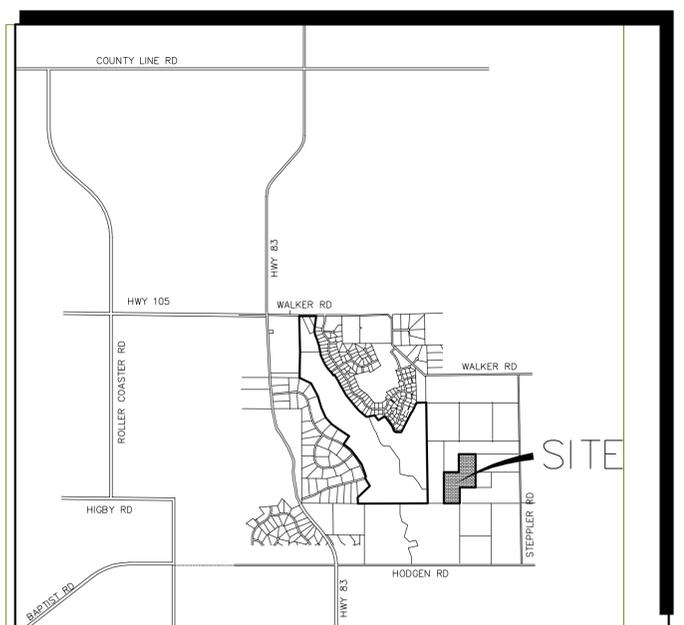


CALL UTILITY NOTIFICATION  
CENTER OF COLORADO  
**1-800-922-1987**  
CALL 2-BUSINESS DAYS IN ADVANCE  
BEFORE YOU DIG, GRADE, OR EXCAVATE  
FOR THE MARKING OF UNDERGROUND  
MEMBER UTILITIES.

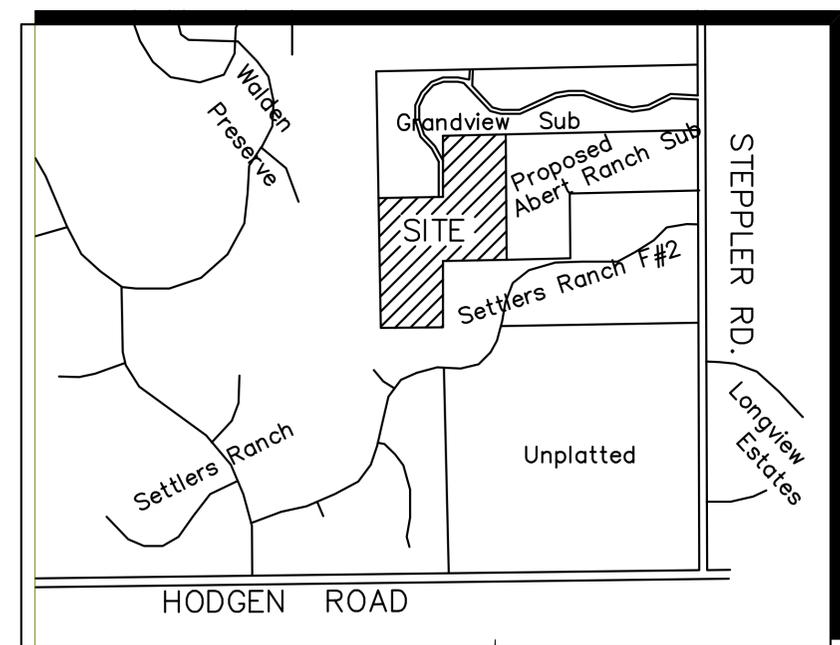


# SETTLERS VIEW SUBDIVISION

## Construction Drawings El Paso County, Colorado



VICINITY MAP  
NOT TO SCALE



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.

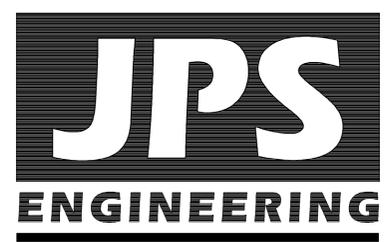
Provide basis of bearing

BENCHMARK:  
THE MONUMENT AT THE SOUTHEAST PROPERTY CORNER, HAVING AN ASSUMED ELEVATION OF 7650.0 DATUM IS NAVD '88.

PREPARED FOR:

**Brenda Brinkman**  
4507 Silver Nell Drive  
Colorado Springs, CO 80908

PREPARED BY:



19 East Willamette Avenue  
Colorado Springs, Colorado 80903

July, 2018

### AGENCIES/CONTACTS

DEVELOPER:	BRENDA BRINKMAN 4507 SILVER NELL DRIVE COLORADO SPRINGS, CO 80908	GAS DEPARTMENT:	BLACK HILLS ENERGY MR. SEBASTIAN SCHWENDER (719) 359-3716
PLANNER/ SURVEYOR:	JEROME W. HANNIGAN & ASSOCIATES, INC. 19360 SPRING VALLEY ROAD MONUMENT, CO 80132 (719) 481-8292	ELECTRIC DEPARTMENT:	MOUNTAIN VIEW ELECTRIC ASSOCIATION 11140 E. WOODMEN ROAD COLORADO SPRINGS, CO 80908 MR. DAVE WALDNER (719) 495-2283
CIVIL ENGINEER:	JPS ENGINEERING, INC. 19 E. WILLAMETTE AVENUE COLORADO SPRINGS, CO 80903 MR. JOHN P. SCHWAB, P.E. (719) 477-9429	TELEPHONE COMPANY:	QWEST COMMUNICATIONS (LOCATORS) (800) 922-1987
LOCAL ROADS & DRAINAGE:	EL PASO COUNTY PCD 2880 INTERNATIONAL CIRCLE COLORADO SPRINGS, CO 80910 MR. GILBERT LAFORCE, P.E. (719) 520-7945	FIRE DEPARTMENT:	TRI-LAKES MONUMENT FIRE PROTECTION DISTRICT (719) 484-0911
			A.T. & T. (LOCATORS) (719) 635-3674

### SHEET INDEX

G1	TITLE SHEET/VICINITY MAP/LOCATION MAP
G2	GENERAL NOTES AND LEGEND
TY1	TYPICAL SECTIONS & DETAILS
C1	SITE GRADING & EROSION CONTROL PLAN
C2	EROSION CONTROL NOTES & DETAILS
C3	DETENTION POND PLAN & DETAILS
PP1	SILVER NELL DRIVE PLAN & PROFILE
PP2	SETTLERS VIEW ROAD PLAN & PROFILE

### ENGINEER:

#### DESIGN ENGINEER'S STATEMENT:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR LIABILITY CAUSED BY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

JOHN P. SCHWAB, P.E. #29891 \_\_\_\_\_ DATE

#### 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.

BRENDA BRINKMAN \_\_\_\_\_ DATE  
4507 SILVER NELL DRIVE  
COLORADO SPRINGS, COLORADO 80908

#### 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.

JENNIFER IRVINE, P.E., \_\_\_\_\_ DATE  
COUNTY ENGINEER / ECM ADMINISTRATOR

SF-18-041

**SHEET G1**  
PCD File No. SF-18-XXX

C:\civil3d\2018\_projects\111603.Settlers-View.dwg\Civil\G1.dwg Jul 31, 2018 - 1:26pm

**COUNTY GENERAL NOTES:**

- ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
- 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).
- 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:
  - EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
  - CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
  - COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
  - CDOT M & S STANDARDS
- 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.
- 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.
- CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) – INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- 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.
- 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.
- ALL STORM DRAIN PIPE SHALL BE CLASS III RCP WITH CLASS B BEDDING UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
- 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.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- 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.
- SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DOT AND MUTCD CRITERIA.
- CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DOT, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- 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.

**PROJECT GENERAL NOTES:**

- 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.
- 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.
- PROPOSED CONTOURS SHOWN ARE TO FINISHED GRADE.
- LENGTHS SHOWN FOR STORM SEWER PIPES ARE TO CENTER OF MANHOLE.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, DEBRIS, WASTE AND OTHER UNSUITABLE FILL MATERIAL FOUND WITHIN THE LIMITS OF EXCAVATION.
- MATCH INTO EXISTING GRADES AT 3:1 MAX CUT AND FILL SLOPES.
- REVEGETATION OF ALL DISTURBED AREAS SHALL BE DONE WITH SPECIFIED SEED MIX WITHIN 60 DAYS AFTER FINE GRADING IS COMPLETE.
- 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.
- 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.
- 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.
- ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS DETERMINED BY SITE CONDITIONS.
- 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.
- ALL BACKFILL, SUB-BASE, AND/OR BASE COURSE MATERIAL SHALL BE COMPACTED PER EL PASO COUNTY AND CDOT STANDARDS AND SPECIFICATIONS.
- ALL FINISHED GRADES SHALL HAVE A MINIMUM 1.0% SLOPE TO PROVIDE POSITIVE DRAINAGE.
- WHERE PROPOSED SLOPES CONFLICT WITH PROPOSED SPOT ELEVATIONS, SPOT ELEVATIONS SHALL GOVERN.
- CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO BEGINNING WORK.
- ELECTRONIC FILE OF SITE DRAWING IS AVAILABLE FROM ENGINEER FOR CONSTRUCTION STAKING PURPOSES.

