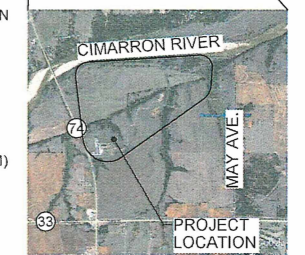


# Cimarron Environmental Response Trust

## Groundwater Remediation Logan County, Oklahoma

SEPTEMBER 2022  
142089

### Preliminary Design Drawings



PROJECT LOCATION

ADDRESS:  
100 NORTH HIGHWAY 74  
GUTHRIE, OK 73044

LEGAL DESCRIPTION:  
NE, NW, & SW 1/4 Sec. 12, T16N R4W  
I.M., NE 1/4 Sec. 11, T16N R4W I.M.,  
Sec. 1 & 2 South of River, T16N R4W I.M.



NOT TO SCALE

ONE OR TWO CHARACTER DISCIPLINE DESIGNATOR (MAY NOT BE PRESENT IF CALLOUT AND TITLE ARE ON DRAWINGS WITHIN THE SAME DISCIPLINE)

LETTER OR NUMBER DESIGNATOR

DRAWING SEQUENCE NUMBER INDICATES WHERE TITLE IS LOCATED (MAY NOT BE PRESENT IF CALLOUT AND TITLE ARE ON THE SAME DRAWING)

#### SECTION, DETAIL, AND ELEVATION SYMBOL IDENTIFIERS



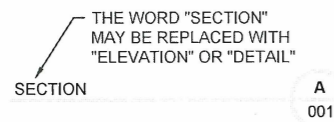
#### SECTION CALLOUT EXAMPLE



#### DETAIL CALLOUT EXAMPLE



#### ELEVATION CALLOUT EXAMPLE



#### SECTION, DETAIL, OR ELEVATION TITLE EXAMPLE

#### SECTION, DETAIL, AND ELEVATION IDENTIFICATION SYSTEM

#### GENERAL DRAWINGS

DWG. NO.	TITLE
	COVER-INDEX (I-1)
BMCD-GWREMEDI-G001	GENERAL NOTES (I-1)
BMCD-GWREMEDI-G002	NOTES, LEGEND AND ABBREVIATIONS (I-1)

#### CIVIL DRAWINGS

DWG. NO.	TITLE
BMCD-GWREMEDI-C001	EXISTING CONDITIONS (I-2)
BMCD-GWREMEDI-C002	OVERALL SITE PLAN AND SHEET LAYOUT KEY (I-2)
BMCD-GWREMEDI-C003	PARTIAL SITE PLAN - NORTH (I-2)
BMCD-GWREMEDI-C004	PARTIAL SITE PLAN - SOUTH (I-2)
BMCD-GWREMEDI-C005	PARTIAL SITE PLAN - EAST (I-2)
BMCD-GWREMEDI-C006	WESTERN AREA TREATMENT FACILITY GRADING PLAN AND LAYOUT (I-2)
BMCD-GWREMEDI-C007	WESTERN AREA TREATMENT FACILITY SITE PLAN (I-2)
BMCD-GWREMEDI-C008	WESTERN AREA TREATMENT INJECTION SKID LAYOUT (I-2)
BMCD-GWREMEDI-C009	BURIAL AREA 1 TREATMENT FACILITY SITE PLAN (I-2)
BMCD-GWREMEDI-C010	BURIAL AREA 1 TREATMENT INJECTION SKID (I-2)
BMCD-GWREMEDI-C011	1206 DRAINAGE AREA REMEDIATION PLAN (I-2)
BMCD-GWREMEDI-C012	UPLAND ACCESS ROADS (I-2)
BMCD-GWREMEDI-C101	EXTRACTION TRENCH DETAILS (I-3)
BMCD-GWREMEDI-C102	INJECTION TRENCH DETAILS - SHEET 1 (I-4)
BMCD-GWREMEDI-C103	INJECTION TRENCH DETAILS - SHEET 2 (I-4)
BMCD-GWREMEDI-C104	PIPE & CONDUIT TRENCH SECTIONS - SHEET 1 (I-6)
BMCD-GWREMEDI-C105	PIPE & CONDUIT TRENCH SECTIONS - SHEET 2 (I-6)
BMCD-GWREMEDI-C106	OUTFALL DETAILS (I-6)
BMCD-GWREMEDI-C107	MISCELLANEOUS DETAILS - SHEET 1 (I-6)

#### CIVIL DRAWINGS CONTINUED

DWG. NO.	TITLE
BMCD-GWREMEDI-C108	MISCELLANEOUS DETAILS - SHEET 2 (I-6)
BMCD-GWREMEDI-C109	MISCELLANEOUS DETAILS - SHEET 3 (I-6)
BMCD-GWREMEDI-C110	MISCELLANEOUS DETAILS - SHEET 4 (I-6)
BMCD-GWREMEDI-C200	WESTERN AREA TREATMENT FACILITY AND BURIAL AREA 1 SECTIONS, AND WATF UTILITY TRENCH PROFILE (I-6)

#### MECHANICAL DRAWINGS

DWG. NO.	TITLE
BMCD-GWREMEDI-M101	EXTRACTION WELL/SUMP AND VAULT DETAILS (I-3)
BMCD-GWREMEDI-M102	INJECTION AND EXTRACTION WELL DETAILS (I-3, I-4)
BMCD-GWREMEDI-M103	WESTERN AREA TREATMENT INJECTION SYSTEM LAYOUT (I-4)
BMCD-GWREMEDI-M104	BURIAL AREA 1 TREATMENT INJECTION SYSTEM LAYOUT (I-4)
BMCD-GWREMEDI-M201	CONSTRUCTION DETAILS INDEX - EXTRACTION WELLS/SUMPS (I-3)
BMCD-GWREMEDI-M202	CONSTRUCTION DETAILS INDEX - INJECTION WELLS (I-4)
BMCD-GWREMEDI-M203	PUMP SELECTION INDEX - EXTRACTION WELLS/SUMPS (I-3)

#### PROCESS DRAWINGS

DWG. NO.	TITLE
BMCD-GWREMEDI-P001	P&ID NOTES AND LEGEND (I-1)
BMCD-GWREMEDI-P101	WESTERN AREA GROUNDWATER EXTRACTION SYSTEM P&ID (I-3)
BMCD-GWREMEDI-P102	BURIAL AREA 1 GROUNDWATER EXTRACTION SYSTEM P&ID (I-3)
BMCD-GWREMEDI-P103	WESTERN AREA GROUNDWATER INJECTION SYSTEM P&ID - SHEET 1 (I-4)
BMCD-GWREMEDI-P104	WESTERN AREA GROUNDWATER INJECTION SYSTEM P&ID - SHEET 2 (I-4)
BMCD-GWREMEDI-P105	BURIAL AREA 1 GROUNDWATER INJECTION SYSTEM P&ID (I-4)

#### PROCESS DRAWINGS CONTINUED

DWG. NO.	TITLE
BMCD-GWREMEDI-P205	GROUNDWATER EXTRACTION AND INJECTION FLOW RATE SUMMARY (I-3, I-4)

#### ELECTRICAL DRAWINGS

DWG. NO.	TITLE
BMCD-GWREMEDI-E001	ELECTRICAL LEGEND AND ABBREVIATION (I-1)
BMCD-GWREMEDI-E002	ELECTRICAL GENERAL NOTES (I-1)
BMCD-GWREMEDI-E101	ELECTRICAL SINGLE LINE WATF (I-5)
BMCD-GWREMEDI-E102	ELECTRICAL SINGLE LINE BA1 (I-5)
BMCD-GWREMEDI-E103	CABLE AND CONDUIT SCHEDULE - SHEET 1 (I-5)
BMCD-GWREMEDI-E104	CABLE AND CONDUIT SCHEDULE - SHEET 2 (I-5)
BMCD-GWREMEDI-E105	CABLE AND CONDUIT SCHEDULE - SHEET 3 (I-5)
BMCD-GWREMEDI-E106	PANELBOARD SCHEDULE (I-5)
BMCD-GWREMEDI-E201	ELECTRICAL DETAIL SHEET 1 - CONNECTION DETAILS (I-5)
BMCD-GWREMEDI-E202	ELECTRICAL DETAIL SHEET 2 - DUCT BANK DETAILS (I-5)
BMCD-GWREMEDI-E203	ELECTRICAL DETAIL SHEET 3 - EQUIPMENT LOCATIONS (I-5)
BMCD-GWREMEDI-E204	ELECTRICAL COMMUNICATION SYSTEM ARCHITECTURE - SHEET 1 (I-5)
BMCD-GWREMEDI-E205	ELECTRICAL COMMUNICATION SYSTEM ARCHITECTURE - SHEET 2 (I-5)

no.	date	by	ckd	description
A	08/16/22	AA	MC	ISSUED FOR PRELIMINARY DESIGN



PRELIMINARY - NOT FOR CONSTRUCTION

# Cover-Index

GENERAL NOTES:

1. THE PROJECT SITE IS OWNED BY ENVIRONMENTAL PROPERTIES MANAGEMENT, LLC. ADDRESS: 100 NORTH HIGHWAY 74, GUTHRIE, OK 73044, PHONE: 405-642-5152.
2. THE PROJECT ENGINEER AND CONTRACTOR IS BURNS & MCDONNELL ENGINEERING COMPANY, INC. ADDRESS: 9400 WARD PARKWAY, KANSAS CITY, MO 64114, PHONE: 816-333-9400.
3. THE SUBCONTRACTOR SHALL COORDINATE ACCESS DURING CONSTRUCTION WITH CONTRACTOR, OWNER AND ADJACENT PROPERTY OWNERS. TRAFFIC MANAGEMENT SHALL BE SUBJECT TO CONTRACTOR'S APPROVAL.
4. THE LOCATIONS OF UTILITIES SHOWN HAVE BEEN DETERMINED FROM AVAILABLE INFORMATION. THEREFORE, THE RELATIONSHIP BETWEEN PROPOSED WORK AND EXISTING UTILITIES SHALL BE CONSIDERED APPROXIMATE.
5. THE HORIZONTAL AND VERTICAL LOCATING OF ALL EXISTING ABOVE GROUND AND BELOW GROUND UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE NOT GUARANTEED. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND LOCATING ALL UTILITIES IN THE PATH OF AND ADJACENT TO THE PROPOSED WORK. PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE SUBCONTRACTOR SHALL CALL OKLAHOMA ONE CALL AT OKIE811 OR 1-800-522-OKIE WITH SUITABLE NOTICE FOR THEIR LOCATING AND MARKING OF PUBLIC UTILITIES. SUBCONTRACTOR SHALL NOTIFY OWNER 48 HOURS IN ADVANCE OF ONE CALL NOTIFICATION. THE SITE IS GENERALLY NOT OCCUPIED.
6. THE CONSTRUCTION DRAWINGS REPRESENT THE FINISHED WORK. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION. SUBCONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT, MATERIALS, AND TOOLS NECESSARY TO COMPLETELY PERFORM THE WORK IN A SAFE, EXPEDITIOUS, AND PROFESSIONAL WORKMANLIKE MANNER. SUBCONTRACTOR SHALL COORDINATE SCHEDULE OF THE WORK WITH THE OWNER AND CONTRACTOR. SUBCONTRACTOR SHALL INSTALL EQUIPMENT AND MATERIALS PER MANUFACTURER'S RECOMMENDATIONS UNLESS NOTED OTHERWISE. THE SUBCONTRACTOR ACCEPTS FULL RESPONSIBILITY FOR PROPER HANDLING AND INSTALLATION OF EQUIPMENT AND MATERIALS.
7. SUBCONTRACTOR SHALL UNDERTAKE ALL NECESSARY MEASURES TO ENSURE SAFETY OF ALL PERSONS AND STRUCTURES AT THE SITE AND ADJACENT TO THE SITE. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ANY CLAIMS RESULTING FROM HIS/HER ACTIONS AND ACTIVITIES. VISITS TO THE SITE BY OWNER AND CONTRACTOR SHALL NOT RELIEVE THE SUBCONTRACTOR OF SUCH RESPONSIBILITY.
8. THE SUBCONTRACTOR SHALL ACCEPT FULL RESPONSIBILITY FOR EQUIPMENT, MATERIALS, AND TOOLS THROUGH PROJECT COMPLETION. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER SAFEGUARDING OF THE INSTALLATION AND MATERIALS/EQUIPMENT STORED ON THE SITE TO PREVENT THEFT, VANDALISM, OR DAMAGE. SUBCONTRACTOR SHALL STORE EQUIPMENT, MATERIALS, AND TOOLS IN A SECURE LOCATION (ON OR OFF-SITE).
9. SUBCONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE OF THE PROJECT LIMITS UNLESS APPROVED IN ADVANCE BY THE CONTRACTOR.
10. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPROPRIATE LICENSES AND TRADE PERMITS REQUIRED TO PERFORM THE WORK. SUBCONTRACTOR SHALL PROVIDE CERTIFICATES OF INSURANCE AND OTHER DOCUMENTATION REQUIRED BY JURISDICTIONAL AGENCIES BEFORE PERFORMING THE WORK.
11. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA REQUIREMENTS AND THE CIMARRON ENVIRONMENTAL RESPONSE TRUST SITE-SPECIFIC HEALTH & SAFETY PLAN (BURNS AND MCDONNELL).
12. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
13. THESE NOTES AND OTHER DRAWING NOTES CONTAINED HERewith ARE PROVIDED TO MEET SPECIFIC REQUIREMENTS AND TO SUPPLEMENT THE CONTRACT DOCUMENTS. THESE NOTES NEITHER REPLACE NOR OVERRIDE THE PROVISIONS AND REQUIREMENTS OF THE CONTRACT DOCUMENTS.
14. THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH ANY SHOP DRAWINGS PROVIDED BY SUPPLIERS. ALL SHOP DRAWINGS PROVIDED BY OTHERS SHALL BE SUBMITTED TO THE CONTRACTOR FOR REVIEW PRIOR TO THE FABRICATION OF MATERIAL OR THE PURCHASE OF NON-RETURNABLE STOCK. DIMENSIONAL REVIEW IS THE SUBCONTRACTOR'S RESPONSIBILITY.
15. UNKNOWN SITUATIONS OR CONDITIONS NOT COVERED IN THE CONTRACT DOCUMENTS MAY ARISE DURING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE SUBCONTRACTOR TO NOTIFY THE CONTRACTOR IF SUCH A CONDITION IS IDENTIFIED. THE PRESENCE OF OWNER, CONTRACTOR, OR THE MANUFACTURER'S REPRESENTATIVE AT THE PROJECT SITE DOES NOT RELIEVE THE SUBCONTRACTOR OF THE RESPONSIBILITY FOR A PROPER INSTALLATION.
16. ALL DIMENSIONS, ELEVATIONS, AND CONDITIONS SHALL BE VERIFIED IN THE FIELD BY THE SUBCONTRACTOR AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CLARIFICATION BEFORE PROCEEDING WITH THE AFFECTED PART OF WORK.
17. ALL WORK SHOWN IS IN APPROXIMATE LOCATIONS. THE SUBCONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF/HERSELF WITH THE EXISTING CONDITIONS BEFORE SUBMITTING HIS/HER BID.
18. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR: 1) PROVIDING POTABLE WATER AND TEMPORARY SANITARY FACILITIES FOR SUBCONTRACTOR'S PERSONNEL, 2) FURNISH, INSTALL, AND MAINTAIN TEMPORARY UTILITIES FOR ADEQUATE CONSTRUCTION, SAFETY, AND SECURITY, 3) MODIFY, RELOCATE, AND EXTEND SYSTEMS AS WORK PROGRESSES, REPAIR DAMAGE CAUSED BY INSTALLATION OR USE OF TEMPORARY FACILITIES, AND 4) REMOVE TEMPORARY FACILITIES ON COMPLETION OF WORK OR UNTIL SERVICE OR FACILITIES ARE NO LONGER NEEDED OR ARE REPLACED BY AUTHORIZED USE OF COMPLETED PERMANENT FACILITIES.
19. THE SUBCONTRACTOR IS RESPONSIBLE FOR ESTABLISHING A STAGING AREA FOR MATERIALS AND EQUIPMENT. SUBCONTRACTOR'S STAGING AREA SHALL BE APPROVED BY CONTRACTOR OR OWNER. SUBCONTRACTOR'S STAGING AREA IS SUBJECT TO CHANGE AT THE DIRECTION OF CONTRACTOR OR OWNER AND MAY CHANGE BASED ON OPERATIONAL REQUIREMENTS OF THE PROJECT SITE.
20. REQUESTS FOR INFORMATION (RFIs) SHALL INCLUDE A DETAILED, LEGIBLE DESCRIPTION OF THE ITEM NEEDING INTERPRETATION. CONTRACTOR WILL REVIEW EACH RFI, DETERMINE ACTION REQUIRED, AND ISSUE A RESPONSE TO SUBCONTRACTOR.
21. SUBMITTALS SHALL BE APPROVED BY CONTRACTOR PRIOR TO THE INSTALLATION OF PRODUCTS ON-SITE. SUBCONTRACTOR'S INSTALLATION OF UNAPPROVED PRODUCTS IS AT SUBCONTRACTOR'S RISK AND COST.
22. SUBCONTRACTOR SHALL MIX CLEAN INJECTION TRENCH SPOILS WITH 1206 SPOILS UNTIL HOMOGENEOUS AND PLACE IN 12" LIFTS. SUBCONTRACTOR SHALL ALSO MIX CLEAN INJECTION TRENCH SPOILS WITH GETR-WU-02 SPOILS UNTIL HOMOGENOUS AND PLACE IN 12" LIFTS. RADIOLOGICAL TESTING WILL BE COMPLETED BY OTHERS AND IS SUBJECT TO APPROVAL BEFORE PROCEEDING TO THE NEXT LIFT. CONTRACTOR TO OBSERVE AND PROVIDE GUIDANCE.
23. IF ANY DISCREPANCIES ARE NOTED BETWEEN THESE CONSTRUCTION DOCUMENTS AND INFORMATION PROVIDED OR AN ERROR IS SUSPECTED, IT SHALL BE IMMEDIATELY REPORTED TO THE CONTRACTOR AND THE PROJECT MANAGER.
24. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED PRIOR TO THE START OF CONSTRUCTION.
25. ALL CONSTRUCTION ACTIVITY, INCLUDING OPERATION OF HEAVY MACHINERY, EXCAVATION, FILLING, GRADING, CLEARING OF VEGETATION, DISPOSAL OF WASTE, AND STOCKPILING OF MATERIAL MUST TAKE PLACE WITHIN THE APPROVED WORK AREA AS AGREED UPON BY CONTRACTOR.
26. AT A MINIMUM, THE SUBCONTRACTOR SHALL MAINTAIN THE INTEGRITY OF ALL CONSTRUCTION ACCESS ROADS AND WORK AREAS DURING CONSTRUCTION OF THE PROJECT IN ORDER TO MAINTAIN SAFE AND OPERABLE WORK CONDITIONS.
27. NOISE IMPACTS FROM CONSTRUCTION SHALL BE MINIMIZED AND MITIGATED TO THE EXTENT POSSIBLE. SUBCONTRACTOR SHALL MAINTAIN ALL EQUIPMENT IN GOOD OPERATING CONDITIONS AND ALL MOTORS AND ENGINES WILL BE MUFFLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND WILL COMPLY WITH STATE ENVIRONMENTAL LAW.
28. FUGITIVE DUST RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE BY IMPLEMENTING APPROPRIATE CONTROL MEASURES. DUST SHALL BE ELIMINATED FROM STOCKPILED SOILS, UNPAVED ROADS, ETC. BY THE APPLICATION OF WATER OR STONE, RESPECTIVELY, AS NECESSARY. A WATERING VEHICLE SHALL BE AVAILABLE FOR THE DURATION OF PROJECT ACTIVITIES, AND THROUGHOUT RESTORATION.
29. ALL INJECTION SUPPLY PIPE BENDS SHALL BE SWEEP FITTINGS.

