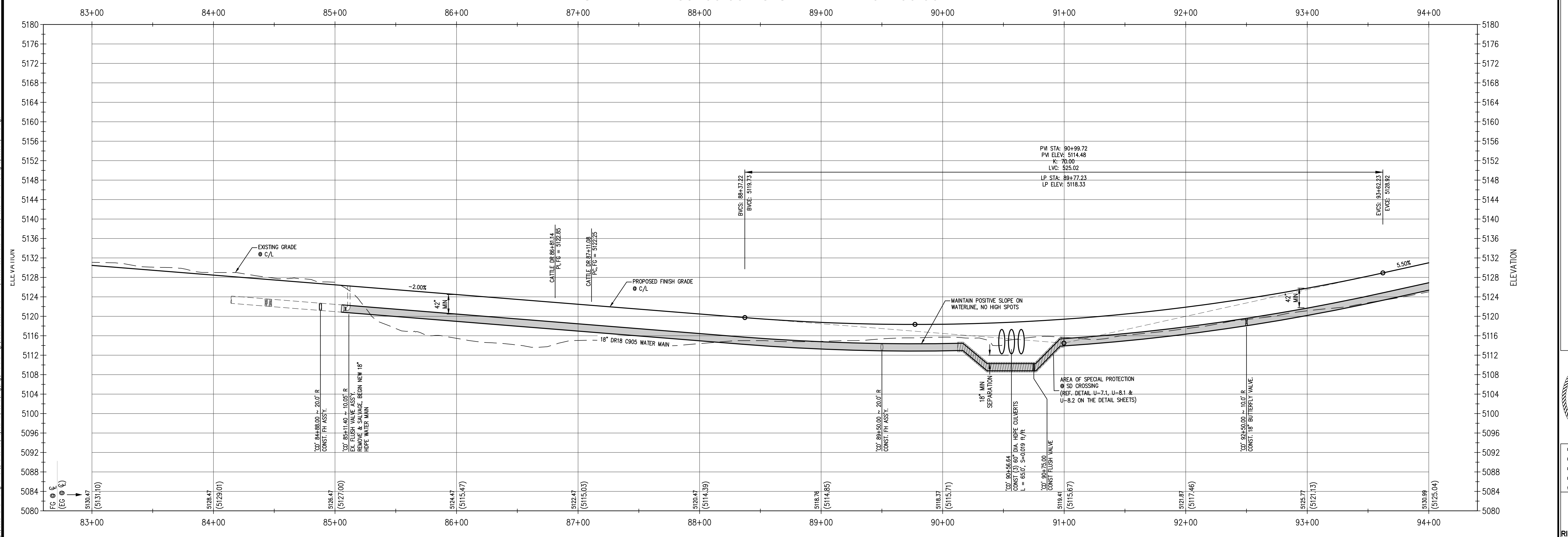


CATTLE DRIVE 1 OF 7

CATTLE DR 83+00.00 TO CATTLE DR 94+00.00

- WATER CONNECTION NOTE:**
- CONTRACTOR TO VERIFY LOCATION AND TYPE OF EXISTING WATER MAIN AND VALVES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL PROVIDE ENGINEER WITH LOCATION INFORMATION IF IT VARIES FROM LOCATION SHOWN ON PLANS.
 - ALL VALVES SHALL BE MUELLER.
 - ALL VALVES AND FITTINGS SHALL BE WRAPPED IN POLY PLASTIC BEFORE PLACE OF CONCRETE THRUST BLOCKS.
 - GALVANIZED CHAIN STRAPPING ON THE VALVES AND FITTINGS SHALL BE CROSS WRAPPED AND TERMINATE INSIDE THE CONCRETE THRUST BLOCK.
 - ALL PVC PIPING SHALL BE INSPECTED BY THE CITY BEFORE CONSTRUCTION. NO FADED OR DISCOLORED PVC WILL BE ALLOWED.



DRAWN BY	CHECK BY
REVISIONS	
DATE	

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CATTLE DRIVE ACCESS ROAD / WATERLINE PROJECT
 ELKO, NEVADA
 PLAN & PROFILE

RALPH R. WENZIGER
 Exp. 6-30-24
 CIVIL
 License No. 16624

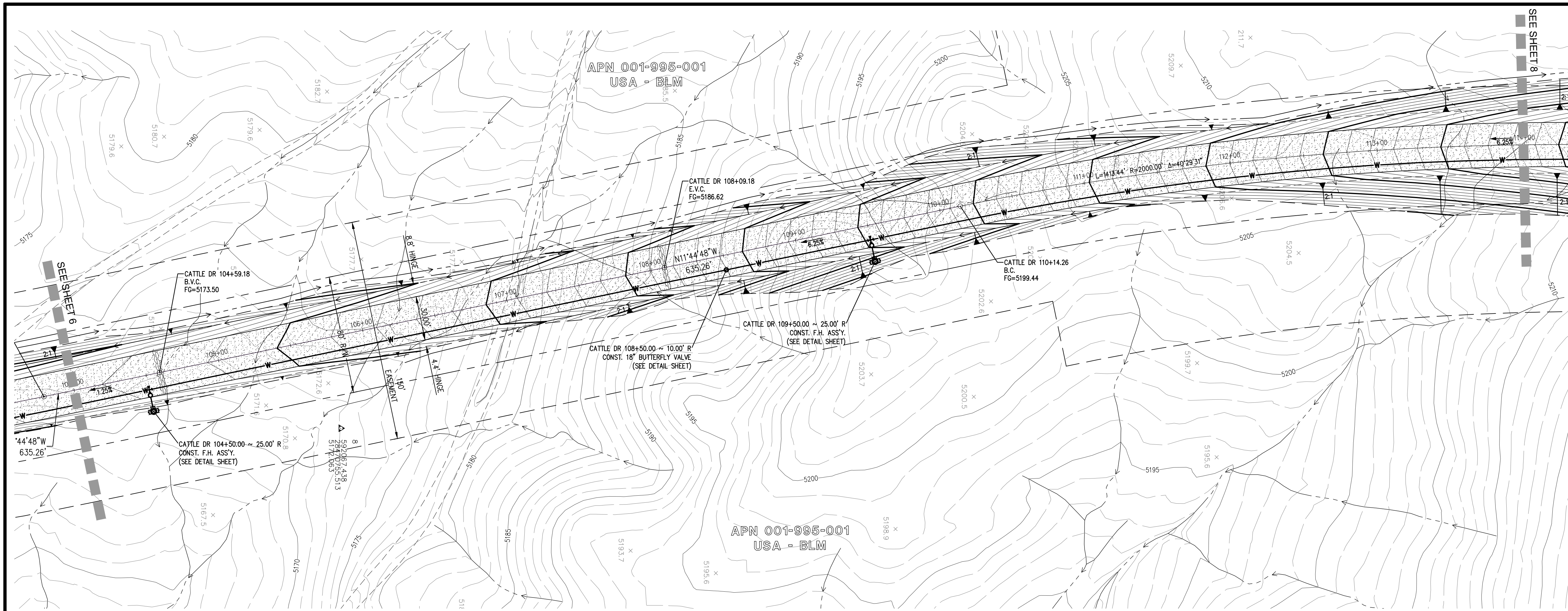
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 PROJ. ASSOC.: AM
 DRAWN BY: MB
 DATE: 02/01/23
 SCALE: AS NOTED

5 OF 16

SHEET

RisenOne

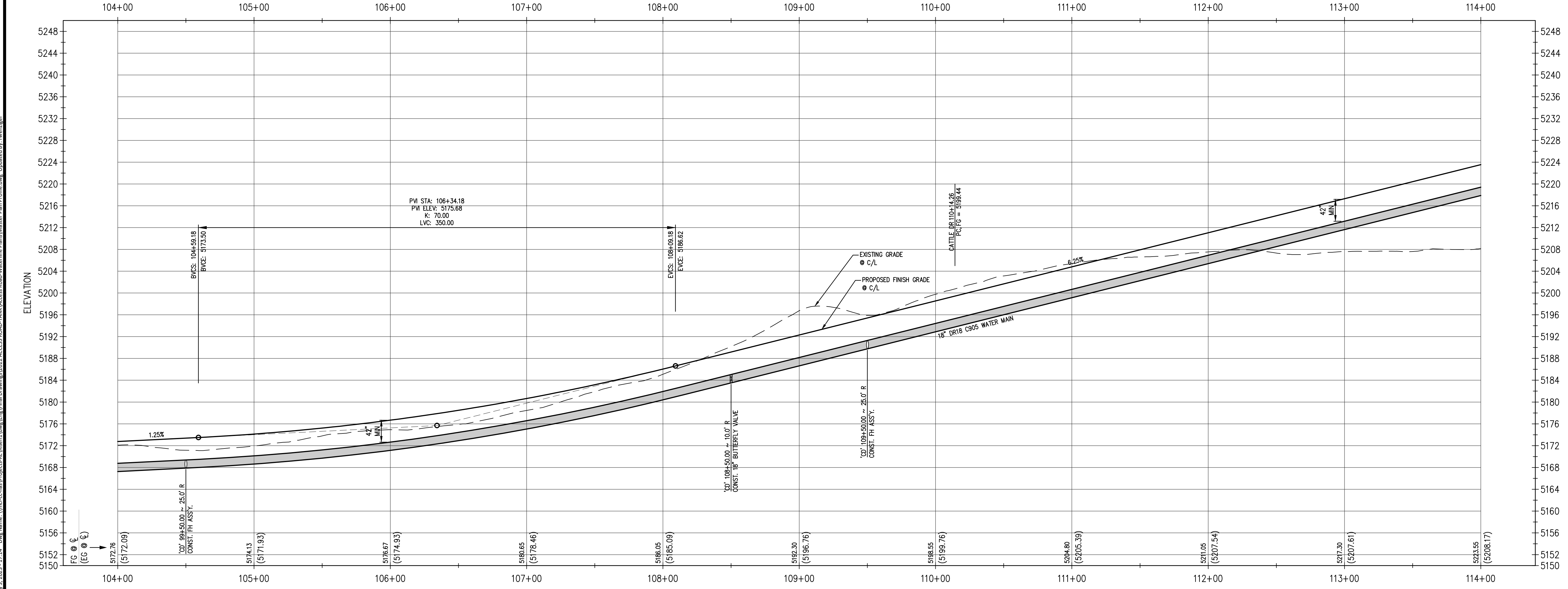
July 3, 2023 - 17:14 Draw Name: \\c:\cna\Projects\48\Boren\Drawings\Final Drawings\2023 ACCESS ROAD\Access Road Waterline Plans\Profile.dwg Updated By: cweinger