**DESIGN DATA**

ROAD CLASSIFICATION:	RURAL LOCAL RESIDENTIAL
DESIGN SPEED:	30 MPH
POSTED SPEED:	30 MPH
ROADWAY WIDTH (GRAVEL):	28' EOA-EOA
MIN. HORIZONTAL RADIUS:	300'
MIN. GRADE:	1.0%
MAX. GRADE:	8.0%
MIN. K-VALUE (CREST):	19
MIN. K-VALUE (SAG):	37

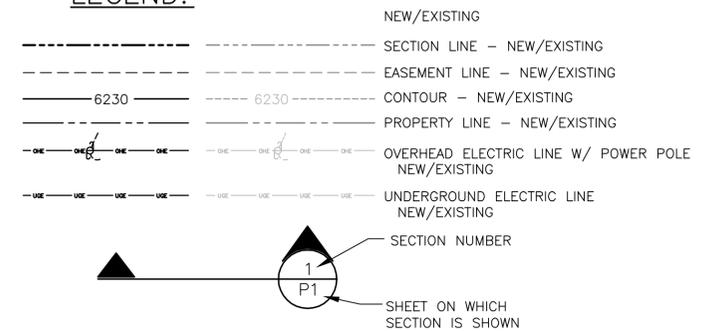
**GENERAL DRAINAGE NOTES:**

- FINAL LOT AND HOME SITE GRADING IS THE RESPONSIBILITY OF THE INDIVIDUAL LOT OWNERS AND BUILDERS.
- INDIVIDUAL BUILDERS SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND ACCOUNT FOR POTENTIAL CROSS-LOT DRAINAGE IMPACTS WITHIN EACH LOT.
- BUILDERS AND PROPERTY OWNERS SHALL IMPLEMENT & MAINTAIN EROSION CONTROL BEST MANAGEMENT PRACTICES FOR PROTECTION OF DOWNSTREAM PROPERTIES AND FACILITIES INCLUDING PROTECTION OF EXISTING GRASS BUFFER STRIPS ALONG THE DOWNSTREAM PROPERTY BOUNDARIES.

**COUNTY SIGNING AND STRIPING NOTES:**

- ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 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.
- ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES.
- 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 MUTCD STANDARDS.
- STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
- ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.
- ALL STREET NAME SIGNS SHALL HAVE "D" SERIES LETTERS, WITH LOCAL ROADWAY SIGNS 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".
- ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.
- 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 CDOT STANDARD S-614-8 REGARDING USE OF THE P2 TUBULAR STEEL POST SLIPBASE DESIGN.
- ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.100" MINIMUM THICKNESS.
- 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 CDOT 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 CDOT S-627-1.
- 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 CDOT S-627-1.
- THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT SERVICES (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
- THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY DEPARTMENT OF TRANSPORTATION PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.

**LEGEND:**



PCD File No. SF-18-XXX

**SETTLERS VIEW SUBDIVISION**



19 E. Willamette Ave.  
Colorado Springs, CO  
80903

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



CALL UTILITY NOTIFICATION CENTER OF COLORADO  
1-800-922-1987  
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

No.	REVISION	BY	DATE
1	FINAL PLAT SUBMITTAL	JPS	7/31/18

**GENERAL NOTES & LEGEND**

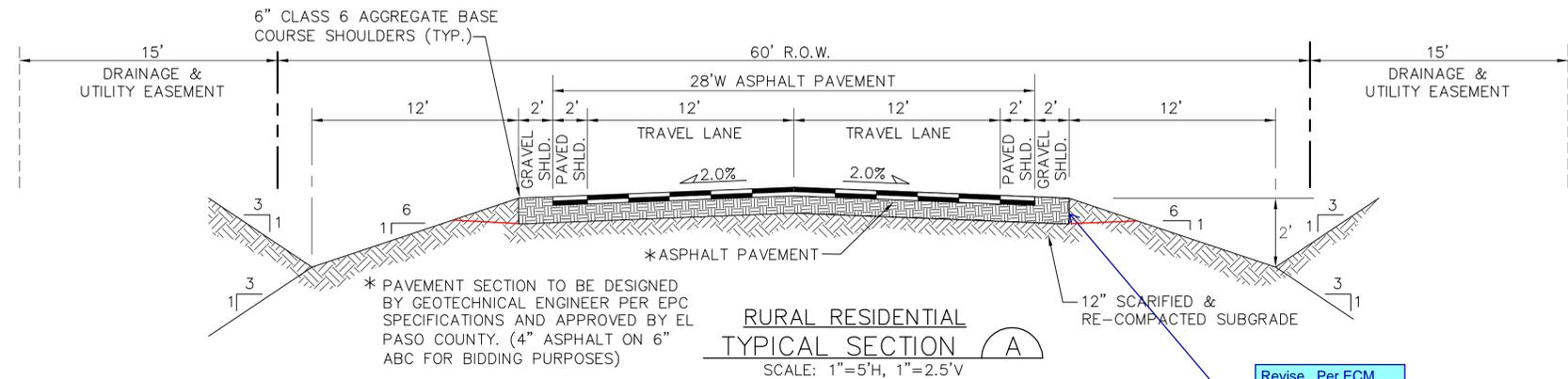
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VERT. SCALE:	N/A	DESIGNED:	JPS
SURVEYED:	LWA	CHECKED:	JPS
CREATED:	01/30/12	LAST MODIFIED:	7/31/18
PROJECT NO:	081104	MODIFIED BY:	MSP

SHEET: **G2**

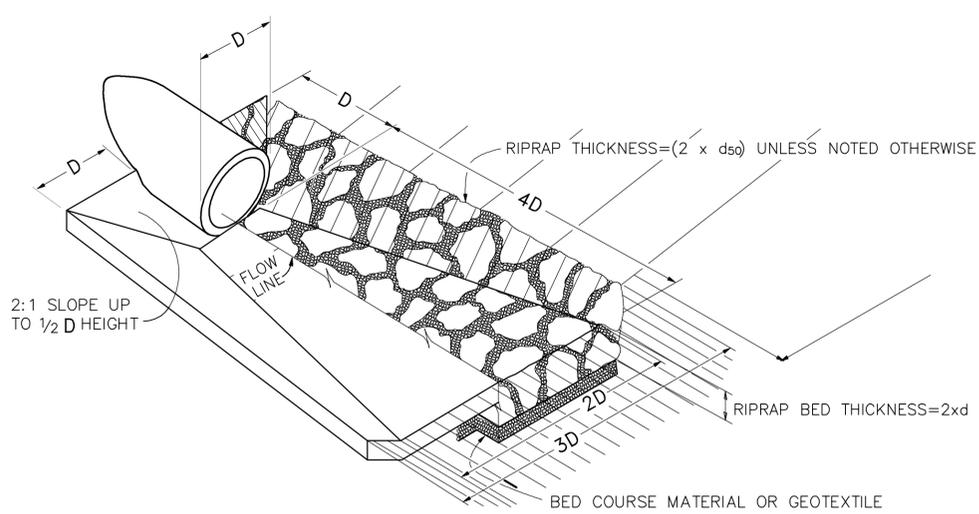


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**SETTLERS VIEW SUBDIVISION**

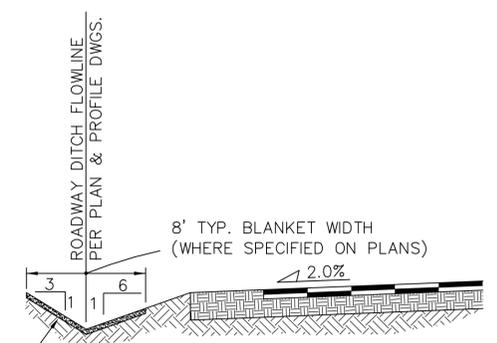


Revise. Per ECM detail subgrade daylight to the side slope.



