

# REQUEST FOR BID

## PROJECT

Blanca Well Rehabilitations – Well #12 Redrill

## BACKGROUND

The Bureau of Land Management (BLM) is looking to increase yields in their well gallery at Blanca Wetlands, just north of Alamosa, CO. As part of this process, BLM and Ducks Unlimited are seeking bids to redrill Well #12 (WDID 3505605) located within the Blanca Wetlands Core Complex. Well #12 has a total current depth of 580-ft. BLM and Ducks Unlimited are requesting the selected contractor to redrill and replace the existing well infrastructure and extend the total depth of the well to the bottom of Layer 3 in the confined aquifer (approximately 950-ft). The optimal production rate for Well #12 is 500 gpm.

**Table 1** presents relevant information for the existing Well #58. **Appendix A** contains construction plans presenting site access, well location, infrastructure details, and construction notes/specifications.

**Appendix B** contains the well permit and completion report available.

Table 1 – Blanca Wells

Well Number	Well Permit	WDID	Completion Date	Lat, Long	Completion Depth (ft)	Perforated Casing Top (ft)	Casing Type	Casing Diameter (in)
12	48121-F	3505605	9/1/1981	37.564690, -105.718342	580	380	PVC	5

## SCOPE OF WORK

1. Plugging & Abandonment the Existing Well
2. Drilling Well Hole
3. Geophysical logging
  - From this evaluation the following will be determined:
    - i. The well depth.
    - ii. Identify water bearing zones.
    - iii. Pinpointing the depth of well screen.
    - iv. Identifying depth of plain casing.
4. Furnish and install plain casing
5. Furnish and install surface casing
  - Surface casing to be installed to a depth of 100-ft.
6. Furnish and install well screen
  - Well screens to be completed with modern and efficient factory slotted casing (stainless steel, wire wrapped well screen) and properly sized gravel pack.
7. Furnish and install dielectric coupler
  - Between plain casing and stainless steel screen
8. Well Grouting

- Grouting must be completed to the bottom of plain casing.
- 9. Furnish and install gravel packing
- 10. Well Testing
- 11. Furnish and install wellhead valve
  - The wellhead valve shall be of full port design and threaded to attach to the wellhead and allow for removal.
- 12. Furnish and install pump (500 GPM)
  - Contractor to design pump for a maximum of 500 GPM. Design to be cleared through DU/BLM before purchase and installation
- 13. Well Development
- 14. Water Distribution System (see construction plans in **Appendix A** for more information)

## SITE SHOWING

A site showing will be held at Blanca Wetlands on **Monday, June 29 at 2:00 pm MST**. Contractors to meet at the west entrance to Blanca Wetlands (**37.547069, - 105.729981**). See **Notice to Bidders** and **Appendix A** for a map showing the west entrance and well locations.

## BID & SCHEDULE

Please fill out the Bid Form document (all ten pages) including the bid tab and submit (delivery information below) by **Monday, July 13, 2026 at 1:00 pm MST**. BLM and DU will host a bid opening at the San Luis Valley BLM Field Office (1313 US-160, Monte Vista, CO 81144) beginning promptly at 1:00 pm MST on July 13, 2026.

If bid amount is over \$250,000, then:

- Mail bidding documents in sealed envelope to Thomas Parker at 2114 Midpoint Drive, Suite 1, Fort Collins, CO 80526
- or-
- Drop off bidding documents in sealed envelope to Taylor Applewhite at the San Luis Valley BLM Field Office at 1313 US-160, Monte Vista, CO 81144

If bid amount is under \$250,000, contractor can email bidding documents to Thomas Parker at [tparker@ducks.org](mailto:tparker@ducks.org).

Below is a reference for the bid tab included in the bid form. Call or email Thomas Parker with any questions (970-692-3375, [tparker@ducks.org](mailto:tparker@ducks.org)).

Item No.	Description	Quantity	Unit	Unit Price	Total Price
1.1	Mobilization	1	LS		
1.2	Intra-Mobilization (Mobilization Discount if both Well 58 and Well 12 redrills are won)	1	LS		
2	Site Preparation	1	LS		
<b>WATER WELL DRILLING</b>					
3.1	Plugging & Abandoning Existing Well	1	EA.		
3.2	Drilling Well Hole	950	L.F.		
3.3	Geophysical Logging	1	EA.		
3.4	Furnish & Install Plain Well Casing (12" Steel)	380	L.F.		
3.5	Furnish & Install Surface Well Casing (20" Steel)	100	L.F.		
3.6	Furnish & Install Well Screen (12" Stainless Steel)	570	L.F.		
3.7	Furnish & Install Dielectric Coupler 12"	1	EA.		
3.8	Well Grouting	1	EA.		
3.9	Furnish & Install Gravel Pack	1	EA.		
3.10	Well Testing	1	EA.		
3.11	Furnish & Install Wellhead Valve	1	EA.		
3.12	Furnish & Install Pump (500 gpm)	1	EA.		
3.13	Well Development	1	EA.		
3.14	Water Distribution System	1	LS		
				<b>TOTAL</b>	

# **APPENDIX A**

## **CONSTRUCTION PLANS**



# DUCKS UNLIMITED

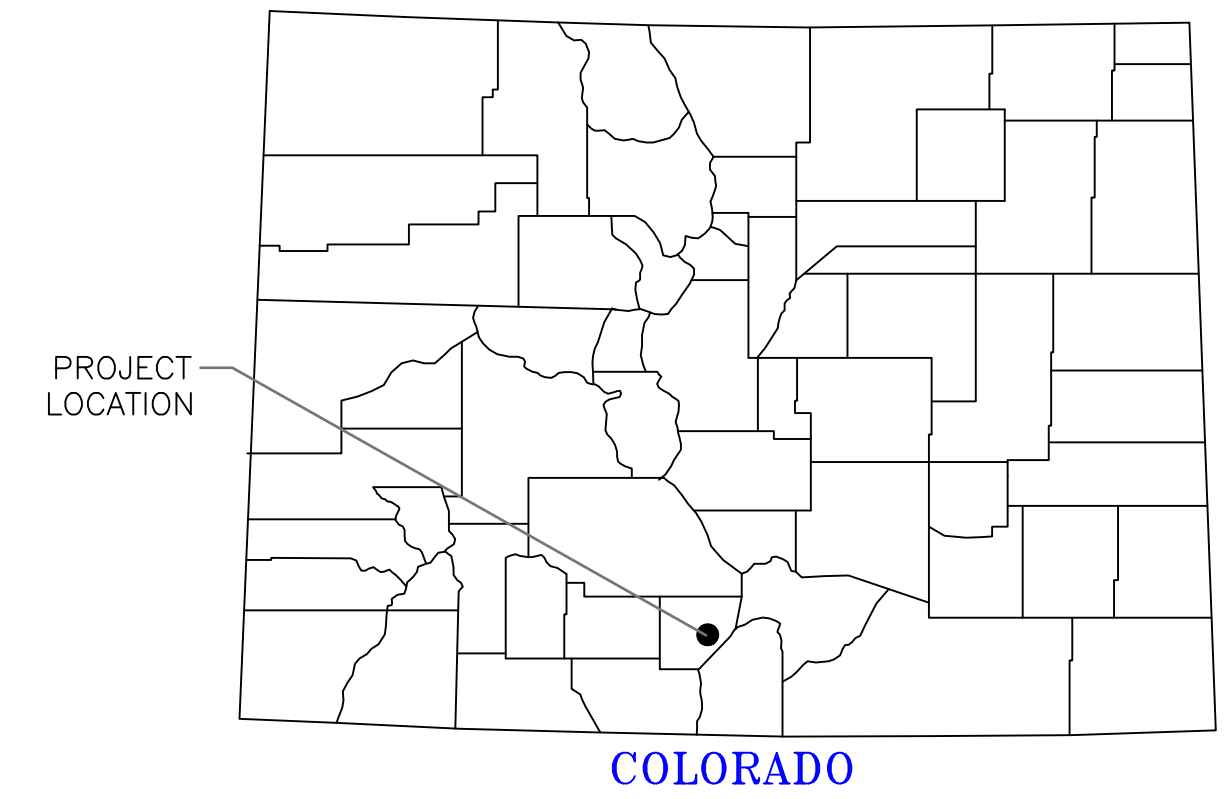
PROJECT

## BLANCA WETLANDS WELL REHABILITATION WELL 12 REDRILL

### CO-45-100

LOCATED IN PARTS OF  
SECTION (1), TOWNSHIP (38N), RANGE (11E)  
6TH P.M., ALAMOSA COUNTY, COLORADO

IN COOPERATION WITH  
BLM



### PLAN INDEX

- 1 TITLE PAGE & LOCATION MAP
- 2 OVERALL MAP & PHOTOS
- 3 PLAN
- 4 DETAILED PLAN & PROFILE
- 5 STRUCTURE DETAILS
- 6 NOTES

