



# CITY OF ANN ARBOR PROJECT MANAGEMENT

## NOTES:

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 53, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

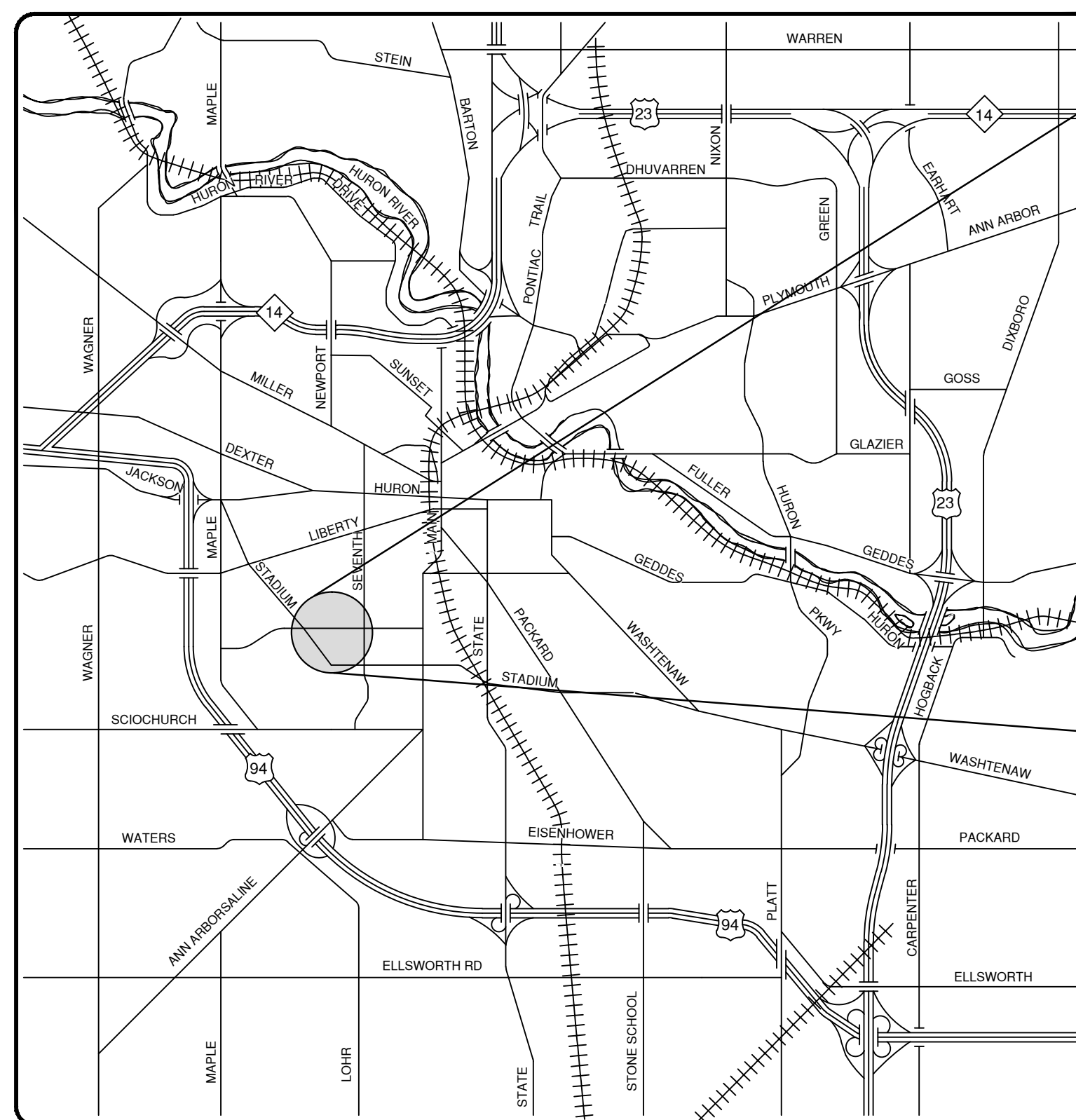
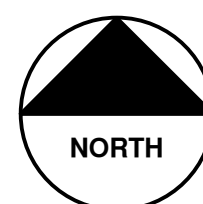
THE UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS, TELEPHONE, ELECTRICAL, POWER, CABLE, TV AND FIBER OPTIC LINES ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED PRIOR TO CONSTRUCTION TO LOCATE THESE UTILITIES.

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION (INCLUDING REFERENCED M.D.O.T. PUBLICATIONS) AND THIS PROJECT'S CONTRACT DOCUMENTS. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT.

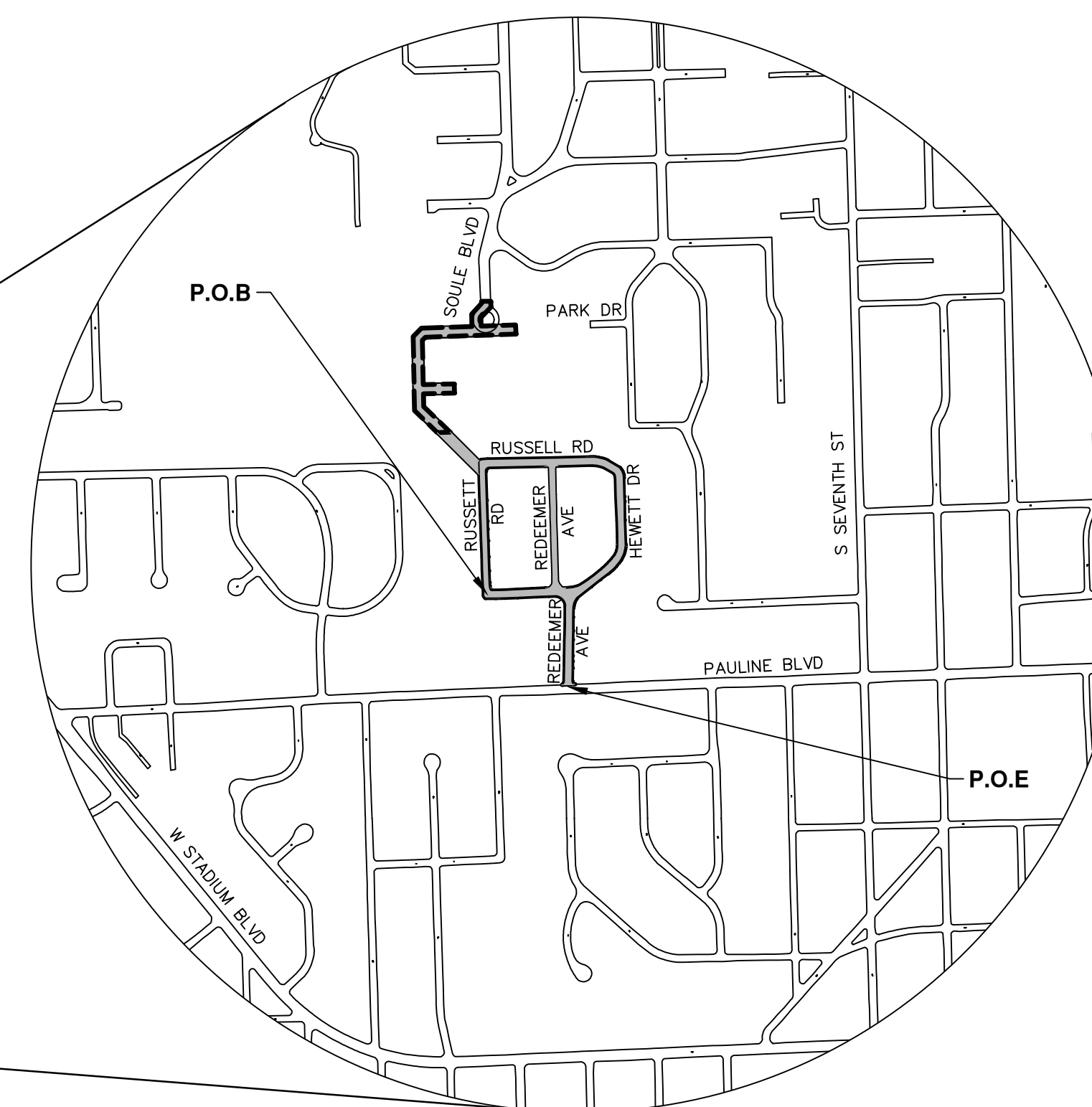
# HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT

BID No. 4378, FILE No. 2013034

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	NOTES
3	LEGEND
4	ROAD SECTION AND TRENCH DETAIL
5	OVERALL UTILITY SHEET
6-9	REMOVALS
9-25	WATER MAIN PLAN & PROFILE
26-29	ROAD PLAN & PROFILE



VICINITY MAP

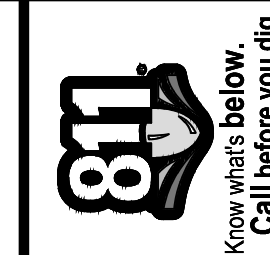


## PROJECT MANAGEMENT SERVICE UNIT

PREPARED UNDER THE SUPERVISION OF

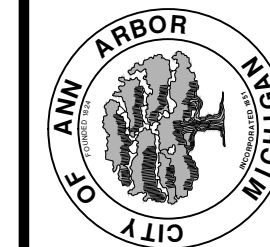
DAVID ARTHUR DYKMAN, P.E. - MI LICENSE No. 52912  
PROJECT MANAGER

XX / XX / 2015  
DATE



REV.	DATE	DESCRIPTION	DRAWN	CHECKED
02	03/18/15	POST MDEQ 2015 REVIEW	JKA	DAD
01	02/26/15	EBERWHITE EXTENSION	CEC, JKA	DAD
00	07-22-14	MDEQ PERMIT REVIEW COMMENTS	ESBPF	DAD

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



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

PROJECT DESCRIPTION AND LIMITS

SHEET No.  
1 TO 30

S:\Project Management\Design\2014029\_HRRR\_WM\_Ph\_11\Plan\_Production\Primary\2014029COV.dwg Dwg Created: 13-Jan-14 1:02 standard bw.stb - Plot Date: 7-Apr-15

**SOIL EROSION CONTROL NOTES:**

**GENERAL**

- The contractor shall implement and maintain the soil erosion control measures as shown on the plans at all times during construction on this project. Any modifications or additions to the soil erosion control measures due to construction or changed conditions shall be complied with as required or directed by the owner, project engineer, or the City of Ann Arbor. The contractor is required to obtain a Soil Erosion Control Permit anytime the disturbed area exceeds 1 acre.
  - All soil erosion and sedimentation control work shall conform to the permit requirements of the City of Ann Arbor, Chapter 63, and the laws of the State of Michigan.
  - Daily or after storm events inspections shall be made by the contractor. Periodic inspections may be made by the owner/project 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 Owner.
  - 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 or waterways.
  - All mud/dirt tracked onto roads from the site due to construction, shall be promptly removed by the contractor. If so ordered, the Contractor shall employ a mechanical street sweeper at no additional cost to the Owner.
  - Restoration of all disturbed areas, including placement of topsoil, seed, fertilizer and mulch and/or sod shall be done within 5 days of the completion of final grade
  - Construction operations shall be scheduled and performed so that preventative soil erosion control measures are in place prior to excavation in critical areas and temporary stabilization measures are in place immediately following backfilling operations.
  - Special precautions will be taken in the use of construction equipment to prevent situations that promote erosion.
  - Proper dust control shall be maintained during construction by use of water trucks and/or chloride as required or as directed by Engineer.
  - The contractor shall be responsible for maintaining all temporary soil erosion control measures and removal of some upon authorized completion of the project. Completion of project will not be authorized until all site work and utility construction is complete and all soils are stabilized.
  - The contractor shall not grade into adjacent properties. Silt fence shall be installed and maintained to prevent grading, erosion and sedimentation into them.
  - Tree protection fencing must remain intact until restoration of the site is complete.
- SEQUENCE OF EROSION CONTROL MEASURES:**
- Install silt fence, tree protection fencing and inlet filters on existing storm inlets prior to any clearing or earth moving operation.
  - Contractor to continually maintain erosion and sedimentation control measures, as required to allow drainage and sediment removal. Remove any accumulated sediment.
  - Strip and clear - maintain erosion control measures around temporary stock piles.
  - Rough grade
  - Install stormwater management system.
  - Connect stormwater management system.
- TEMPORARY SEEDING:**
- Seed in accordance with project drawings and specifications.
  - Any disturbed area not paved, seeded, mulched, sodded or built upon by November 15th or June 30th is to be temporarily stabilized per specifications.
- ROADS:**
- During construction, all roads shall be protected from unvegetated areas washing onto road surface by placement of silt fence behind curb or a 10 foot wide straw mulch bank behind curb or other approved method and/or as shown on the plans.
  - During construction of any portion of the project, adjoining roads shall be maintained free of dirt, silt and construction debris. Contractor required to use vacuum sweeper equipment for cleaning construction site and adjoining roads. The use of broom sweeper is not permitted.
- CATCH BASIN/MANHOLE PROTECTION:**
- Protect storm sewer catch basins with approved inlet filters.
- Ensure all soil is stabilized. Remove all temporary soil erosion control measures.**

STORM SEWER STRUCTURE TABLE					
STRUCTURE	UTILITY STATION	RIM	DEPTH	TYPE	INVERTS
r1	???	901.66	15.00	MH	30" W 886.66
r2	7+56	902.34	10.72	MH	30" S 891.62 12" SW 897.24 12" SE 897.34 12" N 894.47 30" NE 891.62
r3	9+86	903.07	9.93	MH	30" SW 893.19 12" S 897.29 12" NW 897.79 30" N 893.14
r4	12+27	906.92	8.77	MH	30" W 898.15 30" NE 898.15
r5	3+94	908.26	9.40	MH	12" S 900.23 30" W 898.91 12" SW 902.76 12" N 903.11 30" E 898.86
r6	3+20	909.21	10.50	MH	30" W 900.76 12" SW 903.51 12" NW 903.41 12" N 903.21 12" NE 903.31 30" E 900.71
r7	0+93	915.05	8.77	MH	12" W 907.00 30" E 906.28 24" SW 906.48
r8	???	917.32	7.25	MH	24" NE 910.07 24" SW 910.07
r9	???	920.83	8.00	MH	24" NE 912.83 24" W 912.83
r10	???	929.66	15.93	MH	24" E 913.73
r11	6+48	904.91	8.35	MH	12" S 896.56 12" NE 899.91 12" NW 896.61 12" W 899.81
r12	5+95	906.15	8.50	MH	12" SE 897.65 12" NW 897.75
r13	5+26	907.78	9.15	MH	12" SE 898.73 12" W 898.63
r14	3+35	915.31	8.30	MH	12" E 907.01 12" S 910.51 12" SW 909.81 12" W 909.81 12" NW 910.01 12" W 907.11
r15	0+35	920.24	8.43	MH	12" E 911.81 12" S 913.14 12" W 911.91
r16	6+90	909.12	7.10	MH	12" S 902.07 12" E 905.01 12" N 902.02
r17	10+29	930.96	8.19	MH	12" W 926.17 12" S 926.24 12" N 922.77
r18	0+35	918.25	7.49	MH	12" W 912.15 12" N 912.05 12" E 910.76
r19	7+68	901.82	6.10	CB	12" NE 897.72
r20	7+70	901.78	5.70	CB	12" NW 898.08
r21	9+79	902.70	6.30	CB	12" SE 898.40
r22	10+07	902.93	6.50	CB	12" N 898.43
r23	3+95	907.72	5.90	CB	12" S 903.82
r24	6+60	908.04	6.00	CB	12" NE 904.04
r25	5+39	910.16	6.95	CB	12" SW 905.21
r26	3+12	908.88	6.00	CB	12" NE 904.88
r27	2+93	909.26	6.10	CB	12" SE 905.16
r28	5+29	910.03	5.60	CB	12" S 906.43
r29	5+37	919.99	7.50	CB	12" S 914.49
r30	0+14	918.81	7.30	CB	12" E 913.51
r31	6+37	904.84	5.10	CB	12" E 901.74
r32	6+36	904.97	5.70	CB	12" SW 901.27
r33	0+32	915.86	5.79	CB	12" N 912.06
r34	0+32	916.12	6.30	CB	12" NE 911.82
r35	2+98	915.72	6.00	CB	12" E 911.72
r36	3+22	915.14	6.30	CB	12" SE 910.84

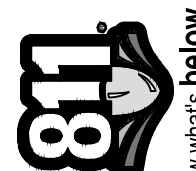
STORM SEWER STRUCTURE TABLE					
STRUCTURE	UTILITY STATION	RIM	DEPTH	TYPE	INVERTS
r37	0+11	920.06	7.50	CB	12" E 914.56
r38	0+56	921.16	8.50	CB	12" N 914.66
r39	5+34	930.68	5.50	CB	12" E 927.18
r40	5+63	930.83	4.50	CB	12" N 928.33
r41	6+90	908.57	4.85	CB	12" W 905.72
r42	???	929.01	11.51	CB	12" N 919.50
r43	???	929.32	14.32	MH	12" S 915.00 12" N 915.00
r44	???	927.41	5.00	MH	

SANITARY SEWER STRUCTURE TABLE					
STRUCTURE	STATION	RIM	DEPTH	TYPE	INVERTS
s1	7+28.54	900.53	12.73	MH	10" W 887.80
s2	7+28.08	902.78	14.30	MH	8" N 892.68 10" E 892.60 10" S 888.48
s3	9+64.22	902.94	12.00	MH	10" N 890.94 10" SW 891.04
s4	4+29.89	907.12	12.30	MH	10" NE 894.82 10" W 894.87
s5	3+83.98	908.42	12.75	MH	8" S 896.62 10" E 895.67 8" W 895.72
s6	3+35.24	909.46	12.50	MH	8" W 897.01 8" E 896.96 8" N 897.01
s7	0+91.30	915.22	11.85	MH	8" E 903.37 8" W 905.62 8" SW 903.42
s8	???	918.19	10.15	MH	8" NE 908.04 8" SW 908.09
s9	???	921.90	12.35	MH	8" NE 909.55 8" W 909.60
s10	???	928.45	13.70	MH	8" E 914.75 8" W 914.75
s11	???	0.86	1.19	MH	8" E -0.33
s12	9+22.50	923.80	7.45	MH	8" N 916.35
s13	4+19.34	916.06	9.75	MH	8" S 906.31 8" N 906.36
s14	2+36.30	924.63	9.40	MH	8" S 915.23 8" N 915.28
s15	0+31.34	918.79	9.95	MH	8" N 908.89 8" E 908.84
s16	3+17.68	926.41	10.10	MH	8" S 916.31
s17	6+30.88	905.15	10.05	MH	8" NW 895.15 8" S 895.10
s18	5+43.14	907.08	9.60	MH	8" SE 897.48 8" W 897.58
s19	3+36.38	915.02	10.90	MH	8" S 904.17 8" W 904.22 8" E 904.12
s20	2+39.98	917.24	10.00	MH	8" W 907.39 8" E 907.24
s21	0+29.39	919.79	10.00	MH	8" S 909.89 8" E 909.79
s22	2+56.25	926.48	9.90	MH	8" N 916.58
s23	1+22.57	922.39	9.35	MH	8" S 913.09 8" N 913.04
s24	3+94.34	932.43	12.45	MH	8" E 921.98
s25	6+13.86	931.20	12.25	MH	8" W 921.00 8" E 920.95
s26	7+39.07	930.71	10.00	MH	8" W 920.71

PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION.	
PERMIT	ISSUING AUTHORITY
LANE CLOSURE PERMIT	CITY OF ANN ARBOR PROJECT MANAGEMENT UNIT
"NO PARKING" SIGNS PERMIT	CITY OF ANN ARBOR PROJECT MANAGEMENT UNIT
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
M.D.E.Q. WATER MAIN CONSTRUCTION PERMIT	MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

CONTACT INFORMATION		
PUBLIC UTILITIES	OWNER	CONTACT
WATER		DAN WOODEN (734) 794-6350
SANITARY		MARK COZART (734) 794-6350
STORM	CITY OF ANN ARBOR FIELD OPERATIONS SERVICE UNIT	KEVIN ERNST (734) 794-6350
FORESTRY	W.R. WHEELER SERVICE CENTER 4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	STEVEN GOEBEL (734) 794-6350
SIGNS SIGNALS STREET LIGHTS		CHUCK FOJTIK (734) 794-6361
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	CLAY COMBEE (734) 397-4112
CABLE	COMCAST 27800 FRANKLIN ROAD SOUTHFIELD, MI 48034	RON SUTHERLAND (313) 999-8300
PHONE	AT&T 550 S. MAPLE ROAD ANN ARBOR, MI 48103	ANDY JOHNSON (734) 996-2135
FIBER OPTIC	MCI 2800 N. GLENFILLE ROAD RICHARDSON, TX 75082	DEAN BOYERS (972) 729-6016



Know what's below.  
Call before you dig.

		DAD	DAD	DAD	CHECKED				
		JKA	CEC, JKA	ESDPF	DRAWN				
		03/18/15	02/26/15	07-22-14	DATE				
		02	01	00	REV.				
		POST MDOE 2015 REVIEW	EBERWHITE EXTENSION	MDOE PERMIT REVIEW COMMENTS	DESCRIPTION				



CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
PO BOX 886  
ANN ARBOR MI 48106-0867  
www.aagov.org

**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**

**HEWITT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT**

SCALE: NTS  
DRAWING No. 2013034-2  
SHEET No. 2 OF 30

BM #	ELEV	DESCRIPTION
1	932.790	RR spike in N side of LP on S side of Pauline and Redeemer
2	922.330	RR spike in W side of LP on E side of Redeemer between house numbers 1027&1015
3	910.790	RR spike in N side of LP on S side of Hewitt @ CL of Redeemer extended from the North
4	912.910	RR spike in N side of LP on S side of Hewitt on the E side of driveway for HSE # 1401
5	924.510	RR spike in W side of LP on E side of Russett, 100' N of CL Hewitt
6	926.980	RR spike in W side of LP on E side of Russett between House #813 & 819
7	922.960	RR spike in E side of LP @ NW corner of Russett & Russell
8	916.330	RR spike in S side of LP on N side of Russell & Redeemer
9	907.830	N Rim on Storm MH @ CL of Russell in front of HSE #1210
10	904.930	N Rim of Storm MH @ CL of Russell in front of HSE #801
11	903.530	RR spike in E side of LP on W side of Russell between HSE #814 & 820
12	904.910	RR spike in NW side of LP on E side of Russell @ HSE #831
13	916.320	RR spike in W side of LP on E side of Redeemer between HSE #845 & 835
14	924.380	RR spike in W side of LP on E side of Redeemer between HSE #801 & 811

**CONSTRUCTION NOTES:**

- Driveways and entrances to buildings, real property, and the like shall not be blocked unless approved by the Engineer. Vehicular and pedestrian access shall be maintained at all times. It shall be the Contractor's responsibility to coordinate all necessary driveway closures with the property owner(s) and resident(s) in the areas of construction.
- The location and depth of all existing utilities and service leads are to be field verified by the Contractor prior to construction.
- Location and depth of utilities as depicted on the plans is approximate and shown according to the best information available. It is the Contractor's responsibility to excavate ahead and adjust depth of conflict utilities accordingly. Damage to utilities is the Contractor's responsibility to avoid and/or repair as necessary.
- The Contractor is to take special care to protect the existing water main and is responsible for maintaining consistent water service.
- During non-working hours no trench shall remain open-unless approved by the Engineer; any open trench shall be properly secured with protective fencing. This work shall be included in the item of work "General Conditions".
- Trenches for transferring water services shall be excavated to MIOSHA and City of Ann Arbor Field Services requirements.
- City of Ann Arbor Field Services 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 Field Services.
- 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.
- The Contractor shall backfill trenches in accordance with Trench Detail(s) shown on plans. This work shall be included in the item of work "Excavate and Backfill for Water Service Tap and Lead". All concrete removals and replacements required for this work will be paid for separately.
- All ductile iron pipe and fittings shall be polyethylene wrapped per ANSI/AWWA C105/A21.5.
- Cor-blw bolts to be used at all mechanical water main joints at hydrants and Megalug fittings
- When all water services are transferred the Contractor shall abandon the existing water main. Reference the Detailed Specifications for water main abandonment procedures. Caps and plugs shall be installed by the Contractor where shown on the plans and shall be included in the item of work for water main abandonment or as directed by Engineer.
- The Contractor shall construct, flush, and bacteriologically test the water main per the Detailed Specifications and as approved by the Engineer. All chlorinated water shall be discharged directly into an approved sanitary sewer. The Contractor shall supply all necessary hoses, fittings and the like to accomplish this work.
- Water main fittings, other than those specifically listed as separate pay items, which are required to complete the work, such as blow-off assemblies, concrete thrust blocks, solid sleeves and mechanical plugs, shall not be paid for separately, but shall be included in the pipe pay items.
- "No Parking" signs shall be installed by the Contractor at locations as approved or directed by the Engineer. All signs shall be installed in accordance with the detailed specifications.
- Postal delivery and refuse pickup service shall be maintained at all times by the Contractor.
- All fittings, hydrants, valves and castings removed during construction are the property of the City of Ann Arbor. The Contractor within 48 hours shall deliver to City of Ann Arbor Field Operations and Maintenance Facility at the W.R. Wheeler Service Center located at 4251 Stone School Road.
- Where street curbs are undermined due to construction activities, they shall be removed and replaced as directed by the Engineer.
- The Contractor shall be responsible for the continuous maintenance of the temporary road surface and soil erosion control measures within the construction area until the full completion of the project. This work shall be included in the item of work "General Conditions".
- All curb, sidewalk, driveway approach removals shall be approved by Engineer before the work is done.
- Sawed sewer pipe connections shall be coupled with a Fernco flexible coupling and a stainless steel shear ring.
- The location of material stock piles and on-site staging areas to be approved by the Engineer.

- For mainline paving, the width of the mat for each pass of the paver shall be not less than 10.5' or greater than 15', as directed by the Engineer. The Engineer will direct the layout of the longitudinal joints during construction.
- All structures shall receive new castings as directed by the Engineer, as specified on the standard casting schedule. The existing castings are the property of the City of Ann Arbor. The Contractor shall deliver to City of Ann Arbor Field Operations and Maintenance Facility at the W.R. Wheeler Service Center located at 4251 Stone School Road.
- Payment for drainage structure sumps, where specified, shall be included in the payment for the various drainage structure sizes and or types.
- Where sewer pipes of different sizes or materials are joined, Fernco flexible couplings with stainless steel shear rings shall be used. The Contractor's purchase price for these devices, including shipping, shall be paid as an extra. Prior to payment for this item, the Contractor shall submit receipts for the Engineer's review and approval. All other costs associated with the installation of these devices shall be included in the payment for the sewer.
- Where sewer and water main are to be removed, replaced, and/or added, all pipe shall be installed using the Trench Detail(s) included in the specifications or shown on Plans. Backfill for sewer and water construction shall be MDOT Granular Material, Class II, Modified.
- Existing street name, guide, and regulatory signs, and mailboxes which conflict with the proposed construction shall be removed prior to construction, stored in a manner which will prevent damage, and re-set in locations as directed by the Engineer. This work will not be paid for separately, but shall be included in "Machine Grading, Modified"
- In areas where edge drain cannot be installed in accordance with the Detailed Specifications, the edge drain shall be installed at the depth as indicated on the plans, or as directed by Engineer. In no case shall the edge drain be installed at a grade less than 0.50% or at a depth of less than 2' below top of proposed pavement.

**EXISTING LEGEND**

	FIRE HYDRANT		WATER MAIN
	GATE VALVE IN BOX		STORM SEWER
	GATE VALVE IN WELL		SANITARY SEWER
	STOP BOX		GAS MAIN
	WATER VAULT		ELECTRICAL OVER HEAD
	WELL		ELECTRICAL UNDER GROUND
	CATCH BASIN (SQ)		BOUNDARY
	CATCH BASIN (RD)		BUILDING
	STORM MANHOLE		CENTERLINE OF DITCH
	NON-CURB CATCH BASIN (SQ)		CENTERLINE/CROWN OF ROAD
	SANITARY MANHOLE		EDGE OF WATER
	CLEAN-OUT		FENCE
	POST		GRAVEL
	PEDESTRIAN SIGNAL		STONE WALL
	SIGN		R.O.W.
	HAND HOLE		TREELINE
	ORNAMENTAL LIGHT		WETLAND
	FLOOD LIGHT		
	UNKNOWN MANHOLE		TREE (DECIDUOUS)
	TELEPHONE MANHOLE		TREE (CONIFEROUS)
	TELEPHONE RISER		STUMP
	GAS VALVE		SHRUB (DECIDUOUS)
	GAS VENT		
	GAS BOX		
	ELECTRICAL RISER		
	TRANSFORMER		
	UTILITY POLE		
	LAMP POLE		
	GUY ANCHOR		
	GUY POLE		
	MONITORING WELL		
	MAILBOX		
	SOIL BORING		
	TRAVERSE POINT		
	BENCH MARK		
	IRON PIPE		
	MON BOX		

**PROPOSED LEGEND**

	HYDRANT (PLAN)		WATER MAIN
	WATER GATE WELL		STORM SEWER
	REDUCER		SANITARY SEWER
	WATER GATE VALVE		CENTERLINE OF DITCH
	WATER STOP BOX		CENTERLINE OF ROAD
	WATER VAULT		FENCE
	INLET		SILT FENCE
	DOUBLE INLET		LOT/UNIT
	INLET JUNCTION CHAMBER		CURB
	ROUND CATCH BASIN		TEMPORARY GRADING PERMIT
	STORM MANHOLE		WATER EASEMENT
	DRAIN ARROW		STORM EASEMENT
	FLARED END SECTION		SANITARY EASEMENT
	SANITARY MANHOLE		R.O.W.
	CLEAN-OUT		LIMITS OF CONSTRUCTION
	BARREL		STONE WALL
	SIGN		DETECTABLE WARNING
	PUSH BUTTON		ASPHALT
			CONCRETE
			SIDEWALK
			TREE (DECIDUOUS)
			TREE (CONIFEROUS)

Know what's below.  
Call before you dig.

	DAD	DAD	DAD	DAD					CHECKED
	JKA	CEC, JKA	ESBPF						DRAWN
	03/18/15	02/26/15	07-22-14						DATE
	02	01	00						REV.
	POST MDOE 2015 REVIEW	EBERWHITE EXTENSION	MDOE PERMIT REVIEW COMMENTS						DESCRIPTION

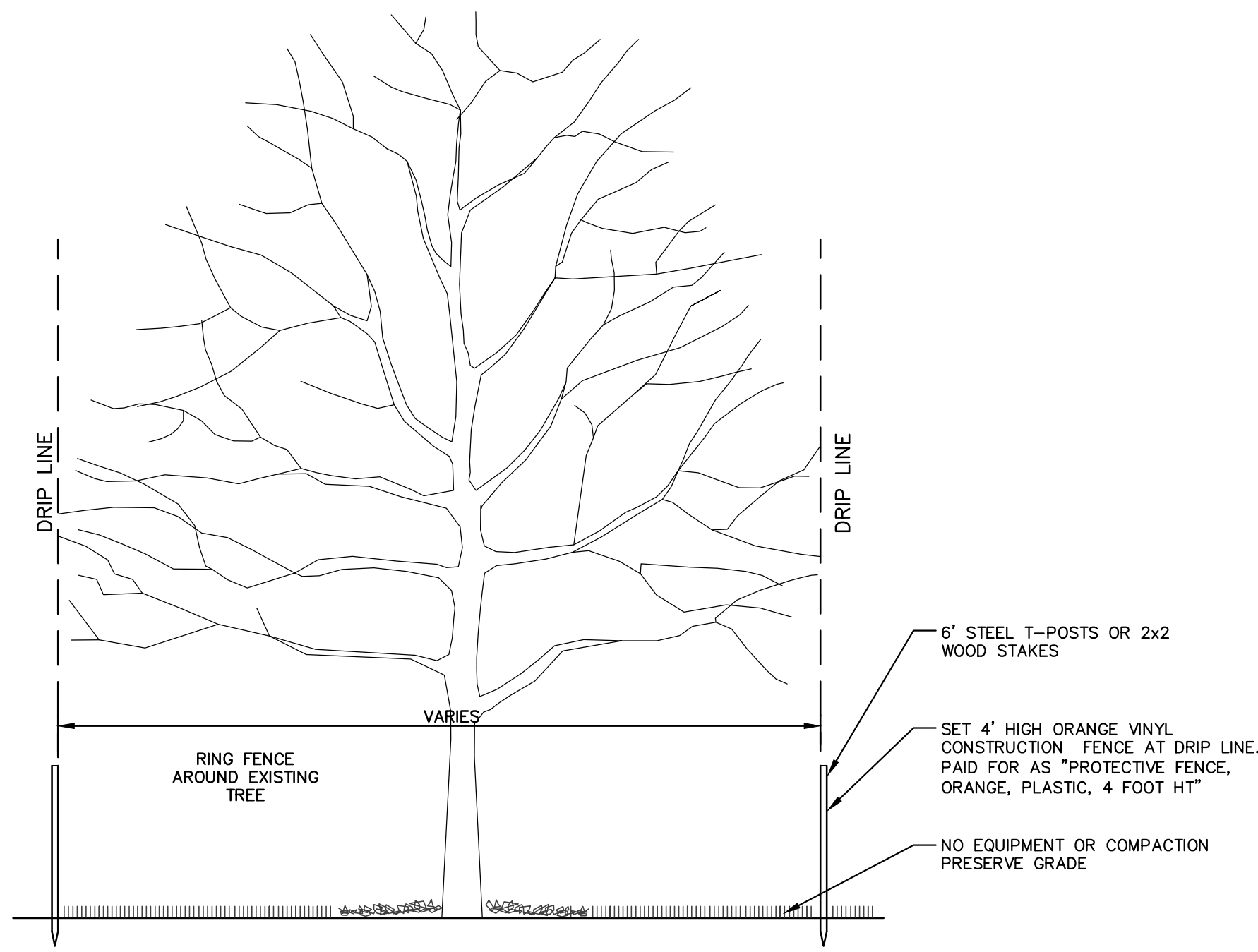
**CITY OF ANN ARBOR**  
 PUBLIC SERVICE  
 301 EAST HURON STREET  
 P.O. BOX 86647  
 ANN ARBOR MI 48107-8647  
 www.a3gov.org

**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
**HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT**  
 LEGEND

