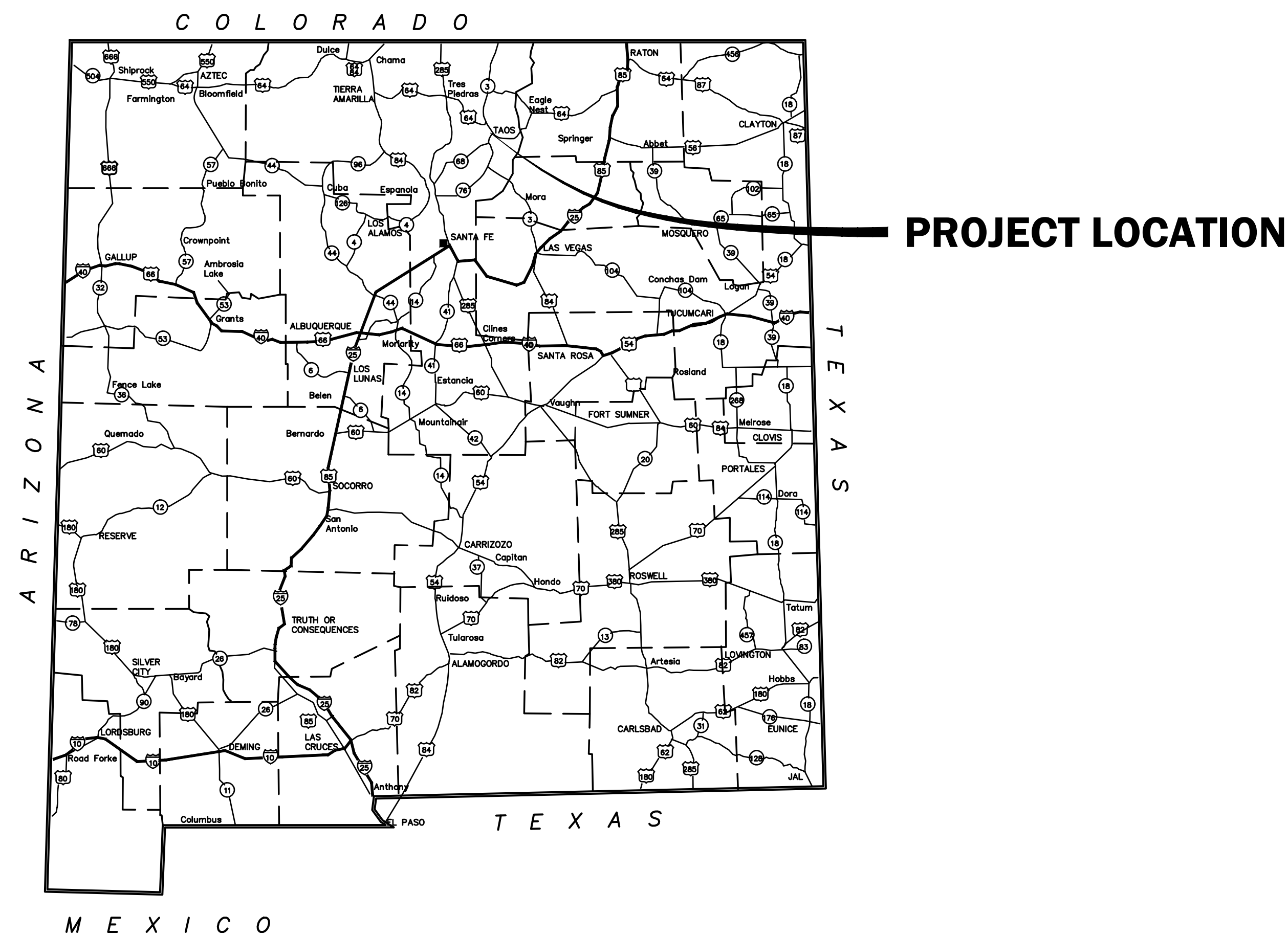


# ESPINOSA ROAD & MONTEREY DRIVE DRAINAGE IMPROVEMENTS TAOS, NEW MEXICO



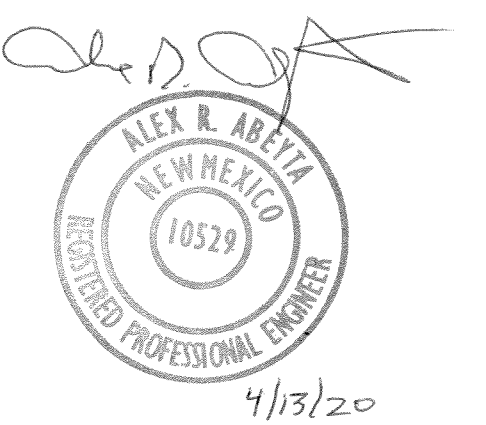
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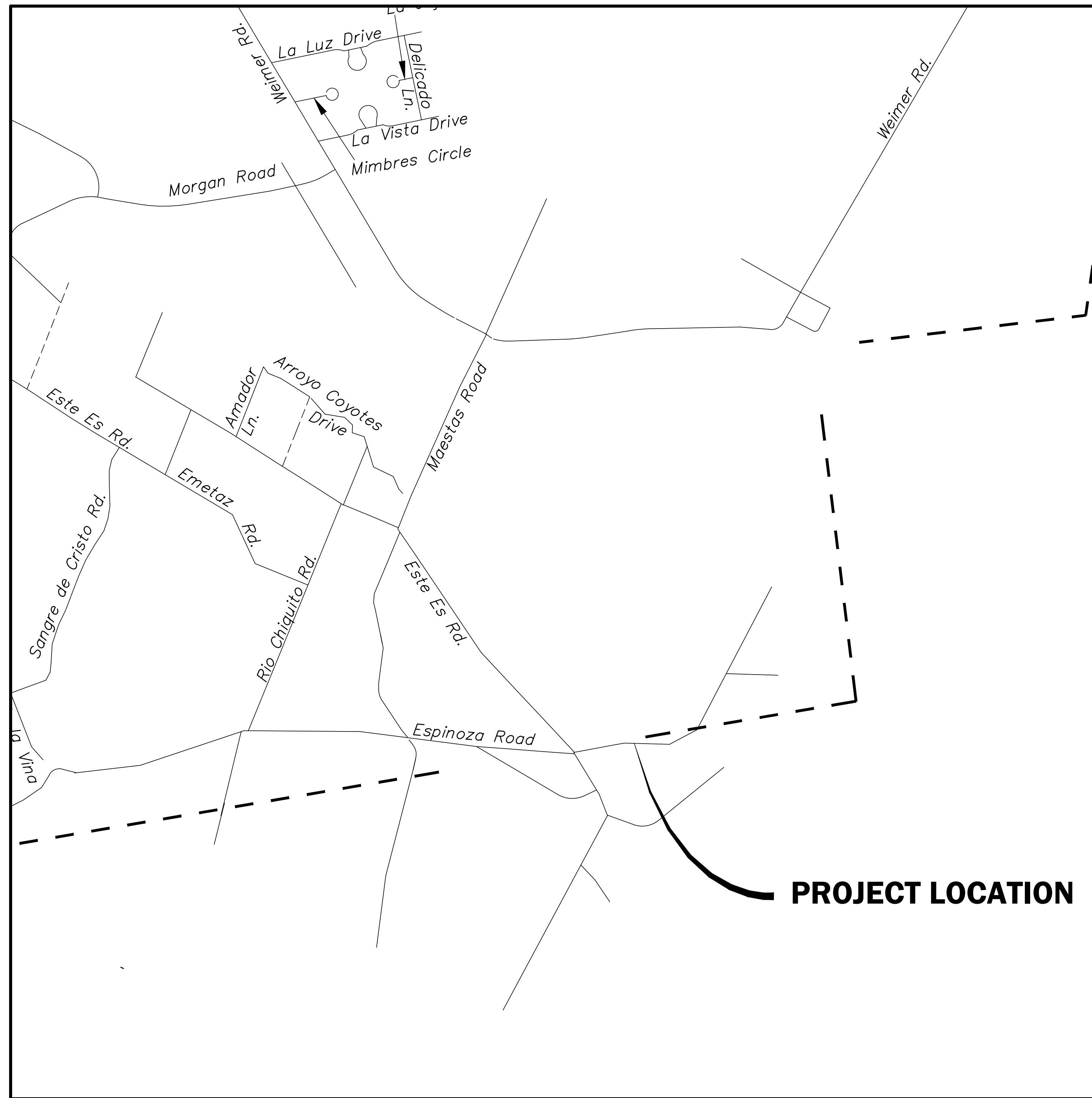
The Town of Taos