### SPECIFICATIONS

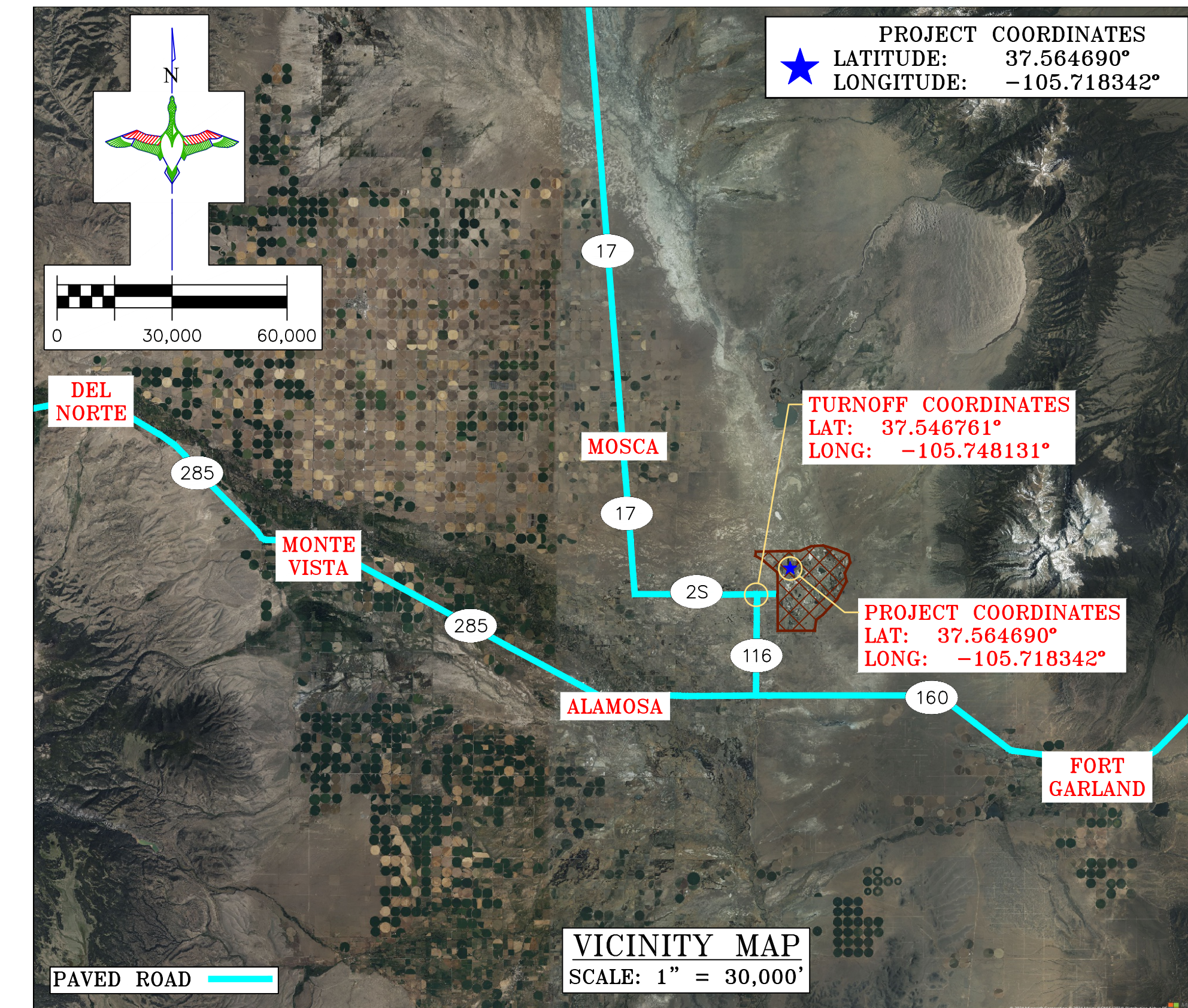
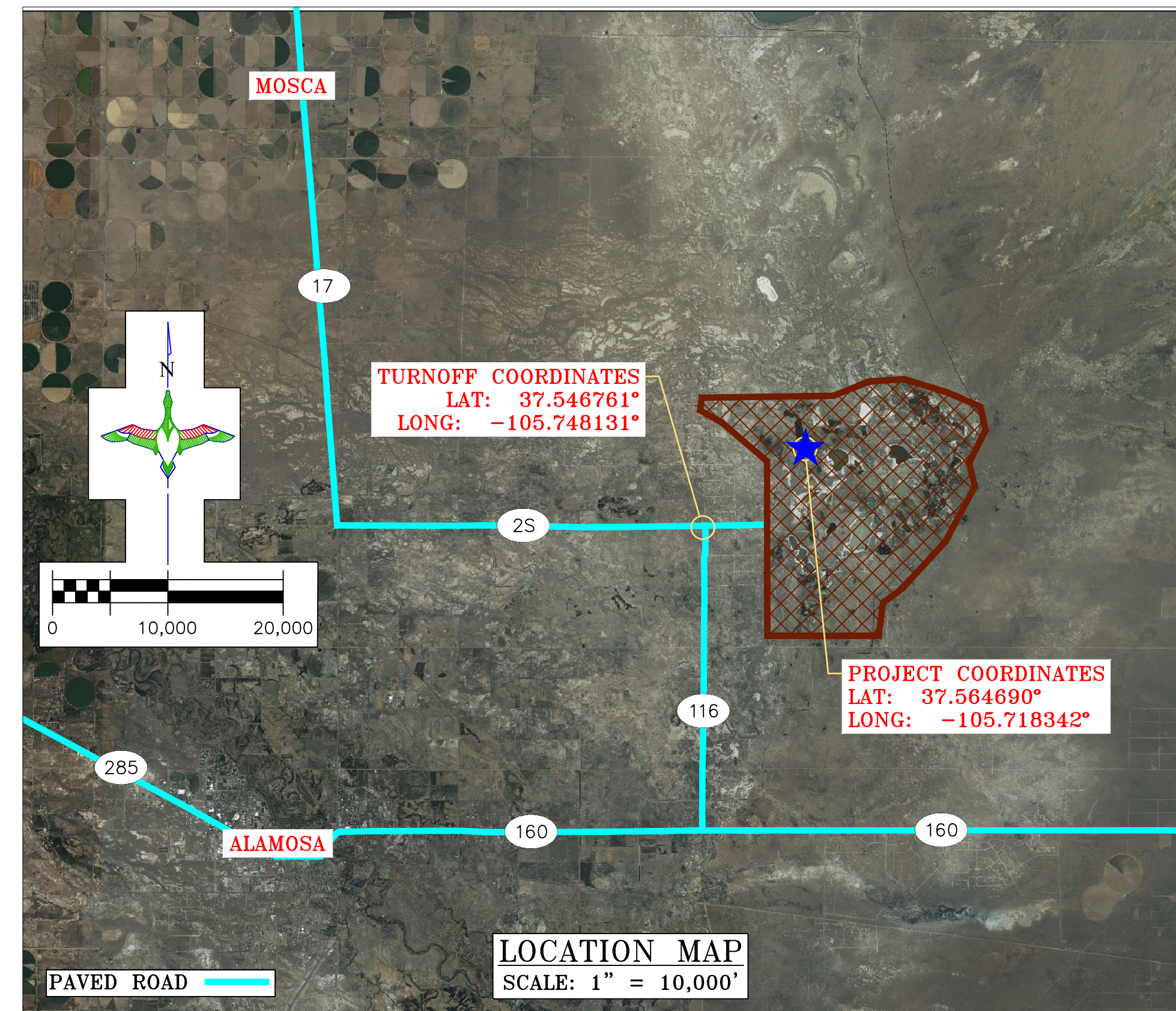
- 101 GENERAL CONDITIONS
- 102 SUPPLEMENTAL CONDITIONS
- 201 MOBILIZATION
- 202 SITE PREPARATION
- 302 STRUCTURE AND CULVERT APPURTENANCES
- 303 CULVERT AND PIPE INSTALLATION
- 305 RIPRAP, REVETMENT & AGGREGATE PLACEMENT
- 313 PUMP INSTALLATION
- 314 WATER WELL DRILLING

### ESTIMATED QUANTITIES

- MOBILIZATION:** 1 L.S.
- SITE PREPARATION:** 1 L.S.
- WATER WELL DRILLING:**
- PLUGGING & ABANDONING EXISTING WELL 1 EA.
  - DRILLING WELL HOLE 950 L.F.-A
  - GEOPHYSICAL LOGGING 1 EA.
  - FURNISH & INSTALL PLAIN WELL CASING 380 L.F.-A
  - FURNISH & INSTALL SURFACE WELL CASING 100 L.F.-A
  - FURNISH & INSTALL WELL SCREEN 570 L.F.-A
  - FURNISH & INSTALL DIELECTRIC COUPLER 1 EA.
  - WELL GROUTING 1 EA.
  - FURNISH & INSTALL GRAVEL PACK 1 EA.
  - WELL TESTING 1 EA.
  - FURNISH & INSTALL WELLHEAD VALVE 1 EA.
  - FURNISH & INSTALL PUMP (500 GPM) 1 EA.
  - WELL DEVELOPMENT 1 EA.
- WATER DISTRIBUTION SYSTEM** 1 L.S.
- ESTIMATED MATERIALS**
- 8"Ø PVC PIPE (SCH 40) - 600 L.F.
  - 6"Ø PVC PIPE (SCH 40) - 20 L.F.
  - 4"Ø PVC PIPE (SCH 40) - 20 L.F.
  - 90° STEEL FITTING (6"Ø) - 1 EA.
  - 90° PVC FITTING (6"Ø - SCH 40) - 1 EA.
  - 45° PVC FITTING (8"Ø - SCH 40) W/ THRUST BLOCK - 6 EA.
  - PVC TEE FITTING (8"Ø - SCH 40) W/ THRUST BLOCK - 2 EA.
  - PVC REDUCING TEE FITTING (8"Ø TO 6"Ø - SCH 40) W/ THRUST BLOCK - 1 EA.
  - PVC REDUCING TEE FITTING (8"Ø TO 1"Ø - SCH 40) W/ THRUST BLOCK - 1 EA.
  - 8" TO 4" REDUCER FITTING - 2 EA.
  - BUTTERFLY VALVE (8"Ø) - 1 EA.
  - BUTTERFLY VALVE (6"Ø) - 1 EA.
  - PVC GATE VALVE (8"Ø) - 3 EA.
  - 4" MAGMETER - 1 EA.
  - VALVE BOX - 1 EA.
  - METER BOX - 1 EA.
  - DRAIN BOX WITH 1" DRAIN PIPE AND BALL VALVE - 1 EA.
  - SPLITTER BOX #1 - 1 EA.
  - DU CLASS II ROCK RIPRAP - 6 C.Y.-P.

L.F.-A - PAYMENT WILL BE BASED ON ACTUAL QUANTITY EXCAVATED, FILLED, REGRADED, CLEANED OUT, OR SUPPLIED AND INSTALLED

C.Y.-P - PAYMENT WILL BE BASED ON THE PLAN QUANTITY LISTED ABOVE.



**"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 COLORADO" AT 811. A 72 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

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

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

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.



GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:

DESIGNED BY: TRP  
DRAWN BY: TRP  
SURVEYED BY: TRP  
CHECKED BY:  
APPROVED BY:  
APPROVED BY:

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

PROJECT: BLANCA WETLANDS - WELL 12 REDRILL  
SHEET TITLE: TITLE PAGE & LOCATION MAP

DATE: JUNE 2026

SHEET TITLE: TITLE PAGE & LOCATION MAP

SCALES ARE ACCURATE ON 24"X36" SHEET SIZE

DU PROJECT NUMBER: CO-45-100

SHEET NUMBER: 1  
SHEET 1 OF 6



**NO ACCESS TO THE BLANCA WETLANDS IS ALLOWED FROM MAY 15 TO JULY 15, OF ANY YEAR. THIS IS TO AVOID DISTURBING THE NESTING WILDLIFE.**

**"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 COLORADO" AT 811. A 72 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

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

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

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.



GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:

DESIGNED BY: TRP  
 DRAWN BY: TRP  
 SURVEYED BY: TRP  
 CHECKED BY:  
 APPROVED BY:  
 APPROVED BY:

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

PROJECT: **BLANCA WETLANDS - WELL 12 REDRILL**  
 SHEET TITLE: **OVERALL MAP & PHOTOS**

DATE: JUNE 2026  
 SHEET TITLE: **OVERALL MAP & PHOTOS**

SCALES ARE ACCURATE ON 24"X36" SHEET SIZE  
 DU PROJECT NUMBER: **CO-45-100**

SHEET NUMBER: **2**  
 SHEET 2 OF 6



GREAT PLAINS REGIONAL OFFICE

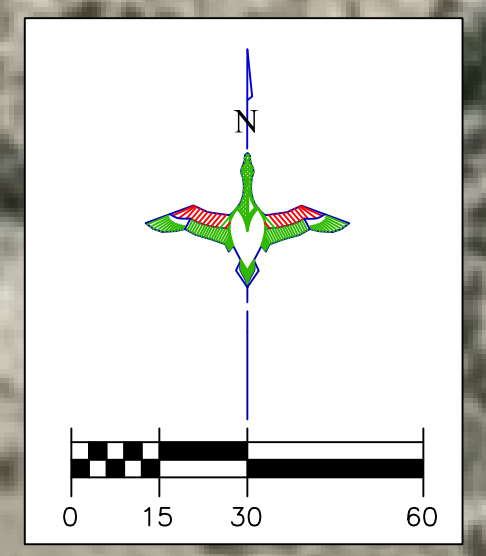
P.E. SEAL:

DESIGNED BY:	TRP
DRAWN BY:	TRP
SURVEYED BY:	TRP
CHECKED BY:	
APPROVED BY:	
APPROVED BY:	

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

PROJECT:	BLANCA WETLANDS - WELL 12 REDRILL
SHEET TITLE:	PLAN

DATE:	JUNE 2026
SHEET TITLE:	PLAN
SCALES ARE ACCURATE ON	24"x36" SHEET SIZE
DU PROJECT NUMBER:	CO-45-100
SHEET NUMBER:	3
SHEET	3 OF 6



THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

**"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 COLORADO" AT 811. A 72 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

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

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



GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:

DESIGNED BY: TRP  
 DRAWN BY: TRP  
 CHECKED BY: TRP  
 APPROVED BY:  
 APPROVED BY:

BY:  
 DATE:  
 REVISION:

1	
2	
3	
4	
5	
6	
7	
8	

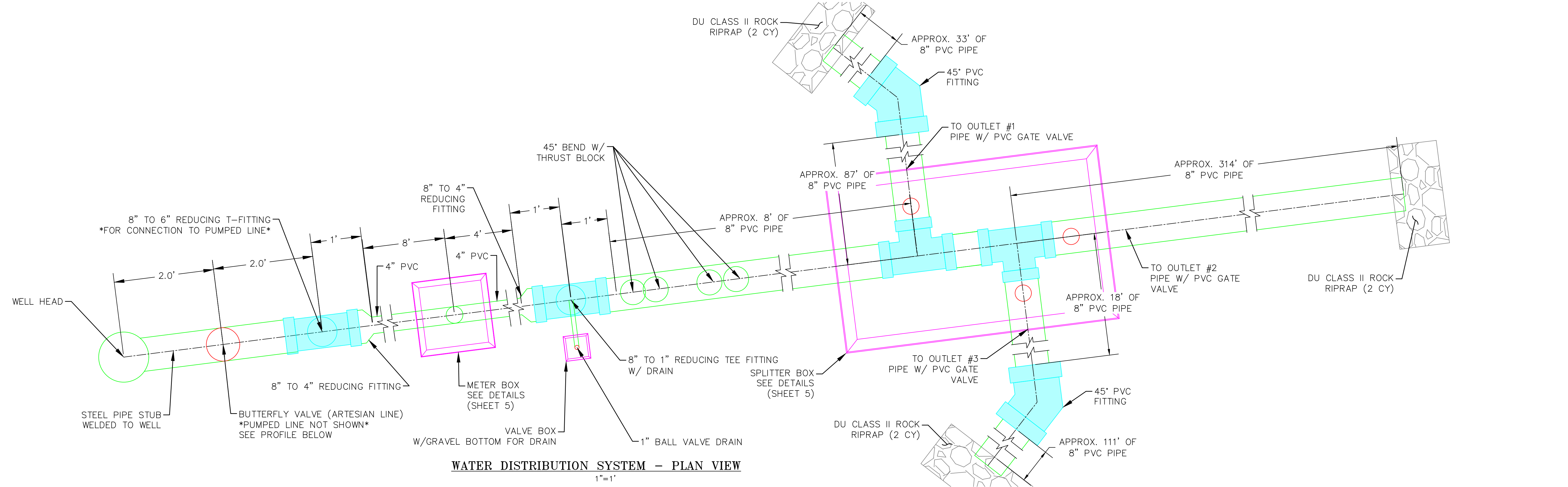
PROJECT: **BLANCA WETLANDS - WELL 12 REDRILL**  
 SHEET TITLE: **DETAILED PLAN & PROFILE**

