ENGINEERING RECORD DRAWINGS

JOHN P. SCHWAB, PE# 29891 FOR AND ON BEHALF OF JPS ENGINEERING, INC

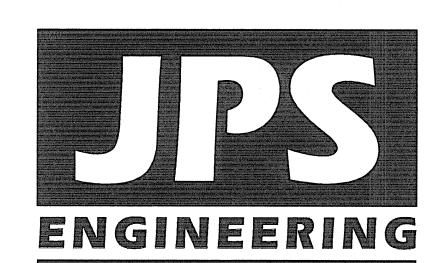
THE RESERVE AT FILING NO. 3 Construction Drawings El Paso County, Colorado

PREPARED FOR:

Corral Ranches Development Company

1830 Coyote Point Drive Colorado Springs, CO 80904

PREPARED BY:



19 East Willamette Avenue Colorado Springs, Colorado 80903 NOVEMBER 2020

FILING' NO. 3 (6)LOTS PP LOT 4

VICINITY MAP

ILING NO. 5 (8 LQTS)

> SITE MAP NOT TO SCALE

NOTE: 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 FROM REGULATIONS AND STANDARDS MUST BE REQUESTED AND APPROVED IN WRITING TO BE ACCEPTABLE.

BASIS OF BEARING: THE BASIS OF BEARINGS FOR THIS SURVEY IS THE SOUTH LINE OF LOT 1, BLOCK 3, CORRAL RANCHES SUBDIVISION FILING NO. 3, S89°30'43"E, 660.00 FEET. THE DIRECTION IS BASED ON THE RECORDED PLAT AND THE LINE IS MONUMENTED AS

NATIONAL GEODETIC SURVEY CONTROL MONUMENT "CORRAL POINT TO BE PRESERVED

AGENCIES/CONTACTS

DEVELOPER: CORRAL RANCHES DEVELOPMENT COMPANY GAS DEPARTMENT: BLACK HILLS ENERGY 1830 COYOTE POINT DRIVE MR. GEORGE PETERSON COLORADO SPRINGS, CO 80904 (719) 393-6625 MR. JAKE KUNSTLE (719) 964-5941 **ELECTRIC DEPARTMENT:** MOUNTAIN VIEW ELECTRIC ASSOCIATION

CIVIL ENGINEER: JPS ENGINEERING, INC. 19 E. WILLAMETTE AVENUE COLORADO SPRINGS, CO 80903 MR. JOHN P. SCHWAB, P.E. (719) 477-9429

QWEST COMMUNICATIONS (LOCATORS) (800) 922-1987 A.T. & T. (LOCATORS) (719) 635-3674

> FIRE MARSHAL (719) 495-4050

ENGINEERING RECORD DRAWINGS

CORRAL BLUFFS SUBDIVISION

SHEET INDEX
TITLE SHEET
GENERAL NOTES & TYPICAL SECTION
GRADING & EROSION CONTROL PLAN
EROSION CONTROL NOTES & DETAIL
RAIN GARDEN A1 PLAN & DETAILS
RAIN GARDEN A2 PLAN & DETAILS
HOOFPRINT ROAD PLAN & PROFILE
STA: 13+50 TO 25+50
HOOFPRINT ROAD PLAN & PROFILE
STA: 25+50 TO 39+00
SOLBERG COURT PLAN & PROFILE
STA: 13+00 TO 24+50
CULVERT PROFILE
SOLBERG CT. EOG PLAN & PROFILE

DESIGN ENGINEER'S STATEMENT

THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWN BELIEF. I ACCEPT
RESPONSIBILITY FOR ANY LIABILITY FOR ANY LIABILITY FOR ANY LIABILITY FOR THE SE DETAILED PLANS AND SPECIFICATIONS.

JOHN P. SCHWAB, P.E. #29891

OWNER/DEVELOPER'S STATEMENT:

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

JAKE KUNSTLE, MANAGER CORRAL RANCHES DEVELOPMENT COMPANY 1830 COYOTE POINT DRIVE COLORADO SPRINGS. COLORADO 80904

EL PASO COUNTY:

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

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

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

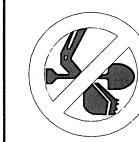
Engineering Department 12/16/2020 6:13:44 PM JENNIFER IRVINE, P.E., **COUNTY ENGINEER / ECM ADMINISTRATOR Development Department**

PCD File No. SF20-7

11/20/20

11-20-20

FAX: 719-471-0766



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VERT. SCALE: 081104 G1

BENCHMARK:

BLUFFS" FIRST ORDER CONTROL

LOCAL ROADS & DRAINAGE:

EL PASO COUNTY PCD 2880 INTERNATIONAL CIRCLE COLORADO SPRINGS, CO 80910 MR. GILBERT LAFORCE, P.E. (719) 520-7945

TELEPHONE COMPANY:

FIRE DEPARTMENT:

FALCON FIRE DISTRICT

11140 E. WOODMEN ROAD

MR. DAVE WALDNER

(719) 495-2283

COLORADO SPRINGS, CO 80908

COUNTY GENERAL NOTES:

