

**STORMWATER MANAGEMENT PLAN**  
**FOR EAST JIMMY CAMP CREEK INTERCEPTOR**  
**SANITARY SEWER CONSTRUCTION**

Stormwater Permit # \_\_\_\_\_

Certification # \_\_\_\_\_

**Owner/Developer:**

Lorson, LLC  
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Colorado Springs, Colorado 80903  
Contact: Jeff Mark  
(719) 635-3200

**SWMP Administrator:**

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**Engineers:**

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15004 1<sup>st</sup> Avenue S.  
Burnsville, MN 55306  
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(719) 570-1100

**SWMP Location**

On-site (copy) and Lorson, LLC (original)

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## TABLE OF CONTENTS

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### TABLE OF CONTENTS

#### SWMP REPORT REVISION LOG

1.0 INTRODUCTION	1
2.0 SEQUENCE OF MAJOR ACTIVITIES	2
3.0 PRE-DEVELOPMENT CONDITIONS	3
4.0 DEVELOPED CONDITIONS	4
5.0 POTENTIAL SOURCES OF POLLUTION AND CONTROL STRATEGIES	4
6.0 BEST MANAGEMENT PRACTICES	7
7.0 SPILL PREVENTION PLAN	11
8.0 INSPECTIONS	14
9.0 RECORDS MANAGEMENT	14
10.0 FINAL STABILIZATION	15

#### **APPENDIX A: VICINITY MAP**

#### **APPENDIX B: EASTJIMMY CAMP CREEK INTERCEPTOR SANITARY SEWER CONSTRUCTION PLANS, DATED SEPTEMBER 8, 2017 BY CORE ENGINEERING GROUP**

#### **APPENDIX C: STORMWATER INSPECTION REPORTS (BY REFERENCE ONLY NOT ATTACHED)**

#### **APPENDIX D: SPILL REPORT FORM**

#### **APPENDIX E: RECORD OF STABILIZATION AND CONSTRUCTION ACTIVITY DATES**

#### **APPENDIX F: FEDERAL, STATE, OR LOCAL STORM WATER OR OTHER ENVIRONMENTAL INSPECTOR SITE VISIT LOG**

#### **APPENDIX G: GENERAL PERMIT AND APPLICATION**

# SWMP REPORT REVISION LOG

REV. #	DATE:	BY:	COMMENTS	Initials
1.				
2.				
3.				
4.				
5.				

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## 1.0 INTRODUCTION

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The proposed ***East Jimmy Camp Creek Interceptor Sanitary Sewer Construction*** is currently farm and ranching land. Approximately 6.25 acres will be rough graded and 9 acres (5,200 feet of sewer) will be disturbed with this project. The site is located on the west side of the East Tributary of Jimmy Camp Creek and extends north to Fontaine Boulevard. There is a sanitary sewer lateral extending east but that will be covered under a separate permit. See vicinity map in the appendix. The property drains generally south towards the East Tributary of Jimmy Camp Creek.

***East Jimmy Camp Creek Interceptor Sanitary Sewer Construction*** consists of 5,200 feet of sanitary sewer and 6.25 acres of rough grading which will be constructed in one phase. Lorson, LLC is the overall developer and will construct major infrastructure. The off-site borrow area will be accessed by a haul road across Lorson Boulevard and is located east of the East Tributary of Jimmy Camp Creek and will be covered under a separate permit for Lorson Ranch East. The off-site borrow area will generate fill necessary to grade the on-site areas.

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## 2.0 SEQUENCE OF MAJOR ACTIVITIES – Exhibit 1 Construction

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The anticipated date for beginning construction activities is November, 2017 and will be complete in June, 2018. Implementation of the storm water management plan should be in place prior to initiating construction activities. The anticipated sequence of construction is as follows:

1. Installation of perimeter erosion control measures as shown on Exhibit 1
2. Site Clearing/Grubbing and topsoil stockpiling.
3. Construct sediment pond
4. Install erosion control measures along trench excavation as construction progresses
5. Construct underground sewer and rough grading
6. Replace topsoil and final stabilize disturbed areas along sewer lines and rough grading areas
7. Final erosion control measures as areas are completed

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## 3.0 PRE-DEVELOPMENT CONDITIONS

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According to the current FEMA Flood Insurance Rate Map (FIRM) number 08041CO957 F, this site is located within the 100-year floodplain. Grading is proposed within the floodplain which is included in CLOMR Case No. 17-08-1043R. Grading shall not occur until the CLOMR has been approved by FEMA. Construction of the sanitary sewer can occur at any time after permits from El Paso County are secured.

### Existing Vegetation:

The site is currently undeveloped and has been used as a farm field (alfalfa) for the past several years. The farm field is currently used a hay field. Ground cover is estimated at 85% coverage

### Existing Slopes:

Existing slopes are around 1% that direct runoff southerly to the East Tributary of Jimmy Camp Creek. No grading will be done in the floodway of the East Tributary of Jimmy Camp Creek.

Existing Drainage Patterns:

Pre-development drainage patterns include flowing southerly to the East Tributary of Jimmy Camp Creek. The drainage patterns will remain the same after construction. A sediment pond will be constructed downstream of the rough grading area.

Existing Soil Types:

The following table summarizes the characteristics of the soil type.

Table 3.1: SCS Soils Survey

Soil	Hydro. Group	Shrink/Swell Potential	Permeability	Surface Runoff Potential	Erosion Hazard
Manzanola Clay Loam (52)	C	Moderate to High	Slow	Medium	Moderate
Nunn Clay Loam (59)	C	Moderate to High	Slow	Medium	Moderate

Based upon the location of the different soil types and type of construction, the contractor shall employ the most appropriate method of erosion control measures based on the El Paso County/City of Colorado Springs Drainage Criteria Manual, Vol. 2 or as directed by the SWMP administrator or his representative.

More detailed soils information can be found in the SCS soils survey for El Paso County.

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#### **4.0 DEVELOPED CONDITIONS**

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The overall drainage concept for ***East Jimmy Camp Creek Interceptor Sanitary Sewer Construction*** will not be changed due to this construction.

Proper erosion protection will be installed so no sediment is discharged offsite. No land use changes are proposed with this construction.

Construction Site Estimates:

- Project Site: 15.25 acres
- Disturbed Area: 6.25 acres (rough grading), 9 acres (sewer construction)
  
- Percent Impervious before Construction: 0%
- Runoff Coefficient before Construction: 0.35
  
- Percent Impervious after Construction: 0%
- Runoff Coefficient after Construction: 0.35

Receiving Waters:

- East Tributary of Jimmy Camp Creek
- Description: The creek channel is a dry creek bed that flow water intermittently after significant rainfall events in the drainage basin.
- Description of Storm Sewer System: There is no existing storm sewer system on the site.

- Description of impaired waters or waters subject to TMDLs: The site contains no impaired waters or waters subject to TMDLs.
- Description of unique features that are to be preserved: There are no known protected plant species within the project limits.
- Describe measures to protect these features: N/A

Site Features and Sensitive Areas to be Protected:

Portions of this site are located within waters of the state (100-year floodplain) but they contain no other sensitive areas including wetlands or endangered species and no grading will occur in the floodway of the creek.

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## **5.0 POTENTIAL SOURCES OF POLLUTION AND CONTROL STRATEGIES**

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Potential sources of sediment to stormwater runoff include earth moving and concrete activities associated with grading and landscaping.

Potential pollutants and sources, other than sediment, to stormwater runoff include Trash, debris, line transfer, Dewatering, fueling and equipment failure.

A dewatering permit is not required

Construction activities produce many different kinds of pollutants which may cause storm water contamination problems. Grading activities remove rocks, vegetation and other erosion controlling surfaces, resulting in the exposure of underlying soil to the elements. Because the soil surface is unprotected, soil and sand particles are easily picked up by wind and/or washed away by rain or other water sources.

The following sections highlight the potential sources of pollution at the Project Site and list the “Best Management” strategies that will be used to prevent migration of pollution offsite. Chemical materials stored indoors or that have no reasonable chance of impacting storm water quality will not be discussed in this plan.

Materials of significance stored on the project site include:

- Sediment
- Concrete Washout
- Cement
- Trash & Debris
- Sanitary Wastes
- Fuels & Oils

### **5.1 Wind Erosion & Dust Control**

Pollutant: Sediment

Best Management Strategies:

- Daily inspections will occur for areas experiencing excessive winds, vehicle traffic, or precipitation events.
- Water trucks will spray down dust on the project Site as needed to not impact adjacent properties.

- Attention will be given to prevent the over use of water in dust control operations to minimize any muddying of the surface and possible sediment transportation.

## **5.2 Vehicular Transport**

Pollutant: Sediment Tracking

Best Management Strategies:

- Construct a stabilized construction entrance to provide ingress and egress of the site.
- Restrict access to the stabilized construction entrance.
- Fencing will be erected if problems with access control are evident.
- Maintain track out pads by fluffing up the rock material or by adding additional rock as needed.
- Inspect, sweep and clean adjacent streets where track out is evident.

## **5.3 Stockpiles**

Pollutant: Sediment

Best Management Strategies:

- Locate stockpiles clear of any water flow paths.
- Locate stockpiles within the property boundary.
- Stockpiles will have erosion control devices as needed installed around the base to prevent the migration of soil.
- Topsoil stock piles and disturbed portions of the site where construction activity temporarily ceases for at least 14 days will be stabilized with temporary seed and mulch no later than 14 days from the last construction activity in the area.

## **5.4 Grading, Trenching, Export/Import**

Pollutant: Sediment

Best management Strategies:

- Earth moving will be minimized by the engineering balancing of the site.
- Disturbed portions of the site where construction activity temporarily ceases for at least 14 days will be stabilized with temporary seed and mulch no later than 14 days from the last construction activity in the area.
- Seed bed preparation is not required if soil is in loose condition.
- Prior to seeding, fertilizer shall be applied to each acre to be stabilized in accordance with the manufacturer's specifications.
- If required seeding areas shall be mulched with straw to a uniformed cover. The straw mulch is to be tacked into place by a disk with blades set nearly straight.
- A site specific erosion control drawing has been developed showing the location of Best Management practices to be used during site construction.
- Where indicated on the erosion control plan, Best Management Practices will be installed.
- Material shall be in accordance with the plans and specifications and all construction shall be provided in accordance with the manufacturer's specifications.
- All BMP's will be inspected bi-weekly and cleaned/maintained as required.

## **5.5 Waste, Residual Concrete**

Pollutant: Concrete, paint, and Phosphoric Acid

Best Management Strategies:

- A cleanup and washout area will be designated and posted.



- Subcontractors will be instructed on the locations and importance of the washout and cleanup areas. No on-site disposal is allowed.
- Instruct subcontractors to remove waste for which proper onsite disposal facilities are not provided back to their own facilities for ultimate transport, storage & disposal.
- Subcontractors and subcontractor employees are held responsible for improper washout.

### **5.6 Sanitary Facilities, Trash Containers & Littering**

Pollutant: Bacteria, Ammonia, Trash

Best Management Strategies:

- Portable facilities will be regularly serviced to prevent excessive waste containment and overflow.
- All waste materials will be collected and stored in a container which will meet all local and any state solid waste management regulations.
- Trash dumpsters will be emptied prior to becoming 90% full or when debris control becomes an issue.
- Employees will be instructed on the importance of recycling and waste management, and will be held responsible for improper waste management.

### **5.7 Fueling, Hazardous Materials, Equipment Leakage, Fertilizer**

Pollutant: Petroleum Hydrocarbons, Ethylene Glycol, Sediment

Best Management Strategies:

- MSDS sheets will be maintained in the project trailer for all onsite materials
- All dry materials such as cement will be covered and protected from rain.
- Secondary containment will be provided for stored fuel, oil, paint and any material classified as hazardous.
- Subcontractors are responsible for hazardous waste removal back to their own facilities for ultimate transportation, storage and disposal.
- Supplies will be kept onsite as necessary to control any potential spill.
- Employees will be held responsible for any illegal dumping.
- Seals will be checked by a qualified professional on all equipment and containers containing significant materials that could contribute potential pollutants and will be replaced as necessary.
- Equipment will be inspected by a qualified professional.
- Drip pans will be available for minor leaks and during fueling operations.
- Fueling nozzles, gauges, hoses, seals, and emergency shutoff valves will be inspected for leaks prior to use.
- Under no circumstances during fueling will the fueling hose/nozzle be left unattended.
- Fertilizers used will be applied only in the minimum amounts recommended by soil tests.
- Once applied, fertilizers will be worked into the soil to limit exposure to storm water.
- Stored fertilizer will be protected from exposure to precipitation and storm water runoff.

### **5.8 Dewatering – not needed. This shown for information only**

Pollutant: Sediment, Oil and/or Grease and Phosphoric Acid

Best Management Strategies:

- All dewatering will be filtered through rock and/or woven geo mesh fabric.
- All dewatering will be tested for Pollutants per state guidelines weekly.

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## **6.0 BEST MANAGEMENT PRACTICES (BMP's)**

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Also refer to attached Erosion and Sediment Control notes and plans included in the site plans

### **6.1 – Erosion and Sediment Control BMP's**

#### **6.1.1 Minimize Disturbed Area and Protect Natural Features and Soil**

All work will occur inside the limits of construction per the erosion Control Site Plan. See Exhibit 1

#### **6.1.2 Phase Construction Activity**

The sequence for the installation and removal of erosion and sediment control measures is as follows:

1. Installation of perimeter erosion control measures as shown on Exhibit 1
2. Site Clearing/Grubbing and topsoil stockpiling.
3. Construct sediment pond
4. Install erosion control measures along trench excavation as construction progresses
5. Construct underground sewer and rough grading
6. Replace topsoil and final stabilize disturbed areas along sewer lines and rough grading areas
7. Final erosion control measures as areas are completed

#### **6.1.3 Control Stormwater Flowing onto and through the Project**

Narrative:

There is no offsite stormwater flowing onto this project site. On-site runoff flowing across the rough grading area will be directed to a sediment pond so that no sediment enters the downstream receiving waters.

#### **6.1.4 Stabilize Soils**

No disturbed area which is not actively being worked shall remain denuded for more than 14 calendar days unless otherwise authorized by the director. Temporary cover by seeding or mulching should be provided on areas which will be exposed for a period greater than 14 days before permanent stabilization can be achieved. Permanent cover should be provided on all areas as soon as possible, by means of seeding and mulching, straw or hay mulch is required. All soil stock piles and borrow areas must be protected with silt fence within 14 days after grading. All slopes within the project limits that are found to be eroding excessively within two years of permanent stabilization shall be provided additional slope stabilization methods such as seeding and mulching.

Water is to be used for dust control. The Contractor will prevent the escape of this water and any sediment it may carry from the construction site.

#### **6.1.5 Protect Slopes**

Temporary stabilization will include the installation of silt fences on level contours spaces at 10-20 foot intervals. Slopes will be seeded and covered with hay, straw or erosion control blankets on slopes greater than 3:1 as needed to provide for temporary stabilization until vegetation is permanently established.

All slopes within the project limits that are found to be eroding excessively within two years of permanent stabilization shall be provided additional slope stabilization methods such as seeding

and mulching. Where slopes are steeper than 3:1 erosion control blankets (per specification requirements) will be utilized for final stabilization.

#### **6.1.6 Protect Storm Drain Inlets**

Inlet protection will be installed as soon as storm drain inlets are installed and before land-disturbance activities begin in areas with existing storm drain systems.

At the Contractor's discretion, additional temporary erosion control practices to include rock bags and sand bag barriers may be installed to prevent sediment movement. Inlet protection will include rock bags erosion logs curb inlet sediment filters where an overflow capacity is necessary to prevent excessive ponding in front of the curb inlet. Concrete block and wire screen inlet protection if used detail will be included Appendix C prior to installation, will be used where heavy flows are expected and where an overflow capacity is necessary to prevent excessive ponding around the inlet.

Inlet protection devices will be inspected and accumulated sediment will be removed as needed.

#### **6.1.7 Establish Perimeter Controls and Sediment Barriers**

Temporary stabilization will include the installation of silt fences on the downslope perimeter of project area. The silt fence will be trenched in on the uphill side 6 inches deep and 6 inches wide as detailed in the silt fence exhibit. Sediment will be removed when it reaches 1/3 the height of the fence. Silt fence will be inspected and replaced or repaired as needed.

#### **6.1.8 Retain Sediment On-Site**

Temporary sediment traps shall be installed to detain sediment laden runoff from small watersheds for a period long enough to allow sediment to settle before discharge into receiving waters. For small drainage locations smaller sediment traps should be used. At a minimum, silt fences, vegetative buffer strips or equivalent sediment controls are required for all down-slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions) of the construction. The use of a combination of sediment and erosion control measures in order to achieve maximum pollutant removal will be utilized. Sediment traps will be checked regularly for sediment cleanout. Sediments shall be removed and the trap restored to its original dimensions when the sediment has accumulated to one half the design volume of the wet storage. Sediment shall be disposed in suitable areas and in such a manner that will not erode or cause sedimentation problems.

The gravel outlets will be checked regularly for sediment buildup which will prevent damage. If the gravel is clogged by sediment, it shall be removed and cleaned or replaced.

An alternate to sediment traps are temporary sediment basins.

#### **6.1.9 Establish Stabilized Construction Exits**

The construction entrance will be established in the entry points of roads. The construction entrance will be at least 50 feet in length and approximately 12 feet wide and graded so runoff does not leave the site. The aggregate will be established at 8 inches thick on top of 4 inch minimum thick free draining material on top of geotextile and will consist of Type G dense graded material. A stabilized stone pad with a filter fabric under liner will be placed at points of vehicular ingress and egress.

#### **6.1.10 Additional BMP's**

**BMP Schedule:**

All Sediment and Erosion control BMP's (detailed below and only on BMP site map and details if utilized onsite) will be installed prior to any excavation or demolition and will be coordinated with the construction schedule.

As construction changes and new temporary BMP's are needed to control sediment and erosion temporary BMP's will be installed within 24 hours of inspection report.

**Recommended BMP's:**

ALL RECOMMENDED BMP'S WILL BE INSTALLED PRIOR TO EXCAVATION NEAR ANY SENSITIVE AREAS.

**Culvert Inlet Protection** will be used to protect existing and new culvert inlets. Inlet Protection Detail will be included in Appendix before using onsite. Removal of this BMP will occur only after vegetation is established to a minimum of 70% pre construction coverage and after removal of BMP all sediment builds up will be removed and the area exposed shall be seeded.

**Silt Fence** is to be installed in sensitive areas to protect stream channels, pond, and overland runoff. On this site it will be used to protect runoff from the slip pits. See Silt Fence Detail. Removal of this BMP will occur only after vegetation is established to a minimum of 70% pre construction coverage and after removal of BMP all sediment builds up will be removed and the area exposed shall be seeded.

**Vehicle Tracking Control** is needed at the main construction entrance location. Vehicle tracking control shall be installed at the edge of the construction staging area where construction vehicles regularly exit onto existing asphalt road. If sediment tracking occurs it will be cleaned within 24 hours.

See Vehicle Tracking Control Detail in Appendix C. Removal of this BMP will occur only after project is substantially complete and is ready for seeding operations; the area will then be seeded per specification with the rest of the project.

**Check Dams** (rip rap) will be used to reduce storm water velocities in drainage channels during construction as a temporary measure until permanent stabilization can be created and vegetation has been established. Check Dam Detail will be included in the the Appendix before using onsite. Removal of this BMP will occur only after vegetation is established to a minimum of 70% pre construction coverage and after removal of BMP all sediment build-up will be removed and the area exposed shall be seeded.

**Portable Toilets:** Portable toilets are brought in from a service contractor and will be maintained in accordance with standard waste disposal practices using vacuum trucks and place on stable ground to minimize risk of spillage. All portable toilets will be kept a minimum of 500' from any waterway.