DATE: JUNE 2026

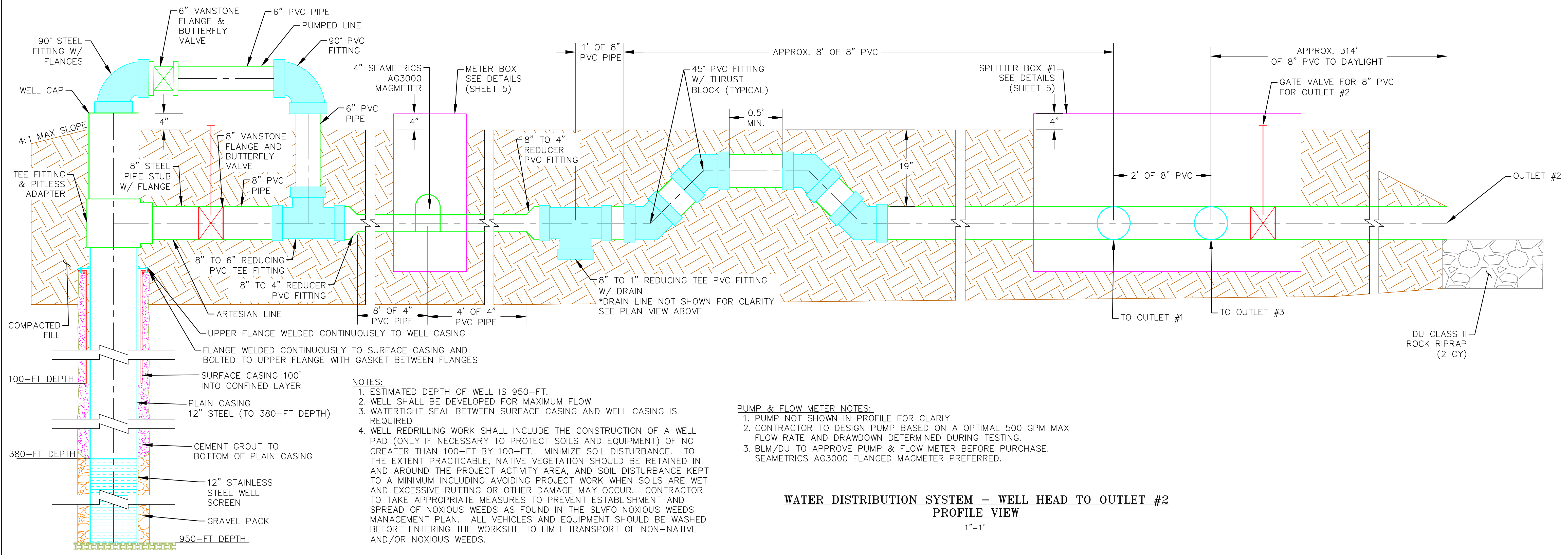
SHEET TITLE: **DETAILED PLAN & PROFILE**

SCALES ARE ACCURATE ON 24"X36" SHEET SIZE  
 DU PROJECT NUMBER: **CO-45-100**  
 SHEET NUMBER: **4**

SHEET 4 OF 6



**WATER DISTRIBUTION SYSTEM - PLAN VIEW**  
 1"=1"



**WATER DISTRIBUTION SYSTEM - WELL HEAD TO OUTLET #2**  
 PROFILE VIEW  
 1"=1"

- NOTES:**
1. ESTIMATED DEPTH OF WELL IS 950-FT.
  2. WELL SHALL BE DEVELOPED FOR MAXIMUM FLOW.
  3. WATERTIGHT SEAL BETWEEN SURFACE CASING AND WELL CASING IS REQUIRED
  4. WELL REDRILLING WORK SHALL INCLUDE THE CONSTRUCTION OF A WELL PAD (ONLY IF NECESSARY TO PROTECT SOILS AND EQUIPMENT) OF NO GREATER THAN 100-FT BY 100-FT. MINIMIZE SOIL DISTURBANCE. TO THE EXTENT PRACTICABLE, NATIVE VEGETATION SHOULD BE RETAINED IN AND AROUND THE PROJECT ACTIVITY AREA, AND SOIL DISTURBANCE KEPT TO A MINIMUM INCLUDING AVOIDING PROJECT WORK WHEN SOILS ARE WET AND EXCESSIVE RUTTING OR OTHER DAMAGE MAY OCCUR. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PREVENT ESTABLISHMENT AND SPREAD OF NOXIOUS WEEDS AS FOUND IN THE SLVFO NOXIOUS WEEDS MANAGEMENT PLAN. ALL VEHICLES AND EQUIPMENT SHOULD BE WASHED BEFORE ENTERING THE WORKSITE TO LIMIT TRANSPORT OF NON-NATIVE AND/OR NOXIOUS WEEDS.

- PUMP & FLOW METER NOTES:**
1. PUMP NOT SHOWN IN PROFILE FOR CLARITY
  2. CONTRACTOR TO DESIGN PUMP BASED ON AN OPTIMAL 500 GPM MAX FLOW RATE AND DRAWDOWN DETERMINED DURING TESTING.
  3. BLM/DU TO APPROVE PUMP & FLOW METER BEFORE PURCHASE. SEAMETRICS AG3000 FLANGED MAGMETER PREFERRED.

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

**"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 COLORADO" AT 811. A 72 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

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

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



GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:

DESIGNED BY: TRP  
 DRAWN BY: TRP  
 SURVEYED BY: TRP  
 CHECKED BY:  
 APPROVED BY:  
 APPROVED BY:

REVISION:

1	
2	
3	
4	
5	
6	
7	
8	

DATE:	
BY:	
DATE:	
BY:	
DATE:	
BY:	
DATE:	
BY:	

PROJECT: **BLANCA WETLANDS - WELL 12 REDRILL**  
 SHEET TITLE: **STRUCTURE DETAILS**

DATE: JUNE 2026

SHEET TITLE: **STRUCTURE DETAILS**

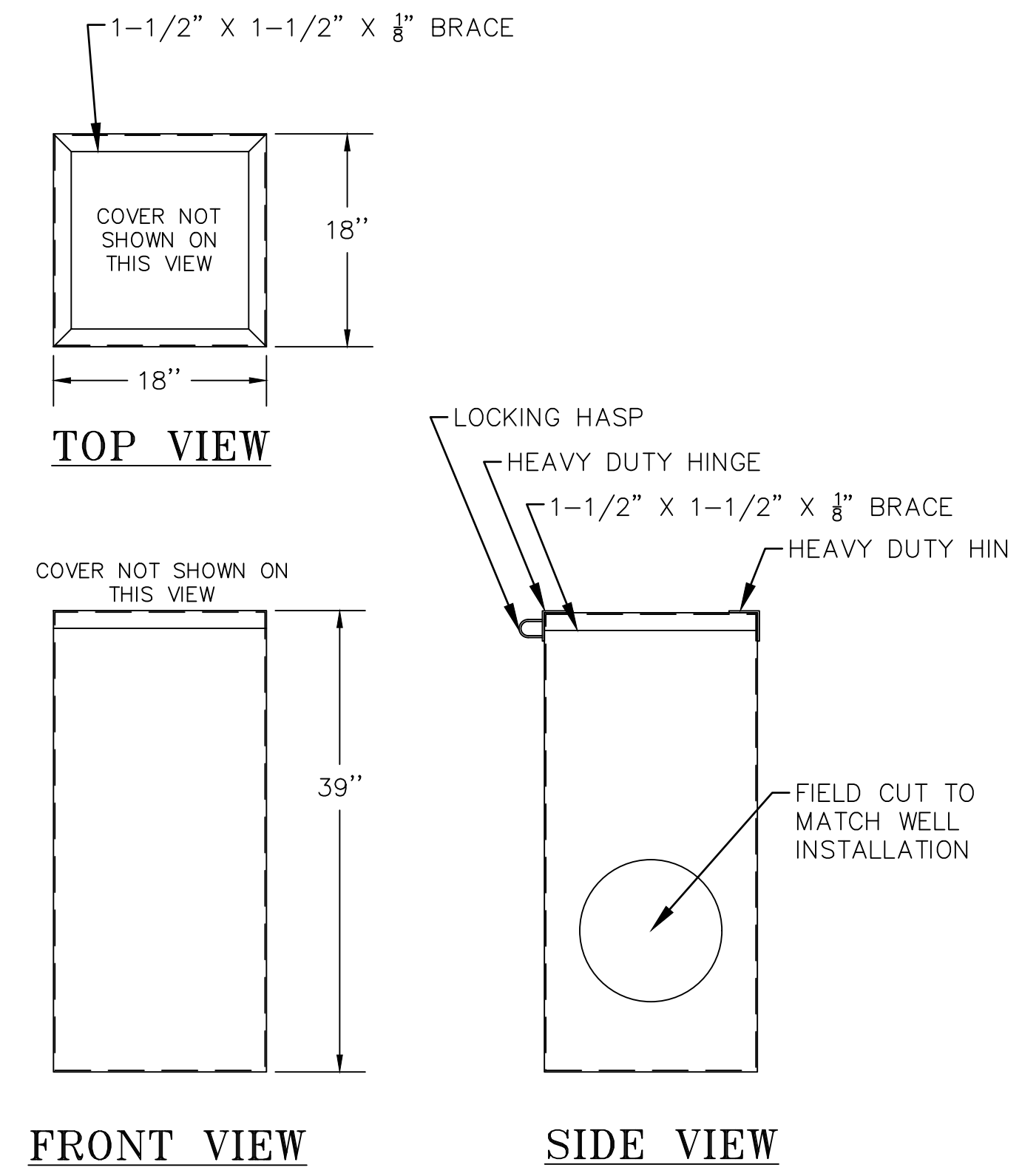
SCALES ARE ACCURATE ON 24"x36" SHEET SIZE