- WATER CONNECTION NOTE:**
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CATTLE DRIVE 3 OF 7

CATTLE DR 104+00.00 TO CATTLE DR 114+00.00



July 3, 2023 - 17:14 Draw Name: \\net1-cv-mas\Projects\48\Borren\Drawings\Final\Drawings\2023\ACCESS ROAD\DWG\Access Road Waterline Plan\Profile.dwg Updated By: oswenrjg

DATE	
REVISIONS	
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CONSULTING

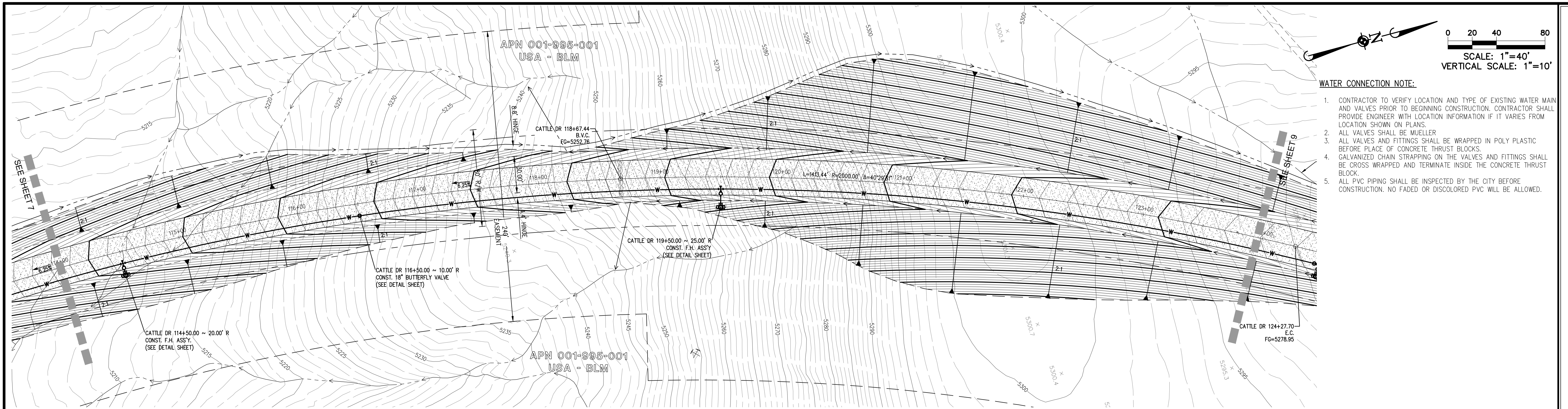
241 Ridge Street, Suite 400, Reno, NV 89501 ph: 775.746.3500 fax: 775.746.3520 manhard.com
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CATTLE DRIVE ACCESS ROAD / WATERLINE PROJECT
ELKO, NEVADA
PLAN & PROFILE

PROJ. MGR.: RRW
 PROJ. ASSOC.: AM
 DRAWN BY: MB
 DATE: 02/01/23
 SCALE: AS NOTED

7 OF **16**

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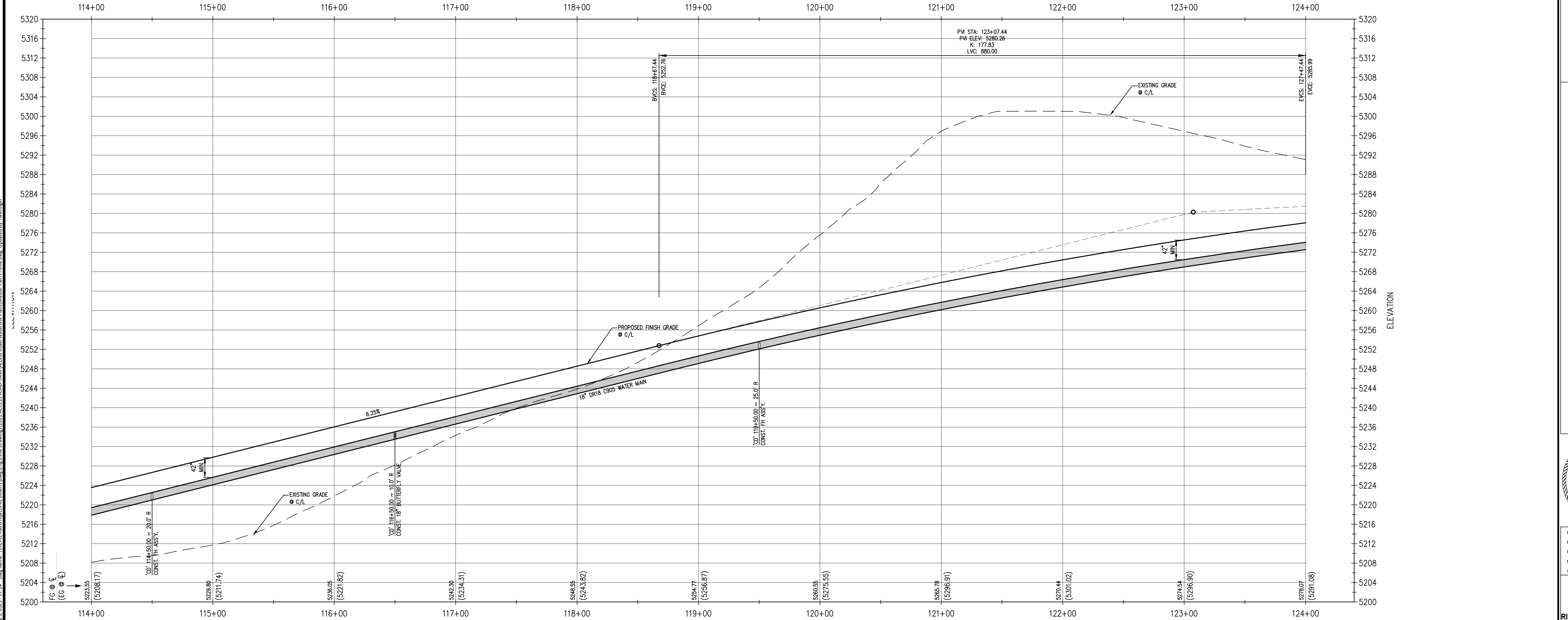


SCALE: 1"=40'
VERTICAL SCALE: 1"=10'

- WATER CONNECTION NOTE:**
1. CONTRACTOR TO VERIFY LOCATION AND TYPE OF EXISTING WATER MAIN AND VALVES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL PROVIDE ENGINEER WITH LOCATION INFORMATION IF IT VARIES FROM LOCATION SHOWN ON PLANS.
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CATTLE DRIVE 4 OF 7

CATTLE DR 114+00.00 TO CATTLE DR 124+00.00



July 8, 2023 - 17:14 Draw Name: \\net1-cv-mas\Projects\86\Bogen\Drawings\Final\Drawings\2023\ACCESS ROAD\ROAD\ROAD\Road\Waterline\Plan\Profile.dwg Updated By: oweriger

