

**UTILITY CONTACTS**

THE EXISTING UTILITIES LISTED BELOW AND SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARING THESE PANS. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO BE SATISFIED AS TO ITS ACCURACY AND LOCATION OF EXISTING UTILITIES.

CHARTER COMMUNICATIONS  
ATT: MARK KELLY  
1480 S. VALLEY CENTER DRIVE  
BAY CITY, MI 48706

CABLE TV  
PHONE: 989-233-9404  
mark.kelly@chartercom.com

CITY OF OWOSSO  
ATT: CLAYTON WEHNER, P.E.  
301 W. MAIN STREET  
OWOSSO, MI 48867

ROAD  
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clayton.wehner@ci.owosso.mi.us

CITY OF OWOSSO  
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OWOSSO, MI 48867

SANITARY SEWER & WATER MAIN  
989-725-0550  
ryan.suchanek@ci.owosso.mi.us

CONSUMERS ENERGY  
ATT: TRACY MAHAR  
1801 W. MAIN ST  
OWOSSO, MI 48867

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trmahar@cmsenergy.com

CONSUMERS ENERGY  
ATT: ADAM BERTRAM  
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CELL: 517-614-8570  
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jared.jackson@daystarrfiber.net

FRONTIER COMMUNICATIONS  
ATT: HAROLD ROTH  
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OWOSSO, MI 48847

FIBER  
PHONE: 989-627-9759  
harold.roth@ftr.com

SHIAWASSEE COUNTY HEALTH DEPARTMENT  
ENVIRONMENTAL HEALTH DIVISION  
ATT: STEVE ALWORDEN  
201 N. SHIAWASSEE STREET  
CORUNNA, MI 48817

SOIL EROSION AND SEDIMENTATION CONTROL  
PHONE: 989-743-2289  
FAX: 989-743-2413  
salworden@shiasawseechd.net

CALL MISS DIG AT 1-800-482-7171 OR 811 THREE DAYS, EXCLUDING SATURDAY, SUNDAY, AND HOLIDAY, BEFORE STARTING YOUR PROJECT.

**MDOT ROAD STANDARD PLANS**

WHERE THE FOLLOWING ITEMS ARE CALLED FOR ON PLANS, THEY ARE TO BE CONSTRUCTED ACCORDING TO THE MDOT STANDARD PLAN GIVEN BELOW OPPOSITE EACH ITEM UNLESS OTHERWISE INDICATED.

- |  |         |
|--|---------|
| DRAINAGE STRUCTURES  | R-1-G*  |
| COVER B  | R-7-F*  |
| MONUMENT BOXES   | R-11-E  |
| COVER K  | R-15-F* |
| COVER Q  | R-18-F* |
| SIDEWALK RAMP AND DETECTABLE WARNING DETAILS   | R-28-J* |
| DRIVEWAY OPENINGS & APPROACHES AND CONCRETE SIDEWALKS  | R-29-I* |
| CONCRETE CURB AND CONCRETE CURB AND GUTTER   | R-30-G* |
| BUMPER & PARKING RAIL AND MISC. WOOD POSTS   | R-74-D  |
| GRANULAR BLANKET, UNDERDRAINS, AND OUTLET ENDINGS FOR SEWER UNDERDRAINS, AND SEWER BULKHEADS | R-80-E  |
| BEDDING AND FILLING AROUND PIPE CULVERTS   | R-82-D* |
| UTILITY TRENCHES   | R-83-C* |
| SOIL EROSION & SEDIMENT CONTROL MEASURES   | R-96-E* |
| SEEDING AND TREE PLANTING  | R-100-H |

\*SPECIAL DETAILS INCLUDED IN PROPOSAL OR MODIFIED IN GENERAL PLANS

# CITY OF OWOSSO

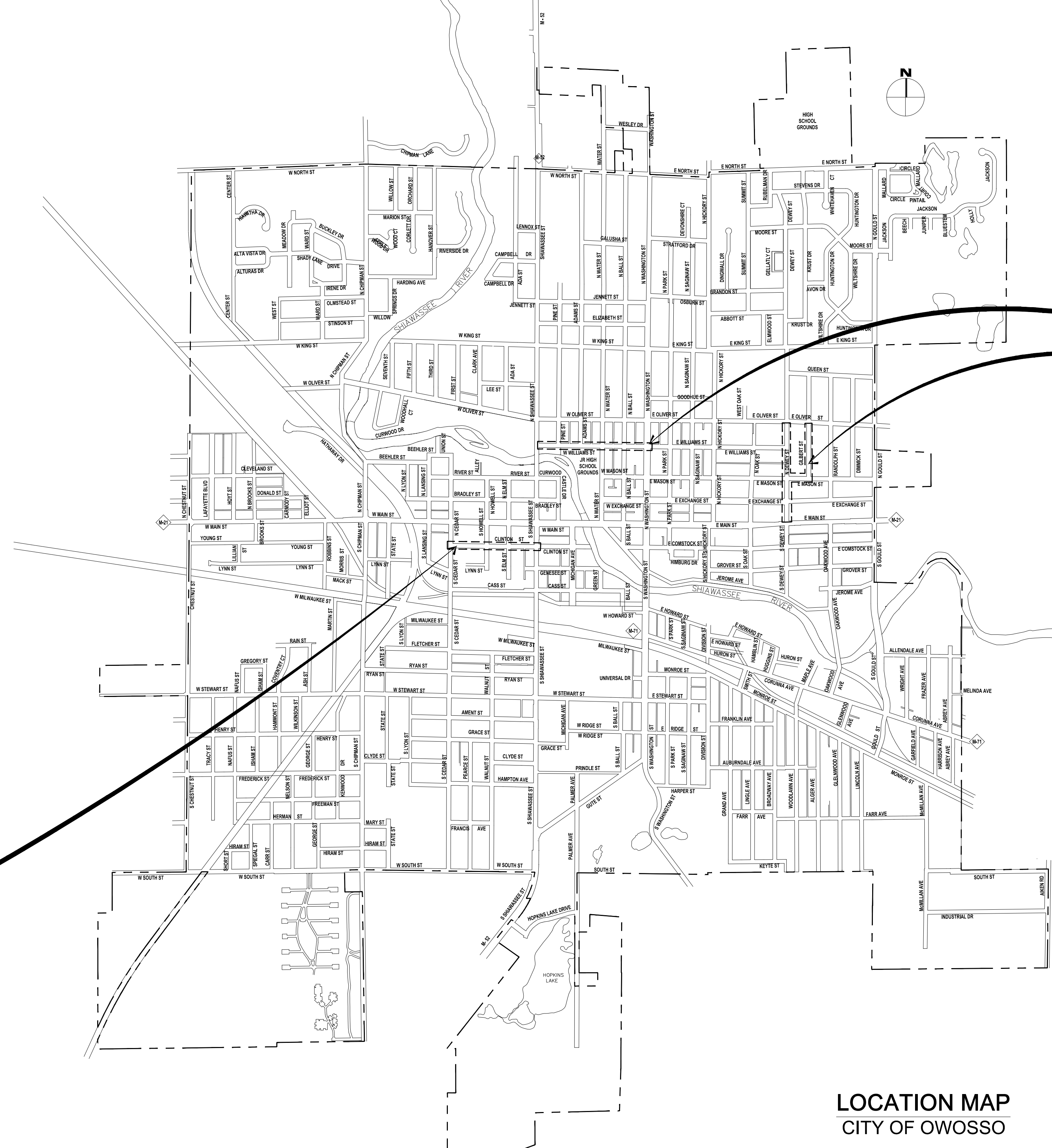
## 2026 WATER MAIN REPLACEMENT PROJECT

### CONTRACT 1 DWSRF 7920-01

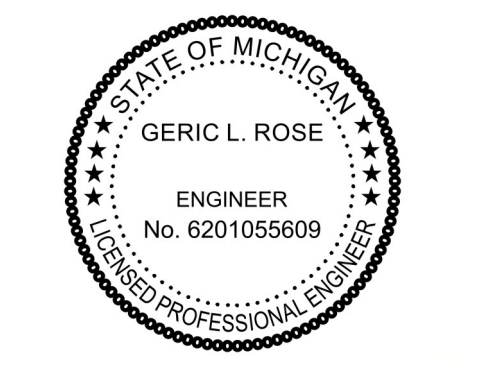
#### SHIAWASSEE COUNTY

SECTIONS 23 & 24, T7N-R2E, CITY OF OWOSSO  
SECTION 18, T7N-R3E, CITY OF OWOSSO  
POP: 15,194 (2010 CENSUS)

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	WATER MAIN NOTES AND DETAILS
3	WATER MAIN STANDARD DETAILS
4	STREET ITEMS, GENERAL NOTES AND DETAILS
5	SESC STANDARD NOTES AND DETAIL
6	CLINTON ST - TRAFFIC CONTROL PLAN
7 - 8	CLINTON ST - WATER MAIN PLAN AND PROFILE
9	CLINTON ST - CURB RAMP DETAILS
10	DEWEY ST, MASON ST AND GILBERT ST - TRAFFIC CONTROL PLAN
11	GILBERT ST - TYPICAL CROSS SECTIONS
12	DEWEY ST - REMOVAL PLAN
13	GILBERT ST AND MASON ST - REMOVAL PLAN
14	DEWEY ST - SANITARY SEWER PLAN AND PROFILE
15	MASON ST - WATER MAIN PLAN AND PROFILE
16	MASON ST - SANITARY SEWER PLAN AND PROFILE
17	MASON ST - STORM SEWER PLAN AND PROFILE
18	GILBERT ST - SANITARY SEWER PLAN
19 - 20	GILBERT ST - SANITARY SEWER PROFILE
21	GILBERT ST - ROAD AND STORM SEWER PLAN
22 - 23	GILBERT ST - ROAD AND STORM SEWER PROFILE
24 - 25	DEWEY ST - WATER MAIN PLAN AND PROFILE
26 - 27	GILBERT ST - WATER MAIN PLAN AND PROFILE
28 - 29	DEWEY ST, MASON ST, AND GILBERT ST - CURB RAMP DETAILS
30	WILLIAMS ST - TRAFFIC CONTROL PLAN
31 - 32	WILLIAMS ST - WATER MAIN PLAN AND PROFILE
33 - 34	SOIL BORINGS



**LOCATION MAP**  
CITY OF OWOSSO



THE MATERIAL AND METHODS FOR WATER MAIN CONSTRUCTION CONFORM TO THE STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATION (AWWA) AND THE MICHIGAN SAFE DRINKING WATER ACT 1976 PA 399, AS AMENDED, AND THE ADMINISTRATIVE RULES.

THE DESIGN OF THIS ROAD IS BASED ON THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS OF CONSTRUCTION, 2020 EDITION, AND THE AASHTO 7TH EDITION OF "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS", AND THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, 2025 EDITION.

CONTRACT FOR: 1.02 MILES OF WATER MAIN REPLACEMENT WITH WATER SERVICE LINE REPLACEMENTS, 0.4 MILES OF SANITARY SEWER REPLACEMENT, AND 0.15 MILES OF STREET RECONSTRUCTION

CITY OF OWOSSO, MICHIGAN  
ENGINEERING DIVISION  
DEPT. OF PUBLIC SERVICE

**F&W**

NO.	DATE	BY	REVISIONS
1	5/22/26	GLR	ISSUED FOR BIDS

APPROVED BY: \_\_\_\_\_  
ORIGINAL PLAN

CHECKED BY: \_\_\_\_\_

2026 WATER MAIN REPLACEMENT PROJECT - CONTRACT 1  
DWSRF-7920-01

COVER SHEET

FIELD BOOK  
PG. \_\_\_\_\_

APRIL 2026  
PROJECT NO. 876320

**1**



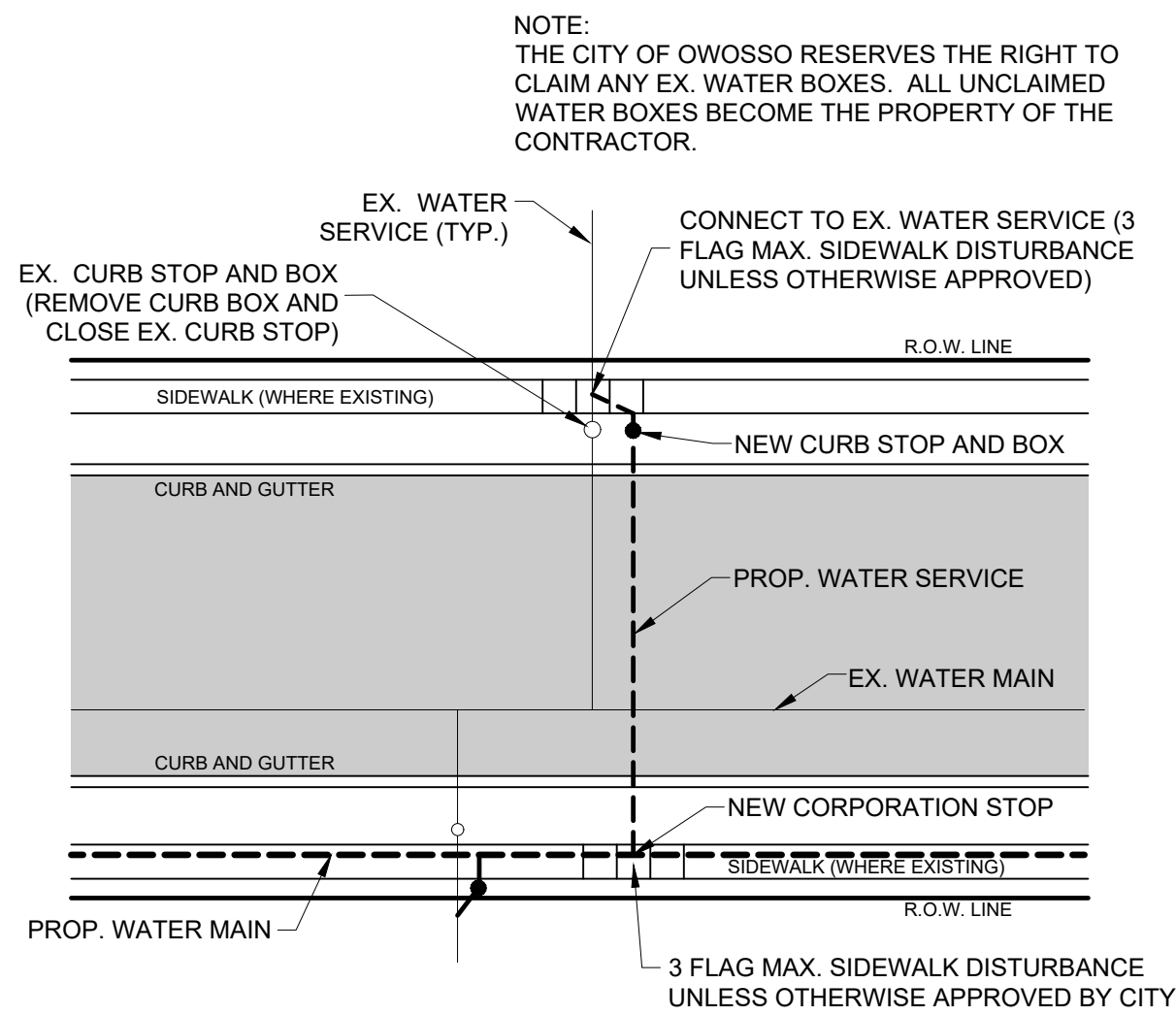
**WATER MAIN CONSTRUCTION NOTES**

- ALL WATER MAIN MAIN LINE PROPOSED FOR THIS PROJECT HAS BEEN DESIGNED FOR AND SHALL BECOME A PUBLIC SYSTEM.
- A WATER MAIN CONSTRUCTION PERMIT FROM THE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY MUST BE ISSUED PRIOR TO BEGINNING THE CONSTRUCTION OF ANY WATER MAIN IN THIS PROJECT.
- ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF OWOSSO SPECIAL PROVISION FOR WATER MAIN INSTALLATION AND THE STANDARD DETAILS.
- ALL PUBLIC WATER MAIN SHALL BE OWNED AND MAINTAINED BY THE CITY OF OWOSSO UPON COMPLETION OF THE PROJECT.
- ALL PUBLIC WATER MAIN SHALL BE PVC AWWA C900/C909. TRACER WIRE AND BOXES SHALL CONFORM TO THE CITY OF OWOSSO SPECIAL PROVISIONS.
- ALL PIPES, PIPE FITTINGS, PLUMBING FITTINGS, AND FIXTURES THAT ARE USED FOR POTABLE WATER MUST COMPLY WITH THE LEAD FREE REQUIREMENT AND MUST BEAR THE MARK NSF/ANSI STANDARD 61, ANNEX G OR NSF 61-G.
- GATE VALVES SHALL BE EAST JORDAN RESILIENT SEATED GATE VALVES CONFORMING TO AWWA C509. VALVES SHALL BE VERTICAL, NON-RISING STEM AND OPEN CLOCKWISE. SEE CITY OF OWOSSO SPECIAL PROVISION FOR WATER MAIN INSTALLATION AND STANDARD DETAILS.
- FIRE HYDRANTS SHALL CONFORM TO THE SPECIFICATION SHOWN ON THIS SHEET.
- WHERE SANITARY SERVICE LEADS OR OTHER UTILITIES ARE ENCOUNTERED DURING THE CONSTRUCTION OF THE WATER MAIN, THE CONTRACTOR SHALL MAKE ADJUSTMENTS TO EITHER THE WATER MAIN OR EXISTING UTILITY TO PROVIDE CONTINUOUS SERVICE TO PROPERTIES ALONG THE ROUTE OF CONSTRUCTION. ALL WORK INCLUDING THE REBORING OF SANITARY SEWER SERVICE LEADS TO ACCOMMODATE CONSTRUCTION OR ADJUSTING WATER MAIN CONSTRUCTION TO CLEAR EXISTING SERVICES SHALL BE CONSIDERED INCLUSIVE TO CONSTRUCTION OF THE WATER MAIN.
- PRESSURE TAPS TO EXISTING WATER MAINS AND CONNECTIONS TO EXISTING VALVES SHALL BE MADE ONLY UNDER CITY OF OWOSSO OBSERVATION. ALL VALVE OPENING AND CLOSING SHALL BE BY THE CITY OF OWOSSO PERSONNEL. A FULL DIAMETER STAINLESS STEEL TAPPING SLEEVE IS REQUIRED FOR ALL PRESSURE TAPS.
- ALL WATER MAIN SHALL HAVE A MINIMUM COVER OVER THE TOP OF THE PIPE OF 5.5 FEET FROM FINISHED GRADE. THE STANDARD LAYING CONDITIONS FOR WATER MAIN SHALL BE A 30" TRENCH WIDTH OR PIPE DIAMETER PLUS 12". THE PIPE SHALL BE LAID ON A 4" PREPARED SAND CUSHION WITH RECESSES TO ACCOMMODATE PIPE BELLS.
- ALL WATER SERVICE LEADS SHALL HAVE A MINIMUM COVER OVER THE TOP OF THE PIPE OF 5 FEET FROM FINISHED GRADE.
- ALL TRENCH EXCAVATION UNDER OR WITHIN 5' OF EXISTING OR PROPOSED PAVING SHALL BE BACKFILLED WITH CLASS II COMPACTED GRANULAR MATERIALS.
- MINIMUM HORIZONTAL SEPARATION BETWEEN WATER MAIN AND SEWERS SHALL BE 10 FEET.
- CONTRACTOR SHALL RESTRAIN ALL THRUST IN THE SYSTEM BY THE USE OF MEGA-LUG RESTRAINED JOINTS. ALL HYDRANTS, TEES, VERTICAL OR HORIZONTAL BENDS AND FUTURE VALVE CONNECTIONS SHALL BE RESTRAINED. RESTRAINTS SHALL HAVE APPROVAL PRIOR TO BEING INCORPORATED INTO PROJECT CONSTRUCTION.
- WATER MAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA STANDARD C805, AND DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C851. WATER MAIN CHLORINATION SHALL BE OBSERVED AND MONITORED BY CITY OF OWOSSO REPRESENTATIVE.
- WATER SERVICE LEADS SHALL BE TYPE "K" COPPER AND SHALL BE A MINIMUM OF ONE-INCH (1") IN DIAMETER. ALL SERVICE LEADS SHALL BE BORED UNDER ROADWAY. CORPORATIONS SHALL BE BRONZE ALLOY OR BRASS AND COMPLY WITH NSF/ANSI-372 OR NSF/ANSI-61G.
- THE CONTRACTOR SHALL INSTALL TWO INCH CORPORATIONS ON THE WATERLINE FOR PRESSURE TESTING, CHLORINE ADDITION AND FOR BLOW-OFF PURPOSES. THE CORPORATIONS SHALL HAVE COPPER PIPE EXTENDING TO THE GROUND SURFACE. THE CONTRACTOR SHALL REMOVE THE CORPORATION AND COPPER LINE UPON A SATISFACTORY TEST AND INSTALL A PLUG.
- THE CONTRACTOR SHALL ENCASE THE WATER MAIN IN PLASTIC OR CONCRETE PIPE WHERE VERTICAL SEPARATION BETWEEN STORM SEWER AND WATER MAIN OR SANITARY SEWER AND WATER MAIN IS LESS THAN EIGHTEEN (18) INCHES, AS PER MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY.
- WHERE WATER MAIN CROSSES ABOVE OR BENEATH SANITARY OR STORM SEWER, A SOLID LENGTH OF PIPE SHALL BE POSITIONED ABOVE OR BENEATH THE CROSSING TO AVOID PIPE JOINTS IN THE VICINITY OF THE CROSSING.
- ALL INSERTION VALVES SHALL BE MANUFACTURED BY MUELLER, JCM, CLOW OR APPROVED EQUAL.

**FREEBORE NOTE:**  
CONTRACTOR SHALL FREEBORE PROPOSED WATER MAIN WHERE NECESSARY TO SAVE/PROTECT TREES OR AVOID EXISTING UTILITIES AND POLES. COST OF FREEBORE SHALL BE INCLUDED IN THE WATER MAIN PAY ITEM. REQUIRED FREEBORE LOCATIONS SHALL BE DETERMINED IN THE FIELD AND ARE NOT SHOWN ON THE PLANS.

**CONSUMERS ENERGY NOTE:**  
ALL UTILITY POLES SHALL BE PROTECTED BY THE CONTRACTOR DURING CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THEIR CONSTRUCTION OPERATIONS WITH AFFECTED UTILITIES AND ADEQUATELY SUPPORT THE POLES.

**WATER USAGE NOTE:**  
A SERVICE CHARGE OF \$1,250 WILL BE REQUIRED AT TIME OF PERMIT APPLICATION. THIS FEE INCLUDES THE MINIMUM CHARGE OF \$75 FOR 5,000 BULK GALLONS OF WATER, PLUS ADDITIONAL CHARGES OF \$16 PER 1,000 GALLONS CONSUMED IN EXCESS OF THE MINIMUM QUANTITY. OWOSSO WATER SYSTEM PERSONNEL WILL ATTACH A WATER METER AND RPZ BACKFLOW PREVENTER TO THE HYDRANT FOR CONTRACTOR USE. IF THE WATER METER AND RPZ IS RETURNED IN GOOD OPERATING CONDITION, THE CONTRACTOR WILL RECEIVE A \$450 REFUND, LESS ADDITIONAL WATER CONSUMED IN EXCESS OF MINIMUM QUANTITY.



**NEW WATER SERVICE CONNECTION DETAIL**  
NOT TO SCALE

WATER SERVICES ON THE OPPOSITE SIDE OF THE ROAD OF THE NEW WATER MAIN SHALL BE BORED. WATER SERVICES INTO BUILDINGS SHALL BE BORED. CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH THE METER DETAIL ON THE RIGHT.

WATER SERVICES ON THE SAME SIDE OF THE ROAD AS THE NEW WATER MAIN SHALL BE OPEN CUT.

WHERE THE EXISTING CURB STOP BOX IS LOCATED IN PAVEMENT, PAVEMENT REMOVAL AND DRIVE RESTORATION WILL BE PAID SEPARATELY. CONTRACTOR SHALL MINIMIZE PAVEMENT DISTURBANCE AS DIRECTED BY THE ENGINEER.

METER PITS, WHERE VISIBLE AT TIME OF TOPOGRAPHIC SURVEY, ARE SHOWN.

SIDEWALK REMOVAL AND REPLACEMENT FOR WATER SERVICE LINE REPLACEMENT IS NOT SHOWN ON PLAN SHEETS AND SHALL BE AS DIRECTED BY ENGINEER

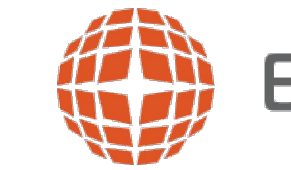
**MISCELLANEOUS ESTIMATES**

THE FOLLOWING ITEMS OF WORK SHALL BE DONE AS THEY APPLY THROUGHOUT THE PROJECT. THESE ITEMS ARE NOT DETAILED OR INCLUDED ON THE PLAN AND PROFILE SHEETS

Street	Water Quantity	Sewer Unit	Pay Item
1		LSUM	Mobilization, Max. \$85,400, Street and Storm Sewer
	1	LSUM	Mobilization, Max \$219,600, Water Main
		1 LSUM	Mobilization, Max \$73,200, Sanitary Sewer
	400	Syd	Pavt, Rem
	450	Syd	Sidewalk, Rem
100		Cyd	Subgrade Undercutting, Type II
	300	Syd	Aggregate Base, 8 inch, Modified
100	500	Ton	Maintenance Gravel
		Ft	Sewer, SDR-26, 4 inch, Tr Det B, Modified
		Ft	Sewer, SDR-26, 4 inch, Tr Det B, Modified
	10	Ea	Sanitary Serv Conflict
	5	Ea	Abandoned Gas Main Conflict
	10	Ea	Dr Structure Cover, Adj, Case 1
	10	Ft	Dr Structure, Adj, Add Depth
	5	Ea	Dr Structure, Tap, 10 inch
	100	Ton	HMA, 13A
	100	Syd	Driveway, Nonreinf Conc, 6 inch
	2430	Sft	Sidewalk, Conc, 4 inch
	1620	Sft	Sidewalk Conc, 6 inch
	60	Ft	Post, Steel, 3 pound
	5	Ea	Sign, Type III, Rem
	5	Ea	Sign, Type III, Erect, Salv
	200	Syd	Turf Establishment, Performance
	1	LSUM	Testing and Chlorination of Water Main

**MAINTAINING TRAFFIC QUANTITIES**

Quantity	Unit	Pay Item
19	Ea	Barricade, Type III, High Intensity, Double Sided, Furn & Oper
40	Ea	Pedestrian, Type II Barricade, Temp
5	Ea	Lighted Arrow, Type C, Furn & Oper
1	LSUM	Minor Traffic Devices, Max \$20,000
250	Ea	Plastic Drum, High Intensity, Furn & Oper
961	Sft	Sign, Type B, Temp, Prismatic, Furn & Oper
1	LSUM	Traf Regulator Control



WaterMaster® Fire Hydrant Specifications for City of Owosso hydrants with Storz

- Manufacturers shall provide sufficient documentation to assure that their hydrant will successfully meet the latest revisions of AWWA Standard C502. Fire hydrants shall be rated for 250 psi working pressure and be listed by Underwriters Laboratories Inc (UL245) and meet the test requirements of Factory Mutual (1510) at this pressure.
- Hydrants shall be of a true compression type, opening against the pressure and closing with the pressure. Composition of the main valve shall be a molded rubber having a durometer hardness of 91 +/- 5. The rubber seat valve shall fit a 5 1/2" opening and not be less than 1" thick.
- Fire hydrants shall be three-way in design, having **Harrison 5" Storz C & X Dome** pumper nozzle, and **2 1/2" Nat Std 2 7/8" Base, C Dome** hose nozzle. Nozzles shall "thread" counterclockwise into hydrant barrel utilizing "O" ring pressure seals. A suitable nozzle lock shall be in place to prevent inadvertent nozzle removal. Wedging devices and/or ductile iron retainer rings to secure nozzles shall not be allowed.
- The lubrication system shall be sealed from the waterway and any external contaminants by use of "o" ring pressure seals. Anti-friction washers shall be in place above and below the thrust collar of the operating nut to further minimize operating torque. The grease reservoir shall be factory filled with an FDA approved food grade lubricant. Oil shall not be used.
- The operating nut shall be a one piece design, manufactured of ASTM B-584 bronze. It shall be **1 1/8" Pentagon- point to flat** in size/shape. The operating nut shall be affixed to the bonnet by means of an ASTM B-584 bronze hold down nut. The hold down nut shall be threaded into the bonnet in such a manner as to prevent accidental disengagement during the opening cycle of the hydrant. A resilient weather seal shall be incorporated with the hold down nut, for the purpose of protecting the operating mechanism from the elements.
- The direction of opening shall be **right**. An arrow shall be cast on the top of the hydrant to indicate the opening direction.
- The hydrant bonnet shall be attached to the upper barrel by no more than six bolts and nuts. All nuts and bolts below grade shall be 304 stainless steel.
- The hydrant will have **6"** Depth of bury, unless otherwise noted.
- Hydrants shall be of the "Traffic Model" design, provided with a safety coupling and flange design that will permit a full 360 degree facing of the nozzles. O-rings shall be the Quad-Ring" type and be installed in a groove on the bottom of the joint so that taping or gluing to the upper standpipe or

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**WaterMaster® Fire Hydrant Specification**

extension is not required. The safety coupling shall be a one piece design. Multiple parts and cast iron not allowed.

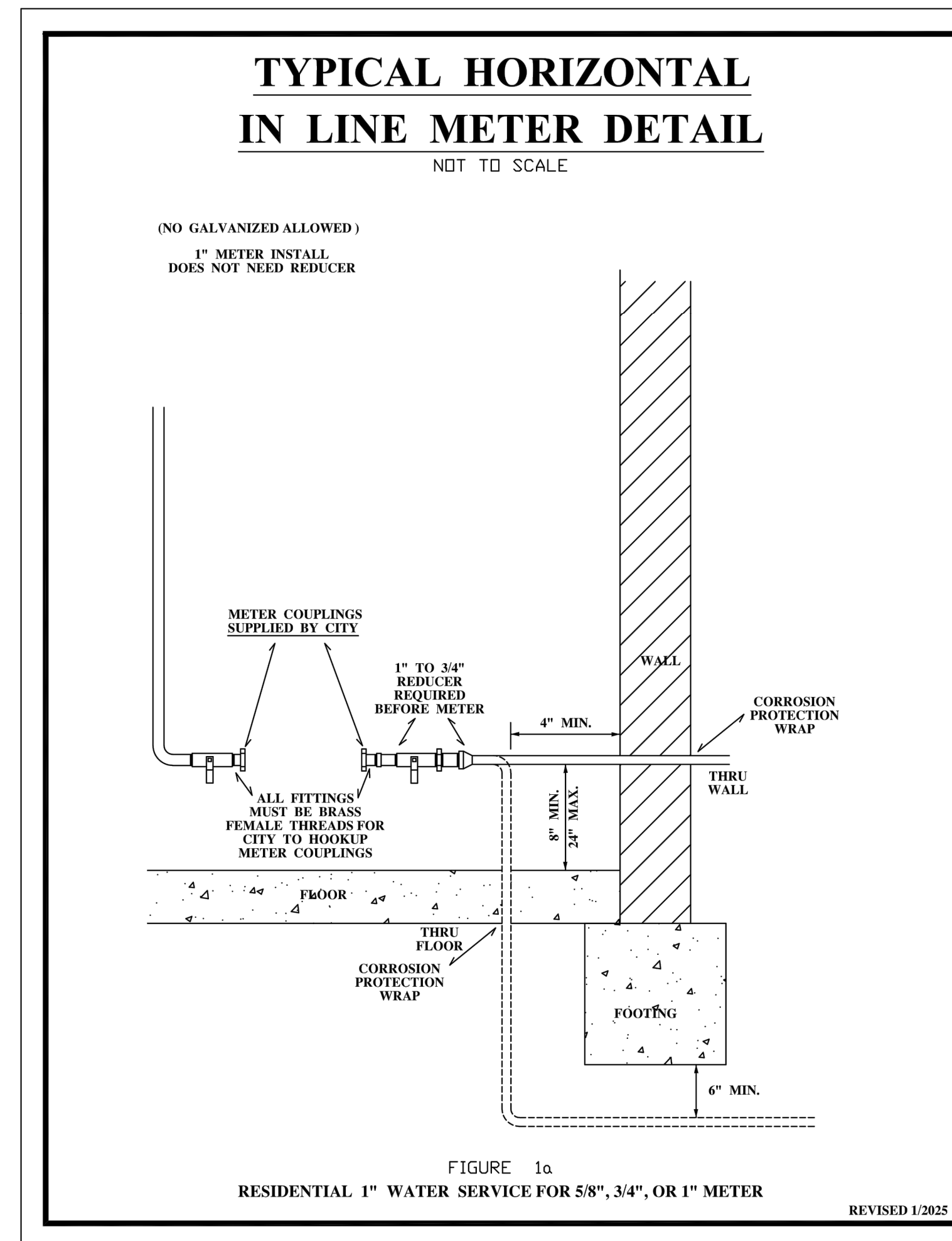
- The operating stem shall be a two piece design, not less than 1 1/4" diameter (excluding threaded or machined areas). Threads shall be Acme type with no 60 deg. V threads allowed. Travel stops shall be in the inlet/shoe and are not allowed in the bonnet area. Screws, pins, bolts or fasteners used in conjunction with the stem coupling shall be stainless steel.
- The inside diameter of the hydrant barrels shall not be less than 7 1/4 inches and the hydrant shall be painted **Yellow**.
- Heavy duty drip shutoff (top plate) and valve seat shall be high strength manganese bronze. Valve seat shall be installed in a bronze seat ring. Drain shall be **tapped and plugged**, bronze lined and 3/8 inch diameter minimum. They shall operate without the use of springs, toggles, tubes, levers or other intricate synchronizing mechanisms. Lower valve plate shall be a one piece ductile iron casting and not require a separate cap nut. Drains shall be open and flushed during the first 4 turns of opening the hydrant before positively closing while operating the hydrant.
- The shoe connection shall be **Mechanical Joint** or as specified. The inlet/shoe shall be fusion bonded epoxy coated per ANSI/AWWA C550 and with an NSF61 approved coating having ample blocking pads for sturdy setting. Six stainless steel bolts and nuts are required to fasten the shoe to the lower barrel. The shoe/inlet shall be directly connected to the standpipe flange. Designs using a sandwich piece in between the standpipe and shoe/inlet shall not be allowed.
- External parts- the top bonnet, upper standpipe, lower standpipe and shoe shall be ductile iron to ensure strength throughout the exterior of the hydrant. Gray iron hydrant body parts will not be allowed.

Municipality reserves the right to accept only those materials which are in full compliance with these specifications and deemed most advantageous to its interests.

Upon request, supplier shall furnish flow data indicating friction loss in psi at a flow of 1,000 gpm from the pumper nozzle. Such friction loss shall not exceed 2.5 psi. Also, the municipality may request the manufacturing "point of origin" for any/or all hydrant parts. All cast components shall be made in the USA.

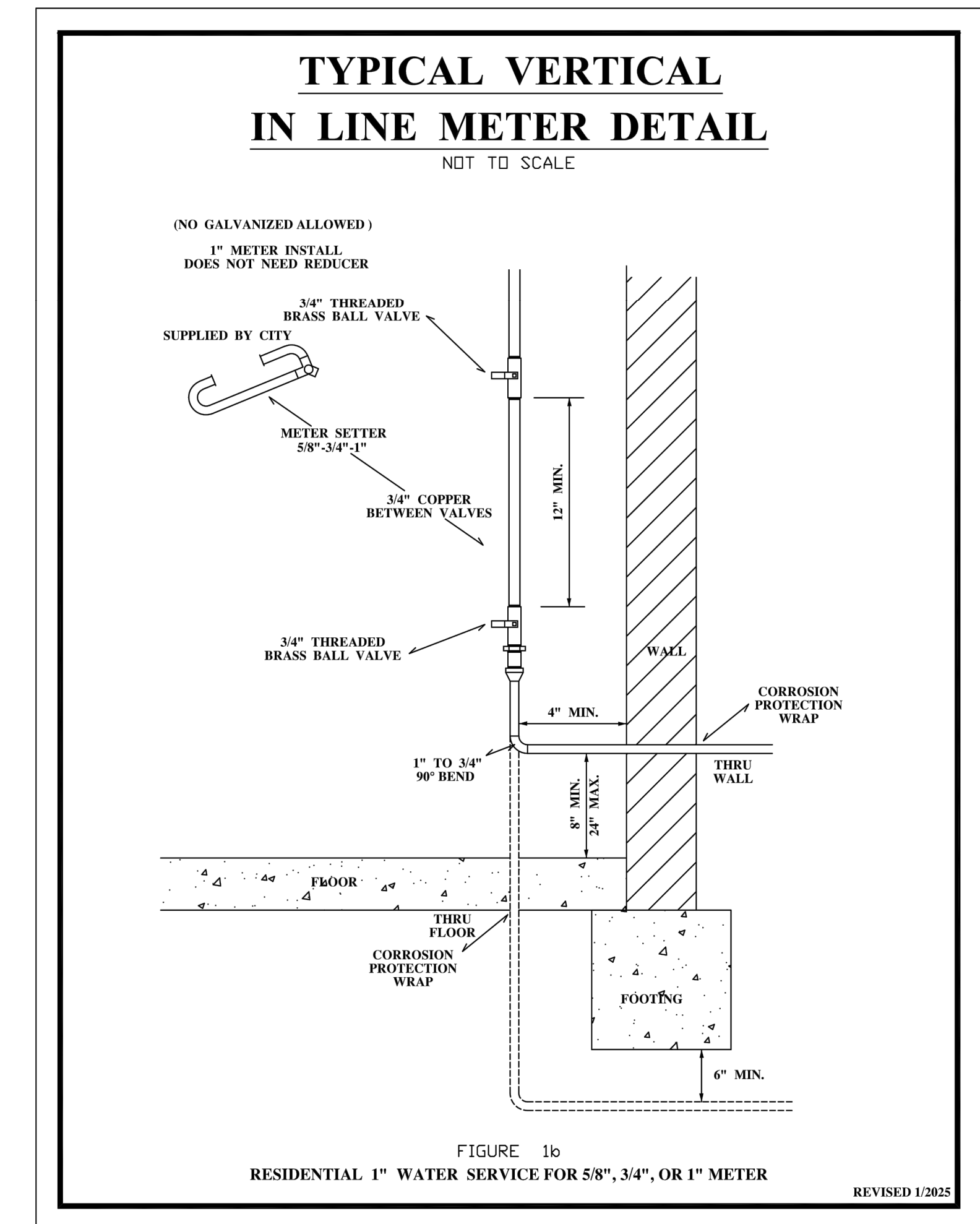
Failure to comply with any of these above requirements is sufficient cause for rejection of proposed hydrants.

Hydrant shall be EJ WaterMaster® **5BR250**.  
53726D 6" O' DOB  
53726D 5" O' DOB  
54727D 5.6" DOB



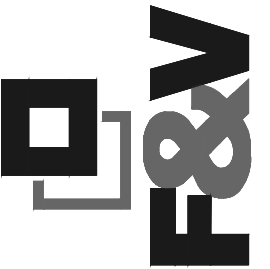
**FIGURE 1a**  
RESIDENTIAL 1" WATER SERVICE FOR 5/8", 3/4", OR 1" METER

REVISED 1/2025



**FIGURE 1b**  
RESIDENTIAL 1" WATER SERVICE FOR 5/8", 3/4", OR 1" METER

REVISED 1/2025



NO.	REVISIONS	DATE	BY
1	ISSUED FOR BIDS	5/22/26	GLR

BENCH MARK DATA

2026 WATER MAIN REPLACEMENT PROJECT- CONTRACT 1  
DWSRF-7920-01

WATER MAIN NOTES AND DETAILS

FIELD BOOK  
PG.