SCALE: NTS	DRAWING No. 2013034-3
SHEET No. 3 OF 30	

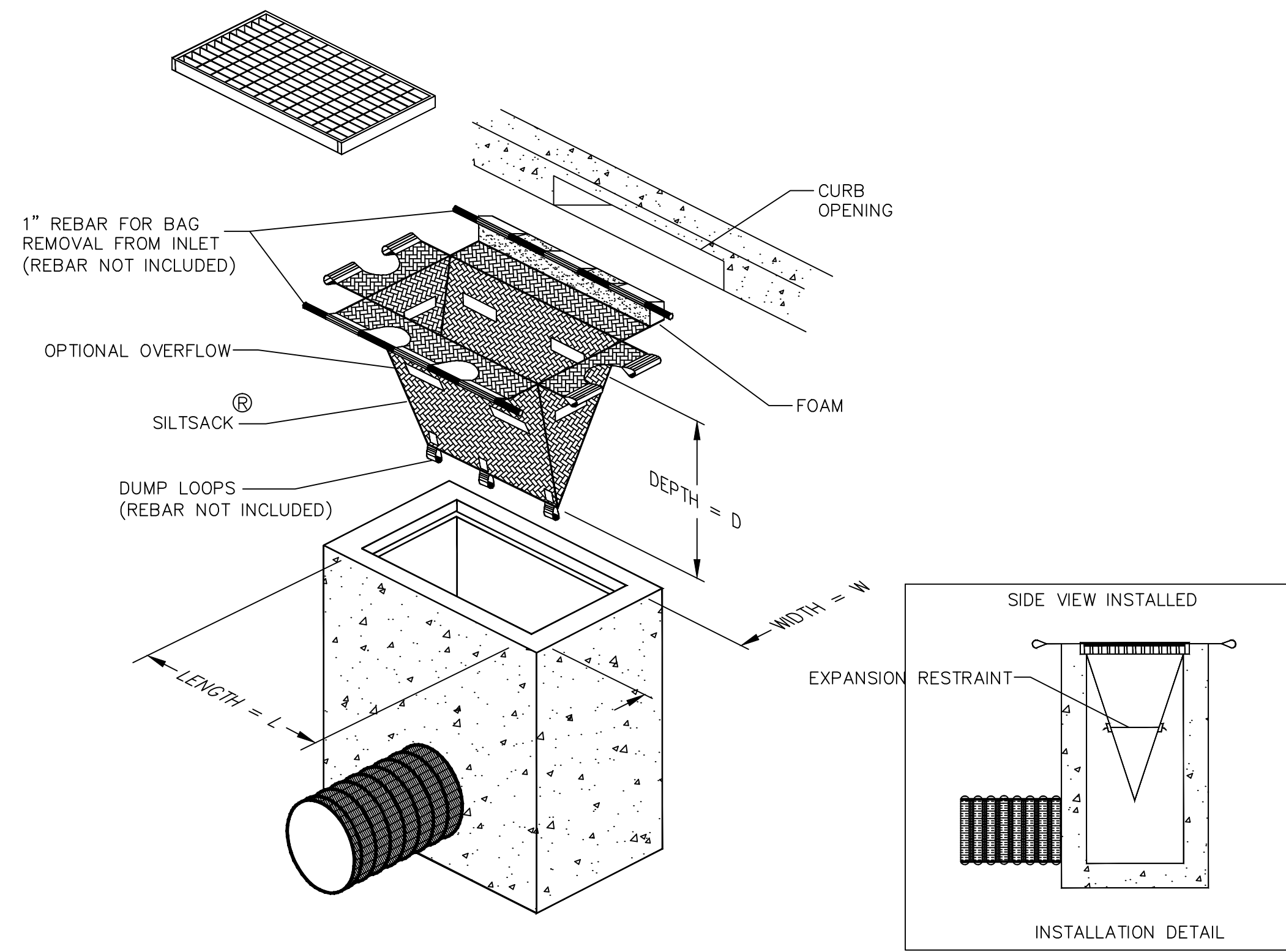


S:\Project Management\Design\2014029 HRRR WM Ph II\Plan Production\Primary\2014029DET(TRENCH).dwg Dwg Created: 25-Feb-14 - \_a2 standard bw.sib - Plot Date: 7-Apr-15

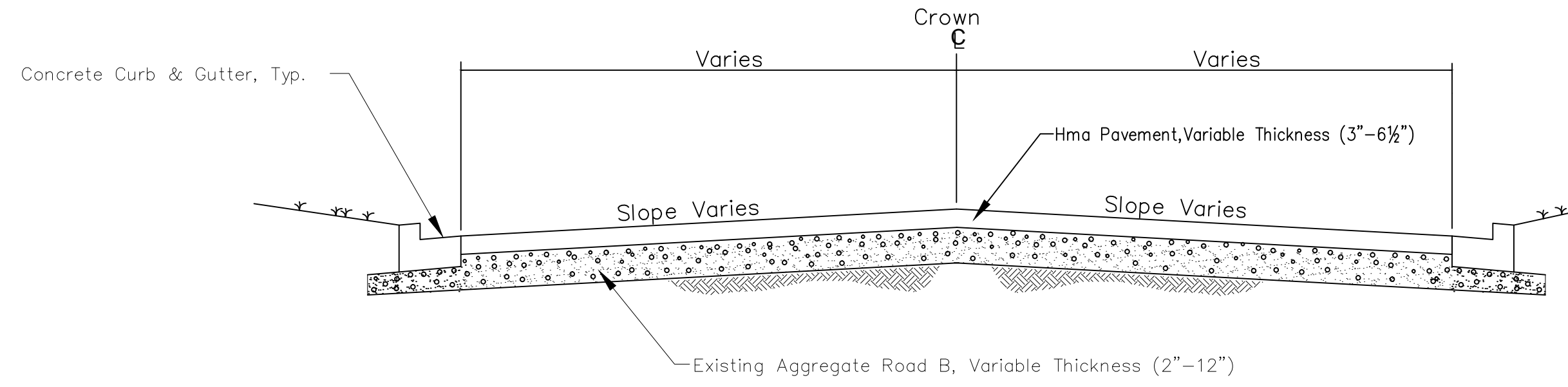


**TREE PROTECTION DETAIL**

RUSSELL, RUSSETT, REDEEMER, & HEWETT ROADS - HMA APPLICATION ESTIMATE					
HMA MIX	RATE OF APPLICATION	THICKNESS (INCHES)	AWI (MIN.)	BINDER	LOCATION/NOTES
LVSP	220 LB/SYD	2.0	260	PG 58-28	TOP COURSE
LVSP	220 LB/SYD	2.0		PG 58-28	LEVELING COURSE
Bond Coat SS-1h	0.05-015 GAL/SYD	-	-	-	INCLUDE IN COST OF HMA ITEM

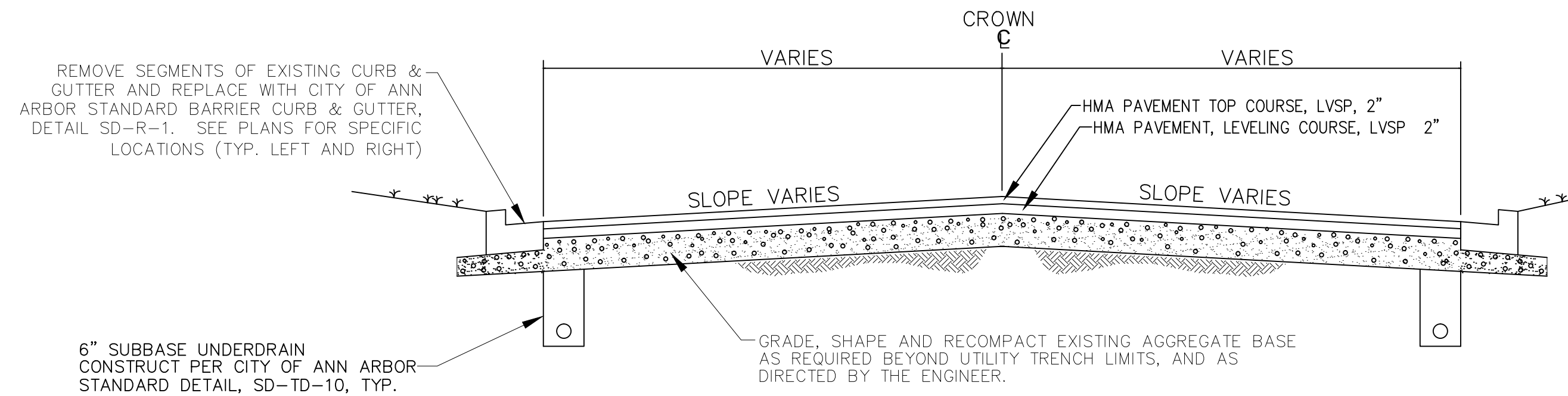


**INLET FILTER (MODIFIED)**  
NOT TO SCALE



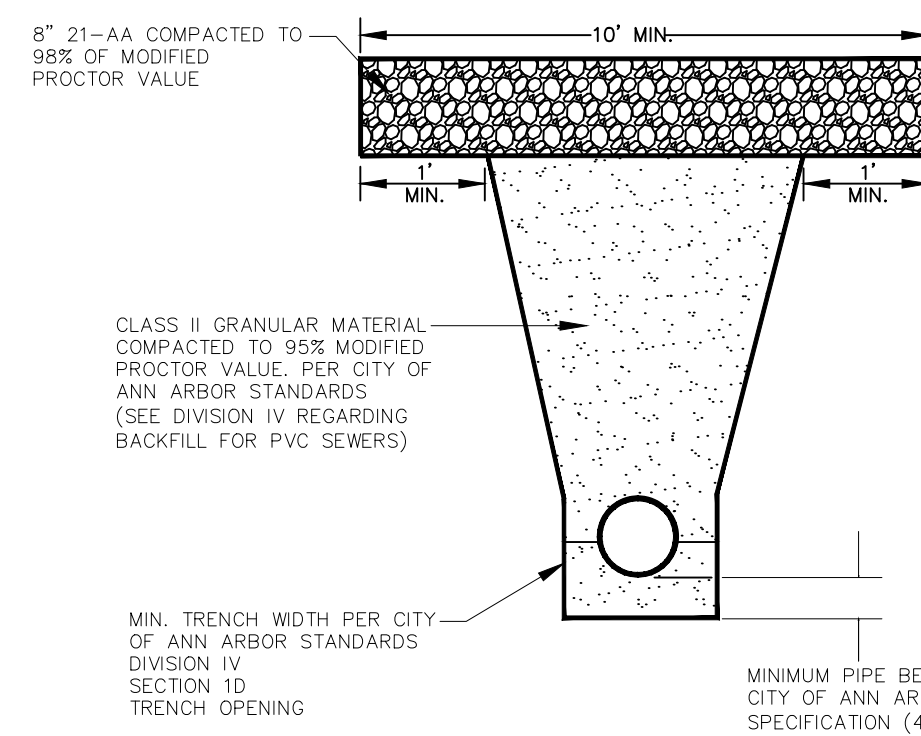
Existing Typical Roadway Section  
Russell, Russett, Redeemer, Hewett

N.T.S.



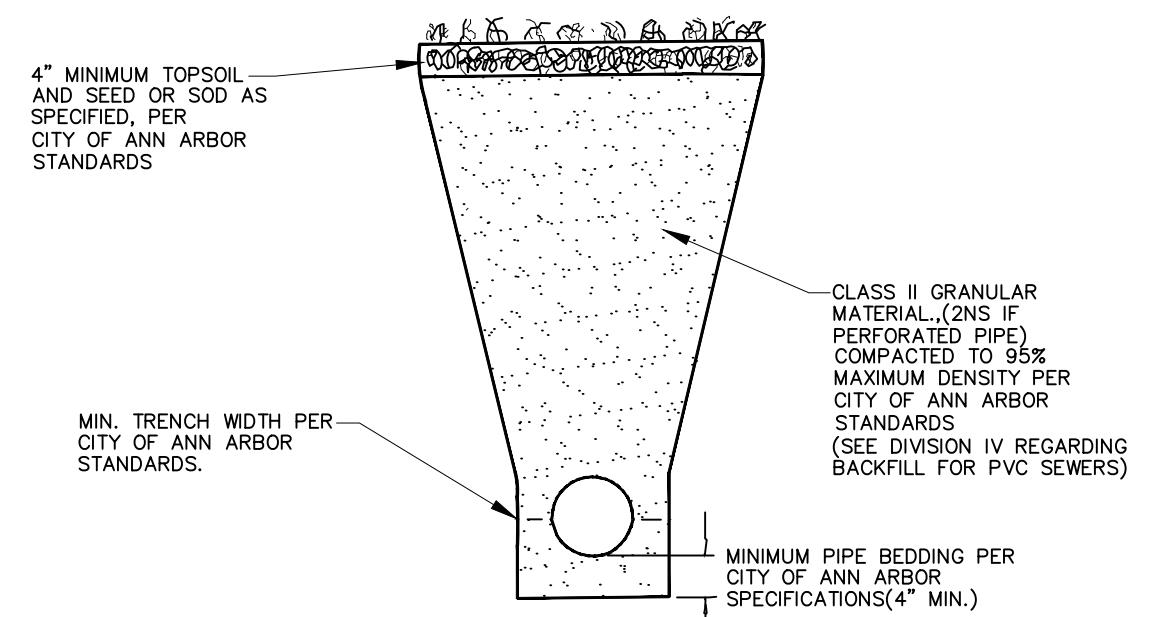
PROPOSED Typical Roadway Section  
RUSSELL, RUSSETT, REDEEMER, HEWETT

N.T.S.



NOTE: DENSITY TESTING PER CITY OF ANN ARBOR SPECIFICATION  
 NOTE: TRENCH DETAILS SHOW TYPE OF BACKFILL AND SURFACE RESTORATION ONLY.  
 NOTE: ALL TRENCHING TO CONFORM TO ALL APPLICABLE M.I.O.S.H.A. STANDARDS  
 NOTE: ALL BACKFILL, INCLUDING SAND, AGGREGATES, AND TOP SOIL, SHALL BE INCLUDED IN THE APPROPRIATE PAY ITEM FOR WATER MAIN PIPE.

UTILITY TRENCH - TYPE 1 MODIFIED  
NOT TO SCALE



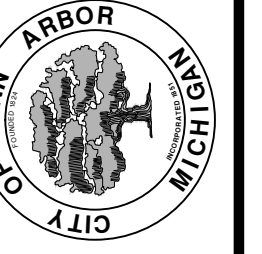
NOTE: DENSITY TESTING PER CITY OF ANN ARBOR SPECIFICATION  
 NOTE: TRENCH DETAILS SHOW TYPE OF BACKFILL AND SURFACE RESTORATION ONLY.  
 NOTE: ALL TRENCHING TO CONFORM TO ALL APPLICABLE M.I.O.S.H.A. STANDARDS  
 NOTE: ALL BACKFILL, INCLUDING SAND, AGGREGATES, AND TOP SOIL, SHALL BE INCLUDED IN THE APPROPRIATE PAY ITEM FOR WATER MAIN PIPE.

UTILITY TRENCH - TYPE VI MODIFIED  
NOT TO SCALE



REV.	DATE	DESCRIPTION
02	03/18/15	POST MDEQ 2015 REVIEW
01	02/26/15	EBERWHITE EXTENSION
00	07-22-14	MDEQ PERMIT REVIEW COMMENTS

CITY OF ANN ARBOR  
 PUBLIC SERVICE  
 301 EAST HURON STREET  
 ANN ARBOR, MI 48106-0667  
 www.aagov.org

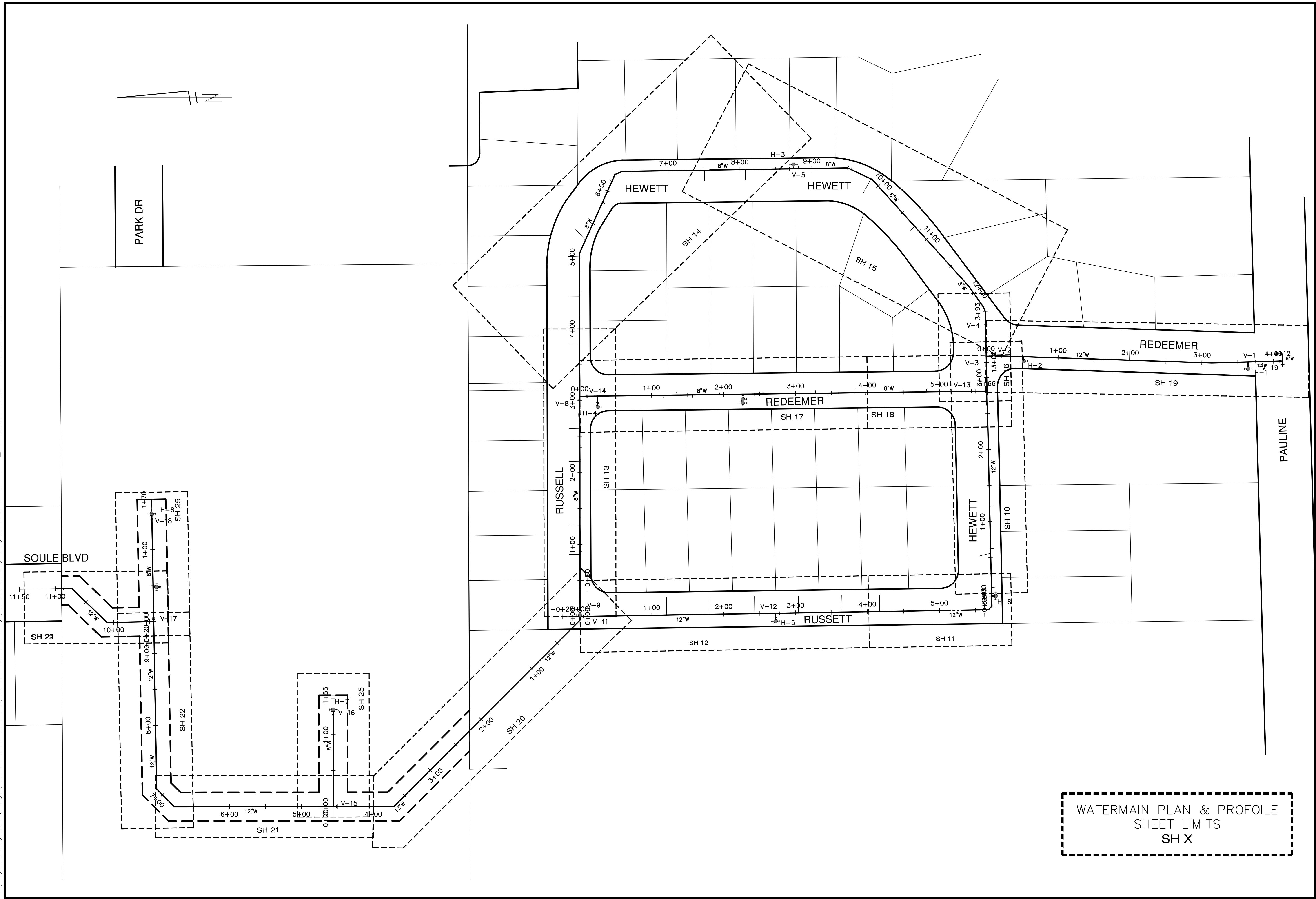


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR  
 HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT  
 ROAD SECTION AND TRENCH DETAILS

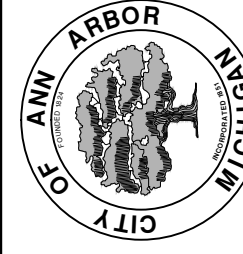

SCALE: NTS  
 DRAWING No. 2013034-4



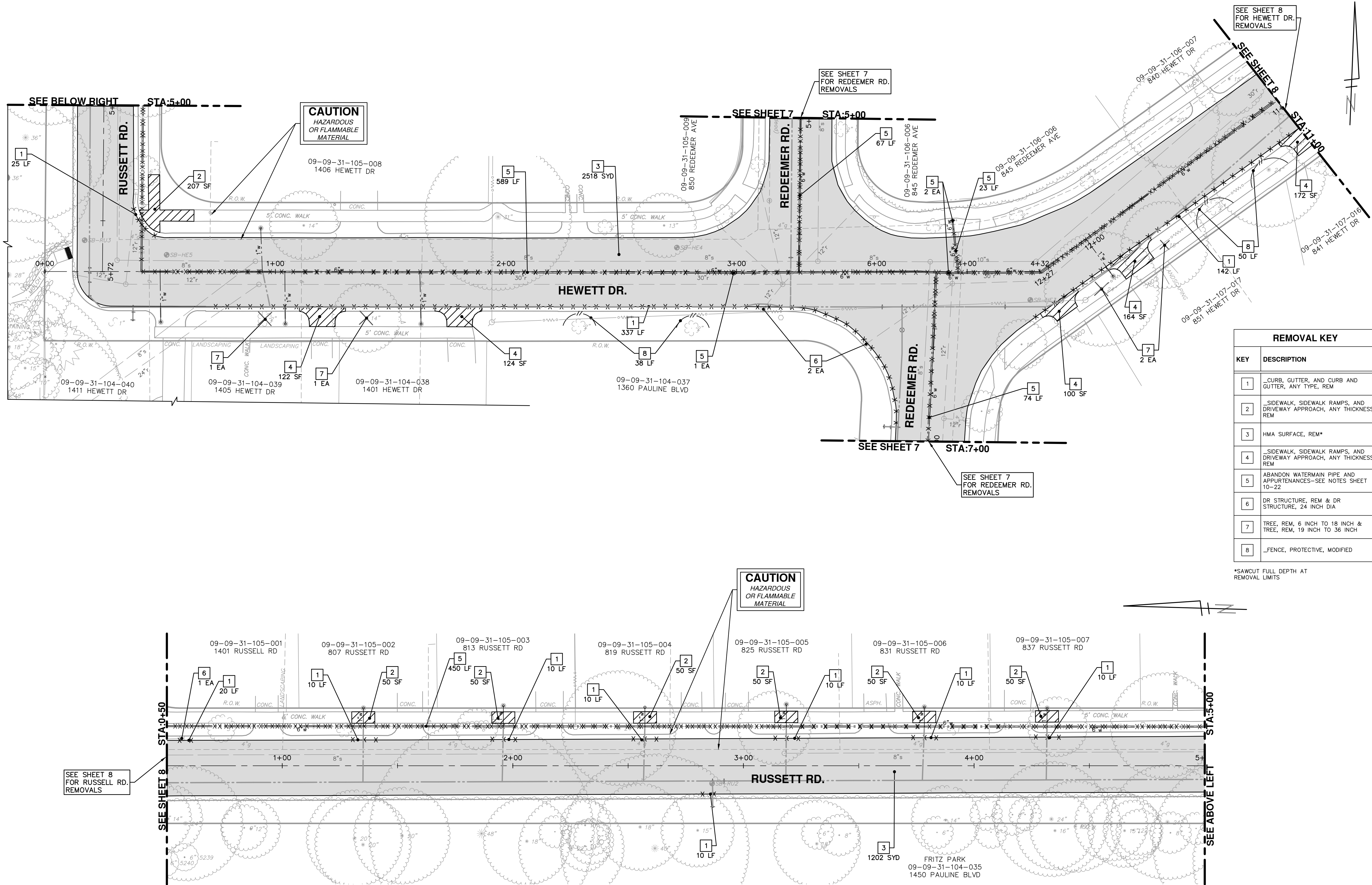
S:\Project Management\Design\2014029 HRRR WM Ph II\Plan Production\Primary\2014029JTL.dwg Dwg Created: 9-Feb-14 - \_c2\_standard bw.stb - Plot Date: 7-Apr-15



WATERMAIN PLAN & PROFOILE  
SHEET LIMITS  
SH X

			
CITY OF ANN ARBOR PUBLIC SERVICES 301 EAST HURON STREET ANN ARBOR, MI 48106-1667 www.a2gov.org		02 POST MDEQ 2015 REVIEW 01 EBERWHITE EXTENSION 00 MDEQ PERMIT REVIEW COMMENTS	
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT		03/18/15 JKA DAD 02/26/15 CEC, JKA DAD 07-22-14 ESDPF DAD DATE DRAWN CHECKED	
SCALE PLAN: ##### DRAWING No. 2013034-5		REV. DESCRIPTION	
SHEET No. 5 OF 30		OVERALL UTILITY SHEET	

S:\Project Management\Design\2014029 HRRR WM Ph II\Plan Production\Primary\2014029REM.dwg Dwg Created: 28-Jan-14 - \_a2 standard bw.stb - Plot Date: 7-Apr-15



**CAUTION**  
HAZARDOUS  
OR FLAMMABLE  
MATERIAL

**CAUTION**  
HAZARDOUS  
OR FLAMMABLE  
MATERIAL

SEE SHEET 8  
FOR HEWETT DR.  
REMOVALS

SEE SHEET 7  
FOR REDEEMER RD.  
REMOVALS

SEE SHEET 8  
FOR HEWETT DR.  
REMOVALS

SEE BELOW RIGHT

SEE SHEET 7

SEE SHEET 8

SEE SHEET 8  
FOR RUSSELL RD.  
REMOVALS

SEE SHEET 7  
FOR REDEEMER RD.  
REMOVALS

SEE ABOVE LEFT

REMOVAL KEY	
KEY	DESCRIPTION
1	_CURB, GUTTER, AND CURB AND GUTTER, ANY TYPE, REM
2	_SIDEWALK, SIDEWALK RAMPS, AND DRIVEWAY APPROACH, ANY THICKNESS, REM
3	HMA SURFACE, REM*
4	_SIDEWALK, SIDEWALK RAMPS, AND DRIVEWAY APPROACH, ANY THICKNESS, REM
5	ABANDON WATERMAIN PIPE AND APPURTENANCES-SEE NOTES SHEET 10-22
6	DR STRUCTURE, REM & DR STRUCTURE, 24 INCH DIA
7	TREE, REM, 6 INCH TO 18 INCH & TREE, REM, 19 INCH TO 36 INCH
8	_FENCE, PROTECTIVE, MODIFIED

\*SAWCUT FULL DEPTH AT REMOVAL LIMITS

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

DAD	DAD	DAD	DAD	CHECKED
03/18/15	02/26/15	07-22-14	DATE	DRAWN
POST MDCO 2015 REVIEW	EBERWHITE EXTENSION	MDCO PERMIT REVIEW COMMENTS	DESCRIPTION	REV.
02	01	00		

---

**CITY OF ANN ARBOR**  
PUBLIC SERVICE  
301 EAST HURON STREET  
PO BOX 8640  
ANN ARBOR MI 4810-8647  
www.a3gov.org

**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
**HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT**  
REMOVALS  
HEWETT & RUSSETT

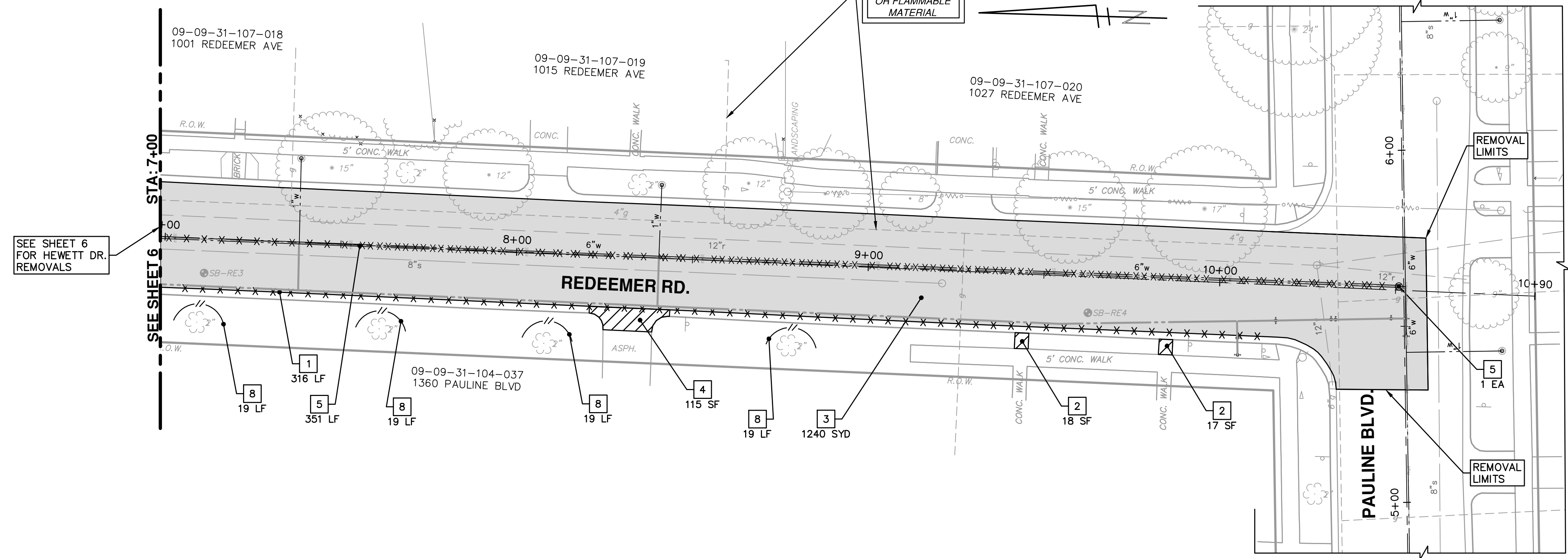
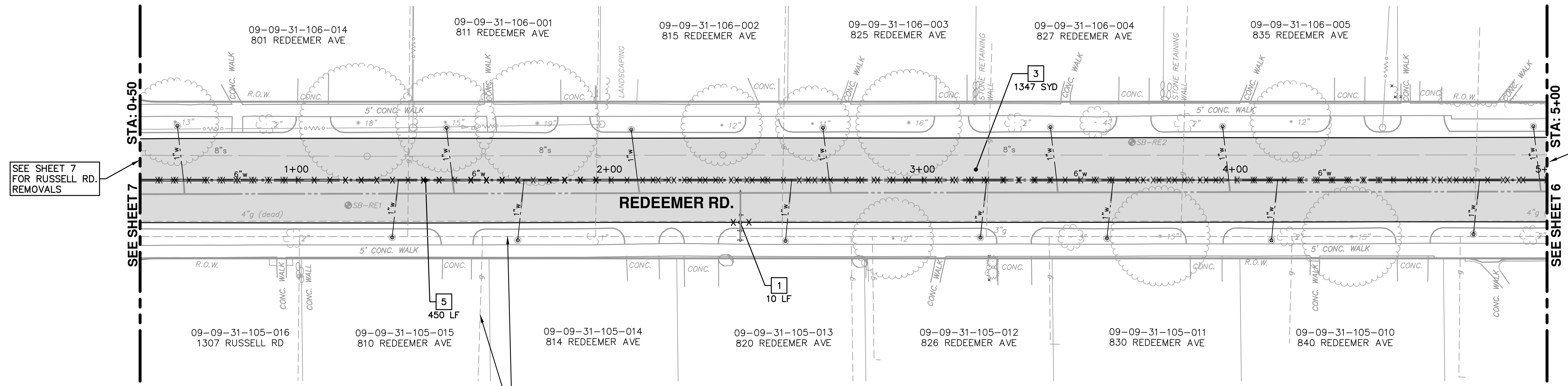
---

SCALE PLAN: 1" = 20'

DRAWING No. 2013034-6


SHEET No. 6 OF 30

S:\Project Management\Design\2014029 HRRR WM Ph II\Plan Production\Primary\2014029REM.dwg Dwg Created: 28-Jan-14 - \_a2 standard bw.stb - Plot Date: 7-Apr-15




REMOVAL KEY	
KEY	DESCRIPTION
1	_CURB, GUTTER, AND CURB AND GUTTER, ANY TYPE, REM
2	_SIDEWALK, SIDEWALK RAMPS, AND DRIVEWAY APPROACH, ANY THICKNESS, REM
3	HMA SURFACE, REM*
4	_SIDEWALK, SIDEWALK RAMPS, AND DRIVEWAY APPROACH, ANY THICKNESS, REM
5	ABANDON WATERMAIN PIPE AND APPURTENANCES-SEE NOTES SHEET 10-22
6	DR STRUCTURE, REM & DR STRUCTURE, 24 INCH DIA
7	TREE, REM, 6 INCH TO 18 INCH & TREE, REM, 19 INCH TO 36 INCH
8	_FENCE, PROTECTIVE, MODIFIED

\*SAWCUT FULL DEPTH AT REMOVAL LIMITS



Know what's below.  
Call before you dig.

