

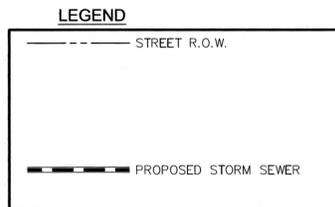
FINAL SITE GRADING CONSTRUCTION PLANS  
FOR  
**LORSON RANCH EAST FILING NO. 1**  
FINAL GRADING / EROSION CONTROL PLANS



**Know what's below.  
Call before you dig.**  
CALL 2-BUSINESS DAYS IN ADVANCE  
BEFORE YOU DIG, GRADE OR  
EXCAVATE FOR THE MARKING OF  
UNDERGROUND MEMBER UTILITIES



VICINITY MAP  
NO SCALE



| SHEET INDEX   |   |
|---------------|---|
| SHEET NO.     | SHEET DESCRIPTION                         |
| CO.1          | COVER SHEET                               |
| CO.2          | NOTES (GENERAL, GRADING, EROSION CONTROL) |
| CO.3          | TYPICAL SECTIONS                          |
| C4.1 ~ C4.3   | FINAL GRADING AND EROSION CONTROL PLAN    |
| C4.4 ~ C4.5   | POND GRADING                              |
| C12.1 ~ C12.2 | DETAILS                                   |
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|               |   |
|               |   |

**DEVELOPER'S STATEMENT**

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

BUSINESS NAME LORSON, LLC

BY JEFF MARK DATE \_\_\_\_\_  
TITLE MANAGER

ADDRESS 212 N. WAHSATCH AVE., SUITE 301  
COLORADO SPRINGS, CO 80903

**WATER / SANITARY**  
WIDEFIELD WATER AND SANITATION DISTRICT  
8495 FONTAINE BLVD.  
COLORADO SPRINGS, CO 80925  
719-390-7111

**CABLE**  
COMCAST  
P.O. BOX 173838  
DENVER, CO 80217  
970-641-4774

**ELECTRIC**  
MOUNTAIN VIEW ELECTRIC  
11140 E. WOODMEN RD.  
COLORADO SPRINGS, CO 80831  
719-495-2283

**SECURITY FIRE PROTECTION DISTRICT**  
400 SECURITY BOULEVARD  
SECURITY, CO 80911  
719-392-7121

PREPARED FOR:  
**LORSON, LLC**  
N. WAHSATCH AVE., SUITE 301  
COLORADO SPRINGS, CO 80903  
719-635-3200  
CONTACT: JEFF MARK

PREPARED BY:  
**CORE ENGINEERING GROUP**  
15004 1ST AVENUE S.  
BURNSVILLE, MN 55306  
719-570-1100  
CONTACT: RICHARD L. SCHINDLER P.E.

**TELEPHONE**  
CENTURYLINK  
7925 INDUSTRY ROAD  
COLORADO SPRINGS, CO 80939  
719-278-4651

**GAS**  
BLACK HILLS ENGERGY  
7060 ALLEGRE ST.  
FOUNTAIN, CO 80817  
719-393-6639

**EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT**  
2880 INTERNATIONAL CIRCLE  
COLORADO SPRINGS, CO 80910  
719-520-6300

**BASIS OF BEARING**

BEARINGS ARE BASED ON THE SOUTH LINE OF THE NORTH HALF OF SECTION 23, TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN AS BEING SOUTH 89°41'52" WEST. THE EAST QUARTER CORNER OF SAID SECTION 23 IS A FOUND 3-1/2" ALUMINUM CAP MONUMENT AND THE WEST QUARTER CORNER OF SAID SECTION 23 IS A FOUND 2-1/2" ALUMINUM CAP MONUMENT

**BENCHMARK**

FIMS MONUMENT F204 LOCATED AT THE NORTHWEST CORNER OF FONTAINE BLVD AND COTTONWOOD GROVE DR. ELEVATION 5724.072 (N.G.V.D. 29)

**TRAFFIC CONTROL NOTE**

THE CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL DEVICES AND MONITORING NECESSARY TO SAFELY COMPLETE THE WORK SHOWN IN THESE CONSTRUCTION DOCUMENTS IN CONFORMANCE WITH M.U.T.C.D. GUIDELINES. THE CONTRACTOR SHALL COMPLETE ALL NECESSARY WORK FOR PLAN REVIEW, PERMITS AND PROCESSING. TRAFFIC CONTROL WILL NOT BE PAID SEPARATELY BUT IS INCLUDED IN THE COST OF THE PROJECT.

**CORE ENGINEERING GROUP**  
15004 1ST AVENUE S.  
BURNSVILLE, MN 55306  
PH: 719.570.1100  
CONTACT: RICHARD L. SCHINDLER, P.E.  
EMAIL: rich@cegi.com

PROJECT: **LORSON RANCH EAST FILING NO. 1**  
212 N. WAHSATCH AVE., SUITE 301  
COLORADO SPRINGS, COLORADO 80903  
CONTACT: JEFF MARK

DATE: \_\_\_\_\_  
DESCRIPTION: \_\_\_\_\_  
NO. \_\_\_\_\_

DRAWN: RLS  
DESIGNED: RLS  
CHECKED: RLS

**COVER SHEET  
FINAL GRADING AND  
EROSION CONTROL PLAN**

DATE: JUNE 12, 2018  
PROJECT NO: 100.042  
SHEET NUMBER: C0.1  
TOTAL SHEETS: 10

**CONSTRUCTION APPROVAL**

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.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUALS VOLUME 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED. CONSTRUCTION DOCUMENTS WILL BE VALID FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER.

Approved  
Elizabeth Nijang  
El Paso County Planning and Community Development  
on behalf of Jennifer Irvine, County Engineer, ECM Administrator  
07/24/2018 4:22:32 PM

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

**ENGINEER'S APPROVAL**

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



RICHARD L. SCHINDLER, P.E. # 33997  
FOR AND ON BEHALF OF CORE ENGINEERING GROUP

SF-18-008

**CONSTRUCTION NOTES**

- ALL WORK SHALL COMPLY WITH THE CODES AND POLICIES FOR EL PASO COUNTY.
- EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THIS GRADING PLAN WAS OBTAINED FROM AERIAL CONTOURS AND PREVIOUS CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO EXAMINE THE SITE AND BE FAMILIAR WITH THE EXISTING CONDITIONS.
- DEPTH OF MOISTURE-DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS:  
BASE OF ALL CUTS AND FILLS - 12 INCHES,  
FULL DEPTH OF ALL EMBANKMENTS
- THE CONTRACTOR IS RESPONSIBLE FOR THE RE-ESTABLISHMENT OF ALL SURVEY MONUMENTS DISTURBED WITHIN THE PROJECT LIMITS.
- THE CONTRACTOR SHALL PROTECT ALL WORK AREAS AND FACILITIES FROM FLOODING AT ALL TIMES. AREAS AND FACILITIES SUBJECTED TO FLOODING, REGARDLESS OF THE SOURCE OF WATER, SHALL BE PROMPTLY DEWATERED AND RESTORED.
- PRIOR TO PAVING OPERATIONS, THE ENTIRE SUBGRADE SHALL BE PROOF-ROLLED WITH A LOADED 988 FRONT-END LOADER OR SIMILAR HEAVY RUBBER Tired VEHICLE (GVW OF 50,000 POUNDS WITH 18 KIP PER AXLE AT TIRE PRESSURES OF 90 PSI) TO DETECT ANY SOFT OR LOOSE AREAS. IN AREAS WHERE SOFT OR LOOSE SOILS, PUMPING OR EXCESSIVE MOVEMENT IS OBSERVED, THE EXPOSED MATERIALS SHALL BE OVER-EXCAVATED TO A MINIMUM DEPTH OF TWO FEET BELOW PROPOSED FINAL GRADE OR TO A DEPTH AT WHICH SOILS ARE STABLE. AFTER THIS HAS BEEN COMPLETED, THE EXPOSED MATERIALS SHALL BE SCARIFIED TO A DEPTH OF 12 INCHES AND MOISTURE CONDITIONED. THE SUBGRADE SHALL THEN BE UNIFORMLY COMPACTED TO A MINIMUM OF 95% OF STANDARD PROCTOR DENSITY (ASTM D-698) AT 0 TO +4.0% OF OPTIMUM MOISTURE CONTENT FOR A-6 AND A-7-6 SOILS ENCOUNTERED. OTHER SUBGRADE TYPES SHALL BE UNIFORMLY COMPACTED TO A MINIMUM OF 95% OF MODIFIED PROCTOR DENSITY (ASTM D-1557) AT PLUS OR MINUS 2.0% OF OPTIMUM MOISTURE CONTENT. AREAS WHERE STABLE NATURAL SOILS ARE ENCOUNTERED AT PROPOSED SUBGRADE ELEVATION SHALL ALSO BE SCARIFIED (18 INCHES FOR A-7-6 SOILS BELOW FULL-DEPTH ASPHALT CONCRETE) AND COMPACTED AS OUTLINED ABOVE PRIOR TO PAVING OPERATIONS. SUBGRADE FILL SHALL BE PLACED IN SIX-INCH LIFTS AND UNIFORMLY COMPACTED, MEETING THE REQUIREMENTS AS PREVIOUSLY DESCRIBED.
- SUBGRADE MATERIALS DEEMED UNSUITABLE BY THE ENGINEER SHALL BE EXCAVATED, DISPOSED OF AND REPLACED WITH APPROVED MATERIALS.
- FILL SHALL BE PLACED IN 8-INCH MAXIMUM LOOSE LIFTS AND SHALL BE COMPACTED PRIOR TO SUCCESSIVE LIFTS.
- THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING AND CONTROLLING EROSION DURING CONSTRUCTION ACTIVITIES AT ALL TIMES DURING GRADING AND CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES:
  - HAY BALE BARRIERS WHERE NEEDED AND/OR AS DIRECTED BY THE ENGINEER.
  - SILT FENCE WHERE NEEDED AND/OR AS DIRECTED BY THE ENGINEER.
  - TEMPORARY SEDIMENTATION BASINS WHERE NEEDED AND/OR AS DIRECTED BY THE ENGINEER.
  - MULCHING AND SEEDING OF EXCESSIVE SLOPED AREAS AS NEEDED OR AS DIRECTED BY THE ENGINEER.
  - TEMPORARY VEHICLE TRACKING CONTROL AS NEEDED AND/OR DIRECTED BY THE ENGINEER.
  - CONCRETE WASH AREAS.
  - INLET PROTECTION.
 THESE AND ALL EROSION CONTROL BEST MANAGEMENT PRACTICES AS SHOWN IN THE GRADING AND EROSION CONTROL PLANS SHALL BE STRICTLY ADHERED TO.
- FINISHED CONTOURS/SPOT ELEVATIONS SHOWN HEREON REPRESENT FINISHED GRADES. ALL PAVEMENT SUBGRADES ARE BASED ON THE COMPOSITE ASPHALT PAVEMENT RECOMMENDATIONS MADE IN THE "GEOTECHNICAL STUDY" FOR THIS PROJECT.
- ALL GRADING SHALL CONFORM TO THE GEOTECHNICAL RECOMMENDATIONS FOR LORSON RANCH EAST PREPARED BY RMG, "PRELIMINARY SOILS AND GEOLOGY FOR LORSON RANCH EAST", DATED SEPTEMBER 7, 2016. CONSTRUCTION OF DETENTION PONDS SHALL CONFORM TO THE GEOTECHNICAL RECOMMENDATIONS IN A REPORT BY RMG TITLED "LORSON RANCH EAST DETENTION PONDS" DATED NOVEMBER 28, 2017. THIS INCLUDES POND OUTFALL DESIGN, KEY-IN, AND SLOPE/EMBANKMENT COMPACTION REQUIREMENTS.
- THERE MAY BE SOME TOPSOIL WITHIN LORSON RANCH EAST THAT IS NOT SUITABLE FOR RE-USE. CONTRACTOR SHALL AMEND THE TOPSOIL AS NECESSARY AND RE-SPREAD IN ACCORDANCE WITH THE GEOTECHNICAL RECOMMENDATIONS. IF TOPSOIL CANNOT BE AMENDED IT SHALL BE USED AS FILL WHERE NO FUTURE STRUCTURES OR ROADS WILL BE BUILT.