**TYPICAL RIPRAP APRON/CULVERT OUTLET PAVING**

NOT TO SCALE



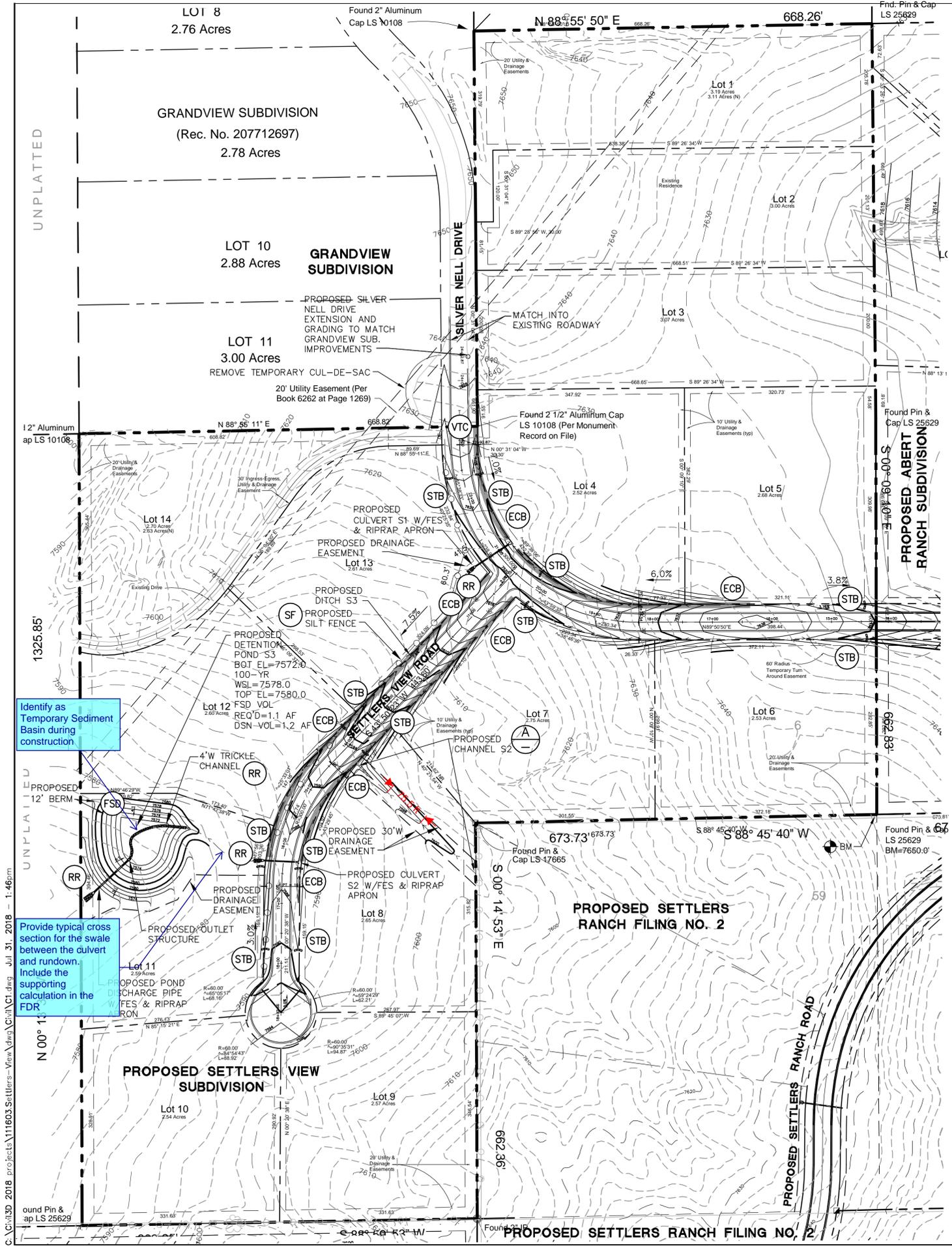
**TYPICAL DITCH SECTION WITH EROSION CONTROL BLANKETS**

SCALE : NTS

**TYPICAL SECTIONS AND DETAILS**

No.	REVISION	BY	DATE
1	FINAL PLAT SUBMITTAL	JPS	7/31/18

HORIZ. SCALE: 1"=5'	DRAWN: BJJ
VERT. SCALE: AS SHOWN	DESIGNED: JPS
SURVEYED: HANNIGAN	CHECKED: JPS
CREATED: 11/23/16	LAST MODIFIED: 7/31/18
PROJECT NO: 111603	MODIFIED BY: MSP
SHEET:	<b>TY1</b>



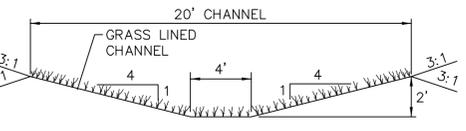
Identify as Temporary Sediment Basin during construction

Provide typical cross section for the swale between the culvert and rundown. Include the supporting calculation in the FDR

Per the attached GEC checklist  
 1. Delineate the construction site boundaries.  
 2. Show existing vegetation

Show the staging area.

Add the temporary sediment basin in the BMP Phasing



Provide the typical section and label channel S2.2 and channel S3 on the plan. Assuming the FDR Section S2.1 is Channel S2 then update the name to match. The slope on the plans does not match the FDR analysis.

**BENCHMARK**  
 THE MONUMENT AT THE SOUTHEAST PROPERTY CORNER, HAVING AN ASSUMED ELEVATION OF 7650.0 DATUM IS NAVD '88.

**GENERAL DRAINAGE NOTES:**

- INDIVIDUAL BUILDERS SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND ACCOUNT FOR POTENTIAL CROSS-LOT DRAINAGE IMPACTS WITHIN EACH LOT.
- BUILDERS AND PROPERTY OWNERS SHALL IMPLEMENT & MAINTAIN EROSION CONTROL BEST MANAGEMENT PRACTICES FOR PROTECTION OF DOWNSTREAM PROPERTIES AND FACILITIES INCLUDING PROTECTION OF EXISTING GRASS BUFFER STRIPS ALONG THE DOWNSTREAM PROPERTY BOUNDARIES.

**ESTIMATED EARTHWORK QUANTITY:**

UNCLASSIFIED EXCAVATION (TOTAL CUT) = 14,233 CY  
 EMBANKMENT FILL = 4,609 CY  
 NET (CUT) = 9,623 CY

\*(ASSUMES 15% COMPACTION FACTOR)

NOTE: THIS ESTIMATE IS PROVIDED FOR INFORMATION ONLY, REPRESENTING THE CALCULATED BULK EARTHWORK VOLUME NOT INCLUDING ANY ADJUSTMENTS FOR PAVEMENT DEPTHS. CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF EARTHWORK QUANTITIES AS BASIS FOR BID PRICING AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

**KEYED NOTES:**

- CONTRACTOR MAY WASTE EXCESS CUT MATERIAL OR BORROW SUITABLE FILL MATERIAL FROM THIS AREA. MATCH INTO EXISTING GRADES WITH 3:1 MAX CUT AND FILL SLOPES AND MAINTAIN POSITIVE DRAINAGE IN ALL AREAS.

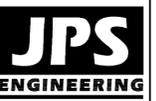
**BMP PHASING**

- INITIAL BMP'S**
- INSTALL VTC
  - INSTALL SILT FENCE
- INTERIM BMP'S**
- STRAW BALE CHECK DAMS
- FINAL BMP'S**
- RIPRAP APRONS
  - SEEDING

**LEGEND**

- BOUNDARY LINES
- DRAINAGE BASIN BOUNDARY
- EXISTING CONTOUR
- PROPOSED SPOT ELEVATION (FLOWLINE)
- EXISTING SPOT ELEVATION (FLOWLINE)
- DRAINAGE CHANNEL
- PROPOSED FLOW DIRECTION ARROW
- PROPOSED CULVERT W/ FLARED END SECTIONS
- INLET PROTECTION
- RIPRAP (RR)
- VEHICLE TRACKING CONTROL PAD (VTC)
- STRAW BALE BARRIER (STB) OR (SCL) @ 300' SPACING
- SILT FENCE (SF)
- STRAW BALES
- TEMPORARY SEED AND MULCH ON DISTURBED SLOPES
- EROSION CONTROL BLANKET DITCH LINING (NAG C350 OR EQUAL) (ECB)

SC150



19 E. Willamette Ave.  
 Colorado Springs, CO 80903  
 PH: 719-477-9429  
 FAX: 719-471-0766  
 www.jpsenr.com



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NO.	REVISION	BY	DATE
1	COUNTY COMMENTS	JPS	2/13/18
2	FINAL PLAT SUBMITTAL	JPS	7/31/18

**SETTLERS VIEW SUBDIVISION**

**SITE GRADING & EROSION CONTROL PLAN**

HORIZ. SCALE: 1"=100'	DRAWN: BJJ
VERT. SCALE: N/A	DESIGNED: JPS
SURVEYED: HANNIGAN	CHECKED: JPS
CREATED: 11/23/16	LAST MODIFIED: 7/31/18
PROJECT NO: 111603	MODIFIED BY: MSP

SHEET: **C1**

PCD File No. SF-18-XXX

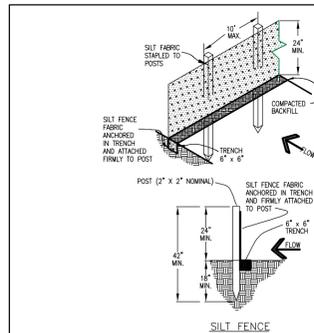
# Standard Notes for El Paso County Grading and Erosion Control Plans