APRIL 2026  
PROJECT NO. 876320



**GENERAL NOTES**

**UNDERGROUND UTILITIES/MISS DIG**  
 FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 1-800-482-7171 FOR 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. MEMBER 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 EXISTING UTILITIES ON THESE DRAWINGS HAVE BEEN SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION AND SHALL NOTIFY THE ENGINEER AS TO WHERE POSSIBLE CONFLICT EXIST.

**EXISTING WATER MAINS AND SEWERS**  
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO PROPERLY IDENTIFIED EXISTING WATER MAINS AND / OR EXISTING SEWERS DURING THE CONSTRUCTION OF THE PROJECT.

**ADJUSTING OF MONUMENT BOXES**  
 ALL GOVERNMENT CORNERS ON THIS PROJECT SHALL BE PRESERVED, WHETHER SHOWN OR NOT. IT MAY BE NECESSARY TO PLACE OR ADJUST MONUMENT BOXES AS REQUIRED.

**PAVEMENT MARKINGS AND SIGNS**  
 ALL PERMANENT PAVEMENT MARKINGS, SHAPES, AND DIMENSIONS SHALL CONFORM WITH MDOT PAVEMENT MARKING TYPICALS PAVE - 900 SERIES.

**SOIL EROSION MEASURES**  
 APPROPRIATE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO EARTH DISTURBING ACTIVITIES. PLACE LAWN RESTORATION ITEMS AS SOON AS POSSIBLE ON POTENTIAL ERODIBLE SLOPES AS DIRECTED BY THE ENGINEER. CRITICAL DITCH GRADES SHALL BE PROTECTED WITH EITHER SOD OR SEED / MULCH BLANKET AS DIRECTED BY THE ENGINEER.

**SOIL EROSION AND SEDIMENTATION CONTROL MEASURES**  
 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ARE IN PLACE AND MAINTAINED UNTIL THE CONTRACT HAS BEEN COMPLETED AND ACCEPTED. MEASURES SHALL ONLY BE PAID FOR ONCE.

**RUBBISH DISPOSAL**  
 SEE MAINTAINING TRAFFIC SPECIAL PROVISIONS.

**MAIL DELIVERY**  
 SEE MAINTAINING TRAFFIC SPECIAL PROVISIONS.

**STORM & SANITARY SEWER REMOVAL**  
 REMOVAL OF SEWER WITH DIAMETER LESS THAN 12 INCHES, WITHIN THE EXCAVATION LIMITS OF NEW SEWER, IS INCLUDED IN THE UNIT PRICE FOR NEW SEWER AND WILL NOT BE PAID FOR SEPARATELY.

**SEWER STRUCTURES**  
 ALL ORIFICES TO RECEIVE PLASTIC SEWER PIPE SHALL BE FITTED WITH KOR-N-SEAL FLEXIBLE CONNECTOR (S) , OR APPROVED EQUAL CONNECTOR. THE FLEXIBLE CONNECTOR WILL NOT BE PAID FOR SEPARATELY, BUT IS CONSIDERED AS PART OF THE DRAINING STRUCTURE PAY ITEM.

**SEWER CONNECTIONS**  
 PROPOSED SEWERS SHALL BE CONNECTED TO EXISTING SEWERS WITH A STRONGBACK FERNCO COUPLER, OR APPROVED EQUAL, AS DIRECTED BY THE ENGINEER. CONNECTION SHALL BE ACCOMPLISHED WITH COUPLER OF SIMILAR SIZE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. PAYMENT FOR ALL MATERIALS AND LABOR NECESSARY TO ACCOMPLISH THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE CONSIDERED AS PART OF OTHER WORK ITEMS.

**STREET APPROACHES**  
 STREET APPROACHES SHALL BE PAID FOR AS PART OF THE MAINLINE PAVING PAY ITEMS.

**STRUCTURE ADJUSTMENTS**  
 ADJUSTMENTS TO STORM AND SANITARY STRUCTURES LOCATED WITHIN THE PAVEMENT OR CURB AND GUTTER SHALL BE PAID FOR AS: Dr Structure Cover, Adj, Case 1.

**CURB AND GUTTER**  
 ALL NEW SECTIONS OF CURB AND GUTTER SHALL BE TIED TO EXISTING CURB AND GUTTER ON BOTH ENDS USING EPOXY COATED #4 BARS.

**SIDEWALK RAMPS AND SIDEWALKS**  
 SIDEWALK RAMPS SHALL BE COMPLETED IN ACCORDANCE WITH THE MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MDOT STANDARD PLAN R-28 SERIES, EXCEPT AS MODIFIED HEREIN. THE PORTION OF RAMP FROM THE CURB AND GUTTER TO THE LANDING SHALL BE 7-INCHES THICK AS IDENTIFIED ON THE SIDEWALK RAMP THICKNESS DETAIL. THE LANDING SHALL BE 4-INCHES THICK. THE PAY ITEMS FOR Curb Ramp, Conc. 4 inch AND Sidewalk, Conc. 6 inch SHALL INCLUDE ALL EXCAVATION AND EMBANKMENT NECESSARY TO CONSTRUCT EACH ITEM AND ALL WORK NECESSARY TO SAW AND TRIM EDGES OF EXISTING CONCRETE. EXCAVATION AND EMBANKMENT WILL NOT BE PAID FOR SEPARATELY.

DETECTABLE WARNING SURFACES SHALL BE EAST JORDAN DURALAST TM AND BLACK ASPHALT DIPPED, INSTALLED ONTO FRESH CONCRETE, AND IN ACCORDANCE WITH MDOT STANDARD R-28 SERIES. THE WARNING SURFACES SHALL BE 2.5 FEET IN LENGTH SUCH THAT TWO PLATES ARE USED FOR EACH 5 FOOT WIDE RAMP.

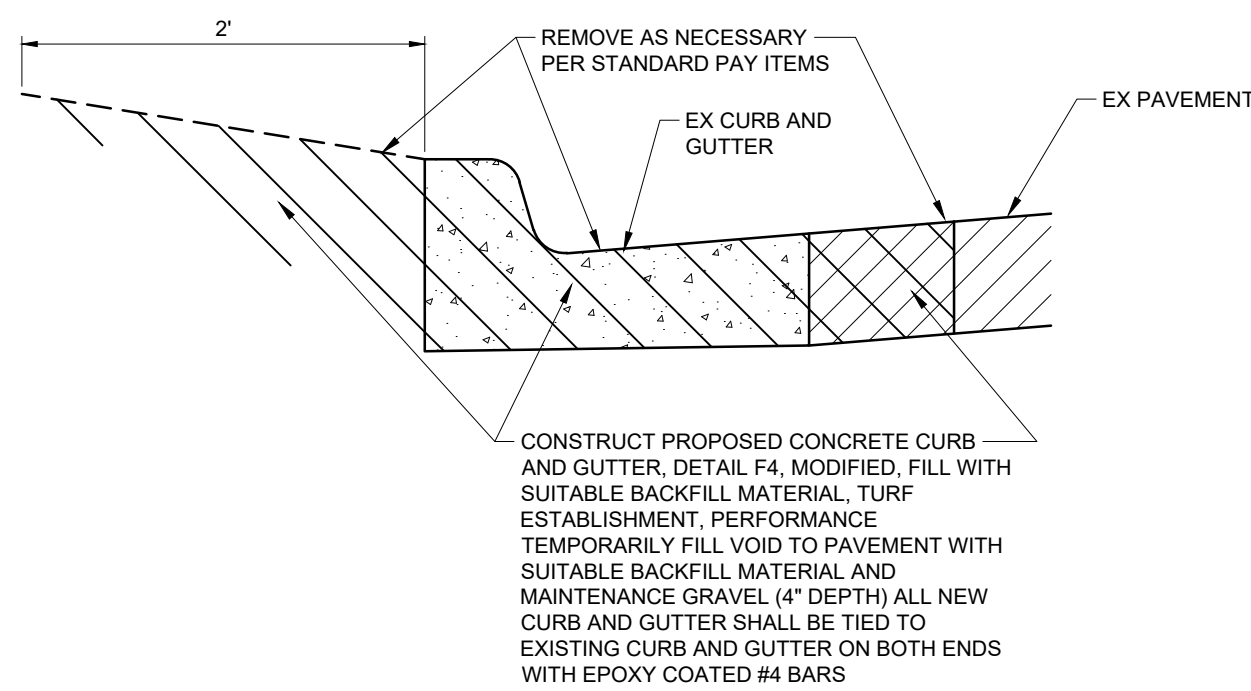
SIDEWALKS LOCATED WITHIN RESIDENTIAL DRIVEWAYS SHALL BE 6-INCHES THICK AND WILL BE PAID FOR AS Sidewalk, Conc. 6 inch.

SIDEWALKS LOCATED WITHIN COMMERCIAL DRIVEWAYS SHALL BE 7-INCHES THICK AND WILL BE PAID FOR AS Sidewalk, Conc. 7 inch.

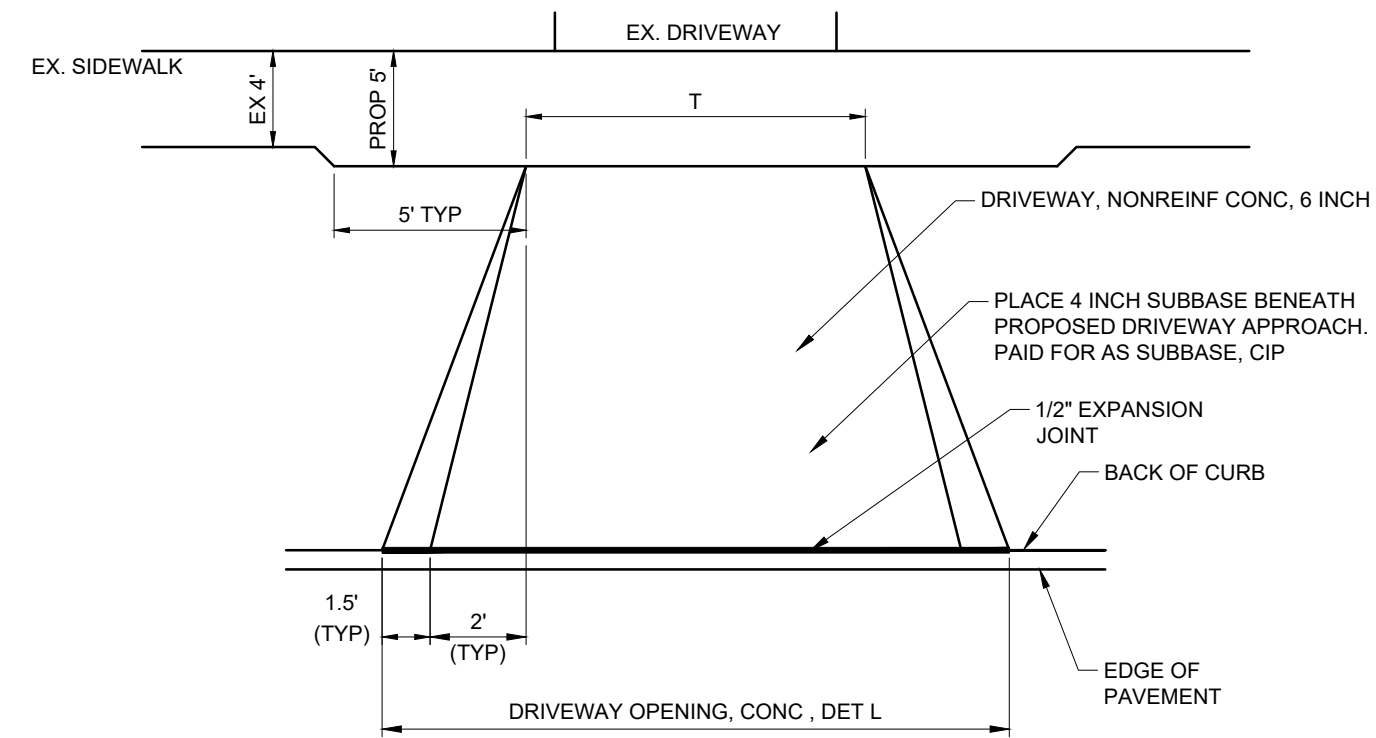
**LAWN SPRINKLERS / LANDSCAPING**  
 OWNERS OF EXISTING LAWN SPRINKLER SYSTEMS AND / OR LANDSCAPING SHALL BE NOTIFIED (IN WRITING WITH A COPY SENT TO THE ENGINEER) BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF ANY WORK THAT WILL BE DONE THAT WILL AFFECT THOSE SYSTEMS AND / OR LANDSCAPING. IF THE PROPERTY OWNER FAILS TO RELOCATE THE LAWN SPRINKLER SYSTEM PRIOR TO THE CONTRACTOR BEGINNING WORK, AND IF THE CONTRACTOR CUTS THE SYSTEM DURING CONSTRUCTION, THE CONTRACTOR SHALL CAP THE SYSTEM PIPE AND WITNESS THE LOCATION OF THE CAP WITH A WOODEN STAKE FOR THE PROPERTY OWNERS USE. THE CONTRACTOR SHALL PLACE THE SALVAGED SPRINKLER HEADS ON THE BACK OF THE RIGHT OF WAY. IF THE PROPERTY OWNER FAILS TO RELOCATE THE LANDSCAPING PRIOR TO THE CONTRACTOR BEGINNING WORK, THE CONTRACTOR SHALL CAREFULLY SALVAGE THE LANDSCAPING ITEMS AND STOCKPILE THEM ON THE BACK OF THE RIGHT OF WAY OR AT A LOCATION DESIGNATED BY THE ENGINEER FOR THE PROPERTY OWNER. ANY OTHER MODIFICATION TO THE SPRINKLER SYSTEM AND / OR LANDSCAPING IS THE RESPONSIBILITY OF THE OWNER AND IS NOT PART OF THIS CONTRACT. THIS WORK WILL NOT BE PAID FOR SEPARATELY.

**PROPERTY OWNERS**  
 PROPERTY OWNERS' NAMES, WHERE SHOWN, ARE FOR INFORMATION ONLY, AND THEIR ACCURACY IS NOT GUARANTEED.

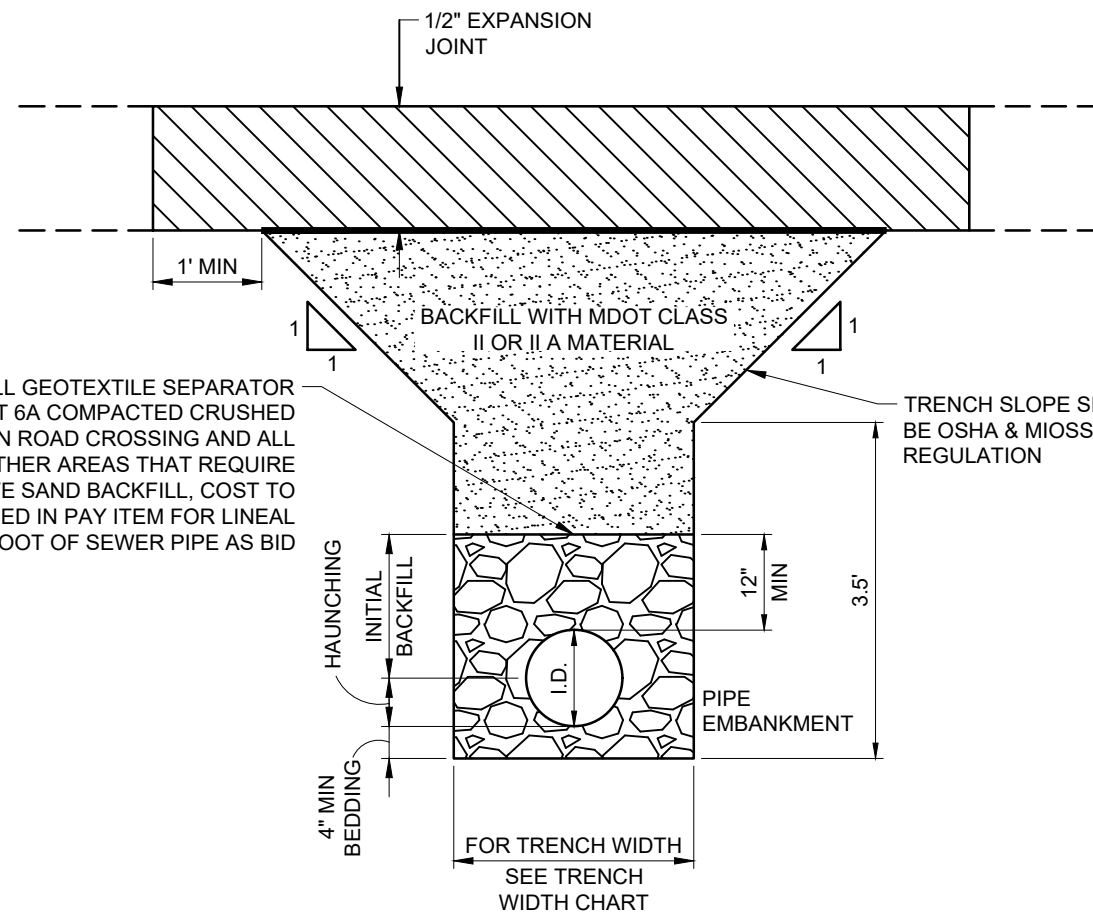
**MAINTAINING TRAFFIC**  
 REFER TO THE CONTRACT SPECIAL PROVISION FOR WORK RESTRICTIONS RELATIVE TO MAINTAINING TRAFFIC.



**TYPICAL SELECT CURB AND GUTTER REPAIR DETAIL**  
 NOT TO SCALE

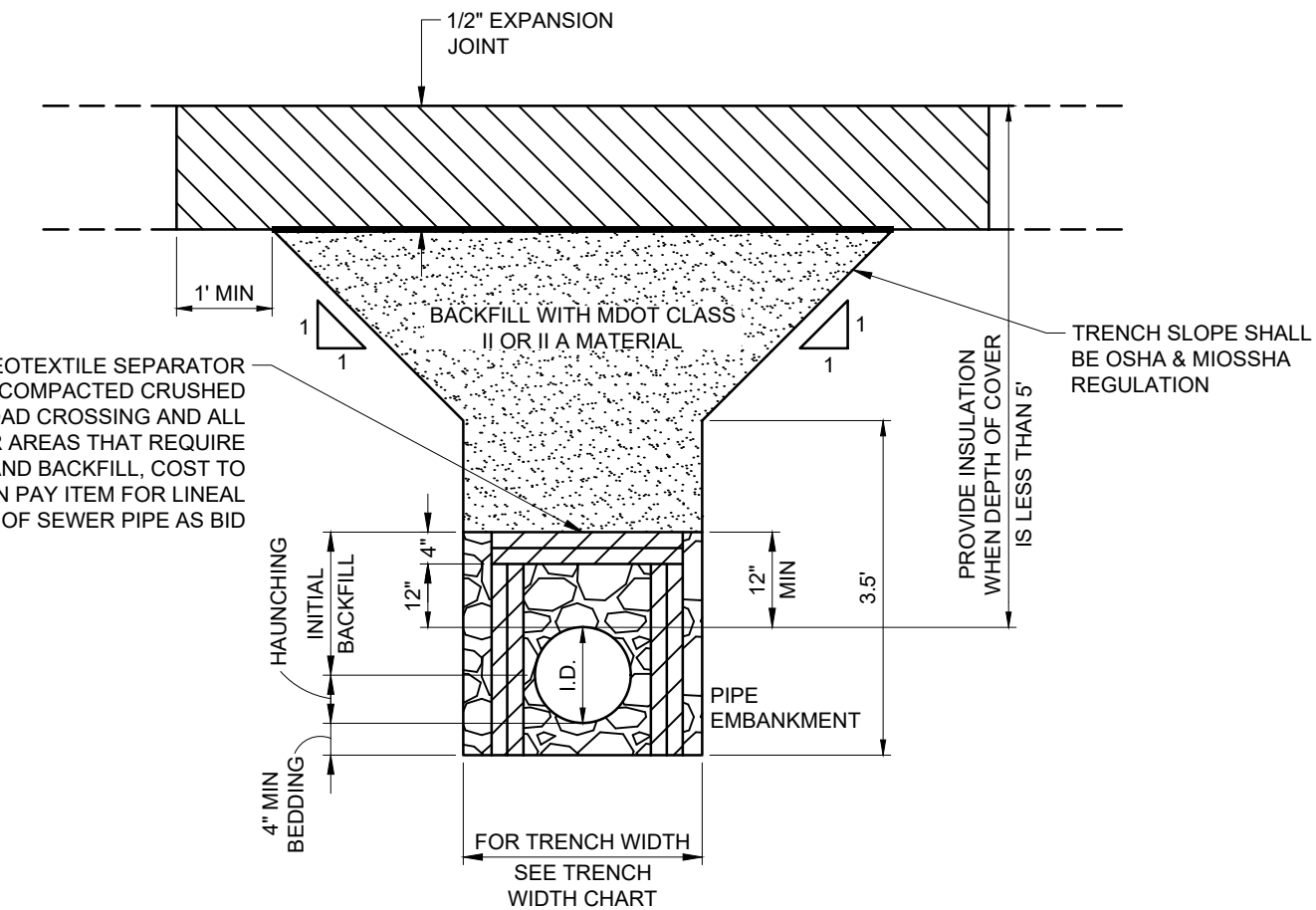


**DRIVEWAY APPROACH DETAIL**  
 NOT TO SCALE

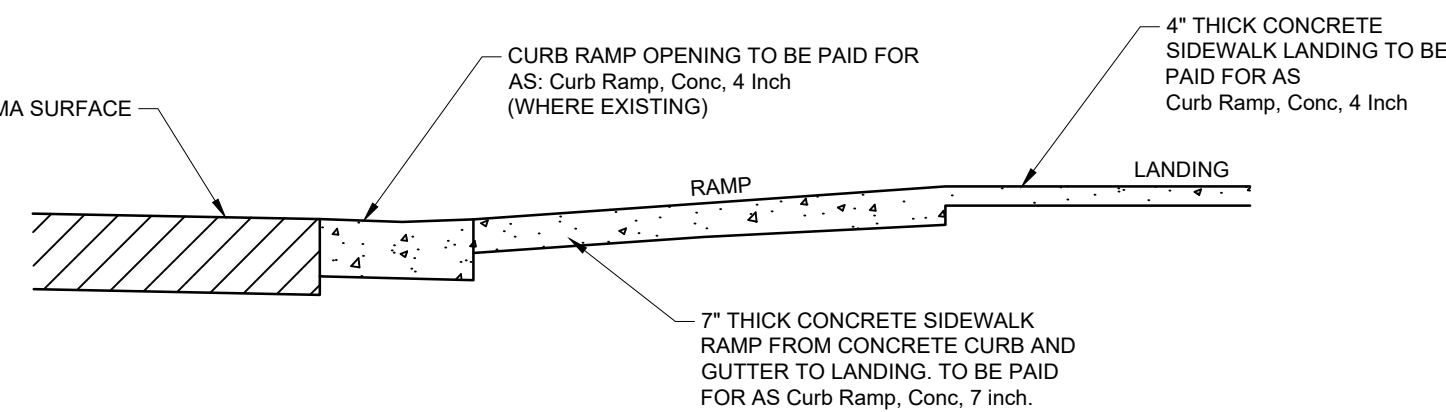


**TRENCH DETAIL B, MODIFIED DETAIL**  
 NOT TO SCALE

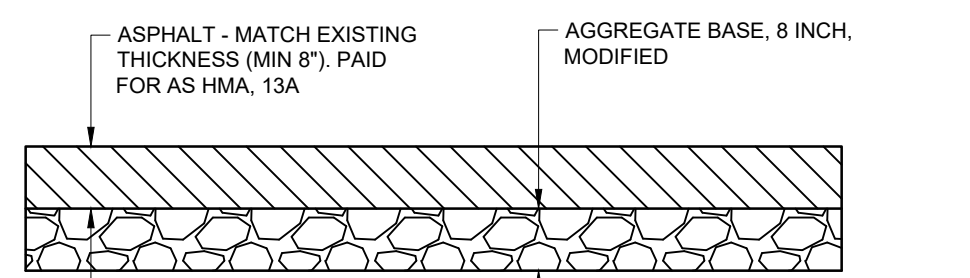
TRENCH WIDTH CHART		
PIPE SIZE	MINIMUM	MAXIMUM
6", 8" & 10"	24"	30"
12" & 15"	30"	36"
18"	34"	40"
21"	38"	42"
24"	42"	46"
27"	45"	49"
30"	49"	53"
36"	56"	60"
LARGER THAN 36"	I.D. +20"	I.D. +24"



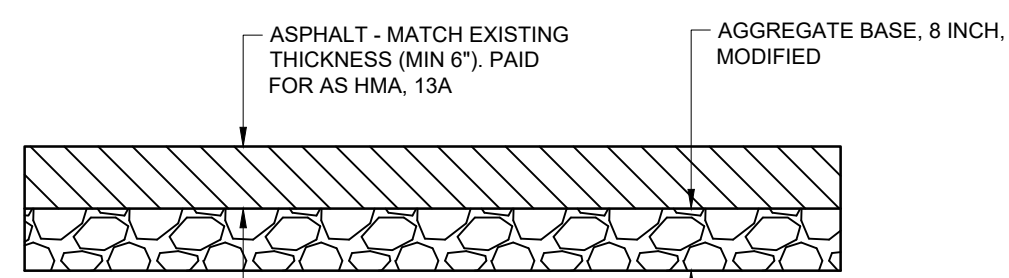
**TRENCH DETAIL B, INSULATED, MODIFIED DETAIL**  
 NOT TO SCALE



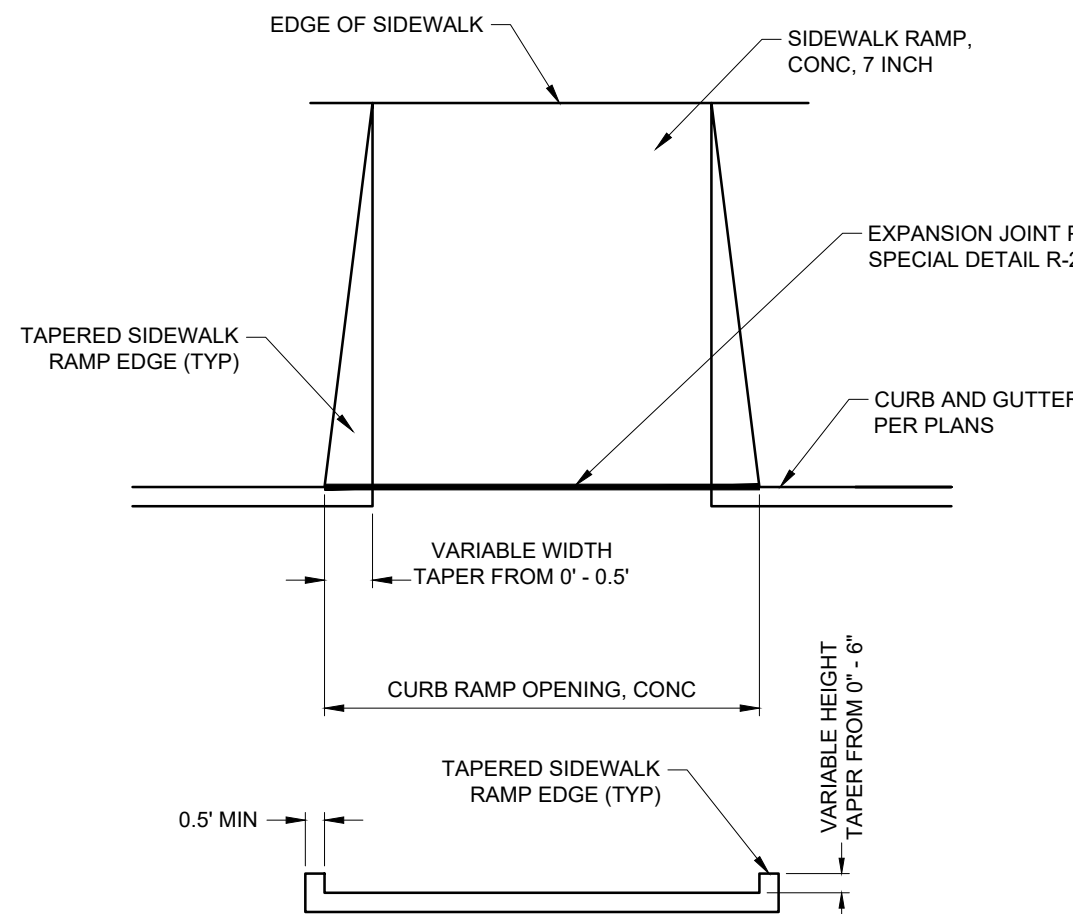
**SIDEWALK RAMP THICKNESS DETAIL**  
 NOT TO SCALE



**PROPOSED CROSS SECTION - DEWEY STREET PATCHES**  
 NOT TO SCALE



**PROPOSED CROSS SECTION - CLINTON AND WILLIAMS STREET PATCHES**  
 NOT TO SCALE



**SIDEWALK RAMP SECTION AT CURB**  
**SIDEWALK RAMP DETAIL**  
 NOT TO SCALE

**EXISTING FEATURES LEGEND**

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	TREE (DECIDUOUS)		CABLE BOX		SURVEY CONTROL POINT
	BUSH		TELEPHONE RISER		BENCHMARK
	TREE (CONIFEROUS)		TELEPHONE MANHOLE		SECTION CORNER
	DEAD TREE		TELEPHONE HANDHOLE		BOUNDARY LINE
	STUMP		ELECTRICAL RISER		PROPERTY LINE
	MANHOLE		ELECTRICAL MANHOLE		WATERMAIN
	SANITARY CLEANOUT		ELECTRICAL HANDHOLE		SANITARY SEWER
	RD. CATCH BASIN		POWER POLE		STORM SEWER
	SQ. CATCH BASIN		LIGHT POLE		
	FIRE HYDRANT		GUY POLE		CABLE T.V.
	WATER VALVE		GUY ANCHOR		TELEPHONE
	CURB STOP & BOX		PED CROSSING SIGNAL		ELECTRIC
	WELL		YARD LIGHT		GAS
	WATER MANHOLE		SIGN		OVERHEAD LINES
	WATER METER		MAILBOX		GUARDRAIL
	SOIL BORING		GUARD POST		FENCE
	MONITORING WELL		FOUND CONC. MONUMENT		WOODLINE
			FOUND IRON ROD		
			SET IRON ROD		

NOTE: ALL ITEMS LISTED ON THE LEGEND MAY NOT BE PRESENT ON DRAWING.

CITY OF OWOSO, MICHIGAN  
 ENGINEERING DIVISION  
 DEPT. OF PUBLIC SERVICE

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NO.	DATE	BY	REVISIONS
1	5/22/26	GLR	ISSUED FOR BIDS

CHECKED BY: \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_  
 ORIGINAL PLAN

BENCH MARK DATA  
 ELEV. \_\_\_\_\_

2026 WATER MAIN REPLACEMENT PROJECT - CONTRACT 1  
 DWSRF-7920-01

STREET ITEMS, GENERAL NOTES AND DETAILS

FIELD BOOK  
 PG.

APRIL 2026  
 PROJECT NO. 876320

**4**

MICHIGAN DEPARTMENT OF MANAGEMENT AND BUDGET  
S-E-S-C KEYING SYSTEM

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
<b>EROSION CONTROLS</b>			
E1	SELECTIVE GRADING AND SHAPING		To reduce steep slopes and erosive velocities.
E2	GRUBBING OMITTED		For use on steep slopes to prevent rilling, gullying, and reduce sheet flow velocity or where clear vision corridors are necessary.
E3	SLOPE ROUGHENING AND SCARIFICATION		Where created grades cause increased erosive velocities. Promotes infiltration and reduces runoff velocity.
E4	TERRACES		On relatively long slopes up to 8% grades with fairly stable soils.
E5	DUST CONTROL		For use on construction sites, unpaved roads, etc. to reduce dust and sedimentation from wind and construction activities.
E6	MULCH		For use in areas subject to erosive surface flows or severe wind or on newly seeded areas.
E7	TEMPORARY SEEDING		Stabilization method utilized on construction sites where earth change has been initiated but not completed within a 2 week period.
E8	PERMANENT SEEDING		Stabilization method utilized on sites where earth change has been completed (final grading attained).
E9	MULCH BLANKETS		On exposed slopes, newly seeded areas, new ditch bottoms, or areas subject to erosion.
E10	SODDING		On areas and slopes where immediate stabilization is required.
E11	VEGETATED CHANNELS		For use in created stormwater channels. Vegetation is used to slow water velocity and reduce erosion within the channel.
E12	RIPRAP		Use along shorelines, waterways, or where concentrated flows occur. Slows velocity, reduces sediment load, and reduces erosion.
E13	GABION WALLS		On newly created or denuded stream banks to reduce velocity until permanent stabilization is achieved or on existing banks to retard erosive velocities.
E14	ENERGY DISSIPATOR		Where the energy transmitted from a concentrated flow of surface runoff is sufficient to erode receiving area or watercourse.
E15	TEMPORARY SLOPE DRAIN		Where surface runoff temporarily accumulates or sheet flows over the top of a slope and must be conveyed down a slope in order to prevent erosion.
E16	SLOPE DRAIN		Where concentrated flow of surface runoff must be permanently conveyed down a slope in order to prevent erosion.

B = BIOENGINEERING

MICHIGAN DEPARTMENT OF MANAGEMENT AND BUDGET  
S-E-S-C KEYING SYSTEM

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
E17	CELLULAR CONFINEMENT SYSTEMS		Used on steep slopes and high velocity channels.
E18	PLASTIC SHEETS		Used on exposed slopes, seeded areas, new ditch bottoms, and areas subject to surface runoff and erosion. Used as a liner in temporary channels and to stabilize stockpiles.
E19	TEMPORARY DRAINAGEWAY/STREAM CROSSING		Use on construction sites where stream/drainage way crossings are required.
E20	TEMPORARY BYPASS CHANNEL		Use within existing stream corridors when existing flow cannot be interrupted, and at culvert and bridge repair sites.
E21	LIVE STAKING		In areas requiring protection of slopes against surface erosion and shallow mass wasting.
<b>EROSION / SEDIMENT CONTROLS</b>			
ES31	CHECK DAM		Used to reduce surface flow velocities within constructed and existing flow corridors.
ES32	STONE FILTER BERM		Use primarily in areas where sheet or rill flow occurs and to accommodate dewatering flow.
ES33	FILTER ROLLS		In areas requiring immediate protection of slopes against surface erosion and gully formation and for perimeter sediment control.
ES34	SAND FENCE		For use in areas susceptible to wind erosion, especially where the ground has not yet been stabilized by other means.
ES35	DEWATERING		Use where construction activities are limited by the presence of water and dry work is required.
ES36	DIVERSION DIKE/BERM		Within existing flow corridors to address or prevent erosion and sedimentation, or on disturbed or unstable slopes subject to erosive surface water velocities.
ES37	DIVERSION DITCH		In conjunction with a diversion dike, or where diversion of upslope runoff is necessary to prevent damage to unstabilized or disturbed construction areas.
ES38	COFFERDAM/SHEET PILING		Constructed along or within water corridor or waterbody to provide dry construction area.
ES39	STREAMBANK BIOSTABILIZATION		For use along banks where stream and riparian zones may have difficulty recovering from the long-term effects of erosion.
ES40	POLYMERS		To minimize soil erosion and reduce sedimentation in water bodies by increasing soil particle size.
ES41	WATTLES		In areas requiring protection of slopes against surface erosion and gully formation.

B = BIOENGINEERING

MICHIGAN DEPARTMENT OF MANAGEMENT AND BUDGET  
S-E-S-C KEYING SYSTEM

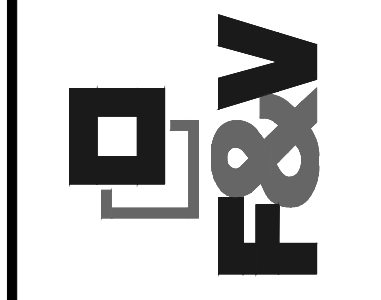
KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
<b>SEDIMENT CONTROLS</b>			
S51	SILT FENCE		Use adjacent to critical areas, to prevent sediment laden sheet flow from entering these areas.
S52	CATCH BASIN SEDIMENT GUARD		Use in or at stormwater inlets, especially at construction sites.
S53	STABILIZED CONSTRUCTION ACCESS		Used at every point where construction traffic enters or leaves a construction site.
S54	TIRE WASH		For use on construction sites where vehicular traffic requires sediment removed from its tires in highly erosive areas.
S55	SEDIMENT BASIN		At the outlet of disturbed areas and at the location of a permanent detention basin.
S56	SEDIMENT TRAP		In small drainage areas, along construction site perimeters, and above check dams or drain inlets.
S57	VEGETATED BUFFER/FILTER STRIP		Use along shorelines, waterways, or other sensitive areas. Slows velocity, reduces sediment load, and reduces erosion in areas of sheet flow.
S58	INLET PROTECTION FABRIC DROP		Use at stormwater inlets, especially at construction sites.
S59	INLET PROTECTION FABRIC FENCE		Use at stormwater inlets, especially at construction sites.
S60	INLET PROTECTION STONE		Use around urban stormwater inlets.
S61	TURBIDITY CURTAIN		Use during construction adjacent to a water source, to contain sediment within the work area when other BMP's cannot be used.