**WORK WITHIN CSU SOUTHERN DELIVERY SYSTEM EASEMENT CONSTRUCTION NOTES**

- CONTRACTOR SHALL COMPLY WITH CSU LESS 2.6.H.8 "CROSSING RAW WATER TRANSMISSION MAINS" FOR ALL WORK WITHIN THE CSU WATERMAIN EASEMENT
- UTILITIES CROSSING OVER THE SDS WATERMAIN MUST BE POTHOLED WITH HYDRO-VAC AT EVERY CROSSING TO OBTAIN VISUAL VERIFICATIN OF THE WATERMAIN ELEVATION.
- A COLORADO SPRINGS UTILITIES WATER INSPECTOR SHALL BE NOTIFIED, 719-668-4658, AND PRESENT BEFORE AND DURING CONSTRUCTION ACTIVITIES WITHIN THE SDS EASEMENT
- CONTACT WAYNE RUST, 719-668-3996, COLORADO SPRINGS UTILITIES, FOR ADDITIONAL INFORMATION REGARDING THE SDS FIBER LINE.
- CONTRACTOR SHALL MAINTAIN A MINIMUM OF 5' OF COVER OVER THE SDS WATERMAIN.
- CONTRACTOR SHALL SALVAGE AND REPLACE ALL CARSONITE WATER MARKERS OVER THE WATERMAIN AFTER CONSTRUCTION.

**EL PASO COUNTY STANDARD CONSTRUCTION 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
- 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. 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 DSD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
- ALL STORM DRAIN PIPE SHALL BE CLASS III RCP 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 PUBLIC WORK DEPARTMENT AND MUTCD CRITERIA.
- CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY PWD, 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.

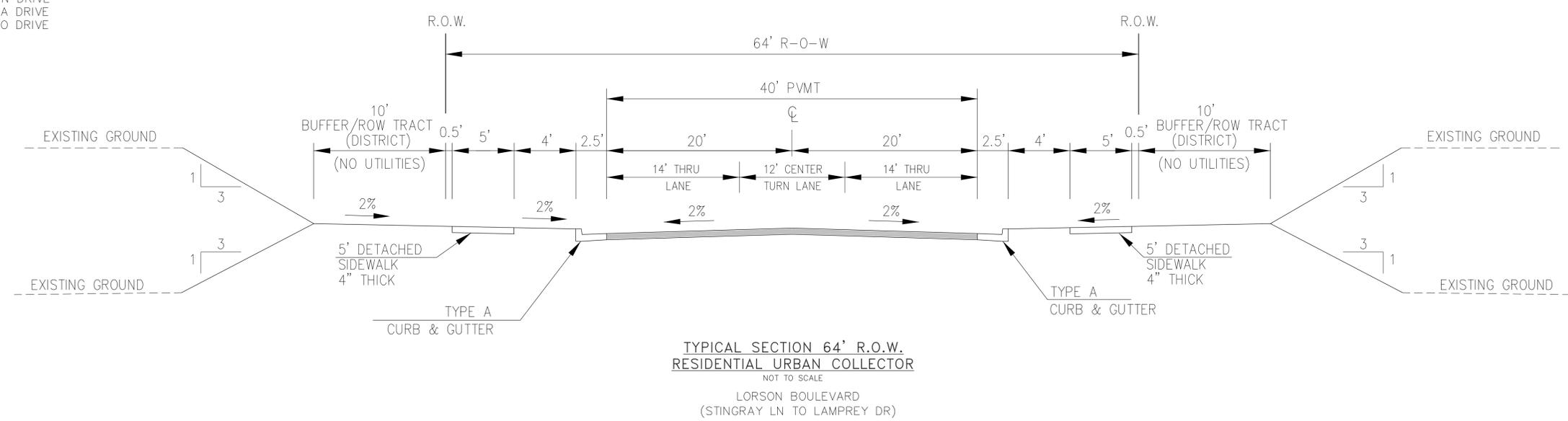
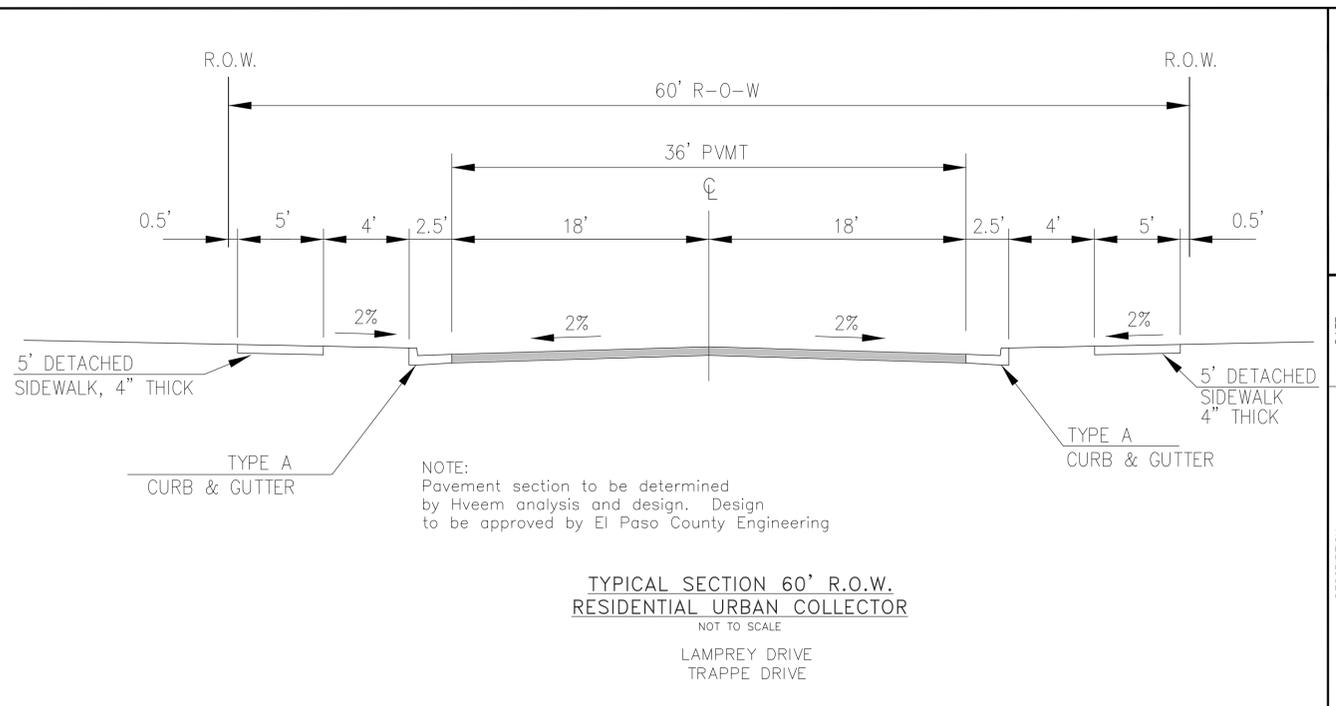
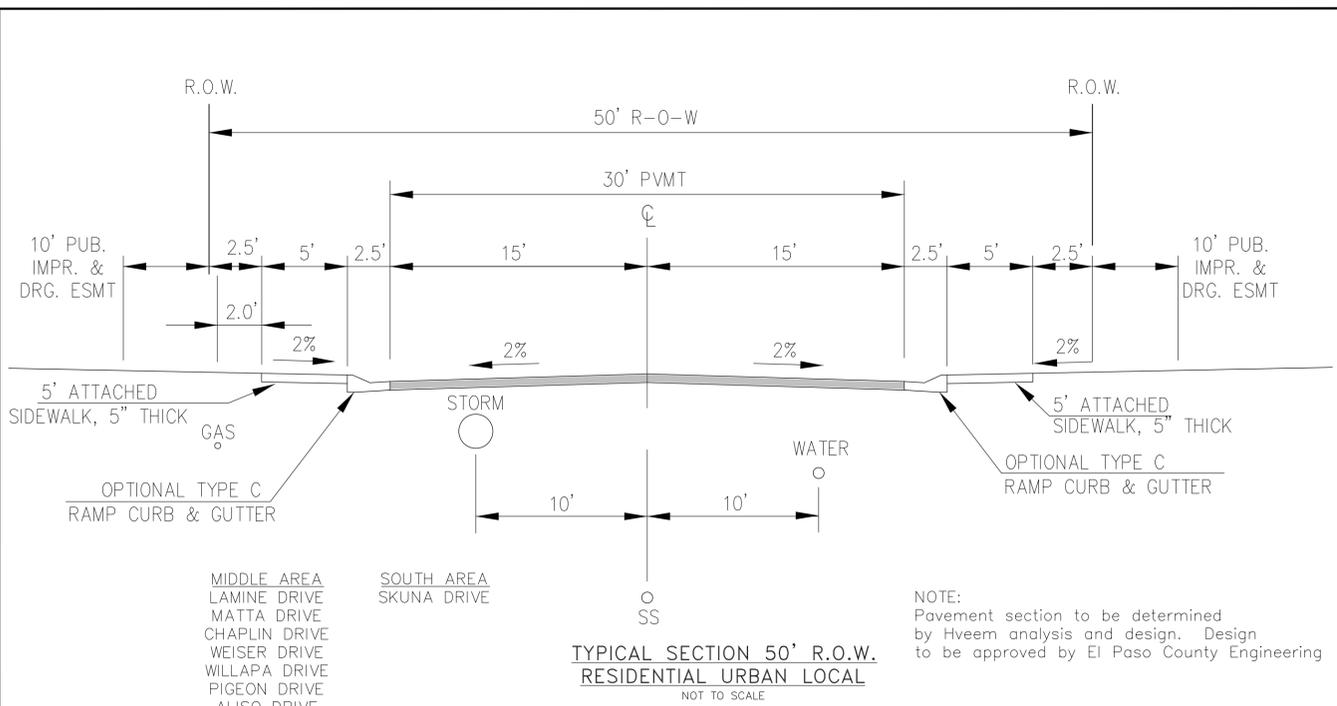
**STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS**

