



DUCKS UNLIMITED
PROJECT
ALPINE WETLANDS
WY-178-1
LOCATED IN PARTS OF
SECTIONS 3, 4, & 10
TOWNSHIP 36N, RANGE 119W,
6TH P.M., LINCOLN COUNTY, WYOMING

ESTIMATED QUANTITIES

MOBILIZATION:	1 L.S.
SITE PREPARATION (TOP SOIL):	1 L.S.
DEWATERING:	1 L.S.
EXCAVATION:	
GRADE IN SETTLING BASIN	520 C.Y.-P
CLEANOUT & REGRADE COOT DITCH	710 C.Y.-P
CONSTRUCTED TOPOGRAPHY:	
RE-GRADE HEADGATE AREA	1,383 C.Y.-P
REINFORCE HEADGATE AREA	230 C.Y.-P
WATER CONTROL STRUCTURES (WCS) - SUPPLY & INSTALL:	
48"Ø FRESNO SERIES 6600 MODEL 101C SCREW GATE (12' TALL)	1 EA.
36"Ø FRESNO SERIES 6600 MODEL 101C SCREW GATE (12' TALL)	1 EA.
24"Ø (5' TALL) INLINE WCS	1 EA.
CULVERTS & PIPE - SUPPLY & INSTALL:	
ALBC ALUMINUM BOX CULVERT	1 EA.
(16'-10" SPAN x 8'-3" RISE x 45'-3" LENGTH)	
48"Ø REINFORCED CONCRETE PIPE	25 L.F.-A
36"Ø REINFORCED CONCRETE PIPE	35 L.F.-A
24"Ø PVC PIPE (SDR 51)	52 L.F.-A
CAST-IN-PLACE REINFORCED CONCRETE:	
REINFORCED CONCRETE FLUSHING CULVERT HEADWALL	1 EA.
REINFORCED CONCRETE HEADWALL/TAILWALL	1 EA.
REINFORCED CONCRETE TAILWALL	1 EA.
ROCK, RIPRAP, & REVETMENT - SUPPLY & PLACE:	
DU CLASS IV ROCK RIPRAP W/ FILTER FABRIC	40 C.Y.-P
DU CLASS II ROCK RIPRAP W/ FILTER FABRIC	135 C.Y.-P
ROCK PITRUN	25 C.Y.-P
WELL-GRADED SAND	11.5 C.Y.-P
1" MINUS ANGULAR GRANULAR AGGREGATE	12 C.Y.-P
MISCELLANEOUS MAINTENANCE/DISPOSAL:	
REMOVAL & OFFSITE DISPOSAL OF EXISTING	1 L.S.
PIPE & WATER CONTROL STRUCTURES	
TRAFFIC MAINTENANCE AND CONTROL	
INSTALL & MAINTAIN TRAFFIC CONTROL SIGNALS,	1 L.S.
SIGNAGE & EQUIPMENT	

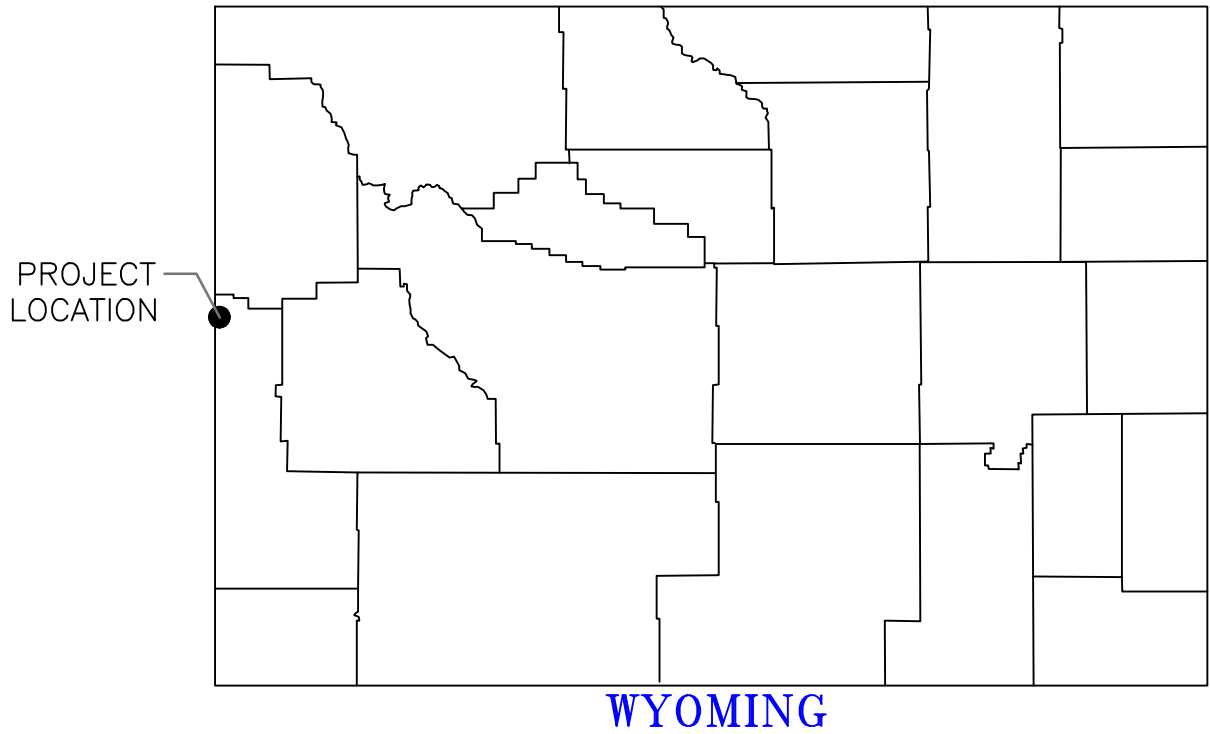
C.Y.-P - PAYMENT WILL BE BASED ON THE PLAN QUANTITY LISTED ABOVE.
L.F.-A - PAYMENT WILL BE BASED ON ACTUAL QUANTITY EXCAVATED, FILLED,
RE-GRADED, CLEANED OUT, OR SUPPLIED AND INSTALLED

SPECIFICATIONS

101	GENERAL CONDITIONS
102	SUPPLEMENTAL CONDITIONS
201	MOBILIZATION
202	SITE PREPARATION
203	EXCAVATION
206	CONSTRUCTED TOPOGRAPHY
301	WATER CONTROL STRUCTURES
303	CULVERT AND PIPE INSTALLATION
304	CAST-IN-PLACE REINFORCED CONCRETE
305	RIPRAP, REVETMENT & AGGREGATE PLACEMENT
307	SHEET PILING
311	REMOVAL OF EXISTING CULVERTS AND STRUCTURES
401	SOIL EROSION AND POLLUTION CONTROL
404	TRAFFIC MAINTENANCE AND CONTROL

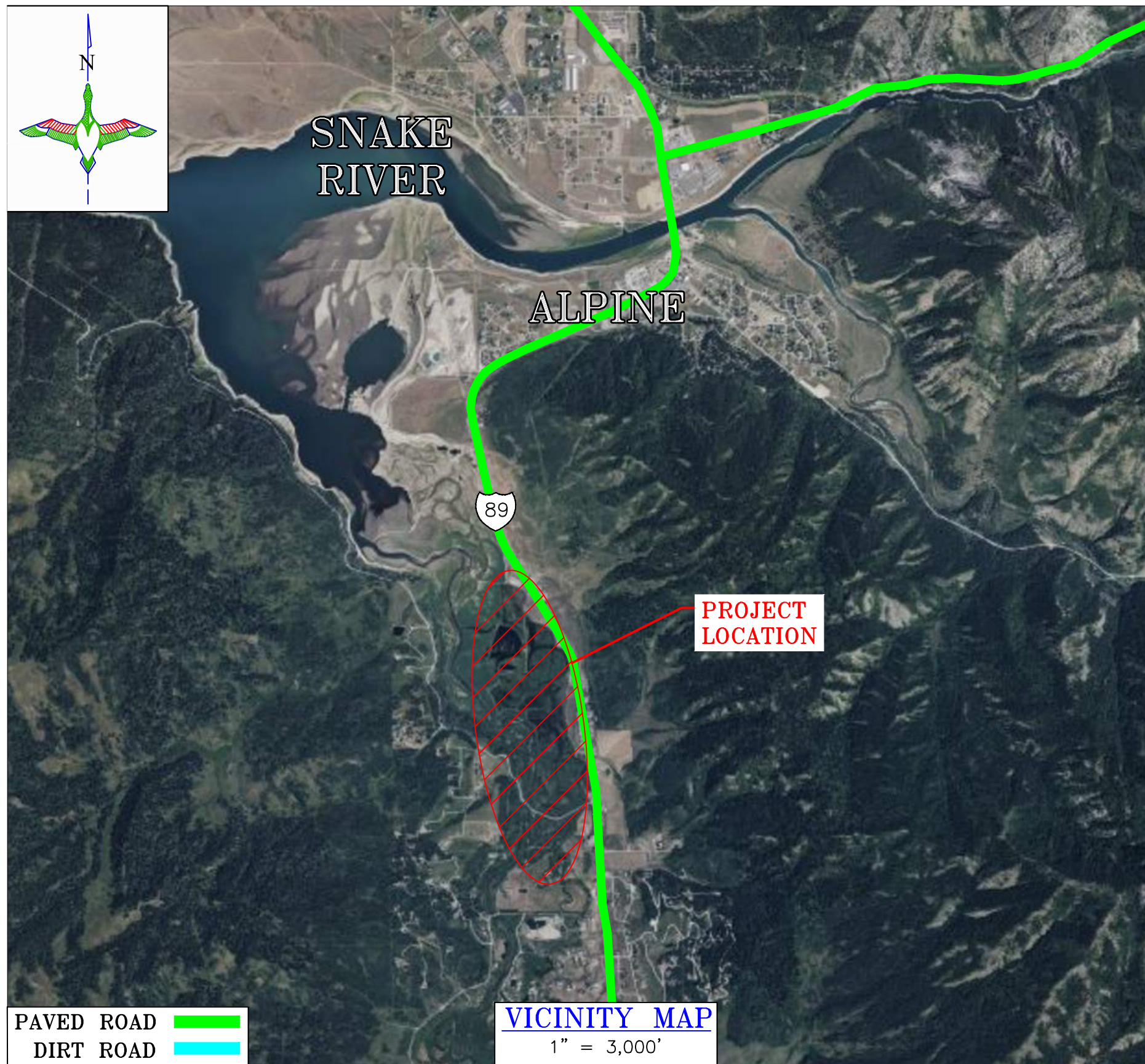
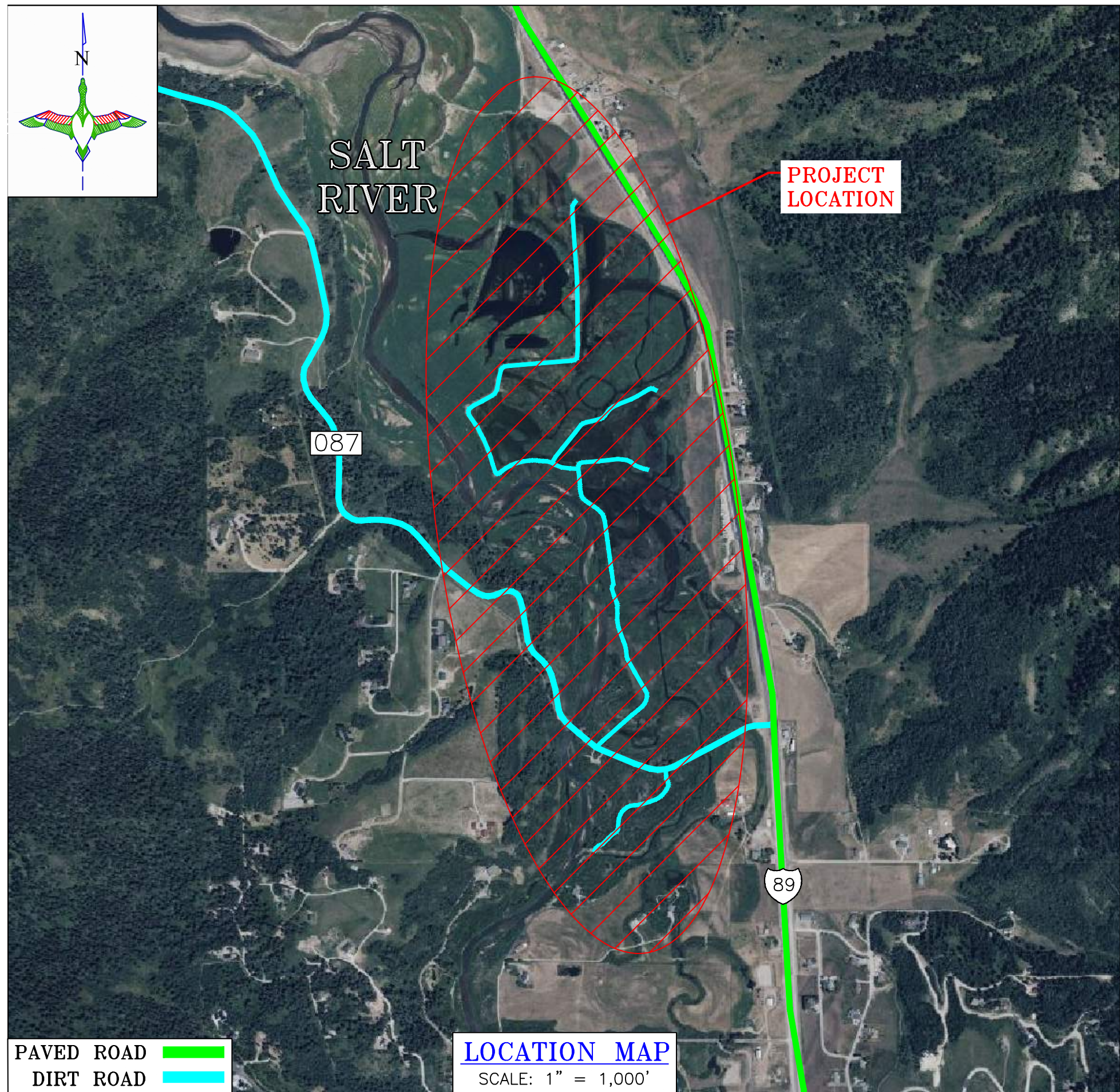
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"BEFORE YOU DIG"
BEFORE THE START OF CONSTRUCTION. THE OWNER OF ANY UTILITIES INVOLVED MUST BE NOTIFIED. THE EXCAVATOR/CONTRACTOR IS RESPONSIBLE FOR GIVING THIS NOTICE BY CALLING "ONE CALL OF WYOMING" AT 811. A 72 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.



PLAN INDEX

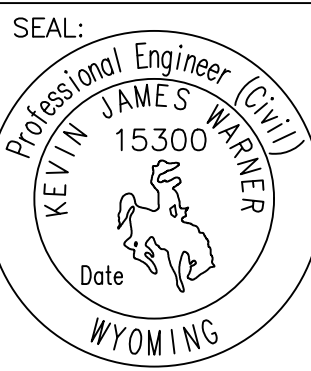
- 1 TITLE PAGE & LOCATION MAP
- 2 OVERALL PLAN
- 3 FLUSHING CULVERT HEADWALL
- 4 FLUSHING CULVERT SCREW GATE
- 5 MAIN HEADWALL
- 6 MAIN SCREW GATE
- 7 MAIN TAILWALL
- 8 REGRADE HEADGATE AREA, MOVE EX. ROCK PENINSULA & GRADE-IN SETTLING BASIN
- 9 CLEANOUT & REGRADE COOT DITCH
- 10 TEMPORARY ROAD CONSTRUCTION
- 11 ROAD CULVERT REPLACEMENT
- 11A CONTECH CULVERT DESIGN SHEETS 1-2
- 11B CONTECH CULVERT DESIGN SHEETS 3-4
- 11C CONTECH CULVERT DESIGN SHEETS 5-6
- 11D CONTECH CULVERT DESIGN SHEETS 7-8
- 11E CONTECH CULVERT DESIGN SHEETS 9-10
- 12 RUDDY DUCK RESERVOIR ARMORED SPILLWAY
- 13 PINTAIL RESERVOIR ARMORED SPILLWAY & ROCK CHECK
- 14 TEAL RESERVOIR ARMORED SPILLWAY
- 15 MERGANSER RESERVOIR ARMORED SPILLWAY
- 16 GOLDENEYE RESERVOIR ARMORED SPILLWAY
- 17 GOLDENEYE WCS REPLACEMENT
- 18 TRAFFIC CONTROL PLAN
- 19 STORMWATER POLLUTION PREVENTION PLAN
- 20 SWPPP NOTES





DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:



DESIGNED BY: KJW
DRAWN BY: JWV
SURVEYED BY: TP
CHECKED BY:
APPROVED BY:
APPROVED BY:

REVISION:	DATE:	BY:
1		
2		
3		
4		
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8		

PROJECT:

ALPINE WETLANDS

SHEET TITLE:

TITLE PAGE & LOCATION MAP

DATE:

04/16/2025

SHEET TITLE:

TITLE PAGE & LOCATION MAP

SCALES ARE ACCURATE ON 24"X36" SHEET SIZE

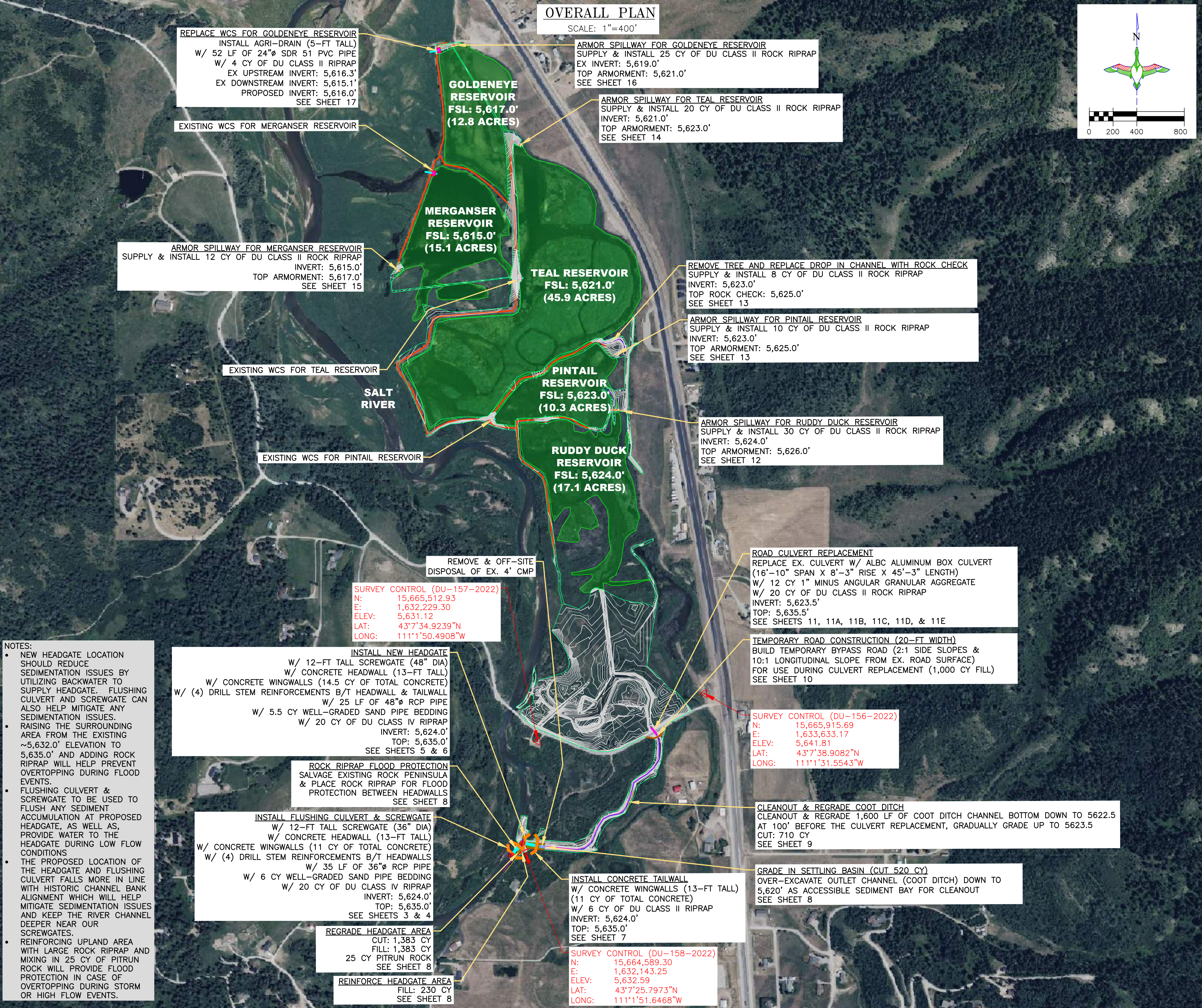
DU PROJECT NUMBER:

WY-178-1

SHEET NUMBER:

1

SHEET 1 OF 20



DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:
Professional Engineer (Civil)
KEVIN JAMES
15300
Date
WYOMING

DESIGNED BY: KJW
DRAWN BY: JWV
SURVEYED BY: TP
CHECKED BY:
APPROVED BY:
APPROVED BY:

REVISION:

DATE:	BY:	REVISION:
		1
		2
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		8

ALPINE WETLANDS

OVERALL PLAN

PROJECT:

DATE:
04/16/2025

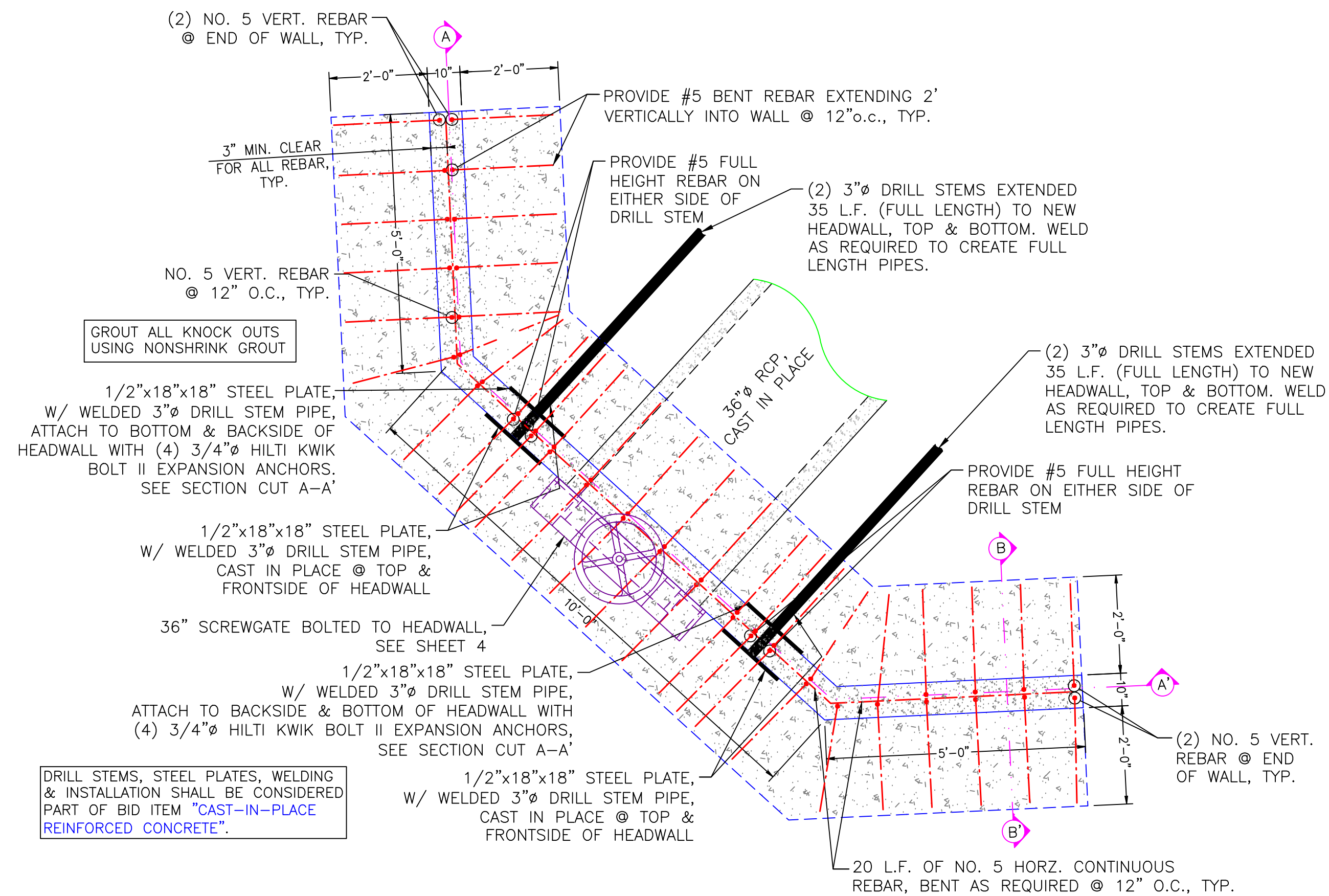
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OVERALL PLAN

DU PROJECT NUMBER:
WY-178-1

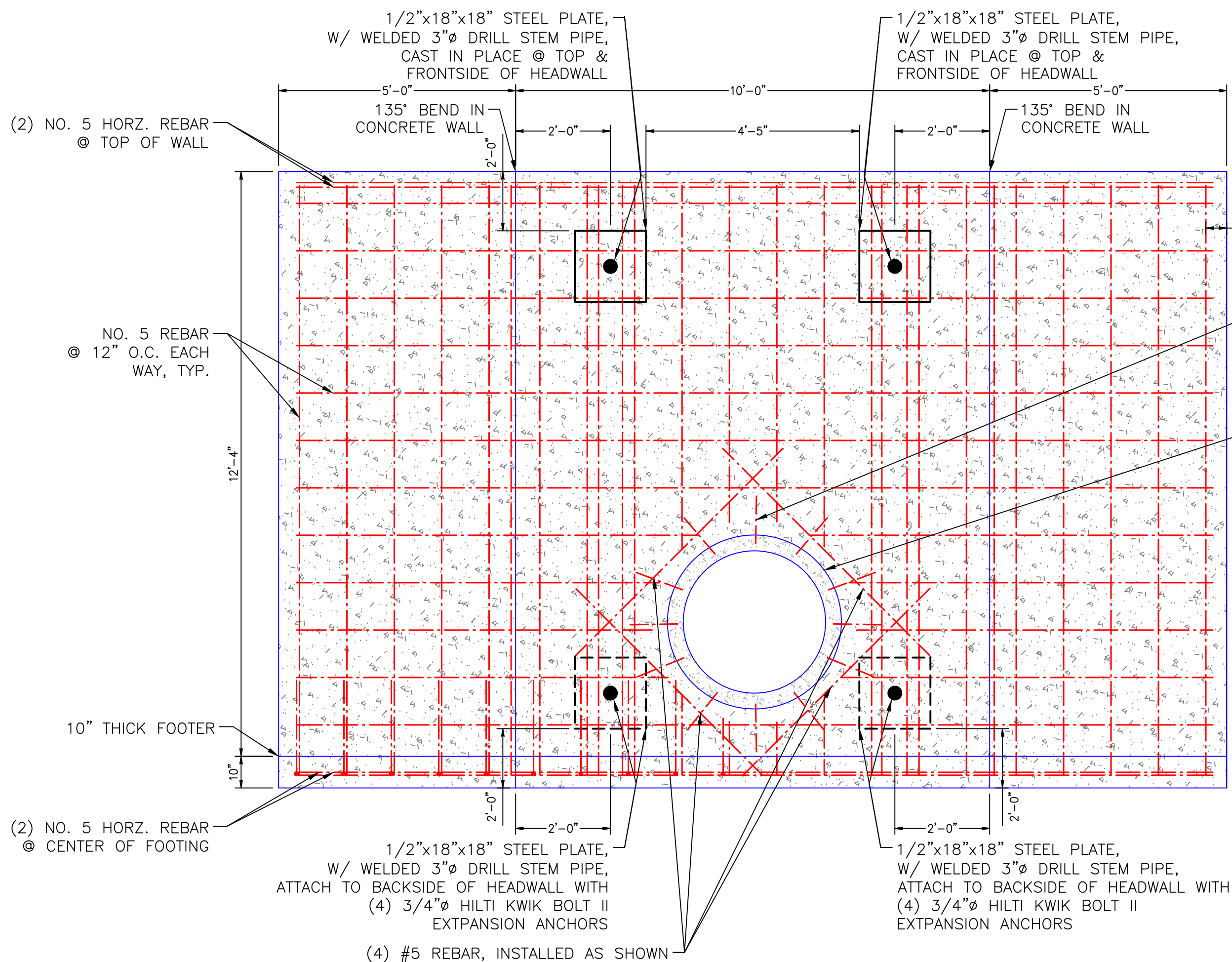
SHEET NUMBER:
2
SHEET 2 OF 20

SCALES ARE ACCURATE ON 24"x36" SHEET SIZE

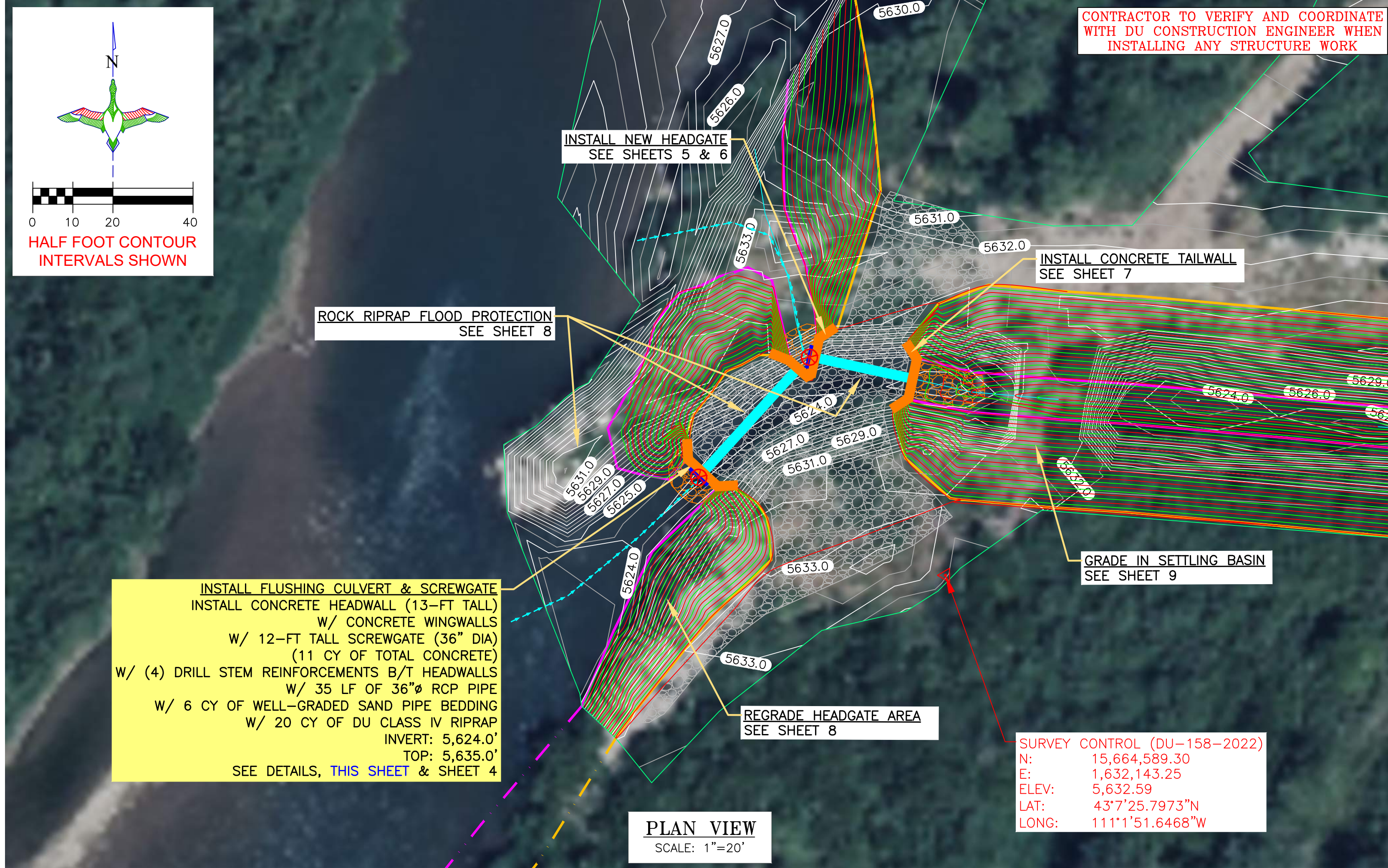
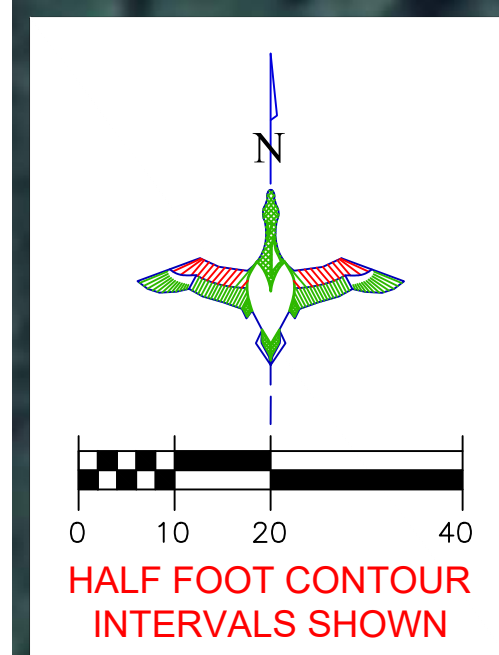
DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375



FLUSHING CULVERT HEADGATE STRUCTURE PLAN VIEW
SCALE 1"=2'



FLUSHING CULVERT HEADGATE STRUCTURE SECTION CUT A-A'
SCALE 1"=2'

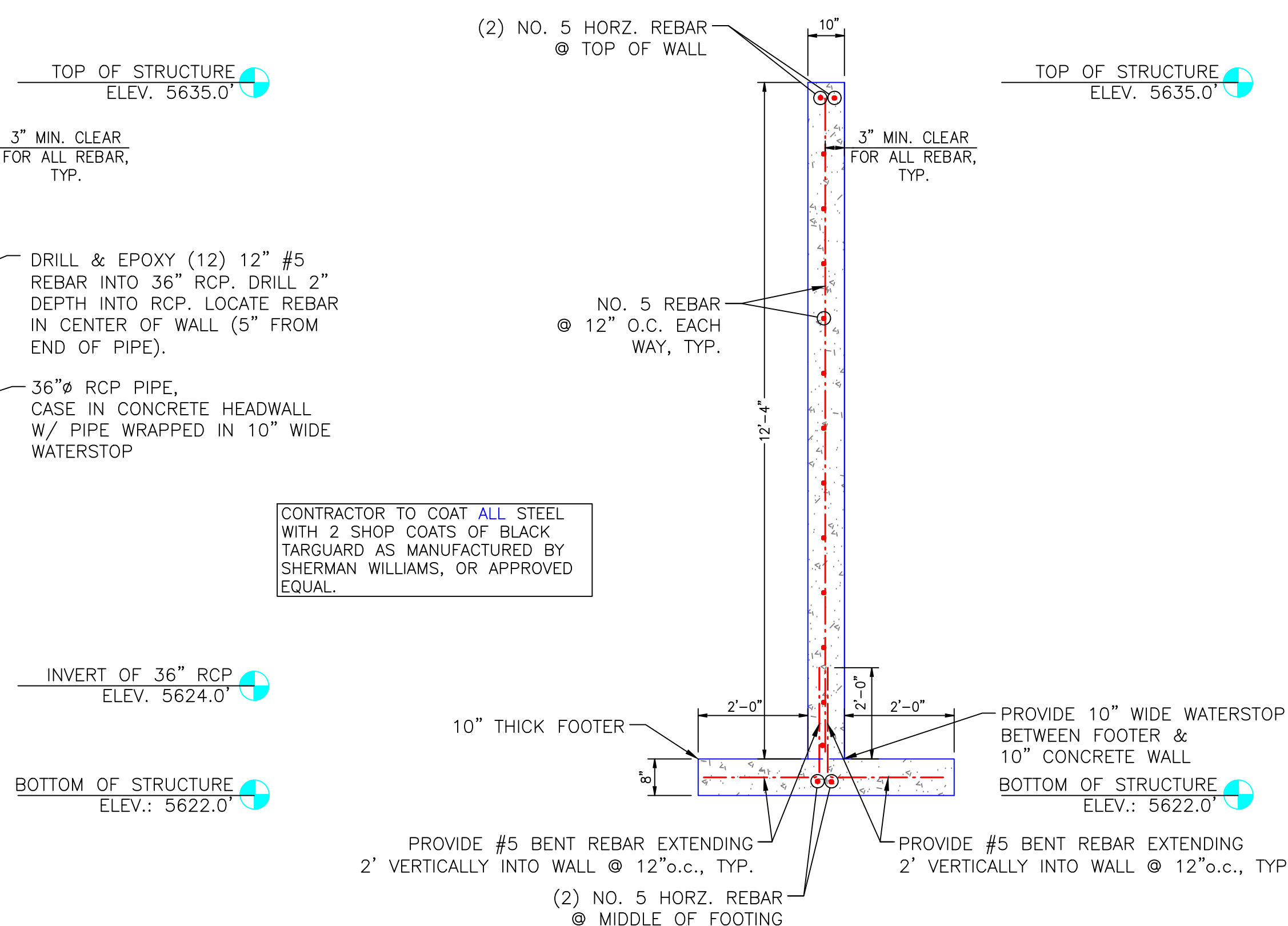


INSTALL FLUSHING CULVERT & SCREWGATE
INSTALL CONCRETE HEADWALL (13-FT TALL)
W/ CONCRETE WINGWALLS
W/ 12-FT TALL SCREWGATE (36" DIA)
(11 CY OF TOTAL CONCRETE)
W/ (4) DRILL STEM REINFORCEMENTS B/T HEADWALLS
W/ 35 LF OF 36" RCP PIPE
W/ 6 CY OF WELL-GRADED SAND PIPE BEDDING
W/ 20 CY OF DU CLASS IV RIPRAP
INVERT: 5,624.0'
TOP: 5,635.0'
SEE DETAILS, THIS SHEET & SHEET 4

