



STORM WATER POLLUTION PREVENTION PLAN

For

Clayton Properties Group

Cobey Creek – 2nd Plat

Lee's Summit, Jackson County, Missouri

May 11, 2022

Prepared for:

Clayton Properties Group
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I. EXECUTIVE SUMMARY

The Storm Water Pollution Prevention Plan (SWPPP) includes, but is not limited to, this SWPPP with appendices, the erosion control plans with detail sheets from the "Cobey Creek – 2nd Plat Erosion & Sediment Control Plans" plan set, General Permit, Form H, all records of inspections and activities which are created during the course of the project, and other documents as may be included by reference to this SWPPP. Changes, modifications, revisions, additions, or deletions shall become part of this SWPPP as they occur.

The general contractor and all subcontractors involved with a construction activity that disturbs site soil or who implement a pollutant control measure identified in the Storm Water Pollution Prevention Plan (SWPPP) must comply with the following requirements of the National Pollution Discharge Elimination Systems (NPDES) General Permit and any local governing agency having jurisdiction concerning erosion and sedimentation control:

- A. **General Permit Information:** Construction may not begin until authorization of the Application for General Permit and the Application for Storm Water Permit has been approved by the Missouri Department of Natural Resources (MDNR). Permit Information: The owner (Clayton Properties Group) must apply for coverage to discharge stormwater from construction activities under the general permit. A copy of the General Permit is located in Appendix J. The MDNR permit cannot be transferred.
- B. **Public Posting:** The contractor shall post a copy of the public notification sign described by the MDNR at the main entrance to the site. The public notification sign must be visible from the public road that provides access to the site's main entrance. The public notification sign must remain posted at the site until the permit has been terminated.
- C. **Contractor/Sub-Contractor Notification:** The General Contractor shall be responsible for notifying each contractor or entity (including utility crews and city employees or their agents) who will perform work at the site of the existence of the SWPPP and what action or precautions shall be taken while on site to minimize the potential for erosion and the potential for damaging any BMP. The General Contractor is responsible for any damage their subcontractors may do to established BMPs and any subsequent water quality violation resulting from the damage.
- D. **Site Superintendent:** The contractor shall designate a site superintendent which shall be an individual responsible for environmental matters. Additionally, the site superintendent must either be someone empowered to implement modifications to this SWPPP and the pollutant control devices, if needed, in order to increase effectiveness to an acceptable level, or someone with the authority to cause such things to happen. The individual responsible for environmental matters shall have a thorough and demonstrable knowledge of the site's SWPPP and sediment and erosion control practices in general. The individual responsible for environmental matters or a designated inspector knowledgeable in erosion, sediment, and stormwater control principles, shall periodically inspect all structures that function to prevent pollution of waters of the state. See inspection requirements later in this section.

- E. **Retention of Records Onsite and Post Construction:** A complete copy of the SWPPP, including copies of all inspection reports, plan revisions, etc., must be retained at the project site at all times during working hours and kept in the permanent project records for at least three years following submission of the Request for Termination (Form H). The SWPPP must be made available to the MDNR upon request.
- F. **Site Inspection Requirements:** The site superintendent or a designated inspector working under the supervision of the site superintendent, shall conduct regular inspections at the site at least once per seven calendar days. For disturbed areas that have not been finally stabilized, all installed BMPs and other pollution control measures shall be inspected for proper installation, operation and maintenance. All storm water outfalls shall be inspected for evidence of erosion or sediment deposition. Any structural or maintenance problem shall be noted in an inspection report and corrected within seven calendar days of the inspection. If weather conditions prevent the repair of BMP for longer than 7 days, a detailed report, including photos, must be filed with the regular inspections.
- If a rainfall event results in stormwater runoff onsite, the BMPs must be inspected within 48 hours after the rainfall event has ceased. A rain gauge shall be kept onsite to monitor rainfall activities. If the gauge indicates that a rainfall of 1/2 inch or more rain has fallen within a 24-hour period, the site superintendent, or a designated inspector, shall be contacted to perform a site BMP inspection within 48 hours after the rainfall event that produced the 1/2 inch or more.
- Parts of the site which have been finally stabilized shall be inspected a minimum of twice per month.
- G. **Modifications to this SWPPP:** This SWPPP must be updated each time there are significant modifications to the pollutant prevention system. This SWPPP must be amended as necessary during the course of construction in order to keep it current with the pollutant control measures utilized on the site. Amending the SWPPP does not mean that it has to be reprinted. It is acceptable to add addenda, sketches, new sections, and/or revised drawings. The Site Map showing the locations of all storm water controls must be posted on the site and updated to reflect the progress of construction and changes to the SWPPP. Additional requirements are outlined in the general permit.
- H. **Discharges of Petroleum Products or Hazardous Substances:** Discharge of petroleum products or other hazardous substances into storm water or the storm water (storm sewer) system is subject to reporting and clean up requirements. See Section Spill Prevention and response plan in the Appendix of this SWPPP for state and local information on reporting spills. Refer to the General Permit for additional information. A copy of the spill form is located in Appendix G and the General Permit is located in Appendix J.
- I. **Request for Termination of a General Permit:** Once the site reaches final stabilization as defined in the General Permit, with all permanent erosion and sedimentation controls installed and all temporary erosion and sedimentation controls removed, the site will be ready for termination of the general permit. The owner (Clayton Properties Group) must complete and submit the Form H (Request for Termination) located in Appendix I. A form ready for signature and site-specific permit number is included in Appendix I. If the permit is not terminated at the end of the permit period, the owner must apply for and obtain a permit extension.

J. General Contractors Responsibility: This SWPPP intends to control water-borne and liquid pollutant discharges by some combination of interception, filtration, and containment. The general contractor and subcontractors implementing this SWPPP must remain alert to the need to periodically refine and update the SWPPP in order to accomplish the intended goals. The General Contractor is ultimately responsible for all site conditions and permit compliance.

K. Log of Construction Activity

A record of dates when major ground-disturbing activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated or completed must be maintained until Form H (Request for Termination) is filed. A log for keeping such records is included in Appendix H. Controls must be in place down gradient of any ground-disturbing activities prior to the commencement of construction and noted on the Site Map and Record of Stabilization and Construction Activity Dates.

Clayton Properties Group
Cobey Creek – 2nd Plat
Jackson County, Missouri

Stormwater Pollution Prevention Plan

II. INTRODUCTION

The SWPPP has been prepared for the following operations:

Mass excavation and embankment (cut and fill) operations for material placement – Lee’s Summit, Missouri.

This SWPPP, including the applicable General Permit, includes the elements necessary to comply with the Missouri State Operating Permit administered by Missouri Department of Natural Resources (MDNR) under the National Pollutant Discharge Elimination System (NPDES) program and all local governing agency requirements. This SWPPP must be implemented at the start of construction.

The primary goal of pollution prevention efforts during project construction is to control soil and pollutants that originate on the site and prevent them from flowing to surface waters. This SWPPP provides guidelines for achieving that goal. Inspection and maintenance are also an integral part of this SWPPP.

III. SCOPE OF SWPPP

This SWPPP not only addresses the impact of storm rainfall and runoff on areas of the ground surface disturbed during the construction process, but also includes recommendations for controlling other sources of pollution that could accompany major construction activities. The SWPPP will terminate when disturbed areas are stabilized and a Request for Termination is filed with MDNR, see Project Termination.

The General Permit for Storm Water Discharges Associated with Construction Activities prohibits most non-storm water discharges during the excavation activities. Allowable non-storm water discharges that occur during excavation on this project, which are covered by the General Permit, include:

1. De-watering activities if there are no contaminants other than sediment present in the discharge;
2. Flushing water hydrants and potable water lines;
3. Water only (i.e., without detergents or additives) rinsing of streets and buildings;
4. Site watering to establish vegetation;

Best Management Practices (BMPs) must be implemented for the above allowable foreseeable discharges for the duration of the permit. Each non-storm water discharge should be noted in the SWPPP and have proper erosion and sedimentation controls in place with the exception of discharges from firefighting activities.

IV. PROJECT OWNER

Clayton Properties Group
120 SE 30th Street
Lee's Summit, MO 64082

V. PROJECT DESCRIPTION

Clayton Properties Group proposes to construct a planned mix use development with 123 lots in Lee's Summit, Jackson County, Missouri. The time frame for excavation and embankment operation is anticipated to be over an approximate 1-year window period beginning in June 2022. The general contractor will be required to maintain BMP's in working order throughout the project. All disturbed areas will be stabilized with pavements, turf, or other landscaping cover at project completion.

VI. RECEIVING WATER

All storm water from the site is captured by a detention basin which drains to Big Creek.

VII. MAJOR ACTIVITIES FOR POLLUTION CONTROL PRACTICES

The contractor shall keep a record of all major construction activities. See appendix H for log of construction activities sheet.

- A. Install perimeter silt fence and inlet protection where indicated on the site plans in locations that will be downhill from areas to be graded.
- B. Strip and stockpile topsoil in accessible areas and protect topsoil stockpile with perimeter silt fence.
- C. Begin mass excavation and embankment. As work progresses ensure proper erosion control measures are in place.
- D. As work in an area is completed seed and fertilize all disturbed areas per project specifications. It is possible that sub-areas will remain idle waiting on locations to receive excavated material. It is the general contractor's responsibility to maintain all erosion BMP's during idle periods over 14 days.
- E. Install storm sewers. Install riprap around storm sewer outlet structures as each outlet structure is installed. Install inlet protection at all inlet structures as each inlet structure is installed.
- F. Complete grading and final stabilization over all areas.

