

CHEROKEE METROPOLITAN DISTRICT

LIFT STATION NO. 1 ADDITIONS

6657 E PLATTE AVE, PARCEL NO. 5418000080

COLORADO SPRINGS, COLORADO

STORMWATER MANAGEMENT PLAN: PPR-2254

FILE NO.: PPR-2254

CONTACTS

OWNER (APPLICANT): CHEROKEE METROPOLITAN DISTRICT
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APRIL 2023

PREPARED UNDER THE SUPERVISION OF

JVA, Inc.

DRAWING INDEX

| SHEET NO. | TITLE |
|-----------|----------------------------------|
| CO.0 | COVER SHEET |
| CO.1 | LEGEND, NOTES, AND ABBREVIATIONS |
| CE1.0 | EROSION CONTROL PLAN – INITIAL |
| CE1.1 | EROSION CONTROL PLAN – INTERIM |
| CE1.2 | EROSION CONTROL PLAN – FINAL |
| CE1.3 | SWMP AND GEC NOTES |
| CE1.4 | EROSION CONTROL DETAILS |
| CE1.5 | EROSION CONTROL 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 SWLY 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.

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 |

ENGINEER'S STATEMENT:

THIS STORMWATER MANAGEMENT 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 AND STATE FOR STORMWATER MANAGEMENT PLANS PLANS.

ENGINEER OF RECORD SIGNATURE _____

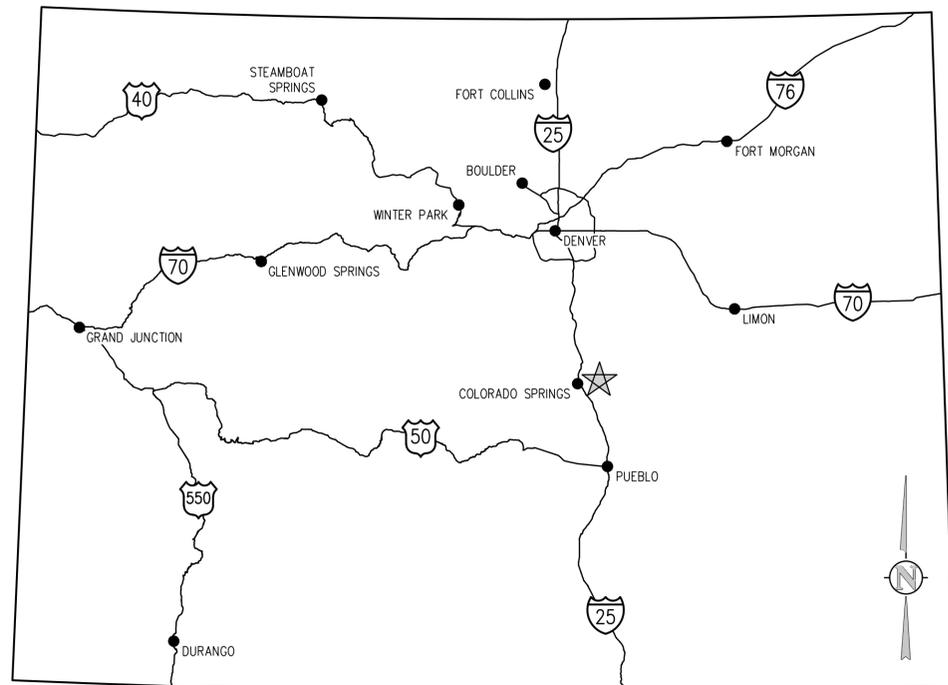
DATE _____

EL PASO COUNTY:

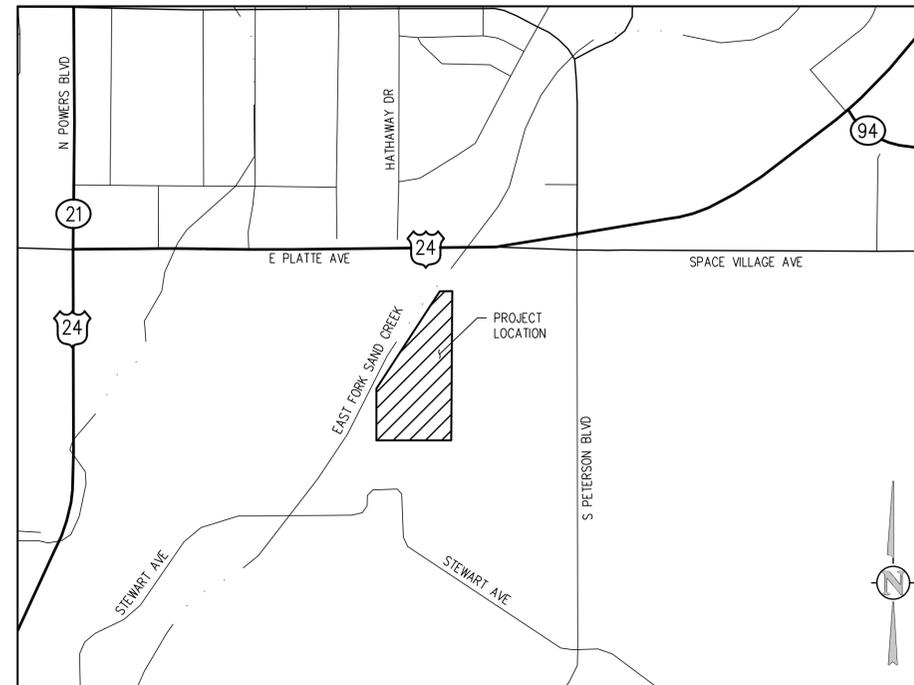
THE STORMWATER MANAGEMENT PLAN WAS REVIEWED AND FOUND TO MEET THE CHECKLIST REQUIREMENTS EXCEPT WHERE OTHERWISE NOTED OR ALLOWED BY AN APPROVED DEVIATION REQUEST.

REVIEW ENGINEER _____

DATE _____



VICINITY MAP
NTS



PROJECT LOCATION MAP
NTS

ABBREVIATIONS

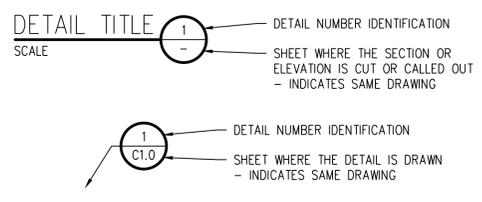
| | | | |
|--------|---|--------|--|
| AASHTO | AMERICAN ASSOC. OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS | INCL | INCLUDED |
| ABAN | ABANDON | ID | INSIDE DIAMETER |
| AC | ASPHALTIC CONCRETE PAVING | IN | INLET |
| ADDL | ADDITIONAL | INSUL | INSULATION |
| ADDM | ADDDUM | INV | INVERT |
| ADJ | ADJUSTABLE | IRR | IRRIGATION |
| AL | ALUMINIUM | JTS | JOINTS |
| ALT | ALTERNATE | KO | KNOCKOUT |
| AMT | AMOUNT | KPL | KICK PLATE |
| APPROX | APPROXIMATE | KWY | KEYWAY |
| ARCH | ARCHITECT(URAL) | L | LEFT OR LITER |
| ARV | AIR RELIEF VALVE | LSCAPE | LANDSCAPE(ING) |
| ASTM | AMERICAN SOCIETY FOR TESTING AND MATERIALS | LF | LINEAR FOOT |
| ASPH | ASPHALT | LP | LOW POINT |
| ASSY | ASSEMBLY | LT | LIGHT |
| ASYM | ASYMMETRICAL | LWL | LOW WATER LEVEL |
| AUTO | AUTOMATIC | MAINT | MAINTENANCE |
| AVG | AVERAGE | MAN | MANUAL |
| AWWA | AMERICAN WATER WORKS ASSOC. | MATL | MATERIAL |
| BC | BACK OF CURB | MAX | MAXIMUM |
| BFV | BUTTERFLY VALVE | ME | MATCH EXISTING |
| BG | FINISHED GRADE ADJACENT TO BOTTOM OF WALL | MECH | MECHANICAL |
| BLDG | BUILDING | MFR | MANUFACTURER |
| BLK | BLOCK | MH | MANHOLE |
| BM | BENCH MARK | MIN | MINIMUM |
| BMP | BEST MANAGEMENT PRACTICE | MISC | MISCELLANEOUS |
| BS | BACKSIGHT | MJ | MECHANICAL JOINT |
| BOS | BOTTOM OF STEP | N | NORTH |
| BOT | BOTTOM | NA | NOT APPLICABLE |
| BSMT | BASEMENT | NIC | NOT IN CONTRACT |
| BVCE | BEGIN VERTICAL CURVE ELEVATION | NPT | NATIONAL PIPE THREAD |
| BVCS | BEGIN VERTICAL CURVE STATION | NTS | NOT TO SCALE |
| BW | BOTTOM OF WALL | OC | ON CENTER |
| CB | CATCH BASIN | OD | OUTSIDE DIAMETER |
| CCW | COUNTER CLOCKWISE | OPP | OPPOSITE |
| CDOT | COLORADO DEPARTMENT OF TRANSPORTATION | OPT | OPTIONAL |
| CIP | CAST IRON PIPE | PC | POINT OF CURVATURE |
| CJ | CONSTRUCTION JOINT | PCO | PRESSURE CLEAN OUT |
| CL | CENTER LINE OR CHAIN LINK | PCR | POINT OF CURVE RETURN |
| CLR | CLEAR | PI | POINT OF INTERSECTION |
| CMP | CORRUGATED METAL PIPE | PVI | POINT OF VERTICAL INTERSECTION |
| CMU | CONCRETE MASONRY UNIT | PL | PROPERTY LINE |
| CO | CLEANOUT | PE | POLYETHYLENE |
| CONC | CONCRETE | PFAB | PREFABRICATED |
| CONST | CONSTRUCTION | PRELIM | PRELIMINARY |
| CONT | CONTINUOUS(ATION) | PREP | PREPARATION |
| COR | CORNER | PROP | PROPOSED |
| CR | CONCENTRIC REDUCER | PRV | PRESSURE REDUCING VALVE OR PRESSURE RELIEF VALVE |
| CTR | CENTER | PSF | POUNDS PER SQUARE FOOT |
| CY | CUBIC YARDS | PSI | POUNDS PER SQUARE INCH |
| DEMO | DEMOLITION | PT | POINT OF TANGENCY |
| DIA | DIAMETER | PV | PLUG VALVE |
| DIAG | DIAGONAL | PVC | POLYVINYL CHLORIDE OR PIPE |
| DIP | DUCTILE IRON PIPE | PVMT | POINT OF VERTICAL CURVATURE PAVEMENT |
| DOM | DOMESTIC | QTY | QUANTITY |
| DN | DOWN | R | RIGHT |
| DR | DRAIN | RAD | RADIUS |
| DWG | DRAWING | RCP | REINFORCED CONCRETE PIPE |
| DWL | DOWEL | RD | ROOF DRAIN |
| E | EAST | RE | REFERENCE |
| EA | EACH | RECT | RECTANGULAR |
| ECC | ECCENTRIC | REINF | REINFORCE (D) (ING) (MENT) |
| EJ | EXPANSION JT | REQD | REQUIRED |
| EL | ELEVATION | ROW | RIGHT OF WAY |
| ELB | ELBOW | SAN | SANITARY |
| ELEC | ELECTRICAL | SD | STORM DRAIN |
| ENGR | ENGINEER | SECT | SECTION |
| EP | EDGE OF PAVEMENT | SECT | SECTION |
| EQ | EQUAL | SPD | STANDARD PROCTOR DENSITY SPECIFICATION |
| EQIP | EQUIPMENT | SO | SQUARE |
| EQUIV | EQUIVALENT | SO IN | SQUARE INCH |
| ESMT | EASEMENT | SO FT | SQUARE FOOT |
| EST | ESTIMATE | SO YD | SQUARE YARD |
| EVCE | END VERTICAL CURVE ELEVATION | SS | SANITARY SEWER |
| EVCS | END VERTICAL CURVE STATION | SST | STAINLESS STEEL |
| EW | EACH WAY | STA | STATION |
| EXP JT | EXPANSION JOINT | STD | STANDARD |
| EXIST | EXISTING | STL | STEEL |
| FND | FOUNDATION | STRUCT | STRUCTURAL |
| FES | FLARED END SECTION | SVC | SERVICE |
| FF | FINISH FLOOR | SWMP | STORMWATER MANAGEMENT PLAN |
| FG | FINISH GRADE | SYM | SYMMETRICAL |
| FH | FIRE HYDRANT | TB | THRUST BLOCK |
| FL | FLOW LINE | TBC | TOP BACK OF CURB |
| FN | FENCE | TBM | TEMPORARY BENCH MARK |
| FOC | FACE OF CONCRETE | TEMP | TEMPORARY |
| FS | FEET PER SECOND | TG | FINISHED GRADE ADJACENT TO TOP OF WALL |
| FPM | FEET PER MINUTE | THK | THICK |
| FPS | FEET PER SECOND | THK | THICK |
| FT | FEET | TOT | TOTAL |
| FTG | FOOTING OR FITTING | TOW | TOP OF WALL OR CAP OF WALL |
| G | GAS | TYP | TYPICAL |
| GA | GAUGE | UBC | UNIFORM BUILDING CODE |
| GAL | GALLON | UGE | UNDERGROUND ELECTRIC UTILITY |
| GALV | GALVANIZED | UTIL | UTILITY |
| GCO | GRADE CLEANOUT | VERT | VERTICAL |
| GIP | GALVANIZED IRON PIPE | VC | POINT OF VERTICAL CURVATURE |
| GND | GROUND | VCP | VERTICAL CLAY PIPE |
| CPD | GALLONS PER DAY | W | WIDE OR WIDTH |
| GP | GALLONS PER MINUTE | W/O | WITHOUT |
| GR | GRATE | WOCE | WATER QUALITY CONTROL ELEVATION |
| GRG | GRATING | WSE | WATER SURFACE ELEVATION |
| GSP | GALVANIZED STEEL PIPE | WW | WASTEWATER |
| GV | GATE VALVE | X SECT | CROSS SECTION |
| H | HIGH | XFMR | ELECTRONIC TRANSFORMER |
| HB | HOSE BIB | YH | YARD HYDRANT |
| HE | HORIZONTAL ELLIPTICAL | | |
| HDWL | HEADWALL | | |
| HNDRL | HAND RAIL | | |
| HORIZ | HORIZONTAL | | |
| HP | HIGH POINT | | |
| HR | HOUR | | |
| HVAC | HEATING, VENTILATION, AIR CONDITIONING | | |
| HWY | HIGHWAY | | |
| HWL | HIGH WATER LINE | | |
| HYD | HYDRANT | | |

