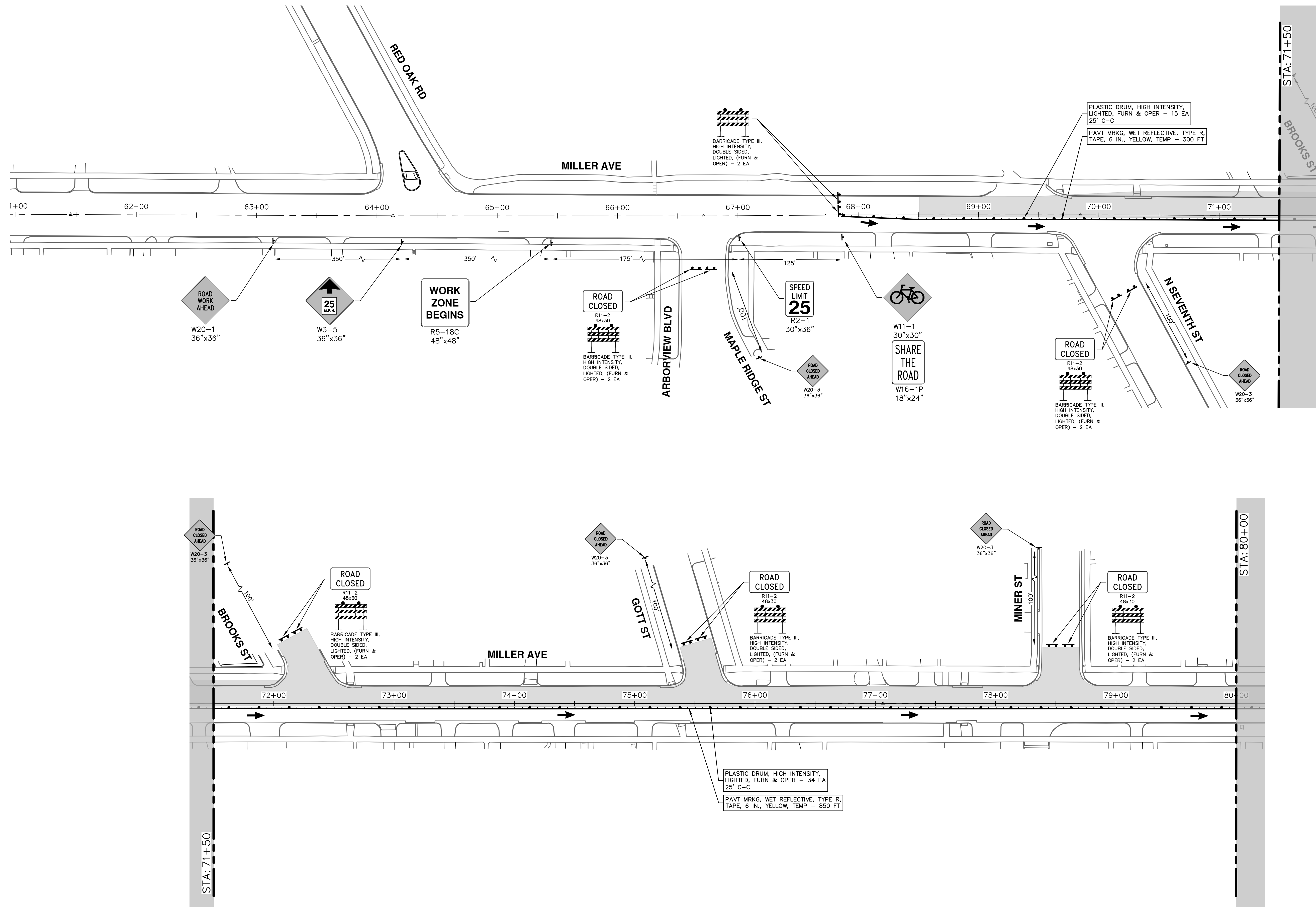
SHEET No. 31 OF 132

STA. 80+00 - P.O.E.

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R:\2022034\_Miller\_Ave\_Rehab\Plan\_Production\2022034M1r1D.dwg Dwg Created: 30-Aug-24 - \_a2\_standard\_bw.stb - Plot Date: 30-Aug-24



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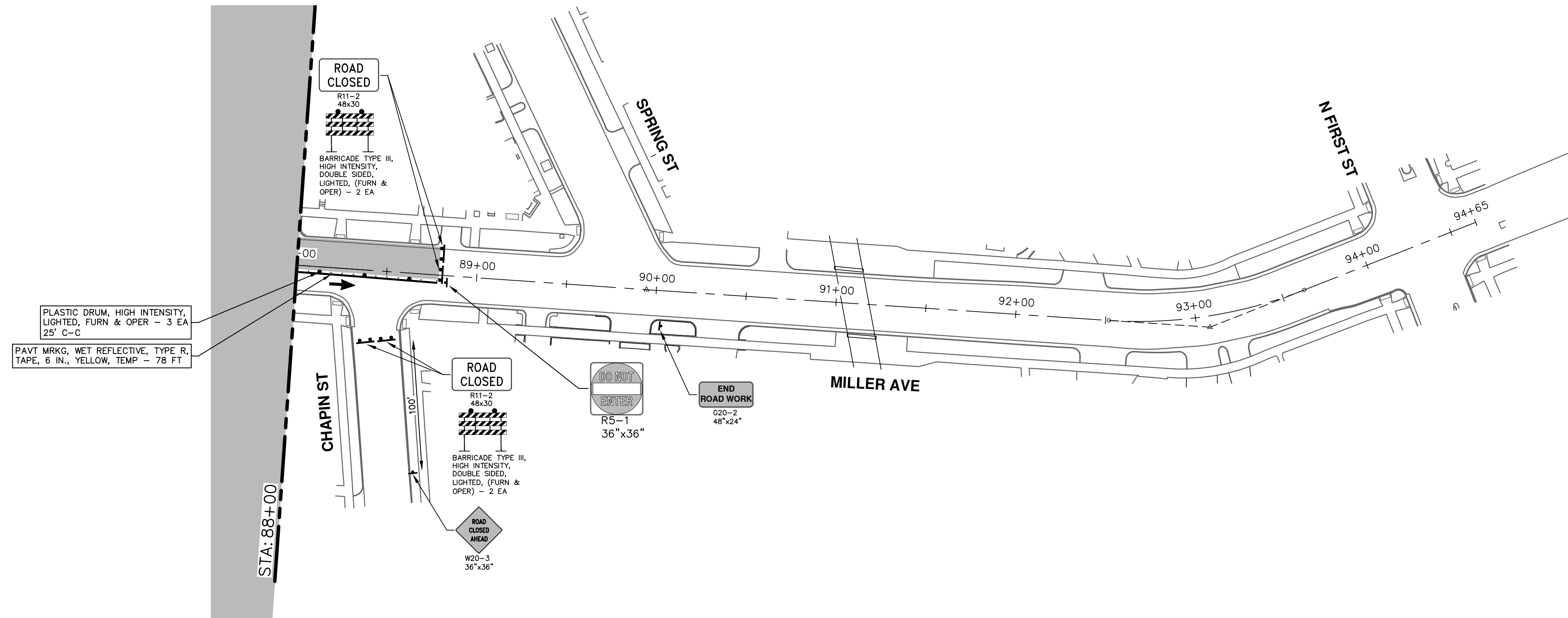
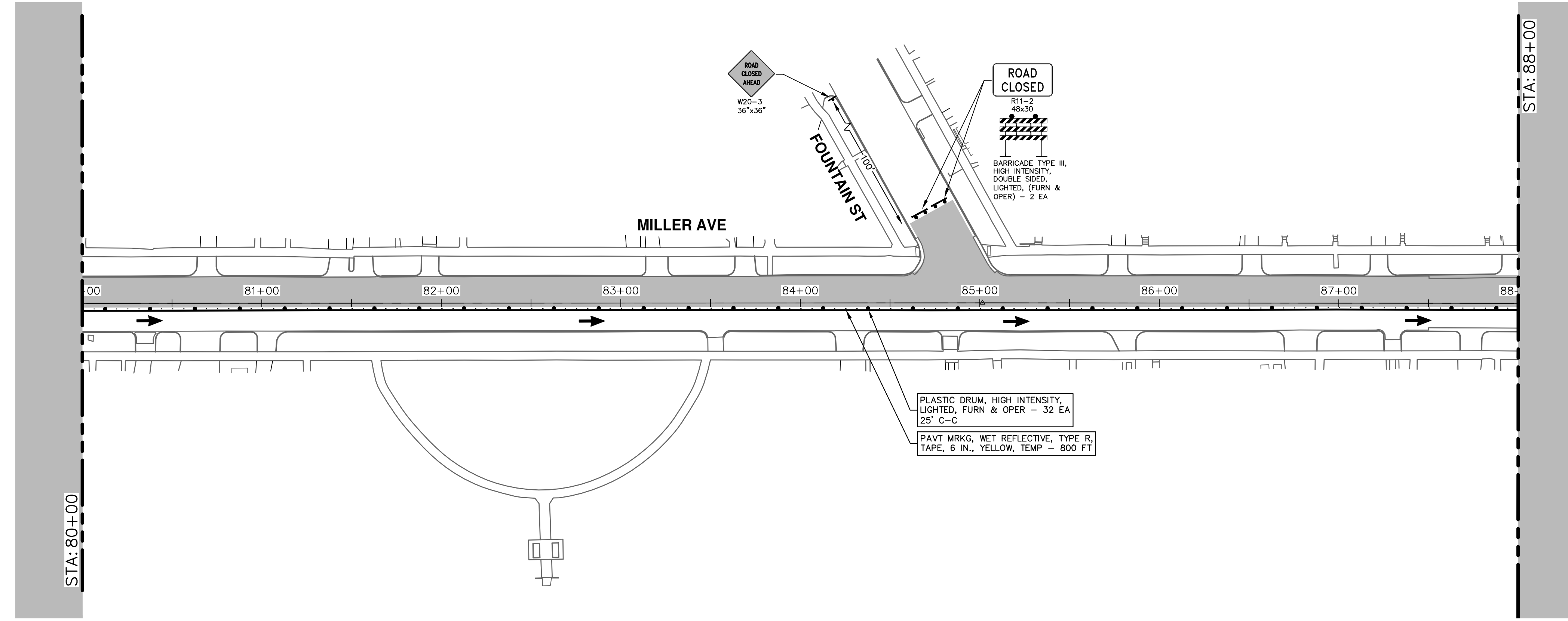


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER AVENUE REHABILITATION  
TRAFFIC CONTROL - PHASE II STAGE II (WATER MAIN)

SCALE: 1" = 40'  
DRAWING No. 2022034-32  
SHEET No. 32 OF 132



R:\2022034\_Miller\_Ave\_Rehab\Plan\_Production\2022034Mtrf1D.dwg Dwg Created: 30-Aug-24 - \_a2\_standard bw.stb - Plot Date: 30-Aug-24



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**MILLER AVENUE REHABILITATION**

TRAFFIC CONTROL - PHASE II STAGE II (WATER MAIN)

SCALE: 1" = 40'

DRAWING No. 2022034-33

SHEET No. 33 OF 132

STA. 80+00 - P.O.E.

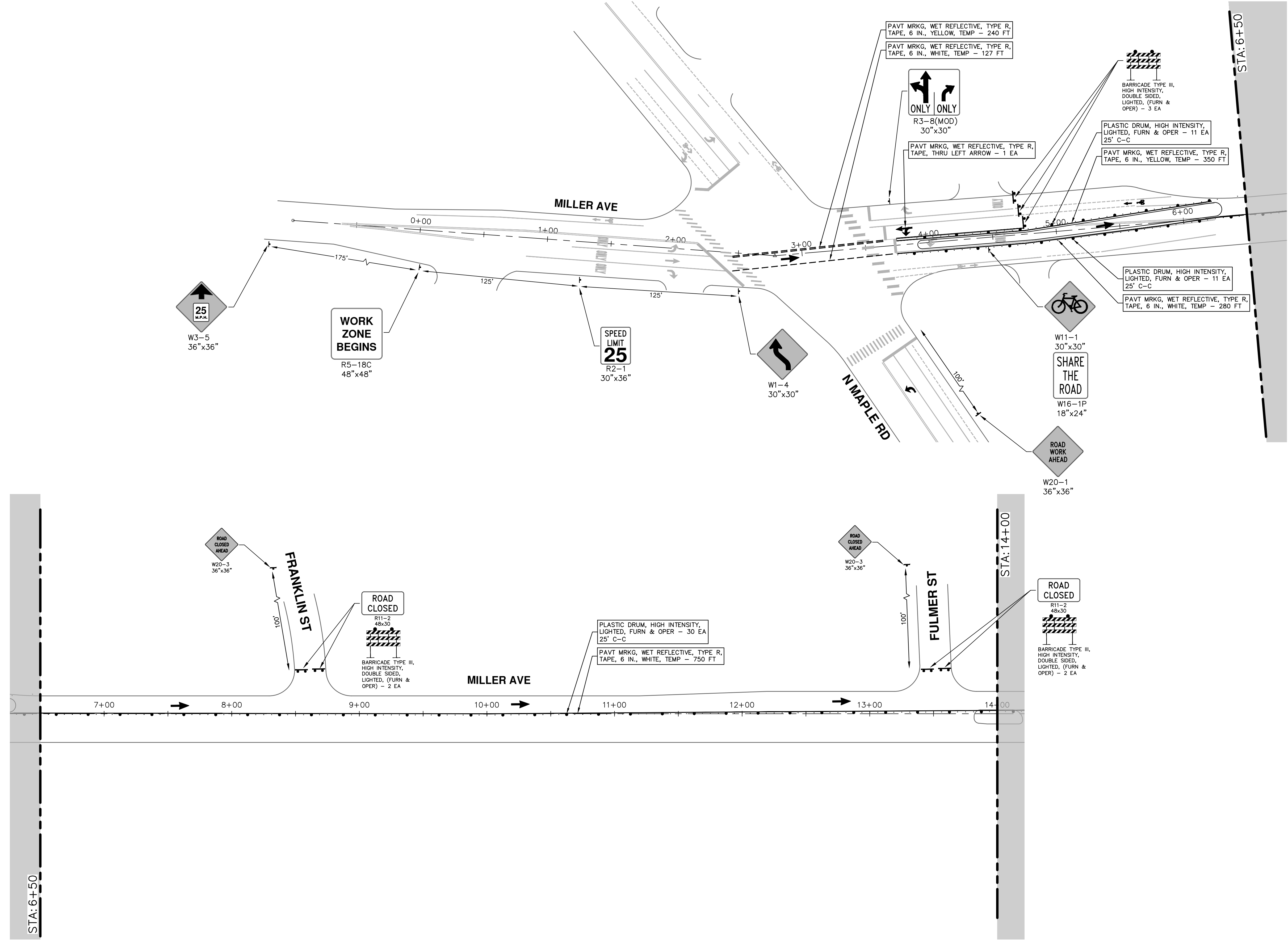
City of Ann Arbor Michigan

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**MILLER AVENUE REHABILITATION**

TRAFFIC CONTROL - PHASE II STAGE III (CYCLE TRACK)

P.O.B. - STA. 14+00

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SHEET No. **34 OF 132**

SCALE: 1" = 40'

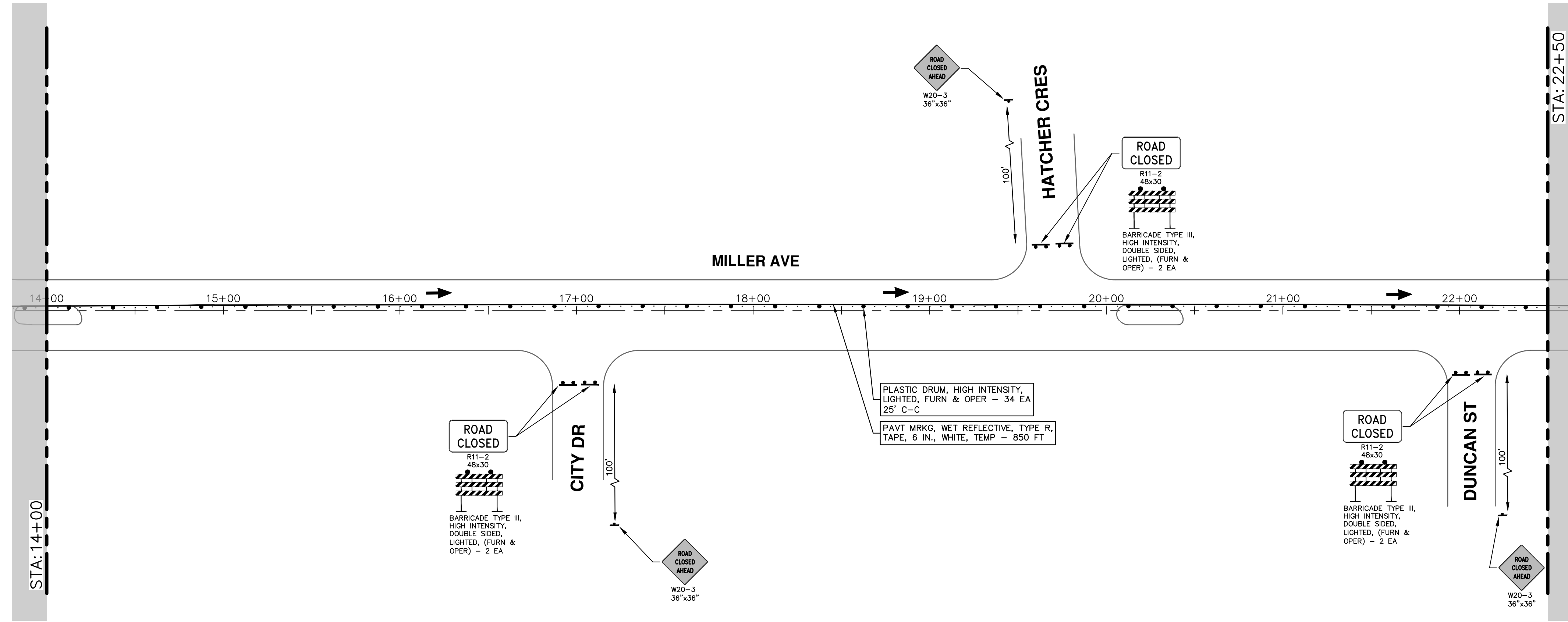
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**MILLER AVENUE REHABILITATION**  
 TRAFFIC CONTROL - PHASE II STAGE III (CYCLE TRACK)

SCALE: 1" = 40'

DRAWING No. 2022034-35

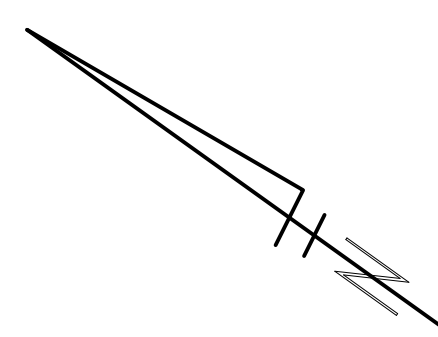
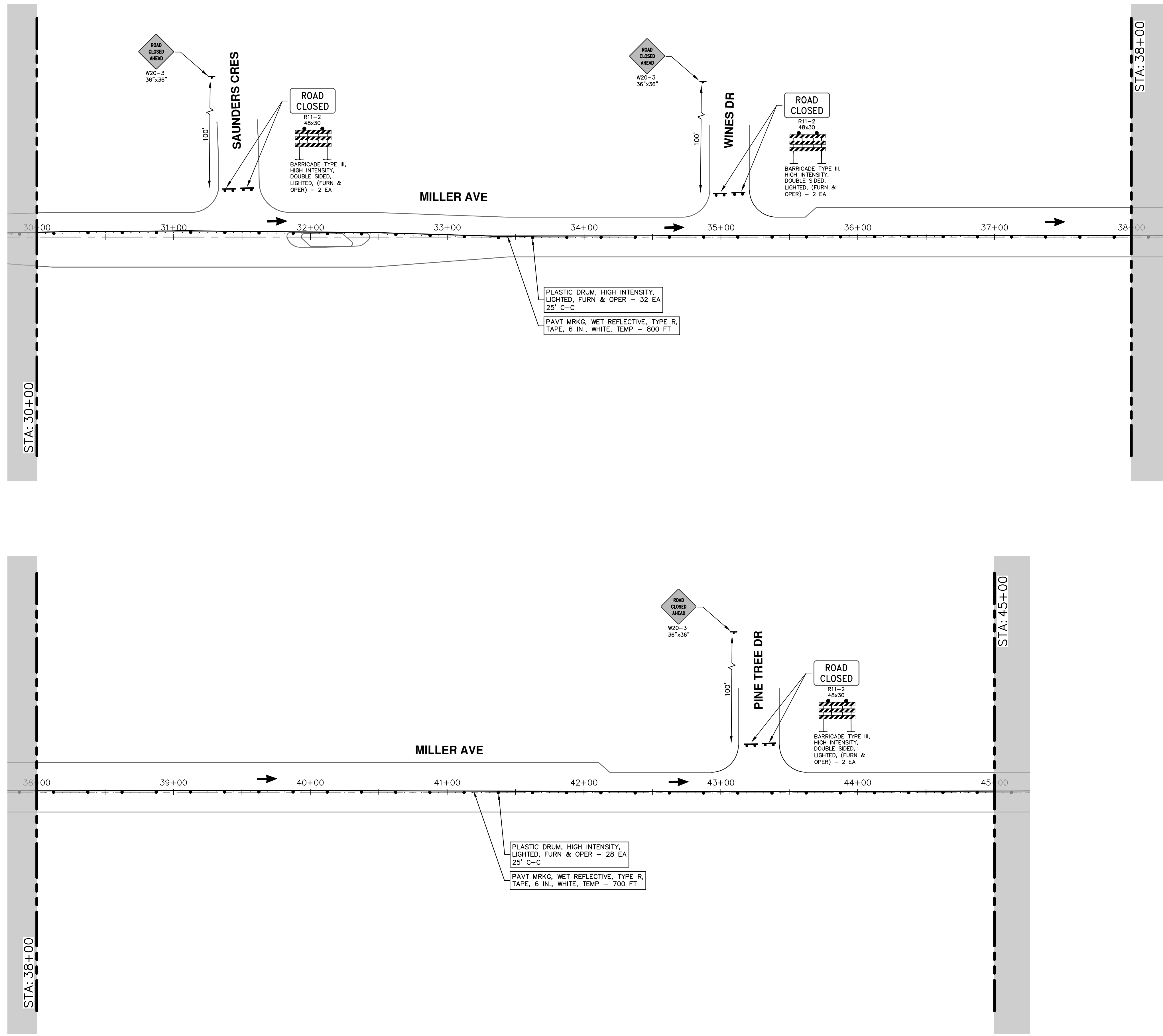
SHEET No. 35 OF 132

STA. 14+00 - STA. 30+00

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REV.	DESCRIPTION	DATE	DRAWN	CHECKED

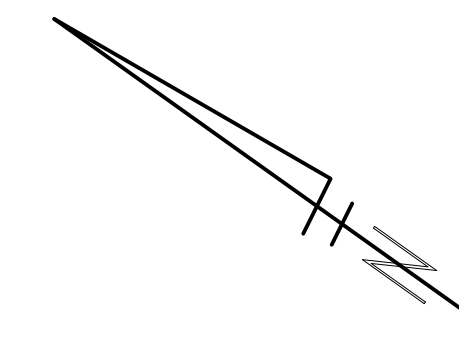
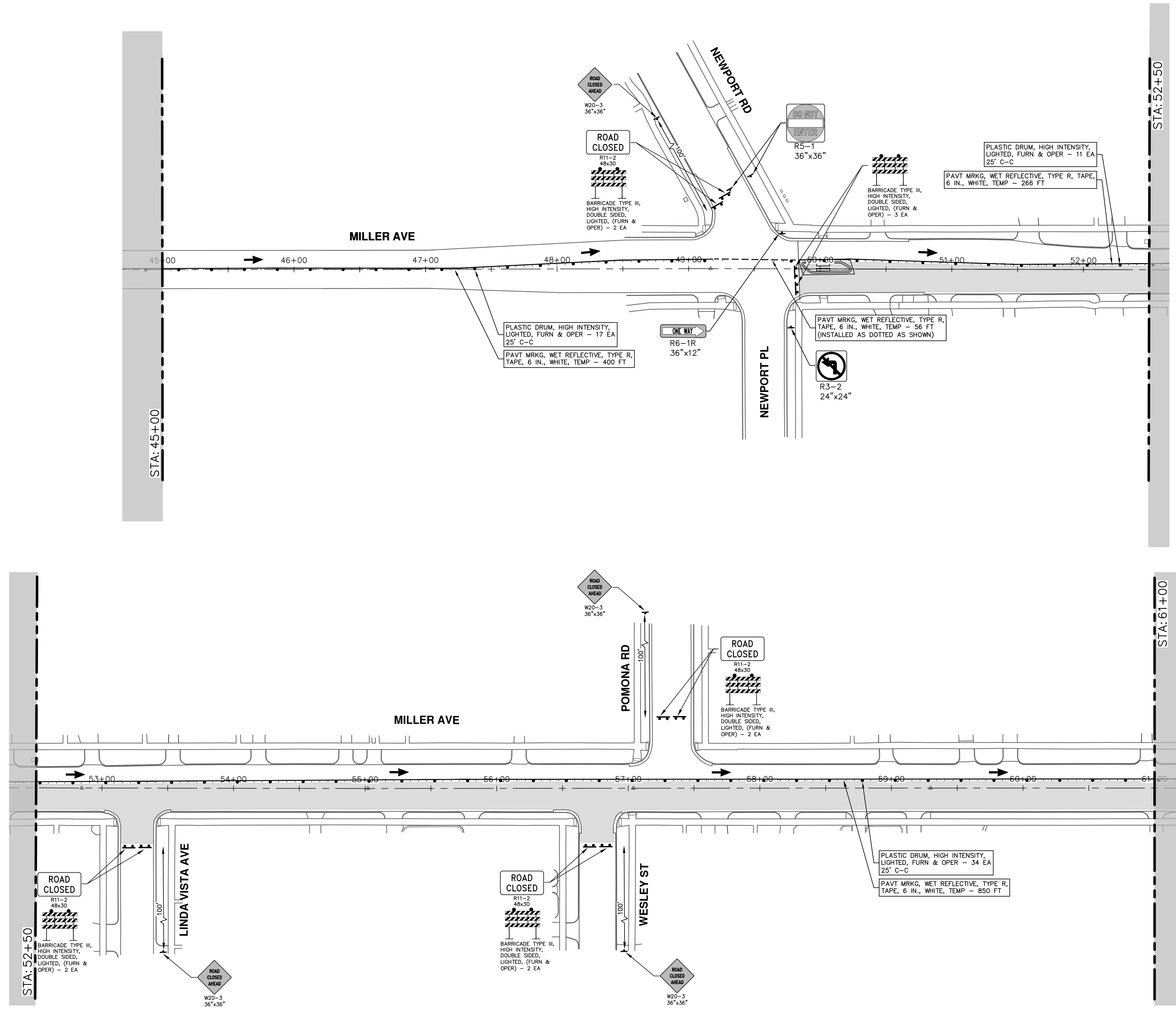
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**MILLER AVENUE REHABILITATION**

TRAFFIC CONTROL - PHASE II STAGE III (CYCLE TRACK)

SCALE: 1" = 40'

DRAWING No. 2022034-37

STA. 45+00 - STA. 61+00

STA. 52+50

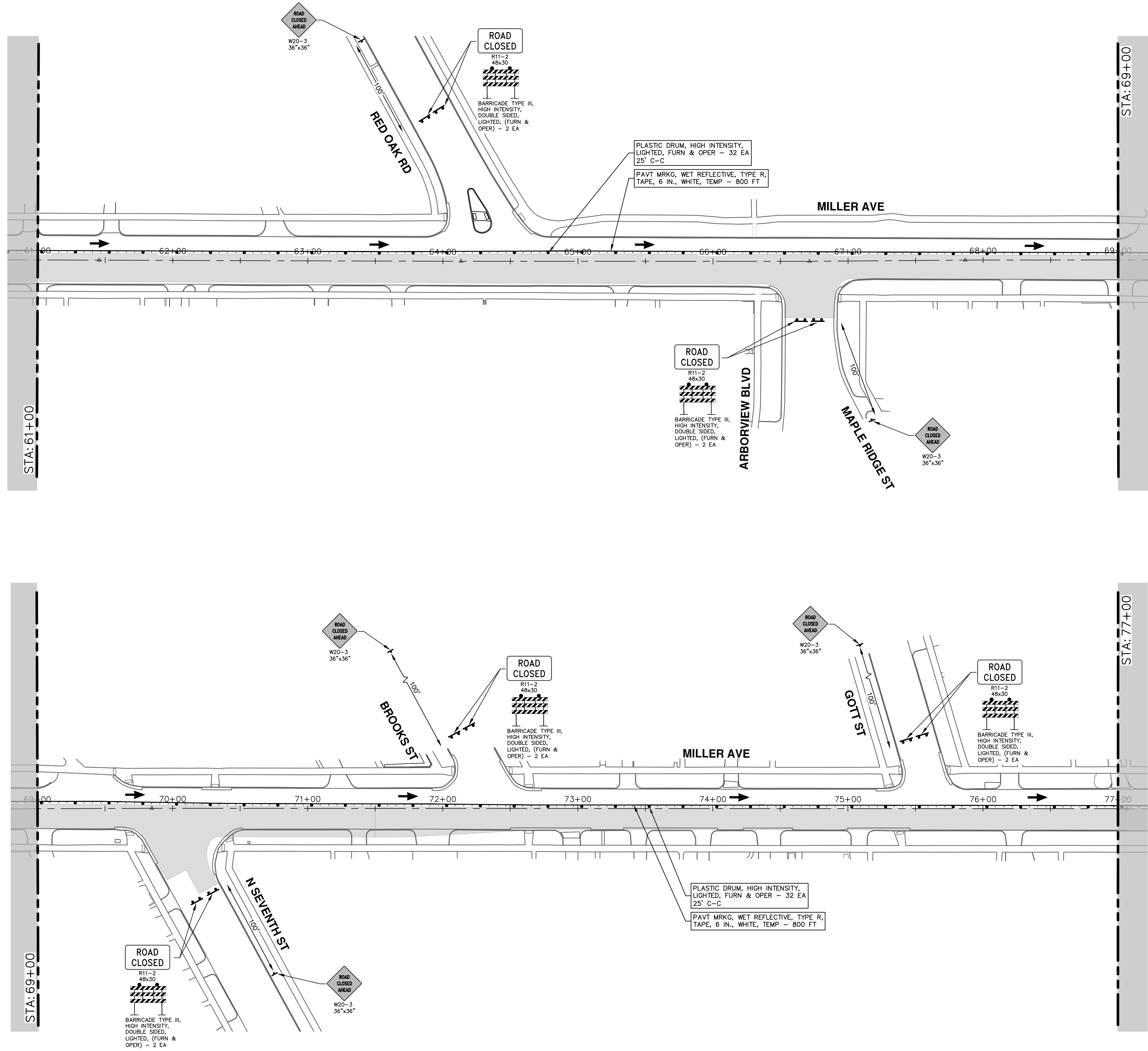
STA. 61+00

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MILLER AVENUE REHABILITATION  
TRAFFIC CONTROL - PHASE II STAGE III (CYCLE TRACK)

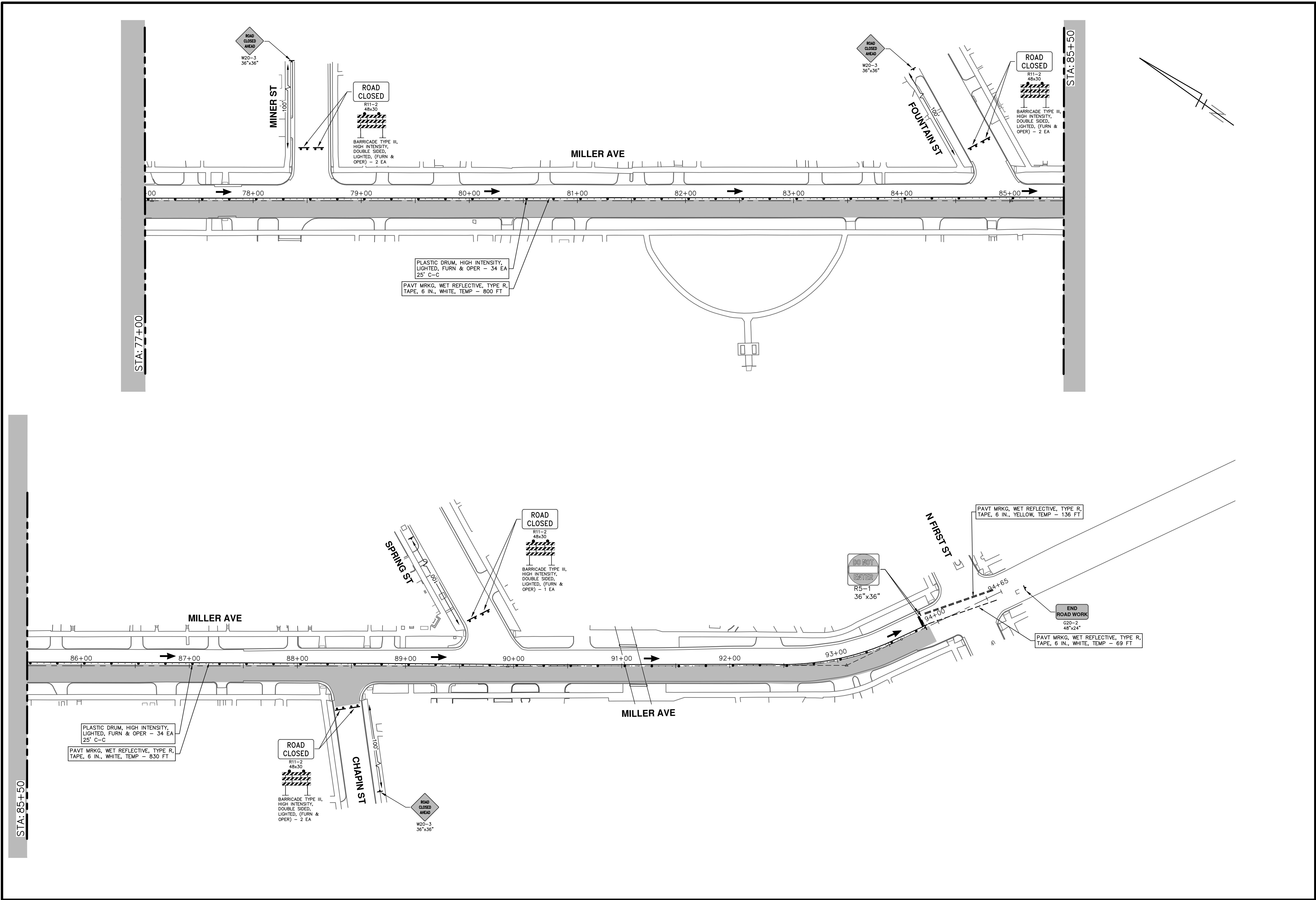
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SCALE: 1" = 40'  
DRAWING No.  
2022034-38

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

STA. 61+00 - STA. 77+00



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**MILLER AVENUE REHABILITATION**

TRAFFIC CONTROL - PHASE II STAGE III (CYCLE TRACK)

SCALE: 1" = 40'

DRAWING No. 2022034-39

STA. 77+00 - P.O.E.

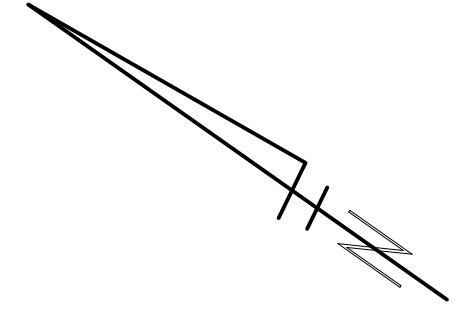
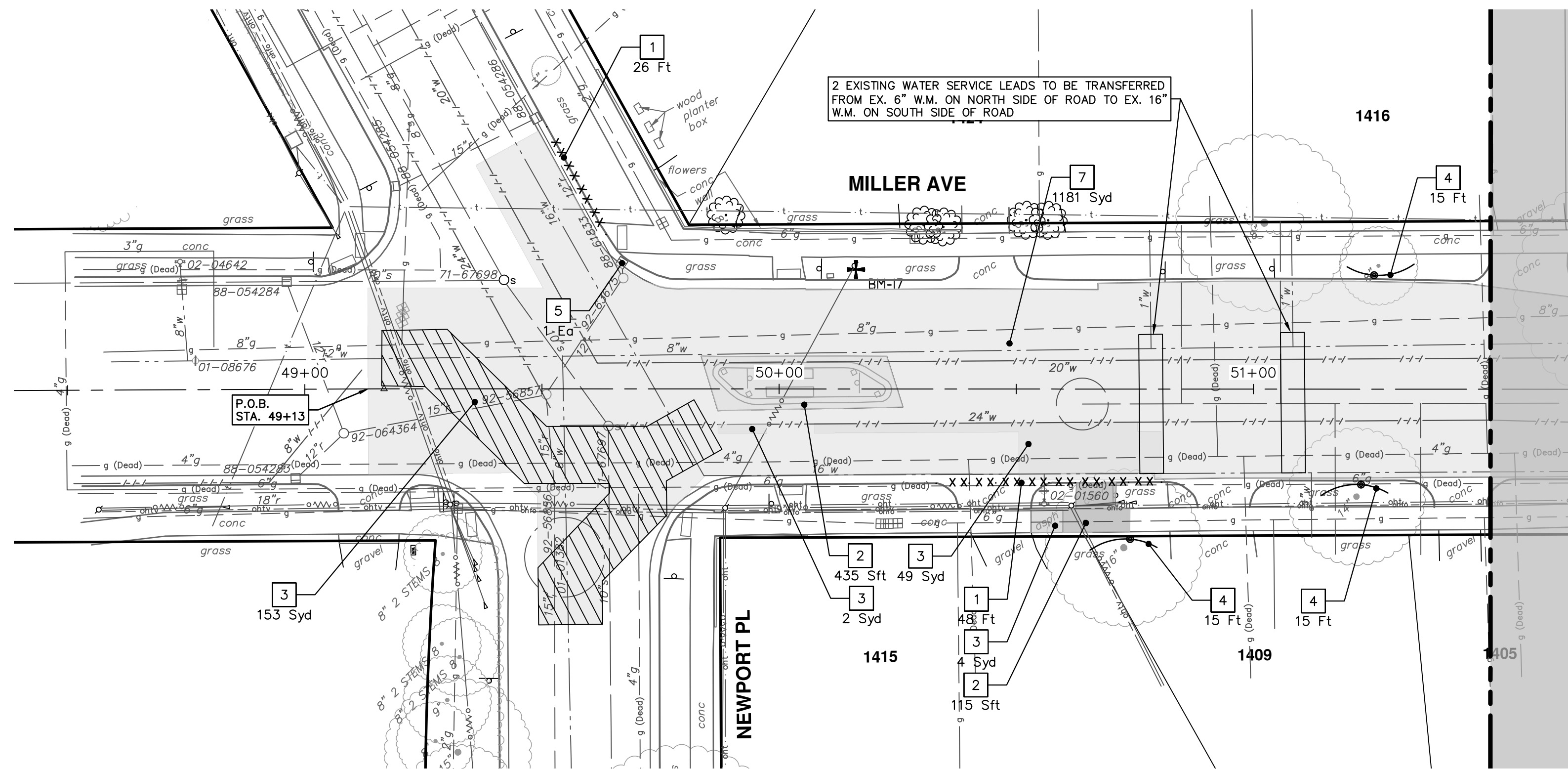
39 OF 132

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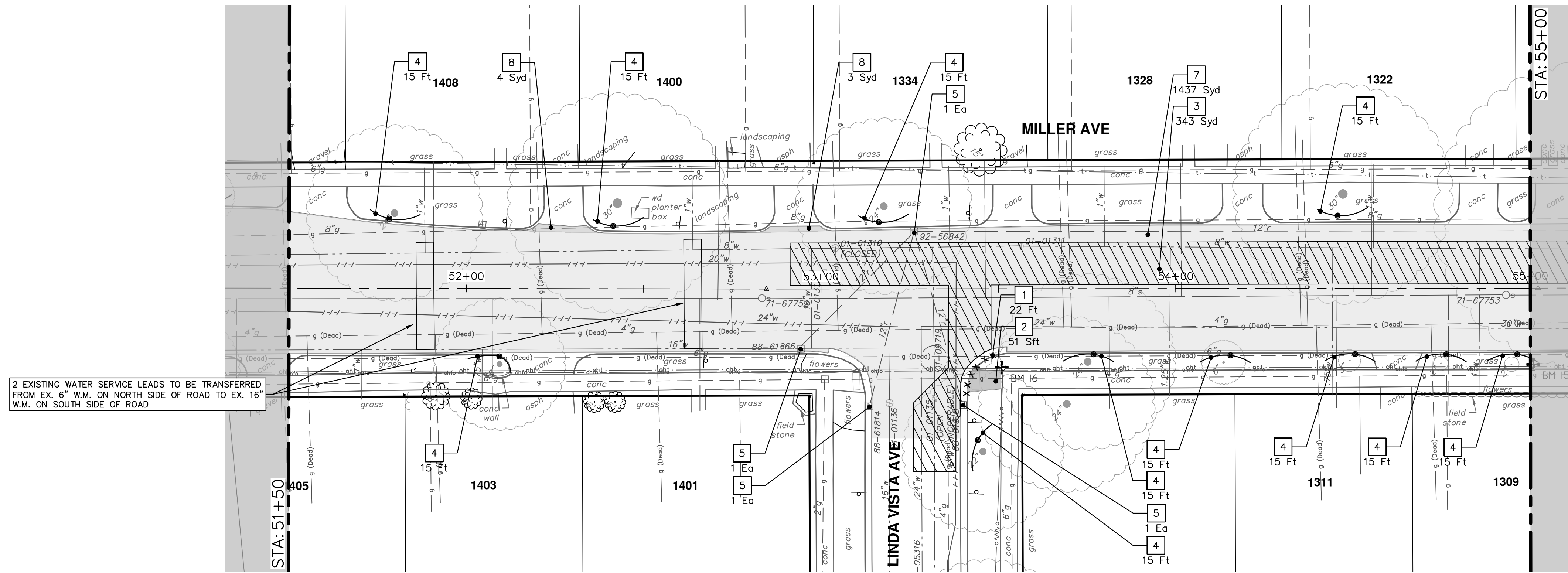
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REMOVAL KEY	
KEY	DESCRIPTION
1	Curb, Gutter, and Curb and Gutter, Any Type, Rem *
2	Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem
3	HMA, Any Thickness, Rem *
4	Tree Protective Fence
5	Erosion Control, Inlet Protection, Fabric Drop
6A	Tree, Rem, 6 in. - 12 In.
6B	Tree, Rem, 13 in. - 19 In.
6C	Tree, Rem, 20 in. - 29 In.
6D	Tree, Rem, 40 in. and Larger
7	Cold-Milling HMA Surface
8	HMA Surface, Rem

\* SAWCUT FULL DEPTH AT REMOVAL LIMITS AS DIRECTED BY ENGINEER



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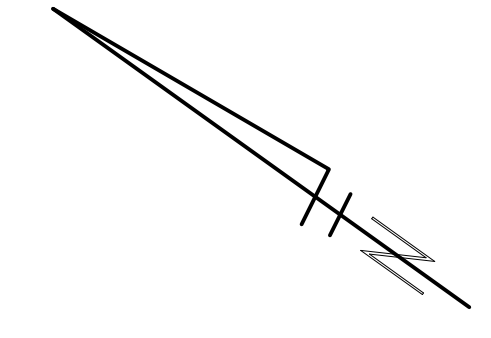
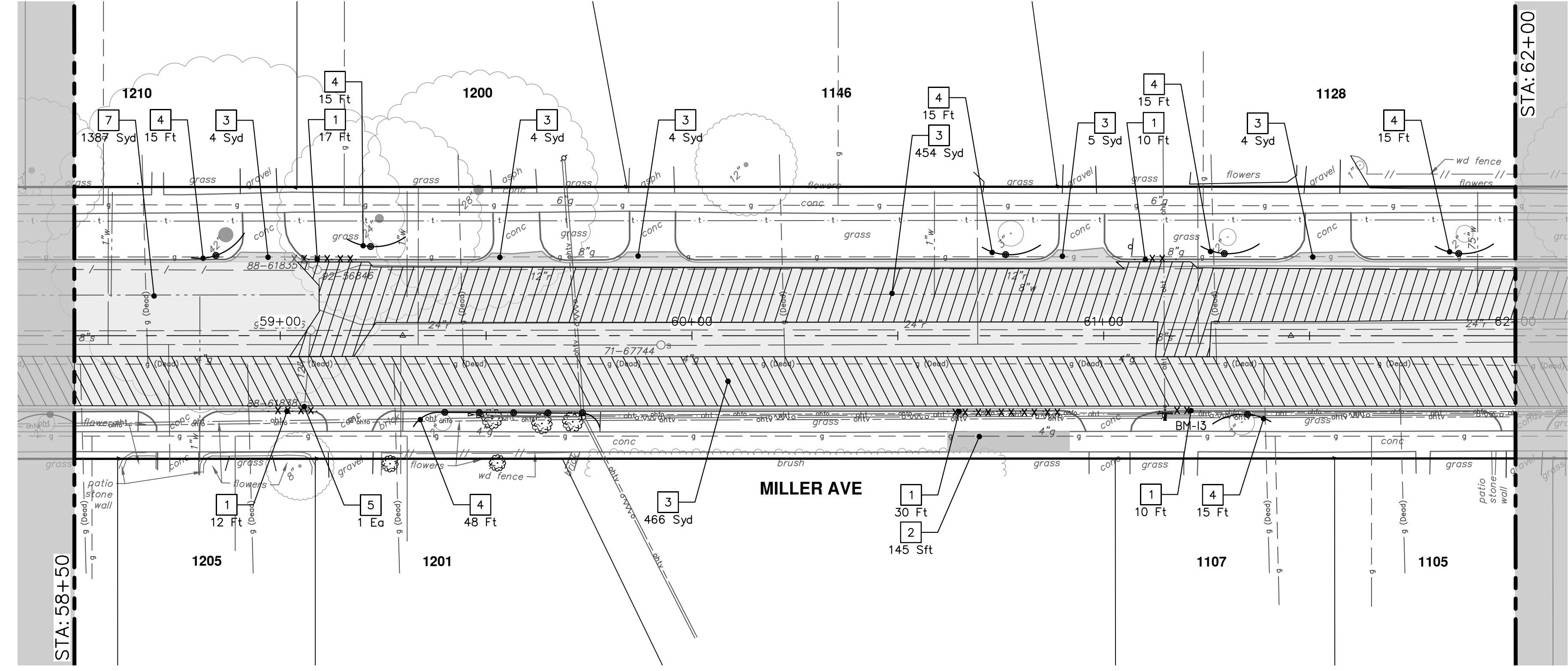
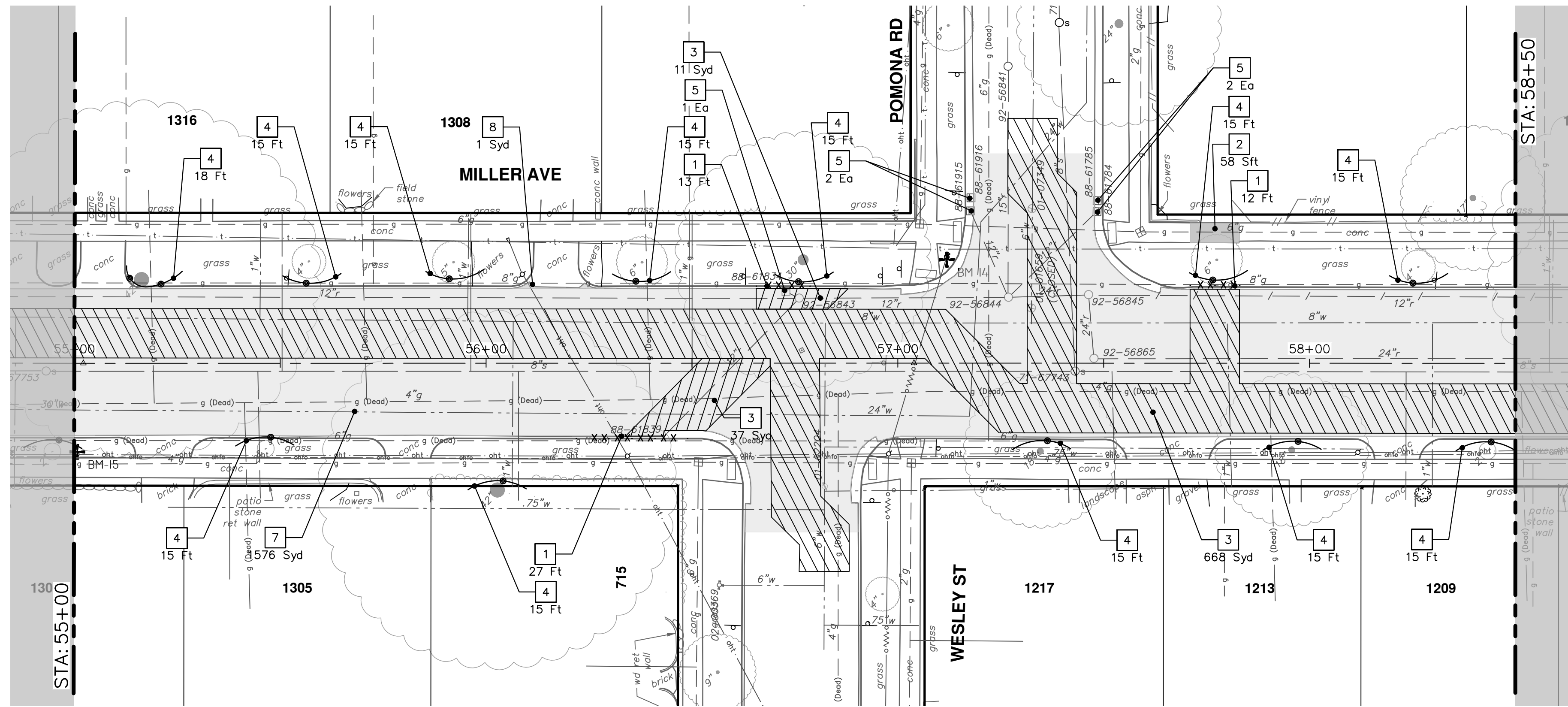


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MILLER AVENUE REHABILITATION  
REMOVALS

SCALE: 1" = 20'  
DRAWING No. 2022034-40

REV.	DESCRIPTION	DATE	DRAWN	CHECKED





REMOVAL KEY	
KEY	DESCRIPTION
1	Curb, Gutter, and Curb and Gutter, Any Type, Rem *
2	Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem
3	HMA, Any Thickness, Rem *
4	Tree Protective Fence
5	Erosion Control, Inlet Protection, Fabric Drop
6A	Tree, Rem, 6 in. - 12 In.
6B	Tree, Rem, 13 in. - 19 In.
6C	Tree, Rem, 20 in. - 29 In.
6D	Tree, Rem, 40 in. and Larger
7	Cold-Milling HMA Surface
8	HMA Surface, Rem

\* SAWCUT FULL DEPTH AT REMOVAL LIMITS AS DIRECTED BY ENGINEER



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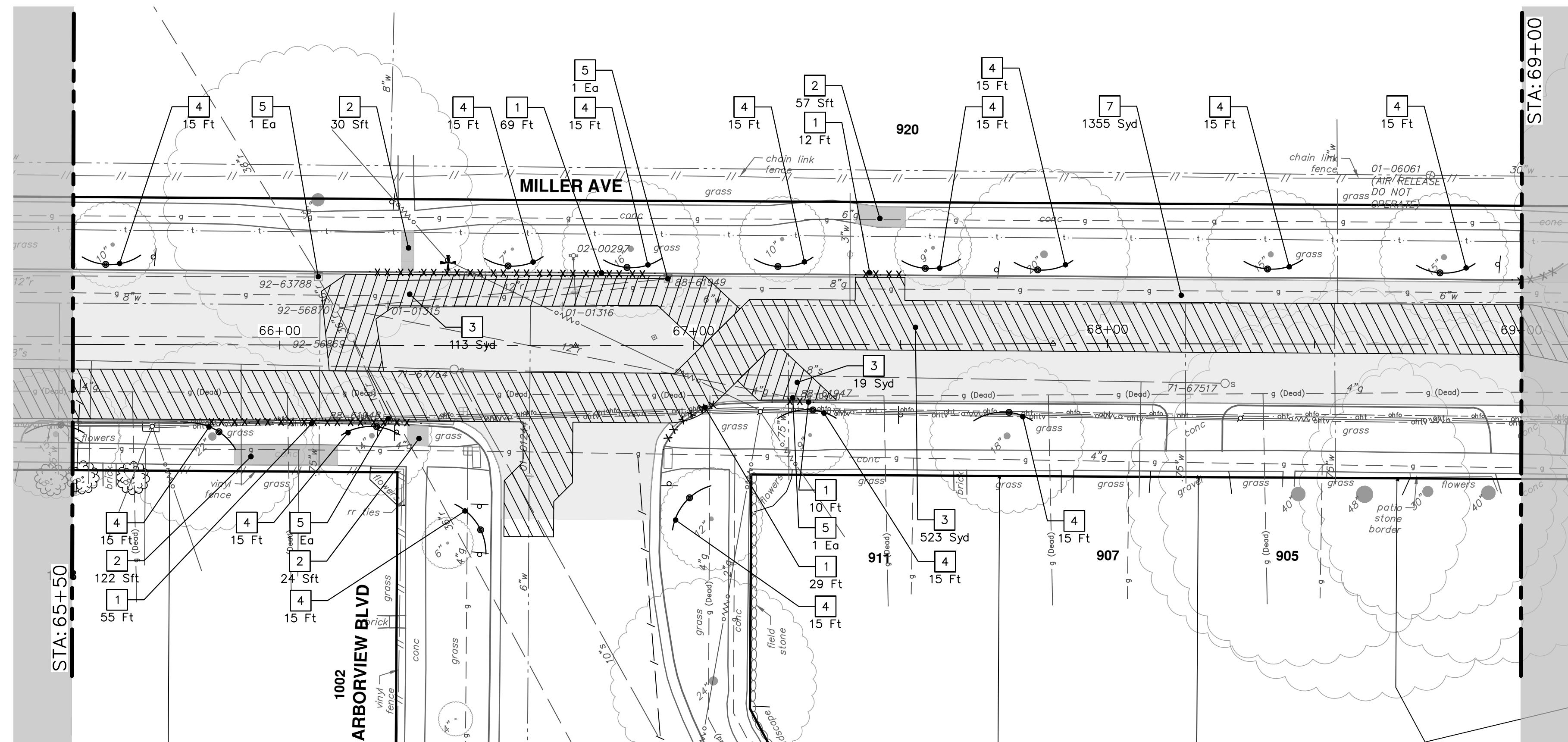
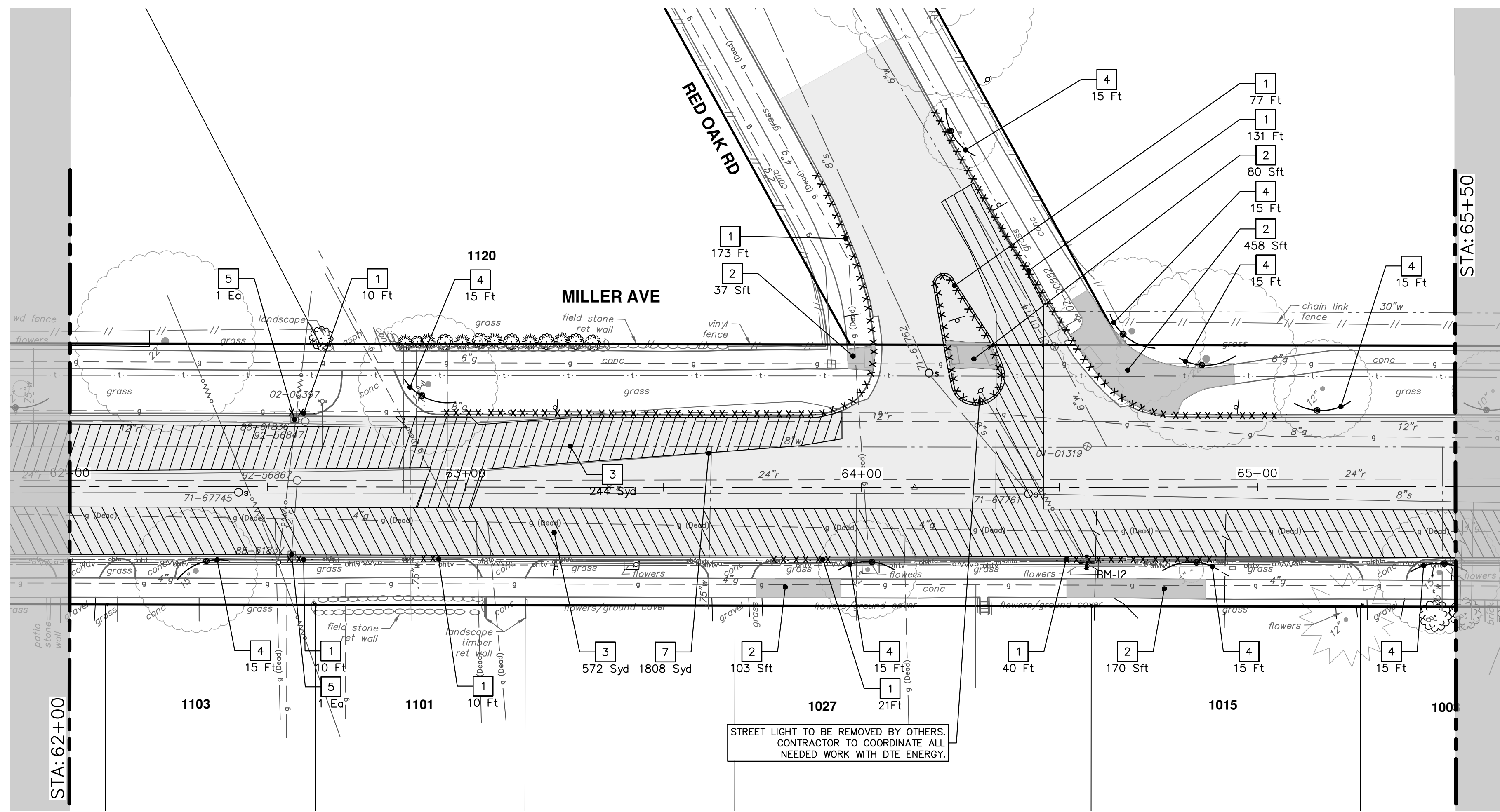


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER AVENUE REHABILITATION  
REMOVALS

SCALE: 1" = 20'  
DRAWING No. 2022034-41

REV.	DATE	DRAWN	CHECKED	DESCRIPTION





REMOVAL KEY	
KEY	DESCRIPTION
1	Curb, Gutter, and Curb and Gutter, Any Type, Rem *
2	Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem
3	HMA, Any Thickness, Rem *
4	Tree Protective Fence
5	Erosion Control, Inlet Protection, Fabric Drop
6A	Tree, Rem, 6 in. - 12 In.
6B	Tree, Rem, 13 in. - 19 In.
6C	Tree, Rem, 20 in. - 29 In.
6D	Tree, Rem, 40 in. and Larger
7	Cold-Milling HMA Surface
8	HMA Surface, Rem

\* SAWCUT FULL DEPTH AT REMOVAL LIMITS AS DIRECTED BY ENGINEER



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PUBLIC SERVICES  
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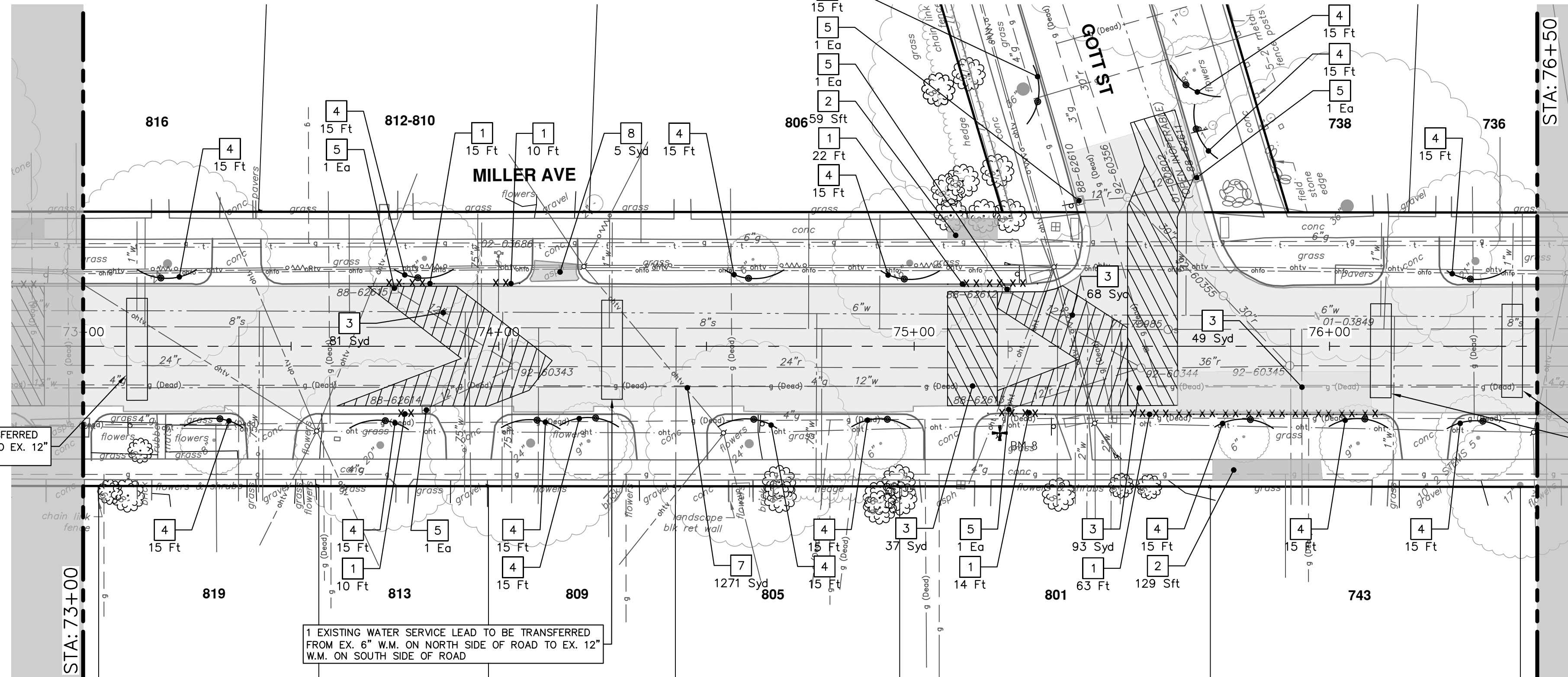
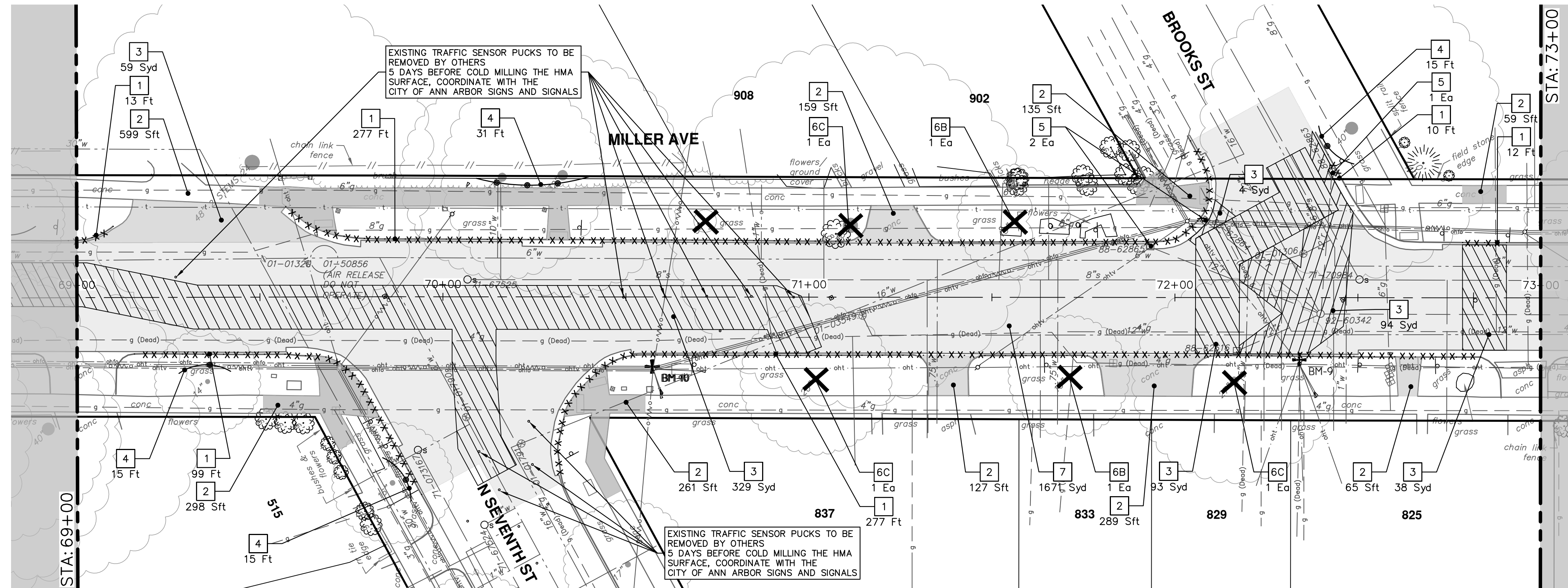


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MILLER AVENUE REHABILITATION  
REMOVALS

SCALE: 1" = 20'  
DRAWING No. 2022034-42

REV.	DESCRIPTION	DATE	DRAWN	CHECKED





REMOVAL KEY	
KEY	DESCRIPTION
1	Curb, Gutter, and Curb and Gutter, Any Type, Rem *
2	Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem
3	HMA, Any Thickness, Rem *
4	Tree Protective Fence
5	Erosion Control, Inlet Protection, Fabric Drop
6A	Tree, Rem, 6 in. - 12 In.
6B	Tree, Rem, 13 in. - 19 In.
6C	Tree, Rem, 20 in. - 29 In.
6D	Tree, Rem, 40 In. and Larger
7	Cold-Milling HMA Surface
8	HMA Surface, Rem

\* SAWCUT FULL DEPTH AT REMOVAL LIMITS AS DIRECTED BY ENGINEER

1 EXISTING WATER SERVICE LEAD TO BE TRANSFERRED FROM EX. 6" W.M. ON NORTH SIDE OF ROAD TO EX. 12" W.M. ON SOUTH SIDE OF ROAD

1 EXISTING WATER SERVICE LEAD TO BE TRANSFERRED FROM EX. 6" W.M. ON NORTH SIDE OF ROAD TO EX. 12" W.M. ON SOUTH SIDE OF ROAD

2 EXISTING WATER SERVICE LEADS TO BE TRANSFERRED FROM EX. 6" W.M. ON NORTH SIDE OF ROAD TO EX. 12" W.M. ON SOUTH SIDE OF ROAD



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MILLER AVENUE REHABILITATION  
REMOVALS

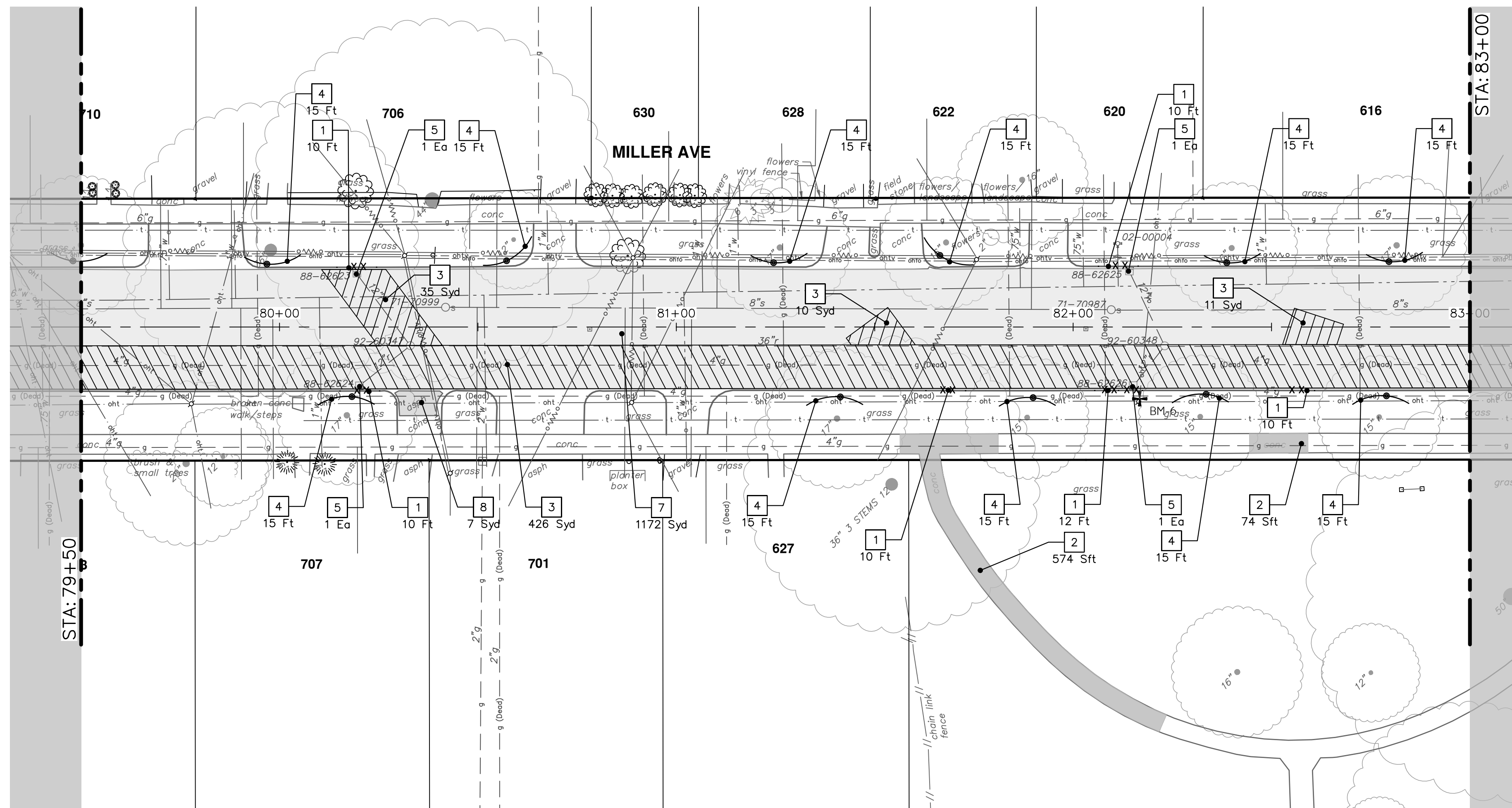
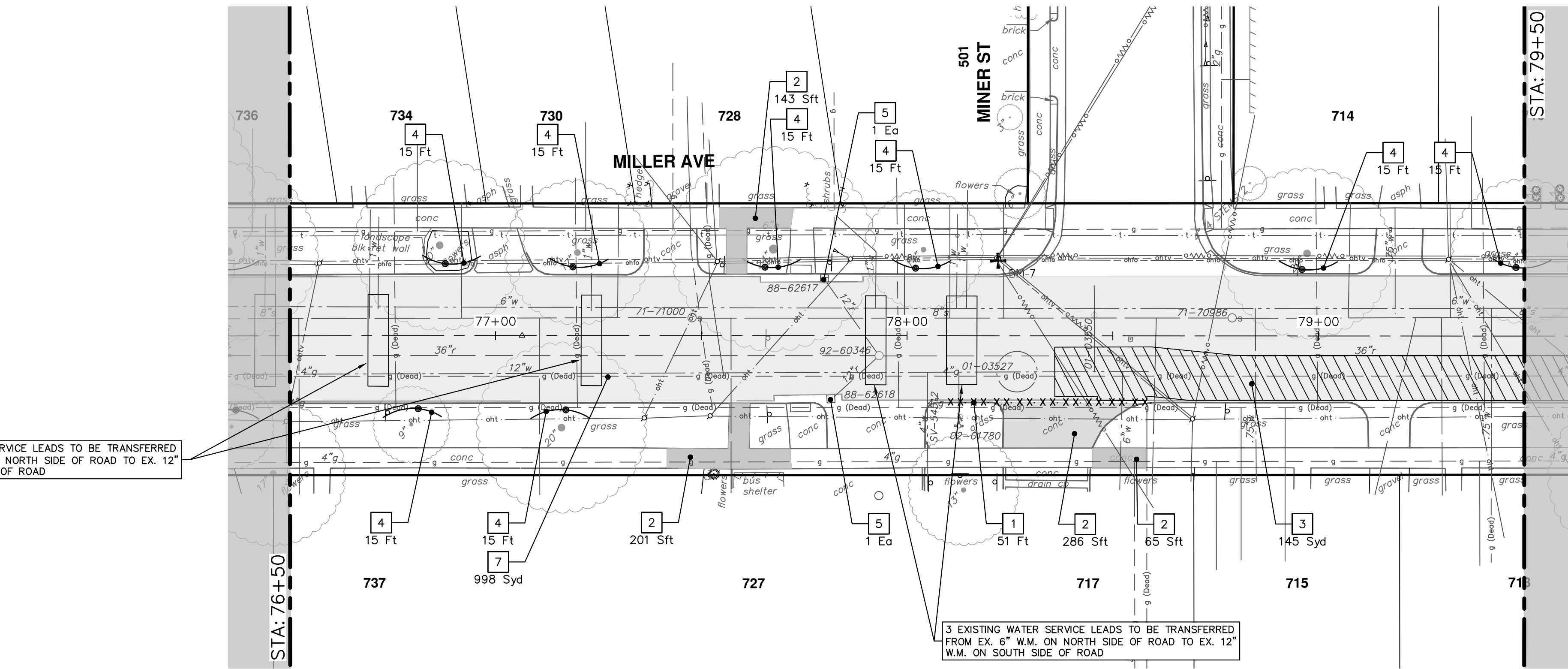
SCALE: 1" = 20'  
DRAWING No. 2022034-43

REV.	DESCRIPTION	DATE	DRAWN	CHECKED



2 EXISTING WATER SERVICE LEADS TO BE TRANSFERRED FROM EX. 6" W.M. ON NORTH SIDE OF ROAD TO EX. 12" W.M. ON SOUTH SIDE OF ROAD

3 EXISTING WATER SERVICE LEADS TO BE TRANSFERRED FROM EX. 6" W.M. ON NORTH SIDE OF ROAD TO EX. 12" W.M. ON SOUTH SIDE OF ROAD



REMOVAL KEY	
KEY	DESCRIPTION
1	Curb, Gutter, and Curb and Gutter, Any Type, Rem *
2	Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem
3	HMA, Any Thickness, Rem *
4	Tree Protective Fence
5	Erosion Control, Inlet Protection, Fabric Drop
6A	Tree, Rem, 6 in. - 12 In.
6B	Tree, Rem, 13 in. - 19 In.
6C	Tree, Rem, 20 in. - 29 In.
6D	Tree, Rem, 40 In. and Larger
7	Cold-Milling HMA Surface
8	HMA Surface, Rem

\* SAWCUT FULL DEPTH AT REMOVAL LIMITS AS DIRECTED BY ENGINEER

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

**MILLER AVENUE REHABILITATION**

REMOVALS

STA. 76+50 - STA. 83+00

DRAWING No. 2022034-44

SHEET No. 44 OF 132

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**CITY OF ANN ARBOR MICHIGAN**

DESCRIPTION

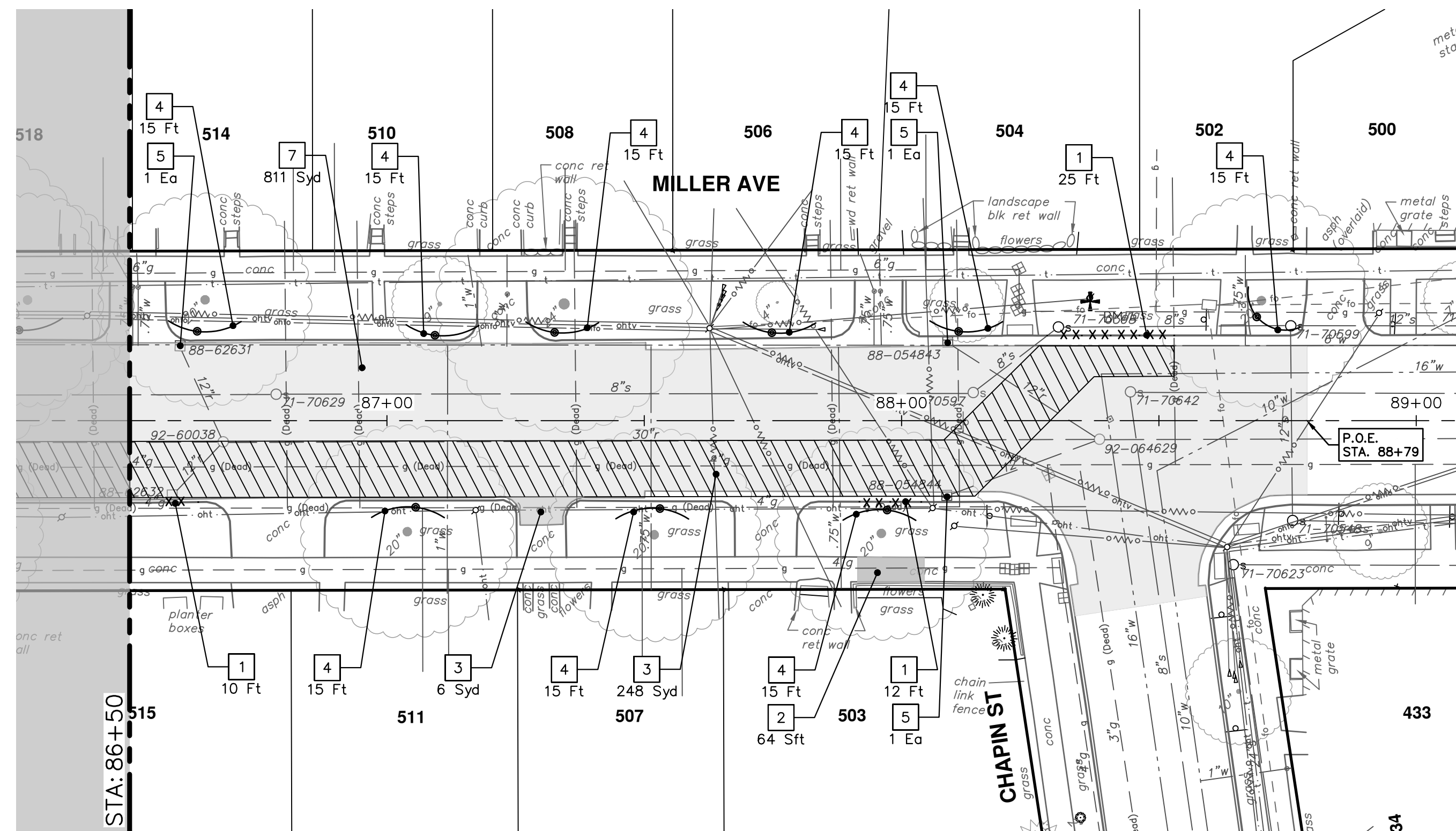
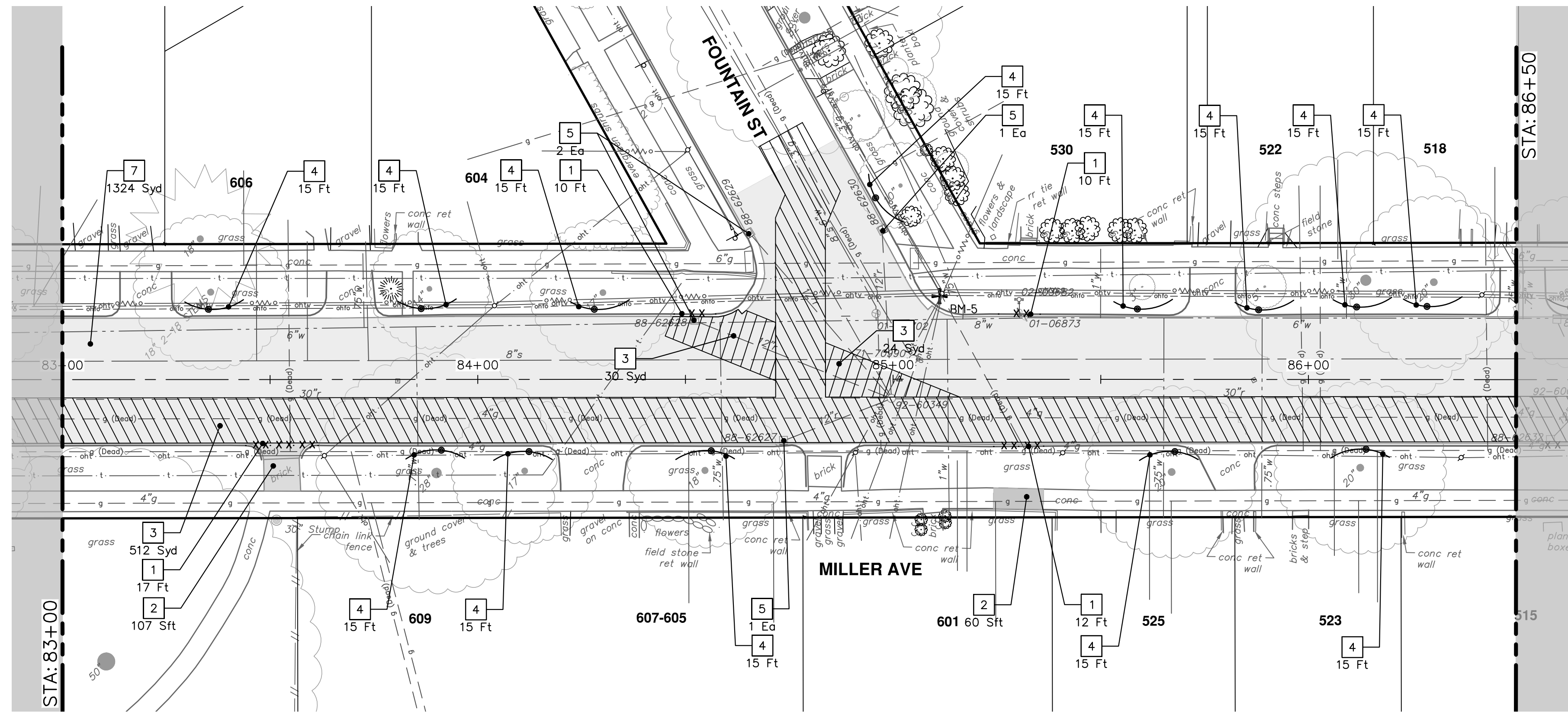
DATE

DRAWN

CHECKED

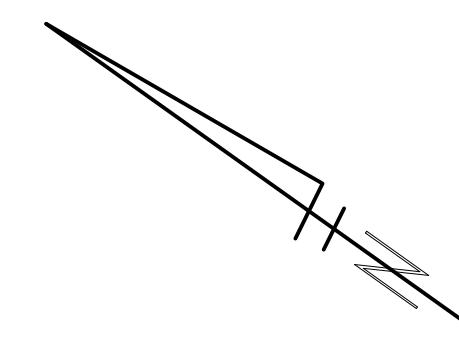
REV.





REMOVAL KEY	
KEY	DESCRIPTION
1	Curb, Gutter, and Curb and Gutter, Any Type, Rem *
2	Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem
3	HMA, Any Thickness, Rem *
4	Tree Protective Fence
5	Erosion Control, Inlet Protection, Fabric Drop
6A	Tree, Rem, 6 in. - 12 In.
6B	Tree, Rem, 13 in. - 19 In.
6C	Tree, Rem, 20 in. - 29 In.
6D	Tree, Rem, 40 in. and Larger
7	Cold-Milling HMA Surface
8	HMA Surface, Rem

\* SAWCUT FULL DEPTH AT REMOVAL LIMITS AS DIRECTED BY ENGINEER



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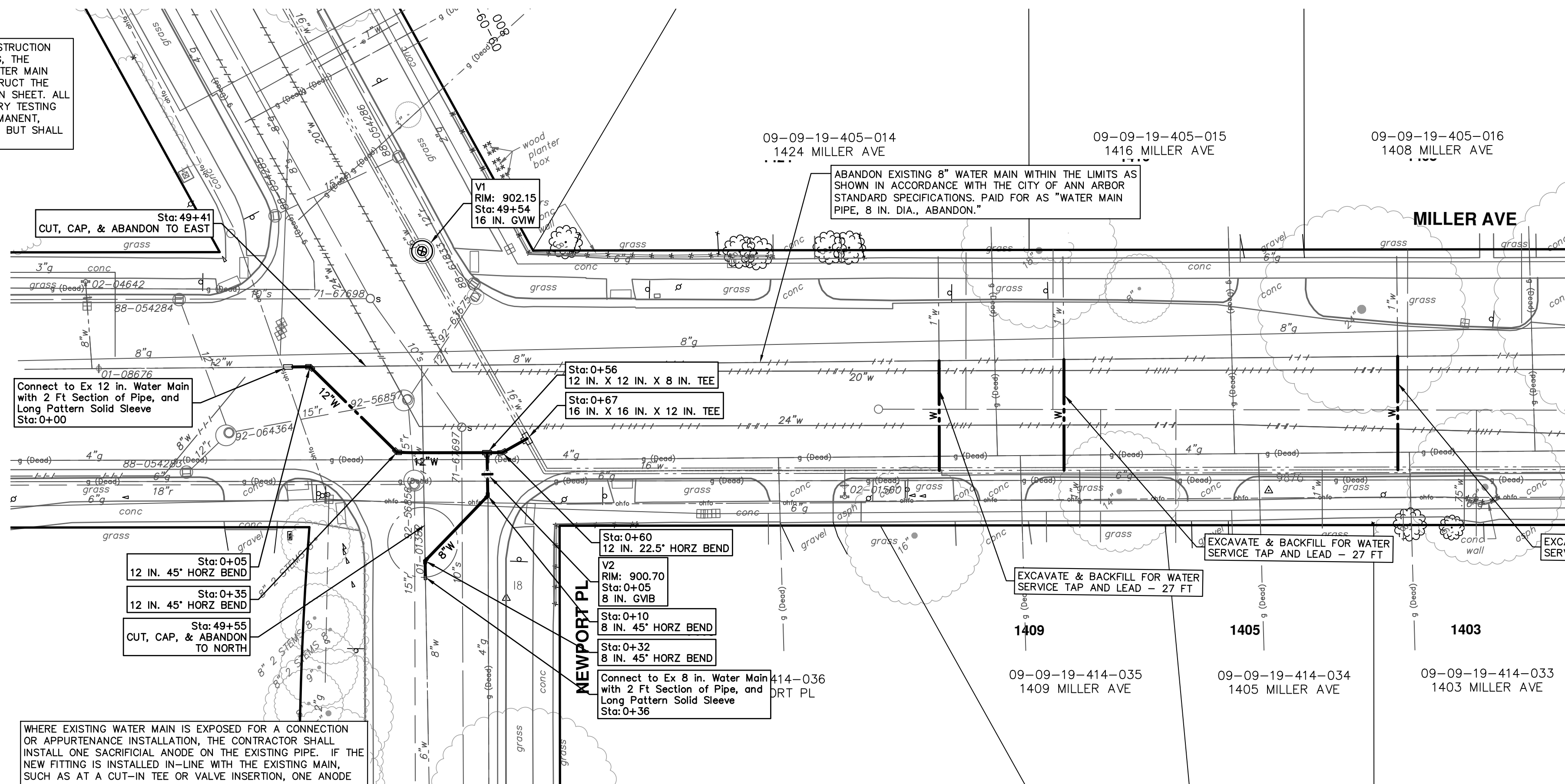
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**MILLER AVENUE REHABILITATION**  
REMOVALS

SCALE: 1" = 20'  
DRAWING No. 2022034-45

REV.	DESCRIPTION	DATE	DRAWN	CHECKED



UPON COMPLETION OF THE 12" WATER MAIN CONSTRUCTION AND HYDROSTATIC AND BACTERIOLOGICAL TESTING, THE CONTRACTOR SHALL REMOVE THE TEMPORARY WATER MAIN TESTING AND CONNECTION ASSEMBLY AND CONSTRUCT THE PERMANENT WATER MAIN AS SHOWN ON THE PLAN SHEET. ALL WORK ASSOCIATED WITH REMOVING THE TEMPORARY TESTING CONNECTION AND CONSTRUCTING THE FINAL, PERMANENT, CONNECTION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE RELATED ITEMS OF WORK.

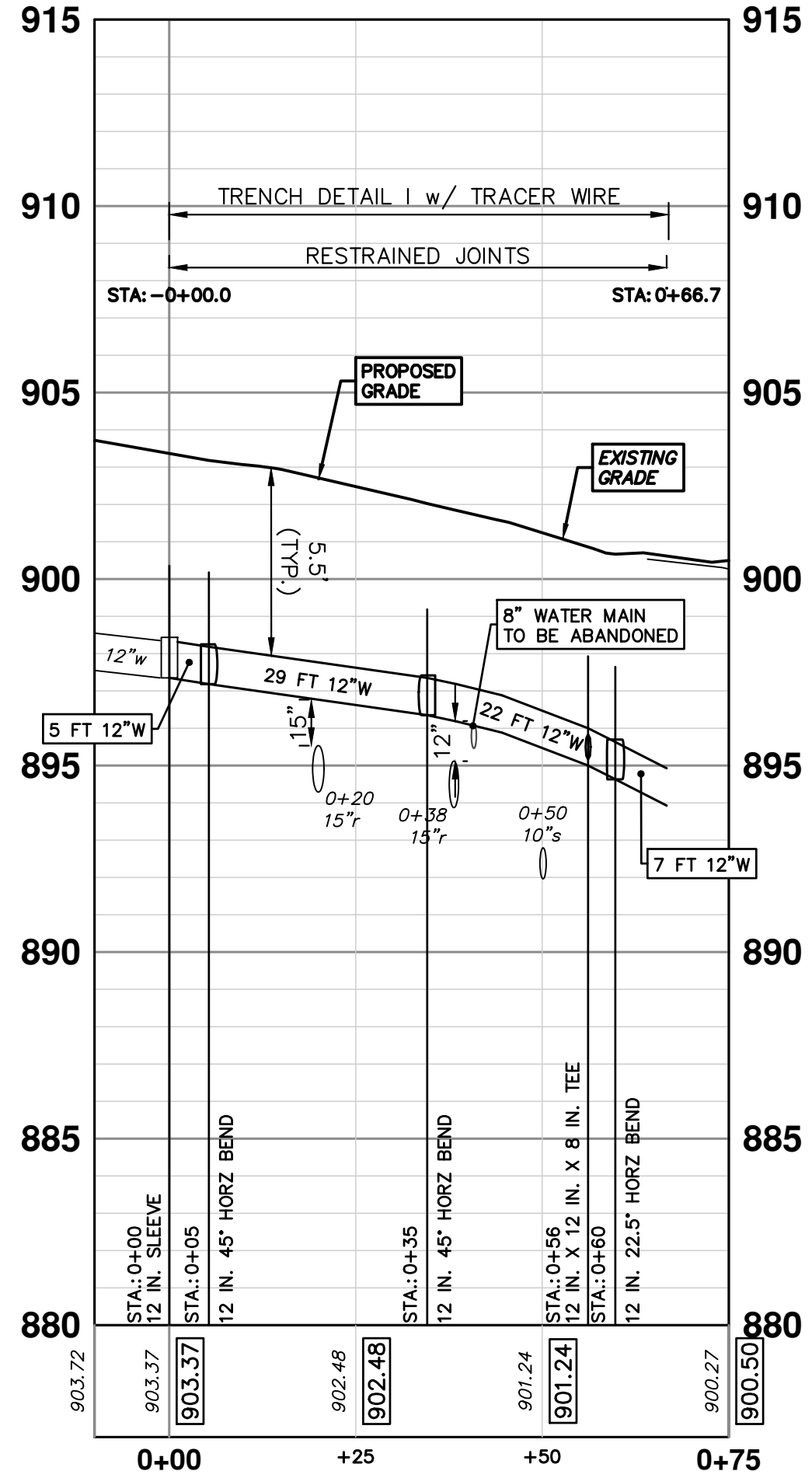


WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	RIM
V2	8 in. GVIB	0+05	900.70
V1	16 in. GVW	49+54	902.15

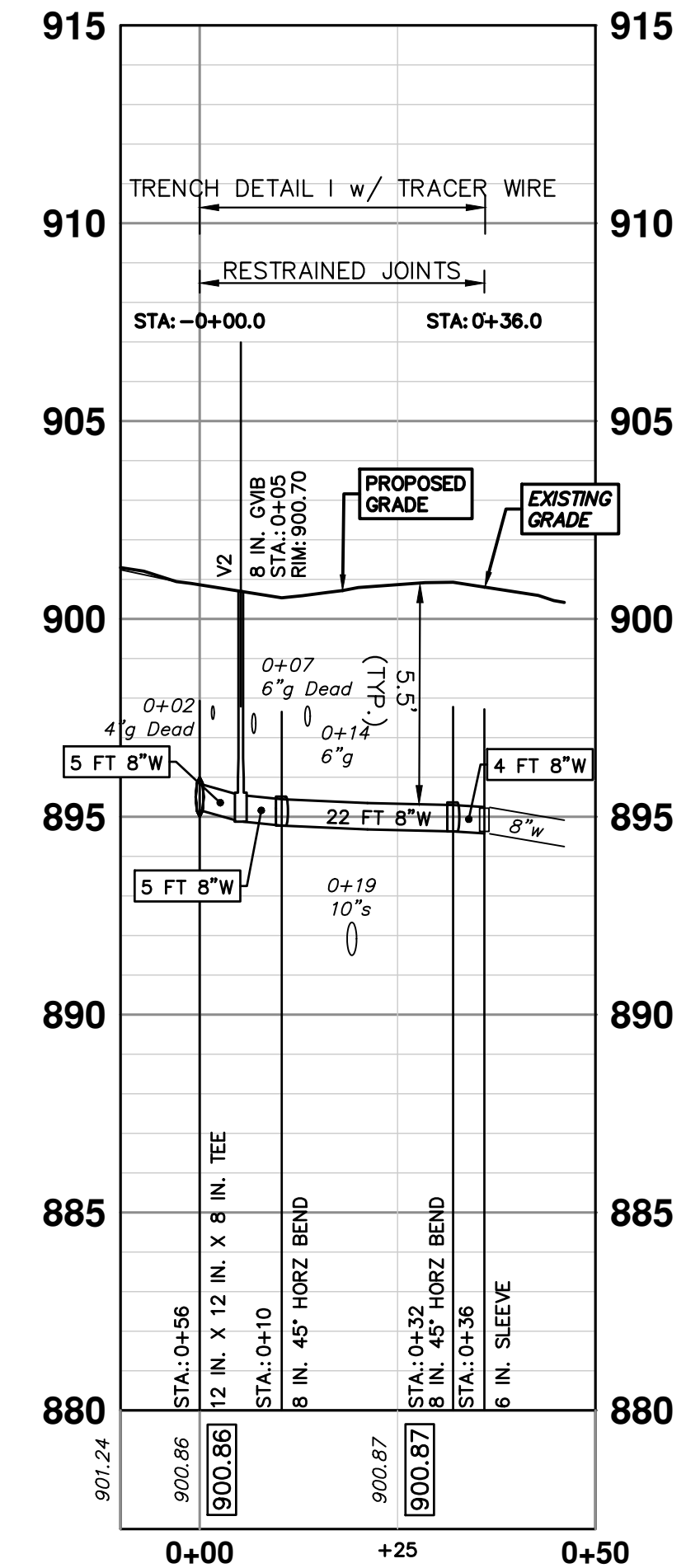
WHERE EXISTING WATER MAIN IS EXPOSED FOR A CONNECTION OR APPURTENANCE INSTALLATION, THE CONTRACTOR SHALL INSTALL ONE SACRIFICIAL ANODE ON THE EXISTING PIPE. IF THE NEW FITTING IS INSTALLED IN-LINE WITH THE EXISTING MAIN, SUCH AS AT A CUT-IN TEE OR VALVE INSERTION, ONE ANODE SHALL BE INSTALLED ON THE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

THE CONTRACTOR SHALL REMOVE AND ABANDON THE NECESSARY PORTIONS OF THE EXISTING WATER MAIN IN ORDER TO FACILITATE THE PROPOSED WATER MAIN INTER-CONNECTION. ALL COSTS ASSOCIATED WITH PERFORMING THE INTER-CONNECTION, COORDINATING UTILITY SHUTDOWNS, ABANDONING WATER MAIN, RE-ABANDONING THE WATER MAIN AND ALL RELATED WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE RELATED ITEMS OF WORK.


NEWPORT CONNECTION



NEWPORT PLACE CONN




R:\2022034 Miller Ave Rehab\Plan Production\2022034Water.dwg Dwg Created: 19-Aug-24 - \_a2 standard bwstb - Plot Date: 30-Aug-24



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CITY OF ANN ARBOR  
PUBLIC SERVICES  
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ANN ARBOR, MI 48106-1667  
www.a2gov.org

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

**MILLER AVENUE REHABILITATION**

PROPOSED WATER MAIN - NEWPORT TO N SEVENTH - PHASE I

NEWPORT AND NEWPORT PL CONNECTIONS

SCALE PLAN: 1" = 20'

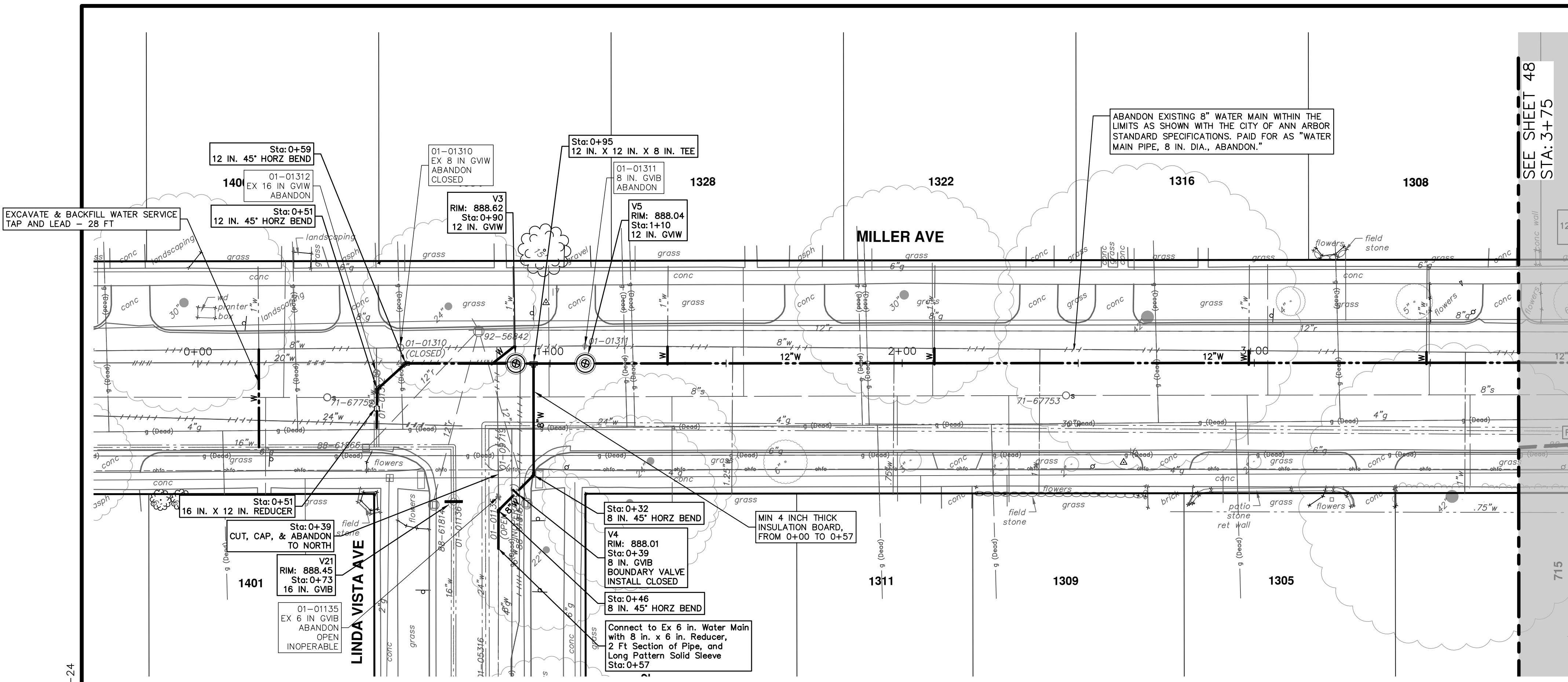
PROFILE: 1" = 4'

DRAWING NO. 2022034-46

SHEET NO. 46 OF 132



R:\2022034\_Miller\_Ave\_Rehab\Plan\_Production\2022034\Water1.dwg Dwg Created: 19-Aug-24 - \_a2\_standard bwstb - Plot Date: 30-Aug-24

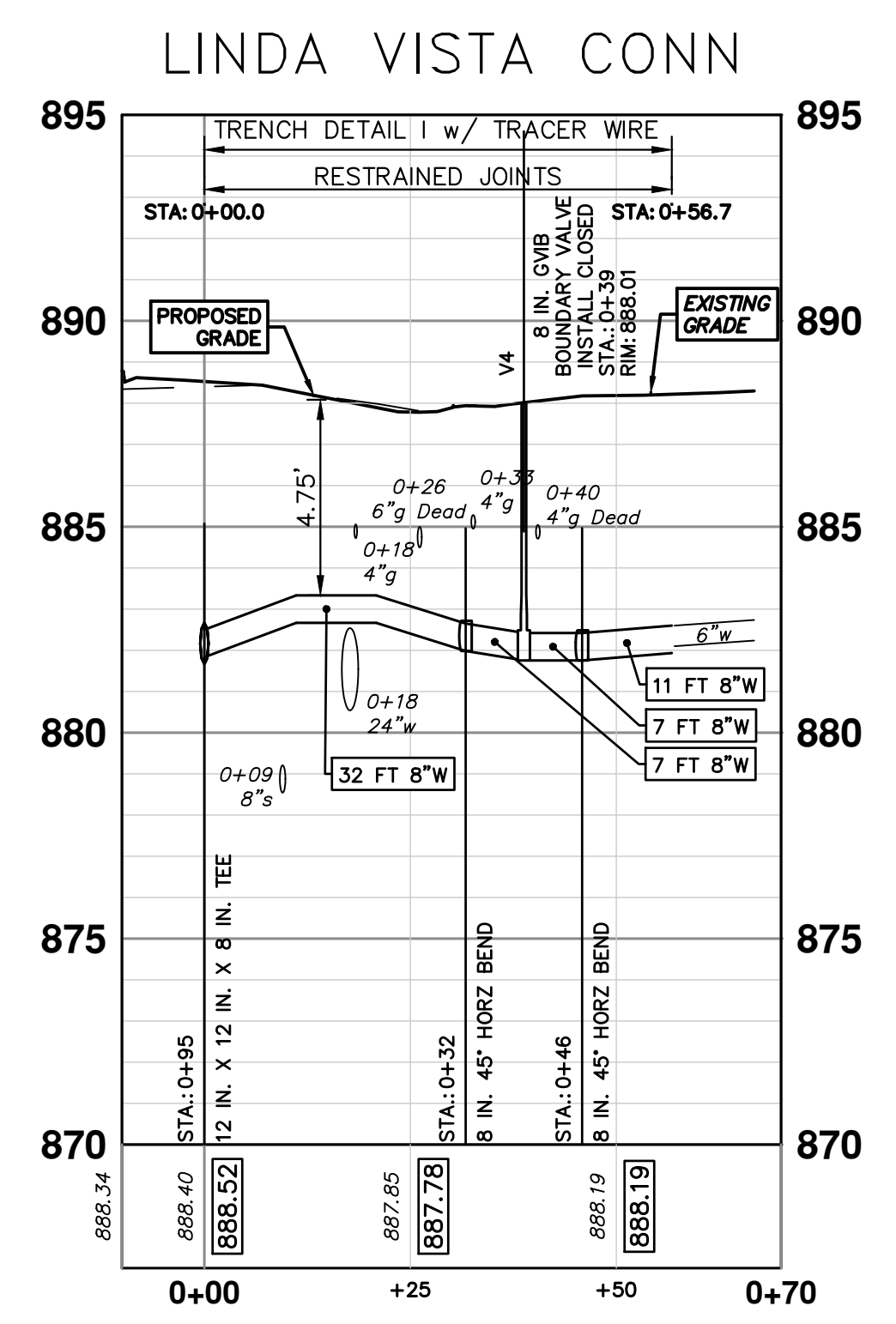
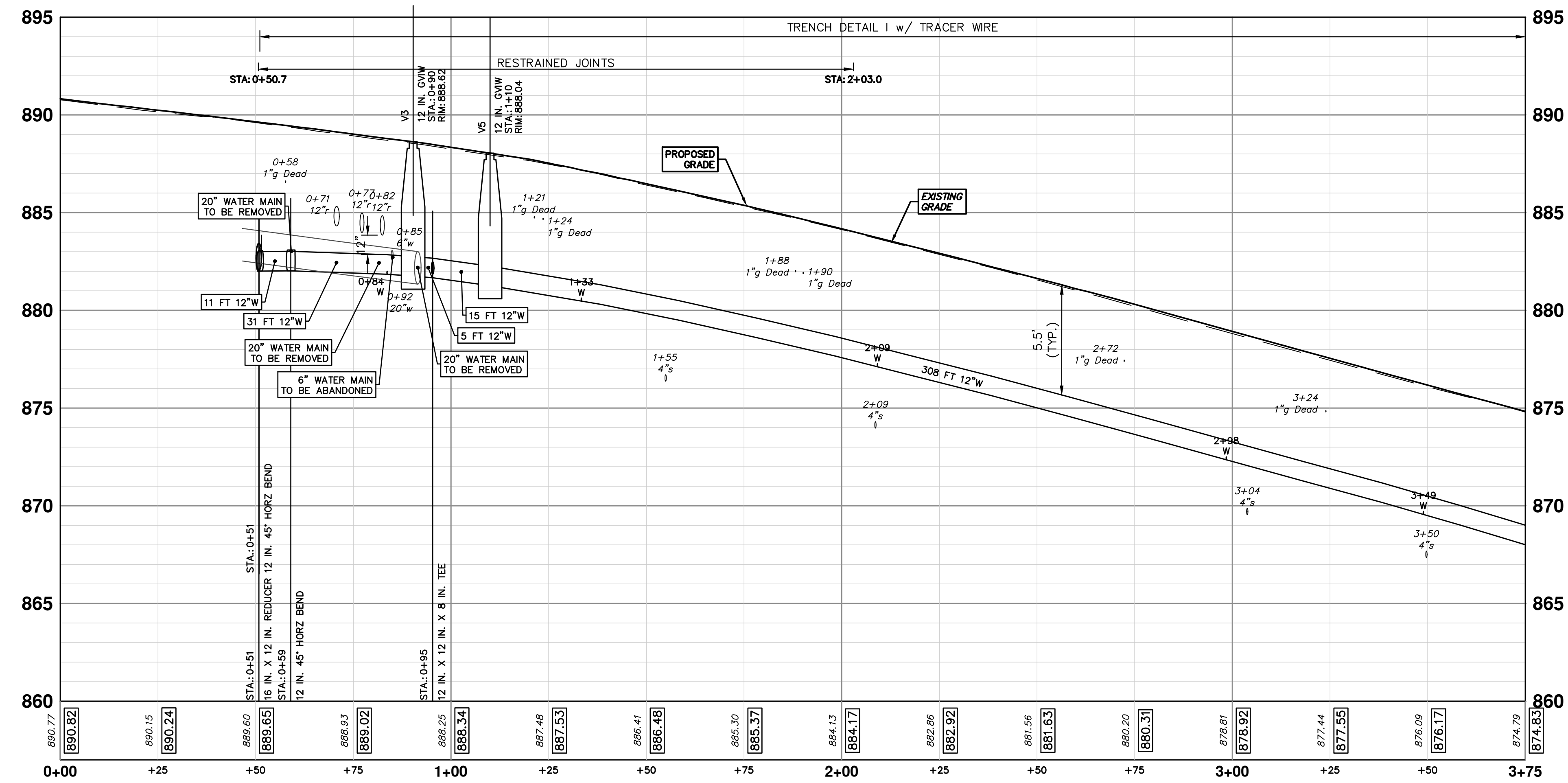



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WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	RIM
V4	8 in. GVB Boundary Valve Install Closed	0+39	888.01
V21	16 in. GVB	0+73	888.45
V3	12 in. GVIW	0+90	888.62
V5	12 in. GVIW	1+10	888.04


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

**MILLER AVENUE REHABILITATION**

PROPOSED WATER MAIN - NEWPORT TO N SEVENTH - PHASE I

STA. 0+51 - STA. 3+75

SCALE PLAN: 1" = 20'

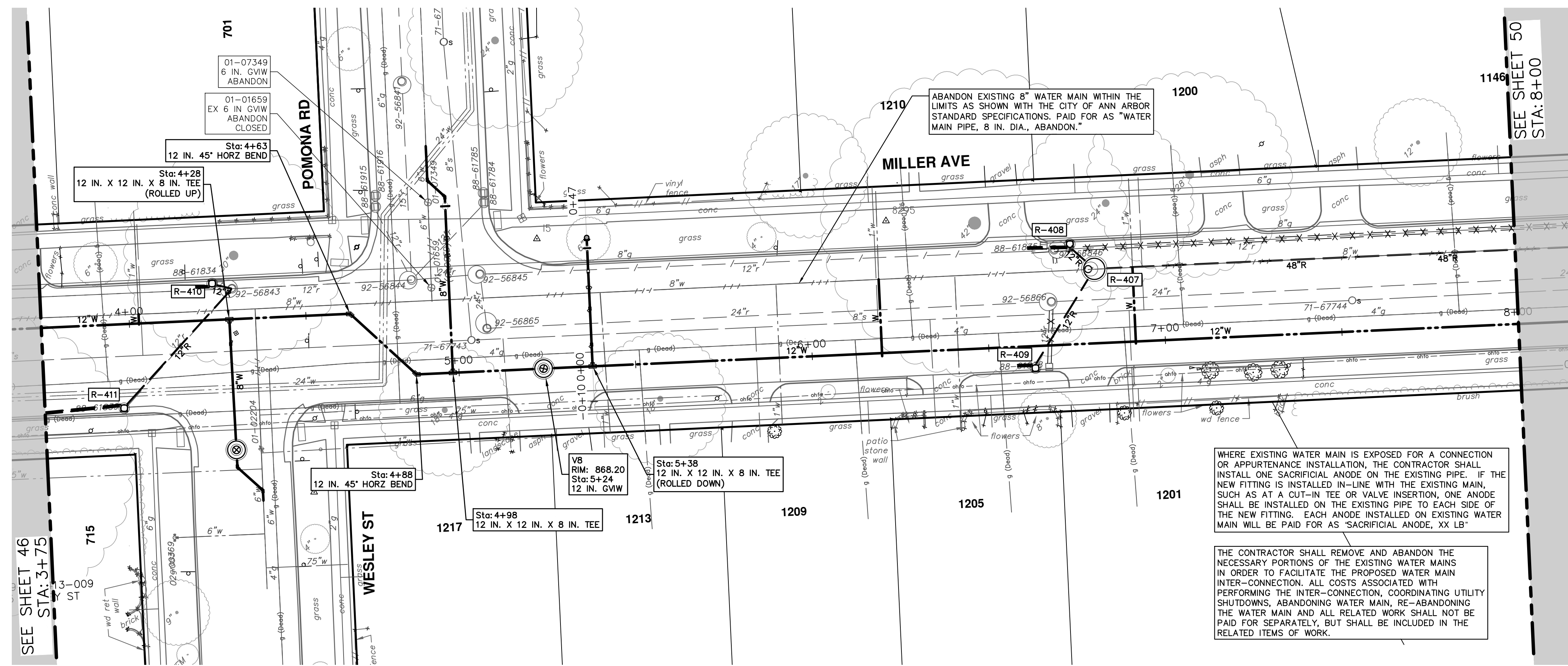
PROFILE: 1" = 4'

DRAWING NO. 2022034-47

SHEET NO. 47 OF 132



R:\2022034\_Miller\_Ave\_Rehab\Plan\_Production\2022034\Water1.dwg Dwg Created: 19-Aug-24 - \_a2\_standard bwstb - Plot Date: 30-Aug-24

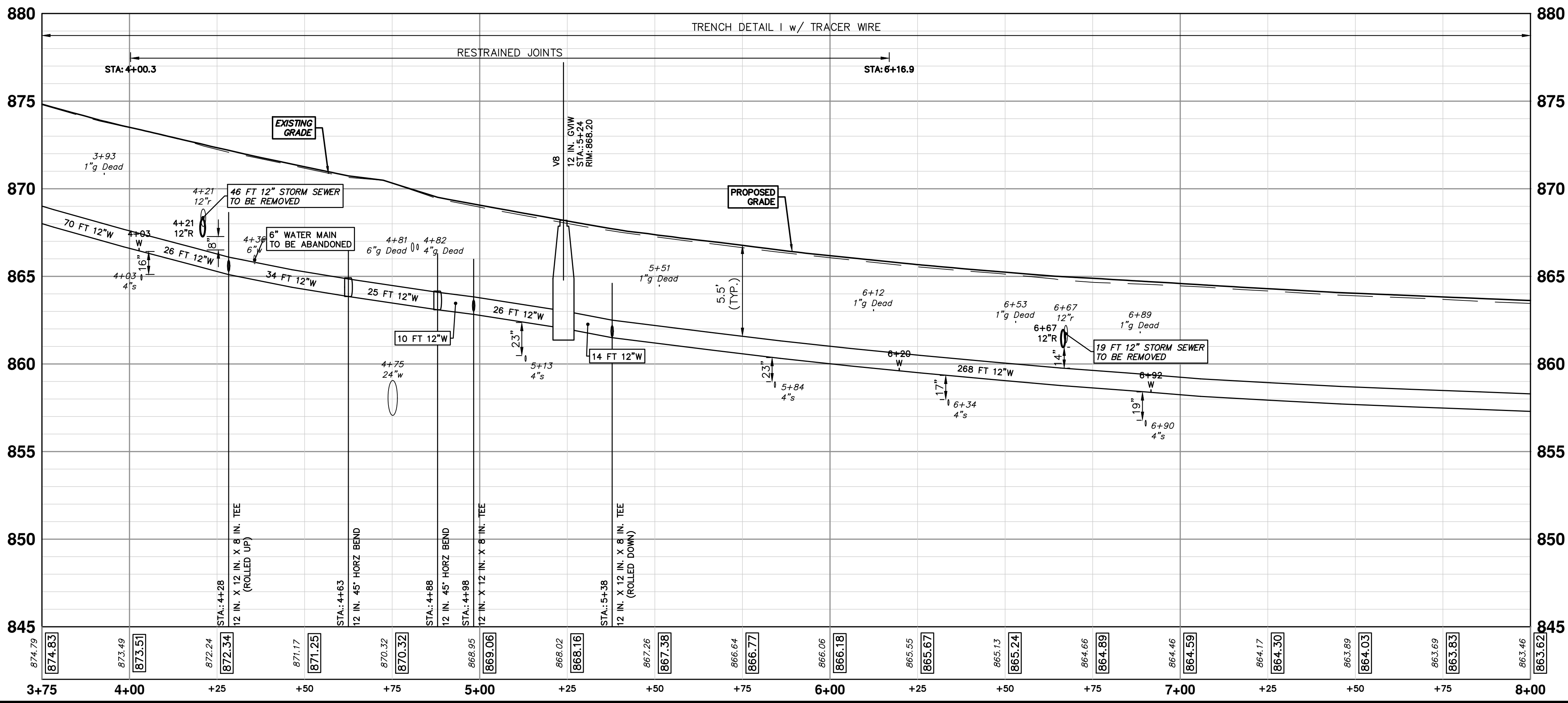


WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	RIM
V8	12 in. GVW	5+24	868.20

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'

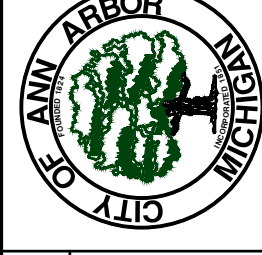
THE CONTRACTOR SHALL REMOVE AND ABANDON THE NECESSARY PORTIONS OF THE EXISTING WATER MAINS IN ORDER TO FACILITATE THE PROPOSED WATER MAIN INTER-CONNECTION. ALL COSTS ASSOCIATED WITH PERFORMING THE INTER-CONNECTION, COORDINATING UTILITY SHUTDOWNS, ABANDONING WATER MAIN, RE-ABANDONING THE WATER MAIN AND ALL RELATED WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE RELATED ITEMS OF WORK.

