

# LOS ALAMOS COUNTY EAST RD 14" WATER TRANSMISSION LINE REPLACEMENT

SEPTEMBER 2025

## PROJECT DESCRIPTION

- THIS PROJECT INVOLVES THE REPLACEMENT OF APPROXIMATELY 5,443 LINEAR FEET OF EXISTING 14-INCH STEEL WATER LINE WITH NEW 14-INCH CLASS 250 DUCTILE IRON (DI) PIPE, INCLUDING ALL ASSOCIATED VALVES, FITTINGS, AND APPURTENANCES.
- A BID ALTERNATE INCLUDES AN ADDITIONAL 1,236 LINEAR FEET OF DI WATER LINE. THIS INCLUDES A TIE IN TO AN 8-INCH LINE THAT CONNECTS THE LINE TO AN EXISTING PRV. END TIE-IN LOCATIONS WILL VARY DEPENDING ON AWARD OF THE ALTERNATE.
- THE PROJECT INCLUDES THE REMOVAL OF FIVE (5) FIRE HYDRANTS AND THE ABANDONMENT IN PLACE OF APPROXIMATELY 2,500 LINEAR FEET OF 8-INCH WATER LINE TO WHICH THE HYDRANTS ARE CONNECTED.

### GENERAL SHEETS

SHEET G1 COVER SHEET  
SHEET G2 GENERAL NOTES  
SHEET G3 LAYOUT SHEET

### CIVIL SHEETS

SHEET C1 PLAN & PROFILE 0+00 TO 7+00  
SHEET C2 PLAN & PROFILE 7+00 TO 14+00  
SHEET C3 PLAN & PROFILE 14+00 TO 21+00  
SHEET C4 PLAN & PROFILE 21+00 TO 28+00  
SHEET C5 PLAN & PROFILE 28+00 TO 35+00  
SHEET C6 PLAN & PROFILE 35+00 TO 42+00  
SHEET C7 PLAN & PROFILE 42+00 TO 45+85  
SHEET C8 PLAN & PROFILE 45+85 TO 48+50  
SHEET C9 PLAN & TYPICAL SECTIONS 48+50 TO 52+61

### OPTION 1 BASE BID FINAL ALIGNMENT

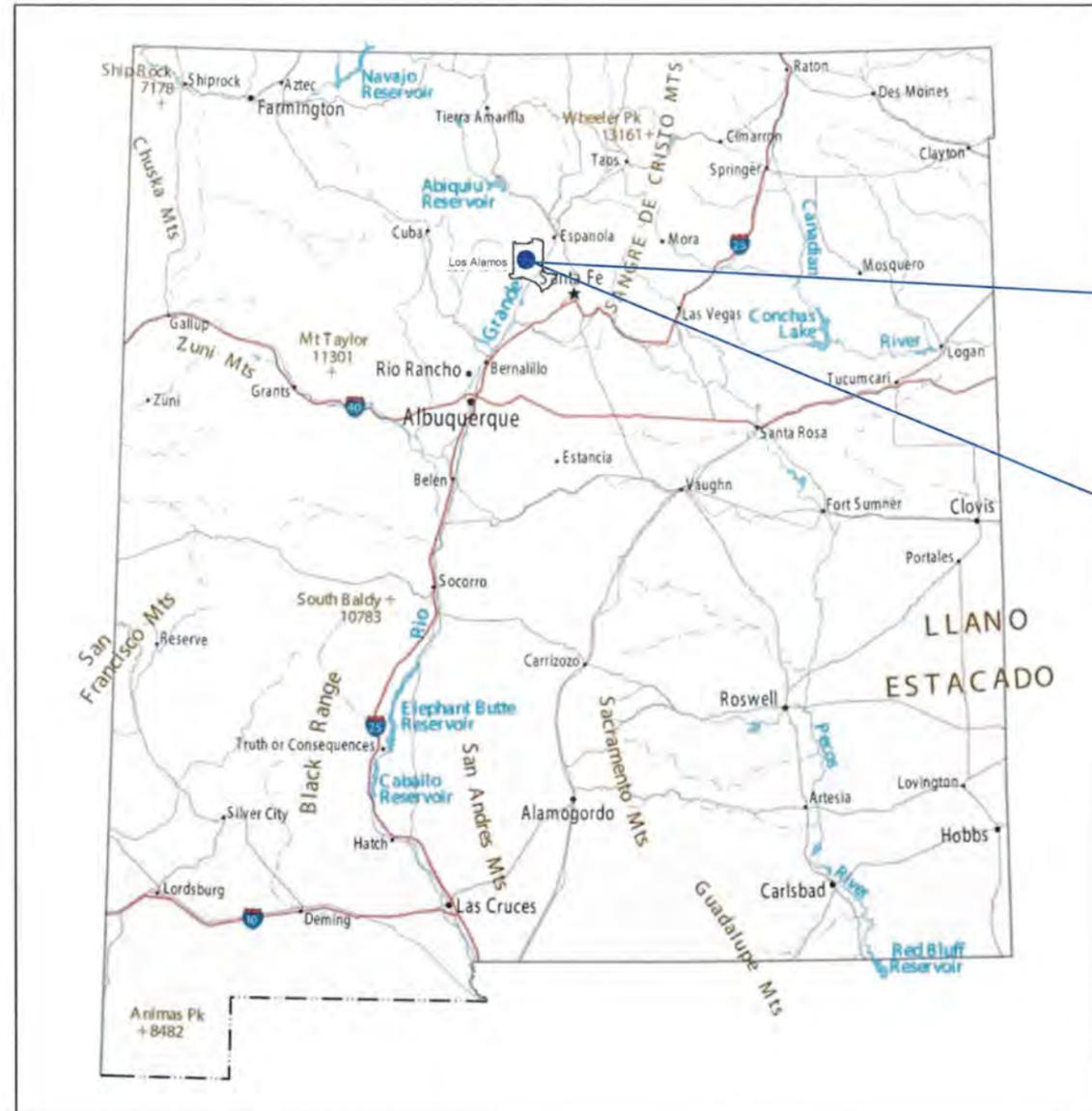
SHEET C10 PLAN & PROFILE 52+61 TO 54+42.22

### OPTION 2 BID ALT FINAL ALIGNMENT

SHEET C11 PLAN & PROFILE 0+00 TO 7+00  
SHEET C12 PLAN & PROFILE 7+00 TO 12+36

### DETAIL SHEETS

SHEET D1 DETAIL SHEET  
SHEET D2 DETAIL SHEET



LOCATION MAP  
NTS



PROJECT LOCATION



VICINITY MAP  
NTS

Approved by: *[Signature]* Date: 2/18/26  
Department of Public Utilities  
Project Engineer

Approved by: *[Signature]* Date: 2/18/26  
Department of Public Utilities  
Engineering Associate



INCORPORATED COUNTY OF LOS ALAMOS DEPARTMENT OF PUBLIC UTILITIES 1000 CENTRAL AVE. SUITE 130 LOS ALAMOS, NEW MEXICO 87544 (505) 662-8150 FAX (505)662-8109	NO.	REVISION DESCRIPTION

**GENERAL**

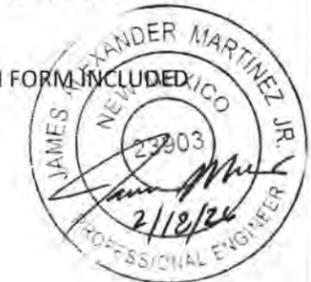
1. DEPTH OF TRENCH MAY BE DEEPER ALONG CERTAIN SEGMENTS OF PIPELINE TO CLEAR EXISTING UTILITIES AND TO AVOID THE CREATION OF HIGH POINTS ALONG THE ALIGNMENT. NO ADDITIONAL PAYMENT WILL BE MADE FOR INSTALLING PIPE DEEPER THAN MINIMUM REQUIRED DEPTH.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY, AND FOR KNOWLEDGE AND COMPLIANCE WITH OSHA STANDARDS. THE CONTRACTOR SHALL MAINTAIN ALL TRENCHES IN A SAFE CONDITION PROTECTING THE WORKERS AND THE GENERAL PUBLIC. TRENCH PROTECTION SHALL BE IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS. EXCAVATION SHALL BE SLOPED, BRACED, OR SHORDED AS REQUIRED BY OSHA REGULATIONS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SAFE HANDLING OF CONSTRUCTION EQUIPMENT AND MATERIALS TO AND FROM THE STAGING/STORAGE AREA AND FOR SITE SECURITY. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND NO ADDITIONAL COMPENSATION SHALL BE MADE THEREFOR
3. ALL WATER, WASTEWATER, GAS AND ELECTRIC UTILITY INSTALLATIONS, RE-CONSTRUCTION OR REPAIR SHALL COMPLY WITH LOS ALAMOS COUNTY DEPARTMENT OF PUBLIC UTILITIES (DPU) CONSTRUCTION STANDARDS AND THE RELEVANT STANDARD DRAWINGS.
4. SUBMITTALS FOR ALL GAS, WATER, SEWER, ELECTRIC AND COUNTY OWNED COMMUNICATION INFRASTRUCTURE SHALL BE SUBMITTED TO THE DPU PROJECT MANAGER FOR REVIEW AND APPROVAL PER THE DPU STANDARD SPECIFICATIONS. SUBMITTALS SHALL INCLUDE THE COVER SHEET IN THE DPU CONSTRUCTION STANDARDS.
5. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A NEW MEXICO LICENSED PROFESSIONAL SURVEYOR (NMPS), FOR CONSTRUCTION STAKING, AS WELL AS VERIFICATION OF ALL CRITICAL HORIZONTAL AND VERTICAL CONTROL DATA SHOWN ON THESE CONTRACT DRAWINGS. CONTRACTOR SHALL PROVIDE COORDINATE INFORMATION FOR ALL NEW SAS MANHOLES, WATER AND GAS VALVES, ALL BASED ON STATE PLANE COORDINATES.
6. FOR ANY WORK INVOLVING NEW WATER, GAS OR SEWER PIPELINE CONNECTING TO AN EXISTING PIPELINE, CONTRACTOR SHALL OBTAIN A PENETRATION PERMIT FROM THE COUNTY, AT LEAST 48 HOURS IN ADVANCE OF ANY SUCH WORK. THE PERMIT APPLICATION FORM FOR THIS PERMIT CAN BE FOUND AT:

<https://www.losalamosnm.us/Permitting-Information/Add-or-Modify-Utility-Services>

