

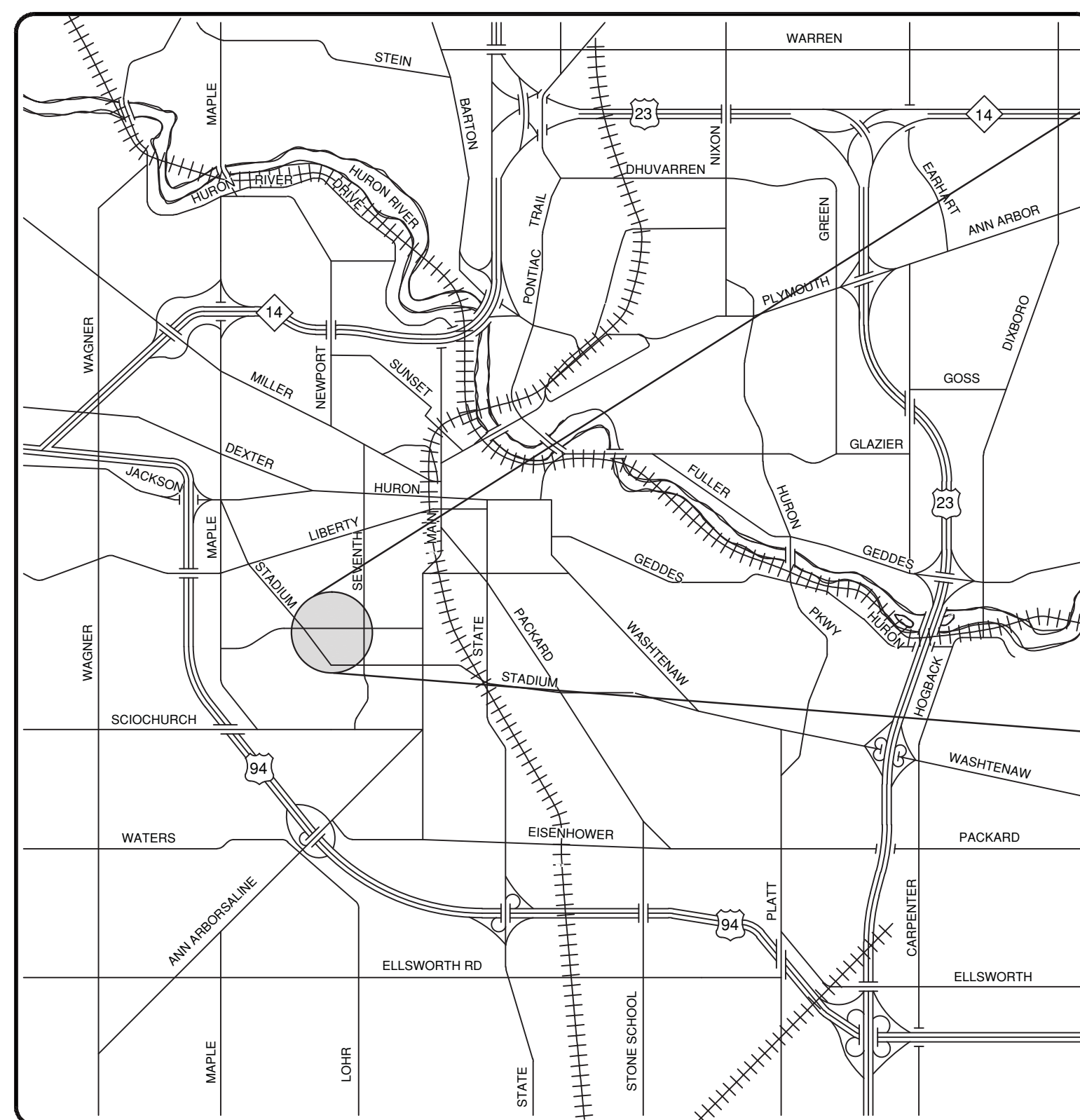
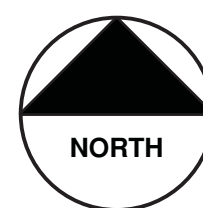


CITY OF ANN ARBOR PROJECT MANAGEMENT

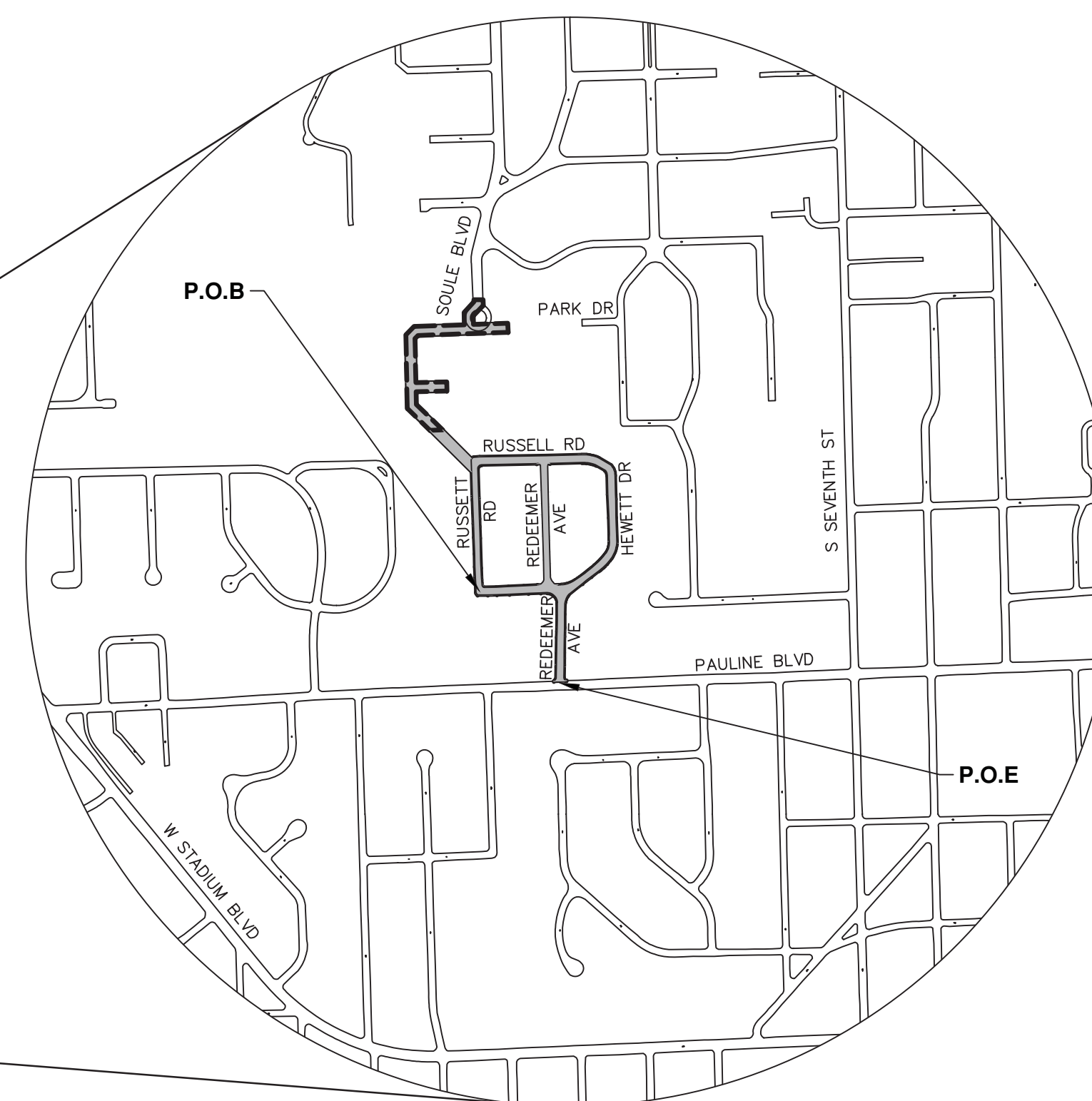
HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT

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

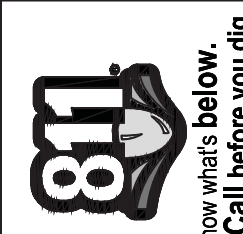


NOTES

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.



REV.	DATE	DESCRIPTION
03	05/01/15	ADDENDUM 1
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 SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-0667
www.a2gov.org



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
PROJECT DESCRIPTION
PROJECT DESCRIPTION AND LIMITS
DRAWING No. 2013034 - 1

PROJECT MANAGEMENT SERVICE UNIT

PREPARED UNDER THE SUPERVISION OF

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

05/01/2015
DATE

SHEET No. 1 TO 30

CONSTRUCTION SEQUENCE:

The Contractor shall review the Traffic Maintenance Plans of the Contract Documents and note that they are required to maintain access at all times to residences solely accessed off of Yellowstone Dr. Leave 10 feet of existing pavement for access road during utility installation, final removal limits of pavement as directed by Engineer. The driveways are to be maintained at all times. During crossing of drives with utilities and road building, residents must be notified by the contractor at least a day in advance so vehicles can be moved prior to the closure. Drives are to be temporarily put back as soon as possible, and opened for resident use at the end of each day. The Contractor may choose to adjust the limits or sequencing of construction in order to complete the work more efficiently. However, changes to the stages and phases shown in the plans must be approved in writing by the Engineer prior to construction and must assure that access is maintained as described above.

- Installation of traffic control devices, and maintenance of traffic plan. Installation of portable, changeable message signs with messages as directed by the Engineer one week prior to construction. Installation of Soil Erosion Control Devices.
- Removal of pavement and concrete items on east side leaving a minimum of 10 feet of existing pavement for access lane on the side detailed on Maintenance of Traffic Plan or as directed by Engineer. Access lane to be open and free of obstructions at end of each day.
- Install 8 inch water main.
- With passing pressure test, schedule and make connection of 8" main to existing 8" main. With placement of aqua swab during water main placement flush and remove 8 inch swab from water main.
- Test water main per City Detailed Specification for Water Main Testing.
- Once bacteriological samples have passed schedule with Field Operations and transfer water services to new 8" Water Main.
- Schedule and finish the remaining water main connections and abandon the old main.
- Place edge drain and construct road cross section for east half of road. Proposed aggregate base will be used as access road during storm placement. Aggregate base will be ramped at driveways and be maintained at all times. Any areas of base that become contaminated or deficient will be removed and replaced as directed by Engineer.
- Removal of hma and concrete items on west side of Yellowstone. Install storm sewer improvements as indicated on plans. Clean and video inspect storm per City of Ann Arbor Standards.
- Finish installation of road cross section and edge drain on west half of Yellowstone. This work is to take place behind storm sewer installation.
- Grade aggregate base for curb, prep driveways and sidewalk and install concrete items on both sides of street. Pre pour meeting required to discuss resident parking during cure time. Drive approaches to be placed same day as curb or no later than next day. Only one side of sidewalk to be removed and replaced at a time. Pedestrian traffic to be maintained on one side of Yellowstone at all times.
- Topsoil, seed and install mulch blankets at all disturbed areas.
- Fine grade aggregate and place hma leveling course.
- Adjust structures in road to finish grade.
- Schedule and pave wearing course.
- Place permanent pavement markings
- Remove soil erosion control and construction signage. Open road to normal traffic.

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.
- Install inlet filters immediately following installation of proposed storm drainage system.
- 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.

STORM SEWER STRUCTURE TABLE							
STRUCTURE	UTILITY STATION	ALIGNMENT	INVERT ELEVATION, SIZE & DIRECTION	TOP OF CASTING ELEVATION	DEPTH (Feet)	SIZE	APPLICATION/ CONSTRUCTION
88-62696	5+34 -20.6 LT	Pauline	12" E 927.18	930.68	5.50	24" Dia.	CB
88-62697	5+63 17.8 RT	Pauline	12" N 928.33	930.83	4.50	24" Dia.	CB
88-62741	6+89 -16.4 LT	Redeemer	12" W 905.72	908.57	4.85	24" Dia.	CB
88-62742	6+58 29.4 RT	Redeemer	12" NE 904.04	908.04	6.00	24" Dia.	CB
88-62743	3+12 16.3 RT	HEWETT	12" NE 904.88	908.88	6.00	24" Dia.	CB
88-62744	2+93 -19.2 LT	HEWETT	12" SE 905.16	909.26	6.10	24" Dia.	CB
88-62745	5+29 17.2 RT	Redeemer	12" S 906.43	910.03	5.60	24" Dia.	CB
88-62746	5+39 -24.5 LT	Redeemer	12" SW 905.21	910.16	6.95	24" Dia.	CB
88-62747	3+95 -15.9 LT	HEWETT	12" S 903.82	907.72	5.90	24" Dia.	CB
88-62748	10+07 -18.3 LT	RUSSELL	12" N 898.43	902.93	6.50	24" Dia.	CB
88-62749	9+79 14.4 RT	RUSSELL	12" SE 898.40	902.70	6.30	24" Dia.	CB
88-62750	7+70 -15.5 LT	RUSSELL	12" NW 898.08	901.78	5.70	24" Dia.	CB
88-62751	7+68 16.1 RT	RUSSELL	12" NE 897.72	901.82	6.10	24" Dia.	CB
88-62752	6+37 15.5 RT	RUSSELL	12" E 901.74	904.84	5.10	24" Dia.	CB
88-62753	6+36 -16.4 LT	RUSSELL	12" SW 901.27	904.97	5.70	24" Dia.	CB
88-62754	0+32 -14.1 LT	Redeemer	12" N 912.06	915.86	5.79	24" Dia.	CB
88-62755	0+31 14.6 RT	Redeemer	12" NE 911.82	916.12	6.30	24" Dia.	CB
88-62756	2+98 16.0 RT	RUSSELL	12" E 911.72	915.72	6.00	24" Dia.	CB
88-62757	3+22 -15.6 LT	RUSSELL	12" SE 910.84	915.14	6.30	24" Dia.	CB
88-62758	0+11 -0.7 LT	RUSSELL	12" E 914.56	919.99	7.43	24" Dia.	CB
88-62759	0+56 -11.9 LT	Russett	12" N 914.66	921.16	8.50	24" Dia.	CB
88-62760	5+37 -14.2 LT	Russett	12" S 914.49	919.99	7.50	24" Dia.	CB
88-62761	0+14 1.5 RT	HEWETT	12" E 913.51	918.81	7.30	24" Dia.	CB
92-52679	7+34 -121.9 LT	RUSSELL	30" W 886.66	901.66	15.00	48" Dia.	MH
92-52681	7+56 7.6 RT	RUSSELL	30" S 891.62 12" SW 887.24 12" SE 897.34 12" N 894.47 30" NE 891.62	902.34	10.72	48" Dia.	MH
92-52682	9+86 -6.3 LT	RUSSELL	30" SW 893.19 12" S 897.39 12" NW 897.79 30" N 893.14	903.07	9.93	48" Dia.	MH
92-52683	12+27 -4.9 LT	RUSSELL	30" W 898.15 30" NE 898.15	906.92	8.77	48" Dia.	MH
92-52684	3+94 5.3 RT	HEWETT	12" S 900.23 30" W 898.91 12" SW 902.76 12" N 903.11 30" E 898.86	908.26	9.40	48" Dia.	MH
92-52685	10+27 -6.0 LT	Redeemer	12" W 926.17 12" S 926.24 12" N 922.77	930.96	8.19	48" Dia.	MH
92-52686	6+89 -6.1 LT	Redeemer	12" S 902.07 12" E 905.01 12" N 902.02	909.12	7.10	48" Dia.	MH
92-52687	0+35 4.6 RT	RUSSELL	12" E 911.81 12" S 913.14 12" W 911.91	920.24	8.43	48" Dia.	MH
92-52688	3+35 4.8 RT	RUSSELL	12" E 907.01 12" S 910.51 12" SW 909.81 12" W 909.81 12" NW 910.01 12" W 907.11	915.31	8.30	48" Dia.	MH
92-52689	5+26 4.0 RT	RUSSELL	12" SE 898.73 12" W 898.63	907.78	9.15	48" Dia.	MH
92-52690	5+95 6.1 RT	RUSSELL	12" SE 897.65 12" NW 897.75	906.15	8.50	48" Dia.	MH
92-52691	6+48 4.5 RT	RUSSELL	12" S 896.56 12" NE 899.91 12" NW 896.61 12" W 899.81	904.91	8.35	48" Dia.	MH
92-52698	0+35 5.5 RT	HEWETT	12" W 912.15 12" N 912.05 12" E 910.76	918.25	7.49	48" Dia.	MH
92-52699	0+93 5.6 RT	HEWETT	12" W 907.00 30" E 906.28 24" SW 906.48	915.05	8.77	48" Dia.	MH
92-52730	3+20 5.6 RT	HEWETT	30" W 900.76 12" SW 903.51 12" NW 903.41 12" N 903.21 12" NE 903.31 30" E 900.71	909.21	10.50	48" Dia.	MH
92-56371	10+91 -20.8 LT	Eberwhite	12" SE 908.55 12" N 908.50	916.30	9.80	48" Dia.	Eccentric Cylindrical Structure
r(34)	5+04 89.6 RT	Eberwhite	12" NW 921.84 12" E 922.24	925.39	5.55	24" Dia.	Eccentric Cylindrical Structure
r(35)	5+06 107.9 RT	Eberwhite	12" W 922.70	925.00	4.30	24" Dia.	Eccentric Cylindrical Structure
r(36)	6+77 -94.2 LT	Eberwhite	12" S 914.82	917.82	5.00	24" Dia.	Cylindrical Structure Slab Top Circular Frame

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

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Know what's below.
Call before you dig.

	DAD	DAD	DAD	DAD	DAD	CHECKED
05/01/15	JKA	JKA	JKA	JKA	JKA	DRAWN

03 ADDENDUM 1
 02 POST MDEQ 2015 REVIEW
 01 EBERWHITE EXTENSION
 00 MDEQ PERMIT REVIEW COMMENTS

REV. DATE DESCRIPTION

CITY OF ANN ARBOR
 PUBLIC SERVICE
 301 EAST HURON STREET
 P.O. BOX 886
 ANN ARBOR, MI 48106-0867
 www.a2gov.org

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

NOTES

SCALE: NTS
 DRAWING No.
 2013034-2

SHEET No.

2 OF 30

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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.

SANITARY SEWER STRUCTURE TABLE							
STRUCTURE	UTILITY STATION	ALIGNMENT	INVERT ELEVATION, SIZE & DIRECTION	TOP OF CASTING ELEVATION	DEPTH (Feet)	SIZE	APPLICATION/CONSTRUCTION
71-64446	??? ??? ???	???	8" E 921.98	932.43	12.45	48" Dia.	MH
71-64447	??? ??? ???	???	8" W 921.00 8" E 920.95	931.20	12.25	48" Dia.	MH
71-64450	??? ??? ???	???	8" W 920.71	930.71	10.00	48" Dia.	MH
71-64489	0+31 -4.9 L	HEWETT	8" N 908.89 8" E 908.84	918.79	9.95	48" Dia.	MH
71-64490	0+91 -4.4 L	HEWETT	8" E 903.37 8" W 905.62 8" SW 903.42	915.22	11.85	48" Dia.	MH
71-64494	3+18 -5.4 L	Russett	8" S 916.31	926.41	10.10	48" Dia.	MH
71-64495	2+56 -5.3 L	Russett	8" N 916.58	926.48	9.90	48" Dia.	MH
71-64496	9+21 3.7 R	Redeemer	8" N 916.35	923.80	7.45	48" Dia.	MH
71-64497	3+35 -4.4 L	HEWETT	8" W 897.01 8" E 896.96 8" N 897.01	909.46	12.50	48" Dia.	MH
71-64498	3+84 -4.2 L	HEWETT	8" S 896.62 10" E 895.67 8" W 895.72	908.42	12.75	48" Dia.	MH
71-64499	4+30 -4.4 L	HEWETT	10" NE 894.82 10" W 894.87	907.12	12.30	48" Dia.	MH
71-64500	2+36 -8.0 L	Redeemer	8" S 915.23 8" N 915.28	924.63	9.40	48" Dia.	MH
71-64501	4+19 -7.9 L	Redeemer	8" S 906.31 8" N 906.36	916.06	9.75	48" Dia.	MH
71-64502	1+23 -7.6 L	Redeemer	8" S 913.09 8" N 913.04	922.39	9.35	48" Dia.	MH
71-64503	9+64 -9.0 L	RUSSELL	10" N 890.94 10" SW 891.04	902.94	12.00	48" Dia.	MH
71-64504	7+28 -5.0 L	RUSSELL	8" N 892.68 10" E 892.60 10" S 888.48	902.78	14.30	48" Dia.	MH
71-64505	6+31 -12.3 L	RUSSELL	8" NW 895.15 8" S 895.10	905.15	10.05	48" Dia.	MH
71-64506	0+29 -8.5 L	RUSSELL	8" S 909.89 8" E 909.79	919.79	10.00	48" Dia.	MH
71-64507	2+40 -8.2 L	RUSSELL	8" W 907.39 8" E 907.24	917.24	10.00	48" Dia.	MH
71-64508	3+36 -7.9 L	RUSSELL	8" S 904.17 8" W 904.22 8" E 904.12	915.02	10.90	48" Dia.	MH
71-64509	5+43 -12.9 L	RUSSELL	8" SE 897.48 8" W 897.58	907.08	9.60	48" Dia.	MH
71-64510	7+29 -120.6 L	RUSSELL	10" W 887.80	900.53	12.73	48" Dia.	MH
71-67116	11+11 -9.9 L	Eberwhite	8" N 904.82 8" SE 905.02	914.62	11.80	48" Dia.	Eccentric Cylindrical Structure
s-36	9+44 114.0 R	Eberwhite	8" NW 910.58 8" S 910.68	922.58	14.00	48" Dia.	Eccentric Cylindrical Structure

- 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		TREE LINE
	ORNAMENTAL LIGHT		WETLAND
	FLOOD LIGHT		TREE (DECIDUOUS)
	UNKNOWN MANHOLE		TREE (CONIFEROUS)
	TELEPHONE MANHOLE		STUMP
	TELEPHONE RISER		SHRUB (DECIDUOUS)
	GAS VALVE		
	GAS VENT		
	GAS BOX		
	ELECTRICAL RISER		
	TRANSFORMER		
	UTILITY POLE		
	LAMP POLE		
	GUY ANCHOR		
	GUY POLE		
	MONITORING WELL		
	MAILBOX		
	SOIL BORING		
	TRAVERSE POINT		
	BENCH MARK		
	IRON PIPE		
	MON BOX		

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)

811
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DAD	DAD	DAD	DAD	DAD	CHECKED
JK	JK	CEC JK	ESDPF	DATE	DRAWN
05/01/15	03/18/15	02/26/15	07-22-14		

ADDENDUM 1

03	02	01	00	REV.

DESCRIPTION

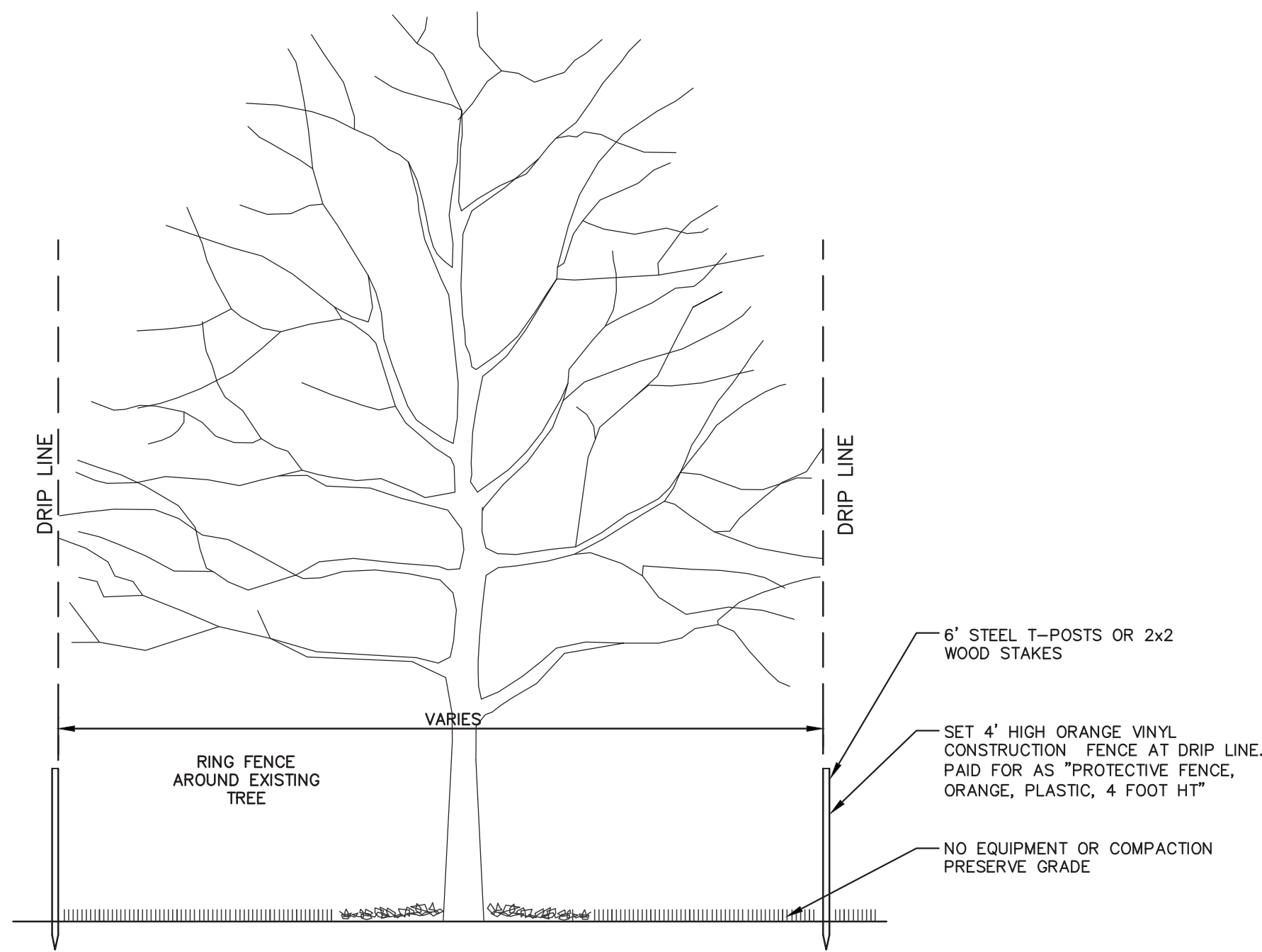
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PROJECT MANAGEMENT - CITY OF ANN ARBOR
HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT
LEGEND

SCALE: NTS
DRAWING No. 2013034-3

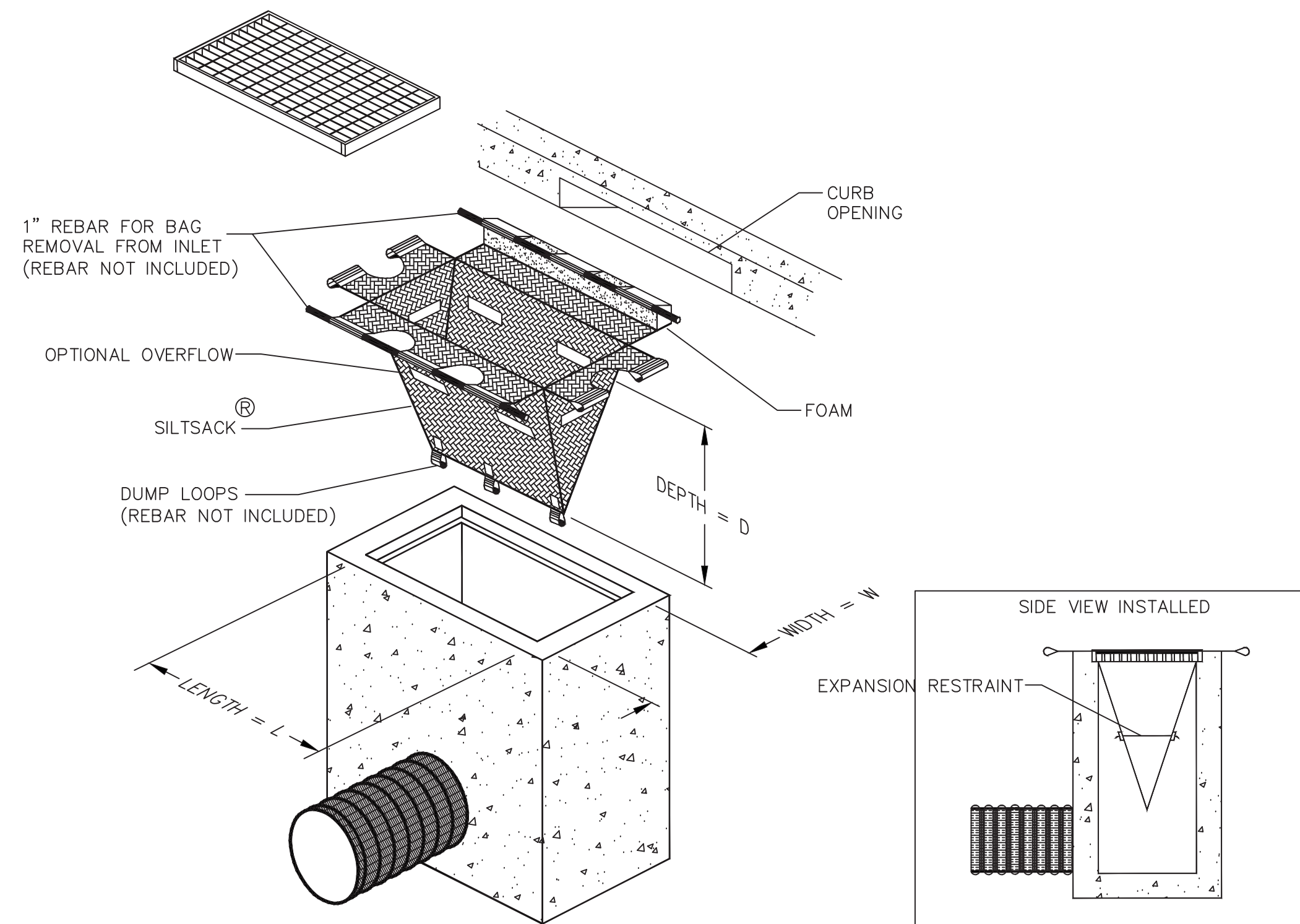
SHEET No. 3 OF 30

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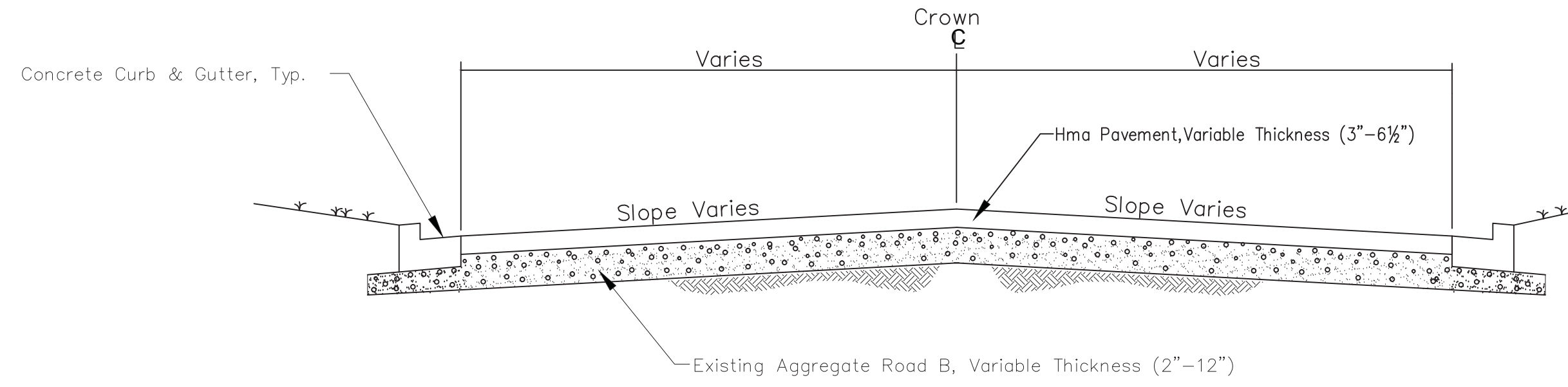


TREE PROTECTION DETAIL

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

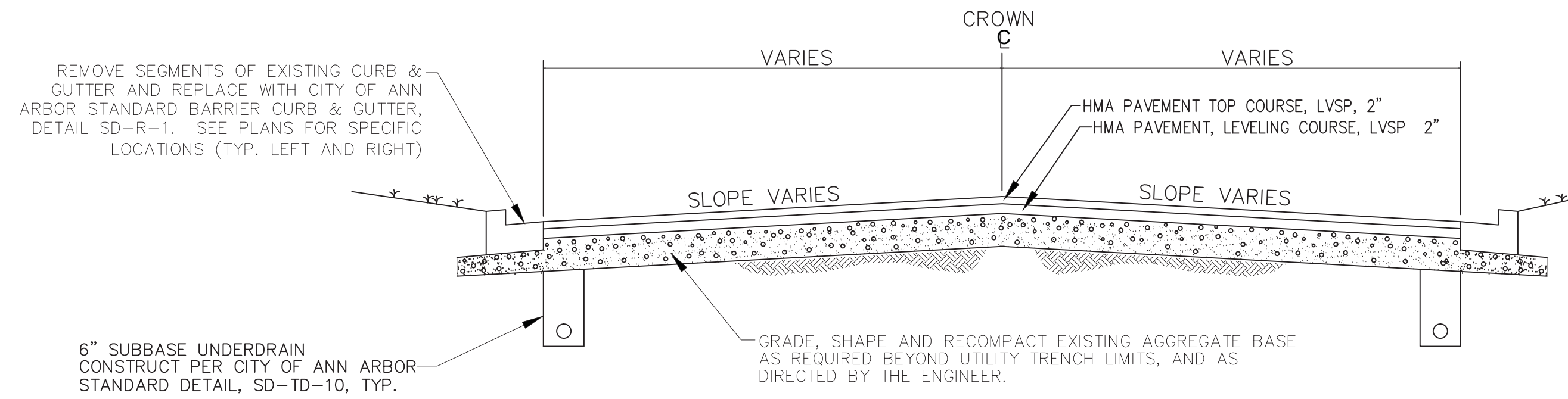


INLET FILTER (MODIFIED)
NOT TO SCALE



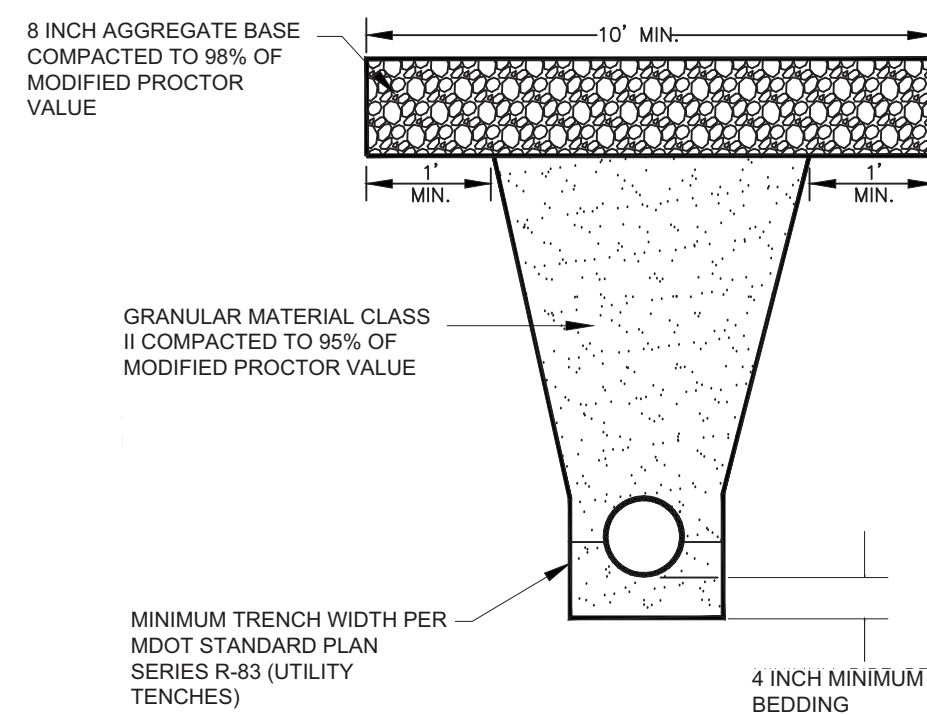
Existing Typical Roadway Section
Russell, Russett, Redeemer, Hewett

N.T.S.