PR WATER - LINDA VISTA TO N SEVENTH



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

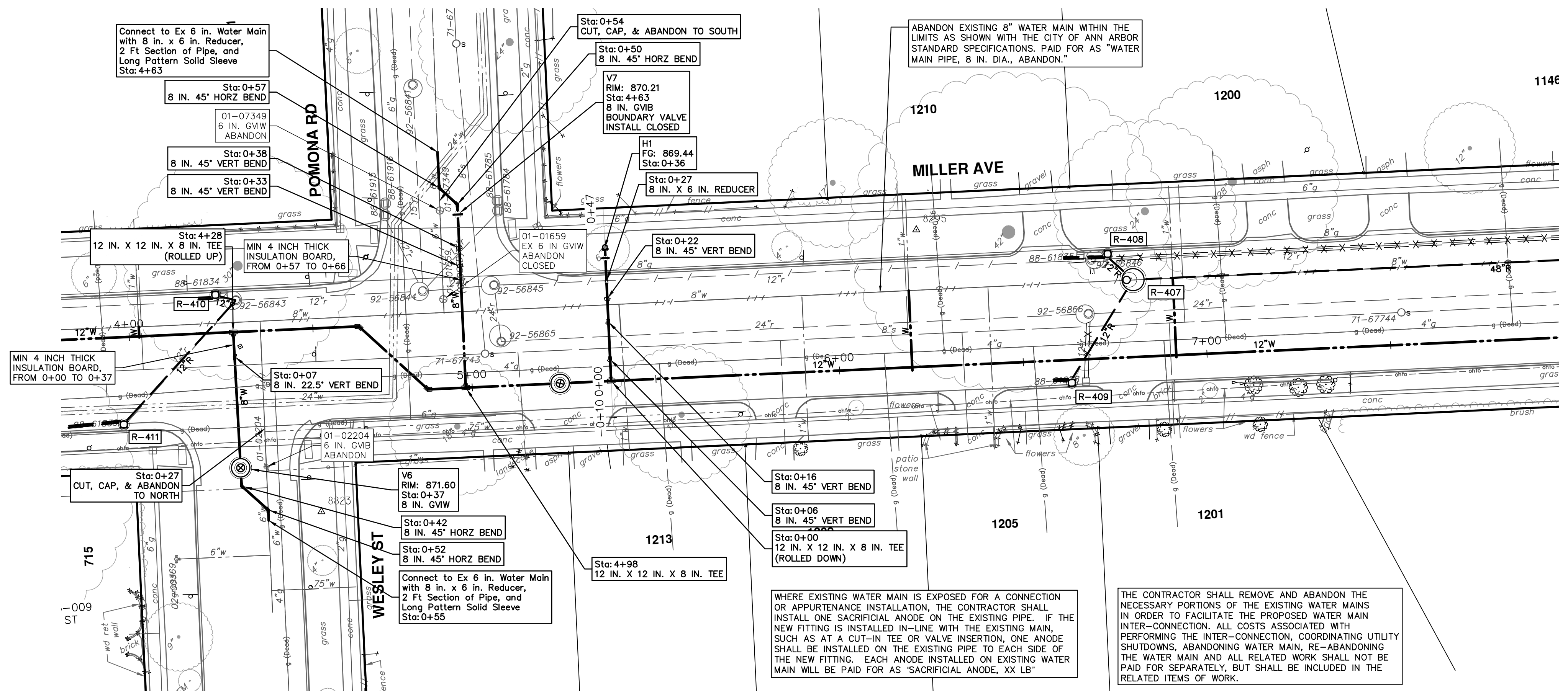
CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48107-8647  
www.a2gov.org



CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER AVENUE REHABILITATION  
PROPOSED WATER MAIN - NEWPORT TO N SEVENTH - PHASE I  
STA. 3+75 - STA. 8+00

SHEET No. 48 OF 132  
SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'  
DRAWING No. 2022034-48



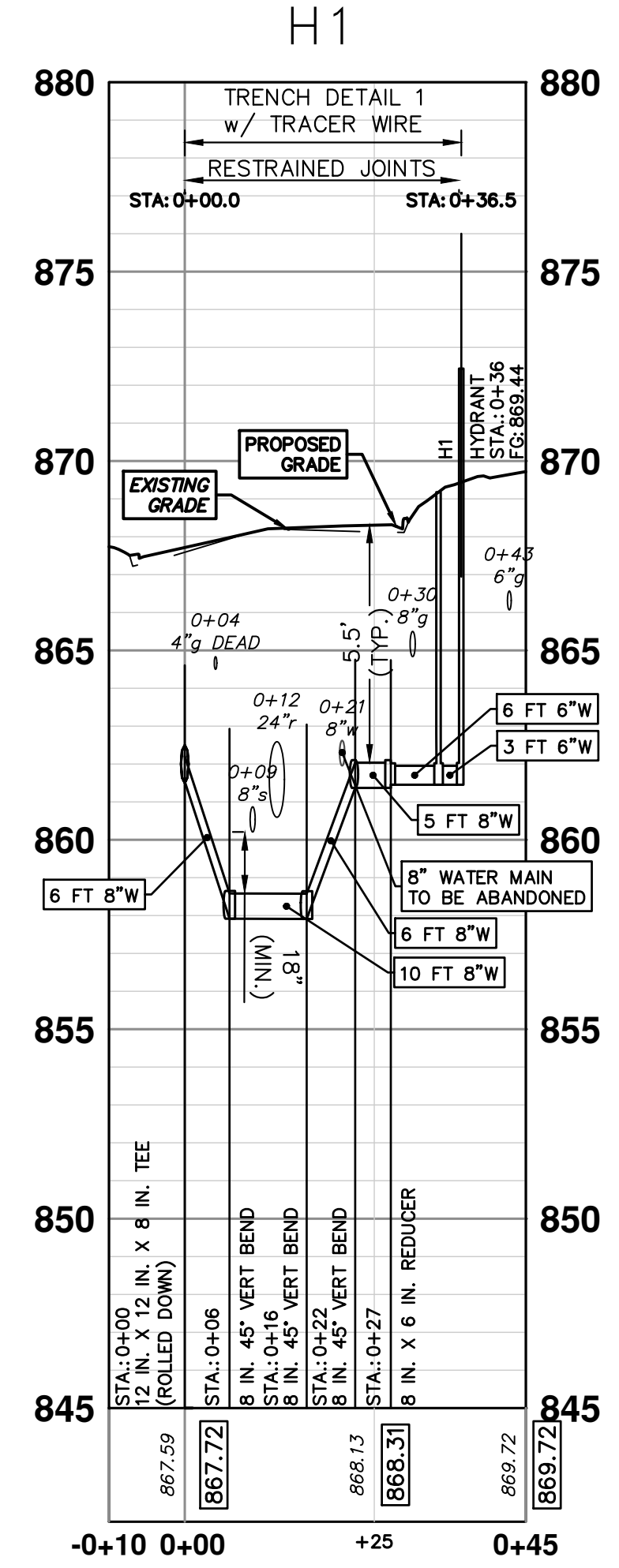
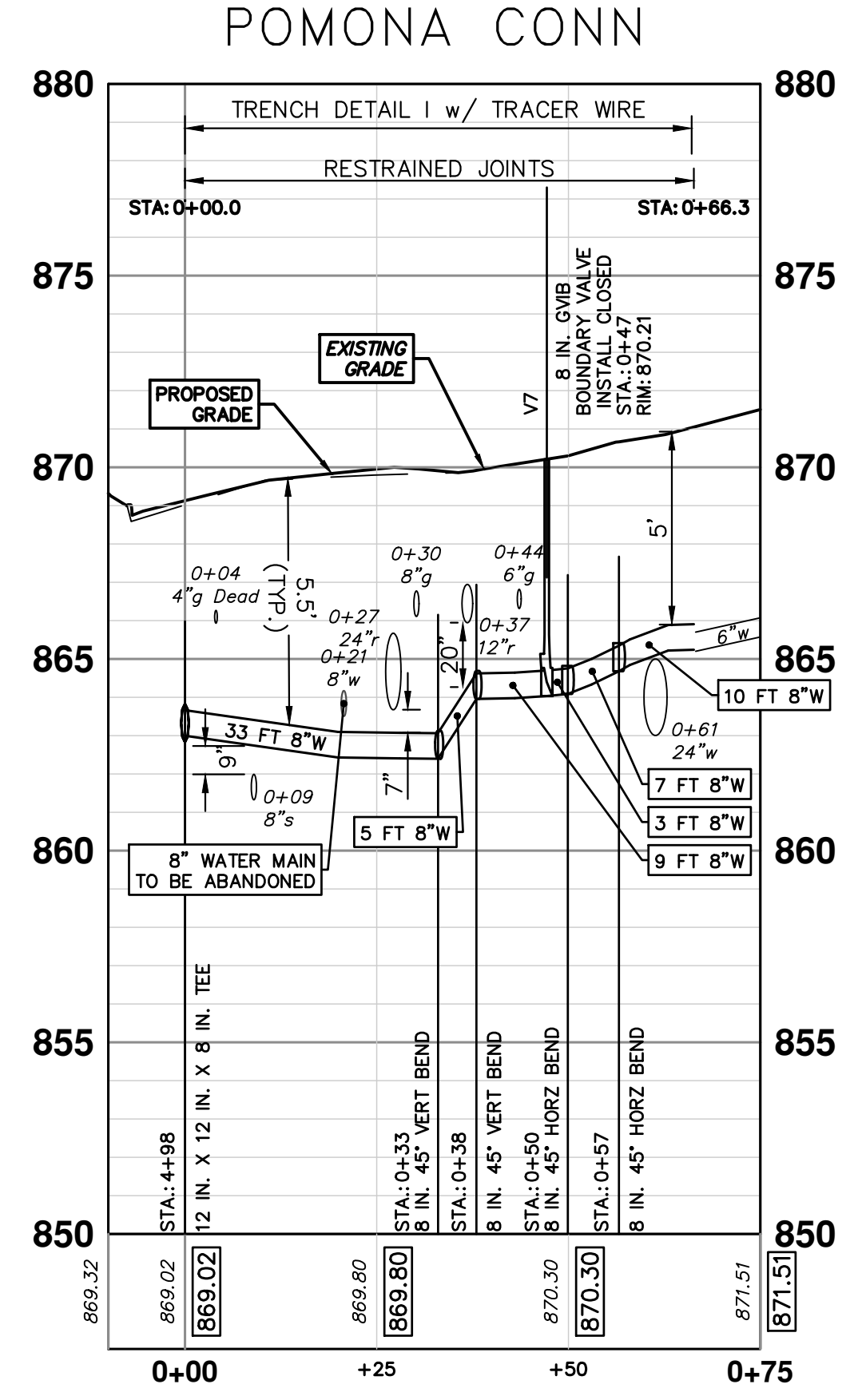
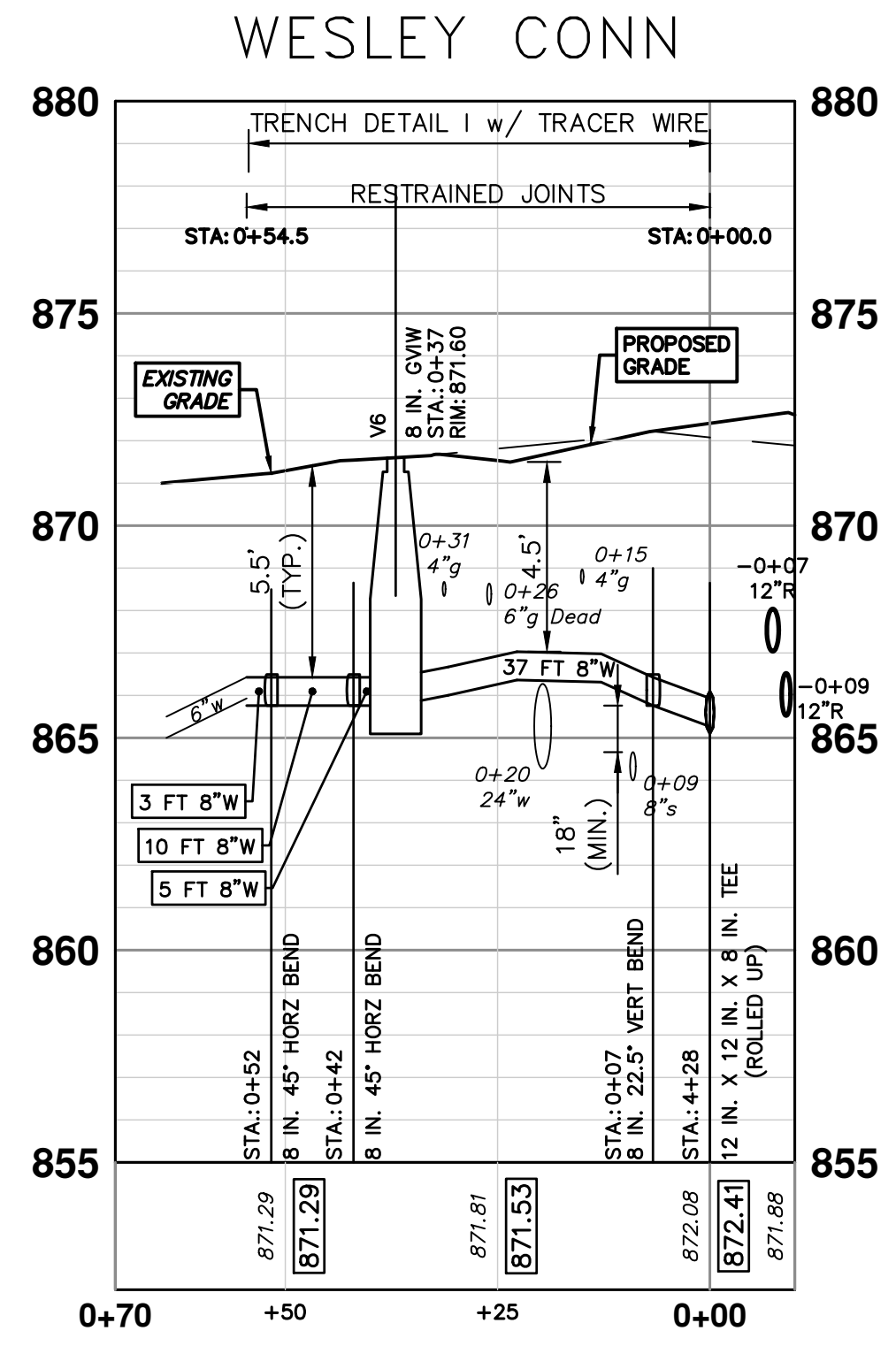



WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	FG
H1	HYDRANT	0+36	869.44

WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	RIM
V6	8 in. GVW	0+37	871.60
V7	8 in. GVW BOUNDARY VALVE INSTALL CLOSED	0+47	870.21

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"


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**MILLER AVENUE REHABILITATION**  
 PROPOSED WATER MAIN - NEWPORT TO N SEVENTH - PHASE I  
 POMONA AND WESLEY CONNECTIONS AND H1 PROFILE

SHEET No. 49 OF 132

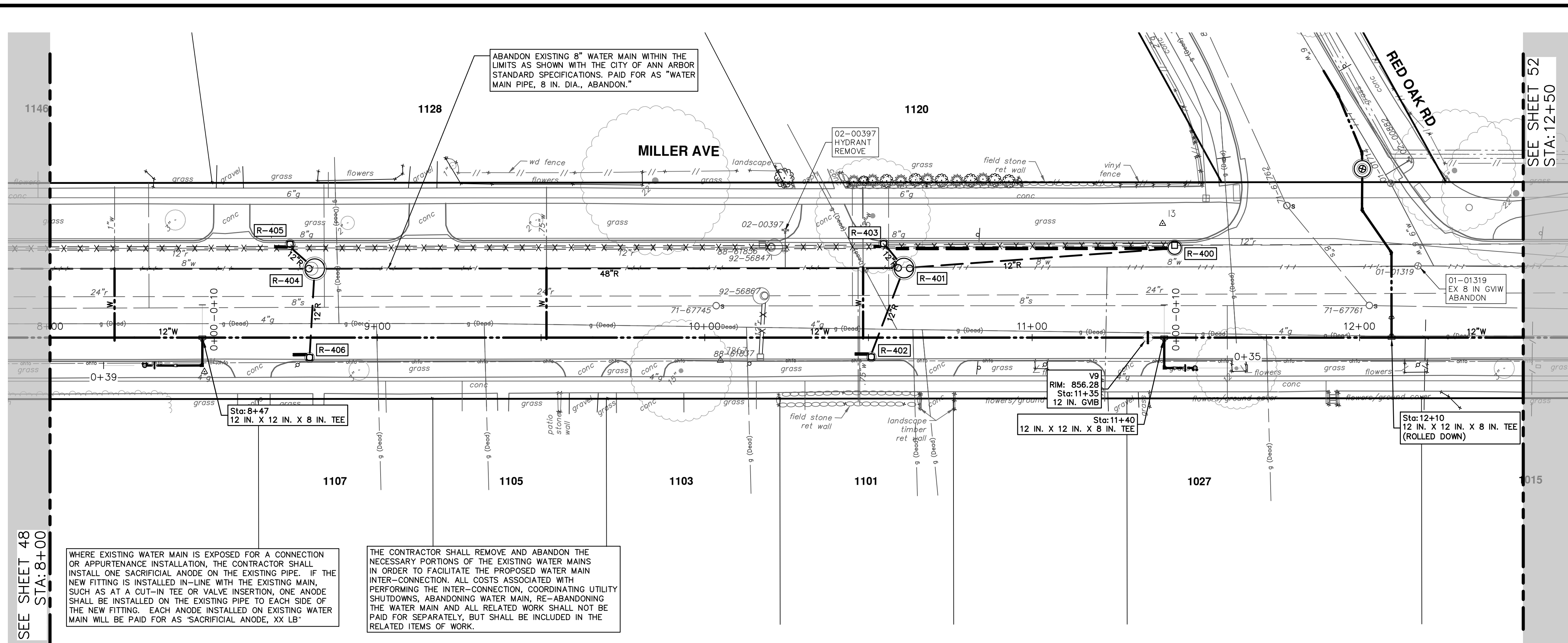
SCALE PLAN: 1" = 20'

PROFILE: 1" = 4'

DRAWING No. 2022034-49



R:\202034\_Miller Ave Rehab\Plan Production\202034Water.dwg Dwg Created: 19-Aug-24 - \_a2\_standard bwstb - Plot Date: 30-Aug-24

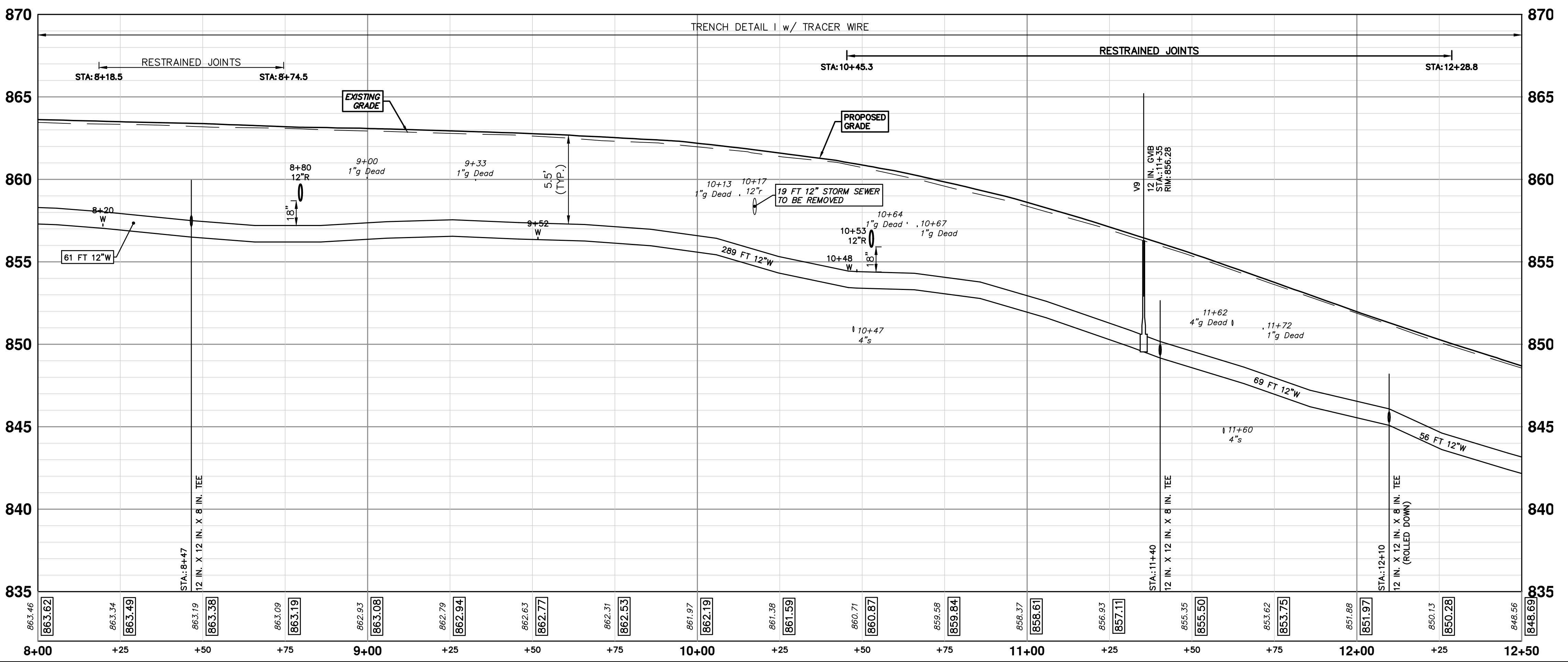



WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	RIM
V9	12 in. GVB	11+35	856.28

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"

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PR WATER - LINDA VISTA TO N SEVENTH





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**MILLER AVENUE REHABILITATION**  
 PROPOSED WATER MAIN - NEWPORT TO N SEVENTH - PHASE I

SCALE PLAN: 1" = 20'  
 PROFILE: 1" = 4'

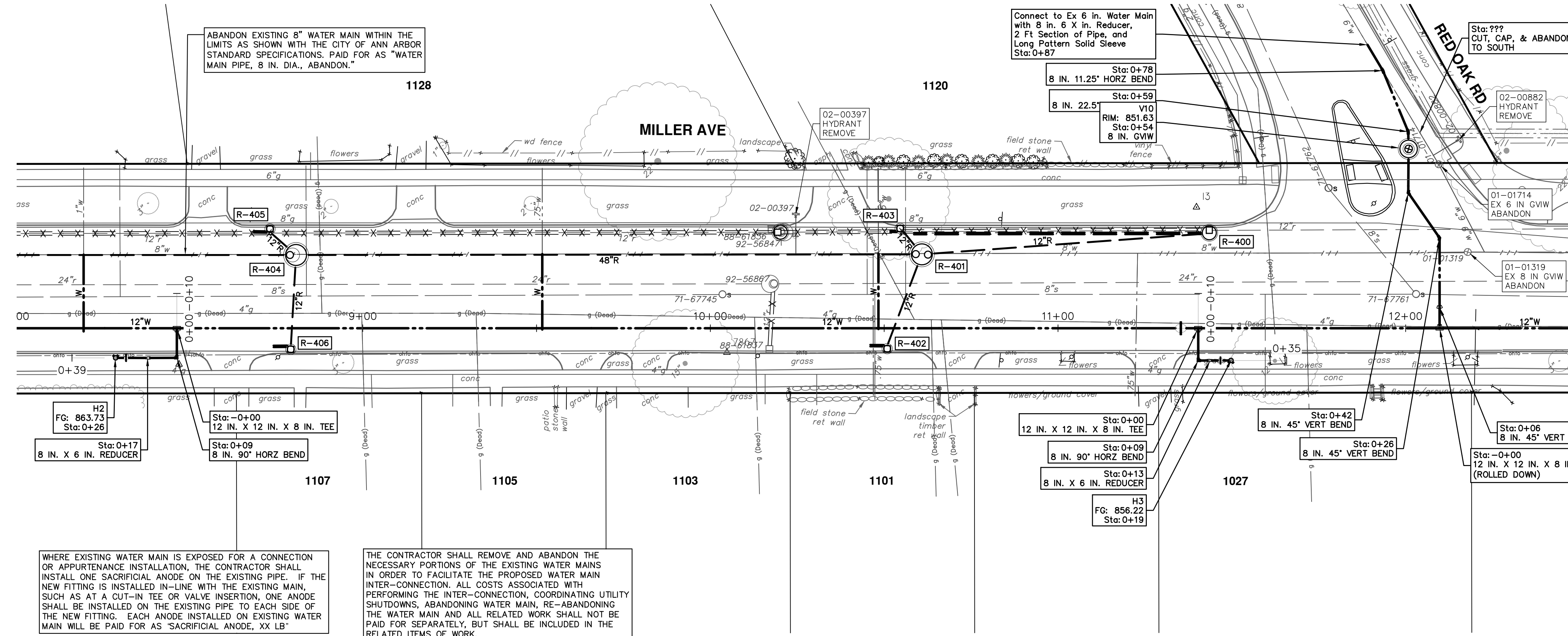
DRAWING NO.  
**2022034-50**

SHEET No.  
**50 OF 132**

STA. 8+00 - STA. 12+50



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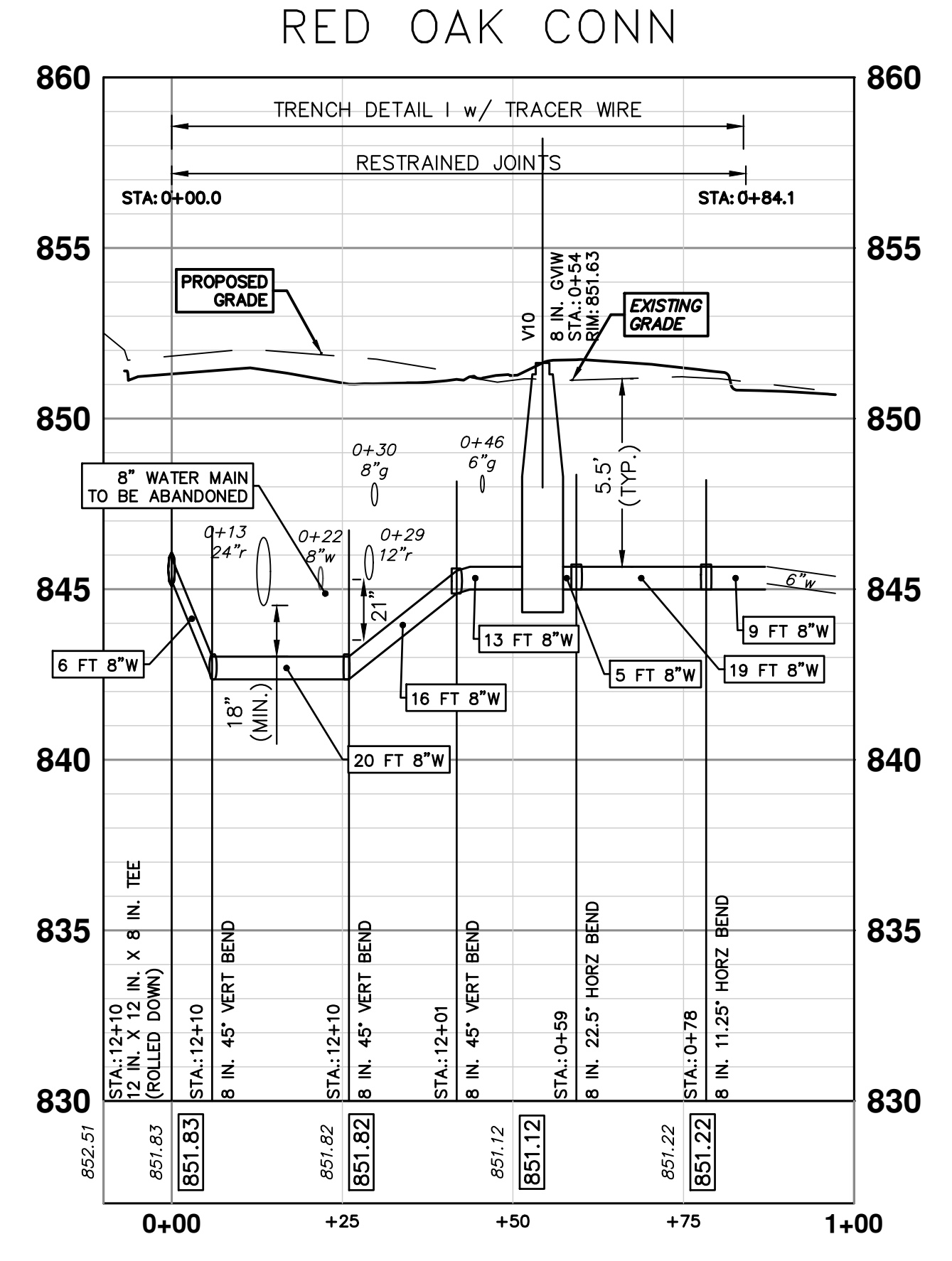
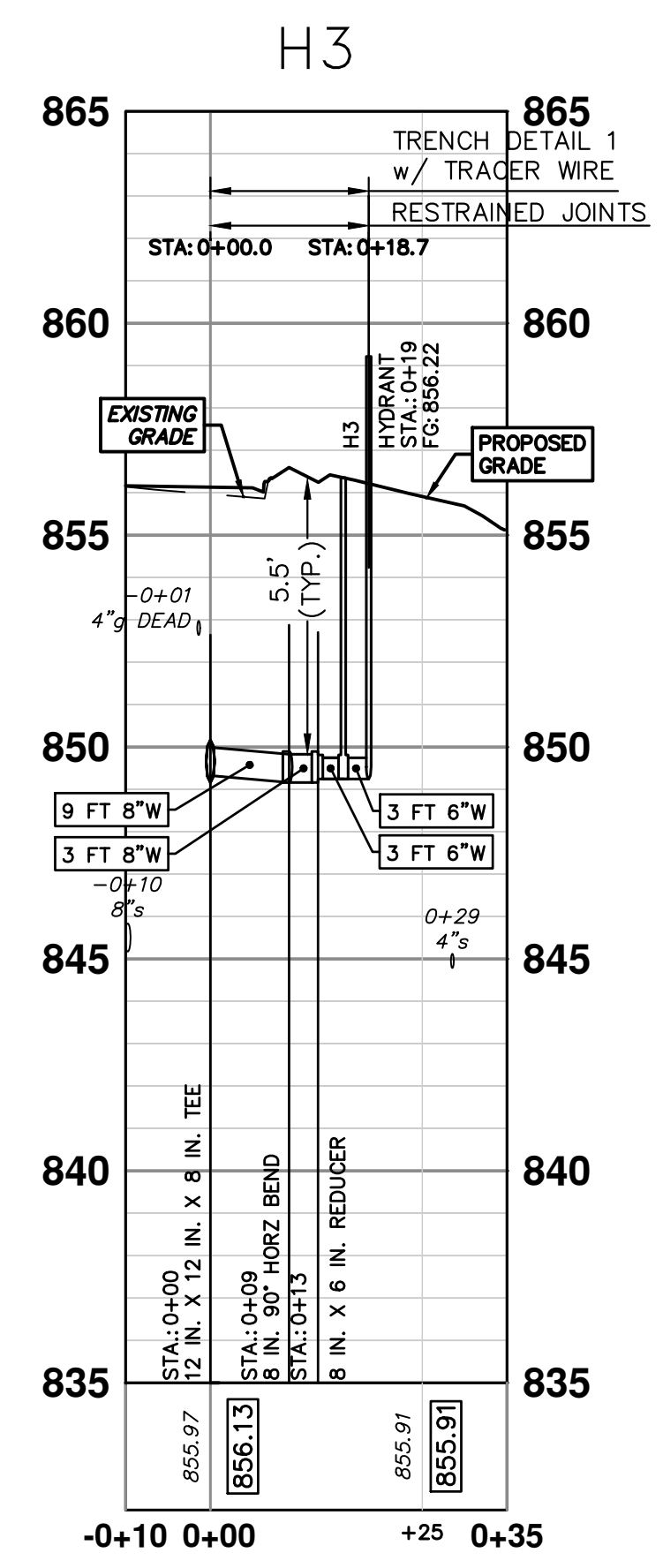
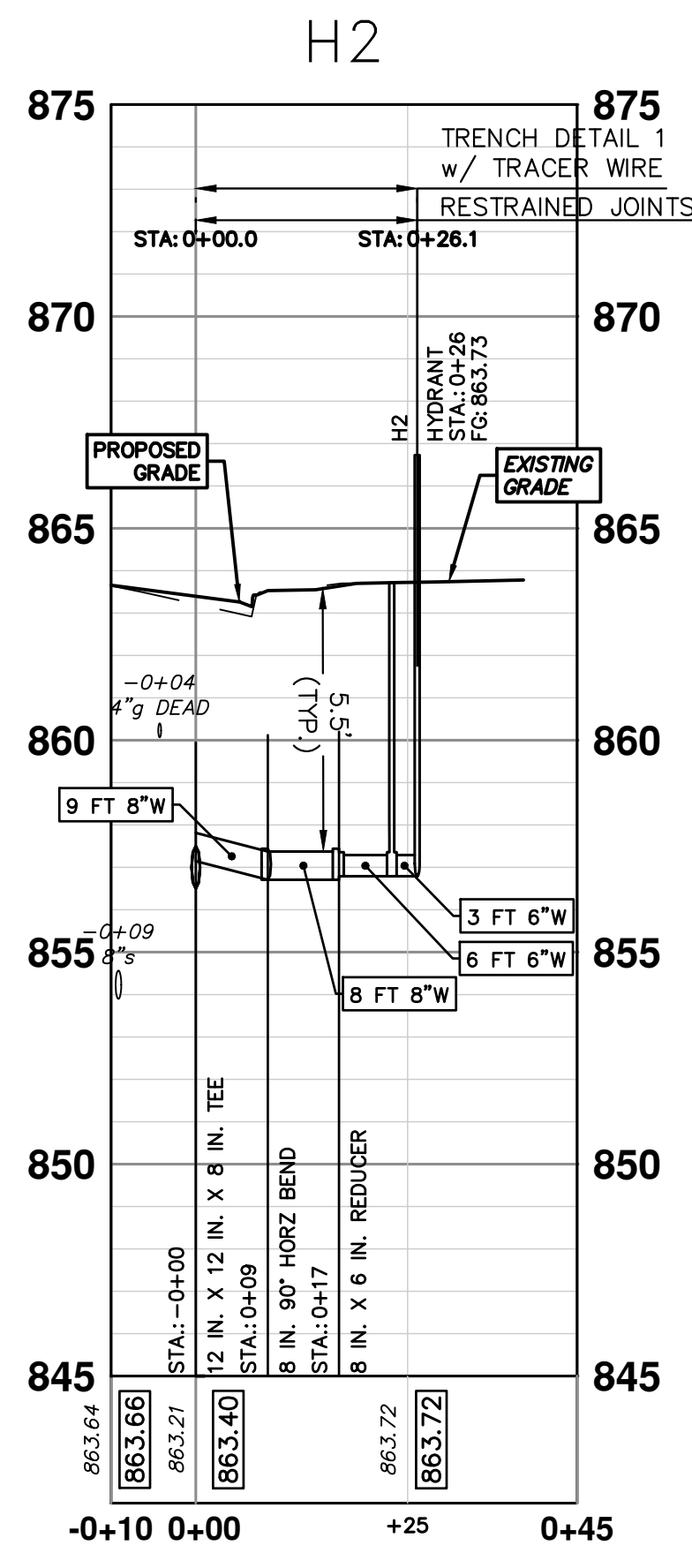



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WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	FG
H2	HYDRANT	0+26	863.73
H3	HYDRANT	0+19	856.22


WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	RIM
V10	8 in. GVW	0+54	851.63





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REV.	DESCRIPTION	DATE	DRAWN	CHECKED

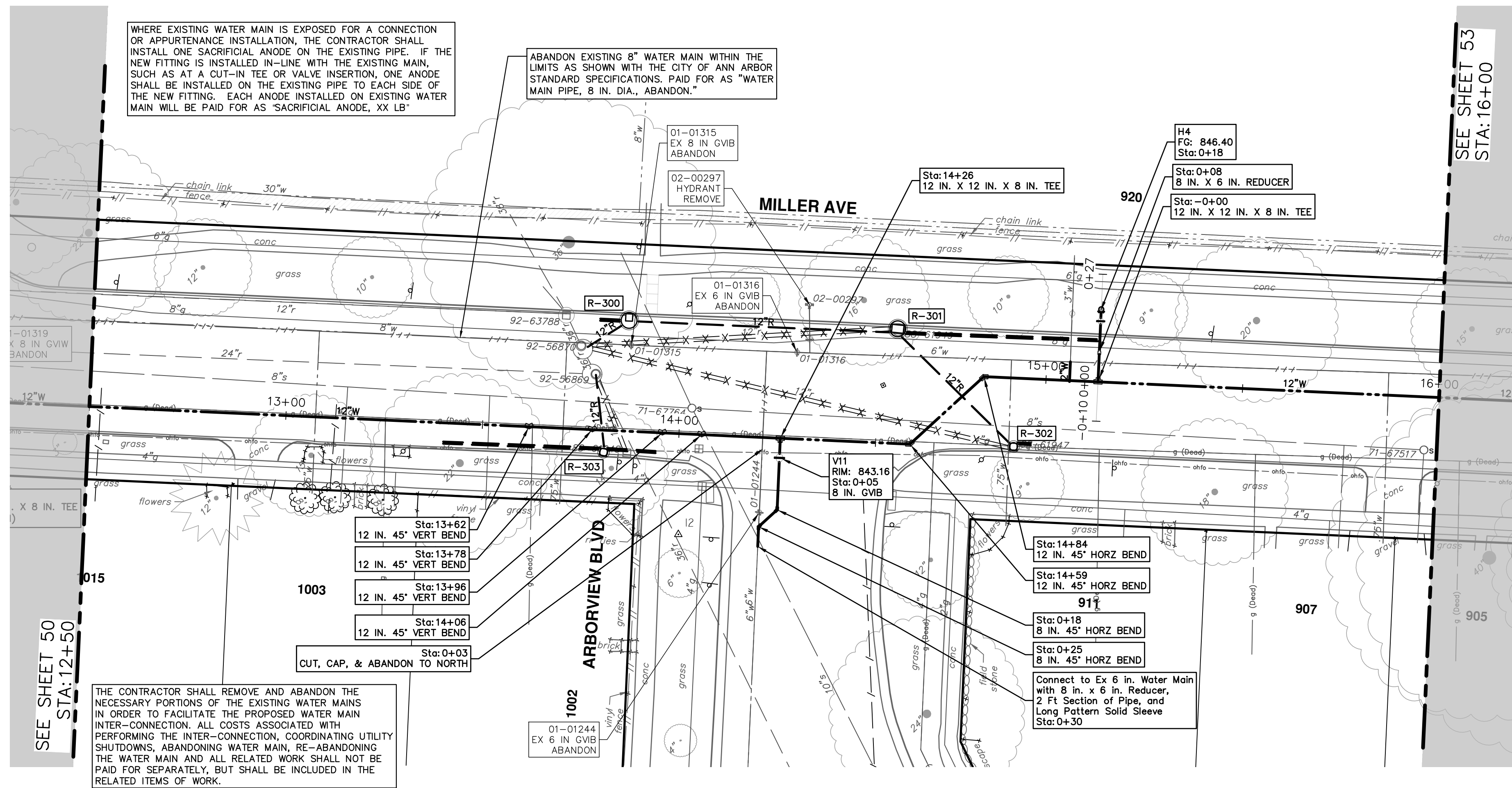


**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER AVENUE REHABILITATION**  
 PROPOSED WATER MAIN - NEWPORT TO N SEVENTH - PHASE I  
 RED OAK CONNECTION AND H2 AND H3 PROFILES

CITY OF ANN ARBOR  
 PUBLIC SERVICES  
 301 EAST HURON STREET  
 P.O. BOX 8647  
 ANN ARBOR, MI 48108-8647  
 www.a2gov.org

SCALE PLAN: 1" = 20'  
 PROFILE: 1" = 4'  
 DRAWING No. 2022034-51  
 SHEET No. 51 OF 132





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"

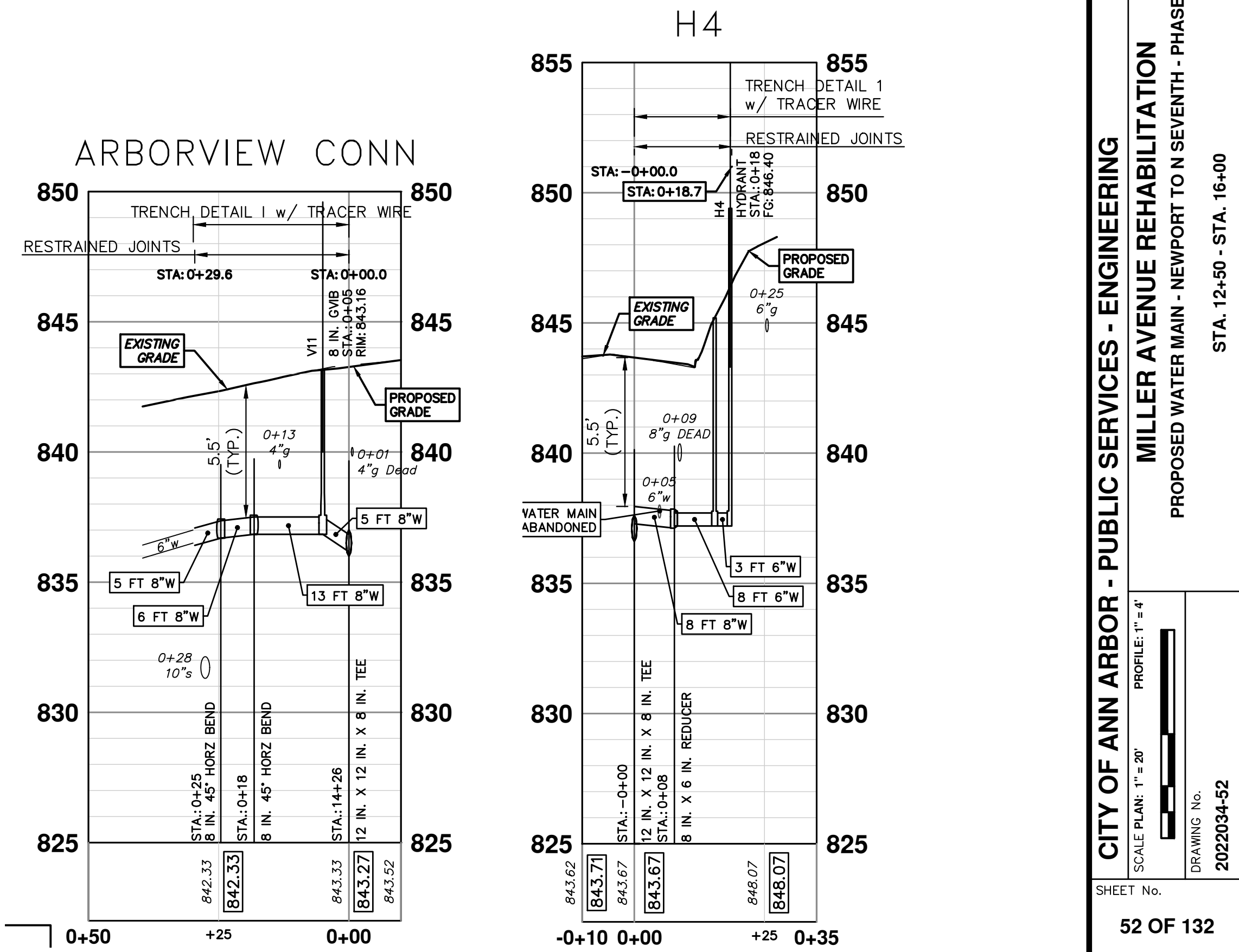
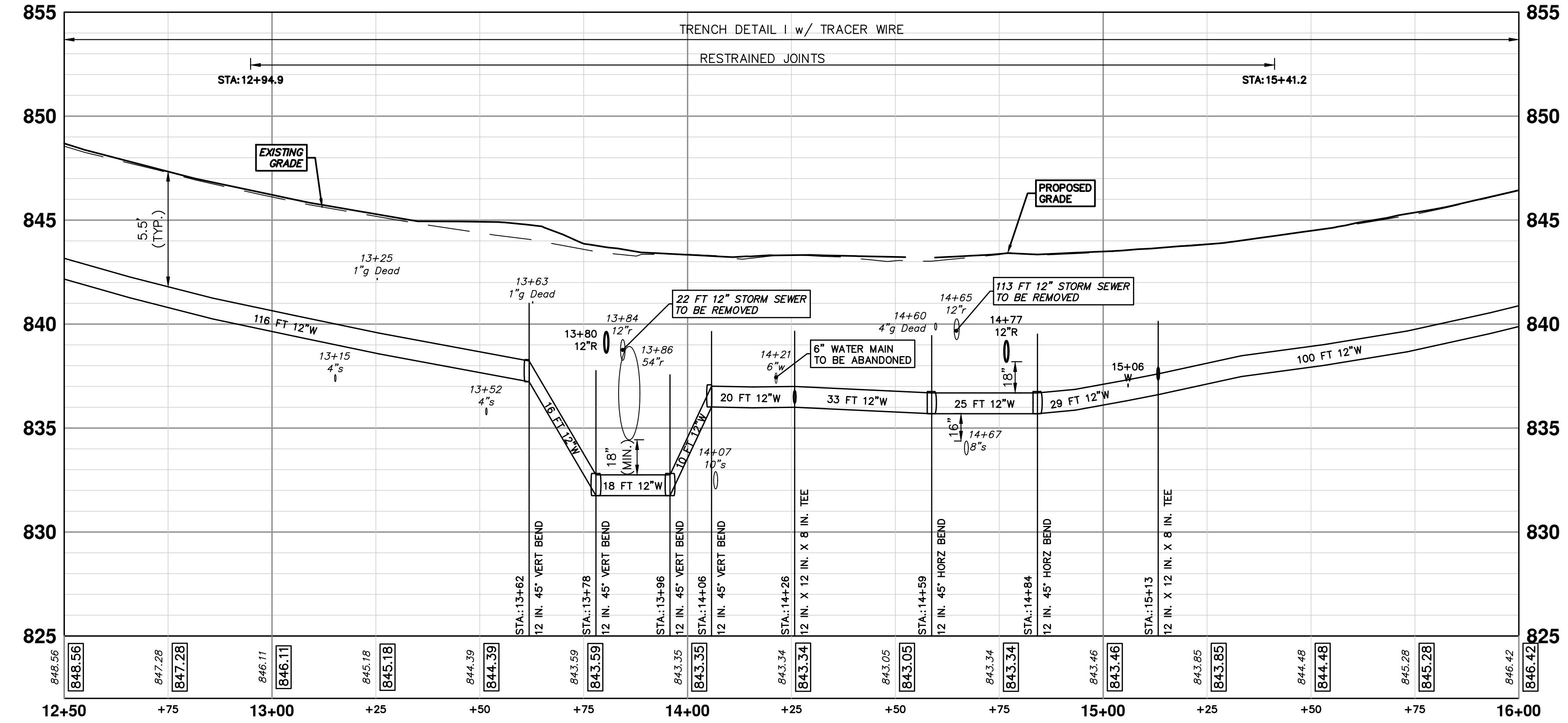
ABANDON EXISTING 8" WATER MAIN WITHIN THE LIMITS AS SHOWN WITH THE CITY OF ANN ARBOR STANDARD SPECIFICATIONS. PAID FOR AS "WATER MAIN PIPE, 8 IN. DIA., ABANDON."


THE CONTRACTOR SHALL REMOVE AND ABANDON THE NECESSARY PORTIONS OF THE EXISTING WATER MAINS IN ORDER TO FACILITATE THE PROPOSED WATER MAIN INTER-CONNECTION. ALL COSTS ASSOCIATED WITH PERFORMING THE INTER-CONNECTION, COORDINATING UTILITY SHUTDOWNS, ABANDONING WATER MAIN, RE-ABANDONING THE WATER MAIN AND ALL RELATED WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE RELATED ITEMS OF WORK.

WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	RIM
V11	8 in. GVB	0+05	843.16

WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	FG
H4	HYDRANT	0+18	846.40


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ANN ARBOR, MI 48106-1667  
ANN ARBOR: 734.794.4410  
WWW.A2GOV.ORG

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

**MILLER AVENUE REHABILITATION**

PROPOSED WATER MAIN - NEWPORT TO N SEVENTH - PHASE I

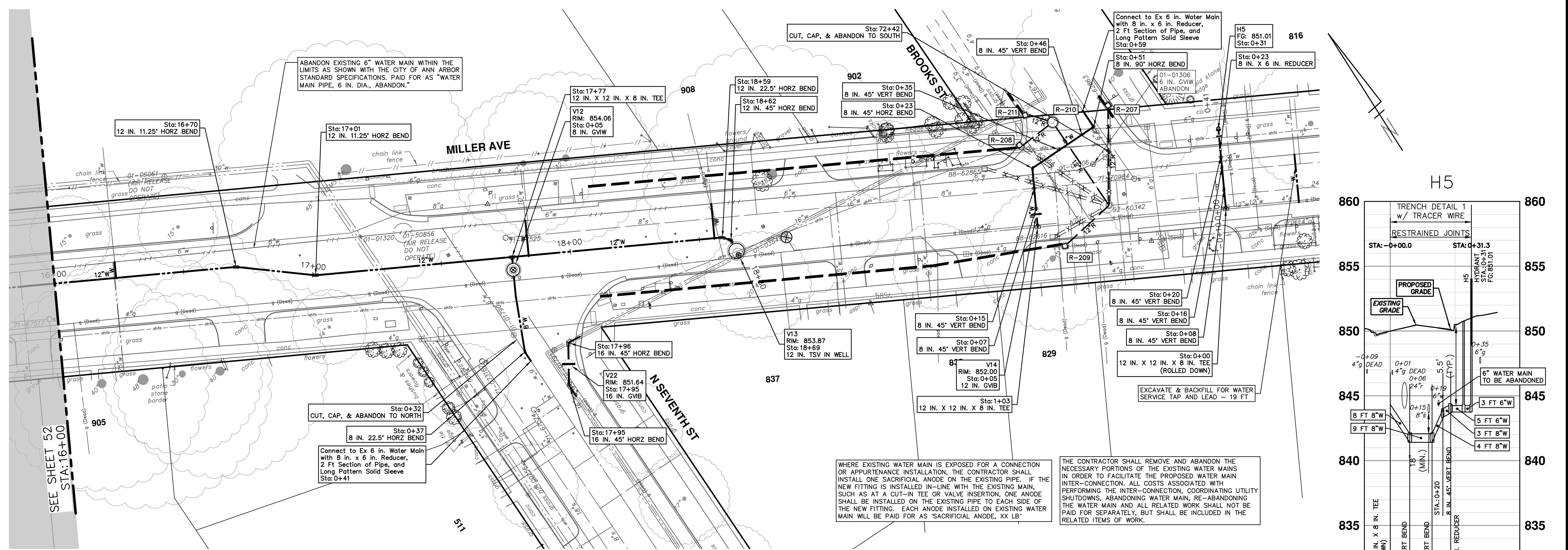
STA. 12+50 - STA. 16+00

SHEET NO. 52 OF 132

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

DRAWING NO. 2022034-52



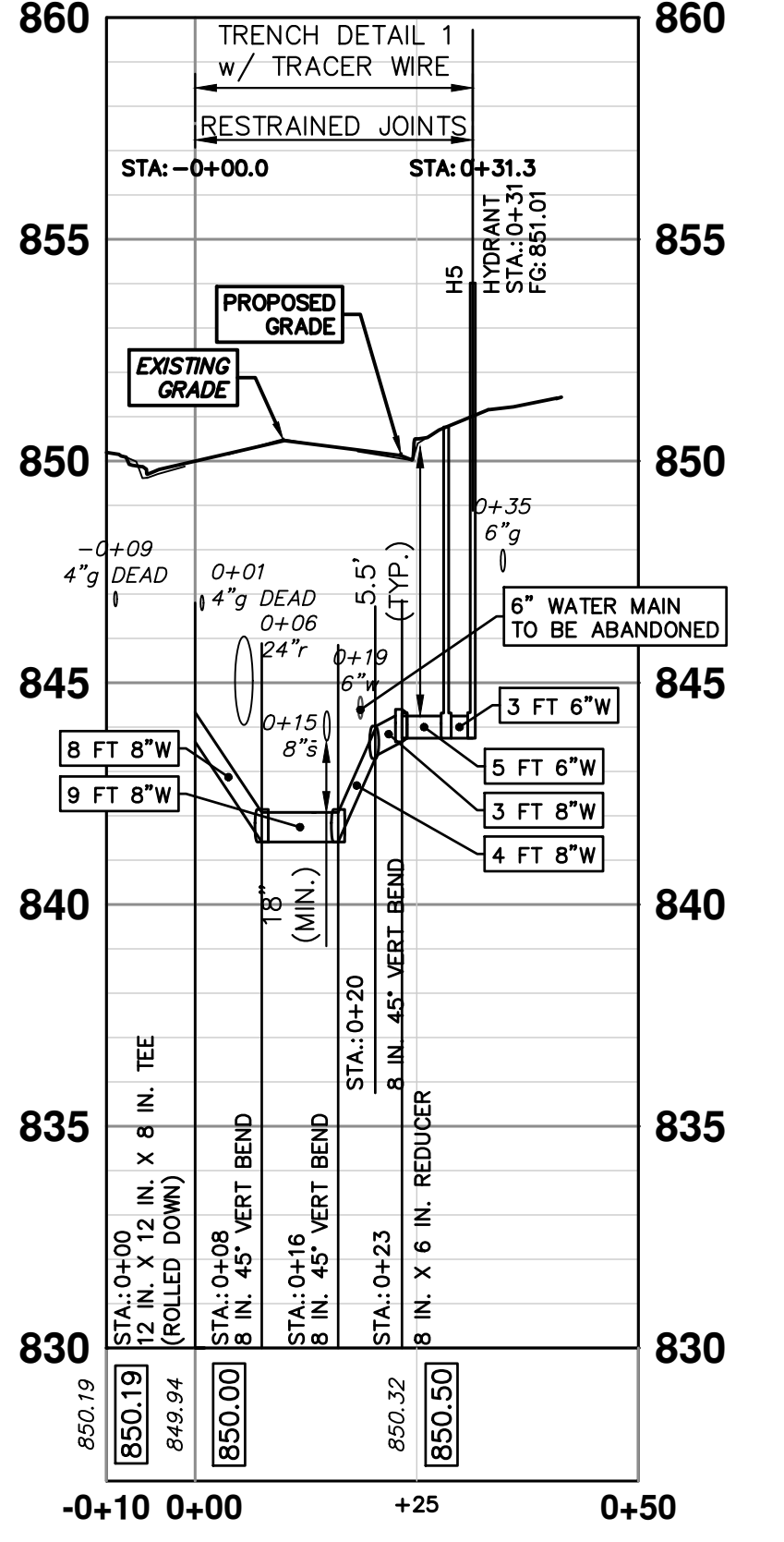


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WATER MAIN STRUCTURES				
STRUCTURE	TYPE	STATION	RIM	
V14	12 in. GVIB	0+05	852.00	
V12	8 in. GVW	0+05	854.06	
V22	16 in. GVIB	17+95	851.64	
V13	12 IN. TSV in Well	18+69	853.87	

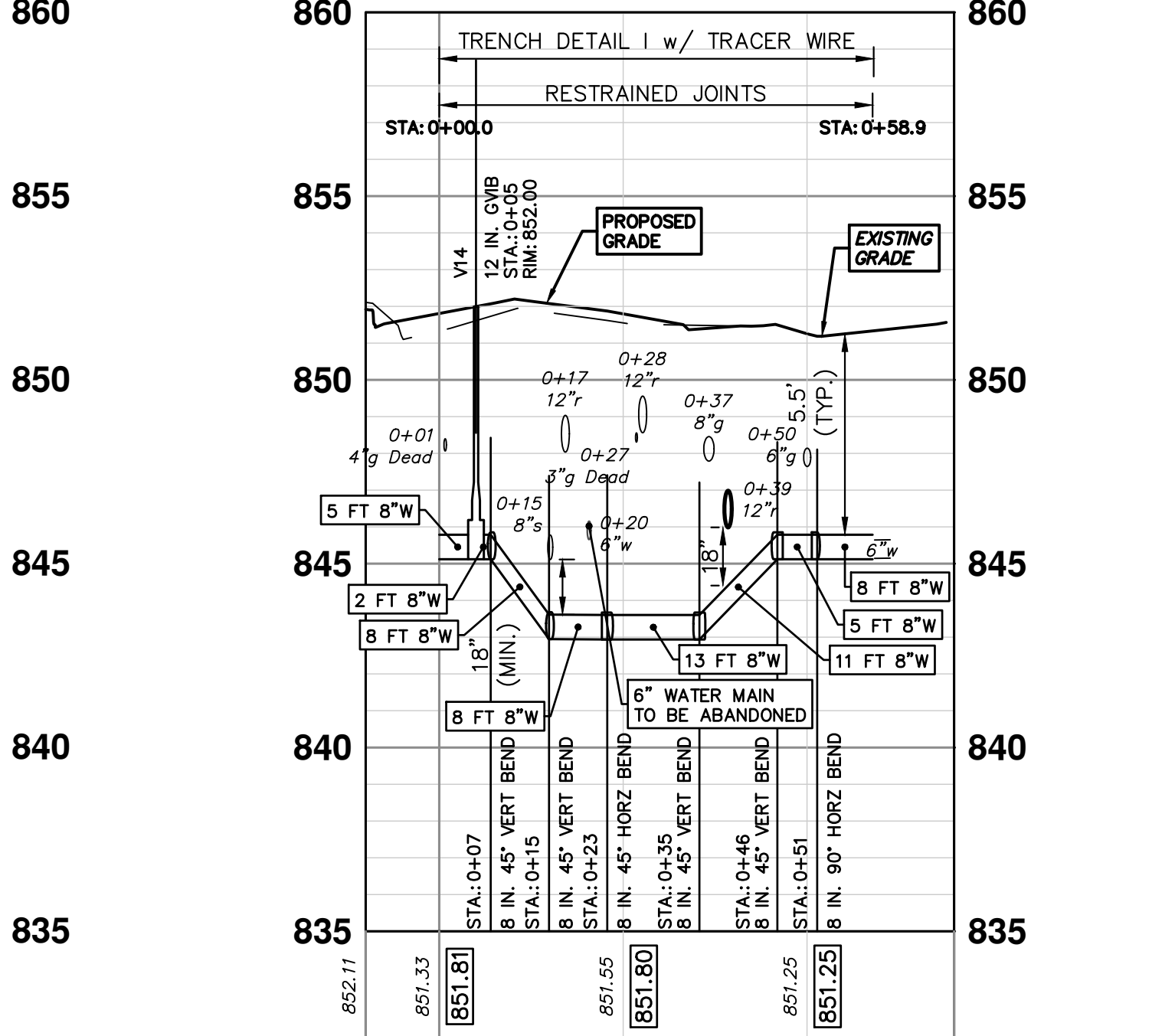
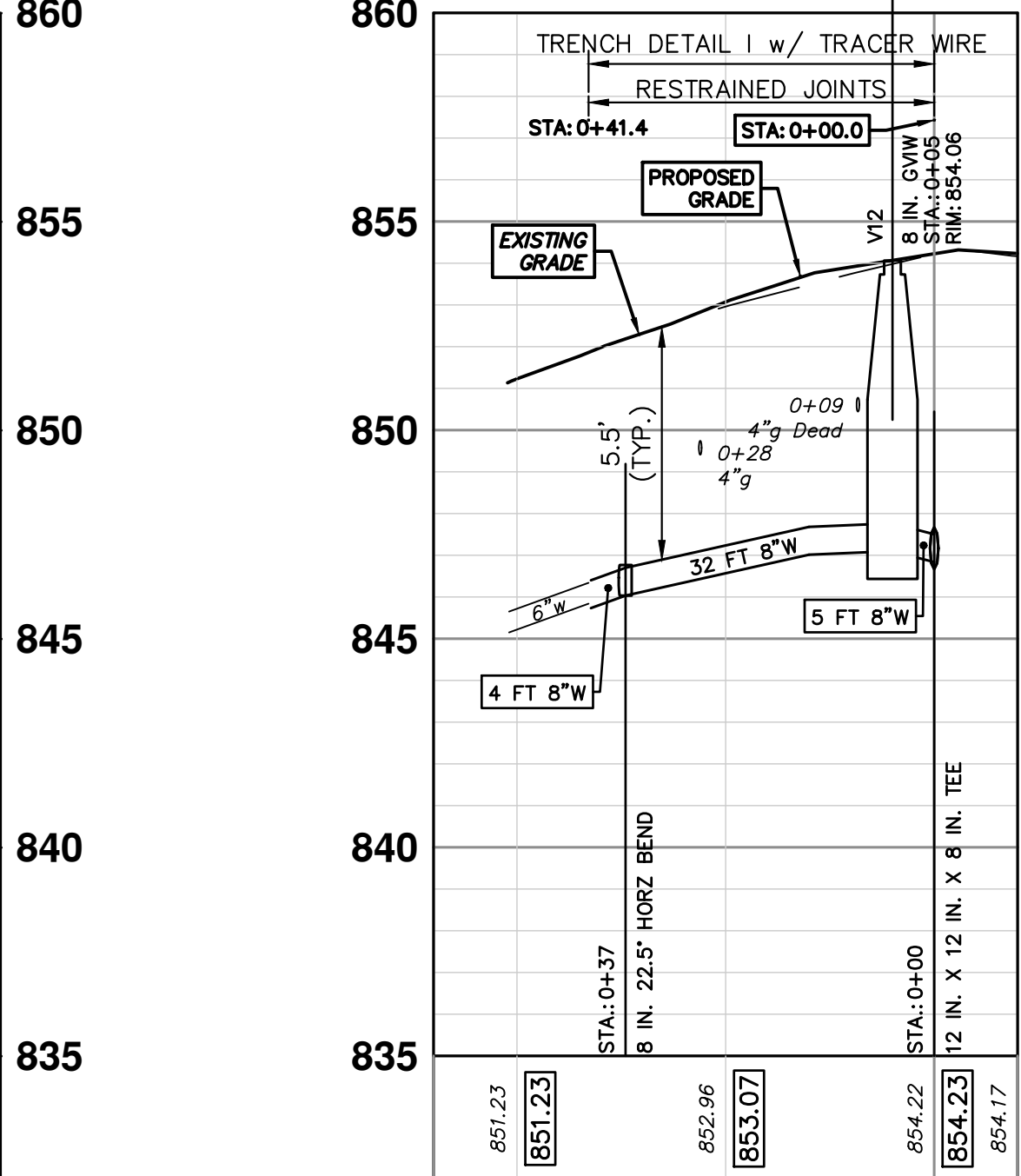
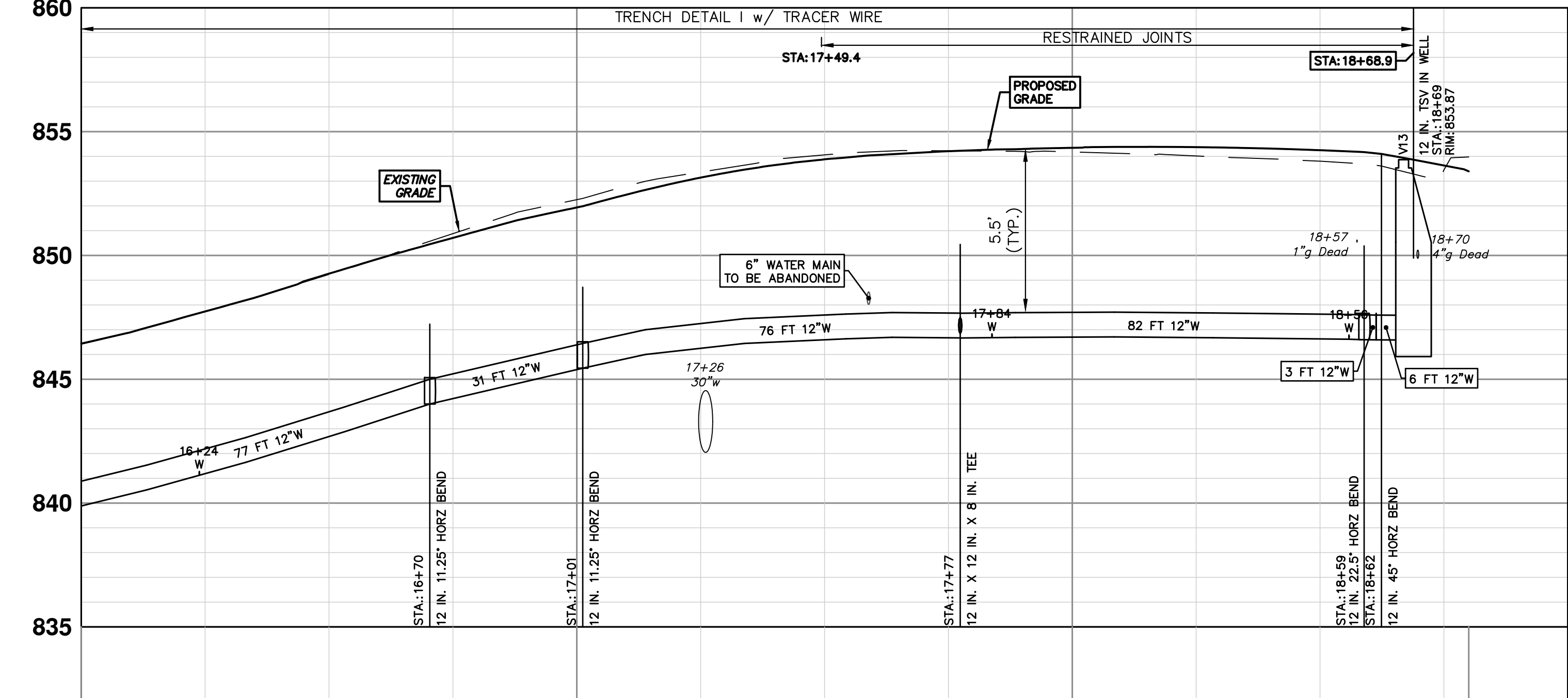
WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	FG
H5	HYDRANT	0+31	851.01



PR WATER - LINDA VISTA TO N SEVENTH

N SEVENTH CONN

BROOKS CONN



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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER AVENUE REHABILITATION  
PROPOSED WATER MAIN - NEWPORT TO N SEVENTH - PHASE I

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

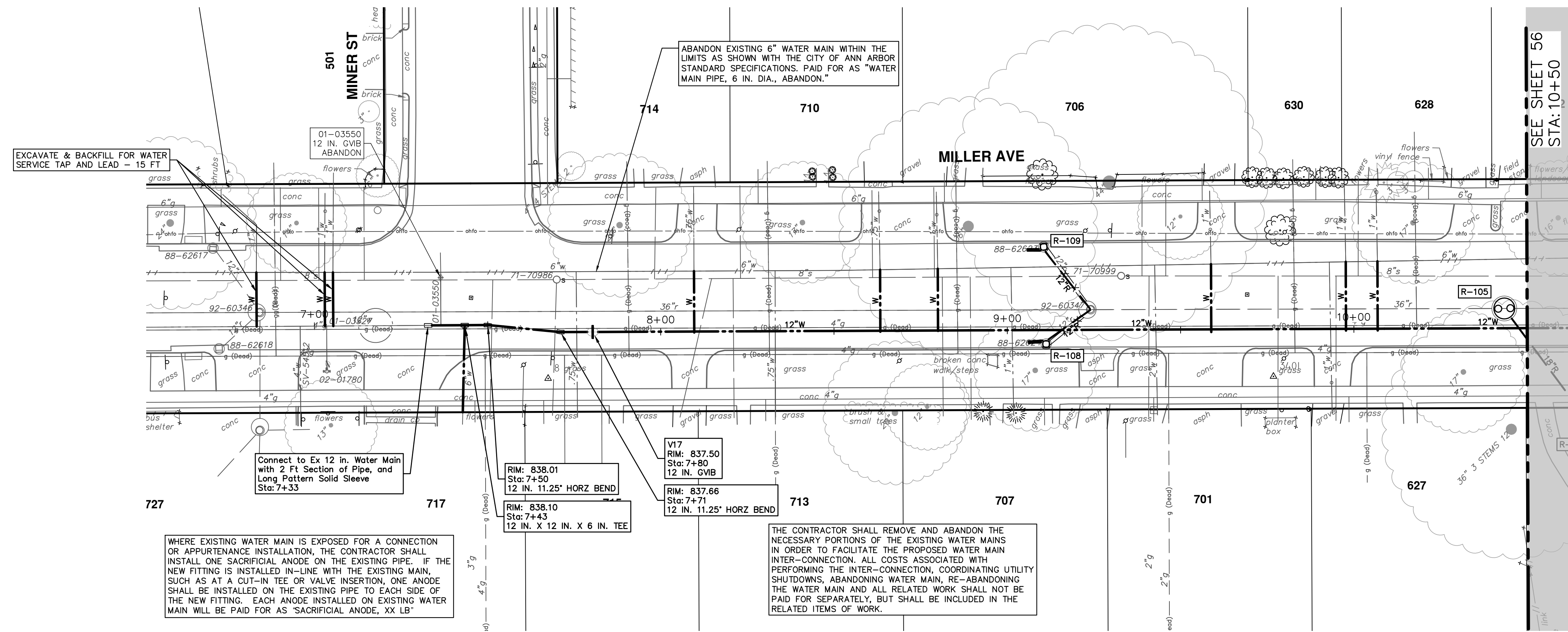
DRAWING NO. 2022034-53  
SHEET NO. 53 OF 132  
STA. 16+00 - STA. 18+69







R:\2022034\_Miller Ave Rehab\Plan Production\2022034Water.dwg Dwg Created: 19-Aug-24 - \_a2 standard bw.stb - Plot Date: 30-Aug-24

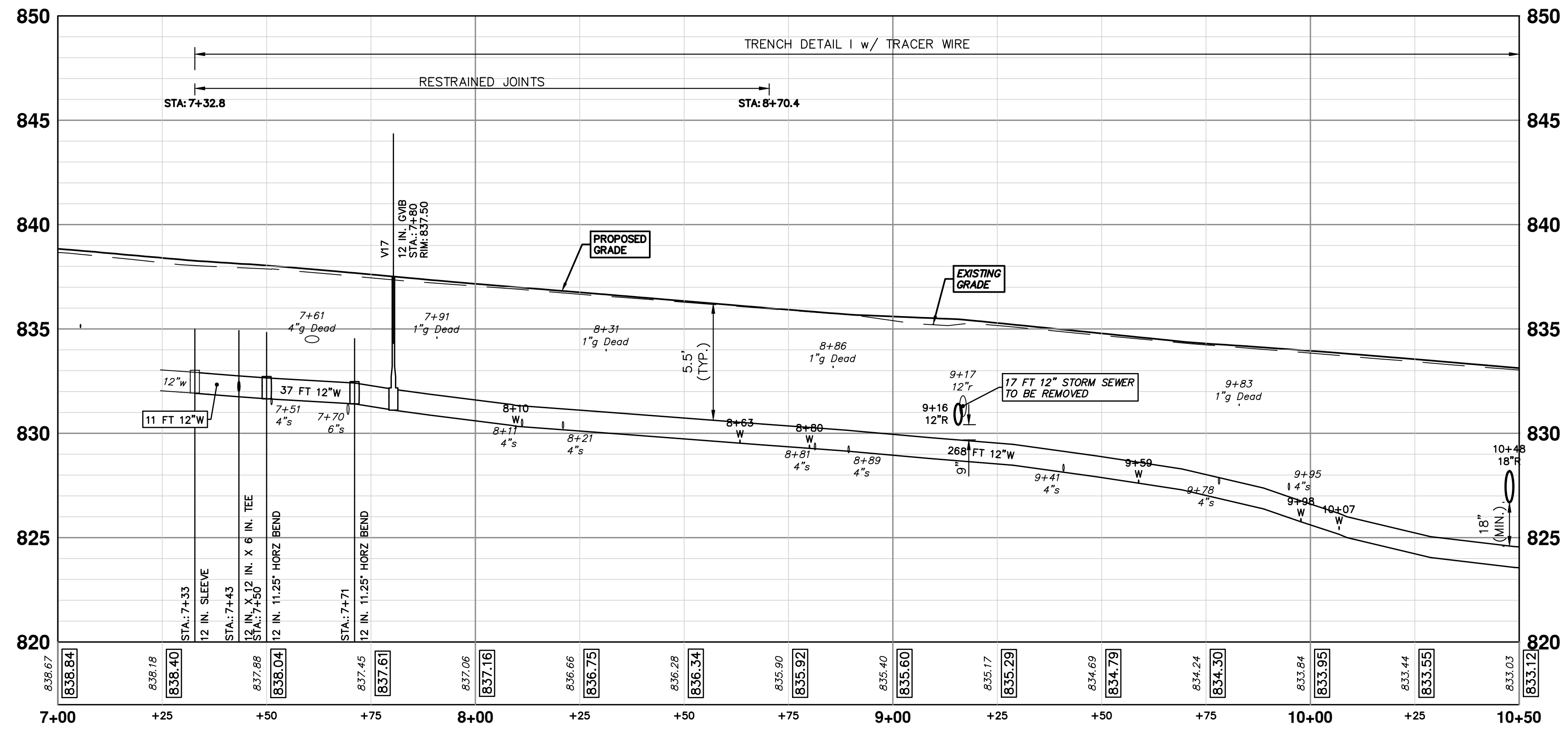


WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	RIM
V17	12 in. GVB	7+80	837.50

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'

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PR WATER - N. SEVENTH TO CHAPIN



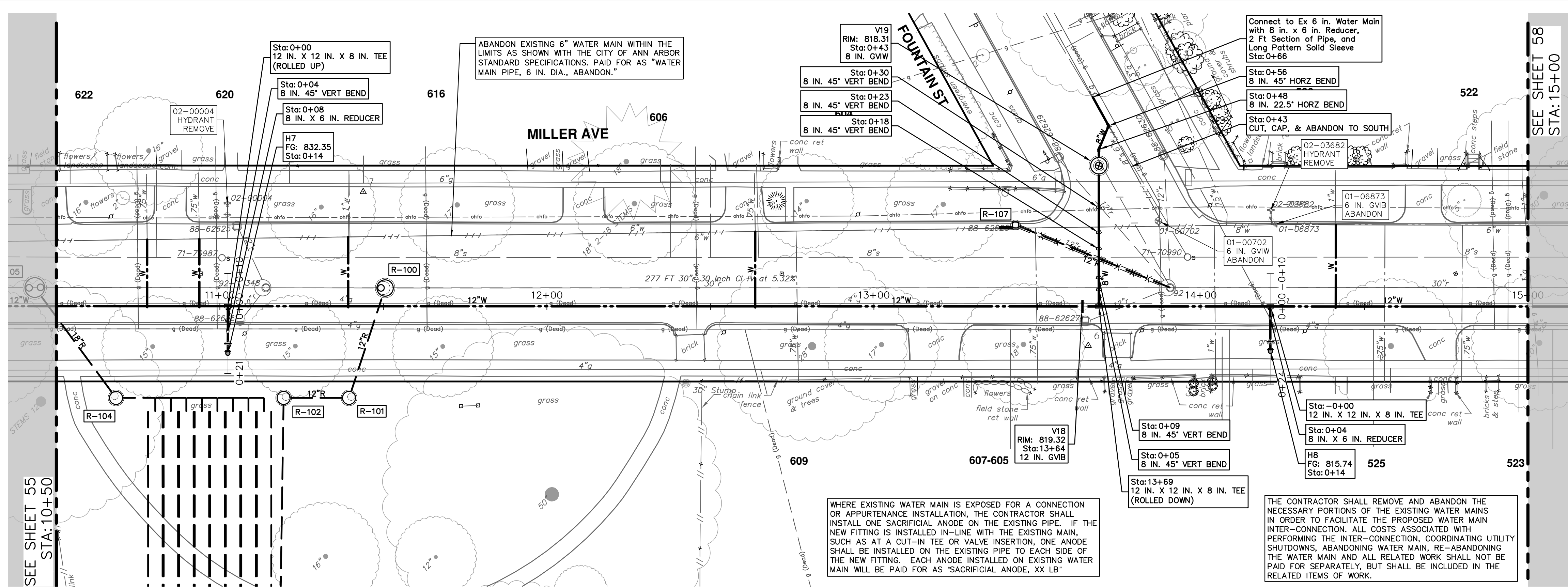
CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48107-8647  
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER AVENUE REHABILITATION  
PROPOSED WATER MAIN - N SEVENTH TO CHAPIN - PHASE II  
STA. 7+33 - STA. 10+50

SHEET No. 55 OF 132  
SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'  
DRAWING No. 2022034-55



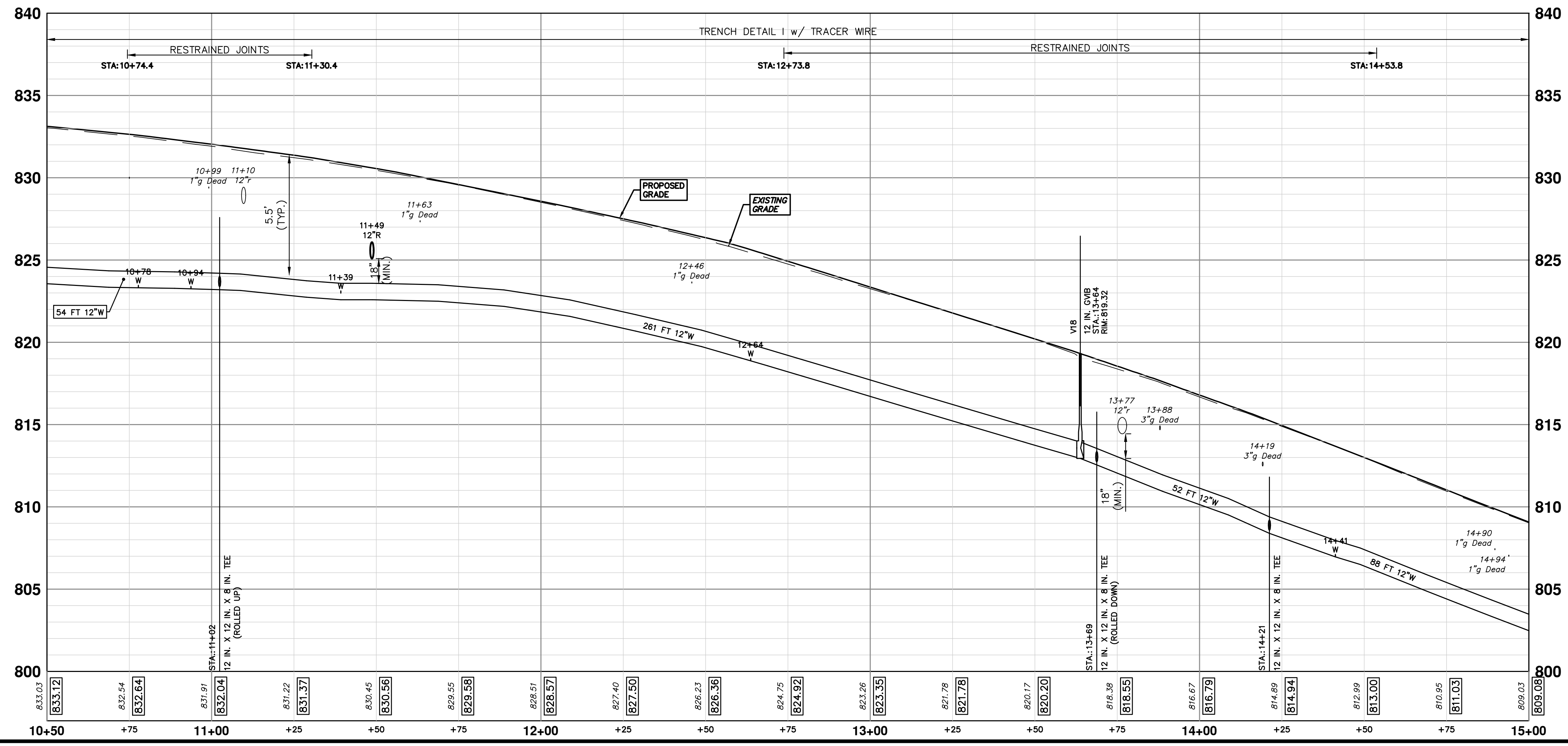



WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	RIM
V19	8 in. GVIW	0+43	818.31
V18	12 in. GVIW	13+64	819.32

WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	FG
H7	HYDRANT	0+14	832.35
H8	HYDRANT	0+14	815.74


PR WATER - N. SEVENTH TO CHAPIN





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REV.	DESCRIPTION	DATE	DRAWN	CHECKED



**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER AVENUE REHABILITATION**  
 PROPOSED WATER MAIN - N SEVENTH TO CHAPIN - PHASE II

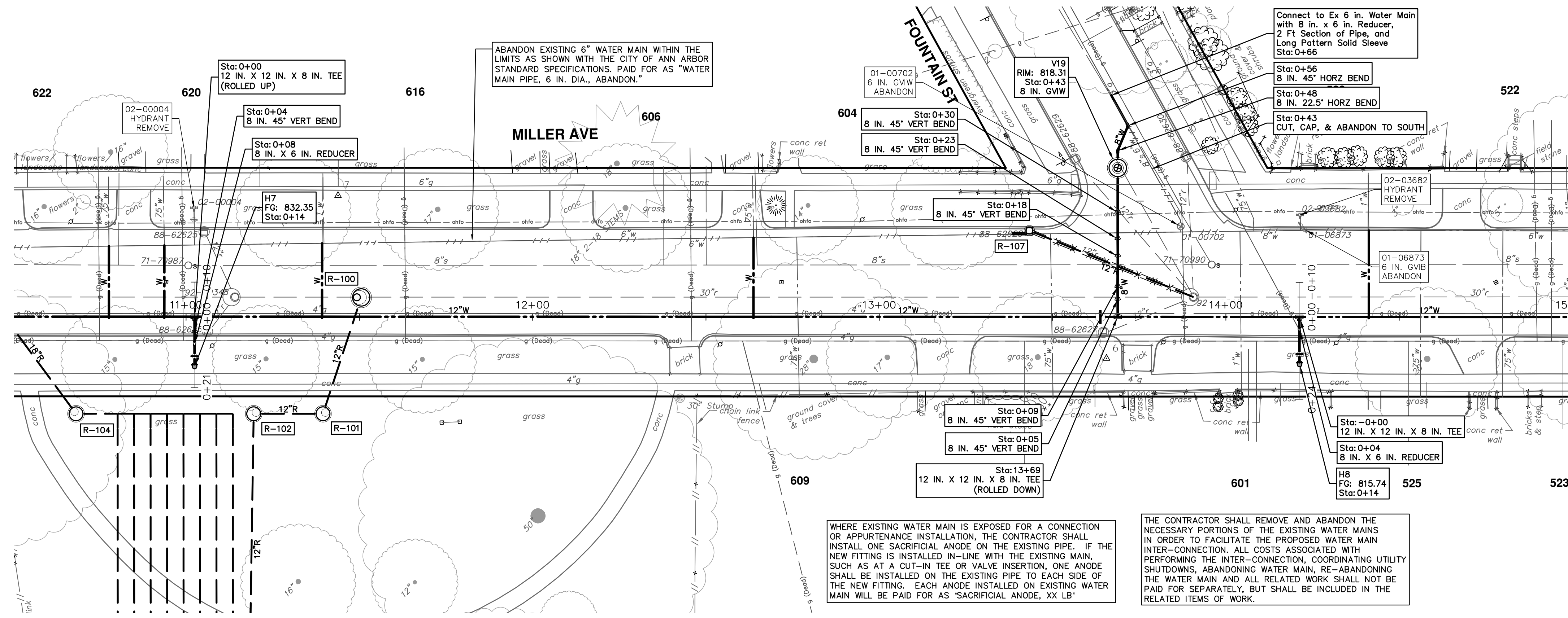
SCALE PLAN: 1" = 20'  
 PROFILE: 1" = 4'

DRAWING NO:  
**2022034-56**

SHEET NO.  
56 OF 132

STA. 10+50 - STA 15+00



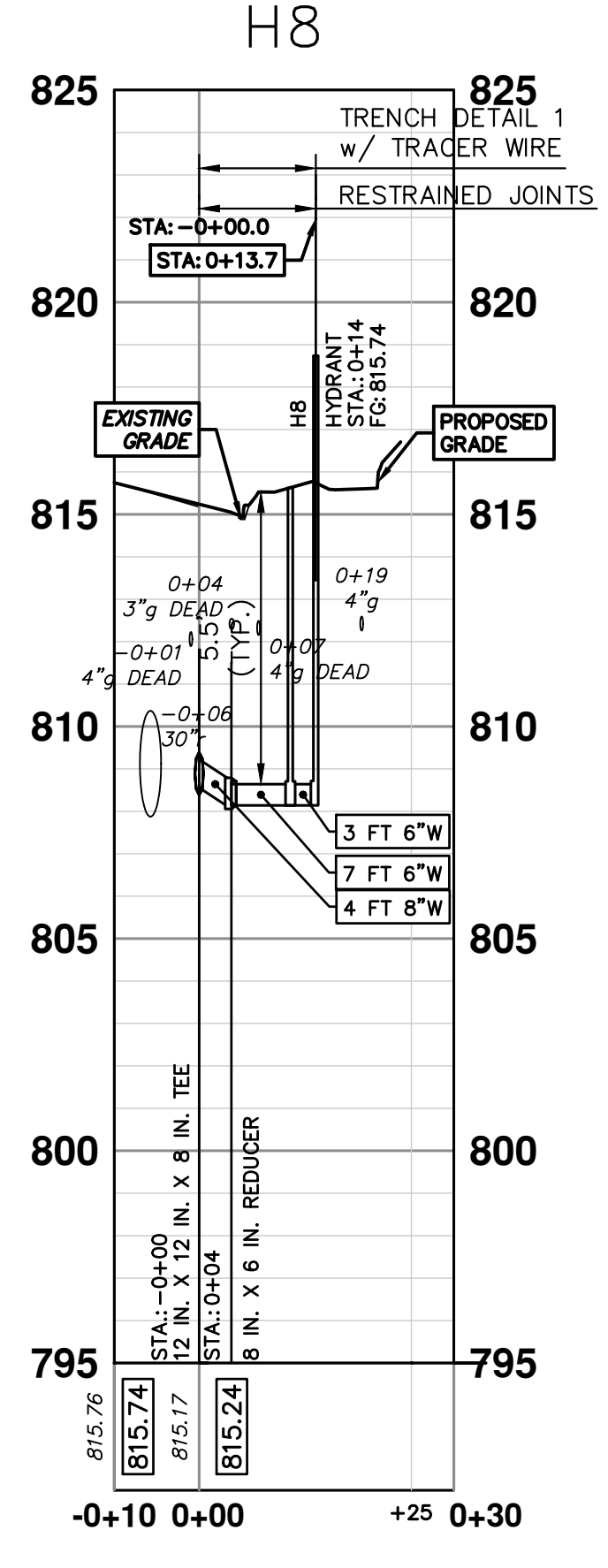
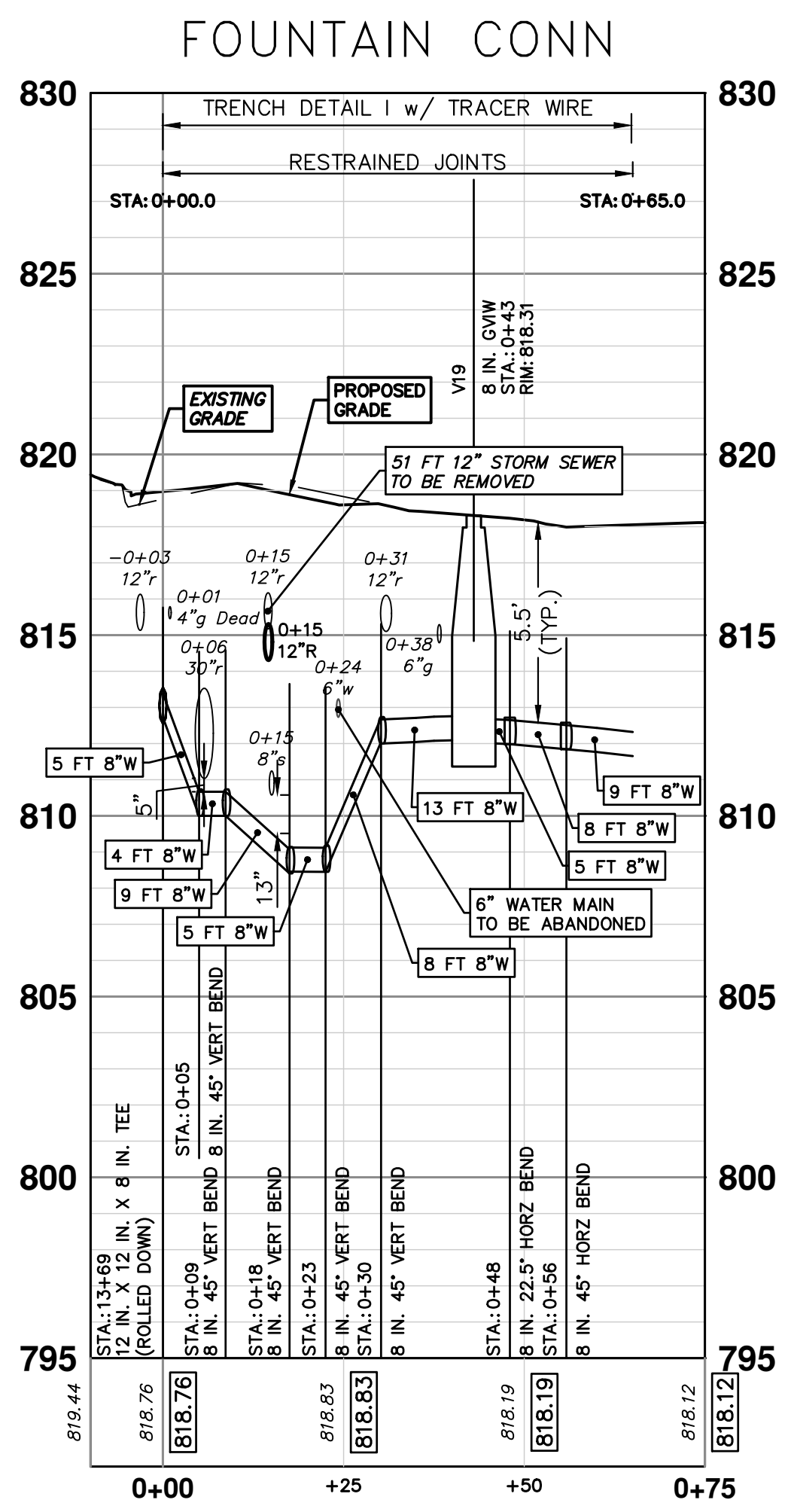
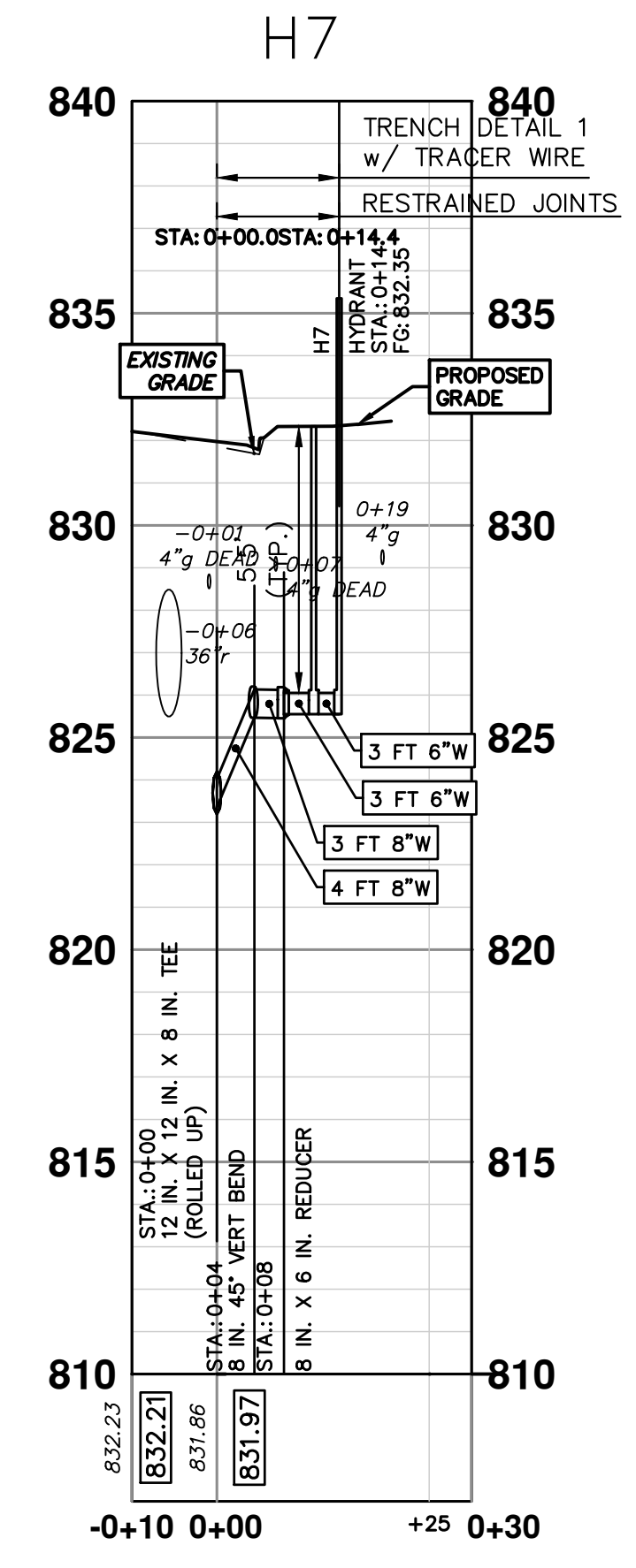


WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	FG
H7	HYDRANT	0+14	832.35
H8	HYDRANT	0+14	815.74

WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	RIM
V19	8 in. GVIW	0+43	818.31

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'

THE CONTRACTOR SHALL REMOVE AND ABANDON THE NECESSARY PORTIONS OF THE EXISTING WATER MAINS IN ORDER TO FACILITATE THE PROPOSED WATER MAIN INTER-CONNECTION. ALL COSTS ASSOCIATED WITH PERFORMING THE INTER-CONNECTION, COORDINATING UTILITY SHUTDOWNS, ABANDONING WATER MAIN, RE-ABANDONING THE WATER MAIN AND ALL RELATED WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE RELATED ITEMS OF WORK.



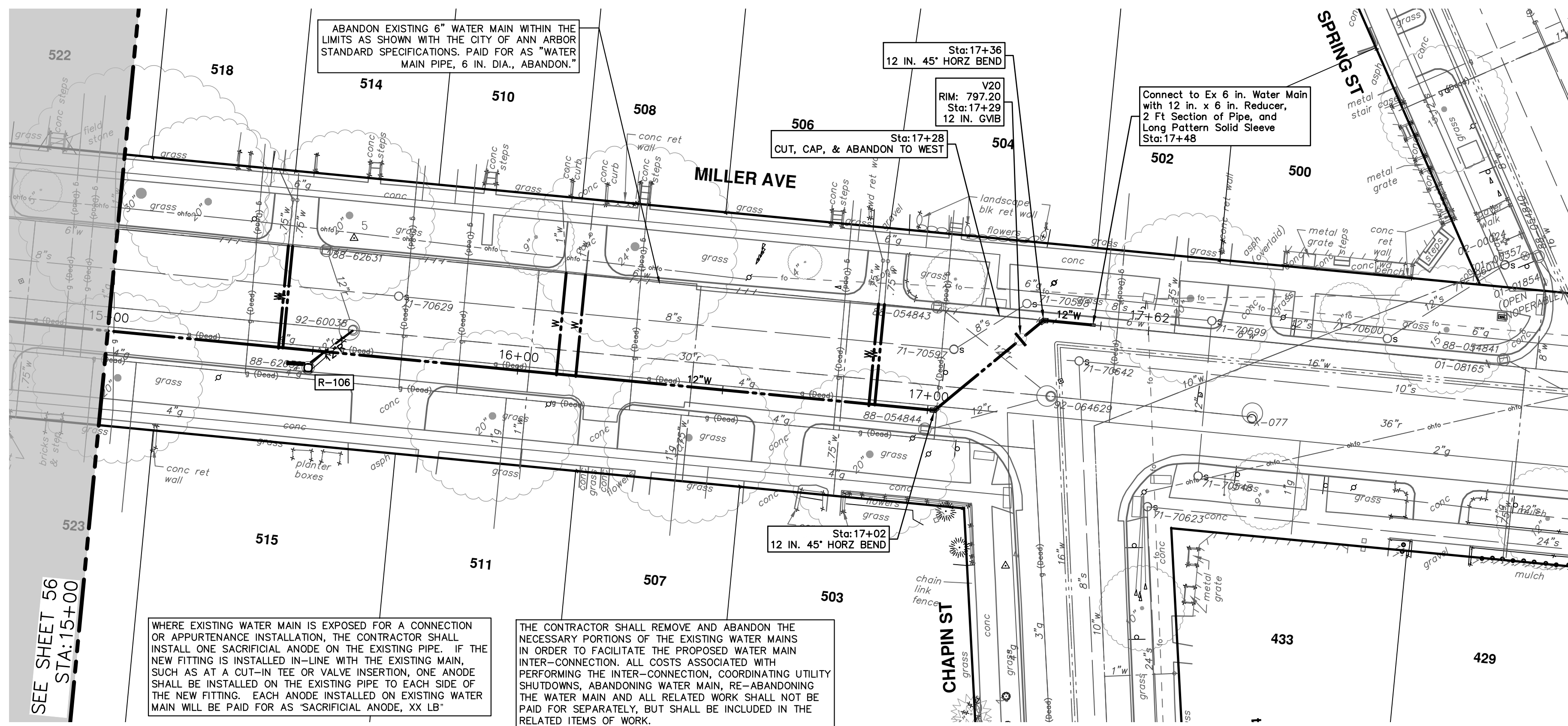
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MILLER AVENUE REHABILITATION  
PROPOSED WATER MAIN - N SEVENTH TO CHAPIN - PHASE II  
FOUNTAIN CONNECTION AND H7 AND H8 PROFILES

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'  
DRAWING No. 2022034-57

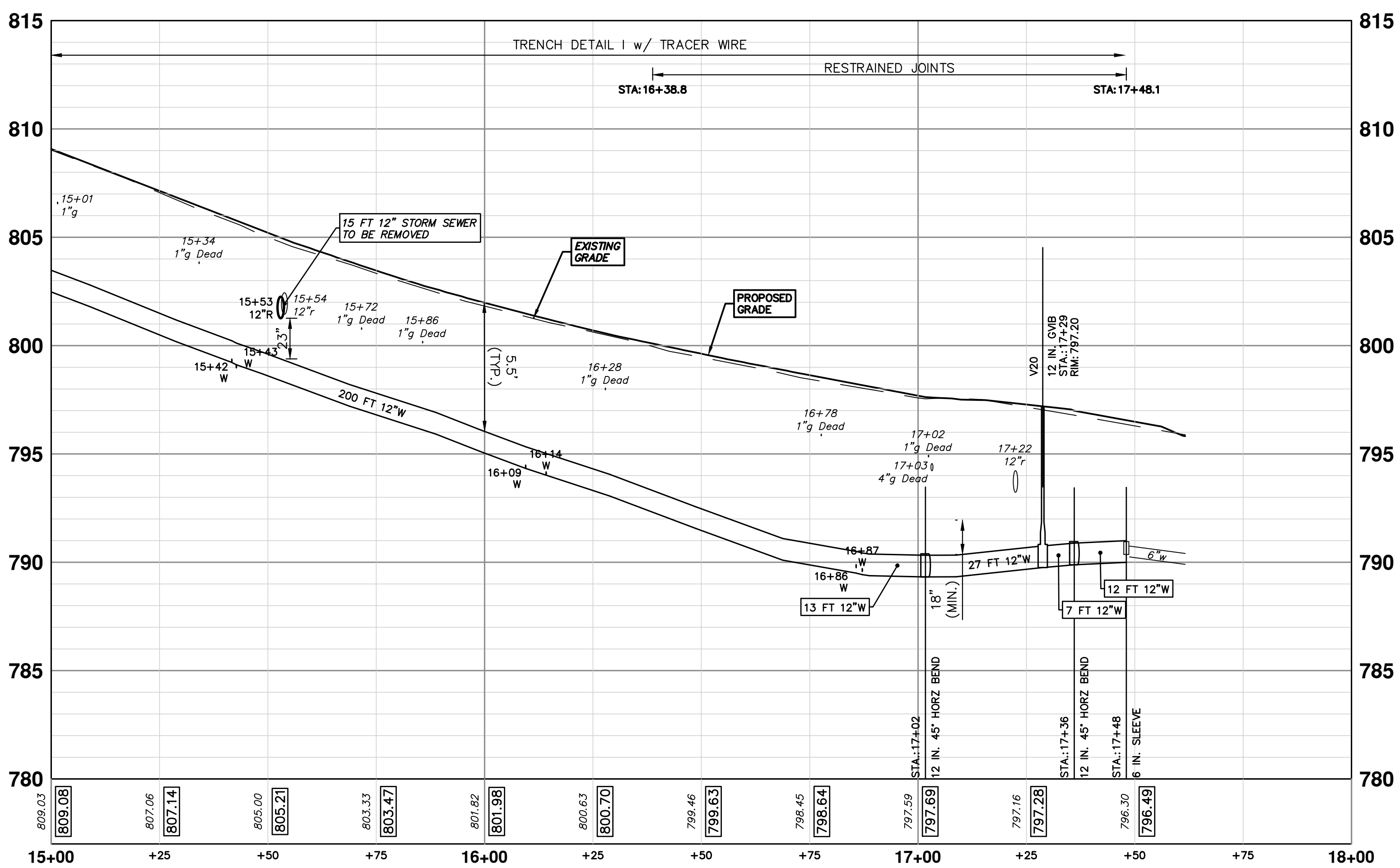




WATER MAIN STRUCTURES			
STRUCTURE	TYPE	STATION	RIM
V20	12 in. GVB	17+29	797.20

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"

THE CONTRACTOR SHALL REMOVE AND ABANDON THE NECESSARY PORTIONS OF THE EXISTING WATER MAINS IN ORDER TO FACILITATE THE PROPOSED WATER MAIN INTER-CONNECTION. ALL COSTS ASSOCIATED WITH PERFORMING THE INTER-CONNECTION, COORDINATING UTILITY SHUTDOWNS, ABANDONING WATER MAIN, RE-ABANDONING THE WATER MAIN AND ALL RELATED WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE RELATED ITEMS OF WORK.