B = BIOENGINEERING

	SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
CONSTRUCTION SEQUENCE												
STRIP AND STOCKPILE TOPSOIL												
ROUGH GRADE/ SEDIMENT CONTROL												
TEMP CONTROL MEASURES												
STORM FACILITIES												
TEMP CONSTRUCTION ROADS												
FOUNDATION/ BLDG. CONSTRUCTION												
SITE CONSTRUCTION												
PERM CONTROL MEASURES												
FINISH GRADING												
LANDSCAPING												

CONSTRUCTION SEQUENCE

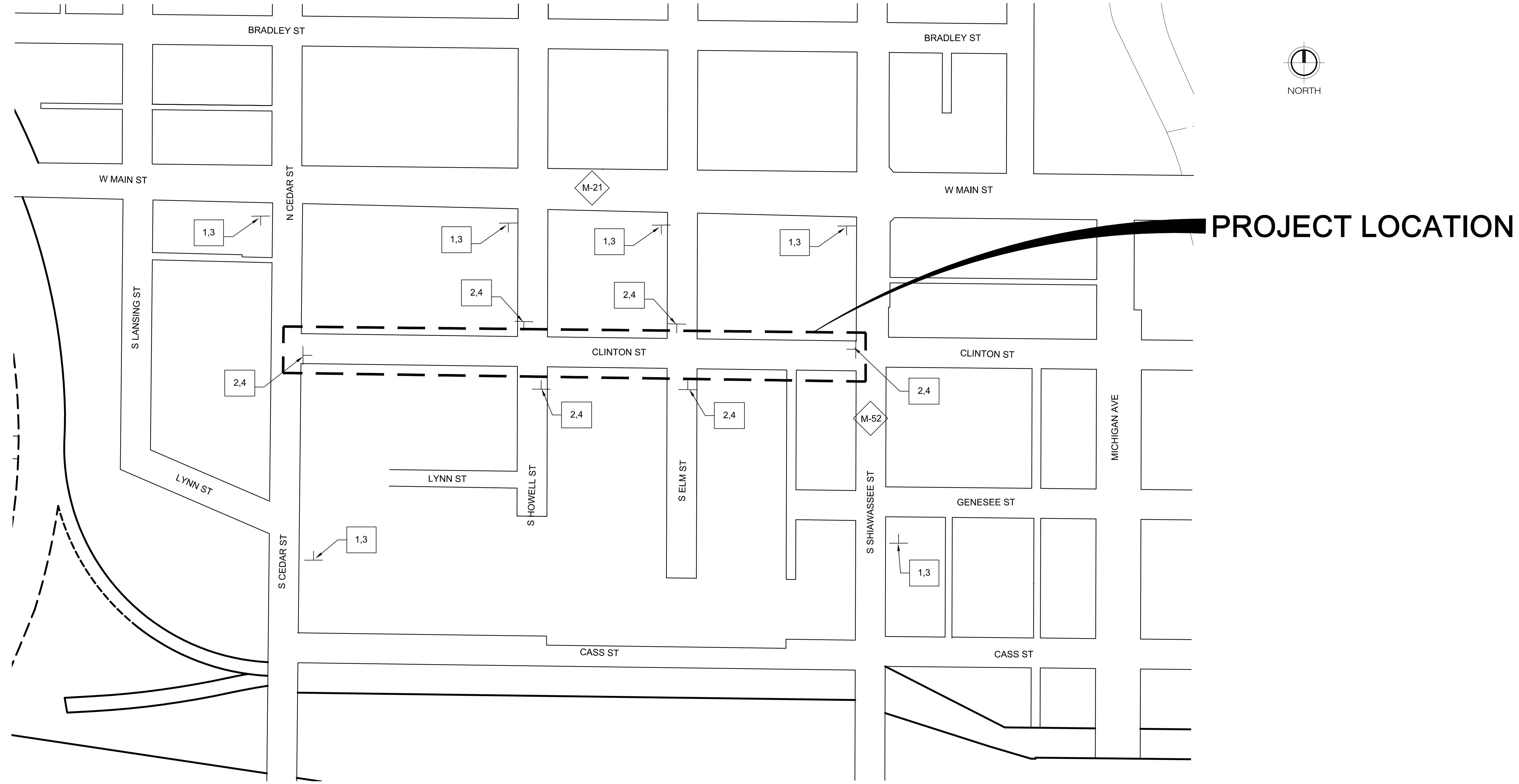
1. INSTALLATION OF TEMPORARY EROSION CONTROL MEASURES.
2. TRENCH EXCAVATION, WATER MAIN INSTALLATION, AND BACKFILL.
3. SEWER MAIN INSTALLATION AND BACKFILL.
4. STREET CONSTRUCTION.
5. PERMANENT MEASURES, FINAL GRADING, SEEDING AND MULCHING.



NO.	REVISIONS	DATE	BY	CLERK
1	ISSUED FOR BIDS	5/22/26		

BENCH MARK DATA	DESCRIPTION	ELEV.

# CLINTON STREET



## SIGNING REQUIREMENTS

NO	SIGN	SIGN DESIGNATION	SIZE	NO REQ	TOTAL AREA (SFT)
1		W20-1	48 x 48	6	96
2		R11-3A	60 x 30	6	75
3		M4-8 MOD	30 X 8	6	10
4		TYPE III BARRICADE		6	

MAINTAINING TRAFFIC LEGEND  
 TEMPORARY SIGN

THE HOWELL & CLINTON AND ELM & CLINTON INTERSECTIONS SHALL REMAIN OPEN TO LOCAL TRAFFIC AT ALL TIMES

THE NORTHBOUND LANE ON CEDAR STREET WEST OF CLINTON STREET SHALL BE CLOSED DURING THE WATER MAIN TIE-IN AND ASSOCIATED WORK IN ACCORDANCE WITH MDOT MAINTAINING TRAFFIC TYPICAL 110-TR-NFW-2L QUANTITIES FOR THIS CLOSURE ARE INCLUDED IN THE MAINTAINING TRAFFIC QUANTITIES TABLE ON THE WATER MAIN NOTES AND DETAILS SHEET

CITY OF OWOSSO, MICHIGAN  
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DEPT. OF PUBLIC SERVICE

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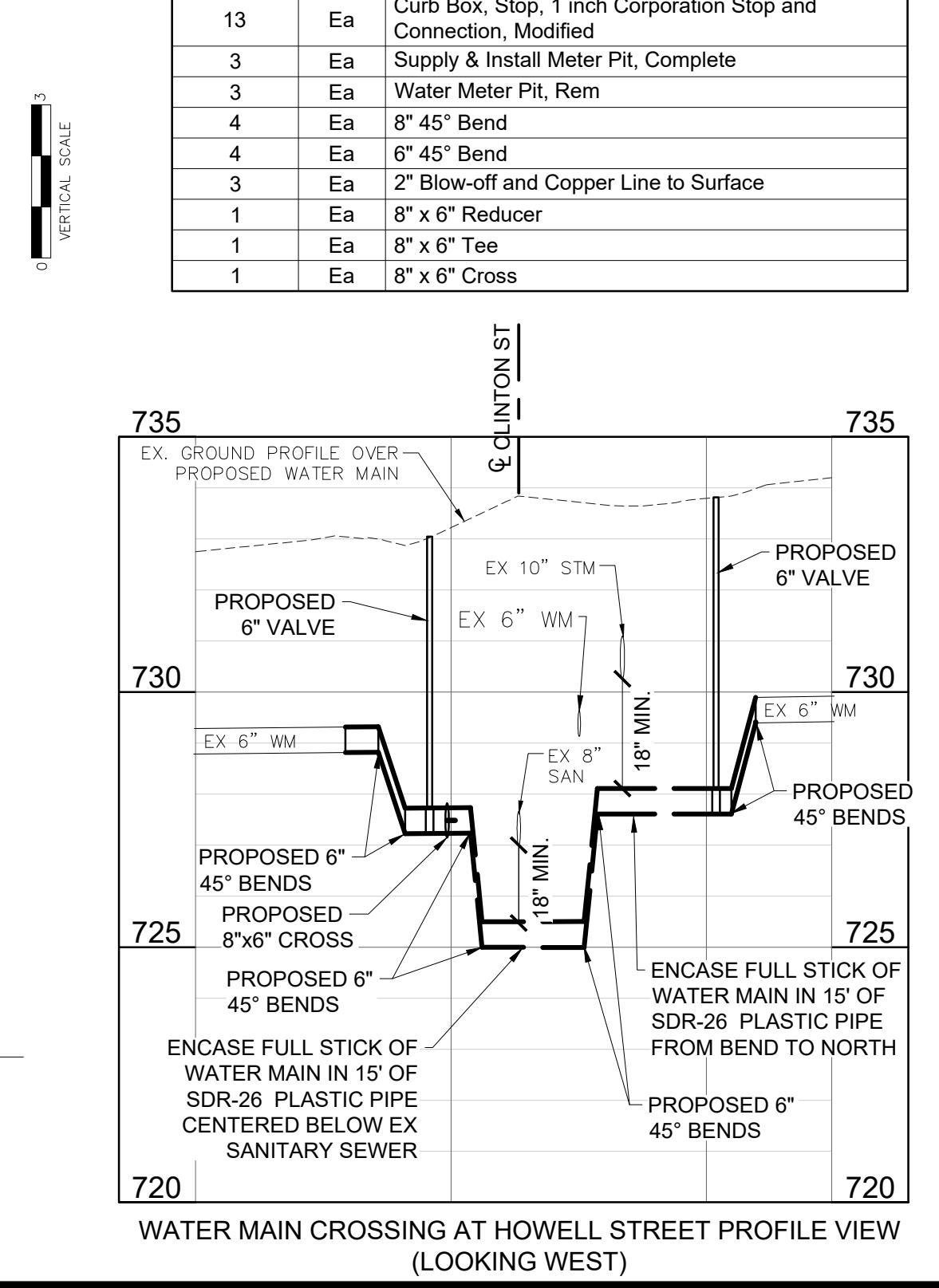
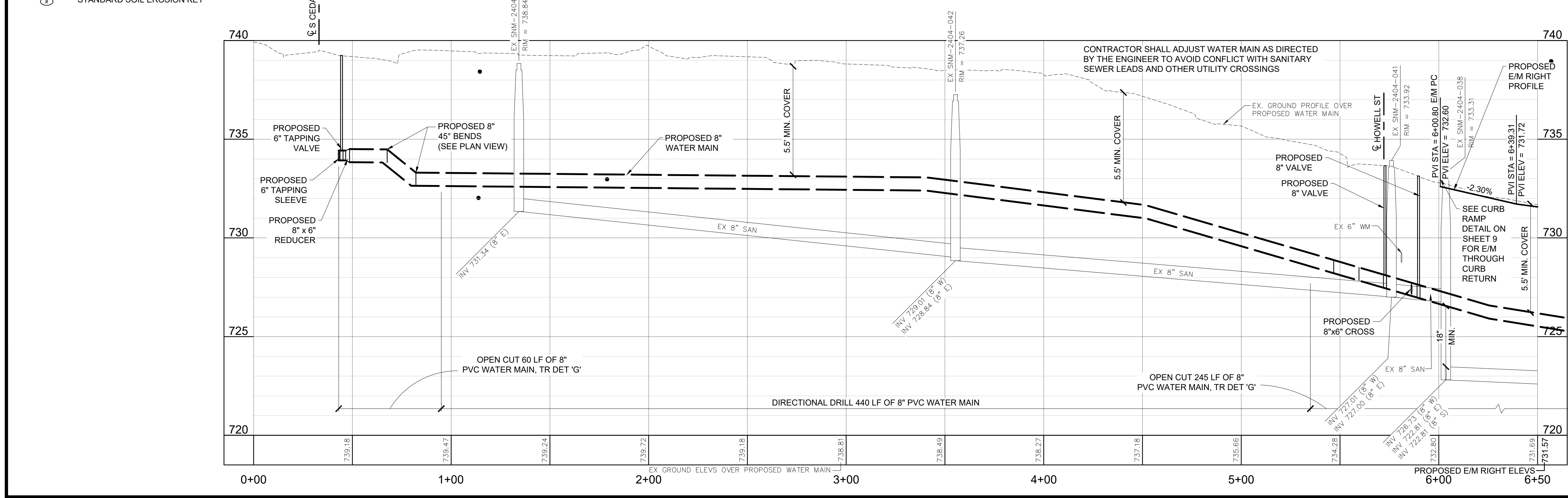
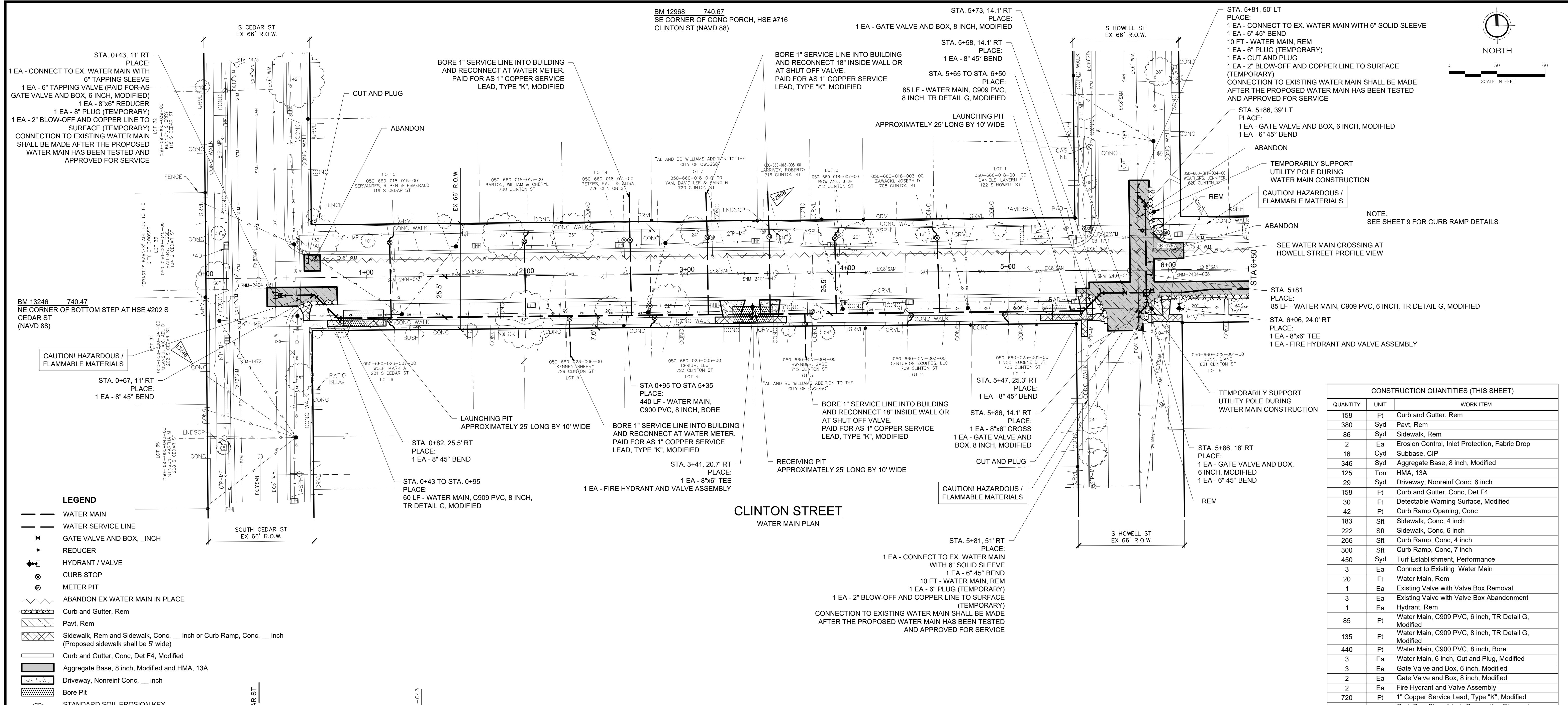
NO.	DATE	BY	REVISIONS	DESCRIPTION	APPROVED BY
1	5/22/26	GLR		ISSUED FOR BIDS	CHECKED BY
					APPROVED BY
					APPROVED BY

CLINTON ST - TRAFFIC CONTROL PLAN

FIELD BOOK  
PG.

APRIL 2026  
PROJECT NO. 876320

6



CONSTRUCTION QUANTITIES (THIS SHEET)		
QUANTITY	UNIT	WORK ITEM
158	Ft	Curb and Gutter, Rem
380	Syd	Pavt, Rem
86	Syd	Sidewalk, Rem
2	Ea	Erosion Control, Inlet Protection, Fabric Drop
16	Cyd	Subbase, CIP
346	Syd	Aggregate Base, 8 inch, Modified
125	Ton	HMA, 13A
29	Syd	Driveway, Nonreinf Conc, 6 inch
158	Ft	Curb and Gutter, Conc, Det F4
30	Ft	Detectable Warning Surface, Modified
42	Ft	Curb Ramp Opening, Conc
183	Sft	Sidewalk, Conc, 4 inch
222	Sft	Sidewalk, Conc, 6 inch
266	Sft	Curb Ramp, Conc, 4 inch
300	Sft	Curb Ramp, Conc, 7 inch
450	Syd	Turf Establishment, Performance
3	Ea	Connect to Existing Water Main
20	Ft	Water Main, Rem
1	Ea	Existing Valve with Valve Box Removal
3	Ea	Existing Valve with Valve Box Abandonment
1	Ea	Hydrant, Rem
85	Ft	Water Main, C909 PVC, 6 inch, TR Detail G, Modified
135	Ft	Water Main, C909 PVC, 8 inch, TR Detail G, Modified
440	Ft	Water Main, C900 PVC, 8 inch, Bore
3	Ea	Water Main, 6 inch, Cut and Plug, Modified
3	Ea	Gate Valve and Box, 6 inch, Modified
2	Ea	Gate Valve and Box, 8 inch, Modified
2	Ea	Fire Hydrant and Valve Assembly
720	Ft	1" Copper Service Lead, Type "K", Modified
13	Ea	Curb Box, Stop, 1 inch Corporation Stop and Connection, Modified
3	Ea	Supply & Install Meter Pit, Complete
3	Ea	Water Meter Pit, Rem
4	Ea	8" 45° Bend
4	Ea	6" 45° Bend
3	Ea	2" Blow-off and Copper Line to Surface
1	Ea	8" x 6" Reducer
1	Ea	8" x 6" Tee
1	Ea	8" x 6" Cross

- LEGEND**
- WATER MAIN
  - WATER SERVICE LINE
  - GATE VALVE AND BOX, \_\_\_ INCH
  - REDUCER
  - HYDRANT / VALVE
  - CURB STOP
  - METER PIT
  - ABANDON EX WATER MAIN IN PLACE
  - Curb and Gutter, Rem
  - Pavt, Rem
  - Sidewalk, Rem and Sidewalk, Conc, \_\_\_ inch or Curb Ramp, Conc, \_\_\_ inch (Proposed sidewalk shall be 5' wide)
  - Curb and Gutter, Conc, Det F4, Modified
  - Aggregate Base, 8 inch, Modified and HMA, 13A
  - Driveway, Nonreinf Conc, \_\_\_ inch
  - Bore Pit
  - STANDARD SOIL EROSION KEY

**CITY OF OWOSSO, MICHIGAN**  
**ENGINEERING DIVISION**  
**DEPT. OF PUBLIC SERVICE**

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2025 WATER MAIN REPLACEMENT PROJECT- CONTRACT 1  
 DWSRF-7920-01

CLINTON ST - WATER MAIN PLAN AND PROFILE

FIELD BOOK PG. 7

APRIL 2026  
 PROJECT NO: 876320

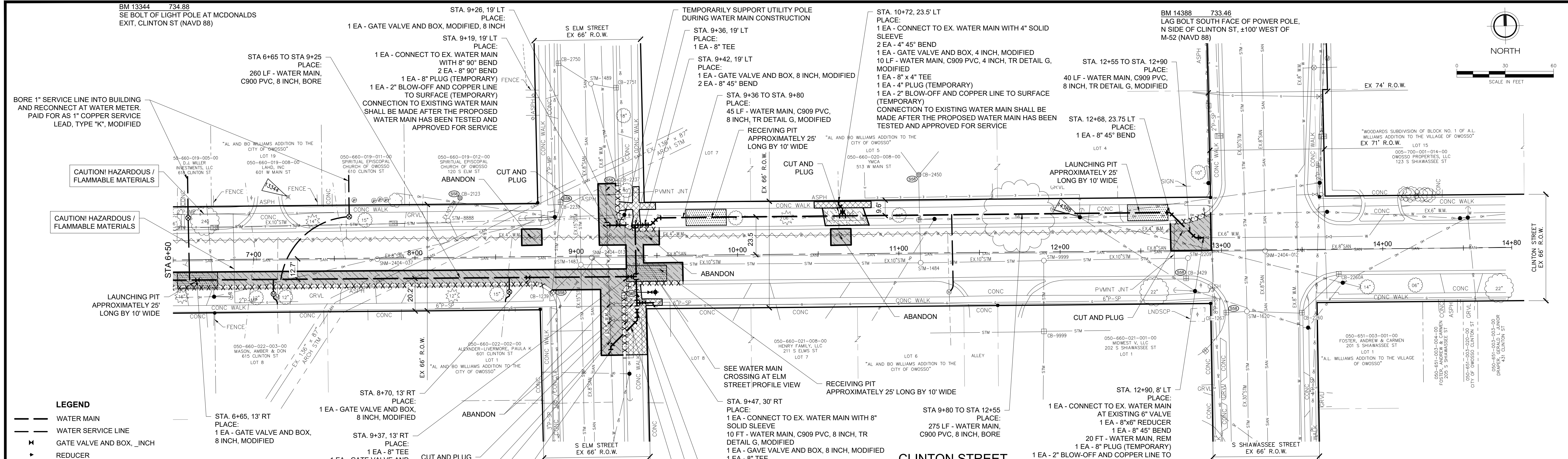
NO. 1  
 DATE: 5/22/26  
 BY: GLR

REVISIONS  
 NO. 1  
 DATE: 5/22/26  
 BY: GLR

DESCRIPTION  
 1 ISSUED FOR BIDS

CHECKED BY  
 ORIGINAL PLAN

APPROVED BY

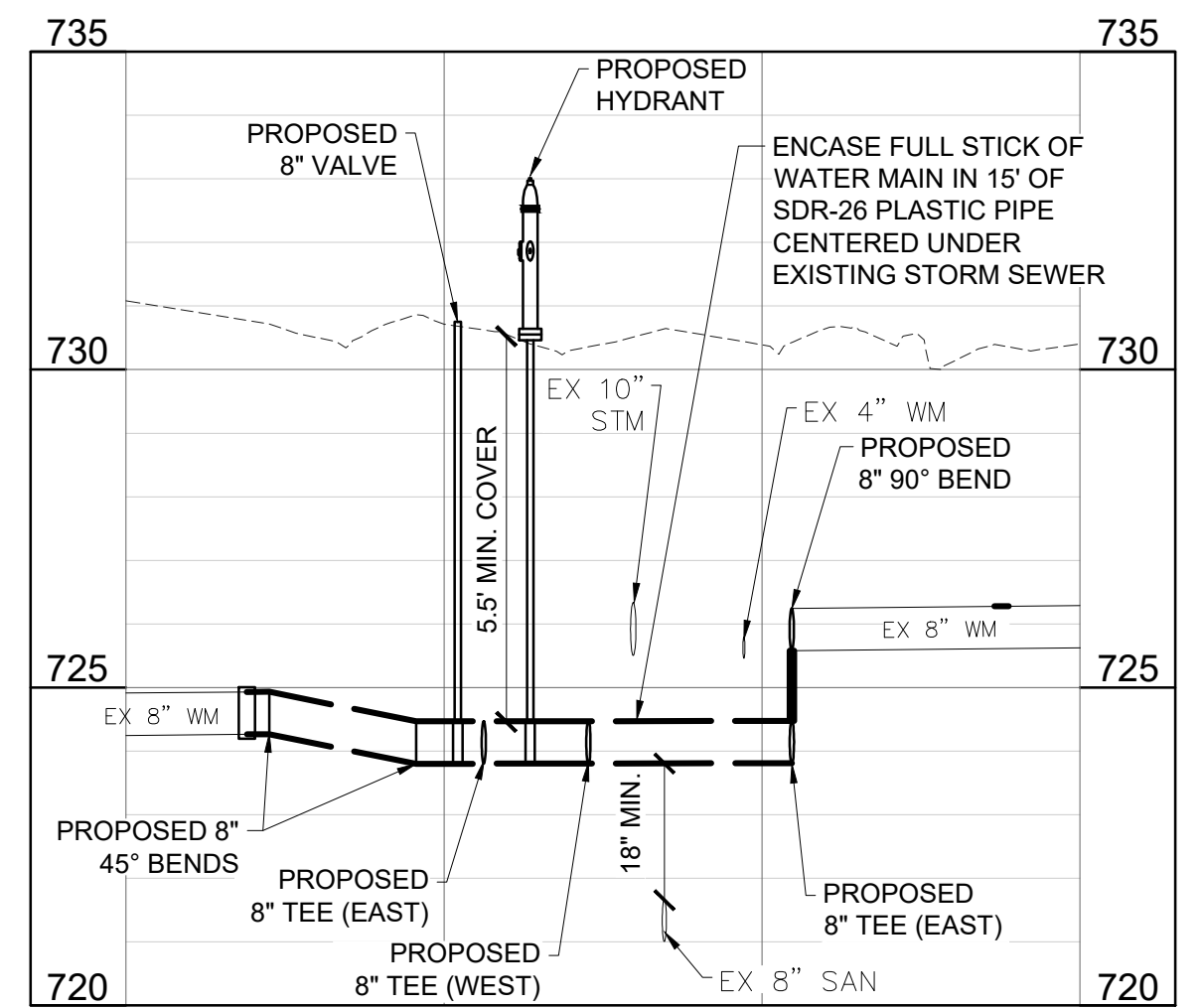


- LEGEND**
- WATER MAIN
  - WATER SERVICE LINE
  - ⊕ GATE VALVE AND BOX, \_\_\_ INCH
  - ➔ REDUCER
  - ⊕ HYDRANT / VALVE
  - ⊕ CURB STOP
  - ⊕ METER PIT
  - ABANDON EX WATER MAIN IN PLACE
  - Curb and Gutter, Rem
  - Pavt, Rem
  - Sidewalk, Rem and Sidewalk, Conc, \_\_\_ inch or Curb Ramp, Conc, \_\_\_ inch (Proposed sidewalk shall be 5' wide)
  - Curb and Gutter, Conc, Det F4, Modified
  - Aggregate Base, 8 inch, Modified and HMA, 13A
  - Driveway, Nonreinf Conc, \_\_\_ inch
  - ⊕ Bore Pit
  - ⊕ STANDARD SOIL EROSION KEY

**CLINTON STREET**  
WATER MAIN PLAN

**CONSTRUCTION QUANTITIES (THIS SHEET)**

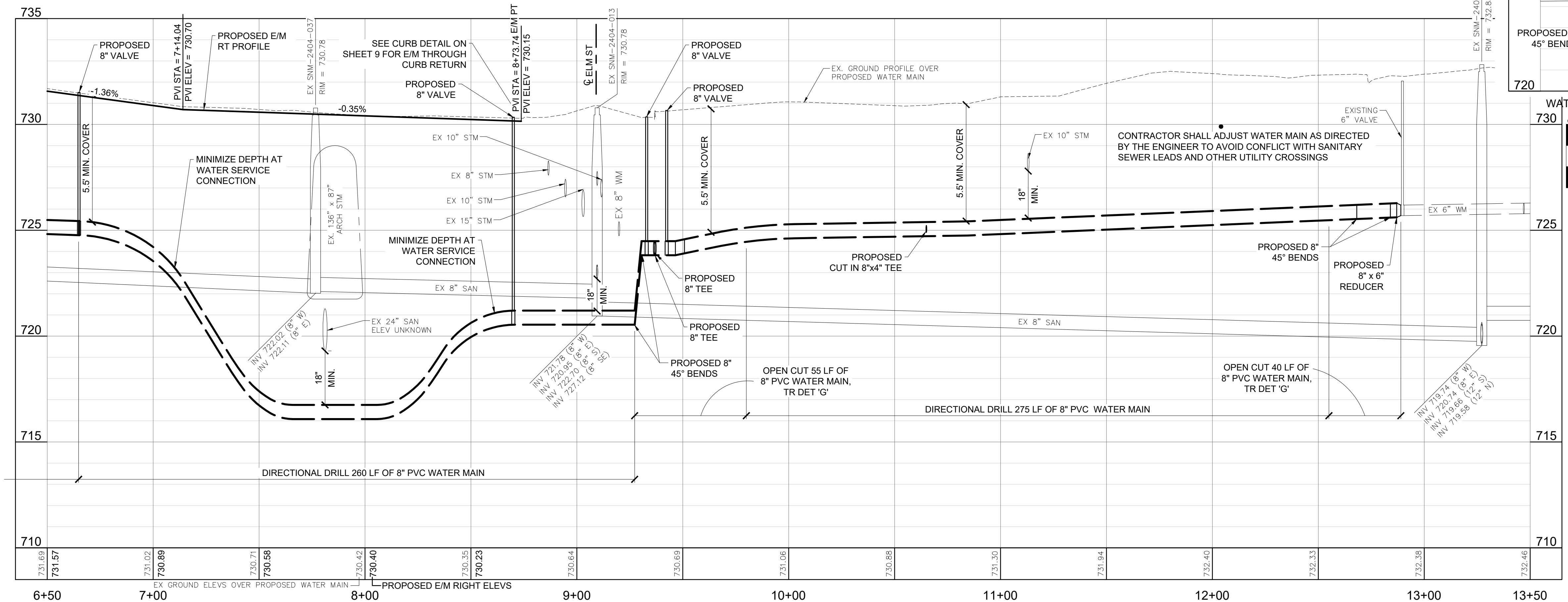
QUANTITY	UNIT	WORK ITEM
545	Ft	Curb and Gutter, Rem
620	Syd	Pavt, Rem
84	Syd	Sidewalk, Rem
8	Ea	Erosion Control, Inlet Protection, Fabric Drop
12	Cyd	Subbase, CIP
560	Syd	Aggregate Base, 8 inch, Modified
205	Ton	HMA, 13A
32	Syd	Driveway, Nonreinf Conc, 7 inch
545	Ft	Curb and Gutter, Conc, Det F4, Modified
20	Ft	Detectable Warning Surface, Modified



**WATER MAIN CROSSING AT ELM STREET PROFILE VIEW (LOOKING WEST)**

**CONSTRUCTION QUANTITIES (THIS SHEET)**

QUANTITY	UNIT	WORK ITEM
28	Ft	Curb Ramp Opening, Conc
472	Sft	Curb Ramp, Conc, 4 inch
183	Sft	Curb Ramp, Conc, 7 inch
450	Syd	Turf Establishment, Performance
5	Ea	Connect to Existing Water Main
280	Ft	Water Main, Rem
5	Ea	Existing Valve with Valve Box Abandonment
1	Ea	Hydrant, Rem
10	Ft	Water Main, C909 PVC, 4 inch, TR Detail G, Modified
215	Ft	Water Main, C909 PVC, 8 inch, TR Detail G, Modified
535	Ft	Water Main, C900 PVC, 8 inch, Bore
2	Ea	Water Main, 4 inch, Cut and Plug, Modified
3	Ea	Water Main, 8 inch, Cut and Plug, Modified
1	Ea	Gate Valve and Box, 4 inch, Modified
7	Ea	Gate Valve and Box, 8 inch, Modified
1	Ea	Fire Hydrant and Valve Assembly
350	Ft	1" Copper Service Lead, Type "K", Modified
5	Ea	Curb Box, Stop, 1 inch Corporation Stop and Connection, Modified
4	Ea	Supply & Install Meter Pit, Complete
4	Ea	Water Meter Pit, Rem
2	Ea	4" 45° Bend
7	Ea	8" 45° Bend
2	Ea	8" 90° Bend
5	Ea	2" Blow-off and Copper Line to Surface
1	Ea	8" x 6" reducer
1	Ea	8" x 6" Tee
3	Ea	8" Tee



**CITY OF OWOSSO, MICHIGAN**  
ENGINEERING DIVISION  
DEPT. OF PUBLIC SERVICE

**F&W**

NO.	DATE	BY	REVISIONS
1	5/22/26	GLR	ISSUED FOR BIDS

APPROVED BY: \_\_\_\_\_

BENCH MARK DATA

ELEV.	DESCRIPTION

**CLINTON ST - WATER MAIN PLAN AND PROFILE**

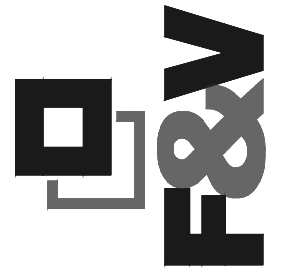
2026 WATER MAIN REPLACEMENT PROJECT - CONTRACT 1  
DWSRF-7920-01

FIELD BOOK  
PG. 08

APRIL 2026  
PROJECT NO: 876320



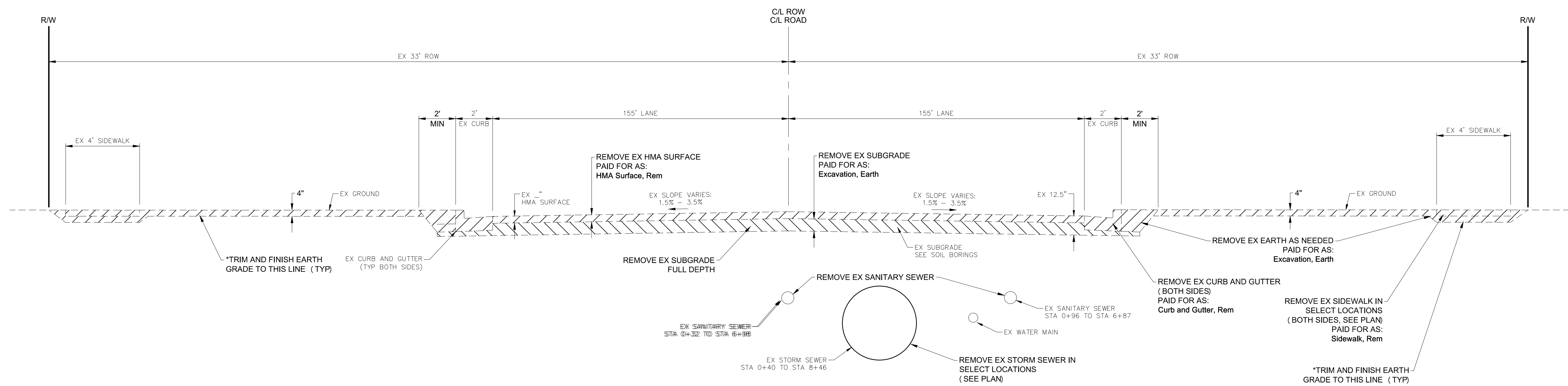




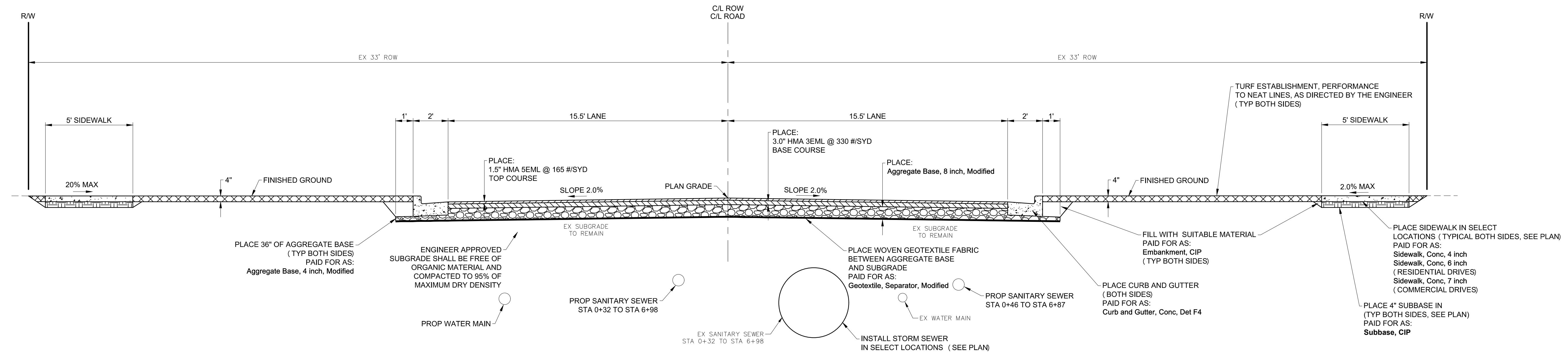
NO.	REVISIONS	BY	DATE
1	ISSUED FOR BIDS	GLR	5/22/26
CHECKED BY		APPROVED BY	
ORIGINAL PLAN			

BENCH MARK DATA	DESCRIPTION
ELEV.	