Revised 7/07/10

- Construction may not commence until a Construction Permit is obtained from Planning and Community Development Department and a Preconstruction Conference is held with Planning and Community Development Inspectors.
- 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 (SMWP) for this project shall be completed and an Erosion and Stormwater Quality Control Permit (ESQCP) issued prior to commencing construction. During construction the SWMP is the responsibility of the designated Stormwater Manager, shall be located on site at all times and shall be kept up to date with work progress and changes in the field.
- Once the ESQCP has been issued, the contractor may install the initial stage erosion and sediment control BMPs as indicated on the 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 PCD inspections staff.
- Soil erosion control measures for all slopes, channels, ditches, or any disturbed land area shall be completed within 21 calendar days after final grading, or final earth disturbance, has been completed. Disturbed areas and stockpiles which are not at final grade but will remain dormant for longer than 30 days shall also be mulched within 21 days after interim grading. An area that is going to remain in an interim state for more than 60 days shall also be seeded. All temporary soil erosion control measures and BMPs shall be maintained until permanent soil erosion control measures are implemented and established.
- Temporary soil erosion control facilities shall be removed and earth disturbance areas graded and stabilized with permanent soil erosion control measures pursuant to standards and specification prescribed in the DCM Volume II and the Engineering Criteria Manual (ECM) appendix I.
- All persons engaged in earth disturbance shall implement and maintain acceptable soil erosion and sediment control measures including BMPs in conformance with the erosion control technical standards of the Drainage Criteria Manual (DCM) Volume II and in accordance with the Stormwater Management Plan (SWMP).
- All temporary erosion control facilities including BMPs and all permanent facilities intended to control erosion of any earth disturbance operations, shall be installed as defined in the approved plans, the SWMP and the DCM Volume II and maintained throughout the duration of the earth disturbance operation.
- Any earth disturbance shall be conducted in such a manner so as to effectively reduce 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.
- Any temporary or permanent facility designed and constructed for the conveyance of stormwater around, through, or from the earth disturbance area shall be designed to limit the discharge to a non-erosive velocity.
- Concrete wash water shall be contained and disposed of in accordance with the SWMP. No wash water shall be discharged to or allowed to runoff to State Waters, including any surface or subsurface storm drainage system or facilities.
- Erosion control blanketing is to be used on slopes steeper than 3:1.
- Building, construction, excavation, or other 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. BMP's may be required by El Paso County Engineering if deemed necessary, based on specific conditions and circumstances.
- Vehicle tracking of soils and construction debris off-site shall be minimized. Materials tracked offsite shall be cleaned up and properly disposed of immediately.
- 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.
- The owner, site developer, contractor, and/or their authorized agents shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, and sand that may accumulate in the storm sewer or other drainage conveyance system 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 chemicals are to be used by the contractor, which have the potential to be released in stormwater unless permission for the use of a specific chemical is granted in writing by the ECM Administrator. In granting the use of such chemicals, special conditions and monitoring may be required.
- Bulk storage structures for petroleum products and other chemicals shall have adequate protection so as to contain all spills and prevent any spilled material from entering State Waters, including any surface or subsurface storm drainage system or facilities.
- No person shall cause the impediment of stormwater flow in the flow line of the curb and gutter or in the ditchline.
- Individuals 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 included in the DCM Volume II and the ECM Appendix I. All appropriate permits must be obtained by the contractor prior to construction (NPDES, Floodplain, 404, fugitive dust, etc.). In the event of conflicts between these requirements and laws, rules, or regulations of other Federal, State, or County agencies, the more restrictive laws, rules, or regulations shall apply.
- All construction traffic must enter/exit the site at approved construction access points.
- Prior to actual construction the permittee shall verify the location of existing utilities.
- A water source shall be available on site during earthwork operations and utilized as required to minimize dust from earthwork equipment and wind.
- The soils report for this site shall be considered a part of these plans.
- At least ten days prior to the anticipated start of construction, for projects that will disturb 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

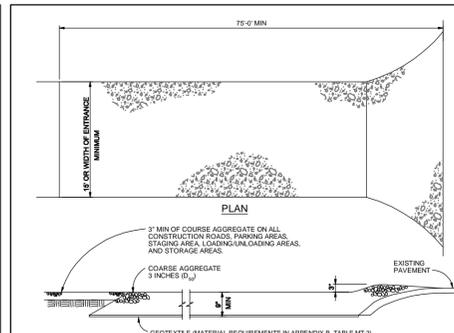
NOTE:  
 NOTWITHSTANDING ANY DETAILS, NOTES OR PLANS SHOWN ON THESE DRAWINGS, ALL EROSION CONTROL DESIGNS AND INSTALLATIONS SHALL CONFORM TO EL PASO COUNTY STANDARDS AND POLICIES UNLESS OTHERWISE APPROVED IN WRITING.



### SILT FENCE NOTES

- INSTALLATION REQUIREMENTS**
- SILT FENCES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
  - WHEN JOINTS ARE NECESSARY, SILT FENCE GEOTEXTILE SHALL BE SPICED TOGETHER ONLY AT SUPPORT POSTS AND SECURELY SEALED.
  - METAL POSTS SHALL BE "STUDDO" TYPE OR "I" TYPE WITH MINIMUM HEIGHT OF 1.33 POUNDS PER LINEAR FOOT. WOOD POSTS SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2 INCHES.
  - 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 GEOTEXTILE SHALL NOT BE STAPLED TO EXISTING TREES.
  - WHILE NOT REQUIRED, WIRE MESH FENCE MAY BE USED TO SUPPORT THE GEOTEXTILE. WIRE FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 3/4" LONG. THE WIRE OR HOOD RINGS, THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 6" AND SHALL NOT EXTEND MORE THAN 3" ABOVE THE ORIGINAL SURFACE.
- MAINTENANCE REQUIREMENTS**
- CONTRACTOR SHALL INSPECT SILT FENCES IMMEDIATELY AFTER EACH RAINFALL AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF NO RAINFALL. DAMAGED, COLLAPSED, UNDETECTED OR INEFFECTIVE SILT FENCES SHALL BE PROMPTLY REPAIRED OR REPLACED.
  - SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE WHEN IT ACCUMULATES TO HALF THE HEIGHT OF THE GEOTEXTILE HEIGHT.
  - SILT FENCES SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED AS APPROVED BY THE CITY.

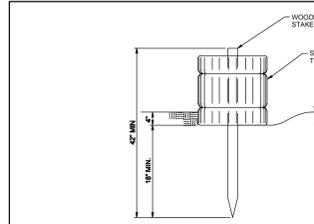
City of Colorado Springs Stormwater Quality Figure SF-2 Silt Fence Construction Detail and Maintenance Requirements



### VEHICLE TRACKING NOTES

- INSTALLATION REQUIREMENTS**
- ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.
  - CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.
  - AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.
  - CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.
  - CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.
- MAINTENANCE REQUIREMENTS**
- REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.
  - STONES ARE TO BE REPLACED PERIODICALLY AND WHEN REPAIR IS NECESSARY.
  - SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER OPENINGS.
  - STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.
  - OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

City of Colorado Springs Stormwater Quality Figure VT-2 Vehicle Tracking Application Examples

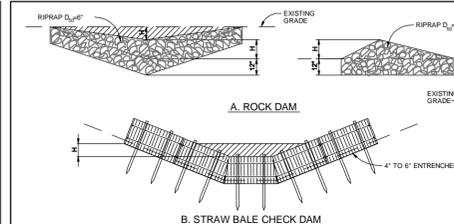


### STRAW BALE BARRIER

#### STRAW BALE BARRIER NOTES

- INSTALLATION REQUIREMENTS**
- STRAW BALE BARRIERS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
  - BALES SHALL CONSIST OF APPROXIMATELY 5 CUBIC FEET OF CERTIFIED WHEED FREE HAY OR STRAW AND WEIGH NOT LESS THAN 50 POUNDS.
  - BALES ARE TO BE PLACED IN A SINGLE ROW WITH THE END OF THE BALES TIGHTLY ABUTTING ONE ANOTHER.
  - EACH BALE IS TO BE SECURELY ANCHORED WITH AT LEAST TWO STAKES AND THE FIRST STAKE IS TO BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.
  - STAKES ARE TO BE A MINIMUM OF 42 INCHES LONG. METAL STAKES SHALL BE STRANDED #10 OR #12 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.
  - 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.
  - GAPS BETWEEN BALES ARE TO BE DRINKED (FILLED BY WEDGINGS) WITH STRAW OR THE SAME MATERIAL OF THE BALE.
  - END BALES ARE TO EXTEND UPSLOPE SO THE TRAPPED RUNOFF CANNOT FLOW AROUND THE ENDS OF THE BARRIER.
- MAINTENANCE REQUIREMENTS**
- CONTRACTOR SHALL INSPECT STRAW BALE BARRIERS IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF NO RAINFALL.
  - DAMAGED OR INEFFECTIVE BARRIERS SHALL PROMPTLY BE REPAIRED. REPLACING BALES IS NECESSARY, AND UNDETECTED OR INEFFECTIVE BARRIERS SHALL BE PROMPTLY REPAIRED OR REPLACED.
  - SEDIMENT SHALL BE REMOVED FROM BEHIND STRAW BALE BARRIERS WHEN IT ACCUMULATES TO APPROXIMATELY 1/2 THE HEIGHT OF THE BARRIER.
  - STRAW BALE BARRIERS SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED AS APPROVED BY THE CITY.

City of Colorado Springs Stormwater Quality Figure SBB-2 Straw Bale Barrier Construction Detail and Maintenance Requirements



### CHECK DAM

#### CHECK DAM NOTES

- INSTALLATION REQUIREMENTS**
- STRAW BALES USED AS CHECK DAMS ARE TO MEET THE REQUIREMENTS STATED IN FIGURE SBB-2.
  - THE "H" DIMENSION SHALL BE SELECTED TO PROVIDE WEIR FLOW CONVEYANCE FOR 2-YEAR FLOW OR GREATER.
- MAINTENANCE REQUIREMENTS**
- REGULAR INSPECTIONS ARE TO BE MADE OF ALL CHECK DAMS, ESPECIALLY AFTER STORM EVENTS.
  - REPLACE STONE AS NECESSARY TO MAINTAIN THE CORRECT HEIGHT OF THE DAM.
  - 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.
  - CHECK DAMS ARE TO REMAIN IN PLACE AND OPERATIONAL UNTIL THE DRAINAGE AREA AND CHANNEL ARE PERMANENTLY STABILIZED.
  - WHEN CHECK DAMS ARE REMOVED THE CHANNEL LINING OR VEGETATION IS TO BE RESTORED.

City of Colorado Springs Stormwater Quality Figure CD-1 Check Dam Construction Detail and Maintenance Requirements

Add the Temporary Sediment Basin (TSB) detail. On the GEC plan identify the required and available TSB volume, and the riser pipe construction detail.

## SEEDING MIX:

GRASS	VARIETY	AMOUNT IN PLS LBS. PER ACRE
CRESTED WHEAT GRASS	EPHRAIM OR HYCREST	4.0 LBS.
PERENNIAL RYE	LINN	2.0 LBS.
WESTERN WHEATGRASS	SARTON	3.0 LBS.
SMOOTH BROME GRASS	LINCOLN OR MANCHAR	5.0 LBS.
SIDEOATS GRAMA	EPHRAIM	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.

