

FINAL SITE GRADING CONSTRUCTION PLANS
FOR
LORSON RANCH EAST FILING NO. 4
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

SHEET INDEX	
SHEET NO.	SHEET DESCRIPTION
CO.1	COVER SHEET
CO.2	NOTES (GENERAL, GRADING, EROSION CONTROL)
CO.3	TYPICAL SECTIONS
C4.1 ~ C4.5	FINAL GRADING AND EROSION CONTROL PLAN
C5.1 ~ C5.3	OFFSITE POND C1, C3, AND E2 GRADING PLAN
C12.1 ~ C12.2	DETAILS

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 6/10/19
MANAGER

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

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.

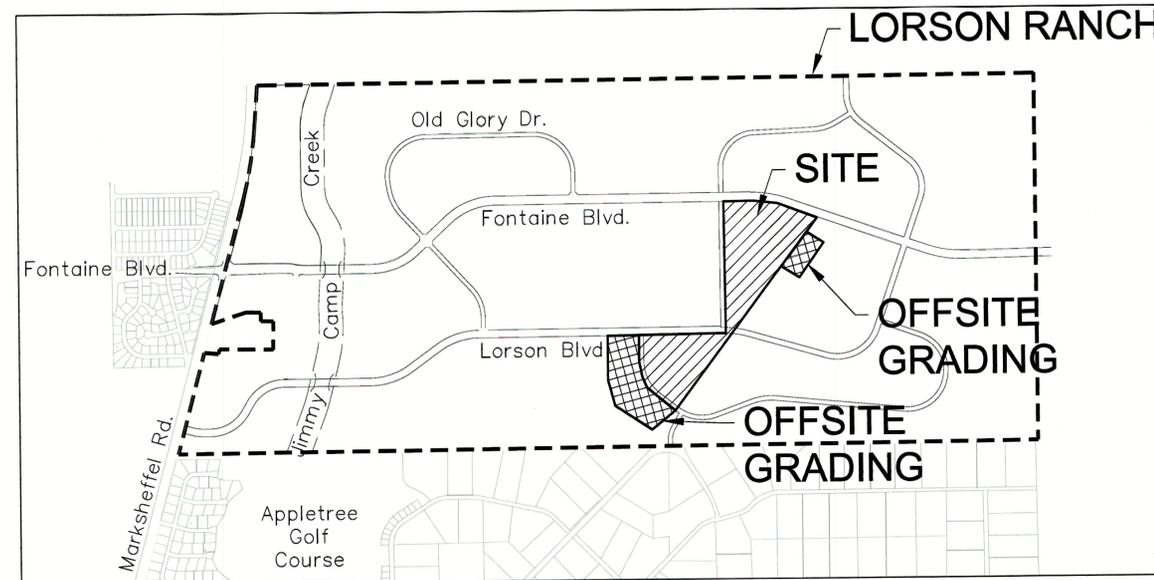
FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND
DEVELOPMENT CODE, DRAINAGE CRITERIA MANUALS VOLUME 1 AND 2, AND
ENGINEERING CRITERIA MANUAL AS AMENDED. CONSTRUCTION DOCUMENTS WILL
BE VALID FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO
COUNTY ENGINEER.



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 ON MY PART
IN PREPARING THIS PLAN

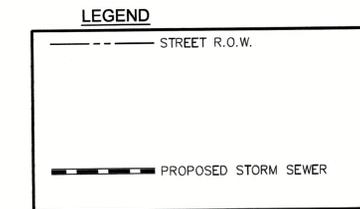
RICHARD L. SCHINDLER, P.E. # 33997
FOR AND ON BEHALF OF CORE ENGINEERING GROUP



VICINITY MAP
NO SCALE

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.



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

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

GAS
BLACK HILLS ENERGY
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.

PUDSP-16-003
EGP 18-002
SF-19-008

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. 4**
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
CONTRACTOR: JEFF MARK

**LORSON RANCH EAST FIL. NO. 4
GRADING & EROSION CONTROL PLAN
COVER SHEET**

DATE: JUNE 1, 2019
PROJECT NO. 100.048
SHEET NUMBER C0.1
TOTAL SHEETS: 13

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 PCD. 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.

PROJECT SITE NOTES:

- THE PROJECT SITE VEGETATION CONSISTS OF NATIVE GRASSES THAT HAVE BEEN HEAVILY GRAZED FOR YEARS. THERE ARE NO TREES OR BRUSH WITHIN THE DISTURBED AREA. EXISTING VEGETATIVE COVER IS ESTIMATED AT 85%.
- THERE ARE NO EXISTING STRUCTURES WITHIN THE LIMITS OF DISTURBANCE.
- EXISTING UTILITY EASEMENTS WITHIN THE PROJECT SITE CONSIST OF A CSU WATERMAIN EASEMENT (SOUTHERN DELIVERY SYSTEM) BUT NO GRADING IS LIMITED IN THE CSU EASEMENT. OFFSITE GRADING FOR POND C3 IS LOCATED WITHIN A XCEL/TRI-STATE UTILITY EASEMENT AND A WATERMAIN EASEMENT AS SHOWN ON THESE DRAWINGS.
- THE DEVELOPER/HOME BUILDER SHALL INSTALL SIDE LOT SWALES TO MINIMIZE THE LOT TO LOT DRAINAGE.
- TRANSITION LOTS IDENTIFIED BY A "T" ARE INCLUDED TO INDICATE LOTS THAT WILL REQUIRE HOME BUILDERS TO PREPARE A SITE SPECIFIC GRADING PLAN TO DETAIL THE GRADING TRANSITION FROM TYPE A/B LOTS TO GARDEN/WALKOUT LOTS

ADDITIONAL SWMP PLAN CONTRACTOR NOTES.

- CONTRACTOR MUST ADD THEIR CONTACT INFORMATION TO THE SWMP PLANS PRIOR TO CONSTRUCTION
- IF THE GRADING IS TO BE PHASED THE CONTRACTOR MUST PROVIDE PHASING MAPS FOR INSERTION INTO THE SWMP PLANS.
- THE CONTRACTOR MUST PROVIDE THE CLIENT THE LOCATION OF ANY POTENTIAL SOURCES OF POLLUTIONS SUCH AS FUELING AREAS, ETC TO BE INSERTED INTO THE SWMP PLANS.
- THE ON-SITE SWMP PLAN SHALL BE LOCATED AT THE NE CORNER OF LORSON BOULEVARD AND LAMPREY DRIVE UNLESS OTHERWISE DOCUMENTED.

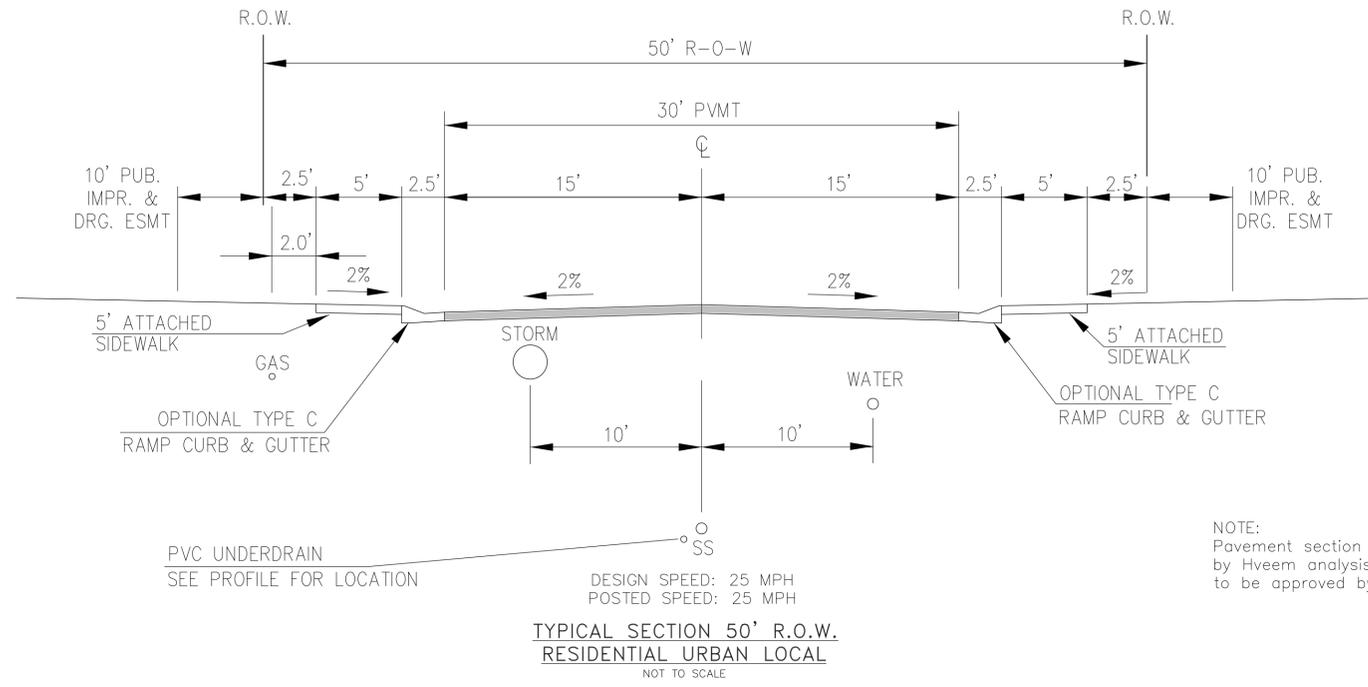
STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS (rev. 7/02/2019)