2026 WATER MAIN REPLACEMENT PROJECT- CONTRACT 1  
DWSRF-7920-01  
GILBERT ST - TYPICAL CROSS SECTIONS  
FIELD BOOK  
PG.  
APRIL 2026  
PROJECT NO: 876320



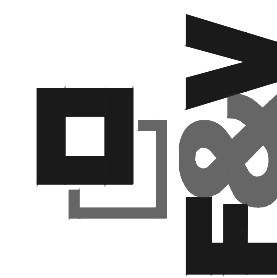
**TYPICAL EXISTING CROSS SECTION - GILBERT STREET**  
APPLIES TO STATIONS:  
0+18 (POB) TO 8+46 (POE)  
SCALE: 1" = 3'



**TYPICAL PROPOSED CROSS SECTION - GILBERT STREET**  
APPLIES TO STATIONS:  
0+18 (POB) TO 8+46 (POE)  
SCALE: 1" = 3'

GILBERT STREET - HMA APPLICATION RATE					
ITEM	PAY ITEM	RATE PER SYD	PERFORMANCE GRADE	ESTIMATED THICKNESS	REMARKS
MAINLINE PAVING	HMA, 5EML	165 LBS	64-28	1.5"	TOP COURSE - AWI = 220 (MIN)
	HMA, 3EML	330 LBS	64-28	3.0"	BASE COURSE
DRIVEWAY BEHIND SIDEWALK	HAND PATCHING	220 LBS	64-28	2"	TOP COURSE - AWI = 220 (MIN)
	HAND PATCHING	330 LBS	64-28	3"	BASE COURSE HMA, 3EML
BOND COAT		01 GAL			SS-1H (FOR INFORMATION ONLY)

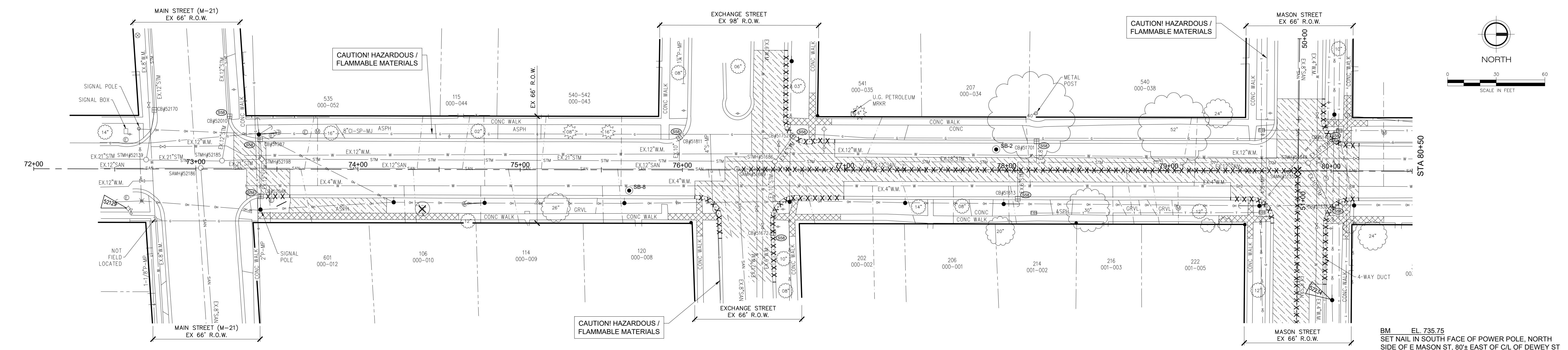
RAP SHALL BE LIMITED TO TIER 1 FOR ALL HMA MIXTURES



NO.	ISSUED FOR BIDS	REVISIONS	DATE	BY
1			5/22/26	GLR

NO.	DESCRIPTION

2026 WATER MAIN REPLACEMENT PROJECT- CONTRACT 1  
DWSRF-7920-01  
DEWEY ST - REMOVAL PLAN  
FIELD BOOK  
PG.  
APRIL 2026  
PROJECT NO: 876320



BM EL. 734.94  
ARROW AT TOP OF CASTING OF HYDRANT AT  
SE CORNER OF N DEWEY ST AND E MAIN ST  
(NAVD 88)

- LEGEND**
- Curb and Gutter, Rem
  - X-X-X- Sewer, Rem
  - XXX Dr Structure, Rem
  - /// Pavt, Rem
  - Sidewalk, Rem
  - XXX Tree, Stump, Rem
  - STANDARD SOIL EROSION KEY

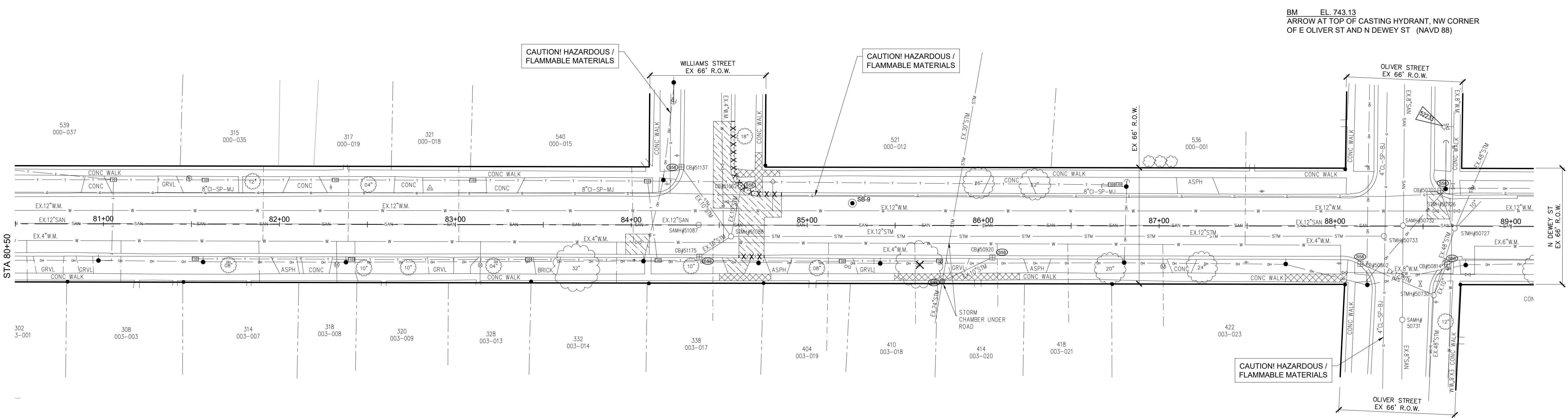
**DEWEY STREET  
REMOVAL PLAN**

**WATER MAIN REMOVAL QUANTITIES (DEWEY STREET)**

QUANTITY	UNIT	WORK ITEM
1	Ea	Tree, Rem, 37 inch or Larger
1	Ea	Stump, Rem, 19 inch to 36 inch
400	Ft	Curb and Gutter, Rem
1025	Syd	Pavt, Rem
275	Syd	Sidewalk, Rem
18	Ea	Erosion Control, Inlet Protection, Fabric Drop

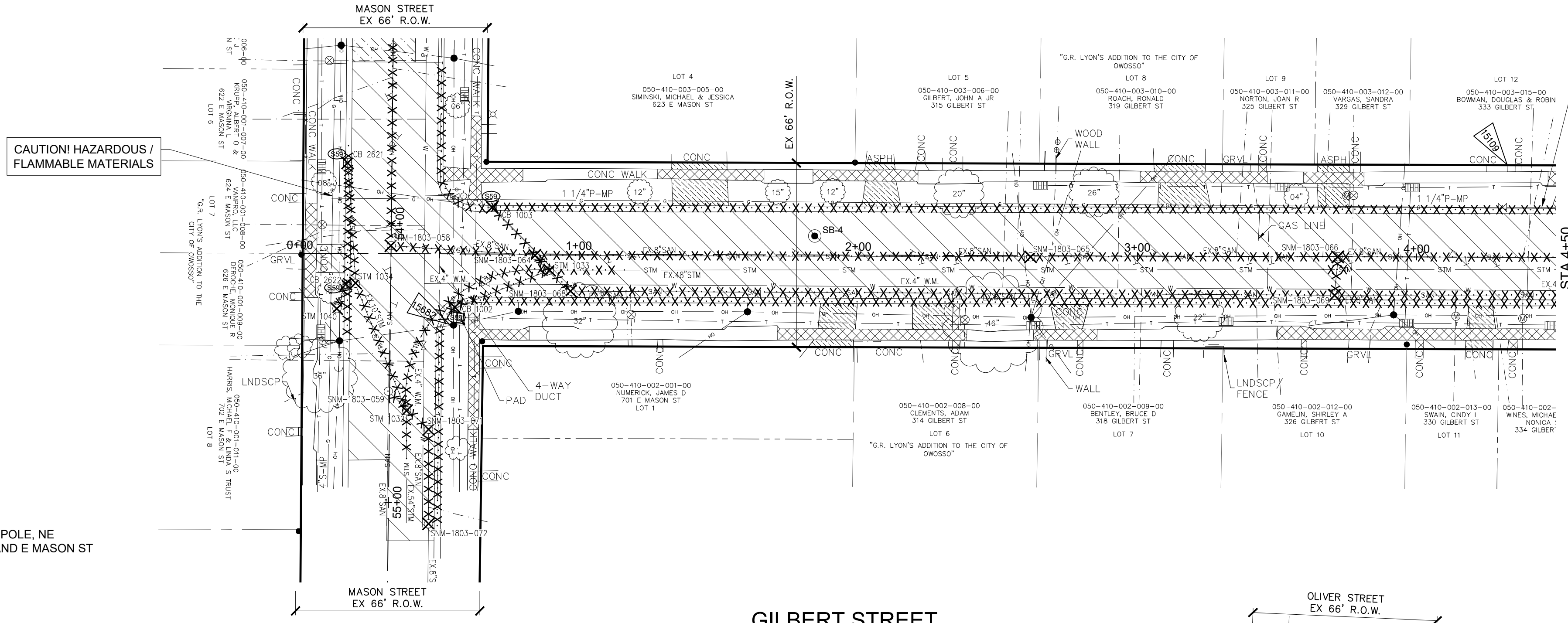
**SANITARY SEWER REMOVAL QUANTITIES (DEWEY STREET)**

QUANTITY	UNIT	WORK ITEM
1	Ea	Dr Structure, Rem
350	Ft	Sewer, Rem, Less than 24 inch
605	Syd	Pavt, Rem



BM EL. 743.13  
ARROW AT TOP OF CASTING HYDRANT, NW CORNER  
OF E OLIVER ST AND N DEWEY ST (NAVD 88)

STA 80+50



CAUTION! HAZARDOUS / FLAMMABLE MATERIALS

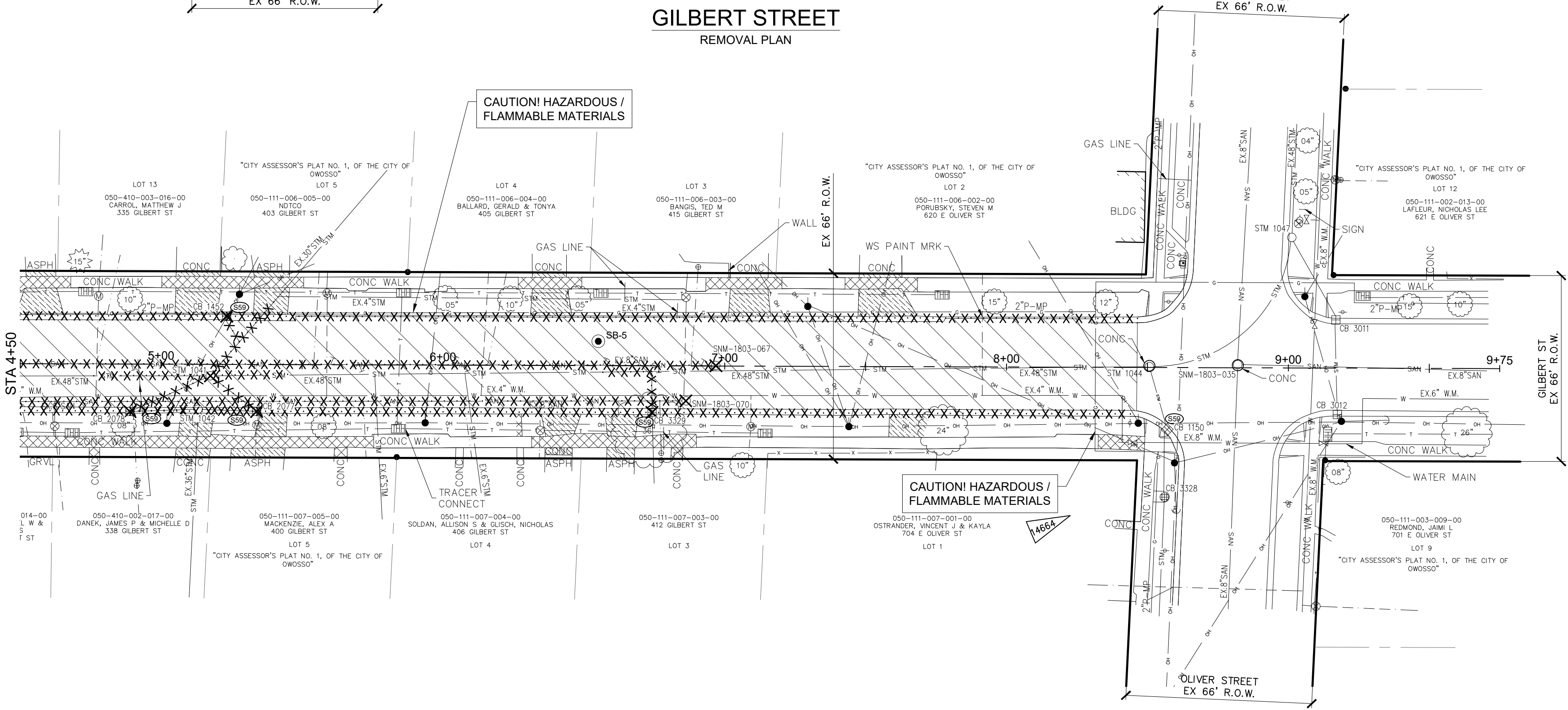
CAUTION! HAZARDOUS / FLAMMABLE MATERIALS

BM 15682 733.82  
NAIL IN SW FACE OF POWER POLE, NE QUADRANT OF GILBERT ST AND E MASON ST (NAVD 88)

SANITARY SEWER REMOVAL QUANTITIES (THIS SHEET)		
QUANTITY	UNIT	WORK ITEM
10	Ea	Dr Structure, Rem
1665	Ft	Sewer, Rem, Less than 24 inch
475	Syd	Pavt, Rem

STREET & STORM SEWER REMOVAL QUANTITIES (THIS SHEET)		
QUANTITY	UNIT	WORK ITEM
13	Ea	Dr Structure, Rem
280	Ft	Sewer, Rem, Less than 24 inch
210	Ft	Sewer, Rem, 24 inch to 48 inch
1720	Ft	Curb and Gutter, Rem
325	Syd	Pavt, Rem
400	Syd	Sidewalk, Rem
815	Cyd	Excavation, Earth
9	Ea	Erosion Control, Inlet Protection, Fabric Drop
3300	Syd	HMA Surface, Rem

- LEGEND**
- XXXXX Curb and Gutter, Rem
  - XXXXX Sewer, Rem
  - XXXXX Dr Structure, Rem
  - XXXXX HMA Surface, Rem
  - XXXXX Pavt, Rem
  - XXXXX Sidewalk, Rem
  - XXXXX Tree, Stump, Rem
  - ⊙ STANDARD SOIL EROSION KEY

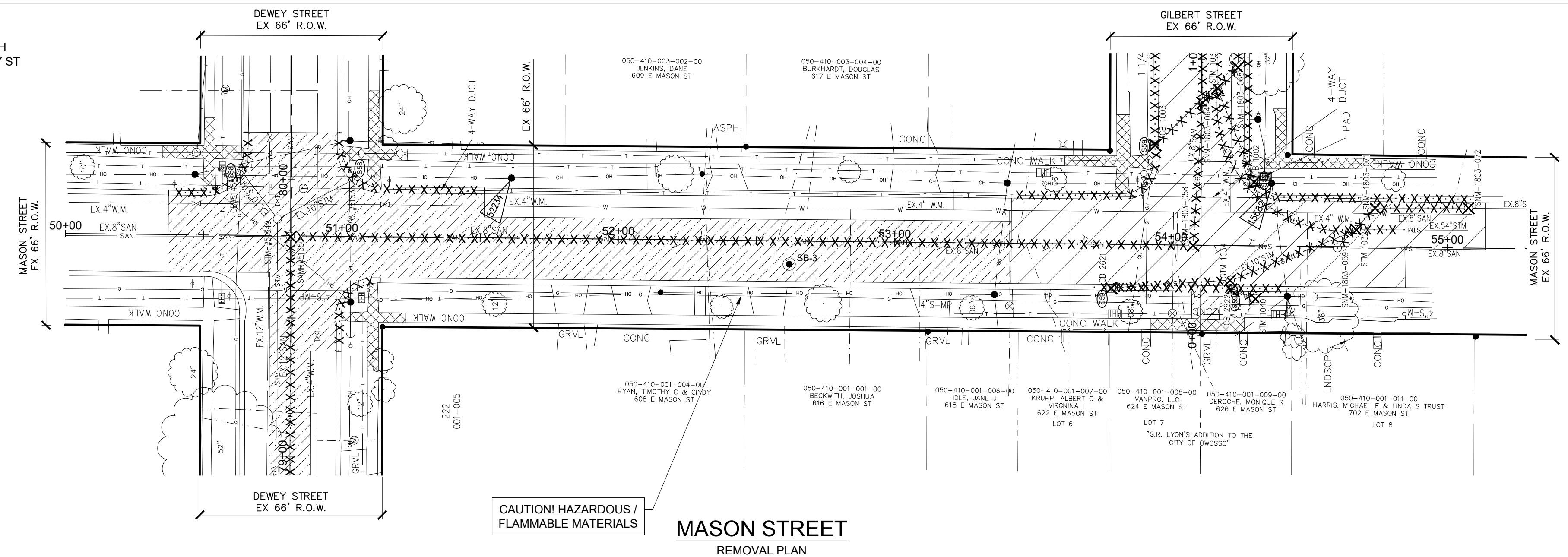


CAUTION! HAZARDOUS / FLAMMABLE MATERIALS

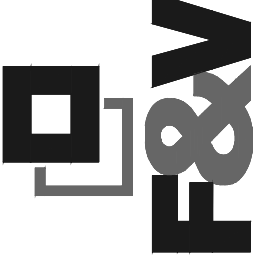
CAUTION! HAZARDOUS / FLAMMABLE MATERIALS

BM 14664 746.31  
NW CORNER OF BOTTOM CONC STEP AT HSE #704, SE QUADRANT OF GILBERT ST AND E OLIVER ST (NAVD 88)

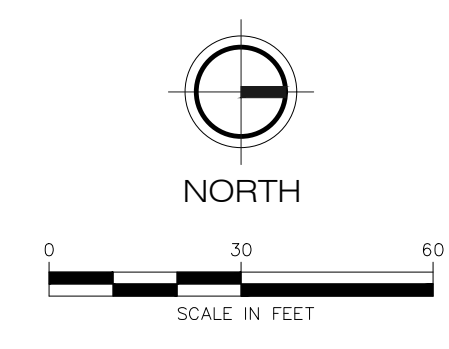
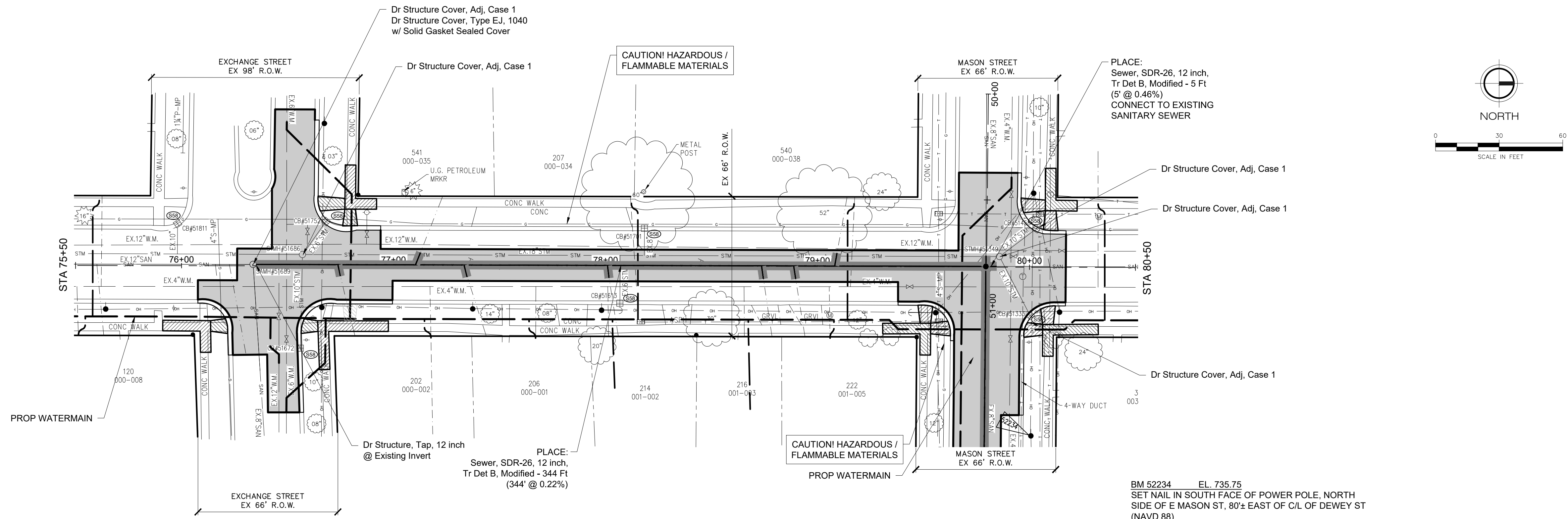
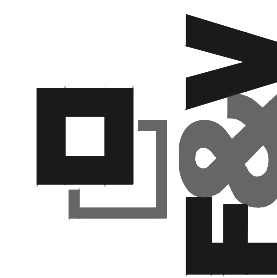
BM 52234 EL. 735.75  
SET NAIL IN SOUTH FACE OF POWER POLE, NORTH SIDE OF E MASON ST, 80' EAST OF C/L OF DEWEY ST (NAVD 88)



CAUTION! HAZARDOUS / FLAMMABLE MATERIALS



NO.	DESCRIPTION	REVISIONS	DATE	BY
1	ISSUED FOR BIDS		5/22/26	GLR



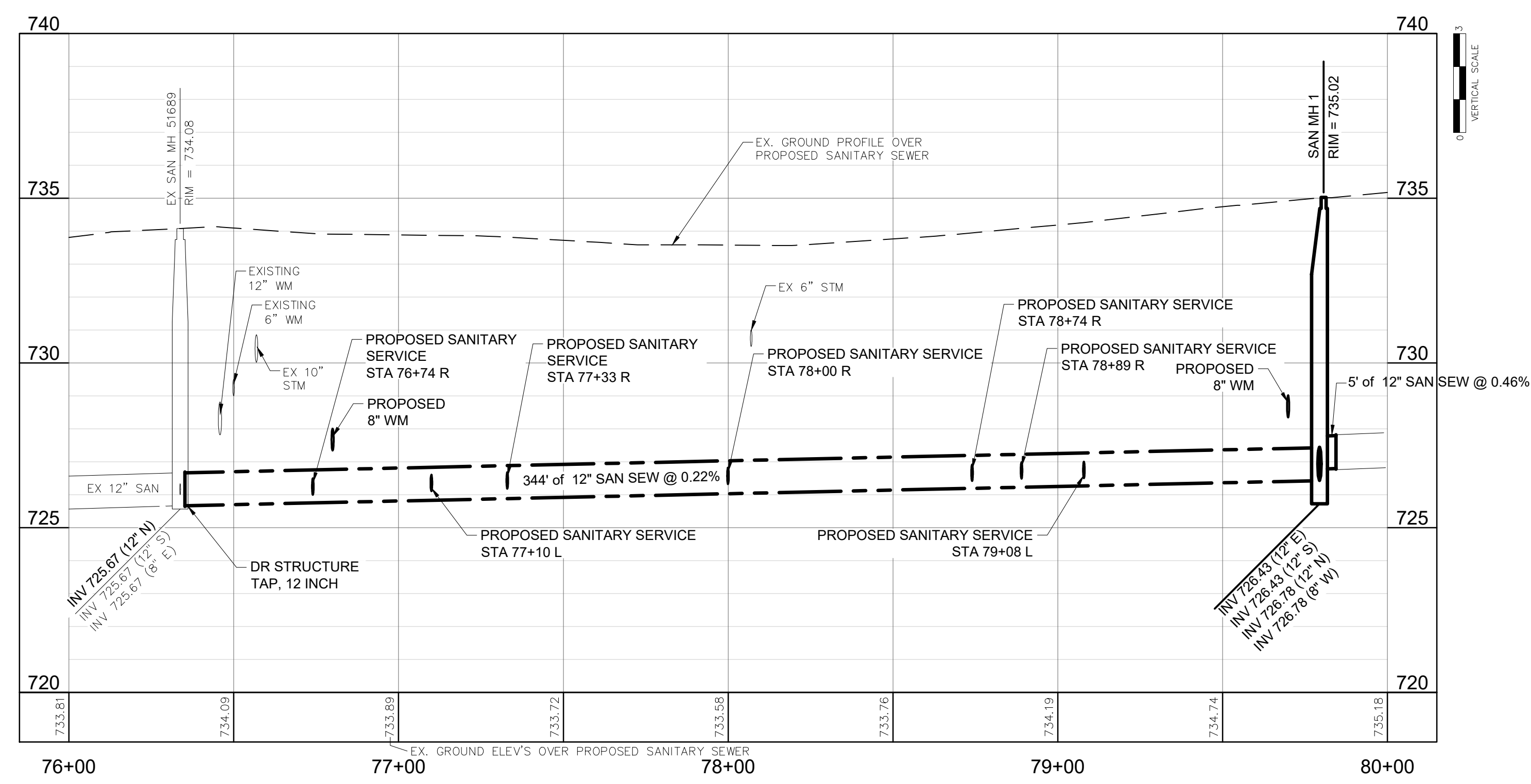
**LEGEND**

- Curb and Gutter, Conc, Det F4
- Sewer, \_\_\_ inch, Tr Det B, Modified
- HMA Surface
- Sidewalk, Conc, \_\_\_ inch
- Curb Ramp, Conc, \_\_\_ inch
- STANDARD SOIL EROSION KEY

**DEWEY STREET**  
SANITARY SEWER PLAN

BM 52234 EL. 735.75  
SET NAIL IN SOUTH FACE OF POWER POLE, NORTH  
SIDE OF E MASON ST, 80± EAST OF C/L OF DEWEY ST  
(NAVD 88)

SANITARY SEWER CONSTRUCTION QUANTITIES (DEWEY STREET)		
QUANTITY	UNIT	WORK ITEM
295	Ton	Maintenance Gravel
605	Syd	Aggregate Base, 8 inch, Modified
350	Ft	Sewer, SDR-26, 12 inch, Tr Det B, Modified
1	Ea	Dr Structure, Tap, 12 inch
5	Ea	Dr Structure Cover, Adj, Case 1
1	Ea	Dr Structure Cover, Type EJ 1040 w/ Solid Gasket Sealed Cover
295	Ton	HMA, 13A



NO.	DATE	BY	REVISIONS		APPROVED BY
			ISSUED FOR BIDS	GLR	
1	5/22/26	GLR			CHECKED BY

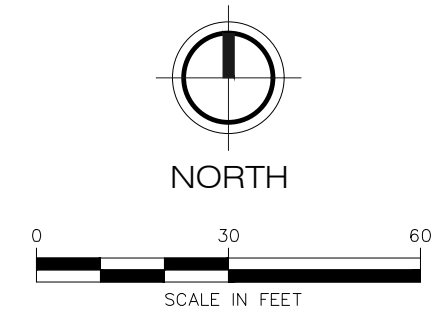
  

BENCH MARK DATA		DESCRIPTION
ELEV.	NO.	

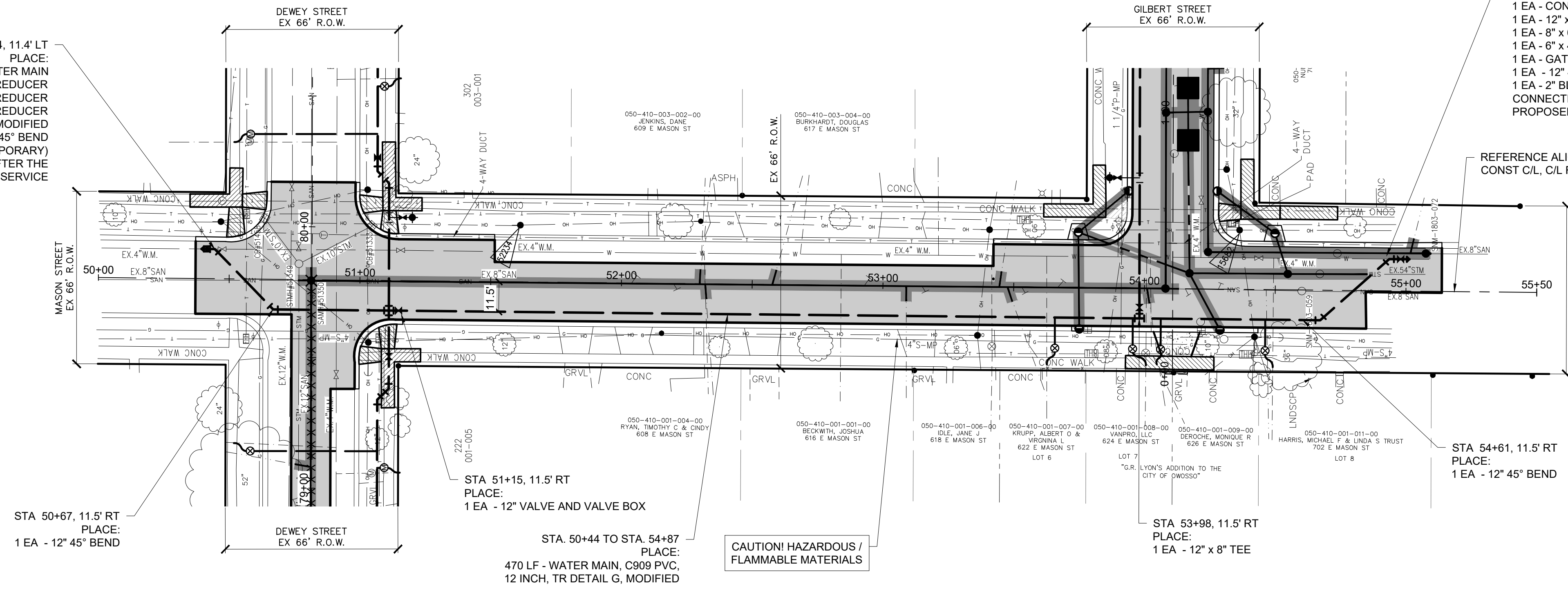
2026 WATER MAIN REPLACEMENT PROJECT- CONTRACT 1	DEWEY ST - SANITARY SEWER PLAN AND PROFILE	FIELD BOOK PG.
DWSRF-7920-01		

BM \_\_\_\_\_ EL. 735.75  
 SET NAIL IN SOUTH FACE OF POWER POLE, NORTH  
 SIDE OF E MASON ST, 80± EAST OF C/L OF DEWEY ST  
 (NAVD 88)



STA 50+44, 11.4' LT  
 PLACE:  
 1 EA - CONNECT TO EX. WATER MAIN  
 1 EA - 12"x8" REDUCER  
 1 EA - 8"x6" REDUCER  
 1 EA - 6"x4" REDUCER  
 1 EA - GATE VALVE AND BOX, 12 INCH, MODIFIED  
 1 EA - 12' 45" BEND  
 1 EA - 2" BLOW-OFF AND COPPER LINE TO SURFACE (TEMPORARY)  
 CONNECTION TO THE EXISTING WATER MAIN SHALL BE MADE AFTER THE  
 PROPOSED WATER MAIN HAS BEEN TESTED AND APPROVED FOR SERVICE

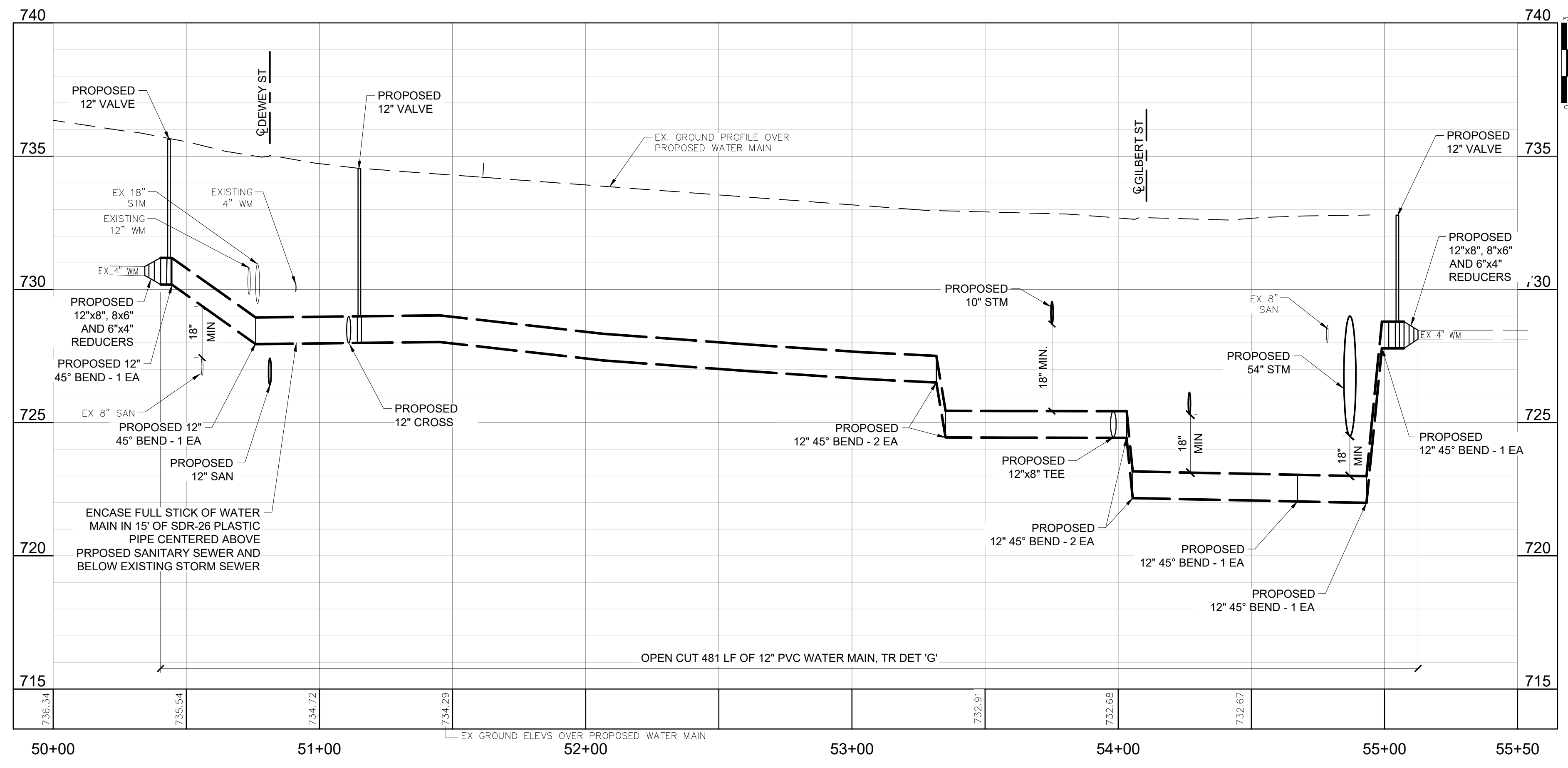
STA 54+87, 12.0' RT  
 PLACE:  
 1 EA - CONNECT TO EX WATER MAIN  
 1 EA - 12" x 8" REDUCER  
 1 EA - 8" x 6" REDUCER  
 1 EA - 6" x 4" REDUCER  
 1 EA - GATE VALVE AND BOX, 12 INCH, MODIFIED  
 1 EA - 12' 45" BEND  
 1 EA - 2" BLOW-OFF AND COPPER LINE TO SURFACE (TEMPORARY)  
 CONNECTION TO THE EXISTING WATER MAIN SHALL BE MADE AFTER THE  
 PROPOSED WATER MAIN HAS BEEN TESTED AND APPROVED FOR SERVICE



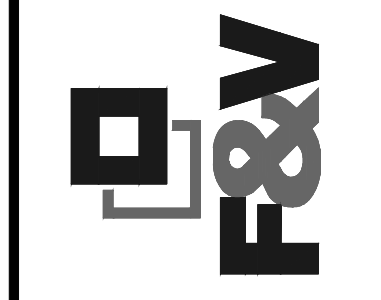
**MASON STREET**  
 WATER MAIN PLAN

- LEGEND**
- WATER MAIN
  - - - WATER SERVICE
  - ⊙ CURB STOP
  - ⊕ GATE VALVE AND BOX, \_INCH
  - REDUCER
  - ⊕ HYDRANT / VALVE
  - ~ ABANDON EX WATER MAIN IN PLACE
  - ▭ HMA Surface
  - ⊙ STANDARD SOIL EROSION KEY

CONSTRUCTION QUANTITIES (THIS SHEET)		
QUANTITY	UNIT	WORK ITEM
2	Ea	Connect to Existing Water Main
470	Ft	Water Main, C909 PVC, 12 inch, TR Detail G, Modified
3	Ea	Gate Valve and Box, 12 inch, Modified
78	Ft	1" Copper Service Lead, Type "K", Modified
4	Ea	Curb Box, Stop, 1 inch Corporation Stop and Connection, Modified
10	Ea	12' 45" Bend
2	Ea	2" Blow-off and Copper Line to Surface
2	Ea	12" x 8" Reducer
2	Ea	8" x 6" Reducer
2	Ea	6" x 4" Reducer
1	Ea	12" x 8" Tee
1	Ea	12" Cross



CITY OF OWOSSO, MICHIGAN  
 ENGINEERING DIVISION  
 DEPT. OF PUBLIC SERVICE

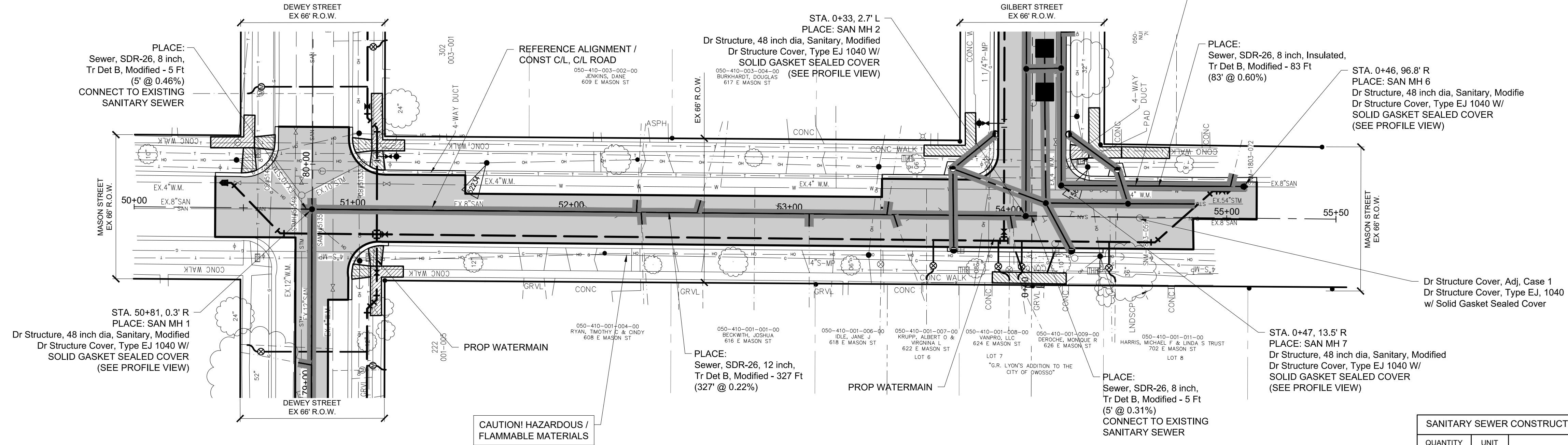
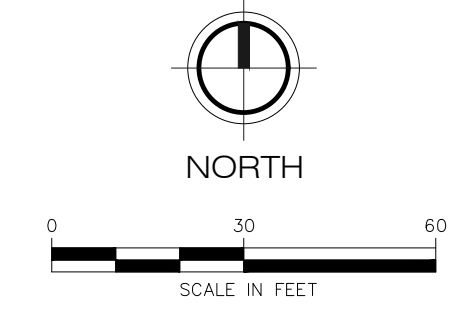


NO.	DATE	BY	REVISIONS	CHECKED BY	APPROVED BY
1	5/22/26	GLR	ISSUED FOR BIDS		

BENCH MARK DATA	DESCRIPTION	ELEV.

2026 WATER MAIN REPLACEMENT PROJECT- CONTRACT 1  
 DWSRF-7920-01  
**MASON ST - WATER MAIN**  
 PLAN AND PROFILE  
 APRIL 2026  
 PROJECT NO: 876320  
 FIELD BOOK  
 PG.