PROPOSED TYPICAL ROADWAY SECTION
RUSSELL, RUSSETT, REDEEMER, HEWETT

N.T.S.



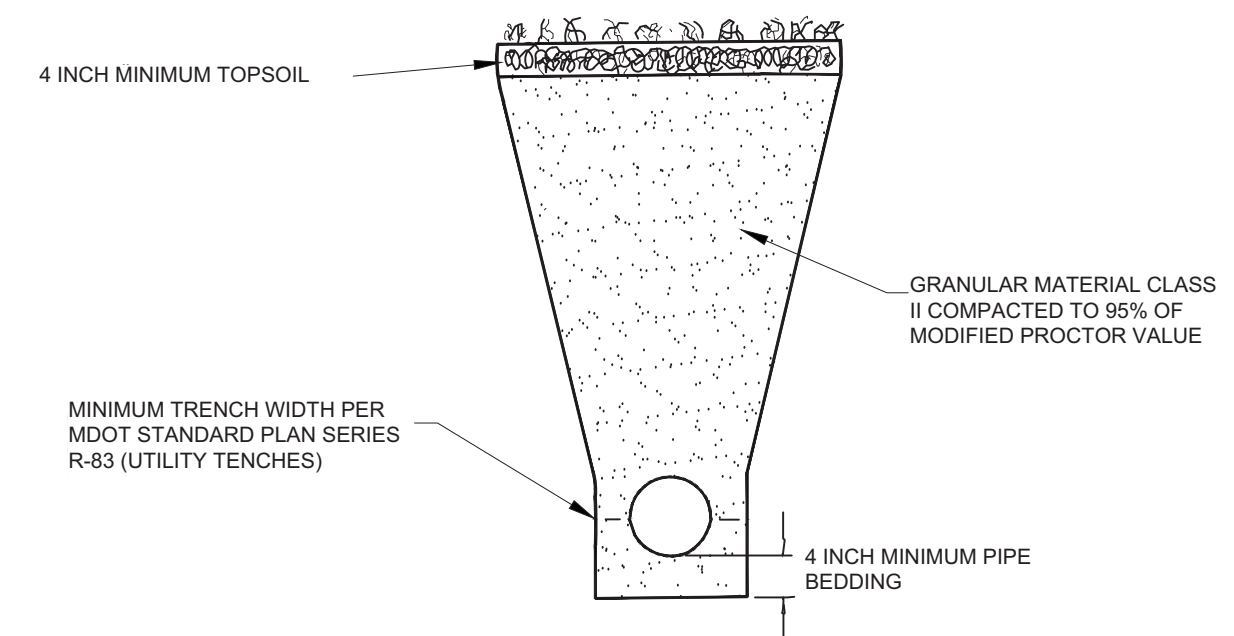
NOTE: DENSITY TESTING PER MDOT SPECIFICATIONS.

NOTE: TRENCH DETAIL SHOWS TYPE OF BACKFILL AND SURFACE RESTORATION ONLY.

NOTE: TRENCHING TO CONFORM WITH ALL APPLICABLE M.I.O.S.H.A. STANDARDS.

NOTE: ALL GRANULAR MATERIAL FOR TRENCH BACKFILL, GRANULAR MATERIAL FOR SUBBASE AND DENSE GRADED AGGREGATES FOR AGGREGATE BASE SHALL BE INCLUDED IN THE APPROPRIATE PAY ITEM FOR THE WATER MAIN.

UTILITY TRENCH - TYPE 1 MODIFIED
NOT TO SCALE



NOTE: DENSITY TESTING PER MDOT SPECIFICATIONS.

NOTE: TRENCH DETAIL SHOWS TYPE OF BACKFILL AND SURFACE RESTORATION ONLY.

NOTE: TRENCHING TO CONFORM WITH ALL APPLICABLE M.I.O.S.H.A. STANDARDS.

NOTE: ALL GRANULAR MATERIAL FOR TRENCH BACKFILL AND TOPSOIL SHALL BE INCLUDED IN THE APPROPRIATE PAY ITEM FOR THE WATER MAIN.

UTILITY TRENCH - TYPE VI MODIFIED
NOT TO SCALE



REV.	DATE	DESCRIPTION
03	05/01/15	ADDENDUM 1
02	03/18/15	POST MDCO 2015 REVIEW
01	02/26/15	EBERWHITE EXTENSION
00	07-22-14	MDCO PERMIT REVIEW COMMENTS
		DRAWN
		CHECKED

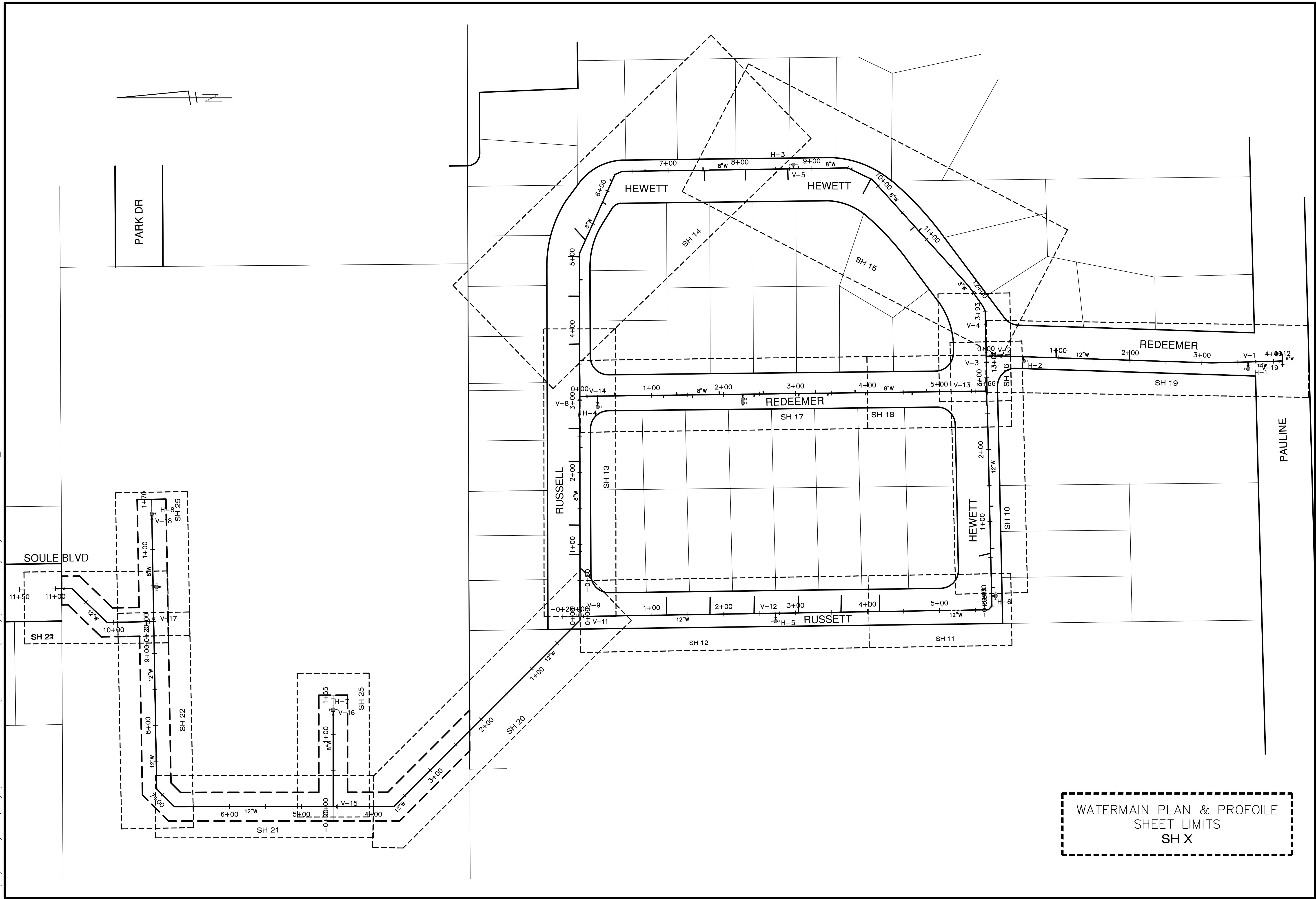
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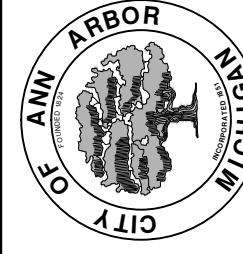
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT
ROAD SECTION AND TRENCH DETAILS

SCALE: NTS
DRAWING No. 2013034-4

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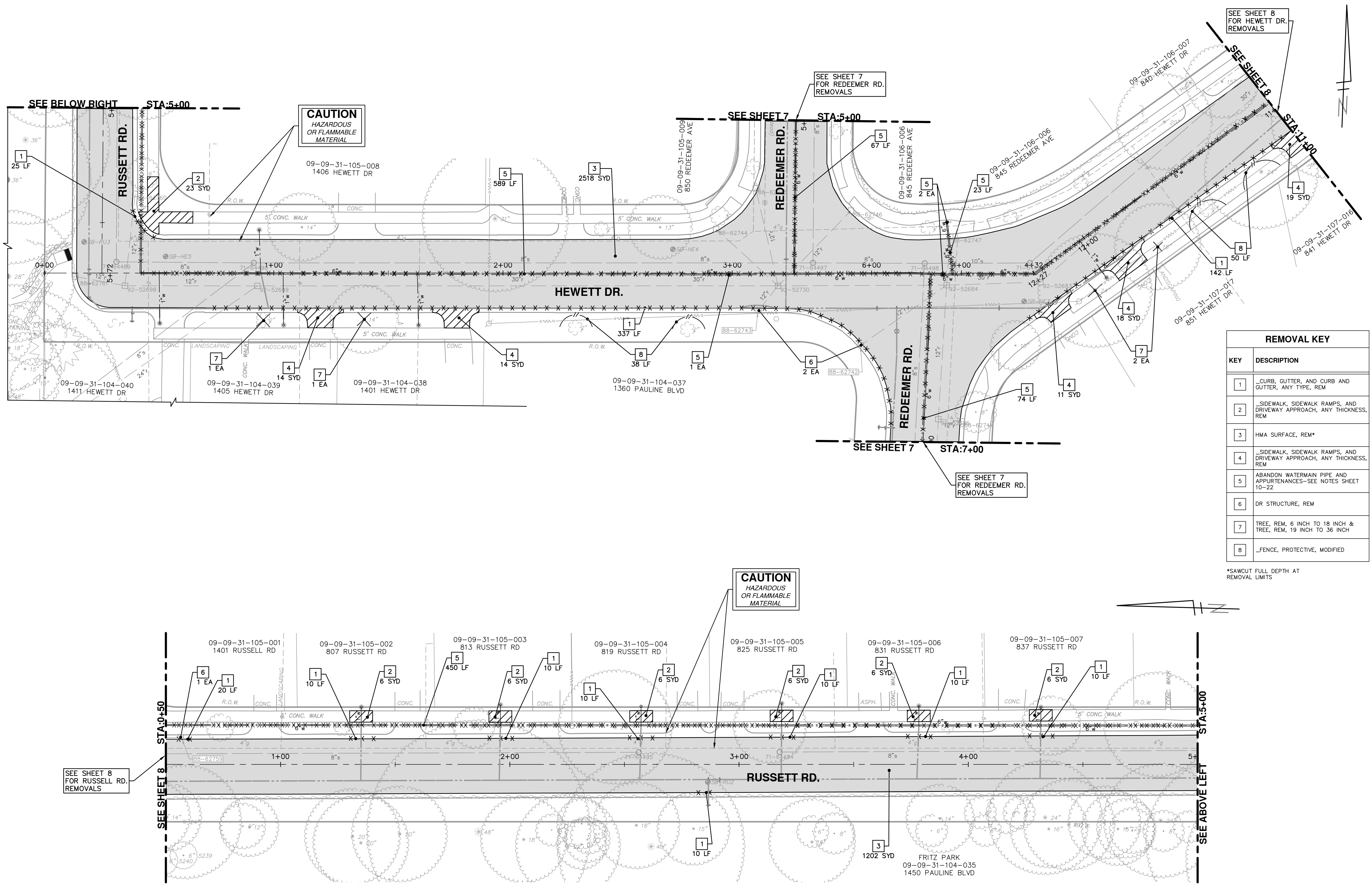


WATERMAIN PLAN & PROFOILE
SHEET LIMITS
SH X

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR HEWETT DR, RUSSELL RD, RUSSETT RD & REDEEMER AVE WATER MAIN REPLACEMENT	SHEET No. 5 OF 30	SCALE PLAN: ##### DRAWING No. 2013034-5	OVERALL UTILITY SHEET
03 ADDENDUM 1 02 POST MDEQ 2015 REVIEW 01 EBERWHITE EXTENSION 00 MDEQ PERMIT REVIEW COMMENTS	05/01/15 JKA 03/18/15 JKA 02/26/15 CEC, JKA 07-22-14 ESDPF DATE	DAD DAD DAD DAD	CHECKED DRAWN REV.

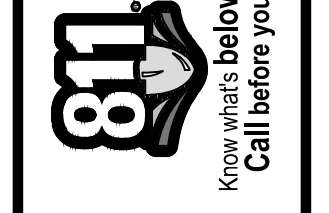


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REMOVAL KEY	
KEY	DESCRIPTION
1	_CURB, GUTTER, AND CURB AND GUTTER, ANY TYPE, REM
2	_SIDEWALK, SIDEWALK RAMP, AND DRIVEWAY APPROACH, ANY THICKNESS, REM
3	HMA SURFACE, REM*
4	_SIDEWALK, SIDEWALK RAMP, AND DRIVEWAY APPROACH, ANY THICKNESS, REM
5	ABANDON WATERMAIN PIPE AND APPURTENANCES—SEE NOTES SHEET 10-22
6	DR STRUCTURE, REM
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.	DATE	DRAWN	CHECKED	DESCRIPTION
03	05/01/15	JKA	DAD	ADDENDUM 1
02	03/18/15	JKA	DAD	POST MDCO 2015 REVIEW
01	02/26/15	CEC, JKA	DAD	EBERWHITE EXTENSION
00	07-22-14	ESBPF	DAD	MDCO PERMIT REVIEW COMMENTS

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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

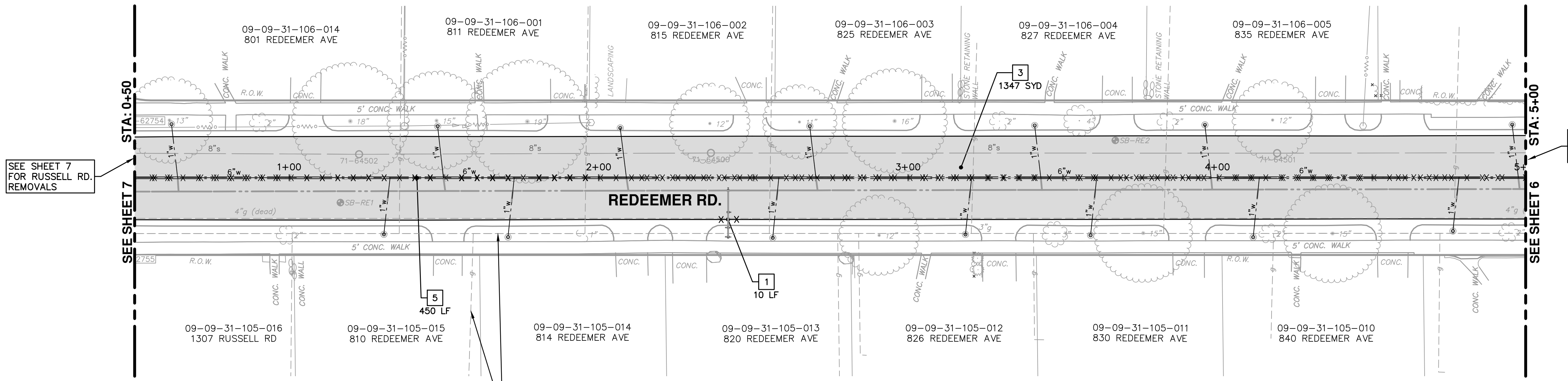


03	ADDENDUM 1	05/01/15	JKA	DAD	CHECKED
02	POST MDEQ 2015 REVIEW	03/18/15	JKA	DAD	DRAWN
01	EBERWHITE EXTENSION	02/26/15	CEC, JKA	DAD	DATE
00	MDEQ PERMIT REVIEW COMMENTS	07-22-14	ESBPF	DAD	DESCRIPTION

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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

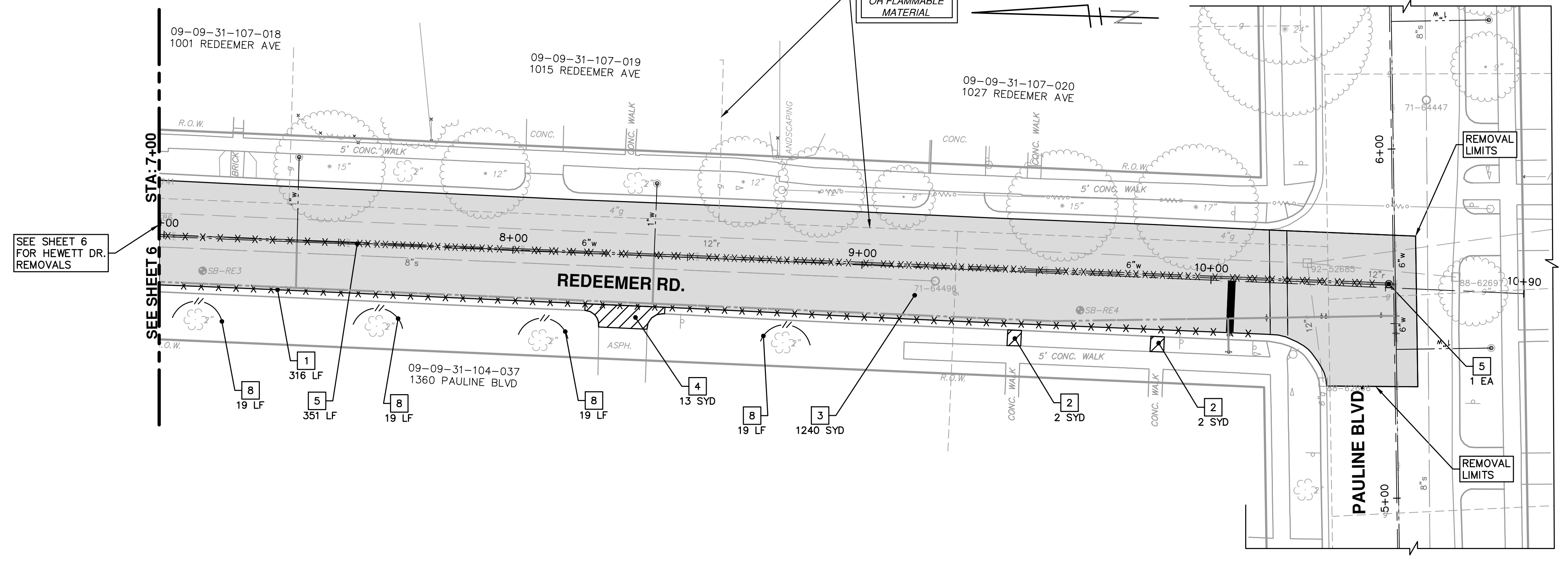


SEE SHEET 7 FOR RUSSELL RD. REMOVALS

SEE SHEET 6 FOR HEWETT DR. REMOVALS

CAUTION
HAZARDOUS
OR FLAMMABLE
MATERIAL

CAUTION
HAZARDOUS
OR FLAMMABLE
MATERIAL



SEE SHEET 6 FOR HEWETT DR. REMOVALS

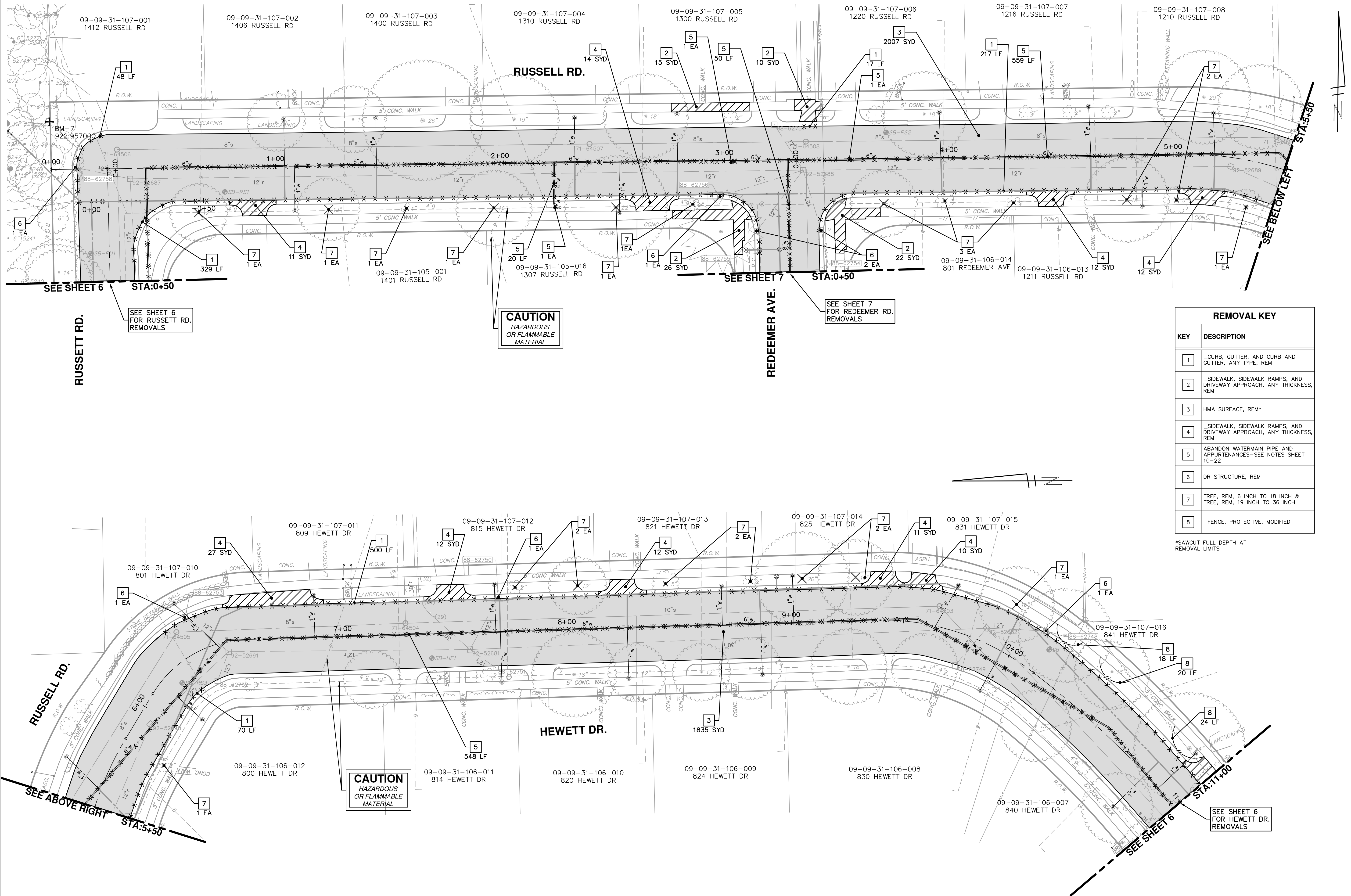
REMOVAL LIMITS

REMOVAL LIMITS

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
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

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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
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



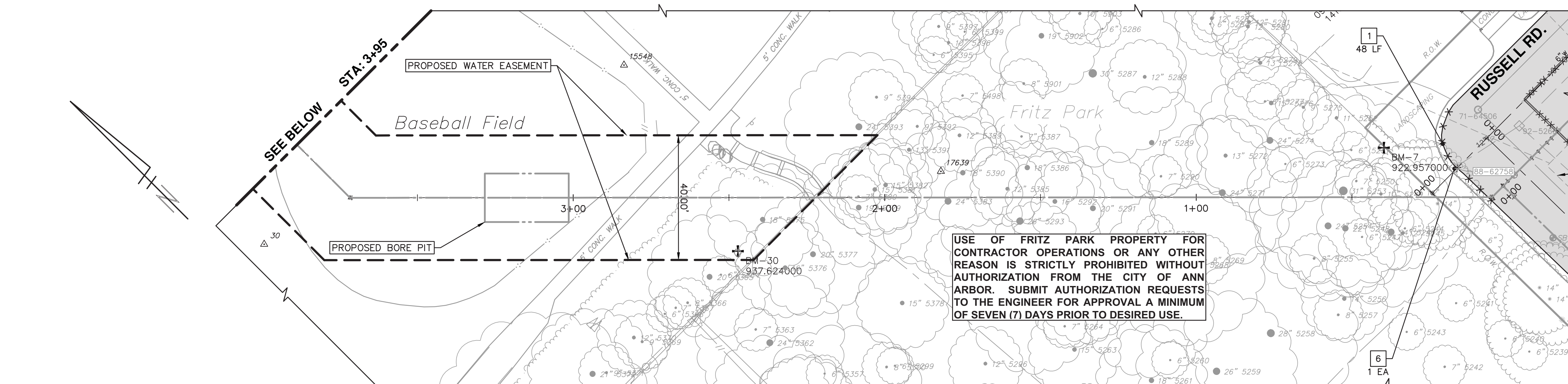
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02	POST MDCO 2015 REVIEW	03/18/15	JKA	DAD
01	EBERWHITE EXTENSION	02/26/15	CEC, JKA	DAD
00	MDCO PERMIT REVIEW COMMENTS	07-22-14	ESBPF	DAD

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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

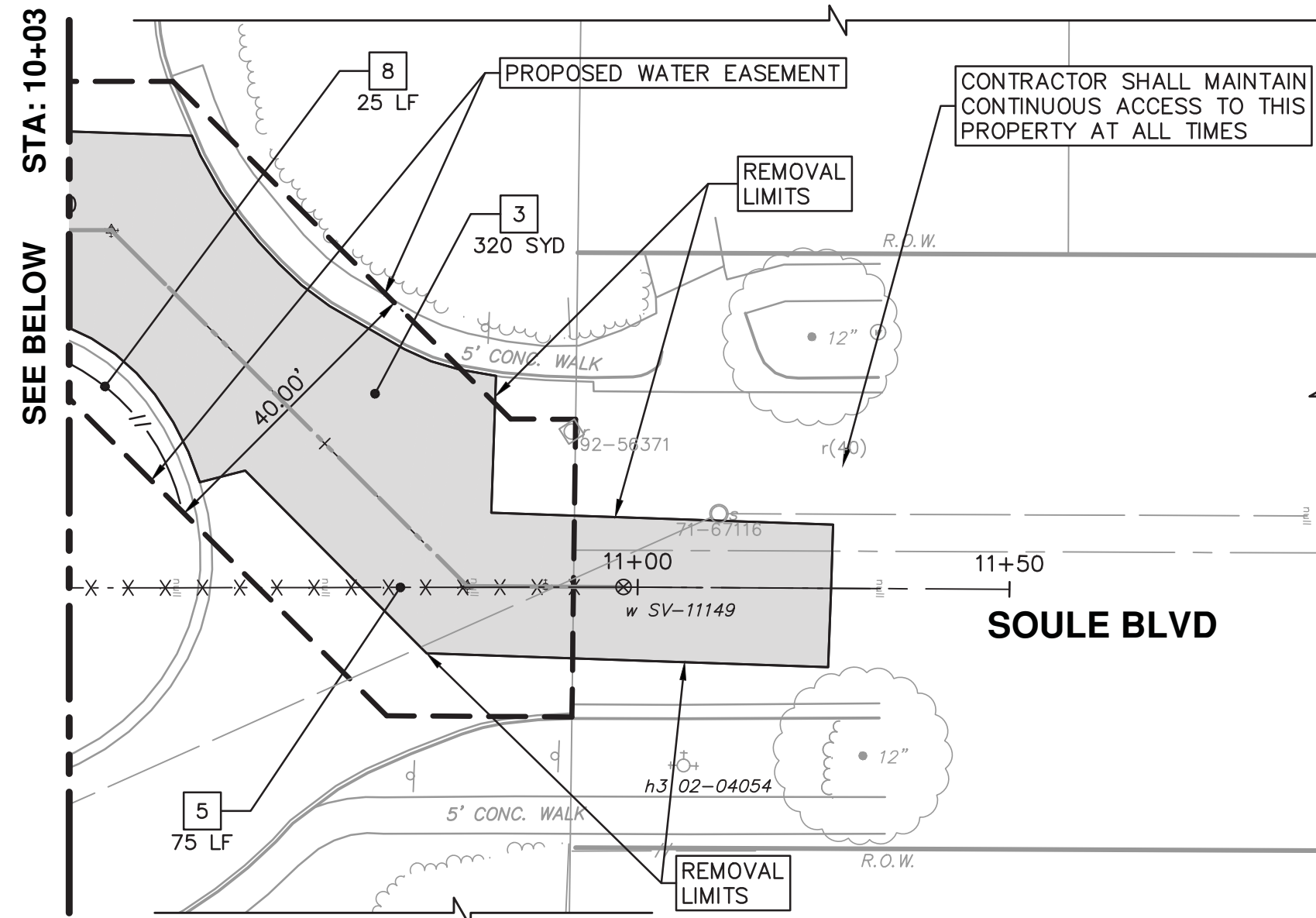
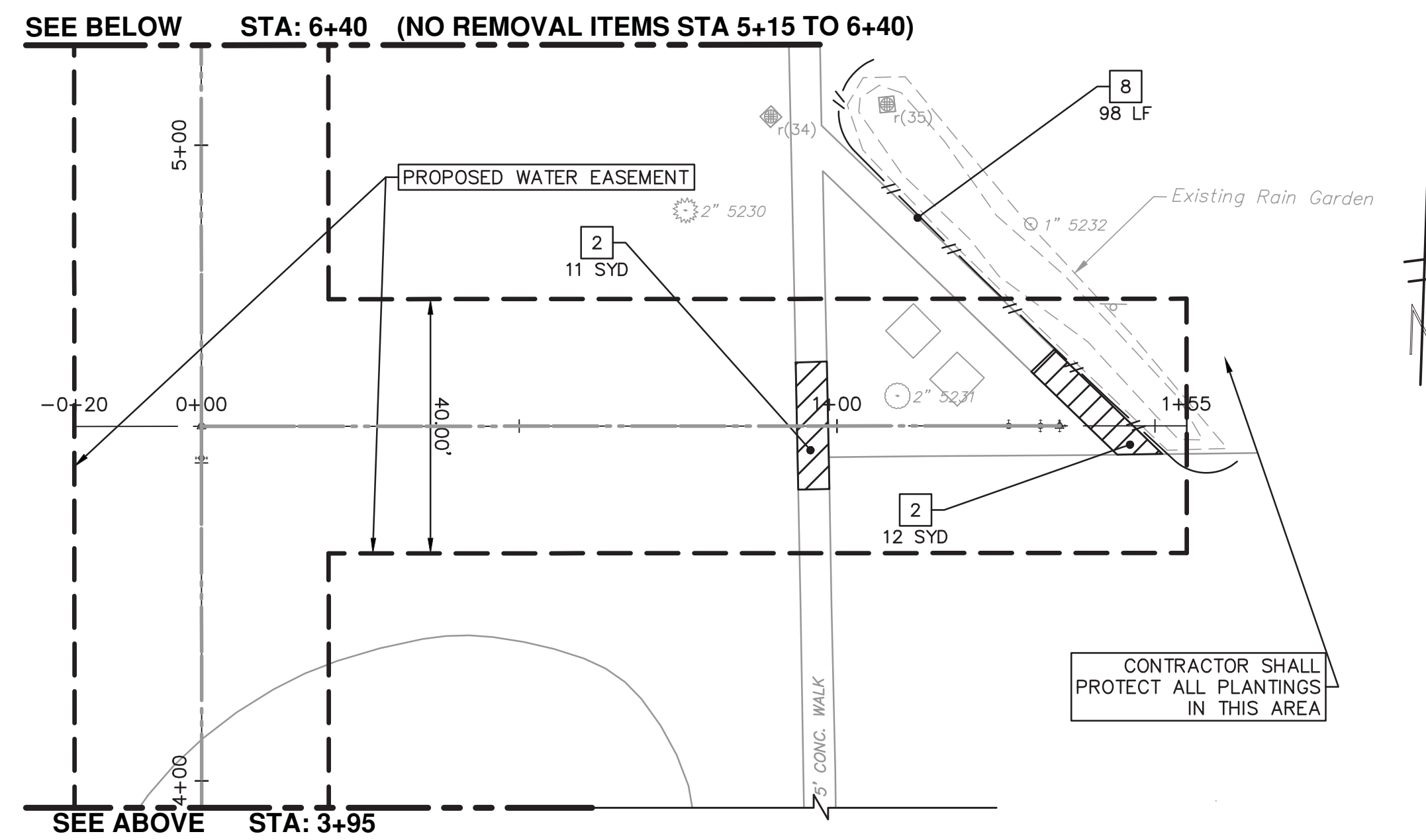
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SEE SHEET 8 FOR RUSSETT RD. & RUSSETT RD. REMOVALS

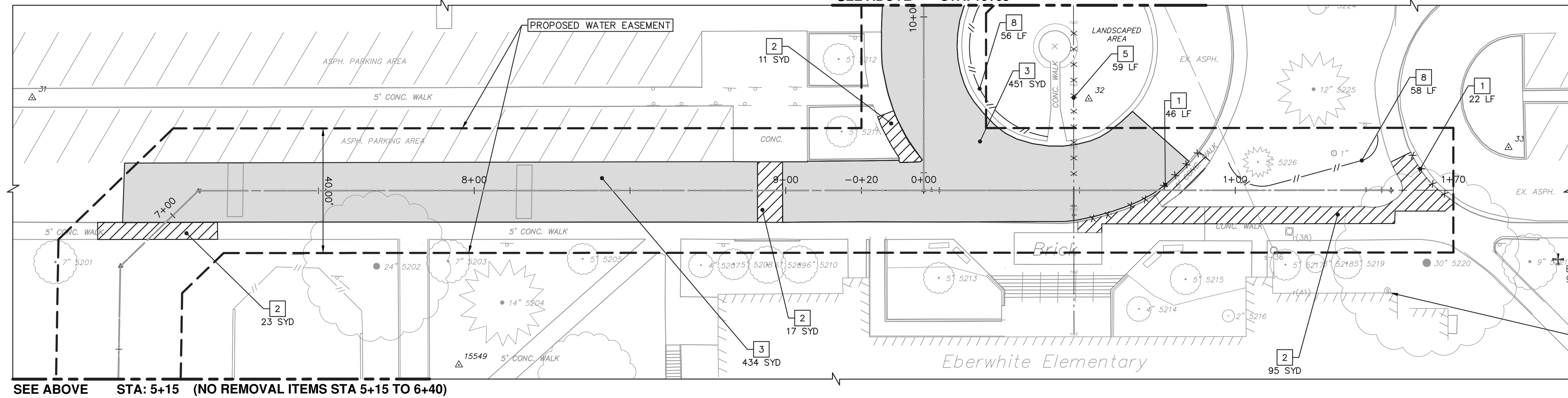
CAUTION
HAZARDOUS OR FLAMMABLE MATERIAL

USE OF FRITZ PARK PROPERTY FOR CONTRACTOR OPERATIONS OR ANY OTHER REASON IS STRICTLY PROHIBITED WITHOUT AUTHORIZATION FROM THE CITY OF ANN ARBOR. SUBMIT AUTHORIZATION REQUESTS TO THE ENGINEER FOR APPROVAL A MINIMUM OF SEVEN (7) DAYS PRIOR TO DESIRED USE.