- 1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
- 3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT. AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
- A. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
- B. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
- C. COLORADO DEPARTMENT OF TRANSPORTATION (CDPW) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION D. CDPW M & S STANDARDS
- 4. NOT WITH STANDING 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 DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- 5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- 6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- 7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
- 8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
- 9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP WITH CLASS B BEDDING UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
- 10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
- 11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- 12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
- 13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DPW AND MUTCD CRITERIA.
- 14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DPW. INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- 15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

DESIGN DATA

ROADWAY WIDTH (GRAVEL):

MIN. HORIZONTAL RADIUS:

<u>MIN. K-VALUE (CREST):</u>

MIN. K-VALUE (SAG):

DESIGN SPEED:

POSTED SPEED:

MIN. GRADE:

MAX. GRADE:

ROAD CLASSIFICATION: RURAL LOCAL RESIDENTIAL

30 MPH

<u>30 MPH</u>

<u> 300'</u>

1.0%

8.0%

37

34' EOG-EOG

PROJECT GENERAL NOTES:

- 1. EXISTING CONTOUR DATA PROVIDED BY OWNER CONSISTS OF AERIAL TOPOGRAPHIC SURVEY DATA PROVIDED BY LWA LAND SURVEYING. JPS ENGINEERING TAKES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING TOPOGRAPHIC MAPPING.
- 2. STATIONING IS AT CENTERLINE UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE AT EDGE OF ASPHALT (EOA) UNLESS OTHERWISE NOTED. ALL DIMENSIONS ARE FROM EDGE OF ASPHALT TO EDGE OF ASPHALT UNLESS OTHERWISE NOTED.
- 3. PROPOSED CONTOURS SHOWN ARE TO FINISHED GRADE.
- 4. LENGTHS SHOWN FOR STORM SEWER PIPES ARE TO CENTER OF MANHOLE.
- 5. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, DEBRIS, WASTE AND OTHER UNSUITABLE FILL MATERIAL FOUND WITHIN THE LIMITS OF EXCAVATION.
- 6. MATCH INTO EXISTING GRADES AT 3:1 MAX CUT AND FILL SLOPES.
- 7. REVEGETATION OF ALL DISTURBED AREAS SHALL BE DONE WITH SPECIFIED SEED MIX WITHIN 60 DAYS AFTER FINE GRADING IS COMPLETE.
- 8. EROSION CONTROL SHALL CONSIST OF SILT FENCE AND HAY BALES AS SHOWN ON THE DRAWING. AND TOPSOIL WITH GRASS SEED. WHICH WILL BE WATERED UNTIL VEGETATION HAS BEEN REESTABLISHED.
- 9. THE EROSION CONTROL MEASURES OUTLINED ON THIS PLAN ARE THE RESPONSIBILITY OF THE DEVELOPER TO MONITOR AND REPLACE, REGRADE, AND REBUILD AS NECESSARY UNTIL VEGETATION IS REESTABLISHED.
- 10. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED IN A MANNER THAT WILL PROTECT ADJACENT PROPERTIES AND PUBLIC FACILITIES FROM THE ADVERSE EFFECTS OF EROSION AND SEDIMENTATION AS A RESULT OF CONSTRUCTION AND EARTHWORK ACTIVITIES WITHIN THE PROJECT SITE.
- 11. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS DETERMINED BY SITE CONDITIONS.
- 12. THE CONTRACTOR WILL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
- 13. ALL BACKFILL, SUB-BASE, AND/OR BASE COURSE MATERIAL SHALL BE COMPACTED PER EL PASO COUNTY AND CDPW STANDARDS AND SPECIFICATIONS.
- 14. ALL FINISHED GRADES SHALL HAVE A MINIMUM 1.0% SLOPE TO PROVIDE POSITIVE DRAINAGE.
- 15. WHERE PROPOSED SLOPES CONFLICT WITH PROPOSED SPOT ELEVATIONS. SPOT ELEVATIONS SHALL GOVERN.
- 16. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO BEGINNING WORK.
- 17. ELECTRONIC FILE OF SITE DRAWING IS AVAILABLE FROM ENGINEER FOR CONSTRUCTION STAKING PURPOSES.

COUNTY SIGNING AND STRIPING NOTES:

1. ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

2. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY A METHOD THAT DOES NOT MATERIALLY DAMAGE THE PAVEMENT. THE PAVEMENT MARKINGS SHALL BE REMOVED TO THE EXTENT THAT THEY WILL NOT BE VISIBLE UNDER DAY OR NIGHT CONDITIONS. AT NO TIME WILL IT BE ACCEPTABLE TO PAINT OVER EXISTING PAVEMENT MARKINGS.

AND COMMUNITY DEVELOPMENT DEPARTMENT.

5. STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.

6. ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.

BEING 4" UPPER-LOWER CASE LETTERING ON 8" BLANK AND NON-LOCAL ROADWAY SIGNS BEING 6" LETTERING, UPPER-LOWER CASE ON 12" BLANK, WITH A WHITE BORDER THAT IS NOT RECESSED. MULTI-LANE ROADWAYS WITH SPEED LIMITS OF 40 MPH OR HIGHER SHALL HAVE 8" UPPER-LOWER CASE LETTERING ON 18" BLANK WITH A WHITE BORDER THAT IS NOT RECESSED. THE WIDTH OF THE NON-RECESSED WHITE BORDERS SHALL MATCH PAGE 255 OF THE 2012 MUTCD "STANDARD HIGHWAY SIGNS".

8. ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.

P2 TUBULAR STEEL POST SLIPBASE DESIGN.

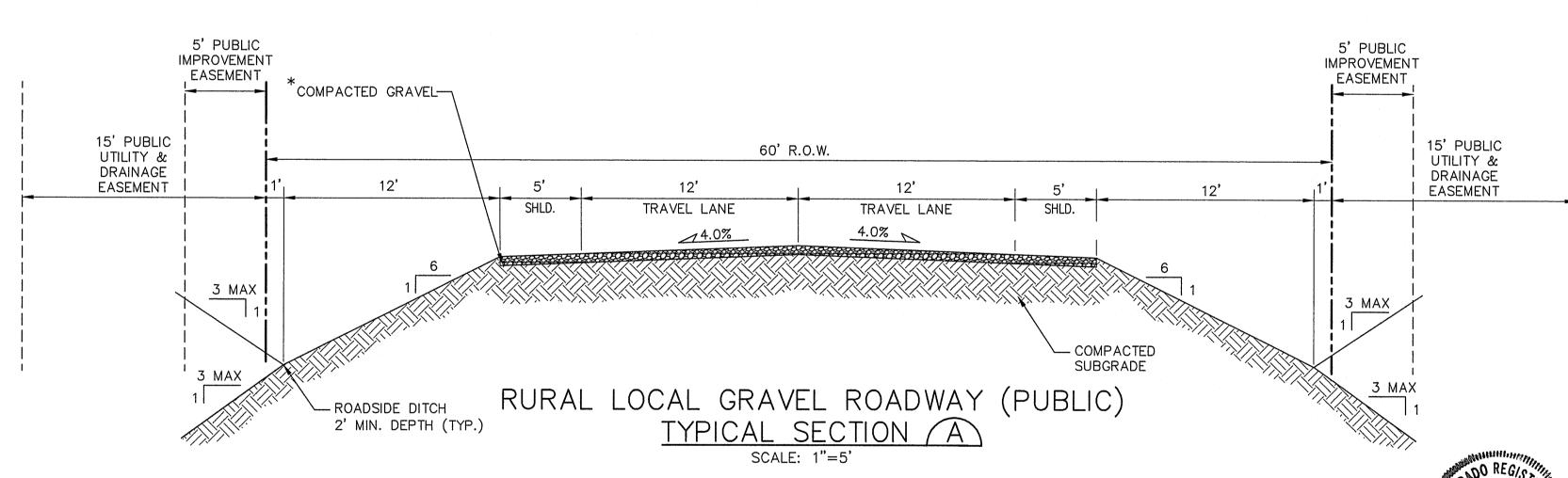
10. ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.100" MINIMUM THICKNESS.

11. ALL LIMIT LINES/STOP LINES, CROSSWALK LINES, PAVEMENT LEGENDS, AND ARROWS SHALL BE A MINIMUM 125 MIL THICKNESS PREFORMED THERMOPLASTIC PAVEMENT MARKINGS WITH TAPERED LEADING EDGES PER CDPW STANDARD S-627-1. WORD AND SYMBOL MARKINGS SHALL BE THE NARROW TYPE. STOP BARS SHALL BE 24" IN WIDTH. CROSSWALKS LINES SHALL BE 12" WIDE AND 8' LONG PER CDPW S-627-1.

12. ALL LONGITUDINAL LINES SHALL BE A MINIMUM 15MIL THICKNESS EPOXY PAINT. ALL NON-LOCAL RESIDENTIAL ROADWAYS SHALL INCLUDE BOTH RIGHT AND LEFT EDGE LINE STRIPING AND ANY ADDITIONAL STRIPING AS REQUIRED BY CDPW S-627-1.

(719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.

14. THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY



* CLASS 6 BASE COURSE OR ALTERNATIVE GRAVEL

PER COUNTY GENERAL NOTE #10, WITH 6" MINIMUM DEPTH

GENERAL DRAINAGE NOTES:

1. INDIVIDUAL BUILDERS SHALL PROVIDE POSITIVE

ACCOUNT FOR POTENTIAL CROSS-LOT DRAINAGE

IMPLEMENT & MAINTAIN EROSION CONTROL BEST

MANAGEMENT PRACTICES FOR PROTECTION OF

DRAINAGE AWAY FROM STRUCTURES AND

2. BUILDERS AND PROPERTY OWNERS SHALL

DOWNSTREAM PROPERTIES AND FACILITIES

INCLUDING PROTECTION OF EXISTING GRASS

BUFFER STRIPS ALONG THE DOWNSTREAM

IMPACTS WITHIN EACH LOT.

PROPERTY BOUNDARIES.