NOTICE OF TERMINATION SHALL BE SUBMITTED WHEN ALL WORK IS COMPLETE AND SITE IS STABILIZED. SITE WILL BE CONSIDERED STABILIZED WHEN VEGETATIVE COVER HAS REACHED A DENSITY OF 70 PERCENT ACROSS THE ENTIRE CONSTRUCTION PROJECT.

VIII. EROSION AND SEDIMENT CONTROLS

A. TYPE OF CONTROLS

1. Permanent stabilization practices for this project shall include (see site plan for locations):
 - a) Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed.
 - b) Vegetation preservation.
 - c) Final stabilization through seeding/sodding operations.
2. Temporary stabilization practices for this project shall include:
 - a) The time period for disturbed areas without vegetative cover shall be minimized to the maximum extent practicable but may be extended due to the timing of earth moving activities.
 - b) Soil Roughening.
 - c) Dust Control (frequent watering to minimize wind erosion during construction).
3. Permanent structural practices for this project shall include (see site plans for locations):
 - a) Re-establishment of landscape rock cover at completion of excavation operations and placement of hard surfaces for paving operations.
4. Temporary Structural practices for this project include (see site plan for locations):
 - a) Stabilized Construction Entrance/Exit Points (surge rock)
 - b) Silt Fence
 - c) Rock Check Dams
 - d) Inlet Protection
 - e) Steep Slope Protection
 - f) Riprap Outlet Protection

B. OTHER CONTROLS

1. Off-Site Vehicle Tracking

A stabilized construction entrance/exit will be provided to help reduce vehicle tracking of sediments. The paved streets adjacent to the site entrance will be inspected daily and swept as necessary to remove any excess mud, dirt, or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin. The Contractor's Superintendent will be responsible for seeing that these procedures are followed.

2. Excavation Spoil Materials

Excavated spoil materials generated from earthwork operations will be properly managed to prevent them from contributing to storm water discharges. All material excavated from on-site will be hauled to other on-site locations unless hauled to an approved site.

3. Dust Control

Minimizing wind erosion and controlling dust will be accomplished by one or more of the following methods:

- a) Roughening the soil to produce ridges perpendicular to the prevailing wind. Ridges should be about six (6) inches in height.
- b) Frequent watering of excavated and fill areas.
- c) Providing gravel or paving at entrance/exit drives, parking areas and transit paths.

4. Equipment Service Area

The Contractor shall identify an area on the construction plans for equipment cleaning, maintenance and repair. This area shall be protected by a temporary perimeter berm preventing all surface runoff from leaving the area, or equivalent measure. External washing of trucks and other construction vehicles must be confined to this area. No engine degreasing or tool washing is permitted.

5. Material Stockpiles

Stormwater runoff to and from material stockpiles shall be controlled to prevent materials from creating a diversion of surface water to disturbed soils or from entering the surface water. Topsoil stockpiles shall be surrounded with perimeter sediment control measures (such as silt fence) and be covered with non-erosive material when applicable. Non-erosive material may include temporary seeding with straw mulch and tackifier, mulch, or other material providing suitable cover.

6. Dewatering Erosion Control

If dewatering activities are required all outfalls for dewatering shall be protected from erosion and export of sediment by a combination of either a filtration sack placed (i.e. dirt bag) on the ends of the discharge pipe or allowing the release to flow out at a non-eroding velocity to an existing detention basin which will allow some settlement of suspended solids.

IX. COMPLIANCE WITH OTHER STATE AND LOCAL REGULATIONS

At a minimum, the Contractor will obtain copies of any and all local and state regulations which are applicable to storm water management, erosion control, and pollution minimization at this Project and will comply fully with such regulations. The Contractor will submit written evidence of such compliance if requested by the Owner or any agent of a regulatory body. The Contractor will comply with all conditions of the Missouri Department of Natural Resources Operating Permit, General Permit, including the conditions related to maintaining the SWPPP and evidence of compliance with the SWPPP at the Project and allowing regulatory personnel access to the project and to records in order to determine compliance. The Contractor shall also comply with any additional or more stringent requirements imposed by the permit issued by an approved state storm water program.

X. TIMING OF CONTROLS/MEASURES

As indicated in the sequence of major activities, controls will be in place prior to clearing, stripping and excavation. Once excavation activities permanently cease in an area, permanent stabilization will be installed. The construction site will be considered stabilized when all construction activity ceases and uniform perennial vegetative cover with a density of 70% of the area has been established. There may be instances when excavation operations remain idle for extended periods of time when seeding will not occur but erosion control BMP's will remain in place.

XI. SITE DESCRIPTION

Included as part of this SWPPP are a half size set of project erosion control plans – “Cobey Creek – 2nd Plat Erosion & Sediment Control Plans”.

A. SITE LOCATION

The site is located just to the east of Route 291 and north of Route 150 in Lee’s Summit, Jackson County, Missouri. The disturbed area during the construction is approximately 73.3 acres. All storm water from the site is captured by a detention basin which drains to Big Creek. A Vicinity Map is included in Appendix D.

B. SITE TOPOGRAPHY

Existing site elevations range from 600’ to 1,300’ for the project (NAVD 1983 Datum). The slope within the construction limits on the site predominately ranges between 1% to 9%.

C. RAINFALL INFORMATION

The 24-hour rainfall depth for a 2-year, 10-year, and 100-year recurrence interval for Lee’s Summit, Missouri are as follows: 3.69 inches, 5.63 inches, and 9.21 inches per NOAA – National Weather Service. The average annual rainfall for the Lee’s Summit, Missouri area is approximately 33” to 41”.

D. SITE SOILS

The soil survey of Jackson County, Missouri, published by the United States Department of Agriculture depicted the site as being located in an area with Arisburg silt loam and Sampsel silty clay loam. Sampsel Silty clay loam, which is the most limiting layer, has a Ksat value (capacity to transmit water) of 0.06 to 0.2 in/hr.

E. Total Site Area, Area to be Disturbed, and Runoff Coefficient

The area to be disturbed by grading activity is anticipated to be approximately 73.3 acres. Impervious areas will be constructed by means of Buildings and Pavements.

Pre-Construction Runoff Curve Number: “CN” = 70

Post-Construction Runoff Curve Number: “CN” = 83 (after revegetation)

F. EROSION CONTROL AND SEDIMENTATION PLAN

The “Cobey Creek – 2nd Plat Erosion & Sediment Control Plans” for the project are hereby incorporated as a part of this SWPPP. These plans and details address minimum erosion and sediment control requirements that are anticipated at this time. The City of Lee’s Summit, Owner, MDNR or Contractor has the right to make modifications to this SWPPP and/or require additional erosion and sedimentation control measures to address situations that may arise during excavation operations.

G. HISTORIC PROPERTIES

If any cultural materials are encountered during excavation operations, all excavation must cease and appropriate information must be provided to MDNR State Historic Preservation Office for review.

H. CORPS OF ENGINEERS PERMITS

This project is not authorized by a nationwide permit (NWP). For projects that are authorized by a nationwide permit, the contractor shall make themselves aware of the contents of the permit and shall abide by all regulations and requirements noted within.

XII. SITE INSPECTIONS

The general contractor shall designate a site superintendent which shall be an individual responsible for environmental matters. Additionally, the site superintendent must either be someone empowered to implement modifications to this SWPPP and the pollutant control devices, if needed, in order to increase effectiveness to an acceptable level, or someone with the authority to cause such things to happen. The individual responsible for environmental matters shall have a thorough and demonstrable knowledge of the site's SWPPP and sediment and erosion control practices in general. The individual responsible for environmental matters or a designated inspector knowledgeable in erosion, sediment, and stormwater control principles, shall periodically inspect all structures that function to prevent pollution of waters of the state.

Between the time this SWPPP is implemented and final Form H Request for Termination has been submitted, all disturbed areas and pollutant controls must be inspected a minimum of at least once per seven calendar days, or within 48 hours after a 1/2 inch of rainfall in a 24-hour period, or any rainfall event that generates onsite runoff. Stabilized areas will require inspection twice per month until the Form H has been filed. The purpose of site inspections is to assess performance of pollutant controls. The inspections will be conducted by the General Contractor's Site Superintendent or a qualified inspector working directly under the site superintendent. Based on these inspections, the General Contractor will decide whether it is necessary to modify this SWPPP, add or relocate controls, or revise or implement additional Best Management Practices in order to prevent pollutants from leaving the site via storm water runoff. The General Contractor has the duty to cause pollutant control measures to be repaired, modified, supplemented, or take additional steps as necessary in order to achieve effective pollutant control.

Examples of specific items to evaluate during site inspections are listed below. This list is not intended to be comprehensive. During each inspection, the inspector must evaluate overall pollutant control system performance as well as particular details of individual system components. Additional factors should be considered as appropriate to the circumstances.

A. Construction Exit and Track Out

Locations where vehicles enter and exit the site must be inspected for evidence of off-site sediment tracking. A stabilized construction exit shall be constructed where vehicles enter and exit. Exits shall be maintained or supplemented with additional rock as necessary to prevent the release of sediment from vehicles leaving the site. Any sediment deposited on the roadway shall be swept as necessary throughout the day or at the end of every day and disposed of in an appropriate manner. Sediment shall **NOT** be washed into storm sewer systems.

B. Sediment Control Devices

Sediment barriers, traps and basins must be inspected and they must be cleaned out at such time as their original capacity has been reduced by 50 percent. All material excavated from behind sediment barriers or in traps and basins shall be incorporated into on-site soils or spread out on an upland portion of the site and stabilized. Additional sediment barriers must be constructed as needed which include but are not limited to Silt fence and inlet protection.

C. Equipment Storage Areas

Inspections shall evaluate disturbed areas and areas used for storing equipment that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system or discharging from the site. Protective berms must be constructed, if needed, in order to contain runoff from Equipment storage areas. All state and local regulations pertaining to equipment storage areas will be adhered to.