- 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 (SMWP) for this project shall be completed and an Erosion and Stormwater Quality Control Permit (ESQCP) issued prior to commencing construction. Management of the SWMP during construction is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector. The SWMP shall be located on site at all times during construction and shall be kept up to date with work progress and changes in the field.
- Once the ESQCP is approved and a "Notice to Proceed" has been issued, the contractor may install the initial stage erosion and sediment control measures as indicated on the approved GEC. A Preconstruction Meeting between the contractor, engineer, and El Paso County will be held prior to any construction. It is the responsibility of the applicant to coordinate the meeting time and place with County staff.
- Control measures must be installed prior to commencement of activities that could contribute pollutants to stormwater. Control measures for all slopes, channels, ditches, and disturbed land areas shall be installed immediately upon completion of the disturbance.
- All temporary sediment and erosion control measures shall be maintained and remain in effective operating condition until permanent soil erosion control measures are implemented and final stabilization is established. All persons engaged in land disturbance activities shall assess the adequacy of control measures at the site and identify if changes to those control measures are needed to ensure the continued effective performance of the control measures. All changes to temporary sediment and erosion control measures must be incorporated into the Stormwater Management Plan.
- Temporary stabilization shall be implemented on disturbed areas and stockpiles where ground disturbing construction activity has permanently ceased or temporarily ceased for longer than 14 days.
- Final stabilization must be implemented at all applicable construction sites. Final stabilization is achieved when all ground disturbing activities are complete and all disturbed areas either have a uniform vegetative cover with individual plant density of 70 percent of pre-disturbance levels established or equivalent permanent alternative stabilization method is implemented. All temporary sediment and erosion control measures shall be removed upon final stabilization and before permit closure.
- All permanent stormwater management facilities shall be installed as designed in the approved plans. Any proposed changes that affect the design or function of permanent stormwater management structures must be approved by the ECM Administrator prior to implementation.
- Earth disturbances shall be conducted in such a manner so as to effectively minimize accelerated soil erosion and resulting sedimentation. All disturbances shall be designed, constructed, and completed so that the exposed area of any disturbed land shall be limited to the shortest practical period of time. Pre-existing vegetation shall be protected and maintained within 50 horizontal feet of a waters of the state unless shown to be infeasible and specifically requested and approved.
- Compaction of soil must be prevented in areas designated for infiltration control measures or where final stabilization will be achieved by vegetative cover. Areas designated for infiltration control measures shall also be protected from sedimentation during construction until final stabilization is achieved. If compaction prevention is not feasible due to site constraints, all areas designated for infiltration and vegetation control measures must be loosened prior to installation of the control measure(s).
- Any temporary or permanent facility designed and constructed for the conveyance of stormwater around, through, or from the earth disturbance area shall be a stabilized conveyance designed to minimize erosion and the discharge of sediment off site.
- Concrete wash water shall be contained and disposed of in accordance with the SWMP. No wash water shall be discharged to or allowed to enter State Waters, including any surface or subsurface storm drainage system or facilities. Concrete washouts shall not be located in an area where shallow groundwater may be present, or within 50 feet of a surface water body, creek or stream.
- During dewatering operations of uncontaminated ground water may be discharged on site, but shall not leave the site in the form of surface runoff unless an approved State dewatering permit is in place.
- Erosion control blanketing or other protective covering shall be used on slopes steeper than 3:1.
- Contractor shall be responsible for the removal of all wastes from the construction site for disposal in accordance with local and State regulatory requirements. No construction debris, tree slash, building material wastes or unused building materials shall be buried, dumped, or discharged at the site.
- Waste materials shall not be temporarily placed or stored in the street, alley, or other public way, unless in accordance with an approved Traffic Control Plan. Control measures may be required by El Paso County Engineering if deemed necessary, based on specific conditions and circumstances.
- Tracking of soils and construction debris off-site shall be minimized. Materials tracked off-site shall be cleaned up and properly disposed of immediately.
- The owner/developer shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, soil, and sand that may accumulate in roads, storm drains and other drainage conveyance systems and stormwater appurtenances as a result of site development.
- The quantity of materials stored on the project site shall be limited, as much as practical, to that quantity required to perform the work in an orderly sequence. All materials stored on-site shall be stored in a neat, orderly manner, in their original containers, with original manufacturer's labels.
- No chemical(s) having the potential to be released in stormwater are to be stored or used onsite unless permission for the use of such chemical(s) is granted in writing by the ECM Administrator. In granting approval for the use of such chemical(s), special conditions and monitoring may be required.
- Bulk storage of allowed petroleum products or other allowed liquid chemicals in excess of 55 gallons shall require adequate secondary containment protection to contain all spills onsite and to prevent any spilled materials from entering State Waters, any surface or subsurface storm drainage system or other facilities.
- No person shall cause the impediment of stormwater flow in the curb and gutter or ditch except with approved sediment control measures.
- Owner/developer and their agents shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8, CRS), and the "Clean Water Act" (33 USC 1344), in addition to the requirements of the Land Development Code, DCM Volume II and the ECM Appendix I. All appropriate permits must be obtained by the contractor prior to construction (1041, NPDES, Floodplain, 404, fugitive dust, etc.). In the event of conflicts between these requirements and other laws, rules, or regulations of other Federal, State, local, or County agencies, the most restrictive laws, rules, or regulations shall apply.
- All construction traffic must enter/exit the site only at approved construction access points.
- Prior to construction the permittee shall verify the location of existing utilities.
- A water source shall be available on site during earthwork operations and shall be utilized as required to minimize dust from earthwork equipment and wind.
- The soils report for this site has been prepared by 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. AND shall be considered a part of these plans.
- At least ten (10) days prior to the anticipated start of construction, for projects that will disturb one (1) acre or more, the owner or operator of construction activity shall submit a permit application for stormwater discharge to the Colorado Department of Public Health and Environment, Water Quality Division. The application contains certification of completion of a stormwater management plan (SWMP), of which this Grading and Erosion Control Plan may be a part. For information or application materials contact:

Colorado Department of Public Health and Environment
Water Quality Control Division
WQCD - Permits
4300 Cherry Creek Drive South
Denver, CO 80246-1530
Attn: Permits Unit

EPC 6/15/2020

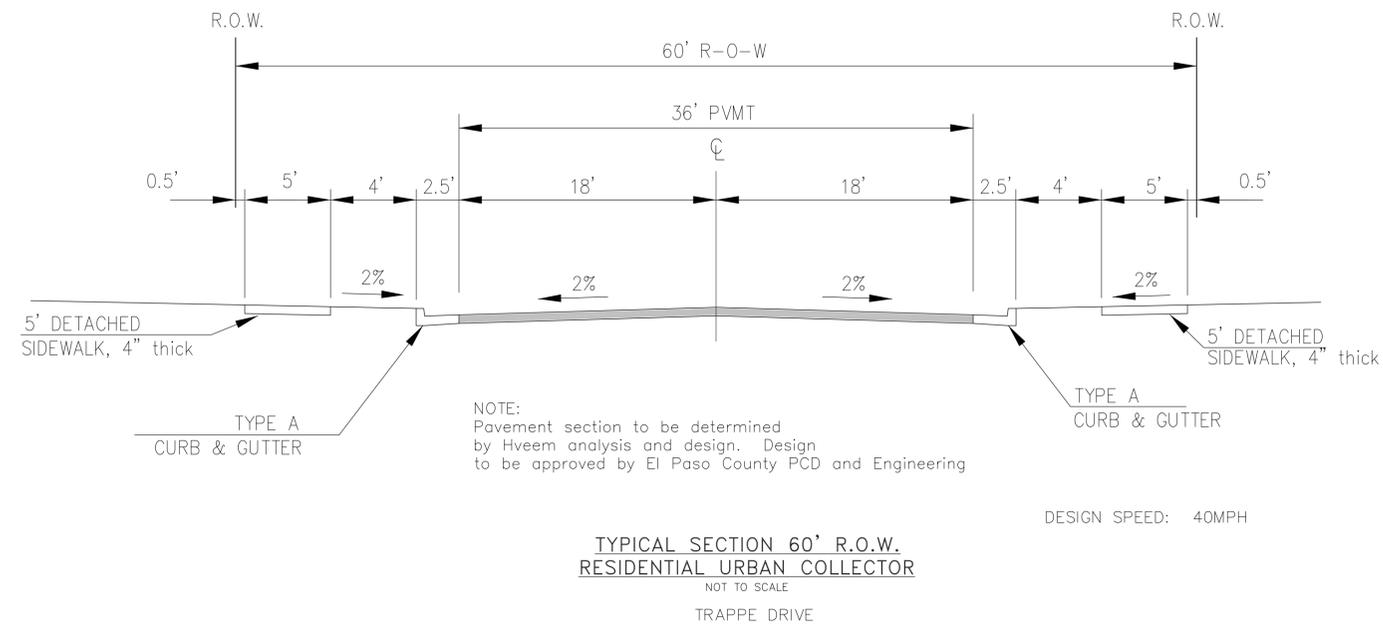
CORE ENGINEERING GROUP	DATE	8/22/2019	PREPARED FOR: LORSON, LLC 212 N. WAHSATCH AVE. SUITE 301 COLORADO SPRINGS, COLORADO 80903 (719) 635-3200 CONTACT: JEFF MARK
	DESCRIPTION		
	UPDATE NOTES		
	NO.	1.	
DRAWN: RLS		PROJECT: LORSON RANCH EAST	
DESIGNED: RLS		FILING NO. 4	
CHECKED: RLS		LORSON BLDG.-LAMPREY, DR COLORADO SPRINGS, COLORADO	
FINAL GRADING PLAN		NOTES	
		DATE: JUNE 1, 2019	
PROJECT NO. 100.048		SHEET NUMBER C0.2	
TOTAL SHEETS: 13			



NOTE:
Pavement section to be determined
by Hveem analysis and design. Design
to be approved by El Paso County PCD Engineering

VEDDER DRIVE, ROCKCASTLE DRIVE, TILLAMOOK DRIVE, TIFFIN DRIVE, MAGOTHY DRIVE
VOLGA DRIVE, WITCHER DRIVE, HORTON DRIVE, YOCONA DRIVE, ABITA DRIVE, SKUNA DRIVE

NOTE:
ADDITIONAL PUBLIC IMPROVEMENT EASEMENTS ARE REQUIRED WHERE
SIDEWALK ENCROACHES INTO THE PRIVATE LOTS. SEE CONSTRUCTION DRAWINGS
AND THE FINAL PLAT. SEE CONSTRUCTION DRAWINGS AND PLAT FOR SIGHT TRIANGLES



NOTE:
Pavement section to be determined
by Hveem analysis and design. Design
to be approved by El Paso County PCD and Engineering

DESIGN SPEED: 40MPH

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. _____
PROJECT: LORSON RANCH EAST
FILING NO. 4
LORSON BLVD.-LAMPREY DR
COLORADO SPRINGS, COLORADO
PREPARED FOR: LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
CONTACT: JEFF MARK