DU PROJECT NUMBER: **CO-45-100**

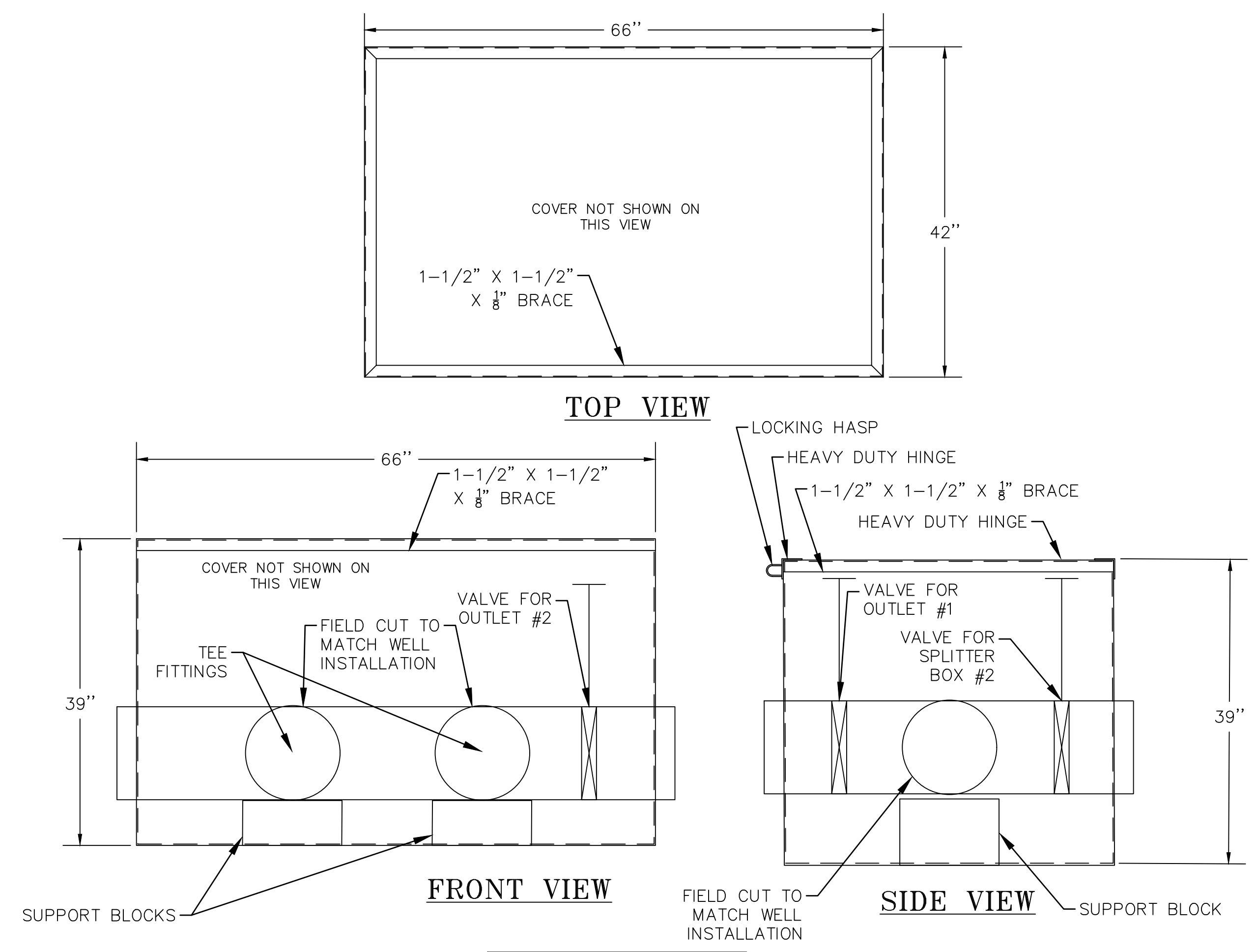
SHEET NUMBER: **5**  
 SHEET 5 OF 6

**NOTES:**

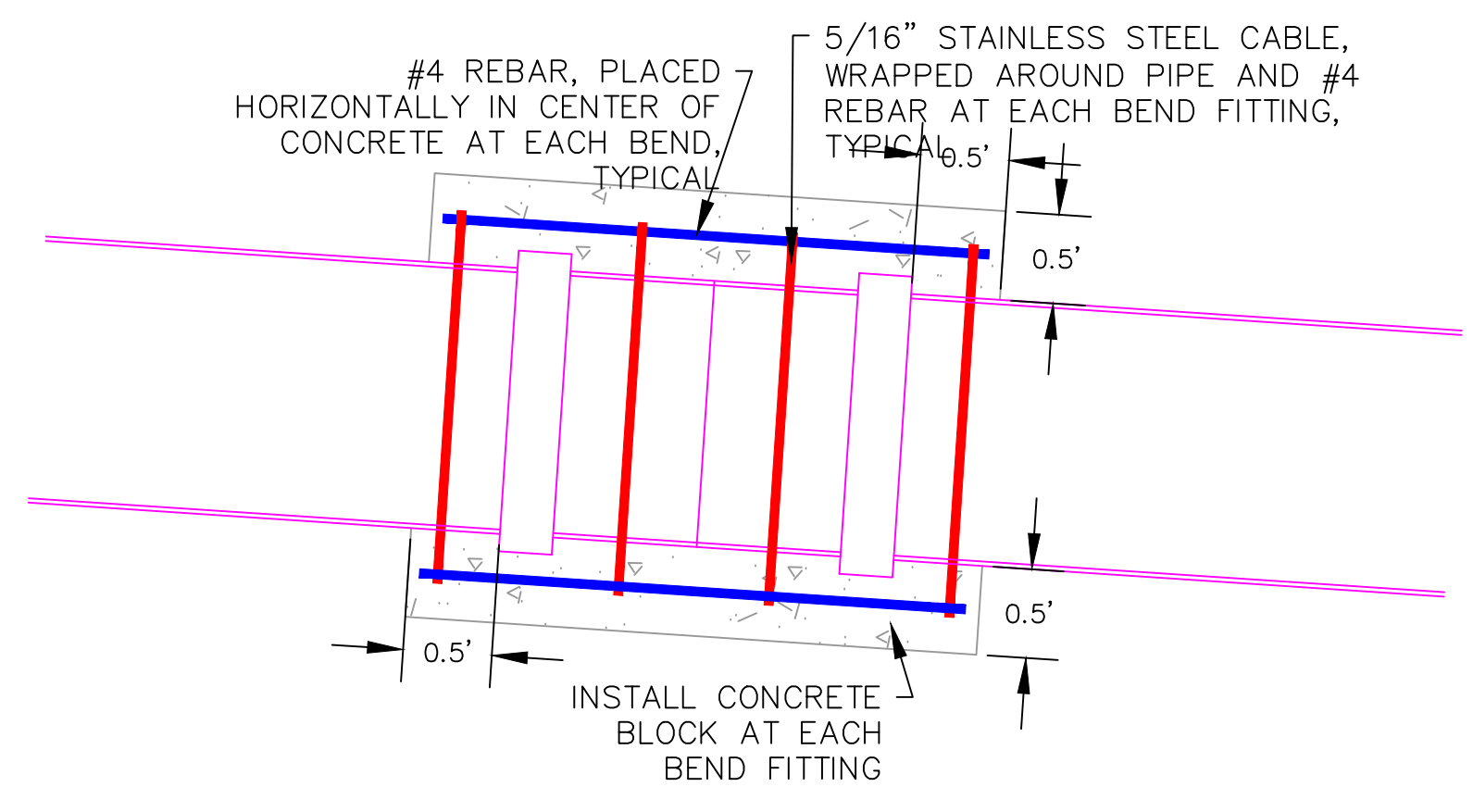
- ALL BOXES SHALL BE FABRICATED WITH 1/8" STEEL PLATE. ALL WELDS SHALL BE 1/8" FILLET WELDS. ALL WELDED SEAMS SHALL BE CONTINUOUS AND WATERTIGHT.
- STEEL BOXES SHOULD BE LOCKABLE. CONTRACTOR TO SUPPLY AND INSTALL LOCKING HASP ON BOTH VALVE AND METER BOXES. DU/BLM TO SUPPLY LOCKS AFTER INSTALLATION IS COMPLETE
- BOTTOM OF VALVE AND METER BOXES SHOULD BE LEFT OPEN AND GROUND SURFACE SHOULD BE COMPACTED TO ALLOW EASY ACCESS FOR MAINTENANCE IN THE BOXES.
- STEEL BOXES SHOULD BE HOT-DIPPED GALVANIZED.
- GALVANIZING AND FIELD WELDING COATING REQUIREMENTS:
  - HOT-DIP GALVANIZING IS THE PREFERRED CORROSION PROTECTION METHOD FOR ALL STEEL COMPONENTS, IDEALLY PERFORMED AFTER SHOP WELDING IS COMPLETED.
  - ALL UNGALVANIZED STEEL, INCLUDING WELDS, SHALL BE HOT-DIP GALVANIZED UNLESS OTHERWISE APPROVED.
  - FOR ANY FIELD WELDING PERFORMED ON GALVANIZED STEEL:
    - WELDED AREAS SHALL BE CLEANED OF SLAG AND CONTAMINANTS, THEN COATED WITH:
      - TWO (2) COATS OF ZINC-RICH PAINT (SUCH AS ZRC OR RUST-OLEUM COLD GALV), ACHIEVING A TOTAL DRY FILM THICKNESS OF 3-4 MILS.
      - THE PAINT USED MUST CONTAIN GREATER THAN 90% ZINC CONTENT IN THE DRY FILM.
    - THE CONTRACTOR SHALL ENSURE THAT MANUFACTURER-RECOMMENDED RECOAT TIMES ARE FOLLOWED, TYPICALLY 2 TO 20 HOURS BETWEEN COATS, TO ENSURE PROPER ADHESION AND COATING PERFORMANCE.



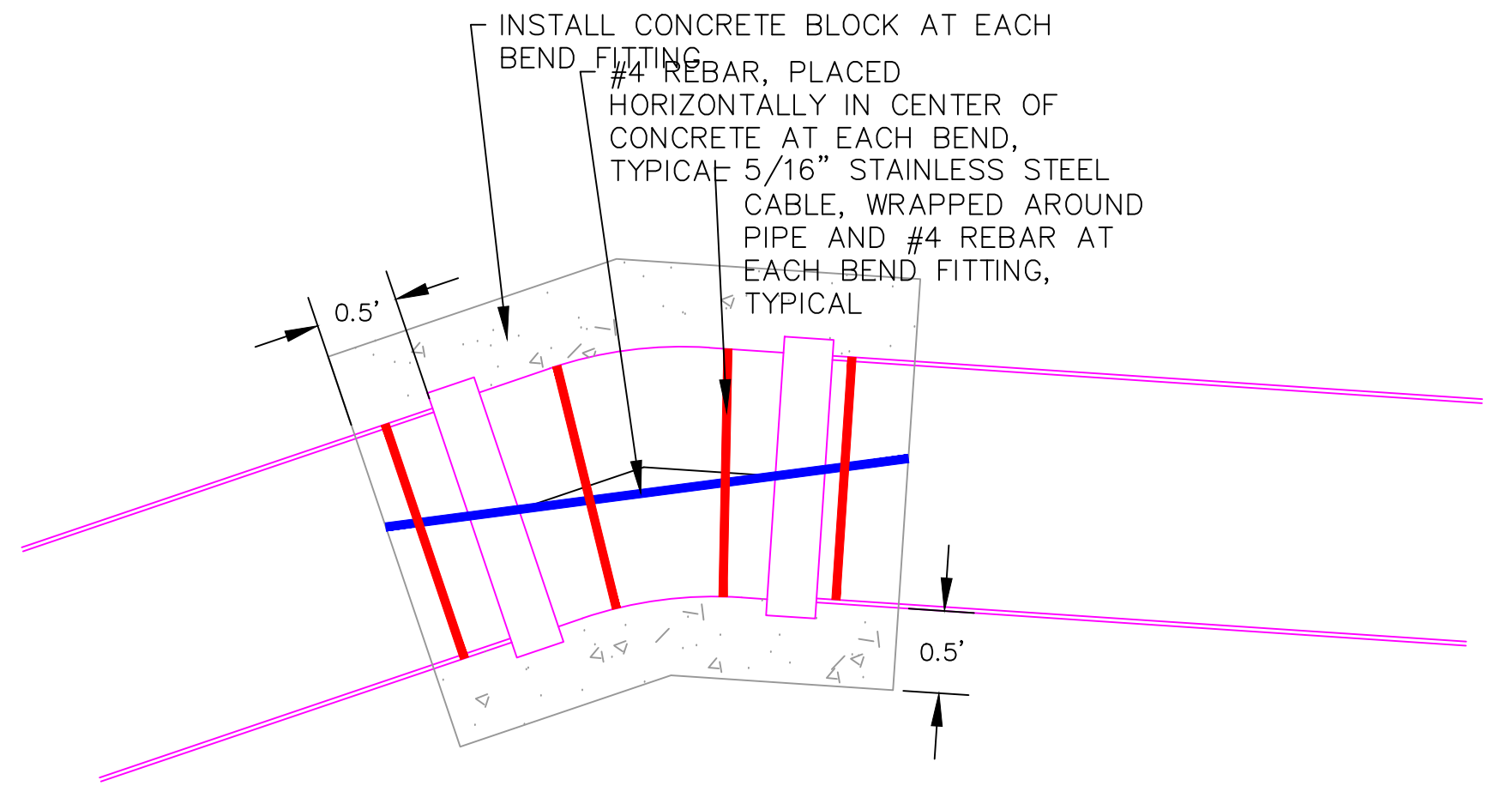
**METER & GATE VALVE BOX DETAILS**  
 SCALE: 1" = 1'



**SPLITTER BOX #1 DETAILS**  
 SCALE: 1" = 1'



**THRUST BLOCK DETAIL - PLAN**  
 NOT TO SCALE



**THRUST BLOCK DETAIL - PROFILE**  
 NOT TO SCALE

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

**"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 COLORADO" AT 811. A 72 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

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

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

**SPECIFICATIONS:**

- ALL WATER WELL WORK DONE UNDER THIS CONTRACT SHALL MEET OR EXCEED THE APPLICABLE SECTIONS OF THE MOST CURRENT VERSION OF THE STATE OF COLORADO "RULES AND REGULATIONS FOR WATER WELL CONSTRUCTION, PUMP INSTALLATION, CISTERN INSTALLATION AND MONITORING AND OBSERVATION HOLE/WELL CONSTRUCTION." HEREAFTER WILL BE KNOWN AS STATE OF COLORADO "CONSTRUCTION RULES 2 CCR 402-2". ADDITIONALLY, WATER WELL WORK DONE UNDER THIS CONTRACT SHALL MEET OR EXCEED APPLICABLE SPECIFICATIONS PRESENTED IN THE DUCKS UNLIMITED STANDARD CONSTRUCTION SPECIFICATIONS, IN PARTICULAR UNDER SECTION 314, WATER WELL DRILLING.