CIVIL NOTES:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
2. PRIOR TO FILL MATERIAL PROCUREMENT, SUBCONTRACTOR SHALL SUBMIT TO CONTRACTOR DOCUMENTATION DEMONSTRATING ALL IMPORTED FILL MATERIAL IS CLEAN (NOT CONTAMINATED) AND SUITABLE FOR USE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS, AND PROJECT SPECIFICATIONS.
3. SUBCONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO A CONDITION EQUAL TO OR BETTER THAN PRE-CONSTRUCTION CONDITIONS. TREES SPECIFIED FOR REMOVAL SHALL NOT BE REPLACED.
4. SUBCONTRACTOR SHALL PROTECT THE WORK AREAS WITH APPROPRIATE FENCING, BARRICADES, AND SIGNAGE.
5. ALL WORK SHALL BE DONE TO THE LINES, SLOPES, THICKNESS, AND GRADES INDICATED IN THE CONTRACT DRAWINGS. ALL ESTABLISHED MONUMENTS, BENCHMARKS, REFERENCE POINTS, STAKES, AND OTHER CENTRAL POINTS SHALL BE PRESERVED BY THE SUBCONTRACTOR. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR IN WRITING OF BENCHMARKS, REFERENCE LINES, OR OTHER CONTROL POINTS WHICH MAY HAVE BEEN DISTURBED OR WHICH APPEAR TO BE OFF LINE OR GRADE.
6. DISTURBED AREAS SHALL BE SEEDED, FERTILIZED, AND STABILIZED (WITH VEGETATIVE MULCH) IN ACCORDANCE WITH THE ODOT COMMISSION SPECIFICATIONS. SEED MIXTURE SHALL BE IN ACCORDANCE WITH TABLE 735.1 OF THE ODOT COMMISSION CHAPTER 735. SUBMIT SEED MIXTURE TO CONTRACTOR FOR APPROVAL PRIOR TO APPLICATION. DISTURBED AREAS SHALL HAVE ESTABLISHED 90% VEGETATION COVERAGE TO BE ACCEPTABLE.

ACCESS ROAD NOTES

1. MIRAFI R55801 WOVEN GEOTEXTILE OR ENGINEER APPROVED EQUIVALENT SHALL BE PLACED ON THE PREPARED SUBGRADE AND STRETCHED AS TIGHT AND AS FLAT AS PRACTICAL.
2. THE GEOTEXTILE SHALL BE LAID IN THE DIRECTION OF CONSTRUCTION TRAFFIC AND PER MANUFACTURER'S RECOMMENDATIONS. GEOTEXTILE PANELS SHOULD BE OVERLAPPED BOTH SIDE-TO-SIDE AND END-TO-END. OVERLAP SHALL BE PER MANUFACTURER'S SPECIFICATIONS OR A MINIMUM OF 18-INCHES, WHICHEVER IS GREATER.
3. THE FIRST FIVE FEET OF PLACED GEOTEXTILE ON EACH LATERAL ADJACENT TO THE ACCESS ROAD SHALL BE CUT AND LAID AS A SEPARATE SECTION.
4. SOIL, ROCKS, OR PINS APPROVED BY ENGINEER CAN BE USED TO HOLD FABRIC EDGES AND OVERLAPS DOWN UNTIL THE AGGREGATE IS PLACED TO PREVENT IT FROM LIFTING DURING PLACEMENT OF THE FIRST AGGREGATE LIFT. ON CURVES, THE GEOTEXTILE MAY BE FOLDED OR CUT TO CONFORM TO THE CURVE.
5. THE INITIAL LIFT OF AGGREGATE SHALL BE PLACED, SPREAD AND COMPACTED ON THE GEOTEXTILE FABRIC IN A 6-INCH LIFT. DO NOT OPERATE EQUIPMENT DIRECTLY ON GEOTEXTILE FABRIC.
6. TO THE EXTENT POSSIBLE IN THE FLOODPLAIN (WAA), MAINTAIN EXISTING DRAINAGE PATTERNS WITH ROAD CONSTRUCTION AND GRADING WHILE PROVIDING POSITIVE DRAINAGE OF ROADS. SPOIL EXCESS MATERIAL ON EITHER SIDE OF NEW ROAD AND TAPER TO EXISTING GRADE WHERE POSSIBLE TO MAINTAIN DRAINAGE, OR SPOIL EXCESS MATERIAL IN THE AREA INDICATED ON THE DRAWINGS, OR AS APPROVED BY THE CONTRACTOR, AND RESTORE IN ACCORDANCE WITH NOTES ABOVE.

COORDINATION AND COMMUNICATION:

1. SUBCONTRACTOR SHALL APPOINT A PRIMARY CONSTRUCTION SUPERINTENDENT, SUBJECT TO THE APPROVAL OF THE CONTRACTOR AND OWNER, WHO SHALL BE PRESENT ON THE CONSTRUCTION SITE AT ALL TIMES DURING WORKING HOURS AND ACCESSIBLE AT ALL TIMES WHILE WORK IS IN PROGRESS. WHEN THE SUBCONTRACTOR'S PRIMARY CONSTRUCTION SUPERINTENDENT IS NOT AVAILABLE ON THE CONSTRUCTION SITE, AN ALTERNATE REPRESENTATIVE SHALL BE PROVIDED. SUBCONTRACTOR SHALL PROVIDE NAMES AND CONTACT INFORMATION OF REPRESENTATIVES TO THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. IN ACCORDANCE WITH SNM-928, SUBCONTRACTORS ARE PROHIBITED FROM ACCESSING THE SITE UNLESS SPECIFICALLY DESIGNATED CONTRACTOR OR OWNER PERSONNEL ARE PRESENT.
2. SUBCONTRACTOR IS RESPONSIBLE FOR SUBMITTING ALL PRELIMINARY AND UPDATED CONSTRUCTION PROGRESS SCHEDULES, PROCUREMENT SCHEDULES, SCHEDULE OF SUBMITTALS AND SCHEDULE OF VALUES WITH INPUT AND COMMITMENTS FROM SUBCONTRACTORS AND SUPPLIERS.
3. CONTRACTOR WILL SCHEDULE AND CONDUCT DAILY SAFETY MEETINGS AND WEEKLY PROGRESS MEETINGS. SUBCONTRACTOR SHALL BE PREPARED TO DISCUSS CURRENT CONSTRUCTION PROGRESS AND ANY ANTICIPATED FUTURE CHANGES TO SCHEDULE.
4. THE SUBCONTRACTOR SHALL COORDINATE ACCESS DURING CONSTRUCTION WITH CONTRACTOR, OWNER, AND ADJACENT SITE PROPERTY OWNERS.

CONSTRUCTION LAYOUT AND SURVEYING NOTES:

1. SUBCONTRACTOR SHALL PROVIDE NEATLY RED MARKED DRAWINGS IDENTIFYING ANY MODIFICATIONS TO THE CONTRACT DOCUMENTS AND INDICATING CONFORMANCE TO CONSTRUCTION RECORD CONDITIONS TO THE CONTRACTOR UPON COMPLETION OF THE WORK.
2. THE CONTRACTOR SHALL REVIEW COMPLETENESS, ACCURACY, AND FORMAT OF SUBMITTED RECORD DRAWINGS. IF THE RECORD DRAWINGS ARE CONSIDERED UNACCEPTABLE, THEY SHALL BE RETURNED TO THE SUBCONTRACTOR FOR CORRECTION AND RESUBMITTED AT SUBCONTRACTOR'S EXPENSE.
3. SUBCONTRACTOR SHALL MAKE AVAILABLE ALL SURVEYS IN AUTOCAD 2018 (OR NEWER) FORMAT AND SHALL PROVIDE SURVEY POINTS IN .CSV FILE FORMAT.
4. CONTRACTOR MAY DIRECT SUBCONTRACTOR TO ALTER THE ALIGNMENTS, LENGTHS, AND DEPTHS OF INJECTION AND EXTRACTION TRENCHES BASED ON FIELD OBSERVATION.
5. TOPOGRAPHY FEATURES AND AERIAL IMAGERY SHOWN ARE FROM A GROUND SURVEY DATED JULY 2014, AND AN AERIAL SURVEY DATED MAY 2014. TOPOGRAPHY UPDATED WITH GROUND SURVEY PERFORMED NOVEMBER 11, 2016 WITHIN BOUNDARIES INDICATED ON C001.

Millimeters

Scale For Microlining

Inches

no.	date	by	ckd	description
A	08/22/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

**PRELIMINARY - NOT FOR CONSTRUCTION**



9400 WARD PARKWAY  
 KANSAS CITY, MO 64114  
 816-333-9400  
 OKLAHOMA FIRM LICENSEE NO. 421

date	SEPTMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

Cimarron Environmental Response Trust  
GENERAL NOTES

project	142089	contract	-
drawing	BMCD-GWREMED-G001	rev.	A
sheet	of	sheets	
file	G001 GEN-NOTES-AB.DWG		

**EROSION CONTROL NOTES:**

- SUBCONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE, AND REMOVAL OF ALL EROSION CONTROL MEASURES REQUIRED AND AS A RESULT OF SUBCONTRACTOR'S ACTIVITIES. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION AT THE SITE.
- CONTRACTOR WILL PROVIDE THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) TO SUBCONTRACTOR . SUBCONTRACTOR SHALL REVIEW SWPPP PRIOR TO PREPARING AND SUBMITTING A BID.
- SUBCONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY, OWNER, OR CONTRACTOR. ADDITIONAL CONTROLS SHALL BE IMPLEMENTED AS DICTATED BY THE SITE CONDITIONS AT SUBCONTRACTOR'S EXPENSE THROUGHOUT ALL PHASES OF THE CONTRACT WORK. NOTIFY CONTRACTOR OF ANY DISTURBANCES THAT ARE BEYOND THE PLANNED LIMITS OF CONSTRUCTION ACTIVITIES.
- ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. SUBCONTRACTOR SHALL REMOVE EROSION CONTROL FEATURES AT THE COMPLETION OF THE CONTRACT WORK IF SAID FEATURES ARE NOT BIODEGRADABLE. REMOVAL SHALL NOT OCCUR UNTIL VEGETATION OR PERMANENT CONTROL MEASURES HAVE BEEN ESTABLISHED.
- SUBCONTRACTOR SHALL MINIMIZE CLEARING TO THE EXTENT PRACTICAL.
- ADDITIONAL EROSION CONTROL MEASURES SHALL BE DEPLOYED DURING EXCAVATION ACTIVITIES CONDUCTED WITHIN THE BOUNDARIES OF FORMER URANIUM POND 1 AND 2 LIMITS, AS DETAILED ON THESE CONSTRUCTION DRAWINGS. POTENTIALLY IMPACTED SOIL REMOVED FROM THESE AREAS (DEFINED AS MATERIAL REMOVED FROM 6 FEET BELOW GROUND SURFACE AND ABOVE SANDSTONE A FOR URANIUM POND 1 AND 5 FEET BELOW GROUND SURFACE AND ABOVE SANDSTONE A FOR URANIUM POND 2) SHALL BE SEGREGATED FROM CLEAN SOIL AND STAGED WITH BMPs TO PREVENT SEDIMENT MIGRATION. ADDITIONAL BMPs SHALL BE DEPLOYED TO PREVENT STORM WATER RUN-OFF AND POTENTIALLY IMPACTED SOILS FROM ENTERING AND ACCUMULATING IN THE TRENCHES. SOIL MATERIAL ENTERING AND ACCUMULATING IN THE TRENCH SHALL BE REMOVED AND HANDLED AS POTENTIALLY IMPACTED MATERIAL. POTENTIALLY IMPACTED SOIL REMOVED SHALL BE PLACED BACK IN THE TRENCH AND BELOW THE MINIMUM IMPACTED MATERIAL DEPTH AS FOLLOWS:
  - GWI-UP1-03 AND GWI-UP1-04: POTENTIALLY IMPACTED SOIL IS DEFINED AS SOIL MATERIAL WITHIN THE FORMER URANIUM POND 1 LIMITS BELOW 6 FEET BELOW GROUND SURFACE AND ABOVE GRAVEL FILTER FABRIC.
  - GWI-UP2-01: POTENTIALLY IMPACTED SOIL IS DEFINED AS SOIL MATERIAL WITHIN THE FORMER URANIUM POND 2 LIMITS BELOW 5 FEET BELOW GROUND SURFACE AND ABOVE GRAVEL FILTER FABRIC.
- ALL LAND DISTURBING ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES AND STANDARDS. ALL TEMPORARY SEDIMENTATION AND EROSION CONTROL DEVICES SHALL BE INSTALLED AS SHOWN ON THE APPROVED PLAN AND THE SWPPP.
- SITE DRAINAGE PATTERNS, INCLUDING THE PROJECT SITE AND ADJACENT PROPERTIES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD UNLESS OTHERWISE APPROVED BY THE CONTRACTOR.
- THE SUBCONTRACTOR SHALL MAINTAIN ALL SEDIMENTATION CONTROL DEVICES AND TAKE ANY PRECAUTIONARY MEASURES TO ENSURE THAT SEDIMENT DOES NOT ENTER ANY NATURAL STREAM CHANNEL LOCATED WITHIN THE SITE.
- GROUND COVER REQUIREMENTS SHALL BE FOLLOWED IN ADDITION TO STANDARD EROSION CONTROL REQUIREMENTS. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A PERMANENT STAND OF VEGETATION ON ALL DISTURBED AREAS AND MEETING ALL FINAL STABILIZATION REQUIREMENTS.