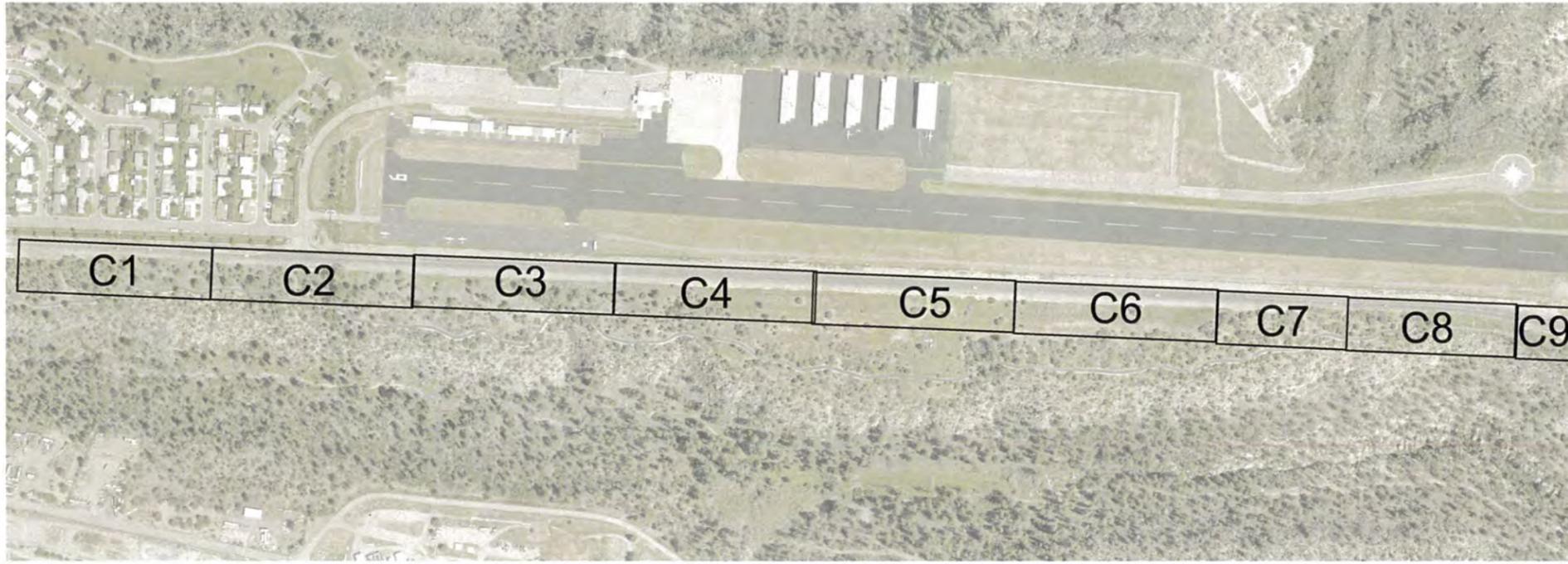
7. CONTRACTOR SHALL BE RESPONSIBLE FOR POTHOLING, TO DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES, PRIOR TO PERFORMING ANY EXCAVATION WORK.
8. PRIOR TO CONNECTING NEW WATER LINES INTO THE EXISTING SYSTEMS THE LOCATE WIRE SHALL BE TESTED AS FOLLOWS. CONTRACTOR WILL ENSURE THAT ALL LOCATE WIRE HAS BEEN INSTALLED AND MADE ACCESSIBLE IN ALL REQUIRED LOCATIONS. CONTRACTOR WILL VERIFY CONTINUITY IN THE LOCATE WIRE WITH THEIR OWN LOCATE EQUIPMENT. THE LOCATED LOCATION WILL BE PAINTED WITH WHITE PAINT AND DPU STAFF WILL THEN VERIFY THE LOCATION AND CONTINUITY OF THE LOCATE WIRE WITH THEIR OWN EQUIPMENT. ANY AREAS WHERE CONTINUITY IS LOST MUST BE REPAIRED AND RE-VERIFIED BY DPU STAFF TO BE LOCATEABLE. CONTRACTOR SHALL COORDINATE THE LOCATE WIRE VERIFICATION WITH DPU PROJECT MANAGER.
9. INFORMATION SPECIFICALLY STATED IN THE CONTRACT DRAWINGS, OR WHEN THE DPU PROJECT MANAGER SPECIFICALLY IDENTIFIES IN THE FIELD, CRITICAL DATA (X, Y, AND Z) RELATED TO WATER VALVES OF ALL KINDS, WATER METERS, FIRE HYDRANTS, CULVERT INLET OR OUTLET INVERTS, WASTEWATER COLLECTION MANHOLE INVERTS AND RIMS, CUSTOMER END OF WASTEWATER SERVICE CONNECTION PIPES/CLEANOUT, SHALL BE COLLECTED BY THE CONTRACTOR'S SURVEYOR FOR THE RECORD DRAWINGS TO BE COMPLETE.
10. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PROTECTION OF SURVEY MONUMENTS OR MARKS. IF CONTRACTOR'S ACTIVITIES CAUSED DAMAGE TO ANY OF THESE MARKS, CONTRACTOR SHALL RETAIN, AT THEIR OWN EXPENSE, THE SERVICES OF A NMLPS, TO RE-ESTABLISH THE MARKS IN COMPLIANCE WITH STANDARDS AND PROCEDURES SET FORTH BY THE "GEODETIC MARK PRESERVATION GUIDEBOOK".
11. CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF THE CLEAN WATER ACT, RELATED TO STORM WATERS. CONTRACTOR SHALL PREPARE, EXECUTE AND MAINTAIN A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), IF THE AREA DISTURBED BY THE CONSTRUCTION OPERATIONS IS ONE ACRE OR MORE IN SIZE. COSTS ASSOCIATED WITH CLEAN WATER ACT COMPLIANCE, INCLUDING BMP'S, SHALL BE INCIDENTAL TO THE PROJECT'S COST.
12. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE COSTS OF REPAIRING ANY DAMAGE OR ALTERATIONS CAUSED DURING EXECUTION OF THIS PROJECT, TO THE ORIGINAL CONDITION OF THIRD PARTY'S PROPERTY (E.G. STRUCTURES, EXISTING UTILITIES OR UTILITY EASEMENTS) LOCATED WITHIN OR OUT OF THE PROJECT BOUNDARIES.
13. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PROTECTION OF ALL PROJECT-RELATED MATERIALS OR EQUIPMENT, BEFORE INSTALLATION, UNTIL FINAL WRITTEN ACCEPTANCE APPROVAL OF THE PROJECT BY THE DPU PROJECT MANAGER AND THE COUNTY.
14. ALL MATERIAL QUALITY TESTS SHALL BE PERFORMED BY A RECOGNIZED LABORATORY. SUCH A LABORATORY SHALL BE OPERATED UNDER THE AUSPICES/DIRECTION OF AN NMPE. NAME AND CONTACT OF THE LABORATORY SHALL BE SUBMITTED BY THE CONTRACTOR TO THE DPU PROJECT MANAGER AS SOON AS PRACTICAL AFTER THE CONTRACTOR'S RECEIPT OF THE NOTICE TO PROCEED.
15. CONTRACTOR SHALL PROVIDE THE INSTALLATION AND MAINTENANCE OF ANY NECESSARY TRAFFIC CONTROL DEVICES AS OTHERWISE REQUIRED BY LOS ALAMOS COUNTY TRAFFIC MANAGER. TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE MOST CURRENT EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), BUT MAY BE REVISED UNDER WRITTEN DIRECTION FROM THE COUNTY TRAFFIC ENGINEER.
16. CONTRACTOR SHALL NOTIFY THE DPU PROJECT MANAGER, AT LEAST FIVE (5) DAYS IN ADVANCE OF ANY WORK THAT MAY AFFECT THE OPERATION OF THE PUBLIC UTILITY SYSTEMS (WATER, WASTEWATER, GAS AND ELECTRIC).
17. ALL STRUCTURAL OR UTILITY TRENCH FILL OR BACKFILL SHALL BE FREE OF VEGETATION AND DEBRIS AND CONTAIN NO ROCKS LARGER THAN 3-INCHES.
18. ALL AREAS DISTURBED BY THE CONSTRUCTION ACTIVITIES OF THIS PROJECT, INCLUDING PRIVATE LANDSCAPING, SHALL BE RESTORED.
19. IF THE CONTRACTOR REQUIRES THE USE OF WATER FROM THE OWNER'S/PROJECT'S WATER SOURCE AT ANY TIME DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE A \$2,000.00 REFUNDABLE DEPOSIT TO OBTAIN A TEMPORARY WATER METER FROM OUR CUSTOMER SERVICE LOCATED AT LOS ALAMOS COUNTY MUNICIPAL BUILDING. THE METER WILL BE USED TO MONITOR WATER CONSUMPTION FOR THE DURATION OF USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH WATER USAGE, BASED ON ACTUAL METERED CONSUMPTION. REFER TO THE COUNTY WEBSITE FOR CURRENT WATER RATES. THE DEPOSIT WILL BE REFUNDED UPON RETURN OF THE METER IN GOOD WORKING CONDITION AND FULL PAYMENT OF ALL OUTSTANDING WATER CHARGES.

**WATER PIPELINES**

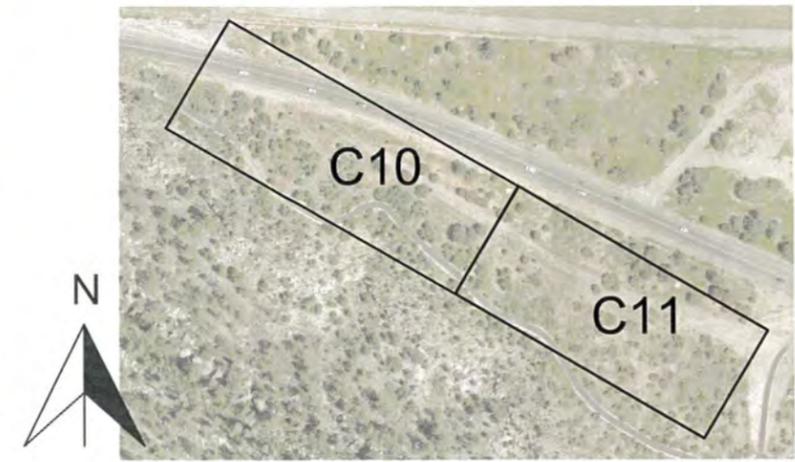
1. THE PIPELINE SHALL BE SUPPLIED AND INSTALLED IN STRICT COMPLIANCE WITH THE DEPARTMENT OF PUBLIC UTILITIES CONSTRUCTION STANDARDS. CONTRACTOR SHALL NOTIFY THE DPU PROJECT MANAGER IMMEDIATELY UPON ENCOUNTERING FILED CONDITIONS THAT MAY REQUIRE DEVIATIONS FROM THESE STANDARDS.
2. CONTRACTOR SHALL INSTALL PIPELINE SO THAT HIGH POINTS ARE NOT CREATED, UNLESS SPECIFICALLY SHOWN ON APPROVED CONSTRUCTION DRAWINGS. THE PIPE SHALL BE PLACED WITH A UNIFORM GRADE, NO VERTICAL BENDS ARE ALLOWED.
3. PROFILE ELEVATIONS ARE APPROXIMATE AND BASED ON AVAILABLE GIS DATA. FIELD VERIFICATION OF EXISTING GRADES IS REQUIRED. MINIMUM BURY SHALL BE 4 FOOT AT ALL POINTS ALONG THE ALIGNMENT. ADJUSTMENTS NECESSARY SHALL BE CONSIDERED INCIDENTAL UNLESS OTHERWISE APPROVED.
4. ALL FIRE HYDRANTS SHALL BE INSTALLED WITH A MINIMUM 4-FOOT HORIZONTAL CLEARANCE ALL AROUND THEM. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE DISINFECTION, CHLORINATION, CHLORINE RESIDUAL TESTING, AND HYDROSTATIC (PRESSURE) TESTING OF ALL WATER PIPES INSTALLED. PRESSURE TEST SHALL BE DOCUMENTED ON FORM INCLUDED IN STANDARD SPECIFICATION. DPU PROJECT MANAGER SHALL WITNESS ALL SUCH TESTING.



REVISION DESCRIPTION									
NO.									
EAST RD 14" WATER TRANSMISSION LINE									
GENERAL NOTES									
INCORPORATED COUNTY OF LOS ALAMOS DEPARTMENT OF PUBLIC UTILITIES 1000 CENTRAL AVE. SUITE 130 LOS ALAMOS, NEW MEXICO 87544 (505) 662-8150 FAX (505) 662-8109									
SHEET									
G2									



BASE BID SHEET LAYOUT



BID ALTERNATE SHEET LAYOUT

LEGEND

	NEW 14" WATERLINE
	EXISTING 8" WATERLINE
	EXISTING 14" WATERLINE
	8" GAS LINE
	6" GAS LINE
	ABANDON GAS LINE
	COMMUNICATION LINE
	FENCE LINE
	GATE VALVE
	HYDRANT



NO.	REVISION DESCRIPTION

EAST RD 14" WATER TRANSMISSION LINE

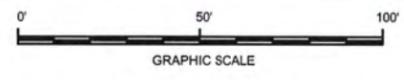
**LAYOUT AND LEGEND**

INCORPORATED COUNTY  
OF LOS ALAMOS  
DEPARTMENT OF PUBLIC UTILITIES  
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LOS ALAMOS, NEW MEXICO 87544  
(505) 662-8150 FAX (505) 662-8109

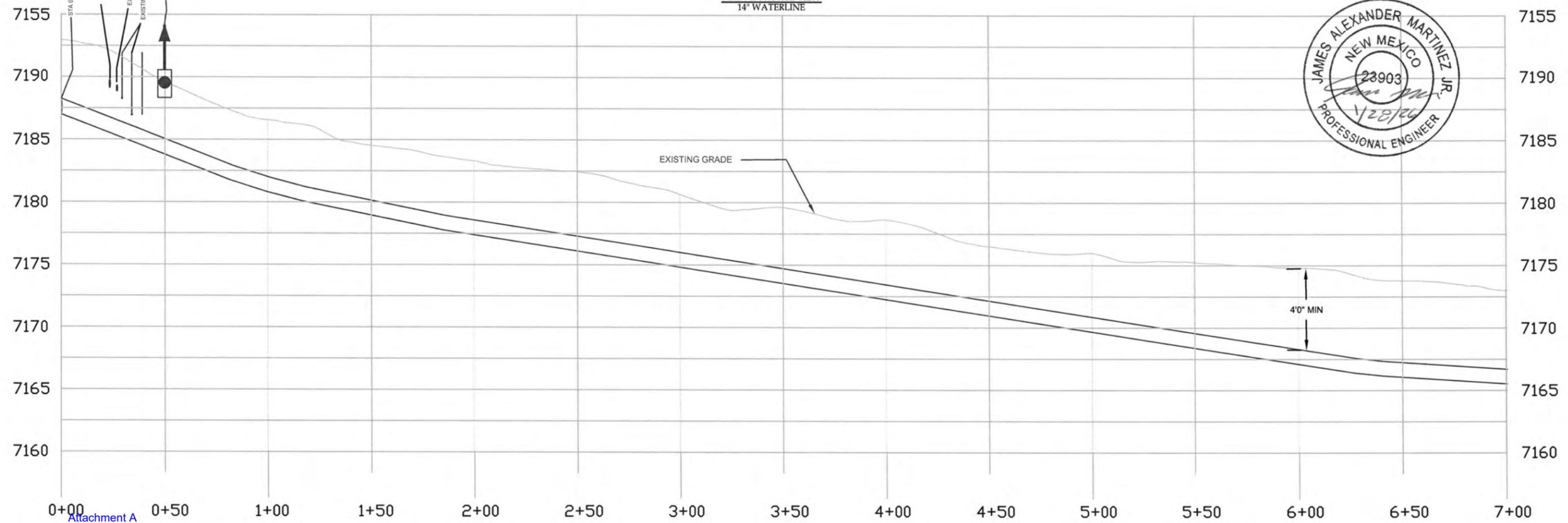
SHEET

**G3**

NOTE: EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. BASED ON INFORMATION PROVIDED BY UTILITY COMPANIES OR AS-BUILT DRAWINGS. CONTRACTOR MUST CONTACT NM ONECALL TO OBTAIN SPOTS AND SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS IN THE FIELD. SEE GENERAL NOTES FURTHER INFORMATION.