DATE	
REVISIONS	
DRAWN BY	CHECK BY

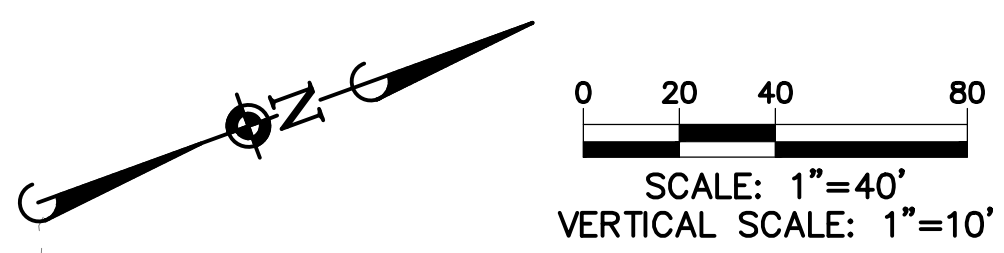
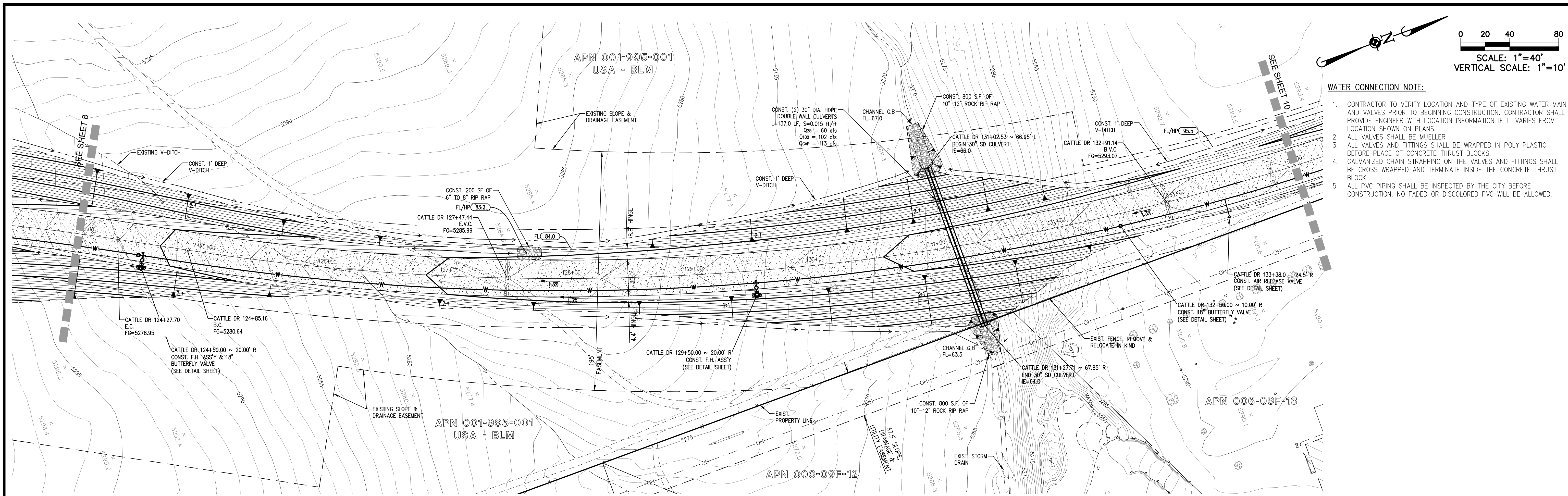
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CATTLE DRIVE ACCESS ROAD / WATERLINE PROJECT
ELKO, NEVADA
PLAN & PROFILE



PROJ. MGR.: RRW
 PROJ. ASSOC.: AM
 DRAWN BY: MB
 DATE: 02/01/23
 SCALE: AS NOTED

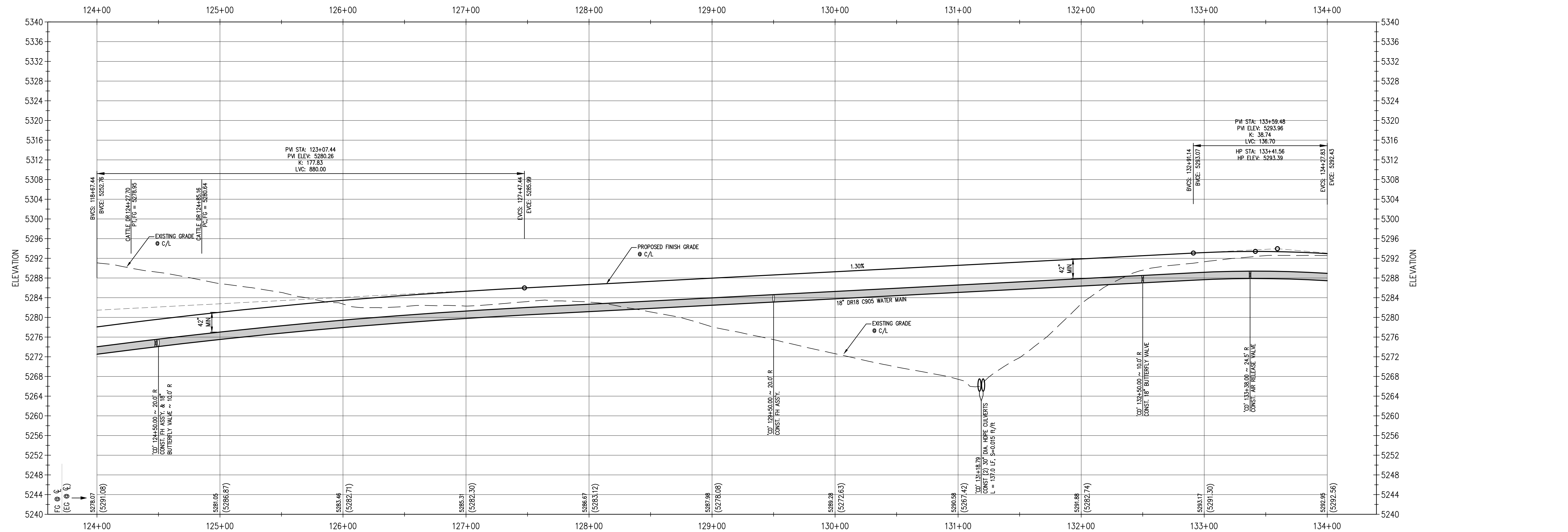
8 OF 16
 SHEET



- WATER CONNECTION NOTE:**
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CATTLE DRIVE 5 OF 7

CATTLE DR 124+00.00 TO CATTLE DR 134+00.00



July 8, 2023 - 17:14 Draw Name: \\net1-cv-mas\Projects\48\Boren\Drawings\Final Drawings\2023 ACCESS ROAD\Access Road Waterline (Plan)\Master Plan Profile.dwg Updated By: owerstger

DATE	
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CATTLE DRIVE ACCESS ROAD / WATERLINE PROJECT

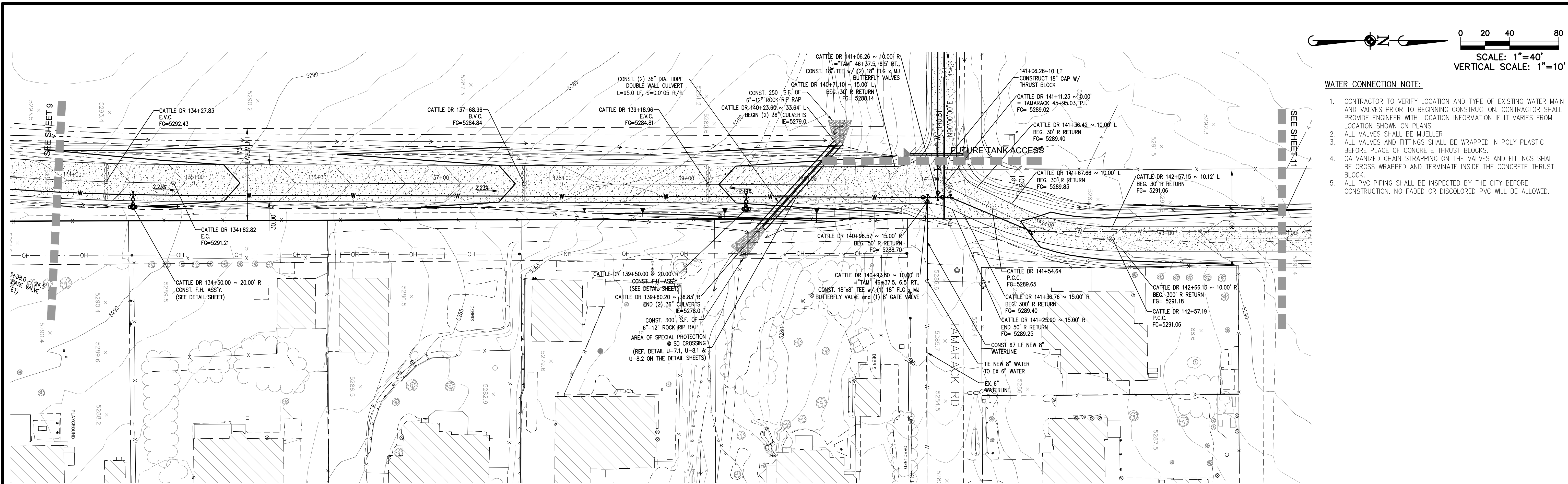
ELKO, NEVADA

PLAN & PROFILE

PROJ. MGR.: RRW
 PROJ. ASSOC.: AM
 DRAWN BY: MB
 DATE: 02/01/23
 SCALE: AS NOTED

9 OF **16** SHEETS

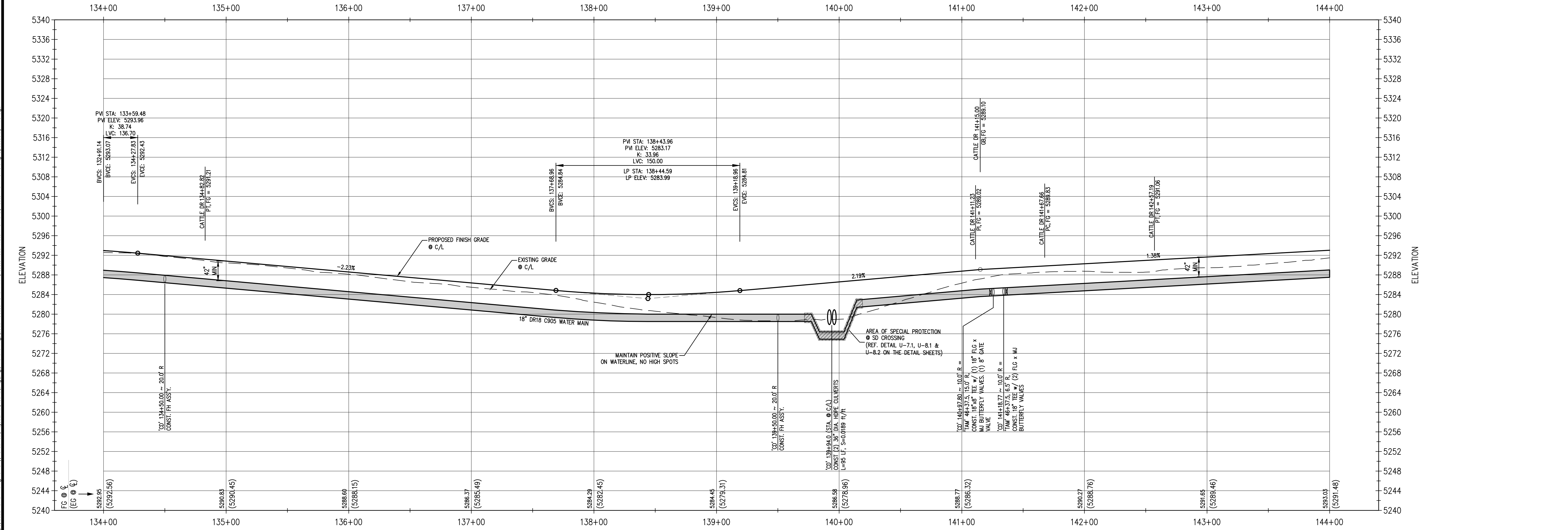
Risen01



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CATTLE DRIVE 6 OF 7

CATTLE DR 134+00.00 TO CATTLE DR 144+00.00



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ELKO, NEVADA

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PROFESSIONAL ENGINEER - STATE OF NEVADA