**WASTE MANAGEMENT NOTES:**

- SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL, MANAGEMENT, LOADING, AND STORAGE OF WASTE MATERIALS ON-SITE, AND DISPOSAL OFF-SITE. WASTE MATERIALS INCLUDE:
  - WASTE AND CONSTRUCTION AND DEMOLITION DEBRIS.
  - WASH WATER ASSOCIATED WITH CONCRETE TRUCKS, VEHICLE CLEANING, AND EQUIPMENT CLEANING.
  - SUBCONTRACTOR SHALL NOT REMOVE WASTE MATERIALS FROM THE SITE WITHOUT OBTAINING WRITTEN APPROVAL FROM OWNER AND CONTRACTOR.
- SUBCONTRACTOR SHALL BE RESPONSIBLE FOR TRANSPORTATION, DISPOSAL, AND OBTAINING HAULING AND DISPOSAL PERMITS.
- SUBCONTRACTOR SHALL DISPOSE OF WASTE MATERIALS IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
- TREES AND BRUSH GENERATED DURING CLEARING AND GRUBBING ACTIVITIES SHALL BE STOCKPILED IN OWNER-APPROVED AREAS AND REMOVED FROM THE SITE.
- THE SUBCONTRACTOR SHALL REMOVE FROM THE SITE THOSE MATERIALS NOT INDICATED TO BE SALVAGED. ALL REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE SUBCONTRACTOR WHO SHALL LEGALLY DISPOSE OF THEM.
- SUBCONTRACTOR SHALL NOT REMOVE WASTE MATERIALS FROM THE SITE WITHOUT OBTAINING WRITTEN APPROVAL FROM OWNER AND CONTRACTOR.

**LEGEND**

	UTILITY TRENCH ALIGNMENT (APPLIES TO C002 ONLY)
	BURIED COMMUNICATION CONDUIT/ CABLE
	BURIED INSTRUMENTATION CONDUIT/ CABLE
	BURIED FIBER OPTIC CONDUIT/ CABLE
	BURIED ELECTRICAL CONDUIT/ CABLE
	GROUNDWATER EXTRACTION TRENCH
	BURIED GROUNDWATER EXTRACTION PIPE
	BURIED INJECTION WATER SUPPLY PIPE
	INJECTION TRENCH
	WATER SUPPLY LNE
	PROPERTY LNE
	EASEMENT
	BURIED WATER DISCHARGE PIPE
	EXISTING SURFACE ELEVATION CONTOUR
	PROPOSED SURFACE ELEVATION CONTOUR
	EXISTING FENCE
	PROPOSED FENCE
	EXISTING CHANNEL
	PROPOSED CHANNEL
	FUTURE OUTFALL LINE, BY OTHERS
	EDGE OF PROPOSED ACCESS ROAD AND LATERALS
	CLEARING LIMITS
	ACCESS ROAD C WITH STATION MARKS
	STRAW WATTLE
	EROSION CONTROL BLANKET
	EXTRACTION TRENCH SUMP
	INJECTION WELL
	EXTRACTION WELL
	EXISTING MONITOR WELL
	PROPOSED CLEANOUT (ARROW INDICATES DIRECTION OF CLEANOUT)

**ABBREVIATIONS:**

APPROX.	APPROXIMATE	SWPPP	STORMWATER POLLUTION PREVENTION PLAN
BA1	BURIAL AREA 1	TYP.	TYPICAL
BLDG.	BUILDING	UP	URANIUM POND
BMPs	BEST MANAGEMENT PRACTICES	U	URANIUM
C	CENTER LINE	VNSFS	VEOLIA NUCLEAR SOLUTIONS FEDERAL SERVICES
CMP.	CORRUGATED METAL PIPE	WA	WESTERN AREA
CP.	CONTROL POINT	WATF	WESTERN AREA TREATMENT FACILITY
CPP	CONTROL PANEL POWER	WU	WESTERN UPLAND
DIA.	DIAMETER	WAA	WESTERN ALLUVIAL AREA
DWG.	DRAWING	Y	YARD
E.	EAST		
EL.	ELEVATION		
EQ	EQUAL		
E.W.	EACH WAY		
EX. OR EXIST.	EXISTING		
FT.	FEET		
GE	GROUNDWATER EXTRACTION		
GETR	GROUNDWATER EXTRACTION TRENCH		
GWI	GROUNDWATER INJECTION		
HDPE	HIGH DENSITY POLYETHYLENE		
INC.	INCORPORATED		
INJ.	INJECTION		
LAT	LATERAL		
MAX.	MAXIMUM		
MIN.	MINIMUM		
MISC.	MISCELLANEOUS		
N.	NORTH		
O.C.	OFF CENTER		
O.D.	OUTSIDE DIAMETER		
ODOT	OKLAHOMA DEPARTMENT OF TRANSPORTATION		
OG&E	OKLAHOMA GAS & ELECTRIC		
OSHA	OCCUPATIONAL SAFETY HEALTH ADMINISTRATION		
OZ.	OUNCE		
PSI	POUNDS PER SQUARE INCH		
PVC	POLYVINYL CHLORIDE		
R	RADIUS		
RFI	REQUEST FOR INFORMATION		
RTU	REMOTE TELEMETRY UNIT		
SP	SPACED		
S.Q	SQUARE		
ST.	STREET		
STA	STATION		

no.	date	by	ckd	description
A	09/01/22	BCW	RTB	ISSUED FOR PRELIMINARY DESIGN



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9400 WARD PARKWAY  
KANSAS CITY, MO 64114  
816-333-9400  
OKLAHOMA FIRM LICENSE NO. 421

date	SEPTEMBER 2022	detailed	T. COLLINS
designed	B. WEIS	checked	R. BETTMENG

Cimarron Environmental Response Trust  
NOTES, LEGEND AND ABBREVIATIONS

project	142089	contract	
drawing		rev.	A
sheet		of	sheets
file	G002 GEN-NOTES-AB.DWG		

1	2	3	4	5	6	7	8	9	10	11	12	13												
<b>ABBREVIATIONS</b>			<b>PIPING AND VALVE SYMBOLS</b>			<b>GENERAL NOTES</b>																		
<p><b>EQUIPMENT &amp; SPECIALTIES</b></p> <p>BL HIGH PRESSURE BLOWER BOP/D BOTTOM OF PIPE/DUCT C COMPRESSOR CV CHECK VALVE EJ EXPANSION JOINT, FLEXIBLE CONNECTOR FAN FAN OR LOW PRESSURE BLOWER FOT/B FLAT ON TOP/BOTTOM HB HOSE BIBB MP METERING PUMP MOV MOTOR OPERATED VALVE MXR MIXER NOZ NOZZLE P PUMP PI PRESSURE INDICATOR PT PRESSURE TRANSMITTER QCU QUICK CONNECT UNIT REC RECEIVER RO ORIFICE PLATE OR RESTRICTION DEVICE SFI SIGHT FLOW INDICATOR SG SIGHT GLASS SLR SILENCER SOV SOLENOID OPERATED VALVE STR STRAINER TK TANK V VESSEL WTR WATER TREATMENT (POLISHER, SOFTENER, DEMINERALIZER) XM MISCELLANEOUS MECHANICAL EQUIPMENT XP MISCELLANEOUS PIPING SPECIALTY</p> <p><b>LINE CODES</b></p> <p>CPR COPPER PIPE CS CARBON STEEL HDPE HIGH-DENSITY POLYETHYLENE PIPE GLV GALVANIZED STEEL PIPE PRH PRESSURE HOSE PVC POLYVINYL CHLORIDE PIPE DIP DUCTILE IRON PIPE SS STAINLESS STEEL</p>			<p><b>GENERAL</b></p> <p>AG ABOVEGROUND BA1 BURIAL AREA #1 COMM COMMUNICATION CPP CONTROL POWER PANEL FC FAIL CLOSED FO FAIL OPEN FOP FIBER OPTIC FL FAIL LAST POSITION GAL GALLON HOA HAND / OFF / AUTO INSTR INSTRUMENT LSH LEVEL SWITCH HIGH LSL LEVEL SWITCH LOW MCC MOTOR CONTROL CENTER NC NORMALLY CLOSED NO NORMALLY OPEN OD OUTER DIAMETER PB PUSH BUTTON PSIG POUNDS PER SQUARE INCH GAUGE RTU REMOTE TERMINAL UNIT SCFM STANDARD CUBIC FEET / MINUTE SCH SCHEDULE SP SET POINT UG UNDERGROUND LO LOCKED OPEN O/C OPEN - CLOSE QTY QUANTITY TYP TYPICAL UG UNDERGROUND V VOLT WA WESTERN AREA</p> <p><b>SERVICE CODES</b></p> <p>CA COMPRESSED AIR EGW EFFLUENT WATER EXH EXHAUST EVP EFFLUENT VAPOR GW GROUNDWATER IGW INFLUENT GROUNDWATER INW INFLUENT WATER IVP INFLUENT VAPOR PRD PRODUCT VNT VENT</p>			<p>BALL VALVE / SAMPLE PORT</p> <p>GLOBE VALVE</p> <p>GATE VALVE</p> <p>CHECK VALVE</p> <p>RELIEF VALVE</p> <p>BUTTERFLY VALVE</p> <p>MAGNETIC FLOWMETER</p> <p>VACUUM RELIEF VALVE</p> <p>VENT</p> <p>CONCENTRIC REDUCER</p> <p>UNION</p> <p>REMOVABLE CAP</p> <p>FLANGE</p> <p>BAG FILTER</p> <p>AGITATOR/MIXER</p> <p>MATERIAL TRANSITION AND TRANSITION TO BELOW GROUND</p> <p>HOSE CONNECTION</p> <p>VARIABLE FREQUENCY DRIVE</p>			<p>1. LEGEND IS GENERAL IN NATURE AND MAY INDICATE MORE INFORMATION THAN IS APPLICABLE TO PROJECT. SEE PROJECT PLANS FOR SPECIFIC NOTES, SPECIFICATIONS, SYMBOLS, AND ABBREVIATIONS.</p> <p>2. MECHANICAL EQUIPMENT AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, CONTRACT DOCUMENTS, INTERNATIONAL MECHANICAL AND PLUMBING CODES, AND APPLICABLE CODES AND REGULATIONS.</p> <p>3. ALL MECHANICAL EQUIPMENT SHALL BE LOCATED FOR UNOBSTRUCTED ACCESS TO UNIT ACCESS PANELS, CONTROLS, AND VALVING.</p>															
			<b>INSTRUMENTATION AND CONTROL LEGEND</b>			<b>SELF ACTUATED VALVES</b>																		
			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>LOCATION/ACCESSIBILITY</th> <th>DISCRETE INSTRUMENTS</th> <th>PLC</th> <th>DISCRETE HARDWARE INTERLOCK</th> </tr> <tr> <td>FIELD MOUNTED 1. FIELD OR LOCALLY MOUNTED. 2. ACCESSIBLE TO AN OPERATOR AT DEVICE.</td> <td style="text-align:center;">○</td> <td style="text-align:center;">◻</td> <td style="text-align:center;">◇</td> </tr> <tr> <td>PRIMARY LOCATION NORMALLY ACCESSIBLE TO AN OPERATOR 1. CENTRAL OR MAIN CONTROL ROOM. 2. FRONT OF MAIN PANEL OR CONSOLE MOUNTED. 3. VISIBLE ON VIDEO DISPLAY. 4. ACCESSIBLE TO AN OPERATOR AT DEVICE OR CONSOLE.</td> <td style="text-align:center;">◐</td> <td style="text-align:center;">◑</td> <td style="text-align:center;">◒</td> </tr> </table>			LOCATION/ACCESSIBILITY	DISCRETE INSTRUMENTS	PLC	DISCRETE HARDWARE INTERLOCK	FIELD MOUNTED 1. FIELD OR LOCALLY MOUNTED. 2. ACCESSIBLE TO AN OPERATOR AT DEVICE.	○	◻	◇	PRIMARY LOCATION NORMALLY ACCESSIBLE TO AN OPERATOR 1. CENTRAL OR MAIN CONTROL ROOM. 2. FRONT OF MAIN PANEL OR CONSOLE MOUNTED. 3. VISIBLE ON VIDEO DISPLAY. 4. ACCESSIBLE TO AN OPERATOR AT DEVICE OR CONSOLE.	◐	◑	◒	<p>REDUCING REGULATOR (SELF-CONTAINED)</p> <p>BACKPRESSURE REGULATOR (SELF-CONTAINED)</p> <p>REDUCING REGULATOR WITH EXTERNAL PRESSURE TAP</p> <p>BACKPRESSURE REGULATOR WITH EXTERNAL TAP</p> <p>TEMPERATURE CONTROL</p>						
LOCATION/ACCESSIBILITY	DISCRETE INSTRUMENTS	PLC	DISCRETE HARDWARE INTERLOCK																					
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						<b>ACTUATORS</b>																		
						<p>SINGLE DIAPHRAGM OPERATED</p> <p>OPERATED WITH MANUALLY OPERATED HAND WHEEL</p> <p>DIAPHRAGM WITH POSITIONER SINGLE OR DOUBLE DIAPHRAGM</p> <p>FAIL SPRING OPEN</p> <p>FAIL SPRING CLOSE PISTON OPERATED (FC) AIR / PISTON</p> <p>PISTON OPERATED (DOUBLE ACTING) PISTON OPERATED (FO) AIR / PISTON</p> <p>PISTON OPERATED WITH POSITIONER</p> <p>MOTOR OPERATED</p> <p>SOLENOID OPERATED</p>																		
<b>TAG NUMBERS</b>			<b>EQUIPMENT</b>			<b>SINGLE LINE PIPING</b>																		
<p>"YY-ZZ"</p> <p>YY = DEVICE TYPE (1,2 OR 3 LETTER CODE, ABBREVIATIONS - AS DETAILED ABOVE)</p> <p>ZZ = IDENTIFYING NUMBER NO DUPLICATES UNLESS ITEMS ARE IN SAME I &amp; C "LOOP" OR MEASURE THE SAME POINT.</p> <p>SERVICE TO/FROM</p> <p>SERVICE TO/FROM</p> <p>SERVICE TO/FROM</p> <p>UTILITY CONNECTOR</p> <p>CONNECTOR NUMBER</p>			<p>SUBMERSIBLE PUMP</p> <p>REGENERATIVE BLOWER</p> <p>CENTRIFUGAL PUMP</p> <p>MOTOR</p> <p>AIR COMPRESSOR</p> <p>METERING PUMP</p>			<p>ELBOW TURNING DOWN</p> <p>ELBOW TURNING UP</p> <p>BOTTOM CONNECTION</p> <p>TOP CONNECTION</p>																		
<b>LINE IDENTIFICATION</b>			<b>INSULATION IDENTIFICATION</b>			<b>INSTRUMENT IDENTIFICATION (TYPICAL ALL INSTRUMENTS)</b>																		
<p>4" - CWS - XXXX</p> <p>LINE SIZE</p> <p>SERVICE CODE</p> <p>LINE CODE</p>			<p>INSULATED (NOT TRACED)</p> <p>INSULATED (TRACED)</p>			<p>SEQUENCE NUMBER</p> <p>INSTRUMENT IDENTIFICATION SEE TABLE ABOVE</p>																		
<b>LINE DESIGNATION</b>			<b>INSULATION IDENTIFICATION</b>			<b>INSTRUMENT IDENTIFICATION (TYPICAL ALL INSTRUMENTS)</b>																		
<p>MAIN PROCESS LINE</p> <p>ELECTRICAL POWER</p> <p>INSTRUMENTATION SIGNAL/POWER</p> <p>COMMUNICATIONS</p> <p>EQUIPMENT BOUNDARIES</p> <p>COMPRESSED AIR LINE</p>			<p>INSULATED (NOT TRACED)</p> <p>INSULATED (TRACED)</p>			<p>SEQUENCE NUMBER</p> <p>INSTRUMENT IDENTIFICATION SEE TABLE ABOVE</p>																		