PLAN & PROFILE VIEW  
14" WATERLINE



NO.	REVISION DESCRIPTION

EAST RD 14" WATER TRANSMISSION LINE

PLAN & PROFILE  
STA 0+00 TO STA 7+00

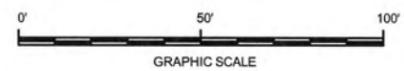
INCORPORATED COUNTY  
OF LOS ALAMOS  
DEPARTMENT OF PUBLIC UTILITIES  
1000 CENTRAL AVE. SUITE 130  
LOS ALAMOS, NEW MEXICO 87544  
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SHEET  
**C1**

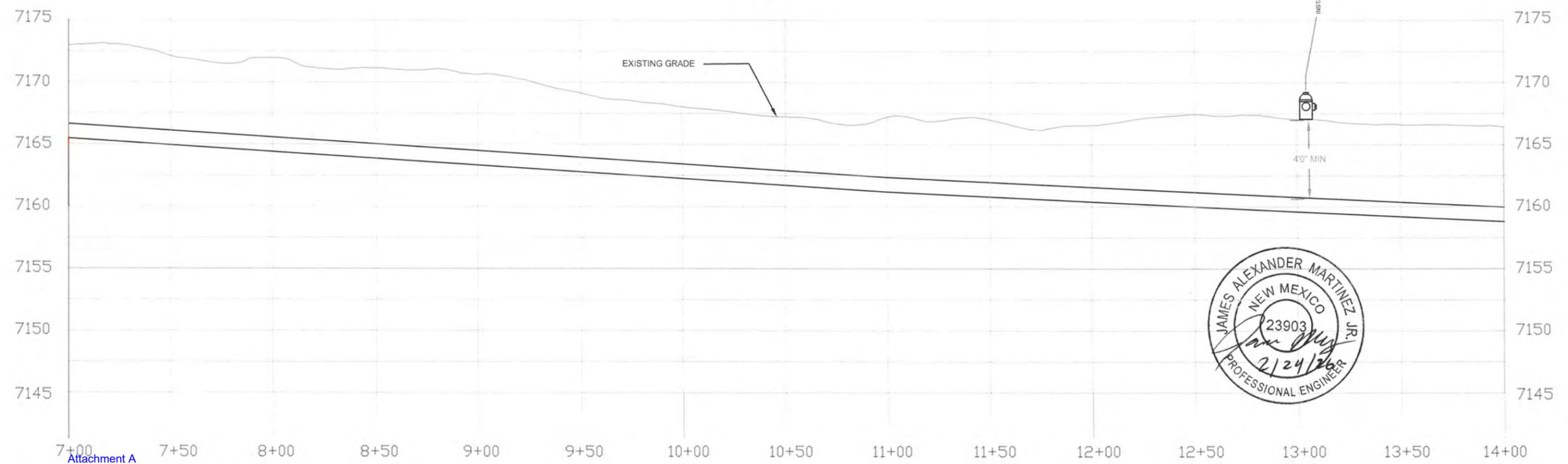


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STA 13+27 INSTALL NEW FIRE HYDRANT WITH A MINIMUM HORIZONTAL CLEARANCE OF 3 FT FROM FENCE LINE. SEE SHEET D1 FOR DETAIL



PLAN & PROFILE VIEW  
14" WATERLINE



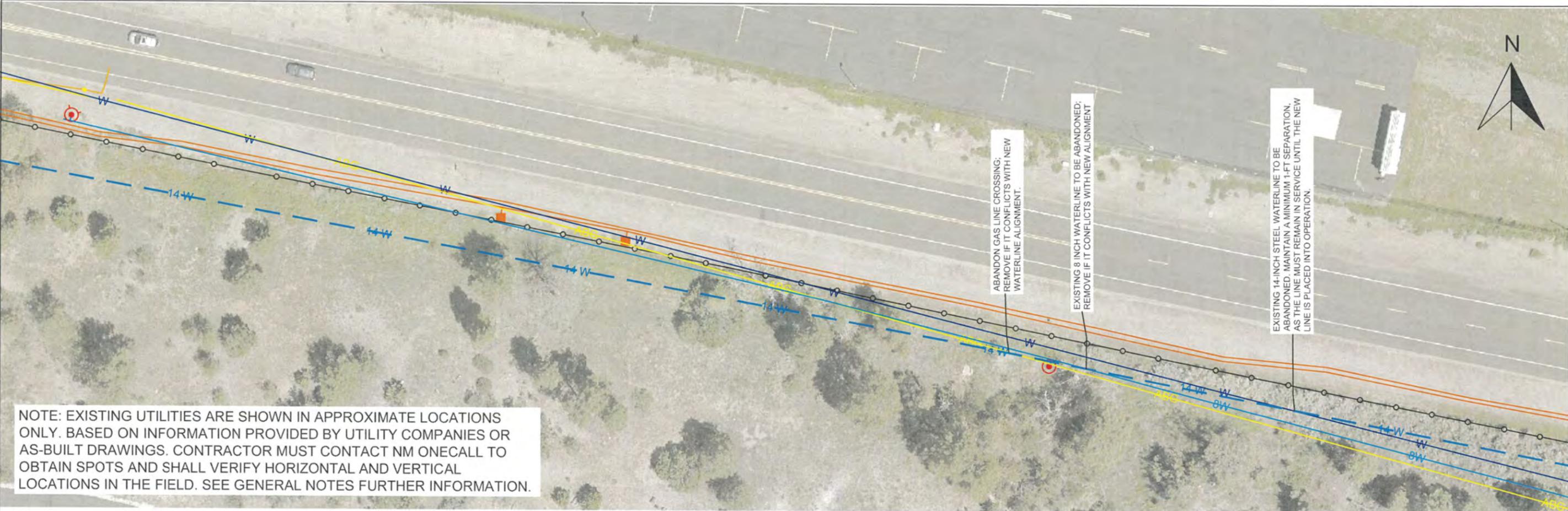
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EAST RD 14" WATER TRANSMISSION LINE

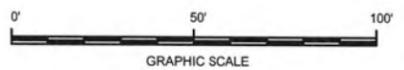
PLAN & PROFILE  
STA 7+00 TO STA 14+00

INCORPORATED COUNTY  
OF LOS ALAMOS  
DEPARTMENT OF PUBLIC UTILITIES  
1000 CENTRAL AVE. SUITE 130  
LOS ALAMOS, NEW MEXICO 87544  
(505) 662-8150 FAX (505) 662-8109

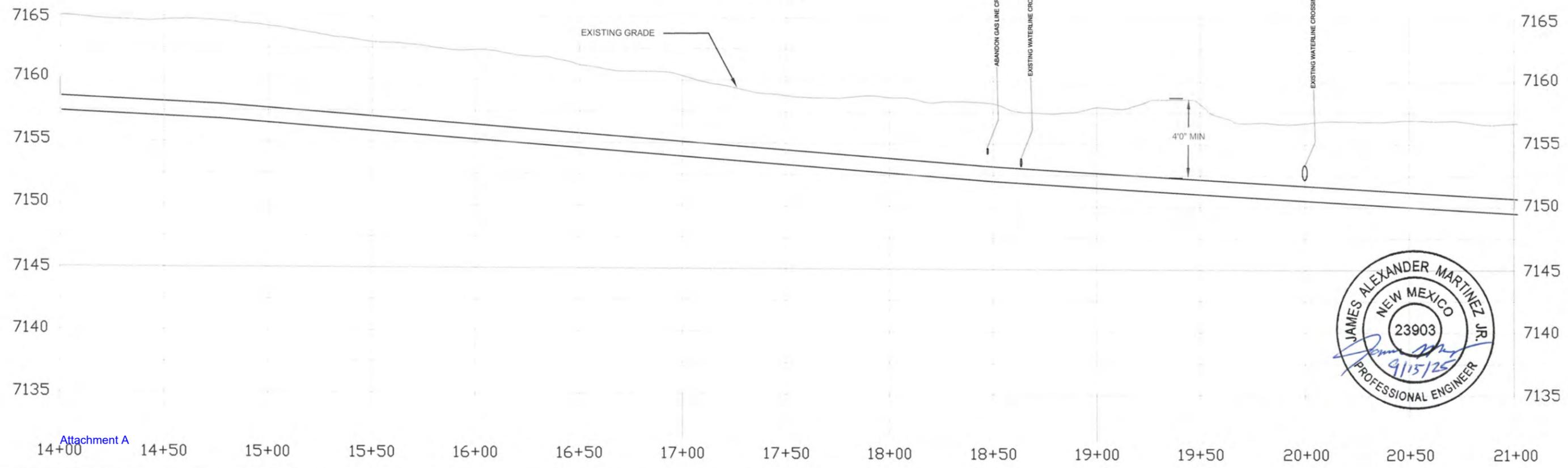
SHEET  
**C2**



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PLAN & PROFILE VIEW  
14" WATERLINE



NO.	REVISION DESCRIPTION

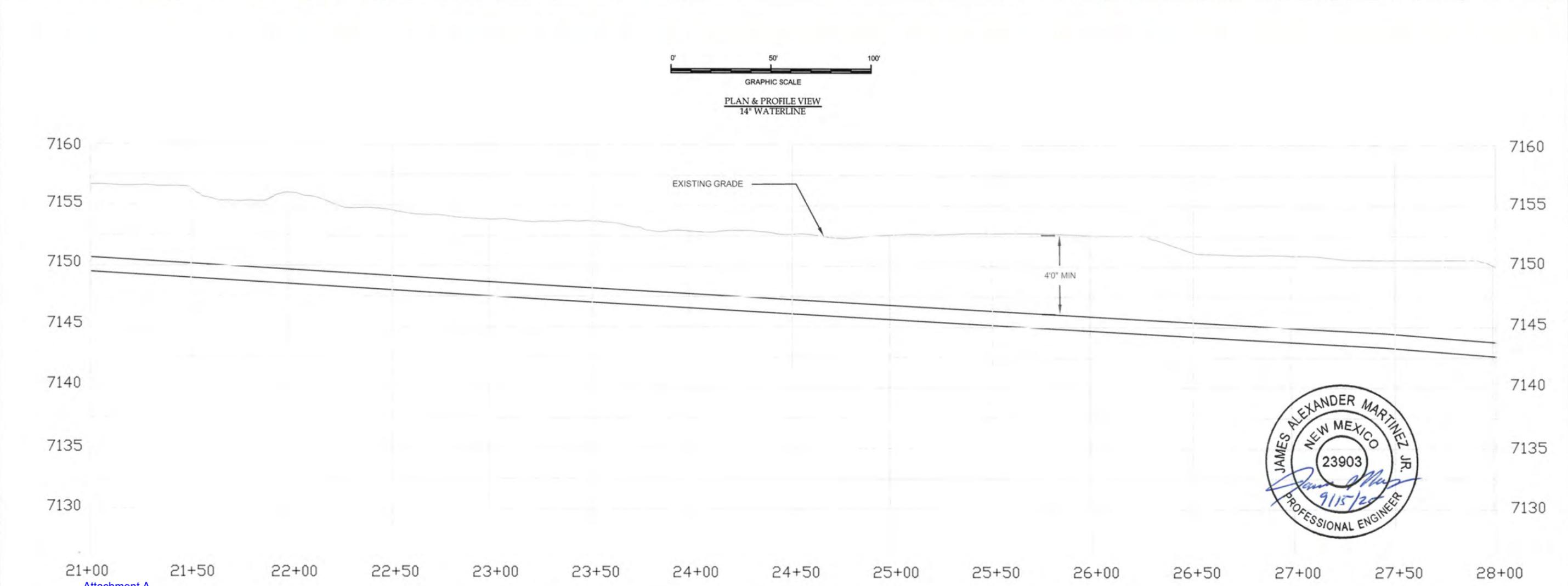
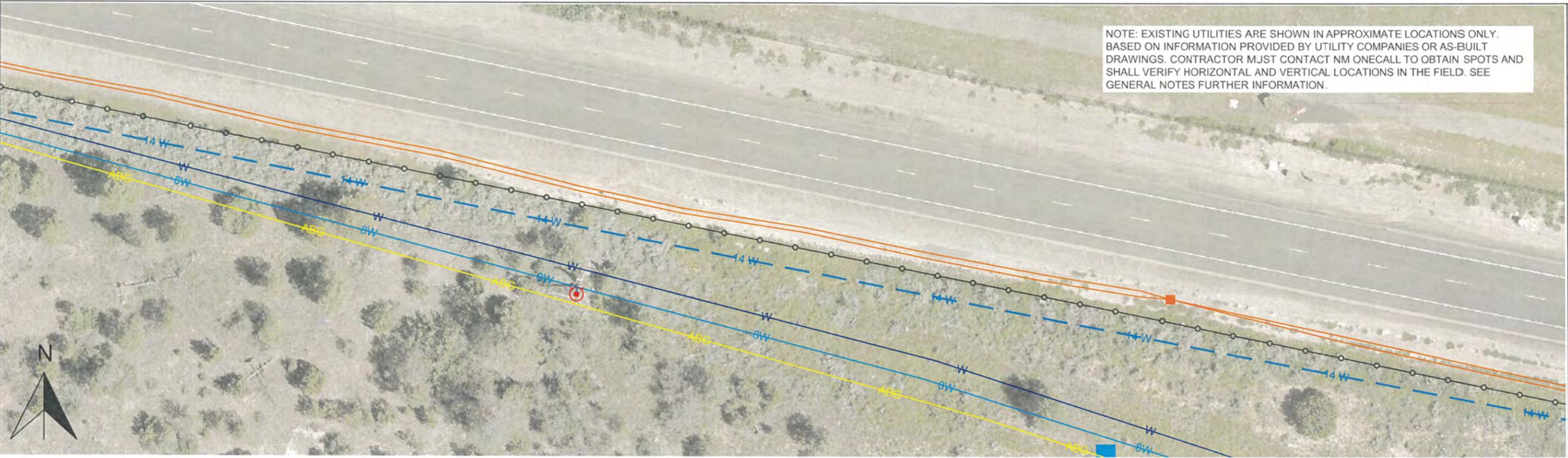
EAST RD 14" WATER TRANSMISSION LINE

