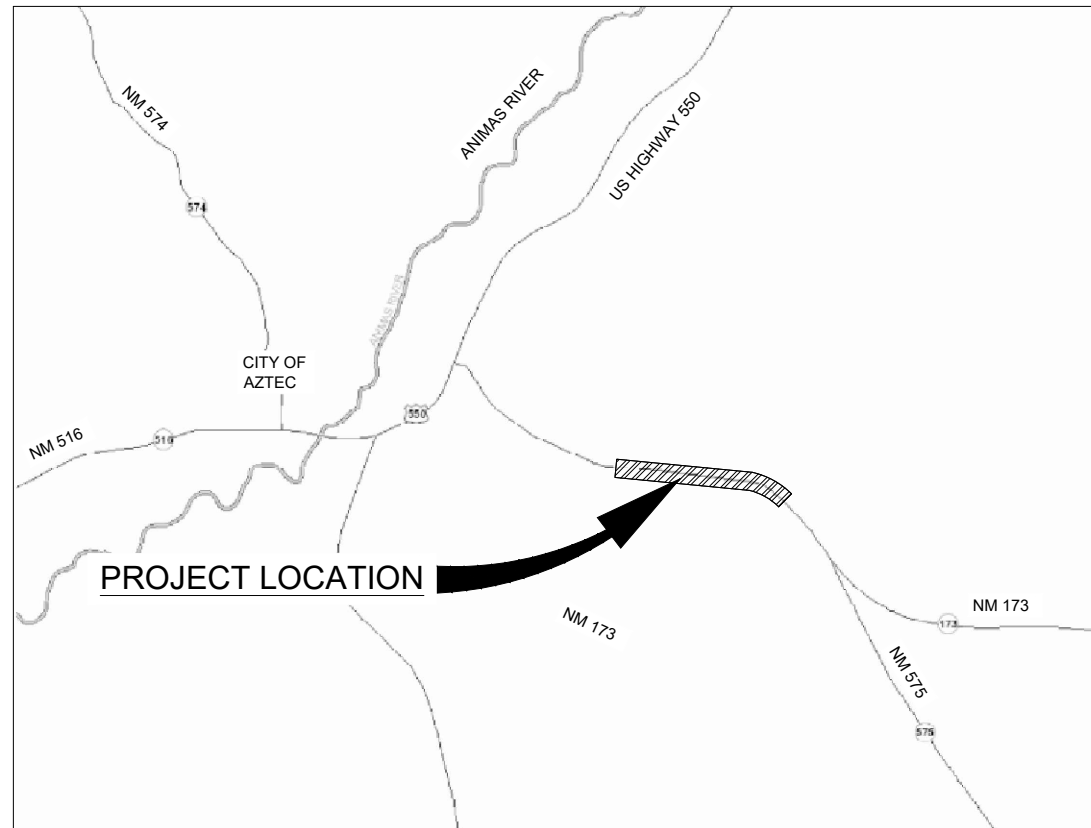


# AZTEC, NEW MEXICO

## NM 173 WATER LINE REPLACEMENT - PHASE 1

THE PROJECT BEGINS IN TOWNSHIP 30N, RANGE 10W, SECTION 21  
THIS PROJECT ENDS IN TOWNSHIP 30N, RANGE 9W, SECTION 20

SEH PROJECT NO. 160626  
FUNDING NO. SAP 20-E2180-STB



VICINITY MAP  
NOT TO SCALE



Know what's below.  
Call before you dig.

GOVERNING SPECIFICATIONS  
THE LATEST EDITIONS OF THE NEW MEXICO STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION AND THE NEW MEXICO DEPARTMENT OF TRANSPORTATION'S 2019 STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION SHALL GOVERN EXCEPT AS MODIFIED BY THE SPECIFICATIONS FOR THIS PROJECT.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

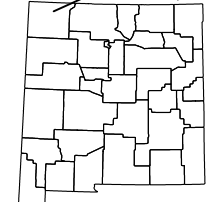
### INDEX

#### Sheet List Table

Sheet Number	Sheet Title
1	TITLE SHEET
2	GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	OVERALL SITE PLAN - PHASE 1
5	PHASE 1 ALIGNMENT GEOMETRY
6	OVERALL SITE PLAN - PHASE 2 (FUTURE)
7	OVERALL SITE PLAN - PHASE 3 (FUTURE)
8	KEY PLAN
9	WATER PLAN AND PROFILE (1)
10	WATER PLAN AND PROFILE (2)
11	WATER PLAN AND PROFILE (3)
12	WATER PLAN AND PROFILE (4)
13	WATER PLAN AND PROFILE (5)
14	WATER PLAN AND PROFILE (6)
15	WATER PLAN AND PROFILE (7)
16	WATER PLAN AND PROFILE (8)
17	WATER PLAN AND PROFILE (9)
18	WATER PLAN AND PROFILE (10)
19	WATER PLAN AND PROFILE (11)
20	WATER PLAN AND PROFILE (12)
21	WATER PLAN AND PROFILE (13)
22	WATER PLAN AND PROFILE (14)
23	WATER PLAN AND PROFILE (15)
24	WATER LINE FEED TO PUMP STATION AND TANK
25	WATER LINE FEED TO TANK
26	CONNECTION AND WATER LINE CASING DETAILS
27	PUMP HOUSE PIPING DETAIL SURGE PROTECTION
28	TYPICAL DETAILS (1)
29	TYPICAL DETAILS (2)
30	TYPICAL DETAILS (3)

### PROJECT LOCATION

AZTEC, SAN JUAN COUNTY



APPROVED:

CITY ENGINEER OF

DATE

**SEH**  
PHONE: 970.385.4546  
934 MAIN AVENUE  
SUITE C  
DURANGO, CO 81301-51  
www.sehinc.com

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

Signature DREW CHANDLER, PE

Date: 11/30/2021 Lic. No. 23088

FILE NO.