PREPARED BY

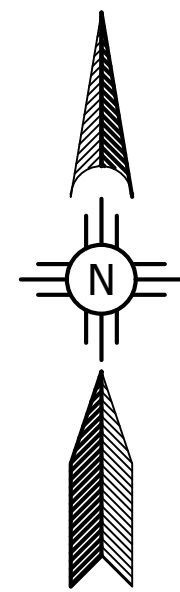
Abeyta Engineering, Inc.

209-D Camino de la Merced  
Taos, New Mexico  
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Ranchos de Taos, NM 87557  
Phone: (575) 737-0377  
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VICINITY MAP  
SCALE: 1" = 600'



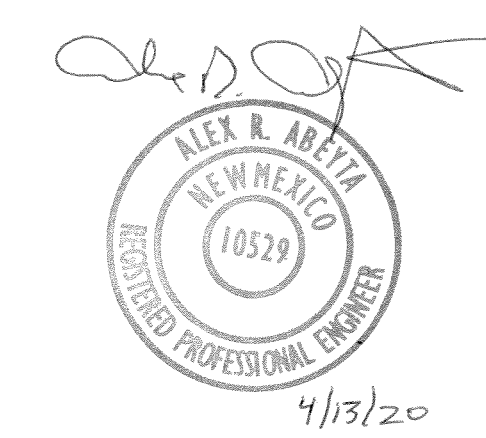
**PROJECT LOCATION**

### INDEX OF SHEETS

NUMBER	DESCRIPTION
C1	COVER SHEET
C2	VICINITY MAP, INDEX OF SHEETS & SUMMARY OF QUANTITIES
C3	GENERAL NOTES AND TYPICAL SECTION
C4	ESPINOSA ROAD & MONTEREY DRIVE PLAN & PROFILE
C5	DRAINAGE STRUCTURE PLAN AND PROFILE

### SUMMARY OF QUANTITIES

BID NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
1	SAMPLING & TESTING	L.S.	1		
2	CLEARING & GRUBING	L.S.	1		
3	CONSTRUCTION STAKING BY CONTRACTOR	L.S.	1		
4	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	L.S.	1		
5	TRAFFIC CONTROL MANAGEMENT	L.S.	1		
6	MOBILIZATION	L.S.	1		
7	UNCLASSIFIED EXCAVATION / HAUL	CU. YD.	200		
8	PITRUN FILL	CU. YD.	185		
9	BASE COURSE 6"	SQ. YD.	140		
10	REINFORCED CONCRETE HEADWALLS	CU. FT.	440		
11	30" CULVERT PIPE	LIN. FT.	200		
12	6" C-900 WATER PIPE (INCLUDES 4- 6" 45 DEG. ELBOWS)	LIN. FT.	35		
13	12" THICK WIRE ENCLOSED RIPRAP	SQ. YD.	52		
14	12" THICK DUMPED/PLACED RIPRAP	SQ. YD.	211		
15	10" THICK DUMPED/PLACED RIPRAP	SQ. YD.	205		
16	BARRIER GUARDRAIL (INCLUDES 4 END TREATMENTS)	LIN. FT.	141		



