JENNY LIN RD JOY RANCH RD CAREFREE HWY DOVE VALLEY LONE MOUNTAIN DIXILETA DR DIXILETA DR DYNAMITE BLVD HAPPY VALLEY RD PINNACLE PK RD PINNACLE PK RD DEER VALLEY DR BEARDSLEY RD GREENWAY RD THUNDERBIRD RD THUNDERBIRD R THIS PROJECT DUNLAP RD DOUBLETREE GLENDALE AVE LOWER BUCKEYE RD BROADWAY RD SOUTHERN AVE SOUTHERN AVE BASELINE RD GUADALUPE RD 99 91 91 ELLIOT RD RAY RD CHANDLER BLVD

DATE

DATE

DATE

VICINITY MAP

CITY OF PHOENIX WATER SERVICE DEPARTMENT WATER MAIN REPLACEMENT AREA BOUNDED BY MOUNTAIN VIEW ROAD TO PEORIA AVENUE AND 19TH AVENUE TO 15TH AVENUE WS85509031 (WIFA)





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	★ Entellus [™]		Fax 602.244.8947 WebsiteEntellus.com		CONSULTING ENGINEER			
	6	44	3033 N. 44th Street Suite 250 Phoenix. AZ 85018 Tel 602.244.2566		ENTELLUS INC.			
l	9	ARIZ.	WS8	35509	031		01	83
	F.H.W.A. REGION	STATE	PROJ. NO.			NO.	TOTA	

MAYOR

KATE GALLEGO

CITY MANAGER JEFFREY BARTON

CITY COUNCIL

ANN O'BRIEN DISTRICT NO 1.

DISTRICT NO 2. JIM WARING

DISTRICT NO 3. DEBRA STARK

DISTRICT NO 4. LAURA PASTOR

DISTRICT NO 5. BETTY GURDADO

DISTRICT NO 6. KEVIN ROBINSON

DISTRICT NO 7. CARLOS GALINDO—ELVIRA 🖰

DISTRICT NO 8. KESHA HODGE WASHINGTON W

INDEX OF SHEETS

COVER SHEET

NOTES AND LEGEND SHEETS

KEY MAP

ABANDONMENT INDEX

BENCHMARKS:

9th Avenue & Peoria Avenue (Point #1330)

Elevation = 1253.909 (NGVD-29 Datum)

▲ 15th Avenue & Dunlap Avenue South (Point #1362) City of Phoenix brass cap in hand hole.

Elevation = 1225.228 (NGVD-29 Datum)

▲ 7th Avenue & Peoria Avenue (Point #1383) City of Phoenix brass cap in hand hole at the southeast return, about 7-feet north of the bridge barrier. Elevation = 1313.888 (NGVD-29 Datum)

▲ 15th Avenue & Peoria Avenue (Point #1368) City of Phoenix brass cap in hand hole.

Elevation = 1263.026 (NGVD-29 Datum)

▲ 15th Avenue & mountain View Road (Point #1367)

City of Phoenix brass cap in hand hole. Elevation = 1246.761 (NGVD-29 Datum)

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE 'AS-BUILT' MEASUREMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED ENGINEER

DATE

REGISTRATION NUMBER



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10/31/2024 10/31/2024 **APPROVED** WATER SERVICES DEPARTMENT 9/13/2024 ENVIRONMENTAL SERVICES DEPT. DWR-24-00439

	WATER MAIN REPL PHOENIX STREET — M QUARTER SECTIO 28—25	IARICOPA CO.
	20 20	LEGEND
		BENCHMARK
ATE	•	NEW SURVEY MONUMENT — M.A.G. DETAIL 120—1 TYPE "B"
BY D,	<u> </u>	NEW SURVEY MONUMENT - M.A.G. DETAIL 120-1 TYPE "A"
		COMBINED CURB & GUTTER - M.A.G. DETAIL 220 TYPE "A"
	B 10	BACKFILL TYPE & SQ. YD. PVMT. REPLACEMENT - C.O.P. DETAIL PI200
PHO!		EXISTING CONCRETE PAVEMENT OR SIDEWALK
		NEW CONCRETE SIDEWALK - STD. DETAIL P1230
		NEW CONCRETE DRIVEWAY OR ALLEY ENT. PER DETAIL NO. ON PLANS
		NEW CONCRETE SIDEWALK RAMP PER DETAIL ON PLANS
ISION BY ESCRIPTION		AVERAGE GROUND ELEVATION AT R/W LINE
EVISION	\(\frac{1}{2}\)	BACKFILL COMPACTION TYPE
		EXISTING DITCH
	24" <u>IRR (</u> SRP)	EXISTING IRRIGATION LINE W/SIZE (NOTE PRIVATE, SALT RIVER OR R.I.D.)
OZ		EXISTING IRRIGATION STRUCTURE
		EXISTING IRRIGATION STANDPIPE
		NEW IRRIGATION STANDPIPE - M.A.G. DETAIL 503
	₩	NEW IRRIGATION VALVE - M.A.G. DETAIL 506 W/ CONC. SCOURING BASIN
		IRRIGATION BERM
		NEW IRRIGATION STRUCTURE PER DETAIL ON PLANS
DATE		EXISTING WATER LINE W/SIZE & TYPE (12" AND SMALLER)
	36 <u>"_DIPW</u>	EXISTING WATER LINE W/SIZE & TYPE (GREATER THAN 12")
CKD BY		ADJUST EXIST. WATER VALVE BOX - C.O.P. DETAIL PI391
		NEW WATER SERVICE AND WATER METER BOX
PHO!		EXISTING WATER METER BOX
9		EXISTING FIRE HYDRANT
CITY	€ •	NEW OR RELOCATED FIRE HYDRANT BY CONTRACTOR
	T.N.=	EXISTING WATER VALVE W/TOP OF OPERATING NUT ELEVATION
ISION BY ESCRIPTION	8" VCP S	EXISTING SANITARY SEWER LINE W/SIZE & TYPE (12" AND SMALLER)
EVISION	30 <u>"_VC</u> P_S	EXISTING SANITARY SEWER LINE W/SIZE & TYPE (GREATER THAN 12")
		EXISTING MANHOLE NEW MANHOLE
		CATCH BASIN, GUTTER INLET (LENGTH TO SCALE)
		CATCH BASIN, CURB INLET (LENGTH TO SCALE)
		CATCH BASIN, CURB & GUTTER INLET (LENGTH TO SCALE)
		EXISTING STORM DRAIN LINE W/SIZE & TYPE (GREATER THAN 12'') NEW PIPE FOR STORM DRAIN OR IRRIGATION LINE
- 	4"G —	EXISTING GAS LINE W/SIZE
- - - - - -		EXISTING UNDERGROUND ELECTRIC CABLE OR SINGLE CONDUIT
- - 		EXISTING UNDERGROUND ELECTRIC DUCT (SPECIFY NUMBER) EXISTING TELEPHONE BURIED CABLE OR SINGLE CONDUIT
		EXISTING TELEPHONE BORTED CABLE OR SINGLE CONDOTT EXISTING UNDERGROUND TELEPHONE DUCT (SPECIFY NUMBER)
DATI		EXISTING UNDERGROUND CABLE TV EXISTING UNDERGROUND FIBER OPTIC LINE
CKD BY	V	EXISTING UNDERGROUND FIBER OFFIC LINE EXISTING TRAFFIC SIGNAL POLE W/MAST ARM & SIGNAL INDICATIONS
PHOENIX EV BY CKE	ightharpoons	EXISTING STREET OR TRAFFIC SIGN
PH(' ' ———	EXISTING UTILITY POLE W/LINE INDICATING WIRE DIRECTION
40		EXISTING WIRE FENCE EXISTING BLOCK FENCE
		EXISTING WOOD FENCE
5	o / 	MAIL BOX EXISTING POWER POLE DOWN GUY ANCHOR
	─ ─────	EXISTING STREET LIGHT & POLE
EVISION BY DESCRIPTION	. (53)	EXISTING TREE OR STUMP TO BE REMOVED - MORE THAN 12" DIA.
		EXISTING TREE TO BE TRANSPLANTED BY CONTRACTOR
		EASEMENT LINE
		EXISTING OR NEW R/W LINE PAVEMENT CENTER LINE OR MONUMENT LINE
	· (£.)	EXISTING TREE OR STUMP TO BE REMOVED 12" DIA. OR LESS (NON PAY ITEM)
		EXISTING TREE TO REMAIN
<u>-</u>	PIP	PROTECT IN-PLACE

PROTECT IN-PLACE

——3" W TRANS— EXISTING TRANSITE WATER LINE

P.I.P.

WATER MAIN REPLACEMENT

WATER GENERAL NOTES

- I. PER CITY OF PHOENIX ORDINANCE G-4396, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF YOUR CONTRACT WITH THE CITY OF PHOENIX.
- 2. ALL CONSTRUCTION SHALL BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE UNIFORM STANDARD DETAILS AND SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OF MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) AND THE PHOENIX SUPPLEMENTAL STANDARD DETAILS AND SPECIFICATIONS (NEWEST EDITION).
- 3. ADDITIONALLY, ALL FIRE HYDRANTS INSTALLED ON THIS PROJECT SHALL MEET THE REQUIREMENTS OF "THE PHOENIX FIRE CODE, ARTICLE 9, REVISED".
- 4. ANY AND ALL MORE STRINGENT REQUIREMENTS REQUIRED BY FEDERAL, STATE, COUNTY OR LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- 5. ALL CONSTRUCTION ACTIVITIES SHALL BE CONTAINED WITHIN THE PUBLIC RIGHT-OF-WAY OR IN EASEMENTS GRANTED FOR THE WATER AND/OR SEWER MAIN INSTALLATION.
- 6. TRAFFIC CONTROL SHALL CONFORM TO THE RIGHT-OF-WAY MANAGEMENT PROGRAM (RMP), ADOPTED BY THE CITY OF PHOENIX AND SHALL ALSO BE SUBJECT TO CITY REVIEW AND APPROVAL.
- 7. FACILITIES WHICH ARE NOT SPECIFICALLY LOCATED WITH HORIZONTAL AND VERTICAL CONTROLS ARE LOCATED APPROXIMATELY TO THE BEST INFORMATION AVAILABLE.
- 8. EXISTING UTILITIES AND OTHER FACILITIES SHOWN ON PLANS ARE BASED ON INFORMATION OBTAINED FROM FIELD SURVEY, EXISTING MAPS, AS-BUILTS, AND OTHER PLANS WITHIN THE AREA OF THIS PROJECT. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION AND/OR ELEVATION OF EXISTING UTILITIES WHICH PERTAIN TO AND MAY AFFECT THE CONSTRUCTION.
- 9. TWO DAYS PRIOR TO EXCAVATION, THE CONTRACTOR SHALL CALL "BLUE STAKE" AT 602-263-1100 FOR THE LOCATION AND IDENTIFICATION OF THE UNDERGROUND UTILITIES.
- 10. THE SEPARATION OF WATER AND SEWER MAINS SHALL CONFORM TO THE REQUIREMENTS OF MAG STANDARD DETAIL 404-I, AS MODIFIED IN THE WATER SERVICES DEPARTMENT, DESIGN STANDARDS MANUAL FOR WATER AND WASTEWATER SYSTEMS, CHAPTER 3.3.11.
- II. ALL DIMENSIONS SHOWN ARE TO THE MONUMENT LINE IN RIGHT-OF-WAY, UNLESS NOTED OTHERWISE.
- 12. ALL BURIED VALVES SHALL INCLUDE A VALVE BOX AND COVER UNLESS OTHERWISE NOTED. VALVE BOX AND COVER SHALL BE INSTALLED PER C.O.P. SUPPLEMENT TO MAG STANDARD DETAIL P-1391-1, TYPE A.
- 13. BIDDERS ARE ADVISED THAT THE LOCATION, NUMBER, AND TYPE OF UTILITIES SHOWN ON THESE PLANS AND SPECIFICATIONS ARE ONLY AS ACCURATE AS THE BEST INFORMATION AVAILABLE FROM PUBLIC UTILITIES, OWNERS, AND USERS AT THE TIME THESE PLANS AND SPECIFICATIONS WERE PREPARED. UNDERGROUND UTILITIES MAY BE PRESENT ON THIS PROJECT WHICH WERE NOT DISCLOSED TO THE ENGINEER. NO REPRESENTATION IS MADE THAT THE UTILITY LOCATIONS INDICATED ON THESE PLANS ARE ACCURATE, COMPLETE, OR EXCLUSIVE. BIDDERS ARE ADVISED TO UNDERTAKE THEIR OWN INVESTIGATION OF EXISTING CONDITIONS BEFORE SUBMITTING A PROPOSAL ON THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF ALL TEST PITS OR OTHER PRE-CONSTRUCTION INVESTIGATION OF UNDERGROUND UTILITIES OR STRUCTURE. PURSUANT TO ARIZ. REV. STAT. 40-360.21, THE CONTRACTOR MUST CONTACT "BLUE STAKE" AT (602) 263-1100 OR THE APPROPRIATE PUBLIC UTILITY FOR ASSISTANCE IN LOCATING UNDERGROUND FACILITIES, LINES, AND APPURTENANCES PRIOR TO CONSTRUCTION.
- 14. BY SUBMITTING A PROPOSAL ON THIS PROJECT, BIDDERS ARE REPRESENTING THAT THEY HAVE CONSIDERED THE POTENTIAL IMPACT OF TEMPORARY OR PERMANENT RELOCATION OF EXISTING UNDERGROUND UTILITIES LOCATED WITHIN THE PROJECT ON THEIR COSTS, AND THAT THEY HAVE INCLUDED IN THEIR PROPOSALS THE COST OF FINDING, PROTECTING, AND RELOCATING ALL EXISTING UTILITIES WITHIN THE PROJECT. NO ADDITIONAL COMPENSATION FOR DAMAGES WILL BE PAID FOR ANY COST, LOSS, DAMAGE, HINDRANCE, OR DELAY INCURRED BY A CONTRACTOR OR SUBCONTRACTOR DUE TO CONFLICTS WITH EXISTING UTILITIES; REGARDLESS OF WHETHER OR NOT THOSE UTILITIES ARE INDICATED ON THE PLANS AND SPECIFICATIONS FOR THIS PROJECT.
- 15. THE SOLE AND EXCLUSIVE REMEDY FOR ANY COST, HINDRANCE, OR DELAY CAUSED BY ANY UTILITIES LOCATED WITHIN THE PROJECT (WHETHER OR NOT INDICATED ON THE PLANS AND SPECIFICATIONS) SHALL BE AN EXTENSION OF THE CONTRACT TIME; THE NEED FOR OR DURATION OF WHICH SHALL BE DETERMINED BY THE ENGINEER IN ITS SOLE DISCRETION.
- 16. THE WATERLINE PROFILE SHOWS ELEVATIONS AND SLOPES FOR THE NEW WATERLINE AND SPECIFIES A 3' MINIMUM COVER. MAJOR STREETS MUST HAVE A 4' MINIMUM COVER. IT IS THE DESIGN INTENT THAT THE NEW WATERLINES ARE INSTALLED WITH A 3 FOOT MINIMUM COVER (UNLESS OTHERWISE NOTED). THE ELEVATIONS AND SLOPES WERE ESTABLISHED IN AN EFFÒRT TO ACHIEVE THIS. CONTRACTOR SHALL INSTALL WATERLINES TO MEET THE GRADE ELEVATIONS AND SLOPES SPECIFIED OR AT A MINIMUM OF 3 FEET OF COVER, WHICHEVER IS DEEPER. THERE WILL BE NO ADDITIONAL PAYMENT FOR PLACING ANY WATERLINE DEEPER THAN 3 FEET OF COVER.
- 17. THERE ARE SOME WATERLINE ALIGNMENTS WHICH ARE CURVILINEAR. THE CONTRACTOR SHALL DEFLECT PIPE JOINTS PER MANUFACTURER'S RECOMMENDATIONS AND/OR PROVIDE FITTINGS IN ORDER TO PROVIDE A CONSISTENT OFFSET FROM THE MONUMENT LINE OF THE ROADWAY AS SHOWN ON THE PLANS.
- 18. ALL DIMENSIONS SHOWN ARE TO THE MONUMENT LINE IN RIGHT-OF-WAY, UNLESS NOTED OTHERWISE.



	F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
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	S INC.	INIFER			

DR: CAM CK: BW DATE: 1/2025 DES: CAM

ALL WATER METERS ARE TO INCLUDE NEW #2 BOXES AND HOUSING, UNLESS OTHERWISE NOTED IN THE PLANS.

AS-BUILT CERTIFICATION

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REGISTERED ENGINEER

DATE

REGISTRATION NUMBER





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WATERLINE PLANS

CITY OF PHOENIX, ARIZONA STREET TRANSPORTATION DEPARTMENT

NOTES AND LEGEND

WS85509031

DES:CAM DR: CAM CK: BW SHEET TOTAL DATE: 1/2025 DATE: 1/2025 NO: SHEETS SCALE: N/A 02 83

WATER MAIN REPLACEMENT	
PHOENIX STREET - MARICOPA	С
QUARTER SECTION NO.	
28-25	

WATER SPECIAL NOTES

- IN ACCORDANCE WITH AAC RI8-4-213, ALL MATERIALS ADDED AFTER JANUARY I, 1993 WHICH MAY COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO THE NATIONAL SANITATION FOUNDATION (NSF) STANDARDS 60 AND 61.
- CLEARANCE VARIATION EXCEPTIONS OR DEVIATIONS FROM MINIMUM CLEARANCES MUST BE APPROVED AND SHOWN ON THE APPROVED WATER AND/OR SEWER PLANS. WHEN UTILITY CONFLICTS ARE FOUND DURING CONSTRUCTION, ALL CHANGES AND REVISIONS MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
- SLOPES AND INVERTS ALL CONSTRUCTION SHALL FOLLOW SLOPES AND INVERTS AS SHOWN ON THE APPROVED PLAN. IF ANY DEVIATION FROM THE PLAN IS REQUIRED, THE CONTRACTOR MUST CONTACT THE ENGINEER TO DETERMINE ANY REVISIONS NEEDED PRIOR TO PROCEEDING.
- AT THE BEGINNING OF EACH WORK DAY, THE CONTRACTOR MAY BRING TO THE JOB SITE ONLY THAT AMOUNT OF WATER PIPE THAT CAN REASONABLY BE EXPECTED TO BE INSTALLED THAT WORK DAY. AT THE END OF THE WORK DAY, ANY WATER PIPE ON THE JOB SITE NOT INSTALLED IN THE GROUND SHALL BE REMOVED. THE PIPE SHALL BE STORED OUTSIDE THE PROJECT LIMITS OR AT A LOCATION APPROVED BY THE ENGINEER.

INCIDENTAL DAMAGE AND BREAKAGE OF THE PIPE DURING HANDLING SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND THE PIPE WILL BE REPLACED AT NO EXTRA COST TO THE CITY. THE UNUSABLE PORTIONS OF PIPE SHALL BE DISPOSED OF BY THE CONTRACTOR AT THEIR EXPENSE IN A SUITABLE MANNER AND IN ACCORDANCE WITH ALL APPLICABLE CITY OF PHOENIX ORDINANCES, AND STATE AND E.P.A. GUIDELINES, IF ANY.

THERE WILL BE NO ADDITIONAL PAYMENT MADE TO THE CONTRACTOR TO COMPLY WITH THIS SPECIAL PROVISION. ALL COSTS ASSOCIATED WITH THIS SPECIAL PROVISION ARE CONSIDERED INCIDENTAL AND ARE TO BE INCLUDED IN THE PRICE BID FOR FURNISHING AND INSTALLING WATER PIPE.

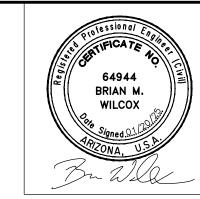
- WATER MAINS NEW 12-INCH AND SMALLER WATER MAINS SHALL BE DUCTILE IRON PIPE (DIP), 350 PSI PRESSURE CLASS.
- RESTRAINED JOINTS FOR 24 INCH AND SMALLER DUCTILE IRON PIPE (DIP) RESTRAINED JOINTS SHALL BE IN ACCORDANCE WITH THE CITY OF PHOENIX SUPPLEMENT TO THE MAG SPECIFICATIONS. SECTION 750.2.
- RESTRAINED JOINTS SHALL BE IN COMPLIANCE WITH MAG 303 OR GREATER AS NOTED IN PLANS FOR ALL TEES, DEAD ENDS, HORIZONTAL AND VERTICAL BENDS.
- WATER VALVES THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS ACCESS DURING CONSTRUCTION TO THE VALVE OPERATING NUT FOR ALL WATER VALVES WITHIN THE PROJECT BOUNDARIES. FAILURE BY THE CONTRACTOR TO DO SO RELIEVES THE WATER SERVICES DEPARTMENT OF RESPONSIBILITY FOR ANY RESULTANT CLAIMS.
- INTERRUPTION OF TRANSMISSION WATER MAIN SERVICE WATER MAINS 16—INCH AND LARGER (TRANSMISSION MAINS) ARE TO REMAIN IN CONTINUOUS SERVICE THROUGH ALL PHASES OF THE PROJECT.
- DISTRIBUTION WATER MAIN SHUTDOWN (12" & SMALLER) FOR SHUTDOWNS NECESSARY TO ACCOMPLISH APPROVED WORK, THE CONTRACTOR SHALL CONTACT THE PROJECT INSPECTOR EARLY IN THE PROJECT TO COORDINATE A SHUT DOWN WITH THE WSD, FIELD DISTRIBUTION AND COLLECTIONS CREW. THE CONTRACTOR SHALL HAVE ALL MATERIALS AND EQUIPMENT ON THE PROJECT SITE TO COMPLETE THE CONNECTION(S) PRIOR TO THE SHUTDOWN.

ONCE THE EXISTING WATER PIPE IS CUT, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO KEEP THE PIPE CLEAN AND FREE OF DIRT AND DEBRIS BY CAPPING THE ENDS UNTIL THE FINAL CONNECTIONS CAN BE COMPLETED. PRIOR TO THE FINAL CONNECTIONS, THE EXISTING PIPE SHALL BE SWABBED WITH A MINIMUM 50 PPM CHLORINE SOLUTION FOR A DISTANCE OF 10 + FEET FROM THE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCESSIBILITY TO THE VALVE OPERATING NUT FOR ALL VALVES WITHIN THE SHUTDOWN BOUNDARIES. FAILURE TO MAINTAIN ACCESSIBILITY TO VALVES SHALL BE CAUSE FOR CANCELING THE SHUTDOWN AND THE CONTRACTOR MUST PROPERLY REQUEST A SCHEDULE REVISION

THE WATER SERVICES DEPARTMENT IS INDEMNIFIED FROM ANY AND ALL RESULTANT COSTS INCURRED BY THE CONTRACTOR SUCH AS, BUT NOT LIMITED TO TRAFFIC CONTROL, DELAYS, LOSS OF INCENTIVES, STANDBY AND PENALTIES IF THE CONTRACTOR DID NOT PROPERLY REQUEST A SHUTDOWN; OR FAILED TO MAINTAIN ACCESSIBILITY TO VALVES; OR ON THE SCHEDULED DATE, WORK HAD NOT PROGRESSED TO THE POINT AT WHICH THE SHUTDOWN WAS NEEDED.

- ALL EXISTING WATERLINES ARE TO REMAIN IN CONTINUOUS SERVICE DURING THE NEW WATERLINE CONSTRUCTION.
- WATER SERVICES THE CONTRACTOR SHALL REPLACE EXISTING WATER SERVICES AS INDICATED ON THE APPROVED PLANS WITH NEW SERVICE PIPE AND CURB STOP OF THE SAME SIZE FOR THE RELOCATED EXISTING WATER METERS.
- METER AND BOX THE CONTRACTOR SHALL RELOCATE THE EXISTING METERS AND METER BOXES, AND CONNECT THEM AS INDICATED ON THE APPROVED PLANS AFTER THE NEW WATERLINE HAS BEEN ACCEPTED FOR SERVICE.
- COST OF RELOCATING EXISTING WATER METERS WITH BOX AND COVER SHALL BE INCLUDED IN THE COST OF THE SERVICE CONNECTION.
- "SWING CONNECTIONS" AFTER THE NEW WATERLINES ARE ACCEPTED FOR SERVICE, THE CONTRACTOR SHALL MAKE "SWING CONNECTIONS" TO EXISTING WATERLINES AS INDICATED ON THE APPROVED PLANS. "SWING CONNECTIONS" SHALL INCLUDE ALL PIPING AND APPURTENANCES (OFF - SETS, BENDS, ETC.) REQUIRED TO EFFECT A CONNECTION.
- "CUT AND PLUG" —THE CONTRACTOR SHALL CUT AND PLUG EXISTING WATERLINES AS NOTED ON THE APPROVED PLANS AFTER ALL EXISTING WATER SERVICES HAVE BEEN TIED OVER TO THE NEW WATER LINE.
- 17. THE WATERLINE CONTRACTOR SHALL ADJUST ALL WATER VALVE BOXES AND METER BOXES TO FINISHED GRADE AFTER THE FINAL PAVING WORK HAS BEEN COMPLETED.
- REMOVAL AND REPLACEMENT OF EXISTING CONCRETE CURB & GUTTER, SIDEWALK, DRIVEWAY, AND VALLEY GUTTERS NECESSARY FOR WATERLINE CONSTRUCTION IS A NON - PAY ITEM.
- CONTACT "BLUE STAKE" TO LOCATE INDIVIDUAL GAS SERVICES NOT SHOWN ON THE APPROVED PLANS.
- 20. ALL PIPES, FITTINGS, VALVES, FIRE HYDRANTS AND OTHER APPURTENANCES SHALL CONFORM TO CURRENT AWWA, ASTM, AND NSF STANDARDS. (EB 10, CHAP. 7, SECTION B).
- 21. ALL MATERIAL THAT COMES INTO CONTACT WITH WATER SHALL CONFORM TO ANSI/NSF STANDARD 61. (PER RI8-4-213.B).



F.H.W.A. REGION STATE PROJ. NO.					NO.	TOTAL	
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ENTELLUS INC. CONSULTING ENGINEER							
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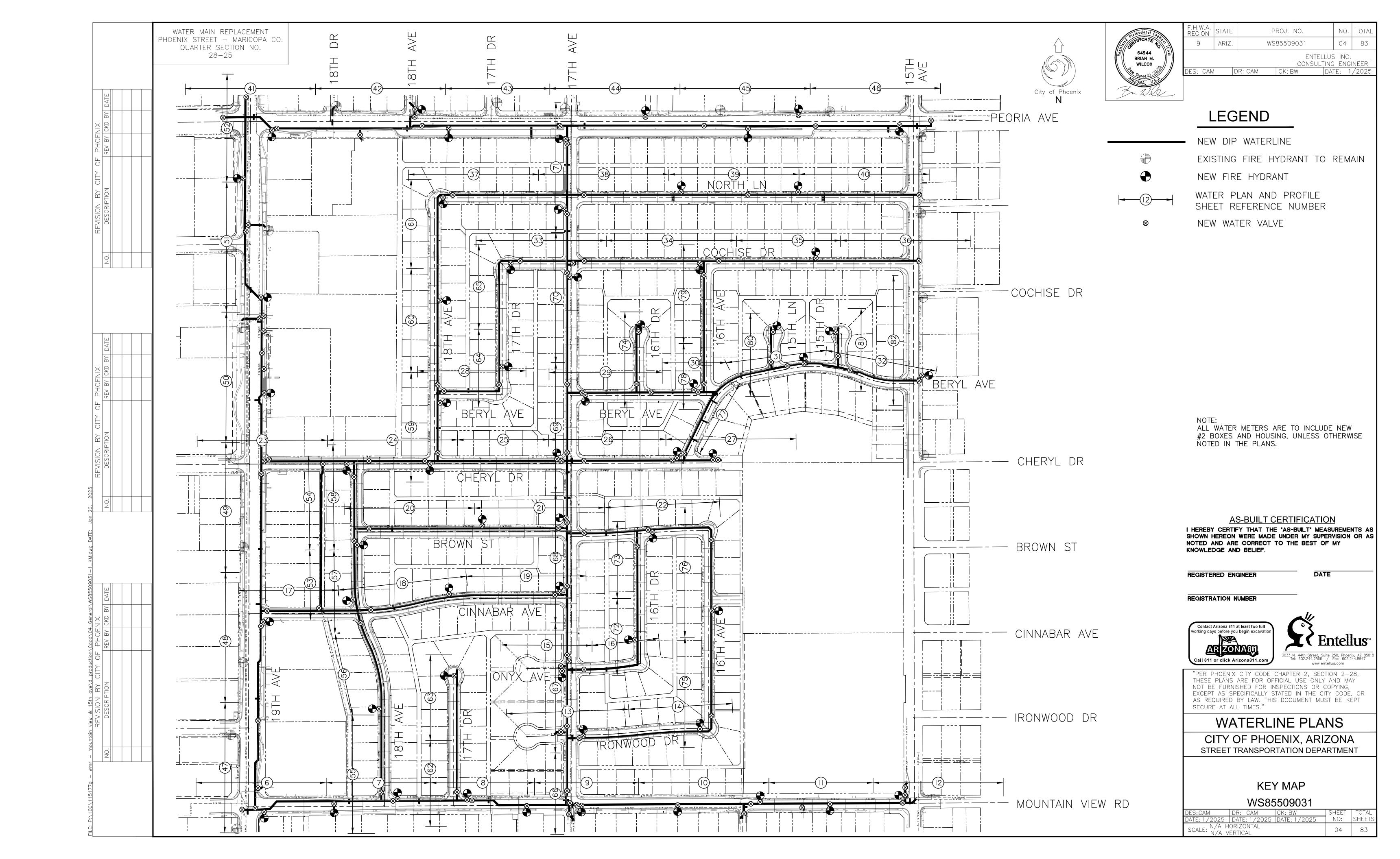
WATERLINE PLANS

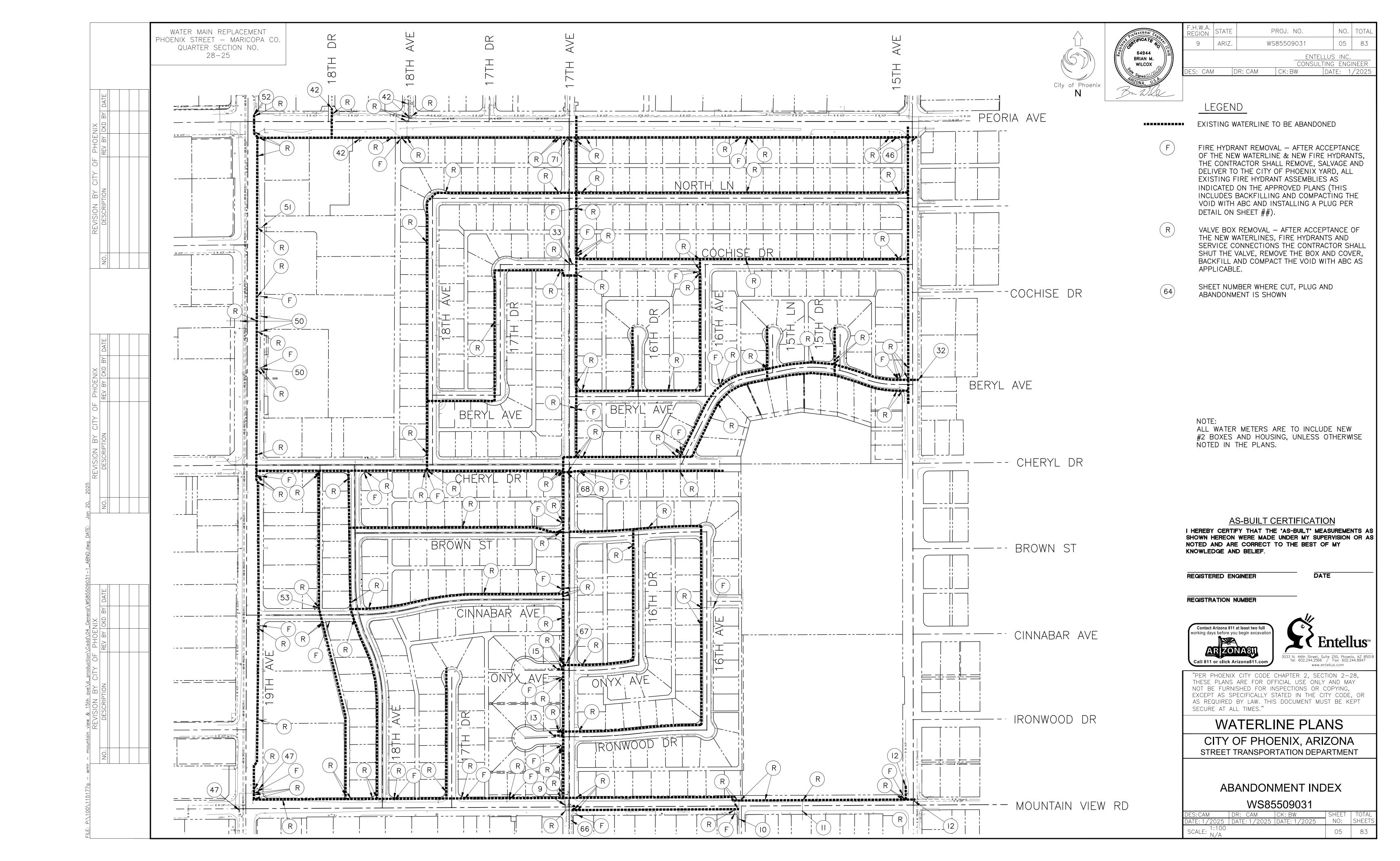
CITY OF PHOENIX, ARIZONA STREET TRANSPORTATION DEPARTMENT

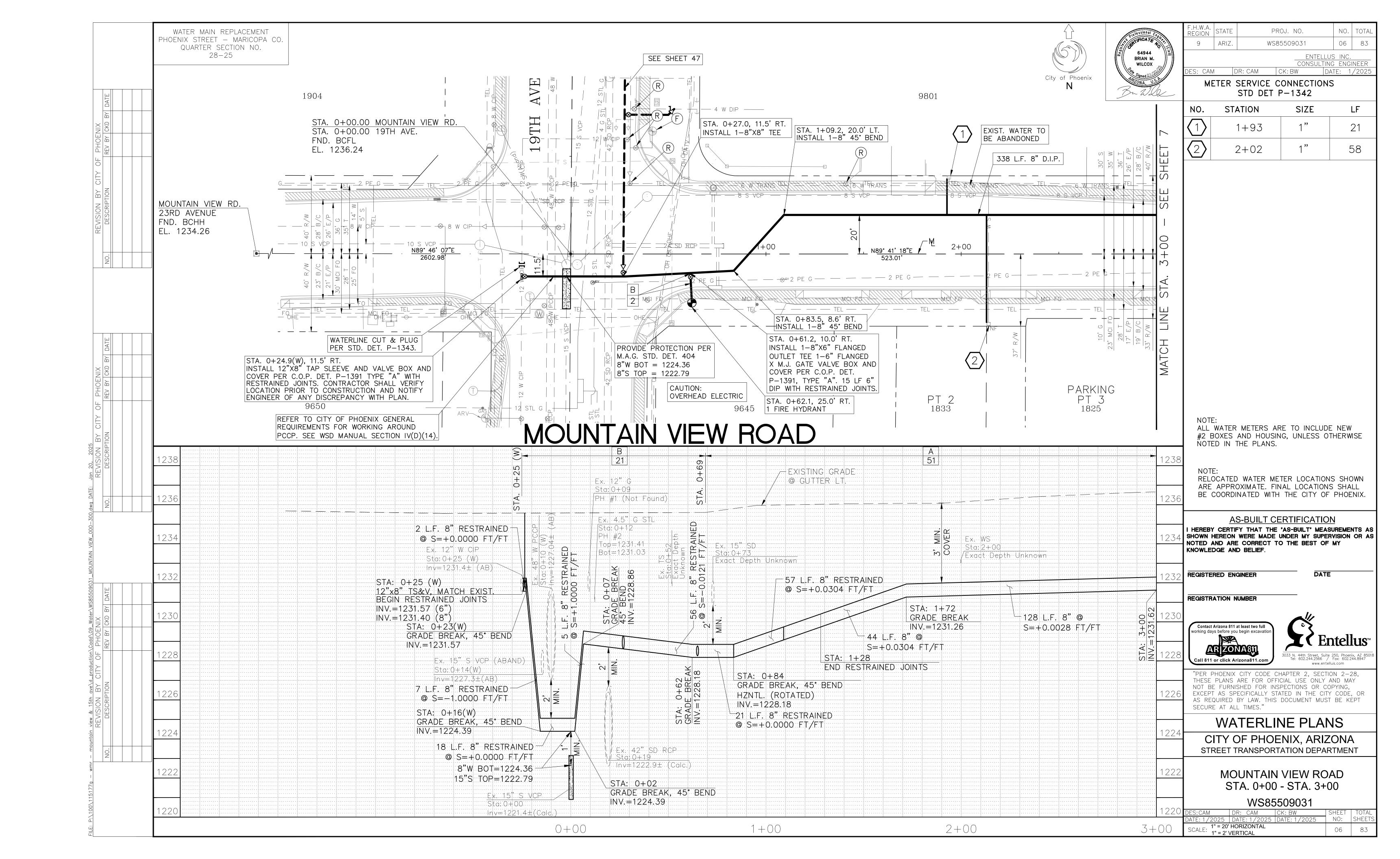
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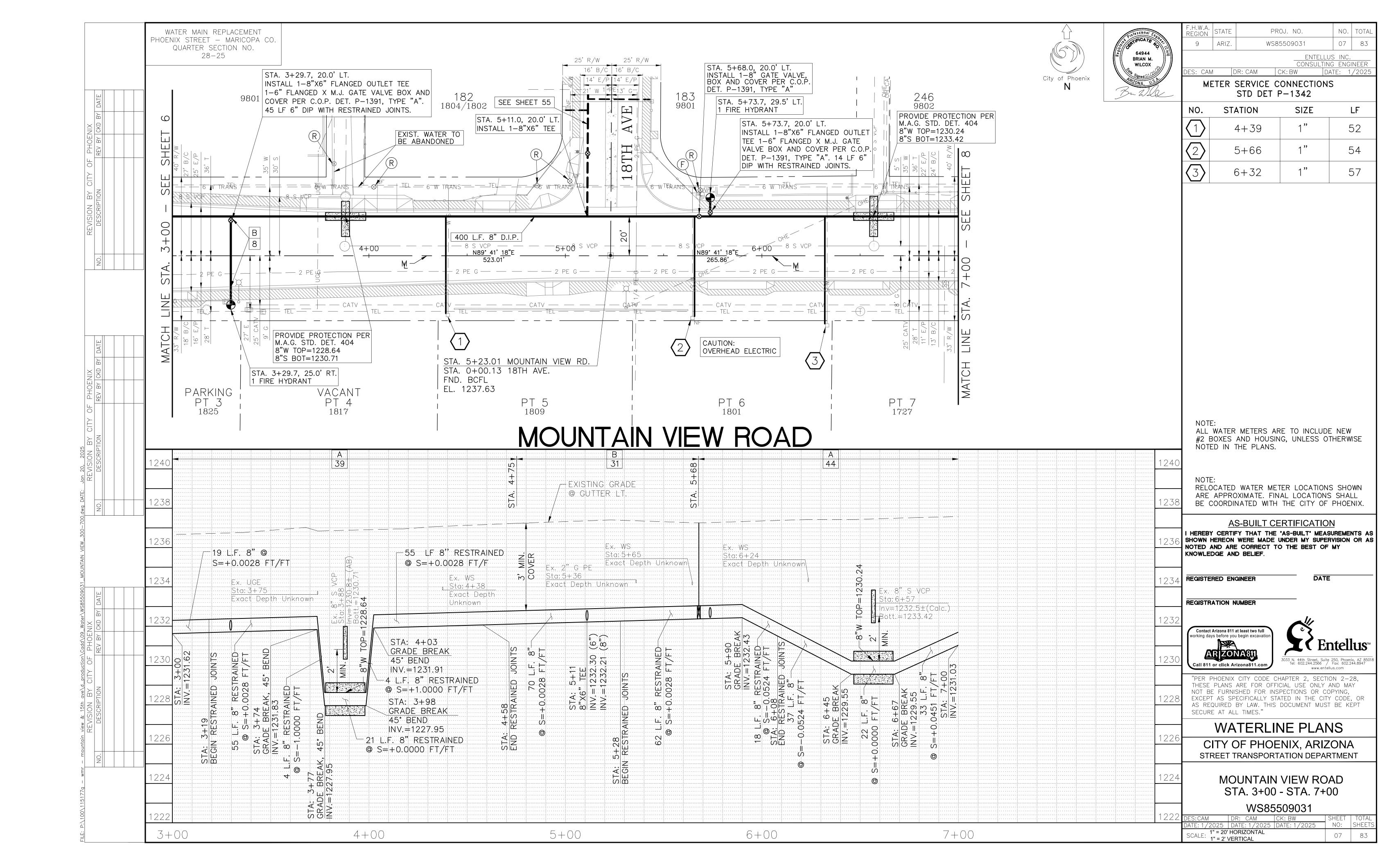
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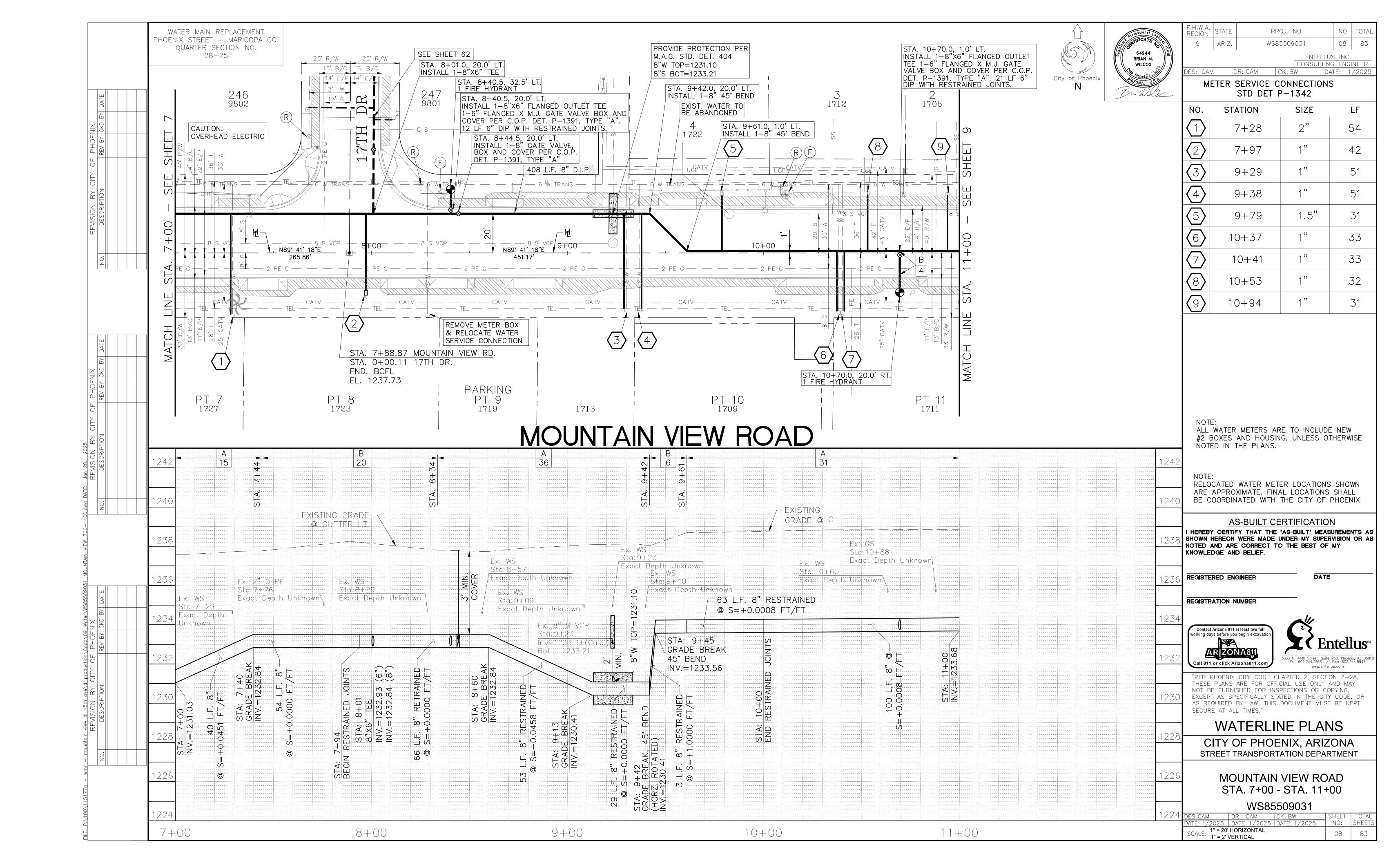
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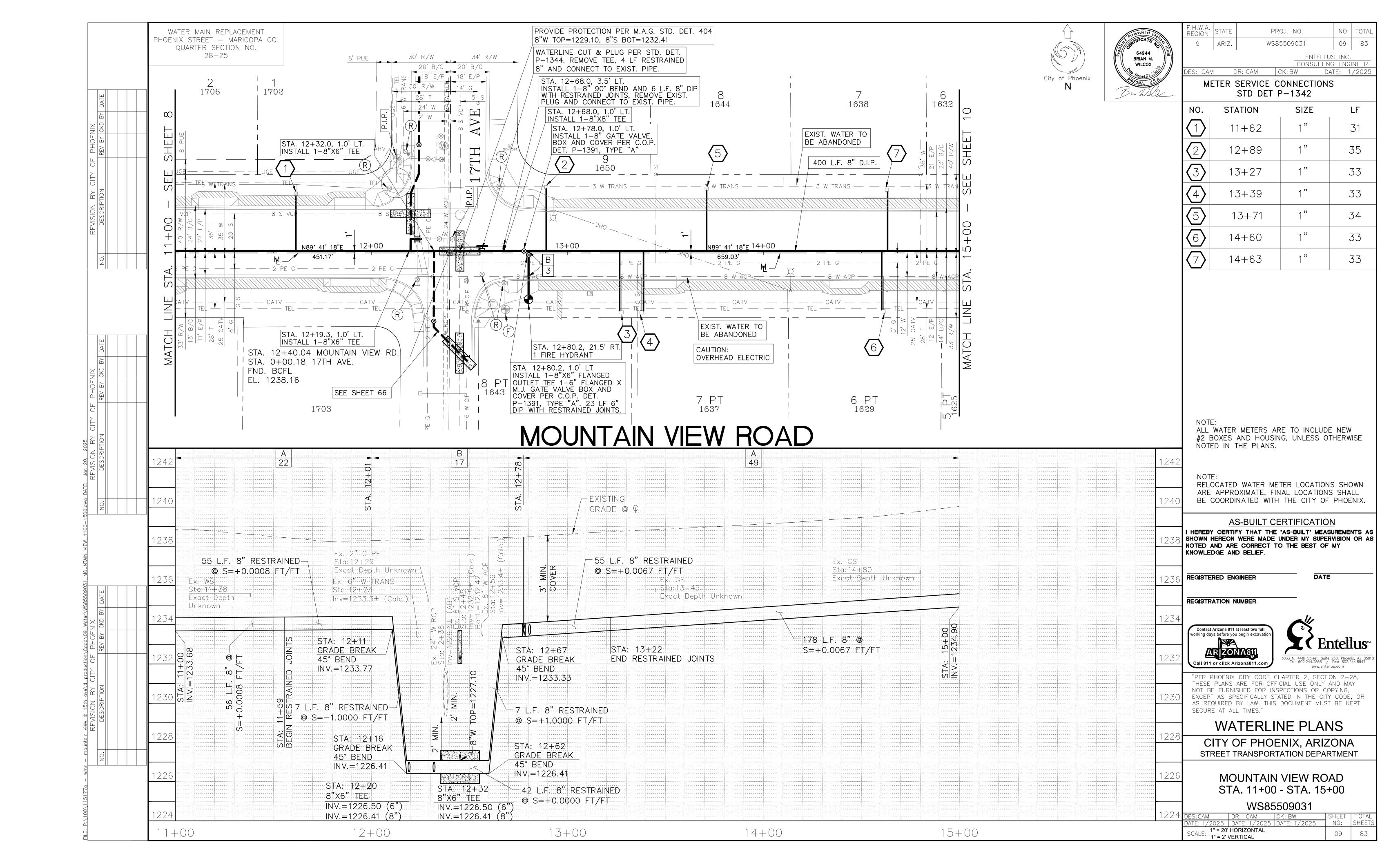