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
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

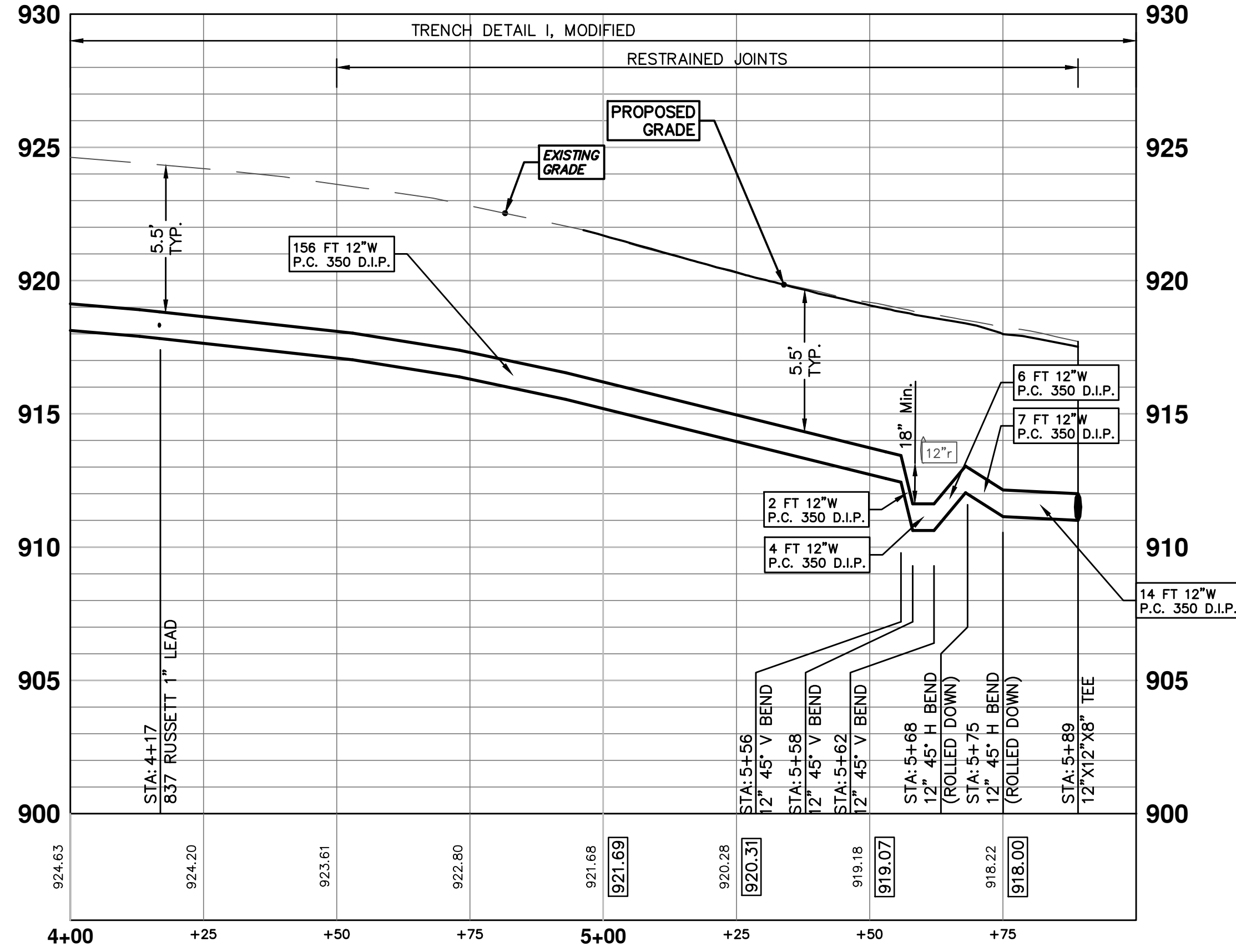
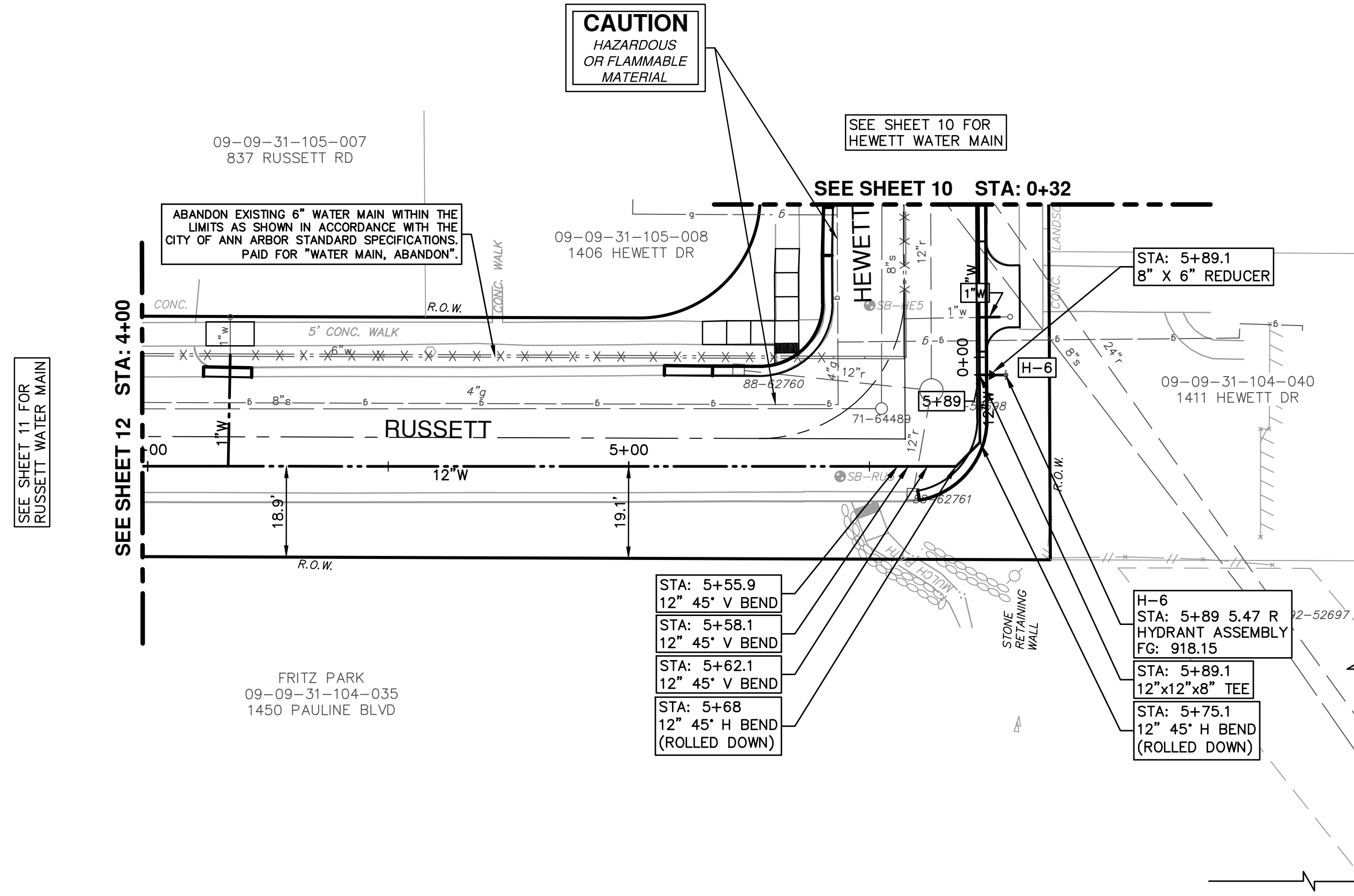


REV.	DESCRIPTION	DATE	DRAWN	CHECKED
03	ADDENDUM 1	05/01/15	JKA	DAD
02	POST MDEQ 2015 REVIEW	03/18/15	JKA	DAD
01	EBERWHITE EXTENSION	02/26/15	CEC, JKA	DAD
00	MDEQ PERMIT REVIEW COMMENTS	07-22-14	ESBPF	DAD

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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



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03	ADDENDUM 1	05/01/15	JKA	DAD	CHECKED
02	POST MDEQ 2015 REVIEW	03/18/15	JKA	DAD	DRAWN
01	EBERWHITE EXTENSION	02/26/15	CEC, JKA	DAD	DATE
00	MDEQ PERMIT REVIEW COMMENTS	07-22-14	ESBPF	DAD	REV.
					DESCRIPTION

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CITY OF ANN ARBOR
MICHIGAN

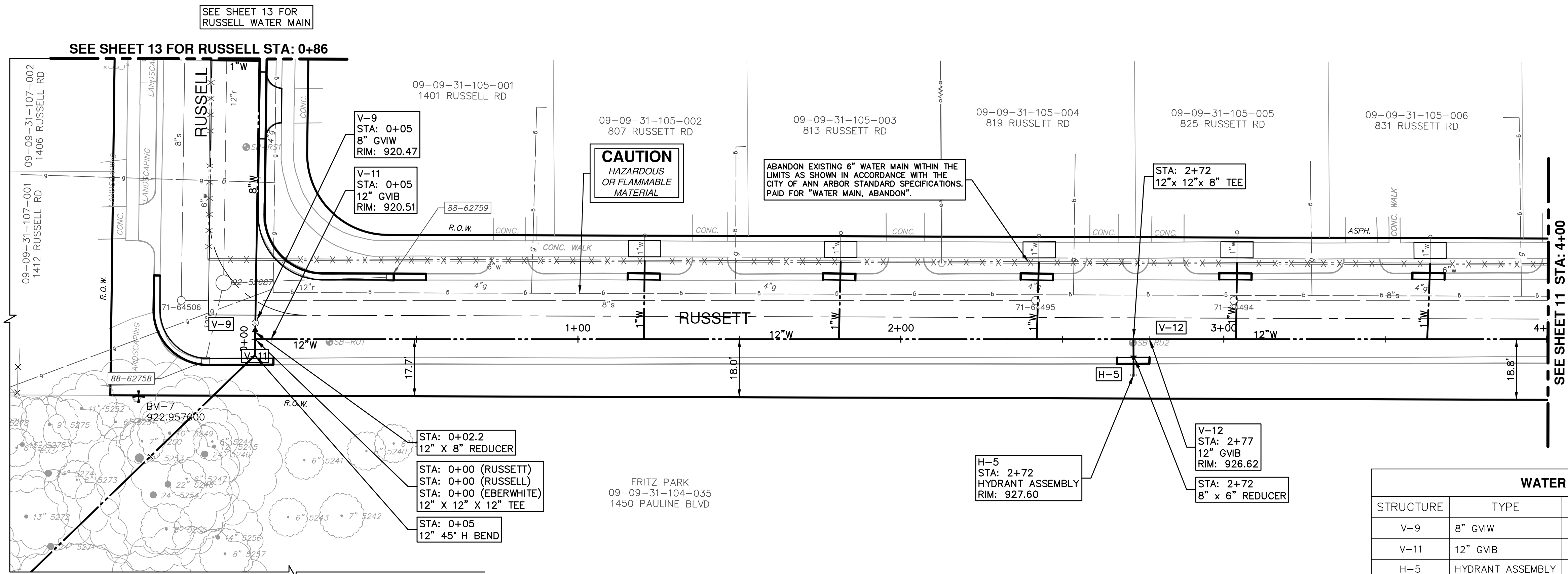
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
HEWETT DR, RUSSELL RD, RUSSETT RD &
REDEEMER AVE WATER MAIN REPLACEMENT
WATER MAIN PLAN & PROFILE
RUSSETT STA 4+00 TO 5+89

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

DRAWING No.
2013034-11

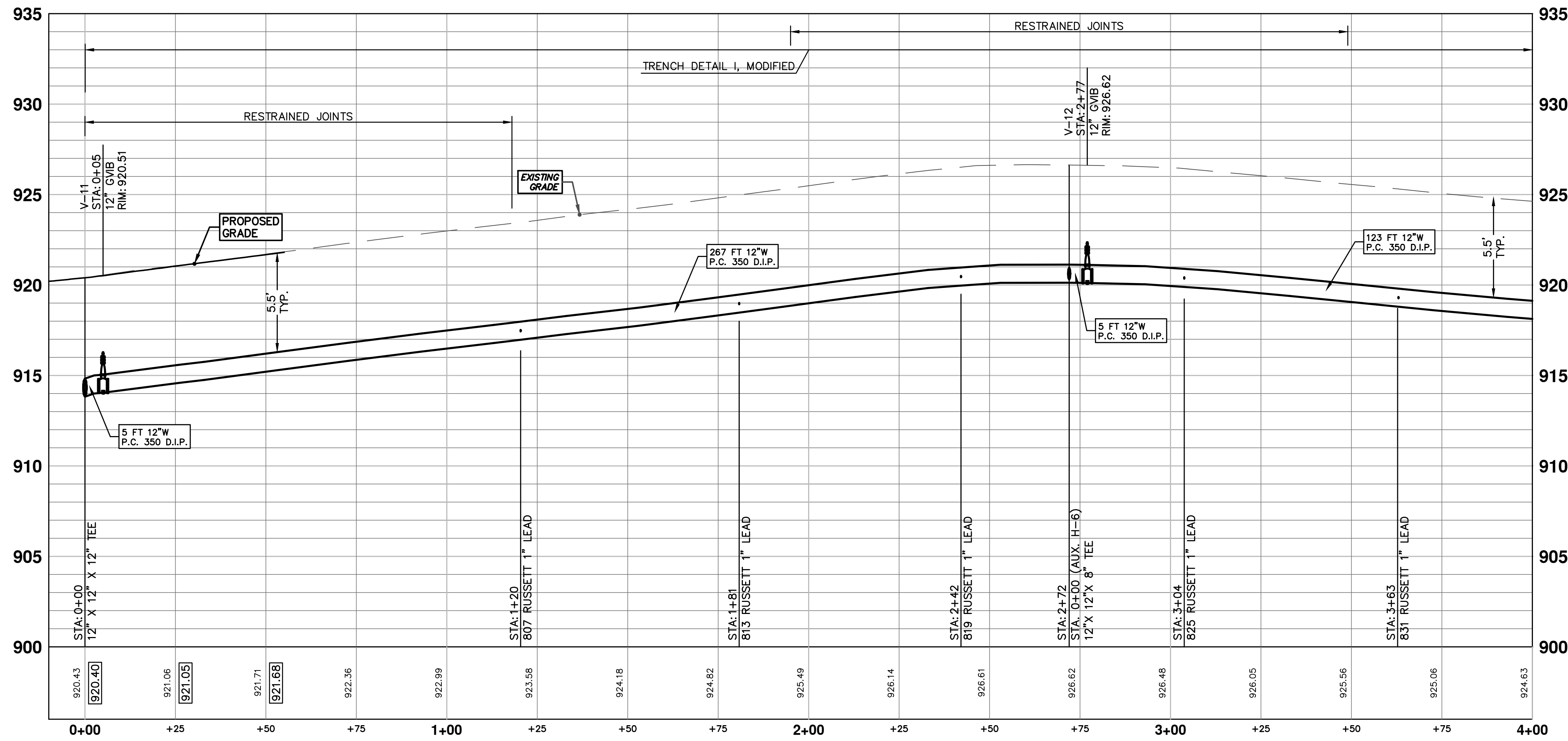
SHEET No.
11 OF 30

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



WATER MAIN STRUCTURE TABLE

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



811
Know what's below.
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03 ADDENDUM 1
02 POST MDEQ 2015 REVIEW
01 EBERWHITE EXTENSION
00 MDEQ PERMIT REVIEW COMMENTS

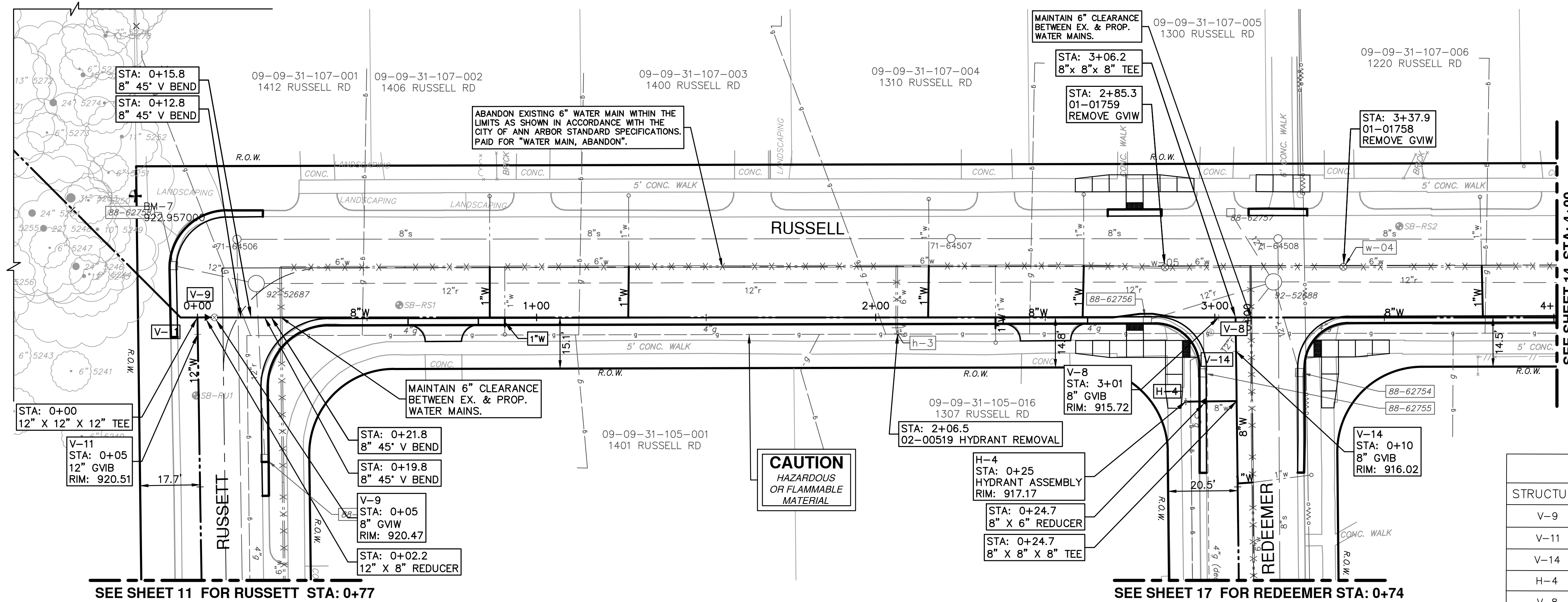
CITY OF ANN ARBOR
PUBLIC SERVICE
301 EAST HURON STREET
PO BOX 8647
ANN ARBOR MI 48106-8647
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DATE
DRAWN
CHECKED

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HEWETT DR, RUSSETT RD, RUSSETT RD &
REDEEMER AVE WATER MAIN REPLACEMENT
WATER MAIN PLAN & PROFILE
RUSSETT STA 0+00 TO 4+00

SHEET No.
12 OF 30

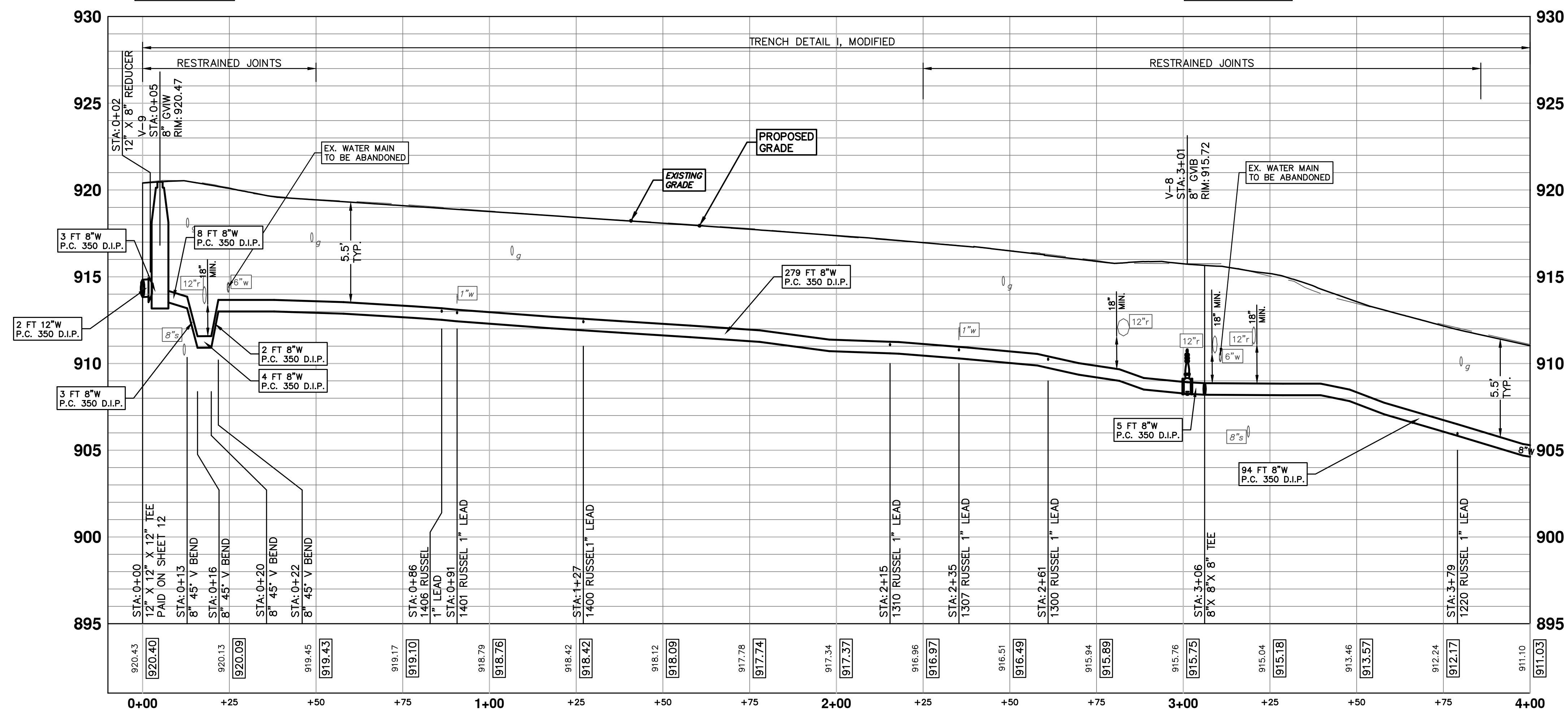
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SEE SHEET 14 FOR RUSSELL RD./HEWETT RD. WATER MAIN

WATER MAIN STRUCTURE TABLE					
STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
V-9	8" GVW	0+05	Pr Water Russell-Hewett Loop	920.47	6.80
V-11	12" GVIB	0+05	Pr Water Russett	920.51	6.46
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.
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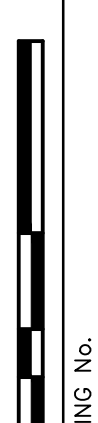
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02	03/18/15	JKA	DAD	POST MDCO 2015 REVIEW
01	02/26/15	CEC, JKA	DAD	EBERWHITE EXTENSION
00	07-22-14	ESBPF	DAD	MDCO PERMIT REVIEW COMMENTS



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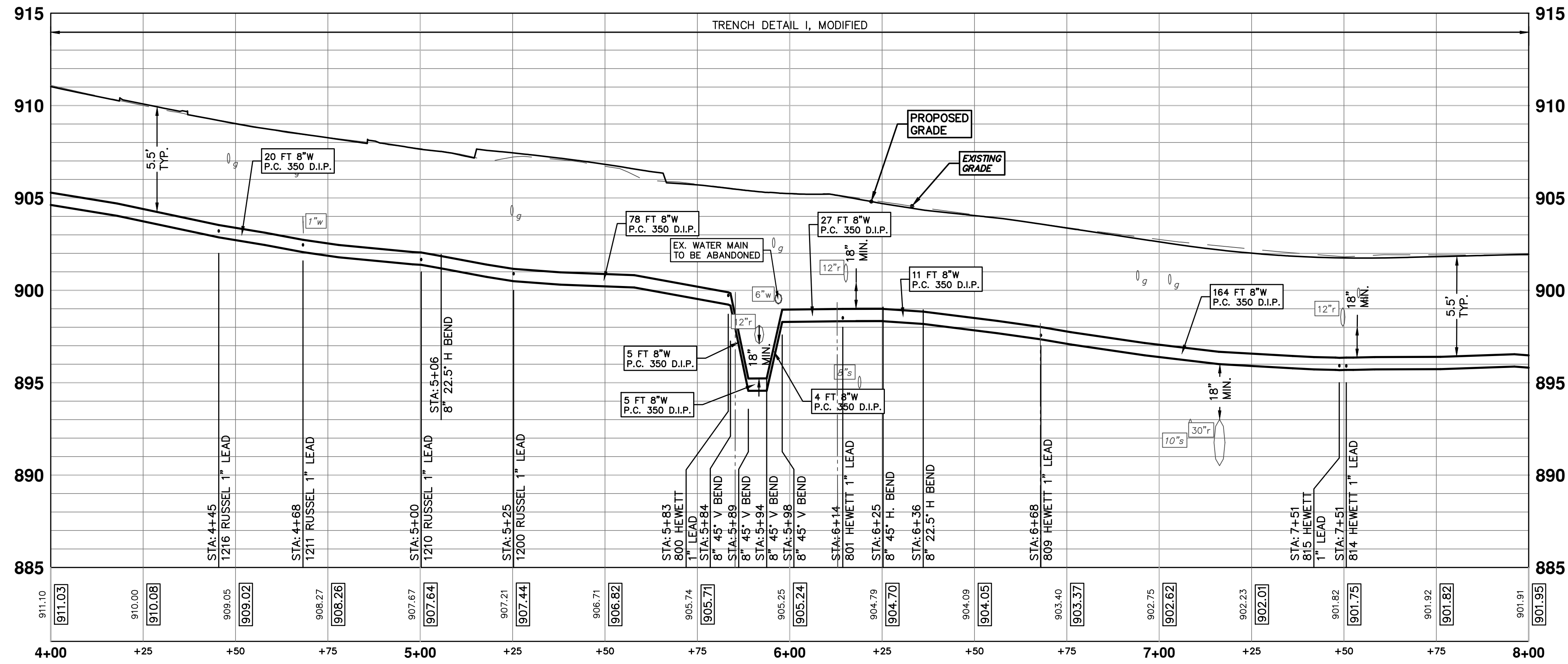
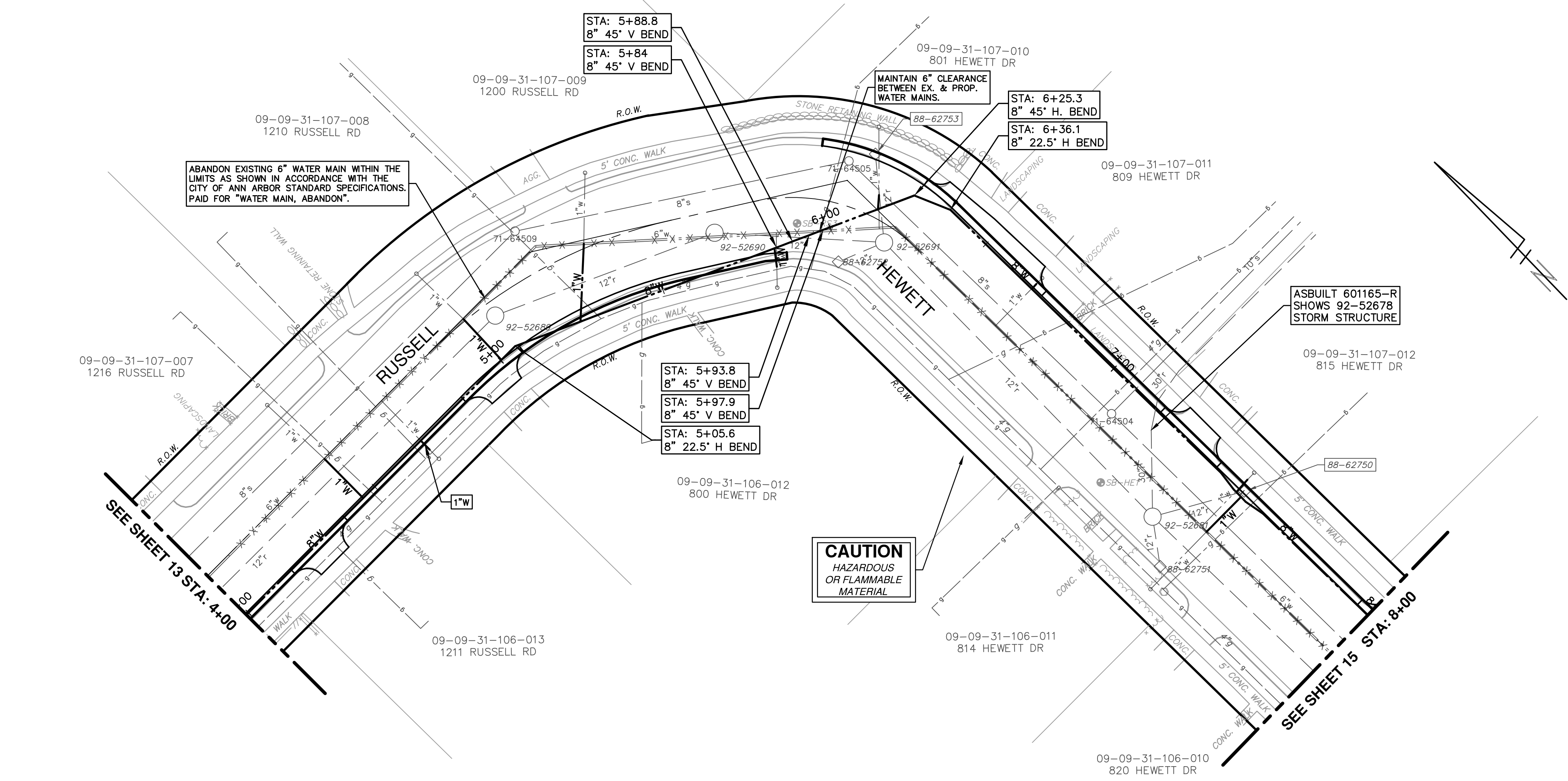
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
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REDEEMER AVE WATER MAIN REPLACEMENT
WATER MAIN PLAN & PROFILE
RUSSELL - HEWETT LOOP STA 0+00 TO 4+00