**GENERAL INFORMATION & NOTES:**

- CONTRACTOR TO FURNISH ALL LABOR, EQUIPMENT, SUPPLIES, AND MATERIALS, TO DRILL, CASE, CONSTRUCT, DEVELOP, AND TEST ONE ARTESIAN WATER WELL. ADDITIONALLY, THERE SHALL BE ONE ARTESIAN WATER WELL PLUGGED AND ABANDONED. WORK SHALL ALSO INCLUDE FURNISHING AND INSTALLING A PROPELLER FLOW METER, GATE VALVE, AND REQUIRED PIPING TO CONNECT THE NEW WELL TO NEW PIPING (CONTRACTOR FURNISHED). THE WELL SHALL BE SET UP WITH A WELLHEAD HAVING A FLOWING WELL PITLESS ADAPTER AND A FULL PORT WELLHEAD VALVE THAT ARE SUCH THAT THERE WILL BE CLEAR HOLE OPEN ACCESS AVAILABLE FOR FUTURE WELL MAINTENANCE WORK THAT WILL ALLOW ISOLATION OF THE WELL, PERIODIC SHUT-IN PRESSURE TESTS, AND OPEN WELL FLOW TESTS.
- WHERE A CONFLICT OCCURS BETWEEN REFERENCE DOCUMENTS AND PROJECT SPECIFICATIONS, THE PROJECT SPECIFICATIONS SHALL GOVERN. WHEN A CONFLICT BETWEEN PROJECT SPECIFICATIONS AND STATE OF COLORADO "CONSTRUCTION RULES 2 CCR 402-2" THE STATE OF COLORADO "CONSTRUCTION RULES 2 CCR 402-2" SHALL PREVAIL.
- BLM WILL PROVIDE THE NEW WELL PERMITS.

**PROJECT/SITE CONDITION NOTES:**

- ENVIRONMENTAL CONSIDERATIONS: CONTRACTOR SHALL, TO THE EXTENT FEASIBLE, PRESERVE PLANT LIFE AND OTHER NATURAL FEATURES WITHIN THE WORK SITE. CLEAN UP LITTER AND DISCARDED MATERIAL GENERATED BY THE CONSTRUCTION AND DISPOSE OF AT AN APPROVED SANITARY LANDFILL. DO NOT LEAVE ANY ITEMS LYING AROUND THAT CAN BE BLOWN AWAY BY THE WIND.
- CLEAN EQUIPMENT: ALL EQUIPMENT SHALL BE WASHED PRIOR TO ARRIVING AT THE BLANCA WETLANDS TO REMOVE ALL MUD AND DEBRIS, TO PREVENT THE SPREAD OF NOXIOUS WEEDS.

**GEOPHYSICAL LOGGING NOTES:**

- CONTRACTOR TO FURNISH A COMPLETE GEOPHYSICAL LOG. LOGGING SHALL FOLLOW COLORADO'S WATER WELL "CONSTRUCTION RULES 2 CCR 402-2. PRIOR TO RUNNING THE GEOPHYSICAL LOG, THE CONTRACTOR SHALL CEASE DRILLING AND CIRCULATE AND THOROUGHLY RECONDITION THE DRILLING FLUID. THE DRILL STRING SHALL BE REMOVED, AND THE LOGGING TOOLS SHALL BE IMMEDIATELY RUN INTO THE HOLE.

**PLUGGING & ABANDONMENT OF EXISTING WELL NOTES:**

- THE CONTRACTOR SHALL PLUG, SEAL, AND ABANDON THE EXISTING WELL FOLLOWING COMPLETION OF THE REPLACEMENT WELL. THE WELL SHALL BE ABANDONED IN ACCORDANCE WITH STATE REGULATIONS AND REQUIREMENTS, AND COLORADO'S WATER WELL CONSTRUCTION RULES 2 CCR 402-2. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING PIPES, VALVES, AND ACCESSORIES ATTACHED TO THE WELLHEAD THAT CANNOT BE REUSED WITH THE NEW WELL.

**DRILLING WELL HOLE NOTES:**

- DRILLING EQUIPMENT: THE WELL MAY BE DRILLED WITH AIR ROTARY, OR MUD ROTARY TECHNIQUES AS DETERMINED BY THE DRILLER. THE CONTRACTOR SHALL PROVIDE WITH THE BID THE PROPOSED METHOD OF DRILLING DETAILING THE EQUIPMENT TO BE USED TO DRILL THE WELL.
- SITE PREPARATION: SURFACE DISTURBANCE AT SITES SHALL BE MINIMIZED.
- WELL LOG: SHALL BE KEPT PER STATE OF COLORADO "RULES AND REGULATIONS FOR WATER WELL CONSTRUCTION, PUMP INSTALLATION, CISTERN INSTALLATION AND MONITORING AND OBSERVATION HOLE/WELL CONSTRUCTION." HEREAFTER WILL BE KNOWN AS COLORADO'S WATER WELL "CONSTRUCTION RULES 2 CCR 402-2". CONTRACTOR TO PREPARE AND SUBMIT REPORTS REQUIRED BY COLORADO'S WATER WELL "CONSTRUCTION RULES 2 CCR 402-2 FOR FILING ON WATER WELLS AND PREPARE AND SUBMIT REPORTS REQUIRED OF THE DRILLER BY STATE LAW.
- THE DU CONSTRUCTION ENGINEER WILL STAKE THE PROPOSED DRILLING LOCATION AND WATER DISTRIBUTION SYSTEM. THE NEW WELL WILL BE WITHIN 200 FEET OF THE EXISTING WELL. THE EXISTING (OLD) WELL SHALL BE ABANDONED AFTER EACH NEW WELL IS DRILLED AND PUT INTO PRODUCTION.

**PLAIN CASING NOTES:**

- THE HOLE SHALL BE CASED THE FULL DEPTH. THE HOLE SIZE SHALL BE ACCORDING TO STATE OF COLORADO WATER WELL CONSTRUCTION RULES 2CCR 402-2 REQUIRED FOR THE SELECTED CASING SIZE. THE PLAIN WELL CASING SHALL BE PLACED THROUGH THE SURFACE CASING. A FIGURE K PACKER SHALL BE INSTALLED BETWEEN THE WELL CASING AND THE SURFACE CASING. SURFACE CASING SHALL END JUST BELOW THE PITLESS UNIT.
- MATERIALS SPECIFIED SHALL BE NEW AND FREE FROM DEFECTS. NO USED OR OLD MATERIAL WILL BE ACCEPTED.

**SURFACE CASING NOTES:**

- SURFACE CASING TO BE INSTALLED TO A DEPTH OF 100-FT.
- MATERIALS SPECIFIED SHALL BE NEW AND FREE FROM DEFECTS. NO USED OR OLD MATERIAL WILL BE ACCEPTED.
- SURFACE CASING SHALL BE INSTALLED TO A MINIMUM 100 FEET DEPTH AND GROUTED IN ACCORDANCE WITH STATE OF COLORADO WATER WELL CONSTRUCTION RULES 2CCR 402-2.

**WELL SCREEN NOTES:**

- WELL SCREENS TO BE COMPLETED WITH MODERN AND EFFICIENT FACTORY SLOTTED CASING AND PROPERLY SIZED GRAVEL PACK.
- SELECT THE INSTALLATION METHOD, ACCORDING TO THE SCREEN MANUFACTURER'S RECOMMENDATIONS.
- SCREEN LENGTHS AND LOCATIONS SHALL BE DETERMINED BASED ON GEOPHYSICAL LOG DATA. THE SCREENS SHALL BE OF STAINLESS STEEL.

**WELL TESTING NOTES:**

- THE CONTRACTOR SHALL MAKE PRELIMINARY YIELD TESTS OR ESTIMATES DURING DRILLING OPERATIONS ON EACH WATER-BEARING STRATUM PENETRATED AS REQUESTED BY THE DU CONSTRUCTION ENGINEER AND ONLY IF THE TEST WILL NOT COMPROMISE THE BORE-HOLE INTEGRITY.
- AFTER THE WELL HAS BEEN COMPLETELY CONSTRUCTED AND CLEANED, THE CONTRACTOR SHALL MAKE PRELIMINARY YIELD TESTS DURING THE DEVELOPMENT OF THE WELL TO EVALUATE THE EFFECTIVENESS OF THE WELL DEVELOPMENT. SINCE THE WELLS ARE ANTICIPATED TO BE FLOWING, THESE TESTS WILL SIMPLY BE A MEASUREMENT OF THE DISCHARGE.
- AFTER THE WELL HAS BEEN COMPLETELY CONSTRUCTED AND DEVELOPED, THE CONTRACTOR SHALL MAKE A FINAL DETERMINATION OF THE WELL YIELD. THE CONTRACTOR SHALL PERFORM THE YIELD TEST IN THE PRESENCE OF THE CONTRACTING OFFICER'S REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE A ONE WORKING DAY NOTICE TO THE DU CONSTRUCTION ENGINEER PRIOR TO PERFORMING THE TEST.

**WELLHEAD VALVE NOTES:**

- THE WELLHEAD VALVE SHALL BE OF FULL PORT DESIGN AND THREADED TO ATTACH TO THE WELLHEAD AND ALLOW FOR REMOVAL. VALVES SHALL BE BRASS AND MEET THE REQUIREMENTS OF ANSI B 16.15-85.
- THE PITLESS UNIT SHALL BE AN APPROVED UNIT MEETING THE REQUIREMENTS OF COLORADO'S WATER WELL CONSTRUCTION RULES 2CCR 402-2. PITLESS UNIT SHALL BE OF A TYPE INTENDED TO BE INSTALLED IN THE WELL CASING USED ON THIS PROJECT. IT SHALL PROVIDE HORIZONTAL DISCHARGE AND VALVING AND ALLOW FULL PORT ACCESS THROUGH THE UNIT TO THE WELL BELOW.

**WELL DEVELOPMENT NOTES:**

- EACH WATER-BEARING AQUIFER TO BE USED FOR WELL PRODUCTION SHALL BE DEVELOPED BY HYDRAULIC JETTING. EACH WELL SHALL BE DEVELOPED TO OPTIMALLY PRODUCE A FLOW OF AT LEAST 200 GPM UP TO 500 GPM. DEVELOPMENT SHALL BE PERFORMED IN THE PRESENCE OF THE DU CONSTRUCTION ENGINEER.