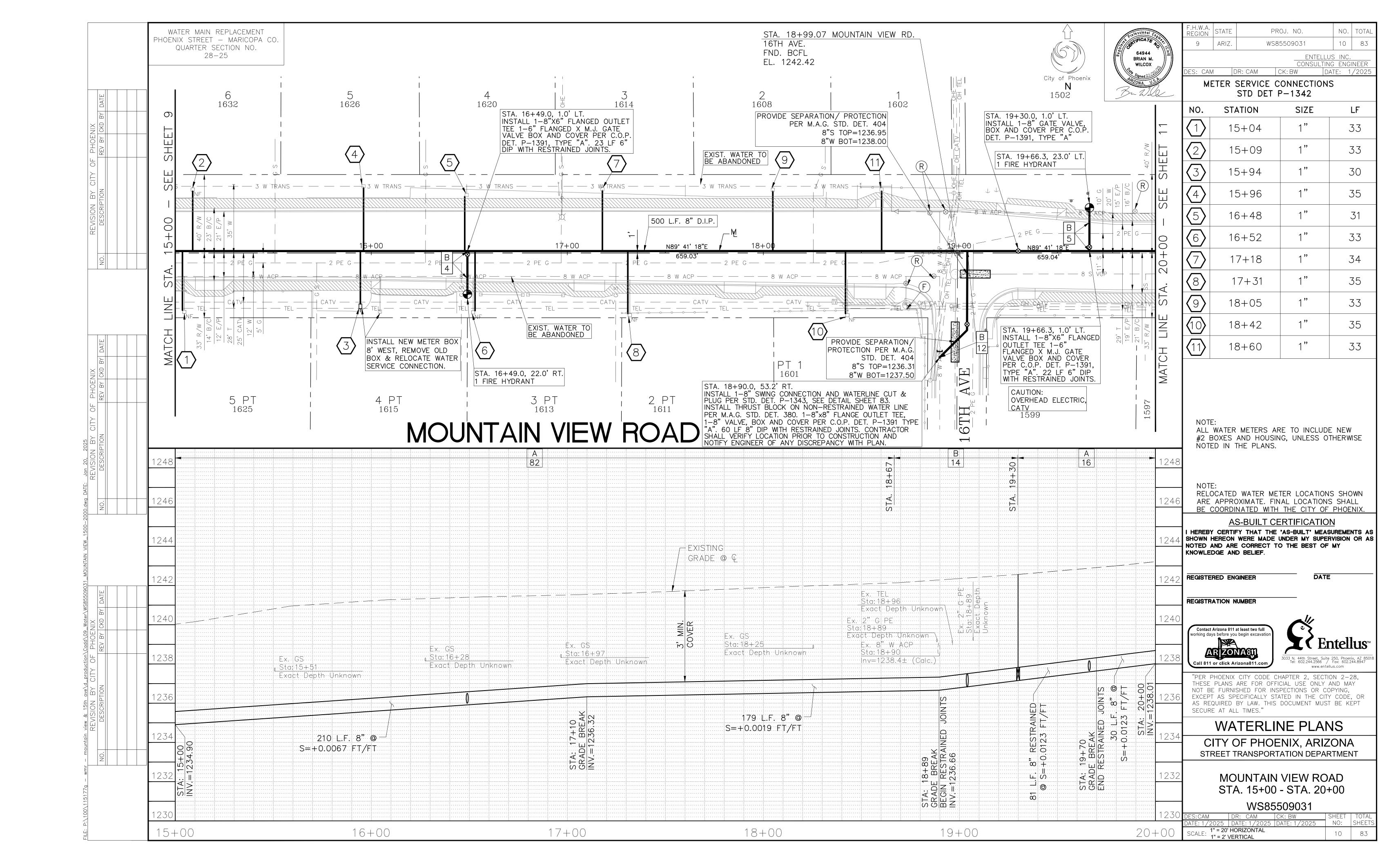


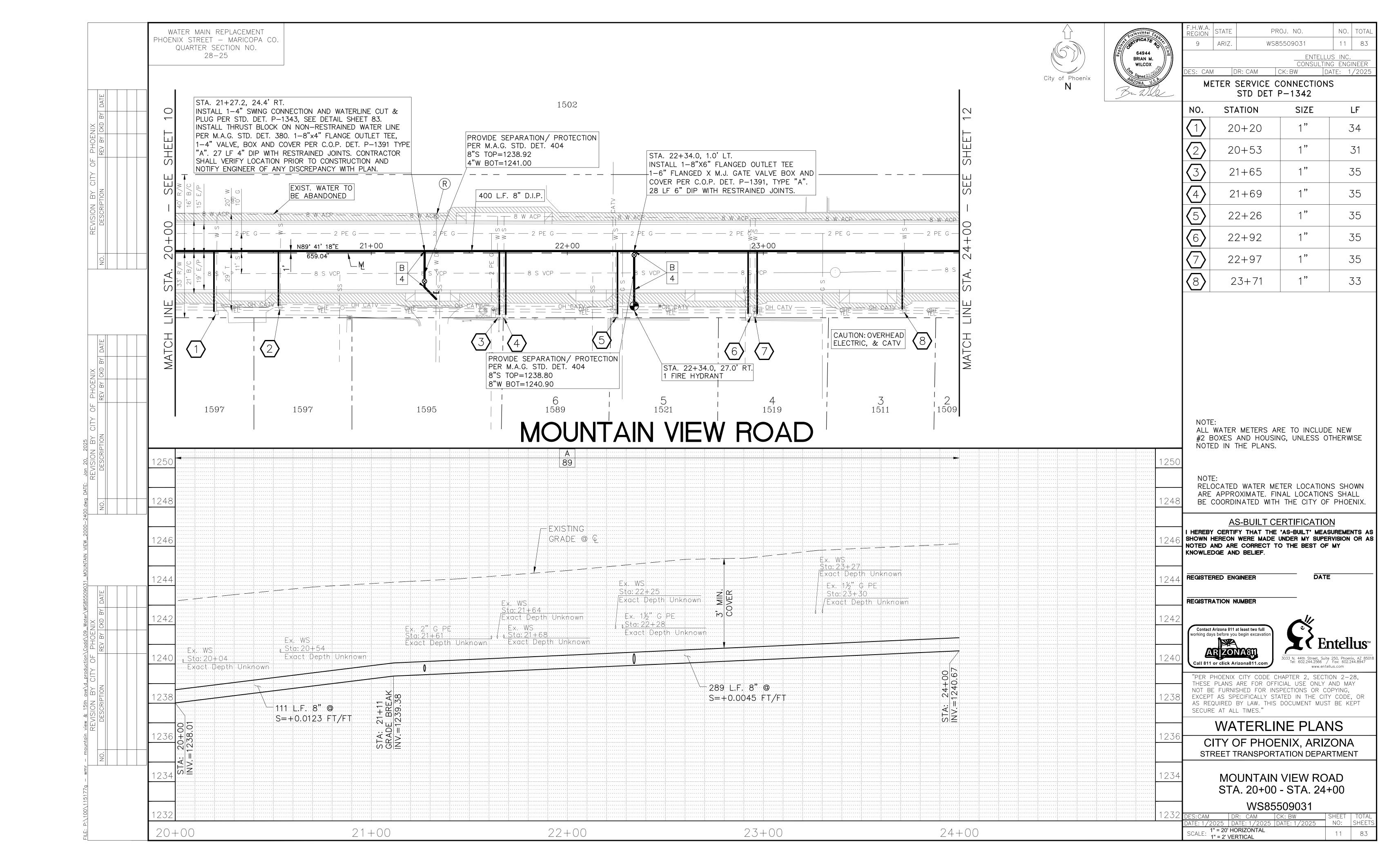


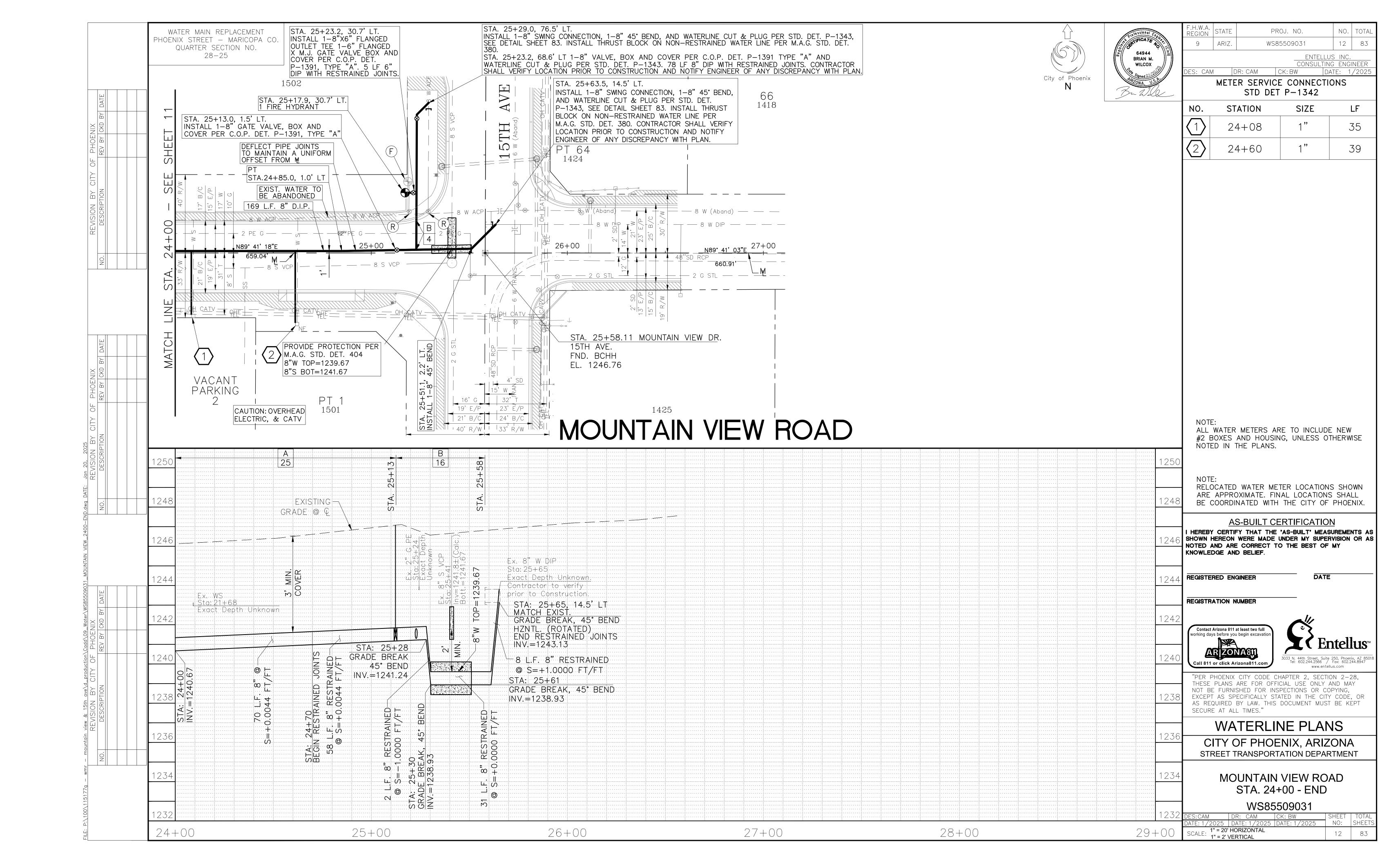


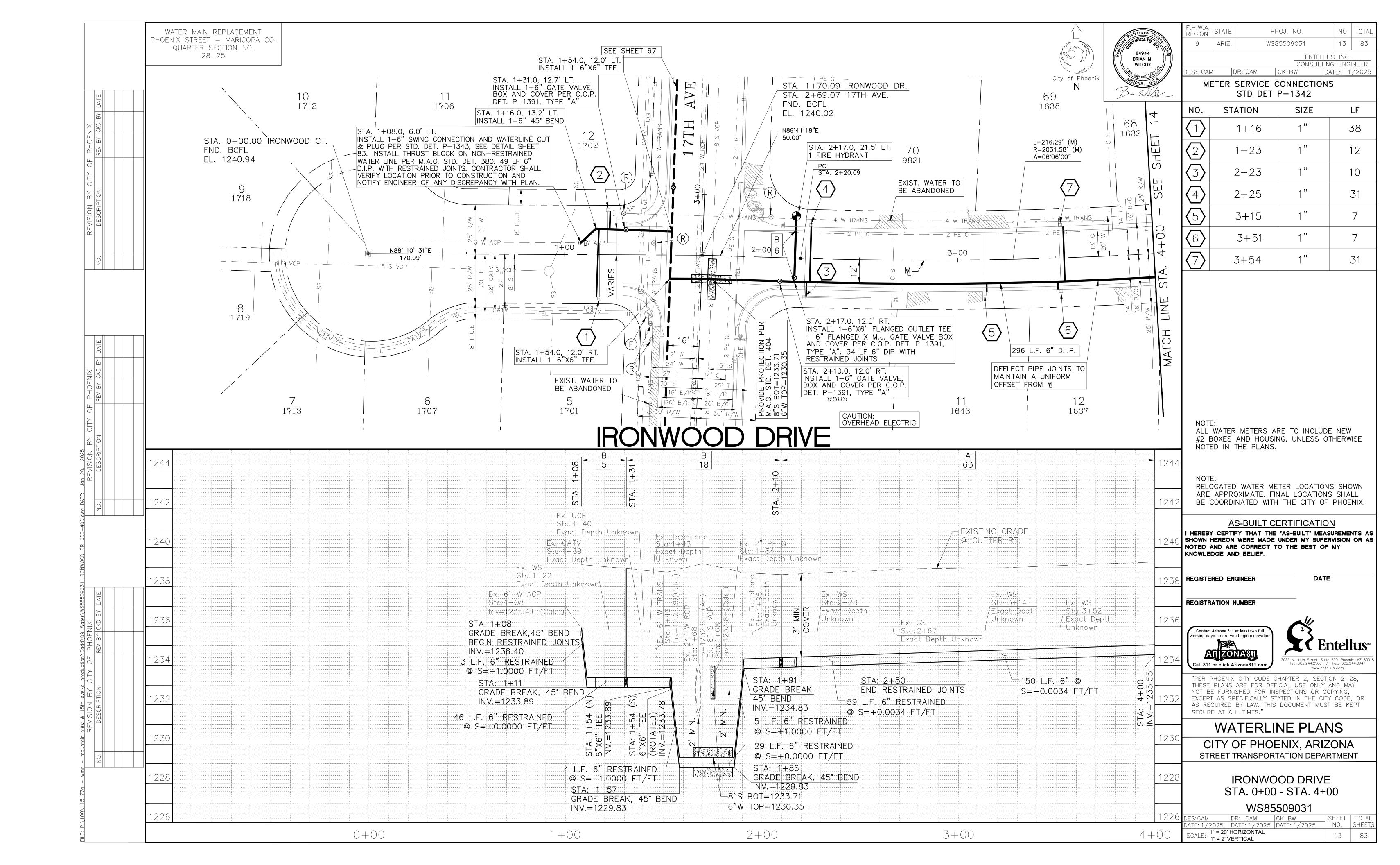


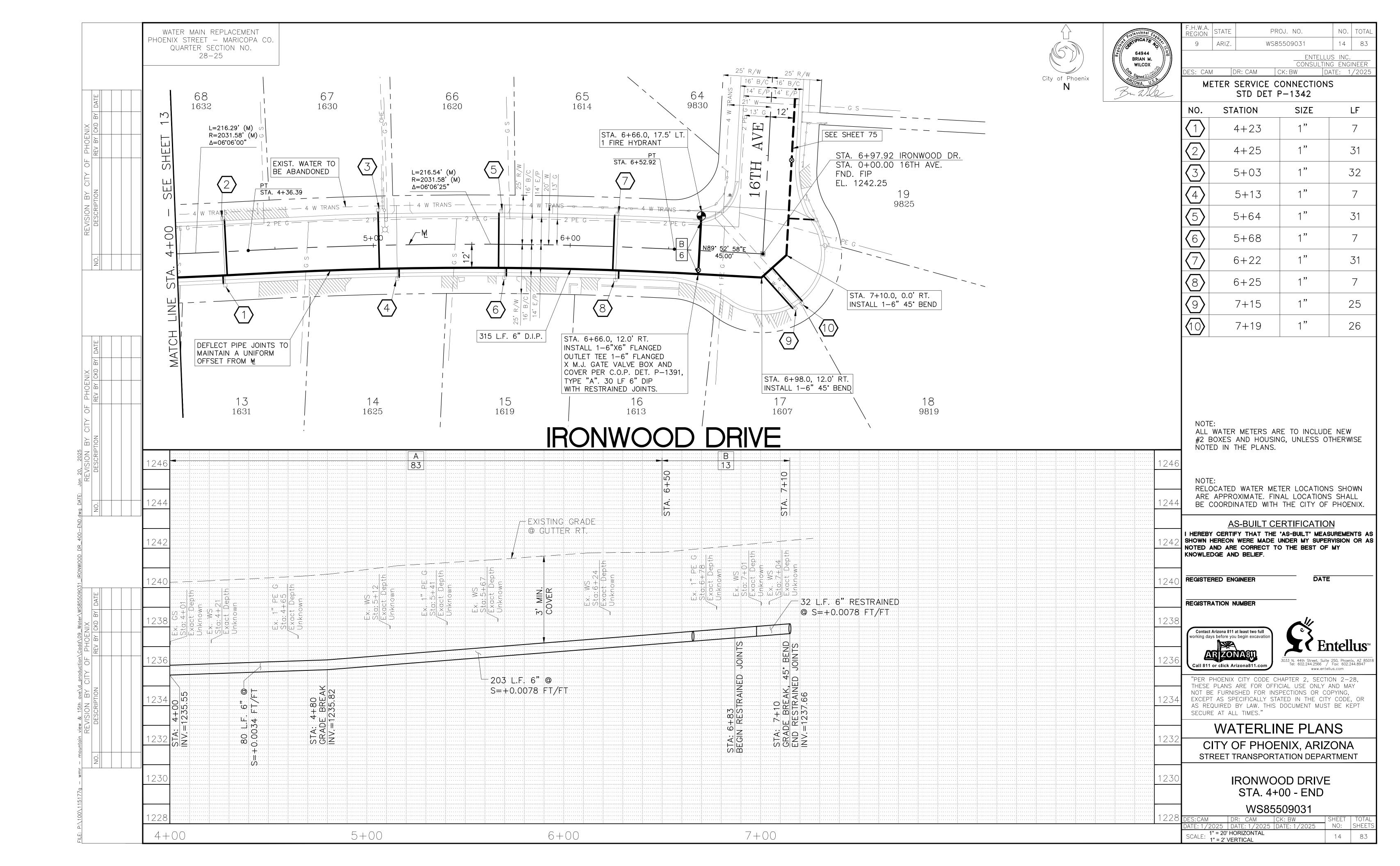


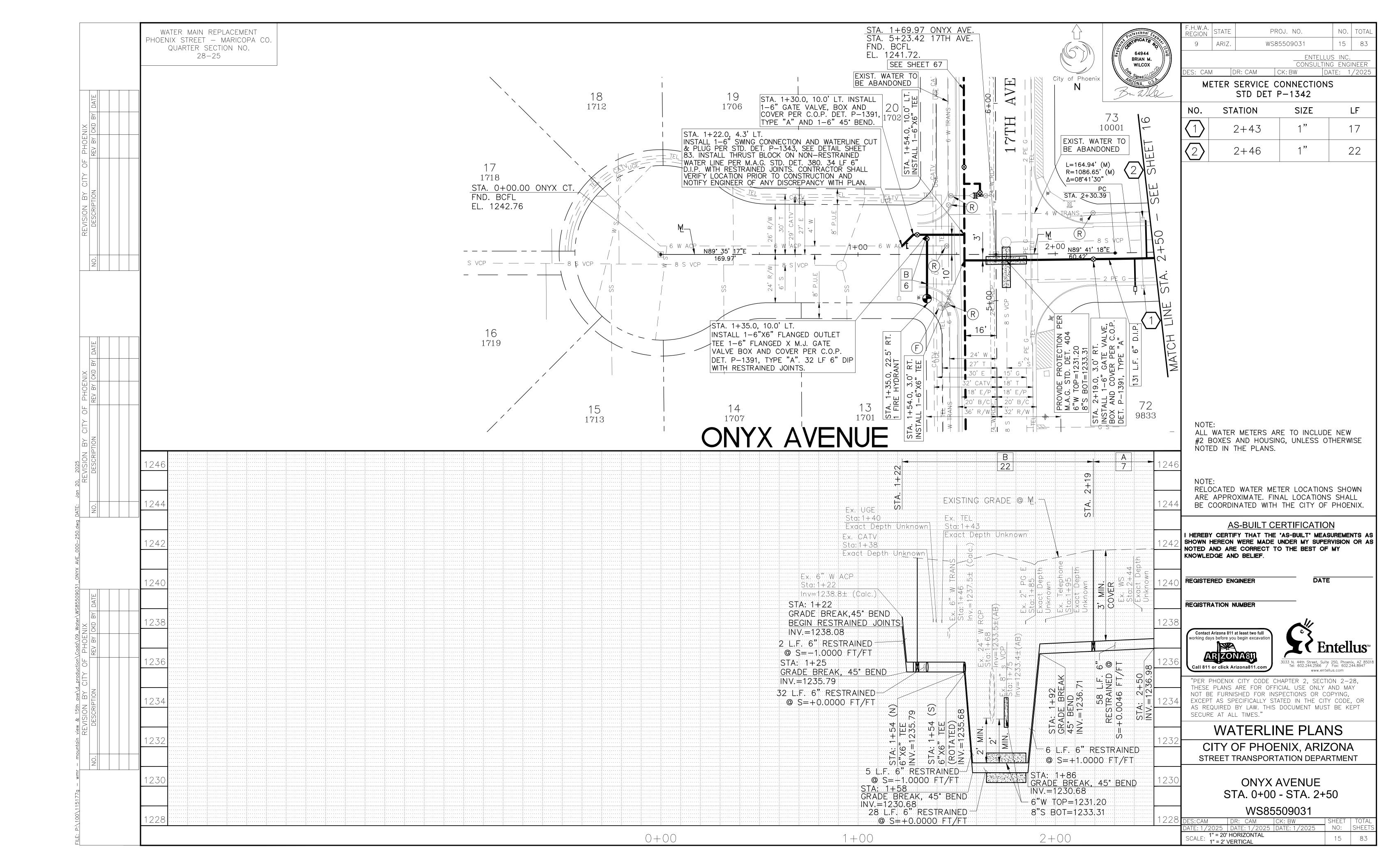


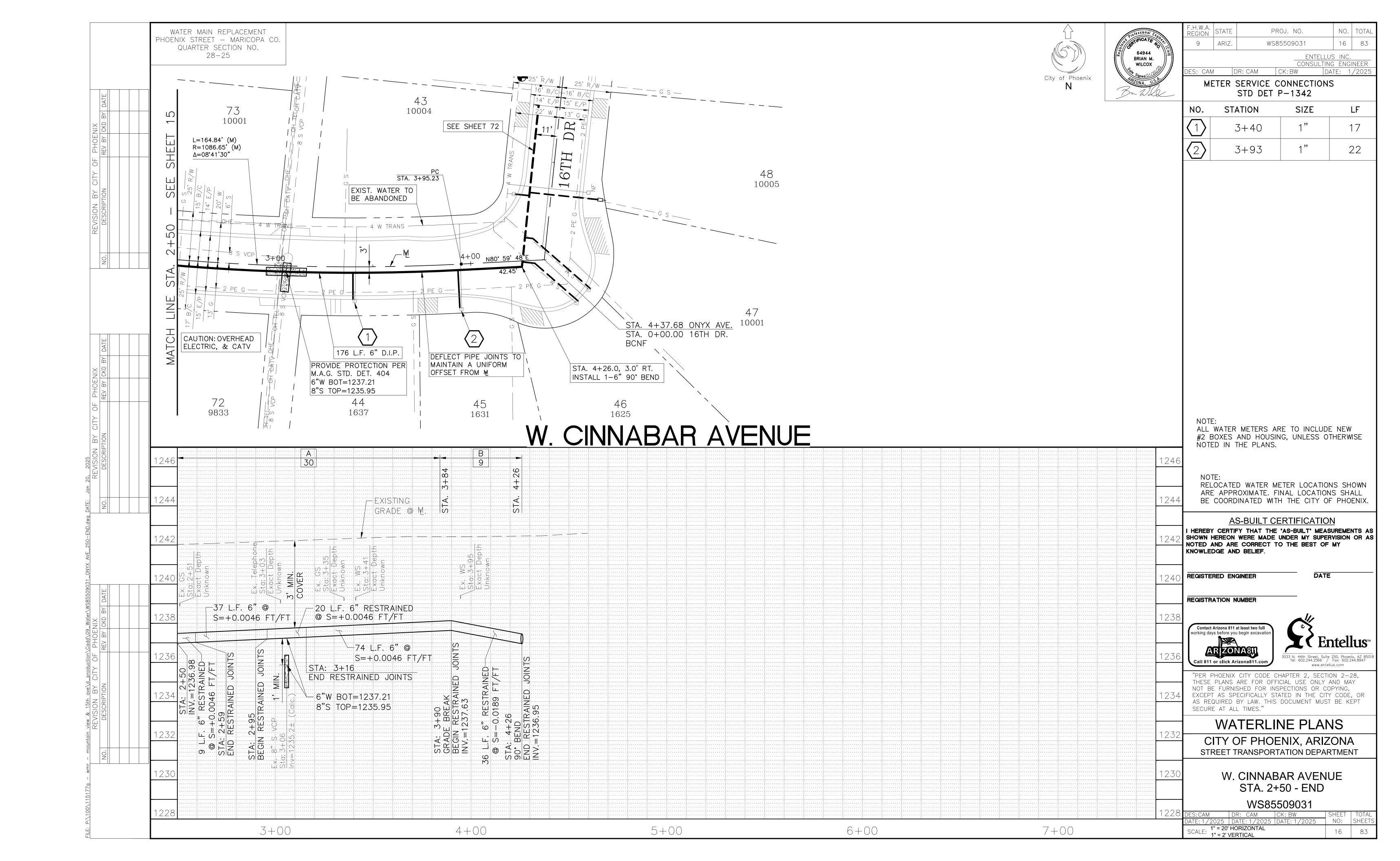


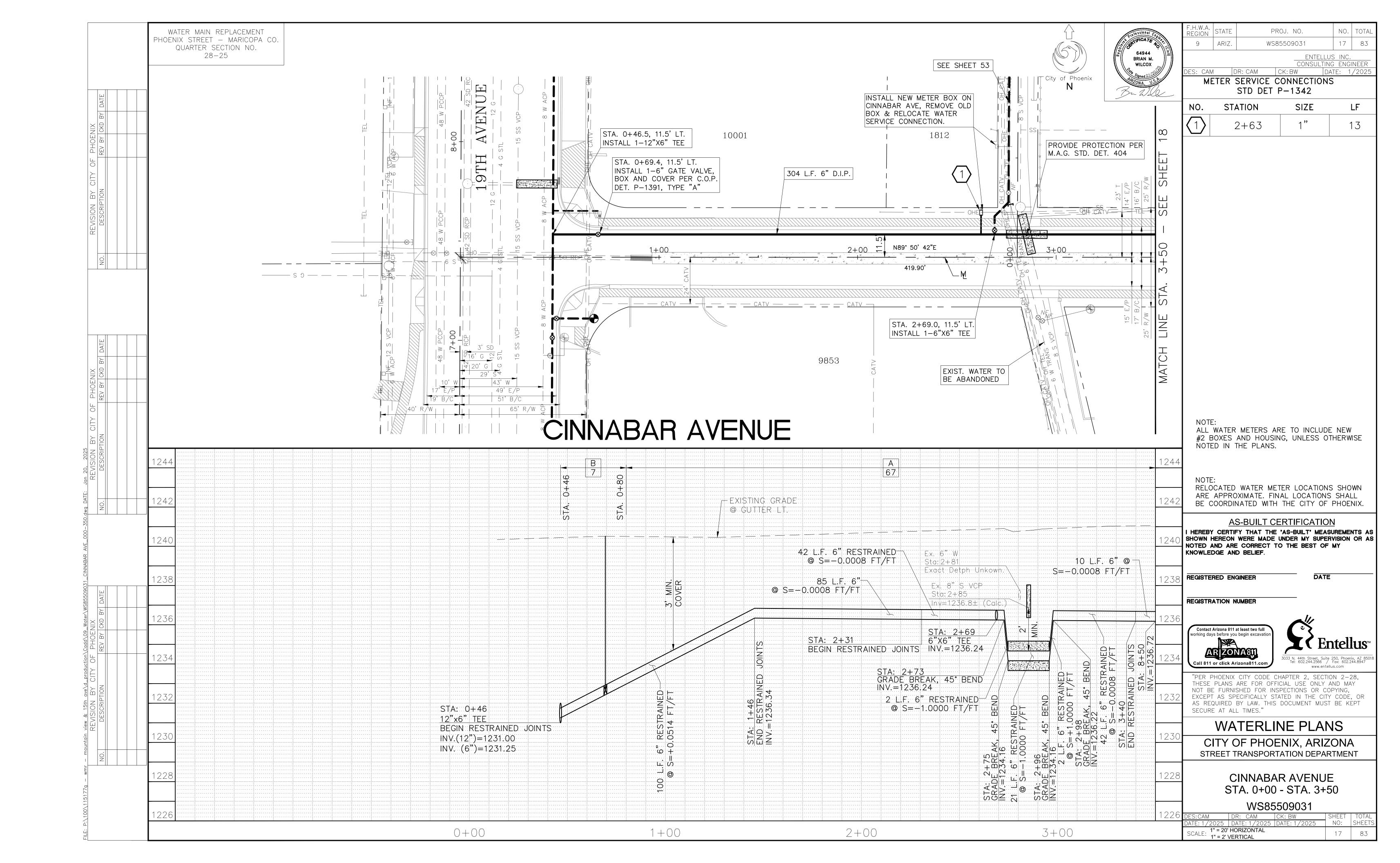


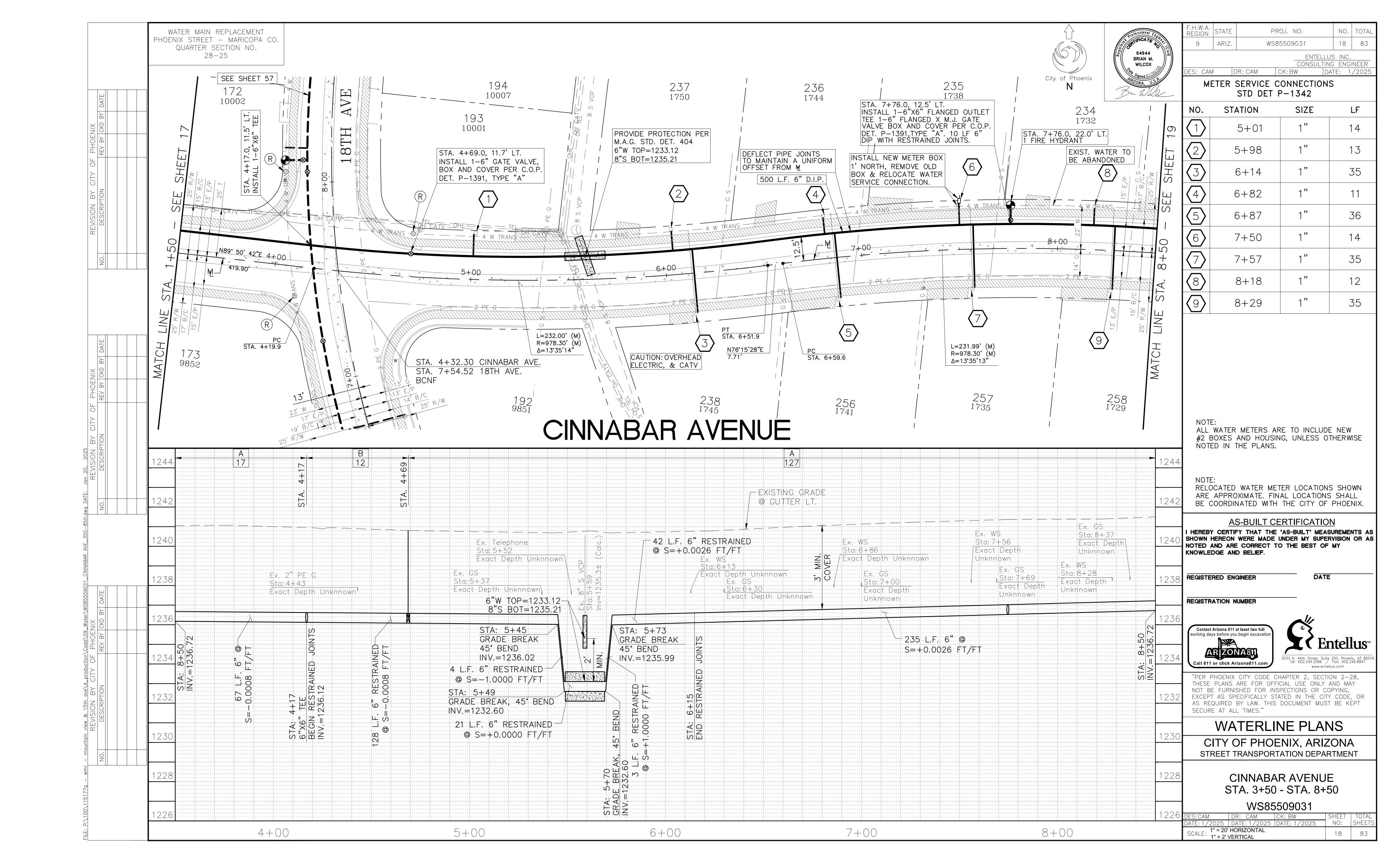


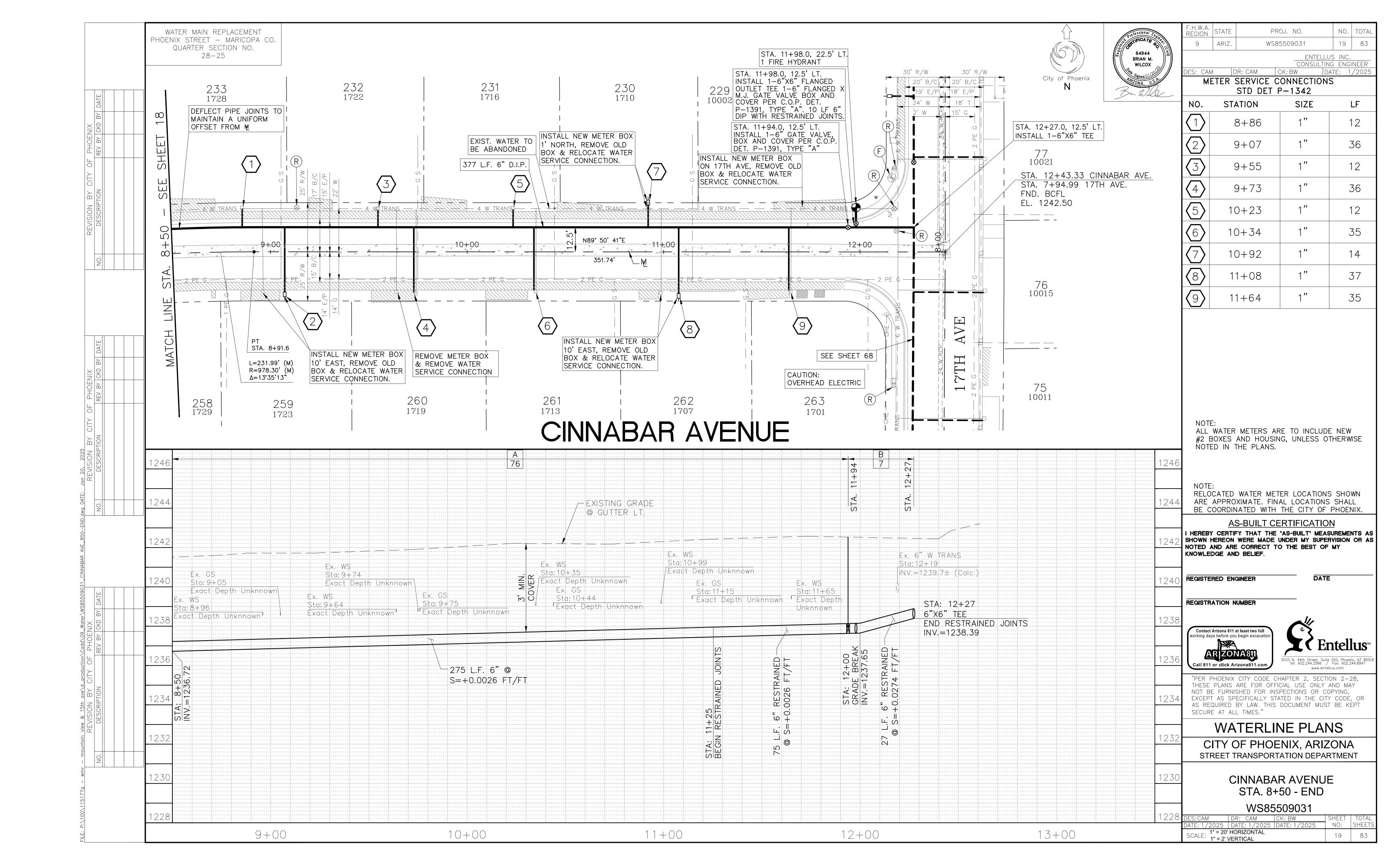


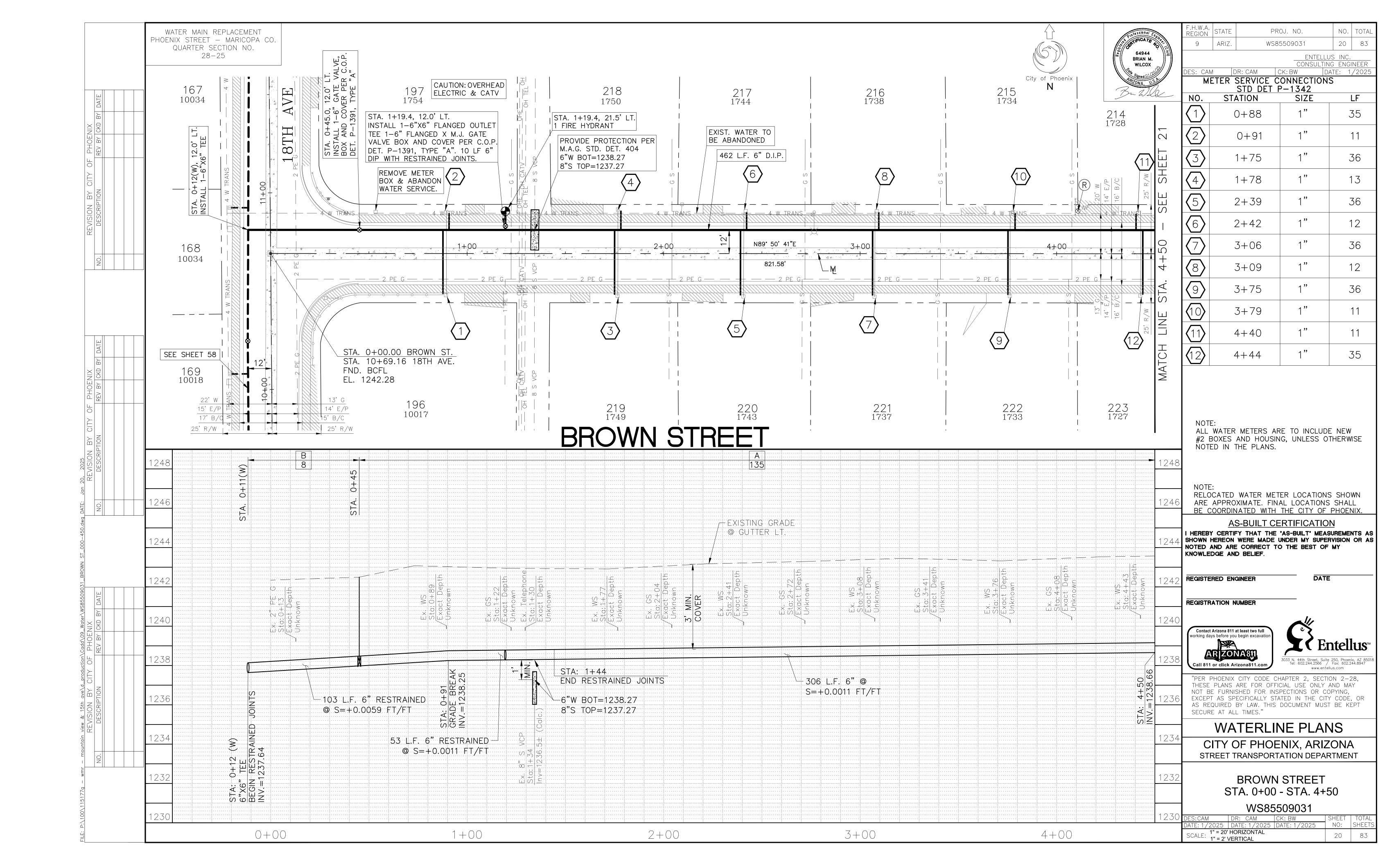


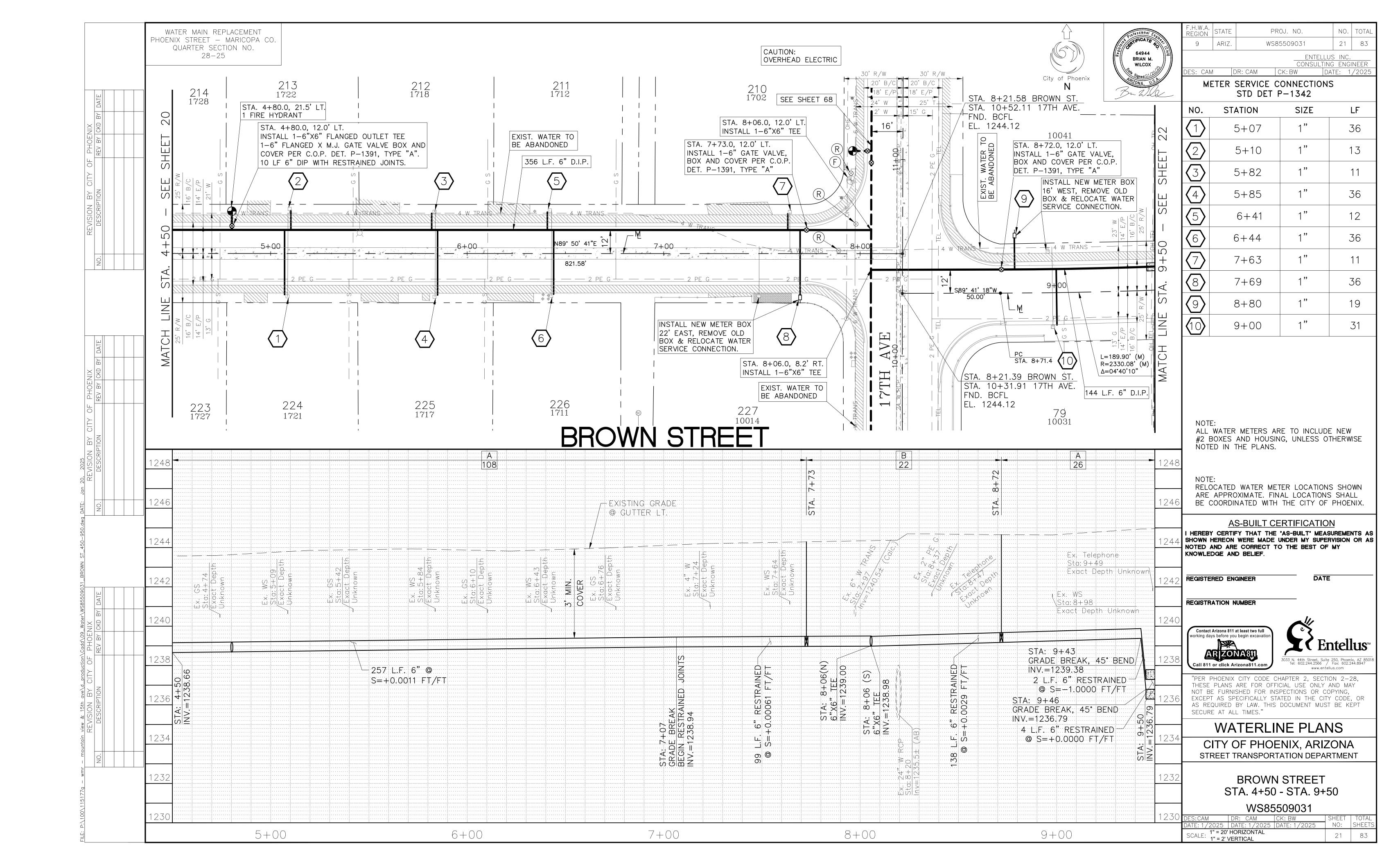


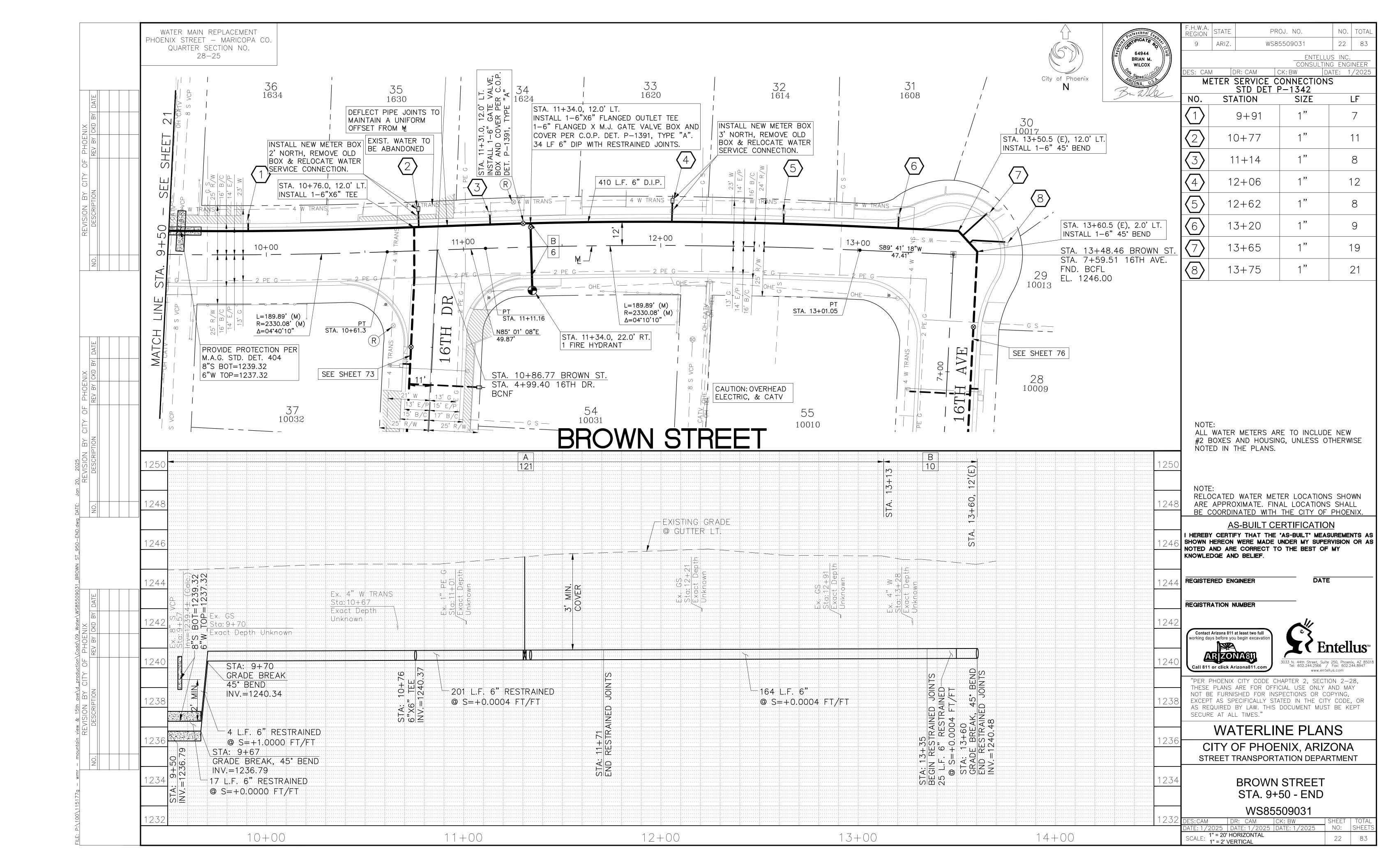


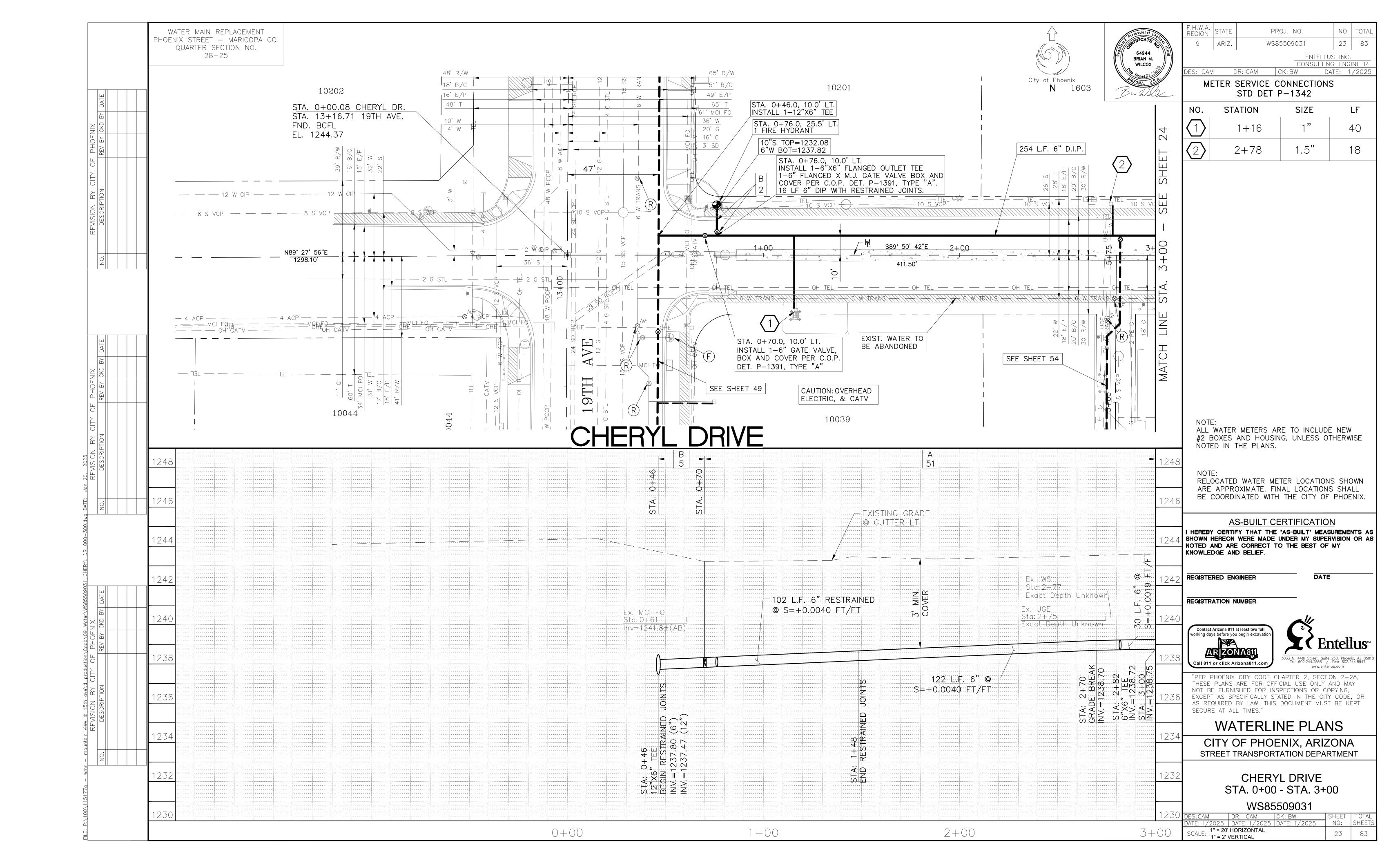


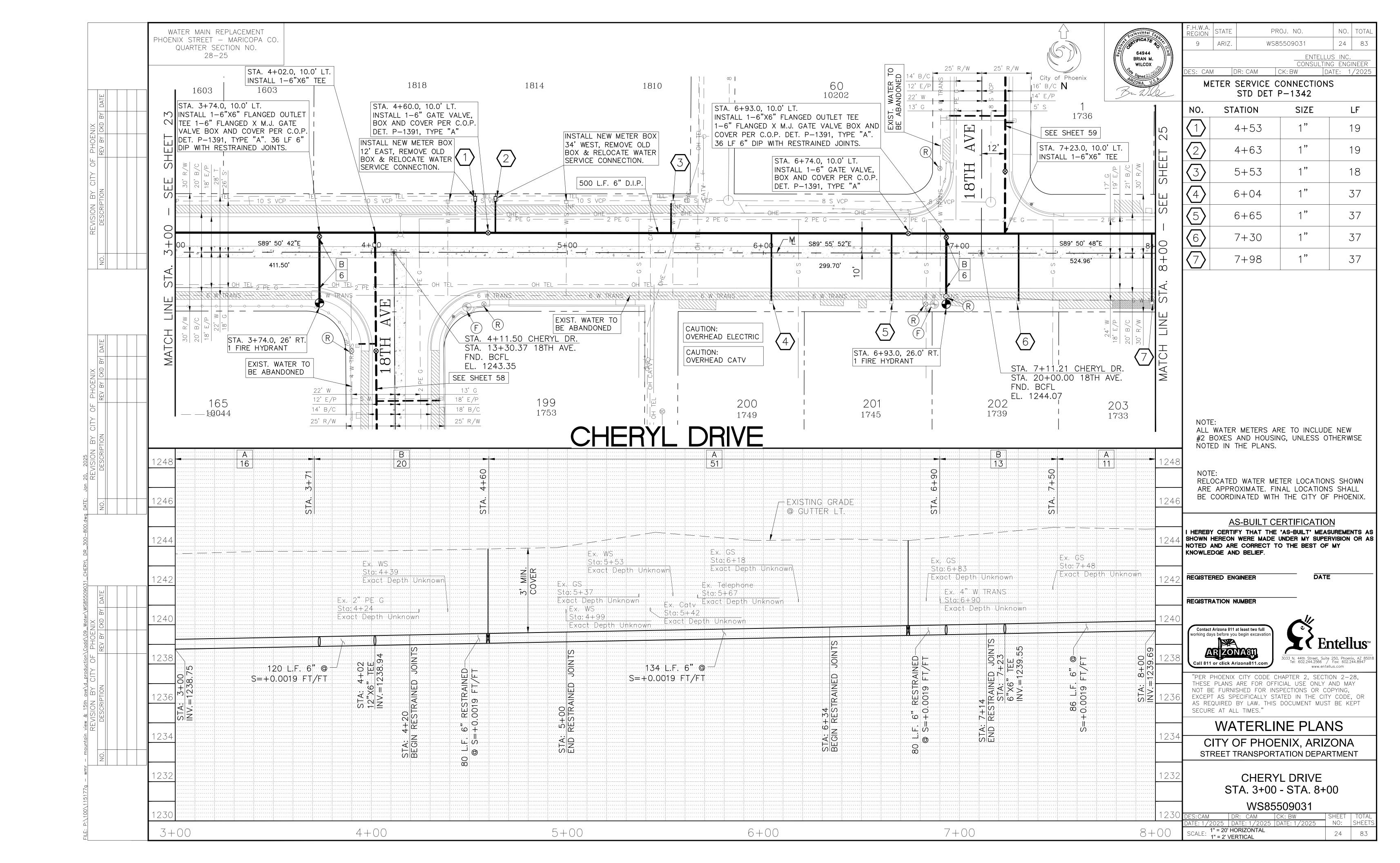


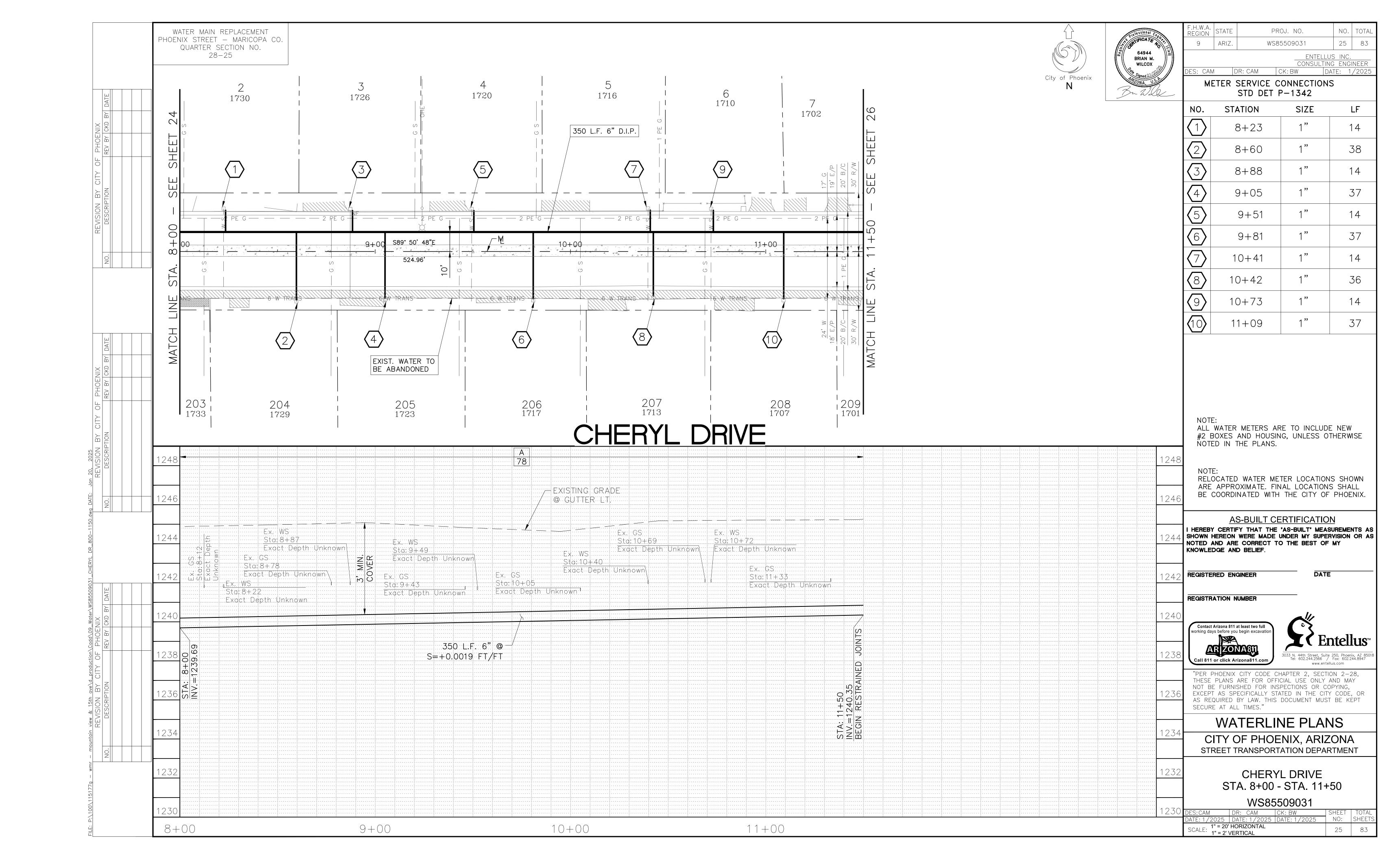


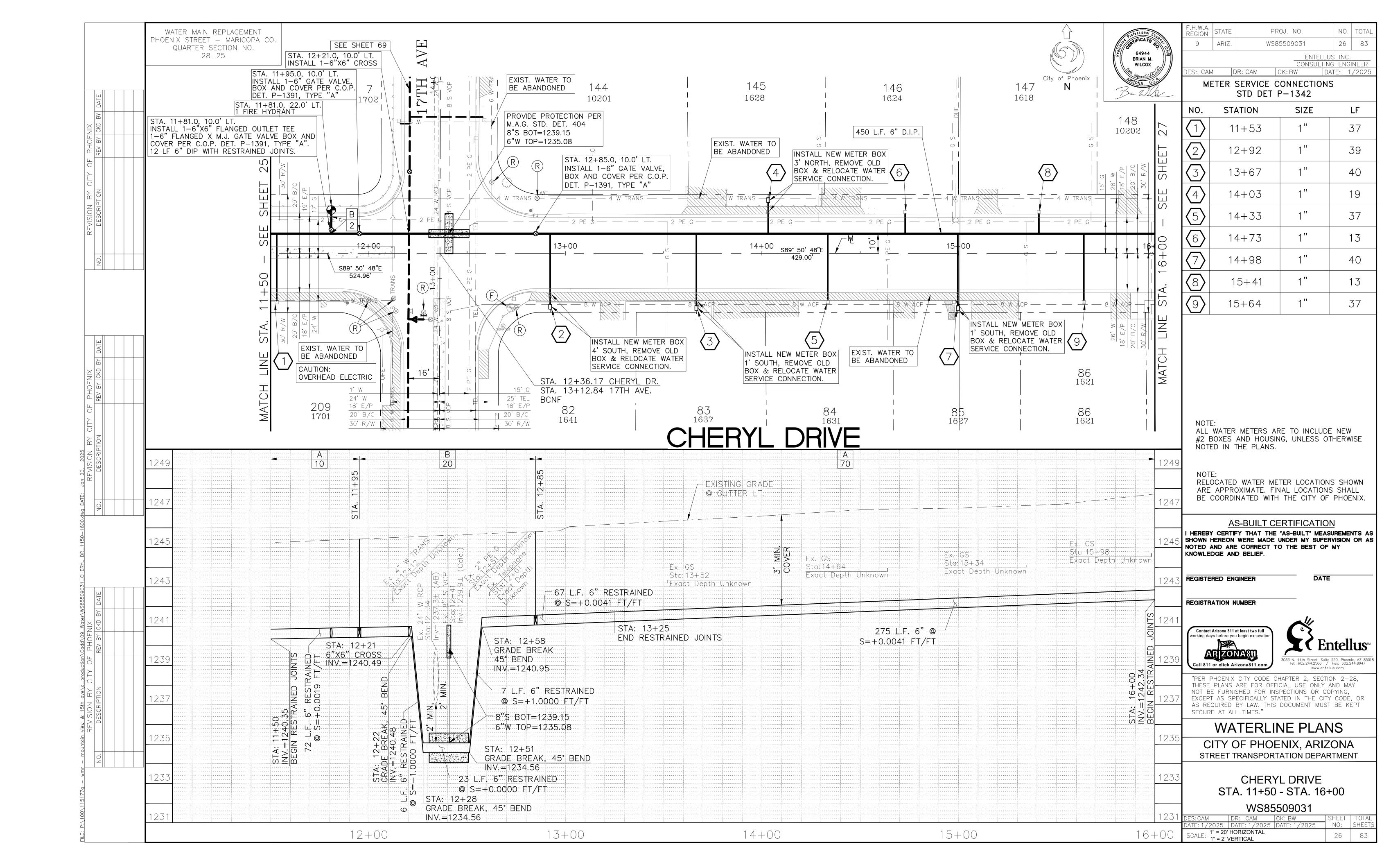


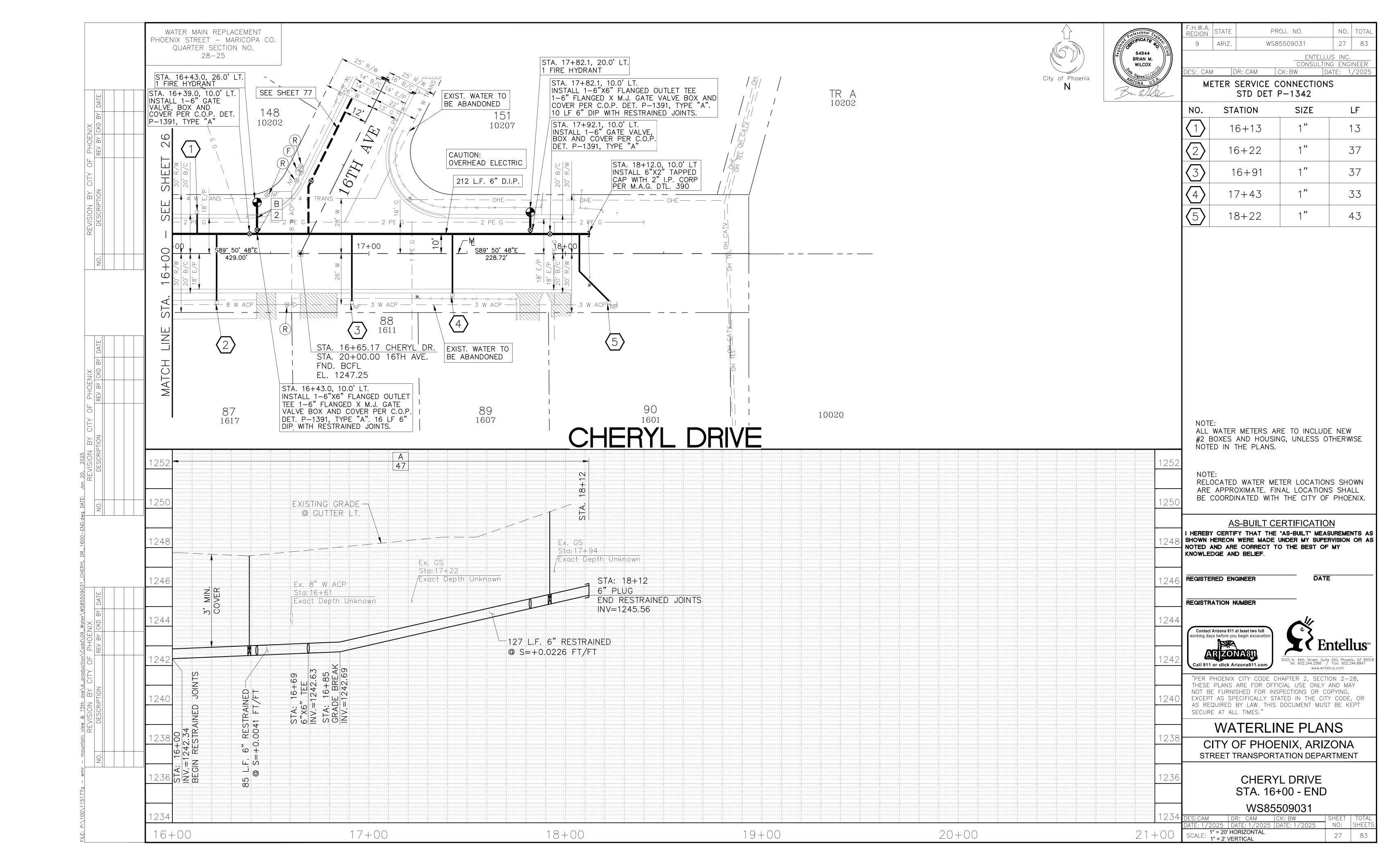


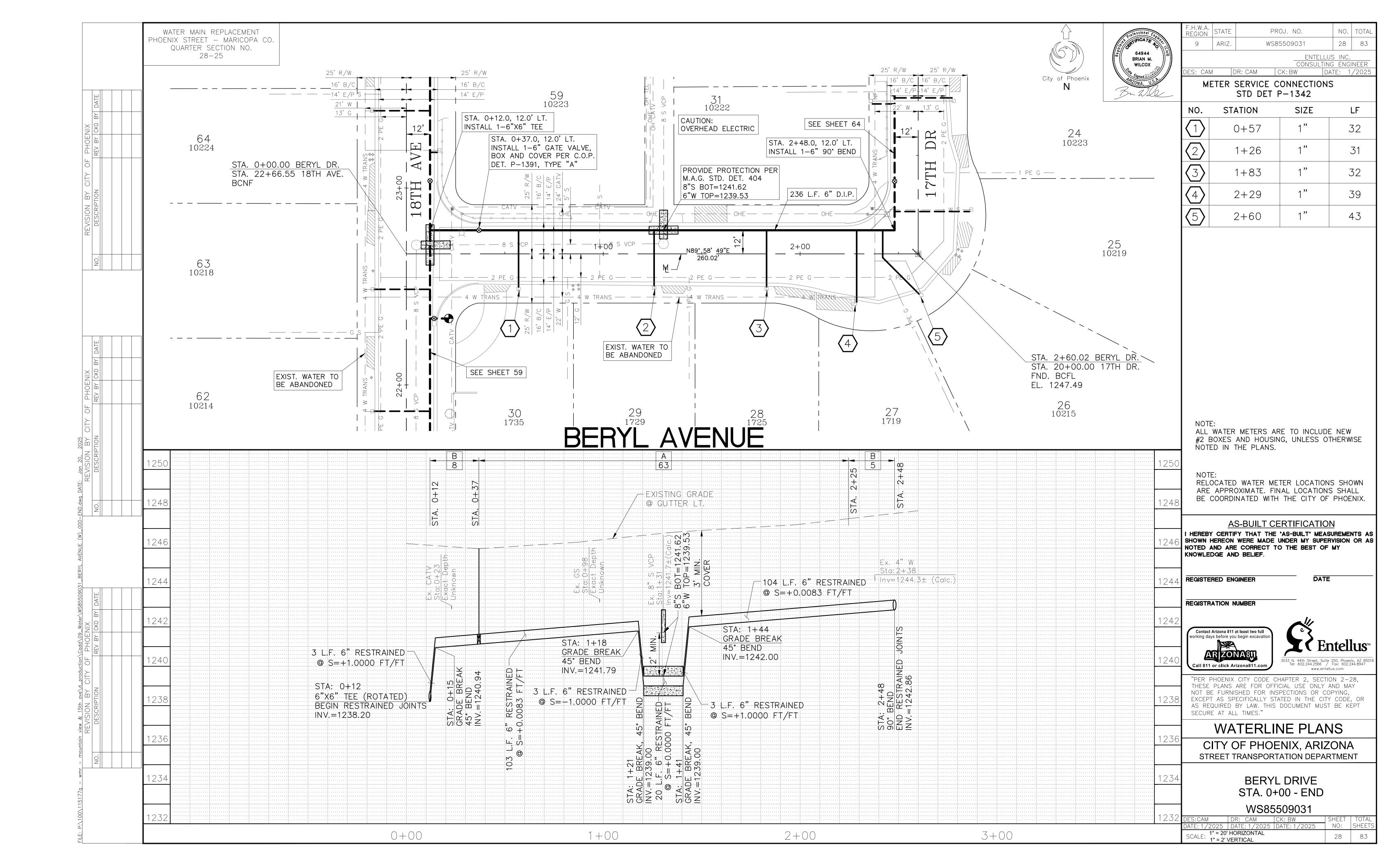


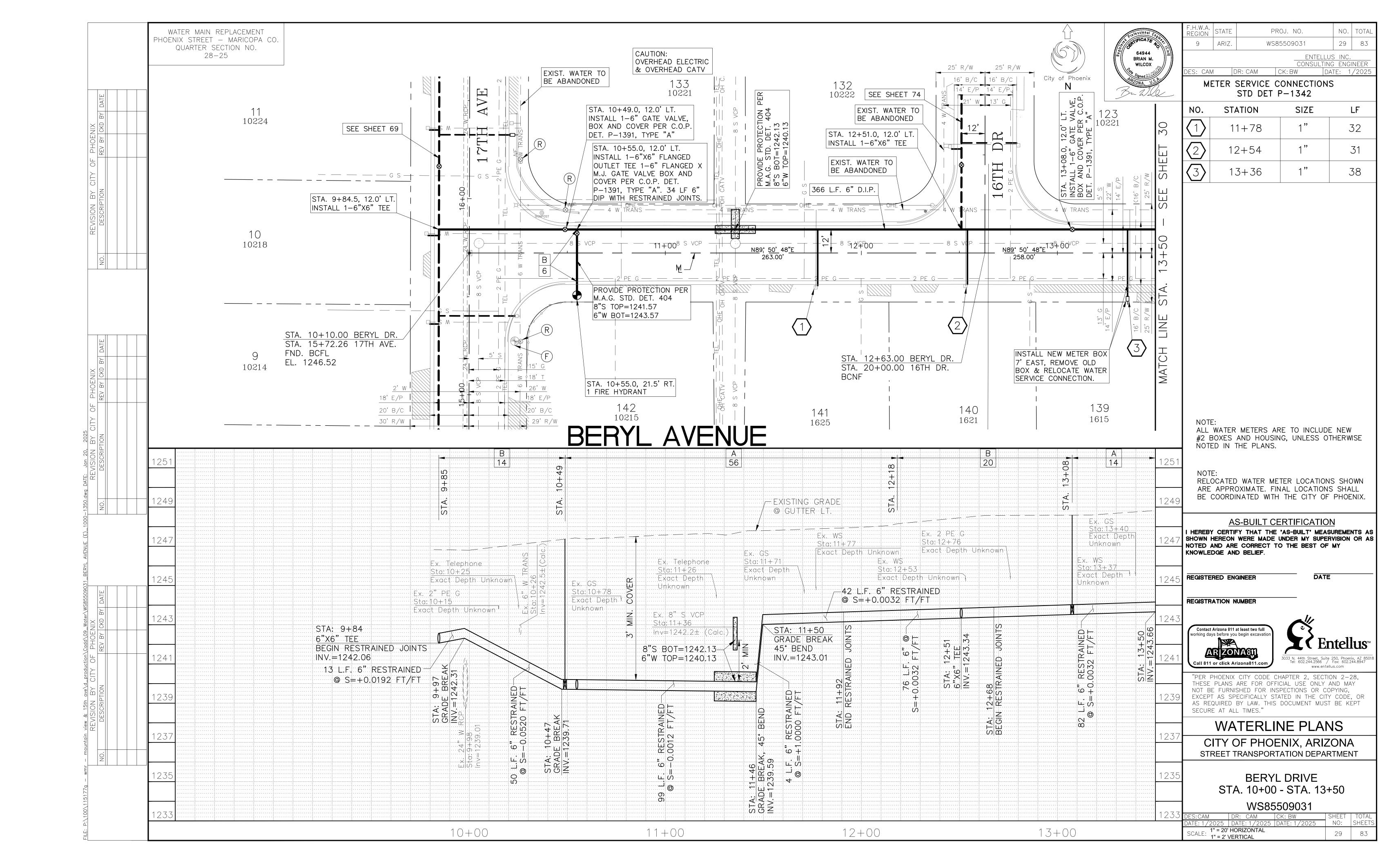


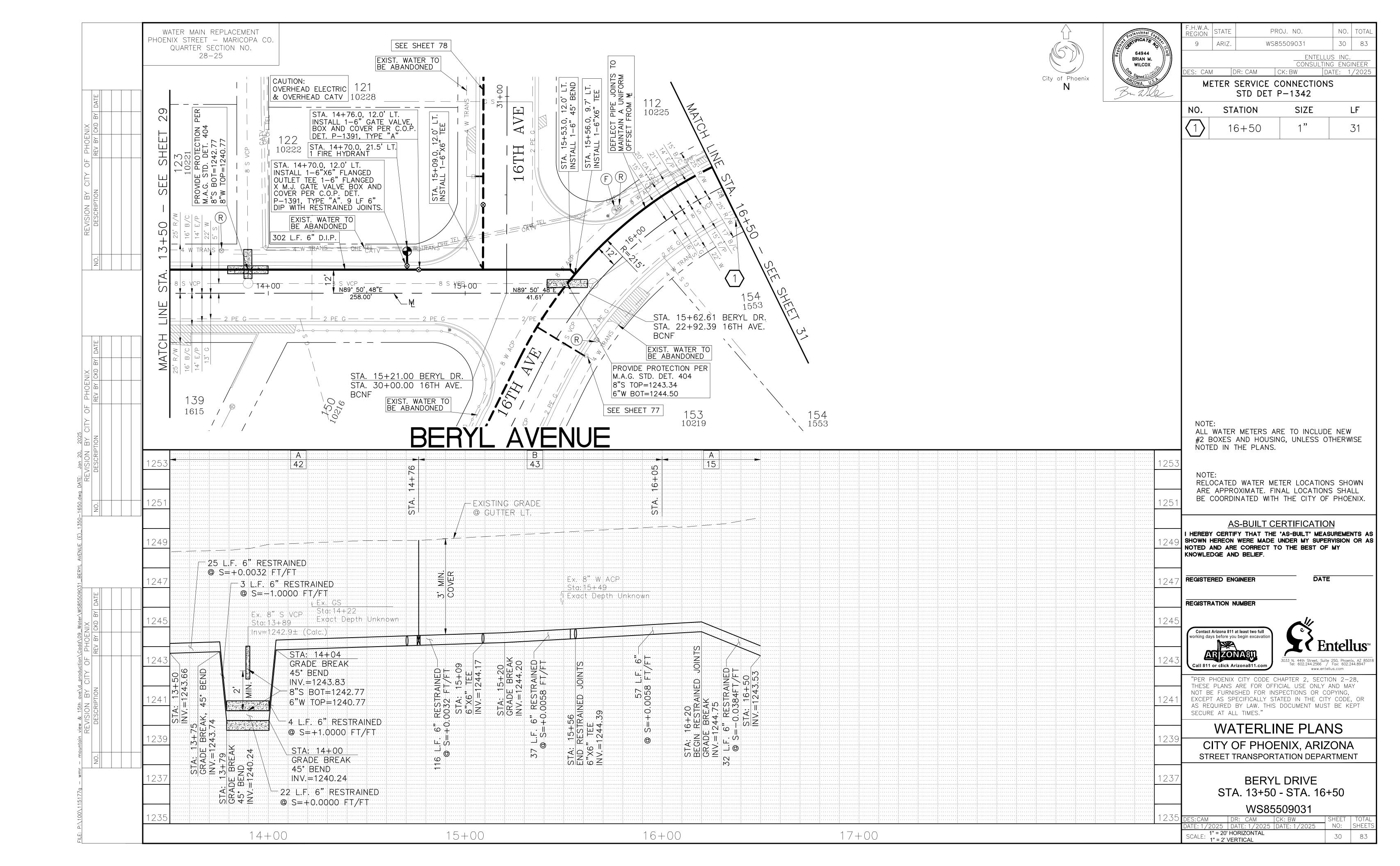


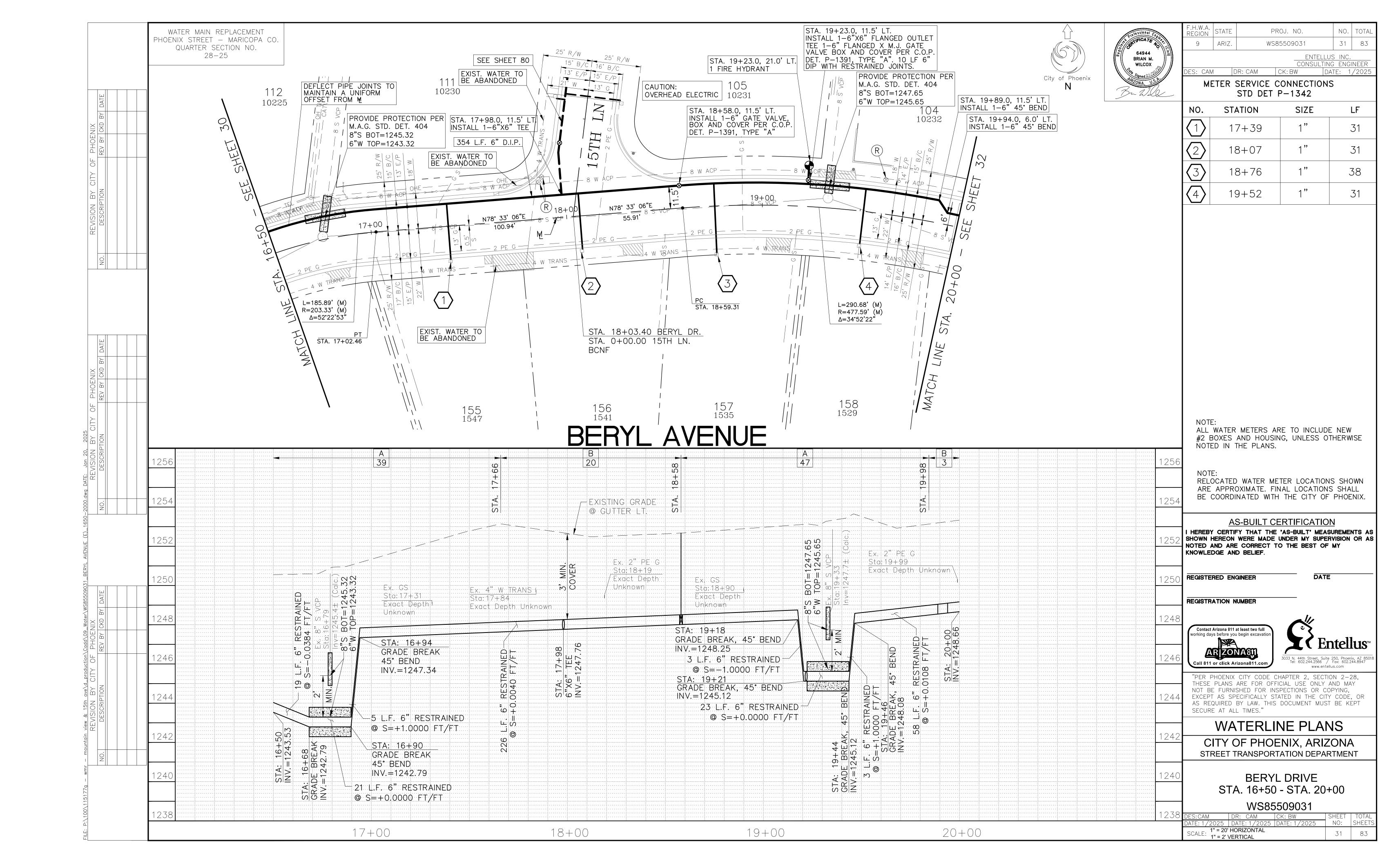


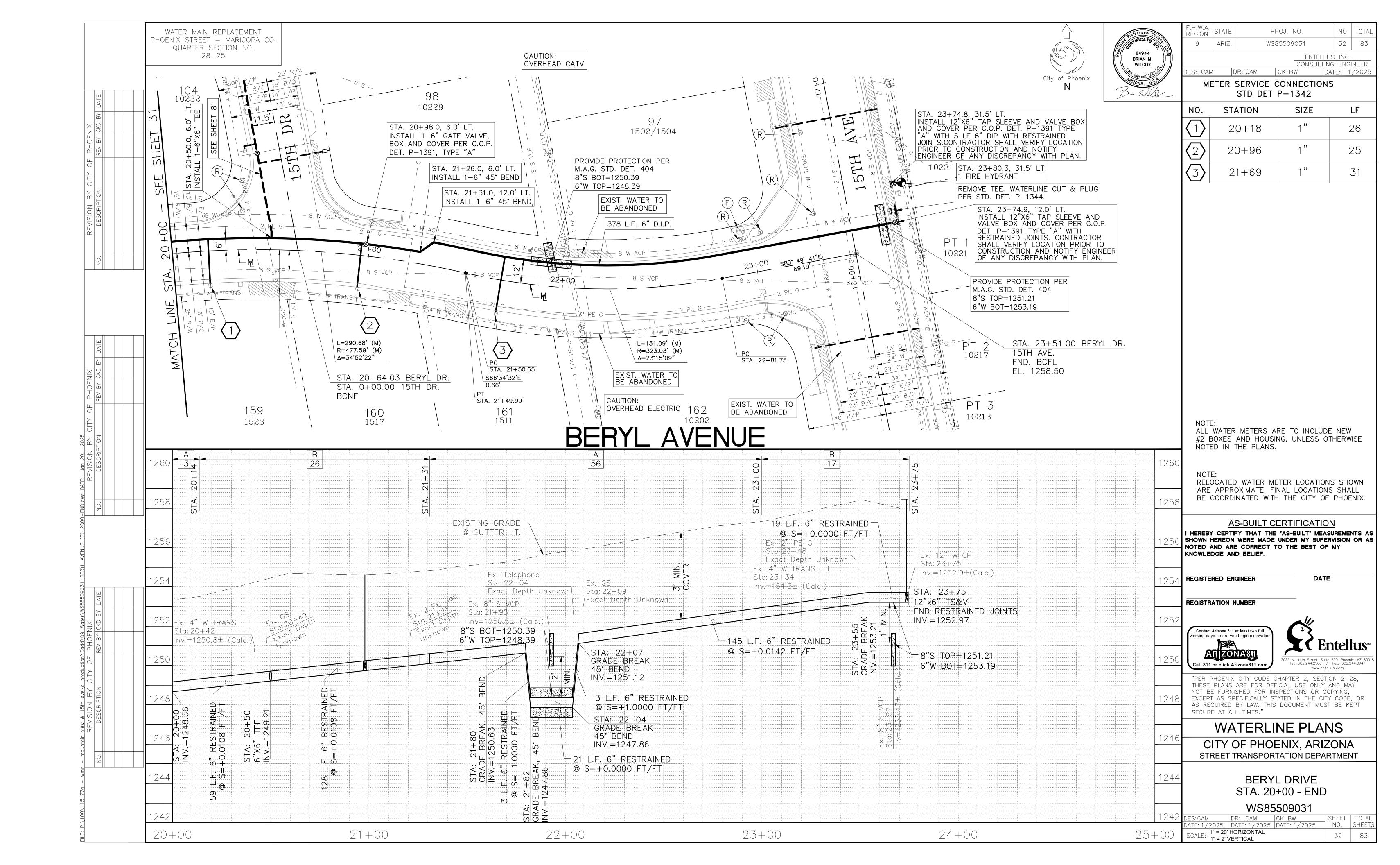


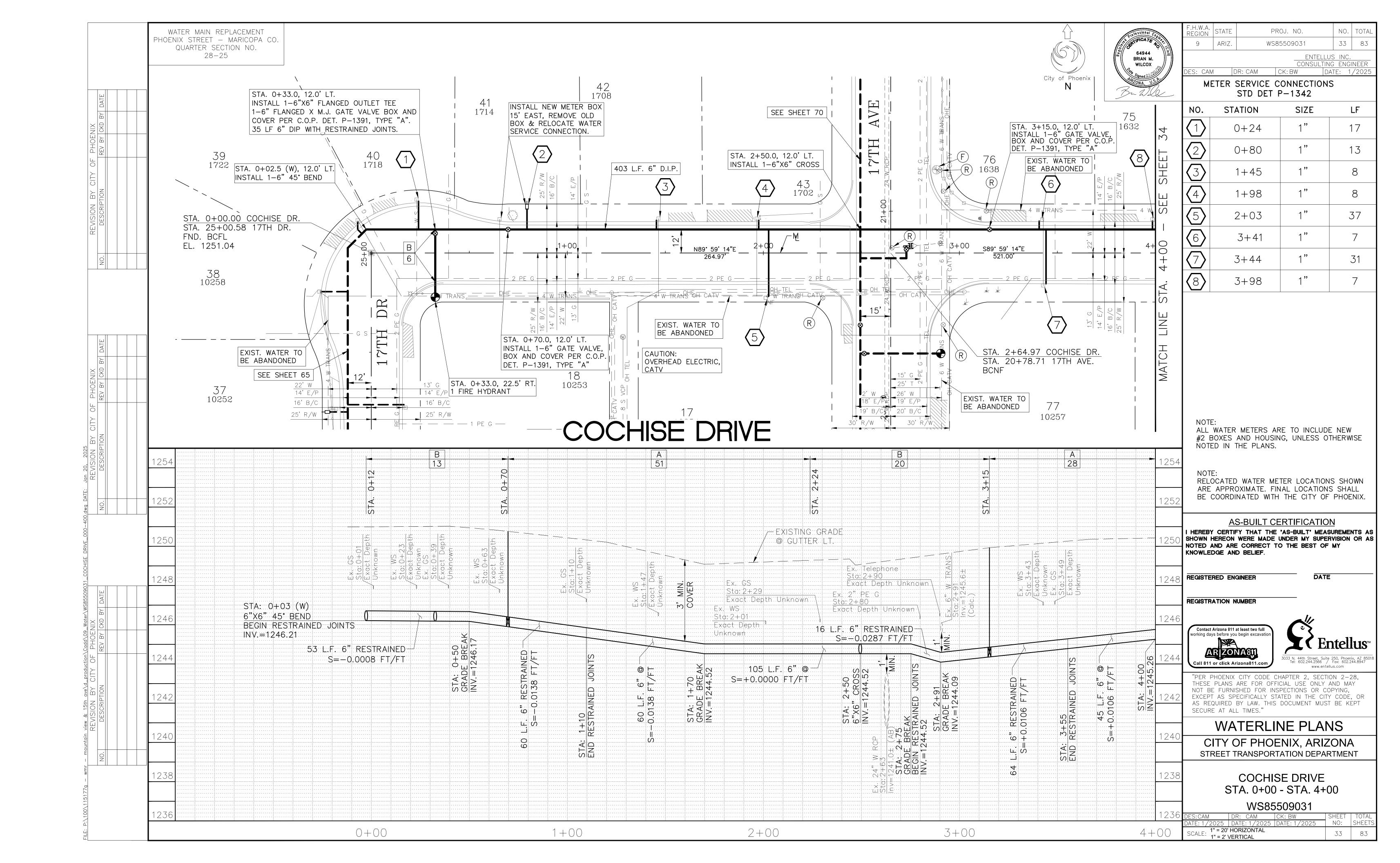


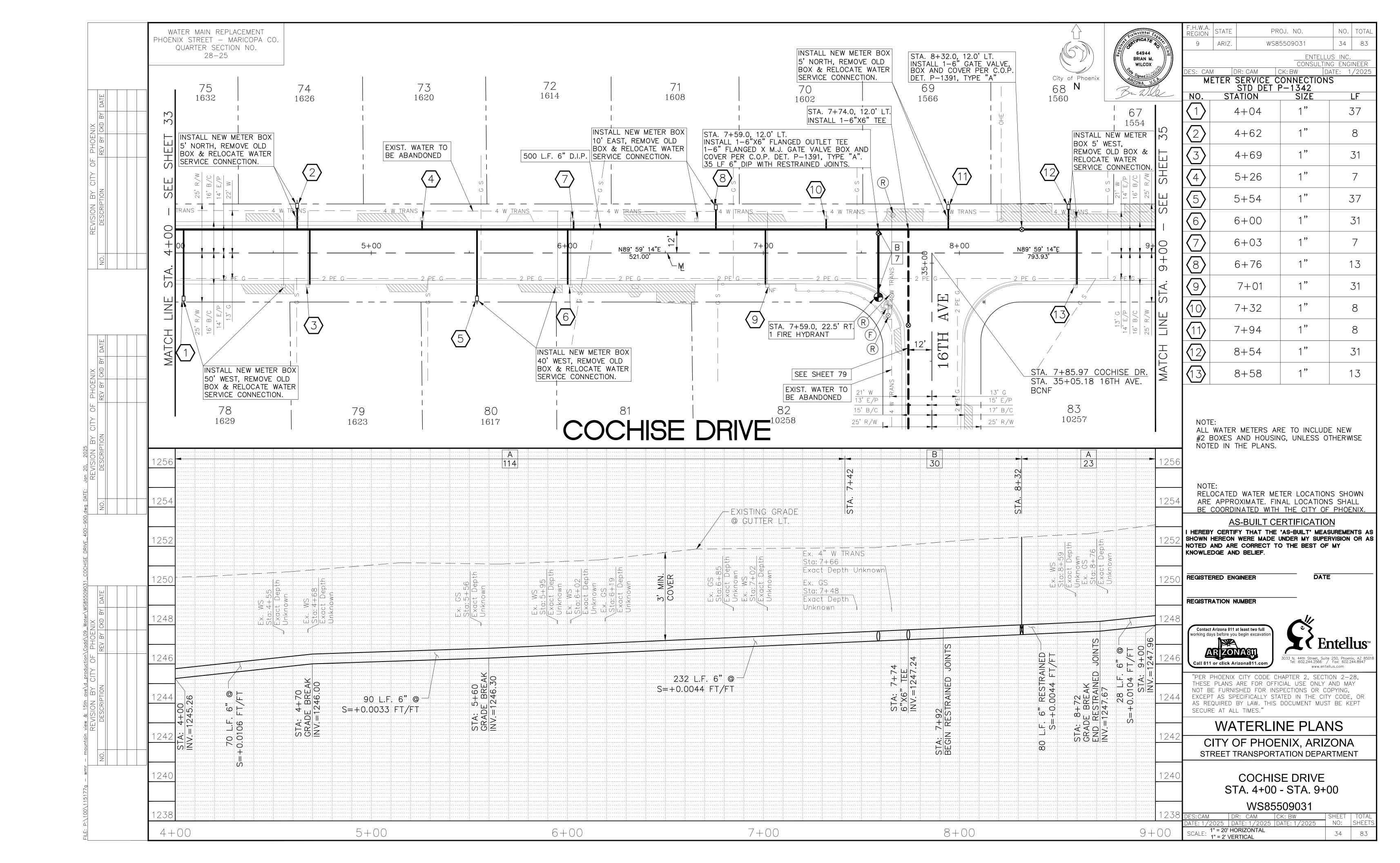


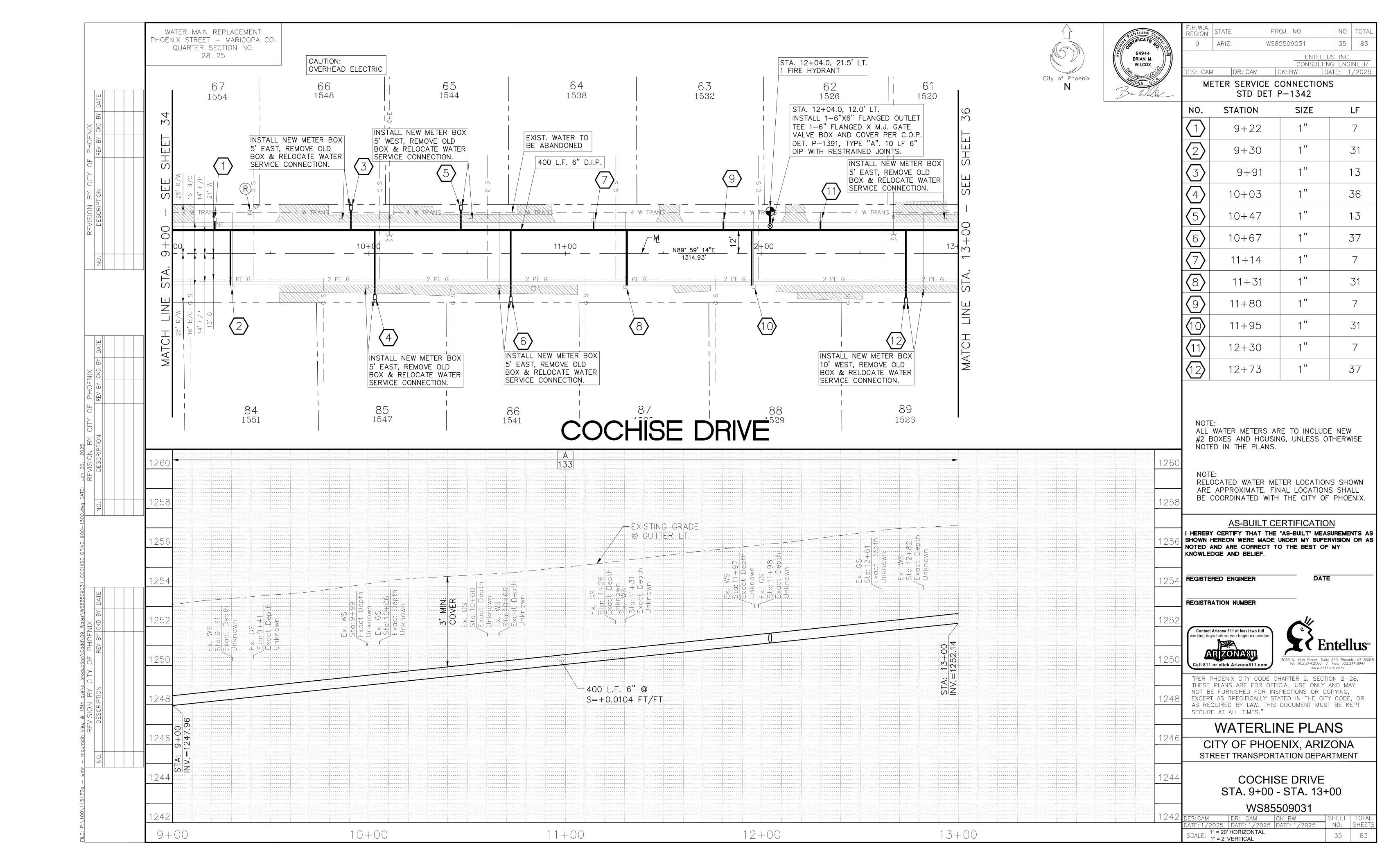


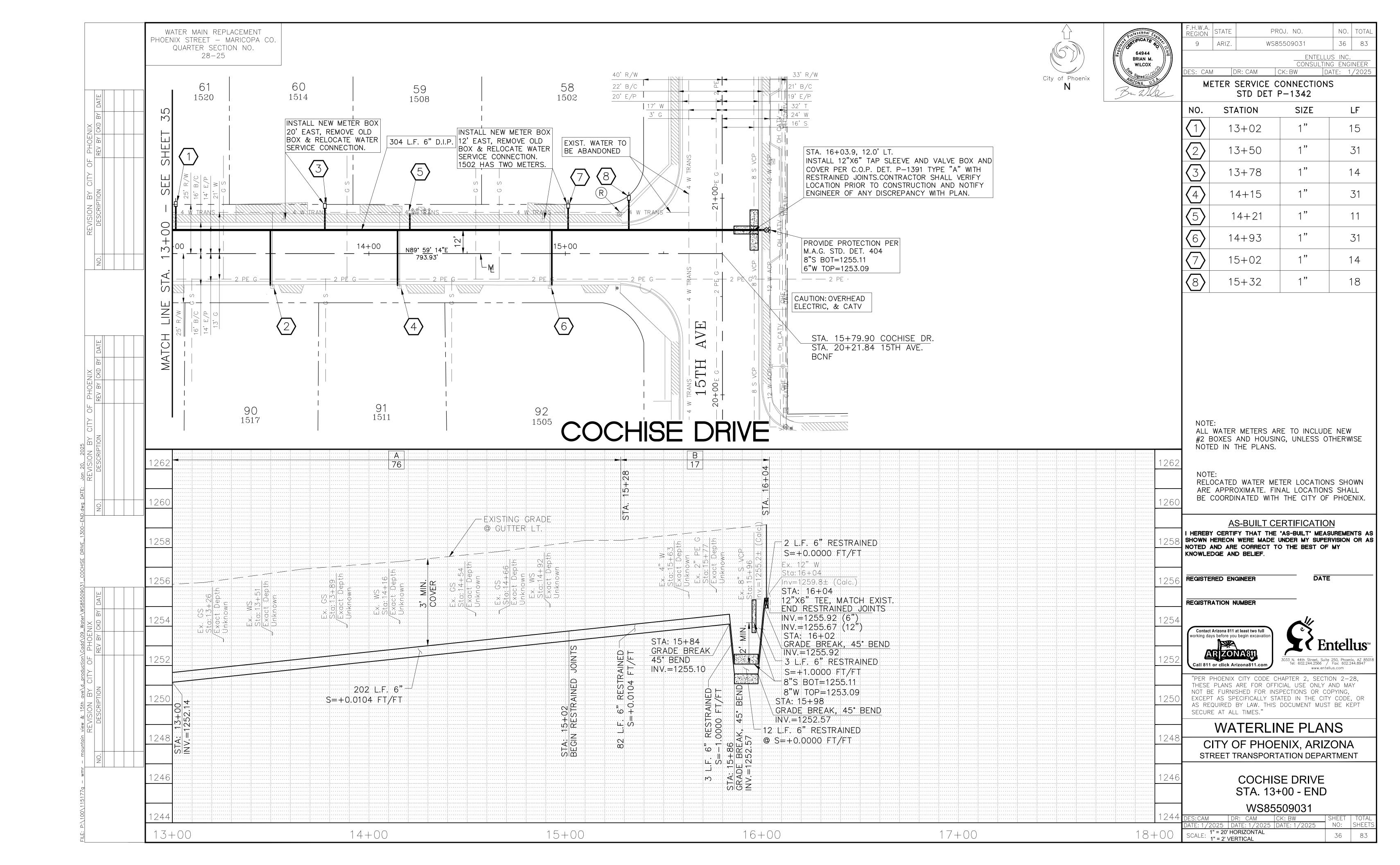


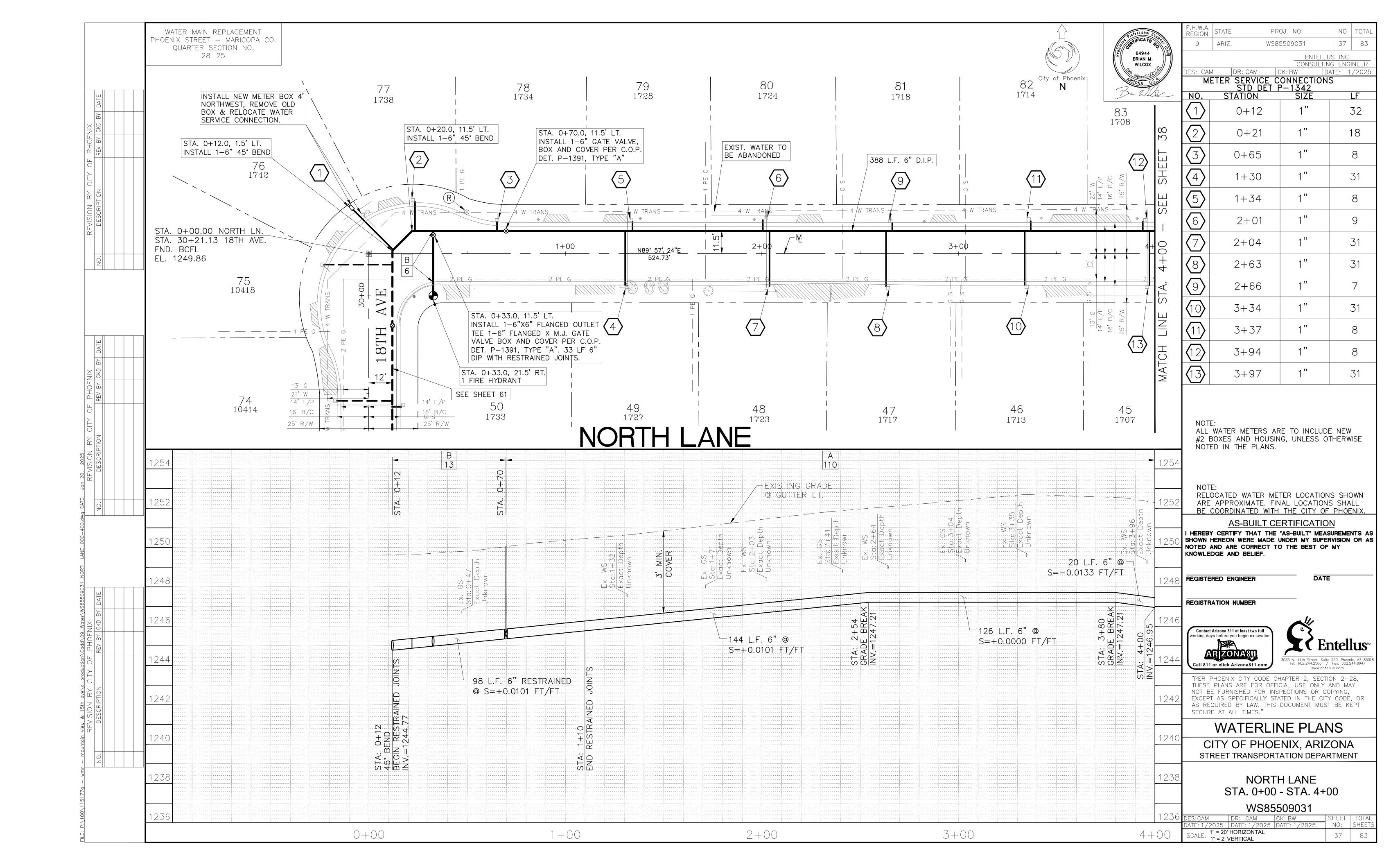


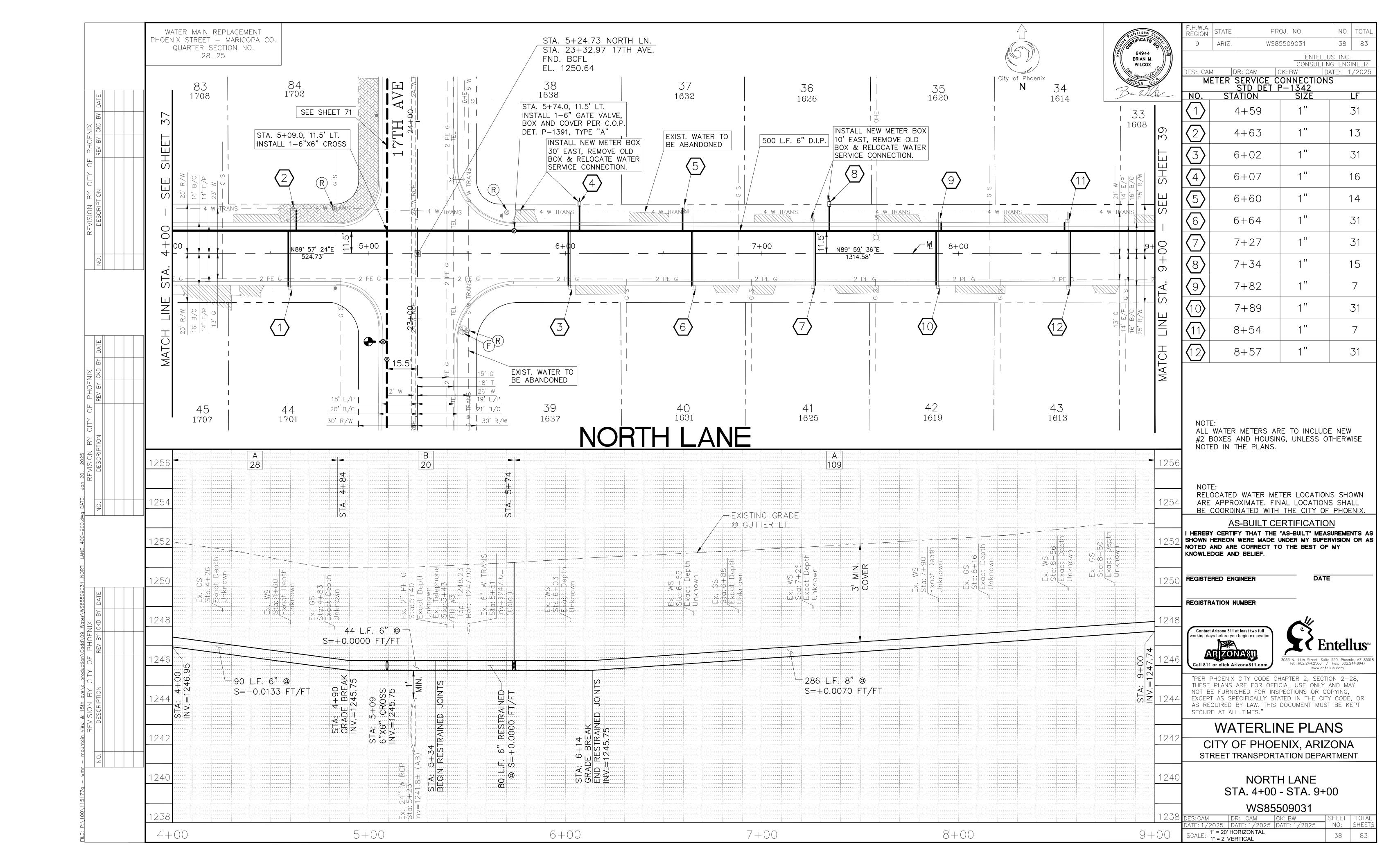


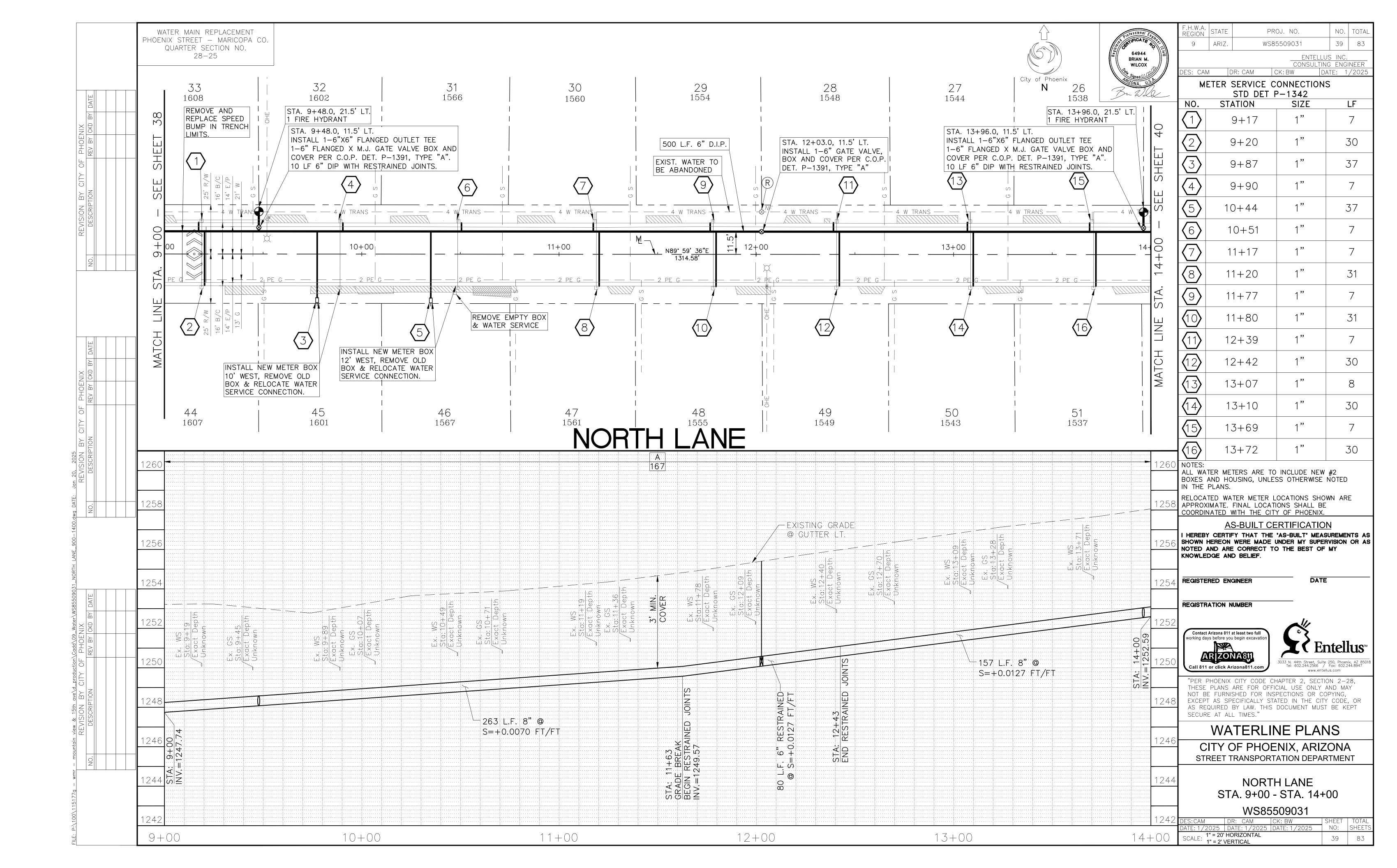


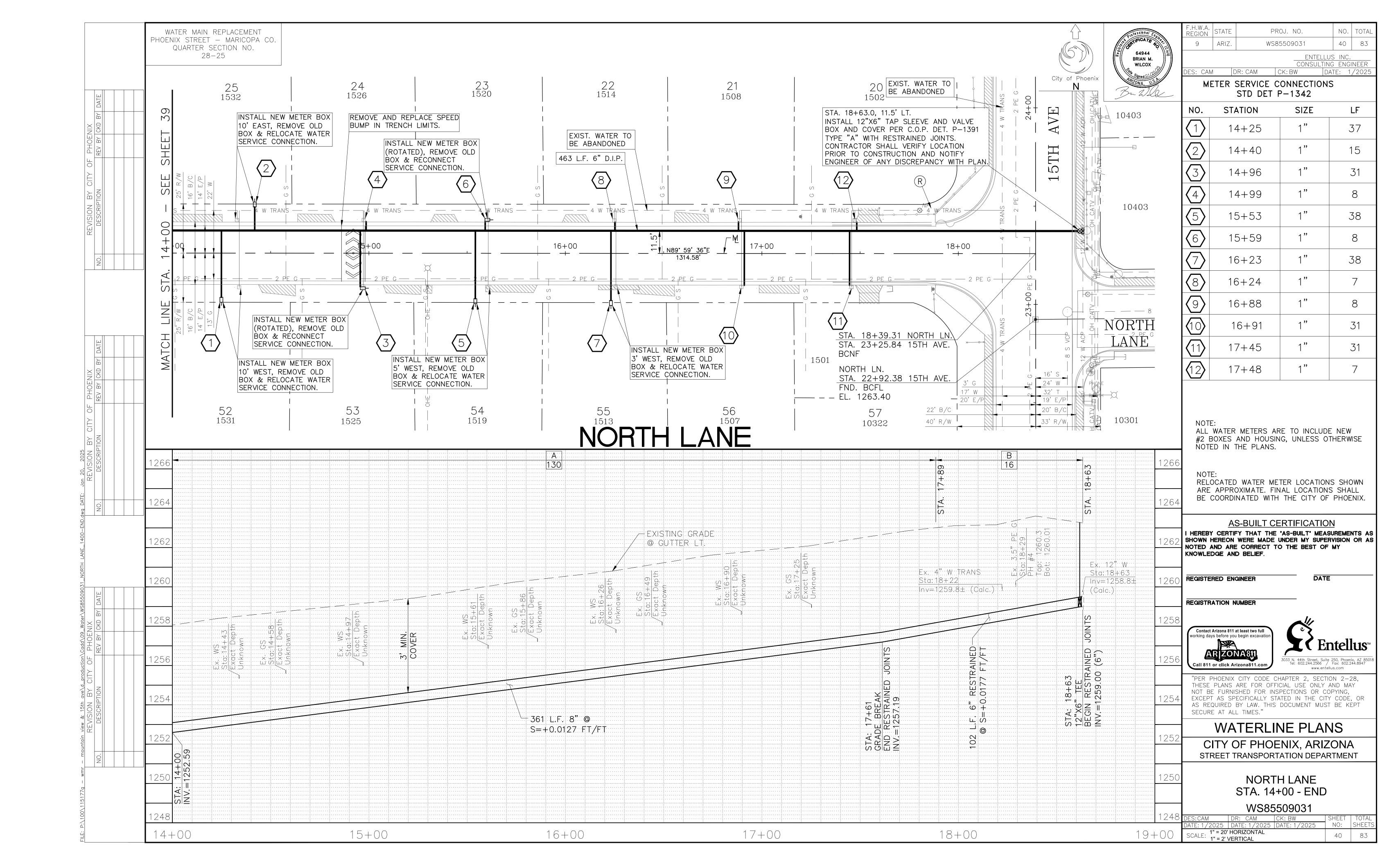


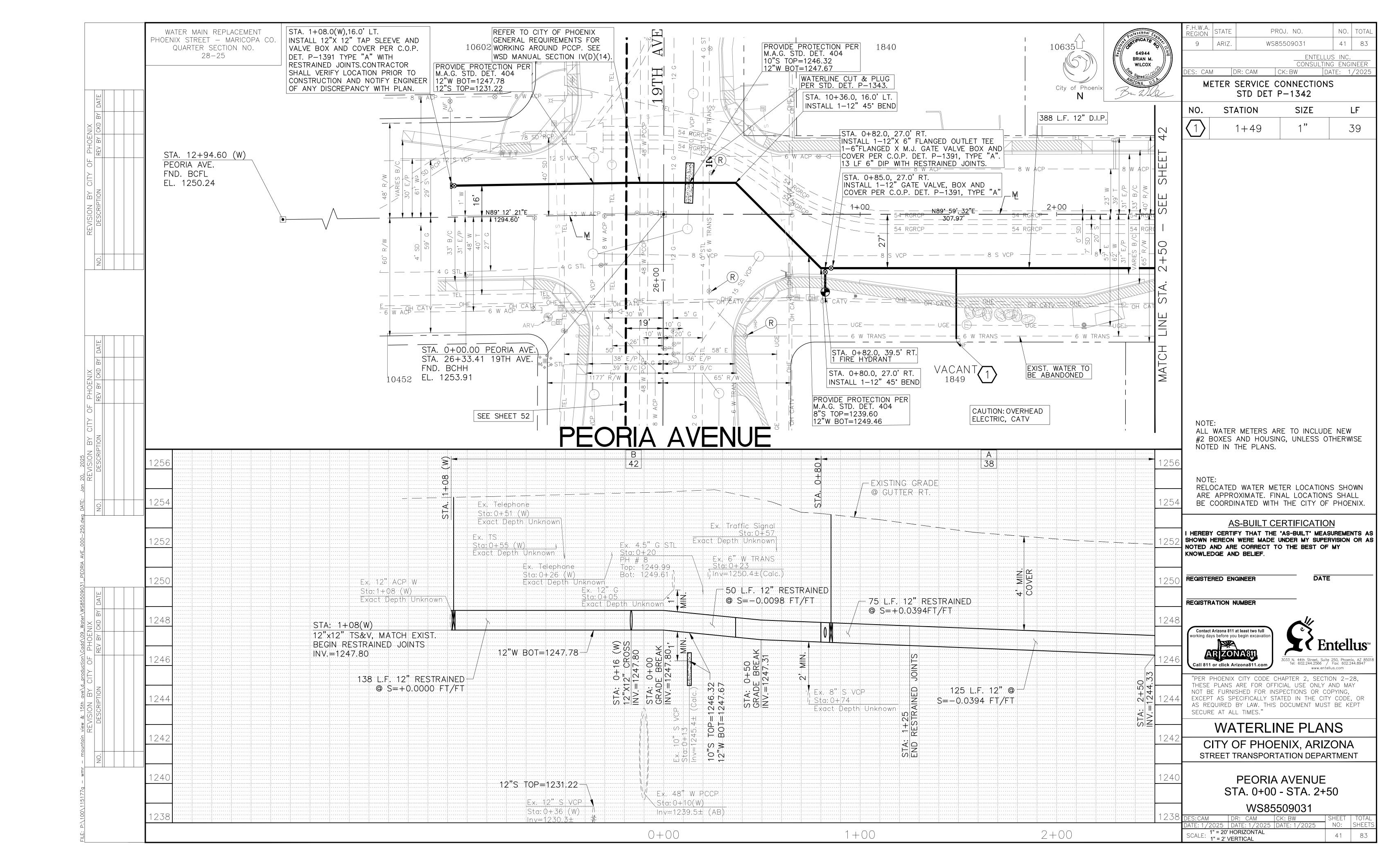