- CONSTRUCTION MAY NOT COMMENCE UNTIL A CONSTRUCTION PERMIT IS OBTAINED FROM PCD AND A PRECONSTRUCTION CONFERENCE IS HELD WITH PCD INSPECTIONS.
- 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 FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (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 DSD 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 SHALL 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 PCD 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 HAS BEEN PREPARED BY RMG AND 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

EPC 7/24/18

|  |   |  |
|--|---|--|
| <p><b>CORE ENGINEERING GROUP</b><br/>1500 WEST AVENUE, SUITE 500<br/>DENVER, CO 80202<br/>PH: 719.570.1100<br/>CONTACT: RICHARD L. SCHINDLER, P.E.<br/>EMAIL: Rich@cgl.com</p> | DATE  |  |
|  | DESCRIPTION   |  |
| <p>PROJECT FOR:<br/><b>LORSON RANCH EAST</b><br/>FILING NO. 1<br/>FONTAINE BLVD.-OLD GLORY DR<br/>COLORADO SPRINGS, COLORADO</p>   | <p>PREPARED FOR:<br/><b>LORSON, LLC</b><br/>212 N. WAHSATCH AVE, SUITE 301<br/>COLORADO SPRINGS, COLORADO 80903<br/>(719) 635-3200<br/>CONTACT: JEFF MARK</p> |  |
| <p>DRAWN: <b>RLS</b><br/>DESIGNED: <b>RLS</b><br/>CHECKED: <b>RLS</b></p>  | <p><b>FINAL GRADING PLAN</b></p> <p><b>NOTES</b></p>  |  |
|  |   |  |
| DATE:  | JUNE 12, 2018   |  |
| PROJECT NO.  | 100.042   |  |
| SHEET NUMBER   | C0.2  |  |
| TOTAL SHEETS:  | 10  |  |



**CORE ENGINEERING GROUP**  
15004 1ST AVENUE S.  
BURNSVILLE, MN 55306  
PH: 719.570.1100  
CONTACT: RICHARD L. SCHINDLER, P.E.  
EMAIL: Rich@cegi.com

DATE: \_\_\_\_\_  
DESCRIPTION: \_\_\_\_\_  
NO. \_\_\_\_\_

PREPARED FOR:  
**LORSON, LLC**  
212 N. WAHSATCH AVE, SUITE 301  
COLORADO SPRINGS, COLORADO 80903  
(719) 635-3200  
CONTACT: JEFF MARK

PROJECT:  
**LORSON RANCH EAST  
FILING NO. 1**  
FONTANE BLVD.-OLD GLOBY DR  
COLORADO SPRINGS, COLORADO

DRAWN: RLS  
DESIGNED: RLS  
CHECKED: RLS

**FINAL GRADING PLAN  
TYPICAL ROADWAY SECTIONS**



DATE:  
JUNE 12, 2018

PROJECT NO.  
100.042

SHEET NUMBER  
**C0.3**

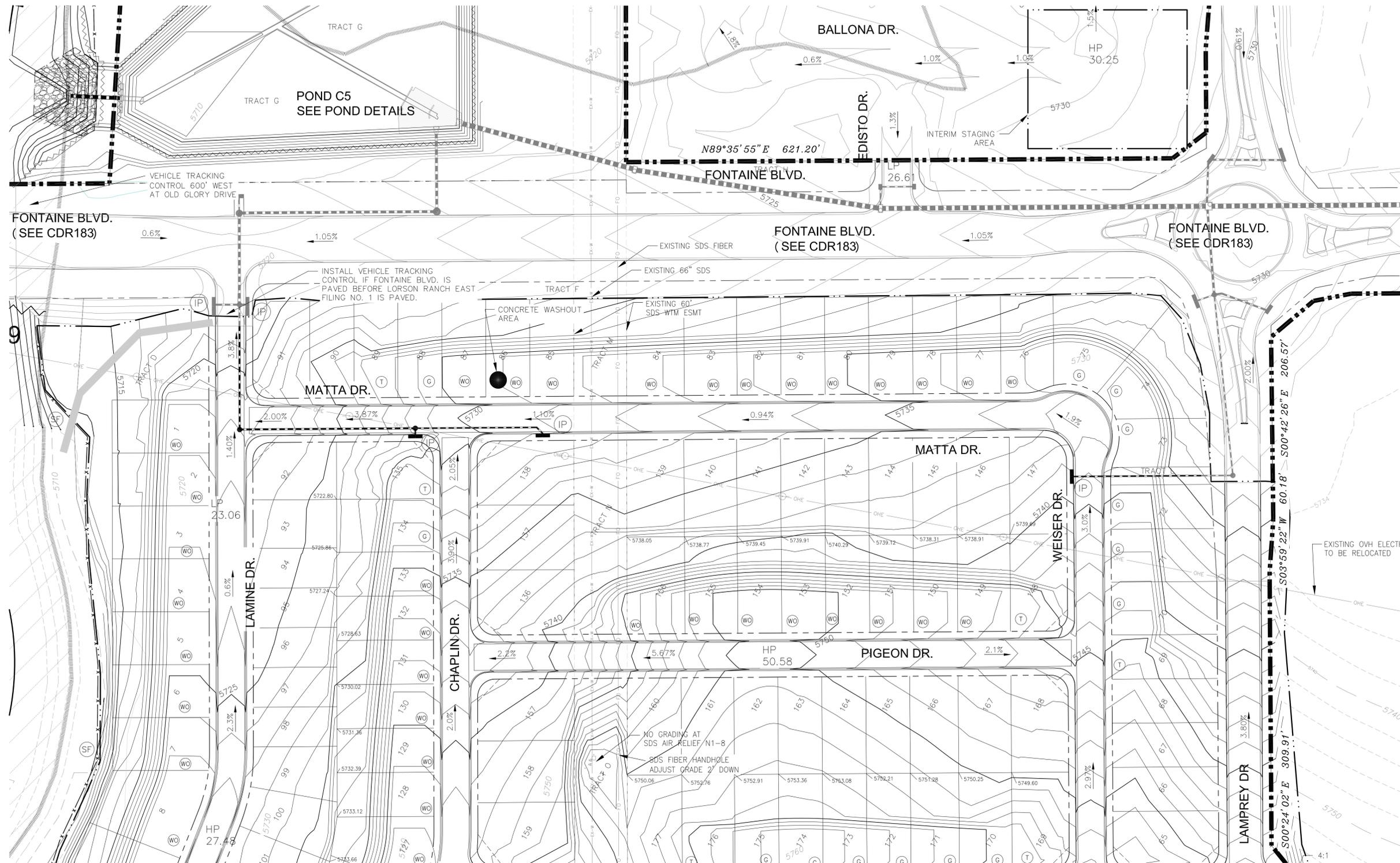
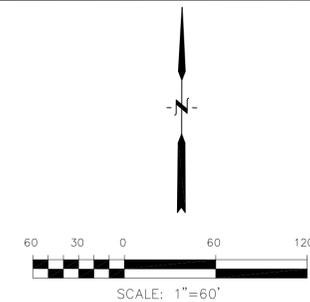
TOTAL SHEETS: 10

**LEGEND**

- 5721- - - - - EXISTING MINOR CONTOUR
- 5720- - - - - EXISTING MAJOR CONTOUR
- - - - - 5720 PROPOSED CONTOUR (CDR 183)
- - - - - 5720 PROPOSED CONTOUR
- - - - - EXISTING STORM SEWER
- (SF) - - - - - PERIMETER EROSION CONTROL  
SILT FENCE, EROSION LOG, OR EARTH BERM
- - - - - SUBDIVISION BOUNDARY
- - - - - LIMITS OF CONSTRUCTION
- (IP) - - - - - INLET PROTECTION
- - - - - ACCESS TO ETRIB MAINTENANCE ROAD
- 100-YR FEMA FLOODPLAIN
- 100-YR FLOODPLAIN PER CLOMR
- - - - - PROPOSED STORM SEWER IN FILING NO. 1
- FEMA 100-YR FLOODWAY
- VEHICLE TRACKING CONTROL
- PROPOSED RIP RAP

**NOTE:**

1. SLOPES SHALL BE 3:1 UNLESS OTHERWISE NOTED
2. POND SLOPES SHALL BE 3:1
3. STRAW ECB SHALL BE PLACED ON ALL POND SIDE SLOPES AND PERMANENT SLOPES 6:1 OR STEEPER.
4. FILL IN FLOODPLAIN REQUIRES A FLOODPLAIN DEVELOPMENT PERMIT AND AN APPROVED CLOMR. FLOODPLAIN TO BE MODIFIED PER CLOMR CASE NO. 17-08-1043R
5. TEMPORARY SEEDING REQUIRED ON DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED AND SEEDDED WITHIN 21 DAYS AFTER INTERIM GRADING.



SEE SHEET C4.2

EPC 7/24/18

**CORE ENGINEERING GROUP**  
 1500 RIVER AVENUE, SUITE 300  
 COLORADO SPRINGS, COLORADO 80903  
 CONTACT: RICHARD L. SCHINDLER, P.E.  
 EMAIL: Rich@ceg1.com

PROJECT: LORSON RANCH EAST FILING NO. 1  
 PREPARED FOR: LORSON, LLC  
 212 N. WAHSATCH AVE, SUITE 301  
 COLORADO SPRINGS, COLORADO 80903  
 CONTACT: JEFF MARK