BM \_\_\_\_\_ EL. 735.75  
 SET NAIL IN SOUTH FACE OF POWER POLE, NORTH  
 SIDE OF E MASON ST, 80'± EAST OF C/L OF DEWEY ST  
 (NAVD 88)

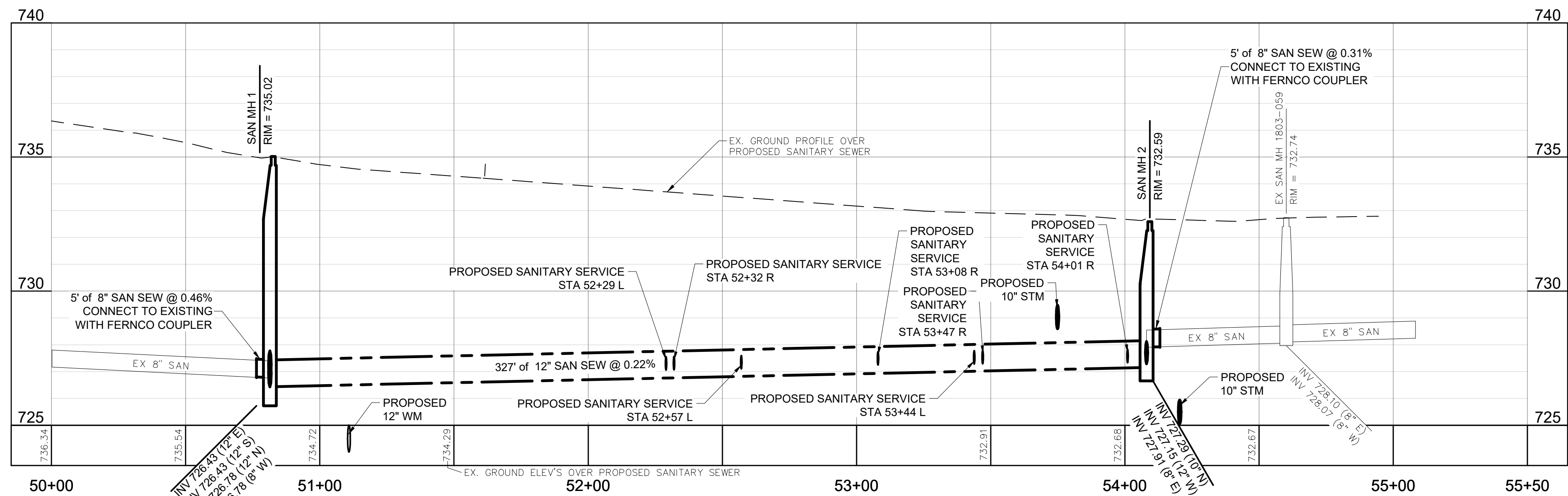
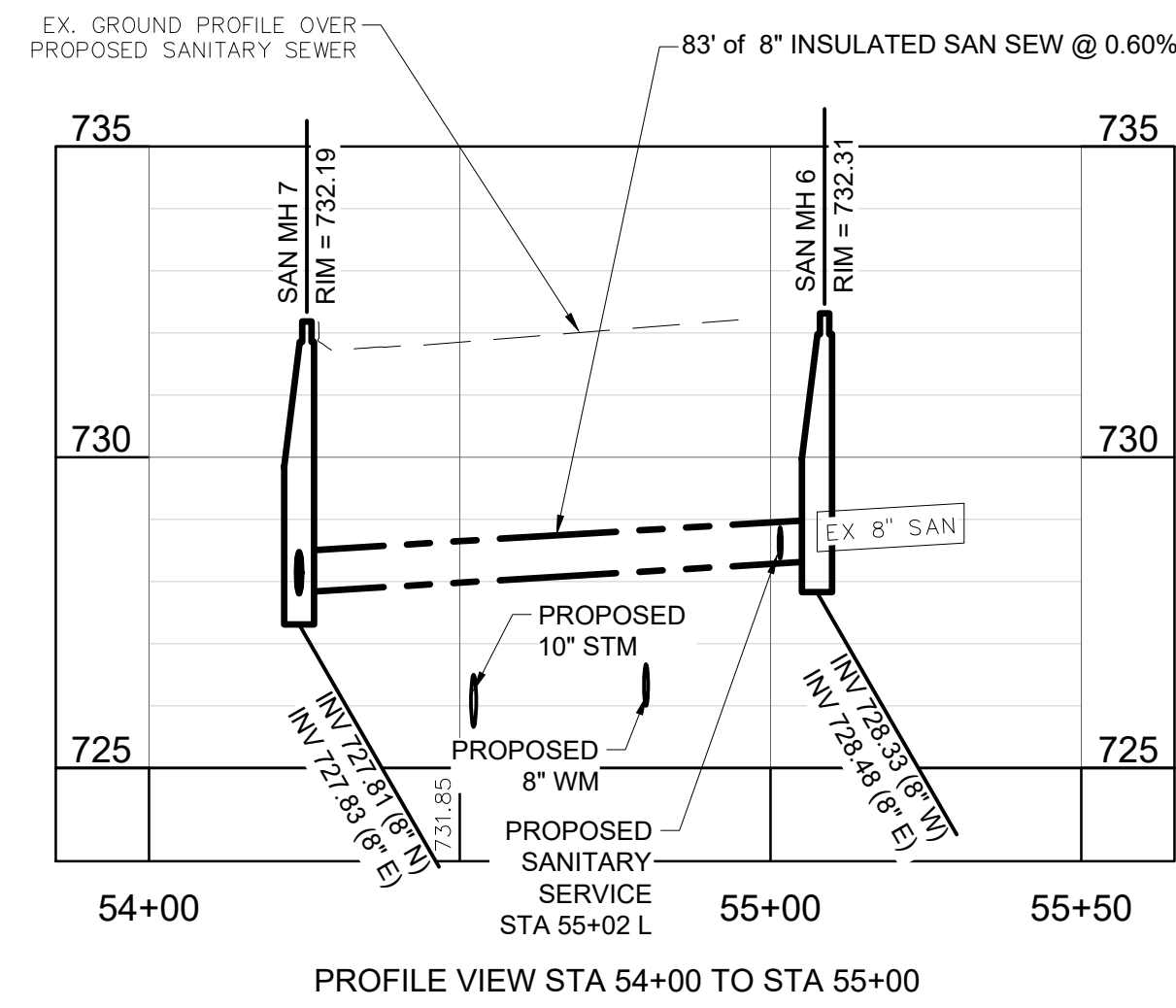


**MASON STREET**  
 SANITARY SEWER PLAN

**LEGEND**

- Curb and Gutter, Conc, Det F4
- Sewer, 8 inch, Tr Det B, Modified
- HMA Surface / HMA Approach
- Sidewalk, Conc, 4 inch
- Curb Ramp, Conc, 4 inch
- STANDARD SOIL EROSION KEY

SANITARY SEWER CONSTRUCTION QUANTITIES (MASON STREET)		
QUANTITY	UNIT	WORK ITEM
175	Ton	Maintenance Gravel
475	Syd	Aggregate Base, 8 inch, Modified
10	Ft	Sewer, SDR-26, 8 inch, Tr Det B, Modified
85	Ft	Sewer, SDR-26, 8 inch, Insulated, Tr Det B, Modified
330	Ft	Sewer, SDR-26, 12 inch, Tr Det B, Modified
1	Ea	Dr Structure Cover, Adj, Case 1
5	Ea	Dr Structure Cover, Type EJ 1040 w/ Solid Gasket Sealed Cover
4	Ea	Dr Structure Cover, 48 inch dia, Sanitary, Modified
175	Ton	HMA, 13A



CITY OF OWOSSO, MICHIGAN  
 ENGINEERING DIVISION  
 DEPT. OF PUBLIC SERVICE

**F&W**

NO.	DATE	BY	REVISIONS
1	5/22/26	GLR	ISSUED FOR BIDS

APPROVED BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_

2026 WATER MAIN REPLACEMENT PROJECT- CONTRACT 1  
 DWSRF-7920-01

MASON ST - SANITARY  
 SEWER PLAN AND PROFILE

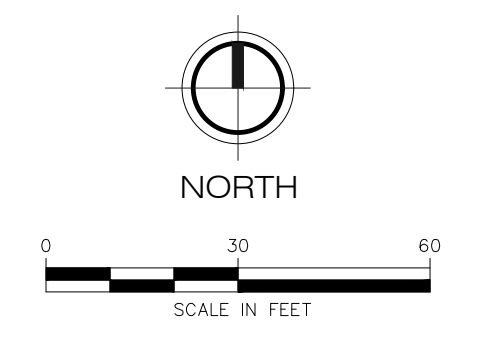
FIELD BOOK  
 NO. \_\_\_\_\_  
 PG. \_\_\_\_\_

APRIL 2026  
 PROJECT NO: 876320

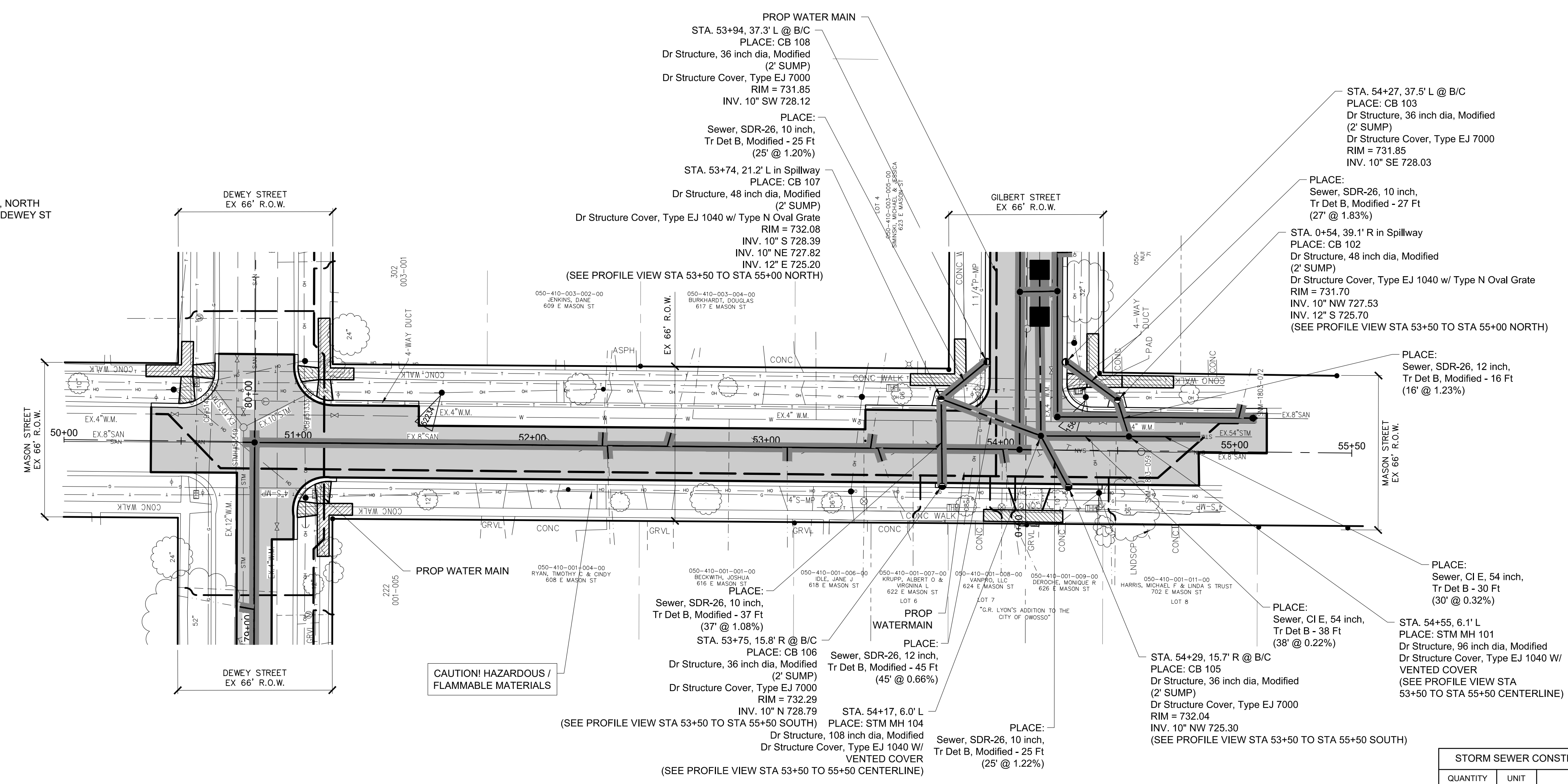


NO.	DATE	BY	REVISIONS
1	5/22/26	GLR	ISSUED FOR BIDS

NO.	DATE	DESCRIPTION
1		ISSUED FOR BIDS



BM EL. 735.75  
SET NAIL IN SOUTH FACE OF POWER POLE, NORTH  
SIDE OF E MASON ST, 80± EAST OF C/L OF DEWEY ST  
(NAVD 88)



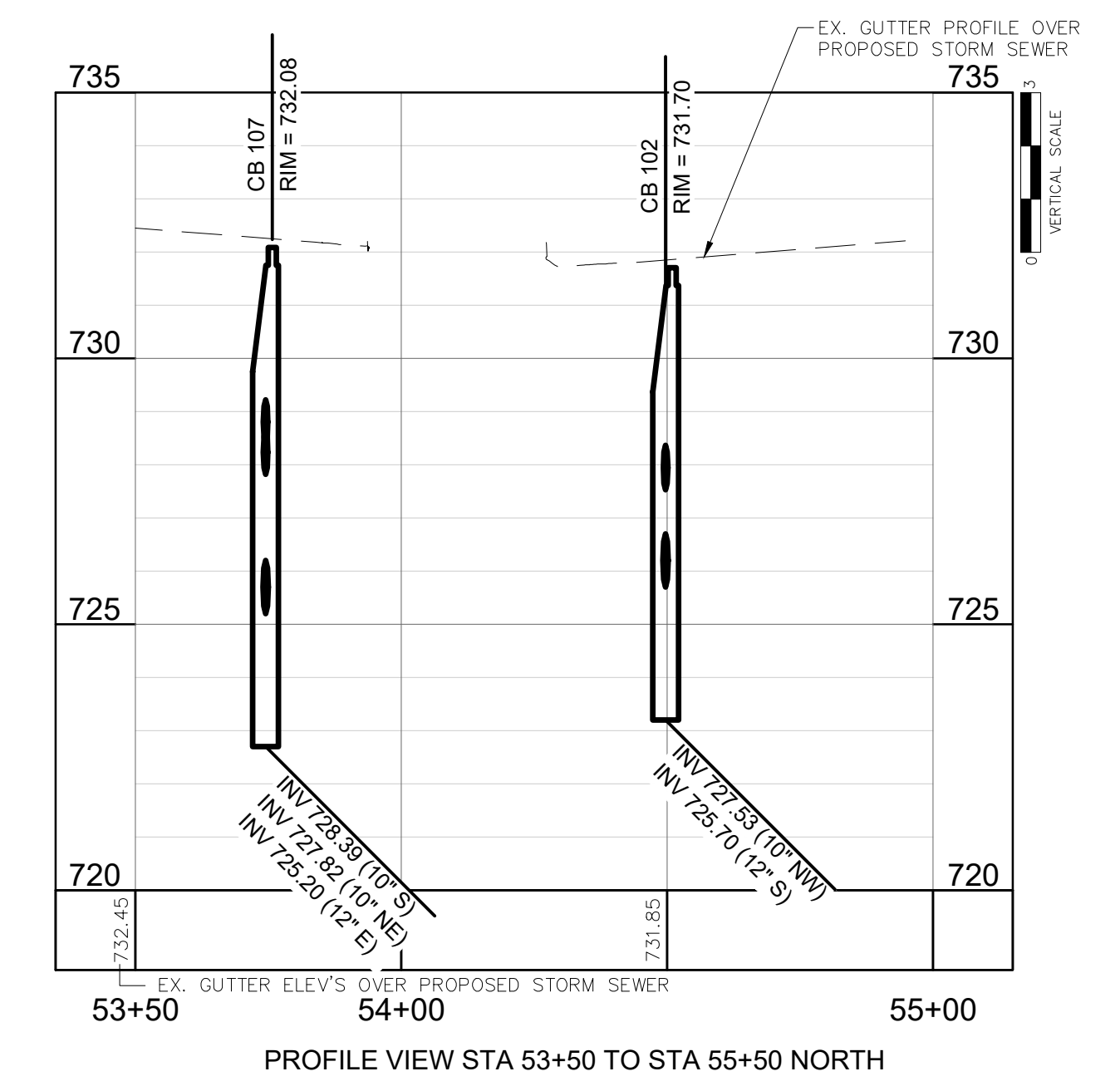
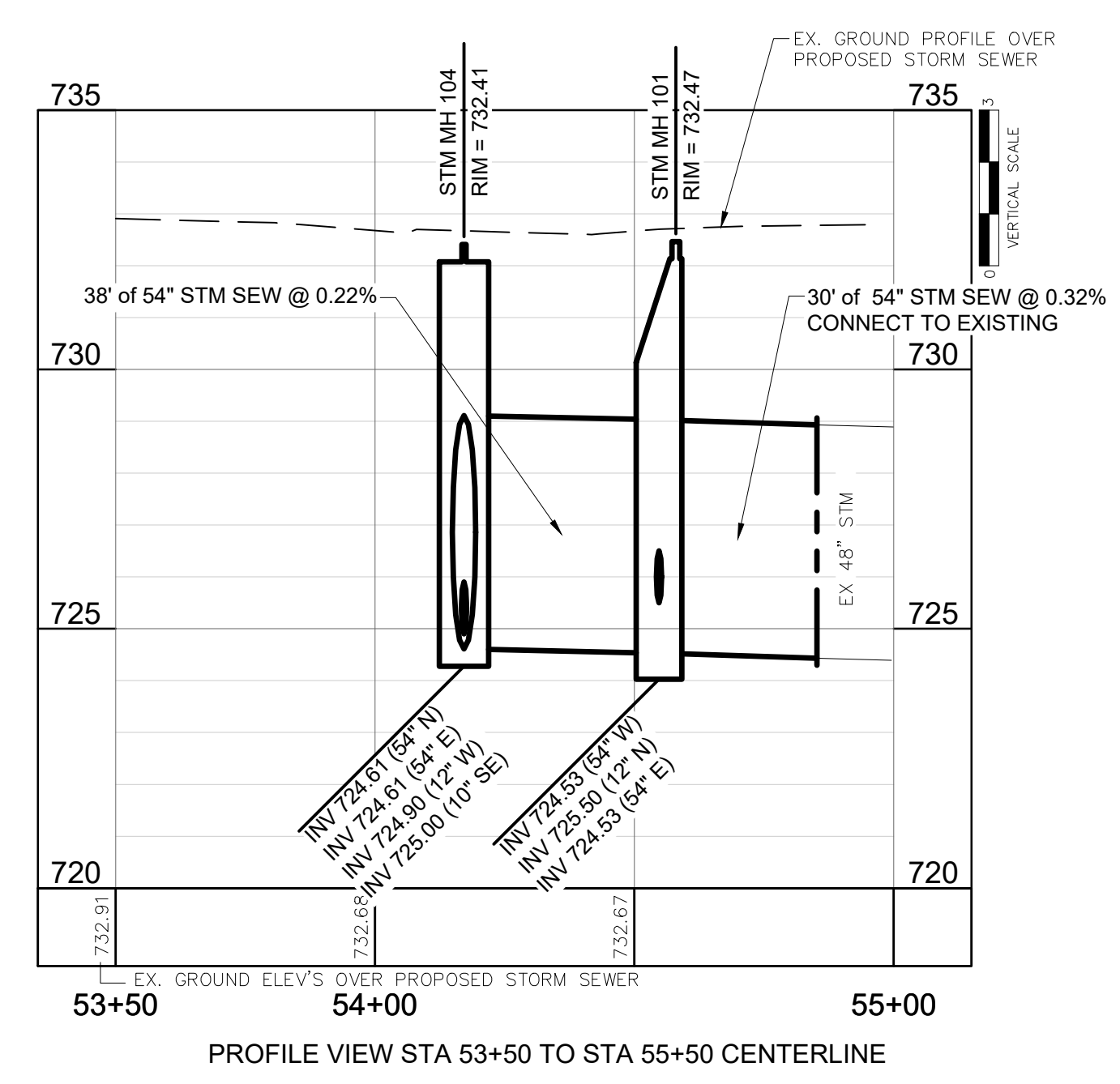
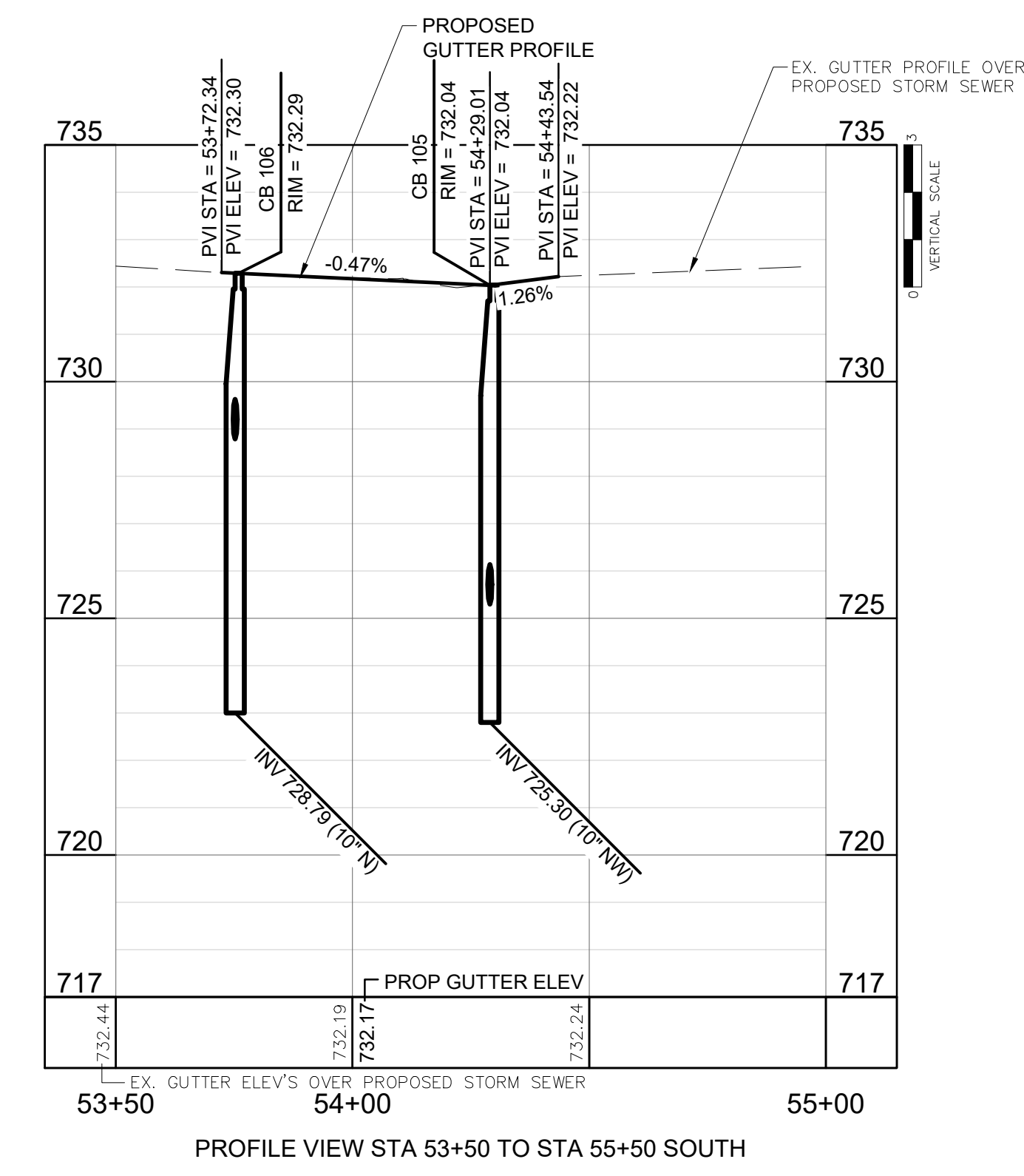
**LEGEND**

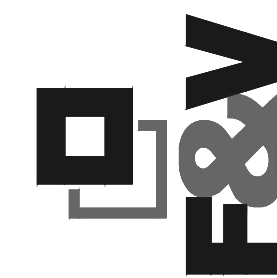
- Curb and Gutter, Conc, Det F4
- Sewer, \_\_\_\_, \_\_ inch, Tr Det B, Modified
- HMA Surface / HMA Approach
- Sidewalk, Conc, \_\_ inch
- Curb Ramp, Conc, \_\_ inch
- STANDARD SOIL EROSION KEY

CAUTION! HAZARDOUS /  
FLAMMABLE MATERIALS

**MASON STREET**  
STORM SEWER PLAN

STORM SEWER CONSTRUCTION QUANTITIES (MASON STREET)		
QUANTITY	UNIT	WORK ITEM
68	Ft	Sewer, CI E, 54 inch, Tr Det B
114	Ft	Sewer, SDR-26, 10 inch, Tr Det B, Modified
45	Ft	Sewer, SDR-26, 12 inch, Tr Det B, Modified
4	Ea	Dr Structure Cover, Type EJ 7000
2	Ea	Dr Structure Cover, Type EJ 1040 w/ Vented Cover
2	Ea	Dr Structure Cover, Type EJ 1040 w/ Type N Oval Grate
4	Ea	Dr Structure, 36 inch dia, Modified
2	Ea	Dr Structure, 48 inch dia, Modified
1	Ea	Dr Structure, 96 inch dia, Modified
1	Ea	Dr Structure, 108 inch dia, Modified

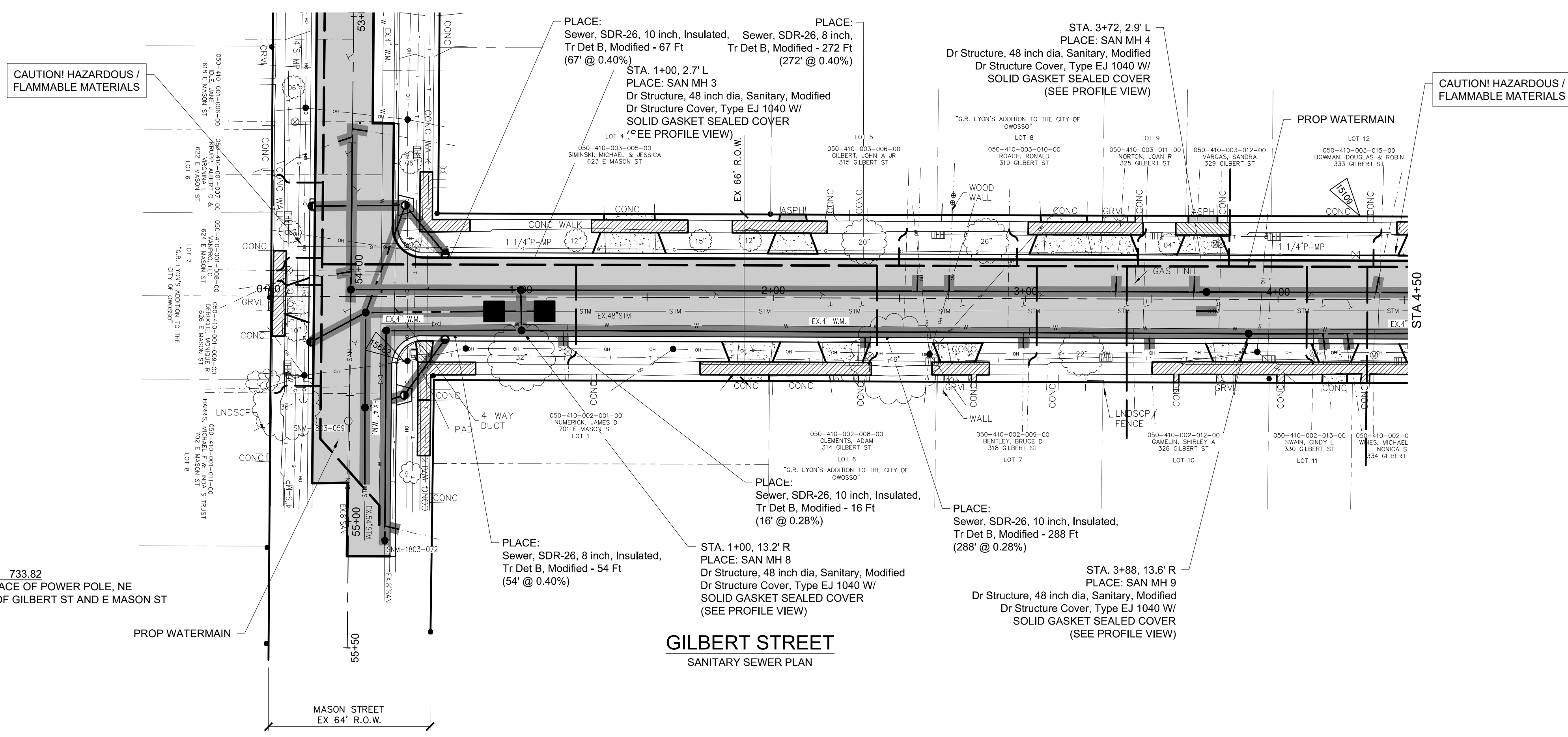
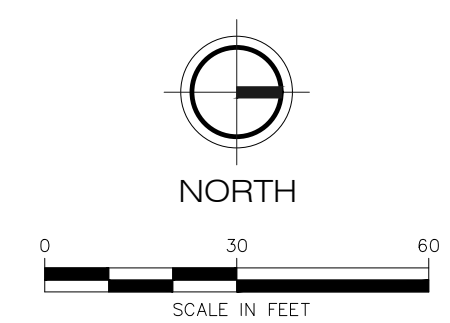




NO.	DATE	BY	REVISIONS
1	5/22/26	GLR	ISSUED FOR BIDS
			ORIGINAL PLAN

BENCH MARK DATA	DESCRIPTION	ELEV.

2026 WATER MAIN REPLACEMENT PROJECT- CONTRACT 1  
DWSRF-7920-01  
GILBERT ST - SANITARY SEWER PLAN  
FIELD BOOK  
APRIL 2026  
PROJECT NO: 876320  
PG.

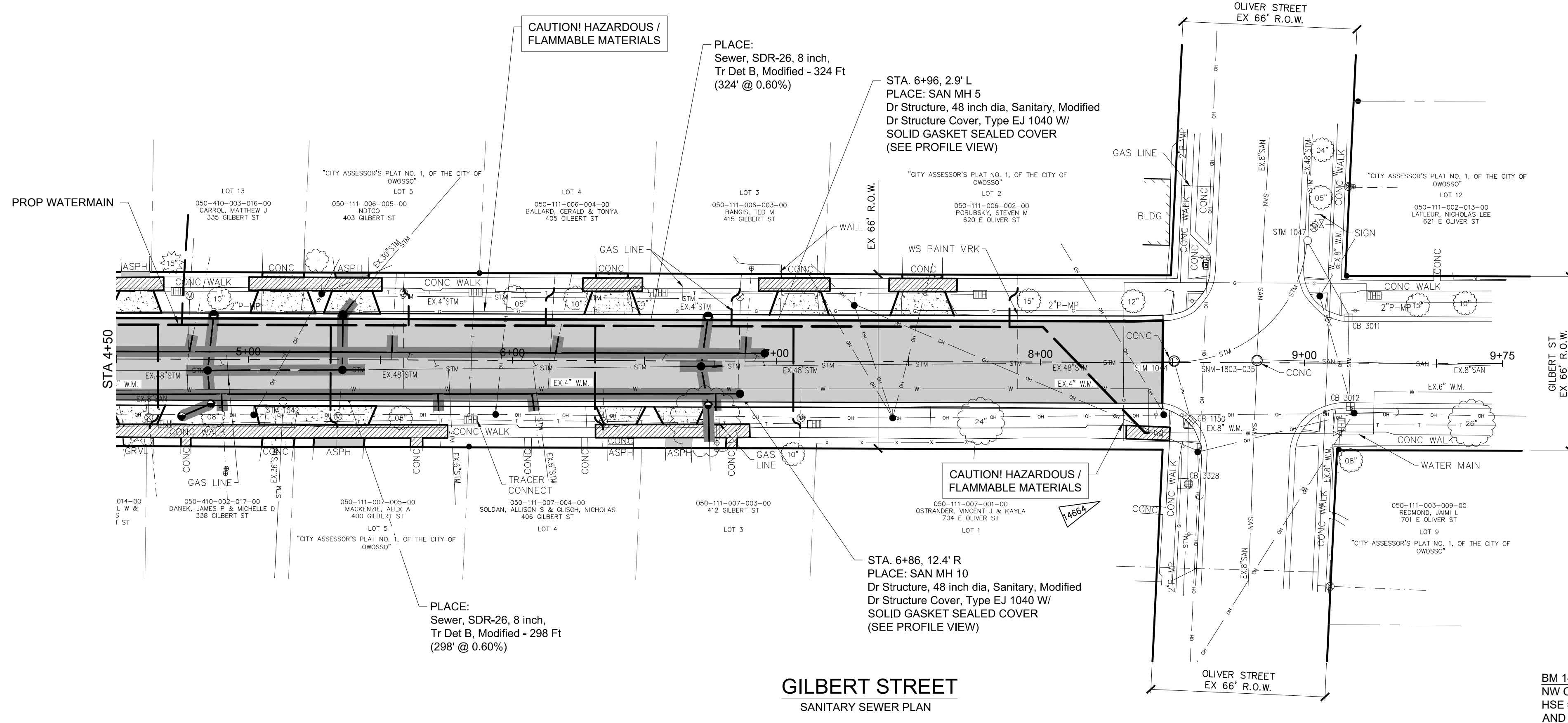


**LEGEND**

	Curb and Gutter, Conc, Det F4
	Sewer, ___ inch, Tr Det B, Modified
	HMA Surface / HMA Approach
	Driveway, Nonreinf, Conc, ___inch
	Approach, CL II, LM
	Sidewalk, Conc, ___inch
	Curb Ramp, Conc, ___inch
	STANDARD SOIL EROSION KEY

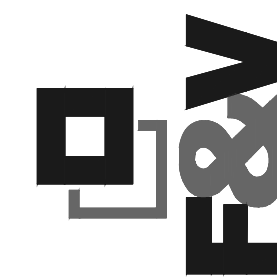
**SANITARY SEWER CONSTRUCTION QUANTITIES (GILBERT STREET)**

QUANTITY	UNIT	WORK ITEM
895	Ft	Sewer, SDR-26, 8 inch, Tr Det B, Modified
55	Ft	Sewer, SDR-26, 8 inch, Insulated Tr Det B, Modified
375	Ft	Sewer, SDR-26, 10 inch, Insulated Tr Det B, Modified
6	Ea	Dr Structure Cover, Type EJ 1040 w/ Solid Gasket Sealed Cover
6	Ea	Dr Structure, 48 inch dia, Sanitary, Modified







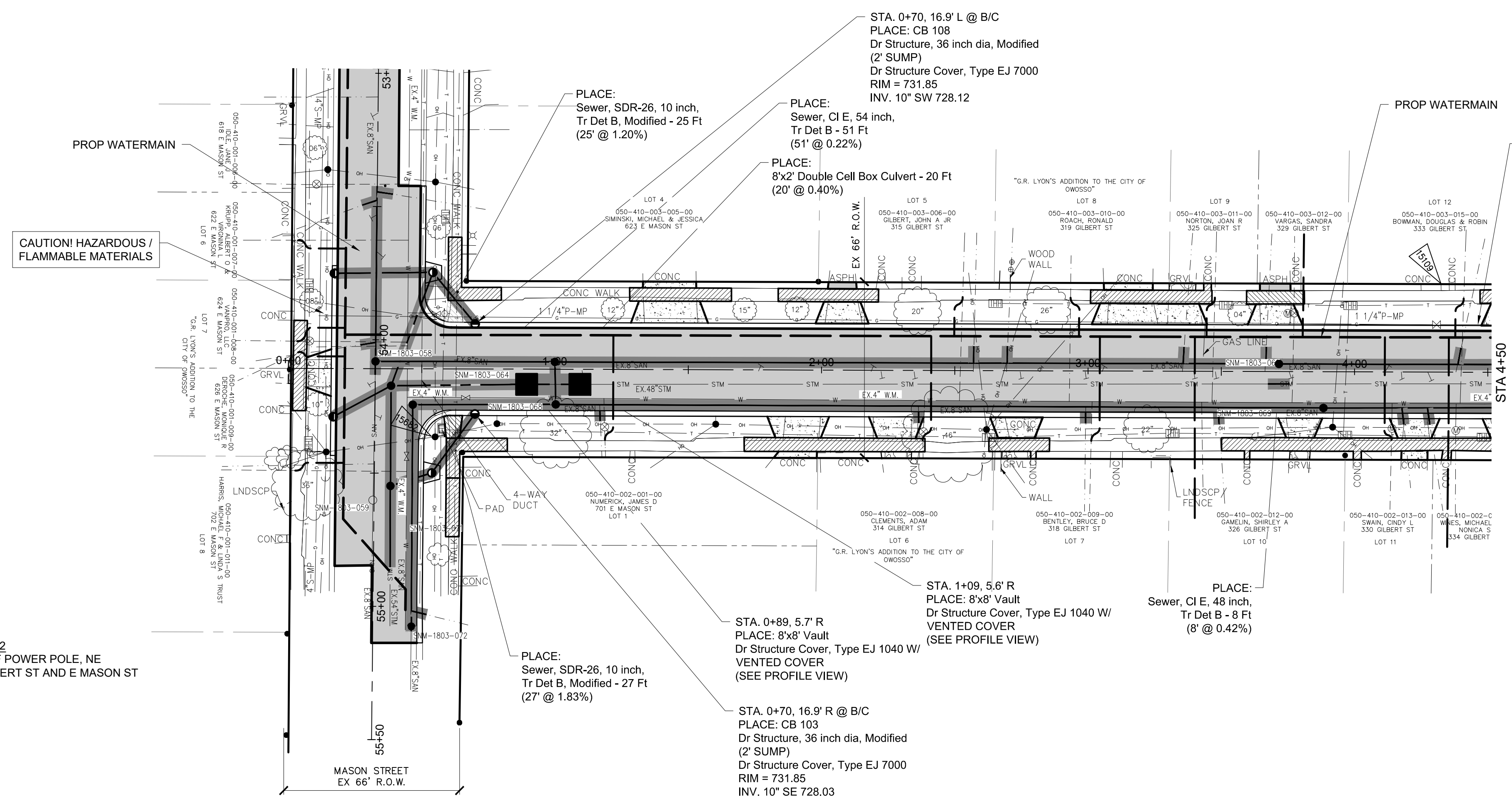


NO.	DATE	BY	REVISIONS	DESCRIPTION	ISSUED FOR BIDS	ORIGINAL PLAN	APPROVED BY
1	5/22/26	GLR					

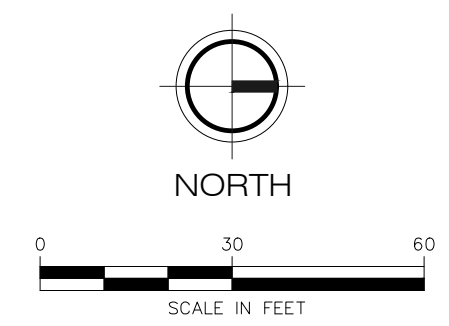
2026 WATER MAIN REPLACEMENT PROJECT- CONTRACT 1  
DWSRF-7920-01

GILBERT ST - ROAD AND STORM  
SEWER PLAN

APRIL 2026  
PROJECT NO: 876320



CAUTION! HAZARDOUS / FLAMMABLE MATERIALS

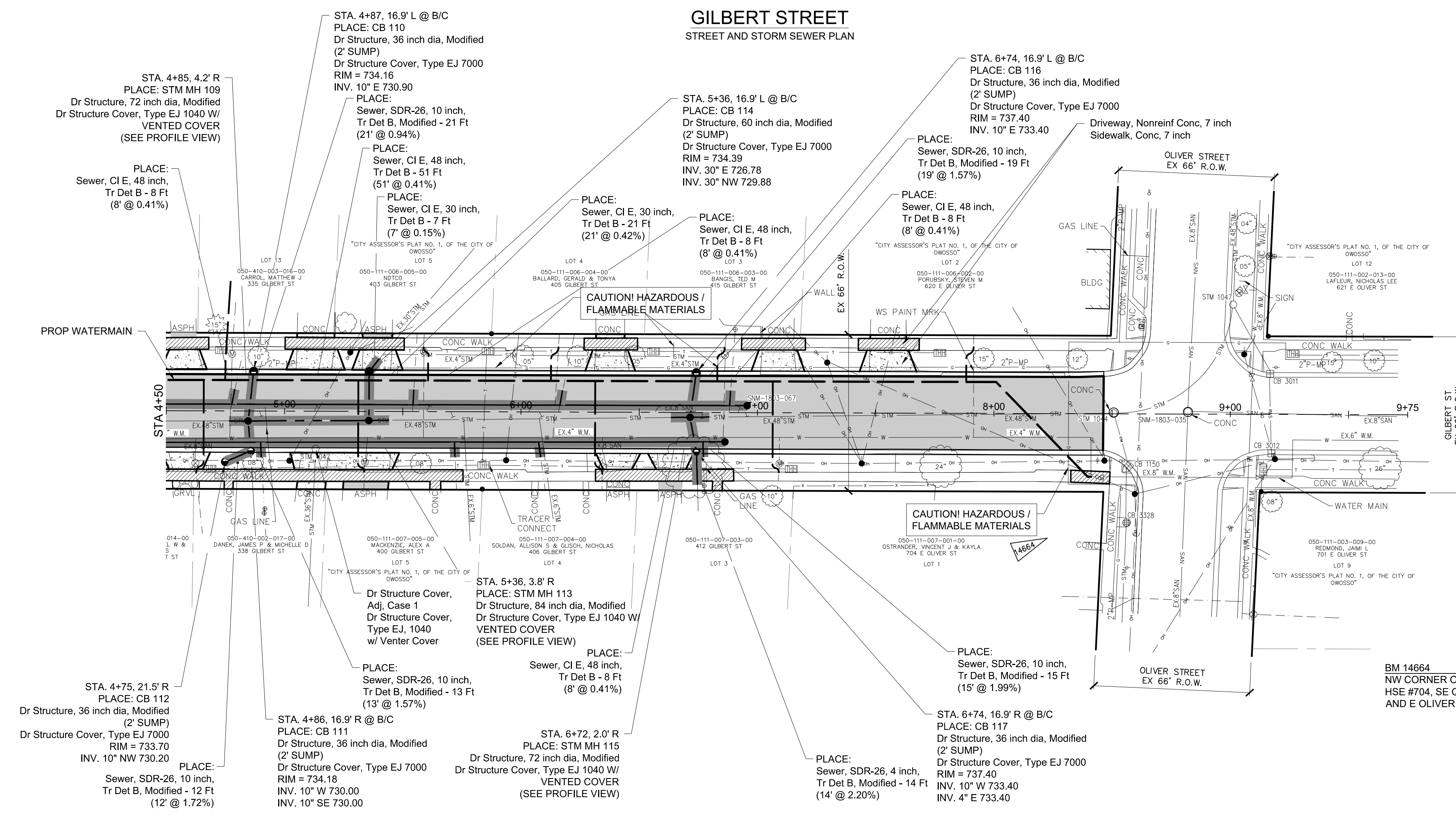


BM 15682 733.82  
NAIL IN SW FACE OF POWER POLE, NE  
QUADRANT OF GILBERT ST AND E MASON ST  
(NAVD 88)