SURVEY CONTROL (DU-158-2022)
N: 15,664,589.30
E: 1,632,143.25
ELEV: 5,632.59
LAT: 43°7'25.7973"N
LONG: 111°1'51.6468"W

LEGEND

PROPERTY BOUNDARY	
EARTHWORK	
CONCRETE HEADWALL/ TAILWALL	
SCREW GATE	
REINFORCED CONCRETE PIPE	
REPLACE CULVERT	
RIPRAP	



FLUSHING CULVERT HEADGATE
STRUCTURE SECTION CUT B-B'
SCALE 1"=2'

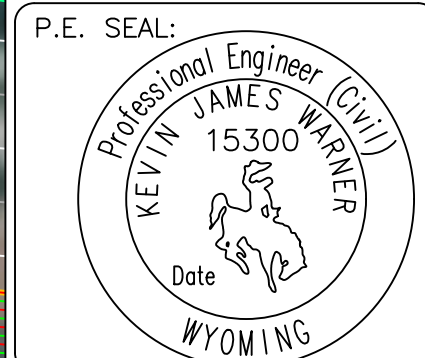
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DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375



GREAT PLAINS REGIONAL OFFICE



DESIGNED BY: KJW
DRAWN BY: JWV
SURVEYED BY: TP
CHECKED BY:
APPROVED BY:
APPROVED BY:

REVISION:	DATE:	BY:
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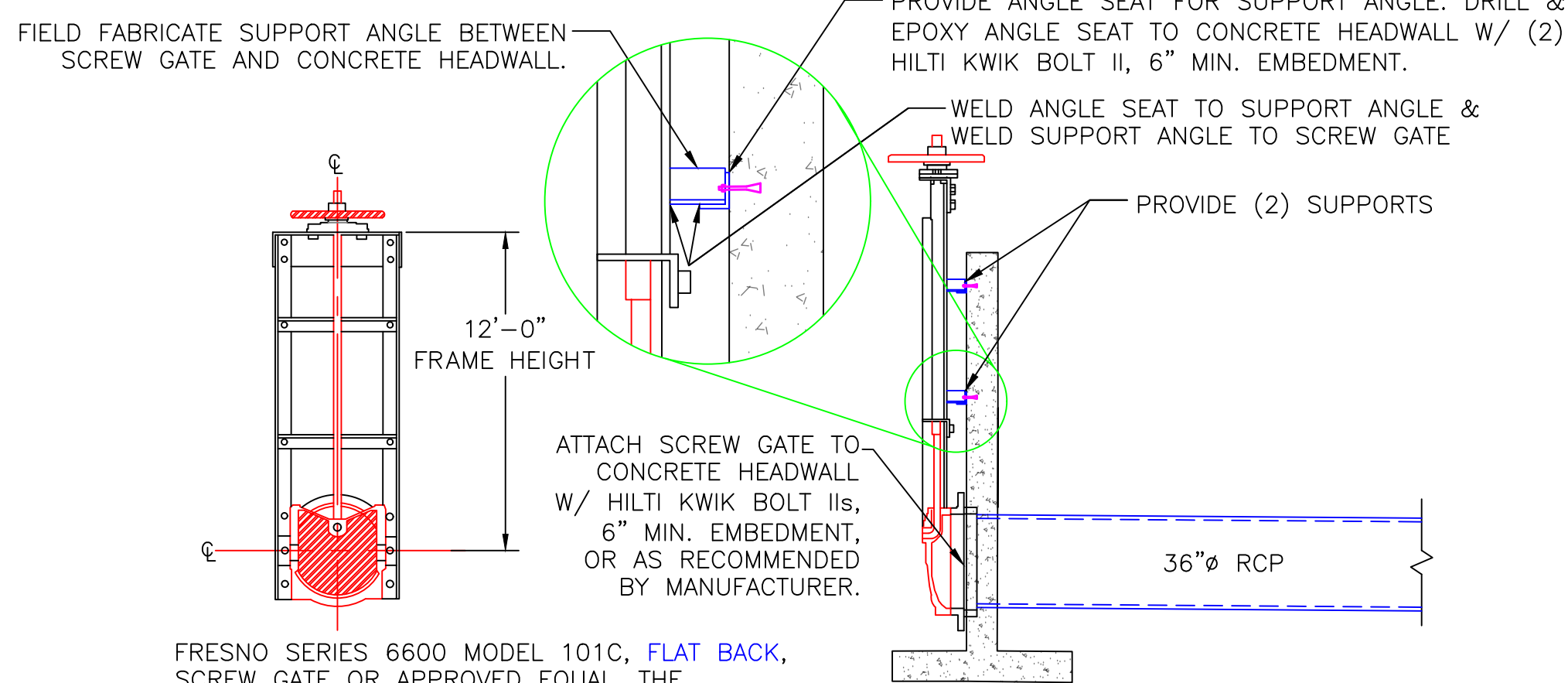
PROJECT: ALPINE WETLANDS
SHEET TITLE: FLUSHING CULVERT HEADWALL

DATE: 04/16/2025
SHEET TITLE: FLUSHING CULVERT HEADWALL

SCALES ARE ACCURATE ON 24"X36" SHEET SIZE
DU PROJECT NUMBER: WY-178-1
SHEET NUMBER: 3
SHEET 3 OF 20

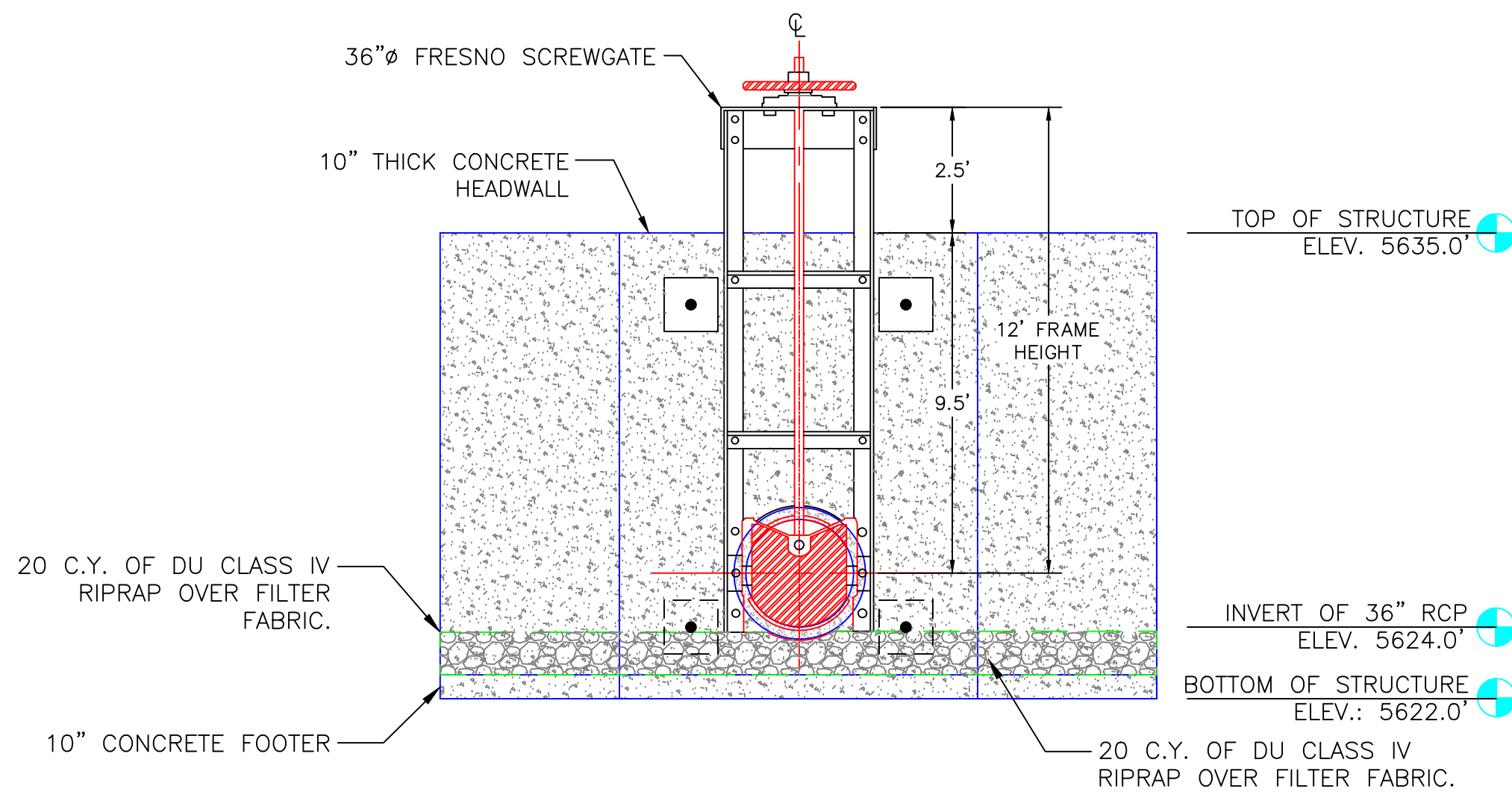
CONCRETE HEADWALL NOTES:

1. INLET AND OUTLET PIPE SHALL BE PLACED ON LEVEL SURFACE OF COMPACTED SOIL.
2. COST OF STRUCTURE INSTALLATION SHALL BE PAID AS BID ITEM "CONCRETE HEADWALL STRUCTURE"
3. HEADWALL STRUCTURE SHALL BE 10" THICK REINFORCED CONCRETE
4. ALL WELDS TO BE 1/4" FILLET WELDS.
5. ALL WELDED SEAMS SHALL BE CONTINUOUS AND WATERTIGHT, UNLESS OTHERWISE STATED.
6. ALL STEEL SHALL BE GIVEN 2 SHOP COATS OF BLACK TARGUARD AS MANUFACTURED BY SHERMAN WILLIAMS, OR APPROVED EQUAL. PAINT ALL STEEL SURFACES PER MANUFACTURER'S RECOMMENDATIONS, EXCEPT GALVANIZED SHEET PILE.
7. INVERT ELEVATION OF WATER CONTROL STRUCTURES ARE APPROXIMATE AND WILL BE DETERMINED BY DU ENGINEER IN FIELD.

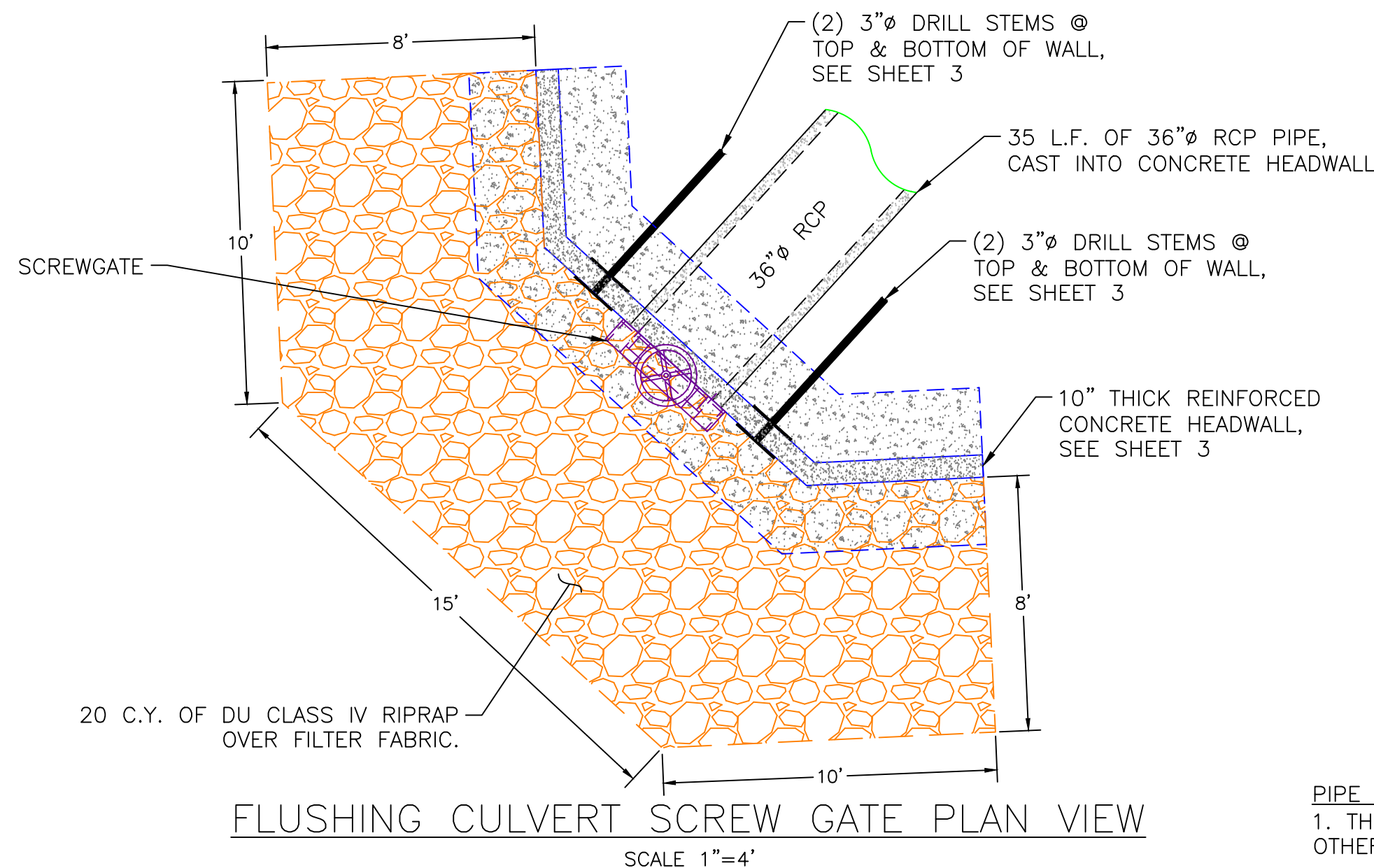


FRESNO SERIES 6600 MODEL 101C, **FLAT BACK**, SCREW GATE OR APPROVED EQUAL. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE ANCHOR BOLTS AND INSTALLING THE GATE. SEE www.fresnovalves.com OR CALL 1-800-333-1658

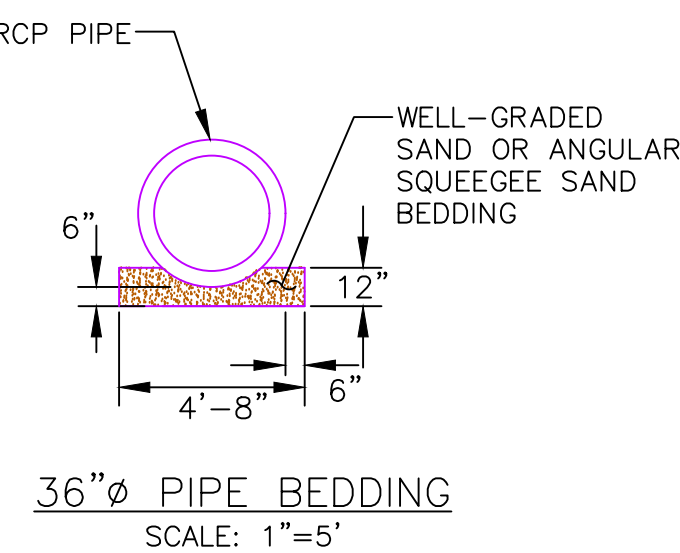
FLUSHING CULVERT SCREW GATE DETAIL
NOT TO SCALE



FLUSHING CULVERT SCREW GATE FRONT VIEW
SCALE 1"=4'

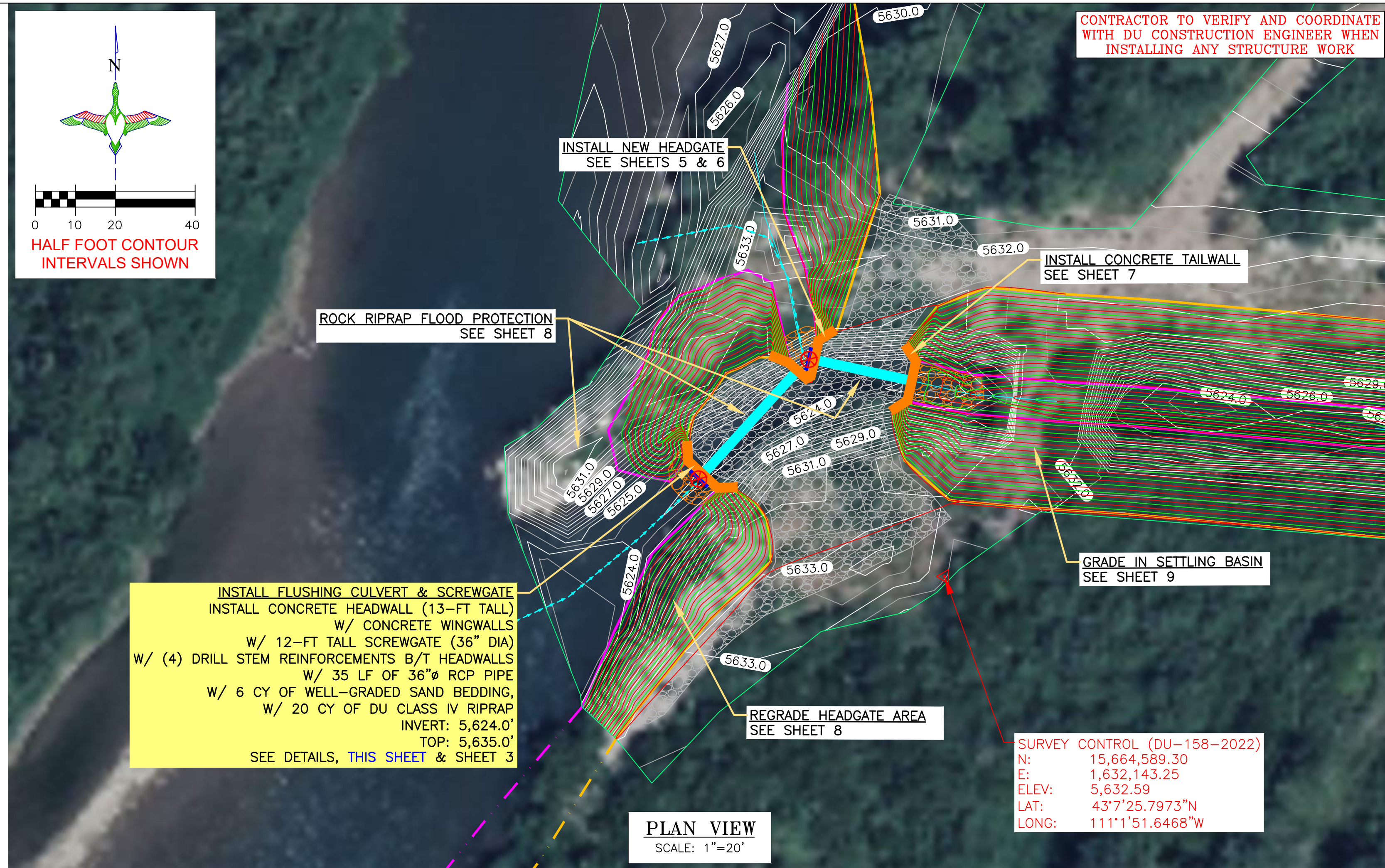
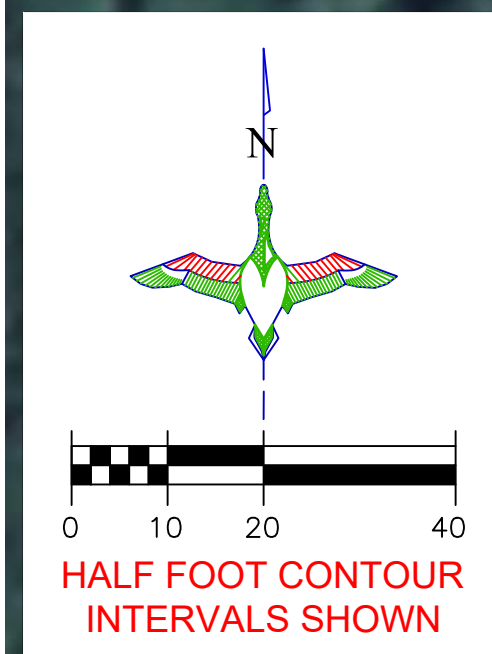


FLUSHING CULVERT SCREW GATE PLAN VIEW
SCALE 1"=4'



PIPE BEDDING NOTES:

1. THERE SHALL BE A MINIMUM OF 12" OF BACKFILL OVER THE PIPE BEFORE OTHER THAN HAND COMPACTION EQUIPMENT IS USED IN THE TRENCH.
2. THE BEDDING MATERIAL SHALL BE CLEAN, FREE DRAINING WELL-GRADED SAND AND SHALL CONFORM TO THE LIMITS DEFINED IN THE CONSTRUCTION SPECIFICATIONS WHEN TESTED BY MEANS OF LABORATORY SIEVES.
3. BEDDING SHALL BE DEPOSITED IN LAYERS NOT EXCEEDING SIX (6) INCHES. EACH LAYER SHALL BE COMPACTED BY SURFACE OR INTERNAL VIBRATORS, HAND OR POWER TAMPERS OR OTHER SUITABLE COMPACTION EQUIPMENT. THE MATERIAL SHALL HAVE A MINIMUM COMPACTION OF 70% RELATIVE DENSITY AS DETERMINED BY ASTM D-4253.



CONTRACTOR TO VERIFY AND COORDINATE WITH DU CONSTRUCTION ENGINEER WHEN INSTALLING ANY STRUCTURE WORK

INSTALL NEW HEADGATE
SEE SHEETS 5 & 6

ROCK RIPRAP FLOOD PROTECTION
SEE SHEET 8

INSTALL CONCRETE TAILWALL
SEE SHEET 7

GRADE IN SETTLING BASIN
SEE SHEET 9

REGRADE HEADGATE AREA
SEE SHEET 8

SURVEY CONTROL (DU-158-2022)
N: 15,664,589.30
E: 1,632,143.25
ELEV: 5,632.59
LAT: 43°7'25.7973"N
LONG: 111°1'51.6468"W

PLAN VIEW
SCALE: 1"=20'

LEGEND

PROPERTY BOUNDARY	
EARTHWORK	
CONCRETE HEADWALL/ TAILWALL	
SCREW GATE	
REINFORCED CONCRETE PIPE	
REPLACE CULVERT	
RIPRAP	

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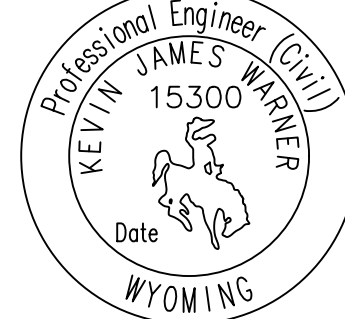
DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375



DUCKS
UNLIMITED
INC.

GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:



DESIGNED BY: KJW

DRAWN BY: JW

SURVEYED BY: TP

CHECKED BY:

APPROVED BY:

APPROVED BY:

DATE:

DATE:

DATE:

DATE:

DATE:

DATE:

REVISION:

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SHEET TITLE:

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SHEET TITLE:

FLUSHING
CULVERT SCREW
GATE

FLUSHING
CULVERT SCREW
GATE

FLUSHING
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FLUSHING
CULVERT SCREW
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FLUSHING
CULVERT SCREW
GATE

FLUSHING
CULVERT SCREW
GATE

SCALES ARE ACCURATE ON
24"X36" SHEET SIZE

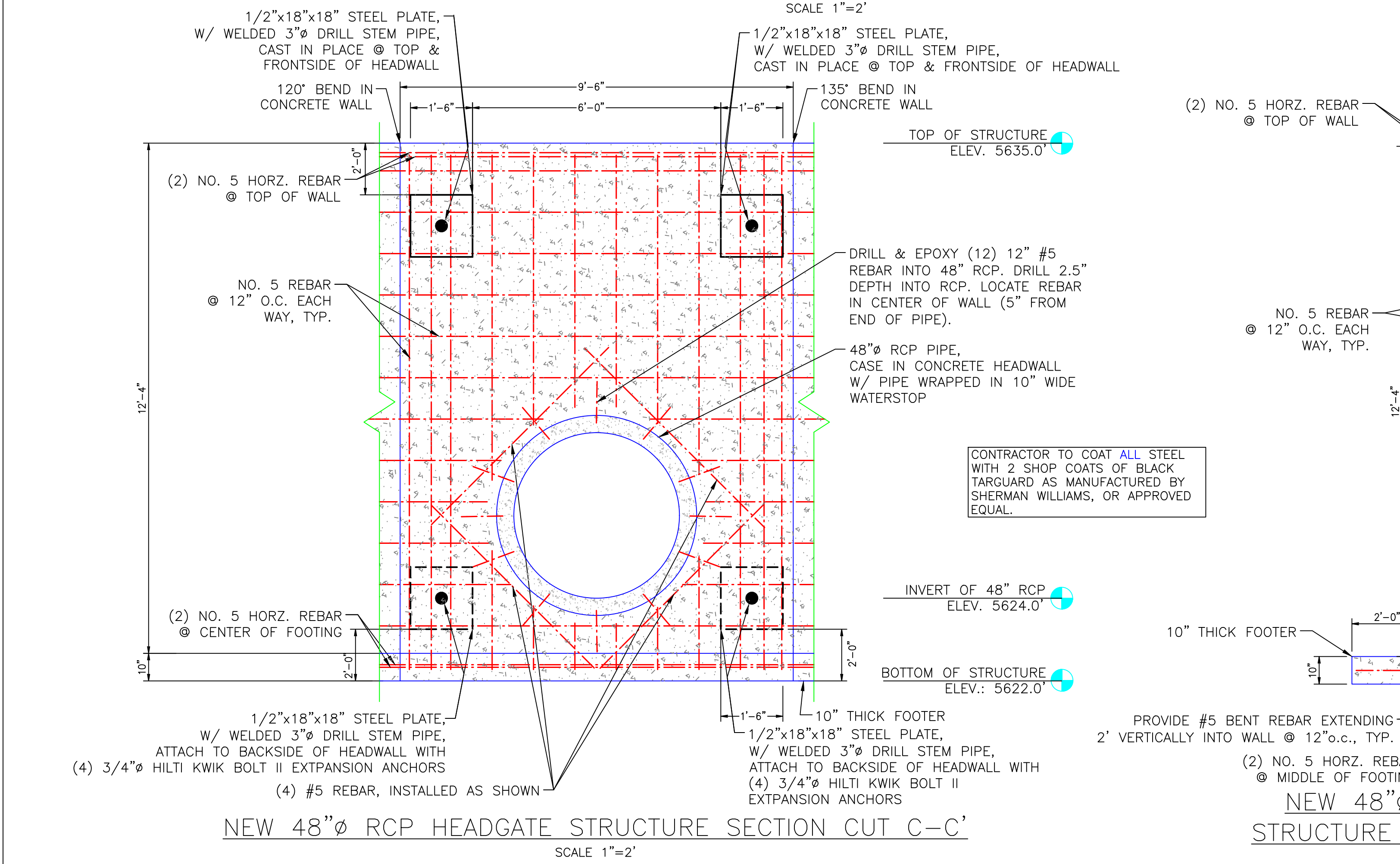
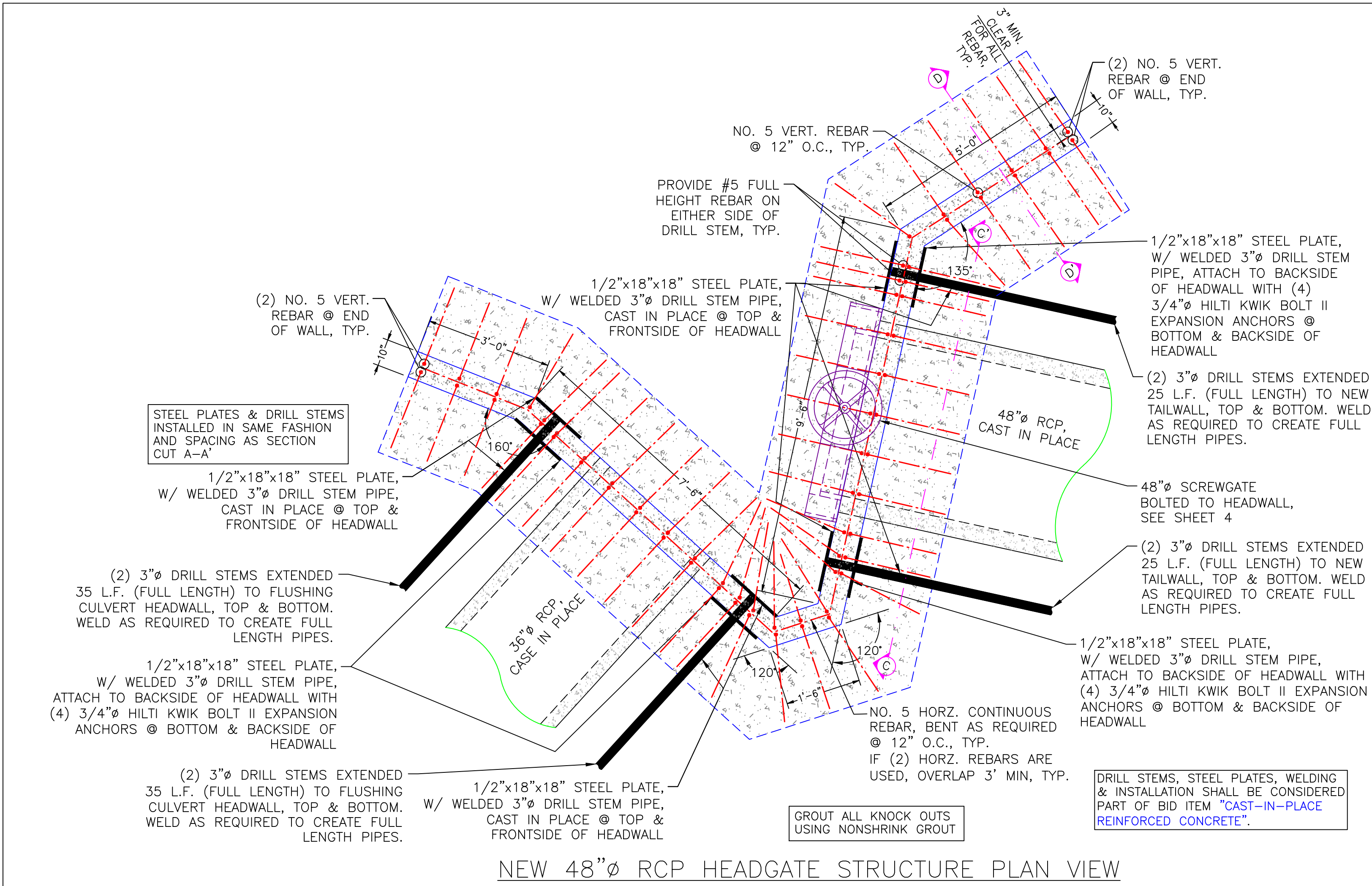
DU PROJECT NUMBER:

WY-178-1

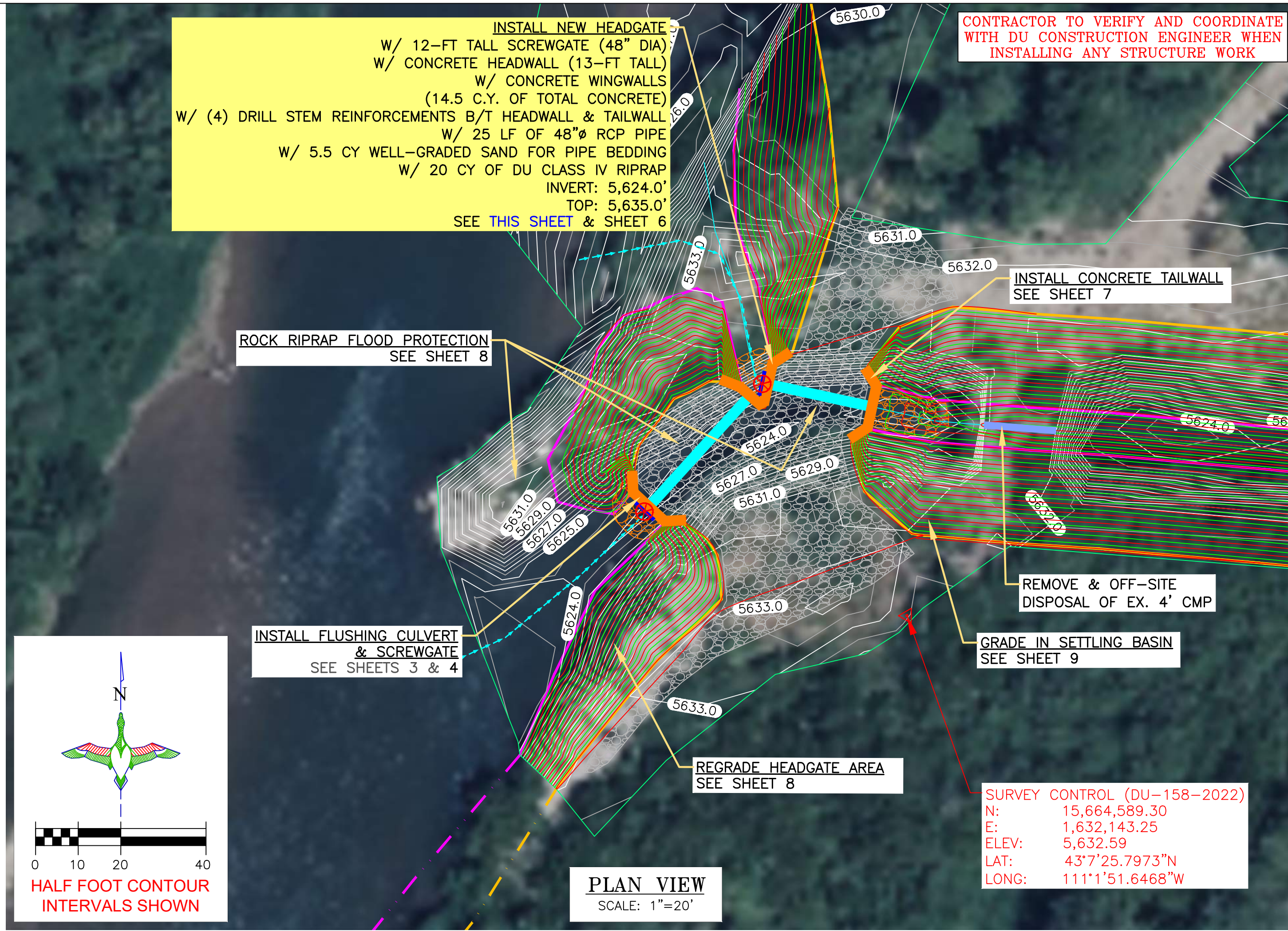
SHEET NUMBER:

4

SHEET 4 OF 20



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LEGEND

- PROPERTY BOUNDARY
- EARTHWORK
- CONCRETE HEADWALL/ TAILWALL
- SCREW GATE
- REINFORCED CONCRETE PIPE
- REPLACE CULVERT
- RIPRAP

PROJECT: ALPINE WETLANDS

SHEET TITLE: MAIN HEADWALL

DATE: 04/16/2025

SHEET NUMBER: 5

DU PROJECT NUMBER: WY-178-1

DU PROJECT ENGINEER: THOMAS PARKER, P.E. (970) 692-3375

CONTRACTOR TO VERIFY AND COORDINATE WITH DU CONSTRUCTION ENGINEER WHEN INSTALLING ANY STRUCTURE WORK

INSTALL NEW HEADGATE
W/ 12-FT TALL SCREWGATE (48" DIA)
W/ CONCRETE HEADWALL (13-FT TALL)
W/ CONCRETE WINGWALLS (14.5 C.Y. OF TOTAL CONCRETE)
W/ 25 LF OF 48" RCP PIPE
W/ 5.5 CY WELL-GRADED SAND FOR PIPE BEDDING
W/ 20 CY OF DU CLASS IV RIPRAP
INVERT: 5,624.0'
TOP: 5,635.0'
SEE THIS SHEET & SHEET 6