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MILLER AVENUE REHABILITATION

PROPOSED WATER MAIN - N SEVENTH TO CHAPIN - PHASE II

STA. 15+00 - STA. 17+48

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SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

DRAWING NO. 2022034-58

SHEET No. 58 OF 132

REV. DESCRIPTION DATE DRAWN CHECKED





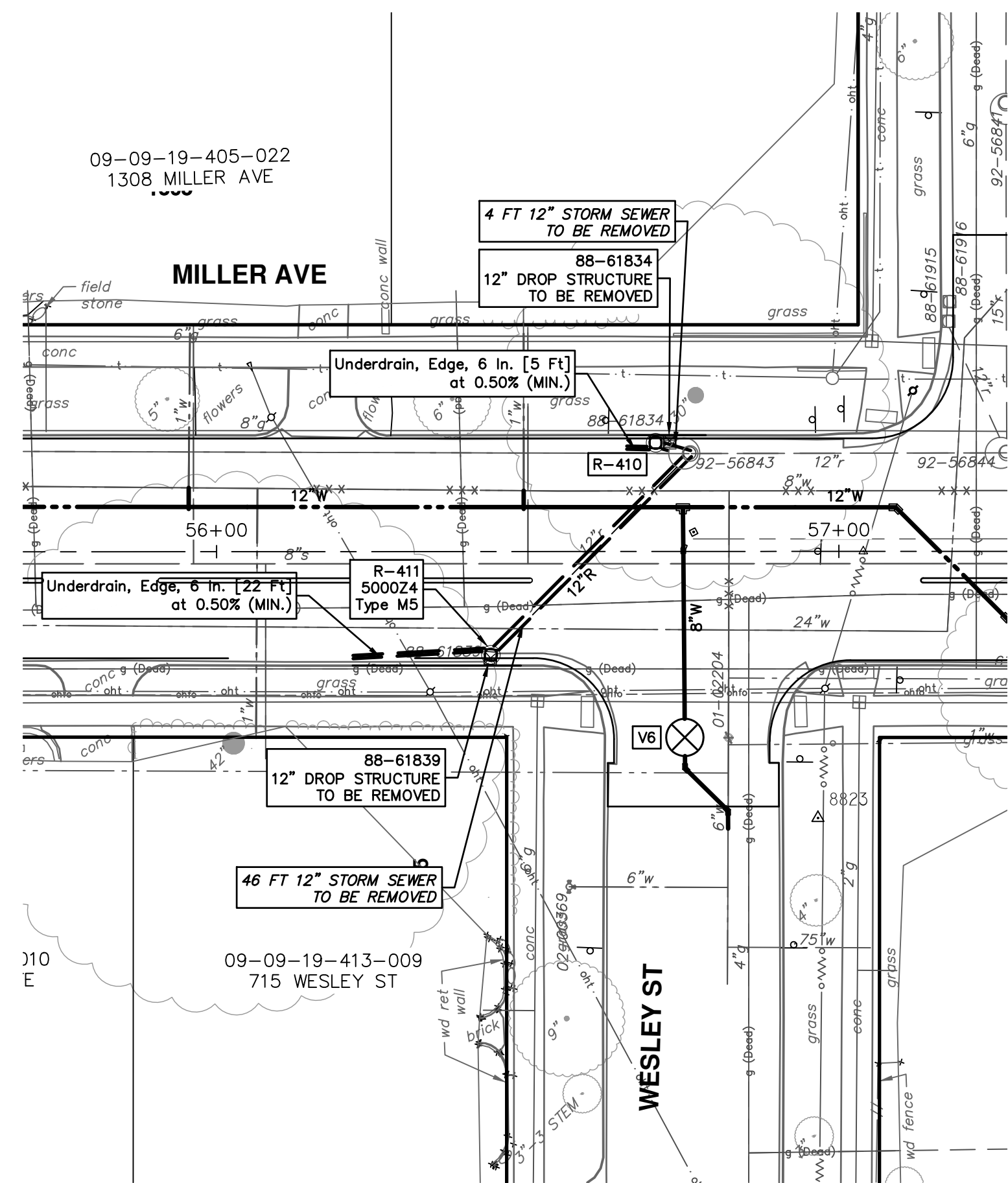
REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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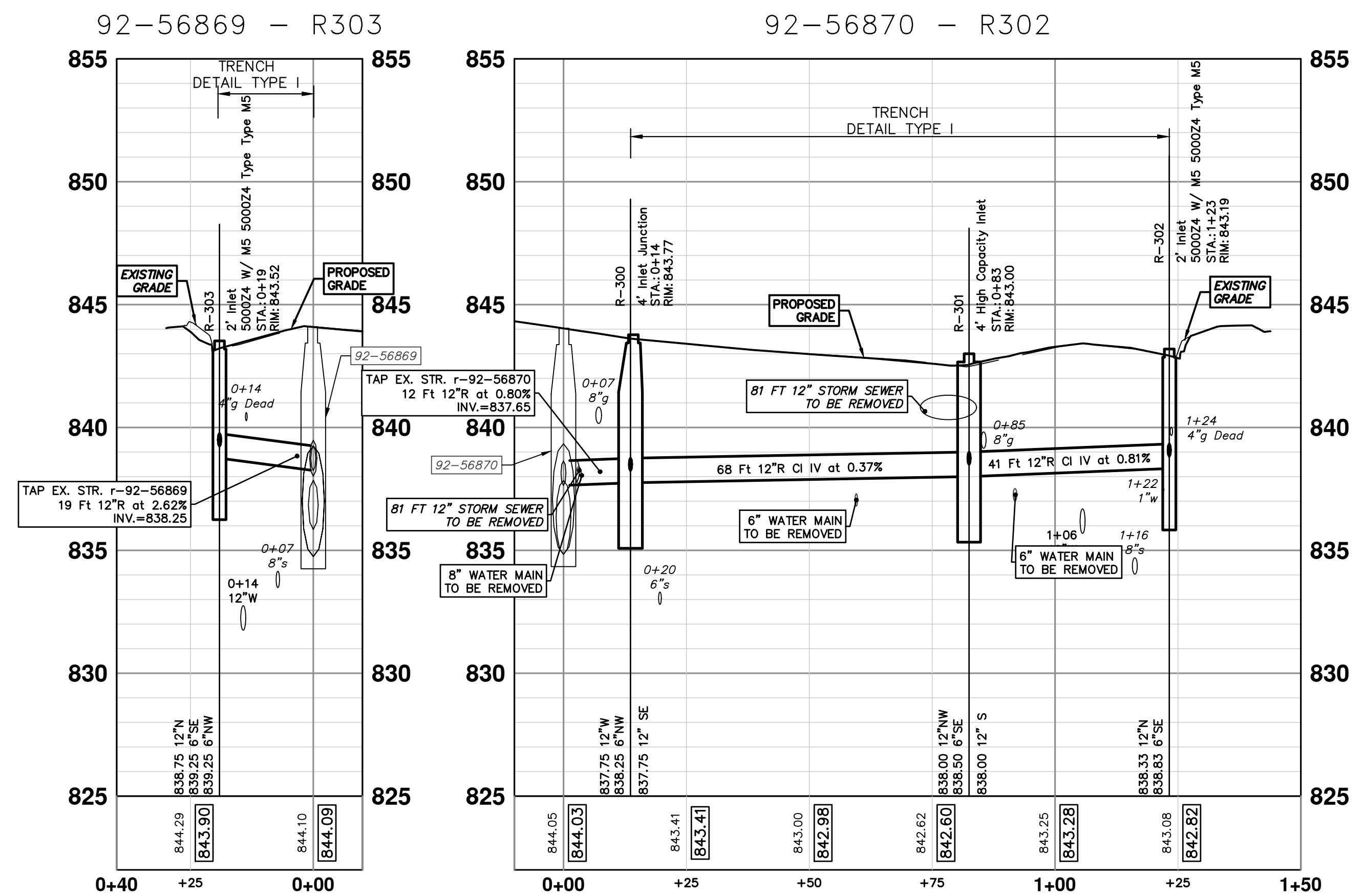
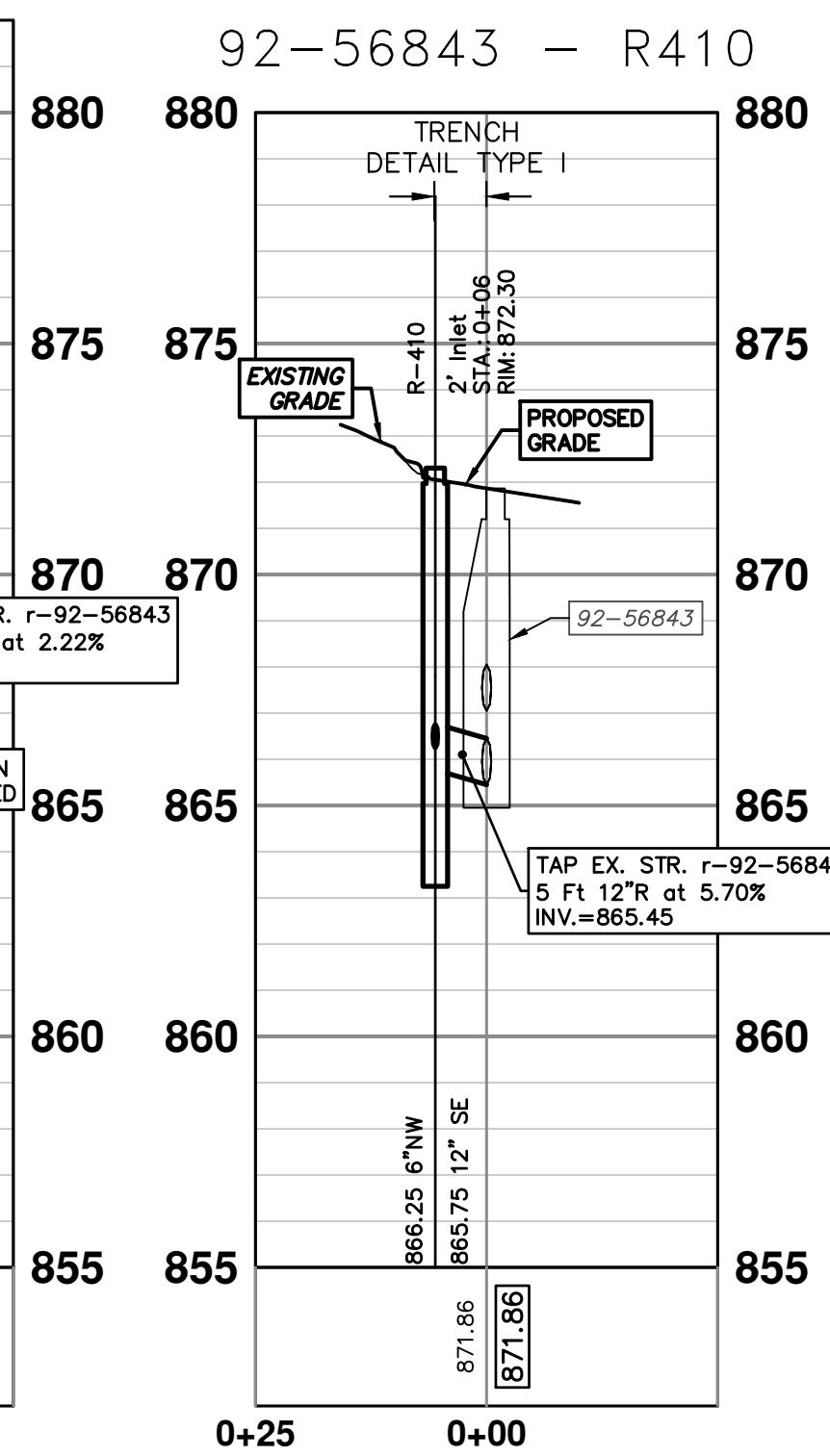
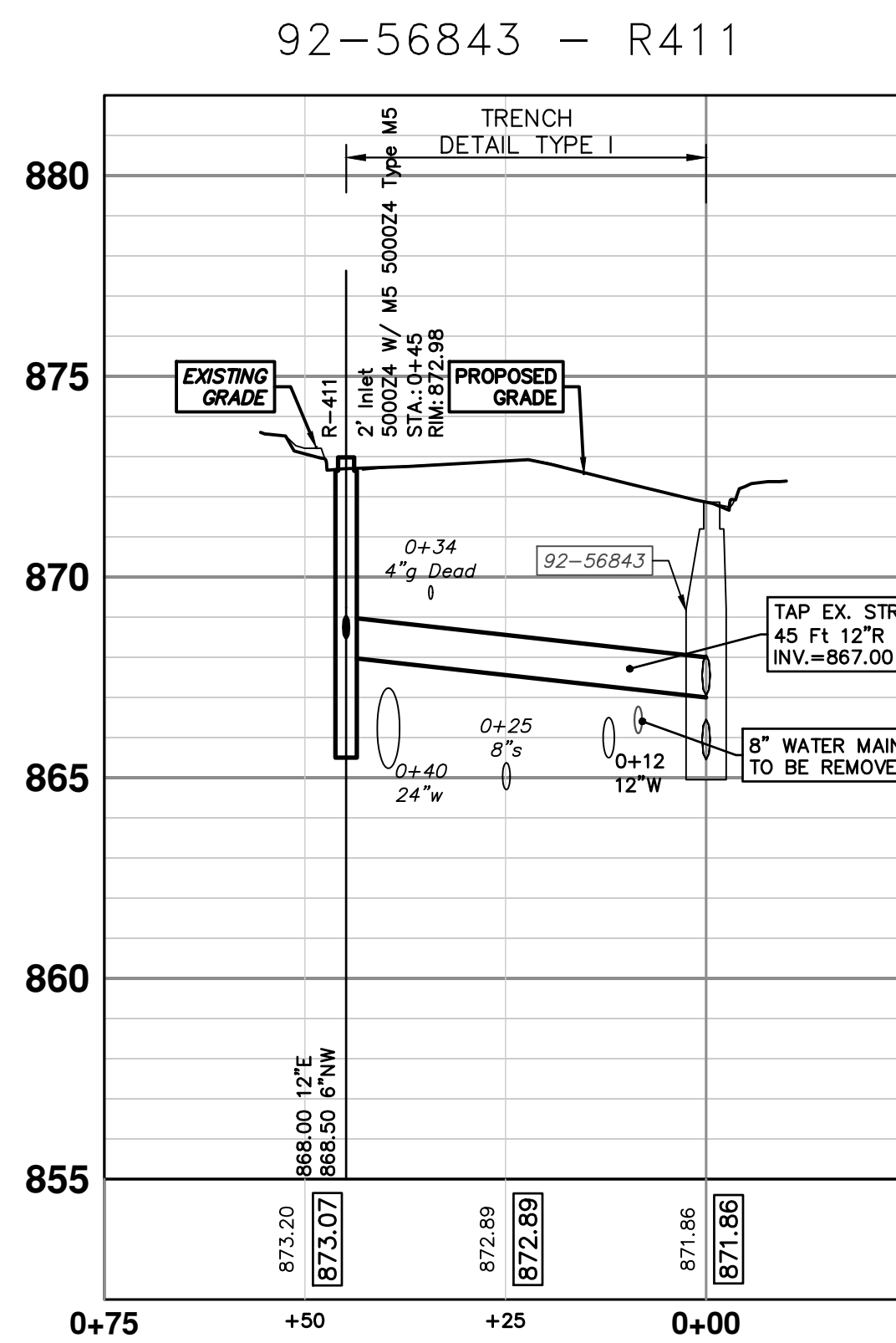
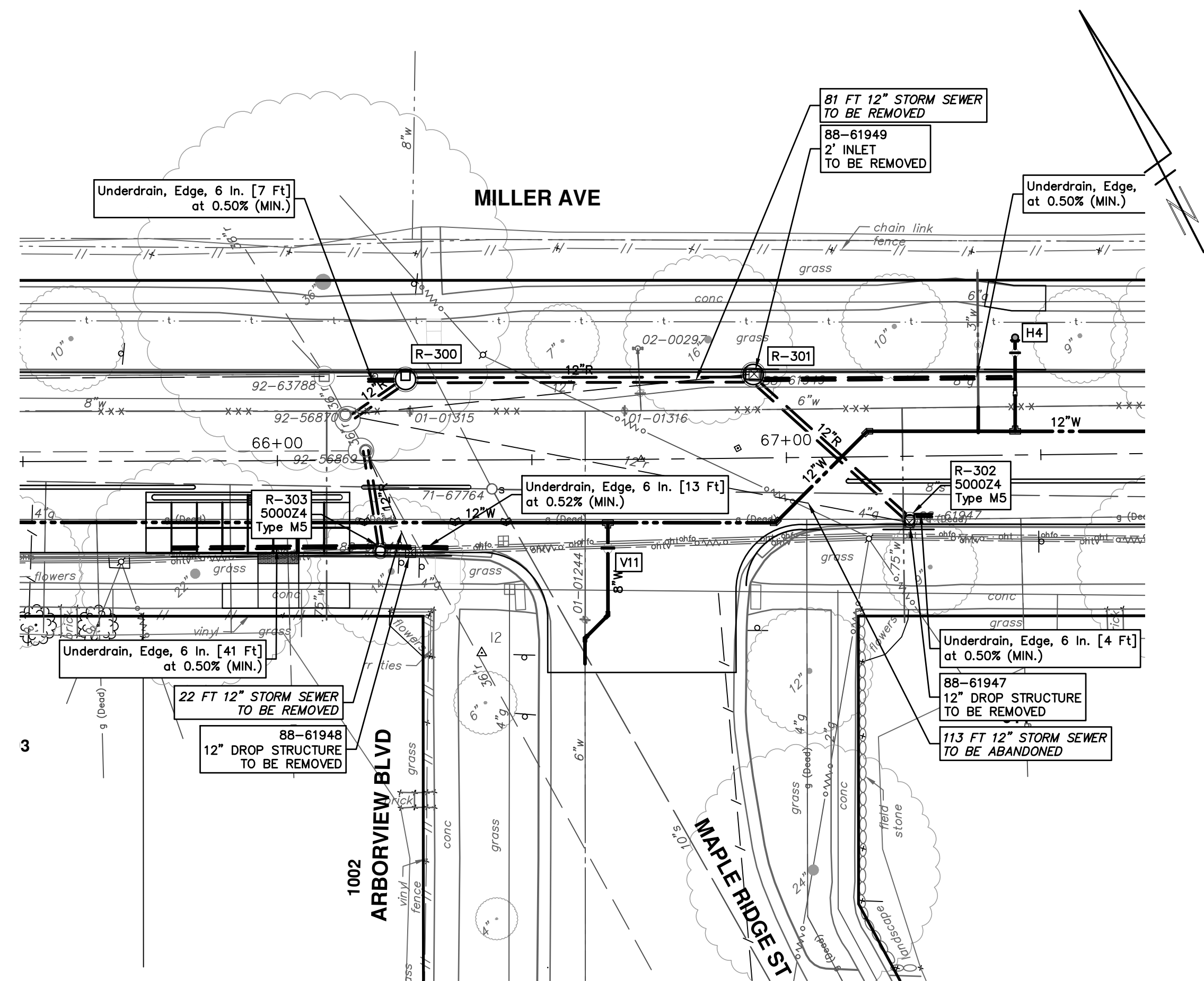
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER AVENUE REHABILITATION  
PROPOSED STORM SEWER  
R300, R301, R302, R303, R410, R411

SHEET No. 59 OF 132  
SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'  
DRAWING No. 2022034-59



STRUCTURE	DEPTH (Feet)	REMOVE
88-61834	2.90	12" Drop Structure TO BE REMOVED
88-61839	2.56	12" Drop Structure TO BE REMOVED
88-61949	2.00	2' Inlet TO BE REMOVED
88-61947	3.22	12" Drop Structure TO BE REMOVED
88-61948	4.71	12" Drop Structure TO BE REMOVED

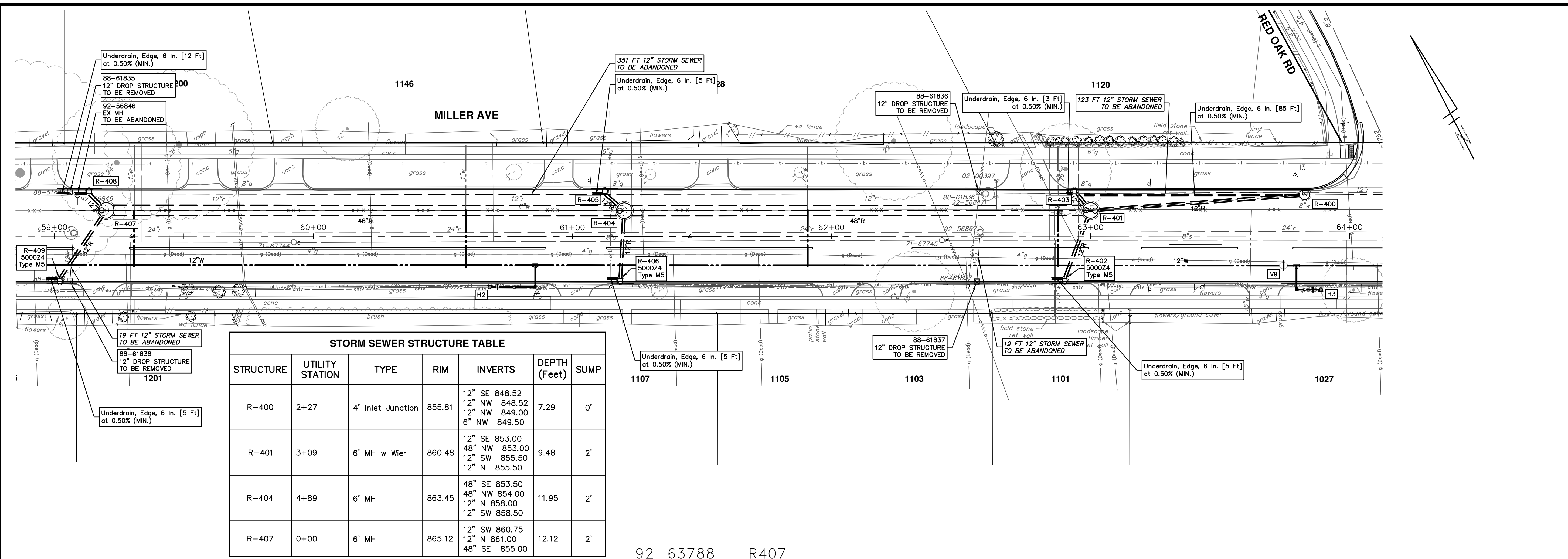
STRUCTURE	UTILITY STATION	TYPE	RIM	INVERTS	DEPTH (Feet)	SUMP
R-300	0+14	4' Inlet Junction	843.77	12" SE 837.75 12" W 837.75 6" NW 838.25	8.02	2'
R-301	0+83	4' High Capacity Inlet	843.00	12" S 838.00 12" NW 838.00 6" SE 838.50	7.00	2'
R-302	1+23	2' Inlet 500024 W/ M5	843.19	12" N 838.33 6" SE 838.83	6.86	2'
R-303	0+19	2' Inlet 500024 W/ M5	843.52	12" N 838.75 6" SE 839.25 6" NW 839.25	6.77	2'
R-410	0+06	2' Inlet	872.30	12" SE 865.75 6" NW 866.25	8.55	2'
R-411	0+45	2' Inlet 500024 W/ M5	872.98	12" E 868.00 6" NW 868.50	6.98	2'



R:\2022034 Miller Ave Rehab\Plan Production\2022034Strm.dwg Dwg Created: 23-Aug-24 - \_g2 standard bw.stb - Plot Date: 30-Aug-24

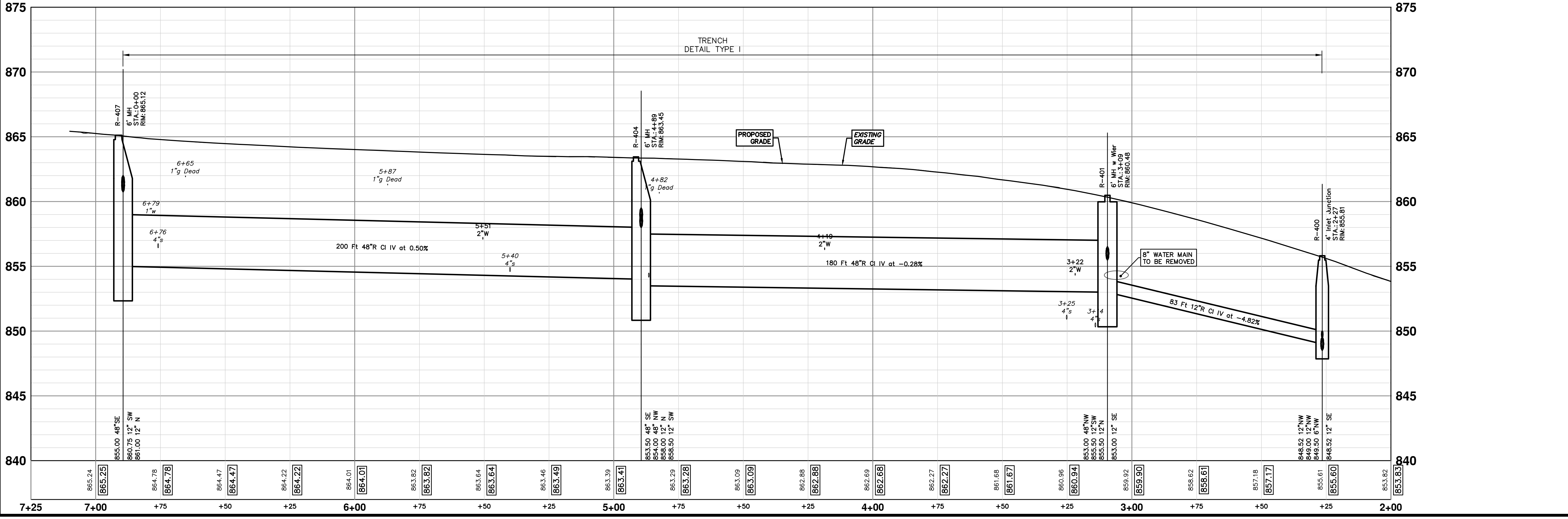


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STRUCTURE	UTILITY STATION	TYPE	RIM	INVERTS	DEPTH (Feet)	SUMP
R-400	2+27	4' Inlet Junction	855.81	12" SE 848.52 12" NW 848.52 12" NW 849.00 6" NW 849.50	7.29	0'
R-401	3+09	6' MH w Wier	860.48	12" SE 853.00 48" NW 853.00 12" SW 855.50 12" N 855.50	9.48	2'
R-404	4+89	6' MH	863.45	48" SE 853.50 48" NW 854.00 12" N 858.00 12" SW 858.50	11.95	2'
R-407	0+00	6' MH	865.12	12" SW 860.75 12" N 861.00 48" SE 855.00	12.12	2'

92-63788 - R407



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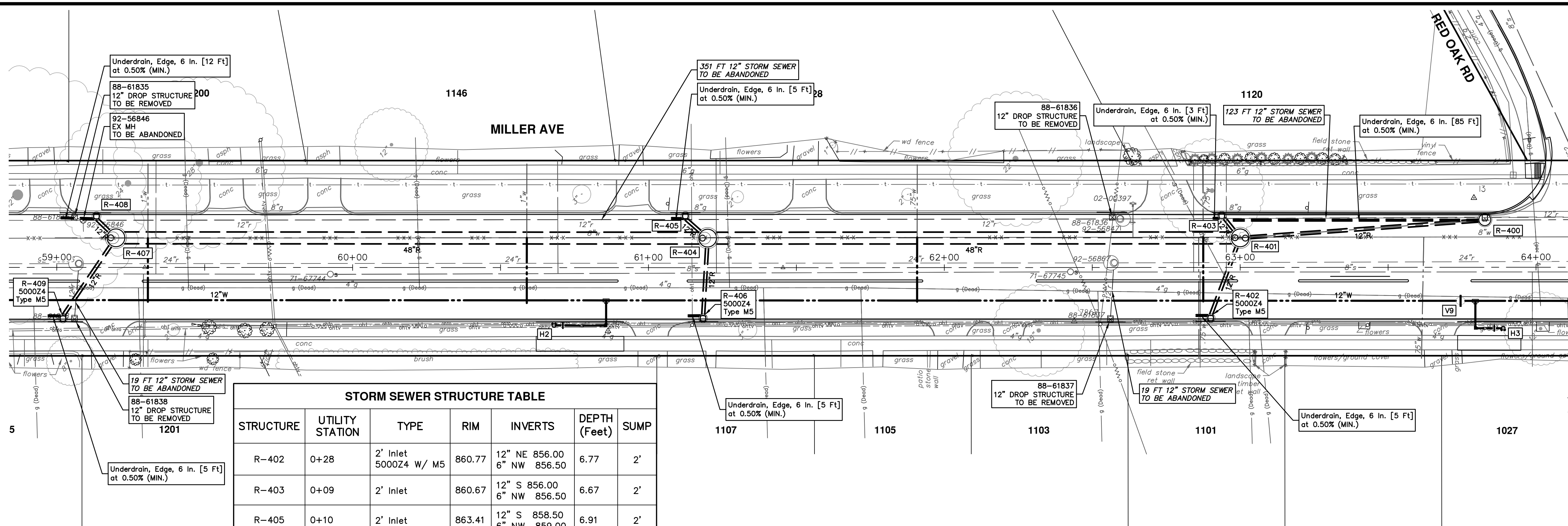
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MILLER AVENUE REHABILITATION  
PROPOSED STORM SEWER

R400, R401, R404, R407

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

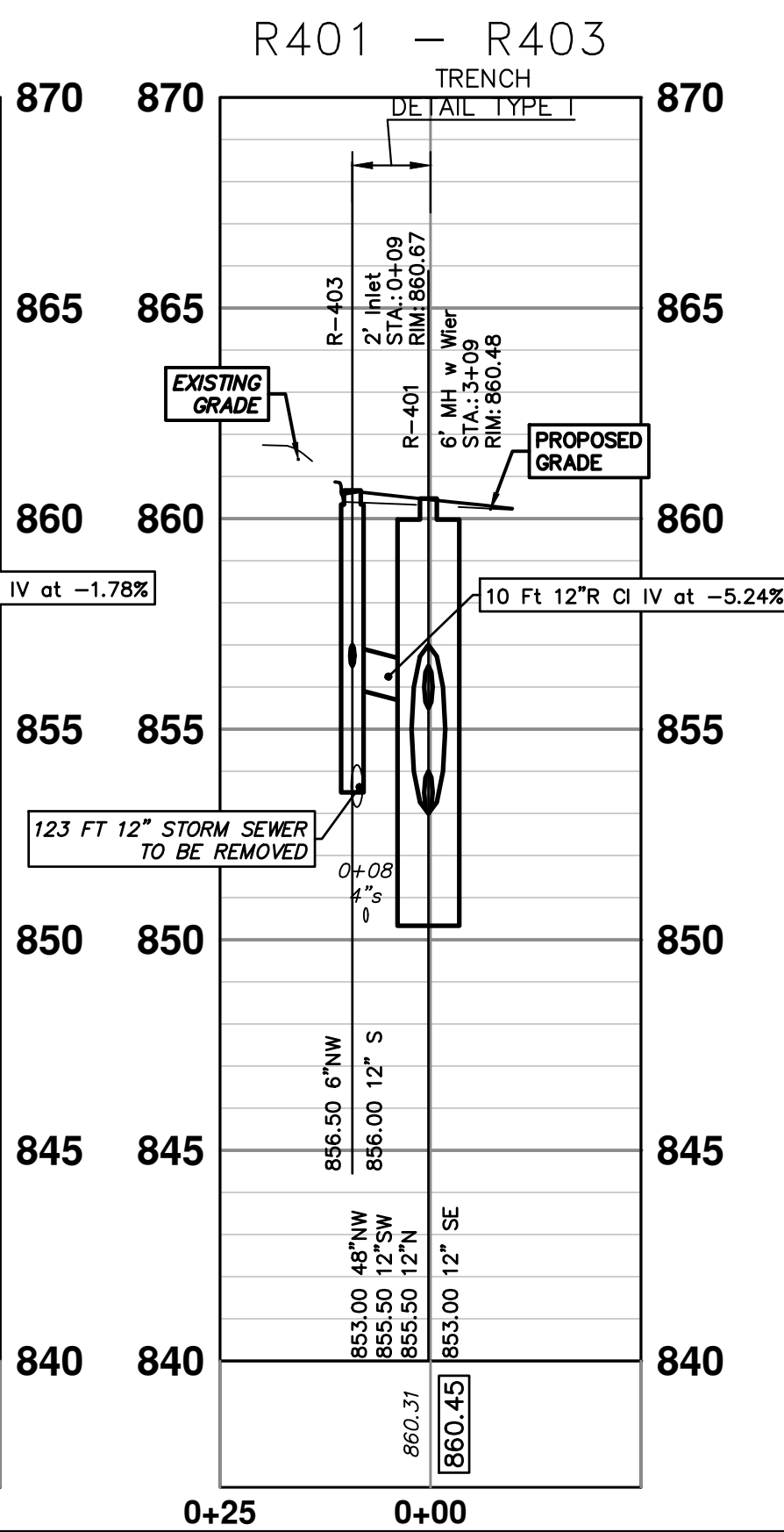
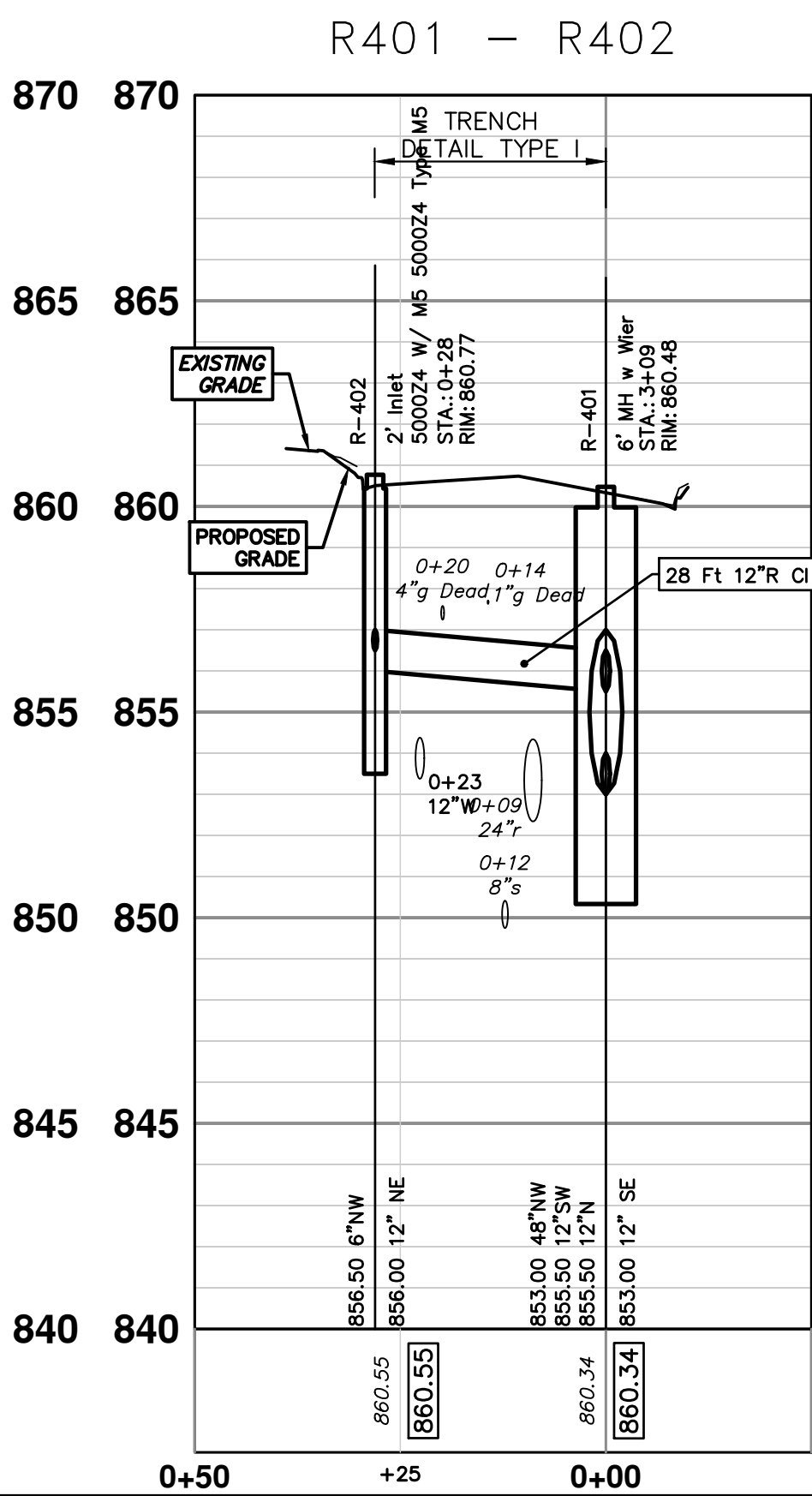
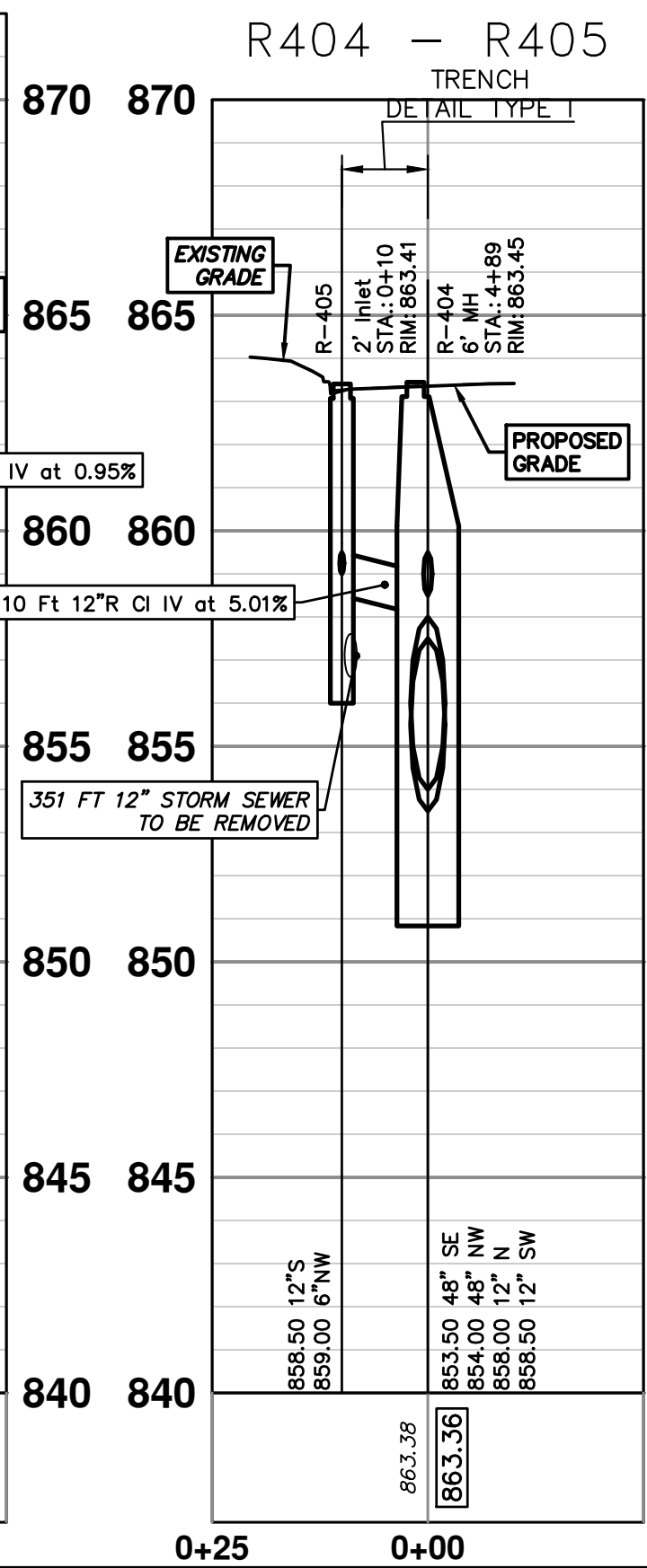
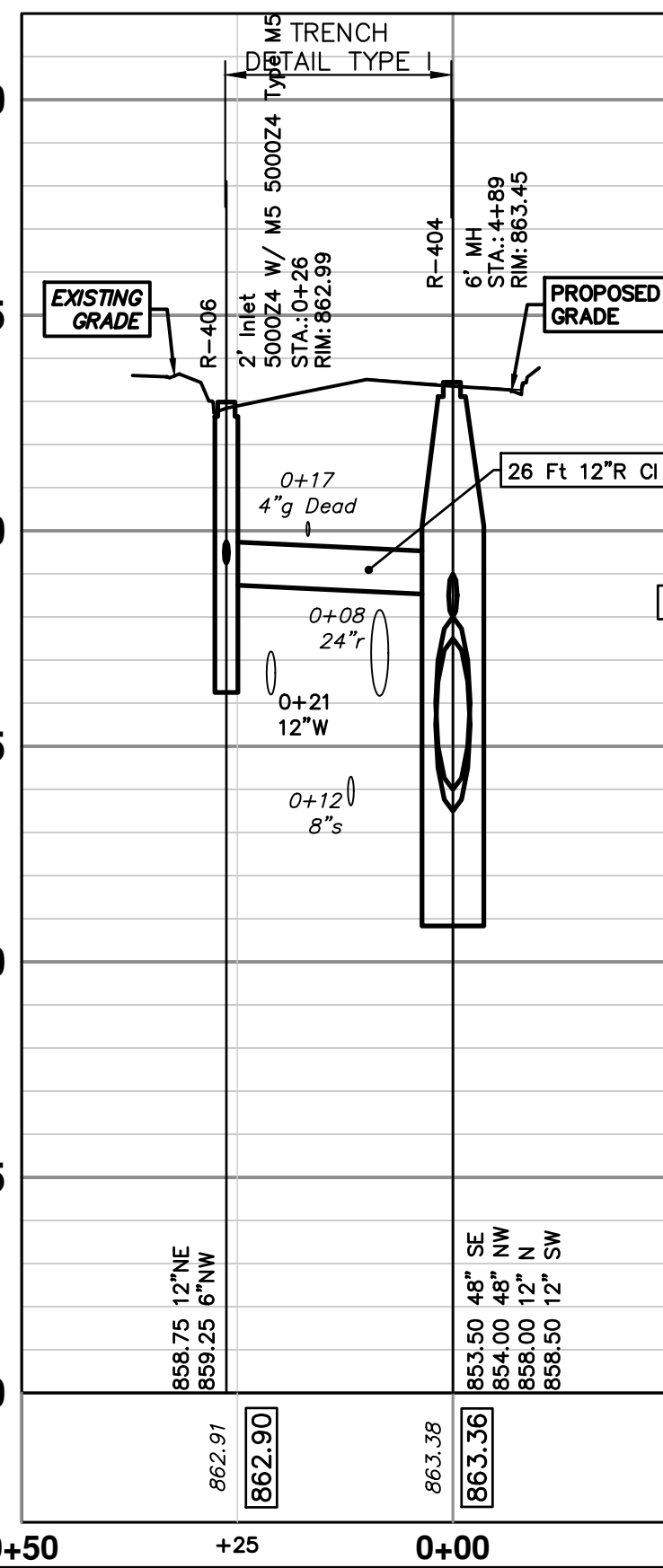
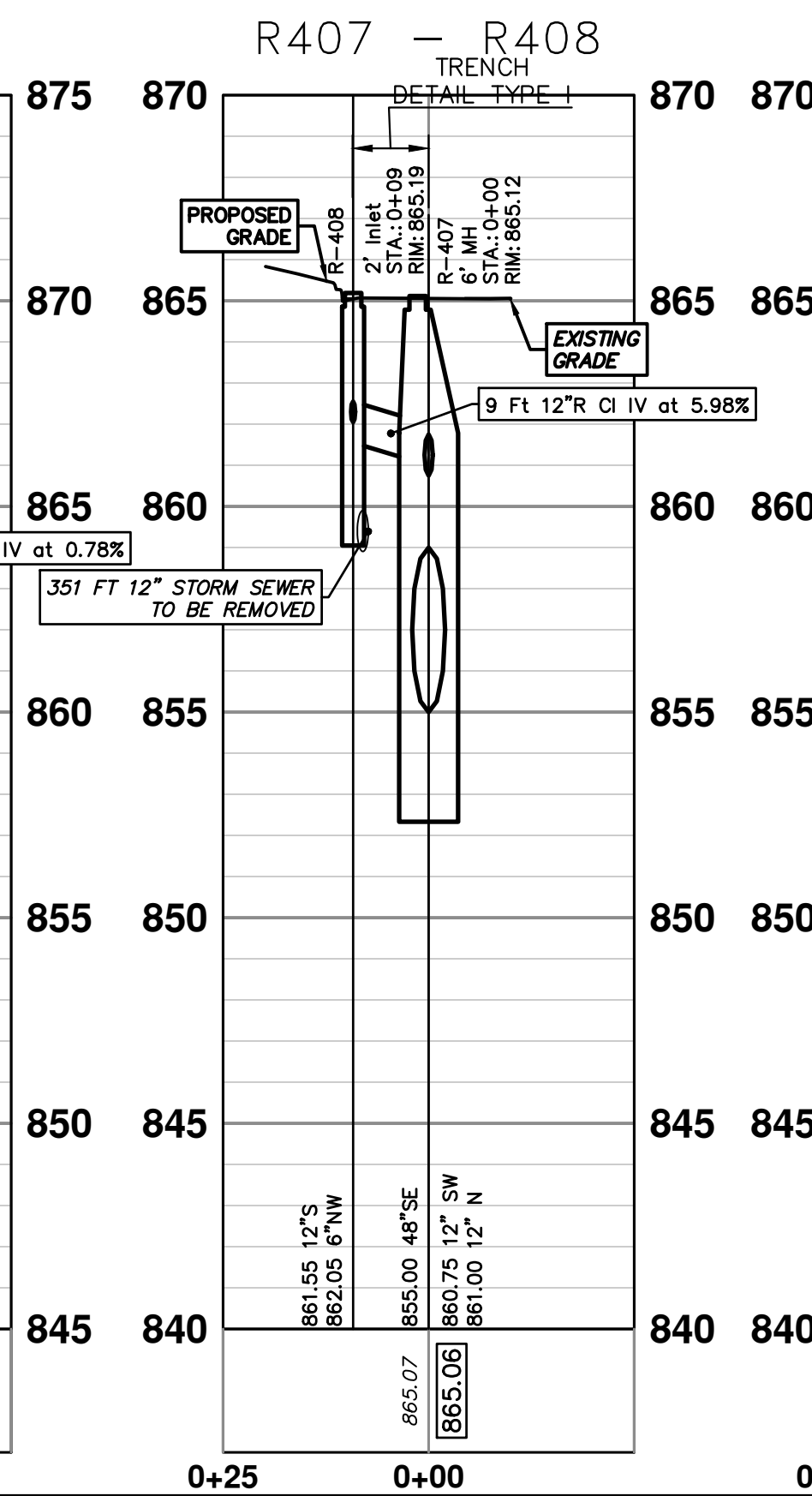
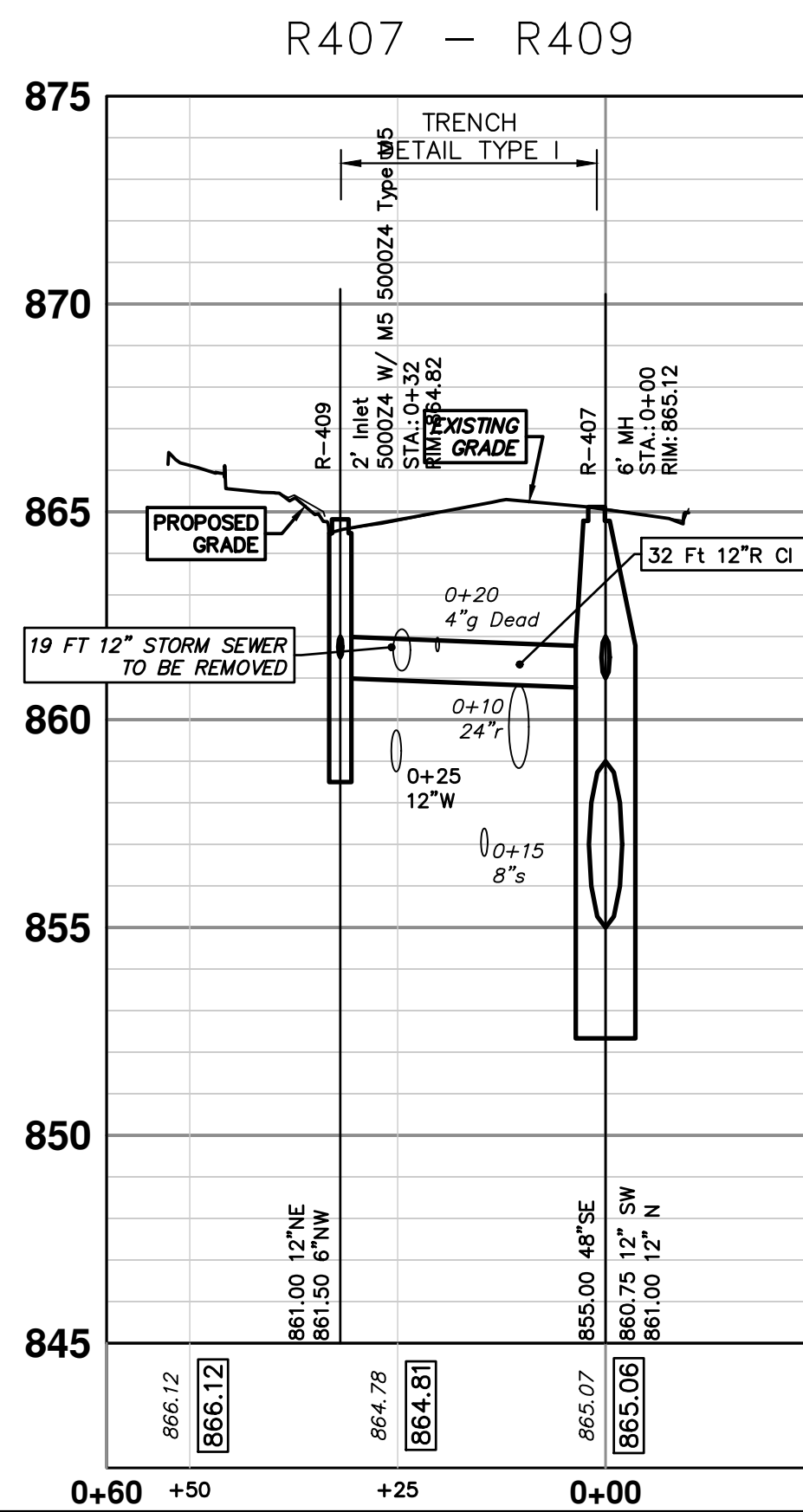
DRAWING NO. 2022034-60  
SHEET NO. 60 OF 132





STRUCTURE	UTILITY STATION	TYPE	RIM	INVERTS	DEPTH (Feet)	SUMP
R-402	0+28	2' Inlet 5000Z4 W/ M5	860.77	12" NE 856.00 6" NW 856.50	6.77	2'
R-403	0+09	2' Inlet	860.67	12" S 856.00 6" NW 856.50	6.67	2'
R-405	0+10	2' Inlet	863.41	12" S 858.50 6" NW 859.00	6.91	2'
R-406	0+26	2' Inlet 5000Z4 W/ M5	862.99	12" NE 858.75 6" NW 859.25	6.24	2'
R-408	0+09	2' Inlet	865.19	12" S 861.55 6" NW 862.05	5.64	2'
R-409	0+32	2' Inlet 5000Z4 W/ M5	864.82	12" NE 861.00 6" NW 861.50	5.82	2'

STRUCTURE	DEPTH (Feet)	REMOVE
88-61837	3.31	12" Drop Structure TO BE REMOVED
88-61836	3.71	12" Drop Structure TO BE REMOVED
88-61838	2.91	12" Drop Structure TO BE REMOVED
88-61835	4.12	12" Drop Structure TO BE REMOVED
92-56846	6.21	EX MH TO BE ABANDONED



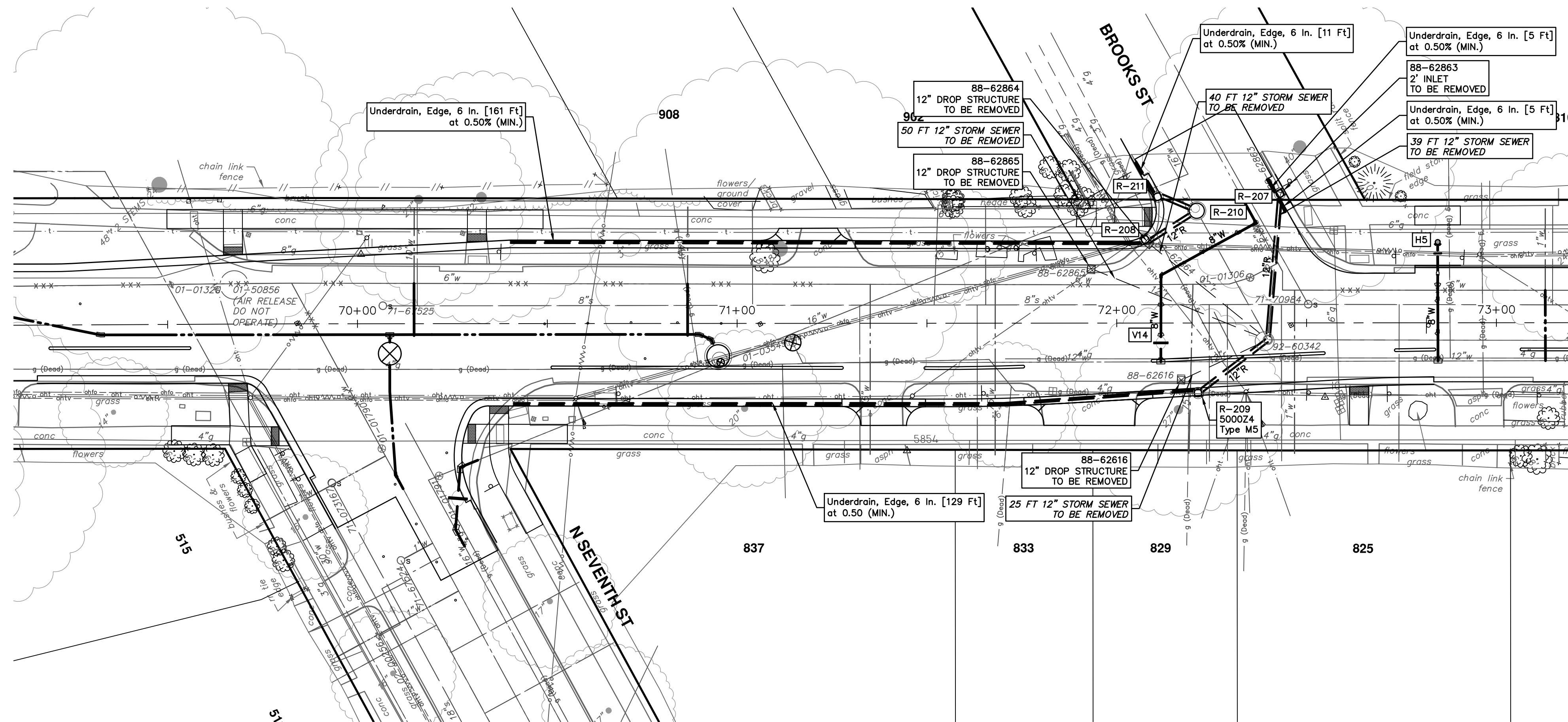
REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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MILLER AVENUE REHABILITATION  
PROPOSED STORM SEWER  
R402, R403, R405, R406, R408, R409



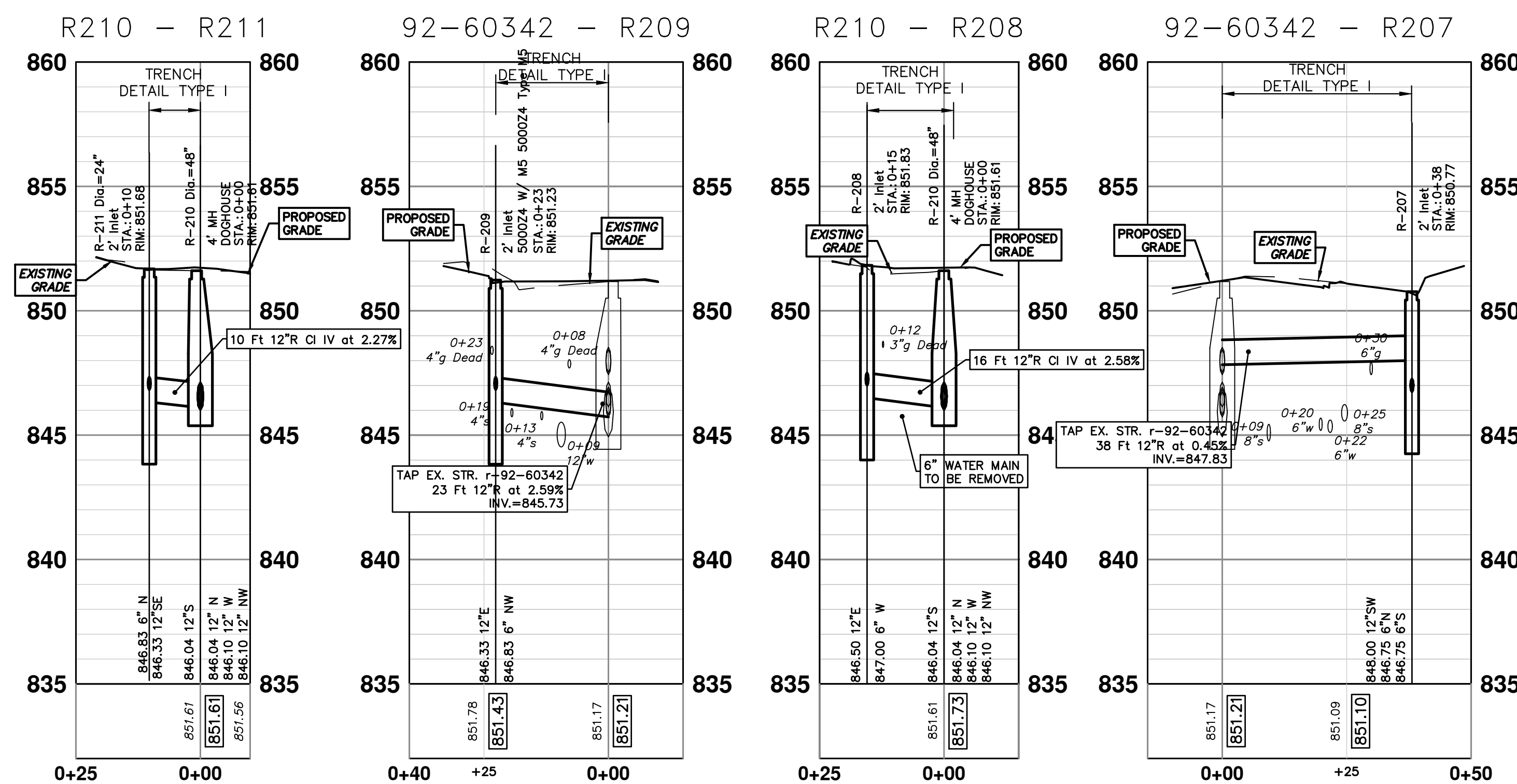


**EXISTING STORM SEWER STRUCTURE REMOVAL TABLE**

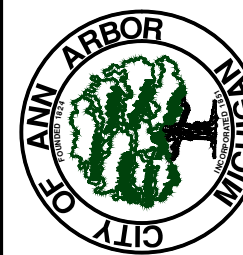
STRUCTURE	DEPTH (Feet)	REMOVE
88-62863	2.00	2' Inlet TO BE REMOVED
88-62616	3.32	12" Drop Structure TO BE REMOVED
88-62864	2.51	12" Drop Structure TO BE REMOVED
88-62865	2.20	12" Drop Structure TO BE REMOVED

**STORM SEWER STRUCTURE TABLE**

STRUCTURE	UTILITY STATION	TYPE	RIM	INVERTS	DEPTH (Feet)	SUMP
R-207	0+38	2' Inlet	850.77	12" SW 848.00 6" N 846.75 6" S 846.75	6.02	2'
R-208	0+15	2' Inlet	851.83	6" W 847.00 12" E 846.50	7.33	2'
R-209	0+23	2' Inlet 5000Z4 W/ M5	851.23	6" NW 846.83 12" E 846.33	6.90	2'
R-210	0+00	4' MH DOGHOUSE	851.61	12" N 846.04 12" W 846.10 12" NW 846.10 12" S 846.04	5.57	0'
R-211	0+10	2' Inlet	851.68	6" N 846.83 12" SE 846.33	7.35	2'

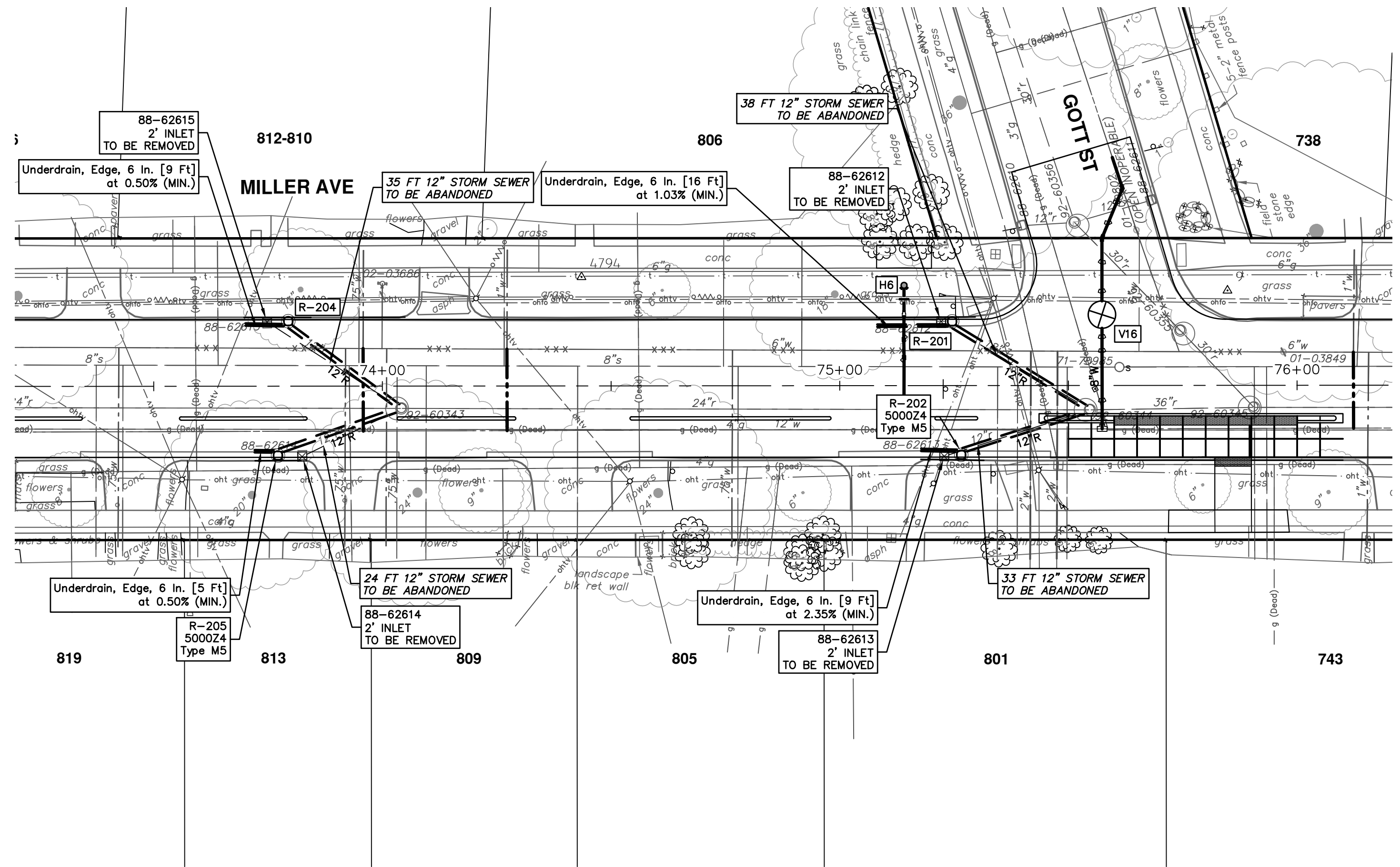


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MILLER AVENUE REHABILITATION  
PROPOSED STORM SEWER  
R207, R208, R209, R210, 211  
PROFILE: 1" = 4'  
SCALE PLAN: #####  
DRAWING NO.: 2022034-62  
SHEET NO.: 62 OF 132





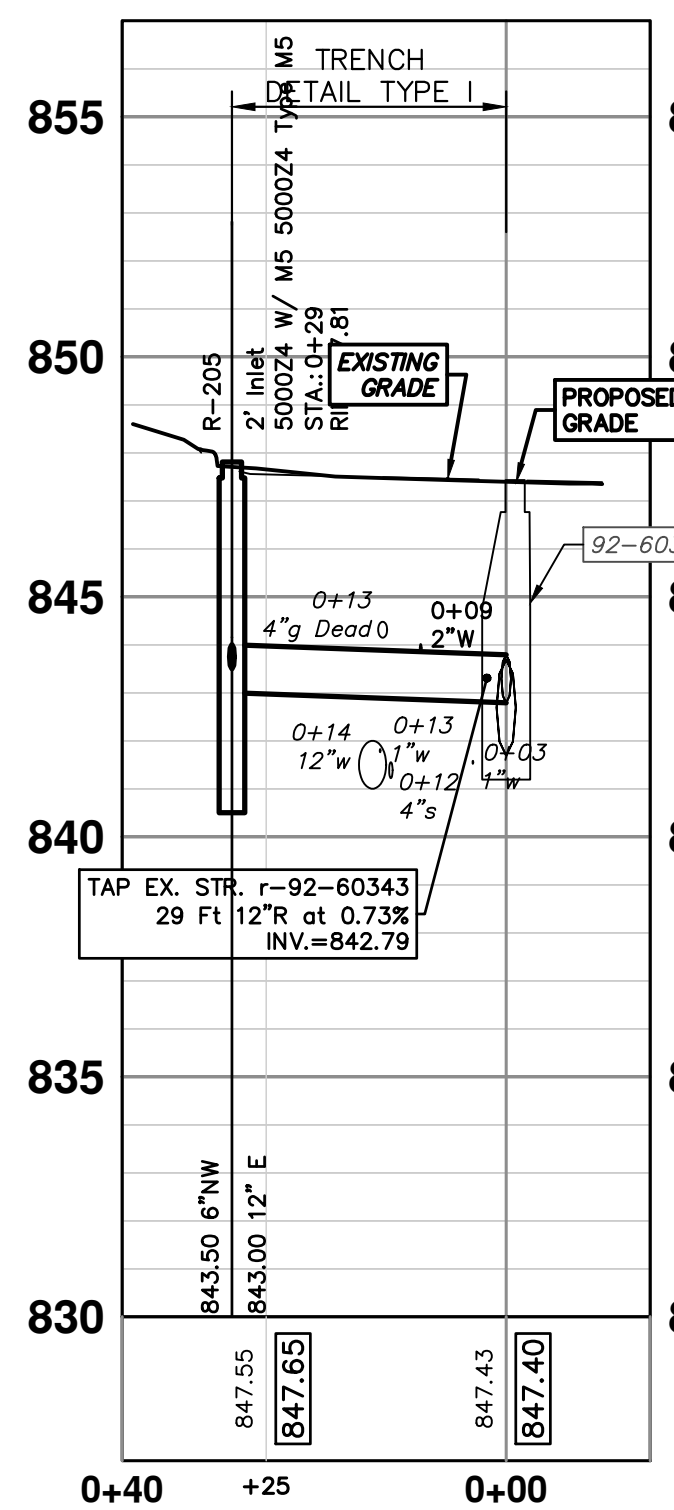
**EXISTING STORM SEWER STRUCTURE REMOVAL TABLE**

STRUCTURE	DEPTH (Feet)	REMOVE
88-62614	3.61	2' Inlet TO BE REMOVED
88-62615	4.10	2' Inlet TO BE REMOVED
88-62612	3.60	2' Inlet TO BE REMOVED
88-62613	2.90	2' Inlet TO BE REMOVED

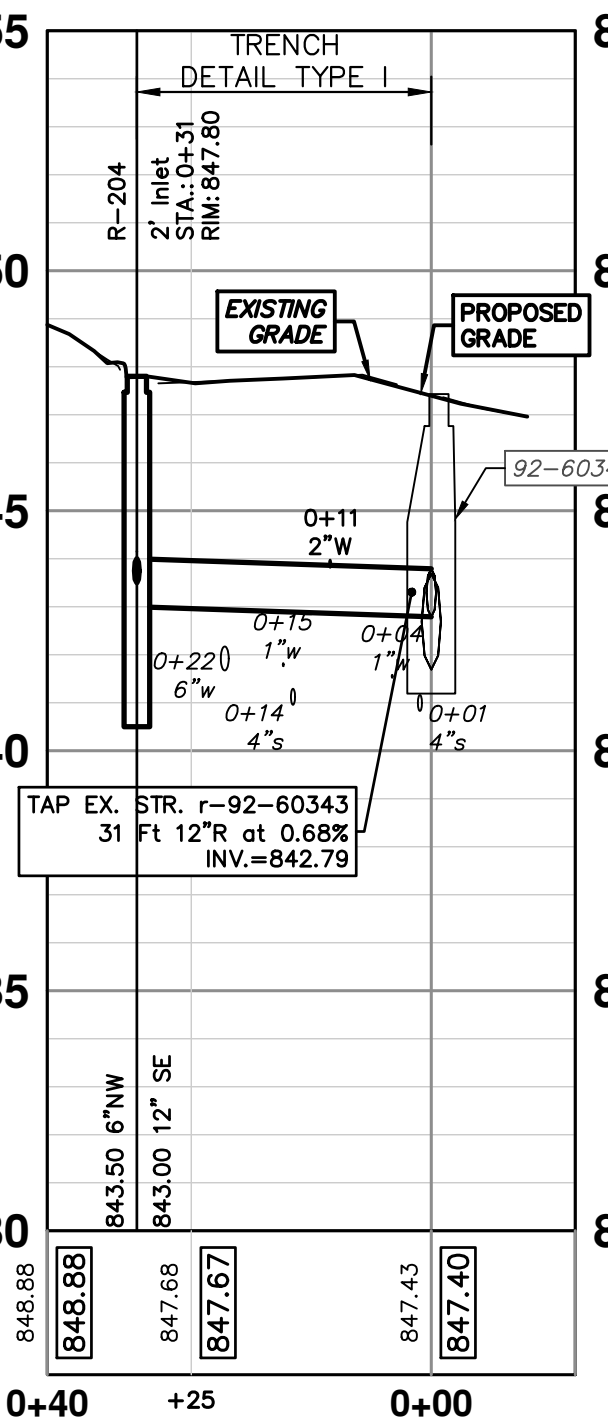
**STORM SEWER STRUCTURE TABLE**

STRUCTURE	UTILITY STATION	TYPE	RIM	INVERTS	DEPTH (Feet)	SUMP
R-201	0+35	2' Inlet	843.76	12" SE 839.25 6" NW 839.75	6.51	2'
R-202	0+30	2' Inlet 5000Z4 W/ M5	843.75	12" E 839.25 6" NW 839.75	6.50	2'
R-204	0+31	2' Inlet	847.80	12" SE 843.00 6" NW 843.50	6.80	2'
R-205	0+29	2' Inlet 5000Z4 W/ M5	847.81	12" E 843.00 6" NW 843.50	6.81	2'

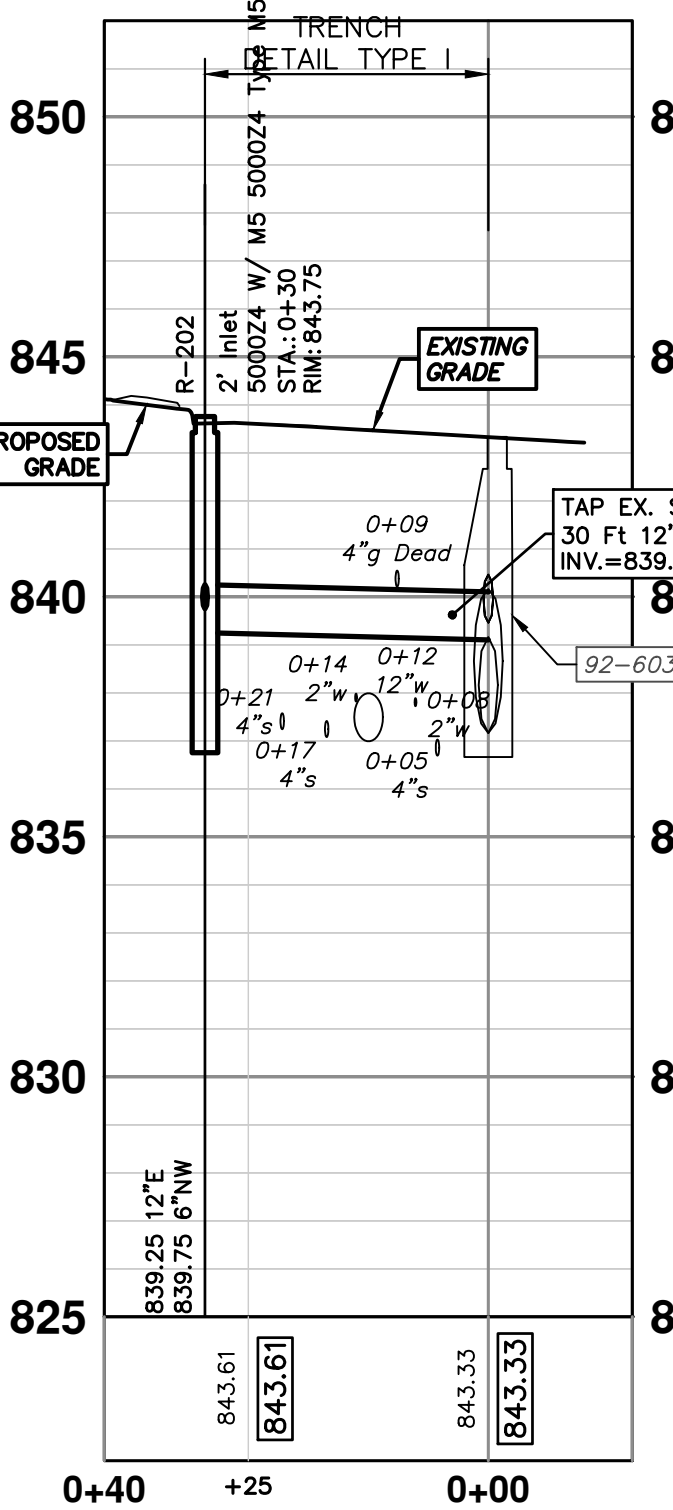
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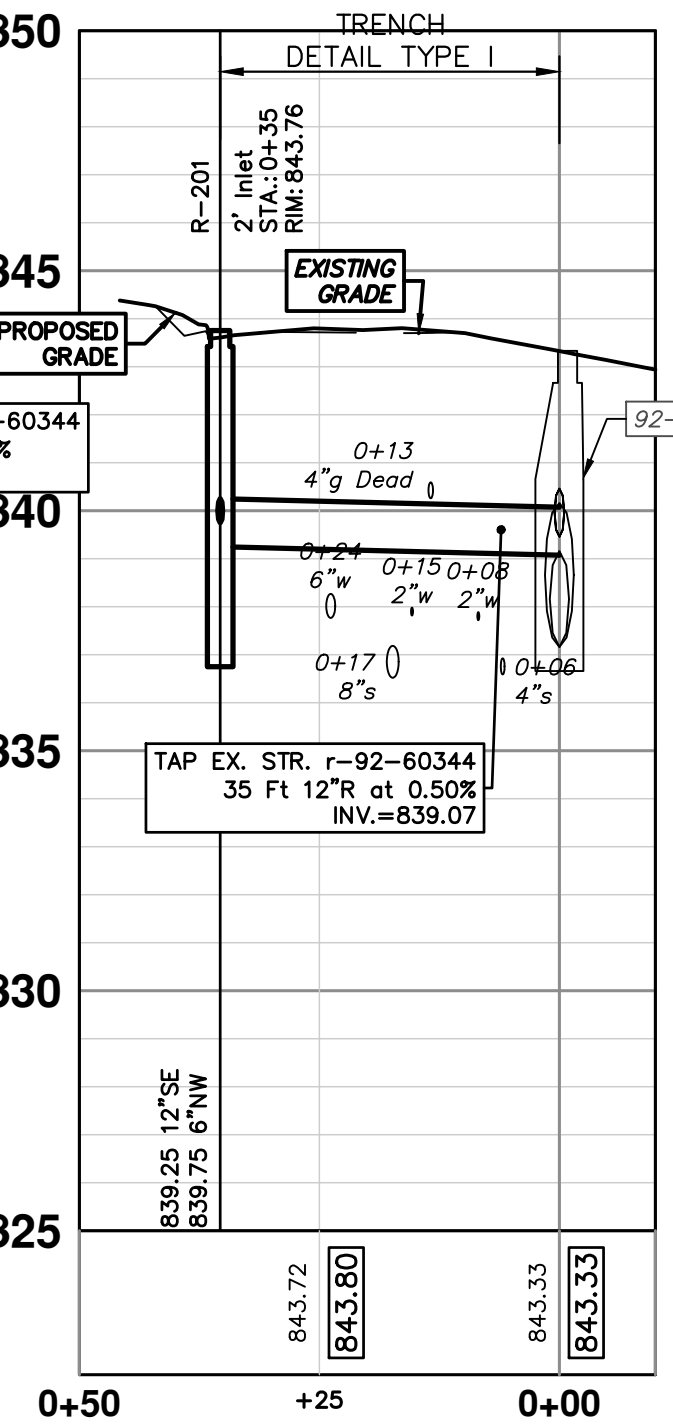
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92-60344 - R202



92-60344 - R201



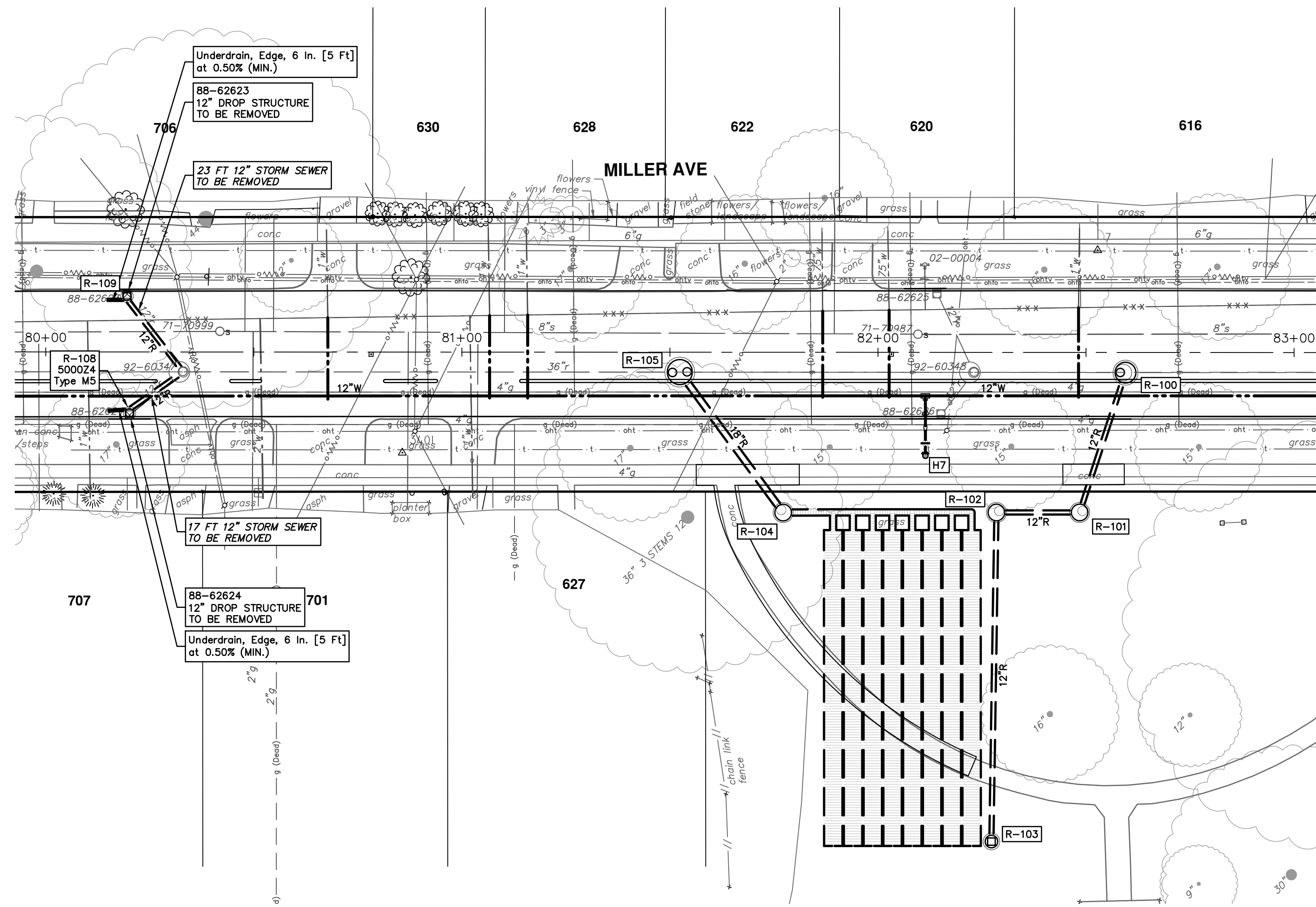
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PROPOSED STORM SEWER  
R201 R202 R204 R205

SCALE PLAN: #####  
PROFILE: 1" = 4'  
DRAWING NO.: 202034-63  
SHEET NO. 63 OF 132



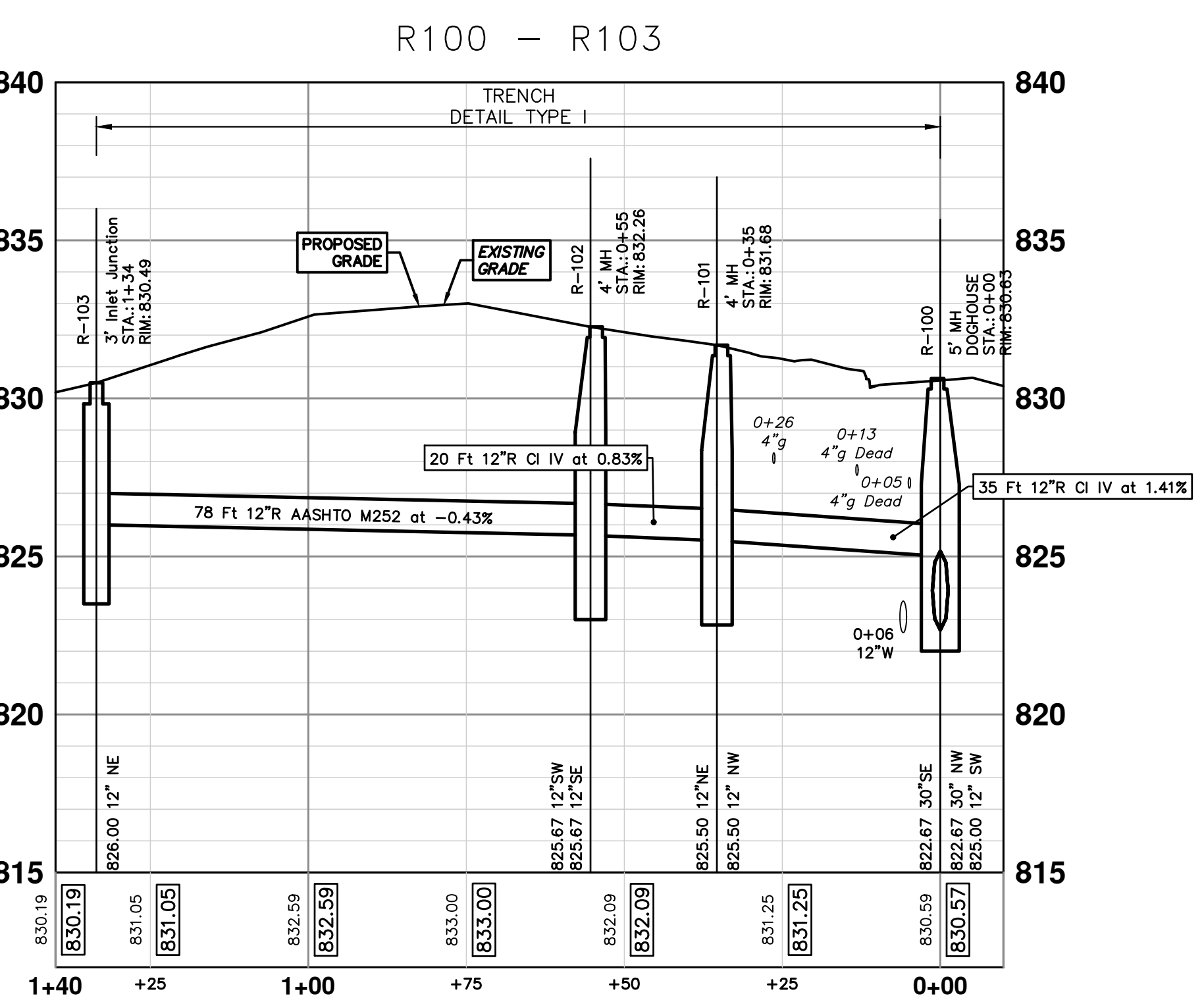
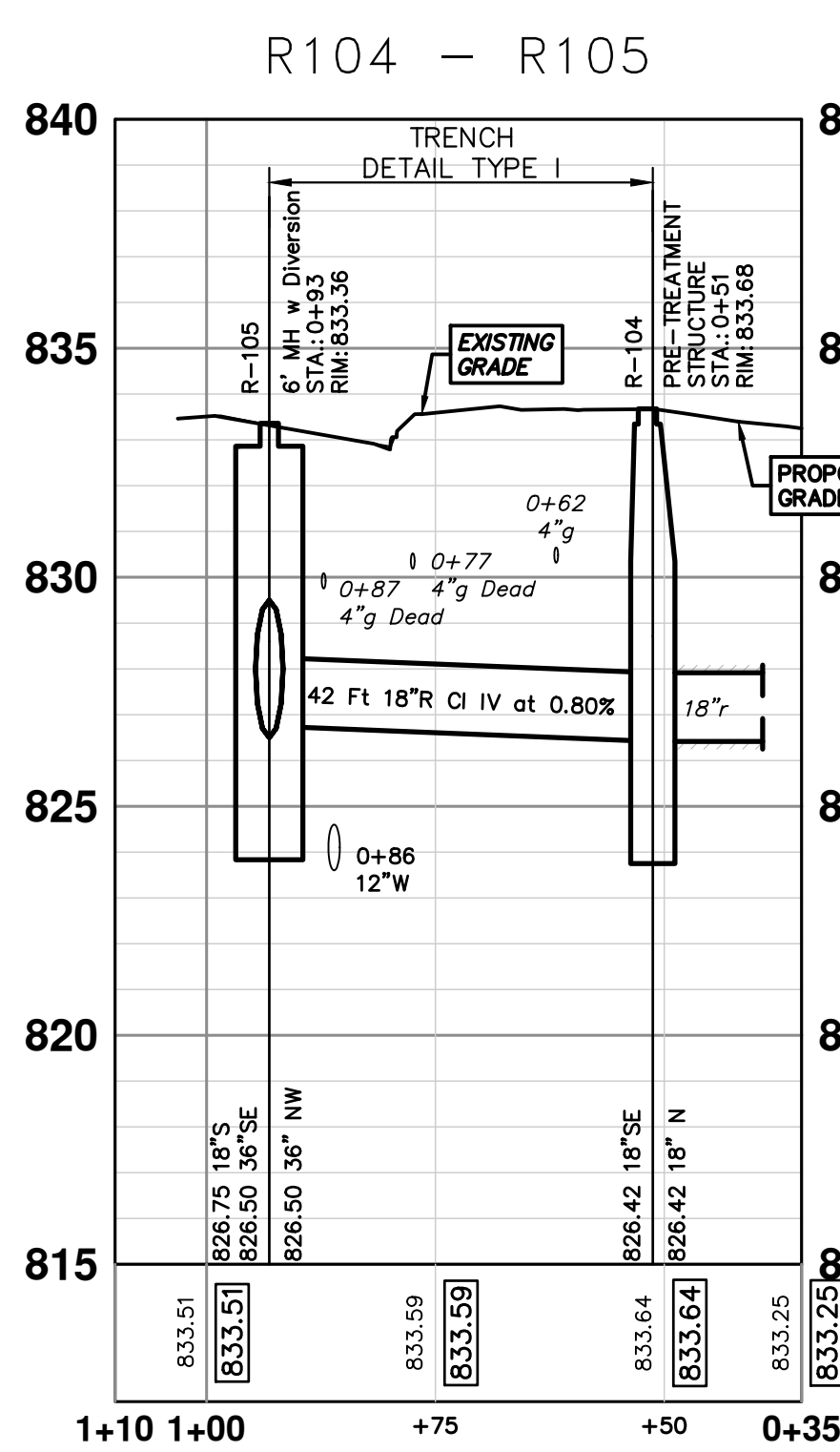
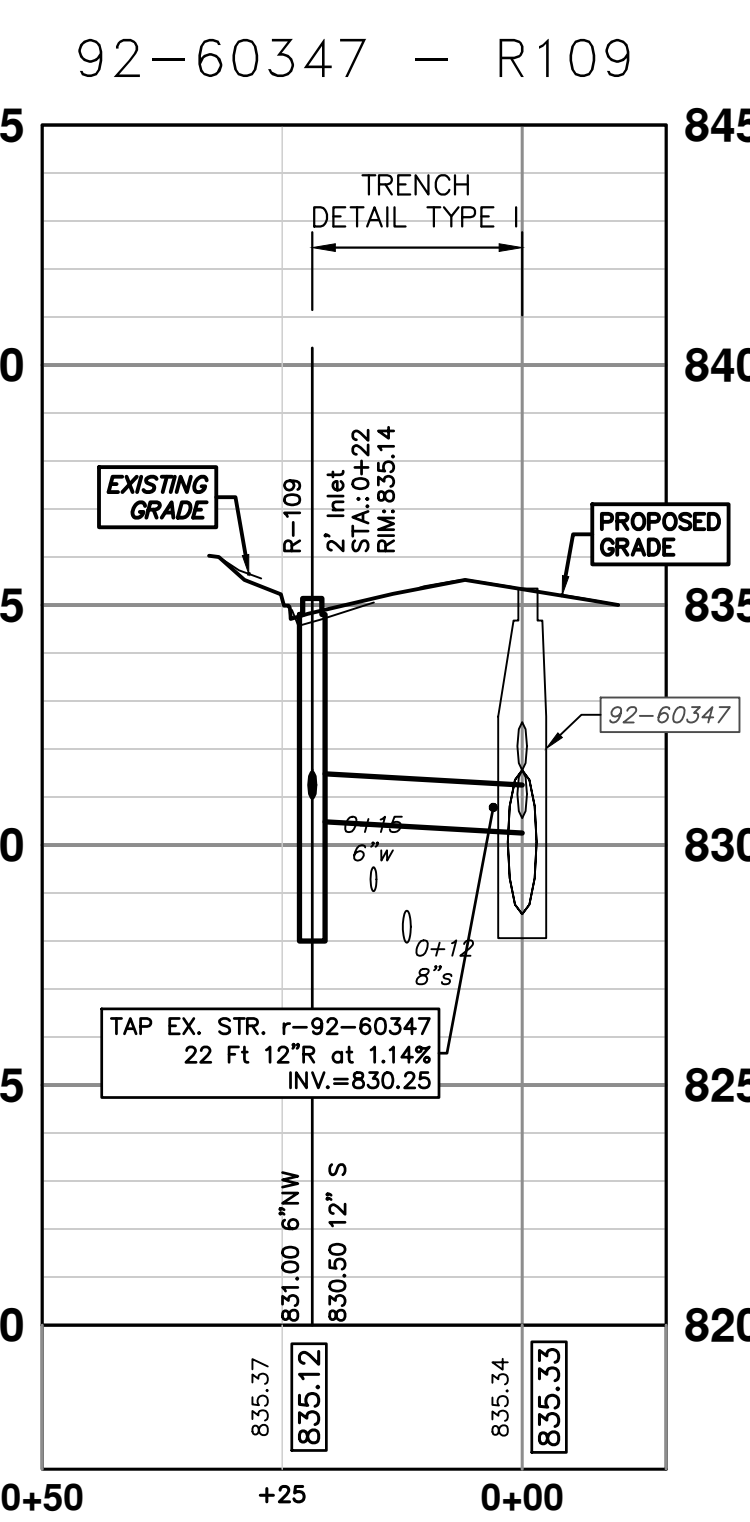
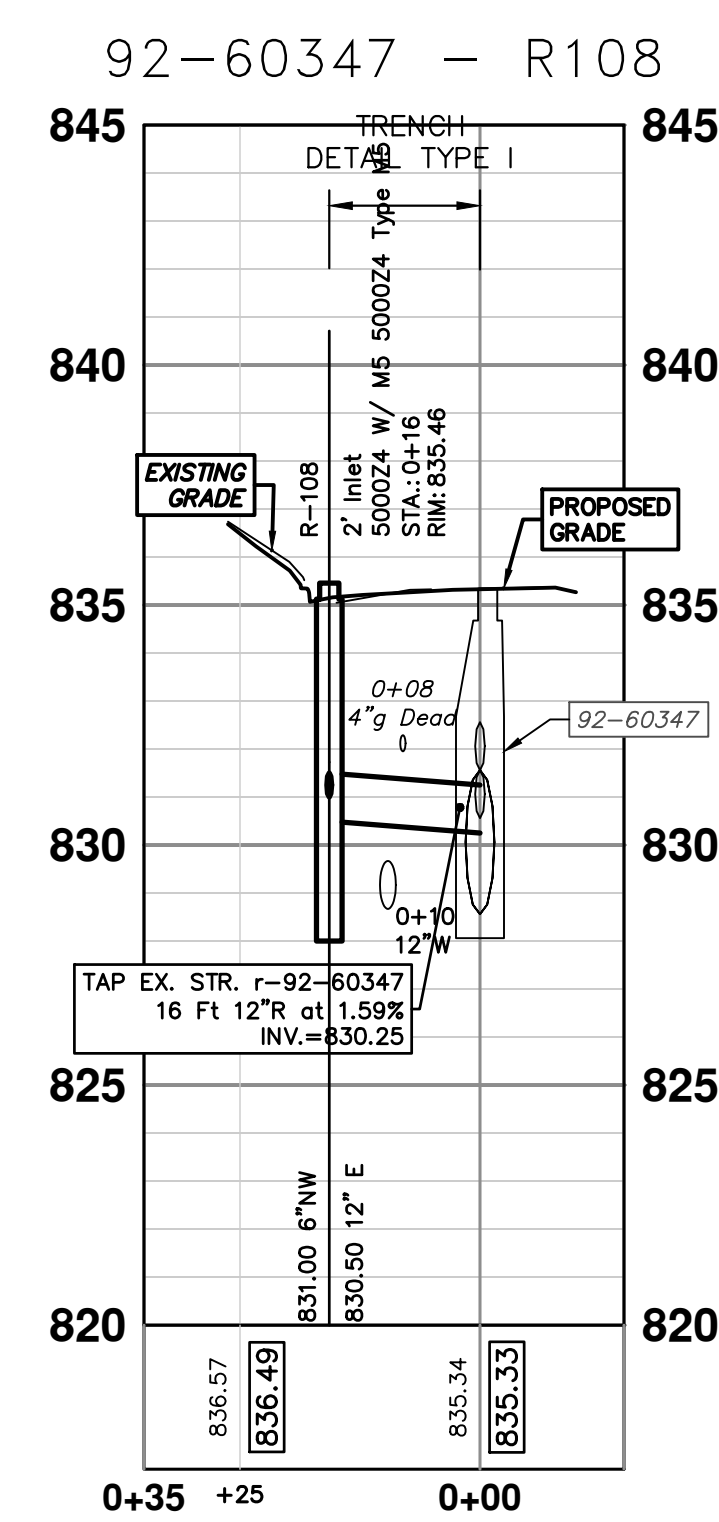


**EXISTING STORM SEWER STRUCTURE REMOVAL TABLE**

STRUCTURE	DEPTH (Feet)	REMOVE
88-62623	2.21	12" Drop Structure TO BE REMOVED
88-62624	4.00	12" Drop Structure TO BE REMOVED

**STORM SEWER STRUCTURE TABLE**

STRUCTURE	UTILITY STATION	TYPE	RIM	INVERTS	DEPTH (Feet)	SUMP
R-100	0+00	5' MH DOGHOUSE	830.63	30" NW 822.67 12" SW 825.00 30" SE 822.67	7.96	0'
R-101	0+35	4' MH	831.68	12" NW 825.50 12" NE 825.50	8.18	2'
R-102	0+55	4' MH	832.26	12" SW 825.67 12" SE 825.67	8.59	2'
R-103	1+34	3' Inlet Junction	830.49	12" NE 826.00	6.49	2'
R-104	0+51	PRE-TREATMENT STRUCTURE	833.68	18" N 826.42 18" SE 826.42	9.26	2'
R-105	0+93	6' MH w Diversion	833.36	36" NW 826.50 18" S 826.75 36" SE 826.50	8.86	2'
R-108	0+16	2' Inlet 5000Z4 W/ M5	835.46	12" E 830.50 6" NW 831.00	6.96	2'
R-109	0+22	2' Inlet	835.14	12" S 830.50 6" NW 831.00	6.64	2'



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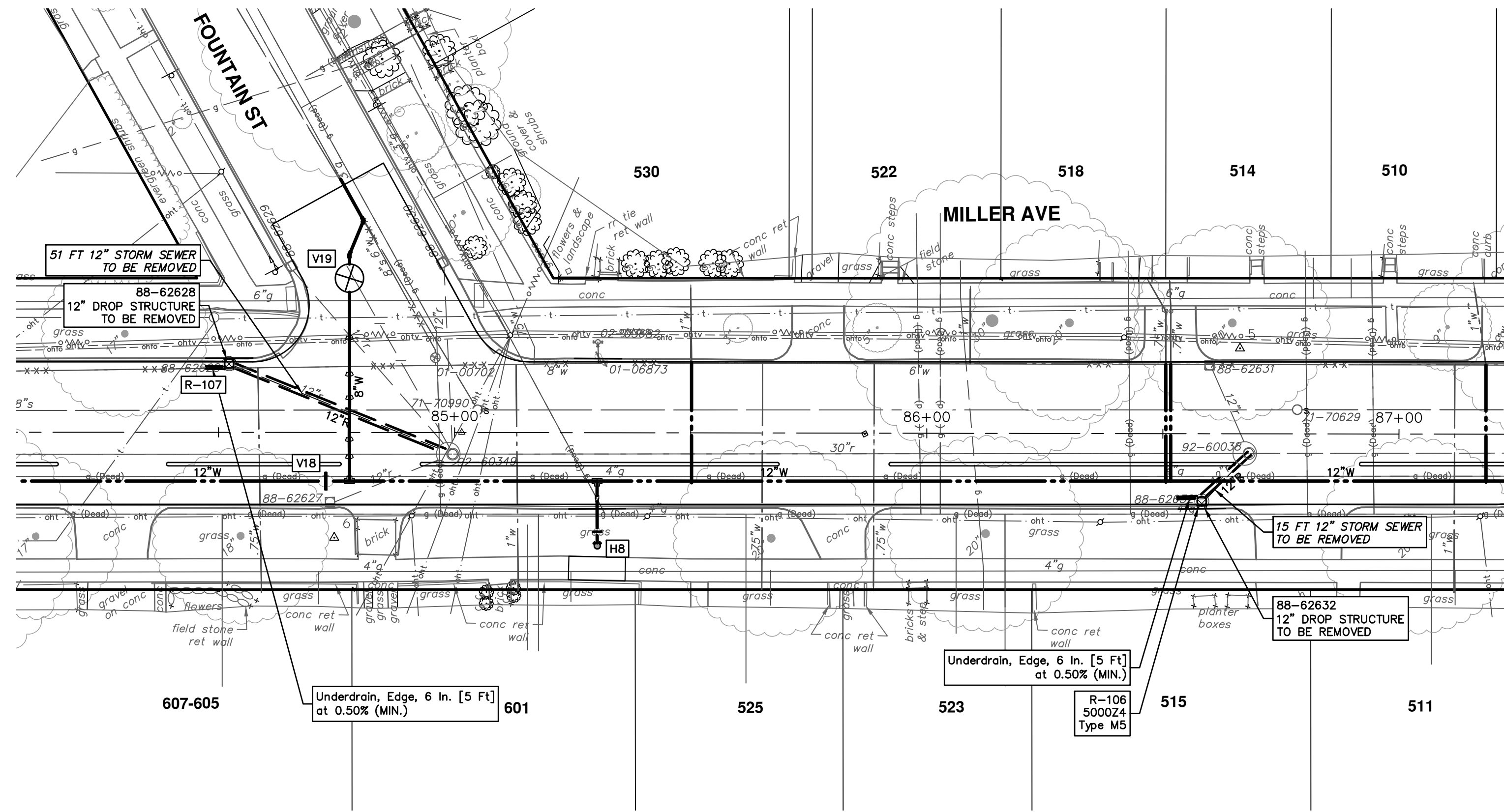
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MILLER AVENUE REHABILITATION  
PROPOSED STORM SEWER

R100, R101, R102, R103, R104, R105, R108, R109

SCALE PLAN: #####  
PROFILE: 1" = 4'  
DRAWING NO: 2022034-64  
SHEET NO: 64 OF 132

REV.	DESCRIPTION	DATE	DRAWN	CHECKED



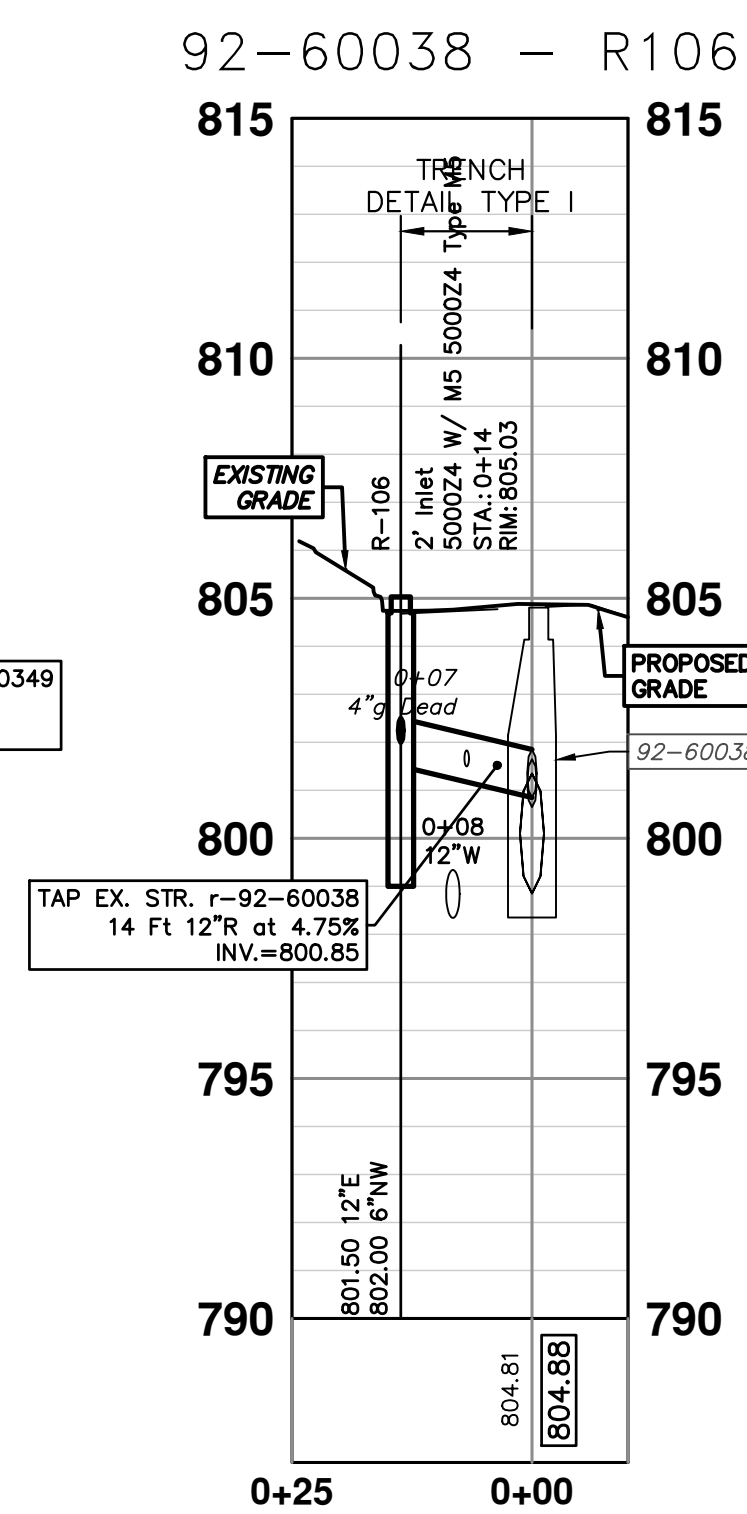
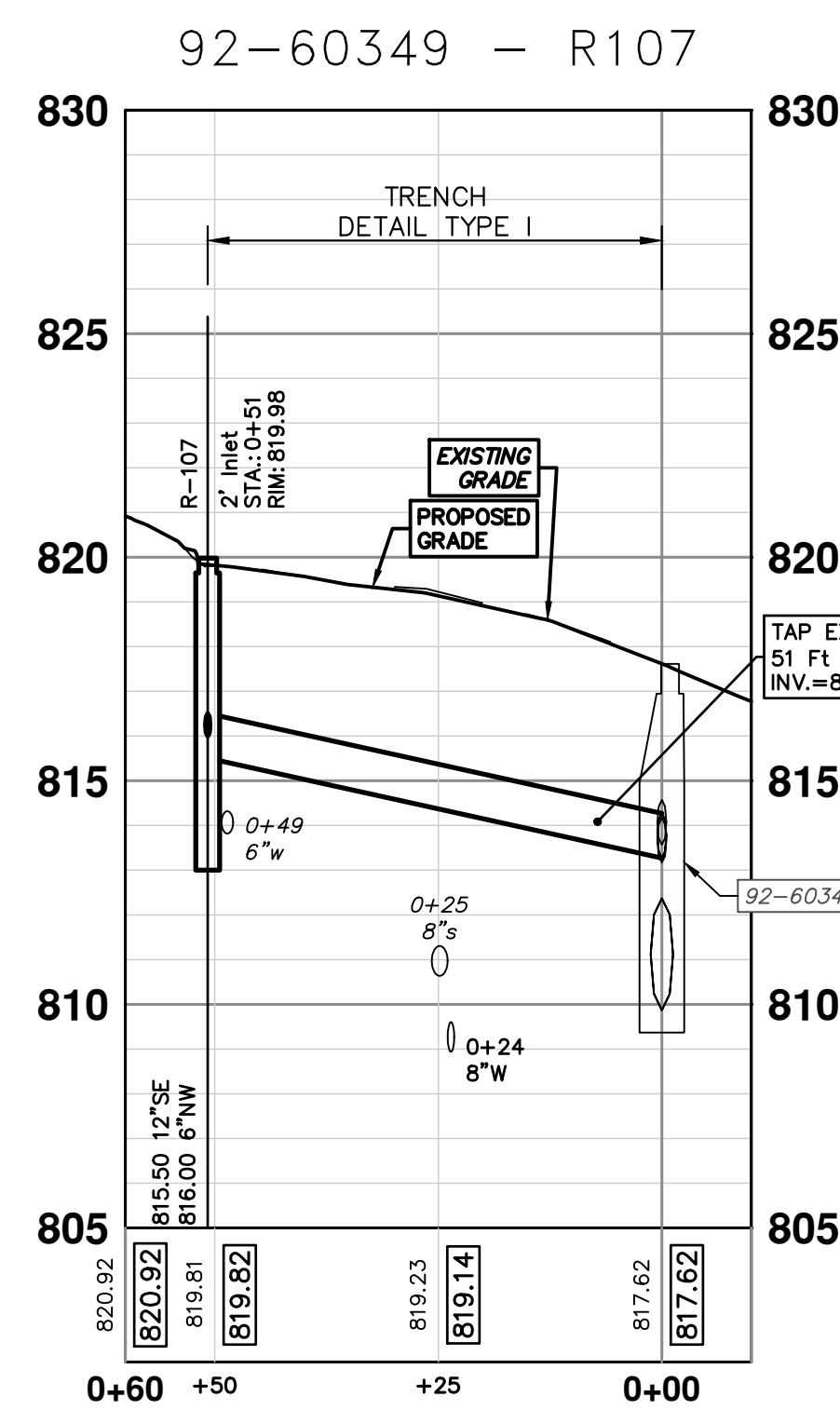


**EXISTING STORM SEWER STRUCTURE REMOVAL TABLE**

STRUCTURE	DEPTH (Feet)	REMOVE
88-62628	2.41	12" Drop Structure TO BE REMOVED
88-62632	2.71	12" Drop Structure TO BE REMOVED

**STORM SEWER STRUCTURE TABLE**

STRUCTURE	UTILITY STATION	TYPE	RIM	INVERTS	DEPTH (Feet)	SUMP
R-106	0+14	2' Inlet 5000Z4 W/ M5	805.03	12" E 801.50 6" NW 802.00	5.53	2'
R-107	0+51	2' Inlet	819.98	12" SE 815.50 6" NW 816.00	6.48	2'



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MILLER AVENUE REHABILITATION