PLAN & PROFILE  
STA 14+00 TO STA 21+00

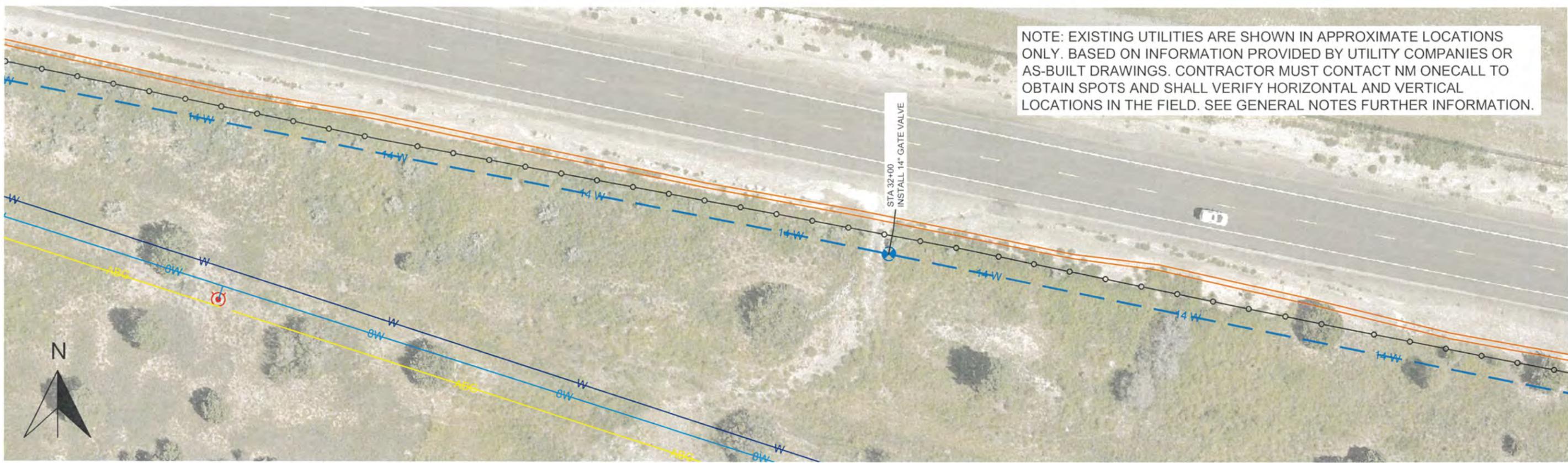
INCORPORATED COUNTY  
OF LOS ALAMOS  
DEPARTMENT OF PUBLIC UTILITIES  
1000 CENTRAL AVE. SUITE 130  
LOS ALAMOS, NEW MEXICO 87544  
(505) 662-8150 FAX (505) 662-8109

SHEET  
**C3**

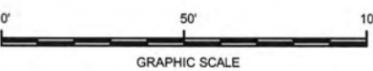
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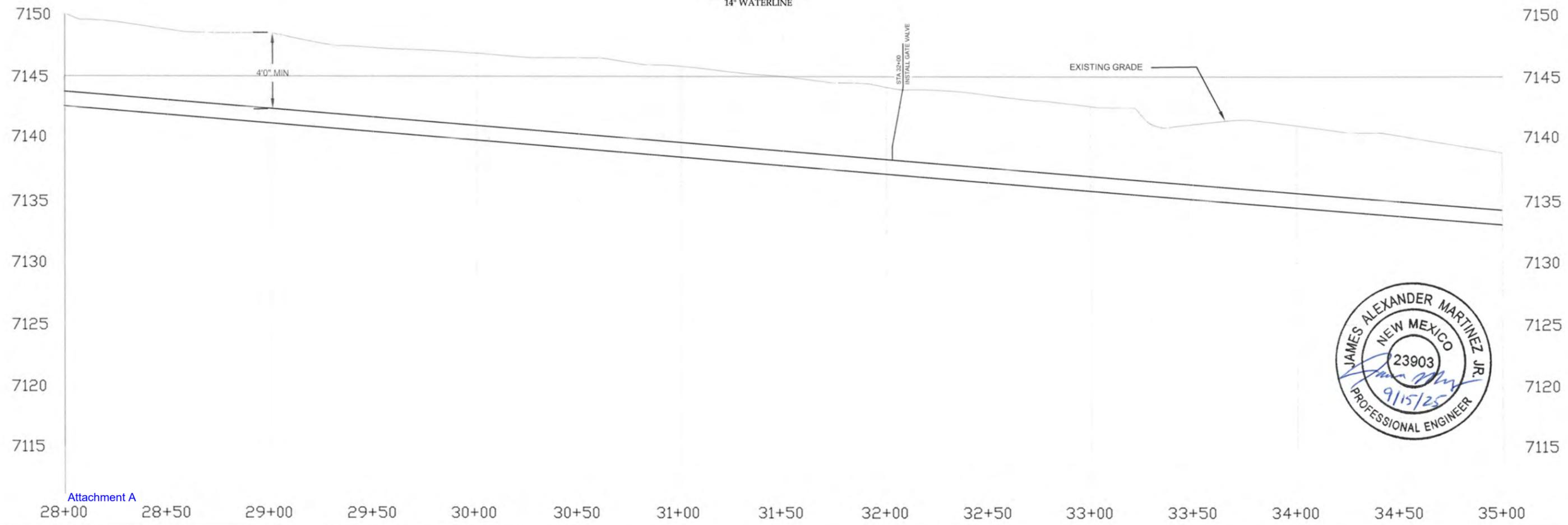
REVISION DESCRIPTION				
NO.				
EAST RD 14" WATER TRANSMISSION LINE		PLAN & PROFILE		
		STA 21+00 TO STA 28+00		
INCORPORATED COUNTY OF LOS ALAMOS DEPARTMENT OF PUBLIC UTILITIES 1000 CENTRAL AVE. SUITE 130 LOS ALAMOS, NEW MEXICO 87544 (505) 662-8150 FAX (505) 662-8109				
SHEET				
C4				



NOTE: EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. BASED ON INFORMATION PROVIDED BY UTILITY COMPANIES OR AS-BUILT DRAWINGS. CONTRACTOR MUST CONTACT NM ONECALL TO OBTAIN SPOTS AND SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS IN THE FIELD. SEE GENERAL NOTES FURTHER INFORMATION.



PLAN & PROFILE VIEW  
14" WATERLINE



NO.	REVISION DESCRIPTION

EAST RD 14" WATER TRANSMISSION LINE

PLAN & PROFILE  
STA 28+00 TO STA 35+00

INCORPORATED COUNTY  
OF LOS ALAMOS  
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LOS ALAMOS, NEW MEXICO 87544  
(505) 662-8150 FAX (505) 662-8109

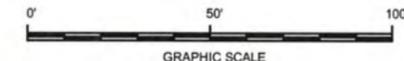
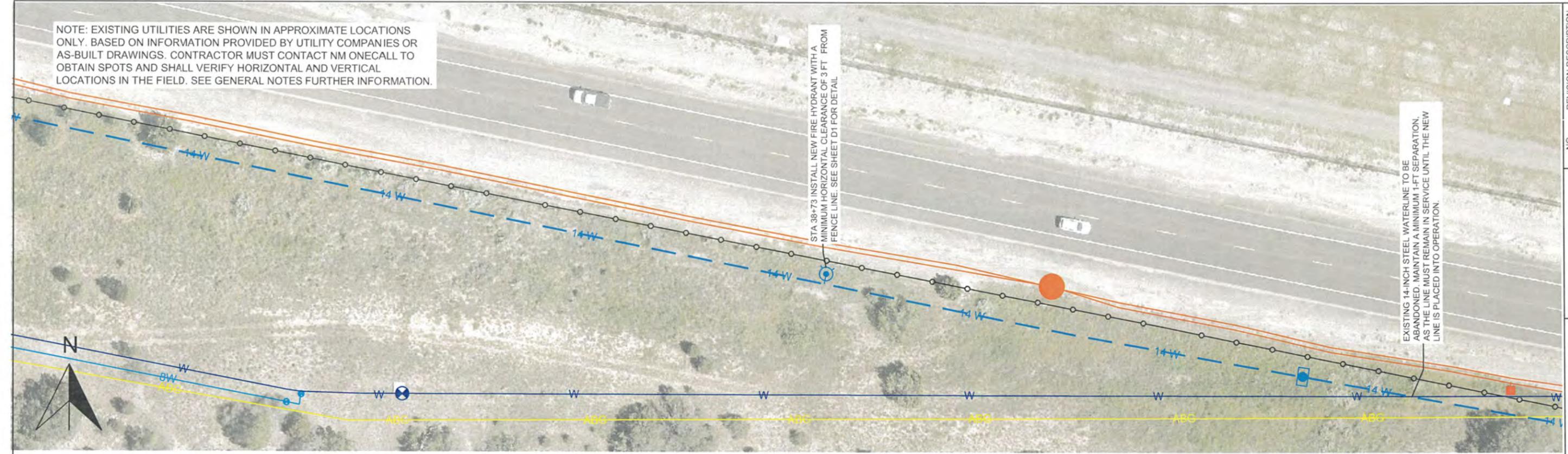
SHEET  
**C5**

Attachment A

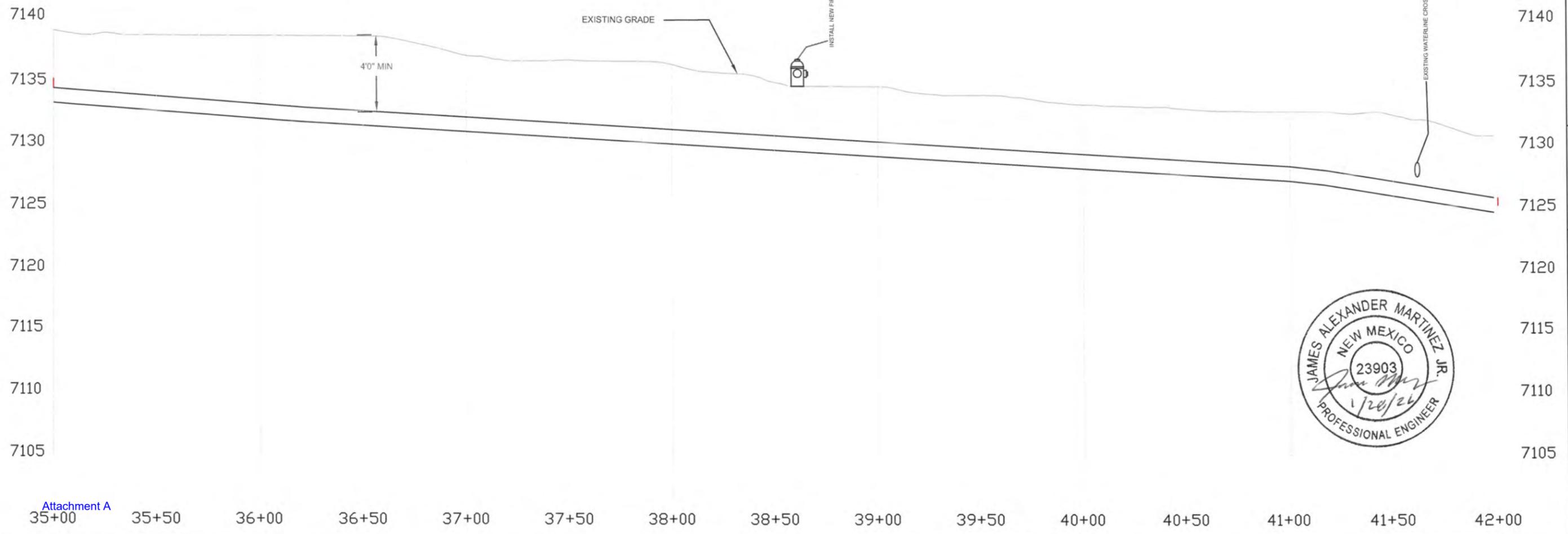
NOTE: EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. BASED ON INFORMATION PROVIDED BY UTILITY COMPANIES OR AS-BUILT DRAWINGS. CONTRACTOR MUST CONTACT NM ONECALL TO OBTAIN SPOTS AND SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS IN THE FIELD. SEE GENERAL NOTES FURTHER INFORMATION.

STA 38+73 INSTALL NEW FIRE HYDRANT WITH A MINIMUM HORIZONTAL CLEARANCE OF 3 FT. FROM FENCE LINE. SEE SHEET D1 FOR DETAIL

EXISTING 14-INCH STEEL WATERLINE TO BE ABANDONED. MAINTAIN A MINIMUM 1-FT SEPARATION. AS THE LINE MUST REMAIN IN SERVICE UNTIL THE NEW LINE IS PLACED INTO OPERATION.