**Waste Disposal:** If needed Roll offs will be utilized for standard construction waste. A qualified contractor will remove waste weekly and take to an appropriate dump site off this project.

**6.1.11 Permanent BMP'S:**

**Re-vegetation:**

During construction any disturbed area not being currently worked left dormant longer than 14 days will be re-vegetated per specification with native seed and mulched and crimped with weed free straw.

**Final Stabilization** will be considered complete when all disturbed areas have a minimum of 70% preconstruction coverage for the specification requirements. Then all temporary BMP's will be removed and the exposed areas left behind will be seeded.

## **6.2 Good Housekeeping BMP'S**

### **6.2.1 Material Handling and Waste Management**

The site will use a private refuse collector that will remove litter twice weekly. No less than one litter receptacle will be present at the construction site. In the event that unusual items such as tanks, cylinders, unidentified containers, etc. which could contain potentially hazardous materials are discovered or disturbed, the Fire and Rescue services will be notified.

Litter and debris will be picked up and disposed of properly daily.

Temporary toilet facilities will be located 500 feet away from any storm drain inlets and all waters of the state.

### **6.2.2 Establish Proper Building Material Staging Areas**

A designated staging area will be used, location to be determined based on available space in the field and plans will be redline. The staging area will be contained per SWMP guidelines. All Equipment and Materials will be brought into the site as needed.

### **6.2.3 Designate Washout Areas**

A concrete washout will be installed to detail as shown in the APPENDIX , and will be placed more than 500 feet away from any waters of the state.

### **6.2.4 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices**

During construction the site will be exposed to operation and maintenance of construction equipment. The contractor shall be responsible for all activities such as fueling, oil changing, lubrication and repair which require use of petroleum products. Such products shall be transported to and from the site in special trucks equipped for that purpose. No waste petroleum products, rags, residue, or equipment parts shall be left on site. In the event of a spill or leak, causing soil to be contaminated, that soil shall be excavated placed in sealed barrels and removed from the site for transport to an approved location for disposal.

See section 6.2.6 for the Spill Plan.

### **6.2.5 Control Equipment/Vehicle Washing**

N/A WILL NOT BE ALLOWED ONSITE

### **6.2.6 Any Additional BMPs**

N/A

### **6.2.7 Allowable Non-Stormwater Discharge Management**

N/A

## **6.2.8: SELECTING POST-CONSTRUCTION BMPs**

Post Construction BMPs. Re-vegetation including seeding, mulching and erosion control blanket will be final BMP's. Permanent stabilization will be achieved with 70% pre construction vegetative establishment.

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## **7.0 SPILL PREVENTION AND CONTROL PLAN**

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The SITE SUPERINTENDENT will act as the point of contact for any spill that occurs at this jobsite. The project manager will be responsible for implementation of prevention practices, spill containment / cleanup, worker training, reporting and complete documentation in the event of a spill. The ECO shall immediately notify the Owner, /Construction Manager, STATE and the Local Fire Department in addition to the legally required Federal, State, and Local reporting channels (including the National Response Center, 800.424.8802) if a reportable quantity is released to the environment

### **7.1 SPILL PREVENTION BEST MANAGEMENT PRACTICES**

This section describes spill prevention methods Best Management Practices (BMP) that will be practiced to eliminate spills before they happen.

#### **7.1.a Equipment Staging and Maintenance**

Store and maintain equipment in a designated area Reduce the amount of hazardous materials and waste by substituting non-hazardous or less hazardous materials. Use secondary containment (drain pan) to catch spills when removing or changing fluids. Use proper equipment (pumps, funnels) to transfer fluids Keep spill kits readily accessible Check incoming vehicles for leaking oil and fluids. Transfer used fluids and oil filters to waste or recycling drums immediately following generation. Inspect equipment routinely for leaks and spills Repair equipment immediately, if necessary implement a preventative maintenance schedule for equipment and vehicles.

#### **7.1.b Fueling Area**

Perform fueling in designated fueling area minimum 50' away from federal waters Use secondary containment (drain pan) to catch spills Use proper equipment (pumps, funnels) to transfer fluids Keep spill kits readily accessible Inspect fueling areas routinely for leaks and spills

#### **Hazardous Material Storage Areas**

Reduce the amount of hazardous materials by substituting non-hazardous or Less hazardous materials.

#### **7.1. c Hazardous Material Storage Areas**

Minimize the quantity of hazardous materials brought onsite Store hazardous materials in a designated area away from drainage points.

#### **7.1. d Unexpected Contaminated Soil and Water**

- Investigate historical site use
- Perform all excavation activities carefully and only after the Owner/Construction Manager directed any activities

### **7.2 SPILL CONTAINMENT METHODS**

The following discussion identifies the types of secondary containment that will be used in the event of a spill. Table 1 summarizes the containment methods for each potential source.

- **Equipment Staging and Maintenance Area.** An equipment leak from a fuel tank, equipment seal, or hydraulic line will be contained within a spill containment cell placed beneath all stationary potential leak sources. An undetected leak from parked equipment will be cleaned up using hand shovels and containerized in a 55-gallon steel drum for offsite disposal.
- **Fueling Area.** A small spill during fueling operations will be contained using fuel absorbent pads at the nozzle. The transfer of fuel into portable equipment will be performed using a funnel and/or hand pump and a spill pad used to absorb any incidental spills/drips. Any leaking tanks or drums will have fluids removed and transferred to another tank, drum, or container for the fluids. A spill response kit will be located near the fueling area or on the fuel truck for easy access. The spill response kit will include plastic sheeting, tarps, over pack drums, absorbent litter, and shovels.
- **Hazardous Material Storage Area.** A spill from containers or cans in a hazardous material storage area will be contained within the storage cabinet these materials are kept in.
- **Unexpected Contaminated Soil.** If contaminated soil is encountered during the project, the Owner/Construction Manager will be notified immediately. Small quantities of suspected contaminated soil will be placed on a 6-mil plastic liner and covered with 6-mil plastic. A soil berm or silt fence will be used to contain the stockpile and prevent migration of contaminated liquids in the soil.

**Table 1: Spill Prevention and Containment Methods**

Potential Spill Source	Potential Spill Source
Equipment Staging and Maintenance Area	Spill containment pad, spill kit, pumps, funnels
Fueling Area (site equipment only)	Spill containment pad, spill kit, pumps, funnels
Hazardous Material Staging Area	Spill containment pad, spill kit, pumps, funnels
Unexpected Contaminated Soil	Plastic liner, plastic cover, soil berm, hay bales, lined super sacks

### 7.3 SPILL COUNTERMEASURES

Every preventative measure shall be taken to keep contaminated or hazardous materials contained. If a release occurs, the following actions shall be taken:

1. **Stop the Spill:** The severity of a spill at the site is anticipated to be minimal as large containers/quantities of Hazardous Materials (HM) are not anticipated. The type of spill would occur while dispensing material at the HM storage facility and would likely be contained in secondary containment. Thus, the use spill kits or other available absorbent materials should stop the spill.
2. **Warn Others:** Notify co-workers and supervisory personnel of the release. Notify emergency responders if appropriate. For site personnel, an alarm system will consist of

three one second blasts on an air horn sounded by the person discovering a spill or fire. In the event of any spill, the Superintendent and Project Manager shall be notified **if the spill is 5 gallons or more the STATE will be contacted along with the Fire Department.**

3. **Isolate the Area:** Prevent public access to the area and continue to minimize the spread of the material. Minimize personal exposure throughout emergency response actions.

4. **Containment:** A spill shall only be contained by trained personnel and if it is safe to do so. **DO NOT PLACE YOURSELF IN DANGER.** Attempt to extinguish a fire only if it is in the incipient stage; trash can size or smaller. For larger spills, wait for the arrival of emergency response personnel and provide directions to the location of the emergency.

5. **Complete a Spill and Incident Report:** For each spill of a Hazardous Material a spill and incident report shall be completed and submitted to the Owner/Construction Manager and if applicable to the Engineer and the State of Colorado Department of Public Health and Environment

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## 8.0 INSPECTIONS

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### **8.1 Inspections**

Inspections will occur at least every 14 days and within 24 hours of a precipitation event producing runoff, which from past experience this occurs with precipitation of 1/4 inch of rain or more , the primary site for tracking weather data and rainfall measurements will be taken from Weather Underground and a rain gauge will be onsite for verification only.

#### **1. Inspection Personnel:**

The contract Stormwater Inspector will conduct the site inspections as mentioned above in Section 1.

#### **2. Inspection Schedule and Procedures:**

The inspection schedule will be routinely accomplished every 14 days and after every storm event for the entire site with all BMP's evaluated for performance and need. Any BMP found to be ineffective will be re-accomplished or replaced with a new BMP to provide the level of protection needed. BMP's found to be no longer needed will be removed. Inspections will also be accomplished as soon as practical, but within 24 hours of the end of a precipitation event causing surface erosion, over 1/4" or more.

The general procedures for correcting problems when they are identified will be to document the problem in the log and devise a solution utilizing all resources available to formulate BMP's that will correct the problem as soon as possible.

A copy of the inspection report to be used for the site is attached. See Appendix.

### **8.2 Delegation of Authority**

#### **Duly Authorized Representative(s) or Position(s):**

Authorized representatives for the SWMP plan will be: Jeff Mark – Primary Contact  
SWMP INSPECTOR – Trevor Terril

### **8.3 Revisions to the SWMP**

The SWMP Inspector and/or the site superintendent have the authority to add/subtract/revise BMP's as necessary to accommodate construction activities. However, the engineer should be notified when any major redirection of runoff, offsite runoff, pond modifications, or other



substantial changes are made to this SWMP. Changes should be documented per Section 9.0.

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## **9.0 RECORDKEEPING AND TRAINING**

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### ***9.1 Recordkeeping***

Records will be retained for a minimum period of at least 3 years after the permit is terminated.

Major activities will start on 11/2017:

Date(s) when construction activities permanently cease on a portion of the site: 06/2018

Date(s) when an area is either temporarily or permanently stabilized: 6/2018

### ***9.2 Changes to the SWMP***

Any changes will be referenced in APPENDIX. See Section 8.3 for authority to change the SWMP.

### ***9.3 Training***

Individual(s) Responsible for Training:

All personnel on site will trained on the site specific SWMP requirements to be conducted by the SWMP Inspector and/or the site superintendent.

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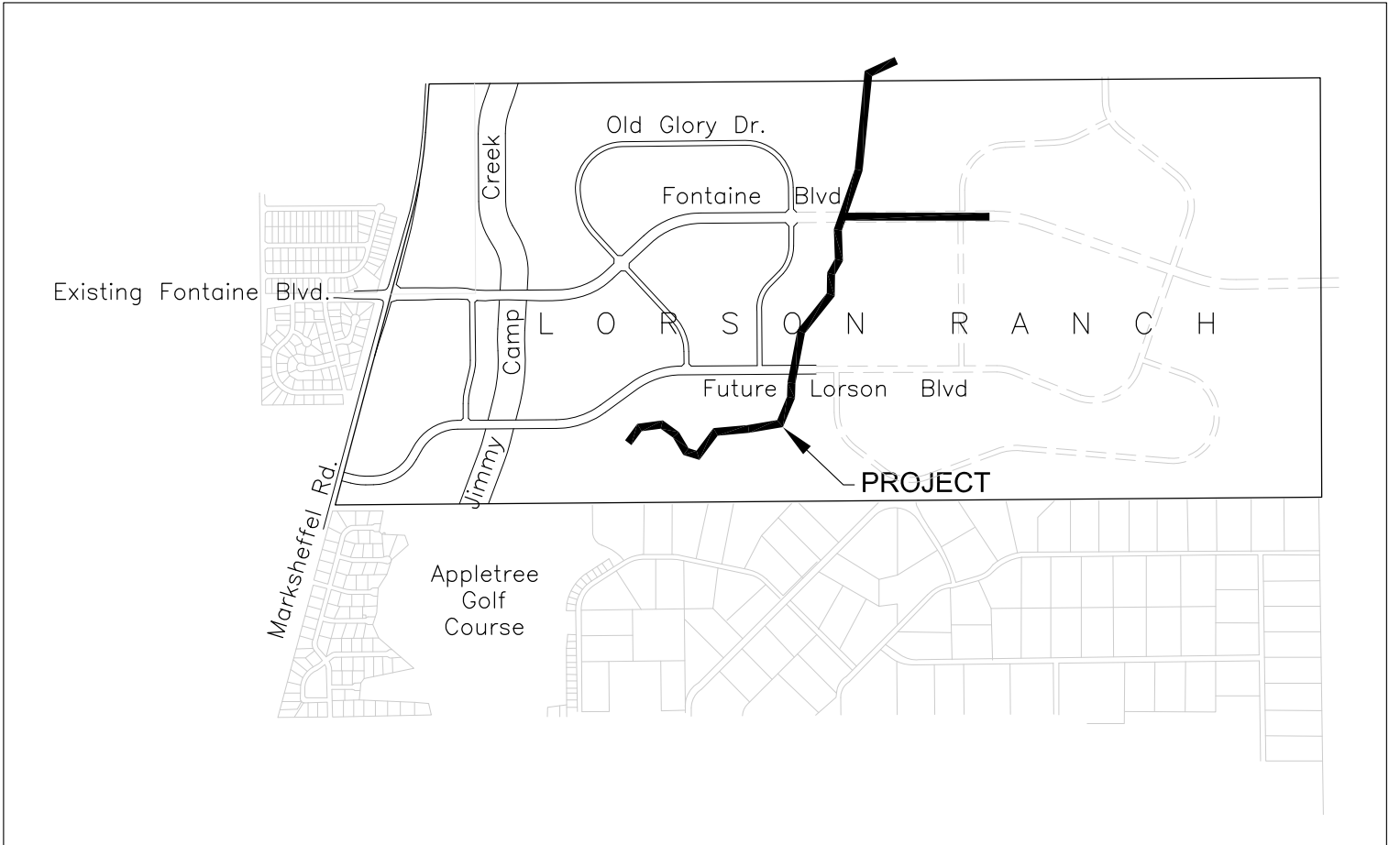
## **10.0 FINAL STABILIZATION**

---

Final stabilization will be accomplished by contractors to re-vegetate the area of disturbance per the approved plans and specifications. Final stabilization will include permanent seeding/mulching of disturbed areas, sediment forebays, erosion control blankets, turf reinforcement mats, and permanent BMP's.

Once 70% of the pre-development vegetative cover has been established and has been accepted, temporary BMP's will be removed and the permit will be terminated and filed.

## **APPENDIX A**



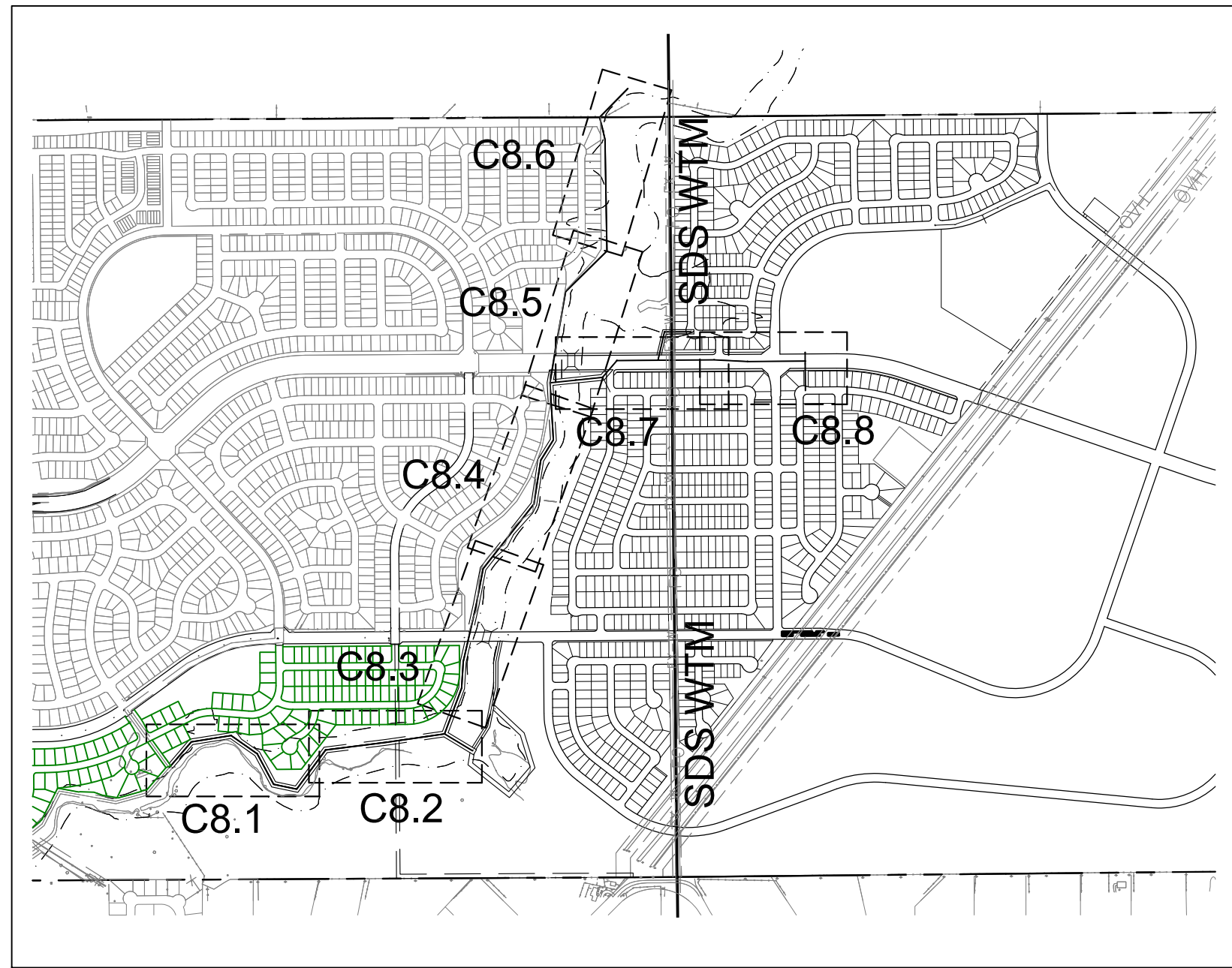
**VICINITY MAP**  
NO SCALE

## **APPENDIX B**

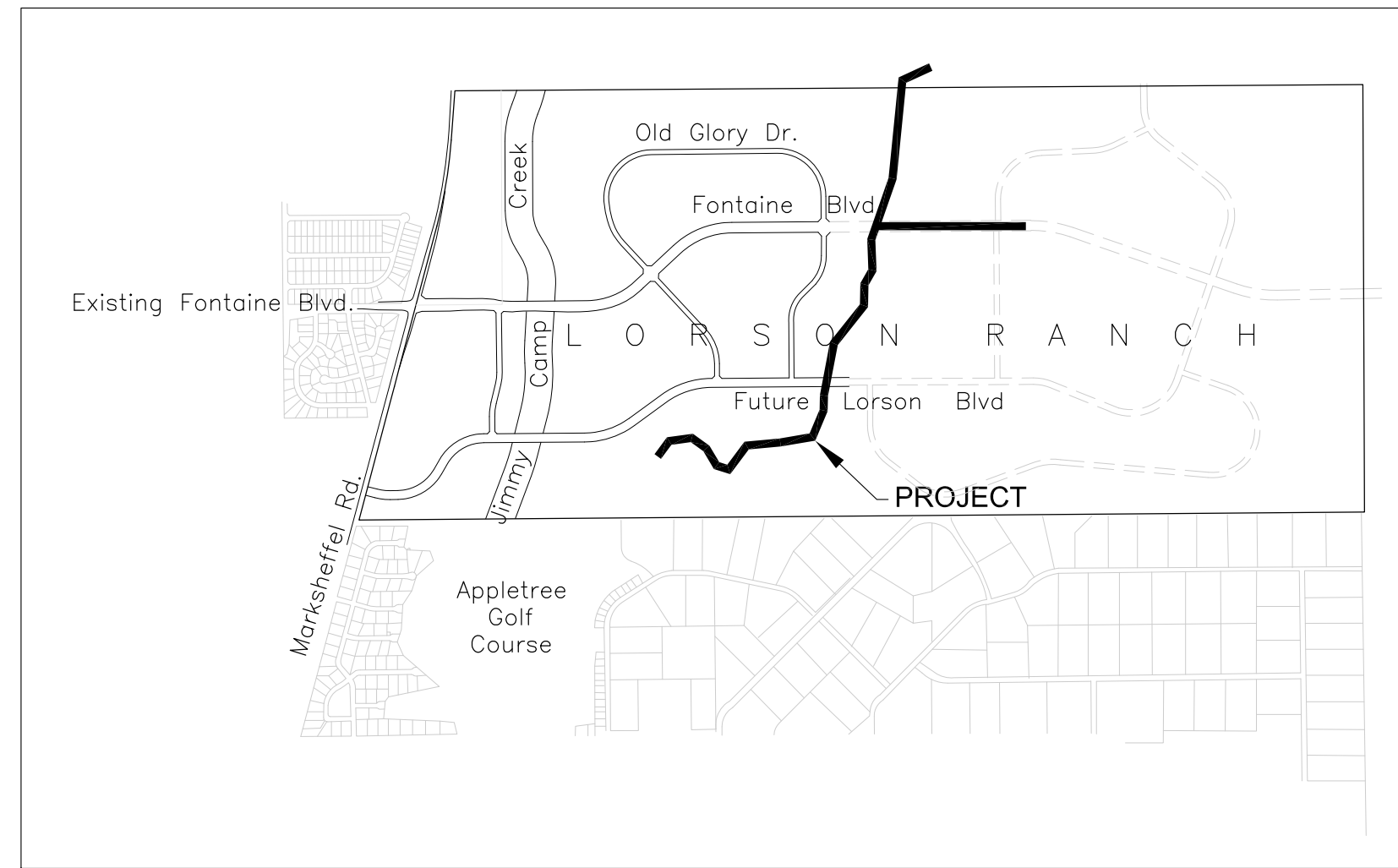
CONSTRUCTION PLANS  
FOR  
**LORSON RANCH EAST**  
EAST JIMMY CAMP INTERCEPTOR  
SANITARY SEWER CONSTRUCTION PLANS