THE TOWN OF TAOS

**ESPINOSA ROAD & MONTEREY DRIVE  
DRAINAGE IMPROVEMENTS**  
TAOS, NEW MEXICO

VICINITY MAP, INDEX OF  
SHEETS & SUMMARY OF  
QUANTITIES

**Abeyta Engineering, Inc.**

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# GENERAL NOTES

- ALL SITE WORK SHALL CONFORM TO THE NEW MEXICO STATE HIGHWAY AND TRANSPORTATION DEPARTMENT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2014 EDITION" OR LATER. IN ADDITION, ALL WORK SHALL CONFORM TO THE TOWN OF TAOS PUBLIC WORKS STANDARDS MANUAL.
- THE CONTRACTOR SHALL NOTIFY THE TAOS PUBLIC WORKS DEPARTMENT OF THE PROPOSED COMMENCEMENT OF CONSTRUCTION AND PROPOSED WORK SCHEDULE AT LEAST 24 HOURS PRIOR TO THE ACTUAL COMMENCEMENT OF CONSTRUCTION. A COPY OF THE APPROVED PLANS SHALL BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES DURING WORKING HOURS.
- THE OWNER SHALL BE RESPONSIBLE, THROUGH HIS ENGINEER, FOR MAKING ALL ENGINEERING PLAN CHANGES AND REVISIONS TO THE ORIGINAL APPROVED ENGINEERING DRAWINGS. ALL CHANGES SHALL BE APPROVED BY THE TOWN PRIOR TO CONSTRUCTION. FINAL SEALED "RECORD DRAWINGS" SHALL BE FILED WITH THE TOWN BEFORE PROJECT ACCEPTANCE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL EXISTING UTILITIES AND SHOULD NOT RELY SOLELY ON THESE PLANS FOR EXISTING UTILITY LOCATIONS.
- THE CONTRACTOR SHALL PROVIDE AN AREA TO STORE CONSTRUCTION DEBRIS WHERE IT WILL NOT BE A NUISANCE TO THE SURROUNDING NEIGHBORHOOD. ALL DEBRIS SHALL BE CONTAINED IN SUCH A MANNER THAT WILL PREVENT SCATTERING. ALL DEBRIS INCLUDING TREES AND UNDERGROWTH SHALL BE DISPOSED OF PROPERLY WITHIN THE CITY LANDFILL. ALL DEBRIS SHALL BE REMOVED FROM THE SITE PRIOR TO FINAL SITE INSPECTION.
- THE CONTRACTOR SHALL CONFINE HIS OPERATIONS TO THE CONSTRUCTION LIMITS OF THE PROJECT AND IN NO WAY SHALL ENCROACHMENT OCCUR ONTO ADJACENT PROPERTIES UNLESS LEGAL EASEMENTS ARE OBTAINED. ALL FILL AND CUT SLOPES SHALL BE SETBACK FROM THE PROPERTY LINE IN ACCORDANCE WITH CHAPTER 70 OF THE UNIFORM BUILDING CODE. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY AGREEMENTS NECESSARY OR DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO PUBLIC OR PRIVATE PROPERTY INCLUDING UTILITIES.
- ALL CHANGE ORDERS SHALL BE CERTIFIED BY A NEW MEXICO PROFESSIONAL ENGINEER AND RECEIVE ARCHITECT/OWNER APPROVAL PRIOR TO IMPLEMENTING CHANGE ORDER CONSTRUCTION.
- FOR ALL CONCRETE USED, THE DESIGN COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 3500 PSI, 6 BAG MIX AND MAXIMUM AGGREGATE SIZE OF 3/4 INCH. SLUMP NOT MORE THAN 3", PERCENTAGE OF AIR ENTRAINMENT IN THE CONCRETE AT THE PROJECT SITE SHALL BE IN THE RANGE OF 5 TO 7 PERCENT.
- ONE SET OF CONCRETE SAMPLING (THREE CONCRETE CYLINDERS) TO BE TAKEN FOR EACH 500 LINEAR FEET OR 50 CUBIC YARDS PLACED OR A MINIMUM OF ONE SAMPLE PER DAY WHICHEVER IS THE GREATEST. CONCRETE CYLINDERS ARE TO BE TEST BROKEN AT 7-DAY, 28-DAY AND 45-DAY (IF NEEDED) INTERVALS WITH TEST RESULTS SUBMITTED DIRECTLY TO THE ENGINEER.
- THE DEVELOPER/CONTRACTOR DURING CONSTRUCTION SHALL MAINTAIN THE PROPER TRAFFIC CONTROL DEVICES IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND AS APPROVED BY THE TOWN.
- THE CONTRACTOR SHALL IMPLEMENT THE NECESSARY SITE EROSION CONTROL DEVICES FOR INHIBITING DUST, WIND AND AIR SEDIMENT MOVEMENT OFFSITE DURING ALL PHASES OR STAGES OF CONSTRUCTION.
- SUBGRADE, BASE MATERIAL, ASPHALT TREATED BASE AND ASPHALT SURFACE COURSE REQUIRE COMPACTION TESTS FOR EACH 220 LINEAR FEET OF TRENCHING, AND 30 SQUARE YARDS OF EXTERIOR PAVING/CONCRETE WALK SUBBASE.
- NEZ COORDINATES ARE DEFINED AS : N = NORTHING, E= EASTING, AND Z= ELEVATION AS REFERENCED FROM BENCHMARK. IN CERTAIN AREAS ONLY N & E OR Z MAY BE GIVEN. CONTRACTOR MAY USE DESIGN CONTOUR INFORMATION AND SCALING AS REQUIRED. SEE ROADWAY PLAN AND PROFILE SHEETS FOR BENCHMARK INFORMATION.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONFORM WITH ALL EPA PERMITTING REQUIREMENTS (NPDES, SWPPP, ETC)
- TOPSOIL SHALL BE STRIPPED TO A DEPTH WHERE SOIL IS FREE OF ALL ORGANIC MATTER.
- STRIPPINGS SHALL BE STOCKPILED OR WINDROWED ON SITE IN AREAS DESIGNATED BY OWNER, AND RE-SPREAD AS DIRECTED BY OWNER AFTER GRADING IS COMPLETE. TOPSOIL SHALL BE SPREAD TO A DEPTH NOT EXCEEDING SIX INCHES.
- STRIPPING, PROOFROLLING, SUBGRADE SCARIFICATION AND COMPACTION, AND FILL CONSTRUCTION IN THE BUILDING AND PAVING AREAS SHALL BE PERFORMED ACCORDING TO THE SUBSURFACE GEOTECHNICAL REPORT, EMBANKMENT BENEATH BUILDING PADS OR FOR PAVING SUBGRADE SHALL BE PLACED IN LIFTS NOT EXCEEDING EIGHT INCHES AND COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY AT OPTIMUM MOISTURE CONTENT, UNLESS OTHERWISE SPECIFIED THEREIN.
- CONTRACTOR SHALL PROVIDE WATER AS REQUIRED TO OBTAIN SPECIFIED COMPACTION.
- SUBGRADE STABILIZATION SHALL BE AT THE DIRECTION OF THE ENGINEER, OR AS SPECIFIED IN SUBSURFACE GEOTECHNICAL REPORT.
- CIVIL ENGINEER WILL NOT INTERPRET SOILS REPORTS OR ACCEPT RESPONSIBILITY FOR ALTERNATIVE METHODS PROPOSED BY THE CONTRACTOR.
- DENSITY TESTING WILL BE PROVIDED BY THE CONTRACTOR, ANY FAILING TEST SHALL BE RE-TESTED AT THE CONTRACTOR'S EXPENSE UNTIL PASSING TESTS ARE OBTAINED.
- UNDERCUTTING OF SOFT SPOTS AND PLACEMENT OF EARTHWORK IS GOVERNED FIRST BY THE GEOTECHNICAL REPORT. OBSERVATION AND TESTING SHALL BE PERFORMED BY THE GEOTECHNICAL ENGINEER TO VERIFY THAT THE SORT SPOTS ARE PROPERLY OVEREXCAVATED AND REPLACED OR STABILIZED.
- CORRECTIVE MEASURES DIRECTED BY THE ENGINEER MAY INCLUDE COMPLETE REMOVAL AND REPLACEMENT AT NO COST TO OWNER IN CASES OF POOR WORKMANSHIP OR UNSATISFACTORY IN-PLACE CONDITIONS.

- ALL PAINTED ASPHALT MARKINGS SHOWN SHALL BE APPLIED AND DIMENSIONED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2003, PART 3. ALL SIGNAGE SHOWN SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2003, PART 2.
- EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO DIGGING.
- SUBGRADE SHALL BE FREE OF ALL ORGANIC MATTER, TREATED, AND COMPACTED ACCORDING TO THE PLANS AND SPECIFICATIONS.
- SUBGRADE STABILIZATION SHALL BE AT THE DIRECTION OF THE ENGINEER, OR AS SPECIFIED IN SUBSURFACE GEOTECHNICAL REPORT, IF AVAILABLE.
- COMPACTION TESTS SHALL BE TAKEN A MINIMUM OF ONCE EVERY 4,500 SQUARE FEET FOR EACH EIGHT INCH LIFT OF MATERIAL.
- SUBGRADES SHALL BE PROOFROLLED IF THE STABILITY OF THE MATERIAL IS QUESTIONED. ALSO, THE SUBGRADE EXPOSED AFTER STRIPPING AND COMPLETING ANY CUTS SHALL BE PROOFROLLED ACCORDING TO THE GEOTECHNICAL REPORT.
- PORTLAND CEMENT CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF NOT LESS THAN 3,500 PSI. A SLUMP OF NOT MORE THAN 3", AND SHALL CONTAIN SIX PERCENT AIR, PLUS OR MINUS ONE PERCENT.
- TESTING SHALL BE PROVIDED BY THE CONTRACTOR, ANY FAILING TEST SHALL BE RETESTED AT THE CONTRACTOR'S EXPENSE FOLLOWING CORRECTIVE ACTIONS. THE FOLLOWING TESTING SERVICES SHALL BE FURNISHED BY A REPUTABLE INDEPENDENT TESTING LABORATORY APPROVED BY THE OWNER OR HIS REPRESENTATIVE:
  - FIELD DENSITY TEST OF EMBANKMENT, SUBGRADE, OR BASE, AT LOCATIONS SPECIFIED BY THE INSPECTOR.
  - PLASTICITY TEST OF THE SUBGRADE AT LOCATIONS SPECIFIED BY THE ENGINEER.
  - MOISTURE DENSITY CURVES FOR MATERIAL TO BE USED FOR EMBANKMENT OR SUBGRADE CONSTRUCTION.
  - MIX DESIGNS FOR PORTLAND CEMENT CONCRETE AND ASPHALTIC CONCRETE.
  - AGGREGATE GRADATION TESTS.
  - STABILITY, DENSITY, BITUMEN CONTENT AND GRADATION TESTS OF ASPHALTIC CONCRETE EVERY 200 TONS OR DAILY WHICHEVER IS LESS.
  - COMPRESSION TEST OF CONCRETE CYLINDERS AT SEVEN AND TWENTY-EIGHT DAYS WITH ONE OF EACH TESTS CONDUCTED FOR EVERY 100 CUBIC YARDS PLACED.
  - ONE ASPHALT CORE SAMPLE, AT A LOCATION SPECIFIED BY THE INSPECTOR FOR EVERY 8,000 SQUARE FEET OF ROADWAY PAVEMENT.
- THE CONTRACTOR SHALL FURNISH CERTIFICATION FROM THE MANUFACTURER THAT ALL MATERIALS MEET APPLICABLE SPECIFICATIONS. COPIES OF MATERIAL CERTIFICATION SHALL BE FURNISHED TO THE OWNER OR HIS REPRESENTATIVE PRIOR TO INSTALLATION OR INCORPORATION OF MATERIAL IN THE WORK.
- THE CONTRACTOR SHALL MEET COMPACTION REQUIREMENTS NOTED ABOVE, FOR ALL SOIL MATERIALS PLACED AROUND CULVERT PIPES.