	DAD	JKA	03/18/15	POST MDOE 2015 REVIEW					
	DAD	CEC_JKA	02/26/15	EBERWHITE EXTENSION					
	DAD	ESBDF	07-22-14	MDOE PERMIT REVIEW COMMENTS					
	CHECKED	DATE	DRAWN	DESCRIPTION					



**CITY OF ANN ARBOR**  
PUBLIC SERVICE  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-0667  
www.a2gov.org

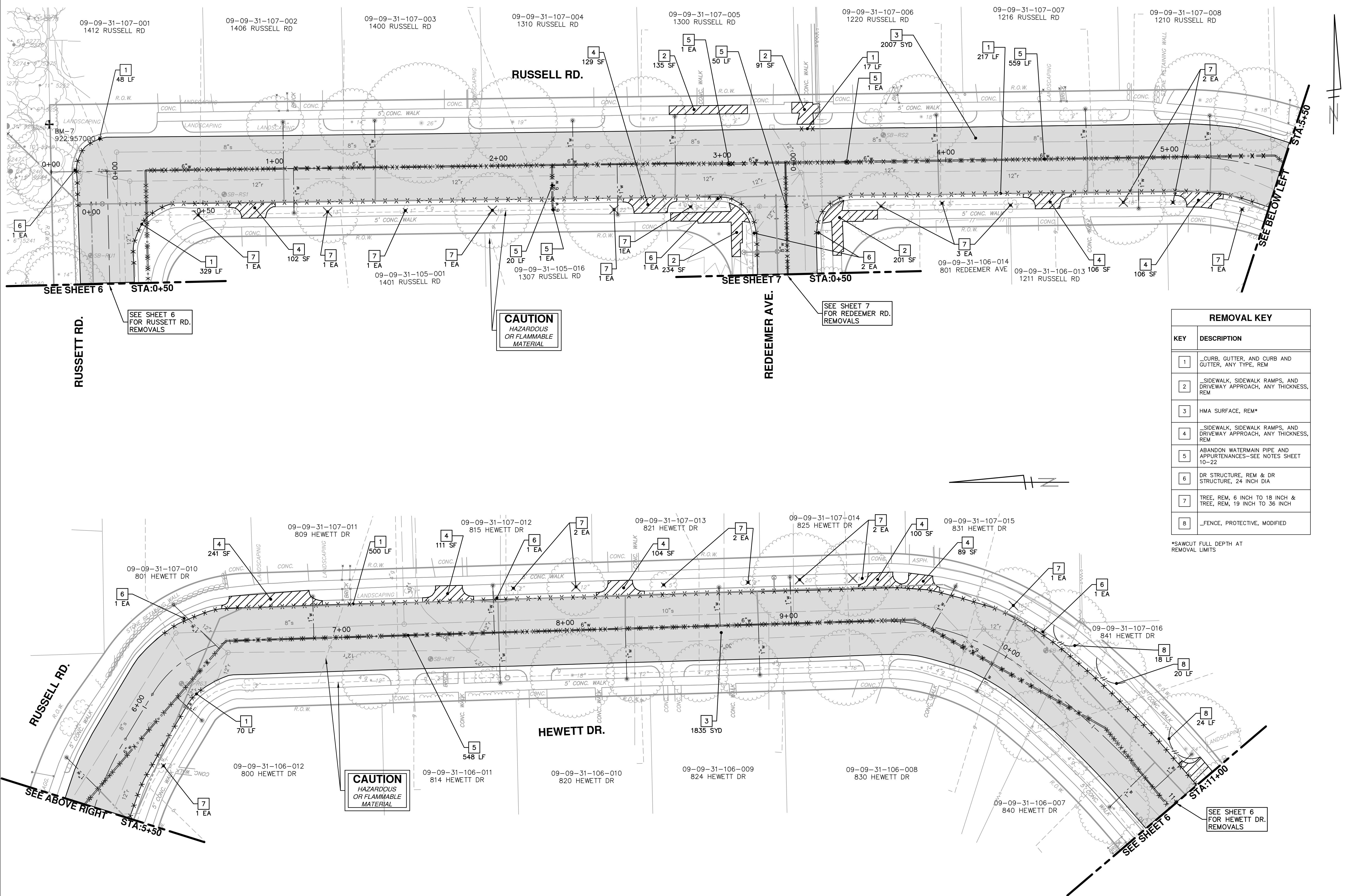
**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
**HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT**  
REMOVALS  
REDEEMER

SCALE PLAN: 1" = 20'  
DRAWING No. 2013034-7

SHEET No. 7 OF 30



S:\Project Management\Design\2014029 HRRR WM Ph II\Plan Production\Primary\2014029REM.dwg Dwg Created: 28-Jan-14 - \_a2 standard bw.stb - Plot Date: 7-Apr-15



REMOVAL KEY	
KEY	DESCRIPTION
1	_CURB, GUTTER, AND CURB AND GUTTER, ANY TYPE, REM
2	_SIDEWALK, SIDEWALK RAMPS, AND DRIVEWAY APPROACH, ANY THICKNESS, REM
3	HMA SURFACE, REM*
4	_SIDEWALK, SIDEWALK RAMPS, AND DRIVEWAY APPROACH, ANY THICKNESS, REM
5	ABANDON WATERMAIN PIPE AND APPURTENANCES-SEE NOTES SHEET 10-22
6	DR STRUCTURE, REM & DR STRUCTURE, 24 INCH DIA
7	TREE, REM, 6 INCH TO 18 INCH & TREE, REM, 19 INCH TO 36 INCH
8	_FENCE, PROTECTIVE, MODIFIED

\*SAWCUT FULL DEPTH AT REMOVAL LIMITS



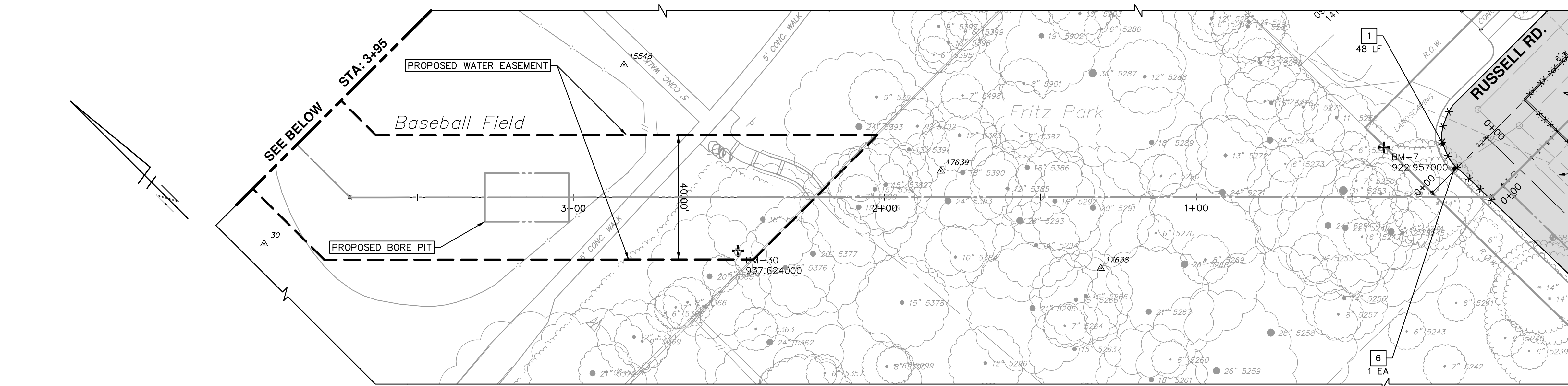
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
02	POST MDCO 2015 REVIEW	03/18/15	JKA	DAD
01	EBERWHITE EXTENSION	02/26/15	ESBPF	DAD
00	MDCO PERMIT REVIEW COMMENTS	07-22-14		

CITY OF ANN ARBOR  
 PUBLIC SERVICE  
 301 EAST HURON STREET  
 ANN ARBOR, MI 48106-0667  
 WWW.A2gov.org

**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
**HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT**  
 REMOVALS  
 RUSSELL

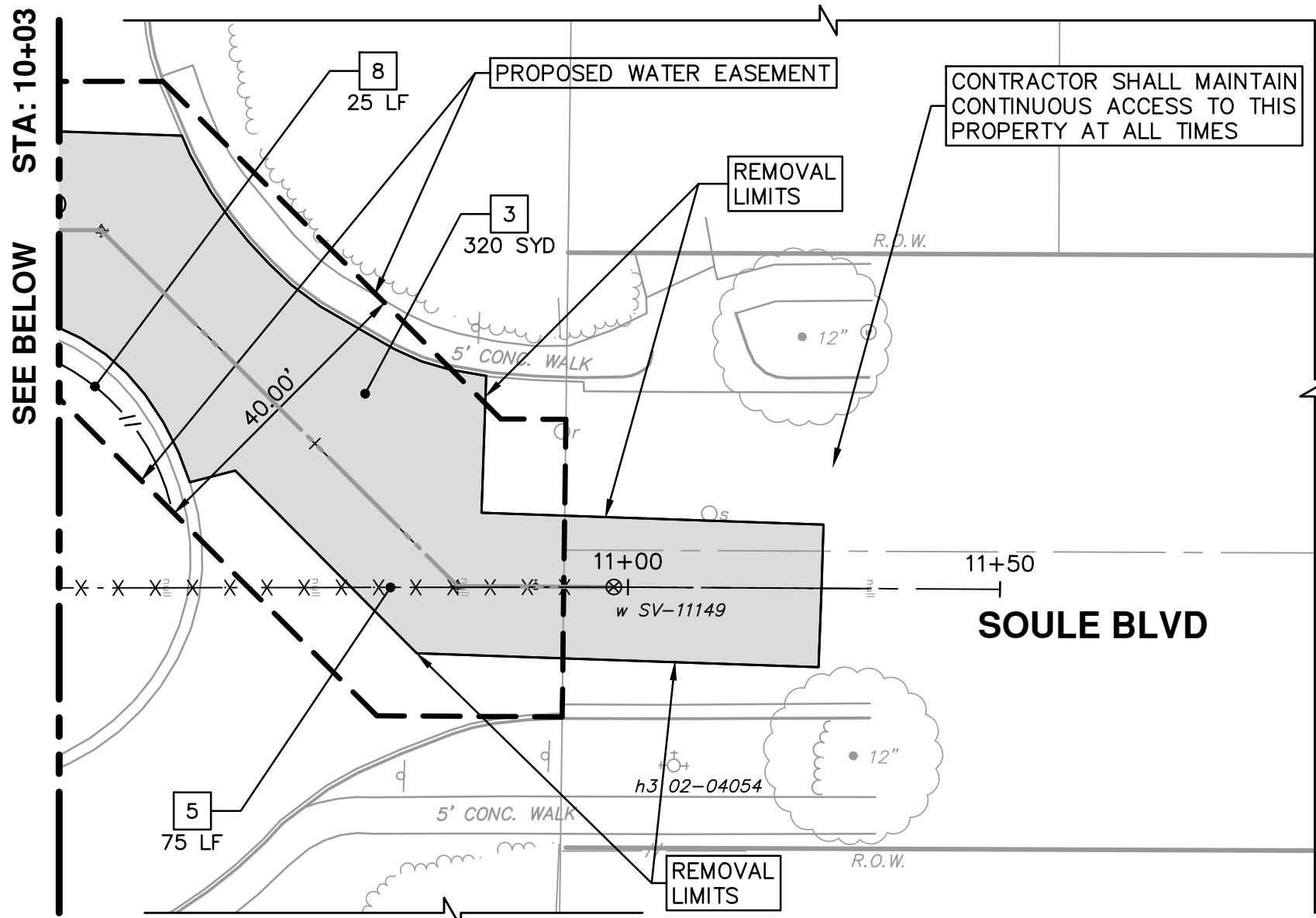
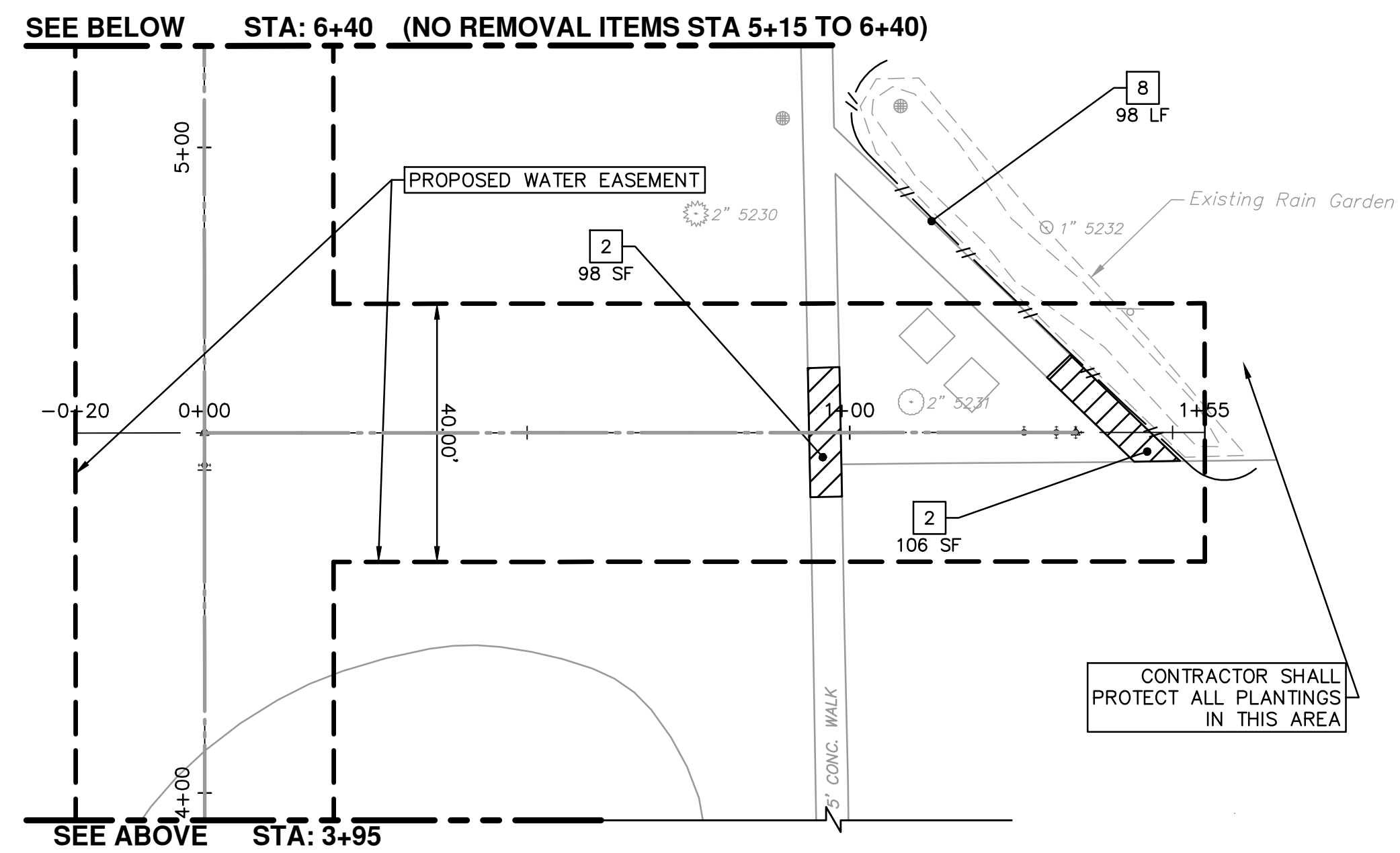
SCALE PLAN: 1" = 20'  
 DRAWING No. 2013034-8  
 SHEET No. 8 OF 30

S:\Project Management\Design\2014029 HRRR WM Ph II\Plan Production\Primary\2014029REM.dwg Dwg Created: 28-Jan-14 - \_a2 standard bw.stb - Plot Date: 7-Apr-15



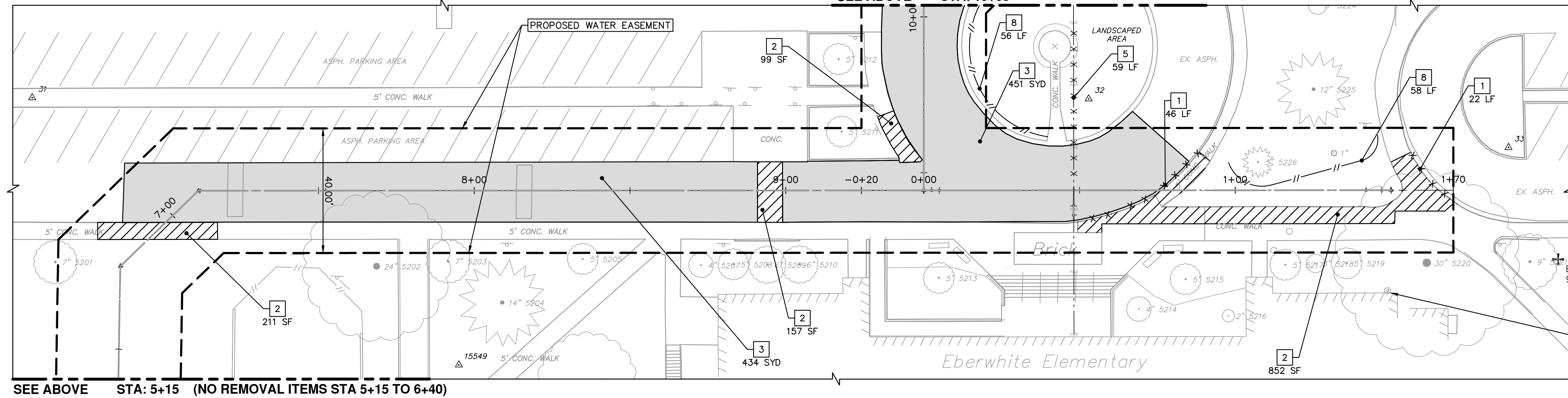
SEE SHEET 8 FOR RUSSETT RD. & RUSSETT RD. REMOVALS

**CAUTION**  
HAZARDOUS OR FLAMMABLE MATERIAL



REMOVAL KEY	
KEY	DESCRIPTION
1	_CURB, GUTTER, AND CURB AND GUTTER, ANY TYPE, REM
2	_SIDEWALK, SIDEWALK RAMPS, AND DRIVEWAY APPROACH, ANY THICKNESS, REM
3	HMA SURFACE, REM*
4	_SIDEWALK, SIDEWALK RAMPS, AND DRIVEWAY APPROACH, ANY THICKNESS, REM
5	ABANDON WATERMAIN PIPE AND APPURTENANCES-SEE NOTES SHEET 10-22
6	DR STRUCTURE, REM & DR STRUCTURE, 24 INCH DIA
7	TREE, REM, 6 INCH TO 18 INCH & TREE, REM, 19 INCH TO 36 INCH
8	_FENCE, PROTECTIVE, MODIFIED

\*SAWCUT FULL DEPTH AT REMOVAL LIMITS



**CAUTION**  
HAZARDOUS OR FLAMMABLE MATERIAL



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
02	POST MDEQ 2015 REVIEW	03/18/15	JKA	DAD
01	EBERWHITE EXTENSION	02/26/15	CEC, JKA	DAD
00	MDEQ PERMIT REVIEW COMMENTS	07-22-14	ESBPF	DAD

CITY OF ANN ARBOR  
PUBLIC SERVICE  
301 EAST HURON STREET  
ANN ARBOR MI 48106-0667  
www.a3gov.org

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR  
HEWETT DR, RUSSETT RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT REMOVALS  
EBERWHITE ELEMENTARY

SCALE PLAN: 1" = 20'  
DRAWING NO. 2013034-9



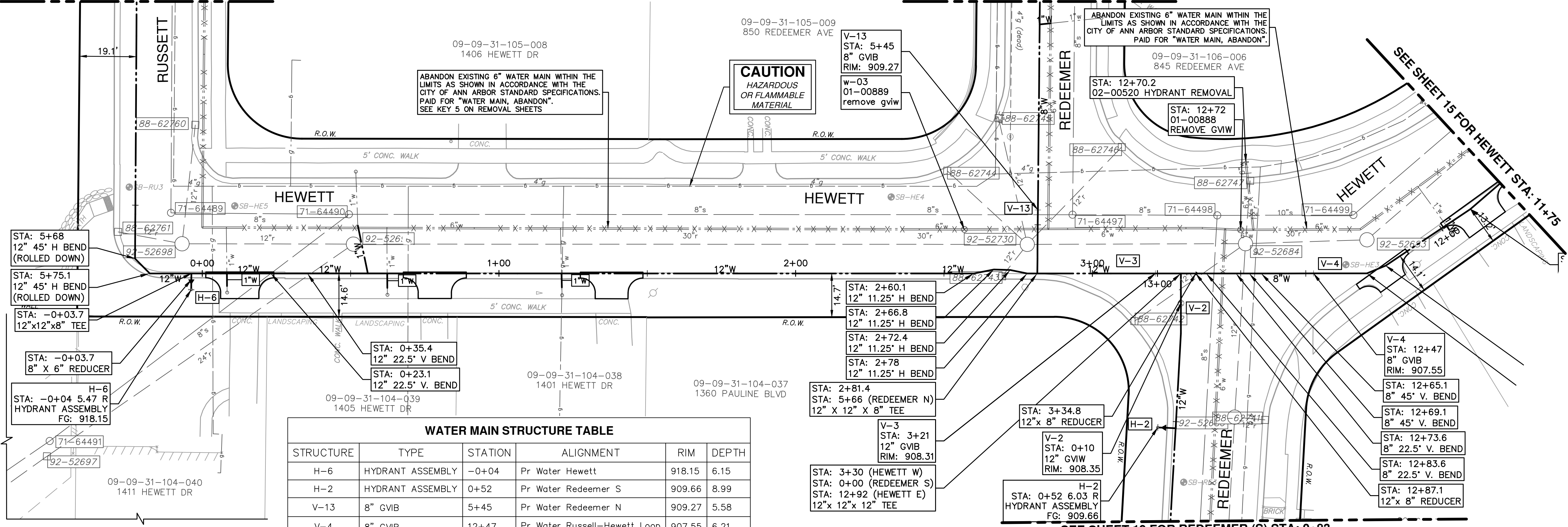
S:\Project Management\Design\2014029 HRRR WM Ph II\Source Drawings\Pipe Networks\2014029 PNwastr.dwg Dwg Created: 30-Dec-13 - \_a2 standard bw.stb - Plot Date: 7-Apr-15

SEE SHEET 12 FOR RUSSETT STA: 4+82

SEE SHEET 17 FOR REDEEMER (N) STA: 4+75

SEE SHEET 15 FOR HEWETT STA: 11+75

SEE SHEET 19 FOR REDEEMER (S) STA: 0+83



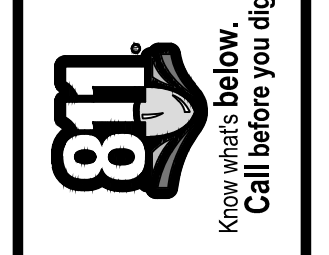
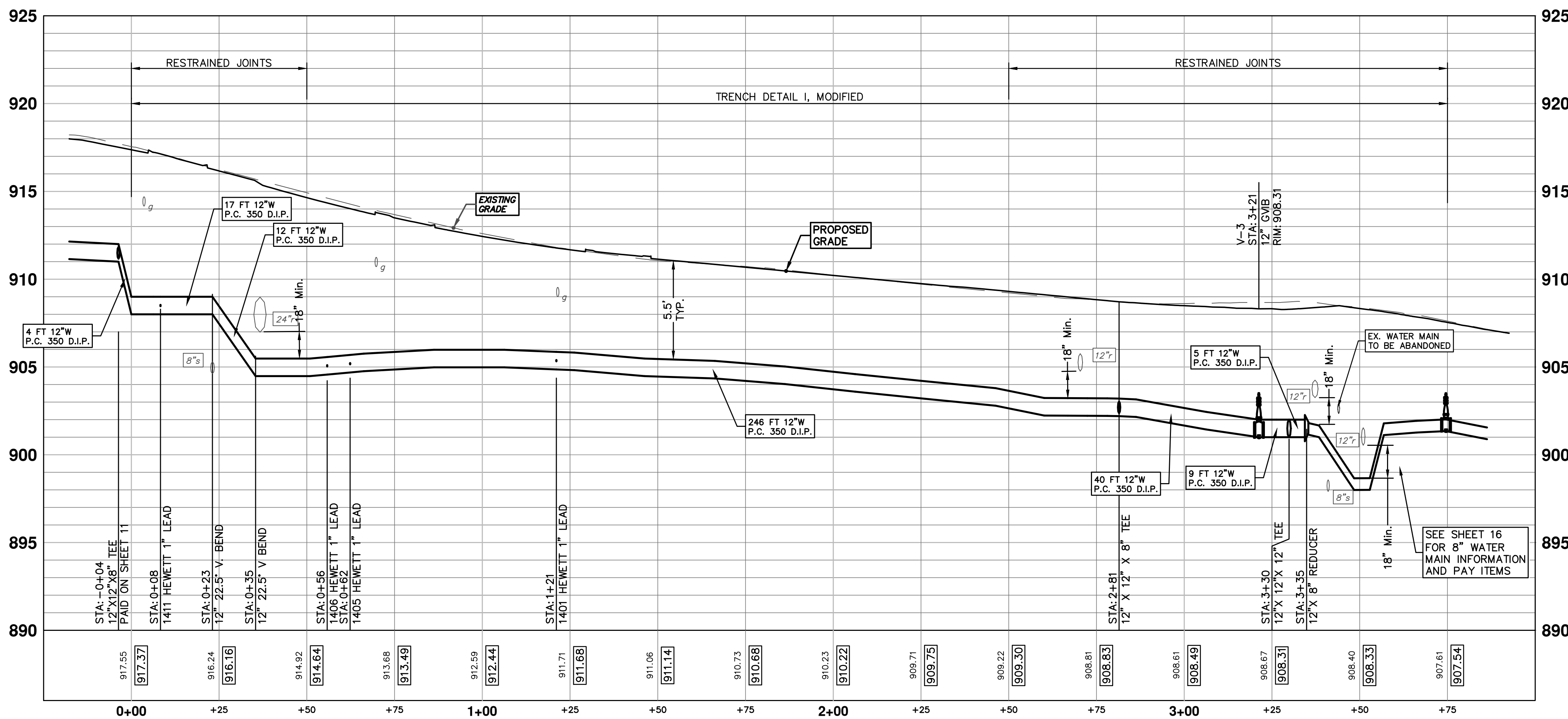
ABANDON EXISTING 6" WATER MAIN WITHIN THE LIMITS AS SHOWN IN ACCORDANCE WITH THE CITY OF ANN ARBOR STANDARD SPECIFICATIONS. PAID FOR "WATER MAIN, ABANDON". SEE KEY 5 ON REMOVAL SHEETS

**CAUTION**  
HAZARDOUS OR FLAMMABLE MATERIAL

ABANDON EXISTING 6" WATER MAIN WITHIN THE LIMITS AS SHOWN IN ACCORDANCE WITH THE CITY OF ANN ARBOR STANDARD SPECIFICATIONS. PAID FOR "WATER MAIN, ABANDON".

STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
H-6	HYDRANT ASSEMBLY	-0+04	Pr Water Hewett	918.15	6.15
H-2	HYDRANT ASSEMBLY	0+52	Pr Water Redeemer S	909.66	8.99
V-13	8" GVIW	5+45	Pr Water Redeemer N	909.27	5.58
V-4	8" GVIW	12+47	Pr Water Russell-Hewett Loop	907.55	6.21
V-3	12" GVIW	13+01	Pr Water Russell-Hewett Loop	908.31	7.31

STRUCTURE	TYPE	STATION	RIM	DEPTH
w-03	01-00889 REMOVE GVIW	2+57	909.65	7.60
h-2	02-00520 HYDRANT REMOVAL	12+70	908.65	8.40
w-02	01-00888 REMOVE GVIW	12+72	908.17	8.38



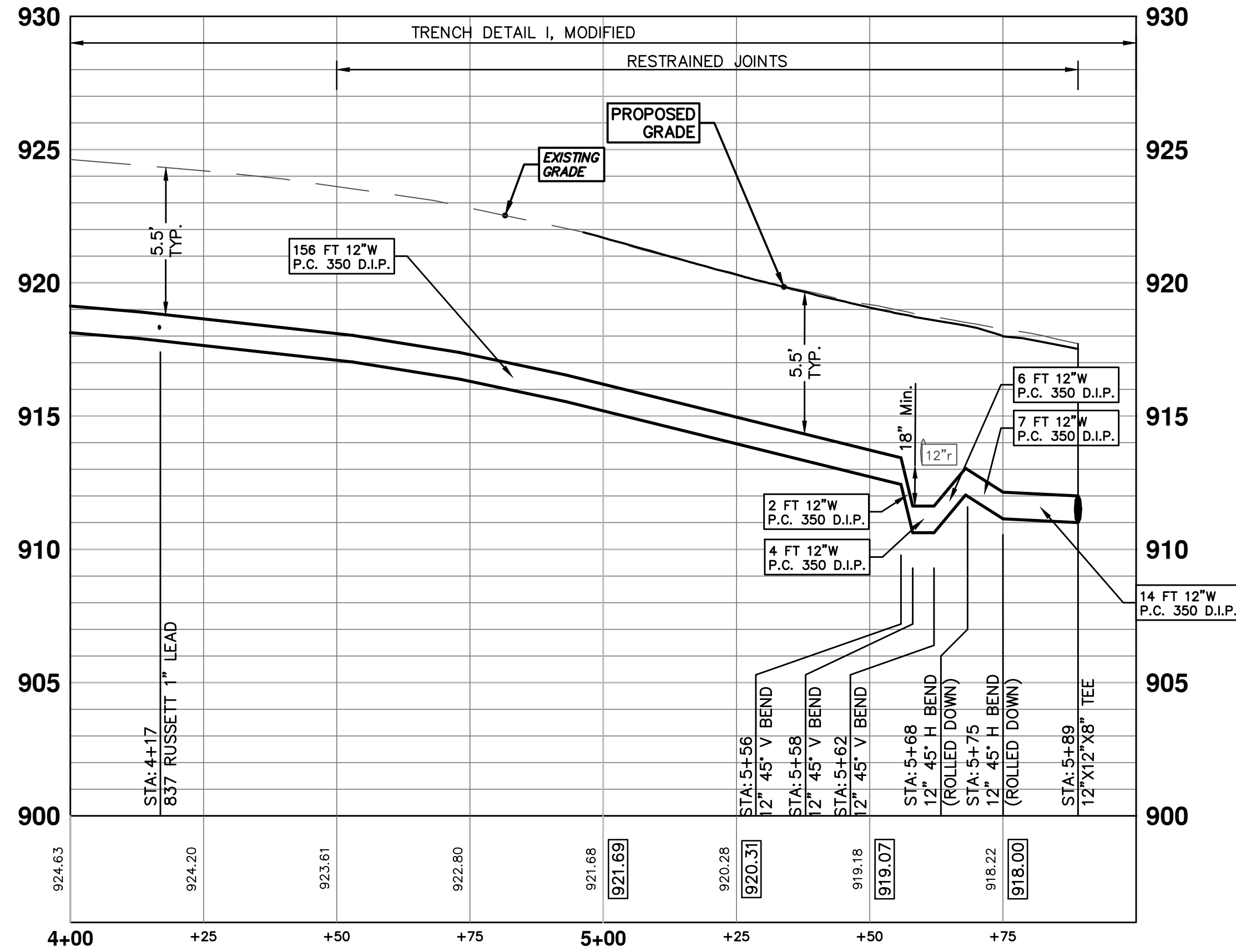
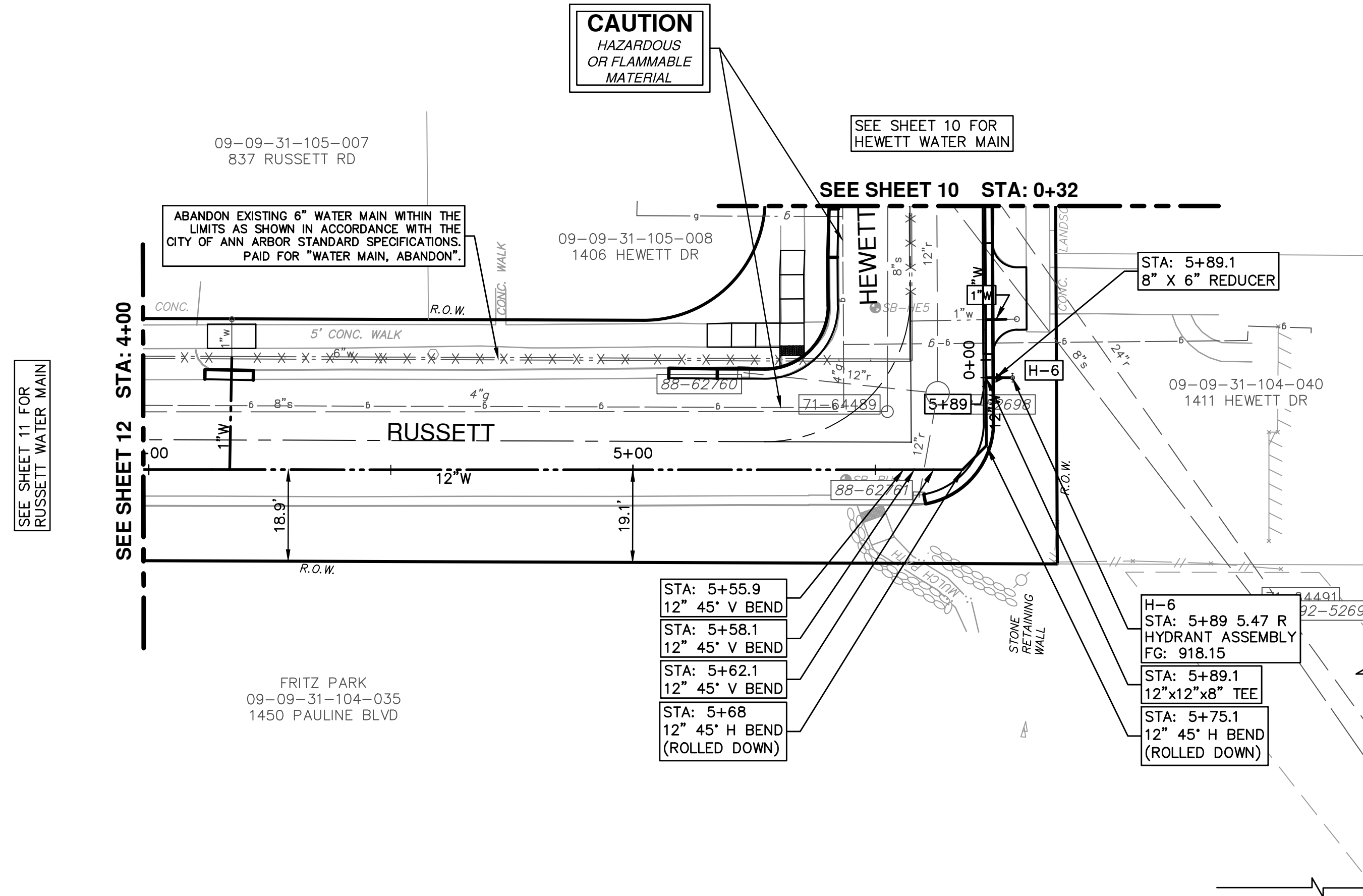
REV.	DATE	DESCRIPTION
02	03/18/15	POST MDCO 2015 REVIEW
01	02/26/15	EBERWHITE EXTENSION
00	07-22-14	MDCO PERMIT REVIEW COMMENTS

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR MI 48106-0667  
www.a3gov.org



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR  
HEWETT DR, RUSSETT RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT  
WATER MAIN PLAN & PROFILE  
HEWETT STA 0+00 TO 3+35





**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
 HEWETT DR, RUSSELL RD, RUSSETT RD &  
 REDEEMER AVE WATER MAIN REPLACEMENT  
 WATER MAIN PLAN & PROFILE  
 RUSSETT STA 4+00 TO 5+89

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

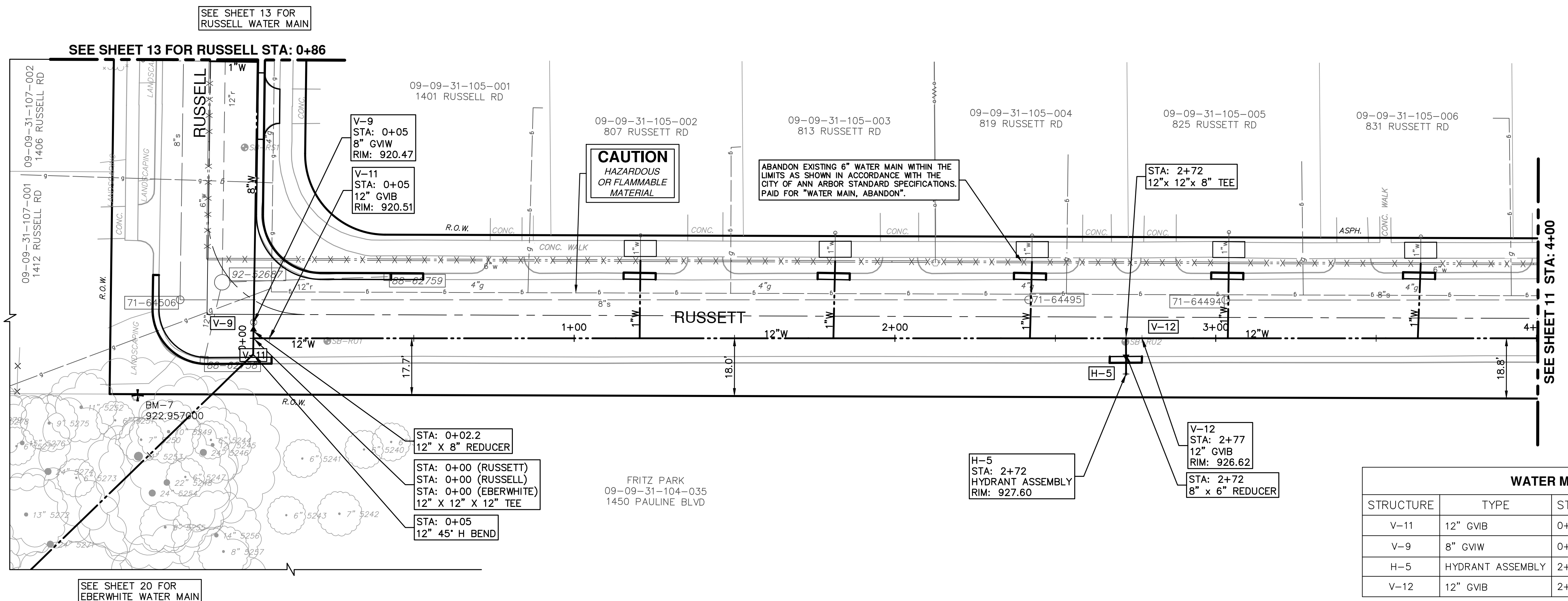
REV.	DATE	DRAWN	CHECKED
02	03/18/15	JKA	DAD
01	02/26/15	CEC, JKA	DAD
00	07-22-14	ESBPF	DAD

**CITY OF ANN ARBOR**  
 PUBLIC SERVICE  
 301 EAST HURON STREET  
 ANN ARBOR, MI 48106-0667  
 ANN ARBOR 734-794-4410  
 www.a2gov.org