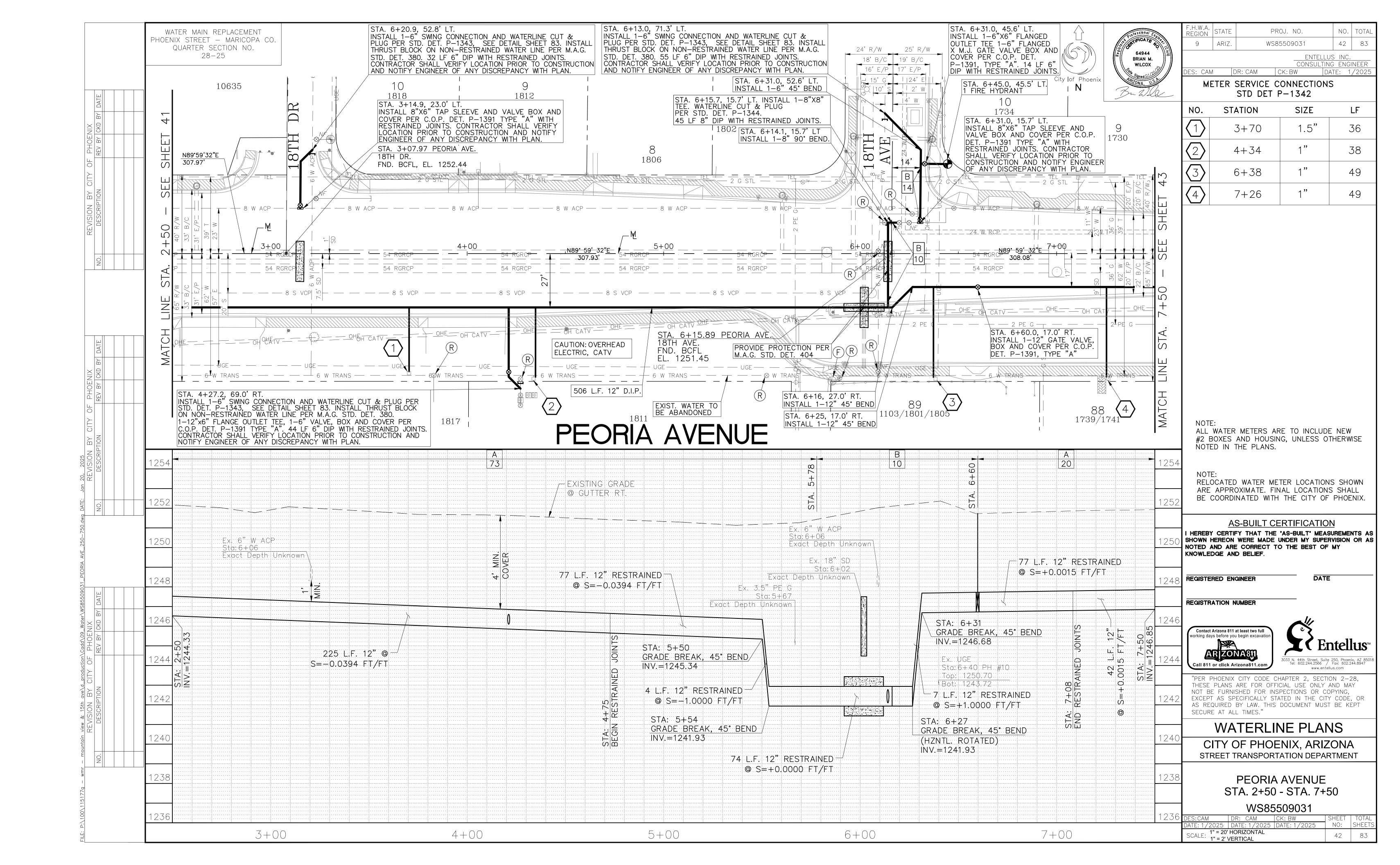


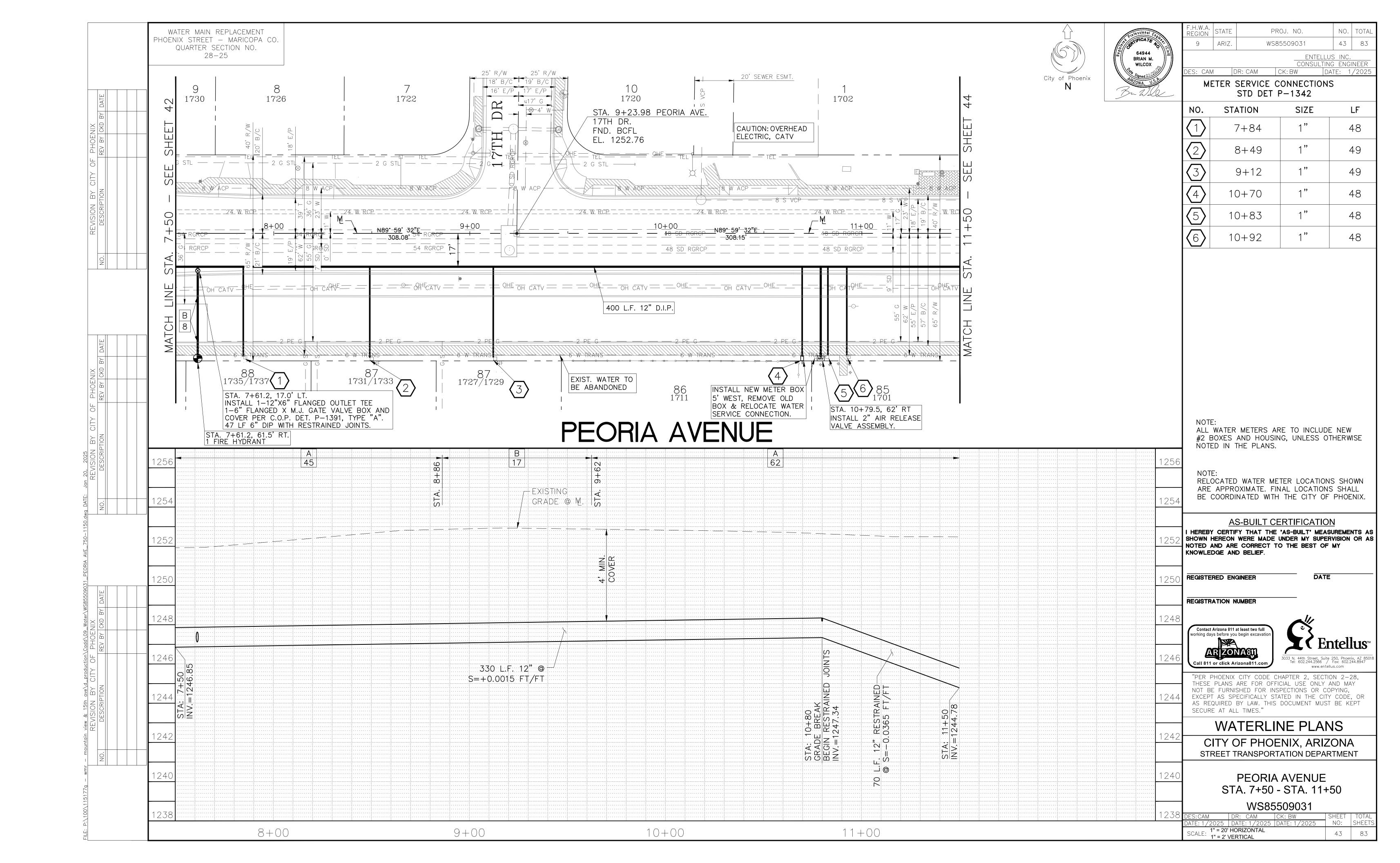


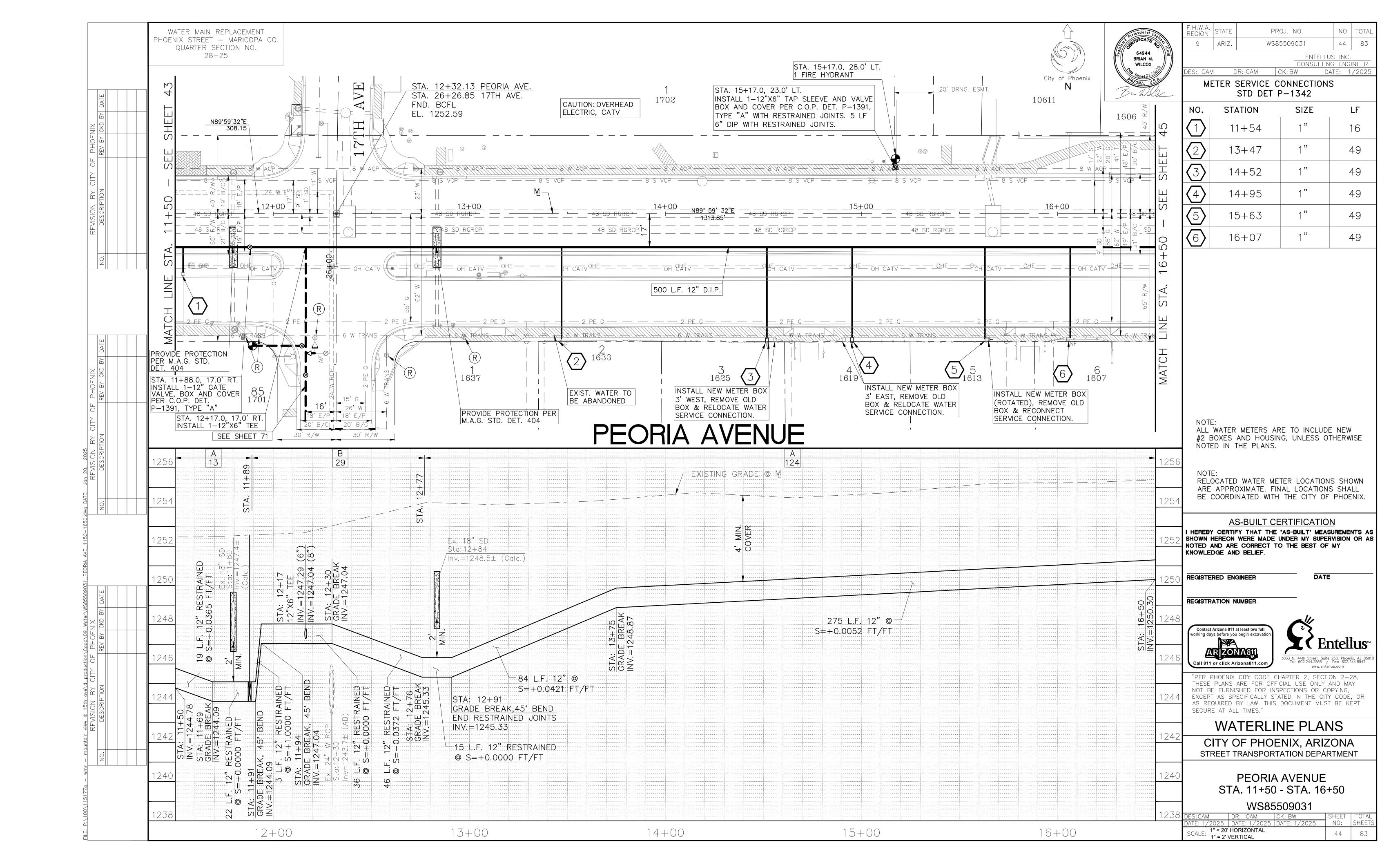


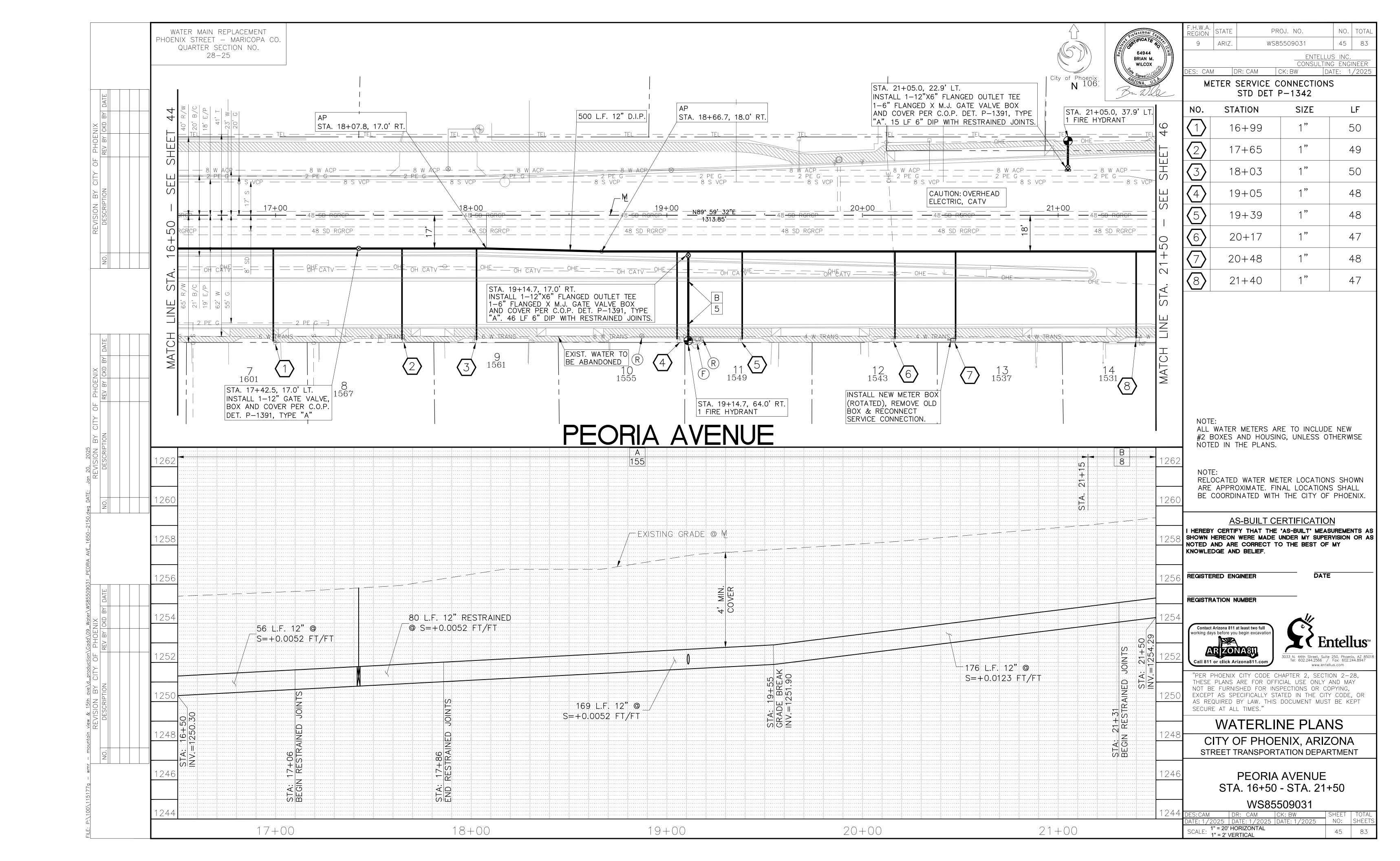


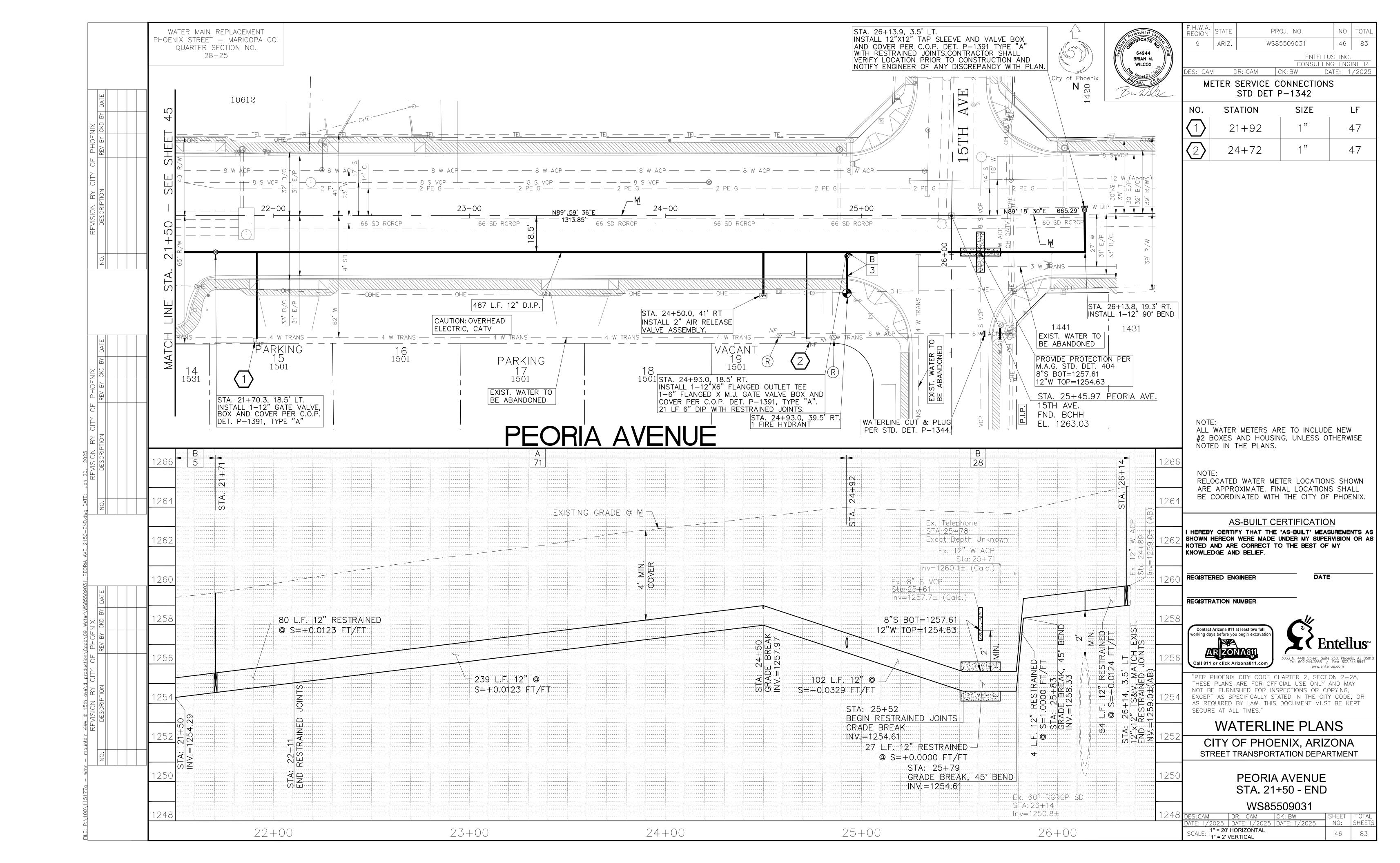


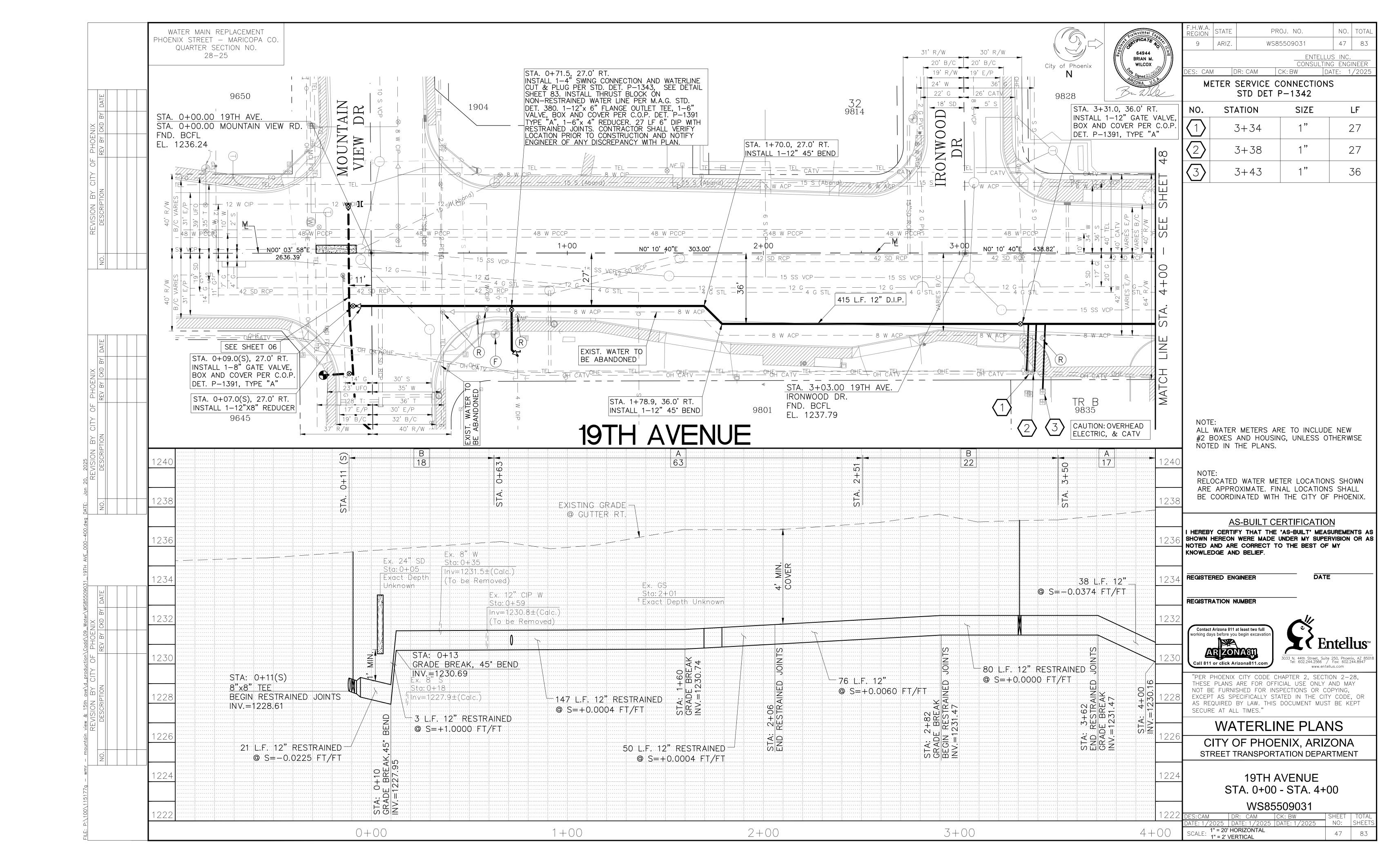


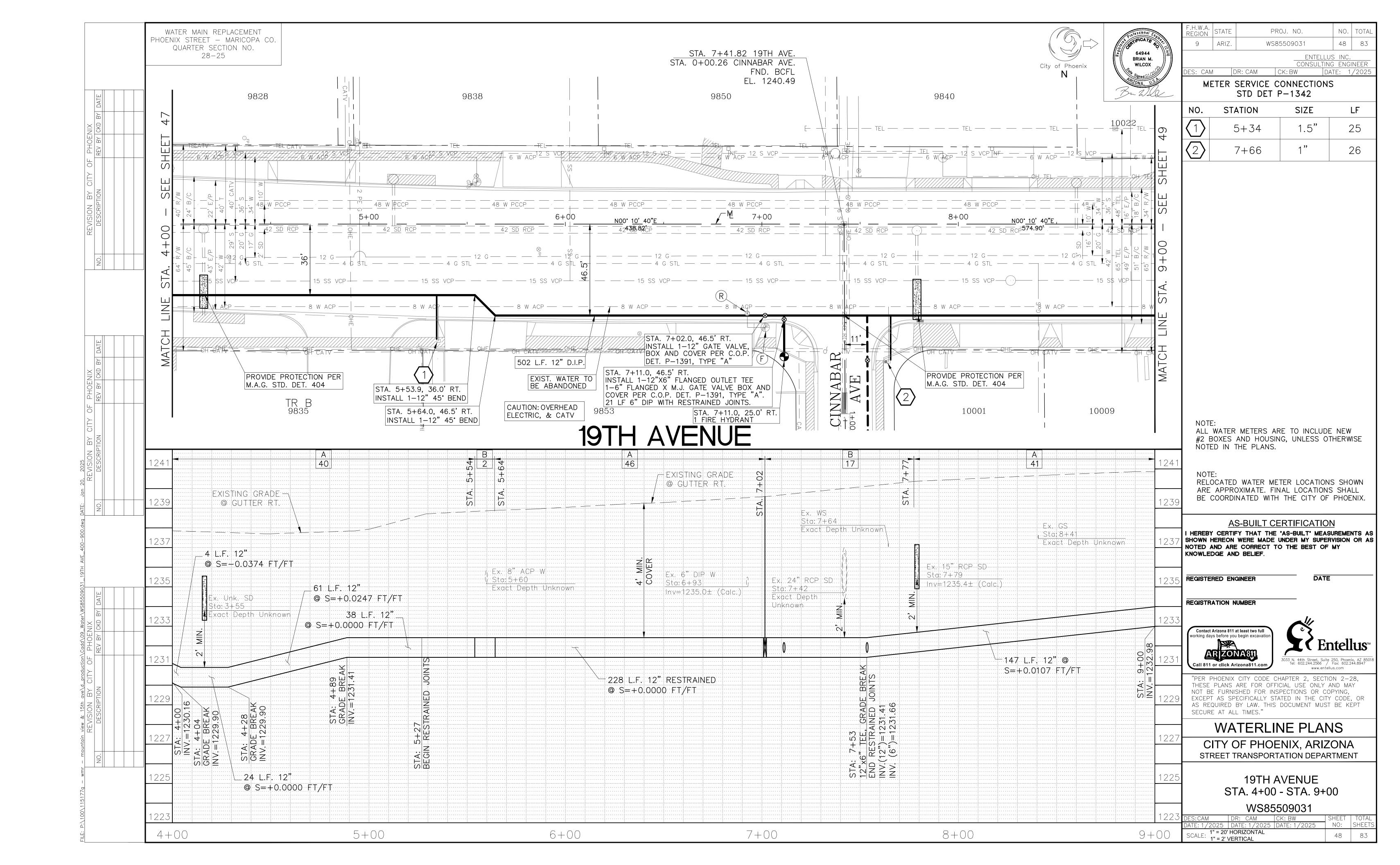


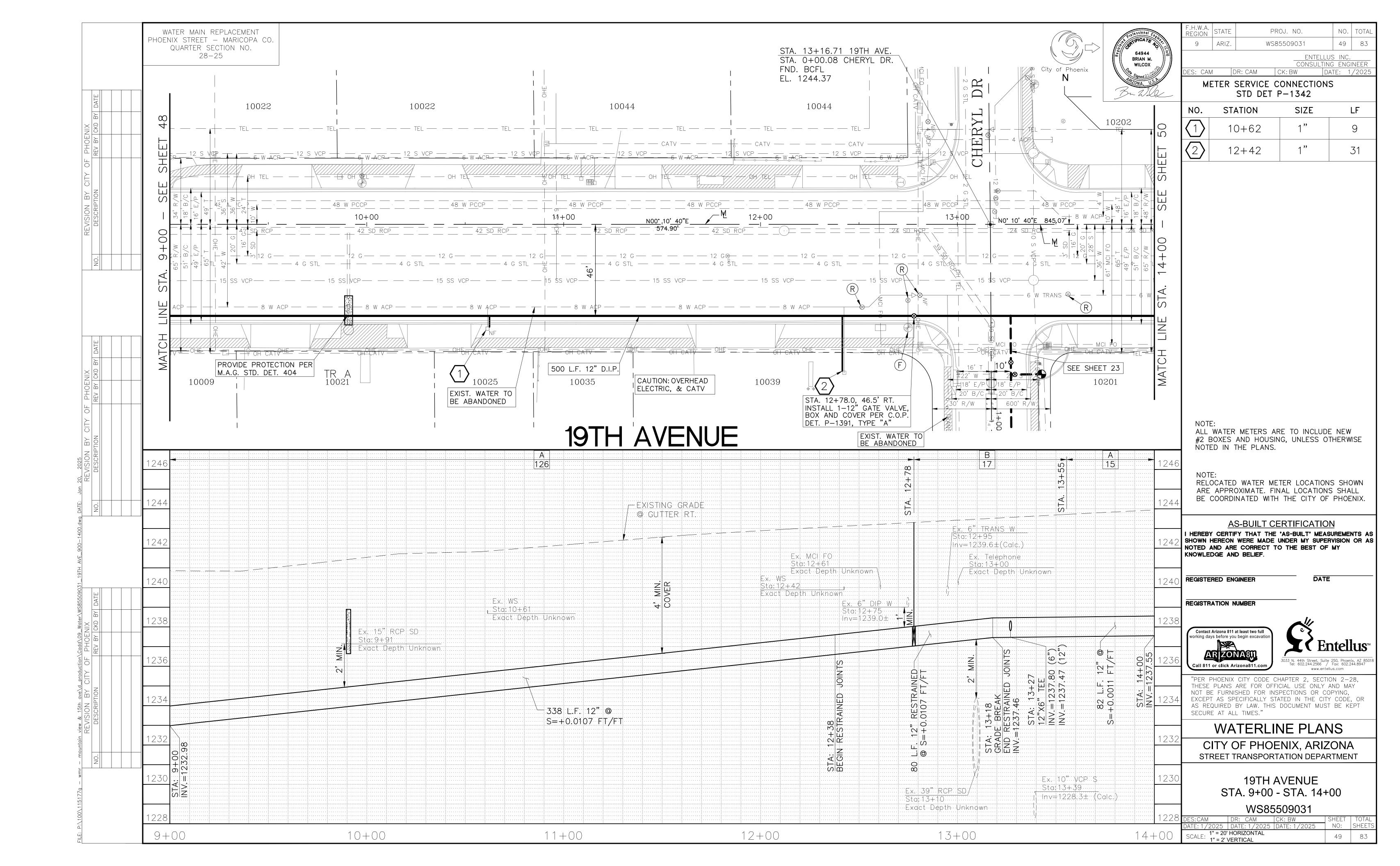


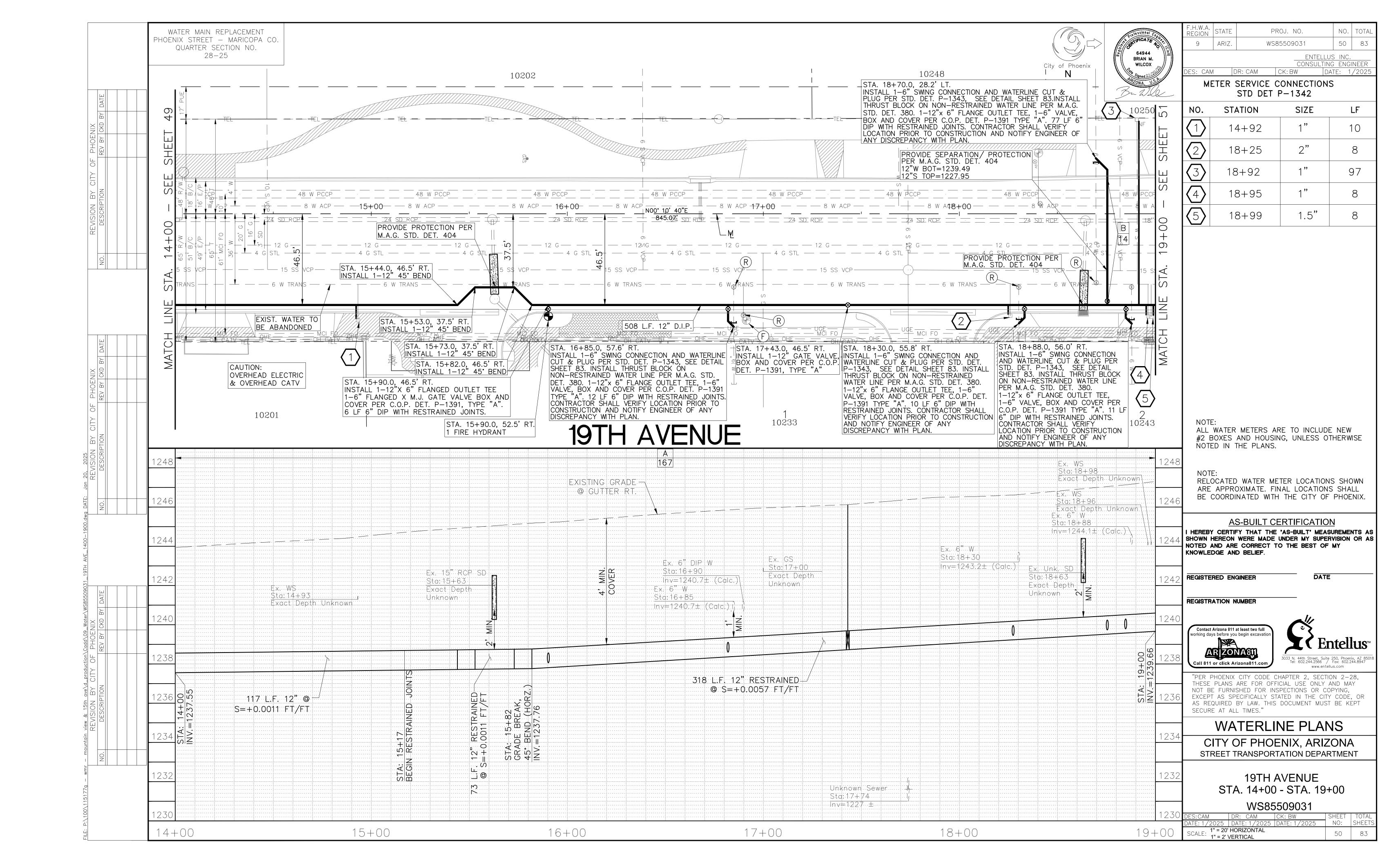


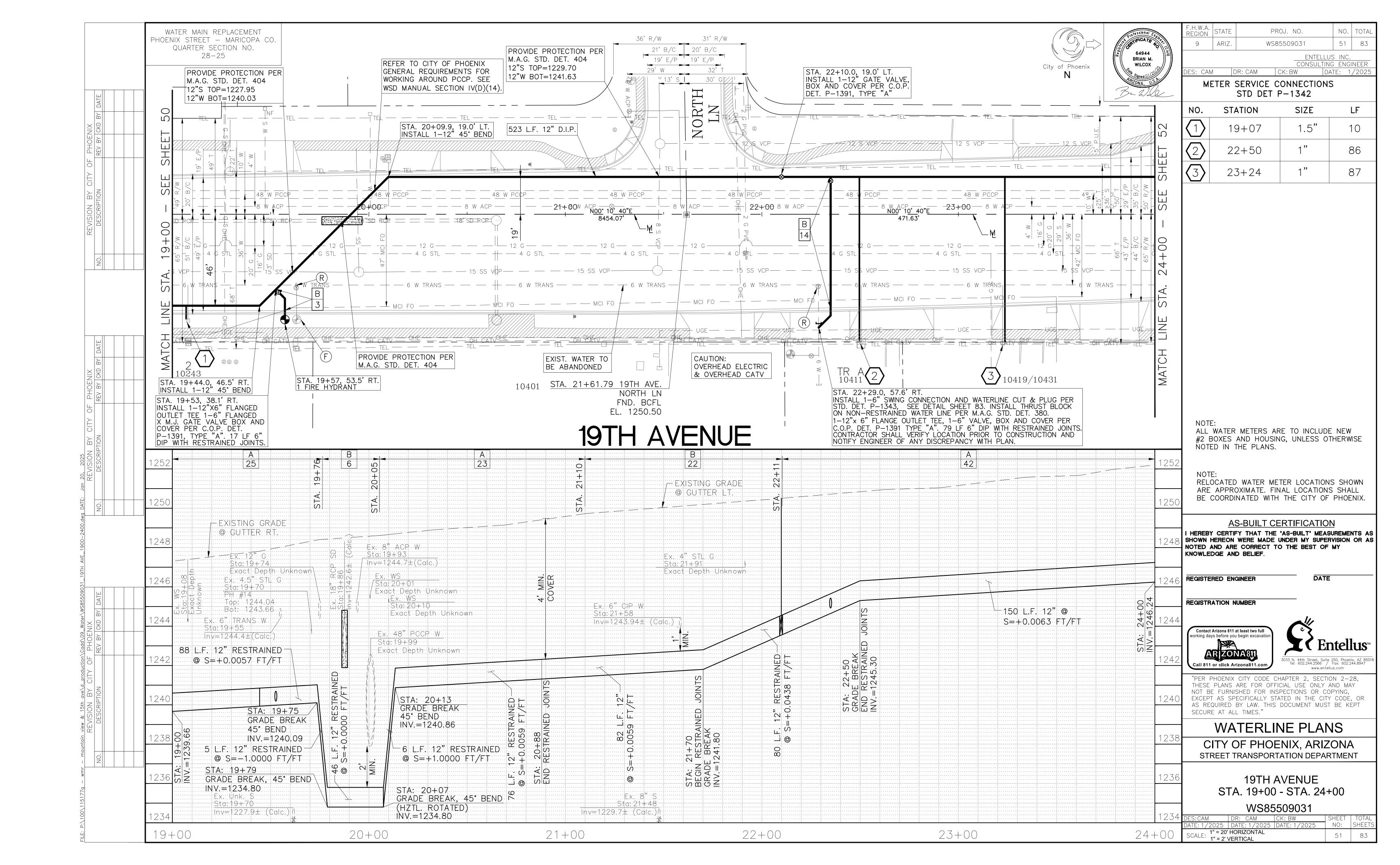


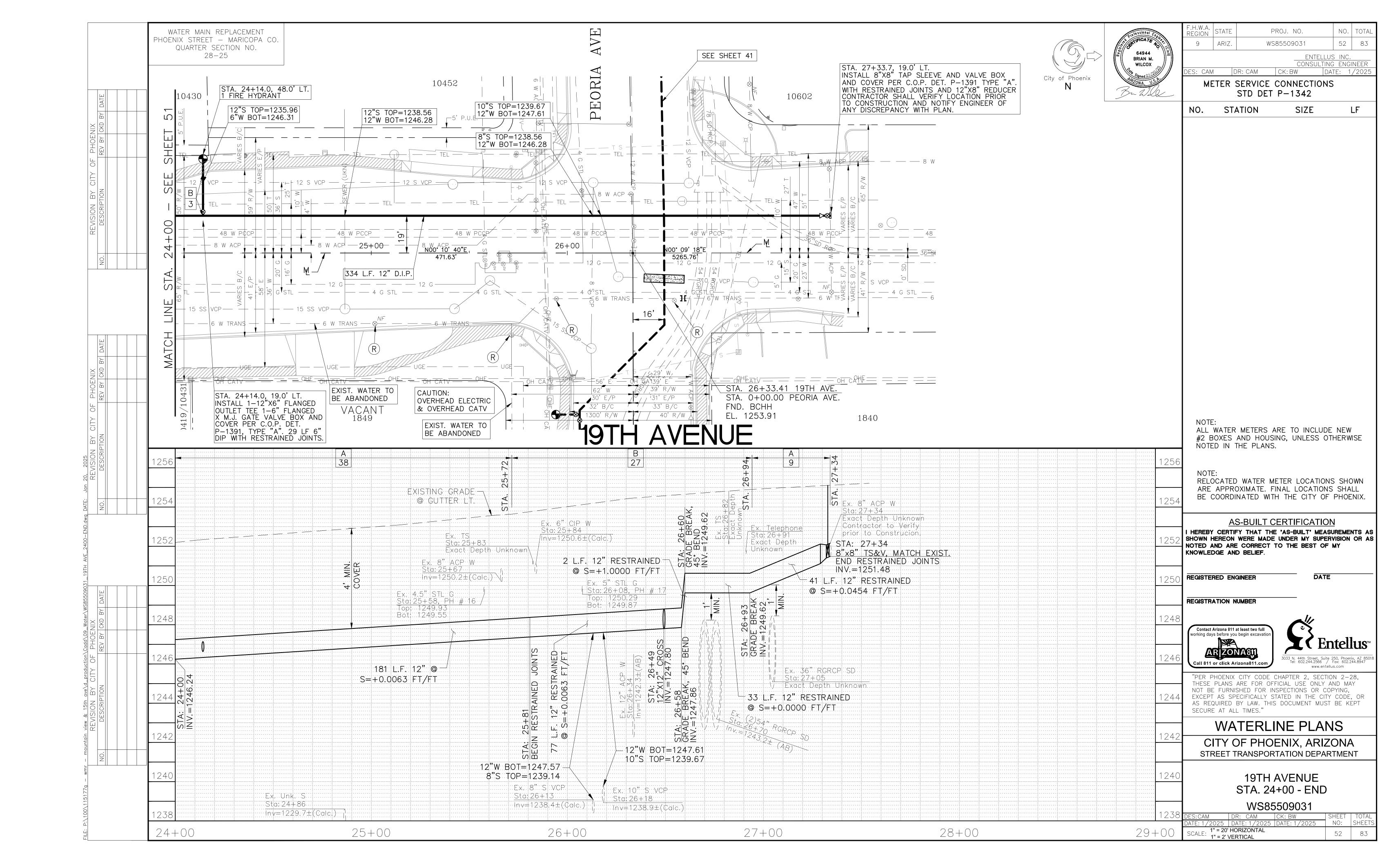


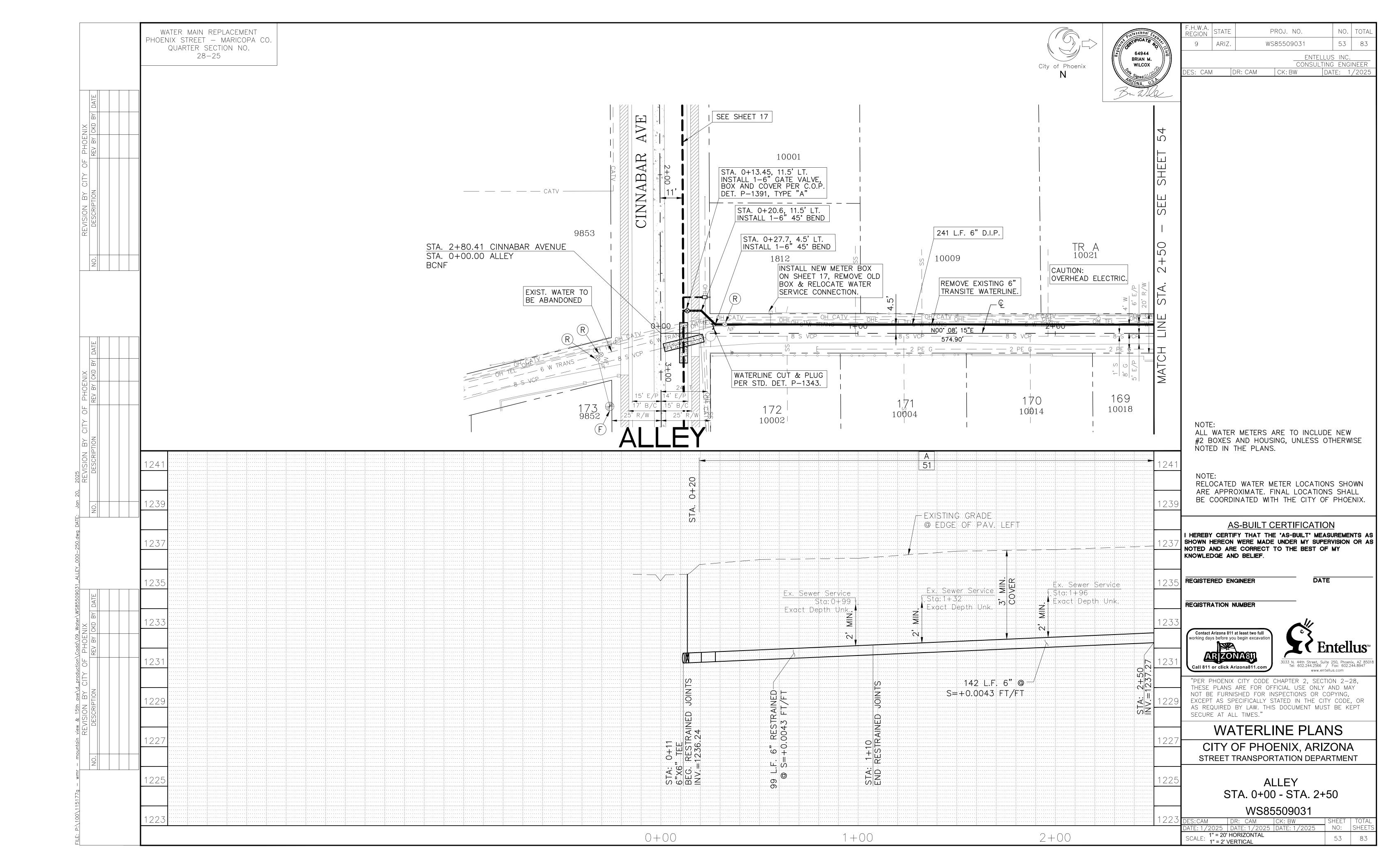


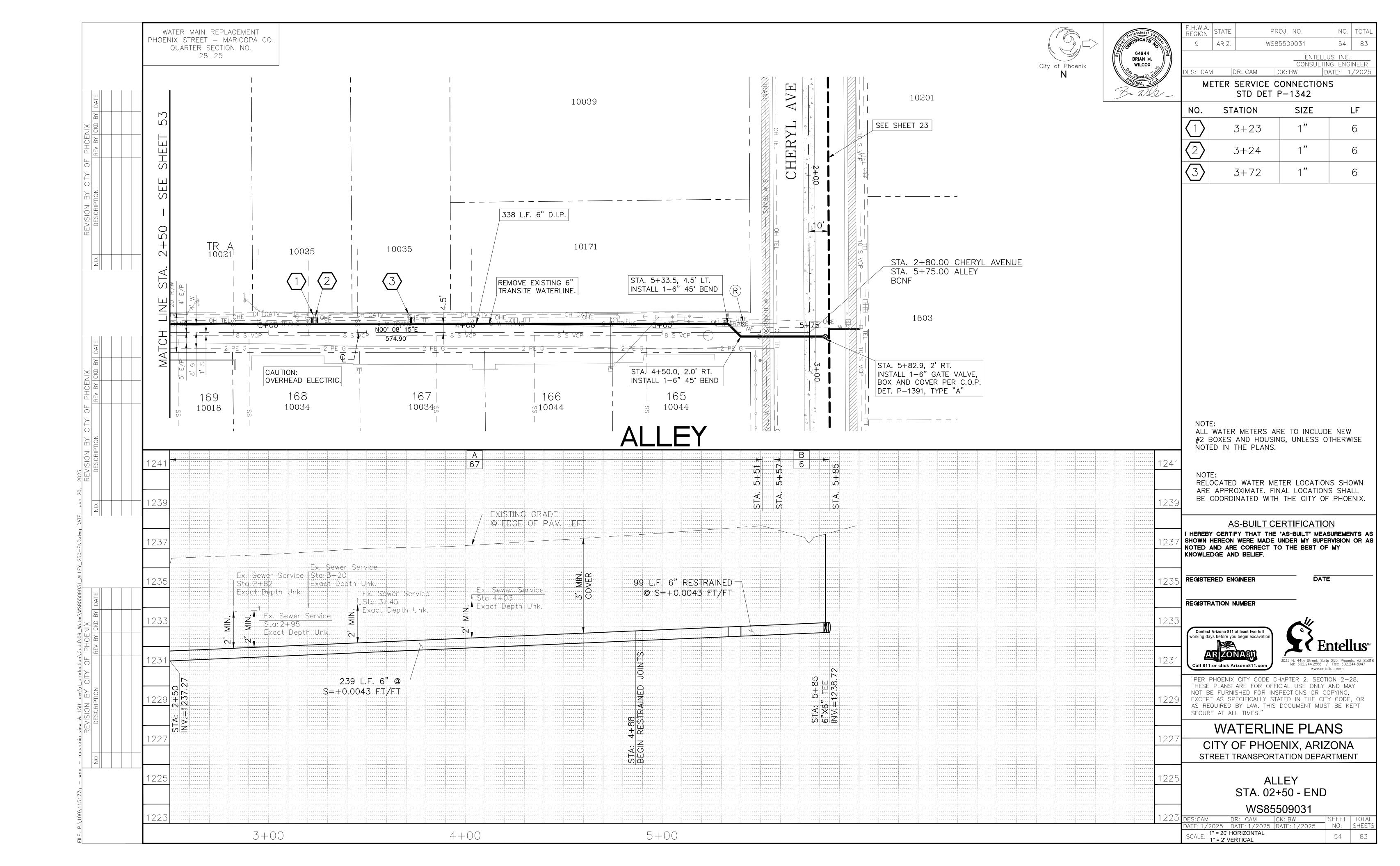


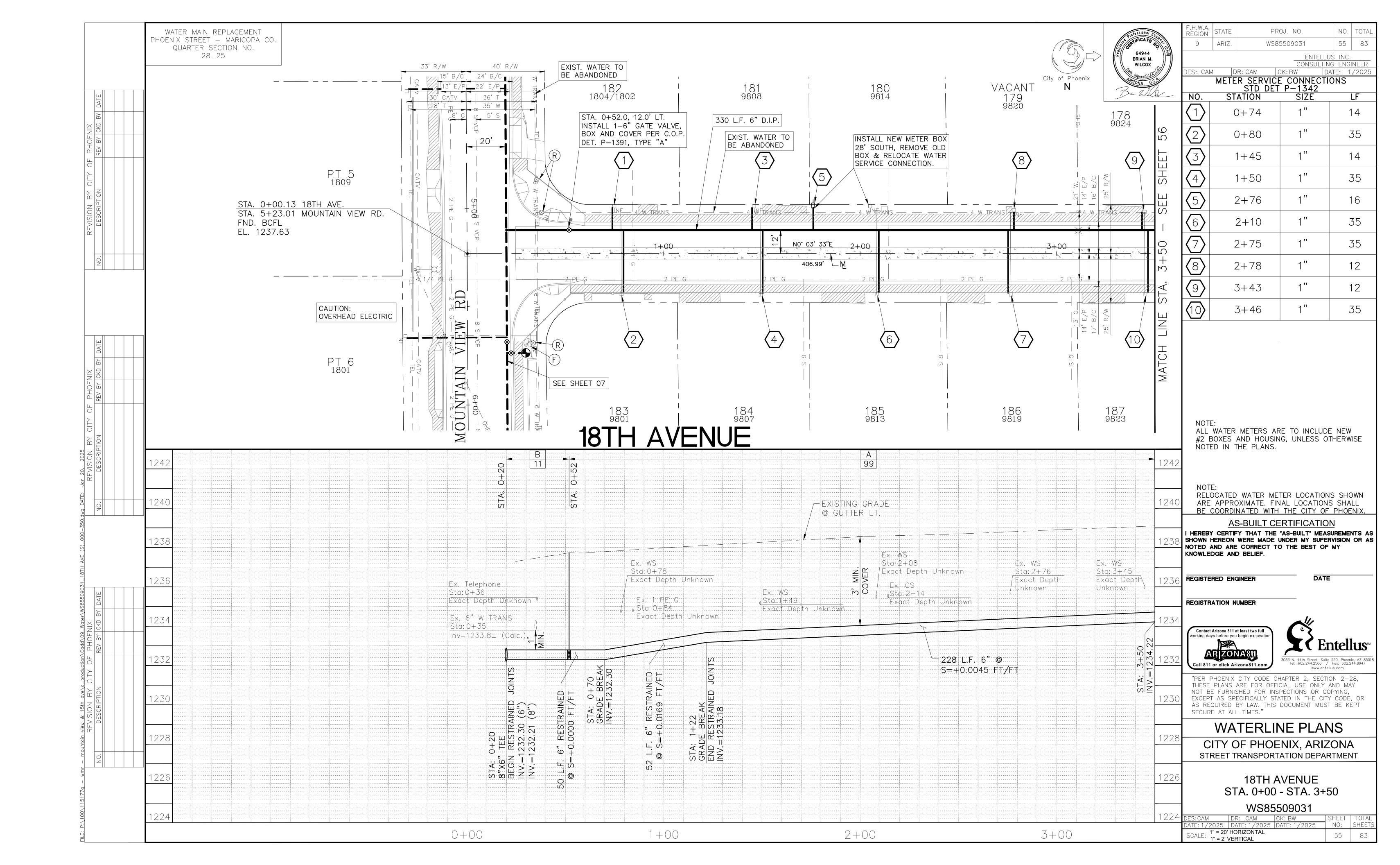


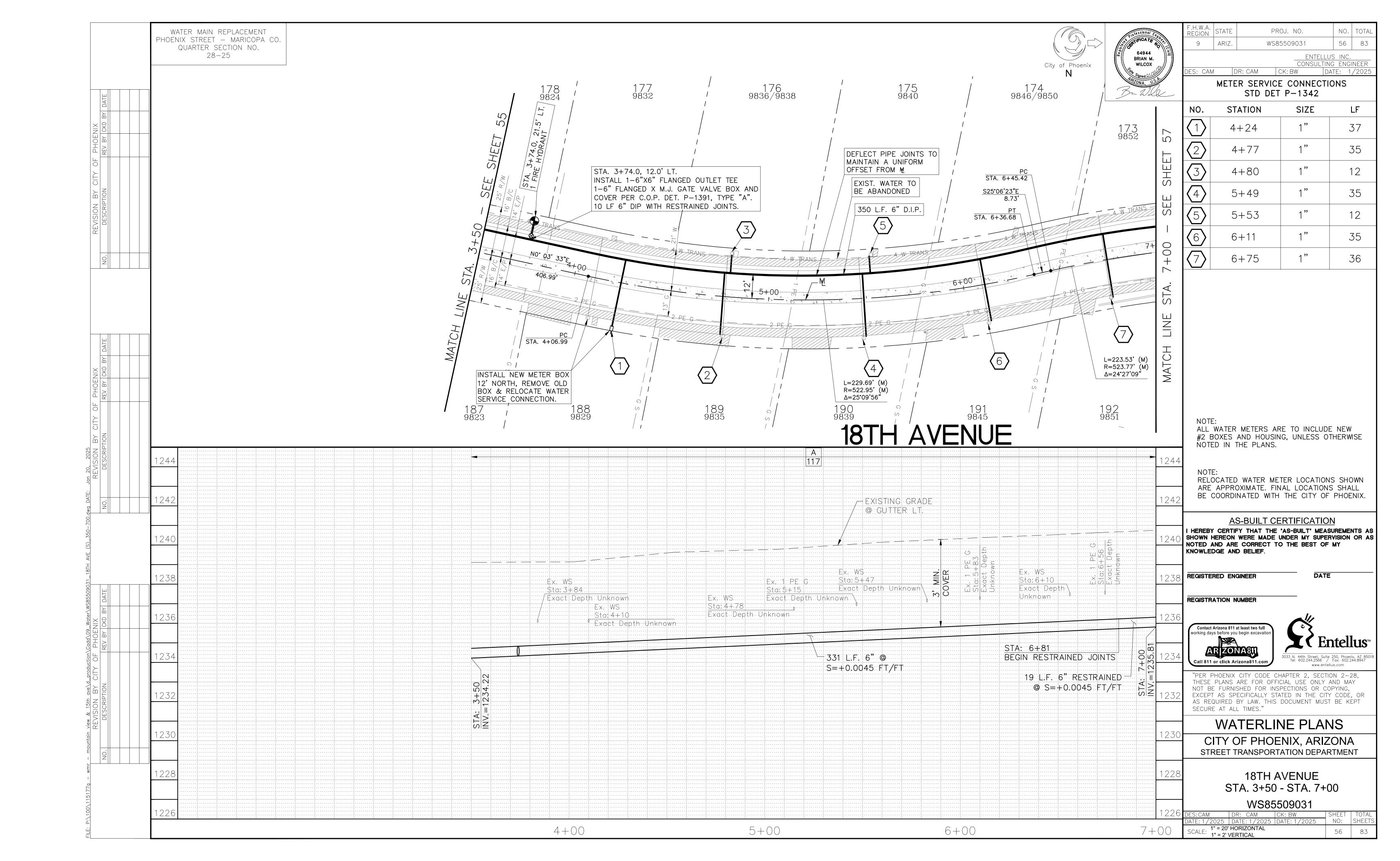


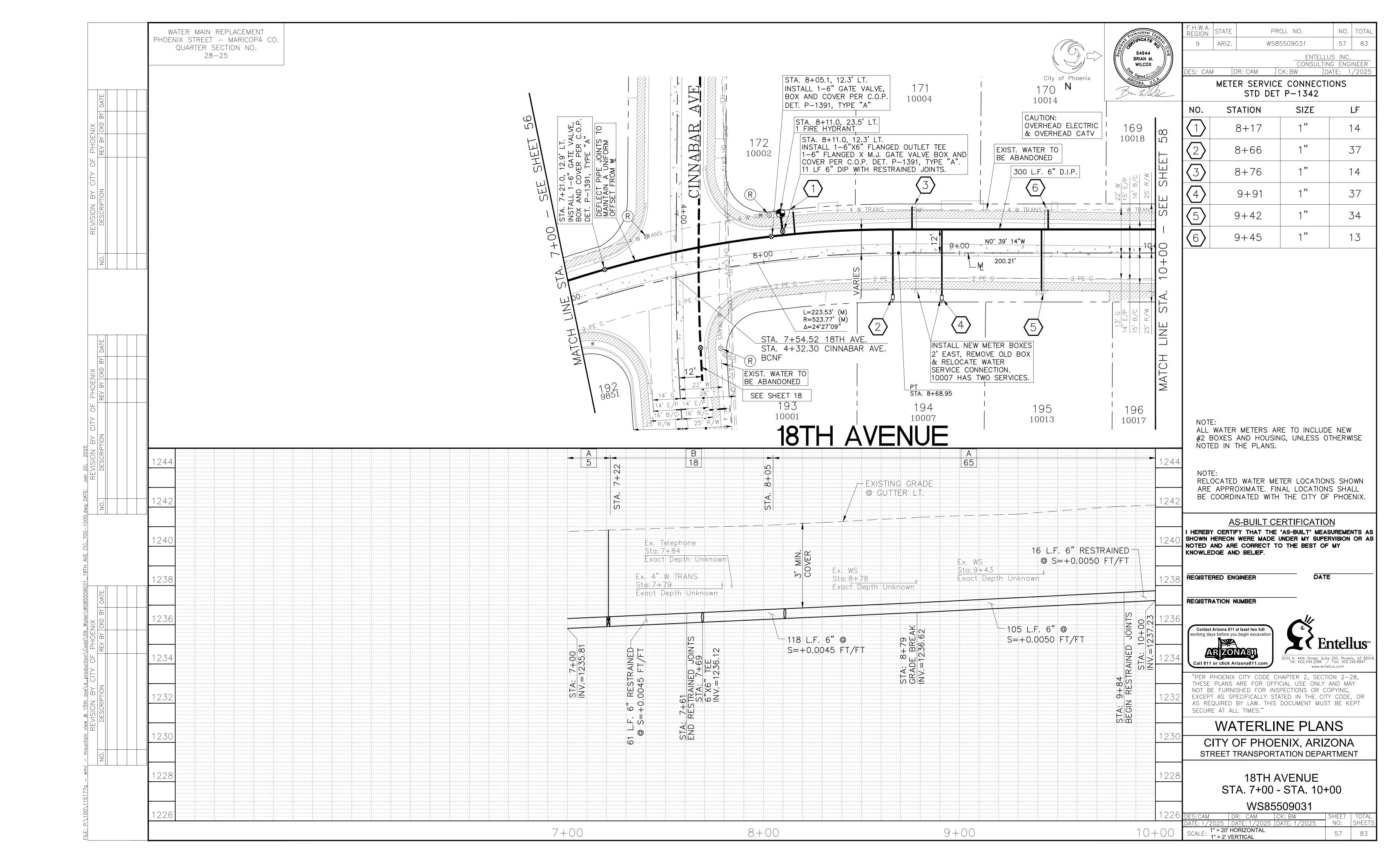


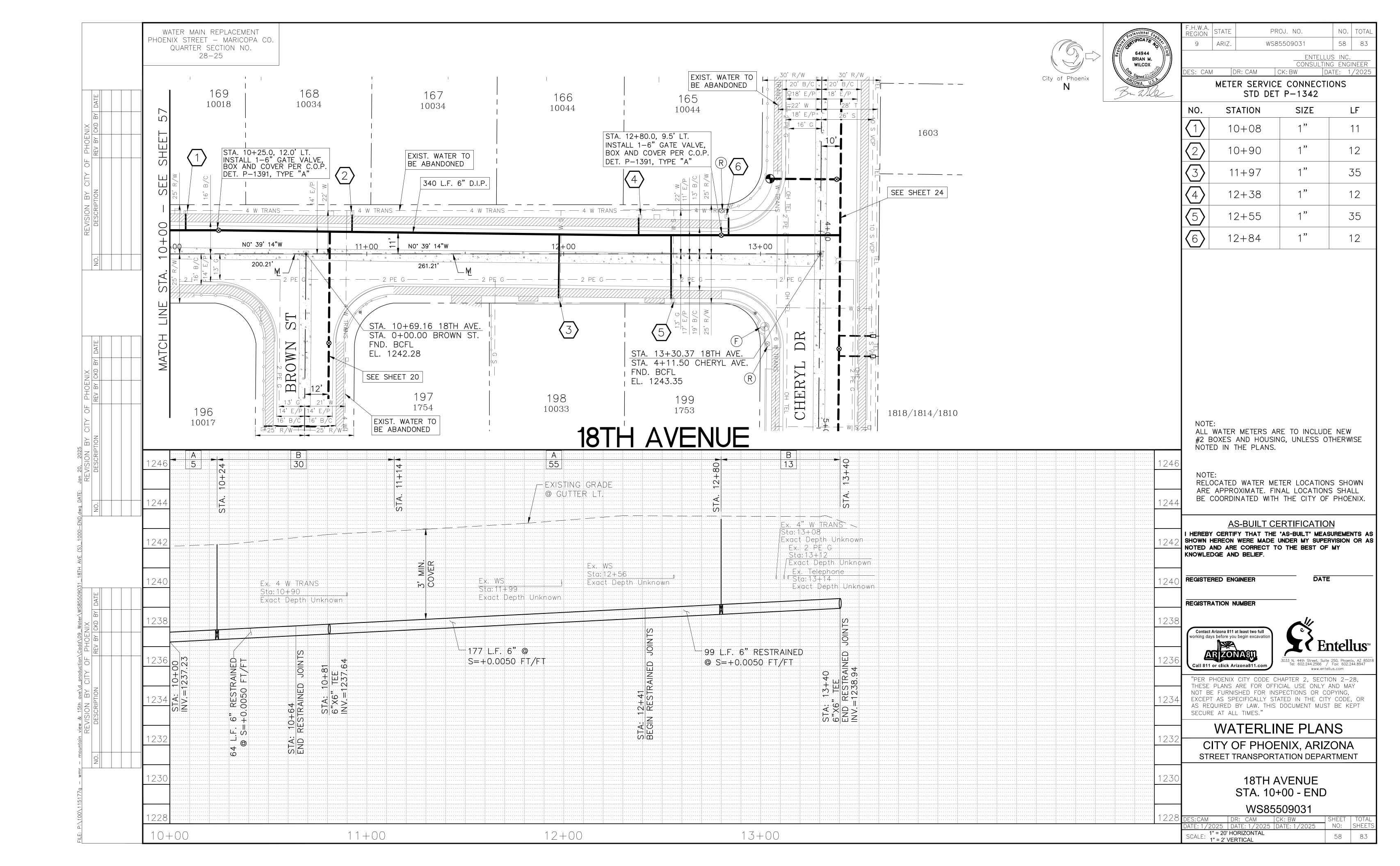


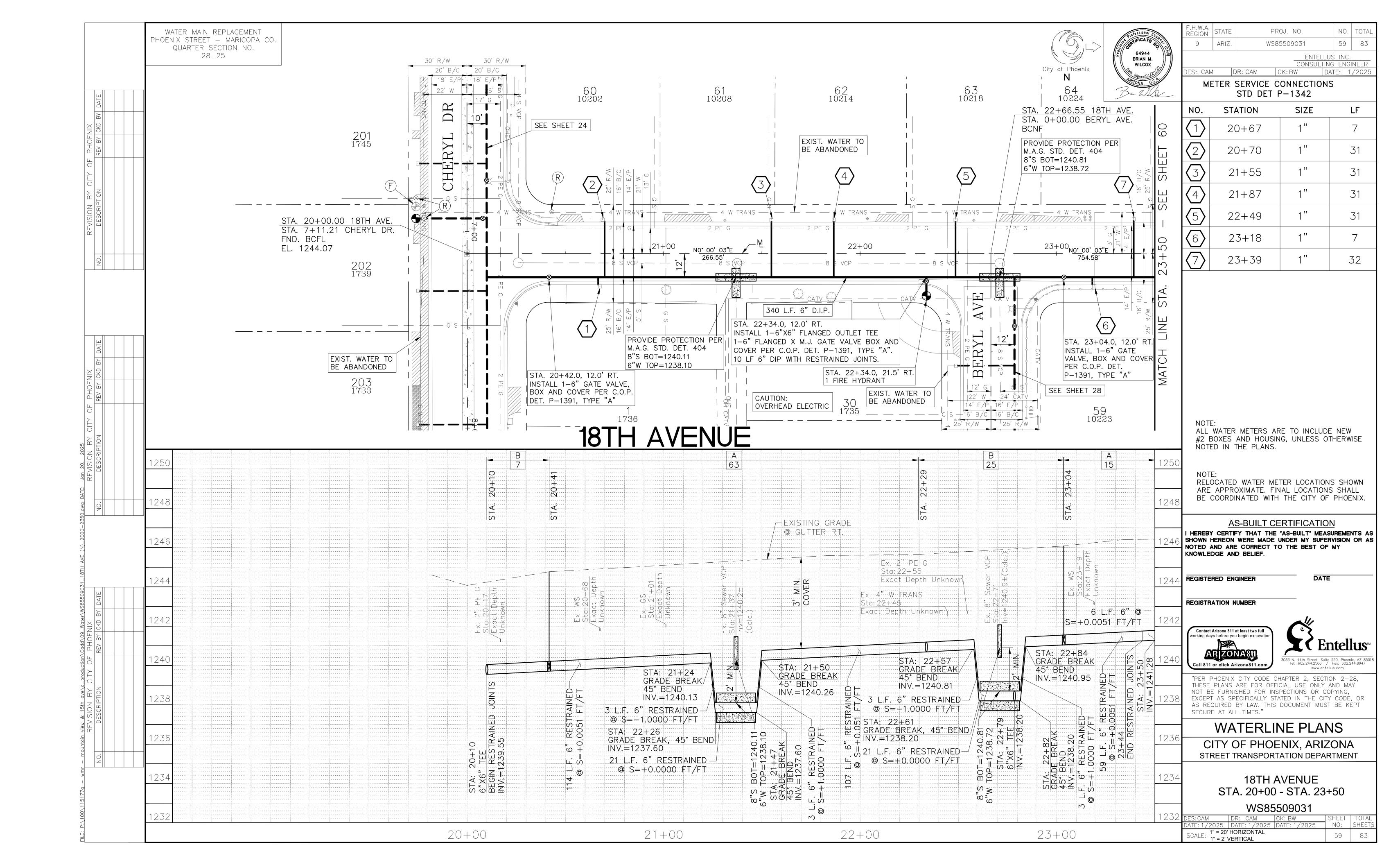


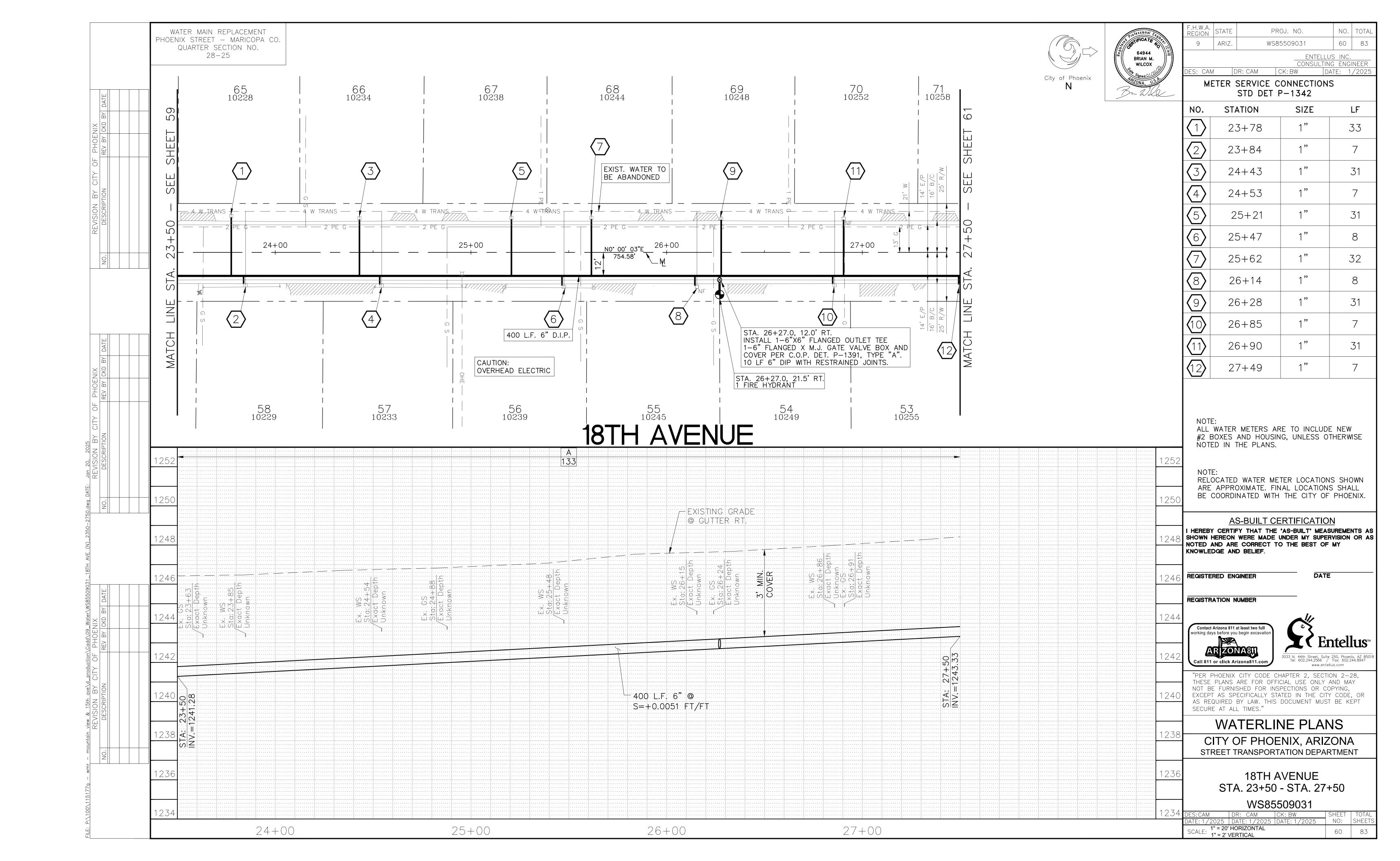


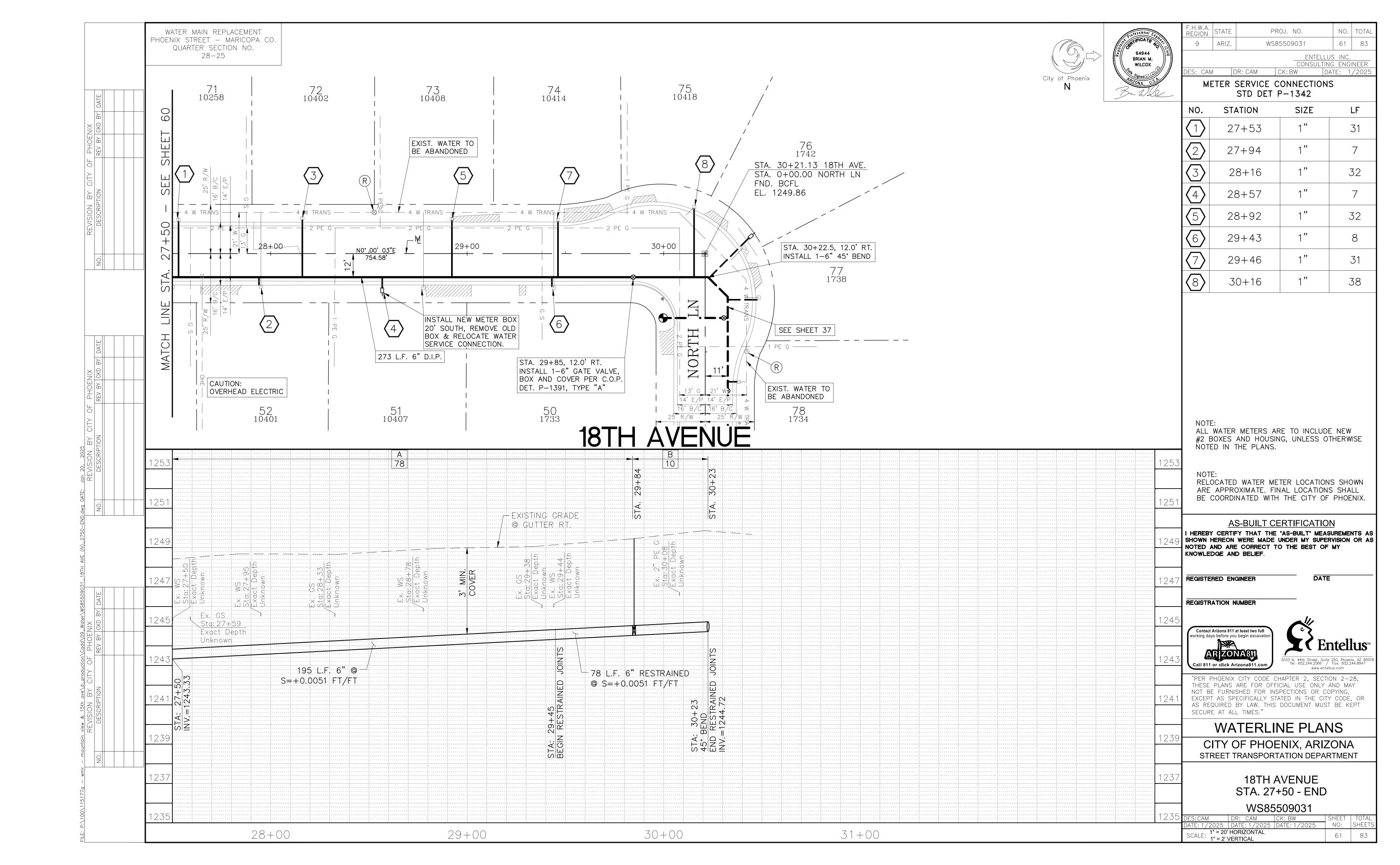


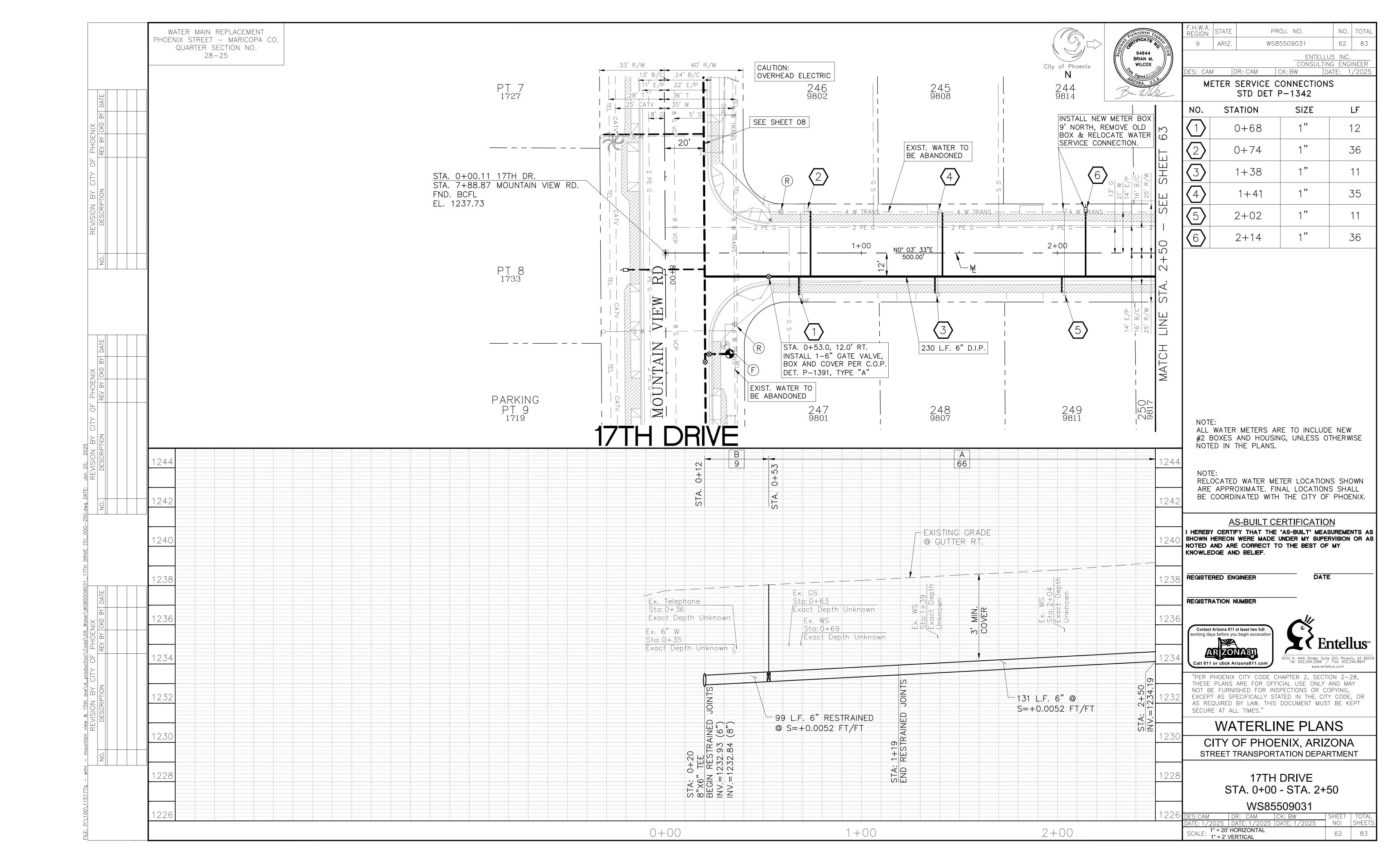


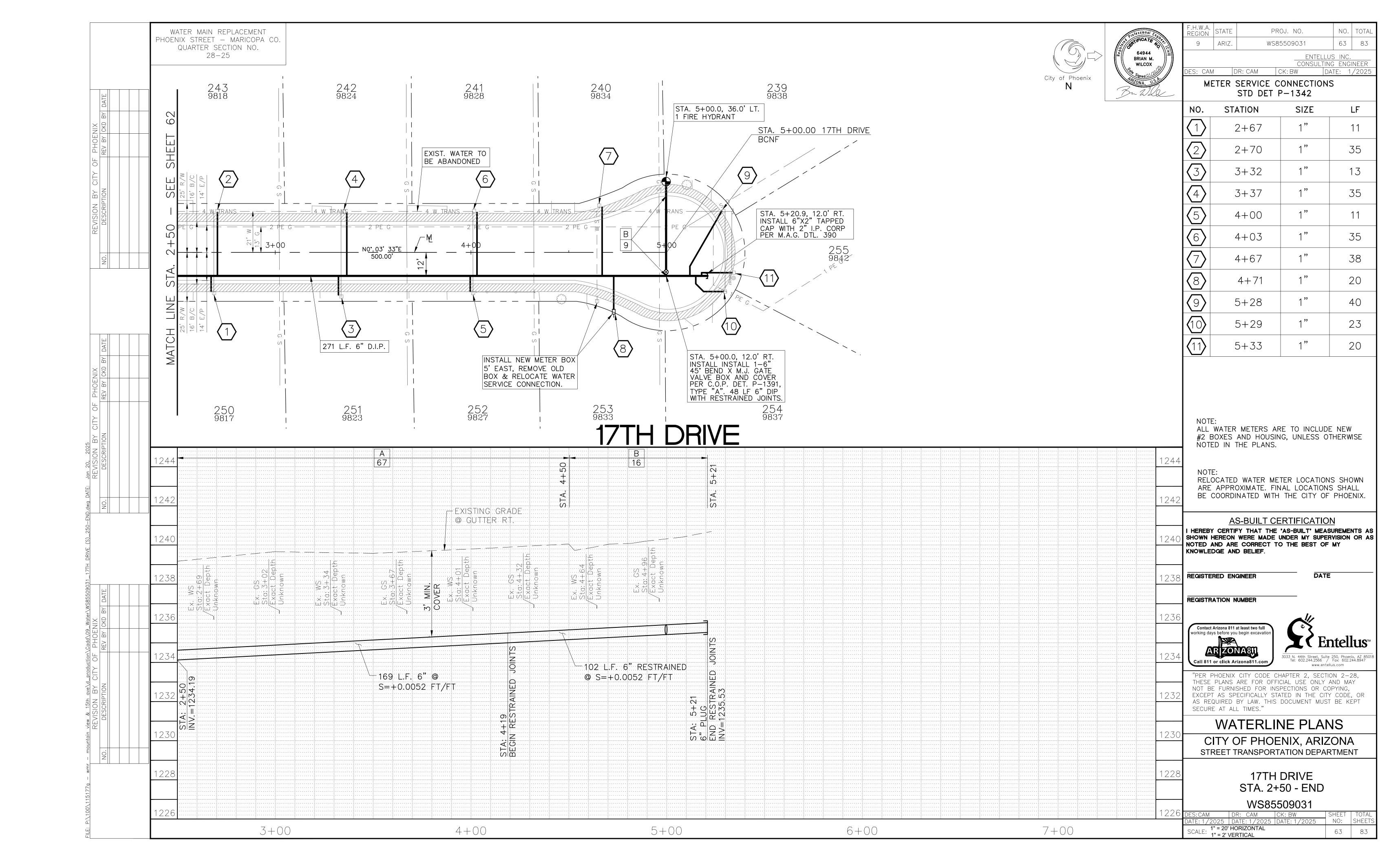


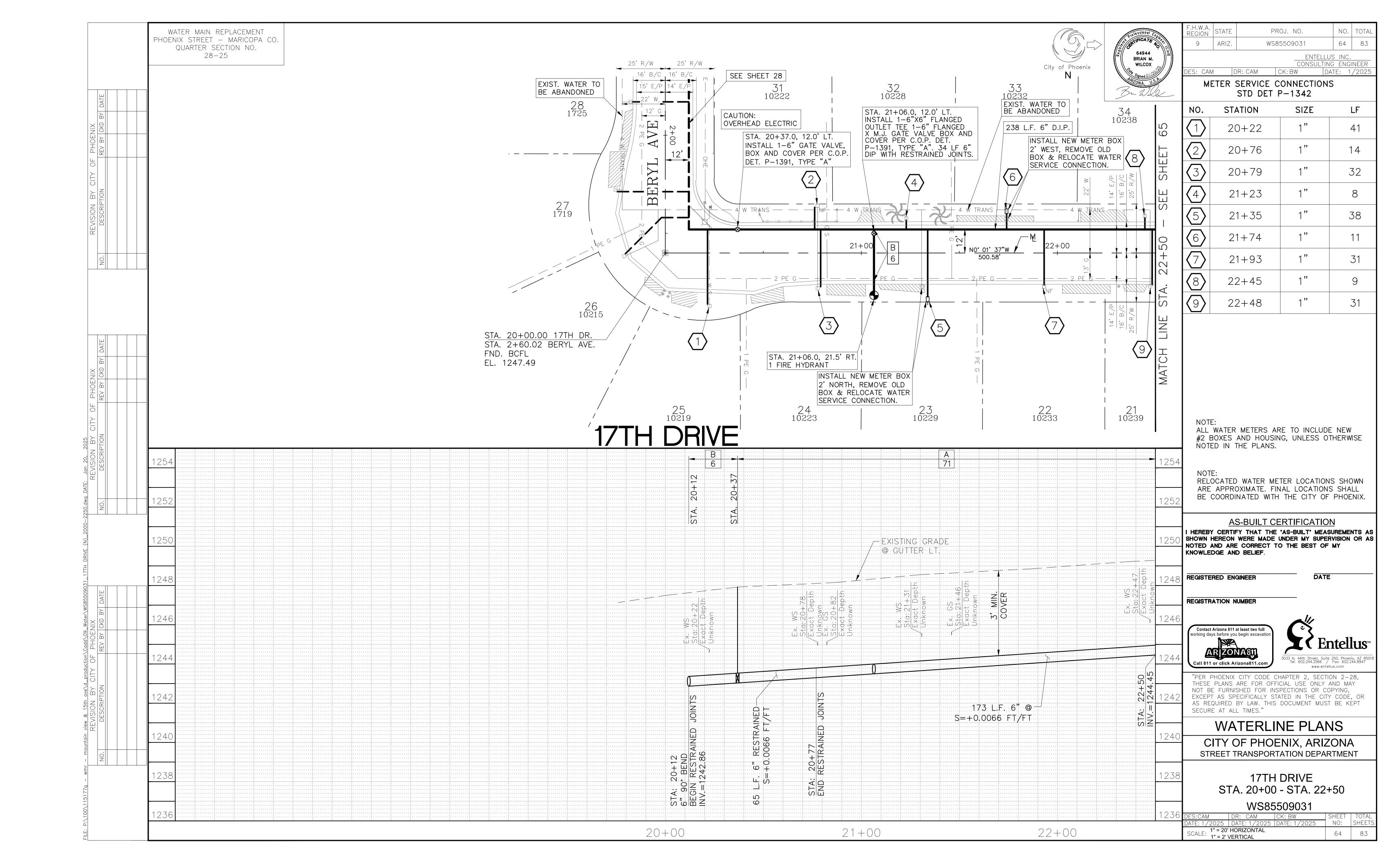


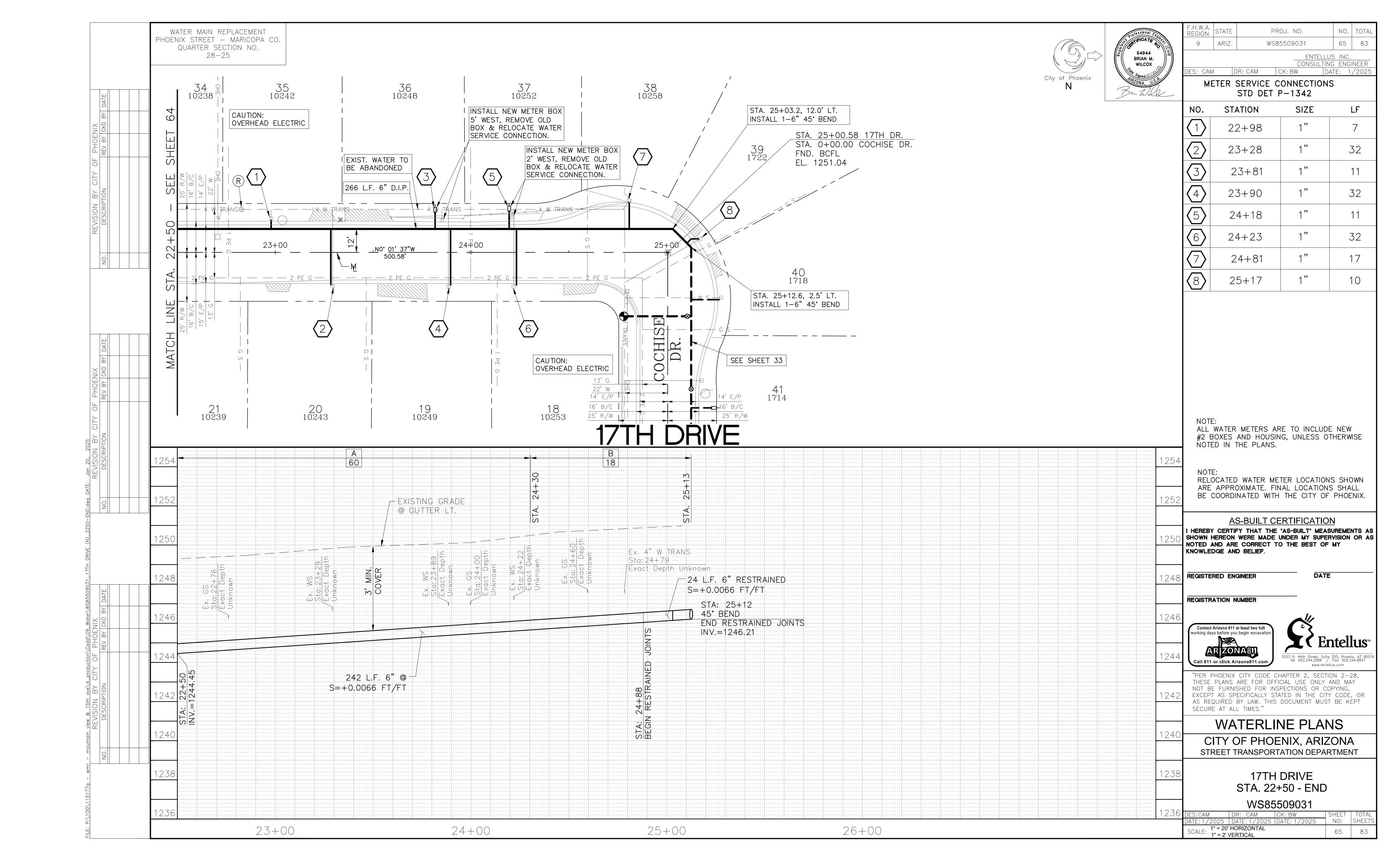


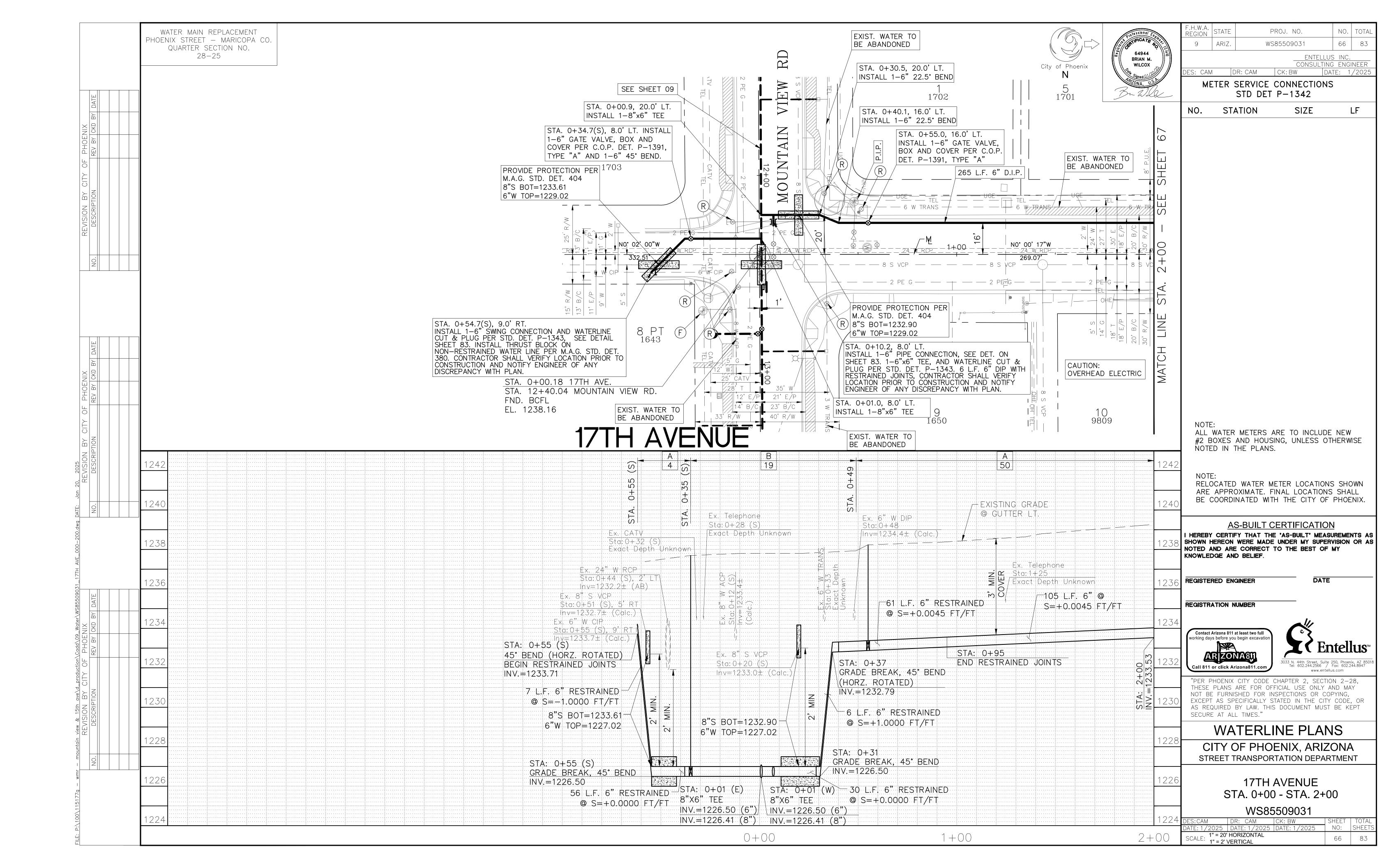


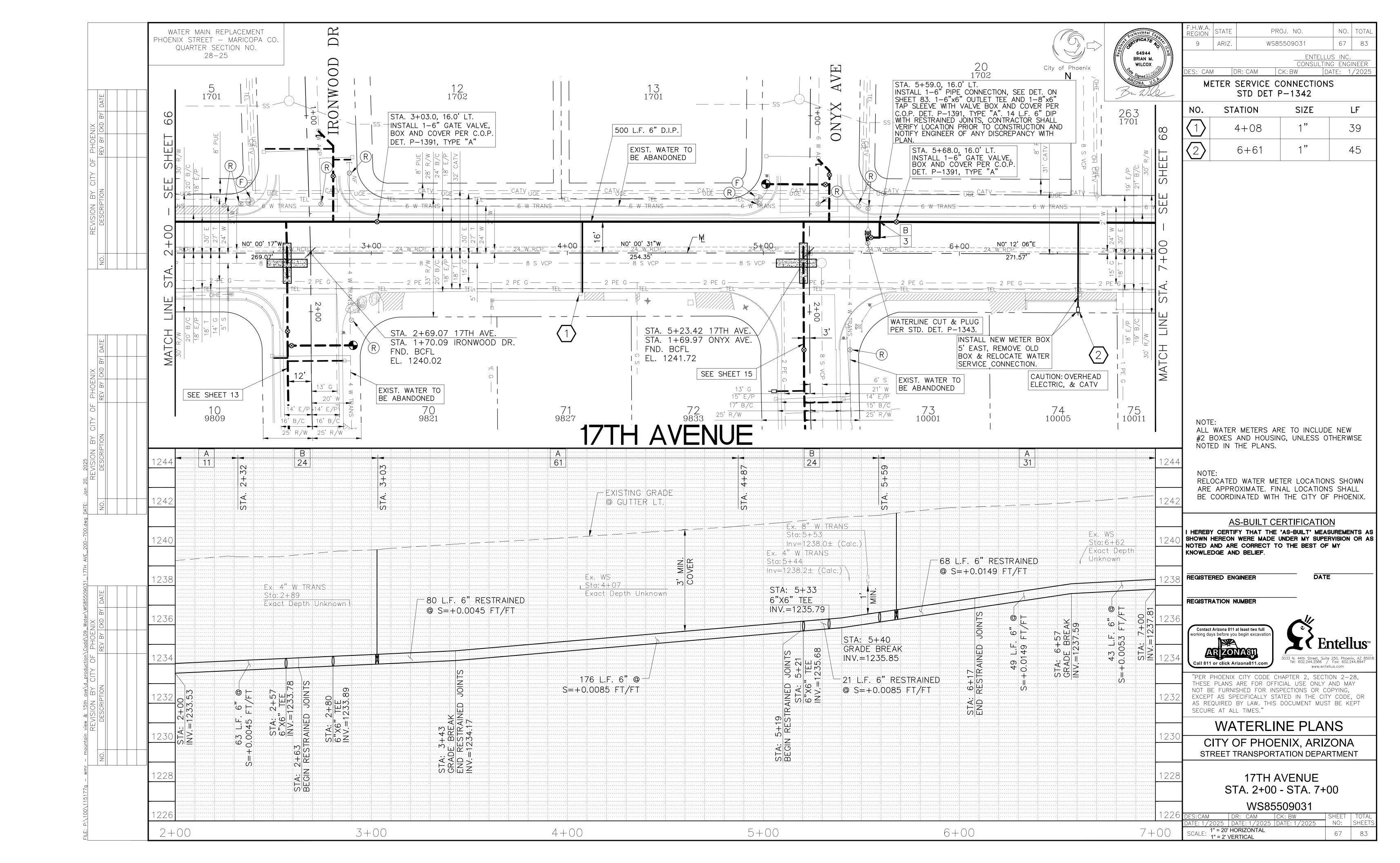


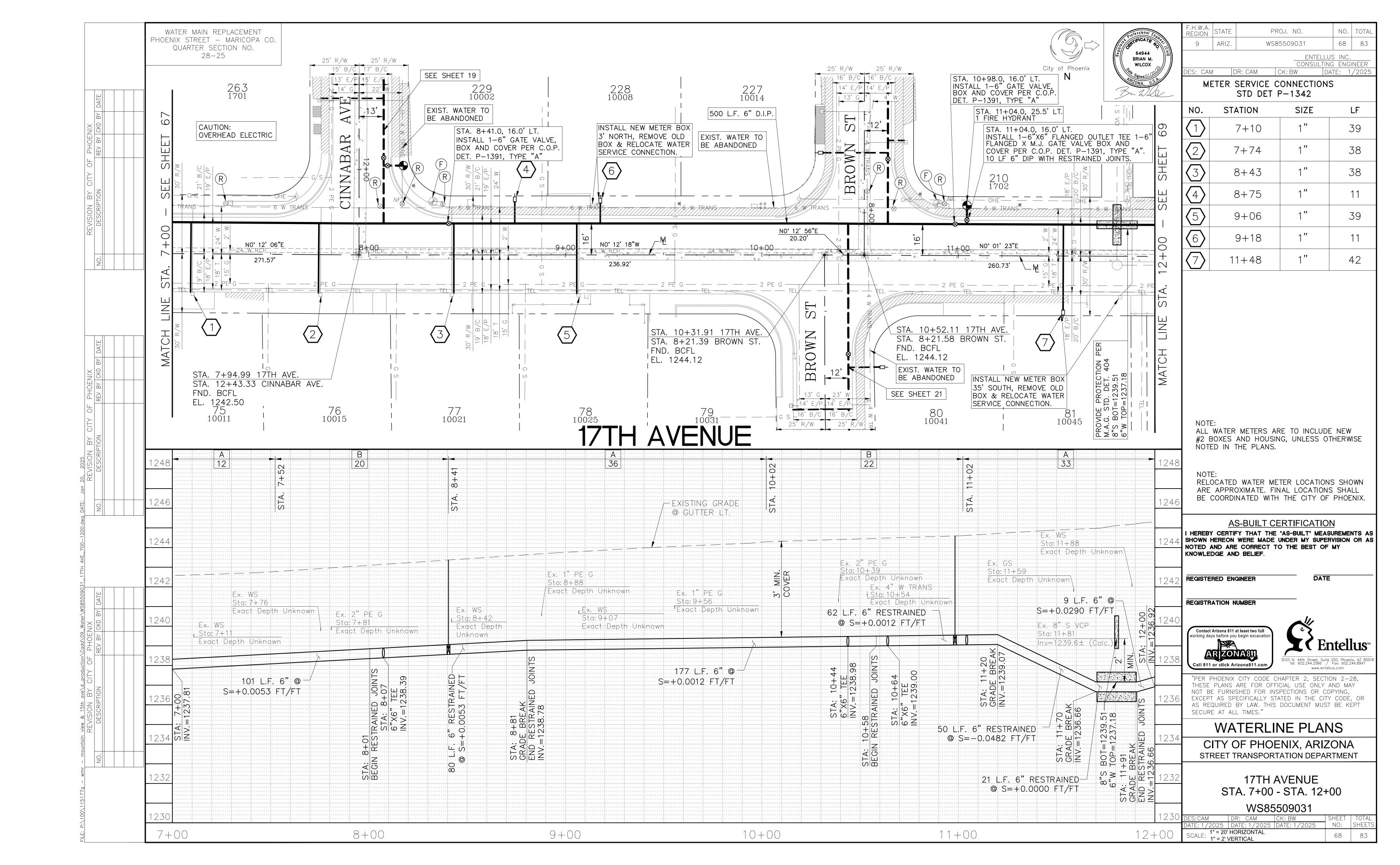


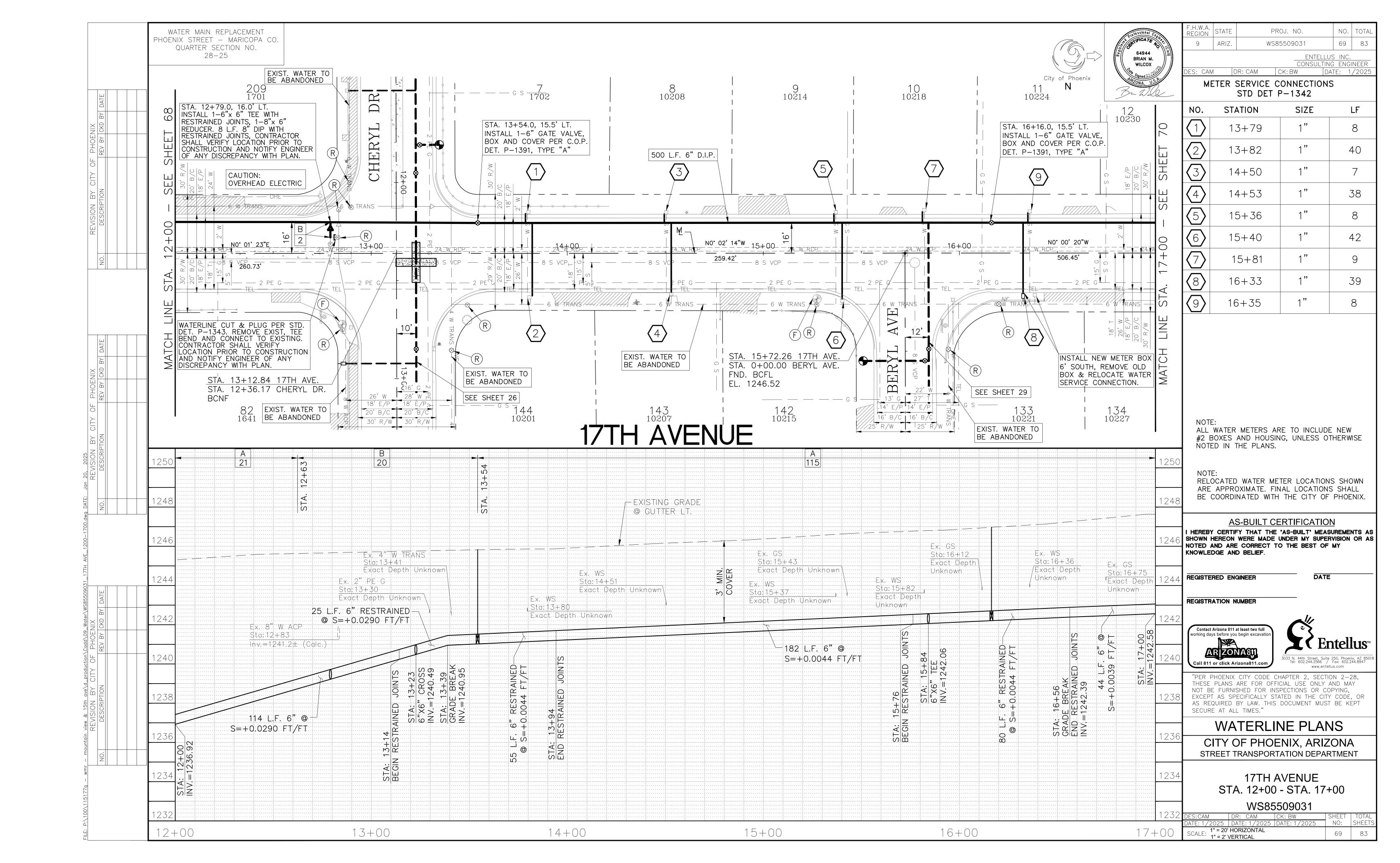


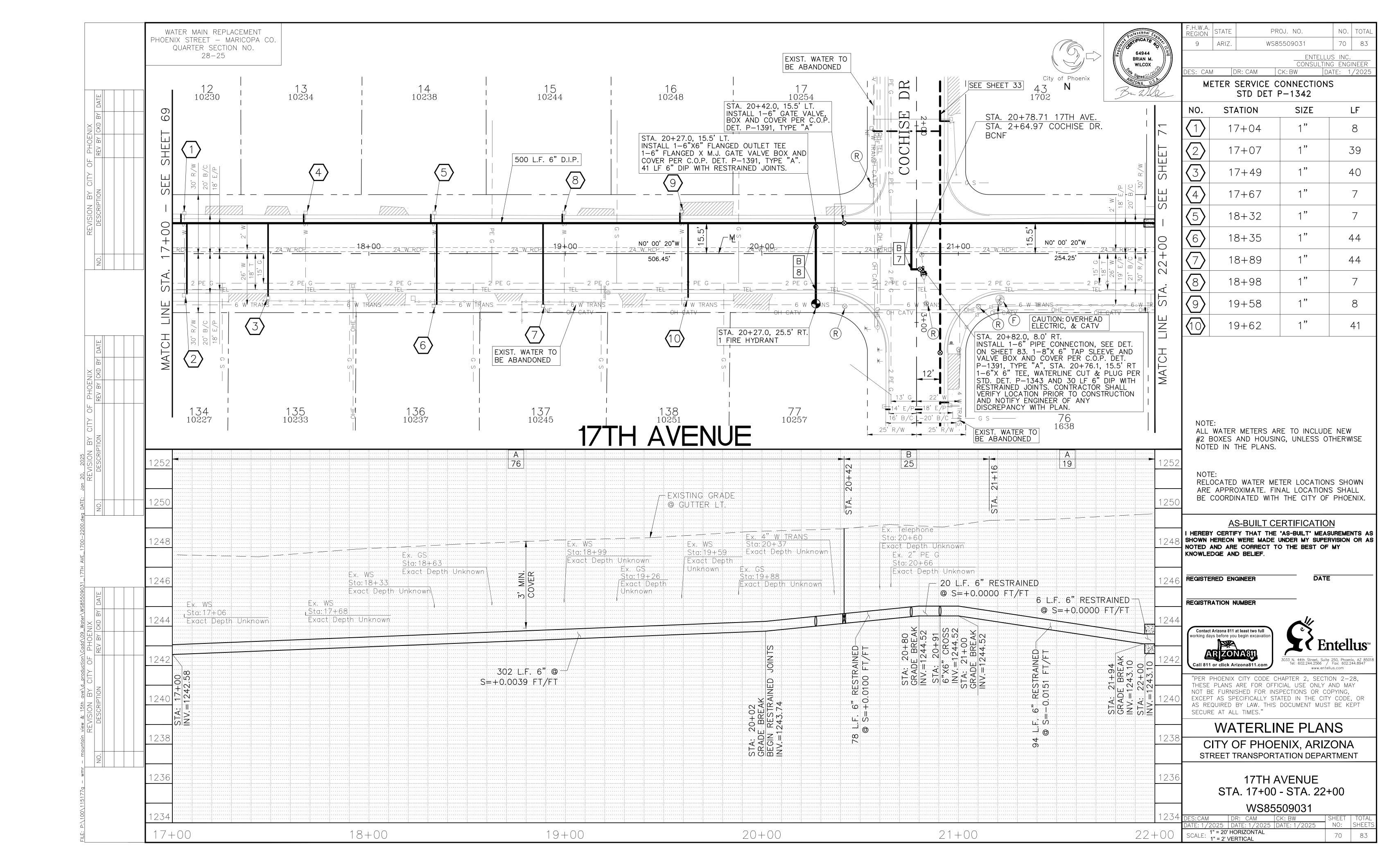


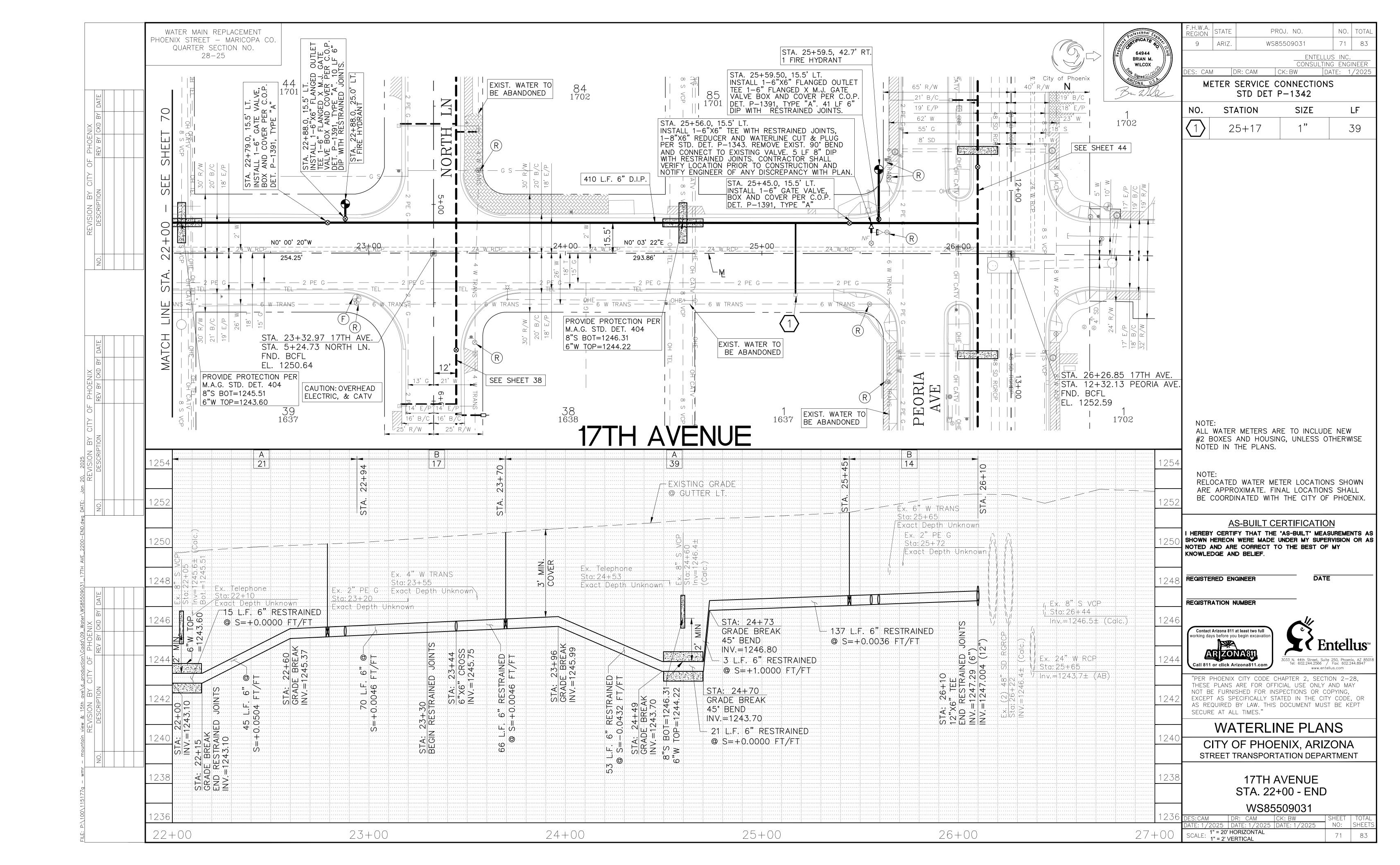


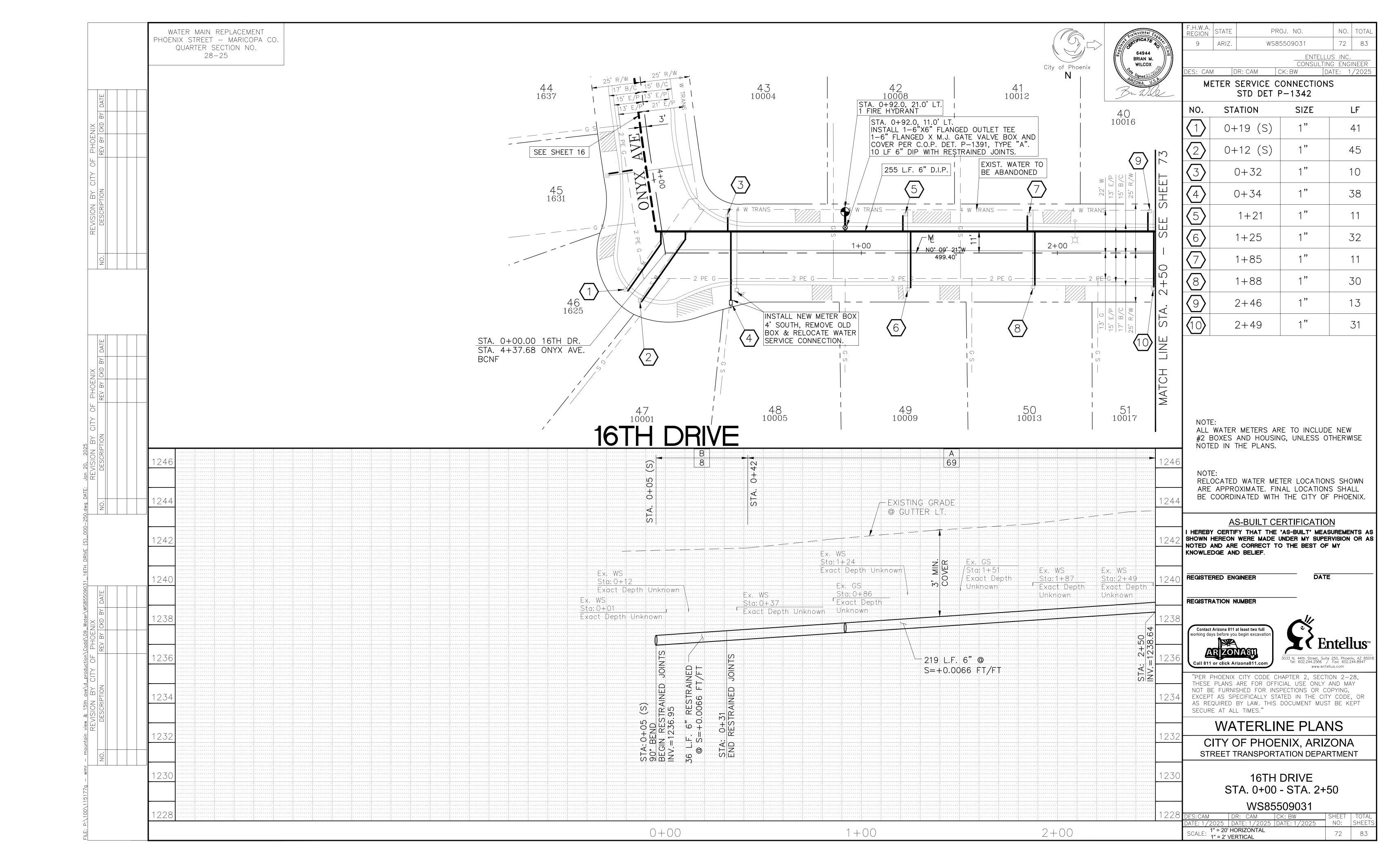


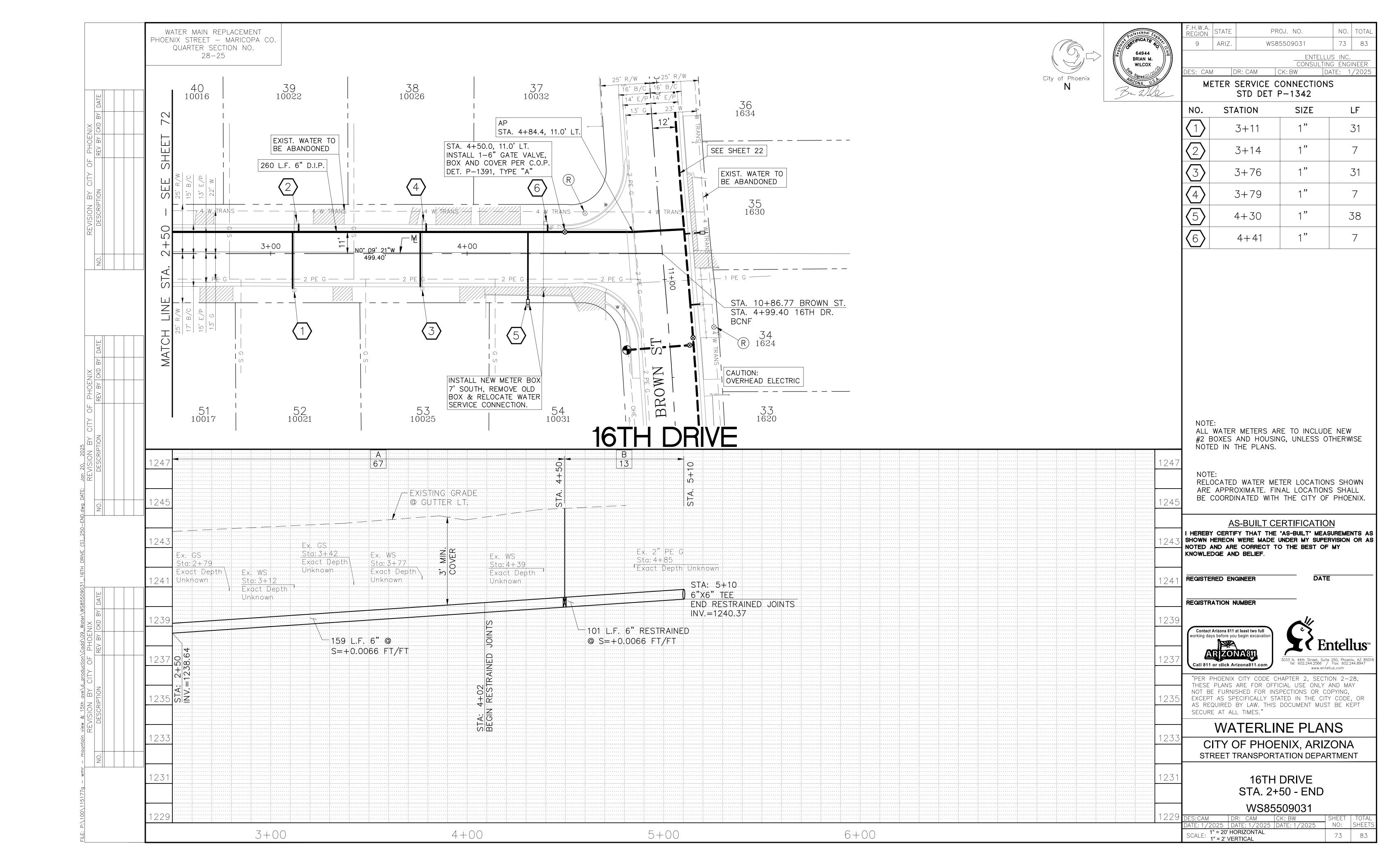