PROPOSED STORM SEWER

R106,R107

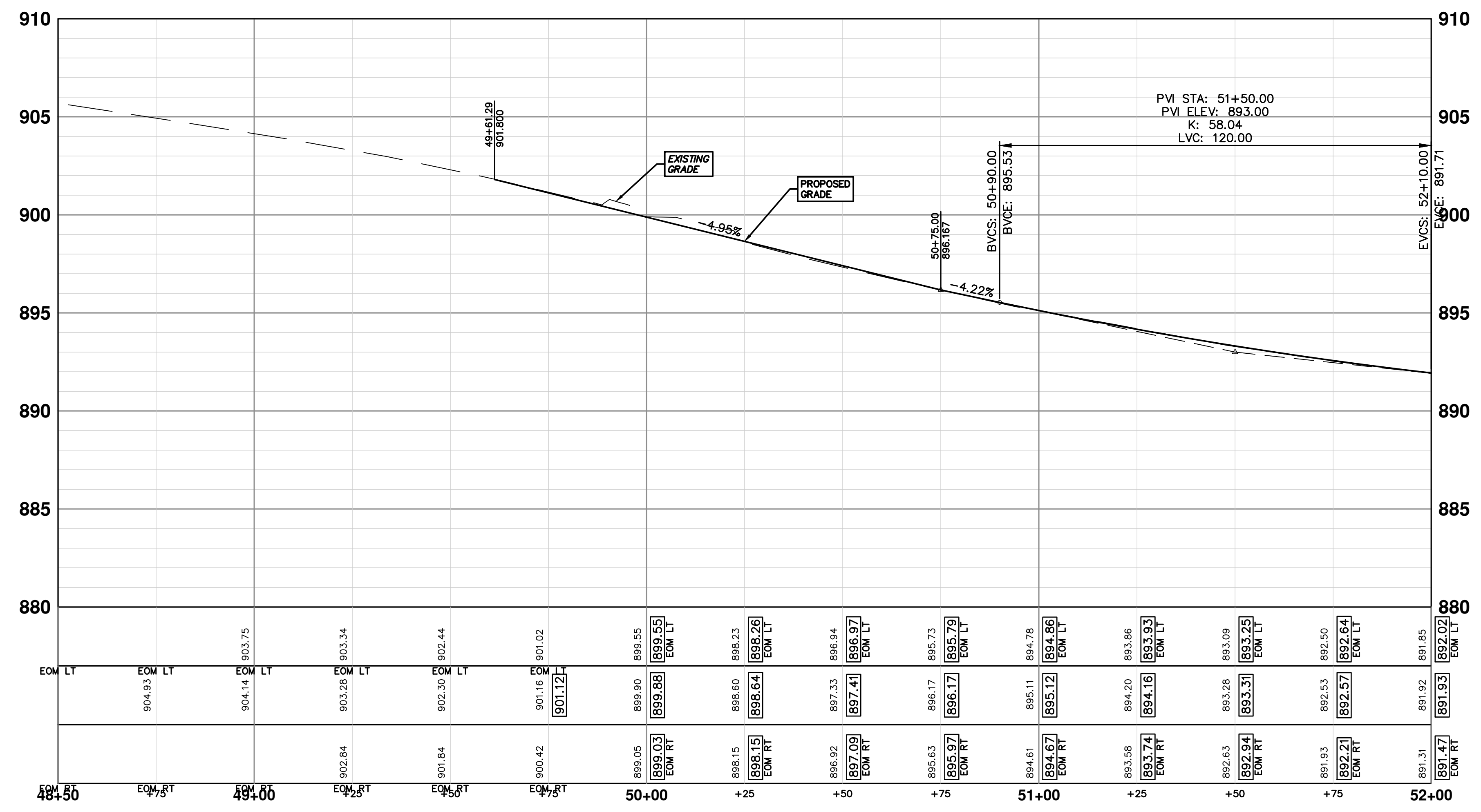
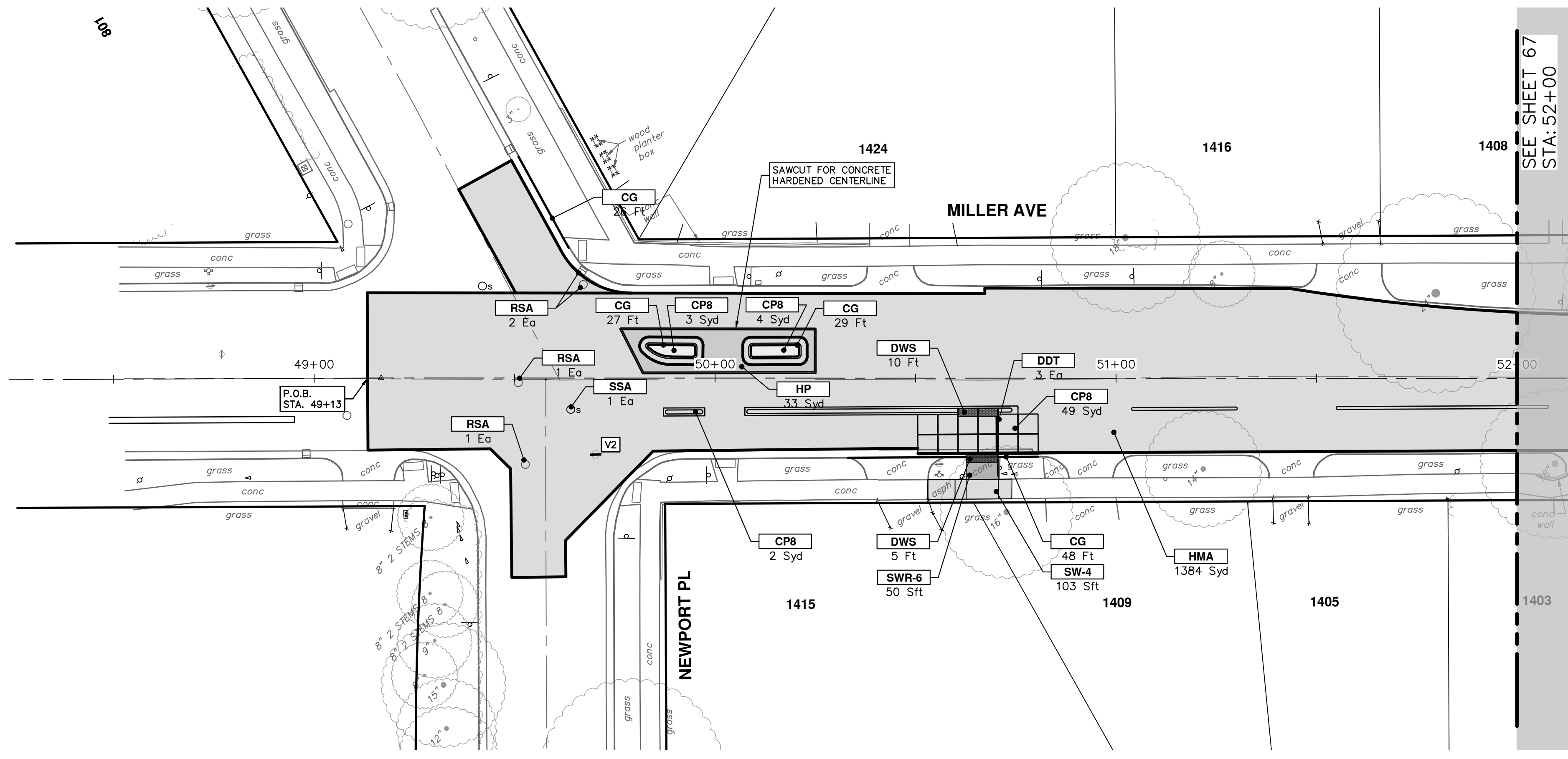
SHEET No. **65 OF 132**

DRAWING No. **2022034-65**

PROFILE: 1" = 4'



R:\2022034\_Miller Ave Rehab\Plan Production\2022034Prd.dwg Dwg Created: 29-Aug-24 - \_02 standard bw.stb - Plot Date: 30-Aug-24



CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	HMA Approach
HP	Hand Patching
CG	Conc, Curb or Curb & Gutter, All Types
DOM	Conc, Driveway Opening, Type M
DOM-HE	Conc, Driveway Opening, Type M, High Early
DG-6	DRIVEWAY GRAVEL 6 INCH 21AA LIMESTONE, C.I.P.
MGD	MACHINE GRADING, DRIVEWAY
SW-4	Conc, Sidewalk, 4 In.
SWR-6	Conc, Sidewalk, Drive Approach, or Ramp, 6 In.
SW6-HE	Conc, Sidewalk, Drive Approach, or Ramp, 6 In., High Early
SW8	Conc, Sidewalk, Drive Approach, or Ramp, 8 In.
CP8	Conc Pavt, Non-Reinf, 8 in.
DWS	Detectable Warning Surface
DDT	Detectable Directional Tiles
ABO	ADJUST BY OTHERS
AMB	Monument Box, Adjust
AGB	Gate Box, Adjust
RSA	Storm Structure Cover, Adjust
SSA	Sanitary Structure Cover, Adjust
WSA	Water Structure Cover, Adjust

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

**MILLER AVENUE REHABILITATION**

ROAD PLAN & PROFILE

STA. 49+13 - STA. 52+00

SHEET No. 66 OF 132

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

DRAWING No. 2022034-66

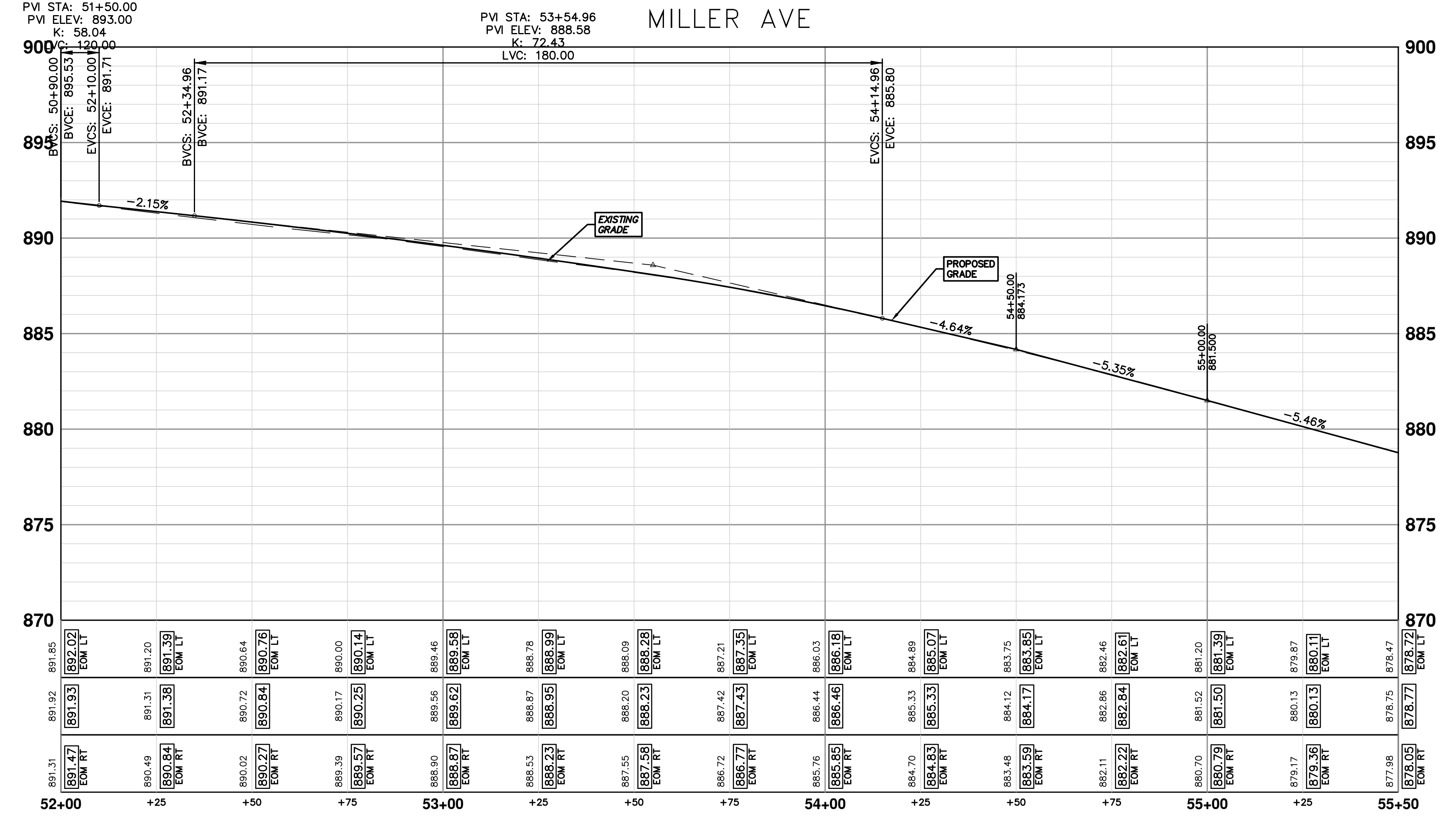
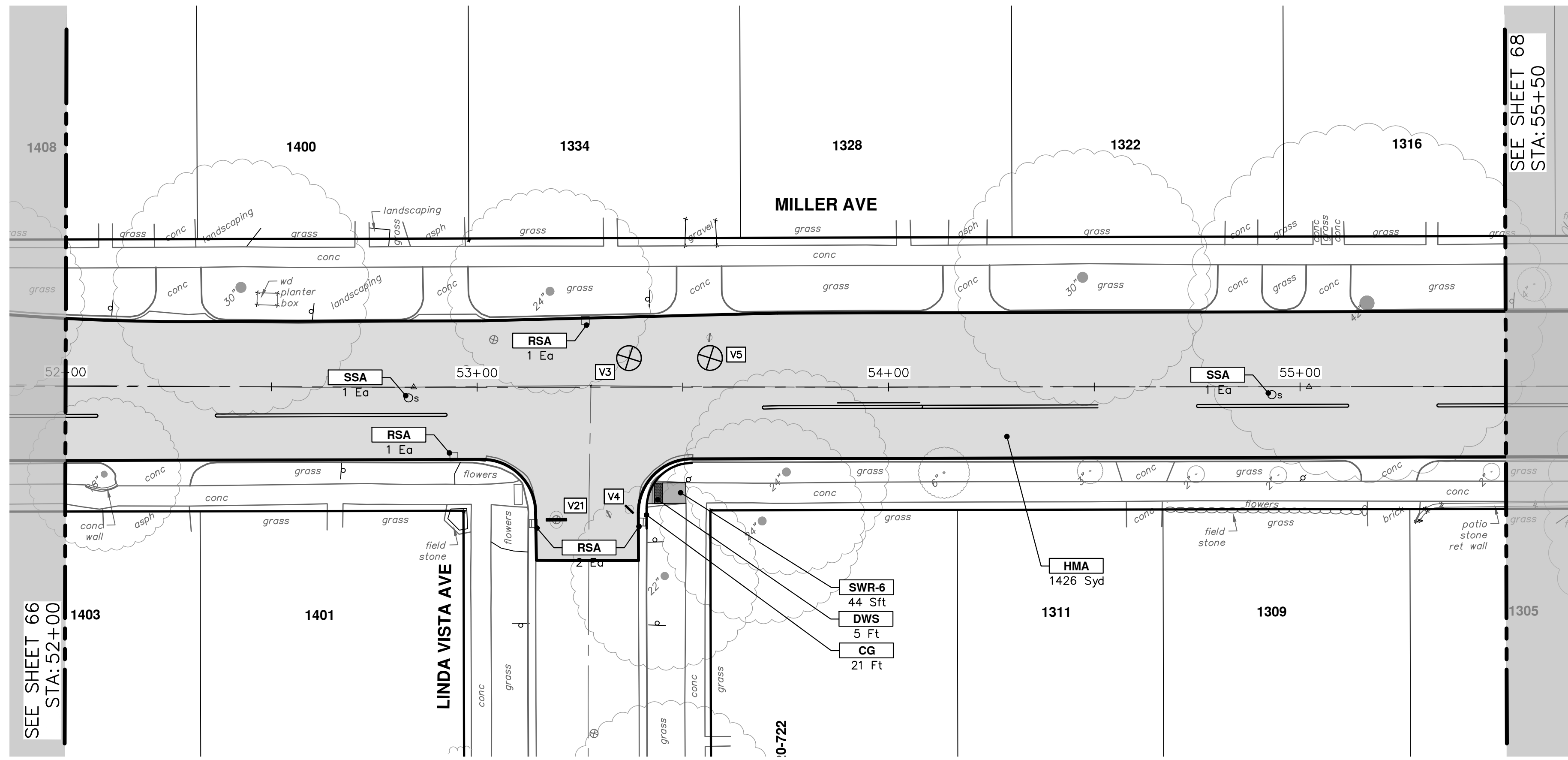
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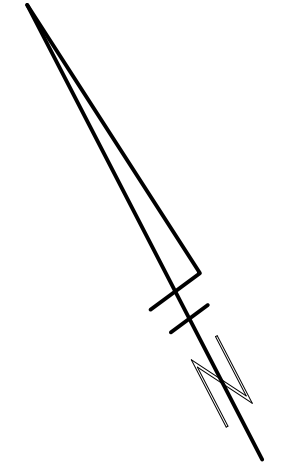
**CITY OF ANN ARBOR MICHIGAN**

REV.	DESCRIPTION	DATE	DRAWN	CHECKED





CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	HMA Approach
HP	Hand Patching
CG	Conc, Curb or Curb & Gutter, All Types
DOM	Conc, Driveway Opening, Type M
DOM-HE	Conc, Driveway Opening, Type M, High Early
DG-6	DRIVEWAY GRAVEL 6 INCH 21AA LIMESTONE, C.I.P.
MGD	MACHINE GRADING, DRIVEWAY
SW-4	Conc, Sidewalk, 4 In.
SWR-6	Conc, Sidewalk, Drive Approach, or Ramp, 6 In.
SW6-HE	Conc, Sidewalk, Drive Approach, or Ramp, 6 In., High Early
SW8	Conc, Sidewalk, Drive Approach, or Ramp, 8 In.
CPB	Conc Pavt, Non-Reinf, 8 in.
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DDT	Detectable Directional Tiles
ABO	ADJUST BY OTHERS
AMB	Monument Box, Adjust
AGB	Gate Box, Adjust
RSA	Storm Structure Cover, Adjust
SSA	Sanitary Structure Cover, Adjust
WSA	Water Structure Cover, Adjust



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

**MILLER AVENUE REHABILITATION**

ROAD PLAN & PROFILE

STA. 52+00 - STA. 55+50

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

DRAWING No. 2022034-67

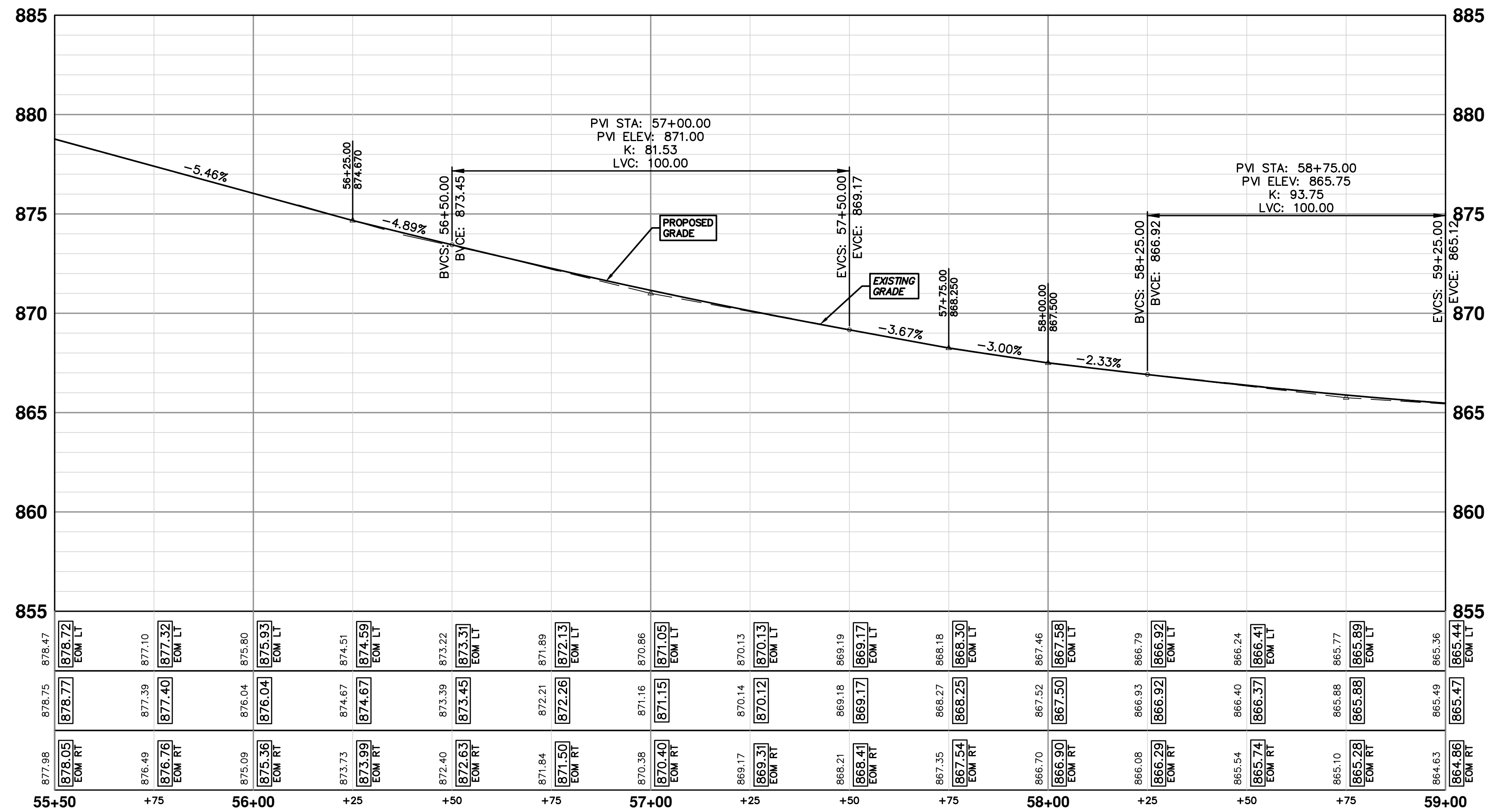
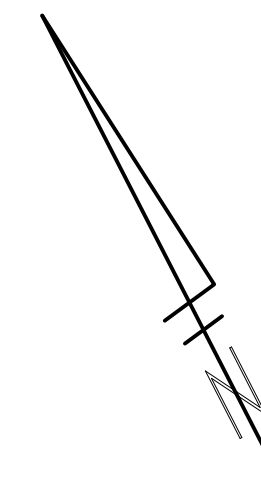
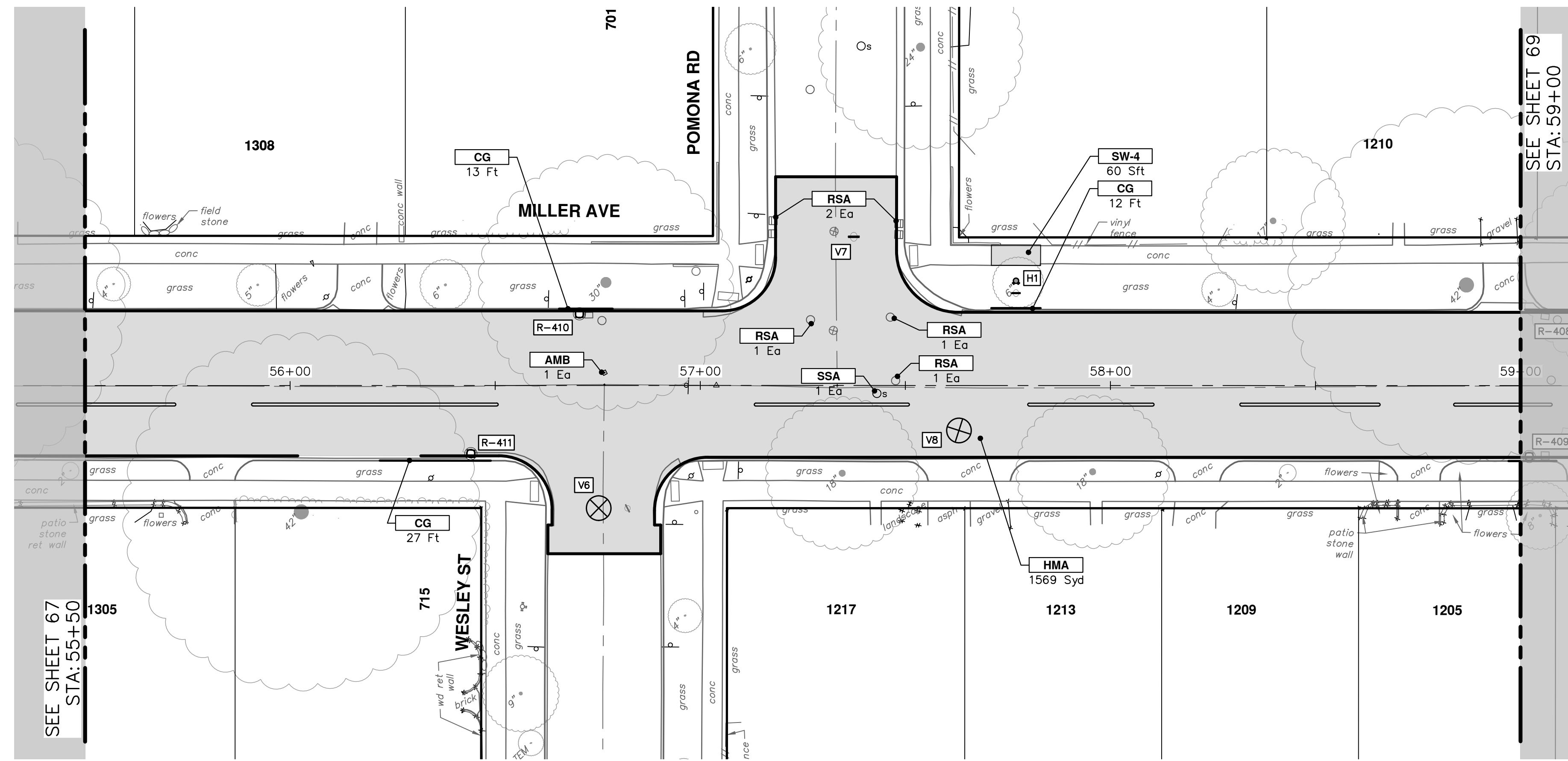
SHEET No. 67 OF 132

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CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	HMA Approach
HP	Hand Patching
CG	Conc, Curb or Curb & Gutter, All Types
DOM	Conc, Driveway Opening, Type M
DOM-HE	Conc, Driveway Opening, Type M, High Early
DG-6	DRIVEWAY GRAVEL 6 INCH 21AA LIMESTONE, C.I.P.
MGD	MACHINE GRADING, DRIVEWAY
SW-4	Conc, Sidewalk, 4 In.
SWR-6	Conc, Sidewalk, Drive Approach, or Ramp, 6 In.
SW6-HE	Conc, Sidewalk, Drive Approach, or Ramp, 6 In., High Early
SW8	Conc, Sidewalk, Drive Approach, or Ramp, 8 In.
CP8	Conc Pavt, Non-Reinf, 8 in.
DWS	Detectable Warning Surface
DDT	Detectable Directional Tiles
ABO	ADJUST BY OTHERS
AMB	Monument Box, Adjust
AGB	Gate Box, Adjust
RSA	Storm Structure Cover, Adjust
SSA	Sanitary Structure Cover, Adjust
WSA	Water Structure Cover, Adjust

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

**MILLER AVENUE REHABILITATION**

ROAD PLAN & PROFILE

STA. 55+50 - STA. 59+00

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SHEET No. **68 OF 132**

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

DRAWING No. **2022034-68**

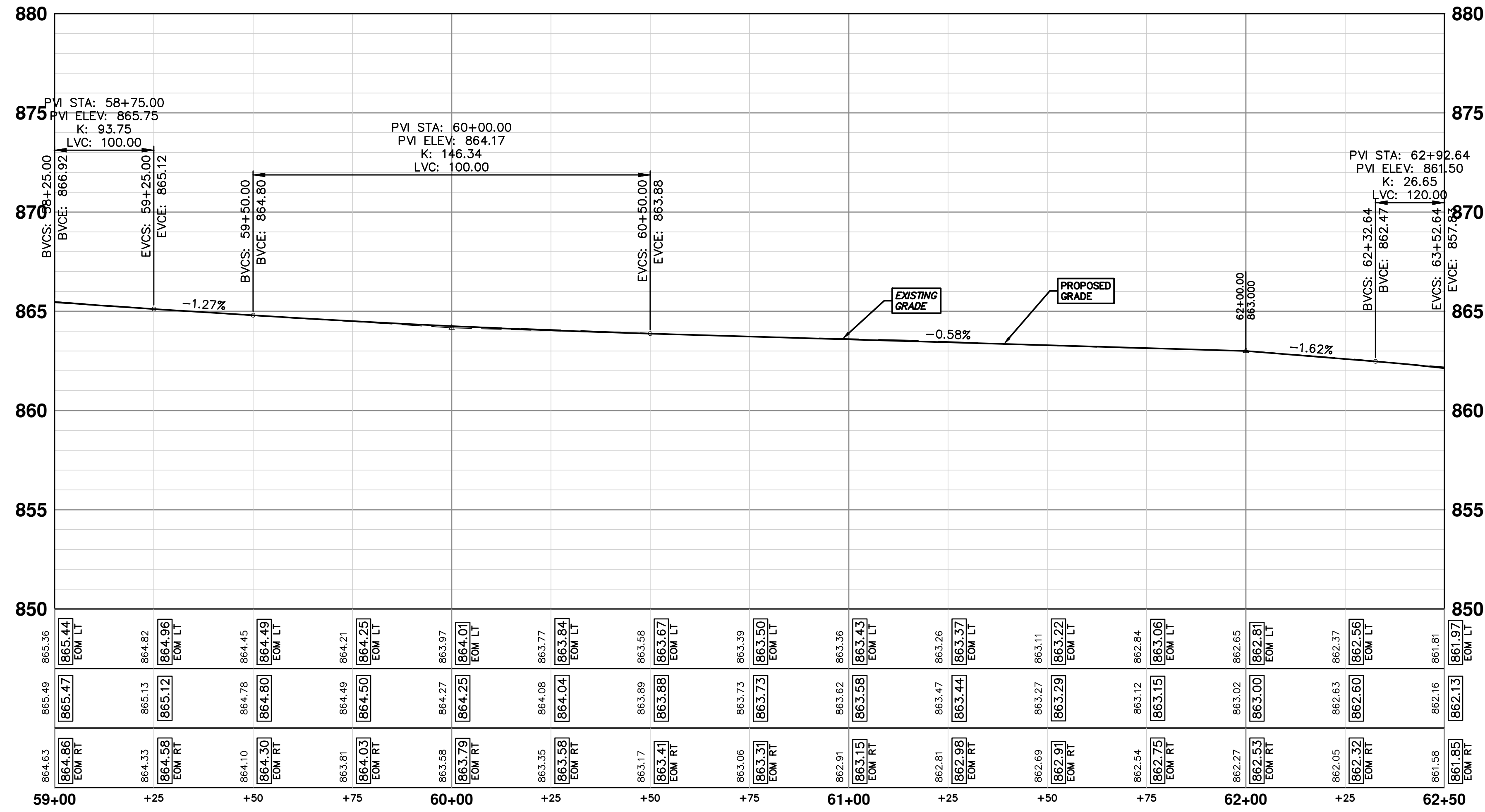
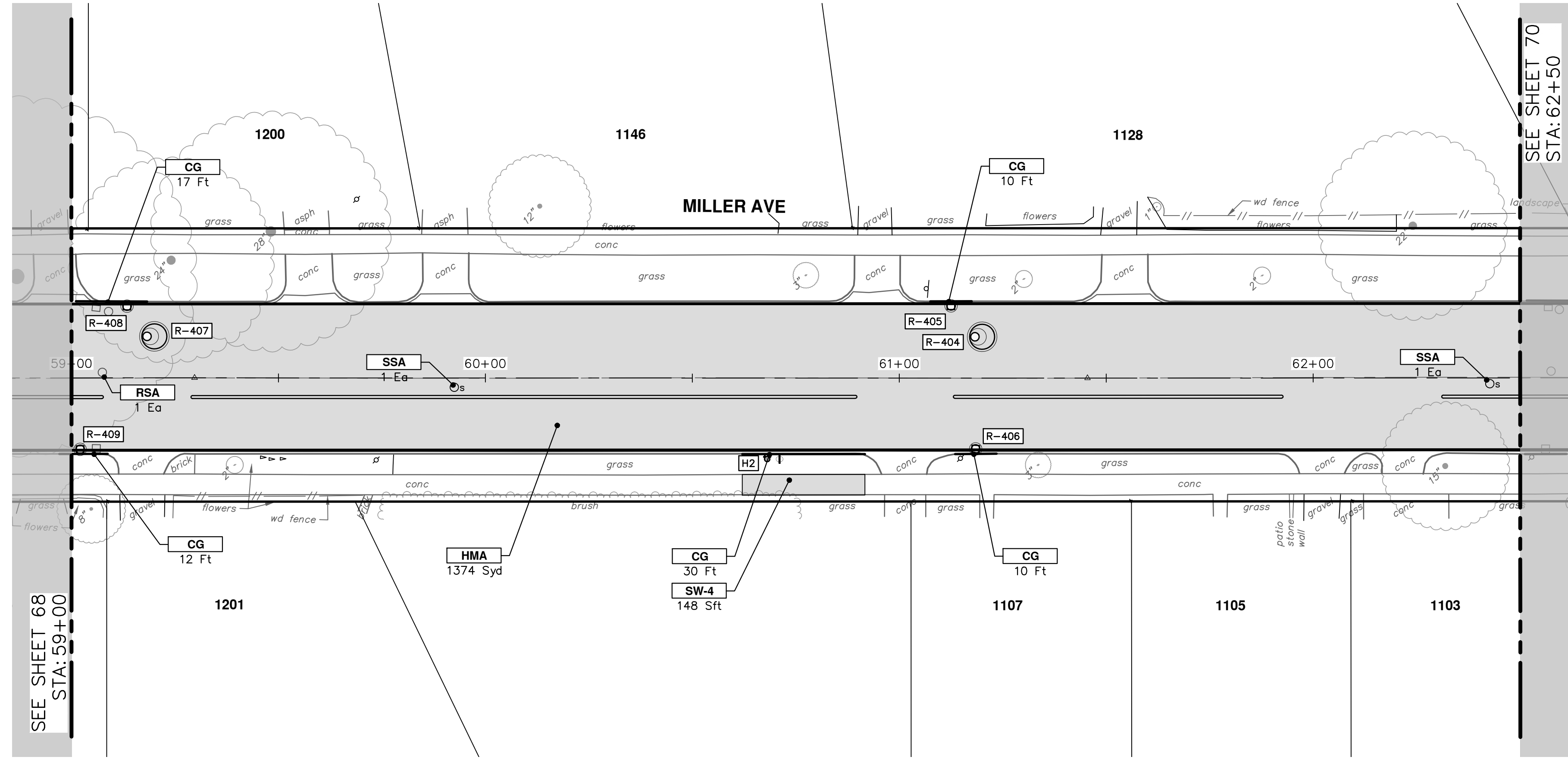
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CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	HMA Approach
HP	Hand Patching
CG	Conc, Curb or Curb & Gutter, All Types
DOM	Conc, Driveway Opening, Type M
DOM-HE	Conc, Driveway Opening, Type M, High Early
DG-6	DRIVEWAY GRAVEL 6 INCH 21AA LIMESTONE, C.I.P.
MGD	MACHINE GRADING, DRIVEWAY
SW-4	Conc, Sidewalk, 4 In.
SWR-6	Conc, Sidewalk, Drive Approach, or Ramp, 6 In.
SW6-HE	Conc, Sidewalk, Drive Approach, or Ramp, 6 In., High Early
SW8	Conc, Sidewalk, Drive Approach, or Ramp, 8 In.
CP8	Conc Pavt, Non-Reinf, 8 in.
DWS	Detectable Warning Surface
DDT	Detectable Directional Tiles
ABO	ADJUST BY OTHERS
AMB	Monument Box, Adjust
AGB	Gate Box, Adjust
RSA	Storm Structure Cover, Adjust
SSA	Sanitary Structure Cover, Adjust
WSA	Water Structure Cover, Adjust



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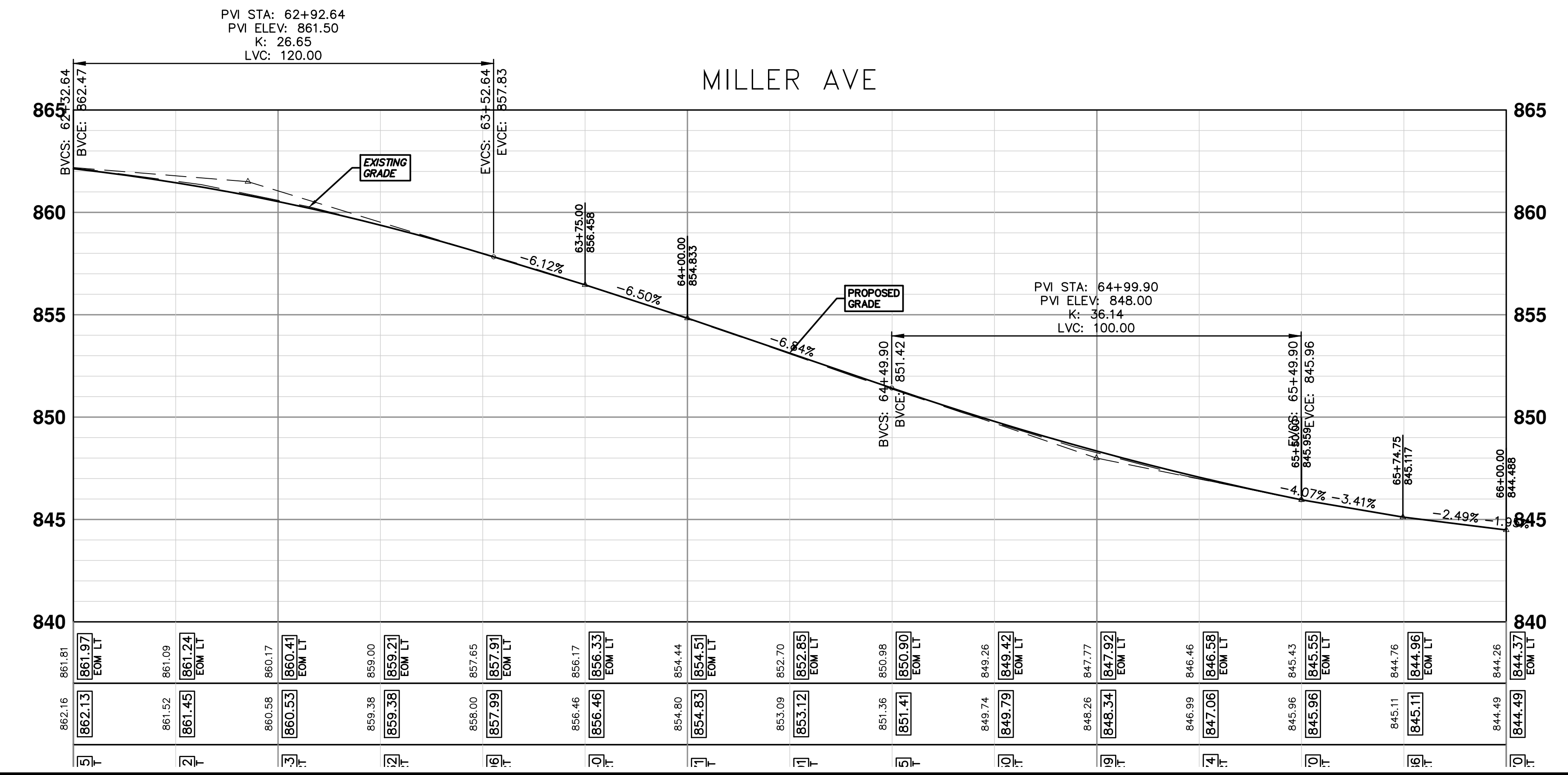
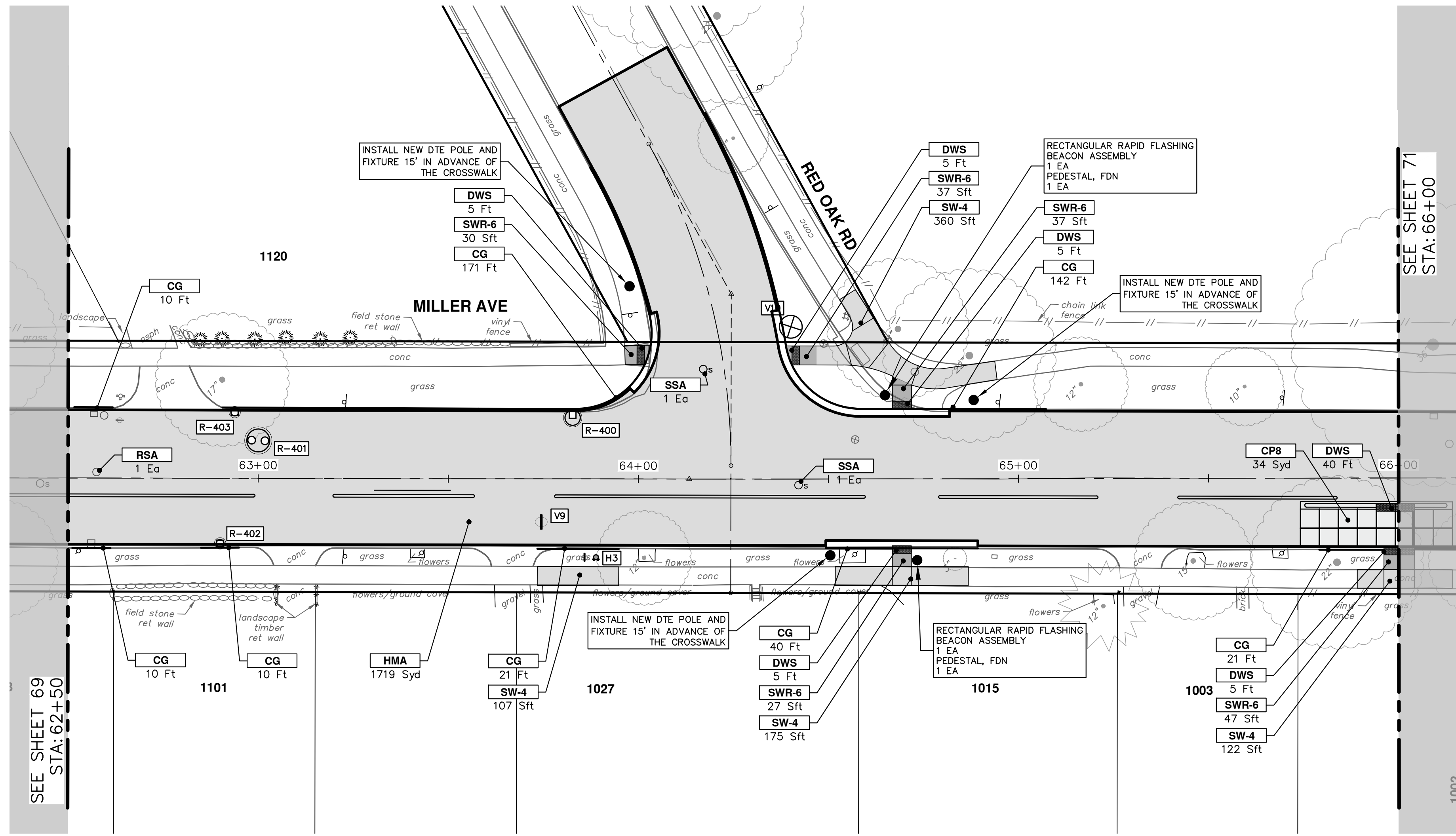


**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER AVENUE REHABILITATION**  
ROAD PLAN & PROFILE

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'  
DRAWING NO. 2022034-69

REV.	DESCRIPTION	DATE	DRAWN	CHECKED





CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	HMA Approach
HP	Hand Patching
CG	Conc, Curb or Curb & Gutter, All Types
DOM	Conc, Driveway Opening, Type M
DOM-HE	Conc, Driveway Opening, Type M, High Early
DG-6	DRIVEWAY GRAVEL 6 INCH 21AA LIMESTONE, C.I.P.
MGD	MACHINE GRADING, DRIVEWAY
SW-4	Conc, Sidewalk, 4 In.
SWR-6	Conc, Sidewalk, Drive Approach, or Ramp, 6 In.
SW6-HE	Conc, Sidewalk, Drive Approach, or Ramp, 6 In., High Early
SW8	Conc, Sidewalk, Drive Approach, or Ramp, 8 In.
CP8	Conc Pavt, Non-Reinf, 8 in.
DWS	Detectable Warning Surface
DDT	Detectable Directional Tiles
ABO	ADJUST BY OTHERS
AMB	Monument Box, Adjust
AGB	Gate Box, Adjust
RSA	Storm Structure Cover, Adjust
SSA	Sanitary Structure Cover, Adjust
WSA	Water Structure Cover, Adjust

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

**MILLER AVENUE REHABILITATION**

ROAD PLAN & PROFILE

STA. 62+50 - STA. 66+00

SHEET No. 70 OF 132

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

DRAWING No. 2022034-70

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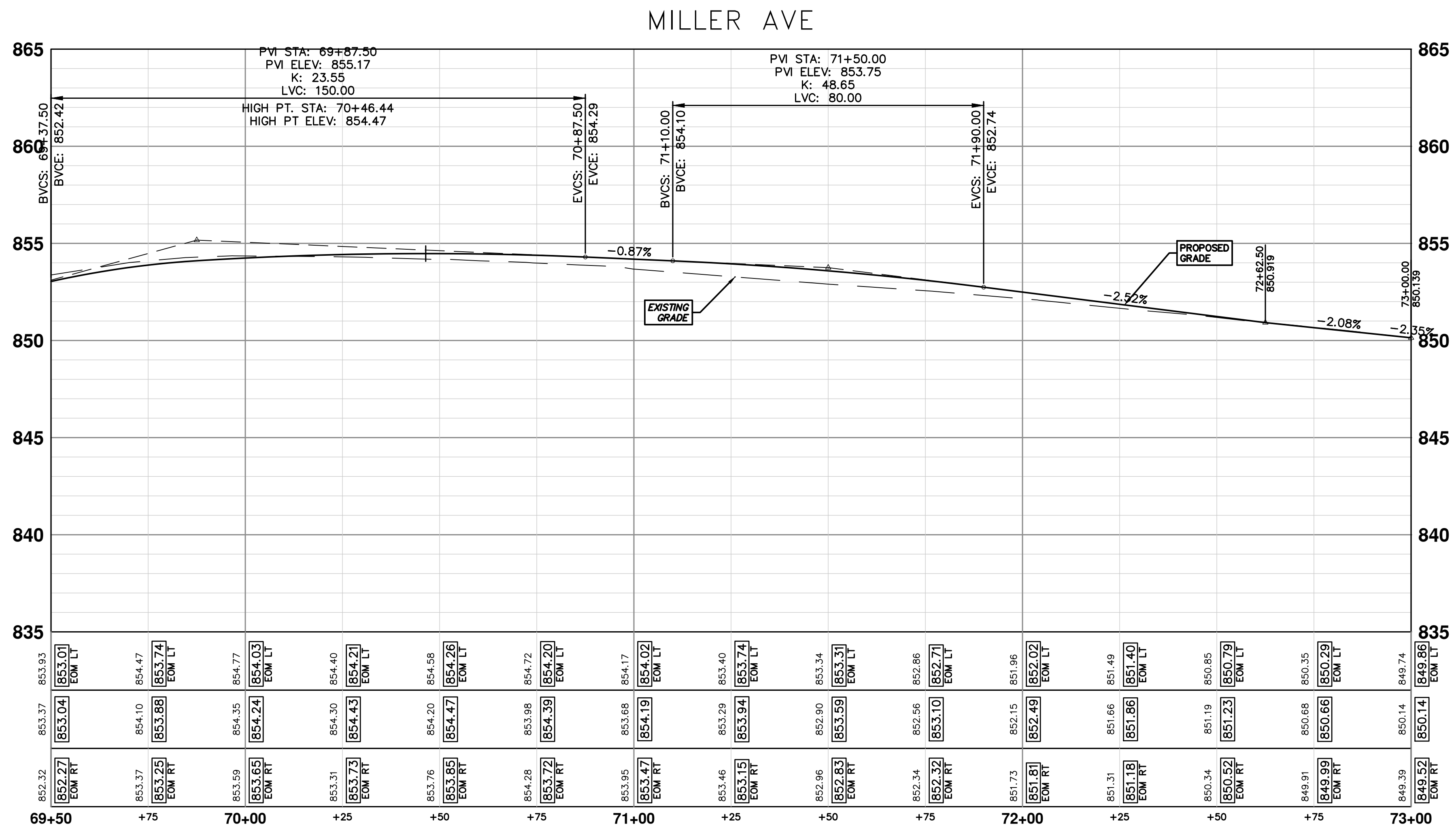
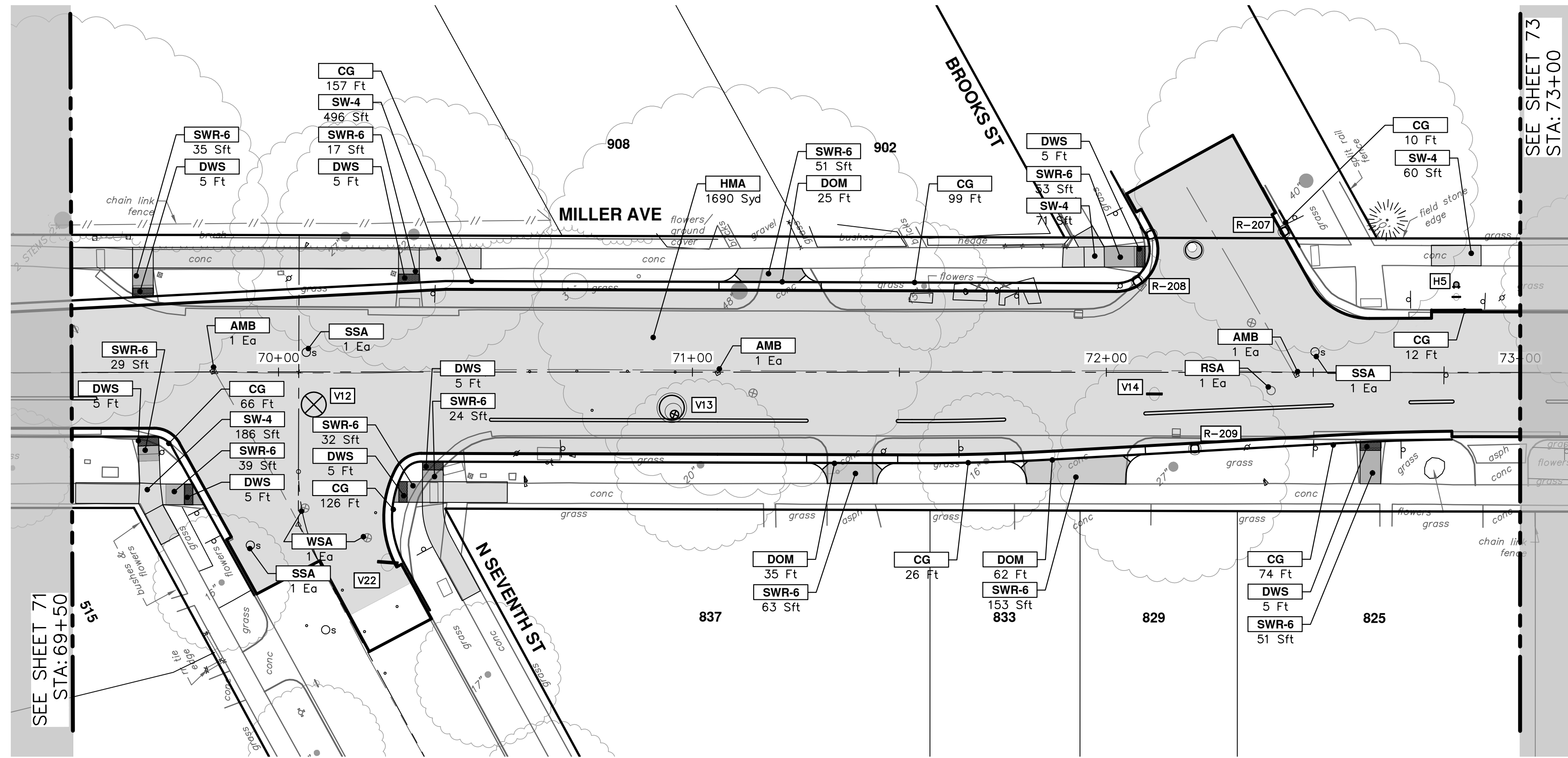
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CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	HMA Approach
HP	Hand Patching
CG	Conc, Curb or Curb & Gutter, All Types
DOM	Conc, Driveway Opening, Type M
DOM-HE	Conc, Driveway Opening, Type M, High Early
DG-6	DRIVEWAY GRAVEL 6 INCH 21AA LIMESTONE, C.I.P.
MGD	MACHINE GRADING, DRIVEWAY
SW-4	Conc, Sidewalk, 4 In.
SWR-6	Conc, Sidewalk, Drive Approach, or Ramp, 6 In.
SW6-HE	Conc, Sidewalk, Drive Approach, or Ramp, 6 In., High Early
SW8	Conc, Sidewalk, Drive Approach, or Ramp, 8 In.
CPB	Conc Pavt, Non-Reinf, 8 in.
DWS	Detectable Warning Surface
DDT	Detectable Directional Tiles
ABO	ADJUST BY OTHERS
AMB	Monument Box, Adjust
AGB	Gate Box, Adjust
RSA	Storm Structure Cover, Adjust
SSA	Sanitary Structure Cover, Adjust
WSA	Water Structure Cover, Adjust



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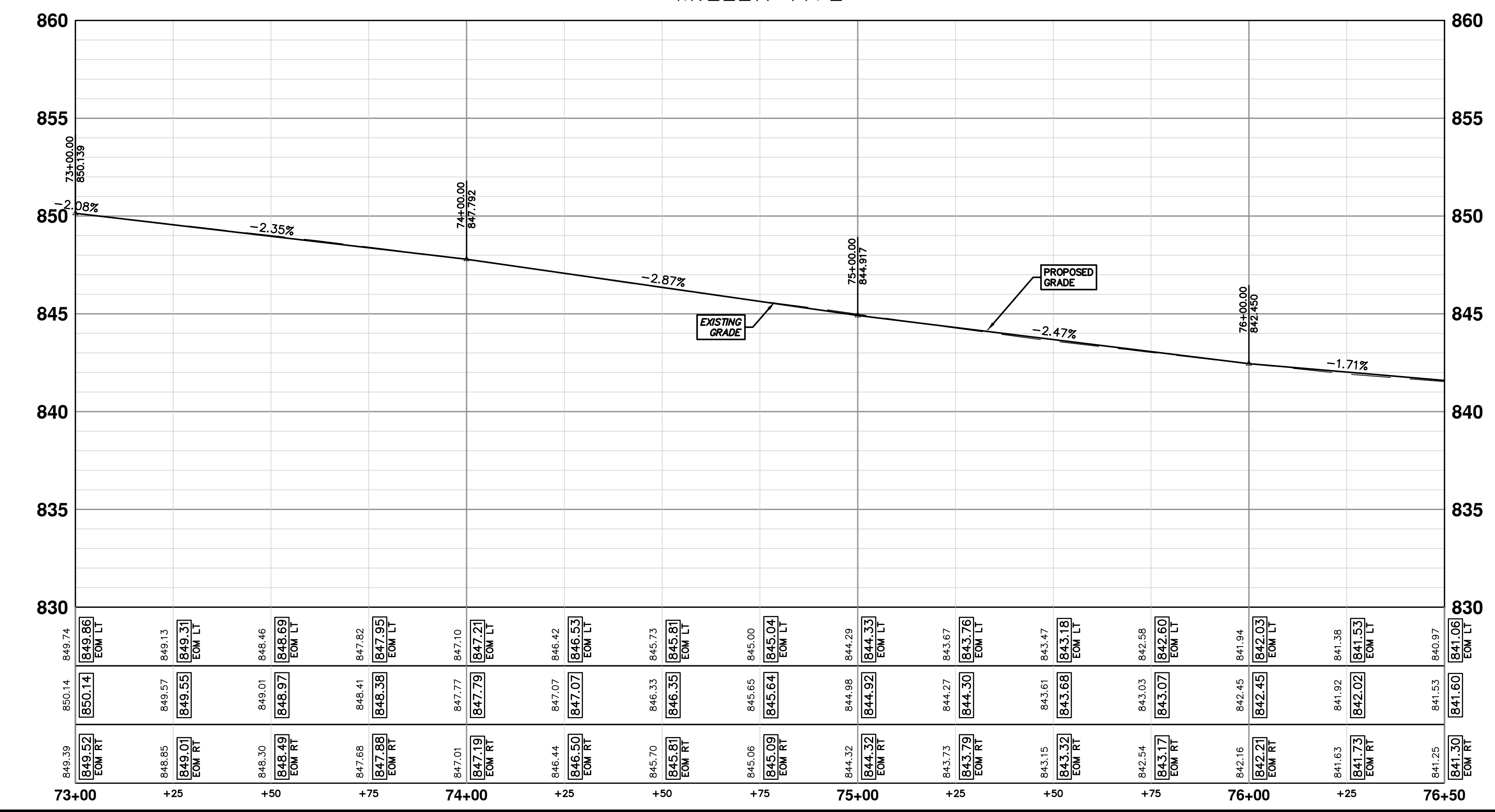
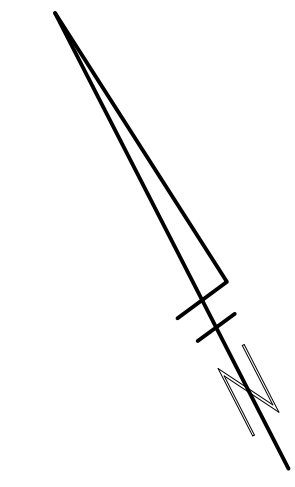
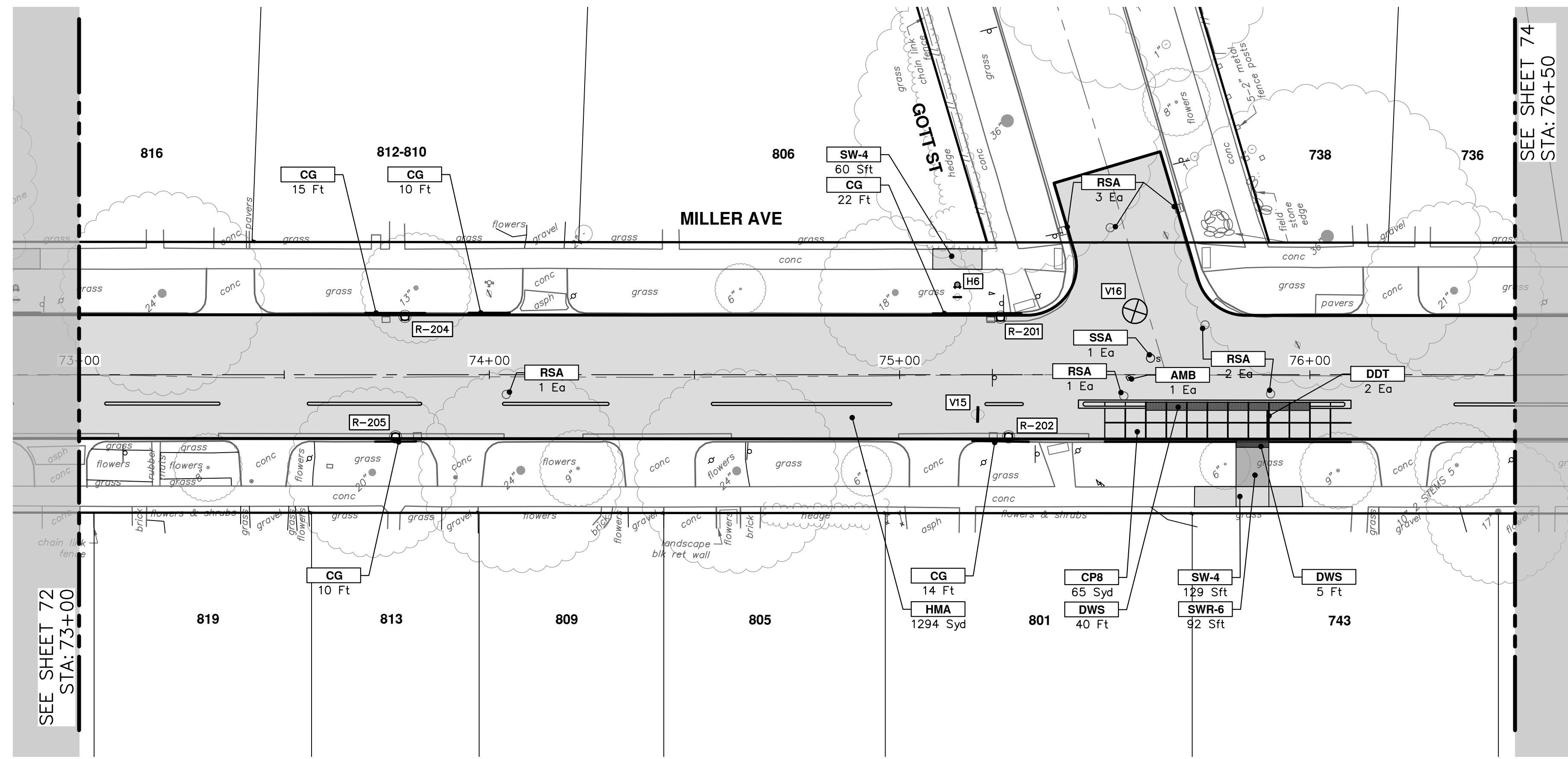


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**MILLER AVENUE REHABILITATION**  
ROAD PLAN & PROFILE  
STA. 69+50 - STA. 73+00

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'  
DRAWING NO. 2022034-72

REV.	DESCRIPTION	DATE	DRAWN	CHECKED





CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	HMA Approach
HP	Hand Patching
CG	Conc, Curb or Curb & Gutter, All Types
DOM	Conc, Driveway Opening, Type M
DOM-HE	Conc, Driveway Opening, Type M, High Early
DG-6	DRIVEWAY GRAVEL 6 INCH 21AA LIMESTONE, C.I.P.
MGD	MACHINE GRADING, DRIVEWAY
SW-4	Conc, Sidewalk, 4 In.
SWR-6	Conc, Sidewalk, Drive Approach, or Ramp, 6 In.
SW6-HE	Conc, Sidewalk, Drive Approach, or Ramp, 6 In., High Early
SW8	Conc, Sidewalk, Drive Approach, or Ramp, 8 In.
CP8	Conc Pavt, Non-Reinf, 8 in.
DWS	Detectable Warning Surface
DDT	Detectable Directional Tiles
ABO	ADJUST BY OTHERS
AMB	Monument Box, Adjust
AGB	Gate Box, Adjust
RSA	Storm Structure Cover, Adjust
SSA	Sanitary Structure Cover, Adjust
WSA	Water Structure Cover, Adjust

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

**MILLER AVENUE REHABILITATION**

ROAD PLAN & PROFILE

STA. 73+00 - STA. 76+50

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SHEET No. 73 OF 132

SCALE PLAN: 1" = 20'

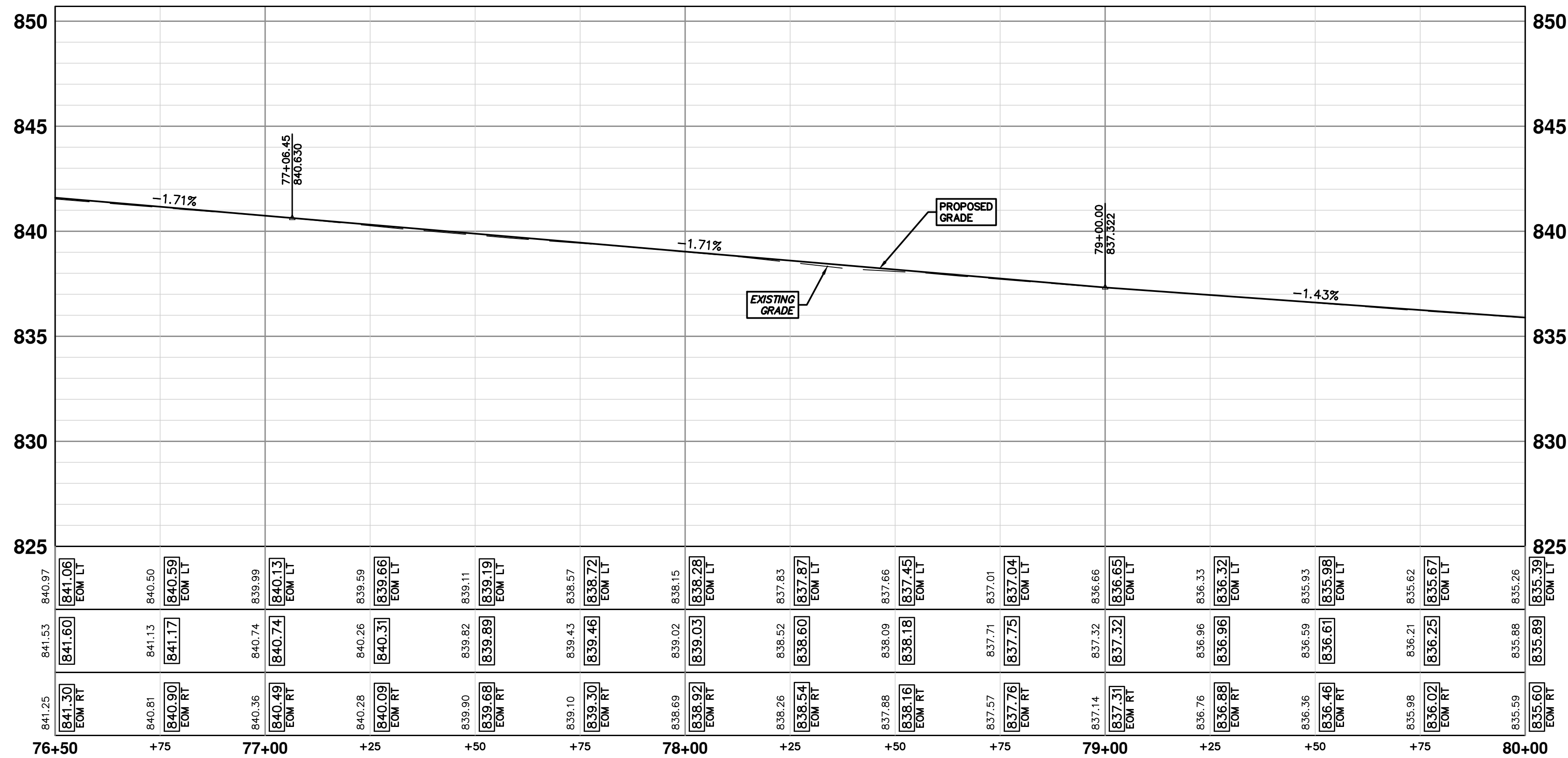
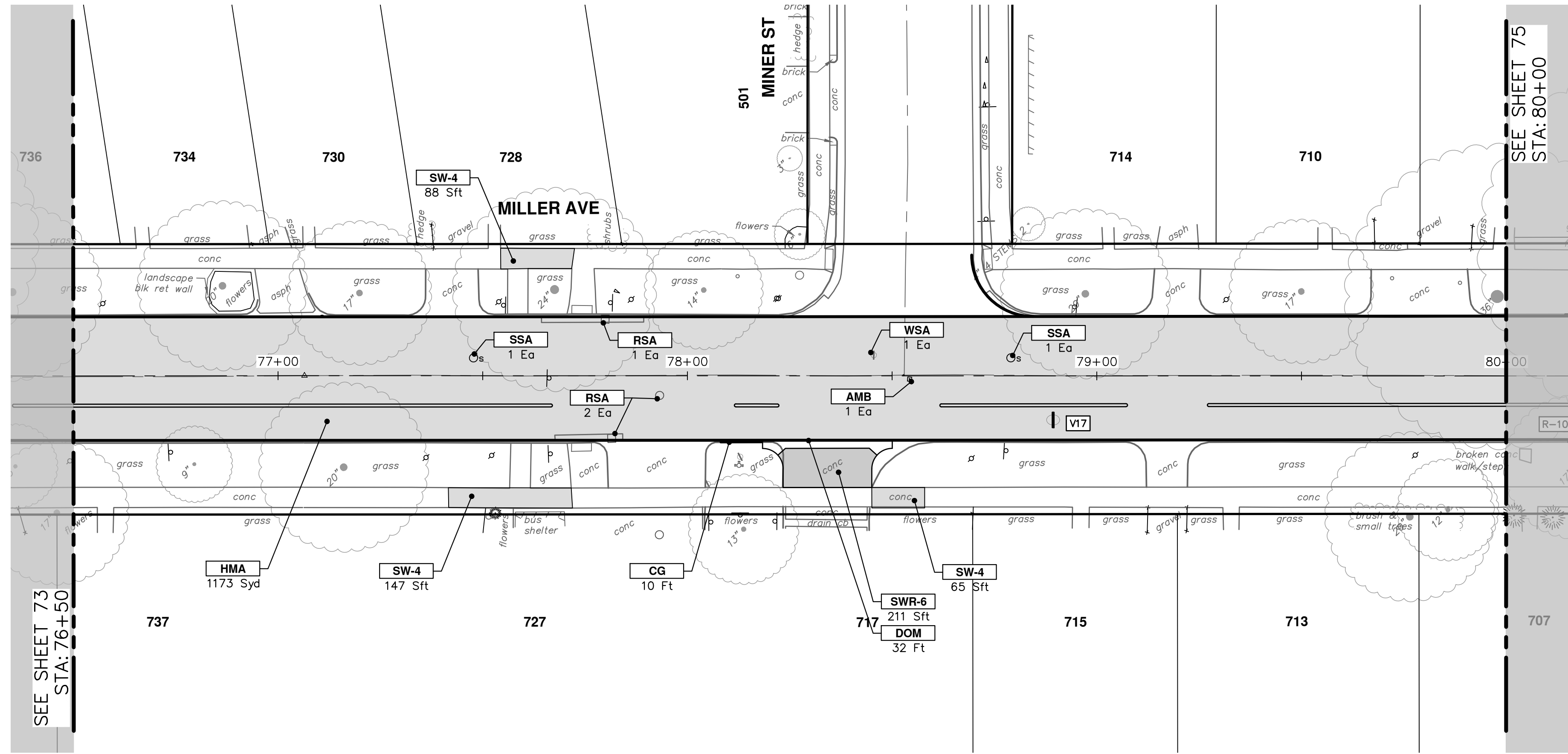
PROFILE: 1" = 4'

DRAWING No. 2022034-73

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	HMA Approach
HP	Hand Patching
CG	Conc, Curb or Curb & Gutter, All Types
DOM	Conc, Driveway Opening, Type M
DOM-HE	Conc, Driveway Opening, Type M, High Early
DG-6	DRIVEWAY GRAVEL 6 INCH 21AA LIMESTONE, C.I.P.
MGD	MACHINE GRADING, DRIVEWAY
SW-4	Conc, Sidewalk, 4 In.
SWR-6	Conc, Sidewalk, Drive Approach, or Ramp, 6 In.
SW6-HE	Conc, Sidewalk, Drive Approach, or Ramp, 6 In., High Early
SW8	Conc, Sidewalk, Drive Approach, or Ramp, 8 In.
CP8	Conc Pavt, Non-Reinf, 8 in.
DWS	Detectable Warning Surface
DDT	Detectable Directional Tiles
ABO	ADJUST BY OTHERS
AMB	Monument Box, Adjust
AGB	Gate Box, Adjust
RSA	Storm Structure Cover, Adjust
SSA	Sanitary Structure Cover, Adjust
WSA	Water Structure Cover, Adjust

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**MILLER AVENUE REHABILITATION**

ROAD PLAN & PROFILE

STA. 76+50 - STA. 80+00

SHEET No. 74 OF 132

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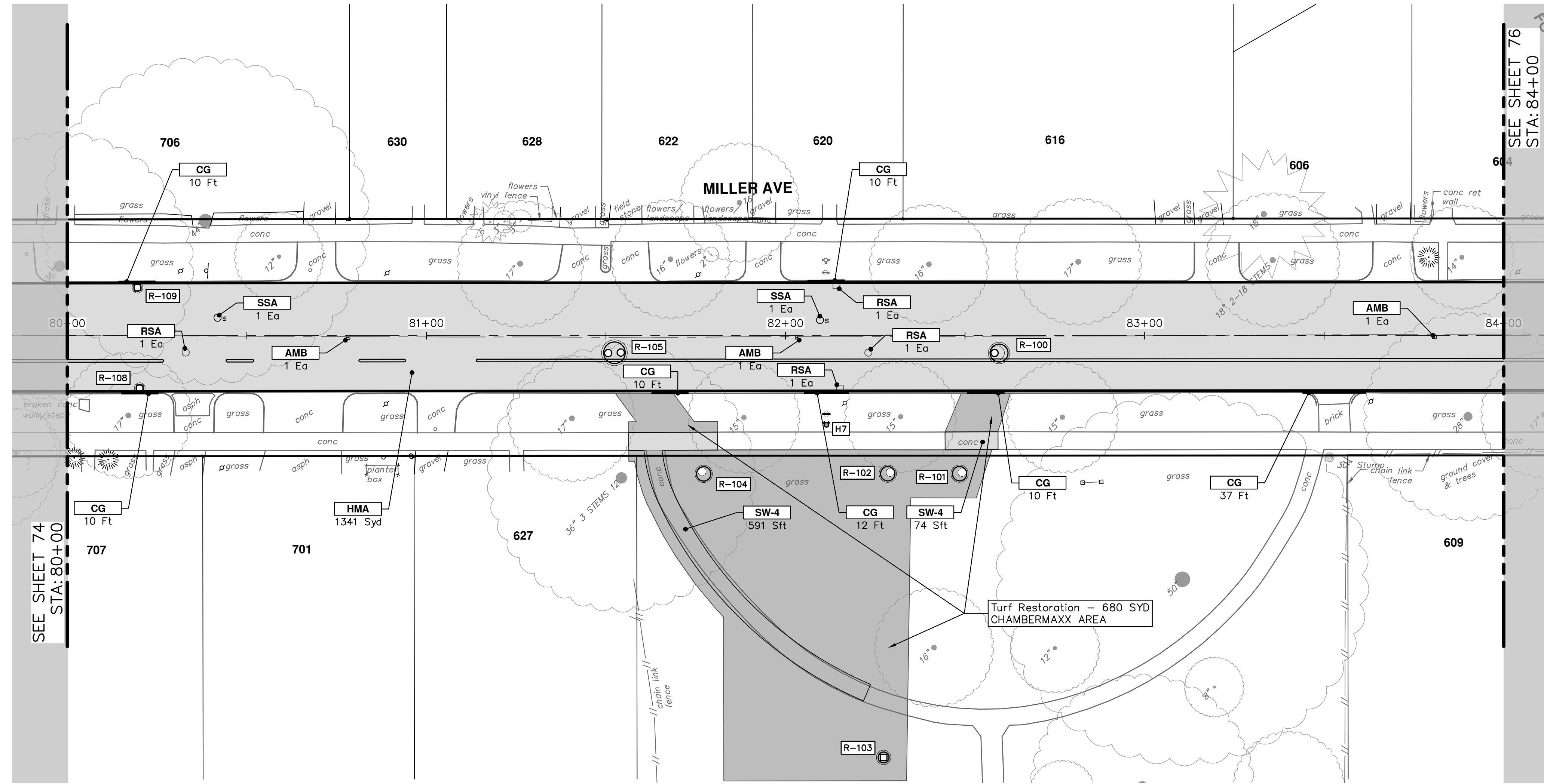
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301 EAST HURON STREET  
ANN ARBOR, MI 48106-1667  
www.a2gov.org

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

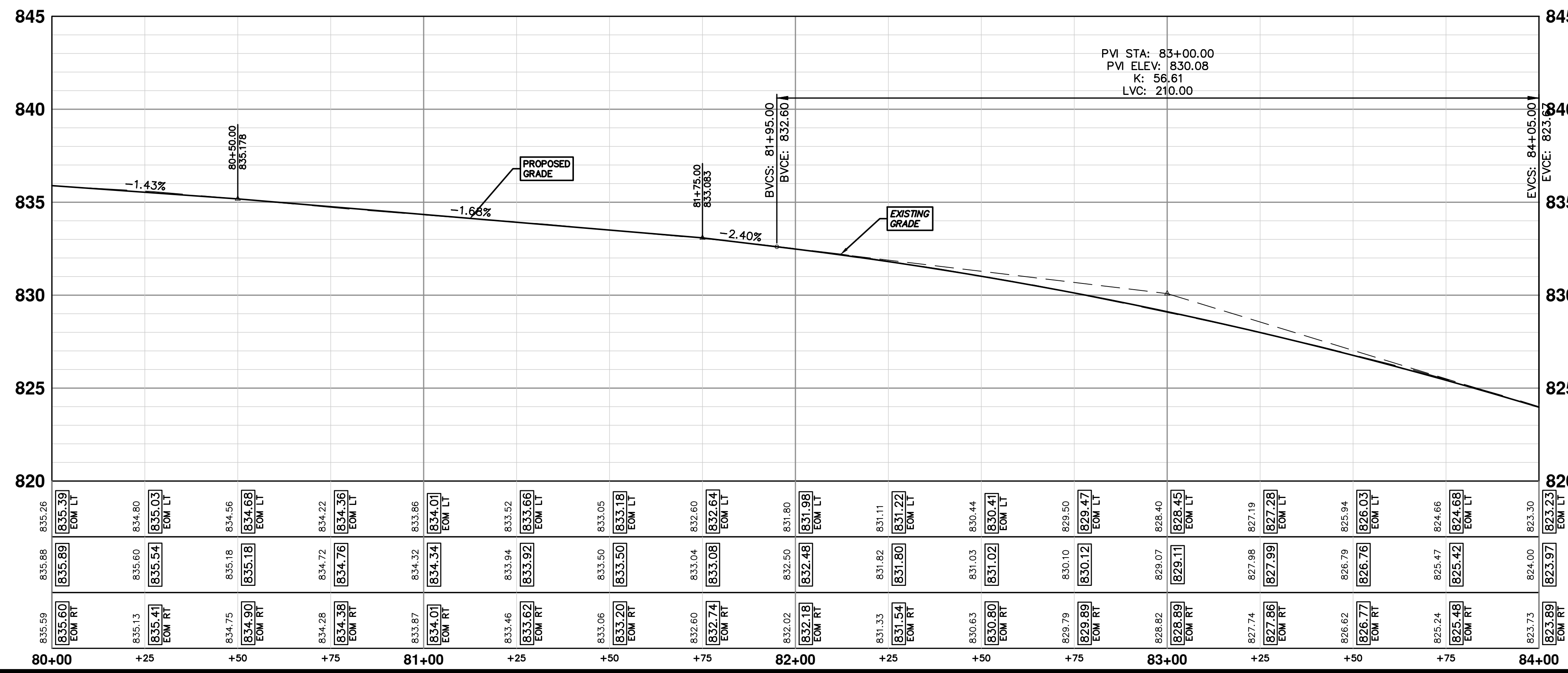
DRAWING No. 2022034-74

REV.	DESCRIPTION	DATE	DRAWN	CHECKED





SEE SHEET 76  
STA: 84+00



CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	HMA Approach
HP	Hand Patching
CG	Conc, Curb or Curb & Gutter, All Types
DOM	Conc, Driveway Opening, Type M
DOM-HE	Conc, Driveway Opening, Type M, High Early
DG-6	DRIVEWAY GRAVEL 6 INCH 21AA LIMESTONE, C.I.P.
MGD	MACHINE GRADING, DRIVEWAY
SW-4	Conc, Sidewalk, 4 In.
SWR-6	Conc, Sidewalk, Drive Approach, or Ramp, 6 In.
SW6-HE	Conc, Sidewalk, Drive Approach, or Ramp, 6 In., High Early
SW8	Conc, Sidewalk, Drive Approach, or Ramp, 8 In.
CPB	Conc Pavt, Non-Reinf, 8 in.
DWS	Detectable Warning Surface
DDT	Detectable Directional Tiles
ABO	ADJUST BY OTHERS
AMB	Monument Box, Adjust
AGB	Gate Box, Adjust
RSA	Storm Structure Cover, Adjust
SSA	Sanitary Structure Cover, Adjust
WSA	Water Structure Cover, Adjust

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DRAWN \_\_\_\_\_  
DESCRIPTION \_\_\_\_\_  
REV. \_\_\_\_\_

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301 EAST HURON STREET  
ANN ARBOR, MI 48106-1667  
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STA. 80+00 - STA. 84+00

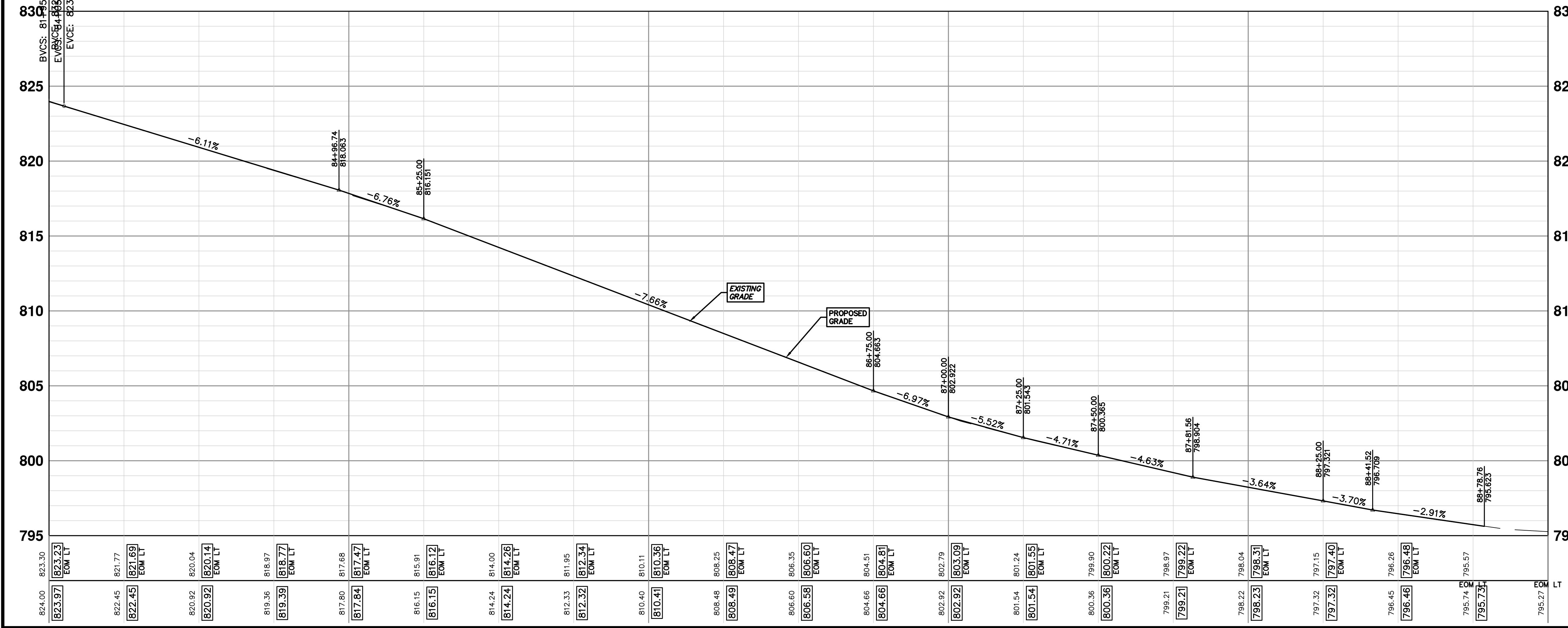
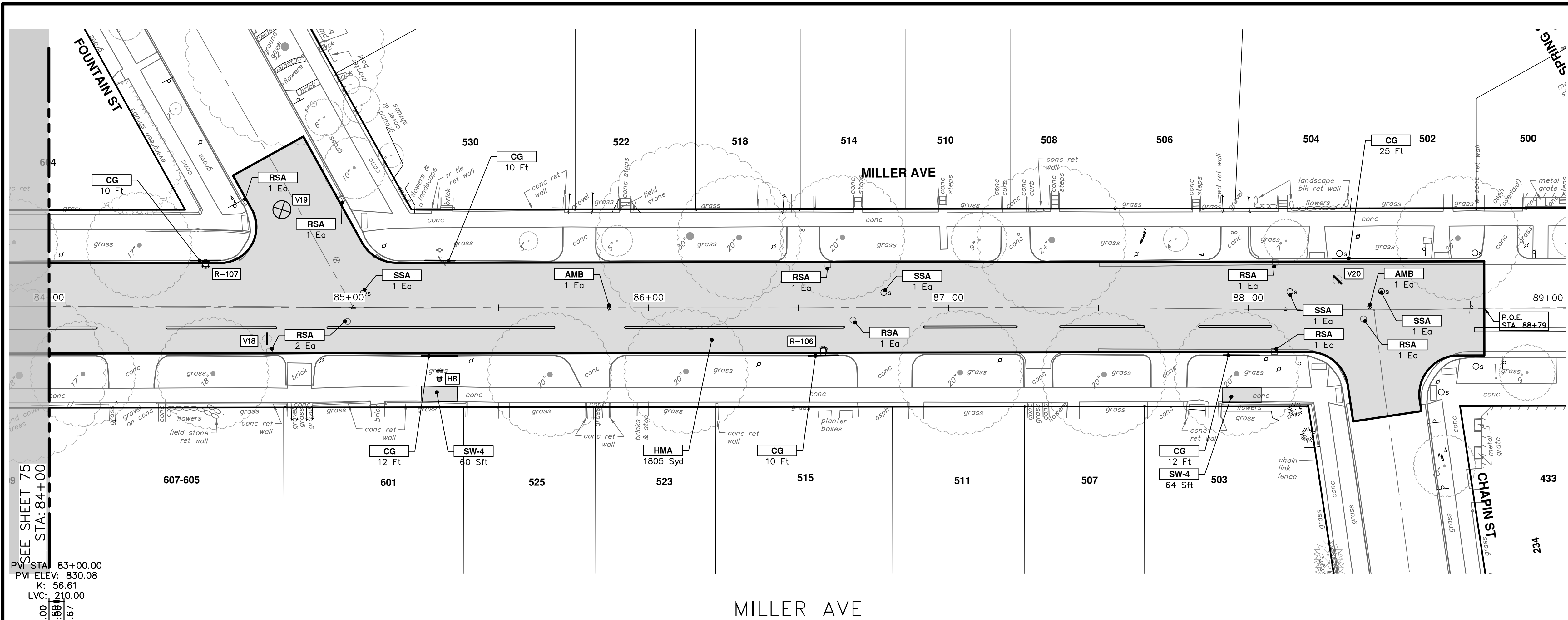
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**MILLER AVENUE REHABILITATION**  
ROAD PLAN & PROFILE

SHEET No. \_\_\_\_\_  
SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

DRAWING No. 2022034-75  
75 OF 132



R:\202034\_Miller\_Ave\_Rehab\Plan Production\2022034Prd.dwg Dwg Created: 29-Aug-24 - \_02 standard bw.stb - Plot Date: 30-Aug-24



CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA	PLACE HMA, PLACE MATERIAL IN LIFTS ACCORDING TO THE TYPICAL SECTION AND AS DIRECTED BY THE ENGINEER.
HMA APP	HMA Approach
HP	Hand Patching
CG	Conc. Curb or Curb & Gutter, All Types
DOM	Conc. Driveway Opening, Type M
DOM-HE	Conc. Driveway Opening, Type M, High Early
DG-6	DRIVEWAY GRAVEL 6 INCH 21AA LIMESTONE, C.I.P.
MGD	MACHINE GRADING, DRIVEWAY
SW-4	Conc. Sidewalk, 4 In.
SWR-6	Conc. Sidewalk, Drive Approach, or Ramp, 6 In.
SW6-HE	Conc. Sidewalk, Drive Approach, or Ramp, 6 In., High Early
SW8	Conc. Sidewalk, Drive Approach, or Ramp, 8 In.
CP8	Conc Pavt, Non-Reinf, 8 in.
DWS	Detectable Warning Surface
DDT	Detectable Directional Tiles
ABO	ADJUST BY OTHERS
AMB	Monument Box, Adjust
AGB	Gate Box, Adjust
RSA	Storm Structure Cover, Adjust
SSA	Sanitary Structure Cover, Adjust
WSA	Water Structure Cover, Adjust

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

**MILLER AVENUE REHABILITATION**


ROAD PLAN & PROFILE

STA. 84+00 - SA. 88+79

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

DRAWING No. 2022034-76

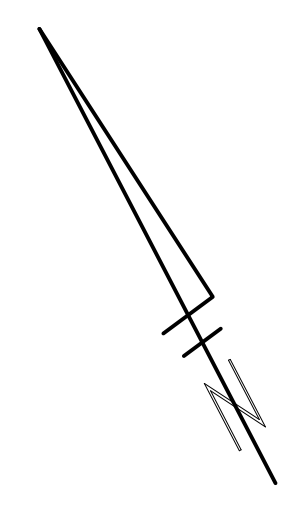
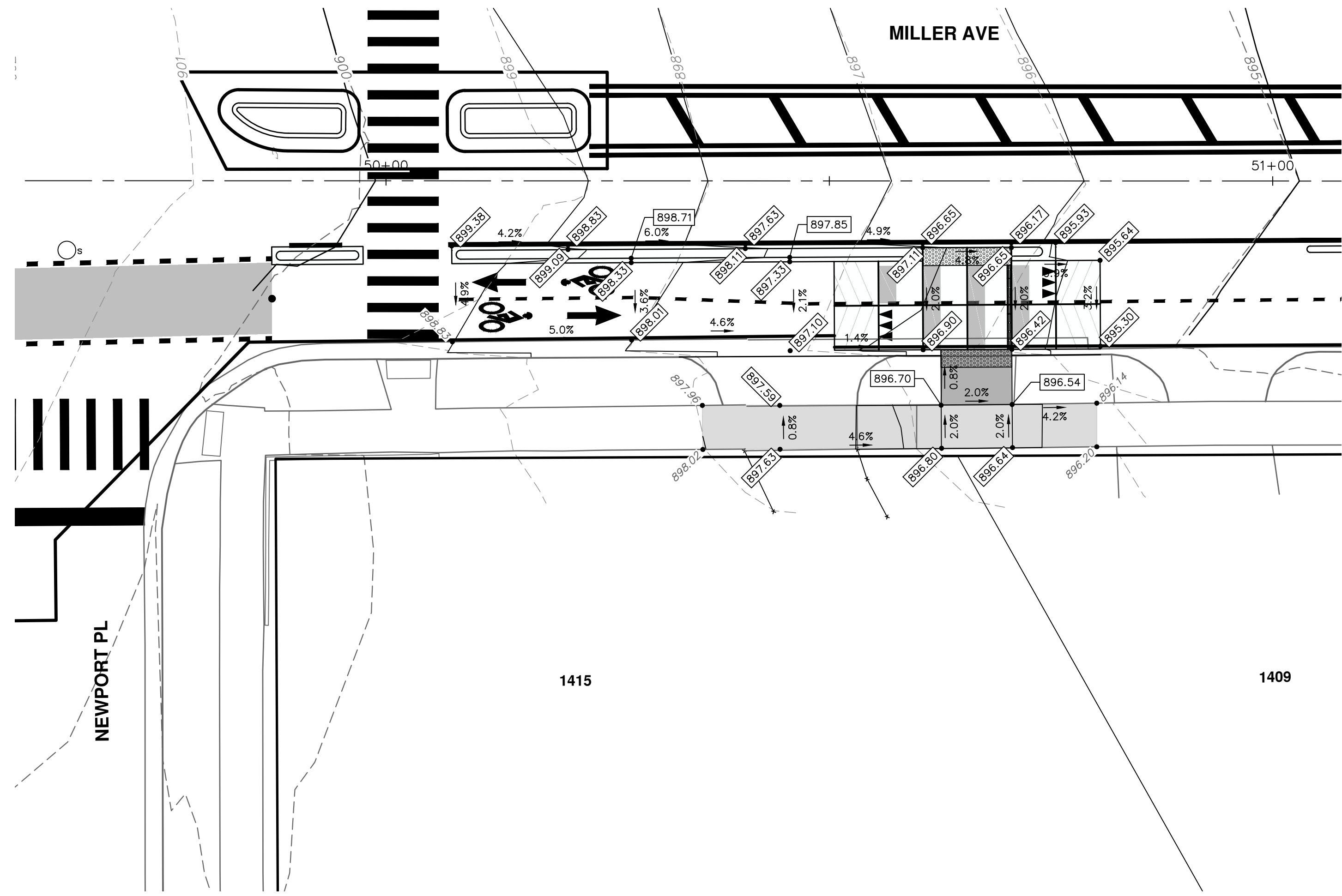
SHEET No. 76 OF 132



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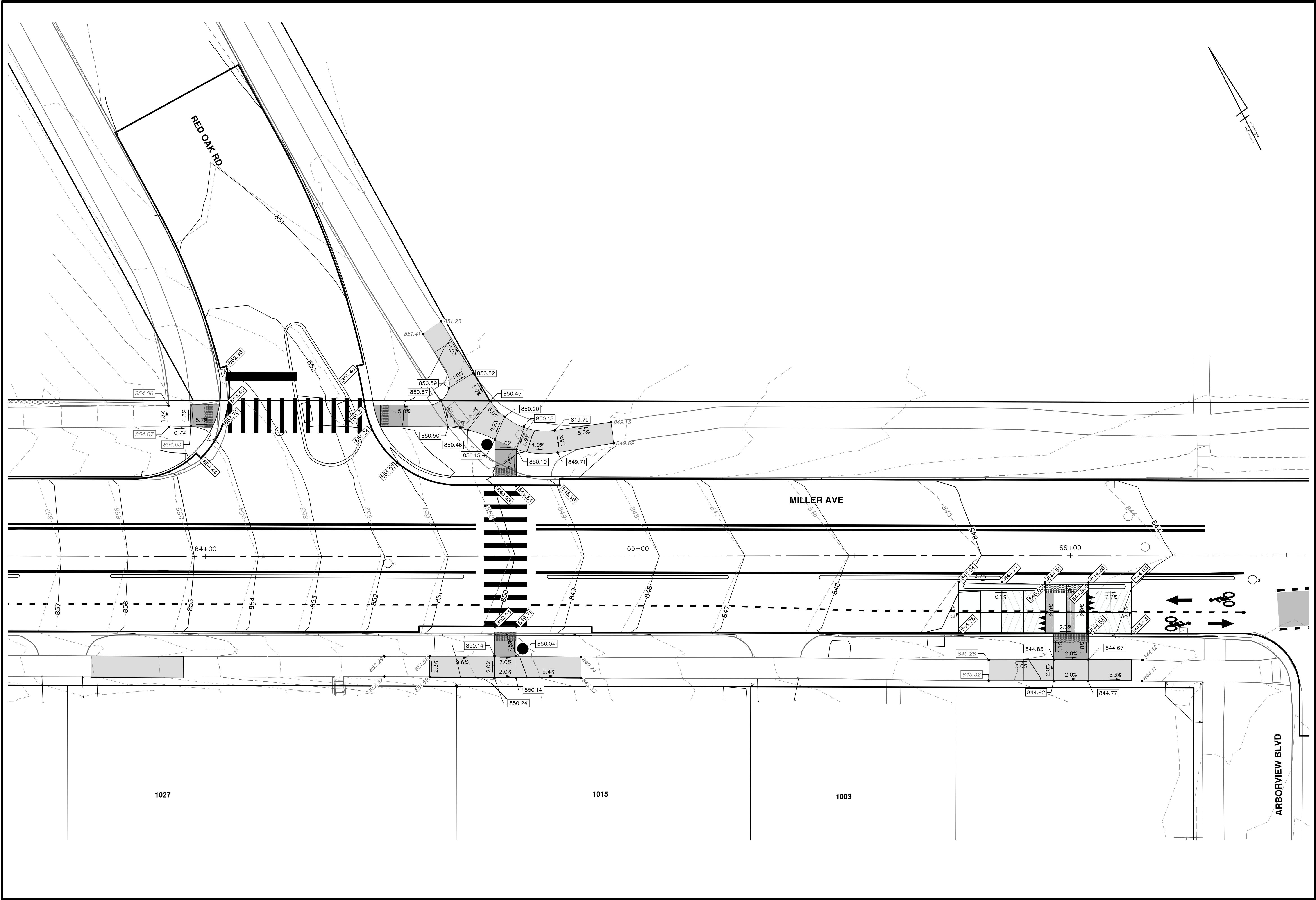


REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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R:\2022034\_Miller Ave Rehab\Plan Production\2022034IG.dwg Dwg Created: 22-Apr-24 - \_o2\_standard\_bw.stb - Plot Date: 30-Aug-24



1027

1015

1003

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ANN ARBOR, MI 48106-6647  
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**CITY OF ANN ARBOR**  
MICHIGAN

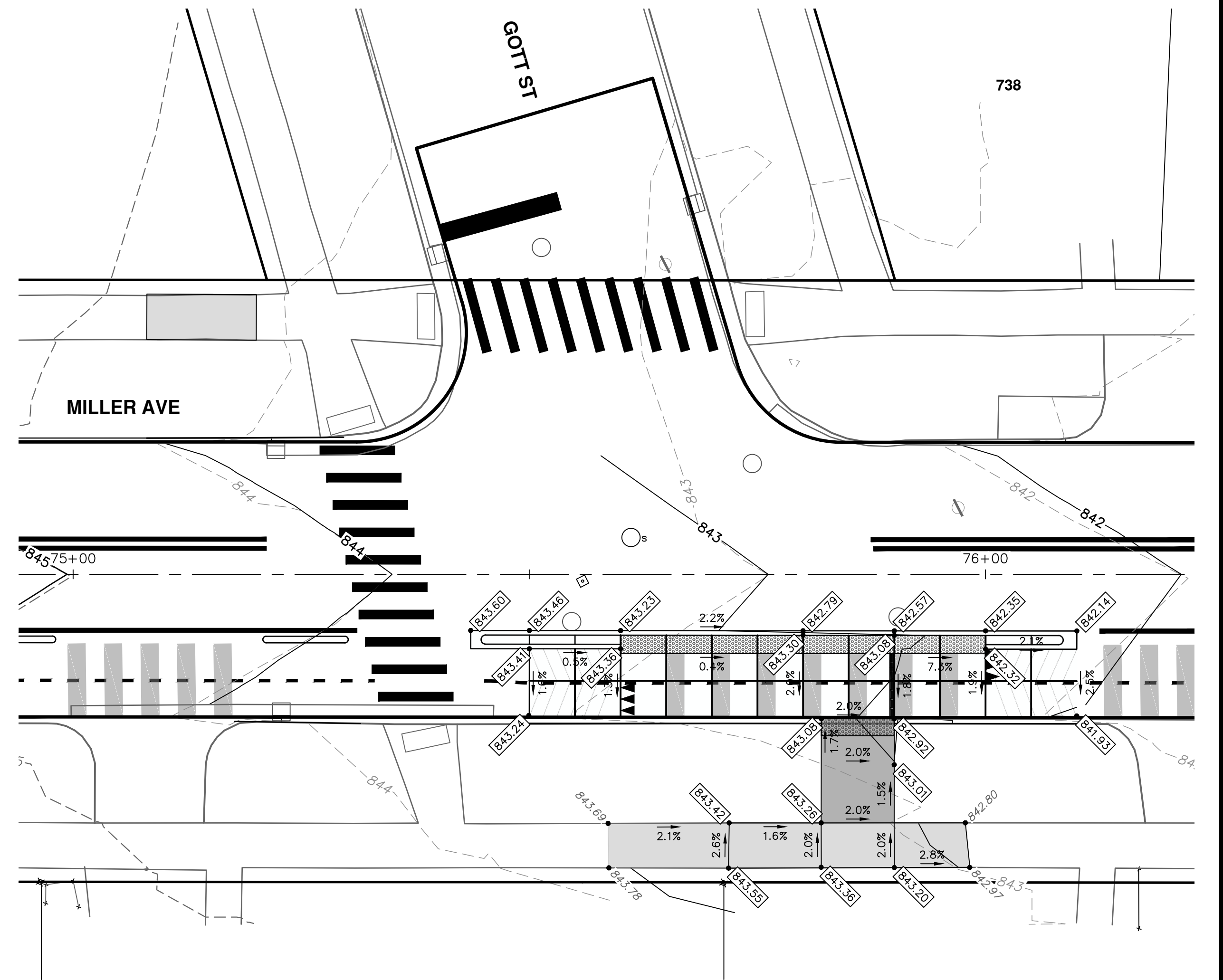
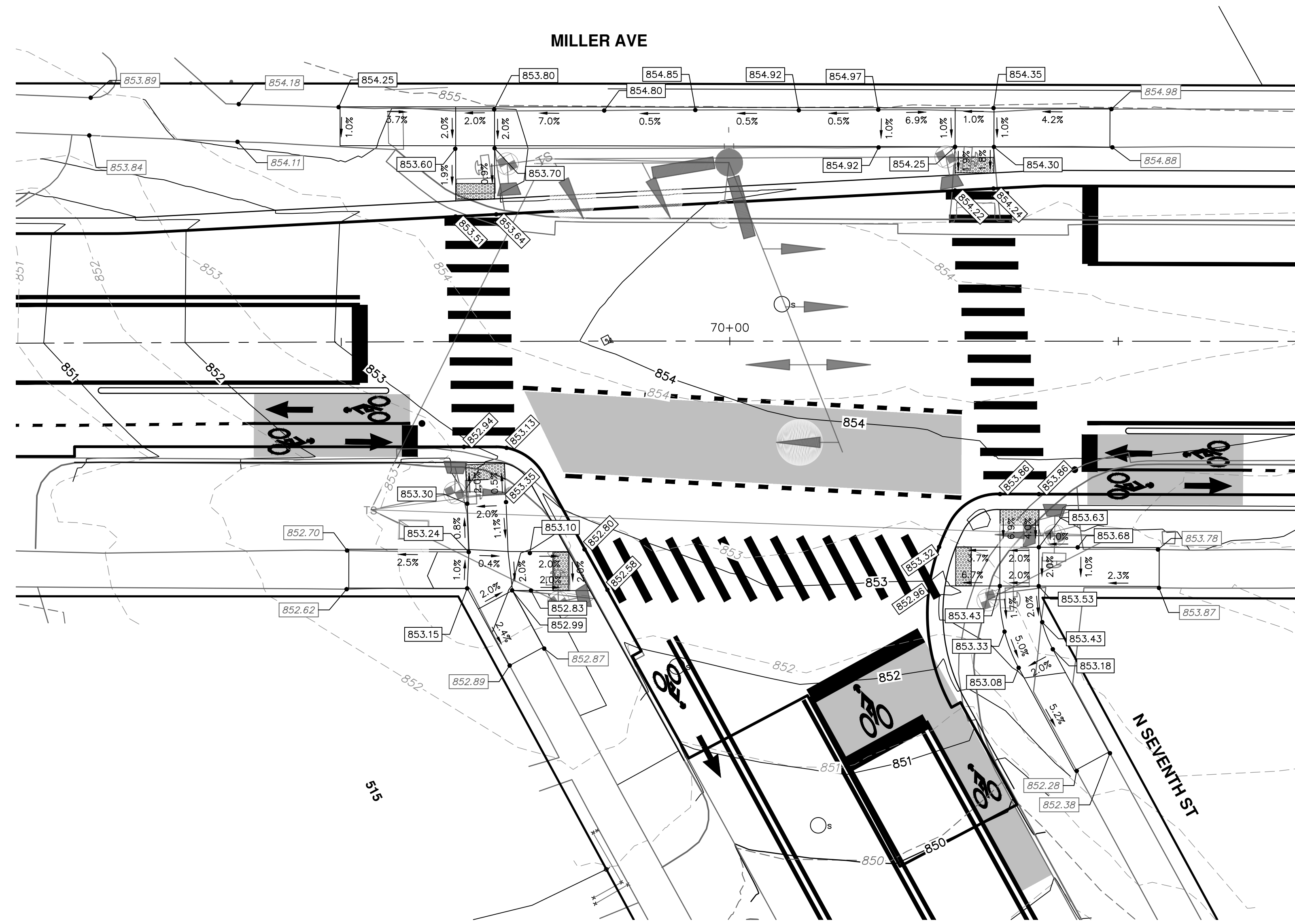
**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
MILLER AVENUE REHABILITATION  
INTERSECTION GRADES  
RED OAK RD., BUS STOP NEAR ARBORVIEW BLVD.

SCALE PLAN: 1" = 10'  
DRAWING No. 2022034-78

SHEET No. 78 OF 132



R:\2022034\_Miller\_Ave\_Rehab\Plan\_Production\2022034IG.dwg Dwg Created: 22-Apr-24 -- \_o2\_standard\_bw.stb -- Plot Date: 30-Aug-24



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REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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MILLER AVENUE REHABILITATION  
INTERSECTION GRADES  
N SEVENTH ST, BUS STOP NEAR GOTT ST

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ANN ARBOR, MI 48106-1647  
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SCALE PLAN: 1" = 10'

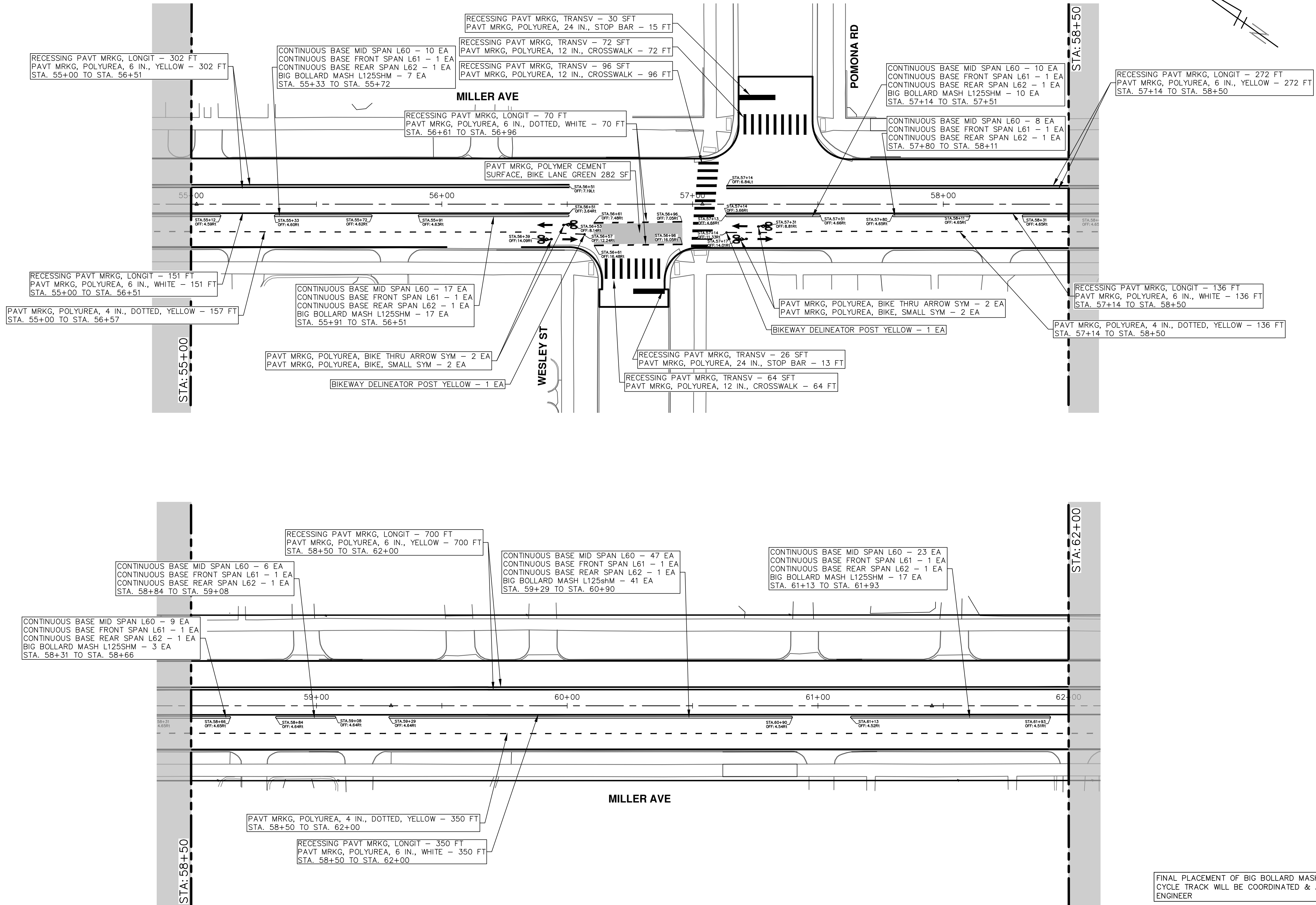
DRAWING No. 2022034-79  
SHEET No. 79 OF 132







R:\2022034\_Miller\_Ave\_Rehab\Plan\_Production\2022034Pmk.dwg Dwg Created: 29-Aug-24 - \_o2\_standard\_bw.stb - Plot Date: 30-Aug-24



FINAL PLACEMENT OF BIG BOLLARD MASH L125SHM WITHIN CYCLE TRACK WILL BE COORDINATED & APPROVED BY ENGINEER



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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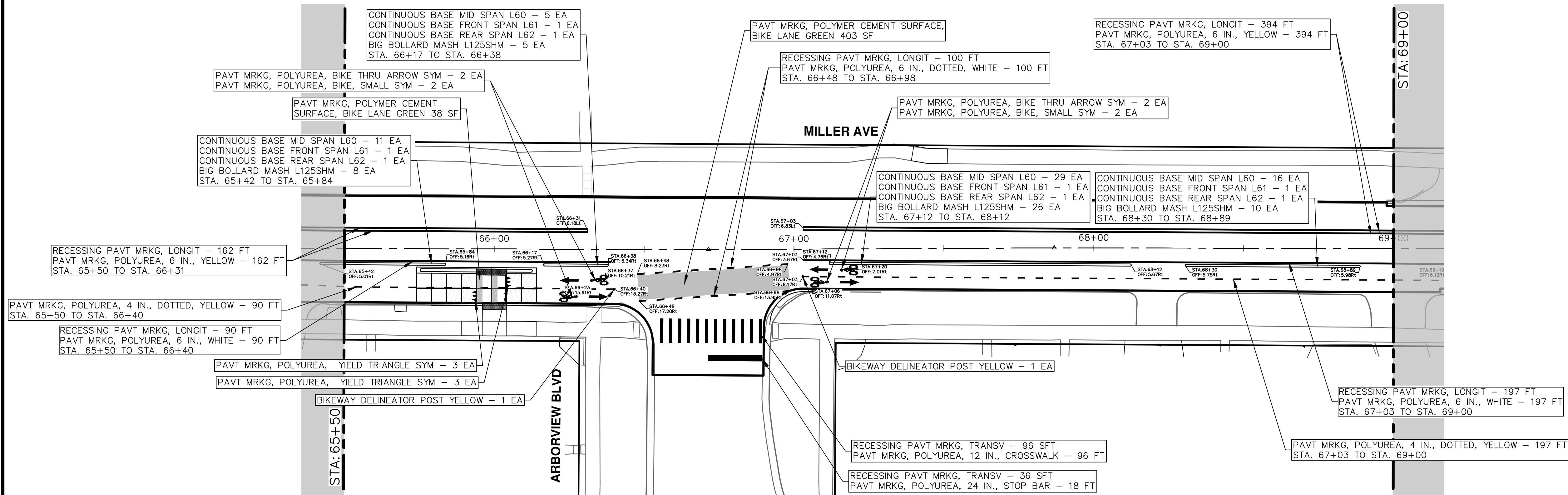
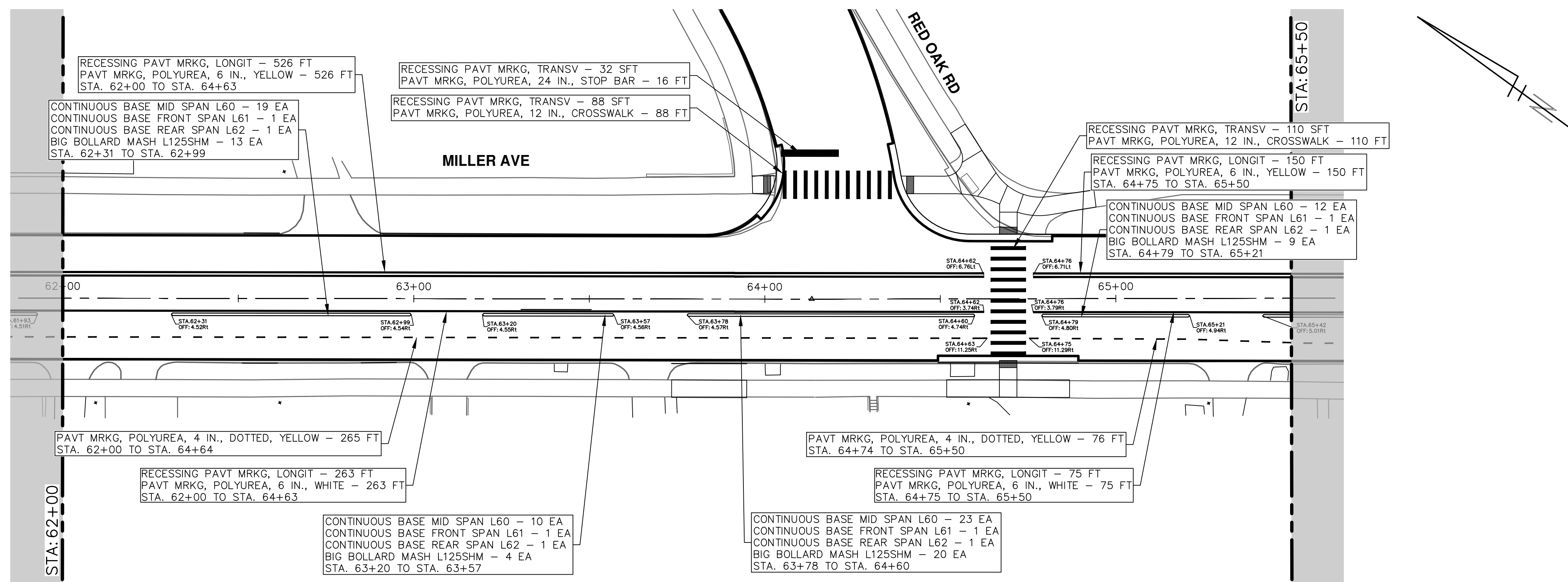


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER AVENUE REHABILITATION  
PAVEMENT MARKINGS  
STA. 55+00 - STA. 62+00

SCALE: 1" = 20'  
DRAWING No. 2022034-61



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FINAL PLACEMENT OF BIG BOLLARD MASH L125SHM WITHIN CYCLE TRACK WILL BE COORDINATED & APPROVED BY ENGINEER

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MILLER AVENUE REHABILITATION  
PAVEMENT MARKINGS

DESCRIPTION

---

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STA. 62+00 - STA. 69+00

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SCALE: 1" = 20'

DRAWING NO. 2022034-82

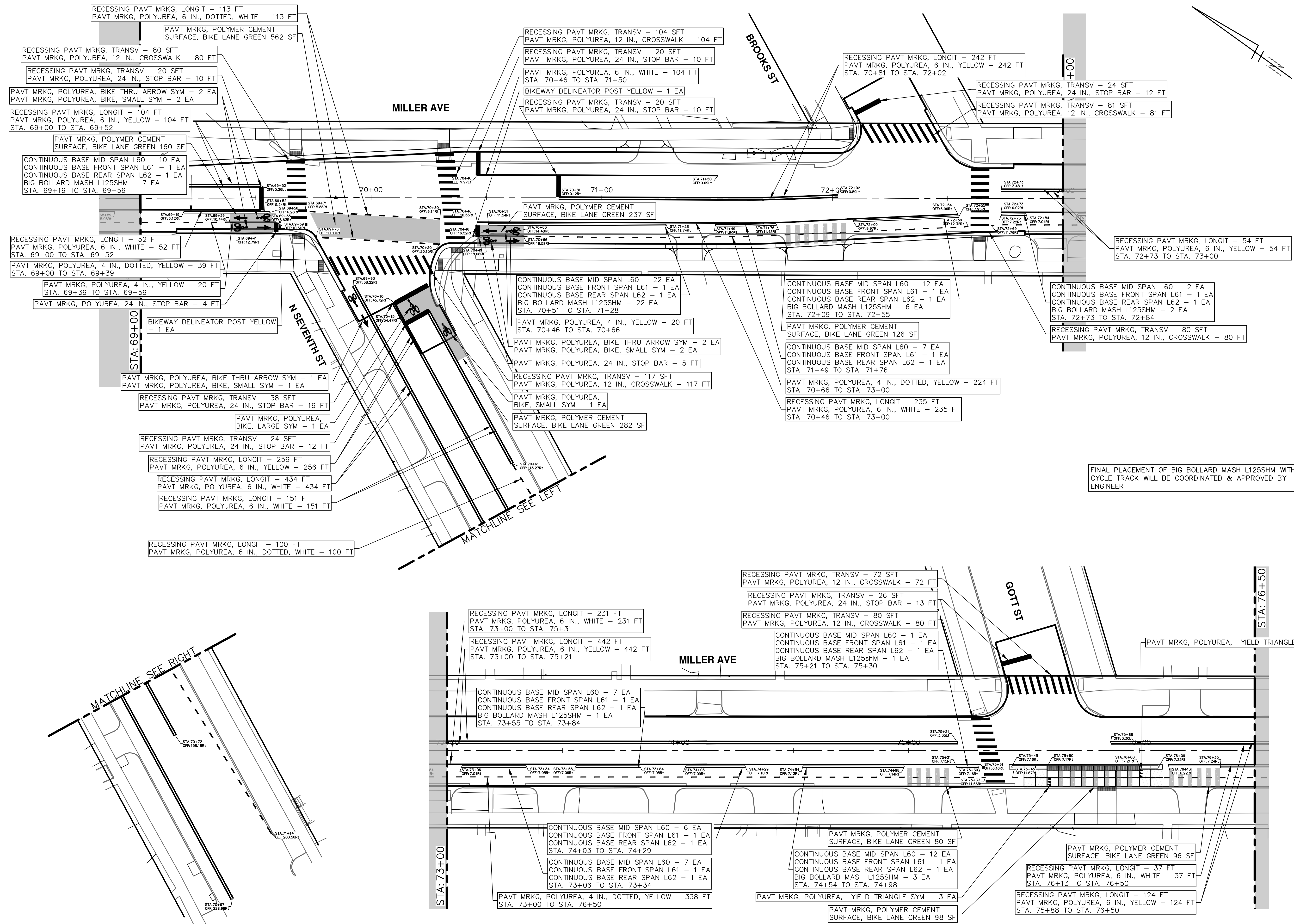
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SHEET No.

