

# CHEROKEE METROPOLITAN DISTRICT

## LIFT STATION NO. 1 ADDITIONS

### 6657 E PLATTE AVE, PARCEL NO. 5418000080

### COLORADO SPRINGS, COLORADO

### SITE DEVELOPMENT PERMIT: PPR-2254

FILE NO.: PPR-2254

**CONTACTS**

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**ENVIRONMENTAL ENGINEER:** JVA, INC  
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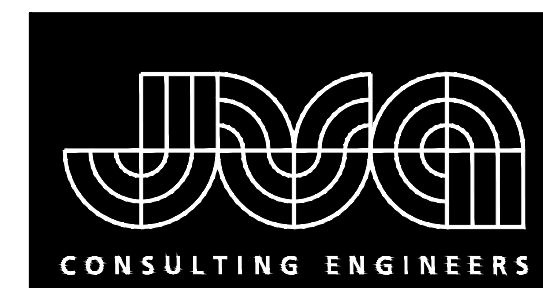
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Glenwood Springs • Denver

OCTOBER 2022

PREPARED UNDER THE SUPERVISION OF

JVA, Inc.

**DRAWING INDEX**

SHEET NO.	TITLE
CO.0	COVER SHEET
CO.1	LEGEND, NOTES, AND ABBREVIATIONS
CL1.0	LANDSCAPE PLAN
C2.0	SITE DEVELOPMENT PLAN
CD2.0	CIVIL DETAILS

**LEGAL DESCRIPTION:**

THAT PT W2NE2 SEC 18-14-65 DESC AS FOLS: COM AT N4 COR SD SEC 18, TH S 00°46'48" W 1315.50 FT TO NW COR OF TR DESC BY BK (5309-530) & POB, TH S 89°45'21" E 331.20 FT TO SMLY COR OF TR DESC BY REC 212137112, TH N 00°46'59" E 129.52 FT, N 26°10'54" E 873.59 FT, TH ALG ARC OF CUR TO THE R HAVING A RAD OF 3452.20 FT A C/A OF 6°33'34" AN ARC DIST OF 395.22 FT, TH N 32°44'28" E 9.33 FT TO A PT ON THE SLY R/W LN O US HWY 24, TH S 89°55'03" E 296.95 FT TO NW COR OF TR DESC BY BK (3156-91), TH CONT S 89°55'03" E 127.67 FT TO A PT ON E LN W2NE4 SD SEC 18 & NE COR OF TR DESC BY BK (3156-91), TH S 00°47'32" W 2317.14 FT TO A PT ON N LN OF TR C DESC BY REC 206167022, TH 88°51'08" W 1259.94 FT, S 39°23'57" W 103.54 FT, TH N 00°46'48" E 1108.57 TO POB

**ZONING:**

THE PROPERTY IS ZONED AS RR-5 (RESIDENTIAL RURAL DISTRICT) AND CAD-0 (COMMERCIAL AIRPORT OVERLAY DISTRICT). THE PROPOSED PROJECT WILL NOT CHANGE THE ZONING DESIGNATION.

Please include:  
-parking computations, required vs provided

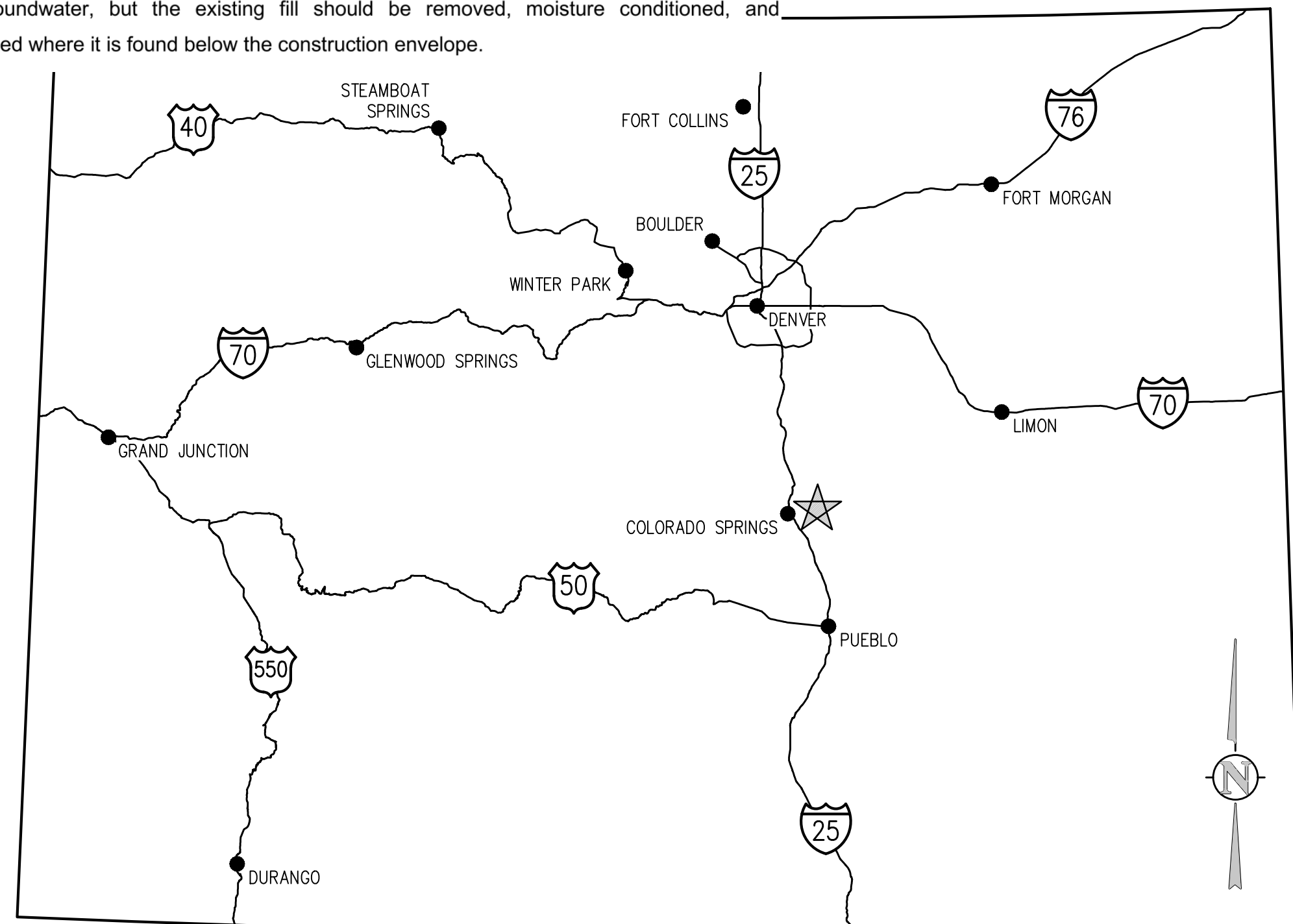
**SITE DATA:**

LOT/PARCEL SIZE:	53.38 ACRES
EXISTING/PROPOSED LAND USE:	POLITICAL SUBDIVISION
BUILDING FOOTPRINT:	782 SF
WET WELL FOOTPRINT:	5,387 SF
EXISTING BUILDINGS TOTAL AREA:	20,000 SF
LAGOON COVERAGE:	272,000 SF
OPEN/LANDSCAPED AREA COVERAGE:	46.44 ACRES
IMPERMEABLE SURFACE COVERAGE:	4,000 SF

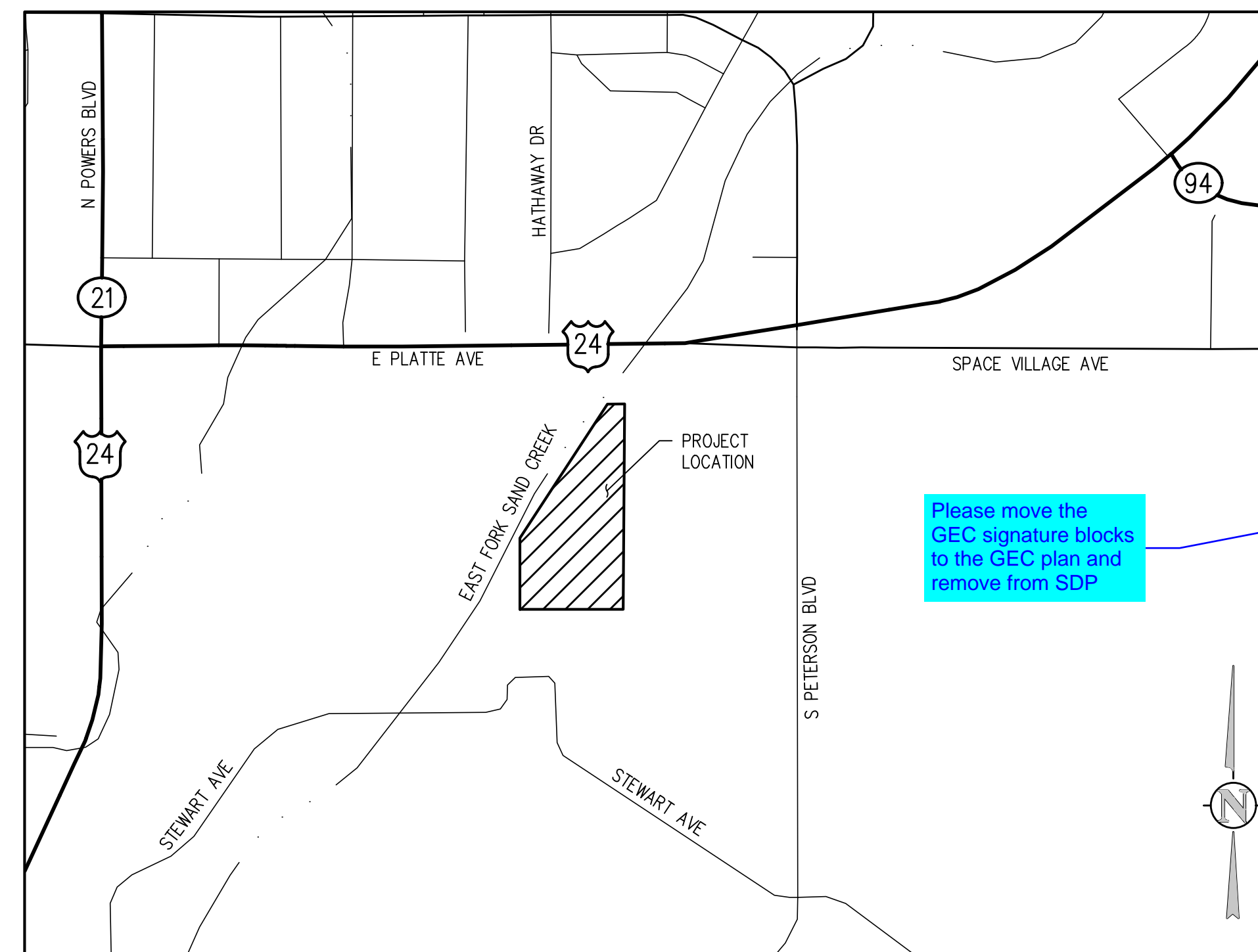
We understand the new pump station will have a base elevation of about 6224 feet to match the elevation of the existing wet well. If this is the case, the structure will be constructed at or near the groundwater level, and also at or near the layer of fat clay encountered in our field exploration. Although the very moist clay was not found to possess significant swell potential at it's current moisture content, these soils are known to exhibit significant volume change with changes in moisture content, and will offer poor support to shallow foundations when overly moist. Considering the proximity of the base of the structure to these conditions, we recommend the use of deep foundations for the construction of the proposed pump station and equalization tank.