DESIGN LEGEND

| | | | |
|--|------------------------------|--|-------------------------------|
| | BENCHMARK | | FENCE |
| | MANHOLE | | FLOW LINE OF DITCH OR WASH |
| | AREA DRAIN | | SLOPE ARROW |
| | COMBINATION INLET | | PROPOSED SPOT ELEVATION |
| | TYPE R INLET | | EXIST SPOT ELEVATION |
| | TYPE 13 FIELD INLET | | EXIST INDEX CONTOUR |
| | FLARED END SECTION W/ RIPRAP | | EXIST INTERMEDIATE CONTOUR |
| | TEE W/ THRUST BLOCK | | PROPOSED INDEX CONTOUR |
| | BEND W/ THRUST BLOCK | | PROPOSED INTERMEDIATE CONTOUR |
| | END CAP W/ THRUST BLOCK | | SPILL/CATCH CURB TRANSITION |
| | GATE VALVE | | SIGN W/ POST |
| | REDUCER/INCRASER | | CONCRETE PAVING |
| | WATER METER | | HEAVY DUTY ASPHALT PAVING |
| | FIRE HYDRANT | | LIGHT DUTY ASPHALT PAVING |
| | STORM - 12" AND SMALLER | | GRAVEL |
| | STORM - LARGER THAN 12" | | PROPOSED BUILDING |
| | ROOF DRAIN | | BUILDING ACCESS |
| | TRENCH DRAIN | | RETAINING WALL |
| | UNDERDRAIN | | BOULDER/ROCK WALL |
| | SANITARY SEWER | | LIMITS OF SAWCUT |
| | FORCE MAIN | | LIMITS OF WORK |
| | WATER | | EASEMENT LINE |
| | NON POTABLE WATER | | PROPERTY LINE |
| | POTABLE WATER | | ADJACENT PROPERTY LINE/ROW |
| | IRRIGATION | | MATCHLINE |
| | IRRIGATION - LARGER THAN 12" | | MAPPED ELECTRIC* |
| | CABLE TV | | MAPPED FORCE MAIN* |
| | DRAIN | | MAPPED SANITARY SEWER* |
| | ELECTRIC | | |
| | UNDERGROUND ELECTRIC | | |
| | OVERHEAD ELECTRIC | | |
| | TELEPHONE | | |
| | TELEPHONE | | |
| | FIBER OPTIC | | |
| | FUEL | | |
| | GAS | | |
| | PVC PIPE (MISC) | | |



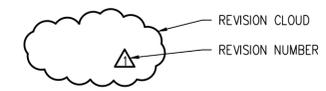
DETAIL TITLE



SECTION CALLOUT



DETAIL MARKER



SURVEY LEGEND

| | | | |
|--|-----------------------------|--|--|
| | WATER LINE | | BENCHMARK AS DESCRIBED |
| | FIRE HYDRANT | | FOUND MONUMENT |
| | WATER METER | | FOUND MONUMENT |
| | VALVE | | TEST CP |
| | SANITARY SEWER LINE | | UTILITY LOCATED FROM MAP |
| | SANITARY SEWER MANHOLE | | AS MEASURED AT TIME OF SURVEY |
| | STORM DRAINAGE LINE | | CALCULATED FROM RECORD AND AS MEASURED INFORMATION |
| | STORM DRAINAGE MANHOLE | | PLAT |
| | CURB INLET | | RECORDED |
| | UNDERGROUND ELECTRICAL LINE | | MAILBOX |
| | OVERHEAD ELECTRICAL LINE | | CONCRETE |
| | ELECTRICAL POLE | | EDGE OF ASPHALT |
| | GUY WIRE | | GRAVEL |
| | ELECTRICAL TRANSFORMER | | FENCE |
| | ELECTRICAL RISER | | GUARDRAIL |
| | ELECTRIC VAULT | | BOLLARD |
| | ELECTRIC METER | | SIGN |
| | UNKNOWN MANHOLE | | CONIFEROUS TREE (TRUNK DIAMETER/DRIP LINE RADIUS) |
| | VENT PIPE | | DECIDUOUS TREE (TRUNK DIAMETER/DRIP LINE RADIUS) |
| | LIGHT POLE | | BOULDER |
| | FIBEROPTIC LINE | | |
| | TELEPHONE LINE | | |
| | TELEPHONE RISER | | |
| | GAS LINE | | |
| | INDICATION OF ACCESS | | |
| | BUILDING | | |