82 OF 132



R:\2022034\_Miller\_Ave\_Rehab\_Plan\_Production\2022034Pmk.dwg Dwg Created: 29-Aug-24 - \_o2\_standard\_bw.stb - Plot Date: 30-Aug-24



FINAL PLACEMENT OF BIG BOLLARD MASH L125SHM WITHIN CYCLE TRACK WILL BE COORDINATED & APPROVED BY ENGINEER



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MILLER AVENUE REHABILITATION  
PAVEMENT MARKINGS  
STA. 69+00 - STA. 76+50

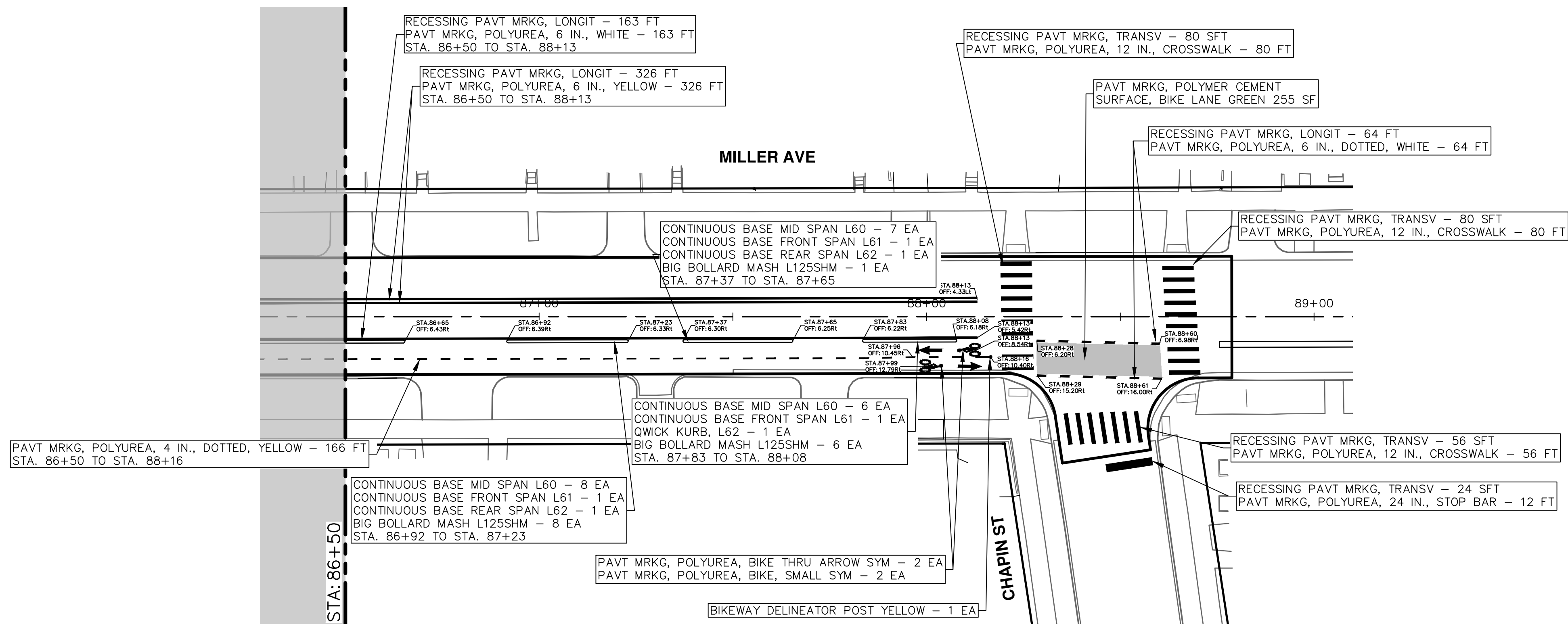
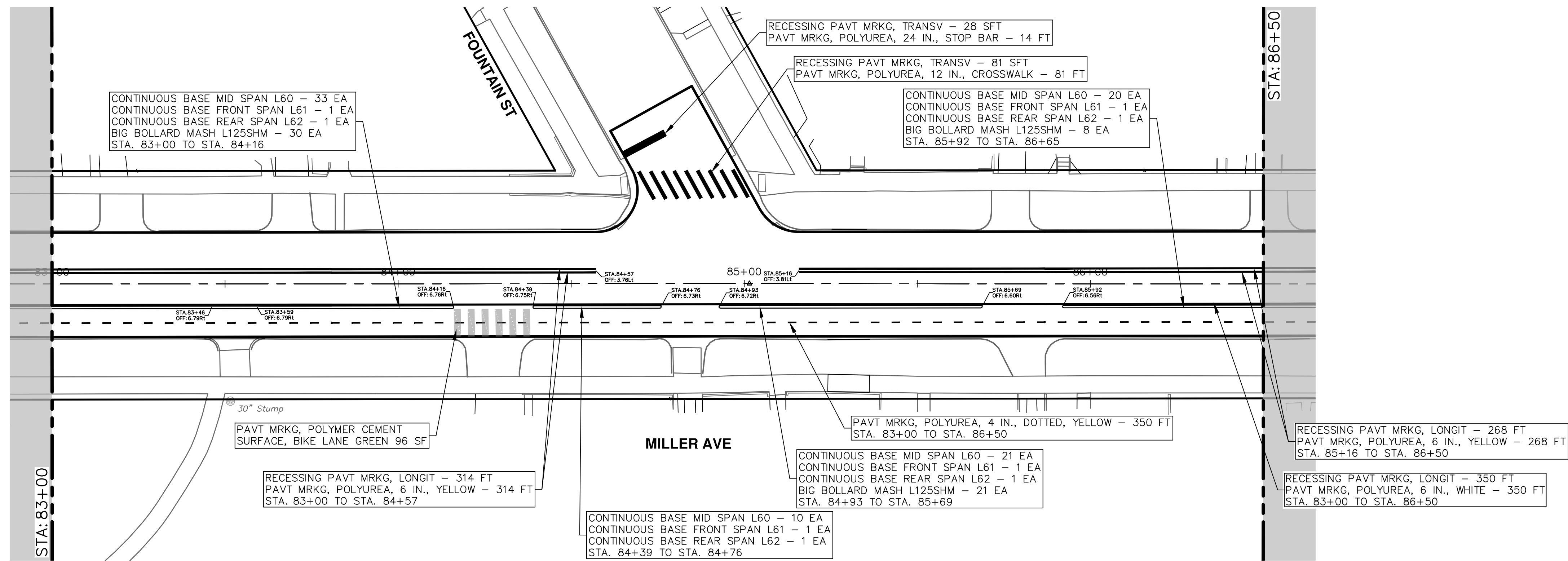
SCALE: 1" = 20'  
DRAWING NO. 2022034-83  
SHEET NO. 83 OF 132







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FINAL PLACEMENT OF BIG BOLLARD MASH L125SHM WITHIN CYCLE TRACK WILL BE COORDINATED & APPROVED BY ENGINEER



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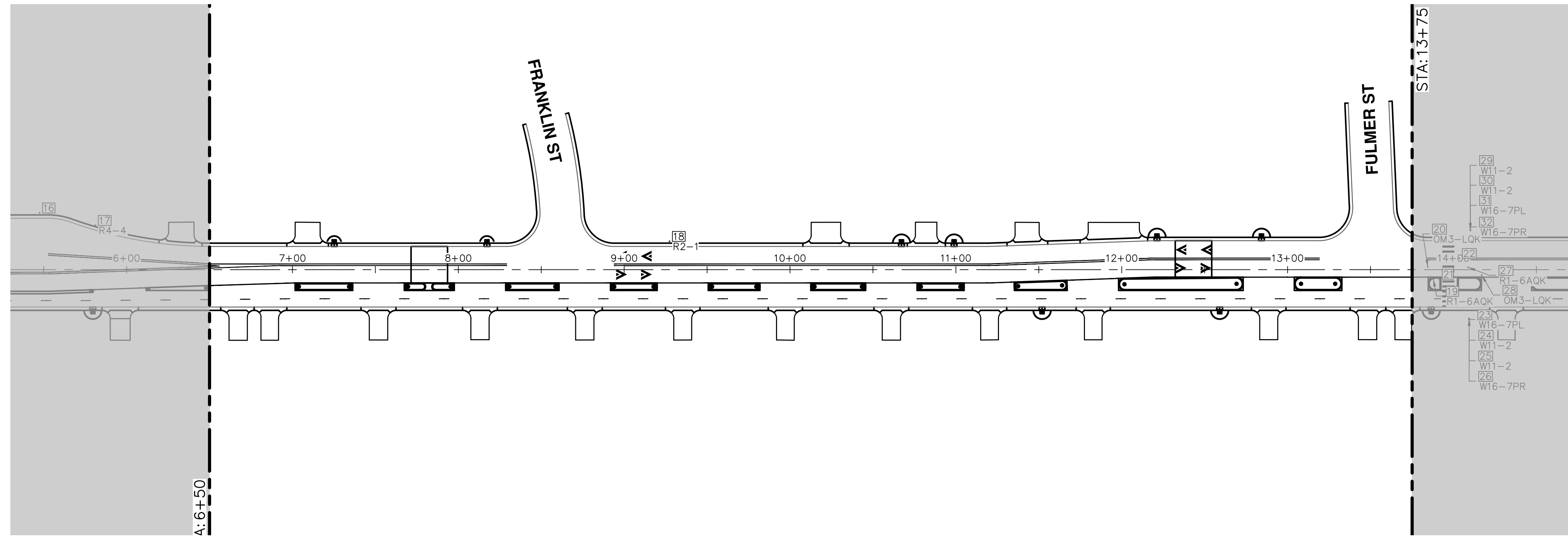


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**MILLER AVENUE REHABILITATION**  
PAVEMENT MARKINGS

SCALE: 1" = 20'  
DRAWING No. 2022034-85



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SIGN	EA (THIS SHEET)
R2-1	2
LEFT, THRU RIGHT (R3-8)	2
LEFT, THRU RIGHT, BIKE (R3-8)	3
RD-1B	4
W2-2P	1
W6-2A	1

Point #	REMOVE EXISTING	INSTALL NEW
1	Y	
2	Y	LEFT, THRU RIGHT, BIKE (R3-8)
3	Y	LEFT, THRU RIGHT, BIKE (R3-8)
4	Y	RD-1B, POST MOUNTED, 24"X24"
5	N	RD-1B, MAST-ARM MOUNTED, (FACING SB), 24"X24"
6	Y	LEFT, THRU RIGHT, BIKE (R3-8)
7	N	RD-1B, POST MOUNTED, 24"X24"
8	N	RD-1B, MAST-ARM MOUNTED, (FACING WB), 24"X24"
9	Y	
10	Y	
11	N	LEFT, THRU RIGHT (R3-8)
12	Y	
13	Y	W6-2A
14	Y	W2-2P
15	Y	R2-1
16	N	LEFT, THRU RIGHT (R3-8)
17	Y	
18	Y	R2-1

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**MILLER AVENUE REHABILITATION**


PERMANENT SIGNING

P.O.B. - STA 14+00

SCALE: 1" = 40'


DRAWING No. 2022034-86

SHEET No. 86 OF 132



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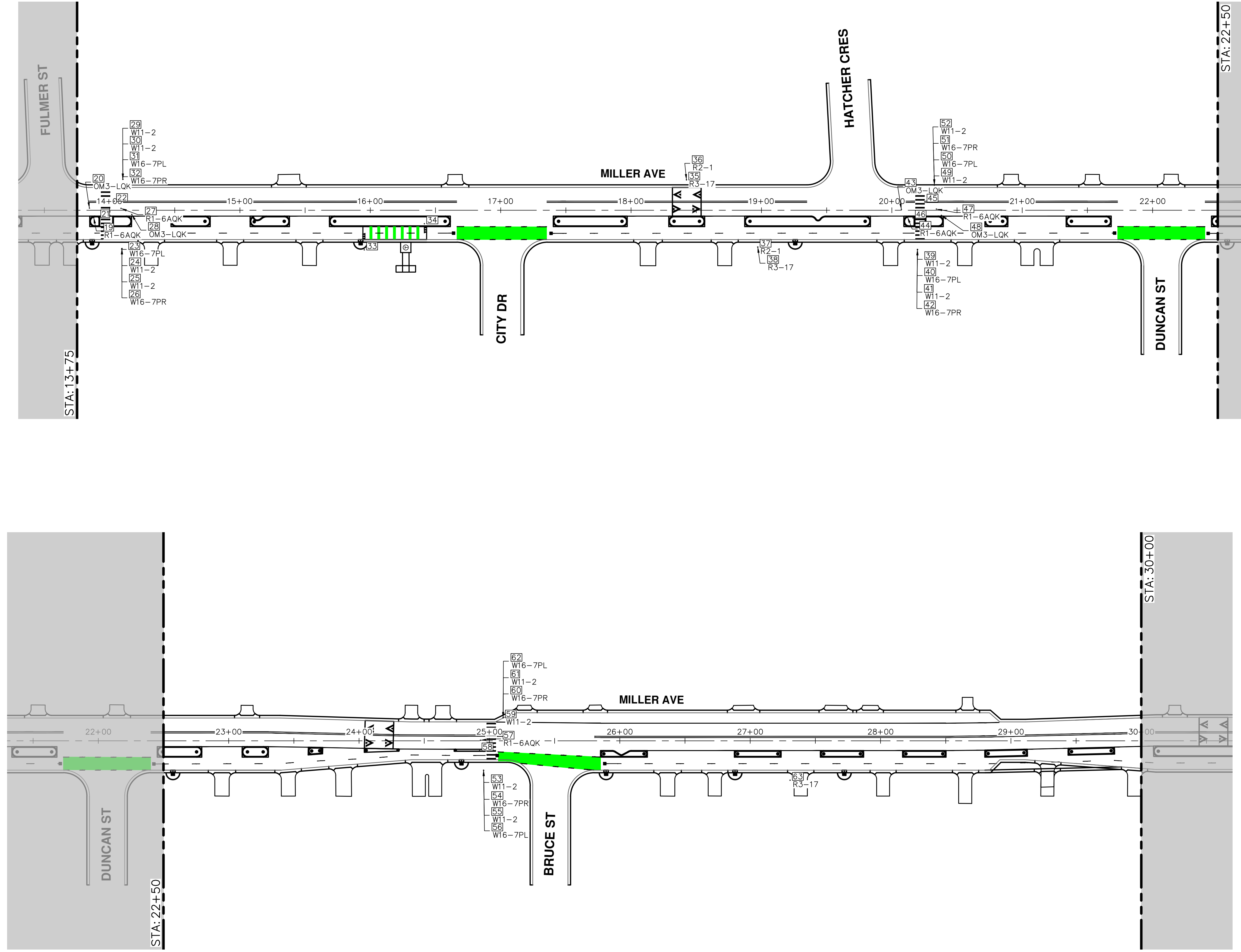
REV.	DESCRIPTION	DATE	DRAWN	CHECKED



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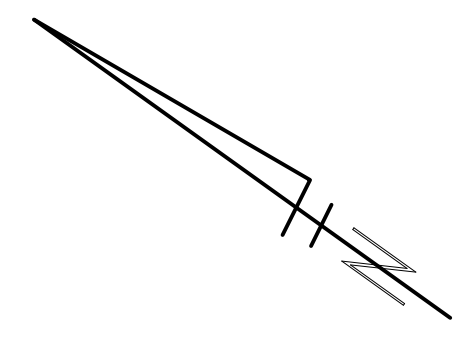


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Point #	REMOVE EXISTING	INSTALL NEW
19	Y	
20	Y	
21	N	IN-STREET SIGN, R1+6A, BUFFER
22	N	IN-STREET SIGN, R1+6A, CENTERLINE
23	N	
24	N	
25	N	
26	N	
27	Y	
28	Y	
29	N	
30	N	
31	N	
32	N	
33	N	R9-6
34	N	IN-STREET SIGN, R9-6, BUFFER
35	Y	
36	Y	R2-1
37	Y	R2-1
38	Y	
39	N	
40	N	
41	N	
42	N	
43	Y	
44	Y	
45	N	IN-STREET SIGN, R1+6A, CENTERLINE
46	N	IN-STREET SIGN, R1+6A, BUFFER
47	Y	
48	Y	
49	N	
50	N	
51	N	
52	N	
53	N	
54	N	
55	N	
56	N	
57	Y	IN-STREET SIGN, R1+6A, CENTERLINE
58	N	IN-STREET SIGN, R1+6A, BUFFER
59	N	
60	N	
61	N	
62	N	
63	Y	

SIGN	EA (THIS SHEET)
IN-STREET SIGN, R1+6A	6
R2-1	2
R9-6	1
IN-STREET SIGN, R9-6	1



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**MILLER AVENUE REHABILITATION**

PERMANENT SIGNING

STA. 14+00 - STA. 30+00

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SCALE: 1" = 40'

DRAWING No. 2022034-87

SHEET No. 87 OF 132

REV.	DESCRIPTION	DATE	DRAWN	CHECKED





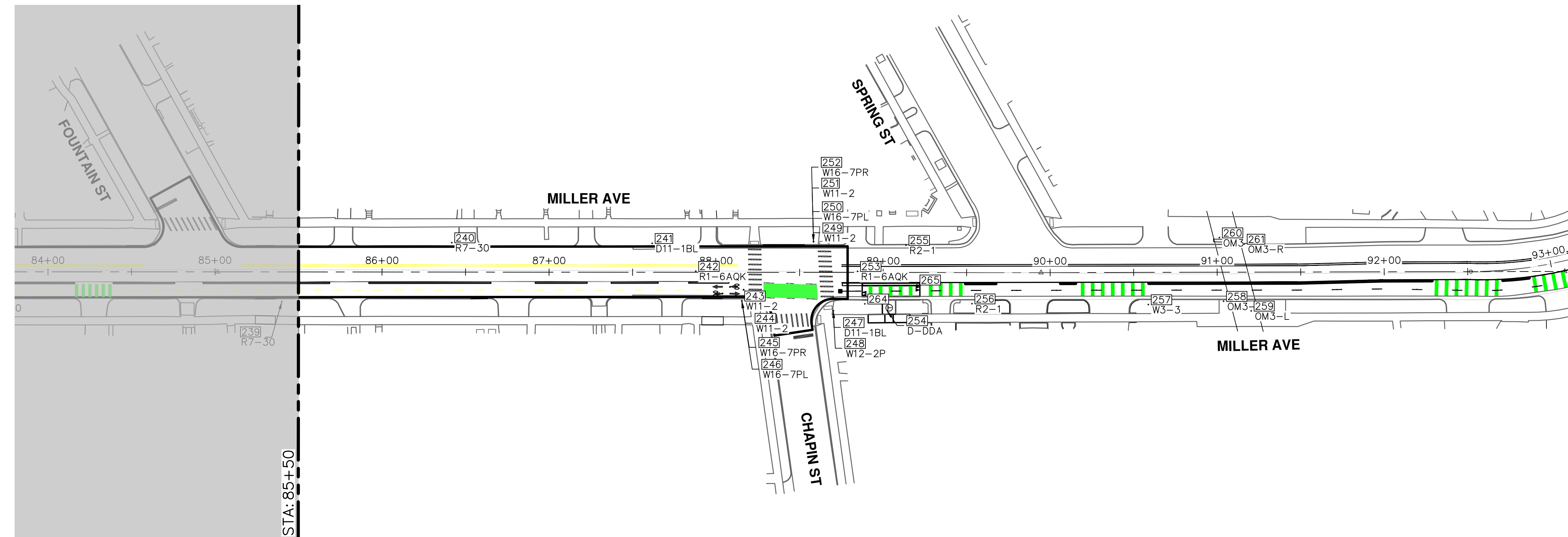
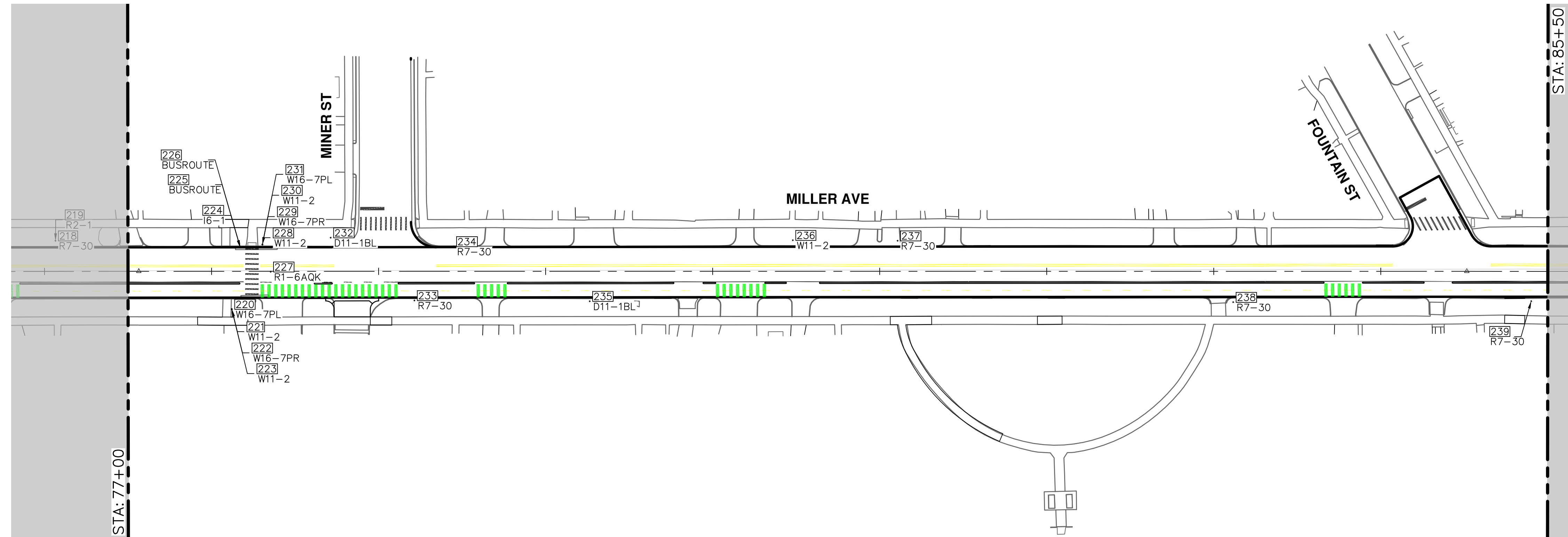








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Point #	REMOVE EXISTING	INSTALL NEW
220	Y	W6-7PL
221	Y	W11-2
222	Y	W6-7PR
223	Y	W11-2
224	Y	
225	Y	
226	Y	
227	Y	IN-STREET SIGN, R16A, CENTERLINE
228	Y	W11-2
229	Y	W6-7PR
230	Y	W11-2
231	Y	W6-7PL
232	Y	
233	Y	
234	Y	
235	Y	
236	Y	
237	Y	
238	Y	
239	Y	
240	Y	
241	Y	
242	Y	IN-STREET SIGN, R16A, CENTERLINE
243	Y	W11-2
244	Y	W11-2
245	Y	W6-7PR
246	Y	W6-7PL
247	Y	
248	Y	W2-2P
249	Y	W11-2
250	Y	W6-7PL
251	Y	W11-2
252	Y	W6-7PR
253	Y	IN-STREET SIGN, R16A, CENTERLINE
254	N	
255	Y	R2-1
256	Y	R2-1
264	N	R9-6
265	N	IN-STREET SIGN, R9-6, BUFFER
257	Y	W6-3
258	Y	OM3-R
259	Y	OM3-L
260	Y	OM3-L
261	Y	OM3-R

SIGN	EA (THIS SHEET)
OM3-L	2
OM3-R	2
IN-STREET SIGN, R16A	3
R2-1	2
R9-6	1
IN-STREET SIGN, R9-6	1
W6-3	1
W11-2	8
W2-2P	1
W6-7PL	4
W6-7PR	4

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

**MILLER AVENUE REHABILITATION**


PERMANENT SIGNING

STA. 77+00 - P.O.E.

SCALE: 1" = 40'

DRAWING No. 2022034-91

SHEET No. 91 OF 132



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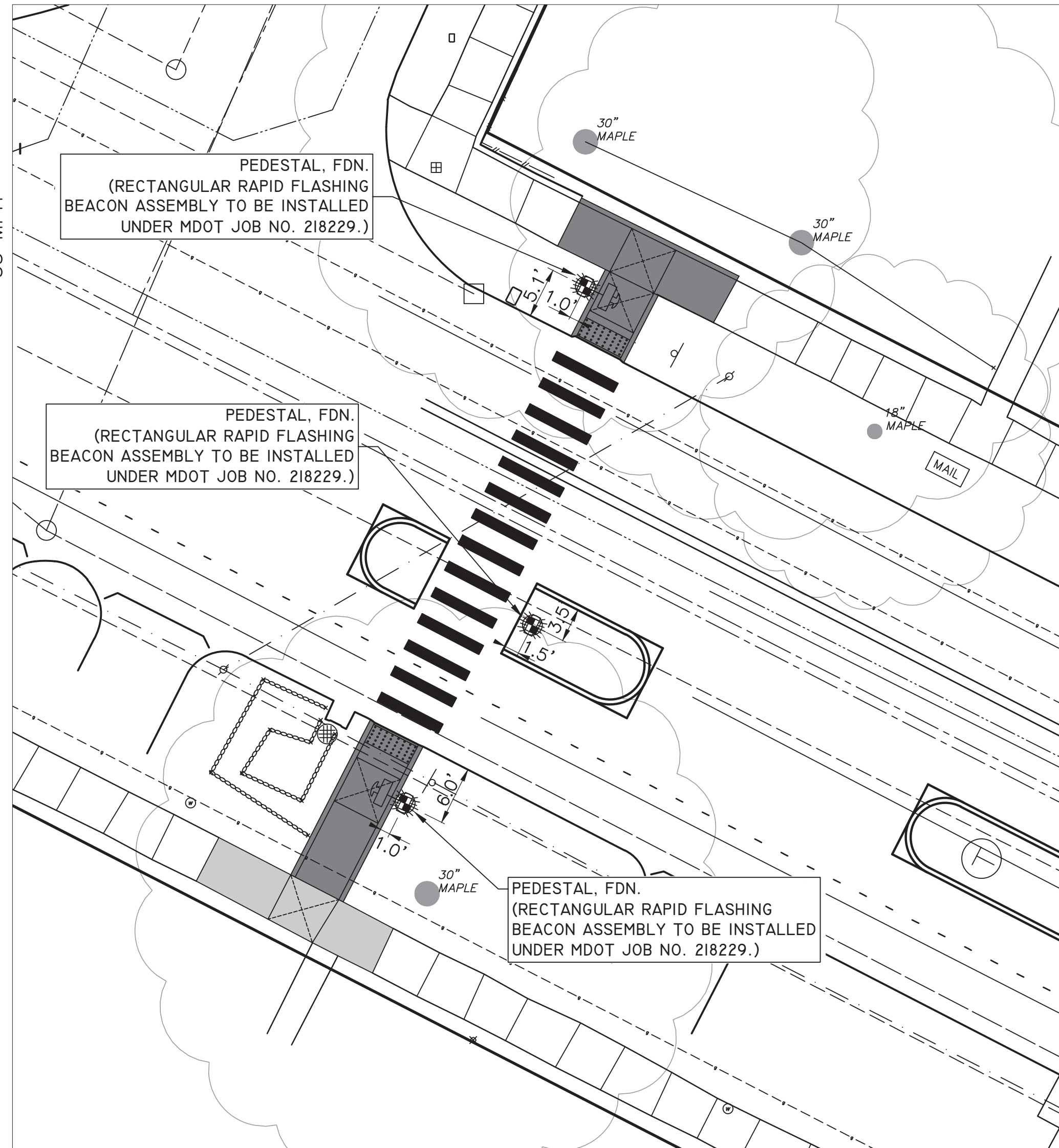
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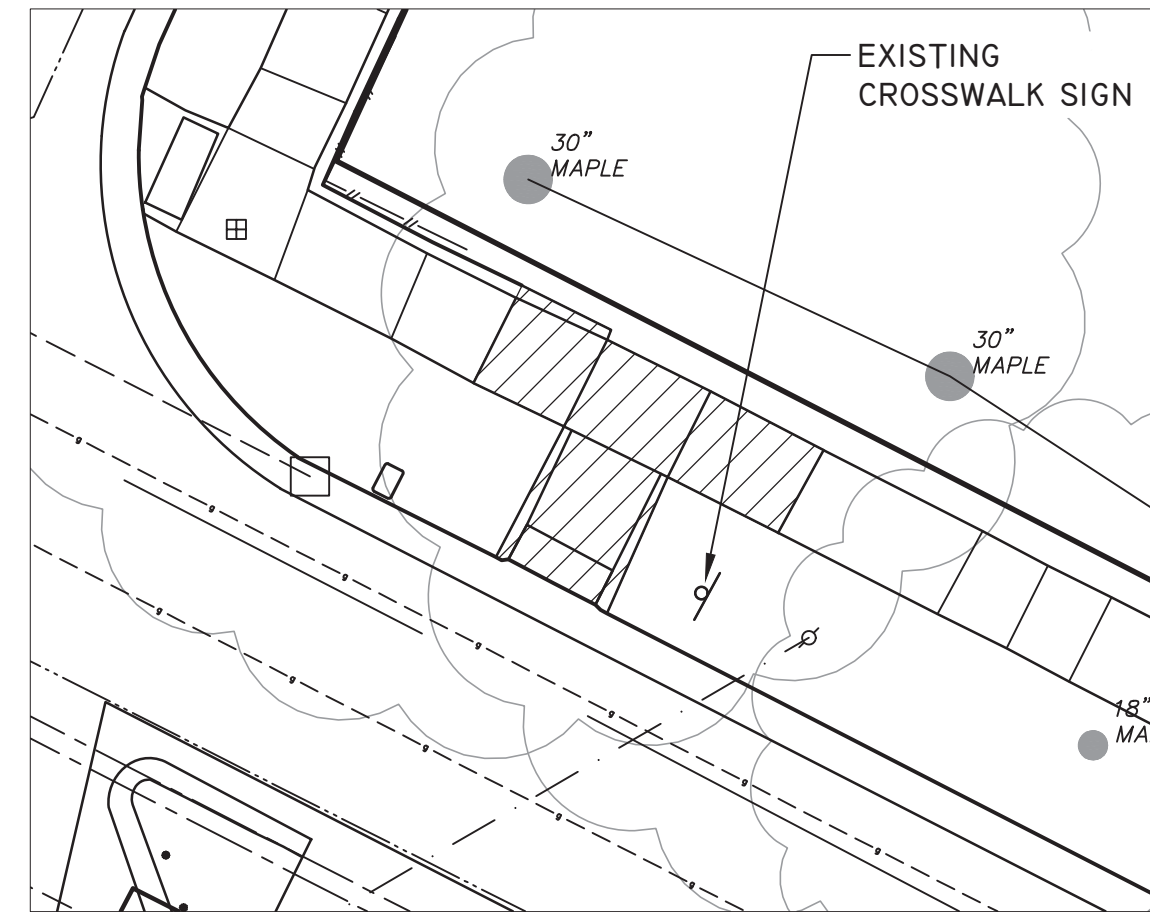


**FULMER ST**  
50' R.O.W.  
25 MPH

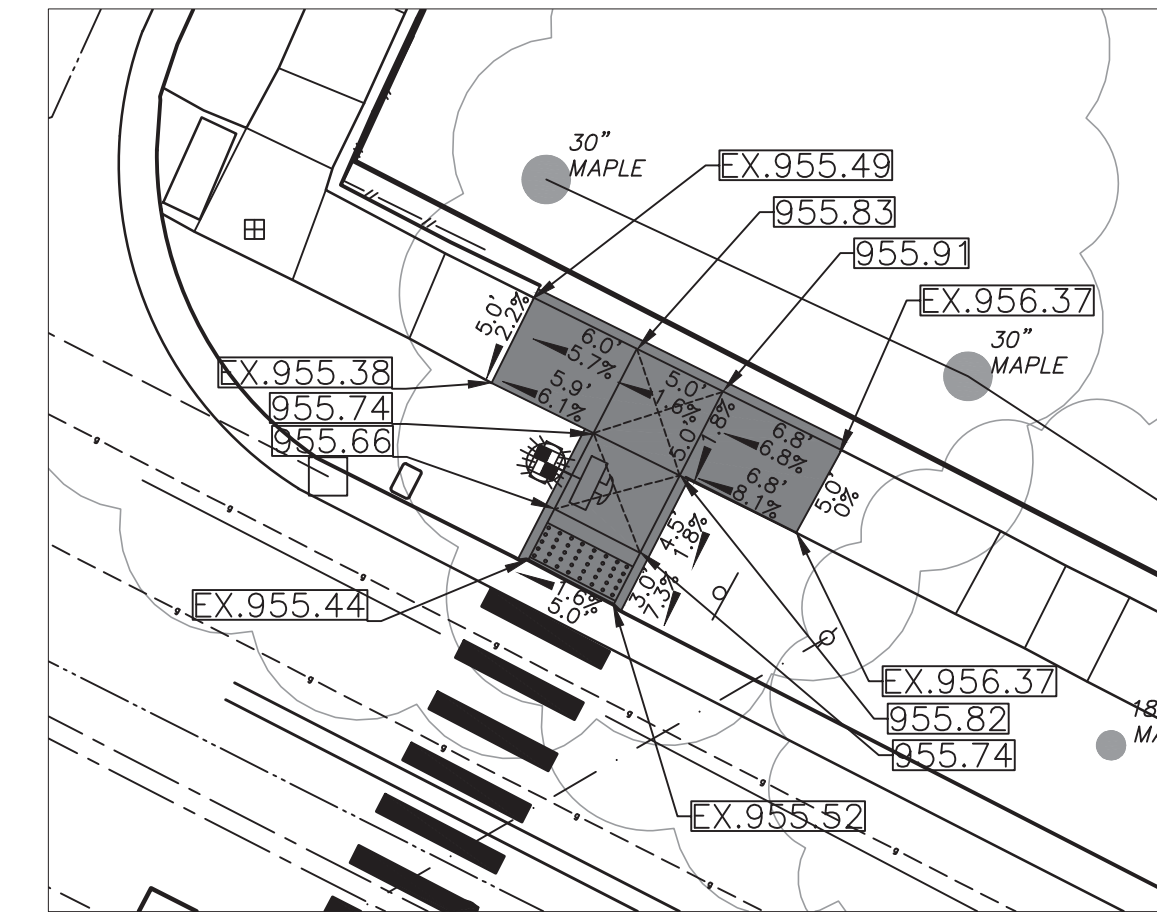
**MILLER AVE**  
83' R.O.W.  
35 MPH



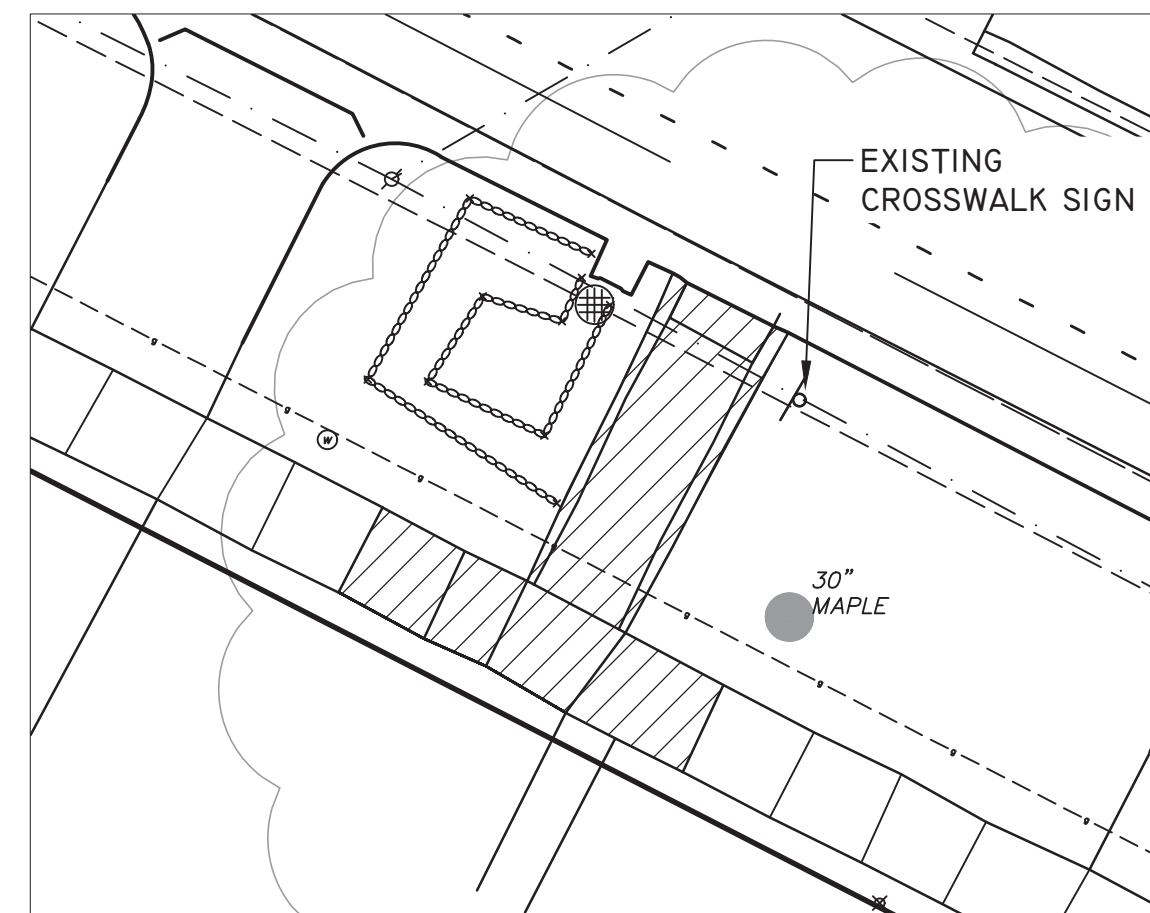
**MILLER AVE @ FULMER ST**



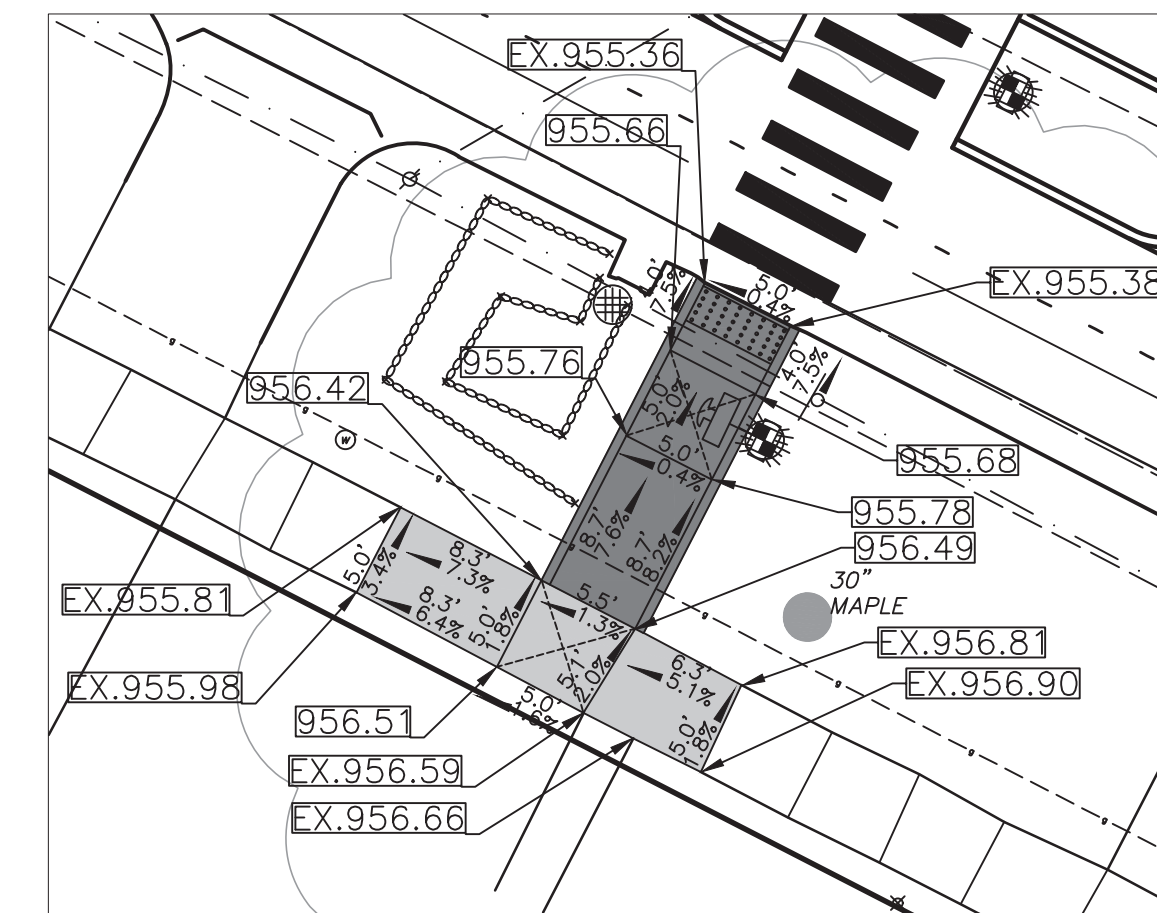
**NORTH SIDE OF MILLER AVE**



**NORTH SIDE OF MILLER AVE**



**SOUTH SIDE OF MILLER AVE**



**SOUTH SIDE OF MILLER AVE**

**BENCHMARK AND CONTROL POINT INFORMATION:**

**BENCHMARK 208**  
ELEVATION = 955.43  
TOP OF ARROW ON HYDRANT AT NORTHWEST INTERSECTION  
CORNER OF MILLER AVENUE AND FULMER STREET.

**BENCHMARK 211**  
ELEVATION = 954.99  
SOUTHEAST CORNER OF CATCH BASIN RIM LOCATED AT  
NORTHEAST QUADRANT OF FULMER STREET & MILLER AVENUE,  
17' +/- NORTH FROM CENTERLINE MILLER AVENUE, 32' +/- EAST  
FROM CENTERLINE FULMER STREET.

**CONTROL POINT 117**  
NORTHING = 289660.641/EASTING = 13282821.500  
ELEVATION = 957.05  
SET BAR WITH CAP 5 FEET NORTH OF 30 INCH MAPLE TREE, 8  
FEET SOUTH OF SOUTH BACK OF CURB FOR MILLER AVENUE, 37  
FEET EAST OF CENTERLINE DRIVEWAY #2235.


**CONTROL POINT 118**  
NORTHING = 289719.857/EASTING = 13282829.070  
ELEVATION = 988.41  
SET BAR WITH CAP 4 FEET NORTH OF NORTH BACK OF CURB  
FOR MILLER AVENUE, 36 FEET EAST OF CENTERLINE FULMER  
STREET, 15 FEET SOUTH OF 30 INCH MAPLE TREE.


**CONTROL POINT 119**  
NORTHING = 289748.556/EASTING = 13282775.380  
ELEVATION = 953.26  
SET BAR WITH CAP AT NORTHWEST INTERSECTION CORNER OF  
MILLER AVENUE AND FULMER STREET, 4 FEET NORTH OF  
NORTH BACK OF CURB FOR MILLER, 6 FEET EAST OF HYDRANT.

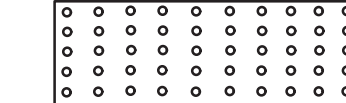
**MILLER AVE @ FULMER ST - REMOVALS**

 SIDEWALK, SIDEWALK RAMP, &  
DRIVEWAY APPROACH, ANY THICK, REM

**MILLER AVE @ FULMER ST - GRADING DETAILS**

 CONC, SIDEWALK, 4 IN.

 CONC, SIDEWALK, DRIVE  
APPROACH, OR RAMP, 6 IN.

 DETECTABLE WARNING SURFACE



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**CITY OF ANN ARBOR - ENGINEERING**  
**MILLER ROAD CYCLE TRACK**  
RRFB CROSSING - DETAIL GRADES  
MILLER AVE @ FULMER ST

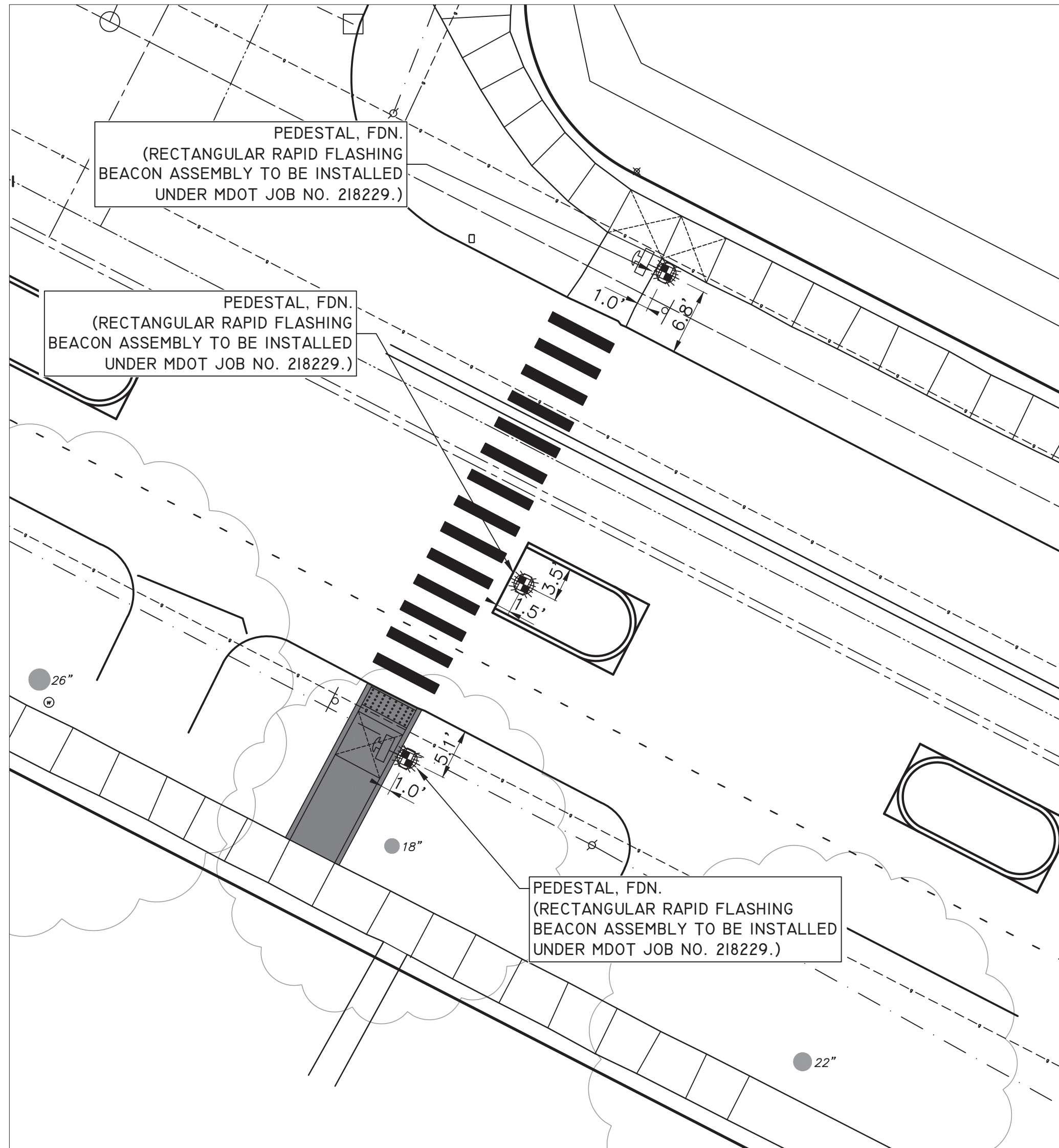
SCALE: 1"=20'  
DRAWING No.



**HATCHER CRESCENT**

60' R.O.W.  
25 MPH

**MILLER AVE**  
83' R.O.W.  
35 MPH



**MILLER AVE @ HATCHER CRESCENT - RRFB**

**BENCHMARK AND CONTROL POINT INFORMATION:**

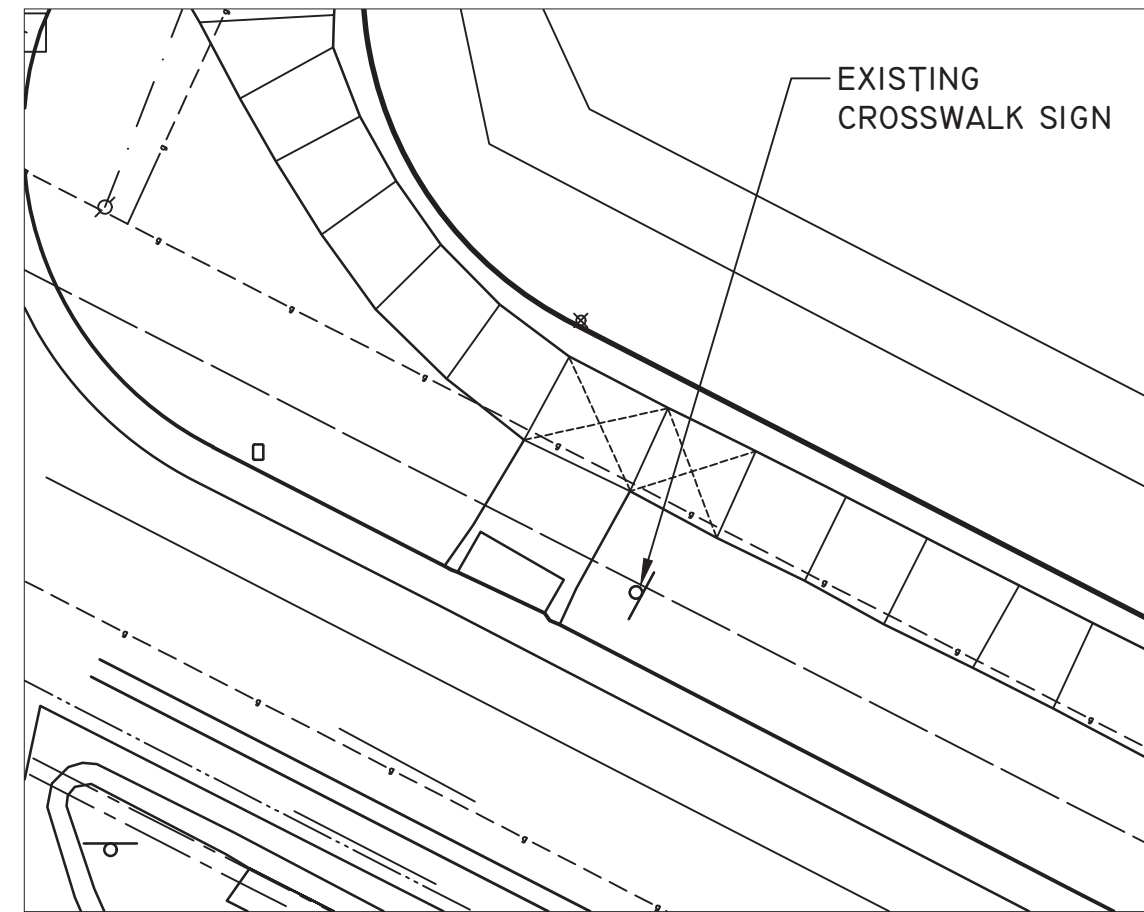
**BENCHMARK 200**  
ELEVATION = 970.44  
TOP OF RAILROAD SPIKE IN SOUTHWEST FACE OF LIGHT POLE ON THE NORTHEAST INTERSECTION CORNER OF MILLER AVENUE AND HATCHER CRESCENT.

**BENCHMARK 210**  
ELEVATION = 971.61  
ARROW ON TOP OF HYDRANT LOCATED AT THE NORTHWEST QUADRANT OF MILLER AVENUE AND HATCHER CRESCENT.

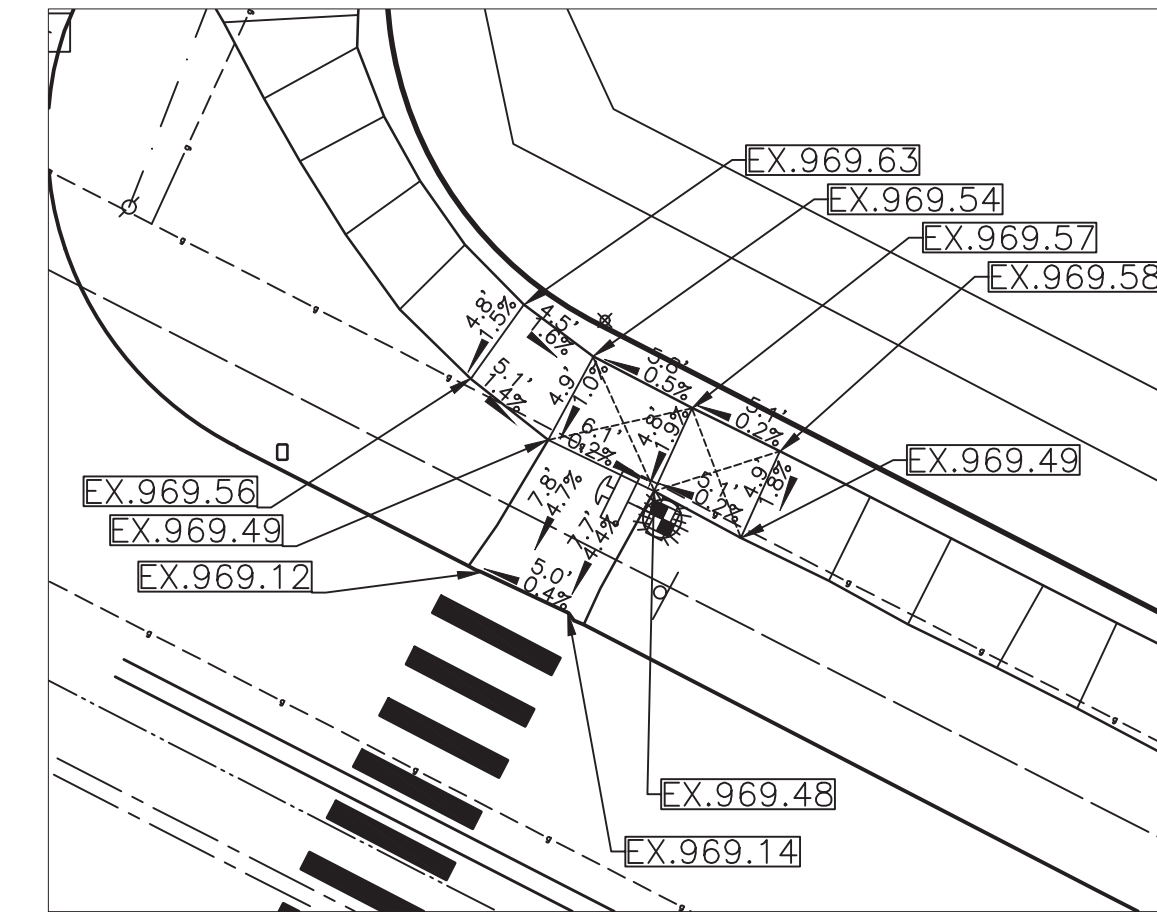
**CONTROL POINT 100**  
NORTHING = 289438.758/EASTING = 13283381.310  
ELEVATION = 969.61  
SET BAR WITH CAP 6 FEET NORTH OF BACK OF CURB MILLER AVENUE, 12 FEET EAST OF UTILITY POLE AT NORTHEAST INTERSECTION CORNER OF MILLER AVENUE AND HATCHER CRESCENT, 50 FEET SOUTH SOUTHEAST OF 18 INCH MAPLE TREE THAT IS 75 FEET NORTH OF MILLER AVENUE ON THE EAST SIDE OF HATCHER CRESCENT.

**CONTROL POINT 101**  
NORTHING = 289467.753/EASTING = 13283324.540  
ELEVATION = 969.62  
SET BAR WITH CAP AT NORTHWEST INTERSECTION CORNER OF MILLER AVENUE AND HATCHER CRESCENT, 12 FEET EAST OF FIRE HYDRANT, 55 FEET SOUTH OF 3 INCH DECORATIVE TREE ON WEST SIDE OF HATCHER CRESCENT NORTH OF MILLER AVENUE, 30 FEET NORTHWEST OF CENTER OF INTERSECTION.

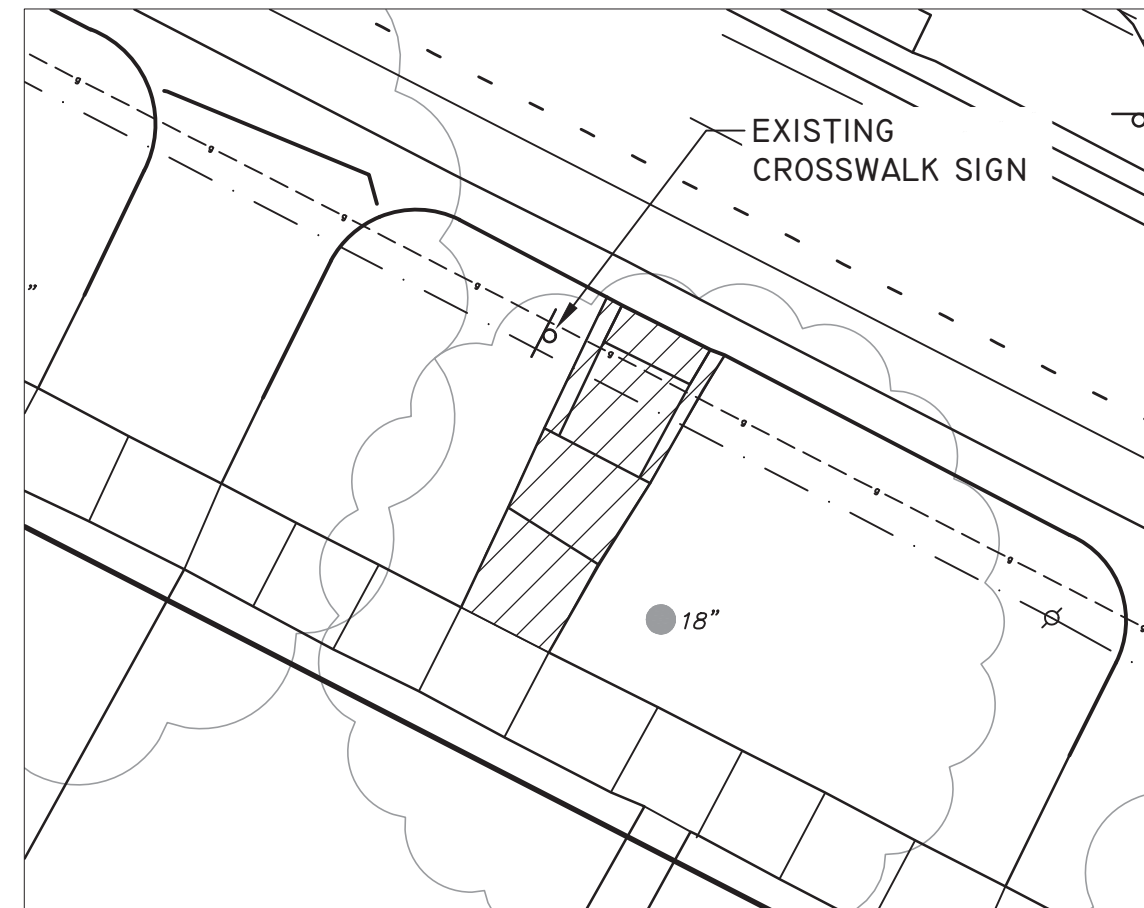
**CONTROL POINT 102**  
NORTHING = 289400.881/EASTING = 13283336.770  
ELEVATION = 969.56  
SET BAR WITH CAP 4 FEET SOUTH SOUTH BACK OF CURB ON MILLER AVENUE, 12 FEET NORTHWEST OF 26 INCH MAPLE TREE, 17 FEET WEST OF CENTERLINE DRIVEWAY #2045.



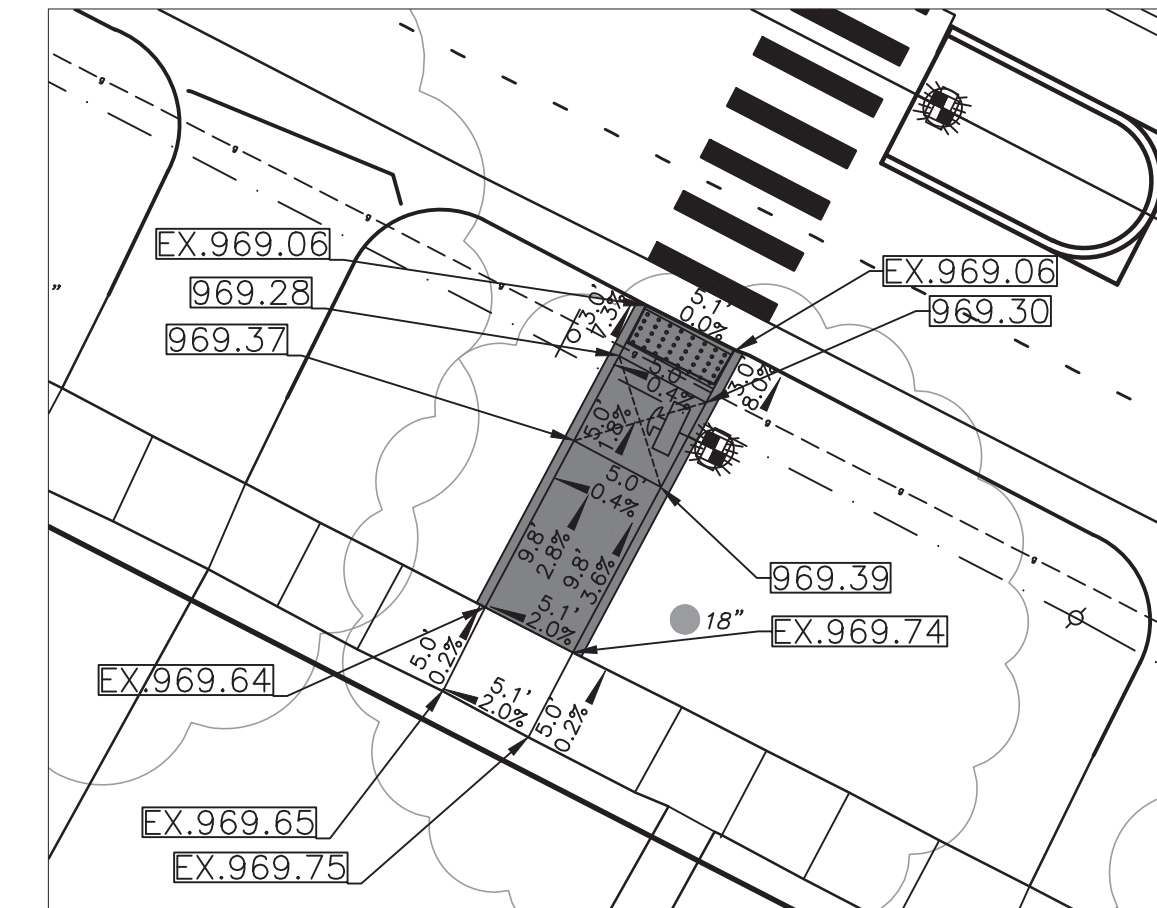
**NORTH SIDE OF MILLER AVE**



**NORTH SIDE OF MILLER AVE**  
DETAILED GRADES SHOWN FOR INFORMATION ONLY.  
NO SIDEWALK WORK BEING DONE HERE.



**SOUTH SIDE OF MILLER AVE**

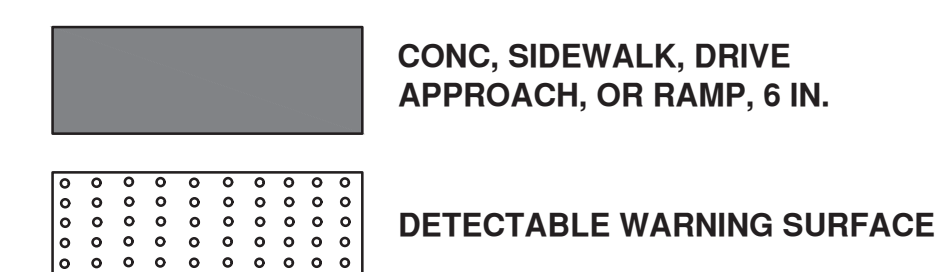


**SOUTH SIDE OF MILLER AVE**

**MILLER AVE @ HATCHER CRESCENT - REMOVALS**



**MILLER AVE @ HATCHER CRESCENT - GRADING DETAILS**

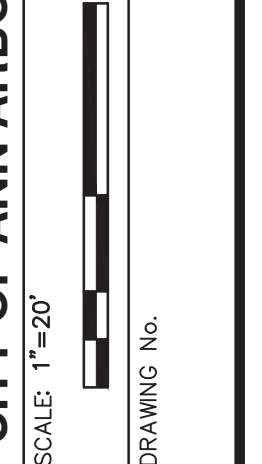


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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER ROAD CYCLE TRACK**  
RRFB CROSSING - DETAIL GRADES  
MILLER AVE @ HATCHER CRESCENT







REV.	DESCRIPTION	DATE	DRAWN	CHECKED

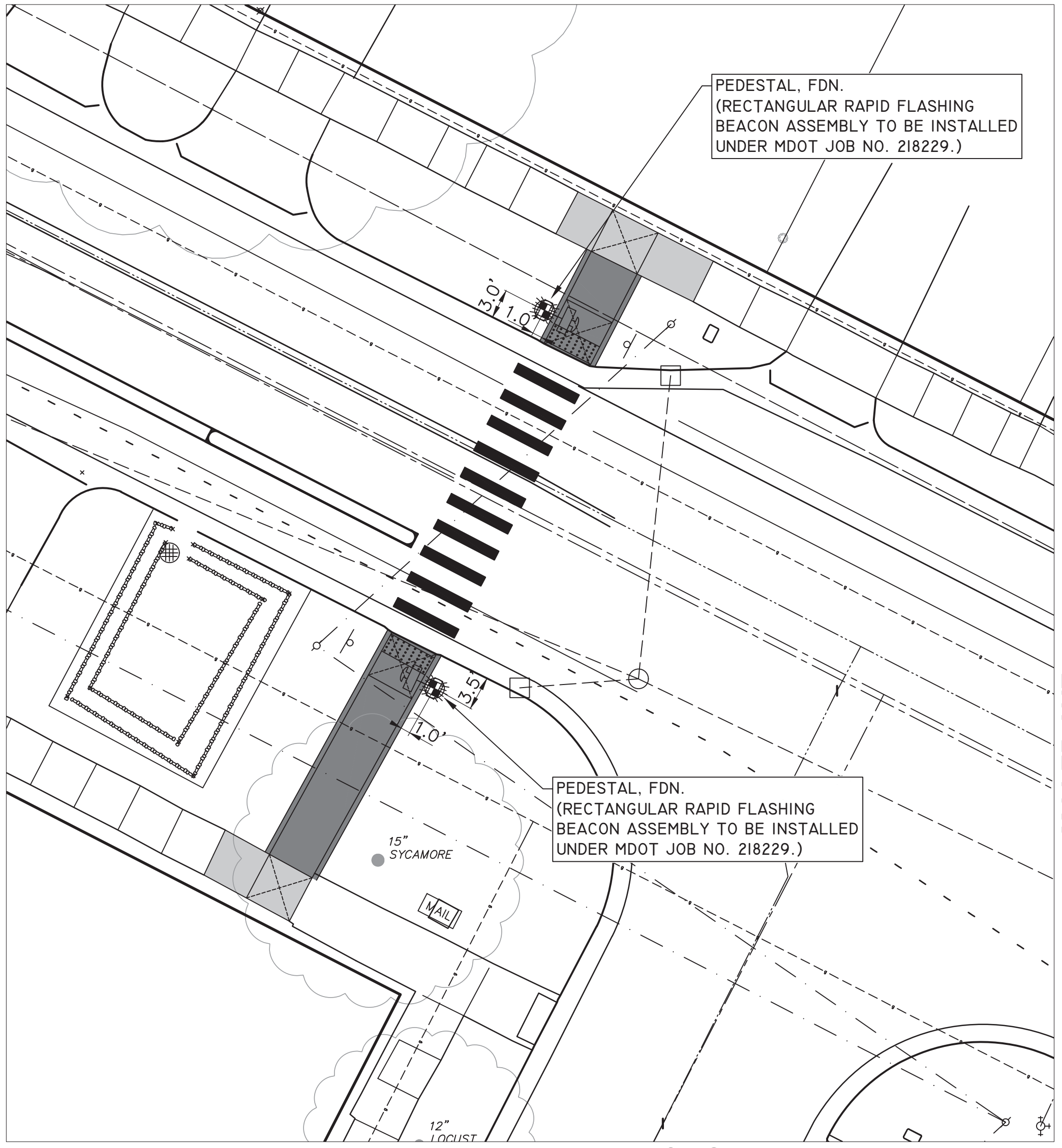
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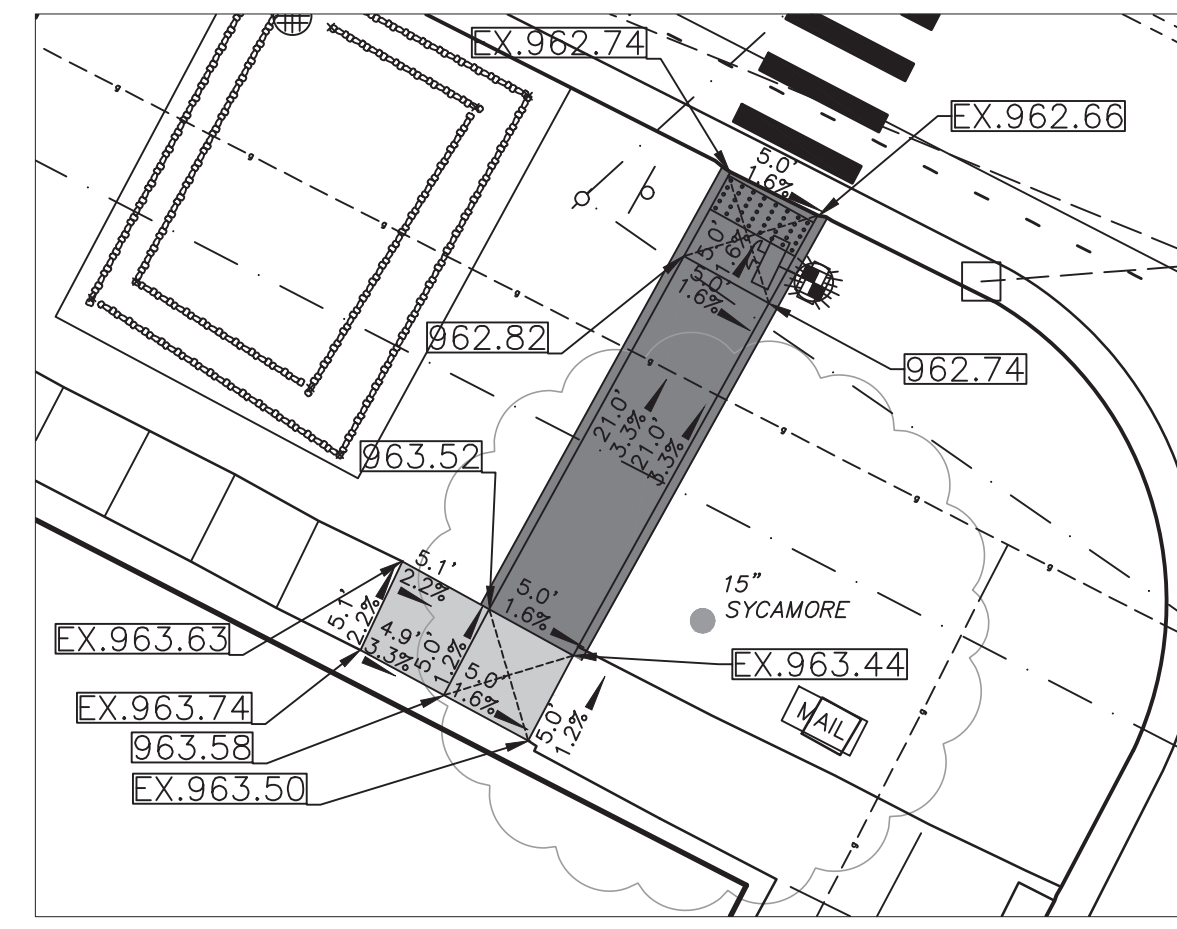
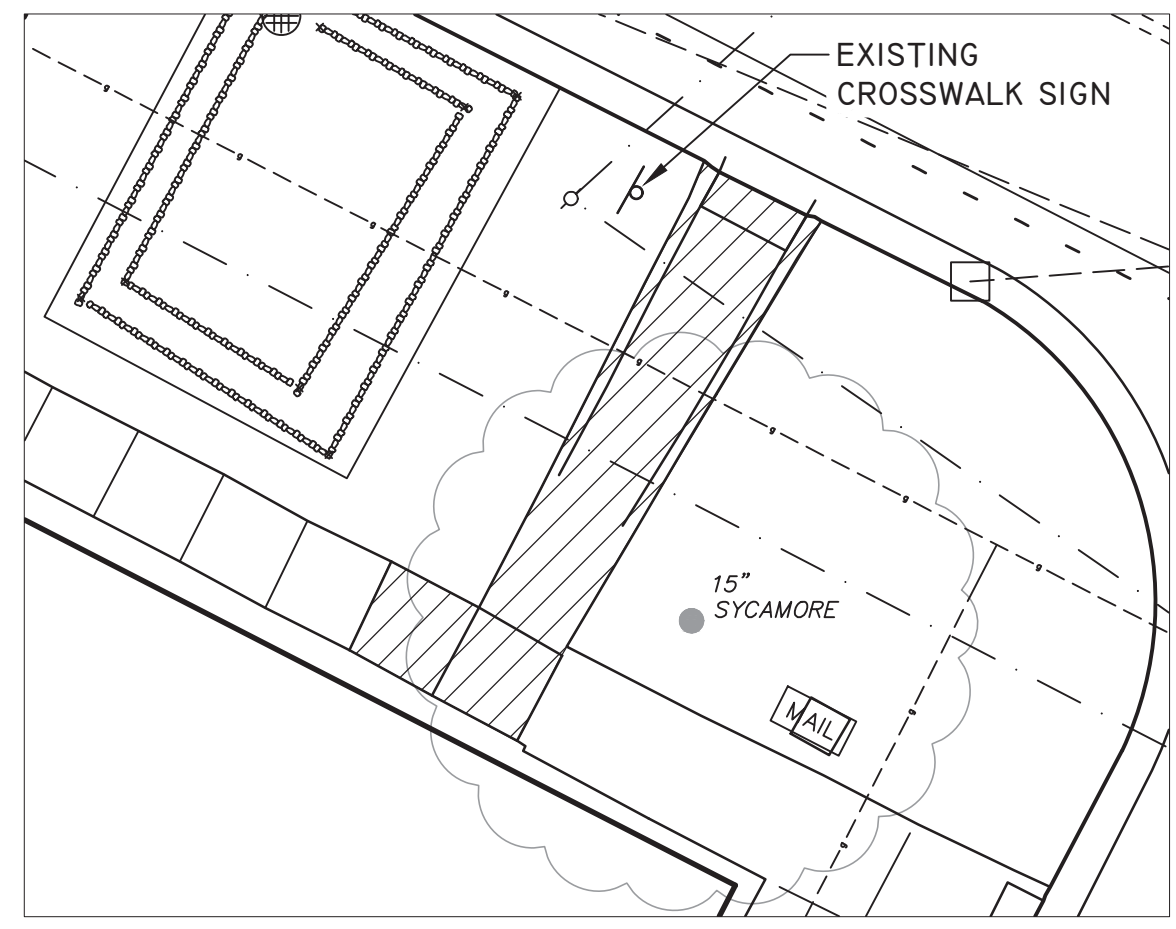
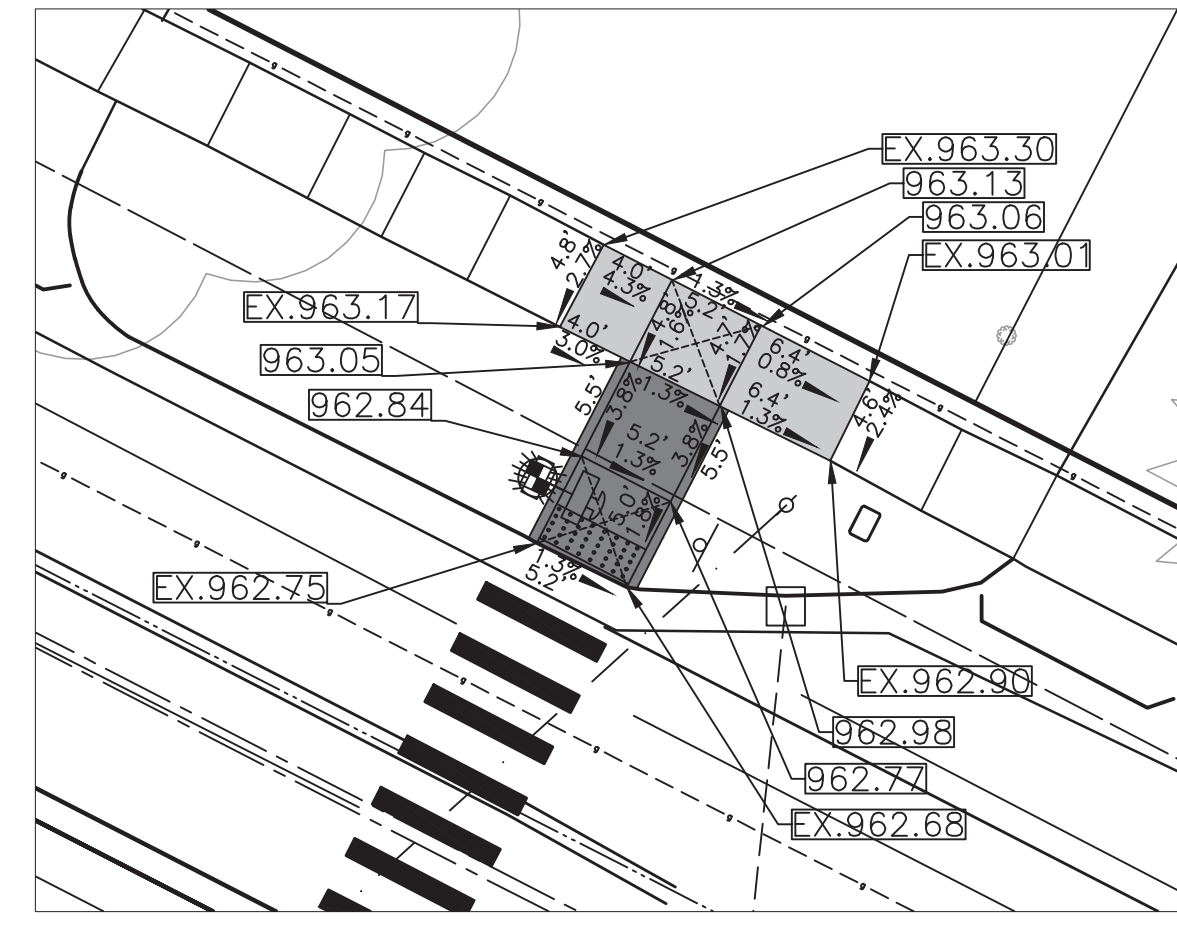
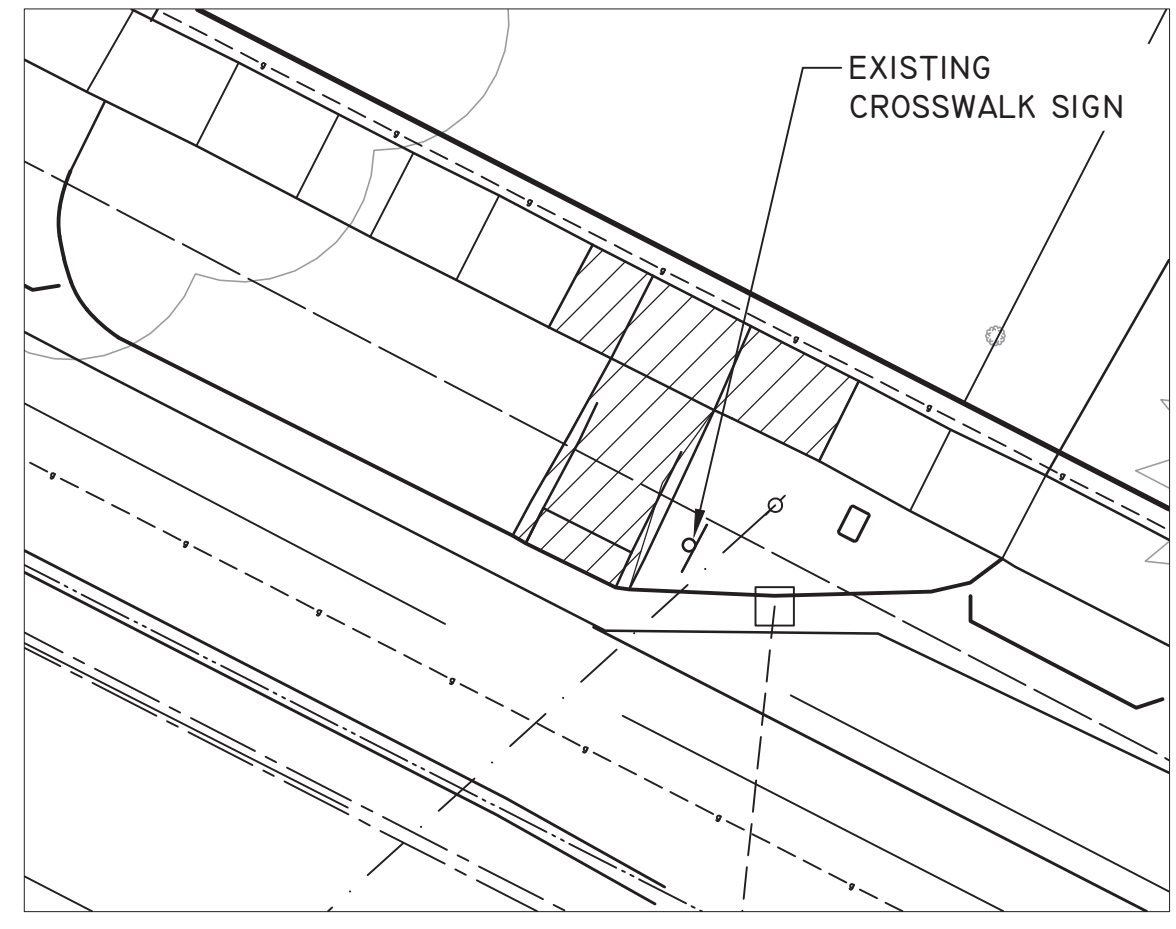
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
RRFB CROSSING - DETAIL GRADES  
MILLER AVE @ BRUCE ST

SCALE: 1"=20'  
DRAWING No.

MILLER AVE  
83' R.O.W.  
35 MPH



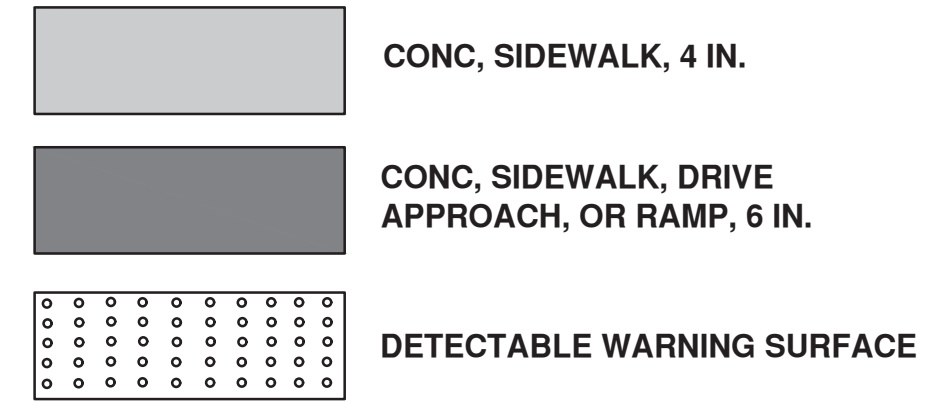
MILLER AVE  
83' R.O.W.  
35 MPH



MILLER AVE @ BRUCE ST - REMOVALS



MILLER AVE @ BRUCE ST - GRADING DETAILS



BENCHMARK AND CONTROL POINT INFORMATION:

**BENCHMARK 201**  
ELEVATION = 963.61  
TOP OF ARROW ON HYDRANT AT SOUTHEAST INTERSECTION CORNER OF MILLER AVENUE AND BRUCE STREET.

**BENCHMARK 209**  
ELEVATION = 962.53  
SOUTHEAST CORNER OF CATCH BASIN RIM LOCATED AT THE SOUTHWEST QUADRANT OF MILLER AVENUE AND BRUCE STREET, SOUTH SIDE MILLER AVENUE, 15 FEET ± SOUTHWEST FROM CENTERLINE MILLER AVENUE, 37 FEET ± NORTHWEST FROM CENTERLINE BRUCE STREET.

**CONTROL POINT 103**  
NORTHING = 288160.657/EASTING = 13283816.54  
ELEVATION = 963.05  
SET BAR WITH CAP ON SOUTHWEST INTERSECTION CORNER OF MILLER AVENUE AND BRUCE STREET, 8 FEET SOUTHEAST OF ROAD CATCH BASIN ON SOUTH SIDE OF MILLER AVENUE JUST WEST OF BRUCE STREET, 20 FEET NORTHEAST OF 18 INCH SYCAMORE, TREE 20 FEET NORTH OF US POST OFFICE MAILBOX.

**CONTROL POINT 104**  
NORTHING = 289121.629/EASTING = 13283859.300  
ELEVATION = 961.86  
SET BAR WITH CAP ON SOUTHEAST INTERSECTION OF MILLER AVENUE AND BRUCE STREET, 5 FEET NORTH OF BACK OF WALK FOR SOUTH SIDE OF MILLER AVENUE SOUTHWEST OF HYDRANT AT THE SOUTHEAST CORNER OF MILLER AVENUE AND BRUCE STREET, 10 FEET NORTHWEST OF TELEPHONE MANHOLE.

**CONTROL POINT 105**  
NORTHING = 289204.007/EASTING = 13283836.520  
ELEVATION = 962.62  
SET BAR WITH CAP IN GRASS BETWEEN BACK OF CURB AND SIDEWALK ON THE NORTH SIDE OF MILLER AVENUE, 10 FEET WEST OF CENTER OF DRIVE OF #1950, 2 FEET EAST OF FIBER OPTIC BOX AND 37 FEET NORTHWEST OF CENTER OF INTERSECTION FOR MILLER AVENUE AND BRUCE STREET.

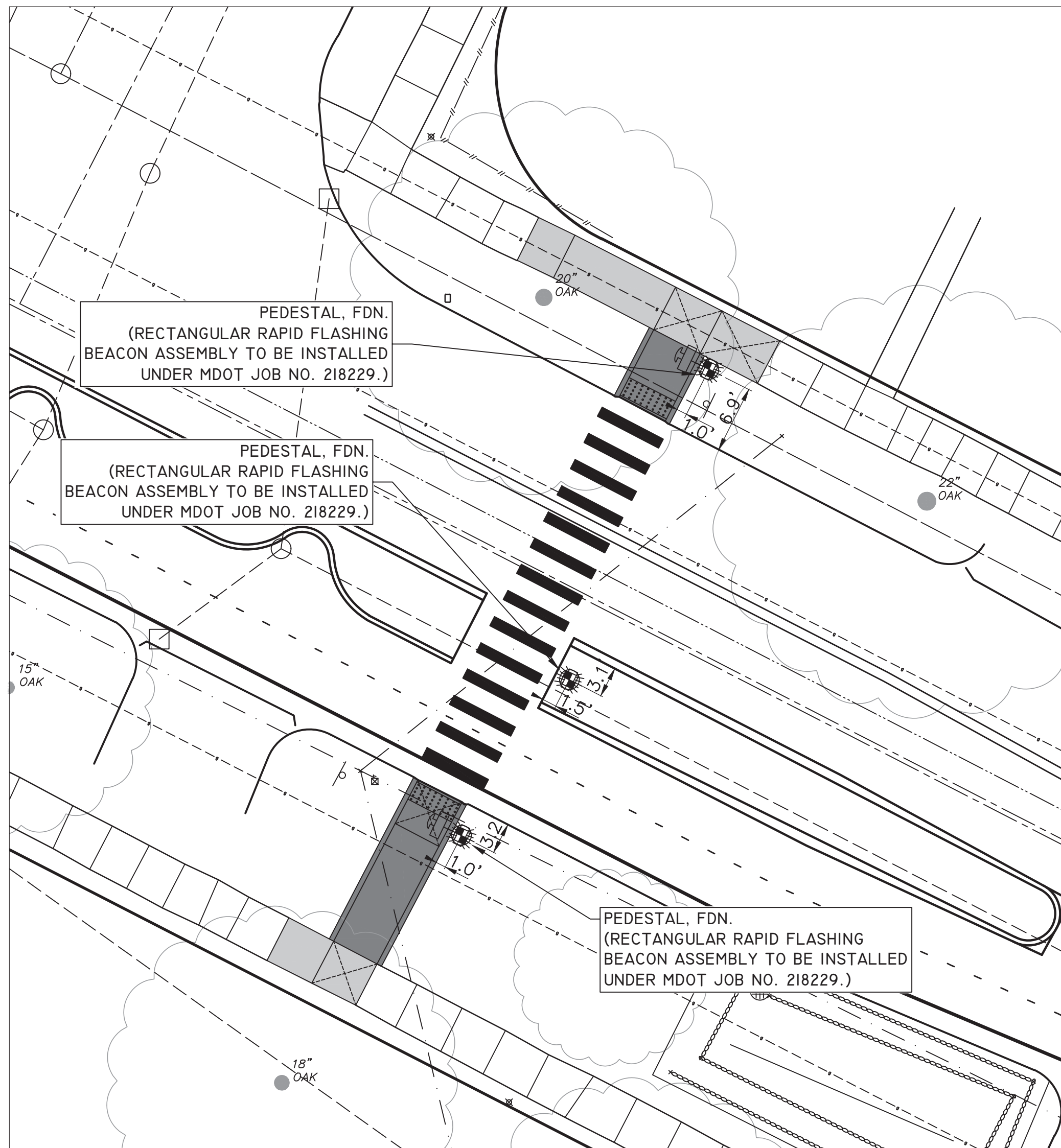
BRUCE ST  
60' R.O.W.  
25 MPH



**SAUNDERS CRESCENT**

60' R.O.W.  
25 MPH

**MILLER AVE**  
83' R.O.W.  
35 MPH



**MILLER AVE @ SAUNDERS CRESCENT - RRFB**

**BENCHMARK AND CONTROL POINT INFORMATION:**

**BENCHMARK 202**  
ELEVATION = 949.70  
TOP OF ARROW ON HYDRANT AT NORTHWEST CORNER OF MILLER AVENUE AND SAUNDERS CRESCENT.

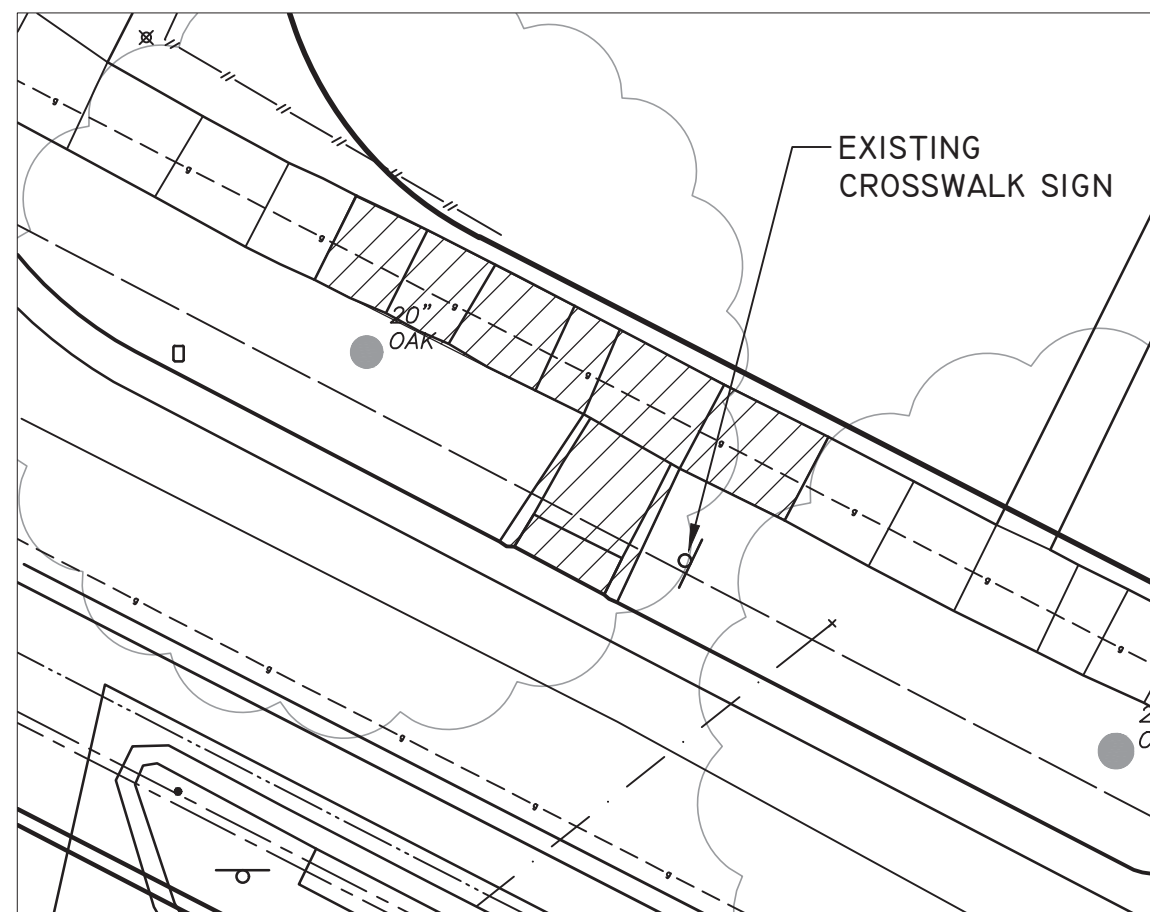
**BENCHMARK 203**  
ELEVATION = 948.13  
TOP OF RAILROAD SPIKE IN NORTH FACE OF UTILITY POLE ON SOUTH SIDE OF MILLER AVENUE OPPOSITE 10 FEET WEST OF CENTERLINE SAUNDERS CRESCENT.

**CONTROL POINT 106**  
NORTHING = 288929.449/EASTING = 13284370.950  
ELEVATION = 947.24  
SET BAR WITH CAP 4 FEET NORTH OF BACK OF CURB FOR NORTH SIDE OF MILLER AVENUE, 10 FEET EAST OF HYDRANT AT NORTHWEST CORNER OF MILLER AVENUE AND SAUNDERS CRESCENT, 45 FEET SOUTH SOUTHWEST UTILITY POLE AT NORTHWEST INTERSECTION CORNER MILLER AVENUE AND SAUNDERS CRESCENT.

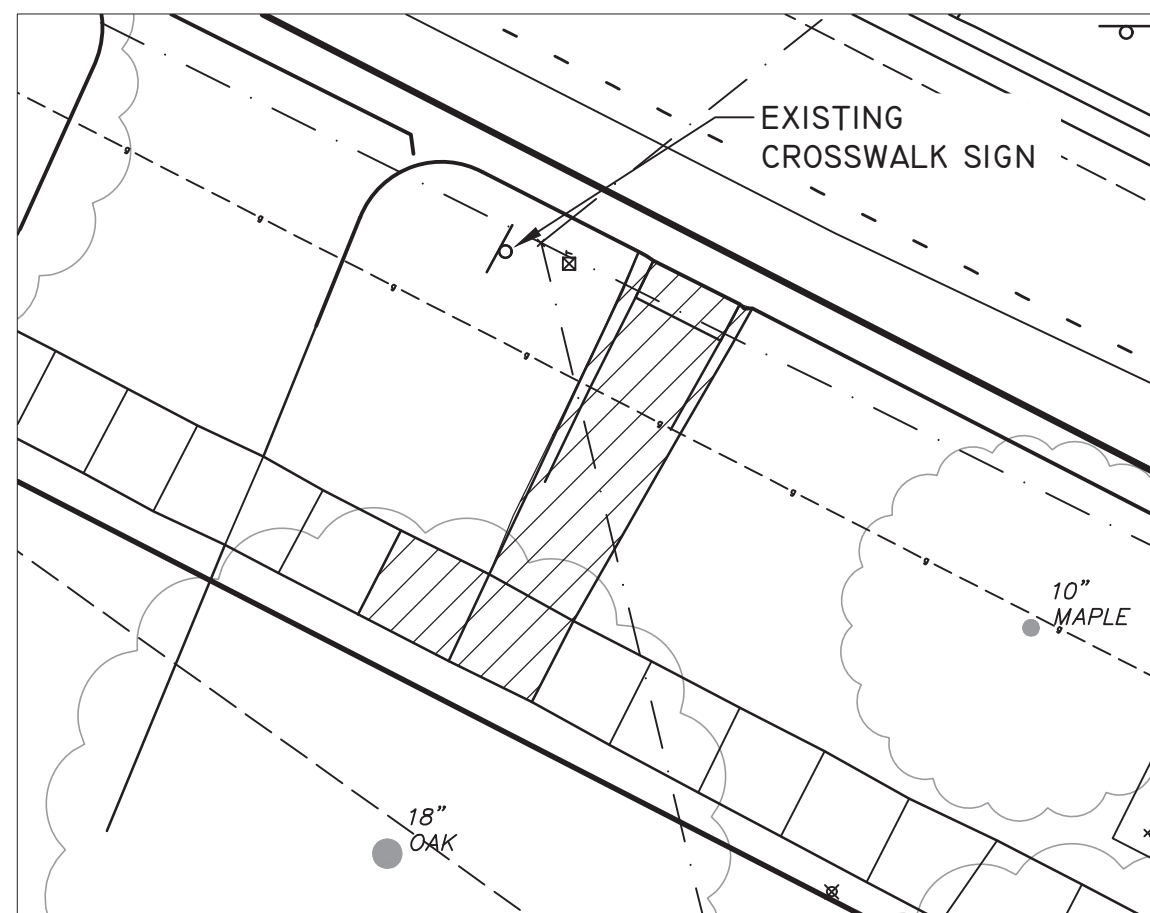
**CONTROL POINT 107**  
NORTHING = 288855.704/EASTING = 13284394.000  
ELEVATION = 945.89  
SET BAR WITH CAP 6 FEET SOUTH BACK OF CURB ON SOUTH SIDE OF MILLER AVENUE, 12 FEET WEST OF CENTERLINE DRIVEWAY #1797, 7 FEET NORTHEAST OF 15\"/>

**CONTROL POINT 108**  
NORTHING = 288901.187/EASTING = 13284451.720  
ELEVATION = 945.49  
SET BAR WITH CAP 4 FEET NORTH OF BACK OF SIDEWALK FOR NORTH SIDE OF MILLER AVENUE, 27 FEET EAST OF BACK OF SIDEWALK, EAST SIDE OF SAUNDERS.

**MILLER AVE**  
83' R.O.W.  
35 MPH



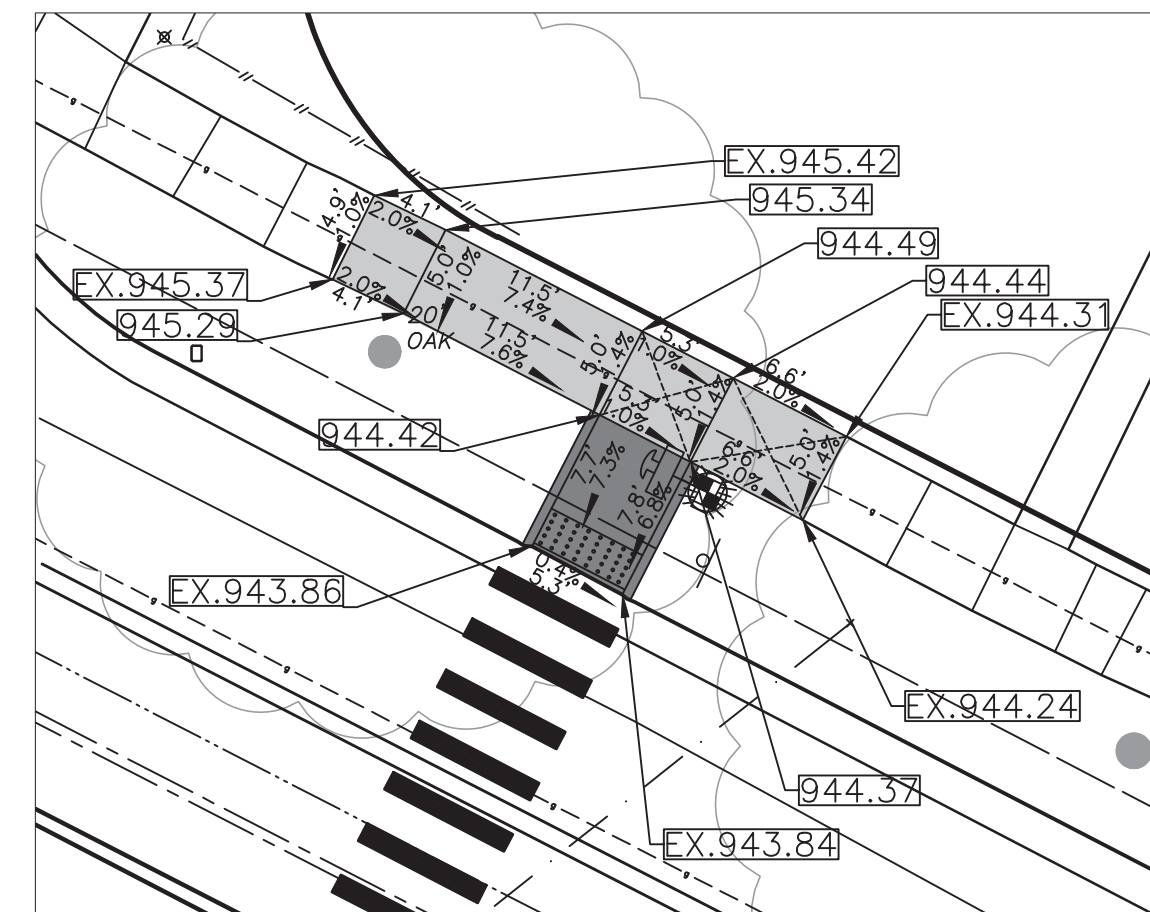
**NORTH SIDE OF MILLER AVE**



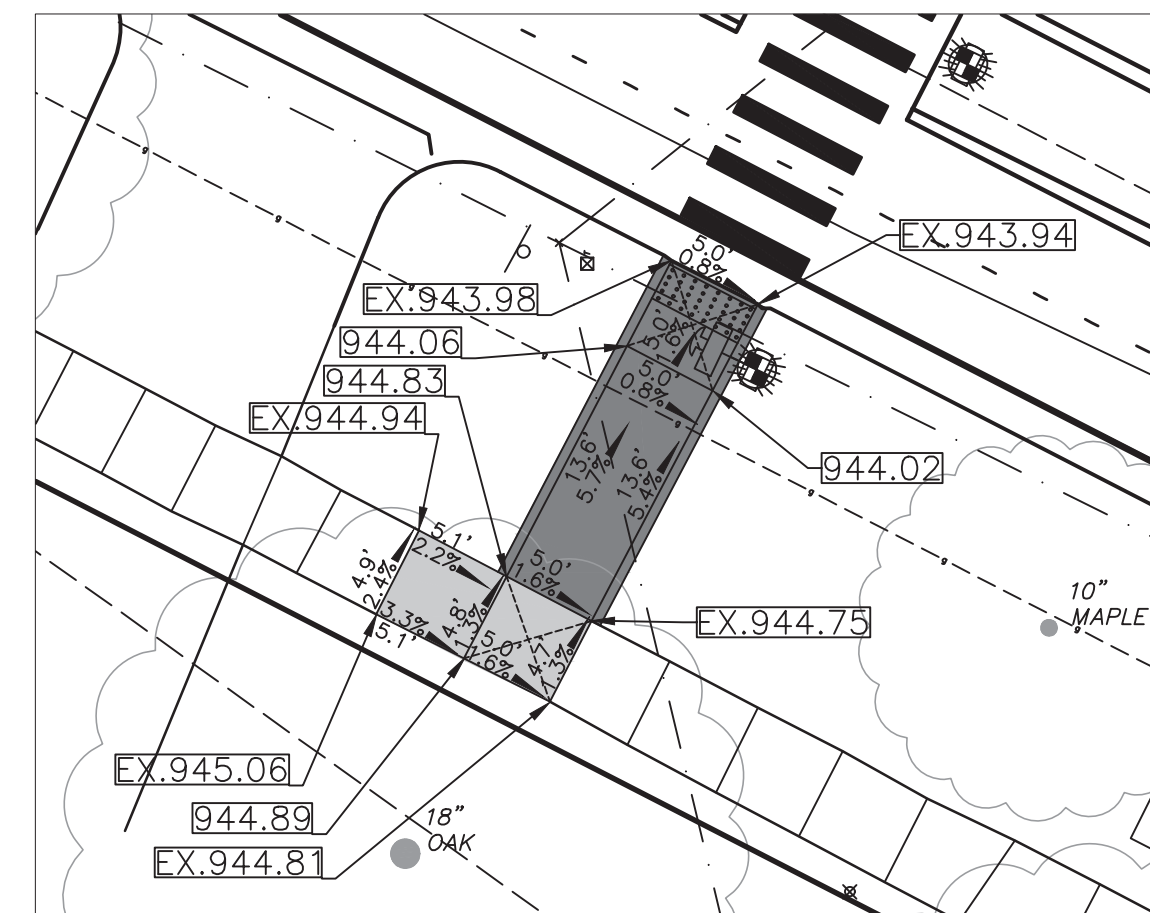
**SOUTH SIDE OF MILLER AVE**

**MILLER AVE @ SAUNDERS CRESCENT - REMOVALS**

 SIDEWALK, SIDEWALK RAMP, & DRIVEWAY APPROACH, ANY THICK, REM

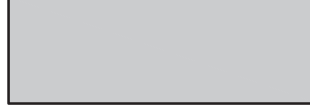



**NORTH SIDE OF MILLER AVE**

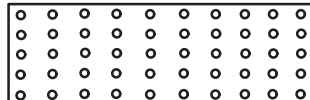


**SOUTH SIDE OF MILLER AVE**

**MILLER AVE @ SAUNDERS CRESCENT - GRADING DETAILS**

 CONC, SIDEWALK, 4 IN.