RALPH R. WENZIGER

Exp. 6-30-24

CIVIL

No. 16624

PROJ. MGR.: RRW

PROJ. ASSOC.: AM

DRAWN BY: MB

DATE: 02/01/23

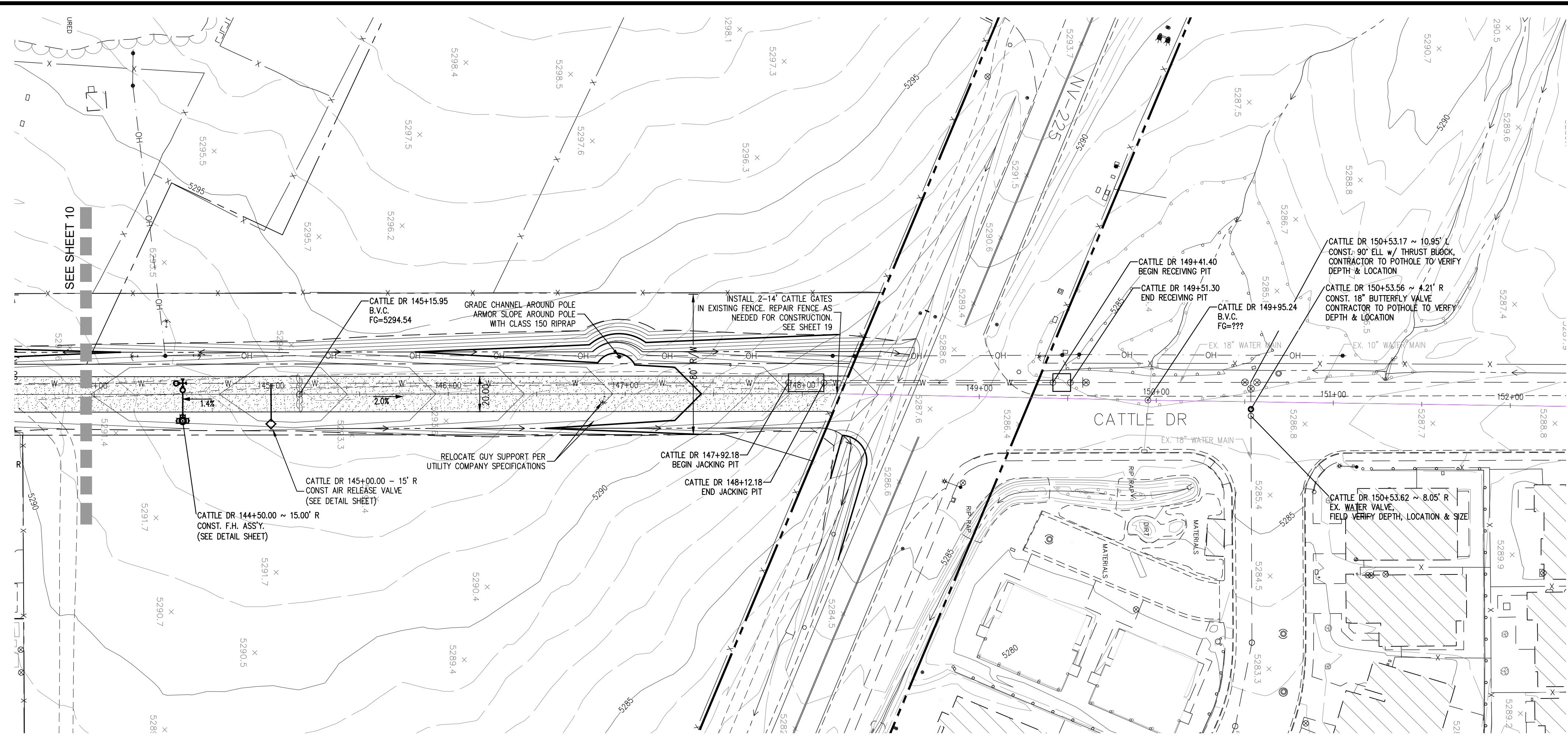
SCALE: AS NOTED

SHEET

10 OF 16

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July 8, 2023 - 17:14 Draw Name: \\csl-cc-nas\Projects\48\Boren\Drawings\Final Drawings\2023 ACCESS ROAD TAMARACK Access Road Waterline Plan Profile.dwg Updated By: owerstger

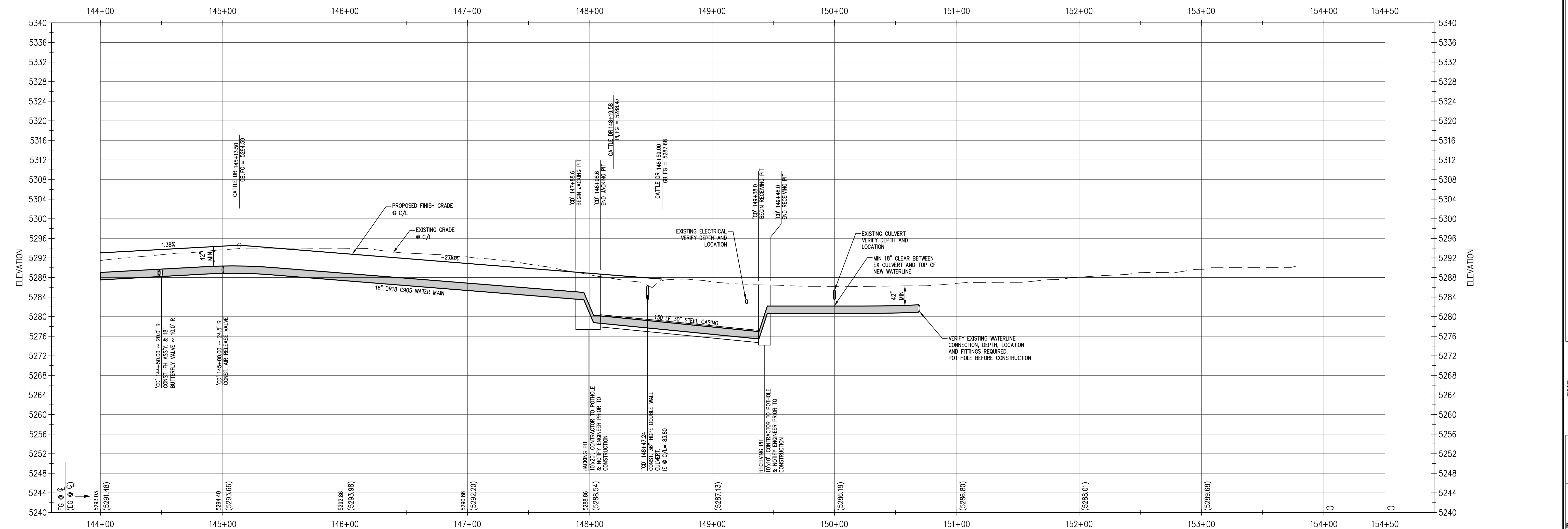


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DATE	
REVISIONS	
DRAWN BY	CHECK BY

CATTLE DRIVE 7 OF 7

CATTLE DR 144+00.00 TO CATTLE DR 154+50.00

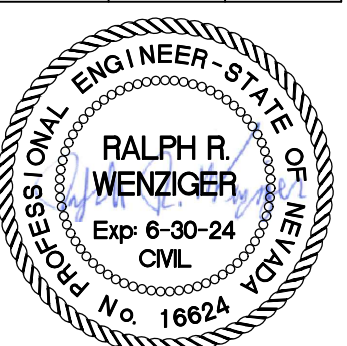


July 3, 2023 - 17:14 Draw Name: \\net1-cv-mas\Projects\48\Boroni\Drawings\2023\ACCESS ROAD\Access Road Waterline (Boroni) Main Profile.dwg Updated By: oweriger

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CATTLE DRIVE ACCESS ROAD / WATERLINE PROJECT
ELKO, NEVADA
PLAN & PROFILE