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9400 WARD PARKWAY  
KANSAS CITY, MO 64114  
816-333-9400  
OKLAHOMA FIRM LICENSE NO. 421

date	detailed
SEPTEMBER 2022	A. ANSTAETT
designed	checked
E. DULLE	E. DULLE

Cimmaron Environmental Response Trust  
P&ID NOTES AND LEGEND

project	contract
142089	
drawing	rev.
BMCD-GWREMED-P001	A
sheet	of sheets
file P001.DWG	

STANDARD ELECTRICAL LEGEND

POWER	
	NON-FUSED DISCONNECT. SUBSCRIPT DENOTES AMPERE FRAME RATING AND NUMBER OF POLES. MH 4'-0" AFF UNLESS OTHERWISE NOTED.
	FUSED DISCONNECT. SUBSCRIPT DENOTES FUSE RATING AND NUMBER OF POLES.
	COMBINATION MOTOR STARTER. SUBSCRIPT DENOTES AMPERE FRAME RATING, POLES AND NEMA STARTER SIZE. MH 4'-0" AFF UNLESS OTHERWISE NOTED.
	CONTACTOR. SUBSCRIPT DENOTES AMPERE RATING AND NUMBER OF POLES. MH 4'-0" AFF UNLESS OTHERWISE NOTED
	MOTOR STARTER. MH 4'-0" AFF UNLESS OTHERWISE NOTED
	JUNCTION BOX
	CONDUIT TURNING UP
	CONDUIT TURNING DOWN
	CONDUIT CAPPED
	CONDUIT TEE
	CONDUIT COUPLING
	CONTROL OR POWER PANEL
	MANHOLE OR HANDHOLE
	PULL BOX
	ELECTRIC HEAT TRACING
	TRANSFORMER (T)
	ELECTRICAL PANELBOARD INSERT DENOTES PANEL NAME CONTROL POWER PANEL: CPP POWER OR DISTRIBUTION PANEL: PP, DP SWITCHGEAR: SG AUTOMATIC TRANSFER SWITCH: ATS PRE-WIRED CONTROL PANEL: PWCP PROGRAMMABLE LOGIC CONTROLLER: PLC

GROUNDING	
	GROUNDING CONDUCTOR BURIED OR CONCEALED
	GROUNDING CONDUCTOR EXPOSED
	LIQUID FLEXIBLE METAL CONDUIT
	WELDED GROUND CONNECTION
	COMPRESSION/BOLTED GROUND CONNECTION
	GROUND ROD - Ø3/4" x 10', COPPER CLAD
	GROUND TEST WELL
	PIGTAIL FOR EQUIPMENT/ STRUCTURE CONNECTION
	18" LIGHTNING AIR TERMINAL

MISCELLANEOUS	
	LEVEL TRANSMITTER
	TEMPERATURE TRANSMITTER
	THERMOSTAT
	PUMP
	TEMPERATURE INDICATOR
	TERMINAL BOX
	LEVEL INDICATOR
	FLOW METER
	FLOW TRANSMITTER
	PRESSURE TRANSMITTER
	PRESSURE SWITCH
	FLOW SWITCH
	LEVEL SWITCH
	EQUIPMENT TAG CALL OUT
	KEYED NOTE

ONE- LINE DIAGRAMS	
	SWITCH TAG 30A 3P (20A)
	DISCONNECT SWITCH, NON-FUSED 30 = FRAME RATING 3 = POLES
	DISCONNECT SWITCH, FUSED 30 = FRAME RATING 3 = POLES (20) = FUSE AMPERE RATING
	BREAKER TAG 15AT (20)AF
	MOLDED CASE CIRCUIT BREAKER OR MOTOR CIRCUIT PROTECTOR 15 = TRIP RATING (20) = FRAME RATING
	MOTOR # = MOTOR TAG 1 = HORSEPOWER (HP)
	GENERATOR
	AUTOMATIC TRANSFER SWITCH
	XFMR TAG 150 KVA
	GROUNDING WYE CONNECTED
	DELTA CONNECTED
	MOTOR STARTER AND OVERLOAD 0 - STARTER SIZE
	ELECTRIC HEATER
	UTILITY METER
	TRANSIENT VOLTAGE SURGE SUPPRESSION
	ELECTRICAL CABLE INSERT DENOTES CABLE NUMBER POWER: P CONTROL: C
	VFD TAG 1 HP (3R)
	VARIABLE FREQUENCY DRIVE 1 = HORSEPOWER RATING (3R) = NEMA RATING
	FT TAG
	FLOW TRANSMITTER
	ELECTRICAL TRANSITION VAULT E = ELECTRICAL VT = VAULT E-1 = TAG
	COMMUNICATION TRANSITION VAULT C = ELECTRICAL VT = VAULT C-1 = TAG
	PANELBOARD PP-1 = PP - PANELBOARD; 1-TAG [480] = VOLTAGE 1PH, 200A 3W = PHASE, BUS SIZE (AMP) WIRE CONFIGURATION 18kA = SHORT CIRCUIT CURRENT RATING MLO = MAIN LUG ONLY
	PANELBOARD PP-1 = PP - PANELBOARD; 1-TAG [480] = VOLTAGE 1PH, 200A 3W = PHASE, BUS SIZE (AMP) WIRE CONFIGURATION 18kA = SHORT CIRCUIT CURRENT RATING MCB = MAIN CIRCUIT BREAKER, [AMP RATING]
	PANELBOARD PP-1 [480] 1PH, 200A 3W 18kA MLO
	PANELBOARD PP-1 [480] 1PH, 200A 3W 18kA MCB [100A]

**ELECTRICAL CALLOUT SYMBOLS**

ONE OR TWO CHARACTER DISCIPLINE DESIGNATOR (MAY NOT BE PRESENT IF CALLOUT AND TITLE ARE ON DRAWINGS WITHIN THE SAME DISCIPLINE)

LETTER OR NUMBER DESIGNATOR

DRAWING SEQUENCE NUMBER INDICATES WHERE TITLE IS LOCATED (MAY NOT BE PRESENT IF CALLOUT AND TITLE ARE ON THE SAME DRAWING)

**SECTION, DETAIL, AND ELEVATION SYMBOL IDENTIFIERS**

THE WORD "SECTION" MAY BE REPLACED WITH "ELEVATION" OR "DETAIL"

**SECTION, DETAIL, OR ELEVATION TITLE EXAMPLE**

**SECTION CALLOUT EXAMPLE**

**ELEVATION CALLOUT EXAMPLE**

**DETAIL CALLOUT EXAMPLE**

**SECTION, DETAIL, AND ELEVATION IDENTIFICATION SYSTEM**

ELECTRICAL ABBREVIATIONS	
A	- AMPERE, AMP
AC	- AIR CONDITION
AF	- AMP FRAME
AFF	- ABOVE FINISHED FLOOR
AFG	- ABOVE FINISHED GRADE
A.I.	- ANALOG INPUT
ANLZ.	- ANALYZER
AT	- AMP TRIP
ATS	- AUTOMATIC TRANSFER SWITCH
APPROX	- APPROXIMATELY
BFG	- BELOW FINISHED GRADE
BOD	- BOTTOM OF DUCT
B	- BUZZER
C	- CONDUIT
CKT	- CIRCUIT
CL2	- CHLORINE
CONT	- CONTINUATION
CNTL	- CONTROL
CPP	- CONTROL POWER PANEL
CPU	- COMPUTER
CR	- CONTROL RELAY
DED	- DEDICATED
DCS	- DISTRIBUTED CONTROL SYSTEM
DIST	- DISTRIBUTION
DIV	- DIVISION
EC	- ELECTRICAL CONTRACTOR
ELEC	- ELECTRICAL
EM	- STANDBY, ALTERNATE POWER CIRCUIT
EMT	- ELECTRICAL METAL TUBING
ENCL	- ENCLOSURE
F	- FUSE
GD	- GRADE
G	- GROUND
GFI	- GROUND FAULT INTERRUPTER
GL	- GROUND LUG
GND	- GROUND
ID	- INSIDE DIAMETER
I/O	- INPUT / OUTPUT
KVA	- KILOVOLT AMPERE
KV	- KILOVOLT
KW	- KILOWATT
LFMC	- LIQUID TIGHT FLEX METAL CONDUIT
M	- MAGNETIC CONTACTOR
MAX	- MAXIMUM
MCB	- MOLDED CASE CIRCUIT BREAKER/MAIN
MCC	- MOTOR CONTROL CENTER
MCP	- MOTOR CIRCUIT PROTECTOR
MLO	- MAIN LUG ONLY
MIN	- MINIMUM
MPS	- MOTOR PROTECTION SWITCH
N2	- NITROGEN
NEC	- NATIONAL ELECTRIC CODE
NF	- NON FUSED
OD	- OUTSIDE DIAMETER
OEM	- ORIGINAL EQUIPMENT MANUFACTURER
P	- POLE
PC	- POWER CONNECTION BOX
PH	- PHASE
PLC	- PROGRAMMABLE LOGIC CONTROLLER
PP	- POWER PANEL
PVC	- POLYVINYL CHLORIDE
PWR	- POWER
R	- ALARM LIGHT
RGS	- RIGID GALVANIZED STEEL CONDUIT
RX	- RECEIVER
SP	- SPARE
SPD	- SURGE PROTECTIVE DEVICE
SW	- SWITCH
TB	- TERMINAL BLOCK
TEMP	- TEMPERATURE
TOS	- TOP OF STEEL
TYP	- TYPICAL
TX	- TRANSMITTER
UDS	- UTILITY DISTRIBUTION SYSTEM
UPS	- UNINTERRUPTIBLE POWER SUPPLY
UV	- ULTRA-VIOLET
V	- VOLT
VA	- VOLT AMPS
VAC	- VOLTAGE ALTERNATING CURRENT
VDC	- VOLTAGE DIRECT CURRENT
W	- WIRE, WATT
WP	- WEATHERPROOF
XFMR	- TRANSFORMER

INSTRUMENTATION ABBREVIATIONS	
C	- COMMON OR CONDUCTOR
CONC.	- CONCRETE
CR	- CONTROL RELAY
DC	- DIRECT CURRENT
DISC	- DISCONNECT
DWG	- DRAWING
FE	- FLOW ELEMENT
FIN.	- FINISH
FM	- FLOW METER
FT	- FLOW TRANSMITTER
I/O	- INPUT / OUTPUT
LSH	- LEVEL SWITCH HIGH
NC	- NORMALLY CLOSED
NO	- NORMALLY OPEN
NO.	- NUMBER
PT	- PRESSURE TRANSMITTER
PS	- PRESSURE SWITCH
REQ'D	- REQUIRED
TP	- TWISTED PAIR (CABLE)
TSP	- TWISTED SHIELDED PAIR (CABLE)
DC	- DIRECT CURRENT

no.	date	by	ckd	description
A	03/31/20	ACH	SJD	ISSUED FOR PRELIMINARY DESIGN

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**BURNS & MCDONNELL**

9400 WARD PARKWAY  
KANSAS CITY, MO 64114  
816-333-9400  
OKLAHOMA FIRM LICENSE NO. 421

date	SEPTMBER 2022	detailed	A. HIMES
designed	A. HIMES	checked	S. DEFRANCESCO

**Cimarron Environmental Response Trust**  
ELECTRICAL LEGEND & ABBREVIATION

project	142089	contract	
drawing	BMCD-GWREMED-E001	rev.	A
sheet		of	sheets
file	E001.dwg		

GENERAL NOTES:

1. THESE GENERAL NOTES APPLY TO ALL DRAWINGS UNLESS OTHERWISE NOTED. ALL SYMBOLS AND ABBREVIATIONS SHOWN ARE NOT NECESSARILY USED.
2. THE EXACT LOCATION OF CONDUITS, DEVICES AND EQUIPMENT MAY DEVIATE FROM THE LOCATION INDICATED ON THESE DRAWINGS.
3. SUBCONTRACTOR SHALL FIELD ROUTE CONDUITS TO AVOID INTERFERENCE WITH OTHER EXISTING AND PROPOSED UTILITIES.
4. ALL WORK PERFORMED SHALL CONFORM TO ALL APPLICABLE CODES, INCLUDING BUT NOT LIMITED TO, THE LATEST VERSION OF THE NATIONAL ELECTRIC CODE ADOPTED BY AUTHORITIES HAVING JURISDICTION.
5. LABEL ALL ELECTRICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO SAFETY SWITCHES, MOTOR STARTERS, COMBINATION STARTERS, AND CONTACTORS INSTALLED, WITH DESIGNATIONS AS SHOWN.
6. ABOVE GRADE CONDUIT SHALL BE 1" TRADE SIZE MINIMUM AND SHALL BE RGS TYPE AND BELOW GRADE CONDUIT SHALL BE 1" TRADE SIZE MINIMUM AND SHALL BE PVC (SCH 80), UNLESS OTHERWISE NOTED.
7. ALL 600 VOLT POWER WIRING SHALL BE TYPE XHHW-2 SINGLE CONDUCTOR IN CONDUIT ONLY. ALL CONTROL WIRING SHALL BE MINIMUM #14 AWG MULTI-CONDUCTOR TYPE XLPE. ALL INSTRUMENTATION WIRING SHALL BE #18 AWG MULTI-CONDUCTOR TYPE XLPE SHIELDED PAIRS UNLESS OTHERWISE STATED.
8. MINIMUM CONDUCTOR SIZE FOR 480 VOLT POWER CIRCUITS SHALL BE #10 AWG. MINIMUM CONDUCTORS SIZE FOR POWER AND LIGHTING CIRCUITS LESS THAN 480 VOLT SHALL BE #12 AWG.
9. PULL A GROUND WIRE TO EACH DEVICE AND PIECE OF EQUIPMENT. ALL EQUIPMENT AND DEVICES SHALL BE GROUNDED ACCORDING TO ARTICLE 250 OF THE NEC.
10. ALL CIRCUIT BREAKERS SHALL BE 15 AMP MIN, UNLESS OTHERWISE NOTED.
11. ELECTRICAL SUBCONTRACTOR IS RESPONSIBLE FOR MAKING FINAL ELECTRICAL CONNECTIONS TO ALL EQUIPMENT INSTALLED AND/OR RELOCATED, UNLESS OTHERWISE STATED ON THE DRAWING. SPECIFICALLY STATEMENT OF WORK FOR WESTERN AREA TREATMENT FACILITY STOPS AT DEMARCATION VAULT FOR SOURCE POWER, REFERENCE DRAWINGS E101 AND E102.
12. SIZE JUNCTION AND PULL BOXES PER NATIONAL ELECTRICAL CODE, UNLESS OTHERWISE NOTED.



no.	date	by	ckd	description
A	03/31/20	ACH	SJD	ISSUED FOR PRELIMINARY DESIGN

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9400 WARD PARKWAY  
 KANSAS CITY, MO 64114  
 816-333-9400  
 OKLAHOMA FIRM LICENSEE NO. 421

date	SEPTMBER 2022	detailed	A. HIMES
designed	A. HIMES	checked	S. DEFRANCESCO

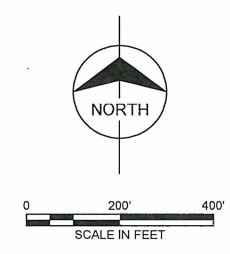
Cimarron Environmental Response Trust  
 ELECTRICAL GENERAL NOTES

project	142089	contract	
drawing	BMCD-GWREMED-E002	rev.	A
sheet	of	sheets	
file	E002.dwg		



Scale For Microfilming  
Inches  
Millimeters

no.	date	by	ckd	description
A	08/16/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN



**PRELIMINARY - NOT FOR CONSTRUCTION**



9400 WARD PARKWAY  
KANSAS CITY, MO 64114  
816-333-9400  
OKLAHOMA FIRM LICENSE NO. 421

date	detailed
SEPTEMBER 2022	M. CARLIN
designed	checked
B. WEIS	J. HESEMANN

PROJECT CONTROL POINTS*				
POINTS	MONITORING WELL	NORTHING	EASTING	ELEVATION (AMSL)
CP-1	T-64	321342	2091691	941.19
CP-2	T-65	321569	2091814	938.77
CP-3	T-63	321623	2091977	938.01

\*LOCATION PROVIDED IS TO A BOLT LOCATED IN WELL PADS.