LEGEND:

NEW/EXISTING

SECTION NUMBER SHEET ON WHICH

PCD File No. SF20-7

081104 SHEET:

9

2

ENGINEERING

19 E. Willamette Ave. Colorado Springs, CO

PH: 719-477-9429

FAX: 719-471-0766

www.jpsengr.com

NOTIFICATION
COLORADO

22—1987

DAYS IN ADVANCE
RADE, OR EXCAVATE
OF UNDERGROUND
UTILITIES.

CALL UTILIT CENTER (I — 800— CALL 2-BUSINES BEFORE YOU DIG, FOR THE MARKIN MEMBE

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3. ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY PLANNING

4. ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLAN SHALL BE NEW SIGNS. EXISTING SIGNS MAY REMAIN OR BE REUSED IF THEY MEET CURRENT EL PASO COUNTY AND MUTCO STANDARDS.

7. ALL STREET NAME SIGNS SHALL HAVE "D" SERIES LETTERS, WITH LOCAL ROADWAY SIGNS

9. ALL LOCAL RESIDENTIAL STREET SIGNS SHALL BE MOUNTED ON A 1.75" X 1.75" SQUARE TUBE SIGN POST AND STUB POST BASE. FOR OTHER APPLICATIONS, REFER TO THE CDPW STANDARD S-614-8 REGARDING USE OF THE

13. THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT

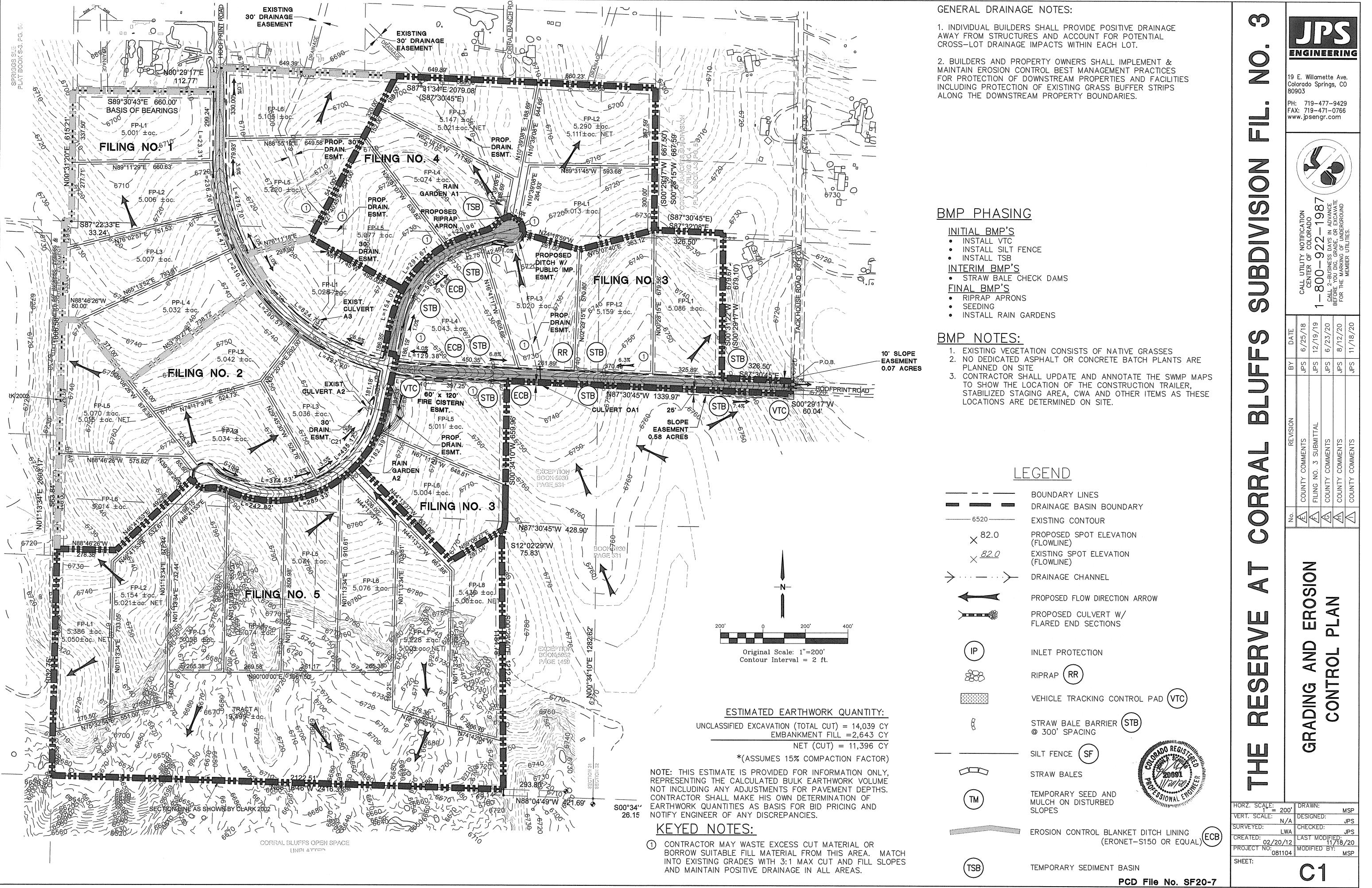
ROADWAY.