D. Vegetation

At completion of excavation operations, all areas shall be seeded and inspected to confirm that a healthy stand of grass is maintained. The site has achieved final stabilization once all areas have a stand of grass with a minimum of 70 percent density or greater over the entire vegetated area in accordance with the General Permit requirements. The vegetative density must be maintained to be considered stabilized.

E. Discharge Points

All discharge points must be inspected to determine whether erosion and sediment control measures are effective in preventing discharge of sediment from the site or impacts to receiving waters.

The Inspection Report Form (Appendix F) must identify all deficiencies, any corrections, whether they are identified during the current inspection or have occurred since the previous inspection, and any additional comments. Based on inspection results, any modification necessary to increase effectiveness of this SWPPP to an acceptable level must be made within 48 hours of the inspection. The inspection reports must be complete and additional pages should be included if needed to fully describe a situation. An important aspect of the inspection report is the description of additional measures that need to be taken to enhance plan effectiveness. The inspection report must identify whether the site was in compliance with the SWPPP at the time of inspection and specifically identify all incidents of non-compliance.

Inspection reports must be retained by the General Contractor as an integral part of this SWPPP for at least three years from the date of submission of the Request for Termination of a General Permit (Form H).

Ultimately, it is the responsibility of the General Contractor to assure the adequacy of site pollutant discharge controls. Actual physical site conditions or contractor practices could make it necessary to install more structural controls than are shown on the plans. For example, localized concentrations of runoff could make it necessary to install additional sediment barriers. Assessing the need for additional controls and implementing them or adjusting existing controls will be a continuing aspect of this SWPPP until the site achieves final stabilization.

XIV. PROJECT TERMINATION

Once the site reaches final stabilization as defined in the General Permit, with all permanent erosion and sedimentation controls installed and all temporary erosion and sedimentation controls removed, the site will be ready for termination of the general permit. The owner (Clayton Properties Group) must complete and submit the Form H (Request for Termination). A completed form ready for signature and site-specific permit number is included in Appendix I.

APPENDIX A - Waste Management and Pollution Prevention Plan

APPENDIX B - Spill Prevention and Response Plan

APPENDIX C - Above-Ground Storage Tank Guidelines for Construction

APPENDIX D - Vicinity Map

APPENDIX E – Erosion Control Plans

APPENDIX F - Stormwater Inspection Report

APPENDIX G - Spill Report Form

APPENDIX H - Records of Stabilization & Construction Activity Dates

APPENDIX I - Request for Termination of a General Permit

APPENDIX J - Missouri Operating Permit - General Permit

APPENDIX A

Waste Management and Pollution Prevention Plan

Waste Management and Pollution Prevention Plan

A construction site waste management plan is an important part of preventing contamination of storm water runoff. Water pollutants that may be generated on the construction site include gasoline, oils, grease, paints, concrete, sand, solvents, paper, plastic, styrofoam, aluminum cans, glass bottles, and other forms of liquid and solid wastes.

The following procedures shall be followed by all construction subcontractors. It is the responsibility of the construction general subcontractor to ensure that all lower tier subcontractors follow the procedures in this plan as well.

General Housekeeping

- The subcontractor shall designate a specific area for equipment maintenance and repair.
- All equipment maintenance shall be performed over plastic sheeting to prevent soil contamination. All waste fluids shall be collected.
- The subcontractor shall provide appropriate receptacles for spent oils, gasoline, grease, and solvents in this area. These items will be removed from the site for future use by the subcontractor.
- Subcontractor shall recycle all used oil if possible.
- Other construction debris (e.g., metals, wood, corrugated cardboard) shall be recycled whenever possible.
- 55-gallon drums of oils and hazardous materials shall be stored in secondary containment.
- All drums shall be placed on skids or pallets to prevent rusting and to allow easy inspection for leaks.
- A storage area shall be established by the subcontractor for storage of hazardous materials for example paints, solvents, adhesives, pesticides, fertilizers, and chemicals. Secondary containment will be used whenever possible, and is required for containers larger than 10 gallons. This hazardous material storage area will be protected from rain and snow and will be located away from high traffic areas and away from the natural drainage.
- Equipment washdown areas shall be located only in areas which are contained and do not drain to any natural drainages.
- All containers, both full and empty, shall be securely closed (i.e. water tight) and stored in an upright fashion.
- All containers, with both hazardous and non-hazardous contents, shall be labeled to indicate container contents.
- All containers shall be labeled with the owner's (i.e. construction company) name.
- Liquid materials and hazardous materials shall not be placed in dumpsters. This includes paints, oils, sealants, adhesives, etc.
- If materials are blown from waste receptacles, such materials shall be picked up daily by the subcontractor.
- Waste receptacles shall not be filled above level full.
- Sanitary facilities shall be adequately maintained.

Waste Disposal

- All waste materials produced by the construction project will be disposed of in accordance with the provisions of the Missouri solid waste management statutes and regulations and applicable local rules.
- All non-regulated waste shall be disposed of or recycled by the contractor if possible. This includes materials such as concrete, paper, plastic, styrofoam, aluminum cans, glass, scrap building materials, etc.
- Hazardous materials that can be reused shall be removed from the site for future use by the subcontractor.
- The Project Manager shall be contacted prior to any activity that will generate hazardous waste. The Project Manager will coordinate with the project engineers.
- Subcontractor shall not store more than 55 gallons of each waste type on site.
- All waste containers shall be stored in an area protected from the weather and must be placed on skids or pallets to prevent rusting.
- Adequately sized and located waste receptacles for non-hazardous materials shall be provided by the subcontractor. The subcontractor shall prevent waste from being blown out of receptacles by wind. Accumulated waste in these receptacles shall be collected and disposed of regularly by the subcontractor.

APPENDIX B

Spill Prevention and Response Plan

Spill Prevention and Response Plan

This plan is intended to help protect the health and safety of those working onsite as well as the environment. It outlines procedures to help prevent fuel and chemical spills as well as response procedures if a spill does occur.

Spill Prevention

To help reduce the risk of chemical spills and ensure safe chemical handling, the following storage and handling procedures will be practiced by all subcontractors:

- Store chemicals in secondary containers (recommended for containers less than 10 gal; required for containers greater than 10 gal).
- Do not store incompatible materials in the same secondary containment basin.
- Avoid transferring chemicals from one container to another. If a transfer is necessary, perform the transfer in secondary containment.
- Ensure that all chemical containers are properly labeled, indicating the contents and hazards involved.
- Store chemicals in an area protected from weather.
- Inspect all containers for damage or leaks at least weekly and before attempting to move them.
- Each employee should look for damaged or leaking containers each time they use a chemical from the storage area or add to the chemical stock.
- When working with hazardous materials, protect the ground or flooring with a suitable covering (one which is resistant to penetration by the material being used and that will contain small drips and spills).

To prevent fuel spills, the practices listed below should be followed:

- Pay attention when refueling vehicles/equipment so that they are not overfilled.
- If a leak is detected in a vehicle or piece of equipment, repair the leak as soon as possible; place plastic sheeting, or other receptacle of sufficient size to contain all leaking fluid, under the leak until the repair is made. If repairs cannot be made within 24 hours or if the leaking fluid cannot be contained, then the leaking equipment must be removed from the site immediately.

Spill Response

If a hazardous material spill should occur, it must be cleaned up immediately as follows:

- Any spills of petroleum products or hazardous materials in excess of Reportable Quantities as defined by EPA or the state or local agency regulations, shall be immediately reported to the MDNR's Environmental Emergency Response (573) 634-2436 and the EPA National Response Center (1-800-424-8802). The reportable quantity for petroleum products should be in compliance with the Clean Water Act which says that any quantity that "Causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines" should be reported. The reportable quantity for hazardous materials can be found in 40 CFR 302. For more information visit http://www.access.gpo.gov/nara/cfr/waisidx_04/40cfr302_04.html.

- Place all contaminated soil on an adequately-sized sheet of plastic.
- If a hazardous material spill occurs on pavement, it shall be absorbed with sand or other inert material, then placed on plastic sheeting. This includes spills of vehicle fluids. Pavement will not be washed where a hazardous material spill has occurred (including vehicle fluids) until all spilled material has been cleaned up.
- Cover contaminated soil or inert absorbent material with plastic to prevent runoff contamination and to prevent the material from becoming airborne in wind.
- Provide the Project Manager with a Material Safety Data Sheet for the type of spilled material to determine whether or not the material is hazardous.
- The project engineer will make a determination as to the proper method of disposal required and will coordinate with the Project Manager. The subcontractor shall arrange for disposal according to the guidelines and requirements provided by the Project Manager.