**1**  
of 30

EXISTING	
---	RIGHT OF WAY
---	PERMANENT EASEMENT
---	PROPERTY LINE
△ XX	HORIZONTAL CONTROL POINT
⊗ BM	BENCHMARK
● #	SURVEY MARKER
○	SOIL BORING
—○—	SANITARY SEWER AND MANHOLE
—○—	FORCE MAIN AND LIFT STATION
—○—	SANITARY SEWER SERVICE & CLEANOUT
—○—	WATER MAIN, HYDRANT, VALVE AND MANHOLE
—○—	WATER SERVICE AND CURB STOP BOX
—○—	STORM SEWER, MANHOLE AND CATCH BASIN
—○—	CULVERT AND APRON ENDWALL
—○—	GAS MAIN, VALVE, VENT AND METER
—○—	HANDHOLE
—○—	BURIED FIBER OPTIC CABLE AND MANHOLE
—○—	BURIED PHONE CABLE, PEDESTAL AND MANHOLE
—○—	BURIED TV CABLE, PEDESTAL AND MANHOLE
—○—	BURIED ELECTRIC CABLE, PEDESTAL, MANHOLE, TRANSFORMER AND METER
—○—	OVERHEAD WIRE, POLE AND GUY WIRE
—○—	LIGHT POLE
—○—	TRAFFIC SIGNAL
—○—	STREET NAME SIGN
—○—	SIGN (NON STREET NAME)
	RAILROAD TRACKS
○	DECIDUOUS AND CONIFEROUS TREE
○	BUSH / SHRUB AND STUMP
~~~~~	EDGE OF WOODED AREA
WET	WETLAND
—	BUILDING
—X—	FENCE (UNIDENTIFIED)
—X—	BARBED WIRE FENCE
—XC—	CHAIN LINK FENCE
—XE—	ELECTRIC WIRE FENCE
—XWD—	WOOD FENCE
—XWW—	WOVEN WIRE FENCE
—	PLATE BEAM GUARDRAIL
—	CABLE GUARDRAIL
—○—	POST / BOLLARD
—	RETAINING WALL
6+00	PROPOSED
---	STREET CENTERLINE
---	RIGHT-OF-WAY
---	PERMANENT EASEMENT
---	TEMPORARY EASEMENT
---	CONSTRUCTION LIMITS
—○—	SANITARY SEWER, BULKHEAD AND MANHOLE
—○—	FORCE MAIN
—○—	SANITARY SERVICE AND CLEANOUT
—○—	WATER MAIN, TEE, HYDRANT, BULKHEAD AND VALVE
—○—	WATER VALVE MANHOLE, REDUCER, BEND AND CROSS
—○—	WATER SERVICE AND CURB STOP BOX
—○—	STORM SEWER, MANHOLE AND CATCH BASIN
—○—	CULVERT AND APRON ENDWALL
—○—	DRAIN TILE
—○—	DITCH / SWALE
—○—	RIPRAP
—○—	STREET NAME SIGN
—○—	SIGN (NON STREET NAME)
—	RETAINING WALL

This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB

NOTE:  
THE SUBSURFACE UTILITY QUALITY INFORMATION IN THIS PLAN IS LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02 ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

THE CONTRACTOR SHALL CALL IN UTILITY LOCATES AT 811 BEFORE COMMENCING EXCAVATION.

General Notes:

The contractor is responsible for obtaining all required permits prior to the commencement of any work on the project. A NMDOT right-of-way work permit is required for all work in the public right-of-way.

The contractor shall be responsible for notifying the city of any problems in conforming to the approved plans for any element of the proposed improvements prior to its construction.

The engineer shall be responsible during construction activities to resolve construction problems due to changed conditions or design errors encountered by the contractor during the progress of any portion of the proposed work. Any improvements constructed not in accordance with the approved plans or the approved revised plans, shall be removed and the improvements shall be reconstructed according to the approved plans.

Underground utilities shown on these plans are from physical evidence on the surface, survey performed, and historical maps. The contractor shall be responsible for the horizontal and vertical location of all utilities prior to construction, including potholing if necessary. The contractor shall contact the appropriate agencies for location of all underground utilities at least 72 hours prior to commencement of construction. Where potholing or excavation reveals conflicts between existing and proposed utilities, the contractor shall notify the town immediately and any revisions to the construction plans shall be approved in writing.

The contractor shall be responsible for providing a copy of "RECORD DRAWINGS" plans to the City of Aztec prior to final acceptance of work.

The contractor shall notify the Public Works Director or his representative at least 24 hours prior to desired inspection.

The contractor shall reset all Survey Monuments disturbed during construction within 60 days of project completion.

The contractor shall be solely and completely responsible for conditions at and adjacent to the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours.

The duty of the City to conduct construction review of the contractor's performance is not intended to include review of the adequacy of the contractor's safety measures in, on, or near the construction site.

Field conditions may exist that require changes to the drawings. If such conditions are encountered, standard engineering practices shall be followed.

Topographic and Boundary Survey Data for this project provided by SEH, inc.:

CONTROL STATEMENT:  
Horizontal Datum—Refer to NM 173 Plans CN F100170  
Units of field data and drawing are in US SURVEY FEET  
NM STATE PLANE WEST ZONE (SCALED TO GROUND)  
COMBINED SCALE FACTOR = 1.0003639024 Scaled Around (0,0)

Vertical Datum is NAVD 88, Static Data Collected at Point #100 Corrected using OPUS for Vertical control.

Utility Notes:

The contractor shall have in his possession at all times one (1) signed copy of plans and specifications which have been approved by the City of Aztec's Public Works Department.

The contractor shall inform the City's representative 24 hours in advance when trench will be ready for compaction tests. The City of Aztec shall provide a geotechnical testing laboratory to perform all required tests at the City's expense. The Contractor shall be responsible for and shall pay all costs in connection with retesting for work or materials found defective or unsatisfactory and all stand-by time charges from the tester due to the Contractor's failure to pave, pour, or fill on schedule for any reason except by action of the Owner's Representative.

The contractor shall excavate trenches by open cut. Conform to sheeting, shoring, and bracing requirements of regulating agency or ruling authority.

The contractor shall stockpile suitable material for backfilling a minimum of 4 feet away from trench banks. Remove and waste excavated materials not suitable or not required for backfilling.

The contractor shall provide and maintain dewatering equipment, as necessary, to ensure that all work in trenches is performed under dewatered conditions.

The contractor shall excavate trenches to provide adequate working space and pipe clearances for proper installation and jointing. Trench width at the top of the pipe shall not exceed 16 inches plus pipe width.

Structure northing / easting labels are to the center of the proposed structure

Water line to have a minimum cover of 48 inches. Tracer wire to be installed along all new water line. Bring up at all hydrants, valves, and every 500-ft and mark with carconite post.

Install blue carconite posts marked with "WATER" every 500-ft.

BENCHMARK EL.

Street Construction Notes