Please show how these concerns will be mitigated.

Shallow foundations may be feasible at this site for structures founded at elevations at least 5 feet above groundwater, but the existing fill should be removed, moisture conditioned, and recompacted where it is found below the construction envelope.



VICINITY MAP  
NTS

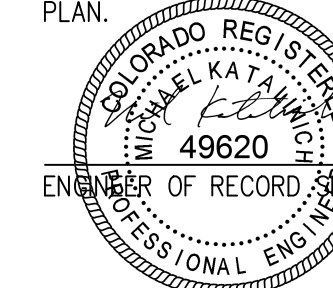


PROJECT LOCATION MAP  
NTS

Please move the GEC signature blocks to the GEC plan and remove from SDP

**ENGINEER'S STATEMENT:**

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR SITE DEVELOPMENT PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLAN.



12/13/2022  
DATE

**OWNER'S STATEMENT:**

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE SITE DEVELOPMENT PLAN.

OWNER SIGNATURE

DATE

**EL PASO COUNTY:**

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH THE COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/ OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE. DRAINAGE CRITERIA MANUAL VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL, AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR'S DISCRETION.

County Engineer/ECM Administrator

DATE



**MULCHING AND SEEDING NOTES FOR EL PASO COUNTY**

1. ALL DISTURBED AREAS MUST BE MULCHED WITHIN 21 DAYS AFTER FINAL GRADE AND SEEDING AREAS ARE TO BE MULCHED WITH 24 HOURS AFTER SEEDING.
2. MATERIAL USED FOR MULCH CAN BE CERTIFIED CLEAN, WEED- AND SEED-FREE LONG STEMMED FIELD OR MARSH HAY, OR STRAW OF OATS, BARLEY, WHEAT, RYE OR TRITICALE CERTIFIED BY THE COLORADO DEPARTMENT OF AGRICULTURE WEED FREE FORAGE CERTIFICATION PROGRAM.
3. HYDRAULIC MULCHING MATERIAL SHALL CONSIST OF VIRGIN WOOD FIBER MANUFACTURED FROM CLEAN WHOLE WOOD CHIPS. WOOD CHIPS CANNOT CONTAIN ANY GROWTH OR GERMINATION INHIBITORS OR BE PRODUCED FROM RECYCLED WOOD. GRAVEL CAN ALSO BE USED.
4. MULCH IS TO BE APPLIED EVENLY AT THE RATE OF 2 TONS PER ACRE.
5. MULCH TO BE ANCHORED EITHER BY CRIMPING (TUCKING MULCH FIBERS 4 INCHES INTO THE SOIL), USING NETTING (USED IN SMALL AREAS WITH STEEP SLOPES), OR WITH TACKIFIER.
6. HYDRAULIC MULCHING AND TACKIFIERS ARE NOT TO BE USED IN THE PRESENCE OF FREE SURFACE WATER.

**EL PASO COUNTY CONSERVATION DISTRICT SHOTGUN MIX**

COMMON NAME	RECOMMENDED VARIETY	% OF SEED MIX	PLS/ACRE
BLUESTEM, BIG	KAW, BISON, CHAMP	20	1.08
LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUM	10	0.12
GREEN NEEDLEGRASS	LODORM	10	0.48
WHEATGRASS, WESTERN	ARRIBA, BARTON	20	1.60
GRAMA, SIDEOATS	VAUGHN, BUTTE, EL RENO, NINER	10	0.46
SWITCHGRASS	BLACKWELL, GREENVILLE	10	0.20
PRAIRIE SANDREED	GOSHEN, PRONGHORN	10	0.32
YELLOW INDIANGRASS	CHEYENNE, HOLT, LLANO	10	0.51

- Please include:
- location of garbage receptacles w/ screening mechanism
  - location of any utility lines

**LANDSCAPING NOTE:**

LANDSCAPING IS INTENDED TO BE MINIMAL EXCEPT FOR PREVENTING EROSION. DO TO THE NATURE OF THE FACILITY, TREES AND SHRUBS ARE KNOWN TO INTERFERE WITH OPERATION. ROOTS AND MAINTENANCE NEEDS CREATE ISSUES FOR OPERATIONS EFFORTS, PIPING, AND INFRASTRUCTURE, THEREFORE THE DISTRICT PREFERS TO KEEP ALL VEGETATION TO A MINIMUM.

- Please include:
- location and dimensions:
    - .property lines
    - .rights of way
    - .easements
    - .any signage, if none then specify

- footprint of any existing buildings and or structures
- location and height of fencing, sidewalks, walls or berms (if none then specify)
- layout for any off-street parking or loading areas (if none, please specify)