APPENDIX C

ABOVE-GROUND STORAGE TANK GUIDELINES FOR CONSTRUCTION

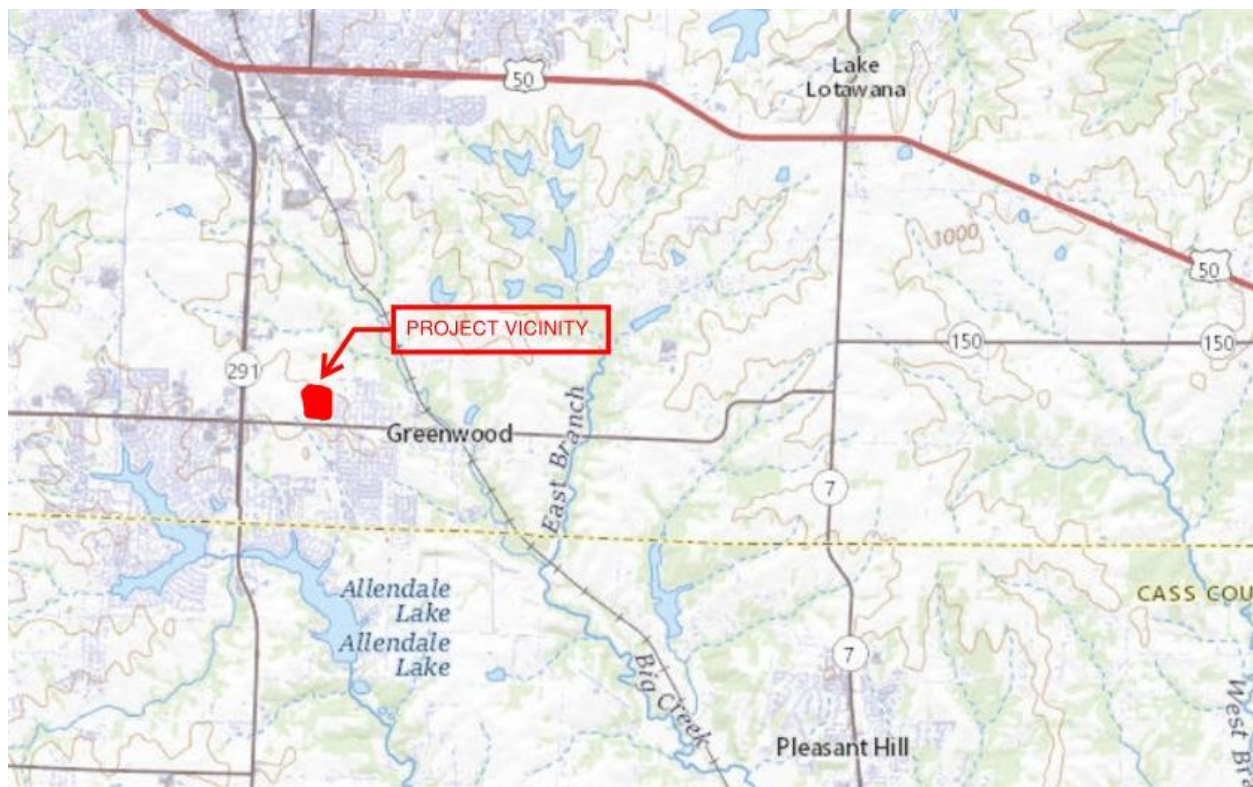
ABOVE-GROUND STORAGE TANK GUIDELINES FOR CONSTRUCTION

- a) All tanks must be designed and operated in accordance with NFPA 30 and the Rules of Department of Natural Resources Above Ground Storage Tanks- Release Response (10 CSR 20-15).
- b) Tanks and piping must be designed and built and maintained (i.e. in good condition) in accordance with recognized good engineering standards for the material of construction, and must be of steel or other noncombustible material. It is recommended that all temporary AST's be FM or UL approved. If a non-FM or UL approved tank is used, all provisions of the Aboveground Storage Tank Management Plan must be met.
- c) Tanks must be operated at atmospheric pressures. Liquid shall not be dispensed by gravity flow or pressurization of the tank.
- d) All tanks and piping subject to corrosion must be properly protected (e.g. paint or cathodic protection) to ensure leaks do not occur. This includes tanks and piping placed upon the ground, a pad, or any steel, masonry, or concrete foundation or pipe/tank stand, as this is the location at which accelerated corrosion is most likely to occur. Bare steel tanks will not be allowed.
- e) Tanks must rest on foundations or supports made of concrete, masonry, or steel. The foundations must be designed to minimize the possibility of uneven settling of the tank, and to minimize corrosion to any part of the tank resting on the foundation.
- f) To protect from spills and overfills associated with product transfer to and from the AST system, the following protection methods must be used: fixed or movable equipment (reservoirs, pans, catchment basins, etc.) around the fill pipe or entire tank that will contain the release of product when the transfer hose is detached from the fill pipe or the tank is overfilled. Spills or overfills to the reservoir or catchment basin must be removed and cleaned-up immediately. Additionally, the transfer operator must be physically present to monitor the entire transfer process.
- g) To prevent overfilling associated with product transfer to the AST system, available tank capacity must first be determined, and automatic or manual overfill prevention methods must be used (e.g. equipment that will automatically shut off flow into the tank when the tank is no more than 95 percent full, or a visual gauge of adequate accuracy and response time located near the AST system that is monitored by the transfer operator for the duration of the transfer process).
- h) Tanks must be located in such a way as to minimize the danger of fire from the following ignition sources: open flames, smoking, hot surfaces, radiant heat, cutting and welding, frictional heat or sparks, lightning, static electricity, electrical sparks, and stray currents. Provisions must also be made for the control of static electricity at installations where flammable or combustible liquids are transferred or dispensed.
- i) Tanks must be located in such a way as to minimize the hazards associated with venting, releases, and fire to: buildings and their occupants, other tanks, roadways, pedestrian walkways, adjoining property, congested areas, waterways, streams, and ditches.
- j) Tanks must be anchored, as necessary, to prevent blow-over in high winds or floating away in lowland flood areas.

- k) Secondary containment is required for all AST's on property. Should there be a catastrophic or undetected AST leak, secondary containment provides health and environmental protection. All secondary containment systems must be impervious to the tank contents for at least 72 hours (nonporous), compatible with the tank contents, resistant to normal environmental conditions (heat, cold, hail, ultraviolet (uv) radiation, etc.), of sufficient strength and durability to resist tearing, cracking, crumbling, eroding, collapsing, etc. for the operational lifetime of the tank, easily maintainable, of sufficient size to contain 110% of the volume of the tank (tank contents plus fire-fighting or rain water), of sufficient size to contain all critical piping, fittings, and valves (fill pipe, overfill pipe, spill protection equipment, etc.), and fitted with a normally closed valve or plug by which collected rainwater and tank product can be removed. The following permanent or temporary containment systems are allowed: steel catchment basins or spill skids, or earthen, masonry, or concrete berms when used in conjunction with an appropriate liner or coating ('visqueen' or other non-reinforced plastic sheeting with a thickness of 40 mils (0.75mm) or less is not appropriate).
- l) At least one portable fire extinguisher with a minimum 20B:C rating must be within 25 feet of any tank containing a flammable or combustible liquid.
- m) Emergency information (location of nearest telephone, dialing instructions, who to contact, equipment owner/area landlord etc.) must be placed between 10 and 50 feet from the tank.
- n) All tanks must have a sign stating the tank contents and shall be marked in accordance with NFPA 704, Identification of Fire Hazards of Materials.
- o) All tanks must have a locking mechanism to prevent vandalism and unauthorized additions or withdrawals.
- p) All releases shall be reported in accordance with the Spill Prevention and Control Plan. Any AST found to be leaking must immediately be repaired, replaced, or permanently closed.

APPENDIX D

VICINITY MAP



Site Location Map
Section 29, Township 47N, Range 31W
Lee's Summit, Missouri

APPENDIX E

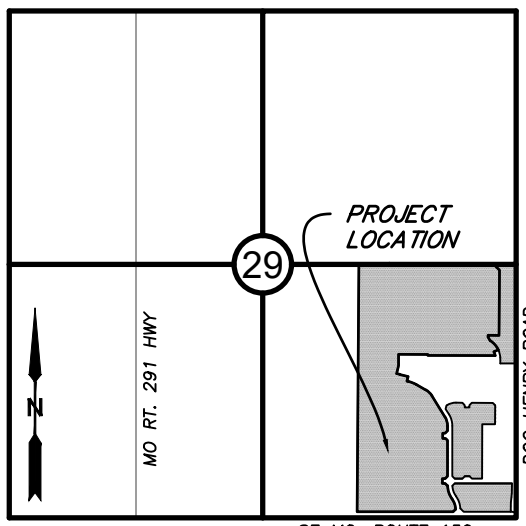
EROSION CONTROL PLANS

COBEY CREEK - 2ND PLAT

EROSION & SEDIMENT CONTROL PLANS

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

SEC. 29, TWP. 47N, RNG. 31W



VICINITY MAP

SECTION 29, TOWNSHIP 47, RANGE 31
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI
NOT TO SCALE

LEGAL DESCRIPTION:

A SUBDIVISION LOCATED IN THE SOUTHEAST QUARTER OF SECTION 29, TOWNSHIP 49 NORTH, RANGE 31 WEST, IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, REFER TO FINAL PLAT FOR FULL LEGAL DESCRIPTION.

OIL AND GAS WELL NOTES:

NO ABANDONED OIL OR GAS WELLS HAVE BEEN IDENTIFIED WITHIN THE PROPERTY LIMITS OF THE PROPOSED CONSTRUCTION ACTIVITIES, PER THE MISSOURI DEPARTMENT OF NATURAL RESOURCES (MDNR) PERMITTED OIL AND GAS DATABASE, DATED JUNE 2, 2020.



Know what's below.
Call before you dig.