With notification of the City inspector the contractor shall adjust rims of all cleanouts, manholes, valve covers and survey monuments to finish grade prior to final lift paving.

If necessary, the contractor shall provide all lights, signs, barricades, flagmen or other devices necessary to provide for public safety in accordance with the current Manual on Uniform Traffic Control Devices. The contractor shall provide a Traffic Control Plan, for each temporary traffic control scenario, to the City of Aztec Engineering Department for review and approval before commencing any work in City right-of-way or easements. The contractor shall employ a Certified Traffic Control Supervisor (CTCS) to be responsible for all methods of handling traffic (MHTs).

The contractor shall provide ingress and egress to private property adjacent to the work throughout the period of construction and prior to beginning work shall obtain written agreement from the affected property owners impacted by this access.

Prior to final placement of surface pavement, all underground utility mains shall be installed and service connections stubbed out beyond curb line when allowed by the utility. Service from public utilities, water and sanitary sewers shall be made available for each lot in such a manner that will not be necessary to disturb the street pavement, curb, gutter, and sidewalk when connections are made.

Hot Mix Asphalt (HMA) in City easements and right-of-way shall be NMDOT type SP-IV. Recycled asphalt may be incorporated into the mix up to 20-percent by weight. HMA shall meet the requirements of NMDOT's Standard Specifications for Highway and Bridge Construction, Section 423.

Concrete including, but not limited to, all sidewalks, chases, curb and gutter, curb-cuts, driveway returns, handicap ramps, cross gutters, collars and bike paths; shall be NMDOT Class A concrete per NMDOT's Standard Specifications for Highway and Bridge Construction, Section 509.

No portion of the street shall be final paved until all street lighting and / or irrigation improvements designed to serve the street and/or development have been completed.

Grading and Drainage Notes:

A water truck, if called for by the City inspector or owner's representative, will be provided to keep wind erosion in check.

Any settlement or soil accumulations beyond the property limits due to grading or erosion shall be repaired immediately by the contractor.

All compaction testing requirements shall be completed in accordance with project governing documents.

Aggregate Base Course located beneath all buildings, roadways sidewalks, plaza area, and other proposed improvements shall be NMDOT Type 1 compacted to 95% maximum dry density as measured by the Modified Proctor Test AASHTO T-180.

Any construction debris or mud tracking in the public right-of-way shall be removed immediately by the contractor. The contractor shall immediately fix any excavations or excessive pavement failures caused by the development and shall properly barricade the site until construction is complete. Failure by the contractor to correct any of the above within 48 hours of written notice by the inspecting agency shall cause the inspecting agency to issue a stop work order and/or do the work and make a claim against the letter of credit for any cost incurred by the agency.

Areas being disturbed by the grading shall be reseeded with native vegetation or as approved on the development plan.

Contractor shall immediately notify both the City and the Engineer if excavation activities unearth soils with a visible sheen, material coloration or staining, or odor.

A Storm Water Management Plan shall be created prior to construction.

A State of New Mexico stormwater discharge permit is required for all construction activity disturbing at least 1-acre of land (or is part of a common plan of development disturbing at least 1-acre of land).

Stormwater quality best management practices (BMPs) shall meet the requirements of the Denver Regional Council of Governments Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual.

All riprap on this project to be per NMDOT's Standard Specifications for Highway and Bridge Construction Section 602.



This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB

BENCHMARK EL.

Save: 9/27/2021 10:23 AM phomas Plot: 11/29/2021 5:21 PM X:\AE\AZTEC\15977515-final-dgn\51-drawings\10-Civil\cad\dwg\sheet15977515.dwg

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT	.	.	.	.	.
Designed By	PT	.	.	.	.	.
Checked By	PO	.	.	.	.	.



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.  
DATE 11/30/2021  
DREW CHANDLER, PE  
LICENSE NO. 23088

NM 173 WATER LINE REPLACEMENT  
AZTEC, NEW MEXICO

GENERAL NOTES  
NM 173 WATER LINE

CITY OF AZTEC, NM  
 NM 173 WATER LINE REPLACEMENT - PHASE 1  
 Short Elliot Hendrickson SEH®  
 November 29, 2021



Item #	ITEM DESCRIPTION	UNIT	AMOUNT	UNIT COST	TOTAL AMOUNT
<b>Demolition</b>					
1	Clearing and Grubbing	LS	1		
2	Remove Hydrant	EACH	1		\$ -
3	Remove Existing Signs	EACH	6		\$ -
4	Sawcut and remove existing asphalt	SY	68		\$ -
Demolition Subtotal					\$ -
<b>Water Line</b>					
5	8-in C-900 Water Line (with tracer wire)(Install Only)	LF	8660		\$ -
6	8-in C-900 11.25° bend (with thrust blocks)(Install Only)	EACH	2		\$ -
7	8-in C-900 45° bend (with thrust blocks)(Install Only)	EACH	4		\$ -
8	8-in C-900 90° bend (with thrust blocks)(Install Only)	EACH	6		\$ -
9	8-in Gate Valves (with thrust blocks)(Install Only)	EACH	21		\$ -
10	8x8x8 Tee(Install Only)	EACH	4		\$ -
11	8-in End Caps(Install Only)	EACH	2		\$ -
12	Steel Pipe Casing	LF	132		\$ -
13	Hydrant and Assembly (Fire Hydrant, 6-in lateral, 8"x6"x8" Tee, 6-in Gate Valve)	EACH	2		\$ -
14	Hydrant Bollards	EACH	2		\$ -
15	Extend and reconnect existing service	EACH	1		\$ -
16	Tie into Existing Water Line	EACH	2		\$ -
17	Tie into Existing Water Line at tank	EACH	2		\$ -
Water Line Subtotal					\$ -
<b>Surge Relief for Pump House</b>					
18	Retap air relief valve	EACH	1		\$ -
19	6-in surge anticipation surge relief valve (CLA-VAL brand)	EACH	1		\$ -
20	AWWA C110 PC 250 with flanged ends	LF	10		\$ -
21	6-in AWWA C110 tee	EACH	1		\$ -
22	6-in AWWA C110 90° bend	EACH	1		\$ -
23	Core wall penetration	EACH	1		\$ -
Surge Relief for Pump House Subtotal					\$ -
<b>Miscellaneous</b>					
24	Asphalt patchback	SY	68		\$ -
25	Reset Existing signs	EACH	6		\$ -
26	Rock Excavation	CY	175		
27	Potholing	HR	12		
Miscellaneous Subtotal					\$ -
<b>General Items</b>					
26	Mobilization	LS	1		\$ -
27	Traffic Control	LS	1		\$ -
28	Construction Survey	LS	1		\$ -