**LEGEND**

- Curb and Gutter, Conc, Det F4
- Sewer, 10 inch, Tr Det B, Modified
- HMA Surface / HMA Approach
- Driveway, Nonreinf, Conc, 10 inch
- Approach, Cl II, LM
- Sidewalk, Conc, 10 inch
- Curb Ramp, Conc, 10 inch
- STANDARD SOIL EROSION KEY

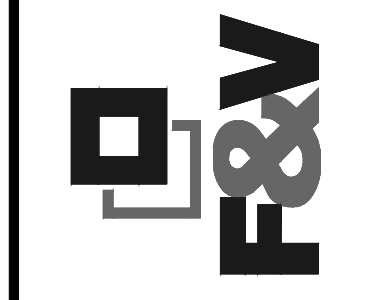
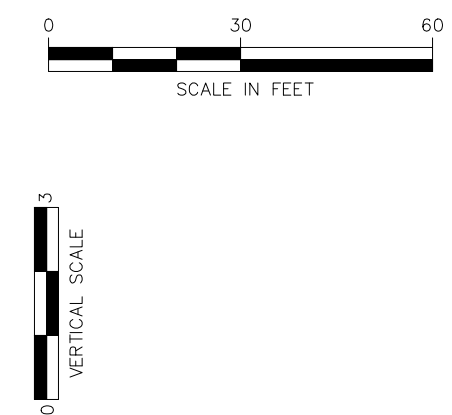
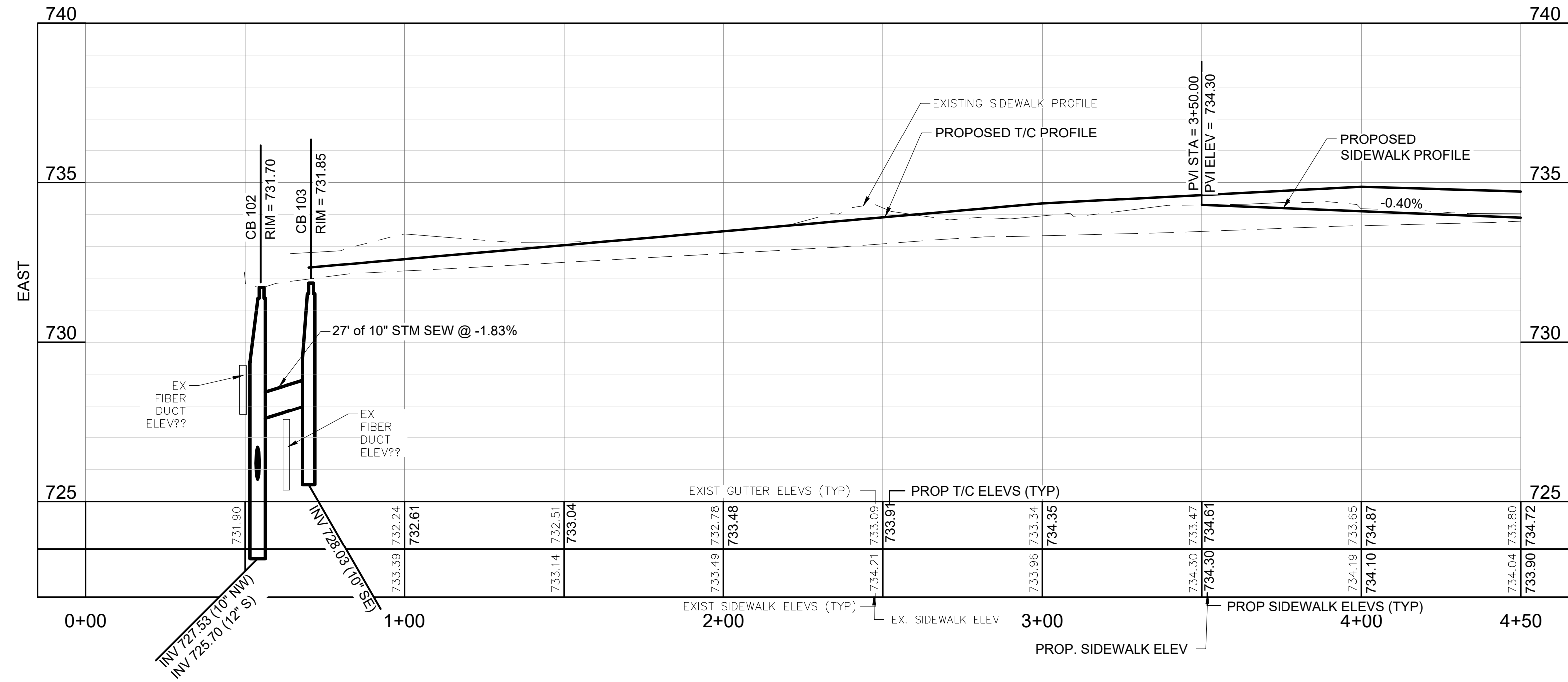
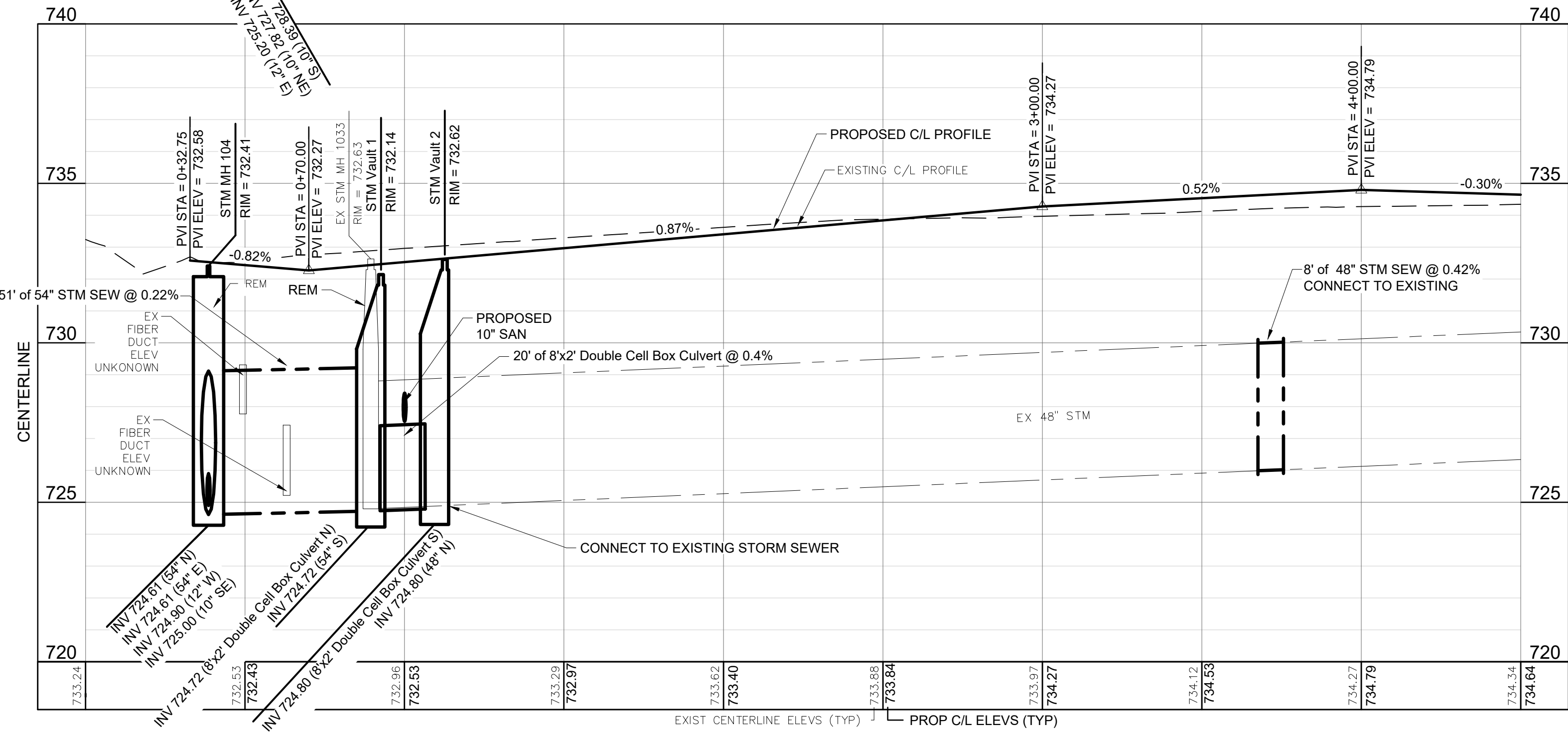
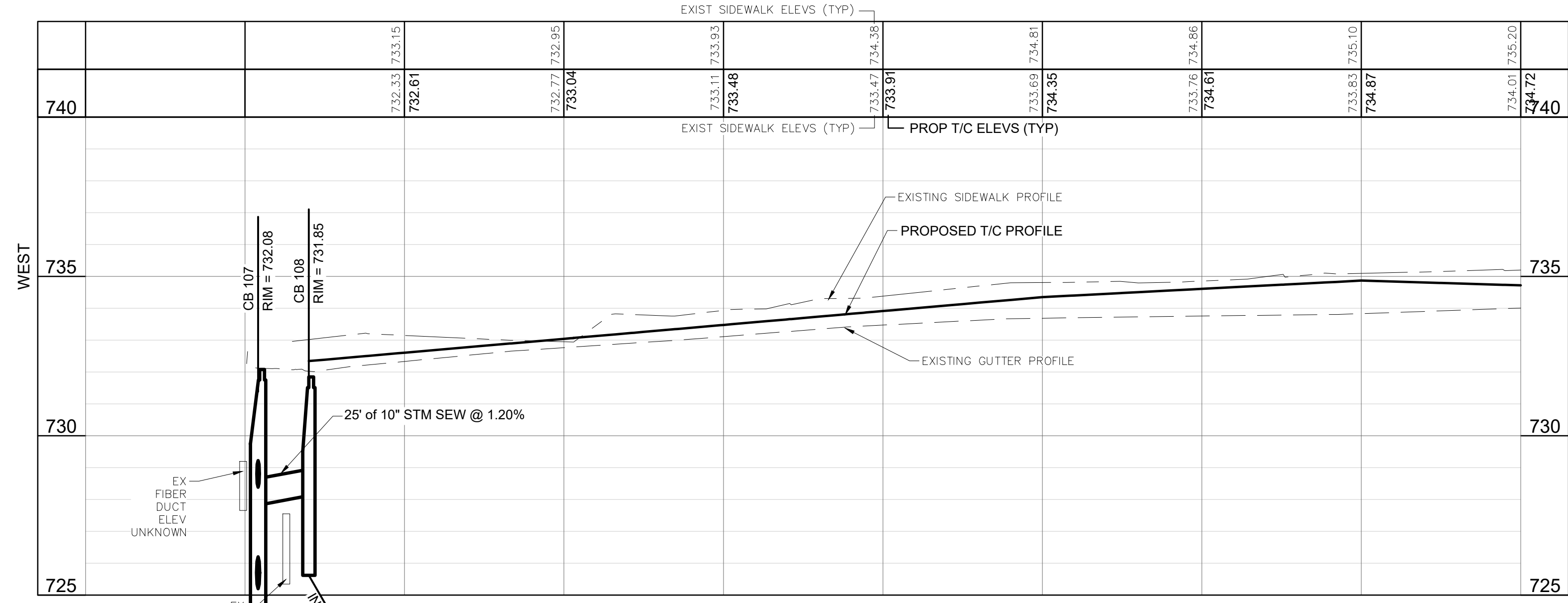
**GILBERT STREET**  
STREET AND STORM SEWER PLAN



**STREET & STORM SEWER CONSTRUCTION QUANTITIES (GILBERT STREET)**

QUANTITY	UNIT	WORK ITEM
70	Cyd	Embankment, CIP
96	Cyd	Subbase, CIP
600	Syd	Aggregate Base, 4 inch, Modified
3270	Syd	Aggregate Base, 8 inch, Modified
81	Cyd	Approach, Cl II, LM
3870	Syd	Geotextile, Separator, Modified
28	Ft	Sewer, Cl E, 30 inch, Tr Det B
91	Ft	Sewer, Cl E, 48 inch, Tr Det B
51	Ft	Sewer, Cl E, 54 inch, Tr Det B
14	Ft	Sewer, SDR-26, 4 inch, Tr Det B, Modified
132	Ft	Sewer, SDR-26, 10 inch, Tr Det B, Modified
1	Ea	Dr Structure Cover, Adj, Case 1
8	Ea	Dr Structure Cover, Type EJ 7000
5	Ea	Dr Structure Cover, Type EJ 1040 w/ Vented Cover
7	Ea	Dr Structure, 36 inch dia, Modified
1	Ea	Dr Structure, 60 inch dia, Modified
2	Ea	Dr Structure, 72 inch dia, Modified
1	Ea	Dr Structure, 84 inch dia, Modified
20	Ft	Culvert, Precast Conc Box, 8 foot by 2 foot
2	Ea	Dr Structure, 8 foot x 8 foot Vault
10	Ton	Hand Patching
593	Ton	HMA, 3EML
297	Ton	HMA, 5EML
370	Syd	Driveway, Nonreinf Conc, 6 inch
25	Syd	Driveway, Nonreinf Conc, 7 inch
1792	Ft	Curb and Gutter, Conc, Det F4
12	Ft	Spillway, Conc
10	Ft	Detectable Warning Surface, Modified
14	Ft	Curb Ramp Opening, Conc
680	Sft	Sidewalk, Conc, 4 inch
2950	Sft	Sidewalk, Conc, 6 inch
130	Sft	Sidewalk, Conc, 7 inch
355	Sft	Curb Ramp, Conc, 4 inch
100	Sft	Curb Ramp, Conc, 7 inch
2700	Syd	Turf Establishment, Performance

BM 14664 746.31  
NW CORNER OF BOTTOM CONC STEP AT  
HSE #704, SE QUADRANT OF GILBERT ST  
AND E OLIVER ST (NAVD 88)



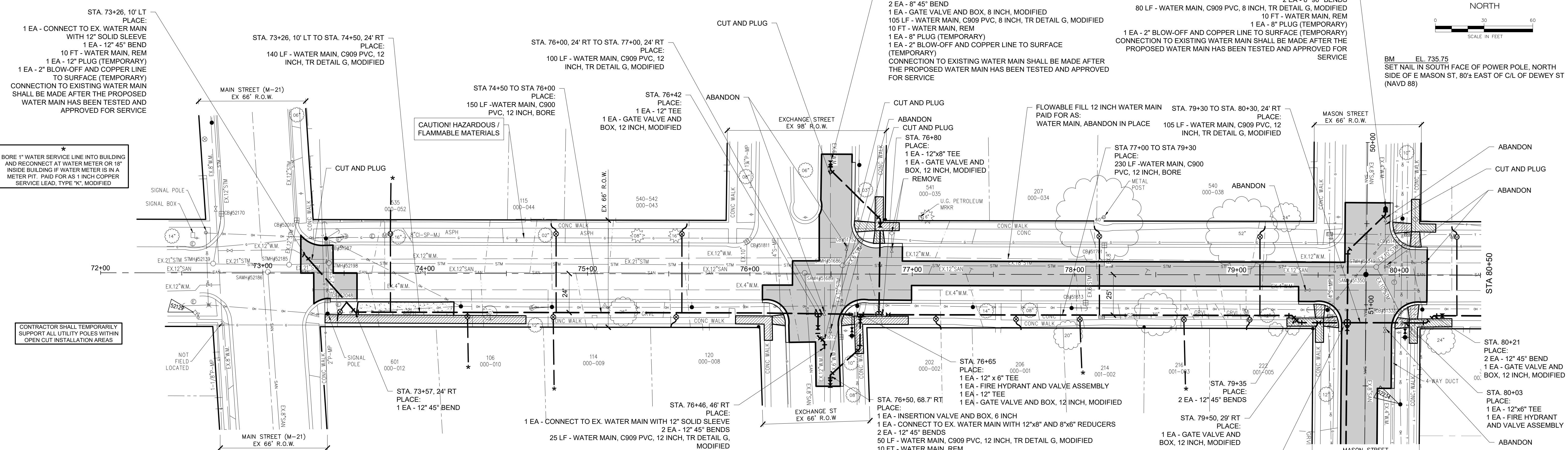
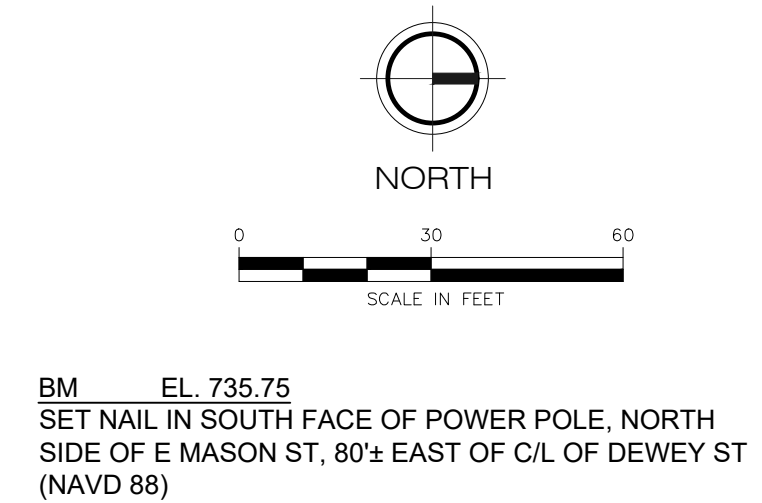
NO.	REVISIONS	DATE	BY
1	ISSUED FOR BIDS	5/22/26	GLR

CHECKED BY: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_

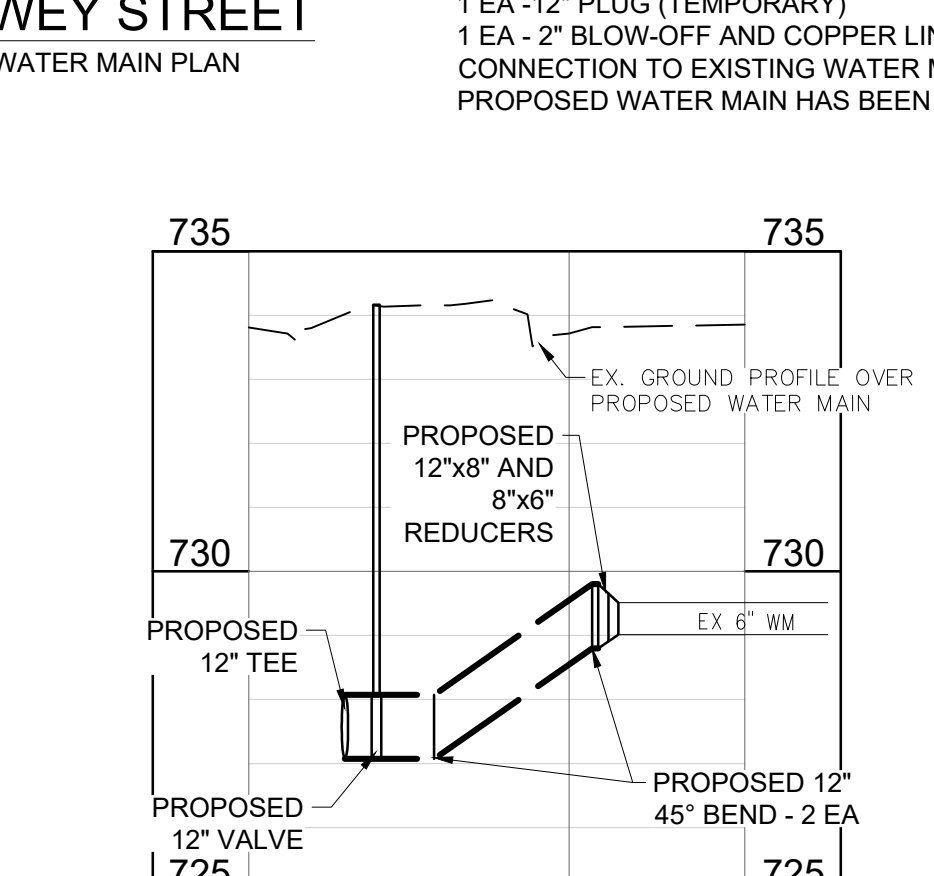
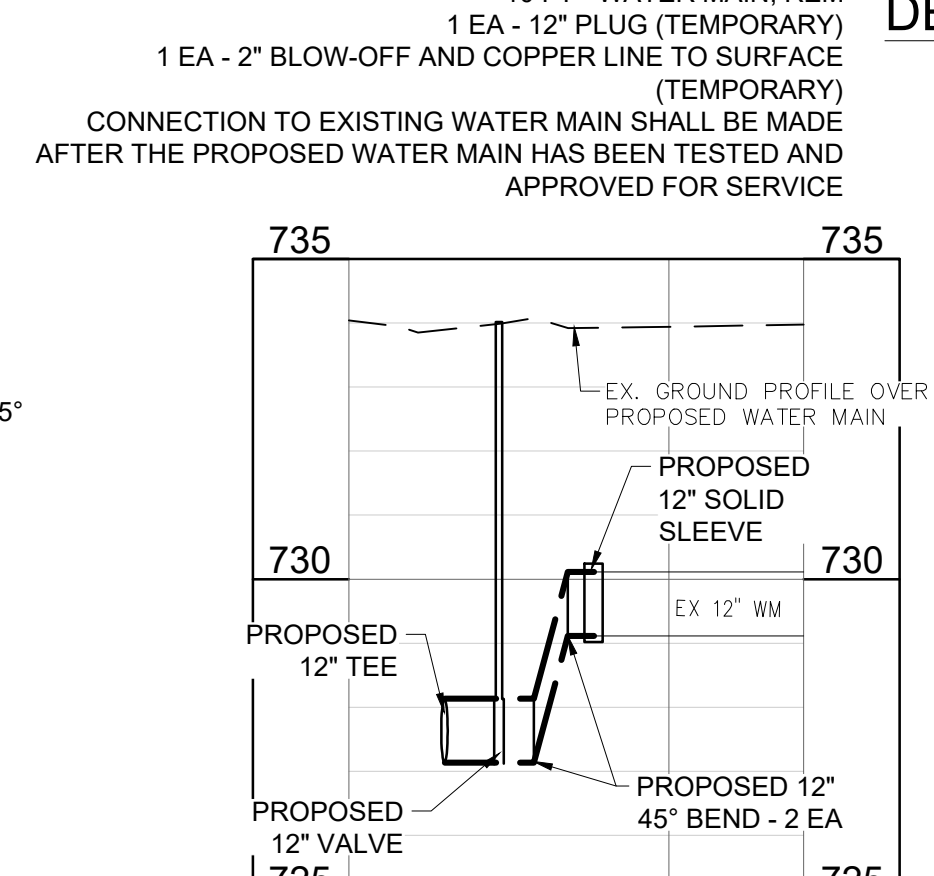
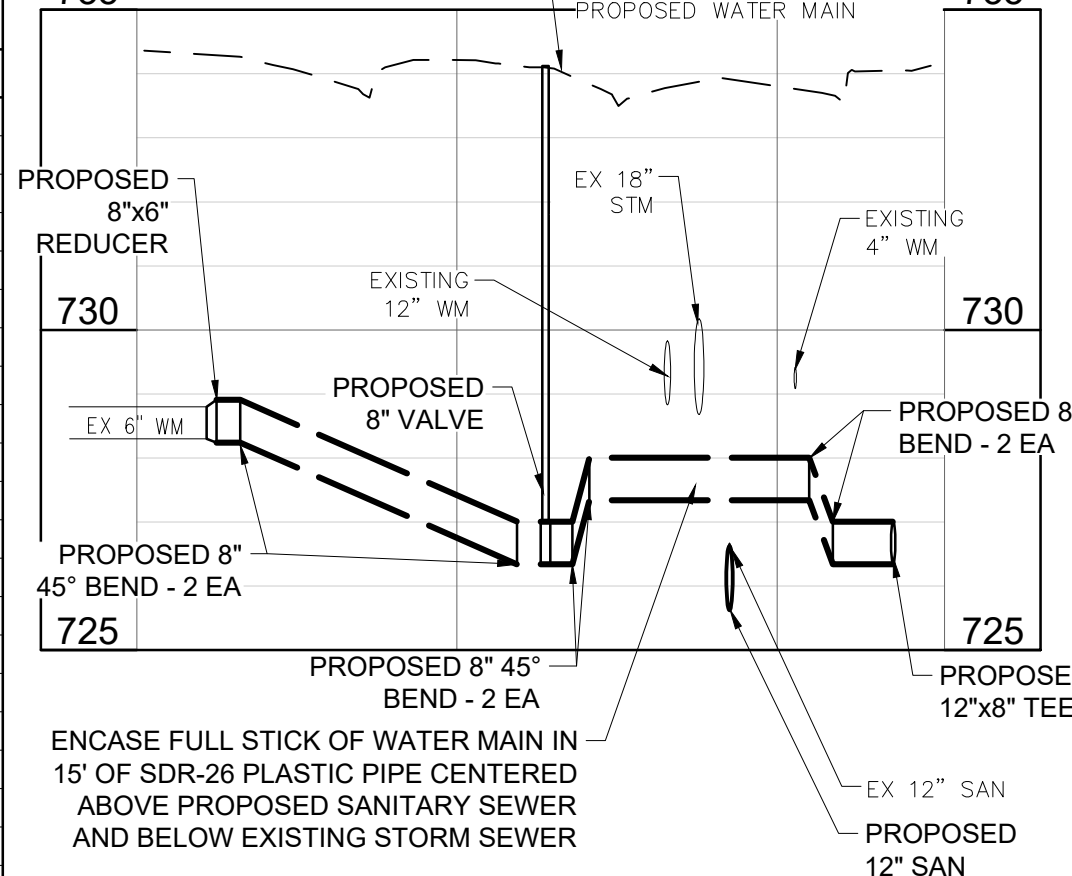
BENCH MARK DATA	DESCRIPTION
ELEV.	



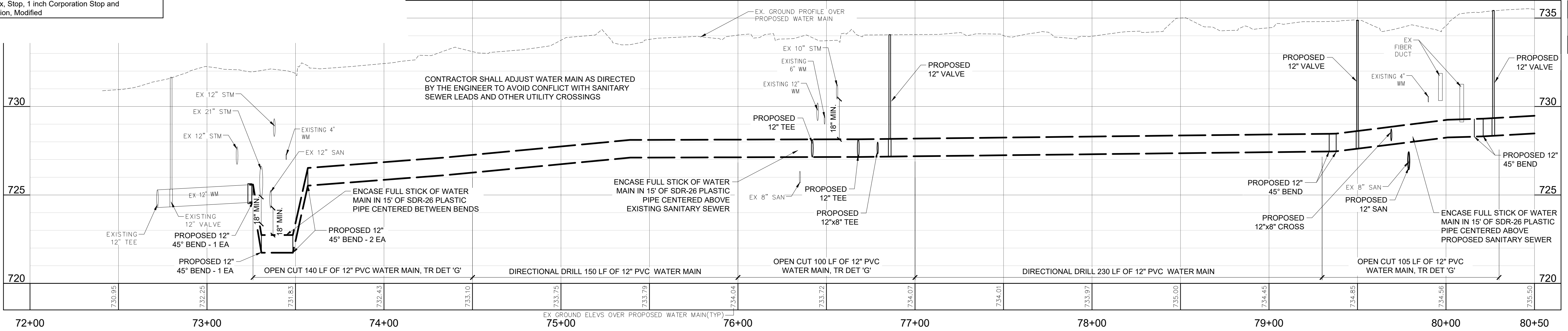
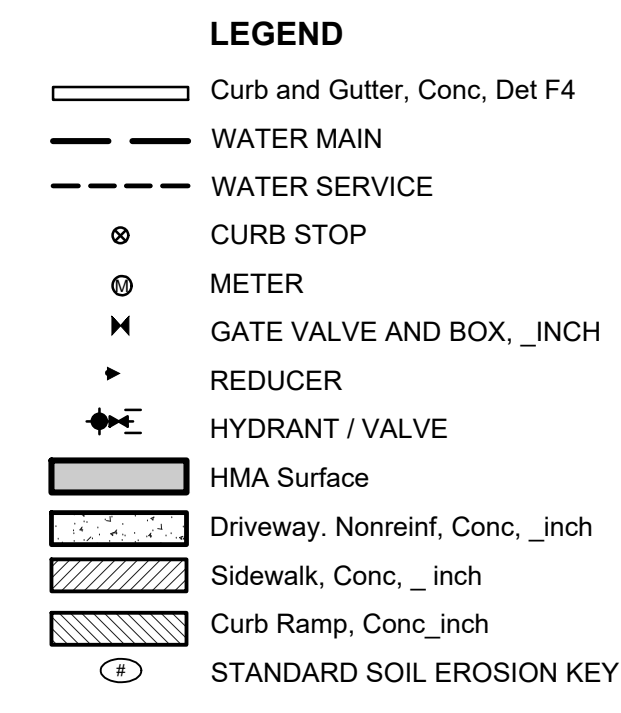
BM EL. 734.94  
ARROW AT TOP OF CASTING OF HYDRANT AT  
SE CORNER OF N DEWEY ST AND E MAIN ST  
(NAVD 88)



WATER MAIN QUANTITIES (DEWEY STREET)		
QUANTITY	UNIT	WORK ITEM
47	Cyd	Subbase, CIP
781	Syd	Aggregate Base, 8 inch, Modified
378	Ton	HMA, 13A
55	Syd	Driveway, Nonreinf Conc, 7 inch
364	Ft	Curb and Gutter, Conc, Det F4
55	Ft	Detectable Warning Surface, Modified
77	Ft	Curb Ramp Opening, Conc
620	Sft	Sidewalk, Conc, 7 inch
1005	Sft	Curb Ramp, Conc, 4 inch
590	Sft	Curb Ramp, Conc, 7 inch
1000	Syd	Turf Establishment, Performance
5	Ea	Connect to Existing Water Main
50	Ft	Water Main, Rem
750	Ft	Water Main, Abandon in Place
7	Ea	Existing Valve with Valve Box Abandonment
1	Ea	Existing Valve with Valve Box Removal
1	Ea	Hydrant, Rem
185	Ft	Water Main, C909 PVC, 8 inch, TR Detail G, Modified
420	Ft	Water Main, C909 PVC, 12 inch, TR Detail G, Modified
380	Ft	Water Main, C900 PVC, 12 inch, Bore
2	Ea	Water Main, 4 inch, Cut and Plug, Modified
2	Ea	Water Main, 6 inch, Cut and Plug, Modified
2	Ea	Water Main, 12 inch, Cut and Plug, Modified
3	Ea	Gate Valve and Box, 8 inch, Modified
4	Ea	Gate Valve and Box, 12 inch, Modified
2	Ea	Insertion Valve and Box, 6 inch
2	Ea	Fire Hydrant and Valve Assembly
520	Ft	1" Copper Service Lead, Type "K", Modified
16	Ea	Curb Box, Stop, 1 inch Corporation Stop and Connection, Modified



WATER MAIN QUANTITIES (DEWEY STREET)		
QUANTITY	UNIT	WORK ITEM
2	Ea	Supply & Install Meter Pit, Complete
2	Ea	Water Meter Pit, Rem
14	Ea	12" 45" Bend
8	Ea	8" 45" Bend
2	Ea	8" 90" Bend
2	Ea	8" x 6" reducer
5	Ea	2" Blow-off and Copper Line to Surface
1	Ea	12" x 8" Reducer
1	Ea	12" x 8" Tee
1	Ea	12" x 6" Tee
2	Ea	12" Tee



**CITY OF OWOSSO, MICHIGAN**  
**ENGINEERING DIVISION**  
**DEPT. OF PUBLIC SERVICE**

**F&W**

NO.	DATE	BY	DESCRIPTION
1	5/22/26	GLR	ISSUED FOR BIDS

APPROVED BY: \_\_\_\_\_  
ORIGINAL PLAN

CHECKED BY: \_\_\_\_\_

BENCH MARK DATA

ELEV.	DESCRIPTION

2026 WATER MAIN REPLACEMENT PROJECT- CONTRACT 1  
DWSRF-7920-01

DEWEY ST - WATER MAIN PLAN  
AND PROFILE

FIELD BOOK  
PG. \_\_\_\_\_

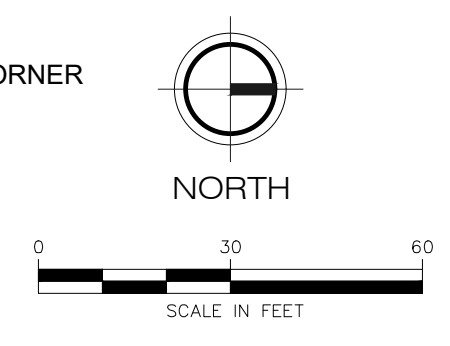
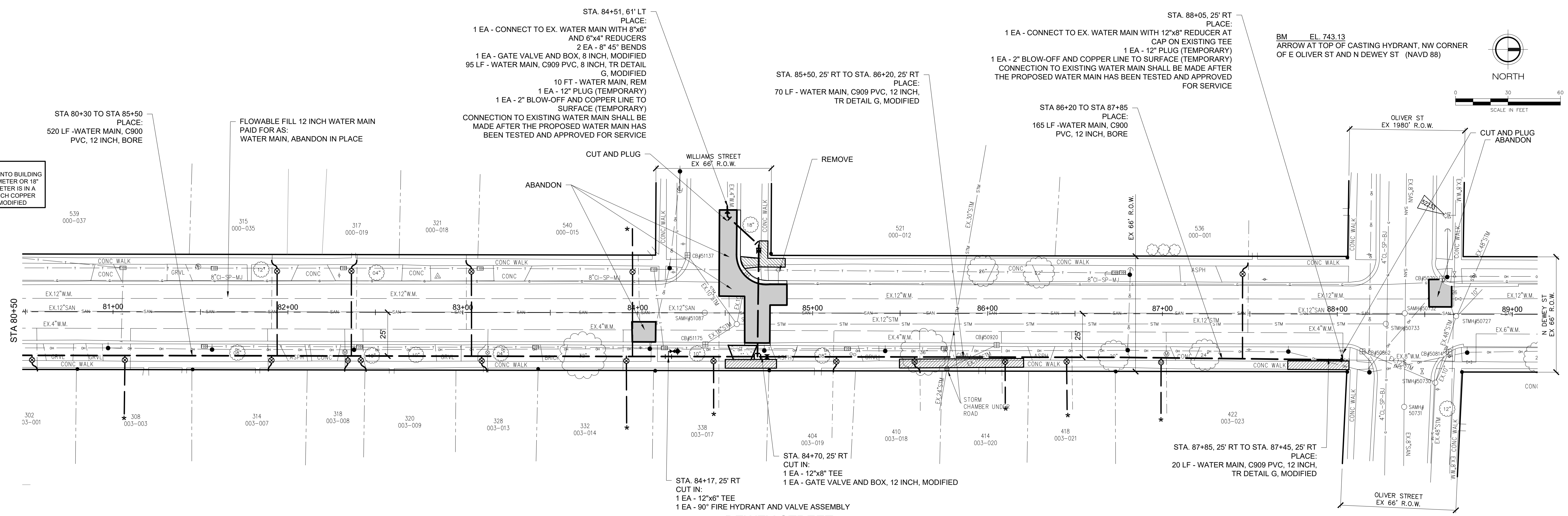
APRIL 2026  
PROJECT NO: 876320

**24**



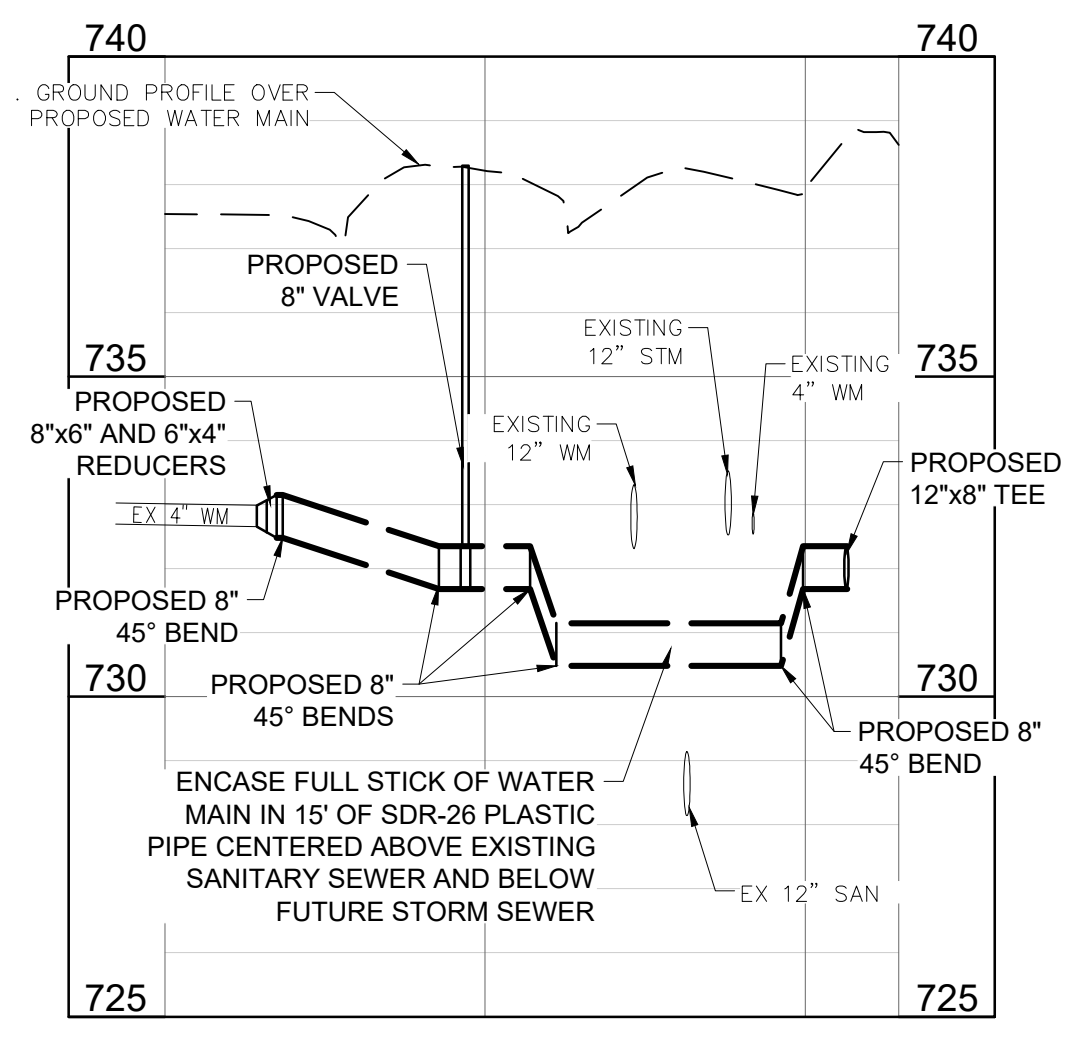
NO.	REVISIONS	DATE	BY
1	ISSUED FOR BIDS	5/22/26	GLR