DRAWN: RLS  
 DESIGNED: RLS  
 CHECKED: RLS

**LORSON RANCH EAST FILING NO. 1  
 FINAL GRADING AND E.C. PLAN  
 NORTH AREA**



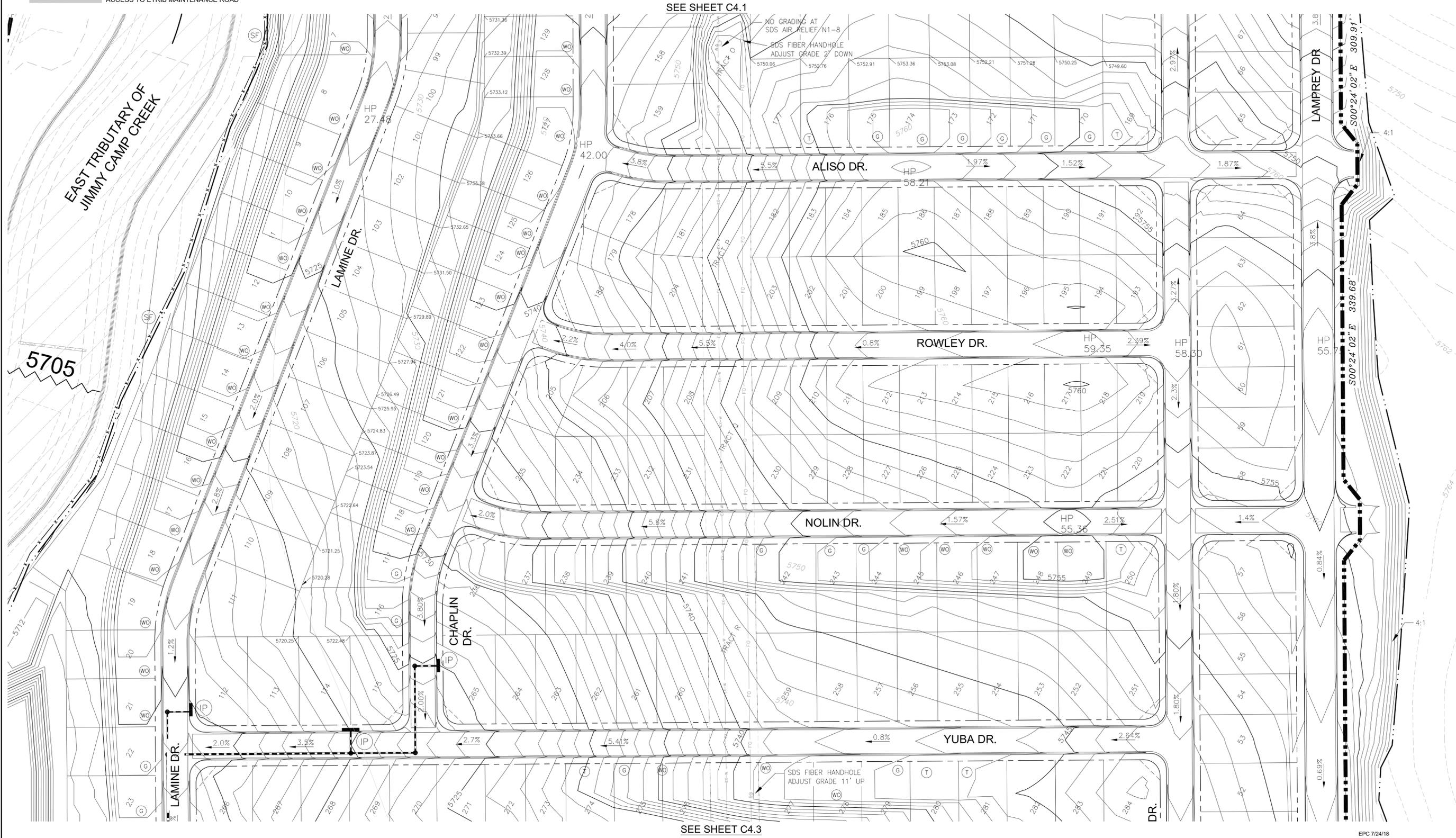
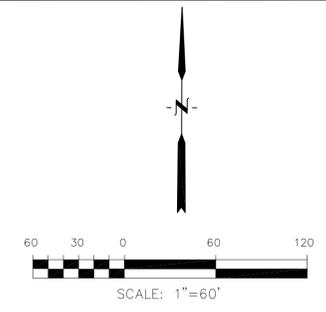
DATE: JUNE 12, 2018  
 PROJECT NO: 100.042  
 SHEET NUMBER: C4.1  
 TOTAL SHEETS: 10

**LEGEND**

- 5721- - - - - EXISTING MINOR CONTOUR
- 5720- - - - - EXISTING MAJOR CONTOUR
- 5720- - - - - PROPOSED CONTOUR (CDR 183)
- 5720- - - - - PROPOSED CONTOUR
- --- EXISTING STORM SEWER
- (SF) x x PERIMETER EROSION CONTROL SILT FENCE, EROSION LOG, OR EARTH BERM
- --- SUBDIVISION BOUNDARY
- --- LIMITS OF CONSTRUCTION
- (IP) INLET PROTECTION
- --- ACCESS TO ETRIB MAINTENANCE ROAD
- 100-YR FEMA FLOODPLAIN
- --- PROPOSED STORM SEWER IN FILING NO. 1
- --- FEMA 100-YR FLOODWAY
- --- VEHICLE TRACKING CONTROL
- --- PROPOSED RIP RAP

**NOTE:**

1. SLOPES SHALL BE 3:1 UNLESS OTHERWISE NOTED
2. POND SLOPES SHALL BE 3:1
3. STRAW ECB SHALL BE PLACED ON ALL POND SIDE SLOPES AND PERMANENT SLOPES 6:1 OR STEEPER.
4. FILL IN FLOODPLAIN REQUIRES A FLOODPLAIN DEVELOPMENT PERMIT AND AN APPROVED CLOMR. FLOODPLAIN TO BE MODIFIED PER CLOMR CASE NO. 17-08-1043R
5. TEMPORARY SEEDING REQUIRED ON DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED AND SEEDING WITHIN 21 DAYS AFTER INTERIM GRADING.



**CORE ENGINEERING GROUP**  
 1500 S. 151st AVENUE, SUITE 300  
 PH: 719.570.1100  
 CONTACT: RICHARD L. SCHINDLER, P.E.  
 EMAIL: Rich@ceg.com

PROJECT: **LORSON RANCH EAST FILING NO. 1**  
 PREPARED FOR: **LORSON, LLC**  
 212 N. WAHSATCH AVE, SUITE 301  
 COLORADO SPRINGS, COLORADO 80903  
 FONTAINE BLVD. - OLD GLORY DR  
 COLORADO SPRINGS, COLORADO (719) 635-3200  
 CONTACT: JEFF MARK

DRAWN: RLS  
 DESIGNED: RLS  
 CHECKED: RLS

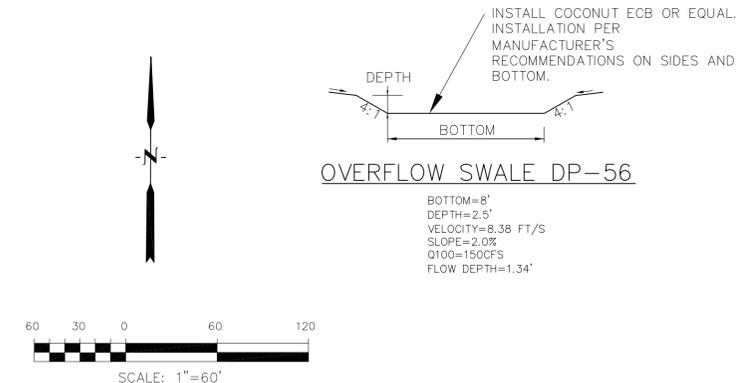
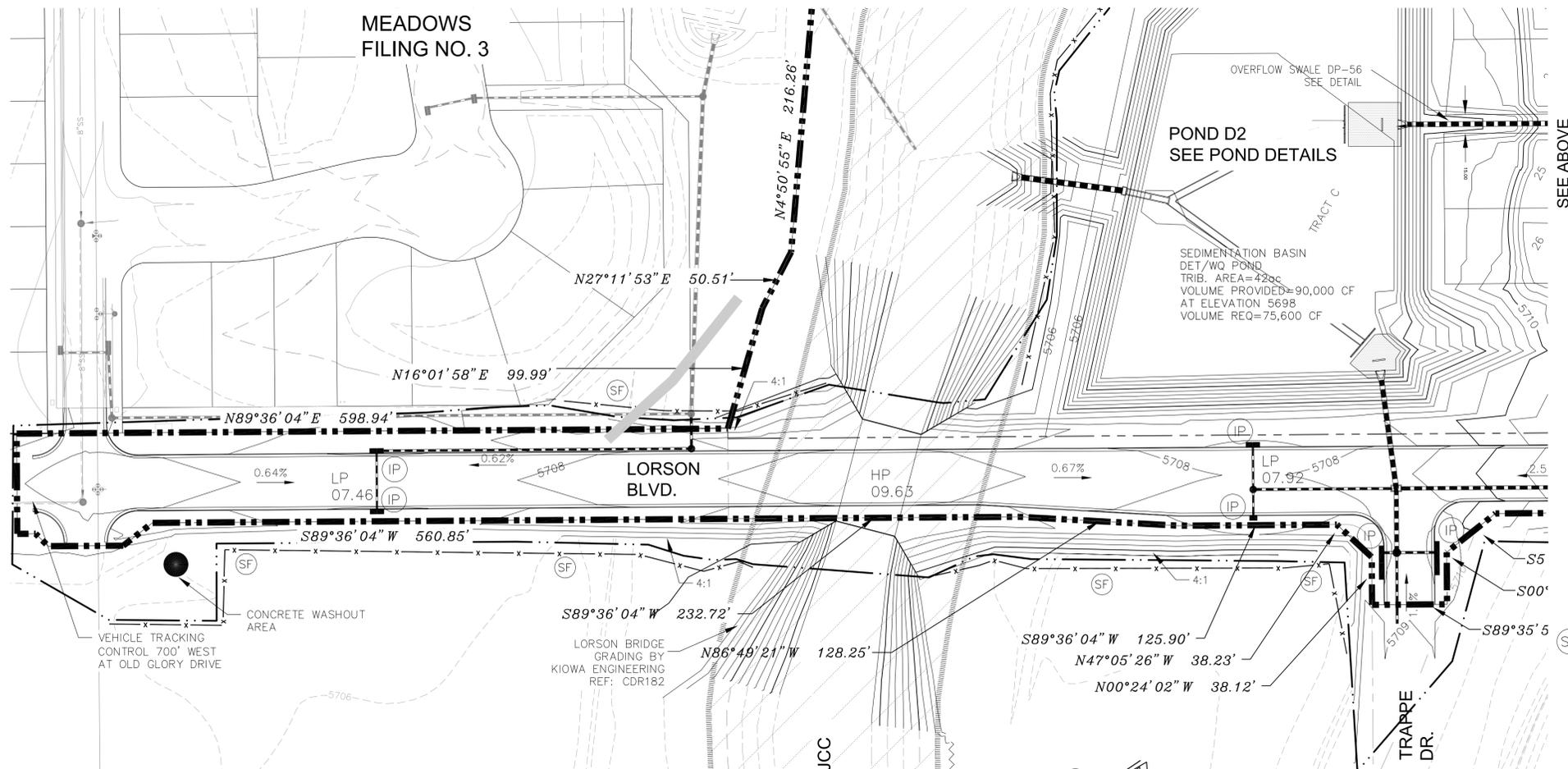
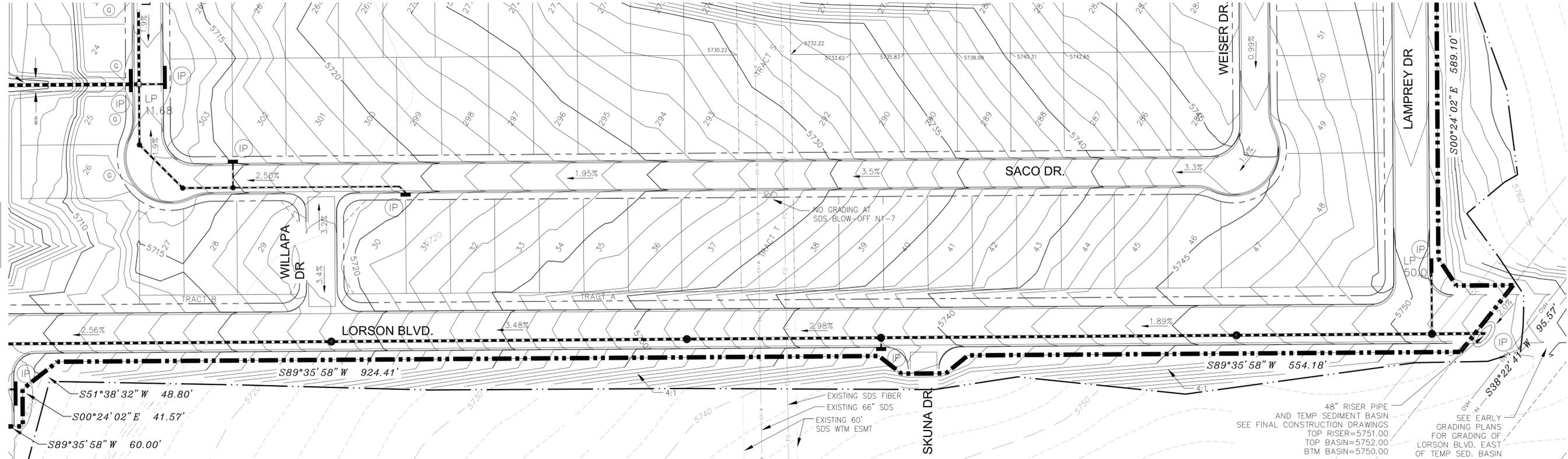
**LORSON RANCH EAST FILING NO. 1**  
**FINAL GRADING AND E.C. PLAN**  
**MIDDLE AREA**