29	Quality Control/Testing	LS	1		\$ -
30	Erosion Control/SWPPP	LS	1		\$ -
31	Record Drawings	LS	1		\$ -
General Items Subtotal					\$ -
<b>Grand Total</b>					\$ -

This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



BENCHMARK EL.

Save: 11/29/2021 5:03 PM pornell Plot: 11/29/2021 5:22 PM X:\AE\AAZTEC\15977515-final-dsgn\51-drawings\10-Civil\caed\dwg\sheet1159775QUANT.dwg

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					

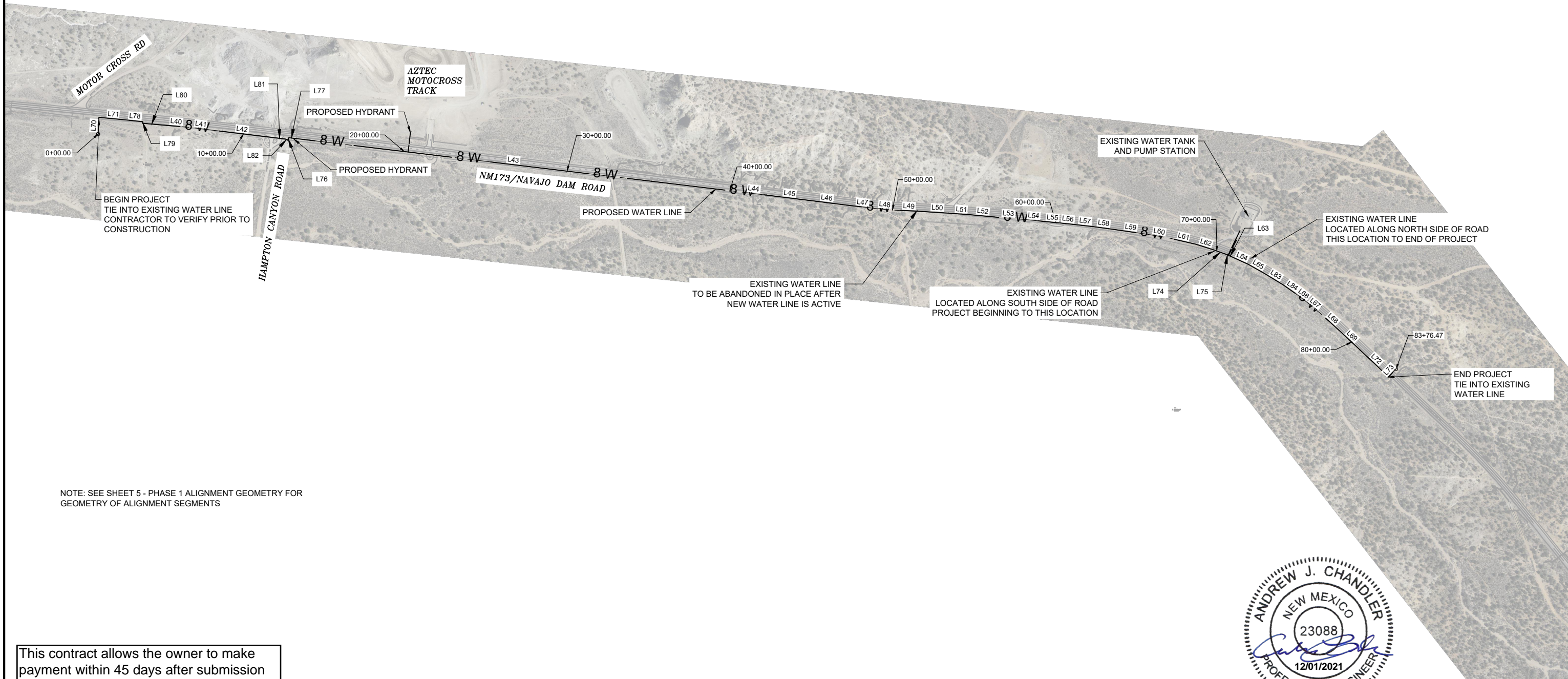
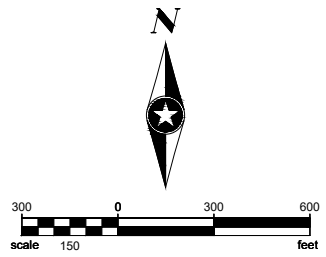


I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.  
 DATE 11/30/2021  
 DREW CHANDLER, PE  
 LICENSE NO. 23088

NM 173 WATER LINE REPLACEMENT  
 AZTEC, NEW MEXICO

NM 173 Water Line





NOTE: SEE SHEET 5 - PHASE 1 ALIGNMENT GEOMETRY FOR GEOMETRY OF ALIGNMENT SEGMENTS

This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



Save: 11/29/2021 5:12 PM Imoney Plot: 11/29/2021 5:22 PM X:\AE\AAZTEC\159775\5-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet159775SF.dwg

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT	.	.	.	.	.
Designed By	PT	.	.	.	.	.
Checked By	PO	.	.	.	.	.



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.  
 DATE 11/30/2021 DREW CHANDLER, PE LICENSE NO. 23088

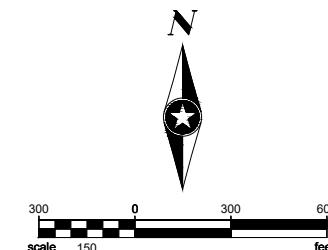
**NM 173 WATER LINE REPLACEMENT**  
 AZTEC, NEW MEXICO

**OVERALL SITE PLAN - PHASE 1**  
**NM 173 WATER LINE**



ALIGNMENT TABULATION - WATER ALIGN 1

POINT ID	STATION	LENGTH	NORTHING	EASTING	BEARING	START STATION	END STATION	START NORTHING	START EASTING	END NORTHING	END EASTING
L75	70+66.68	3.59	2118292.1759	2696696.6511	S 63° 45' 43" E	70+66.68	70+70.27	2118292.1759	2696696.6511	2118290.5885	2696699.8717
L79	3+70.82	10.00	2119103.2171	2690079.0553	S 06° 10' 13" W	3+70.82	3+80.82	2119103.2171	2690079.0553	2119093.2750	2690077.9804
L82	12+56.99	15.95	2118997.4573	2690948.7749	S 63° 13' 32" E	12+56.99	12+72.94	2118997.4573	2690948.7749	2118990.2724	2690963.0144
L76	12+72.94	17.08	2118990.2724	2690963.0144	N 26° 48' 19" E	12+72.94	12+90.02	2118990.2724	2690963.0144	2119005.5159	2690970.7162
L77	12+90.02	31.46	2119005.5159	2690970.7162	S 83° 09' 17" E	12+90.02	13+21.48	2119005.5159	2690970.7162	2119001.7667	2691001.9486
L63	70+70.27	33.68	2118290.5885	2696699.8717	S 64° 35' 44" E	70+70.27	71+03.95	2118290.5885	2696699.8717	2118276.1397	2696730.2950
L66	75+57.27	61.46	2118049.5999	2697121.8080	S 52° 24' 55" E	75+57.27	76+18.73	2118049.5999	2697121.8080	2118012.1142	2697170.5112
L73	83+10.00	66.47	2117546.8393	2697681.4927	N 43° 09' 22" E	83+10.00	83+76.47	2117546.8393	2697681.4927	2117595.3315	2697726.9600
L81	11+88.05	68.94	2119005.7858	2690880.3391	S 83° 03' 41" E	11+88.05	12+56.99	2119005.7858	2690880.3391	2118997.4573	2690948.7749
L74	69+77.62	89.06	2118322.0693	2696612.7591	S 70° 23' 15" E	69+77.62	70+66.68	2118322.0693	2696612.7591	2118292.1759	2696696.6511
L55	59+30.38	93.82	2118494.4173	2695581.9327	S 84° 41' 01" E	59+30.38	60+24.21	2118494.4173	2695581.9327	2118485.7243	2695675.3525
L56	60+24.21	94.39	2118485.7243	2695675.3525	S 83° 50' 06" E	60+24.21	61+18.60	2118485.7243	2695675.3525	2118475.5878	2695769.1955
L78	2+71.41	99.41	2119113.2927	2689980.1574	S 84° 10' 58" E	2+71.41	3+70.82	2119113.2927	2689980.1574	2119103.2171	2690079.0553
L70	0+00.00	102.36	2119027.5318	2689806.5787	N 02° 59' 13" E	0+00.00	1+02.36	2119027.5318	2689806.5787	2119129.7553	2689811.9128
L84	74+54.54	102.73	2118108.6612	2697037.7538	S 54° 54' 21" E	74+54.54	75+57.27	2118108.6612	2697037.7538	2118049.5999	2697121.8080
L64	71+03.95	102.80	2118276.1397	2696730.2950	S 65° 55' 31" E	71+03.95	72+06.75	2118276.1397	2696730.2950	2118234.2067	2696824.1485
L41	6+77.59	111.26	2119067.6852	2690373.6411	S 82° 56' 28" E	6+77.59	7+88.85	2119067.6852	2690373.6411	2119054.0126	2690484.0570
L58	62+34.81	111.52	2118462.3566	2695884.6497	S 82° 28' 15" E	62+34.81	63+46.32	2118462.3566	2695884.6497	2118447.7443	2695995.2056
L80	3+80.82	112.07	2119093.2750	2690077.9804	S 85° 05' 53" E	3+80.82	4+92.89	2119093.2750	2690077.9804	2119083.6989	2690189.6379
L65	72+06.75	113.25	2118234.2067	2696824.1485	S 60° 26' 46" E	72+06.75	73+19.99	2118234.2067	2696824.1485	2118178.3494	2696922.6598
L62	68+64.17	113.45	2118356.2485	2696504.5766	S 72° 28' 00" E	68+64.17	69+77.62	2118356.2485	2696504.5766	2118322.0693	2696612.7591
L57	61+18.60	116.21	2118475.5878	2695769.1955	S 83° 27' 45" E	61+18.60	62+34.81	2118475.5878	2695769.1955	2118462.3566	2695884.6497
L48	48+92.21	117.77	2118574.5776	2694547.0242	S 84° 36' 03" E	48+92.21	50+09.98	2118574.5776	2694547.0242	2118563.4959	2694664.2748
L67	76+18.73	118.69	2118012.1142	2697170.5112	S 50° 26' 48" E	76+18.73	77+37.42	2118012.1142	2697170.5112	2117936.5300	2697262.0280
L51	53+57.69	121.04	2118544.6899	2695011.4673	S 85° 33' 37" E	53+57.69	54+78.73	2118544.6899	2695011.4673	2118535.3206	2695132.1413
L60	65+67.73	129.07	2118416.0713	2696214.3341	S 80° 01' 59" E	65+67.73	66+96.80	2118416.0713	2696214.3341	2118393.7317	2696341.4564
L83	73+19.99	134.55	2118178.3494	2696922.6598	S 58° 48' 20" E	73+19.99	74+54.54	2118178.3494	2696922.6598	2118108.6612	2697037.7538
L54	57+92.80	137.58	2118507.8012	2695445.0019	S 84° 25' 03" E	57+92.80	59+30.38	2118507.8012	2695445.0019	2118494.4173	2695581.9327
L52	54+78.73	142.52	2118535.3206	2695132.1413	S 84° 41' 01" E	54+78.73	56+21.25	2118535.3206	2695132.1413	2118522.1155	2695274.0508
L69	79+02.98	149.69	2117825.7915	2697385.1031	S 46° 53' 38" E	79+02.98	80+52.68	2117825.7915	2697385.1031	2117723.5000	2697494.3911
L47	47+34.52	157.68	2118592.6489	2694390.3816	S 83° 25' 09" E	47+34.52	48+92.21	2118592.6489	2694390.3816	2118574.5776	2694547.0242
L68	77+37.42	165.56	2117936.5300	2697262.0280	S 48° 01' 13" E	77+37.42	79+02.98	2117936.5300	2697262.0280	2117825.7915	2697385.1031
L61	66+96.80	167.37	2118393.7317	2696341.4564	S 77° 03' 31" E	66+96.80	68+64.17	2118393.7317	2696341.4564	2118356.2485	2696504.5766
L71	1+02.36	169.05	2119129.7553	2689811.9128	S 84° 24' 41" E	1+02.36	2+71.41	2119129.7553	2689811.9128	2119113.2927	2689980.1574
L50	51+88.41	169.28	2118555.2178	2694842.5181	S 86° 26' 03" E	51+88.41	53+57.69	2118555.2178	2694842.5181	2118544.6899	2695011.4673
L53	56+21.25	171.55	2118522.1155	2695274.0508	S 85° 12' 49" E	56+21.25	57+92.80	2118522.1155	2695274.0508	2118507.8012	2695445.0019
L45	42+76.82	175.47	2118649.2773	2693936.1967	S 82° 48' 13" E	42+76.82	44+52.29	2118649.2773	2693936.1967	2118627.2957	2694110.2876
L49	50+09.98	178.44	2118563.4959	2694664.2748	S 87° 20' 27" E	50+09.98	51+88.41	2118563.4959	2694664.2748	2118555.2178	2694842.5181