THE TOWN OF TAOS

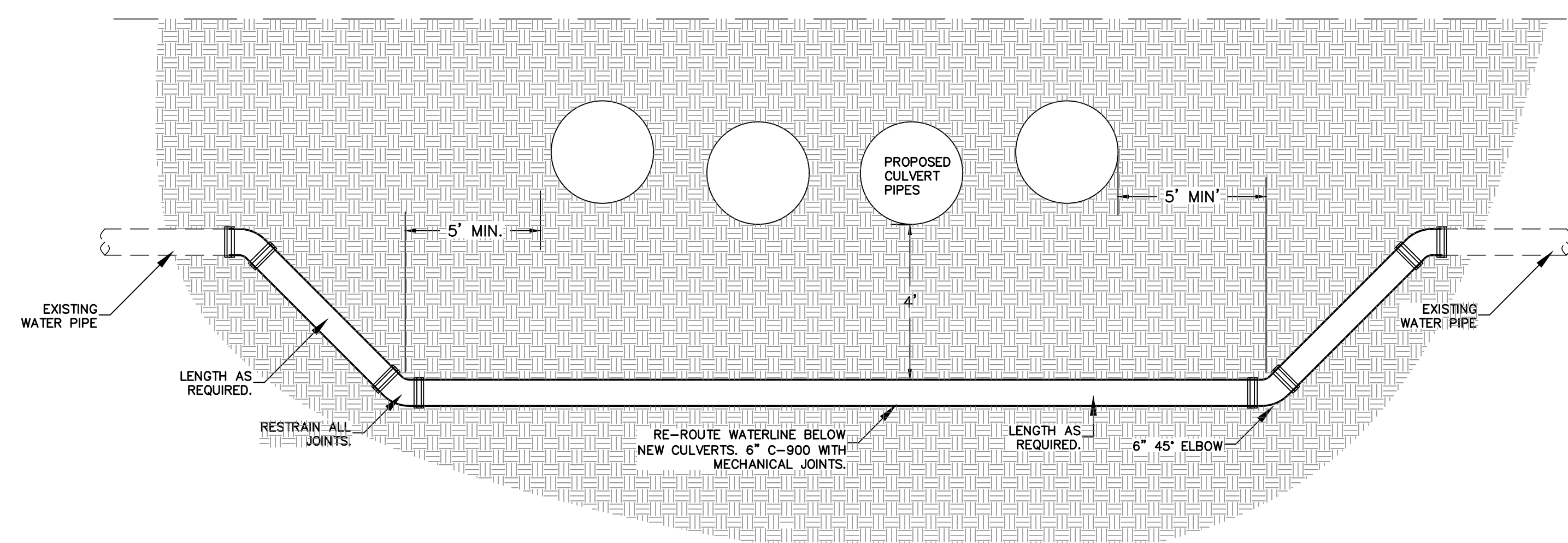
**ESPINOSA ROAD & MONTEREY DRIVE DRAINAGE IMPROVEMENTS**