Please include this on the landscape plan

FILE NO.: PPR-2254



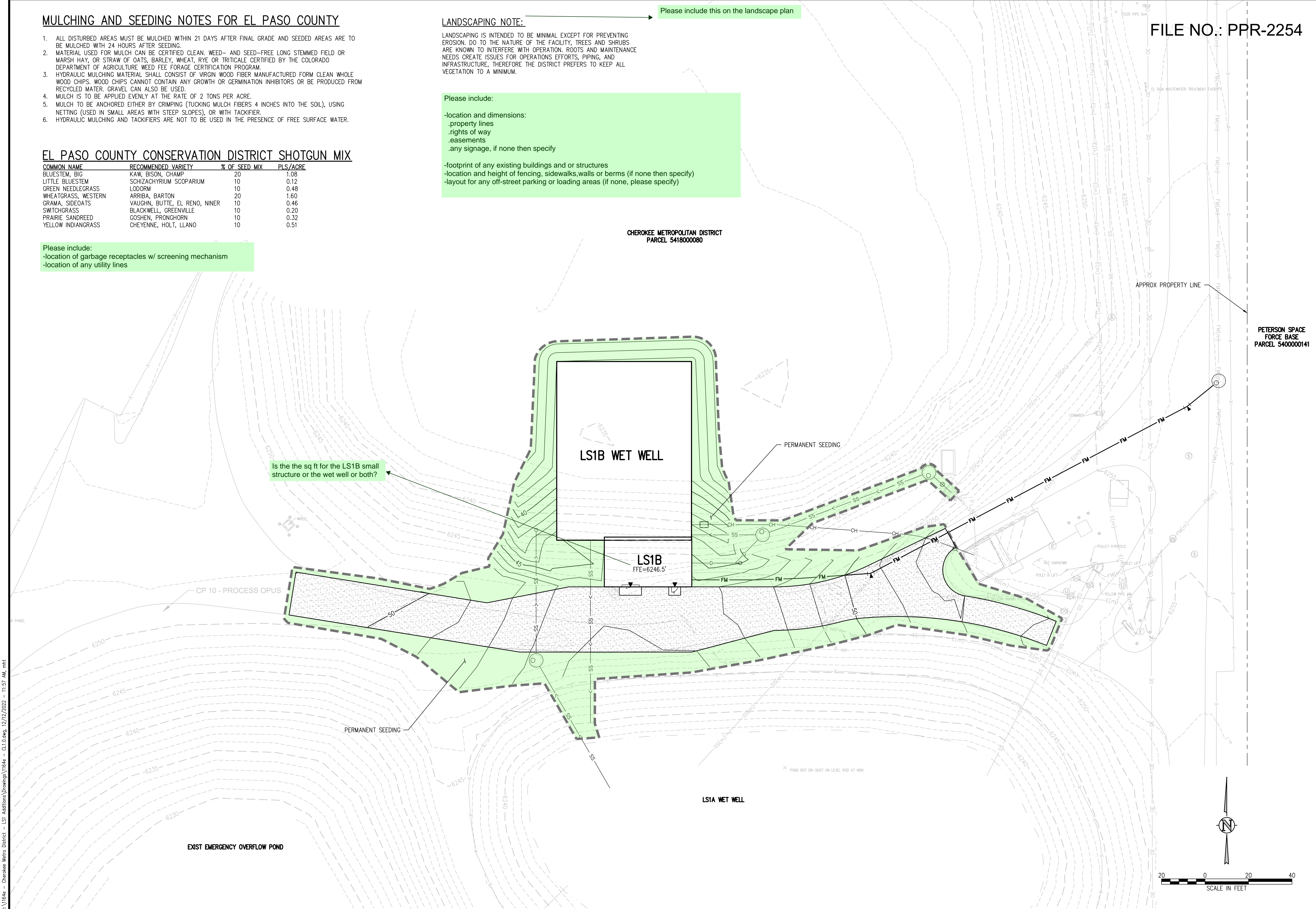
NO.	DATE	DESIGNED BY	DESCRIPTION

DESIGNED BY:	NAS
DRAWN BY:	MHT
CHECKED BY:	JJM
JOB #:	1164e
DATE:	OCT 2022

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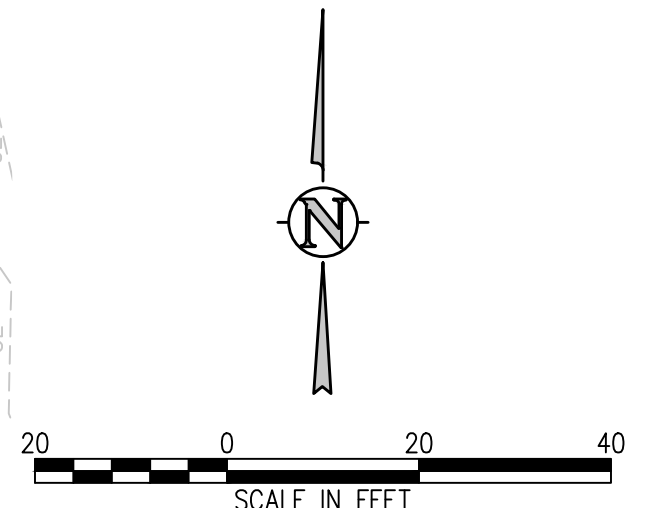
CHEROKEE METROPOLITAN DISTRICT  
LIFT STATION NO. 1B  
EL PASO COUNTY, COLORADO  
LANDSCAPE PLAN

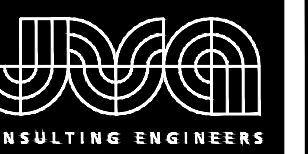
SHEET NO.  
**CL1.0**



Is the the sq ft for the LS1B small structure or the wet well or both?

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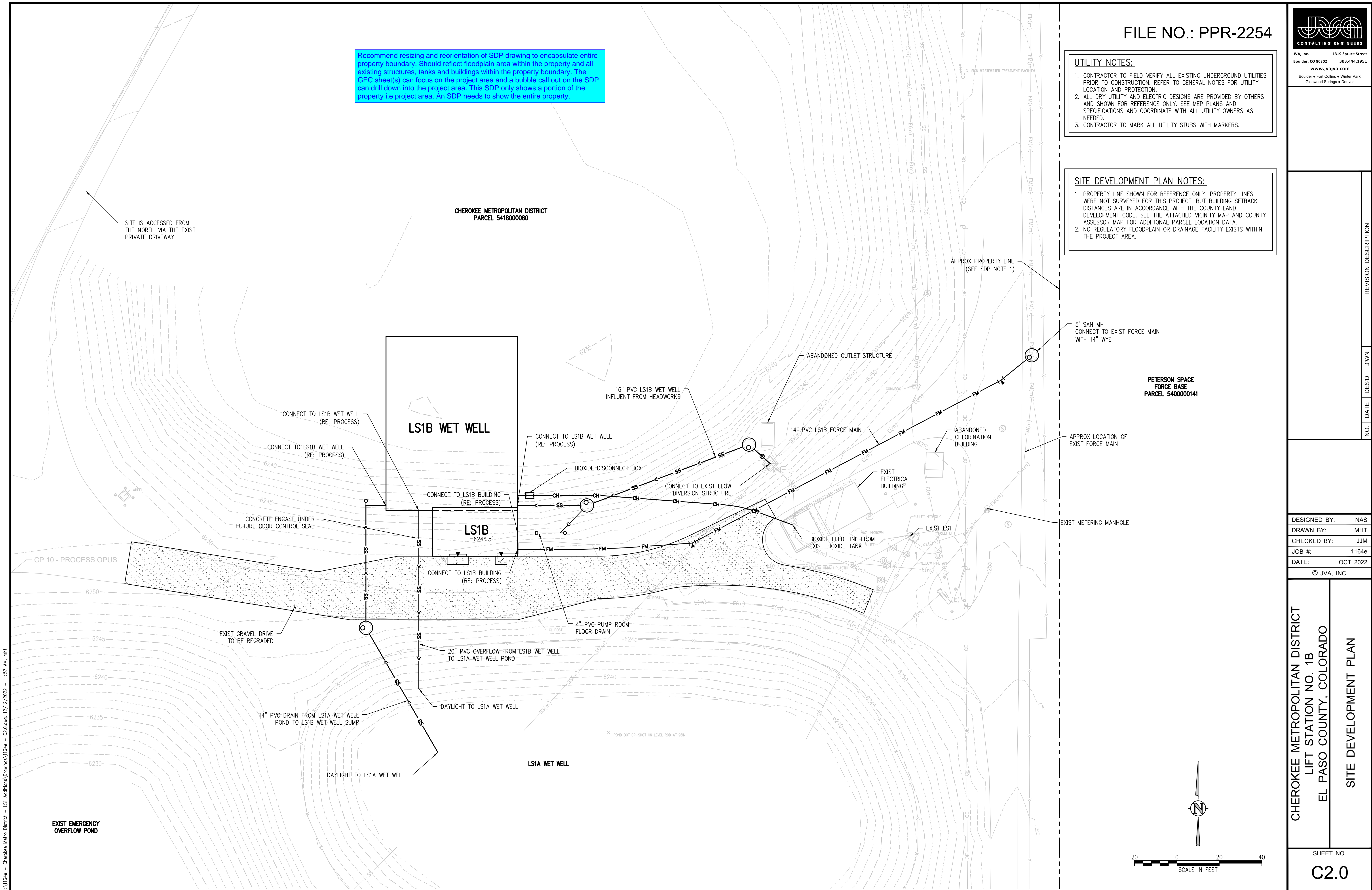




Recommend resizing and reorientation of SDP drawing to encapsulate entire property boundary. Should reflect floodplain area within the property and all existing structures, tanks and buildings within the property boundary. The CEC sheet(s) can focus on the project area and a bubble call out on the SDP can drill down into the project area. This SDP only shows a portion of the property i.e project area. An SDP needs to show the entire property.

- UTILITY NOTES:**
1. CONTRACTOR TO FIELD VERIFY ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. REFER TO GENERAL NOTES FOR UTILITY LOCATION AND PROTECTION.
  2. ALL DRY UTILITY AND ELECTRIC DESIGNS ARE PROVIDED BY OTHERS AND SHOWN FOR REFERENCE ONLY. SEE MEP PLANS AND SPECIFICATIONS AND COORDINATE WITH ALL UTILITY OWNERS AS NEEDED.
  3. CONTRACTOR TO MARK ALL UTILITY STUBS WITH MARKERS.

- SITE DEVELOPMENT PLAN NOTES:**
1. PROPERTY LINE SHOWN FOR REFERENCE ONLY. PROPERTY LINES WERE NOT SURVEYED FOR THIS PROJECT, BUT BUILDING SETBACK DISTANCES ARE IN ACCORDANCE WITH THE COUNTY LAND DEVELOPMENT CODE. SEE THE ATTACHED VICINITY MAP AND COUNTY ASSESSOR MAP FOR ADDITIONAL PARCEL LOCATION DATA.
  2. NO REGULATORY FLOODPLAIN OR DRAINAGE FACILITY EXISTS WITHIN THE PROJECT AREA.