**CITY OF ANN ARBOR**  
 MICHIGAN

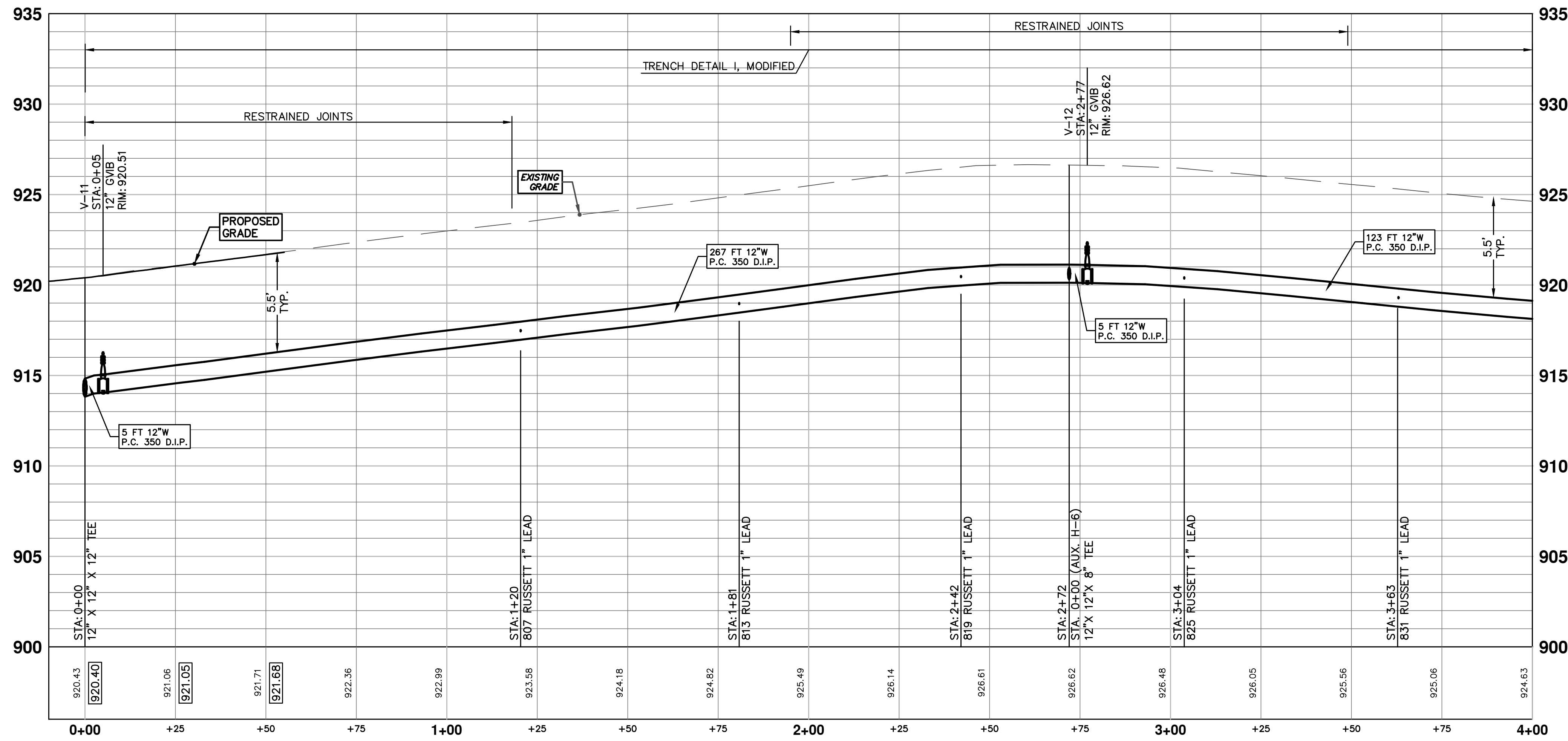
SHEET No. **2013034-11**  
 SCALE PLAN: 1" = 40'  
 PROFILE: 1" = 4'  
 DRAWING No. **11 OF 30**

S:\Project Management\Design\2014029 HRRR WM Ph II\Source Drawings\Pipe Networks\2014029 PNwastr.dwg Dwg Created: 30-Dec-13 - \_a2 standard bw.stb - Plot Date: 7-Apr-15



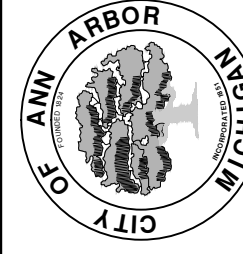
**WATER MAIN STRUCTURE TABLE**

STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
V-11	12" GVB	0+05	Pr Water Russett	920.51	6.46
V-9	8" GVIW	0+05	Pr Water Russelt-Hewett Loop	920.47	6.80
H-5	HYDRANT ASSEMBLY	2+72	Pr Water Russett	927.60	7.02
V-12	12" GVB	2+77	Pr Water Russelt	926.62	6.50



REV.	DATE	DRAWN	CHECKED	DESCRIPTION
02	03/18/15	JKA	DAD	POST MDOE 2015 REVIEW
01	02/26/15	CEC, JKA	DAD	EBERWHITE EXTENSION
00	07-22-14	ESBPF	DAD	MDOE PERMIT REVIEW COMMENTS

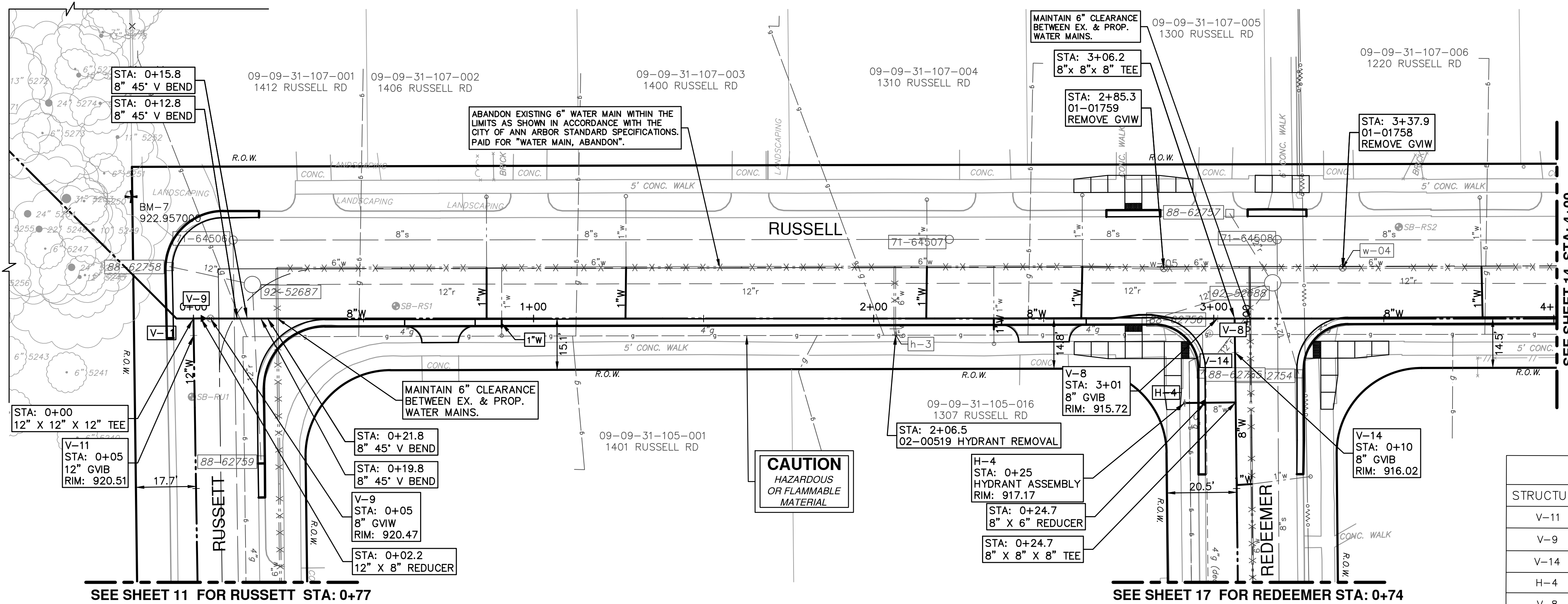
CITY OF ANN ARBOR  
PUBLIC SERVICE  
301 EAST HURON STREET  
PO BOX 8640  
ANN ARBOR MI 48106-8647  
www.a3gov.org



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR  
HEWETT DR, RUSSETT RD, RUSSETT RD &  
REDEEMER AVE WATER MAIN REPLACEMENT  
WATER MAIN PLAN & PROFILE  
RUSSETT STA 0+00 TO 4+00

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'  
DRAWING No.  
2013034-12

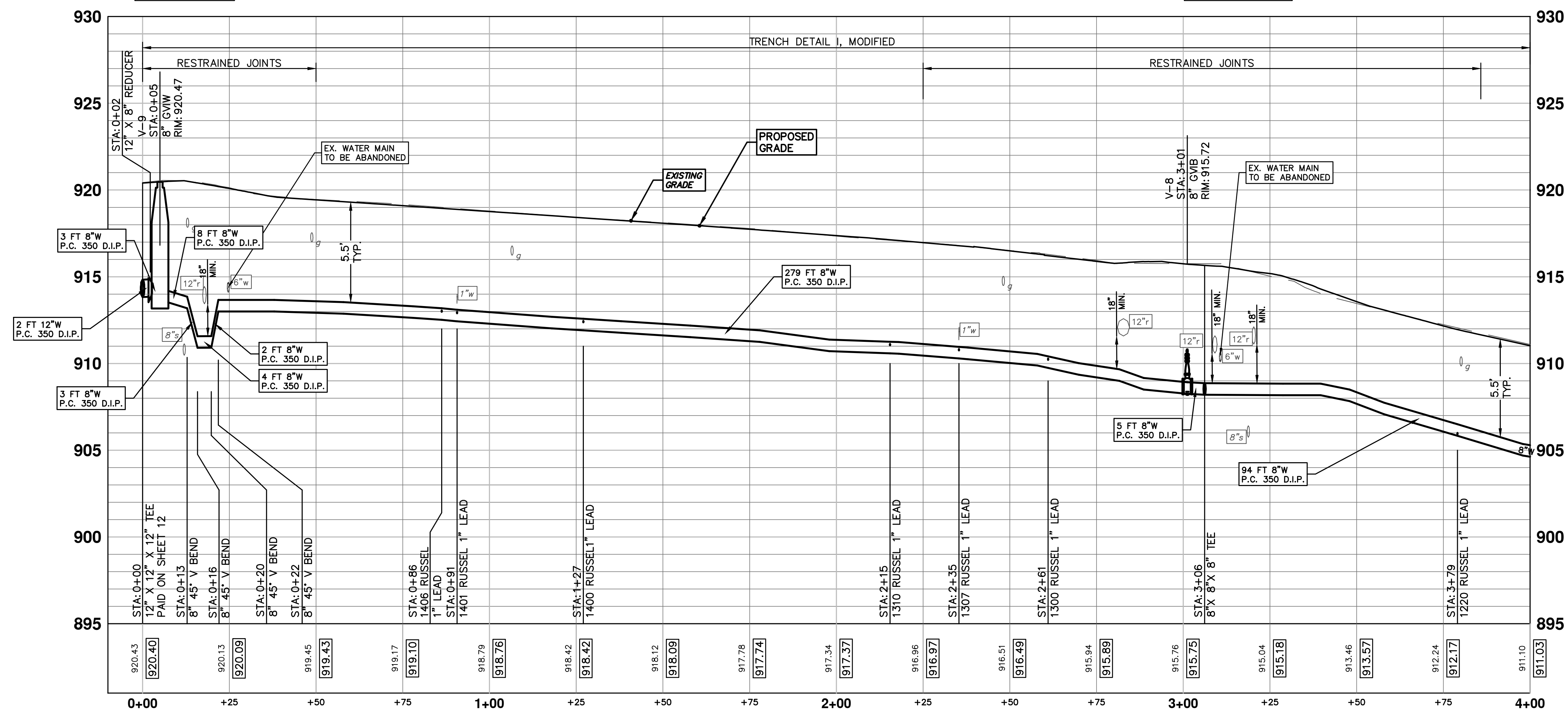
S:\Project Management\Design\2014029 HRRR WM Ph II\Source Drawings\Pipe Networks\2014029 PNwater.dwg Dwg Created: 30-Dec-13 - \_a2 standard bw.stb - Plot Date: 7-Apr-15




SEE SHEET 14 FOR RUSSELL RD./HEWETT RD. WATER MAIN

WATER MAIN STRUCTURE TABLE					
STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
V-11	12" GVIB	0+05	Pr Water Russett	920.51	6.46
V-9	8" GVW	0+05	Pr Water Russell-Hewett Loop	920.47	6.80
V-14	8" GVIB	0+10	Pr Water Redeemer N	916.02	7.02
H-4	HYDRANT ASSEMBLY	0+25	Pr Water Redeemer N	917.17	8.65
V-8	8" GVIB	3+01	Pr Water Russell-Hewett Loop	915.72	7.47

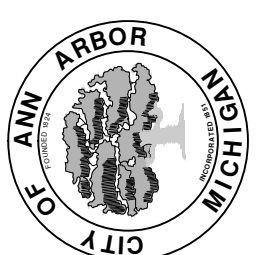
EX-WATER MAIN STRUCTURE TABLE				
STRUCTURE	TYPE	STATION	RIM	DEPTH
h-3	02-00519 HYDRANT REMOVAL	2+07	917.88	8.21
w-05	01-01759 REMOVE GVW	2+85	916.14	8.55
w-04	01-01758 REMOVE GVW	3+38	914.37	7.97





Know what's below.  
Call Before you dig.

REV.	DATE	DESCRIPTION
02	03/18/15	POST MDCO 2015 REVIEW
01	02/26/15	EBERWHITE EXTENSION
00	07-22-14	MDCO PERMIT REVIEW COMMENTS



CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-0667  
www.a2gov.org

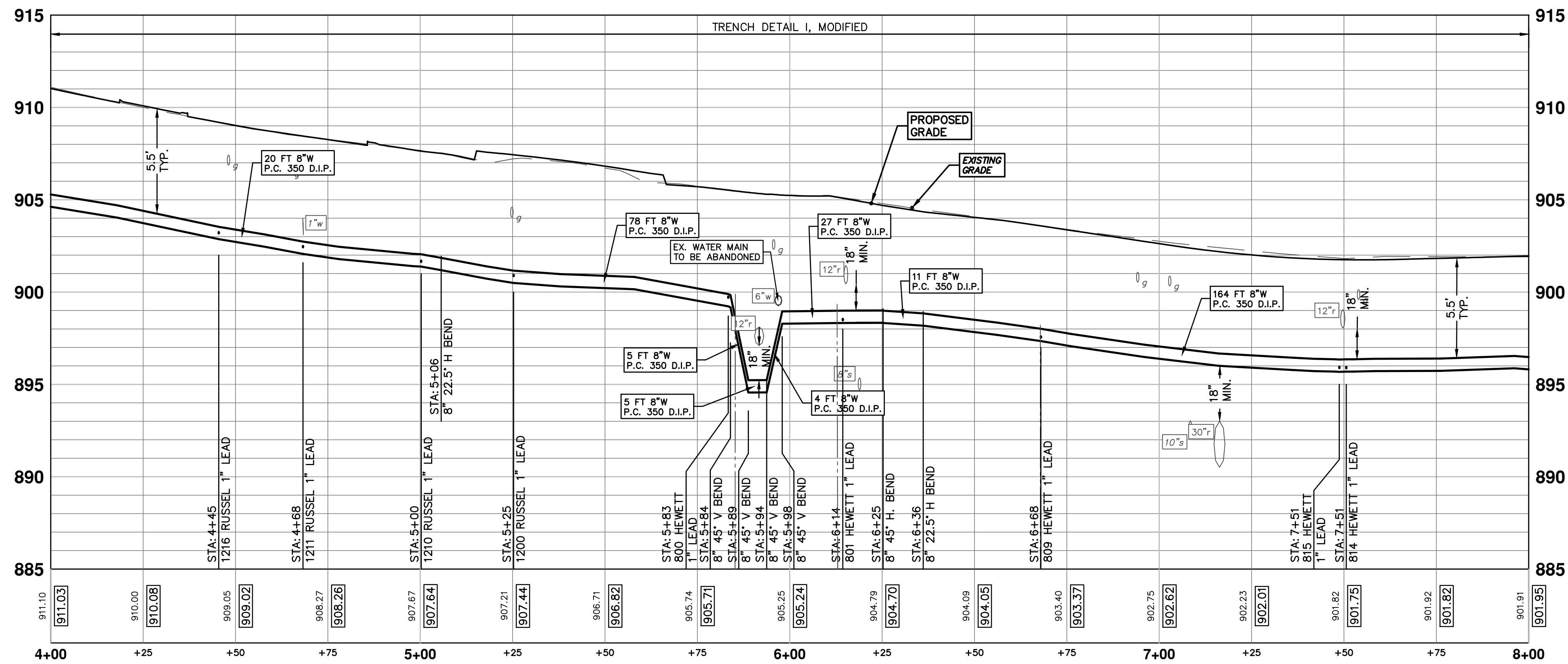
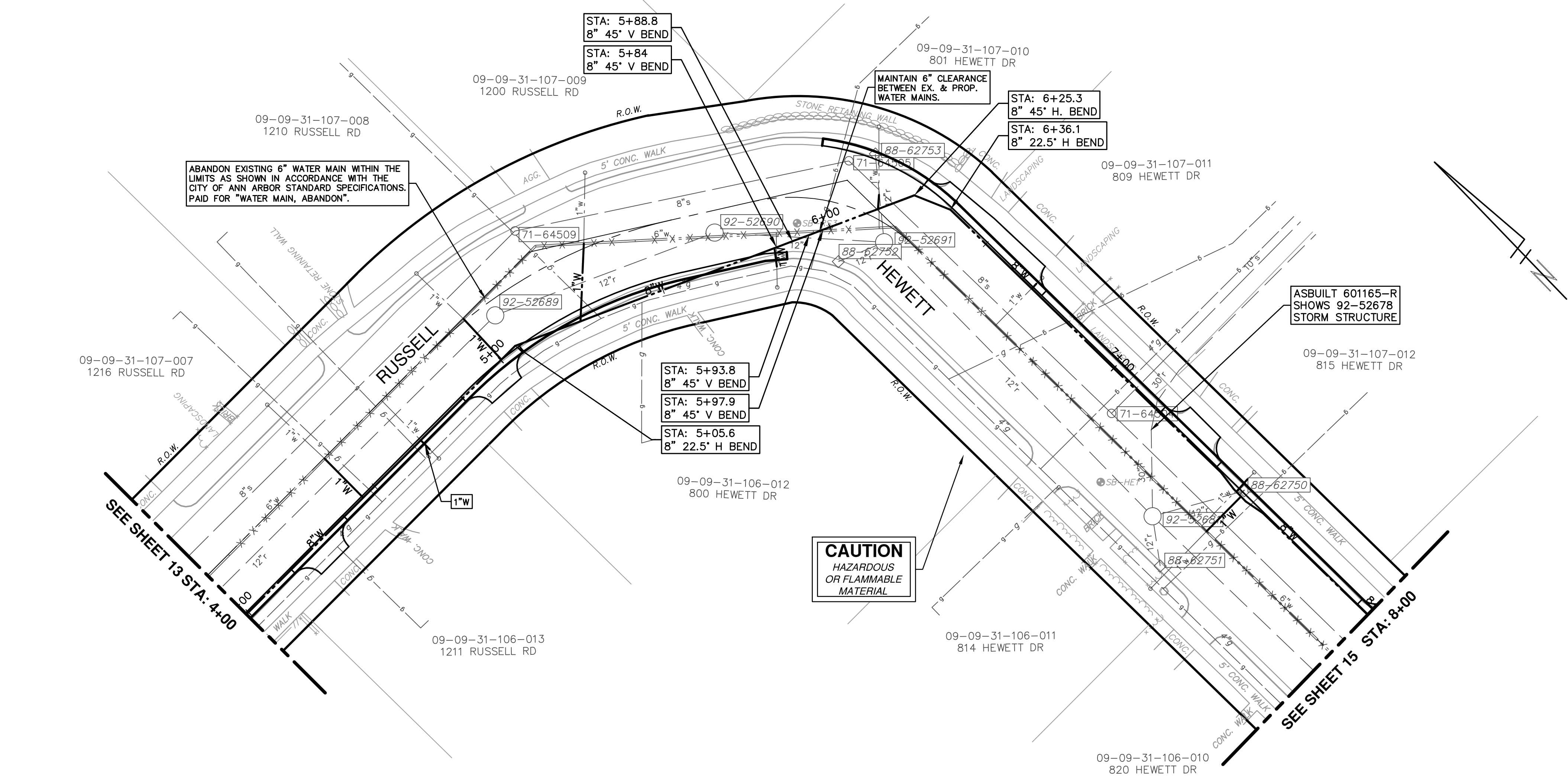
**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT  
RUSSELL - HEWETT LOOP STA 0+00 TO 4+00

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

DRAWING No. **2013034-13**

SHEET No. **13 OF 30**





REV.	DATE	DESCRIPTION
02	03/18/15	POST MDOE 2015 REVIEW
01	02/26/15	EBERWHITE EXTENSION
00	07-22-14	MDOE PERMIT REVIEW COMMENTS

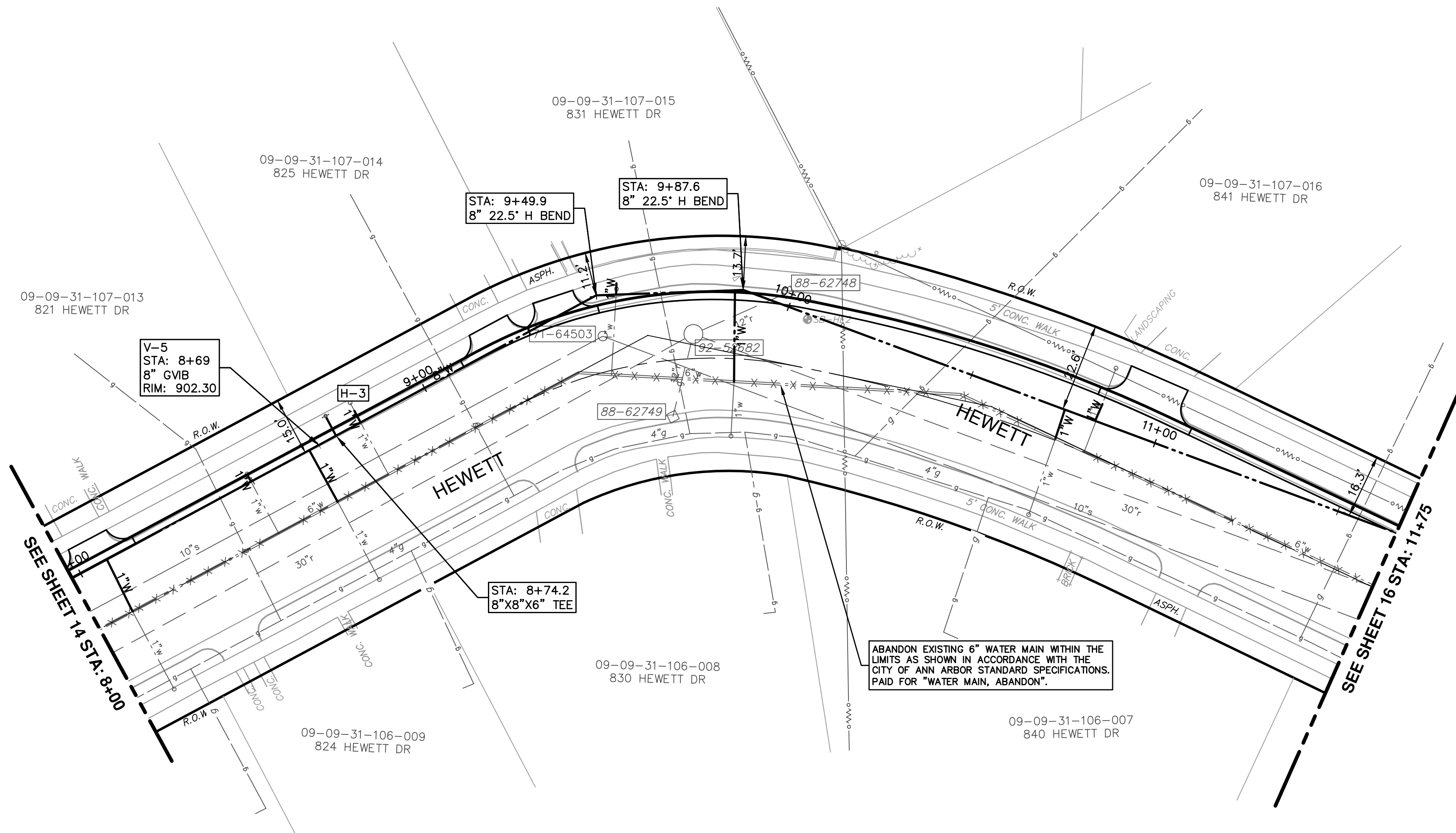
CITY OF ANN ARBOR  
PUBLIC SERVICE  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-0647  
www.a3gov.org



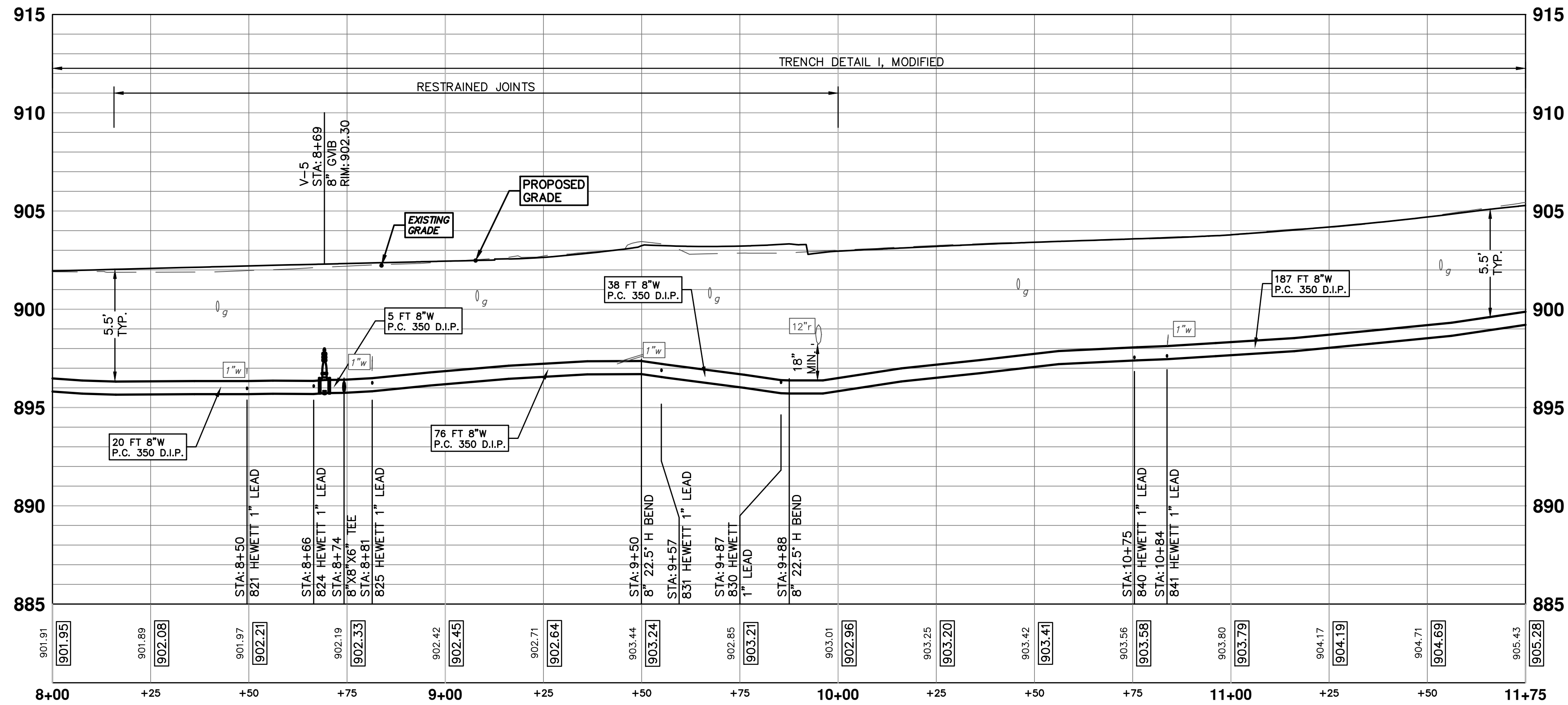
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR  
HEWETT DR, RUSSELL RD, RUSSETT RD &  
REDEEMER AVE WATER MAIN REPLACEMENT  
WATER MAIN PLAN & PROFILE  
RUSSELL - HEWETT LOOP STA 4+00 TO 8+00

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'  
DRAWING No.  
2013034-14

S:\Project Management\Design\2014029 HRRR WM Ph II\Source Drawings\Pipe Networks\2014029 PNwastr.dwg Dwg Created: 30-Dec-13 - \_a2 standard bw.stb - Plot Date: 7-Apr-15



STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
V-5	8" GVB	8+69	Pr Water Russel-Hewett Loop	902.30	6.57
H-3	HYDRANT ASSEMBLY	8+74	Pr Water Russel-Hewett Loop	902.99	9.18

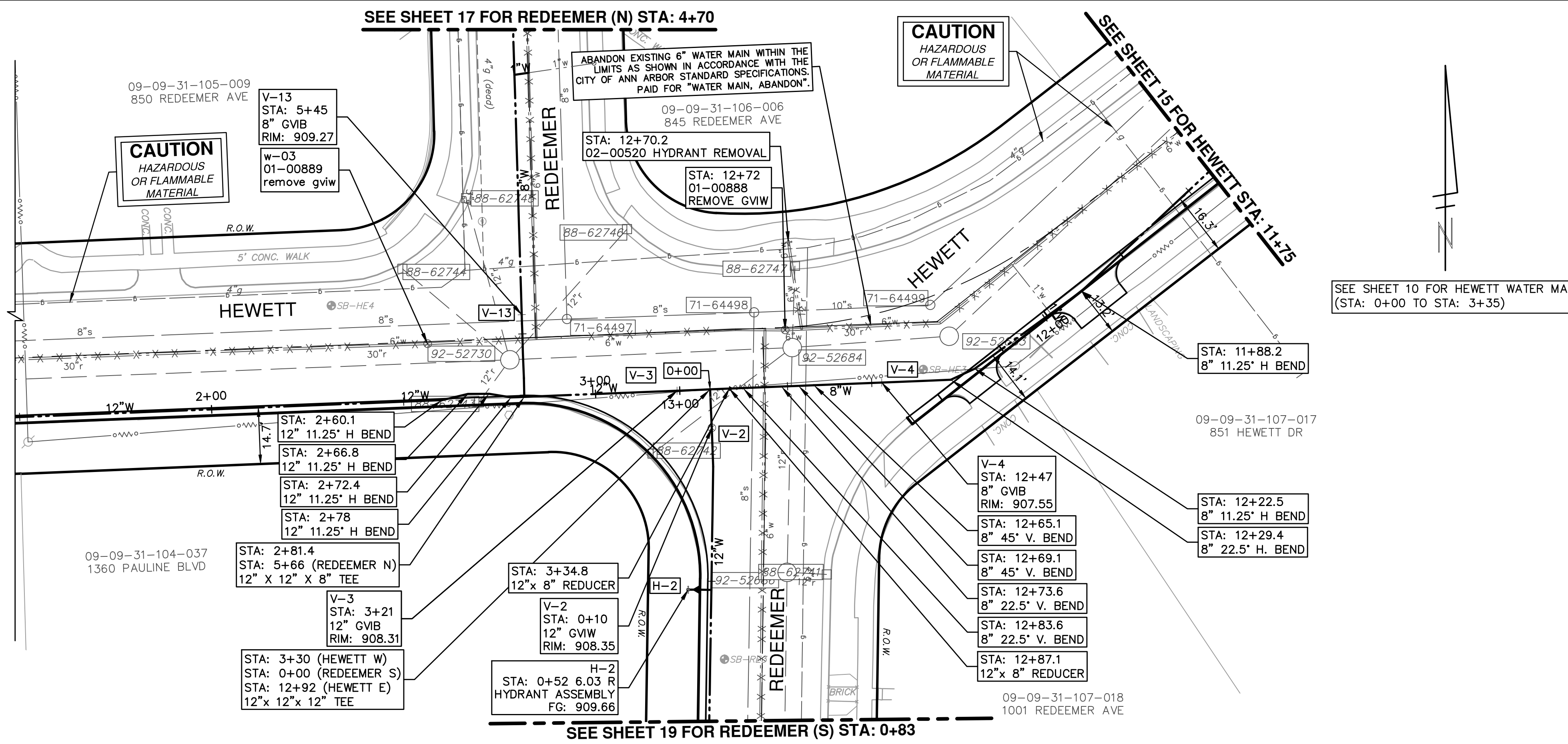


REV.	DATE	DESCRIPTION
02	03/18/15	POST MDEQ 2015 REVIEW
01	02/26/15	EBERWHITE EXTENSION
00	07-22-14	MDEQ PERMIT REVIEW COMMENTS

CITY OF ANN ARBOR  
PUBLIC SERVICE  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-0647  
www.a2gov.org

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR  
HEWETT DR, RUSSELL RD, RUSSETT RD &  
REDEEMER AVE WATER MAIN REPLACEMENT  
WATER MAIN PLAN & PROFILE  
RUSSELL - HEWETT LOOP STA 8+00 TO 11+75

S:\Project Management\Design\2014029 HRRR WM Ph II\Source Drawings\Pipe Networks\2014029 PNwastr.dwg Dwg Created: 30-Dec-13 - \_a2 standard bw.stb - Plot Date: 7-Apr-15

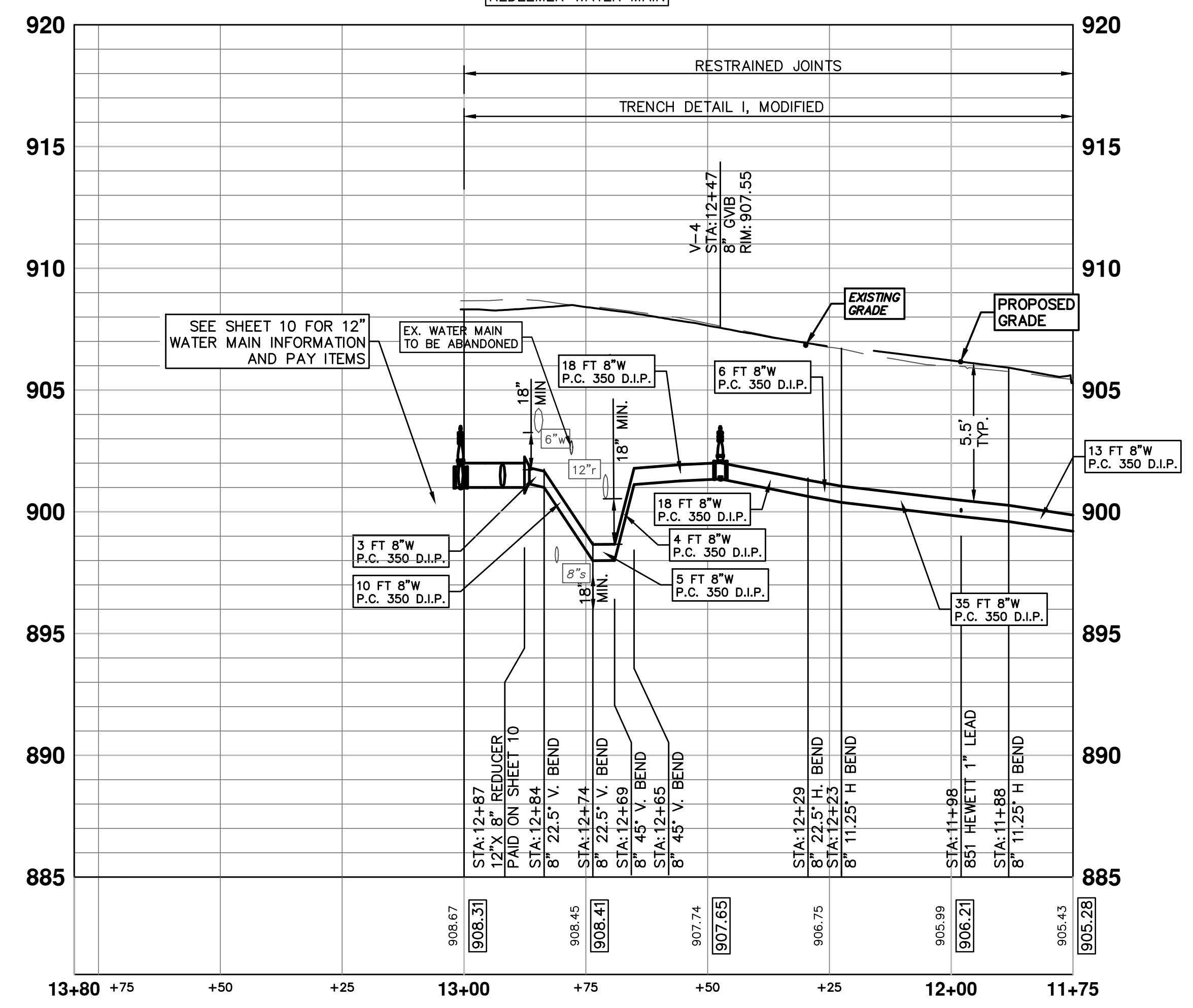



**WATER MAIN STRUCTURE TABLE**

STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
V-2	12" GVW	0+10	Pr Water Redeemer S	908.35	7.35
H-2	HYDRANT ASSEMBLY	0+52	Pr Water Redeemer S	909.66	8.99
V-13	8" GVIB	5+45	Pr Water Redeemer N	909.27	5.58
V-4	8" GVIB	12+47	Pr Water Russell-Hewett Loop	907.55	6.21
V-3	12" GVIB	13+01	Pr Water Russell-Hewett Loop	908.31	7.31

**EX-WATER MAIN STRUCTURE TABLE**

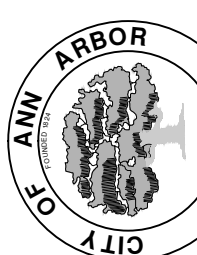
STRUCTURE	TYPE	STATION	RIM	DEPTH
w-03	01-00889 REMOVE GVW	2+57	909.65	7.60
h-2	02-00520 HYDRANT REMOVAL	12+70	908.65	8.40
w-02	01-00888 REMOVE GVW	12+72	908.17	8.38





Know what's below.  
Call before you dig.