**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



**KEY MAP**  
SCALE: 1"=1000'



**VICINITY MAP**  
NO SCALE

SHEET INDEX	
SHEET NO.	SHEET DESCRIPTION
C1.1	COVER SHEET
C1.2	NOTES
C1.3	OVERALL LAYOUT
C4.1	GRADING & EROSION CONTROL PLAN
C8.1-C8.8	SANITARY SEWER PLAN AND PROFILE
S1	CAISSON DETAILS
C12.1	UTILITY DETAILS

**DEVELOPER'S STATEMENT**

THE UNDERSIGNED OWNER/DEVELOPER HAS READ AND WILL COMPLY WITH ALL THE REQUIREMENTS SPECIFIED IN THESE CONSTRUCTION PLANS AND THE ACCOMPANYING DRAINAGE REPORT.

BUSINESS NAME   LORSON, LLC    
BY \_\_\_\_\_ DATE \_\_\_\_\_  
TITLE \_\_\_\_\_  
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, COUNTY ENGINEER/ECM ADMINISTRATOR      DATE \_\_\_\_\_  
CONDITIONS:

**ENGINEER'S APPROVAL**

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

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

**WATER / SANITARY**  
WIDEFIELD WATER AND SANITATION DISTRICT  
37 WIDEFIELD BLVD.  
SECURITY, CO 80911  
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**  
212 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.

**CONSTRUCTION APPROVAL**

COLORADO SPRINGS UTILITIES FOR CONSTRUCTION WITHIN THE SDS EASEMENT

\_\_\_\_\_  
CSU REPRESENTATIVE      DATE \_\_\_\_\_

**DISTRICT APPROVAL (WASTEWATER)**

THE WIDEFIELD WATER AND SANITATION DISTRICT RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE WIDEFIELD WATER AND SANITATION DISTRICT HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

WIDEFIELD WATER AND SANITATION DISTRICT  
WATER DESIGN APPROVAL

DATE \_\_\_\_\_ BY \_\_\_\_\_

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

IN CASE OF ERRORS OR OMISSIONS WITH THE WATER DESIGN AS SHOWN ON THIS DOCUMENT THE STANDARDS AS DEFINED IN THE "RULES AND REGULATIONS FOR INSTALLATION OF WATER MAINS AND SERVICES" SHALL RULE.

APPROVAL EXPIRES 180 DAYS FROM DESIGN APPROVAL

**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@ceg1.com

NO.	DESCRIPTION	DATE
1.	X	X

PROJECT: EAST JCC INTERCEPTOR  
212 N. WAHSATCH AVE., SUITE 301  
FONTAINE BLVD., LORSON BLVD.  
EL PASO COUNTY, COLORADO 80903  
PREPARED FOR: LORSON, LLC  
CONTACT: JEFF MARK

DRAWN: LJA
DESIGNED: RLS
CHECKED: RLS

**COVER SHEET**  
**EAST JIMMY CAMP CREEK INTERCEPTOR**  
**CONSTRUCTION PLANS**

DATE  
**SEPTEMBER 8, 2017**

PROJECT NO.  
**100.041**

SHEET NUMBER  
**C1.1**

TOTAL SHEETS: **14**



**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 DREXEL, BARRELL & CO., JULY, 2005. 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 LORSON RANCH.

**WIDEFIELD WATER AND SANITATION DISTRICT GENERAL NOTES**

- ALL UTILITY CONSTRUCTION TO BE CONDUCTED IN CONFORMANCE WITH THE CURRENT WIDEFIELD WATER AND SANITATION DISTRICT SPECIFICATIONS. COMPACTION REQUIREMENTS SHALL BE 95% STANDARD PROCTOR AS DETERMINED BY ASTM D698, UNLESS OTHERWISE APPROVED BY THE WIDEFIELD WATER AND SANITATION DISTRICT OR A HIGHER STANDARD IS IMPOSED BY ANOTHER AGENCY HAVING RIGHT-OF-WAY JURISDICTION.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE WIDEFIELD WATER AND SANITATION DISTRICT. THE WIDEFIELD WATER AND SANITATION DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
- THE DEVELOPER OR HIS ENGINEER HAS LOCATED ALL FIRE HYDRANTS AND FUTURE SERVICE STUBS. ANY REQUIRED REALIGNMENT, EITHER HORIZONTAL OR VERTICAL, SHALL BE AT THE EXPENSE OF THE DEVELOPER.
- ALL DUCTILE IRON PIPE, TO INCLUDE FITTINGS, VALVES AND FIRE HYDRANTS WILL BE WRAPPED WITH POLYETHYLENE TUBING, BONDED AT EACH JOINT AND ELECTRICALLY ISOLATED.
- ALL DUCTILE IRON PIPE SHALL BE DOUBLE BONDED. DIP SHALL HAVE CATHODIC PROTECTION USING NO. 6 WIRE WITH 17 LB. MAGNESIUM ANODES EVERY 400 FEET.
- PVC MAIN LINES SHALL BE INSTALLED WITH COATED NO. 12 TRACER WIRE.
- ALL FITTINGS SHALL BE DUCTILE IRON -MECHANICAL JOINT AND HAVE 1 LB. MAGNESIUM ANODES AT EVERY FITTING.
- THE CONTRACTOR IS REQUIRED TO NOTIFY THE WIDEFIELD WATER AND SANITATION DISTRICT (390-7111) A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTIFY AFFECTED UTILITY COMPANIES 48 HOURS PRIOR TO CONSTRUCTION ADJACENT TO THE KNOWN UTILITY LINES.
- THE LOCATION OF ALL UTILITIES AS SHOWN ON THESE DRAWINGS ARE APPROXIMATE ONLY. THE LOCATION OF ALL UTILITIES SHALL BE VERIFIED PRIOR TO CONSTRUCTION BY THE CONTRACTOR.
- THE CONTRACTOR SHALL FIELD EXCAVATE AND VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF ALL TIE-INS. CONTRACTOR SHALL NOTIFY THE WIDEFIELD WATER AND SANITATION DISTRICT AND THE ENGINEER OF THE FIELD VERIFIED INFORMATION PRIOR TO CONSTRUCTION.
- ALL BENDS SHALL BE FIELD STAKED PRIOR TO CONSTRUCTION.
- ANY WATER UTILITY MATERIAL REMOVED AND NOT REUSED SHALL BE RETURNED TO THE WIDEFIELD WATER AND SANITATION DISTRICT IF THE DISTRICT SO REQUESTS.
- THE CONTRACTOR SHALL AT HIS EXPENSE SUPPORT AND PROTECT ALL UTILITY MAINS SO THAT THEY WILL FUNCTION CONTINUOUSLY DURING CONSTRUCTION. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT WILL BE REPLACED IMMEDIATELY BY EITHER THE CONTRACTOR OR THE WIDEFIELD WATER AND SANITATION DISTRICT AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR.
- ANY PUMPING OR BYPASS OPERATIONS MUST BE REVIEWED AND APPROVED PRIOR TO EXECUTION BY BOTH THE WIDEFIELD WATER AND SANITATION DISTRICT AND THE ENGINEER.
- DISINFECTION SHALL BE ACCOMPLISHED BY GLUING TABLETS TO THE TOP OF THE LINE. POWDER OR GRANULER HTH SHALL NOT BE USED. SEE WIDEFIELD SPECS FOR FURTHER DEFINITION OF DISINFECTION TECHNIQUES.
- CONTRACTOR MUST REPLACE OR REPAIR ANY DAMAGE TO ALL SURFACE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO FENCES, CURB AND GUTTER AND/OR ASPHALT THAT MAY BE CAUSED DURING CONSTRUCTION.
- ALL WATER LINES 6" AND LARGER, AND ALL SEWER LINES 8" AND LARGER, SHALL HAVE AS "AS-BUILT" PLANS PREPARED AND APPROVED PRIOR TO FINAL ACCEPTANCE BY THE WIDEFIELD WATER AND SANITATION DISTRICT.
- PRIOR TO CONSTRUCTION, A PRE-CONSTRUCTION CONFERENCE IS REQUIRED A MINIMUM OF 72 HOURS IN ADVANCE OF COMMENCEMENT OF WORK. TO SET THE PRE-CONSTRUCTION CONFERENCE, CONTACT BRANDON BERNARD-WATER SUPERINTENDENT (464-2051) AND/OR MARK MCCORMICK, WASTEWATER SUPERINTENDENT OF THE WIDEFIELD WATER AND SANITATION DISTRICT FOR A TIME. NO PRE-CONSTRUCTION CONFERENCE TIMES WILL BE SET UNTIL 4 SETS OF SIGNED DRAWINGS ARE RECEIVED BY THE WIDEFIELD W & S DISTRICT. PRE-CONSTRUCTION DATE /INITIALS\_\_\_\_\_.

**WIDEFIELD WATER AND SANITATION DISTRICT UTILITY CONSTRUCTION NOTES**


- ALL DUCTILE IRON PIPE AND FITTINGS SHALL HAVE CATHODIC PROTECTION AND 1 LB MAGNESIUM ANODES AT EVERY FITTING.
- ALL FIRE HYDRANTS SHALL BE MUELLER SUPER CENTURION 200 OR AMERICAN AVK SERIES 2700, (MODERN)

**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 PCD INSPECTIONS STAFF.
- SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 21 CALENDAR DAYS AFTER FINAL GRADING, OR FINAL EARTH DISTURBANCE, HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED WITHIN 21 DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMPS SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND ESTABLISHED.
- TEMPORARY SOIL EROSION CONTROL FACILITIES SHALL BE REMOVED AND EARTH DISTURBANCE AREAS GRADED AND STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES PURSUANT TO STANDARDS AND SPECIFICATION PRESCRIBED IN THE DCM VOLUME II AND THE ENGINEERING CRITERIA MANUAL (ECM) APPENDIX I.
- ALL PERSONS ENGAGED IN EARTH DISTURBANCE SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BMPS IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE DRAINAGE CRITERIA MANUAL (DCM) VOLUME II AND IN ACCORDANCE WITH THE STORMWATER MANAGEMENT PLAN (SWMP).
- ALL TEMPORARY EROSION CONTROL FACILITIES INCLUDING BMPS AND ALL PERMANENT FACILITIES INTENDED TO CONTROL EROSION OF ANY EARTH DISTURBANCE OPERATIONS, SHALL BE INSTALLED AS DEFINED IN THE APPROVED PLANS, THE SWMP AND THE DCM VOLUME II AND MAINTAINED THROUGHOUT THE DURATION OF THE EARTH DISTURBANCE OPERATION.
- ANY EARTH DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY REDUCE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME.
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE DESIGNED TO LIMIT THE DISCHARGE TO A NON-EROSIVE VELOCITY.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
- EROSION CONTROL BLANKETING 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 PERMITEE 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  
WOOD - PERMITS  
4300 CHERRY CREEK DRIVE SOUTH  
DENVER, CO 80246-1530  
ATTN: PERMITS UNIT

**CORE ENGINEERING GROUP**  
1500 WEST AVENUE, SUITE 500  
DENVER, CO 80202  
PH: 719.570.1100  
CONTACT: RICHARD L. SCHINDLER, P.E.  
EMAIL: Rich@ceng1.com



DATE	X
DESCRIPTION	
NO.	X
I.	
PROJECT:	EAST JCC INTERCEPTOR FONTAINE BLVD. - LORSON BLVD. EL PASO COUNTY, COLORADO
PREPARED FOR:	LORSON, LLC 212 N. WAHSATCH AVE. SUITE 301 COLORADO SPRINGS, COLORADO 80903 (719) 636-3200 CONTACT: JEFF MARK

DRAWN:	LJA
DESIGNED:	RLS
CHECKED:	RLS

**NOTES**

**EAST JIMMY CAMP CREEK INTERCEPTOR**

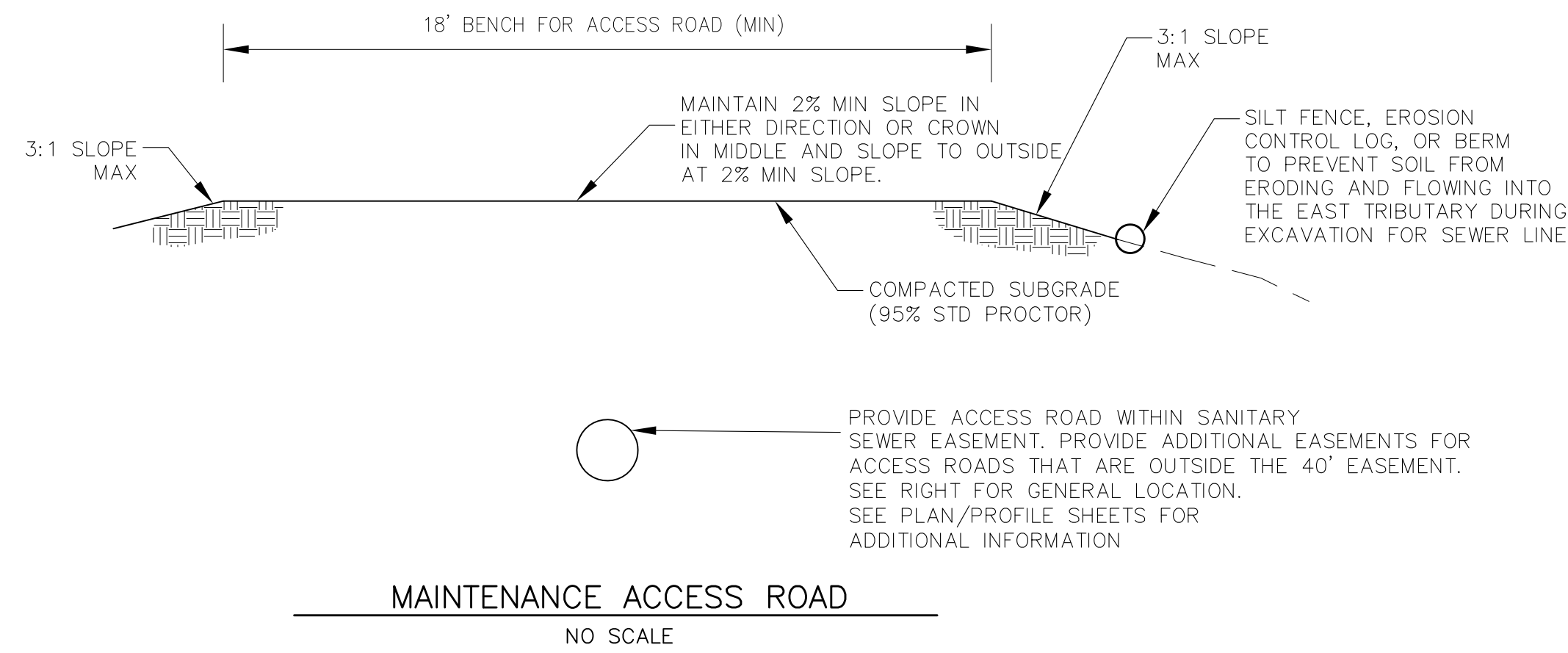
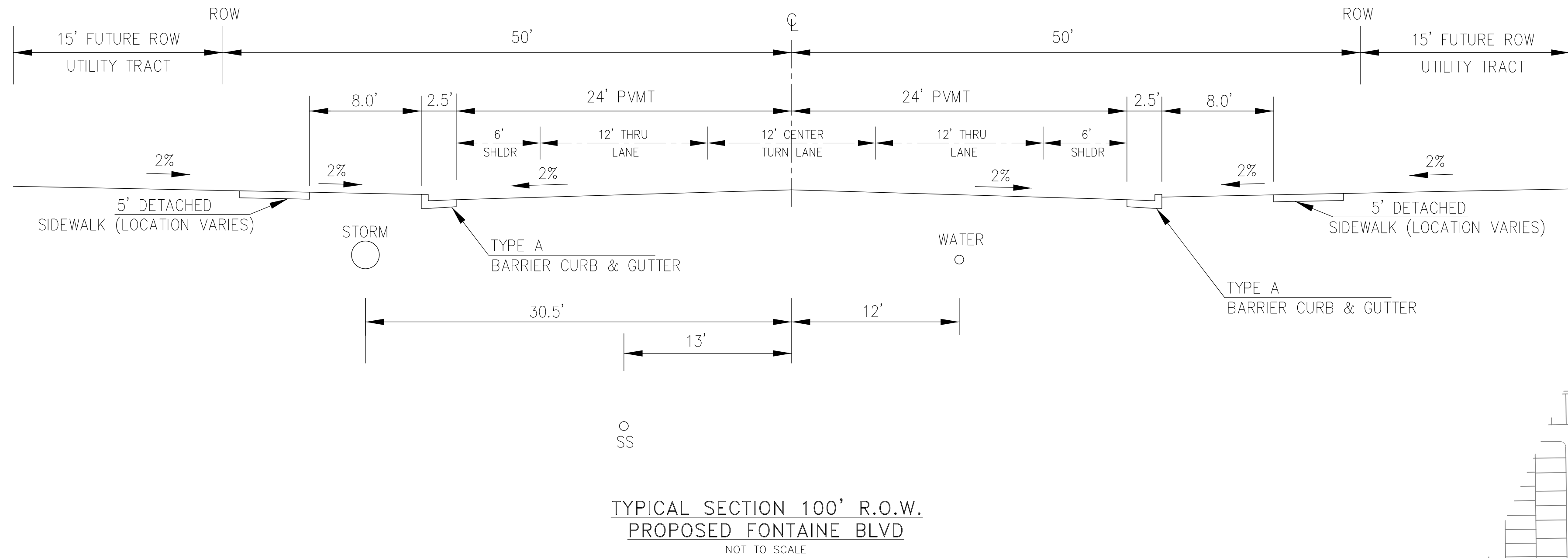
DATE  
**SEPTEMBER 8, 2017**