INSTALL CONCRETE TAILWALL
SEE SHEET 7

REMOVE & OFF-SITE DISPOSAL OF EX. 4' CMP

GRADE IN SETTLING BASIN
SEE SHEET 9

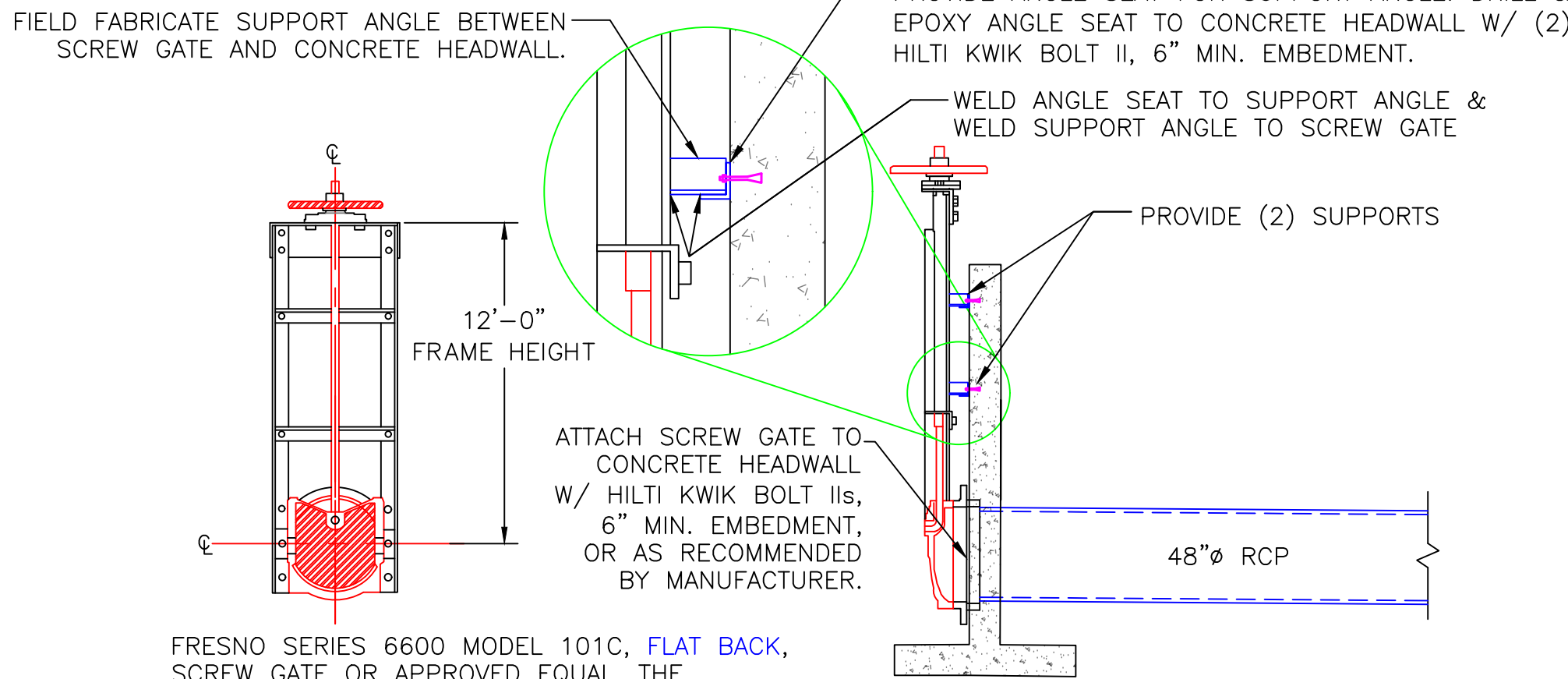
REGRADE HEADGATE AREA
SEE SHEET 8

INSTALL FLUSHING CULVERT & SCREWGATE
SEE SHEETS 3 & 4

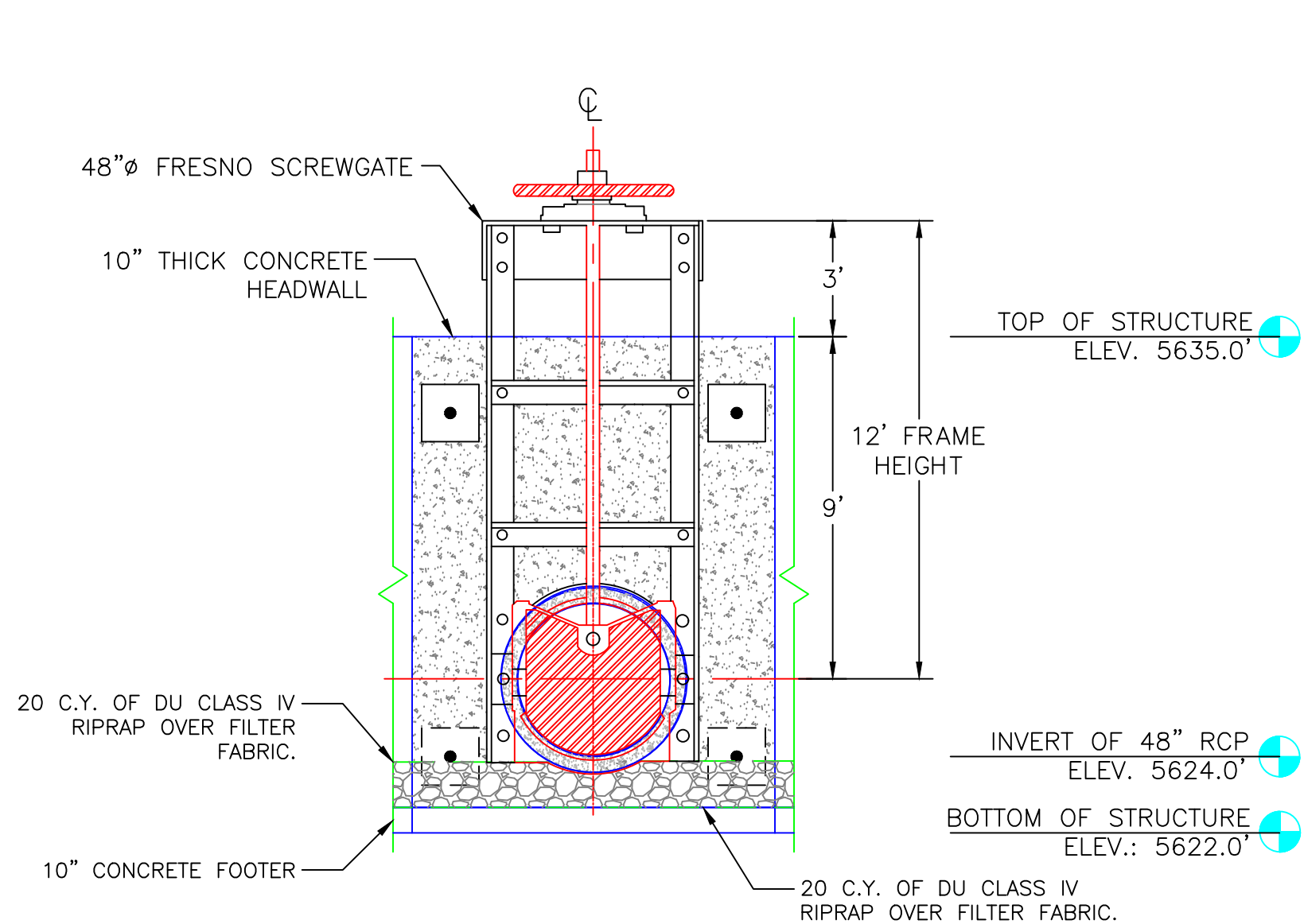
ROCK RIPRAP FLOOD PROTECTION
SEE SHEET 8

CONTRACTOR TO COAT ALL STEEL WITH 2 SHOP COATS OF BLACK TARGUARD AS MANUFACTURED BY SHERMAN WILLIAMS, OR APPROVED EQUAL.

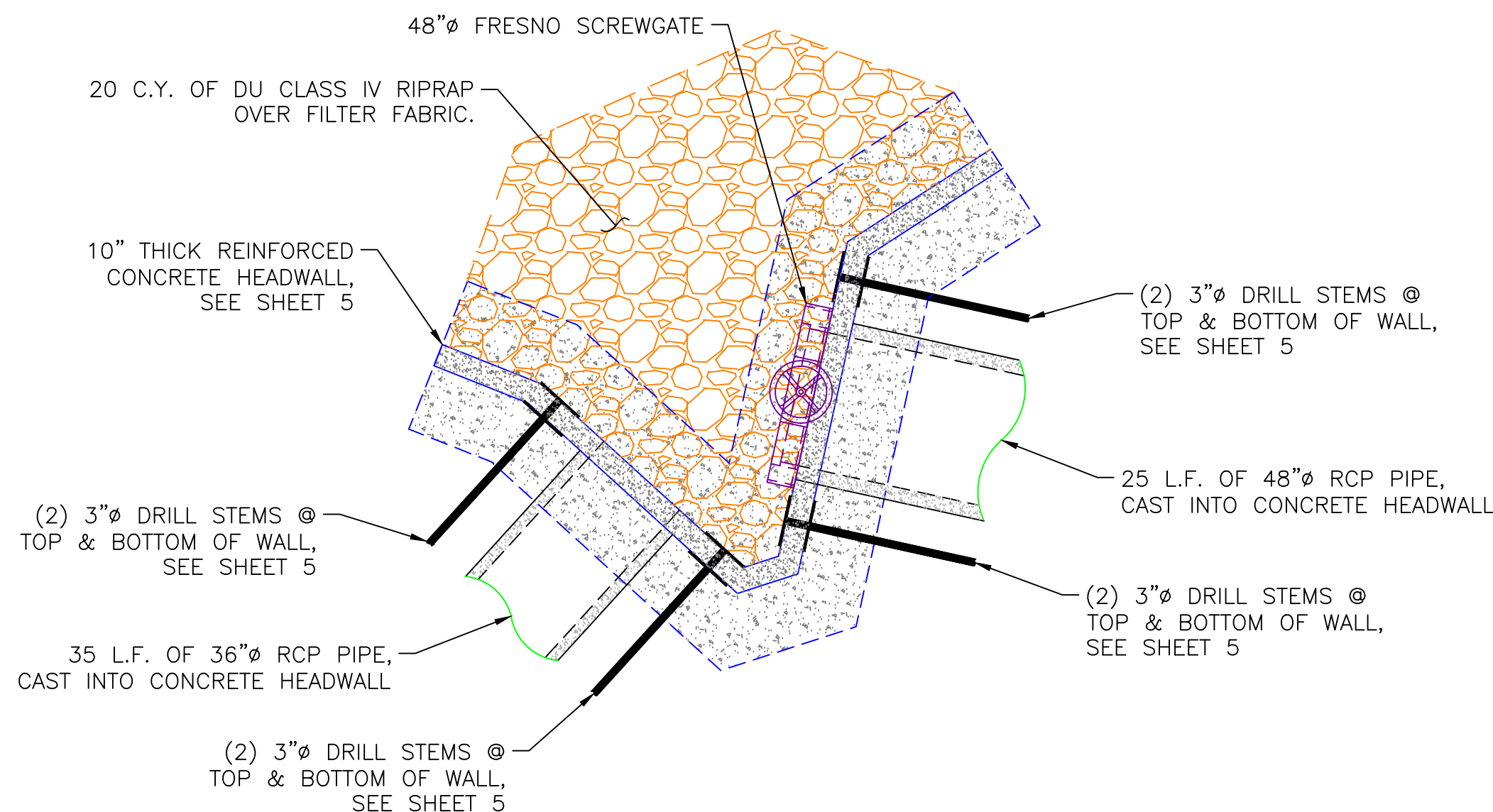
- CONCRETE HEADWALL NOTES:
1. INLET AND OUTLET PIPE SHALL BE PLACED ON LEVEL SURFACE OF COMPACTED SOIL.
 2. COST OF STRUCTURE INSTALLATION SHALL BE PAID AS BID ITEM "CONCRETE HEADWALL STRUCTURE"
 3. HEADWALL STRUCTURE SHALL BE 10" THICK REINFORCED CONCRETE
 4. ALL WELDS TO BE 1/4" FILLET WELDS.
 5. ALL WELDED SEAMS SHALL BE CONTINUOUS AND WATERTIGHT, UNLESS OTHERWISE STATED.
 6. ALL STEEL SHALL BE GIVEN 2 SHOP COATS OF BLACK TARGUARD AS MANUFACTURED BY SHERMAN WILLIAMS, OR APPROVED EQUAL. PAINT ALL STEEL SURFACES PER MANUFACTURER'S RECOMMENDATIONS, EXCEPT GALVANIZED SHEET PILE.
 7. INVERT ELEVATION OF WATER CONTROL STRUCTURES ARE APPROXIMATE AND WILL BE DETERMINED BY DU ENGINEER IN FIELD.



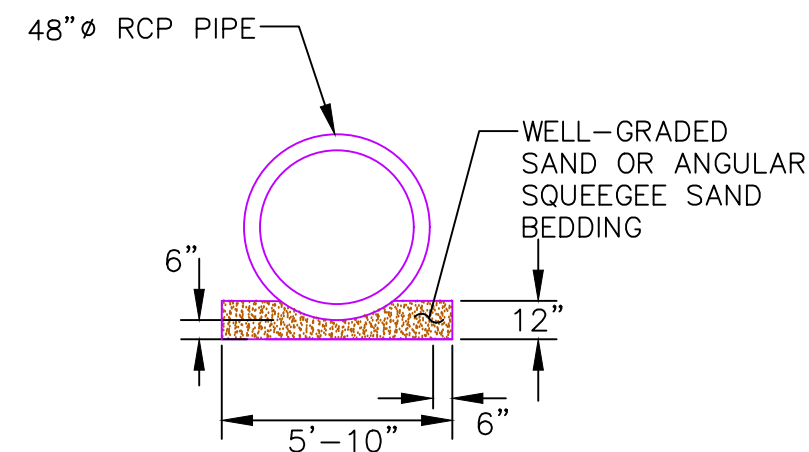
48"Ø SCREW GATE DETAIL
NOT TO SCALE



48"Ø SCREW GATE FRONT VIEW
SCALE 1"=4'



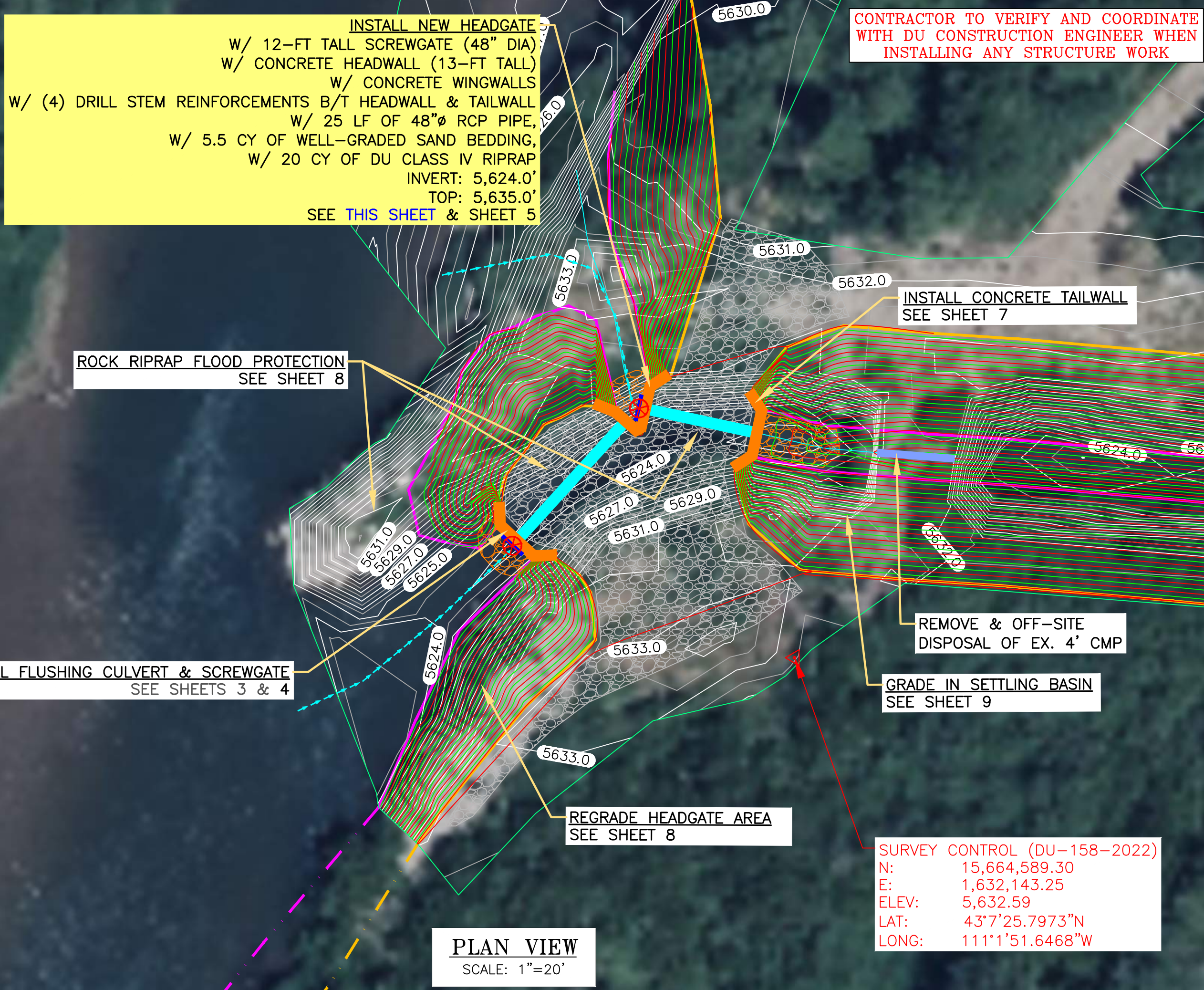
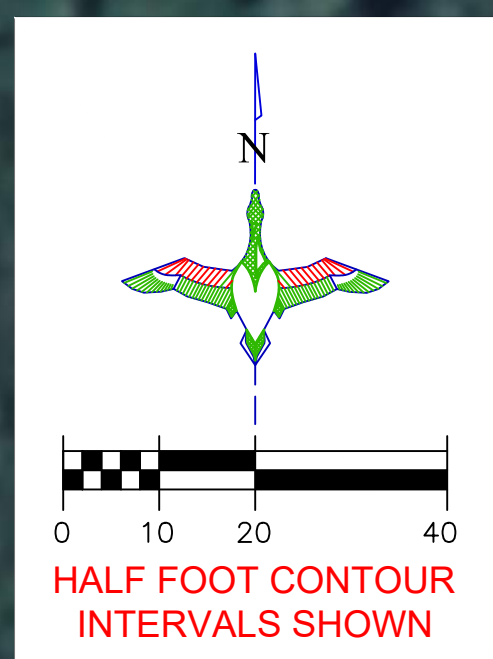
48"Ø SCREW GATE PLAN VIEW
SCALE 1"=4'



- PIPE BEDDING NOTES:
1. THERE SHALL BE A MINIMUM OF 12" OF BACKFILL OVER THE PIPE BEFORE OTHER THAN HAND COMPACTION EQUIPMENT IS USED IN THE TRENCH.
 2. THE BEDDING MATERIAL SHALL BE CLEAN, FREE DRAINING WELL-GRADED SAND AND SHALL CONFORM TO THE LIMITS DEFINED IN THE CONSTRUCTION SPECIFICATIONS WHEN TESTED BY MEANS OF LABORATORY SIEVES.
 3. BEDDING SHALL BE DEPOSITED IN LAYERS NOT EXCEEDING SIX (6) INCHES. EACH LAYER SHALL BE COMPACTED BY SURFACE OR INTERNAL VIBRATORS, HAND OR POWER TAMPERS OR OTHER SUITABLE COMPACTION EQUIPMENT. THE MATERIAL SHALL HAVE A MINIMUM COMPACTION OF 70% RELATIVE DENSITY AS DETERMINED BY ASTM D-4253.

"BEFORE YOU DIG"
BEFORE THE START OF CONSTRUCTION. THE OWNER OF ANY UTILITIES INVOLVED MUST BE NOTIFIED. THE EXCAVATOR/CONTRACTOR IS RESPONSIBLE FOR GIVING THIS NOTICE BY CALLING **"ONE CALL OF WYOMING"** AT 811. A **72 HOUR** NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375



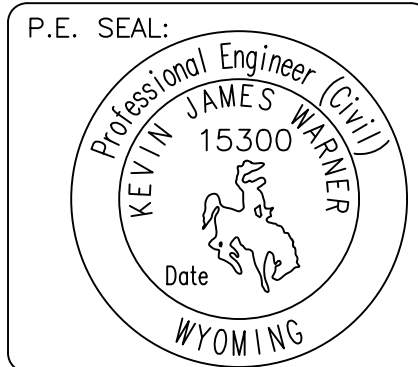
LEGEND

PROPERTY BOUNDARY	
EARTHWORK	
CONCRETE HEADWALL/ TAILWALL	
SCREW GATE	
REINFORCED CONCRETE PIPE	
REPLACE CULVERT	
RIPRAP	

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GREAT PLAINS REGIONAL OFFICE



DESIGNED BY: KJW
DRAWN BY: JKW
SURVEYED BY: TP
CHECKED BY:
APPROVED BY:
APPROVED BY:

REVISION:	DATE:	BY:
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8		

ALPINE WETLANDS

PROJECT:

DATE: 04/16/2025

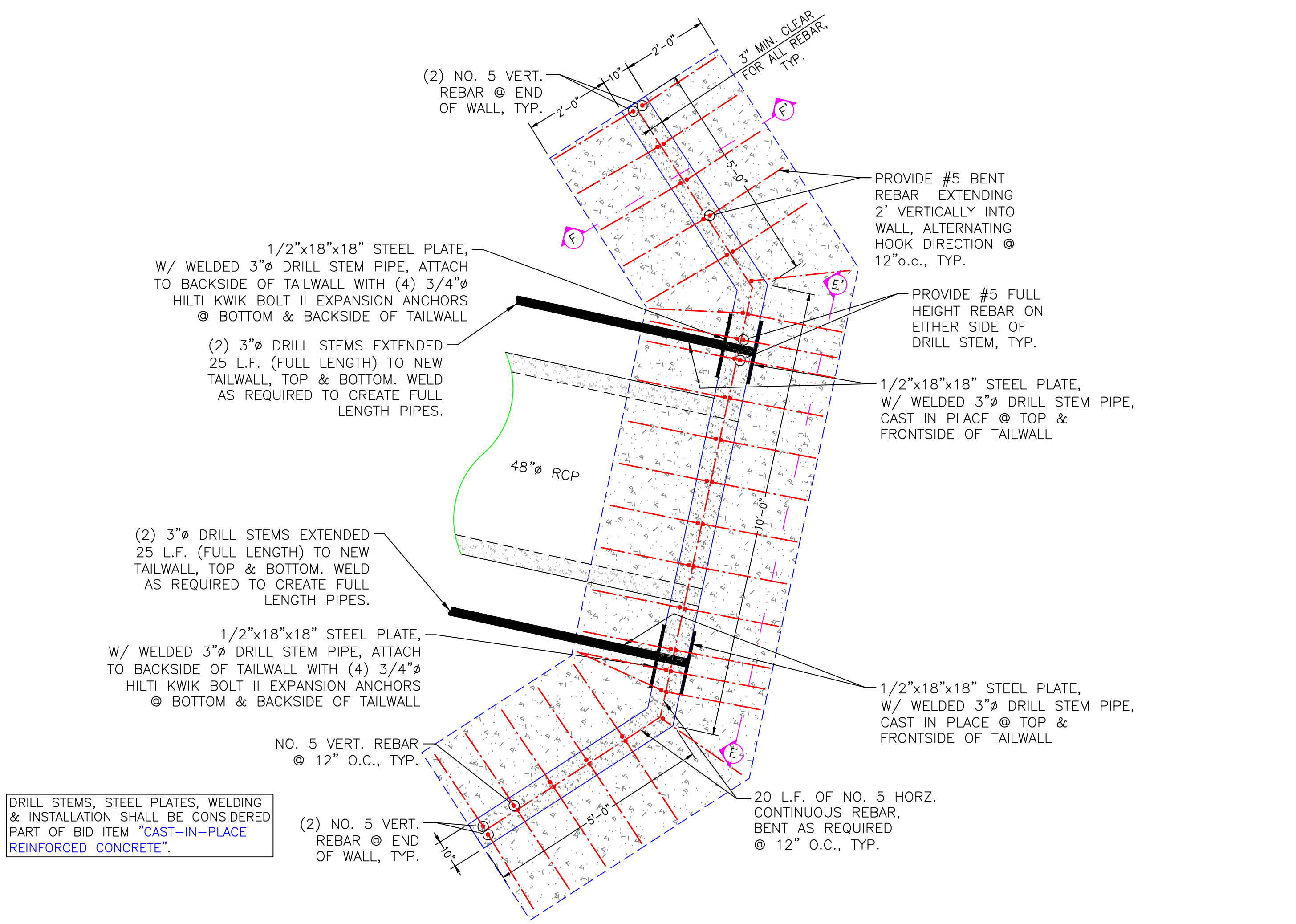
SHEET TITLE:
MAIN SCREW GATE

SCALES ARE ACCURATE ON 24"X36" SHEET SIZE

DU PROJECT NUMBER:
WY-178-1

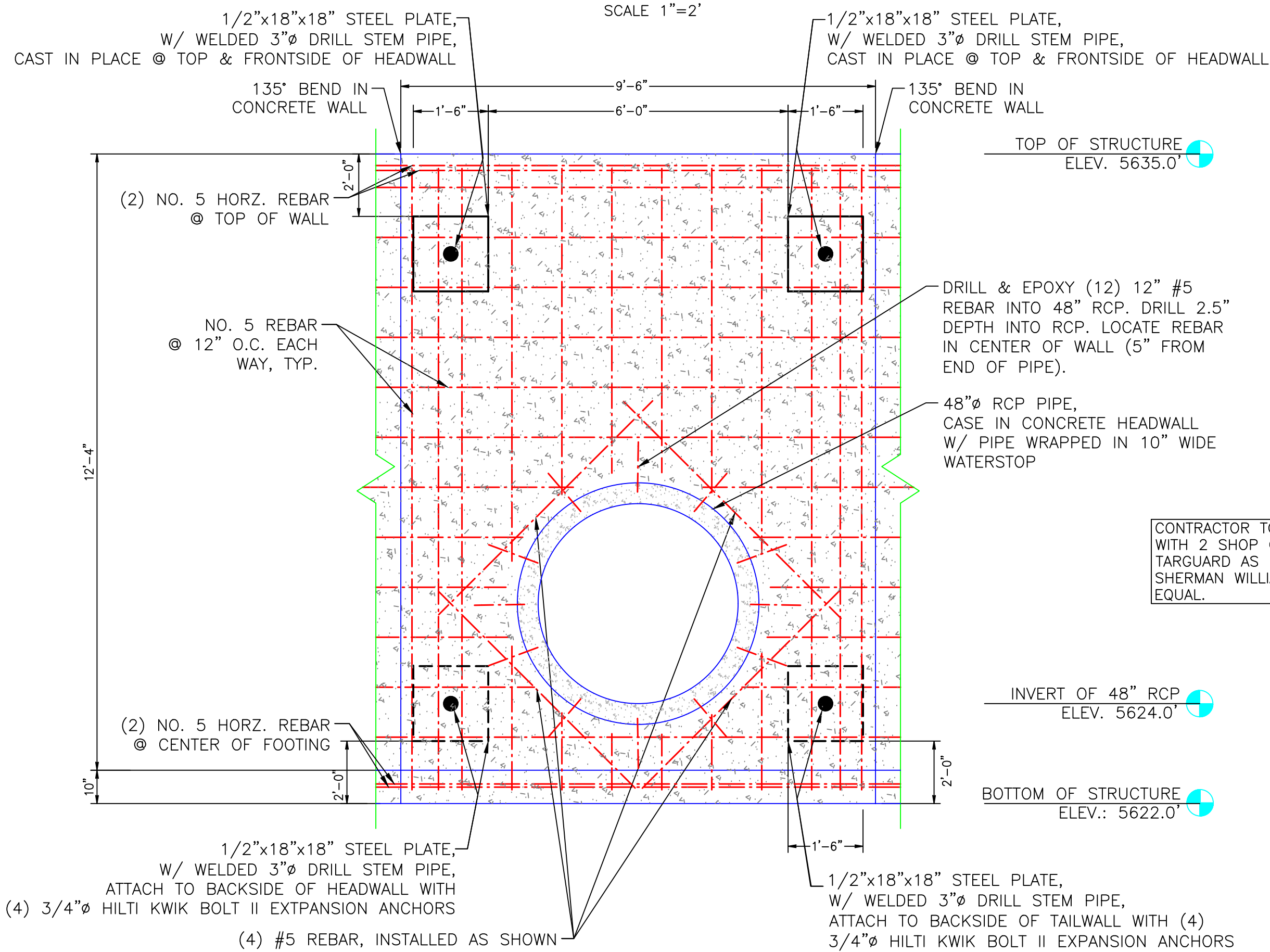
SHEET NUMBER:
6
SHEET 6 OF 20

MAIN SCREW GATE



NEW 48"Ø RCP TAILWALL STRUCTURE PLAN VIEW

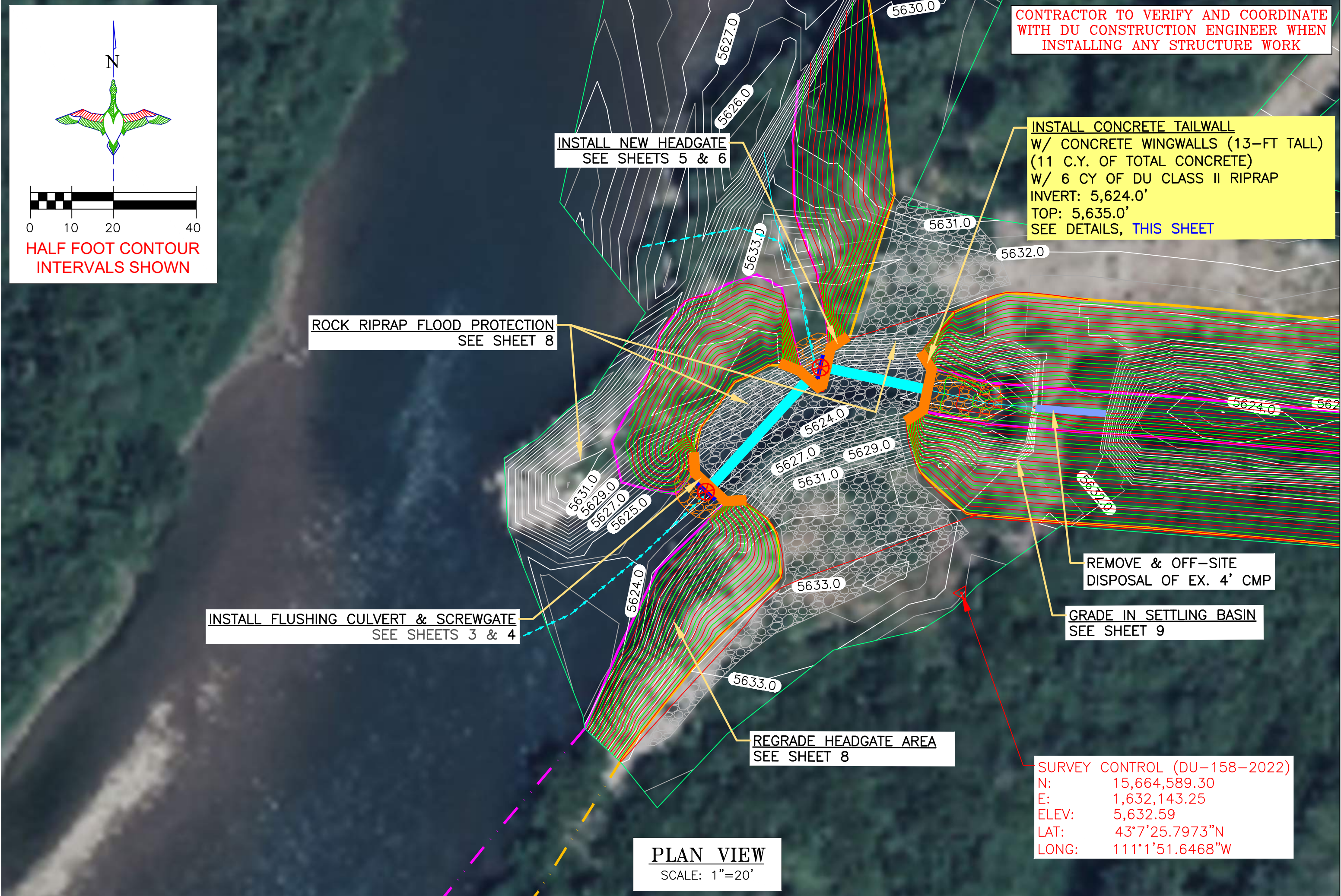
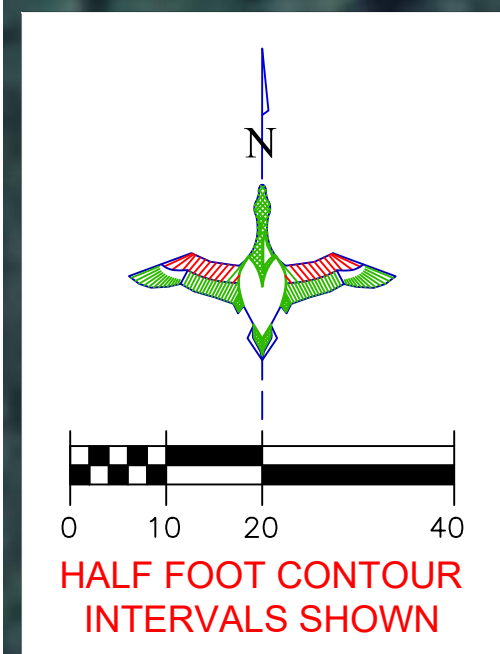
SCALE 1"=2'



NEW 48"Ø RCP TAILWALL STRUCTURE SECTION CUT E-E'

SCALE 1"=2'

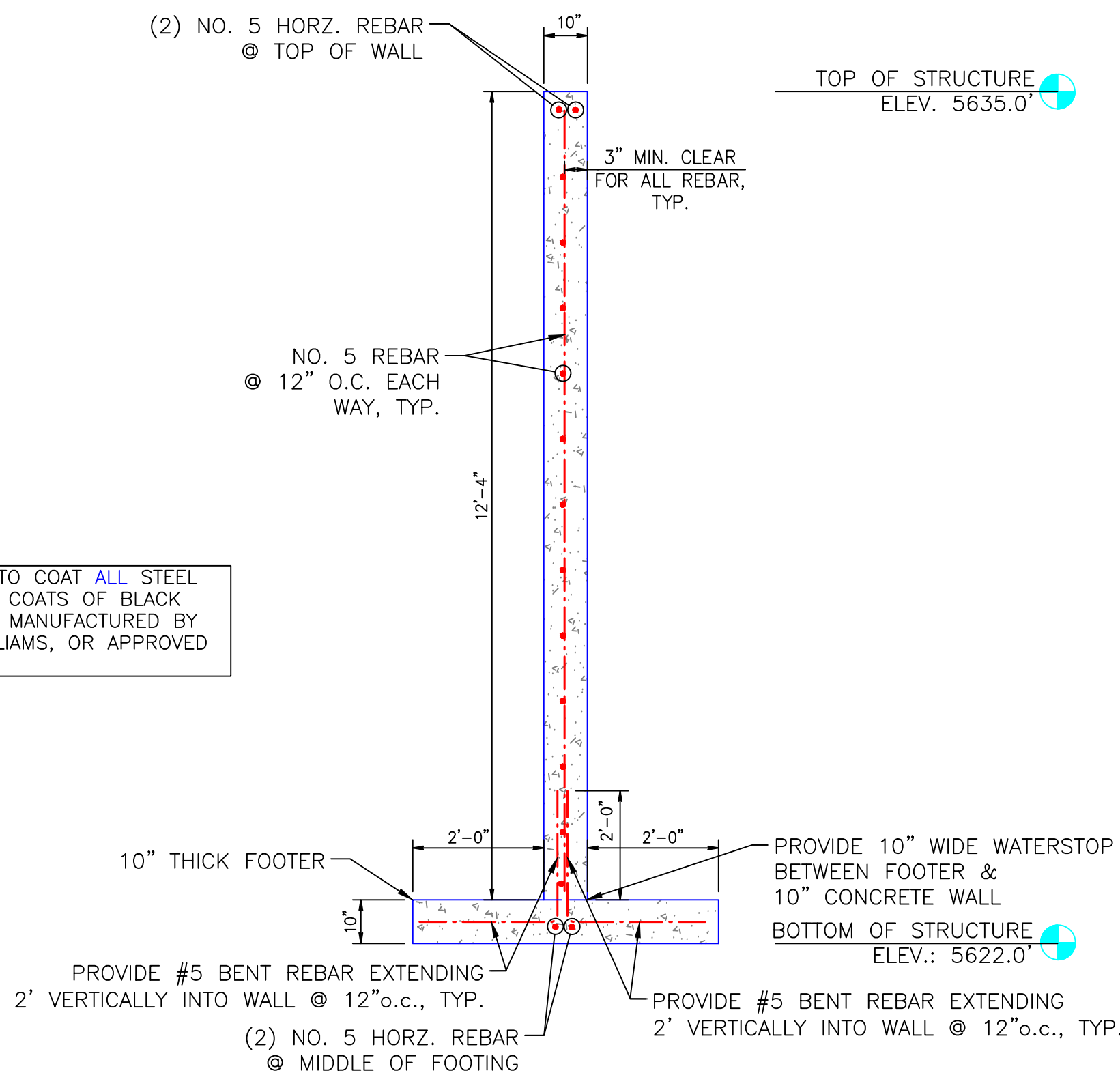
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PLAN VIEW
SCALE: 1"=20'

LEGEND

- PROPERTY BOUNDARY
- EARTHWORK
- CONCRETE HEADWALL/ TAILWALL
- SCREW GATE
- REINFORCED CONCRETE PIPE
- REPLACE CULVERT
- RIPRAP



NEW 48"Ø RCP TAILWALL STRUCTURE

SECTION CUT F-F'

SCALE 1"=2'

"BEFORE YOU DIG"

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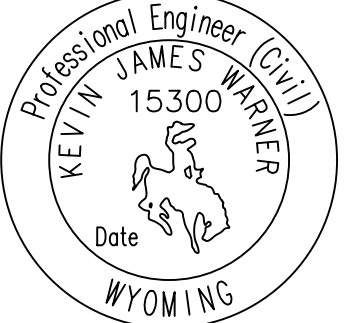
DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375



DUCKS
UNLIMITED
INC.

GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:



DESIGNED BY: KJW
DRAWN BY: JWW
SURVEYED BY: TP
CHECKED BY:
APPROVED BY:
APPROVED BY:

REVISION:	DATE:	BY:
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PROJECT: ALPINE WETLANDS
SHEET TITLE: MAIN TAILWALL

DATE: 04/16/2025
SHEET TITLE: MAIN TAILWALL

DU PROJECT NUMBER: WY-178-1
SHEET NUMBER: 7

SCALES ARE ACCURATE ON 24"X36" SHEET SIZE
DU PROJECT NUMBER: WY-178-1
SHEET NUMBER: 7
SHEET 7 OF 20

LEGEND

PROPERTY BOUNDARY

EARTHWORK

CONCRETE HEADWALL/
TAILWALL

SCREW GATE

REINFORCED CONCRETE PIPE

RIPRAP

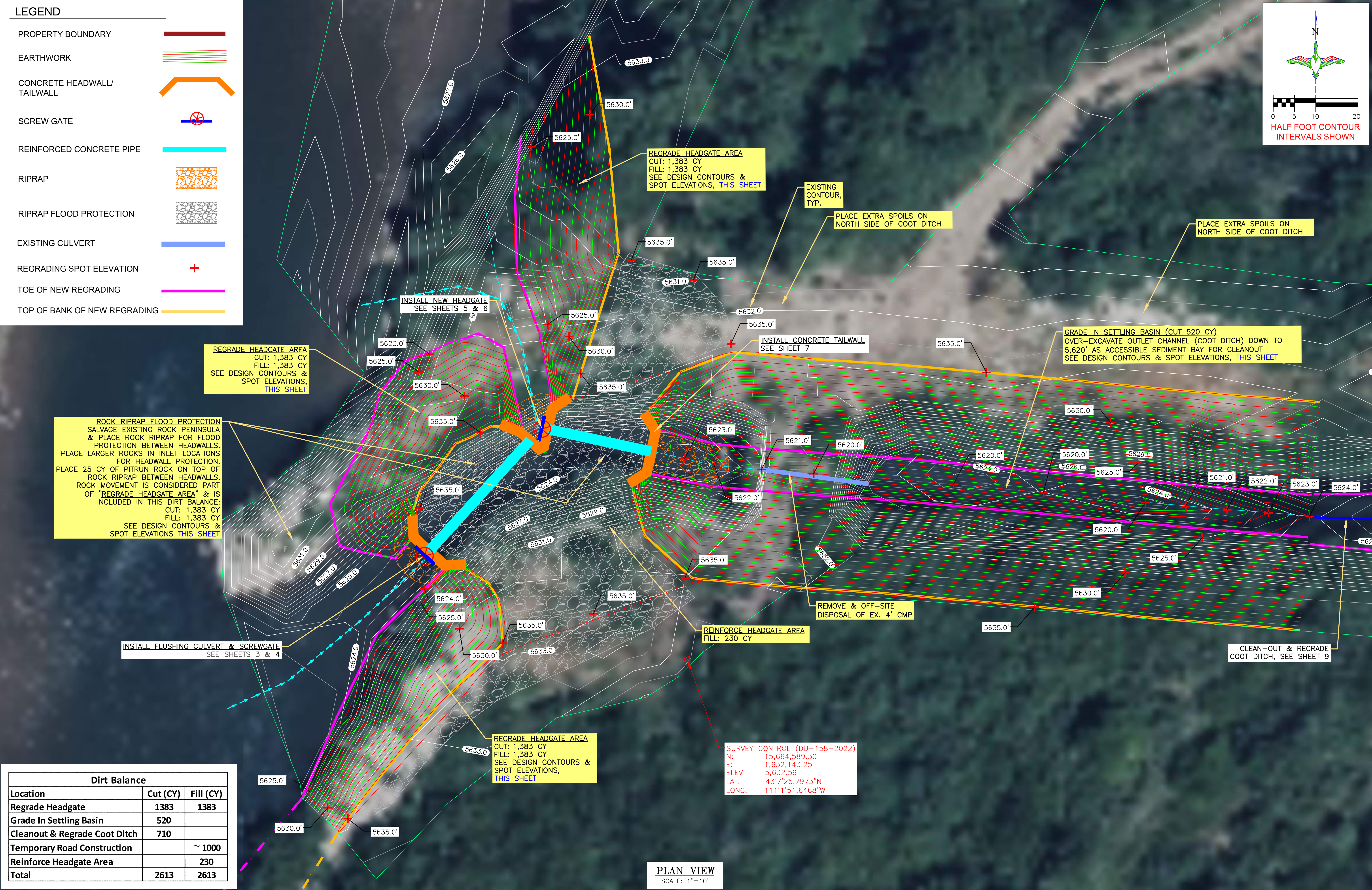
RIPRAP FLOOD PROTECTION

EXISTING CULVERT

REGRAIDING SPOT ELEVATION

TOE OF NEW REGRAIDING

TOP OF BANK OF NEW REGRAIDING



Dirt Balance		
Location	Cut (CY)	Fill (CY)
Regrade Headgate	1383	1383
Grade In Settling Basin	520	
Cleanout & Regrade Coot Ditch	710	
Temporary Road Construction		≈ 1000
Reinforce Headgate Area		230
Total	2613	2613

PLAN VIEW
SCALE: 1"=10'

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DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375

GREAT PLAINS REGIONAL OFFICE

P.E. SEAL

Professional Engineer (Civil)

KEVIN JAMES

15300

Warner

Date

WYOMING

DESIGNED BY: KJW

DRAWN BY: JWW

SURVEYED BY: TP

CHECKED BY:

APPROVED BY:

DATE:

REVISION:

1	2	3	4	5	6	7	8
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PROJECT:

ALPINE WETLANDS

SHEET TITLE:

REGRADE HEADGATE AREA, MOVE EX. ROCK PENINSULA & GRADE-IN SETTLING BASIN

DATE:

04/16/2025

SHEET TITLE:

REGRADE HEADGATE AREA, MOVE EX. ROCK PENINSULA & GRADE-IN SETTLING BASIN

SCALES ARE ACCURATE ON 24"x36" SHEET SIZE

DU PROJECT NUMBER:

WY-178-1

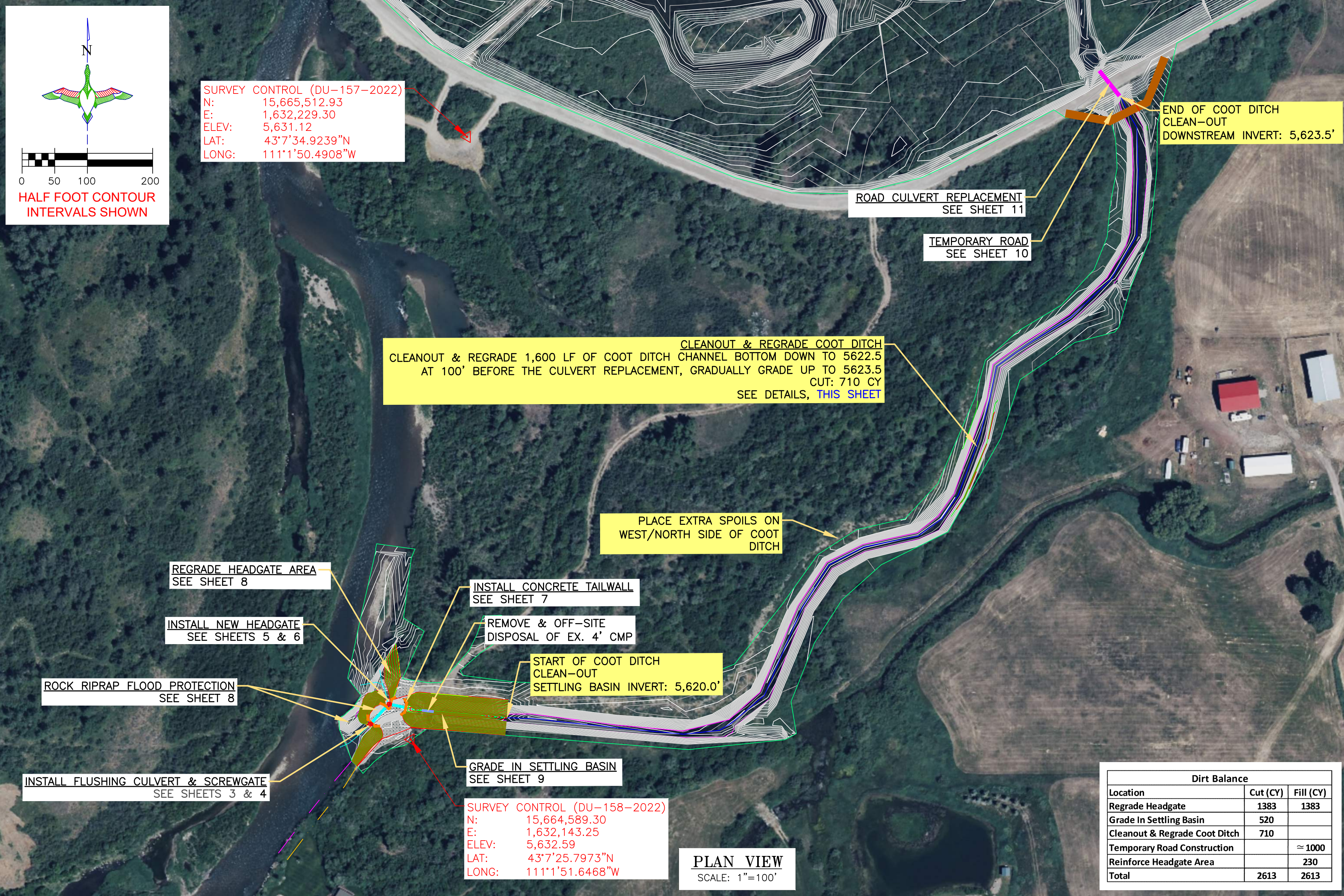
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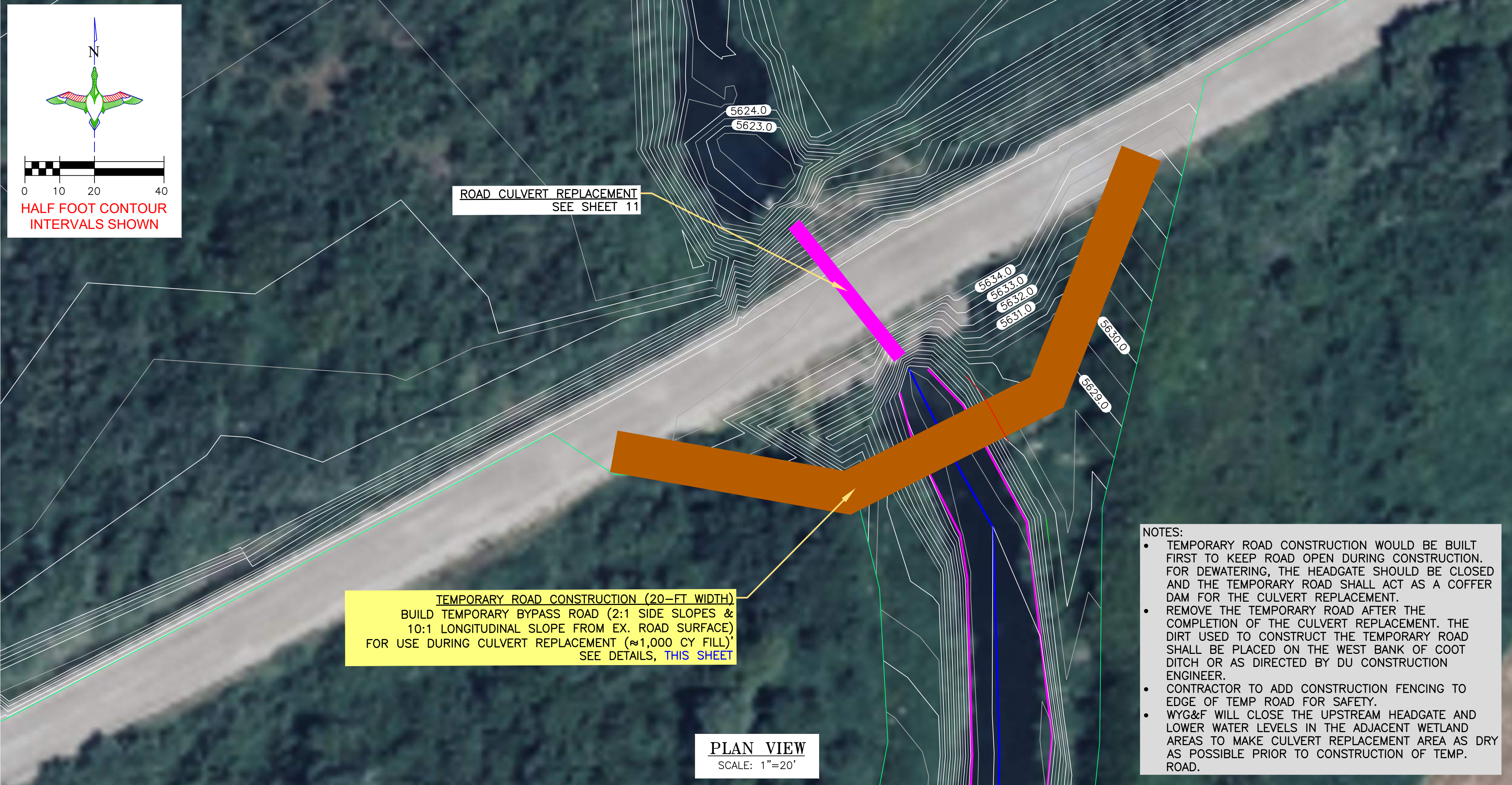
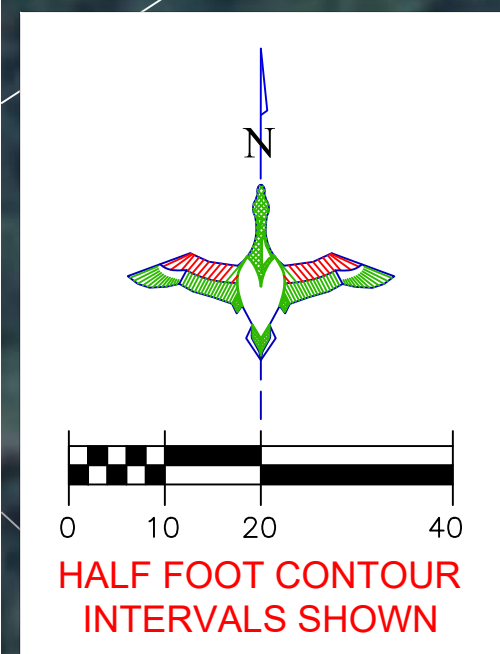
SHEET 8 OF 20

LEGEND

- PROPERTY BOUNDARY
- EARTHWORK
- CONCRETE HEADWALL/
TAILWALL
- SCREW GATE
- REINFORCED CONCRETE PIPE
- REPLACE CULVERT
- RIPRAP
- EXISTING CULVERT
- TEMPORARY ROAD



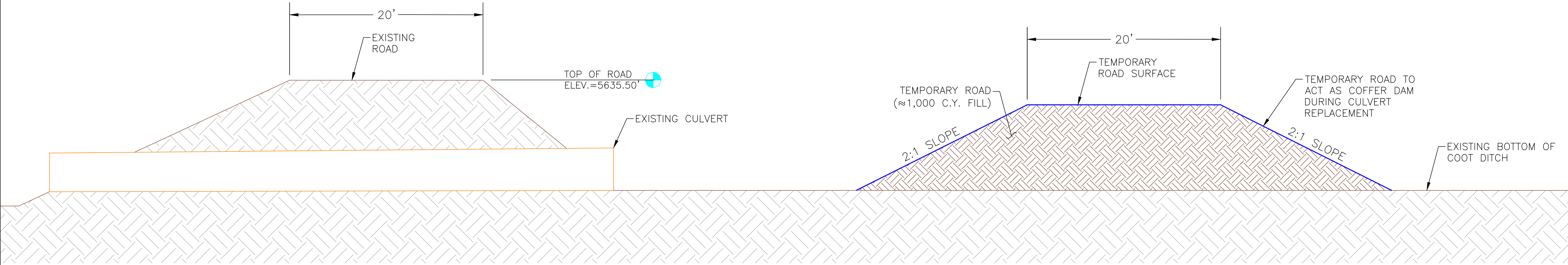
- LEGEND
- PROPERTY BOUNDARY
- EARTHWORK
- CONCRETE HEADWALL/ TAILWALL
- SCREW GATE
- REINFORCED CONCRETE PIPE
- REPLACE CULVERT
- RIPRAP
- TEMPORARY ROAD



- NOTES:
- TEMPORARY ROAD CONSTRUCTION WOULD BE BUILT FIRST TO KEEP ROAD OPEN DURING CONSTRUCTION. FOR DEWATERING, THE HEADGATE SHOULD BE CLOSED AND THE TEMPORARY ROAD SHALL ACT AS A COFFER DAM FOR THE CULVERT REPLACEMENT.
 - REMOVE THE TEMPORARY ROAD AFTER THE COMPLETION OF THE CULVERT REPLACEMENT. THE DIRT USED TO CONSTRUCT THE TEMPORARY ROAD SHALL BE PLACED ON THE WEST BANK OF COOT DITCH OR AS DIRECTED BY DU CONSTRUCTION ENGINEER.
 - CONTRACTOR TO ADD CONSTRUCTION FENCING TO EDGE OF TEMP ROAD FOR SAFETY.
 - WYG&F WILL CLOSE THE UPSTREAM HEADGATE AND LOWER WATER LEVELS IN THE ADJACENT WETLAND AREAS TO MAKE CULVERT REPLACEMENT AREA AS DRY AS POSSIBLE PRIOR TO CONSTRUCTION OF TEMP. ROAD.

TEMPORARY ROAD CONSTRUCTION NOTES:

- FILL SHALL BE OBTAINED FROM ACCEPTABLE CUT FROM COOT DITCH CLEAN-OUT, FROM SETTLING BASIN GRADING OR FROM LOCATION AS DESIGNATED BY DU CONSTRUCTION ENGINEER.
- FILL SHALL BE PLACED IN LIFTS NO MORE THAN 8" AND COMPACTED PRIOR TO PLACING SUBSEQUENT LIFTS.
- CONSTRUCTION OF TEMPORARY ROAD IS CONSIDERED PART OF BID ITEM "SITE PREPARATION".



TEMPORARY ROAD CONSTRUCTION SECTION
SCALE 1" = 5'

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DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:
Professional Engineer (Civil)
KEVIN JAMES
15300
Date
WYOMING

DESIGNED BY:	KJW
DRAWN BY:	JW
SURVEYED BY:	TP
CHECKED BY:	
APPROVED BY:	
APPROVED BY:	

DATE:							
REVISION:							
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PROJECT: ALPINE WETLANDS

SHEET TITLE: TEMPORARY ROAD CONSTRUCTION

DATE: 04/16/2025

SHEET TITLE: TEMPORARY ROAD CONSTRUCTION

SCALES ARE ACCURATE ON 24"X36" SHEET SIZE

DU PROJECT NUMBER: WY-178-1

SHEET NUMBER: 10
SHEET 10 OF 20



SCALE 1"=6'



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TEMPORARY ROAD



ROAD CULVERT REPLACEMENT
REPLACE EX. CULVERT W/ ALBC ALUMINUM BOX CULVERT
(16'-10" SPAN X 8'-3" RISE X 45'-3" LENGTH)
W/ 12 CY 1" MINUS ANGULAR GRANULAR AGGREGATE
W/ 20 CY OF DO CLASS II ROCK RIPRAP
INVERT: 5,623.5'
ROAD TOP: 5,635.5'
SEE DETAILS, [THIS SHEET](#) & SHEETS 11A-11E

TEMPORARY ROAD
SEE SHEET 10

CLEANOUT & REGRAD
COOT DITCH
SEE SHEET

PLAN VIEW
SCALE: 1"=20'

CONTRACTOR TO VERIFY AND COORDINATE
WITH DU CONSTRUCTION ENGINEER WHEN
INSTALLING ANY STRUCTURE WORK

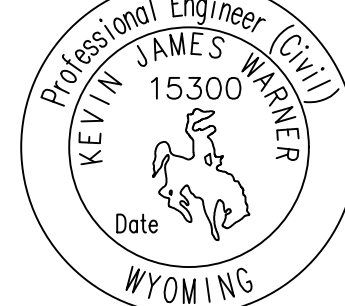
1. **Assembly:** The structure shall be assembled in accordance with the Contech shop drawings and plate layout provided by Contech. Bolts shall be tightened to an applied torque between 100 and 150 ft-lbs.
2. **Installation:** The structure shall be installed in accordance with AASHTO Standard Specifications for Highway Bridges Section 26 or ASTM A807, the plans and specifications, and Contech's recommendations.
 - (a) The Contractor shall provide footings as required per the Contech plans and specifications.
 - (b) The Contractor shall provide proper bedding and backfill to avoid distortion that may create undesirable stresses in the structure and/or settlement of the roadway. The bedding shall be free of rock formations, protrusions, frozen material or organic material.
3. **Backfill:** The structure shall be backfilled using clean, well graded granular materials that meets the requirements of AASHTO M145 soil classifications A-1, A-2 or A-3. Aluminum box culverts shall be backfilled with A-1, A-2-4, A-2-5 or A-3 material.
 - (a) Backfill materials shall be placed in symmetrical lifts on each side of the structure. The differential between the lifts on either side shall not exceed 24 inches. Each layer of soil shall be placed in 6 to 8 inch loose lifts and compacted to a minimum of 90% density per AASHTO T99 or ASTM D698 (Standard Proctor). Aluminum box culverts shall be compacted to 90% density per AASHTO T180 or ASTM D1557 (Modified Proctor).
 - (b) Backfill soils shall be free of rocks exceeding 3 inches, frozen lumps, ice, organic matter and foreign materials that could cause hard spots or decompose to create voids.
 - (c) The presence of a high percentage of silt or fine sand in the native soils suggests the need for well graded granular material in the critical backfill zone or the use of non-woven geotextile to prevent soil migration.
 - (d) During backfilling operations, only small tracked construction equipment (such as a D-4 dozer or smaller) shall be near the structure as fill progresses above the crown and to the minimum height of cover. After adequate cover and compaction is achieved, live loads may increase at the direction of the Engineer.
4. **Critical Backfill Zone:** The Engineer shall determine the extents of the critical backfill zone and provide a detail on the plans.

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DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375



P.E. SEAL:



DESIGNED BY: K.IW

DRAWN BY: J.I.W.

SURVEYED BY: TP

APPROVED BY:

APPROVED BY:

REVISION:	DATE:	BY:
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PROJECT:

ALPINE WETLANDS

SHEET TITLE: ROAD CULVERT REPLACEMENT

DATE: 04/16/2025

SHEET TITLE:
ROAD CULVERT
REPLACEMENT

SCALES ARE ACCURATE ON
24"X36" SHEET SIZE

DU PROJECT NUMBER:
WY-178-1

SHEET NUMBER

11

SHEET 11 OF 20

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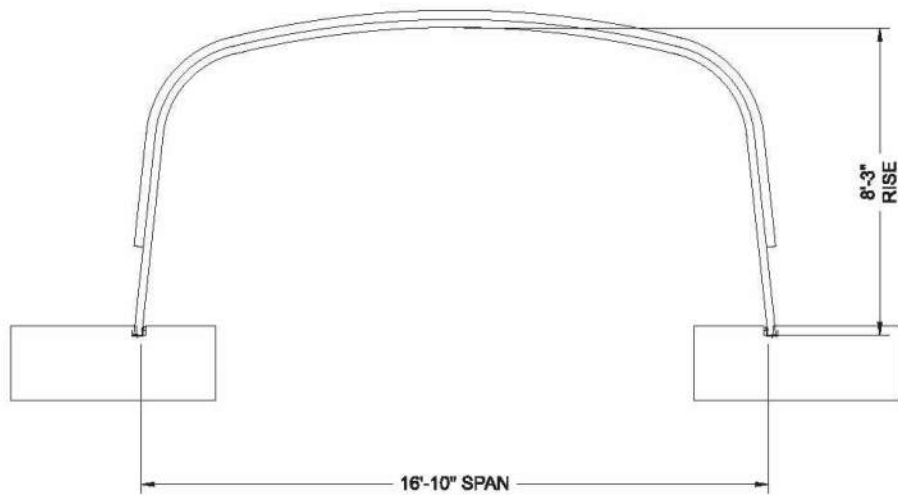
DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375

1.0 STANDARDS AND DEFINITIONS

- 1.1 STANDARDS - ALL STANDARDS REFER TO LATEST EDITION UNLESS OTHERWISE NOTED.
- 1.1.1 ASTM B-864 STANDARD SPECIFICATION FOR CORRUGATED ALUMINUM BOX CULVERTS (AASHTO DESIGNATION M-219).
- 1.1.2 AASHTO LRFD SPECIFICATION FOR HIGHWAY BRIDGES - SECTION 12 DIVISION I - DESIGN.
- 1.1.3 AASHTO LRFD SPECIFICATION FOR HIGHWAY BRIDGES - SECTION 28 DIVISION II - CONSTRUCTION.
- 1.2 DEFINITIONS
- 1.2.1 OWNER - IN THESE SPECIFICATIONS THE WORD "OWNER" SHALL MEAN XXXX.
- 1.2.2 ENGINEER - IN THESE SPECIFICATIONS THE WORD "ENGINEER" SHALL MEAN THE ENGINEER OF RECORD OR OWNER'S DESIGNATED ENGINEERING REPRESENTATIVE.
- 1.2.3 MANUFACTURER - IN THESE SPECIFICATIONS THE WORD "MANUFACTURER" SHALL MEAN CONTECH ENGINEERED SOLUTIONS, LLC 800-338-1122.
- 1.2.4 CONTRACTOR - IN THESE SPECIFICATIONS THE WORD "CONTRACTOR" SHALL MEAN THE FIRM OR CORPORATION UNDERTAKING THE EXECUTION OF ANY INSTALLATION WORK UNDER THE TERMS OF THESE SPECIFICATIONS.
- 1.2.5 APPROVED - IN THESE SPECIFICATIONS THE WORD "APPROVED" SHALL REFER TO THE APPROVAL OF THE ENGINEER OR HIS DESIGNATED REPRESENTATIVE.
- 1.2.6 AS DIRECTED - IN THESE SPECIFICATIONS THE WORDS "AS DIRECTED" SHALL REFER TO THE DIRECTIONS TO THE CONTRACTOR FROM THE OWNER OR HIS DESIGNATED REPRESENTATIVE.

2.0 GENERAL CONDITIONS

- 2.1 THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL AND EQUIPMENT AND PERFORM ALL WORK AND SERVICES EXCEPT THOSE SET OUT AND FURNISHED BY THE OWNER, NECESSARY TO COMPLETE IN A SATISFACTORY MANNER THE SITE PREPARATION, EXCAVATION, FILLING, COMPACTION, GRADING AS SHOWN ON THE PLANS AND AS DESCRIBED THEREIN. THIS WORK SHALL CONSIST OF ALL MOBILIZATION, CLEARING AND GRADING, GRUBBING, STRIPPING, REMOVAL OF EXISTING MATERIAL UNLESS OTHERWISE STATED, PREPARATION OF THE LAND TO BE FILLED, FILLING OF THE LAND, SPREADING AND COMPACTION OF THE FILL AND ALL SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING OF THE CUT AND FILL AREAS TO CONFORM WITH THE LINES, GRADES, SLOPES, AND SPECIFICATIONS. THIS WORK IS TO BE ACCOMPLISHED UNDER THE OBSERVATION OF THE OWNER OR HIS DESIGNATED REPRESENTATIVE.
- 2.2 PRIOR TO BIDDING THE WORK, THE CONTRACTOR SHALL EXAMINE, INVESTIGATE AND INSPECT THE CONSTRUCTION SITE AS TO THE NATURE AND LOCATION OF THE WORK, AND THE GENERAL AND LOCAL CONDITIONS AT THE CONSTRUCTION SITE, INCLUDING WITHOUT LIMITATION, THE CHARACTER OF SURFACE OR SUBSURFACE CONDITIONS AND OBSTACLES TO BE ENCOUNTERED ON AND AROUND THE CONSTRUCTION SITE AND SHALL MAKE SUCH ADDITIONAL INVESTIGATION AS HE MAY DEEM NECESSARY FOR THE PLANNING AND PROPER EXECUTION OF THE WORK.
- IF CONDITIONS OTHER THAN THOSE INDICATED ARE DISCOVERED BY THE CONTRACTOR, THE OWNER SHALL BE NOTIFIED IMMEDIATELY. THE MATERIAL WHICH THE CONTRACTOR BELIEVES TO BE A CHANGED CONDITION SHALL NOT BE DISTURBED SO THAT THE OWNER CAN INVESTIGATE THE CONDITION.
- 2.3 THE CONSTRUCTION SHALL BE PERFORMED UNDER THE DIRECTION OF THE ENGINEER.
- 2.4 ALL ASPECTS OF THE STRUCTURE DESIGN AND SITE LAYOUT INCLUDING FOUNDATIONS, BACKFILL, END TREATMENTS AND NECESSARY SCOUR CONSIDERATION SHALL BE PERFORMED BY THE ENGINEER.
- ANY INSTALLATION GUIDANCE PROVIDED HEREIN SHALL BE ENDORSED BY THE ENGINEER OR SUPERSEDED BY THE ENGINEER'S PLANS AND SPECIFICATIONS.



CROSS SECTION

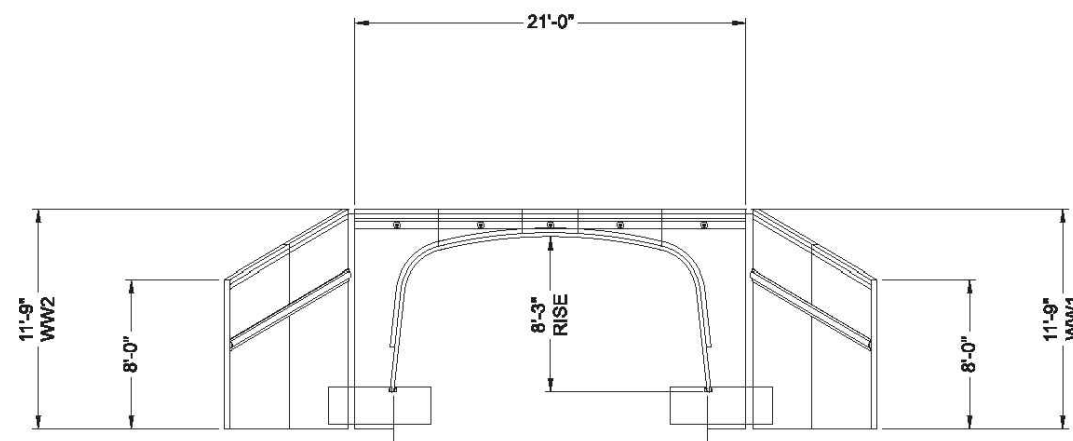
PRELIMINARY
NOT FOR CONSTRUCTION

CONTECH
ENGINEERED SOLUTIONS LLC
www.ContechES.com
8028 Centre Pointe Dr., Suite 400, West Chester, OH 45389
800-338-1122 513-645-7000 513-645-7983 FAX

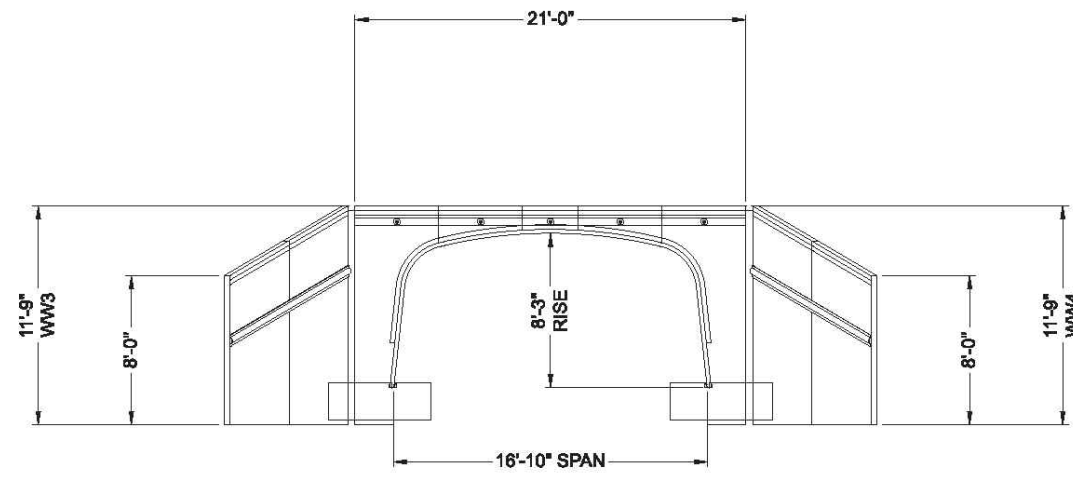
CONTECH
STRUCTURAL PLATE
DYOB
DRAWING

DYO40949 ALPINE WETLAND CROSSING
ALBC
ALPINE, WY
ALBC ALUMINUM BOX CULVERT 16'-10" SPAN X 8'-3" RISE

PROJECT NO.: 27961 DYO NO.: 40949 DATE: 04/11/2025
DESIGNED: DYO DRAWN: DYO
CHECKED: DYO APPROVED: DYO
SHEET NO.: D2 OF D10



INLET END ELEVATION



OUTLET END ELEVATION

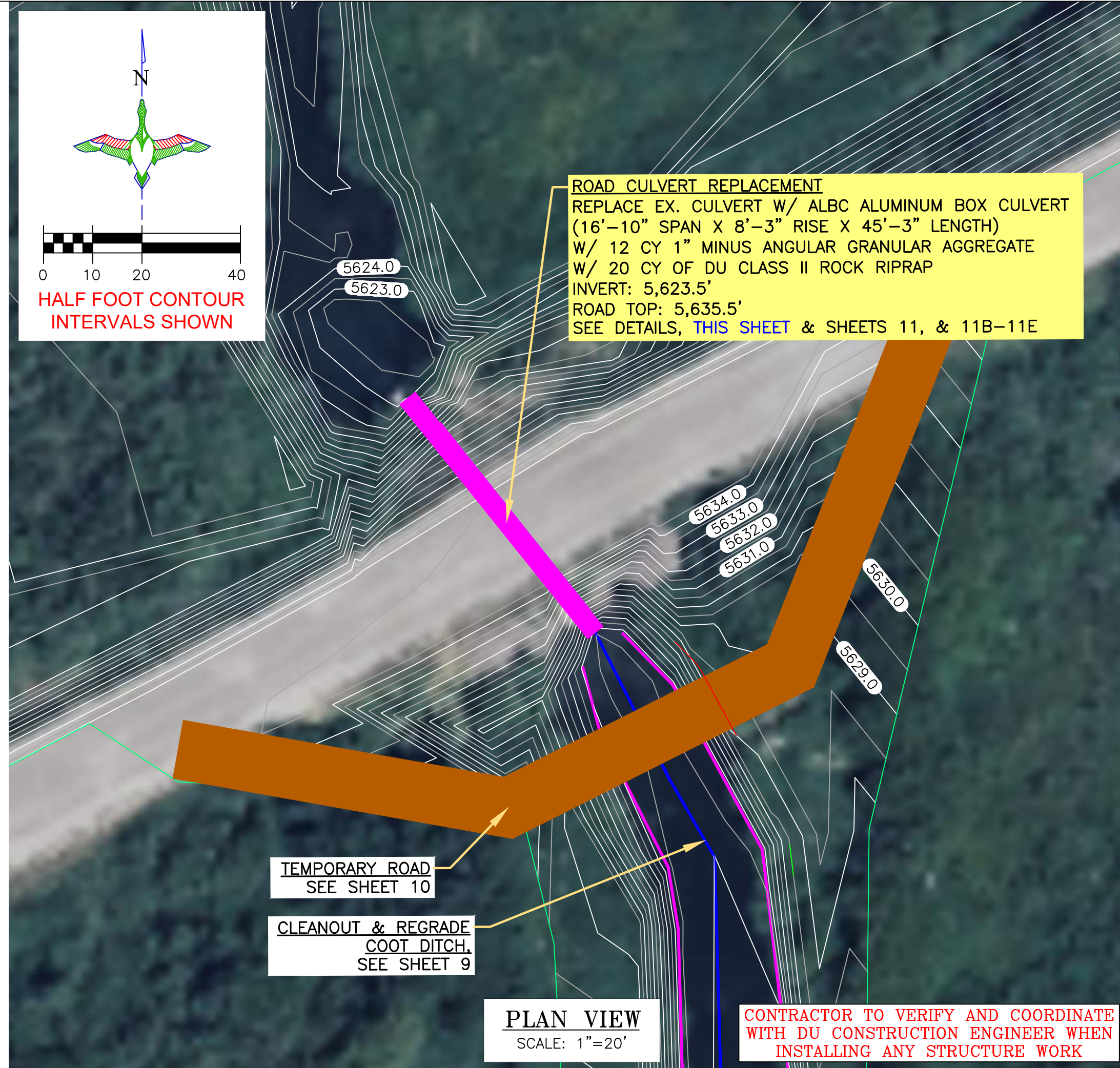
PRELIMINARY
NOT FOR CONSTRUCTION

CONTECH
ENGINEERED SOLUTIONS LLC
www.ContechES.com
8028 Centre Pointe Dr., Suite 400, West Chester, OH 45389
800-338-1122 513-645-7000 513-645-7983 FAX