REV.	DATE	DESCRIPTION
02	03/18/15	POST MDOE 2015 REVIEW
01	02/26/15	EBERWHITE EXTENSION
00	07-22-14	MDOE PERMIT REVIEW COMMENTS



**CITY OF ANN ARBOR  
PUBLIC SERVICE**  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-0667  
www.aagov.org

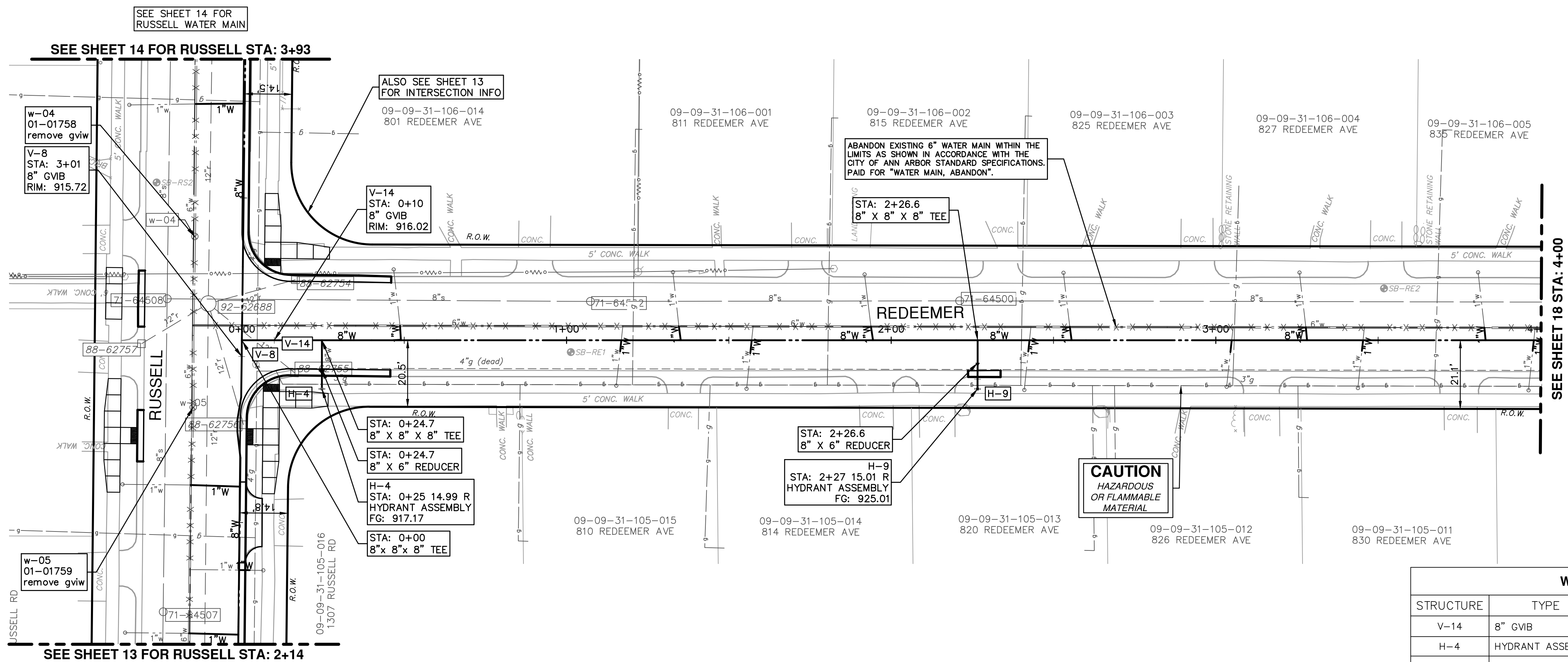
**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
HEWETT DR, RUSSELL RD, RUSSETT RD &  
REDEEMER AVE WATER MAIN REPLACEMENT  
WATER MAIN PLAN & PROFILE  
RUSSELL - HEWETT LOOP STA 11+75 TO 12+87

SCALE PLAN: 1" = 40'  
PROFILE: 1" = 4'  
DRAWING No. **2013034-16**

SHEET No. **16 OF 30**



S:\Project Management\Design\2014029 HRRR WM Ph II\Source Drawings\Pipe Networks\2014029 PNwastr.dwg Dwg Created: 30-Dec-13 - \_a2 standard bw.stb - Plot Date: 7-Apr-15



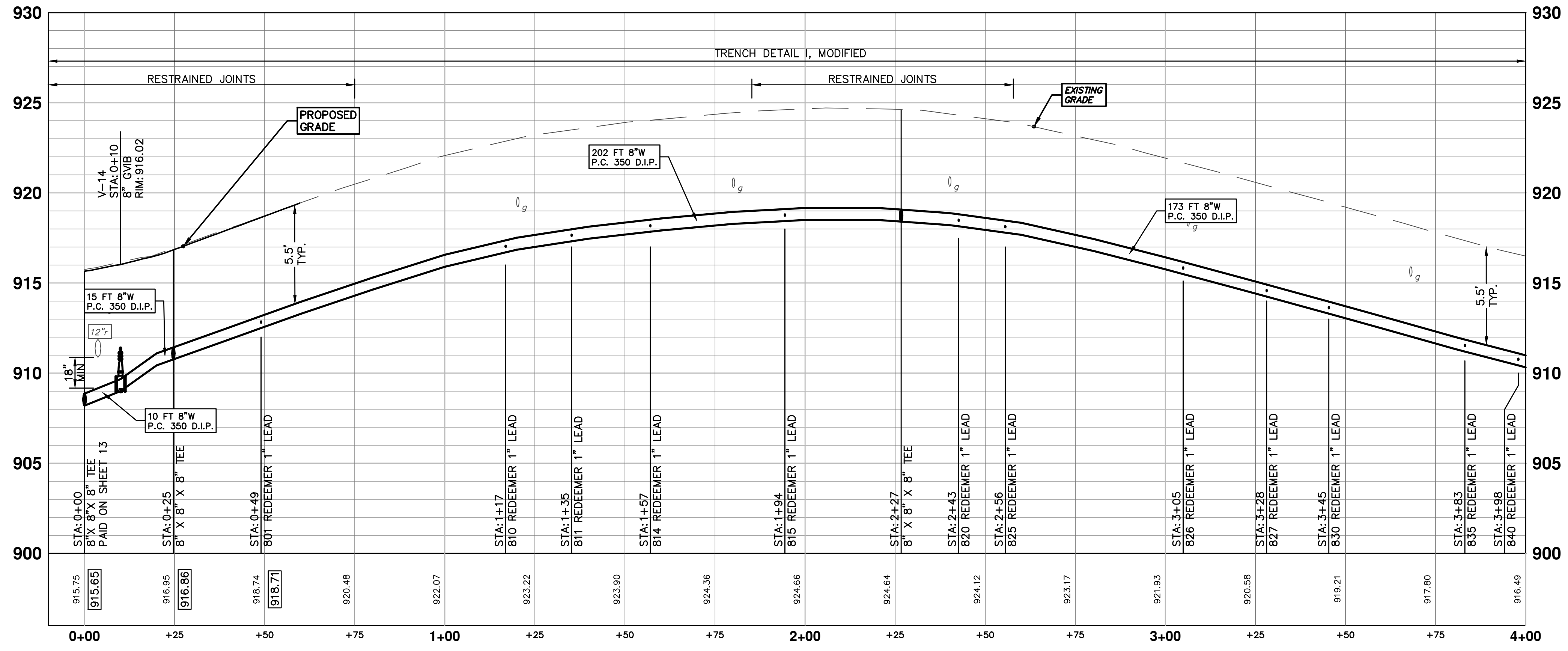
**WATER MAIN STRUCTURE TABLE**

STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
V-14	8" GVIW	0+10	Pr Water Redeemer N	916.02	7.02
H-4	HYDRANT ASSEMBLY	0+25	Pr Water Redeemer N	917.17	8.65
H-9	HYDRANT ASSEMBLY	2+27	Pr Water Redeemer N	925.01	11.60
V-8	8" GVIW	3+01	Pr Water Russell-Hewett Loop	915.72	7.47

**EX-WATER MAIN STRUCTURE TABLE**

STRUCTURE	TYPE	STATION	RIM	DEPTH
w-05	01-01759 REMOVE GVIW	2+85	916.14	8.55
w-04	01-01758 REMOVE GVIW	3+38	914.37	7.97

**PR WATER REDEEMER N**



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

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-0647  
www.a3gov.org

---

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR  
HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT  
WATER MAIN PLAN & PROFILE  
REDEEMER (N) STA 0+00 TO 4+00

PROFILE: 1" = 4'  
SCALE PLAN: 1" = 20'  
DRAWING No. 2013034-17

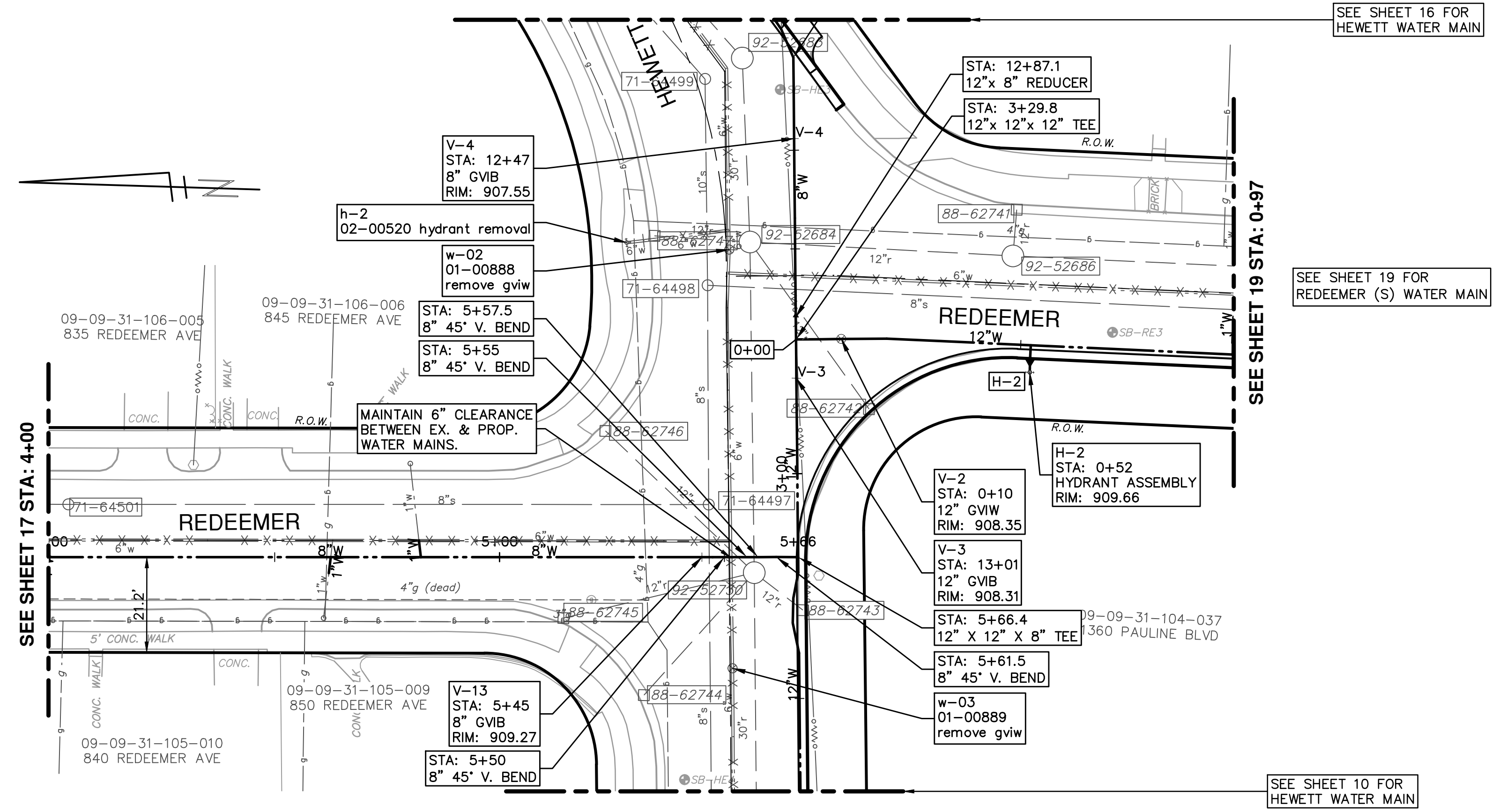
---

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
02	POST MDOE 2015 REVIEW	03/18/15	JKA	DAD
01	EBERWHITE EXTENSION	02/26/15	CEC, JKA	DAD
00	MDOE PERMIT REVIEW COMMENTS	07-22-14	ESBPF	DAD

---

SHEET No. 17 OF 30

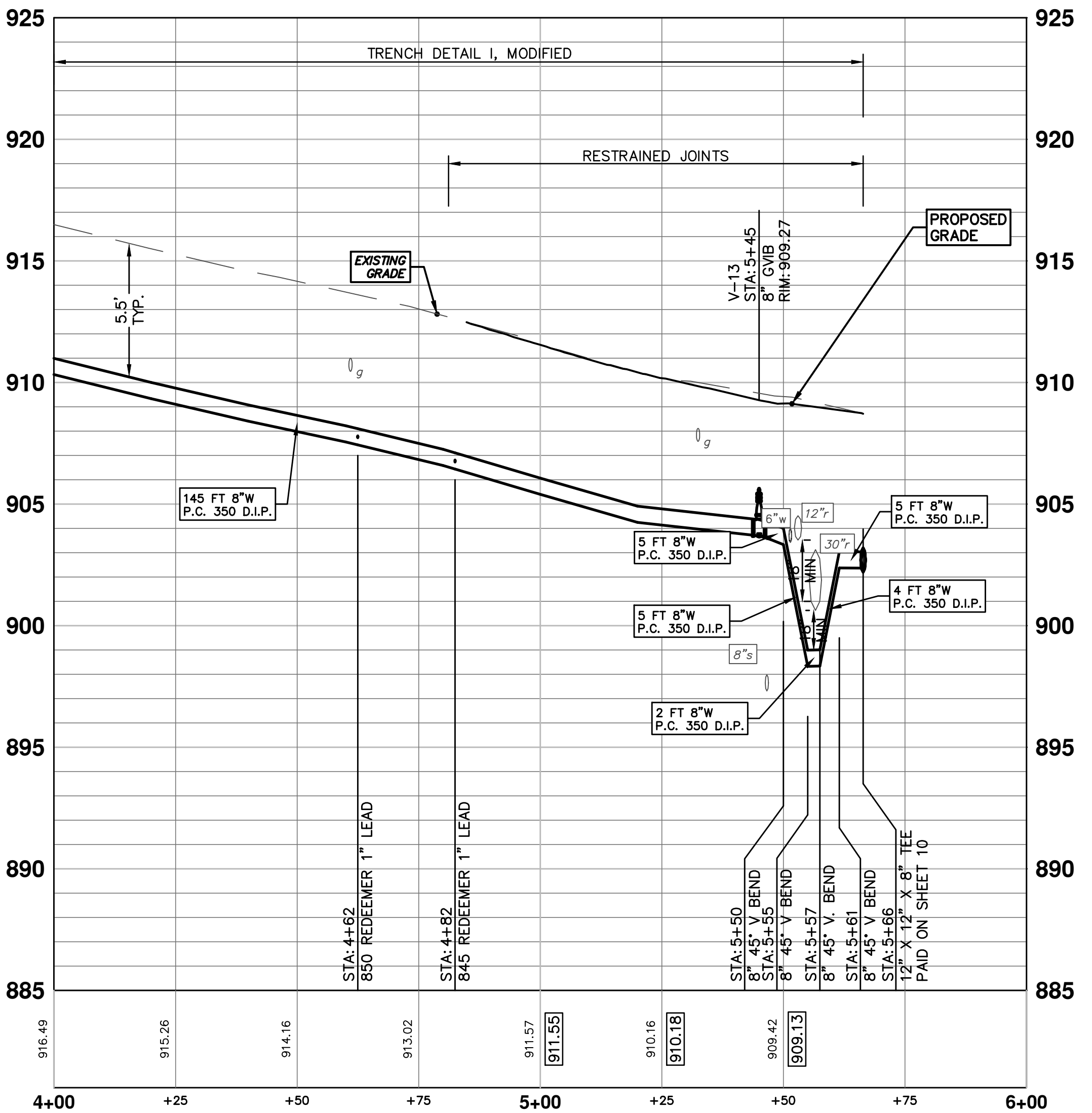
SEE SHEET 17 FOR REDEEMER (N) WATER MAIN



SEE SHEET 16 FOR HEWETT WATER MAIN

SEE SHEET 19 FOR REDEEMER (S) WATER MAIN

SEE SHEET 10 FOR HEWETT WATER MAIN



WATER MAIN STRUCTURE TABLE					
STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
V-2	12" GVW	0+10	Pr Water Redeemer S	908.35	7.35
H-2	HYDRANT ASSEMBLY	0+52	Pr Water Redeemer S	909.66	8.99
V-13	8" GVW	5+45	Pr Water Redeemer N	909.27	5.58
V-4	8" GVW	12+47	Pr Water Russell-Hewett Loop	907.55	6.21
V-3	12" GVW	13+01	Pr Water Russell-Hewett Loop	908.31	7.31

EX-WATER MAIN STRUCTURE TABLE				
STRUCTURE	TYPE	STATION	RIM	DEPTH
w-03	01-00889 REMOVE GVWI	2+57	909.65	7.60
h-2	02-00520 HYDRANT REMOVAL	12+70	908.65	8.40
w-02	01-00888 REMOVE GVWI	12+72	908.17	8.38

**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
 HEWETT DR, RUSSELL RD, RUSSELL RD & REDEEMER AVE WATER MAIN REPLACEMENT  
 WATER MAIN PLAN & PROFILE  
 REDEEMER (N) STA 4+00 TO 5+66

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

DRAWING No. **2013034-16**

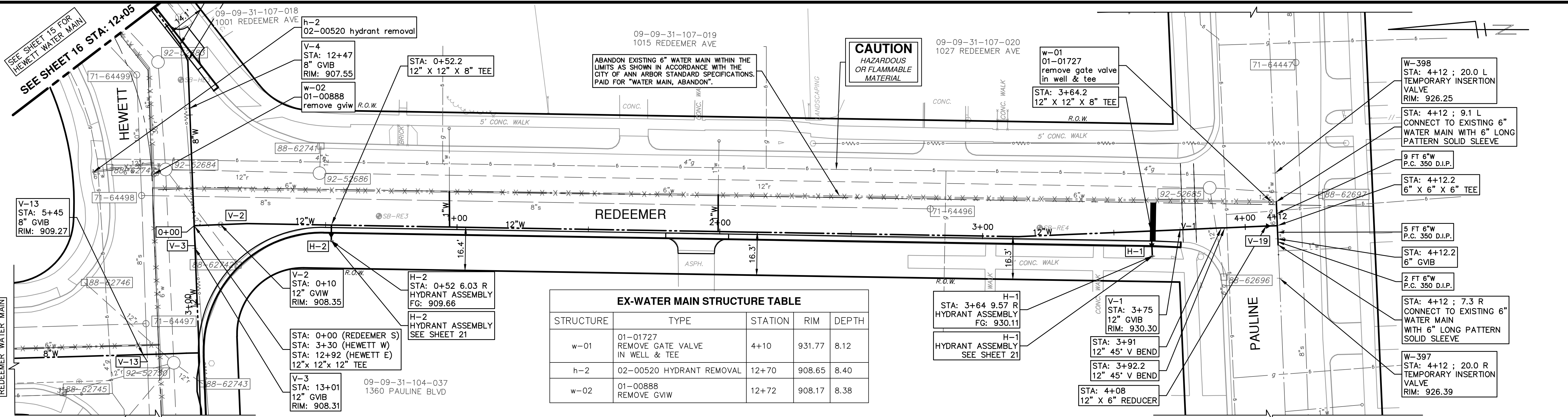
SHEET No. **18 OF 30**

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

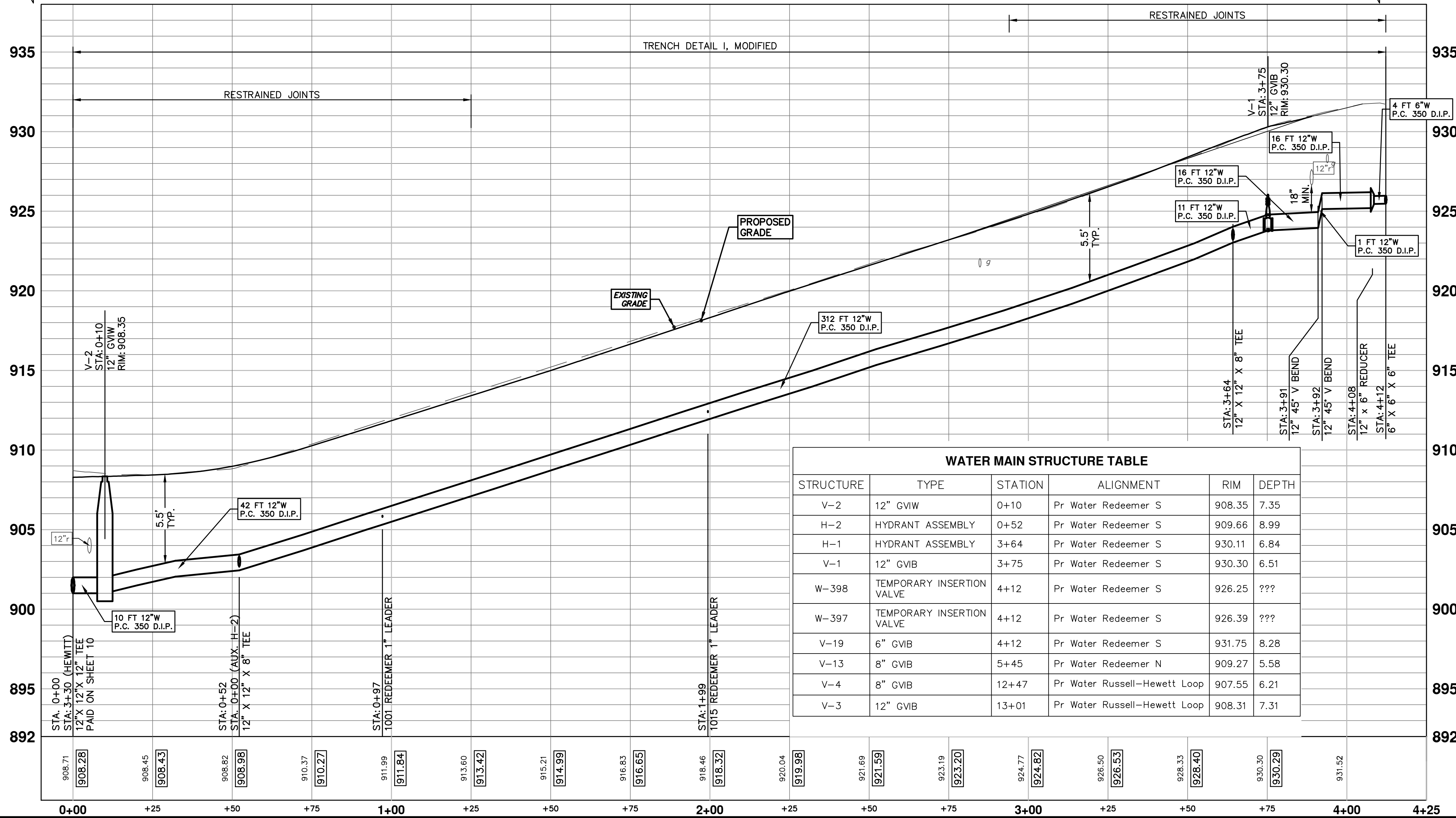
REV.	DATE	DESCRIPTION
02	03/18/15	POST MDEQ 2015 REVIEW
01	02/26/15	EBERWHITE EXTENSION
00	07-22-14	MDEQ PERMIT REVIEW COMMENTS

CITY OF ANN ARBOR  
 PUBLIC SERVICE  
 301 EAST HURON STREET  
 ANN ARBOR, MI 48106-6647  
 ANN ARBOR 734-794-4410  
 www.a2gov.org

S:\Project Management\Design\2014029 HRRR WM Ph II\Source Drawings\Pipe Networks\2014029 PNwastr.dwg Dwg Created: 30-Dec-13 - \_a2 standard bw.stb - Plot Date: 7-Apr-15



STRUCTURE	TYPE	STATION	RIM	DEPTH
w-01	01-01727 REMOVE GATE VALVE IN WELL & TEE	4+10	931.77	8.12
h-2	02-00520 HYDRANT REMOVAL	12+70	908.65	8.40
w-02	01-00888 REMOVE GVW	12+72	908.17	8.38



STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
V-2	12" GVW	0+10	Pr Water Redeemer S	908.35	7.35
H-2	HYDRANT ASSEMBLY	0+52	Pr Water Redeemer S	909.66	8.99
H-1	HYDRANT ASSEMBLY	3+64	Pr Water Redeemer S	930.11	6.84
V-1	12" GVW	3+75	Pr Water Redeemer S	930.30	6.51
W-398	TEMPORARY INSERTION VALVE	4+12	Pr Water Redeemer S	926.25	???
W-397	TEMPORARY INSERTION VALVE	4+12	Pr Water Redeemer S	926.39	???
V-19	6" GVW	4+12	Pr Water Redeemer S	931.75	8.28
V-13	8" GVW	5+45	Pr Water Redeemer N	909.27	5.58
V-4	8" GVW	12+47	Pr Water Russell-Hewett Loop	907.55	6.21
V-3	12" GVW	13+01	Pr Water Russell-Hewett Loop	908.31	7.31

**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
 HEWETT DR, RUSSELL RD, RUSSETT RD &  
 REDEEMER AVE WATER MAIN REPLACEMENT  
 WATER MAIN PLAN & PROFILE  
 REDEEMER (S) STA 0+00 TO 4+12

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

CITY OF ANN ARBOR  
 PUBLIC SERVICE  
 301 EAST HURON STREET  
 P.O. BOX 866  
 ANN ARBOR MI 48107-0867  
 www.aagov.org

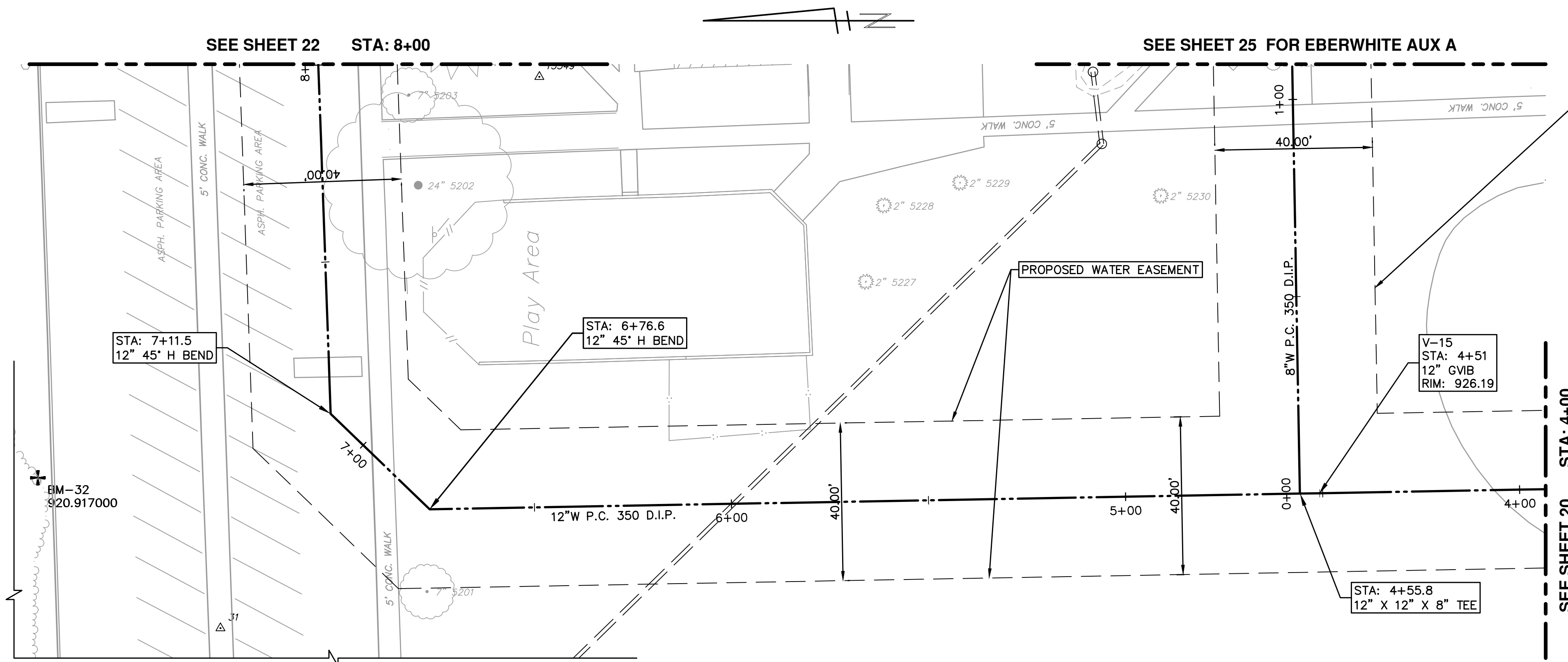
REV.	DATE	DESCRIPTION	CHECKED	DRAWN
02	03/18/15	POST MDCO 2015 REVIEW	DAD	DAD
01	02/26/15	EBERWHITE EXTENSION	SEC. JKA	DAD
00	07-22-14	MDCO PERMIT REVIEW COMMENTS	ESBPF	DAD

SHEET No. 19 OF 30





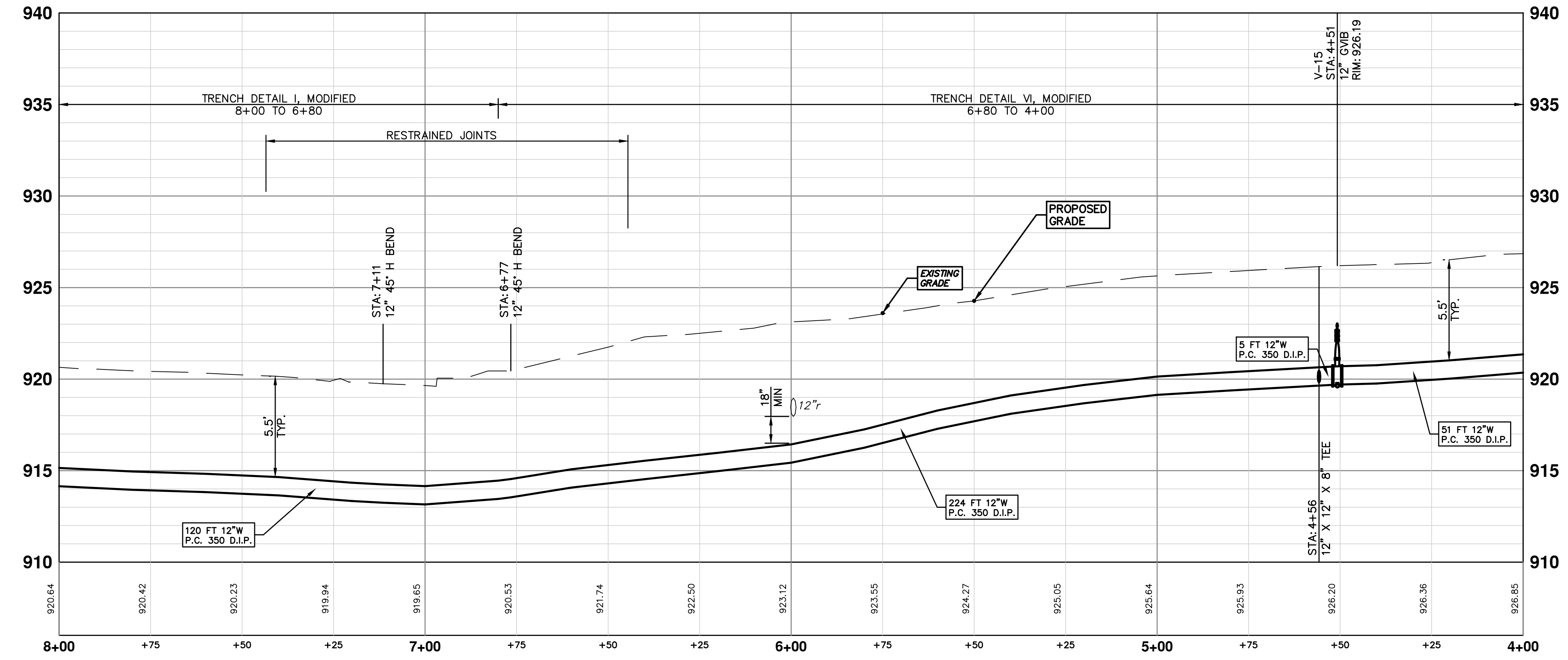
S:\Project Management\Design\2014029 HRRR WM Ph II\Plan Production\Primary\2014029WATR-ew.dwg Dwg Created: 10-Dec-14 - \_o2\_standard bw.stb - Plot Date: 7-Apr-15




**ANN ARBOR PUBLIC SCHOOLS-EBERWHITE ELEMENTARY WATERMAIN EASEMENT (09-09-30-420-013)**

A PARCEL OF LAND BEING PART OF THE SOUTHEAST 1/4 OF SECTION 30, TOWN 2 SOUTH, RANGE 6 EAST, CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN, DESCRIBED AS COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 30; THENCE ALONG THE SOUTH LINE OF SAID SECTION 30, SOUTH 89°21'30" EAST 1330.00 FEET TO THE POINT OF BEGINNING; THENCE NORTH 44°11'34" WEST 137.83 FEET; THENCE NORTH 00°48'26" EAST 321.54 FEET; THENCE NORTH 45°48'26" EAST 51.25 FEET; THENCE NORTH 89°48'53" EAST 220.93 FEET; THENCE NORTH 00°11'07" WEST 53.38 FEET; THENCE NORTH 44°48'53" EAST 64.20 FEET; THENCE NORTH 00°11'14" EAST 8.75 FEET; THENCE ALONG THE SOUTH LINE OF EBERWHITE FIRST ADDITION AS RECORDED IN LIBER 3 OF PLATS, PAGES 13 & 14 OF THE WASHTENAW COUNTY RECORDS, SOUTH 89°25'35" EAST 40.00 FEET; THENCE SOUTH 00°11'14" WEST 24.90 FEET; THENCE SOUTH 44°48'53" WEST 64.05 FEET; THENCE SOUTH 00°11'07" EAST 36.81 FEET; THENCE NORTH 89°48'53" EAST 150.00 FEET; THENCE SOUTH 00°11'07" EAST 40.00 FEET; THENCE SOUTH 89°48'53" WEST 394.76 FEET; THENCE SOUTH 45°48'26" WEST 18.52 FEET; THENCE SOUTH 00°48'26" WEST 192.54 FEET; THENCE SOUTH 89°11'34" EAST 135.00 FEET; THENCE SOUTH 00°48'26" WEST 40.00 FEET; THENCE NORTH 89°11'34" WEST 135.00 FEET; THENCE SOUTH 00°48'26" WEST 55.86 FEET; THENCE SOUTH 44°11'34" EAST 161.03 FEET; THENCE ALONG THE SOUTH LINE OF SAID SECTION 30, NORTH 89°21'30" WEST 56.41 FEET TO THE POINT OF BEGINNING. CONTAINING 46126.93 SQUARE FEET OF LAND. SUBJECT TO THE RIGHTS OF THE PUBLIC AND OF ANY GOVERNMENTAL UNIT IN ANY PART THEREOF, USED, TAKEN OR DEEDED FOR STREET, ROAD OR HIGHWAY PURPOSES. SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.


STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
V-15	12" GVB	4+51	Eberwhite	926.19	6.49





Know what's below.  
Call before you dig.

02	POST MDCO 2015 REVIEW	JKA	03/18/15	DAD	DAD				CHECKED
01	EBERWHITE EXTENSION	ECG, JKA	02/26/15	DAD	DAD				
00	MDCO PERMIT REVIEW COMMENTS	ESBPF	07-22-14	DAD	DAD				
REV.	DESCRIPTION		DATE						



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

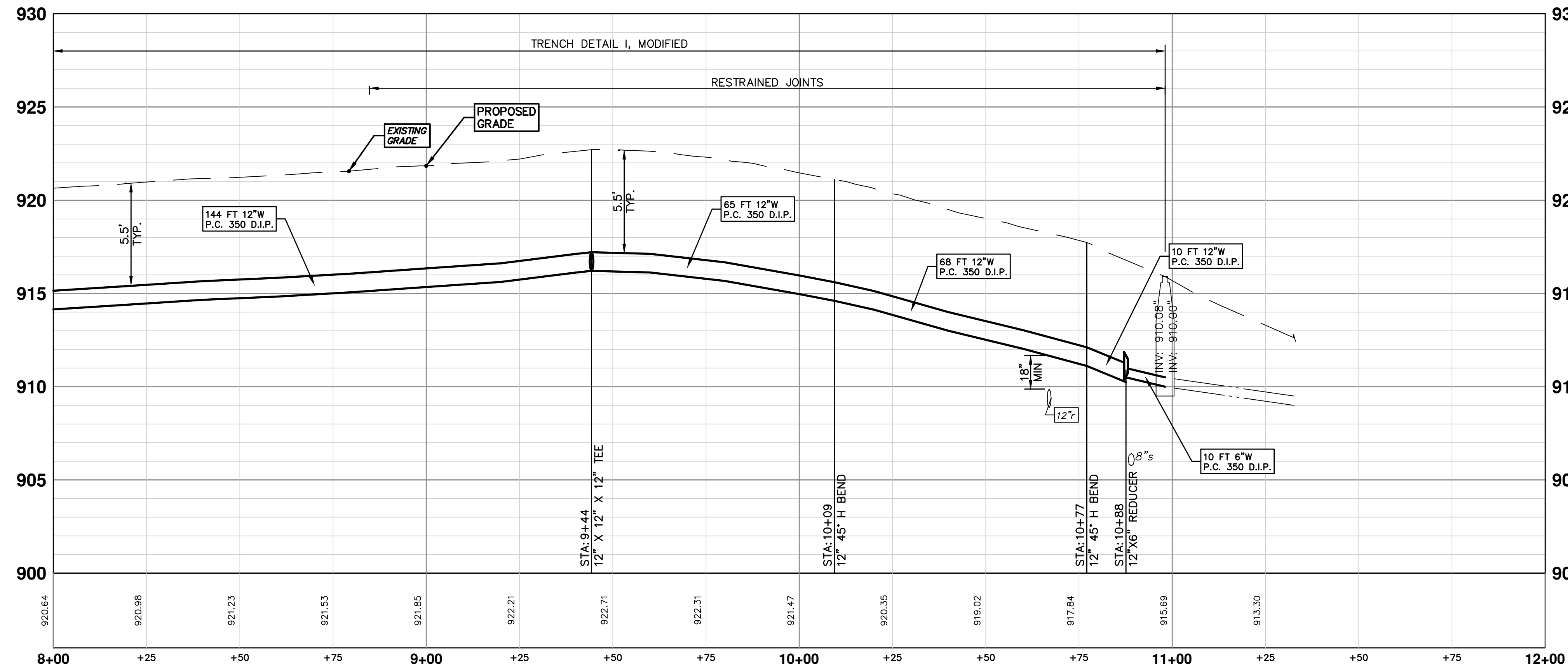
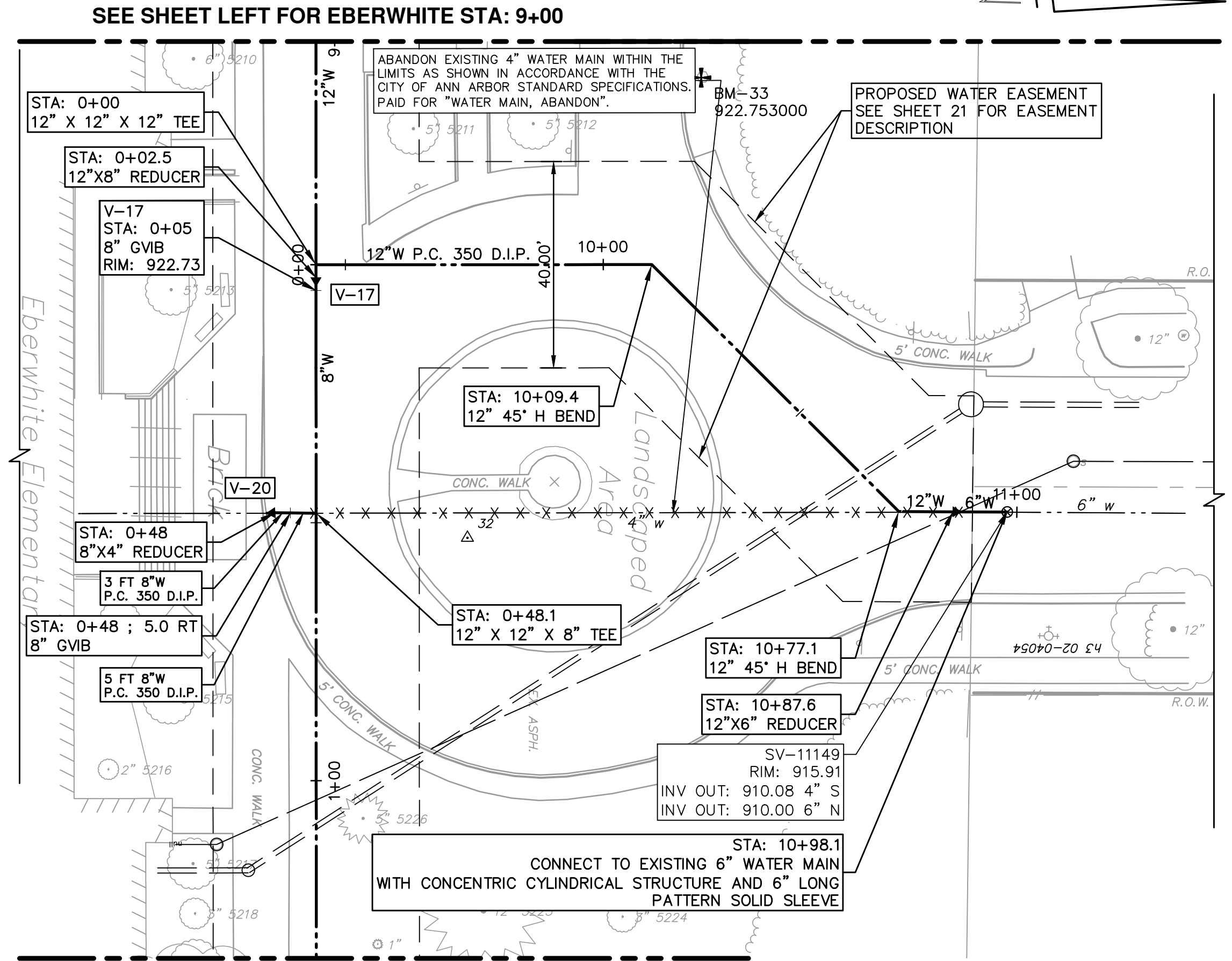
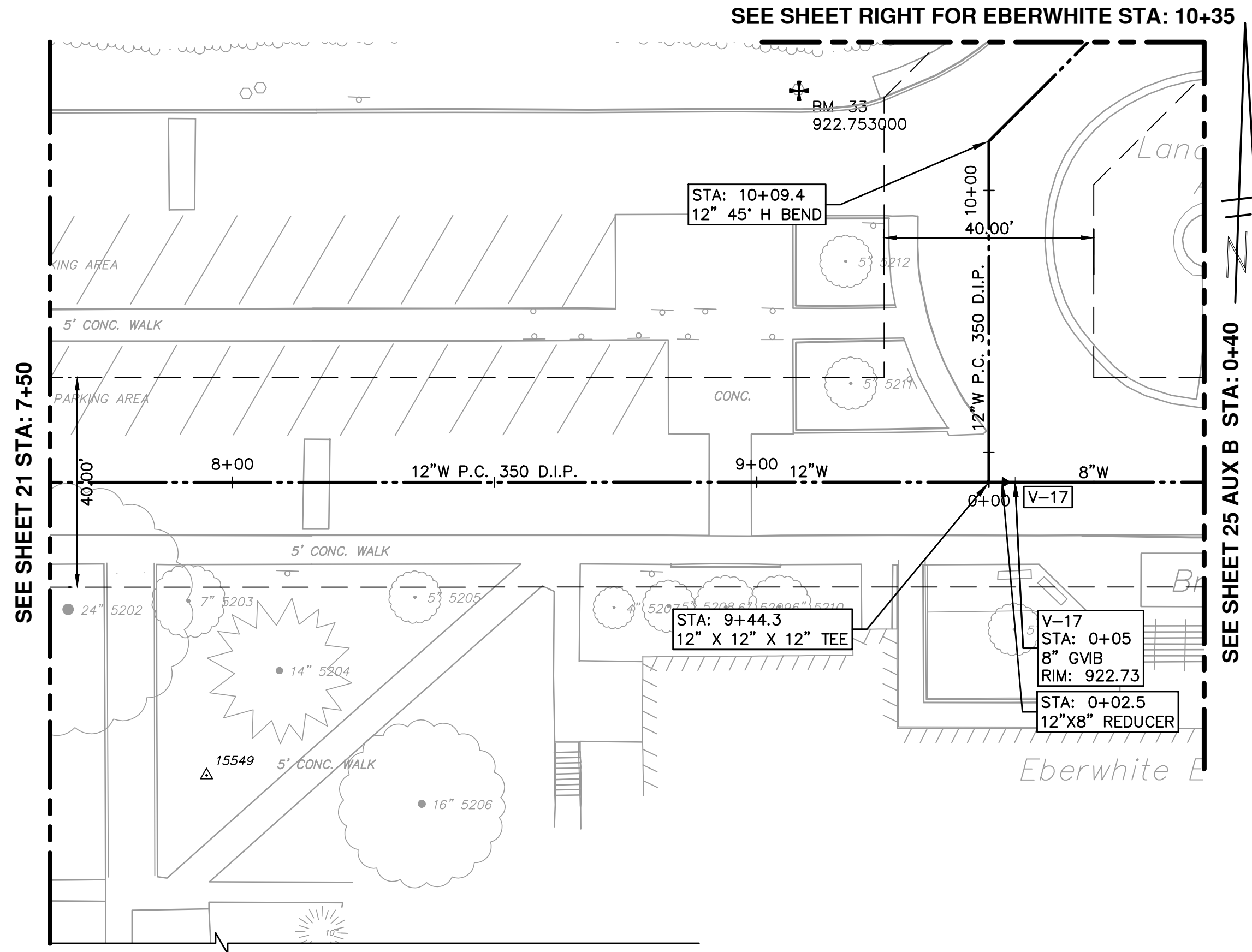
**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
HEWETT DR, RUSSELL RD, RUSSETT RD &  
REDEEMER AVE WATER MAIN REPLACEMENT  
WATER MAIN PLAN & PROFILE  
EBERWHITE EXTENSION 4+00 TO 8+00

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

DRAWING No. 2013034-21

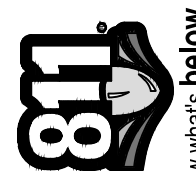
SHEET No. 21 OF 30

S:\Project Management\Design\2014029 HRRR WM Ph II\Plan Production\Primary\2014029WATR-ew.dwg Dwg Created: 10-Dec-14 - \_o2 standard bw.stb - Plot Date: 7-Apr-15




STRUCTURE TABLE			
STRUCTURE NAME:	DETAILS:	PIPES IN:	PIPES OUT
w-751	48" RIM = 915.91 SUMP = 910.0 INV OUT = 910.08 INV OUT = 910.00		p-(583), 4" TYPE K INV OUT = 910.08 p-(567), 6" DIP INV OUT = 910.00

WATER MAIN STRUCTURE TABLE					
STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
V-20	8" GVIB	???	Eberwhite-Aux A	923.40	8.80
V-17	8" GVIB	???	???	922.73	6.14



Know what's below.  
Call Before you dig.

	DAD	JKA	CEC, JKA	ESBPF	DATE	DRAWN	CHECKED		
02	POST MDOE 2015 REVIEW	03/18/15							
01	EBERWHITE EXTENSION	02/26/15							
00	MDOE PERMIT REVIEW COMMENTS	07-22-14							
	REV.		DESCRIPTION						



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

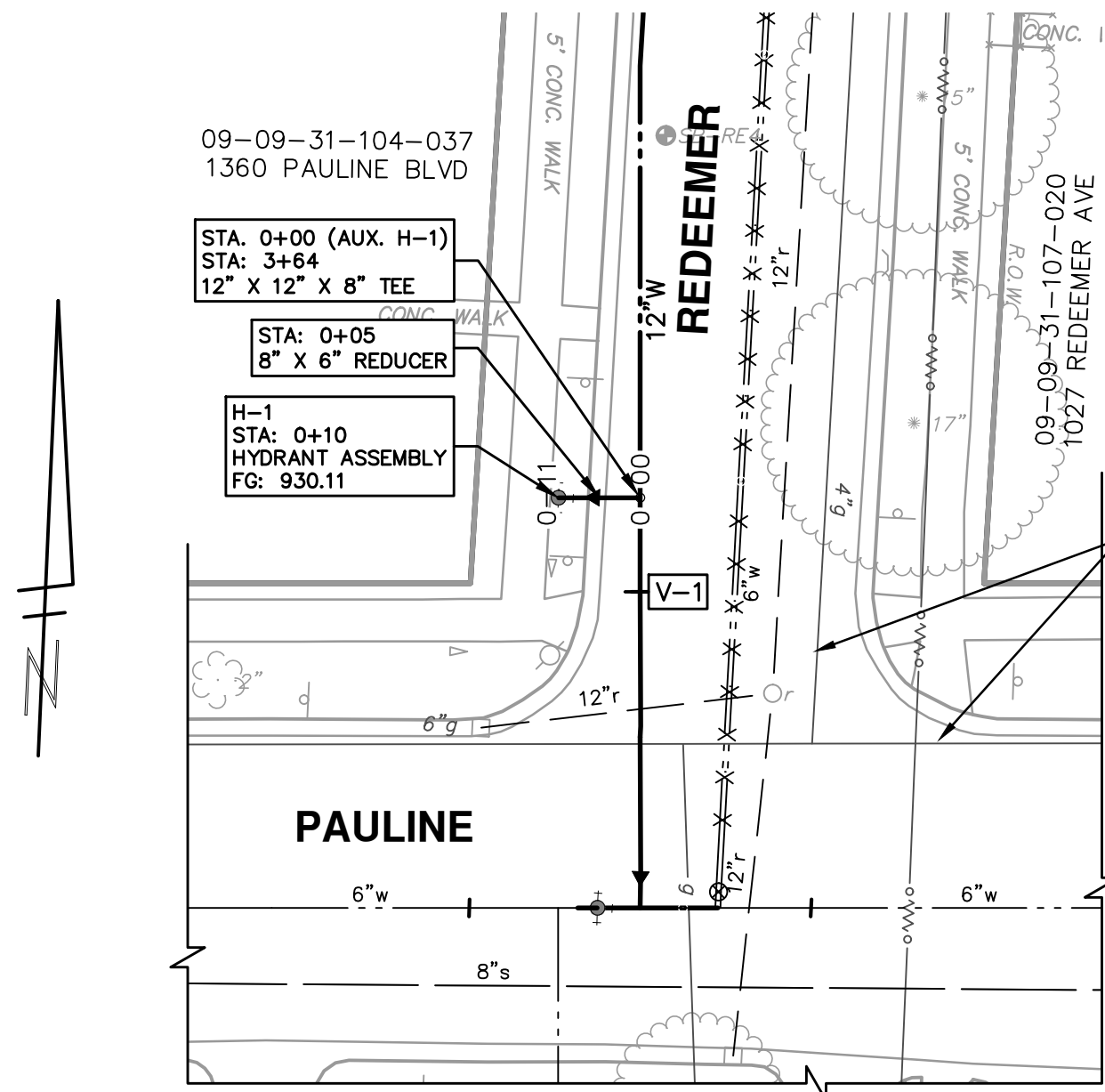
**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
HEWETT DR, RUSSELL RD, RUSSETT RD &  
REDEEMER AVE WATER MAIN REPLACEMENT  
WATER MAIN PLAN & PROFILE  
EBERWHITE EXTENSION 8+00 TO 11+00

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

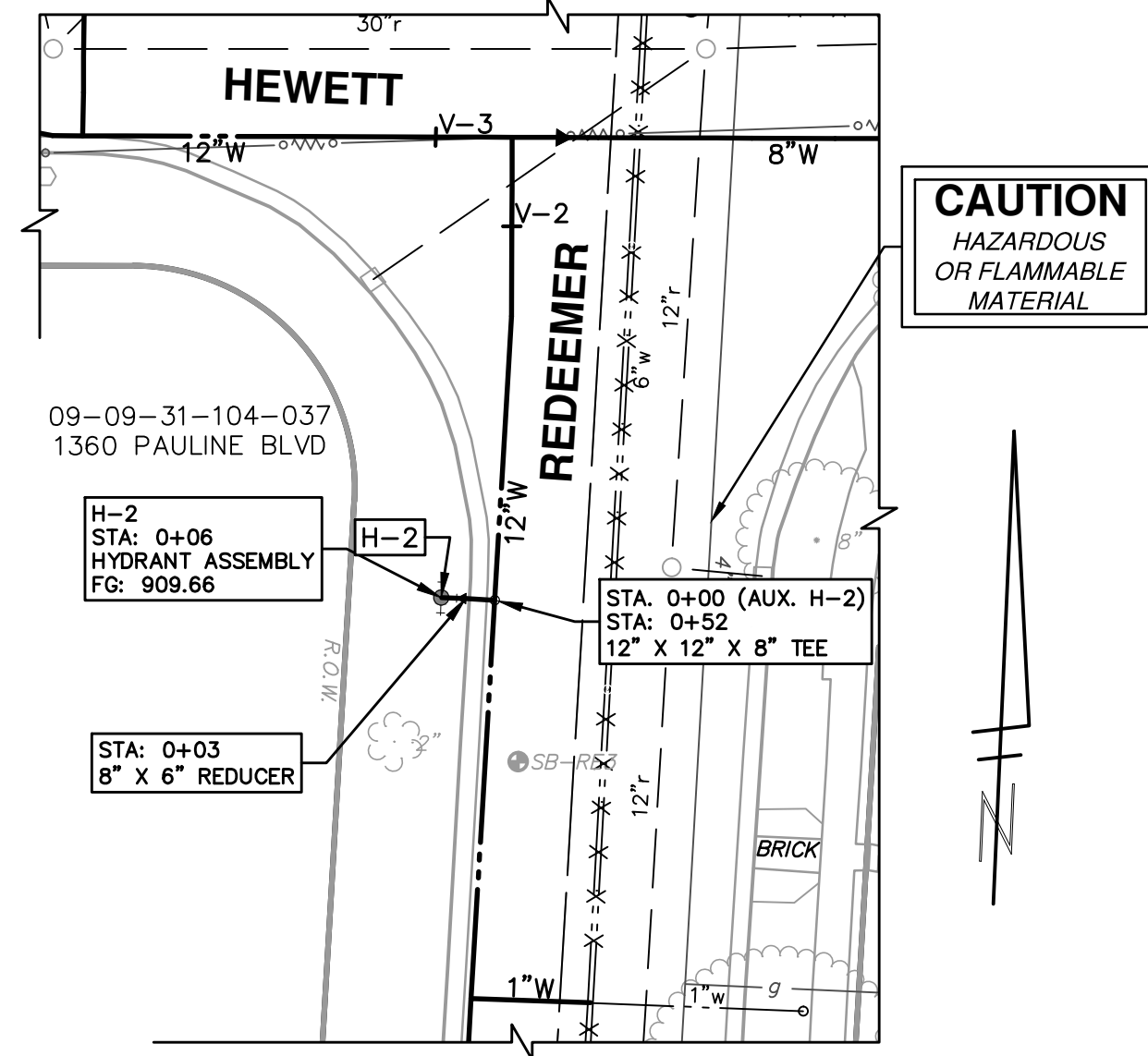
DRAWING No. **2013034-22**

SHEET No. **22 OF 30**

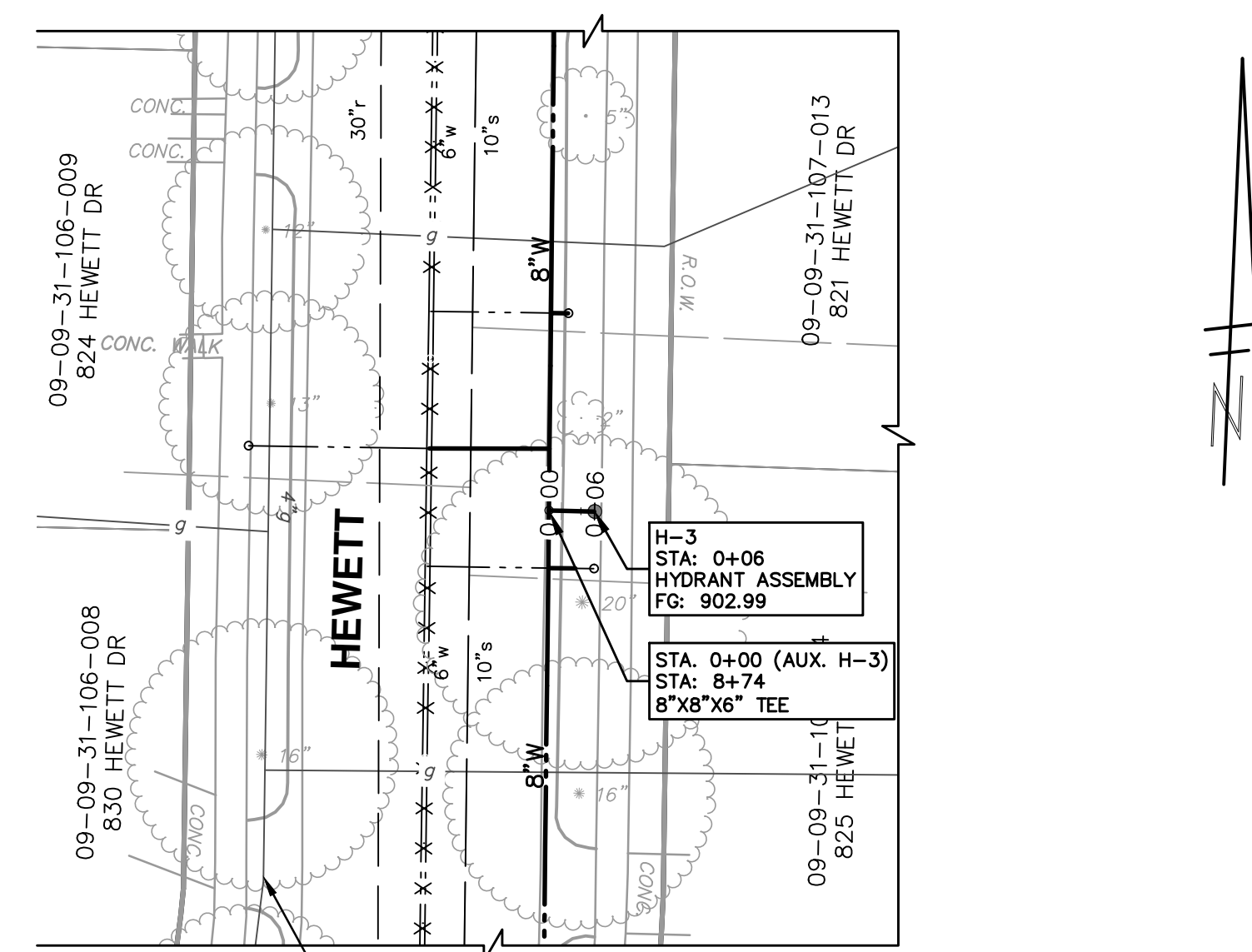




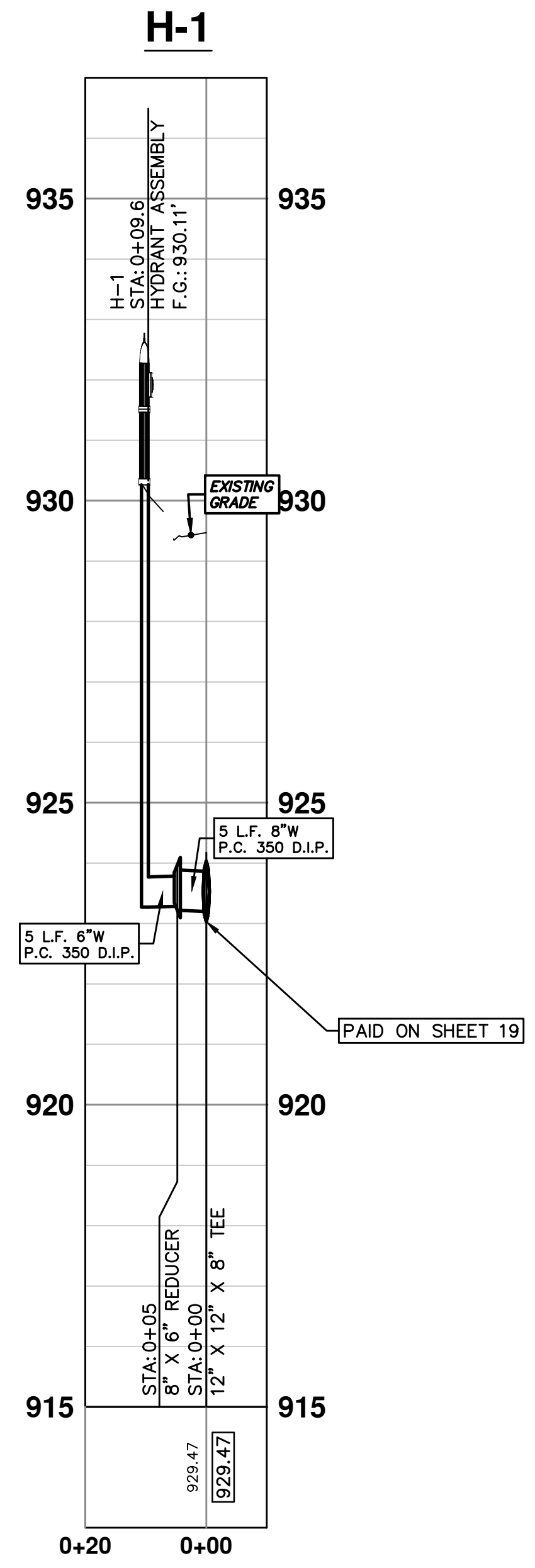
**CAUTION**  
HAZARDOUS  
OR FLAMMABLE  
MATERIAL



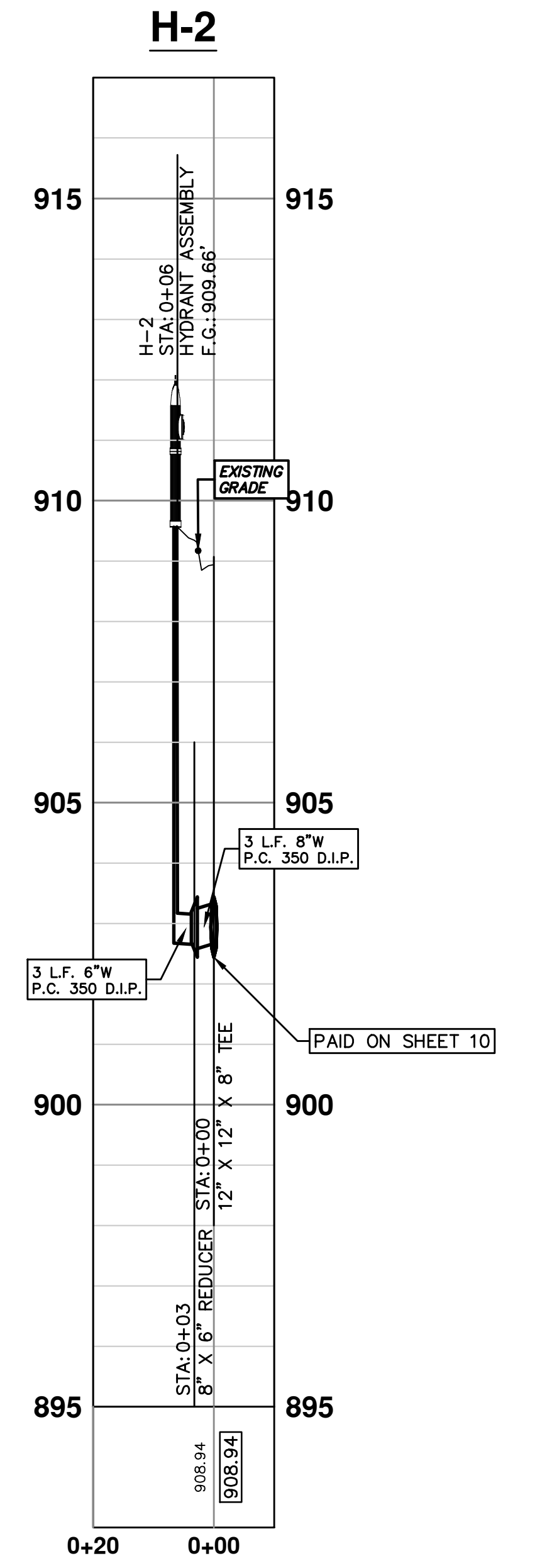
**CAUTION**  
HAZARDOUS  
OR FLAMMABLE  
MATERIAL



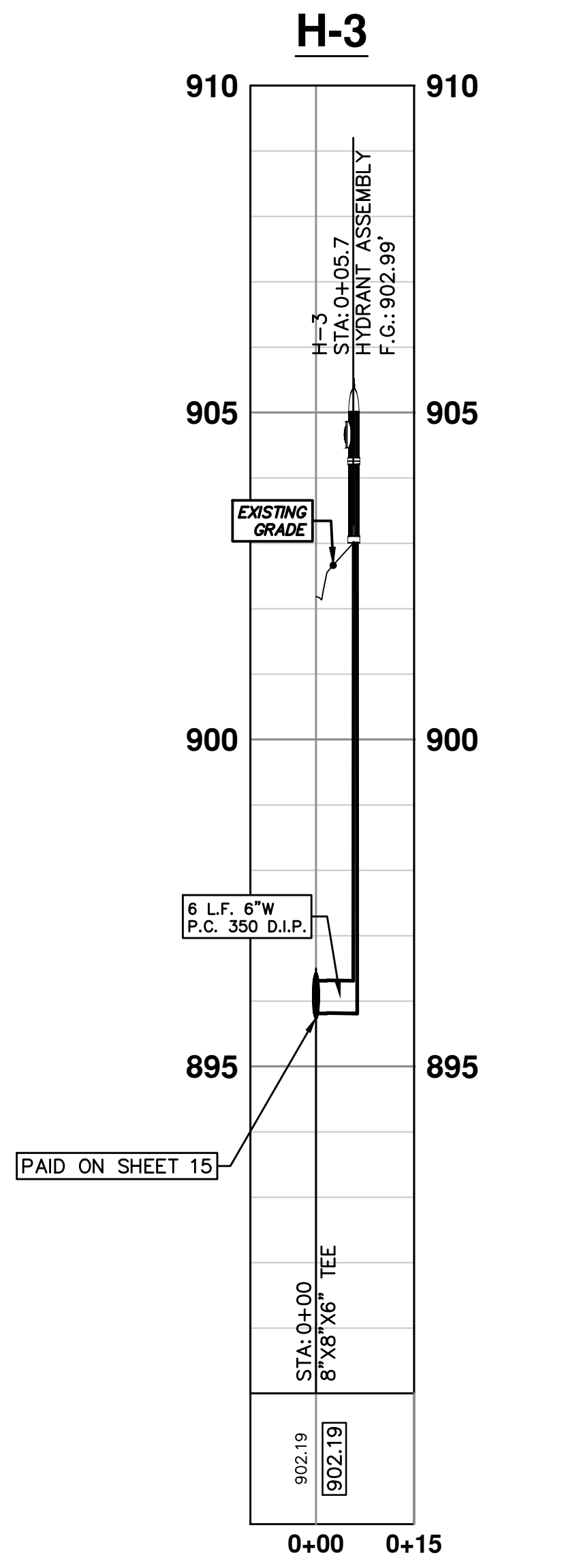
**CAUTION**  
HAZARDOUS  
OR FLAMMABLE  
MATERIAL



PAID ON SHEET 19



PAID ON SHEET 10



PAID ON SHEET 15

WATER MAIN STRUCTURE TABLE					
STRUCTURE	TYPE	STATION	ALIGNMENT	FG	DEPTH
H-1	HYDRANT ASSEMBLY	3+64	Pr Water Redeemer S	930.11	6.84
H-2	HYDRANT ASSEMBLY	0+52	Pr Water Redeemer S	909.66	8.99
H-3	HYDRANT ASSEMBLY	8+74	Pr Water Russell-Hewett Loop	902.99	9.18