DATE: JUNE 12, 2018  
 PROJECT NO: 100.042  
 SHEET NUMBER: C4.2  
 TOTAL SHEETS: 10



SEE BELOW

SEE SHEET C4.2



- NOTE:**
1. SLOPES SHALL BE 3:1 UNLESS OTHERWISE NOTED
  2. POND SLOPES SHALL BE 3:1
  3. STRAW ECB SHALL BE PLACED ON ALL POND SIDE SLOPES AND PERMANENT SLOPES 6:1 OR STEEPER.
  4. FILL IN FLOODPLAIN REQUIRES A FLOODPLAIN DEVELOPMENT PERMIT AND AN APPROVED CLOMR. FLOODPLAIN TO BE MODIFIED PER CLOMR CASE NO. 17-08-1043R
  5. TEMPORARY SEEDING REQUIRED ON DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED AND SEEDING WITHIN 21 DAYS AFTER INTERIM GRADING.

**LEGEND**

|      |  |       |                                      |
|------|--|-------|--------------------------------------|
| 5721 | EXISTING MINOR CONTOUR   | ----- | 100-YR FEMA FLOODPLAIN               |
| 5720 | EXISTING MAJOR CONTOUR   | ----- |                                      |
| 5720 | PROPOSED CONTOUR (CDR 183)                                       | ----- | PROPOSED STORM SEWER IN FILING NO. 1 |
| 5720 | PROPOSED CONTOUR   | ----- | FEMA 100-YR FLOODWAY                 |
| ---  | EXISTING STORM SEWER   | ---   | VEHICLE TRACKING CONTROL             |
| ---  | PERIMETER EROSION CONTROL SILT FENCE, EROSION LOG, OR EARTH BERM | ---   | PROPOSED RIP RAP                     |
| ---  | SUBDIVISION BOUNDARY   | ---   |                                      |
| ---  | LIMITS OF CONSTRUCTION   | ---   |                                      |
| (IP) | INLET PROTECTION   | (IP)  |                                      |
| ---  | ACCESS TO ETRIB MAINTENANCE ROAD                                 | ---   |                                      |

**CORE ENGINEERING GROUP**  
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 FOUNTAIN BLVD., OLD GLORY DR  
 COLORADO SPRINGS, COLORADO 80903  
 CONTACT: RICHARD L. SCHINDLER, P.E.  
 PHONE: 719.570.1100  
 EMAIL: Rich@ceg1.com

DATE: \_\_\_\_\_  
 DESCRIPTION: \_\_\_\_\_  
 NO: \_\_\_\_\_  
 PREPARED FOR: **LORSON, LLC**  
 212 N. WAHSATCH AVE, SUITE 301  
 COLORADO SPRINGS, COLORADO 80903  
 PROJECT: **LORSON RANCH EAST FILING NO. 1**  
 FONTAINE BLVD.-OLD GLORY DR  
 COLORADO SPRINGS, COLORADO  
 CONTACT: JEFF MARK

DRAWN: RLS  
 DESIGNED: RLS  
 CHECKED: RLS

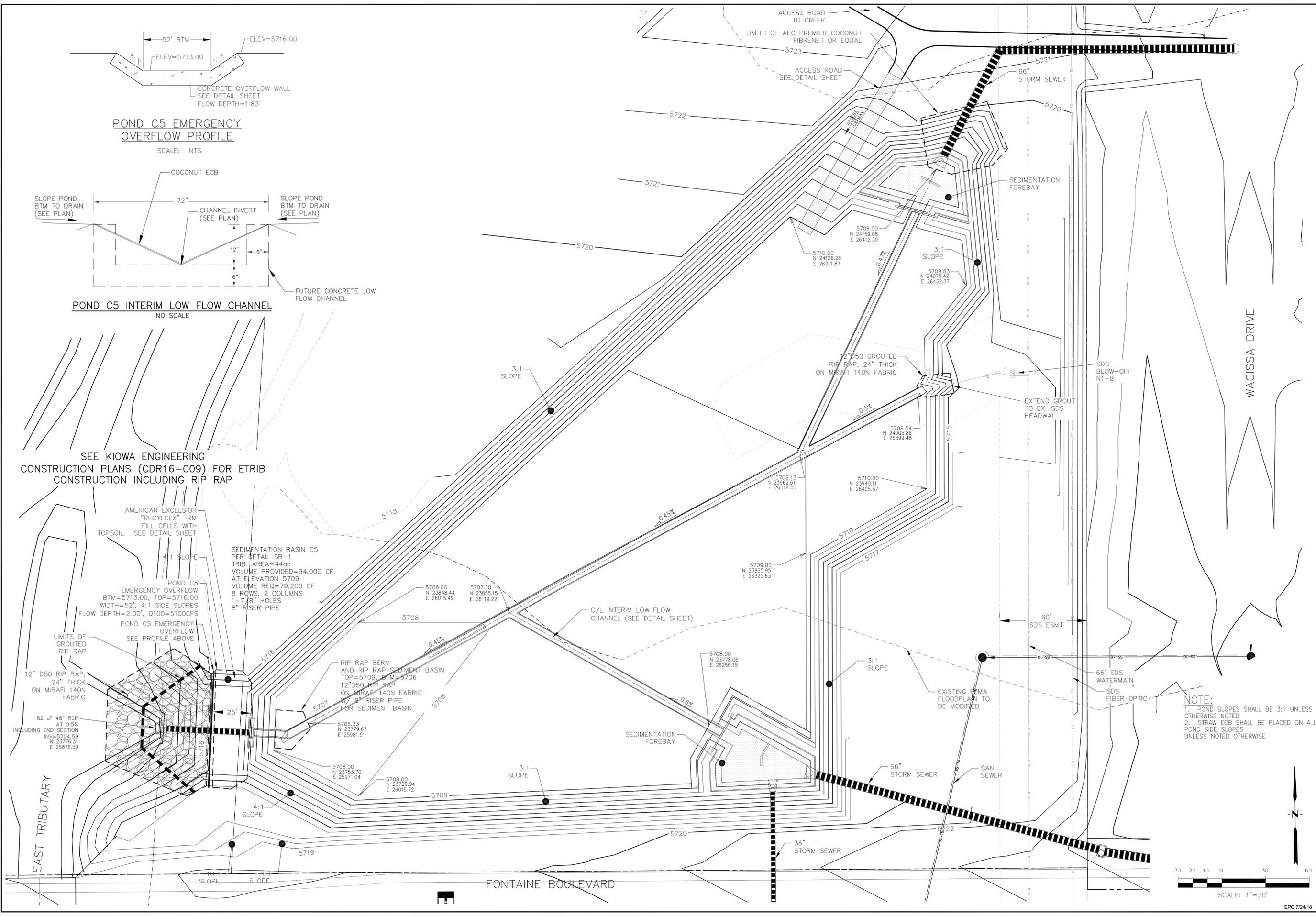
**LORSON RANCH EAST FILING NO. 1  
 FINAL GRADING AND E.C. PLAN  
 SOUTH AREA**



DATE: JUNE 12, 2018  
 PROJECT NO: 100.042  
 SHEET NUMBER: C4.3  
 TOTAL SHEETS: 10

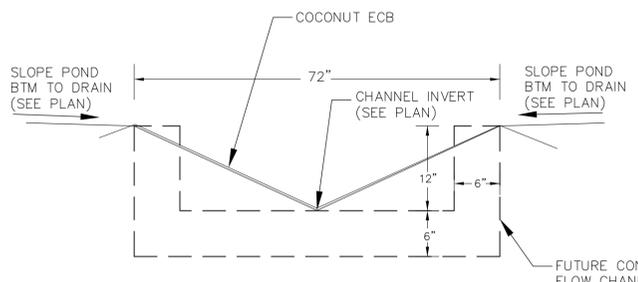
EPC 7/24/18

**FINAL GRADING PLAN  
 FULL SPECTRUM DETENTION POND C5  
 (DISTRICT FACILITY)**

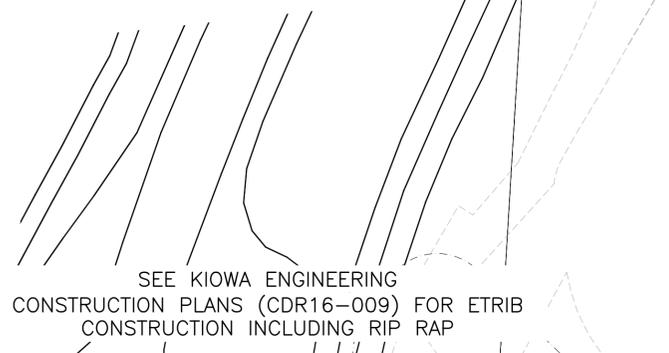


**NOTE:**  
 1. POND SLOPES SHALL BE 3:1 UNLESS OTHERWISE NOTED  
 2. STRAW ECB SHALL BE PLACED ON ALL POND SIDE SLOPES UNLESS NOTED OTHERWISE