TAOS, NEW MEXICO

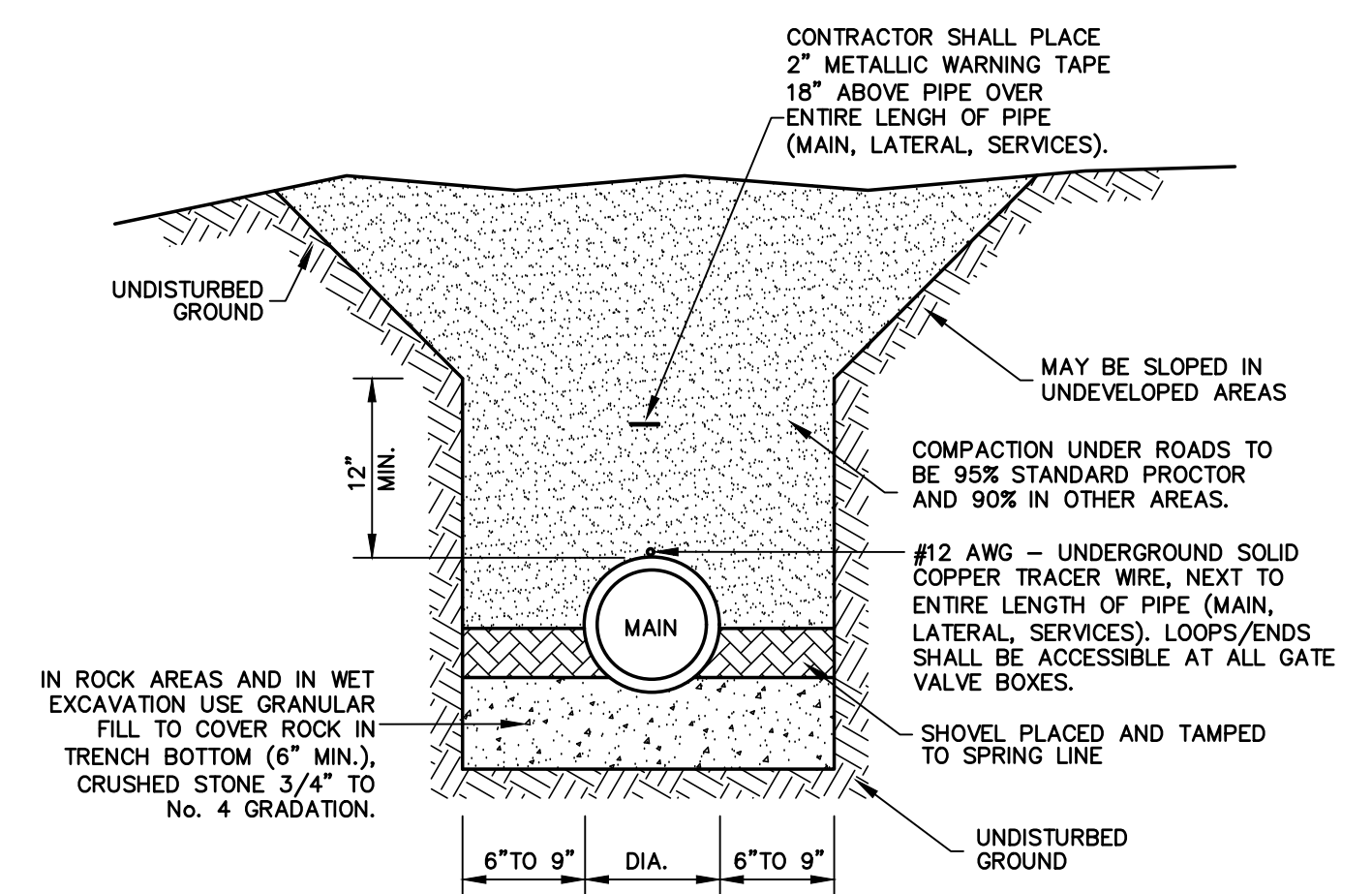
**GENERAL NOTES AND TYPICAL SECTION**

**Abeyta Engineering, Inc.**

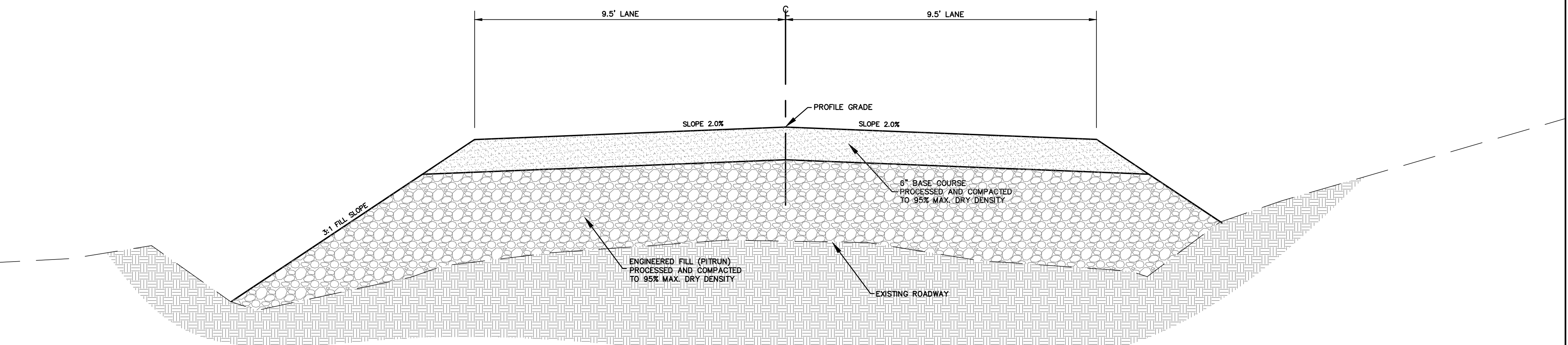
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**WATER PIPE LOWERING DETAIL**  
N.T.S.



**PIPE COMPACTION DETAIL**  
N.T.S.



**ROADWAY TYPICAL SECTION**  
N.T.S.

WIDTHS TO BE ADJUSTED PER PLAN, REDUCE TO MATCH DRIVEWAY AT ESPINOSA ROAD STA. 2+25 TO E.O.P., AND INCREASE TO INCLUDE MAILBOX PULLOUT ON MONTEREY DRIVE.



**ESPINOSA ROAD & MONTEREY DRIVE  
DRIVE DRAINAGE IMPROVEMENTS  
TAOS, NEW MEXICO**

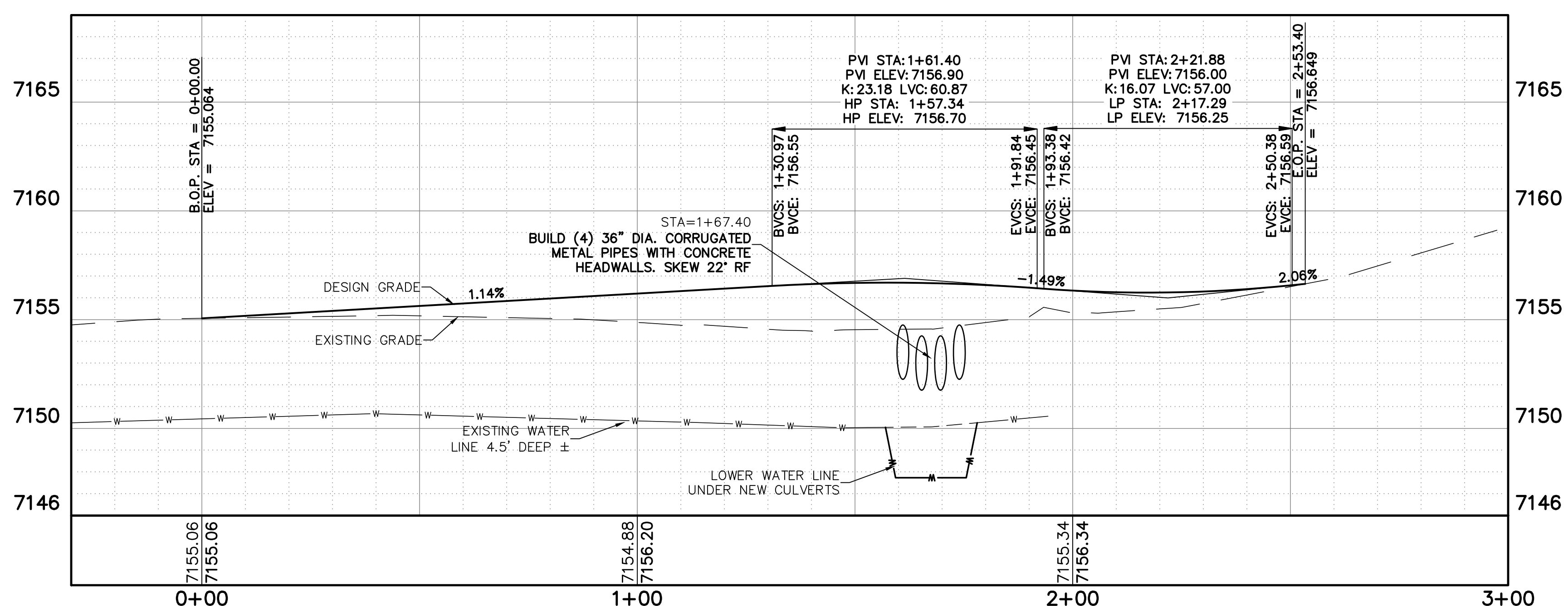
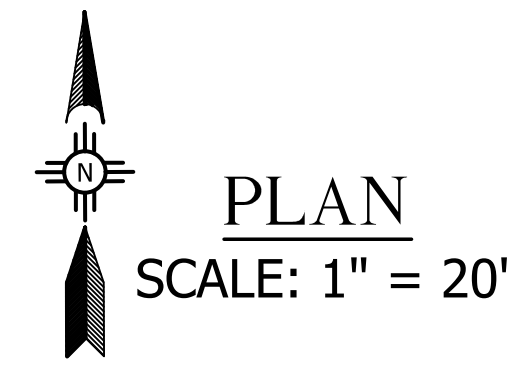
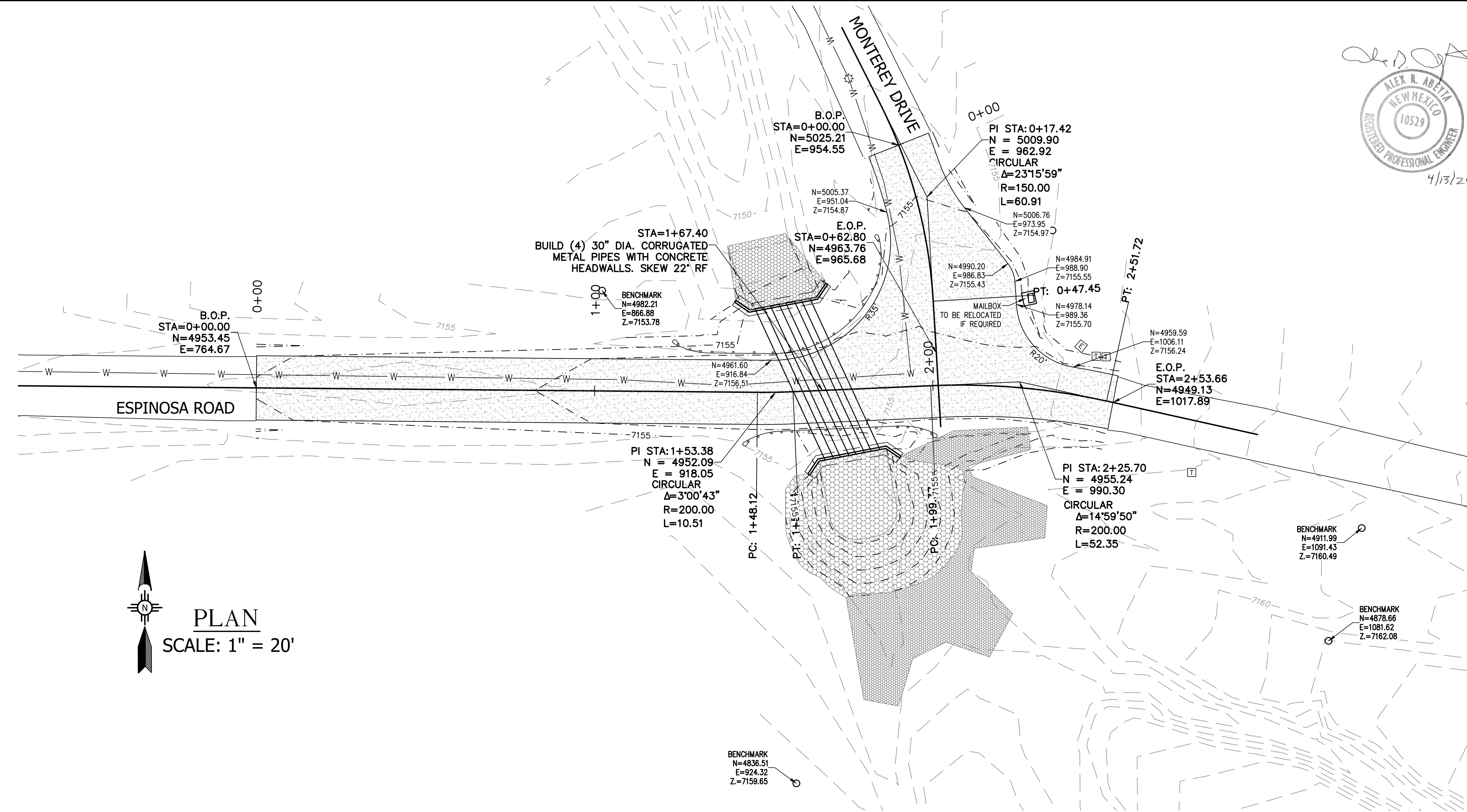
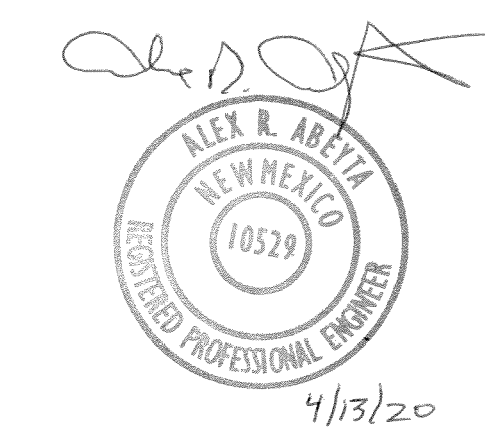
**ESPINOSA ROAD &  
MONTEREY DRIVE  
PLAN AND PROFILES**