**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT  
WATER MAIN PLAN & PROFILE  
HYDRANT LEADS H1 - H3

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

DRAWING No. 2013034-23

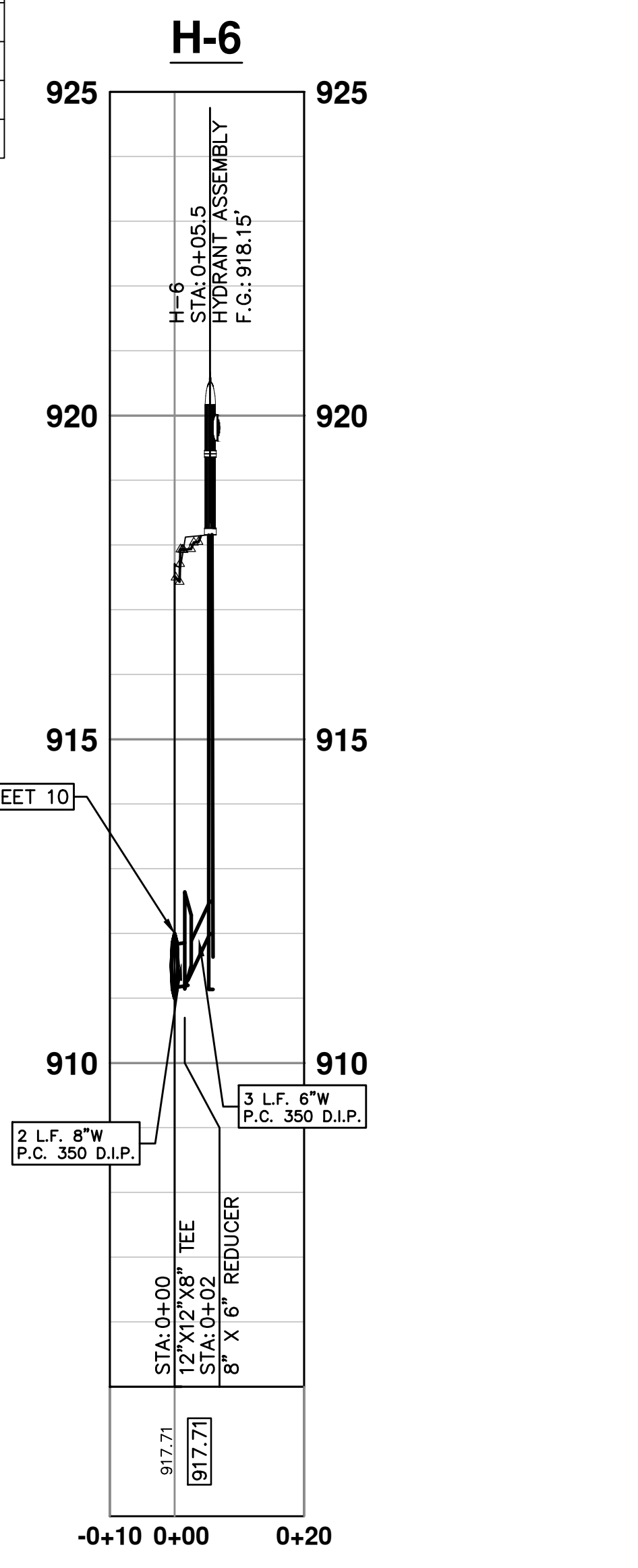
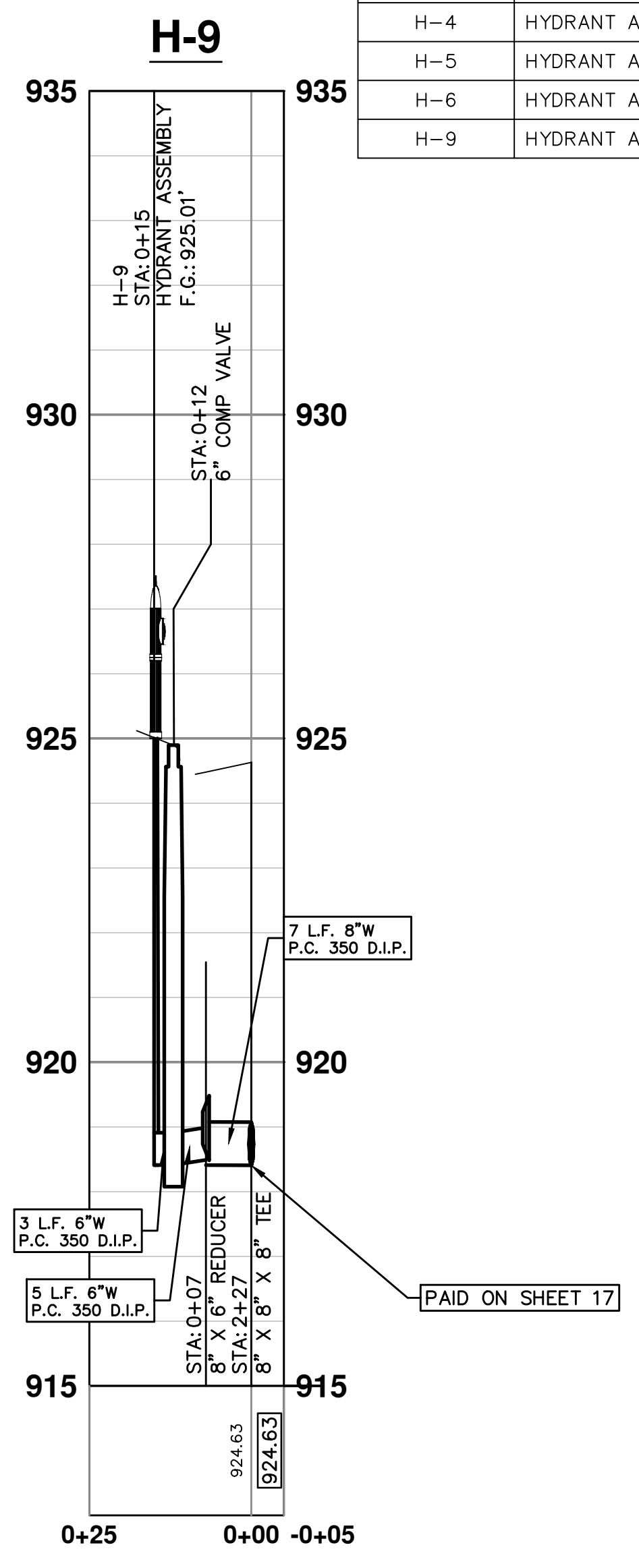
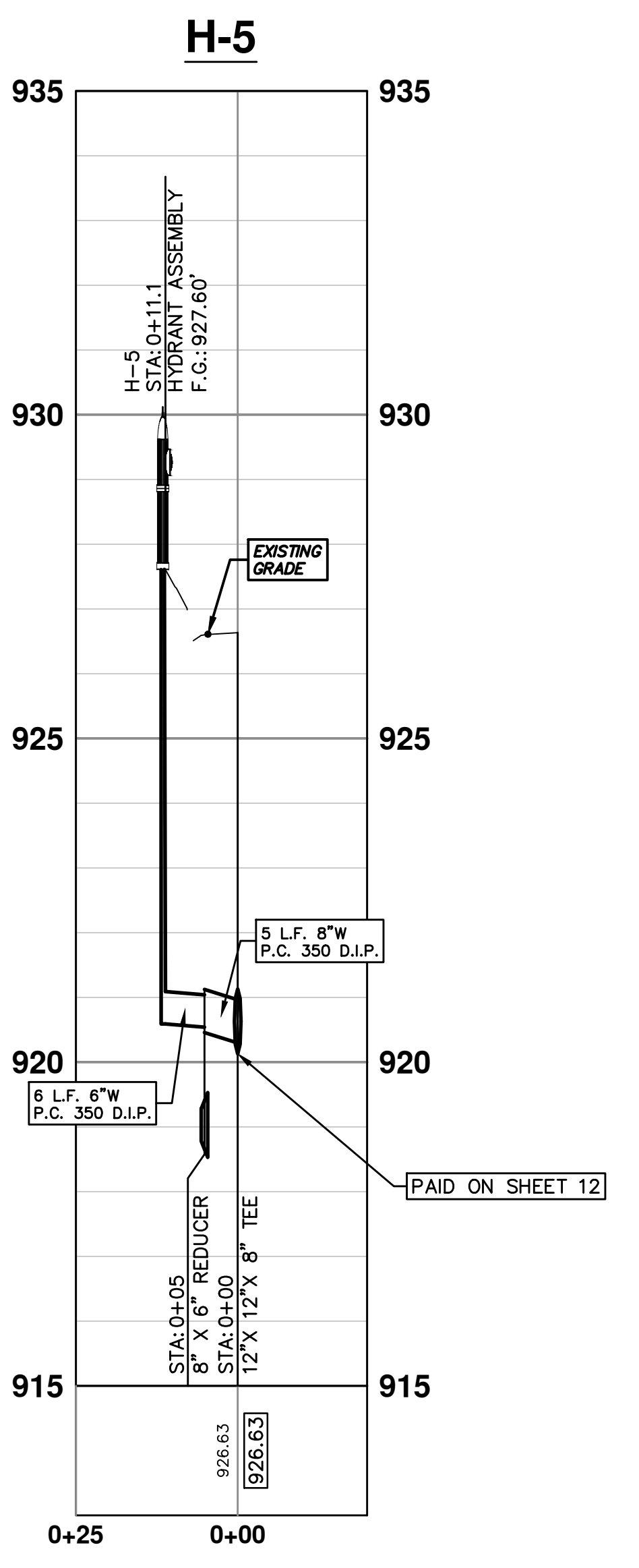
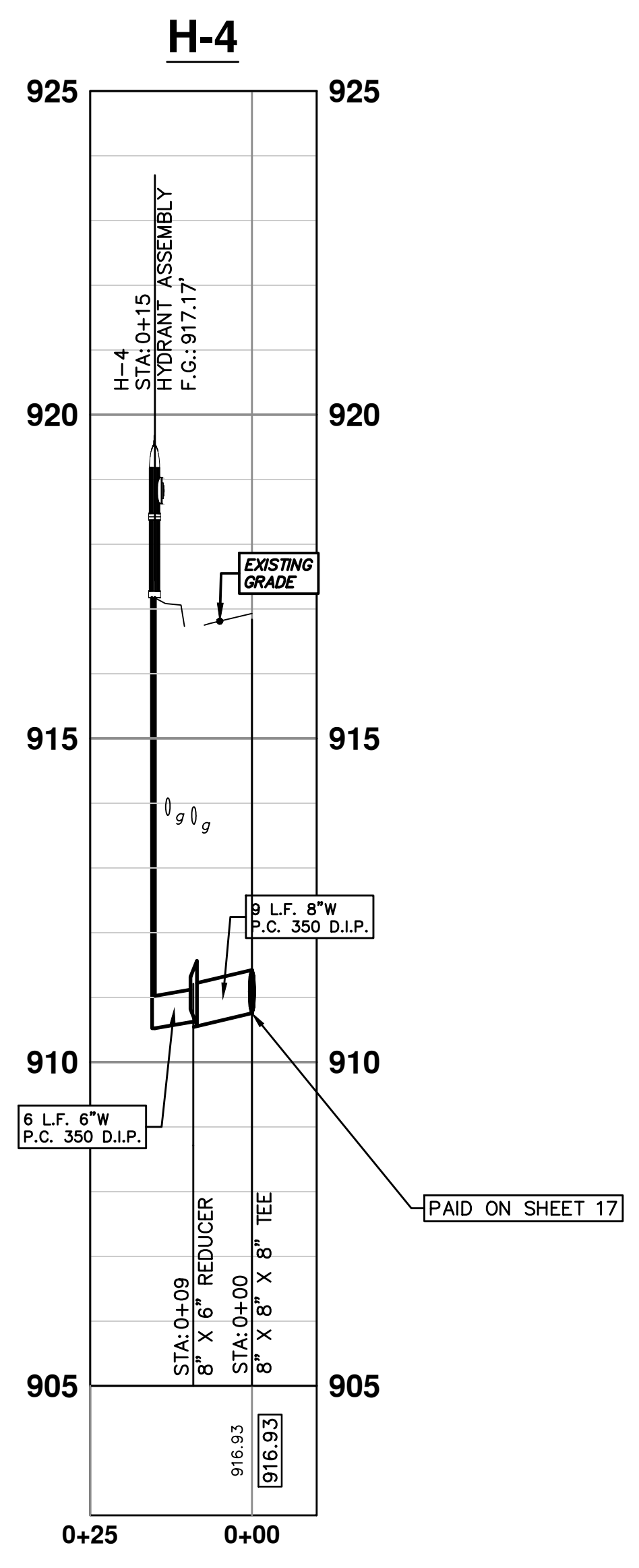
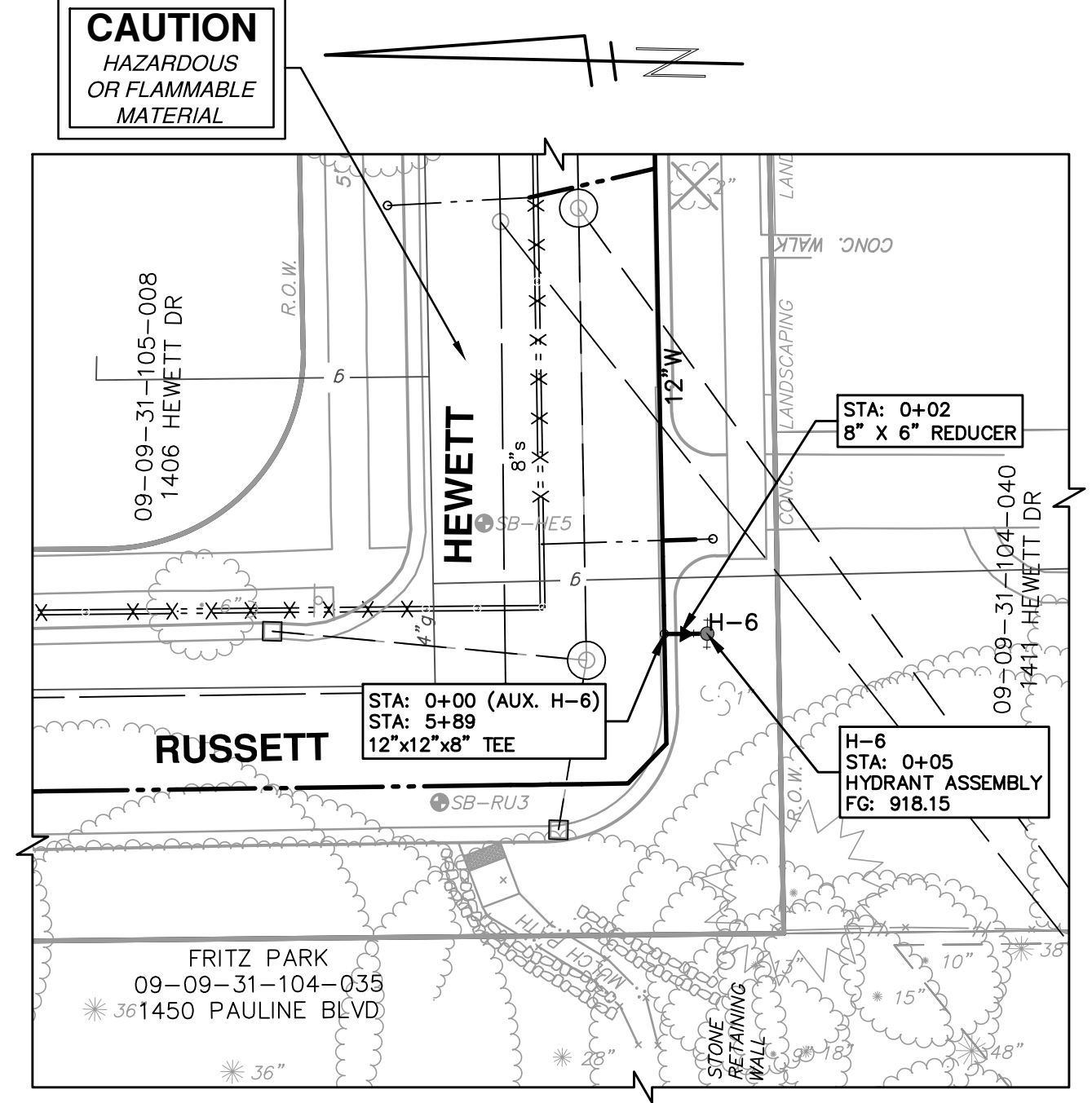
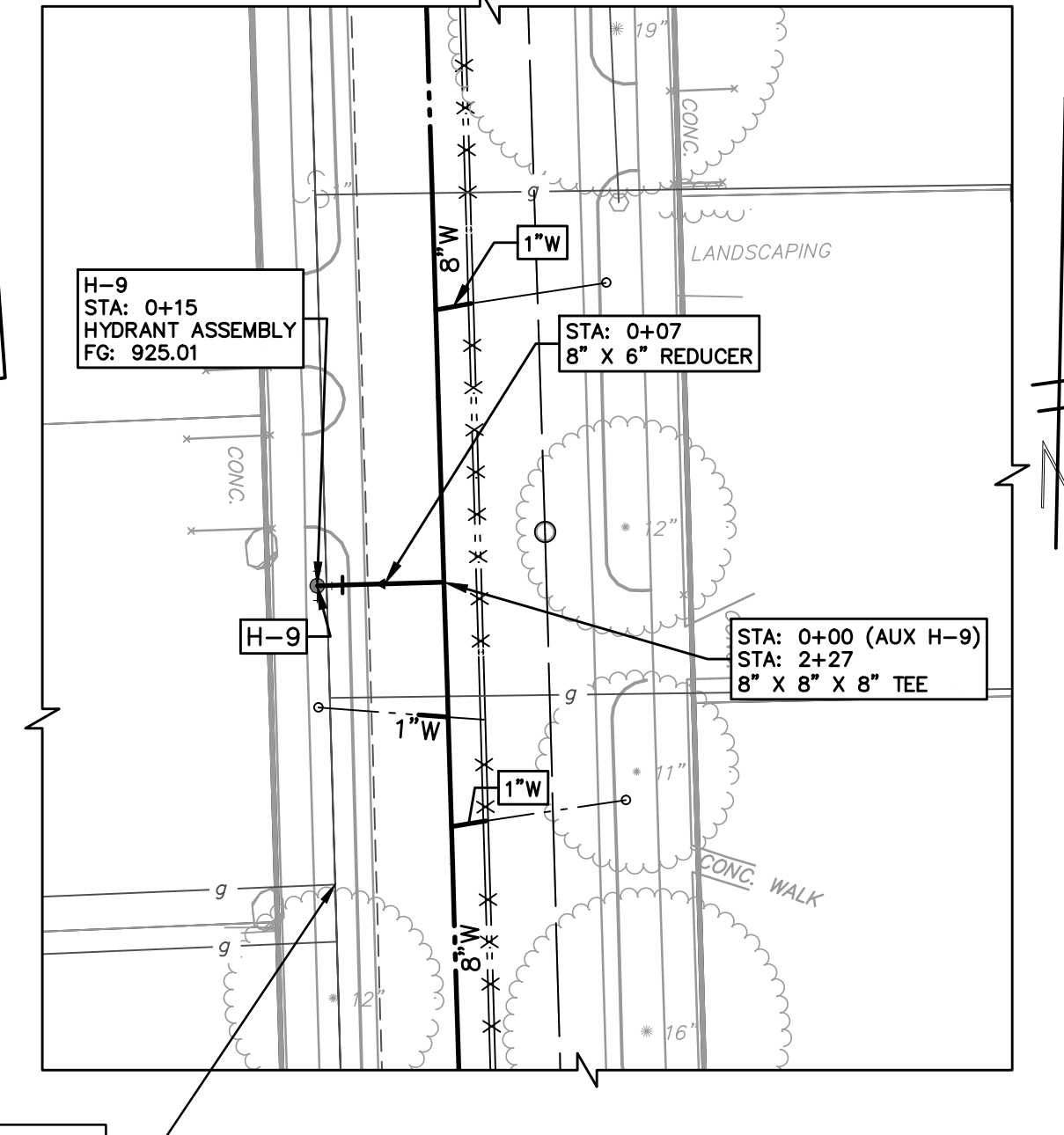
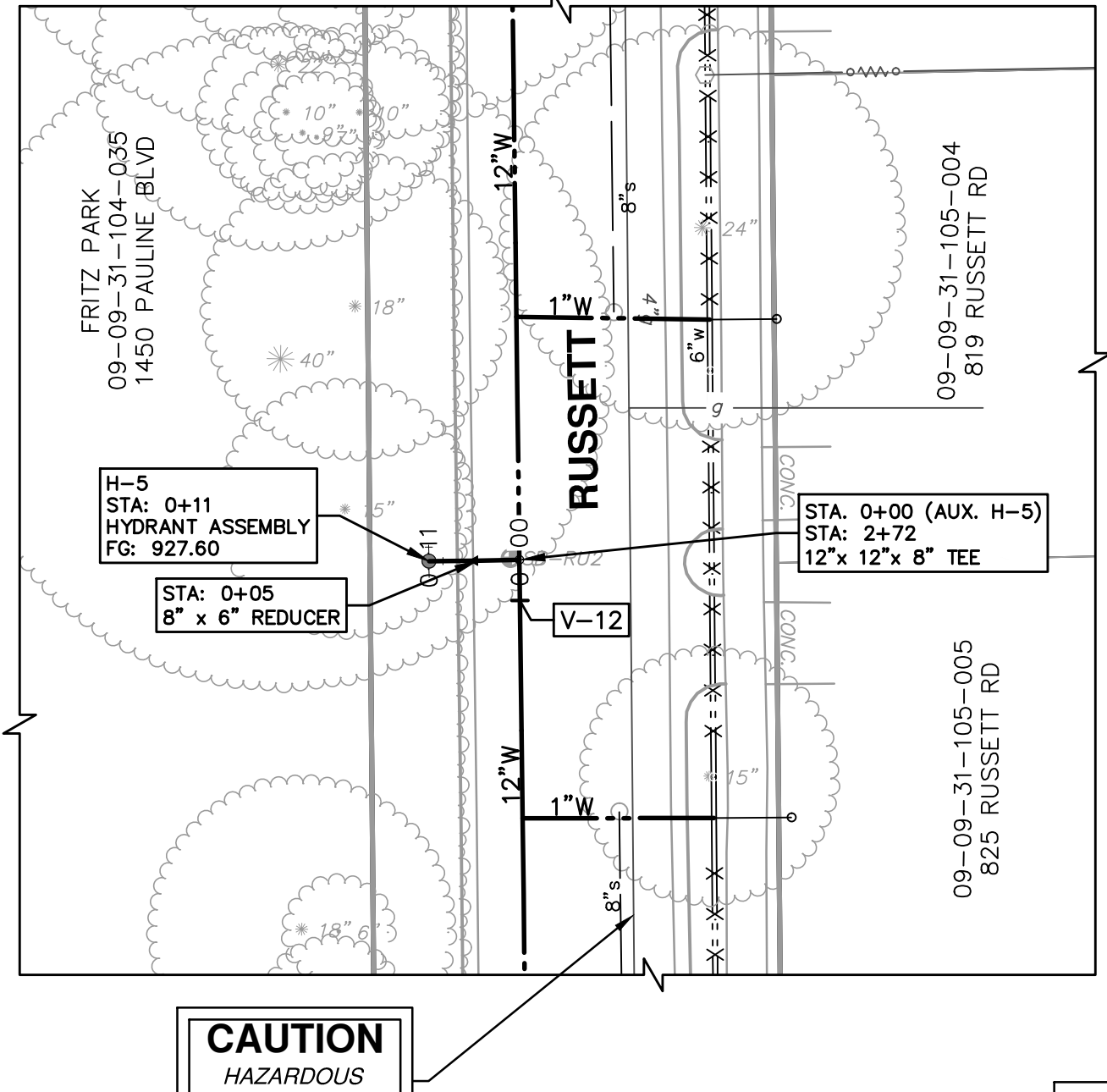
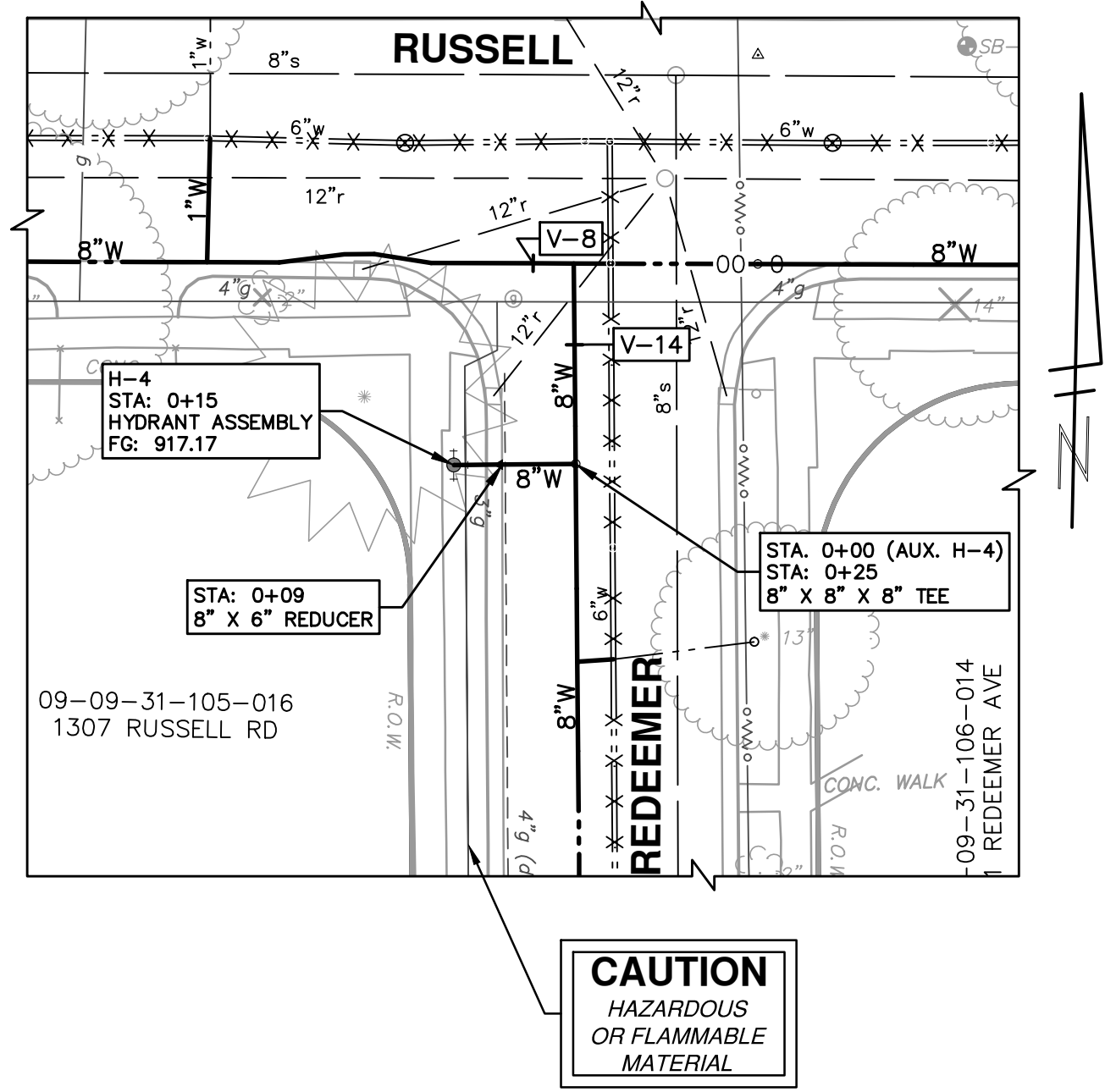
SHEET No. 23 OF 30

CITY OF ANN ARBOR  
PUBLIC SERVICE  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-0667  
www.a2gov.org

REV.	DATE	DRAWN	CHECKED	DESCRIPTION
02	03/18/15	JKA	DAD	POST MDEQ 2015 REVIEW
01	02/26/15	CEC, JKA	DAD	EBERWHITE EXTENSION
00	07-22-14	ESBPF	DAD	MDEQ PERMIT REVIEW COMMENTS

Know what's below.  
Call Before you dig.

S:\Project Management\Design\2014029 HRRR WM Ph II\Plan Production\Primary\2014029WATR.dwg Dwg Created: 13-Jan-14 - \_a2 standard bw.stb - Plot Date: 7-Apr-15



WATER MAIN STRUCTURE TABLE						
STRUCTURE	TYPE	STATION	ALIGNMENT	FG	DEPTH	
H-4	HYDRANT ASSEMBLY	0+25	Pr Water Redeemer N	917.17	8.65	
H-5	HYDRANT ASSEMBLY	2+72	Pr Water Russett	927.60	7.02	
H-6	HYDRANT ASSEMBLY	-0+04	Pr Water Hewett	918.15	6.15	
H-9	HYDRANT ASSEMBLY	2+27	Pr Water Redeemer N	925.01	11.60	

**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
**HEWETT DR, RUSSETT RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT**  
 WATER MAIN PLAN & PROFILE  
 HYDRANT LEADS H4 - H6, H9

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

REV.	DATE	DRAWN	CHECKED
00	07-22-14	ESB/DF	
01	02/26/15	CEC./KA	
02	03/18/15	JKA	

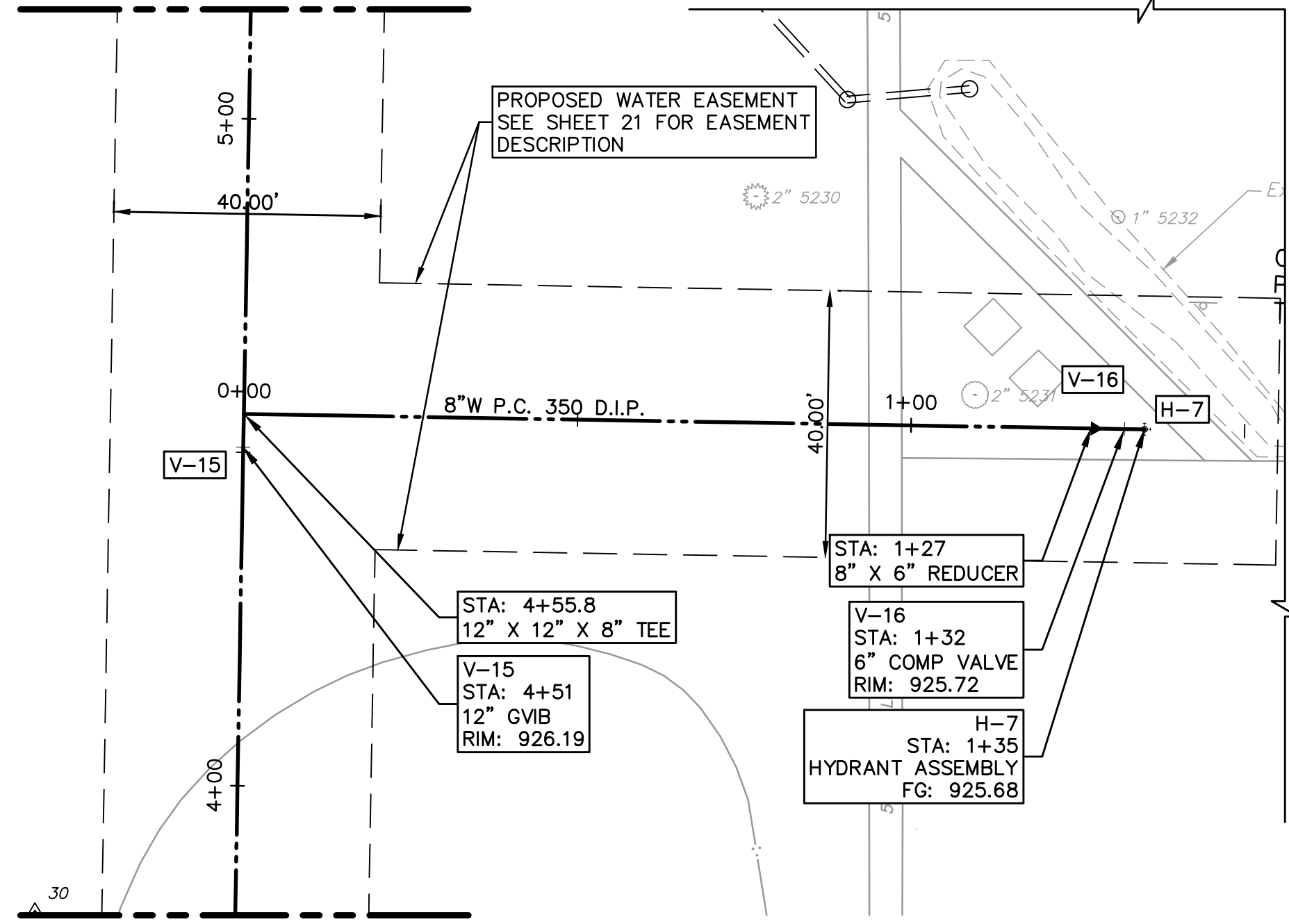
POST MDOQ 2015 REVIEW  
 EBERWHITE EXTENSION  
 MDOQ PERMIT REVIEW COMMENTS

CITY OF ANN ARBOR  
 PUBLIC SERVICE  
 301 EAST HURON STREET  
 P.O. BOX 8647  
 ANN ARBOR MI 48106-8647  
 WWW.A2GOV.ORG

SHEET No. 24 OF 30

S:\Project Management\Design\2014029 HRRR WM Ph II\Plan Production\Primary\2014029WATR-ew.dwg Dwg Created: 10-Dec-14 - \_o2 standard bw.stb - Plot Date: 7-Apr-15