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



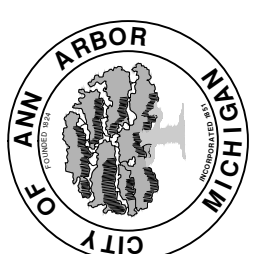
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SHEET No. **13 OF 30**



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

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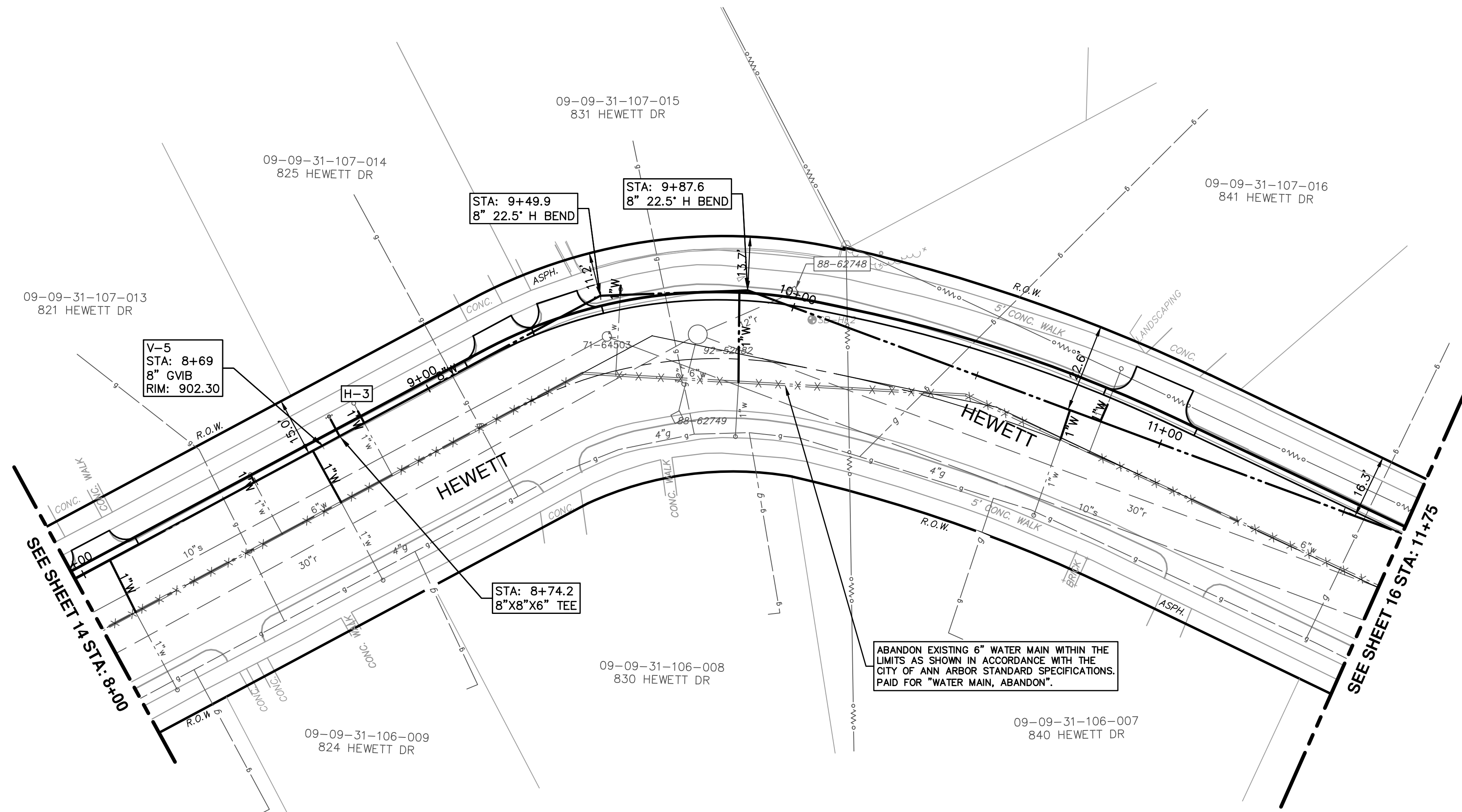
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
HEWETT DR, RUSSELL RD, RUSSELL RD & REDEEMER AVE WATER MAIN REPLACEMENT
WATER MAIN PLAN & PROFILE
RUSSELL - HEWETT LOOP STA 4+00 TO 8+00

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

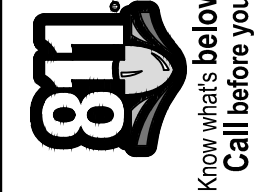
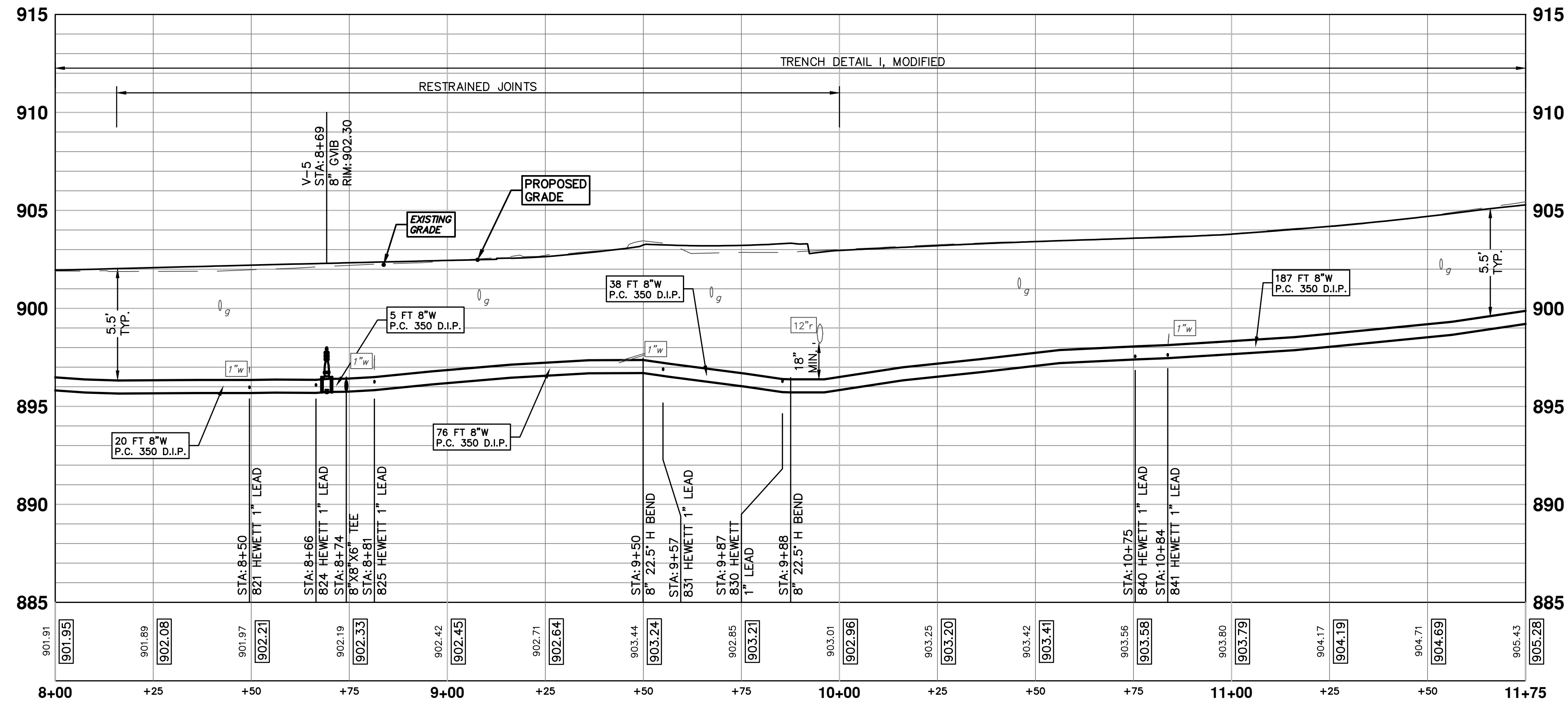
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SHEET No. 14 OF 30

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: 30-Apr-15



WATER MAIN STRUCTURE TABLE					
STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
V-5	8" GVIB	8+69	Pr Water Russell-Hewett Loop	902.30	6.57
H-3	HYDRANT ASSEMBLY	8+74	Pr Water Russell-Hewett Loop	902.99	9.18



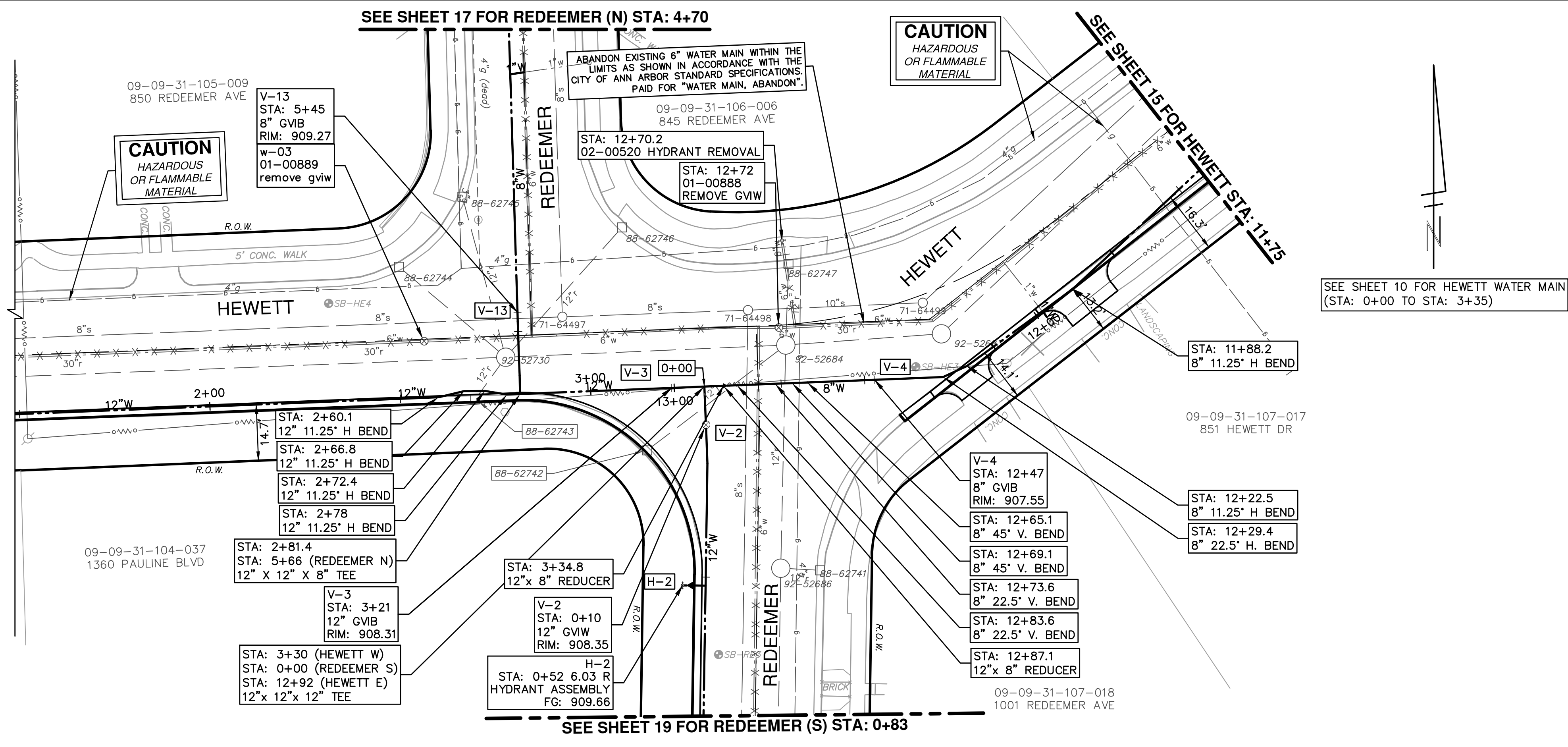
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02	POST MDEQ 2015 REVIEW	03/18/15	JKA	DAD
01	EBERWHITE EXTENSION	02/26/15	CEC, JKA	DAD
00	MDEQ PERMIT REVIEW COMMENTS	07-22-14	ESBPF	DAD

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RUSSELL - HEWETT LOOP STA 8+00 TO 11+75
WATER MAIN PLAN & PROFILE

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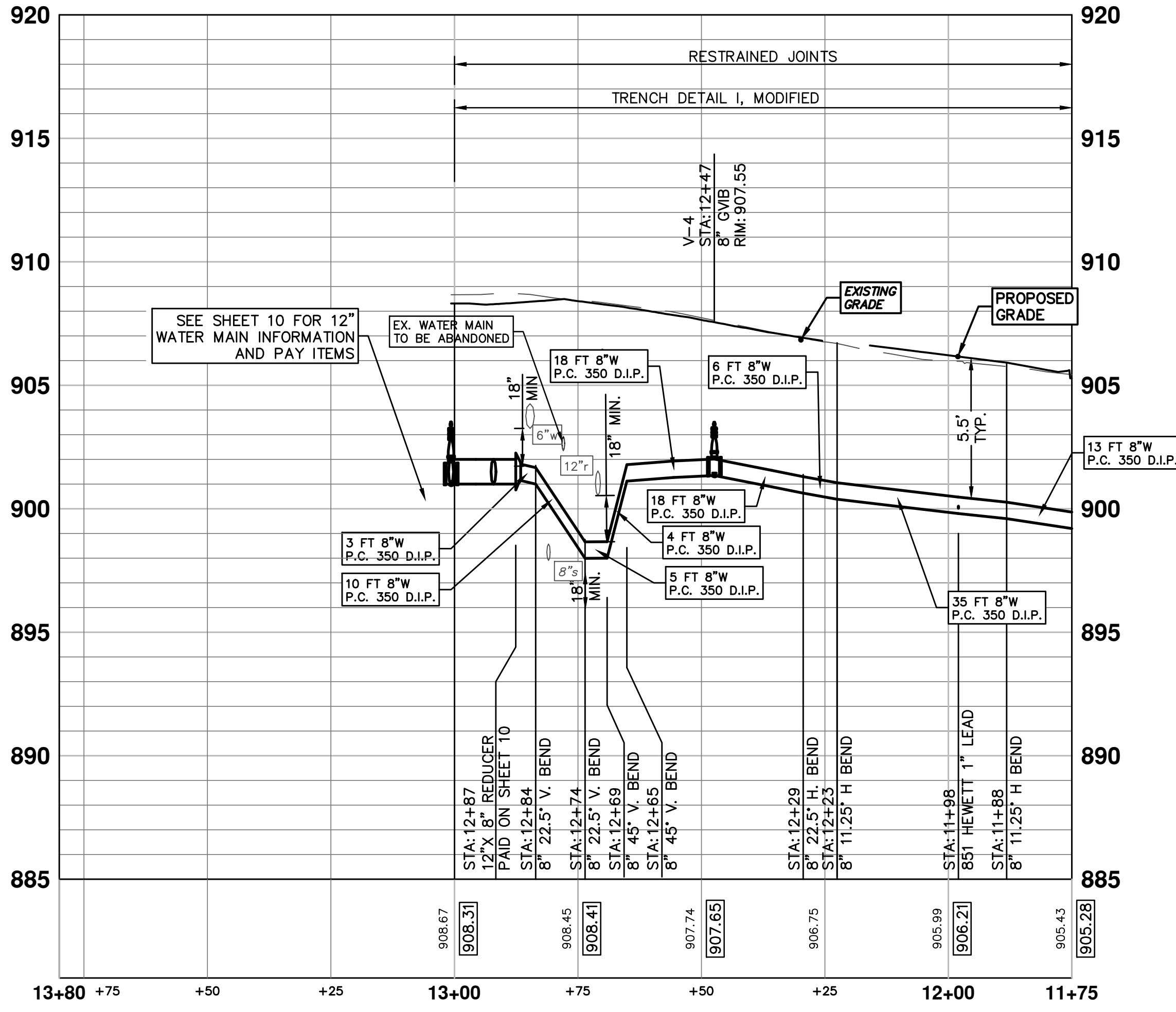



WATER MAIN STRUCTURE TABLE

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





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REV.	DATE	DESCRIPTION
03	05/01/15	ADDENDUM 1
02	03/18/15	POST MDCO 2015 REVIEW
01	02/26/15	EBERWHITE EXTENSION
00	07-22-14	MDCO PERMIT REVIEW COMMENTS

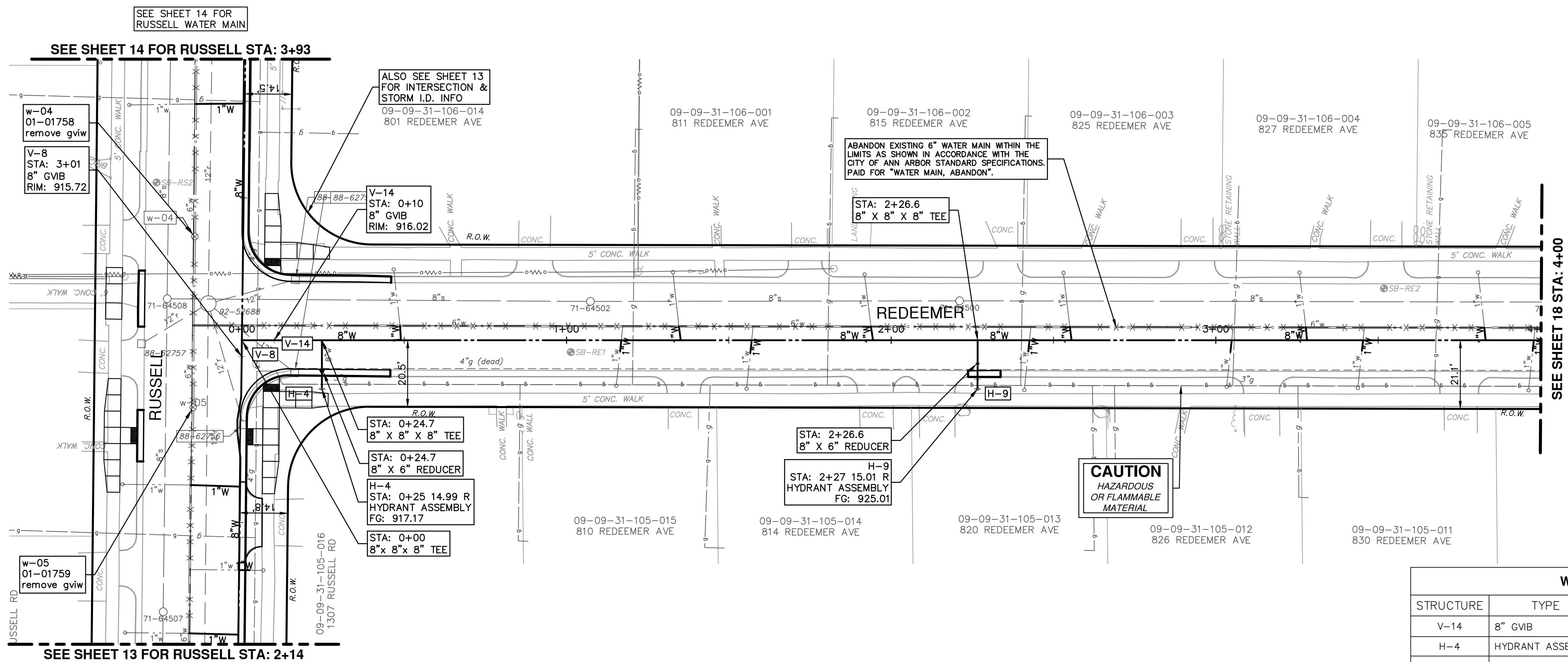


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REDEEMER AVE WATER MAIN REPLACEMENT
WATER MAIN PLAN & PROFILE
RUSSELL - HEWETT LOOP STA 11+75 TO 12+87

SHEET No. **2013034-16**
16 OF 30

S:\Project Management\Design\2014029 HRRR WM Ph II\Source Drawings\Pipe Networks\2014029 PNwastr.dwg Dwg Created: 30-Dec-13 11:02:29 Plot Date: 30-Apr-15



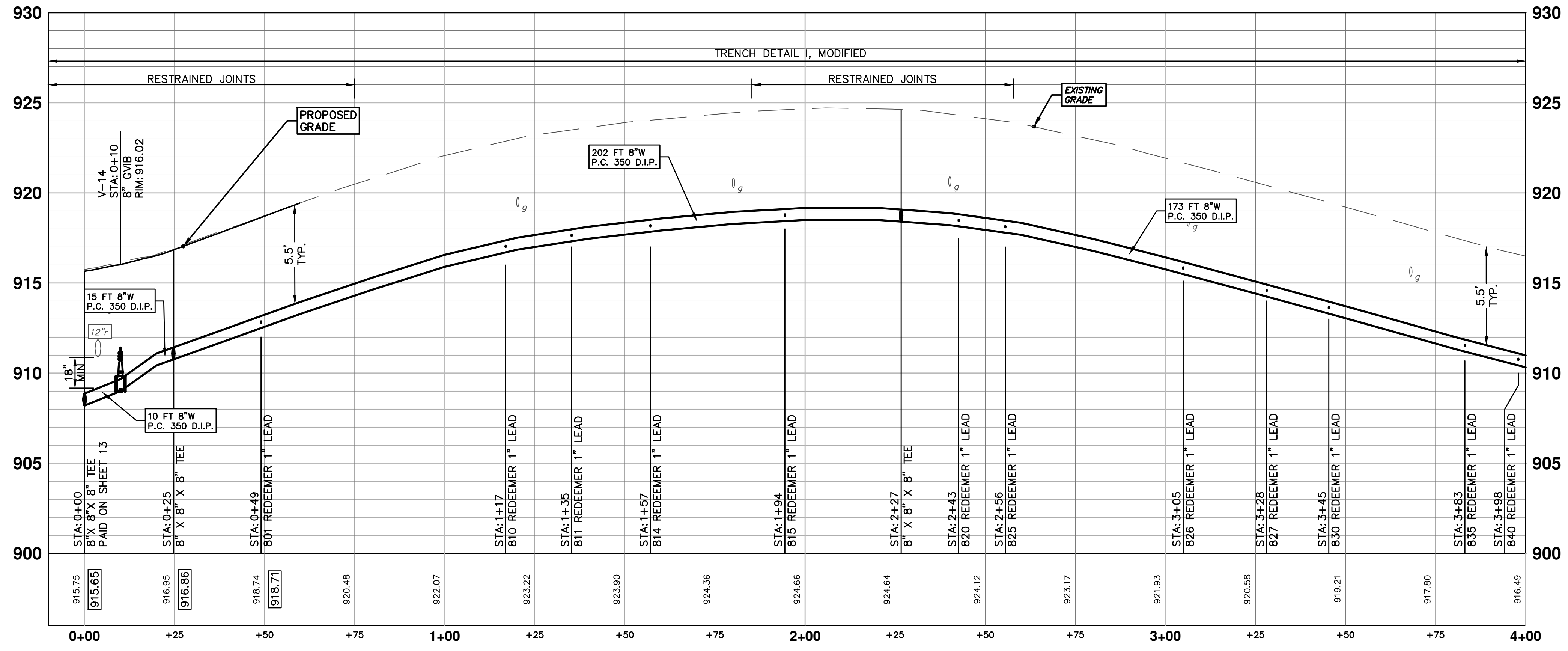
SEE SHEET 14 FOR RUSSELL STA: 3+93

SEE SHEET 13 FOR RUSSELL STA: 2+14

SEE SHEET 13 FOR RUSSELL WATER MAIN

PR WATER REDEEMER N

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



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

811
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03 ADDENDUM 1 05/01/15 JKA
02 POST MDCO 2015 REVIEW 03/18/15 JKA
01 EBERWHITE EXTENSION 02/26/15 CEC, JKA
00 MDCO PERMIT REVIEW COMMENTS 07-22-14 ESBPF

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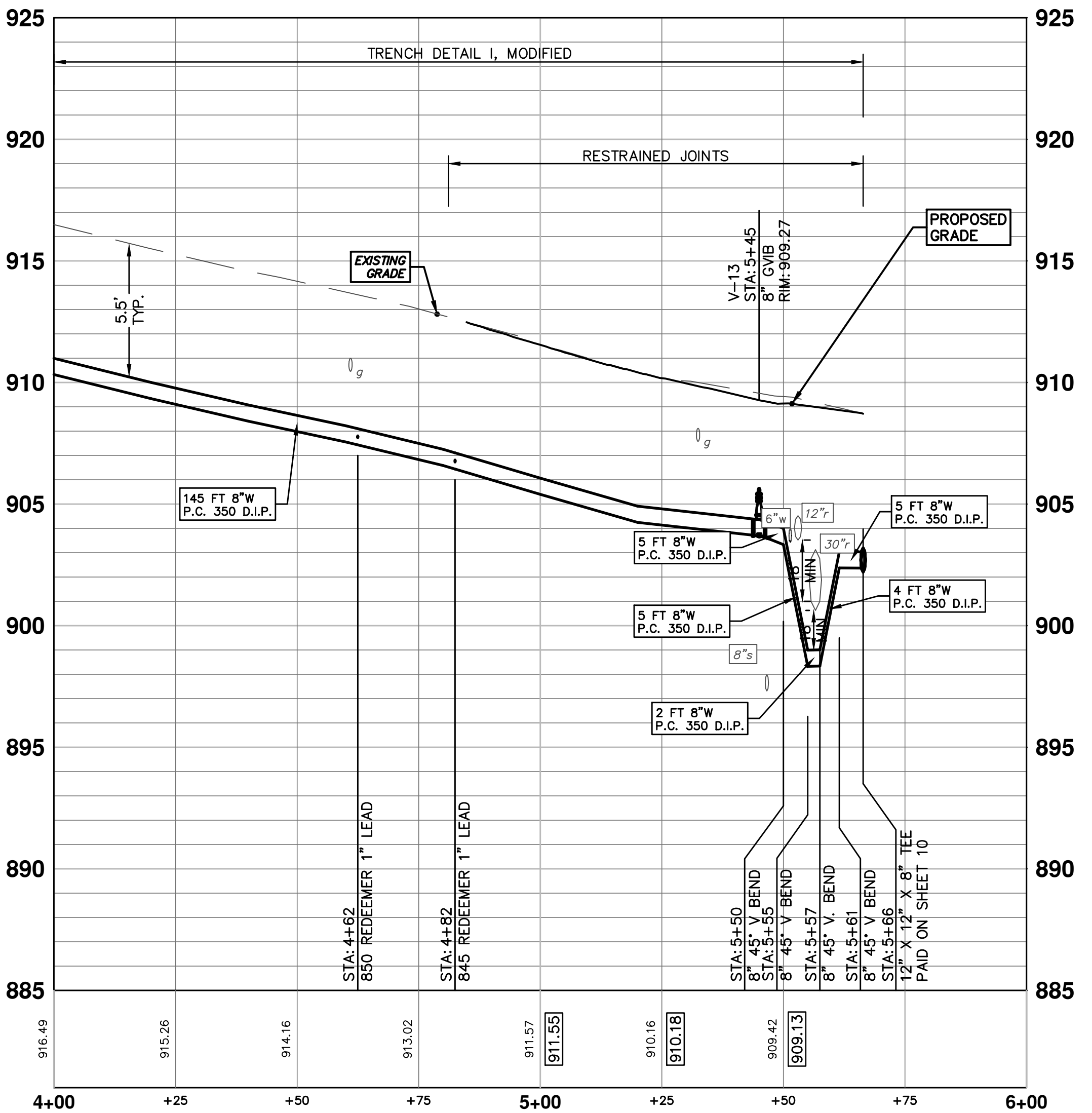
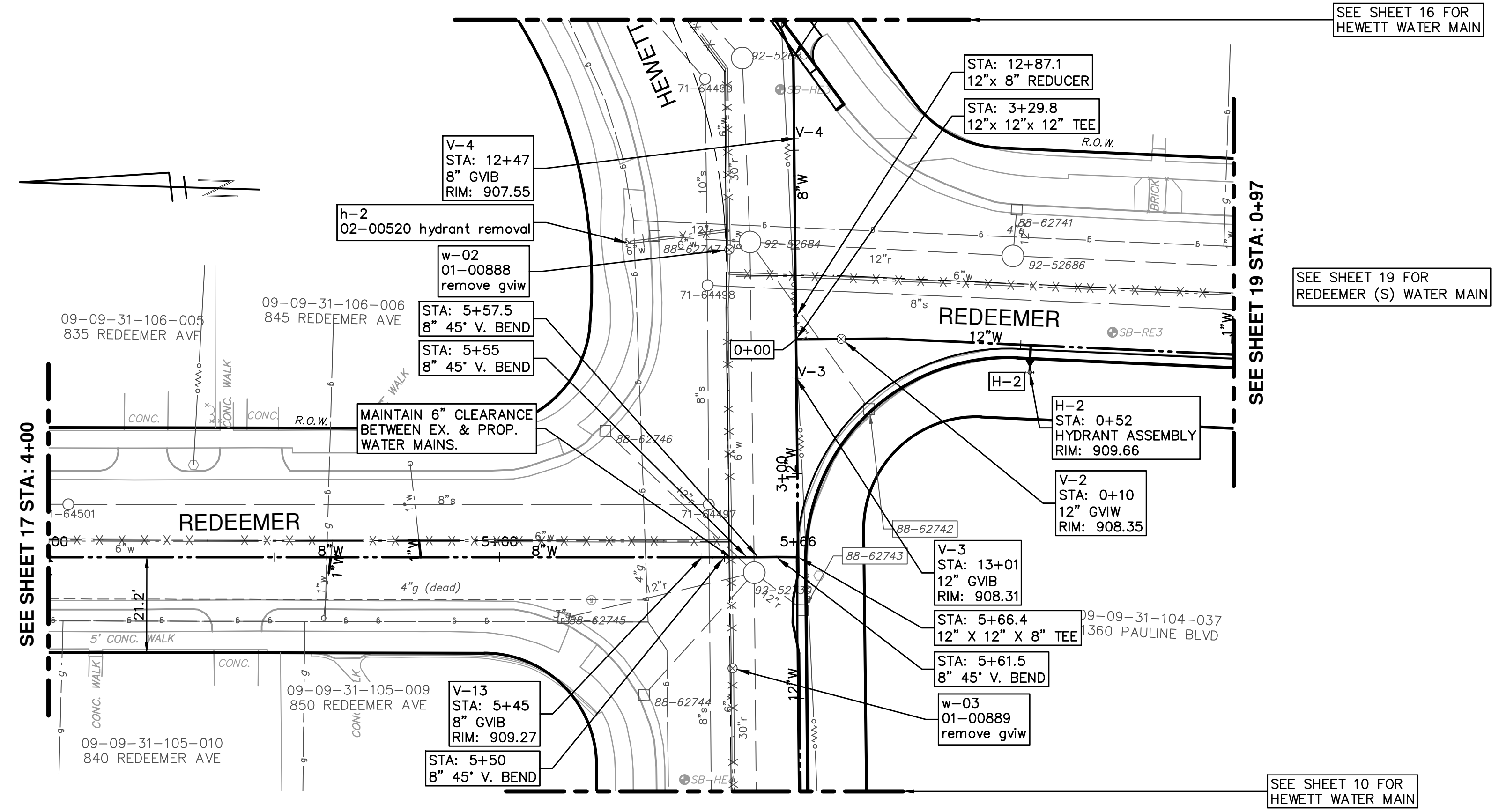
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WATER MAIN PLAN & PROFILE
REDEEMER (N) STA 0+00 TO 4+00

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

SHEET No. 17 OF 30

SEE SHEET 17 FOR REDEEMER (N) WATER MAIN



WATER MAIN STRUCTURE TABLE					
STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
V-2	12" GVIW	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" GVB	5+45	Pr Water Redeemer N	909.27	5.58
V-4	8" GVB	12+47	Pr Water Russell-Hewett Loop	907.55	6.21
V-3	12" GVB	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 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

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 WATER MAIN PLAN & PROFILE
 REDEEMER (N) STA 4+00 TO 5+66

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

DRAWING No. **2013034-18**

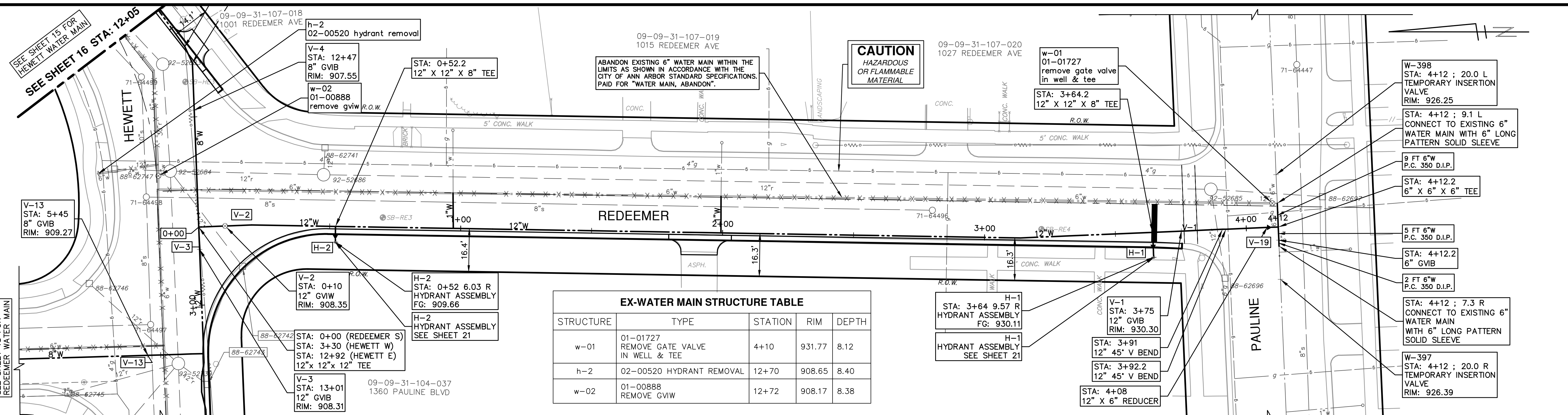
811
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REV.	DATE	DESCRIPTION
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02	POST MDCO 2015 REVIEW	
01	EBERWHITE EXTENSION	
00	MDCO PERMIT REVIEW COMMENTS	