PROJECT NO.  
**100.041**

SHEET NUMBER  
**C1.2**

TOTAL SHEETS: **14**



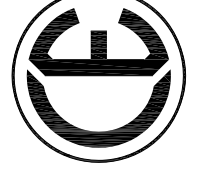


BEGIN PHASE 1 INTERCEPTOR CONSTRUCTION. ACCESS FROM EXISTING 35' SAN SWR EASEMENT. REC. NO. 208055334



**CORE**  
ENGINEERING GROUP

1500 15TH AVENUE, SUITE 300  
BOULDER, CO 80501  
PH: 719.570.1100  
CONTACT: RICHARD L. SCHINDLER, P.E.  
EMAIL: Rich@cog1.com



NO.	DESCRIPTION	DATE
1.		X
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

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

PROJECT:  
**EAST JCC INTERCEPTOR**  
FONTAINE BLVD. - LORSON BLVD.  
EL PASO COUNTY, COLORADO

DRAWN: LJA  
DESIGNED: RLS  
CHECKED: RLS

**OVERALL SITE MAP**  
**EAST JIMMY CAMP CREEK INTERCEPTOR**

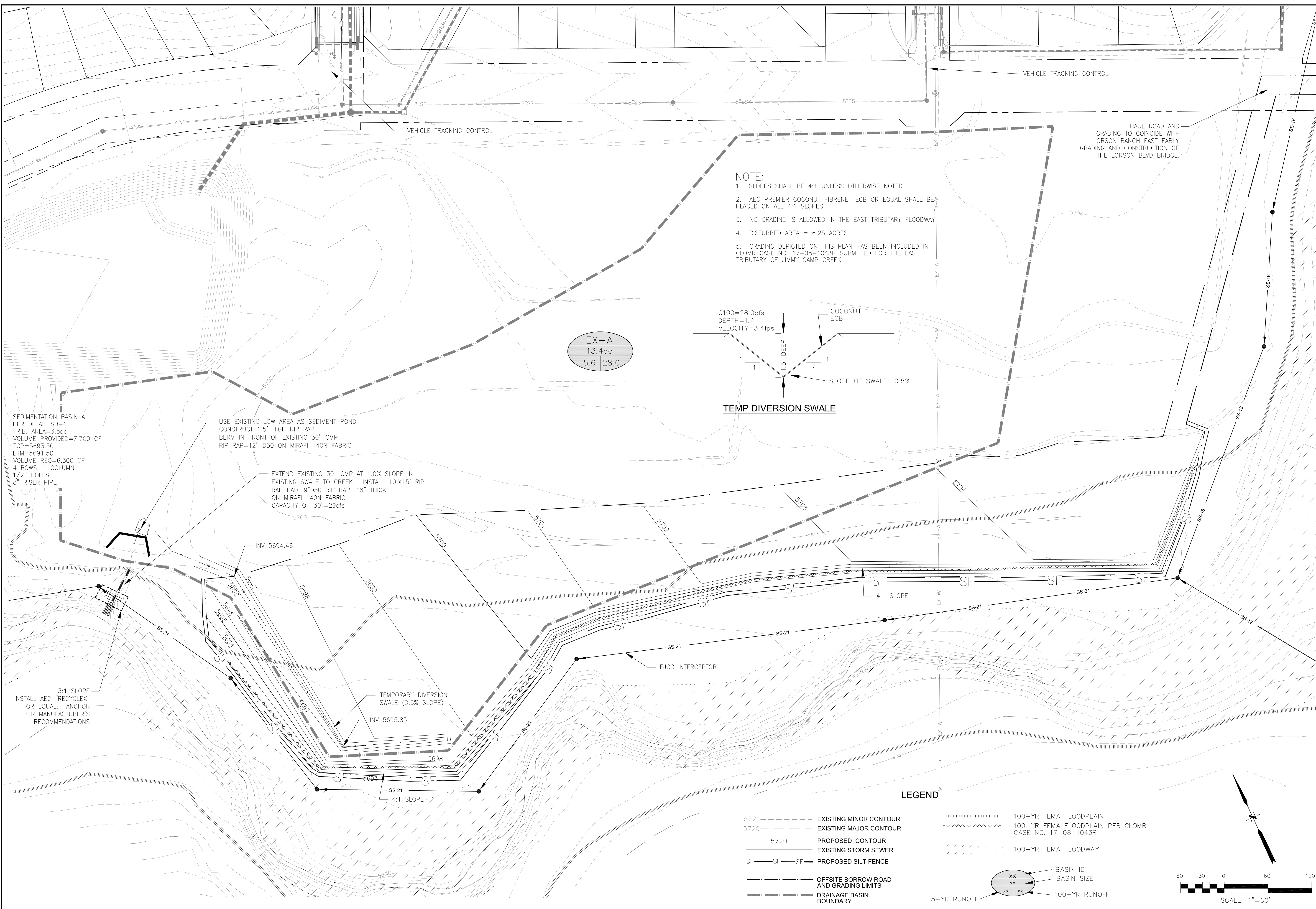
DATE  
**SEPTEMBER 8, 2017**

PROJECT NO.  
**100.041**

SHEET NUMBER  
**C1.3**

TOTAL SHEETS: 14

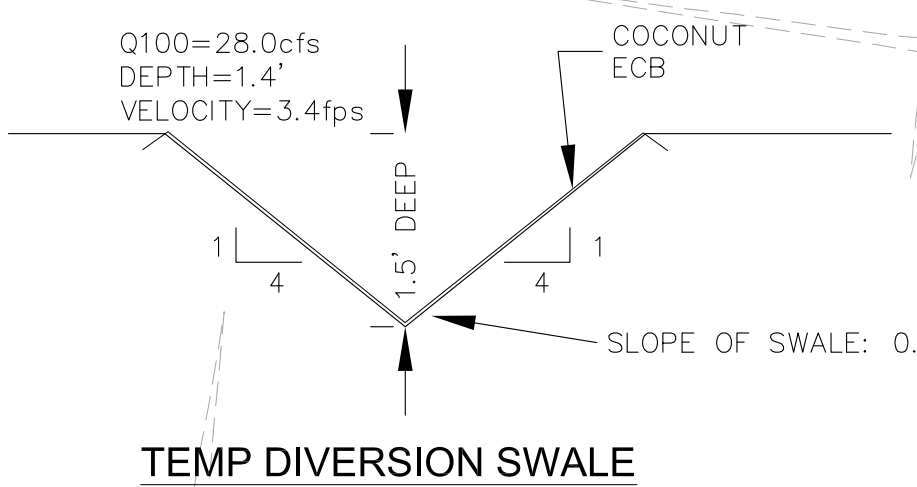




**NOTE:**

1. SLOPES SHALL BE 4:1 UNLESS OTHERWISE NOTED
2. AEC PREMIER COCONUT FIBRENET ECB OR EQUAL SHALL BE PLACED ON ALL 4:1 SLOPES
3. NO GRADING IS ALLOWED IN THE EAST TRIBUTARY FLOODWAY
4. DISTURBED AREA = 6.25 ACRES
5. GRADING DEPICTED ON THIS PLAN HAS BEEN INCLUDED IN CLOMR CASE NO. 17-08-1043R SUBMITTED FOR THE EAST TRIBUTARY OF JIMMY CAMP CREEK

EX-A	
13.4ac	
5.6	28.0



SEDIMENTATION BASIN A  
 PER DETAIL SB-1  
 TRIB. AREA=3.5ac  
 VOLUME PROVIDED=7,700 CF  
 TOP=5693.50  
 BTM=5691.50  
 VOLUME REQ=6,300 CF  
 4 ROWS, 1 COLUMN  
 1/2" HOLES  
 8" RISER PIPE

USE EXISTING LOW AREA AS SEDIMENT POND  
 CONSTRUCT 1.5' HIGH RIP RAP  
 BERM IN FRONT OF EXISTING 30" CMP  
 RIP RAP=12" D50 ON MIRAFI 140N FABRIC

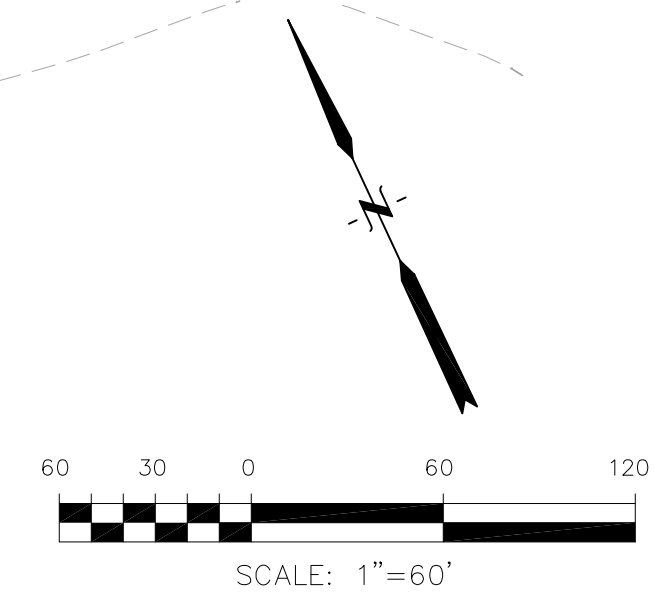
EXTEND EXISTING 30" CMP AT 1.0% SLOPE IN  
 EXISTING SWALE TO CREEK. INSTALL 10'X15' RIP  
 RAP PAD, 9"D50 RIP RAP, 18" THICK  
 ON MIRAFI 140N FABRIC  
 CAPACITY OF 30"=29cfs

3:1 SLOPE  
 INSTALL AEC "RECYCLEX"  
 OR EQUAL. ANCHOR  
 PER MANUFACTURER'S  
 RECOMMENDATIONS

TEMPORARY DIVERSION  
 SWALE (0.5% SLOPE)  
 INV 5695.85

**LEGEND**

- 5721 --- EXISTING MINOR CONTOUR
- 5720 --- EXISTING MAJOR CONTOUR
- 5720 --- PROPOSED CONTOUR
- EXISTING STORM SEWER
- SF --- SF --- SF --- PROPOSED SILT FENCE
- OFFSITE BORROW ROAD AND GRADING LIMITS
- DRAINAGE BASIN BOUNDARY
- 100-YR FEMA FLOODPLAIN
- 100-YR FEMA FLOODPLAIN PER CLOMR CASE NO. 17-08-1043R
- 100-YR FEMA FLOODWAY
- BASIN ID
- BASIN SIZE
- 5-YR RUNOFF
- 100-YR RUNOFF



**CORE ENGINEERING GROUP**  
 1500S AVENUE S, SUITE 500  
 DENVER, CO 80202  
 PH: 719.570.1100  
 CONTACT: RICHARD L. SCHINDLER, P.E.  
 EMAIL: Rich@ceg1.com

NO.	DESCRIPTION	DATE
1.		X
X		

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

PROJECT: **EAST JCC INTERCEPTOR**  
 FONTANE BLVD., LORSON BLVD.  
 EL PASO COUNTY, COLORADO

DRAWN: LJA  
 DESIGNED: RLS  
 CHECKED: RLS

**EJCC GRADING**  
**EAST JIMMY CAMP CREEK INTERCEPTOR**

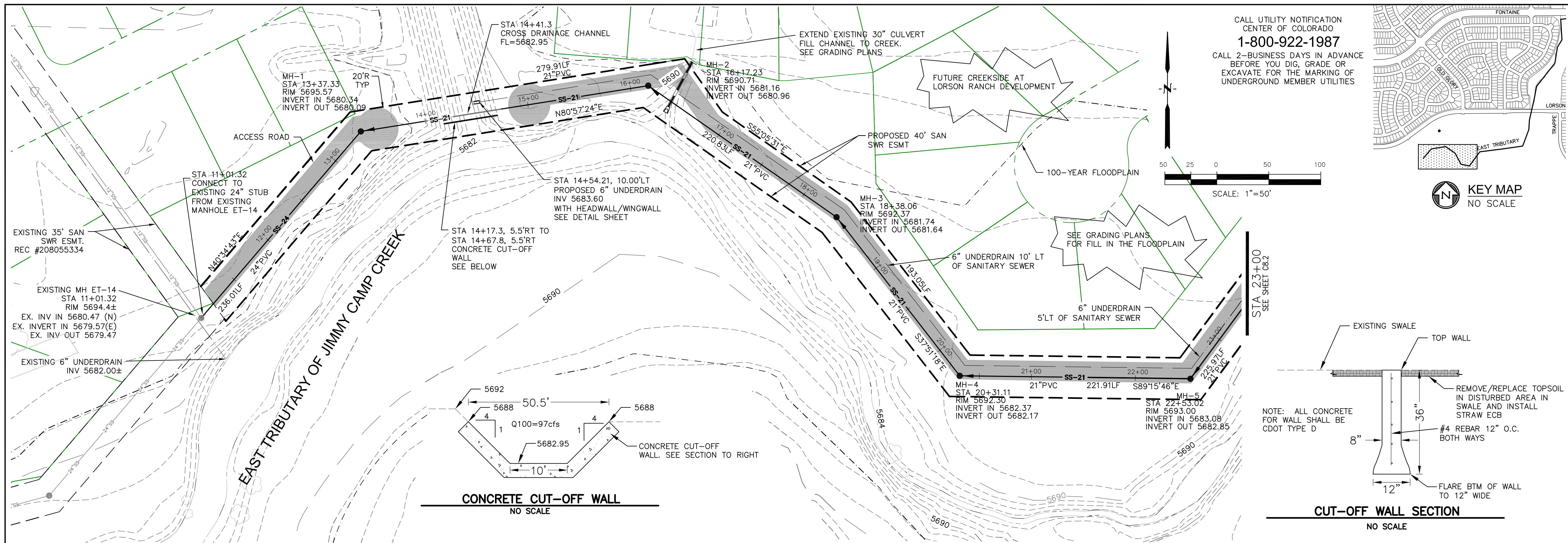
DATE: **SEPTEMBER 8, 2017**

PROJECT NO.: **100.041**

SHEET NUMBER: **C4.1**

TOTAL SHEETS: **14**





**CORE ENGINEERING GROUP**  
 15004 1ST AVENUE, SUITE 5506  
 DENVER, CO 80232  
 PH: 719.556.7800  
 CONTACT: RICHARD L. SCHINDLER, P.E.  
 EMAIL: RICH@CEGI.COM

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

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

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

PROJECT: **EAST JCC INTERCEPTOR**  
 LORSON, LLC  
 212 N. WAHSATCH AVENUE, SUITE 301  
 COLORADO SPRINGS, COLORADO 80903  
 CONTACT: JEFF MARK

DRAWN: RLS  
 DESIGNED: RLS  
 CHECKED: RLS

EAST JIMMY CAMP CREEK INTERCEPTOR		SCALES: HORIZ. 1"=50' VERT. 1"=5'	
5710			5710
5705			5705
5700			5700
5695			5695
5690			5690
5685			5685
5680			5680
5675			5675
5670			5670
10+00	11+00	12+00	13+00
14+00	15+00	16+00	17+00
18+00	19+00	20+00	21+00
22+00	23+00		

**EAST JCC INTERCEPTOR**  
 STA 10+00 TO 23+00  
 EAST TRIBUTARY

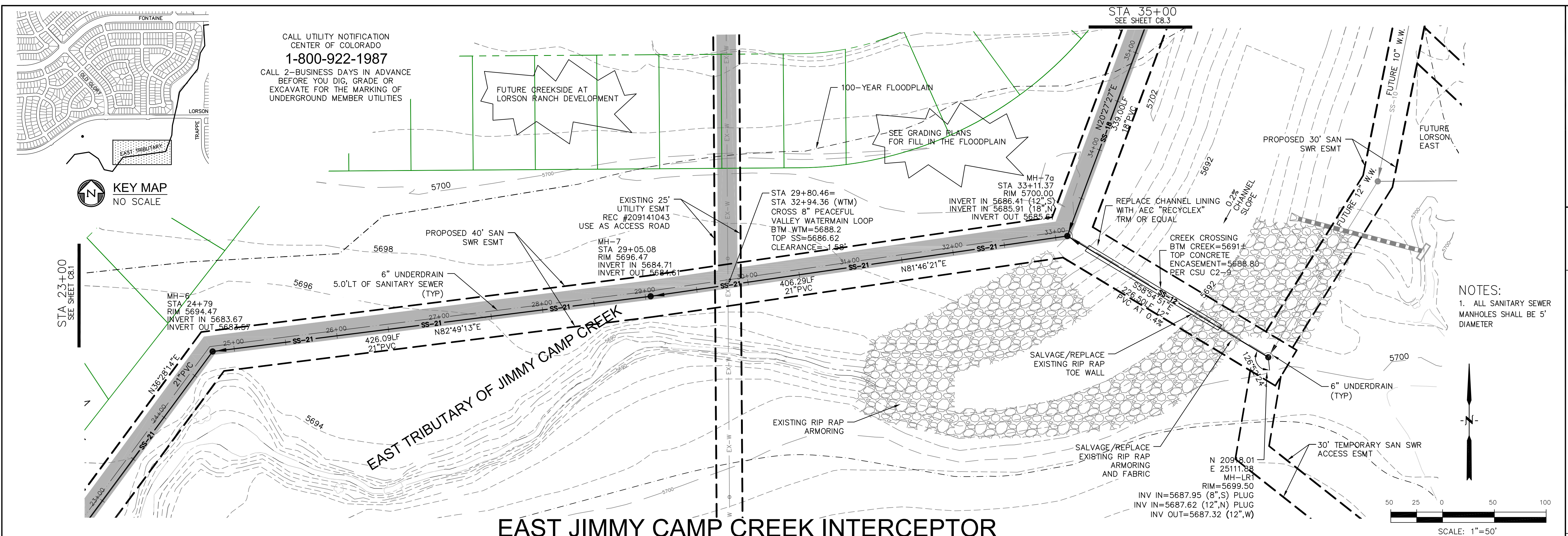
DATE: **SEPTEMBER 8, 2017**

PROJECT NO. **100.041**

SHEET NUMBER **C8.1**

TOTAL SHEETS: 14



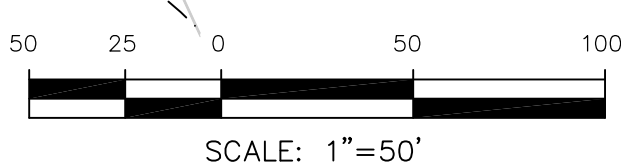


**EAST JIMMY CAMP CREEK INTERCEPTOR**

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

**KEY MAP**  
NO SCALE

**NOTES:**  
1. ALL SANITARY SEWER  
MANHOLES SHALL BE 5'  
DIAMETER



STATION	DESCRIPTION	STATION
5710		5710
5705		5705
5700		5700
5695		5695
5690	STA 23+00 SEE SHEET C8.1	5690
5685	21" PVC @ 0.22% 426.09 LF	5685
5680	21" PVC @ 0.22% 406.29 LF	5680
5675	21" PVC @ 0.22% 339.00 LF	5675
5670	18" PVC @ 0.40%	5670
23+00		35+00

SCALES: HORIZ. 1"=50'  
VERT. 1"=5'

**CORE ENGINEERING GROUP**  
1500K 1ST AVENUE, SUITE 100  
DENVER, CO 80202  
PHONE: 303.733.7800  
CONTACT: RICHARD L. SCHINDLER, P.E.  
EMAIL: RICH@CEG1.COM