L40	4+92.89	184.70	2119083.6989	2690189.6379	S 85° 01' 34" E	4+92.89	6+77.59	2119083.6989	2690189.6379	2119067.6852	2690373.6411
L59	63+46.32	221.41	2118447.7443	2695995.2056	S 81° 46' 31" E	63+46.32	65+67.73	2118447.7443	2695995.2056	2118416.0713	2696214.3341
L72	80+52.68	257.32	2117723.5000	2697494.3911	S 46° 38' 39" E	80+52.68	83+10.00	2117723.5000	2697494.3911	2117546.8393	2697681.4927
L44	40+11.38	265.44	2118681.1654	2693672.6788	S 83° 06' 01" E	40+11.38	42+76.82	2118681.1654	2693672.6788	2118649.2773	2693936.1967
L46	44+52.29	282.23	2118627.2957	2694110.2876	S 82° 56' 55" E	44+52.29	47+34.52	2118627.2957	2694110.2876	2118592.6489	2694390.3816
L42	7+88.85	399.21	2119054.0126	2690484.0570	S 83° 03' 41" E	7+88.85	11+88.05	2119054.0126	2690484.0570	2119005.7858	2690880.3391
L43	13+21.48	2689.90	2119001.7667	2691001.9486	S 83° 09' 17" E	13+21.48	40+11.38	2119001.7667	2691001.9486	2118681.1654	2693672.6788



This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



BENCHMARK EL.

BENCHMARK EL.

Save: 11/29/2021 5:12 PM X:\AE\AZTEC\1597755-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet1597755.dwg

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					



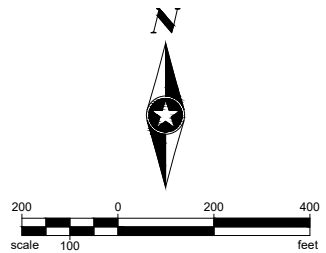
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.  
 DATE 11/30/2021  
 DREW CHANDLER, PE  
 LICENSE NO. 23088

NM 173 WATER LINE REPLACEMENT  
 AZTEC, NEW MEXICO

PHASE 1 ALIGNMENT GEOMETRY  
 NM 173 Water Line



NOTE: INFORMATION ON THIS PAGE IS FOR INFORMATION PURPOSES ONLY. PHASE 2 WORK IS NOT A PART OF THIS PROJECT.



This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



BENCHMARK EL.

BENCHMARK EL.

Save: 10/28/2021 3:13 PM phomas Plot: 11/29/2021 5:26 PM X:\AE\AAZTEC\159775\5-final-dsgn\51-drawings\10-Civil\cadd\dwg\sheet159775SF\_PHZ.dwg

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT	.	.	.	.	.
Designed By	PT	.	.	.	.	.
Checked By	PO	.	.	.	.	.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.  
**SEH**  
 DATE 11/30/2021 DREW CHANDLER, PE LICENSE NO. 23088

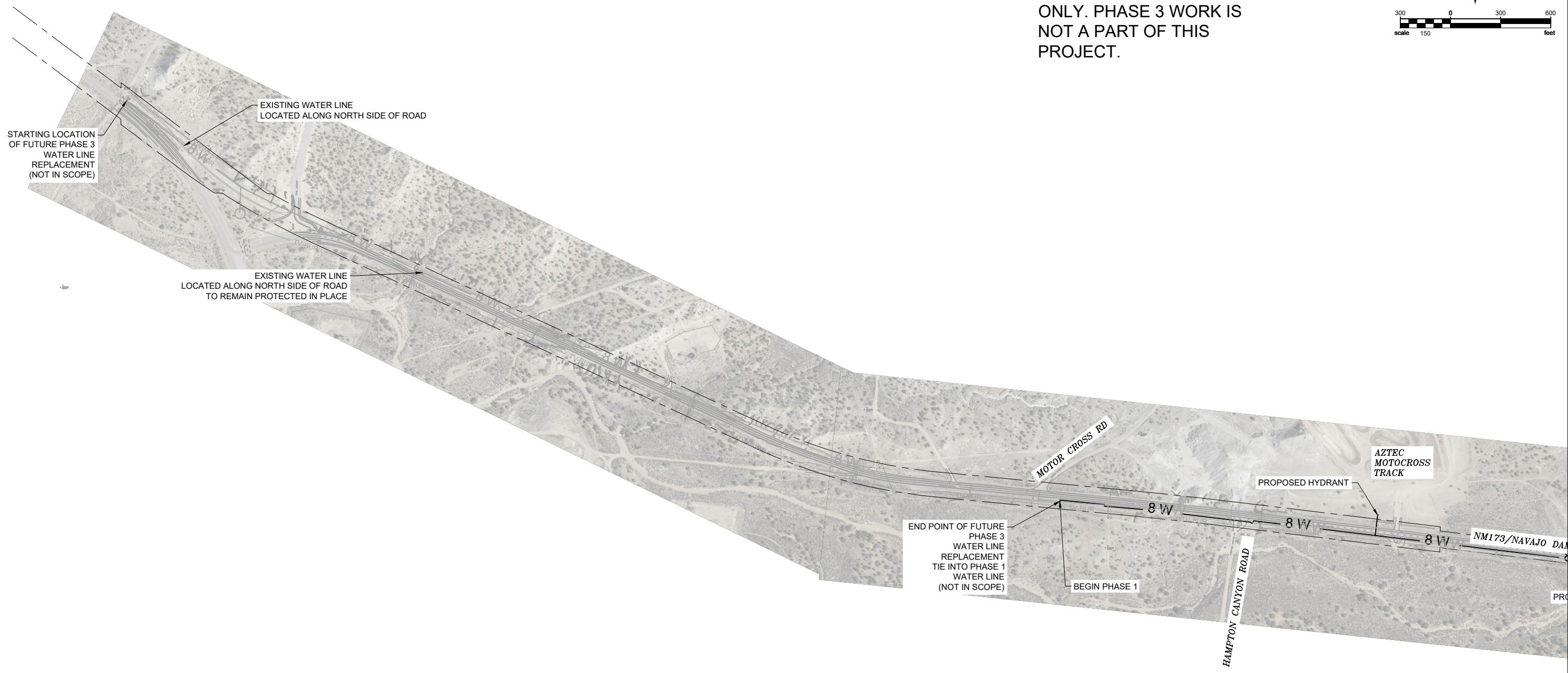
**NM 173 WATER LINE REPLACEMENT**  
 AZTEC, NEW MEXICO

**OVERALL SITE PLAN - PHASE 2 (FUTURE)**  
 NM 173 Water Line





NOTE: INFORMATION ON THIS PAGE IS FOR INFORMATION PURPOSES ONLY. PHASE 3 WORK IS NOT A PART OF THIS PROJECT.



This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



BENCHMARK EL.

BENCHMARK EL.

Save: 10/26/2021 3:13 PM phomas Plot: 11/29/2021 5:27 PM X:\AE\AAZTEC\159775\5-final-dsgn\51-drawings\10-Civil\caddwg\sheet159775SP\_PH3.dwg

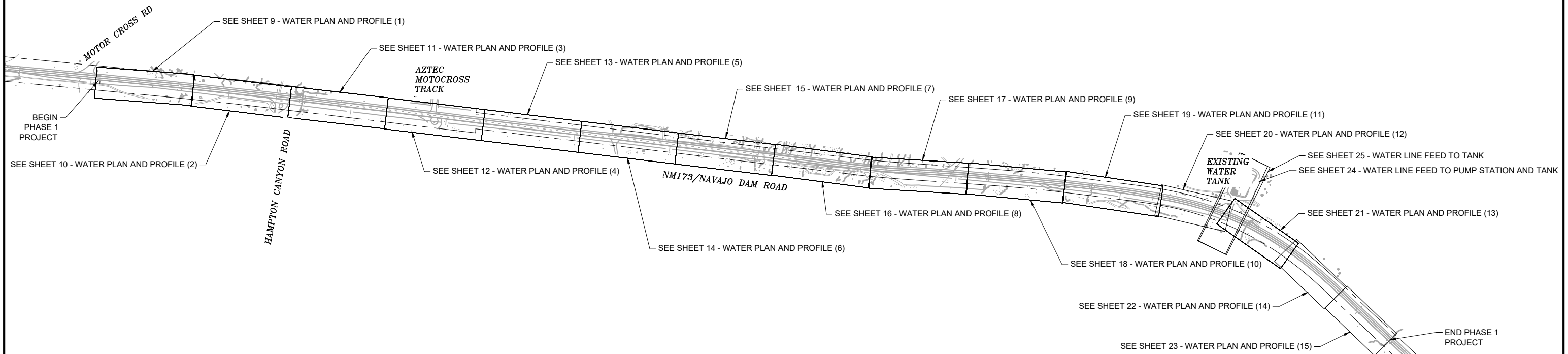
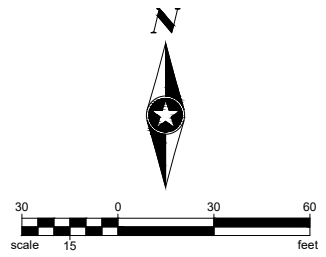
SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT	.	.	.	.	.
Designed By	PT	.	.	.	.	.
Checked By	PO	.	.	.	.	.



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.  
DATE 11/30/2021 DREW CHANDLER, PE LICENSE NO. 23088

NM 173 WATER LINE REPLACEMENT  
AZTEC, NEW MEXICO

OVERALL SITE PLAN - PHASE 3  
(FUTURE)  
NM 173 Water Line



This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



BENCHMARK EL.

BENCHMARK EL.

Save: 10/28/2021 3:13 PM phomas Plot: 11/29/2021 5:28 PM X:\AE\AAZTEC\159775\5-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet159775KP.dwg

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT	.	.	.	.	.
Designed By	PT	.	.	.	.	.
Checked By	PO	.	.	.	.	.



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.  
 DATE 11/30/2021 DREW CHANDLER, PE LICENSE NO. 23088

**NM 173 WATER LINE REPLACEMENT**  
 AZTEC, NEW MEXICO

**KEY PLAN**  
**NM 173 WATER LINE**

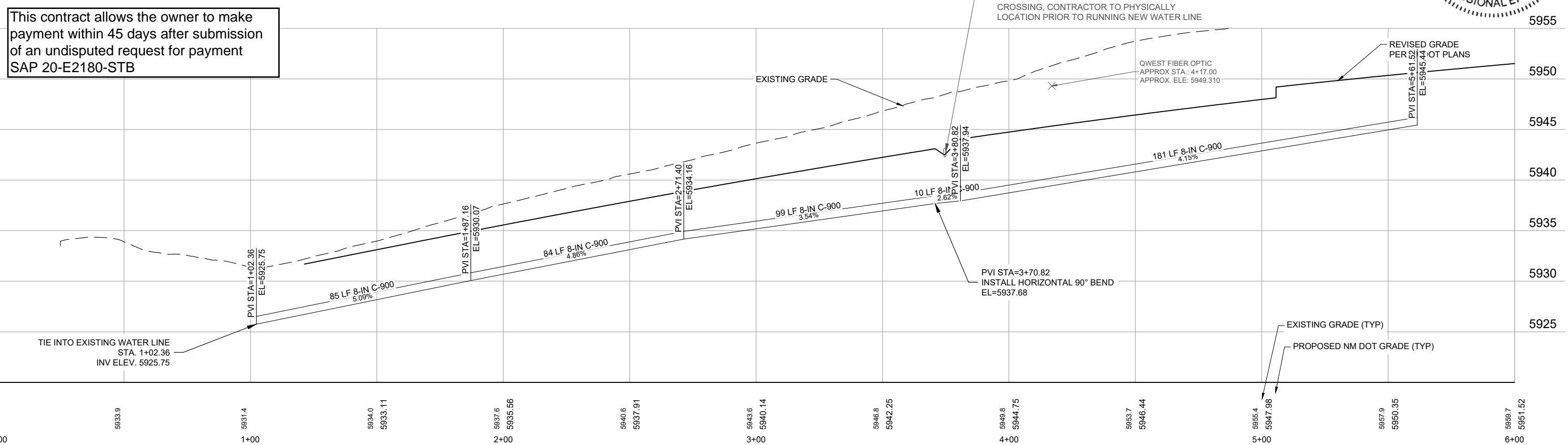
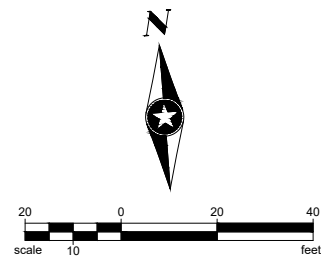
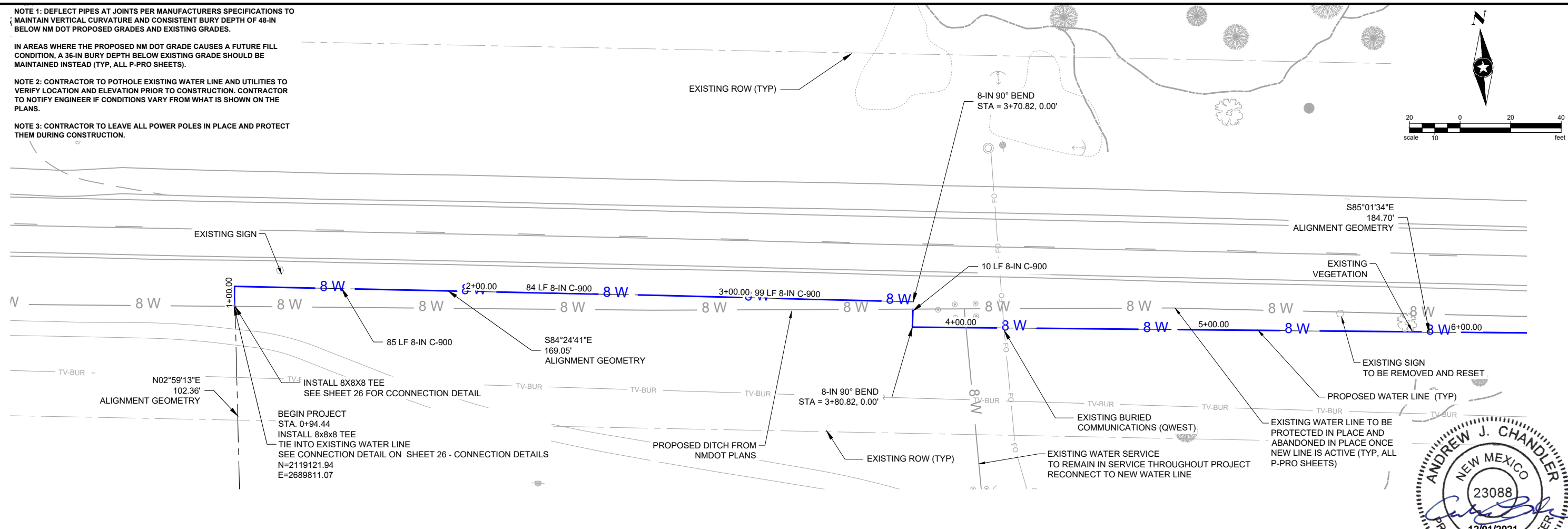


NOTE 1: DEFLECT PIPES AT JOINTS PER MANUFACTURERS SPECIFICATIONS TO MAINTAIN VERTICAL CURVATURE AND CONSISTENT BURY DEPTH OF 48-IN BELOW NM DOT PROPOSED GRADES AND EXISTING GRADES.

IN AREAS WHERE THE PROPOSED NM DOT GRADE CAUSES A FUTURE FILL CONDITION, A 36-IN BURY DEPTH BELOW EXISTING GRADE SHOULD BE MAINTAINED INSTEAD (TYP, ALL P-PRO SHEETS).

NOTE 2: CONTRACTOR TO POTHOLE EXISTING WATER LINE AND UTILITIES TO VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS.

NOTE 3: CONTRACTOR TO LEAVE ALL POWER POLES IN PLACE AND PROTECT THEM DURING CONSTRUCTION.

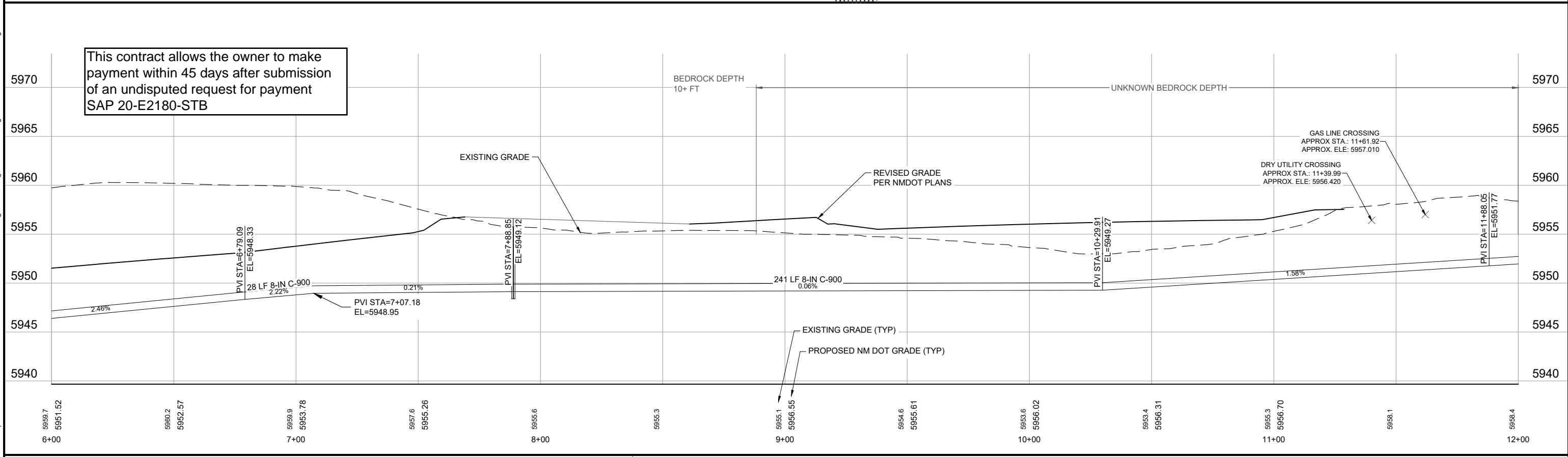
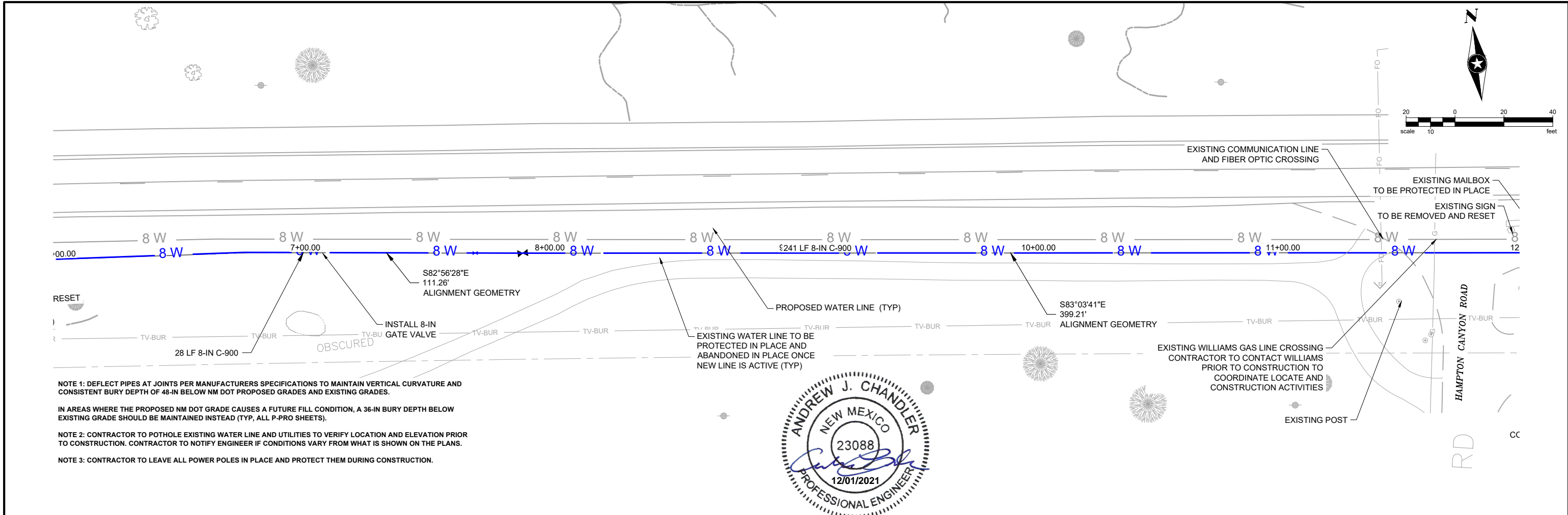


This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB

Save: 10/28/2021 3:14 PM pthomas Plot: 11/29/2021 5:30 PM X:\AE\AAZTEC\1597515-final\csgn\51-drawings\10-Civil\cadd\wg\sheet1597515VTRPP1.dwg

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.  
 DATE 11/30/2021  
 DREW CHANDLER, PE  
 LICENSE NO. 23088



This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB

SEH Project	Rev.#	Revision Issue Description	Date
Drawn By	PT		
Designed By	PT		
Checked By	PO		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

DATE 11/30/2021

DREW CHANDLER, PE  
LICENSE NO. 23088

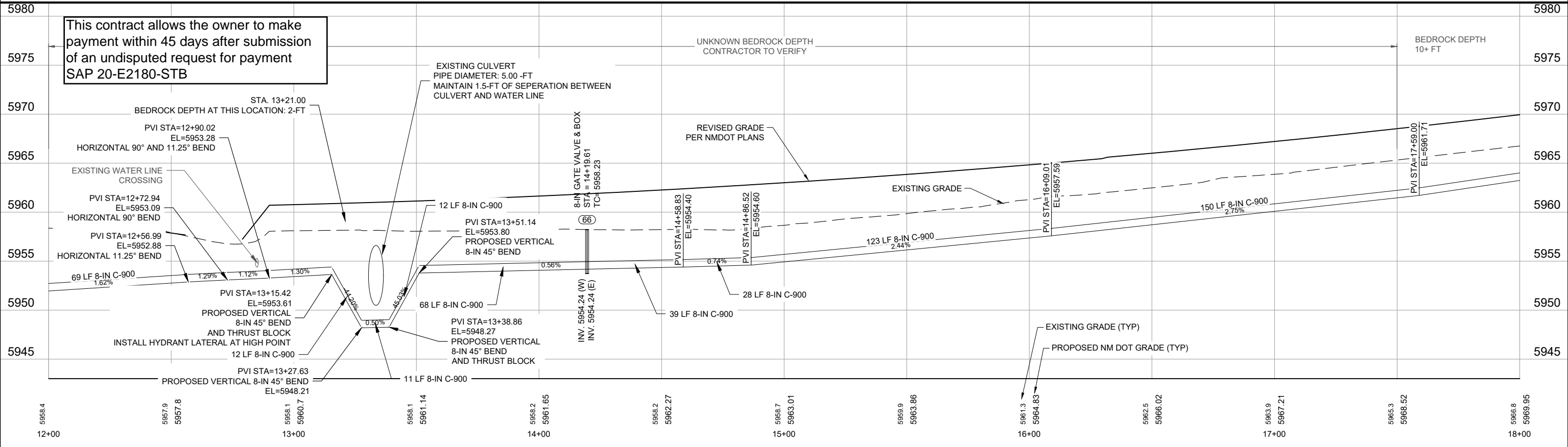
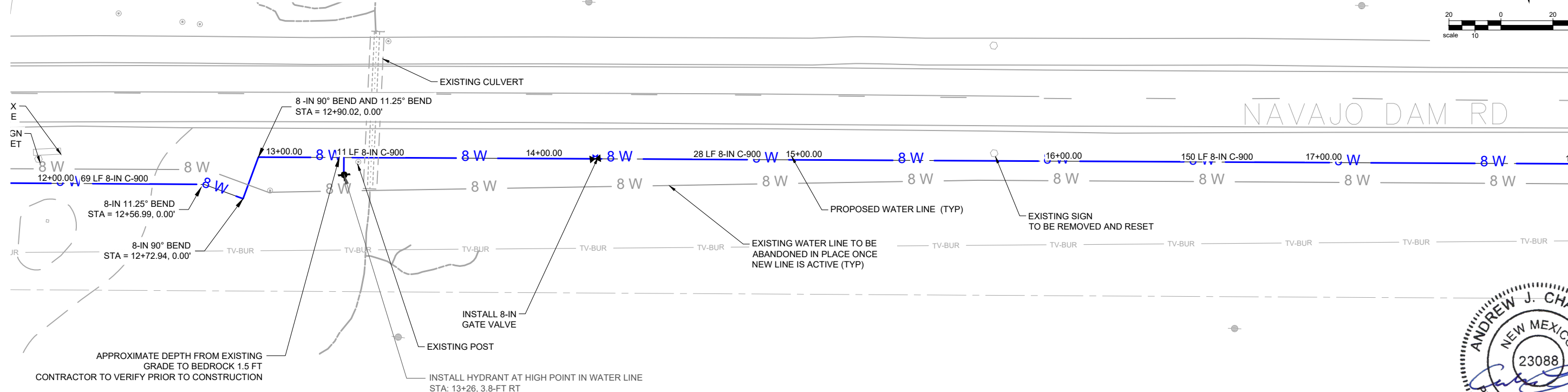
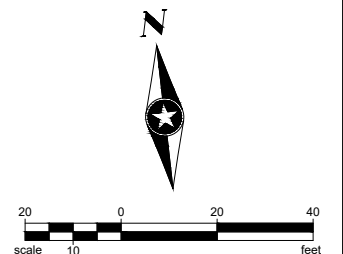


NOTE 1: DEFLECT PIPES AT JOINTS PER MANUFACTURERS SPECIFICATIONS TO MAINTAIN VERTICAL CURVATURE AND CONSISTENT BURY DEPTH OF 48-IN BELOW NM DOT PROPOSED GRADES.

IN AREAS WHERE THE PROPOSED NM DOT GRADE CAUSES A FUTURE FILL CONDITION, A 36-IN BURY DEPTH BELOW EXISTING GRADE SHOULD BE MAINTAINED (TYP, ALL P-PRO SHEETS).

NOTE 2: CONTRACTOR TO POTHOLE EXISTING WATER LINE AND UTILITIES TO VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS.

NOTE 3: CONTRACTOR TO LEAVE ALL POWER POLES IN PLACE AND PROTECT THEM DURING CONSTRUCTION.



Save: 10/28/2021 3:14 PM pthomas Plot: 11/29/2021 5:31 PM X:\AE\AAZTEC\1597595-final-dsgn\5-drawings\10-Civil\cad\dwg\sheet1597595VTRPP1.dwg

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.  
 DATE 11/30/2021  
 DREW CHANDLER, PE  
 LICENSE NO. 23088

**NM 173 WATER LINE REPLACEMENT**  
 AZTEC, NEW MEXICO

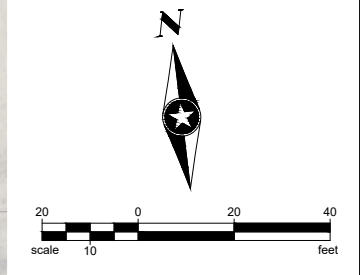
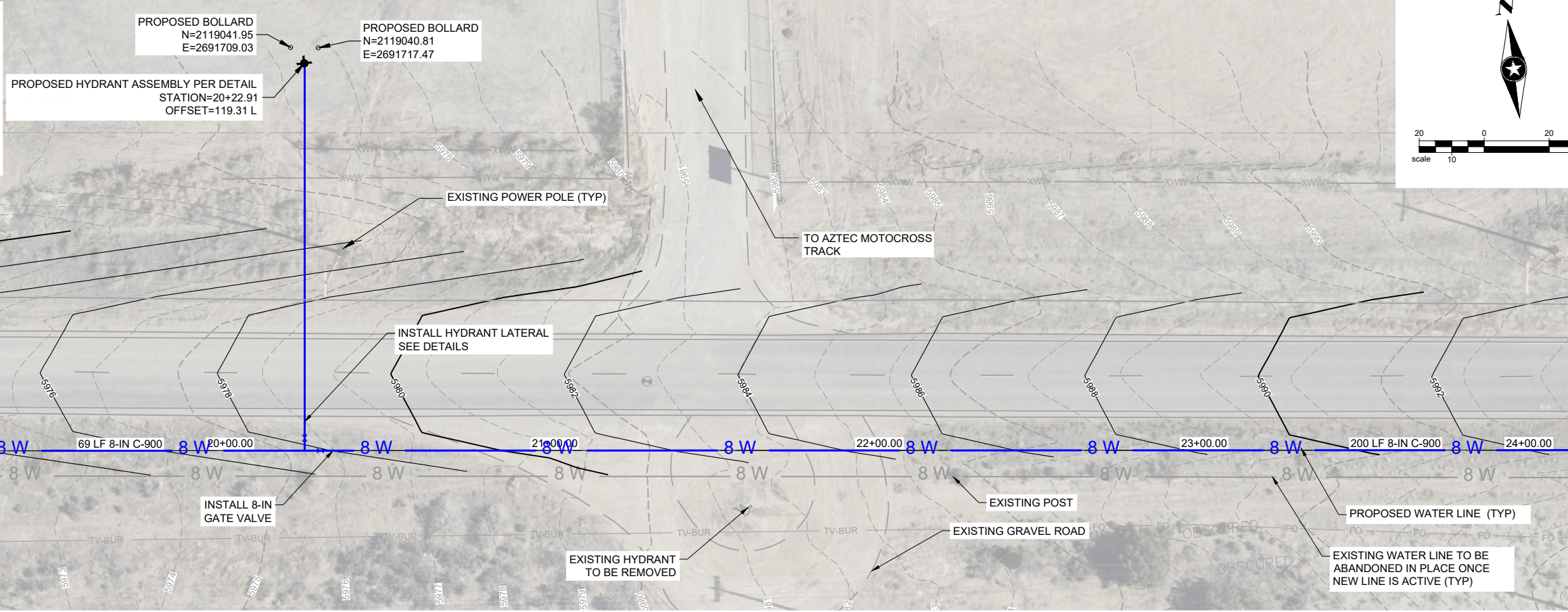
**WATER PLAN AND PROFILE (3)**  
**NM 173 WATER LINE**

NOTE 1: DEFLECT PIPES AT JOINTS PER MANUFACTURERS SPECIFICATIONS TO MAINTAIN VERTICAL CURVATURE AND CONSISTENT BURY DEPTH OF 48-IN BELOW NM DOT PROPOSED GRADES AND EXISTING GRADES.

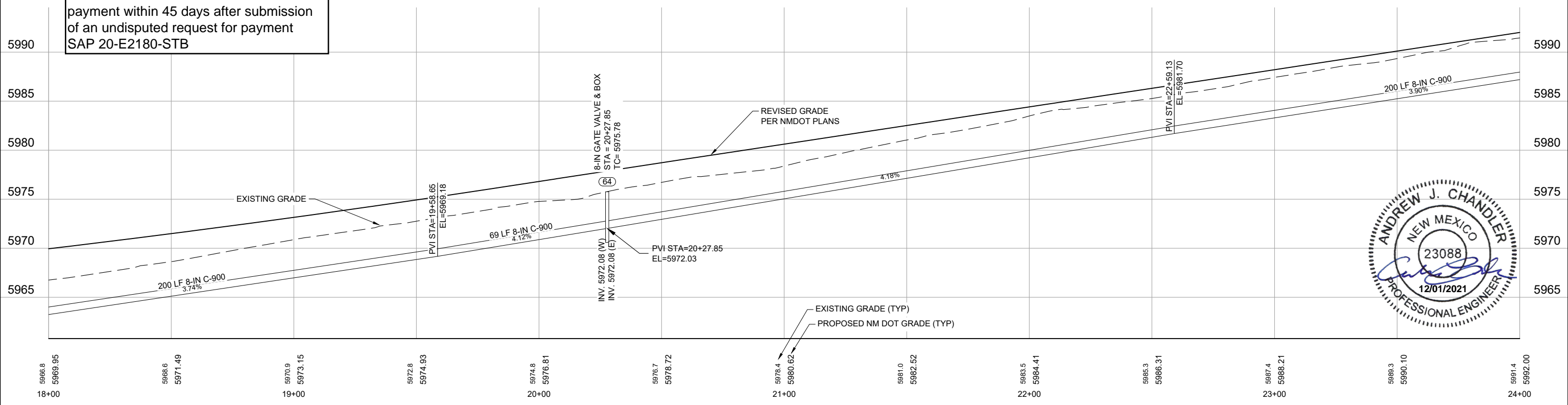
IN AREAS WHERE THE PROPOSED NM DOT GRADE CAUSES A FUTURE FILL CONDITION, A 36-IN BURY DEPTH BELOW EXISTING GRADE SHOULD BE MAINTAINED INSTEAD (TYP, ALL P-PRO SHEETS).

NOTE 2: CONTRACTOR TO POTHOLE EXISTING WATER LINE AND UTILITIES TO VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS.

NOTE 3: CONTRACTOR TO LEAVE ALL POWER POLES IN PLACE AND PROTECT THEM DURING CONSTRUCTION.