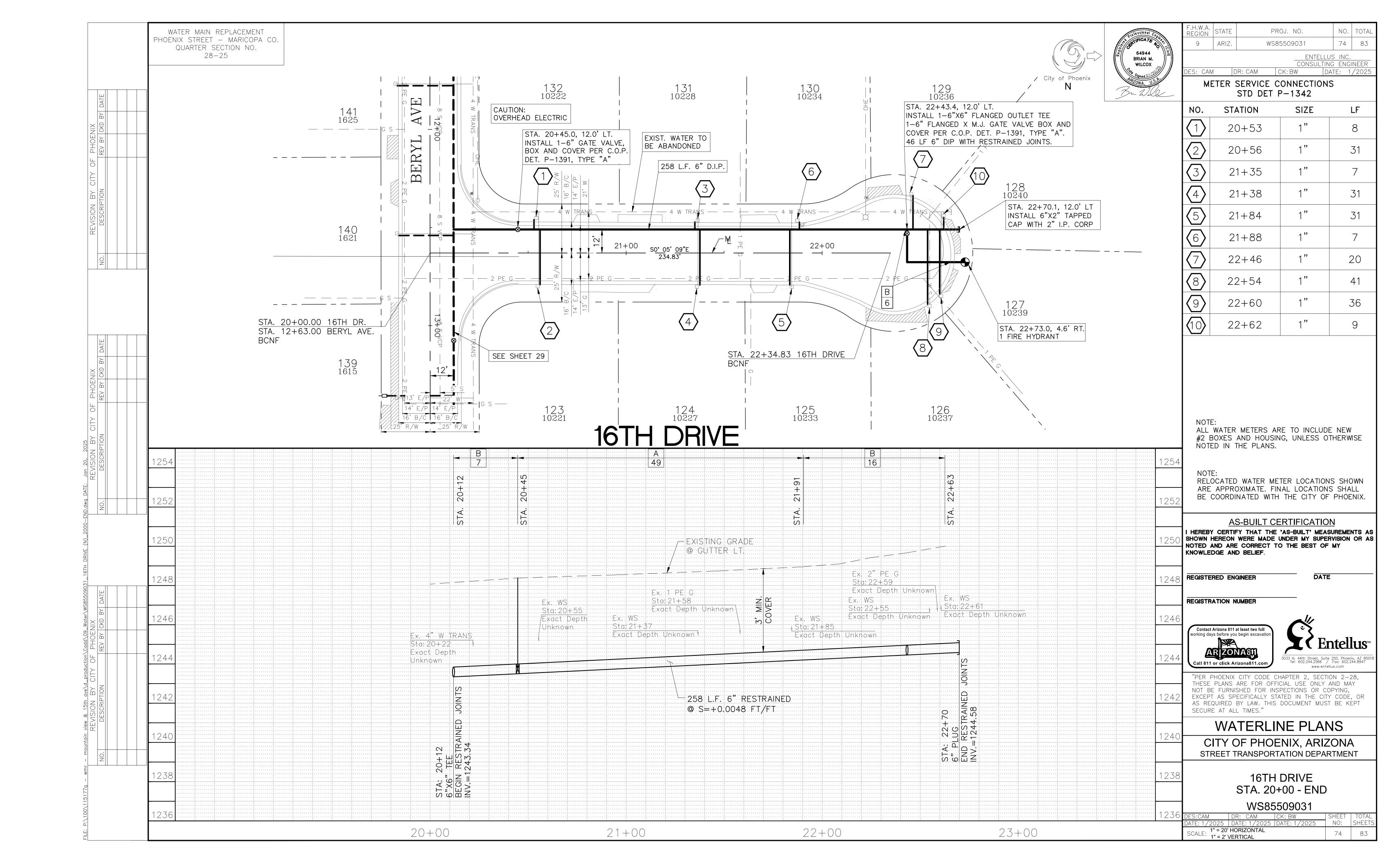


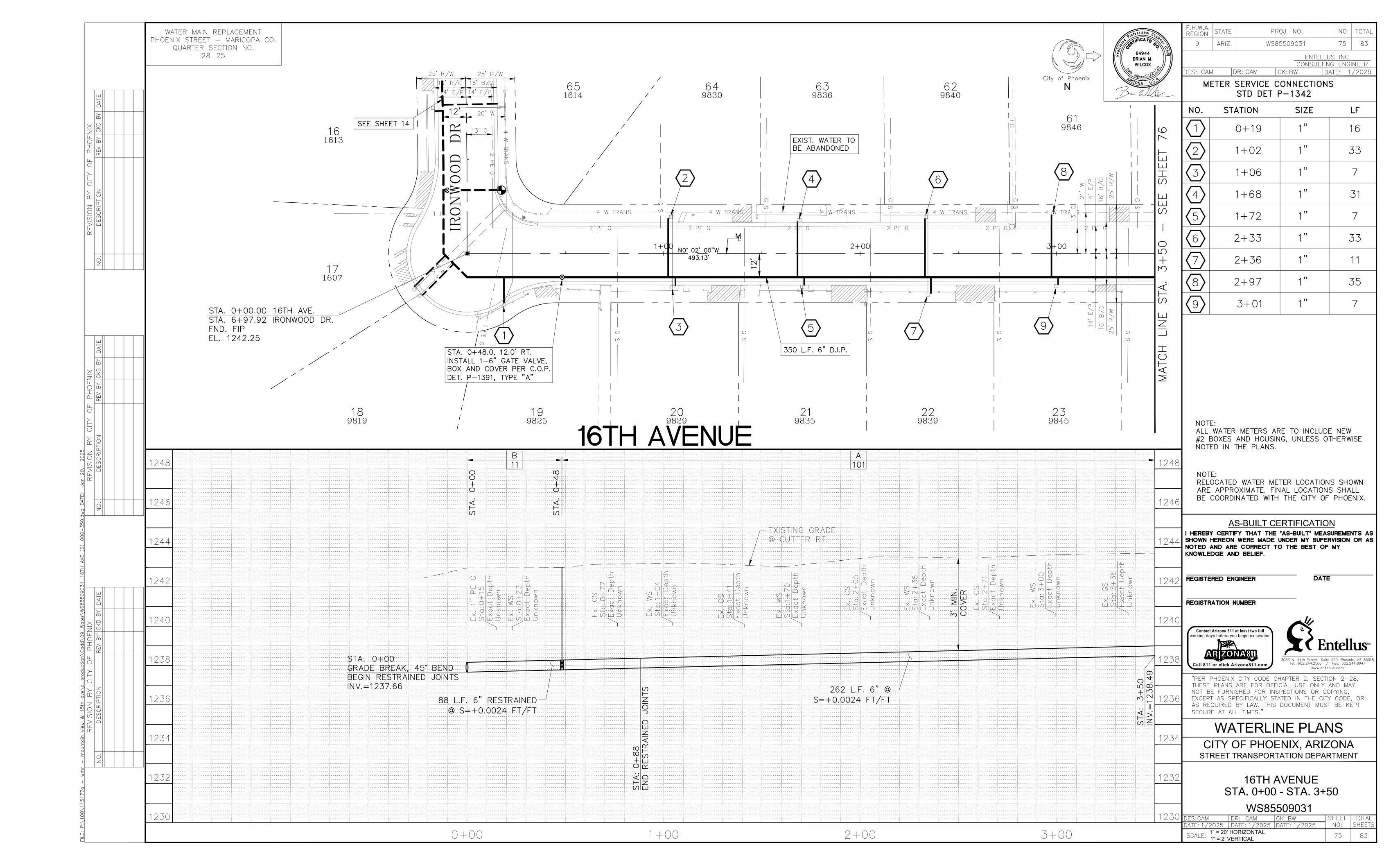


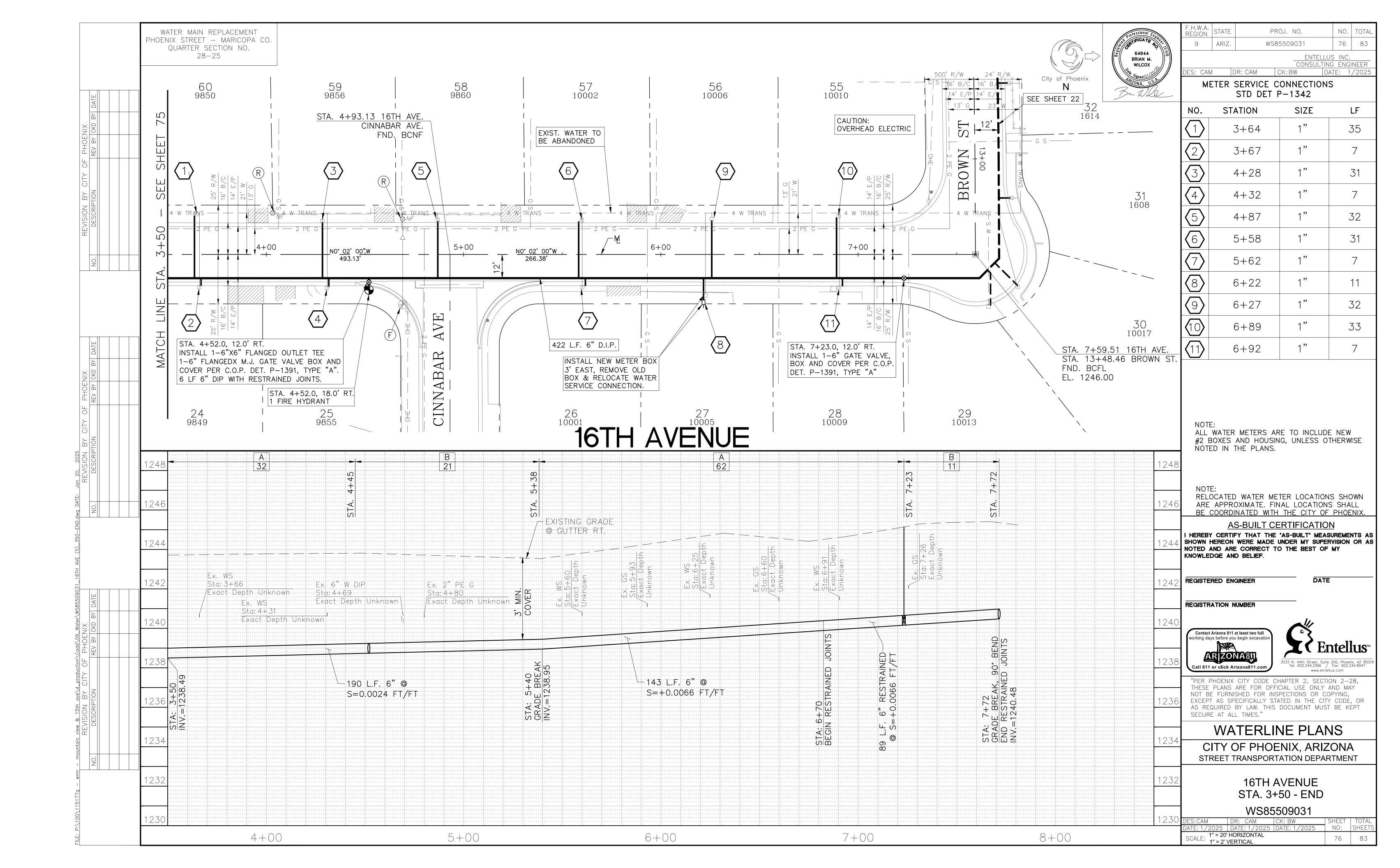


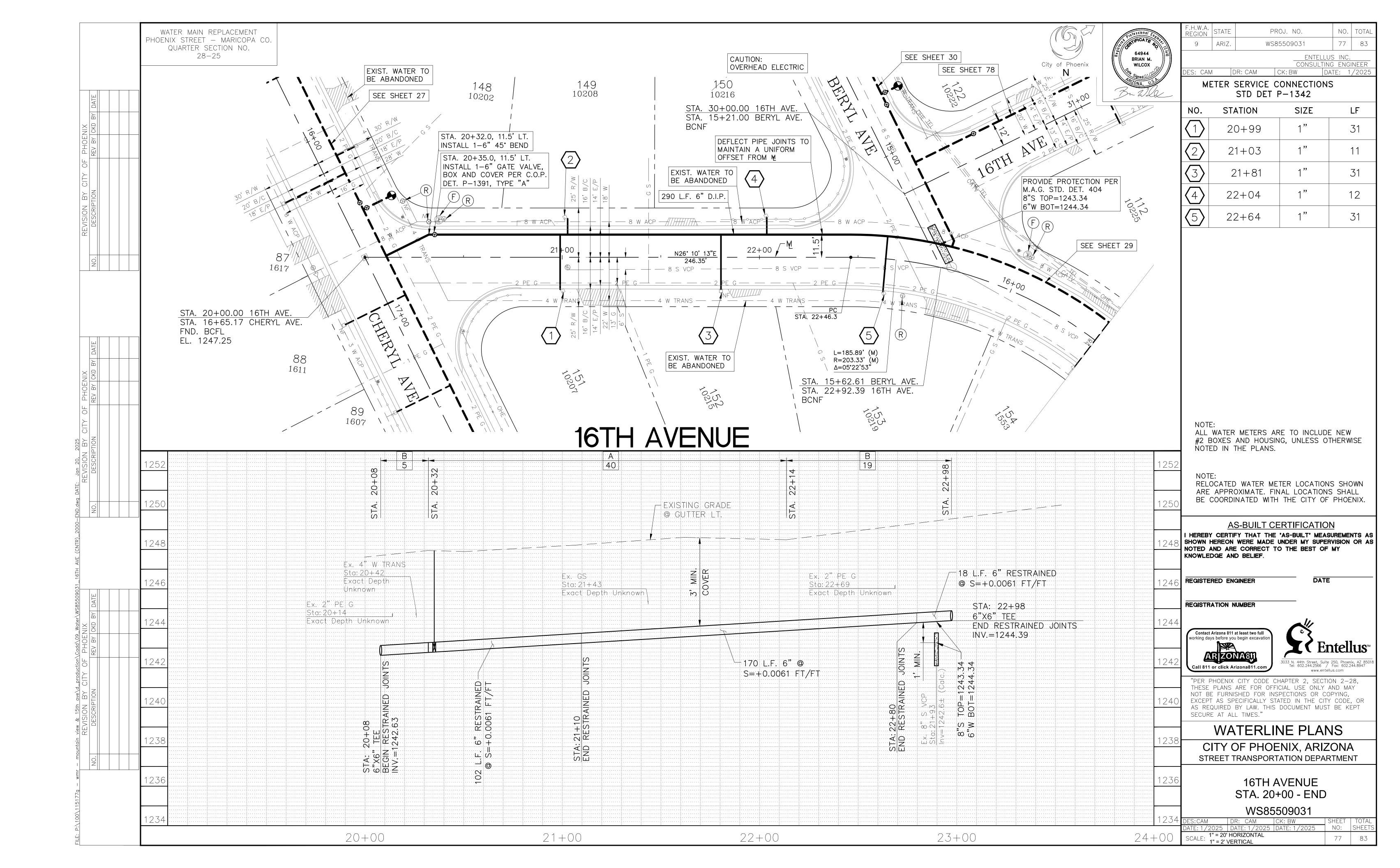


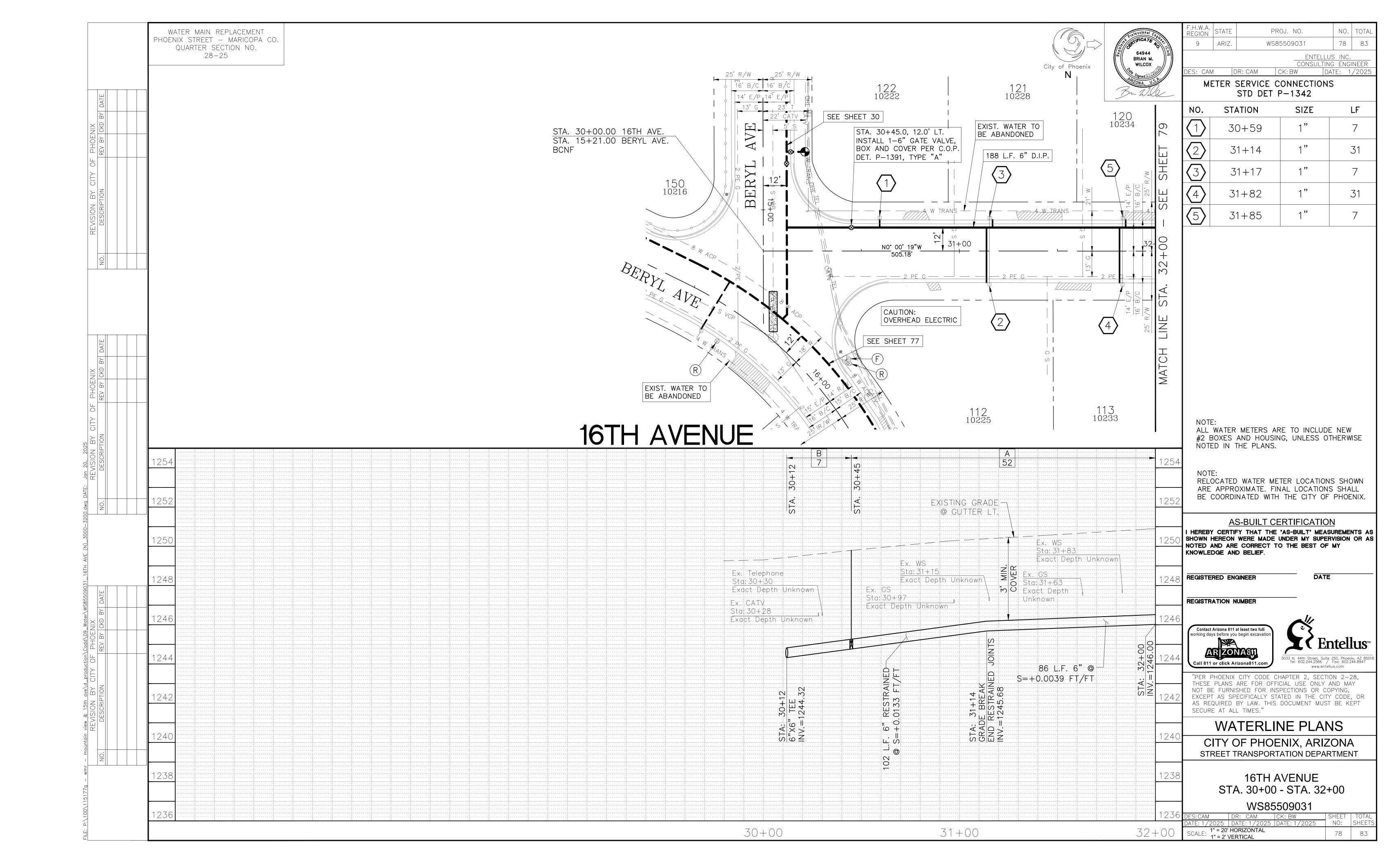


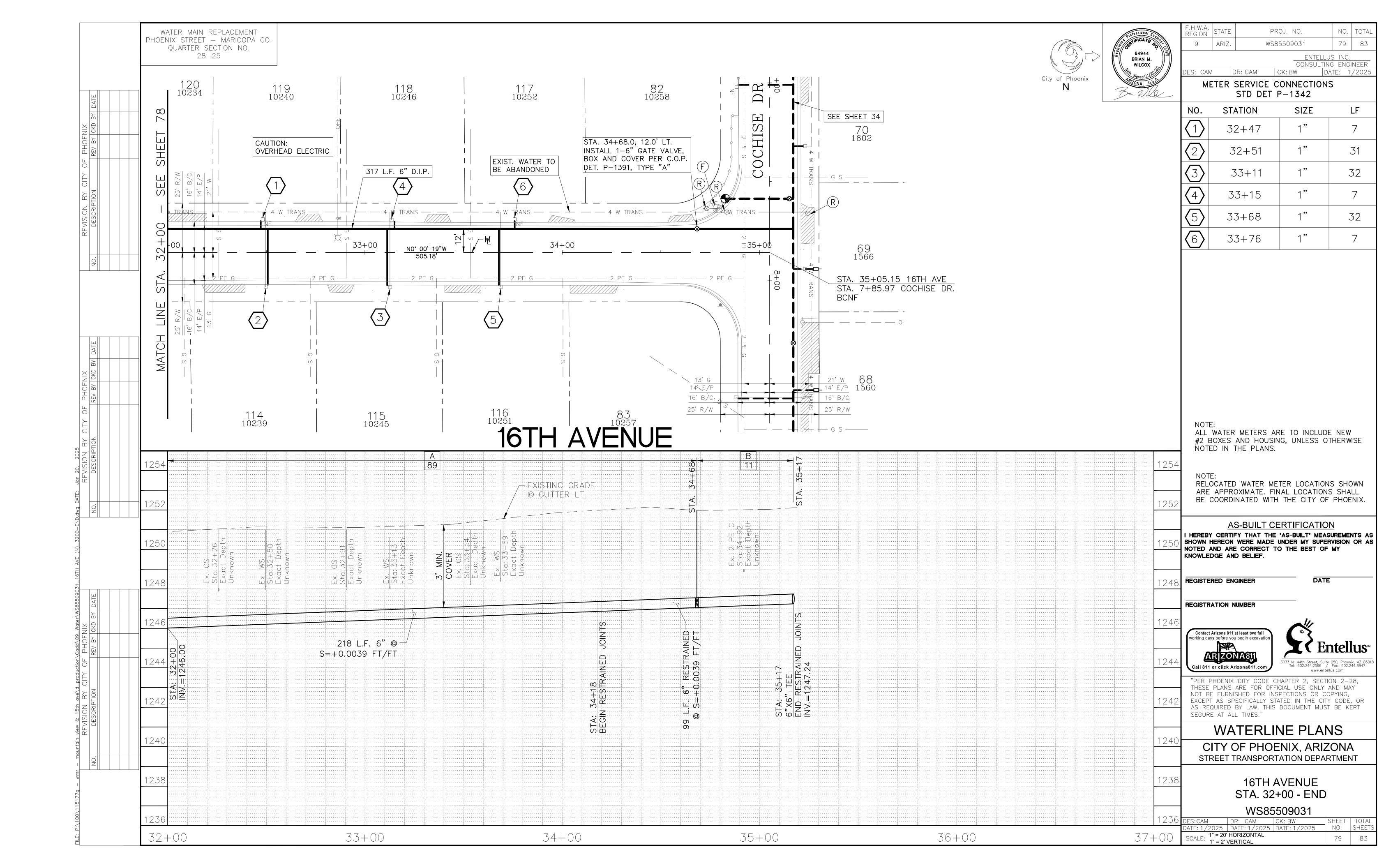


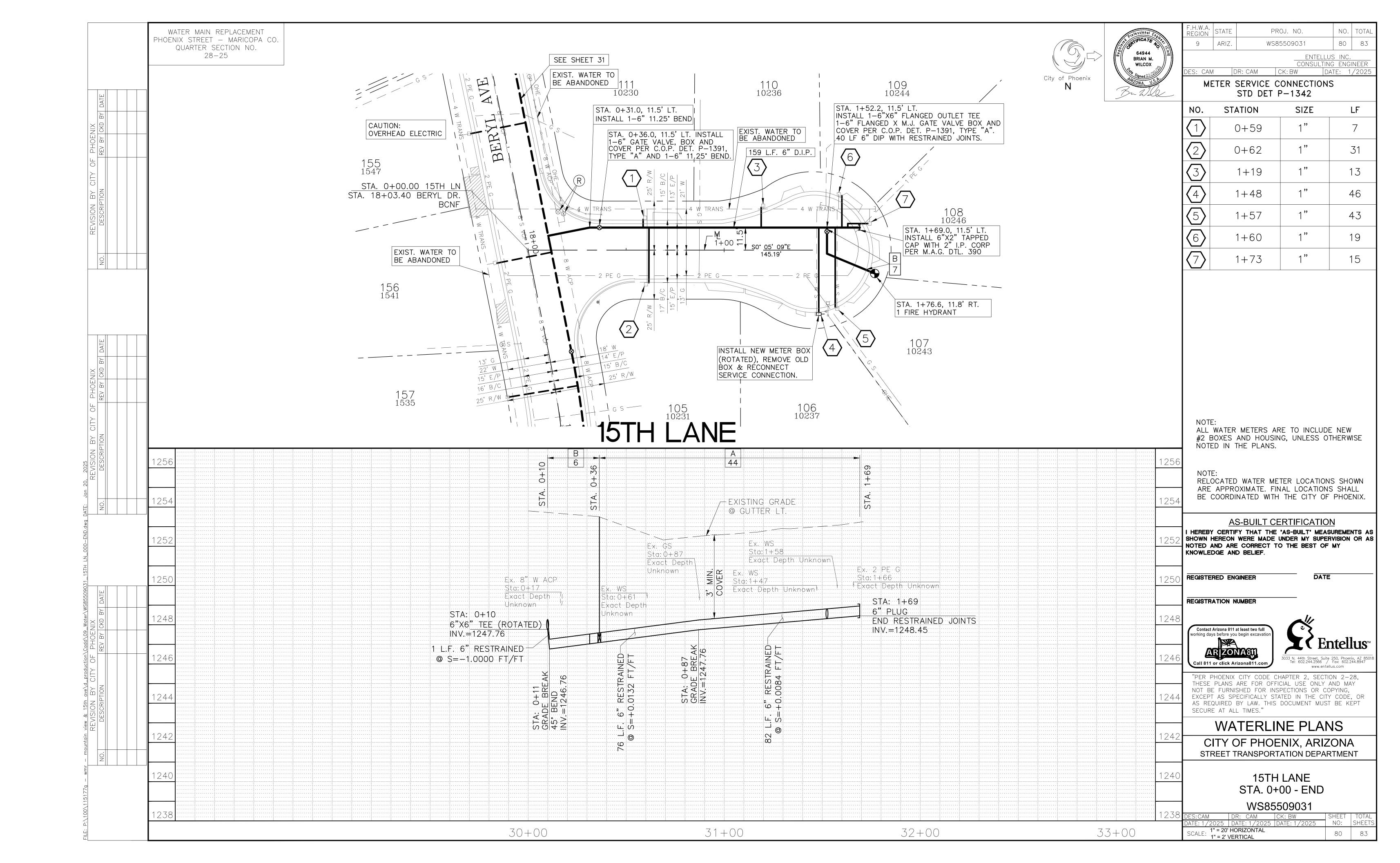


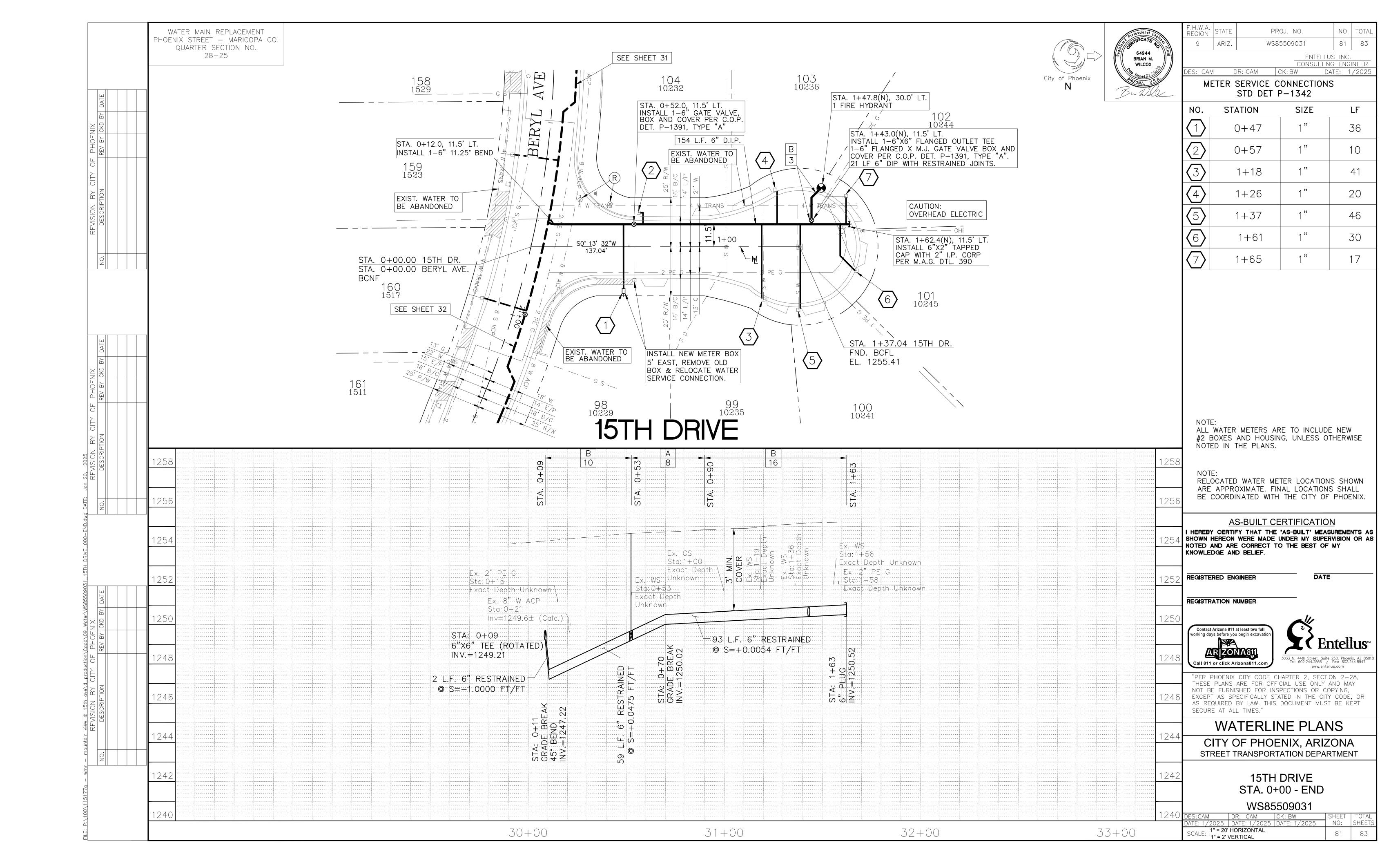


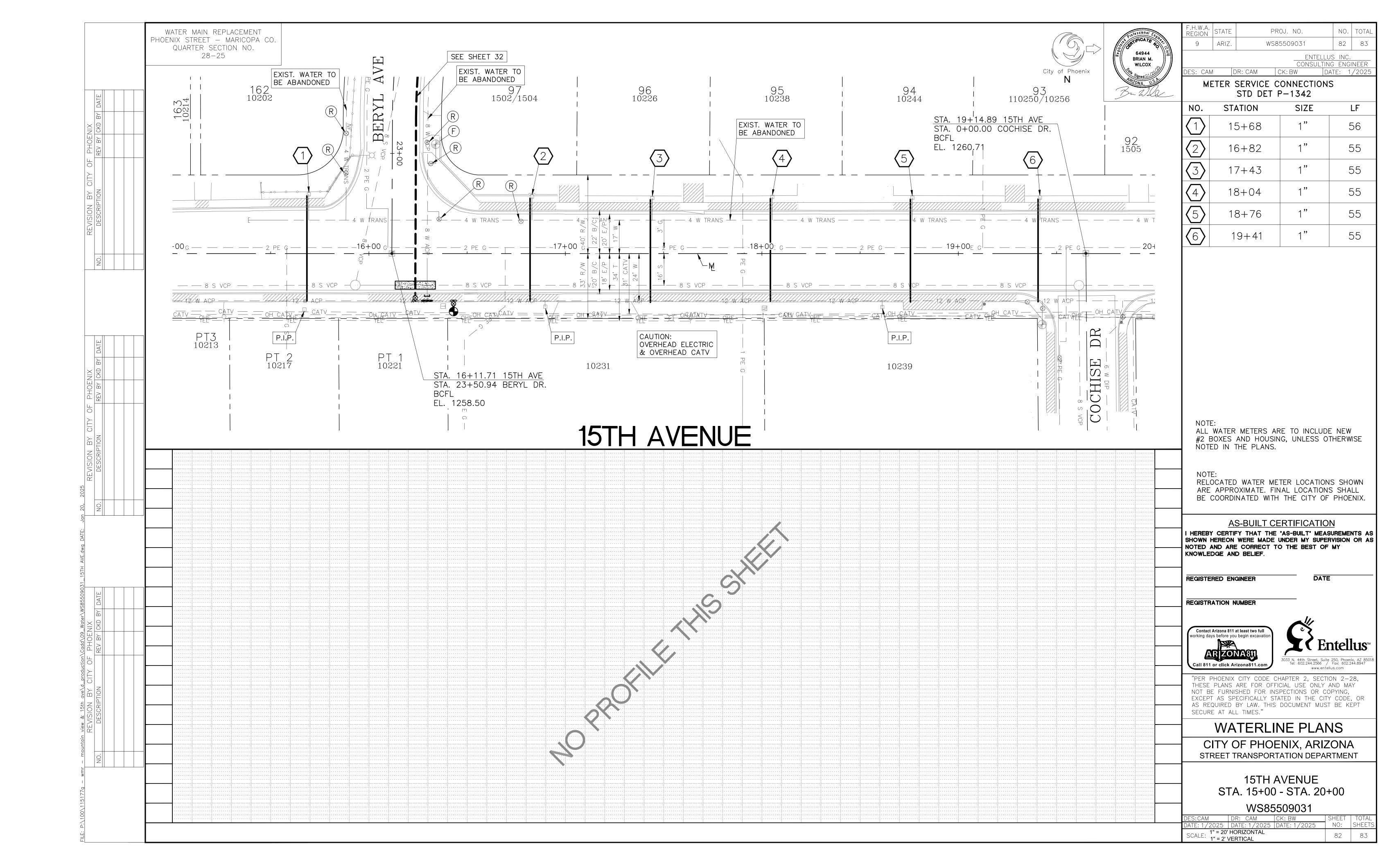












WATER MAIN REPLACEMENT PHOENIX STREET — MARICOPA CO. QUARTER SECTION NO. 28 - 25

W	/ater / Sewer	TYPE OF PARALLEL UTILITY							
Horizontal Separation Requirement Table		Water Service Connection	Distribution Water Main	Transmission Water Main ¹	Sewer Main / Reclaimed Main	Sewer Service Connection	Dry Utilities ²	Private Fireline Service	Storm Drains & Culverts & Irrigation ²
	Distribution	3-feet	3-feet	3-feet	6-feet	6-feet	6-feet	3-feet	6-feet
	Water Main	minimum	minimum	minimum	minimum	minimum	minimum	minimum	minimum
UTILITY	Transmission	3-feet	3-feet	3-feet	6-feet	6-feet	6-feet	3-feet	6-feet
	Water Main ¹	minimum	minimum	minimum	minimum	minimum	minimum	minimum	minimum
/ SEWER I	Water Service	3-feet	3-feet	3-feet	6-feet	6-feet	3-feet	3-feet	3-feet
	Connection	minimum	minimum	minimum	minimum	minimum	minimum	minimum	minimum
WATER	Private Fireline	3-feet	3-feet	3-feet	6-feet	6-feet	6-feet	3-feet	6-feet
	Service	minimum	minimum	minimum	minimum	minimum	minimum	minimum	minimum