**POND C5 EMERGENCY OVERFLOW PROFILE**  
 SCALE: NTS



**POND C5 INTERIM LOW FLOW CHANNEL**  
 NO SCALE



SEE KIOWA ENGINEERING CONSTRUCTION PLANS (CDR16-009) FOR ETRIB CONSTRUCTION INCLUDING RIP RAP

SEDIMENTATION BASIN C5  
 PER DETAIL SB-1  
 TRIB. AREA=44ac  
 VOLUME PROVIDED=94,000 CF  
 AT ELEVATION 5709  
 VOLUME REQ=79,200 CF  
 8 ROWS, 2 COLUMNS  
 1-7/8" HOLES  
 8" RISER PIPE

RIP RAP BERM AND RIP RAP SEDIMENT BASIN  
 TOP=5709, BTM=5706  
 12"D50 RIP RAP ON MIRAFLO 140N FABRIC  
 W/ 8" RISER PIPE FOR SEDIMENT BASIN

AMERICAN EXCELSIOR "RECYLCEX" TRM  
 FILL CELLS WITH TOPSOIL  
 SEE DETAIL SHEET

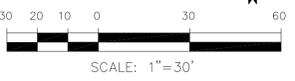
POND C5 EMERGENCY OVERFLOW  
 SEE PROFILE ABOVE

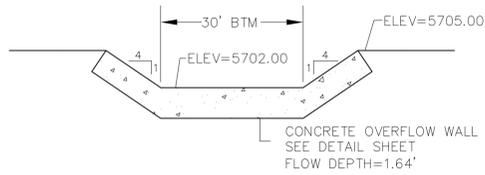
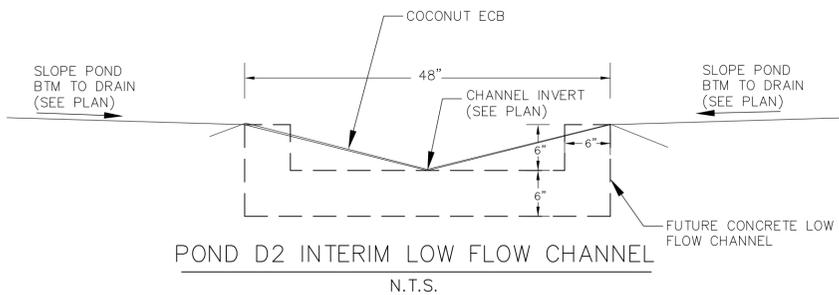
82 LF 48" RCP AT 0.5%  
 INCLUDING END SECTION  
 INV=5704.59  
 N 23776.31  
 E 25876.50

EAST TRIBUTARY

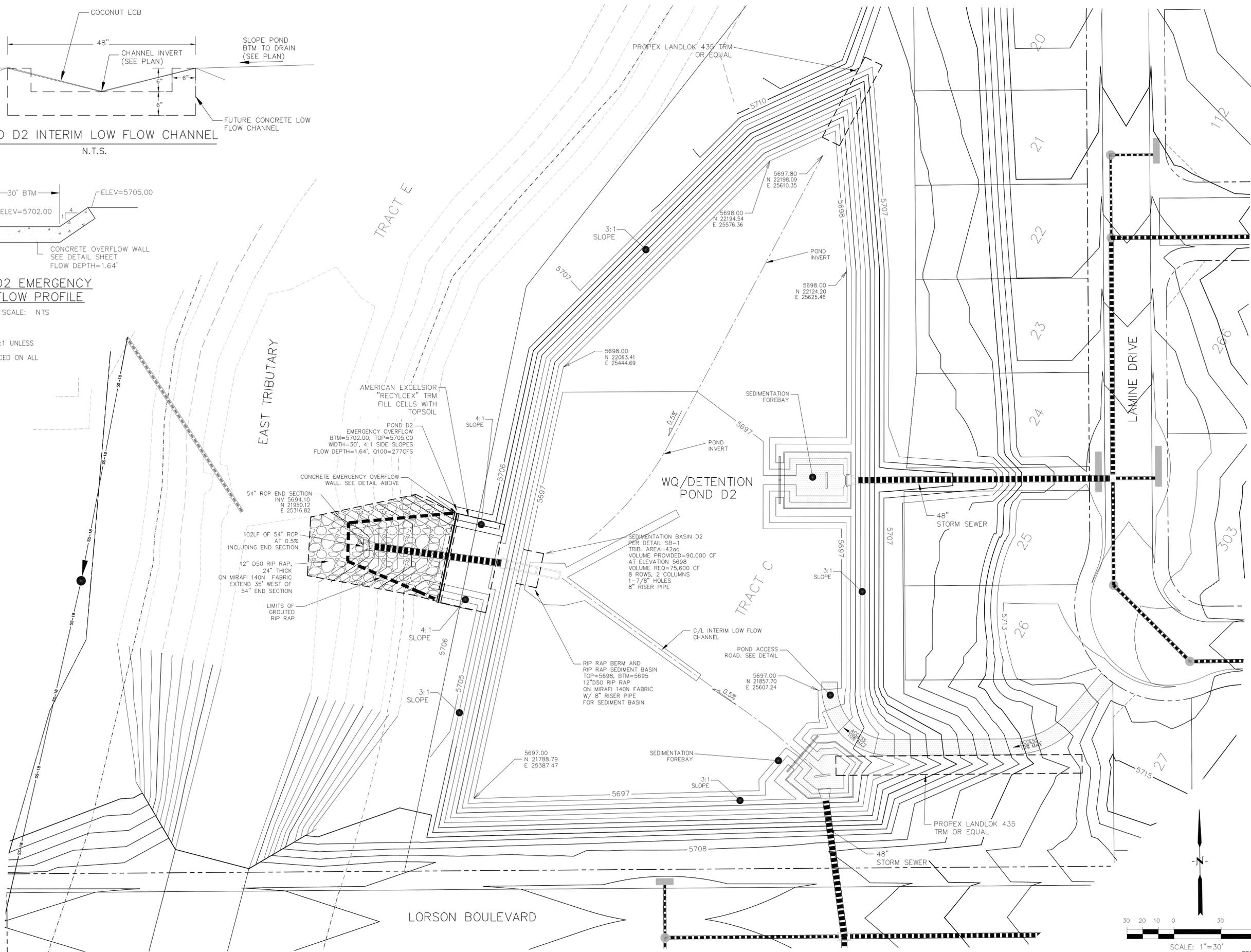
FONTAINE BOULEVARD

WACISSA DRIVE





**NOTE:**  
 1. POND SLOPES SHALL BE 3:1 UNLESS OTHERWISE NOTED  
 2. STRAW ECB SHALL BE PLACED ON ALL POND SIDE SLOPES UNLESS NOTED OTHERWISE



**CORE ENGINEERING GROUP**  
 15004 1ST AVENUE S.  
 SUITE 5506  
 BLDG 719 S701100  
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 EMAIL: Rich@ceg1.com

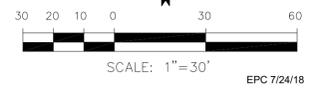
DATE: \_\_\_\_\_  
 DESCRIPTION: \_\_\_\_\_  
 NO: \_\_\_\_\_  
 PREPARED FOR: **LORSON, LLC**  
 212 N. WAHSATCH AVE, SUITE 301  
 COLORADO SPRINGS, COLORADO 80903  
 PROJECT: **LORSON RANCH EAST**  
 FILING NO. 1  
 FONTAINE BLDG.-OLD GLORY DR  
 COLORADO SPRINGS, COLORADO  
 CONTACT: JEFF MARK

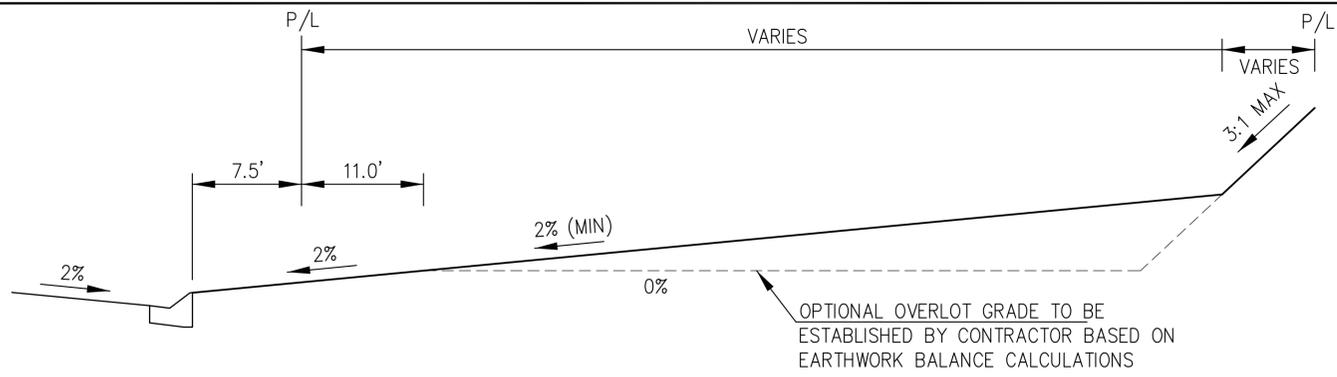
DRAWN: RLS  
 DESIGNED: RLS  
 CHECKED: RLS