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

**FINAL GRADING PLAN
TYPICAL ROADWAY SECTIONS**

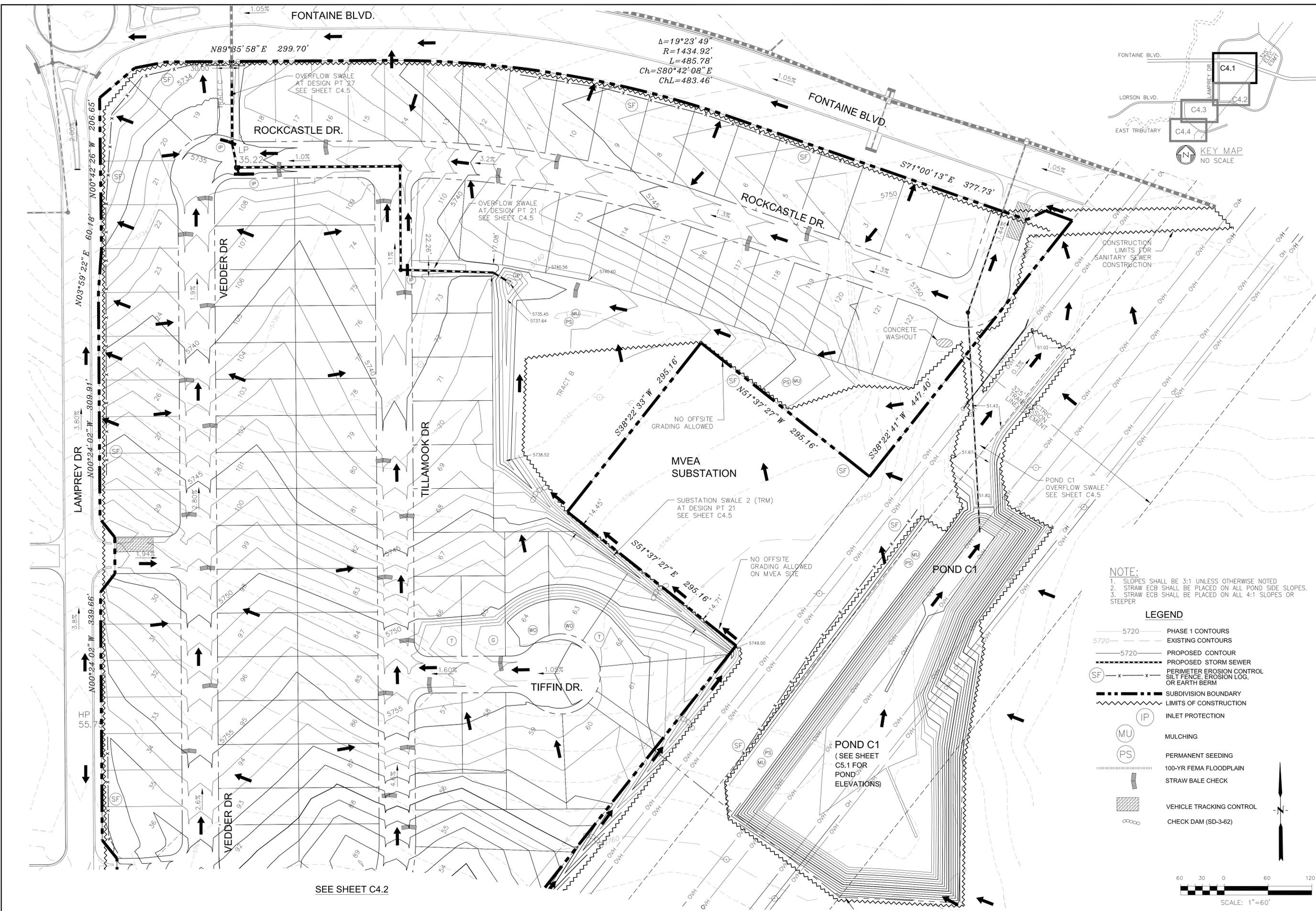


DATE: JUNE 1, 2019

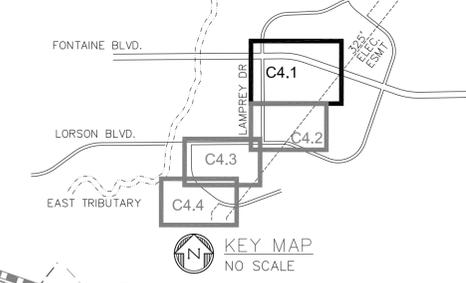
PROJECT NO. 100.048

SHEET NUMBER C0.3

TOTAL SHEETS: 13



$\Delta=19^{\circ}23'49''$
 $R=1434.92'$
 $L=485.78'$
 $Ch=S80^{\circ}42'08''E$
 $ChL=483.46'$



CONSTRUCTION LIMITS FOR SANITARY SEWER CONSTRUCTION

NO OFFSITE GRADING ALLOWED

MVEA SUBSTATION

SUBSTATION SWALE 2 (TRM) AT DESIGN PT 21 SEE SHEET C4.5

NO OFFSITE GRADING ALLOWED ON MVEA SITE

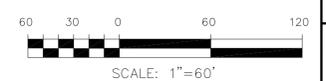
POND C1

POND C1 OVERFLOW SWALE SEE SHEET C4.5

NOTE:
 1. SLOPES SHALL BE 3:1 UNLESS OTHERWISE NOTED
 2. STRAW ECB SHALL BE PLACED ON ALL POND SIDE SLOPES.
 3. STRAW ECB SHALL BE PLACED ON ALL 4:1 SLOPES OR STEEPER

LEGEND

- 5720 — PHASE 1 CONTOURS
- 5720 — EXISTING CONTOURS
- 5720 — PROPOSED CONTOUR
- PROPOSED STORM SEWER
- (SF) — PERIMETER EROSION CONTROL SILT FENCE, EROSION LOG, OR EARTH BERM
- SUBDIVISION BOUNDARY
- LIMITS OF CONSTRUCTION
- (IP) — INLET PROTECTION
- (MU) — MULCHING
- (PS) — PERMANENT SEEDING
- 100-YR FEMA FLOODPLAIN
- STRAW BALE CHECK
- VEHICLE TRACKING CONTROL
- CHECK DAM (SD-3-62)



SEE SHEET C4.2

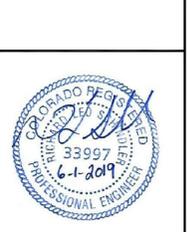
CORE ENGINEERING GROUP
 1500 S. 151st AVENUE, SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@ceg.com

DATE: _____
 DESCRIPTION: _____
 NO: _____
 DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

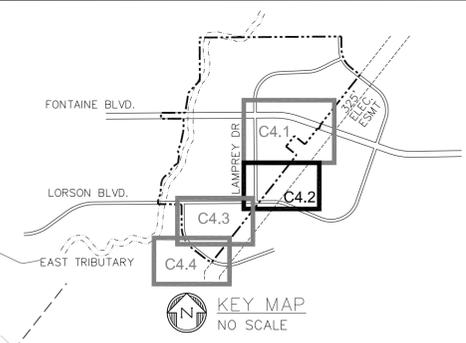
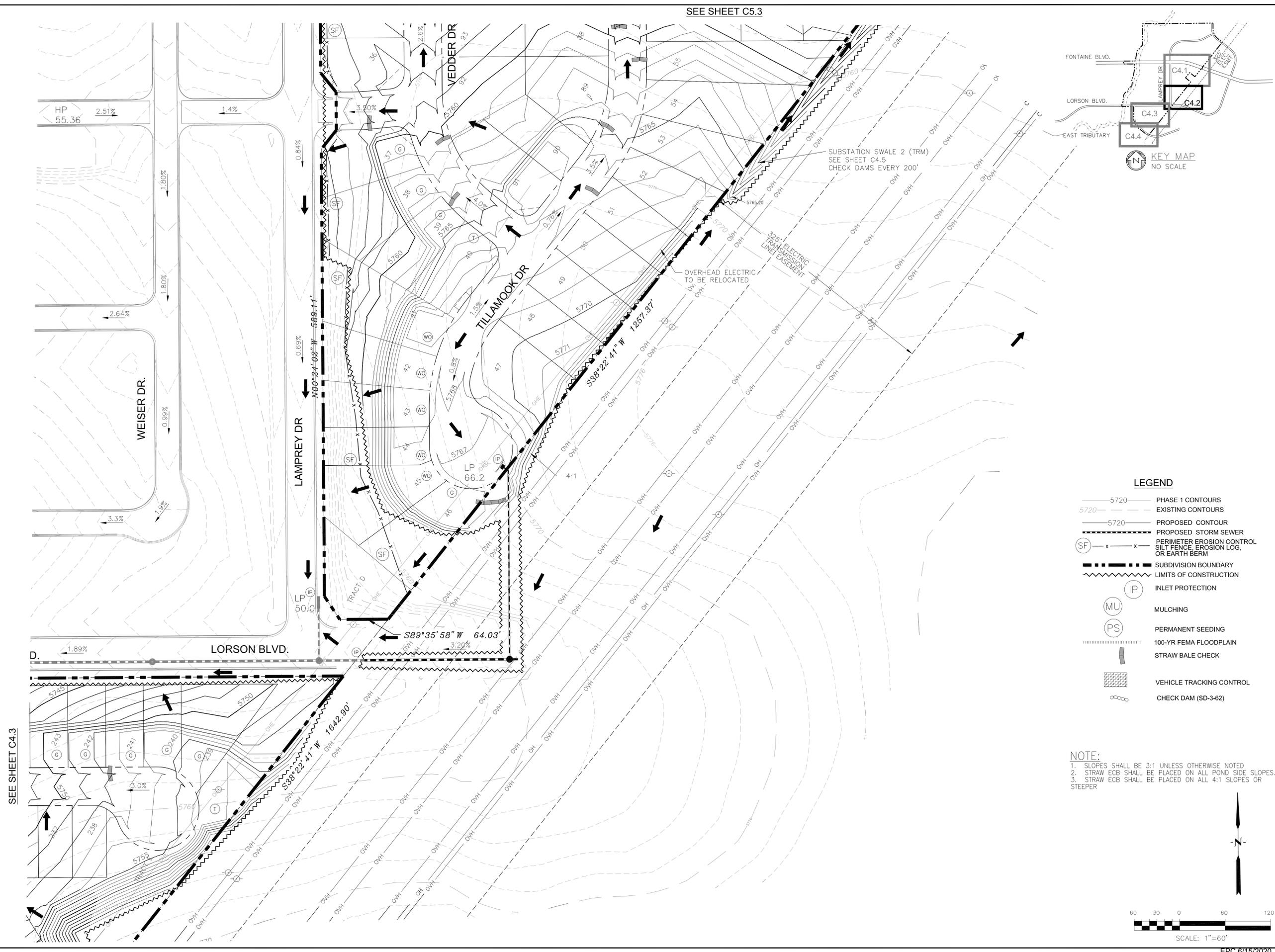
PROJECT: **LORSON RANCH EAST FILING NO. 4**
 LORSON BLVD.—LAMPREY DR
 COLORADO SPRINGS, COLORADO

PREPARED FOR: **LORSON, LLC**
 212 N. WAHSATCH AVE, SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 CONTACT: JEFF MARK

**LORSON RANCH EAST FILING NO. 4
 FINAL GRADING AND E.C. PLAN
 NORTH AREA**



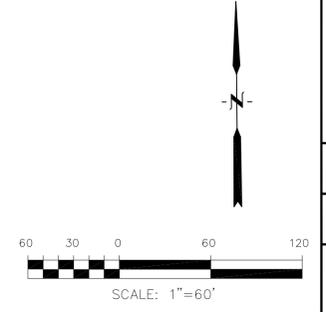
DATE: JUNE 1, 2019
 PROJECT NO: 100.048
 SHEET NUMBER: C4.1
 TOTAL SHEETS: 13



LEGEND

	5720 PHASE 1 CONTOURS
	5720 EXISTING CONTOURS
	5720 PROPOSED CONTOUR
	PROPOSED STORM SEWER
	PERIMETER EROSION CONTROL SILT FENCE, EROSION LOG, OR EARTH BERM
	SUBDIVISION BOUNDARY
	LIMITS OF CONSTRUCTION
	INLET PROTECTION
	MULCHING
	PERMANENT SEEDING
	100-YR FEMA FLOODPLAIN
	STRAW BALE CHECK
	VEHICLE TRACKING CONTROL
	CHECK DAM (SD-3-62)

NOTE:
 1. SLOPES SHALL BE 3:1 UNLESS OTHERWISE NOTED
 2. STRAW ECB SHALL BE PLACED ON ALL POND SIDE SLOPES.
 3. STRAW ECB SHALL BE PLACED ON ALL 4:1 SLOPES OR STEEPER

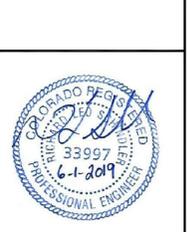


CORE ENGINEERING GROUP
 1500 S. 151st AVENUE, SUITE 300
 COLORADO SPRINGS, CO 80903
 PH: 719.570.1100
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@ceg1.com

DATE: _____
 DESCRIPTION: _____
 NO: _____
 PREPARED FOR:
LORSON, LLC
 212 N. WAHSATCH AVE, SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 PROJECT:
LORSON RANCH EAST
FILING NO. 4
 LORSON BLVD.-LAMPREY DR
 COLORADO SPRINGS, COLORADO
 CONTACT: JEFF MARK

DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

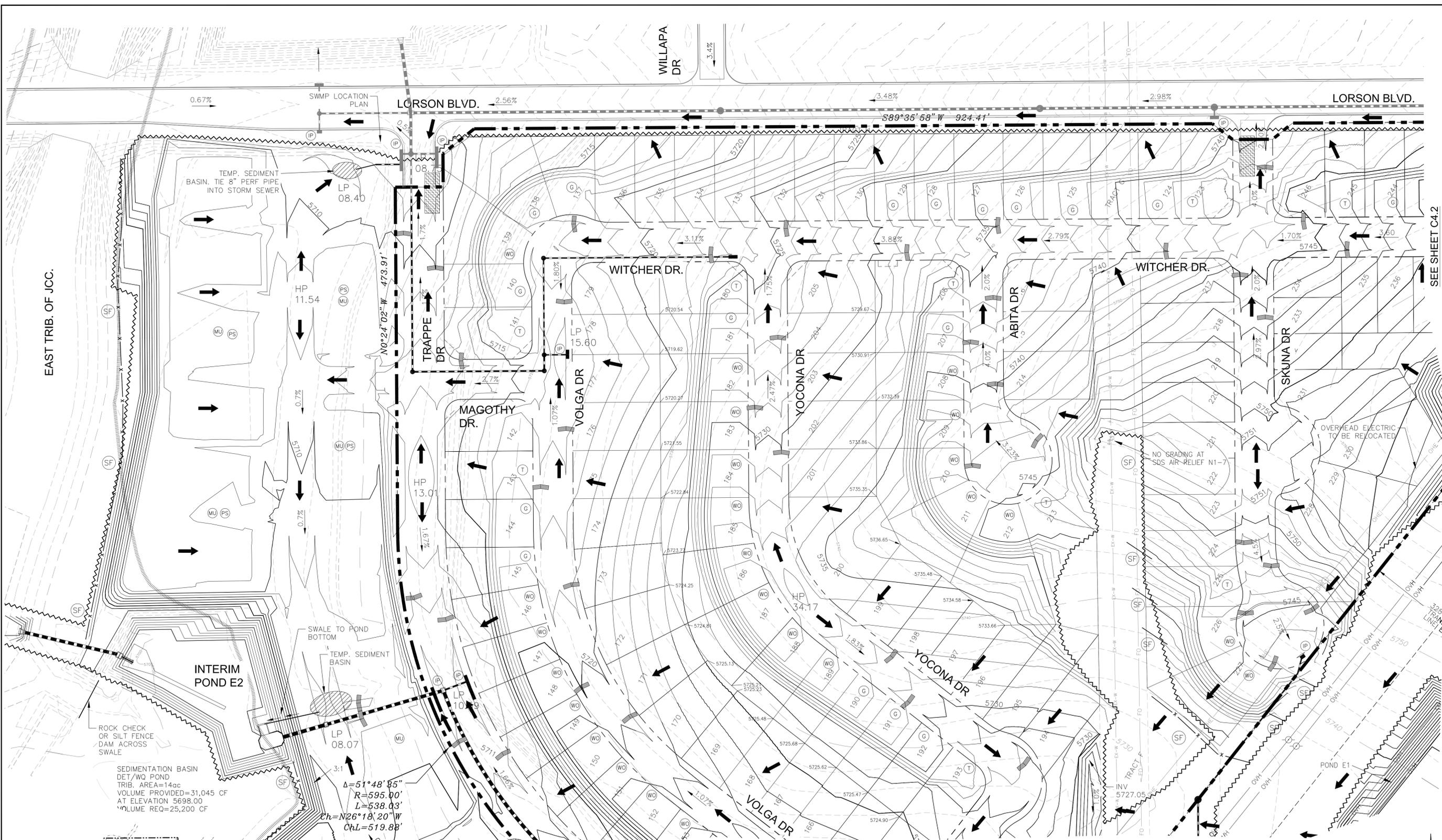
LORSON RANCH EAST FILING NO. 4
FINAL GRADING AND E.C. PLAN
NORTH AREA



DATE:
 JUNE 1, 2019
 PROJECT NO.
 100.048
 SHEET NUMBER
C4.2
 TOTAL SHEETS: 13

SEE SHEET C4.3

SEE SHEET C5.3



CORE ENGINEERING GROUP
 1500S 151ST AVENUE, SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 PHONE: 719.570.1100
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@ceg.com

DATE: _____
 DESCRIPTION: _____
 NO: _____
 PREPARED FOR: **LORSON, LLC**
 212 N. WAHSATCH AVE, SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 PROJECT: **LORSON RANCH EAST**
FILING NO. 4
 LORSON BLVD.-LAMPREY DR
 COLORADO SPRINGS, COLORADO
 CONTACT: JEFF MARK

DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

LORSON RANCH EAST FILING NO. 4
FINAL GRADING AND E.C. PLAN
SOUTH AREA



DATE: **JUNE 1, 2019**
 PROJECT NO: **100.048**
 SHEET NUMBER: **C4.3**
 TOTAL SHEETS: 13

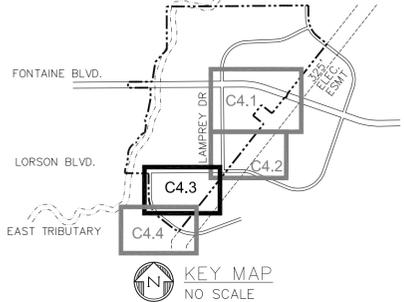
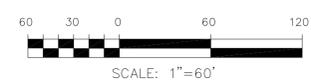
EAST TRIB. OF JCC.

SEE SHEET C4.2

SEE SHEET C4.4

- LEGEND**
- 5720 — PHASE 1 CONTOURS
 - 5720 — EXISTING CONTOURS
 - 5720 — PROPOSED CONTOUR
 - PROPOSED STORM SEWER
 - ⊗ PERIMETER EROSION CONTROL
 - ⊗ SILT FENCE, EROSION LOG, OR EARTH BERM
 - SUBDIVISION BOUNDARY
 - LIMITS OF CONSTRUCTION
 - ⊙ INLET PROTECTION
 - ⊙ MULCHING
 - ⊙ PS PERMANENT SEEDING
 - 100-YR FEMA FLOODPLAIN
 - STRAW BALE CHECK
 - VEHICLE TRACKING CONTROL
 - CHECK DAM (SD-3-62)

NOTE:
 1. SLOPES SHALL BE 3:1 UNLESS OTHERWISE NOTED.
 2. STRAW ECB SHALL BE PLACED ON ALL POND SIDE SLOPES.
 3. STRAW ECB SHALL BE PLACED ON ALL 4:1 SLOPES IN THE ELECTRIC TRANSMISSION LINE EASEMENT.
 4. SEE STREET/STORM PLANS FOR POND E2 FOREBAY, LOW FLOW CHANNEL, AND ACCESS ROAD DETAILS



INTERIM POND E2

SEDIMENTATION BASIN
 DET/WQ POND
 TRIB. AREA=14ac
 VOLUME PROVIDED=31,045 CF
 AT ELEVATION 5698.00
 VOLUME REQ=25,200 CF

$\Delta = 51^{\circ}48'85''$
 $R = 595.00'$
 $L = 538.03'$
 $Ch = N26^{\circ}18'20''W$
 $ChL = 519.88'$

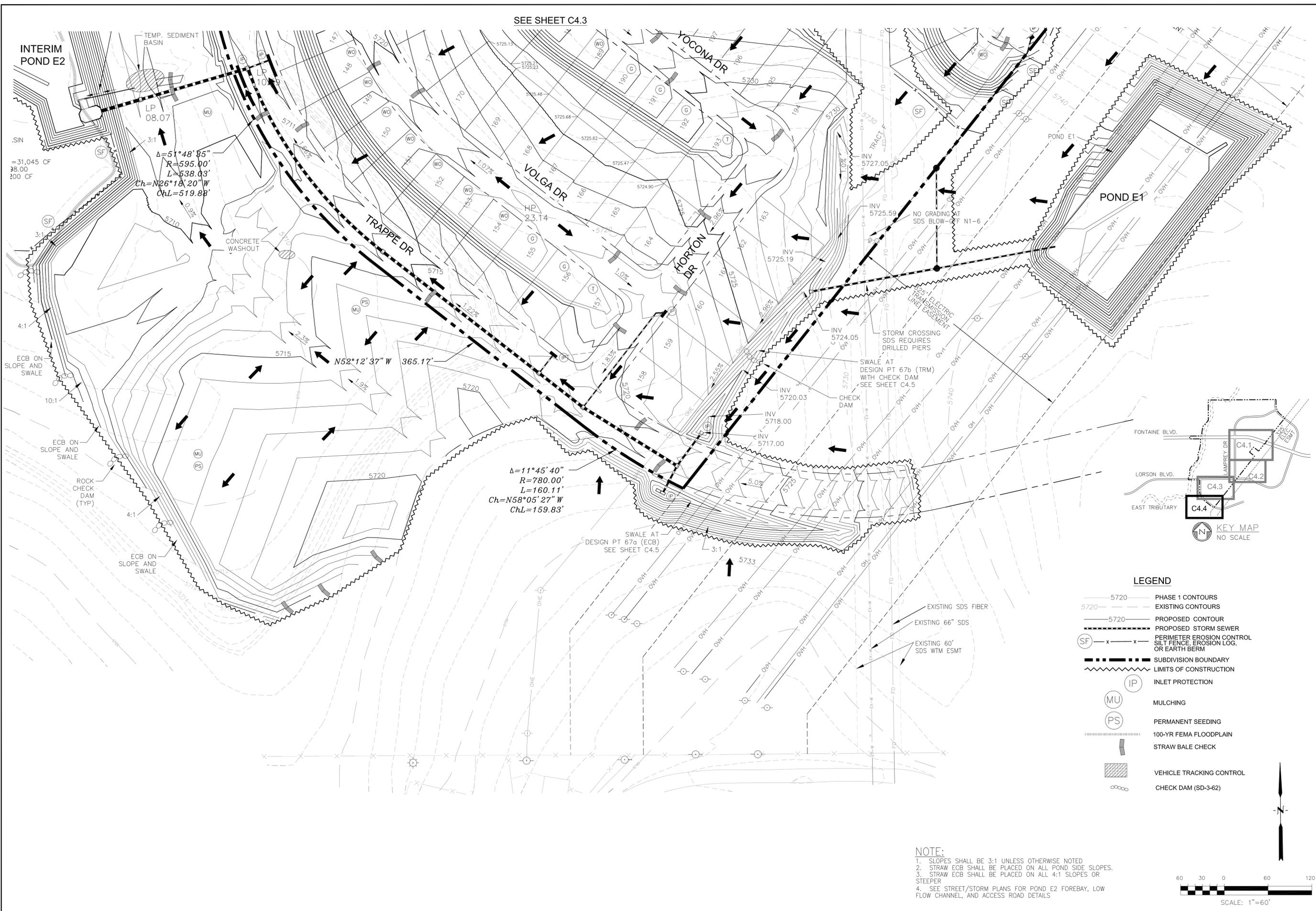
TEMP. SEDIMENT BASIN. TIE 8" PERF PIPE INTO STORM SEWER

SWMP LOCATION PLAN

OVERHEAD ELECTRIC TO BE RELOCATED

NO GRADING AT SDS AIR RELIEF N1-7

POND E1



SEE SHEET C4.3

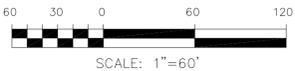
INTERIM POND E2
 = 31,045 CF
 38.00
 200 CF
 $\Delta = 51^\circ 48' 35''$
 $R = 595.00'$
 $L = 538.03'$
 $Ch = N26^\circ 18' 20'' W$
 $ChL = 519.88'$

$\Delta = 11^\circ 45' 40''$
 $R = 780.00'$
 $L = 160.11'$
 $Ch = N58^\circ 05' 27'' W$
 $ChL = 159.83'$

LEGEND

- 5720 PHASE 1 CONTOURS
- 5720 EXISTING CONTOURS
- 5720 PROPOSED CONTOUR
- PROPOSED STORM SEWER
- (SF) PERIMETER EROSION CONTROL SILT FENCE, EROSION LOG, OR EARTH BERM
- SUBDIVISION BOUNDARY
- LIMITS OF CONSTRUCTION
- (IP) INLET PROTECTION
- (MU) MULCHING
- (PS) PERMANENT SEEDING
- 100-YR FEMA FLOODPLAIN
- STRAW BALE CHECK
- VEHICLE TRACKING CONTROL
- CHECK DAM (SD-3-62)