PROJ. MGR.	RRW
PROJ. ASSOC.	AM
DRAWN BY:	MB
DATE:	02/01/23
SCALE:	AS NOTED
SHEET	
11 OF 16	
Risen01	

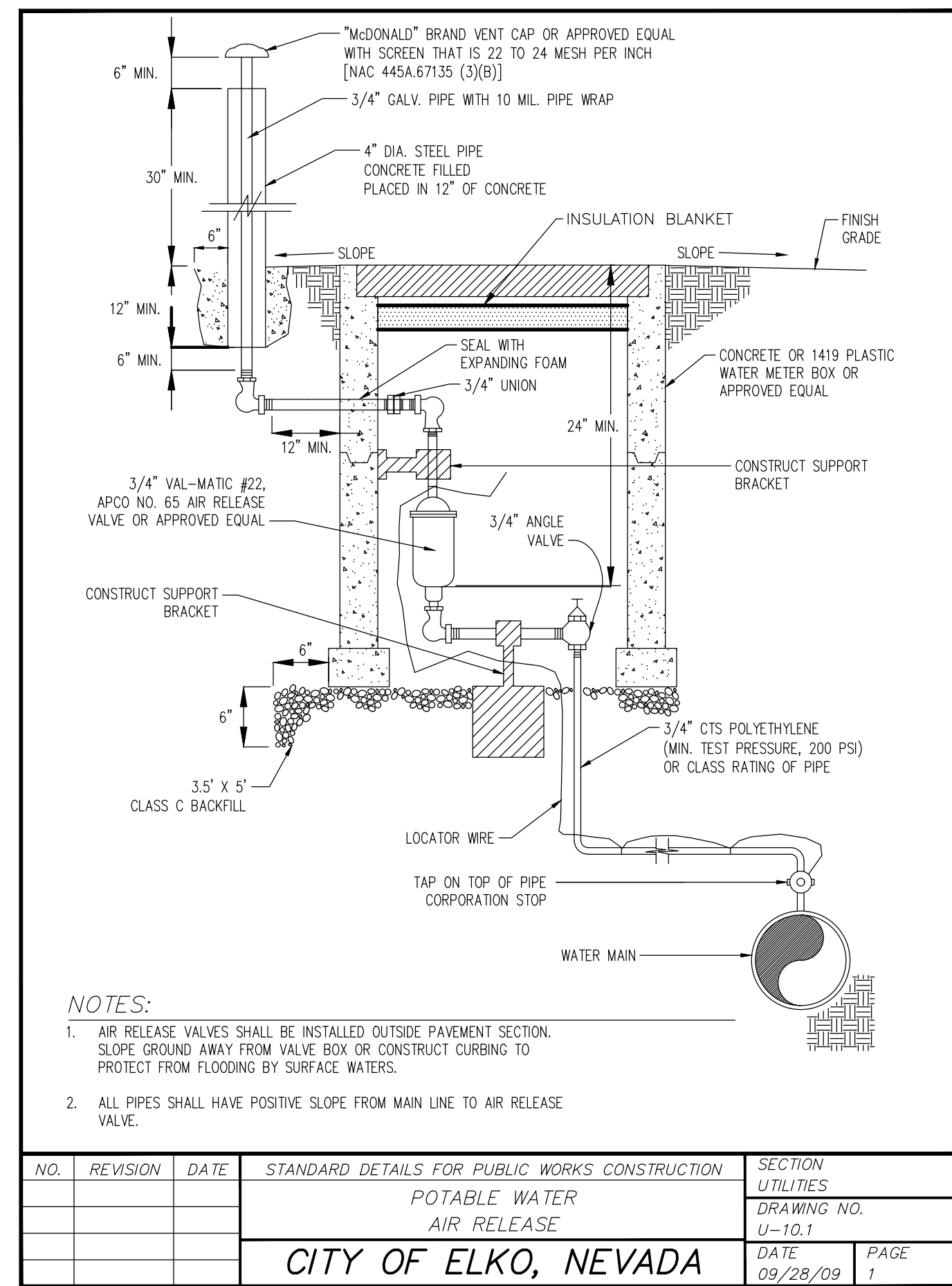
HORIZONTAL BENDS RESTRAINT LENGTHS					
PIPE MATERIAL	NOM. PIPE DIA.	90°	45°	22.5°	11.25°
PVC	4"	15'	7'	4'	2'
PVC	6"	22'	9'	5'	3'
PVC	8"	28'	12'	6'	3'
PVC	10"	34'	14'	7'	4'
PVC	12"	40'	17'	8'	4'

VERTICAL BENDS RESTRAINT LENGTHS						
PIPE MATERIAL	NOM. PIPE DIA.	UPPER DEGREE OF BEND	LOWER DEGREE OF BEND	UPPER DEGREE OF BEND	LOWER DEGREE OF BEND	UPPER DEGREE OF BEND
PVC	4"	15'	7'	3'	6'	3'
PVC	6"	21'	10'	5'	8'	4'
PVC	8"	27'	13'	6'	11'	5'
PVC	10"	33'	16'	8'	13'	6'
PVC	12"	36'	18'	9'	16'	7'

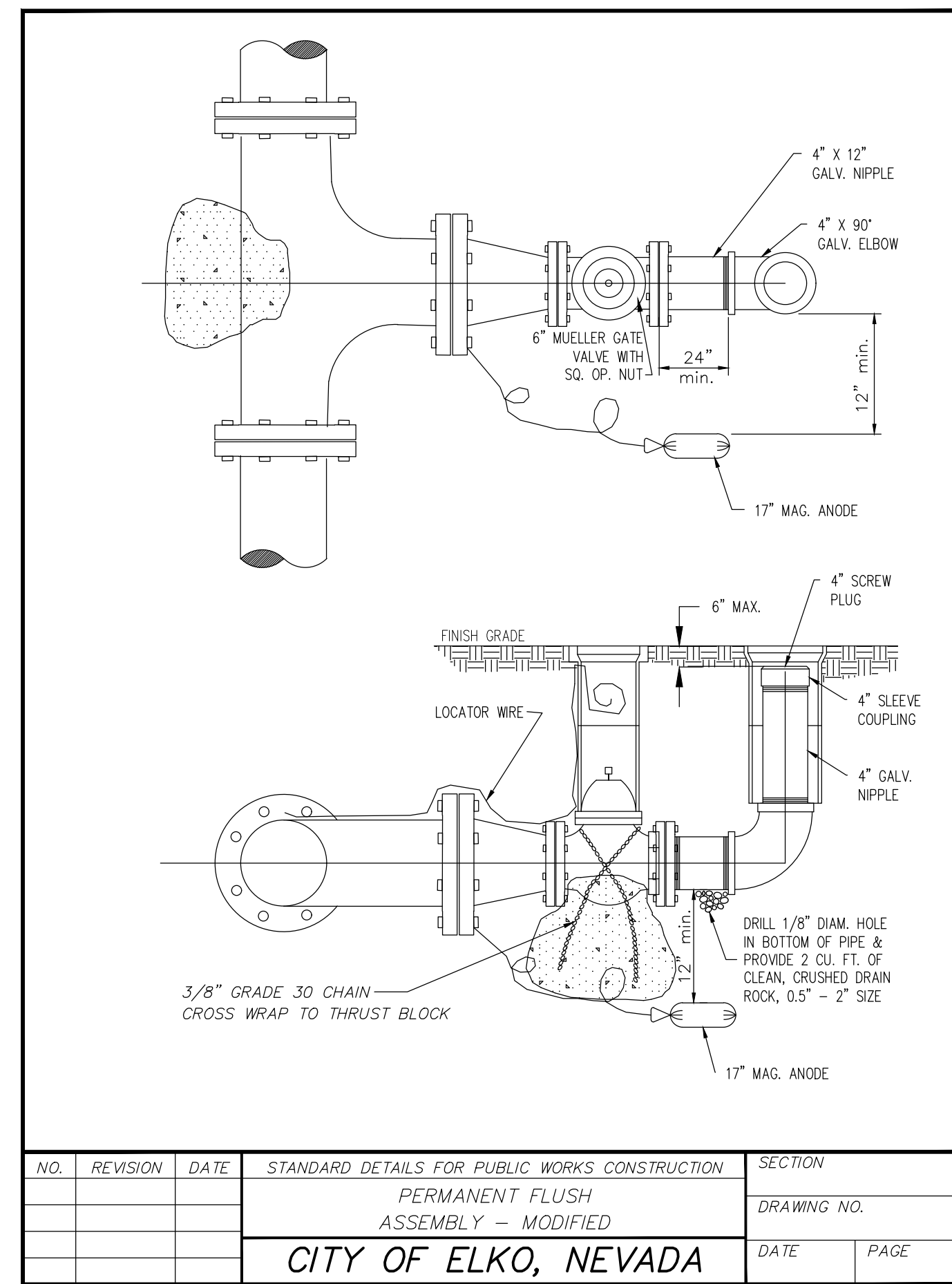
RESTRAINT LENGTHS FOR DEAD ENDS		
PIPE MATERIAL	VALVE SIZE	RESTRAINT LENGTH
PVC	4"	35'
PVC	6"	50'
PVC	8"	66'
PVC	10"	79'
PVC	12"	93'

NOTE:
RESTRAINT LENGTH CORRESPONDS TO LENGTH OF RESTRAINED JOINTS REQUIRED ON EACH SIDE OF BEND, VALVE, OR FITTING.
SOIL ML, DEPTH 3.0 FT, TRENCH TYPE 5, SF 1.5
TEST PRESSURE: 150 PSI