CONTECH
STRUCTURAL PLATE
DYOB
DRAWING

DYO40949 ALPINE WETLAND CROSSING
ALBC
ALPINE, WY
ALBC ALUMINUM BOX CULVERT 16'-10" SPAN X 8'-3" RISE

PROJECT NO.: 27961 DYO NO.: 40949 DATE: 04/11/2025
DESIGNED: DYO DRAWN: DYO
CHECKED: DYO APPROVED: DYO
SHEET NO.: D4 OF D10



ROAD CULVERT REPLACEMENT
REPLACE EX. CULVERT W/ ALBC ALUMINUM BOX CULVERT (16'-10" SPAN X 8'-3" RISE X 45'-3" LENGTH)
W/ 12 CY 1" MINUS ANGULAR GRANULAR AGGREGATE
W/ 20 CY OF DU CLASS II ROCK RIPRAP
INVERT: 5,623.5'
ROAD TOP: 5,635.5'
SEE DETAILS, THIS SHEET & SHEETS 11, & 11B-11E

TEMPORARY ROAD
SEE SHEET 10

CLEANOUT & REGRADE
COOT DITCH,
SEE SHEET 9

PLAN VIEW
SCALE: 1"=20'

CONTRACTOR TO VERIFY AND COORDINATE
WITH DU CONSTRUCTION ENGINEER WHEN
INSTALLING ANY STRUCTURE WORK

LEGEND

- PROPERTY BOUNDARY
- EARTHWORK
- CONCRETE HEADWALL/
TAILWALL
- SCREW GATE
- REINFORCED CONCRETE PIPE
- REPLACE CULVERT
- RIPPRAP
- TEMPORARY ROAD

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:
Professional Engineer (Civil)
KEVIN JAMES WARNER
15300
Date
WYOMING

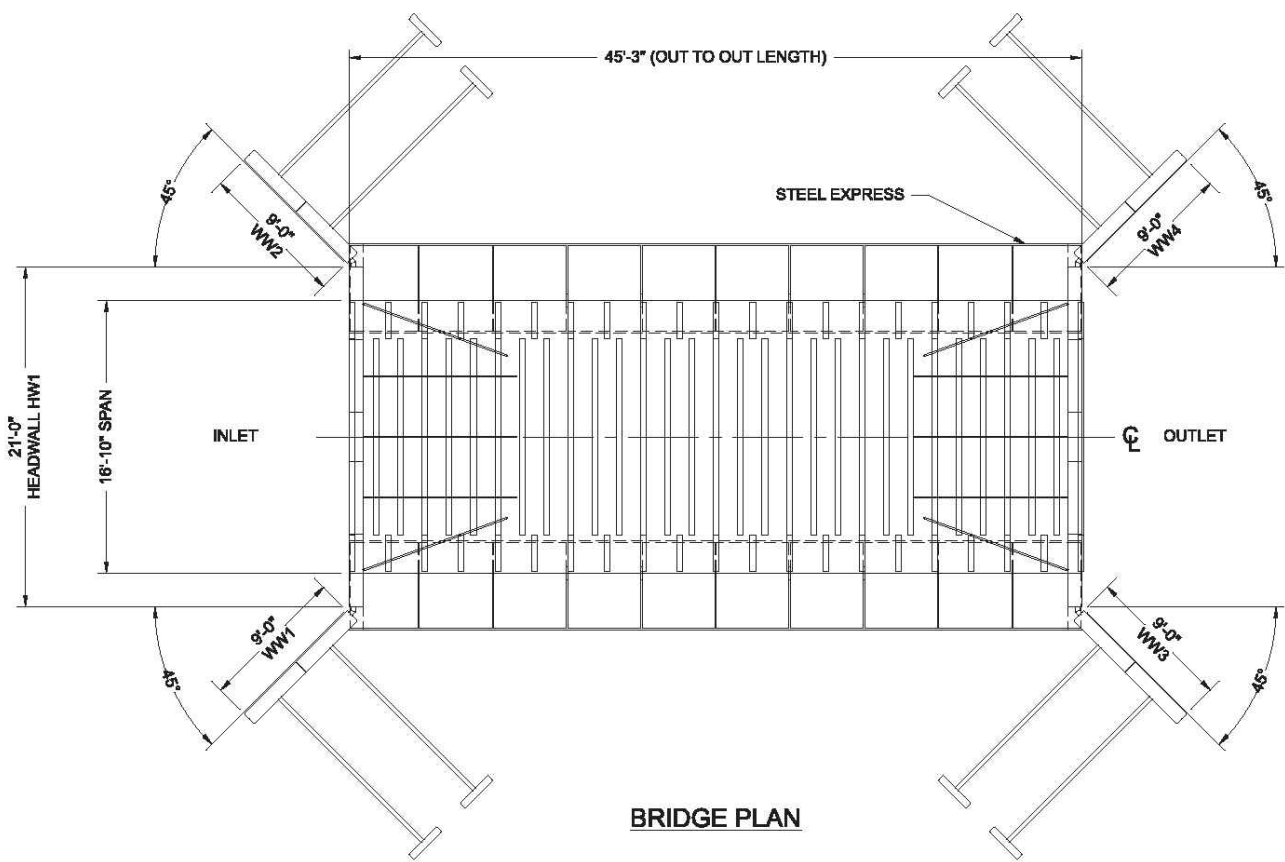
DESIGNED BY: KJW
DRAWN BY: JWW
SURVEYED BY: TP
CHECKED BY:
APPROVED BY:
APPROVED BY:

DATE:
BY:
REVISION:
1
2
3
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5
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7
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PROJECT:
DATE: 04/16/2025
SHEET TITLE: CONTECH CULVERT DESIGN SHEETS 1-2
SHEET TITLE: CONTECH CULVERT DESIGN SHEETS 1-2
SHEET NUMBER: WY-178-1
SHEET NUMBER: 11A
SHEET 11A OF 20

SCALES ARE ACCURATE ON 24"X36" SHEET SIZE
DU PROJECT NUMBER: WY-178-1

ALPINE WETLANDS
CONTECH CULVERT DESIGN SHEETS 1-2



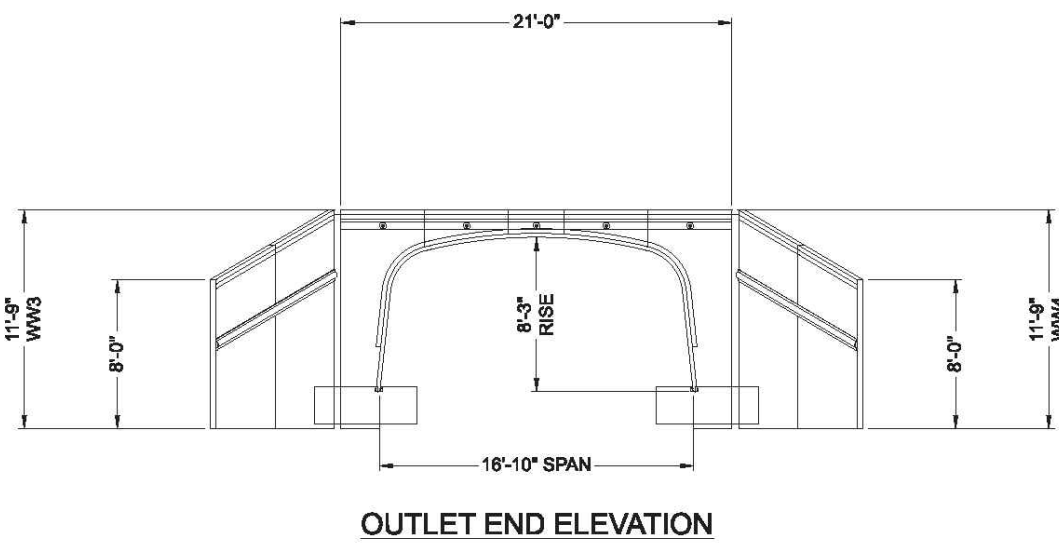
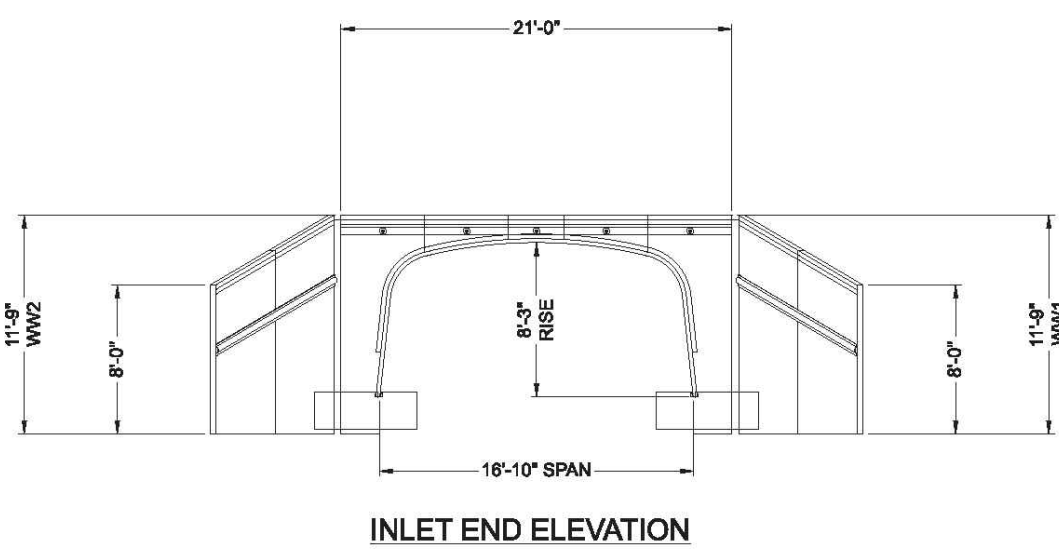
PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT NO.	DYOB NO.	DATE
27961	40949	04/11/2025
DESIGNED BY	DRAWN BY	DYOB
CHECKED BY	APPROVED BY	DYOB
SHEET NO.	D3	OF D10

CONTECH
ENGINEERED SOLUTIONS LLC
www.contechES.com
8025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7983 FAX

CONTECH
STRUCTURAL PLATE
DYOB
DRAWING

DYOB40949 ALPINE WETLAND CROSSING
ALBC
ALPINE, WY
ALBC ALUMINUM BOX CULVERT 16'-10" SPAN X 8'-3" RISE



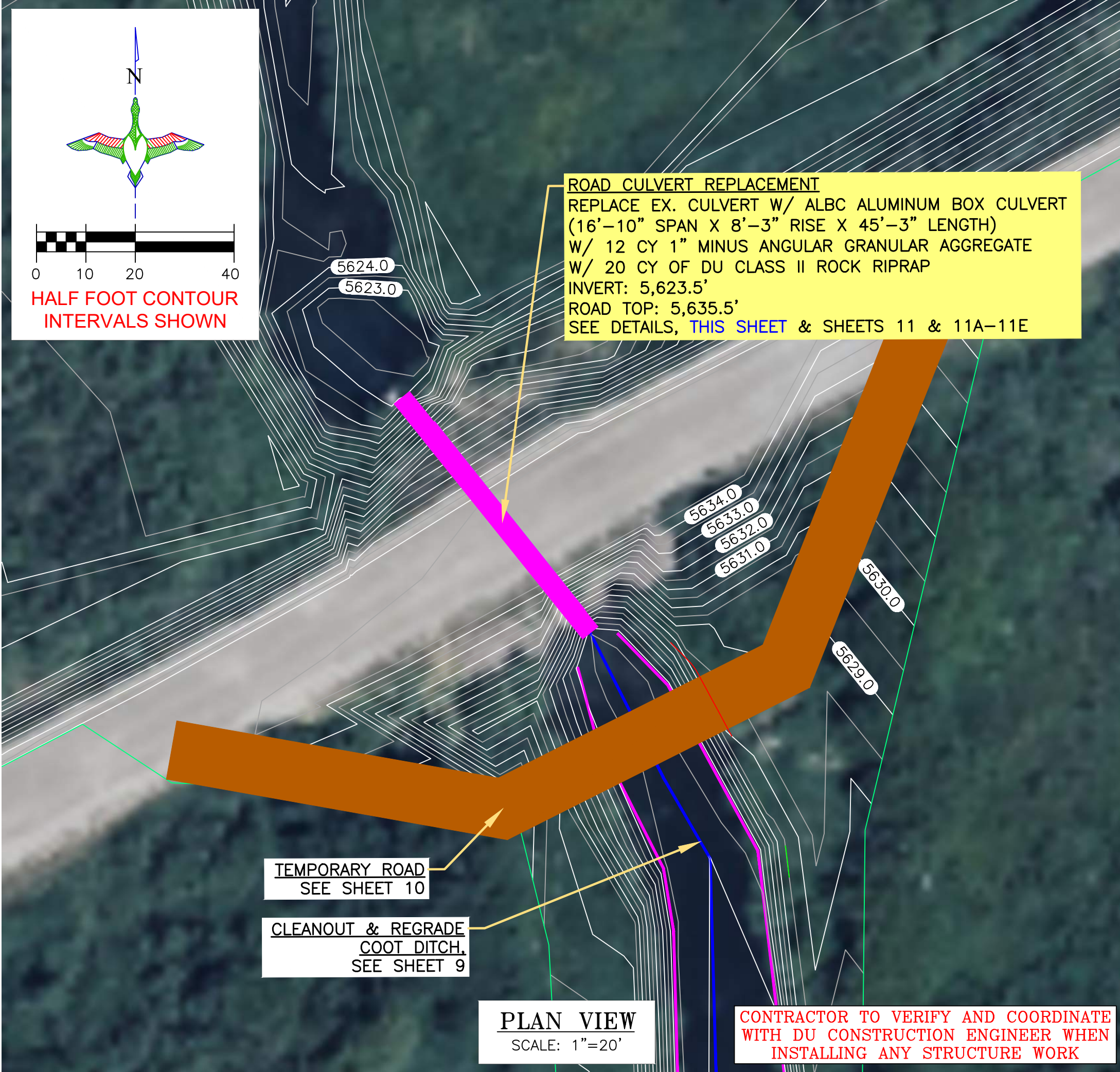
PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT NO.	DYOB NO.	DATE
27961	40949	04/11/2025
DESIGNED BY	DRAWN BY	DYOB
CHECKED BY	APPROVED BY	DYOB
SHEET NO.	D4	OF D10

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ENGINEERED SOLUTIONS LLC
www.contechES.com
8025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7983 FAX

CONTECH
STRUCTURAL PLATE
DYOB
DRAWING

DYOB40949 ALPINE WETLAND CROSSING
ALBC
ALPINE, WY
ALBC ALUMINUM BOX CULVERT 16'-10" SPAN X 8'-3" RISE



PLAN VIEW
SCALE: 1"=20'

CONTRACTOR TO VERIFY AND COORDINATE WITH DU CONSTRUCTION ENGINEER WHEN INSTALLING ANY STRUCTURE WORK

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LEGEND

PROPERTY BOUNDARY	
EARTHWORK	
CONCRETE HEADWALL/ TAILWALL	
SCREW GATE	
REINFORCED CONCRETE PIPE	
REPLACE CULVERT	
RIPRAP	
TEMPORARY ROAD	

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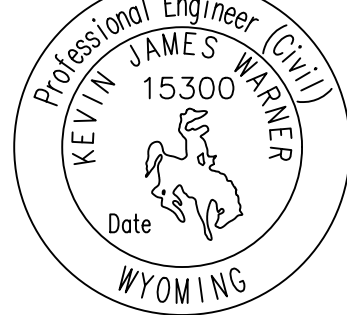
"BEFORE YOU DIG"
BEFORE THE START OF CONSTRUCTION. THE OWNER OF ANY UTILITIES INVOLVED MUST BE NOTIFIED. THE EXCAVATOR/CONTRACTOR IS RESPONSIBLE FOR GIVING THIS NOTICE BY CALLING "ONE CALL OF WYOMING" AT 811. A 72 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375



GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:



DESIGNED BY: KJW
DRAWN BY: JWW
SURVEYED BY: TP
CHECKED BY:
APPROVED BY:
APPROVED BY:

REVISION:	DATE:	BY:
1		
2		
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PROJECT:
ALPINE WETLANDS

SHEET TITLE:
CONTECH CULVERT DESIGN SHEETS 3-4

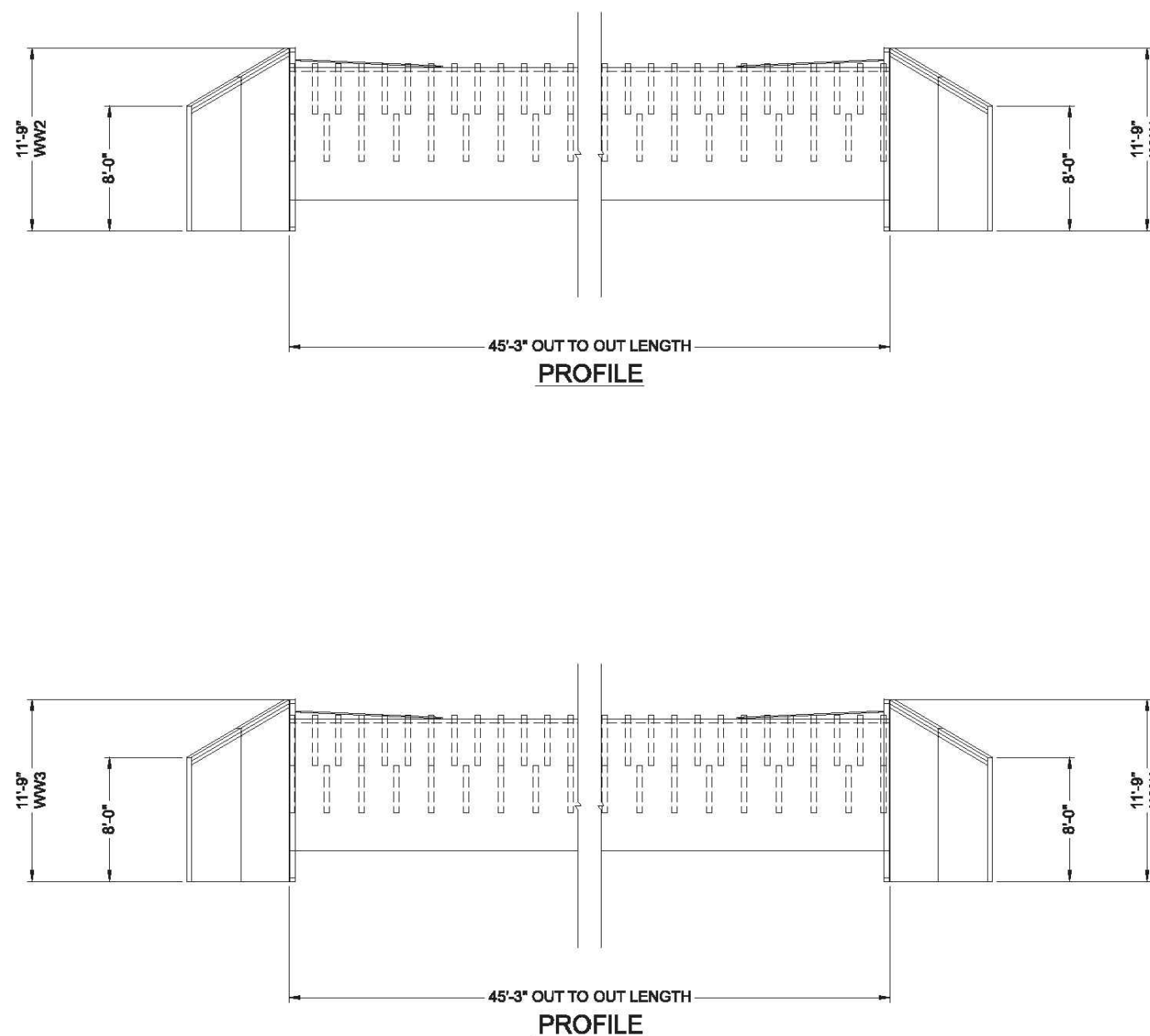
DATE:
04/16/2025

SHEET TITLE:
CONTECH CULVERT DESIGN SHEETS 3-4

SCALES ARE ACCURATE ON 24"X36" SHEET SIZE

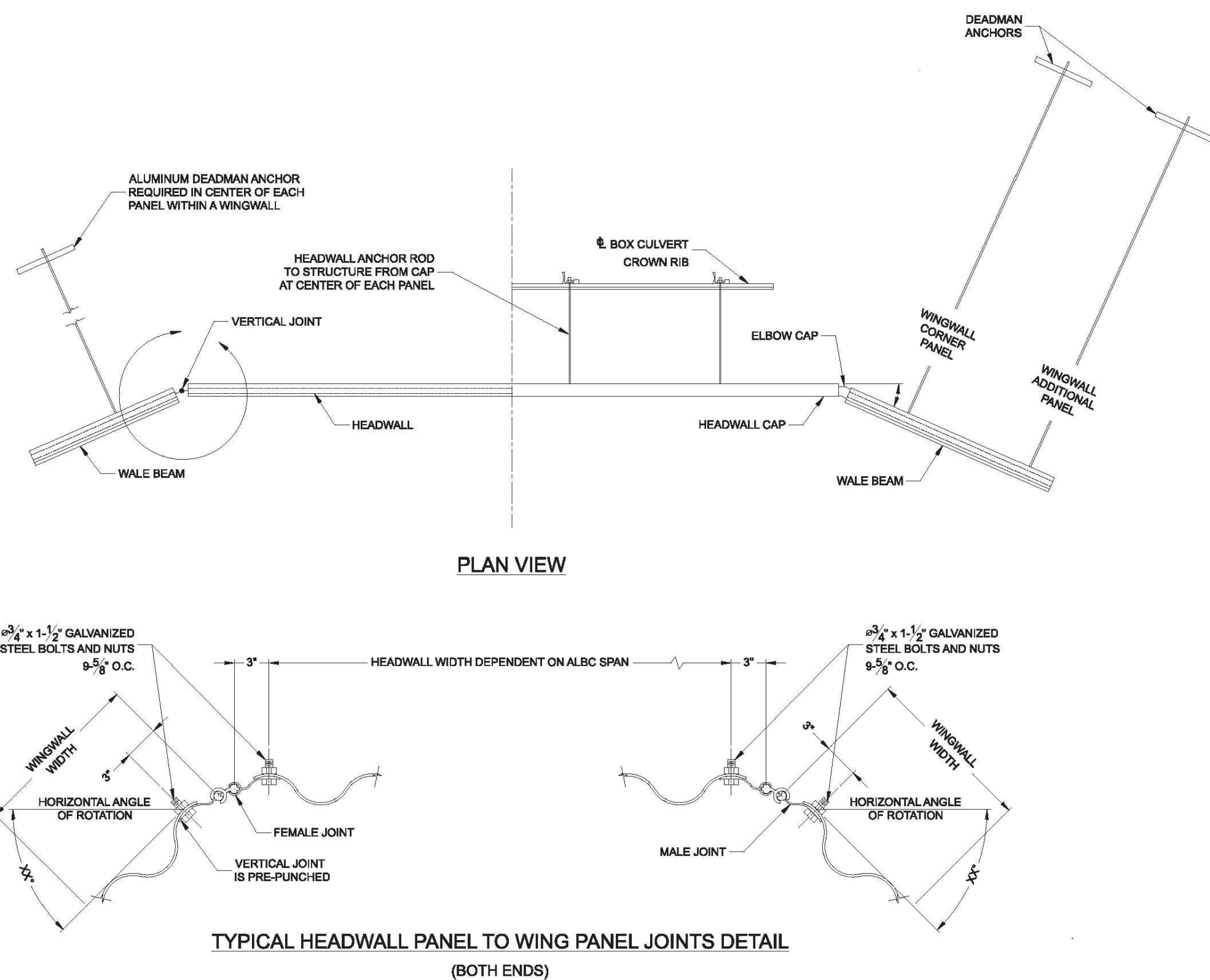
DU PROJECT NUMBER:
WY-178-1

SHEET NUMBER:
11B
SHEET 11B OF 20



PRELIMINARY
NOT FOR CONSTRUCTION

CONTECH ENGINEERED SOLUTIONS LLC www.contechES.com 8025 Centre Pointe Dr., Suite 400, West Chester, OH 43089 800-338-1122 513-645-7000 513-645-7983 FAX				DYOB DRAWING				PROJECT NO. 27961 DYO NO. 40949 DATE 04/11/2025 DESIGNED BY DYO DRAWN BY DYO CHECKED BY DYO APPROVED BY DYO SHEET NO. D5 OF D10			
MARK	DATE	REVISION DESCRIPTION	BY	MARK	DATE	REVISION DESCRIPTION	BY	MARK	DATE	REVISION DESCRIPTION	BY



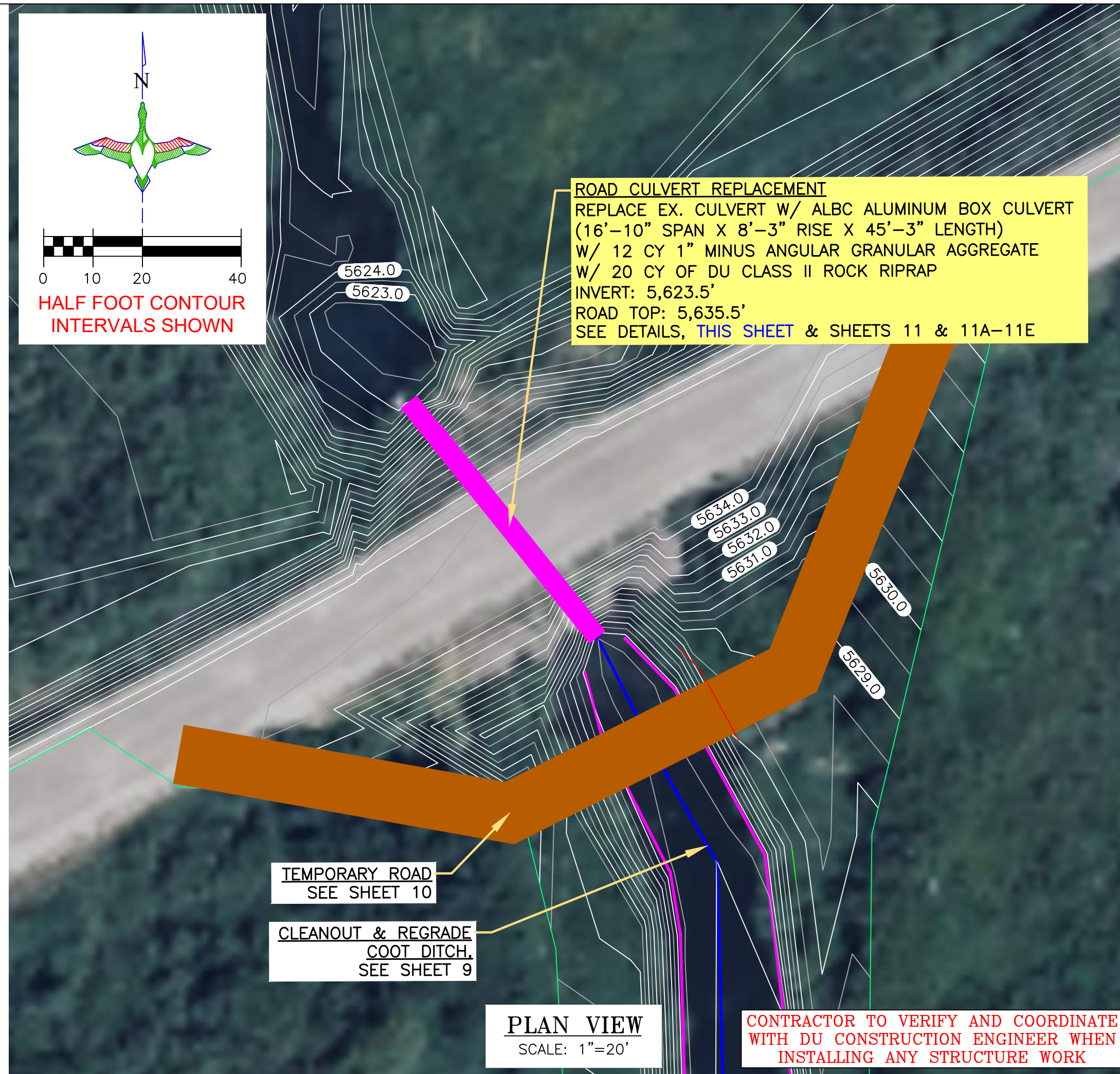
PRELIMINARY
NOT FOR CONSTRUCTION

CONTECH ENGINEERED SOLUTIONS LLC www.contechES.com 8025 Centre Pointe Dr., Suite 400, West Chester, OH 43089 800-338-1122 513-645-7000 513-645-7983 FAX				DYOB DRAWING				PROJECT NO. 27961 DYO NO. 40949 DATE 04/11/2025 DESIGNED BY DYO DRAWN BY DYO CHECKED BY DYO APPROVED BY DYO SHEET NO. D6 OF D10			
MARK	DATE	REVISION DESCRIPTION	BY	MARK	DATE	REVISION DESCRIPTION	BY	MARK	DATE	REVISION DESCRIPTION	BY

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DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375



LEGEND

PROPERTY BOUNDARY	
EARTHWORK	
CONCRETE HEADWALL/ TAILWALL	
SCREW GATE	
REINFORCED CONCRETE PIPE	
REPLACE CULVERT	
RIPRAP	
TEMPORARY ROAD	

GREAT PLAINS REGIONAL OFFICE

P.E. SEAL: Professional Engineer (Civil) KEVIN JAMES 15300 Date WYOMING

DESIGNED BY: KJW
DRAWN BY: JWW
SURVEYED BY: TP
CHECKED BY:
APPROVED BY:
APPROVED BY:

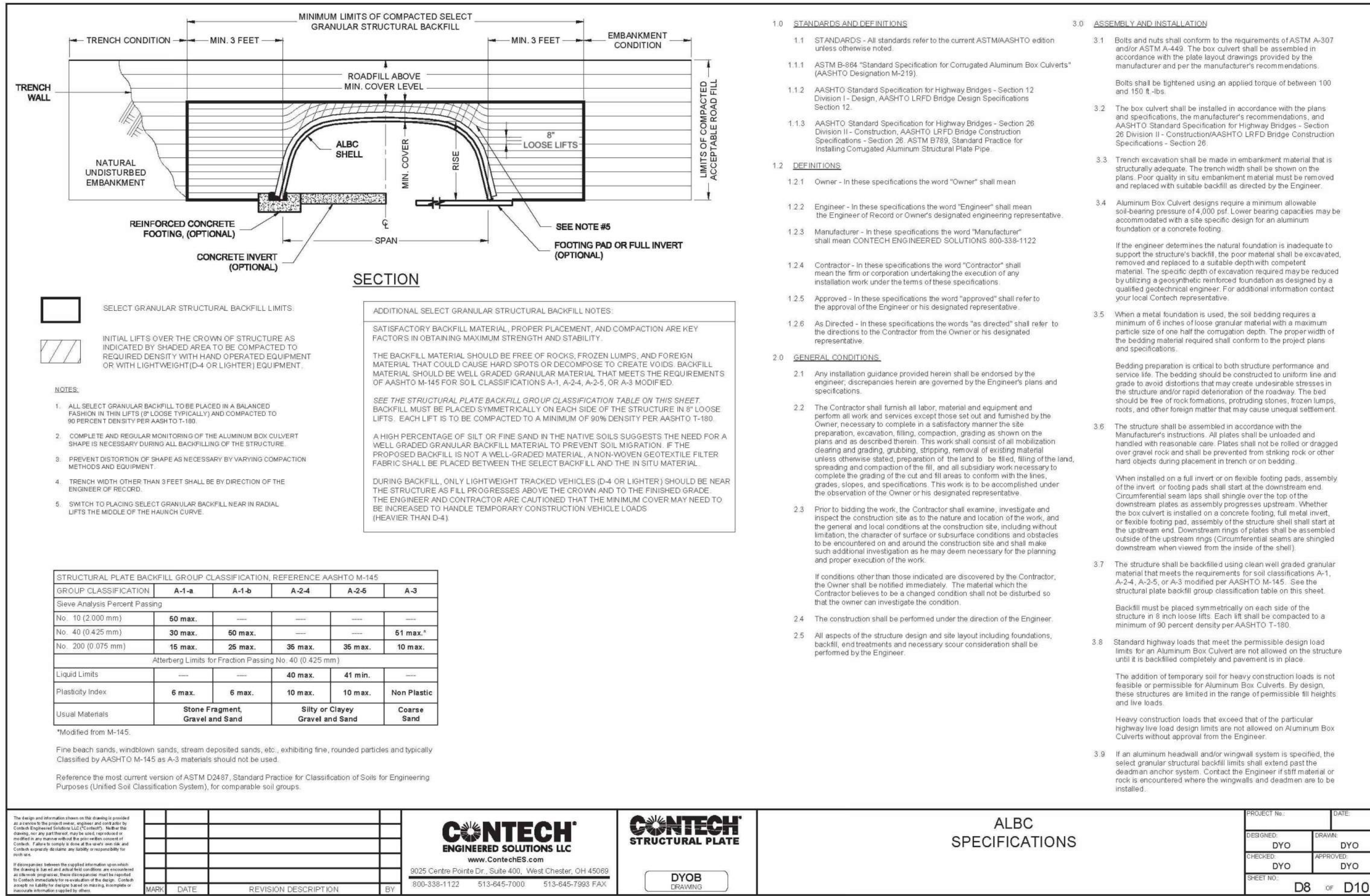
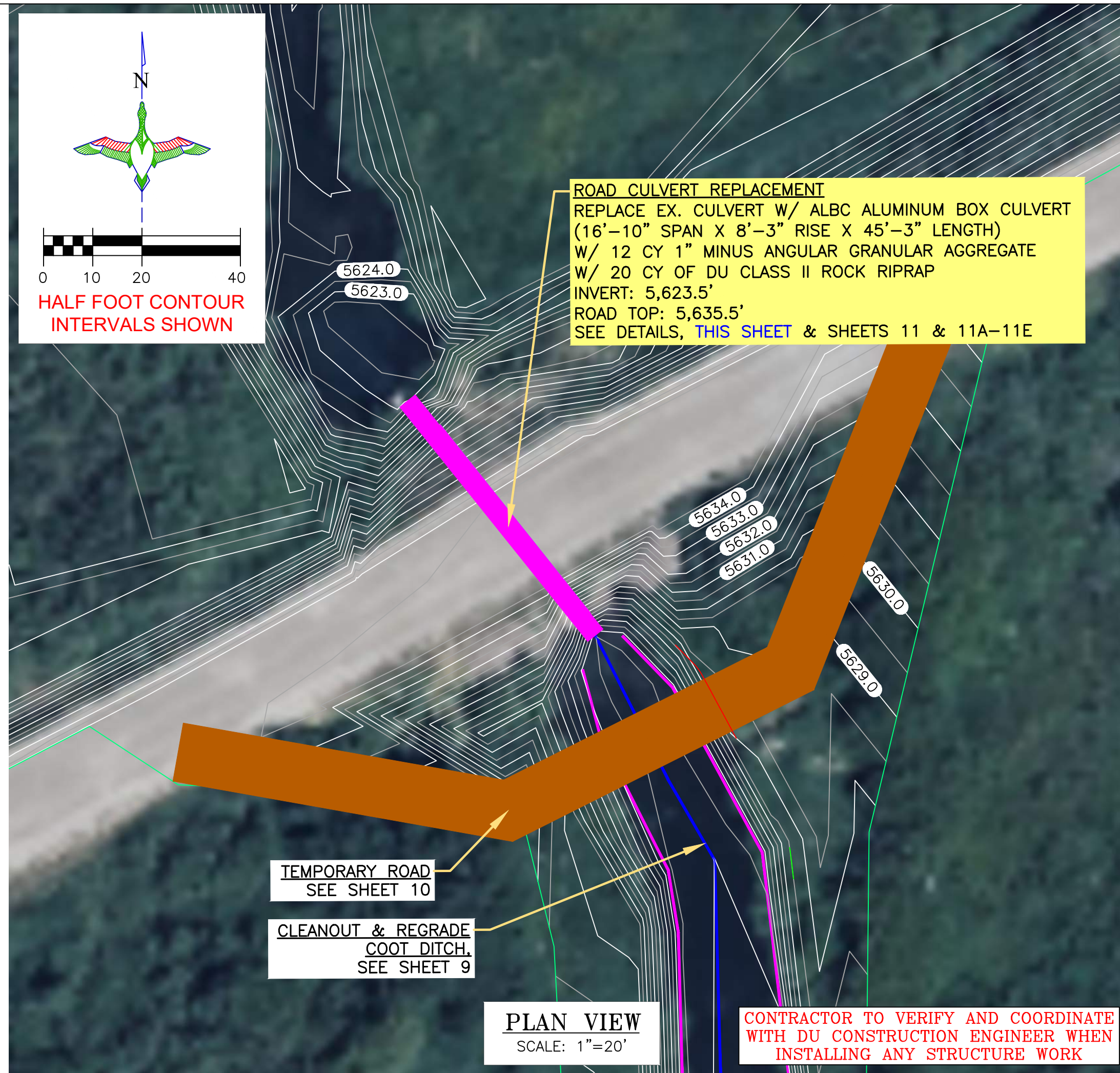
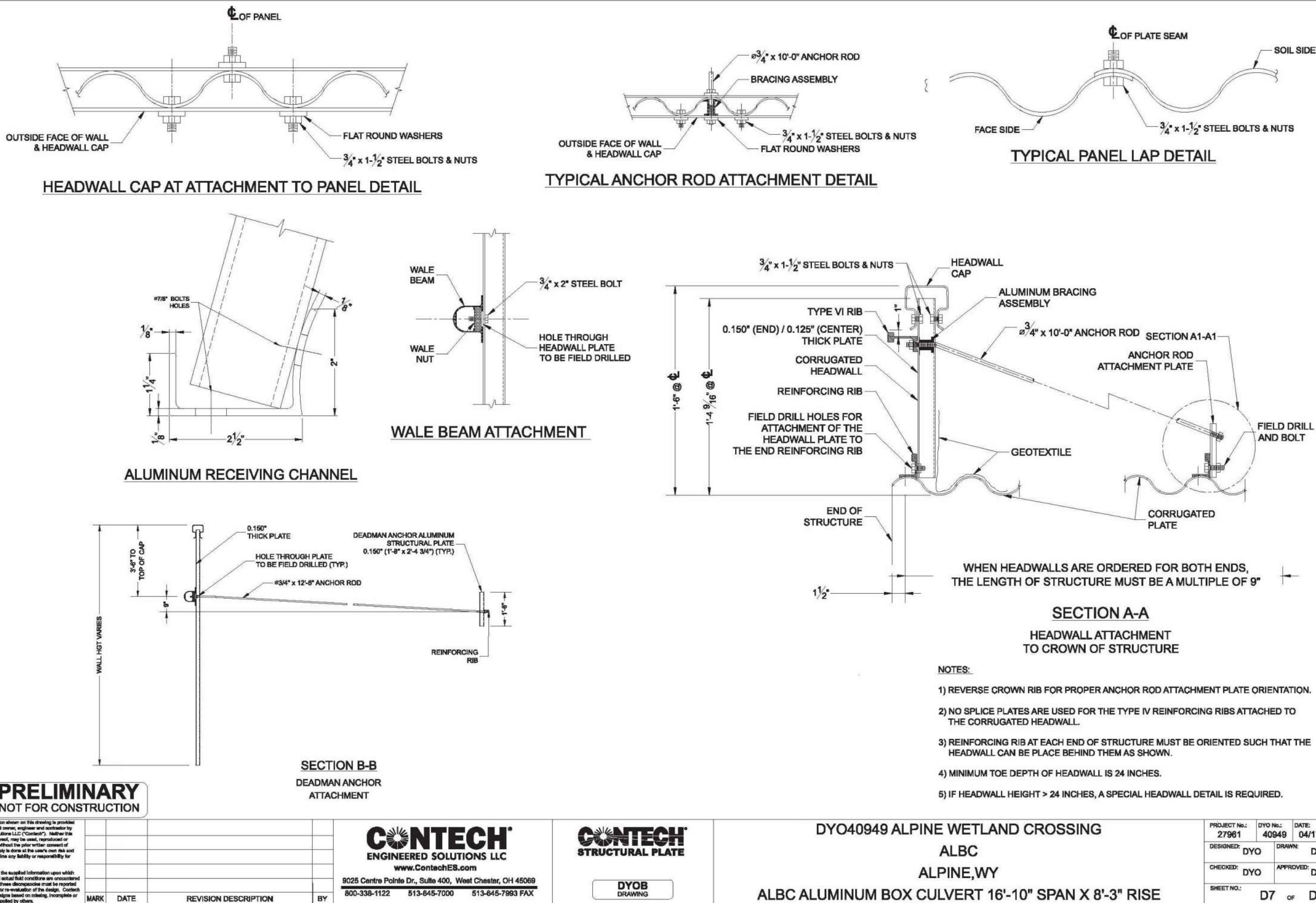
DATE: 04/16/2025