This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



Save: 10/28/2021 3:16 PM pthomas Plot: 11/29/2021 5:34 PM X:\AE\AAZTEC\15975155-final-dsgn\51-drawings\10-Civil\card\dwg\sheet15975155VTRPP2.dwg

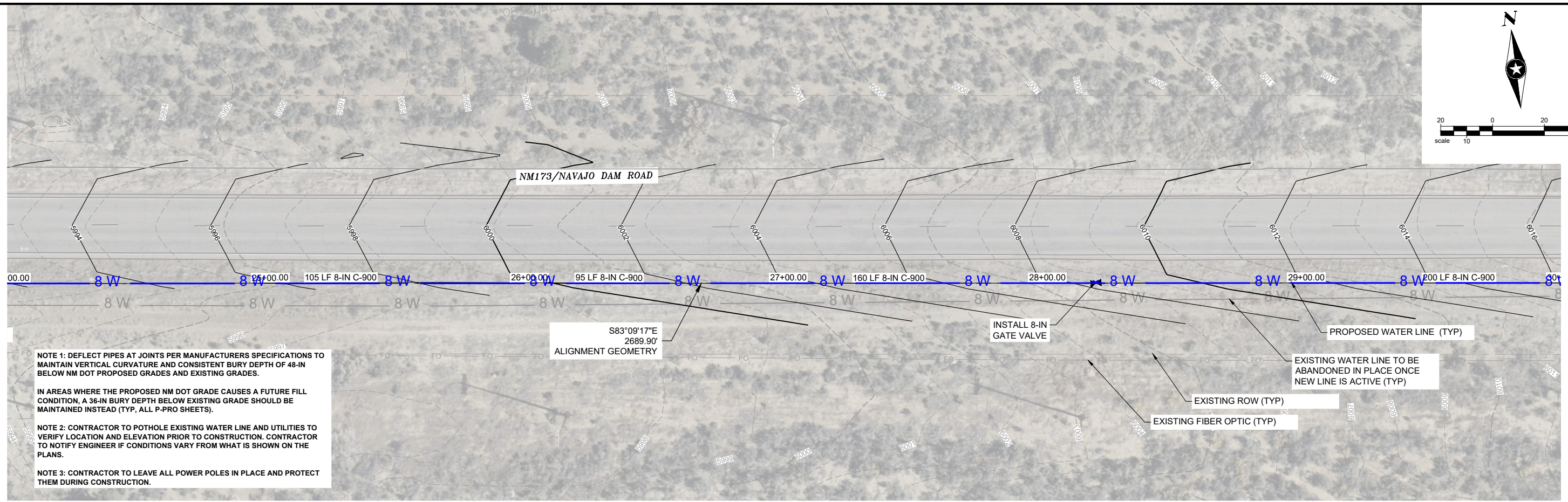
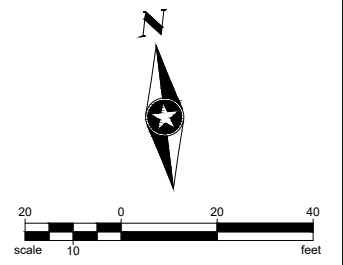
SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

DATE 11/30/2021

DREW CHANDLER, PE  
LICENSE NO. 23088





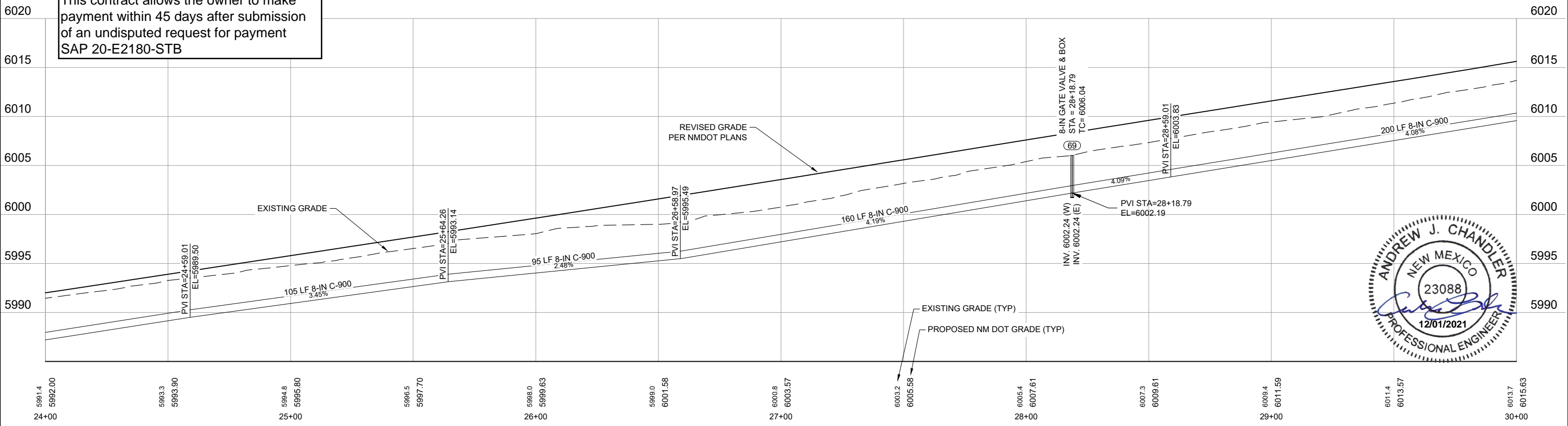
**NOTE 1:** DEFLECT PIPES AT JOINTS PER MANUFACTURERS SPECIFICATIONS TO MAINTAIN VERTICAL CURVATURE AND CONSISTENT BURY DEPTH OF 48-IN BELOW NM DOT PROPOSED GRADES AND EXISTING GRADES.

IN AREAS WHERE THE PROPOSED NM DOT GRADE CAUSES A FUTURE FILL CONDITION, A 36-IN BURY DEPTH BELOW EXISTING GRADE SHOULD BE MAINTAINED INSTEAD (TYP, ALL P-PRO SHEETS).

**NOTE 2:** CONTRACTOR TO POTHOLE EXISTING WATER LINE AND UTILITIES TO VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS.

**NOTE 3:** CONTRACTOR TO LEAVE ALL POWER POLES IN PLACE AND PROTECT THEM DURING CONSTRUCTION.

This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



Save: 10/28/2021 3:16 PM pthomas Plot: 11/29/2021 5:34 PM X:\AE\AAZTEC\1597595-final\csgn\51-drawings\10-Civil\cadd\wg\sheet1597595\TRPP2.dwg

SEH Project	Rev.#	Revision Issue Description	Date
Drawn By	PT		
Designed By	PT		
Checked By	PO		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

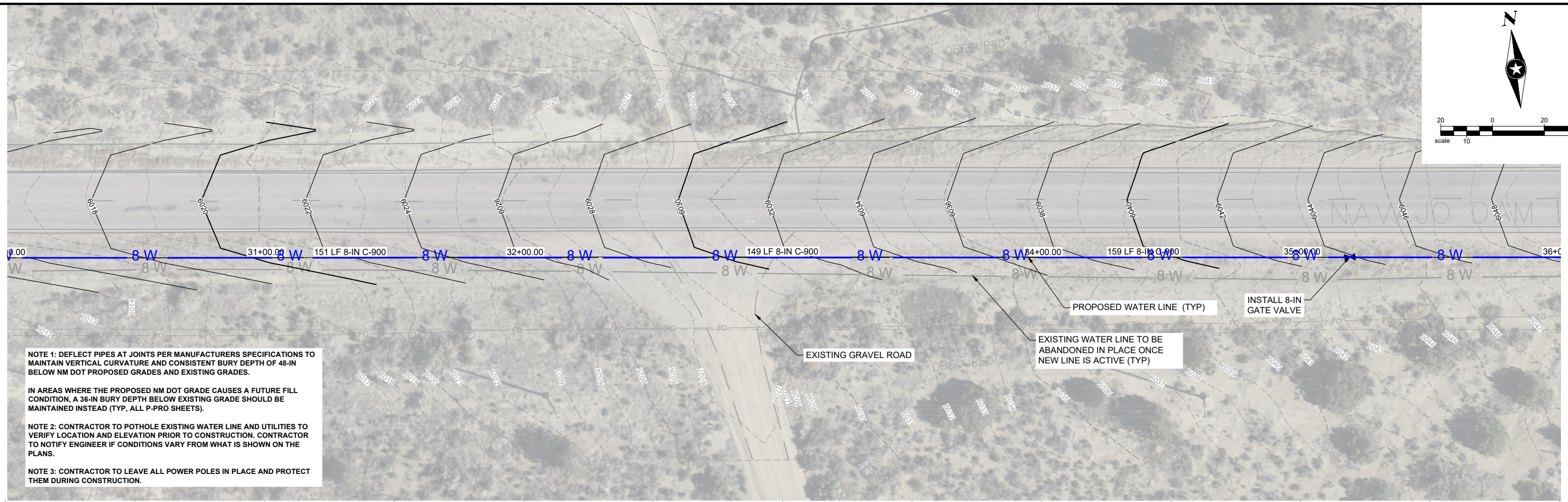
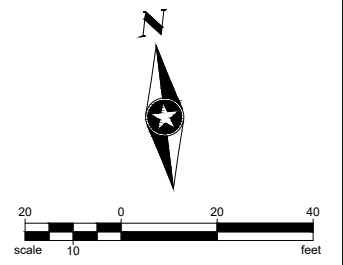
DATE 11/30/2021

DREW CHANDLER, PE  
LICENSE NO. 23088

**NM 173 WATER LINE REPLACEMENT**  
AZTEC, NEW MEXICO

**WATER PLAN AND PROFILE (5)**  
**NM 173 WATER LINE**





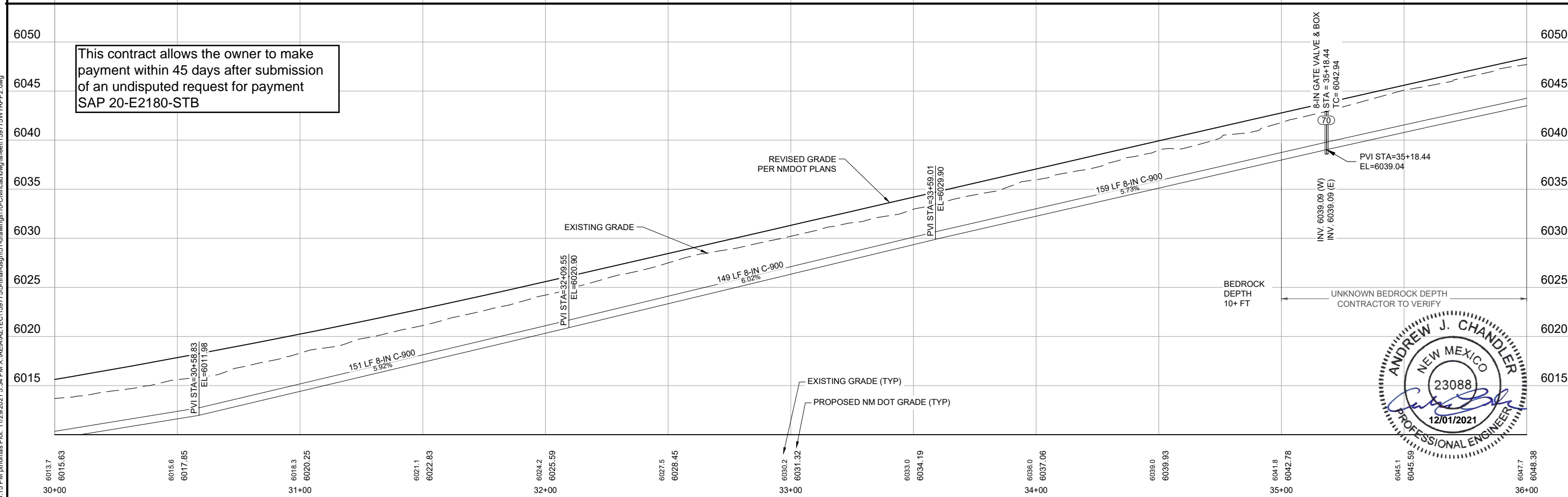
**NOTE 1:** DEFLECT PIPES AT JOINTS PER MANUFACTURERS SPECIFICATIONS TO MAINTAIN VERTICAL CURVATURE AND CONSISTENT BURY DEPTH OF 48-IN BELOW NM DOT PROPOSED GRADES AND EXISTING GRADES.

**IN AREAS WHERE THE PROPOSED NM DOT GRADE CAUSES A FUTURE FILL CONDITION, A 36-IN BURY DEPTH BELOW EXISTING GRADE SHOULD BE MAINTAINED INSTEAD (TYP, ALL P-PRO SHEETS).**

**NOTE 2:** CONTRACTOR TO POTHOLE EXISTING WATER LINE AND UTILITIES TO VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS.

**NOTE 3:** CONTRACTOR TO LEAVE ALL POWER POLES IN PLACE AND PROTECT THEM DURING CONSTRUCTION.

This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



Save: 10/28/2021 3:15 PM phomas Plot: 11/29/2021 5:34 PM X:\AE\AAZTEC\1597595-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet1597595VTRPP2.dwg

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					

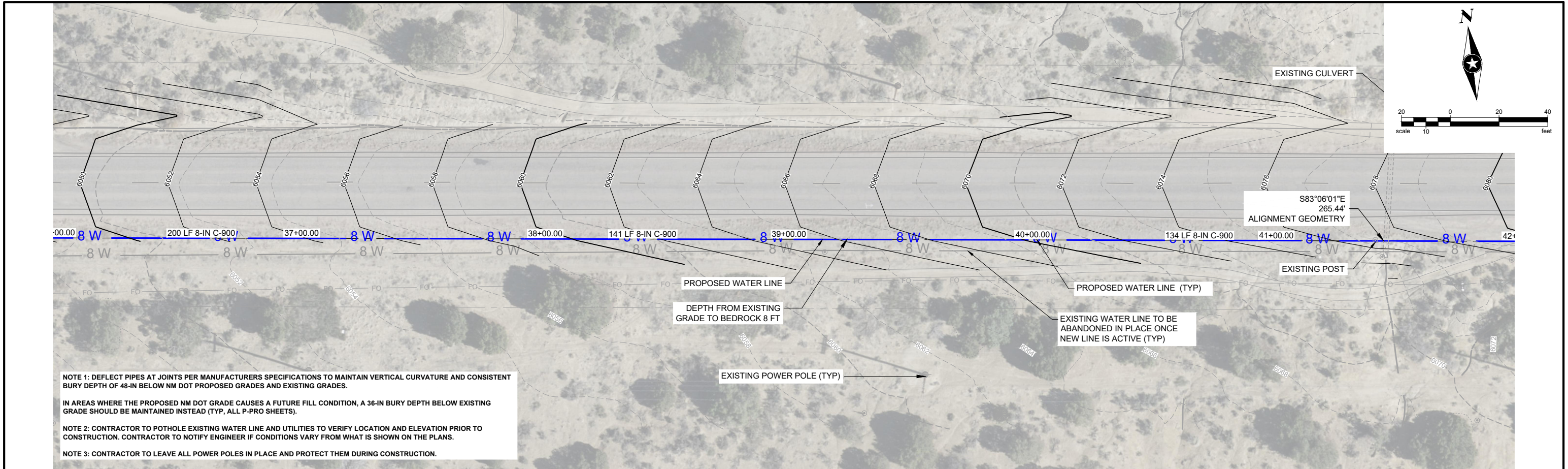
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

**SEH**

DREW CHANDLER, PE  
LICENSE NO. 23088

DATE 11/30/2021



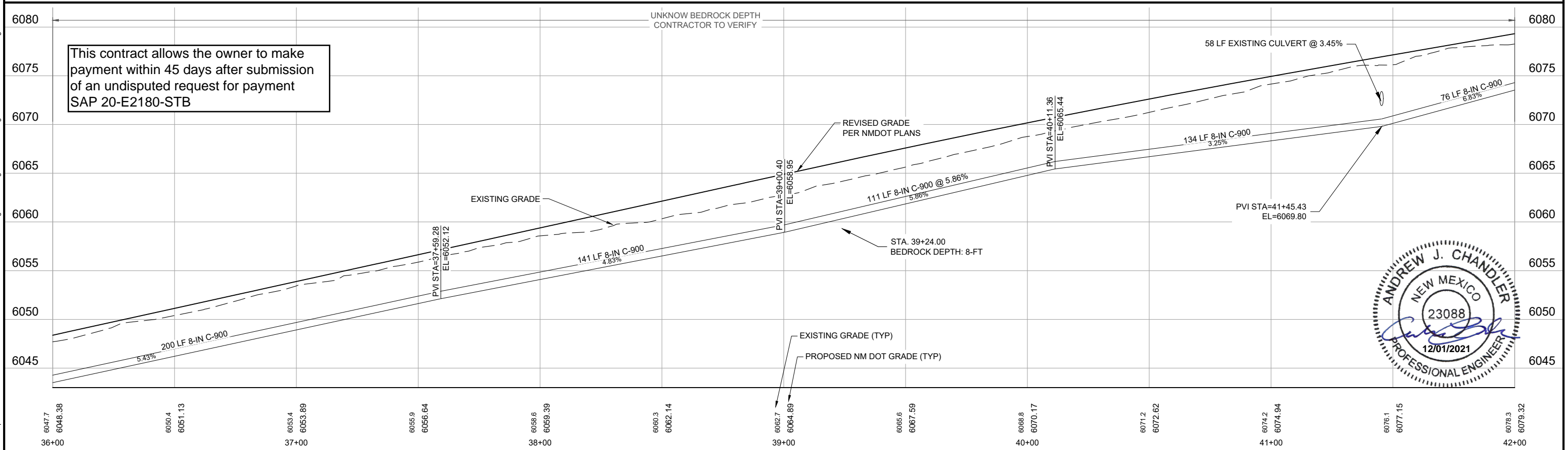


NOTE 1: DEFLECT PIPES AT JOINTS PER MANUFACTURERS SPECIFICATIONS TO MAINTAIN VERTICAL CURVATURE AND CONSISTENT BURY DEPTH OF 48-IN BELOW NM DOT PROPOSED GRADES AND EXISTING GRADES.

IN AREAS WHERE THE PROPOSED NM DOT GRADE CAUSES A FUTURE FILL CONDITION, A 36-IN BURY DEPTH BELOW EXISTING GRADE SHOULD BE MAINTAINED INSTEAD (TYP, ALL P-PRO SHEETS).

NOTE 2: CONTRACTOR TO POTHOLE EXISTING WATER LINE AND UTILITIES TO VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS.

NOTE 3: CONTRACTOR TO LEAVE ALL POWER POLES IN PLACE AND PROTECT THEM DURING CONSTRUCTION.



Save: 10/28/2021 3:16 PM pthomas Plot: 11/29/2021 5:38 PM X:\AE\AAZTEC\1597515-final\dsign\51-drawings\10-Civil\cad\dwg\sheet1597515VTRPP3.dwg

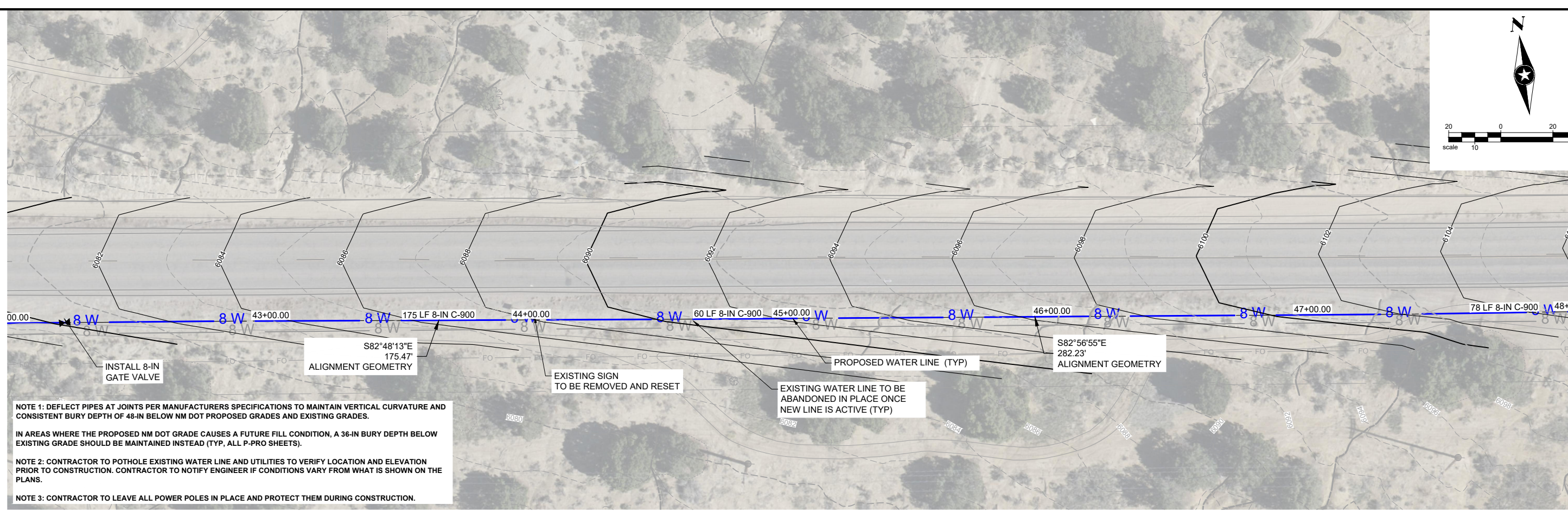
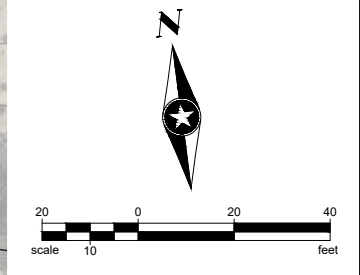
SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

DATE 11/30/2021

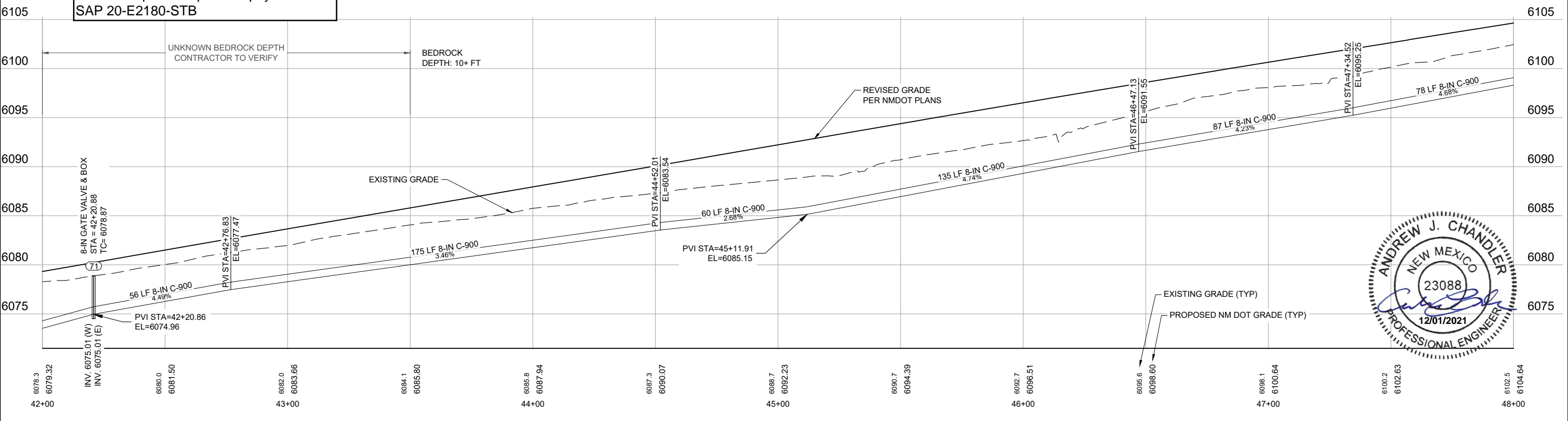
DREW CHANDLER, PE  
LICENSE NO. 23088





This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB

Save: 10/28/2021 3:16 PM pthomas Plot: 11/29/2021 5:38 PM X:\AE\AZTEC\15975155-final\csgn\51-drawings\10-Civil\cadd\wg\sheet15975155\TRPP3.dwg



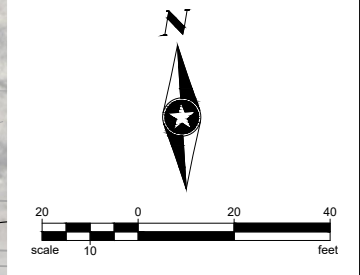
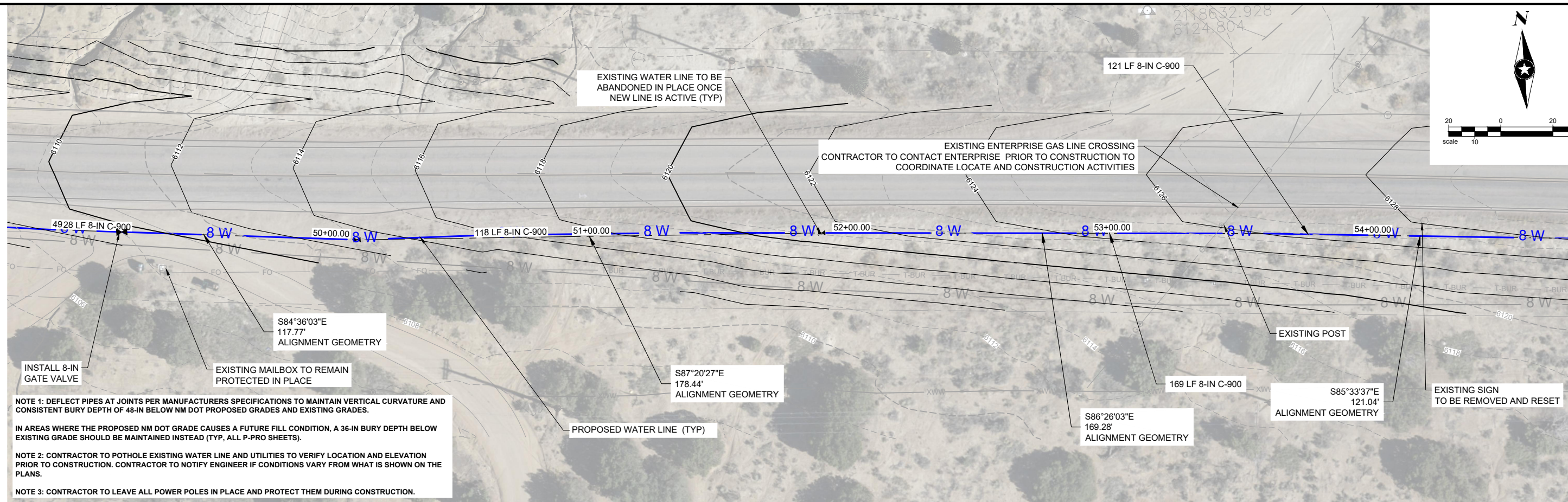
SEH Project	Rev.#	Revision Issue Description	Date
Drawn By	PT		
Designed By	PT		
Checked By	PO		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

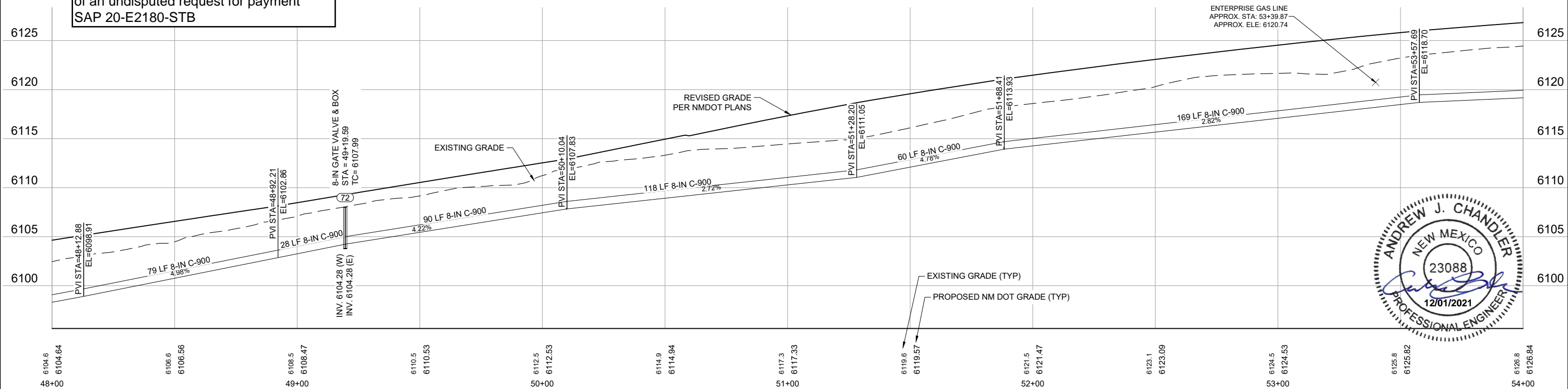
DATE 11/30/2021

DREW CHANDLER, PE  
LICENSE NO. 23088





This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



Save: 10/28/2021 3:16 PM pthomas Plot: 11/29/2021 5:38 PM X:\AE\AZTEC\1597515-final\csgn\51-drawings\10-Civil\cadd\wg\sheet1597515VTRPP3.dwg

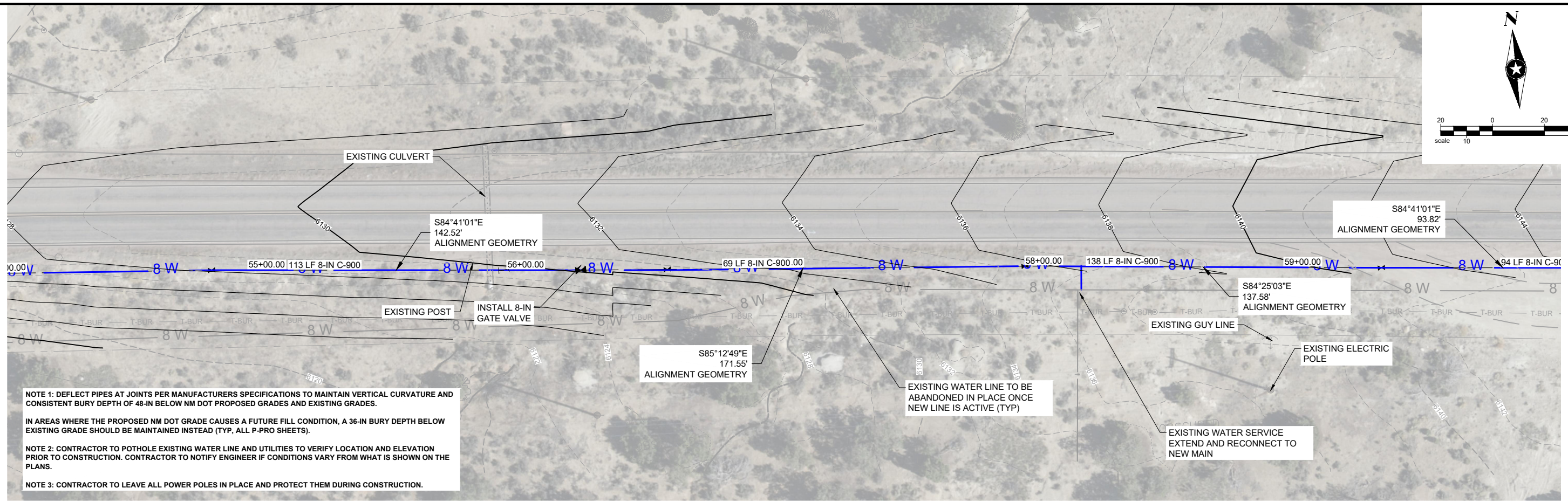
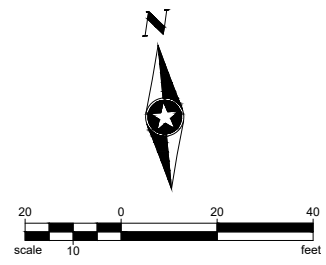
SEH Project	Rev.#	Revision Issue Description	Date
Drawn By	PT		
Designed By	PT		
Checked By	PO		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

DATE 11/30/2021

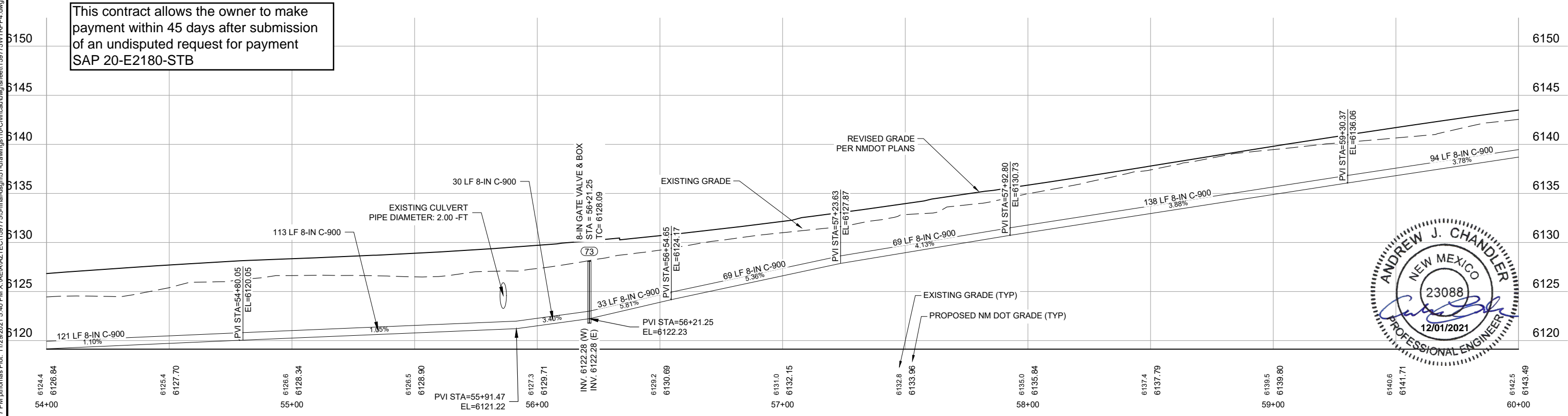
DREW CHANDLER, PE  
LICENSE NO. 23088





BENCHMARK EL.

This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

DATE 11/30/2021

DREW CHANDLER, PE  
LICENSE NO. 23088

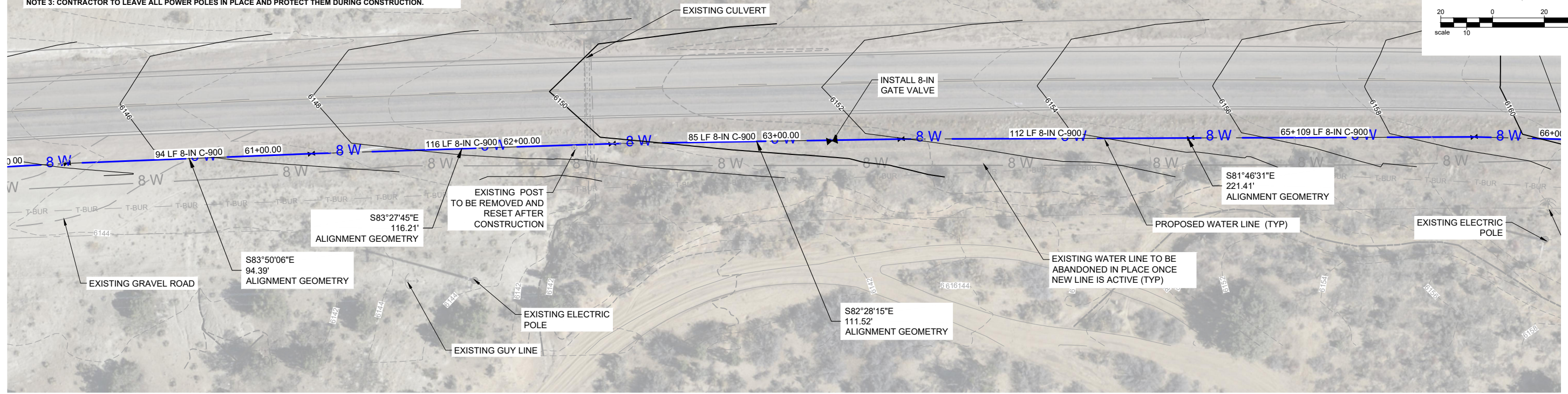
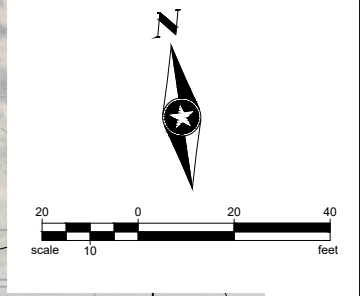


NOTE 1: DEFLECT PIPES AT JOINTS PER MANUFACTURERS SPECIFICATIONS TO MAINTAIN VERTICAL CURVATURE AND CONSISTENT BURY DEPTH OF 48-IN BELOW NM DOT PROPOSED GRADES AND EXISTING GRADES.

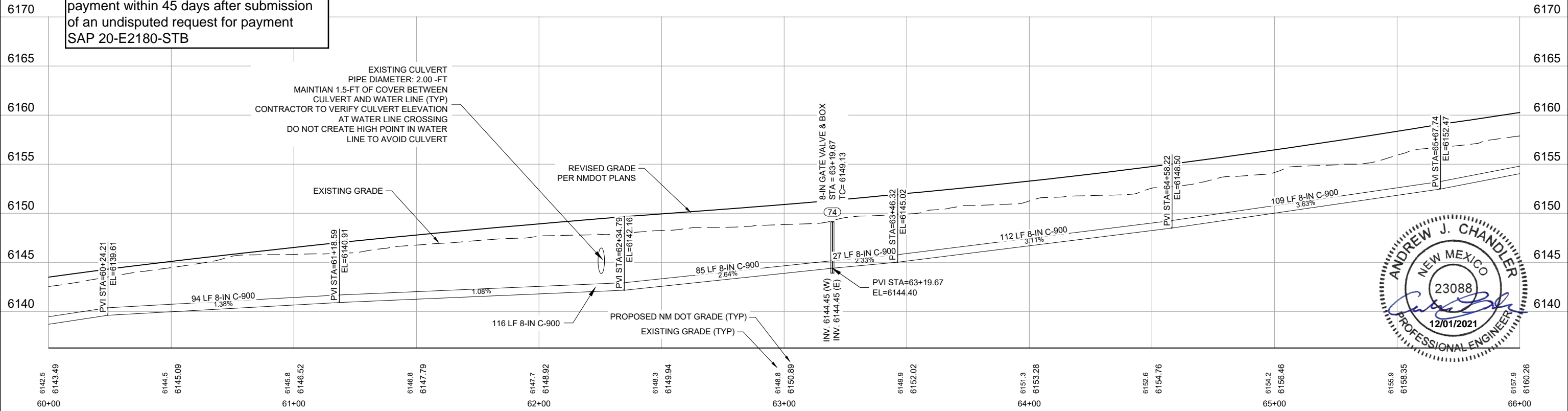
IN AREAS WHERE THE PROPOSED NM DOT GRADE CAUSES A FUTURE FILL CONDITION, A 36-IN BURY DEPTH BELOW EXISTING GRADE SHOULD BE MAINTAINED INSTEAD (TYP, ALL P-PRO SHEETS).

NOTE 2: CONTRACTOR TO POTHOLE EXISTING WATER LINE AND UTILITIES TO VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS.

NOTE 3: CONTRACTOR TO LEAVE ALL POWER POLES IN PLACE AND PROTECT THEM DURING CONSTRUCTION.



This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



Save: 10/28/2021 3:17 PM pthomas Plot: 11/29/2021 5:41 PM X:\AE\AZTEC\1597595-final\cadd\dwg\sheet1597595\WTRPP4.dwg

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

DATE 11/30/2021

DREW CHANDLER, PE  
LICENSE NO. 23088

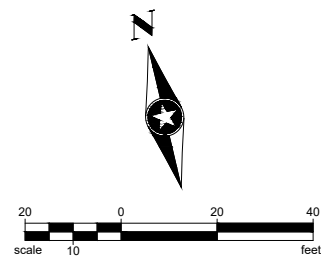
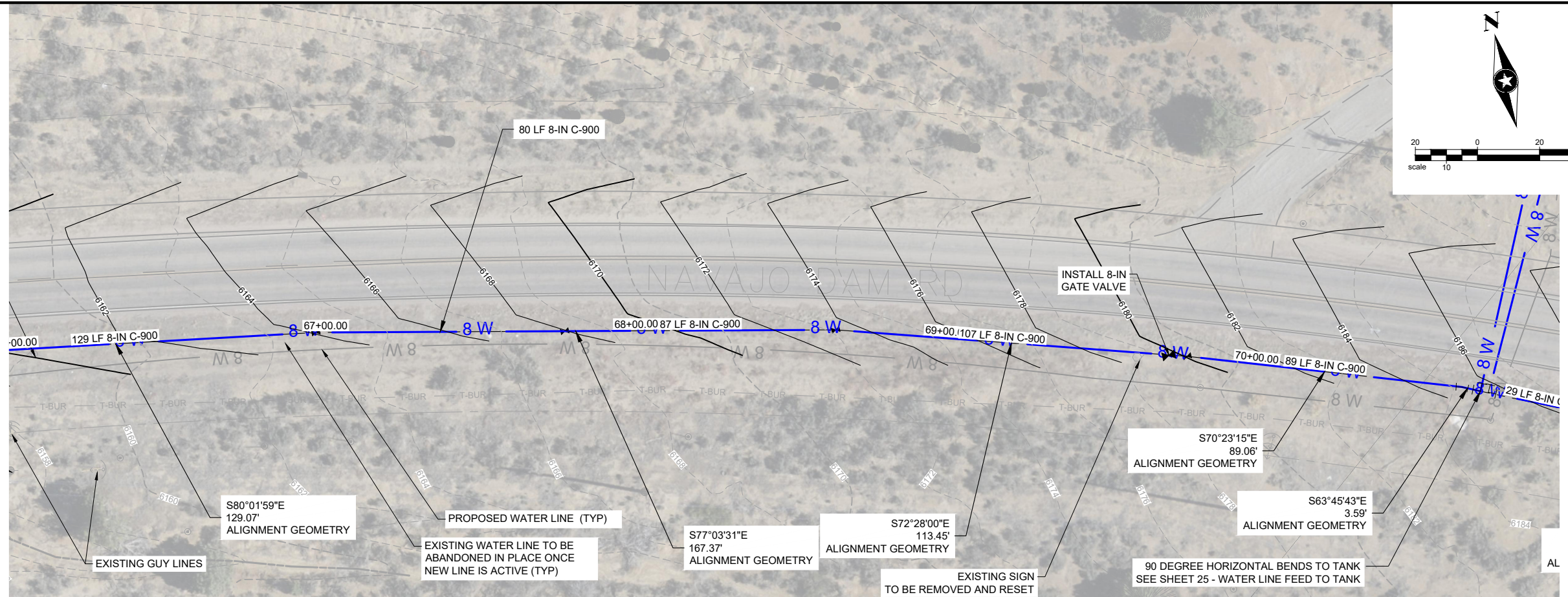


NOTE 1: DEFLECT PIPES AT JOINTS PER MANUFACTURERS SPECIFICATIONS TO MAINTAIN VERTICAL CURVATURE AND CONSISTENT BURY DEPTH OF 48-IN BELOW NM DOT PROPOSED GRADES AND EXISTING GRADES.

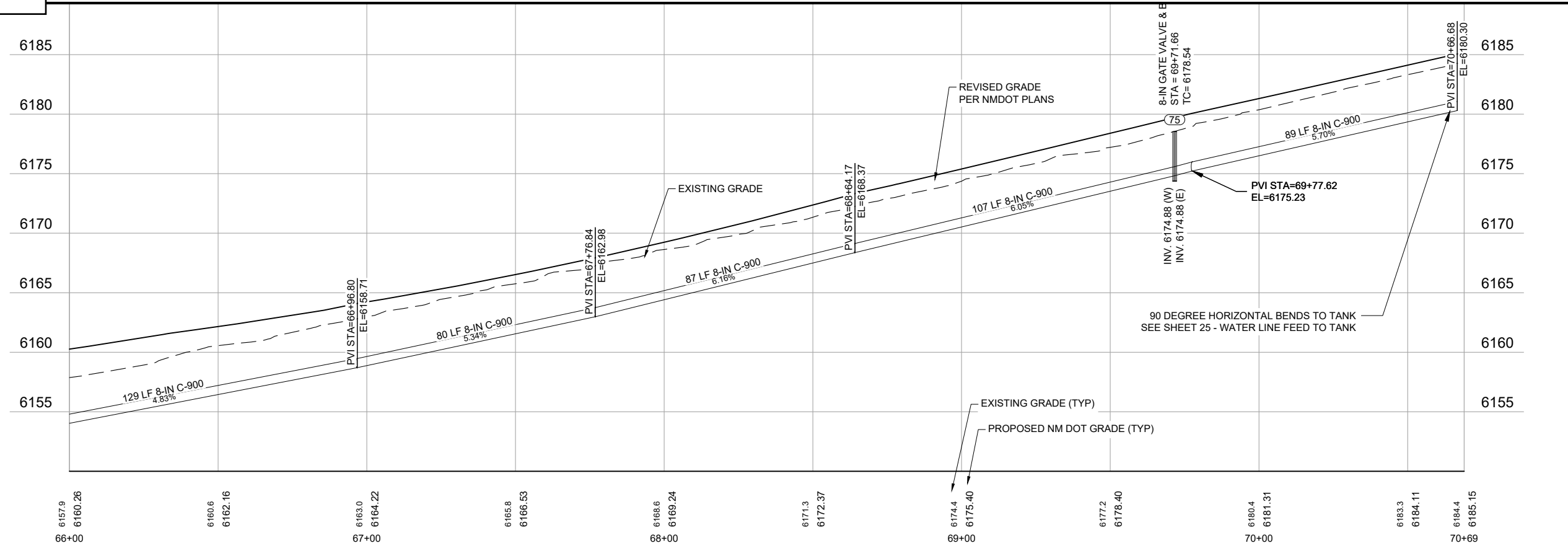
IN AREAS WHERE THE PROPOSED NM DOT GRADE CAUSES A FUTURE FILL CONDITION, A 36-IN BURY DEPTH BELOW EXISTING GRADE SHOULD BE MAINTAINED INSTEAD (TYP, ALL P-PRO SHEETS).

NOTE 2: CONTRACTOR TO POTHOLE EXISTING WATER LINE AND UTILITIES TO VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS.

NOTE 3: CONTRACTOR TO LEAVE ALL POWER POLES IN PLACE AND PROTECT THEM DURING CONSTRUCTION.