NOTE: SHADED ITEMS REPRESENT EXIST FEATURES

GENERAL NOTES

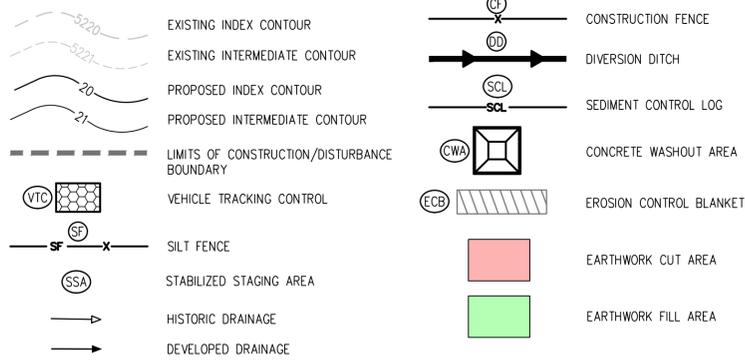
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF CHEROKEE METROPOLITAN DISTRICT, COLORADO DEPARTMENT OF TRANSPORTATION, CIMARRON HILLS FIRE PROTECTION REQUIREMENTS, AND APPLICABLE STATE AND LOCAL STANDARDS AND SPECIFICATIONS. THE CONTRACTOR SHALL HAVE IN POSSESSION AT THE JOB SITE AT ALL TIMES ONE (1) SIGNED COPY OF APPROVED PLANS, STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL CONSTRUCT AND MAINTAIN EMERGENCY ACCESS ROUTES TO THE SITE AND STRUCTURE AT ALL TIMES PER THE APPLICABLE CIMARRON HILLS FIRE PROTECTION DISTRICT REQUIREMENTS. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FOR ANY VARIANCE TO THE ABOVE DOCUMENTS. NOTIFY ENGINEER OF ANY CONFLICTING STANDARDS OR SPECIFICATIONS. IN THE EVENT OF ANY CONFLICTING STANDARD OR SPECIFICATION, THE MORE STRINGENT OR HIGHER QUALITY STANDARD, DETAIL OR SPECIFICATION SHALL APPLY.
- THE CONTRACTOR SHALL OBTAIN, AT HIS OWN EXPENSE, ALL APPLICABLE CODES, LICENSES, STANDARD SPECIFICATIONS, PERMITS, BONDS, ETC., WHICH ARE NECESSARY TO PERFORM THE PROPOSED WORK, INCLUDING, BUT NOT LIMITED TO A LOCAL AND STATE GROUNDWATER DISCHARGE AND COLORADO DEPARTMENT OF HEALTH AND ENVIRONMENT (CDPHE) STORMWATER DISCHARGE PERMIT ASSOCIATED WITH CONSTRUCTION ACTIVITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE REQUIRED PARTY (OWNER AND ENGINEER) AT LEAST 48 HOURS PRIOR TO START OF ANY CONSTRUCTION, PRIOR TO BACKFILLING, AND AS REQUIRED BY JURISDICTIONAL AUTHORITY AND/OR PROJECT SPECIFICATIONS. THE CONTRACTOR SHALL CONTINUE WITH NOTIFICATIONS THROUGHOUT THE PROJECT AS REQUIRED BY THE STANDARDS AND SPECIFICATIONS.
- THE LOCATIONS OF EXISTING UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION BASED ON INFORMATION BY OTHERS. NOT ALL UTILITIES MAY BE SHOWN. THE CONTRACTOR SHALL DETERMINE THE EXACT SIZE, LOCATION AND TYPE OF ALL EXISTING UTILITIES WHETHER SHOWN OR NOT BEFORE COMMENCING WORK. THE ENGINEER AND/OR OWNER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS SHOWN ON PLANS. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGES AND COSTS WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES. THE CONTRACTOR SHALL NOTIFY ALL PUBLIC AND PRIVATE UTILITY COMPANIES AND DETERMINE THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO PROCEEDING WITH GRADING AND CONSTRUCTION. ALL WORK PERFORMED IN THE AREA OF UTILITIES SHALL BE PERFORMED AND INSPECTED ACCORDING TO THE REQUIREMENTS OF THE UTILITY OWNER. LIKEWISE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND MAPPING ANY EXISTING UTILITY (INCLUDING DEPTH) WHICH MAY CONFLICT WITH THE PROPOSED CONSTRUCTION, AND FOR RELOCATING ENCOUNTERED UTILITIES AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL CONTACT AND RECEIVE APPROVAL FROM OWNER AND ENGINEER BEFORE RELOCATING ANY ENCOUNTERED UTILITIES. CONTRACTOR RESPONSIBLE FOR SERVICE CONNECTIONS, AND RELOCATING AND RECONNECTING AFFECTED UTILITIES AS COORDINATED WITH UTILITY OWNER AND/OR ENGINEER, INCLUDING NON-MUNICIPAL UTILITIES (TELEPHONE, GAS, CABLE, ETC., WHICH SHALL BE COORDINATED WITH THE UTILITY OWNER). THE CONTRACTOR SHALL IMMEDIATELY CONTACT ENGINEER UPON DISCOVERY OF A UTILITY DISCREPANCY OR CONFLICT. AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY NOTIFICATION CENTER OF COLORADO (1-800-922-1987, WWW.UCCO.ORG). SEE SURVEY UTILITY LOCATION INFORMATION BELOW.
- THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS AT AND ADJACENT TO THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN FOR OWNER AND/OR CITY APPROVAL AND PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FENCING, FLAGMEN OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR AGREES TO COMPLY WITH THE PROVISIONS OF THE TRAFFIC CONTROL PLAN AND THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PART VI, FOR CONSTRUCTION SIGNAGE AND TRAFFIC CONTROL. ALL TEMPORARY AND PERMANENT TRAFFIC SIGNS SHALL COMPLY TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) WITH REGARD TO SIGN SHAPE, COLOR, SIZE, LETTERING, ETC. UNLESS OTHERWISE SPECIFIED. IF APPLICABLE, PART NUMBERS ON SIGNAGE DETAILS REFER TO MUTCD SIGN NUMBERS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY GROUNDWATER ENCOUNTERED DURING THE CONSTRUCTION OF ANY PORTION OF THIS PROJECT. GROUNDWATER SHALL BE PUMPED, PIPED, REMOVED AND DISPOSED OF IN A MANNER WHICH DOES NOT CAUSE FLOODING OF EXISTING STREETS NOR EROSION ON ABUTTING PROPERTIES IN ORDER TO CONSTRUCT THE IMPROVEMENTS SHOWN ON THESE PLANS. GROUNDWATER TO BE PUMPED SHALL BE TESTED, PERMITTED, AND PUMPED PER THE STATE OF COLORADO AND LOCAL GROUNDWATER DISCHARGING PERMIT REQUIREMENTS.
- RIM AND GRATE ELEVATIONS SHOWN ON PLANS ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. THE CONTRACTOR SHALL ADJUST RIMS AND OTHER IMPROVEMENTS TO MATCH FINAL PAVEMENT AND FINISHED GRADE ELEVATIONS.
- THE EXISTING AND PROPOSED ELEVATIONS OF FLATWORK, SIDEWALKS, CURBS, THRESHOLDS, PAVING, ETC. AS SHOWN HEREON ARE BASED ON EXTRAPOLATION OF FIELD SURVEY DATA, EXISTING CONDITIONS, AND DATA PROVIDED BY OTHERS. AT CRITICAL AREAS AND SITE FEATURES, CONTRACTOR SHALL HAVE FORMWORK INSPECTED AND APPROVED BY OWNER, OWNER'S REPRESENTATIVE, OR ENGINEER PRIOR TO PLACING CONCRETE. MINOR ADJUSTMENTS, AS APPROVED, TO PROPOSED GRADES, INVERTS, ETC. MAY BE REQUIRED TO PREVENT PONDING OR SLOPE NOT IN CONFORMANCE WITH MUNICIPAL STANDARDS. ALL FLATWORK MUST PREVENT PONDING AND PROVIDE POSITIVE DRAINAGE AWAY FROM EXISTING AND PROPOSED BUILDINGS, WALLS, ROOF DRAIN OUTFALLS, ACROSS DRIVES AND WALKS, ETC., TOWARDS THE PROPOSED INTENDED DRAINAGE FEATURES AND CONVEYANCES.
- FINAL LIMITS OF REQUIRED ASPHALT SAWCUTTING AND PATCHING MAY VARY FROM LIMITS SHOWN ON PLANS. CONTRACTOR TO PROVIDE SAWCUT AND PATCH WORK TO ACHIEVE POSITIVE DRAINAGE AND A SMOOTH TRANSITION TO EXISTING ASPHALT WITHIN SLOPES ACCEPTABLE TO THE ENGINEER AND WITHIN MUNICIPAL STANDARDS. CONTRACTOR SHALL PROVIDE ADDITIONAL SAWCUTTING AND PATCHING AT UTILITY WORK, CONNECTION POINTS TO EXISTING PAVEMENT AND FEATURES, ETC. THAT MAY NOT BE DELINEATED ON PLANS.
- ANY EXISTING MONITORING WELLS, CLEANOUTS, VALVE BOXES, ETC. TO BE PROTECTED AND TO REMAIN IN SERVICE. IF FEATURES EXIST, EXTEND OR LOWER TO FINAL SURFACE WITH LIKE KIND CAP WITH STANDARD CAST ACCESS LID WITH SAME MARKINGS. IN LANDSCAPED AREAS PROVIDE A CONCRETE COLLAR (18"x18"x6" THICK) AT ALL EXISTING AND PROPOSED MONITORING WELLS, CLEANOUTS, VALVE BOXES, ETC.
- OWNER TO APPROVE ALL PRIVATE CONCRETE FINISHING, JOINT PATTERNS AND COLORING REQUIREMENTS PRIOR TO CONSTRUCTION. SUBMIT JOINT LAYOUT PLAN TO OWNER FOR APPROVAL PRIOR TO CONSTRUCTION.
- PIPE LENGTHS AND HORIZONTAL CONTROL POINTS SHOWN ARE FROM CENTER OF STRUCTURES, END OF FLARED END SECTIONS, ETC. SEE STRUCTURE DETAILS FOR EXACT HORIZONTAL CONTROL LOCATION. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ACTUAL PIPE LENGTHS TO ACCOUNT FOR STRUCTURES AND LENGTH OF FLARED END SECTIONS.
- ALL SURPLUS MATERIALS, TOOLS, AND TEMPORARY STRUCTURES, FURNISHED BY THE CONTRACTOR, SHALL BE REMOVED FROM THE PROJECT SITE BY THE CONTRACTOR. ALL DEBRIS AND RUBBISH CAUSED BY THE OPERATIONS OF THE CONTRACTOR SHALL BE REMOVED, AND THE AREA OCCUPIED DURING CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ITS ORIGINAL CONDITION, WITHIN 48 HOURS OF PROJECT COMPLETION, UNLESS OTHERWISE DIRECTED BY THE MUNICIPALITY OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR IS REQUIRED TO PROVIDE AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE LOCAL JURISDICTION, THE STATE OF COLORADO, MILE HIGH FLOOD DISTRICT "URBAN STORM DRAINAGE CRITERIA MANUAL VOLUME 3", THE M-STANDARD PLANS OF THE COLORADO DEPARTMENT OF TRANSPORTATION, AND THE APPROVED EROSION CONTROL PLAN. JURISDICTIONAL AUTHORITY MAY REQUIRE THE CONTRACTOR TO PROVIDE ADDITIONAL EROSION CONTROL MEASURES AT THE CONTRACTOR'S EXPENSE DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE PLANS DO NOT FUNCTION AS INTENDED. THE CONTRACTOR IS RESPONSIBLE FOR PROHIBITING SILT AND DEBRIS LADEN RUNOFF FROM LEAVING THE SITE, AND FOR KEEPING ALL PUBLIC AREAS FREE OF MUD AND DEBRIS. THE CONTRACTOR IS RESPONSIBLE FOR RE-ESTABLISHING FINAL GRADES AND FOR REMOVING ACCUMULATED SEDIMENTATION FROM ALL AREAS INCLUDING SWALES AND DETENTION/WATER QUALITY AREAS. CONTRACTOR SHALL REMOVE TEMPORARY EROSION CONTROL MEASURES AND REPAIR AREAS AS REQUIRED AFTER VEGETATION IS ESTABLISHED AND ACCEPTED BY OWNER AND MUNICIPALITY.
- PROTECT ALL TREES AND VEGETATION. PLACE CONSTRUCTION FENCING AT DRIP LINE OF TREES AND PLANTS NEAR THE WORK ZONE. DEEP WATER TREES WEEKLY. HAND EXCAVATION REQUIRED AT ROOT ZONES WHERE PROPOSED PAVING OR UTILITY WORK IS WITHIN DRIPLINE OF TREES.
- SURVEY INFORMATION:
 - TOPOGRAPHIC INFORMATION WAS PROVIDED BY EDWARD-JAMES SURVEYING, INC. SEE "2365-00 LS1 TOPO JUNE 2022 VS4.DWG" DATED 6/22/2022, UPDATED 8/5/2022. COORDINATE AND VERIFY ALL VERTICAL AND HORIZONTAL DATA SHOWN IN SURVEY AND REPORT ANY IRREGULARITIES OR DISCREPANCIES TO ENGINEER PRIOR TO CONSTRUCTION.
 - BASIS OF ELEVATIONS: PROJECT ELEVATIONS ARE BASED ON A NGS SURVEY CONTROL MONUMENT POINT T 76 RESET. CONTROL POINT T 76 RESET IS A BENCHMARK BRASS MONUMENT SET IN CONCRETE ON THE SOUTH SIDE OF U.S. HIGHWAY 24 EAST OF COLORADO SPRINGS, HAVING A NAVD88 ELEVATION OF 6141.49 FT.
 - COORDINATE DATUM: PROJECT COORDINATES ARE COLORADO STATE PLANE CENTRAL ZONE NAD 83 (2011) COORDINATES
 - HORIZONTAL CONTROL INFORMATION: HORIZONTAL CONTROL COORDINATES ARE BASED ON THE REFERENCED SURVEY AND ARE PROVIDED BY THE FOLLOWING POINTS AS SHOWN ON THE PLANS:

| | | | | | | | |
|--------|-------------|-------------|--------------|-------|-------------|-------------|--------------|
| CP-10 | N1366229.22 | E3225659.69 | ELEV 6250.36 | CP-40 | N1367602.72 | E3267269.52 | ELEV 6501.14 |
| CP-201 | N1366666.87 | E3225967.84 | ELEV 6259.69 | CP-70 | N1367475.49 | E3269906.26 | ELEV 6487.64 |
| CP-202 | N1366434.26 | E3226145.13 | ELEV 6257.38 | CP-80 | N1355301.14 | E3272427.81 | ELEV 6353.97 |
| CP-60 | N1368003.96 | E3233649.52 | ELEV 6314.30 | CP-50 | N1351673.15 | E3279000.96 | ELEV 6215.87 |
| CP-20 | N1367210.75 | E3258999.73 | ELEV 6226.87 | CP-51 | N1351707.87 | E3279076.41 | ELEV 6214.70 |
| CP-30 | N1367113.69 | E3263718.81 | ELEV 6511.30 | | | | |
- SURVEY UTILITY LOCATION INFORMATION PER THE SURVEYOR: SUBSURFACE UTILITIES ARE SHOWN IN APPROXIMATE HORIZONTAL AND VERTICAL LOCATIONS CONSISTENT WITH ASCE 38-02 QUALITY LEVEL "C" (INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION TO QUAL

EROSION AND SEDIMENTATION NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING ALL CONTROLS DURING INITIAL, INTERIM, AND FINAL CONDITIONS.
2. ALL CONTROLS SHALL BE INSTALLED WITHIN THE PROPERTY LINES UNLESS OTHERWISE SPECIFIED. WHEN CONSTRUCTION ACTIVITIES DISTURB ADJACENT AND/OR RIGHT-OF-WAY PROPERTIES, COORDINATION WITH PROPERTY OWNERS IS REQUIRED PRIOR TO CONSTRUCTION.
3. THE VEGETATIVE COVER OF THE AREA OF DISTURBANCE (EXCLUDING THE GRAVEL ACCESS PATH IN WHICH VEGETATIVE COVER IS NEGLIGIBLE) IS APPROXIMATELY 90% BASED ON VISUAL OBSERVATIONS AND MOSTLY CONSISTS OF NATIVE GRASSES AND WEEDS.
4. GROUNDWATER IS NOT ANTICIPATED TO BE ENCOUNTERED PER THE GEOTECH REPORT. THEREFORE, DEWATERING OPERATIONS ARE NOT ANTICIPATED ON SITE.
5. REFER TO SITE DEVELOPMENT PLAN FOR CONSTRUCTION TRAFFIC INGRESS/EGRESS ROUTE AND CONSTRUCTION ENTRANCE/EXIT POINTS FROM THE PUBLIC ROW. THERE ARE NO ACCESS POINTS TO THE SITE WHICH WOULD REQUIRE FENCING, SIGNAGE, OR BARRICADES. BASED ON THE GEOTECHNICAL REPORT, THE FACILITY WILL REQUIRE OVER EXCAVATION AND PLACEMENT OF STRUCTURAL FILL TO SUPPORT THE REINFORCED BASE SLAB AND FOOTINGS FOR THE FACILITY.