---

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

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

PROJECT: **EAST JCC INTERCEPTOR**  
LORSON BLVD-EAST TRIBUTARY  
EL PASO COUNTY, COLORADO

---

DRAWN: RLS  
DESIGNED: RLS  
CHECKED: RLS

**EAST JCC INTERCEPTOR**  
STA 23+00 TO 35+00  
EAST TRIBUTARY

---

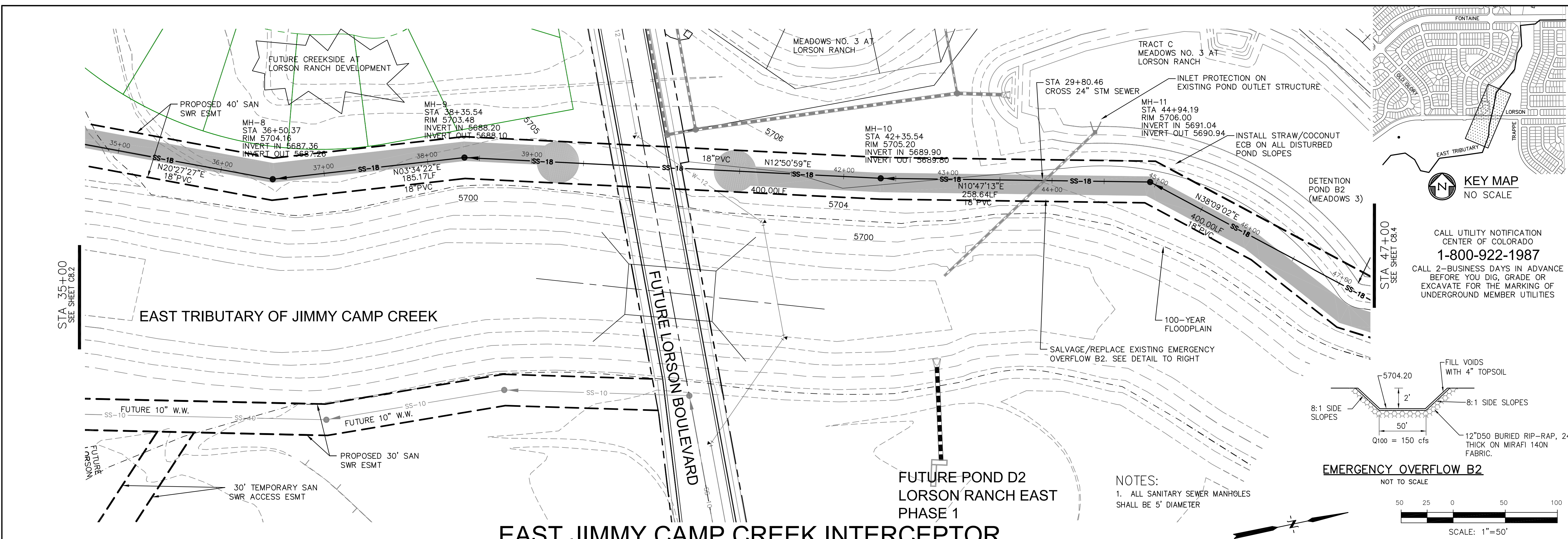
DATE: **SEPTEMBER 8, 2017**

PROJECT NO.  
**100.041**

SHEET NUMBER  
**C8.2**

TOTAL SHEETS: 14





STATION	DESCRIPTION	STATION
5710		5710
5705		5705
5700		5700
5695		5695
5690	18" PVC @ 0.40%	5690
5685	185.17 LF 18" PVC @ 0.40%	5685
5680	MH-8 STA 36+50.37 RIM 5704.16 INV IN 5687.36 INV OUT 5687.26	5680
5675	MH-9 STA 38+35.54 RIM 5703.48 INV IN 5688.20 INV OUT 5688.10	5675
5670	MH-10 STA 42+35.54 RIM 5705.20 INV IN 5689.90 INV OUT 5689.80	5670
	MH-11 STA 44+94.19 RIM 5706.00 INV IN 5691.04 INV OUT 5690.94	
35+00		47+00

**CORE ENGINEERING GROUP**  
 1500K 1ST AVENUE, SUITE 300  
 COLORADO SPRINGS, COLORADO 80903  
 PHONE: 719.556.7800  
 CONTACT: RICHARD L. SCHINDLER, P.E.  
 EMAIL: RICH@CEGI.COM

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

**PROJECT:**  
**EAST JCC INTERCEPTOR**  
 LORSON BLVD-EAST TRIBUTARY  
 EL PASO COUNTY, COLORADO

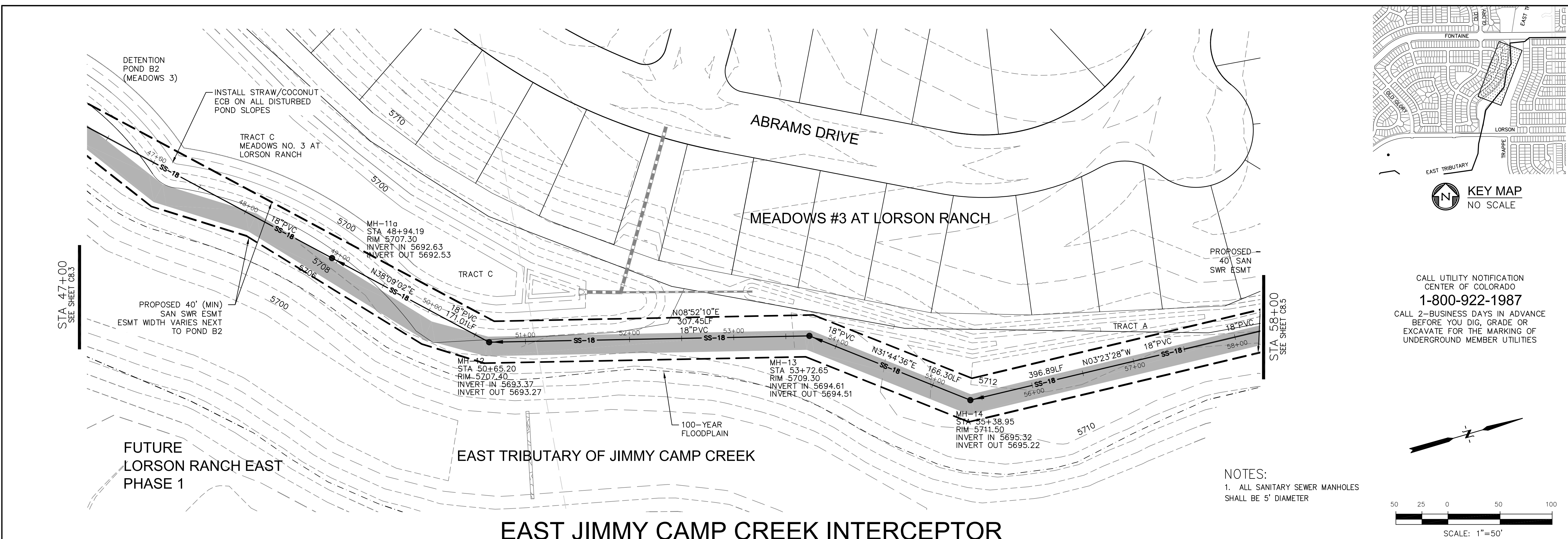
**DATE:**  
 SEPTEMBER 8, 2017

**PROJECT NO.:**  
 100.041

**SHEET NUMBER:**  
**C8.3**

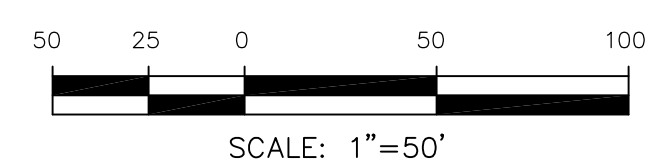
**TOTAL SHEETS:** 14





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

NOTES:  
 1. ALL SANITARY SEWER MANHOLES SHALL BE 5' DIAMETER



STATION	DESCRIPTION	STATION
5725		5725
5720		5720
5715		5715
5710		5710
5705		5705
5700		5700
5695	171.01 LF 18" PVC @ 0.37%	5695
5690	307.46 LF 18" PVC @ 0.37%	5690
5685	166.30 LF 18" PVC @ 0.35%	5685
	396.89 LF 18" PVC @ 0.37%	
47+00		58+00

**CORE ENGINEERING GROUP**  
 1500K 1ST AVENUE, S.E.  
 DENVER, CO 80202  
 PHONE: 719.556.7800  
 CONTACT: RICHARD L. SCHINDLER, P.E.  
 EMAIL: RICH@CEG1.COM

**CE**

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

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

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

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

PROJECT: **EAST JCC INTERCEPTOR**  
 LORSON BLVD-EAST TRIBUTARY  
 EL PASO COUNTY, COLORADO

DRAWN: RLS  
 DESIGNED: RLS  
 CHECKED: RLS

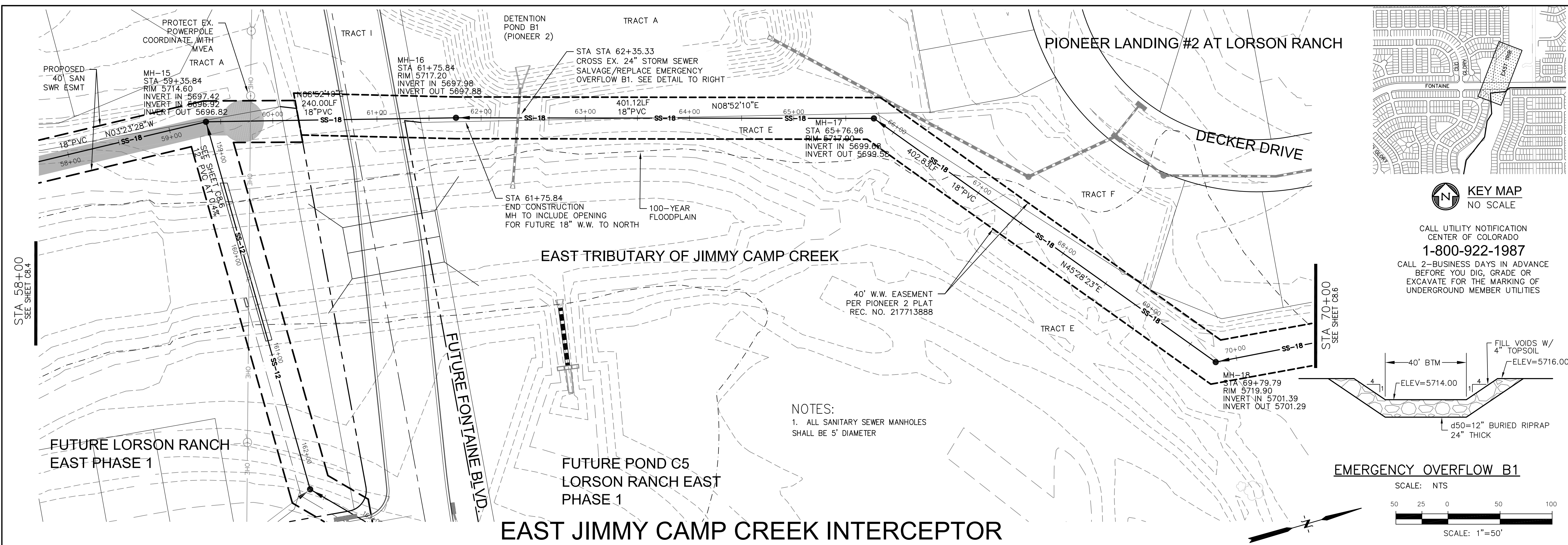
**EAST JCC INTERCEPTOR**  
**STA 47+00 TO 58+00**  
**EAST TRIBUTARY**

DATE: **SEPTEMBER 8, 2017**

PROJECT NO. **100.041**

SHEET NUMBER **C8.4**

TOTAL SHEETS: 14



**CORE ENGINEERING GROUP**  
 1500 K 151<sup>ST</sup> AVENUE, SUITE 301  
 COLORADO SPRINGS, COLORADO 80903  
 PHONE: 719.556.7800  
 CONTACT: RICHARD L. SCHINDLER, P.E.  
 EMAIL: RICH@CEG1.COM

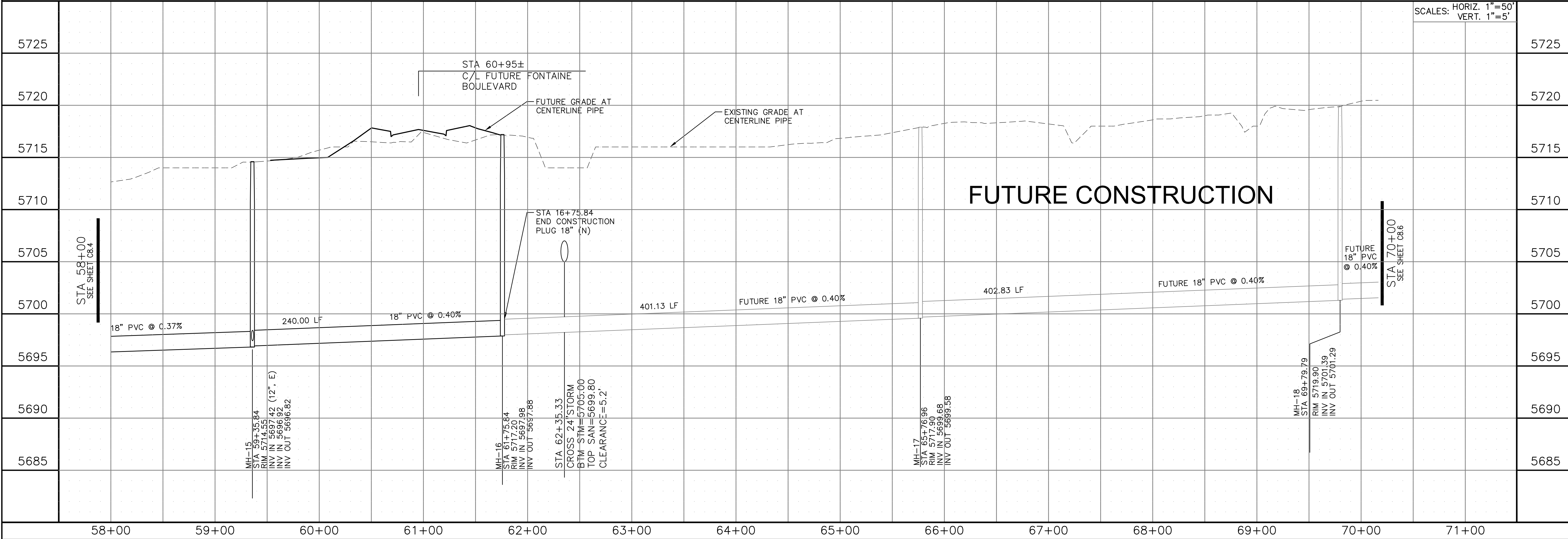
**DATE:**

**DESCRIPTION:**

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

**PROJECT:**  
**EAST JCC INTERCEPTOR**  
 LORSON BLVD-EAST TRIBUTARY  
 EL PASO COUNTY, COLORADO

**DRAWN:** RLS  
**DESIGNED:** RLS  
**CHECKED:** RLS



**DATE:**  
**SEPTEMBER 8, 2017**

**PROJECT NO.**  
**100.041**

**SHEET NUMBER**  
**C8.5**

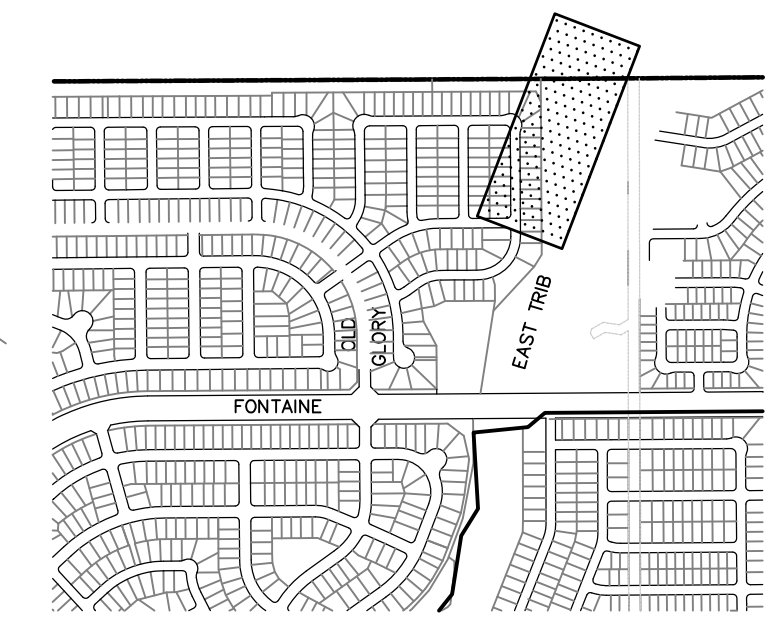
**TOTAL SHEETS:** 14

**EAST JCC INTERCEPTOR**  
**STA 58+00 TO 70+00**  
**EAST TRIBUTARY**

PIONEER LANDING #2 AT LORSON RANCH

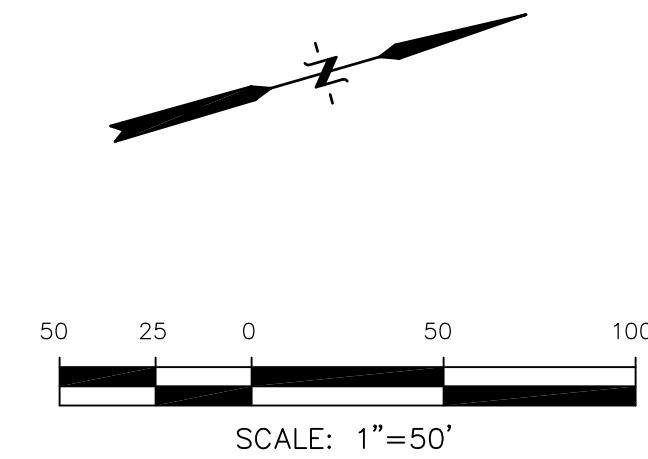
CITY OF COLORADO SPRINGS

DECKER DRIVE

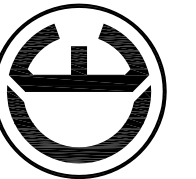


KEY MAP  
NO SCALE

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



**CORE**  
ENGINEERING GROUP  
1500K 1ST AVENUE, SUITE 5506  
P.O. BOX 179  
COLORADO SPRINGS, CO 80903  
CONTACT: RICHARD L. SCHINDLER, P.E.  
EMAIL: RICH@CEG1.COM



DATE: \_\_\_\_\_  
DESCRIPTION: \_\_\_\_\_  
NO. \_\_\_\_\_  
DRAWN: RLS  
DESIGNED: RLS  
CHECKED: RLS  
PREPARED FOR:  
**LORSON, LLC**  
212 N. WAHSATCH AVENUE, SUITE 301  
COLORADO SPRINGS, COLORADO 80903  
CONTACT: JEFF MARK  
PROJECT:  
**EAST JCC  
INTERCEPTOR**  
LORSON BLVD-EAST TRIBUTARY  
EL PASO COUNTY, COLORADO