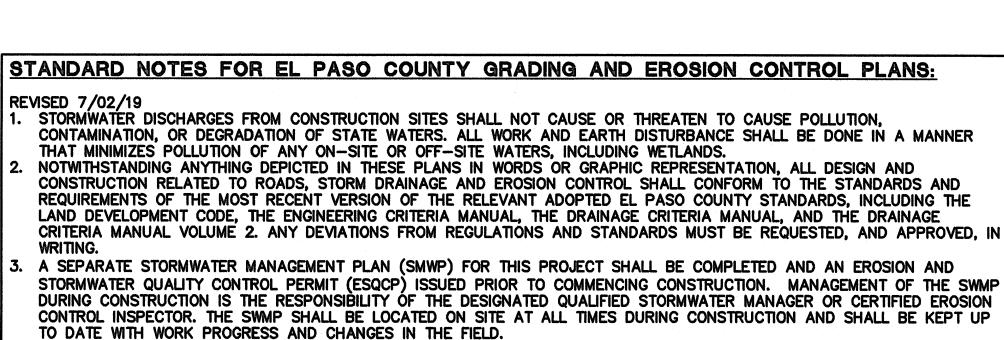
MIX APPROVED BY EL PASO COUNTY ** DEPTH OF GRAVEL TO BE DETERMINED

---- SECTION LINE - NEW/EXISTING ----- 6230 ----- CONTOUR - NEW/EXISTING PROPERTY LINE - NEW/EXISTING OVERHEAD ELECTRIC LINE W/ POWER POLE NEW/EXISTING UNDERGROUND ELECTRIC LINE NEW/EXISTING

SECTION IS SHOWN

EPC 12/16/2020





ONCE THE ESQCP 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 COULD CONTRIBUTE POLLUTANTS TO

STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED 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 AFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.

10. 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 LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).

2. 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 OF UNCONTAMINATED GROUND WATER 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 THE CONSTRUCTION SITE 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. 18. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF—SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF—SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.

19. 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.

20. 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,

21. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE 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. 22. 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 ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES. 23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH

APPROVED SEDIMENT CONTROL MEASURES. 24. 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 ECM 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

25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.

AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.

26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES. 27. 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. 28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY ENTECH ENGINEERING, INC., DATED DEC. 11, 2019 AND SHALL BE CONSIDERED A PART OF THESE PLANS.

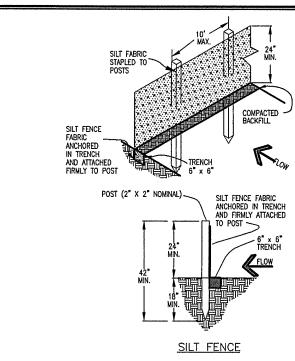
29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER 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 WQCD - PERMITS 4300 CHERRY CREEK DRIVE SOUTH DENVER, CO 80246-1530 ATTN: PERMITS UNIT

OTHERWISE APPROVED IN WRITING.

NOTWITHSTANDING ANY DETAILS. NOTES OR PLANS SHOWN ON THESE DRAWINGS, ALL EROSION CONTROL DESIGNS AND INSTALLATIONS SHALL CONFORM TO EL PASO COUNTY STANDARDS AND POLICIES UNLESS



ILT FENCE NOTES INSTALLATION REQUIREMENTS

1. SILT FENCES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES. 2. WHEN JOINTS ARE NECESSARY, SILT FENCE GEOTEXTILE SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POST AND SECURELY SEALED. 3. METAL POSTS SHALL BE "STUDDED TEE" OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT. WOOD POSTS SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2 INCHES. 4. THE FILTER MATERIAL SHALL BE FASTENED SECURELY TO METAL OR WOOD POSTS USING WIRE TIES, OR TO WOOD POSTS WITH 3/4" LONG #9 HEAVY—DUTY STAPLES. THE SILT FENCE GEOTESTILE SHALL NOT BE STAPLED TO EXISTING TREES. POSTS USING HEAVY-DUTY WRE STAPLES AT LEAST 3/4" LONG, TIE WIRES OR HOG RINGS. THE WRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 6" AND SHALL NOT EXTEND MORE THAN 3' ABOVE THE ORIGINAL GROUND SURFACE.

City of Colorado Springs

NSTALLATION REQUIREMENTS

STRAW AND WEIGH NOT LESS THAN 35 POUNDS.

3. BALES ARE TO BE PLACED IN A SINGLE ROW MTH THE END OF THE BALES TIGHTLY ABUTTING

5. STAKES ARE TO BE A MINIMUM OF 42 INCHES LONG. METAL STAKES SHALL BE STANDARD "T" OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT. WOOD STAKES SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2 INCHES.

6. BALES ARE TO BE BOUND WITH EITHER WIRE OR STRING AND ORIENTED SUCH THAT THE BINDINGS ARE AROUND THE SIDES AND NOT ALONG THE TOPS AND BOTTOMS OF THE BALE.