EROSION CONTROL LEGEND

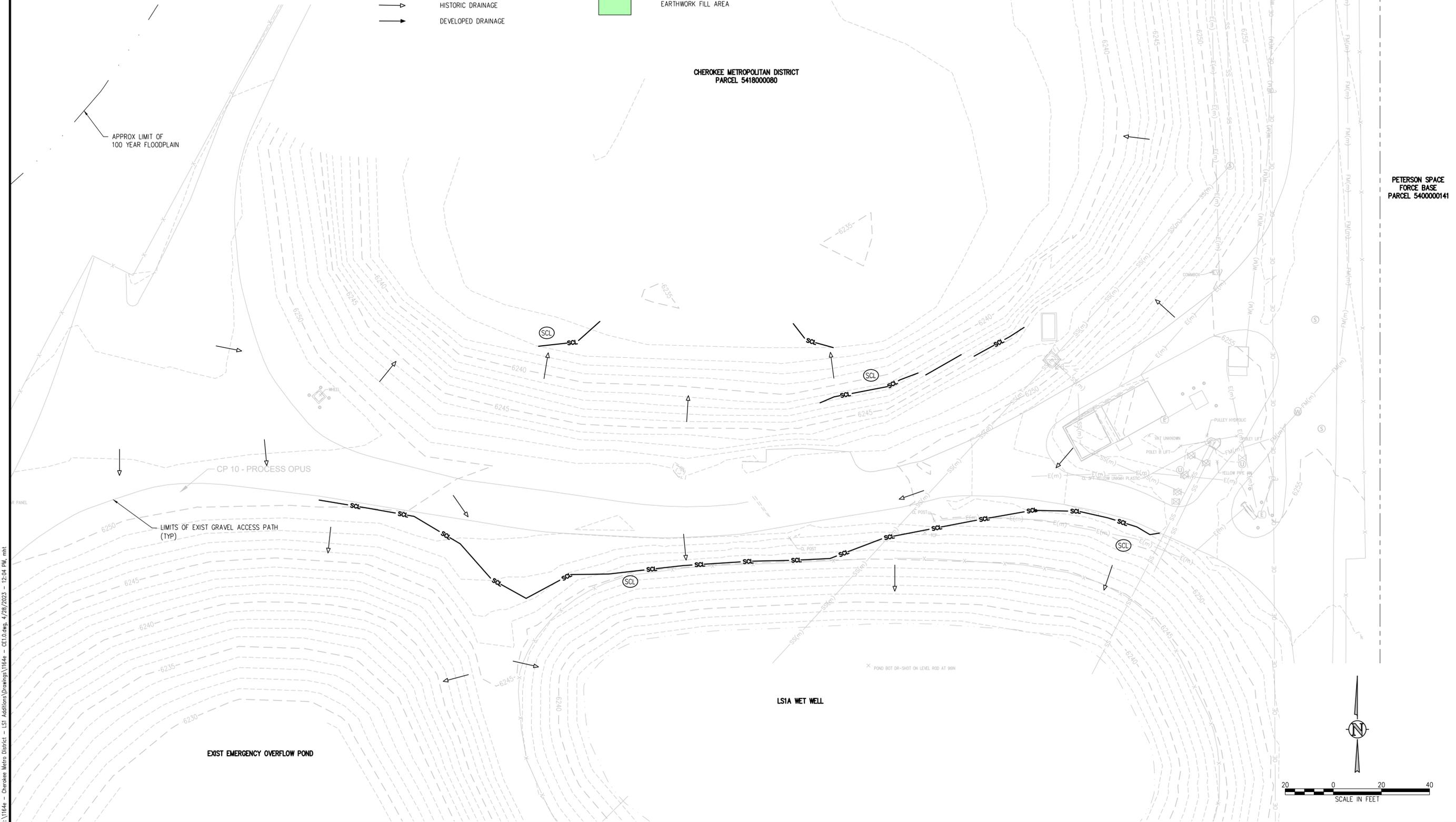


FILE NO.: PPR-2254

JVA CONSULTING ENGINEERS
 JVA, Inc. 1319 Spruce Street
 Boulder, CO 80302 303.444.1951
 www.jvava.com
 Boulder • Fort Collins • Winter Park
 Glenwood Springs • Denver

CHEROKEE METROPOLITAN DISTRICT
 PARCEL 5418000080

PETERSON SPACE
 FORCE BASE
 PARCEL 5400000141



| NO. | DATE | DESIGNED BY | DESCRIPTION |
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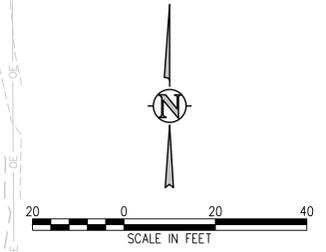
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| DESIGNED BY: | NAS |
| DRAWN BY: | MHT |
| CHECKED BY: | JJM |
| JOB #: | 1164e |
| DATE: | APRIL 2023 |

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CHEROKEE METROPOLITAN DISTRICT
 LIFT STATION NO. 1B
 EL PASO COUNTY, COLORADO
 EROSION CONTROL PLAN - INITIAL

SHEET NO.
CE1.0

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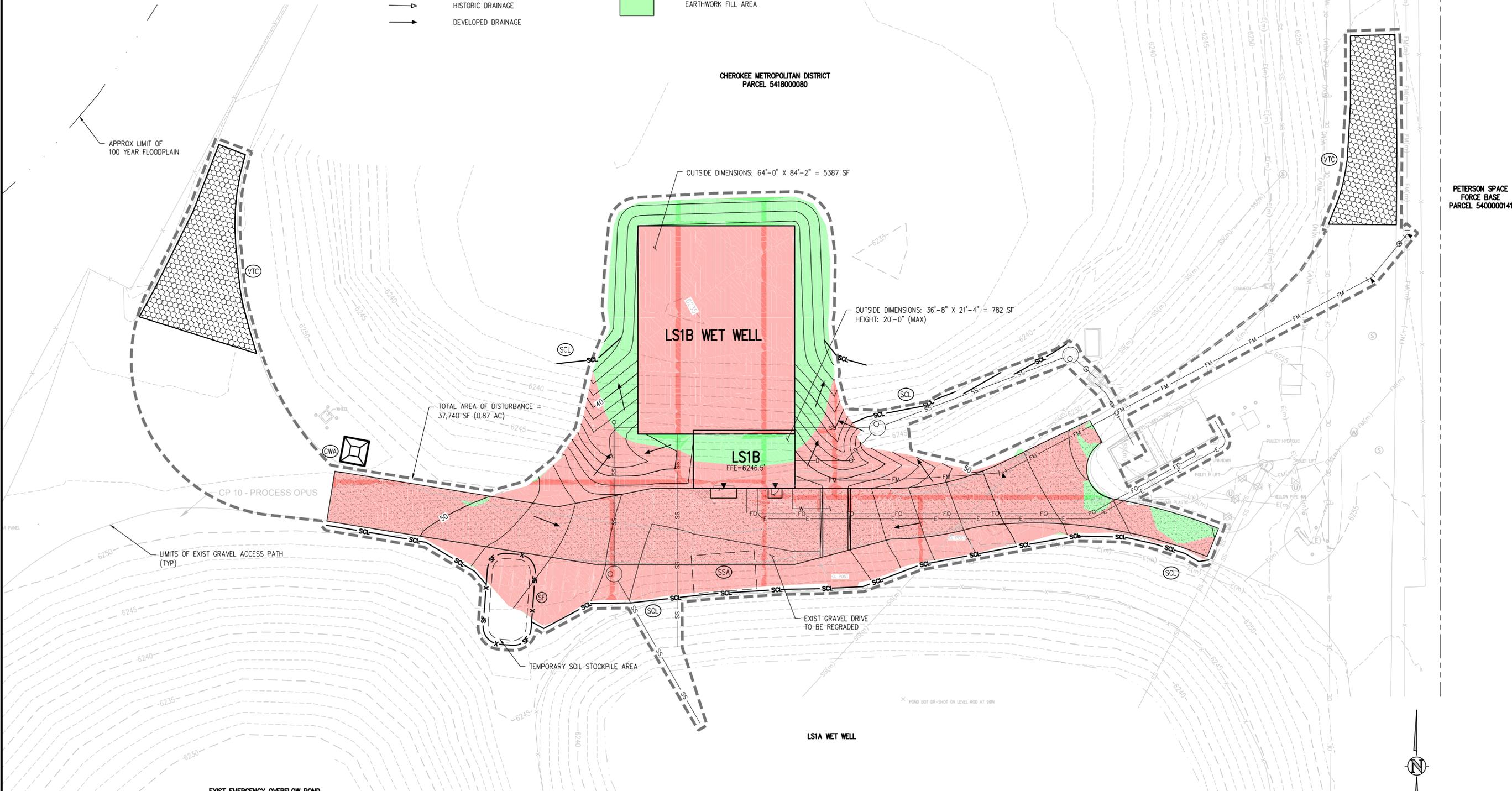
EROSION AND SEDIMENTATION NOTES:

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EROSION CONTROL LEGEND

- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- PROPOSED INDEX CONTOUR
- PROPOSED INTERMEDIATE CONTOUR
- LIMITS OF CONSTRUCTION/DISTURBANCE BOUNDARY
- VEHICLE TRACKING CONTROL
- SILT FENCE
- STABILIZED STAGING AREA
- HISTORIC DRAINAGE
- DEVELOPED DRAINAGE
- CONSTRUCTION FENCE
- DIVERSION DITCH
- SEDIMENT CONTROL LOG
- CONCRETE WASHOUT AREA
- EROSION CONTROL BLANKET
- EARTHWORK CUT AREA
- EARTHWORK FILL AREA

FILE NO.: PPR-2254



PETERSON SPACE FORCE BASE
PARCEL 5400000141

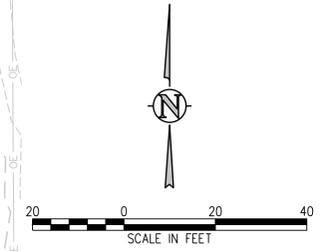
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DRAWN BY: MHT
CHECKED BY: JJM
JOB #: 1164e
DATE: APRIL 2023