- NOTE:**
1. SLOPES SHALL BE 3:1 UNLESS OTHERWISE NOTED
 2. STRAW ECB SHALL BE PLACED ON ALL POND SIDE SLOPES.
 3. STRAW ECB SHALL BE PLACED ON ALL 4:1 SLOPES OR STEEPER
 4. SEE STREET/STORM PLANS FOR POND E2 FOREBAY, LOW FLOW CHANNEL, AND ACCESS ROAD DETAILS



CORE ENGINEERING GROUP
 15004 151ST AVENUE, S.E.
 SUITE 301
 PH: 719.570.1100
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@c-eg1.com

DATE: _____
 DESCRIPTION: _____
 NO: _____
 PREPARED FOR: **LORSON, LLC**
 212 N. WAHSATCH AVE, SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 PROJECT: **LORSON RANCH EAST FILING NO. 4**
 LORSON BLVD.-LAMPREY DR
 COLORADO SPRINGS, COLORADO
 CONTACT: JEFF MARK

DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

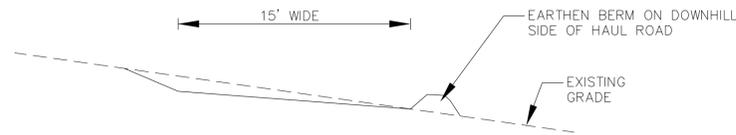
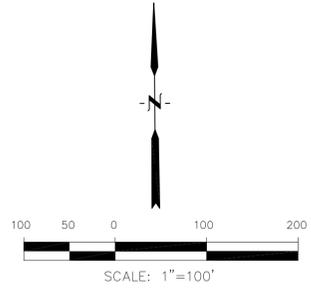
**LORSON RANCH EAST FILING NO. 4
 FINAL GRADING AND E.C. PLAN
 SOUTH AREA**