**WATER DISTRIBUTION SYSTEM NOTES:**

- SEE SHEETS 3 & 4 FOR WATER DISTRIBUTION SYSTEM DETAILS. DU CONSTRUCTION ENGINEER TO STAKE OUT THE WATER DISTRIBUTION SYSTEM IN THE FIELD BEFORE INSTALLATION.
- WATER DISTRIBUTION SYSTEM WORK INCLUDES FURNISHING AND INSTALLING PVC PIPING, FLOW METER, AND GATE VALVE FOR WATER DISTRIBUTION PIPELINES TO CONVEY WATER TO AN EXISTING POND. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE SPECIFICATIONS, DRAWINGS AND AS STAKED IN THE FIELD. IT IS THE INTENT OF THESE SPECIFICATIONS TO PROVIDE A COMPLETE AND SATISFACTORY WORKING INSTALLATION TO DELIVER THE NEWLY DRILLED WELL WATER TO THE EXISTING POND.
- CONTRACTOR TO SUBMIT THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR THE MAGMETER EQUIPMENT ITEMS TO BE USED ON THIS PROJECT.
- CONTRACTOR TO COMPLETE AND SUBMIT FORM 3.1 - NOTICE OF TOTALIZING FLOW METER VERIFICATION AS PER STATE OF COLORADO STATE OF COLORADO WATER WELL CONSTRUCTION RULES 2 CCR 402-2.
- MAGMETER SHALL REGISTER IN US GPM. IT SHALL BE A SEAMETRICS AG3000 FLANGED-TYPE MAGMETER. THE REGISTER SHALL CONTAIN A MECHANICAL INSTANTANEOUS INDICATOR WITH THE OPTIONAL SEVEN-DIGIT TOTALIZER. THE FLOW METER SHALL HAVE A FLOW RANGE OF 6 TO 1,285 GPM.
- APPROXIMATELY 640 LF OF PVC PIPE WILL BE REQUIRED FOR THE WATER DISTRIBUTION SYSTEM. PVC PIPE WILL BE ADEQUATELY SIZED TO CONVEY THE YIELDS FROM THE WELL TESTING. DU CONSTRUCTION ENGINEER TO ASSIST WITH SELECTING A PVC PIPE DIAMETER AFTER THE WELL CASING DIAMETER IS SELECTED AND YIELDS TEST ARE COMPLETED. THE METER BOX SHALL BE 1/8-INCH STEEL PLATE PER SHEET 5. PRIME ALL STEEL SURFACES WITH MACROPOXY 646-100 FAST CURE EPOXY. PAINT THE STEEL BOXES WITH ACROLON 218 HS ACRYLIC POLYURETHANE. BOTH PRODUCTS ARE PROTECTIVE AND MARINE COATINGS FROM SHERWIN WILLIAMS. PRIME AND PAINT ACCORDING TO THE MANUFACTURER'S APPLICATION INSTRUCTIONS.
- TRENCHING ALIGNMENT SHALL BE STAKED IN THE FIELD BY THE DU CONSTRUCTION ENGINEER. CUT DEPTHS WILL BE INCLUDED ON THE STAKES TO MEET A MINIMUM GRADE OF 1%. TRENCHES SHALL BE FREE OF DEBRIS, MATERIAL, OR OBSTRUCTIONS THAT MAY DAMAGE PIPE.
- CONTRACTOR TO INSTALL PIPE, VALVES, AND COMPONENTS ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. INSTALL PIPES AT TEMPERATURES OVER 40 DEGREES FAHRENHEIT.
- GATE VALVE SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE BACKFILLED IN THE SAME MANNER AS THE PIPE.
- FLOW METER SHALL BE INSTALLED TO MANUFACTURER'S RECOMMENDATIONS. MINIMUM STRAIGHT PIPE DISTANCE SHALL BE INSTALLED AHEAD AND BEHIND THE METER AS RECOMMENDED BY THE MANUFACTURER. INSTALL METER UPSTREAM OF 45 DEGREE FITTINGS TO ENSURE FULL PIPE FLOW. INSTALL THE METER IN THE METER BOX IN SUCH A MANNER THAT THE METER HEAD ARE WITHIN THE METER BOX AND CONFIGURED TO ALLOW FOR FUTURE SERVICING.
- METER BOX SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS ON SHEET 5. BOX PENETRATION DIAMETERS SHALL BE NO GREATER THAN THE PIPE DIAMETER PLUS ONE INCH AND SHALL BE SEALED WITH RUB-R-NECK OR EQUAL, JOINT SEALANT IN ACCORDANCE WITH THE MANUFACTURERS' INSTALLATION INSTRUCTIONS. RUB-R-NEK SHALL BE PLACED ON BOTH SIDES OF THE BOX PENETRATION. HEAT MAY BE REQUIRED TO SOFTEN THE RUB-R-NEK FOR PLACEMENT. HAMMER FROM BOTH SIDES TO ASSURE THE SEALER FROM EACH SIDE OF THE PENETRATION ADHERES TO THE OTHER. BACKFILL MAY BE PLACED ONCE THE JOINT SEALANT IS IN PLACE.
- BACKFILL SHALL NOT BE PLACED UNTIL THE SEALER IS IN PLACE ON THE METER BOX PENETRATIONS. MINIMUM DEPTHS OF COVER ARE ONE FOOT. BACKFILL THE VALVE METER BOX TO 4 INCHES BELOW THE TOP OF THE BOX AND SLOPE THE BACKFILL AT A 4:1 SLOPE TO DAYLIGHT. DO NOT BACKFILL OVER THE LOCK. BACKFILL AROUND THE PIPELINES AND BOX TO PROVIDE STABLE SUPPORT FOR THE PIPES AS THEY ENTER AND EXIT THE BOX. THE CONTRACTOR SHALL SUPPORT PIPES AS NECESSARY TO PREVENT SHIFTING OF PIPES, VALVES, OR METERS WHEN BACKFILLING.
- LEAKAGE TEST: PRIOR TO BACKFILLING, THE CONTRACTOR SHALL TEST THE SYSTEM FOR LEAKAGE BY FLOWING WATER IN EACH LINE. RUN 100% OF THE WATER THROUGH EACH GATE VALVE FOR A MINIMUM OF 15 MINUTES TO ENSURE NO LEAKS.
- FLOW METER TEST: METER SHALL BE FUNCTIONAL AND OPERATIONAL. METERS SHALL PASS THE STATE REQUIRED FLOW VERIFICATION TEST WITH A CORRECTION FACTOR BETWEEN 0.950 AND 1.050 AS INDICATED IN FORM 3.1. THE TEST SHALL BE PERFORMED BY A STATE CERTIFIED FLOW METER TESTER IN ACCORDANCE WITH THE COLORADO STATE REGULATIONS.
- PRICES AND PAYMENT WILL BE FULL COMPENSATION FOR THE WORK TO INSTALL THE WATER DISTRIBUTION SYSTEM. PAYMENT WILL BE MADE FOR THE COMPLETE INSTALLATION OF ALL APPURTENANCES, GATE VALVES, VALVE BOXES, PIPELINES, METERS, METER BOXES TO COMPLETE THE PLUMBING OF THE WELL ACCORDING TO THE SPECIFICATIONS, DRAWINGS, AND STAKES IN THE FIELD.

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

**"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 COLORADO" AT 811. A 72 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.**

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

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



GREAT PLAINS REGIONAL OFFICE

P.E. SEAL:

DESIGNED BY: TRP  
 DRAWN BY: TRP  
 SURVEYED BY: TRP  
 CHECKED BY:  
 APPROVED BY:  
 APPROVED BY:

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

PROJECT: **BLANCA WETLANDS - WELL 12 REDRILL**

SHEET TITLE: **NOTES**

DATE: **JUNE 2026**

SHEET TITLE: **NOTES**

SCALES ARE ACCURATE ON 24"x36" SHEET SIZE

DU PROJECT NUMBER: **CO-45-100**

SHEET NUMBER: **6**  
 SHEET 6 OF 6

## **APPENDIX B**

# **WELL PERMIT AND COMPLETION REPORT**

FORM NO. GWS-10 03/92 STATE OF COLORADO OFFICE OF THE STATE ENGINEER 818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203 (303) 866-3581

For Office Use only

RECEIVED  
 AUG 06 1998  
 RECEIVED  
 WATER RESOURCES STATE ENGINEER COLO. JUN 10 1998  
 RECEIVED WATER RESOURCES STATE ENGINEER COLO. APR 15 1998  
 WATER RESOURCES STATE ENGINEER COLO.

FOR INSTRUCTIONS, SEE REVERSE SIDE

STATEMENT OF BENEFICIAL USE

WELL PERMIT NUMBER 48121-F

1. WELL OWNER

NAME(S) US Bureau of Land Management  
 Mailing Address 3170 E. MAIN  
 City, St. Zip Canon City Co 81212  
 Phone (719) 269-8500

2. WELL LOCATION: COUNTY Alamosa OWNER'S WELL DESIGNATION Blanca No. 12

(Address) (City) (State) (Zip)

SW 1/4 of the SE 1/4, Sec. 1 Twp. 38  N. or  S., Range 11  E. or  W. NM P.M.

Distances from Section Lines 1,140 Ft. from  N. or  S. Line, 1,950 Ft. from  E. or  W. Line.

3. The well is being used for the following purpose(s): See Exhibit 1 - submitted with the permit application.

4. Water from the well was first used beneficially under this permit number, for the above described purposes on 4-18 1997.  
 (Do not report a date which is before the issued date of this permit)

5. The pumping rate claimed is 69 gallons per minute.

6. The average annual amount of water diverted is 110 acre feet.

7. The land area irrigated (watered) by water from this well is: 31  Acres or  Square feet,  
 (Number)  
 described as: See Exhibit 2 (map) submitted with permit application;  
 (Legal Description)  
 or as Subdivision Lot(s) Block Filing/Unit

8. Well drilled by: U.S. Bureau of Land Management Lic. No: \_\_\_\_\_  
 Pump installed by: N/A - flowing well Lic. No: \_\_\_\_\_

9. Meter Mfg. by Serial No.: Date Installed:

I (we) have read the statements made herein, know the contents thereof, and state that they are true to my (our) knowledge. [Pursuant to Section 24-4-104 (13)(a) C.R.S., the making of false statements herein constitutes perjury in the second degree and is punishable as a Class 1 misdemeanor.]

10. Name/Title (Please type or print) Signature Date  
John L. Carochi John L. Carochi 8-4-98  
Resource Advisor BLM

FOR OFFICE USE ONLY

Accepted that those conditions of approval as stated on the permit are complied with.

Hal D. Simpson Sandy Johnson AUG 13 1998  
 State Engineer By Date  
 Court Case No. Div. 3 Co. 2 WD 35 Basin MD Use

NOV 16 '89

THIS FORM MUST BE SUBMITTED WITHIN 60 DAYS OF COMPLETION OF THE WORK DESCRIBED HEREON. TYPE OR PRINT IN BLACK INK.

COLORADO DIVISION OF WATER RESOURCES

1313 Sherman Street - Room 818  
Denver, Colorado 80203

WATER RESOURCES  
STATE ENGINEER  
COLO.

WELL COMPLETION AND PUMP INSTALLATION REPORT

PERMIT NUMBER 48121 F Blanca well No 12

WELL OWNER USDI - Bureau of Land Management SW 1/4 of the SE 1/4 of Sec. 1

ADDRESS 3170 E. Main Canon City, Co 81212 T. 38 N, R. 11 E, N M P.M.

DATE COMPLETED September 1, 1981

HOLE DIAMETER

8 in. from Ø to 580 ft.

\_\_\_\_\_ in. from \_\_\_\_\_ to \_\_\_\_\_ ft.

\_\_\_\_\_ in. from \_\_\_\_\_ to \_\_\_\_\_ ft.

DRILLING METHOD Rotary

CASING RECORD: Main Casing

Size 5" & kind PVC from Ø to 380 ft.

Size \_\_\_\_\_ & kind \_\_\_\_\_ from \_\_\_\_\_ to \_\_\_\_\_ ft.

Size \_\_\_\_\_ & kind \_\_\_\_\_ from \_\_\_\_\_ to \_\_\_\_\_ ft.

Perforated Casing

Size 5" & kind PVC from 380 to 580 ft.

Size \_\_\_\_\_ & kind \_\_\_\_\_ from \_\_\_\_\_ to \_\_\_\_\_ ft.

Size \_\_\_\_\_ & kind \_\_\_\_\_ from \_\_\_\_\_ to \_\_\_\_\_ ft.

GROUTING RECORD

Material No record available

Intervals \_\_\_\_\_

Placement Method \_\_\_\_\_

GRAVEL PACK: Size \_\_\_\_\_

Interval \_\_\_\_\_

TEST DATA

Date Tested September 1, 1981

Static Water Level Prior to Test Flowing well ft.

Type of Test Pump \_\_\_\_\_

Length of Test 24 hours

Sustained Yield (Metered) 90 GPM

Final Pumping Water Level \_\_\_\_\_

WELL LOG

From	To	Type and Color of Material	Water Loc.
		No Log Available	
TOTAL DEPTH <u>580</u>			

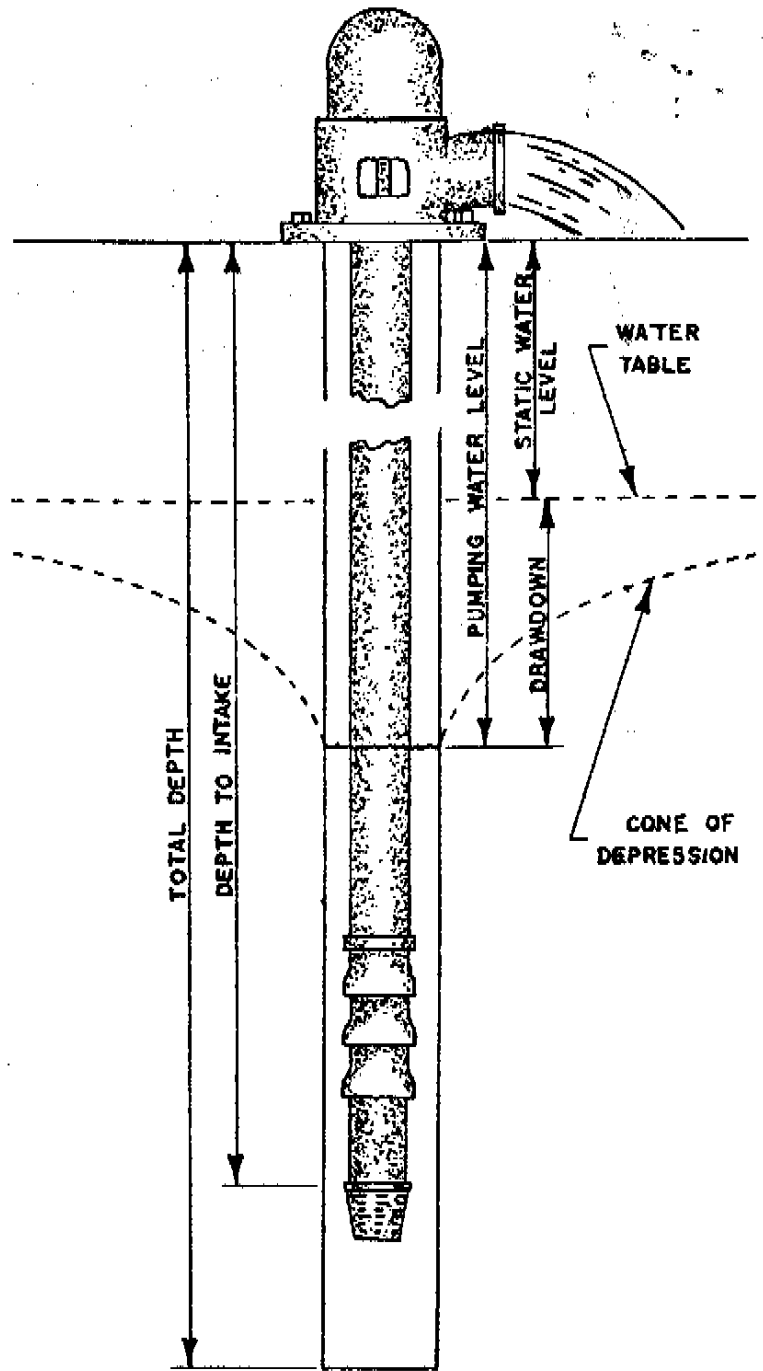
Use additional pages necessary to complete log.