NO.	DESCRIPTION
1	ISSUED FOR BIDS



\* BORE 1" WATER SERVICE LINE INTO BUILDING AND RECONNECT AT WATER METER OR 18" INSIDE BUILDING IF WATER METER IS IN A METER PIT. PAID FOR AS 1 INCH COPPER SERVICE LEAD, TYPE "K", MODIFIED

- LEGEND**
- Curb and Gutter, Conc, Det F4
  - WATER MAIN
  - - - WATER SERVICE
  - ⊙ CURB STOP
  - ⊙ METER
  - ⊙ GATE VALVE AND BOX, .12 INCH
  - ⊙ REDUCER
  - ⊙ HYDRANT / VALVE
  - ▨ HMA Surface
  - ▨ Driveway, Nonrein, Conc, .12 inch
  - ▨ Sidewalk, Conc, .12 inch
  - ▨ Curb Ramp, Conc, .12 inch
  - ⊙ STANDARD SOIL EROSION KEY

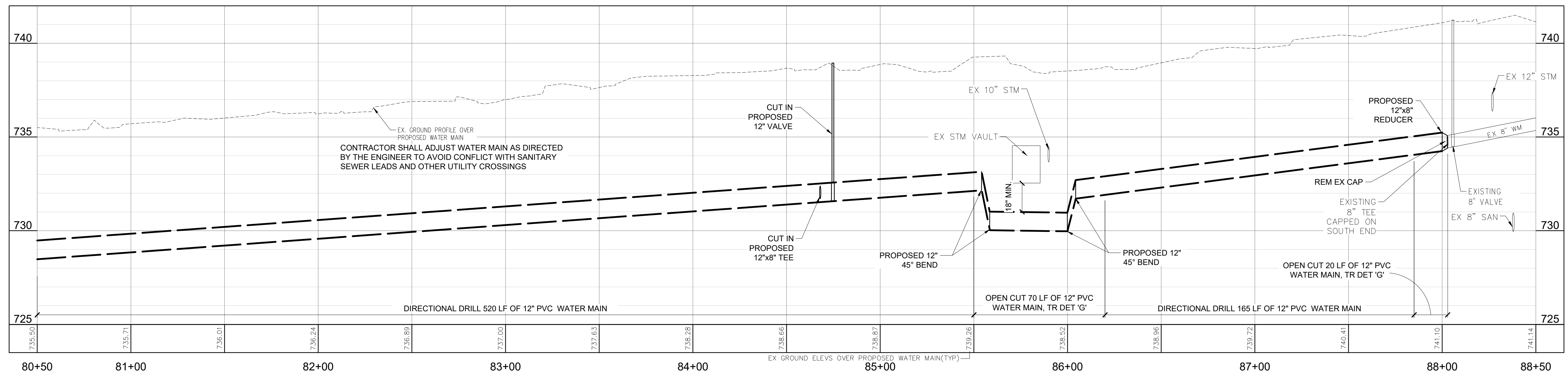


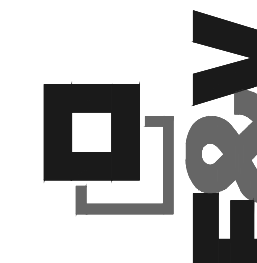
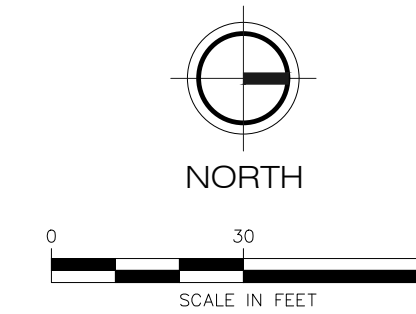
**DEWEY STREET  
WATER MAIN PLAN**

QUANTITY	UNIT	WORK ITEM
16	Cyd	Subbase, CIP
169	Syd	Aggregate Base, 8 inch, Modified
82	Ton	HMA, 13A
12	Syd	Driveway, Nonrein Conc, 6 inch
78	Ft	Curb and Gutter, Conc, Det F4
5	Ft	Detectable Warning Surface, Modified
7	Ft	Curb Ramp Opening, Conc
175	Sft	Sidewalk, Conc, 4 inch
502	Sft	Sidewalk, Conc, 6 inch
125	Sft	Curb Ramp, Conc, 4 inch
104	Sft	Curb Ramp, Conc, 7 inch
500	Syd	Turf Establishment, Performance
2	Ea	Connect to Existing Water Main
10	Ft	Water Main, Rem
850	Ft	Water Main, Abandon in Place
4	Ea	Existing Valve with Valve Box Abandonment
1	Ea	Existing Valve with Valve Box Removal
1	Ea	Hydrant, Rem
95	Ft	Water Main, C909 PVC, 8 inch, TR Detail G, Modified
90	Ft	Water Main, C909 PVC, 12 inch, TR Detail G, Modified
685	Ft	Water Main, C900 PVC, 12 inch, Bore
2	Ea	Water Main, 4 inch, Cut and Plug, Modified

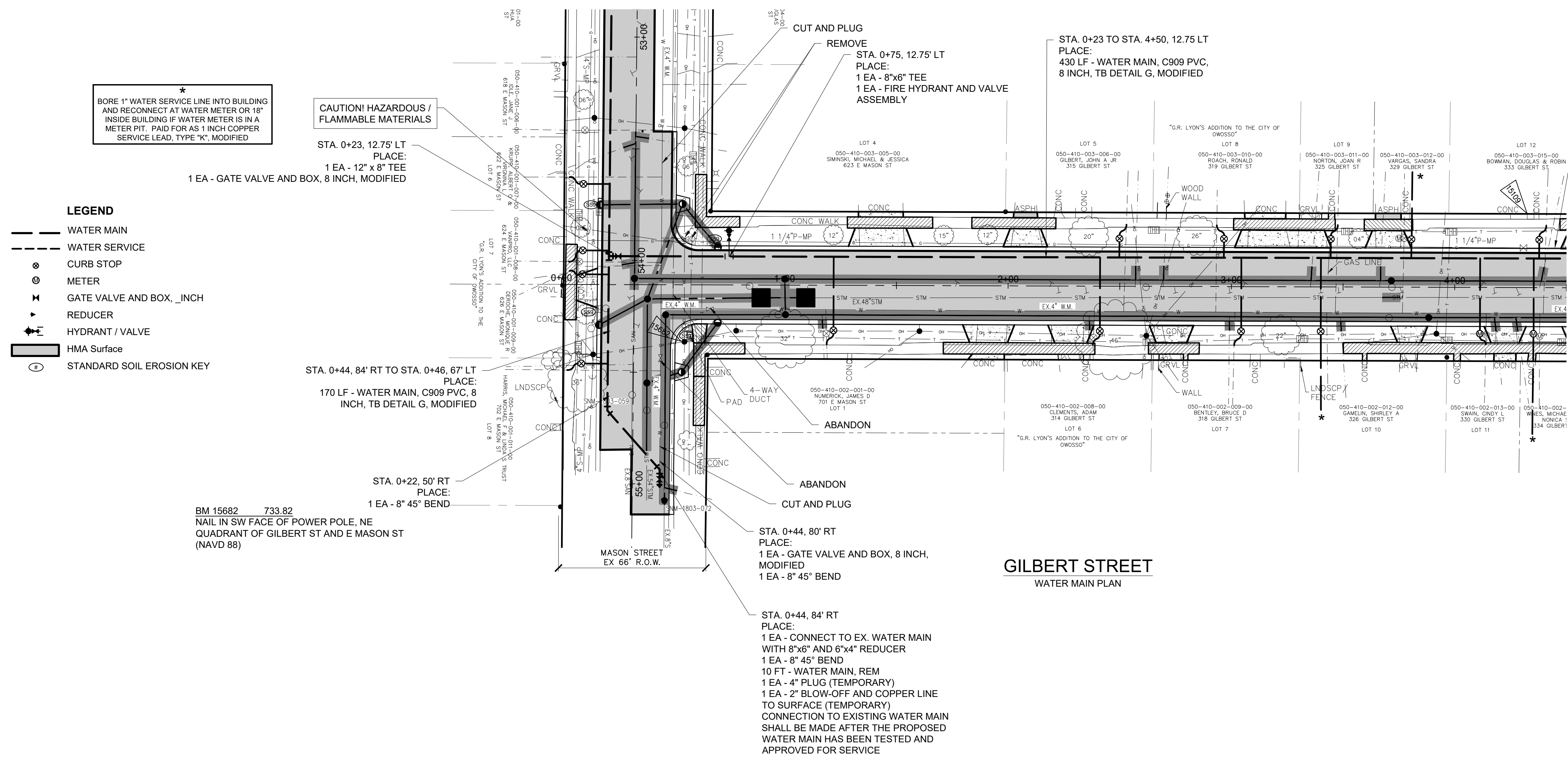
QUANTITY	UNIT	WORK ITEM
1	Ea	Gate Valve and Box, 8 inch, Modified
1	Ea	Gate Valve and Box, 12 inch, Modified
1	Ea	Fire Hydrant and Valve Assembly
755	Ft	1" Copper Service Lead, Type "K", Modified
18	Ea	Curb Box, Stop, 1 inch Corporation Stop and Connection, Modified
2	Ea	Supply & Install Meter Pit, Complete
2	Ea	Water Meter Pit, Rem
4	Ea	12" 45° Bend
8	Ea	8" 45° Bend
2	Ea	2" Blow-off and Copper Line to Surface
1	Ea	12" x 8" Tee
2	Ea	12" Plug
1	Ea	12" x 6" Tee

CONTRACTOR SHALL TEMPORARILY SUPPORT ALL UTILITY POLES WITHIN OPEN CUT INSTALLATION AREAS



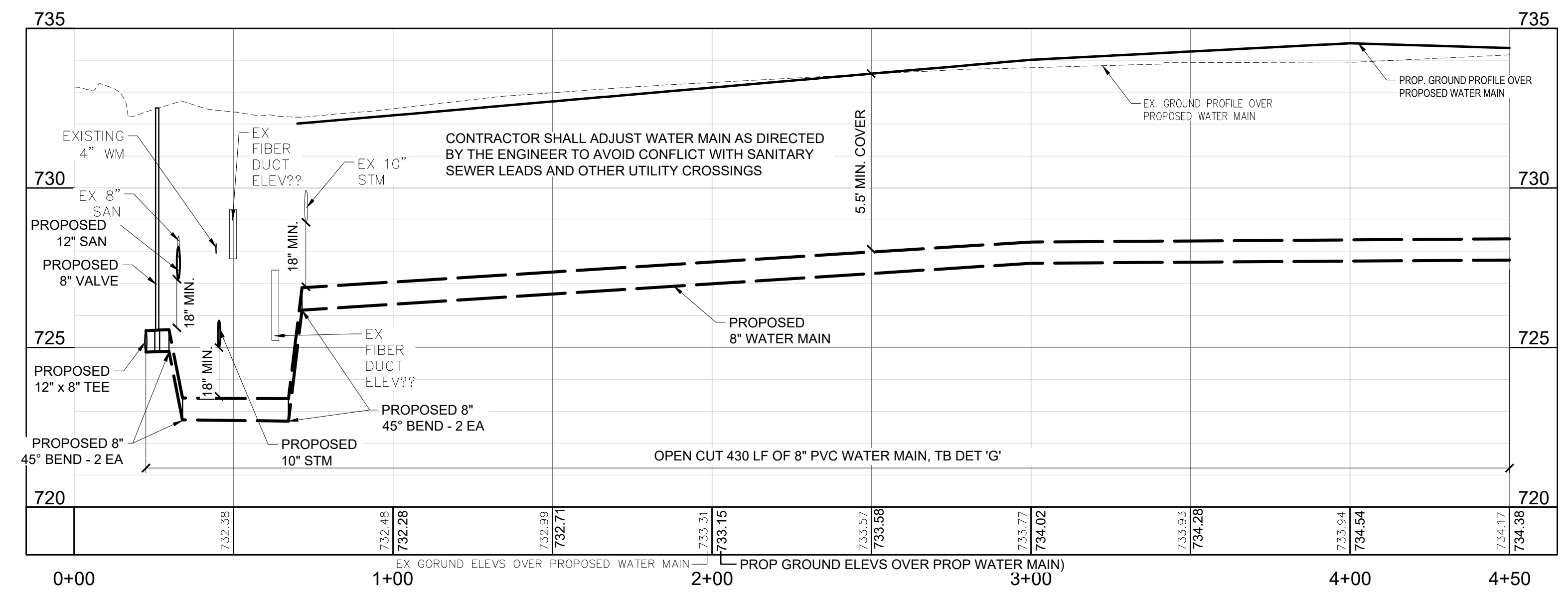


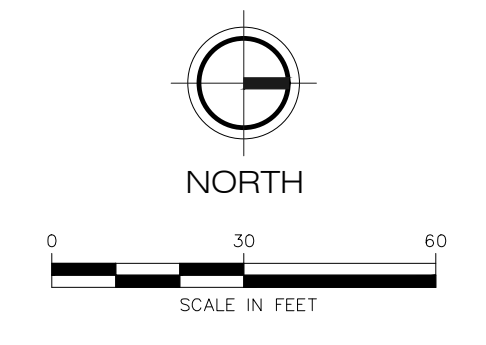
NO.	DATE	BY	REVISIONS
1	5/22/26	GLR	ISSUED FOR BIDS
			ORIGINAL PLAN



**WATER MAIN QUANTITIES (THIS SHEET)**

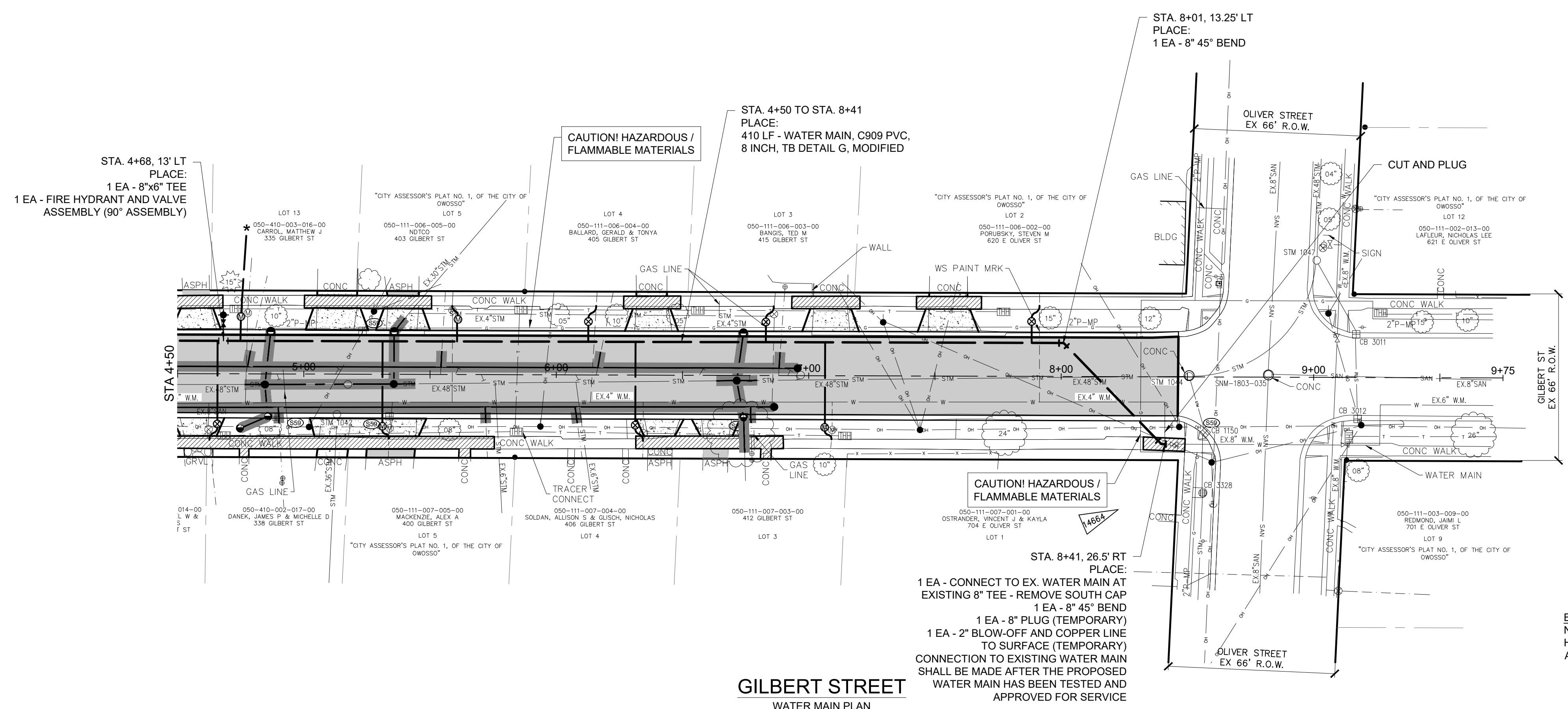
QUANTITY	UNIT	WORK ITEM
1	Ea	Connect to Existing Water Main
10	Ft	Water Main, Rem
2	Ea	Existing Valve with Valve Box Abandonment
1	Ea	Existing Valve with Valve Box Removal
1	Ea	Hydrant, Rem
600	Ft	Water Main, C909 PVC, 8 inch, TB Detail G, Modified
2	Ea	Water Main, 4 inch, Cut and Plug, Modified
2	Ea	Gate Valve and Box, 8 inch, Modified
1	Ea	Fire Hydrant and Valve Assembly
770	Ft	1" Copper Service Lead, Type "K", Modified
15	Ea	Curb Box, Stop, 1 inch Corporation Stop and Connection, Modified
6	Ea	8" 45° Bend
1	Ea	8" x 6" Reducer
1	Ea	6" x 4" Reducer
1	Ea	8" x 6" Tee
1	Ea	2" Blow-off and Copper Line to Surface





\*  
BORE 1" WATER SERVICE LINE INTO BUILDING AND RECONNECT AT WATER METER OR 18" INSIDE BUILDING F WATER METER IS IN A METER PIT. PAID FOR AS 1 INCH COPPER SERVICE LEAD, TYPE "K", MODIFIED

- LEGEND**
- WATER MAIN
  - - - WATER SERVICE
  - ⊙ CURB STOP
  - ⊙ METER
  - ⊕ GATE VALVE AND BOX, .INCH
  - ➔ REDUCER
  - ⊕ HYDRANT / VALVE
  - ▭ HMA Surface
  - ⊙ STANDARD SOIL EROSION KEY

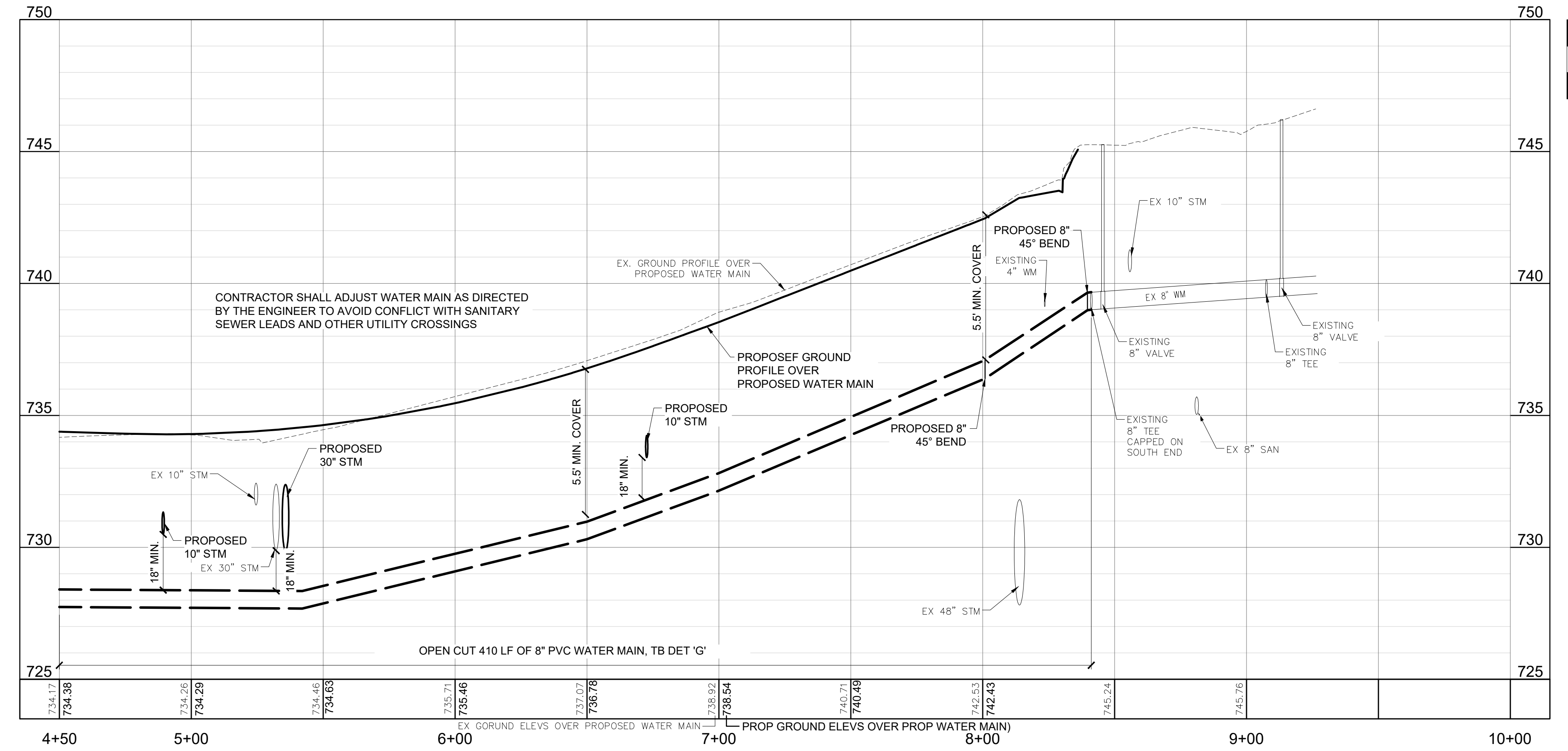


**WATER MAIN QUANTITIES (THIS SHEET)**

QUANTITY	UNIT	WORK ITEM
1	Ea	Connect to Existing Water Main
410	Ft	Water Main, C909 PVC, 8 inch, TB Detail G, Modified
1	Ea	Water Main, 4 inch, Cut and Plug, Modified
1	Ea	Fire Hydrant and Valve Assembly
330	Ft	1" Copper Service Lead, Type "K", Modified
9	Ea	Curb Box, Stop, 1 inch Corporation Stop and Connection, Modified
2	Ea	8" 45° Bend
1	Ea	8" x 6" Tee
1	Ea	2" Blow-off and Copper Line to Surface

BM 14664 746.31  
NW CORNER OF BOTTOM CONC STEP AT  
HSE #704, SE QUADRANT OF GILBERT ST  
AND E OLIVER ST (NAVD 88)

**GILBERT STREET**  
WATER MAIN PLAN



**2026 WATER MAIN REPLACEMENT PROJECT - CONTRACT 1**  
DWSRF-7920-01

NO.	DATE	BY	REVISIONS
1	5/22/26	GLR	ISSUED FOR BIDS

CHECKED BY: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_

ORIGINAL PLAN

**GILBERT ST - WATER MAIN PLAN AND PROFILE**

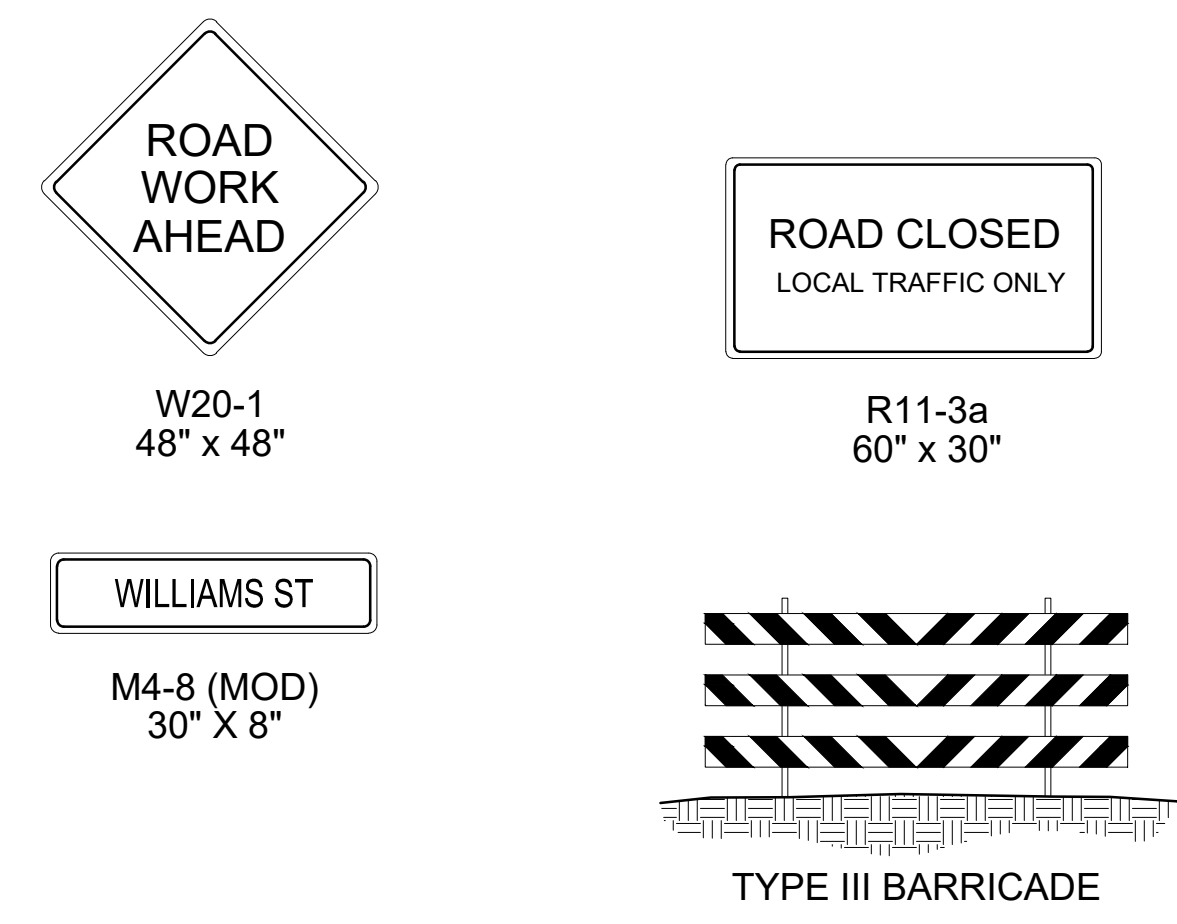
FIELD BOOK  
PG.

APRIL, 2026  
PROJECT NO: 876320

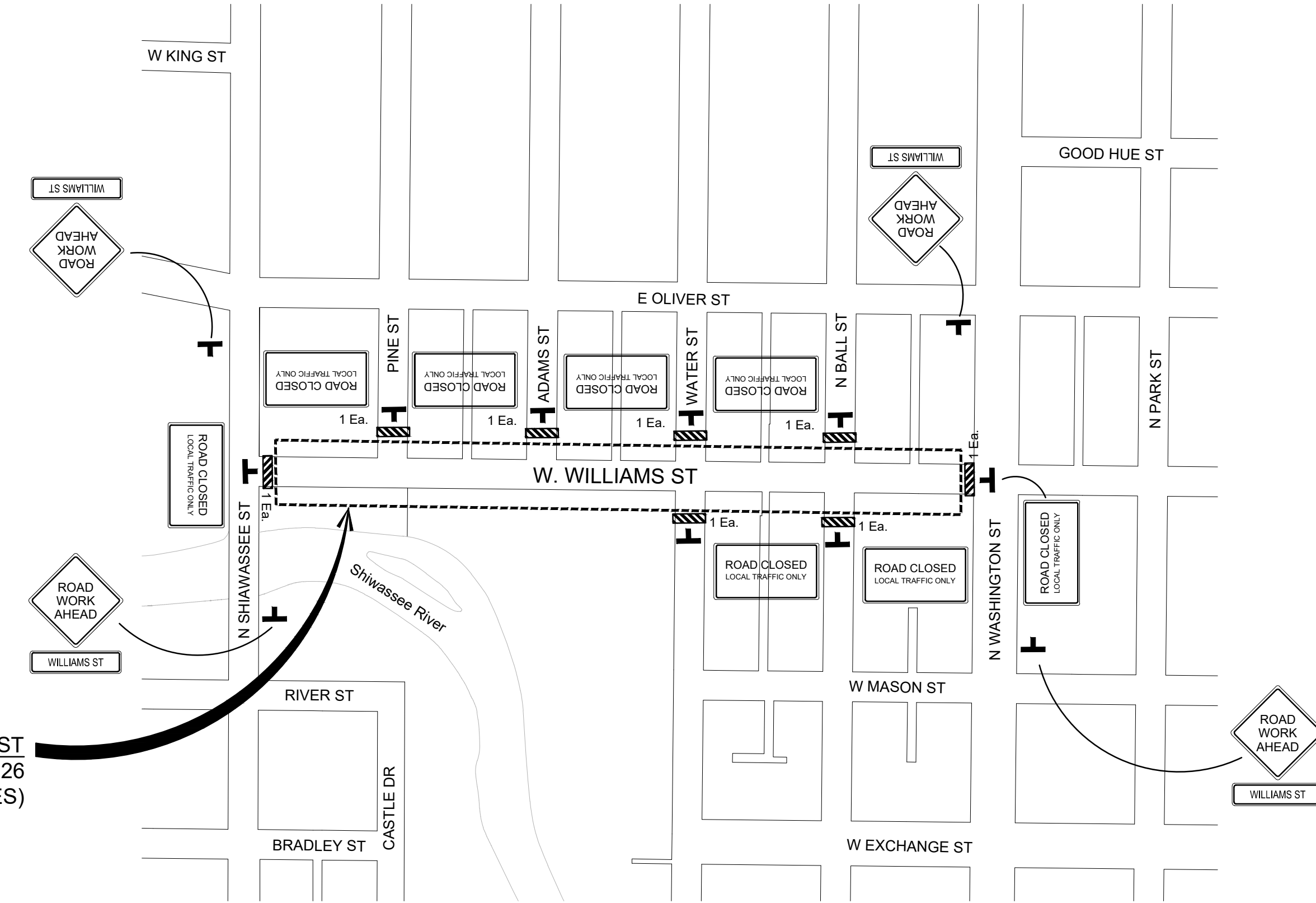




# W. WILLIAMS STREET



PROJECT LOCATION - W. WILLIAMS ST  
B.O.P. STA. 1+13 TO E.O.P. STA. 17+26  
TOTAL LENGTH = 1,613 FT (0.30 MILES)

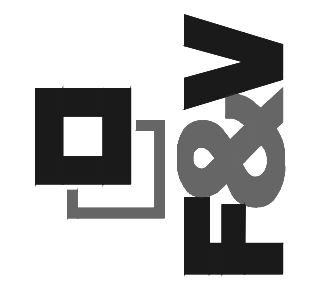


VICINITY MAP AND TRAFFIC CONTROL PLAN  
W. WILLIAMS STREET



2026 WATER MAIN REPLACEMENT PROJECT- CONTRACT 1 DWSRF-7920-01	BENCH MARK DATA		NO.	ISSUED FOR BIDDING	REVISIONS	DATE	BY
	ELEV.	DESCRIPTION	1			19/27/26	GLR
WILLIAMS ST - TRAFFIC CONTROL PLAN		CHECKED BY		ORIGINAL PLAN		APPROVED BY	
APRIL, 2026 PROJECT NO. 876320		FIELD BOOK		PG.			

CITY OF OWOSSO, MICHIGAN  
ENGINEERING DIVISION  
DEPT. OF PUBLIC SERVICE



BM 2040 EL. 737.93  
 ARROW AT TOP OF CASTING OF HYDRANT, NORTHEAST  
 CORNER OF WEST WILLIAMS STREET AND NORTH  
 SHIAWASSEE STREET (M-52). (NAVD 88)

STA. 1+05, 3' LT  
 PLACE:  
 1 EA - CONNECT TO EX. WATER MAIN  
 1 EA - 2" BLOW-OFF AND COPPER LINE  
 TO SURFACE (TEMPORARY)  
 CONNECTION TO EXISTING WATER MAIN  
 SHALL BE MADE AFTER THE PROPOSED  
 WATER MAIN HAS BEEN TESTED AND  
 APPROVED FOR SERVICE

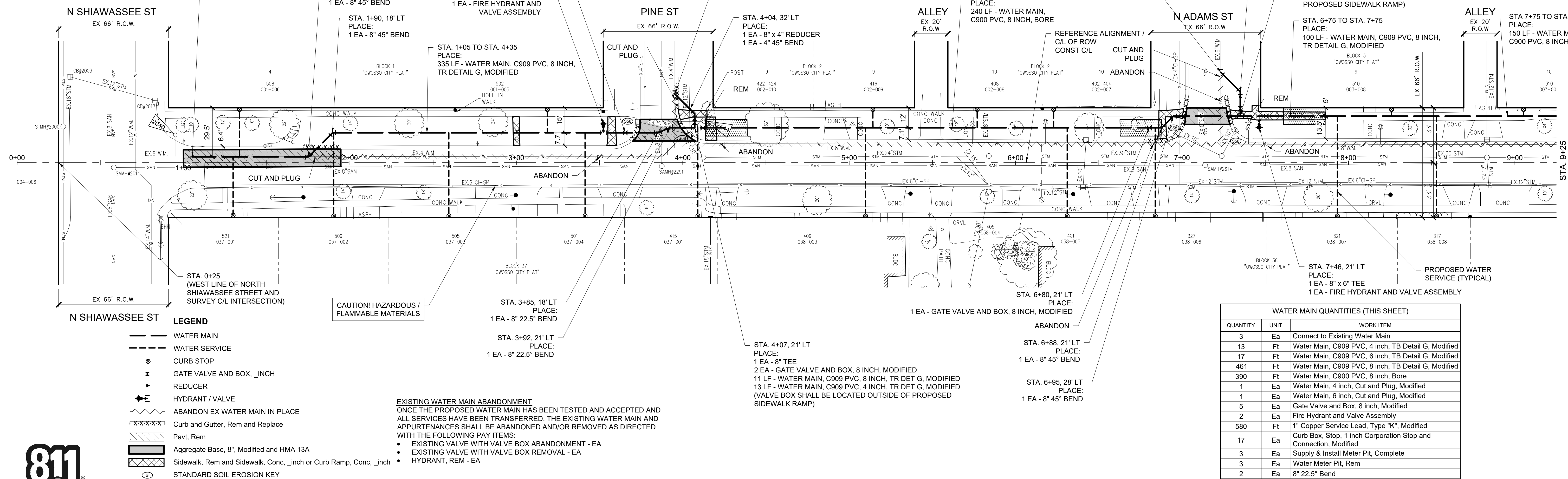
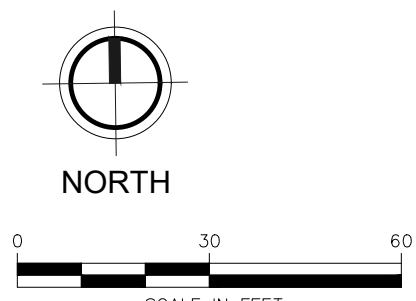
STA. 3+65, 18' LT  
 PLACE:  
 1 EA - GATE VALVE AND BOX,  
 8 INCH, MODIFIED

BM 2444 EL. 742.75  
 ARROW AT TOP OF CASTING OF HYDRANT,  
 NORTHEAST CORNER OF WEST WILLIAMS  
 STREET AND PINE STREET (M-52). (NAVD 88)

STA. 3+95, 41' LT  
 PLACE:  
 1 EA - CONNECT TO EX. WATER MAIN  
 1 EA - 4" 45° BEND  
 1 EA - 4" PLUG (TEMPORARY)  
 1 EA - 2" BLOW-OFF AND COPPER LINE  
 TO SURFACE (TEMPORARY)  
 CONNECTION TO EXISTING WATER MAIN  
 SHALL BE MADE AFTER THE PROPOSED  
 WATER MAIN HAS BEEN TESTED AND  
 APPROVED FOR SERVICE

STA. 7+23, 54' LT  
 PLACE:  
 1 EA - CONNECT TO EX. WATER MAIN  
 1 EA - 6" PLUG (TEMPORARY)  
 1 EA - 2" BLOW-OFF AND COPPER LINE  
 TO SURFACE (TEMPORARY)  
 CONNECTION TO EXISTING WATER MAIN  
 SHALL BE MADE AFTER THE PROPOSED  
 WATER MAIN HAS BEEN TESTED AND  
 APPROVED FOR SERVICE

STA. 7+35, 43' RT  
 PLACE:  
 1 EA - 8" x 6" REDUCER  
 1 EA - 6" 45° BEND



- LEGEND**
- WATER MAIN
  - WATER SERVICE
  - ⊙ CURB STOP
  - ⊗ GATE VALVE AND BOX, .INCH
  - ▶ REDUCER
  - ⊕ HYDRANT / VALVE
  - ABANDON EX WATER MAIN IN PLACE
  - Curb and Gutter, Rem and Replace
  - Pavt, Rem
  - Aggregate Base, 8", Modified and HMA 13A
  - Sidewalk, Rem and Sidewalk, Conc., .inch or Curb Ramp, Conc., .inch
  - ⊙ STANDARD SOIL EROSION KEY

**EXISTING WATER MAIN ABANDONMENT**  
 ONCE THE PROPOSED WATER MAIN HAS BEEN TESTED AND ACCEPTED AND  
 ALL SERVICES HAVE BEEN TRANSFERRED, THE EXISTING WATER MAIN AND  
 APPURTENANCES SHALL BE ABANDONED AND/OR REMOVED AS DIRECTED  
 WITH THE FOLLOWING PAY ITEMS:

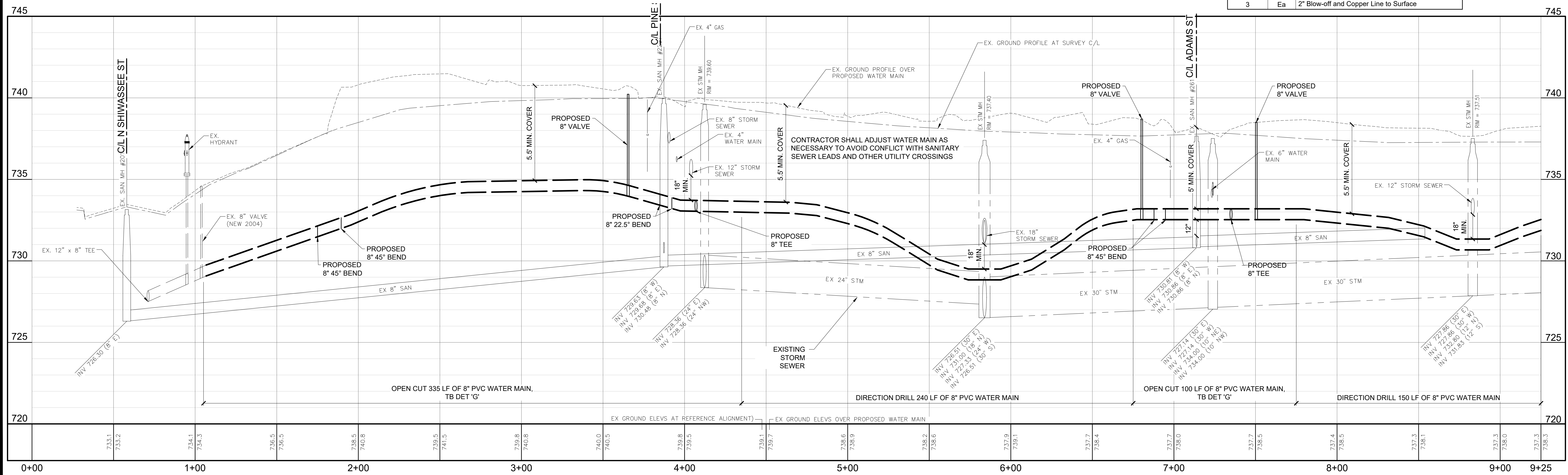
- EXISTING VALVE WITH VALVE BOX ABANDONMENT - EA
- EXISTING VALVE WITH VALVE BOX REMOVAL - EA
- HYDRANT, REM - EA

WATER MAIN QUANTITIES (THIS SHEET)		
QUANTITY	UNIT	WORK ITEM
3	Ea	Connect to Existing Water Main
13	Ft	Water Main, C909 PVC, 4 inch, TB Detail G, Modified
17	Ft	Water Main, C909 PVC, 6 inch, TB Detail G, Modified
461	Ft	Water Main, C909 PVC, 8 inch, TB Detail G, Modified
390	Ft	Water Main, C900 PVC, 8 inch, Bore
1	Ea	Water Main, 4 inch, Cut and Plug, Modified
1	Ea	Water Main, 6 inch, Cut and Plug, Modified
5	Ea	Gate Valve and Box, 8 inch, Modified
2	Ea	Fire Hydrant and Valve Assembly
580	Ft	1" Copper Service Lead, Type "K", Modified
17	Ea	Curb Box, Stop, 1 inch Corporation Stop and Connection, Modified
3	Ea	Supply & Install Meter Pit, Complete
3	Ea	Water Meter Pit, Rem
2	Ea	8" 22.5° Bend
6	Ea	8" 45° Bend
2	Ea	6" 45° Bend
1	Ea	8" x 6" Reducer
1	Ea	8" x 4" Reducer
2	Ea	8" x 6" Tee
2	Ea	8" Tee
3	Ea	2" Blow-off and Copper Line to Surface

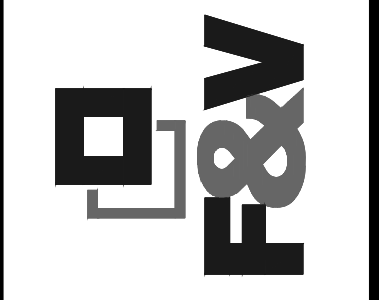


Know what's below.  
 Call before you dig.