TYPE OF	Sewer Main /	6-feet	6-feet	6-feet	3-feet	3-feet	6-feet	6-feet	3-feet
	Reclaimed Main	minimum	minimum	minimum	minimum	minimum	minimum	minimum	minimum
	Sewer Service	6-feet	6-feet	6-feet	3-feet	3-feet	3-feet	6-feet	3-feet
	Connection	minimum	minimum	minimum	minimum	minimum	minimum	minimum	minimum

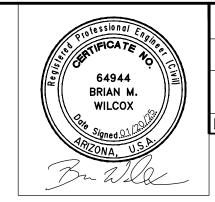
Minimum separation required by WSD. Utility owner may require a greater separation. Refer to the link in Appendix A, page A-2, for SRP Irrigation Requirement

NOTE: This table applies to all above ground or underground utilities/structures.

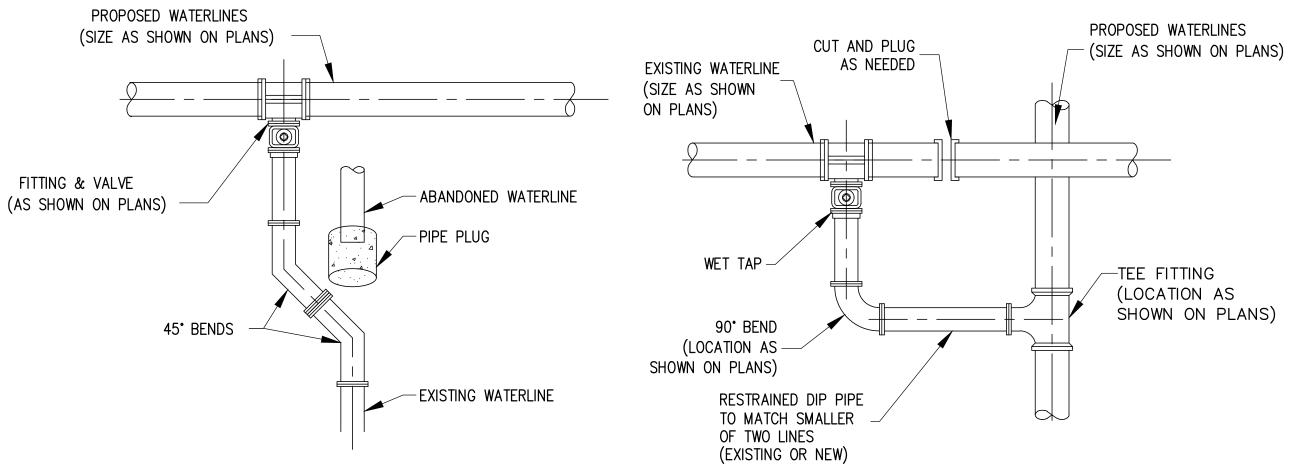
City of Phoenix Water Services Department – 2021 Design Standards Manual for Water and Wastewater Systems

Water / Sewer		TYPE OF UTILITY CROSSING								
Ver	tical Separation uirement Table	Water Service Connection	Distribution Water Main	Transmission Water Main ¹	Sewer / Reclaimed Main	Sewer Service Connection	Dry Utilities ⁴	Private Fireline Service	Storm Drains Culverts & Irrigation ⁴	
	Distribution Water Main Above Utility ³	6-inch minimum	1-foot minimum	2-foot minimum	1-foot minimum ²	6-inch minimum²	1-foot minimum	1-foot minimum	1-foot minimum²	
	Distribution Water Main Below Utility	6-inch minimum	1-foot minimum	2-foot minimum	2-foot minimum ²	2-foot minimum²	1-foot minimum	1-foot minimum	2-foot minimum²	