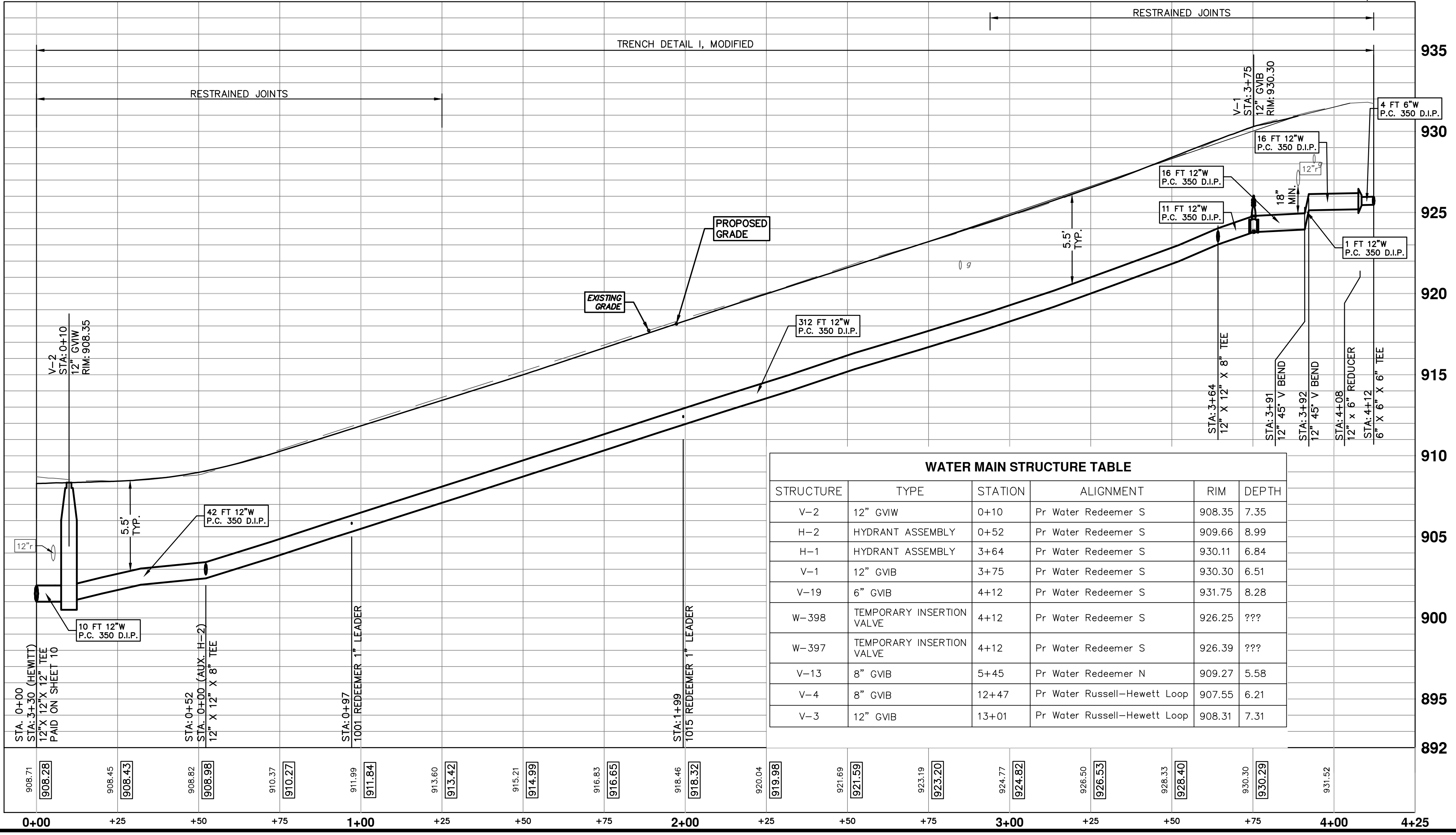
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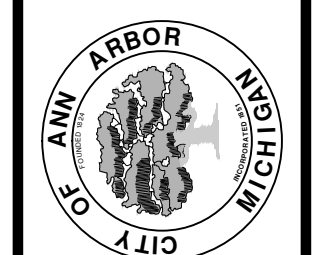
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STRUCTURE	TYPE	STATION	RIM	DEPTH
w-01	01-01727 REMOVE GATE VALVE IN WELL & TEE	4+10	931.77	8.12
h-2	02-00520 HYDRANT REMOVAL	12+70	908.65	8.40
w-02	01-00888 REMOVE GVW	12+72	908.17	8.38



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
V-19	6" GVW	4+12	Pr Water Redeemer S	931.75	8.28
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-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



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 WATER MAIN PLAN & PROFILE
 REDEEMER (S) STA 0+00 TO 4+12

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

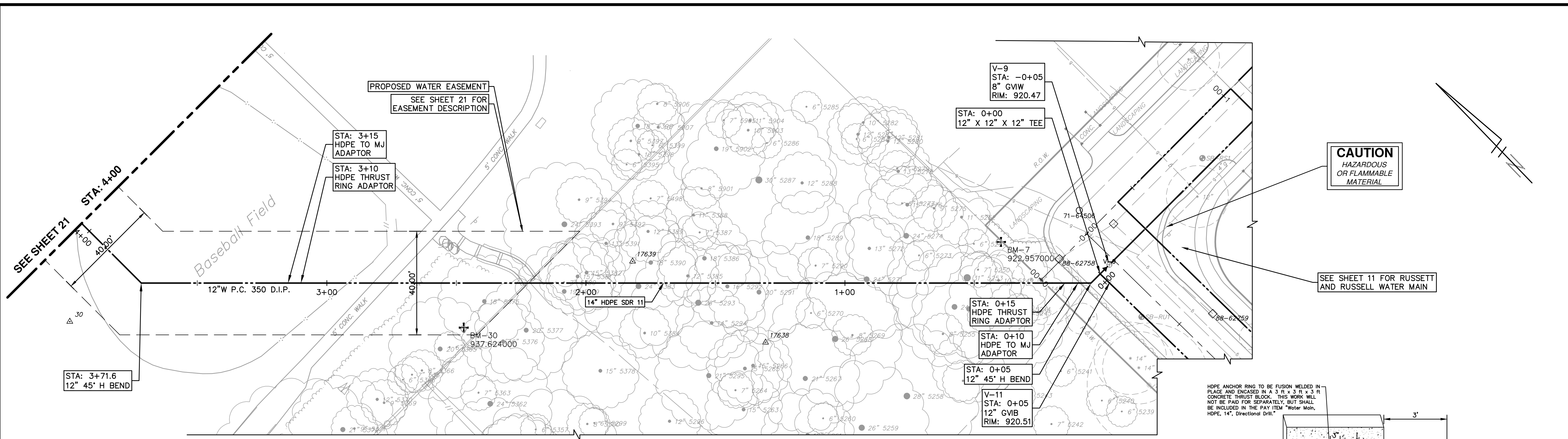
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SHEET No. **19 OF 30**

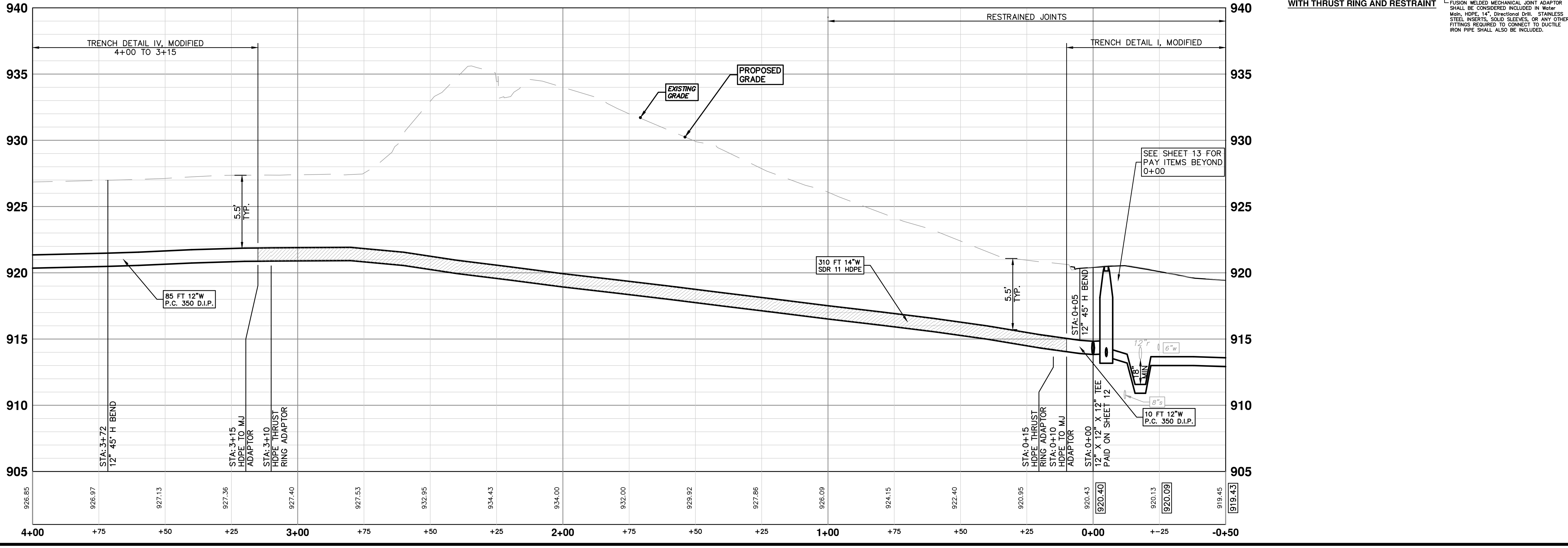
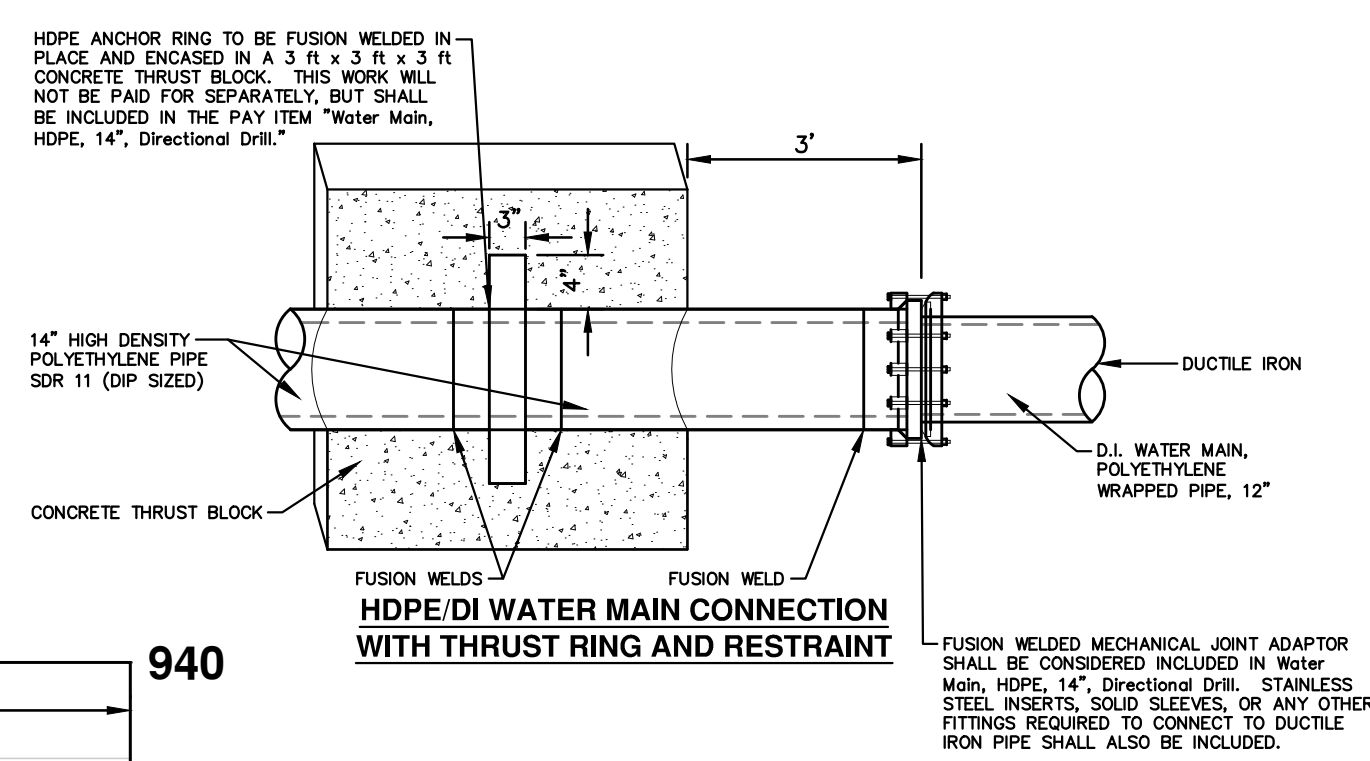
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02	03/18/15	POST MEOE 2015 REVIEW	DAD	JKA
01	02/26/15	EBERWHITE EXTENSION	DAD	ESBP
00	07-22-14	MEOE PERMIT REVIEW COMMENTS	DAD	ESBP


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WATER MAIN STRUCTURE TABLE					
STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
V-9	8" GVW	0+05	Pr Water Russell-Hewett Loop	920.47	6.80
V-11	12" GVIB	0+05	Pr Water Russett	920.51	6.46






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REV.	DATE	DESCRIPTION
03	05/01/15	ADDENDUM 1
02	03/18/15	POST MDCO 2015 REVIEW
01	02/26/15	EBERWHITE EXTENSION
00	07-22-14	MDCO PERMIT REVIEW COMMENTS

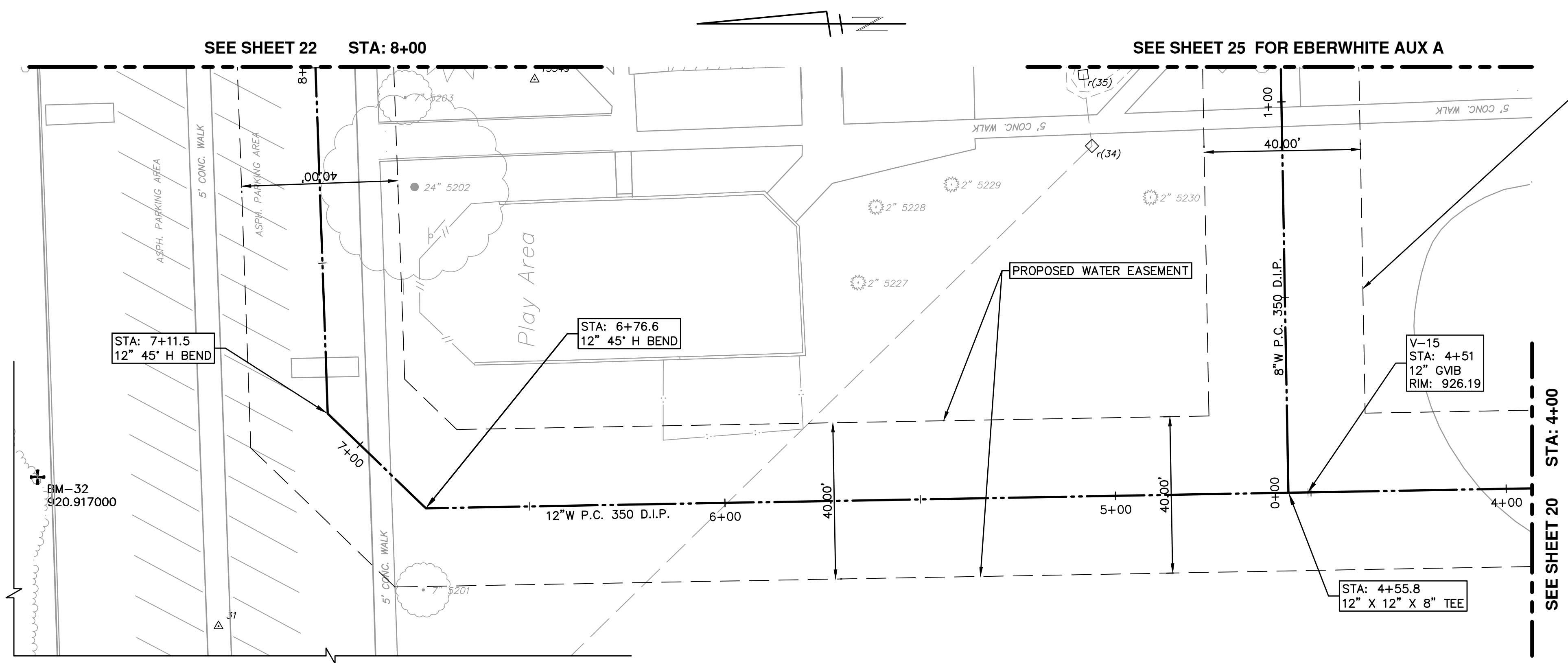
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 WATER MAIN PLAN & PROFILE
 EBERWHITE EXTENSION 0+00 TO 4+00

SHEET No. **20 OF 30**

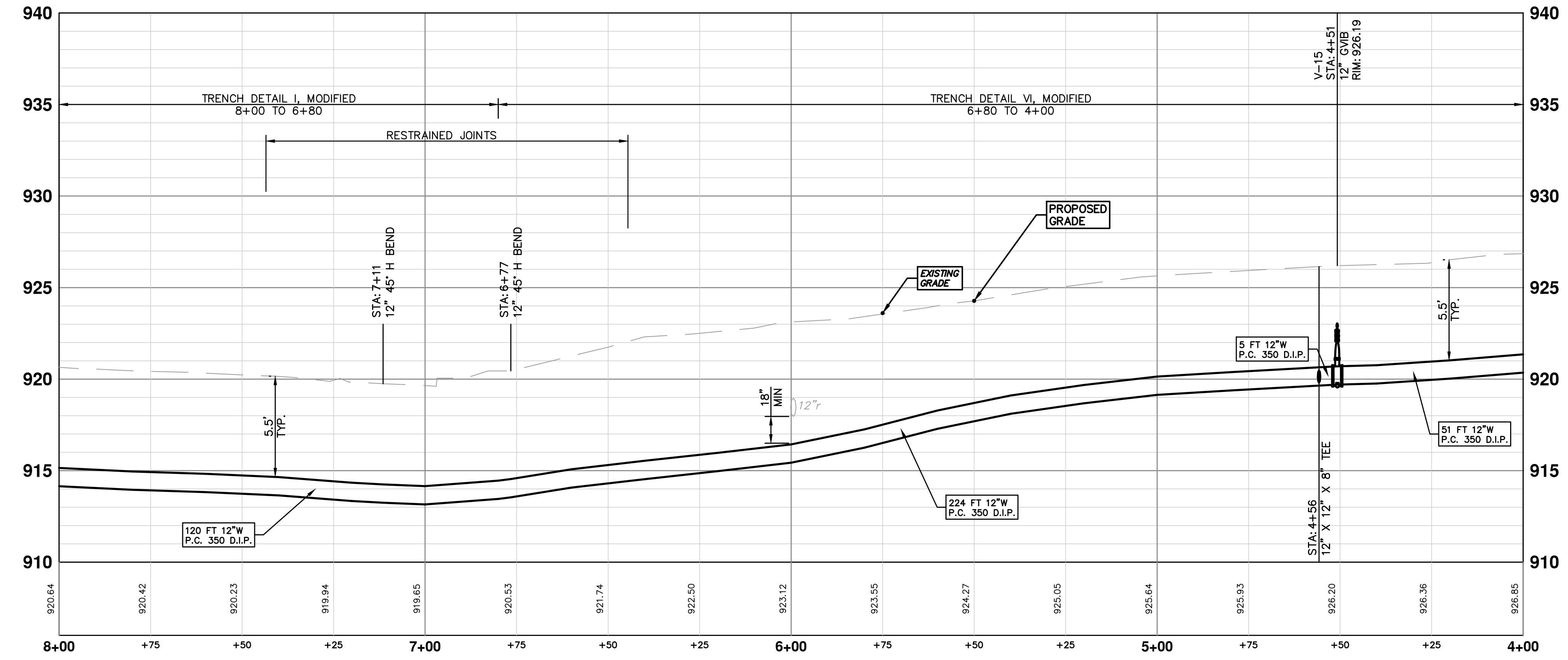
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ANN ARBOR PUBLIC SCHOOLS-EBERWHITE ELEMENTARY WATERMAIN EASEMENT (09-09-30-420-013)

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.

03	ADDENDUM 1	05/01/15	JKA	DAD	CHECKED
02	POST MDEQ 2015 REVIEW	03/18/15	JKA	DAD	
01	EBERWHITE EXTENSION	02/26/15	SEC, JKA	DAD	
00	MDEQ PERMIT REVIEW COMMENTS	07-22-14	ESBPF	DAD	
REV.	DESCRIPTION	DATE		DRAWN	



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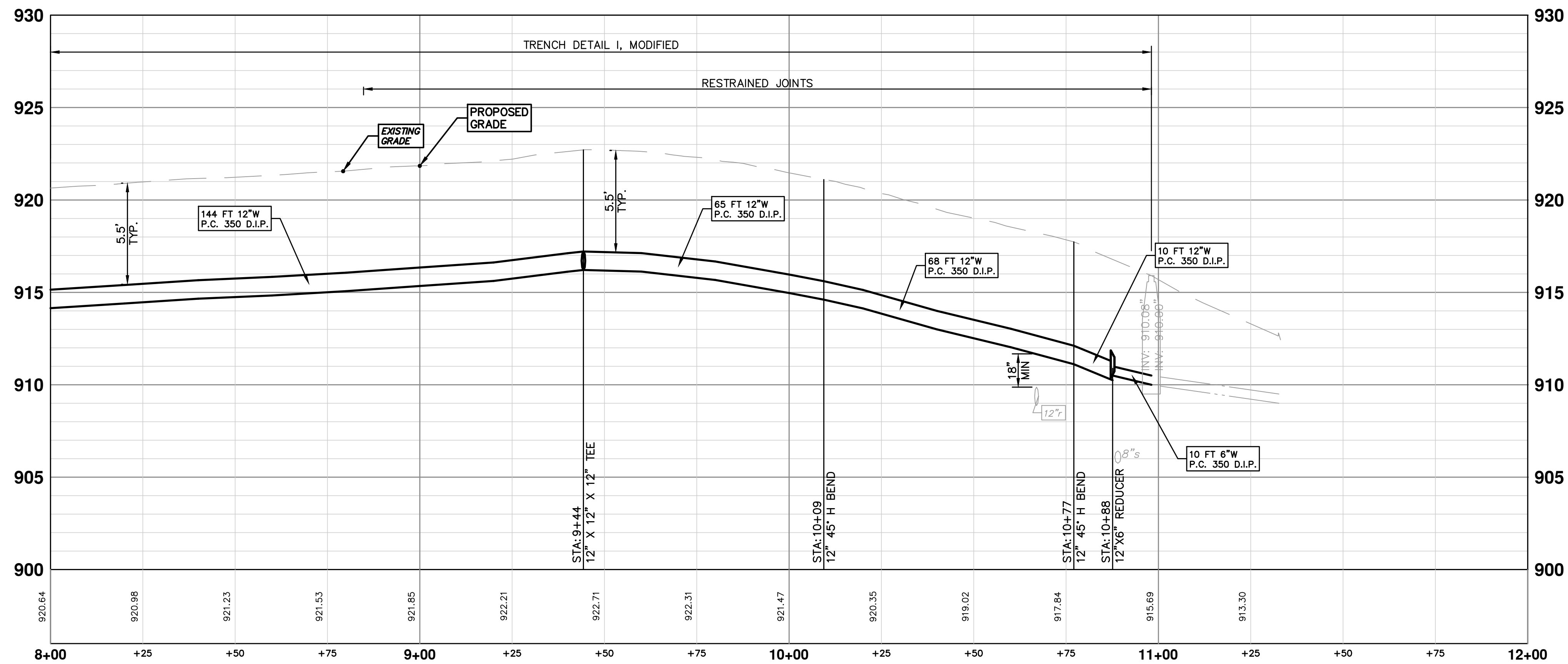
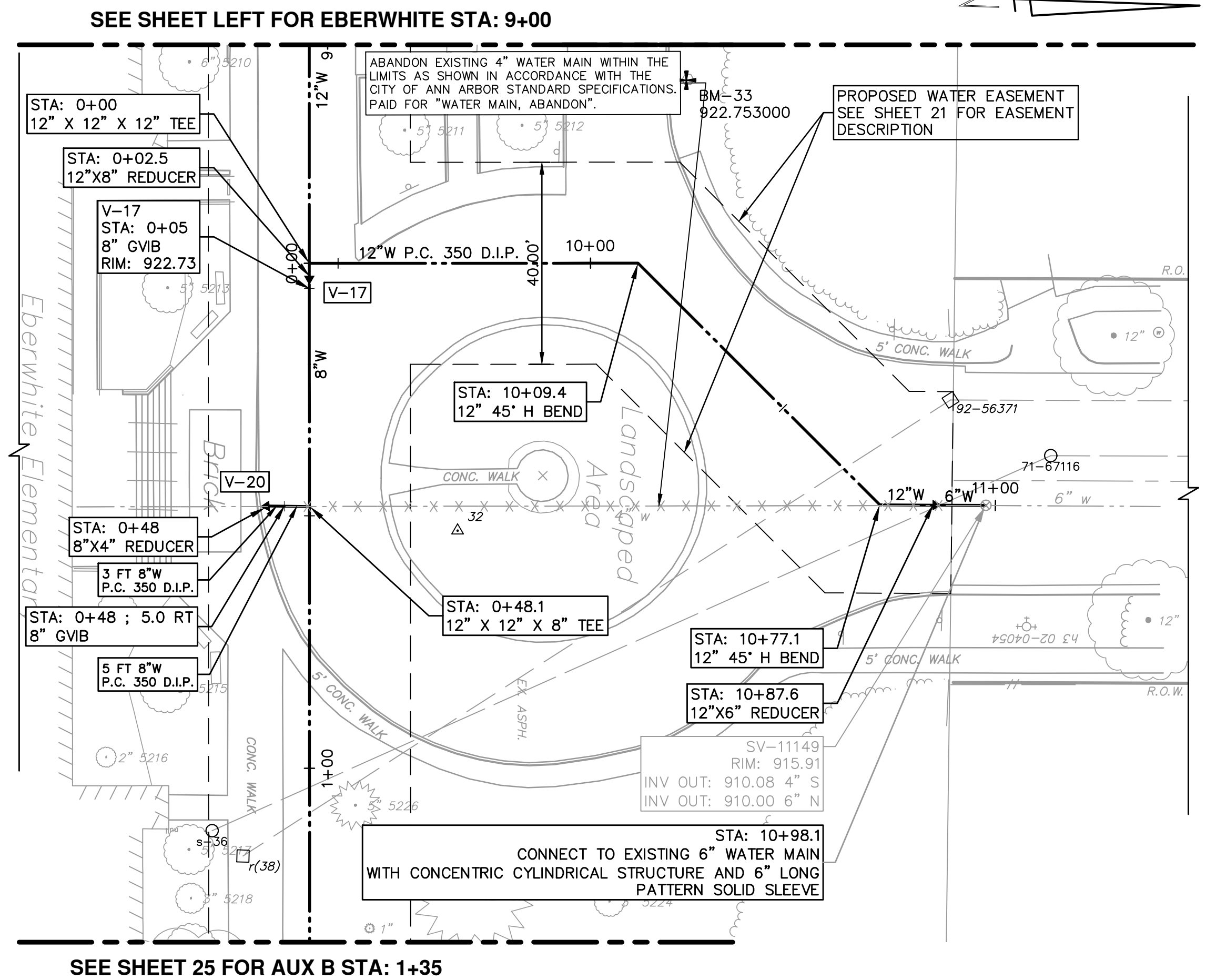
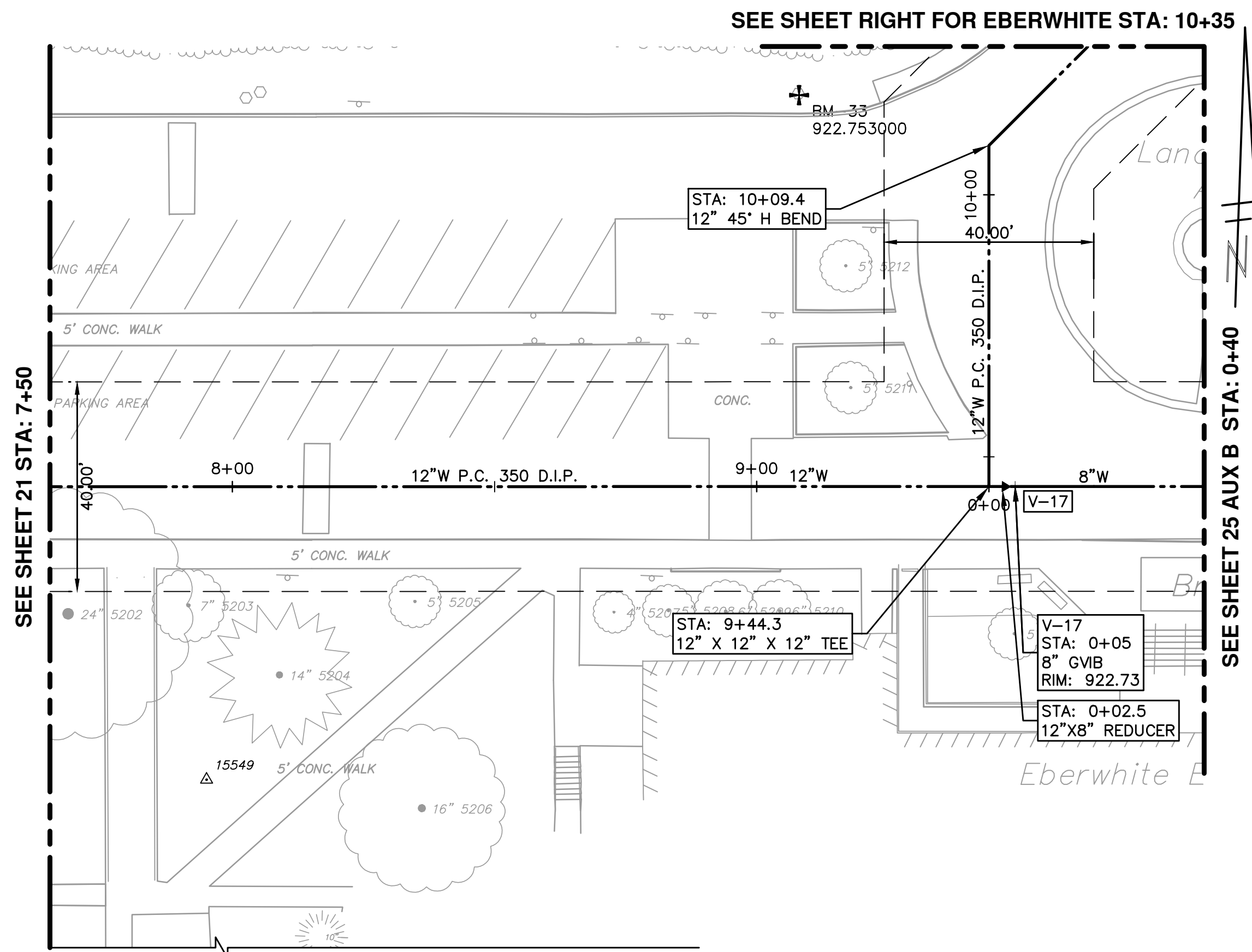
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REDEEMER AVE WATER MAIN REPLACEMENT
WATER MAIN PLAN & PROFILE
EBERWHITE EXTENSION 4+00 TO 8+00

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 - _c2 standard bw.stb - Plot Date: 30-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-17	8" GVMB	0+05	Eberwhite-Aux B	922.73	6.14
V-20	8" GVMB	0+48	Eberwhite-Aux B	923.40	8.80

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 WATER MAIN PLAN & PROFILE
 EBERWHITE EXTENSION 8+00 TO 11+00

SHEET No. **22 OF 30**

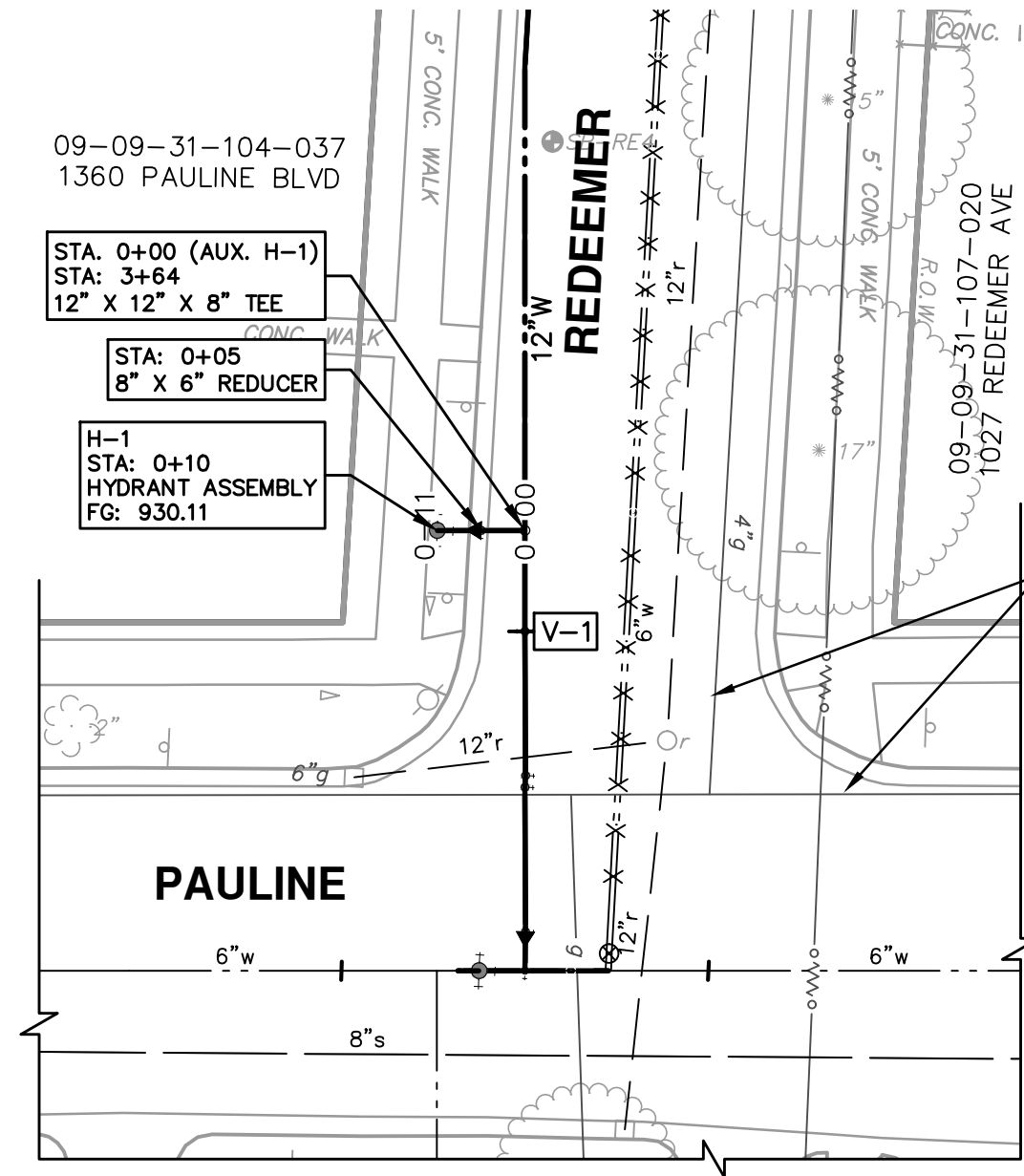
811
 Know what's below. Call Before you dig.