**W WILLIAMS STREET**  
 CONSTRUCTION PLAN



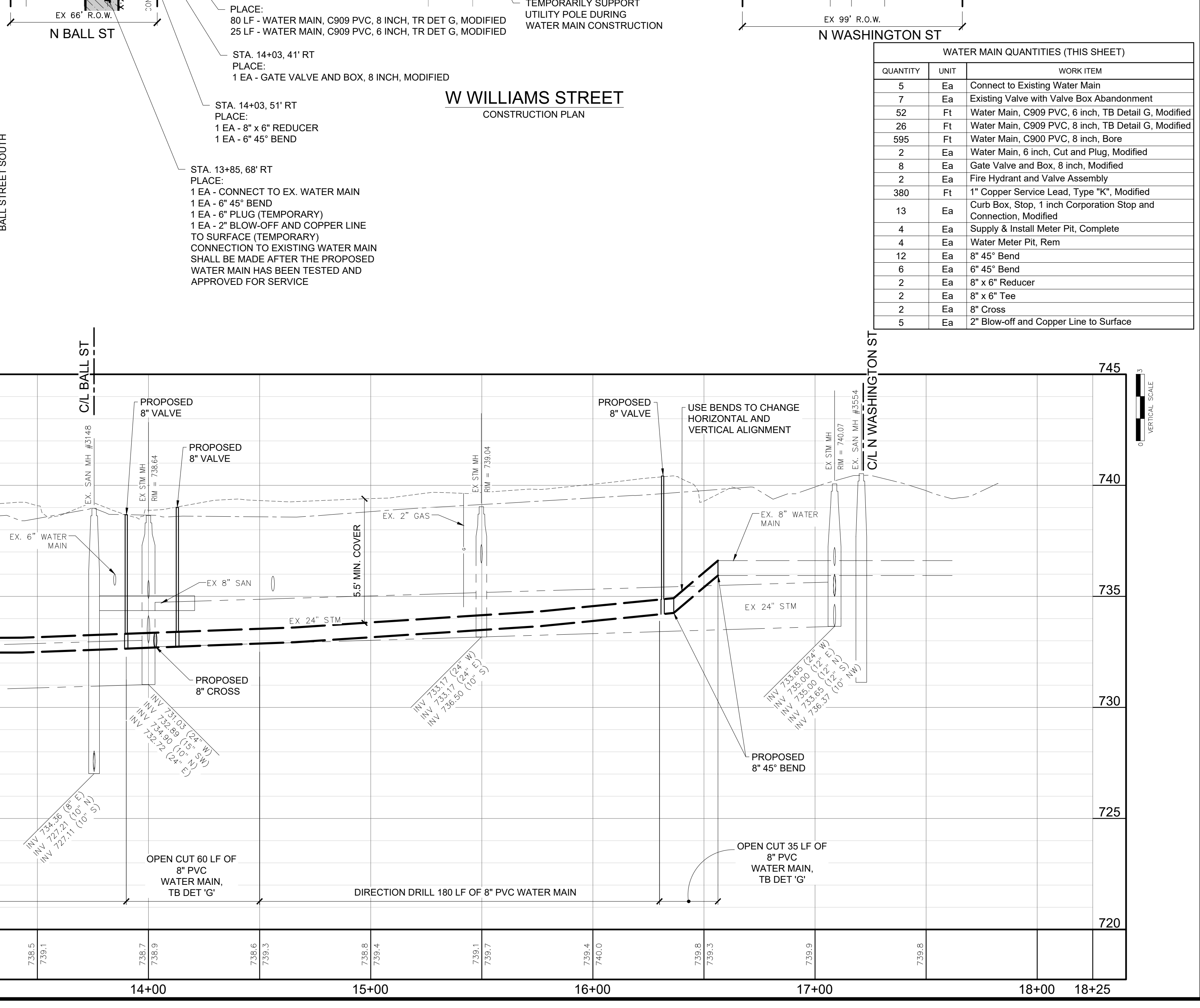
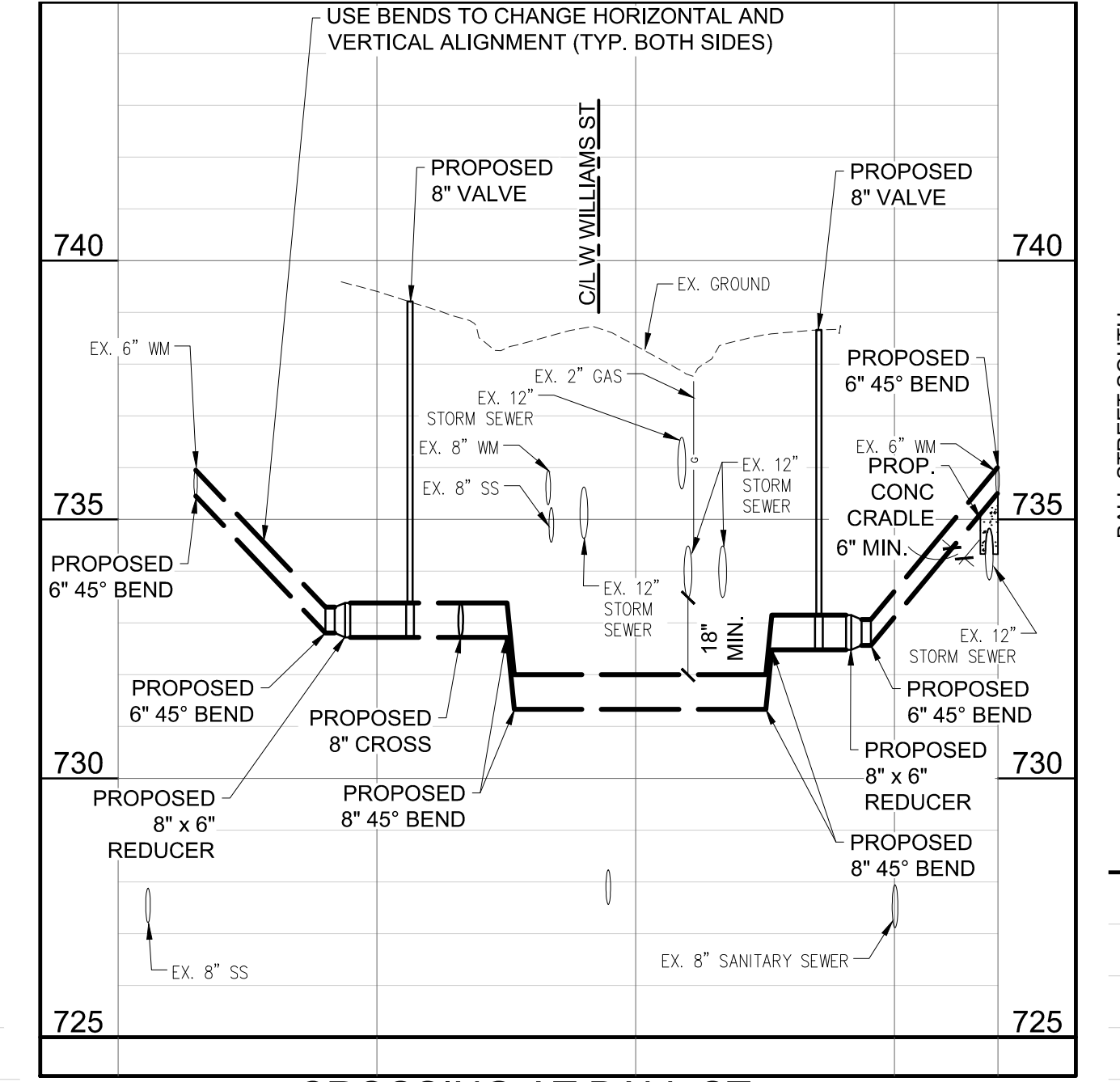
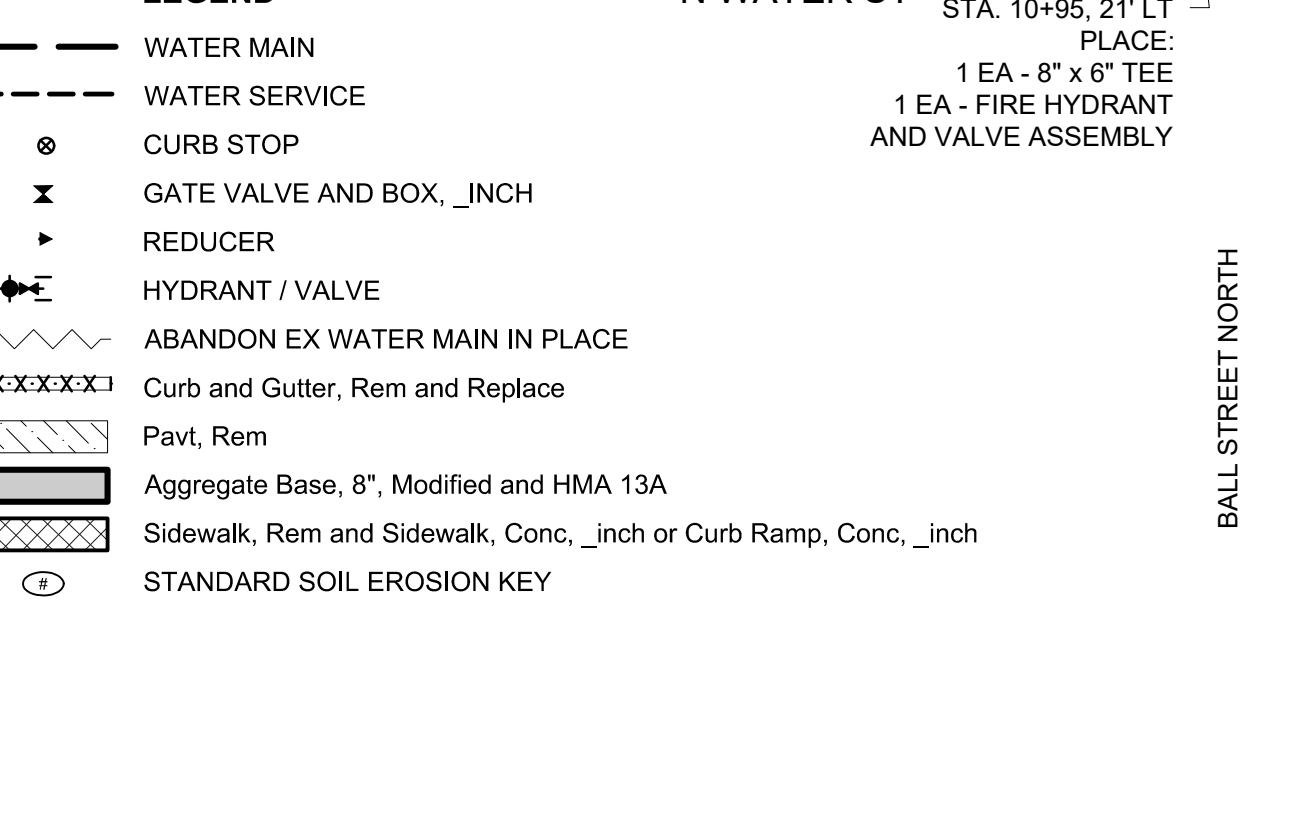
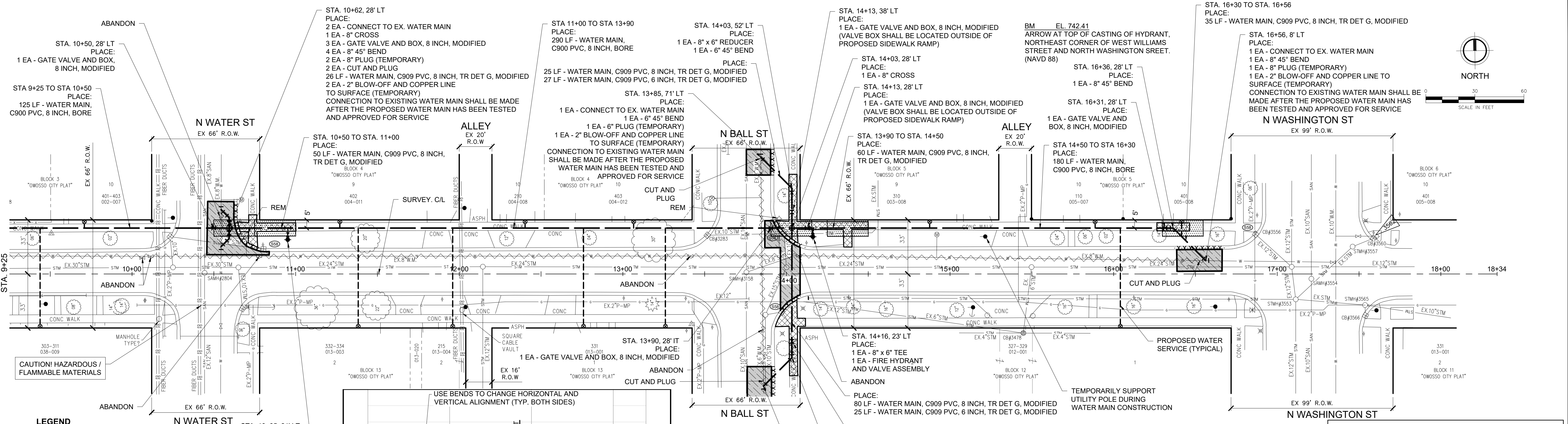
CITY OF OWOSO, MICHIGAN  
 ENGINEERING DIVISION  
 DEPT. OF PUBLIC SERVICE



NO.	DATE	BY	REVISIONS
1	5/22/26	GLR	ISSUED FOR BIDS

BENCH MARK DATA	DESCRIPTION	ELEV.

2026 WATER MAIN REPLACEMENT PROJECT- CONTRACT 1  
 DWSRF-7920-01  
 WILLIAMS ST - WATER  
 MAIN PLAN AND PROFILE  
 APRIL, 2026  
 PROJECT NO. 876320  
 FIELD BOOK  
 PG.



WATER MAIN QUANTITIES (THIS SHEET)		
QUANTITY	UNIT	WORK ITEM
5	Ea	Connect to Existing Water Main
7	Ea	Existing Valve with Valve Box Abandonment
52	Ft	Water Main, C909 PVC, 6 inch, TB Detail G, Modified
26	Ft	Water Main, C909 PVC, 8 inch, TB Detail G, Modified
595	Ft	Water Main, C900 PVC, 8 inch, Bore
2	Ea	Water Main, 6 inch, Cut and Plug, Modified
8	Ea	Gate Valve and Box, 8 inch, Modified
2	Ea	Fire Hydrant and Valve Assembly
380	Ft	1" Copper Service Lead, Type "K", Modified
13	Ea	Curb Box, Stop, 1 inch Corporation Stop and Connection, Modified
4	Ea	Supply & Install Meter Pit, Complete
4	Ea	Water Meter Pit, Rem
12	Ea	8" 45° Bend
6	Ea	6" 45° Bend
2	Ea	8" x 6" Reducer
2	Ea	8" x 6" Tee
2	Ea	8" Cross
5	Ea	2" Blow-off and Copper Line to Surface

CITY OF OWOSSO, MICHIGAN  
ENGINEERING DIVISION  
DEPT. OF PUBLIC SERVICE

**F&V**

BY: GJR  
DATE: 5/22/26

NO. 1  
ISSUED FOR BIDS

REVISIONS

DESCRIPTION

BENCH MARK DATA

ELEV.

2026 WATER MAIN REPLACEMENT PROJECT - CONTRACT 1  
DWSRF-7920-01

WILLIAMS ST - WATER MAIN PLAN  
AND PROFILE

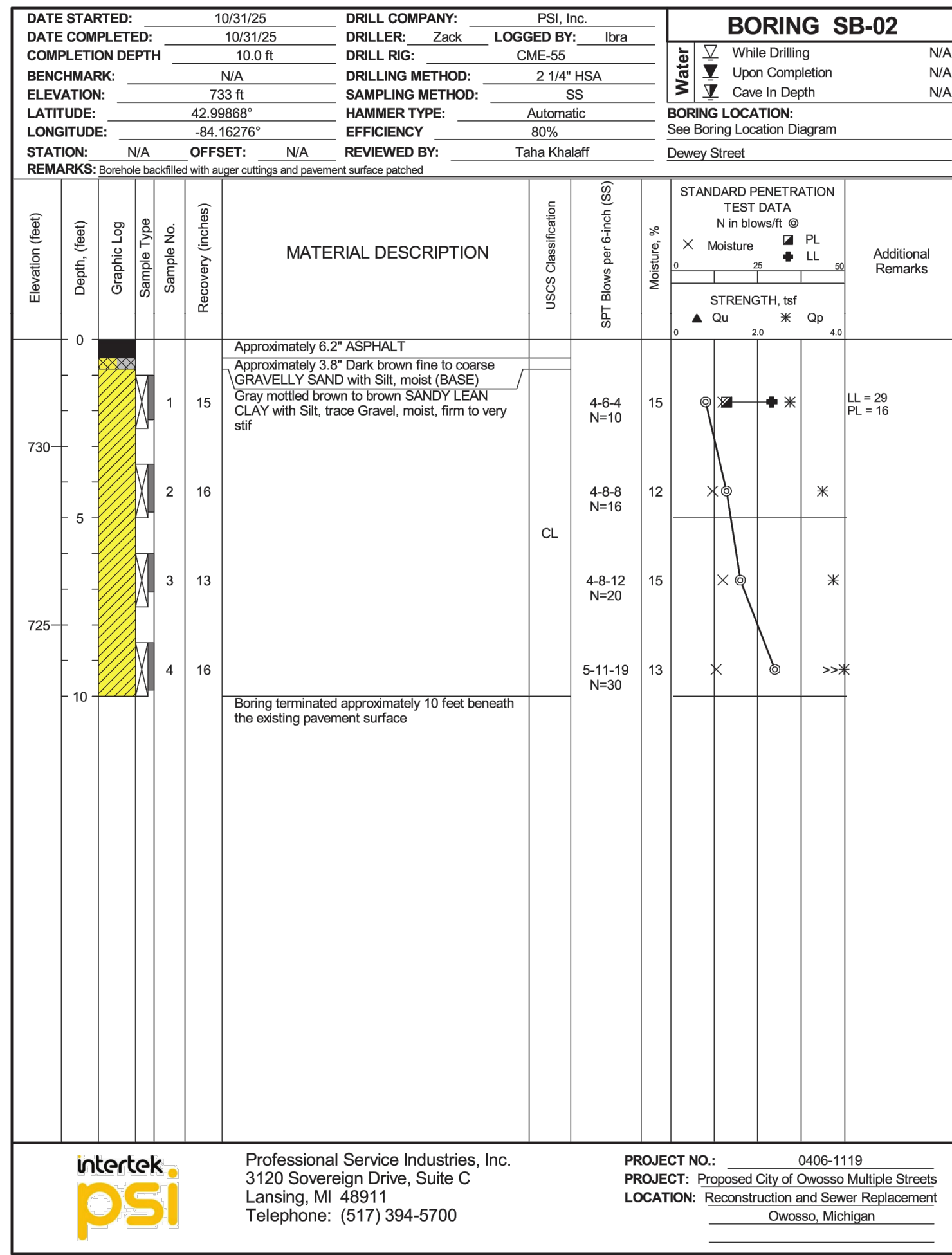
FIELD BOOK  
Pg.

APRIL, 2026  
PROJECT NO: 876320

APPROVED BY

CHECKED BY

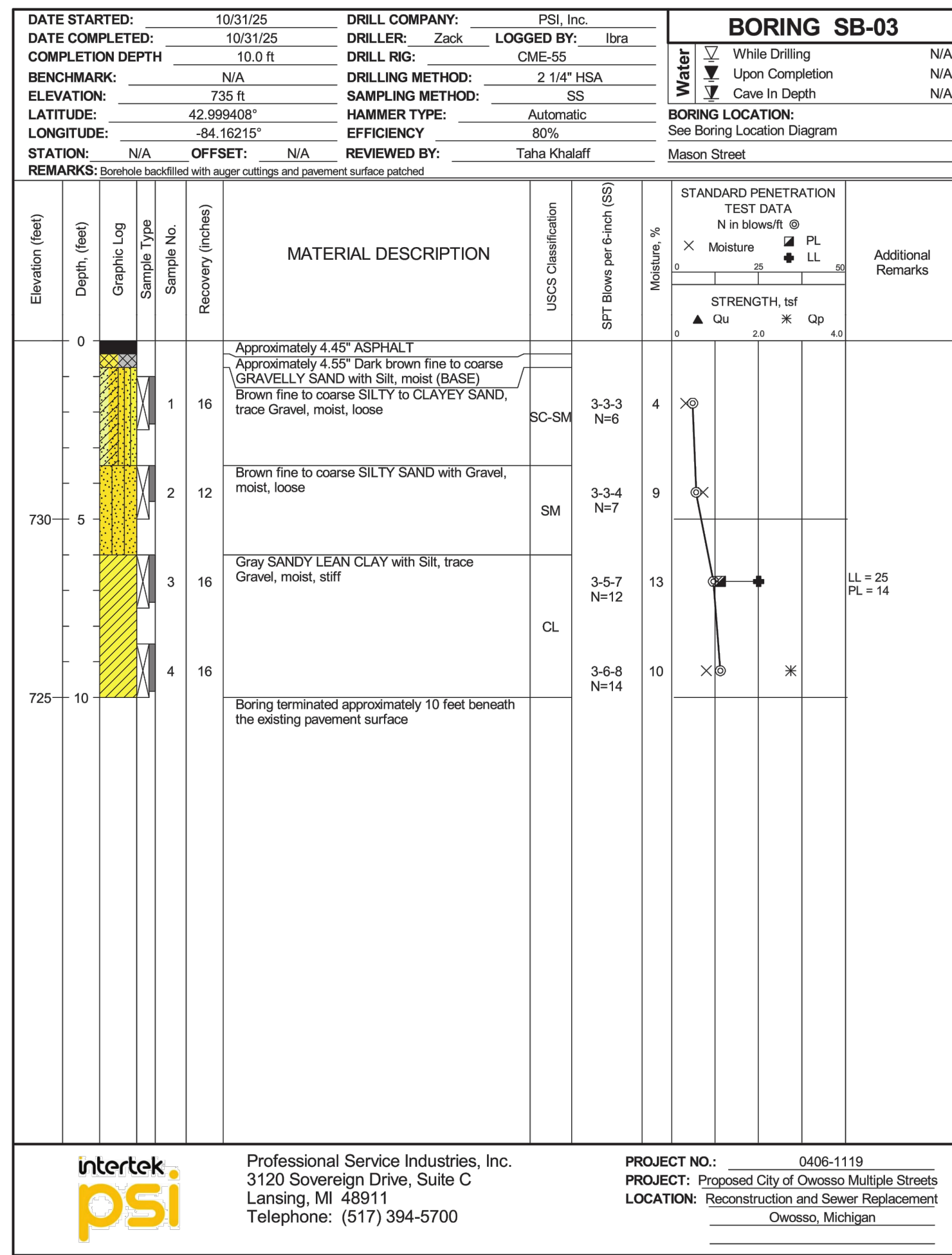
ORIGINAL PLAN



**DEWEY STREET**  
SOIL BORING

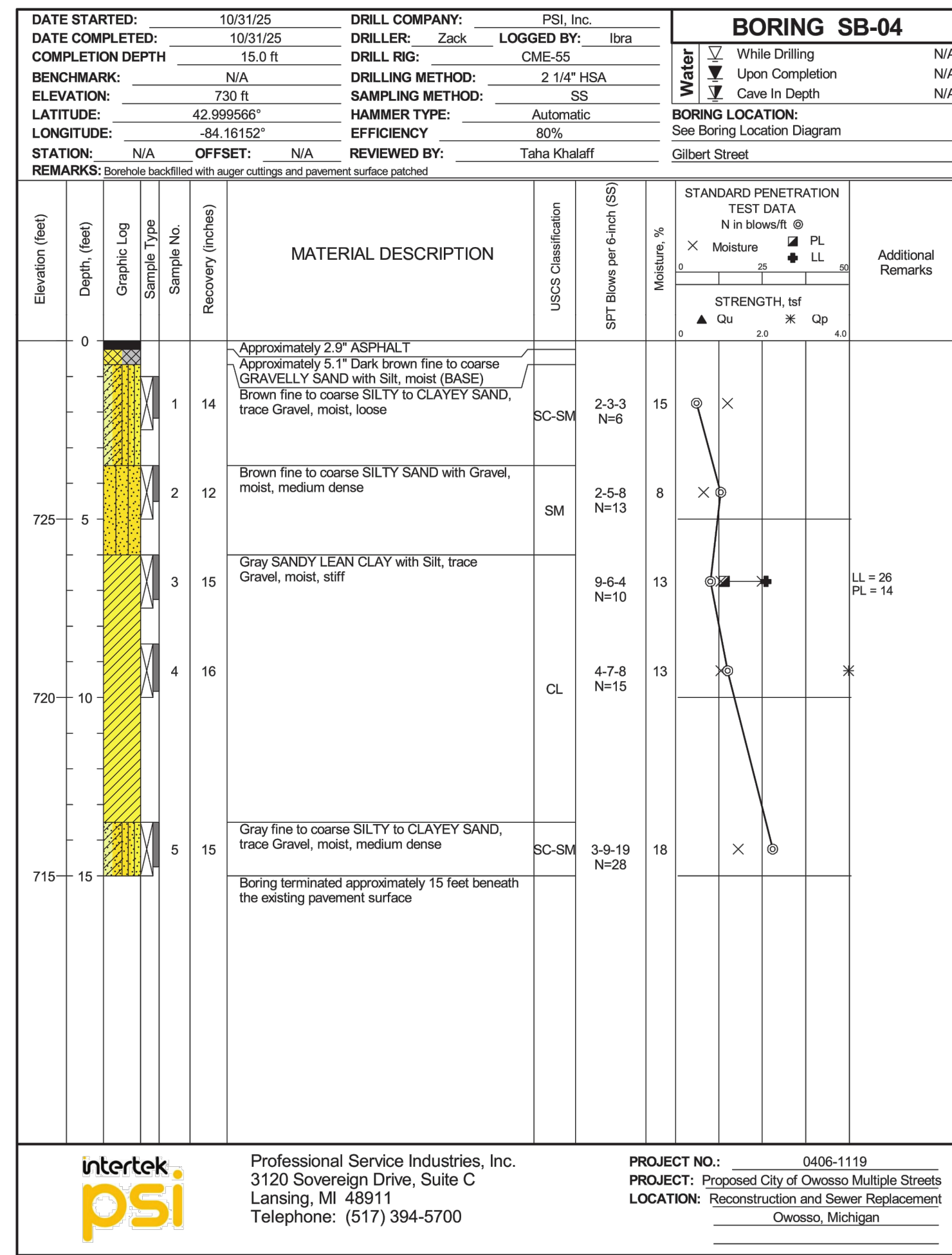
Sheet 1 of 1

**DEWEY STREET**  
SOIL BORING



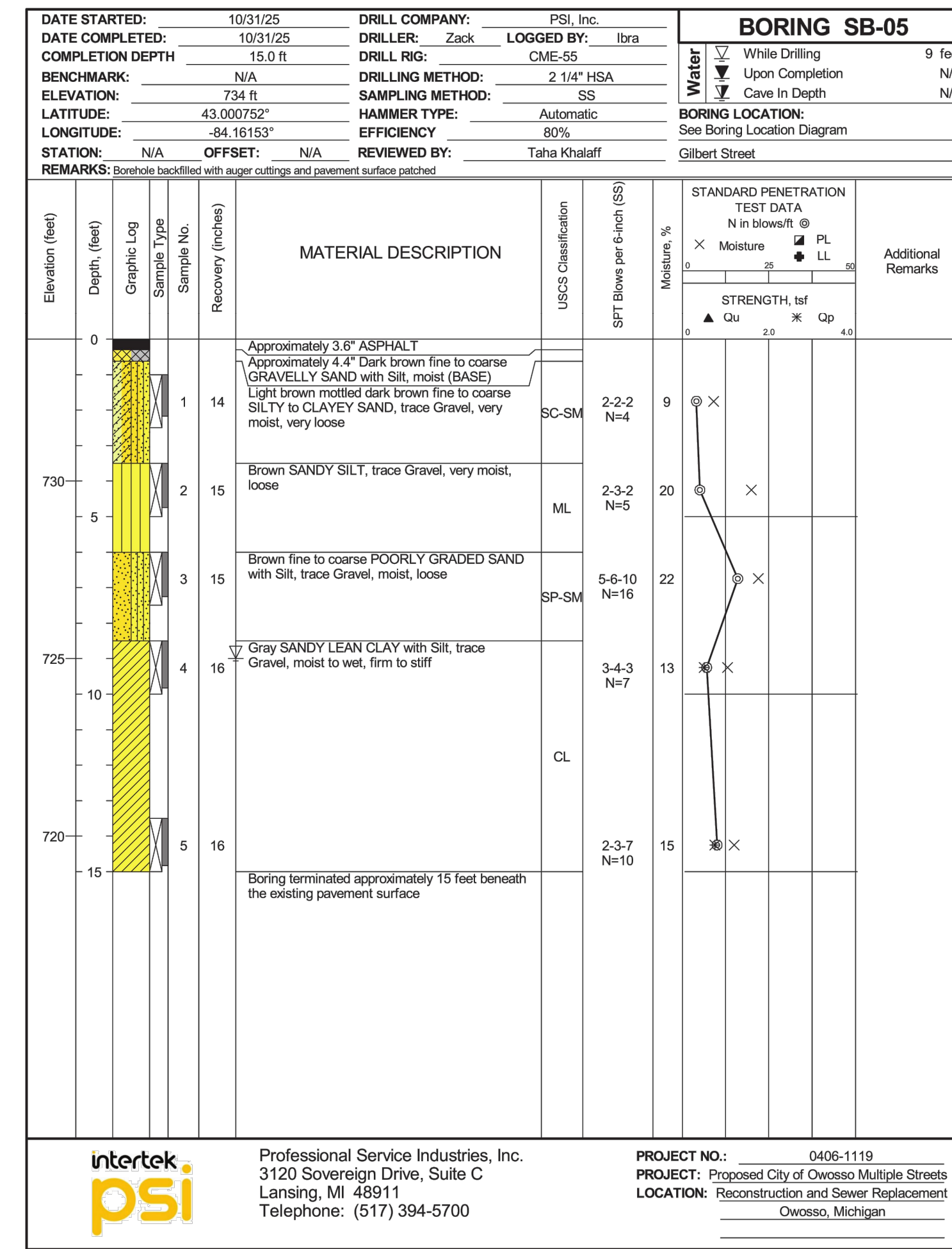
**MASON STREET**  
SOIL BORING

Sheet 1 of 1



**GILBERT STREET**  
SOIL BORING

Sheet 1 of 1



**GILBERT STREET**  
SOIL BORING

Sheet 1 of 1

CITY OF OWOSSO, MICHIGAN  
ENGINEERING DIVISION  
DEPT. OF PUBLIC SERVICE

**F&V**

NO.	DATE	BY	REVISIONS
1	5/22/26	GLR	ISSUED FOR BIDS

APPROVED BY: \_\_\_\_\_  
ORIGINAL PLAN

2026 WATER MAIN REPLACEMENT PROJECT - CONTRACT 1  
DWSRF-7920-01

SOIL BORINGS

FIELD BOOK  
PG.

APRIL 2026  
PROJECT NO: 876320

**33**



Construction Testing Services  
3300 E. Bristol Road, Burton, MI 48529  
PHONE: (810) 603-0766  
FAX: (810) 603-0786

JOB NO. S-17-254 LOG OF SOIL BORING NO. 1  
PROJECT: 2018 Street Program  
LOCATION: Owosso, Michigan  
DATE: 11/8/17 SURFACE ELEVATION: Existing

Sample & Type	Depth	Legend	Soil Description	SPT Blows per ft	Moisture %	Natural Wt. P.C.F.	Unc. Comp. Strength	Str. %
	1		7.5" Concrete					
1A SS	2			1				
	3		Sand - Loose, Moist, Fine, Brown w/occ Pebble	2				
	4			2				
	5							
1B SS	6		6'0" Sand - Medium Compact, Moist, Fine, Brown w/Gravel	1				
	7		7'0" End of Boring	2				
	8			3				
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							

WILLIAMS STREET  
SOIL BORING



Construction Testing Services  
3300 E. Bristol Road, Burton, MI 48529  
PHONE: (810) 603-0766  
FAX: (810) 603-0786

JOB NO. S-17-254 LOG OF SOIL BORING NO. 2  
PROJECT: 2018 Street Program  
LOCATION: Owosso, Michigan  
DATE: 11/8/17 SURFACE ELEVATION: Existing

Sample & Type	Depth	Legend	Soil Description	SPT Blows per ft	Moisture %	Natural Wt. P.C.F.	Unc. Comp. Strength	Str. %
	1		6.5" Asphalt					
2A SS	2			1				
	3		Sand - Medium Compact, Moist, Fine, Brown w/occ Pebble	2				
	4			4				
	5							
2B SS	6		6'3" Sand - Medium Compact, Moist, Fine, Brown w/Gravel	2				
	7		7'0" Clay - Soft, Moist, Silty, Sandy, Brown w/Gravel	2				
	8		End of Boring	2				
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							

WILLIAMS STREET  
SOIL BORING



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JOB NO. S-17-254 LOG OF SOIL BORING NO. 3  
PROJECT: 2018 Street Program  
LOCATION: Owosso, Michigan  
DATE: 11/8/17 SURFACE ELEVATION: Existing

Sample & Type	Depth	Legend	Soil Description	SPT Blows per ft	Moisture %	Natural Wt. P.C.F.	Unc. Comp. Strength	Str. %
	1		7" Asphalt					
3A SS	2			1				
	3		Sand - Medium Compact, Moist, Fine, Brown w/occ Pebble	2				
	4			4				
	5							
3B SS	6		6'2" Sand - Compact, Moist, Fine, Brown w/Gravel	4				
	7		7'0" End of Boring	8				
	8			11				
	9							
	10							
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WILLIAMS STREET  
SOIL BORING



Construction Testing Services  
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PHONE: (810) 603-0766  
FAX: (810) 603-0786

JOB NO. S-17-254 LOG OF SOIL BORING NO. 4  
PROJECT: 2018 Street Program  
LOCATION: Owosso, Michigan  
DATE: 11/8/17 SURFACE ELEVATION: Existing

Sample & Type	Depth	Legend	Soil Description	SPT Blows per ft	Moisture %	Natural Wt. P.C.F.	Unc. Comp. Strength	Str. %
	1		6.75" Asphalt					
4A SS	2			3				
	3		Possible Fill Sand - Loose to Medium Compact, Moist, Fine, Brown w/occ Pebble & tr/Possible Fill Topsoil	2				
	4			2				
	5							
4B SS	6		7'0" End of Boring	2				
	7			3				
	8			3				
	9							
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WILLIAMS STREET  
SOIL BORING

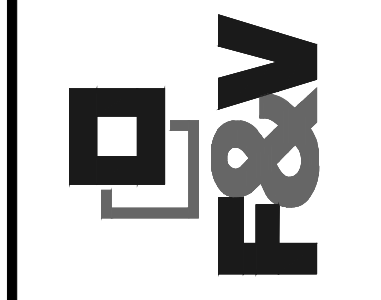


Construction Testing Services  
3300 E. Bristol Road, Burton, MI 48529  
PHONE: (810) 603-0766  
FAX: (810) 603-0786

JOB NO. S-17-254 LOG OF SOIL BORING NO. 5  
PROJECT: 2018 Street Program  
LOCATION: Owosso, Michigan  
DATE: 11/8/17 SURFACE ELEVATION: Existing

Sample & Type	Depth	Legend	Soil Description	SPT Blows per ft	Moisture %	Natural Wt. P.C.F.	Unc. Comp. Strength	Str. %
	1		6.5" Asphalt					
5A SS	2			3				
	3		Sand - Compact, Moist, Fine, Brown w/occ Pebble	3				
	4			5				
	5							
5B SS	6		7'0" End of Boring	2				
	7			4				
	8			6				
	9							
	10							
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WILLIAMS STREET  
SOIL BORING



NO.	REVISIONS	DATE	BY
1	ISSUED FOR BIDS	5/22/26	GLR

BENCH MARK DATA	DESCRIPTION	ELEV.