	Transmission Water Main Above Utility ¹	2-foot minimum	2-foot minimum	2-foot minimum	2-foot minimum	2-foot minimum	2-foot minimum	2-foot minimum	2-foot minimum	
≽	Transmission Water Main Below Utility ¹	2-foot minimum	2-foot minimum	2-foot minimum	2-foot minimum ²	2-foot minimum²	2-foot minimum	2-foot minimum	2-foot minimum²	
TYPE OF WATER / SEWER UTILITY	Private Fireline Service Above Utility	6-inch minimum	1-foot minimum	2-foot minimum	1-foot minimum ²	6-inch minimum²	1-foot minimum	1-foot minimum	1-foot minimum²	
	Private Fireline Service Below Utility	6-inch minimum	1-foot minimum	2-foot minimum	2-foot minimum ²	2-foot minimum ²	1-foot minimum	1-foot minimum	2-foot minimum²	
	Water Service Connection Above or Below Utility	6-inch minimum	6-inch minimum	2-foot minimum	6-inch minimum	6-inch minimum	6-inch minimum	6-inch minimum	1-foot minimum	
	Sewer Main / Reclaimed Main Above Utility	6-inch minimum	2-foot minimum ²	2-foot minimum ²	1-foot minimum	6-inch minimum	1-foot minimum	2-foot minimum ²	1-foot minimum ²	
	Sewer Main / Reclaimed Main Below Utility	6-inch minimum	1-foot minimum ²	2-foot minimum	1-foot minimum	6-inch minimum	1-foot minimum	1-foot minimum ²	1-foot minimum²	
	Sewer Service Connection Above	6-inch minimum	2-foot minimum ²	2-foot minimum ²	6-inch minimum	6-inch minimum	6-inch minimum	2-foot minimum ²	1-foot minimum	