7. GAPS BETWEEN BALES ARE TO BE CHINKED (FILLED BY WEDGING) WITH STRAW OR THE SAME MATERIAL OF THE BALE.

8. END BALES ARE TO EXTEND UPSLOPE SO THE TRAPPED RUNOFF CANNOT FLOW AROUND THE ENDS OF THE BARRIER.

City of Colorado Springs Stormwater Quality

6. ALONG THE TOE OF FILLS, INSTALL THE SILT FENCE ALONG A LEVEL CONTOUR AND PROVIDE AN AREA BEHIND THE FENCE FOR RUNOFF TO POND ND SEDIMENT TO SETTLE. A MINIMUM DISTANCE OF FEET FROM THE TOE OF THE FILL IS RECOMMENDED . THE HEIGHT OF THE SILT FENCE FROM THE GROUN SURFACE SHALL BE MINIMUM OF 24 INCHES AND SHAI IOT EXCEED 36 INCHES: HIGHER FENCES MAY INPOUN OILUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE. IAINTENANCE REQUIREMENTS

Figure SF-2

Silt Fence

Construction Detail and Maintenance Requirements

TRAW BALE- TIGHTLY ABUTTED O ADJACENT BALES

VOODEN OR METAL TAKES 2 PER BALE, MIN

MAINTENANCE REQUIREMENTS

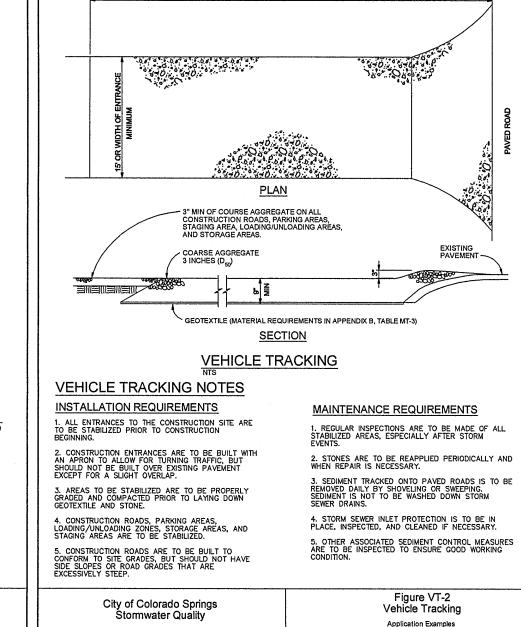
LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.

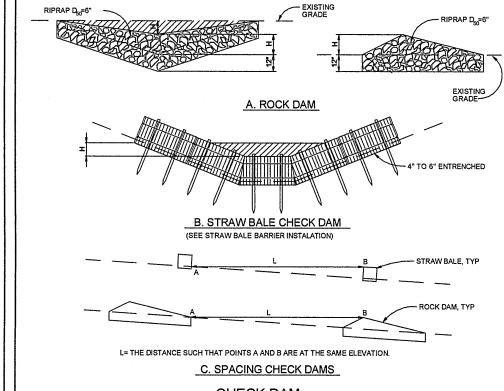
2. DAMAGED OR INEFFECTIVE BARRIERS SHALL PROMPTLY BE REPAIRED, REPLACING BALES IF NECESSARY, AND UNENTRENCHED BALES NEED TO BE REPAIRED WITH COMPACTED BACKFILL MATERIAL.

SEDIMENT SHALL BE REMOVED FROM BEHIND STRAW BALE BARRIERS WHEN IT ACCUMULATES TO APPROXIMATELY 1/2 THE HEIGHT OF THE BARRIER

Straw Bale Barrier

Construction Detail and Mainten Requirements





City of Colorado Springs Stormwater Quality

- REQUIRED VOLUME TO CREST OF EMERGENCY SPILLWAY = 1800 CUBIC FEET PER ACRE OF DRAINAGE AREA — 8" (OR LARGER) PVC PERFORATED RISER PIPE, PERFORATIONS VERTICALL' SPACED 4" APART AND SIZED TO DRAIN VOLUME BELOW EMERGENCY SPILLWAY IN 40 HOURS (SEE FIGURE SB-2 EOR DEFEORATION DIVING) EMERGENCY SPILLWAY CREST (BEYOND) (SHALL BE DESIGNED SO THAT EMBANKMEN FAILURE SHALL NOT OCCUR IN 100 YR EVEN - 8" (OR LARGER) PVC OUTLET PIPE 0.5% MIN SLOPE 8" (OR LARGER) PVC 90° ELBOW SEDIMENT BASIN