Abeyta Engineering, Inc.

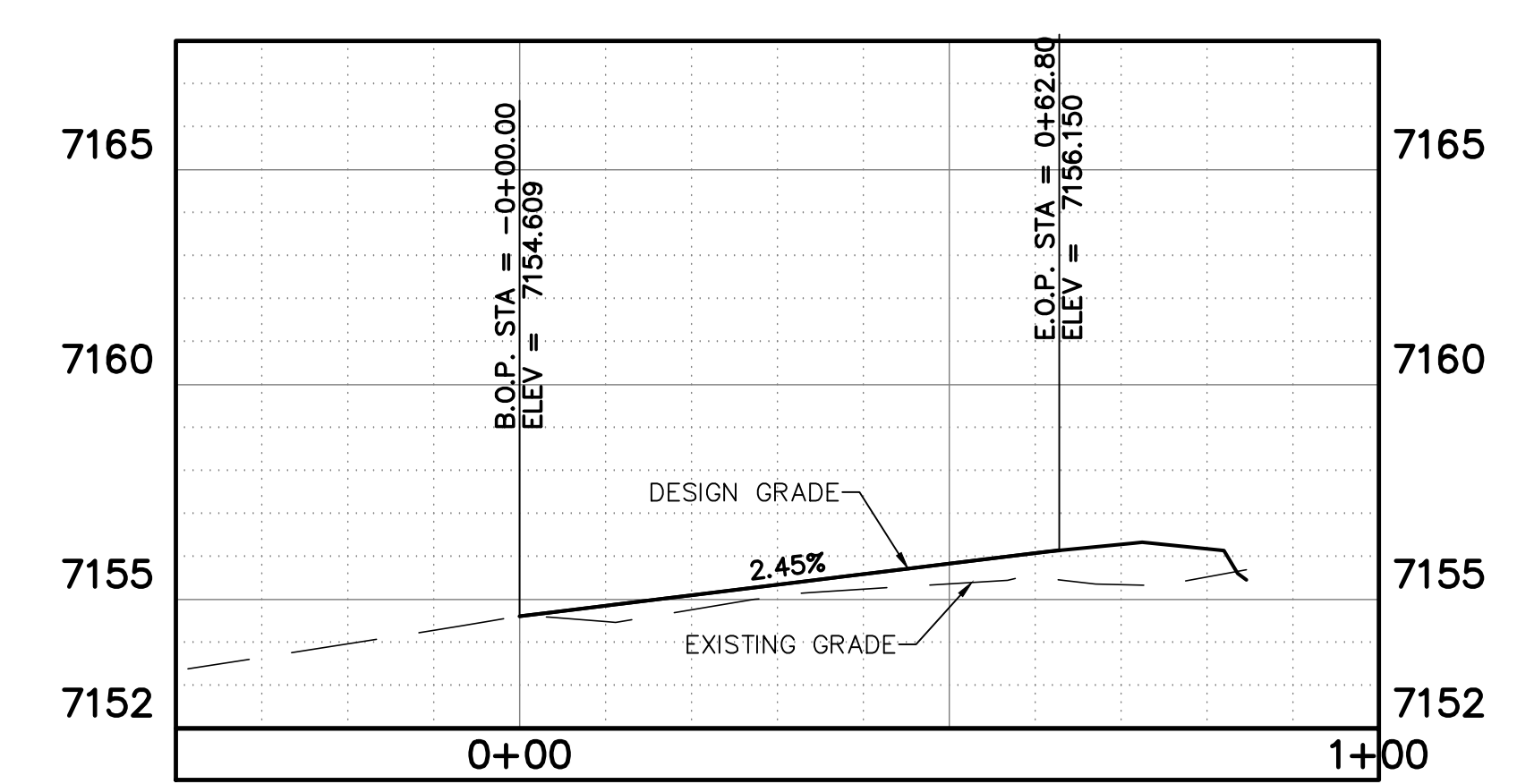
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**LEGEND**