	Sewer Service Connection Below Utility	6-inch minimum	6-inch minimum	2-foot minimum ²	6-inch minimum	6-inch minimum	6-inch minimum	6-inch minimum²	1-foot minimum	
	When crossing Prestre followed. See Section Extra protection is req above a sewer service note below. Where a trenching op- Minimum separation r Requirements. NOTE: Clearances are Arizona Administrative	IV(D)(14). uired for water m. Extra protection eration crosses un equired by WSD. I measured from o	ains and private fir also required wher der existing 12 incl Jtility owner may r utside of pipe to o	e line services that are n water mains and pri n or smaller ACP wate equire a greater sepa utside of pipe. Minim	e between 1 and 2 vate fire lines serv rlines, Section 60 ration. Refer to th um separation an	2 feet above sewer vices are installed b 1.2.8 of the City Su ne link in Appendix d extra protection	main, storm dra elow sewer main oplements to M, A, page A-2, for shall be in accord	iin or irrigation line n, storm drain or ir AG must be follow SRP Irrigation	rigation line. Refer to	
,	1. Sepai While no gener requirements of supply wells or	al statemer f the appro	t can be ma priate revie	wing agency	ll condition with respe	s, it is recog	nized that			
All existing waterworks units, such as basins, wells or other treatment units, within 200 feet of the prop sewer shall be shown on the plans.								e proposed		