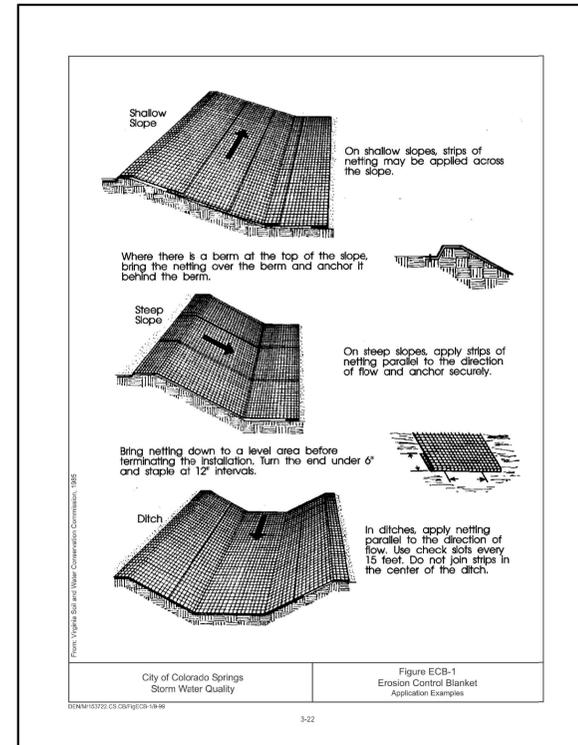
## SEDIMENT CONTROL MAINTENANCE PROGRAM:

PERIODIC SITE INSPECTIONS BI-WEEKLY<sup>1</sup>  
 RE-VEGETATION OF EXPOSED SOILS WITHIN 21 DAYS OF GRADING  
 SEDIMENT REMOVAL FROM BMP'S MONTHLY<sup>2</sup>  
 REMOVAL OF BMP'S AFTER STABILIZATION ACHIEVED

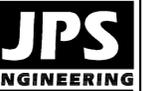
1 AND AFTER ANY PRECIPITATION OR SNOW MELT EVENT THAT CAUSES SURFACE EROSION.  
 2 ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED WHEN THE SEDIMENT LEVEL REACHES ONE HALF THE HEIGHT OF THE BMP OR AT ANY TIME THAT SEDIMENT OR DEBRIS ADVERSELY IMPACTS THE FUNCTION OF THE BMP.

## ESTIMATED TIME SCHEDULE:

INSTALL BMP'S SEPTEMBER 2018  
 ROADWAY GRADING SEPTEMBER 2018  
 SEEDING & MULCHING AUGUST 2019  
 STABILIZATION AUGUST 2020



City of Colorado Springs Stormwater Quality Figure ECB-1 Erosion Control Blanket Application Examples



19 E. Wilamette Ave.  
 Colorado Springs, CO  
 80903

PH: 719-477-9429  
 FAX: 719-471-0766



CALL UTILITY NOTIFICATION CENTER OF COLORADO  
 1-800-922-1987  
 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

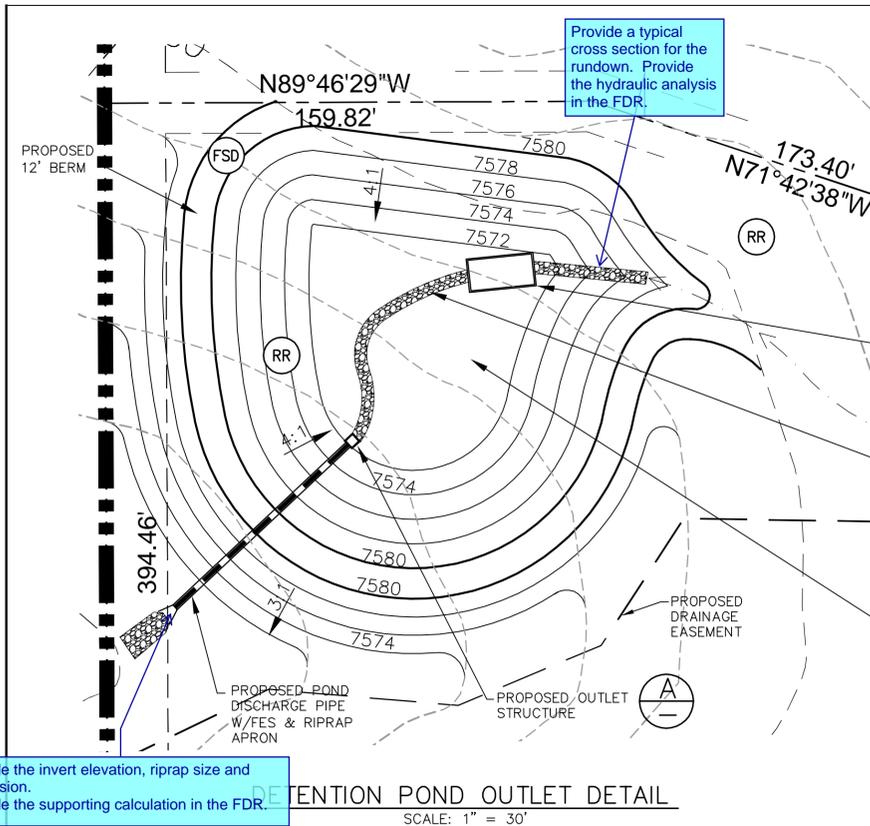
# SETTLERS VIEW SUBDIVISION

# EROSION CONTROL NOTES & DETAILS

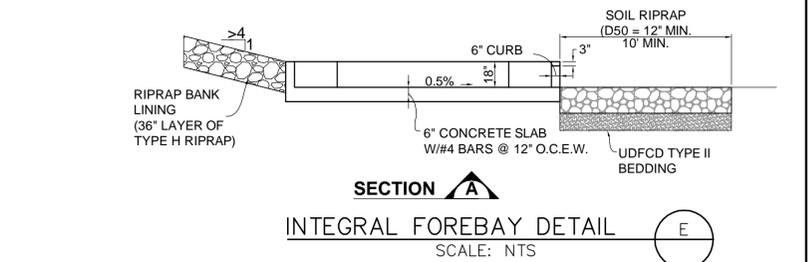
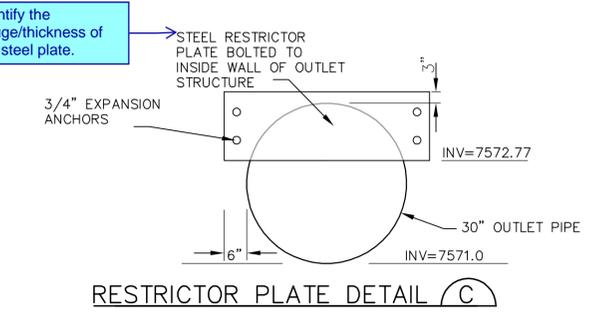
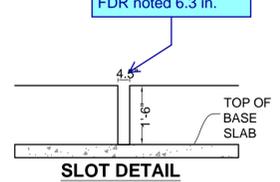
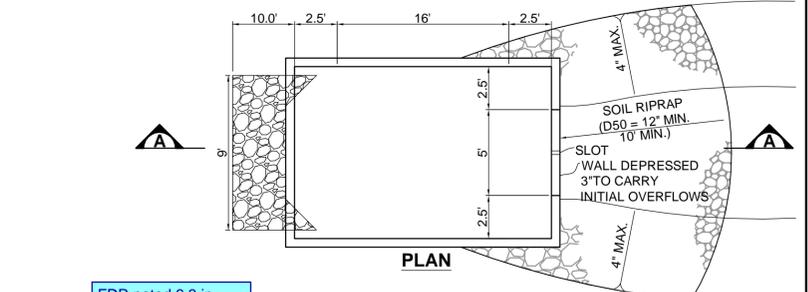
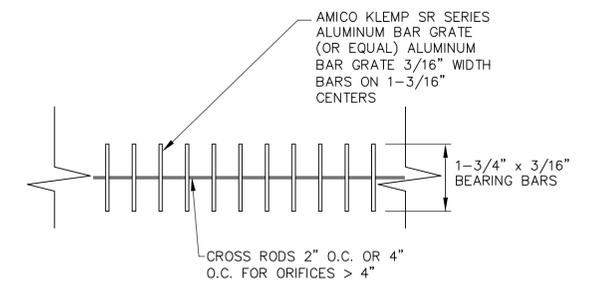
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VERT. SCALE:	N/A	DESIGNED:	JPS
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CREATED:	7/26/18	LAST MODIFIED:	7/31/18
PROJECT NO:	111603	MODIFIED BY:	MSP

SHEET: C2

PCD File No. SF-18-XXX



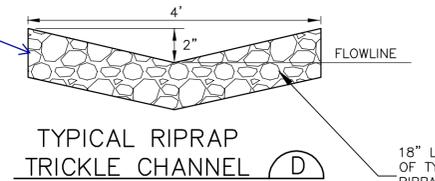
1. Provide a maintenance access ramp to the bottom of pond. Min 15' wide at 12 percent max per DCM 11.2.2. Is the maintenance access going to be a separate access point from the residential driveway. If so, then extend plan view to show the maintenance access from Silver Nell Drive. It appears a driveway culvert would be required.
2. Show the emergency spillway location on the plan view.
3. Provide a 2% floor slope from the toe of the sides towards the low flow trickle channel.