PLAN & PROFILE VIEW  
14" WATERLINE



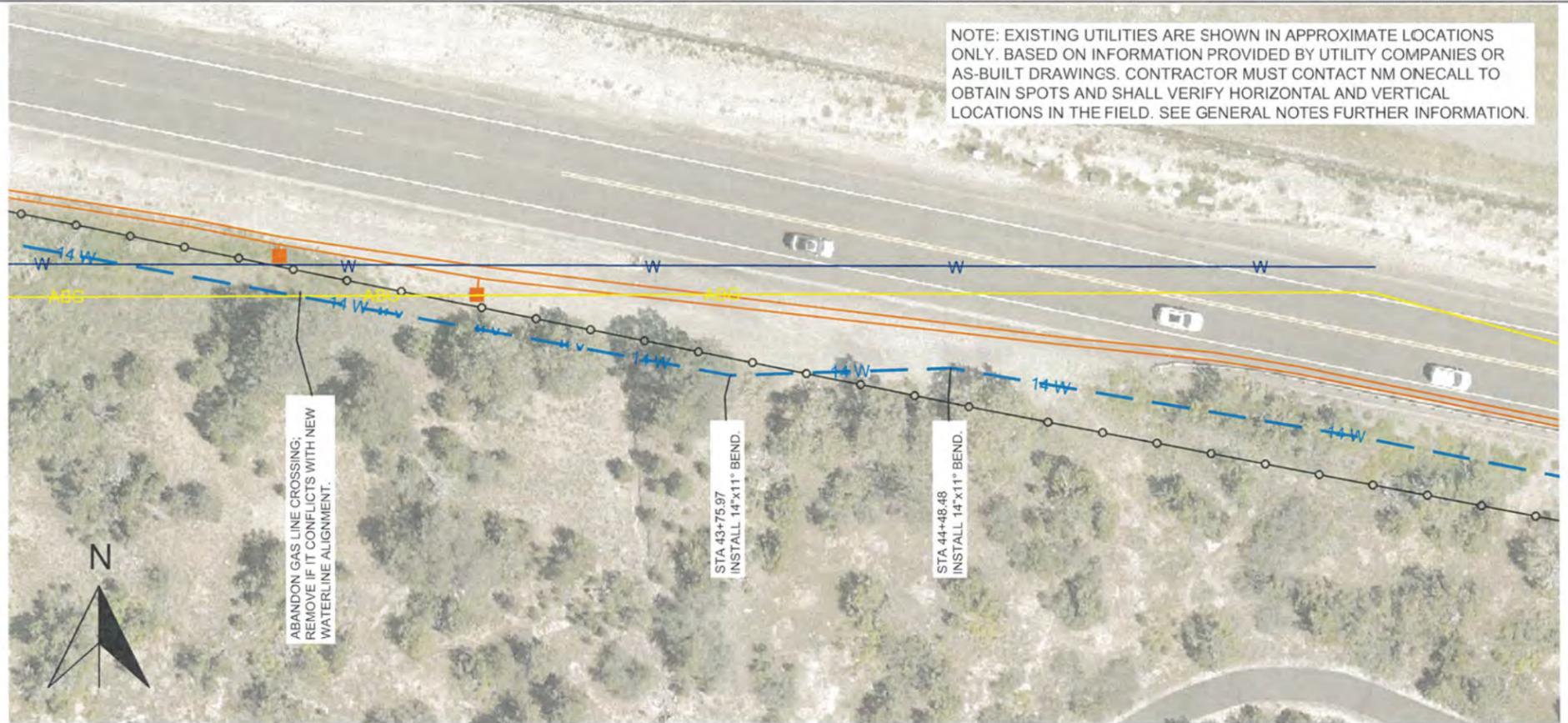
NO.	REVISION DESCRIPTION

EAST RD 14" WATER TRANSMISSION LINE

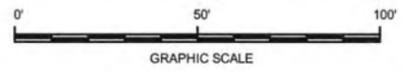
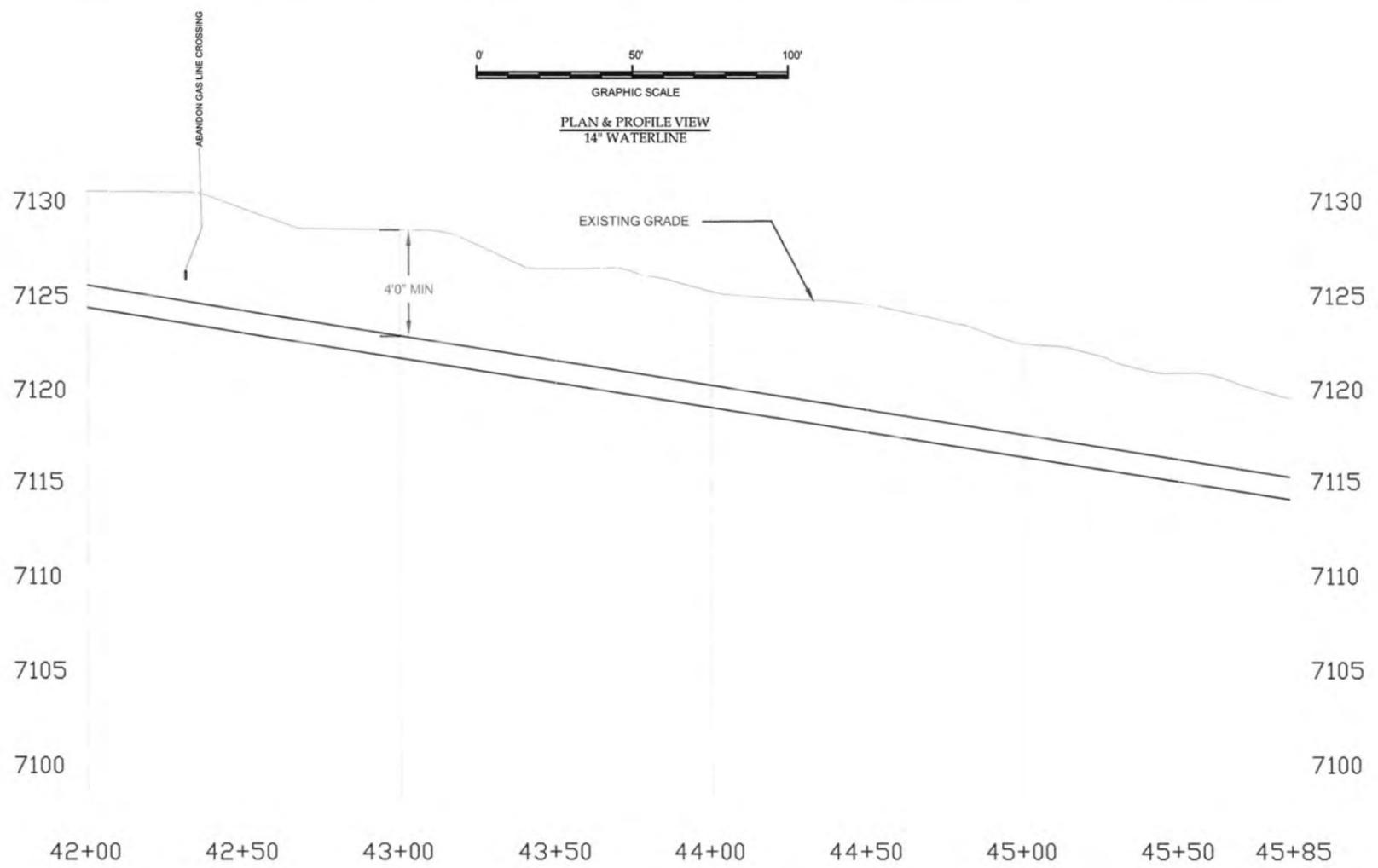
PLAN & PROFILE  
STA 35+00 TO STA 42+00

INCORPORATED COUNTY  
OF LOS ALAMOS  
DEPARTMENT OF PUBLIC UTILITIES  
1000 CENTRAL AVE. SUITE 130  
LOS ALAMOS, NEW MEXICO 87544  
(505) 662-8150 FAX (505) 662-8109

SHEET  
**C6**



NOTE: EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. BASED ON INFORMATION PROVIDED BY UTILITY COMPANIES OR AS-BUILT DRAWINGS. CONTRACTOR MUST CONTACT NM ONECALL TO OBTAIN SPOTS AND SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS IN THE FIELD. SEE GENERAL NOTES FURTHER INFORMATION.



PLAN & PROFILE VIEW  
14" WATERLINE



NO.	REVISION DESCRIPTION

EAST RD 14" WATER TRANSMISSION LINE

PLAN & PROFILE  
STA 42+00 TO STA 45+85

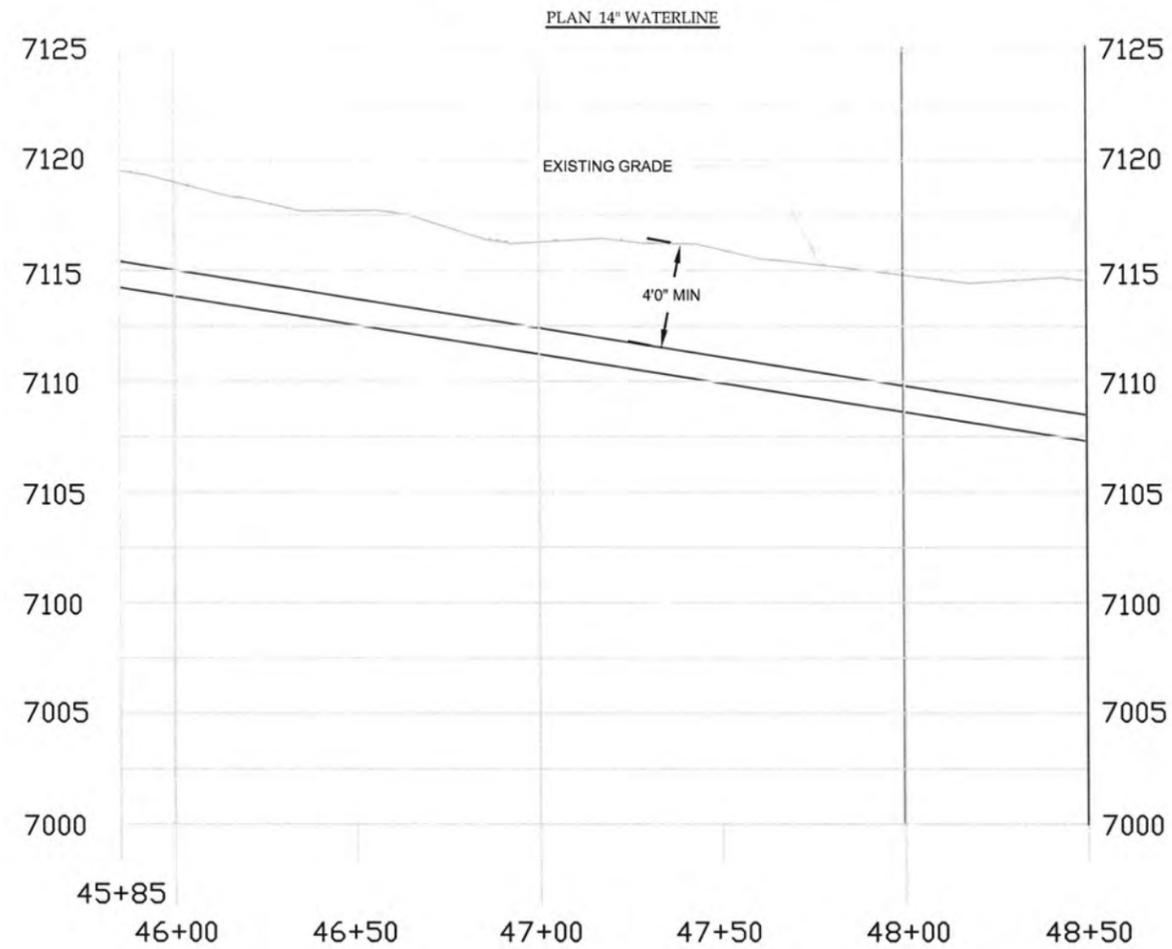
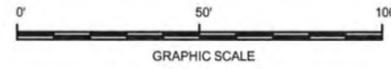
INCORPORATED COUNTY  
OF LOS ALAMOS

DEPARTMENT OF PUBLIC UTILITIES  
1000 CENTRAL AVE. SUITE 130  
LOS ALAMOS, NEW MEXICO 87544  
(505) 662-8150 FAX (505) 662-8109

SHEET  
**C7**



NOTE: EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. BASED ON INFORMATION PROVIDED BY UTILITY COMPANIES OR AS-BUILT DRAWINGS. CONTRACTOR MUST CONTACT NM ONECALL TO OBTAIN SPOTS AND SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS IN THE FIELD. SEE GENERAL NOTES FURTHER INFORMATION.