Cimarron Environmental Response Trust  
EXISTING CONDITIONS

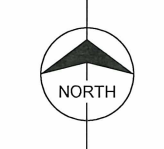
project	contract	
142089	-	
drawing	rev.	
BMCD-GWREMED-C001	A	
sheet	of	sheets
file	C001 EXST COND.DWG	



no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

**NOTE:**

1. PIPE & CONDUIT ALIGNMENT SHOWN REPRESENTS THE CENTERLINE OF TRENCH WHICH MAY CONTAIN WATER SUPPLY PIPES, GROUNDWATER INJECTION SUPPLY PIPES, GROUNDWATER EXTRACTION PIPES, DISCHARGE PIPING, ELECTRICAL POWER SUPPLY CABLE CONDUITS, FIBER OPTIC CONDUITS, AND COMMUNICATION CABLE RUNS.



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816-333-9400  
OKLAHOMA FIRM LICENSE NO. 421

date	detailed
SEPTEMBER 2022	M. CARLIN
designed	checked
B. WEIS	J. HESEMANN

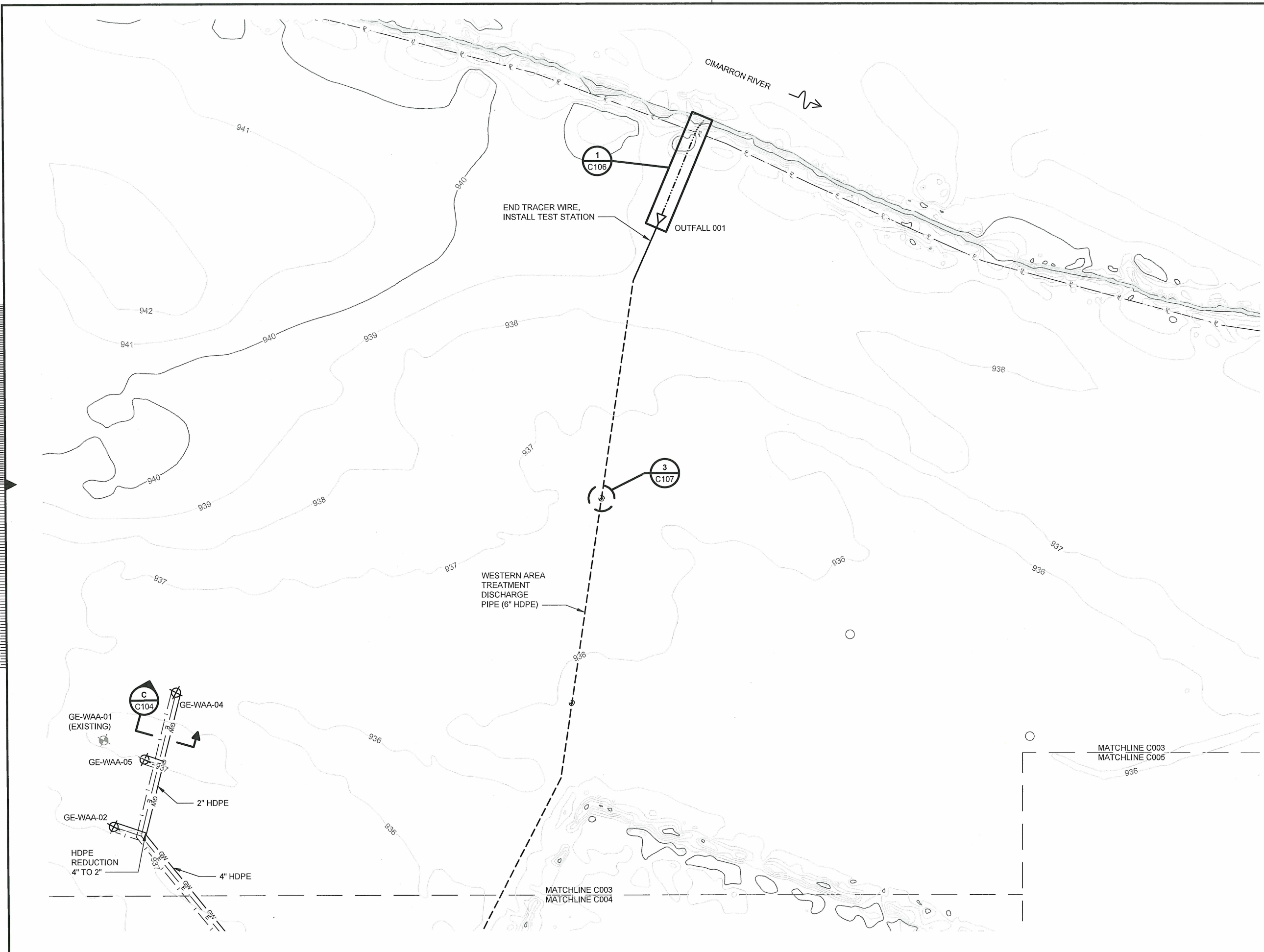
**Cimarron Environmental Response Trust**  
OVERALL SITE PLAN AND SHEET LAYOUT KEY

project	contract
142089	-
drawing	rev.
BMCD-GWREMED-C002	A
sheet	of sheets
file	C002 OVERALL SITE PLAN.DWG

Scale For Microfilming  
Millimeters  
Inches

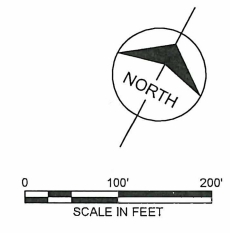


Scale For Microfitting  
 Millimeters  
 Inches



no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

- NOTES:**
1. PIPE AND CONDUIT LINE SPACING HAS BEEN EXAGGERATED FOR CLARITY IN PARTIAL SITE PLANS. REFER TO TRENCH SECTION DETAILS FOR TYPICAL PIPE AND CONDUIT SPACING. FIELD ADJUSTMENTS OF TRENCH ROUTING TO AVOID CONFLICTS SHALL BE APPROVED BY ENGINEER.
  2. REFER TO MECHANICAL AND ELECTRICAL SHEETS FOR DETAILS REGARDING APPLICABLE SITE PLAN COMPONENTS.
  3. PROVIDE PULL BOXES EVERY 500' (MAX.) FOR ELECTRICAL AND INSTRUMENTATION CABLES.
  4. INSTALL AIR RELEASE VALVES AT THE HIGH POINTS ON ALL PRESSURE WATER PIPE SYSTEMS. SEE AIR RELEASE VALVE DETAIL, SHEET C107.



**PRELIMINARY - NOT FOR CONSTRUCTION**

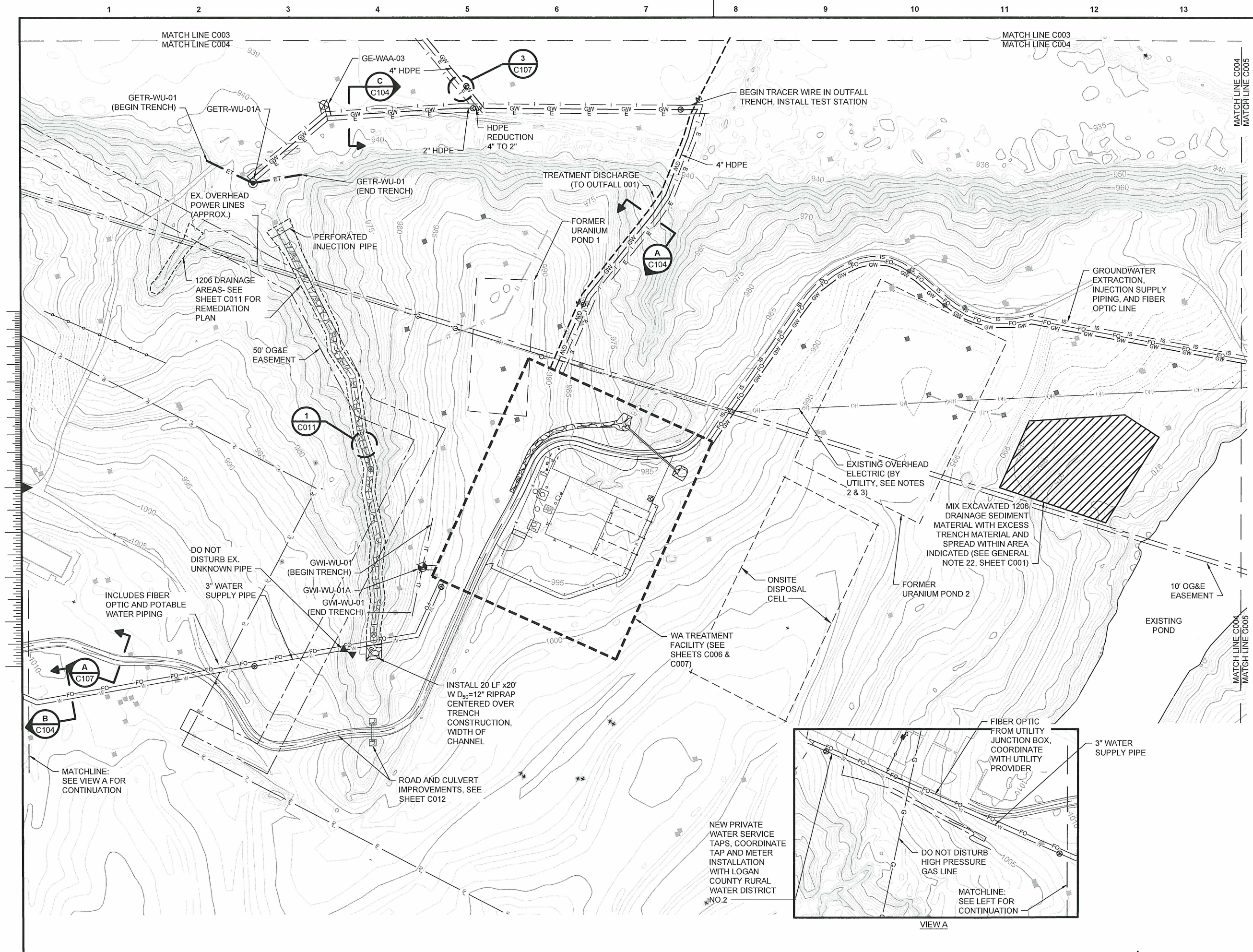


9400 WARD PARKWAY  
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 816-333-9400  
 OKLAHOMA FIRM LICENSEE NO. 421

date	SEPTMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

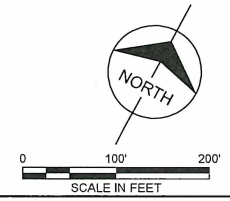
Cimarron Environmental Response Trust  
 WESTERN ALLUVIAL AREA SITE PLAN

project	142089	contract	-
drawing	BMCD-GWREMED-C003	rev.	<b>A</b>
sheet	of	sheets	
file	C003 PART SITE - N.DWG		



no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

- NOTES:**
- PIPE AND CONDUIT LINE SPACING HAS BEEN EXAGGERATED FOR CLARITY IN PARTIAL SITE PLANS, REFER TO TRENCH SECTION DETAILS FOR TYPICAL PIPE AND CONDUIT SPACING. FIELD ADJUSTMENTS OF PIPE ALIGNMENTS TO AVOID CONFLICTS SHALL BE APPROVED BY THE ENGINEER.
  - FUTURE OVERHEAD POWER LINE EASEMENT HAS BEEN PRELIMINARILY APPROVED BY UTILITY (30' TOTAL WIDTH ALONG THE ALIGNMENT SHOWN).
  - REFER TO SHEETS C101-C103 FOR EXTRACTION AND INJECTION TRENCH DETAILS.
  - REFER TO MECHANICAL AND ELECTRICAL SHEETS FOR DETAILS REGARDING APPLICABLE SITE PLAN COMPONENTS.
  - PROVIDE PULL BOXES EVERY 500' (MAX.) FOR ELECTRICAL AND INSTRUMENTATION CONDUITS.
  - INSTALL AIR RELEASE VALVES AT THE HIGH POINTS ON ALL PRESSURE WATER PIPE SYSTEMS. SEE AIR RELEASE VALVE DETAIL, SHEET C107.
  - REPAIR OR REPLACE ANY EXISTING FENCING THAT IS DAMAGED DURING CONSTRUCTION ACTIVITIES.
  - SUBCONTRACTOR SHALL INSTALL STRAW WATTLES DOWN GRADIENT OF ALL DISTURBED AREAS, INCLUDING TRENCHED AREAS.
  - NUMBER AND SIZE OF GROUNDWATER EXTRACTION CONVEYANCE LINES RUNNING FROM THE WAA TO THE WATF IS SUBJECT TO CHANGE DURING 90% DESIGN.



**PRELIMINARY - NOT FOR CONSTRUCTION**

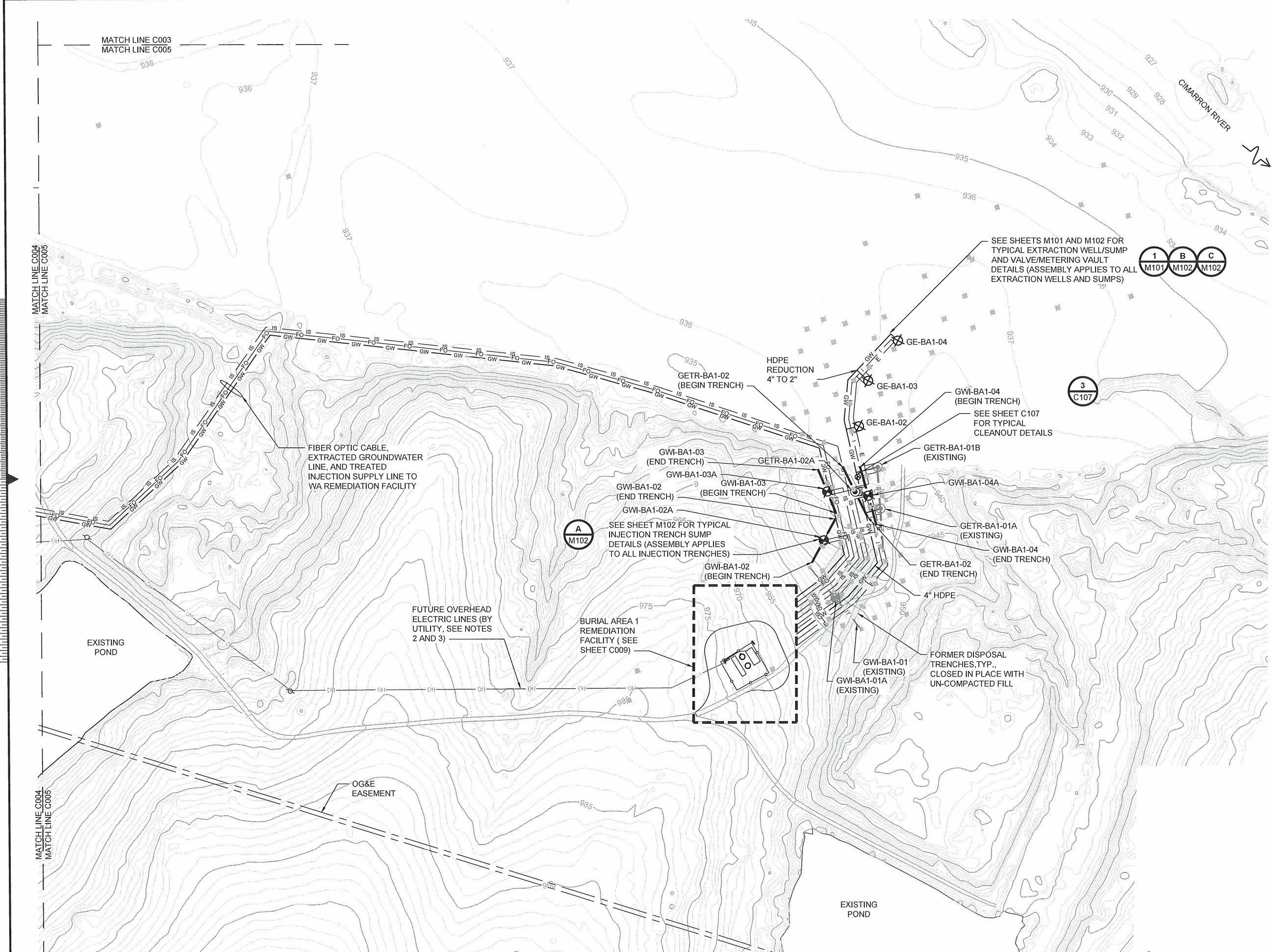


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816-333-9400  
OKLAHOMA FIRM LICENSE NO. 421