 CONC, SIDEWALK, DRIVE APPROACH, OR RAMP, 6 IN.

 DETECTABLE WARNING SURFACE



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

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

**CITY OF ANN ARBOR PUBLIC SERVICES**  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-6647  
www.a2gov.org

**CITY OF ANN ARBOR MICHIGAN**

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
MILLER ROAD CYCLE TRACK  
RRFB CROSSING - DETAIL GRADES  
MILLER AVE @ SAUNDERS CRESCENT

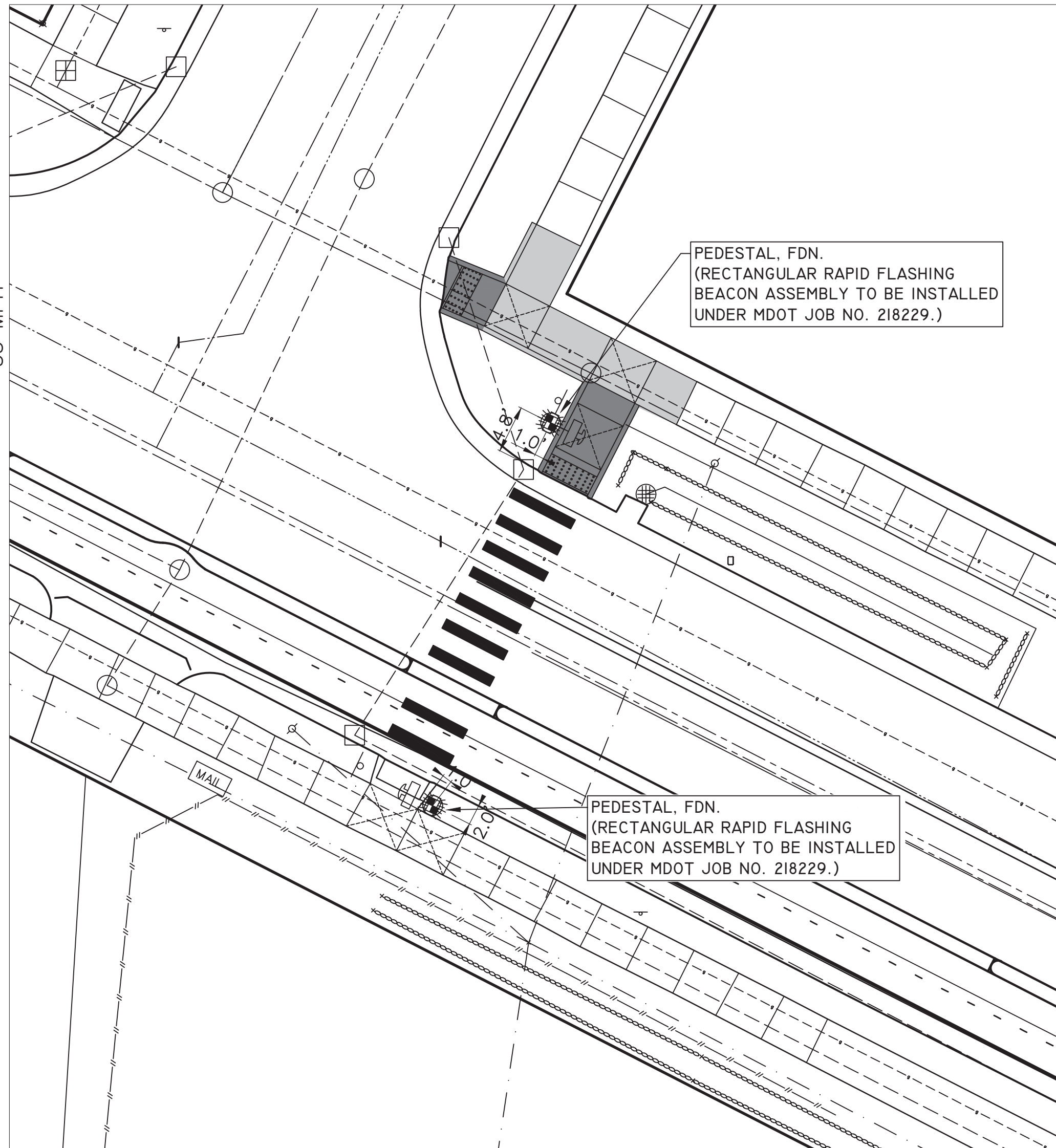
SCALE: 1"=20'  
DRAWING No. \_\_\_\_\_  
SHEET No. **95 of 132**



**PINE TREE DR**

60' R.O.W.  
25 MPH

**MILLER AVE**  
66' R.O.W.  
35 MPH



**MILLER AVE @ PINE TREE DR - RRFB**

**BENCHMARK AND CONTROL POINT INFORMATION:**

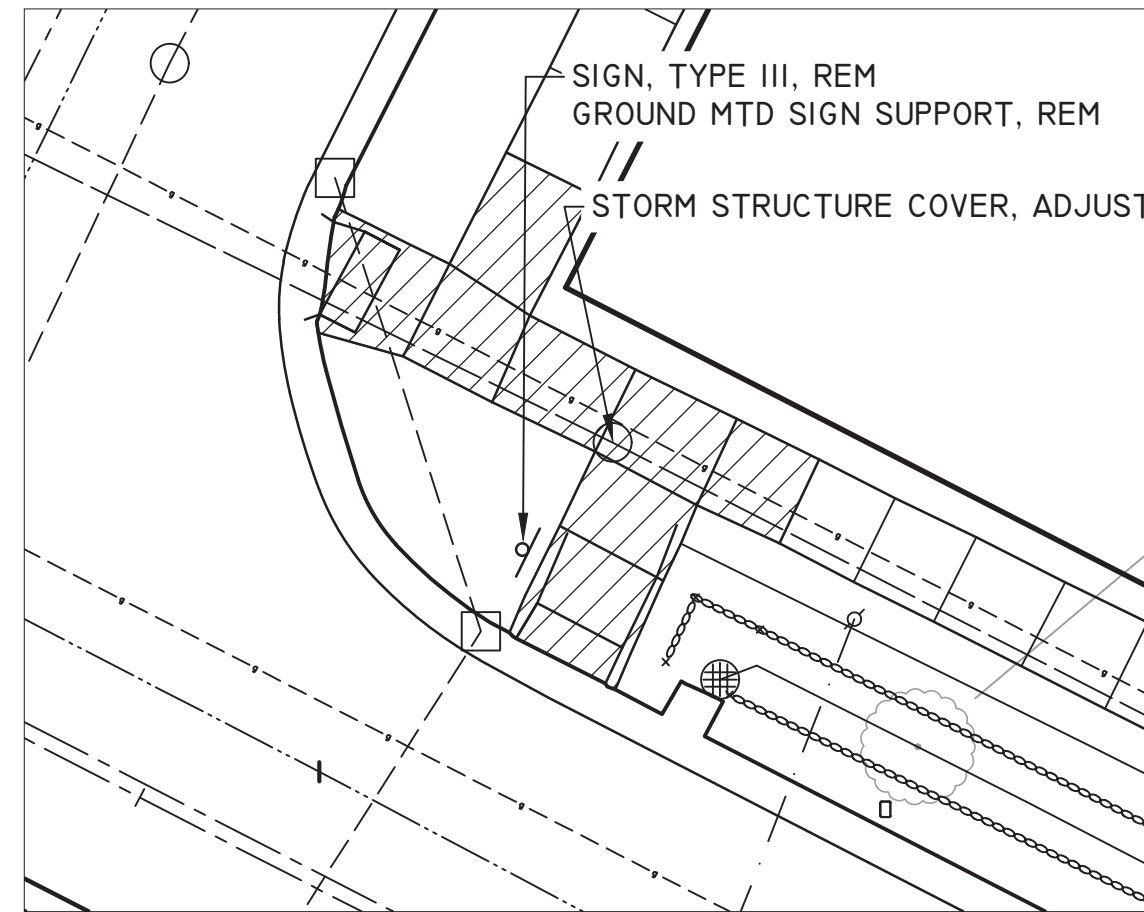
**BENCHMARK 204**  
ELEVATION = 920.03  
TOP OF ARROW ON HYDRANT AT NORTHWEST INTERSECTION CORNER OF PINE TREE DRIVE AND MILLER AVENUE.

**BENCHMARK 205**  
ELEVATION = 914.87  
NORTHWEST CORNER OF CATCH BASIN RIM LOCATED ON THE SOUTH SIDE OF MILLER AVENUE, 15' +/- SOUTH FROM CENTERLINE MILLER AVENUE, 33' +/- EAST FROM CENTERLINE PINE TREE STREET.

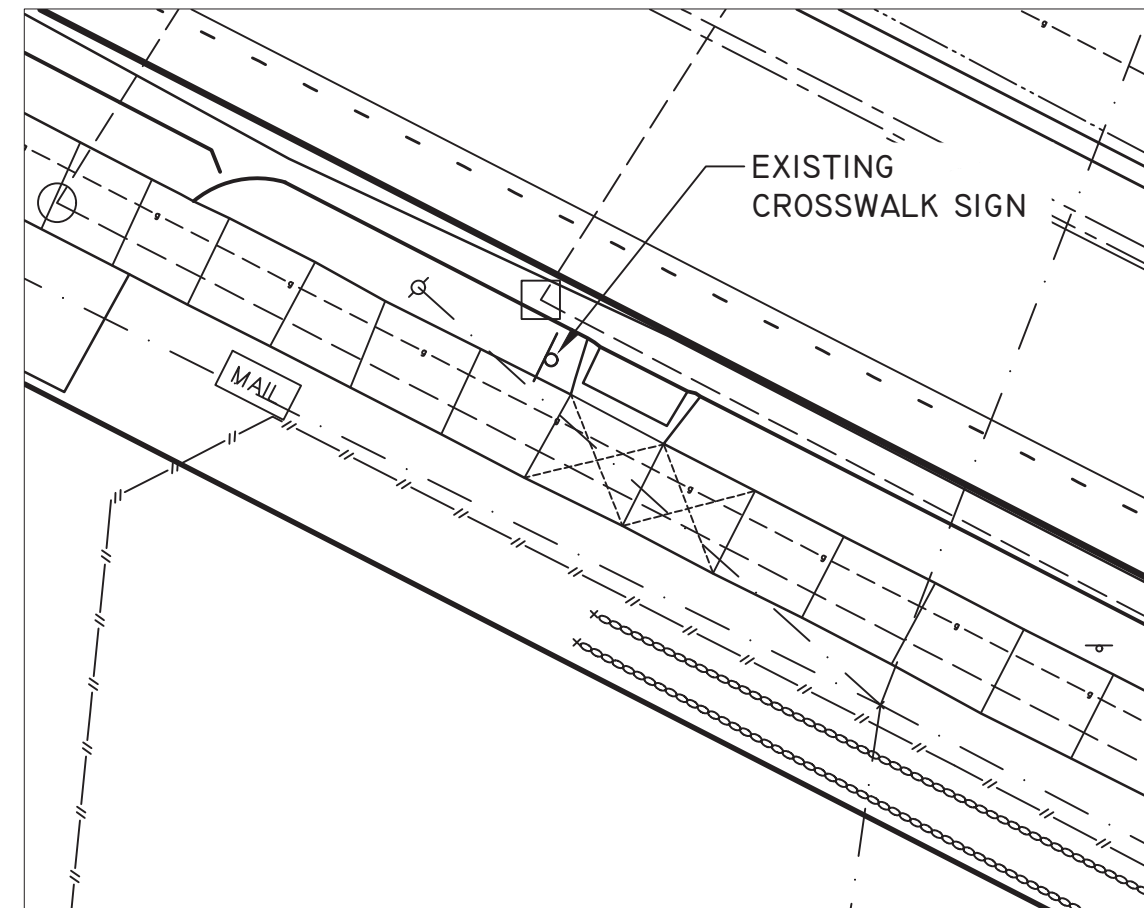
**CONTROL POINT 110**  
NORTHING = 288362.318/EASTING = 13285473.570  
ELEVATION = 915.36  
SET BAR WITH CAP 33 FEET EAST OF CENTERLINE FOR PINE TREE DRIVE, 9 FEET NORTH NORTHWEST OF ROAD CATCH BASIN AT NORTHEAST CORNER OF PINE TREE DRIVE AND MILLER AVENUE, 7 FEET SOUTHWEST OF SANITARY SEWER MANHOLE AT NORTHEAST CORNER OF PINE TREE DRIVE AND MILLER AVENUE.

**CONTROL POINT 111**  
NORTHING = 288389.683/EASTING = 13285419.400  
ELEVATION = 917.59  
SET BAR WITH CAP 8 FEET NORTH OF ROAD CATCH BASIN ON NORTH SIDE OF MILLER AVENUE, 33 FEET WEST OF CENTERLINE PINE TREE DRIVE, 7 FEET EAST OF HYDRANT ON NORTHWEST INTERSECTION CORNER OF PINE TREE DRIVE AND MILLER AVENUE.

**CONTROL POINT 112**  
NORTHING = 288316.847/EASTING = 13285469.650  
ELEVATION = 914.66  
SET BAR AND CAP IN GRASS HALFWAY BETWEEN BACK OF CURB FOR SOUTH SIDE OF MILLER AND SIDEWALK, 100 FEET WEST OF CENTERLINE DRIVEWAY #1575, 12 FEET NORTHWEST OF UTILITY POLE, 17 FEET EAST SOUTHEAST OF ROAD CATCH BASIN ON SOUTH SIDE OF MILLER AVENUE.

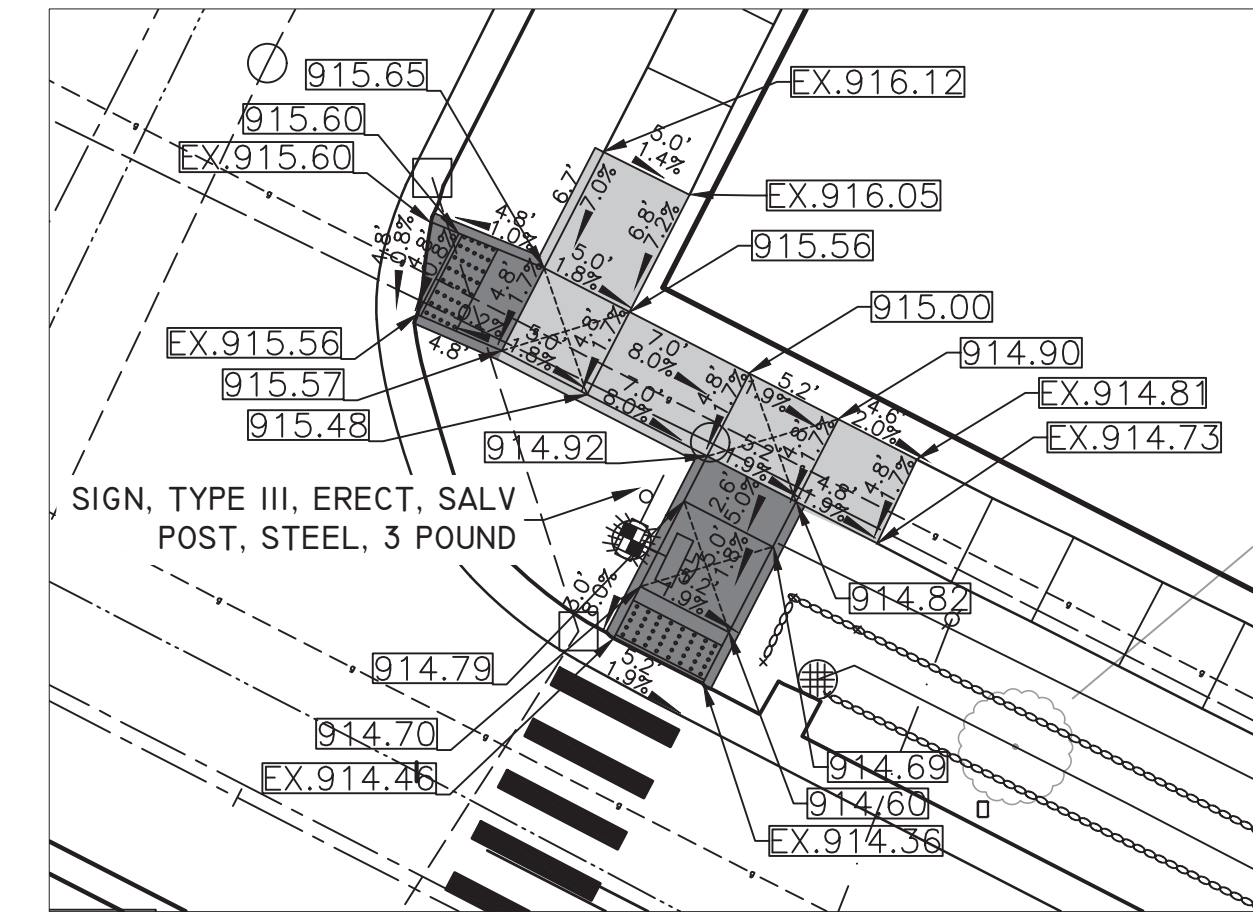


**NORTH SIDE OF MILLER AVE**

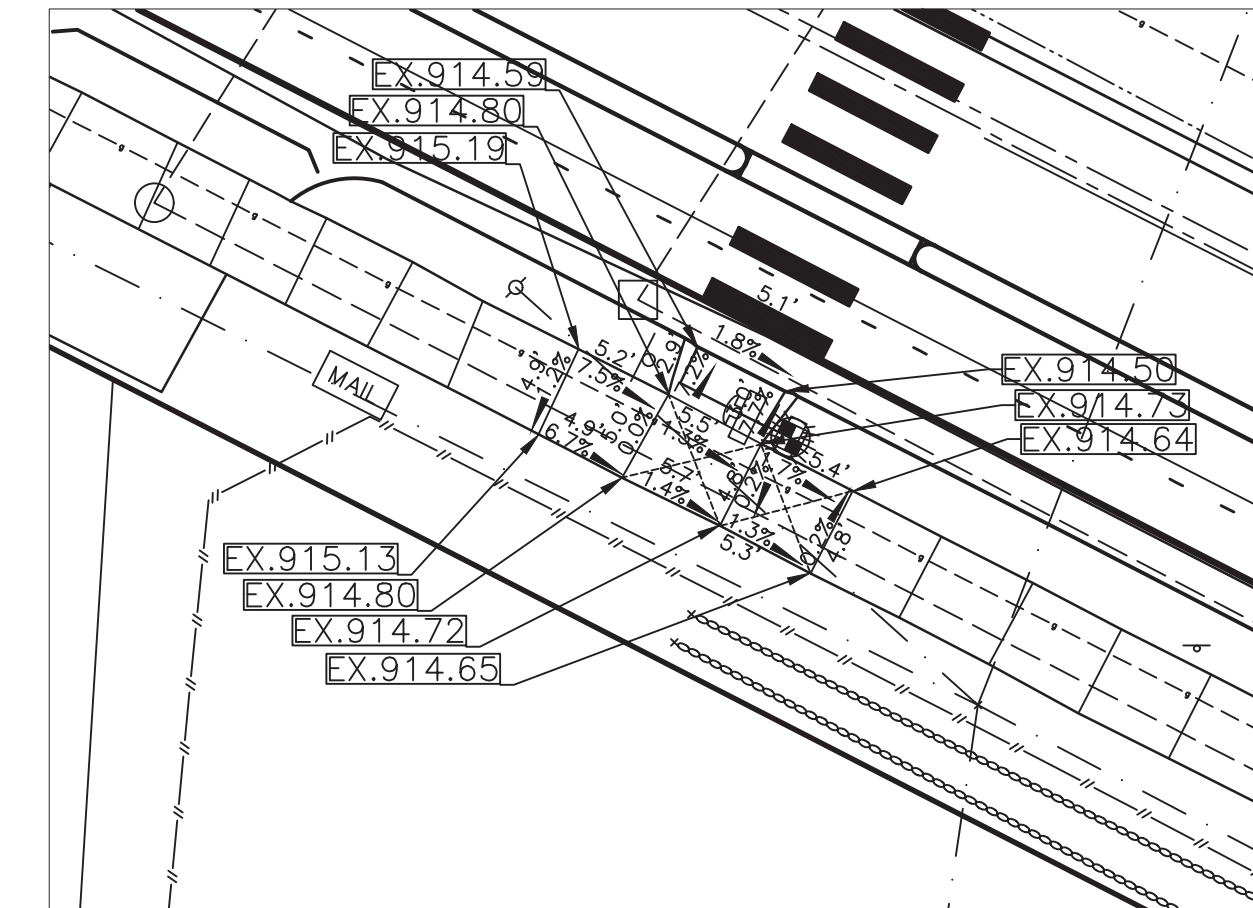


**SOUTH SIDE OF MILLER AVE**

**MILLER AVE @ PINE TREE DR - REMOVALS**

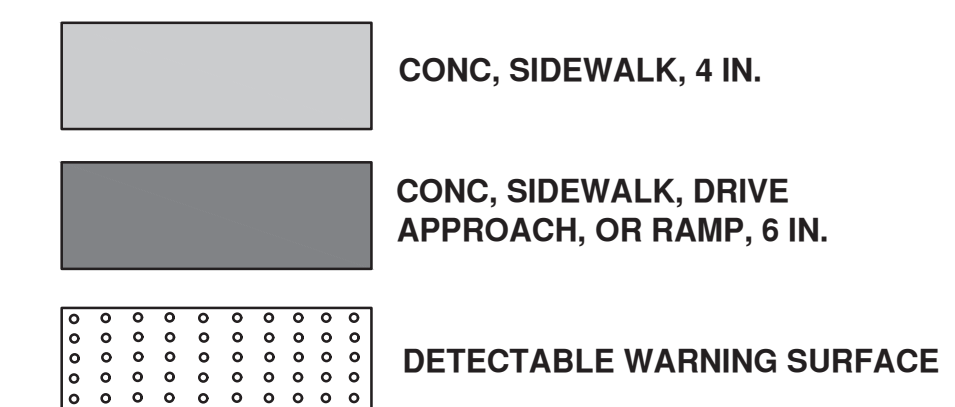


**NORTH SIDE OF MILLER AVE**



**SOUTH SIDE OF MILLER AVE**  
DETAILED GRADES SHOWN FOR INFORMATION ONLY.  
NO SIDEWALK WORK BEING DONE HERE.

**MILLER AVE @ PINE TREE DR - GRADING DETAILS**



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-6647  
www.a2gov.org



**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER ROAD CYCLE TRACK**  
RRFB CROSSING - DETAIL GRADES  
MILLER AVE @ PINE TREE DR

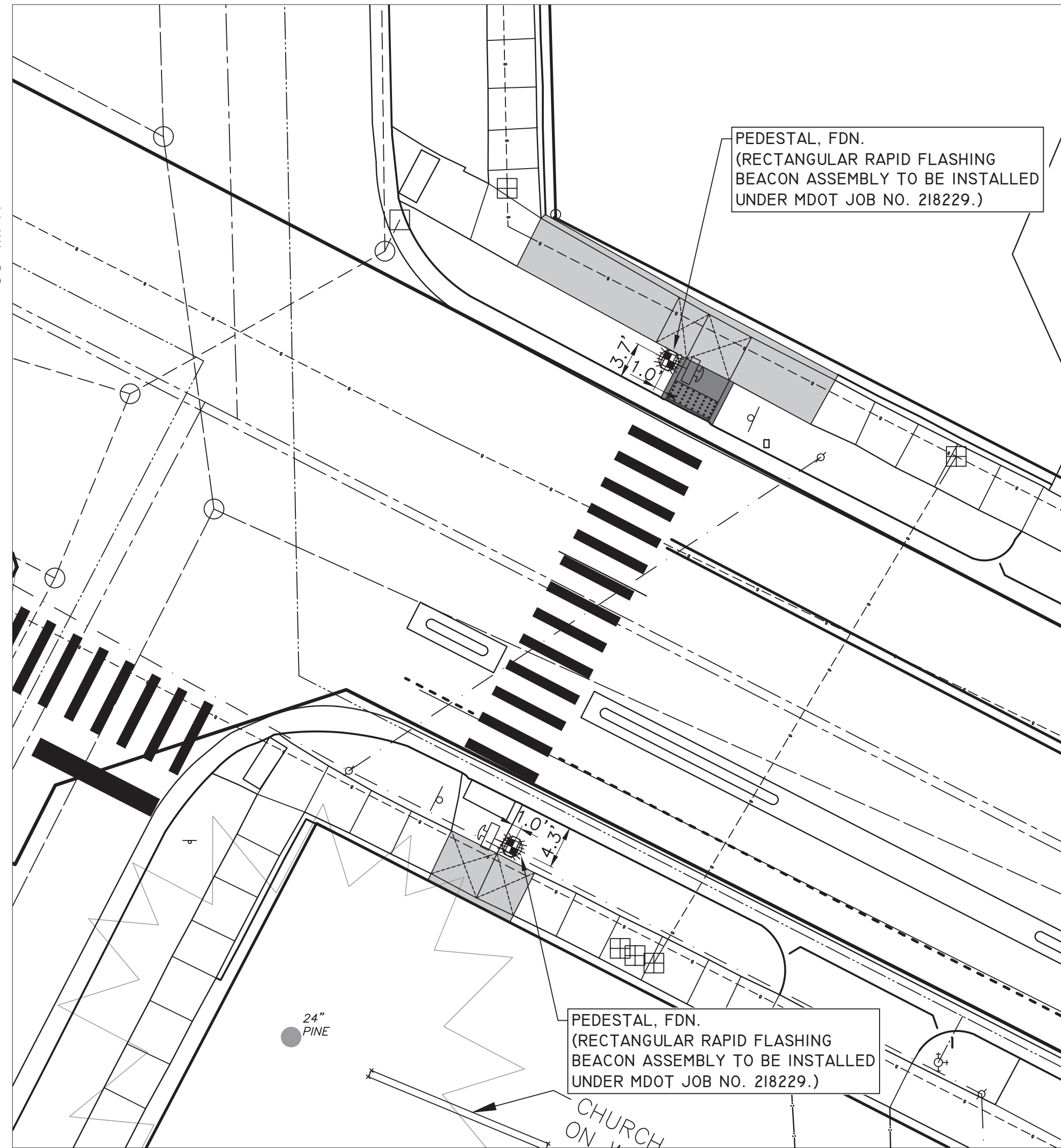
SCALE: 1"=20'  
DRAWING No.



**NEWPORT RD**

66' R.O.W.  
25 MPH

**MILLER AVE**  
66' R.O.W.  
35 MPH



**NEWPORT PL**  
60' R.O.W.  
25 MPH

**MILLER AVE @ NEWPORT RD - RRFB**

**BENCHMARK AND CONTROL POINT INFORMATION:**

**BENCHMARK 206**  
ELEVATION = 907.49  
TOP OF ARROW ON HYDRANT 2 FEET NORTH OF NORTH BACK FOR MILLER AVENUE, 30 FEET WEST OF NORTHWEST INTERSECTION CORNER NEWPORT ROAD AND MILLER AVENUE.

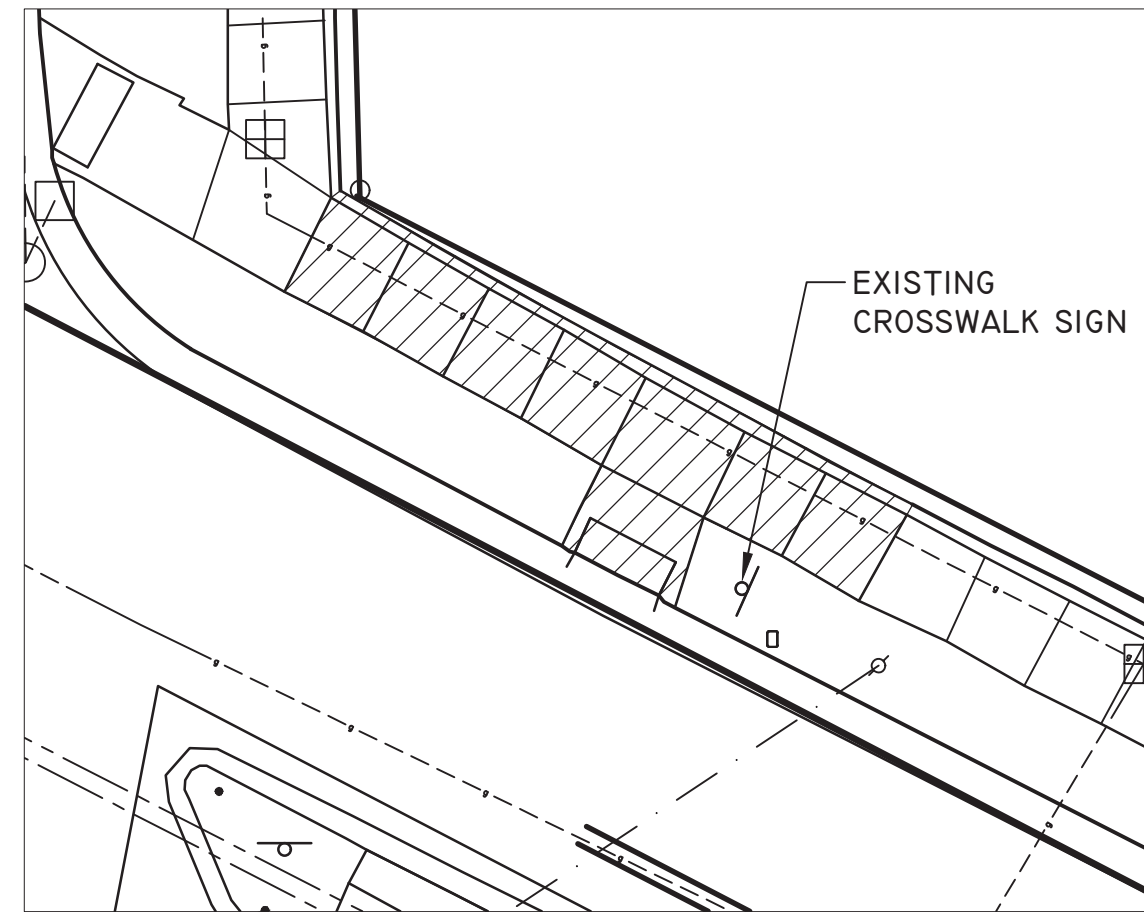
**BENCHMARK 207**  
ELEVATION = 900.25  
TOP OF RAILROAD FIGHT IN SOUTH FACE OF UTILITY POLE ON NORTH SIDE OF MILLER AVENUE, 50 FEET EAST OF NORTHEAST INTERSECTION CENTER OF MILLER AVENUE AND NEWPORT ROAD.

**CONTROL POINT 113**  
NORTHING = 288023.226/EASTING = 13286030.480 ELEVATION = 899.33  
SET BAR AND CAP IN GRASS HALF WAY BETWEEN SIDEWALK AND BACK OF CURB ON SOUTH SIDE MILLER AVENUE, 9 FEET WEST OF HYDRANT IN FRONT OF HURON RIVER METHODIST CHURCH.

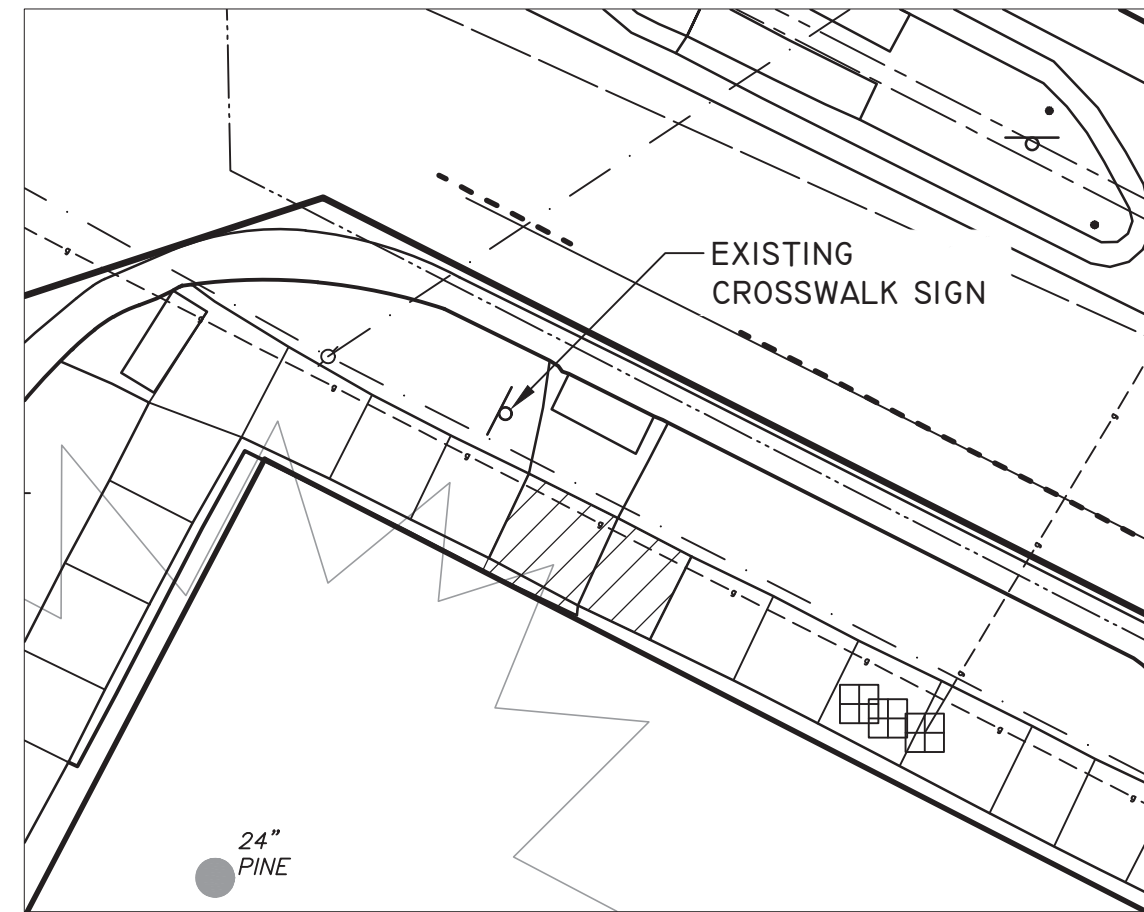
**CONTROL POINT 114**  
NORTHING = 288077.933/EASTING = 13286032.290 ELEVATION = 900.82  
SET BAR AND CAP IN GRASS BETWEEN BACK OF CURB AND SIDEWALK ON NORTH SIDE OF MILLER AVENUE, 21 FEET EAST OF BASIN AT NORTHEAST CORNER OF NEWPORT ROAD AND MILLER AVENUE.

**CONTROL POINT 115**  
NORTHING = 288121.797/EASTING = 13285976.420 ELEVATION = 904.17  
SET BAR AND CAP 4 FEET WEST OF CATCH BASIN ON WEST SIDE OF NEWPORT ROAD AT THE NORTHWEST INTERSECTION CORNER OF NEWPORT ROAD AND MILLER AVENUE, 9 FEET NORTH OF CENTERLINE SIDEWALK FOR NORTH SIDE OF MILLER AVENUE.

**CONTROL POINT 116**  
NORTHING = 288071.614/EASTING = 13285937.120 ELEVATION = 903.95  
SET BAR WITH CAP 6 FEET SOUTHEAST OF CATCH BASIN THAT IS 25 FEET WEST OF THE SOUTHWEST CORNER OF NEWPORT ROAD AND MILLER AVENUE, 6 FEET NORTH OF CENTERLINE OF SIDEWALK ON SOUTH SIDE OF MILLER AVENUE, 25 FEET NORTH OF 54 INCH OAK TREE.

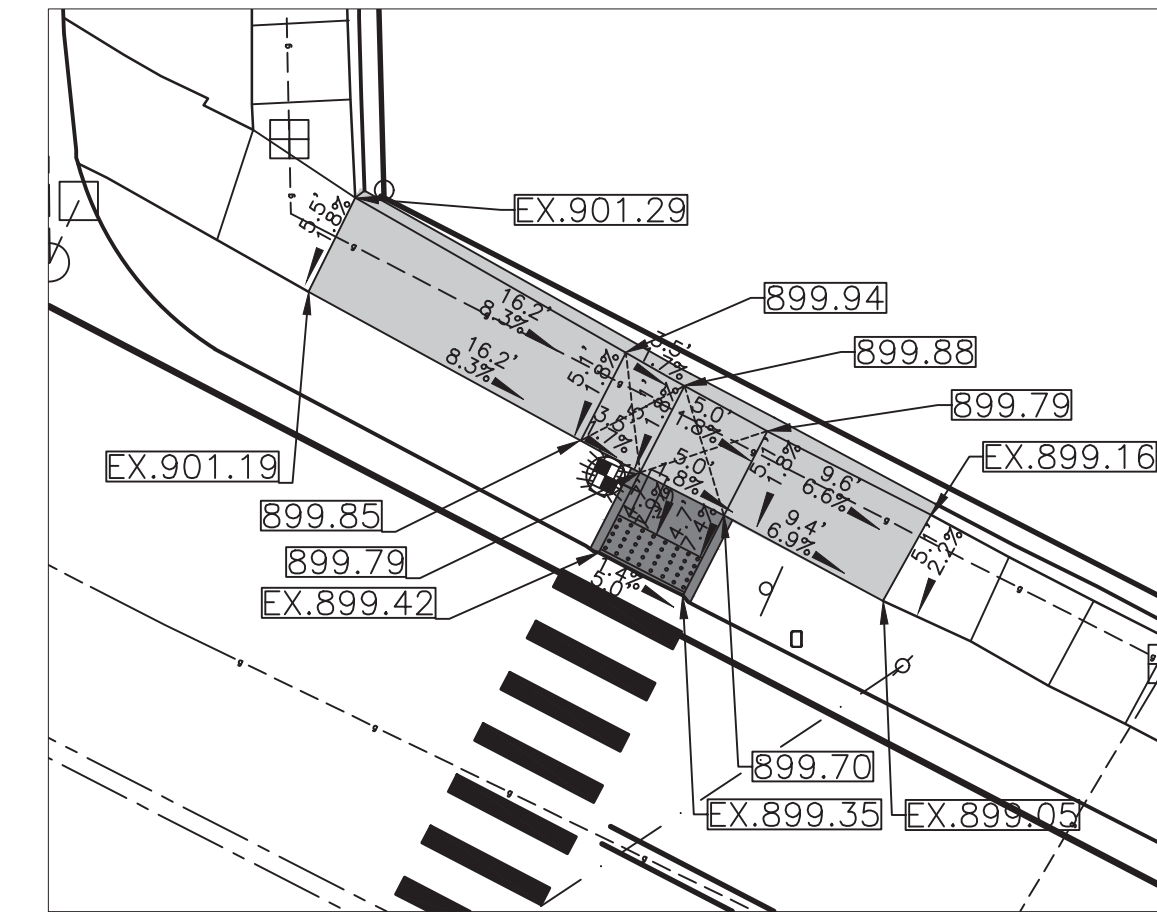


**NORTH SIDE OF MILLER AVE**

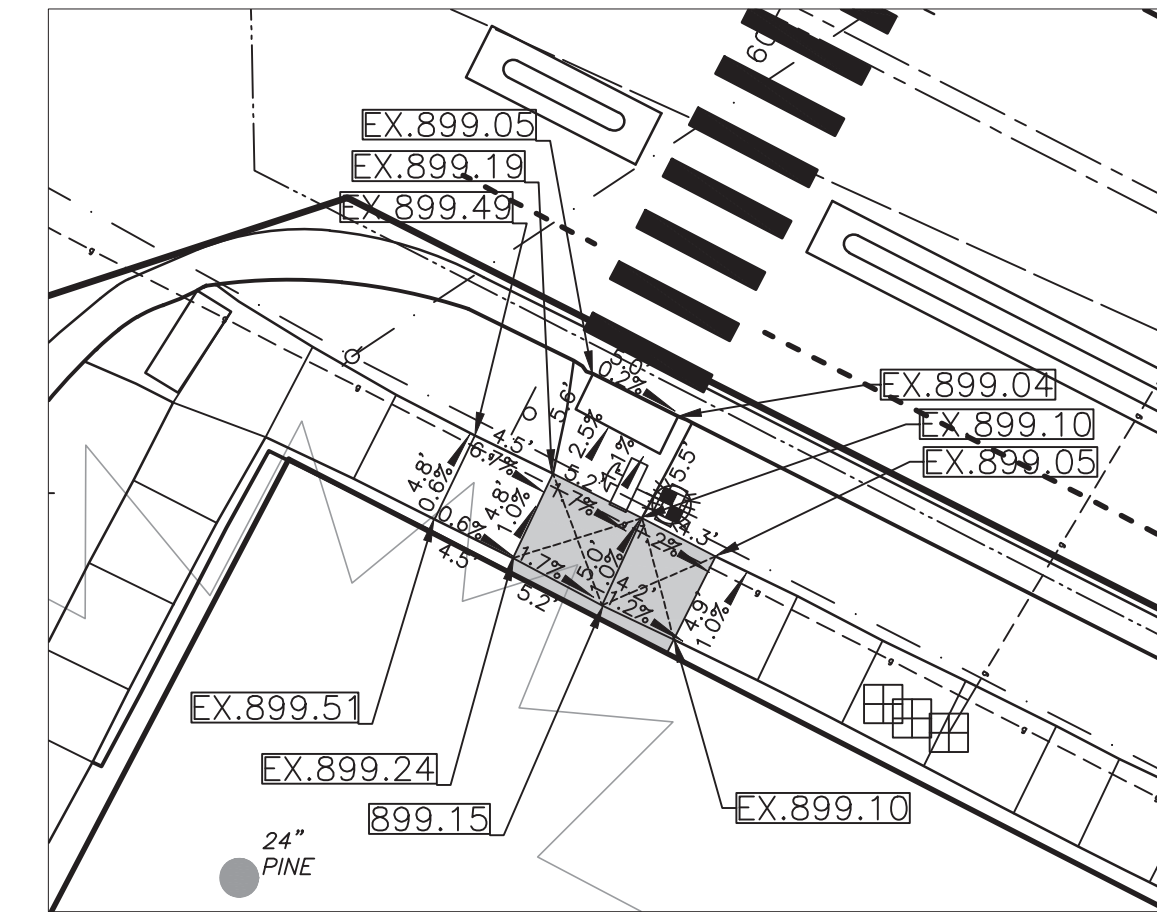


**SOUTH SIDE OF MILLER AVE**

**MILLER AVE @ NEWPORT RD - REMOVALS**

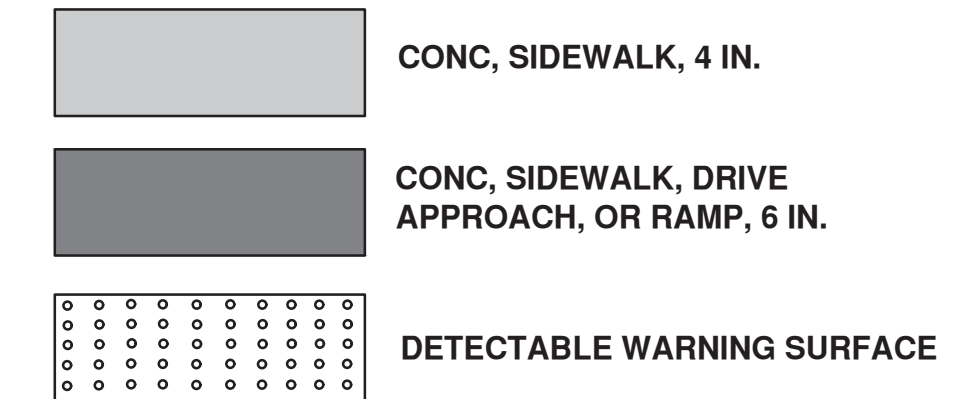


**NORTH SIDE OF MILLER AVE**



**SOUTH SIDE OF MILLER AVE**

**MILLER AVE @ NEWPORT RD - GRADING DETAILS**

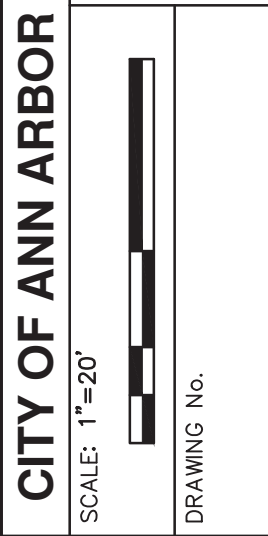


REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48107-8647  
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**CITY OF ANN ARBOR - ENGINEERING**  
**MILLER ROAD CYCLE TRACK**  
RRFB CROSSING - DETAIL GRADES  
MILLER AVE @ NEWPORT RD





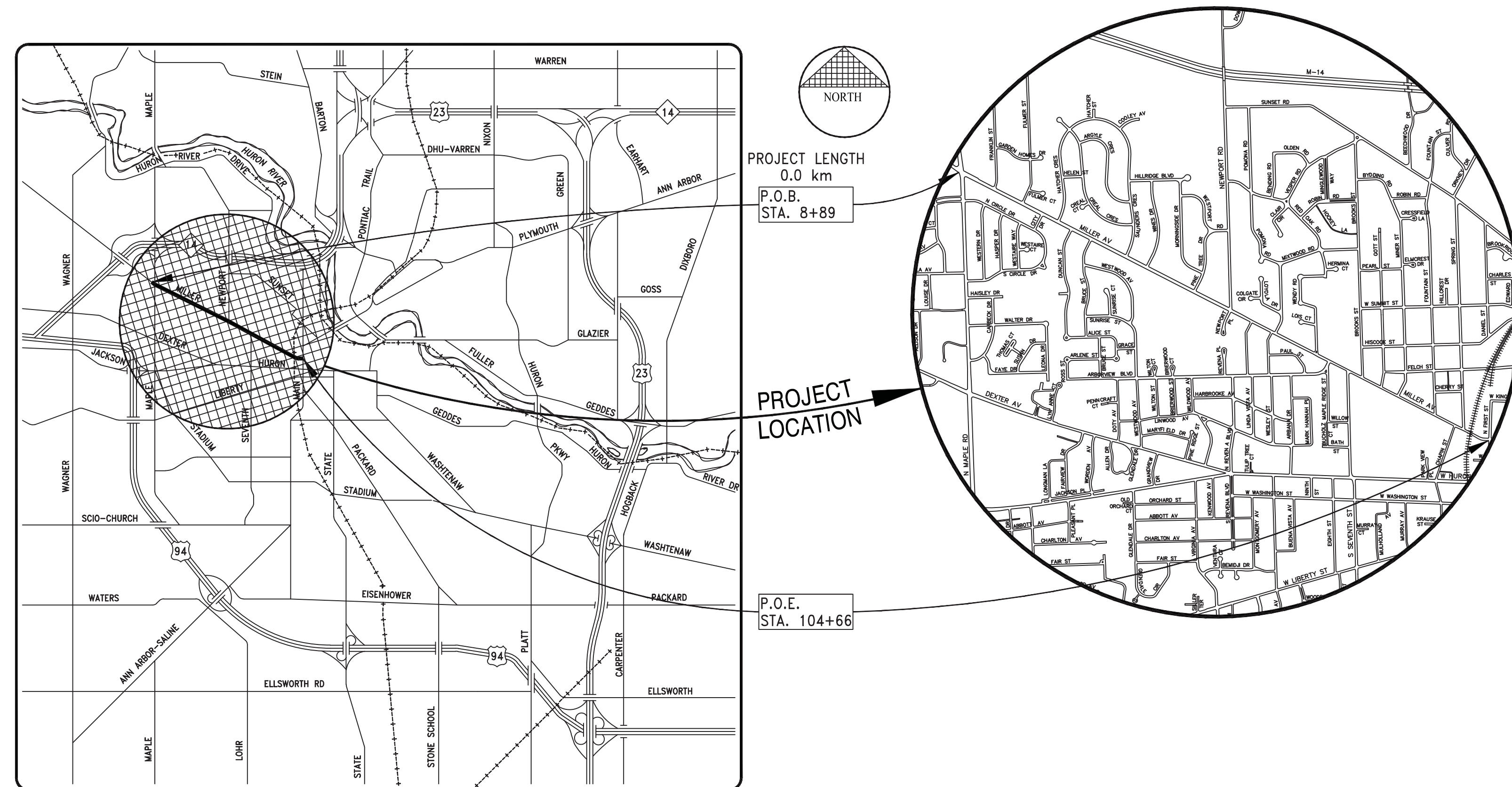
# CITY OF ANN ARBOR ENGINEERING

## MILLER AVENUE CYCLE TRACK MAPLE ROAD TO NEWPORT ROAD AND CHAPIN STREET TO FIRST STREET



SHEET INDEX	
SHEET NUMBER	SHEET TITLE
98	COVER SHEET
99	NOTES & LEGEND
100-101	TYPICAL SECTIONS
102-104	DETAILS
105-111	REMOVAL SHEETS
112-118	CONSTRUCTION SHEETS
119	DETAIL GRADES
120-127	PAVEMENT MARKING SHEETS
128-132	SIGNAL SHEETS

"THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES AREA DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS ("STANDARDS"). THE OMISSION OF ANY STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR OF THEIR OBLIGATION TO CONSTRUCT ITEMS IN COMPLETE ACCORDANCE WITH THOSE STANDARDS."



VICINITY MAP

3 WORKING DAYS  
BEFORE YOU DIG  
CALL MISS DIG  
800-482-7171  
(TOLL FREE)

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 53, THE CONTRACTOR SHALL DIAL 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.

PREPARED BY:

**HRC**  
**HUBBELL, ROTH & CLARK, INC**  
CONSULTING ENGINEERS SINCE 1915

555 HULET DRIVE  
BLOOMFIELD HILLS, MI.

P.O. BOX 824  
48303 - 0824

PREPARED UNDER THE SUPERVISION OF:



NICHOLAS NICITA, P.E., PTOE  
PROJECT MANAGER

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

TREVOR BRYDON, AICP  
TRANSPORTATION PROGRAM MANAGER

DRAWING NO.  
**20230643-CV01**  
SHEET 98 of 132

PROJECT NAME: MILLER AVE. CYCLE TRACK




V:\202306\20230643\Sheets\nt01.dwg Dwg Created: 14-Mar-24 - \_o2\_standard bw.sbt - Plot Date: 6-Sep-24

ABBREVIATIONS		CONSTRUCTION NOTES	
A		MISC	MISCELLANEOUS
ABD	ABANDONED	MOD	MODIFIED
AC	ACRES	N	
APPROX	APPROXIMATE	N	NORTH, NORTHING
ARCH	ARCHITECT(URAL)	NA	NOT APPLICABLE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	NIC	NOT IN CONTRACT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	N.T.S.	NOT TO SCALE
B		O	
B.M.	BENCHMARK	O.C.	ON CENTER
BIT	BITUMINOUS	O.D.	OUTER DIAMETER
BLDG	BUILDING	OFF	OFFSET
B/F	BOTTOM OF FOOTING	OPT	OPTIONAL
B/S	BOTTOM OF SWALE	P	
B/W	BOTTOM OF WALL (FINISH GRADE)	PC	POINT OF CURVATURE (POC)
C		PED	PEDESTRIAN
CB	CATCH BASIN	PERF	PERFORATED
C	CURB INLET	PERP	PERPENDICULAR
CIP	CAST IRON PIPE	PLMB	PLUMBING
CL	CLASS	PREFAB	PREFABRICATED
CMP	CORRUGATED METAL PIPE	PREP	PREPARATION
CON	CONDENSATE	PROJ	PROJECTED
CO	CLEANOUT	PROP	PROPOSED
CONC	CONCRETE	PSF	POUNDS PER SQUARE FOOT
CONTR	CONTRACTOR	PSI	POUNDS PER SQUARE INCH
CU FT	CUBIC FOOT	PT	POINT OF TANGENCY (POT)
CURV	CURVATURE	Pv?	POINT OF VERTICAL CURVATURE, POLYVINYL CHLORIDE
CU YD	CUBIC YARD	PVI	POINT OF VERTICAL INTERSECTION
D		PVMT	PAVEMENT
DEMO	DEMOLISH	PWR	POWER
DEPT	DEPARTMENT	Q	QUANTITY
DIA	DIAMETER	R	
DIP	DUCTILE IRON PIPE	RAD	RADIUS
DWG	DRAWING	RCP	REINFORCED CONCRETE PIPE
E		RCPT	RECEPTACLE
E	EAST, EASTING	RD	ROAD
EA	EACH	REF	REFERENCE
EG	EXISTING GRADE	REINF	REINFORCED, REINFORCEMENT
ELEV	ELEVATION	REM	REMOVE
E/M	EDGE OF METAL (EDGE OF GUTTER)	REQD	REQUIRED
EQ	EQUAL	RIM:	RIM ELEVATION
EX	EXISTING	ROW	RIGHT OF WAY
F		S	
FF:	FINISH FLOOR ELEVATION	S	SOUTH
FG	FINISH GRADE	SAN	SANITARY SEWER
FLASH	FLASHING	SCH	SCHEDULE
FM	FORCE MAIN	SECT	SECTION
FT	FOOT, FEET	SESC	SOIL EROSION AND SEDIMENTATION CONTROL
FURN	FURNISHING	SIM	SIMILAR
G		SP	SPACE, SPACED, SPACING
GALV	GALVANIZED	SQ FT	SQUARE FEET
GAS	NATURAL GAS	SQ YD	SQUARE YARD
G/C:	GUTTER OF CURB (FLOWLINE)	ST LT	STREET STREET LIGHT
GVL	GRAVEL	STA	STATION
H		STAG	STAGGER, STAGGERED
H	HIGH	STD STL	STANDARD STEEL
HB	HOSE BIBB	SSL	STAINLESS STEEL
HCAP	ADA HANDICAP	STM	STORM SEWER
HDPE	HIGH-DENSITY POLYETHYLENE	STRUCT	STRUCTURAL
HMA	HOT MIX ASPHALT	SUBCONTR	SUBCONTRACTOR
HORZ	HORIZONTAL	T	
HP	HIGH POINT	T	TELECOM
HT	HEIGHT	T/C	TOP OF CURB
I		TEMP	TEMPORARY
I.D.	INNER DIAMETER	T/F	TOP OF FOOTING
IN	INCH, INCHES	T/S	TOP OF SWALE
INCL	INCLUDE, INCLUDING	T/W	TOP OF WALL
INL	INLET PIPE	TYP.	TYPICAL
INV:	INVERT ELEVATION	U	
IRR	IRRIGATION	UD	UNDERDRAIN
J		UTIL	UTILITY
JT	JOINT	V	
L		V/B:	VALVE BOX
L	LENGTH	VERT	VERTICAL
LF	LINEAR FEET	W	
LPT	LOW POINT	W	WEST
LN	LANE	WM	WATER MAIN
LT	LIGHT	W/O	WITHOUT
LTG	LIGHTING	WWF	WELDED WIRE FABRIC
M		Y	
MAS	MASONRY	YARD DRAIN	
MATL	MATERIAL		
MAX	MAXIMUM		
M.E.	MATCH EXISTING		
MED	MEDIUM		
MFR	MANUFACTURER		
MH	MANHOLE		
MIN	MINIMUM		


CONSTRUCTION NOTES		S.E.S.C. NOTES	
1.	THIS PROJECT IS BEING COMPLETED BY THE ANN ARBOR PUBLIC SERVICES - ENGINEERING DEPARTMENT AND IS LOCATED IN THE CITY OF ANN ARBOR.	33.	DURING THE LANE CLOSURES, ACCESS FOR EMERGENCY VEHICLES (FIRE, AMBULANCE, POLICE) MUST BE MAINTAINED TO ADJACENT HOMES, BUSINESSES, AND SUBDIVISIONS AT ALL TIMES.
2.	THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE 2024 EDITION OF THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS AND ITS DETAILS WHICH ARE INCLUDED BY REFERENCE.	34.	ALL EXISTING PAVEMENT MARKINGS THAT ARE REMOVED FOR TRAFFIC CONTROL OR OBLITERATED DURING CONSTRUCTION OPERATIONS MUST BE REPLACED WITH WATERBORNE MARKINGS. THIS INCLUDES THE SPECIAL MARKINGS - OVERLAY COLD PLASTIC - (SPECIAL EMPHASIS CROSSWALK ARROWS, 24 INCH STOP BAR).
3.	THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH THE CURRENT PUBLIC SERVICES STANDARD SPECIFICATIONS AND DETAILS.	35.	ANY MDOT SIGNS THAT ARE REMOVED FOR TRAFFIC CONTROL OR OBLITERATED DURING CONSTRUCTION OPERATIONS MUST BE REPLACED IN KIND ON NEW SUPPORTS.
4.	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.	36.	ALL SIGN MATERIALS AND SUPPORTS MUST MEET NCHRP-350 CRASH WORTHY REQUIREMENTS.
5.	THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND SERVICE LEADS ARE TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.	37.	CONTRACTOR SHALL NOT STORE OR PLACE EQUIPMENT AND/OR MATERIALS INSIDE DRIP LINE OF ANY CITY TREE. MECHANICAL DAMAGE TO CITY OWNED TREES (I.E. BARK DAMAGE, BRANCH BREAKAGE) IS NOT PERMITTED. CONTRACTOR IS RESPONSIBLE FOR PROPERLY PRUNING TREES TO PREVENT DAMAGE. IF BRANCHES GREATER THAN 2" IN DIAMETER REQUIRE PRUNING, CONTRACTOR TO CONTACT FORESTRY FOR CONSULTATION AND EVALUATION AT (734) 794-6320. NO ROOTS OF THE CITY-OWNED TREES GREATER THAN 2 INCHES IN DIAMETER ARE TO BE CUT. IF CONTRACTOR ENCOUNTERS CITY-OWNED TREES WITH ROOTS GREATER THAN 2 INCHES IN DIAMETER THAT THEY DETERMINE NEED TO BE CUT, CONTACT FORESTRY IMMEDIATELY FOR EVALUATION. ALL TRENCING AND BORE PITS OF ANY KIND SHALL BE CLEAR OF TREE DRIP LINES. IF ANY CITY-OWNED STREET TREES ARE DAMAGED BY THIS WORK, THE CONTRACTOR MUST CONTACT FORESTRY AS SOON AS POSSIBLE SO THAT THE DAMAGE CAN BE ASSESSED. CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH DAMAGE REMEDIATION.
6.	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.	38.	PAVEMENT REMOVAL LIMITS TO BE DISCUSSED AND APPROVED BY ENGINEER PRIOR TO WORK BEING DONE. DURING UTILITY CONSTRUCTION ONLY REMOVE PAVEMENT NEEDED FOR INSTALLATION.
7.	THE CONTRACTOR IS TO TAKE SPECIAL CARE TO PROTECT THE EXISTING WATER MAIN AND BE RESPONSIBLE FOR MAINTAINING CONSISTENT WATER SERVICE.		
8.	DURING NON-WORKING HOURS, NO TRENCH SHALL REMAIN OPEN; ANY OPEN TRENCH SHALL BE PROPERLY SECURED WITH PROTECTIVE FENCING.		
9.	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 FIELD SERVICES.		
10.	THE CONTRACTOR SHALL BACKFILL TRENCHES IN ACCORDANCE WITH TRENCH DETAIL SPECIFIED ON PLANS. ALL CONCRETE REMOVALS AND REPLACEMENTS REQUIRED FOR THIS WORK WILL BE PAID FOR SEPARATELY.		
11.	POSTAL DELIVERY AND REFUSE PICKUP SERVICE SHALL BE MAINTAINED AT ALL TIMES BY THE CONTRACTOR.		
12.	ALL LIGHT POLES, LUMINAIRES, SIGNS, 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 FIELD OPERATIONS AND MAINTENANCE FACILITY AT THE W.R. WHEELER SERVICE CENTER LOCATED AT 4251 STONE SCHOOL ROAD.		
13.	WHERE STREET CURBS ARE UNDERMINED DUE TO CONSTRUCTION ACTIVITIES, THEY SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER.		
14.	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.		
15.	ALL NEW AND EXISTING STORM INLETS WITHIN THE PROJECT SHALL HAVE INLET FILTER PROTECTION FOR THE DURATION CONSTRUCTION.		
16.	ALL CURB, SIDEWALK, DRIVEWAY APPROACH REMOVALS SHALL BE APPROVED BY ENGINEER BEFORE THE WORK IS DONE.		
24.	THE LOCATION OF MATERIAL STOCK PILES AND ON-SITE STAGING AREAS TO BE APPROVED BY THE ENGINEER.		
25.	FOR MAINLINE PAVING, THE WIDTH OF THE MAT FOR EACH PASS OF THE PAVEMENT 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.		
26.	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 FIELD OPERATIONS AND MAINTENANCE FACILITY AT THE W.R. WHEELER SERVICE CENTER LOCATED AT 4251 STONE SCHOOL ROAD. STRUCTURES SHALL BE ADJUSTED AS DIRECTED BY ENGINEER.		
27.	PAYMENT FOR DRAINAGE STRUCTURE SUMPS, WHERE SPECIFIED, SHALL BE INCLUDED IN THE PAYMENT FOR THE VARIOUS DRAINAGE STRUCTURE SIZES AND OR TYPES.		
28.	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.		
29.	PAVEMENT MARKINGS DISTURBED AS A RESULT OF PAVEMENT CUTS OR CONSTRUCTION ACTIVITIES SHALL BE REPLACED AS DIRECTED BY PROJECT MANAGEMENT. REPLACEMENT DURING CONSTRUCTION OF THE PROJECT MAY BE CONSIDERED TEMPORARY, WITH FINAL PAVEMENT MARKING RESTORATION TO OCCUR AT THE END OF THE PROJECT.		
30.	THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING PUBLIC ROAD PAVEMENT. DAMAGE TO THE PUBLIC ROAD PAVEMENT DURING THE COURSE OF CONSTRUCTION MAY NECESSITATE MILLING AND RESURFACING OF THE DAMAGED AREAS PRIOR TO ACCEPTANCE.		
31.	ACCESS TO ALL RESIDENTIAL AND COMMERCIAL DRIVEWAYS MUST BE MAINTAINED AT ALL TIMES.		
32.	ALL TRAFFIC CONTROL DEVICES AND THEIR USAGE MUST CONFORM TO THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD), 2011 EDITION.		

S.E.S.C. NOTES	
<b>SOIL EROSION AND SEDIMENTATION CONTROL NOTES:</b>	
NOTIFY THE CITY OF ANN ARBOR SOIL EROSION CONTROL OFFICE 48 HOURS PRIOR TO BEGINNING WORK ON THE PROJECT. PHONE: 734-794-6265.	
1.	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.
2.	ALL SOIL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE PERMIT REQUIREMENTS OF THE CITY OF ANN ARBOR, CITY ORDINANCE CHAPTER 63, CITY OF ANN ARBOR STANDARDS DIVISION VII, THE LAWS OF THE STATE OF MICHIGAN, AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
3.	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.
4.	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.
5.	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, WITHIN FOUR (4) HOURS OF BEING SO ORDERED.
6.	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.
7.	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.
8.	SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
9.	PROPER DUST CONTROL SHALL BE MAINTAINED DURING CONSTRUCTION BY USE OF WATER TRUCKS AND/OR DUST PALLIATIVE AS REQUIRED.
10.	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.
11.	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.
12.	TREE PROTECTION FENCING MUST REMAIN INTACT UNTIL RESTORATION OF THE SITE IS COMPLETE.
<b>SEQUENCE OF EROSION CONTROL MEASURES:</b>	
1.	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.
<b>SAMPLE SOIL EROSION AND SEDIMENTATION CONTROL INSTALLATION MINIMUM REQUIREMENTS:</b>	
1.1.	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.
1.2.	STRIP AND STOCKPILE TOPSOIL. STABILIZE STOCKPILE AS REQUIRED.
1.3.	PERFORM ALL CURB AND GUTTER AND PAVEMENT REMOVALS IN ACCORDANCE WITH CONSTRUCTION SEQUENCE CONTAINED WITHIN THE SPECIAL PROVISION FOR MAINTAINING TRAFFIC.
1.4.	INSTALL STORM SEWERS AND OTHER ENCLOSED DRAINAGE FEATURES IN ACCORDANCE WITH CONSTRUCTION SEQUENCE CONTAINED WITHIN THE SPECIAL PROVISION FOR MAINTAINING TRAFFIC. NEW INLET FILTERS SHALL BE INSTALLED IMMEDIATELY FOLLOWING INSTALLATION OF NEW DRAINAGE INLETS AND CATCH BASINS.
1.5.	PERFORM MACHINE GRADING OPERATIONS AND CONSTRUCT PAVEMENTS (MAINLINE, SIDEWALKS, DRIVES, ETC.) IN ACCORDANCE WITH CONSTRUCTION SEQUENCE CONTAINED WITHIN THE SPECIAL PROVISION FOR MAINTAINING TRAFFIC.
1.6.	CONTINUALLY MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED TO ALLOW DRAINAGE AND SEDIMENT REMOVAL. REMOVE ANY ACCUMULATED SEDIMENT IMMEDIATELY.
1.7.	COMPLETE ALL DITCH GRADING AND FINE GRADING.
1.8.	RESTORE ALL DISTURBED AREAS IN ACCORDANCE WITH SLOPE RESTORATION SPECIAL PROVISION.
1.9.	REMEDY ANY NOTED DEFECTS TO THE SATISFACTION OF THE CITY OF ANN ARBOR'S SOIL EROSION AND SEDIMENTATION CONTROL OFFICIAL.
1.10.	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.	

TRAFFIC SIGNAL		
ANTENNA		
CASE SIGN, 1-WAY - EXISTING		
CASE SIGN, 1-WAY		
CASE SIGN, 2-WAY - EXISTING		
CASE SIGN, 2-WAY		
CASE SIGN, 3-WAY - EXISTING		
CASE SIGN, 3-WAY		
CASE SIGN, 4-WAY - EXISTING		
CASE SIGN, 4-WAY		
DEDICATED SHORT RANGE COMMUNICATIONS		
CONTROLLER CABINET - PAD MOUNTED		
CONTROLLER CABINET - POLE MOUNTED		
CONTROL EMERGENCY PREEMPTION OPTICOM		
DILEMMA ZONE DETECTION		
GLOBAL POSITIONING SYSTEM MODULE		
HANDHOLE - 2 FOOT ROUND		
HANDHOLE - 2 FOOT SQUARE		
HANDHOLE - 3 FOOT ROUND		
HANDHOLE - 4 FOOT SQUARE		
HANDHOLE - POLYMER CONCRETE		
PEDESTAL		
PEDESTRIAN PUSHBUTTON		
POLE MAST ARM (LENGTH VARIES) - EXISTING		
POLE MAST ARM (LENGTH VARIES)		
POLE STRAIN		
POLE WOOD		
ROAD SIGN W/ FLASHING SIGN OPTICAL (1-WAY)		
SIGNAL HEAD PEDESTRIAN - EXISTING		
SIGNAL HEAD PEDESTRIAN 1-WAY		
SIGNAL HEAD PEDESTRIAN 2-WAY		
SIGNAL HEAD VEHICLE 1-WAY - EXISTING		
SIGNAL HEAD VEHICLE 1-WAY		
SIGNAL HEAD VEHICLE 2-WAY - EXISTING		
SIGNAL HEAD VEHICLE 2-WAY		
SIGNAL HEAD VEHICLE 3-WAY - EXISTING		
SIGNAL HEAD VEHICLE 3-WAY		
SIGNAL HEAD VEHICLE 4-WAY - EXISTING		
SIGNAL HEAD VEHICLE 4-WAY		
SIGNAL HEAD VEHICLE BAGGED		
SIGNAL HEAD VEHICLE PROGRAMMABLE		
VEHICLE DETECTION CAMERA		
VEHICLE DETECTION CAMERA - HEMISPHERICAL		
VEHICLE DETECTION LOOP		
VEHICLE DETECTION - RADAR		
WIRELESS VEHICLE DETECTION RADIO RECEIVER		
WIRELESS VEHICLE DETECTION RADIO REPEATER		
WIRELESS VEHICLE DETECTION SENSOR - EXISTING		
WIRELESS VEHICLE DETECTION SENSOR		
<b>CABLING / WIRING DIAGRAM</b>		
CIRCUIT BREAKER		
COILED WIRE		
FUSE		
FUSE SWITCH		
GROUND		
ILLUMINATED CASE SIGN		
METER		
SERVICE DISCONNECT		
SIGNAL HEAD		
<b>CONTACT INFORMATION</b>		
PUBLIC UTILITIES	OWNER	CONTACT
PUBLIC WORKS MANAGER	CITY OF ANN ARBOR 4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	PAUL MATTHEWS (734) 794-6350
ENGINEERING	CITY OF ANN ARBOR 301 E. HURON STREET ANN ARBOR, MI 48104	(734) 794-6410
TRAFFIC SIGNS, MARKINGS AND SIGNALS	CITY OF ANN ARBOR 301 E. HURON STREET ANN ARBOR, MI 48104	CYNTHIA REDINGER (734) 794-6410 x4632



Know what's below.  
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
PROJECT NOTES

CHECKED	DRAWN	DATE	DESCRIPTION	REV.

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

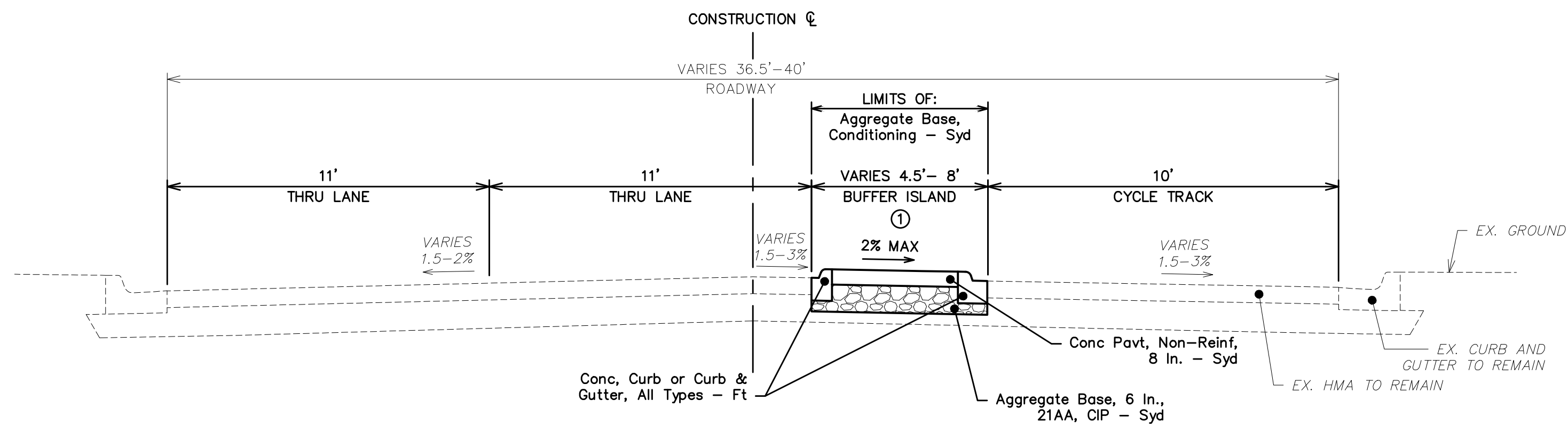
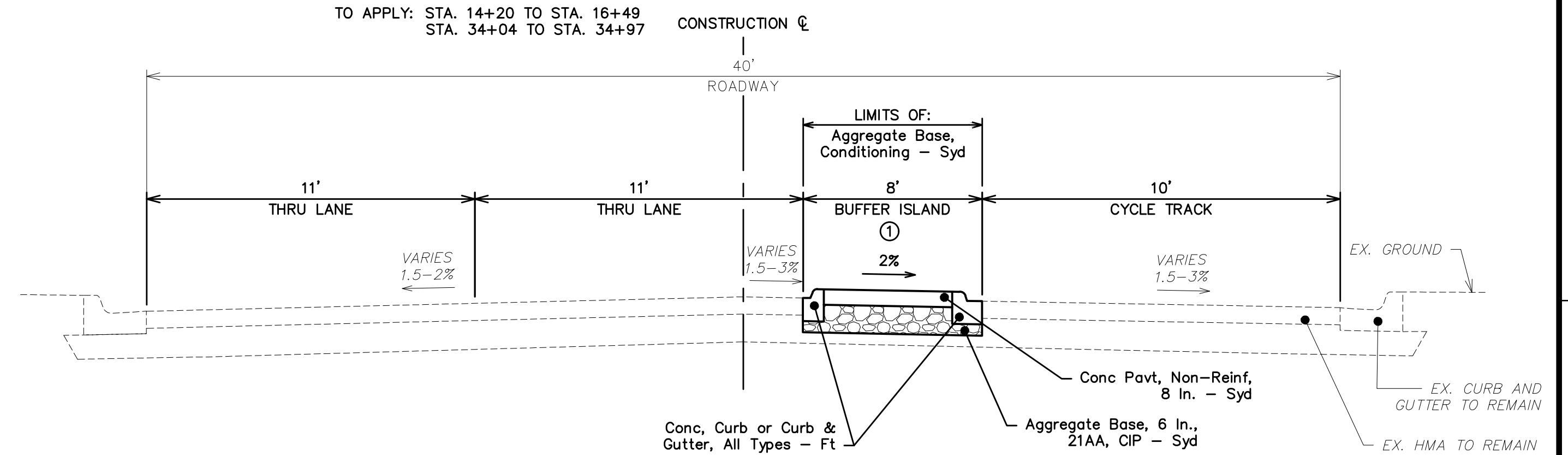
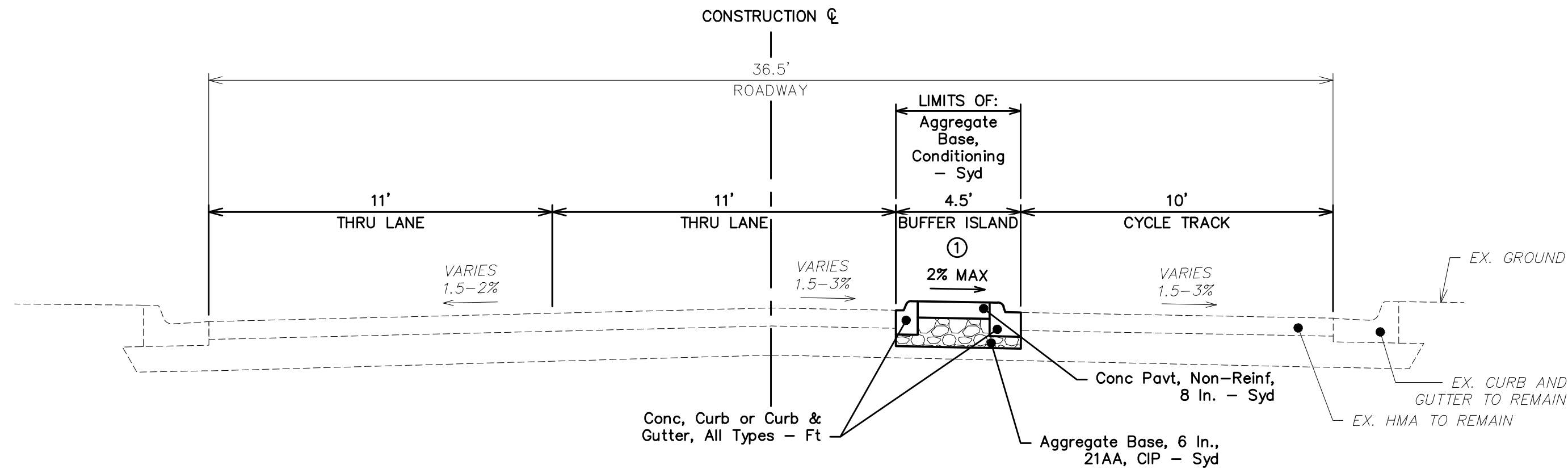
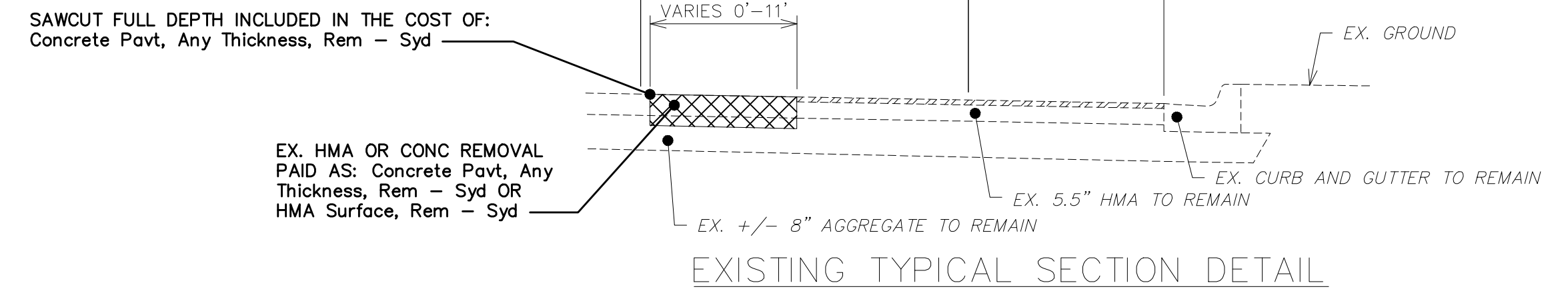
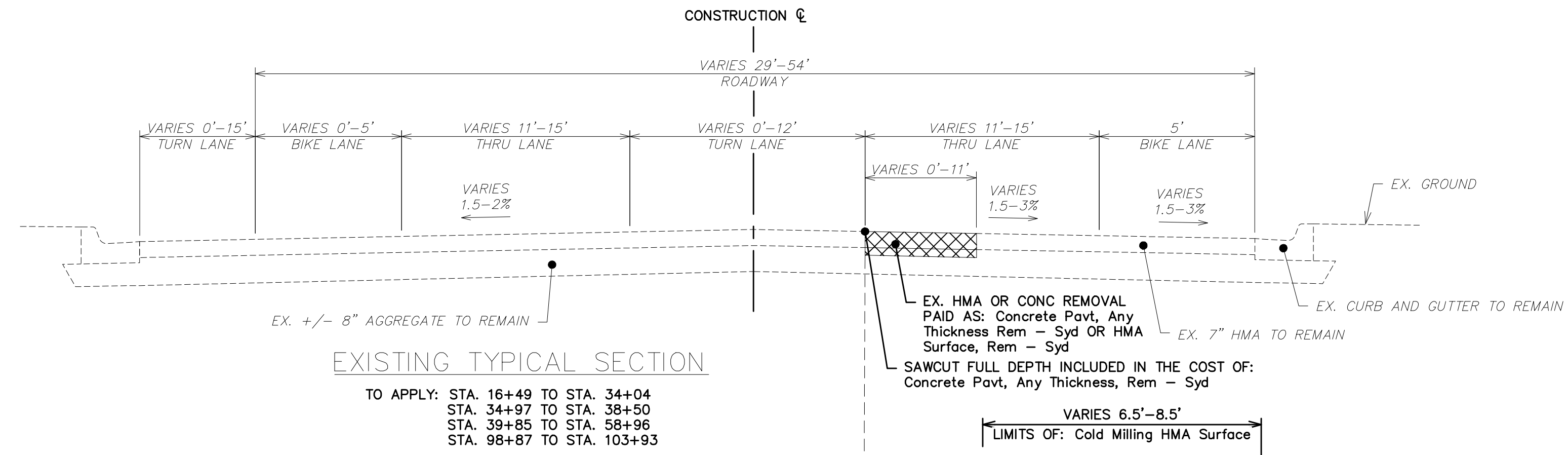
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DRAWING NO. 20230643-NT01

SHEET No. 99 of 132



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NOTES:  
 ① SEE PLANS FOR EXACT LIMITS OF BUFFER.



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CITY OF ANN ARBOR  
 PUBLIC SERVICES  
 301 EAST HURON STREET  
 ANN ARBOR, MI 48107-8647  
 ANN ARBOR: 734.794.4110  
 www.a2gov.org

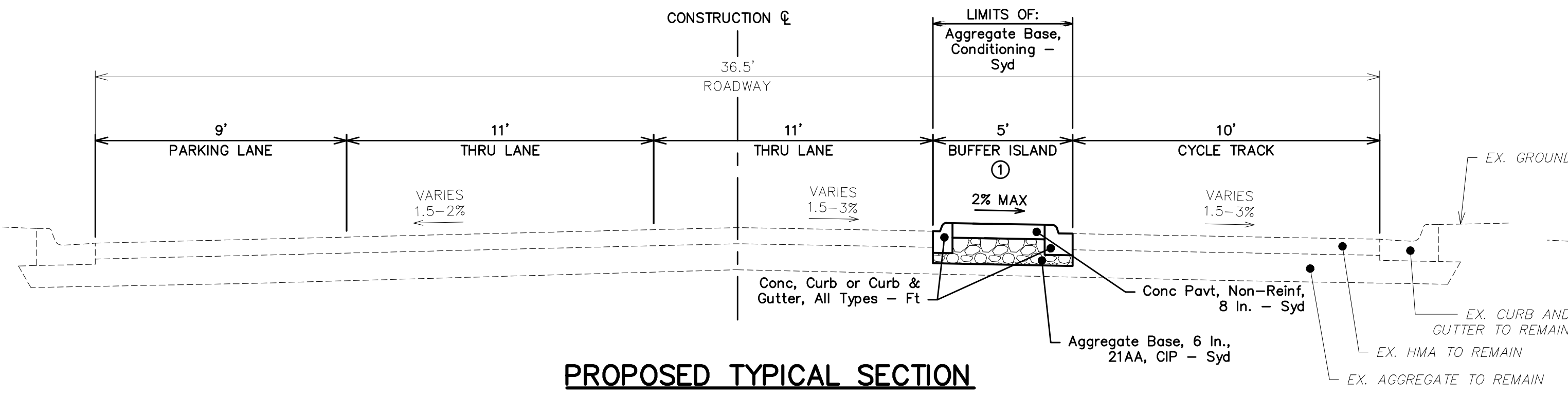


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
 MILLER ROAD CYCLE TRACK  
 TYPICAL SECTIONS

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 DRAWING No. 20230643-TYP01

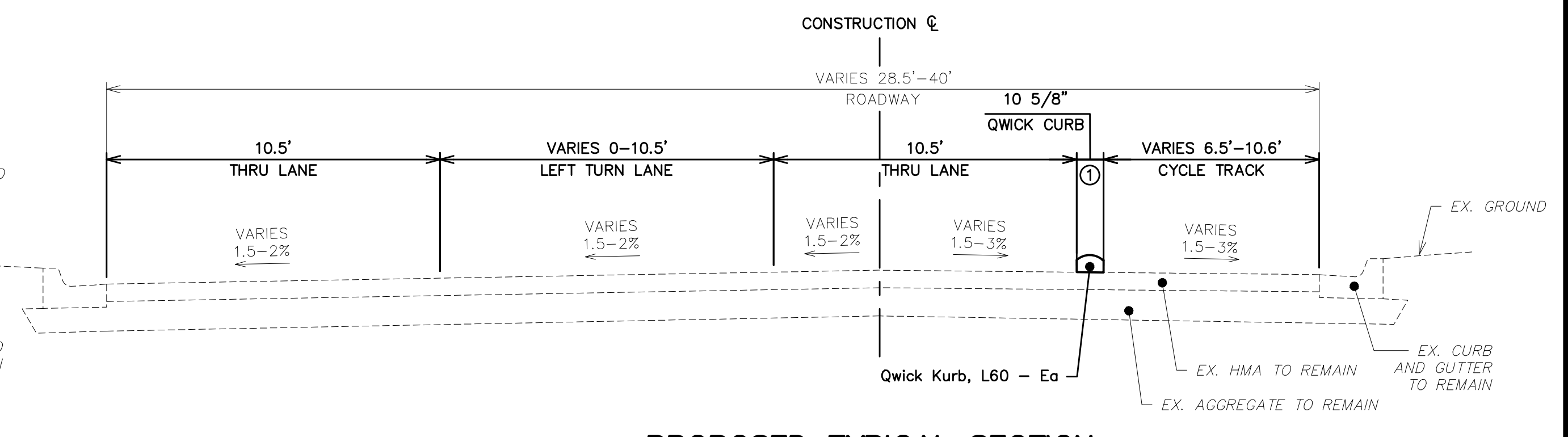


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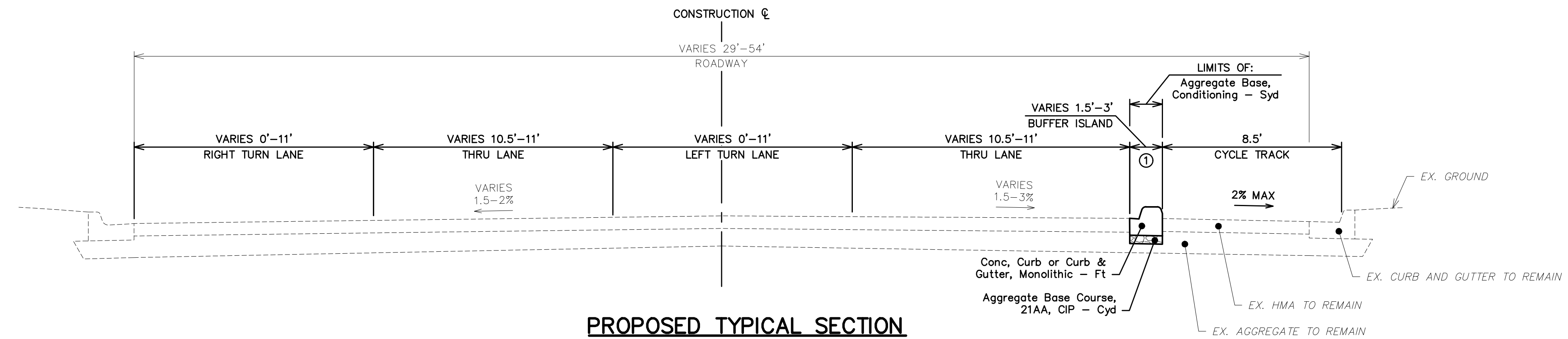
**PROPOSED TYPICAL SECTION**

TO APPLY: STA. 35+85 TO STA. 38+50



**PROPOSED TYPICAL SECTION**

TO APPLY: STA. 43+09 TO STA. 58+96  
STA. 98+87 TO STA. 103+93



**PROPOSED TYPICAL SECTION**

TO APPLY: STA. 34+04 TO STA. 34+97  
STA. 14+20 TO STA. 16+49

**NOTES:**  
① SEE PLANS FOR EXACT LIMITS OF BUFFER.



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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301 EAST HURON STREET  
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ANN ARBOR: 734.794.4410  
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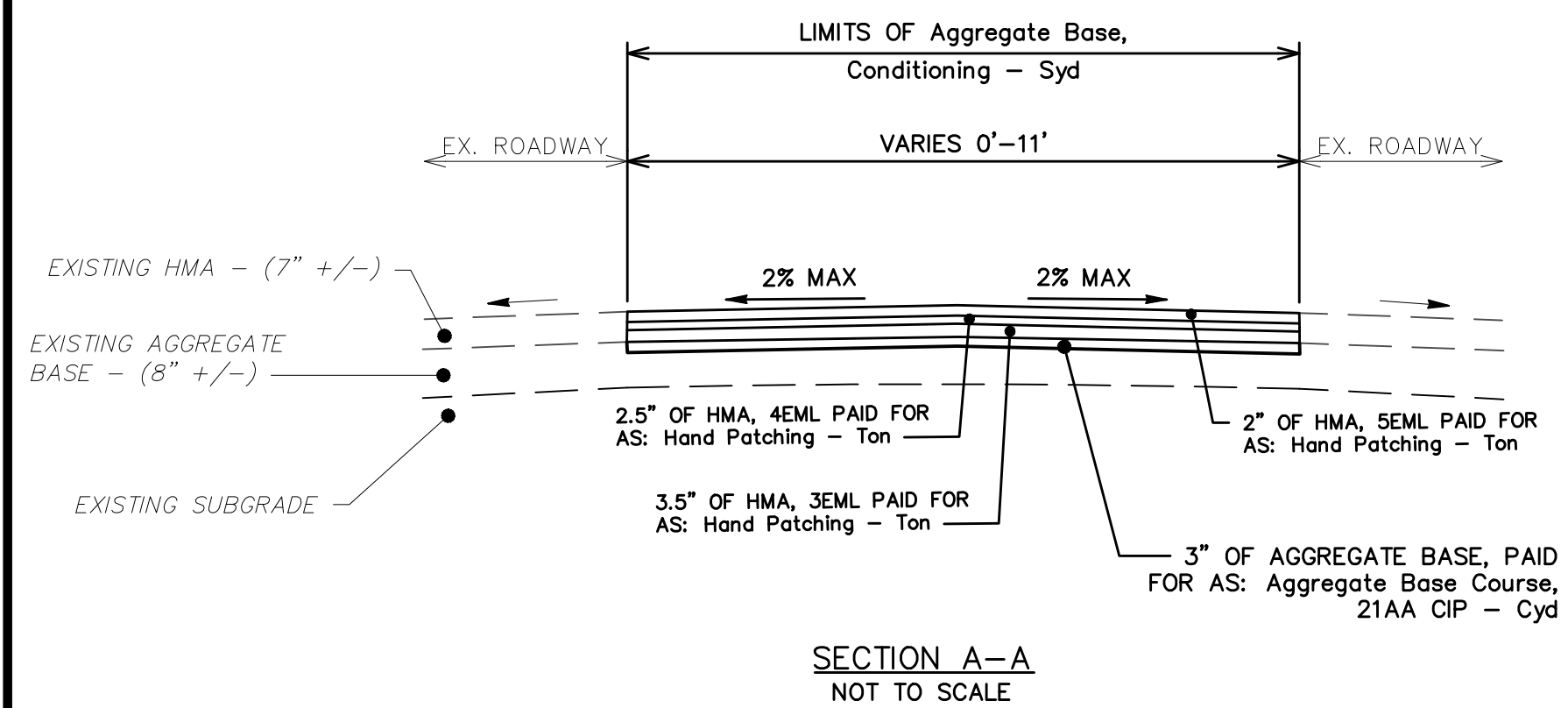
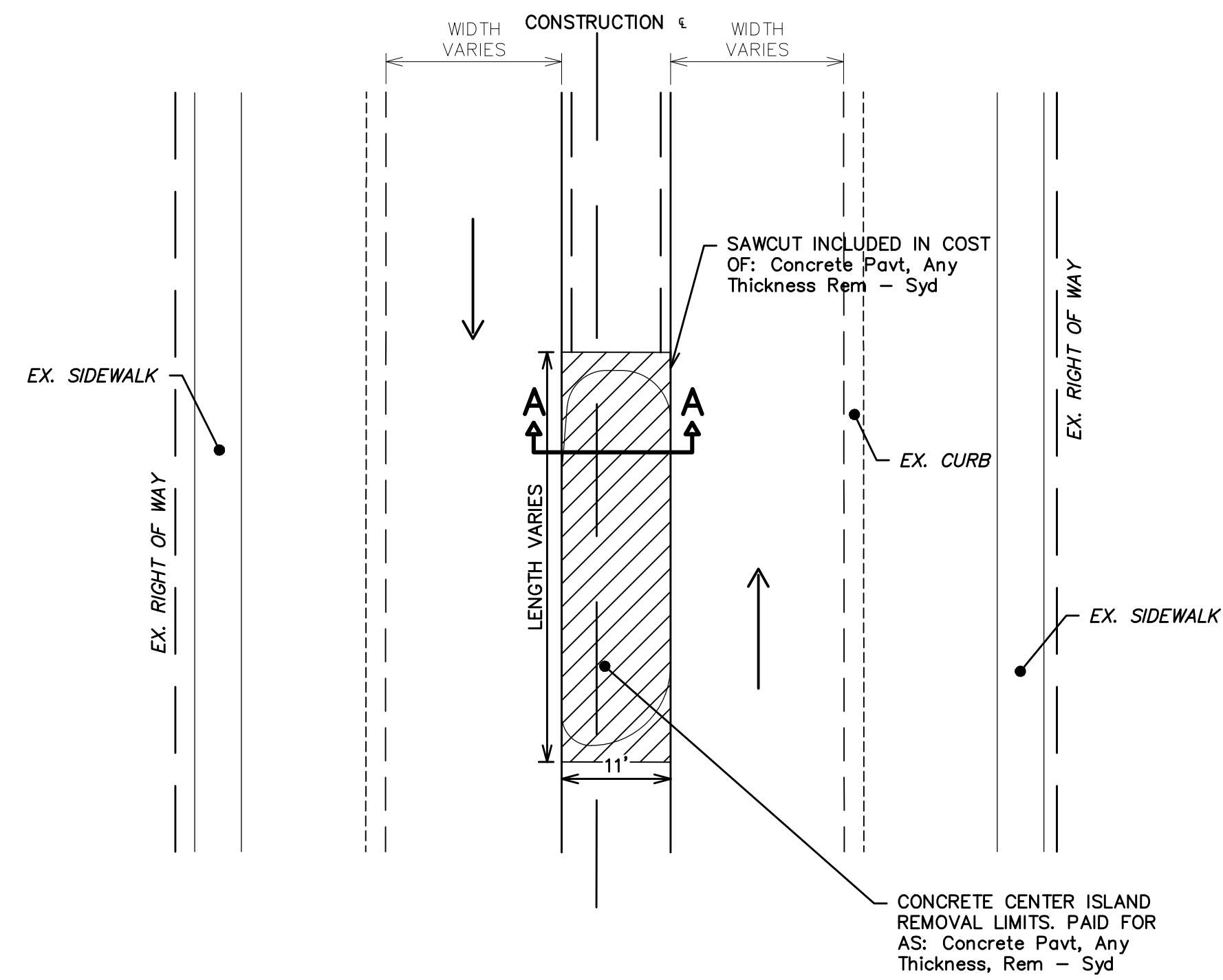


**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER ROAD CYCLE TRACK**  
TYPICAL SECTIONS

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DRAWING No. 20230643-TYP02

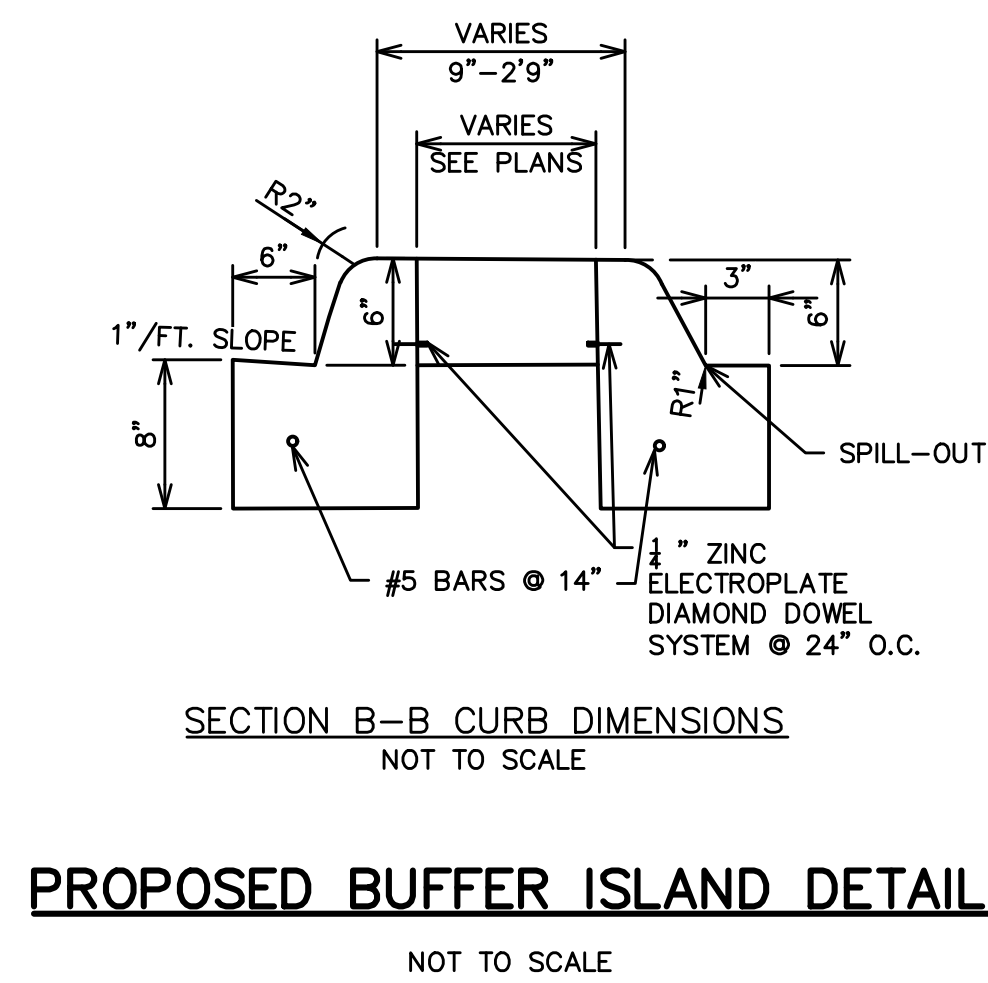
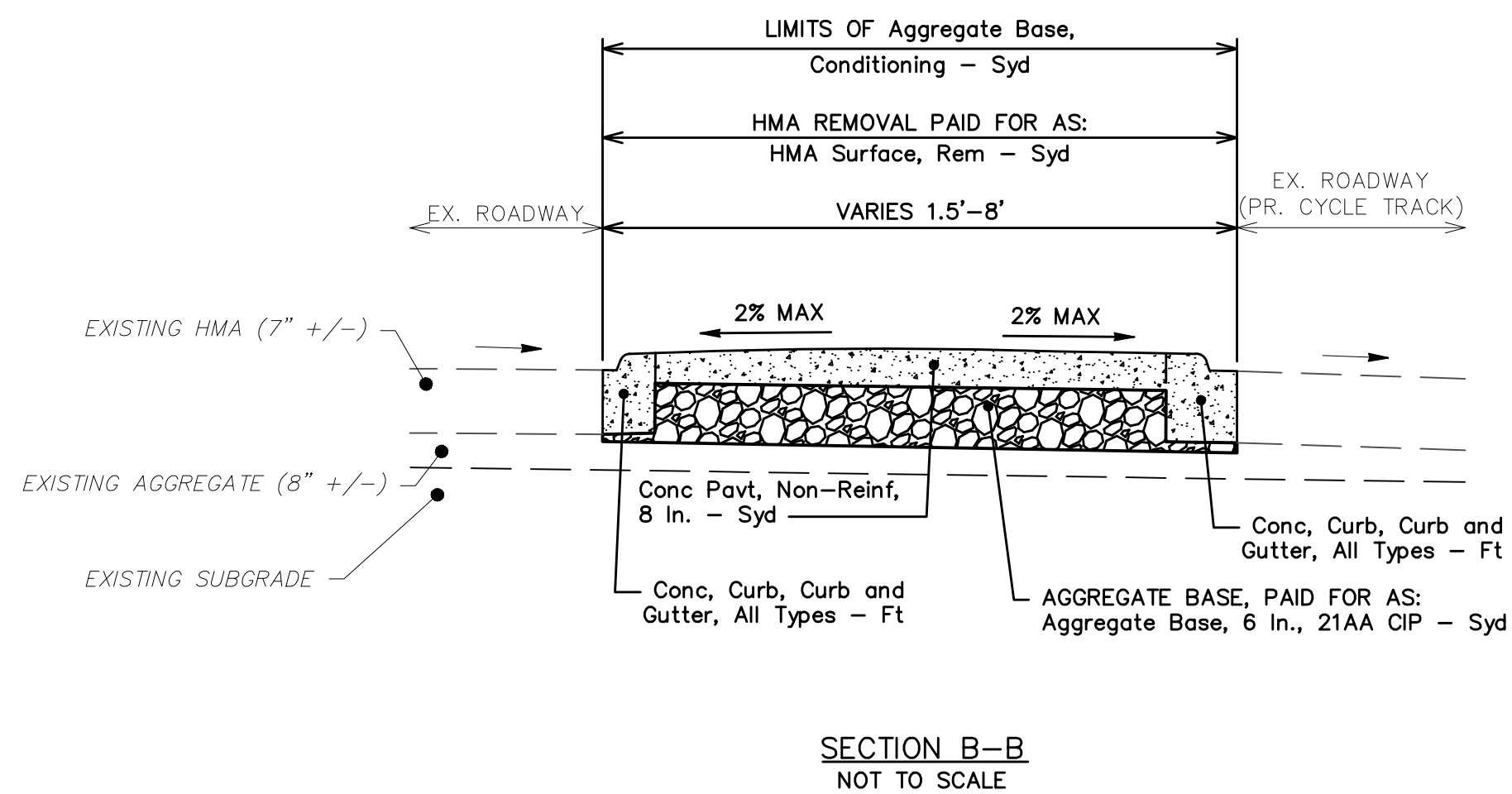
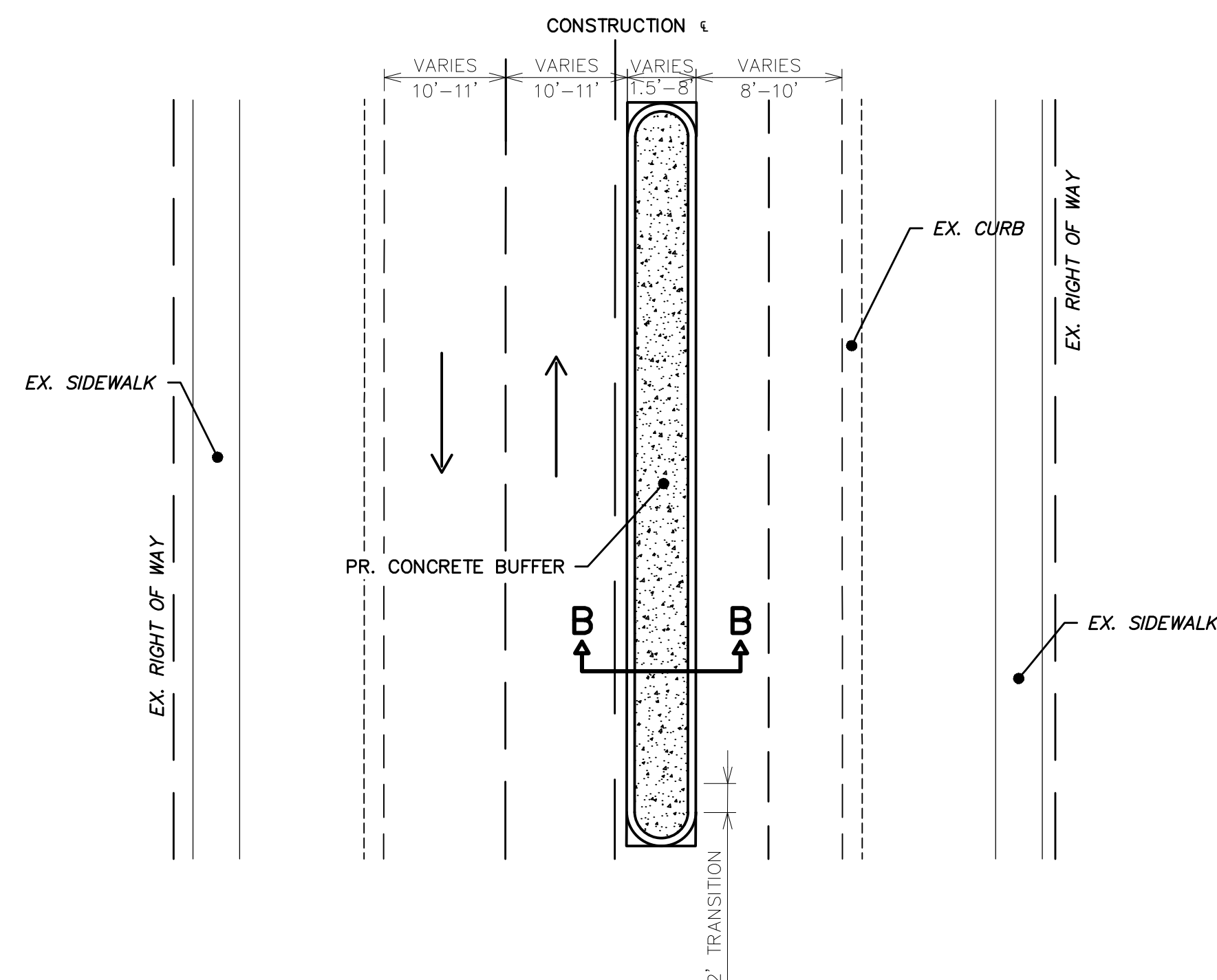


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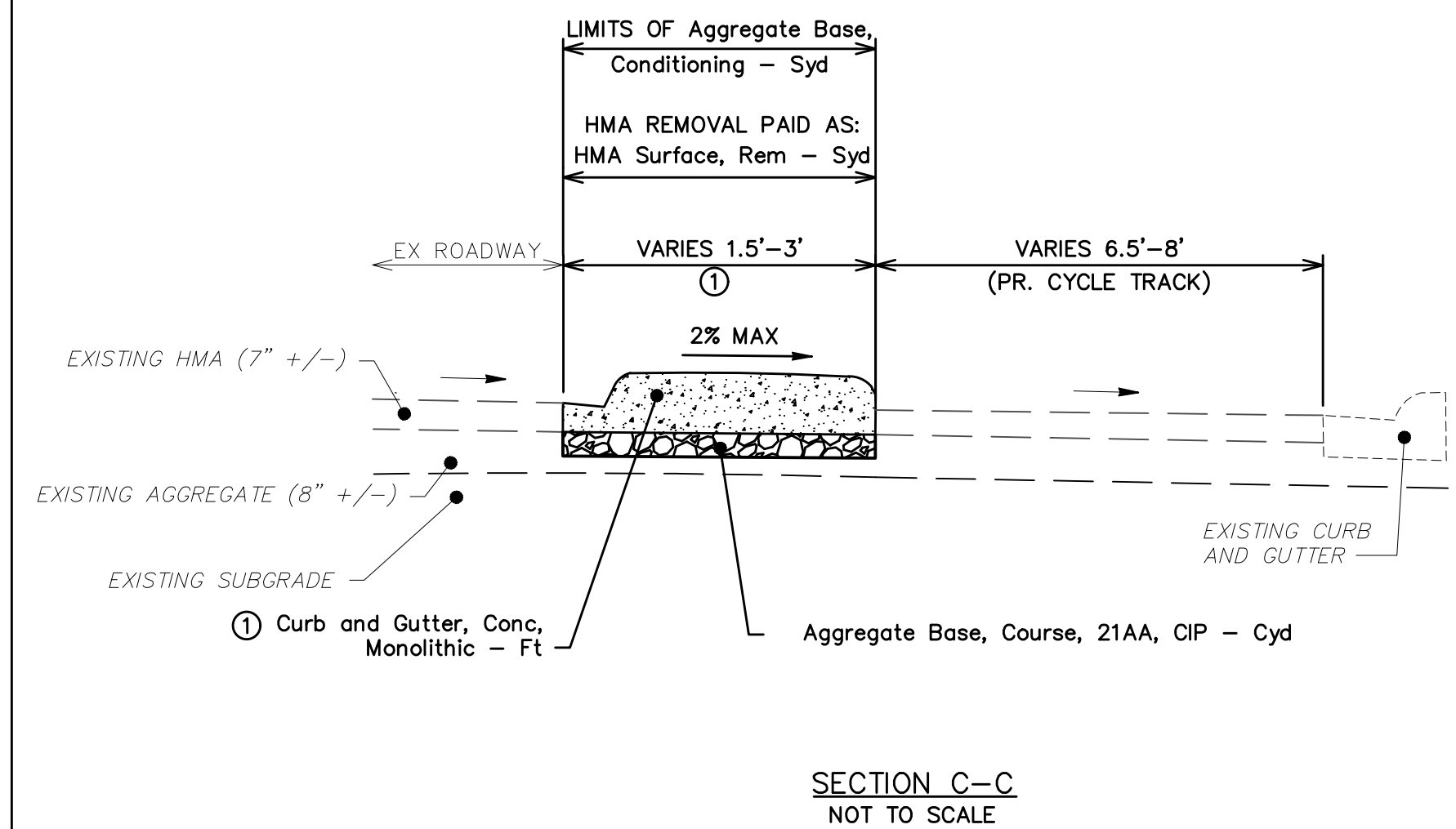
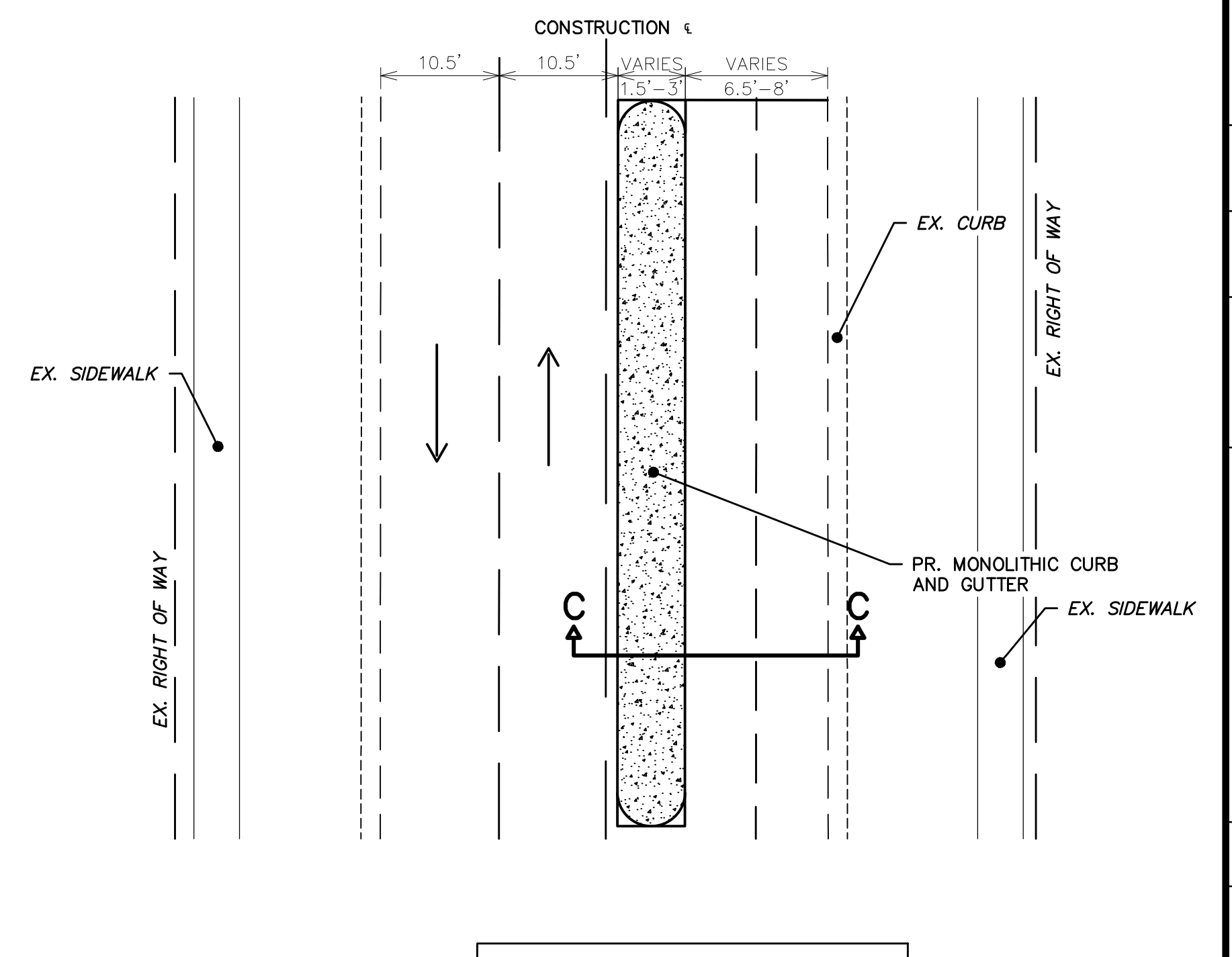


**EXISTING PEDESTRIAN ISLAND REMOVAL DETAIL**  
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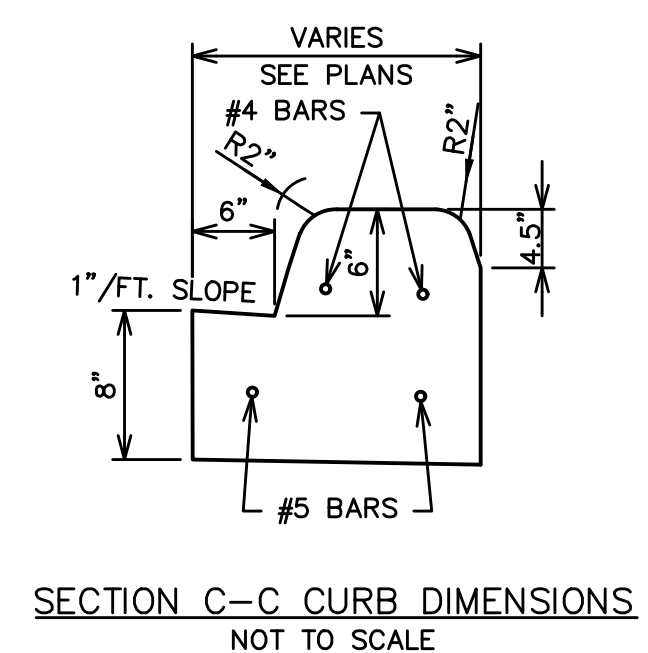
HMA APPLICATION ESTIMATE						
PAY ITEM	HMA MIX	RATE OF APPLICATION	THICKNESS (INCHES)	AWI (MIN.)	BINDER	LOCATION/NOTES
HAND PATCHING	5EML	220 Lb/Syd	2	220 (TOP)	PG 64-28	TOP COURSE, HAND PATCHING
HAND PATCHING	4EML	275 Lb/Syd	2.5	-	PG 64-28	LEVELING COURSE, HAND PATCHING
HAND PATCHING	3EML	385 Lb/Syd	3.5	-	PG 64-28	BASE COURSE, HAND PATCHING
ASPHALT EMULSION	88-1H	0.05-0.15 GAL/SYD	-	-	-	INCLUDED IN COST OF HMA ITEM



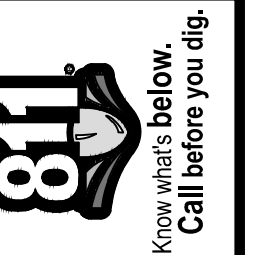
**PROPOSED BUFFER ISLAND DETAIL**  
NOT TO SCALE



**NOTES:**  
① CONCRETE CURB TO PITCH AWAY FROM ROADWAY CROWN AT A 2% (MAX) CROSS SLOPE.



**PROPOSED MONOLITHIC CURB AND GUTTER DETAIL**  
NOT TO SCALE



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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301 EAST HURON STREET  
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ANN ARBOR: 734.794.4110  
WWW.A2GOV.ORG

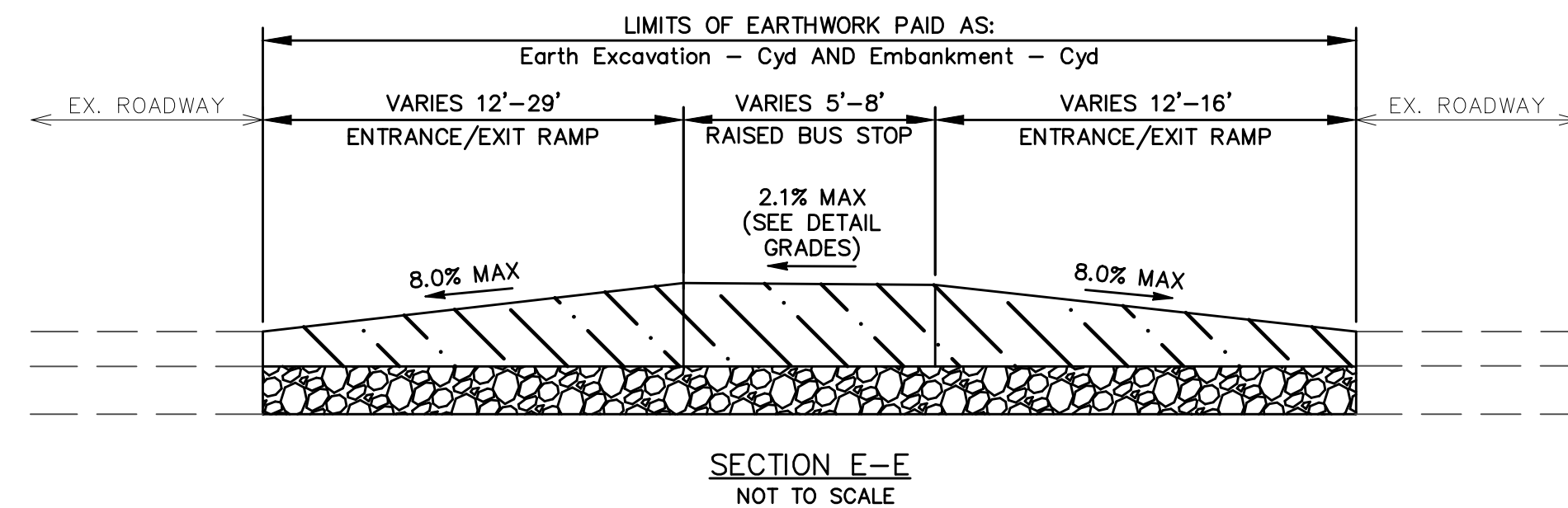
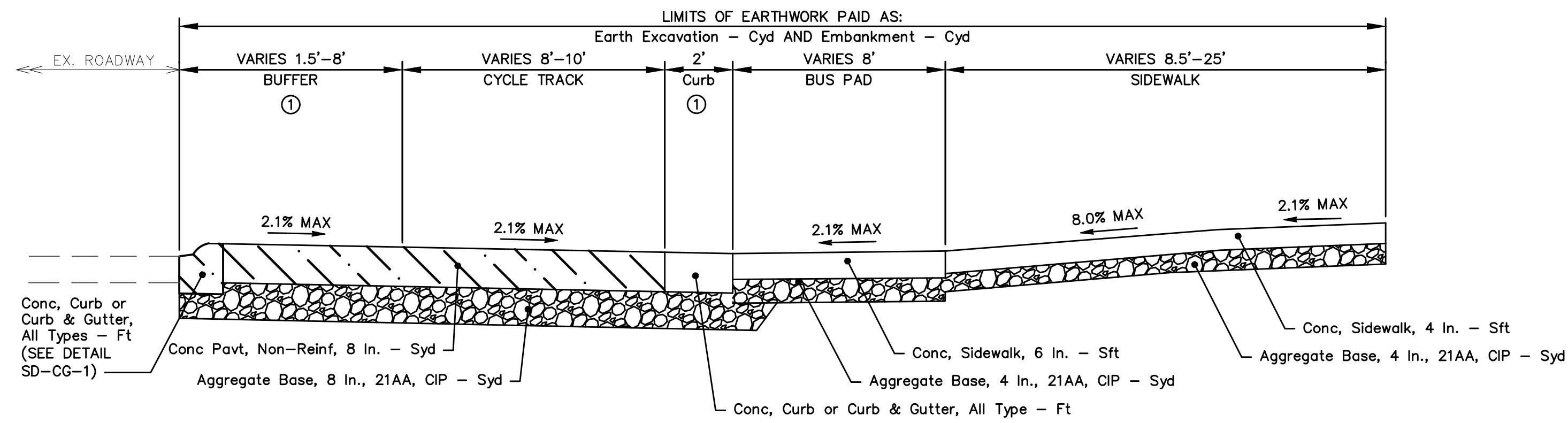
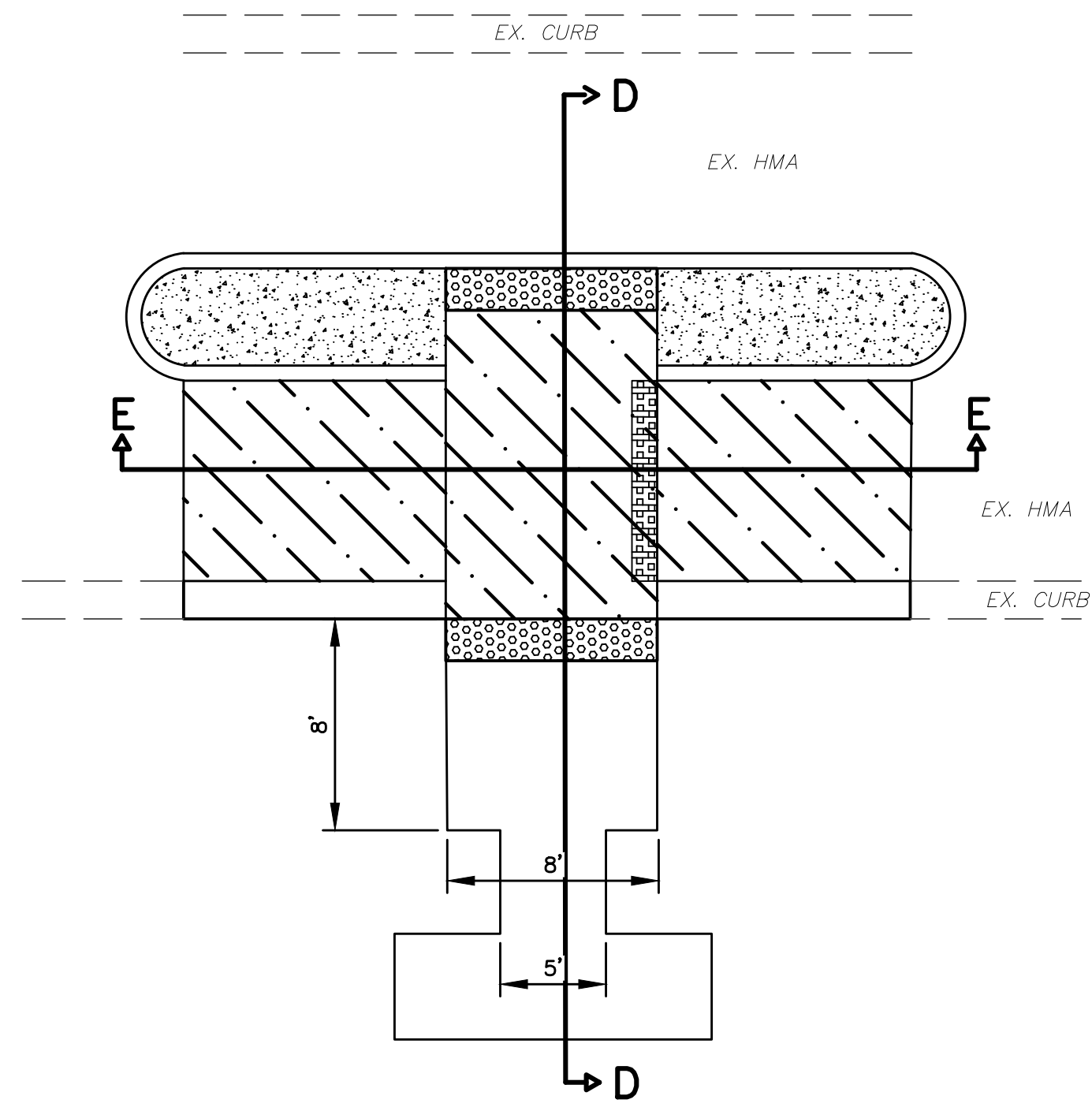


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
PROJECT DETAILS

SCALE: NOT TO SCALE  
DRAWING No. 20230643-DT01  
SHEET No.