ADDENDUM 1	03	05/01/15	JKA	DAD	CHECKED
POST MDEQ 2015 REVIEW	02	03/18/15	JKA	DAD	DRAWN
EBERWHITE EXTENSION	01	02/26/15	CEC, JKA	DAD	DATE
MDEQ PERMIT REVIEW COMMENTS	00	07-22-14	ESBPF	DAD	DESCRIPTION

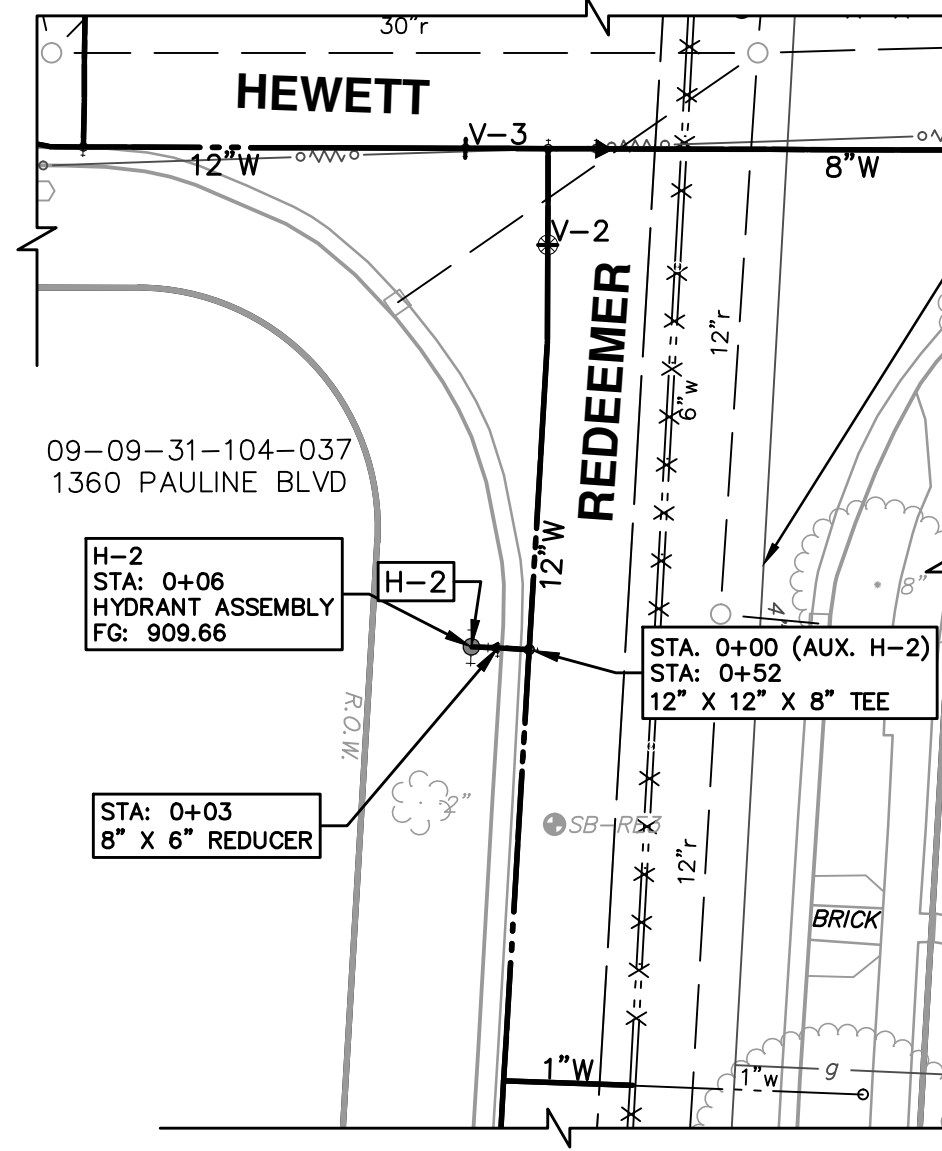
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CITY OF ANN ARBOR
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 SCALE PLAN: 1" = 20'
 PROFILE: 1" = 4'

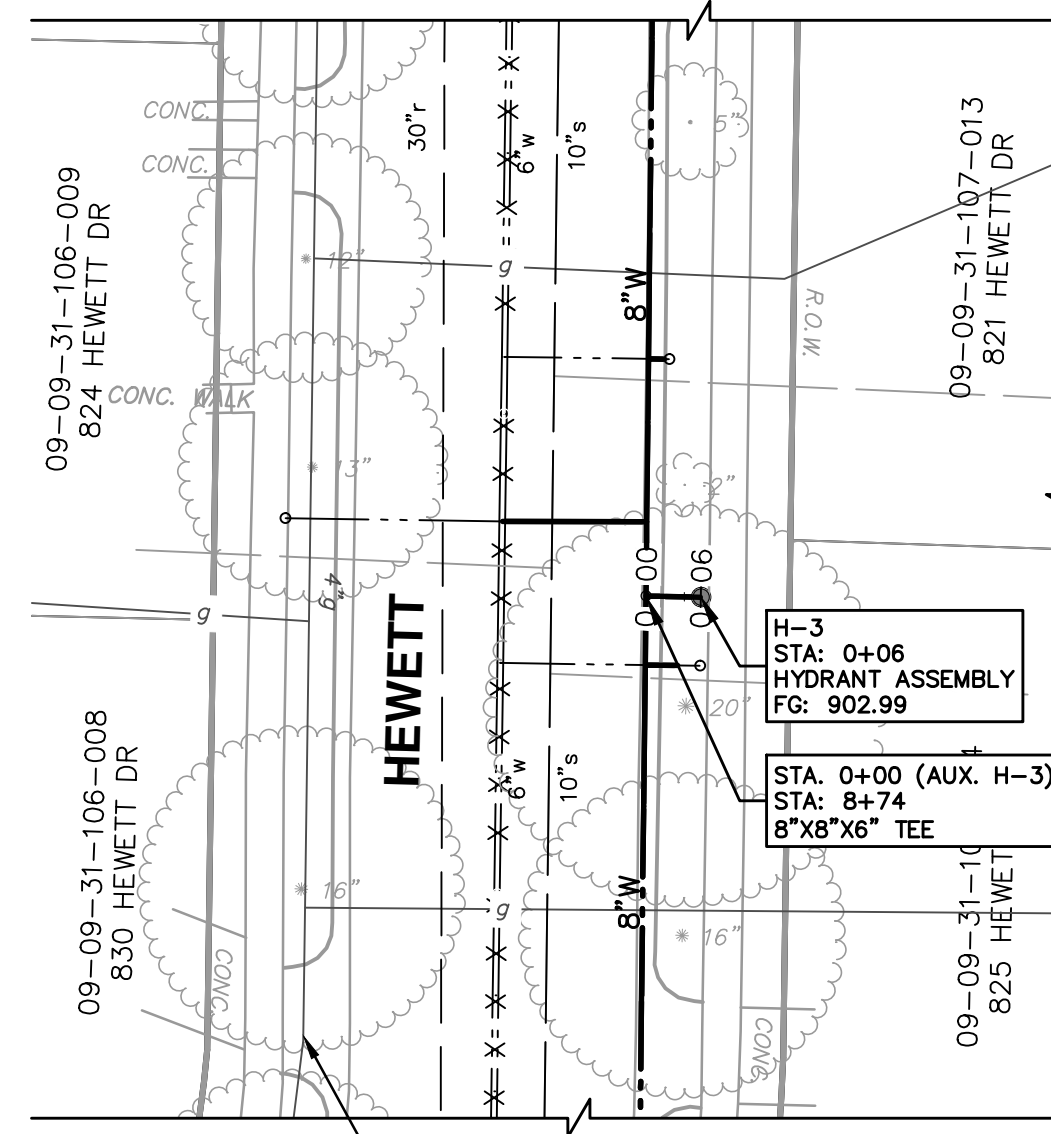
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CAUTION
HAZARDOUS
OR FLAMMABLE
MATERIAL

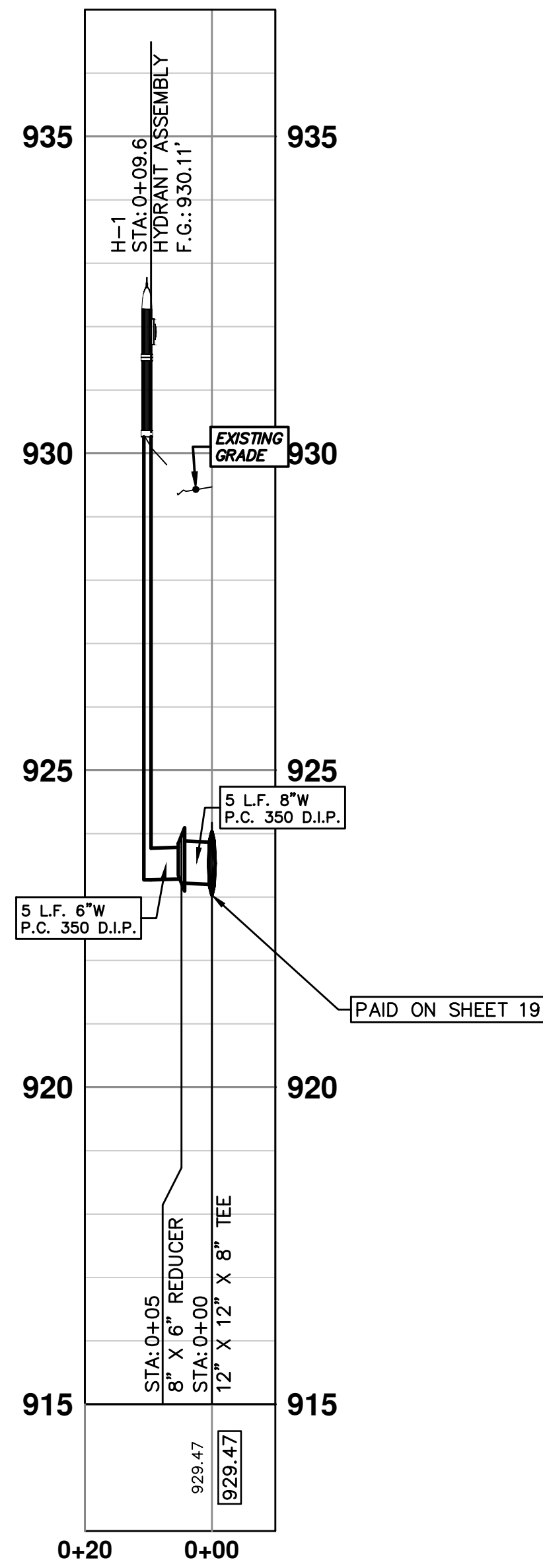


CAUTION
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OR FLAMMABLE
MATERIAL

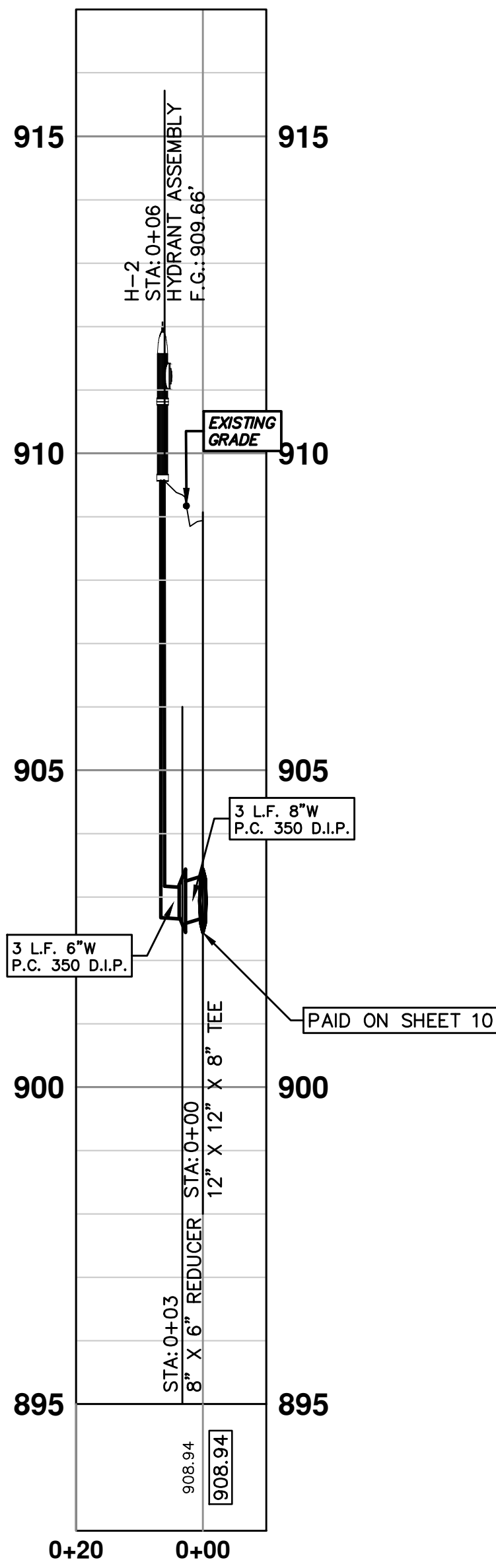


CAUTION
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OR FLAMMABLE
MATERIAL

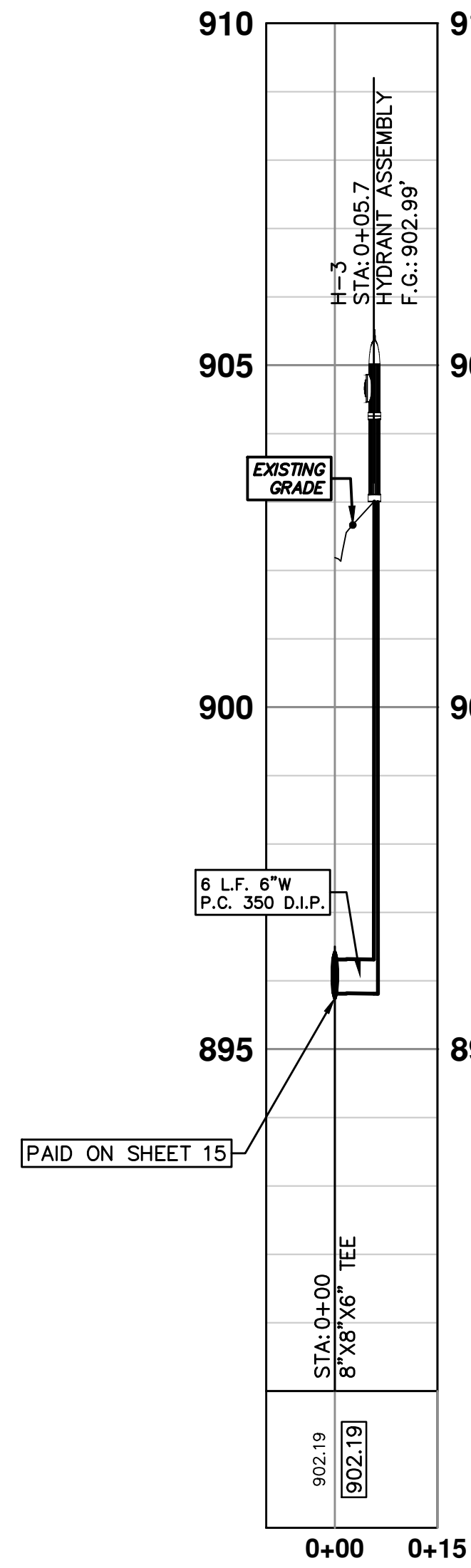
H-1



H-2



H-3



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



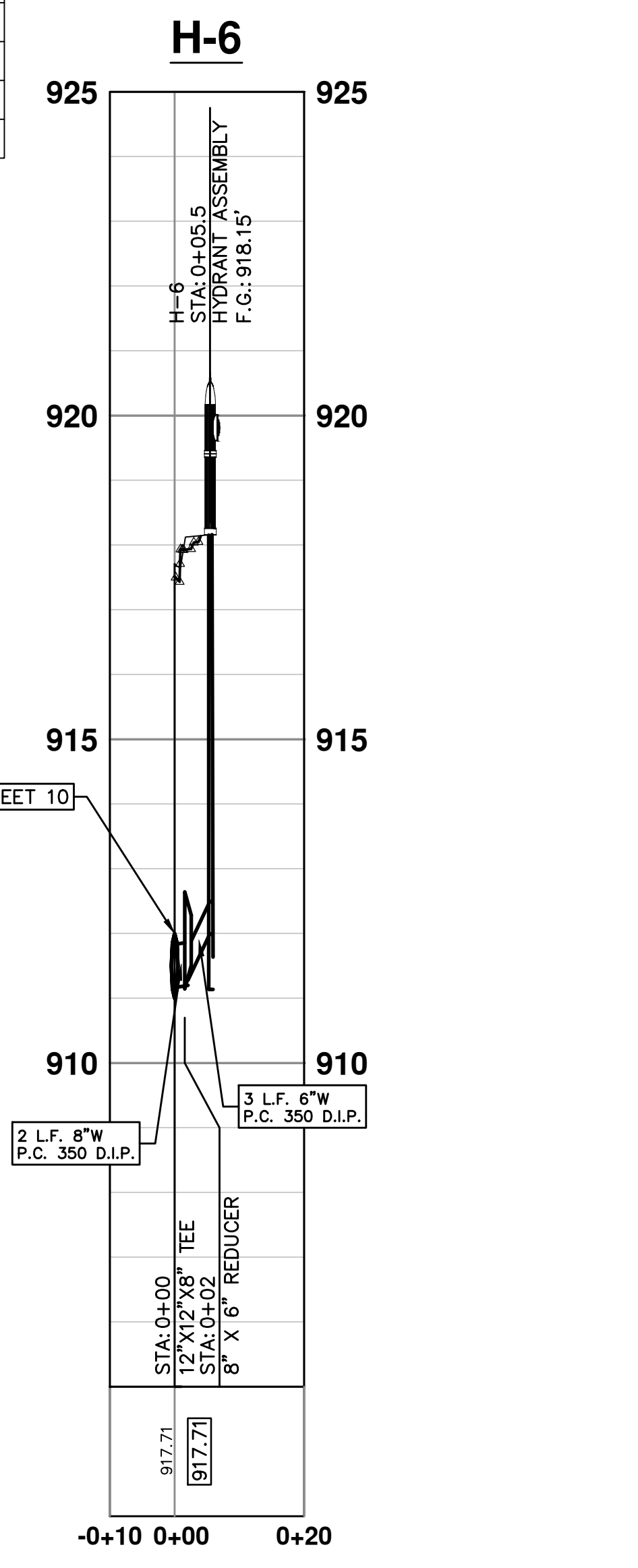
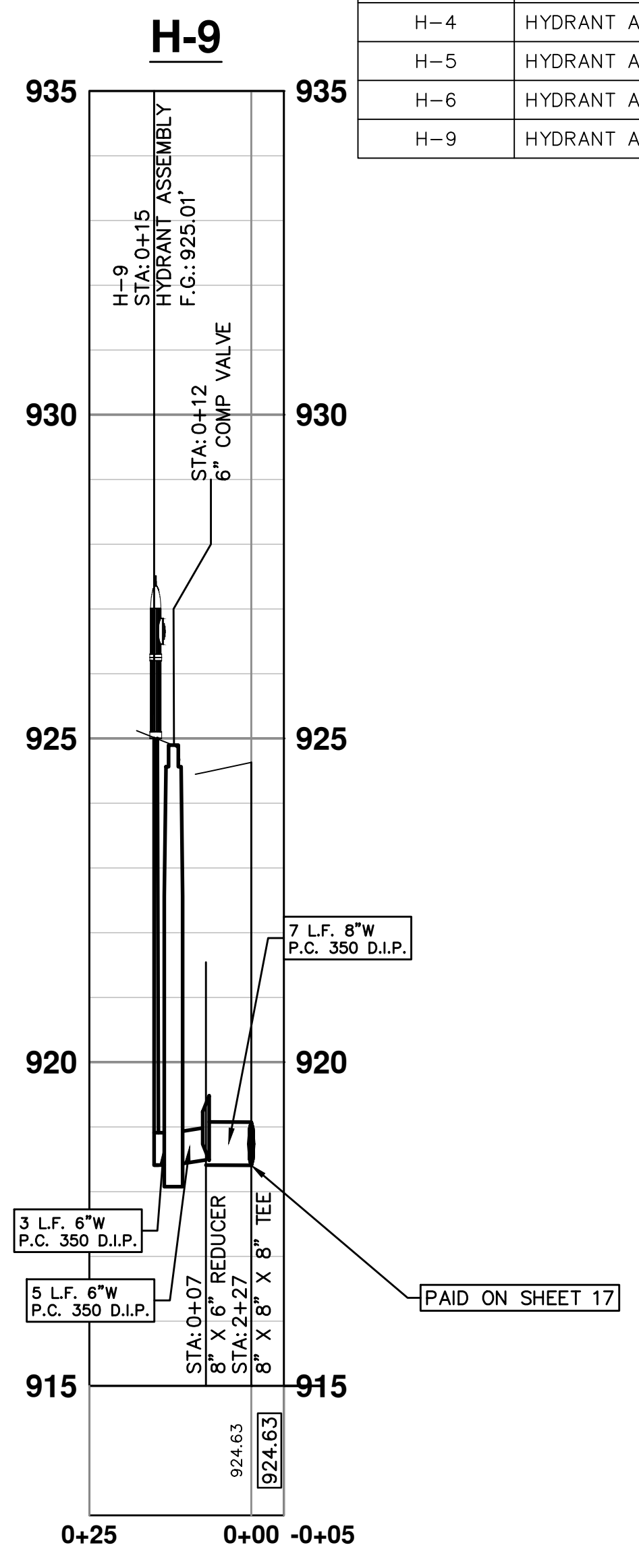
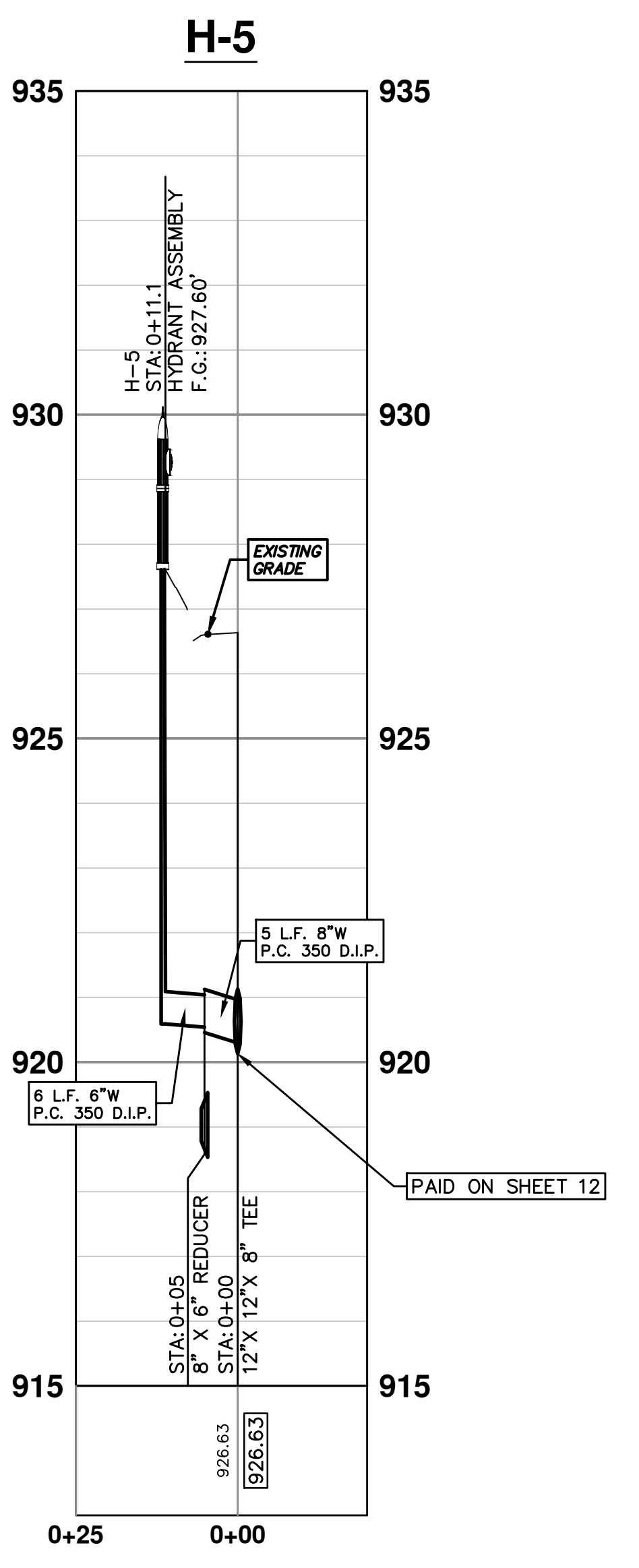
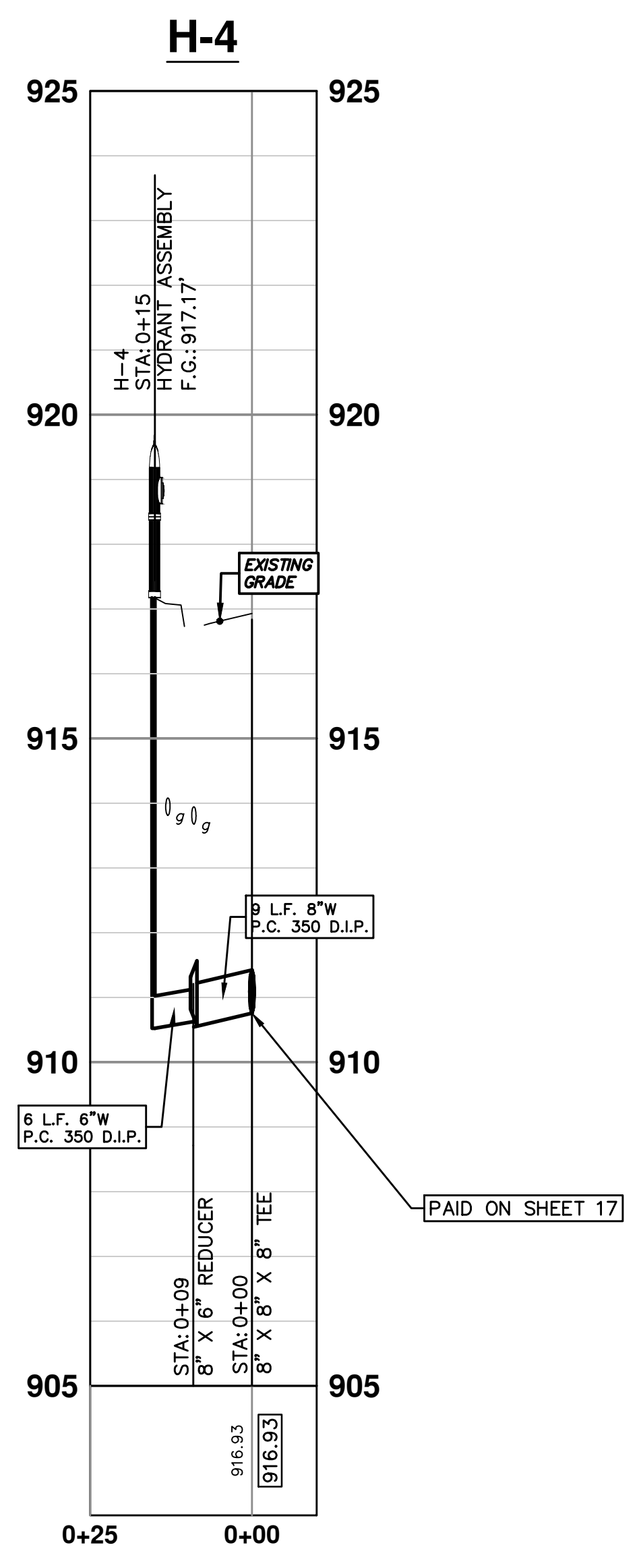
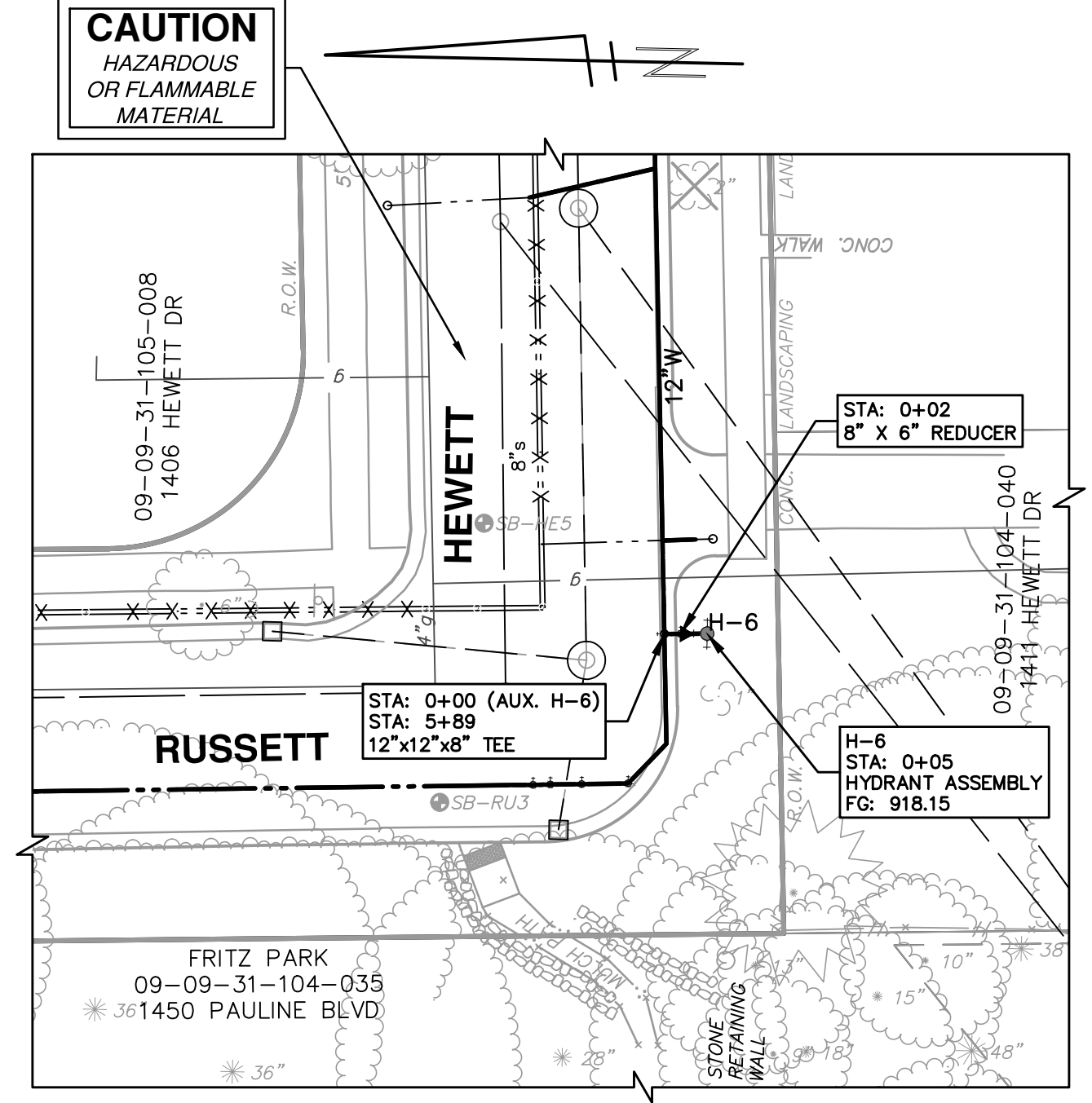
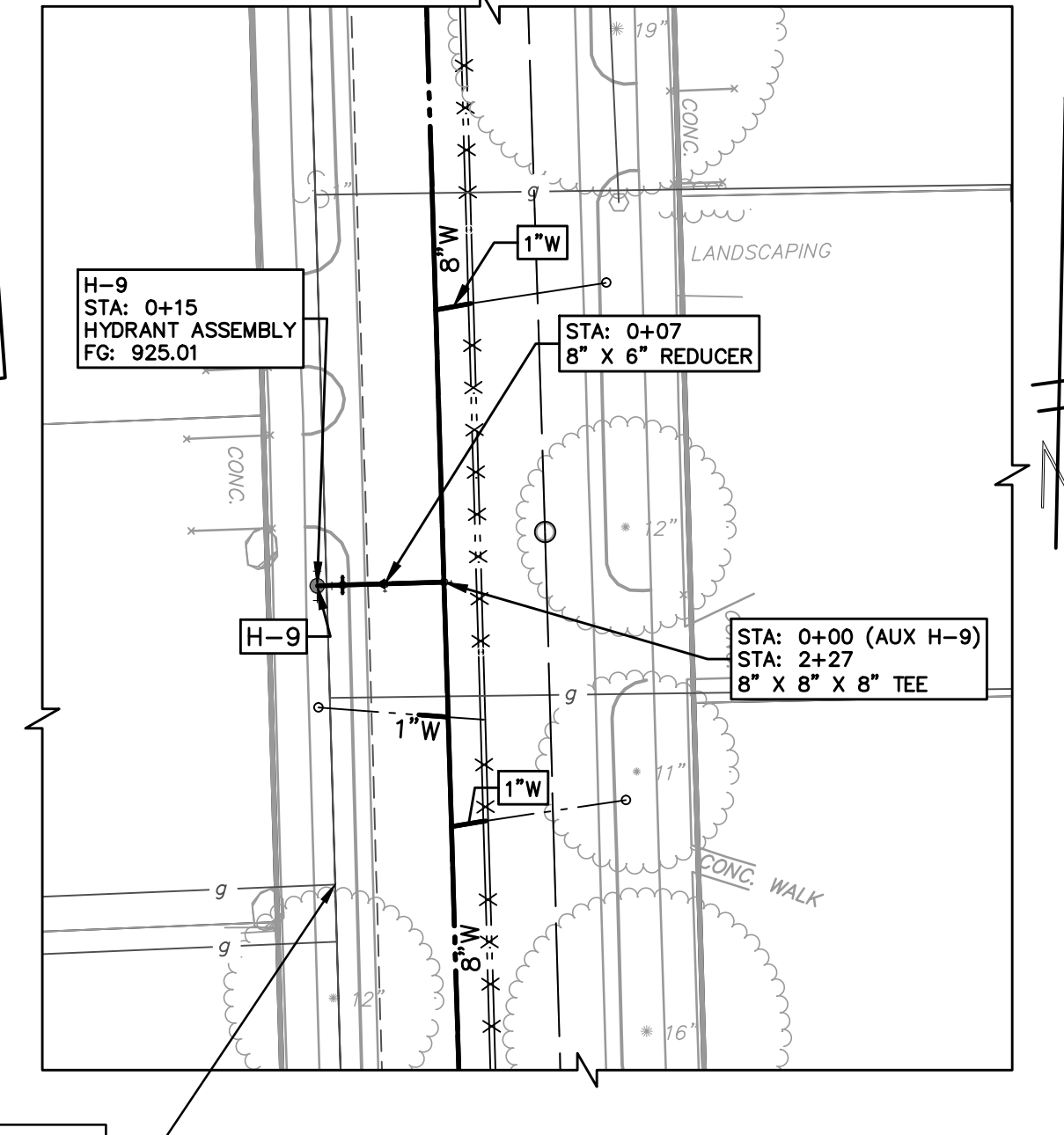
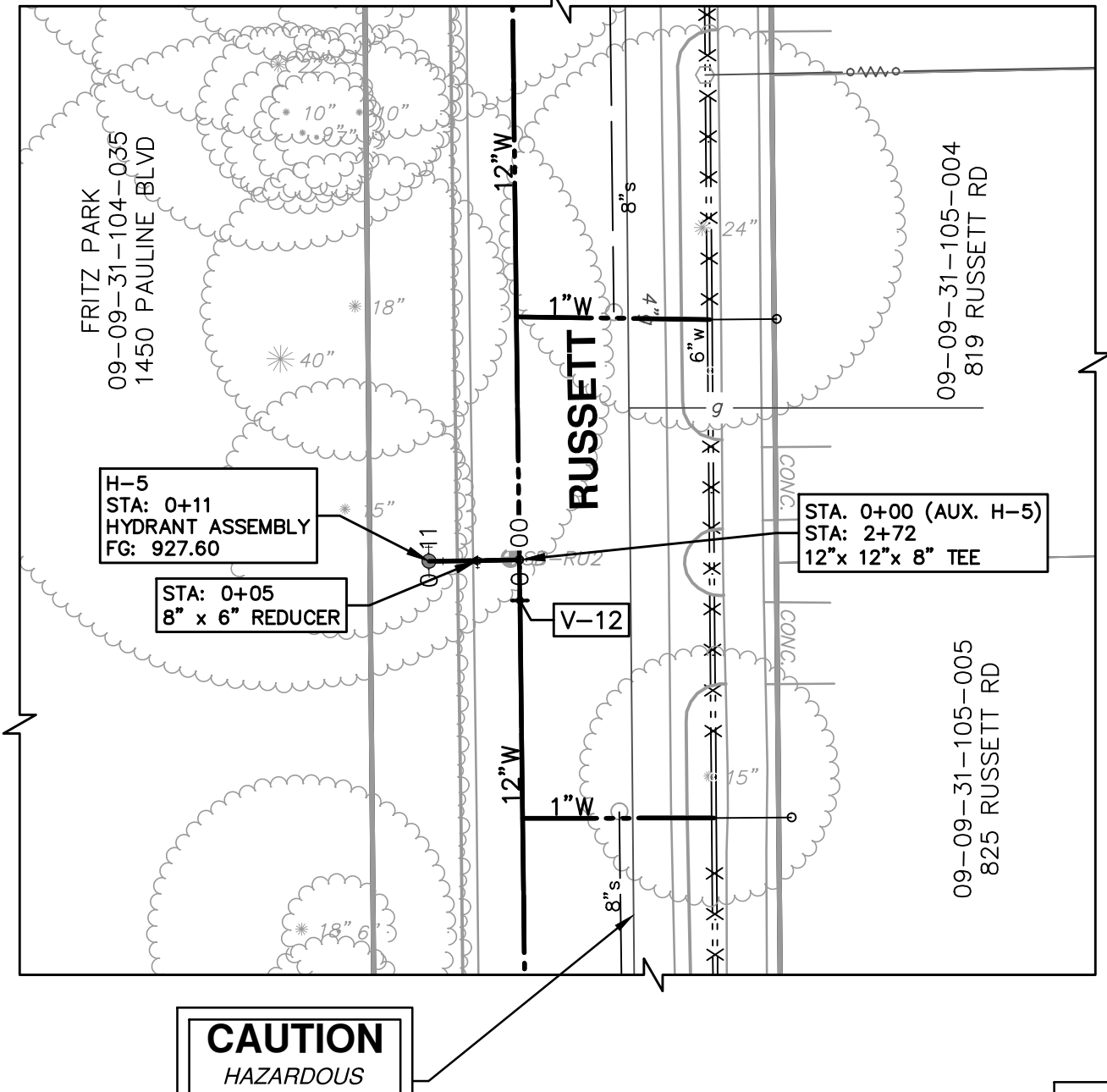
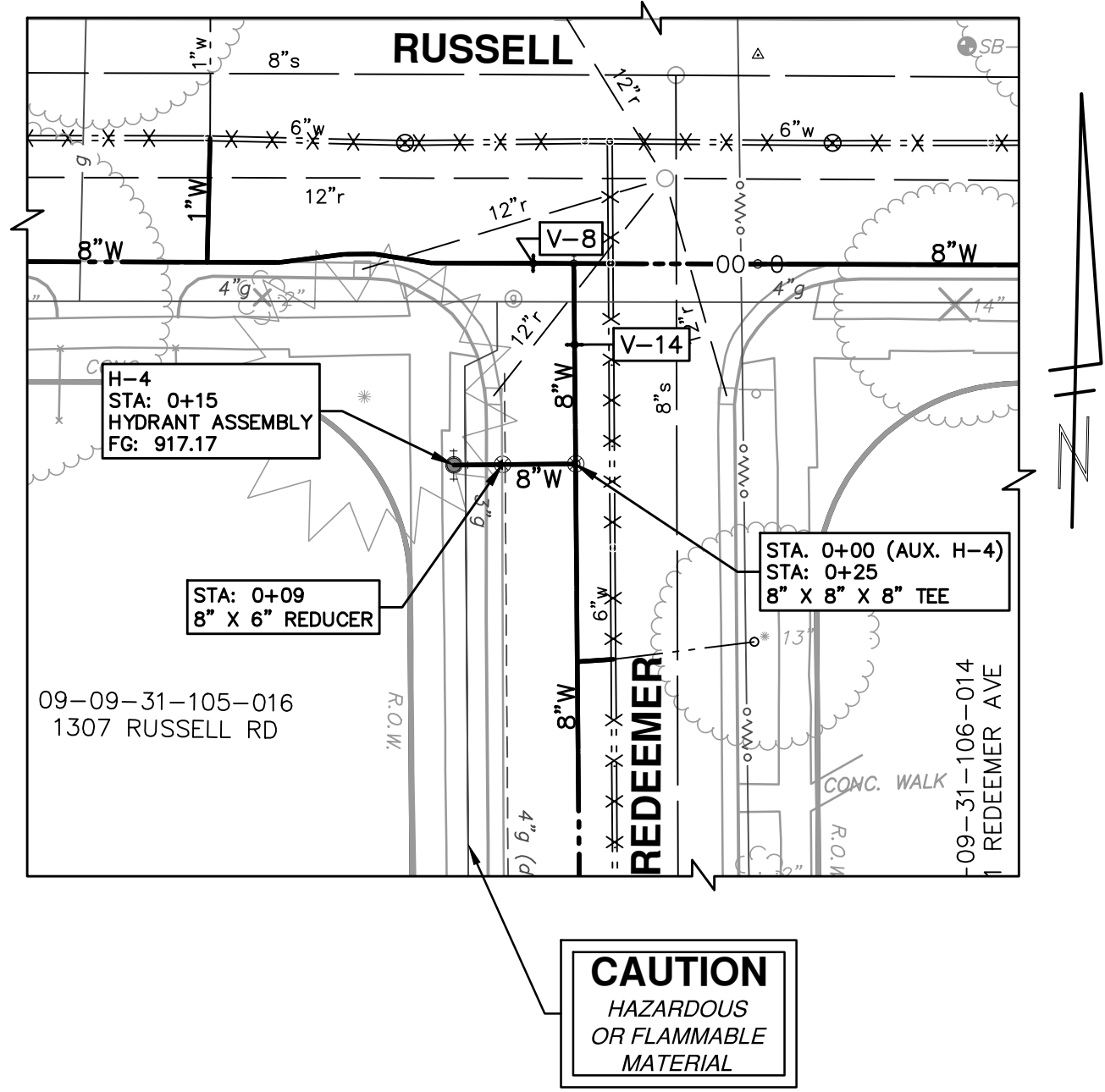
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02	03/18/15	POST MDEQ 2015 REVIEW	JKA	DAD
01	02/26/15	EBERWHITE EXTENSION	JKA	DAD
00	07-22-14	MDEQ PERMIT REVIEW COMMENTS	ESBPF	DAD