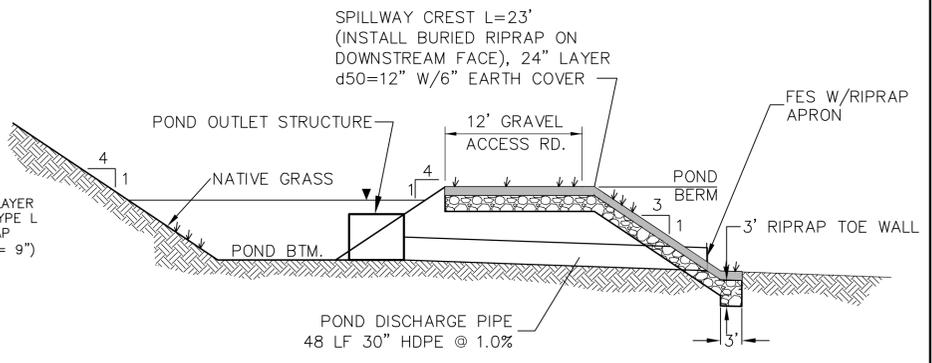
Provide the invert elevation, riprap size and dimension.  
Provide the supporting calculation in the FDR.

RETENTION POND OUTLET DETAIL  
SCALE: 1" = 30'

Revise to a concrete trickle channel.

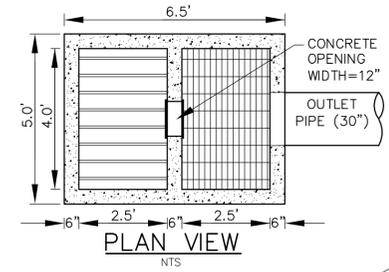


update note. Any required detail must be in the construction plans. Contractor typically does not keep a copy of the UDFCD Manual at the job site.



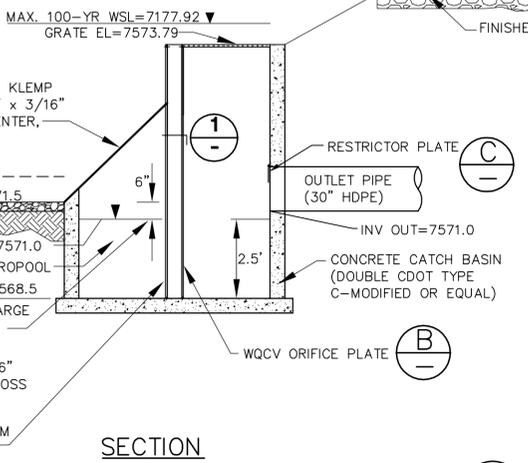
TYPICAL SECTION DETENTION POND #1  
SCALE: NTS

Provide a typical detail for the weld.

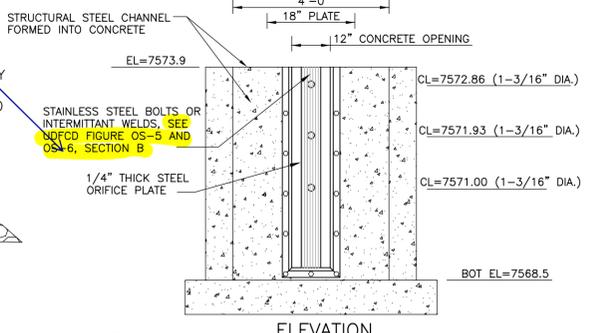


TUBULAR TRASH RACK ON 6" CENTERS, KLEMP CORPORATION (OR EQUAL) WITH 1-3/4" x 3/16" BEARING BARS SPACED 1-3/16" ON CENTER, CROSS RODS SPACED 2" ON CENTER

VERTICAL TRASH SCREEN; ALUMINUM AMICO-KLEMP SR SERIES (1-3/4" x 3/16" THICK BAR GRATES @ 1" SPACING) W/CROSS RODS 2" O.C.; ATTACH BY INTERMITTENT WELDS TO C8x18.75 AMERICAN STEEL CHANNEL FORMED INTO CONCRETE BOTTOM AND SIDES OF OPENING IN WALL

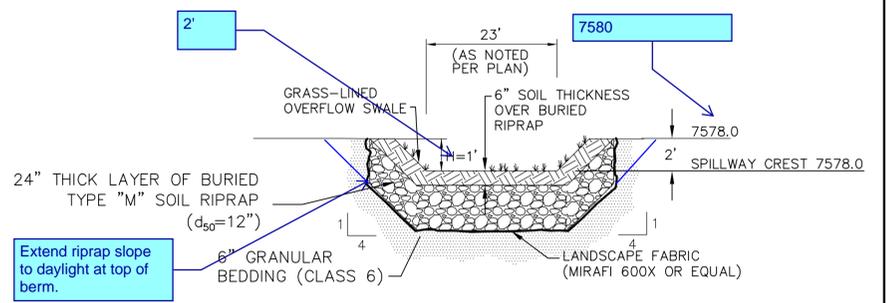


TYPICAL DETENTION POND OUTLET STRUCTURE  
SCALE: NTS



- ORIFICE PLATE NOTES:
1. MINIMIZE THE NUMBER OF COLUMNS.
  2. PROVIDE GASKET MATERIAL BETWEEN THE ORIFICE PLATE AND CONCRETE.
  3. BOLT PLATE TO CONCRETE 12" MAX. ON CENTER.
- EURV AND WQCV TRASH RACKS:
1. WELL-SCREEN TRASH RACKS (FOR CIRCULAR ORIFICES) SHALL BE STAINLESS STEEL AND SHALL BE ATTACHED BY INTERMITTENT WELDS ALONG THE EDGE OF THE MOUNTING FRAME.
  2. STRUCTURAL DESIGN OF TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.
- OVERFLOW TRASH RACKS:
1. ALL TRASH RACKS SHALL BE MOUNTED USING STAINLESS STEEL HARDWARE AND PROVIDED WITH HINGED AND LOCKABLE OR BOLTABLE ACCESS PANELS.
  2. TRASH RACKS SHALL BE STAINLESS STEEL, ALUMINUM, OR STEEL. STEEL TRASH RACKS SHALL BE HOT DIP GALVANIZED AND MAY BE HOT POWDER COATED AFTER GALVANIZING.
  3. TRASH RACKS SHALL BE DESIGNED SUCH THAT THE DIAGONAL DIMENSION OF EACH OPENING IS SMALLER THAN THE DIAMETER OF THE OUTLET PIPE.
  4. STRUCTURAL DESIGN OF TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.

ORIFICE PLATE AND TRASH RACK DETAILS AND NOTES (B)  
NTS



- RIPRAP NOTES:
1. RIPRAP SHALL HAVE A MINIMUM SPECIFIC GRAVITY OF 2.6.
  2. RIPRAP GRADATION SHALL CONFORM TO TABLE 10-7 AND 10-8 OF THE EPC DRAINAGE CRITERIA MANUAL.
  3. CONTRACTOR SHALL SUBMIT RIPRAP GRADATION TO ENGINEER FOR APPROVAL PRIOR TO DELIVERY.