NO.	REVISION DESCRIPTION

EAST RD 14" WATER TRANSMISSION LINE  
**PLAN & PROFILE**  
 STA 45+85 TO STA 48+50

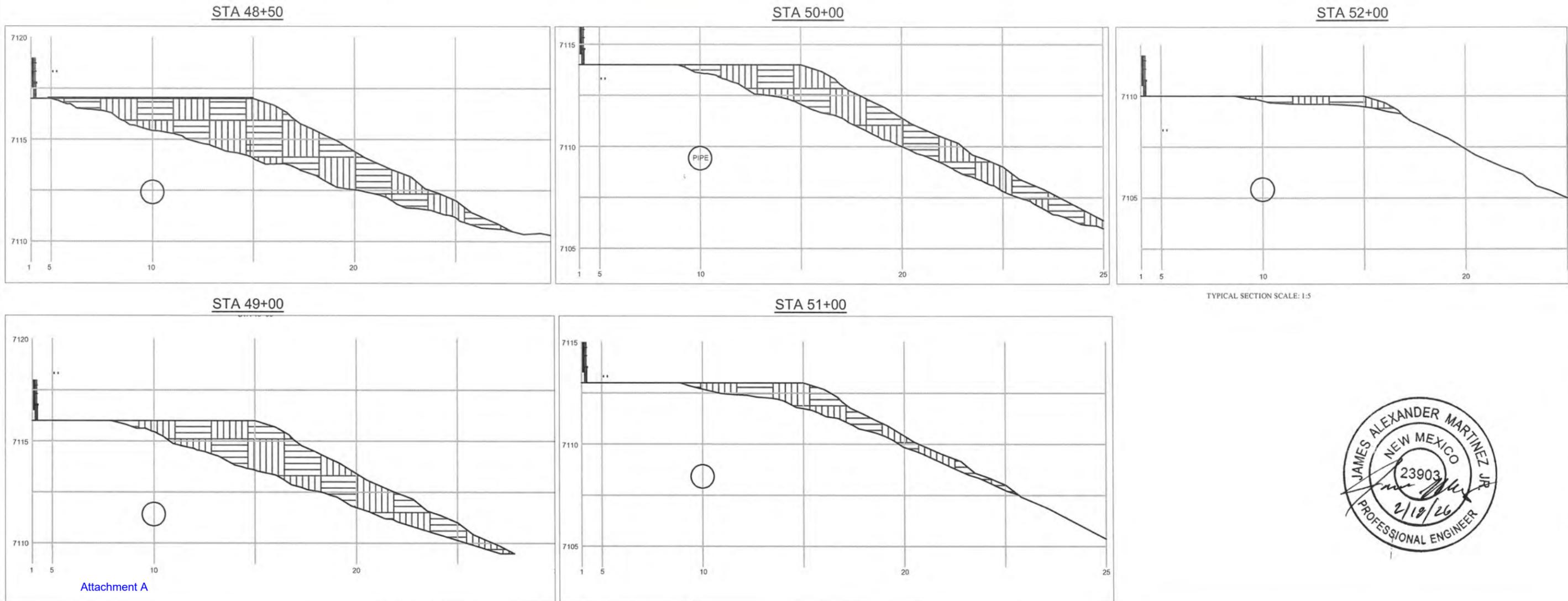
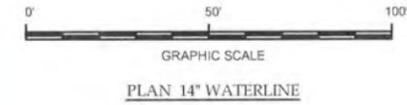
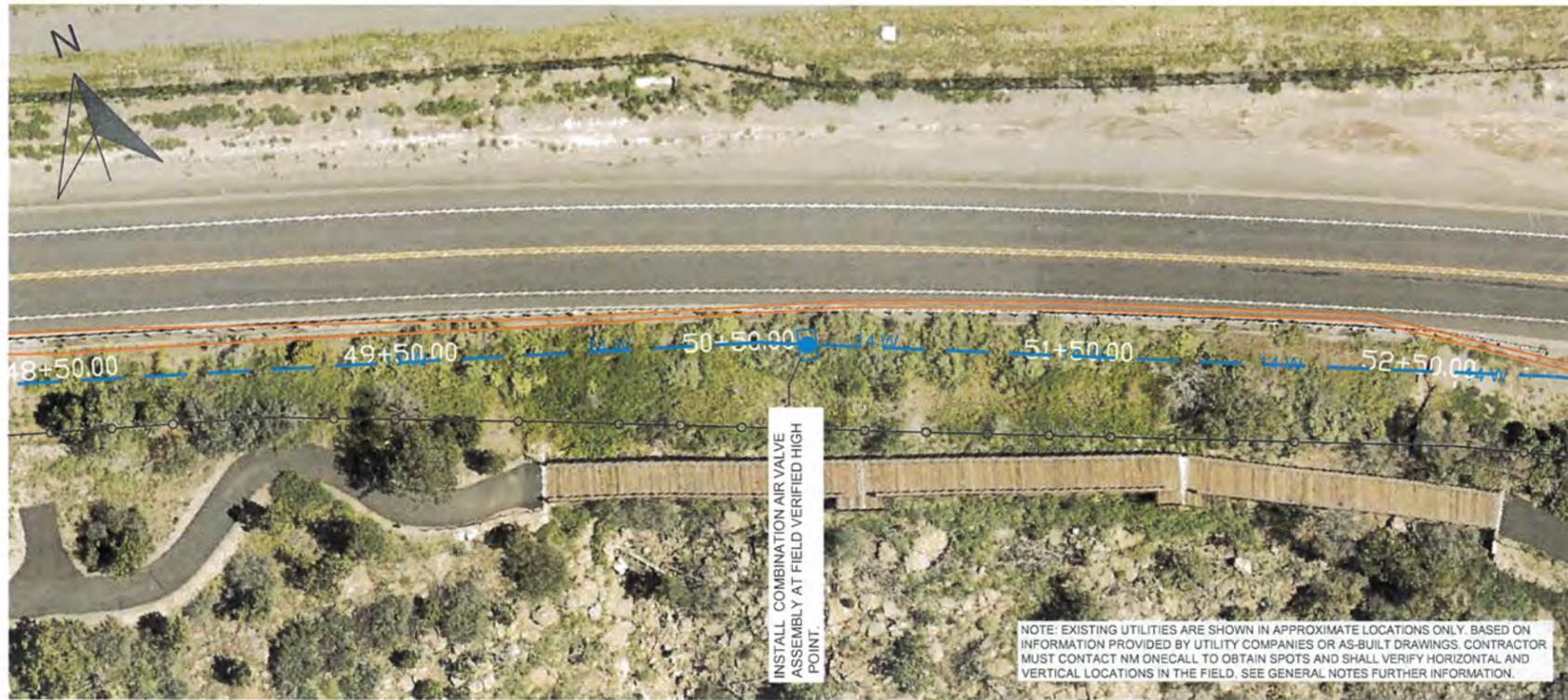
INCORPORATED COUNTY  
 OF LOS ALAMOS  
 DEPARTMENT OF PUBLIC UTILITIES  
 1000 CENTRAL AVE. SUITE 130  
 LOS ALAMOS, NEW MEXICO 87544  
 (505) 662-8150 FAX (505) 662-8109

SHEET  
**C8**

NOTES:

SEE TYPICAL SECTION SHEET D2 FOR STA. 48+50 TO STA. 52+61. THE TYPICAL SECTION GOVERNS PIPELINE CONSTRUCTION WITHIN THIS SEGMENT. IN ADDITION, THE ELEVATION TYPICAL SECTION BELOW BETWEEN THESE STATIONS ILLUSTRATES THE CHANGE IN GRADE ACROSS THE SEGMENT, PROVIDING AN IDEA OF VARIATION ALONG THE ALIGNMENT. PIPELINE ELEVATION WITHIN THIS SEGMENT SHALL BE FIELD-ADJUSTED BASED ON THE CONSTRUCTED EMBANKMENT AND THE NEW 10' WIDE ACCESS ROAD GRADES TO MAINTAIN A MINIMUM OF 48" OF COVER. FINAL PIPE ELEVATION SHALL TRANSITION SMOOTHLY TO MATCH THE PROFILE ELEVATIONS AT EACH END.

INSTALL A COMBINATION AIR RELEASE VALVE AT THE TRUE HIGH POINT OF THE PIPELINE. THE EXACT LOCATION SHALL BE DETERMINED IN THE FIELD ONCE ACTUAL LINE GRADES AND ELEVATIONS ARE VERIFIED DURING CONSTRUCTION. COORDINATE FINAL PLACEMENT WITH THE PROJECT MANAGER PRIOR TO INSTALLATION.

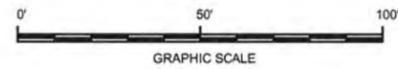
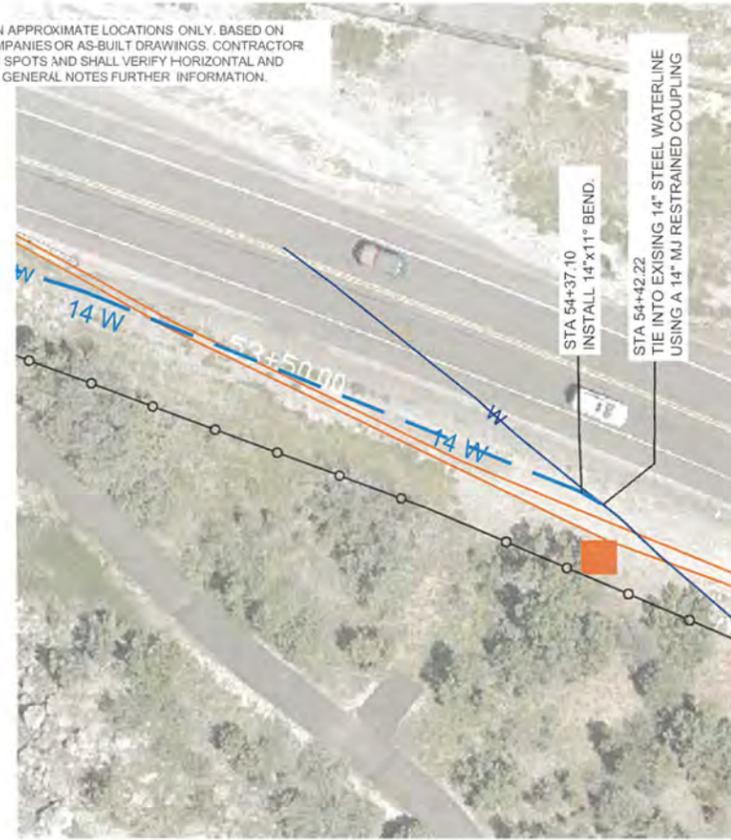


Attachment A

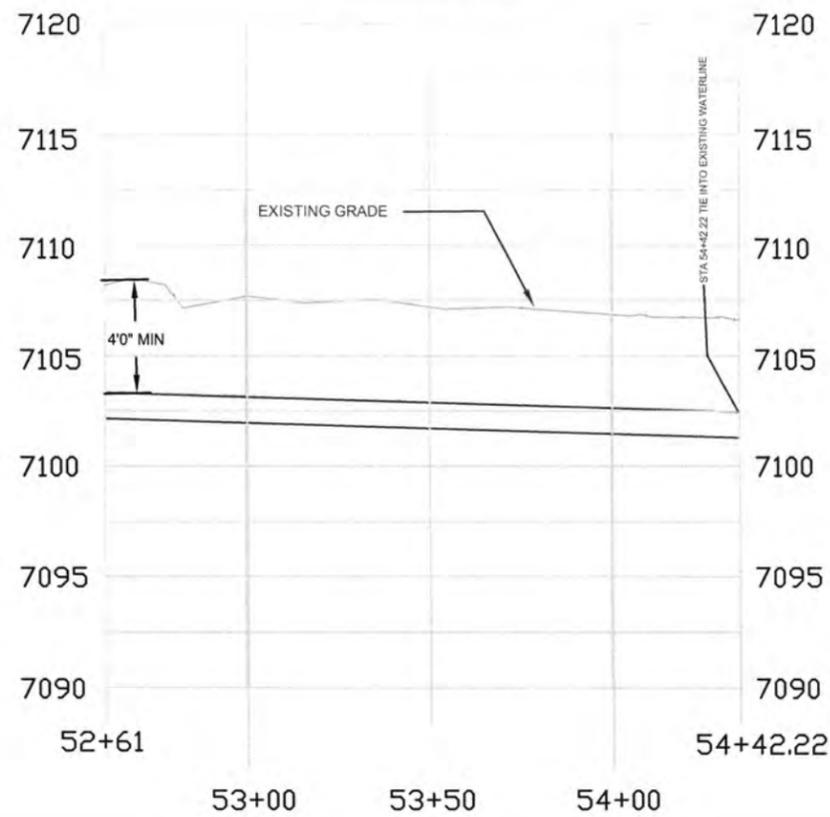


REVISION DESCRIPTION				
NO.				
EAST RD 14" WATER TRANSMISSION LINE				
PLAN & PROFILE				
STA 48+50 TO STA 52+61				
INCORPORATED COUNTY OF LOS ALAMOS DEPARTMENT OF PUBLIC UTILITIES 1000 CENTRAL AVE. SUITE 130 LOS ALAMOS, NEW MEXICO 87544 (505) 662-8150 FAX (505)662-8109				
SHEET				
C9				

NOTE: EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. BASED ON INFORMATION PROVIDED BY UTILITY COMPANIES OR AS-BUILT DRAWINGS. CONTRACTOR MUST CONTACT NM ONECALL TO OBTAIN SPOTS AND SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS IN THE FIELD. SEE GENERAL NOTES FURTHER INFORMATION.



PLAN 14" WATERLINE



NOTE: USE ALIGNMENT BETWEEN STA 52+61 TO STA 54+42.22 ONLY IF BID ALTERNATE IS NOT AWARDED. IF BID ALTERNATE IS AWARDED CONTRACTOR SHALL REFERENCE SHEET C11 AND SHEET C12 FOR ALIGNMENT DETAILS.