UTILITY CONTACTS:

SANITARY & WATER:

CITY OF LEE'S SUMMIT
JEFF THORN
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
PHONE (816) 969-1900

STORMWATER:

CITY OF LEE'S SUMMIT
PUBLIC WORKS
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
PHONE (816) 969-1800

STREETS:

CITY OF LEE'S SUMMIT
MICHAEL PARK
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
PHONE (816) 969-1900

AT&T:

RONALD GIPFERT
500 E 8TH STREET
KANSAS CITY, MO 64106
PHONE (816) 275-1550

EVERGY:

DOUG DAVIN
1300 SE HAMBLIN ROAD
LEE'S SUMMIT, MO 64081
PHONE (816) 347-4320

MISSOURI GAS ENERGY:

RICHARD FROCK
3025 SW CLOVER DRIVE
LEE'S SUMMIT, MO 64082
PHONE (816) 472-3489

FEMA FLOOD INFORMATION:

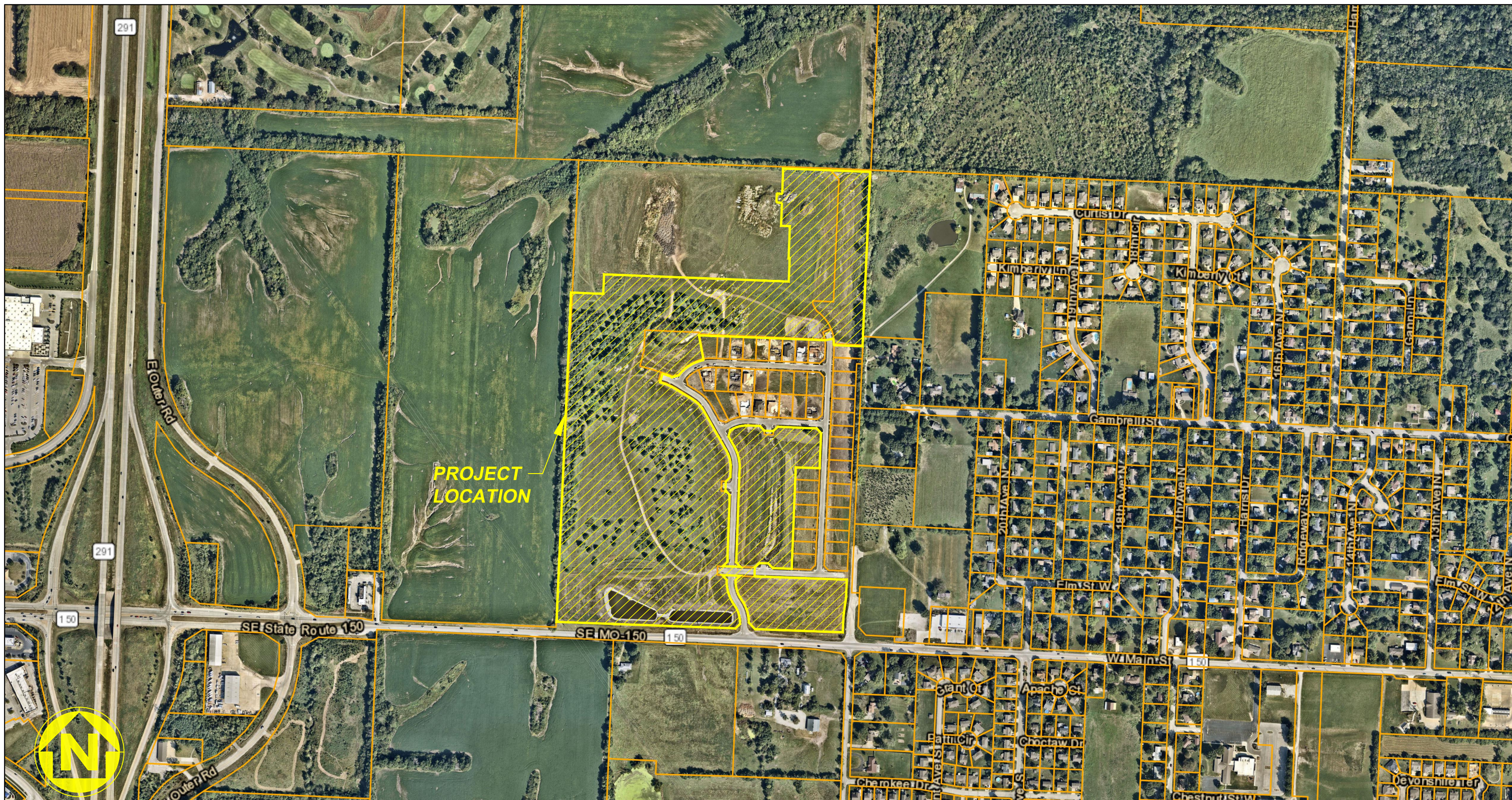
THE SUBJECT PROPERTY LIES IN ZONE X, OTHER FLOOD AREAS, AREAS DETERMINED TO BE OUTSIDE THE 0.2% CHANCE ANNUAL FLOODPLAIN, AS SHOWN ON FLOOD INSURANCE RATE MAP 29095C0551G EFFECTIVE JANUARY 20, 2017.

BENCHMARK:

PROJECT BENCHMARK T 201
ALUMINUM CAP IN TOP OF CONCRETE BASE OF FIRST PILLAR OF HWY 150 AND MISSOURI PACIFIC RAILROAD.
ELEV=917.39

DATE: 03/14/2022

TOTAL LOTS: 123



WATERSHED: BIG CREEK

DISTURBED AREA: 73.3 AC

SURVEY CONTROL:

CP #100
CHISELED "4" ON CURB INLET
CURB INLET AT THE SOUTHWEST CORNER OF SE GILLETTE ROAD AND SE COBEY CREEK DRIVE
N: 978174.32
E: 2827539.80
EL: 1005.17

CP #9039
BAR AND CAP STAMPED
2006016633 CENTERLINE OF SE COBEY CREEK DRIVE AT THE DEAD END
N: 979305.16
E: 2827174.35
EL: 1002.42

CP #40001
ALUMINUM CAP STAMPED KS
1069 MO 2134 NORTHEAST CORNER OF THE PROJECT
N: 980459.77
E: 2828336.04
EL: 967.82

GENERAL NOTES:

- CONTRACTOR SHALL SATISFY THEMSELVES AS TO THE EXISTING CONDITIONS OF THE SITE AND HAVE ALL UTILITIES MARKED PRIOR TO COMMENCING CONSTRUCTION.
- CONTRACTOR SHALL POTHOLE ALL CONNECTION POINTS TO EXISTING UTILITIES AND POTENTIAL UTILITY CONFLICT LOCATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES. NOTIFY ENGINEER IMMEDIATELY IF CONFLICT OR DISCREPANCY EXISTS.
- CONTRACTOR SHALL PROTECT EXISTING STRUCTURES TO REMAIN FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION. ANY DAMAGE SHALL BE REPAIRED/ REPLACED TO PRE-CONSTRUCTION CONDITION AT CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

DEVELOPER:

BRAD KEMPF
CLAYTON PROPERTIES GROUP
120 SE 30TH STREET
LEE'S SUMMIT, MO 64082
BRADLEY@SUMMITTHOMESKC.COM
(816) 927-9711

CIVIL ENGINEER:

GARRETT CATES
ANDERSON ENGINEERING, INC.
941 W 141ST TERR
KANSAS CITY, MO 64145
GCATES@AE-INC.COM
(816) 777-0400 EXT. 508

SHEET INDEX:

CVR - COVER SHEET
C601 - PHASE I - PRE-CLEARING EROSION CONTROL PLAN
C602 - PHASE II - INTERMEDIATE EROSION CONTROL PLAN
C603 - PHASE III - FINAL STABILIZATION EROSION CONTROL PLAN
C801 - CONSTRUCTION ENTRANCE DETAILS
C802 - STEEP SLOPE PROTECTION DETAILS
C803 - SILT FENCE DETAILS
C804 - CURB INLET PROTECTION DETAILS
C805 - AREA INLET PROTECTION DETAILS
C806 - ROCK DITCH CHECK DETAILS
C807 - OUTLET PROTECTION DETAILS
C808 - SEDIMENT BASIN DETAILS

PROJECT SPECIFICATIONS:

THE SPECIFICATIONS FOR THIS PROJECT SHALL BE THE FOLLOWING:

- MOST CURRENT VERSION OF THE DESIGN AND CONSTRUCTION MANUAL OF THE CITY OF LEE'S SUMMIT AS ADOPTED BY ORDINANCE 5813.

THE STANDARD SPECIFICATIONS THROUGH AND INCLUDING THE LATEST AMENDMENTS SHALL BE PART OF THESE PROJECT DRAWINGS AND SPECIFICATIONS AND ARE INCORPORATED HEREIN BY REFERENCE. THE MORE STRINGENT OF THESE STANDARD SPECIFICATIONS AND THOSE PREPARED BY THE ENGINEER PREPARING THESE PLANS SHALL GOVERN.

PREPARED & SUBMITTED BY:

ANDERSON ENGINEERING INC.
KANSAS CITY, MISSOURI

Garrett R. Cates

03/14/2022

GARRETT CATES, P.E.
MISSOURI P.E. NO. 2021025089

DATE



REVISIONS		DRAWING INFO.	
NO.	DESCRIPTION	BY	DATE
		DRAWN BY:	GC
		CHECK BY:	PJ
		LICENSE NO.	PE-2021025089
		DATE:	03/14/2022
		ISSUED FOR:	FOR REVIEW
		JOB NUMBER:	21KC10060

CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - EROSION CONTROL

COVER SHEET

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



SHEET NUMBER

CVR
1 OF 12

Mar 14, 2022 - 5:50pm Plotted By: gscs
G:\Shared drives\VC10 - Land Development\Projects\2021\21KC10080 Cobey Creek Erosion Control\21KC10080 - SPTS - PHASE I Erosion Control Plan
G:\Shared drives\VC10 - Land Development\Projects\2021\21KC10080 Cobey Creek Erosion Control\21KC10080 - SPTS - PHASE I Erosion Control Plan

GENERAL NOTES:

1. THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS DRAWING ("EROSION CONTROL"), THE STANDARD DETAILS, ATTACHMENTS INCLUDED IN SPECIFICATIONS ("SWPP"), PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORMWATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
3. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
4. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
5. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR RELATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
6. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
7. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE OBTAINED AND PROPERLY TREATED OR DISPOSED.
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
10. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
12. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
13. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL BE STOPPED FOR AT LEAST 7 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE STABILIZED. THESE AREAS SHALL BE STABILIZED NO LATER THAN 21 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. STABILIZATION MAY CONSIST OF SEED, SOIL, ROCK, PAVEMENT, STRUCTURE OR OTHER NON-ERODIBLE COVER.
15. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. ONLY USE INGRESS/EGRESS LOCATIONS AS PROVIDED.
16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
17. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
18. ON-SITE & OFF-SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
19. SLOPES CONSISTING OF TOPSOIL, CLAY, OR SILT SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
20. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.
21. CONTRACTOR RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE. PONDING OF WATER WILL NOT BE ALLOWED ON SITE. IF NECESSARY, CONTRACTOR TO PROVIDE TRENCHES OR PUMPING IN LOW POINT SUMP CONDITIONS UNTIL THE INSTALLATION OF STORM SEWER.