PROPOSED SPILLWAY DETAIL (G)  
SCALE: NTS



CALL UTILITY NOTIFICATION CENTER OF COLORADO  
1-800-922-1987  
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

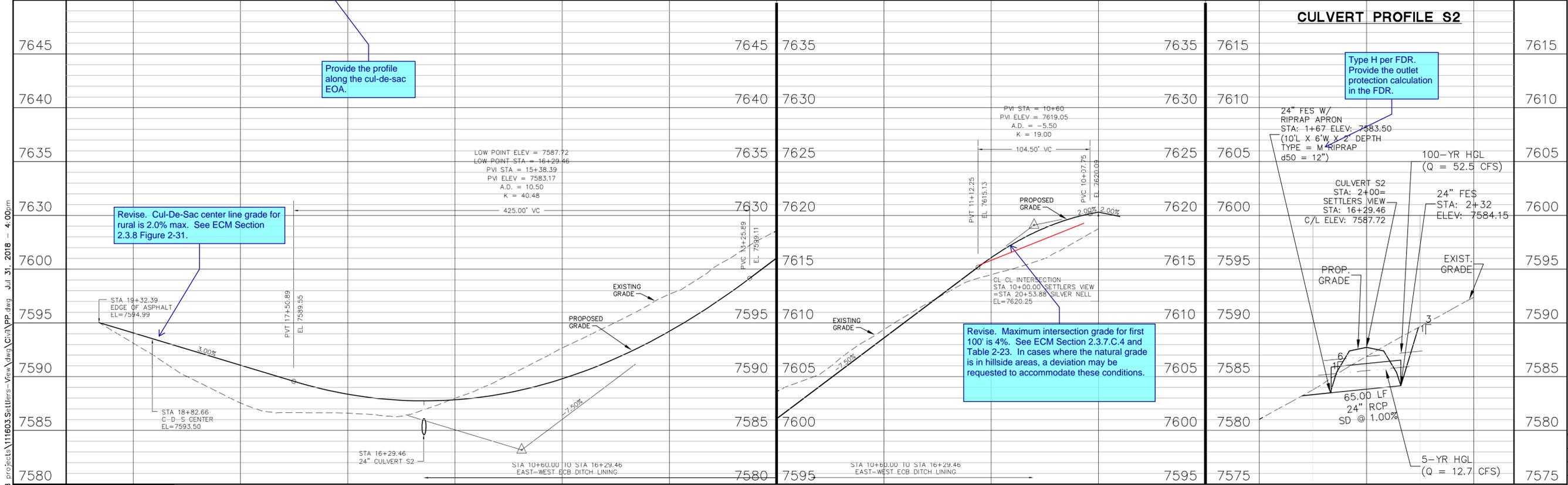
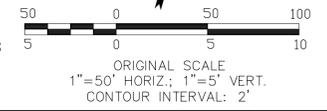
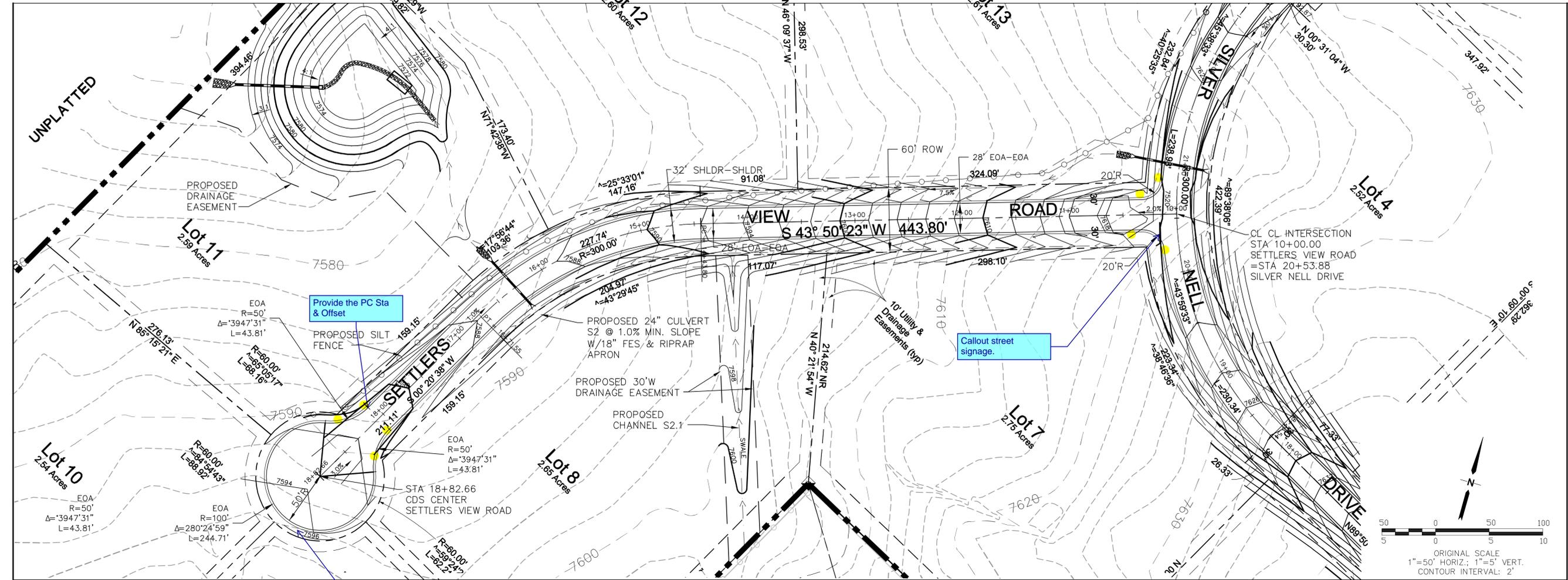
No.	REVISION	DATE	BY
1	COUNTY COMMENTS	2/13/18	JPS
2	FINAL PLAT SUBMITTAL	7/31/18	JPS

DETENTION POND DETAILS

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VERT. SCALE: N/A	DESIGNED: JPS
SURVEYED: HANNIGAN	CHECKED: JPS
CREATED: 7/27/18	LAST MODIFIED: 7/31/18
PROJECT NO: 111603	MODIFIED BY: MSP
SHEET:	

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**BENCHMARK**  
 THE MONUMENT AT THE SOUTHEAST PROPERTY CORNER, HAVING AN ASSUMED ELEVATION OF 7650.0 DATUM IS NAVD '88.

# SETTLERS VIEW SUBDIVISION

## SETTLERS VIEW ROAD PLAN & PROFILE

**JPS ENGINEERING**

19 E. Willamette Ave.  
 Colorado Springs, CO 80903

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

CALL UTILITY NOTIFICATION CENTER OF COLORADO  
**1-800-922-1987**  
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

No.	REVISION	DATE
1	COUNTY COMMENTS	2/13/18
2	FINAL PLAT SUBMITTAL	7/31/18

HORIZ. SCALE: 1"=50'

VERT. SCALE: 1"=5'

SURVEYED: HANNIGAN

CREATED: 12/27/16

PROJECT NO: 111603

SHEET:

DRAWN: BJJ

DESIGNED: JPS

CHECKED: JPS

LAST MODIFIED: 7/31/18

MODIFIED BY: MSP

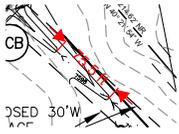
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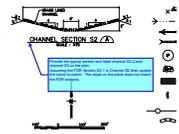
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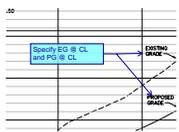
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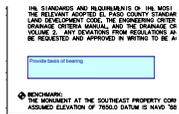
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**Date:** 12/12/2018 4:33:50 PM  
**Color:** ■

Provide the typical section and label channel S2.2 and channel S3 on the plan. Assuming the FDR Section S2.1 is Channel S2 then update the name to match. The slope on the plans does not match the FDR analysis.



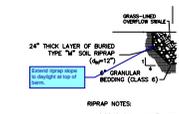
**Subject:** Callout  
**Page Label:** 7  
**Author:** dsdlaforce  
**Date:** 12/12/2018 4:37:48 PM  
**Color:** ■

Specify EG @ CL  
and PG @ CL



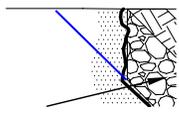
**Subject:** Text Box  
**Page Label:** 1  
**Author:** dsdlaforce  
**Date:** 12/12/2018 4:39:23 PM  
**Color:** ■

Provide basis of bearing

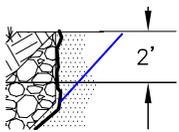


**Subject:** Callout  
**Page Label:** 6  
**Author:** dsdlaforce  
**Date:** 12/12/2018 5:00:49 PM  
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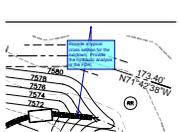
Extend riprap slope to daylight at top of berm.



**Subject:** Line  
**Page Label:** 6  
**Author:** dsdlaforce  
**Date:** 12/12/2018 5:01:11 PM  
**Color:** ■

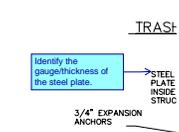


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**Date:** 12/12/2018 5:01:27 PM  
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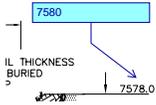
**Subject:** Callout  
**Page Label:** 6  
**Author:** dsdlaforce  
**Date:** 12/12/2018 5:10:36 PM  
**Color:** ■

Provide a typical cross section for the rundown. Provide the hydraulic analysis in the FDR.



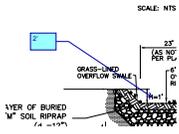
**Subject:** Callout  
**Page Label:** 6  
**Author:** dsdlaforce  
**Date:** 12/12/2018 5:18:24 PM  
**Color:** ■

Identify the gauge/thickness of the steel plate.



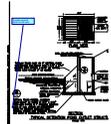
**Subject:** Callout  
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**Date:** 12/12/2018 5:23:08 PM  
**Color:** ■

7580



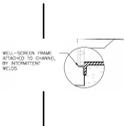
**Subject:** Callout  
**Page Label:** 6  
**Author:** dsdlaforce  
**Date:** 12/12/2018 5:26:48 PM  
**Color:** ■

2'

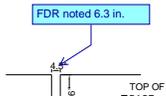


**Subject:** Callout  
**Page Label:** 6  
**Author:** dsdlaforce  
**Date:** 12/12/2018 5:35:07 PM  
**Color:** ■

Provide a typical detail for the weld.



**Subject:** Image  
**Page Label:** 6  
**Author:** dsdlaforce  
**Date:** 12/12/2018 5:35:45 PM  
**Color:** ■

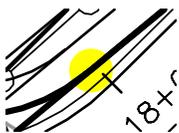


**Subject:** Callout  
**Page Label:** 6  
**Author:** dsdlaforce  
**Date:** 12/12/2018 5:38:29 PM  
**Color:** ■

FDR noted 6.3 in.



**Subject:** Highlight  
**Page Label:** 8  
**Author:** dsdlaforce  
**Date:** 12/13/2018 10:03:19 AM  
**Color:** ■



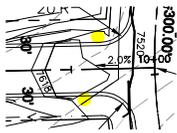
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**Date:** 12/13/2018 10:03:19 AM  
**Color:** ■



**Subject:** Highlight  
**Page Label:** 8  
**Author:** dsdlaforce  
**Date:** 12/13/2018 10:03:21 AM  
**Color:** ■



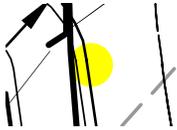
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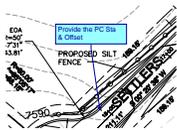
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**Date:** 12/13/2018 10:03:24 AM  
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**Subject:** Highlight  
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**Date:** 12/13/2018 10:03:25 AM  
**Color:** ■

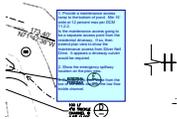


**Subject:** Highlight  
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**Date:** 12/13/2018 10:03:26 AM  
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**Subject:** Callout  
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**Author:** dsdlaforce  
**Date:** 12/13/2018 10:03:53 AM  
**Color:** ■

Provide the PC Sta & Offset



**Subject:** Text Box  
**Page Label:** 6  
**Author:** dsdlaforce  
**Date:** 12/13/2018 10:15:40 AM  
**Color:** ■

1. Provide a maintenance access ramp to the bottom of pond. Min 15' wide at 12 percent max per DCM 11.2.2.  
Is the maintenance access going to be a separate access point from the residential driveway. If so, then extend plan view to show the maintenance access from Silver Nell Drive. It appears a driveway culvert would be required.
2. Show the emergency spillway location on the plan view.
3. Provide a 2% floor slope from the toe of the sides towards the low flow trickle channel.