STRAW BALE BARRIER

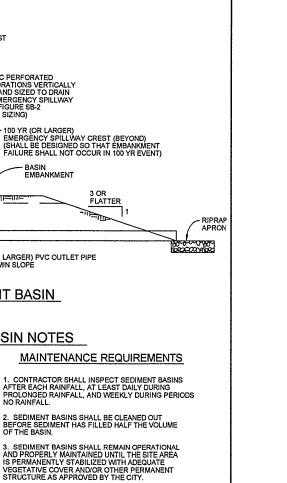
STRAW BALE BARRIER NOTES

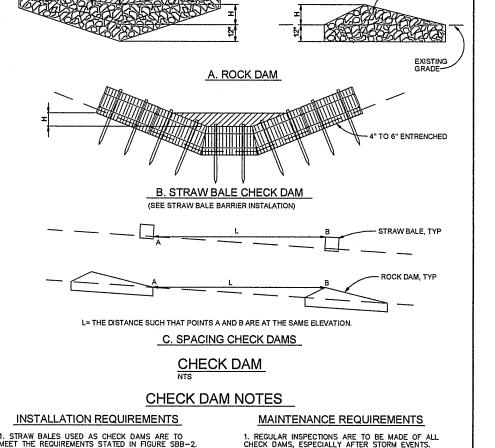
SEDMENT BASIN NOTES INSTALLATION REQUIREMENTS . SEDIMENT BASINS SHALL BE INSTALLED BEFORE NY CLEARING AND/OR GRADING IS UNDERTAKEN. 3. THE OUTLET OF THE BASIN SHALL BE DESIGNED TO DRAIN ITS VOLUME IN 40 HOURS. EMBANKMENT MATERIAL SHALL CONSIST O OIL WITH A MINIMUM OF 15% PASSING A #200 SIEVE. XCAVATED SOIL CAN BE USED IF IT MEETS THIS

City of Colorado Springs Stormwater Quality

DESIGN VOLUME=0.65 AF 7. WHEN A BASIN IS INSTALLED NEAR A RESIDENTIAL AREA, FOR SAFETY REASONS, A SIGN SHALL BE POSTED AND THE AREA SECURED WITH A

3" RISER INV=6708.0 TOP = 6712.0W/3 COLUMNS OF 1/2" HOLES Figure SB-1 Sediment Basin Construction Detail and Maintenance Requirements





1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL CHECK DAMS, ESPECIALLY AFTER STORM EVENTS. 2. THE "H" DIMENSION SHALL BE SELECTED TO PROVIDE WEIR FLOW CONVEYANCE FOR 2-YEAR FLOW OR 2. REPLACE STONE AS NECESSARY TO MAINTAIN THE CORRECT HEIGHT OF THE DAM. 3. ACCUMULATED SEDIMENT AND DEBRIS IS TO BE REMOVED FROM BEHIND THE DAMS AFTER EACH STORM OR WHEN 1/2 OF THE ORIGINAL HEIGHT OF THE DAM IS REACHED.

Construction Detail and Maintenance Requirements

4. WHEN CHECK DAMS ARE REMOVED THE CHANNEL LINING OR VEGETATION IS TO BE RESTORED. Check Dam

SEEDING MIX:

PERIODIC SITE INSPECTIONS

RE-VEGETATION OF EXPOSED SOILS

SEDIMENT REMOVAL FROM BMP'S

SLLDING WIA.		AMOUNT IN PLS
<u>GRASS</u>		LBS. PER ACRE
CRESTED WHEAT GRASS PERENIAL RYE WESTERN WHEATGRASS	LINN SARTON	2.0 LBS. 3.0 LBS.
SMOOTH BROME GRASS SIDEOATS GRAMA	EPHRAIM	AR 5.0 LBS. 2.5 LBS.

TOTAL: 16.5 LBS.

SEEDING & FERTILIZER APPLICATION: DRILL SEED OR HYDRO-SEED PER

CDOT SPEC. SECTION 212.

MULCHING APPLICATION: CONFORM TO CDOT SPEC-SECTION 213.

SEDIMENT CONTROL MAINTENANCE PROGRAM:

<u>FREQUENCY</u> BI-WEEKL WITHIN 21 DAYS OF GRADING MONTHLY

SEPTEMBER, 2020

SEPTEMBER, 2020

OCTOBER, 2021

MAY, 2021

REMOVAL OF BMP'S AFTER STABILIZATION ACHIEVED AND AFTER ANY PRECIPITATION OR SNOW MELT EVENT THAT CAUSES SURFACE EROSION.

ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED WHEN THE SEDIMENT LEVEL REACHES ONE HALF THE HEIGHT OF THE BMP OR AT ANY TIME THAT SEDIMENT OR DEBRIS ADVERSELY IMPACTS THE FUNCTION OF THE BMP.

ESTIMATED TIME SCHEDULE:

INSTALL BMP'S ROADWAY GRADING SEEDING & MULCHING STABILIZATION

> On shallow slopes, strips of netting may be applied across the slope. Where there is a berm at the top of the slope, bring the netting over the berm and anchor it behind the berm. On steep slopes, apply strips of netting parallel to the direction of flow and anchor securely. terminating the installation. Turn the end under 6" and staple at 12" intervals. in ditches, apply netting parallel to the direction of flow. Use check slots every 15 feet. Do not join strips in Figure ECB-1 City of Colorado Springs Erosion Control Blanket Storm Water Quality

> > PCD File No. SF20-7

ENGINEERING

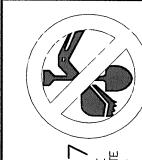
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) E. Willamette Ave. Colorado Springs, CO