SITE IS ACCESSED FROM THE NORTH VIA THE EXIST PRIVATE DRIVEWAY

CHEROKEE METROPOLITAN DISTRICT  
 PARCEL 5418000080

PETERSON SPACE  
 FORCE BASE  
 PARCEL 5400000141

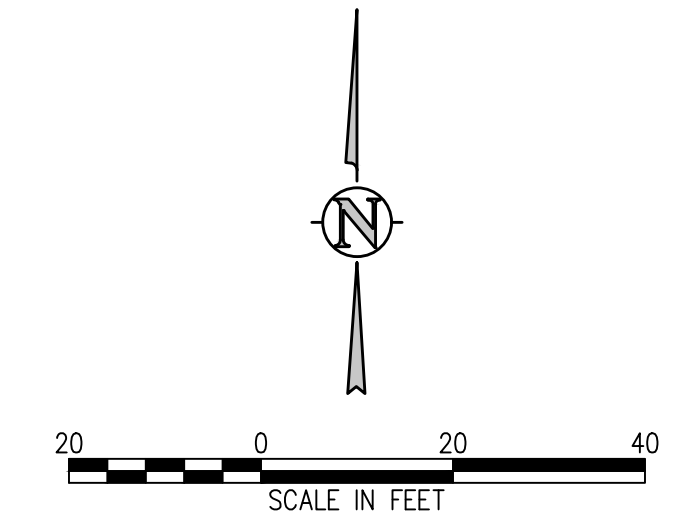
NO.	DATE	DES'D	DWN	REVISION DESCRIPTION

DESIGNED BY: NAS  
 DRAWN BY: MHT  
 CHECKED BY: JJM  
 JOB #: 1164e  
 DATE: OCT 2022

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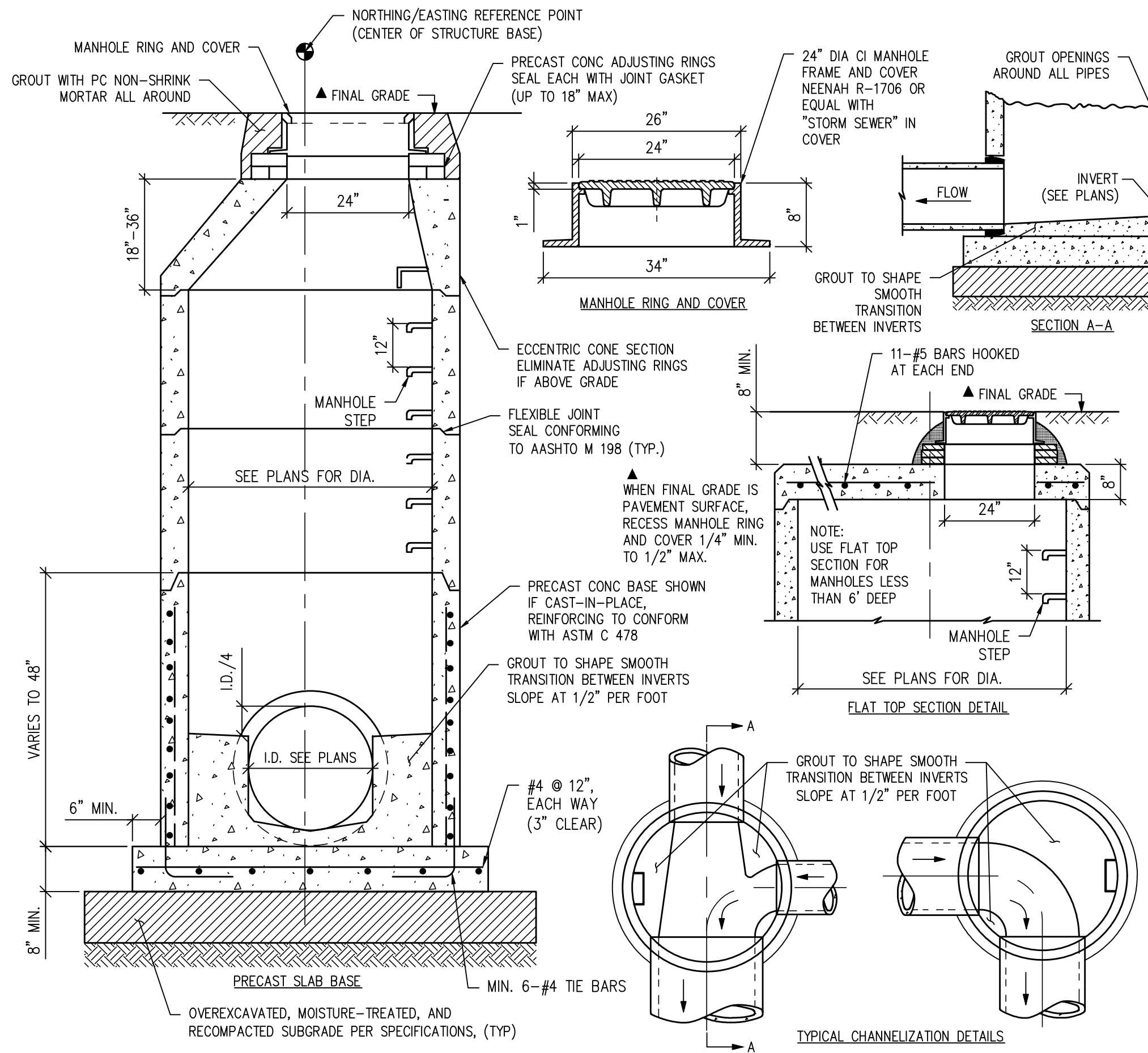
CHEROKEE METROPOLITAN DISTRICT  
 LIFT STATION NO. 1B  
 EL PASO COUNTY, COLORADO  
 SITE DEVELOPMENT PLAN