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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

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: 30-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	

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 WATER MAIN PLAN & PROFILE
 HYDRANT LEADS H4 - H6, H9

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

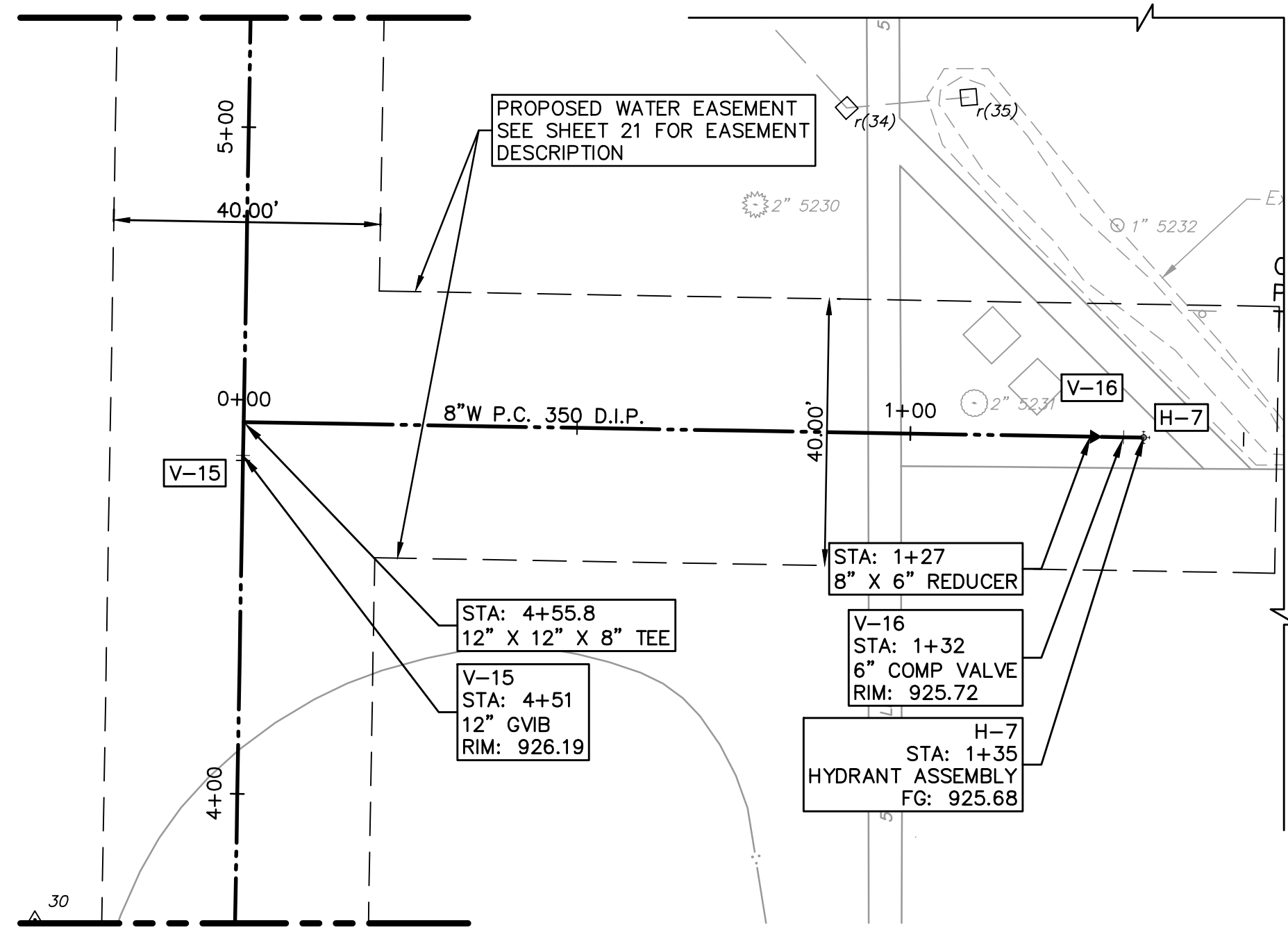
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02	POST MDOE 2015 REVIEW	JKA	03/18/15	DAD	DRAWN
01	EBERWHITE EXTENSION	CEC, JKA	02/26/15	ESBDF	DATE
00	MDOE PERMIT REVIEW COMMENTS		07-22-14		
	REV.				

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SCALE PLAN: 1" = 20'
 PROFILE: 1" = 4'
 DRAWING NO. 2013034-24
 SHEET NO. 24 OF 30

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SEE SHEET 21 FOR EBERWHITE STA: 5+16

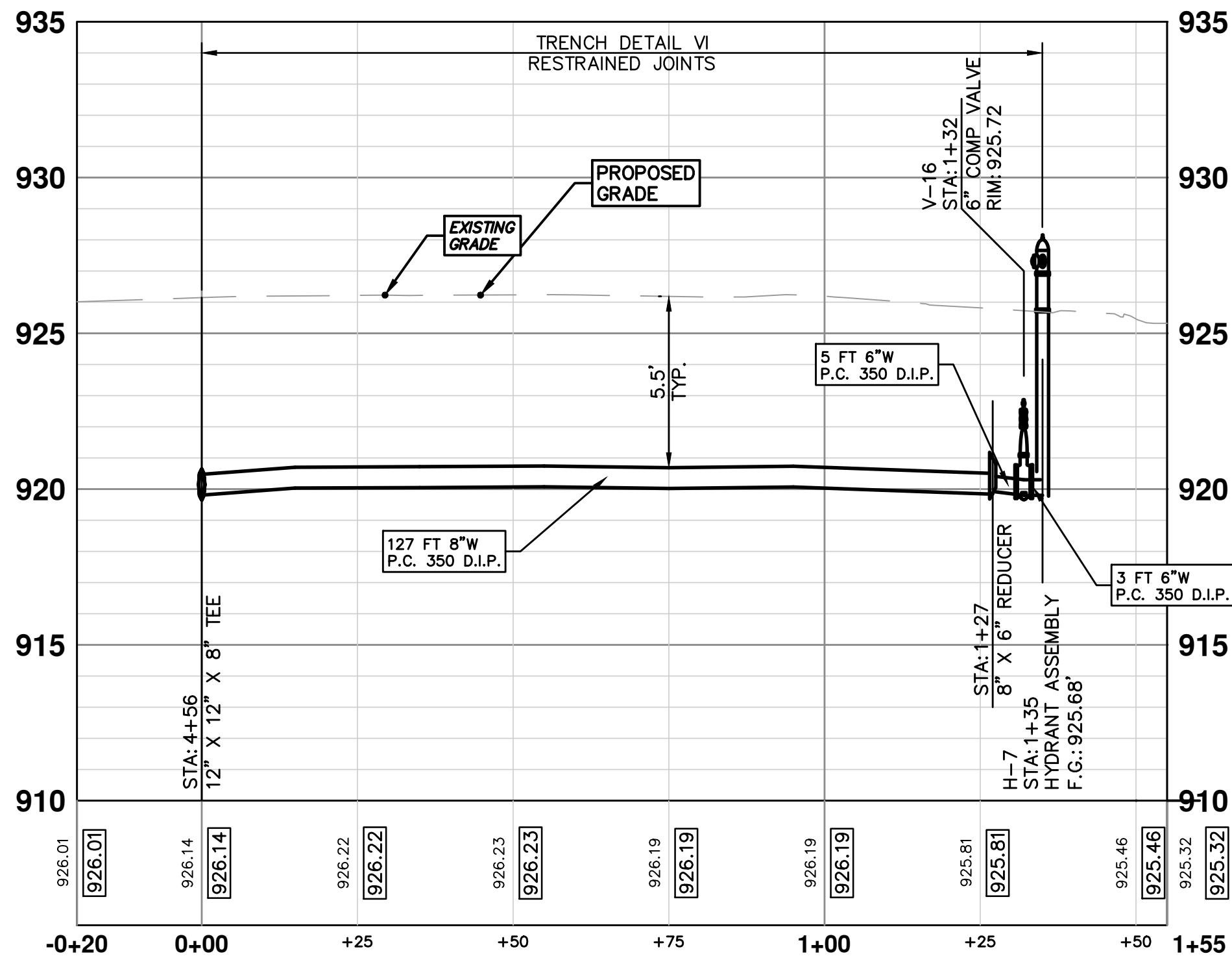


SEE SHEET 20 FOR EBERWHITE STA: 3+81

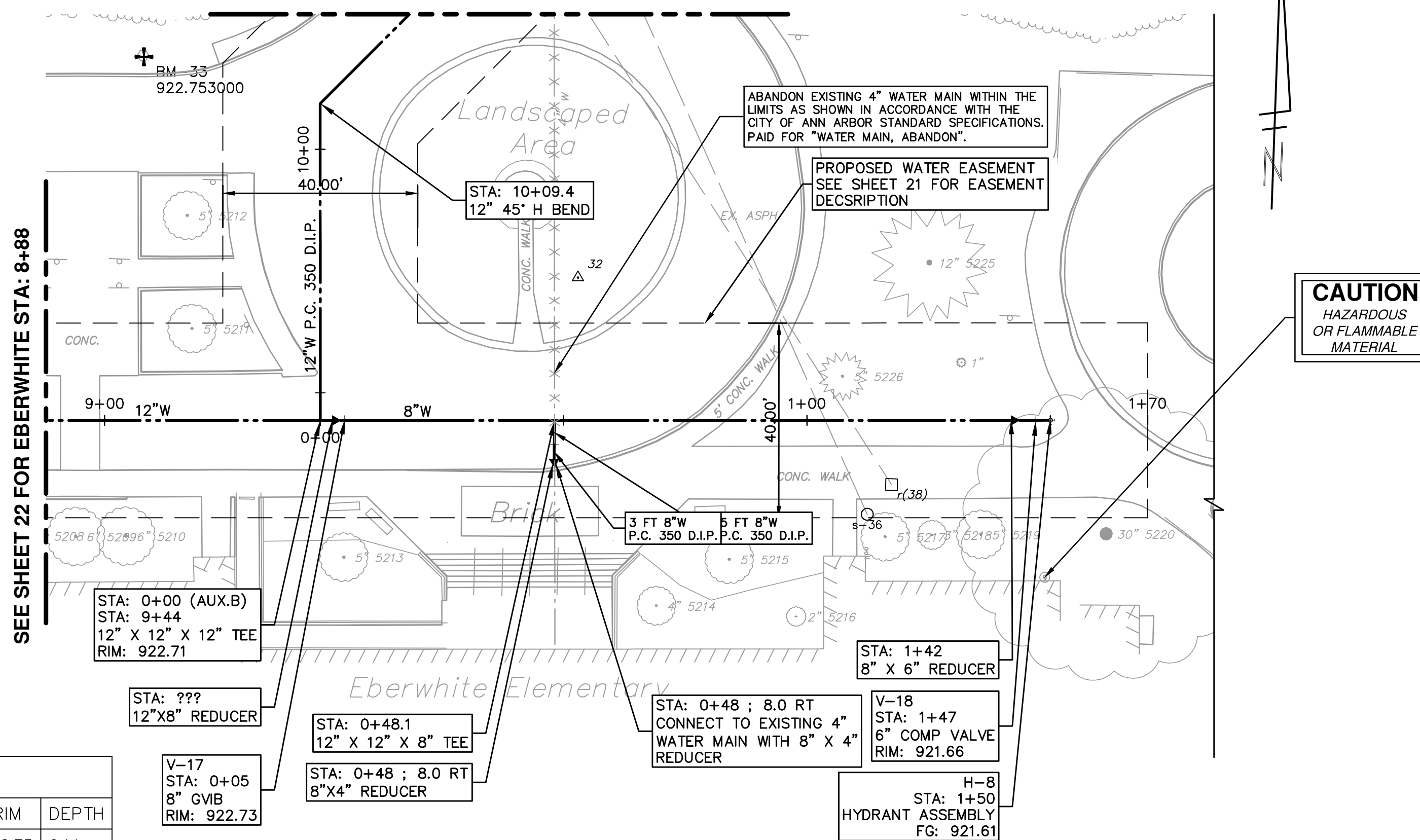
WATER MAIN STRUCTURE TABLE					
STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
V-16	6" COMP VALVE	1+32	Eberwhite-Aux A	925.72	5.92
H-7	HYDRANT ASSEMBLY	1+35	Eberwhite-Aux A	925.68	7.88
V-15	12" GVB	4+51	Eberwhite	926.19	6.49

WATER MAIN STRUCTURE TABLE					
STRUCTURE	TYPE	STATION	ALIGNMENT	RIM	DEPTH
V-17	8" GVB	0+05	Eberwhite-Aux B	922.73	6.14
V-18	6" COMP VALVE	1+47	Eberwhite-Aux B	921.66	5.89
H-8	HYDRANT ASSEMBLY	1+50	Eberwhite-Aux B	921.61	7.83

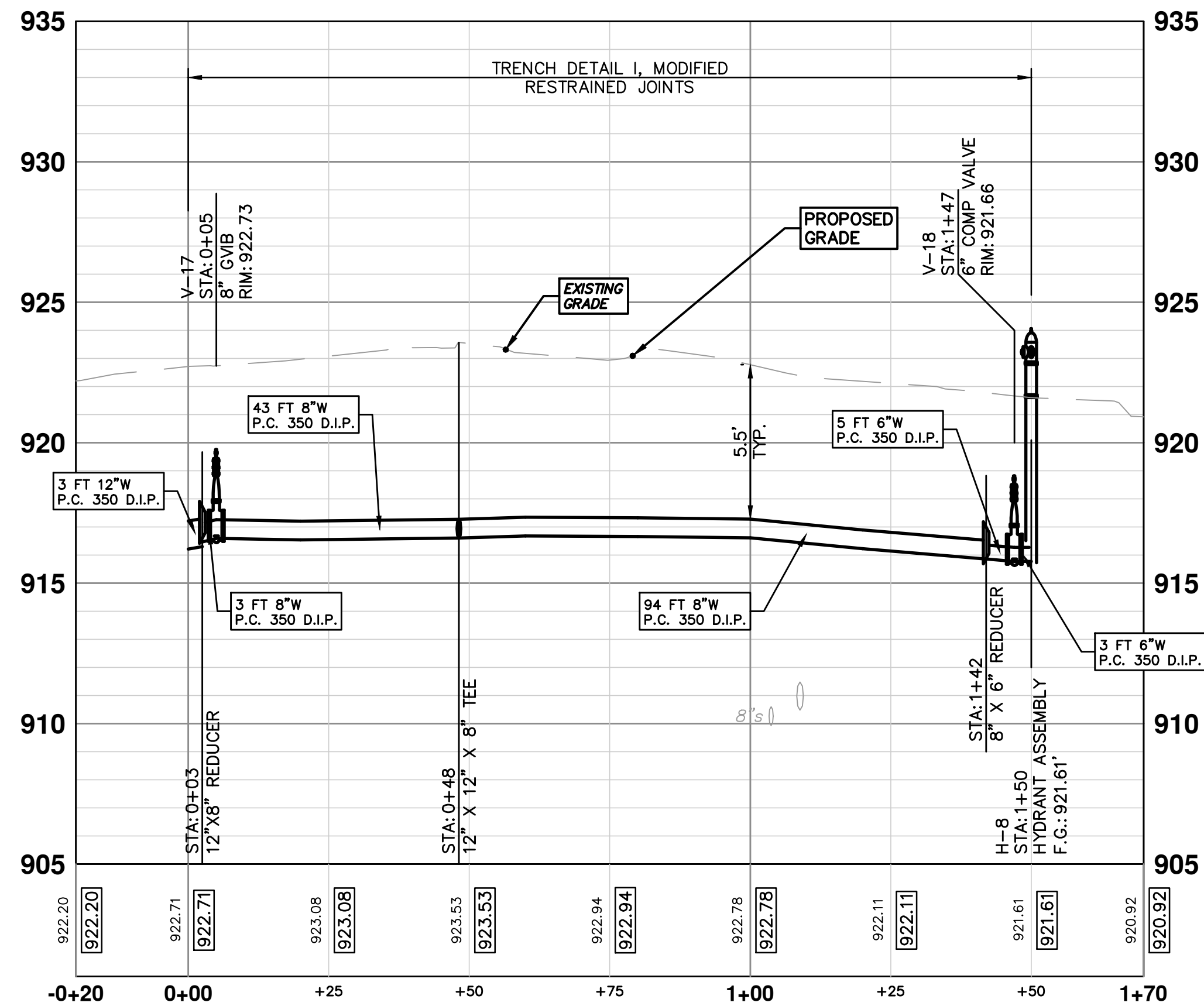
EBERWHITE-AUX A



SEE SHEET 22 FOR EBERWHITE STA: 10+35



EBERWHITE-AUX B



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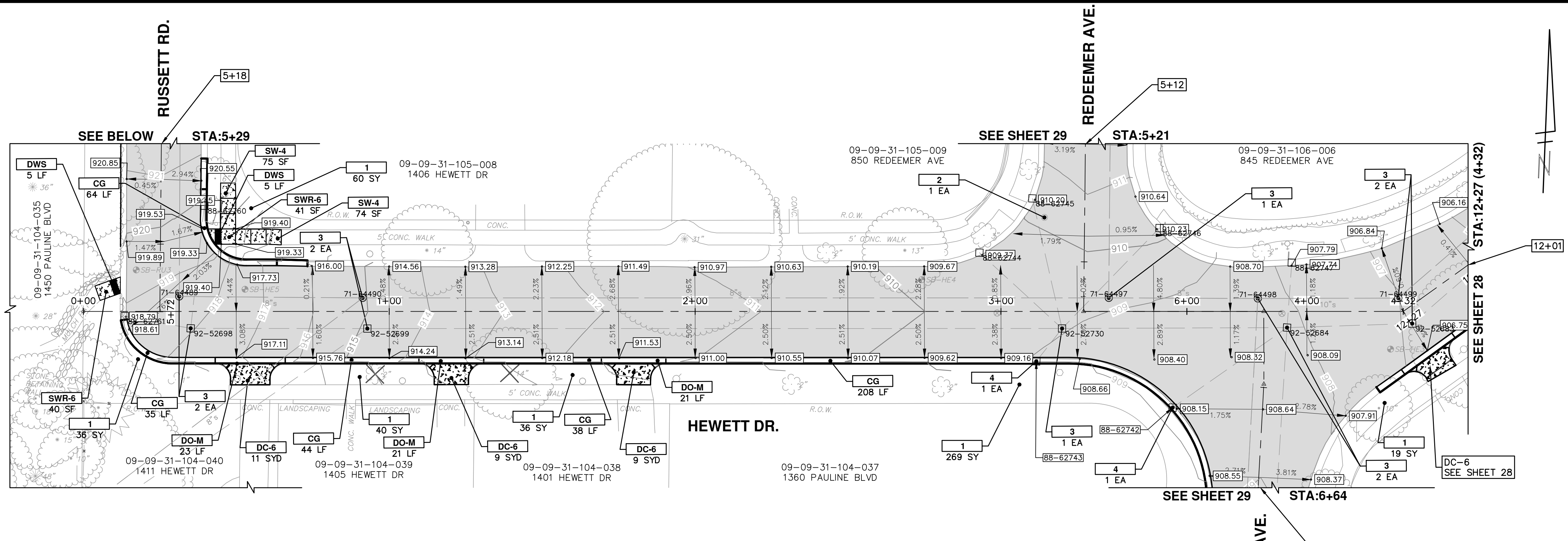
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
03	05/01/15	ADDENDUM 1	JKA	DAD
02	03/18/15	POST MDEQ 2015 REVIEW	JKA	DAD
01	02/26/15	EBERWHITE EXTENSION	CEC, JKA	DAD
00	07-22-14	MDEQ PERMIT REVIEW COMMENTS	ESBPF	DAD

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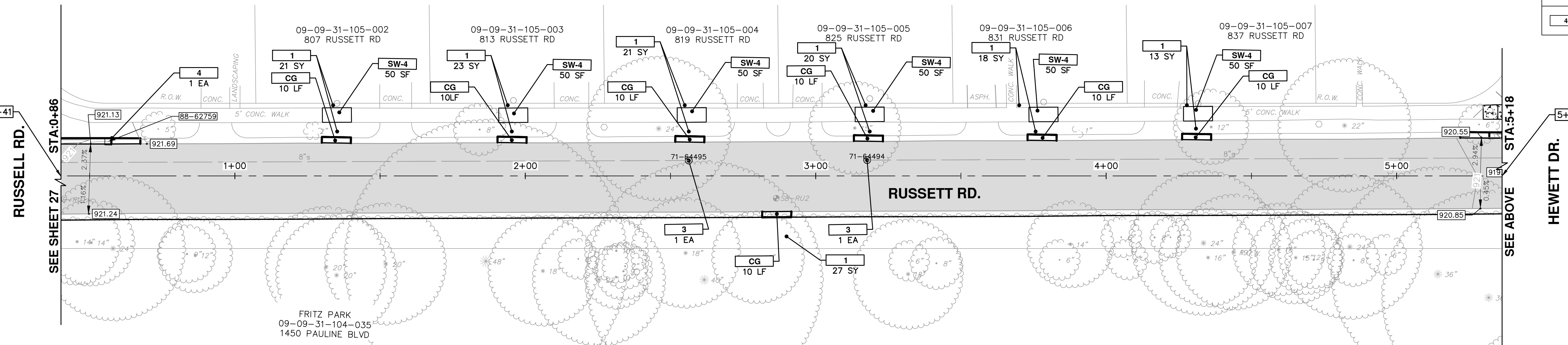
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HEWETT DR, RUSSELL RD, RUSSETT RD &
REDEEMER AVE WATER MAIN REPLACEMENT
WATER MAIN PLAN & PROFILE
EBERWHITE EXTENSION AUX 'A' & 'B'

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STORM SEWER STRUCTURE TABLE							
STRUCTURE	UTILITY STATION	ALIGNMENT	INVERT ELEVATION, SIZE & DIRECTION	TOP OF CASTING ELEVATION	DEPTH (Feet)	SIZE	APPLICATION/CONSTRUCTION
88-62742	6+58 29.4 RT	Redeemer	12" NE 904.04	908.14	6.10	24" Dia.	CB
88-62743	3+12 16.3 RT	Hewett	12" NE 904.88	908.86	5.98	24" Dia.	CB
88-62759	0+56 -11.9 LT	Russett	12" N 914.66	921.23	8.57	24" Dia.	CB

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
4	DR STRUCTURE, 24 INCH DIA & DR STRUCTURE COVER, TYPE K



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
03	05/01/15	ADDENDUM 1
02	03/18/15	POST MDCO 2015 REVIEW
01	02/26/15	EBERWHITE EXTENSION
00	07-22-14	MDCO PERMIT REVIEW COMMENTS