**PUMP INSTALLATION REPORT**

Pump Make Flowing Well  
 Type \_\_\_\_\_  
 Powered by \_\_\_\_\_ HP  
 Pump Serial No. \_\_\_\_\_  
 Motor Serial No. \_\_\_\_\_  
 Date Installed \_\_\_\_\_  
 Pump Intake Depth \_\_\_\_\_  
 Remarks \_\_\_\_\_

**WELL TEST DATA WITH PERMANENT PUMP**

Date Tested Sept 1, 1981  
 Static Water Level Prior to Test \_\_\_\_\_  
 Length of Test 24 Hours  
 Sustained yield (Metered) 90 GPM  
 Pumping Water Level \_\_\_\_\_  
 Remarks \_\_\_\_\_



**CONTRACTORS STATEMENT**

The undersigned, being duly sworn upon oath, deposes and says that he is the contractor of the well or pump installation described hereon; that he has read the statement made hereon; knows the content thereof, and that the same is true of his own knowledge.

Signature \_\_\_\_\_ License No. \_\_\_\_\_

State of Colorado, County of \_\_\_\_\_ SS

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_.

My Commission expires: \_\_\_\_\_, 19 \_\_\_\_\_.

Notary Public \_\_\_\_\_

FORM TO BE MADE OUT IN QUADRUPPLICATE: WHITE FORM must be an original copy on both sides and signed. WHITE AND GREEN copies must be filed with the State Engineer. PINK COPY is for the Owner and YELLOW COPY is for the Driller.

Form No.  
GWS-25

OFFICE OF THE STATE ENGINEER  
COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203  
(303) 866-3551

EXST

APPLICANT

WELL PERMIT NUMBER 048121 F  
DIV. 3 CNTY. 2 WD 35 DES. BASIN MD

Lot: Block: Filing: Subdiv:

US BUREAU LAND MANAGEMENT  
3170 E MAIN  
CANON CITY CO 81212-  
  
(719)275-0631

APPROVED WELL LOCATION  
ALAMOSA COUNTY

SW 1/4 SE 1/4 Section 1  
Twp 38 N RANGE 11 E NM P.M.

DISTANCES FROM SECTION LINES

1140 Ft. from South Section Line  
1950 Ft. from East Section Line

**PERMIT TO USE AN EXISTING WELL**

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

- 1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
- 2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.
- 3) Approved as a reversal of denial no. AD-12054 for use of an existing well, Blanca Well no. 12, pursuant to CRS 37-90-137(2) on the condition that this well is operated in accordance with the Blanca Wetland Area substitute water supply plan approved by the State Engineer on March 31, 1997. The well shall not be operated unless it is included in a substitute water supply plan approved by the State Engineer or a plan for augmentation approved by the water court. The subject water supply plan is currently valid through December 31, 1997, and if not extended or if a court approved plan for augmentation is not in operation, this well permit is null and void and diversion of ground water from this well must cease immediately.
- 4) The use of ground water from this well is limited to maintenance of ponds, wetlands, and habitat within the Blanca Wetland Area, and stockwater for grazing allotments within the same Area.
- 5) The maximum flow rate shall not exceed 69 GPM.
- 6) The maximum annual amount of ground water to be appropriated shall not exceed 110 acre-feet, and the combined maximum annual amount of ground water to be appropriated by all 21 post-McCarren Amendment wells within the Blanca Wetland Area shall not exceed 2,923 acre-feet, or such lesser amounts as may be limited by the controlling substitute supply or augmentation plan.
- 7) Production is limited to the confined aquifer. Plain casing must be installed and grouted to a minimum depth of 60 feet to prevent the withdrawal of ground water from other aquifers and the movement of ground water between aquifers.
- 8) A totalizing flow meter must be installed on the well and maintained in good working order. Permanent records of all diversions must be maintained by the well owner (recorded at least annually) and submitted to the Division Engineer upon request.
- 9) The owner shall mark the well in a conspicuous place with well permit number(s), name of the aquifer, and court case number(s) as appropriate. The owner shall take necessary means and precautions to preserve these markings.
- 10) This well shall be constructed at least 600 feet from any existing well completed in the same aquifer that is not owned by the applicant.

APPROVED  
KVH

State Engineer

Receipt No. 0030420E

DATE ISSUED APR 18 1997

By Bruce E. DeZure

EXPIRATION DATE APR 18 1998

COLORADO DIVISION OF WATER RESOURCES  
818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203

RECEIVED 92-b

NOV 16 '89

WATER RESOURCES  
STATE ENGINEER  
COLO.

PERMIT APPLICATION FORM

Application must be complete where applicable. Type or print in **BLACK INK**. No overstrikes or erasures unless initialed.

- (X) A PERMIT TO USE GROUND WATER
- ( ) A PERMIT TO CONSTRUCT A WELL
- FOR: ( ) A PERMIT TO INSTALL A PUMP

- ( ) REPLACEMENT FOR NO. \_\_\_\_\_
- (X) OTHER Existing Post 1979 Well
- WATER COURT CASE NO. \_\_\_\_\_

**APPLICATION DENIED; FILE No. AD-12054**

(1) APPLICANT - mailing address

NAME Bureau of Land Management  
 STREET 3170 East Main  
 CITY Canon City CO 81212  
(State) (Zip)  
 TELEPHONE NO. 719-275-0631

FOR OFFICE USE ONLY: DO NOT WRITE IN THIS COLUMN

Receipt No. 30420-E / 15625-E  
 Basin \_\_\_\_\_ Dist. \_\_\_\_\_

(2) LOCATION OF PROPOSED WELL

County Alamosa  
SW  $\frac{1}{4}$  of the SE  $\frac{1}{4}$ , Section 1  
 Twp. 38 N, Rng. 11 E, NM P.M.  
(N,S) (E,W)

CONDITIONS OF APPROVAL

This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

60 ft

(3) WATER USE AND WELL DATA

Proposed maximum pumping rate (gpm) 69  
 Average annual amount of ground water to be appropriated (acre-feet): 110  
 Number of acres to be irrigated: 31  
 Proposed total depth (feet): 580  
 Aquifer ground water is to be obtained from:  
Confined

Owner's well designation Blanca Well No. 12

GROUND WATER TO BE USED FOR:

- ( ) HOUSEHOLD USE ONLY - no irrigation (0)
- ( ) DOMESTIC (1) ( ) INDUSTRIAL (5)
- (X) LIVESTOCK (2) (X) IRRIGATION (6)
- ( ) COMMERCIAL (4) ( ) MUNICIPAL (8)

(X) OTHER (9) See Exhibit 1

DETAIL THE USE ON BACK IN (11)

(4) DRILLER

Name Bureau of Land Management  
 Street 3170 East Main  
 City Canon City CO 81212  
(State) (Zip)  
 Telephone No. 719-275-0631 Lic. No. \_\_\_\_\_

**APPLICATION DENIED; FILE No. AD-12054**

**APPLICATION APPROVED**

SEE 48121F

PERMIT NUMBER \_\_\_\_\_

DATE ISSUED \_\_\_\_\_

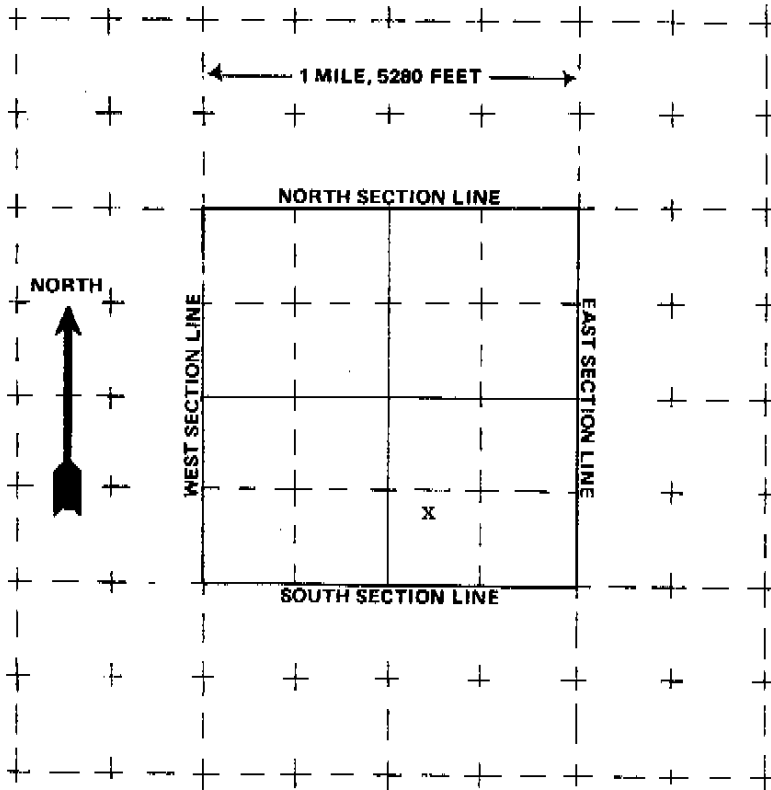
EXPIRATION DATE \_\_\_\_\_

(STATE ENGINEER)

BY \_\_\_\_\_

I.D. 3-3525 COUNTY 02

(5) **THE LOCATION OF THE PROPOSED WELL** and the area on which the water will be used must be indicated on the diagram below. Use the **CENTER SECTION** (1 section, 640 acres) for the well location.



The scale of the diagram is 2 inches = 1 mile  
Each small square represents 40 acres.

**WATER EQUIVALENTS TABLE (Rounded Figures)**

An acre-foot covers 1 acre of land 1 foot deep  
1 cubic foot per second (cfs) . . . 449 gallons per minute (gpm)  
A family of 5 will require approximately 1 acre-foot of water per year.  
1 acre-foot . . . 43,560 cubic feet . . . 325,900 gallons.  
1,000 gpm pumped continuously for one day produces 4.42 acre-feet.

(6) **THE WELL MUST BE LOCATED BELOW** by distances from section lines.

1,140 ft. from South sec. line  
(north or south)

1,950 ft. from East sec. line  
(east or west)

LOT \_\_\_\_\_ BLOCK \_\_\_\_\_ FILING # \_\_\_\_\_

SUBDIVISION \_\_\_\_\_

(7) **TRACT ON WHICH WELL WILL BE LOCATED** Owner: BLM

No. of acres 5380 . Will this be

the only well on this tract? No

(8) **PROPOSED CASING PROGRAM**

Plain Casing

5 in. from 0 ft. to 380 ft.

\_\_\_\_\_ in. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Perforated casing

5 in. from 380 ft. to 580 ft.

\_\_\_\_\_ in. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

(9) **FOR REPLACEMENT WELLS** give distance and direction from old well and plans for plugging it:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(10) **LAND ON WHICH GROUND WATER WILL BE USED:**

Owner(s): Bureau of Land Management No. of acres: 5380

Legal description: See Exhibit 2, Blanca WHA Map

(11) **DETAILED DESCRIPTION** of the use of ground water: Household use and domestic wells must indicate type of disposal system to be used.

See Exhibit 1, Other Uses of Ground Water

(12) **OTHER WATER RIGHTS** used on this land, including wells. Give Registration and Water Court Case Numbers.

Type or right	Used for (purpose)	Description of land on which used
None		

(13) **THE APPLICANT(S) STATE(S) THAT THE INFORMATION SET FORTH HEREON IS TRUE TO THE BEST OF HIS KNOWLEDGE.**

Roger W. Underwood, District Manager Acting  
SIGNATURE OF APPLICANT(S)

Use additional sheets of paper if more space is required.