PH: 719-477-9429 FAX: 719-471-0766 www.jpsengr.com



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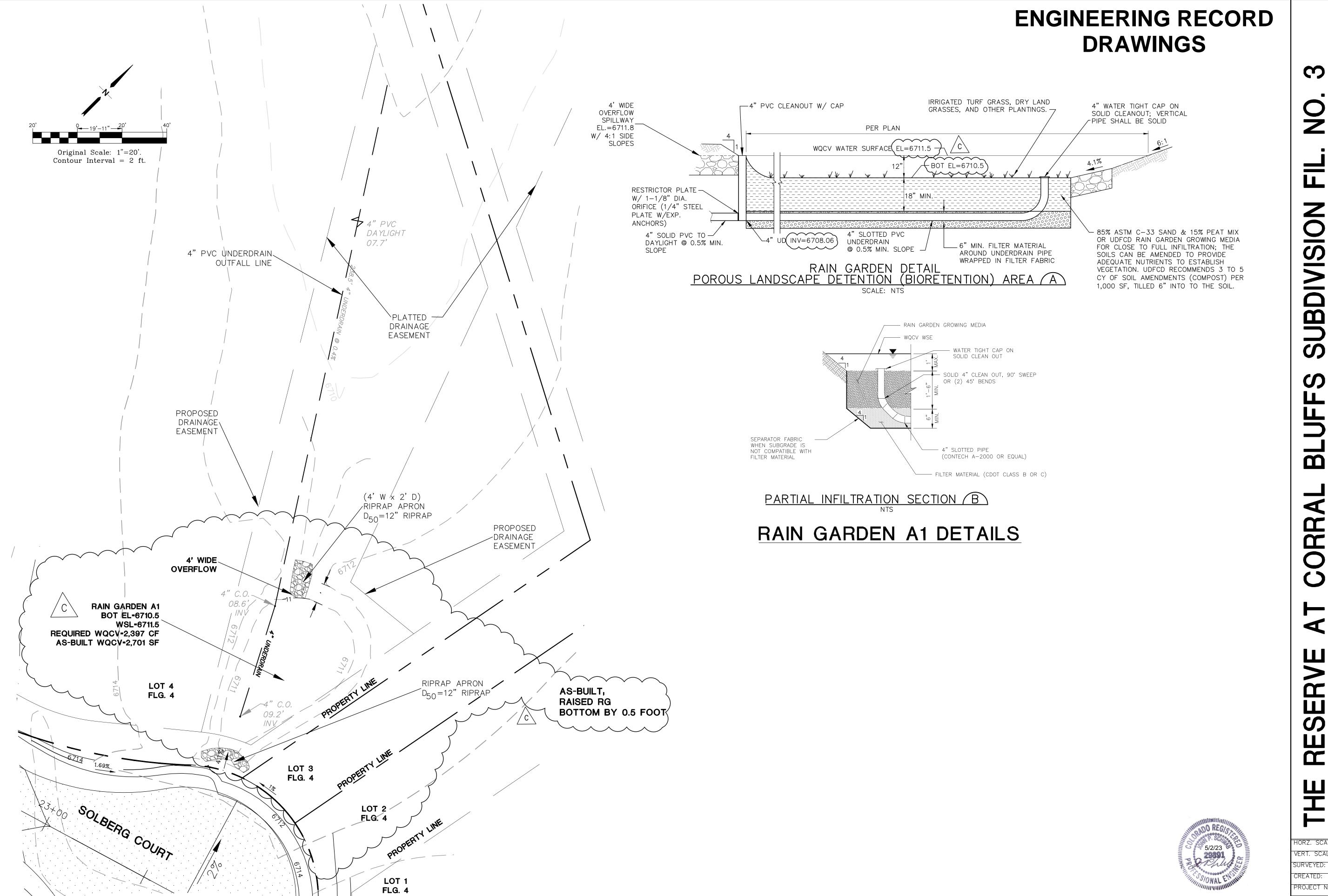
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CALL 2-BUSIN

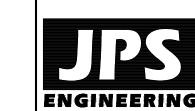
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CHECKED: 3/1/13 LAST MODIFIED: 11/18/20
O: 081104 MODIFIED BY: MSP 081104 SHEET:



RAIN GARDEN A1 PLAN



19 E. Willamette Ave. Colorado Springs, CO 80903

PH: 719-477-9429 FAX: 719-471-0766 www.jpsengr.com



NOTIFICATION
COLORADO

CALL UTILITY N CENTER OF (-800-92

DATE	JPS 6/23/20	JPS 11/18/20	JPS 05/02/23	
ВУ	JPS	JPS	JPS	
REVISION	ADDED RAIN GARDEN DETAILS	COUNTY COMMENTS	AS-BUILT	
No.	\triangleleft	\bigcirc	\bigcirc	

GARDEN A1 AND DETAILS RAIN PLAN

HORZ. SCALĘ: 1" = 20'	DRAWN: MSP					
VERT. SCALE: N/A	DESIGNED: JPS					
SURVEYED: LWA	CHECKED: JPS					
CREATED: 5/13/20	LAST MODIFIED: 05/02/23					
PROJECT NO: 081104	MODIFIED BY:					
SHEET:						
C3.1						

PCD File No. SF20-7