SHEET NO.  
**C2.0**

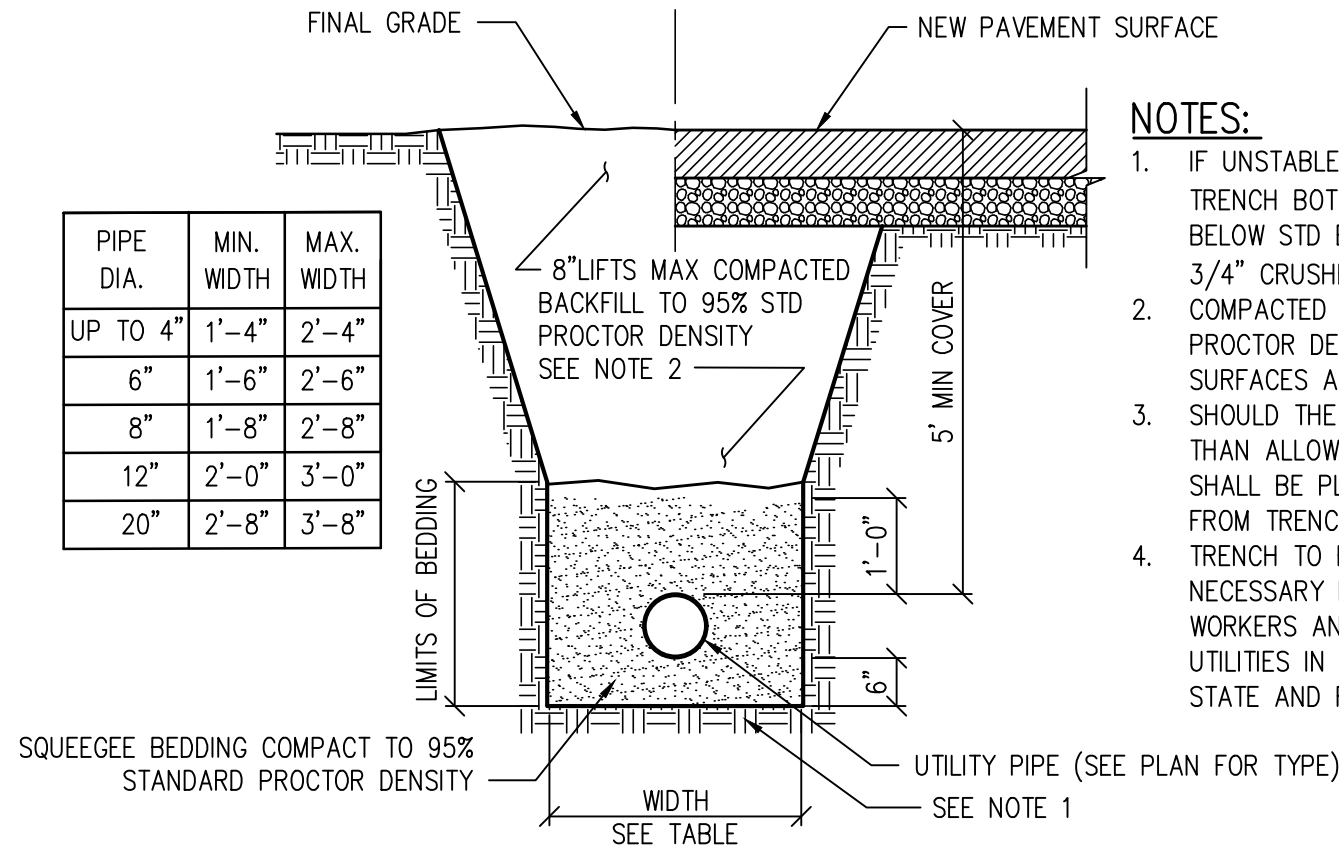


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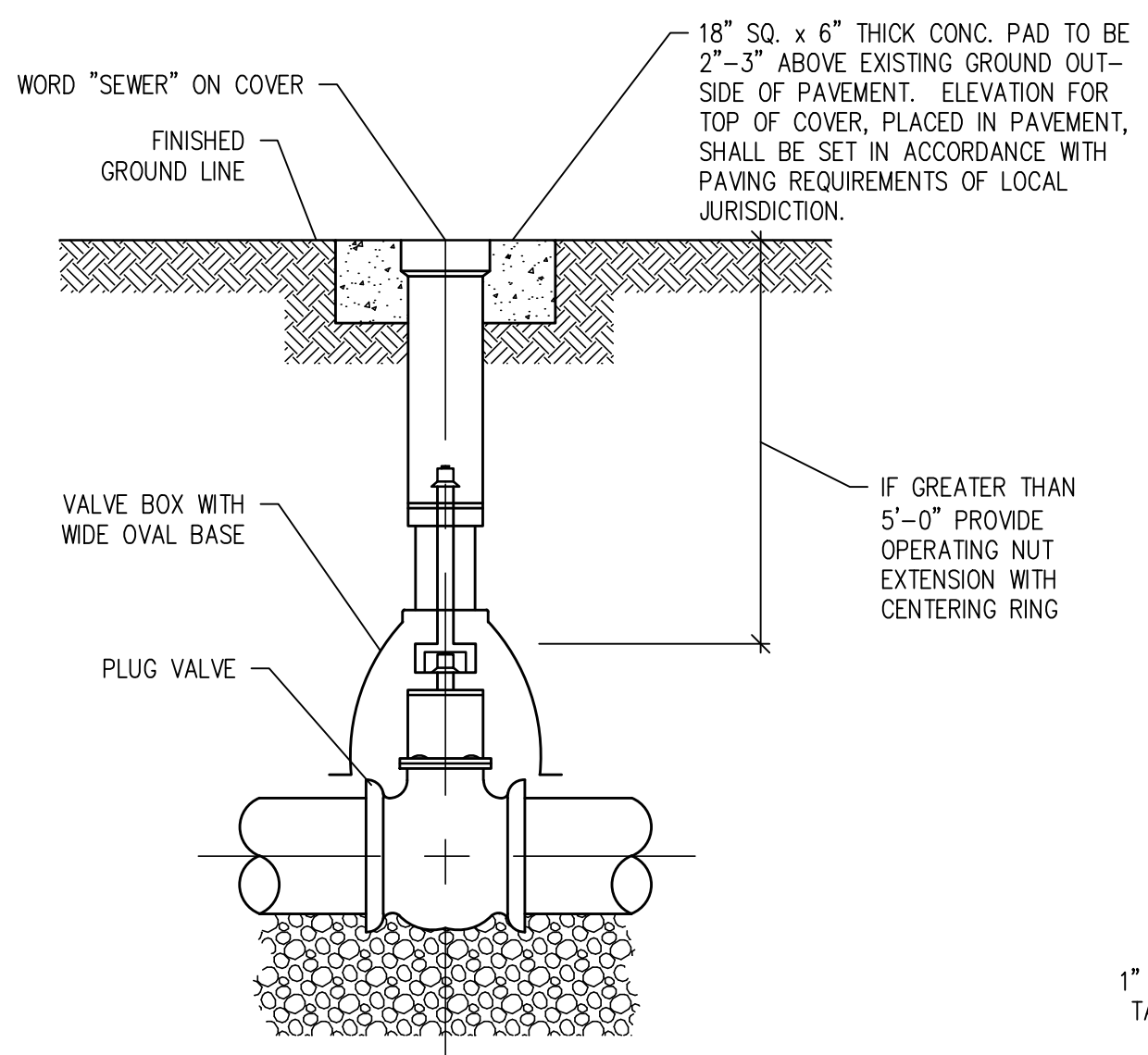
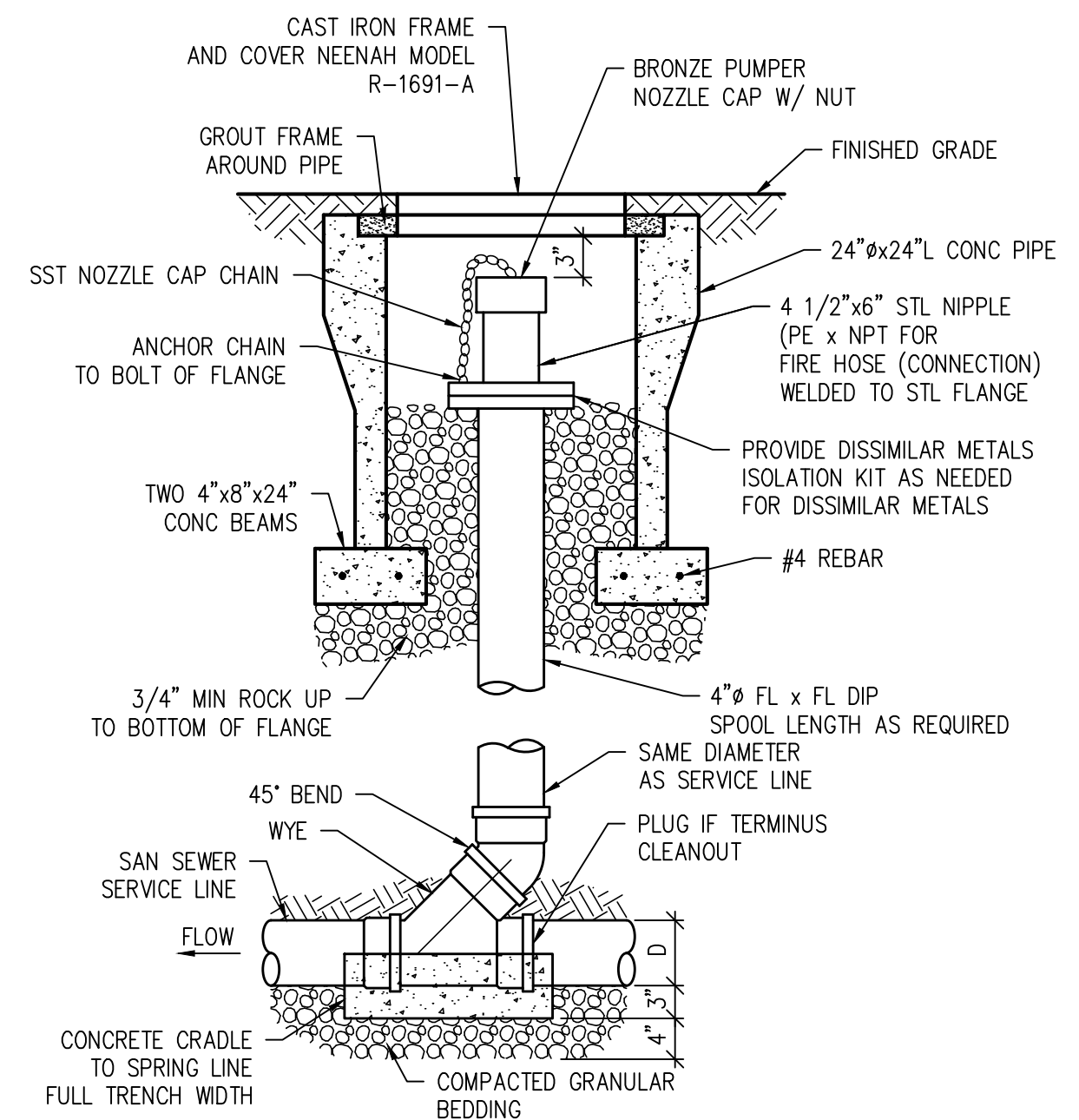
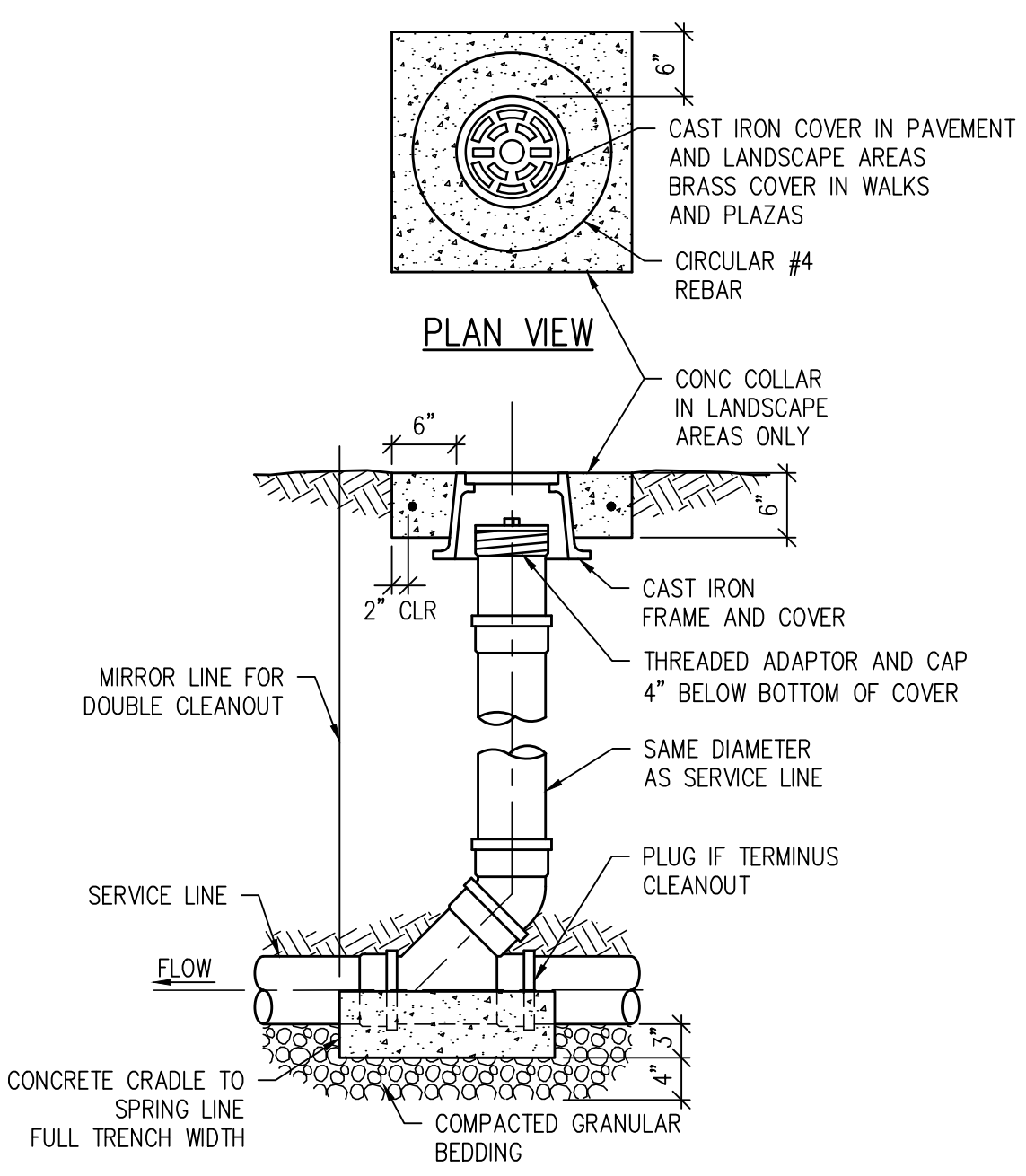
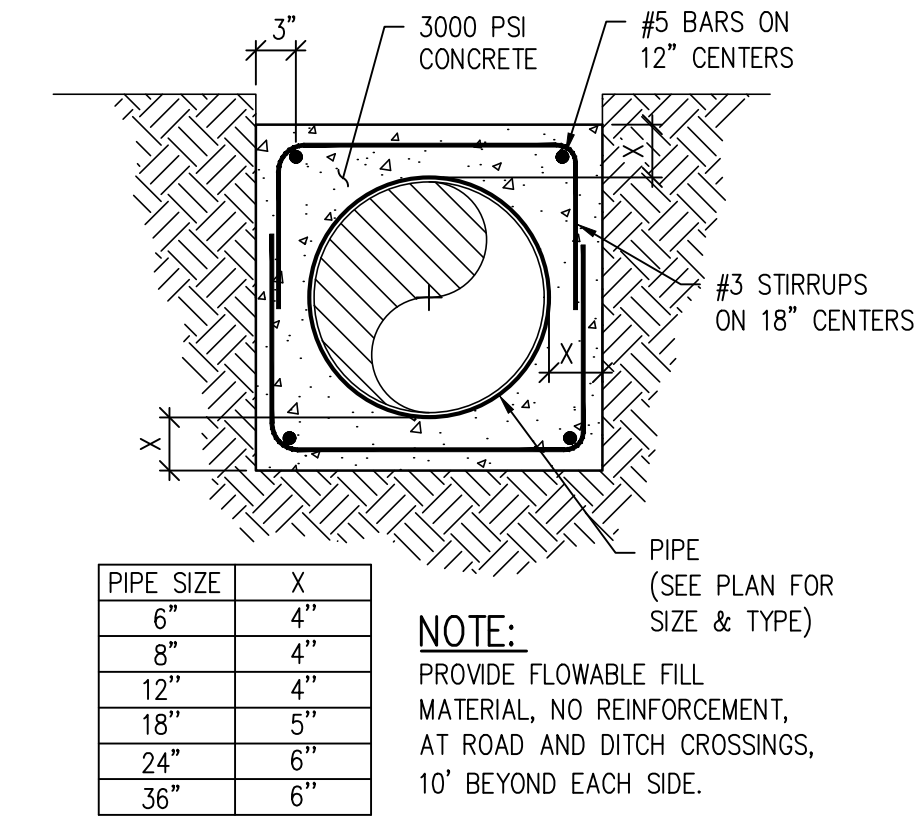
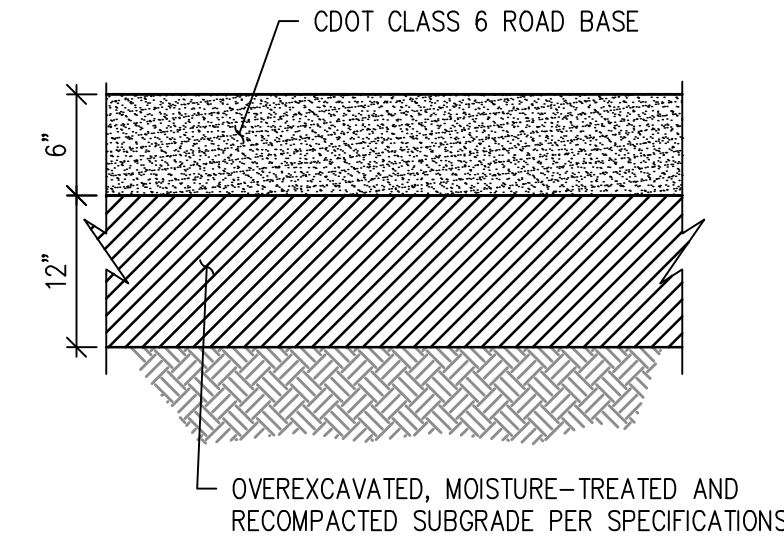
EXIST EMERGENCY  
 OVERFLOW POND