- - - - - EXISTING CONTOUR
- - - - - DESIGN CONTOUR

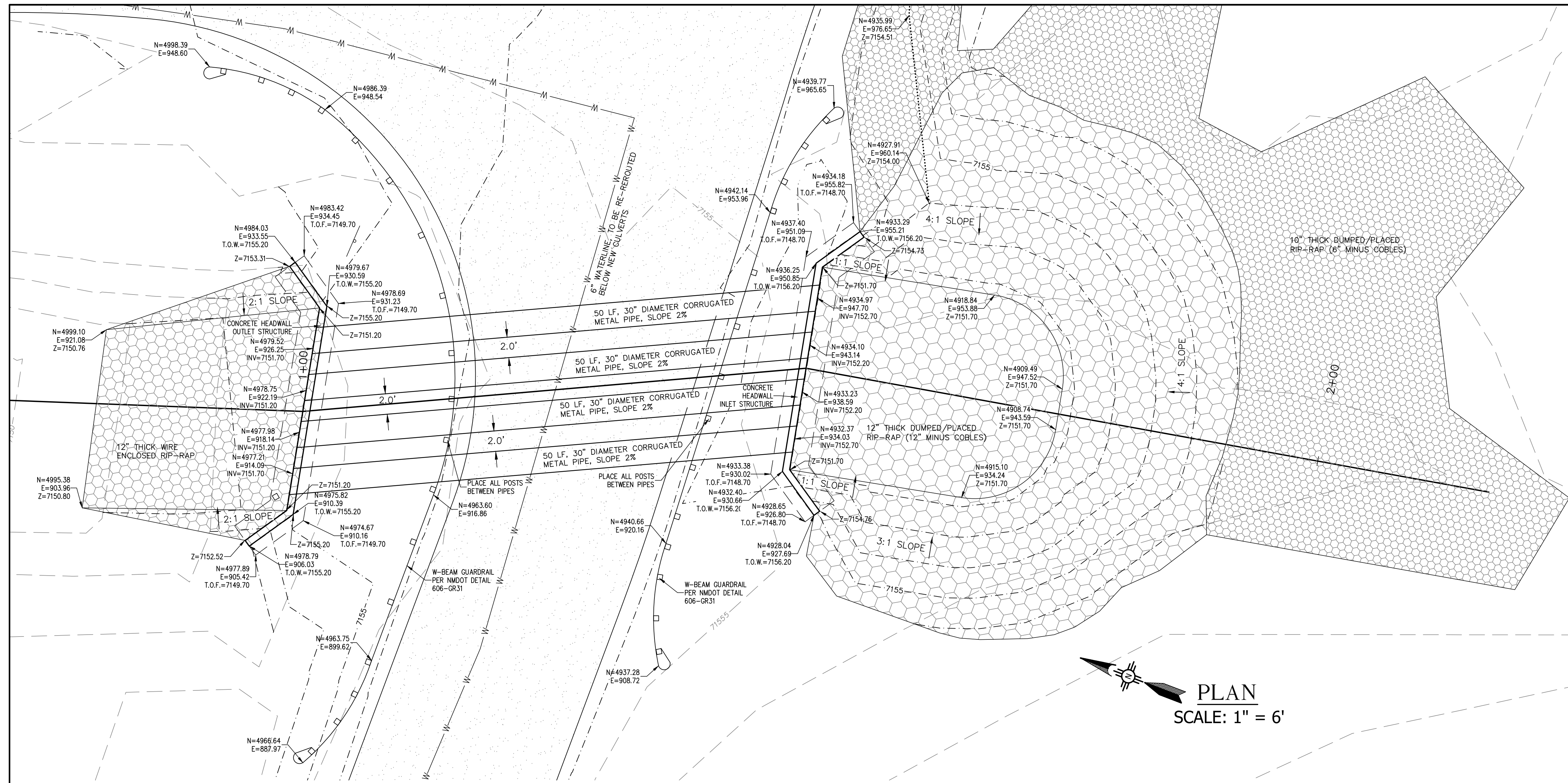


**ESPINOSA PROFILE**  
HORIZ: 1" = 20'  
VERT: 1" = 4'



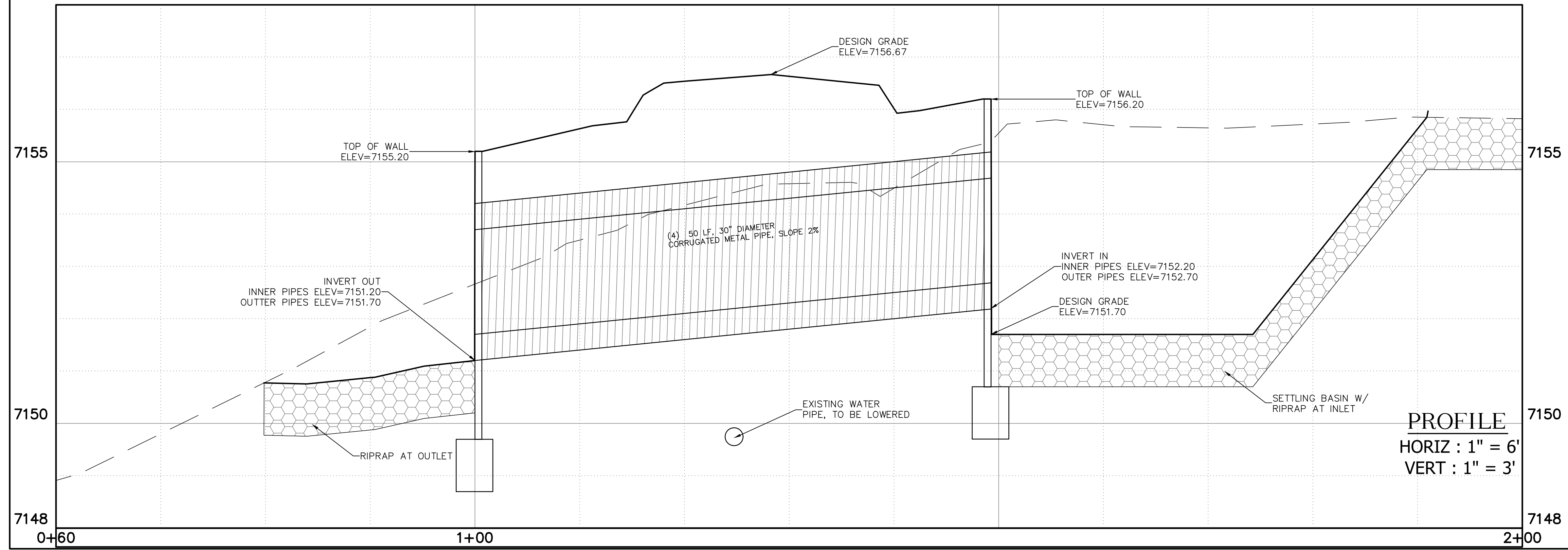
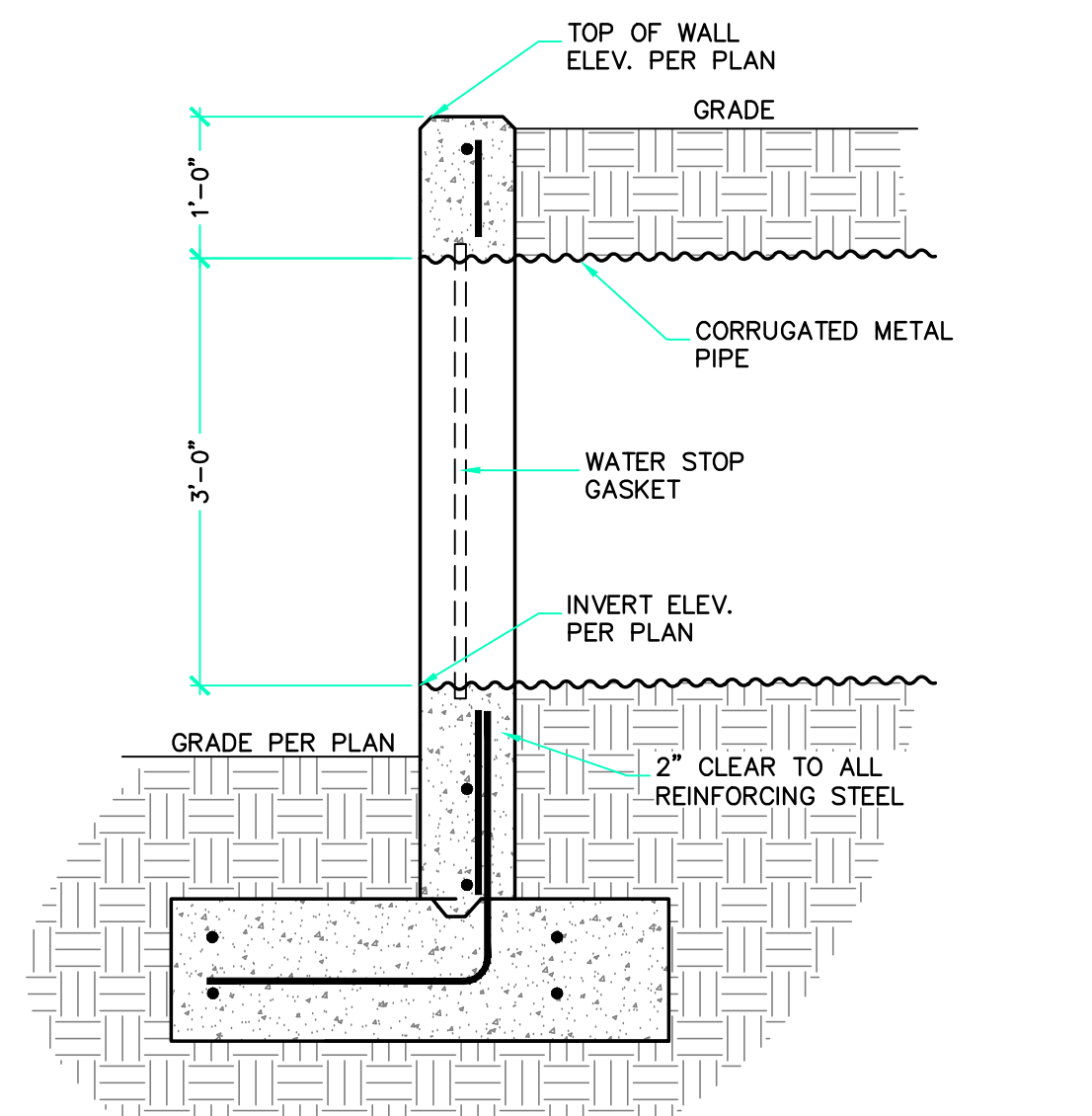
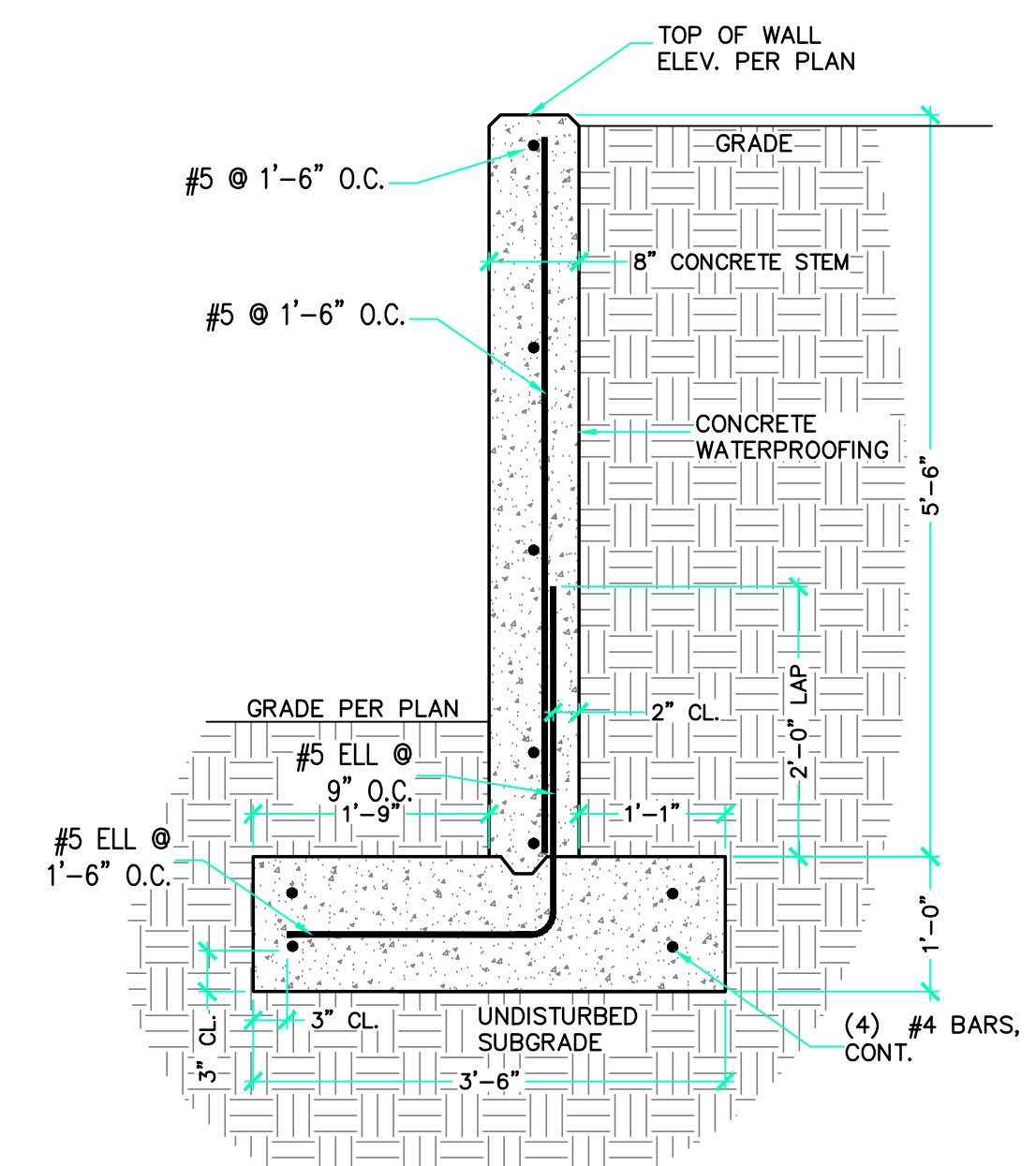
**MONTEREY PROFILE**  
HORIZ: 1" = 20'  
VERT: 1" = 4'





PLAN  
SCALE: 1" = 6'

**LEGEND**  
 --- EXISTING CONTOUR  
 - - - DESIGN CONTOUR  
 ..... FLOW LINE



ALEX R. ABAYTA  
NEW MEXICO  
REGISTERED PROFESSIONAL ENGINEER  
10529  
4/13/20

THE TOWN OF TAOS  
**ESPINOSA ROAD & MONTEREY DRIVE DRAINAGE IMPROVEMENTS**  
 TAOS, NEW MEXICO  
**DRAINAGE STRUCTURE PLAN & PROFILE**  
 Abeyta Engineering, Inc.

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