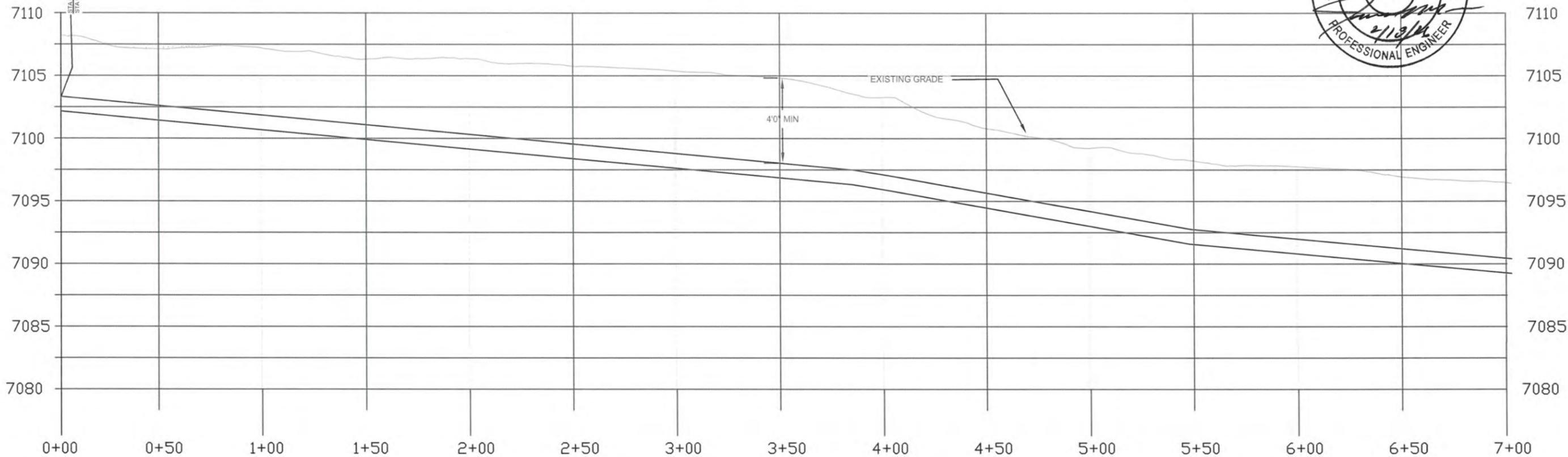
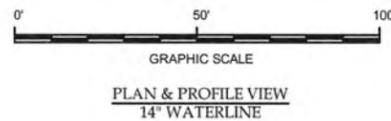
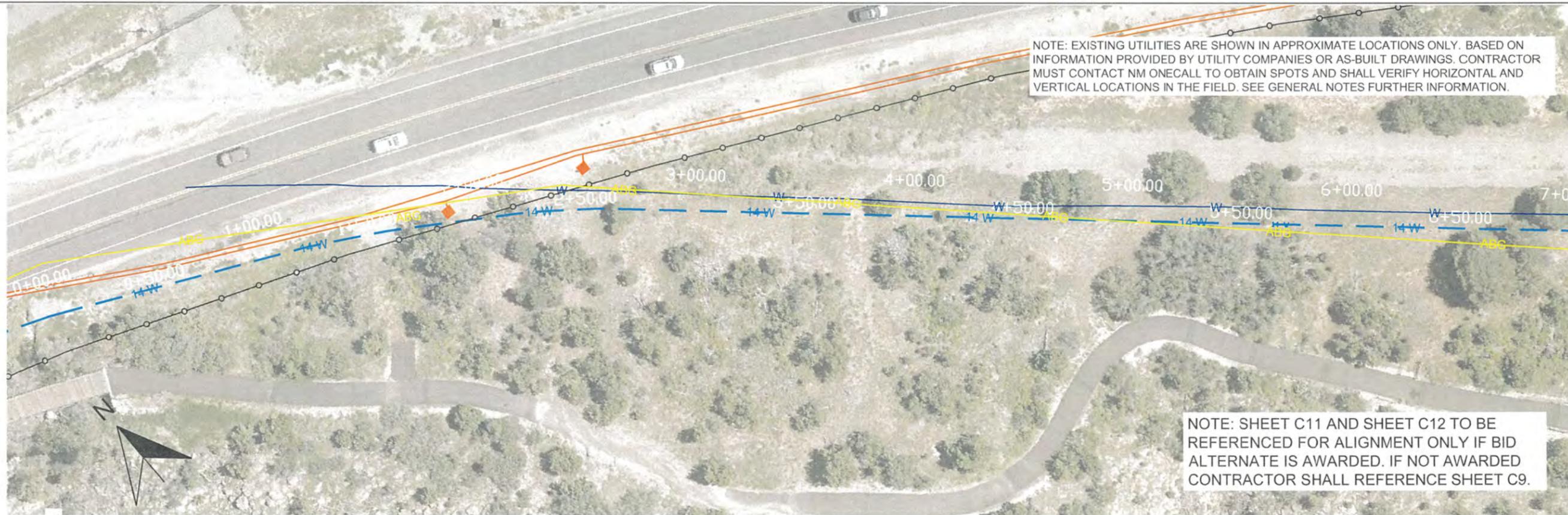


NO.	REVISION DESCRIPTION

EAST RD 14" WATER TRANSMISSION LINE  
**PLAN & PROFILE**  
 STA 52+61 TO STA 54+42.22

INCORPORATED COUNTY  
 OF LOS ALAMOS  
 DEPARTMENT OF PUBLIC UTILITIES  
 1000 CENTRAL AVE. SUITE 130  
 LOS ALAMOS, NEW MEXICO 87544  
 (505) 662-8150 FAX (505) 662-8109

SHEET  
**C10**



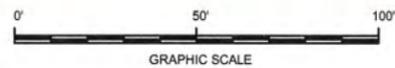
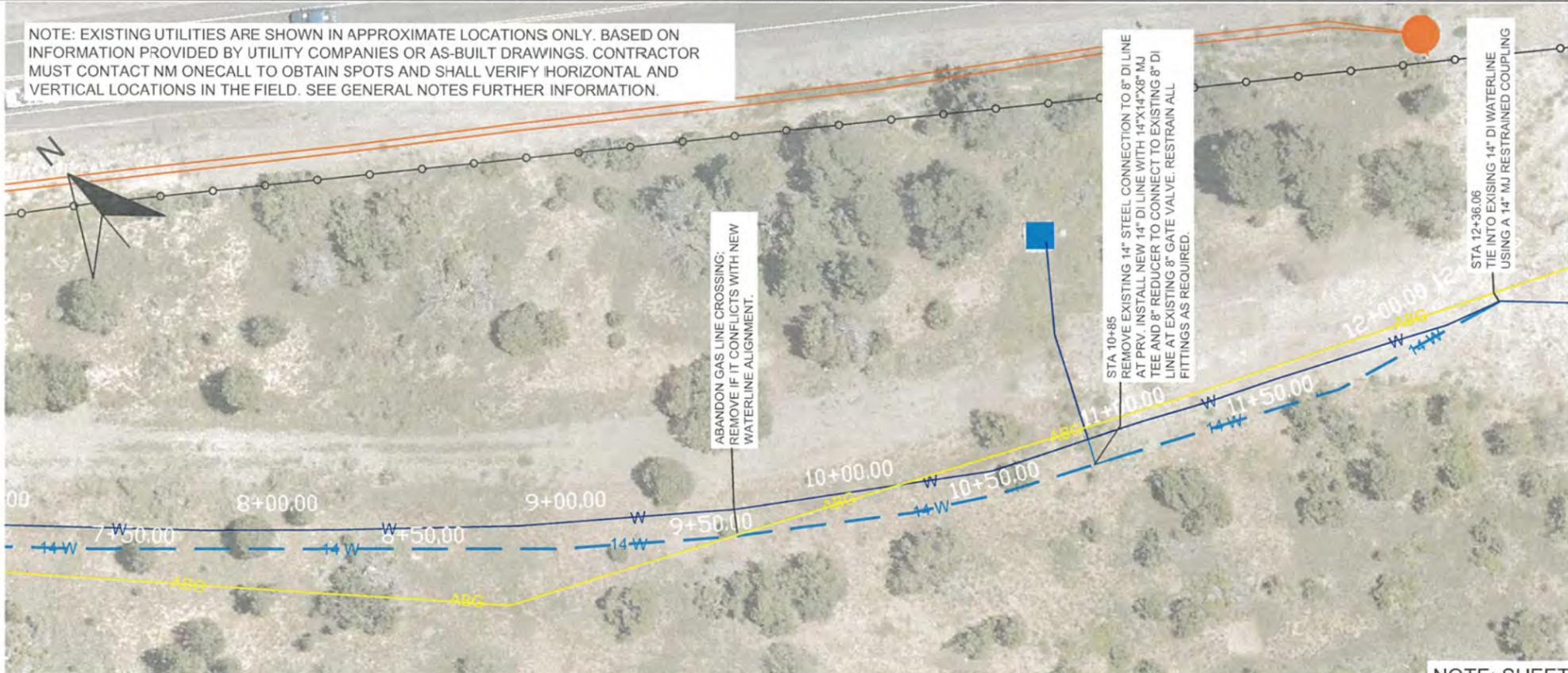
NOTE: EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. BASED ON INFORMATION PROVIDED BY UTILITY COMPANIES OR AS-BUILT DRAWINGS. CONTRACTOR MUST CONTACT NM ONECALL TO OBTAIN SPOTS AND SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS IN THE FIELD. SEE GENERAL NOTES FURTHER INFORMATION.

NOTE: SHEET C11 AND SHEET C12 TO BE REFERENCED FOR ALIGNMENT ONLY IF BID ALTERNATE IS AWARDED. IF NOT AWARDED CONTRACTOR SHALL REFERENCE SHEET C9.

REVISION DESCRIPTION	
NO.	

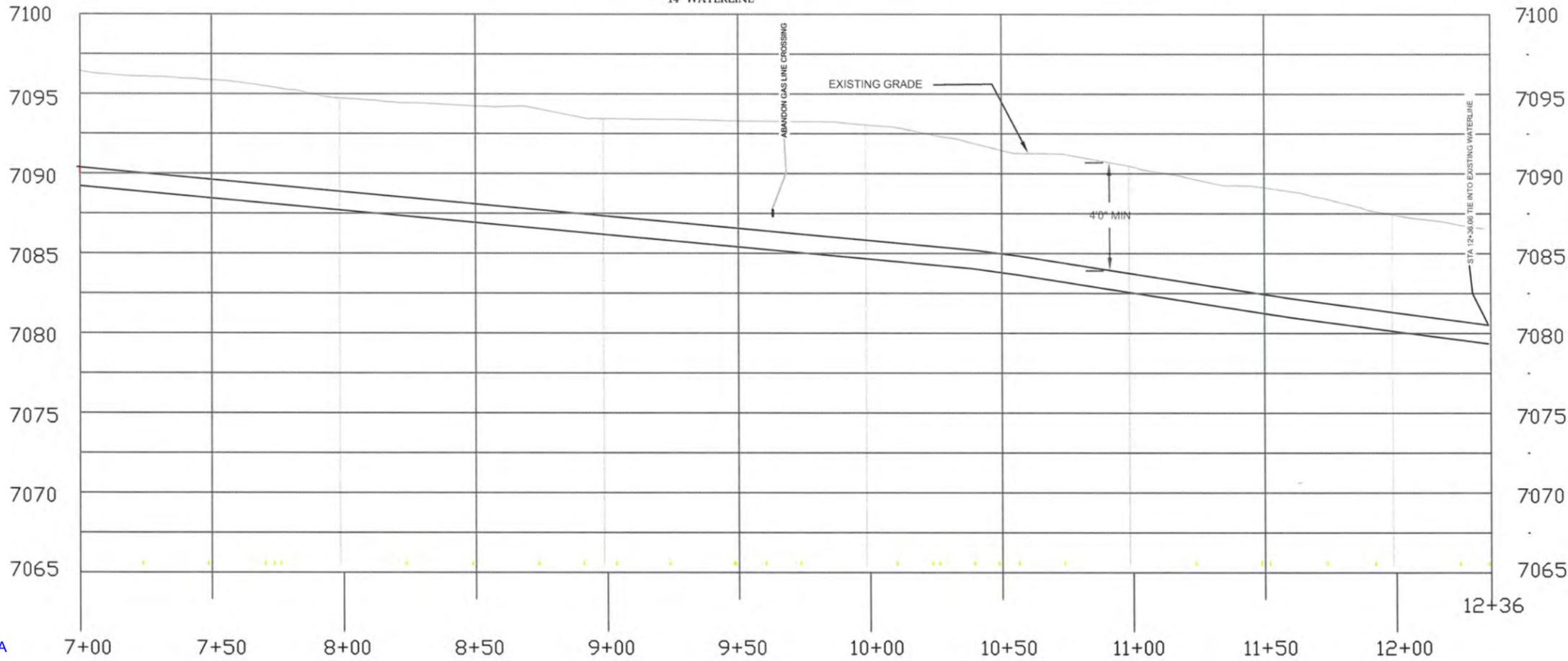
  

EAST RD 14" WATER TRANSMISSION LINE	BID ALTERNATE PLAN & PROFILE STA 0+00 TO STA 7+00
INCORPORATED COUNTY OF LOS ALAMOS DEPARTMENT OF PUBLIC UTILITIES 1000 CENTRAL AVE. SUITE 130 LOS ALAMOS, NEW MEXICO 87544 (505) 662-8150 FAX: (505) 662-8109	
SHEET	
<b>C11</b>	



PLAN & PROFILE VIEW  
14" WATERLINE

NOTE: SHEET C11 AND SHEET C12 TO BE REFERENCED FOR ALIGNMENT ONLY IF BID ALTERNATE IS AWARDED. IF NOT AWARDED CONTRACTOR SHALL REFERENCE SHEET C9.