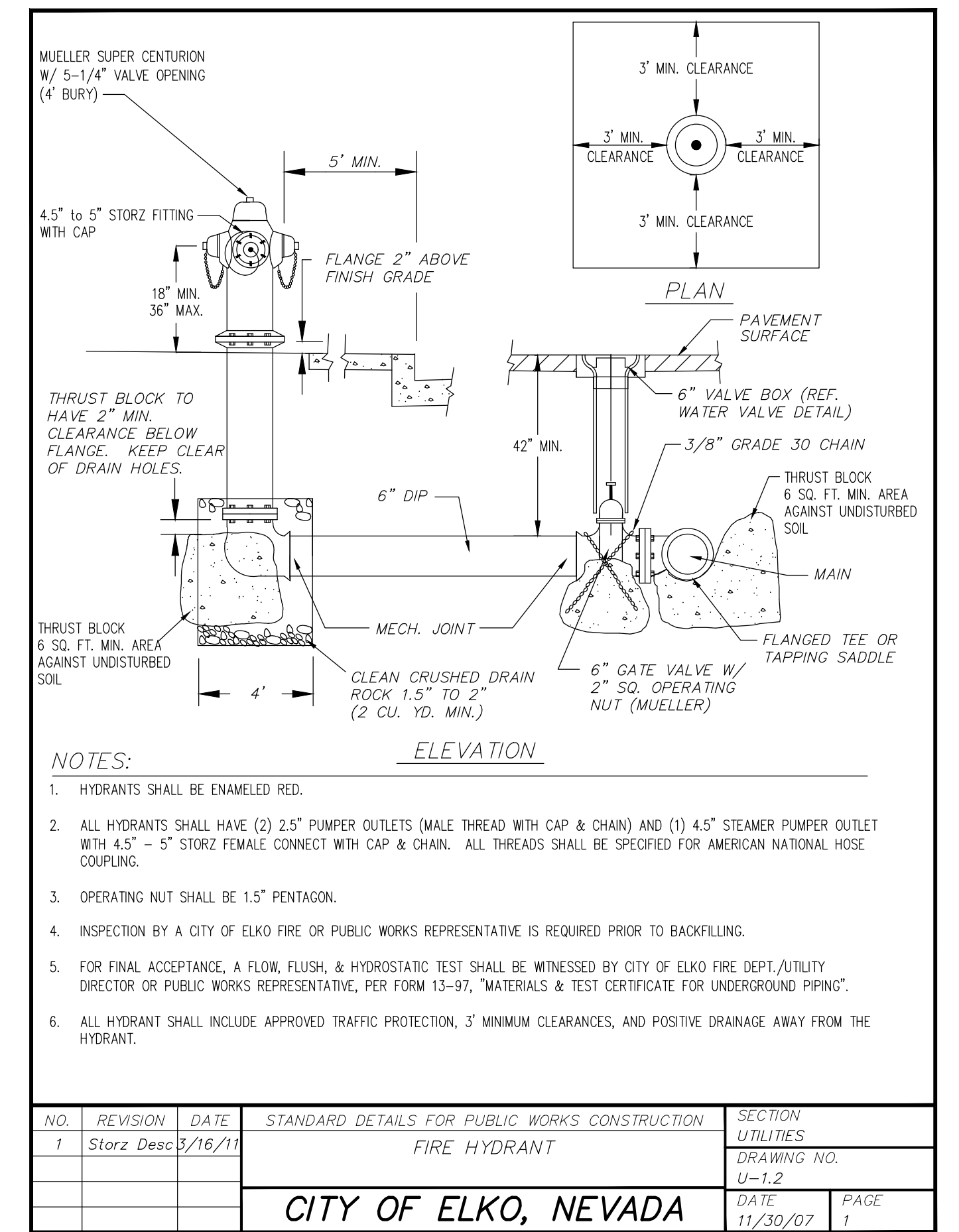
PIPE JOINT RESTRAINT TABLE



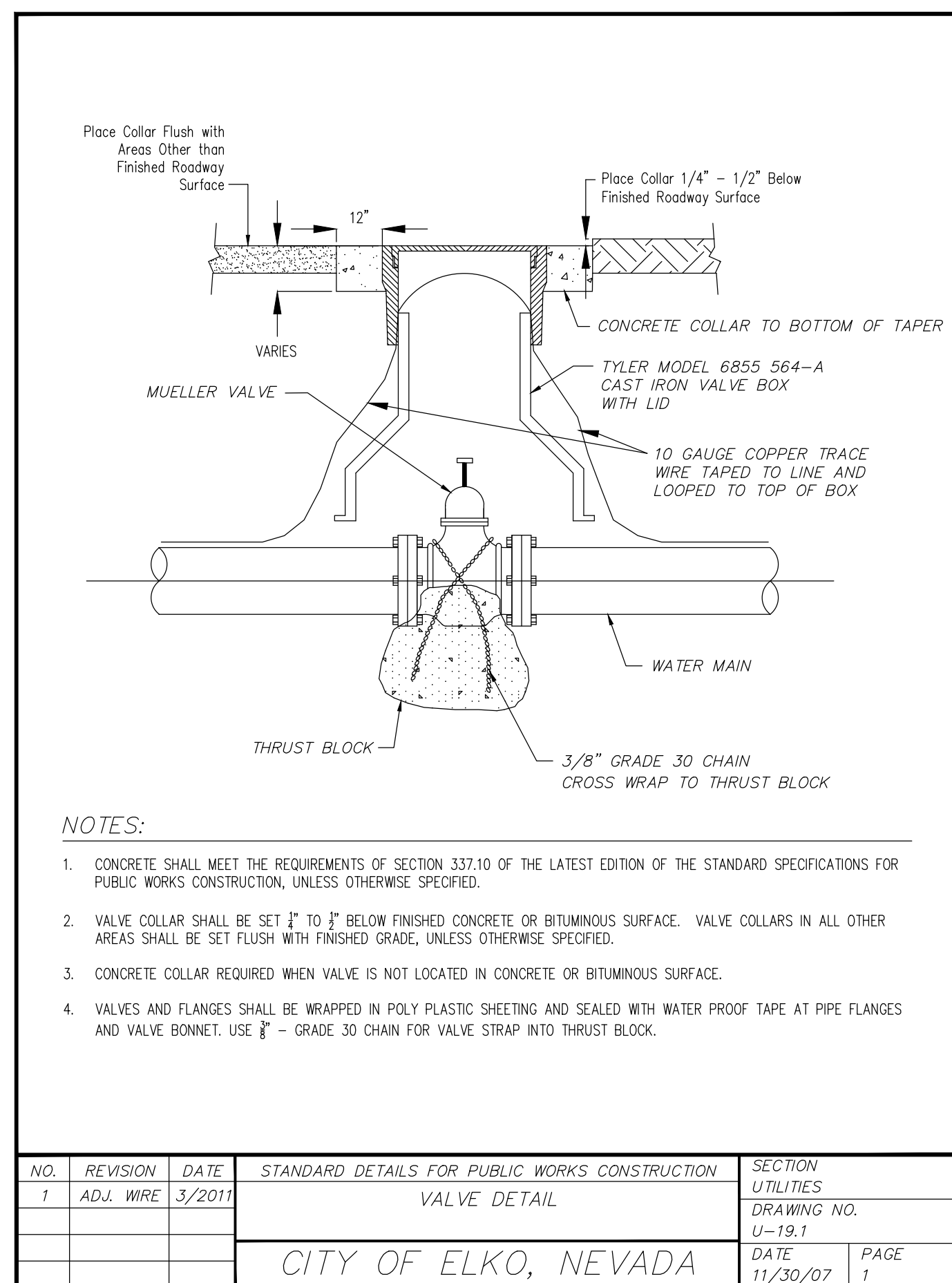
NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION UTILITIES
			POTABLE WATER AIR RELEASE	DRAWING NO. U-10.1
			CITY OF ELKO, NEVADA	DATE 09/28/09 PAGE 1



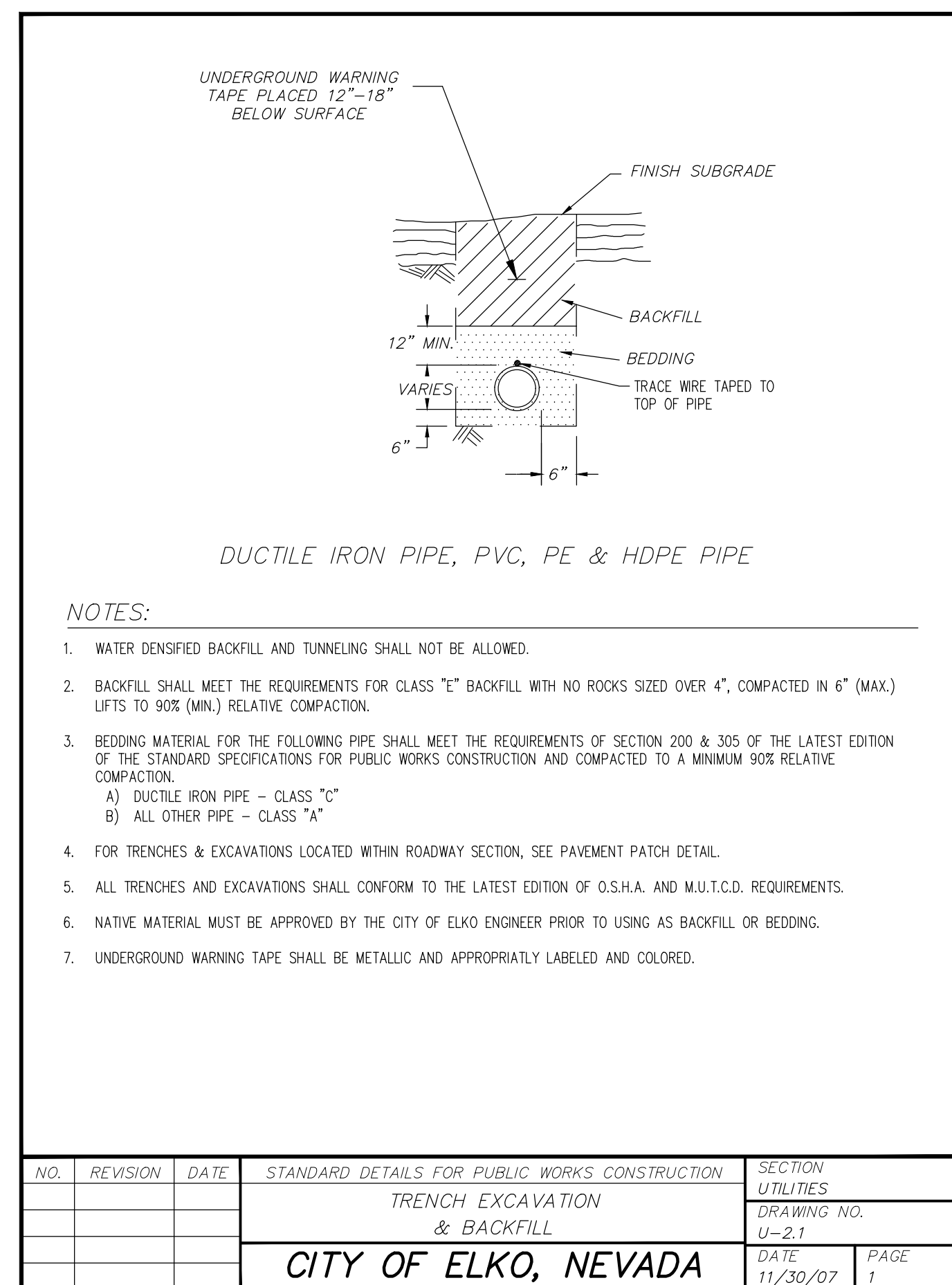
NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION UTILITIES
			PERMANENT FLUSH ASSEMBLY - MODIFIED	DRAWING NO. U-11.2
			CITY OF ELKO, NEVADA	DATE 11/30/07 PAGE 1