PROVIDE PROTECTION PER M.A.G. STD. DET. 404 (CONTINGENCY)

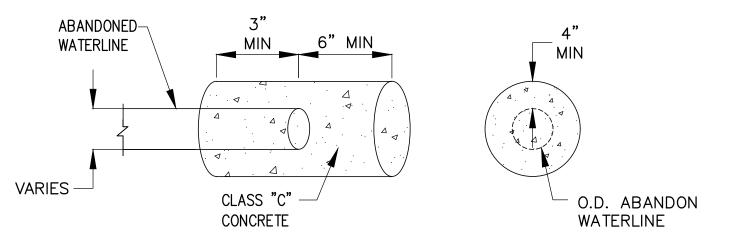


F.H.W.A. REGION	STATE	F		NO.	TOTAL			
9	ARIZ.	. WS85509031				83		
ENTELLUS INC. CONSULTING ENGINEER								
DES: CAM	[DR: CAM	CK: BW	DATE	E: 1,	/2025		



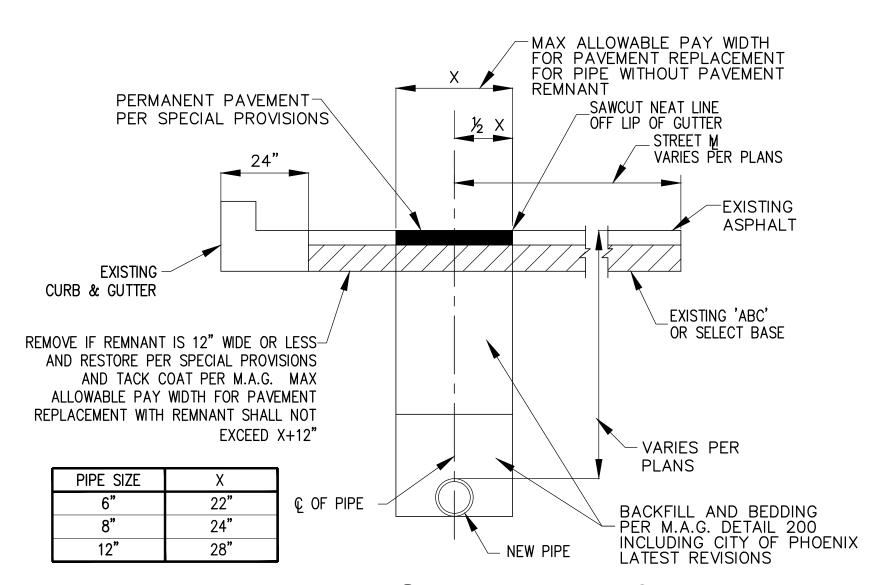
SWING CONNECTION DETAIL

PIPE CONNECTION DETAIL



PIPE PLUG DETAIL FOR ABANDONED WATERLINES

(FOR USE WITH STANDARD DET. P-1343 & P-1344)



NEW PIPE INSTALLATION DETAIL

I HEREBY CERTIFY THAT TH	CERTIFICATION HE 'AS-BUILT' MEASUREMENTS AS E UNDER MY SUPERVISION OR AS TO THE BEST OF MY
REGISTERED ENGINEER	DATE
REGISTRATION NUMBER	
Contact Arizona 811 at least two full working days before you begin excavation	
AR ZONASII	Entellus [™]
Call 811 or click Arizona811.com	3033 N. 44th Street, Suite 250, Phoenix, AZ 85018 Tel: 602.244.2566 / Fax: 602.244.8947 www.entellus.com

NOT BE FURNISHED FOR INSPECTIONS OR COPYING, EXCEPT AS SPECIFICALLY STATED IN THE CITY CODE, OR AS REQUIRED BY LAW. THIS DOCUMENT MUST BE KEPT SECURE AT ALL TIMES."

"PER PHOENIX CITY CODE CHAPTER 2, SECTION 2-28,

THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY

WATERLINE PLANS

CITY OF PHOENIX, ARIZONA STREET TRANSPORTATION DEPARTMENT

WATERLINE DETAILS

WS85509031

S:CAM	DR: CAM	CK: BW	SHEET	TOTAL
TE: 1/2025	DATE: 1/2025	DATE: 1/2025	NO:	SHEETS
CALE: N/A H	HORIZONTAL VERTICAL		83	83
IN/A	VLIVIICAL			