date	SEPTMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

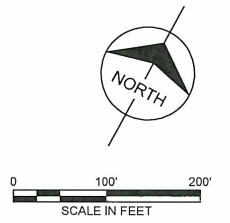
Cimarron Environmental Response Trust  
WESTERN AREA SITE PLAN

project	142089	contract	-
drawing	BMCD-GWREMED-C004	rev.	A
sheet	of	sheets	
file	C004 PART SITE PLAN - SOUTH.DWG		



no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

- NOTES:**
- PIPE AND CONDUIT LINE SPACING HAS BEEN EXAGGERATED FOR CLARITY IN PARTIAL SITE PLANS, REFER TO TRENCH SECTION DETAILS FOR TYPICAL PIPE AND CONDUIT SPACING. FIELD ADJUSTMENTS TO AVOID CONFLICTS SHALL BE APPROVED BY THE ENGINEER.
  - SUBCONTRACTOR SHALL CLEAR 15 FEET EACH SIDE ALONG FUTURE OVERHEAD POWER LINE ALIGNMENT.
  - FUTURE OVERHEAD POWER LINE EASEMENT HAS BEEN PRELIMINARILY APPROVED BY UTILITY (30' TOTAL WIDTH ALONG THE ALIGNMENT SHOWN).
  - REFER TO SHEETS C101-C103 FOR EXTRACTION AND INJECTION TRENCH DETAILS.
  - REFER TO MECHANICAL AND ELECTRICAL SHEETS FOR DETAILS REGARDING APPLICABLE SITE PLAN COMPONENTS.
  - PROVIDE PULL BOXES EVERY 500' (MAX.) FOR ELECTRICAL AND INSTRUMENTATION CONDUITS.
  - INSTALL AIR RELEASE VALVES AT THE HIGH POINTS ON ALL PRESSURE WATER PIPE SYSTEMS. SEE AIR RELEASE VALVE DETAIL, SHEET C107.
  - DO NOT DISTURB EXISTING MONITOR WELLS WITHOUT APPROVAL BY OWNER AND CONTRACTOR.



**PRELIMINARY - NOT FOR CONSTRUCTION**

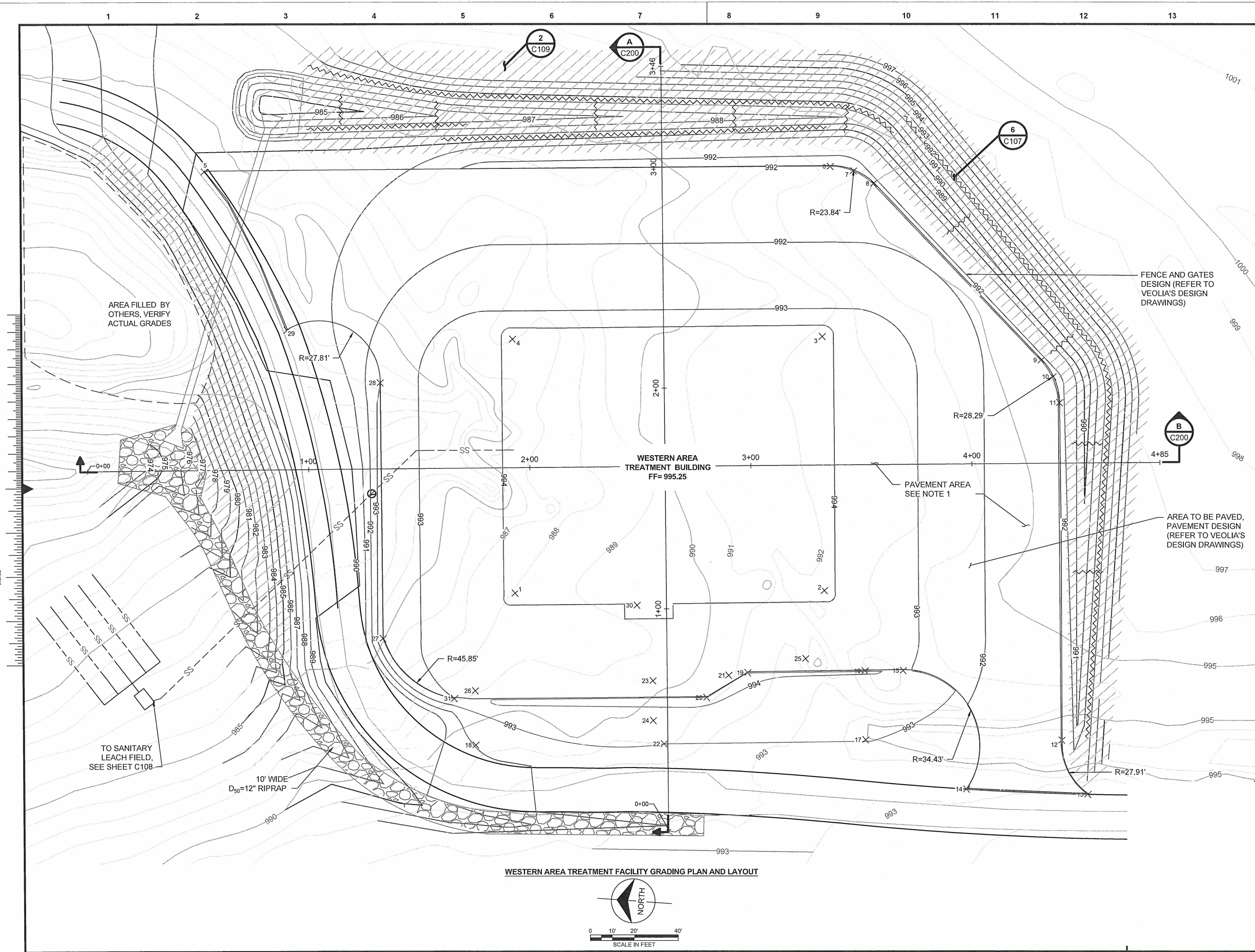


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816-333-9400  
OKLAHOMA FIRM LICENSEE NO. 421

date	SEPTEMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

Cimarron Environmental Response Trust  
EASTERN AREA SITE PLAN

project	142089	contract	-
drawing	BMCD-GWREMED-C005	rev.	A
sheet	of	sheets	
file	C005 PART SITE PLAN - EAST.DWG		



no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

- NOTES:**
- PAVEMENT TO BE SPECIFIED BY OTHERS. GRADES SHOWN WITHIN PAVEMENT AREA REPRESENT PAVEMENT SUBGRADE SURFACE (9.8" LOWER THAN FINISHED, PAVED SURFACE). REFER TO VNSFS DESIGN DRAWINGS FOR PAVEMENT DETAILS.
  - FOUNDATION LOCATIONS AND DIMENSIONS ARE APPROXIMATE, REFER TO VNSFS DESIGN DRAWINGS FOR FOUNDATION DETAILS.
  - CONTRACTOR SHALL APPROVE SUBGRADE PRIOR TO PAVEMENT CONSTRUCTION.

**COORDINATE NOTES**  
 TYPICAL COORDINATE LOCATION  
 13 X INDICATOR - SEE SHEET C110 FOR TABLE OF COORDINATES.

**PRELIMINARY - NOT FOR CONSTRUCTION**



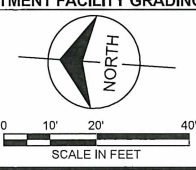
9400 WARD PARKWAY  
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 816-333-9400  
 OKLAHOMA FIRM LICENSE NO. 421

date	SEPTEMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

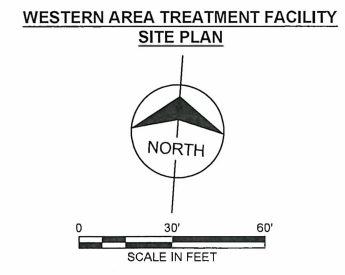
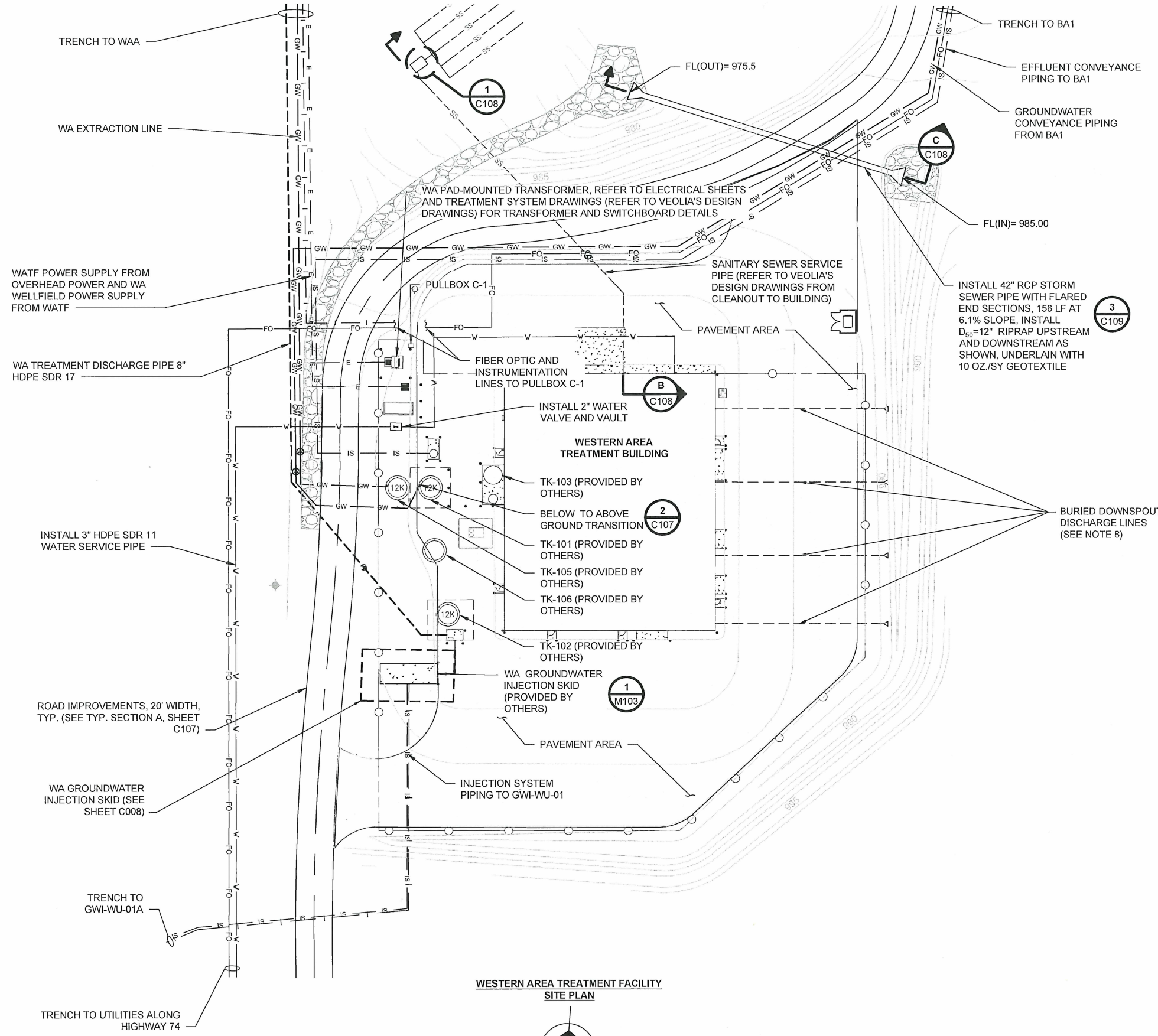
Cimarron Environmental Response Trust  
 WESTERN AREA TREATMENT FACILITY GRADING PLAN AND LAYOUT

project	142089	contract	-
drawing	BMCD-GWREMED-C006	rev.	A
sheet	of	sheets	
file	C006 WATF FAC GRADE PLAN.DWG		

WESTERN AREA TREATMENT FACILITY GRADING PLAN AND LAYOUT



Scale For Microfitting  
 Millimeters  
 Inches



no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

- NOTES:**
- PIPE AND CONDUIT LINE SPACING HAS BEEN EXAGGERATED FOR CLARITY IN PARTIAL SITE PLANS, REFER TO TRENCH SECTION DETAILS FOR TYPICAL PIPE AND CONDUIT SPACING. FIELD ADJUSTMENTS OF PIPE ALIGNMENTS TO AVOID CONFLICTS SHALL BE APPROVED BY THE ENGINEER.
  - SUBCONTRACTOR SHALL CLEAR 15 FEET EACH SIDE ALONG FUTURE OVERHEAD POWER LINE ALIGNMENT.
  - FUTURE OVERHEAD POWER LINE EASEMENT HAS BEEN PRELIMINARILY APPROVED BY UTILITY (30' TOTAL WIDTH ALONG THE ALIGNMENT SHOWN).
  - REFER TO MECHANICAL AND ELECTRICAL SHEETS FOR DETAILS REGARDING APPLICABLE SITE PLAN COMPONENTS.
  - REFER TO SHEETS C101-C103 FOR EXTRACTION AND INJECTION TRENCH DETAILS.
  - PROVIDE PULL BOXES EVERY 500' (MAX.) FOR ELECTRICAL AND INSTRUMENTATION CONDUITS.
  - REFER TO C006 AND C008 FOR FUTURE GRADING OF FACILITY AREAS.
  - MATCH GUTTER DIAMETER AND DIMENSIONS. MAINTAIN MINIMUM SLOPE OF 0.1% TO MAINTAIN POSITIVE DRAINAGE.