SHEET TITLE: CONTECH CULVERT DESIGN SHEETS 5-6

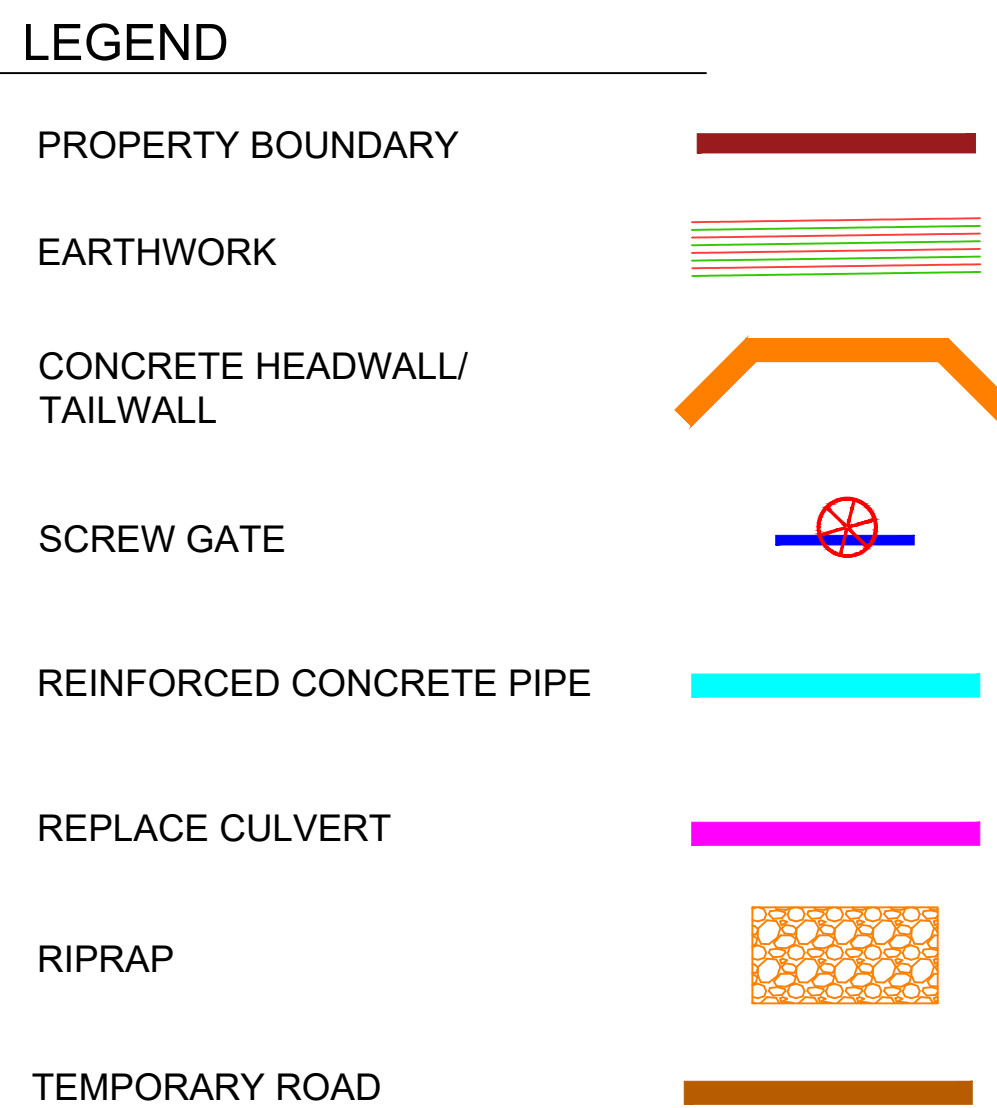
SCALES ARE ACCURATE ON 24"x36" SHEET SIZE

DU PROJECT NUMBER: WY-178-1

SHEET NUMBER: 11C OF 20



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DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375

DUCKS UNLIMITED INC. GREAT PLAINS REGIONAL OFFICE

P.E. SEAL: Professional Engineer (Civil) KEVIN JAMES WARNER 15300 Date

DESIGNED BY: KJW
DRAWN BY: JWW
SURVEYED BY: TP
CHECKED BY:
APPROVED BY:
APPROVED BY:

DATE: 04/16/2025

REVISION: 1 2 3 4 5 6 7 8

PROJECT: CONTECH CULVERT DESIGN SHEETS 7-8

SHEET TITLE: ALPINE WETLANDS

DATE: 04/16/2025

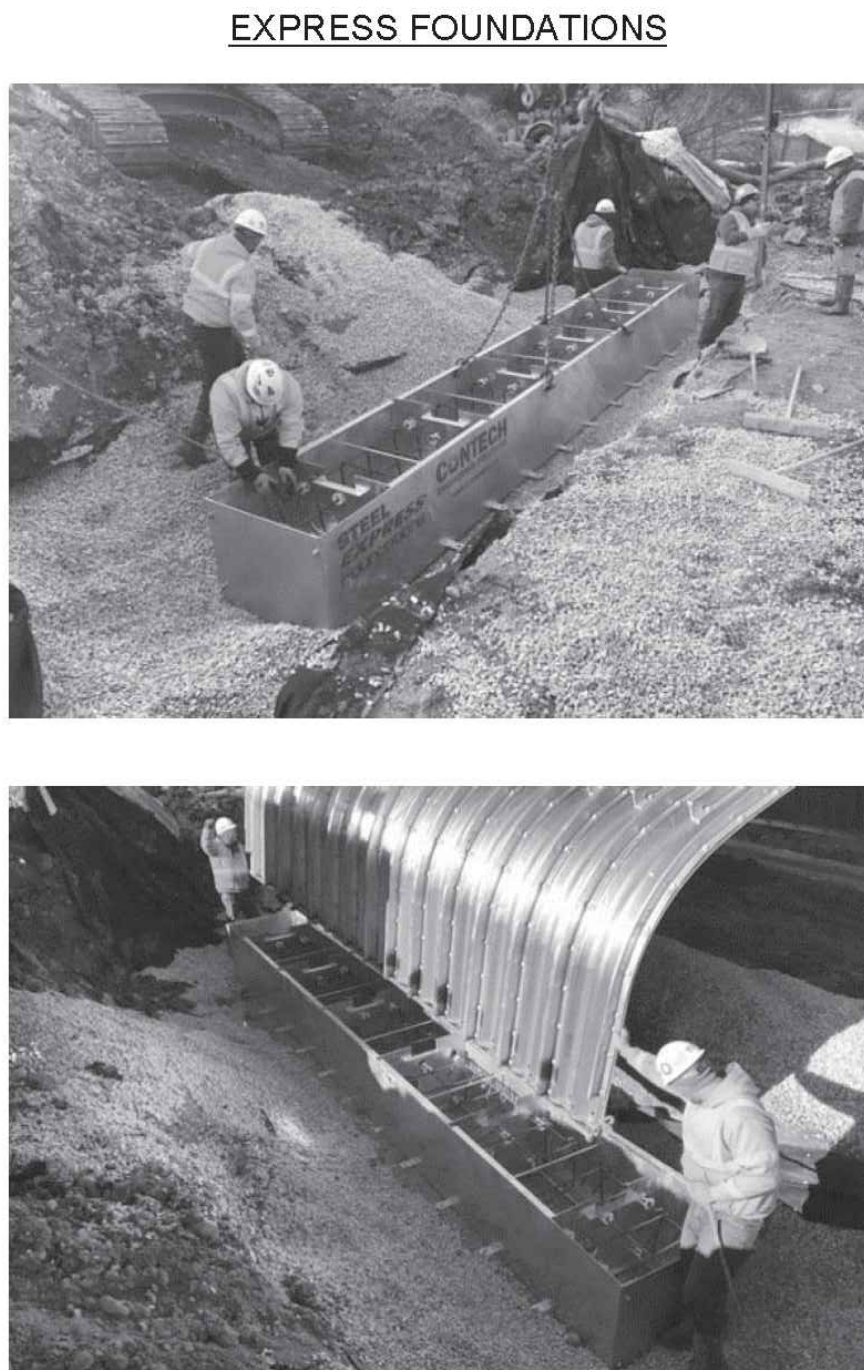
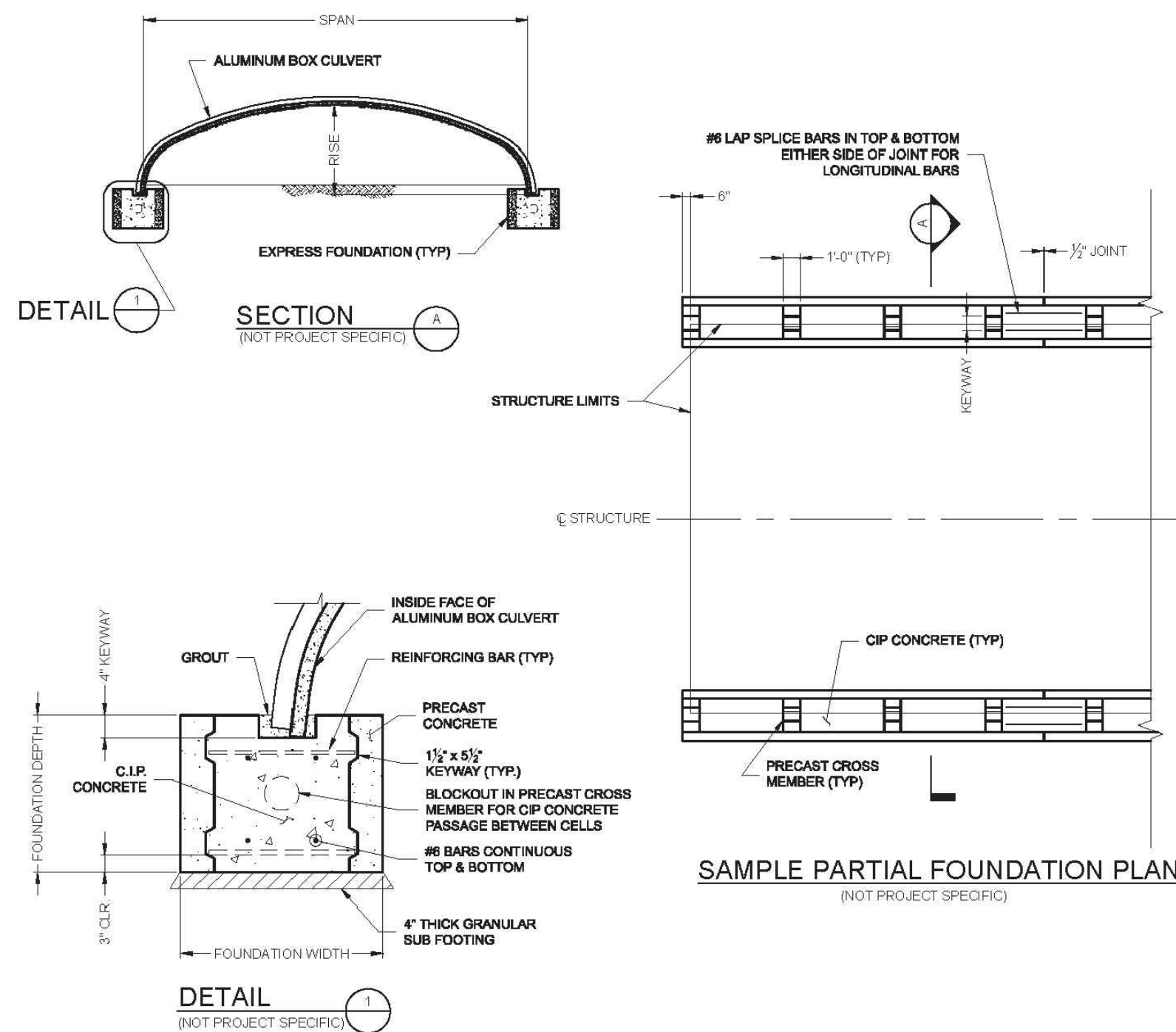
SHEET TITLE: CONTECH CULVERT DESIGN SHEETS 7-8

SCALES ARE ACCURATE ON 24"X36" SHEET SIZE

DU PROJECT NUMBER: WY-178-1

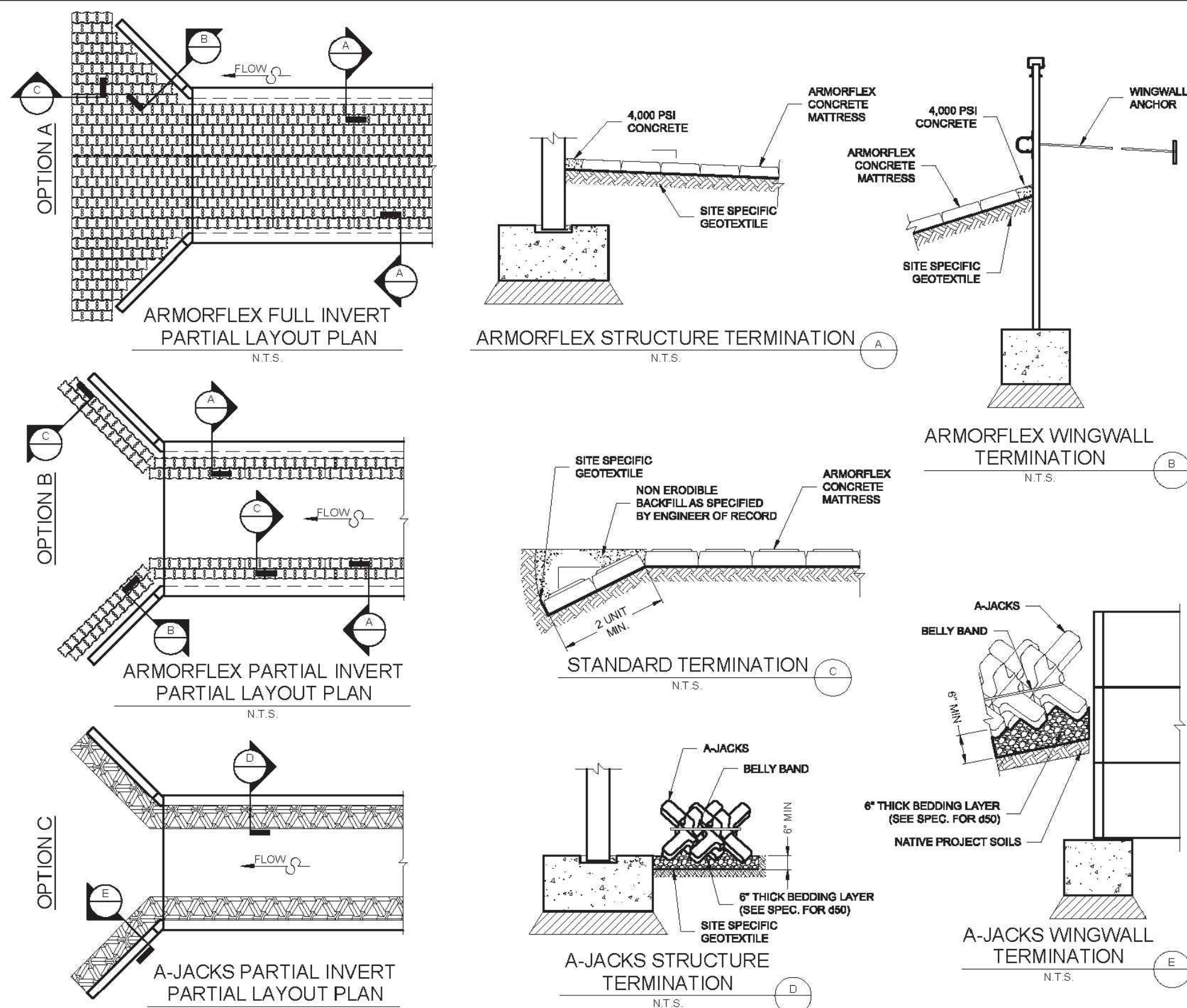
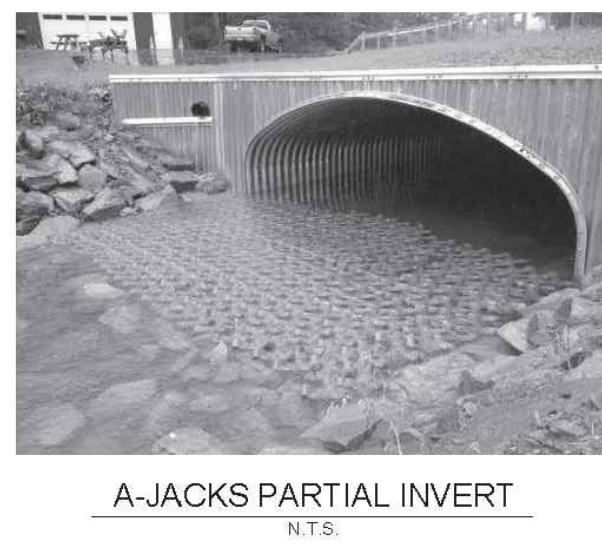
SHEET NUMBER: 11D SHEET 1D OF 20

SAMPLE DRAWING ONLY



ALBC EXPRESS FOUNDATION SAMPLES				PROJECT NO.	DATE
CONTECH ENGINEERED SOLUTIONS LLC				DESIGNED BY: DYO	DRAWN BY: DYO
CONTECH STRUCTURAL PLATE				CHECKED BY: DYO	APPROVED BY: DYO
DYOB				DRAWN BY: DYO	DATE: 09/10/2010

SAMPLE DRAWING ONLY

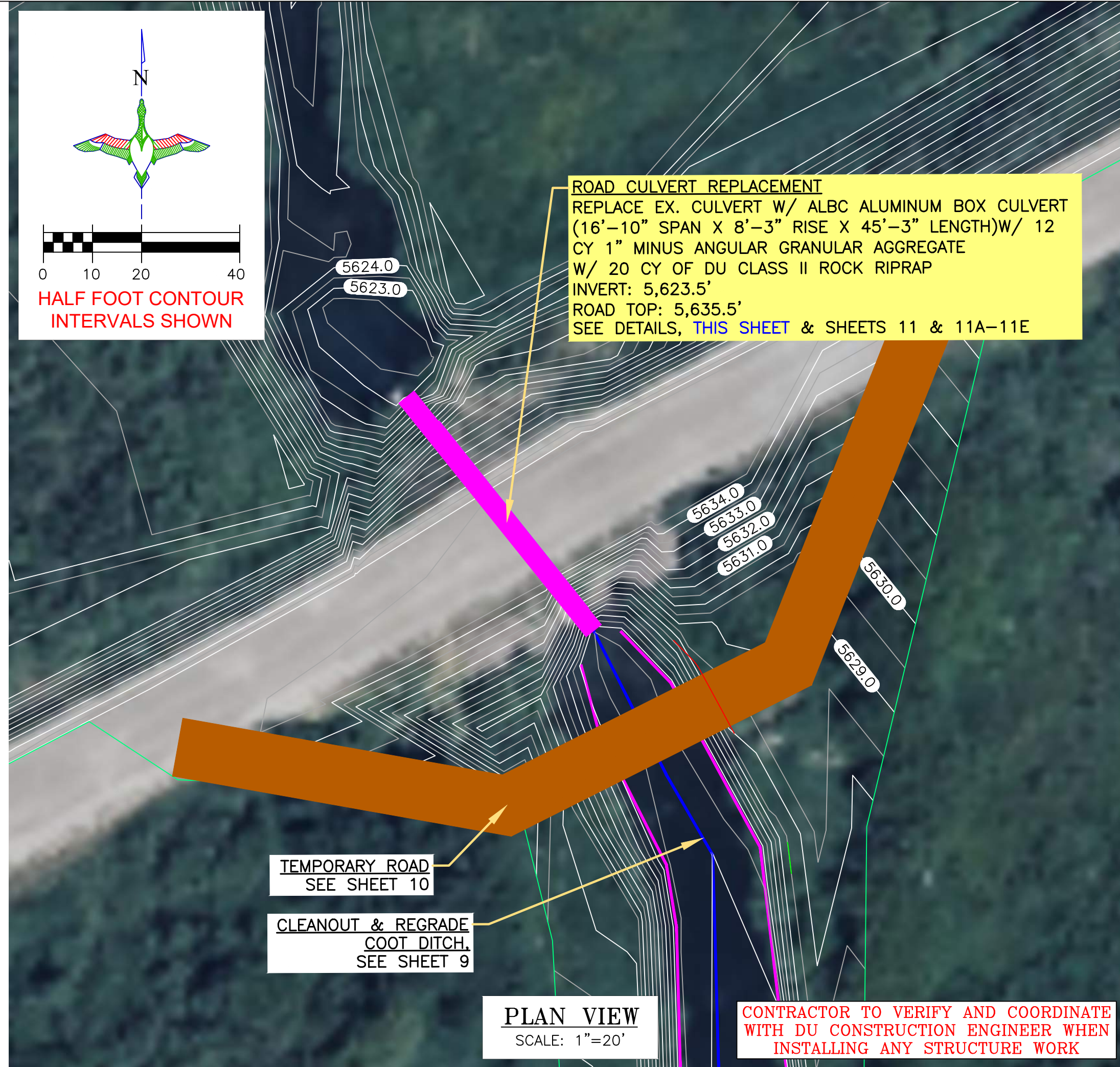


ALBC ARMORTEC SAMPLES				PROJECT NO.	DATE
CONTECH ENGINEERED SOLUTIONS LLC				DESIGNED BY: DYO	DRAWN BY: DYO
CONTECH STRUCTURAL PLATE				CHECKED BY: DYO	APPROVED BY: DYO
DYOB				DRAWN BY: DYO	DATE: 09/10/2010

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DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375



LEGEND	
PROPERTY BOUNDARY	
EARTHWORK	
CONCRETE HEADWALL/ TAILWALL	
SCREW GATE	
REINFORCED CONCRETE PIPE	
REPLACE CULVERT	
RIPRAP	
TEMPORARY ROAD	

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:
Professional Engineer (Civil)
KEVIN JAMES WARDER
15300
Date
WYOMING

DESIGNED BY: KJW
DRAWN BY: JWW
SURVEYED BY: TP
CHECKED BY:
APPROVED BY:
APPROVED BY:

DATE: 04/16/2025

SHEET TITLE:
CONTECH CULVERT DESIGN
SHEETS 9-10

SCALES ARE ACCURATE ON 24"x36" SHEET SIZE

DU PROJECT NUMBER:
WY-178-1

SHEET NUMBER:
11E
SHEET 11E OF 20

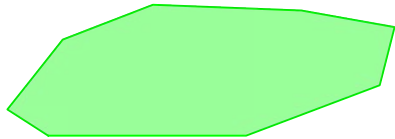
ALPINE WETLANDS
CONTECH CULVERT DESIGN SHEETS 9-10

LEGEND

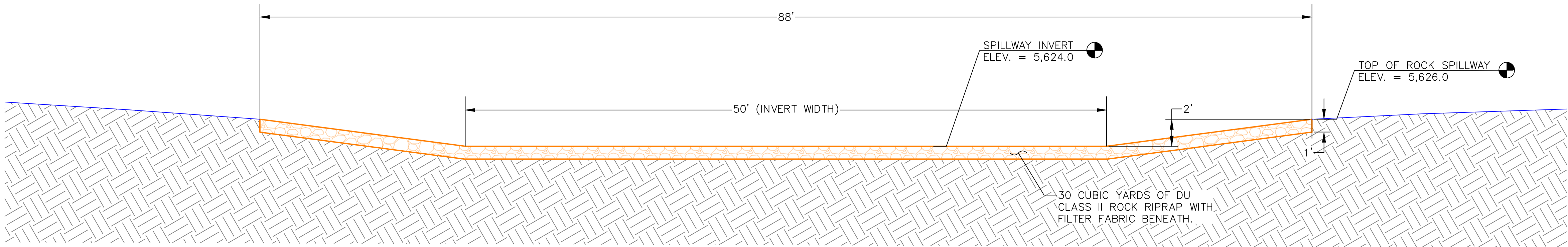
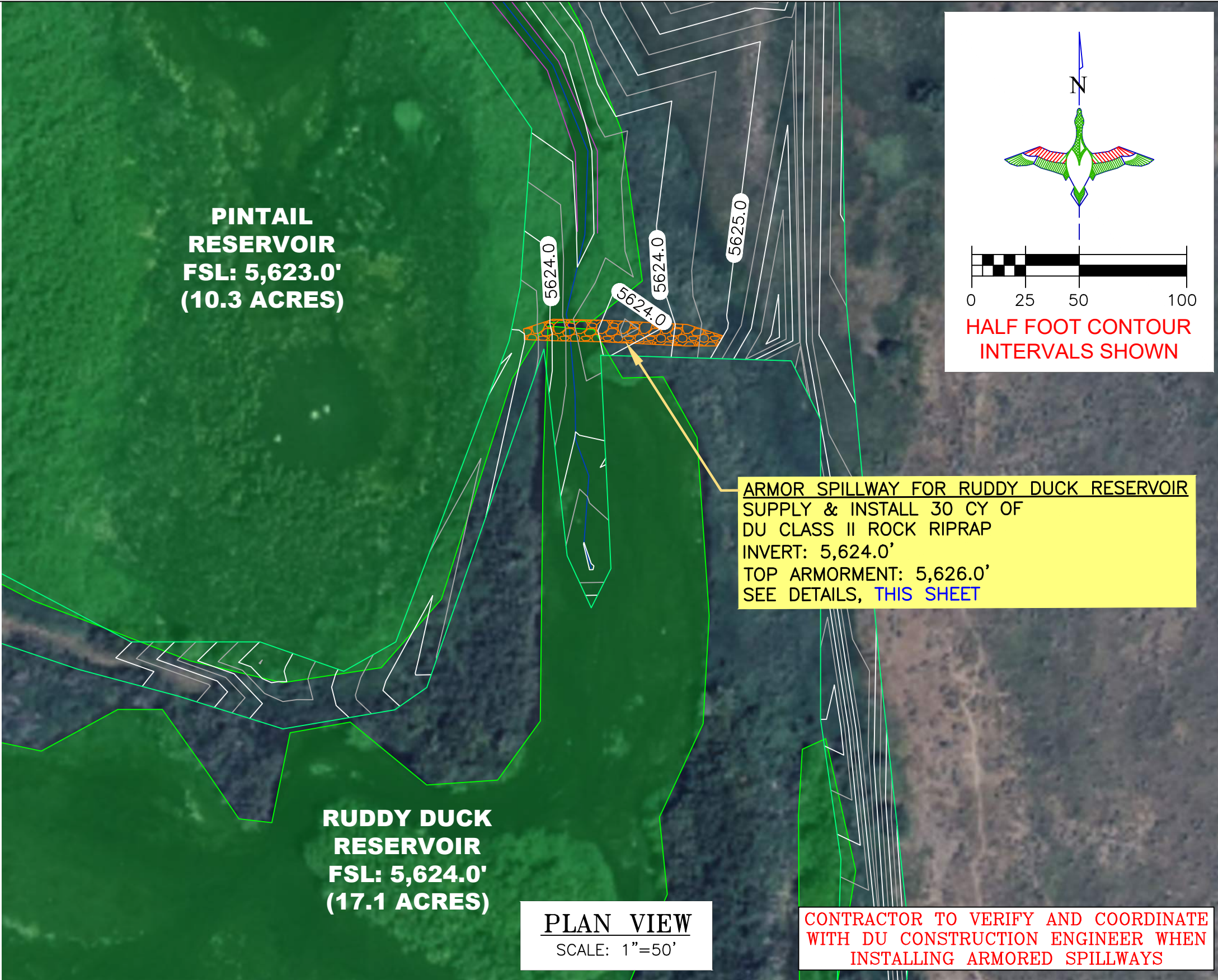
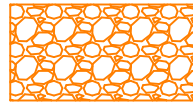
PROPERTY BOUNDARY



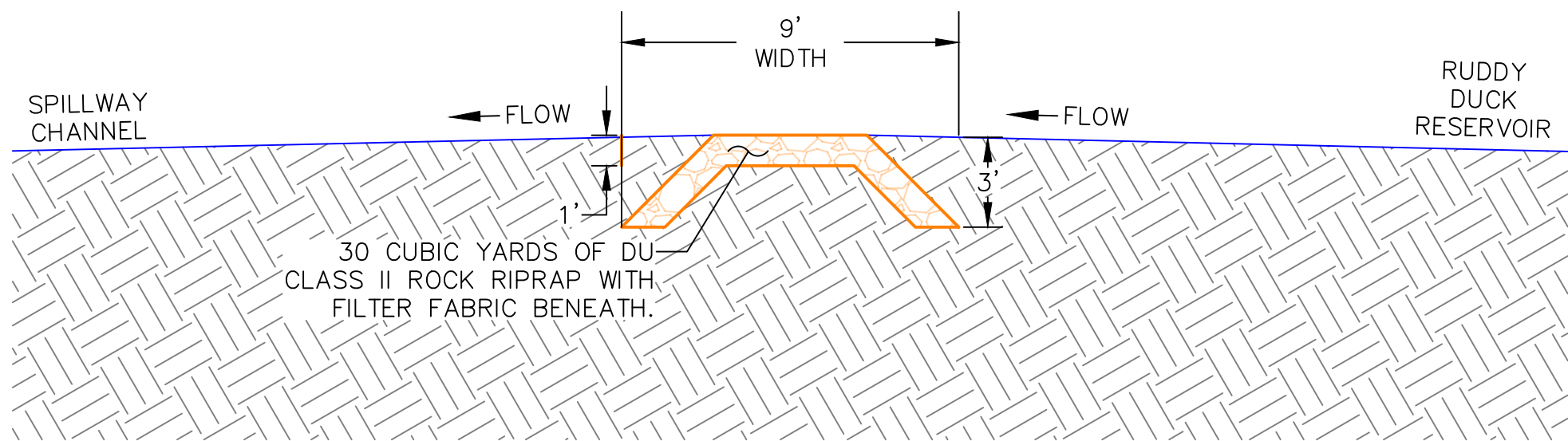
FULL SERVICE LEVEL (FSL)



RIPRAP



ARMORED SPILLWAY SECTION CUT (RUDDY DUCK RESERVOIR)
SCALE 1"=5'



ARMORED SPILLWAY PROFILE VIEW (RUDDY DUCK RESERVOIR)
SCALE 1"=5'

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DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375



DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:



DESIGNED BY:	KJW
DRAWN BY:	JWJ
SURVEYED BY:	TP
CHECKED BY:	
APPROVED BY:	
APPROVED BY:	

REVISION:	DATE:	BY:
1		
2		
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4		
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PROJECT: **ALPINE WETLANDS**