STA 70+00  
SEE SHEET C8.4

MH-18  
STA 69+79.79  
RIM 5719.90  
INVERT IN 5701.39  
INVERT OUT 5701.29

TRACT E

40' W.W. EASEMENT  
PER PIONEER 2 PLAT  
REC. NO. 217713888

LORSON RANCH EAST

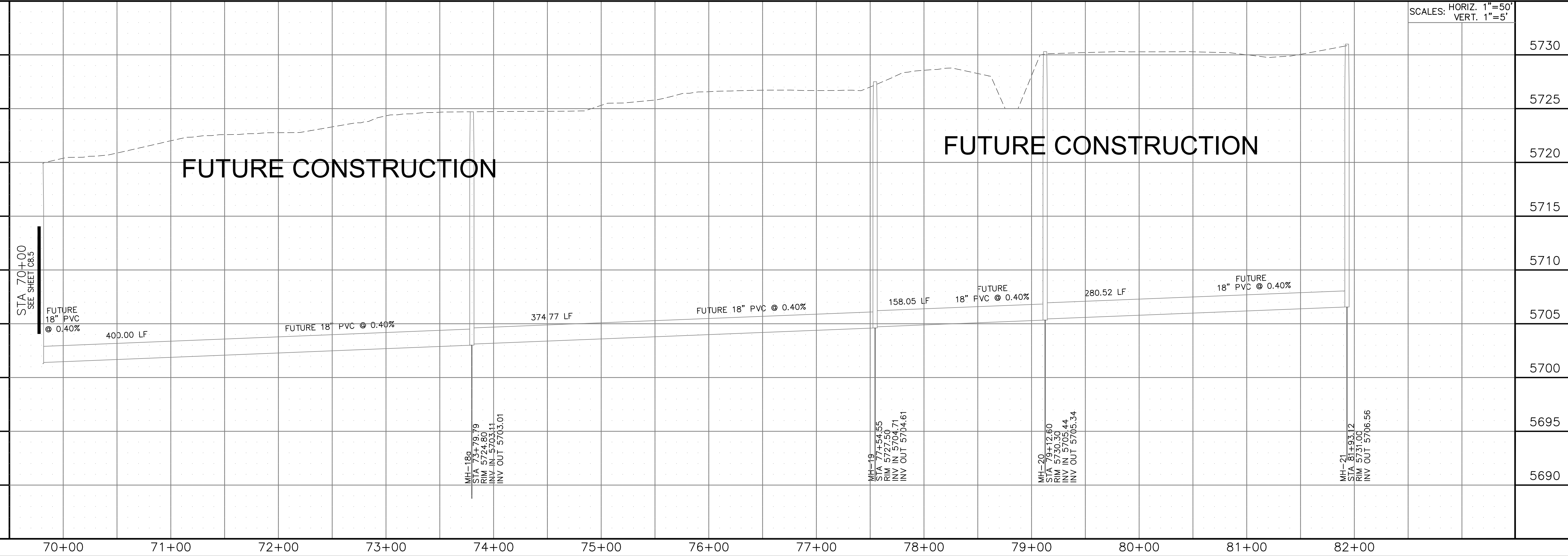
EAST TRIBUTARY OF JIMMY CAMP CREEK

**EAST JIMMY CAMP CREEK INTERCEPTOR**

MH-19  
STA 77+54.55  
RIM 5727.50  
INVERT IN 5704.69  
INVERT OUT 5704.59

MH-20  
STA 79+12.60  
RIM 5730.30  
INVERT IN 5705.42  
INVERT OUT 5705.32

MH-21  
STA 81+93.12  
RIM 5731.00  
INVERT IN 5706.65  
INVERT OUT 5706.55

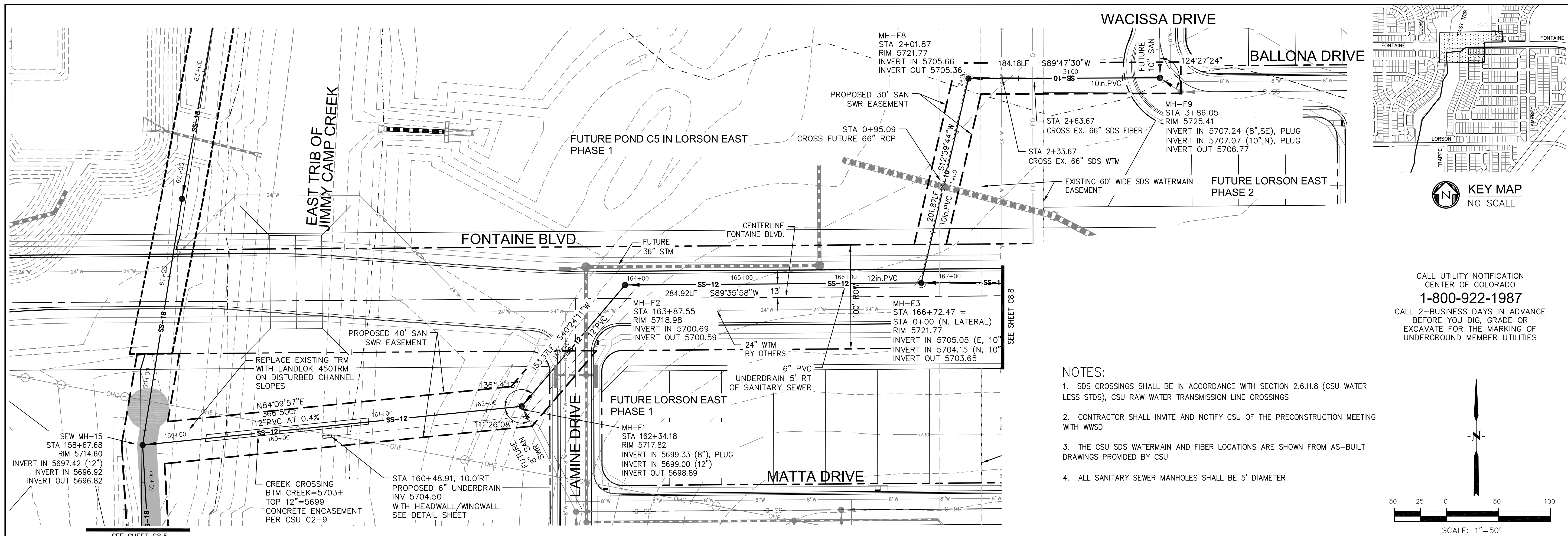


SCALES: HORIZ. 1"=50'  
VERT. 1"=5'

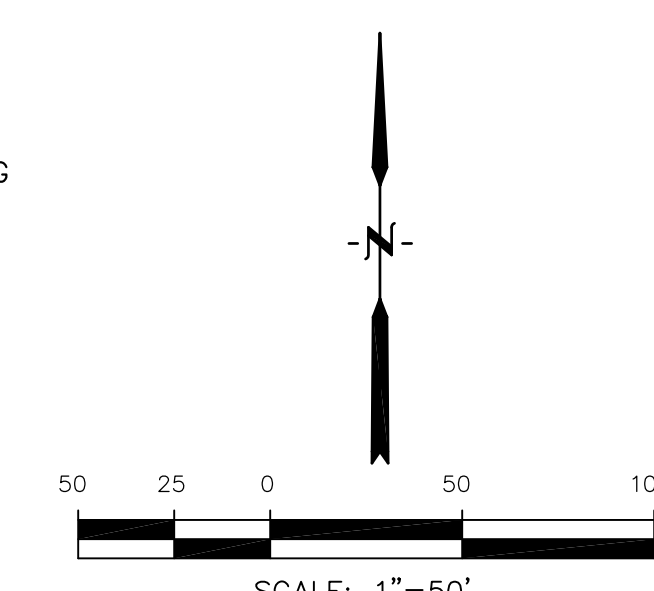
**EAST JCC INTERCEPTOR**  
STA 70+00 TO 82+00  
EAST TRIBUTARY

DATE:  
SEPTEMBER 8, 2017  
PROJECT NO.  
100.041  
SHEET NUMBER  
**C8.6**  
TOTAL SHEETS: 14





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



- NOTES:**
- SDS CROSSINGS SHALL BE IN ACCORDANCE WITH SECTION 2.6.H.8 (CSU WATER LESS STDS), CSU RAW WATER TRANSMISSION LINE CROSSINGS
  - CONTRACTOR SHALL INVITE AND NOTIFY CSU OF THE PRECONSTRUCTION MEETING WITH WUSD
  - THE CSU SDS WATERMAIN AND FIBER LOCATIONS ARE SHOWN FROM AS-BUILT DRAWINGS PROVIDED BY CSU
  - ALL SANITARY SEWER MANHOLES SHALL BE 5' DIAMETER

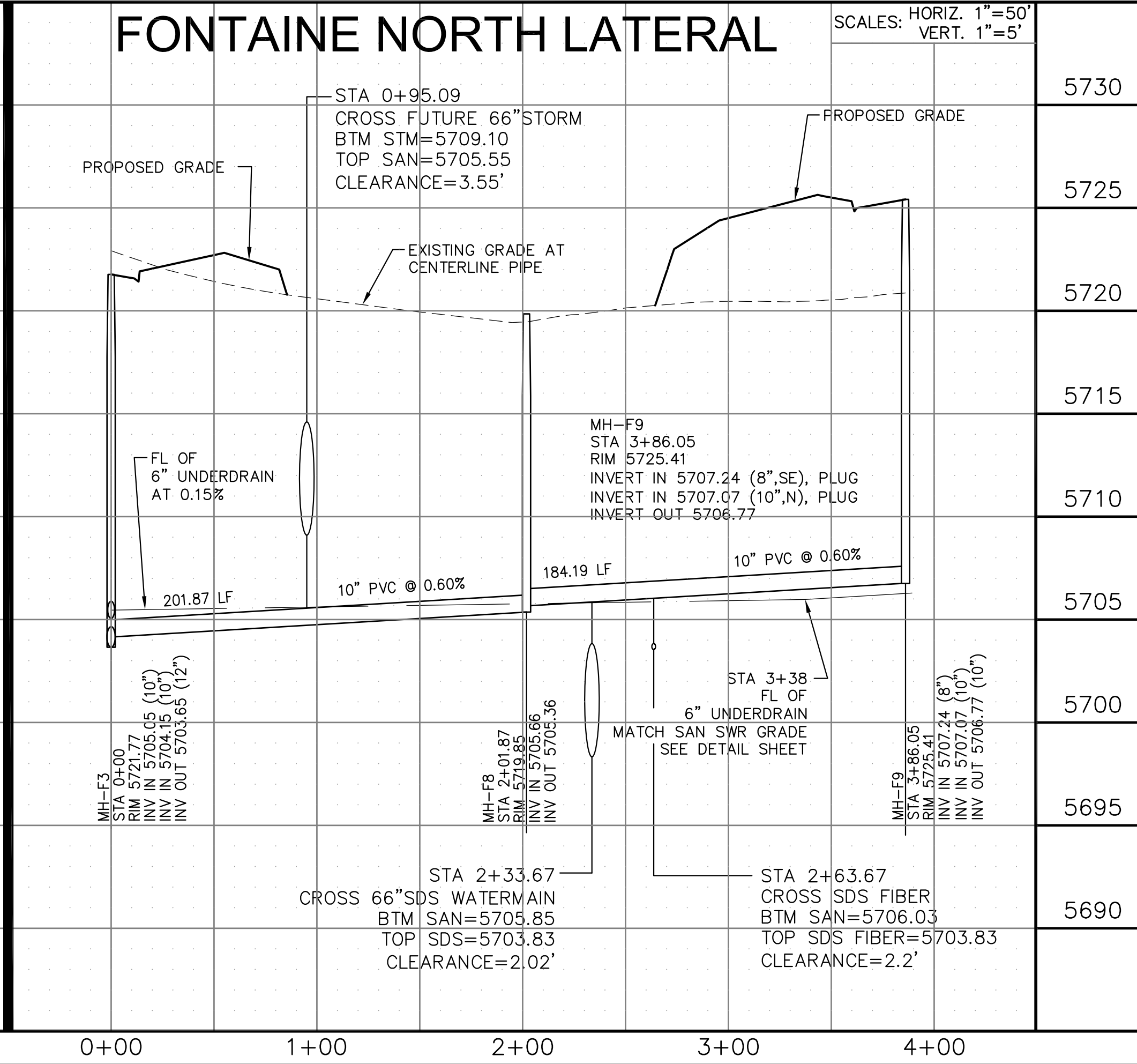
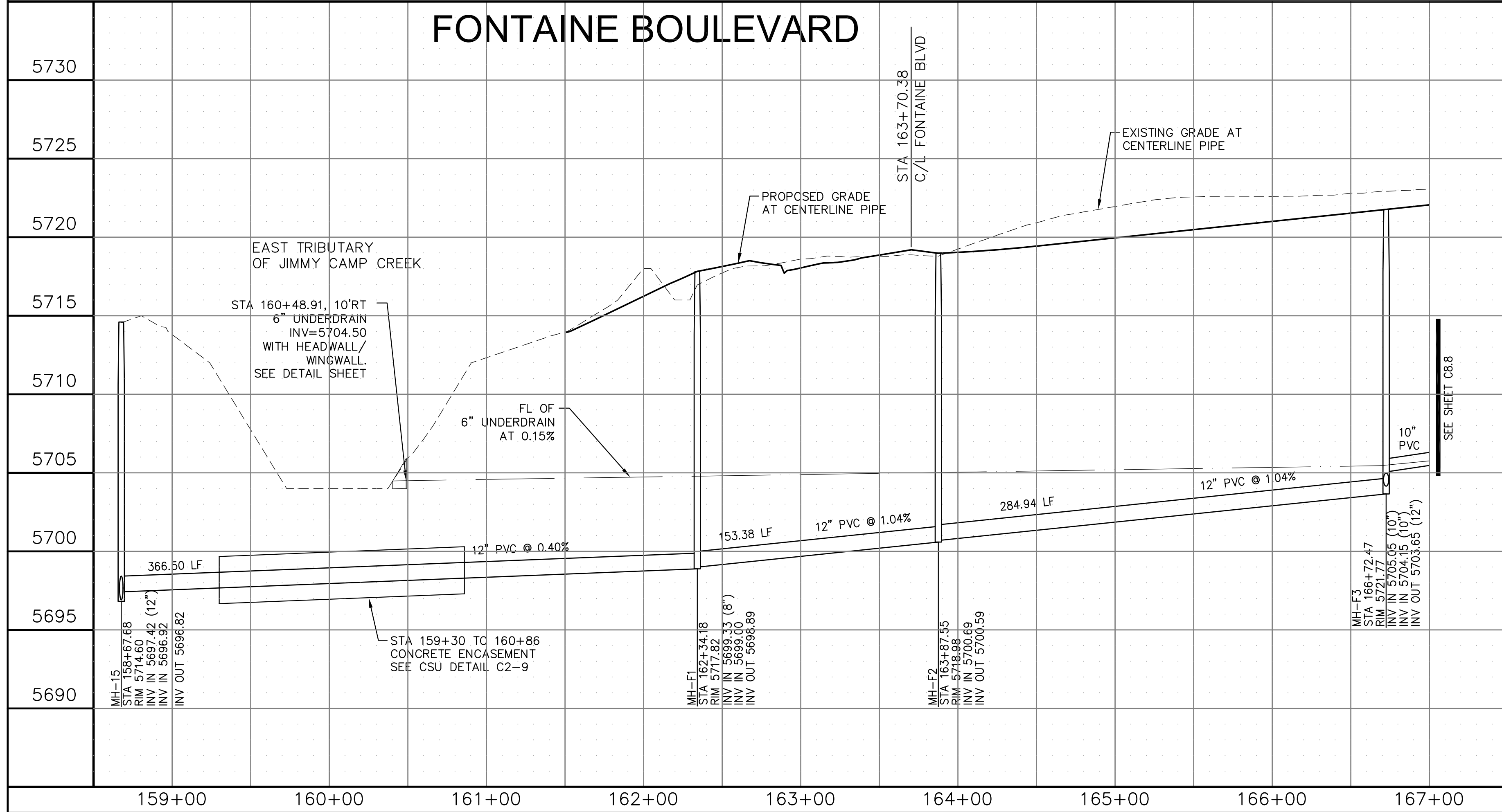
**CORE ENGINEERING GROUP**  
 1500K 1ST AVENUE, SUITE 3500  
 P.O. BOX 191556  
 DENVER, CO 80219  
 CONTACT: RICHARD L. SCHINDLER, P.E.  
 EMAIL: RICH@CEG1.COM

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

**PROJECT:**  
**EAST JCC INTERCEPTOR**  
 LORSON BLVD-EAST TRIBUTARY  
 EL PASO COUNTY, COLORADO

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

DRAWN: RLS  
 DESIGNED: RLS  
 CHECKED: RLS



**FONTAINE BOULEVARD LATERAL**  
 STA 158+67 TO 166+72  
 FONTAINE BLVD.

DATE: SEPTEMBER 8, 2017

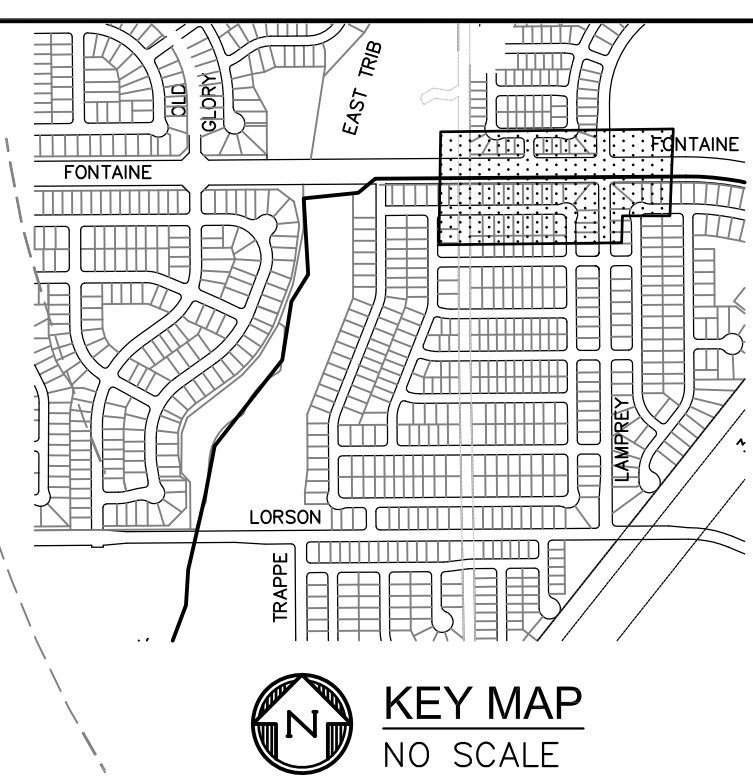
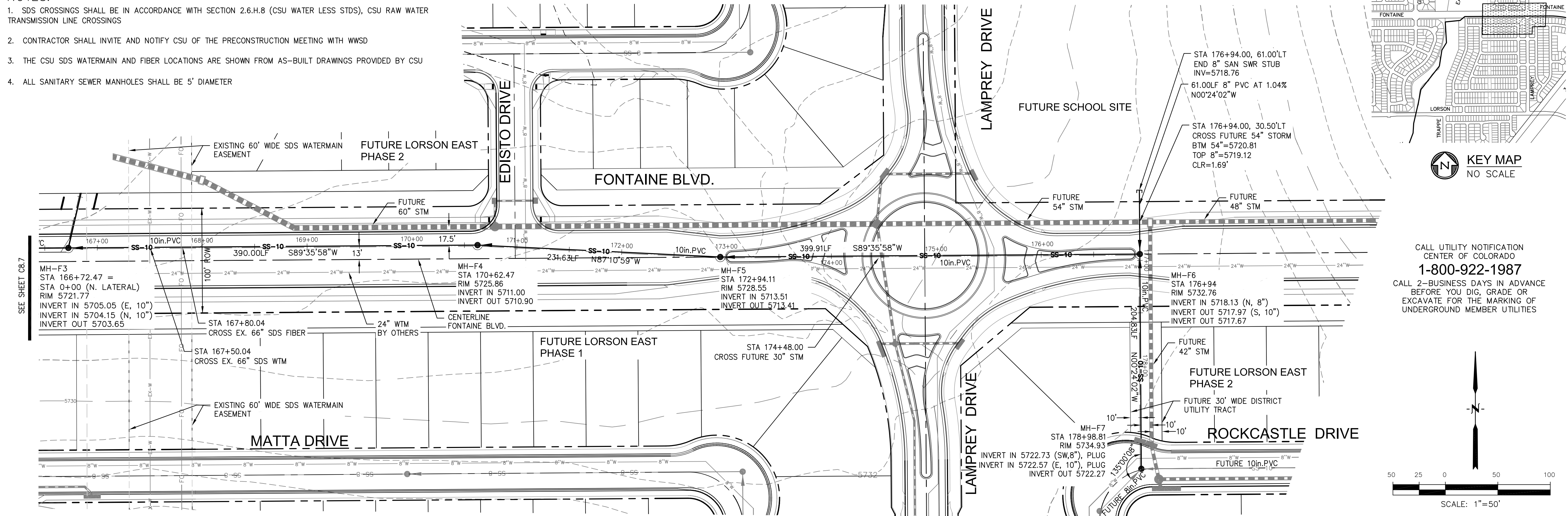
PROJECT NO. 100.041