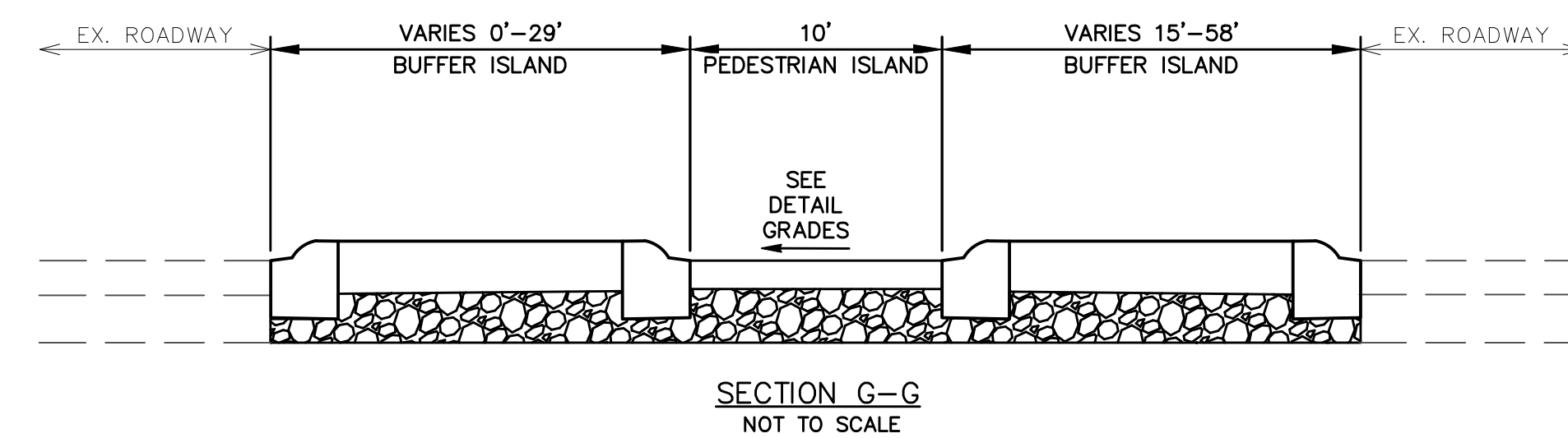
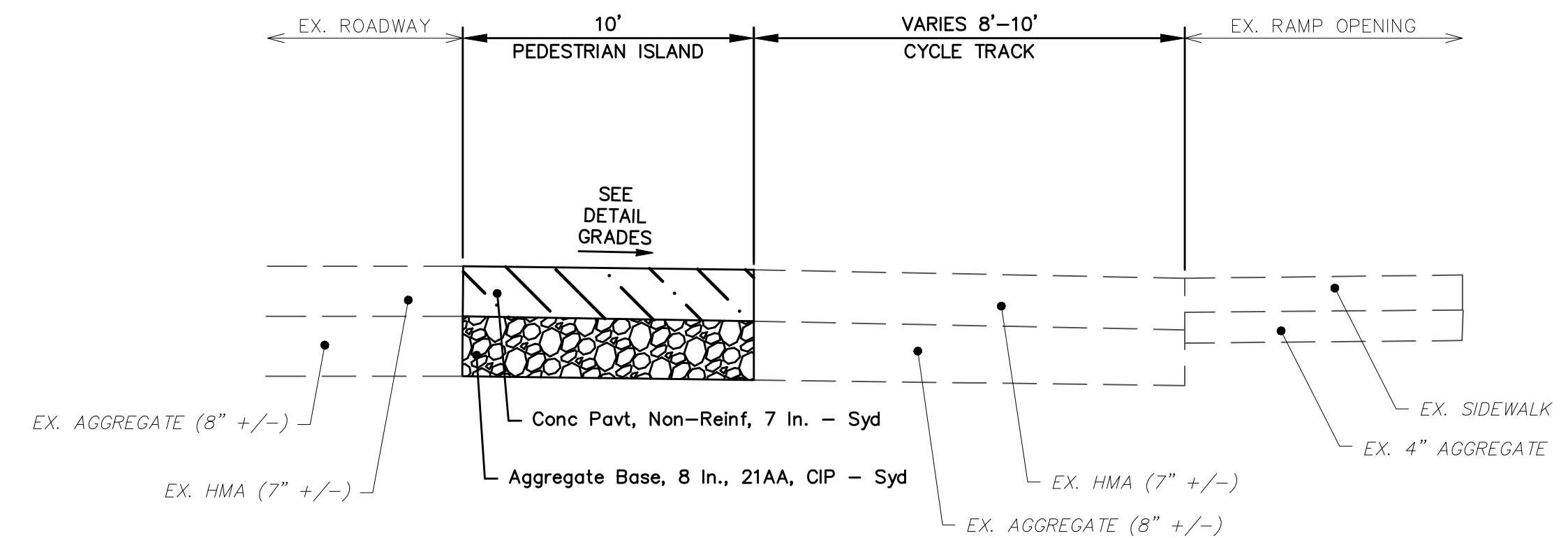
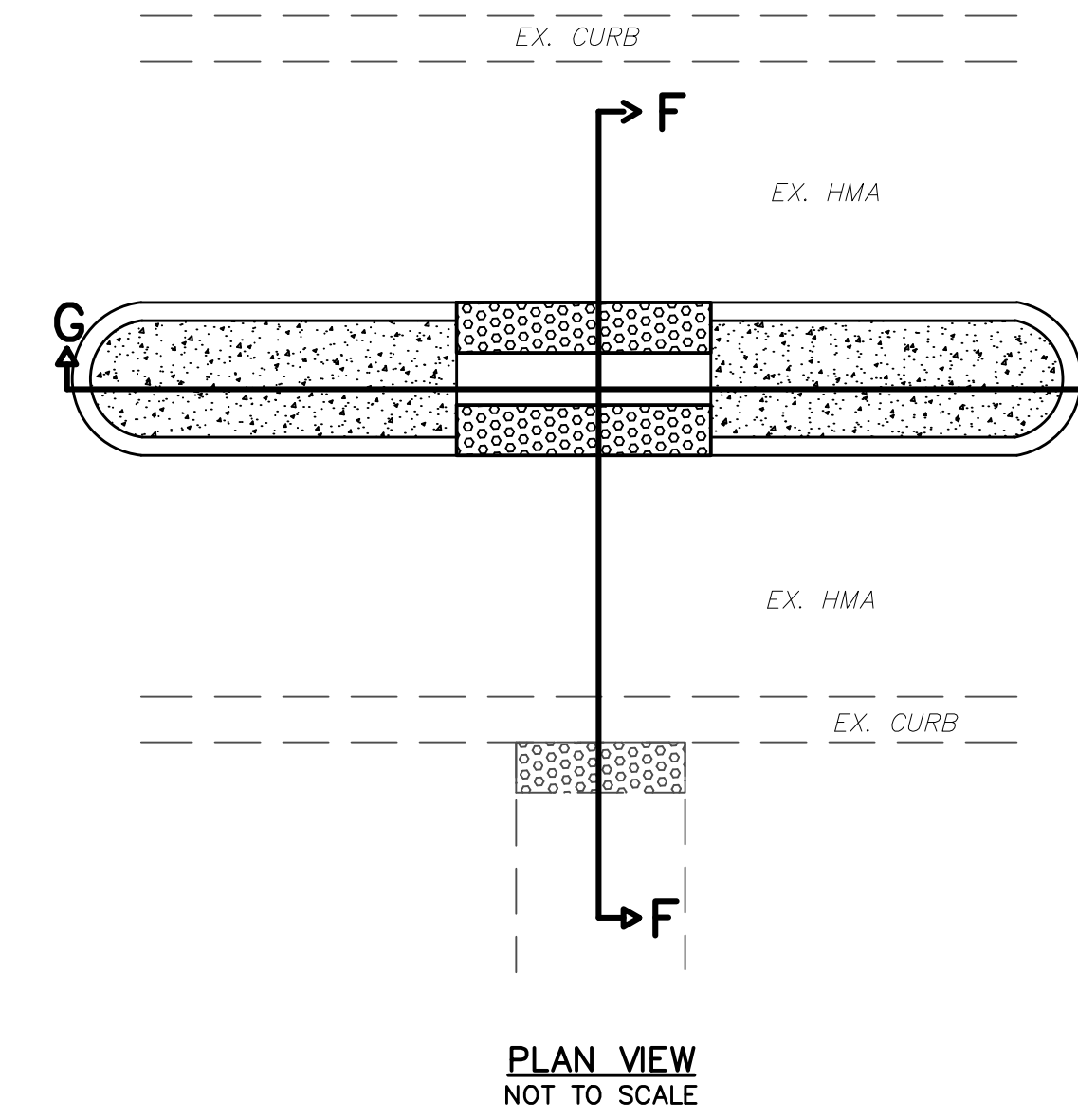
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**RAISED CONCRETE BUS STOP DETAIL**  
NOT TO SCALE

TO APPLY: STA. 25+69 TO STA. 26+61  
STA. 42+14 TO STA. 42+71  
STA. 98+87 TO STA. 99+23

- NOTES:  
① CONCRETE CURB AND GUTTER TO SLOPE UP WITH CONCRETE SECTION. SEE DETAIL GRADES.



**PEDESTRIAN ISLAND DETAIL**  
NOT TO SCALE



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ANN ARBOR 734.794.4110  
www.a2gov.org

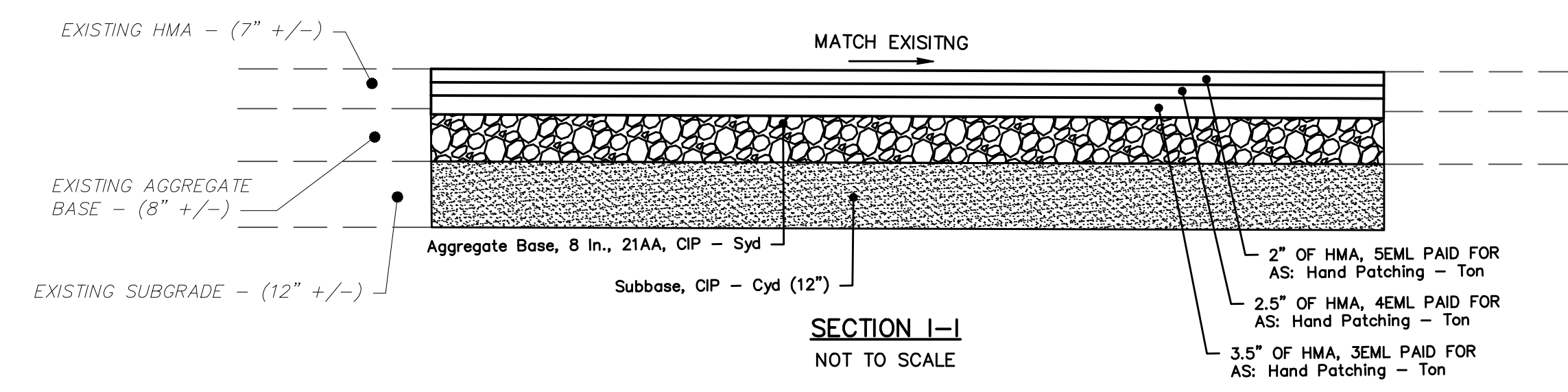
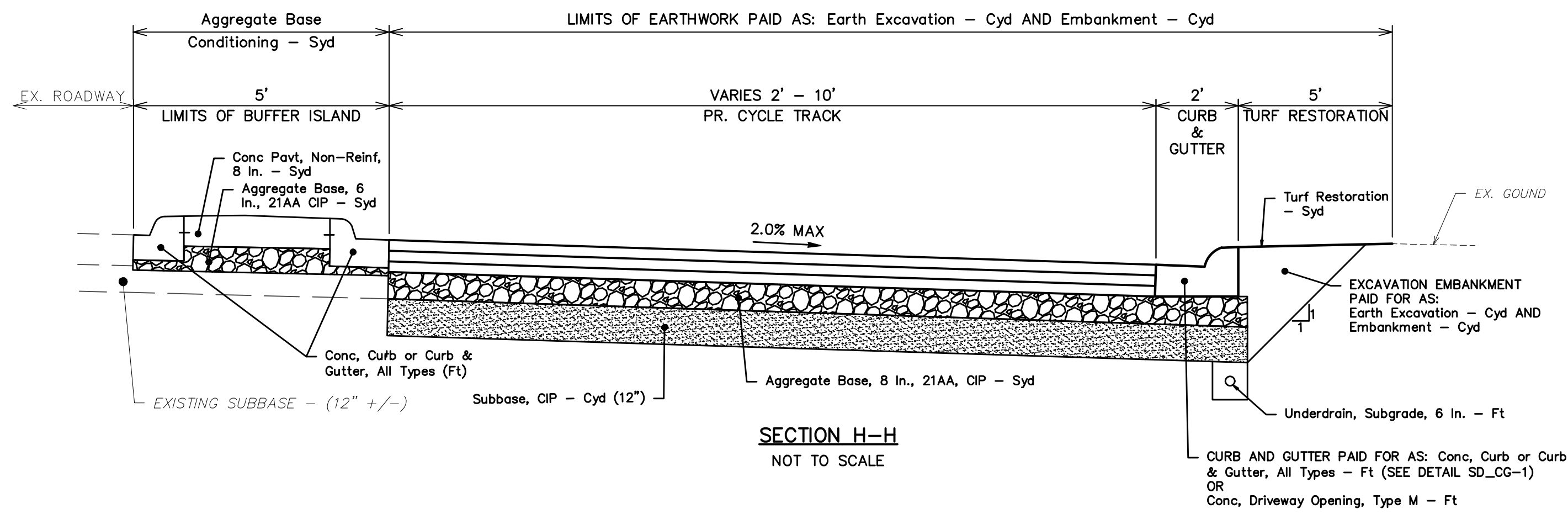
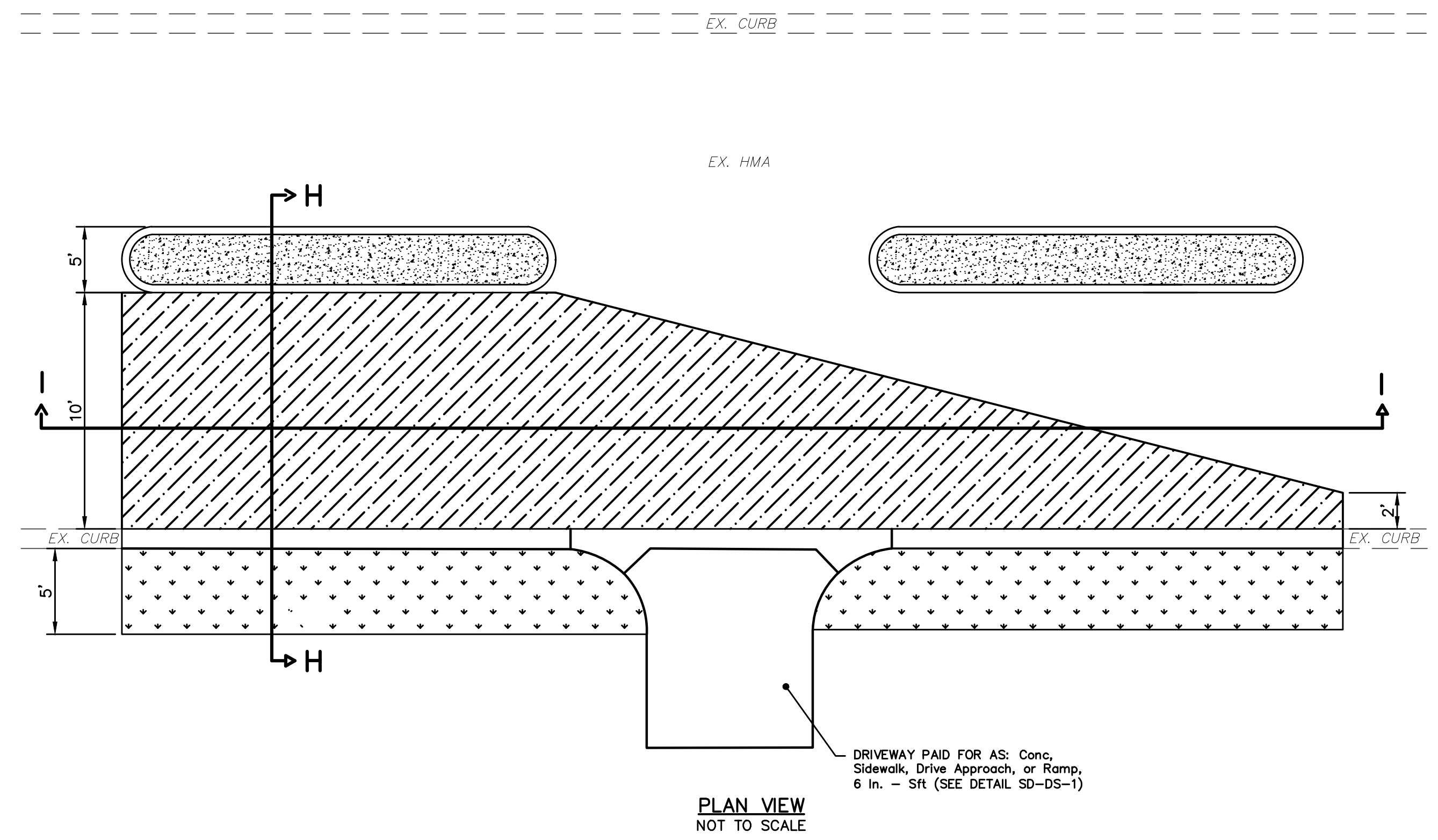


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
PROJECT DETAILS

SCALE: NOT TO SCALE  
DRAWING No. 20230643-DT02



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**CURB ALIGNMENT RECONSTRUCT**  
NOT TO SCALE  
TO APPLY: STA. 38+80 TO STA. 39+85

**811**  
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REV.	DESCRIPTION	DATE	DRAWN	CHECKED

**CITY OF ANN ARBOR PUBLIC SERVICES**  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-1067  
www.a2gov.org

**CITY OF ANN ARBOR MICHIGAN**

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

**MILLER ROAD CYCLE TRACK**  
PROJECT DETAILS

SCALE: NOT TO SCALE

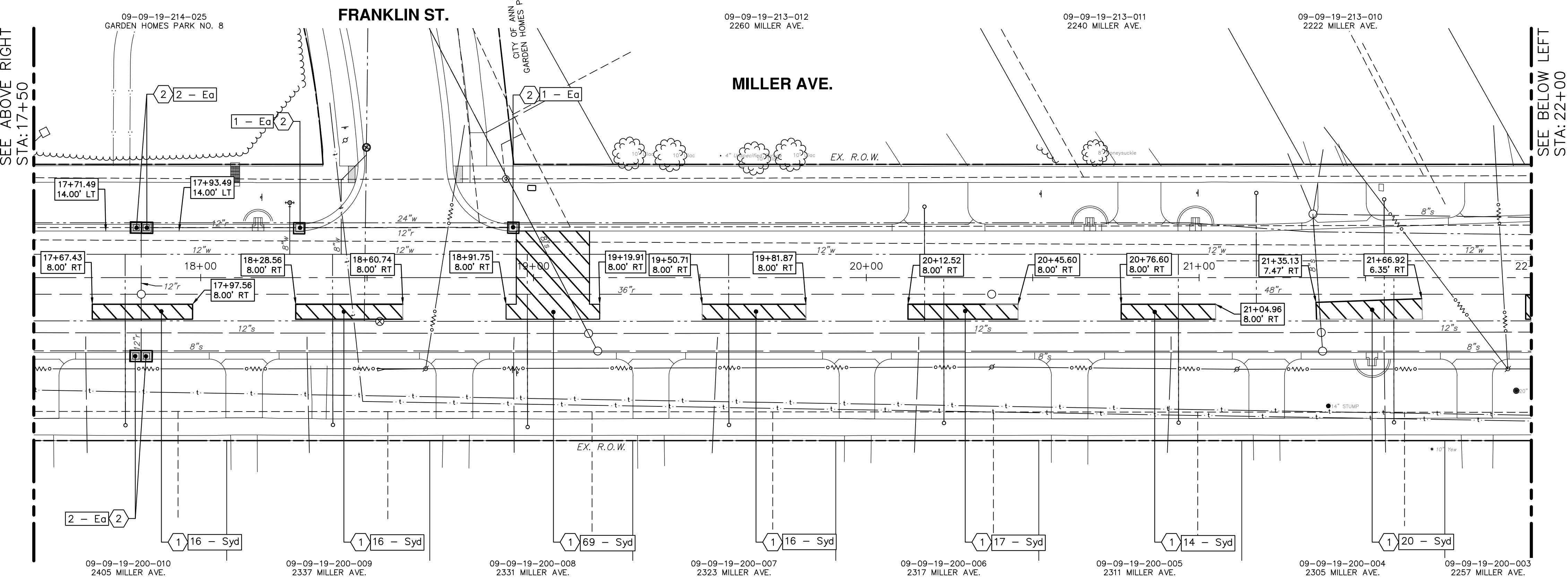
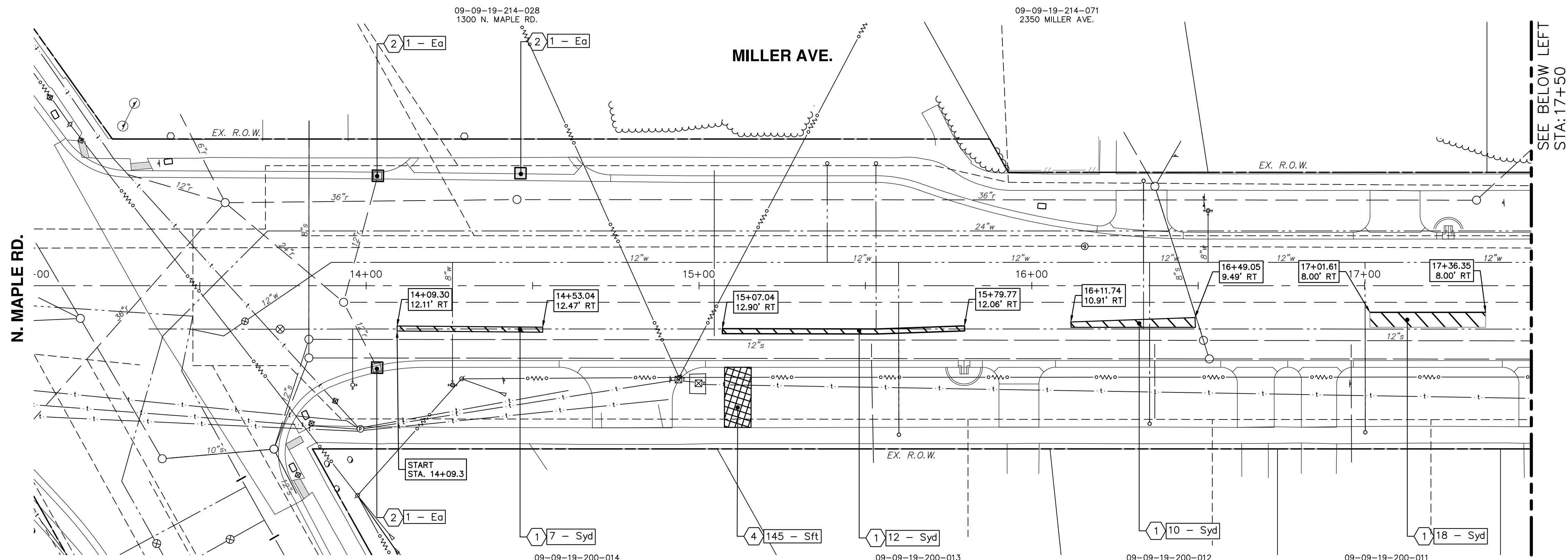
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SHEET No.

104 of 132



V:\202306\20230643\Sheets\rm01.dwg Dwg Created: 11-Mar-24 - \_o2\_standard bw.stb - Plot Date: 6-Sep-24



CONSTRUCTION KEY		
KEY No.	PROPOSED WORK	DESCRIPTION
1		HMA Surface, Rem - Syd
2		Erosion Control, Inlet Protection, Fabric Drop - Ea
3		Concrete Pavt, Any Thickness, Rem - Syd
4		Sidewalk, Sidewalk Ramp, & Driveway Approach, Any Thck, Rem - Sft
5		Curb, Gutter, Curb and Gutter, Any Type, Rem - Ft
6		Earth Excavation - Cyd

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

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
MILLER ROAD CYCLE TRACK  
REMOVAL PLAN SHEET

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

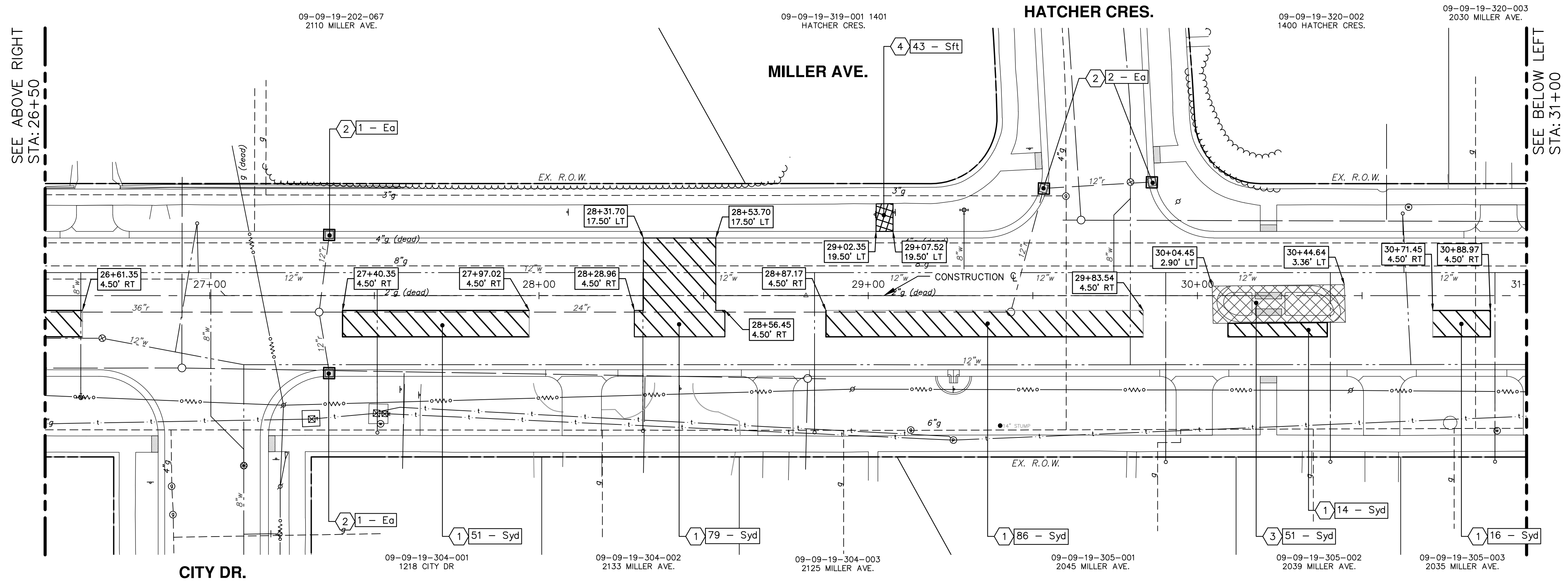
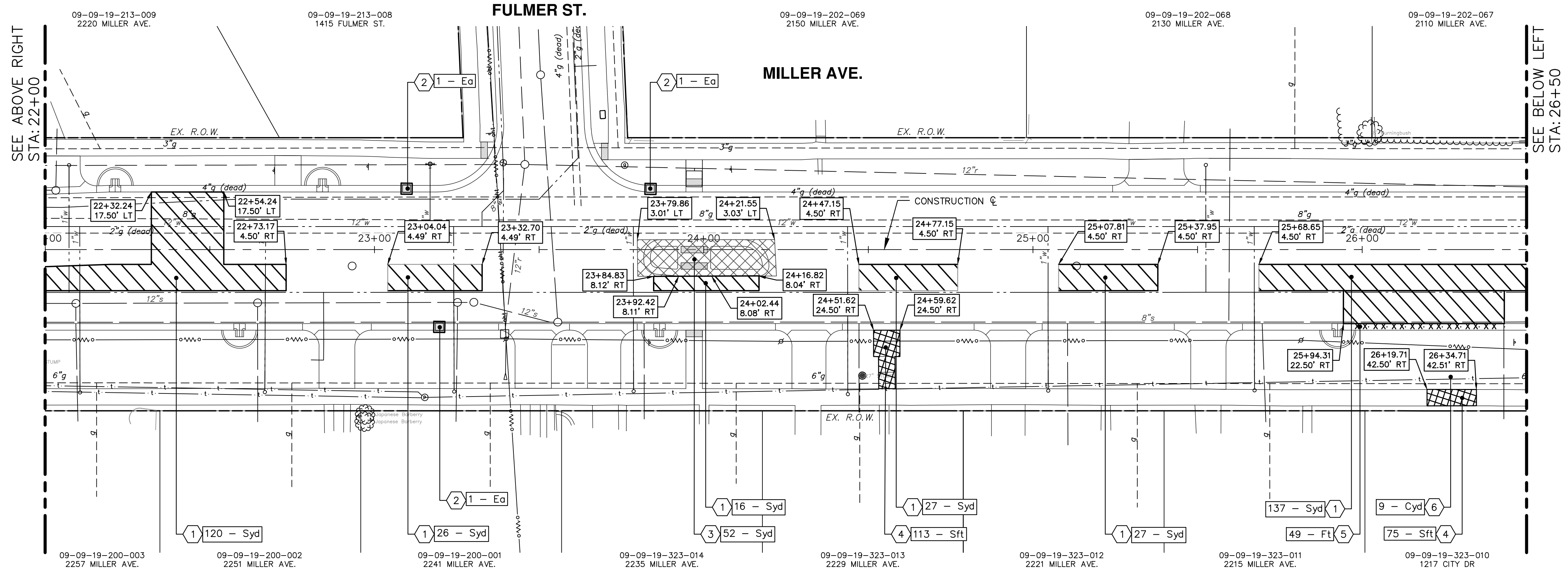
START (STA. 14+09) TO STA. 22+00

DRAWING No. **20230643-RM01**

SHEET No. **105 of 132**



V:\202306\20230643\Sheets\rm02.dwg Dwg Created: 18-Mar-24 - \_o2 standard bw.sib - Plot Date: 6-Sep-24



CONSTRUCTION KEY		
KEY No.	PROPOSED WORK	DESCRIPTION
1		HMA Surface, Rem - Syd
2		Erosion Control, Inlet Protection, Fabric Drop - Ea
3		Concrete Pavt, Any Thickness, Rem - Syd
4		Sidewalk, Sidewalk Ramp, & Driveway Approach, Any Thick, Rem - Sft
5		Curb, Gutter, Curb and Gutter, Any Type, Rem - Ft
6		Earth Excavation - Cyt

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

DATE \_\_\_\_\_  
DRAWN \_\_\_\_\_  
CHECKED \_\_\_\_\_

REV. \_\_\_\_\_  
DESCRIPTION \_\_\_\_\_

DATE \_\_\_\_\_  
DRAWN \_\_\_\_\_  
CHECKED \_\_\_\_\_

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

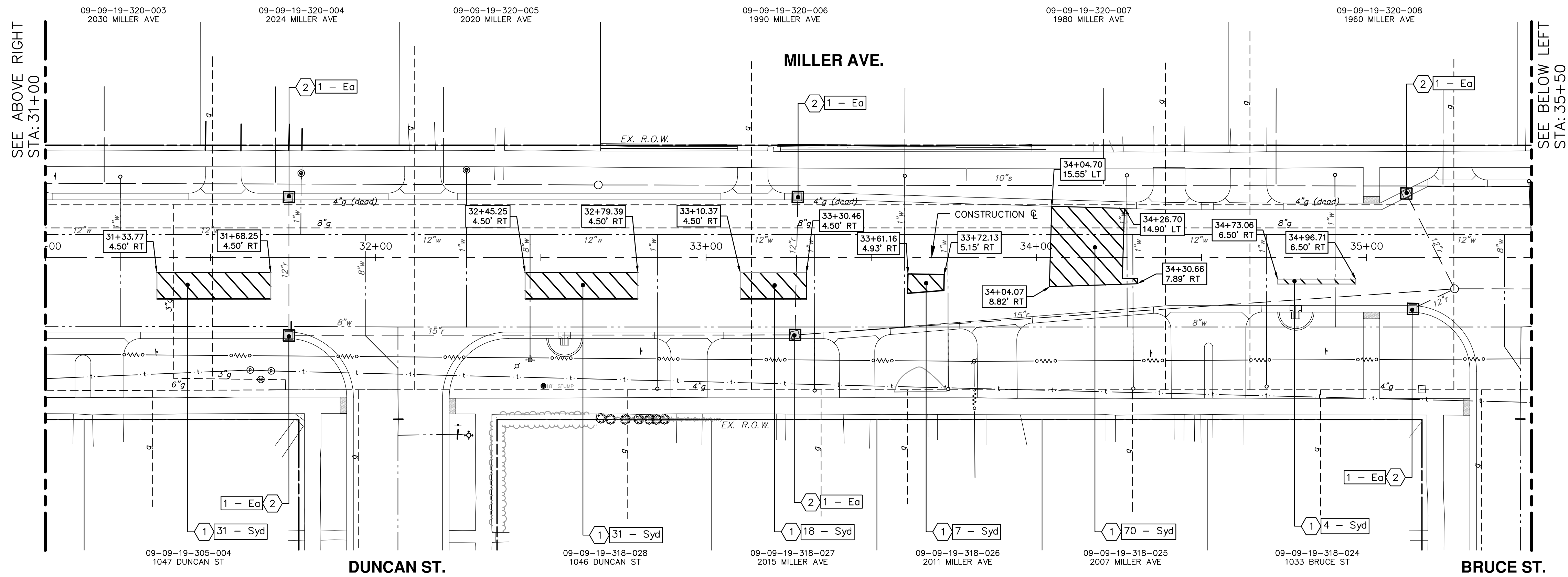
STATIONING: STA. 22+00 TO STA. 31+00

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
REMOVAL PLAN SHEET

DRAWING No. 20230643-RM02  
SHEET No. 106 of 132



V:\202306\20230643\Sheets\rm03.dwg Dwg Created: 19-Mar-24 - \_o2 standard bw.sib - Plot Date: 6-Sep-24



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

DATE \_\_\_\_\_  
DRAWN \_\_\_\_\_  
CHECKED \_\_\_\_\_

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48107-8647  
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DESCRIPTION \_\_\_\_\_  
REV. \_\_\_\_\_

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
REMOVAL PLAN SHEET

STA. 31+00 TO STA. 40+00

SCALE: 1" = 20'

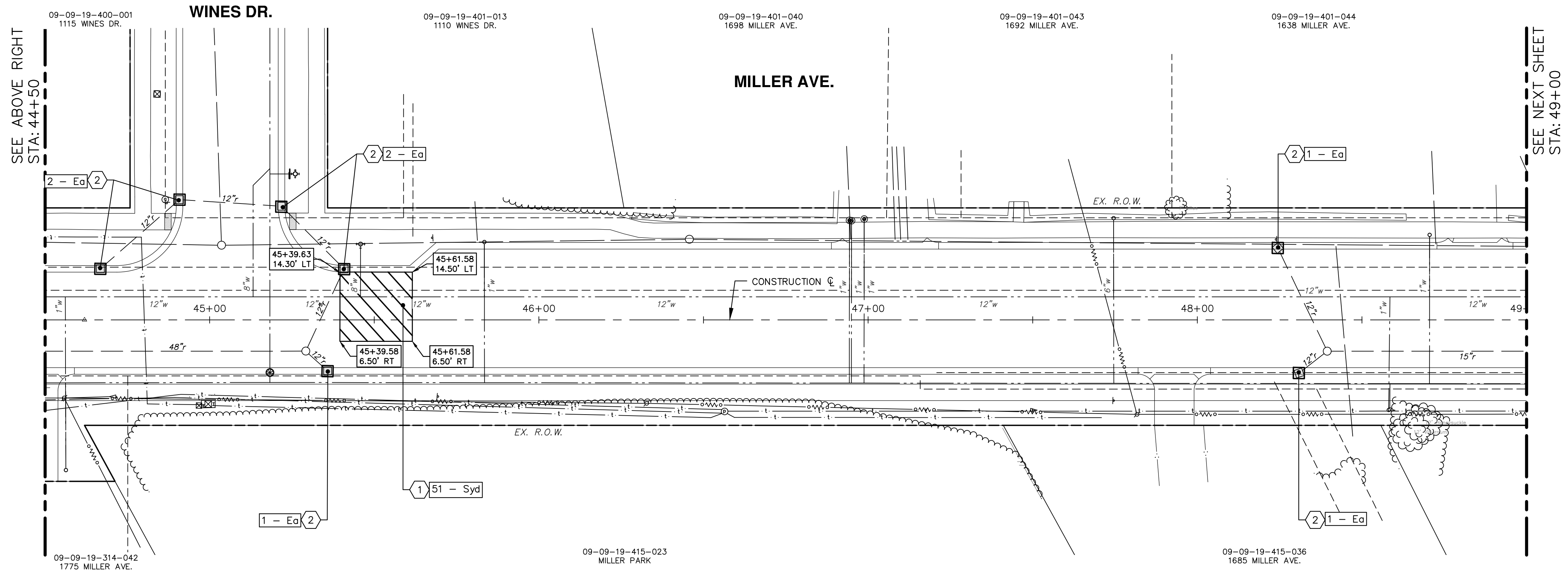
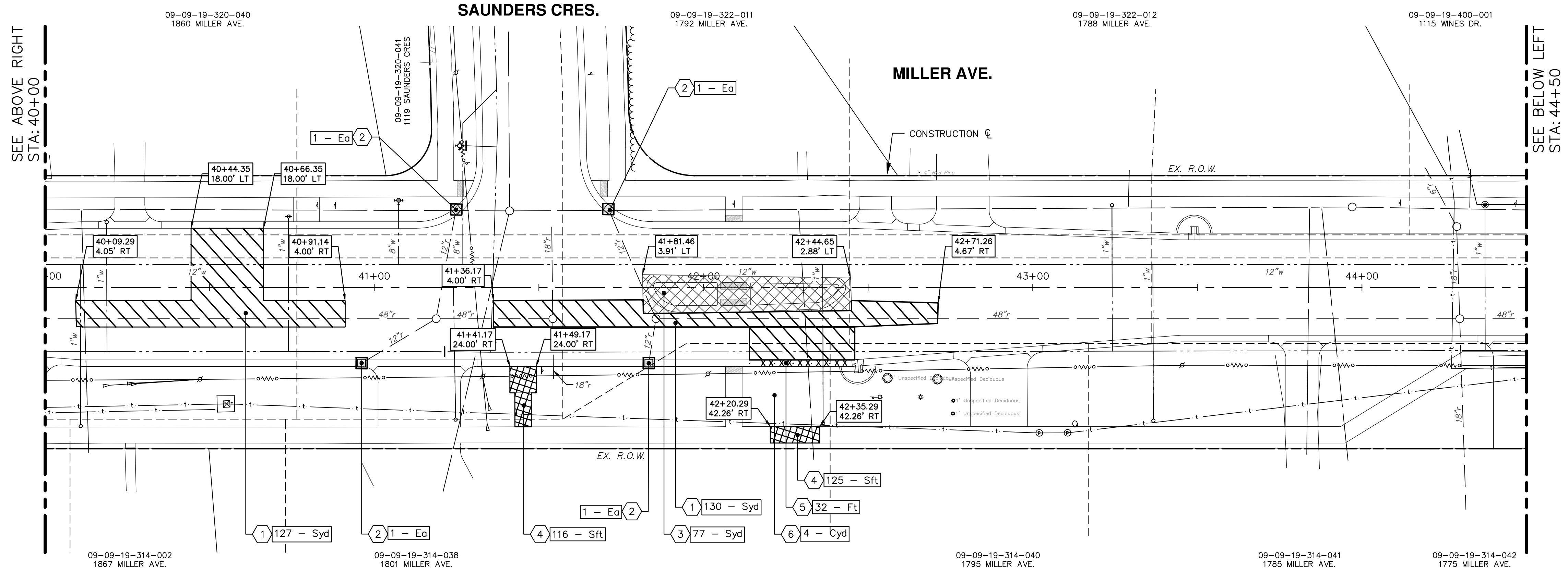
DRAWING No. 20230643-RM03

SHEET No. 107 of 132

107 of 132



V:\202306\20230643\Sheets\rm04.dwg Dwg Created: 13-Mar-24 - \_c2 standard bw.sib - Plot Date: 6-Sep-24



CONSTRUCTION KEY		
KEY No.	PROPOSED WORK	DESCRIPTION
1		HMA Surface, Rem - Syd
2		Erosion Control, Inlet Protection, Fabric Drop - Ea
3		Concrete Pavt, Any Thickness, Rem - Syd
4		Sidewalk, Sidewalk Ramp, & Driveway Approach, Any Thick, Rem - Sft
5		Curb, Gutter, Curb and Gutter, Any Type, Rem - Ft
6		Earth Excavation - Cyd

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

DATE \_\_\_\_\_  
DRAWN \_\_\_\_\_  
CHECKED \_\_\_\_\_

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

DESCRIPTION \_\_\_\_\_  
REV. \_\_\_\_\_

---

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
REMOVAL PLAN SHEET

STA. 40+00 TO STA. 49+00

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SCALE: 1" = 20'

DRAWING No. 20230643-RM04

---

SHEET No. 108 of 132

SEE ABOVE RIGHT STA: 40+00

SEE ABOVE RIGHT STA: 44+50

SEE BELOW LEFT STA: 44+50

SEE ABOVE RIGHT STA: 44+50

SEE NEXT SHEET STA: 49+00



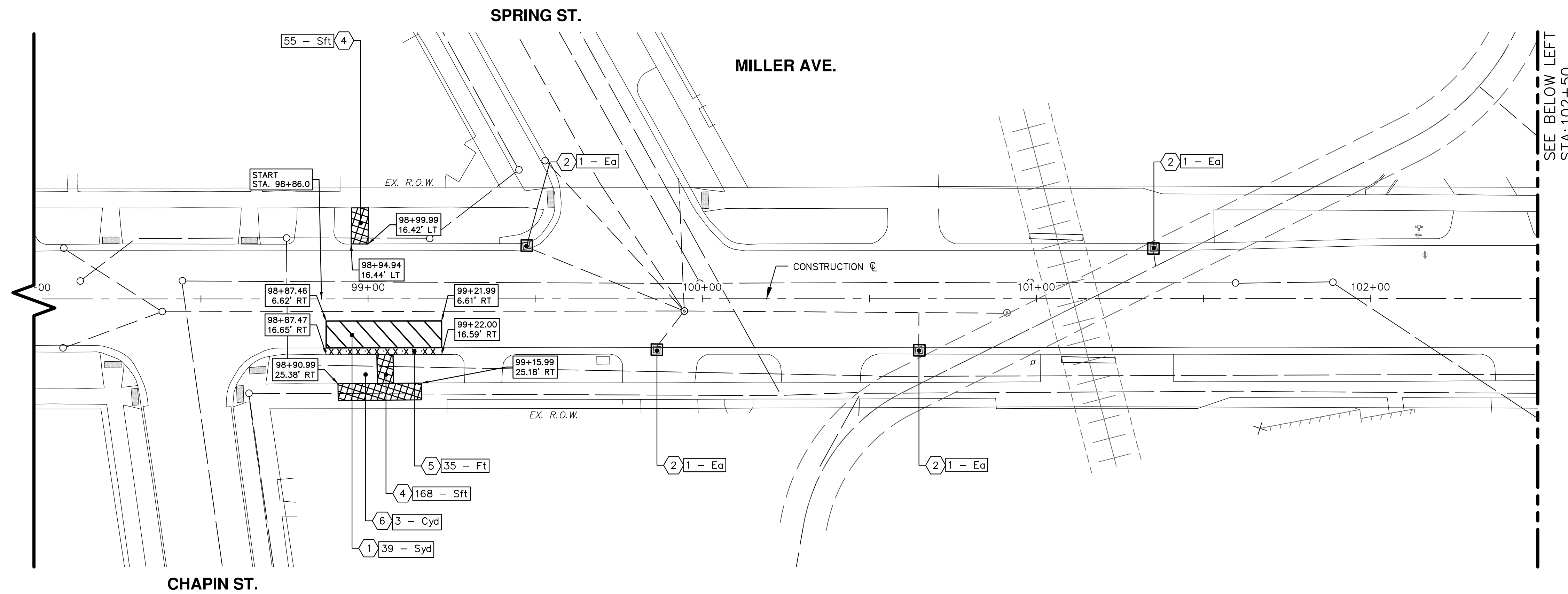




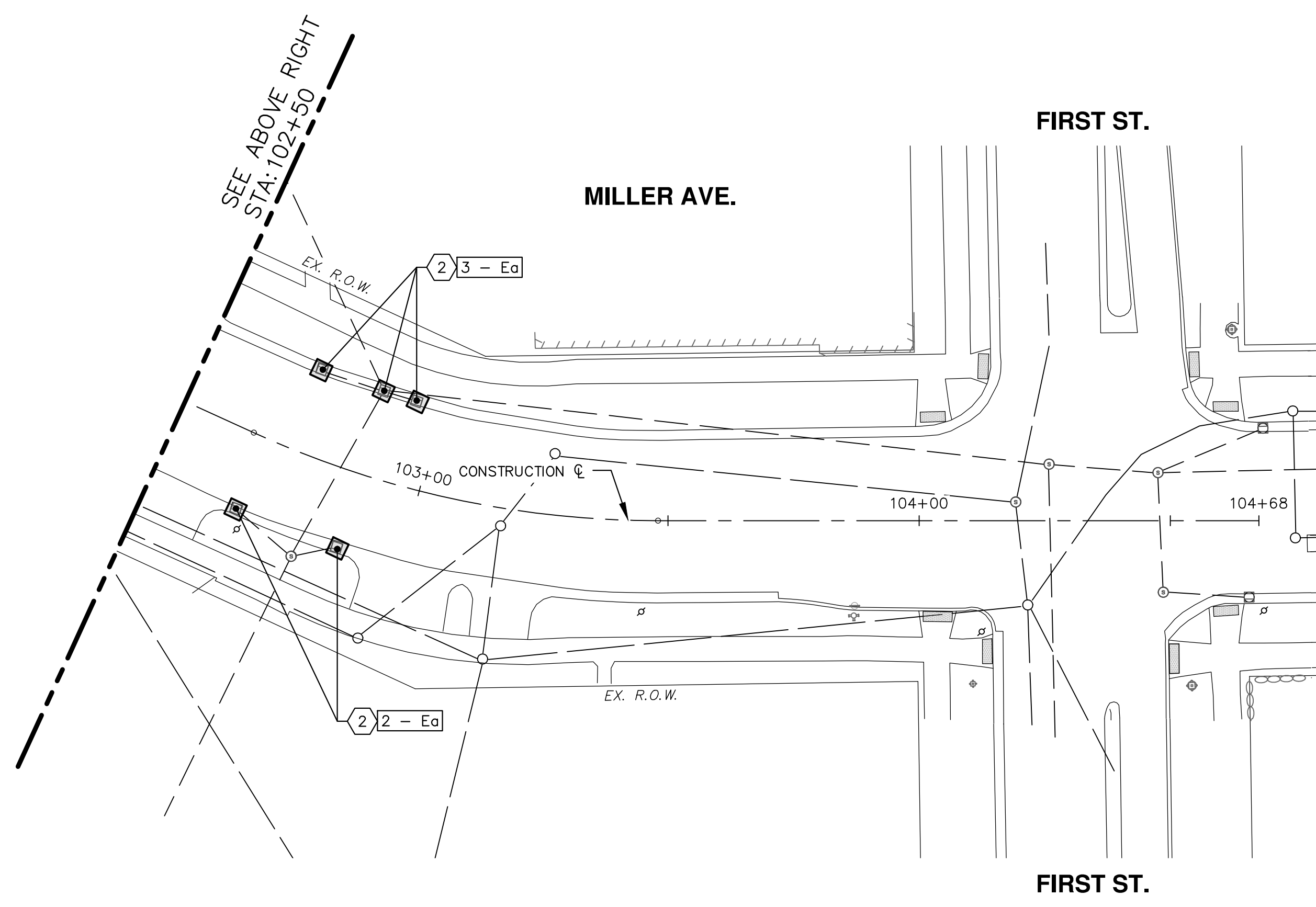




V:\202306\20230643\Sheets\rm07.dwg Dwg Created: 19-Mar-24 - \_a2 standard bw.sib - Plot Date: 6-Sep-24



SEE BELOW LEFT  
STA: 102+50



SEE ABOVE RIGHT  
STA: 102+50

CONSTRUCTION KEY		
KEY No.	PROPOSED WORK	DESCRIPTION
1		HMA Surface, Rem - Syd
2		Erosion Control, Inlet Protection, Fabric Drop - Ea
3		Concrete Pavt, Any Thickness, Rem - Syd
4		Sidewalk, Sidewalk Ramp, & Driveway Approach, Any Thick, Rem - Sft
5		Curb, Gutter, Curb and Gutter, Any Type, Rem - Ft
6		Earth Excavation - Cyd

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

REV. \_\_\_\_\_  
DATE \_\_\_\_\_  
DRAWN \_\_\_\_\_  
CHECKED \_\_\_\_\_

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER ROAD CYCLE TRACK**  
**REMOVAL PLAN SHEET**

START (STA. 98+86) TO P.O.E. (STA. 104+07)

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

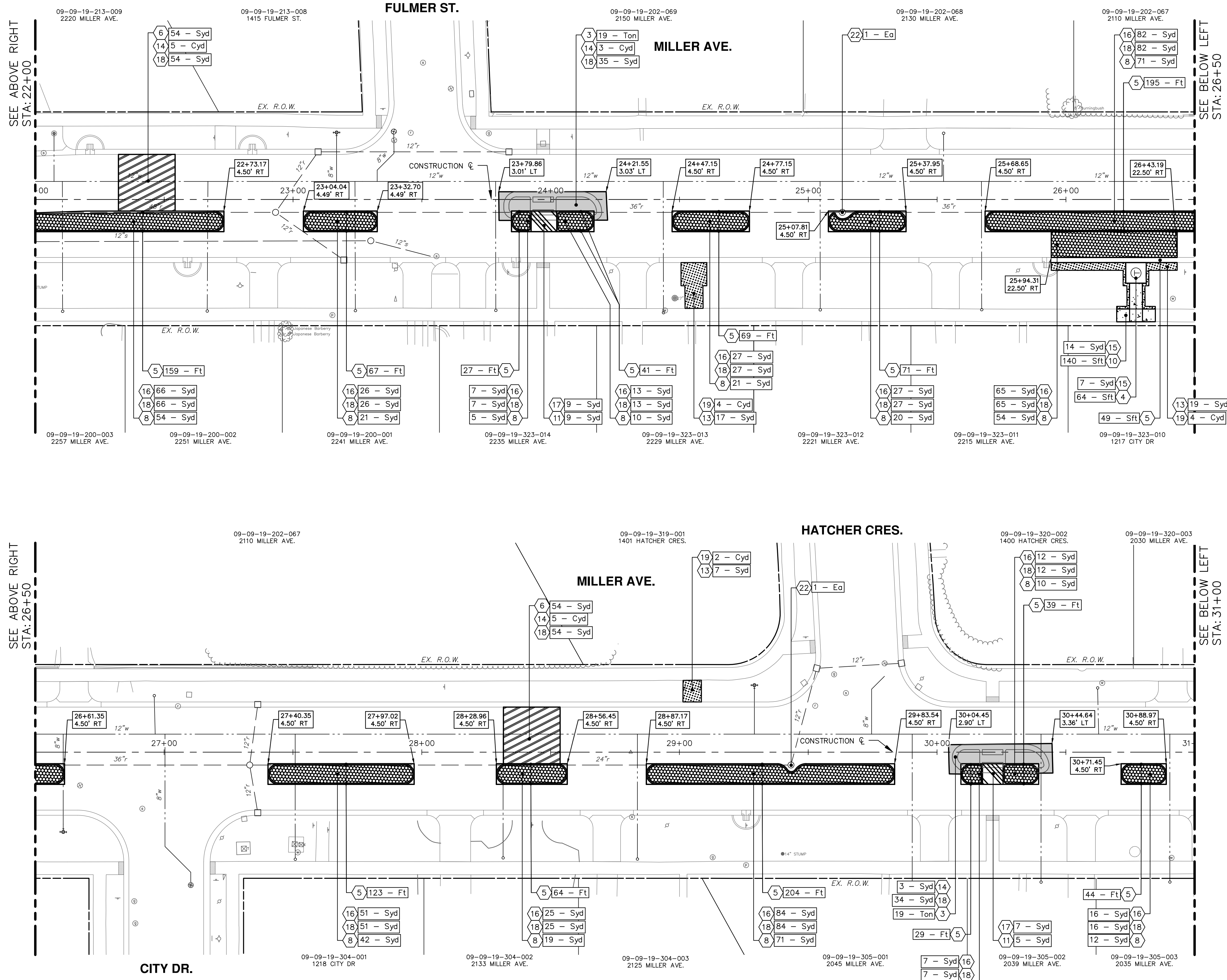
DRAWING No. **20230643-RM07**  
SHEET No. **111 of 132**







V:\202306\20230643\Sheets\p02.dwg Dwg Created: 20-Mar-24 Plot Date: 6-Sep-24



**NOTES:**

- STRUCTURES MAY BE LOCATED IN CURB LINE AND REQUIRE HAND FORMING OF THE CURB AROUND THE STRUCTURE. THESE EYEBROWS SHOWN AROUND STRUCTURES ARE NOT TO SCALE AND EXACT LOCATIONS SHALL BE FIELD VERIFIED. IF STRUCTURES ARE NOT FOUND TO BE WITHIN THE PROPOSED CURB LINE, EYEBROWS SHALL BE ELIMINATED AND CURB SHALL CARRY STRAIGHT THROUGH.

**CONSTRUCTION KEY**

KEY No.	PROPOSED WORK	DESCRIPTION
1		DS_Continuous Base Mid Span L60 - Ea AND DS_Big Bolard - MASH L125SHM - Ea
2		DS_Continuous Base Front Span L61 - Ea AND DS_Continuous Base Rear Span L62 - Ea
3		8" OF HMA PAID AS: Hand Patching - Ton (SEE HMA APPLICATION TABLE)
4		BUS STOP LOCATION PAID AS: Conc, Sidewalk, Drive Approach, or Ramp, 6 in. - Sft
5		Conc, Curb or Curb & Gutter, All Types - Ft
6		SPEED TABLE PAID AS: Conc Pavt, Non-Reinf, 9 in.
7		Conc, Driveway Opening, Type M - Ft
8		Conc Pavt, Non-Reinf, 8 in. - Syd
9		DS_Conc, Curb and Gutter, Monolithic - Ft
10		Conc, Sidewalk, 4 in. - Sft
11		Conc Pavt, Non-Reinf, 7 in. - Syd
12		DRIVEWAY APPROACH PAID AS: Conc, Sidewalk, Drive Approach, or Ramp, 6 in. - Sft
13		Turf Restoration - Syd
14		Aggregate Base Course, 21AA, CIP - Syd
15		Aggregate Base, 4 in., 21AA, CIP - Syd
16		Aggregate Base, 6 in., 21AA, CIP - Syd
17		Aggregate Base, 8 in., 21AA, CIP - Syd
18		Aggregate Base, Conditioning - Syd
19		Embankment - Syd
20		12" SUBBASE PAID AS: Subbase, CIP - Syd
21		Underdrain, Subgrade, 6 in. - Ft
22		AS DIRECTED: Storm Structure Cover, Adjust - Ea

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

REV. DATE DRAWN CHECKED

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PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-1667  
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DESCRIPTION

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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
CONSTRUCTION PLAN SHEET

STA. 22+00 TO STA. 31+00

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SCALE: 1" = 20'

DRAWING No. 20230643-PL02

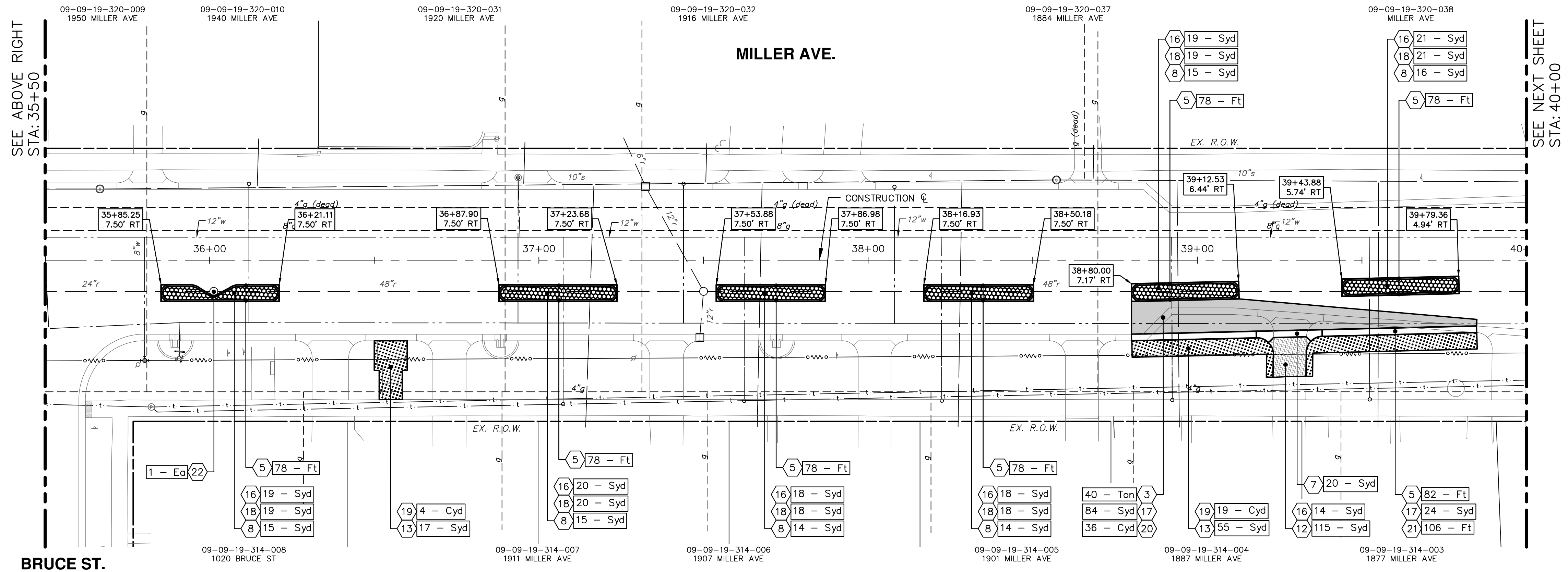
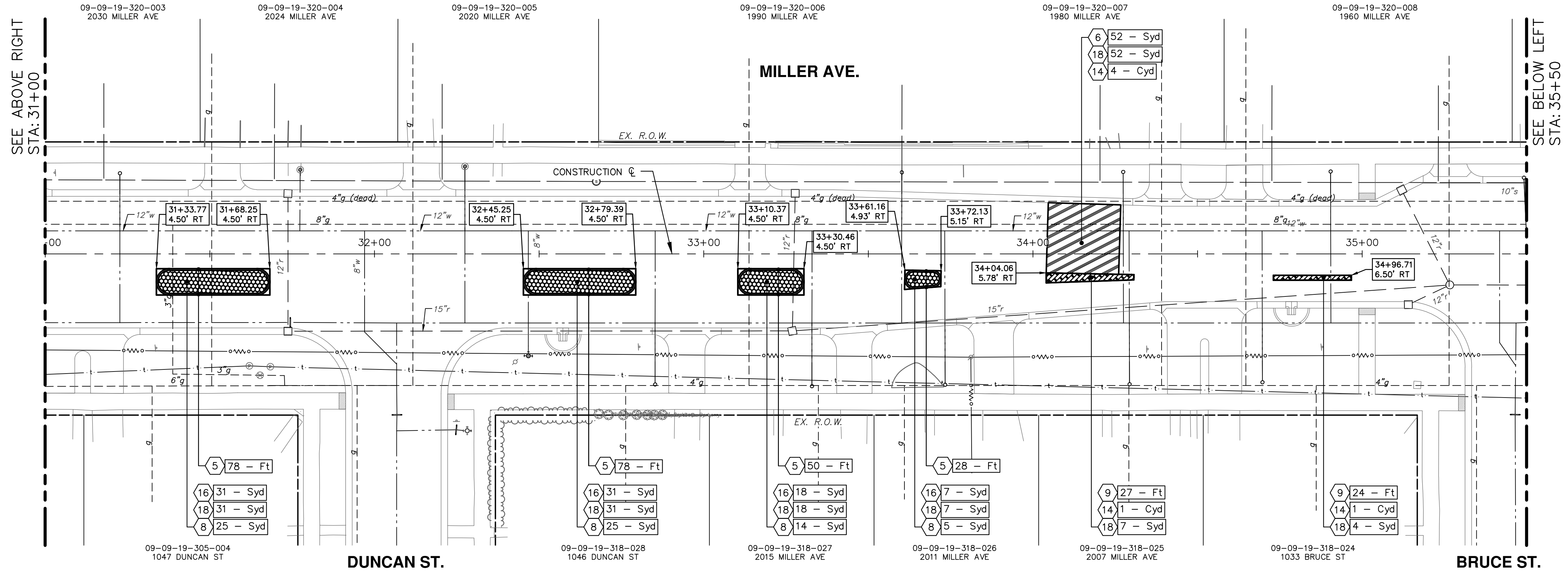
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SHEET No. 113 of 132

113 of 132



V:\202306\20230643\Sheets\p03.dwg Dwg Created: 6-Sep-24 Plot Date: 6-Sep-24



- NOTES:**
- SEE DETAIL SD-DS-1 FOR DRIVEWAY CONSTRUCTION DETAIL.
  - STRUCTURES MAY BE LOCATED IN CURB LINE AND REQUIRE HAND FORMING OF THE CURB AROUND THE STRUCTURE. THESE EYEBROWS SHOWN AROUND STRUCTURES ARE NOT TO SCALE AND EXACT LOCATIONS SHALL BE FIELD VERIFIED. IF STRUCTURES ARE NOT FOUND TO BE WITHIN THE PROPOSED CURB LINE, EYEBROWS SHALL BE ELIMINATED AND CURB SHALL CARRY STRAIGHT THROUGH.

CONSTRUCTION KEY		
KEY No.	PROPOSED WORK	DESCRIPTION
1		DS_Continuous Base Mid Span L60 - Ea AND DS_Big Boltard - MASH L125SHM - Ea
2		DS_Continuous Base Front Span L61 - Ea AND DS_Continuous Base Rear Span L62 - Ea
3		8" OF HMA PAID AS: Hand Patching - Ton (SEE HMA APPLICATION TABLE)
4		BUS STOP LOCATION PAID AS: Conc, Sidewalk, Drive Approach, or Ramp, 6 in. - Sft
5		Conc, Curb or Curb & Gutter, All Types - Ft
6		SPEED TABLE PAID AS: Conc Pavt, Non-Reinf, 9 in.
7		Conc, Driveway Opening, Type M - Ft
8		Conc Pavt, Non-Reinf, 8 in. - Syd
9		DS_Conc, Curb and Gutter, Monolithic - Ft
10		Conc, Sidewalk, 4 in. - Sft
11		Conc Pavt, Non-Reinf, 7 in. - Syd
12		DRIVEWAY APPROACH PAID AS: Conc, Sidewalk, Drive Approach, or Ramp, 6 in. - Sft
13		Turf Restoration - Syd
14		Aggregate Base Course, 21AA, CIP - Cyd
15		Aggregate Base, 4 in., 21AA, CIP - Syd
16		Aggregate Base, 6 in., 21AA, CIP - Syd
17		Aggregate Base, 8 in., 21AA, CIP - Syd
18		Aggregate Base, Conditioning - Syd
19		Embankment - Cyd
20		12" SUBBASE PAID AS: Subbase, CIP - Cyd
21		Underdrain, Subgrade, 6 in. - Ft
22		AS DIRECTED: Storm Structure Cover, Adjust - Ea

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

**MILLER ROAD CYCLE TRACK**

CONSTRUCTION PLAN SHEET

STA. 31+00 TO STA. 40+00

SCALE: 1"=20'

DRAWING No. 20230643-PL03

SHEET No. 114 of 132

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

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PUBLIC SERVICES  
301 EAST HURON STREET  
P.O. BOX 8647  
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REV.	DATE	DRAWN	CHECKED



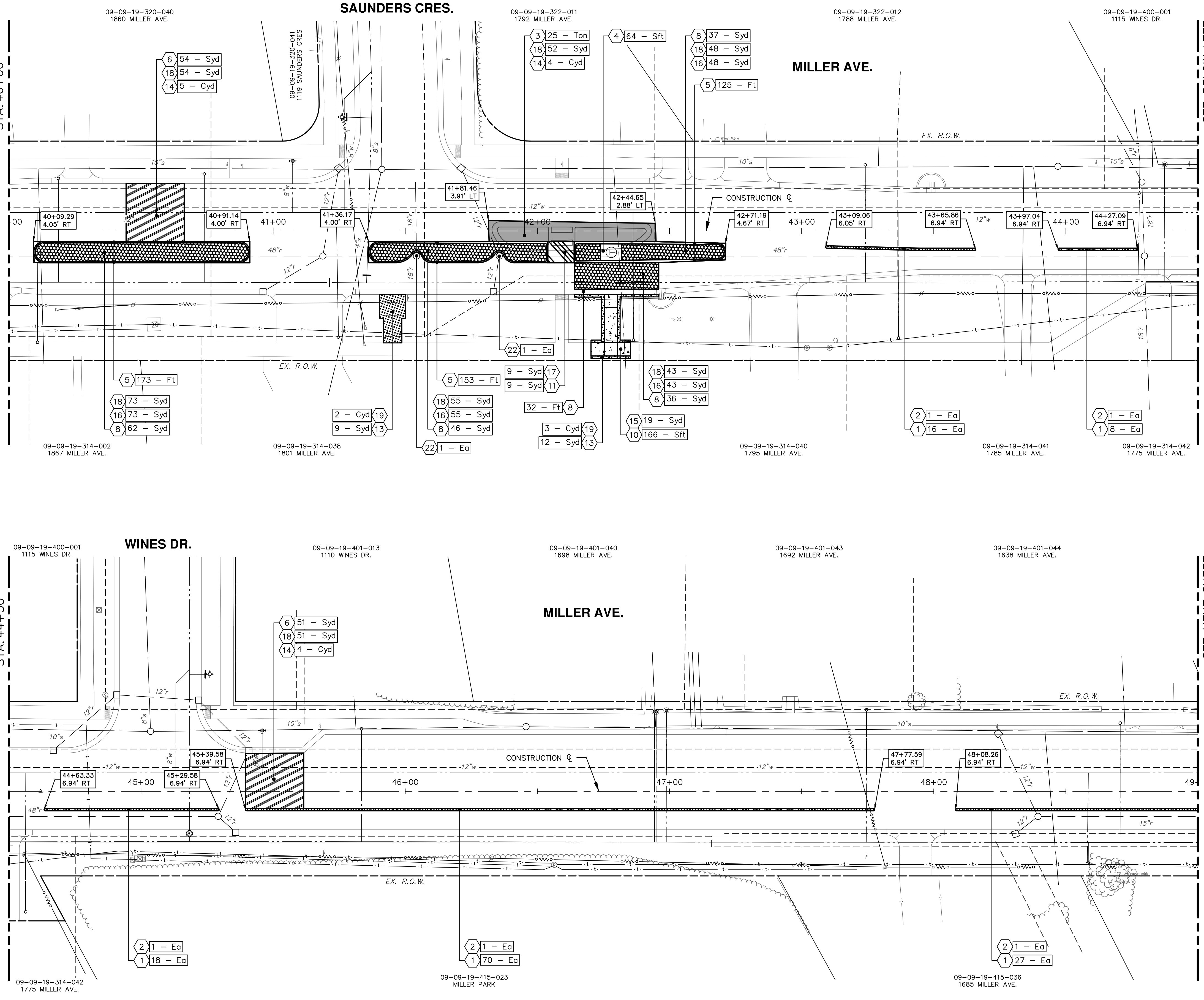
V:\202306\20230643\Sheets\p04.dwg Dwg Created: 4-Sep-24 Plot Date: 6-Sep-24

SEE ABOVE RIGHT  
STA: 40+00

SEE ABOVE RIGHT  
STA: 44+50

SEE BELOW LEFT  
STA: 44+50

SEE NEXT SHEET  
STA: 49+00



**NOTES:**

- STRUCTURES MAY BE LOCATED IN CURB LINE AND REQUIRE HAND FORMING OF THE CURB AROUND THE STRUCTURE. THESE EYEBROWS SHOWN AROUND STRUCTURES ARE NOT TO SCALE AND EXACT LOCATIONS SHALL BE FIELD VERIFIED. IF STRUCTURES ARE NOT FOUND TO BE WITHIN THE PROPOSED CURB LINE, EYEBROWS SHALL BE ELIMINATED AND CURB SHALL CARRY STRAIGHT THROUGH.

**CONSTRUCTION KEY**

KEY No.	PROPOSED WORK	DESCRIPTION
1		DS_Continuous Base Mid Span L60 - Ea AND DS_Big Boltard - MASH L125SHM - Ea
2		DS_Continuous Base Front Span L61 - Ea AND DS_Continuous Base Rear Span L62 - Ea
3		8' OF HMA PAID AS: Hand Patching - Ton (SEE HMA APPLICATION TABLE)
4		BUS STOP LOCATION PAID AS: Conc, Sidewalk, Drive Approach, or Ramp, 6 in. - Sft
5		Conc, Curb or Curb & Gutter, All Types - Ft
6		SPEED TABLE PAID AS: Conc Pavt, Non-Reinf, 9 in.
7		Conc, Driveway Opening, Type M - Ft
8		Conc Pavt, Non-Reinf, 8 in. - Syd
9		DS_Conc, Curb and Gutter, Monolithic - Ft
10		Conc, Sidewalk, 4 in. - Sft
11		Conc Pavt, Non-Reinf, 7 in. - Syd
12		DRIVEWAY APPROACH PAID AS: Conc, Sidewalk, Drive Approach, or Ramp, 6 in. - Sft
13		Turf Restoration - Syd
14		Aggregate Base Course, 21AA, CIP - Cyl
15		Aggregate Base, 4 in., 21AA, CIP - Syd
16		Aggregate Base, 6 in., 21AA, CIP - Syd
17		Aggregate Base, 8 in., 21AA, CIP - Syd
18		Aggregate Base, Conditioning - Syd
19		Embankment - Cyl
20		12" SUBBASE PAID AS: Subbase, CIP - Cyl
21		Underdrain, Subgrade, 6 in. - Ft
22		AS DIRECTED: Storm Structure Cover, Adjust - Ea

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

DATE \_\_\_\_\_  
DRAWN \_\_\_\_\_  
CHECKED \_\_\_\_\_

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

DESCRIPTION \_\_\_\_\_  
REV. \_\_\_\_\_

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
CONSTRUCTION PLAN SHEET

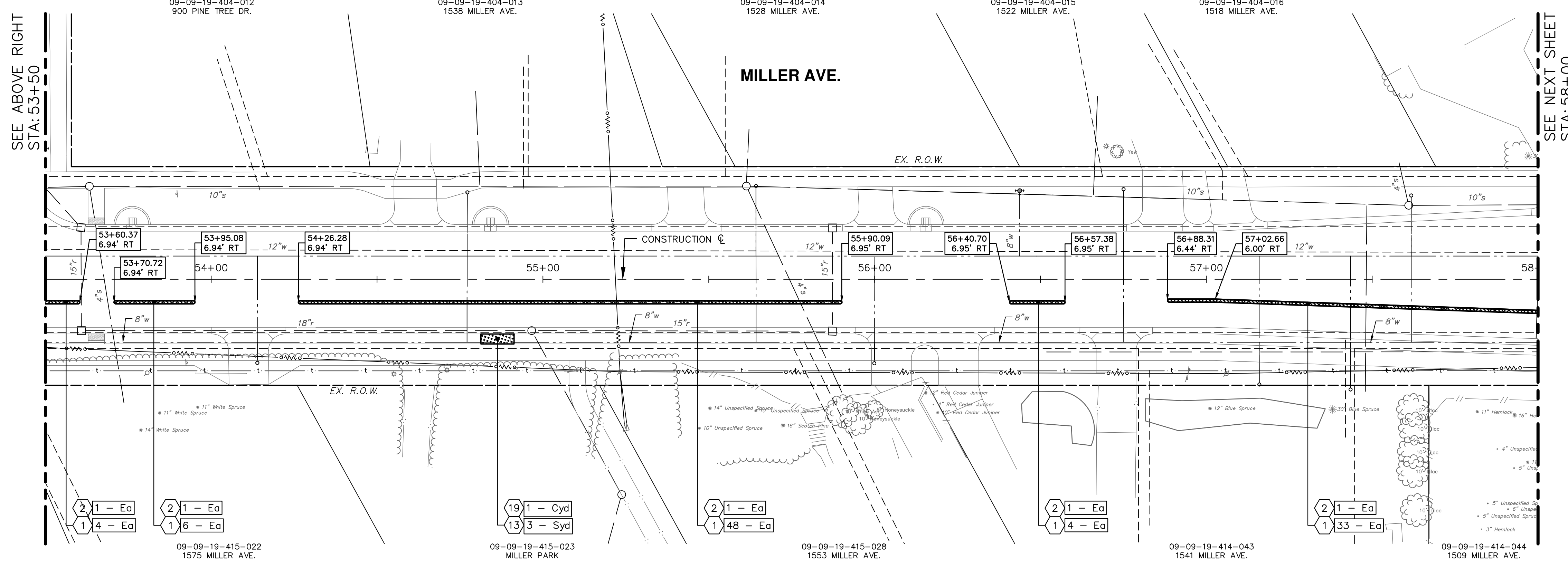
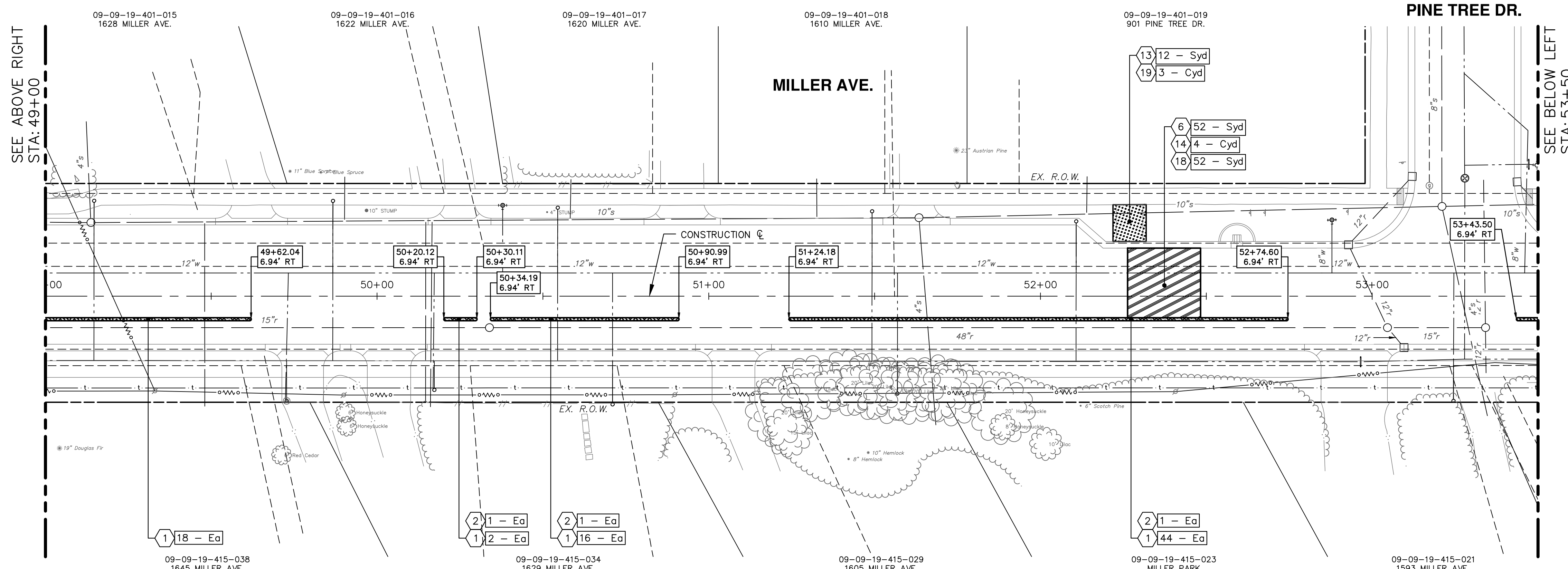
STA. 40+00 TO STA. 49+00

SCALE: 1" = 20'

DRAWING No. 20230643-PL04  
SHEET No. 115 of 132



V:\202306\20230643\Sheets\p05.dwg Dwg Created: 21-Aug-24 Plot Date: 6-Sep-24



**NOTES:**

- STRUCTURES MAY BE LOCATED IN QUICK KURB LINE AND REQUIRE TO BE GAPPED OUT. THESE QUICK KURB GAPS SHOWN AROUND STRUCTURES ARE NOT TO SCALE AND EXACT LOCATIONS SHALL BE FIELD VERIFIED. IF STRUCTURES ARE NOT FOUND TO BE WITHIN THE PROPOSED QUICK KURB LINE, GAPS SHALL BE ELIMINATED AND CURB SHALL CARRY STRAIGHT THROUGH.

**CONSTRUCTION KEY**

KEY No.	PROPOSED WORK	DESCRIPTION
1		DS_Continuous Base Mid Span L60 - Ea AND DS_Big Boltard - MASH L125SHM - Ea
2		DS_Continuous Base Front Span L61 - Ea AND DS_Continuous Base Rear Span L62 - Ea
3		8" OF HMA PAID AS: Hand Patching - Ton (SEE HMA APPLICATION TABLE)
4		BUS STOP LOCATION PAID AS: Conc, Sidewalk, Drive Approach, or Ramp, 6 in. - Sft
5		Conc, Curb or Curb & Gutter, All Types - Ft
6		SPEED TABLE PAID AS: Conc Pavt, Non-Reinf, 9 in.
7		Conc, Driveway Opening, Type M - Ft
8		Conc Pavt, Non-Reinf, 8 in. - Syd
9		DS_Conc, Curb and Gutter, Monolithic - Ft
10		Conc, Sidewalk, 4 in. - Sft
11		Conc Pavt, Non-Reinf, 7 in. - Syd
12		DRIVEWAY APPROACH PAID AS: Conc, Sidewalk, Drive Approach, or Ramp, 6 in. - Sft
13		Turf Restoration - Syd
14		Aggregate Base Course, 21AA, CIP - Syd
15		Aggregate Base, 4 in., 21AA, CIP - Syd
16		Aggregate Base, 6 in., 21AA, CIP - Syd
17		Aggregate Base, 8 in., 21AA, CIP - Syd
18		Aggregate Base, Conditioning - Syd
19		Embankment - Syd
20		12" SUBBASE PAID AS: Subbase, CIP - Syd
21		Underdrain, Subgrade, 6 in. - Ft
22		AS DIRECTED: Storm Structure Cover, Adjust - Ea

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

**MILLER ROAD CYCLE TRACK**

CONSTRUCTION PLAN SHEET

STA. 49+00 TO STA. 58+00

SCALE: 1" = 20'

DRAWING NO. 20230643-PL05

SHEET NO. 116 of 132

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

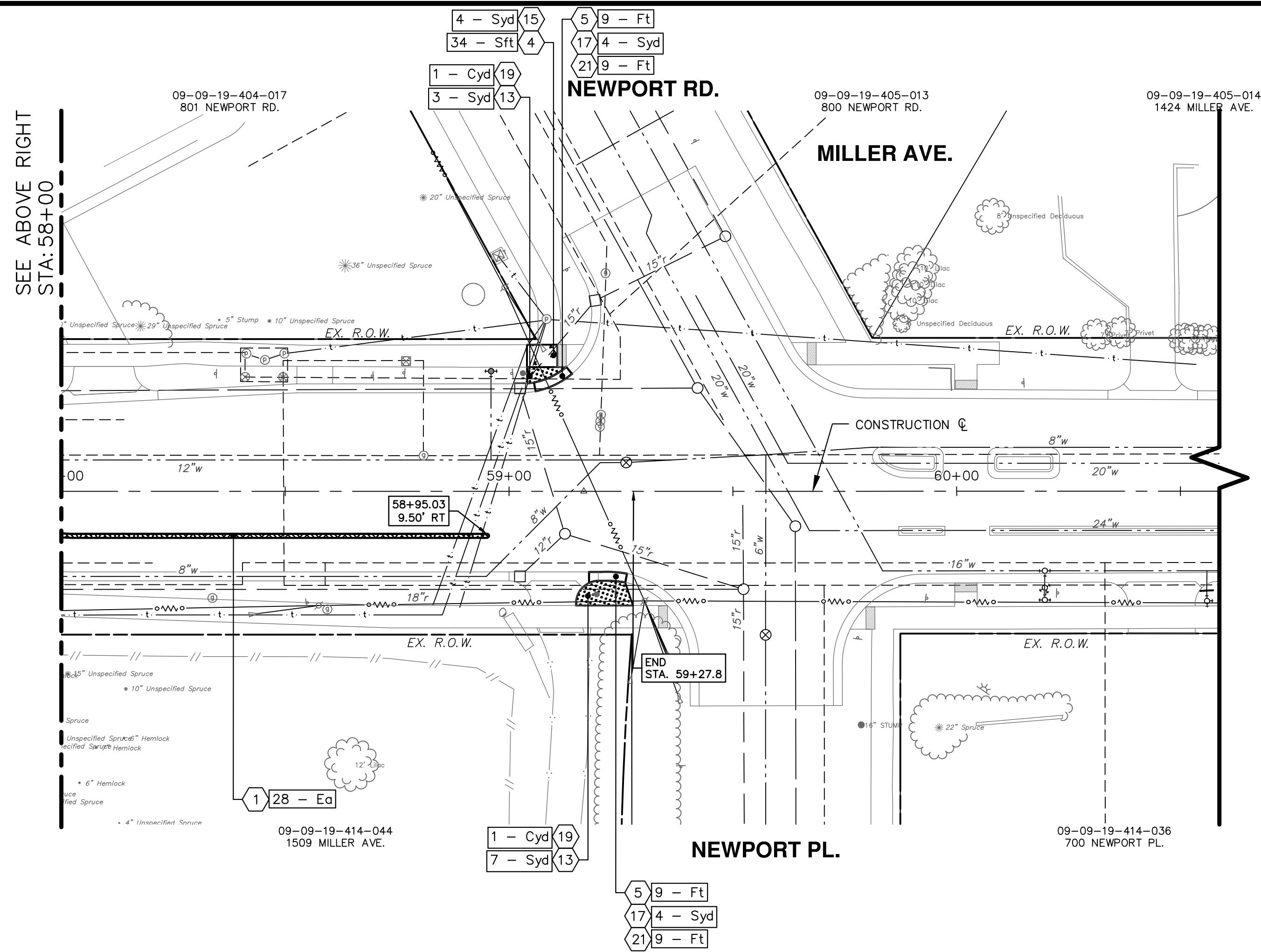
CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
P.O. BOX 8647  
ANN ARBOR MI 48107-8647  
www.a3gov.org

ANN ARBOR MICHIGAN

REV.	DESCRIPTION	DATE	DRAWN	CHECKED



V:\202306\20230643\Sheets\p06.dwg Dwg Created: 27-Aug-24 - \_a2 standard bw.stb - Plot Date: 6-Sep-24



SEE ABOVE RIGHT  
STA: 58+00

**CONSTRUCTION KEY**

KEY No.	PROPOSED WORK	DESCRIPTION
1		DS_Continuous Base Mid Span L60 - Ea AND DS_Big Boltard - MASH LT25SHM - Ea
2		DS_Continuous Base Front Span L61 - Ea AND DS_Continuous Base Rear Span L62 - Ea
3		8' OF HMA PAID AS: Hand Patching - Ton (SEE HMA APPLICATION TABLE)
4		BUS STOP LOCATION PAID AS: Conc, Sidewalk, Drive Approach, or Ramp, 6 in. - Sft
5		Conc, Curb or Curb & Gutter, All Types - Ft
6		SPEED TABLE PAID AS: Conc Pavt, Non-Reinf, 9 in.
7		Conc, Driveway Opening, Type M - Ft
8		Conc Pavt, Non-Reinf, 8 in. - Syd
9		DS_Conc, Curb and Gutter, Monolithic - Ft
10		Conc, Sidewalk, 4 in. - Sft
11		Conc Pavt, Non-Reinf, 7 in. - Syd
12		DRIVEWAY APPROACH PAID AS: Conc, Sidewalk, Drive Approach, or Ramp, 6 in. - Sft
13		Turf Restoration - Syd
14		Aggregate Base Course, 21AA, CIP - Cyd
15		Aggregate Base, 4 in., 21AA, CIP - Syd
16		Aggregate Base, 6 in., 21AA, CIP - Syd
17		Aggregate Base, 8 in., 21AA, CIP - Syd
18		Aggregate Base, Conditioning - Syd
19		Embankment - Cyd
20		12" SUBBASE PAID AS: Subbase, CIP - Cyd
21		Underdrain, Subgrade, 6 in. - Ft
22		AS DIRECTED: Storm Structure Cover, Adjust - Ea



CITY OF ANN ARBOR  
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
CONSTRUCTION PLAN SHEET  
STA. 58+00 TO END (STA. 59+26)

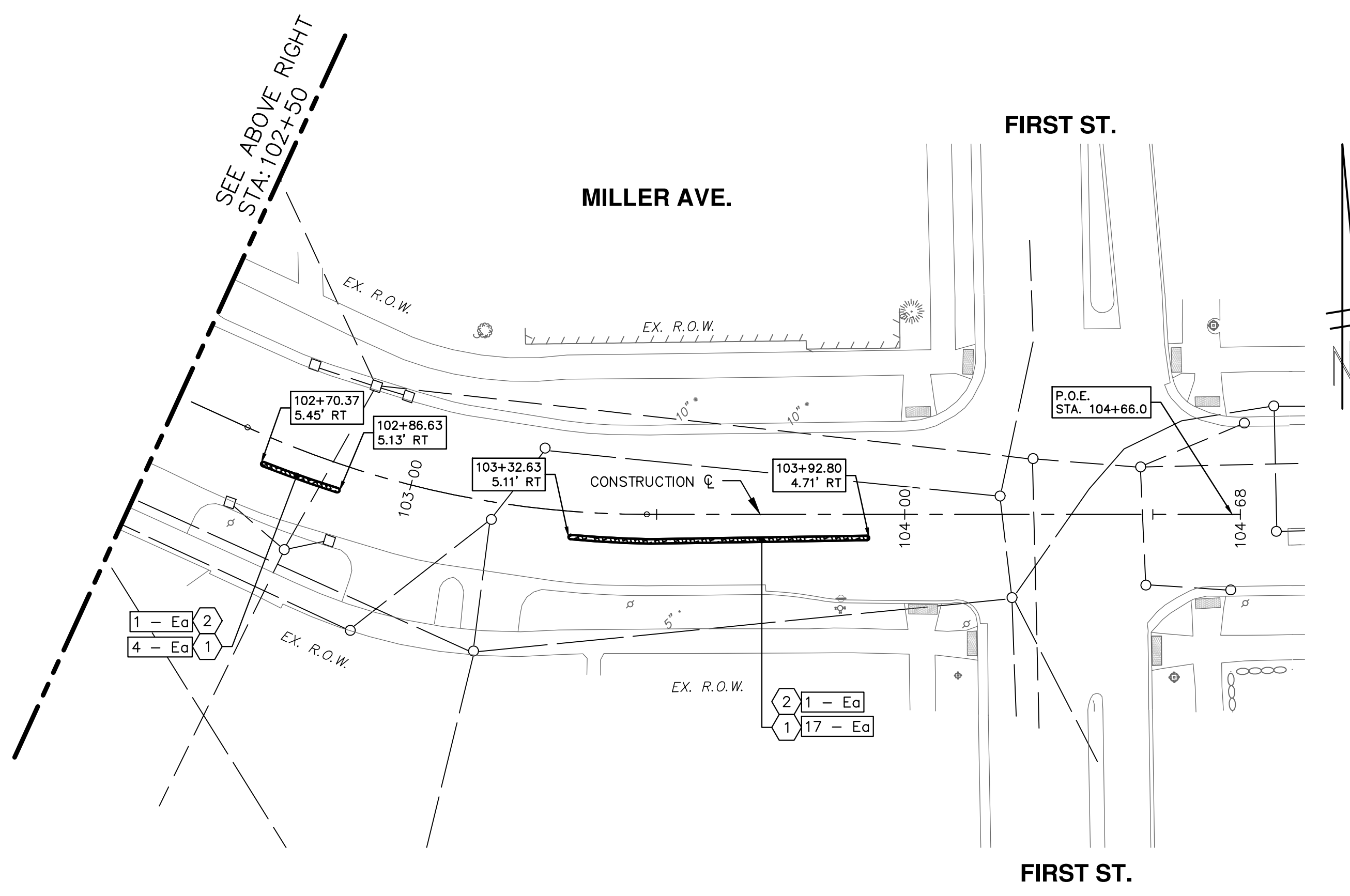
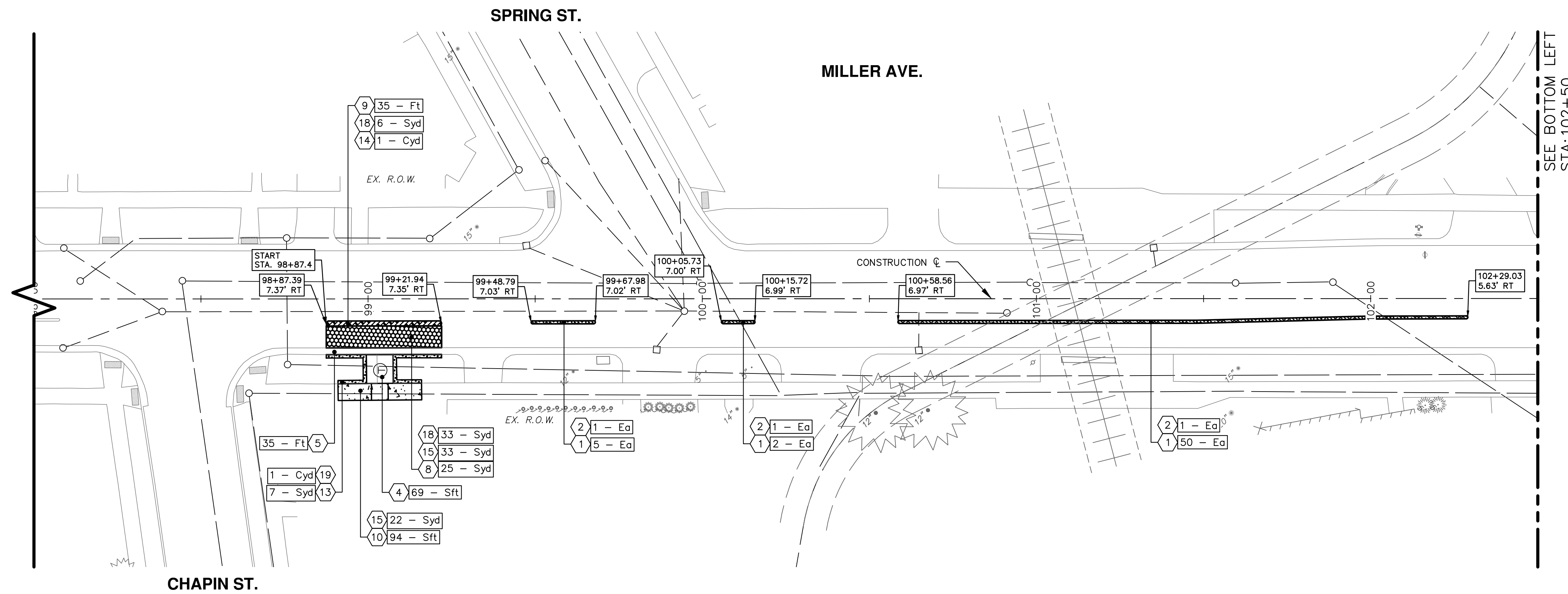
SCALE: 1" = 20'  
DRAWING No. 20230643-PL06

SHEET No. 117 of 132

REV.	DESCRIPTION	DATE	DRAWN	CHECKED



V:\202306\20230643\Sheets\p107.dwg Dwg Created: 13-Mar-24 - \_a2 standard bw.stb - Plot Date: 6-Sep-24



CONSTRUCTION KEY		
KEY No.	PROPOSED WORK	DESCRIPTION
1		DS_Continuous Base Mid Span L60 - Ea AND DS_Big Bolard - MASH L125SHM - Ea
2		DS_Continuous Base Front Span L61 - Ea AND DS_Continuous Base Rear Span L62 - Ea
3		8" OF HMA PAID AS: Hand Patching - Ton (SEE HMA APPLICATION TABLE)
4		BUS STOP LOCATION PAID AS: Conc, Sidewalk, Drive Approach, or Ramp, 6 in. - Sft
5		Conc. Curb or Curb & Gutter, All Types - Ft
6		SPEED TABLE PAID AS: Conc Pavt, Non-Reinf, 9 in.
7		Conc. Driveway Opening, Type M - Ft
8		Conc Pavt, Non-Reinf, 8 in. - Syd
9		DS_Conc. Curb and Gutter, Monolithic - Ft
10		Conc. Sidewalk, 4 in. - Sft
11		Conc Pavt, Non-Reinf, 7 in. - Syd
12		DRIVEWAY APPROACH PAID AS: Conc, Sidewalk, Drive Approach, or Ramp, 6 in. - Sft
13		Turf Restoration - Syd
14		Aggregate Base Course, 21AA, CIP - Cyd
15		Aggregate Base, 4 in., 21AA, CIP - Syd
16		Aggregate Base, 6 in., 21AA, CIP - Syd
17		Aggregate Base, 8 in., 21AA, CIP - Syd
18		Aggregate Base, Conditioning - Syd
19		Embankment - Cyd
20		12" SUBBASE PAID AS: Subbase, CIP - Cyd
21		Underdrain, Subgrade, 6 in. - Ft
22		AS DIRECTED: Storm Structure Cover, Adjust - Ea

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

**MILLER ROAD CYCLE TRACK**

**CONSTRUCTION PLAN SHEET**

SCALE: 1" = 20'

DRAWING No. 20230643-PL07

SHEET No. 118 of 132

START TO P.O.E.