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CHEROKEE METROPOLITAN DISTRICT
LIFT STATION NO. 1B
EL PASO COUNTY, COLORADO
EROSION CONTROL PLAN - INTERIM

| NAME | CUT FACTOR | FILL FACTOR | 2D AREA | CUT | FILL | NET |
|--------|------------|-------------|---------------|--------------|------------|--------------------|
| VOLUME | 1.00 | 1.00 | 19387 SQ. FT. | 1508 CU. YD. | 66 CU. YD. | 1442 CU. YD. <CUT> |
| TOTALS | | | 19387 SQ. FT. | 1508 CU. YD. | 66 CU. YD. | 1442 CU. YD. <CUT> |

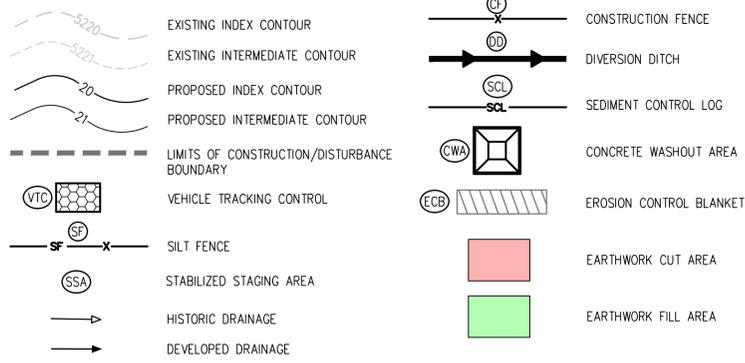


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SHEET NO.
CE1.1

- EROSION AND SEDIMENTATION NOTES:**
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EROSION CONTROL LEGEND

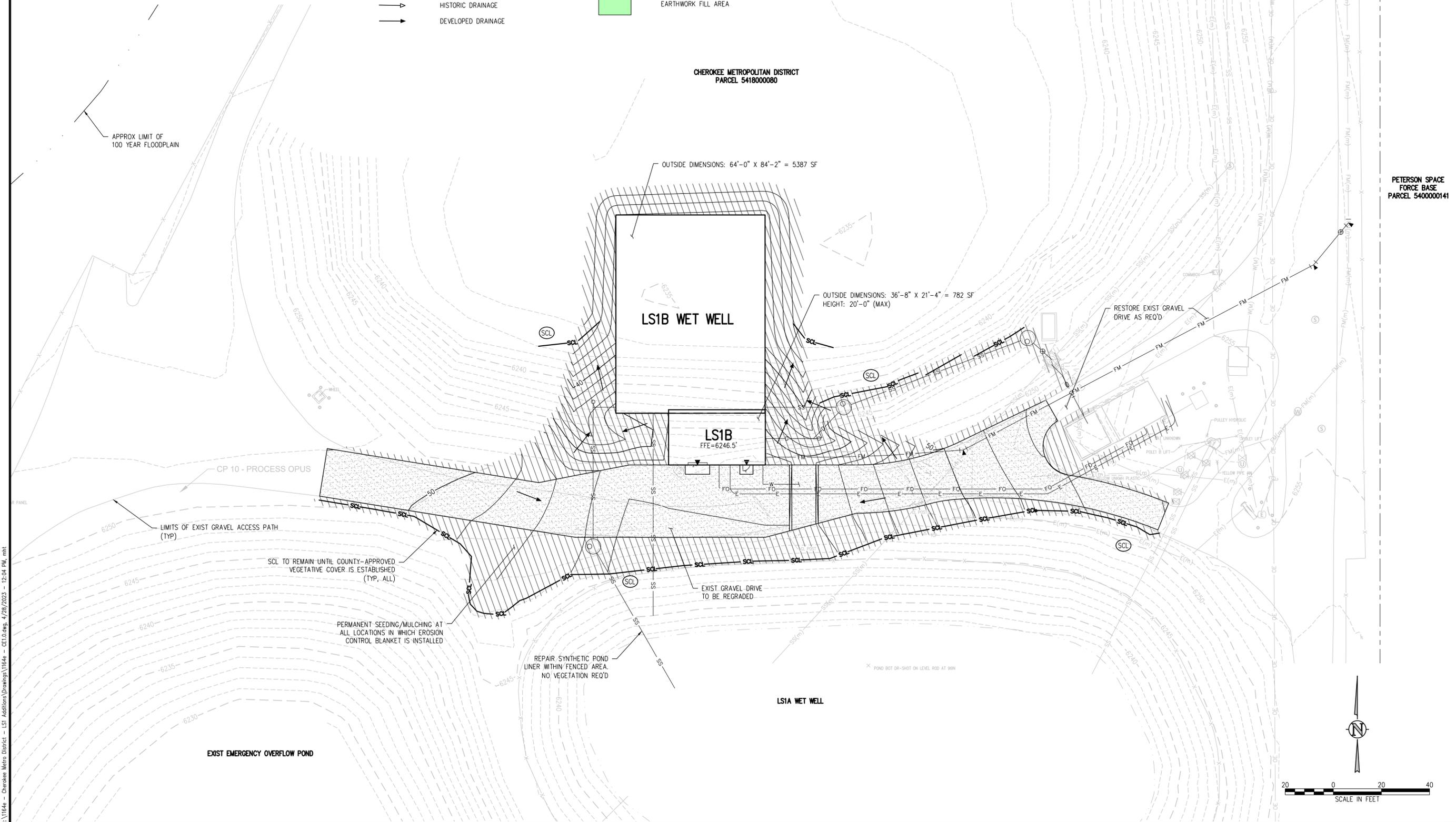


FILE NO.: PPR-2254



CHEROKEE METROPOLITAN DISTRICT
PARCEL 5418000080

PETERSON SPACE
FORCE BASE
PARCEL 5400000141



| NO. | DATE | DES'D | DWN | REVISION DESCRIPTION |
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| DRAWN BY: | MHT |
| CHECKED BY: | JJM |
| JOB #: | 1164e |
| DATE: | APRIL 2023 |

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CHEROKEE METROPOLITAN DISTRICT
LIFT STATION NO. 1B
EL PASO COUNTY, COLORADO
EROSION CONTROL PLAN - FINAL

SHEET NO.
CE1.2

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STORMWATER MANAGEMENT PLAN (SWMP)

THIS STORMWATER MANAGEMENT PLAN IS TO BE RETAINED AND MAINTAINED ONSITE INCLUDING FINAL LANDSCAPING PLANS AND ANY OTHER EROSION CONTROL DOCUMENTATION. A SWMP ADMINISTRATOR WILL BE DESIGNATED BY THE CONTRACTOR AND IS RESPONSIBLE FOR DEVELOPING, IMPLEMENTING, MAINTAINING, AND REVISING THIS SWMP. THIS SWMP SHOULD BE VIEWED AS A "LIVING DOCUMENT" THAT IS CONTINUOUSLY BEING REVIEWED AND MODIFIED AS A PART OF THE OVERALL PROCESS OF EVALUATING AND MANAGING STORMWATER QUALITY ISSUES AT THE SITE. THE QUALIFIED STORMWATER MANAGER (OSM) SHALL AMEND THE SWMP WHEN THERE IS A CHANGE IN DESIGN, CONSTRUCTION, O&M OF THE SITE WHICH WOULD REQUIRE THE IMPLEMENTATION OF NEW OR REVISED BMPs OR IF THE SWMP PROVES TO BE INEFFECTIVE IN ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY OR WHEN BMPs ARE NO LONGER NECESSARY AND ARE REMOVED. THE OSM IS THE CONTACT FOR ALL SWMP-RELATED ISSUES AND IS RESPONSIBLE FOR ITS ACCURACY, COMPLETENESS, AND IMPLEMENTATION. THE FOLLOWING HAS BEEN DESIGNATED AS THE SWMP ADMINISTRATOR FOR THIS PROJECT:

NAME: _____
CONTACT INFO: _____

THE SITE IS LOCATED AT 6657, 6677 EAST PLATTE AVENUE IN UNINCORPORATED EL PASO COUNTY AND AT APPROXIMATELY 38°N 50' 10.5" LATITUDE, 104°W 42' 24.7" LONGITUDE. CHEROKEE METROPOLITAN DISTRICT (CMD) PROPOSES IMPROVEMENTS TO AN EXISTING LIFT STATION ON THEIR SAND CREEK FACILITY PROPERTY (PARCEL 5418000080). THE PROPERTY IS IMMEDIATELY SOUTH OF PLATTE AVENUE ON THE EAST BANK OF EAST SAND CREEK AND IS BORDERED BY THE PETERSON SPACE FORCE BASE ON ITS SOUTH AND WEST SIDES. THE PROPOSED IMPROVEMENTS CONSIST OF CLEARING AND GRUBBING, CONSTRUCTION OF A NEW LIFT STATION BUILDING AND COVERED WET WELL, UTILITY CONNECTIONS, SITE GRADING, AND DEMO OF AN ACCESSORY STRUCTURE. THE TOTAL SITE AREA IS APPROXIMATELY 53.38 ACRES WITH A TOTAL DISTURBANCE OF 0.59 ACRE. NO CONSTRUCTION ACTIVITIES SHALL OCCUR OFFSITE OR OUTSIDE OF THE LIMITS OF WORK SHOWN ON THE GRADING AND EROSION CONTROL PLAN. THE SEQUENCE OF CONSTRUCTION STARTS IS AS FOLLOWS:

| PHASE | ESTIMATED | ACTUAL |
|--------------------------|---------------|--------|
| CONSTRUCTION START | DECEMBER 2023 | _____ |
| ROAD AND OVERLOT GRADING | DECEMBER 2023 | _____ |
| UTILITY CONSTRUCTION | JANUARY 2024 | _____ |
| BUILDING CONSTRUCTION | MARCH 2024 | _____ |
| SITE RESTORATION | NOVEMBER 2024 | _____ |

THE EXISTING SITE CONSISTS OF NATIVE GRASSLANDS WITH SIX EXISTING WASTEWATER TREATMENT LAGOONS AND IS APPROXIMATELY 80% COVERED WITH VEGETATIVE GROUND COVER. THE ESTIMATED HISTORIC AND DEVELOPED RUNOFF COEFFICIENTS ARE 0.50 AND 0.50, RESPECTIVELY. ACCORDING TO THE PROJECT'S GEOTECHNICAL REPORT, THE SOIL AT THE PROJECT SITE CONSISTS OF SILTY SAND WITH SOME ZONES OF CLAYEY SAND. THEREFORE, SOIL EROSION POTENTIAL IS ANTICIPATED TO BE FAIRLY HIGH. NO STREAMS CROSS THE PROJECT AREA.

OFFSITE RUNOFF FLOWS ONTO THE PROPERTY FROM THE SOUTHWEST, BUT LIMITED BY TOPOGRAPHY WHICH CONVEY OFFSITE FLOWS AROUND THE SITE. DUE TO THE NATURE AND USAGE OF THE SITE, ONSITE FLOWS ARE ISOLATED TO THE LAGOONS AND DETAINED. ONSITE DETENTION IS NOT APPLICABLE. THE ULTIMATE RECEIVING WATER IS EAST SAND CREEK, HOWEVER, LIMITED STORMWATER IS DISCHARGED FROM THIS SITE SINCE RUNOFF ULTIMATELY BECOMES PART OF THE TREATMENT SYSTEM PROCESS. A DRAINAGE MEMO FOR THIS DEVELOPMENT HAS BEEN SUBMITTED TO EL PASO COUNTY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM CONSTRUCTION SITES FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES, CONTAMINATED SOILS, OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.