NOV 16 '89

WATER RESOURCES  
STATE ENGINEER  
COLO.

## EXHIBIT 1

Detailed Description of the Use of Groundwater

Applicant has constructed and plans to construct a system of ponds, marshes, and grain fields necessary to operate the Blanca Wildlife Habitat Area. Water retention is provided by a series of dikes fed by wells year-around.

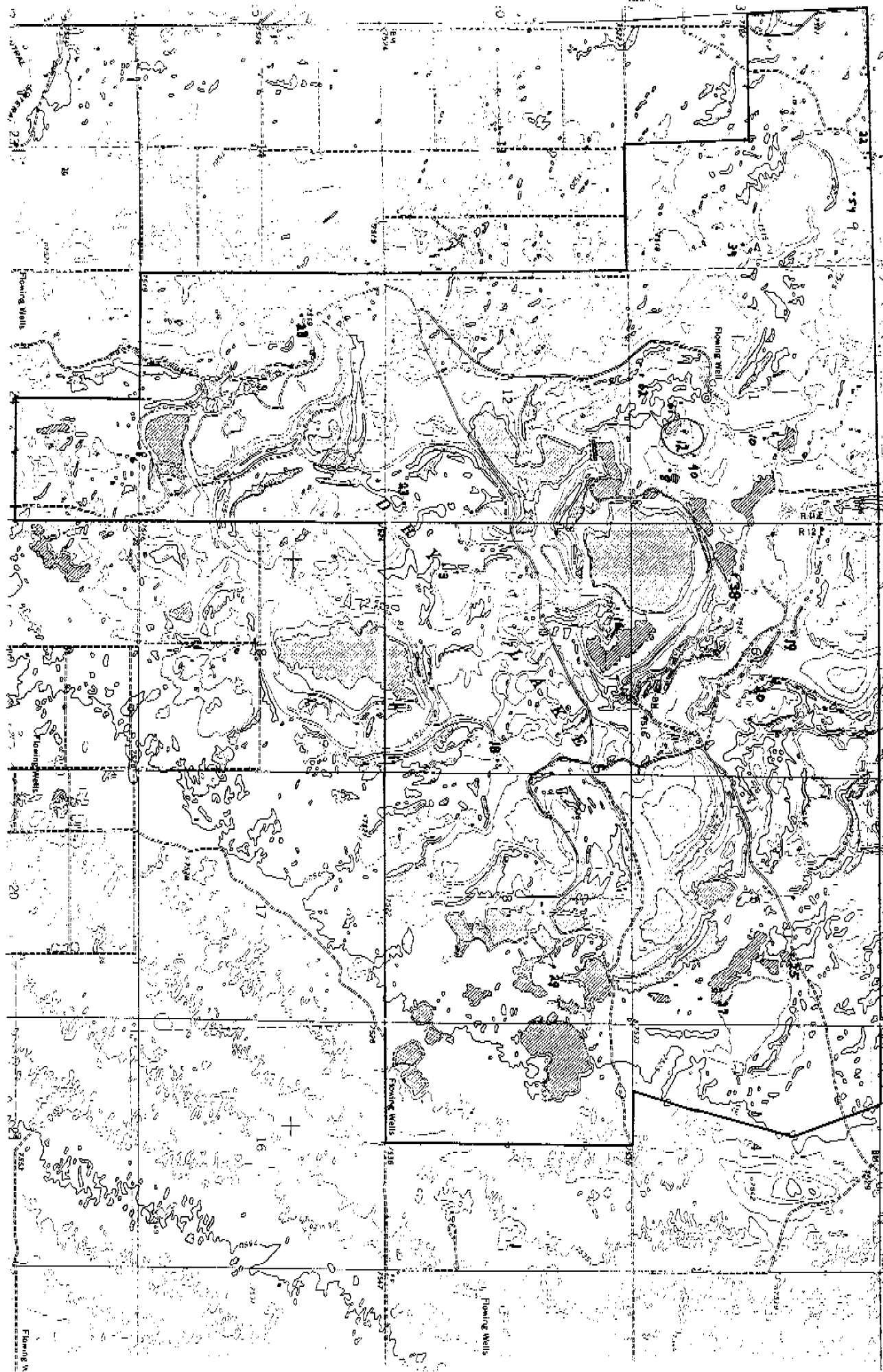
The Blanca Wildlife Habitat Area was at one time a shallow lake. The system of dikes is implanted in the dry lake bed. The dikes are earthen, from 10 to 12 feet in height, and of a length which varies with the size of the pond.

The ponds are utilized by nesting and migrating water fowl, shore birds, and wading birds. Peak water fowl populations occur at the area during the spring migration from March 15 to May 15. The nesting season runs from April 1 to May 15 for Canada geese and from May 15 to July 15 for ducks.

The project includes permanent ponds of various sizes. Numerous small ponds provide the necessary territorial spacing during nesting season, but a few large ponds are important for brood rearing, molting, and as a refuge during migration.

The ponds are also used for fishing. They have been stocked with various kinds of trout and other sport fish.

The ponds feed adjacent marshes with programmed spillage. Tall, dense, wet meadows mixed with greasewood, provide optimum nesting cover. Interspersed emergents and dense shore line vegetation are important for brood rearing and molting. The marshes and grain fields now irrigated encompass 586 acres. The ponds and dikes also provide stockwater for the Blanca Wildlife Area grazing allotment.



BLANCA WILDLIFE HABITAT AREA  
EXHIBIT 2  
POST-AUGUST 14, 1979 WELLS

DEC 21 1989  
WATER RESOURCES  
STAFF-BIRMINGHAM  
0940

RECEIVED

# STATE OF COLORADO

OFFICE OF THE STATE ENGINEER  
Division of Water Resources  
Department of Natural Resources  
1313 Sherman Street, Room 818  
Denver, Colorado 80203  
Phone (303) 866-3581  
FAX (303) 866-3589



March 31, 1997

Donnie R. Sparks  
District Manager  
Bureau of Land Management  
Canon City District Office  
3170 East Main Street  
Canon City, CO 81212

Roy Romer  
Governor  
James S. Lochhead  
Executive Director  
Hal D. Simpson  
State Engineer

RE: Blanca Wetland Area Substitute Water Supply Plan  
Township 38 North, Ranges 11 & 12 East, N.M.P.M.  
Water Division 3, Water Districts 20 & 35

Dear Mr. Sparks:

We have received your February 25, 1997 submittal requesting approval of a substitute water supply plan for benefit of the Blanca Wetland Area. There are 21 wells on the Wetland, identified on attachment A, which were drilled after August 14, 1979 and are used to supply water to the area. These wells are post-McCarren Amendment wells which are subject to administration and need a plan in order to operate.

All 21 wells produce from the confined aquifer, and are flowing artesian wells. Previous ground water modeling shows that, based upon a combined annual diversion rate of 2,923 acre-feet, the wells deplete the Rio Grande by 108 acre-feet annually and the Conejos River by 61 acre-feet annually.

The source of replacement water to the Rio Grande comes from Tabor No. 2 Ditch transmountain deliveries. The Bureau has been obtaining agreements with the Colorado Division of Wildlife, which owns the Tabor No. 2 Ditch, for delivery of up to 200 acre-feet of ditch water for benefit of this plan.

The source of replacement water to the Conejos River comes from the Bureau's ownership of 1/4 of the Lovato Irrigation Ditch right. This 1/4 interest (6.89 cfs) will not be diverted during the life of the plan, and a consumptive use allowance equal to 58% of the divertable water under this interest will be credited as replacement water delivered to the Conejos River.

This substitute water supply plan is hereby approved pursuant to Section 37-80-120, C.R.S., subject to the following conditions:

1. The Bureau must monitor and control the production from the wells so that they will not flow at rates greater than the current levels of production, as identified on attachment A.

2. The Bureau agrees to shut down production from all wells should a plan to replace the stream depletions not be in effect.
3. Well permits must be obtained and be kept in good standing for all 21 wells. The applications previously denied (AD-12050 through AD-12070) will be evaluated for reversal pursuant to this plan.
4. Sufficient water must be delivered from each replacement source to cover depletions plus transit losses as determined by the Division Engineer at the time of delivery. Transit losses are anticipated to be up to 10% on each system. The basis of depletions on the Rio Grande and Conejos River is the current state model which may be revised in the near future as new information becomes available. We may revise the depletions in future approvals and require more replacement water.
5. All of the Bureau's 1/4 interest in the Lovato Ditch right must be returned to the Rio San Antonio. No irrigation or other use of the right is allowed during the life of this plan.
6. A signed copy of the 1997 agreement between the Bureau and the Colorado Division of Wildlife must be submitted to this office and the Division Engineer.
7. Accounting of water in the plan, including well diversions and replacement water deliveries, must be provided to the Water Commissioner and Division Engineer on forms and at times acceptable to them.
8. The Bureau must develop and apply in Water Court for a permanent plan for augmentation to cover the use of these wells. Approval of this plan does not imply approval by this office of any such application.
9. In accordance with amendments to Section 25-8-202-(7), C.R.S. and "Senate Bill 89-181 Rules and Regulations" adopted on February 4, 1992, the State Engineer shall determine whether or not the substitute supply is of a quality to meet requirements of use to senior appropriators. As such, water quality data or analysis may be requested at any time to determine if the water quality is appropriate for downstream water users.
10. This plan shall be valid through December 31, 1997, unless otherwise revoked or modified.
11. This plan may be revoked or modified at any time should it be determined that injury to other vested water rights has or will occur as a result of the operation of this plan.
12. Acceptance of these conditions must be made in writing to this office, the Division Engineer (PO Box 5728, Pueblo CO 81002), and the Water Commissioner (Wayne Williams, Star Route, Ft. Garland, CO 81153) within two weeks of your receipt of this letter. The name, address, and phone number of a contact person who will be responsible for the operation and accounting of this plan must be provided with the acceptance.

Donnie R. Sparks  
March 31, 1997

Page 3

13. Replacement, supplemental, and alternate point of diversion well permits will not be issued pursuant to this substitute water supply plan.

Should you have any questions, please contact Keith Vander Horst of this office or Steve Vandiver, Division Engineer, in our Division 3 office in Alamosa at (719) 589-6683.

Sincerely,

  
Hal D. Simpson  
State Engineer

cc: Steve Vandiver, Division Engineer  
Wayne Williams, Water Commissioner

Attachment A  
 Blanca Wetland Area Substitute Water Supply Plan  
 Wells Drilled After August 14, 1979

BLM <u>Well no.</u>	<u>Qt-Qt</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>1996 Reported Production (af/yr)</u>	<u>Average Flow Rate (gpm)</u>
3	SW-SW	7	38 N	12 E	102	64
6	NW-NE	24	38 N	11 E	214	133
8	SE-SE	1	38 N	11 E	75	46
10	SW-NE	1	38 N	11 E	48	30
12	SW-SE	1	38 N	11 E	60	38
16	NE-NW	7	38 N	12 E	136	84
18	NE-SE	7	38 N	12 E	228	141
19	SE-NW	6	38 N	12 E	16	10
20	NW-SE	6	38 N	12 E	74	46
22	NW-NE	2	38 N	11 E	40	25
23	SE-SE	12	38 N	11 E	152	94
25	SE-NE	5	38 N	12 E	149	92
27	NE-SE	5	38 N	12 E	89	55
28	SW-NW	13	38 N	11 E	267	166
29	SE-NE	8	38 N	12 E	339	210
38	NE-SW	6	38 N	12 E	60	37
39	NE-SE	2	38 N	11 E	149	92
40	NW-SE	1	38 N	11 E	56	35
54	NW-NE	2	38 N	11 E	7	4
61	SW-SE	1	38 N	11 E	14	9
62	SE-SW	1	38 N	11 E	29	18
====					====	
Total					2,304	

March 31, 1997

STATE OF COLORADO  
OFFICE OF THE STATE ENGINEER  
DIVISION OF WATER RESOURCES

BENEFICIAL USE FIELD INSPECTION

WELL PERMIT NO. 48121-F

RECEIVED

JUN 10 1998

WATER RESOURCES  
STATE ENGINEER  
COLO.

1) Provide details to the following questions as necessary in the space provided.

Has the water been put to beneficial use as claimed? Yes

Is the well located where claimed? Yes

Are the number and legal description of the acres irrigated accurate? Yes

Is a totalizing flow meter installed on the well? No

RECEIVED

AUG 06 1998

WATER RESOURCES  
STATE ENGINEER  
COLO.

RECEIVED

APR 15 1998

WATER RESOURCES  
STATE ENGINEER  
COLO.

2) General Comments:

OK

I field inspected the site of the well permitted under the referenced well permit number on 4/15/98  
and the above is an accurate report of my findings.

[Signature]  
Signature

6/8/98  
Date

Well Commissioner  
Title

Div III  
Division/District