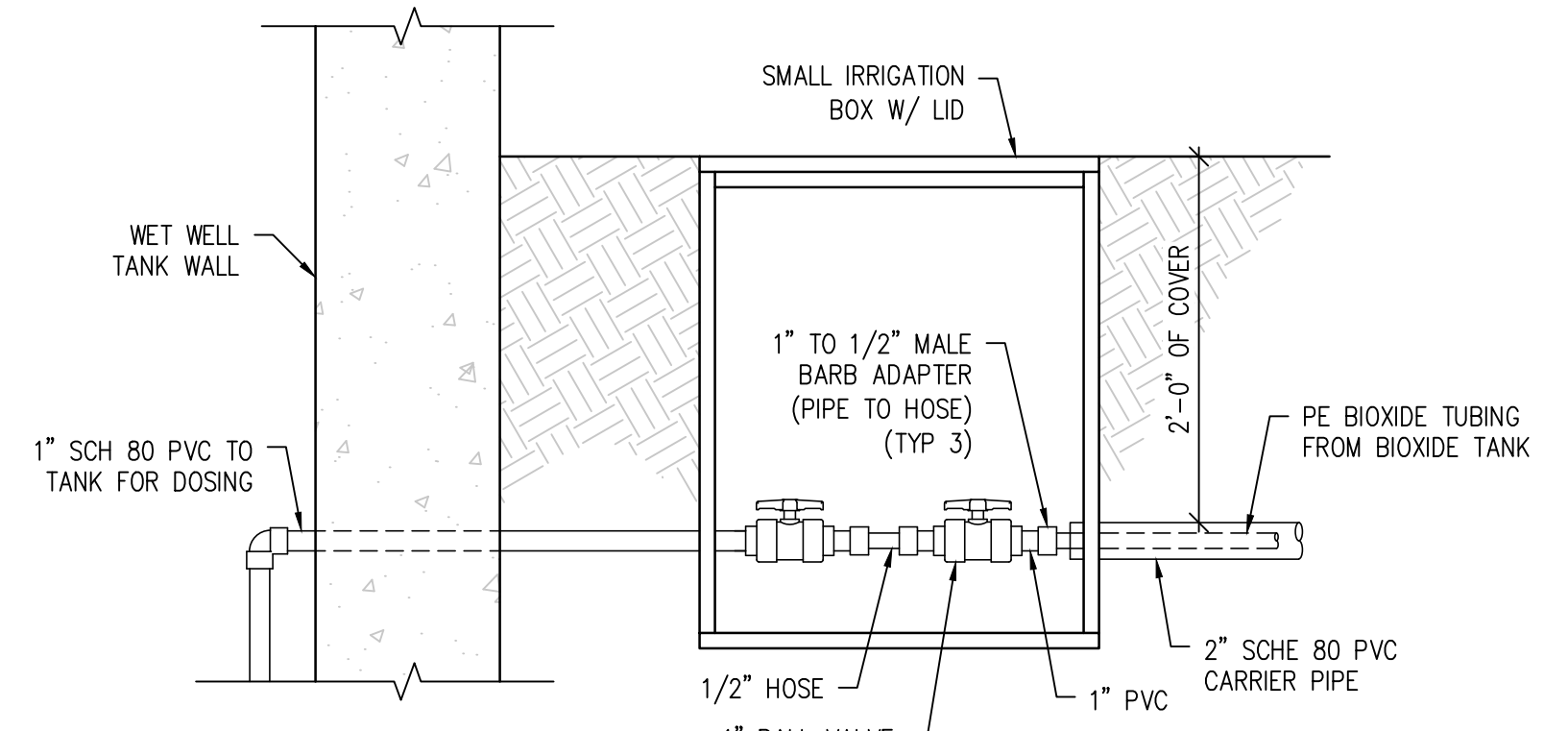
- NOTES:**
- SINCE ALL PIPE ENTRIES INTO THE BASE ARE VARIABLE, THE DIMENSIONS SHOWN ARE TYPICAL. ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE WORK.
  - THE PRECAST FLAT TOP MAY BE USED ON ANY MANHOLE.
  - THE MANHOLE RING FRAME SHALL BE SET IN A BED OF GROUT. THE FRAME SHALL BE SURROUNDED WITH A CEMENT GROUT IN UNPAVED AREA, OR A CONCRETE COLLAR IN PAVED AREA. SEE DETAILS ON SHEETS 2 AND 3.
  - DESIGN OF BOX BASE IS BASED ON STRAIGHT RUNS OF PIPE OR CHANGE IN DIRECTION OF LESS THAN 45°. SPECIAL DESIGN IS REQUIRED FOR 45° OR GREATER.
  - PRECAST MANHOLES AND REINFORCEMENT SHALL CONFORM TO AASHTO M 199 (ASTM C 478).
  - CAST-IN-PLACE MANHOLES SHALL BE CLASS B CONCRETE.
  - STEPS SHALL BE REQUIRED WHEN THE MANHOLE DEPTH EXCEEDS 3 FT.-6 IN. AND SHALL CONFORM TO AASHTO M 199.
  - ALL REINFORCING STEEL SHALL BE GRADE 60 AND EPOXY COATED. VERTICAL STEEL SHALL BE PLACED AT CENTERLINE OF WALL. ALL BARS SHALL HAVE A 2 IN. MINIMUM CLEARANCE.
  - ALL PIPE ENTRIES INTO THE BASE OF MANHOLE SHALL BE CONNECTED BY OPEN CHANNELIZATION ADJUSTED FOR PIPE SIZE, SHAPE, AND DIRECTION OF FLOW. DETAILS SHOWN ARE TYPICAL FOR INSTALLATIONS WITH ALL INVERTS OF SAME RELATIVE ELEVATION. FOR EXCESSIVE ELEVATION DIFFERENCE BETWEEN INVERTS, SPECIAL BASE/CHANNEL DETAILS WILL BE SHOWN ON THE PLANS.
  - FLOW CHANNELS AND INVERTS SHALL BE FORMED BY SHAPING WITH CLASS B CONCRETE OR APPROVED GROUT.
  - STUB-OUTS SHALL EXTEND 2 FT. MINIMUM BEYOND OUTSIDE WALL SURFACE OF MANHOLE AND BE SATISFACTORILY PLUGGED.
  - THE SLOPE OF THE MANHOLE COVER SHALL MATCH THE ROADWAY PROFILE AND CROSS SLOPE.
  - BASE SLABS SHALL BE POURED MONOLITHICALLY WITH BOTTOM RISER SECTION.
  - PRECAST MANHOLE BASES SHALL FIT THE CONDITIONS AND LOCATIONS FOR WHICH THEY ARE INTENDED WITHOUT ANY FIELD MODIFICATIONS. ANY MANHOLE BASE WHICH REQUIRES FIELD CUTTING OR MODIFICATION IN ORDER TO FIT THE LOCATIONS INTENDED WILL BE REJECTED BY THE ENGINEER AND REMOVED AND REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.
  - FOR FULL DETAIL, SEE CDOT DETAIL M-604-20.