**FINAL GRADING PLAN  
 FULL SPECTRUM DETENTION POND D2  
 (DISTRICT FACILITY)**

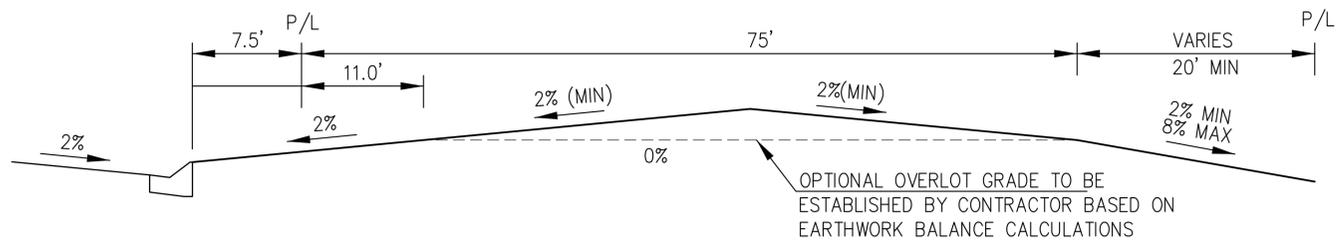


DATE: JUNE 12, 2018  
 PROJECT NO. 100.042  
 SHEET NUMBER **C4.5**  
 TOTAL SHEETS: 10

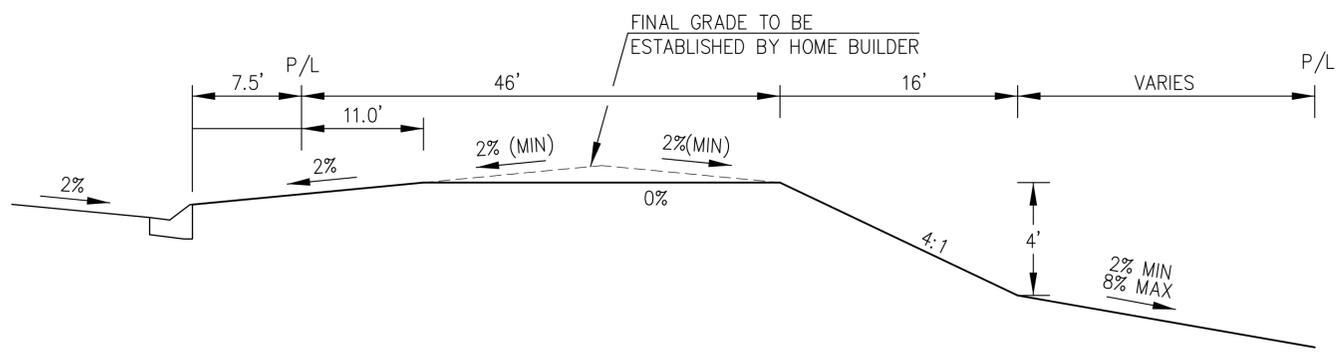




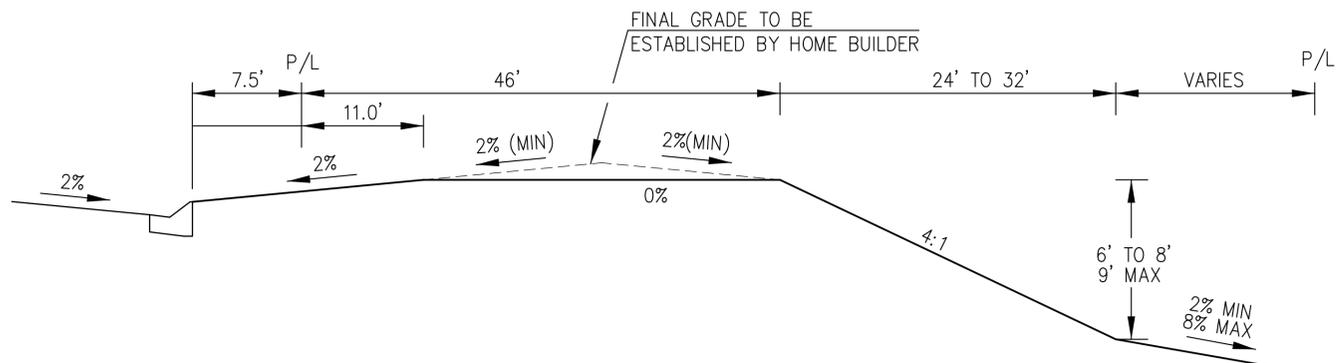
TYPICAL "A" LOT



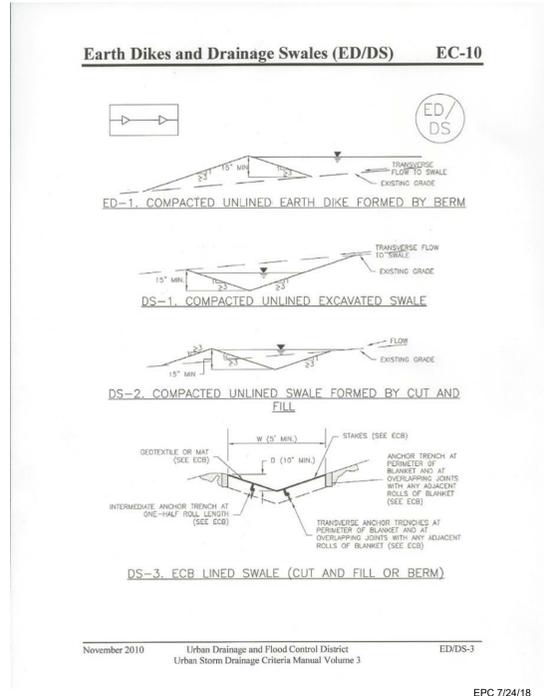
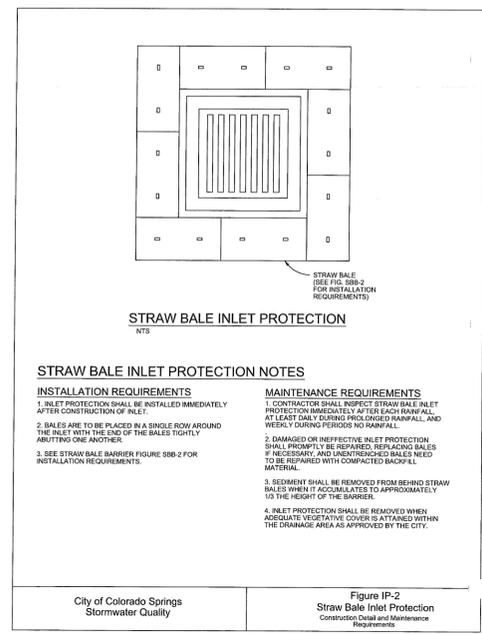
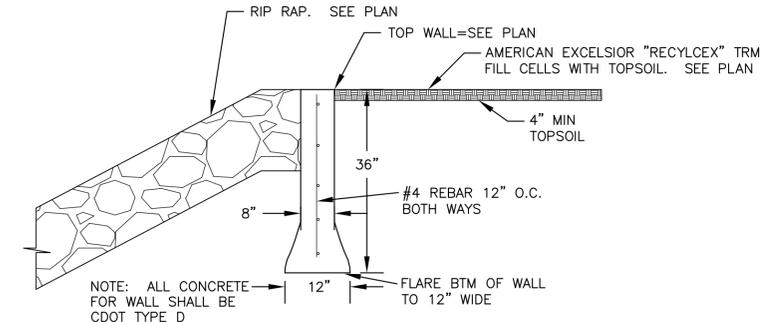
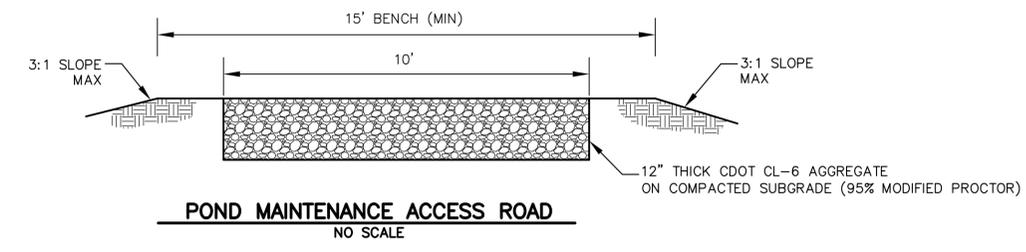
TYPICAL "B" LOT



TYPICAL "GARDEN" LOT



TYPICAL "WALKOUT" LOT



**CORE ENGINEERING GROUP**  
1500 S. 1ST AVENUE, SUITE 301  
DENVER, CO 80202  
PHONE: 720.470.1100  
CONTACT: RICHARD L. SCHINDLER, P.E.  
EMAIL: Rich@cegi.com

DATE: \_\_\_\_\_  
DESCRIPTION: \_\_\_\_\_  
NO: \_\_\_\_\_  
PROJECT: **LORSON RANCH EAST**  
FILING NO. 1  
FONTAINE BLVD. - OLD GLORY DR  
COLORADO SPRINGS, COLORADO

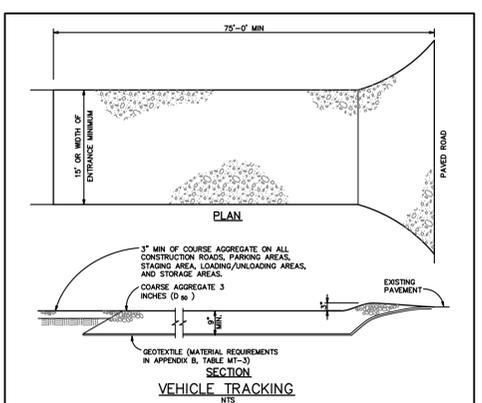
PREPARED FOR: **LORSON, LLC**  
212 N. WAHSATCH AVE, SUITE 301  
COLORADO SPRINGS, COLORADO 80903  
(719) 635-3200  
CONTACT: JEFF MARK

DRAWN: RLS  
DESIGNED: RLS  
CHECKED: RLS

FINAL GRADING PLAN  
DETAILS



DATE: JUNE 12, 2018  
PROJECT NO. 100.042  
SHEET NUMBER C12.1  
TOTAL SHEETS: 10



**VEHICLE TRACKING**

**INSTALLATION REQUIREMENTS**

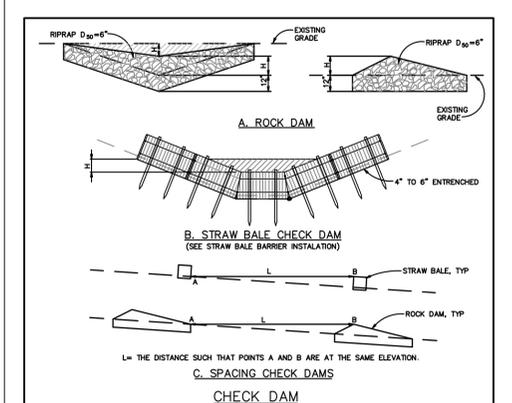
1. ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.
2. CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.
3. AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.
4. CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS AND STAGING AREAS ARE TO BE STABILIZED.
5. CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADDES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADDES THAT ARE EXCESSIVELY STEEP.

**MAINTENANCE REQUIREMENTS**

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.
2. STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.
3. SEDIMENT TRACKED ON PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER GRABES.
4. STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.
5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

City of Colorado Springs  
Stormwater Quality

Figure VI-2  
Vehicle Tracking  
Application Examples



**CHECK DAM NOTES**

**INSTALLATION REQUIREMENTS**

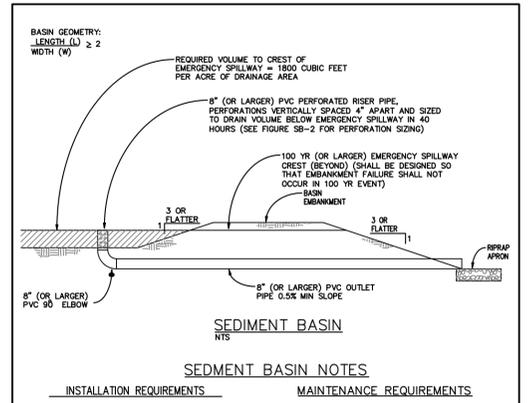
1. STRAW BALES USED AS CHECK DAMS ARE TO MEET THE REQUIREMENTS STATED IN FIGURE SBH-2.
2. THE "W" DIMENSION SHALL BE SELECTED TO PROVIDE WEIR FLOW CONVEYANCE FOR 2-YEAR FLOW OR GREATER.
3. CHECK DAMS ARE TO REMAIN IN PLACE AND OPERATIONAL UNTIL THE DRAINAGE AREA AND CHANNEL ARE PERMANENTLY STABILIZED.
4. WHEN CHECK DAMS ARE REMOVED THE CHANNEL LINING OR VEGETATION IS TO BE RESTORED.