EROSION CONTROL MAINTENANCE:

- ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
1. AT A MINIMUM, THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS FOR GOOD HOUSEKEEPING, SPILL CONTROL, AND EROSION AND SEDIMENT CONTROL AS SPECIFIED IN THE KANSAS CITY METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION SECTION 2150.
 2. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETEIORATION.
 3. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEED AS NEEDED.
 4. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
 5. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
 6. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
 7. DRAINAGE SWALES WITH SLOPES STEEPER THAN 15% SHALL BE INSPECTED AFTER EACH RAINFALL EVENT. THESE CHANNELS AND SLOPES SHOULD BE TREATED WITH EROSION FABRIC. IF THE CHANNELS OR SLOPES SHOW ANY SIGN OF FAILURE, COORDINATE WITH THE ENGINEER TO DEVELOP A PLAN TO RE-STABILIZE THE FAILED AREA.

GRADING NOTES:

1. ALL TREES OUTSIDE OF LIMITS OF DISTURBANCE SHALL REMAIN. ONLY THOSE TREES WITHIN LIMITS OF DISTURBANCE THAT ARE IN THE AREA TO BE GRADED SHALL BE REMOVED.
2. ALL TOPSOIL, VEGETATION, ROOT STRUCTURES, AND DELETERIOUS MATERIALS SHALL BE STRIPPED FROM THE GROUND SURFACE PRIOR TO THE PLACEMENT OF EMBANKMENTS. CONTRACTOR SHALL OBTAIN THE ON-SITE GEOTECHNICAL REPRESENTATIVE'S ACCEPTANCE OF THE EXISTING GROUND SURFACE MATERIALS AND THE PROPOSED FILL MATERIAL PRIOR TO THE PLACEMENT OF FILL.
3. ALL PROPOSED CONTOUR LINES AND SPOT ELEVATIONS SHOWN ARE FINISH GROUND ELEVATIONS. CONTRACTOR SHALL ACCOUNT FOR PAVEMENT DEPTHS, BUILDING PADS, TOPSOIL, ETC. WHEN GRADING THE SITE.
4. ALL DISTURBED AREAS THAT SHALL BE FINISH GRADED WITH A MINIMUM OF FOUR INCHES OF TOPSOIL.
5. FINISHED GRADES SHALL NOT BE STEEPER THAN 3:1.
6. ALL GRADING WORK SHALL BE CONSIDERED UNCLASSIFIED. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR ROCK EXCAVATION. CONTRACTOR SHALL SATISFY HIMSELF AS TO ANY ROCK EXCAVATION REQUIRED TO ACCOMPLISH THE IMPROVEMENTS SHOWN HEREON.

ACERAGE SUMMARY:

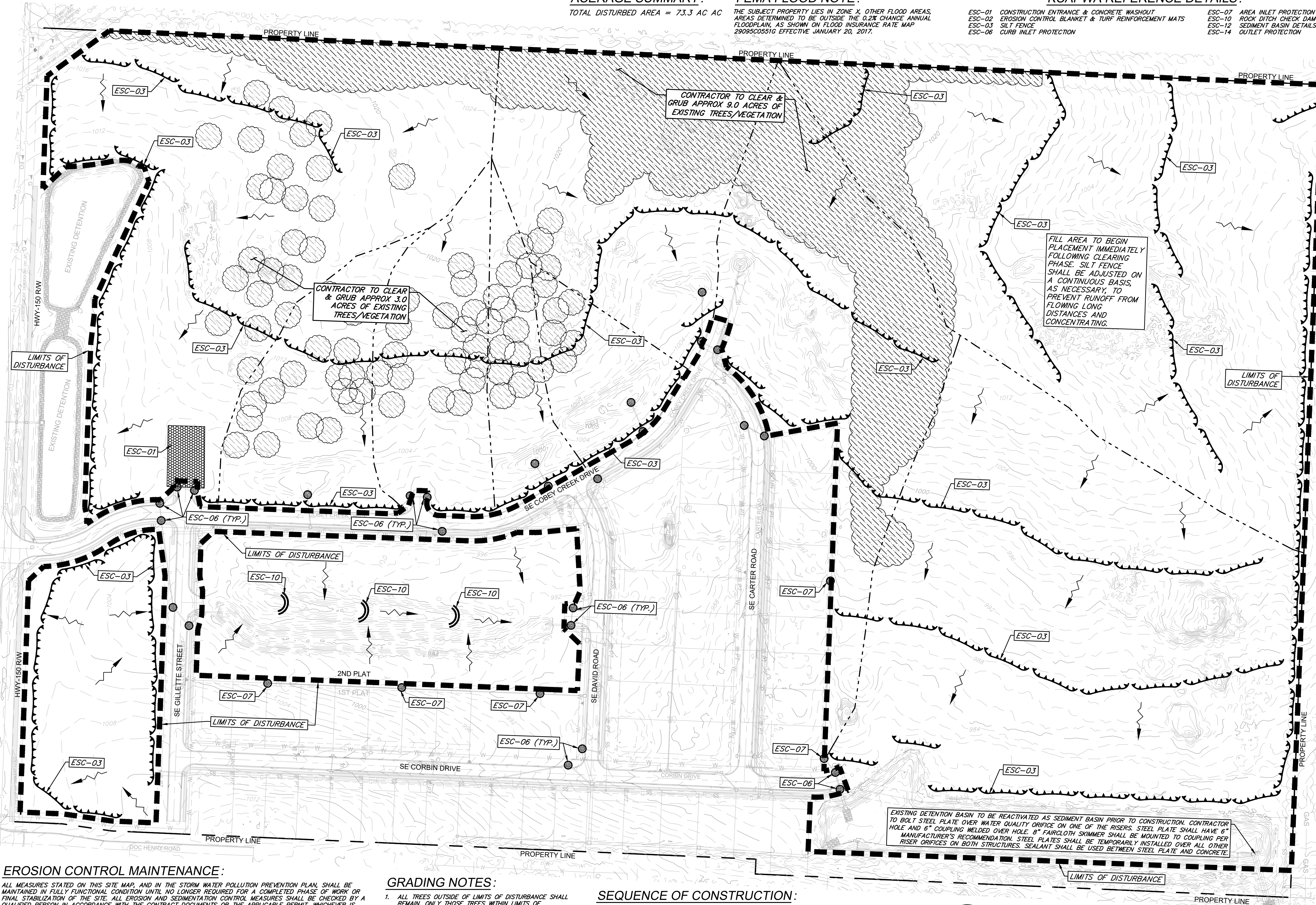
TOTAL DISTURBED AREA = 73.3 AC AC

FEMA FLOOD NOTE:

THE SUBJECT PROPERTY LIES IN ZONE X OTHER FLOOD AREAS, AREAS DETERMINED TO BE OUTSIDE THE 0.2% CHANCE ANNUAL FLOODPLAIN, AS SHOWN ON FLOOD INSURANCE RATE MAP 29095C0516 EFFECTIVE JANUARY 20, 2017.

KCAPWA REFERENCE DETAILS:

ESC-01 CONSTRUCTION ENTRANCE & CONCRETE WASHOUT
ESC-02 EROSION CONTROL BLANKET & TURF REINFORCEMENT MATS
ESC-03 SILT FENCE
ESC-06 CURB INLET PROTECTION
ESC-07 AREA INLET PROTECTION
ESC-10 ROCK DITCH CHECK DAM
ESC-12 SEDIMENT BASIN DETAILS
ESC-14 OUTLET PROTECTION



SEQUENCE OF CONSTRUCTION:

SITE IMPROVEMENTS CONSIST OF CLEARING VEGETATION AND GRADING OPERATIONS, ALONG WITH RE-ACTIVATION OF A SEDIMENT BASIN FROM AN EXISTING DRY DETENTION BASIN. WORK SHALL BE CONDUCTED AS FOLLOWS:

1. CONSTRUCT CONSTRUCTION VEHICLE ENTRANCE AND INSTALL PERIMETER SILT FENCE AND INLET PROTECTION TO EXISTING INLETS SURROUNDING THE LIMITS OF DISTURBANCE.
2. CLEAR TREES AND VEGETATION WHERE PHASE I GRADING OPERATIONS WILL BE COMPLETED. ONLY REMOVE THOSE TREES NECESSARY TO ACCOMPLISH GRADING ACTIVITIES AS SHOWN ON PLAN. INSTALL ROCK DITCH CHECKS AS ACCESS TO DRAINAGE DITCHES BECOMES AVAILABLE.
3. INSTALL SILT FENCE AND/OR DIVERSION BERM(S) AT TOE OF SLOPE ALONG PERIMETER OF PHASE I AREA. PHASE II ACTIVITIES CANNOT BEGIN UNTIL PHASE I IS COMPLETED.
4. CONTRACTOR TO CONSTRUCT STORMWATER MANAGEMENT FACILITIES, SPECIFICALLY THOSE FEATURES RELATED TO DETENTION, PRIOR TO ANY LAND DISTURBANCE OF THE SITE AND PRIOR TO THE CONSTRUCTION OF ANY OTHER SITE DEVELOPMENT WORK AS NOT TO EFFECT DOWNSTREAM NEIGHBORS WITH UNDETAINED STORMWATER DISCHARGE.
5. CLEAR REMAINING TREES AND VEGETATION WHERE PHASE II GRADING OPERATIONS WILL BE COMPLETED. ONLY REMOVE THOSE TREES NECESSARY TO ACCOMPLISH GRADING ACTIVITIES AS SHOWN ON PLAN.
6. AS TREE CLEARING AND GRADING OPERATIONS ARE COMPLETED, AREAS TO REMAIN INACTIVE FOR MORE THAN 14 DAYS SHALL BE STABILIZED WITH SEED AND COMPOST MULCH AND/OR STEEP SLOPE PROTECTION. SEE INTERMEDIATE EROSION CONTROL PLAN.