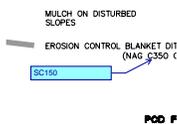
**Subject:** Text Box  
**Page Label:** 5  
**Author:** dsdlaforce  
**Date:** 12/13/2018 2:29:55 PM  
**Color:** ■

Add the Temporary Sediment Basin (TSB) detail. On the GEC plan identify the required and available TSB volume, and the riser pipe construction detail.



**Subject:** Callout  
**Page Label:** 4  
**Author:** dsdlaforce  
**Date:** 12/13/2018 2:36:45 PM  
**Color:** ■

Identify as Temporary Sediment Basin during construction



**Subject:** Callout  
**Page Label:** 4  
**Author:** dsdlaforce  
**Date:** 12/13/2018 2:37:54 PM  
**Color:** ■

SC150

Show the staging area.

**Subject:** Text Box  
**Page Label:** 4  
**Author:** dsdlaforce  
**Date:** 12/13/2018 2:51:13 PM  
**Color:** ■

Show the staging area.

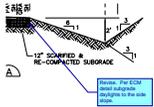
Per the attached GEC checklist  
1. Delineate the construction site boundaries.  
2. Show existing vegetation.

**Subject:** Text Box  
**Page Label:** 4  
**Author:** dsdlaforce  
**Date:** 12/13/2018 3:05:25 PM  
**Color:** ■

Per the attached GEC checklist  
1. Delineate the construction site boundaries.  
2. Show existing vegetation

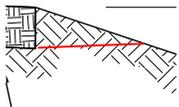


**Subject:** File Attachment  
**Page Label:** 4  
**Author:** dsdlaforce  
**Date:** 12/13/2018 3:05:47 PM  
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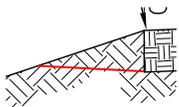


**Subject:** Callout  
**Page Label:** 3  
**Author:** dsdlaforce  
**Date:** 12/13/2018 3:11:16 PM  
**Color:** ■

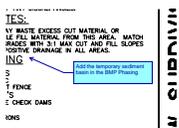
Revise. Per ECM detail subgrade daylights to the side slope.



**Subject:** Line  
**Page Label:** 3  
**Author:** dsdlaforce  
**Date:** 12/13/2018 3:11:23 PM  
**Color:** ■



**Subject:** Line  
**Page Label:** 3  
**Author:** dsdlaforce  
**Date:** 12/13/2018 3:11:29 PM  
**Color:** ■



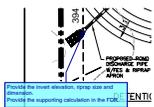
**Subject:** Callout  
**Page Label:** 4  
**Author:** dsdlaforce  
**Date:** 12/13/2018 4:48:30 PM  
**Color:** ■

Add the temporary sediment basin in the BMP Phasing



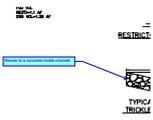
**Subject:** Text Box  
**Page Label:** 1  
**Author:** dsdlaforce  
**Date:** 12/13/2018 7:35:08 AM  
**Color:** ■

SF-18-041



**Subject:** Callout  
**Page Label:** 6  
**Author:** dsdlaforce  
**Date:** 12/13/2018 8:01:23 AM  
**Color:** ■

Provide the invert elevation, riprap size and dimension.  
Provide the supporting calculation in the FDR.



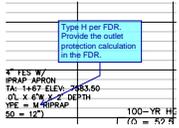
**Subject:** Callout  
**Page Label:** 6  
**Author:** dsdlaforce  
**Date:** 12/13/2018 8:08:59 AM  
**Color:** ■

Revise to a concrete trickle channel.



**Subject:** Callout  
**Page Label:** 4  
**Author:** dsdlaforce  
**Date:** 12/13/2018 8:15:37 AM  
**Color:** ■

Provide typical cross section for the swale between the culvert and rundown. Include the supporting calculation in the FDR

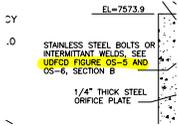


**Subject:** Callout  
**Page Label:** 8  
**Author:** dsdlaforce  
**Date:** 12/13/2018 8:23:35 AM  
**Color:** ■

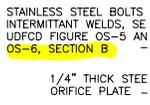
Type H per FDR. Provide the outlet protection calculation in the FDR.

BOLTS OR  
OS, SEE  
-5 AND

**Subject:** Highlight  
**Page Label:** 6  
**Author:** dsdlaforce  
**Date:** 12/13/2018 8:28:41 AM  
**Color:** ■



**Subject:** Highlight  
**Page Label:** 6  
**Author:** dsdlaforce  
**Date:** 12/13/2018 8:28:44 AM  
**Color:** ■

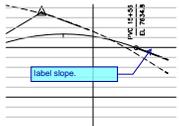


**Subject:** Highlight  
**Page Label:** 6  
**Author:** dsdlaforce  
**Date:** 12/13/2018 8:28:46 AM  
**Color:** ■



**Subject:** Callout  
**Page Label:** 6  
**Author:** dsdlaforce  
**Date:** 12/13/2018 8:30:39 AM  
**Color:** ■

update note. Any required detail must be in the construction plans. Contractor typically does not keep a copy of the UDFCD Manual at the job site.

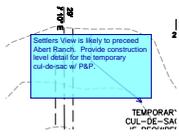


**Subject:** Callout  
**Page Label:** 7  
**Author:** dsdlaforce  
**Date:** 12/13/2018 8:45:27 AM  
**Color:** ■

label slope.



**Subject:** Highlight  
**Page Label:** 7  
**Author:** dsdlaforce  
**Date:** 12/13/2018 8:45:54 AM  
**Color:** ■



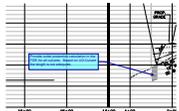
**Subject:** Callout  
**Page Label:** 7  
**Author:** dsdlaforce  
**Date:** 12/13/2018 8:49:14 AM  
**Color:** ■

Settlers View is likely to precede Abert Ranch. Provide construction level detail for the temporary cul-de-sac w/ P&P.



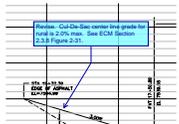
**Subject:** Callout  
**Page Label:** 7  
**Author:** dsdlaforce  
**Date:** 12/13/2018 8:53:44 AM  
**Color:** ■

This is an existing driveway being relocated due to this development. Staff is assuming this is the responsibility of the developer. If it is then provide construction detail for the relocation. Based on the proposed contours a driveway culvert must be installed.



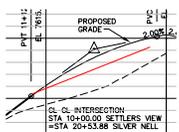
**Subject:** Callout  
**Page Label:** 7  
**Author:** dsdlaforce  
**Date:** 12/13/2018 8:54:39 AM  
**Color:** ■

Provide outlet protection calculation in the FDR for all culverts. Based on UD-Culvert the length is not adequate.



**Subject:** Callout  
**Page Label:** 8  
**Author:** dsdlaforce  
**Date:** 12/13/2018 9:17:36 AM  
**Color:** ■

Revise. Cul-De-Sac center line grade for rural is 2.0% max. See ECM Section 2.3.8 Figure 2-31.



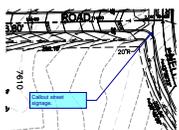
**Subject:** Line  
**Page Label:** 8  
**Author:** dsdlaforce  
**Date:** 12/13/2018 9:19:48 AM  
**Color:** ■

Revise. Maximum intersection grade for first 100' is 4%. See ECM Section 2.3.7.C.4 and Table 2-23. In cases where the natural grade is in hillside areas, a deviation may be requested to accommodate these conditions.



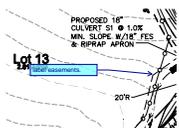
**Subject:** Callout  
**Page Label:** 8  
**Author:** dsdlaforce  
**Date:** 12/13/2018 9:24:12 AM  
**Color:** ■

Callout street signage.



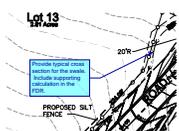
**Subject:** Callout  
**Page Label:** 8  
**Author:** dsdlaforce  
**Date:** 12/13/2018 9:25:54 AM  
**Color:** ■

label easements.

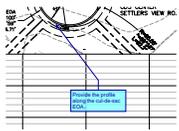


**Subject:** Callout  
**Page Label:** 7  
**Author:** dsdlaforce  
**Date:** 12/13/2018 9:32:09 AM  
**Color:** ■

Provide typical cross section for the swale. Include supporting calculation in the FDR.



**Subject:** Callout  
**Page Label:** 7  
**Author:** dsdlaforce  
**Date:** 12/13/2018 9:33:02 AM  
**Color:** ■



**Subject:** Callout  
**Page Label:** 8  
**Author:** dsdlaforce  
**Date:** 12/13/2018 9:35:05 AM  
**Color:** ■

Provide the profile along the cul-de-sac EOA.