SHEET NUMBER **C8.7**

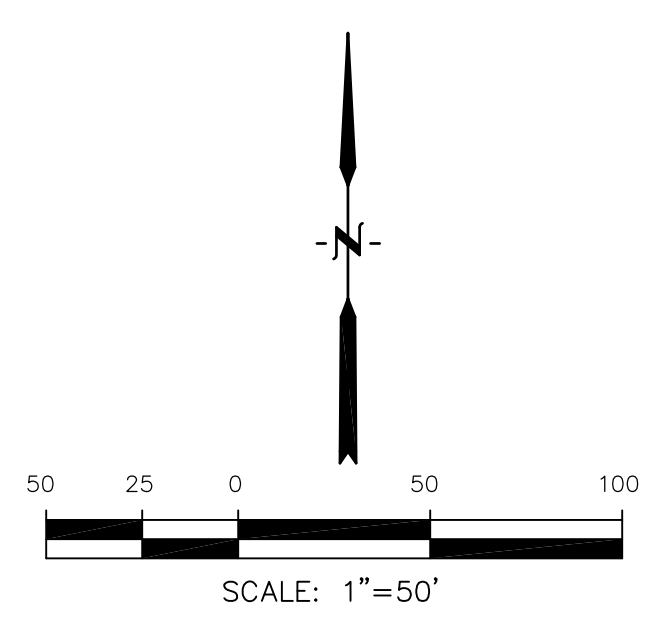
TOTAL SHEETS: 14

**NOTES:**

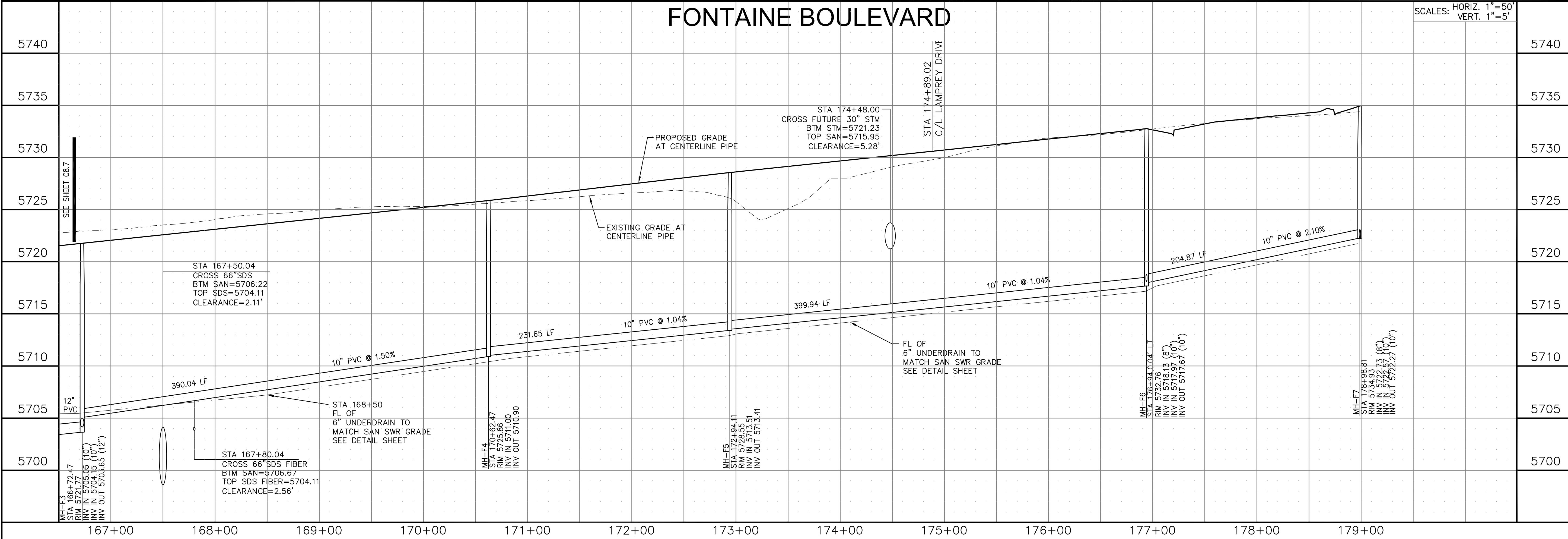
- SDS CROSSINGS SHALL BE IN ACCORDANCE WITH SECTION 2.6.H.8 (CSU WATER LESS STDS), CSU RAW WATER TRANSMISSION LINE CROSSINGS
- CONTRACTOR SHALL INVITE AND NOTIFY CSU OF THE PRECONSTRUCTION MEETING WITH WMSD
- THE CSU SDS WATERMAIN AND FIBER LOCATIONS ARE SHOWN FROM AS-BUILT DRAWINGS PROVIDED BY CSU
- ALL SANITARY SEWER MANHOLES SHALL BE 5' DIAMETER



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



**FONTAINE BOULEVARD**



**CORE ENGINEERING GROUP**  
 1500K 151<sup>ST</sup> AVENUE, SUITE 300  
 PLOVER, CO 80465  
 PHONE: 719.656.7800  
 CONTACT: RICHARD L. SCHINDLER, P.E.  
 EMAIL: RICH@CEGI.COM

DATE: \_\_\_\_\_  
 DESCRIPTION: \_\_\_\_\_  
 NO. \_\_\_\_\_  
 PREPARED FOR: **LORSON, LLC**  
 212 N. WAHSATCH AVENUE, SUITE 301  
 COLORADO SPRINGS, COLORADO 80903  
**EAST JCC INTERCEPTOR**  
 LORSON BLVD-EAST TRIBUTARY  
 EL PASO COUNTY, COLORADO  
 CONTACT: JEFF MARK

SCALES: HORIZ. 1"=50'  
 VERT. 1"=5'