This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



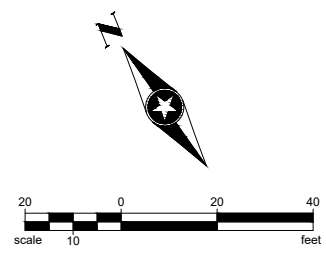
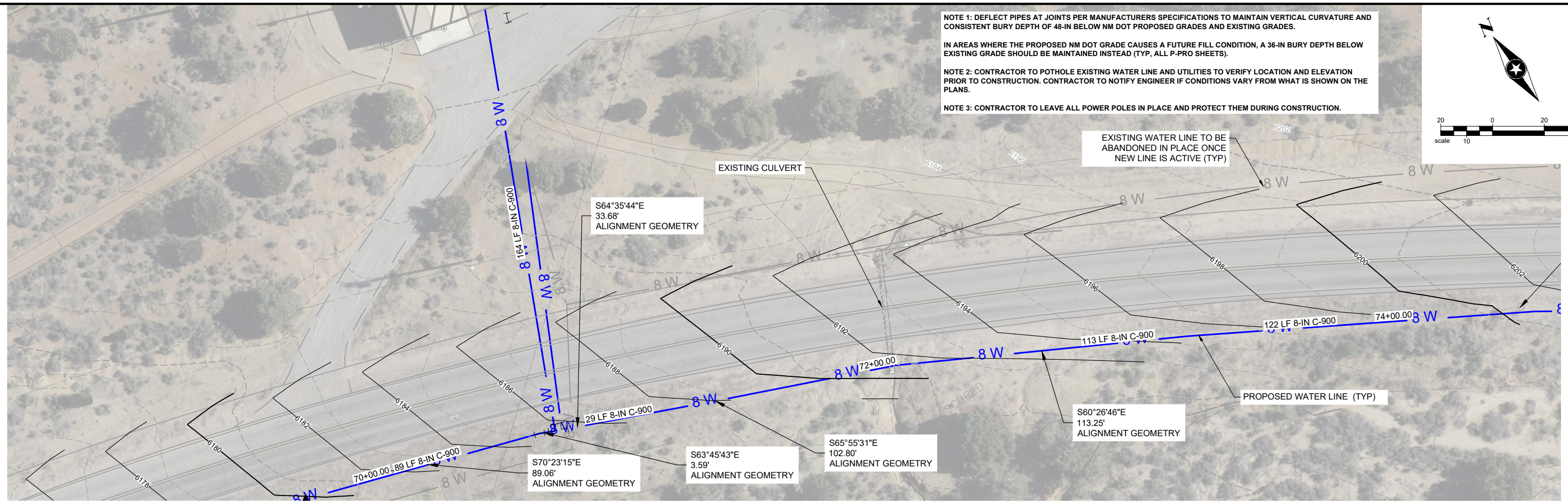
Save: 10/28/2021 3:17 PM pthomas Plot: 11/29/2021 5:42 PM X:\AE\AAZTEC\1597515-final\csgn\51-drawings\10-Civil\cadd\wg\sheet1597515VTRPP4.dwg

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					

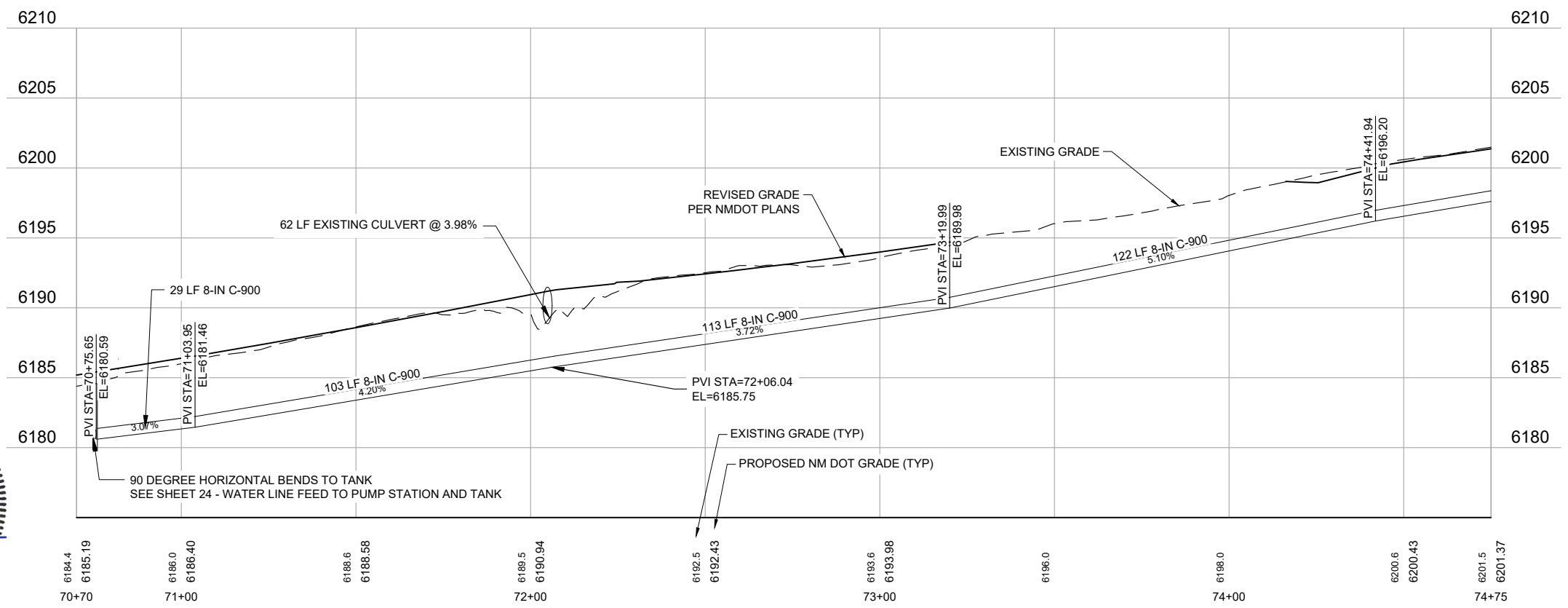
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.  
 DATE 11/30/2021  
 DREW CHANDLER, PE  
 LICENSE NO. 23088



Save: 10/28/2021 3:18 PM phomas Plot: 11/29/2021 5:48 PM X:\AE\AAZTEC\1597515-final\csgn\51-drawings\10-Civil\cadd\wg\sheet1597515\TRPP5.dwg



This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

DATE 11/30/2021

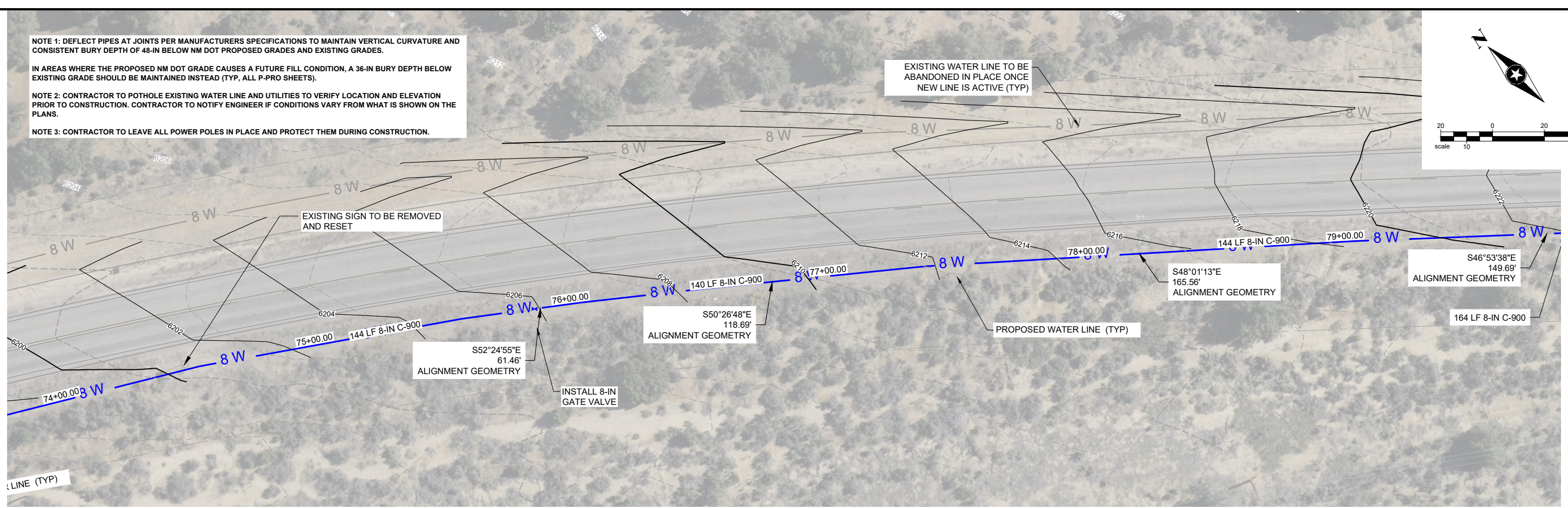
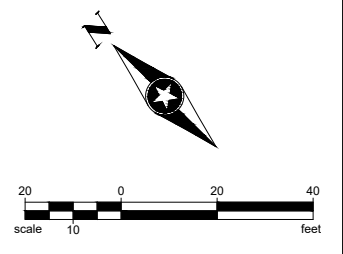
DREW CHANDLER, PE  
LICENSE NO. 23088



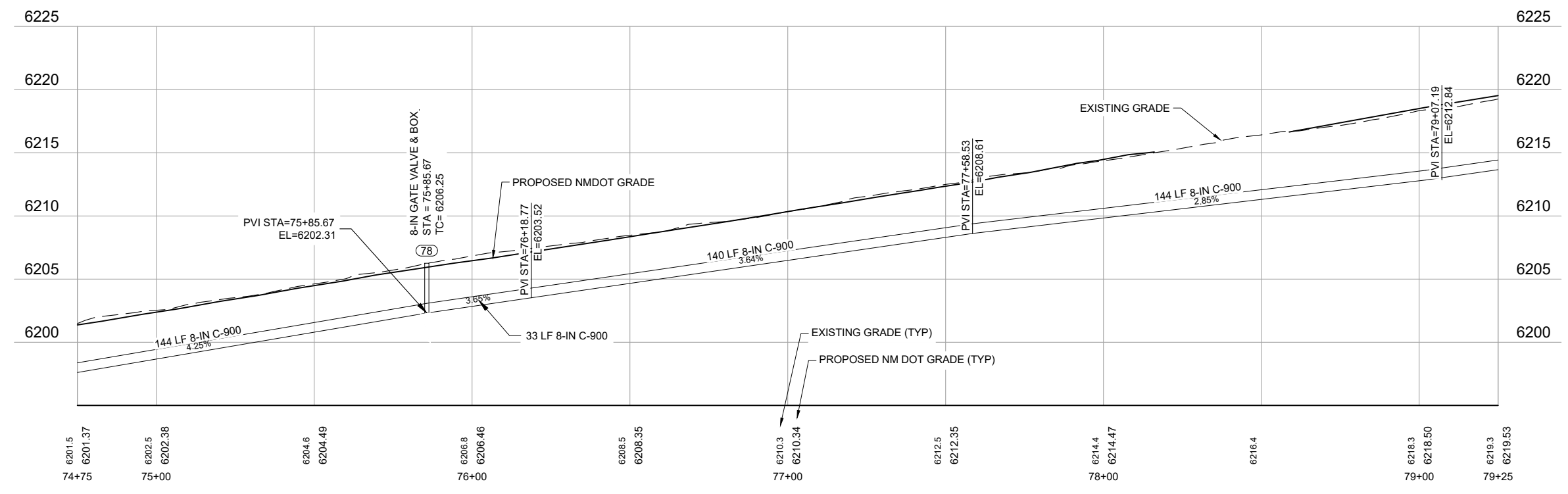
**NOTE 1:** DEFLECT PIPES AT JOINTS PER MANUFACTURERS SPECIFICATIONS TO MAINTAIN VERTICAL CURVATURE AND CONSISTENT BURY DEPTH OF 48-IN BELOW NM DOT PROPOSED GRADES AND EXISTING GRADES.

**NOTE 2:** CONTRACTOR TO POTHOLE EXISTING WATER LINE AND UTILITIES TO VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS.

**NOTE 3:** CONTRACTOR TO LEAVE ALL POWER POLES IN PLACE AND PROTECT THEM DURING CONSTRUCTION.



This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



Save: 10/28/2021 3:18 PM phomas Plot: 11/29/2021 5:47 PM X:\AE\AAZTEC\1597515-final-dsgn\51-drawings\10-Civil\cadd\dwg\sheet1597515VTRPP5.dwg

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

**SEH**

DATE 11/30/2021

DREW CHANDLER, PE  
LICENSE NO. 23088

**NM 173 WATER LINE REPLACEMENT**  
AZTEC, NEW MEXICO

**WATER PLAN AND PROFILE (14)**  
**NM 173 WATER LINE**

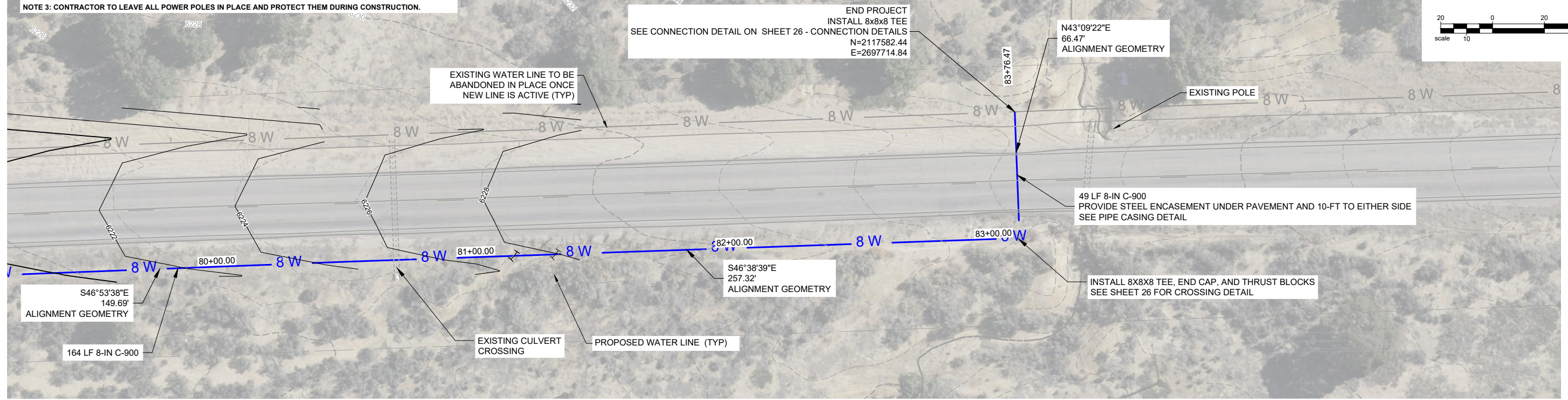
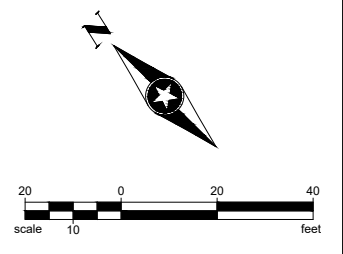


NOTE 1: DEFLECT PIPES AT JOINTS PER MANUFACTURERS SPECIFICATIONS TO MAINTAIN VERTICAL CURVATURE AND CONSISTENT BURY DEPTH OF 48-IN BELOW NM DOT PROPOSED GRADES AND EXISTING GRADES.

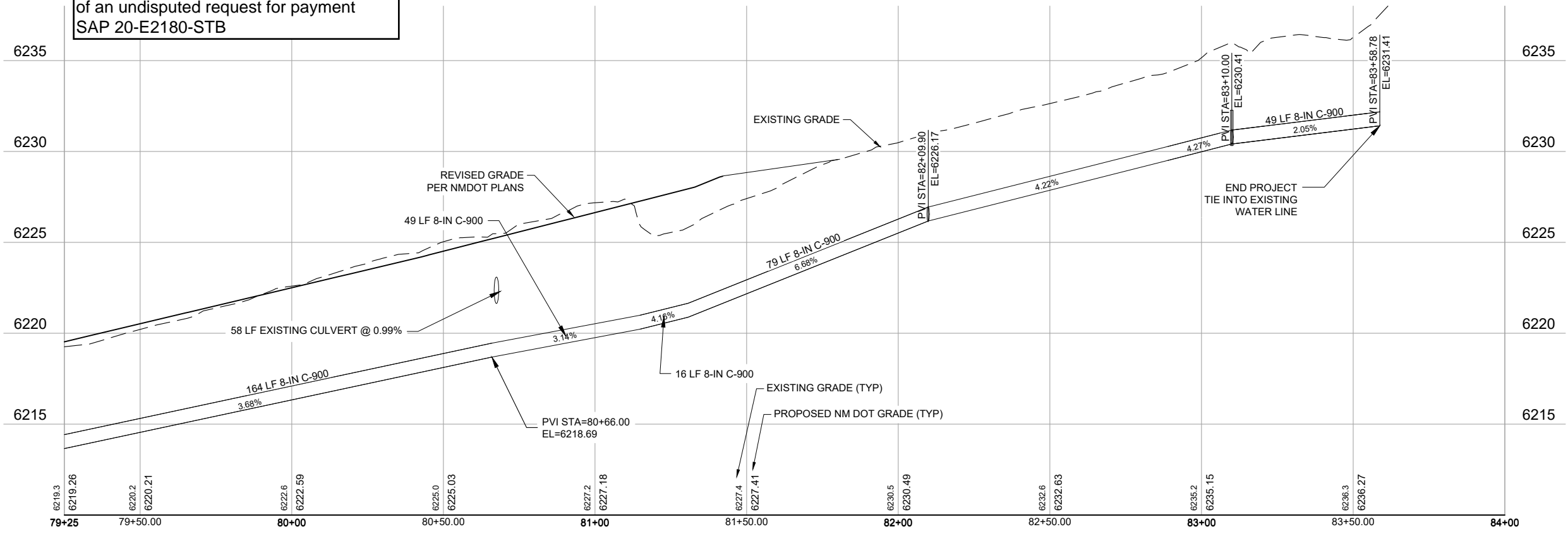
IN AREAS WHERE THE PROPOSED NM DOT GRADE CAUSES A FUTURE FILL CONDITION, A 36-IN BURY DEPTH BELOW EXISTING GRADE SHOULD BE MAINTAINED INSTEAD (TYP, ALL P-PRO SHEETS).

NOTE 2: CONTRACTOR TO POTHOLE EXISTING WATER LINE AND UTILITIES TO VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS.

NOTE 3: CONTRACTOR TO LEAVE ALL POWER POLES IN PLACE AND PROTECT THEM DURING CONSTRUCTION.



This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



Save: 10/28/2021 3:18 PM phomas Plot: 11/29/2021 5:49 PM X:\AE\AZTEC\1597515-final\cadd\dwg\sheet1597515VTRPP5.dwg

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

**SEH**

DATE 11/30/2021

DREW CHANDLER, PE  
LICENSE NO. 23088

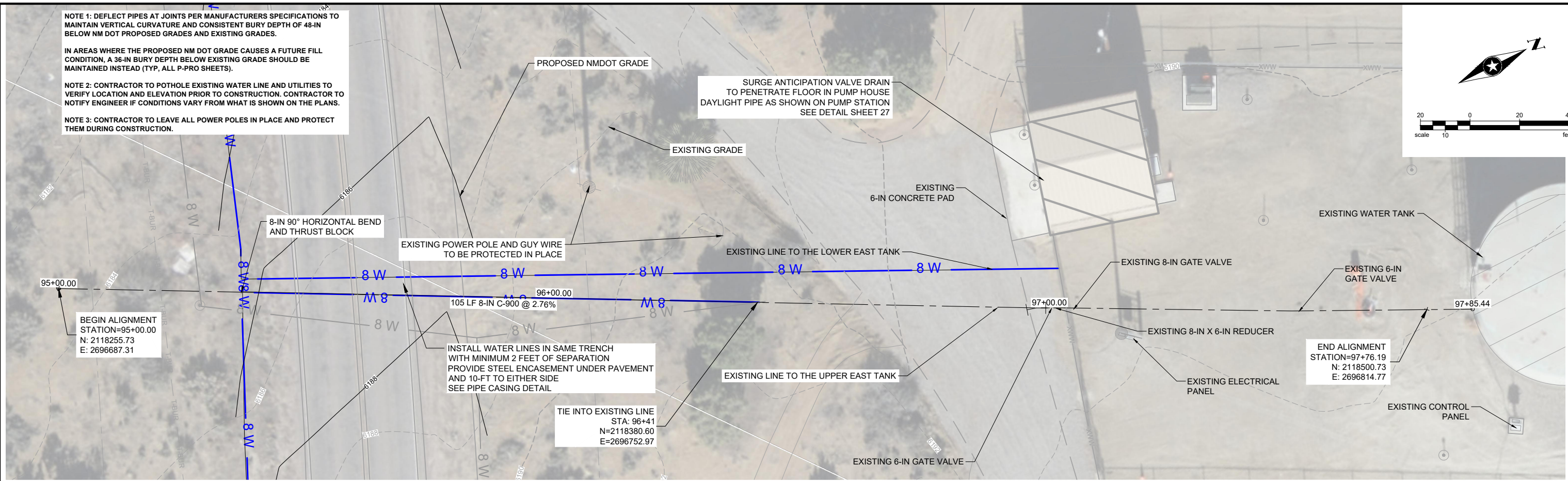
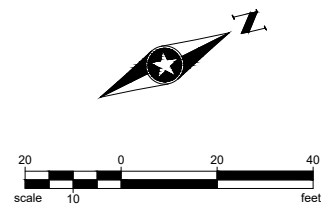


NOTE 1: DEFLECT PIPES AT JOINTS PER MANUFACTURERS SPECIFICATIONS TO MAINTAIN VERTICAL CURVATURE AND CONSISTENT BURY DEPTH OF 48-IN BELOW NM DOT PROPOSED GRADES AND EXISTING GRADES.

IN AREAS WHERE THE PROPOSED NM DOT GRADE CAUSES A FUTURE FILL CONDITION, A 36-IN BURY DEPTH BELOW EXISTING GRADE SHOULD BE MAINTAINED INSTEAD (TYP. ALL P-PRO SHEETS).

NOTE 2: CONTRACTOR TO POTHOLE EXISTING WATER LINE AND UTILITIES TO VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS.

NOTE 3: CONTRACTOR TO LEAVE ALL POWER POLES IN PLACE AND PROTECT THEM DURING CONSTRUCTION.



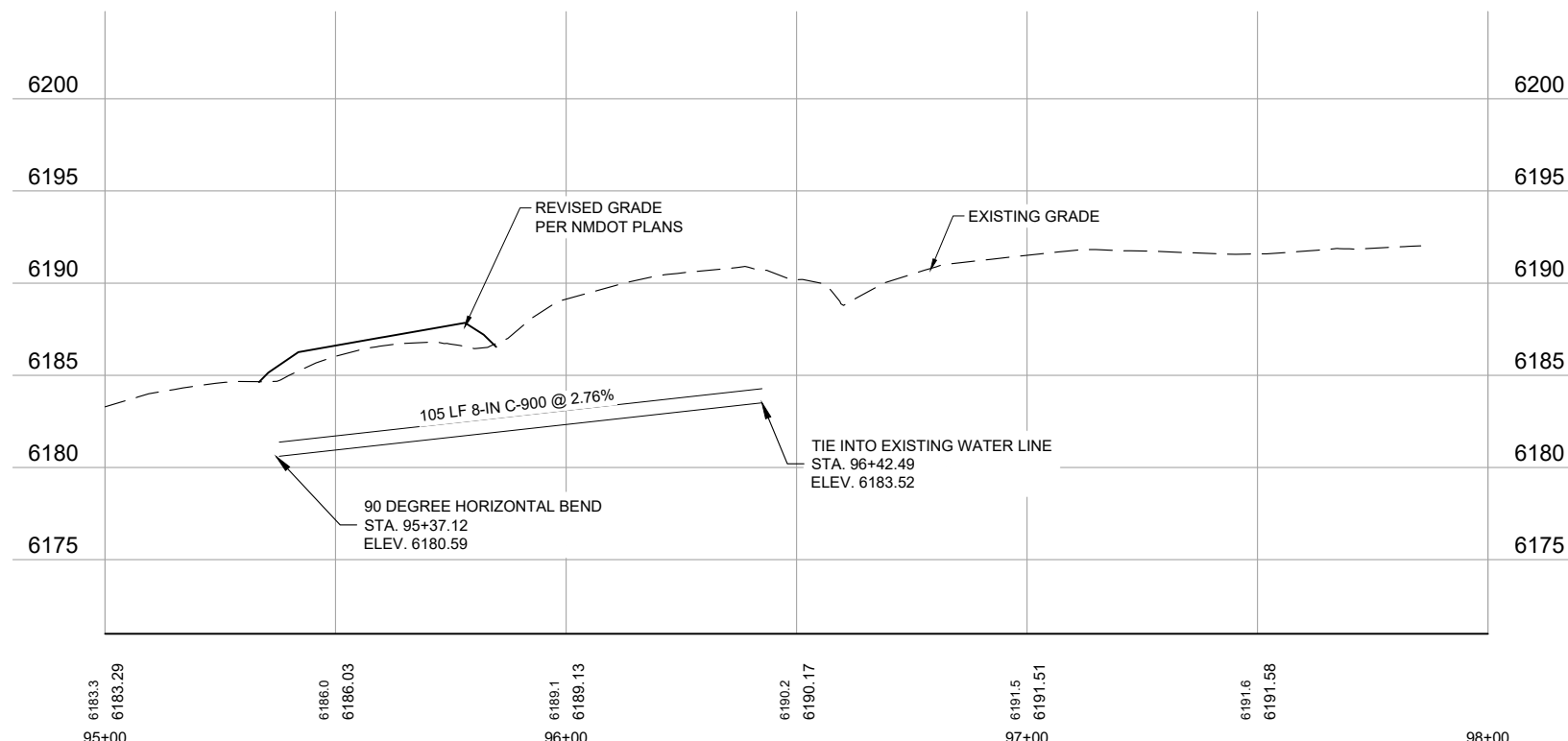
BENCHMARK EL.

BENCHMARK EL.

This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB

NOTE 1: DEFLECT PIPES AT JOINTS PER MANUFACTURERS SPECIFICATIONS TO MAINTAIN VERTICAL CURVATURE AND CONSISTENT 48-IN BURY DEPTH (TYP)

NOTE 2: CONTRACTOR TO POTHOLE EXISTING WATER LINE AND UTILITIES TO VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS.



Save: 10/28/2021 3:18 PM pthomas Plot: 11/29/2021 5:52 PM X:\AE\AAZTEC\15975155-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet15975155\TRPP TANK SE.dwg

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

**SEH**

DATE 11/30/2021

DREW CHANDLER, PE  
LICENSE NO. 23088

**NM 173 WATER LINE REPLACEMENT**  
AZTEC, NEW MEXICO

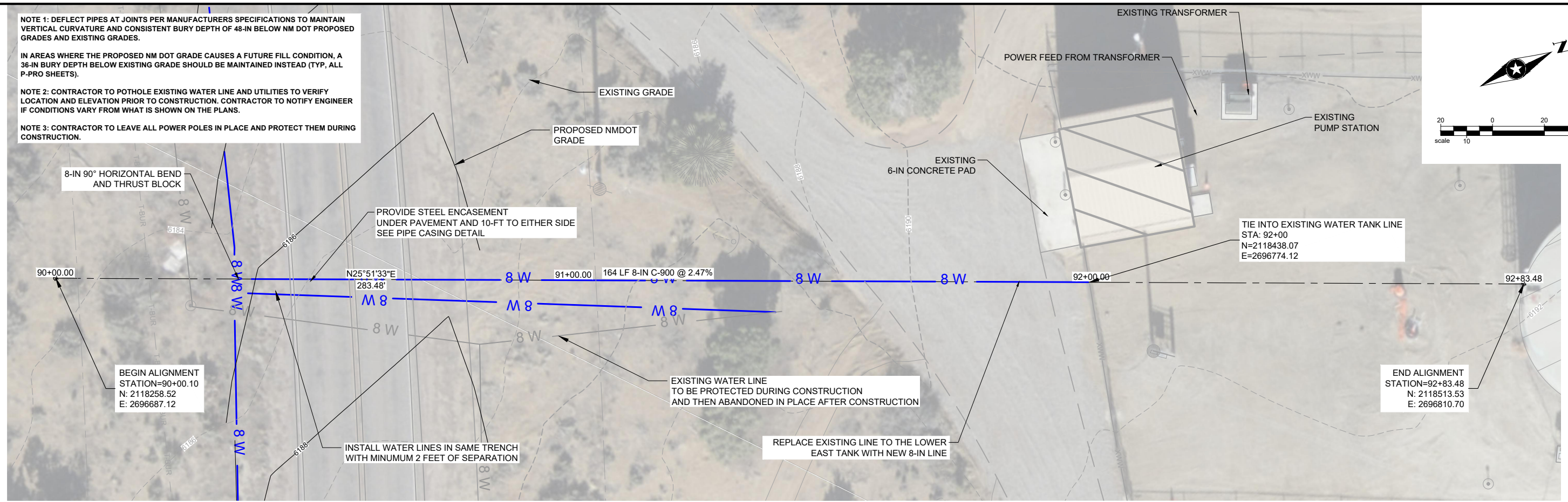
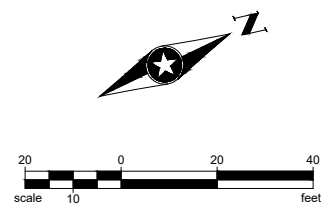
**WATER LINE FEED TO PUMP STATION AND TANK**  
**NM 173 WATER LINE**



**NOTE 1:** DEFLECT PIPES AT JOINTS PER MANUFACTURERS SPECIFICATIONS TO MAINTAIN VERTICAL CURVATURE AND CONSISTENT BURY DEPTH OF 48-IN BELOW NM DOT PROPOSED GRADES AND EXISTING GRADES.

**NOTE 2:** CONTRACTOR TO POTHOLE EXISTING WATER LINE AND UTILITIES TO VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS.

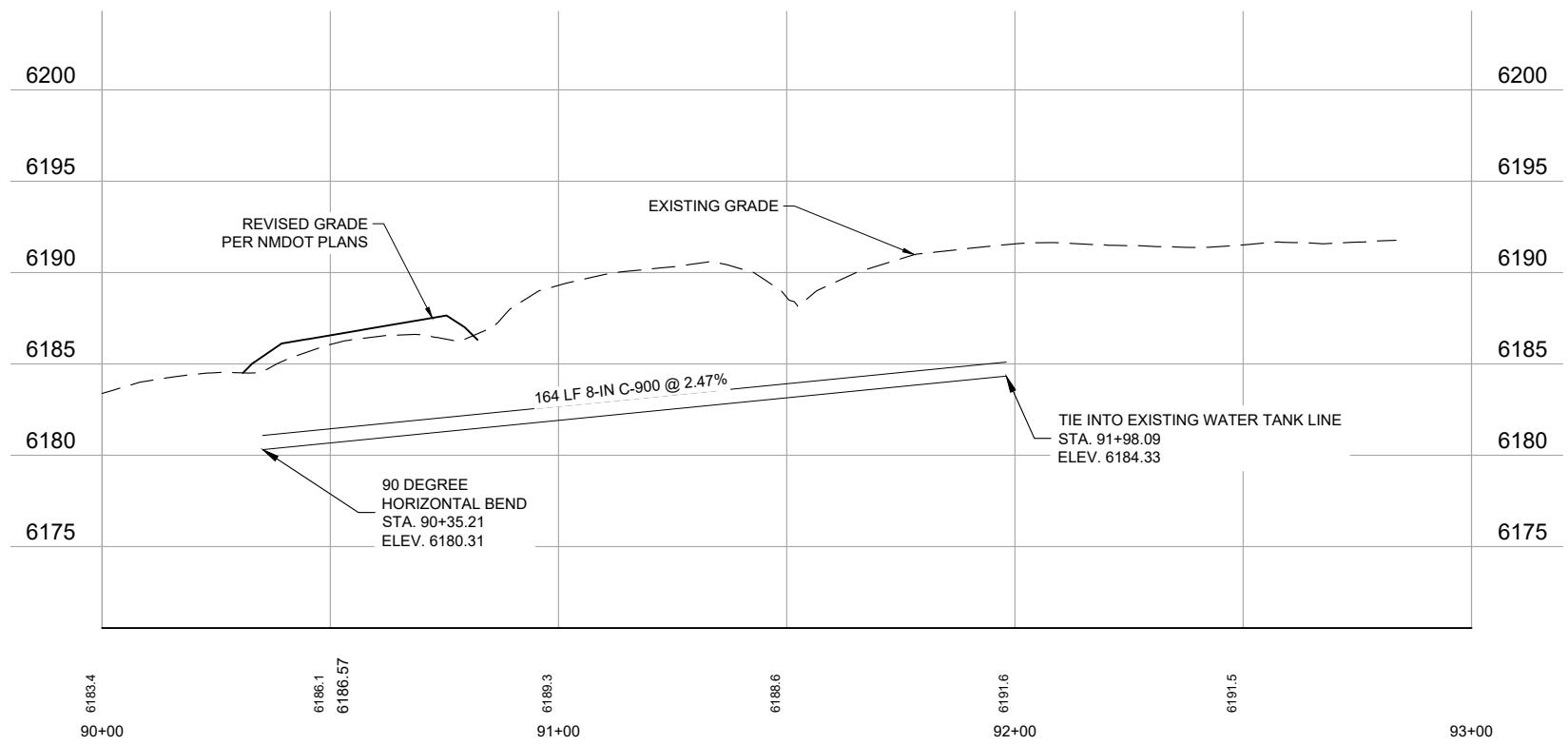
**NOTE 3:** CONTRACTOR TO LEAVE ALL POWER POLES IN PLACE AND PROTECT THEM DURING CONSTRUCTION.



BENCHMARK EL.

BENCHMARK EL.

This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



**NOTE 1:** DEFLECT PIPES AT JOINTS PER MANUFACTURERS SPECIFICATIONS TO MAINTAIN VERTICAL CURVATURE AND CONSISTENT 48-IN BURY DEPTH (TYP)

**NOTE 2:** CONTRACTOR TO POTHOLE EXISTING WATER LINE AND UTILITIES TO VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS.



Save: 10/28/2021 3:18 PM pthomas Plot: 11/29/2021 5:55 PM X:\AE\AAZTEC\15975155-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet115975155VTRPP TANK NW.dwg

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

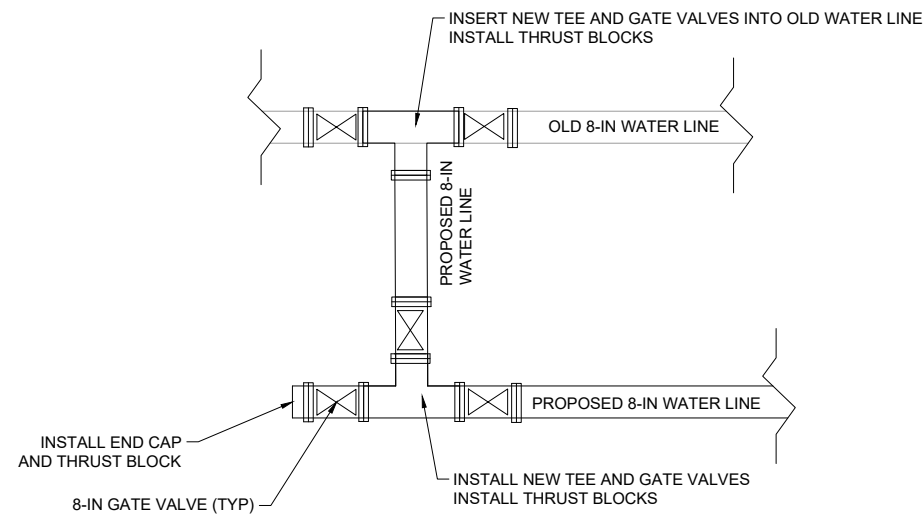
**SEH**

DREW CHANDLER, PE  
LICENSE NO. 23088

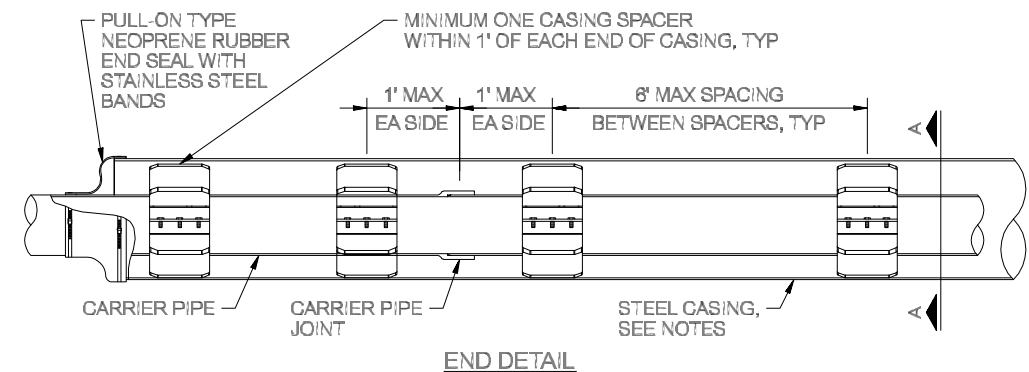
DATE 11/30/2021

**NM 173 WATER LINE REPLACEMENT**  
AZTEC, NEW MEXICO

**WATER LINE FEED TO TANK**  
**NM 173 WATER LINE**

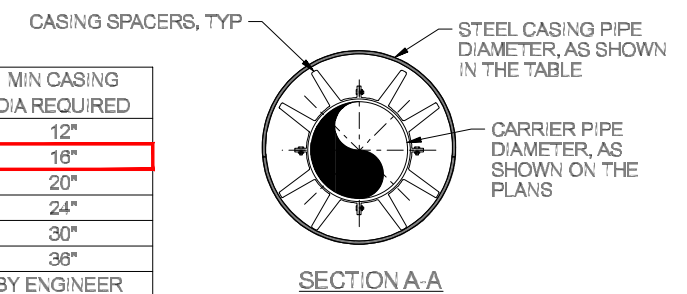


PROPOSED WATER LINE CONNECTION DETAIL  
NTS



END DETAIL

CARRIER PIPE DIA	MIN CASING DIA REQUIRED
8"	12"
8"	18"
12"	20"
15"	24"
18"	30"
24"	36"
>24"	BY ENGINEER



SECTION A-A

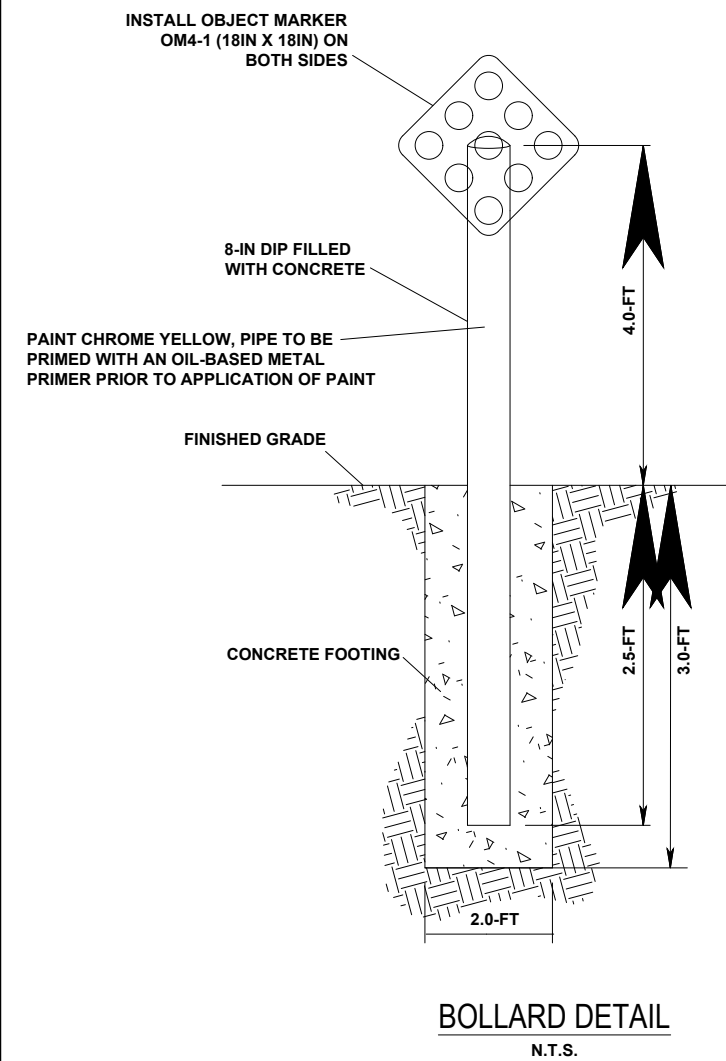
NOTES:

- BORING SHALL BE AT 90 DEGREES TO ALL CROSSINGS UNLESS OTHERWISE APPROVED.
- STEEL PIPE CASING SHALL BE SMOOTH STEEL PIPE FABRICATED IN SECTIONS IN ACCORDANCE WITH AWWA C201. LENGTHS OF CASING PIPE SHALL BE AS LONG AS PRACTICAL FOR SITE CONDITIONS.
- JOINTS SHALL CONFORM TO THE REQUIREMENTS OF AWWA C206. JOINTS BETWEEN SECTIONS SHALL BE COMPLETELY WELDED TO THE PRECEDING SECTIONS. PRIOR TO WELDING JOINTS, THE CONTRACTOR SHALL ENSURE THAT BOTH ENDS OF THE CASING SECTIONS BEING WELDED ARE SQUARE.
- STEEL PIPE CASING WALL THICKNESS SHALL BE 0.375-IN WALL. VERIFY CASING SIZES PRIOR TO ORDERING AND SIZING CASING INSULATORS.