DATE DRAWN CHECKED

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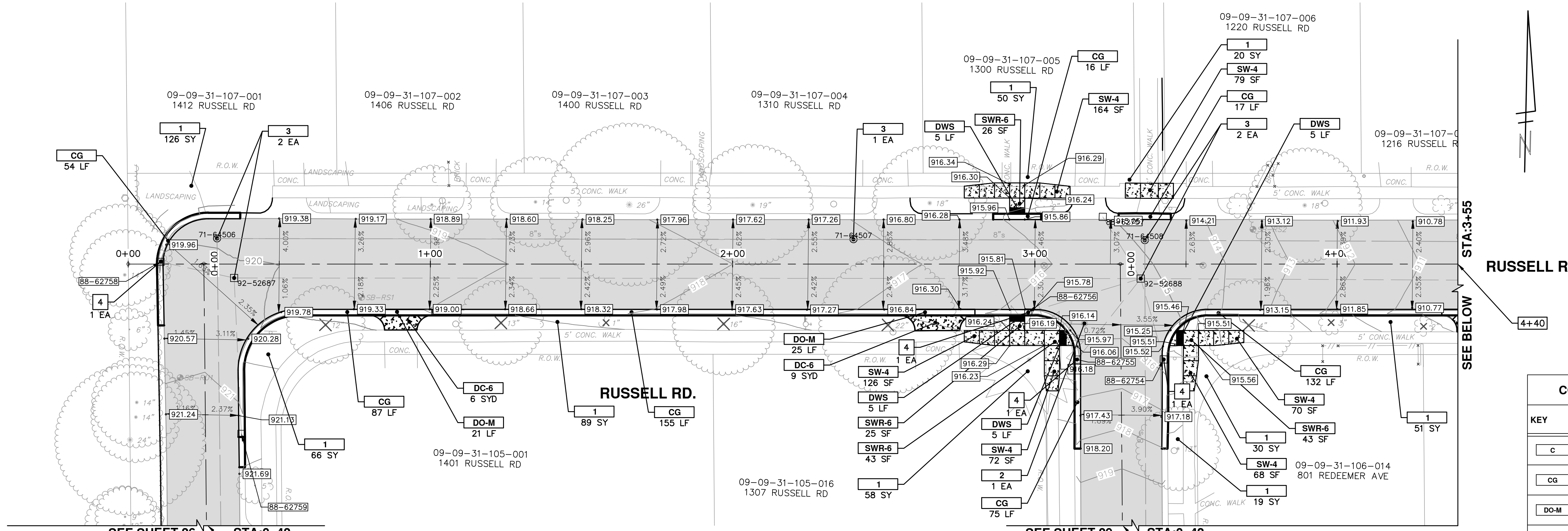
ANN ARBOR MI

SCALE PLAN: 1" = 20'

DRAWING No. 2013034-26

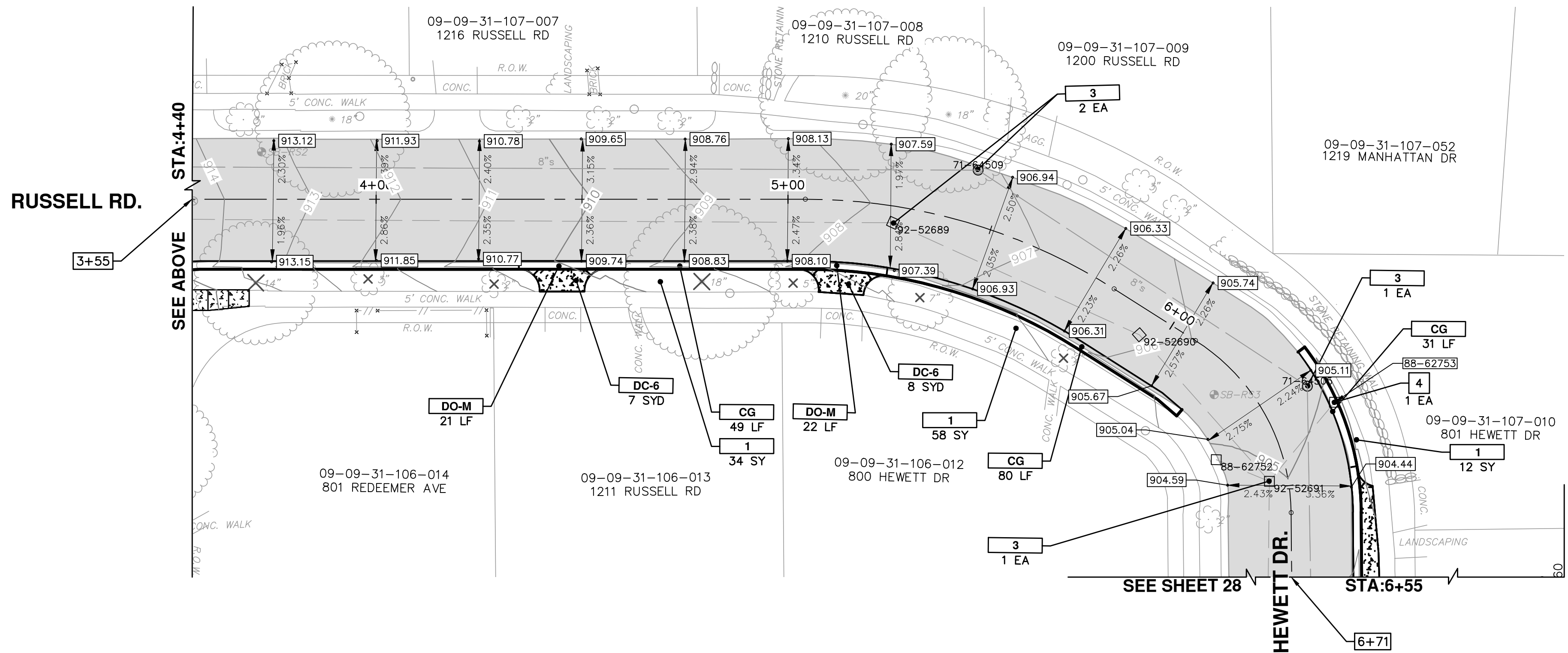
SHEET No. 26 OF 30


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STORM SEWER STRUCTURE TABLE							
STRUCTURE	UTILITY STATION	ALIGNMENT	INVERT ELEVATION, SIZE & DIRECTION	TOP OF CASTING ELEVATION	DEPTH (Feet)	SIZE	APPLICATION / CONSTRUCTION
88-62753	6+36 -16.4 LT	RUSSELL	12" SW 901.27	904.88	5.61	24" Dia. CB	
88-62754	0+32 -14.1 LT	Redeemer	12" N 912.06	915.70	5.64	24" Dia. CB	
88-62755	0+31 14.6 RT	Redeemer	12" NE 911.82	916.16	6.34	24" Dia. CB	
88-62756	2+98 16.0 RT	RUSSELL	12" E 911.72	915.70	5.98	24" Dia. CB	
88-62758	0+11 -0.7 LT	RUSSELL	12" E 914.56	919.99	7.43	24" Dia. CB	


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
4	DR STRUCTURE, 24 INCH DIA & DR STRUCTURE COVER, TYPE K





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03	ADDENDUM 1	REV.	DESCRIPTION	DATE	DRAWN	CHECKED
02	POST MDCO 2015 REVIEW	03/18/15	JKA	03/18/15	JKA	DAD
01	REWHITE EXTENSION	02/26/15	ESDPF	07-22-14	ESDPF	DAD
00	MDCO PERMIT REVIEW COMMENTS					



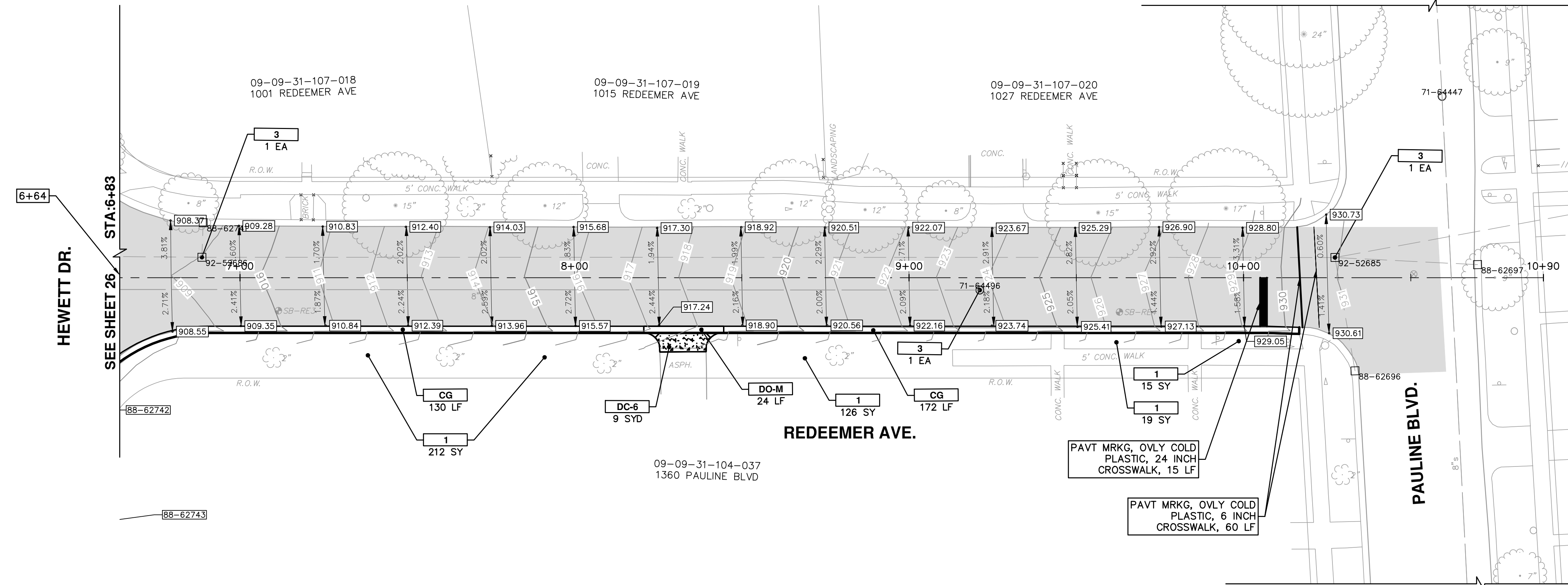
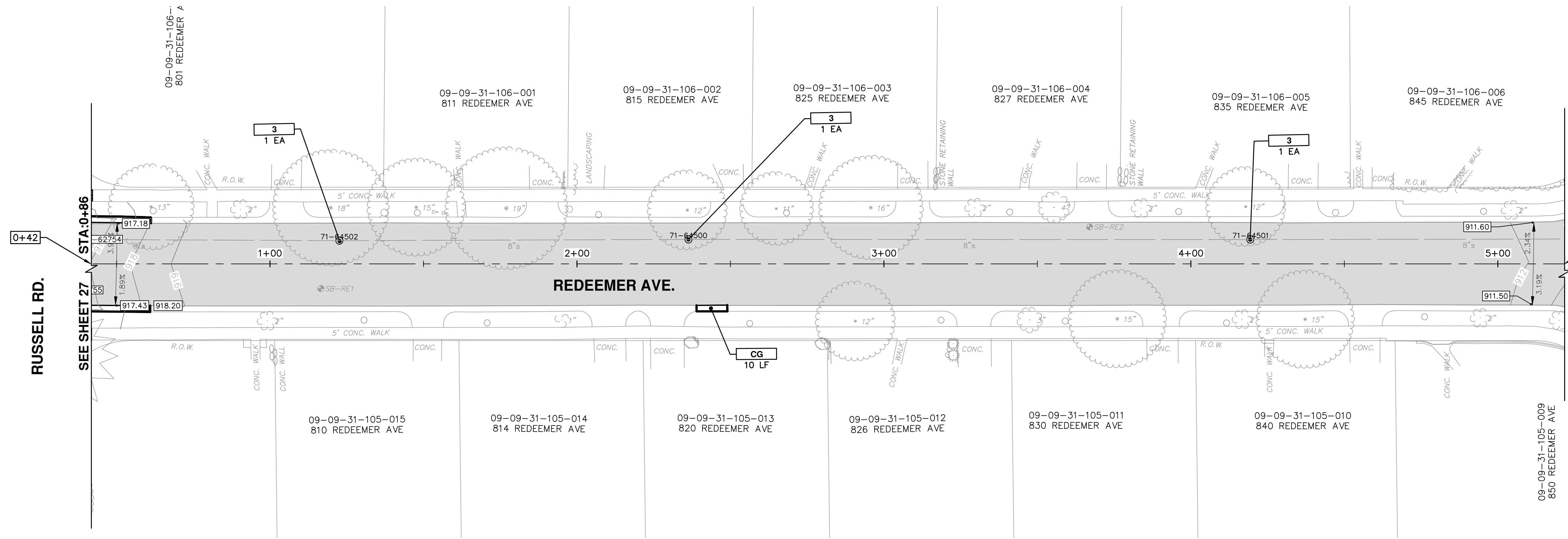
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ROAD GRADING
RUSSELL STA. 0+00 TO 6+50

SHEET No. **27 OF 30**

DRAWING No. **2013034-27**

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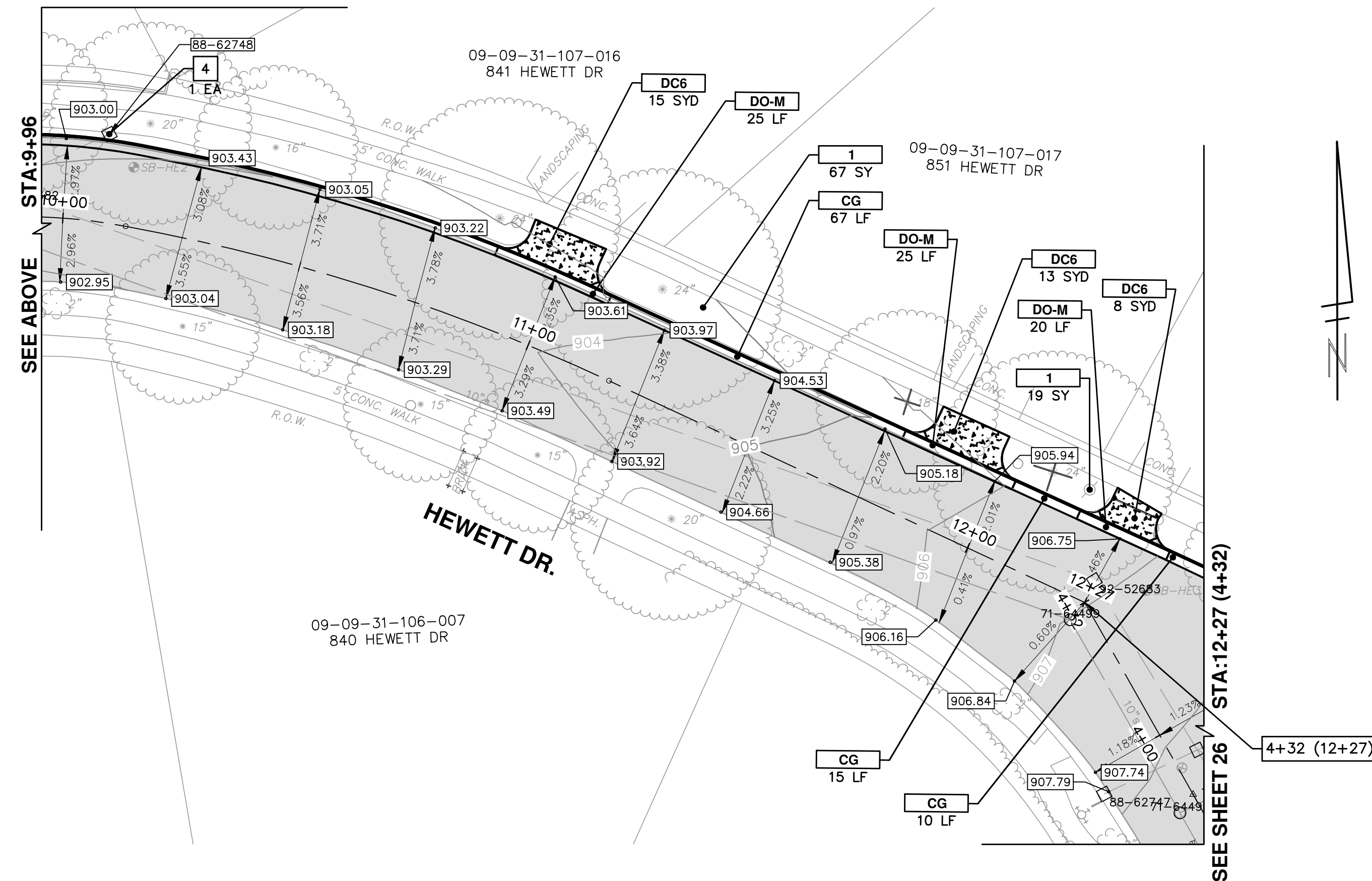
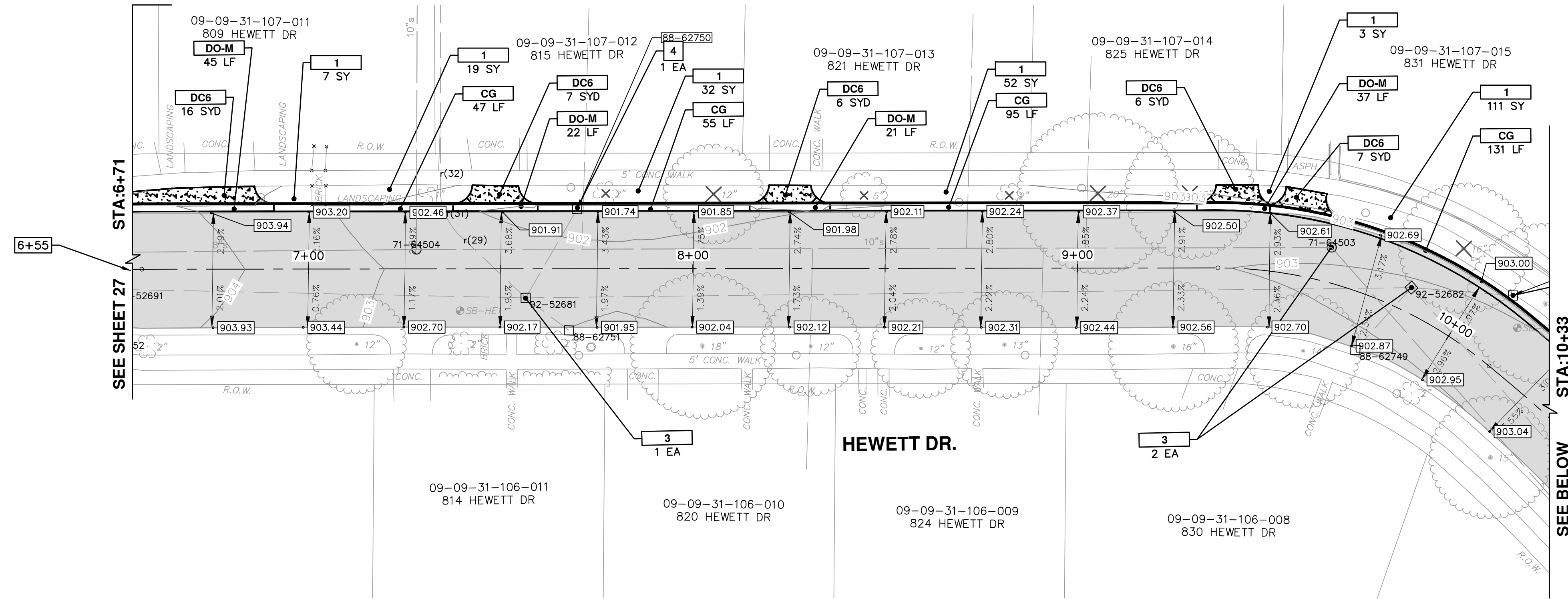
CONSTRUCTION KEY	
KEY	DESCRIPTION
C	CURB, CONC, DET E4
CG	__CURB AND GUTTER, CONC
DO-M	__DRIVEWAY OPENING, CONC, DET M, MODIFIED
DC-6	__DRIVEWAY, NONREINF CONC, 6 INCH, MODIFIED
SW-4	__SIDEWALK, CONC, 4 INCH, MODIFIED
SWR-6	__SIDEWALK, CONC, 6 INCH, MODIFIED
SW-6	__SIDEWALK RAMP, CONC, 6 INCH, MODIFIED
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
4	DR STRUCTURE, 24 INCH DIA & DR STRUCTURE COVER, TYPE K

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

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REV.	DATE	DESCRIPTION	DRAWN	CHECKED
03	05/01/15	ADDENDUM 1	JKA	DAD
02	03/18/15	POST MDEQ 2015 REVIEW	JKA	DAD
01	02/26/15	EBERWHITE EXTENSION	JKA	DAD
00	07-22-14	MDEQ PERMIT REVIEW COMMENTS	ESBPF	DAD



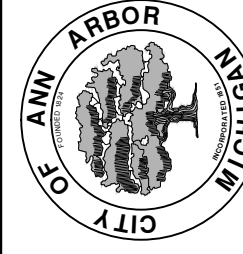
CONSTRUCTION KEY	
KEY	DESCRIPTION
C	CURB, CONC, DET E4
CG	_CURB AND GUTTER, CONC
DO-M	_DRIVEWAY OPENING, CONC, DET M, MODIFIED
DC-6	_DRIVEWAY, NONREINF CONC, 6 INCH, MODIFIED
SW-4	_SIDEWALK, CONC, 4 INCH, MODIFIED
SWR-6	_SIDEWALK, CONC, 6 INCH, MODIFIED
SW-6	_SIDEWALK RAMP, CONC, 6 INCH, MODIFIED
DWS	_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
4	DR STRUCTURE, 24 INCH DIA & DR STRUCTURE COVER, TYPE K

STORM SEWER STRUCTURE TABLE							
STRUCTURE	UTILITY STATION	ALIGNMENT	INVERT ELEVATION, SIZE & DIRECTION	TOP OF CASTING ELEVATION	DEPTH (Feet)	SIZE	APPLICATION/CONSTRUCTION
88-62748	10+07 -18.3 LT	RUSSELL	12" N 898.43	903.43	7.00	24" Dia.	CB
88-62750	7+70 -15.5 LT	RUSSELL	12" NW 898.08	901.70	5.62	24" Dia.	CB



REV.	DATE	DESCRIPTION	CHECKED	DRAWN
03	05/01/15	ADDENDUM 1	JKA	DAD
02	03/18/15	POST MDOE 2015 REVIEW	JKA	DAD
01	02/26/15	EBERWHITE EXTENSION	JKA	DAD
00	07-22-14	MDOE PERMIT REVIEW COMMENTS	ESBPF	DAD

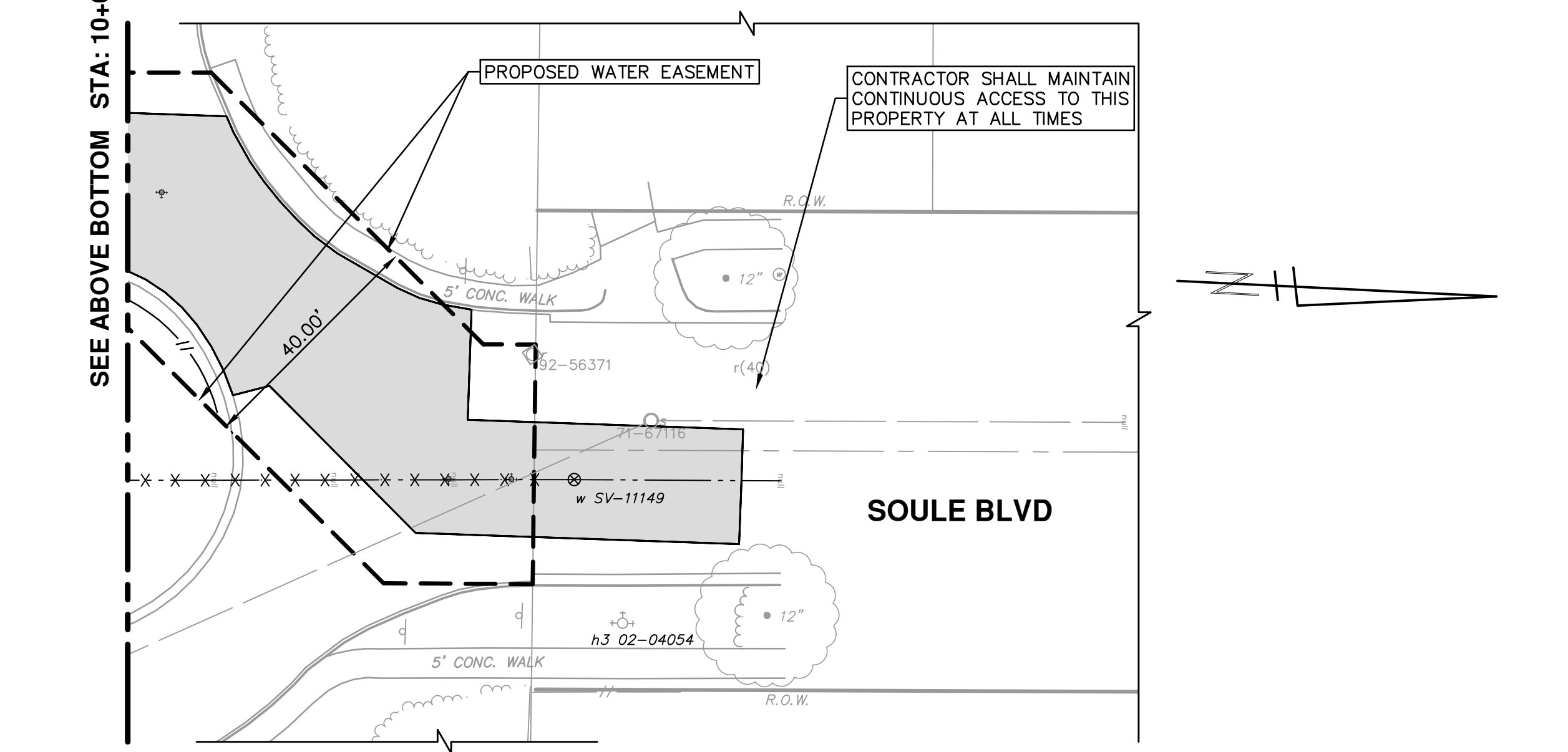
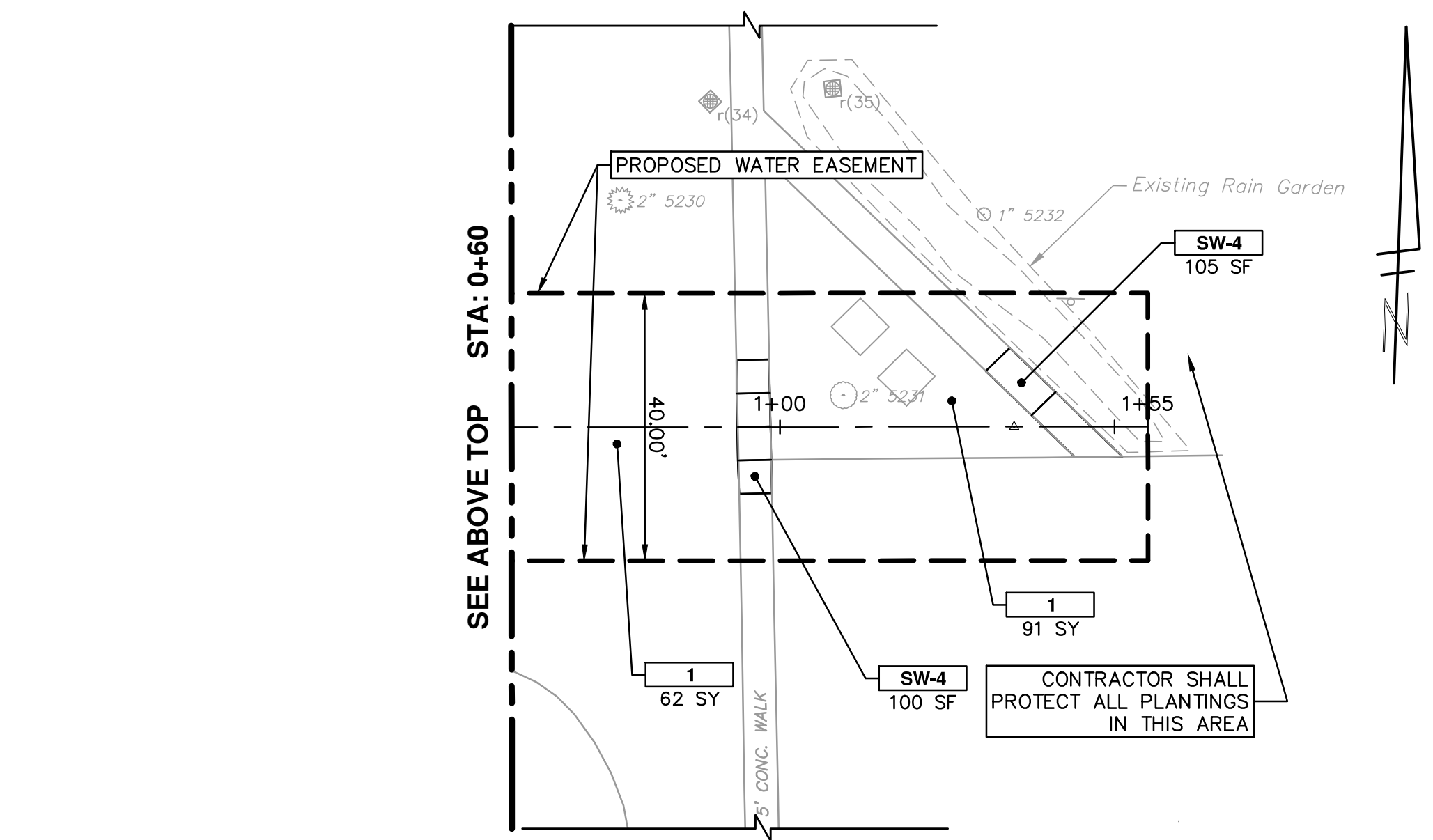
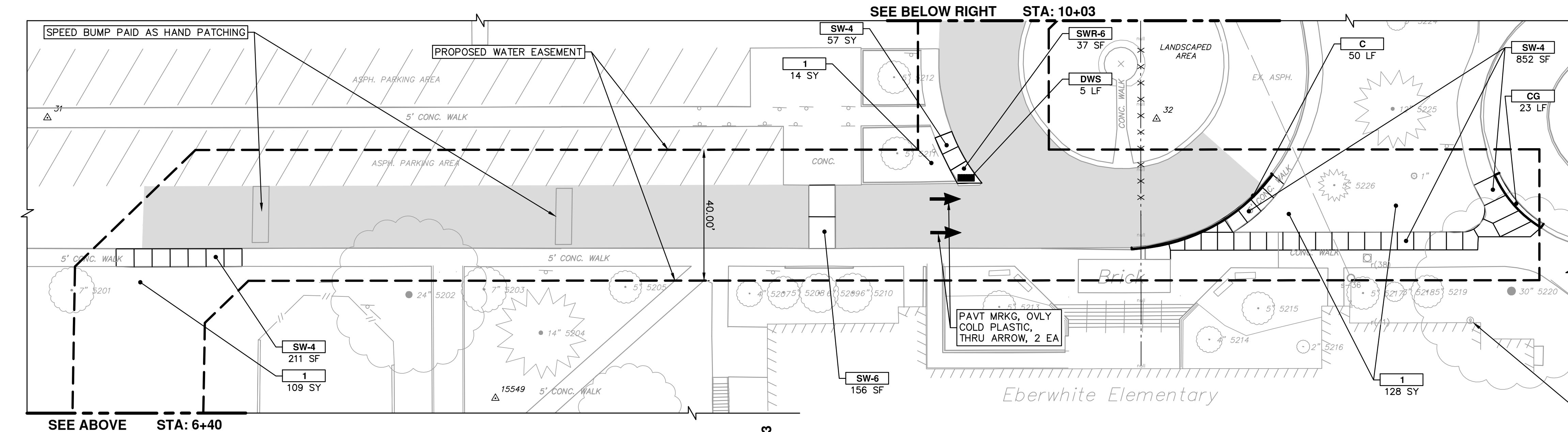
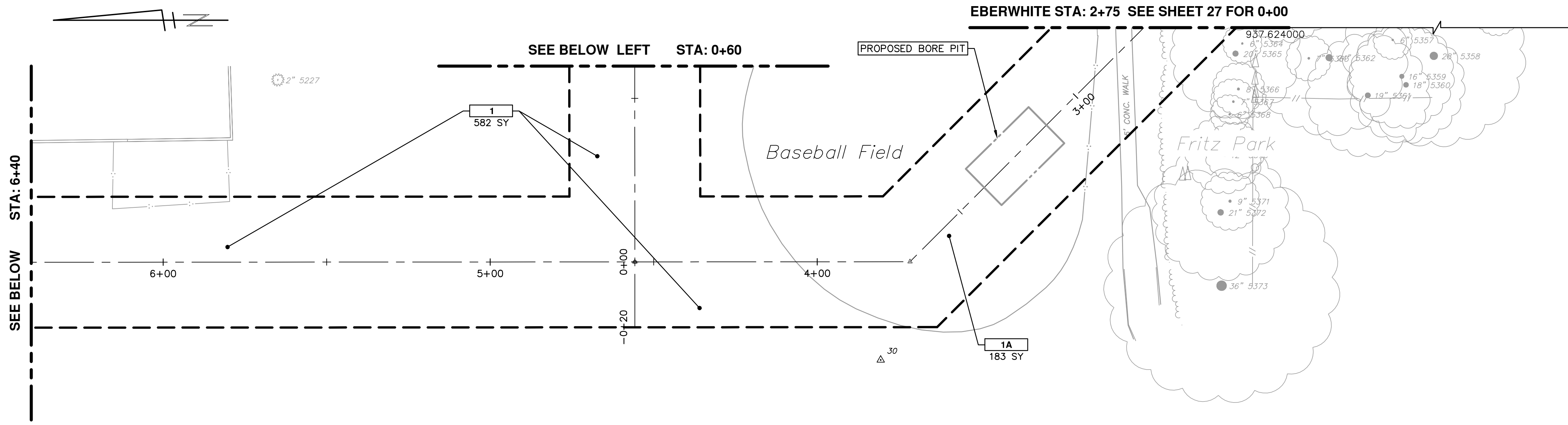
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ROAD GRADING
RUSSELL STA. 6+50 TO STA. 12+27

SCALE PLAN: #####
DRAWING No. 2013034-28

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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
4	DR STRUCTURE, 24 INCH DIA & DR STRUCTURE COVER, TYPE K

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 ROAD GRADING
 EBERWHITE ELEMENTARY

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

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03	ADDENDUM 1	05/01/15	JKA	DAD	CHECKED
02	POST MDEQ 2015 REVIEW	03/18/15	JKA	DAD	DRAWN
01	EBERWHITE EXTENSION	02/26/15	CEC, JKA	DAD	DESIGNED
00	MDEQ PERMIT REVIEW COMMENTS	07-22-14	ESBPF	DAD	DATE
REV.	DESCRIPTION				

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