**PRELIMINARY - NOT FOR CONSTRUCTION**



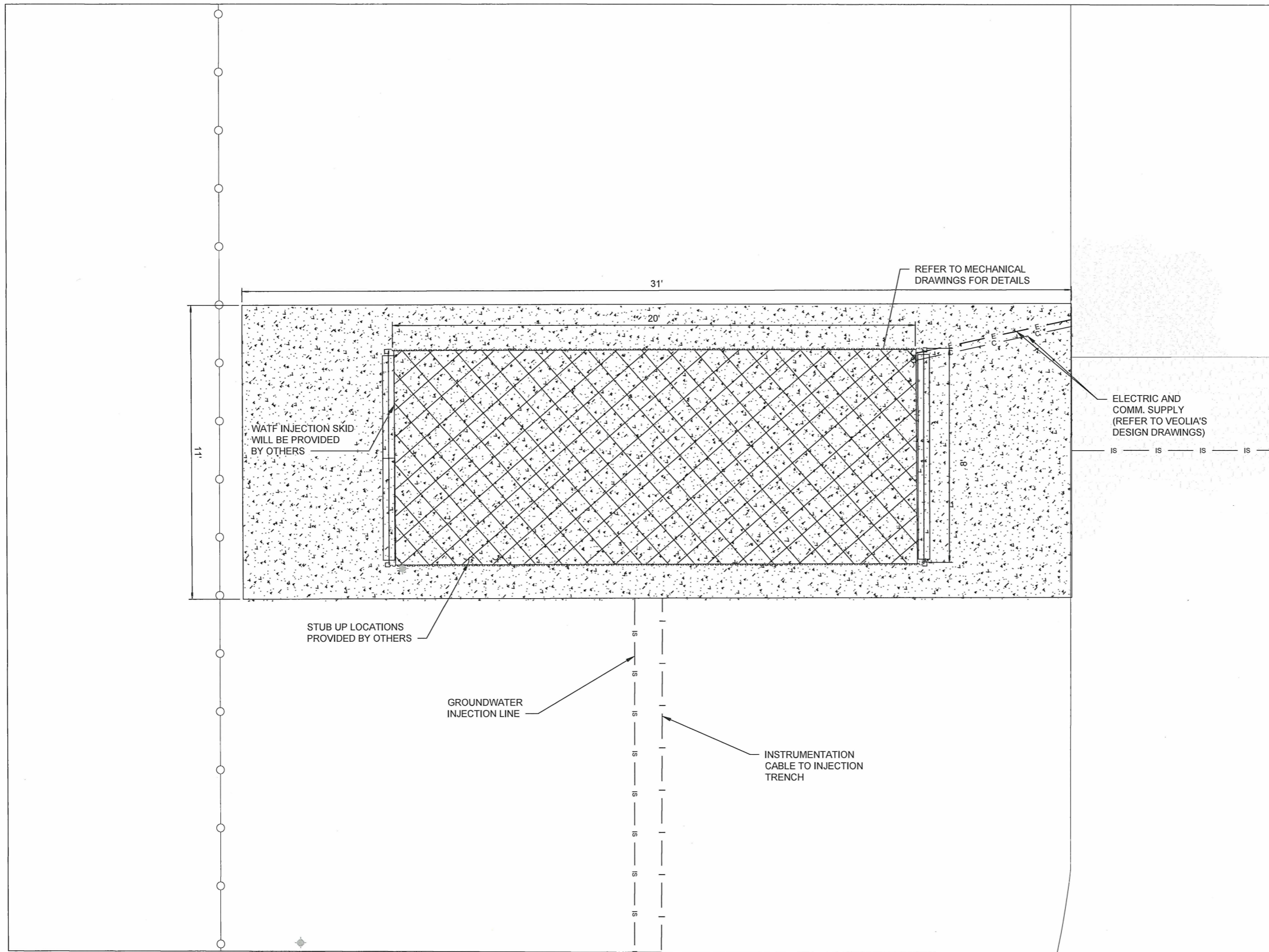
9400 WARD PARKWAY  
KANSAS CITY, MO 64114  
816-333-9400  
OKLAHOMA FIRM LICENSEE NO. 421

date	SEPTMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

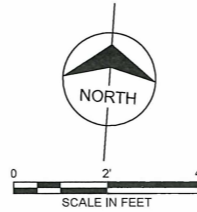
Cimarron Environmental Response Trust  
WESTERN AREA TREATMENT FACILITY SITE PLAN

project	142089	contract	-
drawing	BMCD-GWREMED-C007	rev.	A
sheet	of	sheets	
file	C007 W AREA TREAT FAC SITE.DWG		

1 2 3 4 5 6 7 8 9 10 11 12 13



WESTERN AREA TREATMENT FACILITY  
INJECTION SKID LAYOUT



no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

**NOTES:**  
1. REFER TO MECHANICAL AND ELECTRICAL SHEETS FOR DETAILS REGARDING APPLICABLE SITE PLAN COMPONENTS.

**PRELIMINARY - NOT FOR CONSTRUCTION**

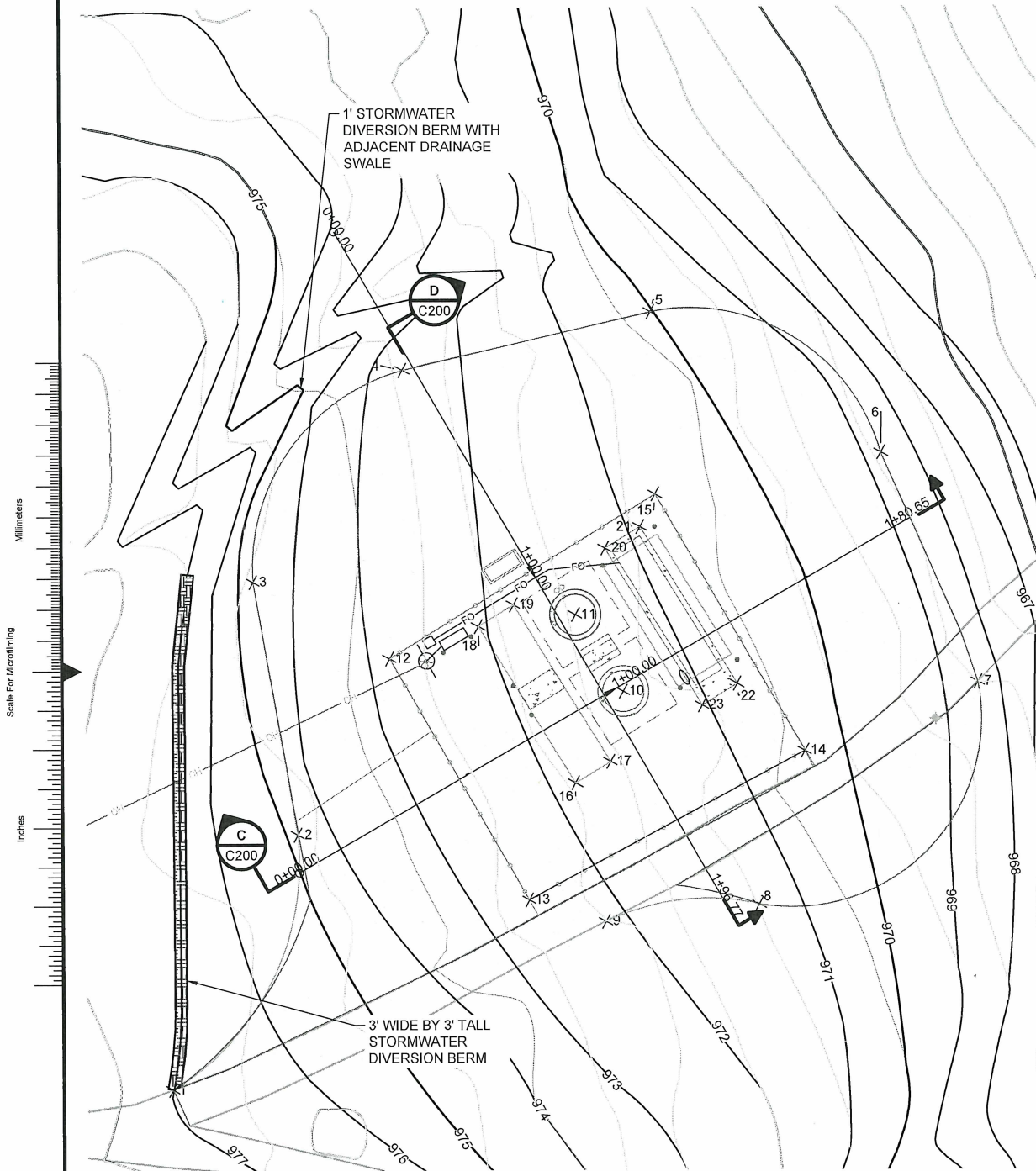


9400 WARD PARKWAY  
KANSAS CITY, MO 64114  
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OKLAHOMA FIRM LICENSEE NO. 421

date	SEPTMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

Cimarron Environmental Response Trust  
WESTERN AREA TREATMENT  
INJECTION SKID LAYOUT

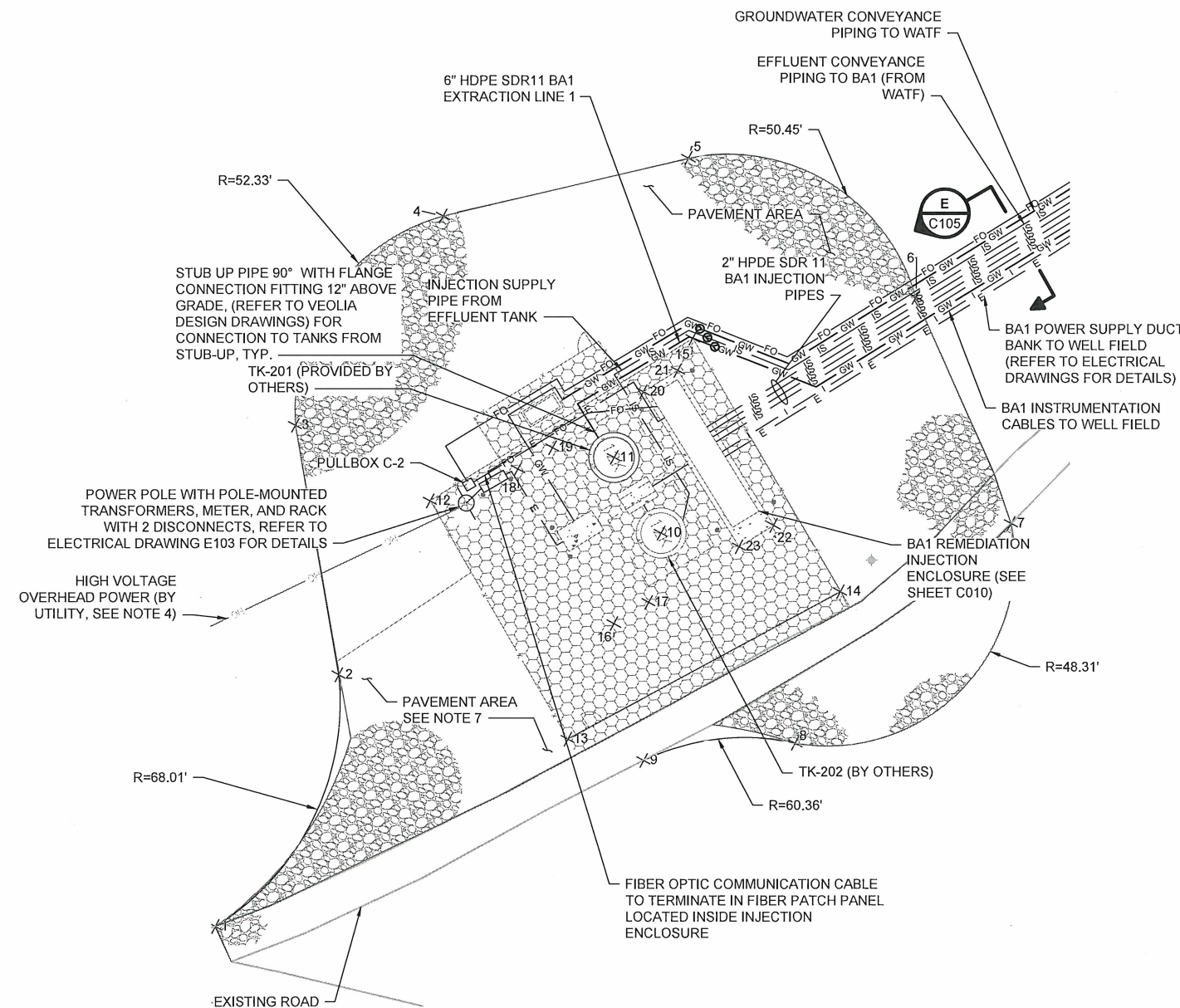
project	142089	contract	-
drawing	BMCD-GWREMED-C008	rev.	A
sheet	of	sheets	
file	C008 W AREA TREAT FAC SITE_INJ SKID.DWG		



**BURIAL AREA 1 REMEDIATION FACILITY  
GRADING PLAN**



0 10' 20' 40'  
SCALE IN FEET



**BURIAL AREA 1 REMEDIATION FACILITY  
SITE PLAN**



0 10' 20' 40'  
SCALE IN FEET

no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

- NOTES:**
- PIPE AND CONDUIT LINE SPACING HAS BEEN EXAGGERATED FOR CLARITY IN PARTIAL SITE PLANS, REFER TO TRENCH SECTION DETAILS FOR TYPICAL PIPE AND CONDUIT SPACING. FIELD ADJUSTMENTS OF PIPE ALIGNMENTS TO AVOID CONFLICTS SHALL BE APPROVED BY THE ENGINEER.
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  - REFER TO SHEETS C101-C103 FOR EXTRACTION AND INJECTION TRENCH DETAILS.
  - PROVIDE PULL BOXES EVERY 500' (MAX.) FOR ELECTRICAL AND INSTRUMENTATION CONDUITS.
  - PAVEMENT TO BE SPECIFIED BY VEOLIA GRADES SHOWN REPRESENT PAVEMENT SUBGRADE SURFACE (9.8" LOWER THAN FINISHED, PAVED SURFACE).

**PRELIMINARY - NOT FOR CONSTRUCTION**

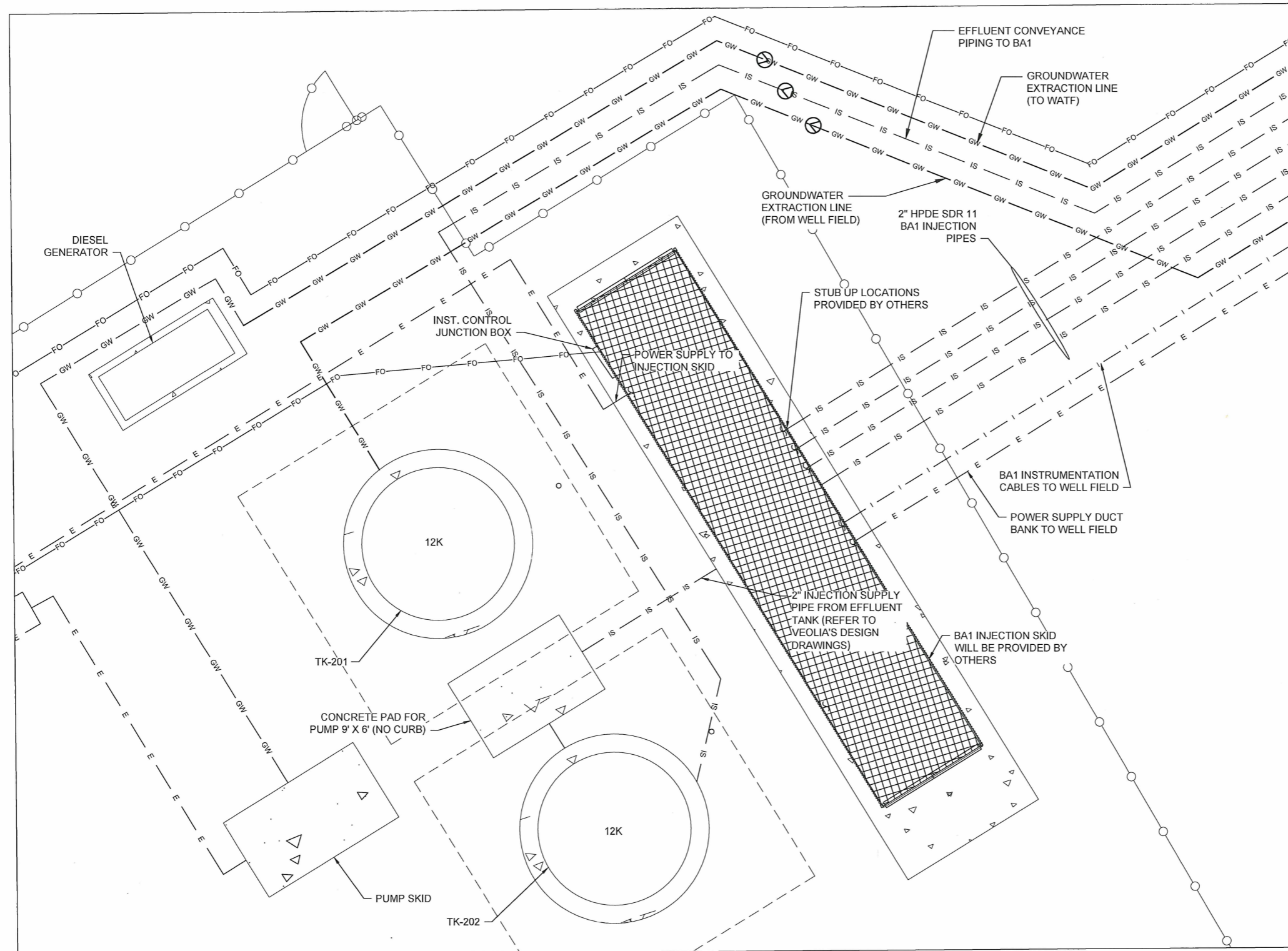


9400 WARD PARKWAY  
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816-333-9400  
OKLAHOMA FIRM LICENSEE NO. 421

date	SEPTMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

Cimarron Environmental Response Trust  
BURIAL AREA 1 REMEDIATION FACILITY SITE PLAN

project	142089	contract	-
drawing	BMCD-GWREMED-C009	rev.	A
sheet	of	sheets	
file	C009 BURIAL AREA 1 REM FAC.DWG		



BURIAL AREA 1 REMEDIATION INJECTION SKID



Scale For Microfitting  
Millimeters  
Inches

no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

**NOTES:**

1. PIPE AND CONDUIT LINE SPACING HAS BEEN EXAGGERATED FOR CLARITY IN PARTIAL SITE PLANS, REFER TO TRENCH SECTION DETAILS FOR TYPICAL PIPE AND CONDUIT SPACING. FIELD ADJUSTMENTS OF PIPE ALIGNMENTS TO AVOID CONFLICTS SHALL BE APPROVED BY THE ENGINEER.
2. REFER TO MECHANICAL AND ELECTRICAL SHEETS FOR DETAILS REGARDING APPLICABLE SITE PLAN COMPONENTS.
3. PROVIDE PULL BOXES EVERY 500' (MAX.) FOR ELECTRICAL AND INSTRUMENTATION CONDUITS.