SEE SHEET 21 FOR EBERWHITE STA: 5+16

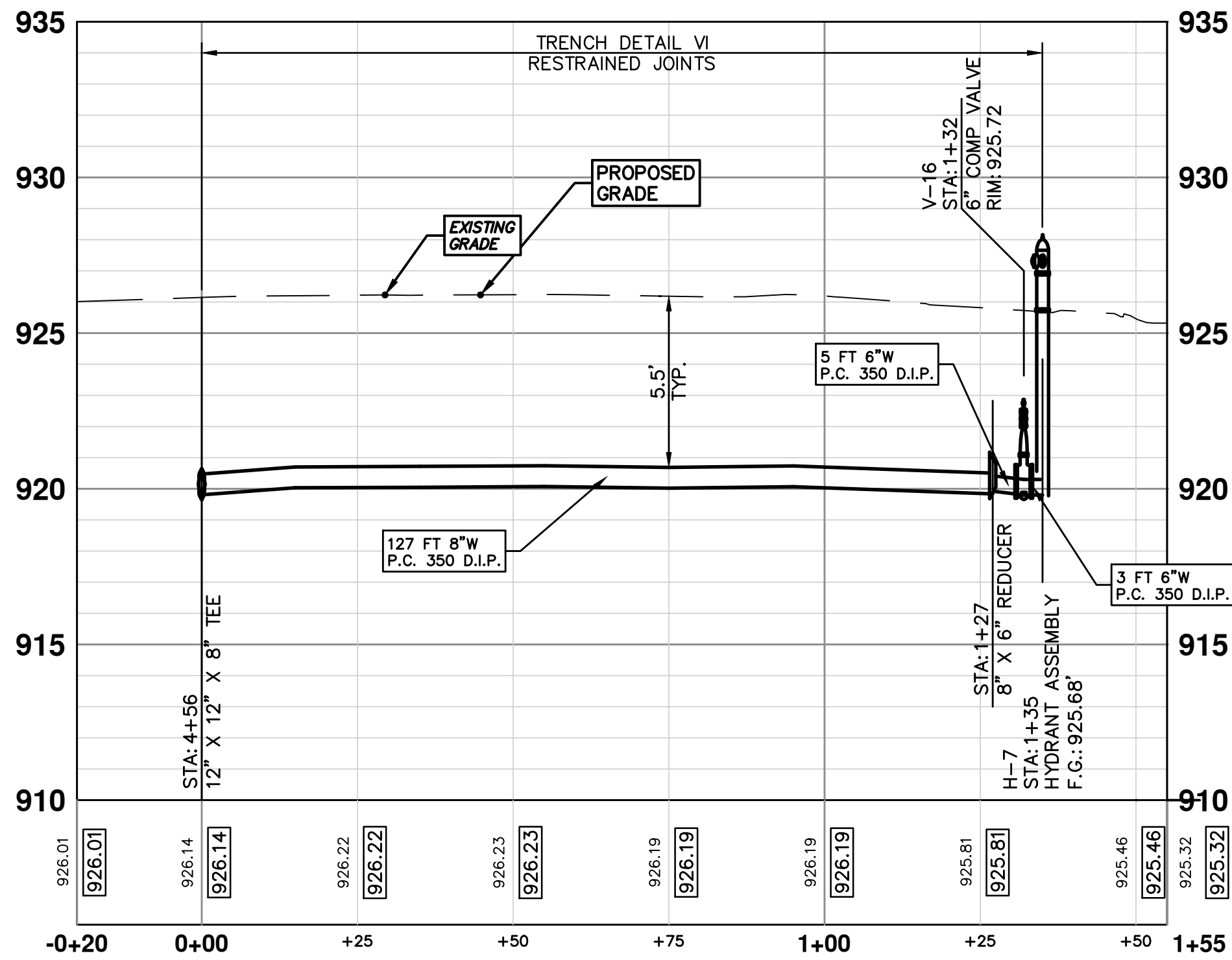


SEE SHEET 20 FOR EBERWHITE STA: 3+81

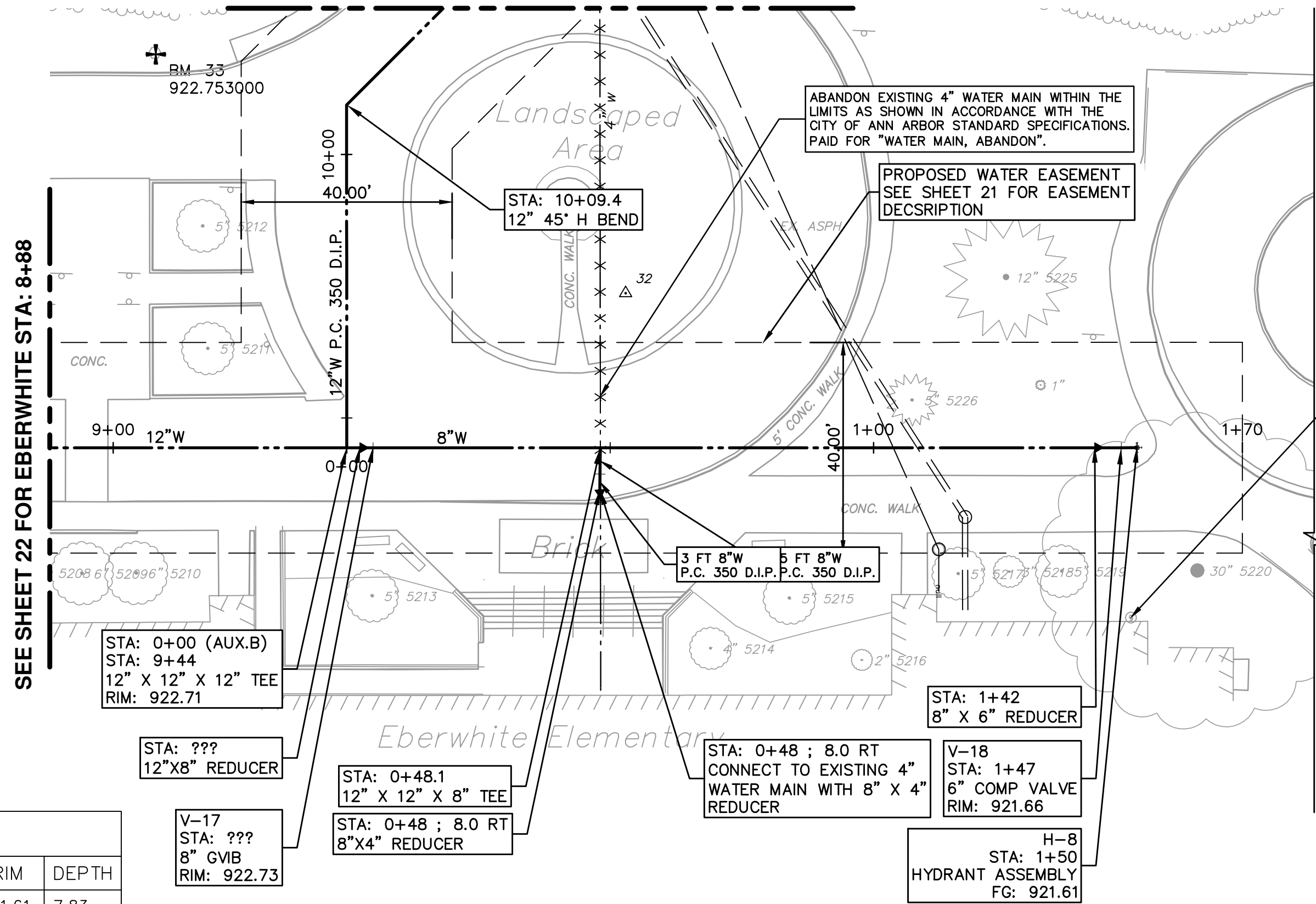
WATER MAIN STRUCTURE TABLE					
STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
H-7	HYDRANT ASSEMBLY	???	???	925.68	7.88
V-16	6" COMP VALVE	1+32	Eberwhite-Aux A	925.72	5.92
V-15	12" GVB	4+51	Eberwhite	926.19	6.49

WATER MAIN STRUCTURE TABLE					
STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
H-8	HYDRANT ASSEMBLY	???	???	921.61	7.83
V-17	8" GVB	???	???	922.73	6.14
V-18	6" COMP VALVE	1+47	Eberwhite-Aux B	921.66	5.89

**EBERWHITE-AUX A**

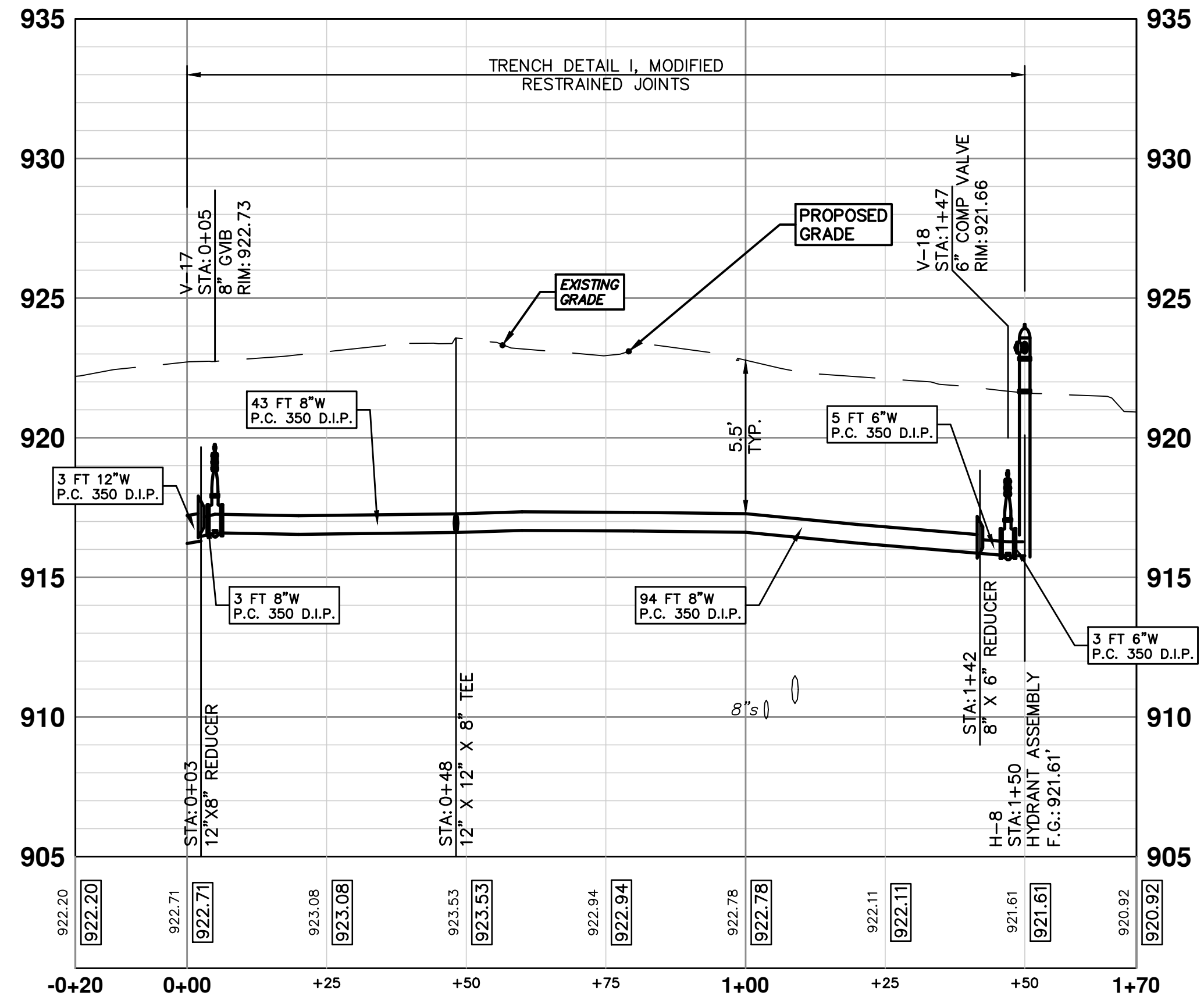


SEE SHEET 22 FOR EBERWHITE STA: 10+35



SEE SHEET 22 FOR EBERWHITE STA: 8+88

**EBERWHITE-AUX B**



REV.	DATE	DESCRIPTION	DRAWN	CHECKED
02	03/18/15	POST MDOE 2015 REVIEW	JKA	DAD
01	02/26/15	EBERWHITE EXTENSION	CEC, JKA	DAD
00	07-22-14	MDOE PERMIT REVIEW COMMENTS	ESBPF	DAD

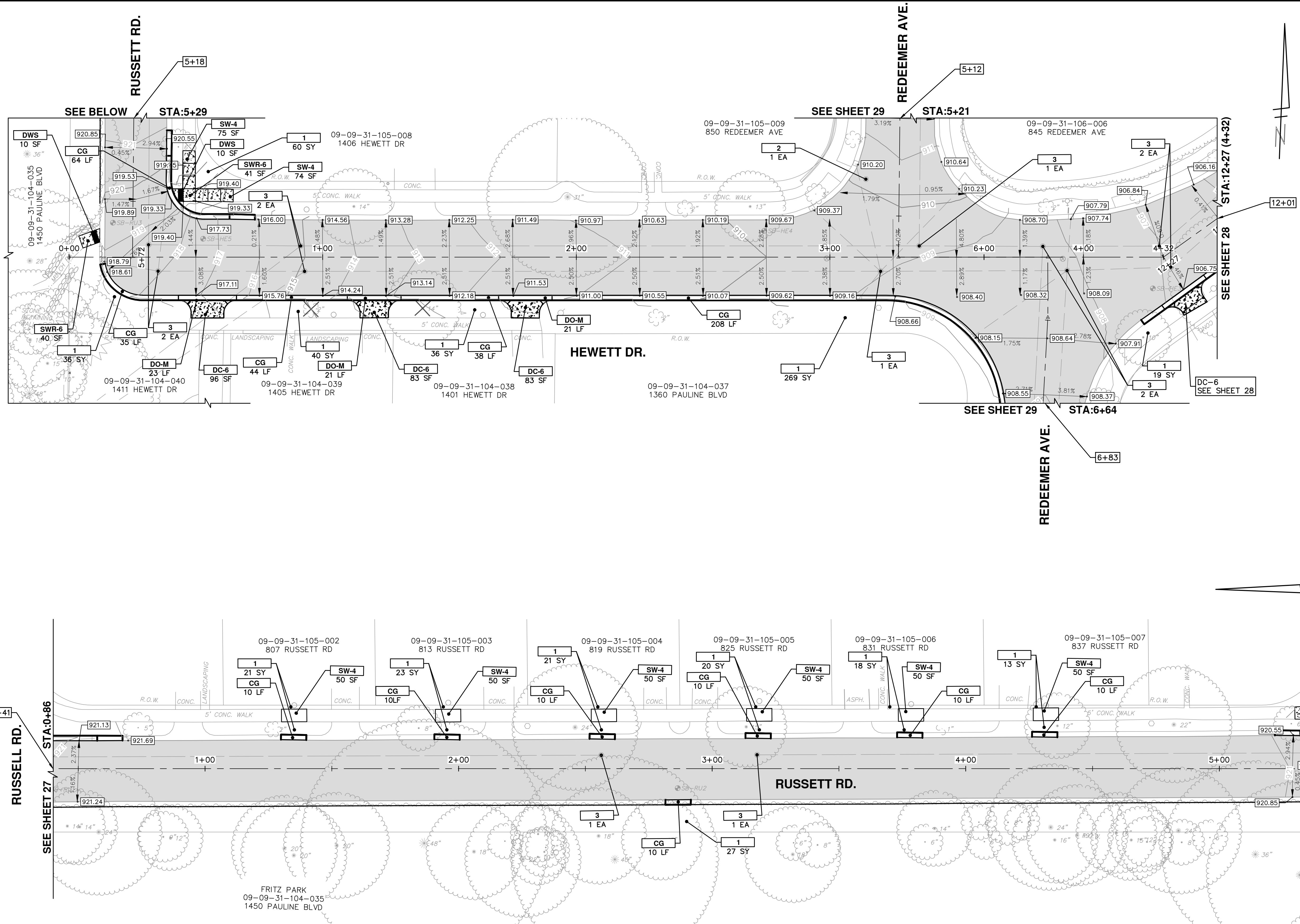
CITY OF ANN ARBOR  
PUBLIC SERVICE  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-1070-8647  
734-794-8410  
www.a2gov.org



**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
HEWETT DR, RUSSELL RD, RUSSETT RD &  
REDEEMER AVE WATER MAIN REPLACEMENT  
WATER MAIN PLAN & PROFILE  
EBERWHITE EXTENSION AUX 'A' & 'B'



S:\Project Management\Design\2014029 HRRR WM Ph II\Plan Production\Primary\2014029 PFRDH.dwg Dwg Created: 31-Jan-14 - \_g2 standard bw.stb - Plot Date: 7-Apr-15



CONSTRUCTION KEY	
KEY	DESCRIPTION
C	CURB, CONC, DET E4
CG	_CURB AND GUTTER, CONC
DO-M	_DRIVEWAY OPENING, CONC, DET M, MODIFIED
DC-6	_DRIVEWAY, NONREINF CONC, 6 INCH, MODIFIED
SW-4	_SIDEWALK, CONC, 4 INCH, MODIFIED
SWR-6	_SIDEWALK, CONC, 6 INCH, MODIFIED
SW-6	_SIDEWALK RAMP, CONC, 6 INCH, MODIFIED
DWS	_DETECTABLE WARNING SURFACE, MODIFIED
1	_SLOPE RESTORATION
1A	RESTORATION, BASEBALL FIELD
2	ADJUST GATE VALVE BOX, MONUMENT BOX, OR GAS BOX.
3	ADJUST STRUCTURE COVER

**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**

**HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT**

ROAD GRADING

HEWETT STA. 0+00 TO 4+32 RUSSETT STA. 0+50 TO 5+50

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

REV.	DATE	DESCRIPTION
00	07-22-14	ESDPF DRAWN
01	02/26/15	CEC, JKA
02	03/18/15	JKA
DAD		
DAD		
DAD		
CHECKED		

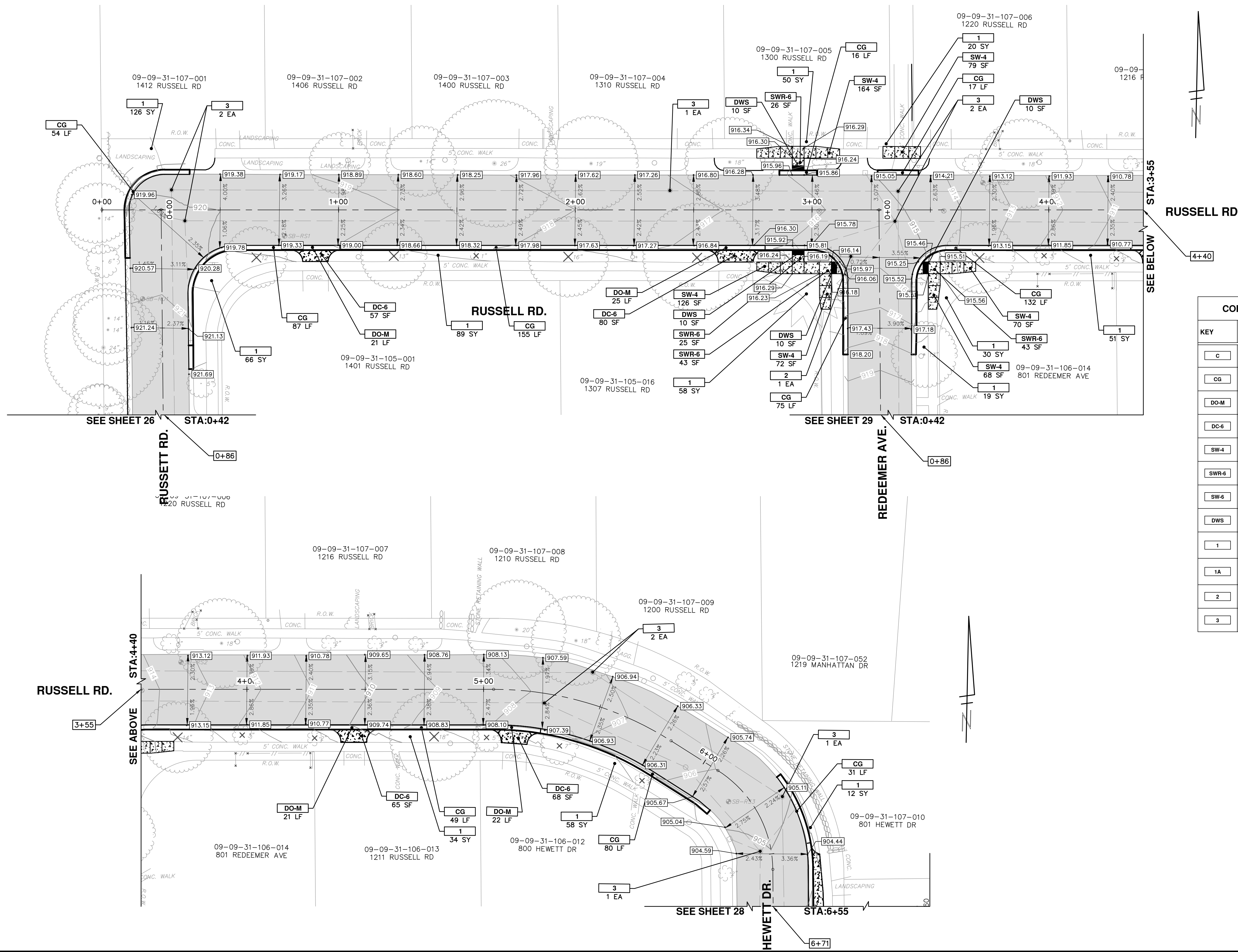
CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-0667  
www.a2gov.org

SCALE PLAN: 1" = 20'

DRAWING No. 2013034-26

SHEET No. 26 OF 30

S:\Project Management\Design\2014029 HRRR WM Ph II\Plan Production\Primary\2014029 PFRDH.dwg Dwg Created: 31-Jan-14 - \_g2 standard bw.stb - Plot Date: 7-Apr-15



CONSTRUCTION KEY	
KEY	DESCRIPTION
C	CURB, CONC, DET E4
CG	_CURB AND GUTTER, CONC
DO-M	_DRIVEWAY OPENING, CONC, DET M, MODIFIED
DC-6	_DRIVEWAY, NONREINF CONC, 6 INCH, MODIFIED
SW-4	_SIDEWALK, CONC, 4 INCH, MODIFIED
SWR-6	_SIDEWALK RAMP, CONC, 6 INCH, MODIFIED
SW-6	_SIDEWALK RAMP, CONC, 6 INCH, MODIFIED
DWS	_DETECTABLE WARNING SURFACE, MODIFIED
1	_SLOPE RESTORATION
1A	RESTORATION, BASEBALL FIELD
2	ADJUST GATE VALVE BOX, MONUMENT BOX, OR GAS BOX.
3	ADJUST STRUCTURE COVER

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

02 POST MDOE 2015 REVIEW  
01 EBERWHITE EXTENSION  
00 MDOE PERMIT REVIEW COMMENTS

DATE: 03/18/15  
DRAWN: JKA  
CHECKED: ESBPF

---

**CITY OF ANN ARBOR PUBLIC SERVICE**  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-0667  
www.a2gov.org

**ANN ARBOR MI CITY**

---

**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT

ROAD GRADING  
RUSSELL STA. 0+00 TO 6+50

---

SCALE PLAN: 1" = 20'

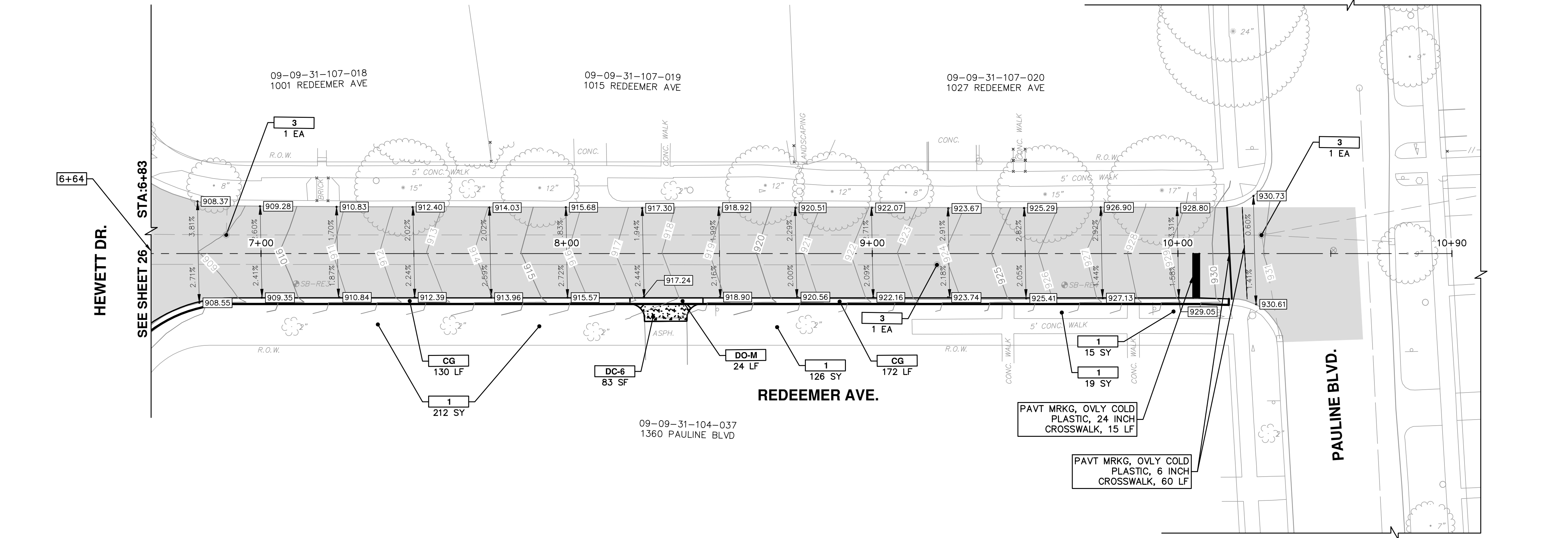
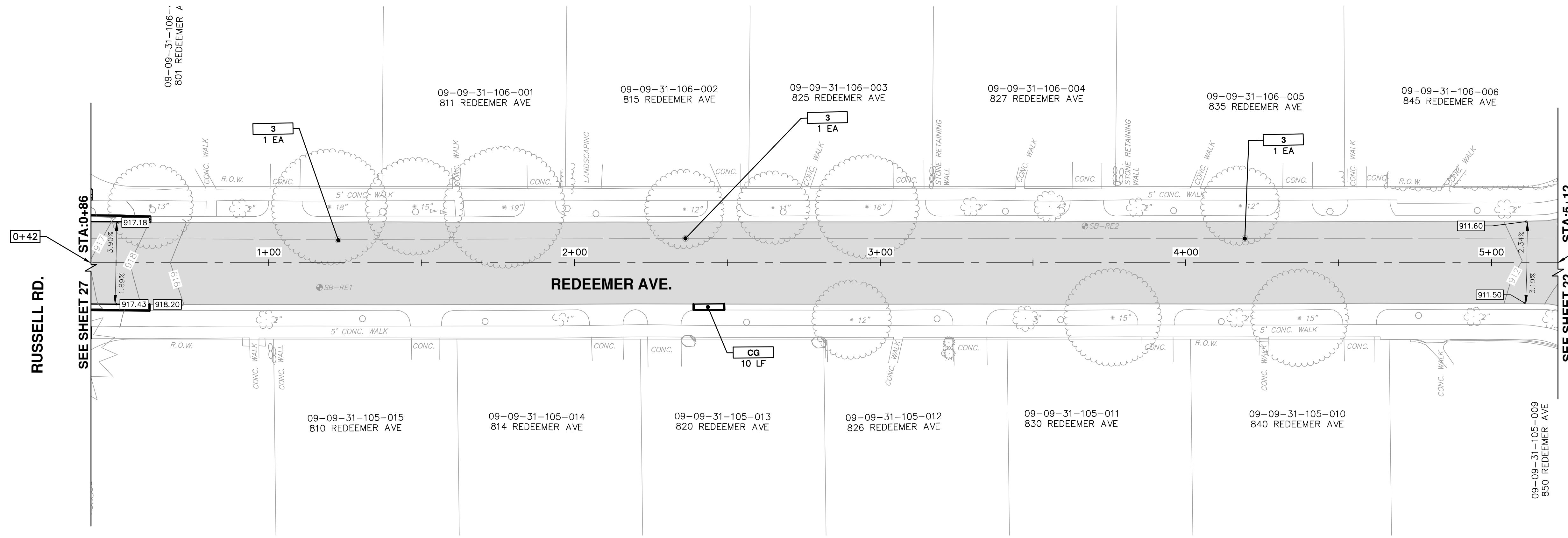
DRAWING No. 2013034-27

---

SHEET No. 27 OF 30

DATE: 07-22-14

S:\Project Management\Design\2014029 HRRR WM Ph II\Plan Production\Primary\2014029 PFRDH.dwg Dwg Created: 31-Jan-14 - \_a2 standard bw.stb - Plot Date: 7-Apr-15



CONSTRUCTION KEY	
KEY	DESCRIPTION
C	CURB, CONC, DET E4
CG	CURB AND GUTTER, CONC
DO-M	DRIVEWAY OPENING, CONC, DET M, MODIFIED
DC-6	DRIVEWAY, NONREINF CONC, 6 INCH, MODIFIED
SW-4	SIDEWALK, CONC, 4 INCH, MODIFIED
SWR-6	SIDEWALK, CONC, 6 INCH, MODIFIED
SW-6	SIDEWALK RAMP, CONC, 6 INCH, MODIFIED
DWS	DETECTABLE WARNING SURFACE, MODIFIED
1	SLOPE RESTORATION
1A	RESTORATION, BASEBALL FIELD
2	ADJUST GATE VALVE BOX, MONUMENT BOX, OR GAS BOX.
3	ADJUST STRUCTURE COVER

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

03/18/15  
02/26/15  
07-22-14

DAD  
DAD  
DAD

DATE  
DRAWN  
CHECKED

---

02 POST MDEQ 2015 REVIEW  
01 EBERWHITE EXTENSION  
00 MDEQ PERMIT REVIEW COMMENTS

REV.  
DESCRIPTION

03/18/15  
02/26/15  
07-22-14

DAD  
DAD  
DAD

DATE  
DRAWN  
CHECKED

---

**CITY OF ANN ARBOR**  
PUBLIC SERVICE  
301 EAST HURON STREET  
ANN ARBOR MI 48106-1667  
www.a2gov.org

**CITY OF ANN ARBOR**  
MICHIGAN

---

**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
HEWETT DR, RUSSELL RD, RUSSETT RD &  
REDEEMER AVE WATER MAIN REPLACEMENT  
ROAD GRADING  
REDEEMER STA. 0+50 TO 10+50

SCALE PLAN: 1" = 20'  
DRAWING No.  
2013034-29

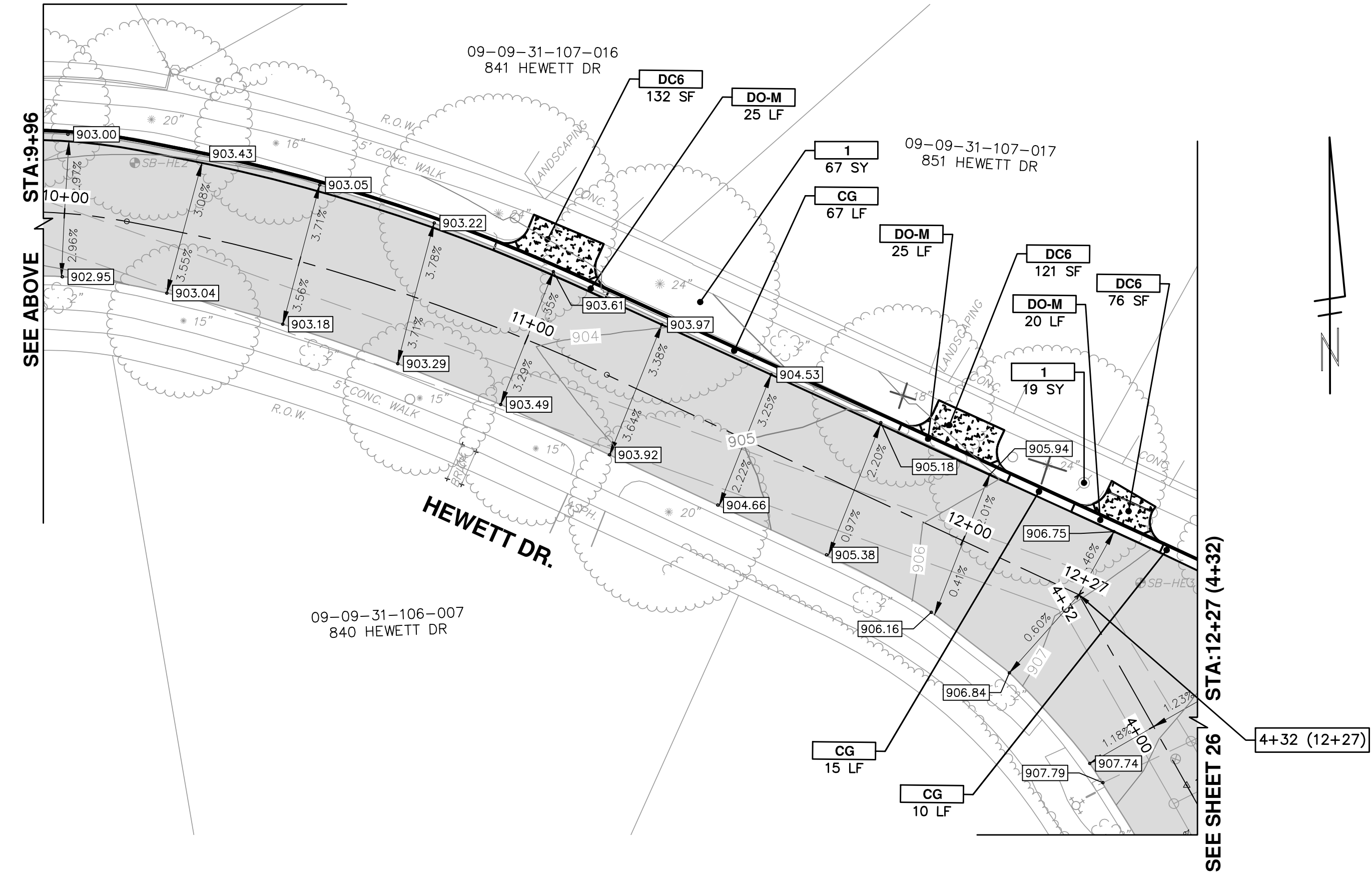
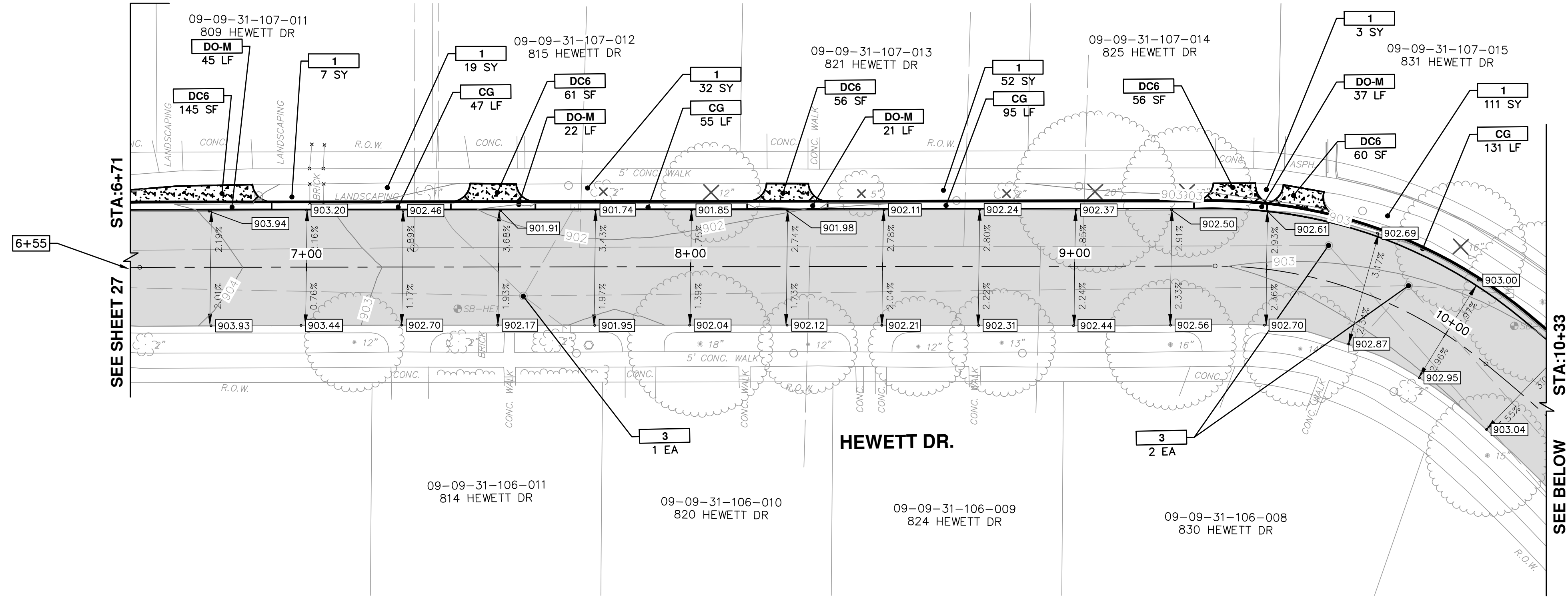
---

SHEET No.  
29 OF 30

SHEET No.  
29 OF 30



S:\Project Management\Design\2014029 HRRR WM Ph II\Plan Production\Primary\2014029 PFRDH.dwg Dwg Created: 31-Jan-14 - \_a2 standard bw.stb - Plot Date: 7-Apr-15



CONSTRUCTION KEY	
KEY	DESCRIPTION
C	CURB, CONC, DET E4
CG	_CURB AND GUTTER, CONC
DO-M	_DRIVEWAY OPENING, CONC, DET M, MODIFIED
DC-6	_DRIVEWAY, NONREINF CONC, 6 INCH, MODIFIED
SW-4	_SIDEWALK, CONC, 4 INCH, MODIFIED
SWR-6	_SIDEWALK, CONC, 6 INCH, MODIFIED
SW-6	_SIDEWALK RAMP, CONC, 6 INCH, MODIFIED
DWS	_DETECTABLE WARNING SURFACE, MODIFIED
1	_SLOPE RESTORATION
1A	RESTORATION, BASEBALL FIELD
2	ADJUST GATE VALVE BOX, MONUMENT BOX, OR GAS BOX.
3	ADJUST STRUCTURE COVER

**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**

**HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT ROAD GRADING**

RUSSELL STA. 6+50 TO STA. 12+27

SCALE PLAN: #####

DRAWING No. 2013034-28

SHEET No. 28 OF 30

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

REV.	DATE	DESCRIPTION
02	03/18/15	POST MDOE 2015 REVIEW
01	02/26/15	EBERWHITE EXTENSION
00	07-22-14	MDOE PERMIT REVIEW COMMENTS

DAD  
 DAD  
 DAD  
 DAD  
 DRAWN  
 CHECKED

CITY OF ANN ARBOR  
 PUBLIC SERVICE  
 301 EAST HURON STREET  
 ANN ARBOR, MI 48106-0667  
 www.a2gov.org