- CASING SPACERS SHALL RESTRAINED-TYPE BOLTED SPACERS AND SHALL HAVE A MAXIMUM SPACING AS SHOWN, OR AS RECOMMENDED BY MANUFACTURER, WHICHEVER IS CLOSER. PIPE CASING SPACERS SHALL BE AS MANUFACTURED BY PIPELINE SEAL AND INSULATOR, INC., ADVANCE PRODUCTS AND SYSTEMS, INC., CALPICO, CASCADE WATER WORKS MFG, INC., OR ENGINEER APPROVED EQUAL.
- CASING END SEALS SHALL BE SYNTHETIC NEOPRENE RUBBER PULL-ON TYPE END SEALS WITH STAINLESS STEEL BANDS, AS MANUFACTURED BY THE ABOVE MANUFACTURERS, OR APPROVED EQUAL.
- CATHODIC PROTECTION SHALL BE INSTALLED FOR EACH STEEL CASING.

TYPICAL PIPE CASING DETAIL

BENCHMARK EL.

CONNECTION DETAILS



BOLLARD DETAIL  
N.T.S.

This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.



DATE 11/30/2021

DREW CHANDLER, PE  
LICENSE NO. 23088

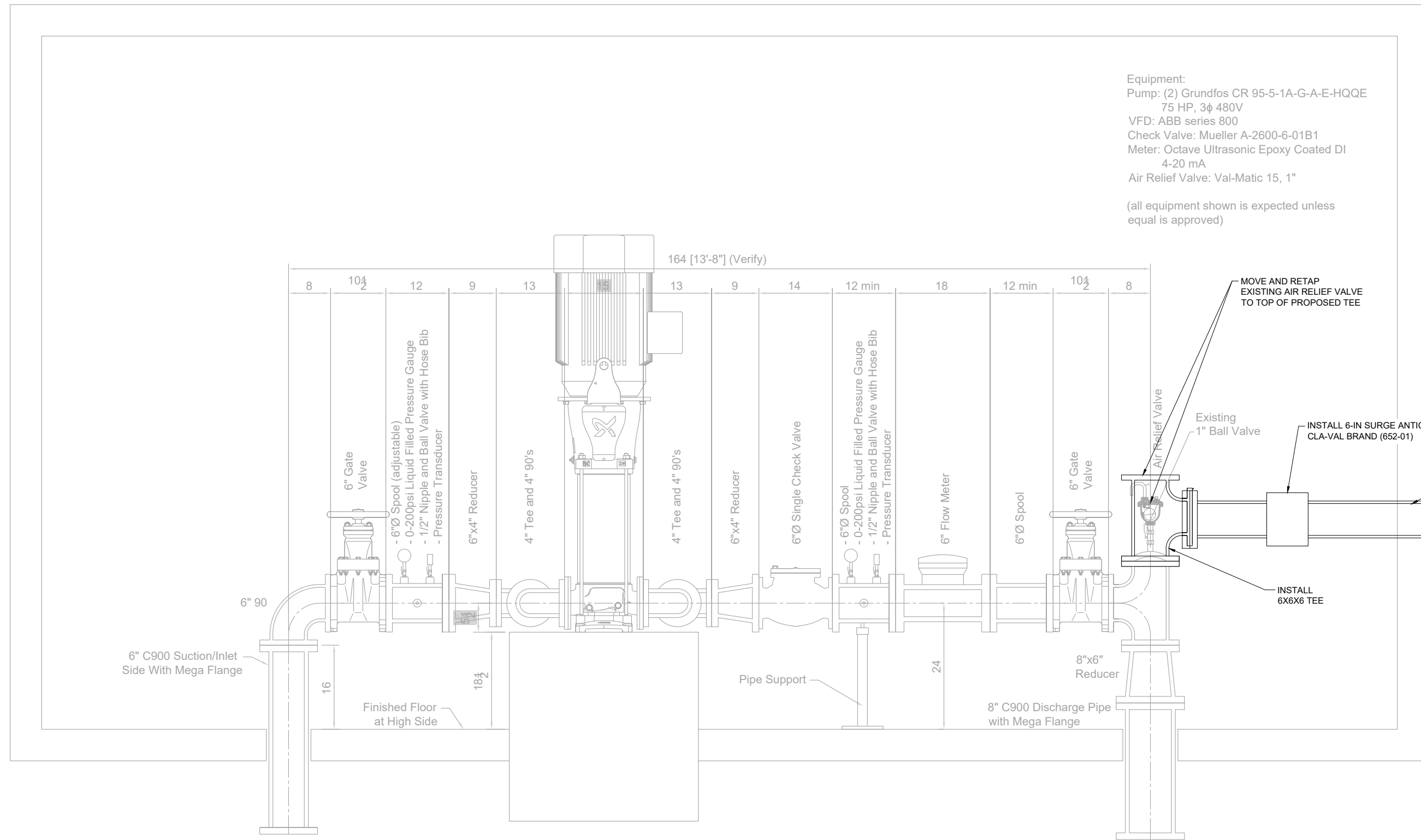
NM 173 WATER LINE REPLACEMENT  
AZTEC, NEW MEXICO

CONNECTION DETAILS  
NM 173 Water Line



Save: 10/28/2021 3:18 PM X:\AE\AAZTEC\159775\5-final-dsgn\51-drawings\10-Civil\caddwg\sheet159775DTLS.dwg

Equipment:  
 Pump: (2) Grundfos CR 95-5-1A-G-A-E-HQQE  
 75 HP, 3φ 480V  
 VFD: ABB series 800  
 Check Valve: Mueller A-2600-6-01B1  
 Meter: Octave Ultrasonic Epoxy Coated DI  
 4-20 mA  
 Air Relief Valve: Val-Matic 15, 1"  
  
 (all equipment shown is expected unless  
 equal is approved)



**NOTES**  
 NOTE 1: DETAIL NOT TO SCALE  
 NOTE 2: NEW PIPE AND FITTINGS ABOVE GRADE TO BE AWWA C110 PC 250 WITH FLANGED ENDS. NEW PIPE AND FITTINGS ABOVE GRADE TO BE C900.

MOVE AND RETAP EXISTING AIR RELIEF VALVE TO TOP OF PROPOSED TEE  
 Existing 1" Ball Valve  
 INSTALL 6-IN SURGE ANTICIPATION SURGE RELIEF CLA-VAL BRAND (652-01)  
 CORE HOLE THROUGH WALL AND SEAL WATER TIGHT WITH A NEAT AND TIDY FINISH  
 INSTALL 6-IN 90° BEND  
 END PIPE AND AIM TOWARD EXISTING CONCRETE WALK  
 EXISTING CONCRETE WALK  
 INSTALL 6X6X6 TEE

This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB



SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT	.	.	.	.	.
Designed By	PT	.	.	.	.	.
Checked By	PO	.	.	.	.	.

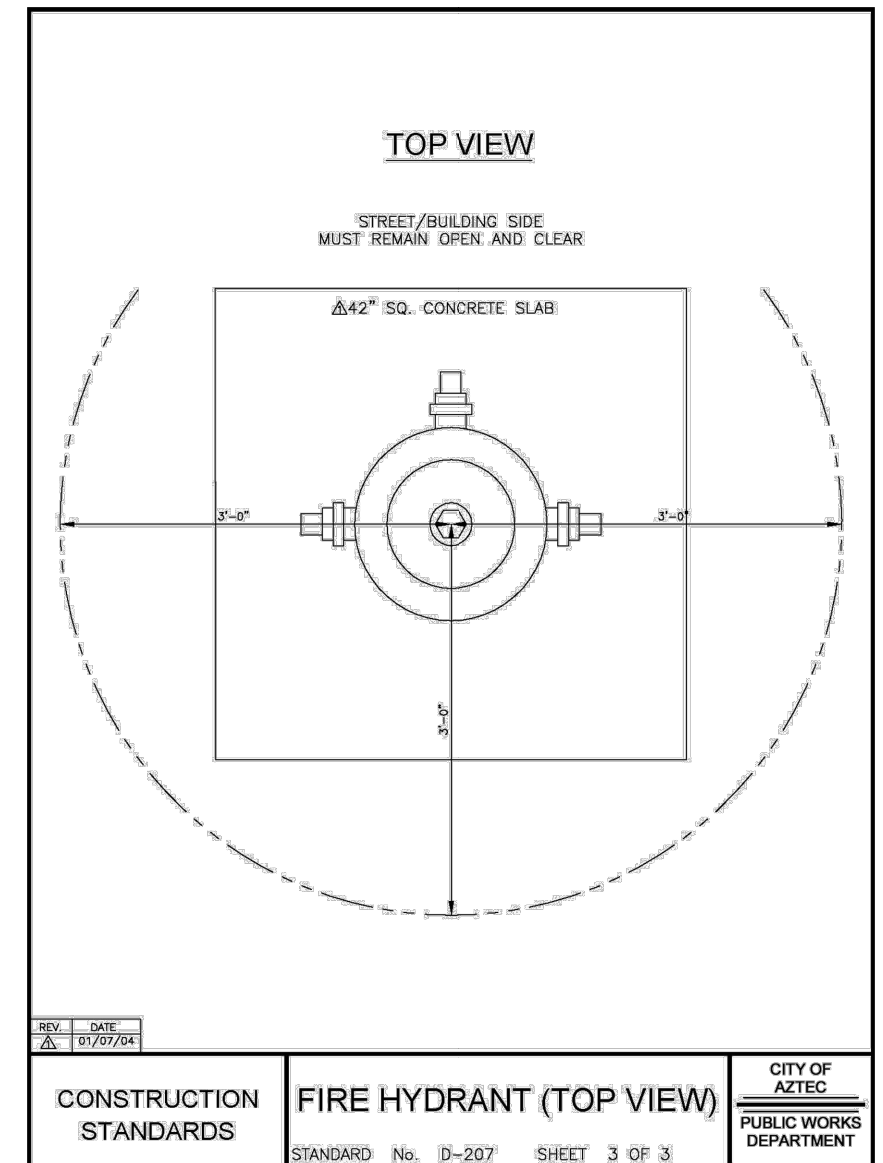
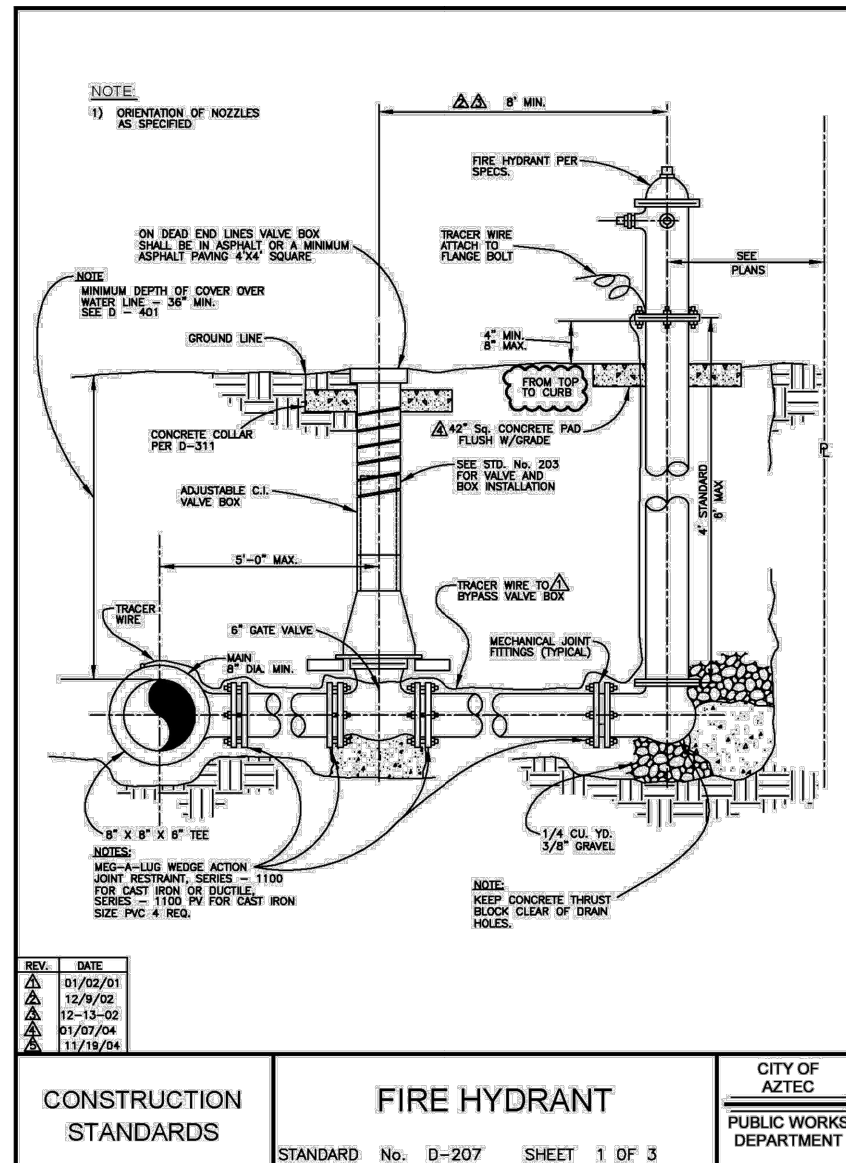
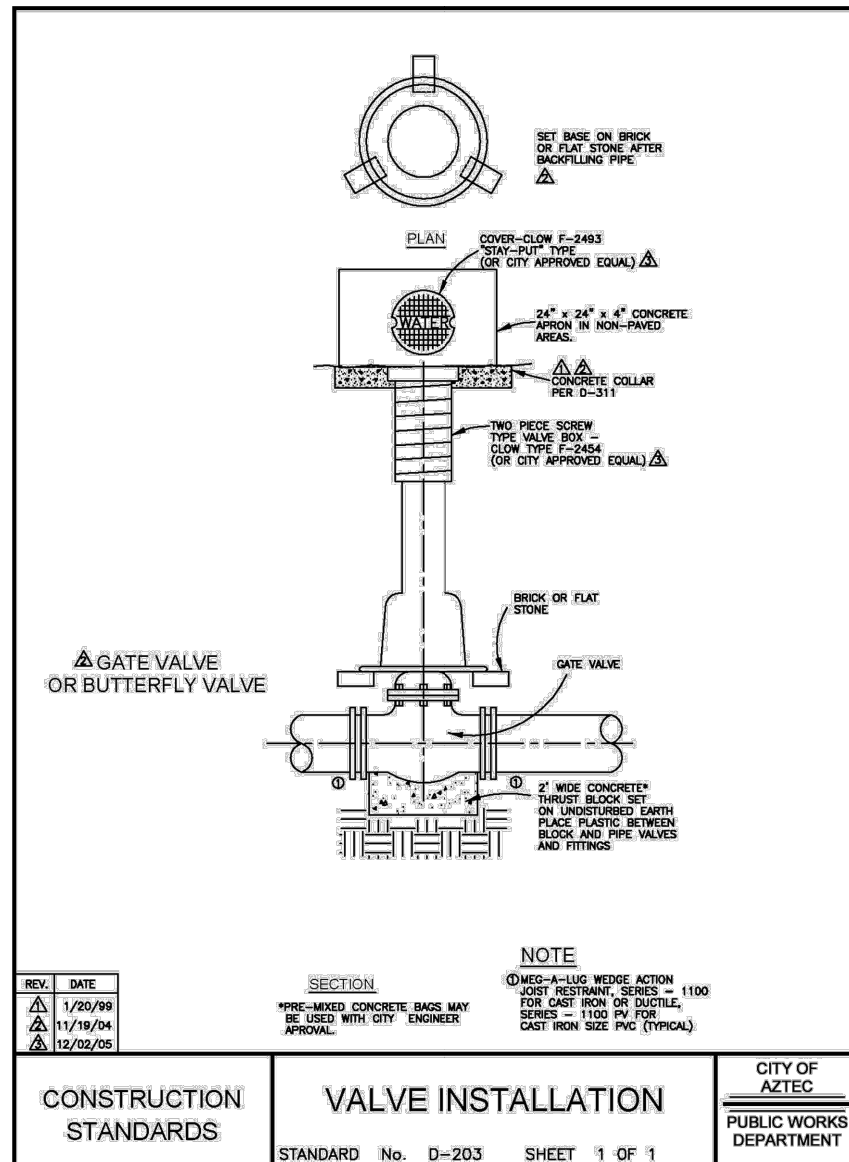
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.  
 DATE 11/30/2021  
 DREW CHANDLER, PE  
 LICENSE NO. 23088

**NM 173 WATER LINE REPLACEMENT**  
 AZTEC, NEW MEXICO

**PUMP HOUSE PIPING DETAIL SURGE PROTECTION**  
 NM 173 Water Line  
 27  
 of 30



Save: 10/28/2021 3:18 PM phomas Plot: 11/29/2021 5:57 PM X:\AE\AAZTEC\1597755-final-dsgn\51-drawings\10-Civil\caddwg\sheet1597755D.TLS.dwg



This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB

BENCHMARK EL.

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT	.	.	.	.	.
Designed By	PT	.	.	.	.	.
Checked By	PO	.	.	.	.	.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.

**SEH**

DATE 11/30/2021

DREW CHANDLER, PE  
LICENSE NO. 23088

**NM 173 WATER LINE REPLACEMENT**  
AZTEC, NEW MEXICO

**TYPICAL DETAILS (1)**  
NM 173 Water Line



Save: 10/28/2021 3:18 PM X:\AE\AZTEC\15977515-final-dsgn\51-drawings\10-Civil\caddwg\sheet15977515.DTL.dwg

**FIBERGLASS POST DETAIL**

CARSONITE CUM-375  
OR APPROVED EQUAL

SECTION VIEW

FRONT VIEW

**NOTE**  
INSTALL AT  
MAXIMUM 500-FT  
SPACING AND AT  
HORIZONTAL BEND  
FITTINGS

REV.	DATE
1	12/31/97

CONSTRUCTION STANDARDS	STATIONARY WATER LINE LOCATION MARKER	CITY OF AZTEC
	STANDARD No. D-212 SHEET 1 OF 1	PUBLIC WORKS DEPARTMENT

**MEG-A-LUGS ARE REQUIRED UNLESS APPROVED BY CITY**

**TEE**

**DEAD END**

**BEND HORIZONTAL OR  
BOTTOM OF VERTICAL**

**WYE**

**CROSS W/ DEAD END BRANCH**

**TEE W/ DEAD END BRANCH**

**SECTION AA**

**NOTES**

- AT DEAD ENDS, WRAP FITTINGS WITH TAR PAPER, FELT, PLASTIC ETC. TO PROVIDE BOND BREAK BETWEEN CONCRETE AND FITTINGS.
- ALL THRUST BLOCKING SHALL BE CAST-IN-PLACE CONCRETE HAVING A MINIMUM YIELD STRENGTH OF 2000 P.S.I.
- THRUST BLOCKING SHALL BE CAST AGAINST UNDISTURBED EARTH. FORMS SHALL BE USED AS REQUIRED TO OBTAIN ADEQUATE BEARING AREA AND TO CONFINE THE CONCRETE THRUST BLOCKING SHALL BEAR ON THE FITTING OR END CAP ONLY AND SHOULD NOT BE ALLOWED TO SPILL OVER THE JOINT OR AGAINST THE PIPE.

CONSTRUCTION STANDARDS	THRUST BLOCKS	CITY OF AZTEC
	STANDARD No. D-210 SHEET 1 OF 2	PUBLIC WORKS DEPARTMENT

**MEG-A-LUGS ARE REQUIRED UNLESS APPROVED BY CITY**

TABLE OF BEARING AREAS IN SQ. FT FOR CONCRETE  
THRUST BLOCKING

FOR 150 P.S.I. INTERNAL STATIC PRESSURE AND 2000 LBS. PER  
SQ. FT SOIL BEARING CAPACITY.

PIPE SIZE	BENDS				TEES	PLUGS
	90°	45°	22 1/2°	11 1/4°		
4	1.50	0.75	0.50	0.0	1.00	1.00
6	3.00	1.75	1.00	0.0	2.25	2.25
8	5.50	3.00	1.50	1.00	3.75	3.75
10	8.50	4.50	2.50	1.50	6.00	6.00
12	12.00	6.50	3.50	1.75	8.50	8.50
14	16.50	9.00	4.50	2.25	11.50	11.50
16	21.50	11.50	6.00	3.00	15.00	15.00
18	27.00	14.75	7.50	3.75	19.00	19.00
20	33.50	18.00	9.25	4.75	23.50	23.50
24	48.00	26.00	13.25	6.75	34.00	34.00
30	75.25	40.75	20.75	10.50	53.00	53.00
36	108.25	58.50	30.00	15.00	76.50	76.50

AREAS GIVEN IN TABLE ARE BASED UPON AN INTERNAL STATIC PRESSURE OF 150 P.S.I. AND A SOIL BEARING CAPACITY OF 2000 LBS. PER SQ. FT. BEARING AREAS FOR ANY PRESSURE AND SOIL BEARING CAPACITY MAY BE OBTAINED BY MULTIPLYING THE TABULATED VALUES BY A CORRECTION FACTOR "F".

$F = \frac{\text{ACTUAL SPECIFIED TEST PRESSURE IN HUNDREDS OF LBS.}}{\text{ACTUAL SOIL BEARING CAPACITY IN THOUSANDS OF LBS.}}$

EXAMPLE: TO FIND BEARING AREA FOR 8" - 90° BEND WITH A STATIC INTERNAL PRESSURE OF 100 P.S.I. AND WITH A SOIL BEARING CAPACITY OF 3000 LBS. PER SQ. FT.

$F = 1.3 = .33$  TABULATED VALUE = 550 SQ. FT.  
 $0.33 \times 550 = 1.82$  SAY 2 SQ. FT. OR 2 FT. LONG BY 1 FT. HIGH

CONSTRUCTION STANDARDS	THRUST BLOCKS	CITY OF AZTEC
	STANDARD No. D-210 SHEET 2 OF 2	PUBLIC WORKS DEPARTMENT

This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB

BENCHMARK EL.

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT					
Designed By	PT					
Checked By	PO					

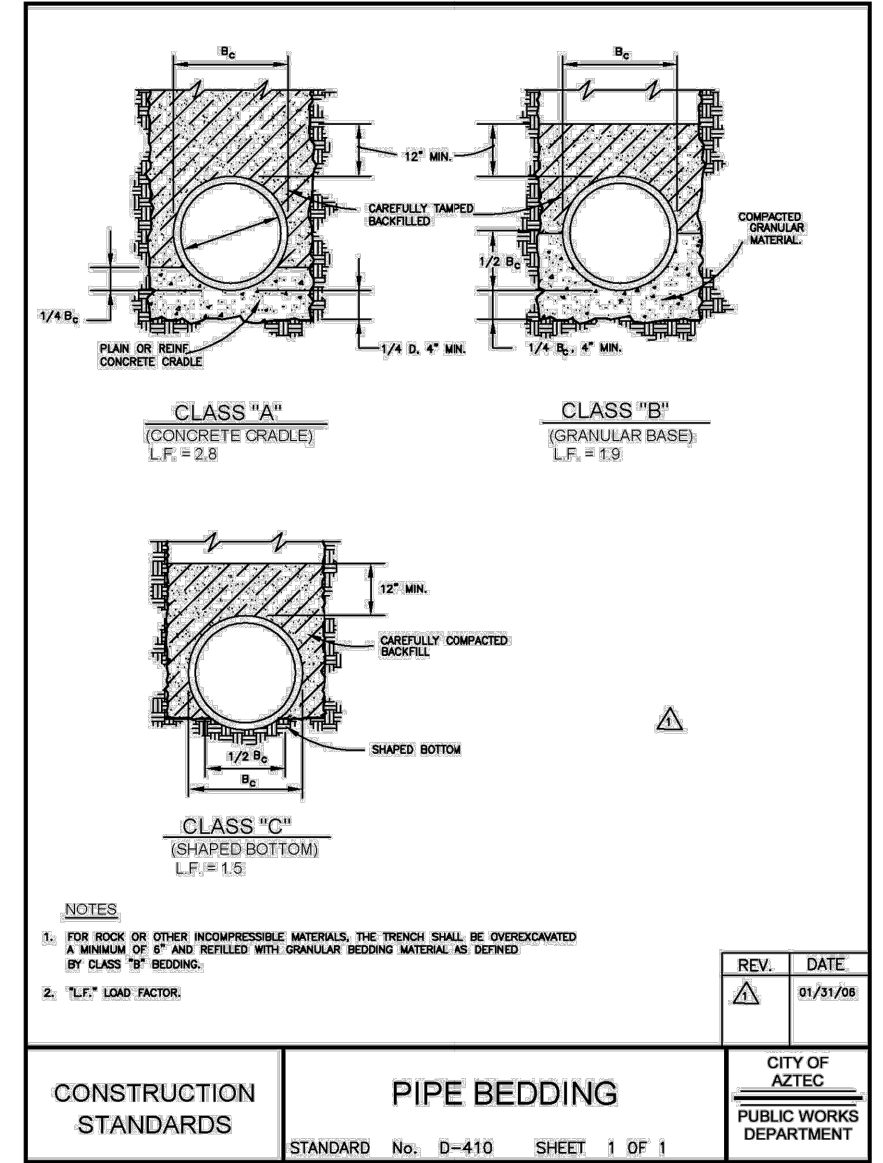
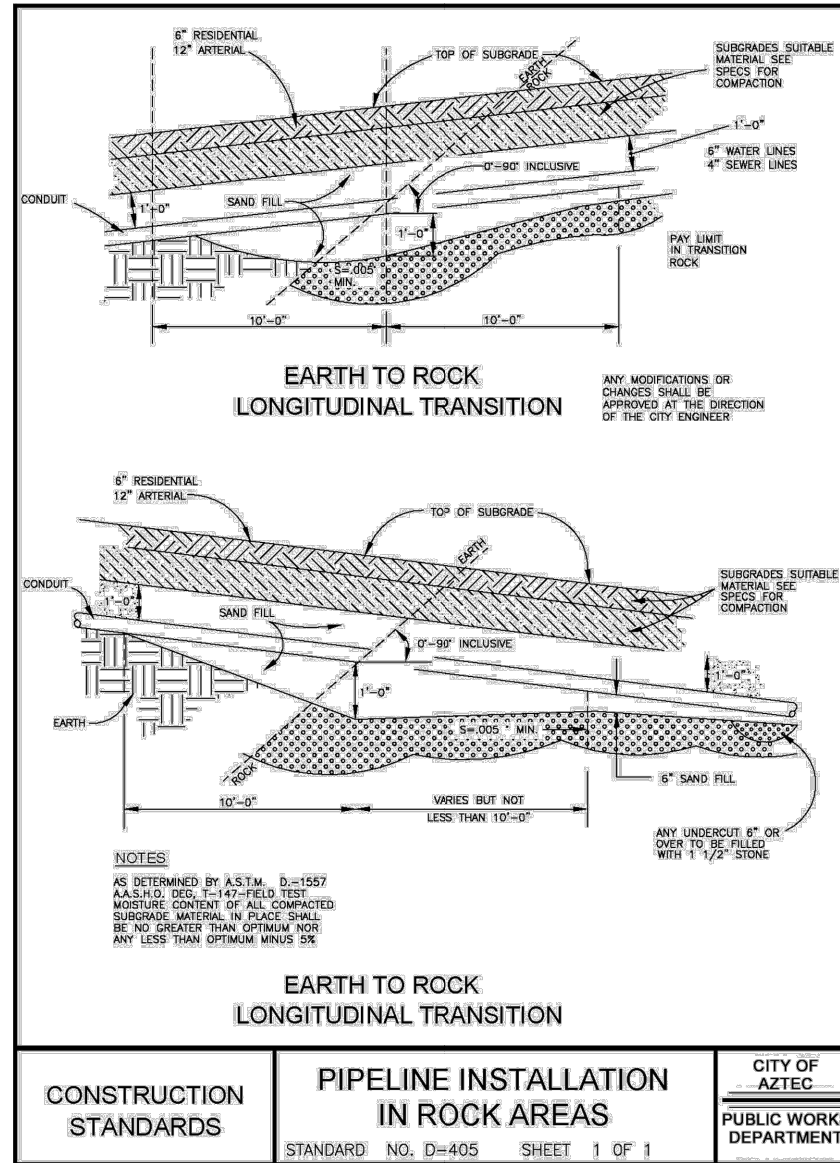
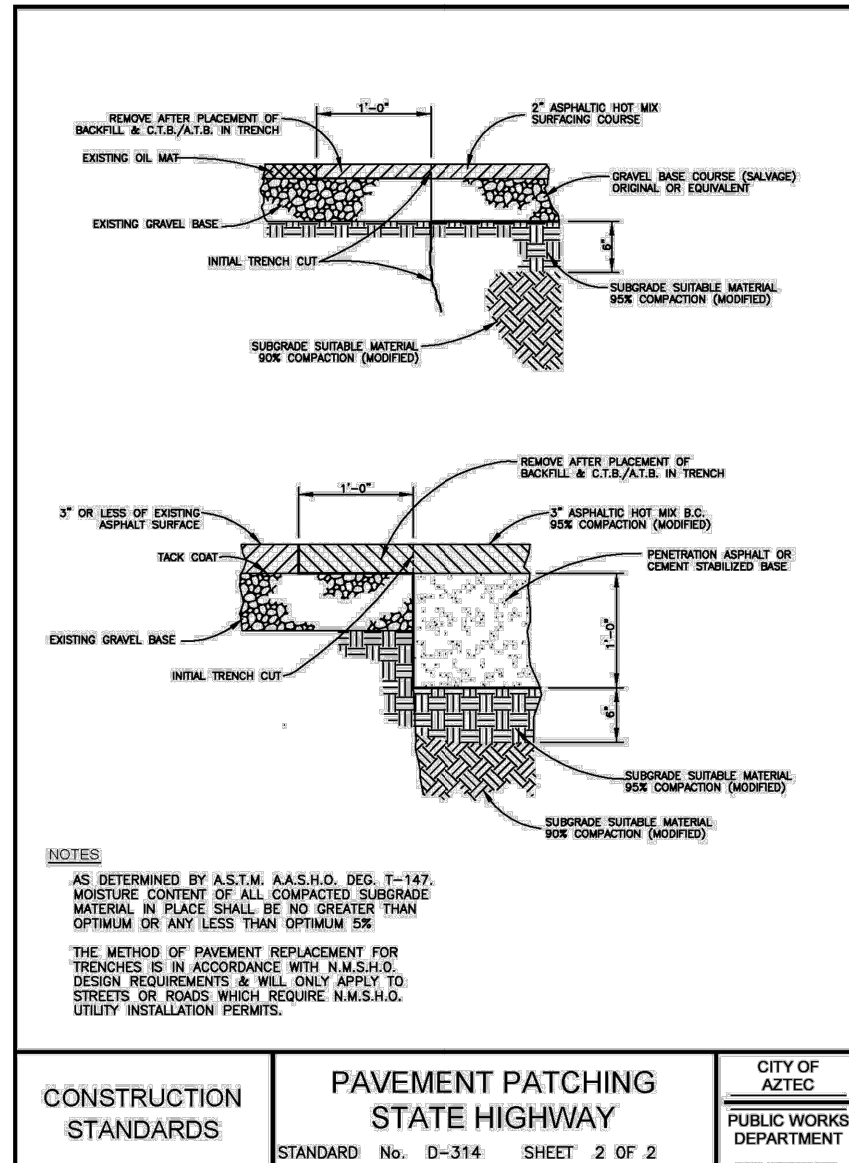
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.  
 DATE 11/30/2021

**NM 173 WATER LINE REPLACEMENT**  
AZTEC, NEW MEXICO

**TYPICAL DETAILS (2)**  
NM 173 Water Line



Save: 10/28/2021 3:18 PM X:\AE\AAZTEC\1597755-final-dsgn\51-drawings\10-Civil\caddwg\sheet1597755D1LS.dwg



This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment SAP 20-E2180-STB

BENCHMARK EL.

SEH Project	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	PT	.	.	.	.	.
Designed By	PT	.	.	.	.	.
Checked By	PO	.	.	.	.	.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NM.  
 DATE 11/30/2021      DREW CHANDLER, PE      LICENSE NO. 23088

**NM 173 WATER LINE REPLACEMENT**  
AZTEC, NEW MEXICO

**TYPICAL DETAILS (3)**  
**NM 173 Water Line**