NO.		REVISION DESCRIPTION	
EAST RD 14" WATER TRANSMISSION LINE		BID ALTERNATE PLAN & PROFILE STA 7+00 TO STA 12+36	
INCORPORATED COUNTY OF LOS ALAMOS DEPARTMENT OF PUBLIC UTILITIES 1000 CENTRAL AVE. SUITE 130 LOS ALAMOS, NEW MEXICO 87544 (505) 662-8150 FAX (505) 662-8109		SHEET <b>C12</b>	

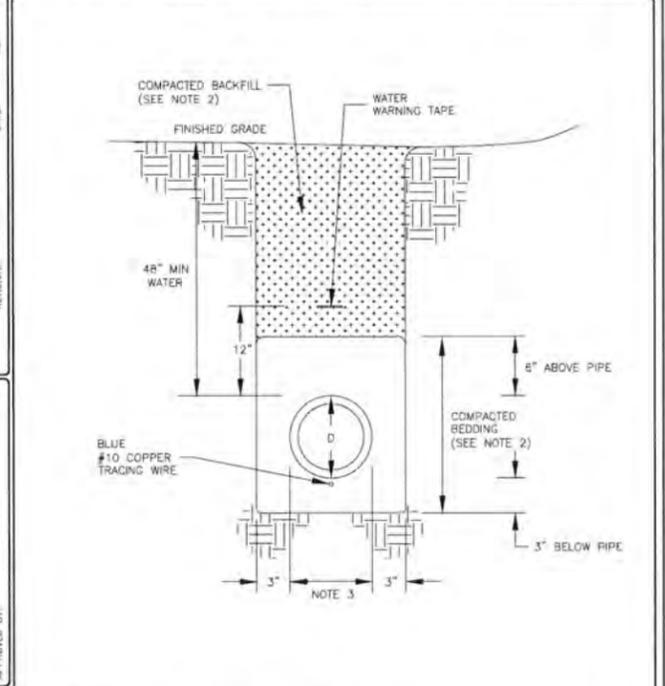
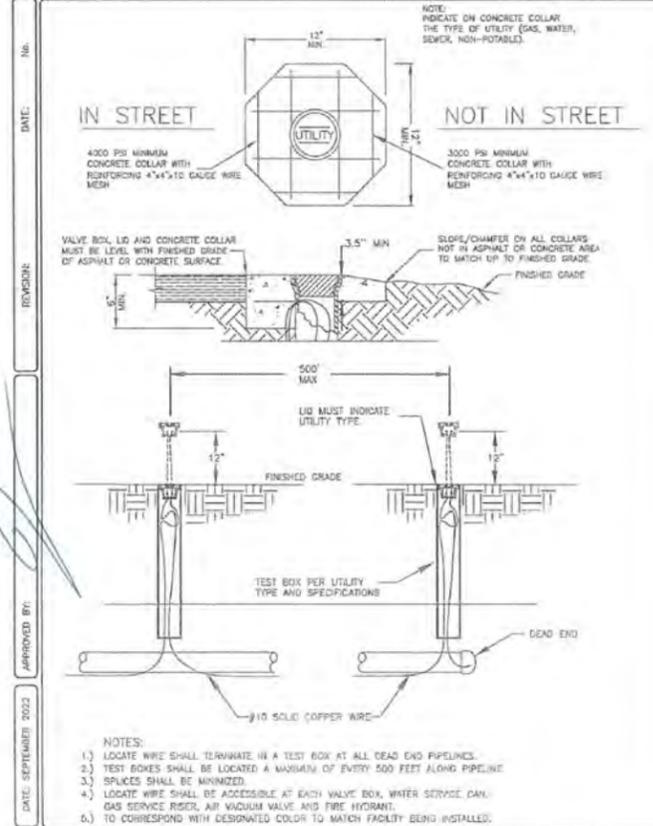
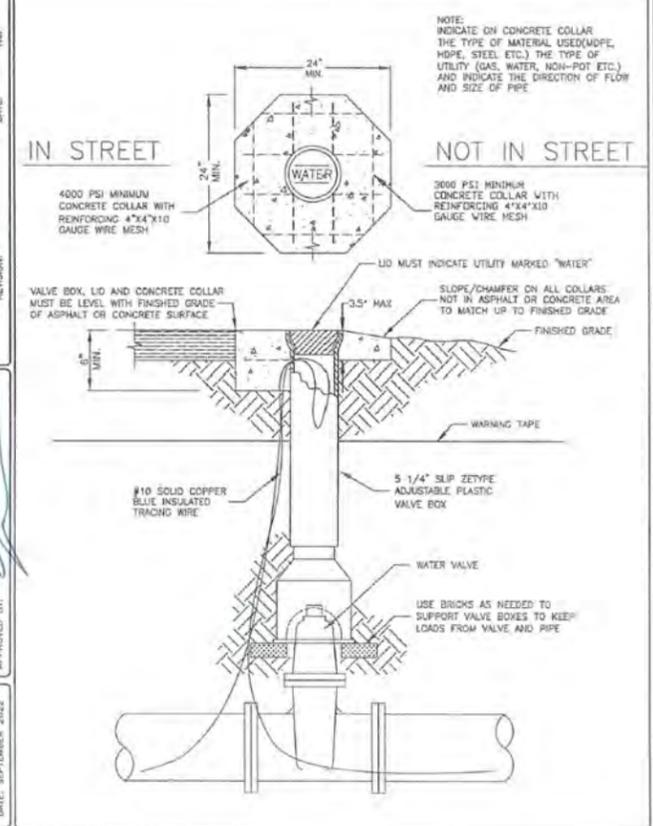
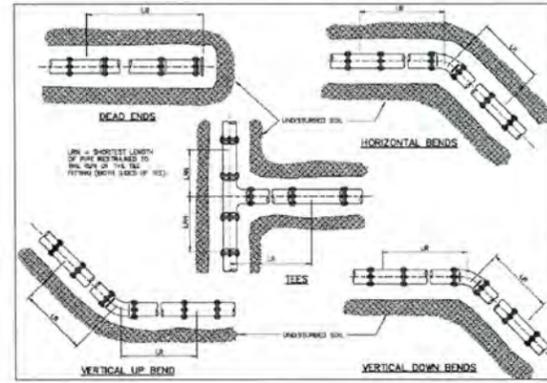
PVC Mechanical Joint Restraint Table

PIPE SIZE	BENDS				TEES				VERTICAL OFFSETS				DEAD ENDS & VALVES
	11 1/4	22 1/2	45	90	LRN=5	LRN=10	LRN=20	45	DOWN	UP	DOWN	UP	
4"	2	4	7	14	1	1	1	1	15	4	8	2	39
6"	2	5	10	20	1	1	1	1	20	5	11	3	55
8"	3	7	14	28	1	1	1	1	30	7	15	4	73
10"	4	9	18	36	1	1	1	1	40	9	18	5	93
12"	5	11	22	44	1	1	1	1	50	11	22	6	114

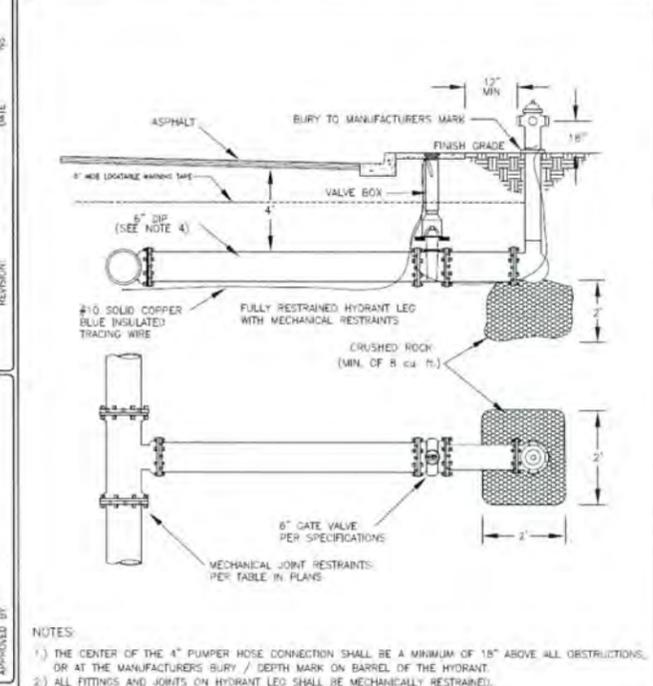
Ductile Iron/Poly Wrap Mechanical Joint Restraint Table

PIPE SIZE	BENDS				TEES				VERTICAL OFFSETS				DEAD ENDS & VALVES
	11 1/4	22 1/2	45	90	LRN=5	LRN=10	LRN=20	45	DOWN	UP	DOWN	UP	
4"	2	4	7	14	1	1	1	1	15	4	8	2	39
6"	2	5	10	20	1	1	1	1	20	5	11	3	55
8"	3	7	14	28	1	1	1	1	30	7	15	4	73
10"	4	9	18	36	1	1	1	1	40	9	18	5	93
12"	5	11	22	44	1	1	1	1	50	11	22	6	114

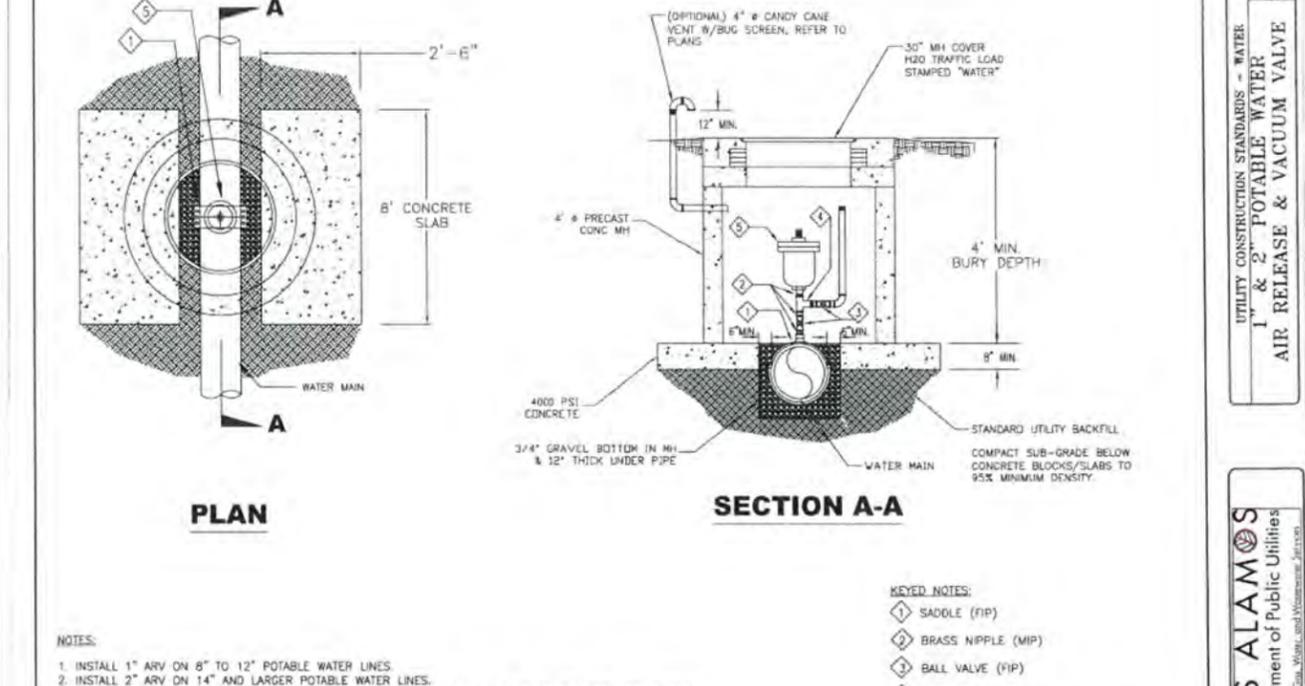
1. Restraint lengths provided are in feet.
2. L = the minimum restrained length of cast pipe without joints, fittings, etc. to assist in each situation along the run of the line.
3. Restraint lengths computed for pipe with 4' of cover from top of pipe.
4. Maximum test pressure of 150 psi.
5. All pipe joints and fittings within the restrained length specified in the table shall be restrained.



- NOTES:
1. D IS THE OUTSIDE PIPE DIAMETER IN INCHES.
  2. SEE COMPACTION SPECIFICATIONS (SECTION 202) FOR ALL REQUIREMENTS.
  3. TRENCH WIDTH SHALL BE DISTANCE FROM OUTSIDE FACE OF OUTER MOST PIPE PLUS 6 INCHES.



- NOTES:
1. THE CENTER OF THE 4" PUMPER HOSE CONNECTION SHALL BE A MINIMUM OF 18" ABOVE ALL OBSTRUCTIONS, OR AT THE MANUFACTURERS BURY / DEPTH MARK ON BARREL OF THE HYDRANT.
  2. ALL FITTINGS AND JOINTS ON HYDRANT LEG SHALL BE MECHANICALLY RESTRAINED.
  3. FIRE HYDRANT BY MULLER, KENNEDY OR AMERICAN PER LOS ALAMOS COUNTY UTILITIES CONSTRUCTION STANDARDS SPECIFICATION SECTION 601 WATER SYSTEMS.
  4. HYDRANT LEG PIPE MATERIAL MUST BE DIP.
  5. ALL UNDERGROUND FLANGED FITTING FASTENERS MUST BE STAINLESS STEEL TORQUE RATED MECHANICAL JOINT FITTING FASTENERS MAY BE TYPICAL CARBON STEEL.



- KEYED NOTES:
- 1. SADDLE (FIP)
  - 2. BRASS NIPPLE (MIP)
  - 3. BALL VALVE (FIP)
  - 4. BRASS TEE (FIP)
  - 5. COMBINATION AIR RELEASE/VACUUM (FIP)