- NOTES:**
- IF UNSTABLE MATERIALS ARE FOUND IN TRENCH BOTTOM, OVER EXCAVATE 12" BELOW STD EMBEDMENT AND FILL WITH 3/4" CRUSHED ROCK, COMPACTED TO 95% STANDARD PROCTOR DENSITY IN NON-DRIVING SURFACES AND 95% UNDER PAVEMENT.
  - SHOULD THE TRENCH BE EXCAVATED WIDER THAN ALLOWED A CONCRETE CRADLE SHALL BE PLACED WITH 2500PSI CONCRETE FROM TRENCH BOTTOM TO PIPE SPRINGLINE. TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKERS AND THE PROTECTION OF OTHER UTILITIES IN ACCORDANCE WITH LOCAL STATE AND FEDERAL SAFETY REGULATIONS.



- NOTE:**
- CARE SHALL BE TAKEN WHEN INSTALLING VALVES ON LINES TO ASSURE PROPER SUPPORT OF THE VALVES.
  - WOOD BLOCKS OR 3/4" WASHED ROCK TO BE INSTALLED UNDER THE VALVE TO PROVIDE PROPER SUPPORT WHERE REQUIRED.
  - VALVES SHALL NOT BE PLACED IN CONCRETE CROSS PANS.



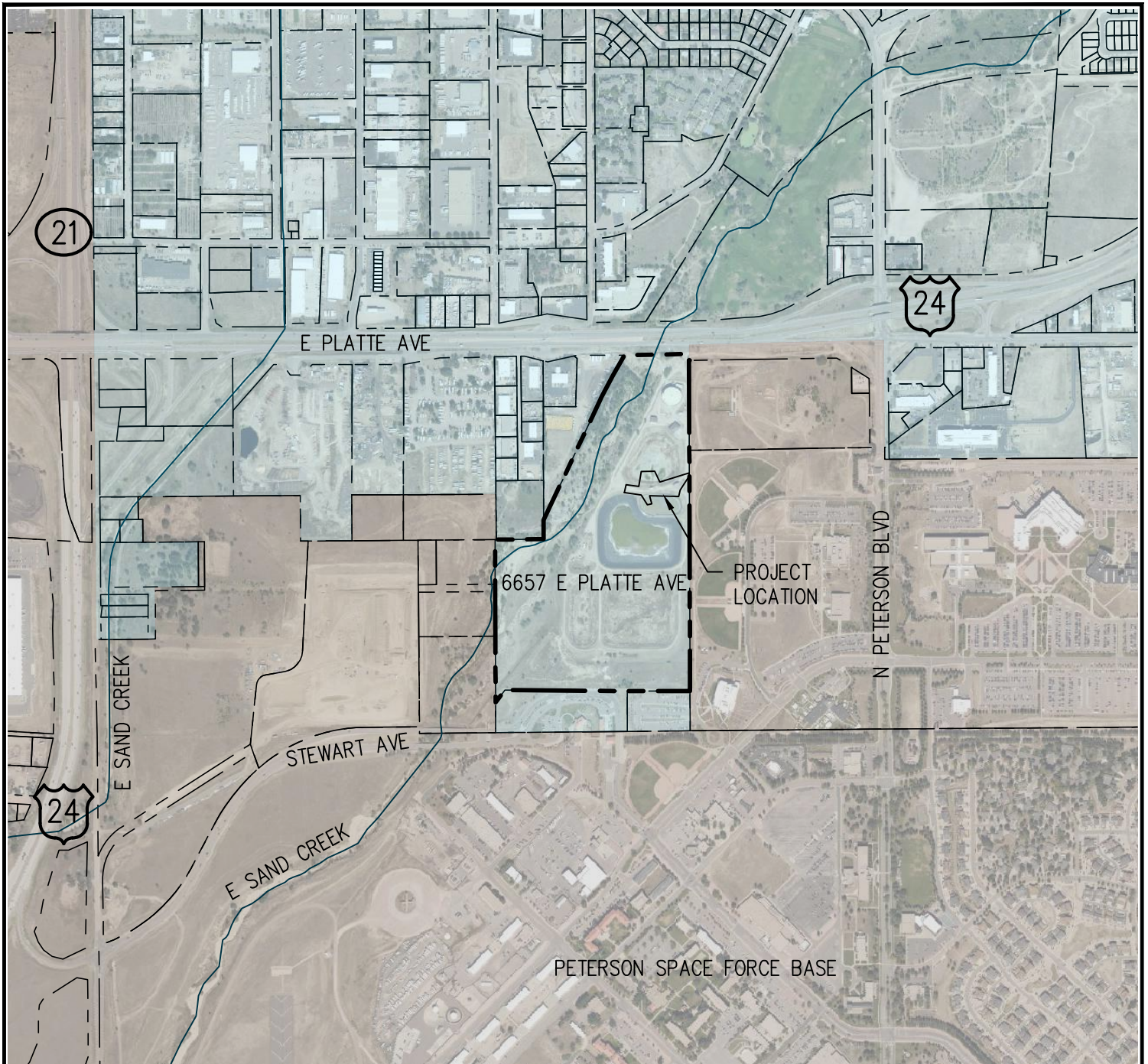
**BIOXIDE DISCONNECT BOX DETAIL** NTS

DESIGNED BY:	NAS
DRAWN BY:	MHT
CHECKED BY:	JJM
JOB #:	1164e
DATE:	OCT 2022

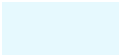

CHEROKEE METROPOLITAN DISTRICT  
 LIFT STATION NO. 1B  
 EL PASO COUNTY, COLORADO

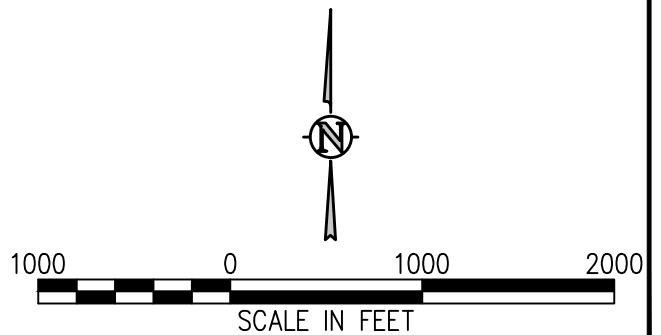
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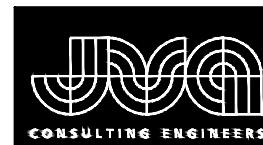