**MAINTENANCE REQUIREMENTS**

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL CHECK DAMS, ESPECIALLY AFTER STORM EVENTS.
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.
4. CHECK DAMS ARE TO REMAIN IN PLACE AND OPERATIONAL UNTIL THE DRAINAGE AREA AND CHANNEL ARE PERMANENTLY STABILIZED.
5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

City of Colorado Springs  
Stormwater Quality

Figure CD-1  
Check Dam  
Construction Detail and Maintenance Requirements



**SEDIMENT BASIN NOTES**

**INSTALLATION REQUIREMENTS**

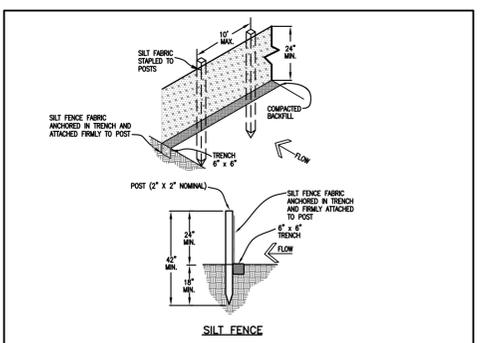
1. SEDIMENT BASINS SHALL BE INSTALLED BEFORE ANY CLEARING AND/OR GRADING IS UNDERTAKEN.
2. THE AREA UNDER WHICH THE EMBANKMENT IS TO BE INSTALLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ALL VEGETATION AND ROOT MAT.
3. THE OUTLET OF THE BASIN SHALL BE DESIGNED TO DRAIN ITS VOLUME IN 40 HOURS.
4. THE OUTLET IS TO BE LOCATED AT THE FURTHEST DISTANCE FROM THE INLET OF THE BASIN. BAFFLES MAY BE NEEDED TO INCREASE THE FLOW LENGTH AND SETTLING TIME.
5. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL WITH A MINIMUM OF 15% PASSING A #200 SIEVE. EXCAVATED SOIL CAN BE USED IF IT MEETS THIS REQUIREMENT.
6. EMBANKMENT IS TO BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D 698.
7. WHEN A BASIN IS INSTALLED NEAR A RESIDENTIAL AREA FOR SAFETY REASONS, A SIGN SHALL BE POSTED AND THE AREA SECURED WITH A FENCE.

**MAINTENANCE REQUIREMENTS**

1. CONTRACTOR SHALL INSPECT SEDIMENT BASINS AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL AND WEEKLY DURING PERIODS OF NO RAINFALL.
2. SEDIMENT BASINS SHALL BE CLEANED OUT BEFORE SEDIMENT HAS FILLED HALF THE VOLUME OF THE BASIN.
3. SEDIMENT BASINS SHALL REMAIN OPERATIONAL AND PROPERLY MAINTAINED UNTIL THE SITE AREA IS PERMANENTLY STABILIZED WITH ADEQUATE VEGETATIVE COVER AND/OR OTHER PERMANENT STRUCTURE AS APPROVED BY THE CITY.

City of Colorado Springs  
Stormwater Quality

Figure SB-1 Sediment Basin  
Construction Detail and Maintenance Requirements



**SILT FENCE**

**INSTALLATION REQUIREMENTS**

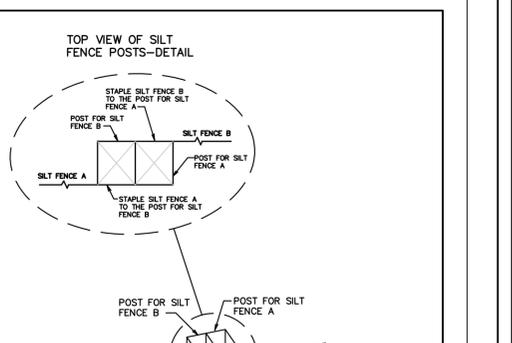
1. SILT FENCES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
2. WHEN JOINTS ARE NECESSARY, SILT FENCE GEOTEXTILE SHALL BE SPUNCE TOGETHER ONLY AT SUPPORT POST AND SECURELY SEALED.
3. METAL POSTS SHALL BE "STUDDED TEE" OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT. WOOD 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\"/>

**MAINTENANCE REQUIREMENTS**

1. CONTRACTOR SHALL INSPECT SILT FENCES IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL AND WEEKLY DURING PERIODS OF NO RAINFALL. DAMAGED, COLLAPSED, UNINTRENCHED OR UNREPLACED SILT FENCES SHALL BE PROMPTLY REPAIRED OR REPLACED.
2. SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE WHEN IT ACCUMULATES TO HALF THE EXPOSED GEOTEXTILE HEIGHT.
3. SILT FENCES SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED AS APPROVED BY THE CITY.

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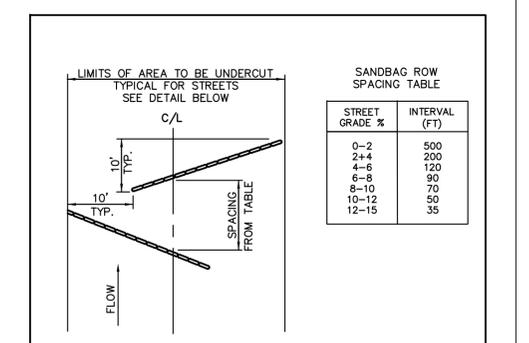
Figure SF-2  
Silt Fence  
Construction Detail and Maintenance Requirements



**TOP VIEW OF SILT FENCE POSTS-DETAIL**

City of Colorado Springs  
Stormwater Quality

Figure SF-3 Silt Fence  
Joint Tying  
Construction Detail and Maintenance Requirements



**SANDBAG ROW SPACING TABLE**

| STREET GRADE % | INTERVAL (FT) |
|----------------|---------------|
| 0-2            | 500           |
| 2-4            | 200           |
| 4-6            | 120           |
| 6-8            | 90            |
| 8-10           | 70            |
| 10-12          | 50            |
| 12-15          | 35            |

City of Colorado Springs  
Stormwater Quality

Figure SB-2 Sandbag Row  
Construction Detail and Maintenance Requirements

**SEED MIX TABLE**

**GRASS MIX FOR QUICK REVEGETATION ALL SITES:**

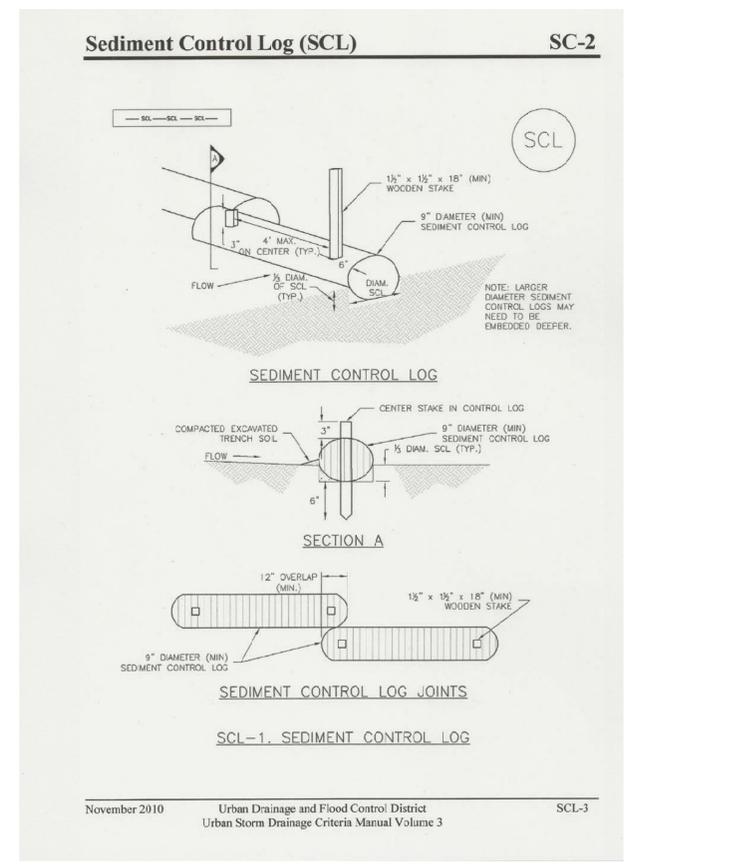
| GRASS               | VARIETY            | AMOUNT IN PLS LBS PER ACRE |
|---------------------|--------------------|----------------------------|
| CRESTED WHEAT GRASS | EPHRAIM OR HYCREST | 4.0                        |
| PERENNIAL RYE       | LINN               | 2.0                        |
| WESTERN WHEAT GRASS | BARTON             | 3.0                        |
| SMOOTH BROME GRASS  | LINCOLN OR MANCHAR | 5.0                        |
| SIDEWHEAT GRAMA     | EL RENO            | 2.5                        |
|                     |                    | TOTAL 16.5 LBS             |

**GRASS MIX FOR SANDY SOILS:**

| GRASS               | VARIETY     | AMOUNT IN PLS LBS PER ACRE |
|---------------------|-------------|----------------------------|
| SIDEWHEAT GRAMA     | EL RENO     | 3.0                        |
| WESTERN WHEAT GRASS | BARTON      | 2.5                        |
| SLENDER WHEAT GRASS | NATIVE      | 2.0                        |
| LITTLE BLUESTEM     | PASTURA     | 2.0                        |
| SAND DROPSEED       | NATIVE      | 0.5                        |
| SWITCH GRASS        | NEBRASKA 28 | 3.0                        |
| WEEPING LOVE GRASS  | MORPHA      | 1.0                        |
|                     |             | TOTAL 14.0 LBS             |

**GRASS MIX FOR HEAVIER SOIL AREAS:**

| GRASS               | VARIETY            | AMOUNT IN PLS LBS PER ACRE |
|---------------------|--------------------|----------------------------|
| WESTERN WHEAT GRASS | BARTON             | 5.0                        |
| SIDEWHEAT GRAMA     | EL RENO            | 2.5                        |
| SLENDER WHEAT GRASS | SODAR              | 3.0                        |
| SMOOTH BROME        | LINCOLN OR MANCHAR | 4.0                        |
| CRESTEDWHEAT GRASS  | EPHRAIM            | 3.0                        |
|                     |                    | TOTAL 17.5 LBS             |



**CORE ENGINEERING GROUP**

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EMAIL: Rich@ceg1.com

DATE: \_\_\_\_\_

DESCRIPTION: \_\_\_\_\_

NO. \_\_\_\_\_

PREPARED FOR: **LORSON RANCH EAST**  
FILING NO. 1  
212 N. WAHSATCH AVE, SUITE 301  
COLORADO SPRINGS, COLORADO 80903  
FONTAINE GLOD.-GLD GLORY DR  
COLORADO SPRINGS, COLORADO  
CONTACT: JEFF MARK

DRAWN: RLS  
DESIGNED: RLS  
CHECKED: RLS

**FINAL GRADING PLAN**

**DETAILS**



DATE: JUNE 12, 2018

PROJECT NO. 100.042

SHEET NUMBER C12.2

TOTAL SHEETS: 10