SHEET TITLE: **RUDDY DUCK RESERVOIR ARMORED SPILLWAY**

DATE: 04/16/2025

SHEET TITLE: **RUDDY DUCK RESERVOIR ARMORED SPILLWAY**

SCALES ARE ACCURATE ON 24"X36" SHEET SIZE

DU PROJECT NUMBER: **WY-178-1**

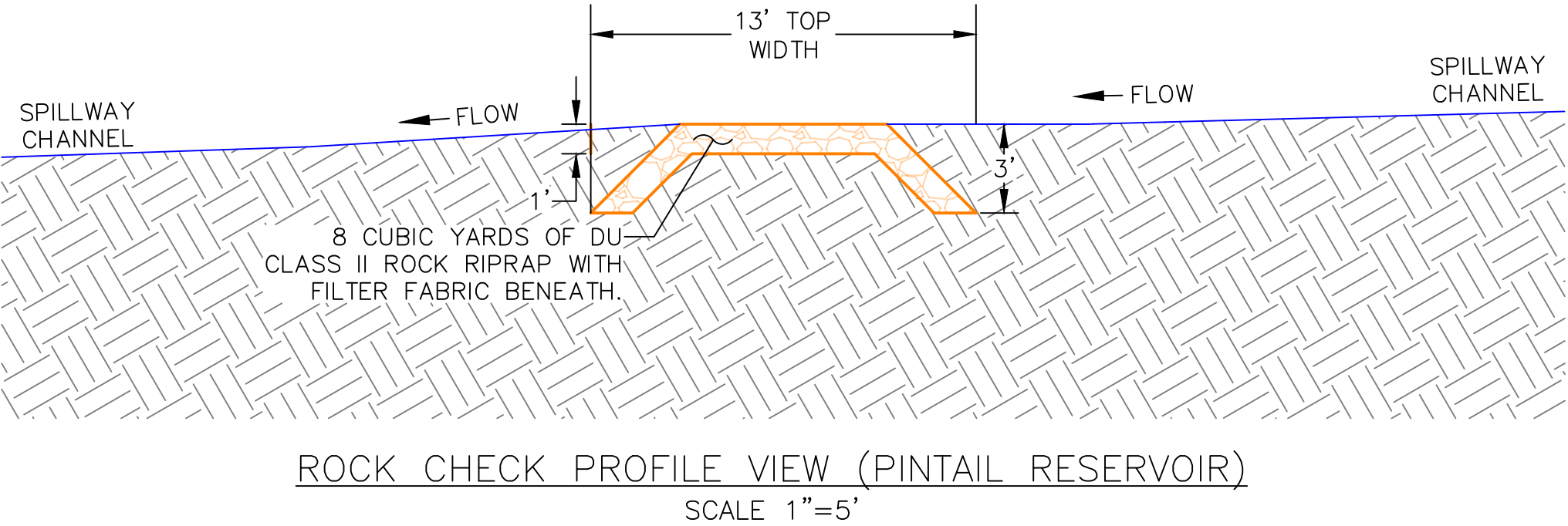
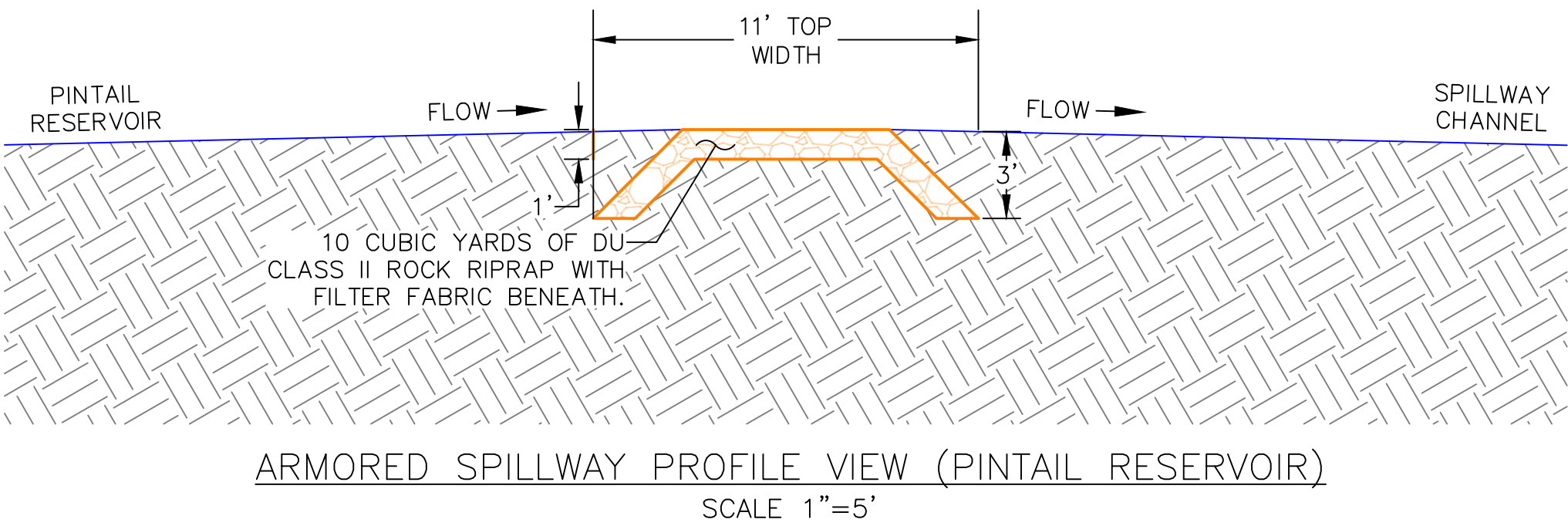
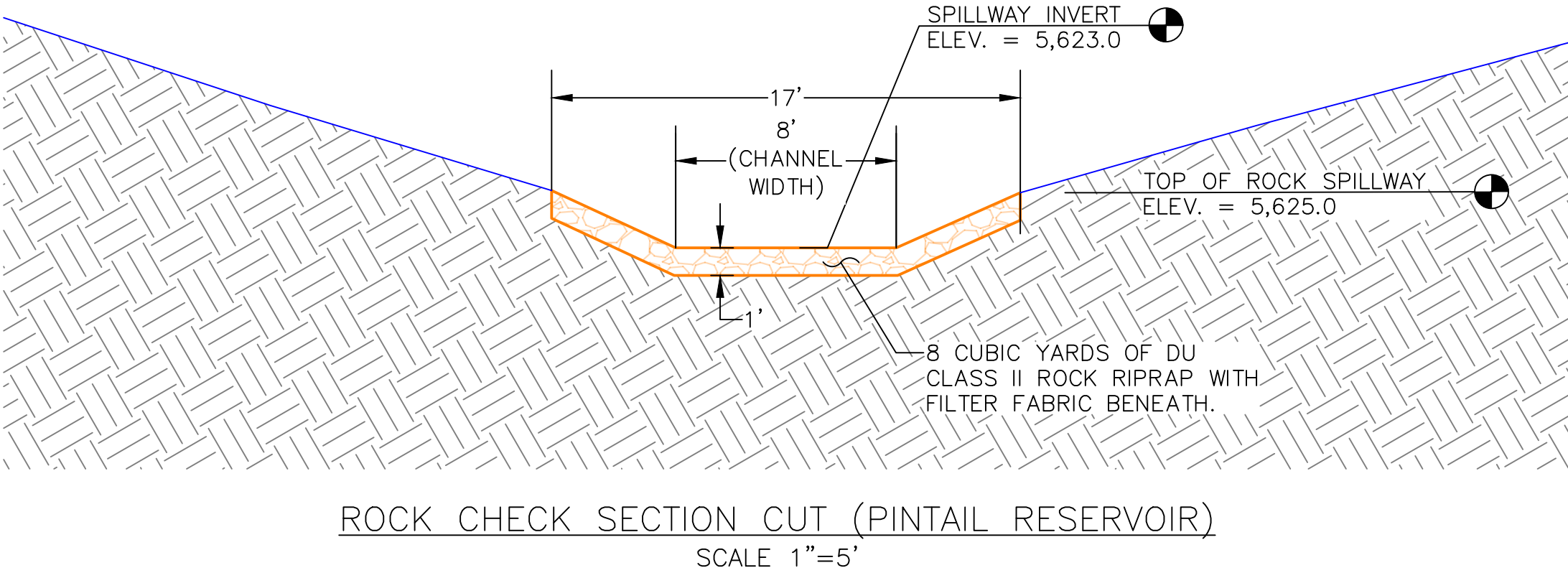
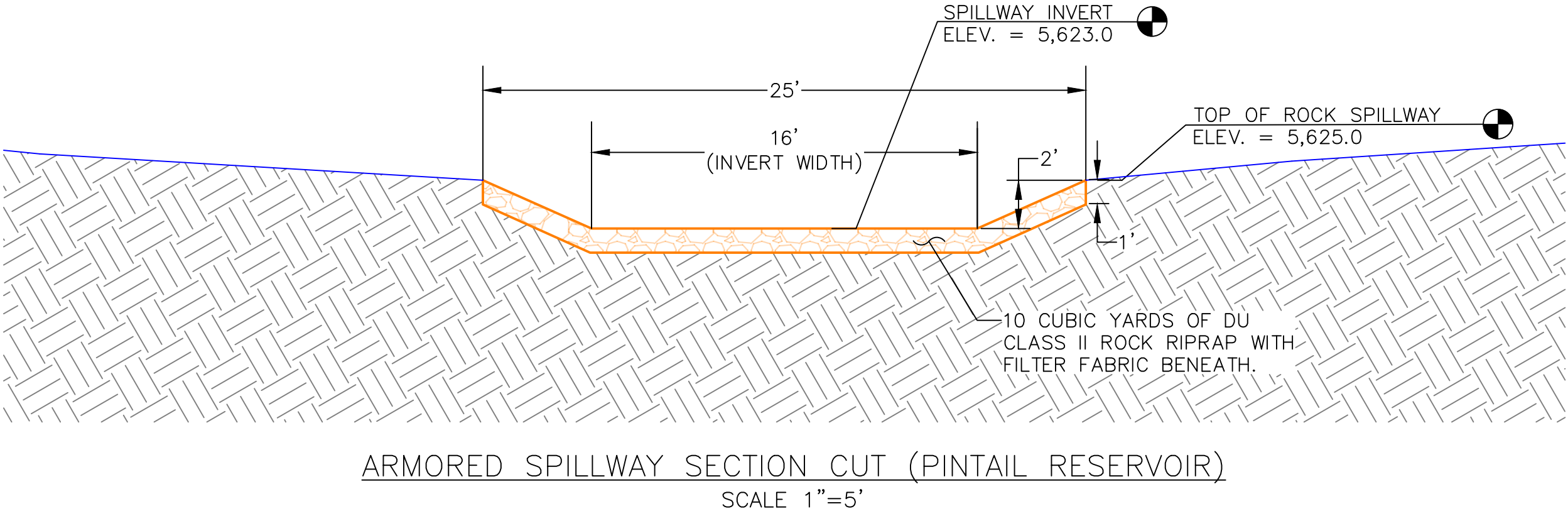
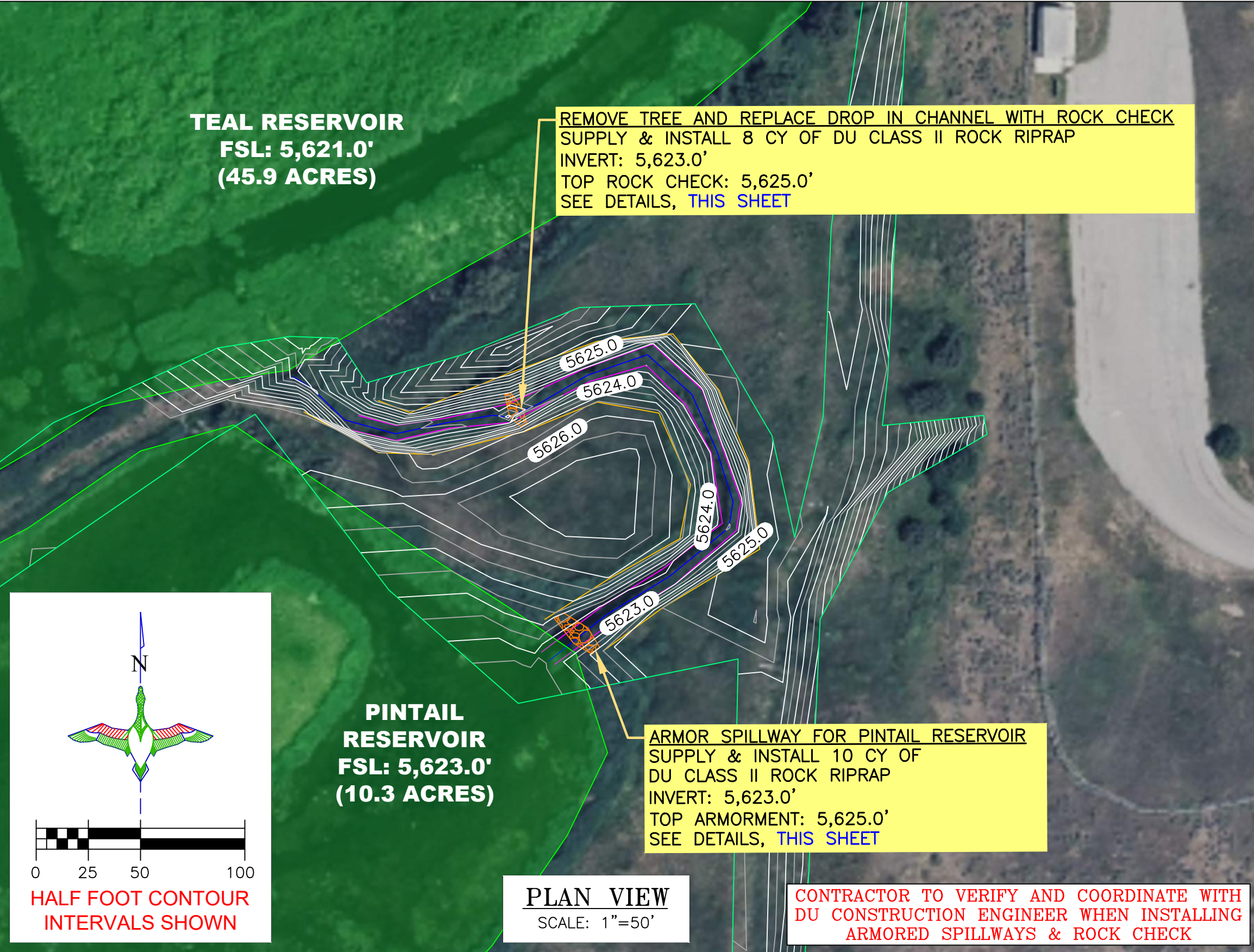
SHEET NUMBER: **12**
SHEET 12 OF 20

LEGEND

PROPERTY BOUNDARY

FULL SERVICE LEVEL (FSL)

RIPRAP



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DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:
Professional Engineer (Civil)
KEVIN JAMES
15300
Date
WYOMING

DESIGNED BY: KJW
DRAWN BY: JW
SURVEYED BY: TP
CHECKED BY:
APPROVED BY:
APPROVED BY:

DATE: BY: REVISION: 1 2 3 4 5 6 7 8

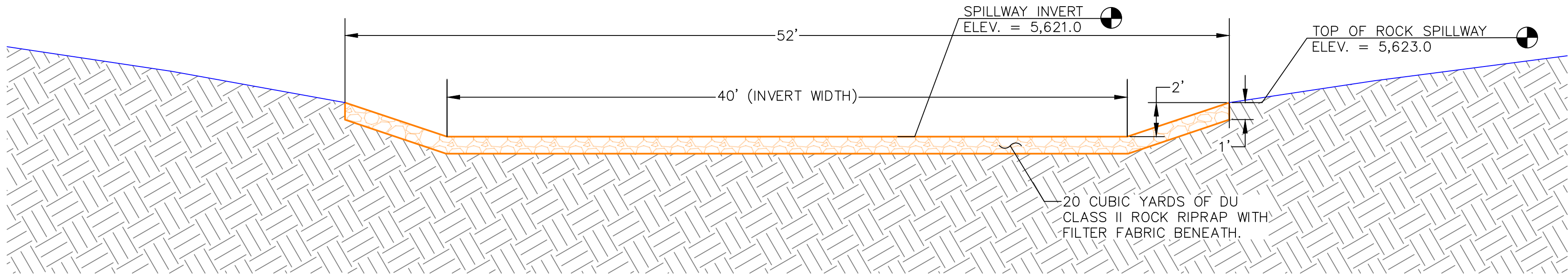
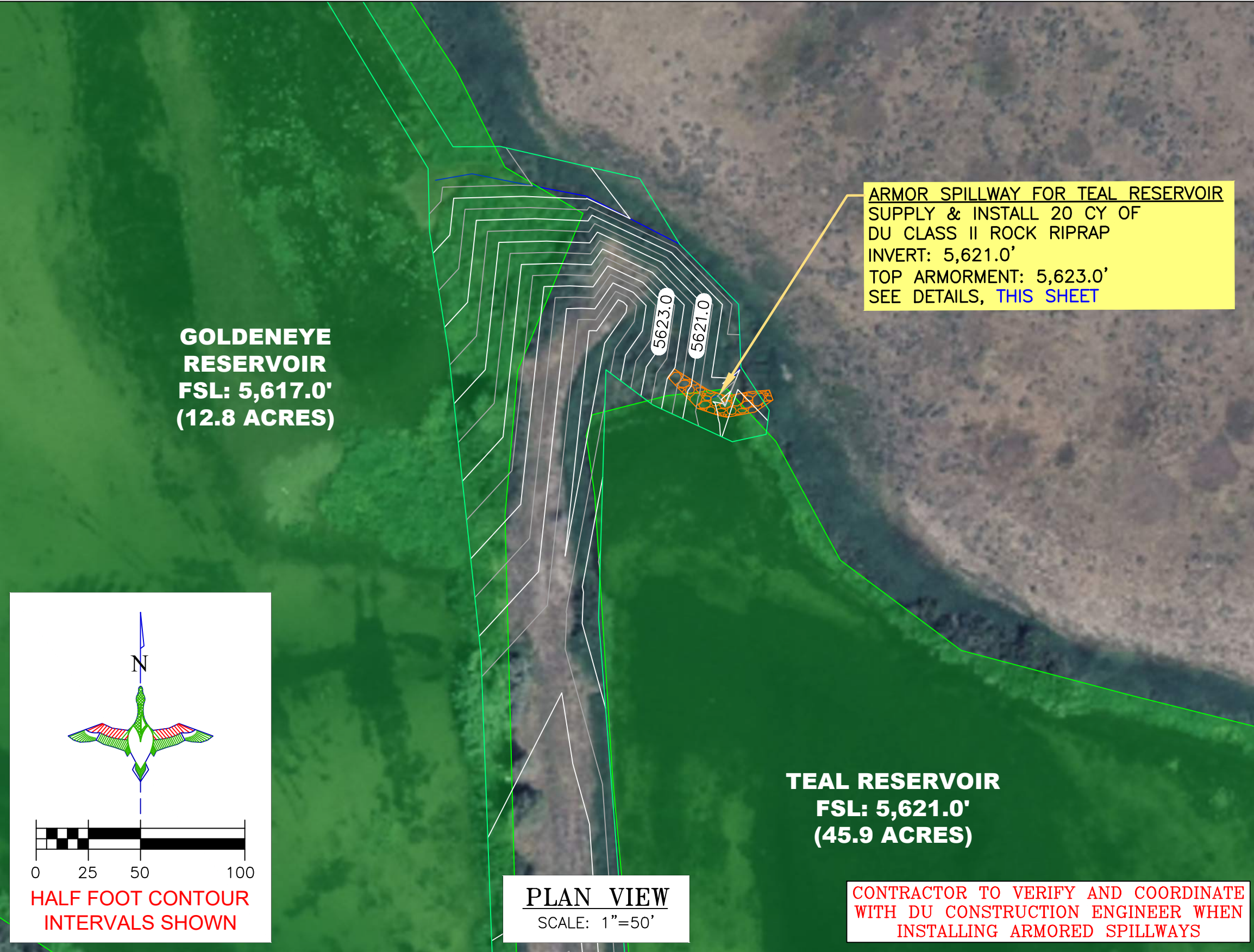
PROJECT: ALPINE WETLANDS
SHEET TITLE: PINTAIL RESERVOIR ARMORED SPILLWAY & ROCK CHECK

DATE: 04/16/2025
SHEET TITLE: PINTAIL RESERVOIR ARMORED SPILLWAY & ROCK CHECK
DU PROJECT NUMBER: WY-178-1
SHEET NUMBER: 13
SHEET 13 OF 20

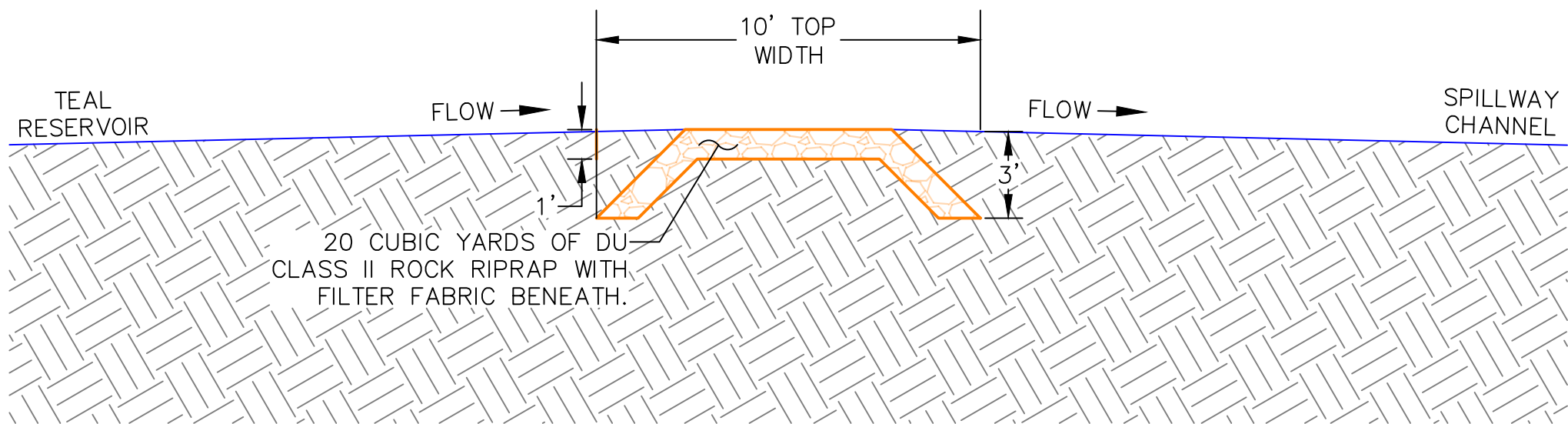
SCALES ARE ACCURATE ON 24"x36" SHEET SIZE

LEGEND

- PROPERTY BOUNDARY
- FULL SERVICE LEVEL (FSL)
- RIPRAP



ARMORED SPILLWAY SECTION CUT (TEAL RESERVOIR)
SCALE 1"=5'




ARMORED SPILLWAY PROFILE VIEW (TEAL RESERVOIR)
SCALE 1"=5'

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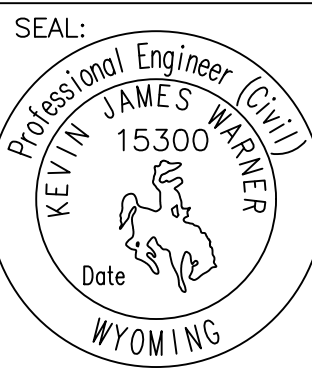
"BEFORE YOU DIG"
BEFORE THE START OF CONSTRUCTION. THE OWNER OF ANY UTILITIES INVOLVED MUST BE NOTIFIED. THE EXCAVATOR/CONTRACTOR IS RESPONSIBLE FOR GIVING THIS NOTICE BY CALLING **"ONE CALL OF WYOMING"** AT **811**. A **72 HOUR** NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375



DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:



DESIGNED BY:	KJW
DRAWN BY:	JW
SURVEYED BY:	TP
CHECKED BY:	
APPROVED BY:	
APPROVED BY:	

REVISION:	DATE:	BY:
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PROJECT:

ALPINE WETLANDS

SHEET TITLE:

TEAL RESERVOIR ARMORED SPILLWAY

DATE:

04/16/2025

SHEET TITLE:

TEAL RESERVOIR ARMORED SPILLWAY

SCALES ARE ACCURATE ON 24"x36" SHEET SIZE

DU PROJECT NUMBER:

WY-178-1

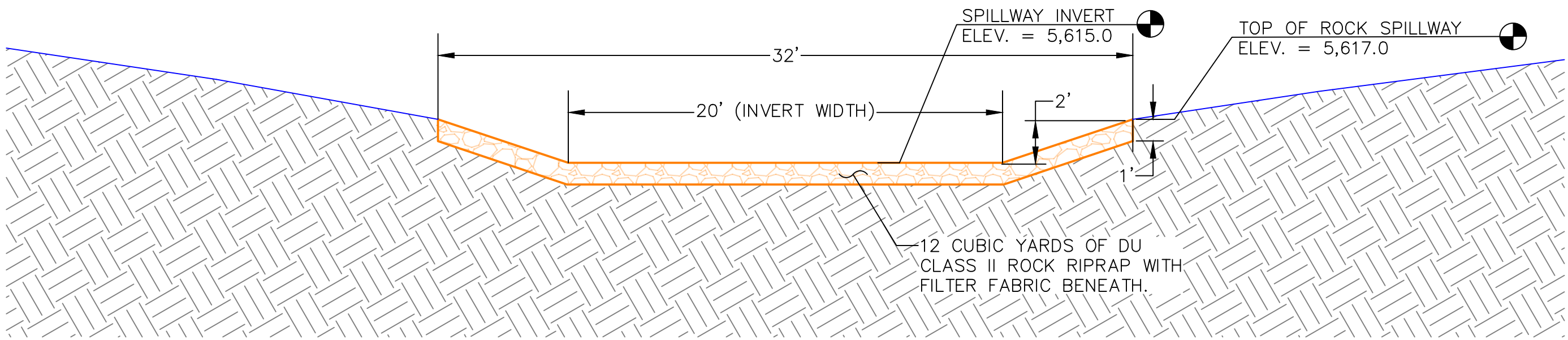
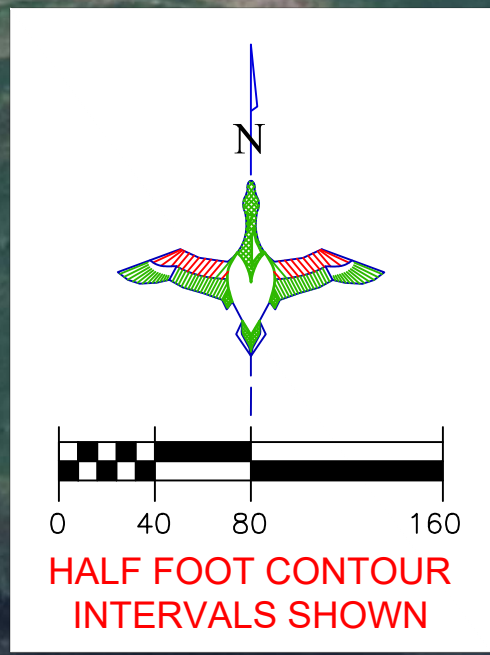
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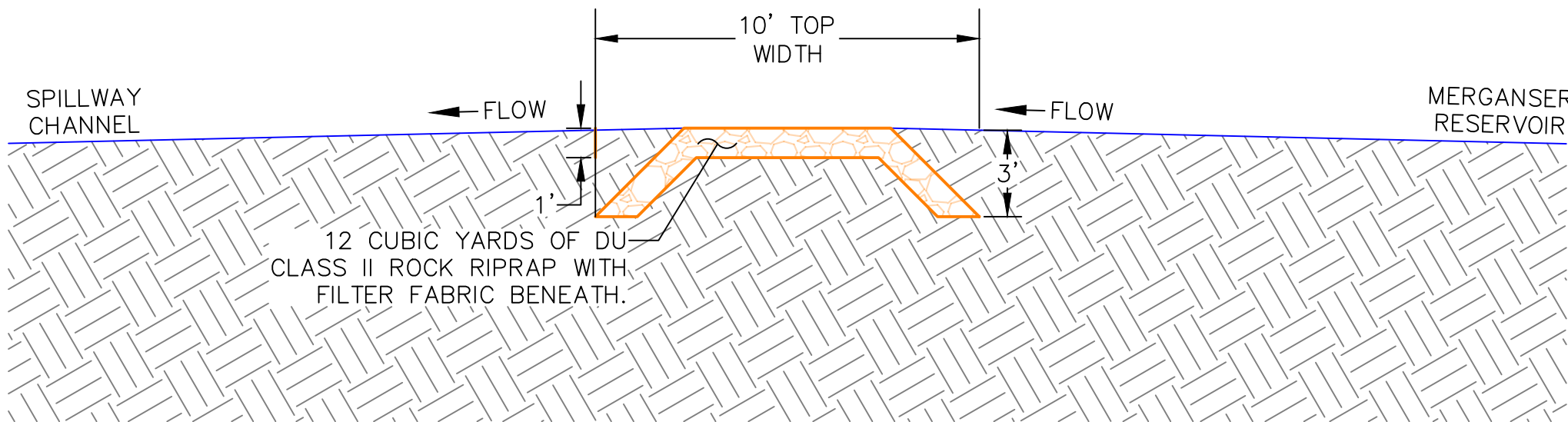
SHEET 14 OF 20

LEGEND

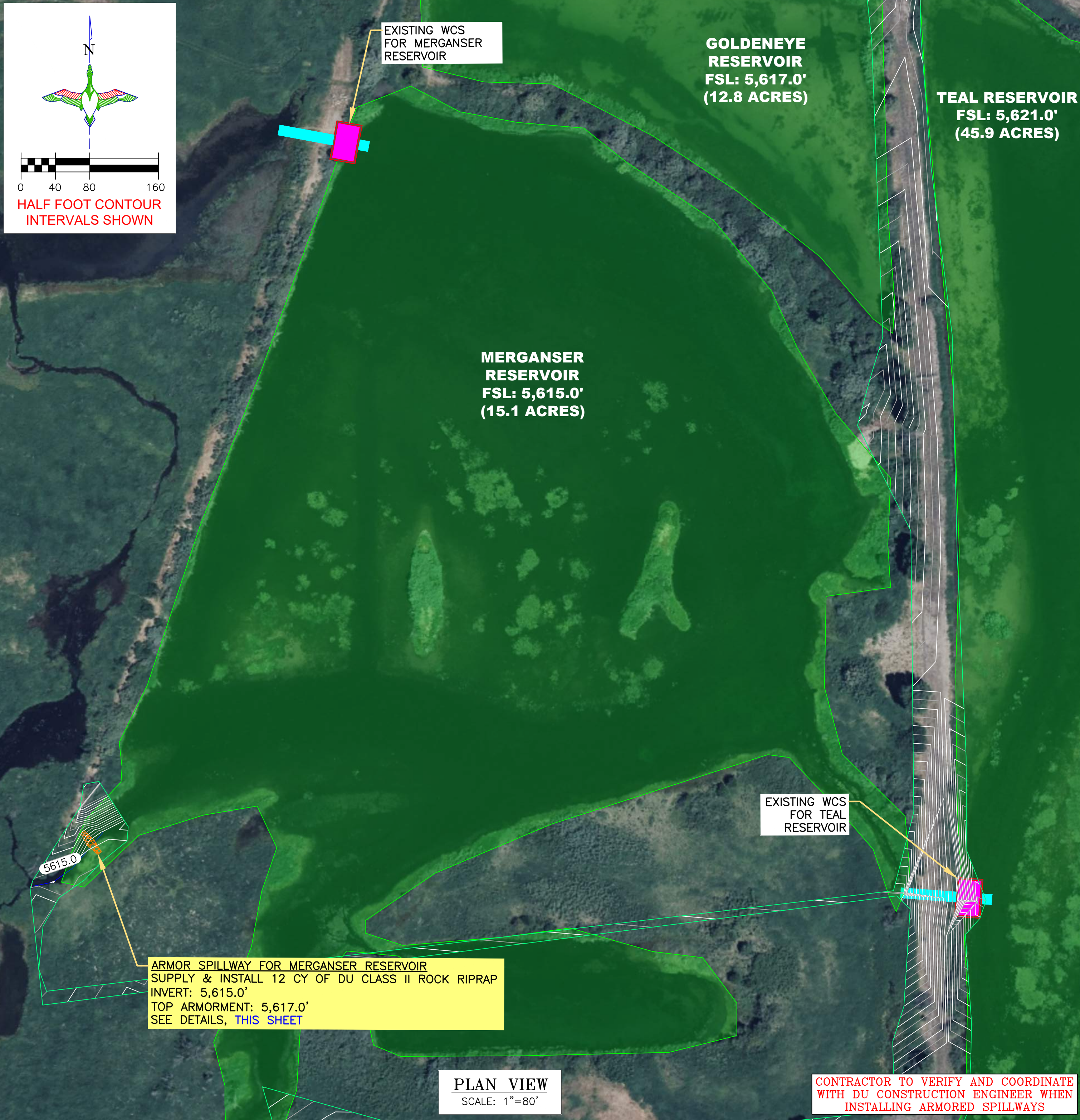
- PROPERTY BOUNDARY
- FULL SERVICE LEVEL (FSL)
- RIPRAP
- WATER CONTROL STRUCTURE (AGRI-DRAIN)




ARMORED SPILLWAY SECTION CUT (MERGANSER RESERVOIR)
SCALE 1"=5'



ARMORED SPILLWAY PROFILE VIEW (MERGANSER RESERVOIR)
SCALE 1"=5'



PLAN VIEW
SCALE: 1"=80'



DUCKS
UNLIMITED
INC.

GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:

Professional Engineer (Civil)

KEVIN JAMES 15300

Warner

Date

WYOMING

DESIGNED BY: KJW

DRAWN BY: JWW

SURVEYED BY: TP

CHECKED BY:

APPROVED BY:

APPROVED BY:

REVISION:	DATE:	BY:
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PROJECT:

ALPINE WETLANDS

SHEET TITLE:

MERGANSER RESERVOIR
ARMORED SPILLWAY

DATE:

04/16/2025

SHEET TITLE:

MERGANSER
RESERVOIR
ARMORED
SPILLWAY

SCALES ARE ACCURATE ON
24"X36" SHEET SIZE

DU PROJECT NUMBER:

WY-178-1

SHEET NUMBER:

15

SHEET 15 OF 20

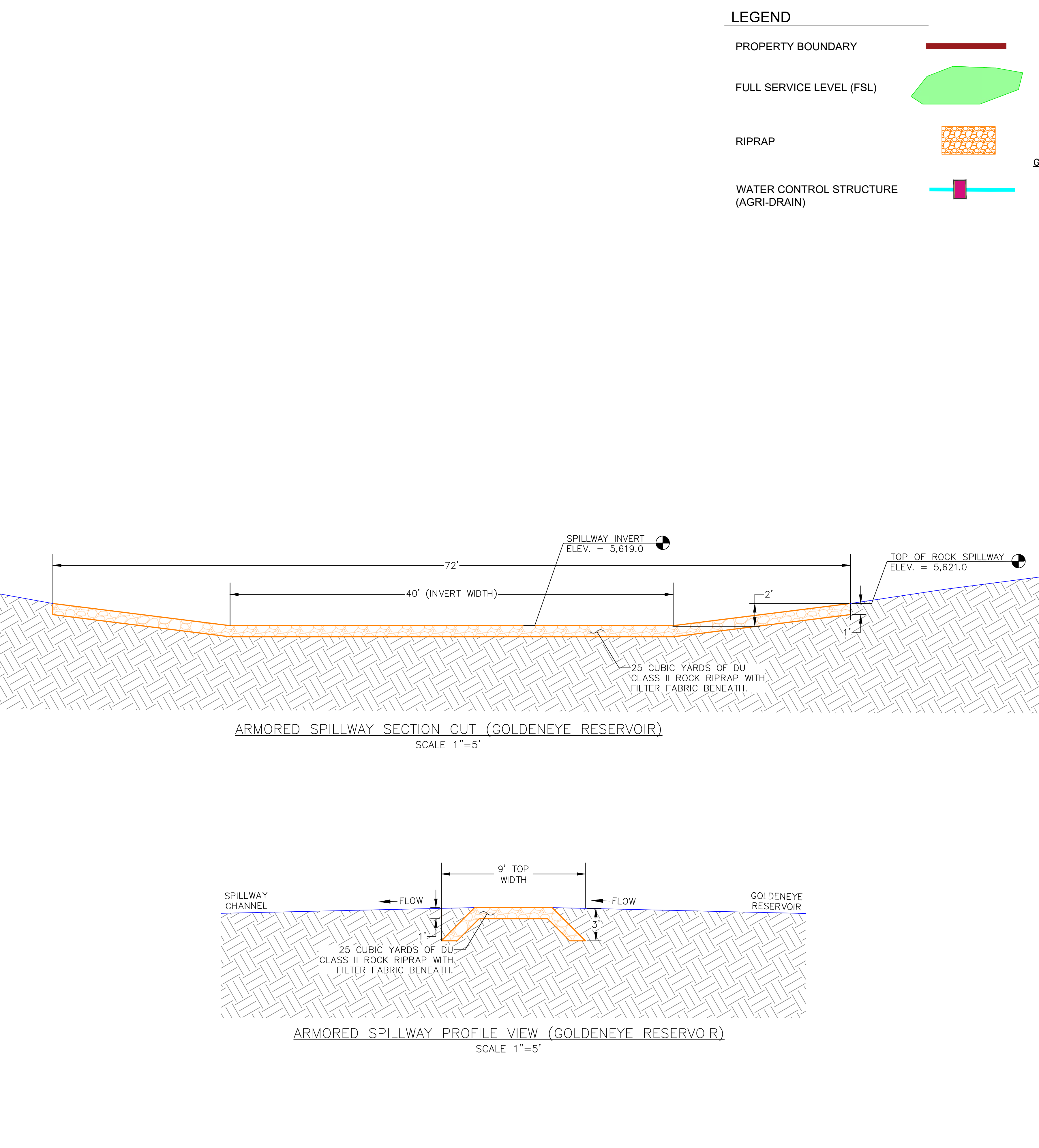
DU PROJECT ENGINEER:

THOMAS PARKER, P.E.