CONSTRUCTION PLAN SHEET

**CITY OF ANN ARBOR**

ANN ARBOR PUBLIC SERVICES

301 EAST HURON STREET

P.O. BOX 8647

ANN ARBOR MI 48107-8647

www.a2gov.org

734.794.4110

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

811

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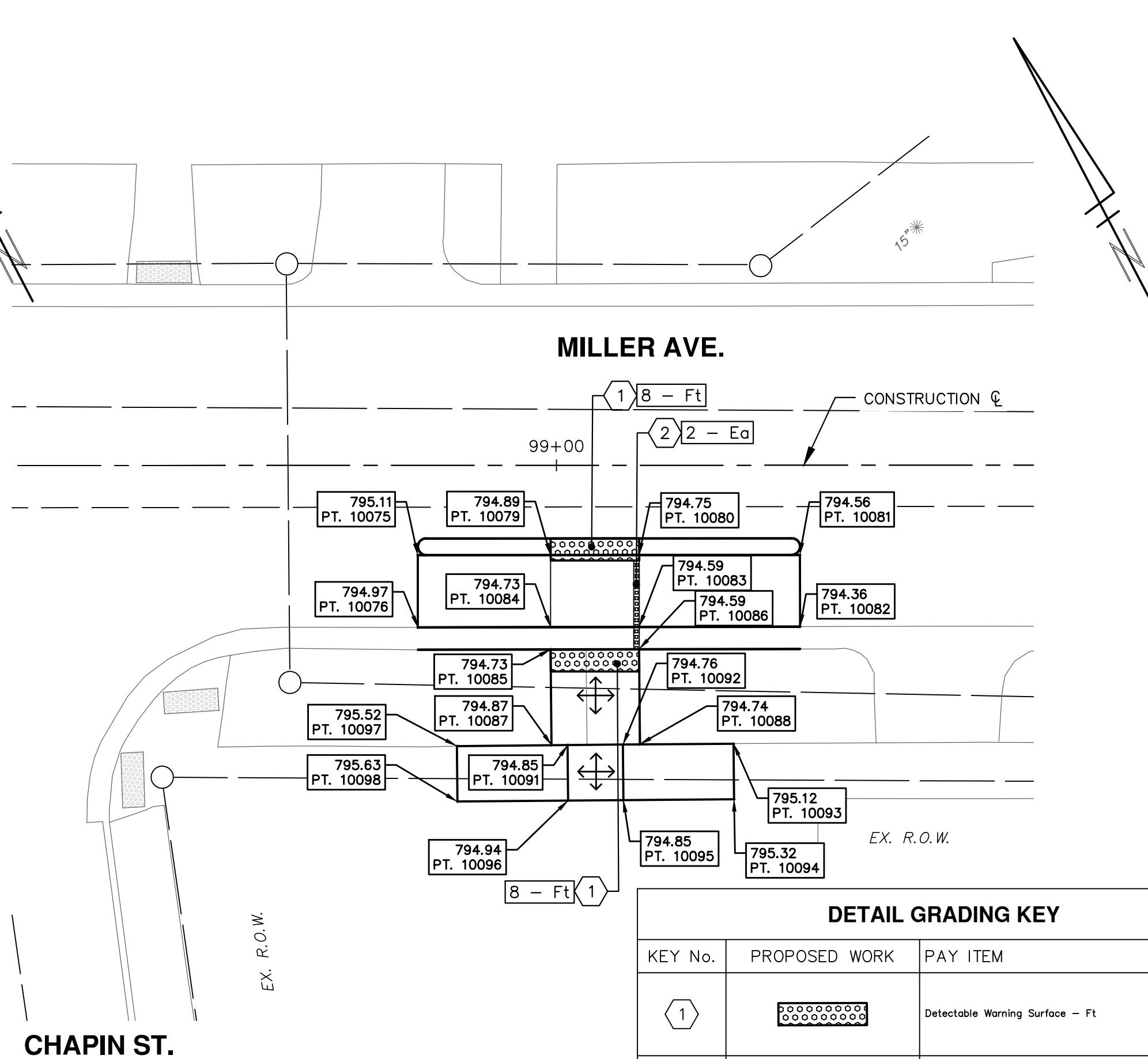
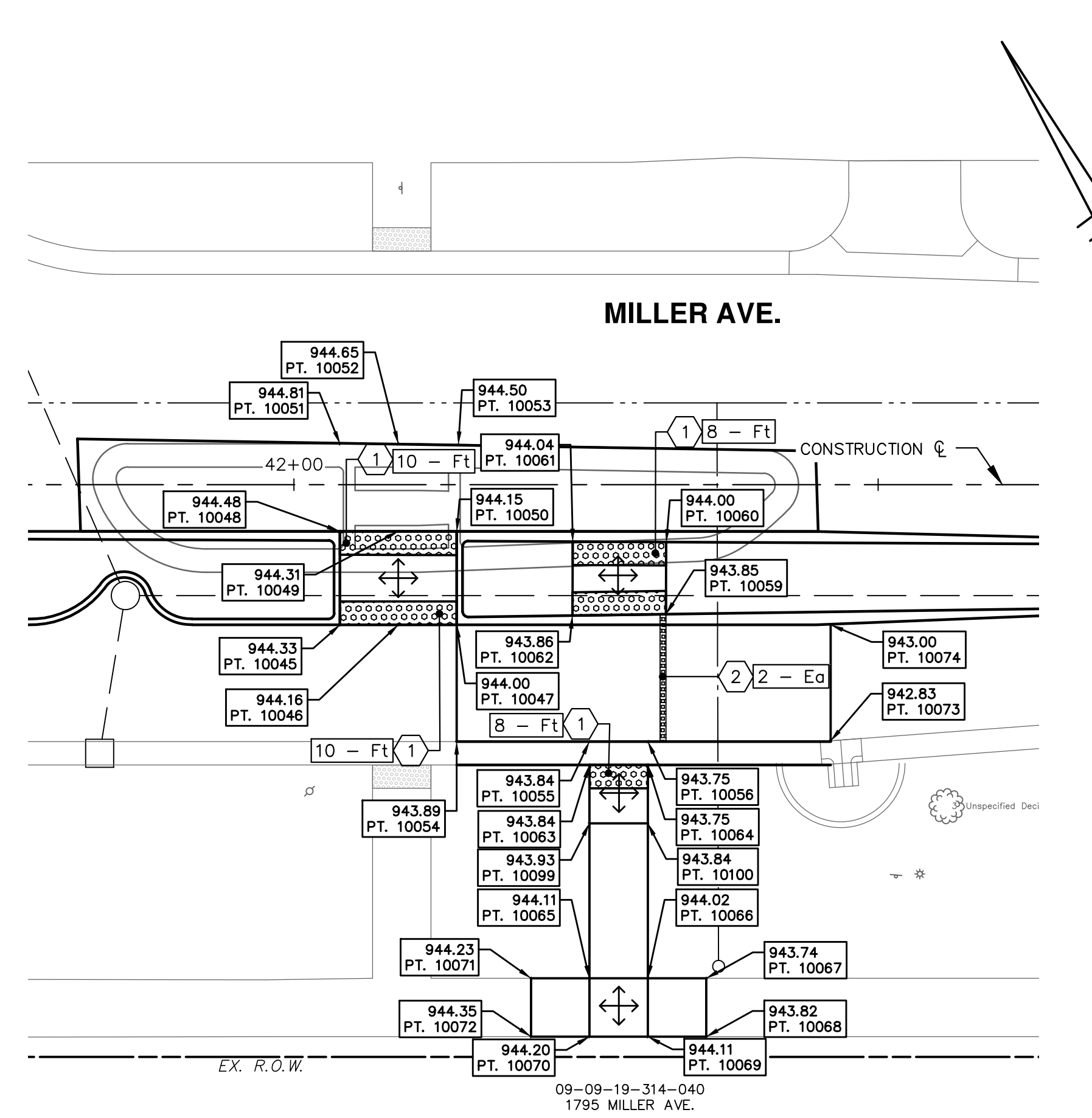
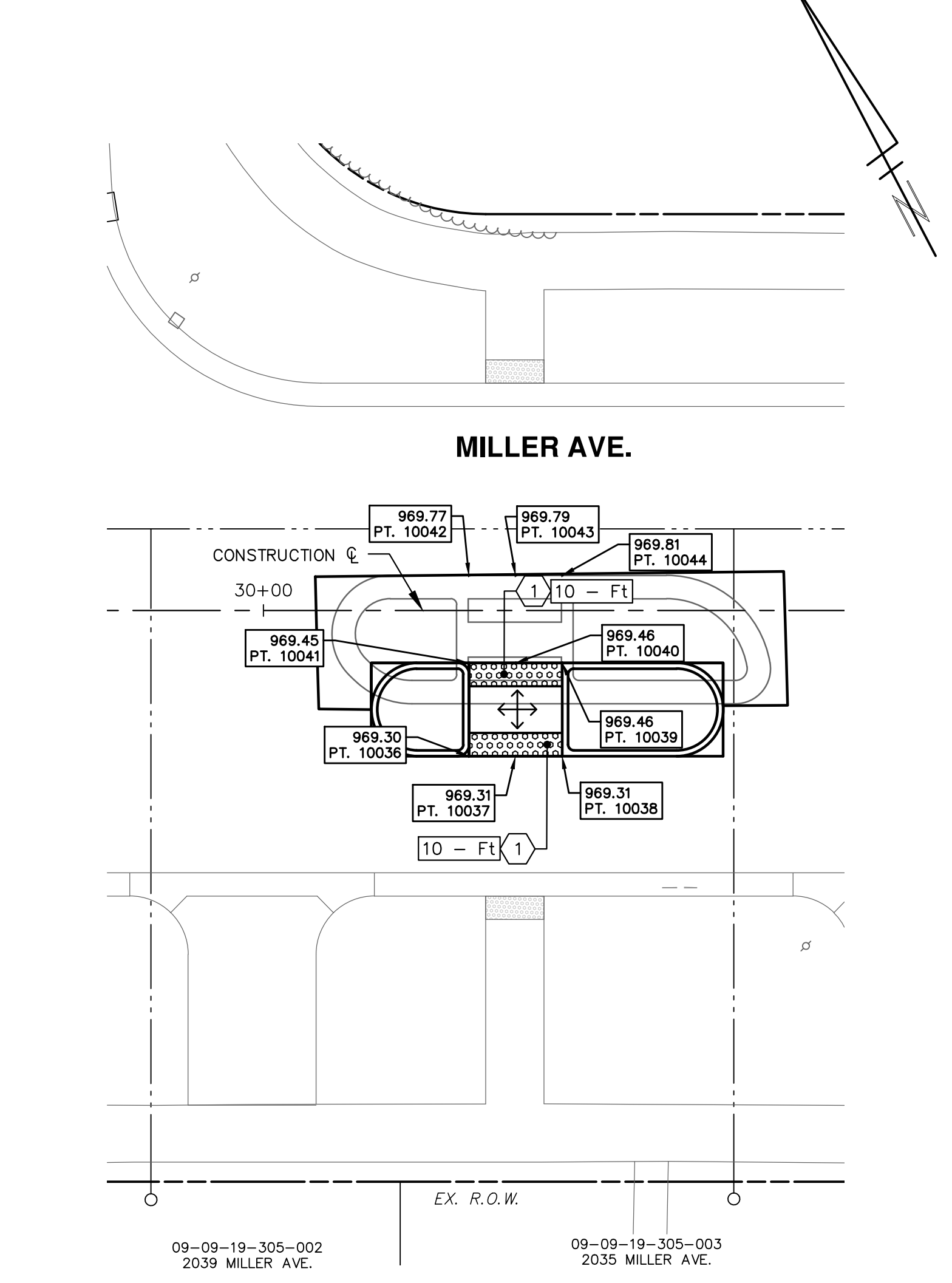
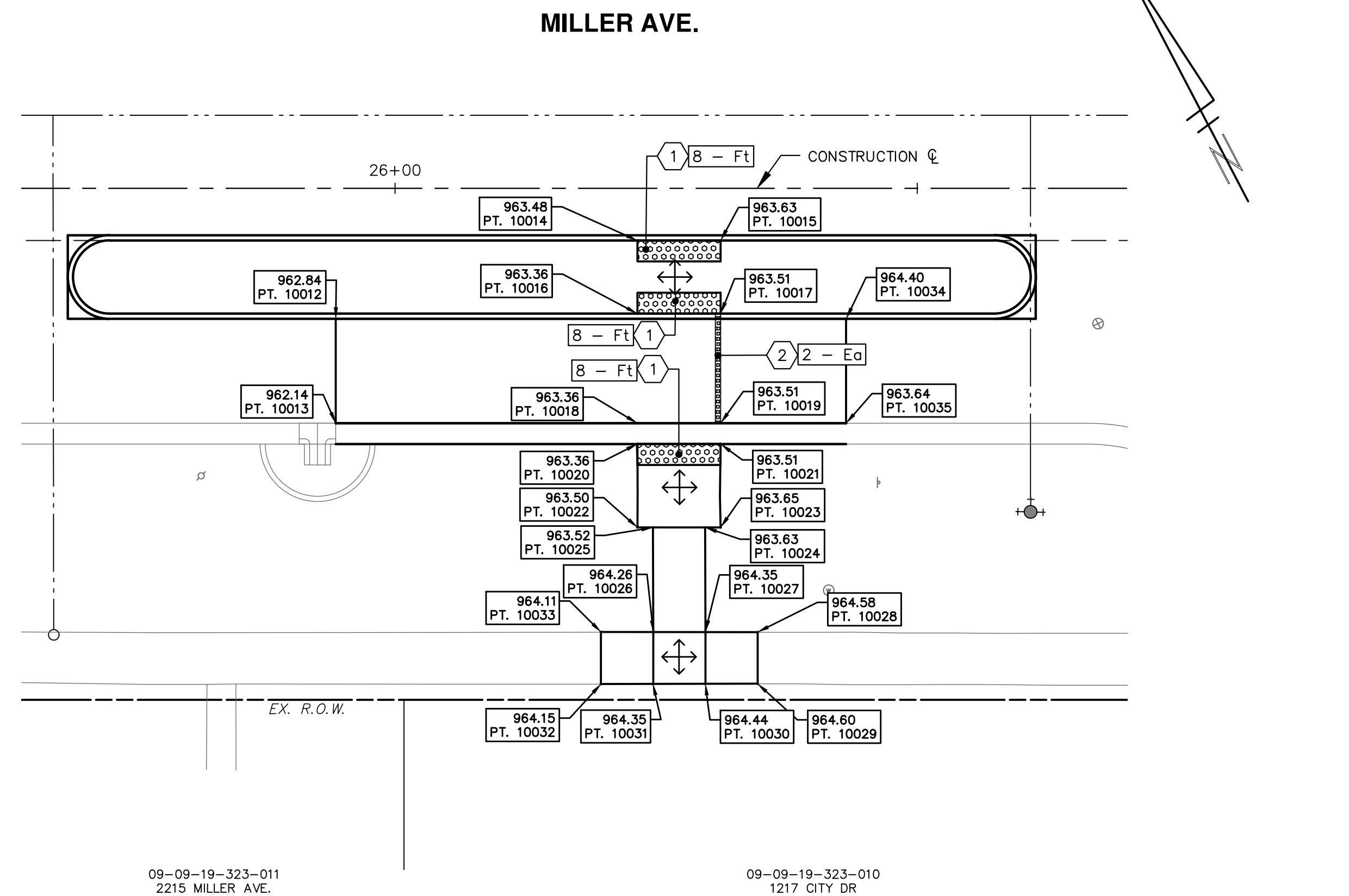
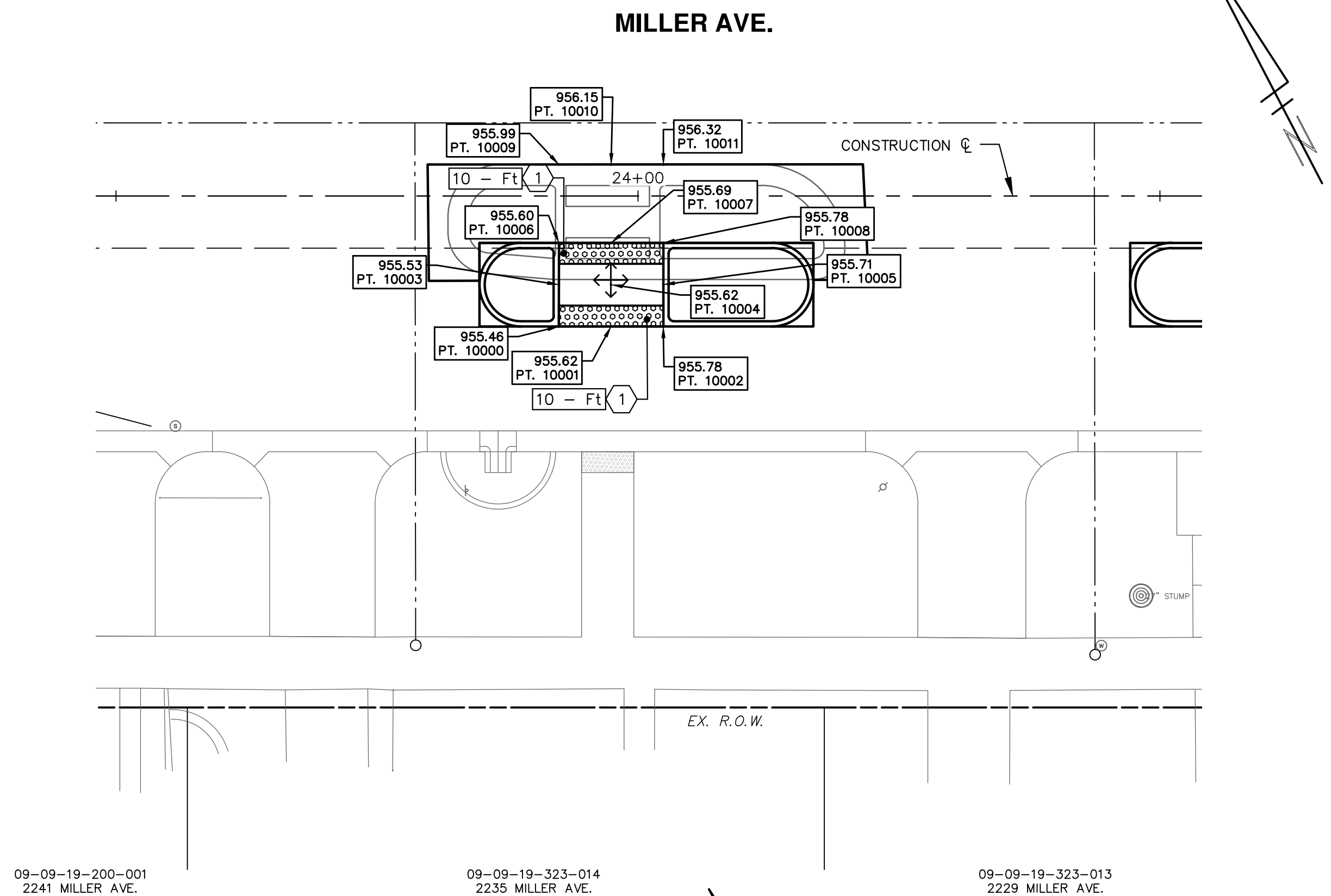
REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
DETAIL GRADES

SCALE: 1" = 10'  
DRAWING No. 20230643-DTG01



- NOTES:**
- DETECTABLE DIRECTIONAL TILE MAY NEED TO BE MEASURED AND CUT IN THE FIELD TO FIT AS SHOWN.
  - COORDINATE DETAIL GRADES WITH RECTANGULAR RAPID FLASHING BEACON (RRFB) INSTALLATION. SEE RRFB CROSSING DETAIL GRADE SHEETS FOR RRFB FOUNDATION AND SIDEWALK (RAMPS AND LANDINGS) LOCATIONS AND DETAIL GRADES.

DETAIL GRADING KEY		
KEY No.	PROPOSED WORK	PAY ITEM
1		Detectable Warning Surface - Ft
2		DS_Detectable Directional Tile - Ea
		LEVEL LANDING



V:\202306\20230643\MillerMaple.dwg Dwg Created: 2-Aug-24 - \_o2\_standard bw.stb - Plot Date: 6-Sep-24

81-08-24-125-017  
MILLER RD

MAPLE RD.

RECESSING PAVT MRKG, TRANSV - 247 SFT  
PAVT MRKG, POLYUREA, 12 IN., CROSSWALK - 247 FT

RECESSING PAVT MRKG, LONGIT - 44 FT  
PAVT MRKG, POLYUREA, 6 IN., WHITE - 44 FT

RECESSING PAVT MRKG, LONGIT - 72 FT  
PAVT MRKG, POLYUREA, 6 IN., WHITE - 72 FT  
BEG TO END = 108 FT

PAVT MRKG, POLYMER CEMENT SURFACE,  
BIKE LANE GREEN - 184 SF  
BEG TO END = 108 FT

RECESSING PAVT MRKG, TRANSV - 240 SFT  
PAVT MRKG, POLYUREA, 12 IN., CROSSWALK - 240 FT

RECESSING PAVT MRKG, TRANSV - 44 SFT  
PAVT MRKG, POLYUREA, 24 IN., STOP BAR - 22 FT

RECESSING PAVT MRKG, LONGIT - 188 FT  
PAVT MRKG, POLYUREA, 6 IN., WHITE - 188 FT  
STA. 13+56 TO 14+50

PAVT MRKG, POLYUREA, RT TURN  
ARROW SYM - 1 EA

RECESSING PAVT MRKG, TRANSV - 22 SFT  
PAVT MRKG, POLYUREA, 24 IN., STOP BAR - 11 FT

RECESSING PAVT MRKG,  
PAVT MRKG, POLYUREA, 6 IN., YELLOW - 80 FT

PAVT MRKG, POLYUREA, LT TURN  
ARROW SYM - 1 EA

09-09-19-214-028  
1300 N. MAPLE RD.

RECESSING PAVT MRKG, LONGIT - 400 FT  
PAVT MRKG, POLYUREA, 6 IN., WHITE - 400 FT

RECESSING PAVT MRKG, TRANSV, 92 SFT  
PAVT MRKG, POLYUREA, 12 IN., CROSS  
HATCHING, WHITE - 92 FT

PAVT MRKG, POLYUREA, BIKE, SMALL SYM - 3 EA

PAVT MRKG, POLYMER CEMENT SURFACE,  
BIKE LANE GREEN - 536 SF

RECESSING PAVT MRKG, TRANSV - 148 SFT  
PAVT MRKG, POLYUREA, 24 IN., STOP BAR - 74 FT

RECESSING PAVT MRKG, TRANSV - 270 SFT  
PAVT MRKG, POLYUREA, 12 IN., CROSSWALK - 270 FT

RECESSING PAVT MRKG, TRANSV - 44 SFT  
PAVT MRKG, POLYUREA, 24 IN., STOP BAR - 22 FT

RECESSING PAVT MRKG, TRANSV, 70 SFT  
PAVT MRKG, POLYUREA, 12 IN., CROSS  
HATCHING, WHITE - 62 FT  
WEST LEG (TYP.)

P.O.B.  
STA. 8+88.0

PAVT MRKG, POLYUREA, LT TURN  
ARROW SYM - 1 EA

PAVT MRKG, POLYUREA, THRU  
ARROW SYM - 1 EA

RECESSING PAVT MRKG, LONGIT - 450 FT  
PAVT MRKG, POLYUREA, 6 IN., WHITE - 450 FT  
WEST LEG (TYP.)

RECESSING PAVT MRKG, LONGIT - 64 FT  
PAVT MRKG, POLYUREA, 6 IN., WHITE - 64 FT  
WEST LEG (TYP.)

PAVT MRKG, POLYMER CEMENT SURFACE,  
BIKE LANE GREEN - 101 SF

PAVT MRKG, POLYMER CEMENT SURFACE,  
BIKE LANE GREEN - 82 SF

PAVT MRKG, POLYUREA, BIKE, THRU ARROW SYM - 1 EA  
PAVT MRKG, POLYUREA, BIKE, SMALL SYM - 1 EA  
PAVT MRKG, POLYUREA, 24 IN., STOP BAR - 7 FT  
PAVT MRKG, POLYUREA, 6 IN., WHITE - 49 FT  
PAVT MRKG, POLYMER CEMENT SURFACE, BIKE LANE GREEN - 81 SF

PAVT MRKG, POLYMER CEMENT SURFACE,  
BIKE LANE GREEN - 100 SF

PAVT MRKG, POLYUREA, 6 IN., WHITE - 43 FT  
PAVT MRKG, POLYUREA, BIKE, LT TURN ARROW SYM - 1 EA  
PAVT MRKG, POLYUREA, BIKE, RT TURN ARROW SYM - 1 EA  
PAVT MRKG, POLYUREA, BIKE, SMALL SYM - 1 EA

RECESSING PAVT MRKG, LONGIT - 53 FT  
PAVT MRKG, POLYUREA, 6 IN., WHITE - 53 FT  
STA. 12+67 TO STA. 13+50

PAVT MRKG, POLYMER CEMENT SURFACE,  
BIKE LANE GREEN - 861 SF

RECESSING PAVT MRKG, LONGIT - 223 FT  
PAVT MRKG, POLYUREA, 6 IN., WHITE - 223 FT

PAVT MRKG, POLYMER CEMENT SURFACE, TAN - 758 SF

PAVT MRKG, POLYMER CEMENT SURFACE,  
BIKE LANE GREEN - 140 SF

PAVT MRKG, POLYUREA, 6 IN., WHITE - 63 FT

PAVT MRKG, POLYUREA, BIKE, RT TURN ARROW SYM - 1 EA  
PAVT MRKG, POLYUREA, BIKE, THRU ARROW SYM - 1 EA  
PAVT MRKG, POLYUREA, BIKE, SMALL SYM - 1 EA

RECESSING PAVT MRKG, TRANSV - 190 SFT  
PAVT MRKG, POLYUREA, 12 IN., CROSSWALK - 190 FT

PAVT MRKG, POLYMER CEMENT SURFACE, TAN - 62 SF

RECESSING PAVT MRKG, TRANSV - 66 SFT  
PAVT MRKG, POLYUREA, 24 IN., STOP BAR - 33 FT

09-09-19-200-014  
1210 N. MAPLE RD.

PAVT MRKG, POLYUREA,  
6 IN., WHITE - 47 FT

RECESSING PAVT MRKG, LONGIT - 12 FT  
PAVT MRKG, POLYUREA, 6 IN., WHITE - 12 FT  
STA. 13+74 TO STA. 14+00

PAVT MRKG, POLYUREA, 24 IN.,  
STOP BAR - 4 FT

PAVT MRKG, POLYUREA, 4 IN., YELLOW - 25 FT

PAVT MRKG, POLYUREA, BIKE THRU ARROW SYM - 2 EA  
PAVT MRKG, POLYUREA, BIKE SMALL SYM - 2 EA

09-08-24-104-043  
1251 N MAPLE RD

NOTES:

- EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED PAVEMENT MARKINGS SHALL BE REMOVED
- PROPOSED PAVEMENT MARKINGS SHALL TIE IN AND MATCH EXISTING PAVEMENT MARKINGS AT ALL PROJECT LIMITS.
- PAVEMENT MARKING SYMBOL DETAILS, LINE PATTERNS, AND CROSSWALK MARKINGS SHALL COMPLY WITH MDOT STANDARD DETAILS, DIMENSIONS, AND SPACING.
- CALL OUTS REPRESENT REPLACEMENT AND NEW MARKINGS.
- RETAIN ALL EXISTING MARKINGS UNLESS OTHERWISE NOTED.
- LANE WIDTH SHALL NOT BE LESS THAN 10.5 FEET.
- CYCLE TRACK WIDTH VARIES FROM 7 FEET TO 10 FEET EXCLUDING THE GUTTER.
- BLACK BIKEWAY DELINEATOR POSTS ARE TO BE INSTALLED AT ENDS OF CONCRETE CURB BUFFER UNLESS OTHERWISE NOTED.
- YELLOW BIKEWAY DELINEATOR POST ARE TO BE INSTALLED ON CYCLE TRACK ADJACENT TO CROSS STREETS UNLESS OTHERWISE NOTED.

- BIKEWAY DELINEATOR POST BLACK - 23 EA (THIS SHEET)
- BIKEWAY DELINEATOR POST YELLOW - 1 EA (THIS SHEET)



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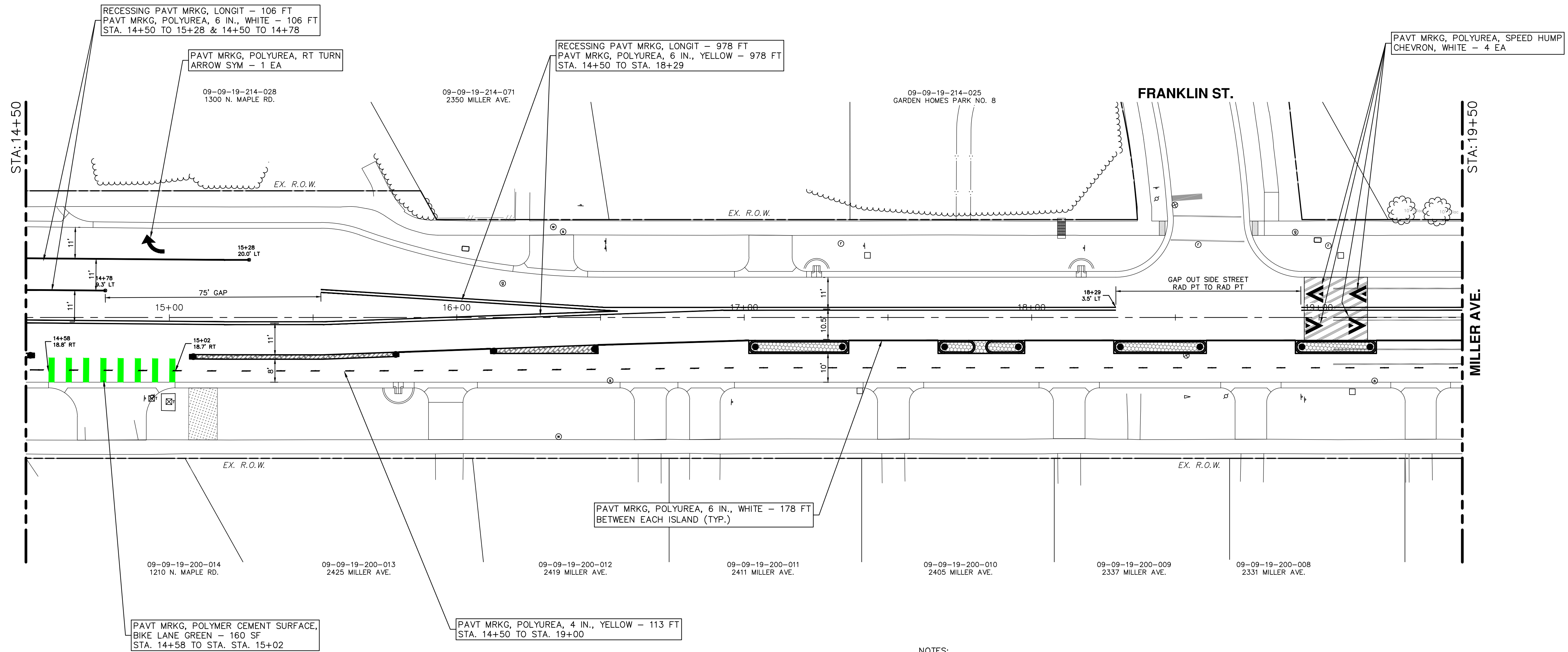


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
PAVEMENT MARKING PLAN  
P.O.B. TO STA. 14+50

SCALE: 1" = 20'  
DRAWING No. 20230643-PM01\_MILLERMAPLE  
SHEET No. 120 of 132



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NOTES:

1. EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED PAVEMENT MARKINGS SHALL BE REMOVED
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5. RETAIN ALL EXISTING MARKINGS UNLESS OTHERWISE NOTED.
6. LANE WIDTH SHALL NOT BE LESS THAN 10.5 FEET.
7. CYCLE TRACK WIDTH VARIES FROM 7 FEET TO 10 FEET EXCLUDING THE GUTTER.
8. BLACK BIKEWAY DELINEATOR POSTS ARE TO BE INSTALLED AT ENDS OF CONCRETE CURB BUFFER UNLESS OTHERWISE NOTED.
9. YELLOW BIKEWAY DELINEATOR POST ARE TO BE INSTALLED ON CYCLE TRACK ADJACENT TO CROSS STREETS UNLESS OTHERWISE NOTED.

● BIKEWAY DELINEATOR POST BLACK - 11 EA (THIS SHEET)



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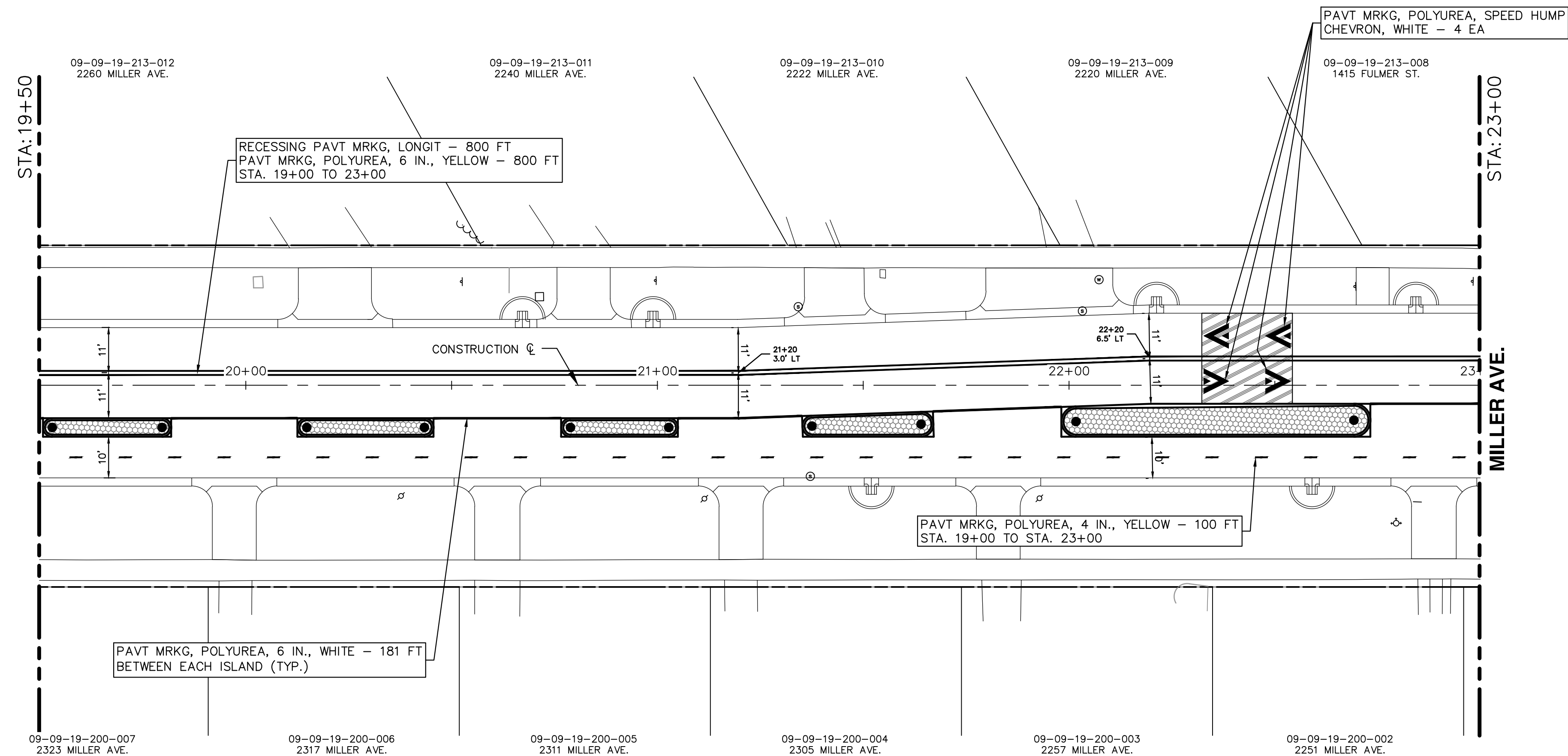


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
PAVEMENT MARKING PLAN  
STA. 14+50 TO STA. 19+50

SCALE: 1" = 20'  
DRAWING No. 20230643-PM01

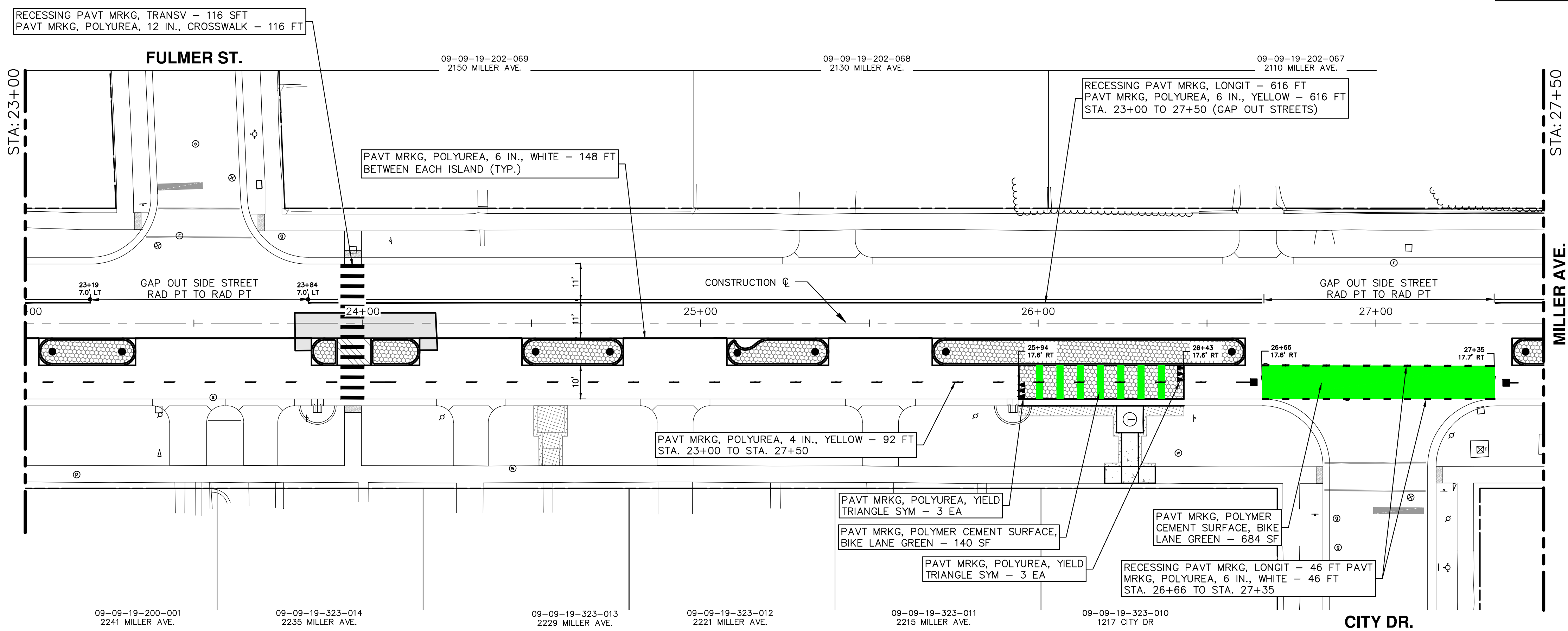


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- NOTES:
- EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED PAVEMENT MARKINGS SHALL BE REMOVED
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- BIKEWAY DELINEATOR POST BLACK - 20 EA (THIS SHEET)
- BIKEWAY DELINEATOR POST YELLOW - 2 EA (THIS SHEET)



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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
PAVEMENT MARKING PLAN  
STA. 19+50 TO STA. 27+50

SCALE: 1" = 20'

DRAWING No. 20230643-PM02

SHEET No.

122 of 132



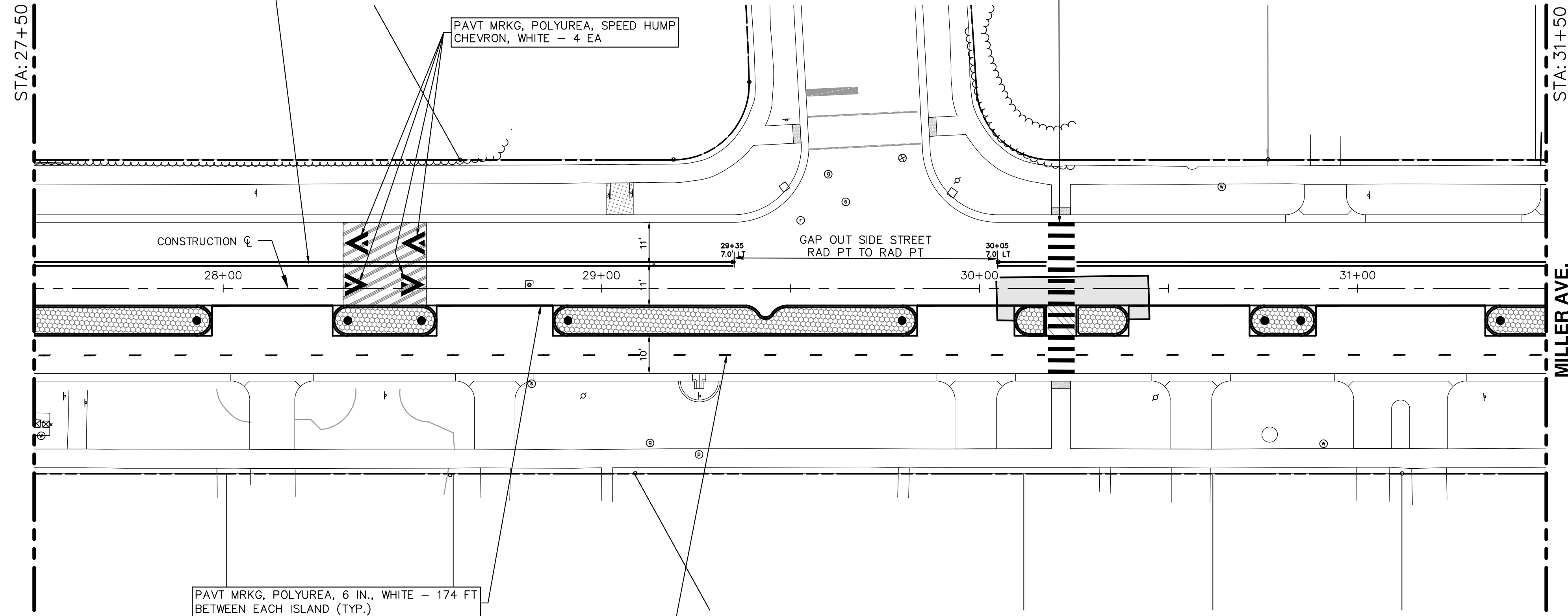
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RECESSING PAVT MRKG, LONGIT - 660 FT  
PAVT MRKG, POLYUREA, 6 IN., YELLOW - 660 FT  
STA. 27+50 TO 31+50 (GAP OUT STREETS)

RECESSING PAVT MRKG, TRANSV - 98 SFT  
PAVT MRKG, POLYUREA, 12 IN., CROSSWALK - 98 FT

HATCHER CRES.

PAVT MRKG, POLYUREA, SPEED HUMP  
CHEVRON, WHITE - 4 EA



PAVT MRKG, POLYUREA, 6 IN., WHITE - 174 FT  
BETWEEN EACH ISLAND (TYP.)

PAVT MRKG, POLYUREA, 4 IN., YELLOW - 98 FT  
STA. 27+50 TO STA. 31+50

- NOTES:
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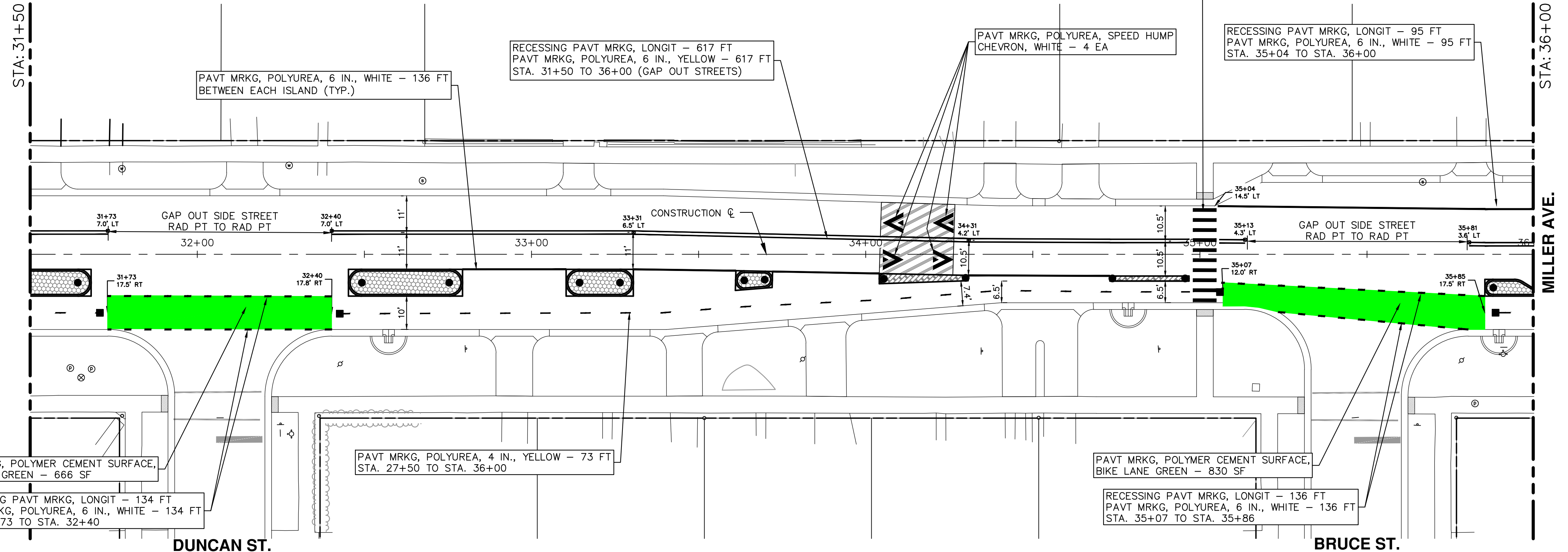
- BIKEWAY DELINEATOR POST BLACK - 20 EA (THIS SHEET)
- BIKEWAY DELINEATOR POST YELLOW - 4 EA (THIS SHEET)

RECESSING PAVT MRKG, TRANSV - 70 SFT  
PAVT MRKG, POLYUREA, 12 IN., CROSSWALK - 70 FT

RECESSING PAVT MRKG, LONGIT - 617 FT  
PAVT MRKG, POLYUREA, 6 IN., YELLOW - 617 FT  
STA. 31+50 TO 36+00 (GAP OUT STREETS)

PAVT MRKG, POLYUREA, SPEED HUMP  
CHEVRON, WHITE - 4 EA

RECESSING PAVT MRKG, LONGIT - 95 FT  
PAVT MRKG, POLYUREA, 6 IN., WHITE - 95 FT  
STA. 35+04 TO STA. 36+00



PAVT MRKG, POLYUREA, 6 IN., WHITE - 136 FT  
BETWEEN EACH ISLAND (TYP.)

PAVT MRKG, POLYUREA, 4 IN., YELLOW - 73 FT  
STA. 27+50 TO STA. 36+00

PAVT MRKG, POLYMER CEMENT SURFACE,  
BIKE LANE GREEN - 666 SF

RECESSING PAVT MRKG, LONGIT - 134 FT  
PAVT MRKG, POLYUREA, 6 IN., WHITE - 134 FT  
STA. 31+73 TO STA. 32+40

RECESSING PAVT MRKG, LONGIT - 136 FT  
PAVT MRKG, POLYUREA, 6 IN., WHITE - 136 FT  
STA. 35+07 TO STA. 35+86

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

**MILLER ROAD CYCLE TRACK**

**PAVEMENT MARKING PLAN**

STA. 27+50 TO STA. 36+00

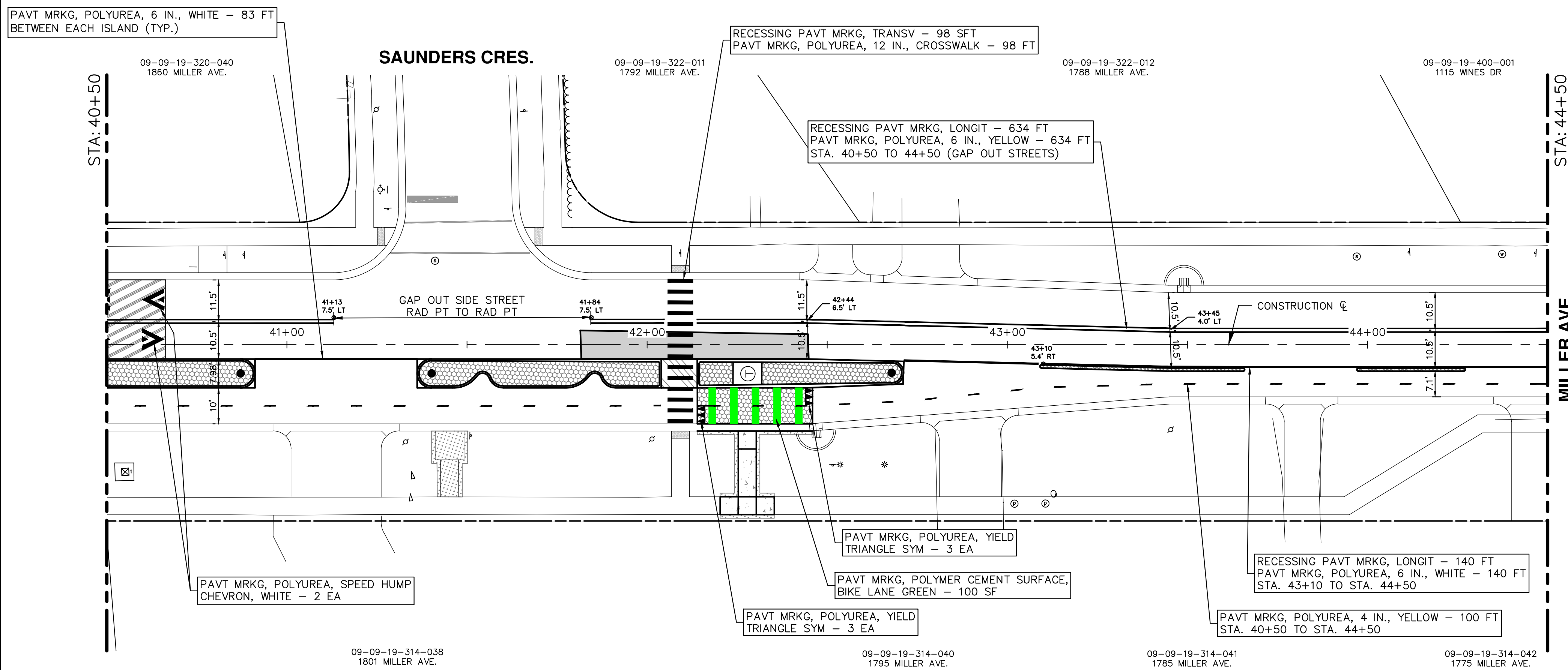
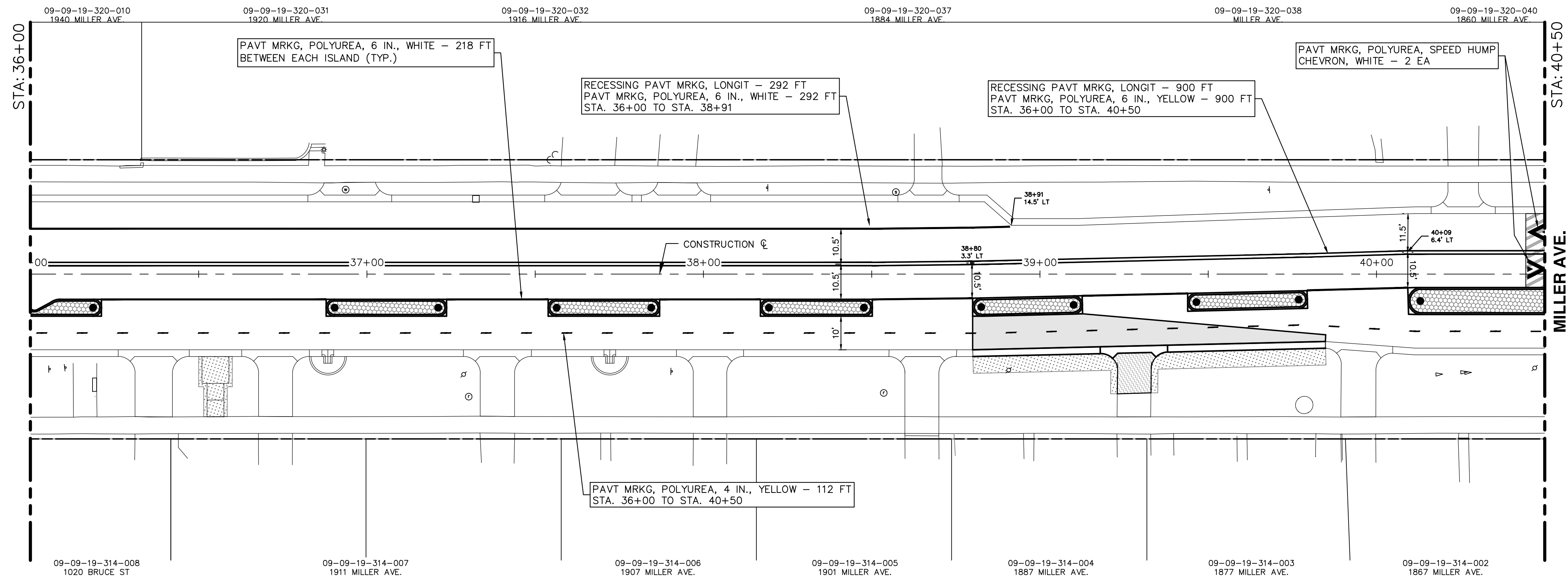
DRAWING No. **20230643-PM03**

SHEET No. **123 of 132**

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- NOTES:
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● BIKEWAY DELINEATOR POST BLACK - 15 EA (THIS SHEET)

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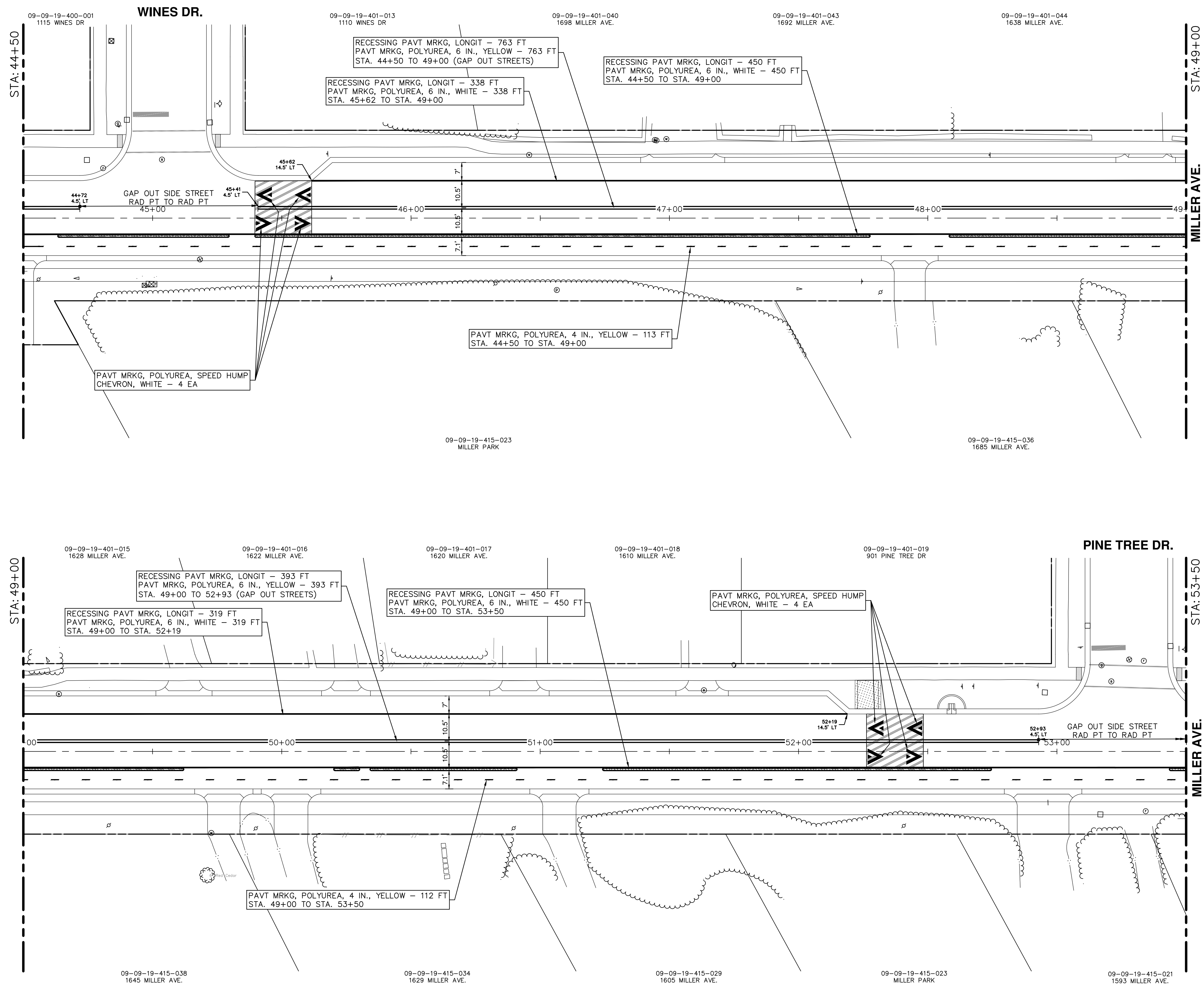
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
PAVEMENT MARKING PLAN  
STA. 36+00 TO STA. 44+50

DRAWING No. 20230643-PM04  
SHEET No. 124 of 132



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- NOTES:
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  - LANE WIDTH SHALL NOT BE LESS THAN 10.5 FEET.
  - CYCLE TRACK WIDTH VARIES FROM 7 FEET TO 10 FEET EXCLUDING THE GUTTER.

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

**MILLER ROAD CYCLE TRACK**

**PAVEMENT MARKING PLAN**

STA. 44+50 TO STA. 53+50

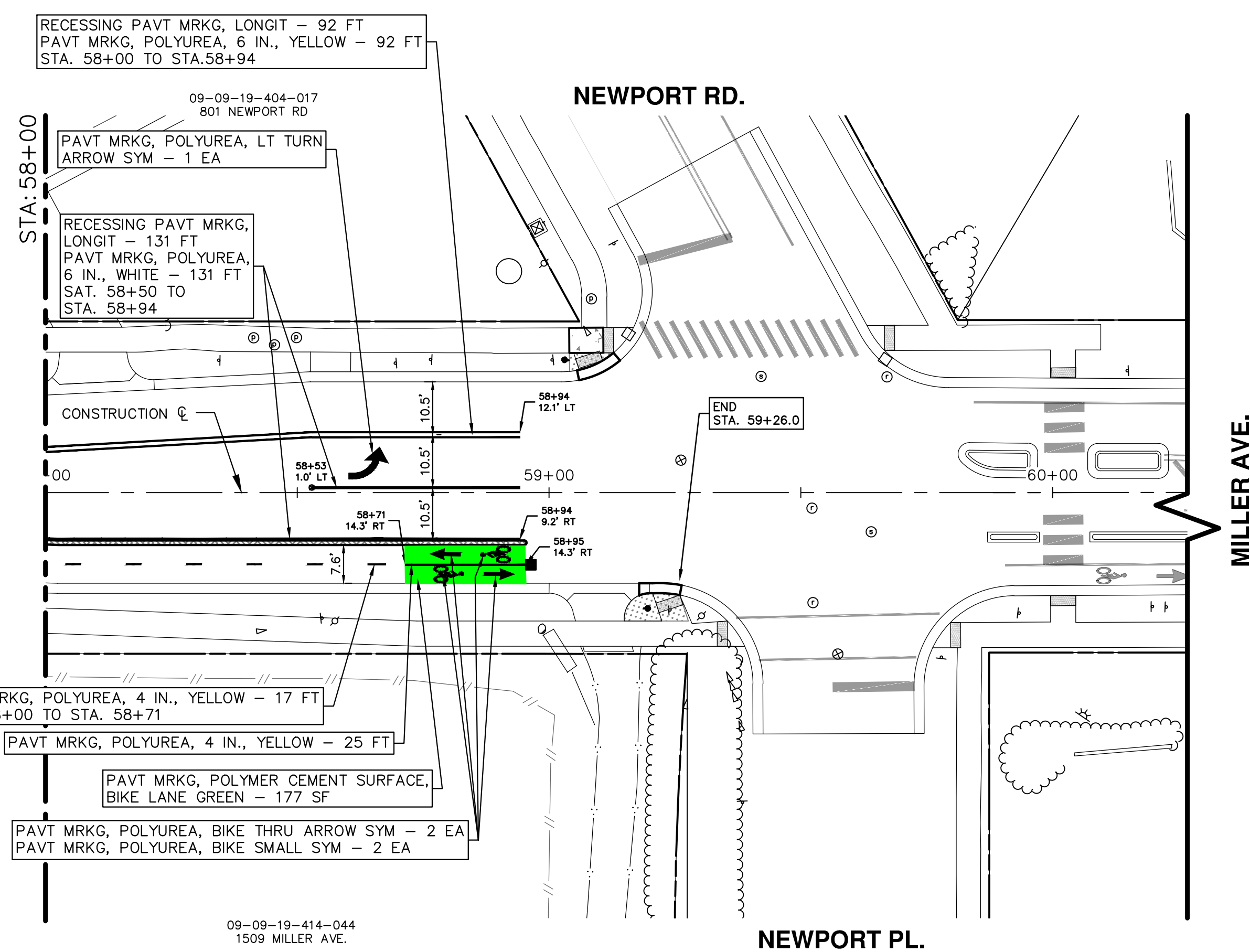
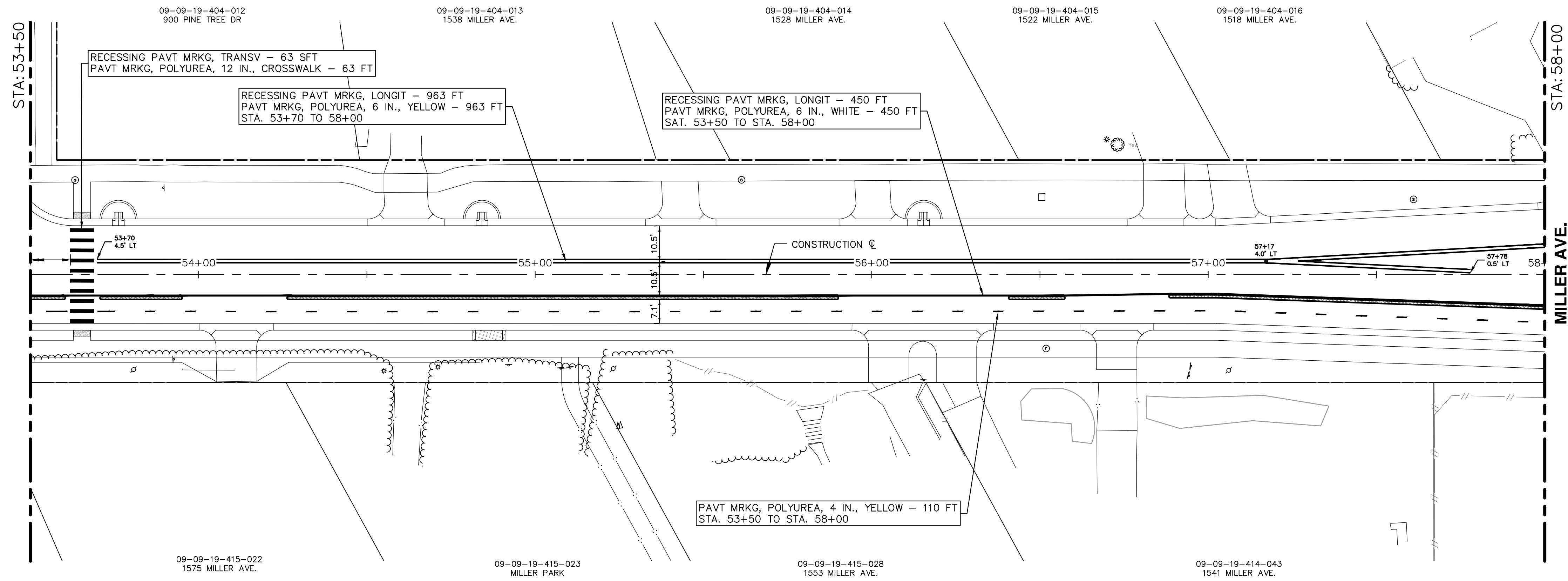
SCALE 1" = 20'

DRAWING No. **20230643-PM05**

SHEET No. **125 of 132**



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- NOTES:
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  - YELLOW BIKEWAY DELINEATOR POST ARE TO BE INSTALLED ON CYCLE TRACK ADJACENT TO CROSS STREETS UNLESS OTHERWISE NOTED.

■ BIKEWAY DELINEATOR POST YELLOW - 1 EA (THIS SHEET)

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**CITY OF ANN ARBOR PUBLIC SERVICES - ENGINEERING**  
**MILLER ROAD CYCLE TRACK PAVEMENT MARKING PLAN**  
STA. 53+50 TO END

SCALE: 1" = 20'

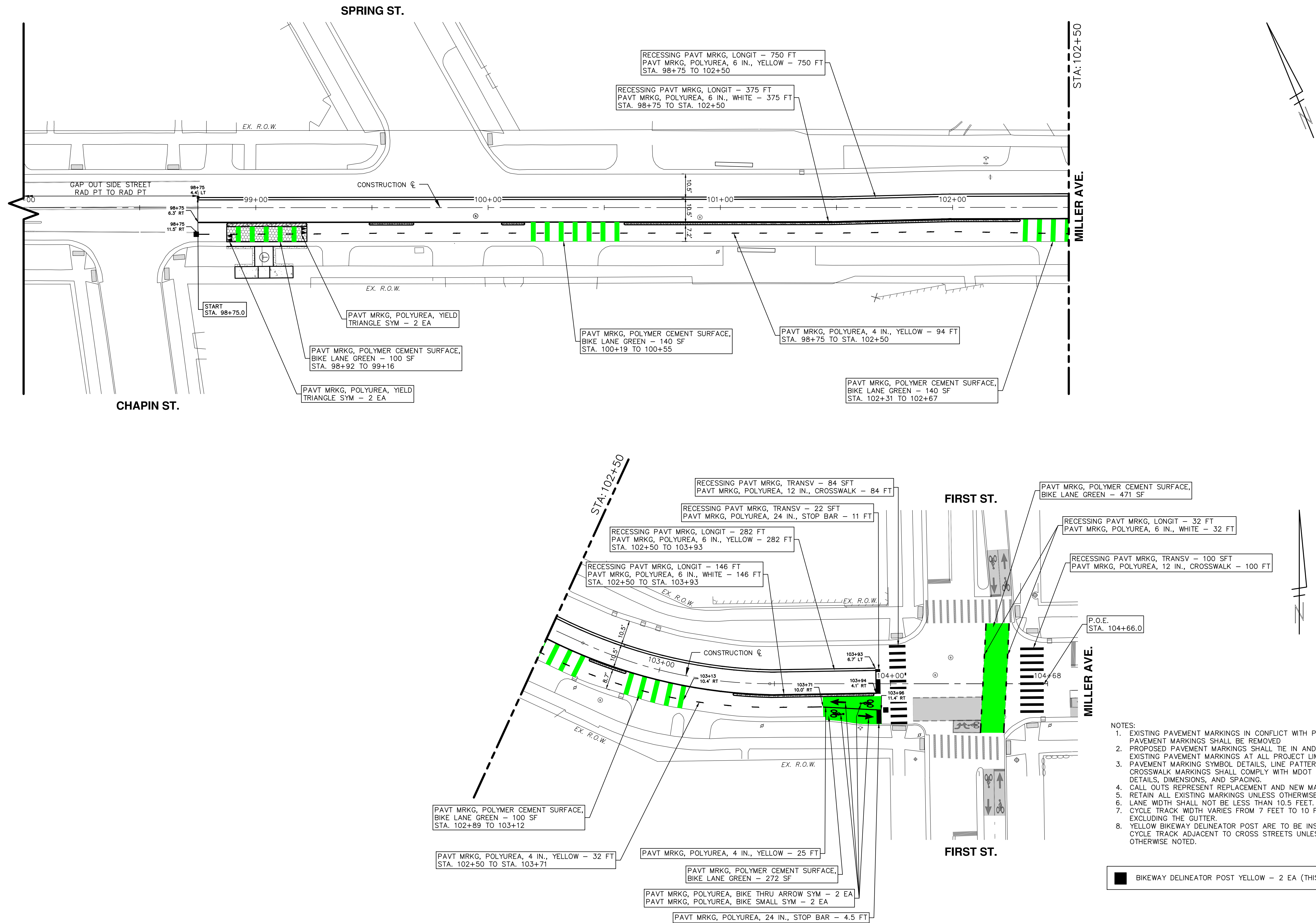
DRAWING No. **20230643-PM06**

SHEET No.

126 of 132



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- NOTES:
- EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED PAVEMENT MARKINGS SHALL BE REMOVED
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BIKEWAY DELINEATOR POST YELLOW - 2 EA (THIS SHEET)

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**CITY OF ANN ARBOR MICHIGAN**

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
MILLER ROAD CYCLE TRACK  
PAVEMENT MARKING PLAN

START TO P.O.E.  
P.O.E. STA. 104+66.0

SCALE: 1" = 20'

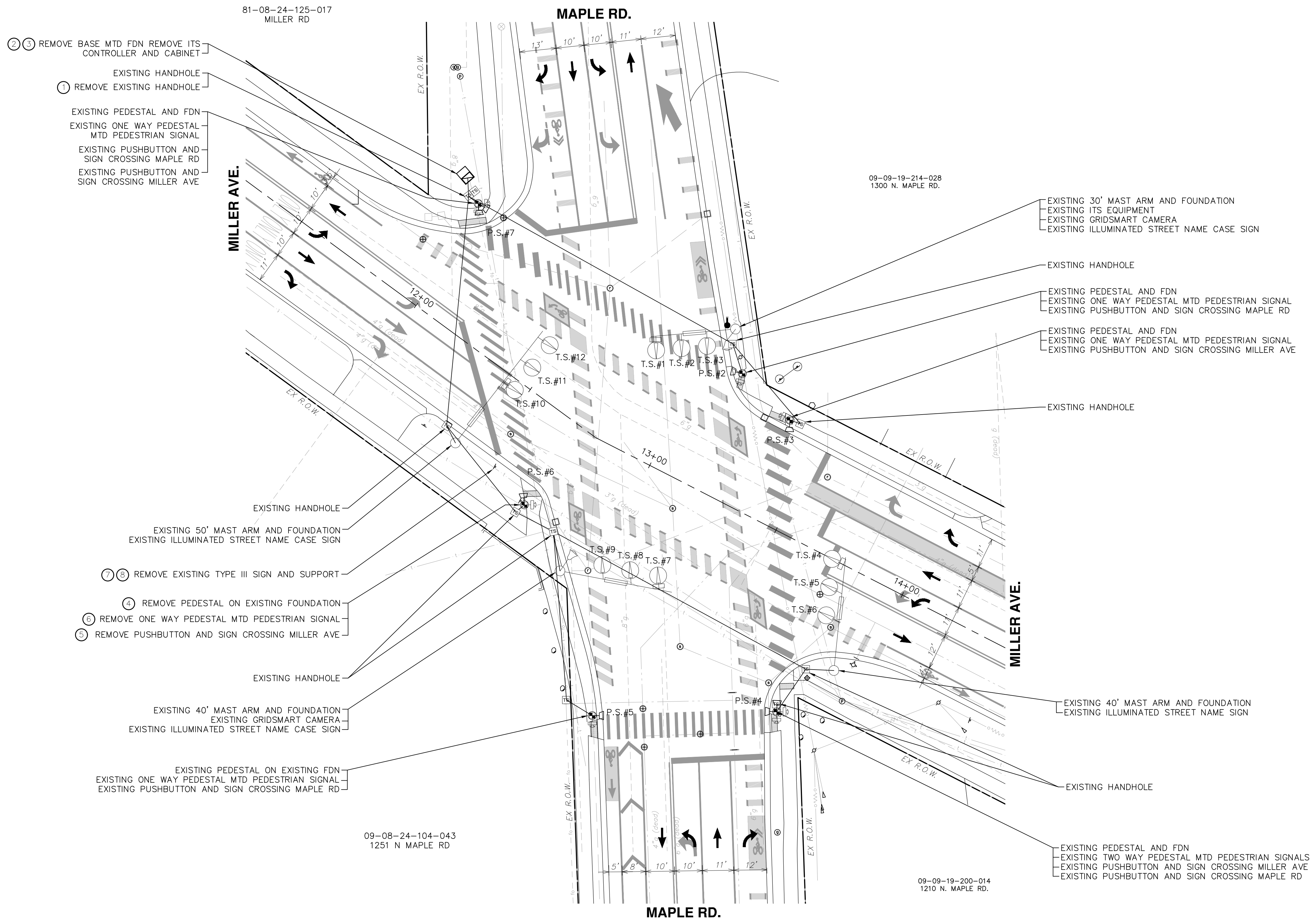
DRAWING No. 20230643-PM07

SHEET No. 127 of 132

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V:\202306\20230643\Sheets\sr01.dwg Dwg Created: 20-Aug-24 - \_a2 standard bw.stb - Plot Date: 6-Sep-24



- ② ③ REMOVE BASE MTD FDN REMOVE ITS CONTROLLER AND CABINET
- ① REMOVE EXISTING HANDHOLE
- EXISTING PEDESTAL AND FDN
- EXISTING ONE WAY PEDESTAL MTD PEDESTRIAN SIGNAL
- EXISTING PUSHBUTTON AND SIGN CROSSING MAPLE RD
- EXISTING PUSHBUTTON AND SIGN CROSSING MILLER AVE

- ⑦ ⑧ REMOVE EXISTING TYPE III SIGN AND SUPPORT
- ④ REMOVE PEDESTAL ON EXISTING FOUNDATION
- ⑥ REMOVE ONE WAY PEDESTAL MTD PEDESTRIAN SIGNAL
- ⑤ REMOVE PUSHBUTTON AND SIGN CROSSING MILLER AVE

- EXISTING 30' MAST ARM AND FOUNDATION
- EXISTING ITS EQUIPMENT
- EXISTING GRIDSMART CAMERA
- EXISTING ILLUMINATED STREET NAME CASE SIGN
- EXISTING HANDHOLE
- EXISTING PEDESTAL AND FDN
- EXISTING ONE WAY PEDESTAL MTD PEDESTRIAN SIGNAL
- EXISTING PUSHBUTTON AND SIGN CROSSING MAPLE RD
- EXISTING PEDESTAL AND FDN
- EXISTING ONE WAY PEDESTAL MTD PEDESTRIAN SIGNAL
- EXISTING PUSHBUTTON AND SIGN CROSSING MILLER AVE

- EXISTING 40' MAST ARM AND FOUNDATION
- EXISTING ILLUMINATED STREET NAME SIGN

- EXISTING PEDESTAL AND FDN
- EXISTING TWO WAY PEDESTAL MTD PEDESTRIAN SIGNALS
- EXISTING PUSHBUTTON AND SIGN CROSSING MILLER AVE
- EXISTING PUSHBUTTON AND SIGN CROSSING MAPLE RD

QUANTITIES			
NO.	PAY ITEM	QTY	UNIT
①	Handhole, Rem	1	Ea
②	DS_Controller and Cabinet, Rem	1	Ea
③	DS_Controller Fdn, Rem	1	Ea
④	DS_Pedestal, Rem	1	Ea
⑤	DS_Pushbutton, Rem	1	Ea
⑥	DS_TS, Pedestrian, Pedestal Mtd, Rem	1	Ea
⑦	DS_Sign, Type III, Rem	1	Ea
⑧	DS_Ground Mtd Sign Support, Rem	1	Ea

### SIGNAL REMOVAL

SCALE: 1" = 20' (34"x22")  
SCALE: 1" = 40' (17"x11")

APPROACH SPEED:	
NB	35 MPH
SB	35 MPH
EB	35 MPH
WB	35 MPH

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

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
TRAFFIC SIGNAL REMOVAL  
SR01-INTERSECTION OF MAPLE RD. AND MILLER AVE.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

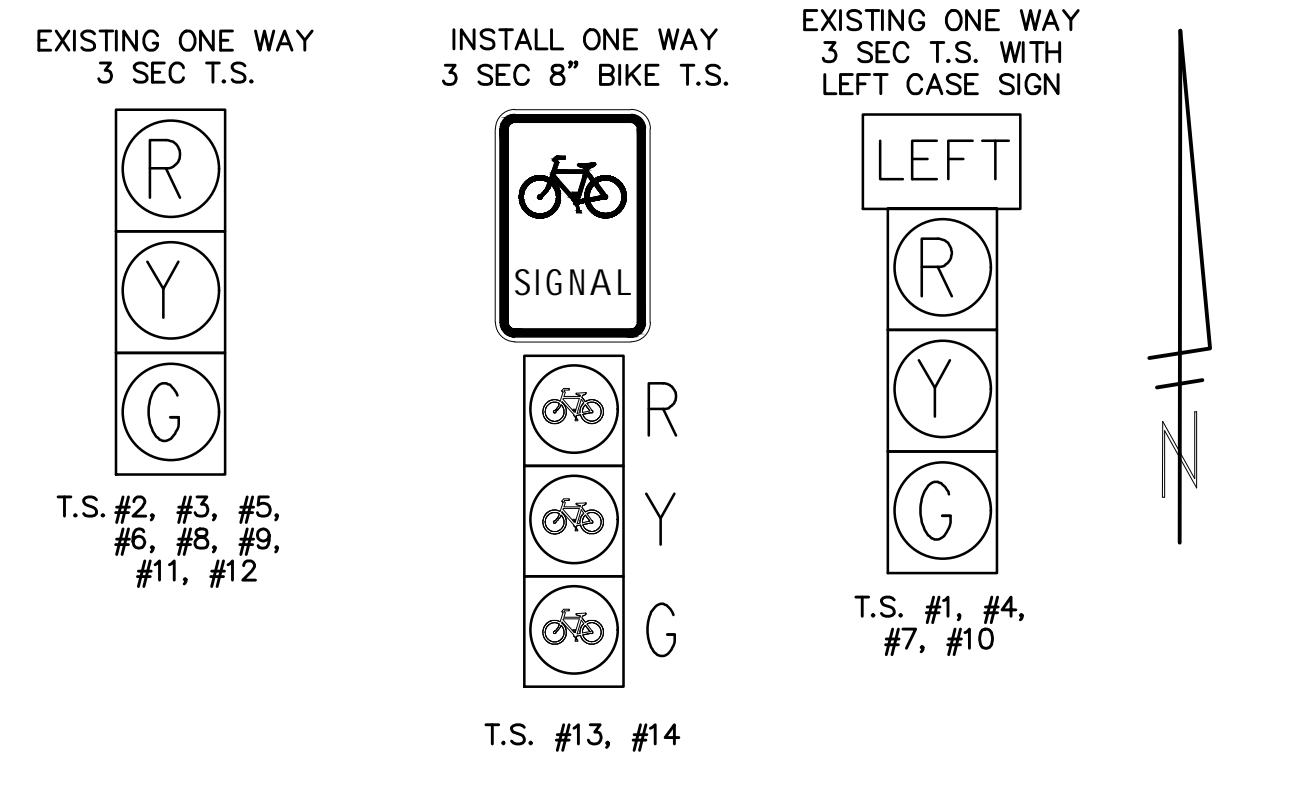
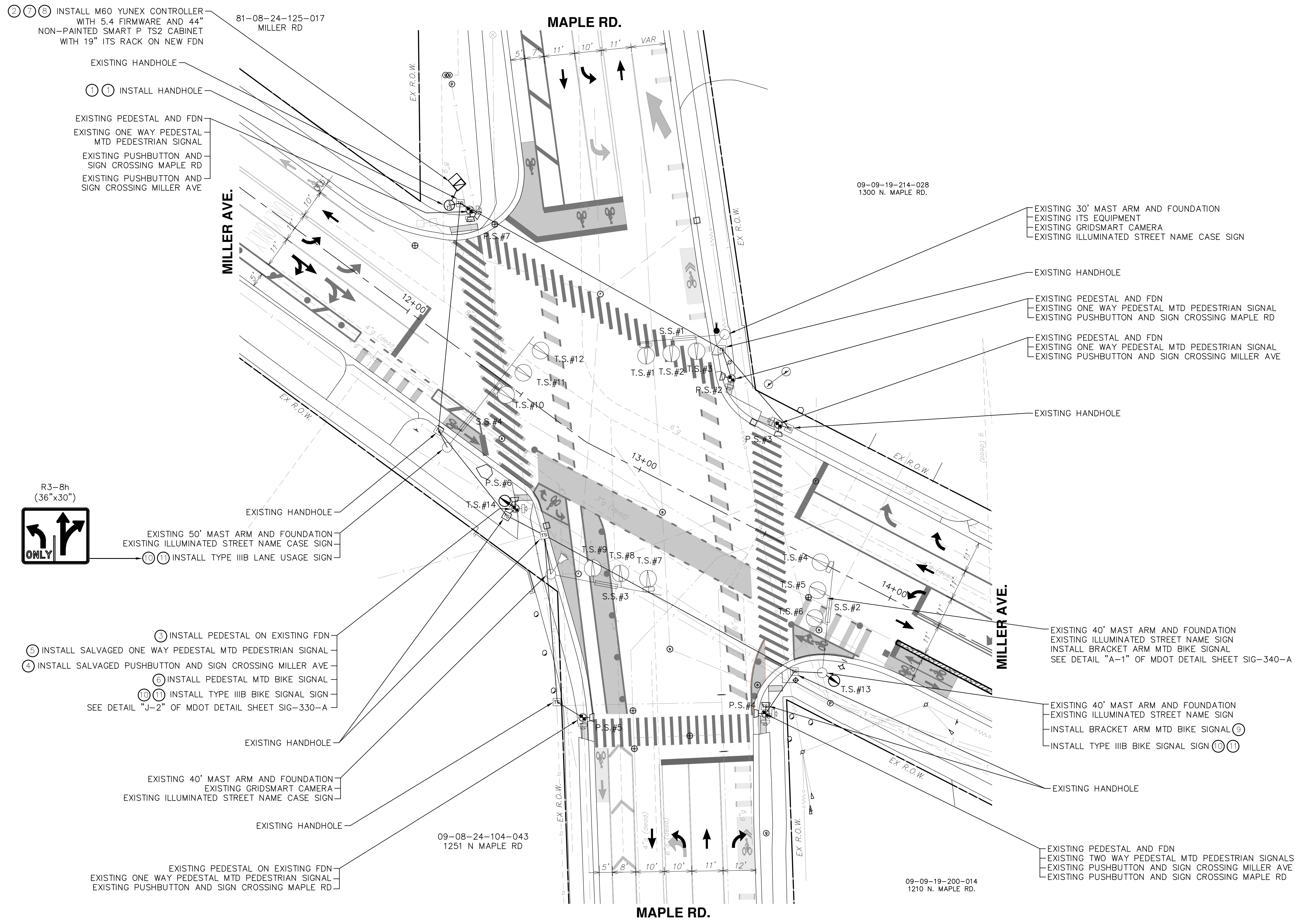
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
TRAFFIC SIGNAL REMOVAL  
SR01-INTERSECTION OF MAPLE RD. AND MILLER AVE.

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-8647  
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SHEET No. 128 of 132



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QUANTITIES			
NO.	PAY ITEM	QTY	UNIT
①	Handhole Assembly, 17 in. X 30 in. x 18 in.	2	Ea
②	DS_Controller Fdn, Base Mount	1	Ea
③	DS_Pedestal, Alum	1	Ea
④	DS_Pushbutton and Sign, Salv	1	Ea
⑤	DS_TS, Pedestrian, One Way Pedestal Mtd, Salv	1	Ea
⑥	DS_TS, One Way Pedestal Mtd (LED), Long Life	1	Ea
⑦	DS_Controller, NEMA, ATC Type, Modified	1	Ea
⑧	DS_Cabinet, NEMA Type, Modified	1	Ea
⑨	DS_TS, One Way Bracket Arm Mtd (LED), Long Life	1	Ea
⑩	DS_Band, Sign	3	Ea
⑪	DS_Sign, Type IIIB	9	Sft
	DS_Conduit, DB, 1, 1 1/2 inch	10	Ea
	DS_Conduit, DB, 1, 3 inch	10	Ft
	DS_Conduit, DB, 4, 3 inch	10	Ft

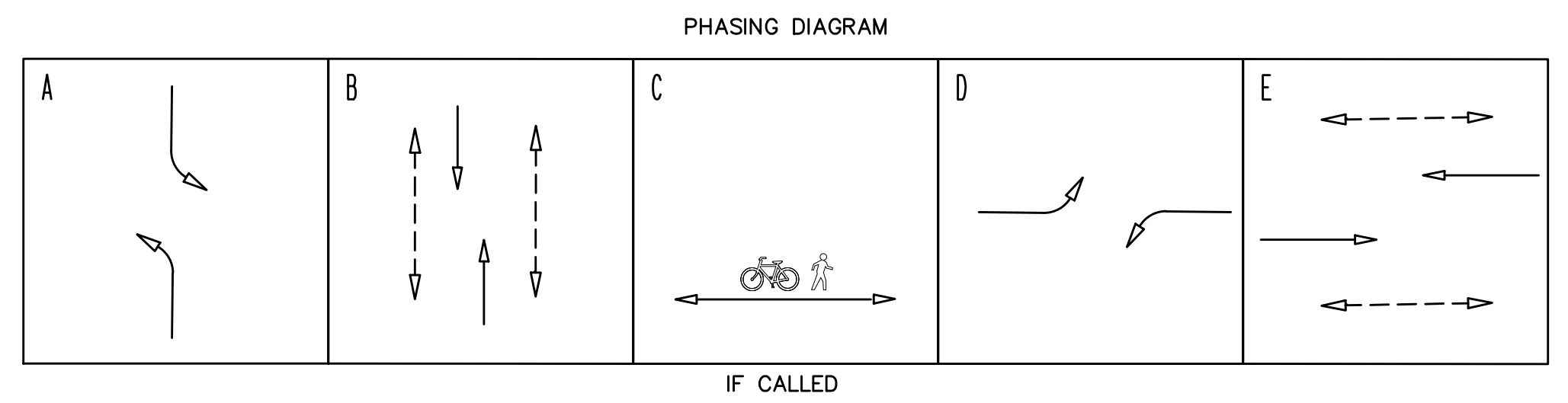
CONDUIT REQUIREMENTS (UNLESS OTHERWISE INDICATED)  
 CONTROLLER FDN. TO H.H. \_\_\_\_\_ 4-3", 1-3" & 1-1 1/2"



**SIGNAL INSTALL**

SCALE: 1" = 20' (34"x22")  
 SCALE: 1" = 40' (17"x11")

APPROACH SPEED:	
NB	35 MPH
SB	35 MPH
EB	35 MPH
WB	25 MPH



DATE	DRAWN	CHECKED

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**MILLER ROAD CYCLE TRACK**  
 TRAFFIC SIGNAL REMOVAL  
 S101 - INTERSECTION OF MAPLE RD. AND MILLER AVE.

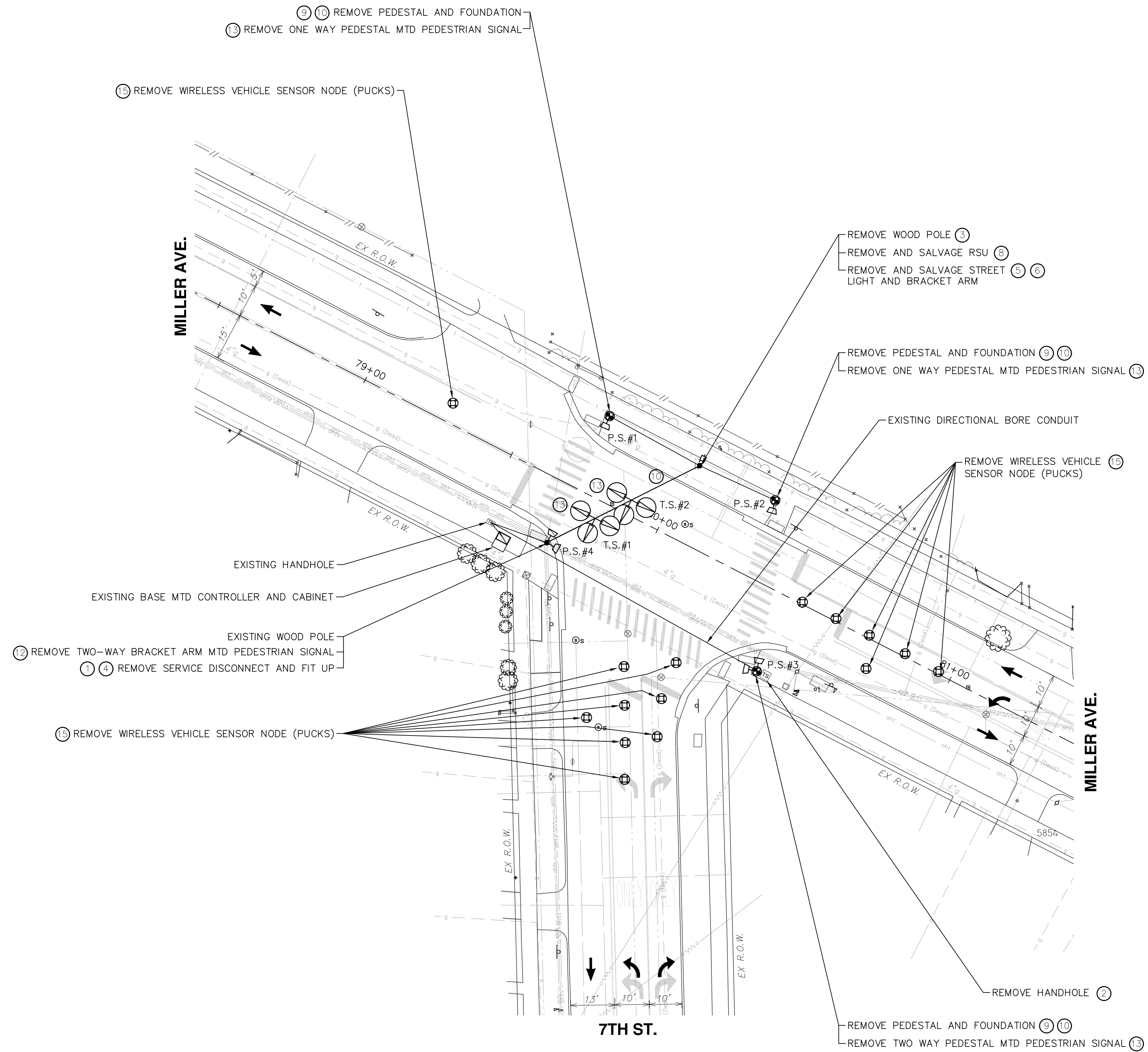
CITY OF ANN ARBOR  
 PUBLIC SERVICES  
 301 EAST HURON STREET  
 ANN ARBOR, MI 48106-1667  
 WWW.A2GOV.ORG

SCALE: 1" = 20'  
 DRAWING No. 20230643-S101

SHEET No. 129 of 132



V:\202306\20230643\Sheets\sr02.dwg Dwg Created: 26-Apr-24 - \_a2 standard bw.stb - Plot Date: 6-Sep-24



### SIGNAL REMOVAL

SCALE: 1" = 20' (34"x22")  
SCALE: 1" = 40' (17"x11")

APPROACH SPEED:	
NB	30 MPH
EB	30 MPH
WB	30 MPH

QUANTITIES			
NO.	PAY ITEM	QTY	UNIT
①	DS_Cable Pole, TS and Sec, Disman	1	Ea
②	Handhole, Rem	1	Ea
③	DS_Wood Pole, Rem	1	Ea
④	DS_Serv Disconnect, Rem	1	Ea
⑤	DS_Light Std Arm, Rem and Salv	1	Ea
⑥	Light Fixture, Rem and Salvage	1	Ea
⑦	DS_Controller and Cabinet, Rem	1	Ea
⑧	DS_Roadside Unit, Rem and Salv	1	Ea
⑨	DS_Pedestal Fdn, Rem	3	Ea
⑩	DS_Pedestal, Rem	3	Ea
⑪	DS_Span Wire, Rem	1	Ea
⑫	DS_TS, Pedestrian, Bracket Arm Mtd, Rem	1	Ea
⑬	DS_TS, Pedestrian, Pedestal Mtd, Rem	3	Ea
⑭	DS_TS, Span Wire Mtd, Rem	2	Ea
⑮	DS_Wireless Vehicle Sensor Node, Rem	15	Ea

NOTE:  
REUSE EXISTING HANDHOLES AND CONDUIT IF POSSIBLE



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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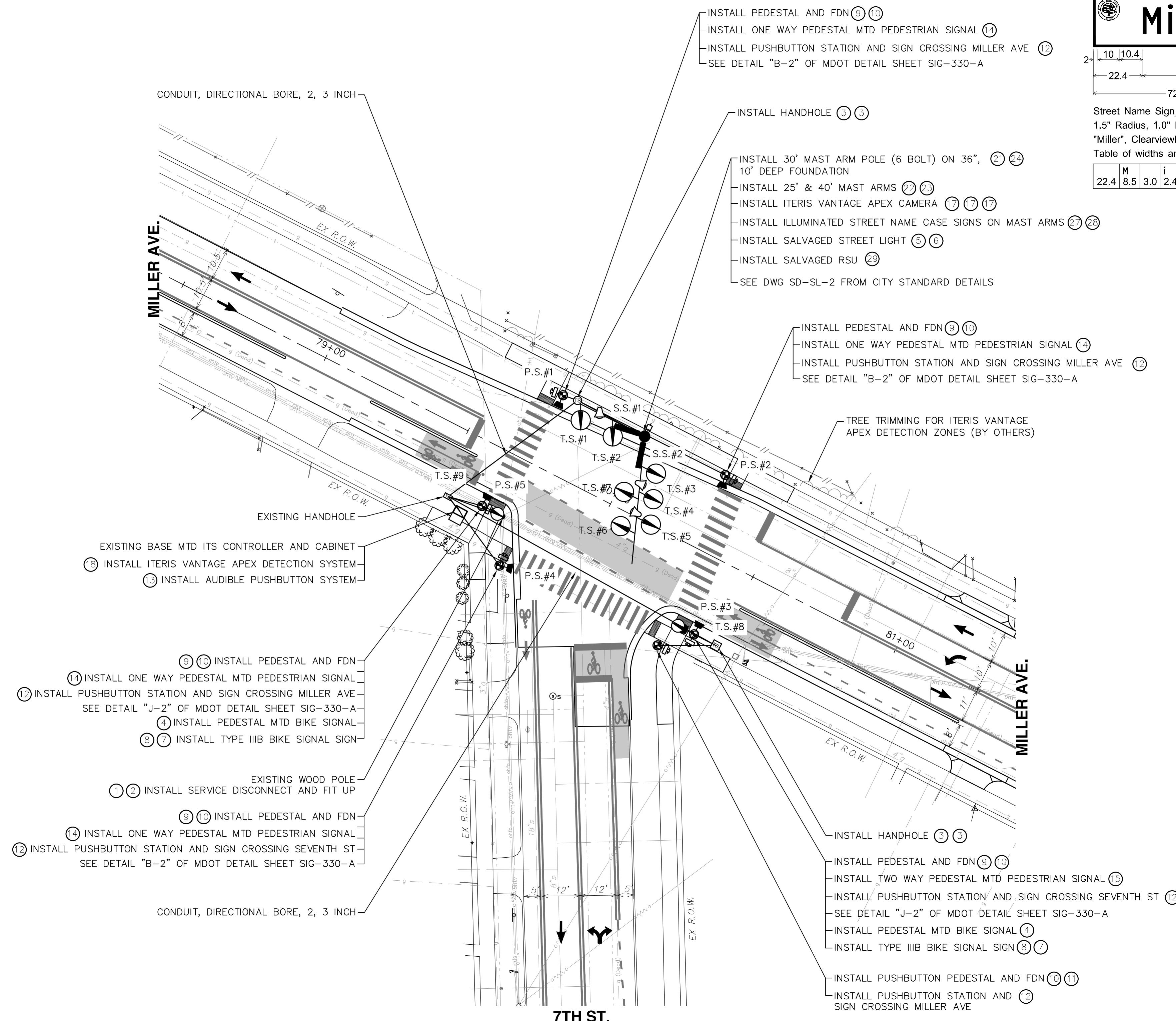


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
TRAFFIC SIGNAL REMOVAL  
SR02-INTERSECTION OF 7TH ST. AND MILLER AVE.

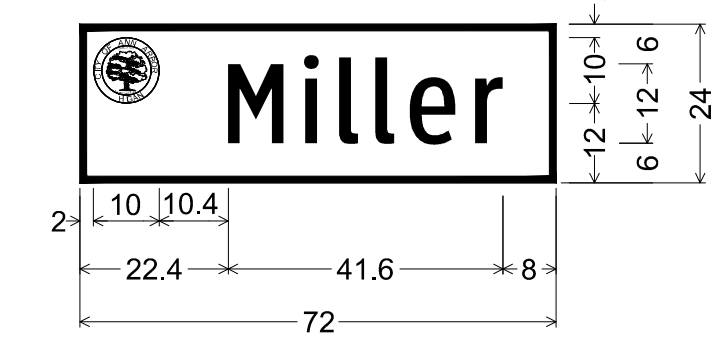
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DRAWING No.  
20230643-SR02



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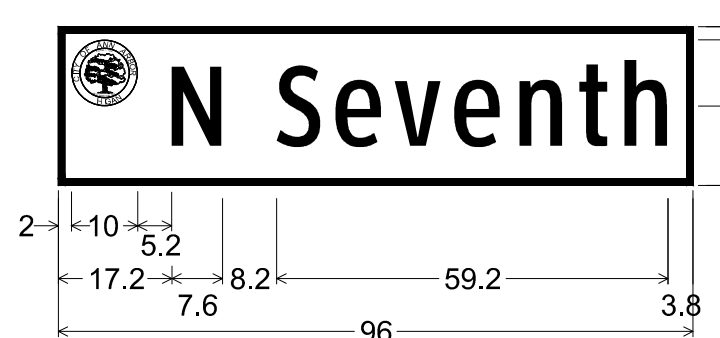
STREET NAME SIGN, TWO WAY, ILLUMINATED  
(WHITE LEGEND AND GREEN BACKGROUND)  
SS #1 FACING SOUTH/NORTH



Street Name Sign\_Miller;  
1.5" Radius, 1.0" Border, White on Green;  
"Miller", ClearviewHwy-2-W;  
Table of widths and spaces

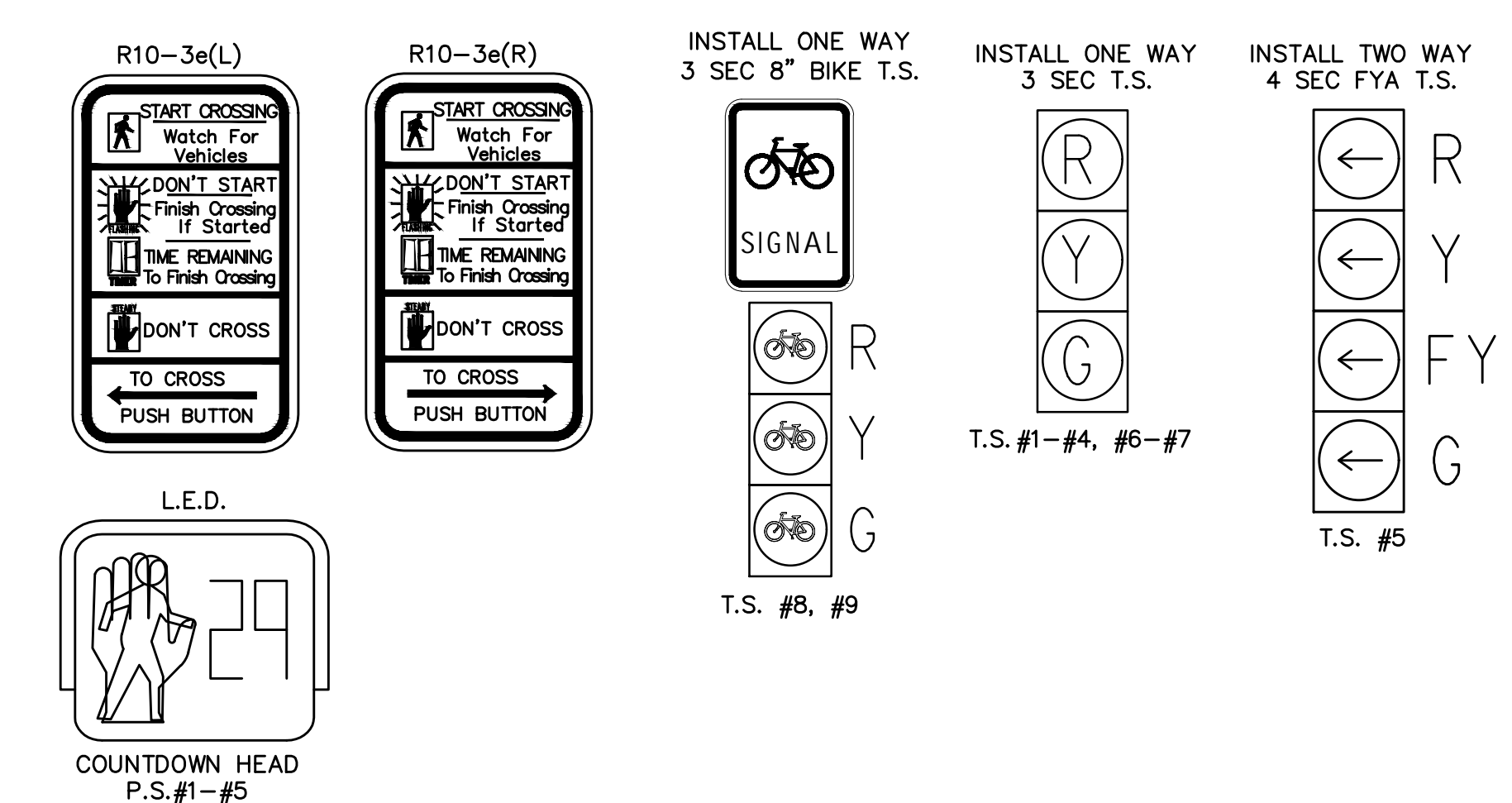
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STREET NAME SIGN, TWO WAY, ILLUMINATED  
(WHITE LEGEND AND GREEN BACKGROUND)  
SS #2 FACING EAST/WEST



Street Name Sign\_Miller;  
1.5" Radius, 1.0" Border, White on Green;  
"N Seventh", ClearviewHwy-2-W;  
Table of widths and spaces

N	17.2	S	8.2	6.7	2.2	7.0	2.0	v	7.0	2.0	e	7.0	2.9	6.6	2.4	4.3	2.5	6.6	3.8
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CONDUIT REQUIREMENTS (UNLESS OTHERWISE INDICATED)

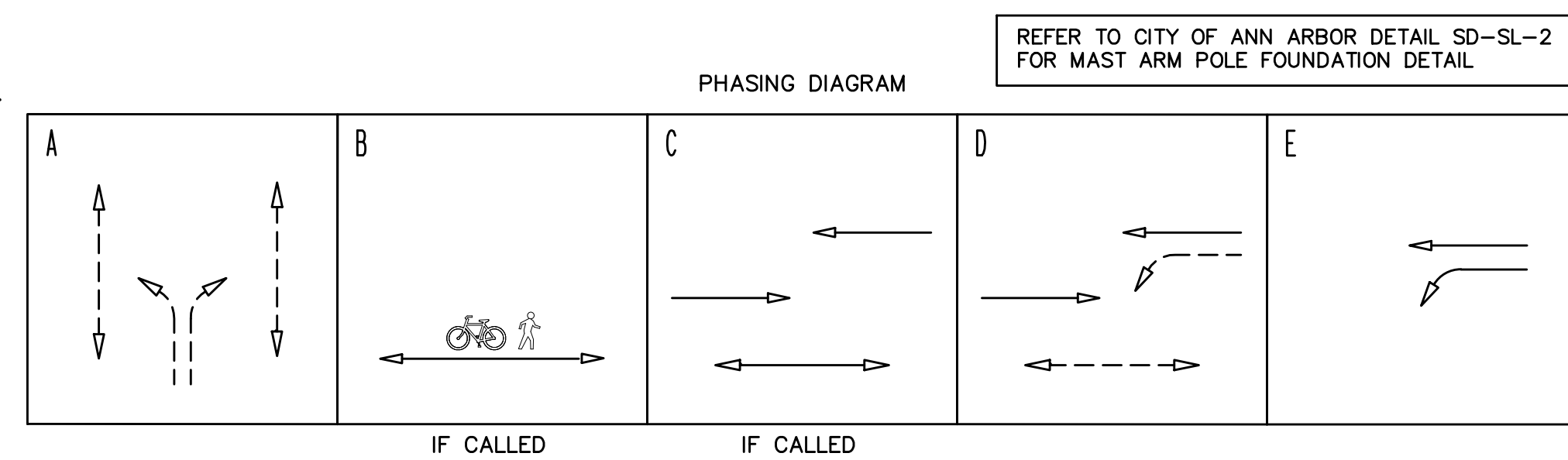
P.B. PEDESTAL TO H.H.	1-1 1/2"
H.H. TO H.H.	2-3"
MAST ARM FDN. TO H.H.	2-3"

**SIGNAL INSTALL**

SCALE: 1" = 20' (34"x22")  
SCALE: 1" = 40' (17"x11")

APPROACH SPEED:

NB	30 MPH
EB	25 MPH
WB	25 MPH



QUANTITIES

NO.	PAY ITEM	QTY	UNIT
1	DS_Serv Disconnect	1	Ea
2	DS_Wood Pole, Fit Up, TS and Sec Cable Pole	1	Ea
3	Handhole Assembly, 17 In. X 30 In. x 18 In.	4	Ea
4	DS_TS, One Way Pedestal Mtd (LED), Long Life	2	Ea
5	DS_Light Std Arm, Install Salv	1	Ea
6	Light Fixture, Reinstall	1	Ea
7	DS_Band, Sign	2	Ea
8	DS_Sign, Type IIIB	3	Sft
9	DS_Pedestal, Alum	5	Ea
10	DS_Pedestal, Fdn	6	Ea
11	DS_Pushbutton, Pedestal, Alum	1	Ea
12	DS_Push Button Station and Sign	6	Ea
13	DS_Pedestrian Signal System, Accessible	1	Ea
14	DS_TS, Pedestrian, One Way Pedestal Mtd (LED) Countdown	4	Ea
15	DS_TS, Pedestrian, Two Way Pedestal Mtd (LED) Countdown	1	Ea
16	DS_Bracket, Truss, With 12 Foot Arm	2	Ea
17	DS_Video Detection Camera	3	Ea
18	DS_Video Detection System	1	Ea
19	DS_Casing	7	Ft
20	DS_Backplate, TS	7	Ea
21	DS_Mast Arm Pole, Cat III	1	Ea
22	DS_Mast Arm, 25 foot, Cat III	1	Ea
23	DS_Mast Arm, 40 foot, Cat III	1	Ea
24	DS_Mast Arm Pole Fdn, Modified	10	Ft
25	DS_TS, One Way Mast Arm Mtd (LED), Long Life	6	Ea
26	DS_TS, One Way Mast Arm Mtd, FYA (LED), Long Life	1	Ea
27	DS_St Name Sign, Two Way, LED, 6 foot	1	Ea
28	DS_St Name Sign, Two Way, LED, 8 foot	1	Ea
29	DS_Roadside Unit, Install Salv	1	Ea
	DS_Conduit, Directional Bore, 2, 3 inch	150	Ft
	DS_Conduit, DB, 1, 1 1/2 inch	130	Ft
	DS_Conduit, DB, 2, 3 inch	75	Ft
	DS_Cable, Sec, 600V, 1, 3/C#6	100	Ft

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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
MILLER ROAD CYCLE TRACK  
TRAFFIC SIGNAL REMOVAL  
S102 - INTERSECTION OF 7TH ST. AND MILLER AVE.

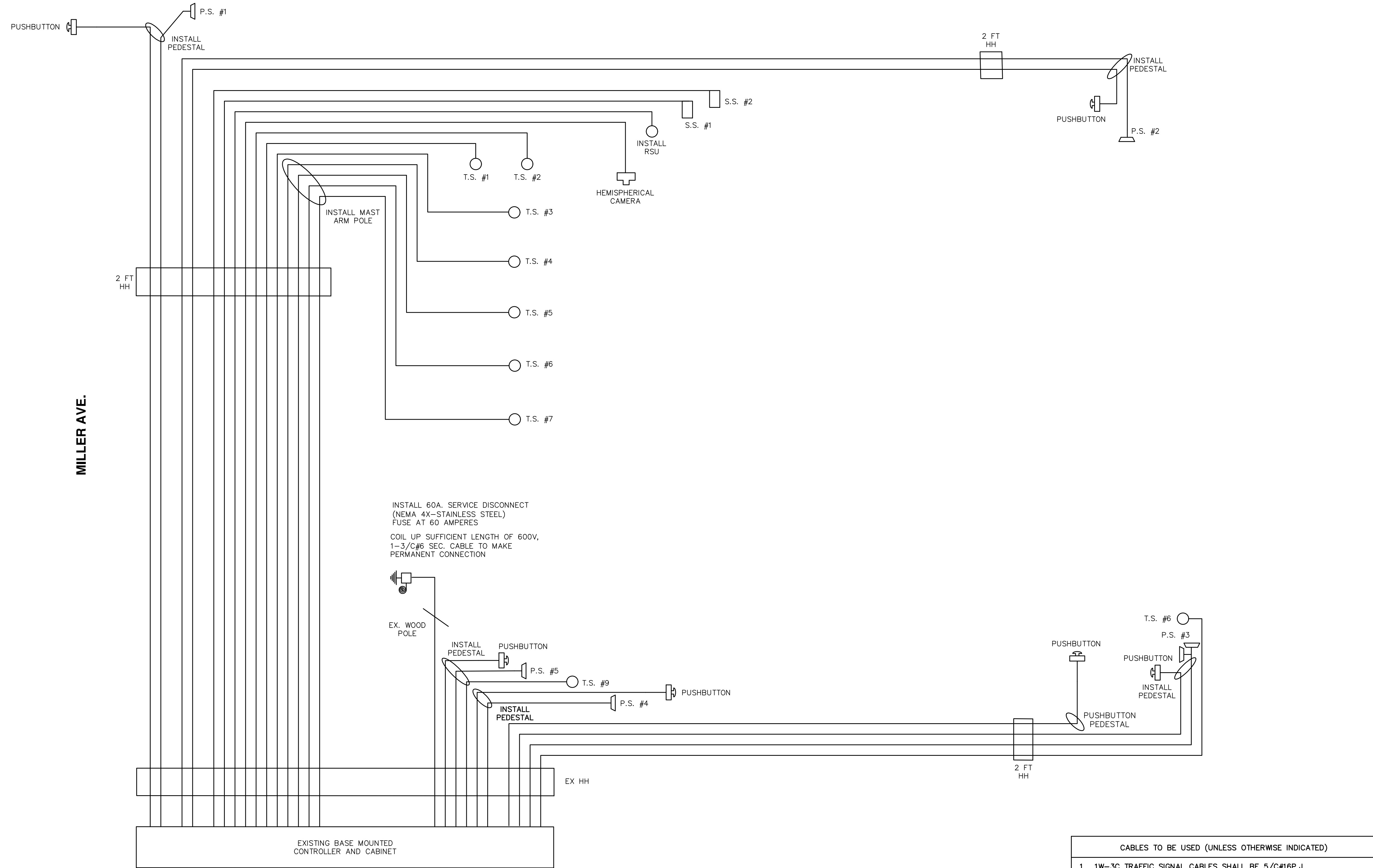
SCALE: 1" = 20'  
DRAWING No. 20230643-S102  
SHEET No. 131 of 132

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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PUBLIC SERVICES  
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- CABLES TO BE USED (UNLESS OTHERWISE INDICATED)**
- 1W-3C TRAFFIC SIGNAL CABLES SHALL BE 5/C#16P.J.
  - 1W-4C TRAFFIC SIGNAL CABLES SHALL BE 7/C#16P.J.
  - PEDESTRIAN SIGNAL CABLES SHALL BE 7/C#16P.J.
  - PUSHBUTTON CABLES SHALL BE 2/C#16 SHIELDED P.J.
  - CABLE TO VIDEO CAMERAS TO BE 600V CAT 5e OR APPROVED EQUAL
  - ILLUMINATED STREET NAME SIGN CABLES SHALL BE 4/C#16P.J.



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

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**MILLER ROAD CYCLE TRACK**  
TRAFFIC SIGNAL REMOVAL  
SC02 - INTERSECTION OF 7TH ST. AND MILLER AVE.

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

SCALE: 1" = 20'

DRAWING No. 20230643-SC02