**PRELIMINARY - NOT FOR CONSTRUCTION**



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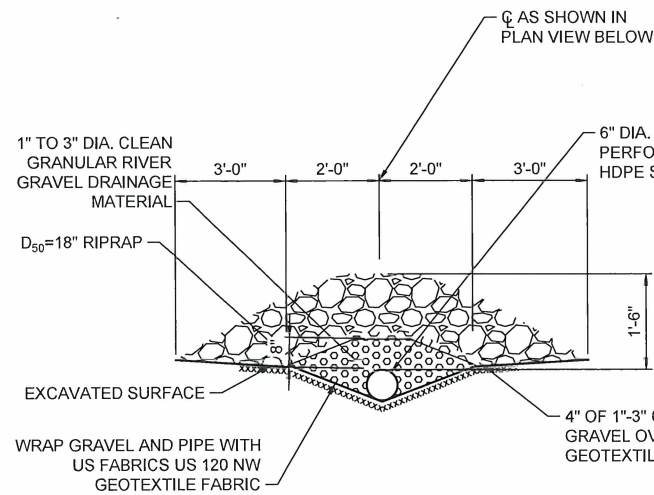
date	SEPTMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

Cimarron Environmental Response Trust  
BURIAL AREA 1 REMEDIATION  
INJECTION SKID

project	142089	contract	-
drawing	BMCD-GWREMEDIATION-C010	rev.	A
sheet	of	sheets	
file C010 BURIAL AREA 1 REM FAC_INJ SKID.DWG			



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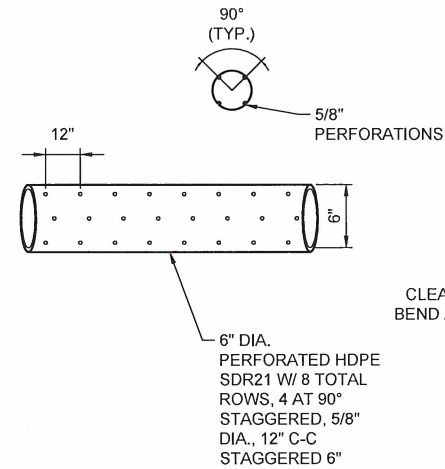


**TYPICAL 1206 DRAINAGE AREA CHANNEL PIPE SECTION**  
NOT TO SCALE

1  
C004

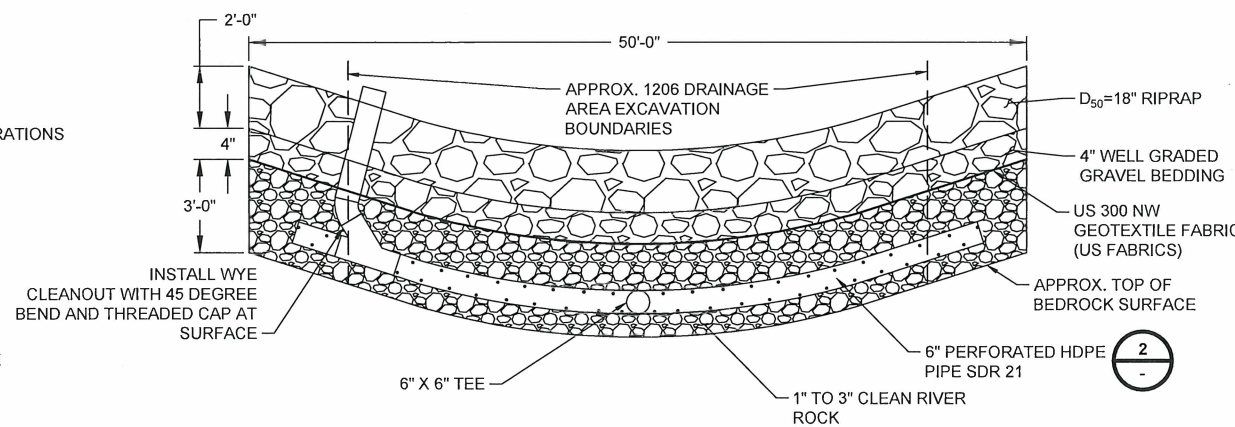
**NOTES:**

1. GENTLY PLACE RIPRAP OVER PIPE SECTION, DO NOT DROP RIPRAP ON DRAINAGE MATERIAL.
2. 1" TO 3" CLEAN GRAVEL SHALL HAVE LESS THAN 1% PASSING NO. 4 SIEVE. SUBMIT GRADATION TO ENGINEER PRIOR TO PROCUREMENT.



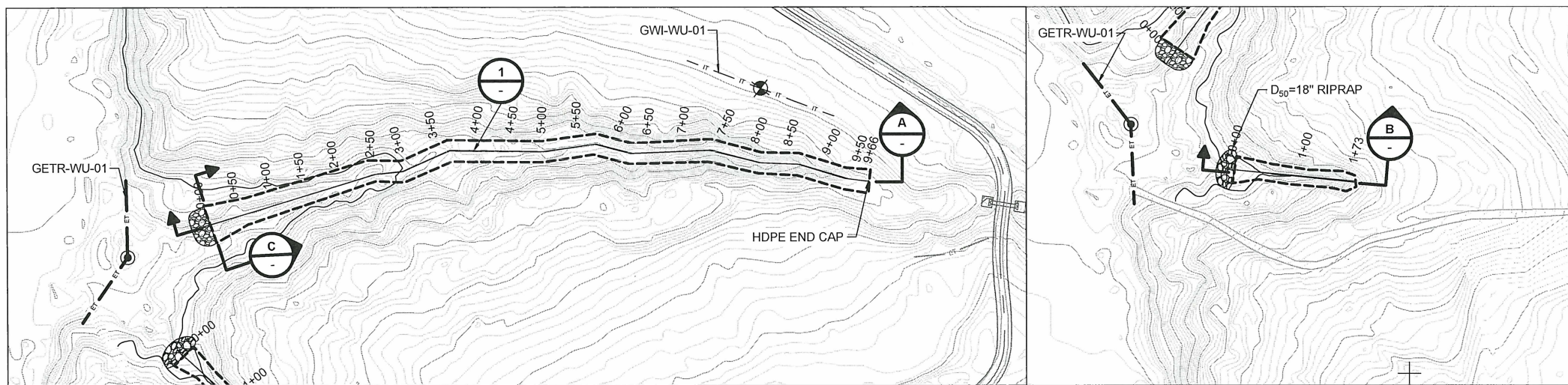
**TYPICAL 1206 DRAINAGE AREA PIPE PERFORATION DETAIL**  
NOT TO SCALE

2



**1206 INJECTION PIPE SECTION**  
NOT TO SCALE

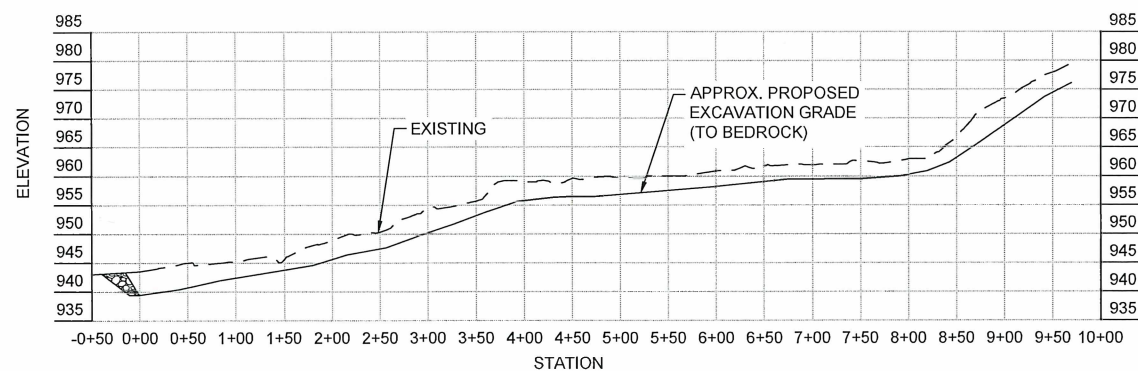
C



**PLAN VIEW**

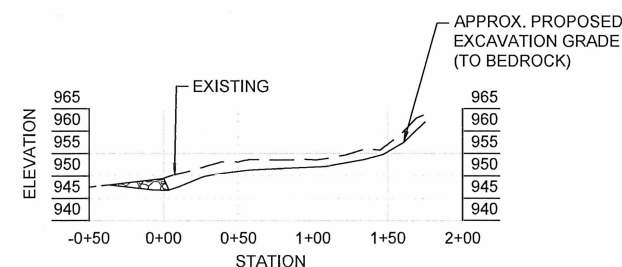
**NOTES:**

1. EXCAVATE AREAS SHOWN WITHIN BOUNDARY TO REMOVE ALL SEDIMENT TO BEDROCK. BOUNDARY SHOWN IS APPROXIMATE.
2. FROM BOUNDARY TAPER EXCAVATIONS TO EXISTING GRADES AT MAX 3H:1V SLOPE.
3. APPROX. EXCAVATION DEPTHS BASED ON LIMITED FIELD INVESTIGATION.
4. SEE GENERAL NOTE 22 ON SHEET G001 REGARDING MIXING AND SPREADING OF EXCAVATED 1206 AREA SOILS.



**EAST EXCAVATION PROFILE (APPROX.)**

A



**WEST EXCAVATION PROFILE (APPROX.)**

B

no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

**PRELIMINARY - NOT FOR CONSTRUCTION**

**BURNS  
MCDONNELL**

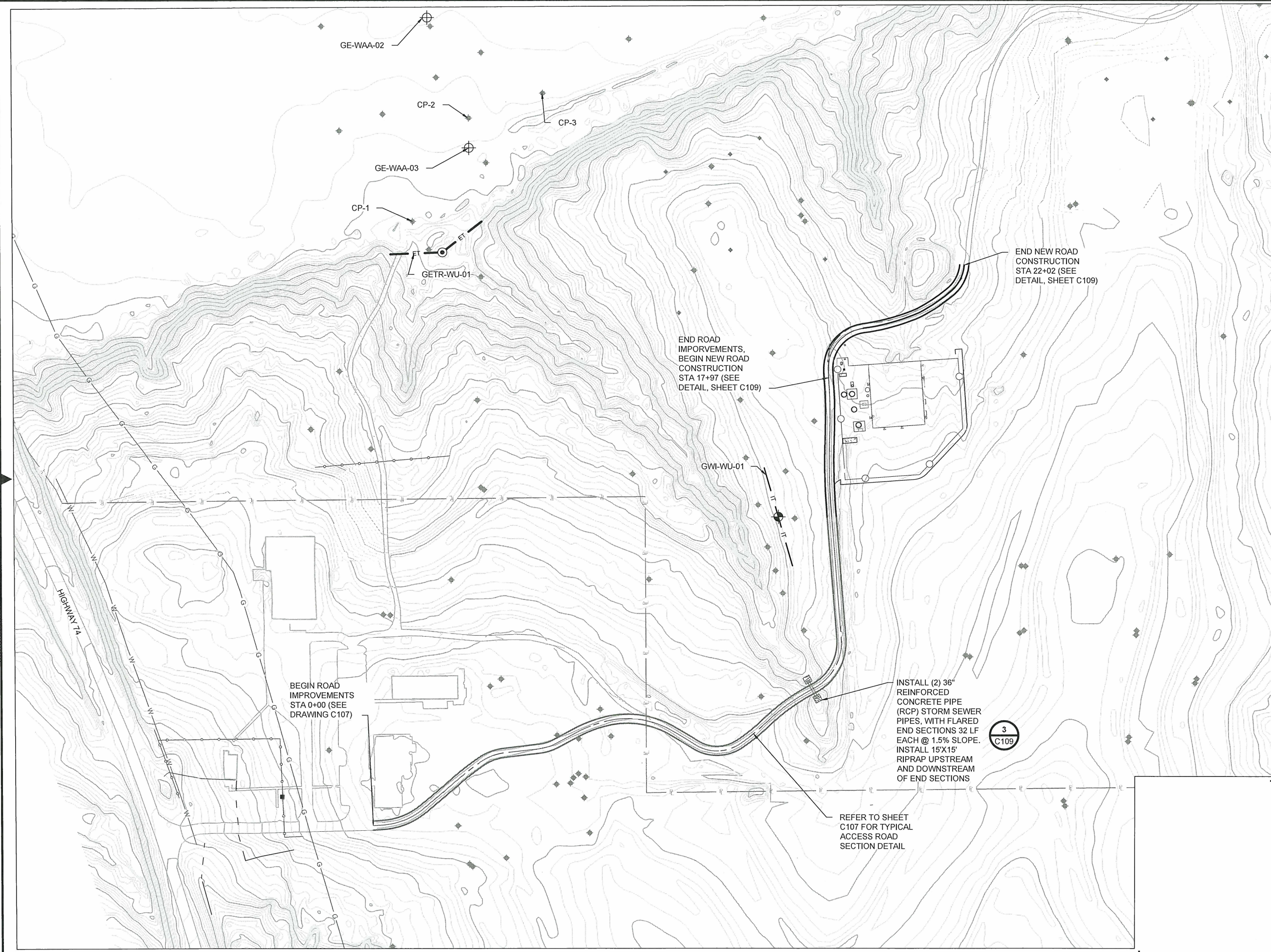
9400 WARD PARKWAY  
KANSAS CITY, MO 64114  
816-333-9400  
OKLAHOMA FIRM LICENSEE NO. 421

date	SEPTEMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

**Cimarron Environmental Response Trust**  
1206 DRAINAGE AREA  
REMEDICATION PLAN

project	142089	contract	-
drawing	BMCD-GWREMED-C011	rev.	A
sheet	of	sheets	
file	C011 1206 DRAINAGE REM PLAN.DWG		

1 2 3 4 5 6 7 8 9 10 11 12 13



no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

NORTH

SCALE IN FEET

**PRELIMINARY - NOT FOR CONSTRUCTION**

**BURNS  
MCDONNELL**

9400 WARD PARKWAY  
KANSAS CITY, MO 64114  
816-333-9400  
OKLAHOMA FIRM LICENSE NO. 421

date	SEPTEMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

Cimarron Environmental Response Trust  
UPLAND ACCESS ROADS

project	142089	contract	-
drawing	BMCD-GWREMED-C012	rev.	<b>A</b>
sheet	of	sheets	
file	C012 UPLAND ACCESS ROADS.DWG		