(970) 692-3375

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DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:

DESIGNED BY: KJW
DRAWN BY: JWW
SURVEYED BY: TP
CHECKED BY:
APPROVED BY:
APPROVED BY:

REVISION:	DATE:	BY:
1		
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PROJECT: ALPINE WETLANDS

SHEET TITLE: GOLDENEYE RESERVOIR ARMORED SPILLWAY

DATE: 04/16/2025

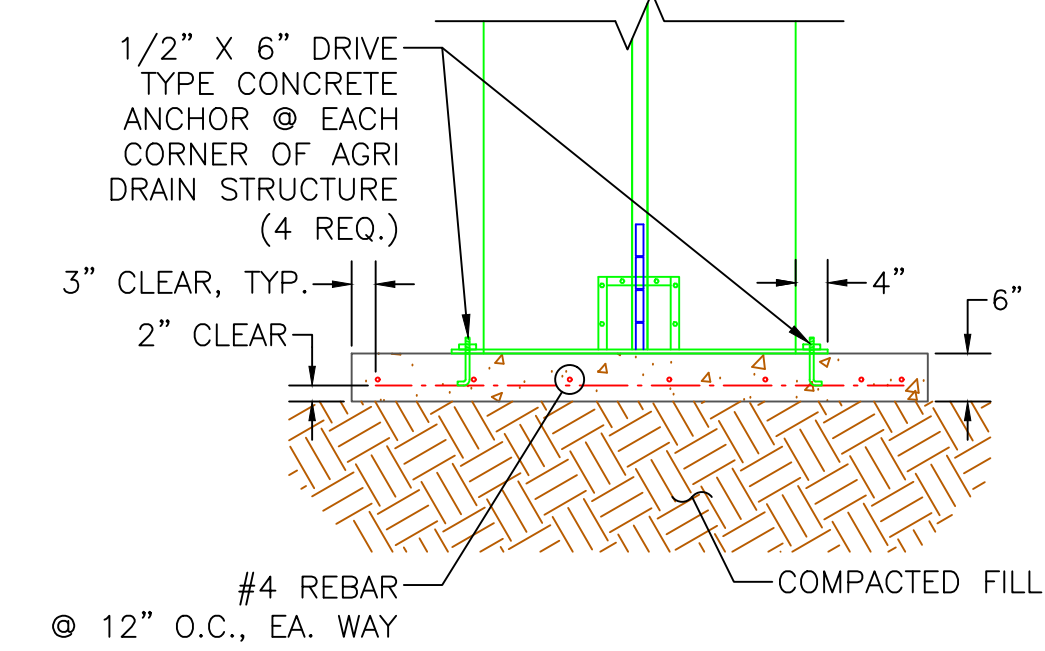
SHEET TITLE: GOLDENEYE RESERVOIR ARMORED SPILLWAY

SCALES ARE ACCURATE ON 24"x36" SHEET SIZE

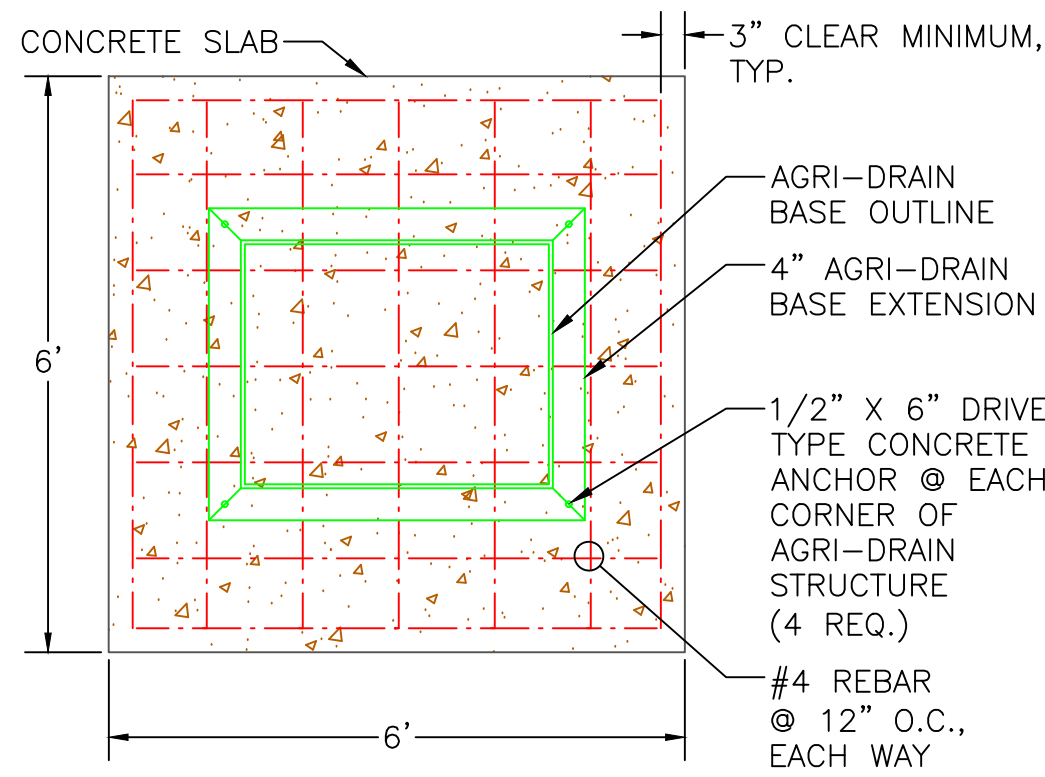
DU PROJECT NUMBER: WY-178-1

SHEET NUMBER: 16
SHEET 16 OF 20

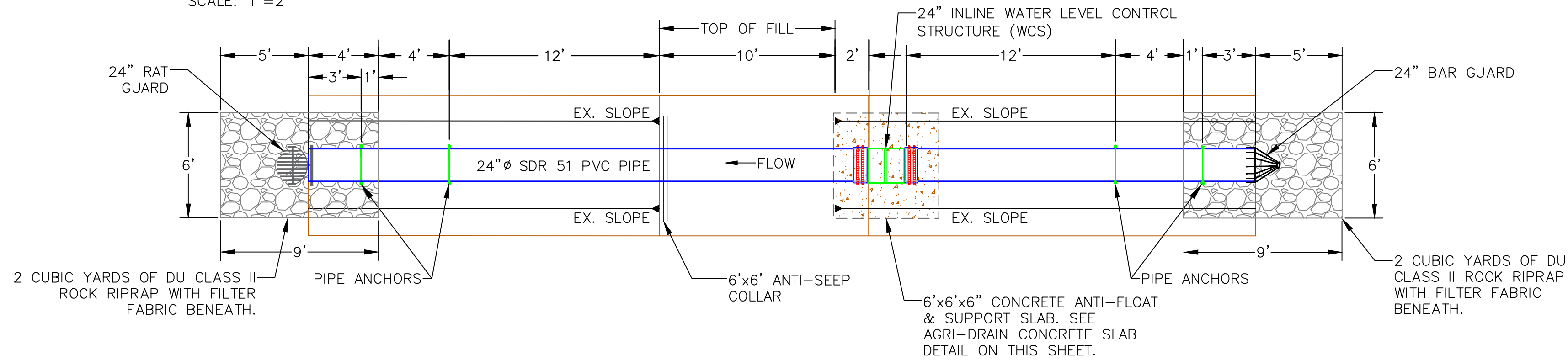
CONCRETE SLAB NOTES:
1. THE CONCRETE SLAB OR APPROVED EQUAL AND ITS INSTALLATION WILL BE CONSIDERED INCIDENTAL TO BID ITEMS UNDER "WATER CONTROL STRUCTURE – SUPPLY & INSTALL".



AGRI DRAIN CONCRETE SLAB PROFILE
SCALE: 1"=2'

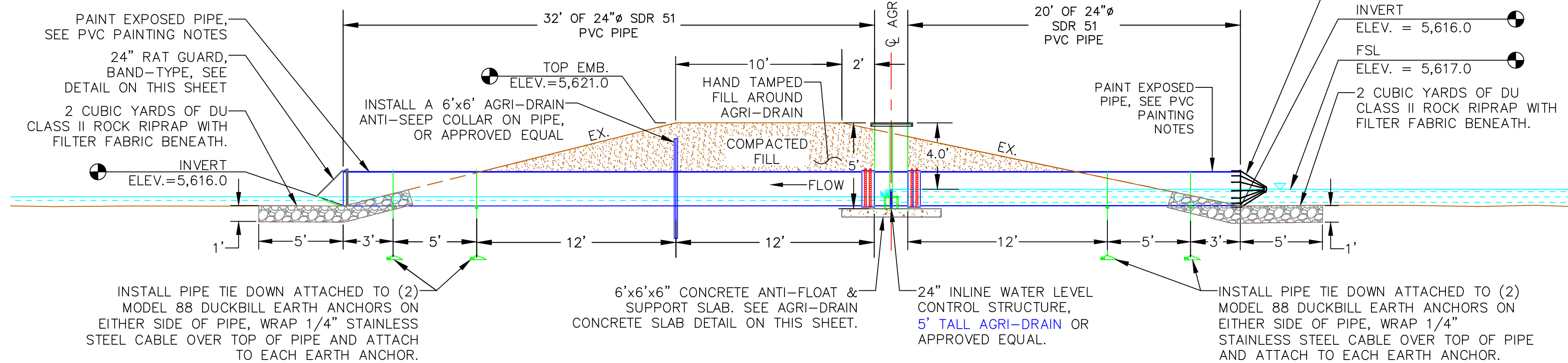


AGRI DRAIN CONCRETE SLAB PLAN
SCALE: 1"=2'



AGRI DRAIN STRUCTURE PLAN
SCALE 1"=5' (GOLDENEYE WCS)

PVC PAINTING NOTES:
1. PRIME THE PIPE WITH A LATEX PRIMER.
2. PAINT TWO COATS OF A BROWN ACRYLIC PAINT ON THE EXPOSED PORTIONS OF THE PVC PIPE.
3. PAINT TO BE SEALED ONTO THE PIPE WITH A CLEAR COAT.



AGRI DRAIN STRUCTURE PROFILE
SCALE 1"=5' (GOLDENEYE WCS)

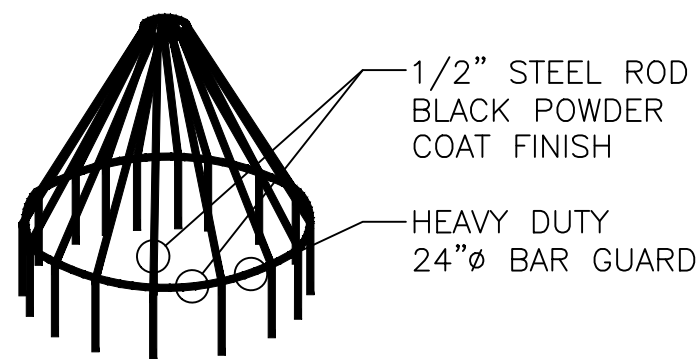
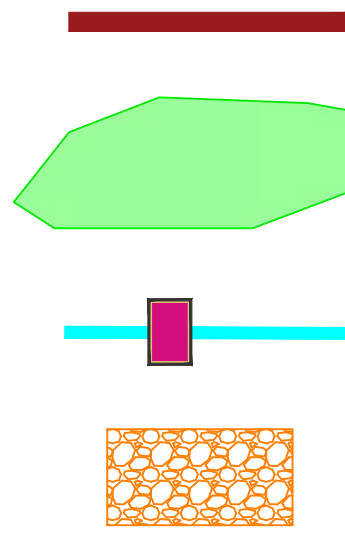
LEGEND

PROPERTY BOUNDARY

FULL SERVICE LEVEL (FSL)

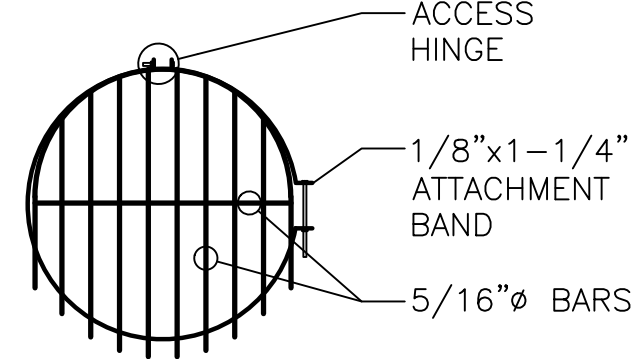
WATER CONTROL STRUCTURE (AGRI-DRAIN)

RIPRAP



HEAVY DUTY 24" BAR GUARD

NOT TO SCALE



24" RAT GUARD, BAND-TYPE

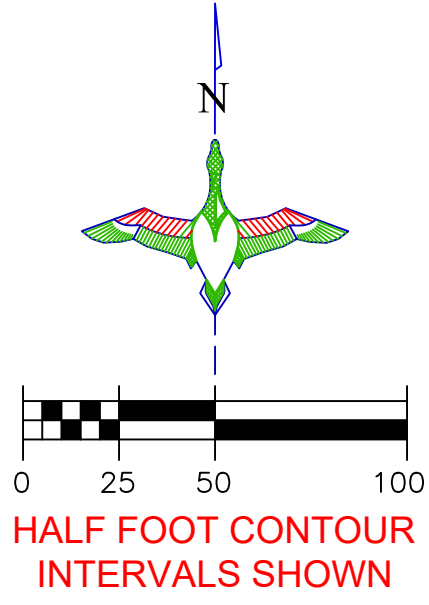
NOT TO SCALE

BAR GUARD/RAT GUARD INSTALLATION NOTES:

1. THE BAR GUARD/RAT GUARD OR APPROVED EQUAL AND ITS INSTALLATION WILL BE CONSIDERED INCIDENTAL TO BID ITEMS UNDER "WATER CONTROL STRUCTURE – SUPPLY & INSTALL".
2. BAR GUARD TO BE INSTALLED ON THE UPSTREAM LOCATION OF THE WCS.
3. RAT GUARD TO BE INSTALLED ON THE DOWNSTREAM LOCATION OF THE WCS.
4. AGRI DRAIN CORP. TELEPHONE NUMBER IS 1-800-232-4742.

REPLACE WCS FOR GOLDENEYE RESERVOIR
INSTALL AGRI-DRAIN (5-FT TALL)
W/ 52 LF OF 24"Ø SDR 51 PVC PIPE
W/ 4 CY OF DU CLASS II RIPRAP
EX UPSTREAM INVERT: 5,616.3'
EX DOWNSTREAM INVERT: 5,615.1'
PROPOSED INVERT: 5,616.0'
SEE DETAILS, THIS SHEET

LOWER & ARMOR SPILLWAY
FOR GOLDENEYE RESERVOIR
SEE SHEET 16



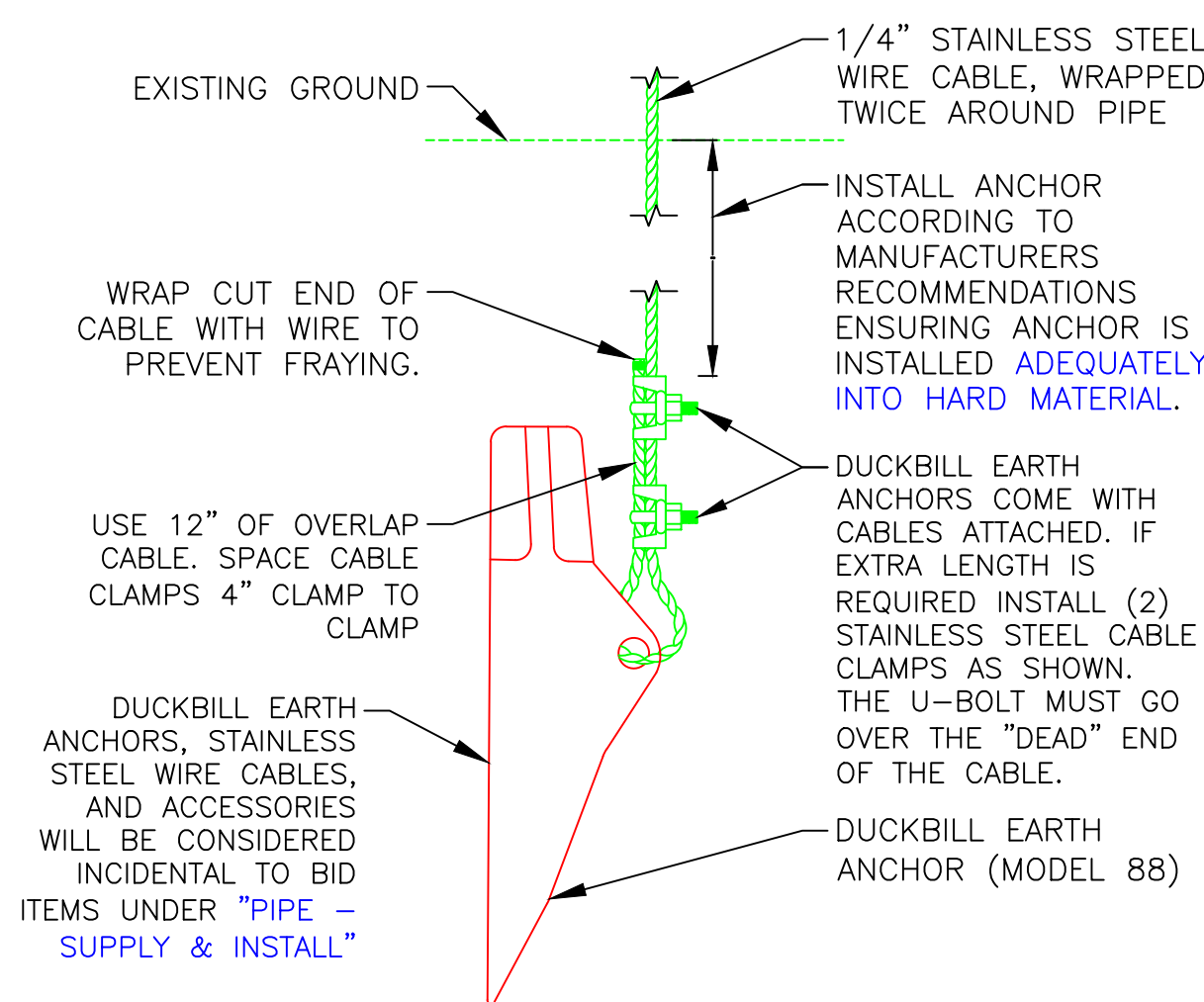
GOLDENEYE
RESERVOIR
FSL: 5,617.0'
(12.8 ACRES)

PLAN VIEW
SCALE: 1"=50'

CONTRACTOR TO VERIFY AND COORDINATE
WITH DU CONSTRUCTION ENGINEER WHEN
INSTALLING ANY STRUCTURE WORK

AGRI DRAIN STRUCTURE INSTALLATION NOTES:

1. STRUCTURE, CONCRETE BASE, INLET AND OUTLET PIPE SHALL BE PLACED ON A LEVEL SURFACE OF COMPACTED SOIL.
2. LEVEL STRUCTURE VERTICALLY PRIOR TO PLACING BACKFILL. BACKFILL AROUND STRUCTURE BY HAND IN 6" LIFTS. HAND TAMP ONLY. COST OF STRUCTURE INSTALLATION SHALL BE PAID AS BID ITEM "WATER CONTROL STRUCTURE – SUPPLY & INSTALL".
3. ANTI-SEEP COLLARS WILL BE CONSIDERED INCIDENTAL TO BID ITEMS UNDER "PIPE – SUPPLY & INSTALL".
4. AGRI DRAIN PVC STOP LOGS SHALL BE WATERTIGHT AND PROVIDED BY SUPPLIER.
5. STOP LOGS WILL BE CONSIDERED INCIDENTAL TO BID ITEMS UNDER "WATER CONTROL STRUCTURE – SUPPLY & INSTALL".
6. DUCKBILL EARTH ANCHORS, STAINLESS STEEL WIRE CABLES, AND ACCESSORIES WILL BE CONSIDERED INCIDENTAL TO BID ITEMS UNDER "PIPE – SUPPLY & INSTALL".
7. AGRI DRAIN CORP. TELEPHONE NUMBER IS 1-800-232-4742 SPECIFY SIZE AND TYPE OF PIPE WHEN ORDERING. ORDER BASE EXTENSION TO ALLOW ANCHORING OF AGRI DRAIN TO CONCRETE SLAB.



DUCKBILL EARTH ANCHOR (MODEL 88) DETAIL
NOT TO SCALE

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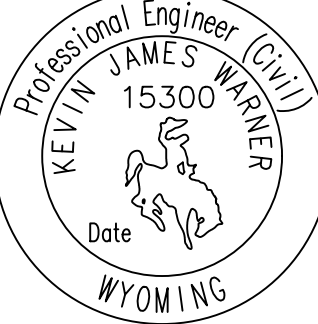
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DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375



GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:



DESIGNED BY: KJW

DRAWN BY: JWW

SURVEYED BY: TP

CHECKED BY:

APPROVED BY:

APPROVED BY:

DATE:

BY:

REVISION:

1

2

3

4

5

PROJECT:

ALPINE WETLANDS

SHEET TITLE:

GOLDENEYE WCS REPLACEMENT

DATE:

04/16/2025

SHEET TITLE:

GOLDENEYE WCS REPLACEMENT

SCALES ARE ACCURATE ON 24"X36" SHEET SIZE

DU PROJECT NUMBER:

WY-178-1

SHEET NUMBER:

17

SHEET 17 OF 20

AUTOMATED TRAFFIC SIGNALS



ROAD CLOSED SIGN

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OVERALL PLAN

SCALE: 1"=50'



ROAD GUIDE POST

LEGEND

- PROPERTY BOUNDARY
- REPLACE CULVERT
- TEMPORARY ROAD

ABBREVIATIONS LIST

- BLDC = BUILDING CORNER
BRK = BREAK
BTM. = BOTTOM
C.L. = CENTER LINE
CMP = CORRUGATED METAL PIPE ROUND
CMPA = CORRUGATED METAL PIPE ARCH
CONC. = CONCRETE
DIA. = DIAMETER
E = EASTING COORDINATE OR EAST
ELEV. = ELEVATION
EMB. = EMBANKMENT
EPAV = EDGE OF PAVEMENT
EX. = EXISTING
EXIST. = EXISTING
FES = FLARED END SECTION
FSL = FULL SERVICE LEVEL
GA. = GAUGE
G.W. = GUY WIRE
INV = INVERT
LAT = LATITUDE (WGS84)
LONG = LONGITUDE (WGS84)
L.F. = LINEAR FEET
MISC = MISCELLANEOUS
N = NORTHING COORDINATE OR NORTH
NFES = NON-FLARED END SECTION
O.C. = ON CENTER
- O.C.E.W. = ON CENTER EACH WAY
OHE = OVERHEAD ELECTRIC
P.C. = POINT OF INTERSECTION
P.I. = POINT OF INTERSECTION
P.T. = POINT OF TANGENCY
RCP = REINFORCED CONCRETE PIPE
RD = ROAD
REM. = REMOVE
REQ'D = REQUIRED
R.O.W. = RIGHT OF WAY
S = SOUTH
SED. = SEDIMENT
SHLD = SHOULDER
SLP = SLOPE
STPLG = STOPLOG
TBM = TEMPORARY BENCHMARK
TEL = TELEPHONE/COMMUNICATOINS
UG = UNDERGROUND
VEG = VEGETATION
W = WEST OR WITH
WCS = WATER CONTROL STRUCTURE
WL = WATER LEVEL
WS = WATER SHOT
- *NOTE: NOT ALL ABBREVIATIONS IN THIS LIST APPEAR ON THIS SHEET

GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:
Professional Engineer (Civil)
KEVIN JAMES
15300
Date
WYOMING

DESIGNED BY: KJW
DRAWN BY: JWW
SURVEYED BY: TP
CHECKED BY:
APPROVED BY:
APPROVED BY:

REVISION:	DATE:	BY:
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PROJECT:
ALPINE WETLANDS

SHEET TITLE:
TRAFFIC CONTROL PLAN

DATE:
04/16/2025

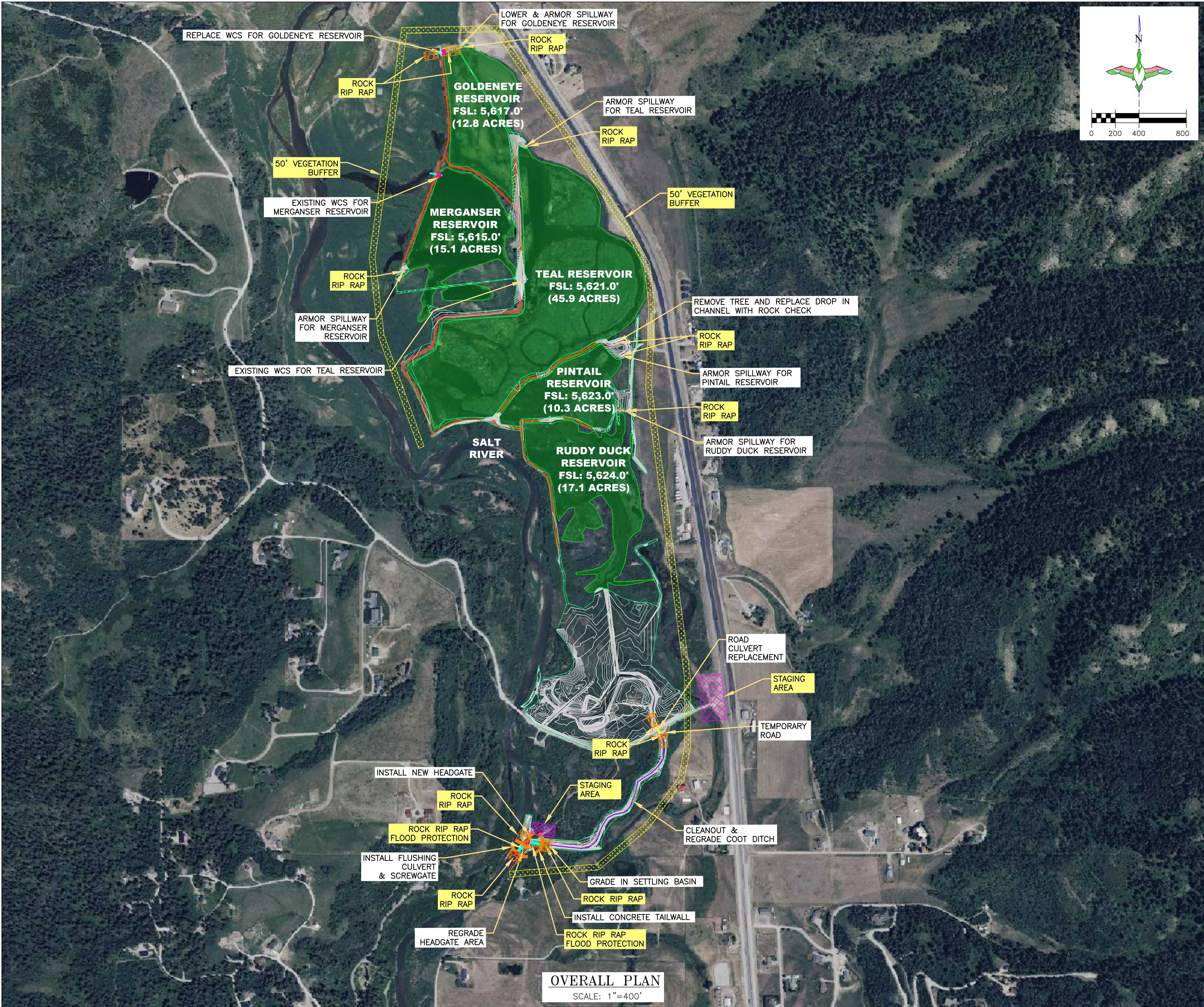
SHEET TITLE:
TRAFFIC CONTROL PLAN

SCALES ARE ACCURATE ON 24"x36" SHEET SIZE

DU PROJECT NUMBER:
WY-178-1

SHEET NUMBER:
18
SHEET 18 OF 20

DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375



LEGEND

- PROPERTY BOUNDARY
- FULL SERVICE LEVEL (FSL)
- EARTHWORK
- WATER CONTROL STRUCTURE (AGRI-DRAIN)
- CONCRETE HEADWALL/ TAILWALL
- SCREW GATE
- REINFORCED CONCRETE PIPE
- REPLACE CULVERT
- RIPRAP
- EXISTING CULVERT
- 50' VEGETATION BUFFER
- STAGING AREA

ABBREVIATIONS LIST

BLDC = BUILDING CORNER
BRK = BREAK
BTM. = BOTTOM
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UG = UNDERGROUND
VEG = VEGETATION
W = WEST OR WITH
WCS = WATER CONTROL STRUCTURE
WL = WATER LEVEL
WS = WATER SHOT

*NOTE: NOT ALL ABBREVIATIONS IN THIS LIST APPEAR ON THIS SHEET

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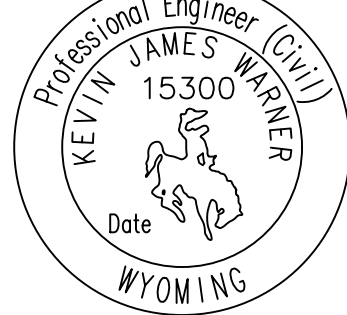
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DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375



GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:



DESIGNED BY: KJW
DRAWN BY: JWW
SURVEYED BY: TP
CHECKED BY:
APPROVED BY:
APPROVED BY:

REVISION:	DATE:	BY:
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PROJECT: ALPINE WETLANDS
SHEET TITLE: STORMWATER POLLUTION PREVENTION PLAN

DATE: 04/16/2025

SHEET TITLE: STORMWATER POLLUTION PREVENTION PLAN

SCALES ARE ACCURATE ON 24"x36" SHEET SIZE

DU PROJECT NUMBER: WY-178-1

SHEET NUMBER: 19
SHEET 19 OF 20

STORM WATER POLLUTION PREVENTION PLAN
WYPDES Permit # _____)
issued on ____/____/____ shall apply
for this project.

ABBREVIATIONS
WDEQ: Wyoming Department of Environmental Quality
WYPDES: Wyoming Pollution Discharge Elimination System
USFWS: United States Fish and Wildlife Service
SWMP: Storm Water Management Plan

LOCATION/NARRATIVE
Location: See Sheet 1 for the location of this project.
Project Limits: See Sheet 2 of this plan for the project limits. This sheet covers the earthwork, water control structures and rock riprap.

PROJECT CONTACTS
SWPPP Administrator:
Thomas Parker, P.E.
Ducks Unlimited
Cell: 970-692-3375
Email: tparker@ducks.org

The Contractor is responsible for implementation of the SWPPP and installation, inspection and maintenance of the erosion prevention and sediment control BMP's before and during construction.

Contractor Name:_____
Company:_____
Telephone Number:_____
Email:_____

SPILL NOTIFICATION
In the event of a spill, the contractor's site superintendent will make the appropriate notificiaton(s), consistent with the following procedures:
1. A reportable spill is a quantity of 25 gallons of petroleum which must be reported immediately to the DEQ Water Quality Division.
2. Any spill of oil or hazardous substance to waters of the state must be reported immediately.
3. Wyoming Department of Environmental Quality's Spill and Complaint:
DEQSpills.wyo.gov -or- 24 Hour (307) 777-7781
4. Within 7 days following a release, submit a written report to the DEQ Water Quality Division describing the reportable release, the response, and the steps taken to prevent recurrence.

POTENTIAL POLLUTION SOURCES
Heavy machinery will be operated on the project site requiring the use of fuel trucks. Contamination due to fuel spills and oil leaks is possible due to the large volume of work being performed. Day to day cleaning and maintenance of equipment has the potential to impact stormwater quality. Delivery of site materials also has potential for impacting runoff quality. Another potential pollution source is sediment transport from earthwork.

POLLUTION PREVENTION MANAGEMENT MEASURES
• Solid Wastes (None anticipated):
Collected sediment, asphalt, and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with the DEQ Water Quality Division disposal requirements.
• Hazardous Materials (None anticipated):
Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with DEQ Water Quality Division regulations.
• Vehicle Washing:
External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on site.
• Concrete Washout Onsite (No concrete anticipated):
All liquid and solid wastes generated by concrete washout operation must be contained in a leak-proof containment facility or impermeable liner. A compacted clay liner that does not allow washout liquids to enter ground water is considered an impermeable liner. The liquid and solid wastes must not contact the ground, and there must not be runoff from the concrete washout operation or areas. Liquid and solid wastes must be disposed of properly and in compliance with DEQ Water Quality Division regulations. A sign must be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.

EROSION AND SEDIMENT CONTROLS
(Check all that apply)
• Stabilization Practices
• _____ Temporary or Permanent Seeding
• _____ Sod Placement
• _____ Planting
• _____ Mulching (Straw or Cellulose Fiber)
• _____ Erosion Control Blankets or Mats
• _____ ☒ Vegetation Buffer Strips
• _____ Roughened Surface (e.g. tracking)
• _____ Gabions-Gabion Mattress
• _____ ☒ Other: Rip Rap

Structural Temporary Erosion and Sediment Controls
• _____ Silt Fence
• _____ Temporary Berm
• _____ Temporary Slope Drain
• _____ Straw Wattles or Rolls
• _____ Diversion Channels/Swales
• _____ Channel Liners (TRM)
• _____ Stone Rip Rap Sheet
• _____ ☒ Rock Check Dams
• _____ Sediment Traps/Basins
• _____ ☒ Inlet Protection
• _____ ☒ Outlet Protection
• _____ Surface Inlet Protection
• _____ Curb Inlet Protection
• _____ Stabilized Construction Entrances
• _____ Other

DESCRIPTION OF CONSTRUCTION ACTIVITIES
The proposed construction activities will provide water level management to the site. Through this management more desirable wetlands will be created.

Major Soil Disturbing Activities (check all that apply):
• _____ ☒ Clearing & Grubbing
• _____ ☒ Grading & Shaping
• _____ ☒ Cutting & Filling
• _____ Other (describe):

ORDER OF CONSTRUCTION ACTIVITIES
(Stabilization measures shall be initiated as soon as possible, but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.)
• Install initial erosion and sediment control measures.
• Proceed with site grading and construction activities.
• Stabilize areas disturbed by construction activities with temporary erosion and sediment control measures.
• Install water control structure.
• Complete final grading.
• Complete permanent erosion and sediment control measures.

ESTIMATED PROJECT AREA QUANTITIES
Total Project Area: 189 Acres
Total Area to Be Disturbed: 4.8 Acres
Existing Impervious Area: 0.0 Acres
Proposed Impervious Area: 0.0 Acres

EXISTING GROUND COVER
Currently the site is mostly native grass and trees. There are six existing wetlands on-site. Water is managed in the reservoirs using water control structures.

NON-STORMWATER DISCHARGE
None.

RECEIVING WATER
Runoff from the site is retained by the existing reservoir outlet works. During a flooding event, water from the project area would ultimately drain into the Shoshone River.

STREAM CROSSINGS LOCATED WITHIN THE CONSTRUCTION SITE BOUNDARY
None.

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN
See the Erosion and Sediment Control notes and details on the Stormwater Pollution Prevention Plan sheets.

FINAL STABILIZATION AND LONGTERM STORMWATER MANAGEMENT
Following site construction, the goal is to achieve a stabilized cover condition to provide long-term stormwater protection. Stabilization is quantified by achieving uniform cover equal to 70% of the pre-disturbance condition. The post-construction condition of the site shall be that the majority of the disturbed area will be compacted soil and seeded. Once the seeding takes, this shall virtually eliminate erosion from the site. Permanent seeding with mulching is installed as needed. Drainage ditches, pans, and culverts shall be cleaned of debris and sediment. Repair eroded sloped or drainage paths by backfilling. Remove all silt fences following establishment of permanent stable vegetation.

CONSTRUCTION CHANGES
When changes are made to the construction project that will require alterations in the temporary erosion controls of the site, the Storm Water Pollution Prevention Plan (SWPPP) will be amended to provide appropriate protection to disturbed areas, all storm water structures, and adjacent waters. The SWPPP will be retained in a designated place for review over the course of the project.

DAILY STORMWATER POLLUTION PREVENTION PLAN LOG BOOK

SWPPP ADMINISTRATOR:
INSPECTOR: _____ DATE/TIME:

INSPECTION ITEMS:
• _____ Inlet Filters
• _____ Straw Bale Dikes
• _____ Silt Fence
• _____ Pond Outlet
• _____ Vehicle Tracking Pad
• _____ Pond Sediment
• _____ Surface Erosion
• _____ Riprap Structures
• _____ Drainage Pans

REPAIRS OR MAINTENANCE NEEDED:

REPAIRS OR MAINTENANCE MADE:

MAINTENANCE ITEMS:

CONTACTS MADE: _____ AGENCY:

MATERIALS HANDLING:
ITEMS DELIVERED:

ACTIONS TAKEN:

SPILL REPORTING:
MATERIAL SPILLED:

WHY MATERIAL SPILLED:

QUANTITY:

LOCATION:

WEATHER CONDITIONS:


SPILL START TIME: _____ SPILL STOP TIME: _____ AM/PM

CLEANUP METHOD:

DISPOSAL METHOD:

ENTER N/A IF ITEM IS NOT APPLICABLE TO THE SITE SWPPP.

MAINTENANCE AND INSPECTION
Maintenance and Inspection Practices
• Inspections will be conducted at least one time per week and after a storm event of 0.50 inches or greater.
• All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report or as soon as field conditions allow access.
• Where work has been suspended due to frozen ground conditions, the required inspections and maintenance must take place as soon as runoff occurs at the site or prior to resuming construction, whichever comes first.
• Where parts of the construction site have undergone final stabilization, but work remains on other parts of the site, inspections of the stabilized areas may be reduced to once per month.
• Silt fence will be inspected for depth of sediment and for tears in order to ensure the fabric is securely anchored. Sediment buildup will be removed from the silt fence when it reaches ½ of the height of the silt fence. All silt fences must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches ½ of the height of the fence.
• Sediment basins and traps will be checked. Sediment will be removed when the depth reaches approximately 50 percent of the structure's capacity.
• Check dams will be inspected for stability. Sediment will be removed when the depth reaches ½ the height of the dam.
• All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.
• Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of sediment being deposited by erosion.
• Construction site vehicle exit locations must be inspected for evidence of off-site sediment tracking onto paved surfaces. Tracked sediment must be removed from all off-site paved surfaces within 24 hours of discovery.
• Disturbed areas will be checked for stabilization. Stabilization measures shall be initiated as soon as construction activity in that portion of the site has temporarily or permanently ceased.
• The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the site, must be stabilized within 200 lineal feet from the property edge, or from the point of discharge into any surface water. Stabilization of the last 200 lineal feet must be completed within 24 hours after connection to a surface water.
• Stabilization of the remaining portions of any temporary or permanent ditches or swales must be completed within 14 days after connecting to a surface water and construction in that portion of the ditch has temporarily or permanently ceased.
• Temporary or permanent ditches or swales that are being used as a sediment containment system (with properly designed rock ditch checks, bio rolls, silt dikes, etc.) do not need to be stabilized. These areas must be stabilized within 24 hours after no longer being used as a sediment containment system.
• Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours after connection to a surface water.
• Discharge procedures for water control and dewatering operations will be inspected. If the water cannot be discharged to a sedimentation basin prior to entering the surface water, it must be treated with the appropriate BMPs, such that the discharge does not adversely affect the receiving water or downstream landowners.
• Inspection and maintenance reports will be completed for each site inspection, this form will also be used to document changes to the SWMP. The report shall include the date and amount of precipitation or snowmelt events that cause surface erosion. A copy of the completed inspection form will be filed with the SWMP documents.
• The Contractor's site superintendent is responsible for inspection. Maintenance and repair activities are the responsibility of the Contractor.



DUCKS UNLIMITED INC.

GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:
Professional Engineer (Civil)
KEVIN JAMES WARNER
15300
Date
WYOMING

DESIGNED BY: KJW
DRAWN BY: JWW
SURVEYED BY: TP
CHECKED BY:
APPROVED BY:
APPROVED BY:

BY:
DATE:
REVISION:

1	2	3	4	5	6	7	8
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PROJECT:
DATE:
SHEET TITLE:
DU PROJECT NUMBER:
SHEET NUMBER:

ALPINE WETLANDS
SWPPP NOTES

04/16/2025
SWPPP NOTES
20
SHEET 20 OF 20

SCALES ARE ACCURATE ON 24"X36" SHEET SIZE

WY-178-1

20
SHEET 20 OF 20

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"BEFORE YOU DIG"
BEFORE THE START OF CONSTRUCTION. THE OWNER OF ANY UTILITIES INVOLVED MUST BE NOTIFIED. THE EXCAVATOR/CONTRACTOR IS RESPONSIBLE FOR GIVING THIS NOTICE BY CALLING "ONE CALL OF WYOMING" AT 811. A 72 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU PROJECT ENGINEER:
THOMAS PARKER, P.E.
(970) 692-3375