LEGEND

-  UNINCORPORATED EL PASO COUNTY
-  CITY OF COLORADO SPRINGS

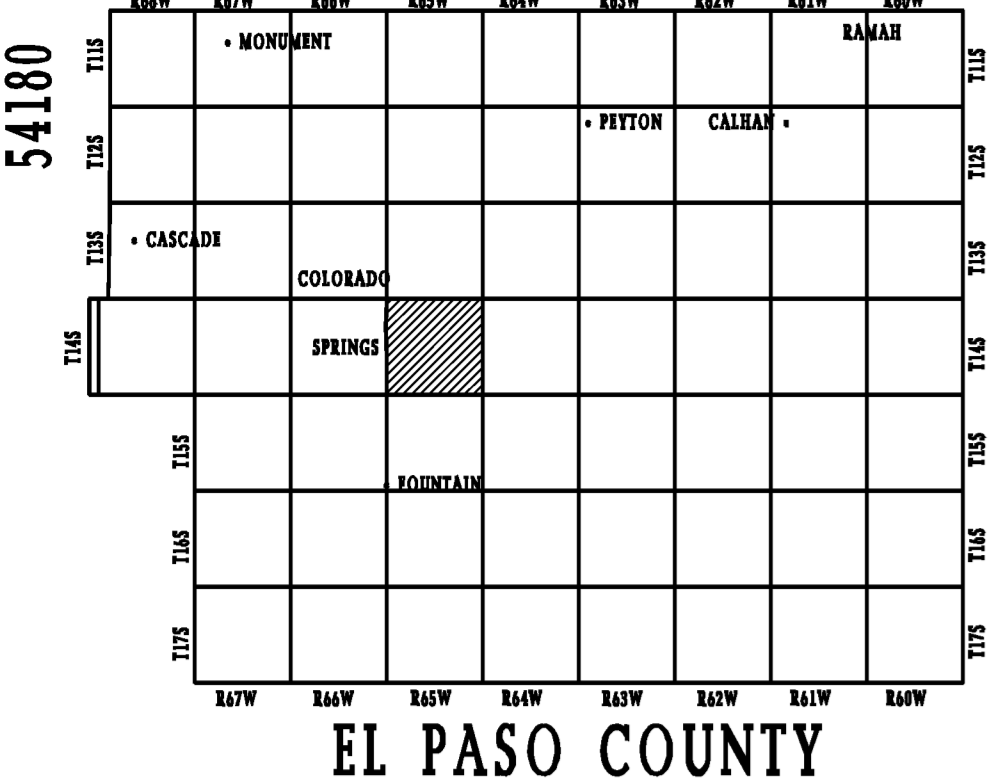


**CMD VICINITY MAP**  
**PARCEL NO. 5418000080**  
**OCTOBER 2022**

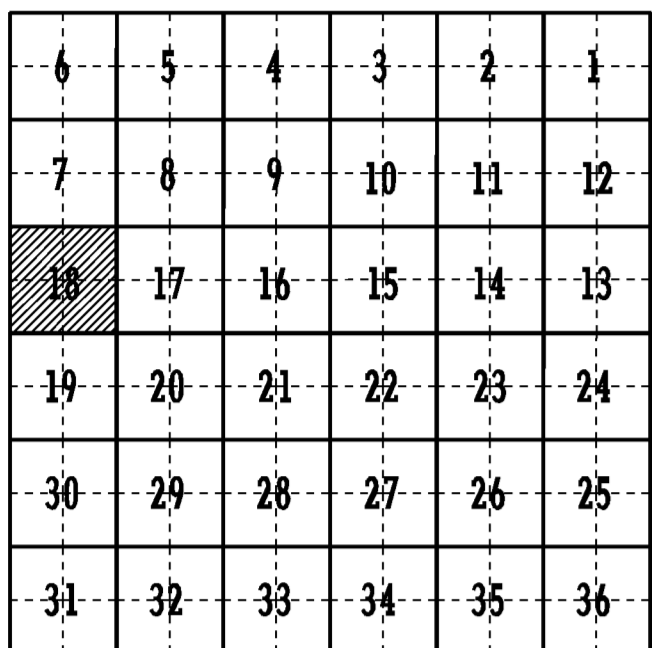


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ADJOINING 54073-74



EL PASO COUNTY

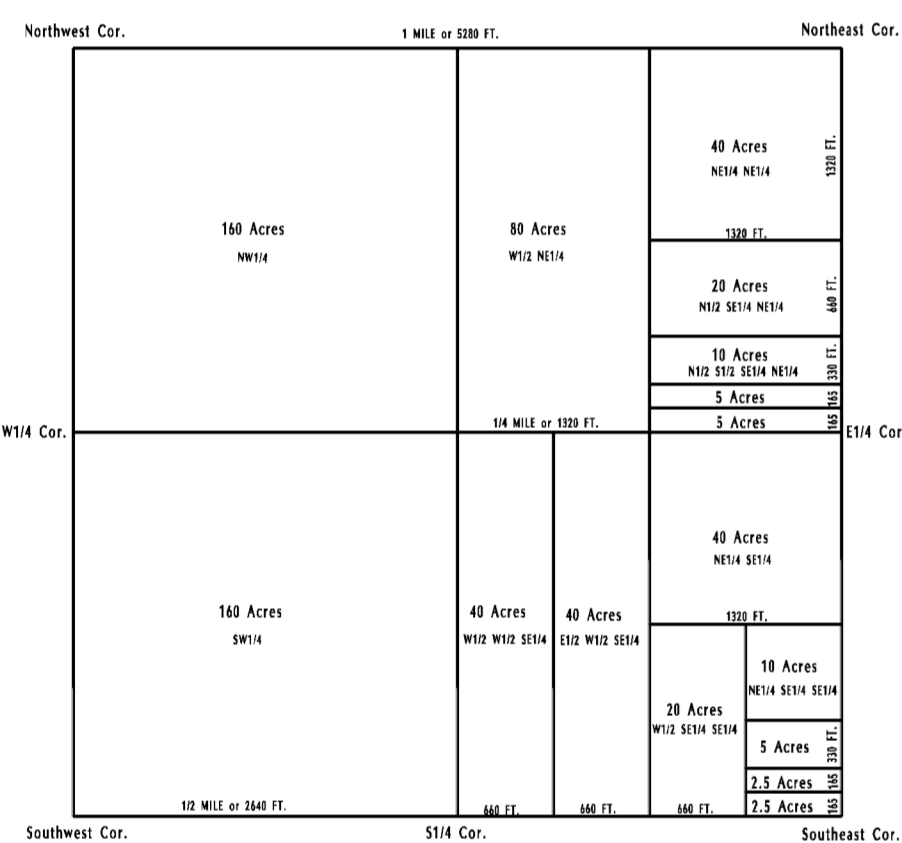


ONE TOWNSHIP

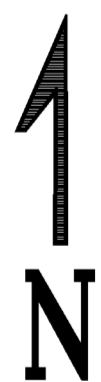
ASSESSOR



El Paso County Colorado

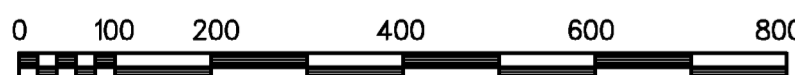


Rectangular Survey of One Section



June 29, 2022

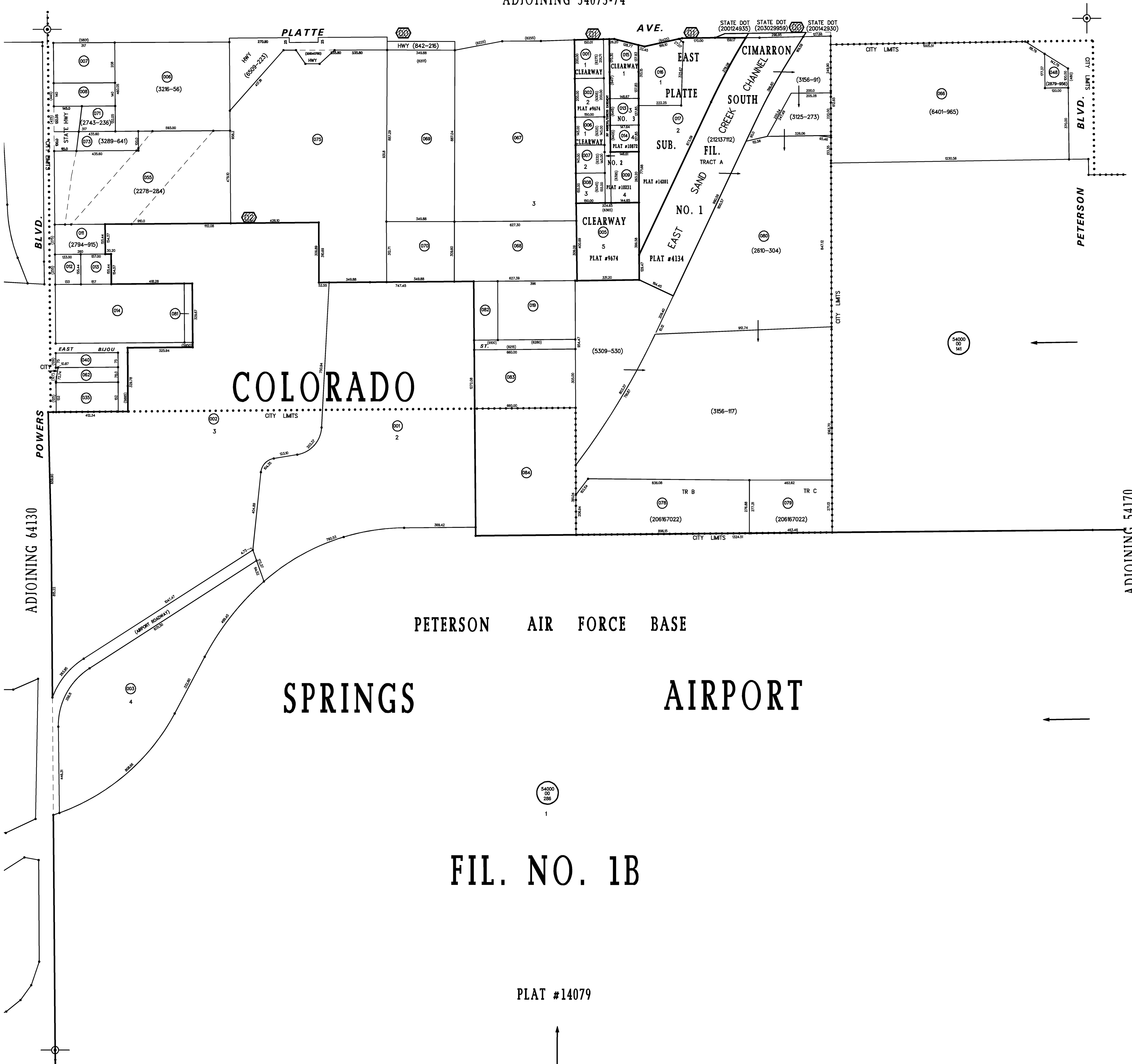
SCALE OF FEET



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ADJOINING 54170

FIL. NO. 1B

PLAT #14079

ADJOINING 54000

54180

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