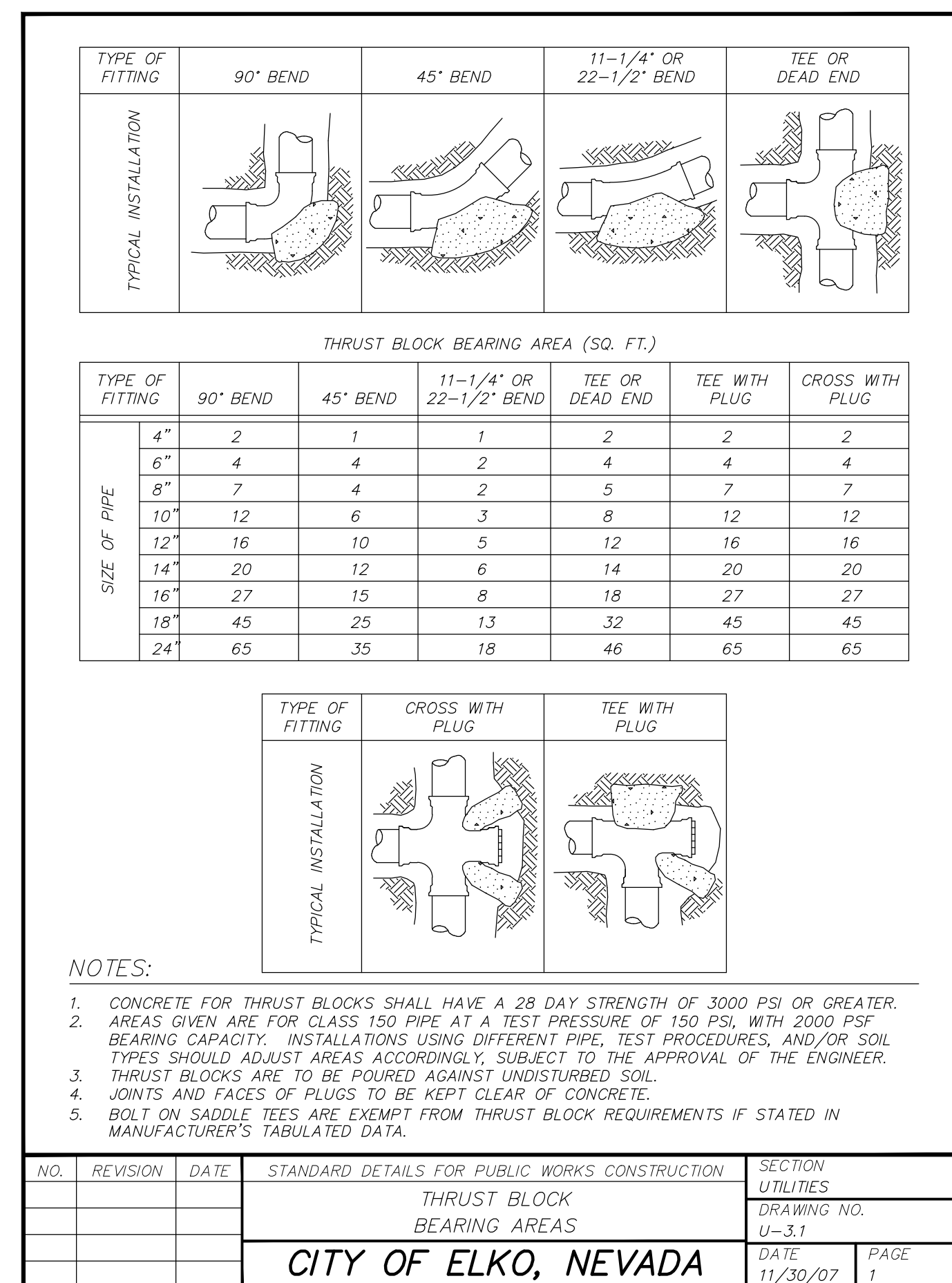
NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION UTILITIES
1	Storz Desc	3/16/11	FIRE HYDRANT	DRAWING NO. U-12
			CITY OF ELKO, NEVADA	DATE 11/30/07 PAGE 1



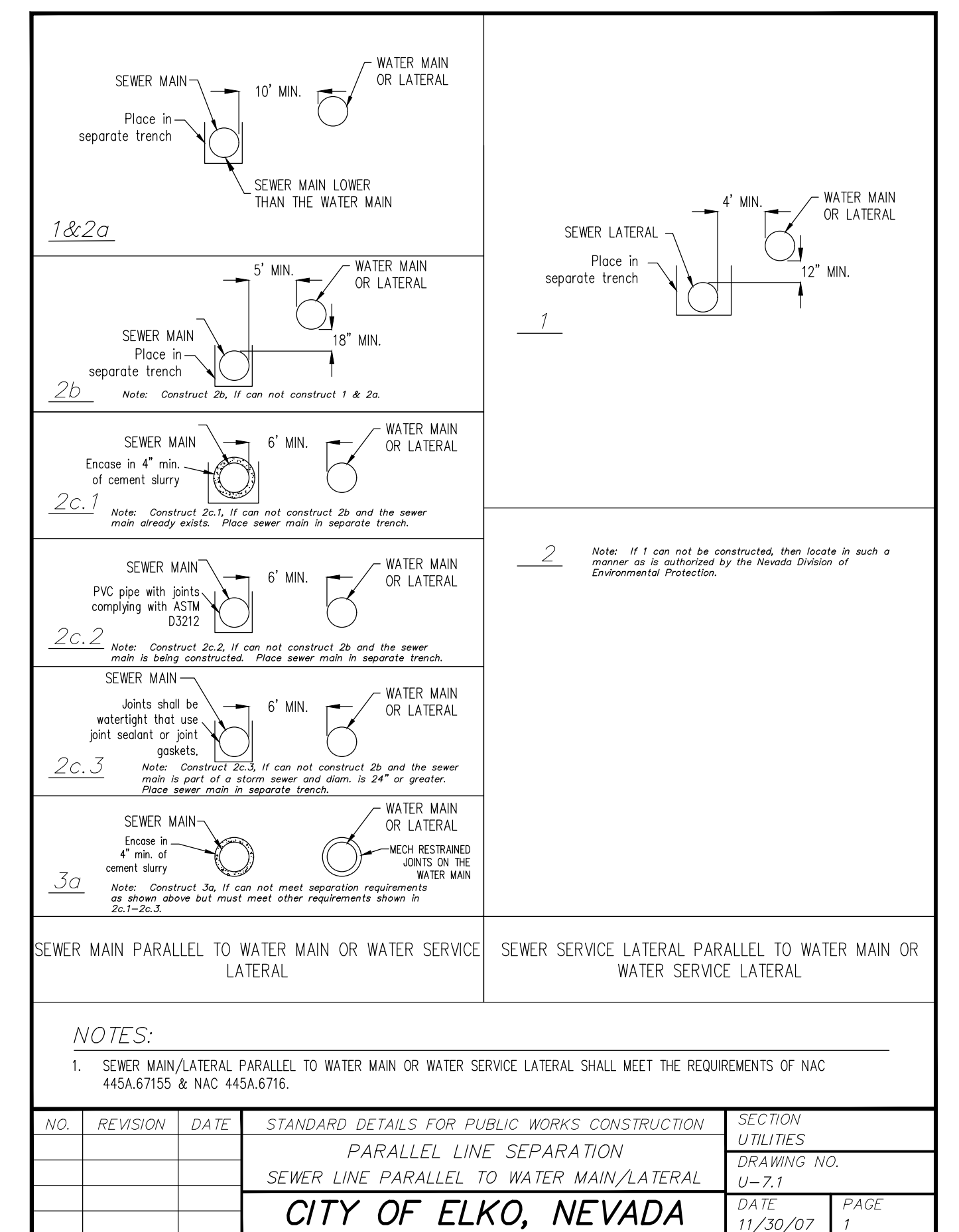
NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION UTILITIES
1	ADJ. WIRE	3/2011	VALVE DETAIL	DRAWING NO. U-19.1
			CITY OF ELKO, NEVADA	DATE 11/30/07 PAGE 1



NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION UTILITIES
			TRENCH EXCAVATION & BACKFILL	DRAWING NO. U-2.1
			CITY OF ELKO, NEVADA	DATE 11/30/07 PAGE 1



NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION UTILITIES
			THRUST BLOCK BEARING AREAS	DRAWING NO. U-3.1
			CITY OF ELKO, NEVADA	DATE 11/30/07 PAGE 1



NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION UTILITIES
			PARALLEL LINE SEPARATION SEWER LINE PARALLEL TO WATER MAIN/LATERAL	DRAWING NO. U-7.1
			CITY OF ELKO, NEVADA	DATE 11/30/07 PAGE 1

July 5, 2023 - 12:26 Dwg Name: \\nrc\c-c\man\Projects\4878\BrowView\Drawings\2023\ACCESS ROAD\ROAD\Access Road Waterline Detail.dwg Updated By: ABoze

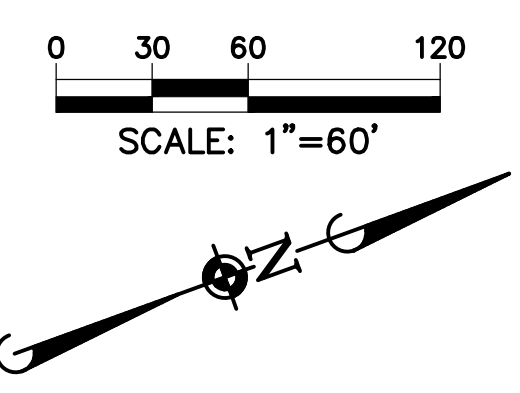
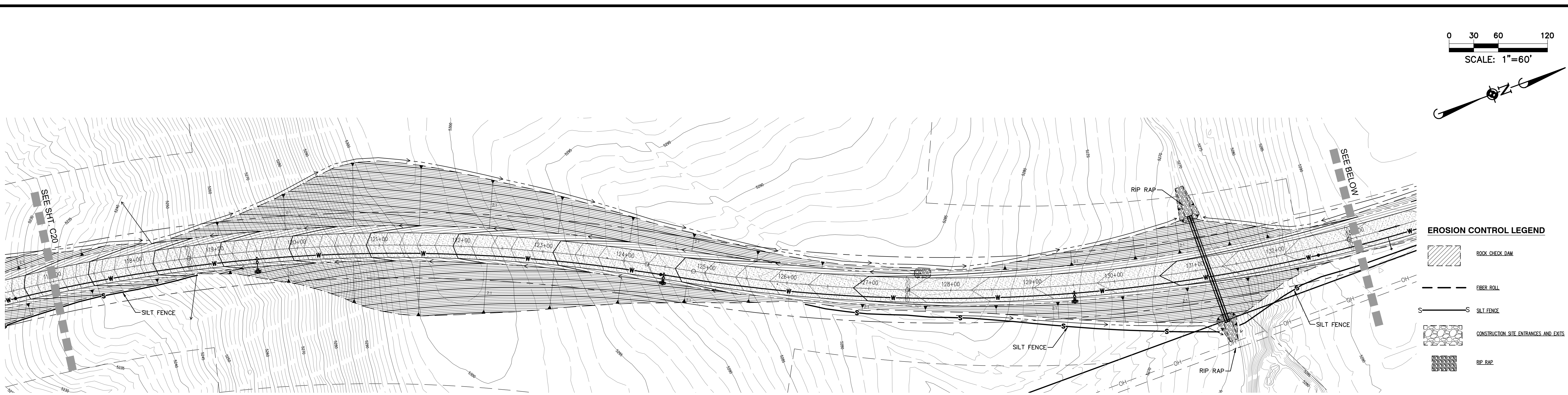
DRAWN BY: CHECK BY: REVISIONS: DATE:

Manhard CONSULTING
241 Ridge Street, Suite 400, Reno, NV 89501
775.746.3500
775.746.3500
manhard.com
ph: 775.746.3500
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

CATTLE DRIVE ACCESS ROAD / WATERLINE PROJECT
ELKO, NEVADA
DETAILS

PROJ. MGR.: RRW
PROJ. ASSOC.: AM
DRAWN BY: MB
DATE: 03/21/23
SCALE: AS NOTED

SHEET
12 OF 16
Risen01



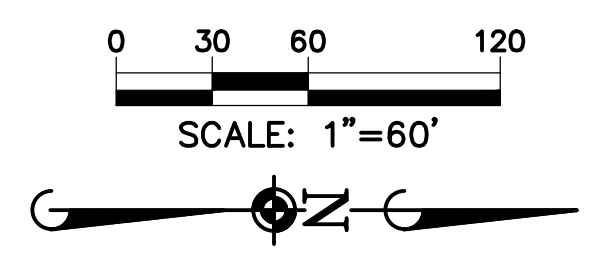
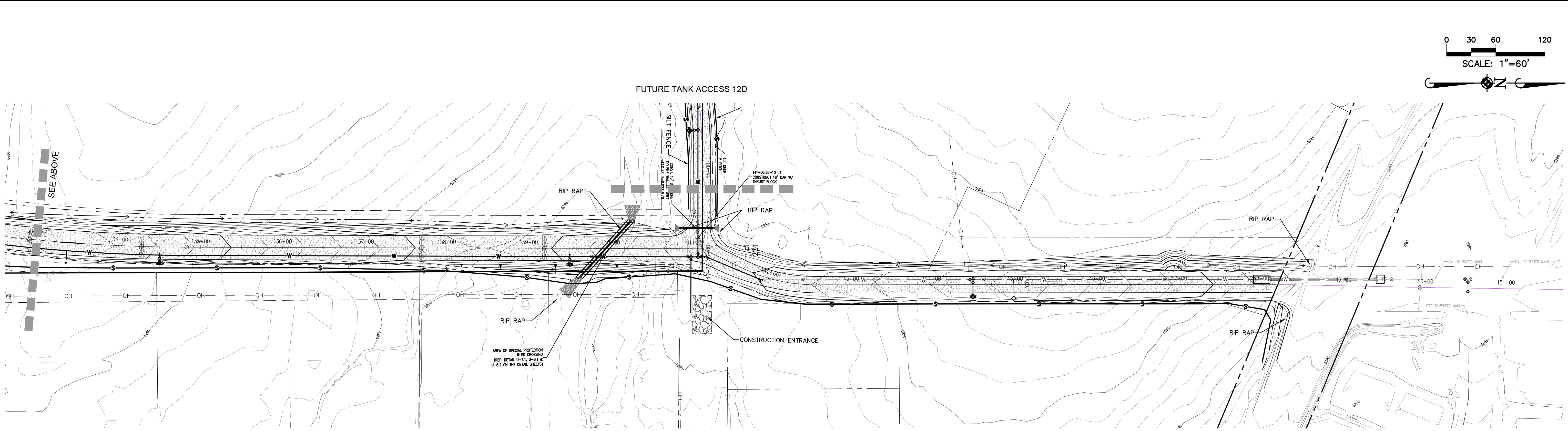
EROSION CONTROL LEGEND

	ROCK CHECK DAM
	FIBER ROLL
	SILT FENCE
	CONSTRUCTION SITE ENTRANCES AND EXITS
	RIP RAP

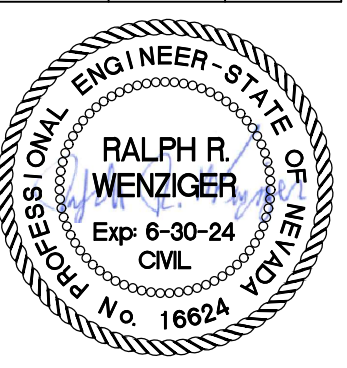
- EROSION CONTROL NOTES**
1. TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES TO BE CONSTRUCTED PRIOR TO OR CONCURRENT WITH ANY GRADING ACTIVITY.
 2. INSTALL AND MAINTAIN TEMPORARY SILT CONTROL STRUCTURES AT EXISTING STORM DRAIN INLETS RECEIVING RUNOFF FROM THE CONSTRUCTION SITE.
 3. EQUIPMENT AND VEHICLES SHALL NOT TRAVEL BEYOND THE LIMITS OF GRADING TO PREVENT TRACKING OF DIRT INTO TRAVEL WAY.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE PLACEMENT OF TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES. THE LAYOUT SHOWN ON THESE PLANS ARE INTENDED AS GENERAL GUIDELINE ONLY.
 5. TEMPORARY BMP'S SHALL COMPLY WITH THE ELKO CONSTRUCTION SITE BEST MANAGEMENT PRACTICES HANDBOOK - DECEMBER 2005 UPDATE.
 6. CONTRACTOR SHALL ENSURE THAT ACCESS TO AREAS NOT UNDER CONSTRUCTION IS MAINTAINED AT ALL TIMES.

DATE	
REVISIONS	
DRAWN BY	CHEK KY

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 241 Ridge Street, Suite 400, Reno, NV 89501
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CATTLE DRIVE ACCESS ROAD / WATERLINE PROJECT
ELKO, NEVADA
EROSION CONTROL PLAN



PROJ. MGR: RRW
 PROJ. ASSOC: AM
 DRAWN BY: MB
 DATE: 03/21/23
 SCALE: AS NOTED

SHEET
16 OF 16
 Risen01

July 3, 2023 - 17:14 Dwg Name: \\ncl-cv-mas\Projects\86\Boren\Drawings\Final\Drawings\2023\ACCESS ROAD-TANK ACCESS ROAD\Plan\20 Erosion.dwg Updated By: wenziger