DRAWN: RLS  
 DESIGNED: RLS  
 CHECKED: RLS

**FONTAINE BOULEVARD LATERAL**  
 STA 166+72 TO 179+00  
 FONTAINE BLVD.

DATE: **SEPTEMBER 8, 2017**  
 PROJECT NO. 100.041  
 SHEET NUMBER **C8.8**  
 TOTAL SHEETS: 14



STRUCTURAL DETAILS FOR  
CAISSONS TO BE SUBMITTED  
AFTER A GEOTECHNICAL  
REPORT AND BORINGS ARE  
COMPLETED

UTILITY DETAILS  
 EAST JIMMY CAMP CREEK INTERCEPTOR

DATE  
 SEPTEMBER 8, 2017

PROJECT NO.  
 100.041

SHEET NUMBER  
**S1**

TOTAL SHEETS: 14

DRAWN: LJA  
 DESIGNED: RLS  
 CHECKED: RLS

PROJECT:  
 EAST JCC INTERCEPTOR  
 FONTAINE BLVD., LORSON BLVD.  
 EL PASO COUNTY, COLORADO

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

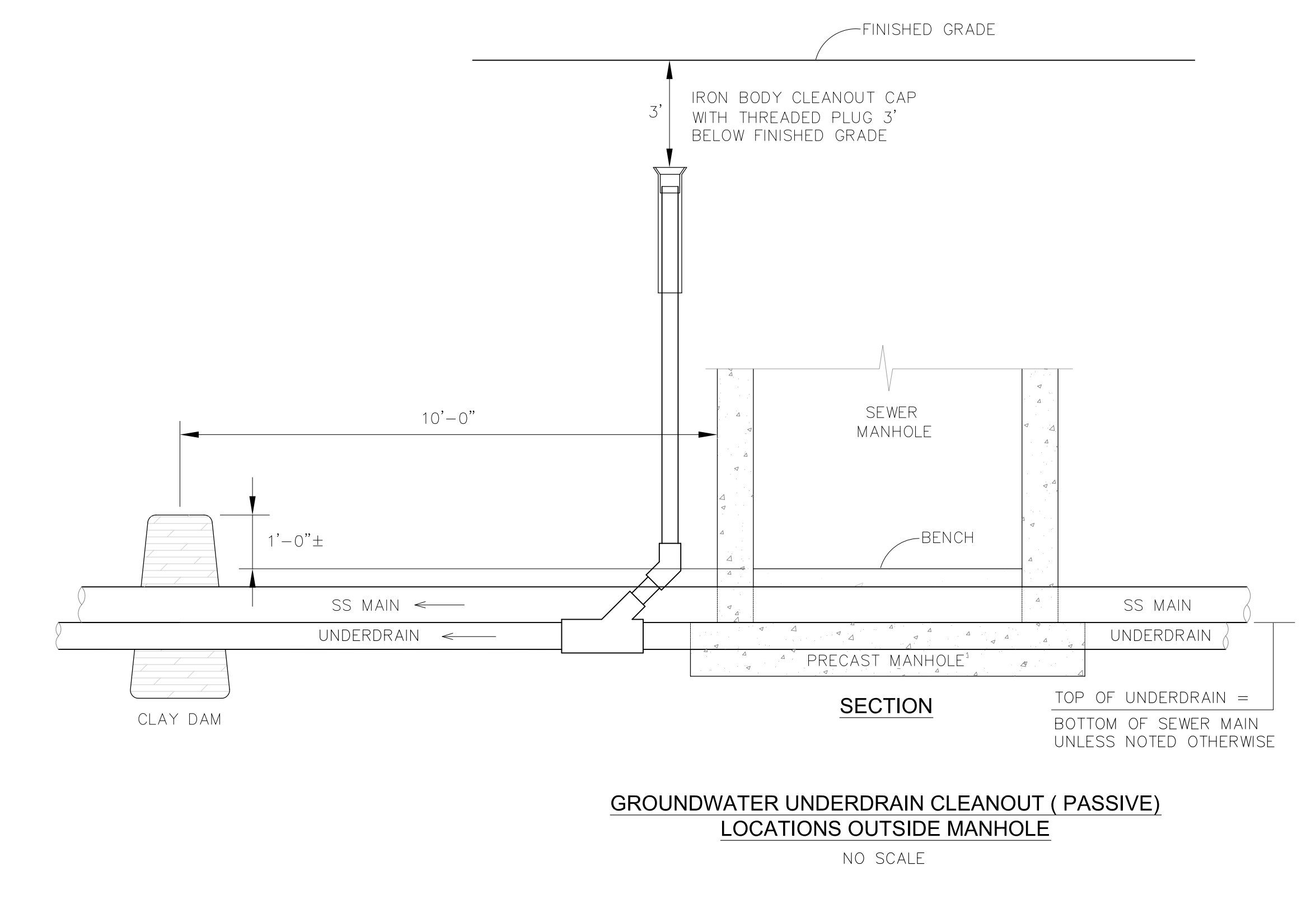
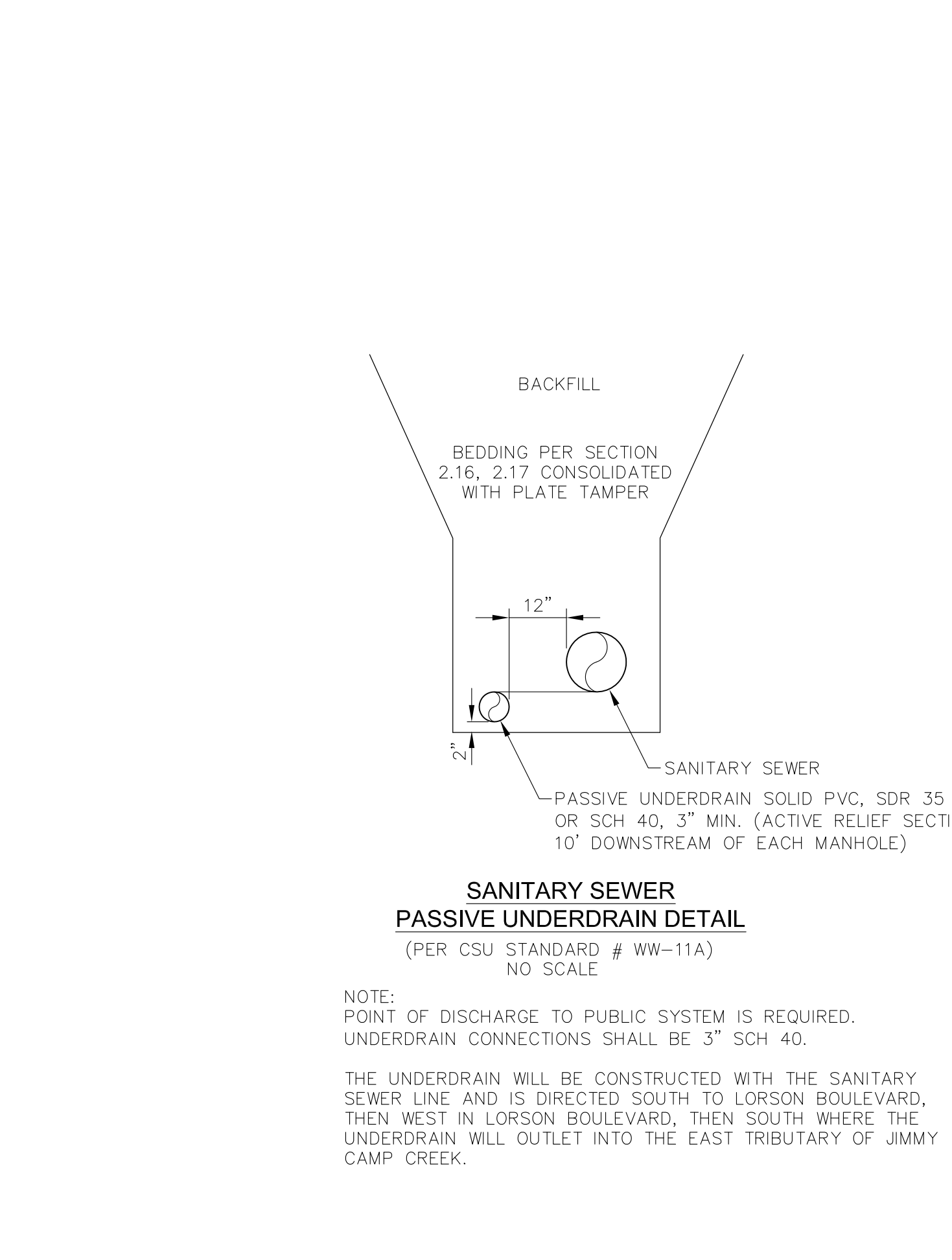
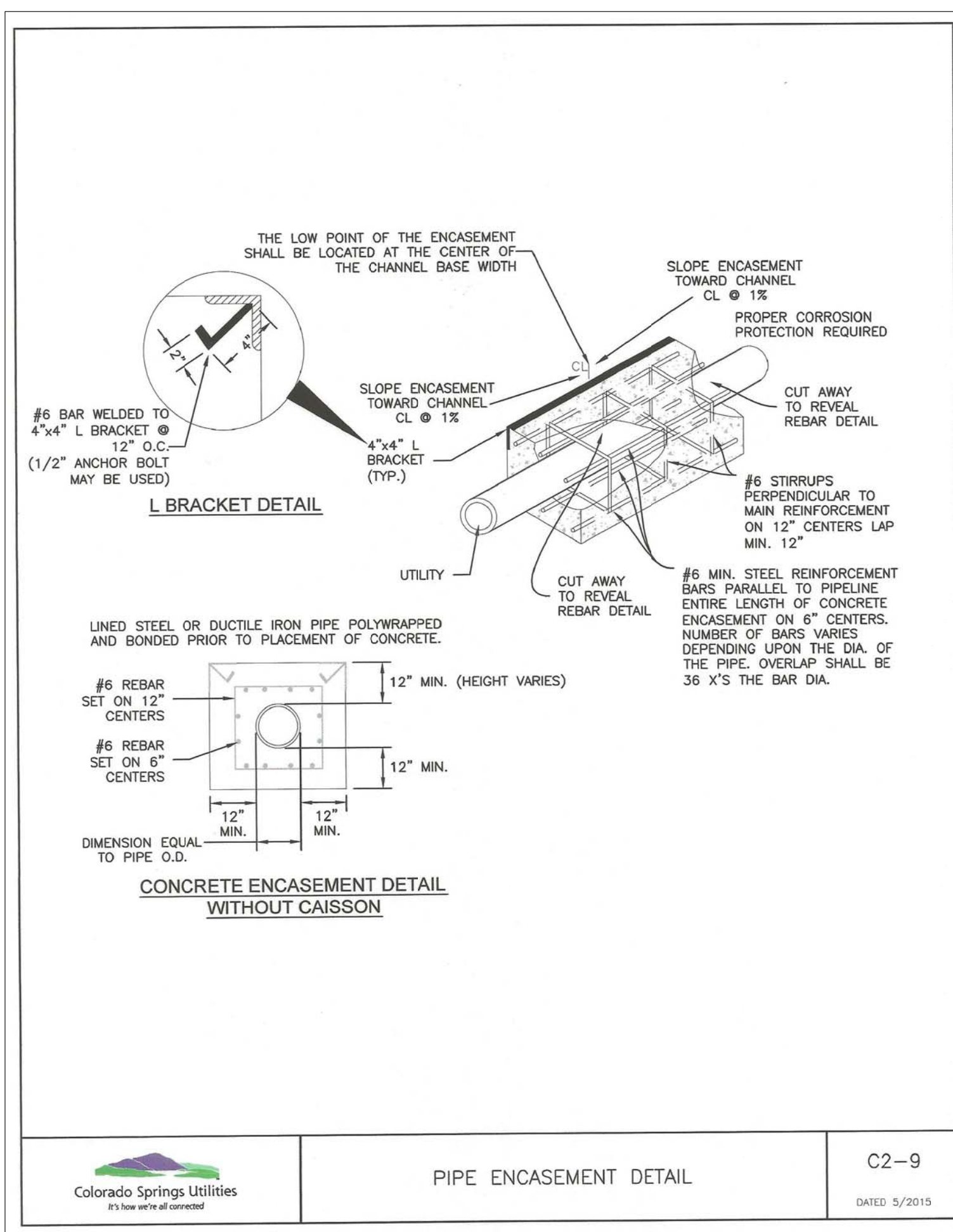
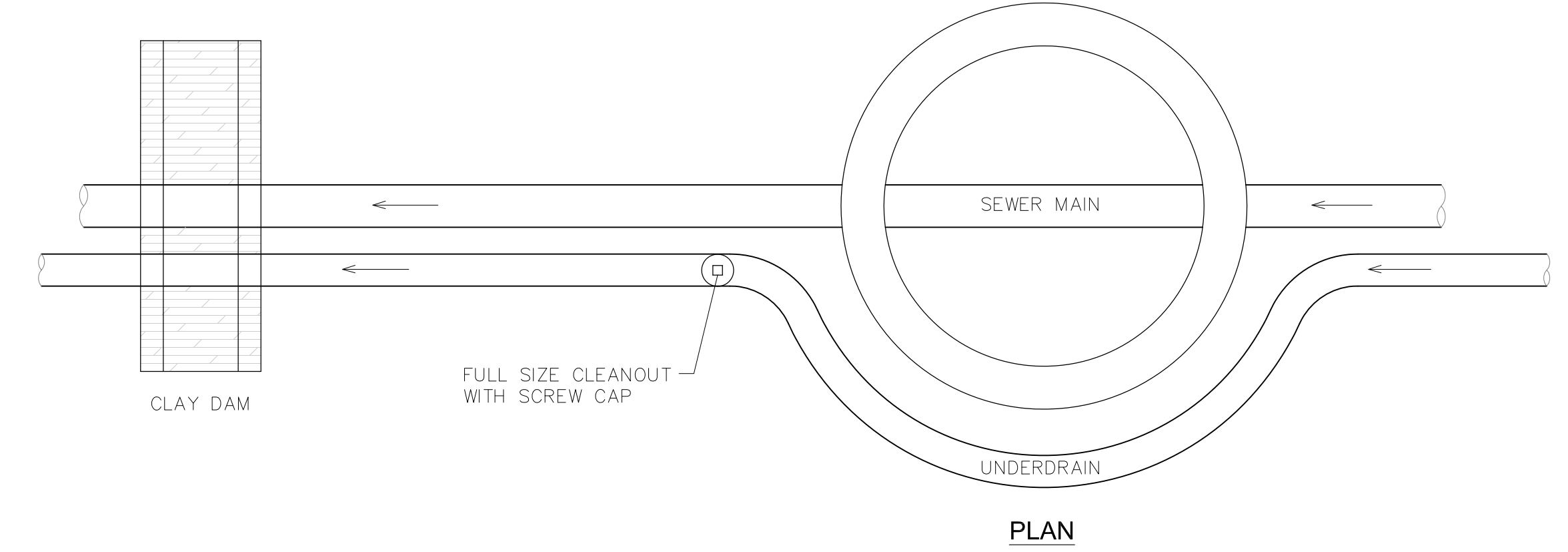
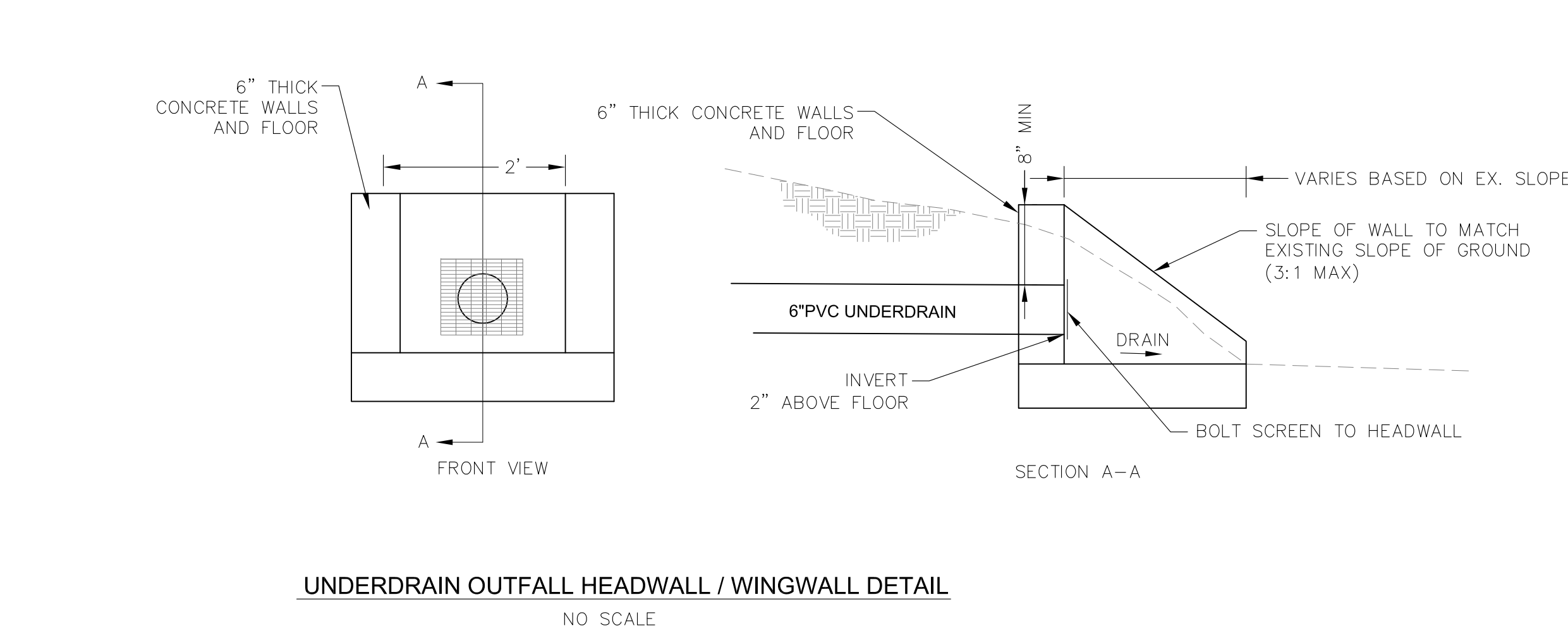
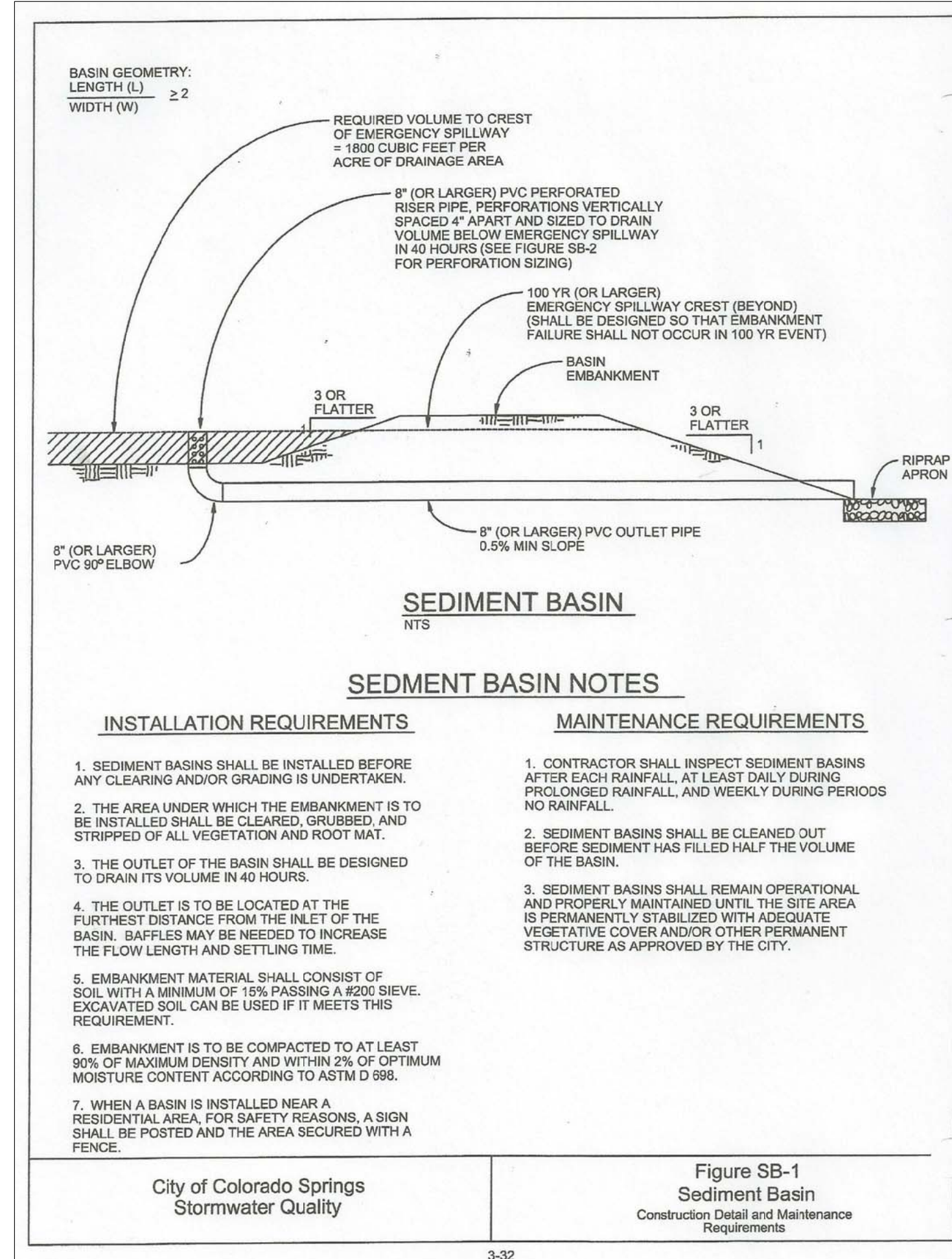
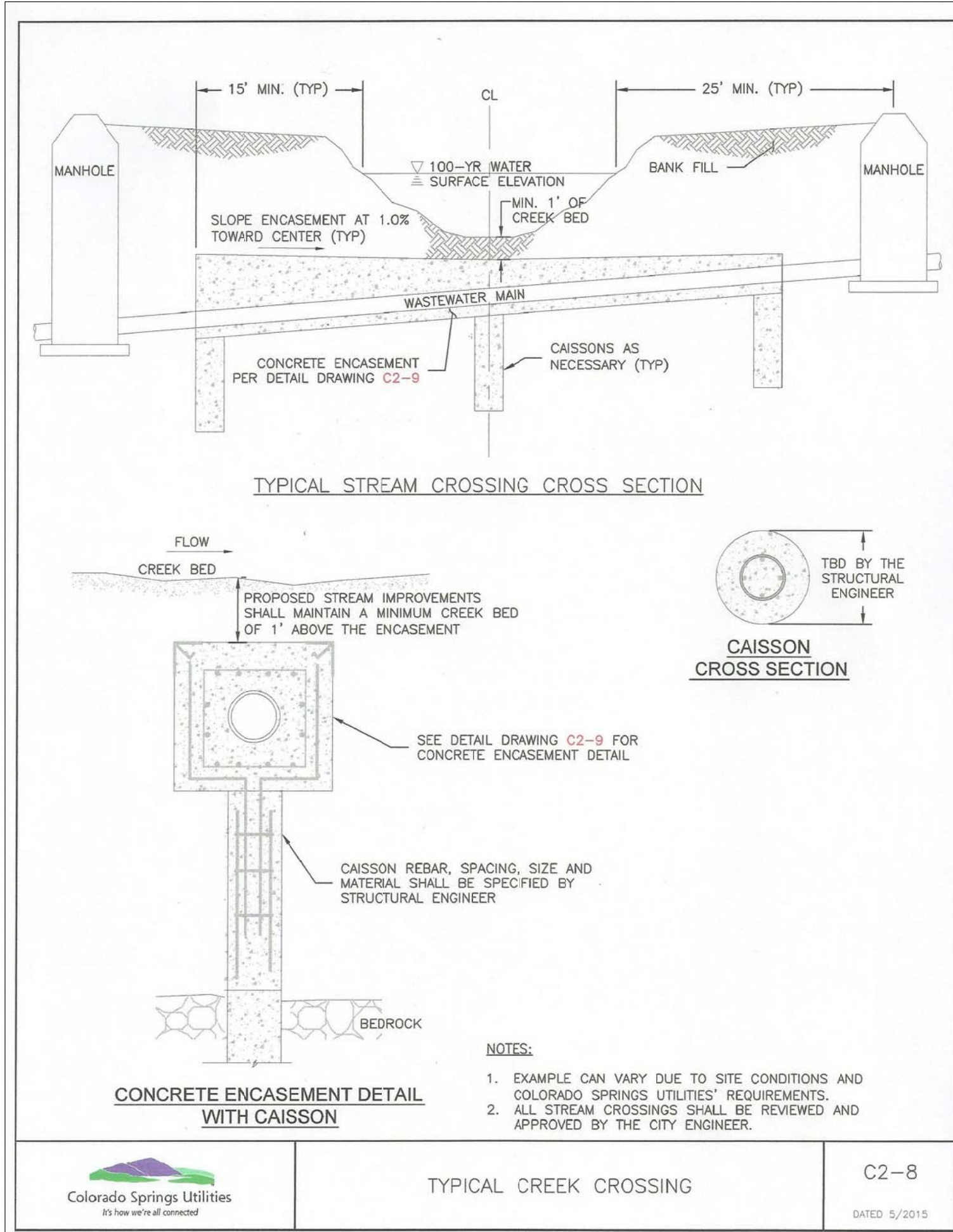
NO. DATE

1. X

DESCRIPTION

X





**CORE ENGINEERING GROUP**

1500 15TH AVENUE, SUITE 300  
 BOULDER, CO 80506  
 PH: 719.570.1100  
 CONTACT: RICHARD L. SCHINDLER, P.E.  
 EMAIL: Rich@ceng1.com

DATE: X  
 DESCRIPTION: X  
 NO. 1: X

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

PROJECT:  
**EAST JCC INTERCEPTOR**  
 FONTANE BLVD., LORSON BLVD.  
 EL PASO COUNTY, COLORADO

DRAWN: LJA  
 DESIGNED: RLS  
 CHECKED: RLS

**UTILITY DETAILS**

**EAST JIMMY CAMP CREEK INTERCEPTOR**

DATE  
**SEPTEMBER 8, 2017**

PROJECT NO.  
**100.041**

SHEET NUMBER  
**C12.1**

TOTAL SHEETS: 14



**APPENDIX C**

**STORMWATER INSPECTION REPORT**

# Stormwater Inspection Report

Project Name and Location: \_\_\_\_\_  
 \_\_\_\_\_

Inspector Name and Title: \_\_\_\_\_ Director: \_\_\_\_\_  
 \_\_\_\_\_

Date/Time of Inspection: \_\_\_\_\_ Weather Conditions: \_\_\_\_\_  
 \_\_\_\_\_

Schedule Completion Date: \_\_\_\_\_ Construction Stage (circle all that apply):  
 Clearing/Grubbing Paving Rough Grading Infrastructure Building Construction Final  
 Grading Final Stabilization Terminate Permit \_\_\_\_\_

Type of Control	Describe status, identify problems, maintenance needs, or non-conformance with details or temporary alteration	Problem addressed (date and description of corrective action)
<b>Structural:</b>		
Silt Fence <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Tears/Holes <input type="checkbox"/> Burial <input type="checkbox"/> Sed. Accum. <input type="checkbox"/> Sediment bypass	
Const. Exit <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Voids Filled <input type="checkbox"/> Trackout	
Check Dam <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Sediment Accumulation	
Inlet Protection <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Sed. Accum. <input type="checkbox"/> Sed. Bypass <input type="checkbox"/> Application not appropriate	
Diversion Ditch/Berm <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Erosion <input type="checkbox"/> Stabilization	
Sediment Trap <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Sediment Accumulation	
Sediment Basin <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Sed. Accumulation <input type="checkbox"/> Bank erosion <input type="checkbox"/> Stabilization	
Discharge Point <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Erosion <input type="checkbox"/> Sediment Discharge	
Material Storage/Secondary Contain. <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Not shown on Site Map <input type="checkbox"/> Spills <input type="checkbox"/> Out of design. area <input type="checkbox"/> Improper storage: chemicals; solvents; paint; fuels, etc.	

Other Structural Controls <input type="checkbox"/> OK <input type="checkbox"/> N/A		
<b>Non-Structural:</b>		
Good Housekeeping <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Solid Waste <input type="checkbox"/> Sanitary Waste <input type="checkbox"/> Dust Control	

Project Name and Location: \_\_\_\_\_ Date: \_\_\_\_\_ Page 2

Equip. Wash/Maint. <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Spills <input type="checkbox"/> Outside designated area	
Concrete Washout <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Spills out of designated area <input type="checkbox"/> Not shown on Site Map	
<b>Stabilization:</b>		
Seed/Sod Mulching, Geotextile, Blankets <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Need Temp. stab. <input type="checkbox"/> Need final stab. <input type="checkbox"/> Health of veg.	
<b>Record Keeping:</b>		
Entrance Postings <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> NOI <input type="checkbox"/> Permits <input type="checkbox"/> Construction Site Notice	
SWPPP Notebook <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Missing Sections <input type="checkbox"/> Missing Forms	
Site Map/Details <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Activities not up-to-date <input type="checkbox"/> Deviate from details <input type="checkbox"/> BMP Additions <input type="checkbox"/> Modifications <input type="checkbox"/> Not up-to-date	
Other <input type="checkbox"/> OK <input type="checkbox"/> N/A		

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

\_\_\_\_\_  
Inspector's Signature

Date

**APPENDIX D**

**SPILL REPORT FORM**

## Spill Report Form

Project Type and Location: \_\_\_\_\_

Spill Reported by: \_\_\_\_\_

Date/Time Spill: \_\_\_\_\_

Describe spill location and events leading to spill: \_\_\_\_\_

\_\_\_\_\_

Material spilled: \_\_\_\_\_

Source of spill: \_\_\_\_\_

Amount spilled: \_\_\_\_\_ Amount spilled to waterway: \_\_\_\_\_

Containment or clean up action: \_\_\_\_\_

\_\_\_\_\_

Approximate depth of soil excavation: \_\_\_\_\_

List Injuries or Personal Contamination: \_\_\_\_\_

Action to be taken to prevent future spills: \_\_\_\_\_

\_\_\_\_\_

Modifications to the SWPPP necessary due to this spill: \_\_\_\_\_

\_\_\_\_\_

Agencies notified of the spill: \_\_\_\_\_

\_\_\_\_\_

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

\_\_\_\_\_  
Contractor Superintendent

\_\_\_\_\_  
Date

**APPENDIX E**

**RECORD OF STABILIZATION AND  
CONSTRUCTION ACTIVITY DATES**



# **SITE STABILIZATION and CONSTRUCTION ACTIVITY DATES**

A record of dates when BMPs are installed or removed, stabilization measures are initiated, major grading activities occur, and construction activities temporarily or permanently cease on a portion of the site shall be maintained until final site stabilization is achieved.

## **MAJOR STABILIZATION AND GRADING ACTIVITIES**

Description of Activity: \_\_\_\_\_

Site Contractor: \_\_\_\_\_ Begin (date): \_\_\_\_\_  
End(date): \_\_\_\_\_

Location: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Description of Activity: \_\_\_\_\_

Site Contractor: \_\_\_\_\_ Begin (date): \_\_\_\_\_  
End(date): \_\_\_\_\_

Location: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Description of Activity: \_\_\_\_\_

Site Contractor: \_\_\_\_\_ Begin (date): \_\_\_\_\_  
End(date): \_\_\_\_\_

Location: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**APPENDIX F**

**FEDERAL, STATE, OR LOCAL STORM WATER OR OTHER  
ENVIRONMENTAL INSPECTOR SITE VISIT LOG**

# Federal, State, or Local Storm Water or other Environmental Inspector Site Visit Log

Inspectors Name: \_\_\_\_\_ Agency: \_\_\_\_\_

Contractors Representative Present: \_\_\_\_\_

Others Present: \_\_\_\_\_

Comments: \_\_\_\_\_

Time and Date: \_\_\_\_\_ Report Prepared:

Yes No

Inspectors Name: \_\_\_\_\_ Agency: \_\_\_\_\_

Contractors Representative Present: \_\_\_\_\_

Others Present: \_\_\_\_\_

Comments: \_\_\_\_\_

Time and Date: \_\_\_\_\_ Report Prepared:

Yes No

Inspectors Name: \_\_\_\_\_ Agency: \_\_\_\_\_

Contractors Representative Present: \_\_\_\_\_

Others Present: \_\_\_\_\_

Comments: \_\_\_\_\_

Time and Date: \_\_\_\_\_ Report Prepared:

Yes No

**APPENDIX G**  
**GENERAL PERMIT**