OTHER TEMPORARY POTENTIAL POLLUTION SOURCES WOULD BE FROM NORMAL CONSTRUCTION ACTIVITY SUCH AS VEHICLE TRAFFIC ACCESSING AND LEAVING THE SITE, VEHICLE FUELING, STORAGE OF MATERIALS, AND LOADING/ UNLOADING AREAS. THESE ACTIVITIES WILL BE CONTAINED WITHIN THE DESIGNATED LIMITS OF CONSTRUCTION. THERE ARE NO ANTICIPATED NON-STORMWATER COMPONENTS OF THE DISCHARGE, SUCH AS SPRINGS OR LANDSCAPE IRRIGATION RETURN FLOW, LOCATED AT THIS SITE. PORTABLE TOILETS WILL BE LOCATED A MINIMUM OF 10- FEET FROM STORMWATER INLETS AND 50- FEET FROM STATE WATERS. THEY WILL BE SECURED AT ALL FOUR CORNERS TO PREVENT OVERTURNING AND CLEANED ON A WEEKLY BASIS. THEY WILL BE INSPECTED DAILY FOR SPILLS.

THIS PROJECT DOES NOT RELY ON CONTROL MEASURES OWNED OR OPERATED BY ENTITIES OTHER THAN THE CONTRACTOR OR CMD.

BEST MANAGEMENT PRACTICES FOR STORMWATER MANAGEMENT

NON STRUCTURAL BMPs WILL BE IMPLEMENTED TO THE MAXIMUM EXTENT POSSIBLE. THE UTILIZATION OF NON STRUCTURAL BMPs WILL BE AN ONGOING PROCESS DIRECTED AT PREVENTING EROSION. THE NON STRUCTURAL BMPs WILL RECEIVE CONTINUOUS EMPHASIS THROUGHOUT CONSTRUCTION BECAUSE THEY AVERT PROBLEMS BEFORE THEY OCCUR AND REDUCE THE NEED FOR STRUCTURAL BMPs. NON STRUCTURAL BMPs WILL CONSIST PRIMARILY OF PRESERVATION OF EXISTING MATURE VEGETATION AND TREES, PLANNING AND SCHEDULING CONSTRUCTION ACTIVITIES AIMED AT ACHIEVING THE GOAL OF MINIMIZING EROSION. FURTHERMORE, CONSTRUCTION PERSONNEL WILL BE INSTRUCTED AND SUPERVISED IN CONSTRUCTION METHODS CONSISTENT WITH EROSION PREVENTION PRACTICES.

PLANNED STRUCTURAL BMPs FOR EROSION AND SEDIMENT CONTROL ARE SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN. IMPLEMENTING THESE MEASURES SHOULD MINIMIZE NUISANCE SILT AND SEDIMENTATION EXITING THE SITE AND PREVENT CLOGGING EXISTING STORM SEWERS AND STREET GUTTERS.

APPLICATION OF THESE BMPs FOR STORMWATER MANAGEMENT ARE FOR CONSTRUCTION PERIODS AND ARE CONSIDERED TEMPORARY. POST-DEVELOPMENT STORMWATER MANAGEMENT IS PROVIDED THROUGH GRADING AND SEEDING STABILIZATION.

CONCRETE WASHOUT AREA (CWA):

THERE WILL BE NO CONCRETE ON-SITE BATCH PLANT. CONCRETE WILL BE BATCHED AT A DEDICATED PLANT AND TRUCKED TO SITE FOR EACH POUR. A CONCRETE WASHOUT AREA WILL BE PROVIDED TO ENSURE NO WASH WATER ENTERS SITE RUNOFF.

VEHICLE TRACKING CONTROL (VTC):

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED ON-SITE AT THE PROPOSED WET WELL AND WILL BE LIMITED TO ON-SITE ACTIVITY. THE CONSTRUCTION ACCESS AND PARKING WILL BE GRADED AND COVERED WITH A CRUSHED STONE BASE COURSE DURING CONSTRUCTION. THE VEHICLE TRACKING CONTROL WILL BE RELOCATED WITH THE CONSTRUCTION ACCESS AS NECESSARY.

SILT FENCING (SF) AND SEDIMENT CONTROL LOGS (SCL):

SILT FENCING AND SEDIMENT CONTROL LOGS SHALL BE INSTALLED WITH RESPECT TO PROPOSED DRAINAGE PATTERNS. SILT FENCE AND SEDIMENT CONTROL LOGS SHALL BE CONSTRUCTED ALONG THE PORTIONS OF THE NORTH AND SOUTH SIDES OF CONSTRUCTION AT THE PROPOSED FACILITY AND ALONG ANY DRAINAGE AREAS SUBJECT TO EROSION. THE SILT FENCING AND SEDIMENT CONTROL LOGS SHALL BE INSTALLED AT THE DOWNHILL SIDE OF THE EXISTING SLOPES ACROSS THE SITE AND AT ALL POINT DISCHARGE AREAS WHETHER SHOWN OR NOT. SILT FENCE AND SEDIMENT CONTROL LOGS SHALL BE MAINTAINED AS NEEDED THROUGHOUT THE CONSTRUCTION PROCESS. THE TEMPORARY SILT FENCE AND SEDIMENT CONTROL LOGS WILL REMAIN UNTIL THE STORM SEWER STRUCTURES ARE COMPLETED AND GROUND COVER IS EFFECTIVE.

DIVERSIONS DIKES (DD):

SEVERAL DIVERSION DIKES ARE TO BE INSTALLED TO DIRECT STORMWATER TO PROPOSED SWALES OR PROPOSED GUTTER PLANS. THESE TEMPORARY DIVERSIONS WILL BE NECESSARY UNTIL ALL INLETS BECOME FUNCTIONAL, SURROUNDED WITH PAVEMENT.

OVERLOT GRADING:

ALL OPEN AREAS WILL BE TREATED WITHIN 14 DAYS OF COMPLETION OF THE OVERLOT GRADING. ALL OVERLOT GRADING IN THE NON-IRRIGATED AREAS WILL HAVE THE SURFACE ROUGHENED AND WILL BE PERMANENTLY LANDSCAPED OR TEMPORARILY SEEDED UNTIL THE PLANNED INSTALLATIONS ARE COMPLETED. AT THE COMPLETION OF THE MASS GRADING, ALL EXPOSED SOIL AREAS WILL HAVE THE SURFACE ROUGHENED AND PLANTED WITH A REVEGETATION SEED MIX. VEGETATION IS TO BE MAINTAINED THROUGHOUT CONSTRUCTION BY THE CONTRACTOR UNTIL AREAS ARE PERMANENTLY LANDSCAPED. ALTERNATELY, ROUGH-CUT DRIVEWAYS OR PROPOSED PAVED AREAS CAN BE COVERED WITH A LAYER OF AGGREGATE, ROAD BASE OR ASPHALT PAVING.

DUST CONTROL MEASURES:

DISTURBED AREAS NOT YET READY TO BE SEEDED, LANDSCAPED, PAVED, OR OTHERWISE STABILIZED SHALL BE WATERED, OR RIPPED AS NECESSARY TO PRECLUDE VISIBLE DUST EMISSIONS.

ITEMS ARE SCHEDULED TO BE IMPLEMENTED ACCORDING TO THE CONSTRUCTION SCHEDULE. AS WORK PROCEEDS, IMPLEMENTATION OF INDIVIDUAL BMPs IS TO COINCIDE WITH THE CONSTRUCTION THEREBY MINIMIZING THE EXPOSURE OF UNPROTECTED AREAS. THE SILT FENCE, INLET PROTECTION (FOR EXISTING INLETS), AND GRAVELING OF THE CONSTRUCTION ENTRANCE WILL BE PERFORMED WHEN THE GRADING BEGINS. THE INLET PROTECTION WILL BE INSTALLED AS THE STORM SEWER STRUCTURES ARE CONSTRUCTED. THE RIPRAP PROTECTION WILL BE INSTALLED AS THE STORM SEWER OUTFALLS OR CULVERTS ARE CONSTRUCTED. THE STRUCTURAL BMPs THAT DO NOT BECOME PART OF THE PERMANENT STORMWATER MANAGEMENT PLAN ARE TO BE REMOVED, AS THE PAVING, LANDSCAPING, AND OTHER PERMANENT GROUND COVER INSTALLATIONS ARE COMPLETED. FUGITIVE DUST EMISSIONS RESULTING FROM GRADING ACTIVITIES AND/OR WIND SHALL BE CONTROLLED USING THE BEST AVAILABLE CONTROL TECHNOLOGY AS DEFINED BY THE COLORADO DEPARTMENT OF HEALTH AT THE TIME OF GRADING. THE GRAVELING IS TO BE MAINTAINED AND EXTENDED CONSTRUCTION PROGRESSES ESPECIALLY AROUND THE BUILDING SITE. THE STRUCTURAL BMPs ARE TO BE REMOVED, AS THE PERMANENT LANDSCAPING INSTALLATIONS ARE COMPLETED.

THE EROSION AND SEDIMENT CONTROL PLAN MAY BE MODIFIED BY THE DEPARTMENT OF HIGHWAYS AND TRANSPORTATION, OWNER'S ENGINEER, COUNTY ENGINEERING INSPECTORS, OR ITS AUTHORIZED REPRESENTATIVE AS FIELD CONDITIONS WARRANT.

PERMANENT STABILIZATION MEASURES:

RIPRAP FOR STORM DRAIN OUTFALLS AND ROCK CHECK DAMS WILL BECOME PART OF THE PERMANENT STORMWATER MANAGEMENT PLAN AND WILL NOT BE REMOVED. PERMANENT LANDSCAPING WILL INCLUDE SEEDING TO OPEN AREAS. NATIVE PERENNIAL SEEDING WILL BE ESTABLISHED IN NON-IRRIGATED AREAS AND SOD OR OTHER VEGETATIVE COVER WILL BE ESTABLISHED IN IRRIGATED OPEN AREAS. ALL PERMANENT STABILIZATION MEASURES WILL BE SPECIFIED BY THE LANDSCAPE ARCHITECT OR OWNER.

MATERIALS AND SPILL PREVENTION:

THE CONTRACTOR WILL STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN CONFINED AREAS ON SITE FROM WHICH RUNOFF WILL BE CONTAINED AND FILTERED. MATERIALS WILL BE STORED OFF THE GROUND AND PROTECTED FROM THE WEATHER BY A COVER OR STORED IN A CONTAINER SUCH AS A VAN OR TRAILER. AN EARTHEN DIKE WILL BE CONSTRUCTED AROUND THE PERIMETER OF THE FUEL STORAGE AREA TO PREVENT MATERIALS FROM CONTACT WITH SURFACE RUNOFF. EQUIPMENT MAINTENANCE WILL BE PERFORMED IN A DESIGNATED AREA AND STANDARD MAINTENANCE PROCEDURES, SUCH AS THE USE OF DRIP PANS, WILL BE USED TO CONTAIN PETROLEUM PRODUCTS.