DATE: JUNE 1, 2019
 PROJECT NO: 100.048
 SHEET NUMBER: C4.4
 TOTAL SHEETS: 13

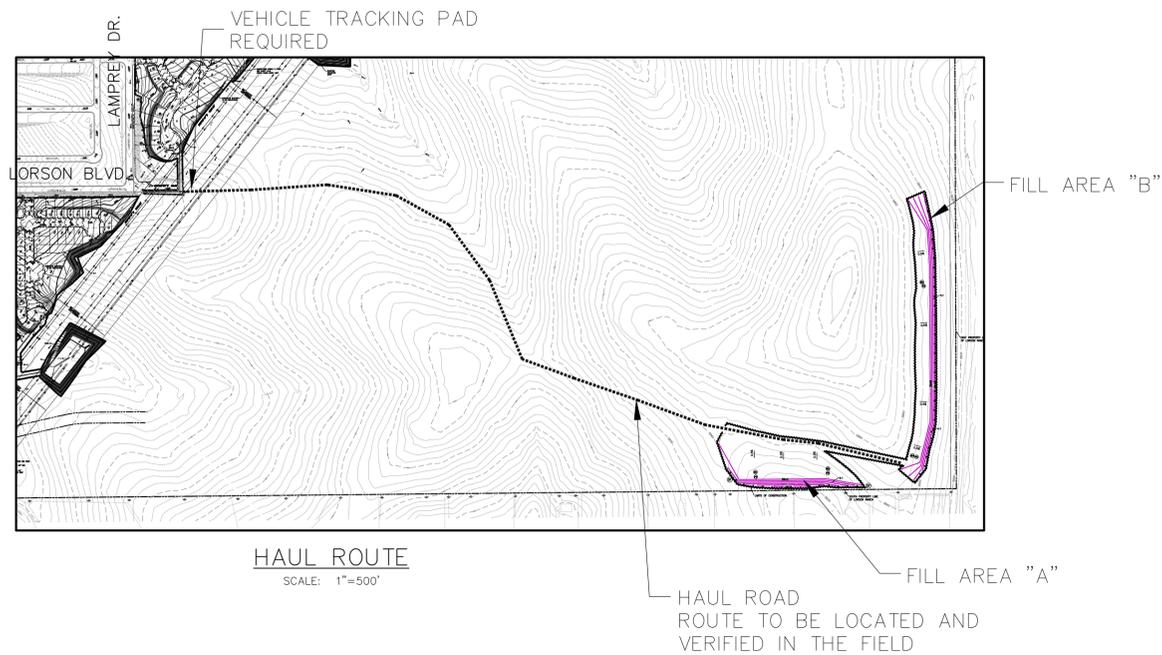
LEGEND

- 5720 ——— EXISTING CONTOURS
- 5720— PROPOSED CONTOUR
- (SF) — x — x — PERIMETER EROSION CONTROL
SILT FENCE, EROSION LOG,
OR EARTH BERM
- ~~~~~ LIMITS OF CONSTRUCTION
- (MU) MULCHING
- (PS) PERMANENT SEEDING



**HAUL ROAD
TYPICAL SECTION**
SCALE: 1"=500'

NOTE:
1. SLOPES SHALL BE 4:1 FOR FILL AREA
2. STRAW ECB SHALL BE PLACED ON ALL 4:1 SLOPES



HAUL ROUTE
SCALE: 1"=500'



**CORE
ENGINEERING GROUP**
1500 S. 151ST AVENUE, SUITE 100
DENVER, CO 80232
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg1.com

DATE: 05/21/2020
DESCRIPTION: ADD OFFSITE FILL AREA SHEET C4.4a
PROJECT FOR: LORSON RANCH EAST FILING NO. 4
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
LORSON BLVD.-LAMPREY DR
COLORADO SPRINGS, COLORADO
(719) 635-3200
CONTACT: JEFF MARK

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

**LORSON RANCH EAST FILING NO. 4
FINAL GRADING AND E.C. PLAN
OFFSITE FILL AREA**

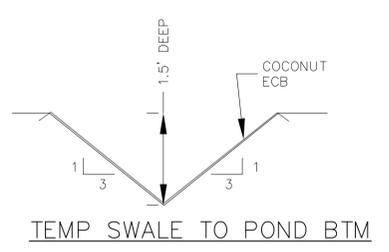
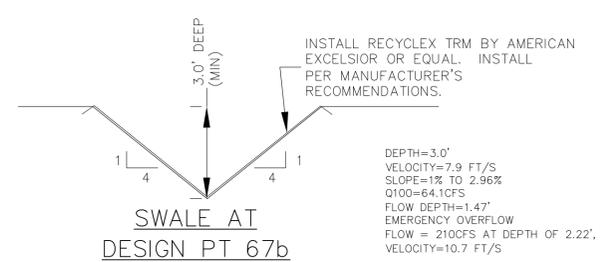
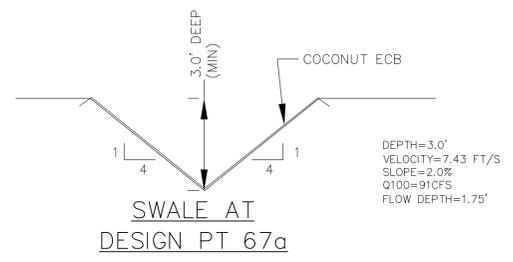
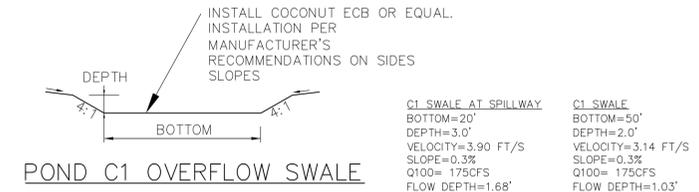
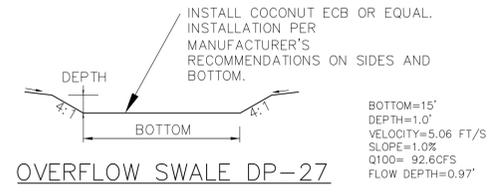
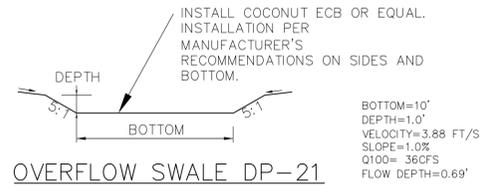
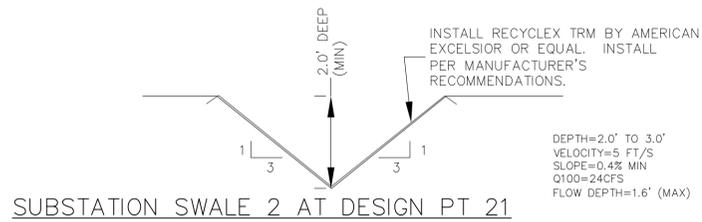


DATE: MAY 20, 2020

PROJECT NO. 100.048

SHEET NUMBER C4.4a

TOTAL SHEETS: 13



CORE ENGINEERING GROUP
1500 S. 1ST AVENUE, SUITE 5506
DENVER, CO 80202
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg1.com

DATE: _____

DESCRIPTION: _____

NO: _____

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

PROJECT: LORSON RANCH EAST FILING NO. 4
LORSON BLVD.-LAMPREY DR COLORADO SPRINGS, COLORADO

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

**LORSON RANCH EAST FILING NO. 4
FINAL GRADING AND E.C. PLAN
DRAINAGE SWALE DETAILS**

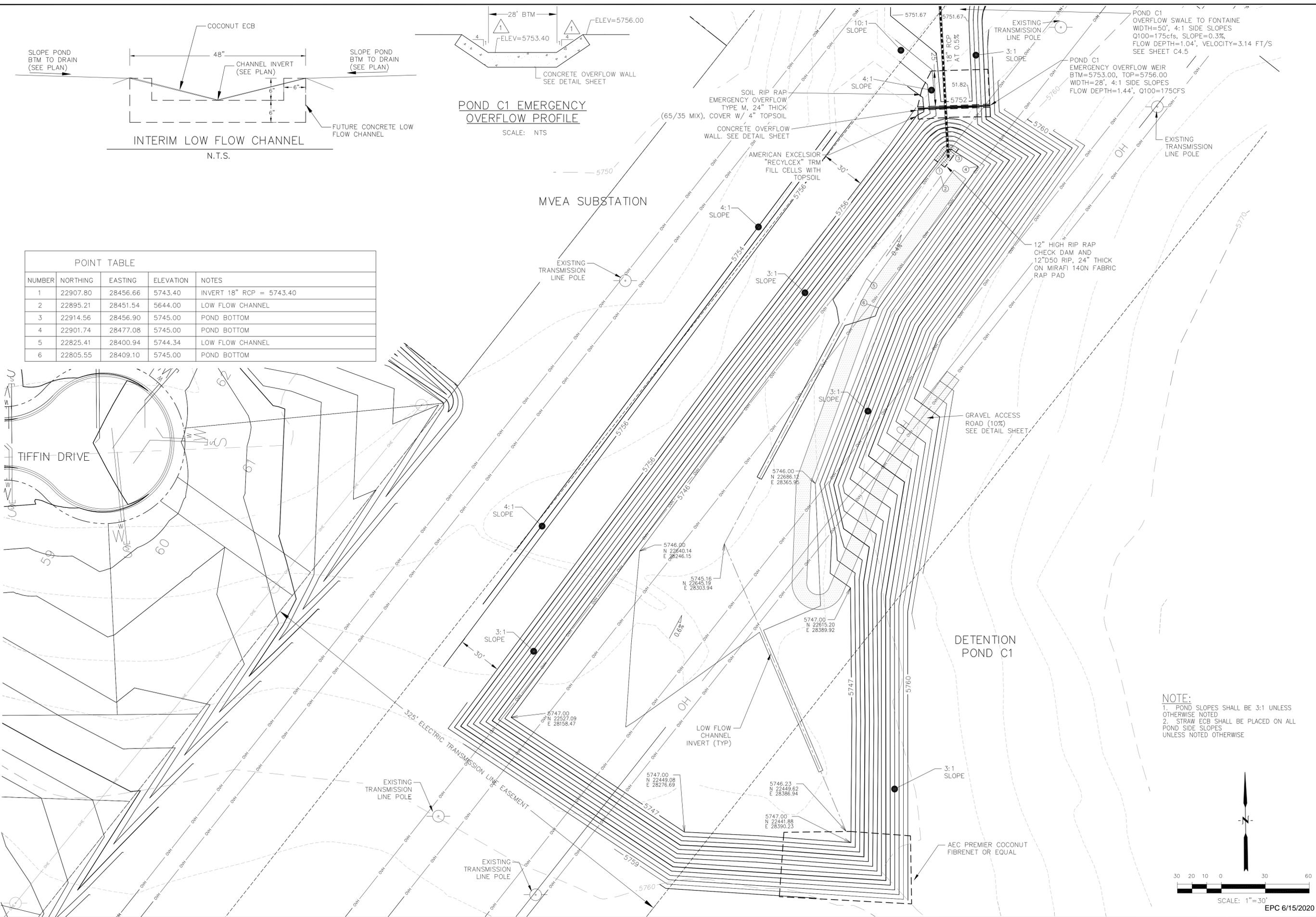
DATE: JUNE 1, 2019

PROJECT NO. 100.048

SHEET NUMBER C4.5

TOTAL SHEETS: 13



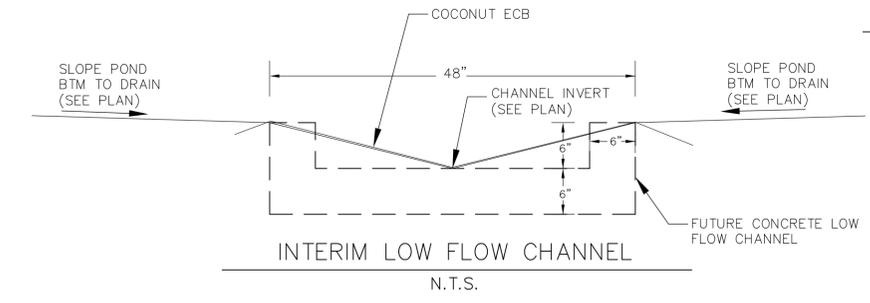


POINT TABLE

NUMBER	NORTHING	EASTING	ELEVATION	NOTES
1	22907.80	28456.66	5743.40	INVERT 18" RCP = 5743.40
2	22895.21	28451.54	5644.00	LOW FLOW CHANNEL
3	22914.56	28456.90	5745.00	POND BOTTOM
4	22901.74	28477.08	5745.00	POND BOTTOM
5	22825.41	28400.94	5744.34	LOW FLOW CHANNEL
6	22805.55	28409.10	5745.00	POND BOTTOM

POND C1 EMERGENCY OVERFLOW PROFILE

SCALE: NTS



CORE ENGINEERING GROUP
 15004 1ST AVENUE S.
 P.O. BOX 5506
 PHOENIX, AZ 85010
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@cog1.com

DATE: 05/13/2020
 DESCRIPTION: CHANGE OVERFLOW WALL ELEVATION/SLOPES
 NO. 1
 PROJECT: LORSON RANCH EAST FILING NO. 4
 LORSON BLD. - LAMPREY DR. COLORADO SPRINGS, COLORADO
 CONTACT: JEFF MARK
 PREPARED FOR: LORSON, LLC
 212 N. WAHSATCH AVE, SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 (719) 635-3200
 CONTACT: JEFF MARK

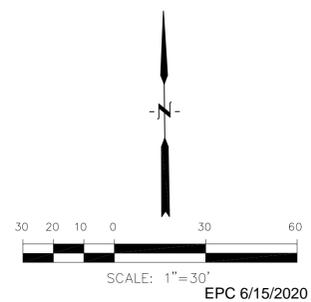
DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

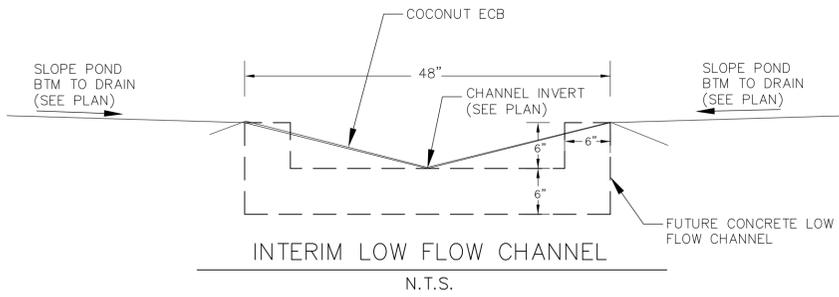
**LORSON RANCH EAST FILING NO. 4
 DETENTION POND C1**



DATE: JUNE 1, 2019
 PROJECT NO: 100.048
 SHEET NUMBER: C5.1
 TOTAL SHEETS: 13

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

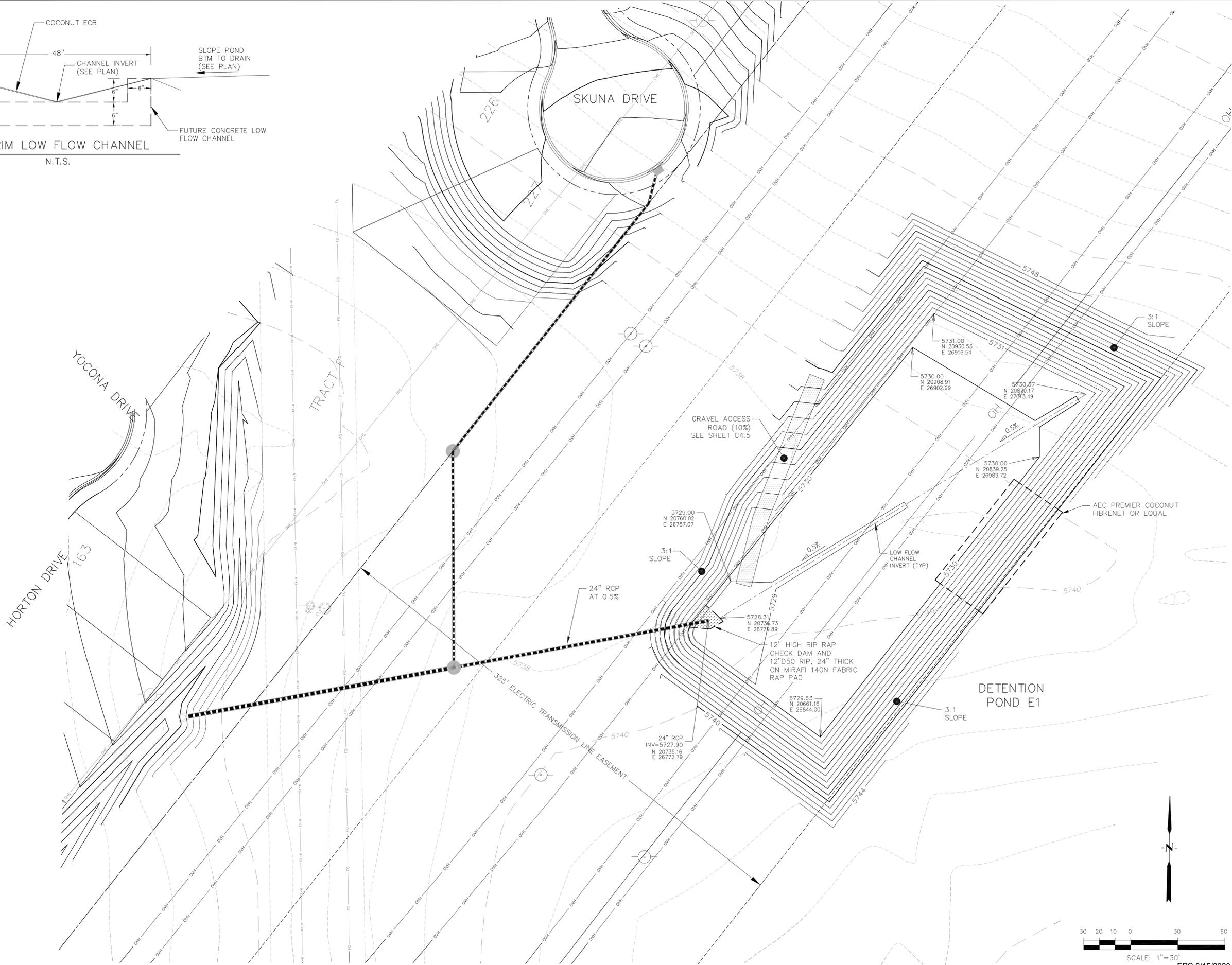




HORTON DRIVE 163
YOCONA DRIVE

TRACT A

SKUNA DRIVE



CORE
ENGINEERING GROUP
15004 1ST AVENUE, S.
DENVER, CO 80202
PHONE: 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
CONTACT: JEFF MARK

PROJECT:
LORSON RANCH EAST
FILING NO. 4
LORSON BLVD. - LAMPREY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

LORSON RANCH EAST FILING NO. 4
DETENTION POND E1

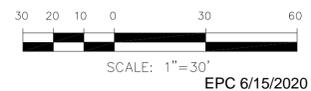


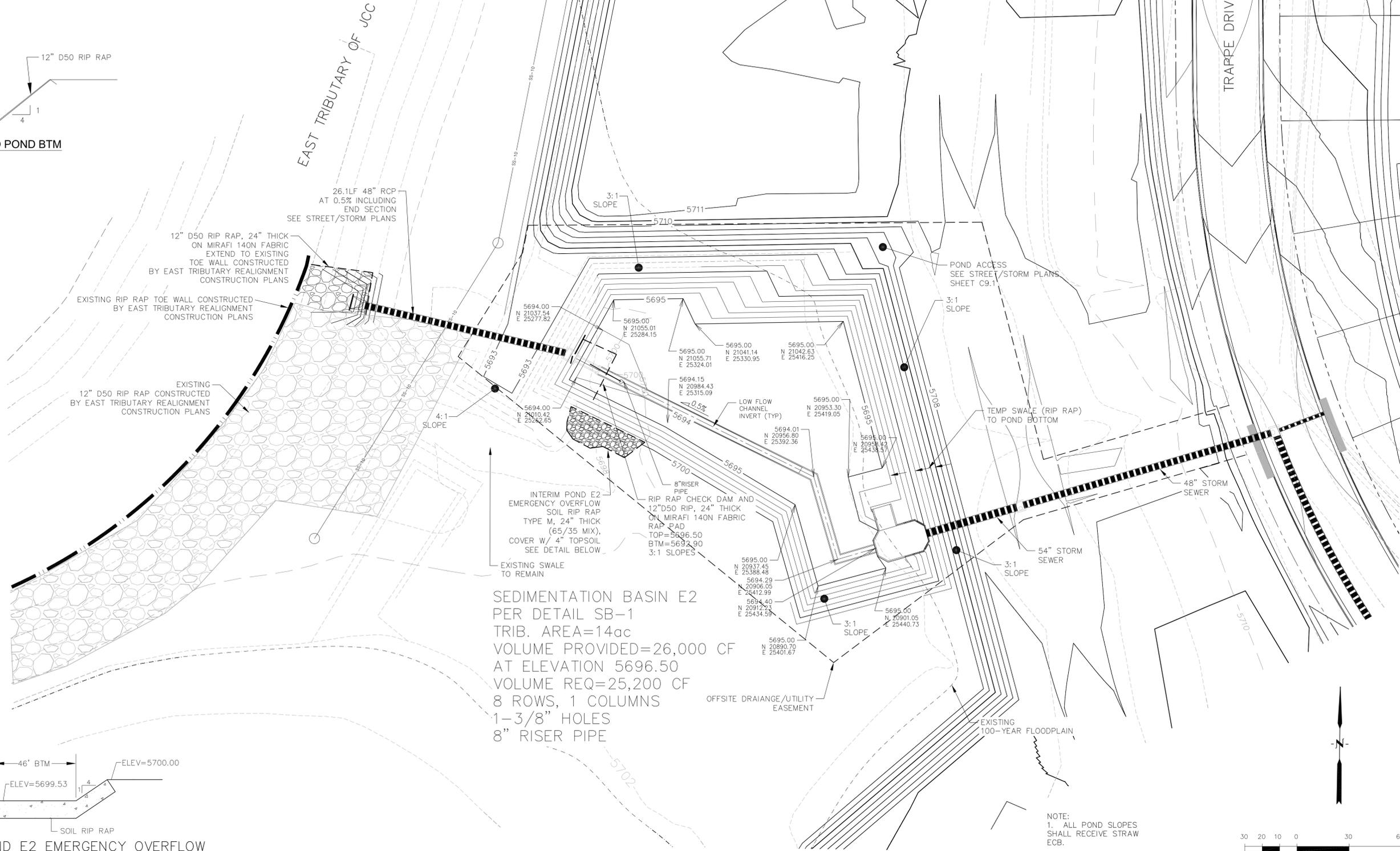
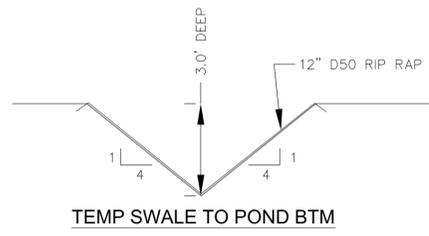
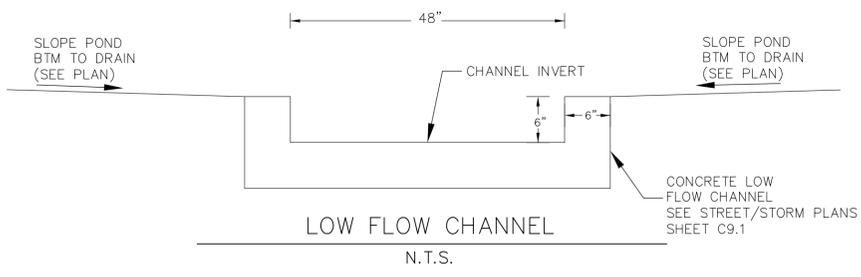
DATE:
JUNE 1, 2019

PROJECT NO.
100.048

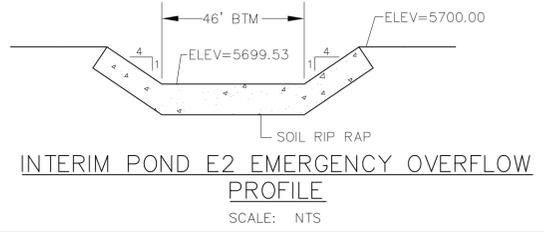
SHEET NUMBER
C5.2

TOTAL SHEETS: 13

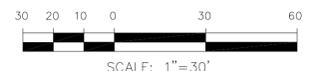




SEDIMENTATION BASIN E2
 PER DETAIL SB-1
 TRIB. AREA=14ac
 VOLUME PROVIDED=26,000 CF
 AT ELEVATION 5696.50
 VOLUME REQ=25,200 CF
 8 ROWS, 1 COLUMNS
 1-3/8" HOLES
 8" RISER PIPE



NOTE:
 1. ALL POND SLOPES SHALL RECEIVE STRAW ECB.
 2. SEE STREET/STORM PLANS FOR POND ACCESS ROAD, LOW FLOW CHANNEL AND FOREBAY DETAILS



CORE ENGINEERING GROUP
 15004 1ST AVENUE S.
 BLDG 719 570.1100
 COLORADO SPRINGS, COLORADO 80903
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@ceg1.com

DATE: _____
 DESCRIPTION: _____
 NO: _____
 PREPARED FOR: **LORSON RANCH EAST FILING NO. 4**
 PROJECT: **LORSON RANCH EAST FILING NO. 4**
 LORSON, LLC
 212 N. WAHSATCH AVE, SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 (719) 635-3200
 CONTACT: JEFF MARK

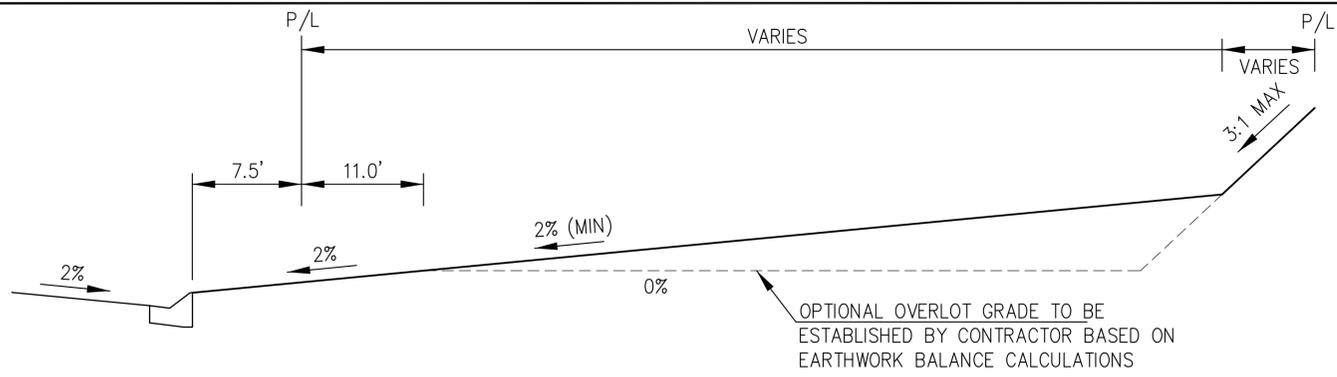
DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

LORSON RANCH EAST FILING NO. 4
DETENTION POND E2

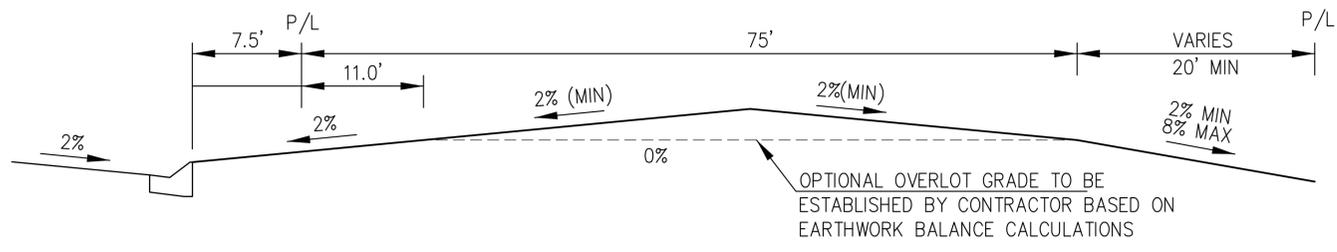


DATE: JUNE 1, 2019
 PROJECT NO: 100.048
 SHEET NUMBER: **C5.3**
 TOTAL SHEETS: 13

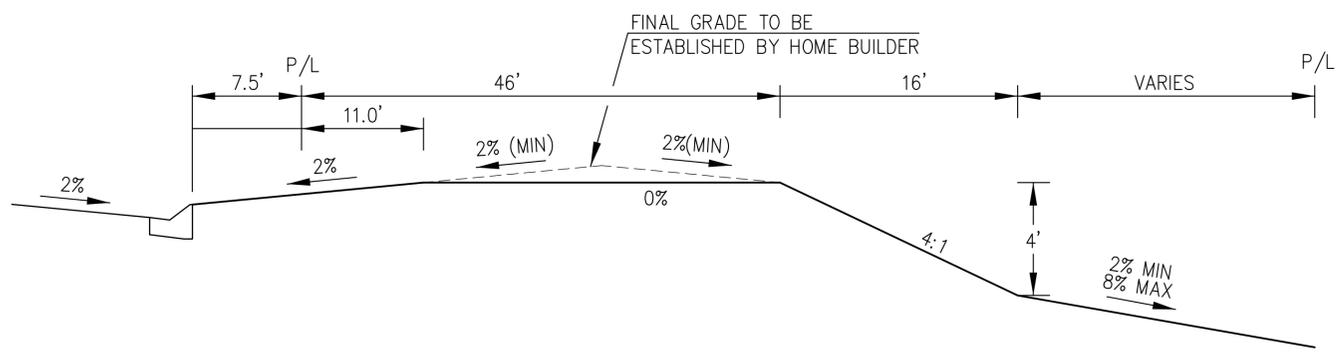
EPC 6/15/2020



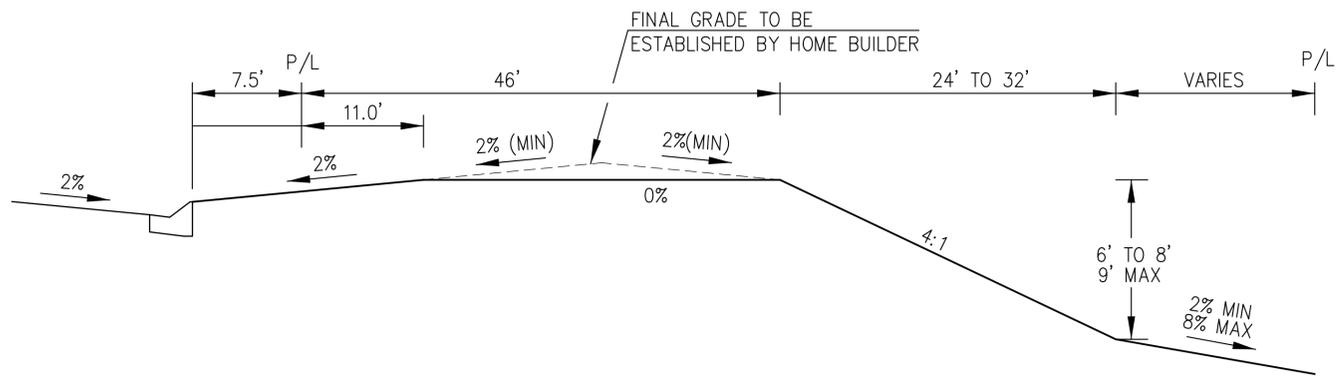
TYPICAL "A" LOT



TYPICAL "B" LOT

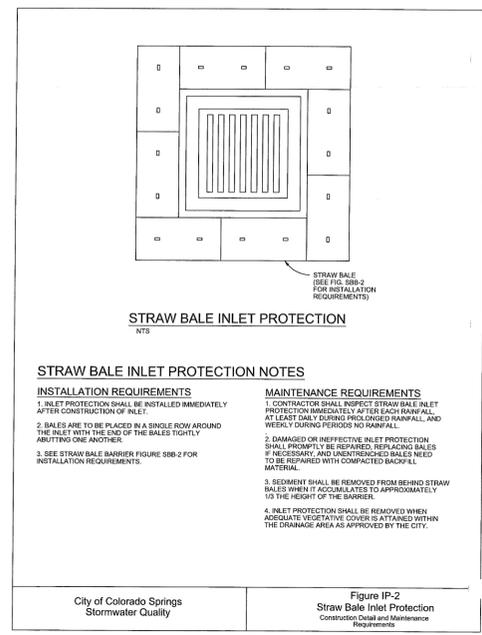
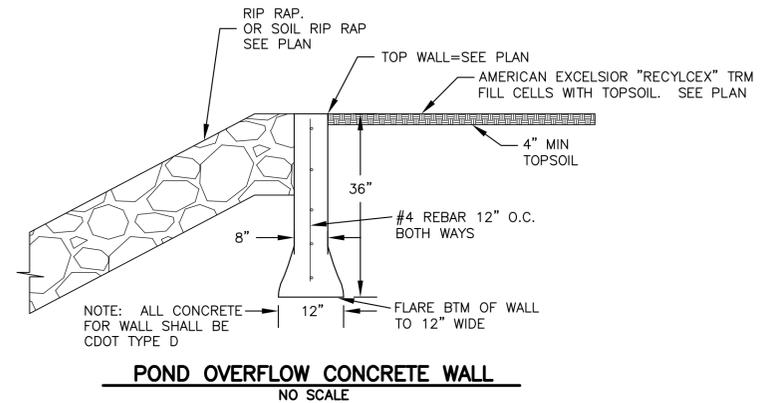
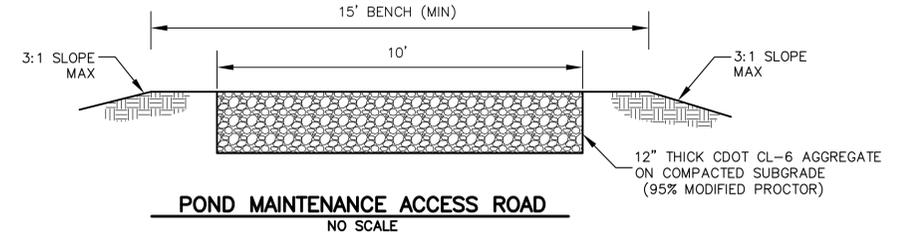


TYPICAL "GARDEN" LOT



TYPICAL "WALKOUT" LOT

NOTE:
 1. TRANSITION LOTS IDENTIFIED BY A "T" ARE INCLUDED TO INDICATE LOTS THAT WILL REQUIRE HOME BUILDERS TO PREPARE A SITE SPECIFIC GRADING PLAN TO DETAIL THE GRADING TRANSITION FROM TYPE A/B LOTS TO GARDEN/WALKOUT LOTS
 2. THE DEVELOPER/HOME BUILDER SHALL INSTALL SIDE LOT SWALES TO MINIMIZE THE LOT TO LOT DRAINAGE.



CORE ENGINEERING GROUP
 1500 S. 1ST AVENUE, SUITE 300
 COLORADO SPRINGS, CO 80903
 PHONE: 719.570.1100
 CONTACT: RICHARD L. SCHINDLER, P.E.
 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. 4**
 LORSON BLVD.-LAMPREY DR
 COLORADO SPRINGS, COLORADO
 CONTACT: JEFF MARK

DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

FINAL GRADING PLAN
 DETAILS



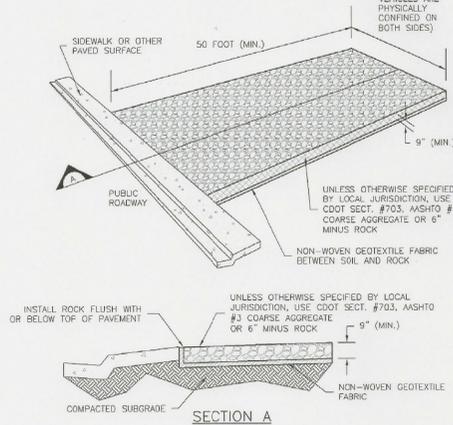
DATE: JUNE 1, 2019
 PROJECT NO. 100.048
 SHEET NUMBER C12.1
 TOTAL SHEETS: 13

Vehicle Tracking Control (VTC)

SM-4



VTC

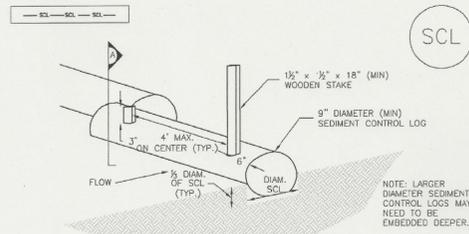


VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

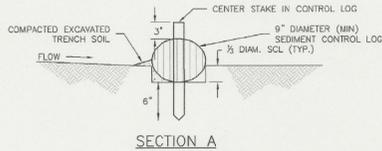
November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 VTC-3

Sediment Control Log (SCL)

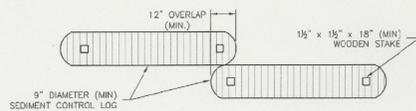
SC-2



SEDIMENT CONTROL LOG



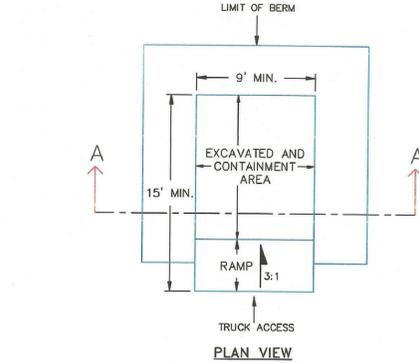
SECTION A



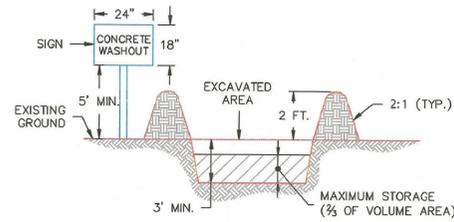
SEDIMENT CONTROL LOG JOINTS

SCL-1. SEDIMENT CONTROL LOG

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



PLAN VIEW



SECTION A-A

- NOTES:
1. SIGN MATERIAL, EXCAVATION, AND RESTORATION ARE INCLUDED IN THE COST OF THE CONCRETE WASHOUT STRUCTURE.
 2. EROSION BALES MAY BE USED AS AN ALTERNATIVE FOR THE BERM.

1/1/08 Concrete Washout Structure
 DEPARTMENT OF TRANSPORTATION Standard Drawing
 John A. McCarty REVISION DATE: 7/17/07 FILE NAME: SD_3-84
 EL PASO COUNTY DEPARTMENT OF TRANSPORTATION

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
SIDEOTS GRAMA	EL RENO	2.5
		TOTAL 16.5 LBS
GRASS MIX FOR SANDY SOILS:		
GRASS	VARIETY	AMOUNT IN PLS LBS PER ACRE
SIDEOTS GRAMA	EL RENO	3.0
WESTERN WHEAT GRASS	BARTON	2.5
SLENDER WHEAT GRASS	NATIVE	2.0
LITTLE BLUESTEM	PASTURA	2.0
SAND DROPSSEED	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
SIDEOTS GRAMA	EL RENO	3.0
SLENDER WHEAT GRASS	SODAR	2.5
SMOOTH BROME GRASS	LINCOLN OR MANCHAR	4.0
CRESTEDWHEAT GRASS	EPHRAIM	3.0
		TOTAL 17.5 LBS

CORE ENGINEERING GROUP
 1500 S. 1ST AVENUE, SUITE 3506
 P.O. BOX 79, 870, 1100
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@cegi.com

DATE: _____
 DESCRIPTION: _____
 NO.: _____

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

DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

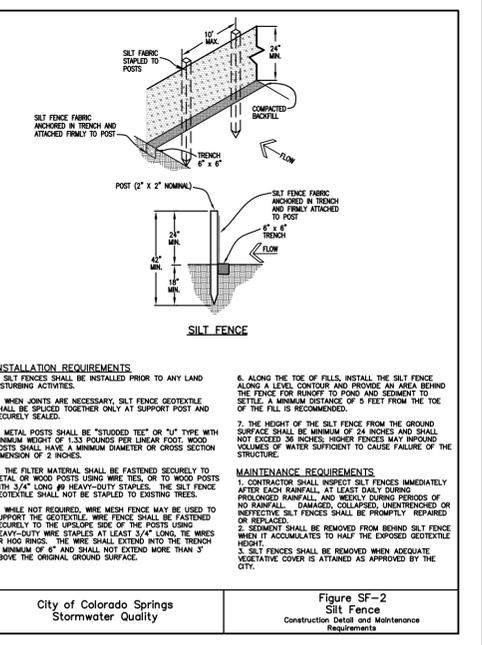


Figure SF-2 Silt Fence Construction Detail and Maintenance Requirements

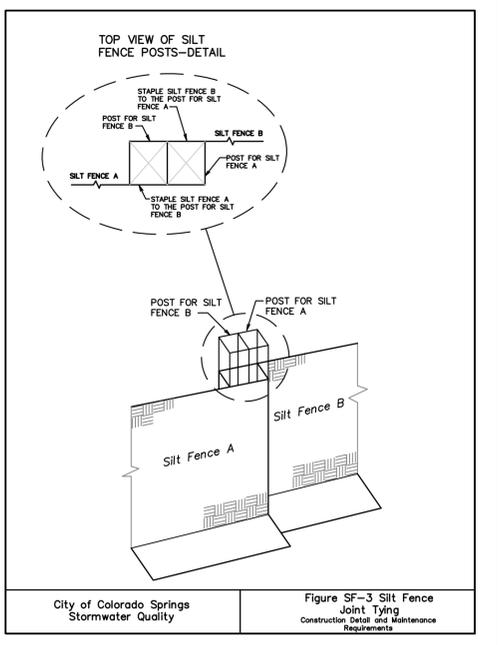
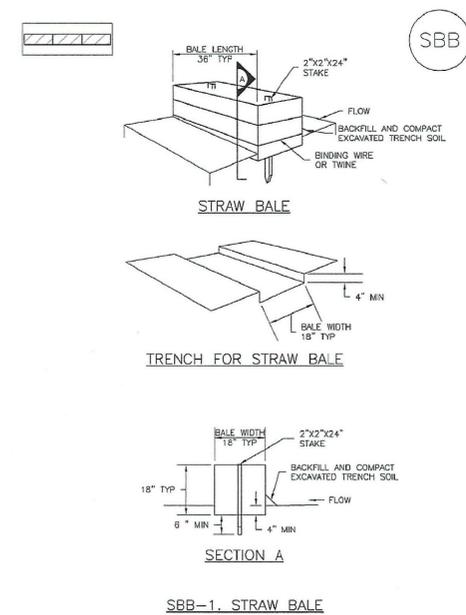


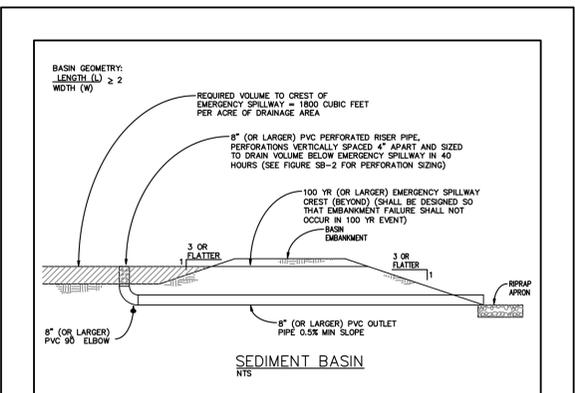
Figure SF-3 Silt Fence Joint Tying Construction Detail and Maintenance Requirements

SC-3 Straw Bale Barrier (SBB)



SBB-1. STRAW BALE

SBB-2 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010



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. BATTERIES 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 THE 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. DAMAGED, COLLAPSED, UNINTRENCHED OR INEFFECTIVE 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 Stormwater Quality Figure SB-1 Sediment Basin Construction Detail and Maintenance Requirements

FINAL GRADING PLAN DETAILS

DATE: JUNE 1, 2019
 PROJECT NO: 100.048
 SHEET NUMBER: C12.2
 TOTAL SHEETS: 13

PROFESSIONAL ENGINEER
 33997
 6-1-2019