INSPECTION AND MAINTENANCE:

THE EROSION CONTROL MEASURES WILL BE INSPECTED DAILY DURING CONSTRUCTION BY THE CONTRACTOR AND AFTER EACH RAIN EVENT. ALL INSPECTIONS SHALL BE DOCUMENTED AND SHALL INCLUDE THE DATE OF INSPECTION, ANY INCIDENCE OF NON-COMPLIANCE, SIGNED CERTIFICATION THAT THE SITE IS IN COMPLIANCE, AND ANY NOTES, DRAWINGS, MAPS, ETC. PERTAINING TO REPAIRS. COPIES OF ALL DOCUMENTATION SHALL BE DISTRIBUTED TO MUNICIPALITIES AND OWNER ON A REGULAR BASIS AS SPECIFIED BY OWNER. SILT FENCE AND STRAW BALE BARRIERS WILL BE CHECKED FOR UNDERMINING AND BYPASS AND REPAIRED OR EXPANDED AS NEEDED. SEDIMENT SHOULD BE REMOVED FROM INLET FILTERS AND SILT FENCING BEFORE ONE HALF OF THE DESIGN DEPTH HAS BEEN FILLED. SEDIMENTS DEPOSITED IN THE PUBLIC RIGHTS-OF-WAY WILL BE REMOVED IMMEDIATELY. THE TEMPORARY VEGETATION OF BARE SOILS WILL BE CHECKED REGULARLY AND AREAS WHERE IT IS LOST OR DAMAGED WILL BE RESEEDED. AT MINIMUM THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL BMPs EVERY 14 DAYS AND AFTER SIGNIFICANT PRECIPITATION OR SNOWMELT EVENTS. INSTALLATIONS AND MODIFICATIONS AS REQUIRED BY THE COUNTY WILL BE IMPLEMENTED WITHIN 48 HOURS OF NOTIFICATION. CONTRACTOR SHALL REMOVE TEMPORARY EROSION CONTROL MEASURES AND REPAIR AREAS AS REQUIRED AFTER VEGETATION IS ESTABLISHED AND ACCEPTED BY OWNER AND MUNICIPALITY.

FINAL STABILIZATION AND LONG-TERM STORMWATER QUALITY:

FINAL STABILIZATION IS REACHED WHEN ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED, AND UNIFORM VEGETATIVE COVER HAS BEEN ESTABLISHED WITH A DENSITY OF AT LEAST 70% OR PRE-DISTURBANCE LEVELS OR EQUIVALENT PERMANENT, PHYSICAL EROSION REDUCTION METHODS HAVE BEEN EMPLOYED. FINAL STABILIZATION WILL BE ACHIEVED USING SOD, NATIVE SEEDING, PERMANENT BMP'S, AND OTHER METHODS. CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL STABILIZATION REGARDLESS OF ACCEPTANCE BY OWNER OF THE CONTRACTOR ITEM.

MULCHING AND SEEDING NOTES FOR EL PASO COUNTY

- ALL DISTURBED AREAS MUST BE MULCHED WITHIN 21 DAYS AFTER FINAL GRADE AND SEEDED AREAS ARE TO BE MULCHED WITH 24 HOURS AFTER SEEDING.
- 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 FEE FORAGE CERTIFICATION PROGRAM.
- HYDRAULIC MULCHING MATERIAL SHALL CONSIST OF VIRGIN WOOD FIBER MANUFACTURED FORM CLEAN WHOLE WOOD CHIPS. WOOD CHIPS CANNOT CONTAIN ANY GROWTH OR GERMINATION INHIBITORS OR BE PRODUCED FROM RECYCLED WATER. GRAVEL CAN ALSO BE USED.
- MULCH IS TO BE APPLIED EVENLY AT THE RATE OF 2 TONS PER ACRE.
- 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.
- 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 |

EL PASO COUNTY SELF-MONITORING INSPECTIONS

THE PERMIT HOLDER OR AUTHORIZED AGENT SHALL CONDUCT SELF-MONITORING INSPECTIONS. THE PURPOSE OF SELF-MONITORING INSPECTIONS IS FOR THE PERMIT HOLDER TO ENSURE THAT ALL BMPs ARE INSTALLED ACCORDING TO APPROVED PLANS, THE BMPs ARE ADEQUATE AND ARE BEING PROPERLY MAINTAINED, THE SWMP IS UPDATED TO REFLECT CURRENT CONDITIONS, AND ONLY ALLOWABLE DISCHARGES ARE OCCURRING OFF THE SITE. THE PERSON PERFORMING THE INSPECTIONS MAY BE ON THE PERMIT HOLDER'S STAFF OR A CONTRACTED THIRD PARTY. THE INDIVIDUAL PERFORMING THE SELF-MONITORING INSPECTIONS SHALL BE A QUALIFIED STORMWATER MANAGER, WHICH IS AN INDIVIDUAL KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROL AND POLLUTION PREVENTION AND WITH THE SKILLS TO ASSESS CONDITIONS AT CONSTRUCTION SITES THAT COULD IMPACT STORMWATER QUALITY AND THE EFFECTIVENESS OF STORMWATER CONTROLS IMPLEMENTED TO MEET STORMWATER PERMITTING REQUIREMENTS. EXAMPLES OF A QUALIFIED STORMWATER MANAGER INCLUDE A REGISTERED PROFESSIONAL ENGINEER OR AN EROSION CONTROL INSPECTOR CERTIFIED IN A REGIONALLY RECOGNIZED EROSION AND SEDIMENT CONTROL INSPECTION TRAINING PROGRAM. THE PERSON PERFORMING INSPECTIONS SHOULD BE A PERSON WITH AUTHORITY TO EXPEND PROJECT DOLLARS ON EROSION AND STORMWATER QUALITY CONTROL. THERE ARE TWO TYPES OF SELF-MONITORING INSPECTIONS ALLOWED IN EL PASO COUNTY: ROUTINE SELF-MONITORING AND OPERATOR COMPLIANCE INSPECTIONS. THE PERMIT HOLDER OR AUTHORIZED REPRESENTATIVE MAY REQUEST AN ALTERNATIVE TO THE 14 DAY ROUTINE SELF-MONITORING INSPECTION CYCLE DISCUSSED ABOVE. SELF-MONITORING INSPECTIONS OF STORMWATER BEST MANAGEMENT PRACTICES MAY BE REQUESTED FOR AT LEAST ONCE EVERY MONTH (I.E., 30 DAYS) FOR PERMITTED CONSTRUCTION SITES WHEN:

- ALL CONSTRUCTION ACTIVITY IS COMPLETED EXCEPT FINAL STABILIZATION BECAUSE PLANTED VEGETATION COVER HAS NOT YET BECOME ESTABLISHED;
- ALL ACTIVITIES FOR FINAL STABILIZATION HAVE BEEN COMPLETED WITH THE EXCEPTION OF SEED APPLICATION WHICH MAY NOT HAVE OCCURRED DUE TO SEASONAL CONDITIONS OR THE NECESSITY TO REAPPLY ADDITIONAL SEED TO AUGMENT PREVIOUS EFFORTS; AND
- THE SWMP HAS BEEN UPDATED TO LOCATE THOSE AREAS SUBJECT TO THE REDUCED INSPECTION FREQUENCY. ROUTINE SELF-MONITORING INSPECTIONS AFTER PRECIPITATION EVENTS ARE NOT REQUIRED DURING AN APPROVED 30 DAY INSPECTION CYCLE.

- ROUTINE SELF-MONITORING INSPECTIONS. THE ROUTINE SELF-MONITORING INSPECTIONS ARE TO BE PERFORMED AND DOCUMENTED AT LEAST ONCE EVERY 7 CALENDAR DAYS; OR AT LEAST ONCE EVERY 14 CALENDARS, IF POST-STORM EVENT INSPECTIONS ARE CONDUCTED WITHIN 24 HOURS AFTER THE END OF A PRECIPITATION OR SNOW MELT EVENT. POST-STORM INSPECTIONS MAY BE USED TO FULFILL THE 14 DAY INSPECTION REQUIREMENT. IN ADDITION TO THE BI-WEEKLY INSPECTIONS THE OWNER OR REPRESENTATIVE SHALL PERFORM POST-STORM INSPECTIONS OF ALL BMPs AFTER ANY PRECIPITATION OR SNOWMELT EVENT THAT CAUSES SURFACE EROSION TO ENSURE THAT THE BMPs HAVE OPERATED AS DESIGNED, TO DETERMINE IF MAINTENANCE IS NEEDED, AND TO LOCATE AND CLEAN UP ANY AREAS WHERE MATERIALS MAY HAVE RUN OFF SITE. FOR THOSE CHOOSING TO UTILIZE A 14-DAY AND POST-STORM INSPECTION FREQUENCY, IF NO CONSTRUCTION ACTIVITIES WILL OCCUR FOLLOWING A STORM EVENT, POST-STORM INSPECTION MUST BE CONDUCTED PRIOR TO RESUMING CONSTRUCTION ACTIVITIES BUT NO LATER THAN 72 HOURS FOLLOWING A STORM EVENT. THE DELAY OF ANY POST-STORM INSPECTION MUST BE DOCUMENTED IN THE INSPECTION RECORDS INCLUDED IN THE SWMP.

THE OWNER OR HIS REPRESENTATIVE WILL RECORD THE RESULTS OF ALL INSPECTIONS BY COMPLETING AN INSPECTION REPORT OR SIMILAR INSPECTION CHECKLIST INCLUDED IN THE SWMP. COMPLETED INSPECTION REPORTS SHALL BE KEPT ON SITE AND AVAILABLE TO COUNTY INSPECTORS. THE COUNTY MAY REQUIRE THE SUBMISSION OF THESE INSPECTION REPORTS ON A SITE-SPECIFIC BASIS.

- OPERATOR COMPLIANCE INSPECTION. WHEN A COMPLIANCE INSPECTION CONDUCTED BY A COUNTY STORMWATER INSPECTOR DOCUMENTS THE FAILURE TO IMPLEMENT CONTROL MEASURES OR IMPLEMENTATION OF INADEQUATE CONTROL MEASURES, THE COUNTY STORMWATER INSPECTOR MAY REQUIRE THE ESCOP OWNER OR THEIR REPRESENTATIVE TO INSPECT AND PROVIDE A REPORT TO THE COUNTY THAT THE CONTROL MEASURES HAVE BEEN IMPLEMENTED OR CORRECTED. THE OWNER OR THE REPRESENTATIVE MUST INCLUDE DATE AND TIME STAMPED PHOTOGRAPHS OF THE NEW, ADEQUATE CONTROL MEASURES.

FILE NO.: PPR-2254

STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS

- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS TO REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESCOP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON-SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- IF THE ESCOP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT MAY CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE COMPLETED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENEED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK, OR STREAM.
- DURING DEWATERING OPERATIONS, UNCONTAMINATED GROUNDWATER MAY BE DISCHARGED ON-SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM CONSTRUCTION SITES FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES, OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ON-SITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ON-SITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS) AND THE "CLEAN WATER ACT"(33 USC 1344) IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE EGM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO CONSTRUCTION THE PERMITEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON-SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY KUMAR & ASSOCIATES INC., DATED AUGUST 2022, AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:
COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION
WOOD - PERMITS
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246-1530
ATTN: PERMITS UNIT



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| DRAWN BY: | MHT |
| CHECKED BY: | JJM |
| JOB #: | 1164e |
| DATE: | APRIL 2023 |

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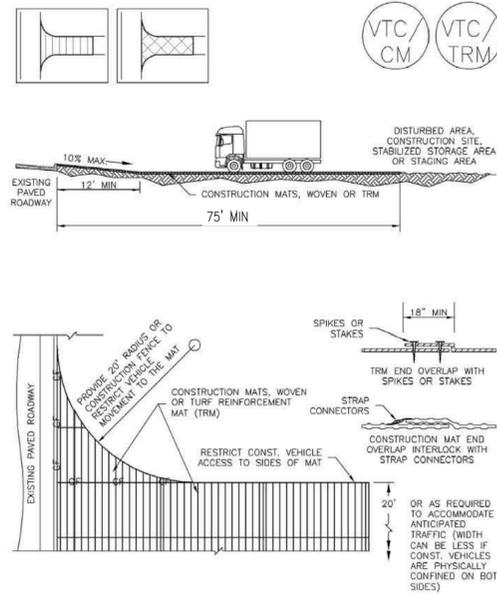
CHEROKEE METROPOLITAN DISTRICT
LIFT STATION NO. 1B
EL PASO COUNTY, COLORADO
SWMP AND GEC NOTES

SHEET NO.

CE1.3

Vehicle Tracking Control (VTC)

SM-4



VTC-3. VEHICLE TRACKING CONTROL W/ CONSTRUCTION MAT OR TURF REINFORCEMENT MAT (TRM)

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 VTC-5

SM-4 Vehicle Tracking Control (VTC)

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

- SEE PLAN VIEW FOR -LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S). -TYPE OF CONSTRUCTION ENTRANCE(S)/EXIT(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).
- CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.
- A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.
- STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.
- UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.
- SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

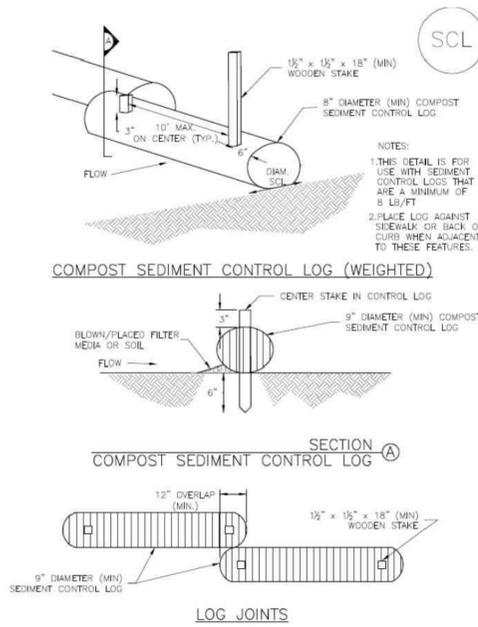
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)

VTC-6 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

SC-2

Sediment Control Log (SCL)



SCL-2. COMPOST SEDIMENT CONTROL LOG (WEIGHTED)

SCL-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2015

SC-2 Sediment Control Log (SCL)

SEDIMENT CONTROL LOG INSTALLATION NOTES

- SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.
- SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADE/REPAIR DISTURBING ACTIVITIES.
- SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELISIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
- SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS.
- IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY 1/3 OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING. COMPOST LOGS THAT ARE 8 LB/FT DO NOT NEED TO BE TRENCHED.
- THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL OR FILTER MATERIAL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER OR BLOWN IN PLACE.
- FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED. COMPOST LOGS SHOULD BE STAKED 10' ON CENTER.

SEDIMENT CONTROL LOG MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
- SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION. COMPOST FROM COMPOST LOGS MAY BE LEFT IN PLACE AS LONG AS BAGS ARE REMOVED AND THE AREA SEEDED. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, JEFFERSON COUNTY, COLORADO, DOUGLAS COUNTY, COLORADO, AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

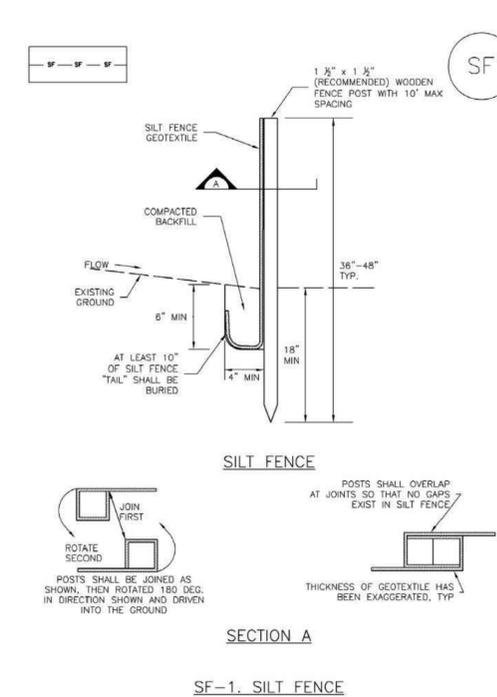
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SCL-6 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2015

Silt Fence (SF)

SC-1

FILE NO.: PPR-2254



SF-1. SILT FENCE

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SF-3

SC-1 Silt Fence (SF)

SILT FENCE INSTALLATION NOTES

- SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-3 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.
- A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.
- COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTATION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
- SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.
- SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.
- AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').
- SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
- REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
- SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.
- WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SF-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010



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DESIGNED BY: NAS
DRAWN BY: MHT
CHECKED BY: JJM
JOB #: 1164e
DATE: APRIL 2023

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

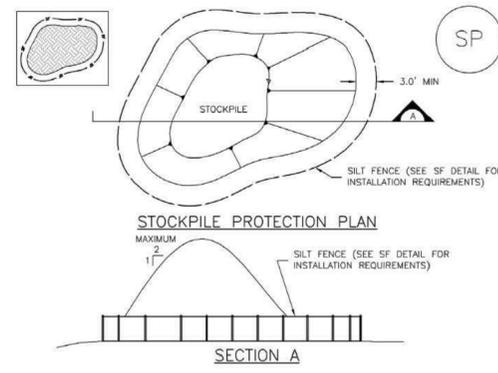
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Stockpile Management (SP)

MM-2



SP-1. STOCKPILE PROTECTION

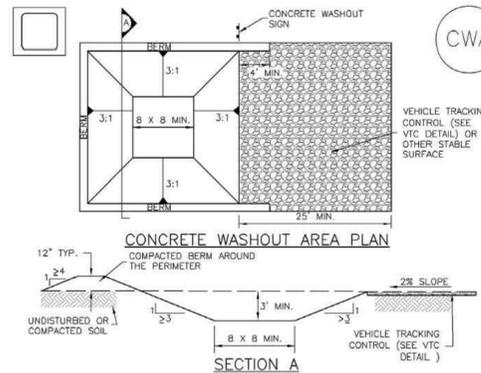
STOCKPILE PROTECTION INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF STOCKPILES.
 - TYPE OF STOCKPILE PROTECTION.
- INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.
- STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).
- FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADE CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SP-3

Concrete Washout Area (CWA)

MM-1



CWA-1. CONCRETE WASHOUT AREA

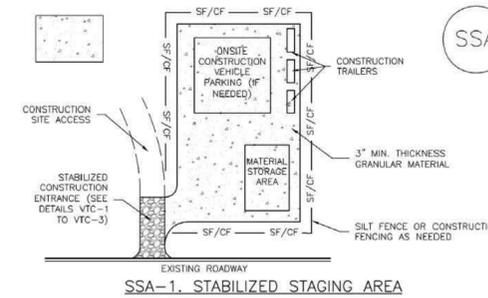
CWA INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - CWA INSTALLATION LOCATION.
- DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.
- THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
- CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
- BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.
- VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
- SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
- USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 CWA-3

Stabilized Staging Area (SSA)

SM-6



SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF STAGING AREA(S).
 - CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
- STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
- STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
- THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
- UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
- ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SSA-3

MM-2 Stockpile Management (SM)

STOCKPILE PROTECTION MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

STOCKPILE PROTECTION MAINTENANCE NOTES

- IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.
- STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SP-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

MM-1 Concrete Washout Area (CWA)

CWA MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

- THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
- CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
- THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
- WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

CWA-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

RECOMMENDED ANNUAL GRASSES

| SPECIES (COMMON NAME) | GROWTH SEASON | SEEDING DATE | POUNDS OF PURE LIVE SEED (PLS) (PLS/ACRE) | PLANTING DEPTH (INCHES) |
|-----------------------|---------------|---------------------|---|-------------------------|
| 1. OATS | COOL | MARCH 16 - APRIL 30 | 35-50 | 1-2 |
| 2. SPRING WHEAT | COOL | MARCH 16 - APRIL 30 | 25-35 | 1-2 |
| 3. SPRING BARLEY | COOL | MARCH 16 - APRIL 30 | 25-35 | 1-2 |
| 4. ANNUAL RYEGRASS | COOL | MARCH 16 - JUNE 30 | 10-15 | 1-2 |
| 5. MILLET | WARM | MAY 16 - JULY 15 | 3-15 | 1/2-3/4 |
| 6. SUDANGRASS | WARM | MAY 16 - JULY 15 | 5-10 | 1/2-3/4 |
| 7. SORGHUM | WARM | MAY 16 - JULY 15 | 5-10 | 1/2-3/4 |
| 8. WINTER WHEAT | COOL | SEPTEMBER 1 - 30 | 20-35 | 1-2 |
| 9. WINTER BARLEY | COOL | SEPTEMBER 1 - 30 | 20-35 | 1-2 |
| 10. WINTER RYE | COOL | SEPTEMBER 1 - 30 | 20-35 | 1-2 |
| 11. TRITICALE | COOL | SEPTEMBER 1 - 30 | 25-40 | 1-2 |

THIS TABLE WAS TAKEN FROM UDFCD FOR RECOMMENDED ANNUAL GRASSES FOR THE DENVER METROPOLITAN AREA. THIS TABLE MAY BE USED UNLESS A SITE-SPECIFIC SEED MIX IS REQUESTED AND APPROVED.

TABLE TS-1

TEMPORARY SEEDING NOTES

INSTALLATION REQUIREMENTS

- DISTURBED AREAS ARE TO BE SEED WITHIN 21 DAYS AFTER CONSTRUCTION ACTIVITY OR GRADING ENDS IF SEASON ALLOWS.
- IF NECESSARY, SOIL IS TO BE CONDITIONED FOR PLANT GROWTH BY APPLYING TOPSOIL, FERTILIZER, OR LIME.
- SOIL IS TO BE TILLED IMMEDIATELY PRIOR TO APPLYING SEEDS. COMPACT SOILS ESPECIALLY NEED TO BE LOOSENEED.
- SEEDBED DEPTH IS TO BE 4 INCHES FOR SLOPES FLATTER THAN 2:1, AND 1 INCH FOR SLOPES STEEPER THAN 2:1.
- ANNUAL GRASSES LISTED IN TABLE TS-1 ARE TO BE USED FOR TEMPORARY SEEDING. SEED MIXES ARE NOT TO CONTAIN ANY NOXIOUS WEED SEEDS INCLUDING RUSSIAN OR CANADIAN THISTLE, KNAPWEED, PURPLE LOOSESTRIFE, EUROPEAN BINDWEED, JOHNSON GRASS, AND LEAFY SPURGE.
- TABLE TS-1 ALSO PROVIDES REQUIREMENTS FOR SEEDING RATES, SEEDING DATES, AND PLANTING DEPTHS FOR THE APPROVED TYPES OF ANNUAL GRASSES.
- SEEDING IS TO BE APPLIED USING MECHANICAL TYPE DRILLS EXCEPT WHERE SLOPES ARE STEEP OR ACCESS IS LIMITED THEN HYDRAULIC SEEDING MAY BE USED.
- ALL SEEDED AREAS ARE TO BE MULCHED (SEE FACTSHEET ON MULCHING).
- IF HYDRAULIC SEEDING IS USED THEN HYDRAULIC MULCHING SHALL BE DONE SEPARATELY TO AVOID SEEDS BECOMING ENCAPSULATED IN THE MULCH.

MAINTENANCE REQUIREMENTS

- REGULAR INSPECTIONS ARE TO BE MADE OF ALL SEEDED AREAS TO ENSURE GROWTH.
- AREAS WHERE GROWTH IS NOT OCCURRING QUICKLY OR THE MULCH HAS BEEN REMOVED SHALL BE RE-SEEDED AS SOON AS POSSIBLE AND RE-MULCHED IF NEEDED.
- SEEDED AREAS ARE NOT TO BE DRIVEN OVER WITH CONSTRUCTION EQUIPMENT OR VEHICLES.

City of Colorado Springs Stormwater Quality

Figure TS-1 Temporary Seeding Construction Detail and Maintenance Requirements



FILE NO.: PPR-2254

REVISION DESCRIPTION
DWN
DES
DATE
NO.

DESIGNED BY: NAS
DRAWN BY: MHT
CHECKED BY: JJM
JOB #: 1164e
DATE: APRIL 2023

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

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