LEGEND

- | | | | |
|--------|-----------------------|---|--|
| --- -- | DRAINAGE AREAS | ● | INLET PROTECTION (ESC-06) |
| --- | EX. RIGHT-OF-WAY | — | SILT FENCE W/ J HOOKS (ESC-03) |
| --- | EX. PROPERTY LINE | — | TEMPORARY STONE CONSTRUCTION EXIT (ESC-07) |
| --- | EX. STORM DRAIN | — | TREE / VEGETATION CLEARING |
| --- | EX. MAJOR CONTOUR | — | ROCK DITCH CHECK DAM (ESC-10) |
| --- | EX. MINOR CONTOUR | — | |
| --- | LIMITS OF DISTURBANCE | — | |
| --- | EX. SLOPE DIRECTION | — | |

SEDIMENT BASIN:

DRAINAGE AREA - 97.28 AC
MINIMUM VOLUME FOR SEDIMENT BASIN STORAGE - 350,214 FT³ (3600 FT³/AC)
ACTUAL VOLUME - 676,477 FT³
BOTTOM AREA/ELEVATION - 2,378 FT²/966.00
TOP AREA/ELEVATION - 108,226 FT²/978.00
DEPTH - 12.0 FT
MAX. PERMANENT POOL VOLUME (50% OF POND) - 175,107 FT³
PERMANENT POOL TOP AREA/ELEVATION - 95,000 FT²/976.00
(87,352 REQUIRED) FT³/AC
PERMANENT POOL DEPTH - 10.0 FT
ACTUAL SEDIMENT VOLUME - 95,500 FT³

ANDERSON ENGINEERING
EMPLOYEE OWNED
ENGINEERS • SURVEYORS • LABORATORIES • DRILLING
941 W 141ST TERR. STE. A • KANSAS CITY, MO 64145 • PHONE (816) 777-0400
A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION - LC 62

DRAWING INFO.		REVISIONS		NO.	
DRAWN BY:	GC	DESCRIPTION	BY	DATE	
CHECK BY:	PJ				
LICENSE NO.	PE-2021025089				
DATE:	03/14/2022				
ISSUED FOR:	FOR REVIEW				
JOB NUMBER:	21KC10080				

CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - EROSION CONTROL
PHASE I - PRE-CLEARING EROSION CONTROL PLAN
S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
GARRETT R. SATS
PE-2021025089
03/14/22
PROFESSIONAL ENGINEER
SHEET NUMBER
C601
2 OF 12

Mar 14, 2022 - 5:50pm Plotted By: gscs G:\Shared drives\VC10 - Land Development\Projects\2021\21C10080 Cobey Creek Residential\01 CIVIL-DWG-Sheet\EROSION CONTROL\21C10080 - SIFTS - PHASE II ESC.dwg Layout: PHASE II - INTERMEDIATE EROSION CONTROL PLAN

GENERAL NOTES:

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6. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
7. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
10. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OIL AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
12. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
13. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL BE STOPPED FOR AT LEAST 7 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE STABILIZED. THESE AREAS SHALL BE STABILIZED NO LATER THAN 21 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. STABILIZATION MAY CONSIST OF SEED, SOIL, ROCK, PAVEMENT, STRUCTURE OR OTHER NON-ERODIBLE COVER.
15. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. ONLY USE INGRESS/EGRESS LOCATIONS AS PROVIDED.
16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
17. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
18. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
19. SLOPES CONSISTING OF TOPSOIL, CLAY, OR SILT SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE CONSTRUCTION PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
20. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.
21. CONTRACTOR RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE. PONDING OF WATER WILL NOT BE ALLOWED ON SITE. IF NECESSARY, CONTRACTOR TO PROVIDE TEMPORARY SLOPES OR PUMPING IN LOW POINT SUMP CONDITIONS UNTIL THE INSTALLATION OF STORM SEWER.

EROSION CONTROL MAINTENANCE:

- ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONING CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
1. AT A MINIMUM, THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS FOR GOOD HOUSEKEEPING, SPILL CONTROL AND EROSION AND SEDIMENT CONTROL AS SPECIFIED IN THE KANSAS CITY METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION SECTION 2150.
 2. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
 3. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
 4. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
 5. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
 6. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
 7. DRAINAGE SWALES WITH SLOPES STEEPER THAN 15% SHALL BE INSPECTED AFTER EACH RAINFALL EVENT. THESE CHANNELS AND SLOPES SHOULD BE TREATED WITH EROSION FABRIC. IF THE CHANNELS OR SLOPES SHOW ANY SIGN OF FAILURE, COORDINATE WITH THE ENGINEER TO DEVELOP A PLAN TO RE-STABILIZE THE FAILED AREA.

GRADING NOTES:

1. ALL TREES OUTSIDE OF LIMITS OF DISTURBANCE SHALL REMAIN. ONLY THOSE TREES WITHIN LIMITS OF DISTURBANCE THAT ARE IN THE AREA TO BE GRADED SHALL BE REMOVED.
2. ALL TOPSOIL, VEGETATION, ROOT STRUCTURES, AND DELETERIOUS MATERIALS SHALL BE STRIPPED FROM THE GROUND SURFACE PRIOR TO THE PLACEMENT OF EMBANKMENTS. CONTRACTOR SHALL OBTAIN THE ON-SITE GEOTECHNICAL REPRESENTATIVE'S ACCEPTANCE OF THE EXISTING GROUND SURFACE MATERIALS AND THE PROPOSED FILL MATERIAL PRIOR TO THE PLACEMENT OF FILL.
3. ALL PROPOSED CONTOUR LINES AND SPOT ELEVATIONS SHOWN ARE FINISH GROUND ELEVATIONS. CONTRACTOR SHALL ACCOUNT FOR PAVEMENT DEPTHS, BUILDING PADS, TOPSOIL, ETC. WHEN GRADING THE SITE.
4. ALL DISTURBED AREAS THAT SHALL BE FINISH GRADED WITH A MINIMUM OF FOUR INCHES OF TOPSOIL.
5. FINISHED GRADES SHALL NOT BE STEEPER THAN 3:1.
6. ALL GRADING WORK SHALL BE CONSIDERED UNCLASSIFIED. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR ROCK EXCAVATION. CONTRACTOR SHALL SATISFY HIMSELF AS TO ANY ROCK EXCAVATION REQUIRED TO ACCOMPLISH THE IMPROVEMENTS SHOWN HEREON.

ACERAGE SUMMARY:

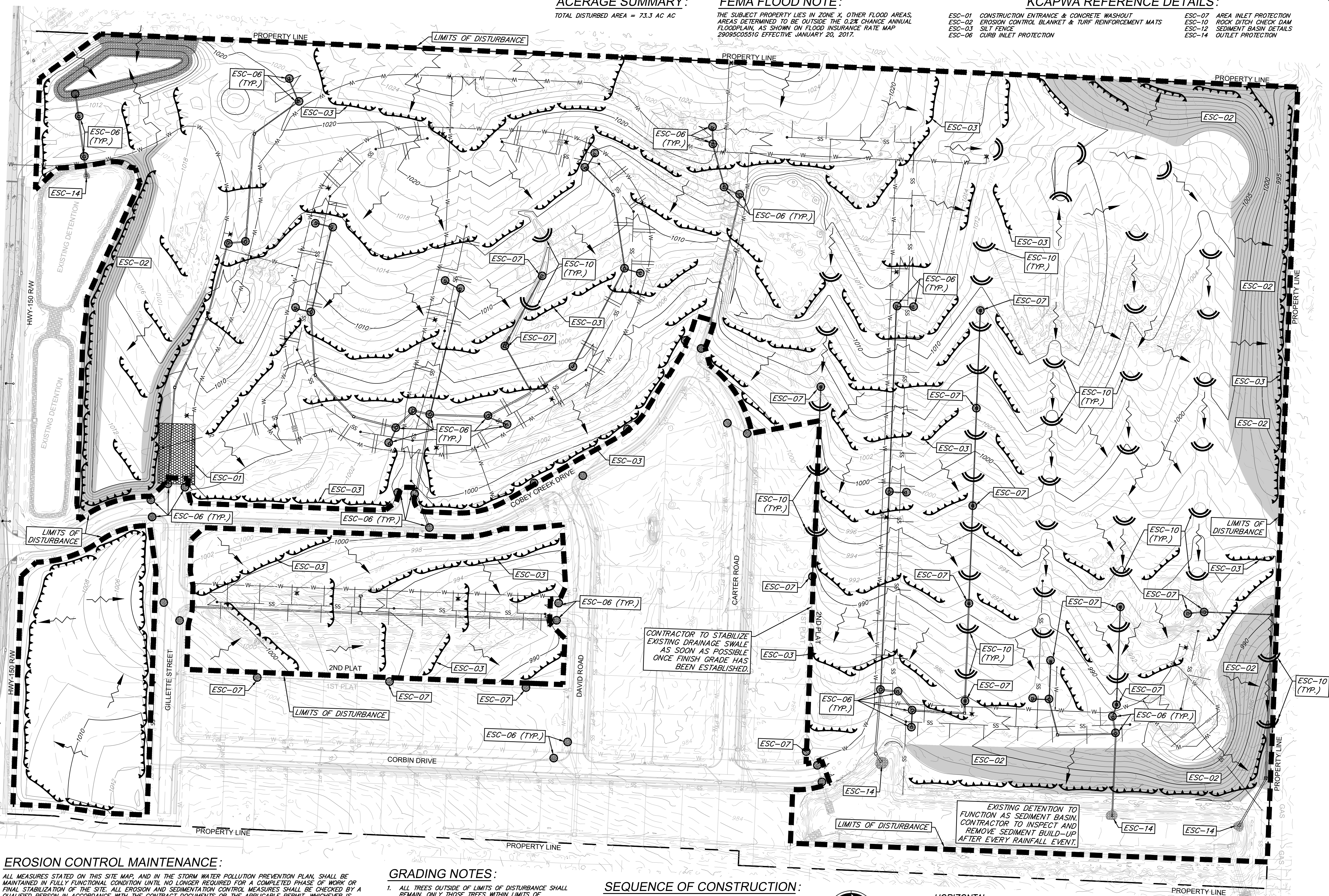
TOTAL DISTURBED AREA = 73.3 AC AC

FEMA FLOOD NOTE:

THE SUBJECT PROPERTY LIES IN ZONE X. OTHER FLOOD AREAS, AREAS DETERMINED TO BE OUTSIDE THE 0.2% CHANCE ANNUAL FLOODPLAIN, AS SHOWN ON FLOOD INSURANCE RATE MAP 29095C05516 EFFECTIVE JANUARY 20, 2017.

KCAPWA REFERENCE DETAILS:

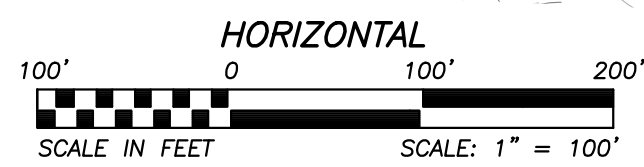
ESC-01 CONSTRUCTION ENTRANCE & CONCRETE WASHOUT
ESC-02 EROSION CONTROL BLANKET & TURF REINFORCEMENT MATS
ESC-03 SILT FENCE
ESC-06 CURB INLET PROTECTION
ESC-07 AREA INLET PROTECTION
ESC-10 ROCK DITCH CHECK DAM
ESC-12 SEDIMENT BASIN DETAILS
ESC-14 OUTLET PROTECTION



SEQUENCE OF CONSTRUCTION:

PHASE I CONSISTS OF FINISHING MASS GRADING ACTIVITIES, AND INSTALLATION OF WATER MAIN, SEWER MAIN, SEWER SERVICE LINES, AND STORM SEWERS. WORK SHALL BE CONDUCTED AS FOLLOWS:

1. FINISH ANY MASS GRADING AND/OR STEEP SLOPE STABILIZATION ACTIVITIES THAT WERE NOT COMPLETED IN PHASE I.
2. BEGIN INSTALLING UNDERGROUND INFRASTRUCTURE STARTING WITH SANITARY SEWER, FOLLOWED BY STORM SEWER, THEN WATER LINE. INSTALL INLET PROTECTION AND SLOPE INTERRUPT SILT FENCE ONCE PIPE BACKFILLING HAS BEEN COMPLETED.
3. AS PIPE INSTALLATION OPERATIONS ARE COMPLETED, AREAS TO REMAIN INACTIVE FOR MORE THAN 14 DAYS SHALL BE STABILIZED WITH SEED AND COMPOST MULCH AND/OR STEEP SLOPE PROTECTION. SEE FINAL STABILIZATION PLAN.
4. AS STORM SEWER INFRASTRUCTURE IS COMPLETED, OUTLET PROTECTION AND RIPRAP SHALL BE INSTALLED TO PROTECT OUTLET AREAS FROM HIGHLY CONCENTRATED DISCHARGE FLOWS.
5. ALL PHASE I AND PHASE II EROSION CONTROL MEASURES SHALL CONTINUE BEING REGULARLY INSPECTED AND MAINTAINED UNTIL FINAL STABILIZATION OF AT LEAST 70% OF THE DISTURBED SURFACE HAS BEEN MET THROUGH TEMPORARY SEEDING.



LEGEND

- PROP. SLOPE DIRECTION
PROP. STORM PIPE
PROP. MAJOR CONTOUR
PROP. MINOR CONTOUR
EX. MAJOR CONTOUR
EX. MINOR CONTOUR
LIMITS OF DISTURBANCE
ROCK CHECK DAM
BERM (ESC-10)

- INLET PROTECTION (ESC-06 OR ESC-07)
SILT FENCE W/ J HOOKS (ESC-03)
TEMPORARY STONE CONSTRUCTION EXIT (ESC-01)
STEEP SLOPE PROTECTION (ESC-02)
RIPRAP OUTLET PROTECTION (ESC-14)

SEDIMENT BASIN:

DRAINAGE AREA - 97.28 AC
MINIMUM VOLUME FOR SEDIMENT BASIN STORAGE - 350,214 FT³ (3600 FT³/AC)
ACTUAL VOLUME - 678,477 FT³
BOTTOM AREA/ELEVATION - 2,378 FT²/966.00
TOP AREA/ELEVATION - 108,226 FT²/978.00
DEPTH - 12.0 FT
MAX. PERMANENT POOL VOLUME (50% OF POND) - 175,107 FT³
PERMANENT POOL TOP AREA/ELEVATION - 95,000 FT²/976.00
(87,552 REQUIRED) FT³/AC
PERMANENT POOL DEPTH - 10.0 FT
ACTUAL SEDIMENT VOLUME - 95,500 FT³

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NO.	DESCRIPTION	BY	DATE
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		PJ	
		PE-2021025089	
		LICENSE NO.	
		DATE:	03/14/2022
		ISSUED FOR:	FOR REVIEW
		JOB NUMBER:	21KC10080

CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - EROSION CONTROL

PHASE II - INTERMEDIATE EROSION CONTROL PLAN

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



SHEET NUMBER

C602
3 OF 12

Mar 14, 2022 - 5:55 pm Plotted By: gscate G:\Shared drives\VC10 - Land Development\Projects\2021\21VC10080 Cobey Creek Residential\01 CIVIL\03-DWG\Sheet\Erosion Control\21VC10080 - SIFTS - PHASE III ESC.dwg Layout: PHASE III - FINAL STABILIZATION EROSION CONTROL PLAN

GENERAL NOTES:

1. THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS DRAWING ("EROSION CONTROL"), THE STANDARD DETAILS, ATTACHMENTS INCLUDED IN SPECIFICATIONS ("SWPPP"), PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORMWATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
3. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
4. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
5. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
6. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
7. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE OBTAINED AND PROPERLY TREATED OR DISPOSED.
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS OR LEAKS.
10. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
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15. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. ONLY USE INGRESS/EGRESS LOCATIONS AS PROVIDED.
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19. SLOPES CONSISTING OF TOPSOIL, CLAY, OR SILT SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE CONSTRUCTION PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
20. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.
21. CONTRACTOR RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE. PONDING OF WATER WILL NOT BE ALLOWED ON SITE. IF NECESSARY, CONTRACTOR TO PROVIDE TEMPORARY STORM SEWER SLOPE POINT SUMP CONDITIONS UNTIL THE INSTALLATION OF STORM SEWER.

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 5. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
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GRADING NOTES:

1. ALL TREES OUTSIDE OF LIMITS OF DISTURBANCE SHALL REMAIN. ONLY THOSE TREES WITHIN LIMITS OF DISTURBANCE THAT ARE IN THE AREA TO BE GRADED SHALL BE REMOVED.
2. ALL TOPSOIL, VEGETATION, ROOT STRUCTURES, AND DELETERIOUS MATERIALS SHALL BE STRIPPED FROM THE GROUND SURFACE PRIOR TO THE PLACEMENT OF EMBANKMENTS. CONTRACTOR SHALL OBTAIN THE ON-SITE GEOTECHNICAL REPRESENTATIVE'S ACCEPTANCE OF THE EXISTING GROUND SURFACE MATERIALS AND THE PROPOSED FILL MATERIAL PRIOR TO THE PLACEMENT OF FILL.
3. ALL PROPOSED CONTOUR LINES AND SPOT ELEVATIONS SHOWN ARE FINISH GROUND ELEVATIONS. CONTRACTOR SHALL ACCOUNT FOR PAVEMENT DEPTHS, BUILDING PADS, TOPSOIL, ETC. WHEN GRADING THE SITE.
4. ALL DISTURBED AREAS THAT SHALL BE FINISH GRADED WITH A MINIMUM OF FOUR INCHES OF TOPSOIL.
5. FINISHED GRADES SHALL NOT BE STEEPER THAN 3:1.
6. ALL GRADING WORK SHALL BE CONSIDERED UNCLASSIFIED. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR ROCK EXCAVATION. CONTRACTOR SHALL SATISFY HIMSELF AS TO ANY ROCK EXCAVATION REQUIRED TO ACCOMPLISH THE IMPROVEMENTS SHOWN HEREON.

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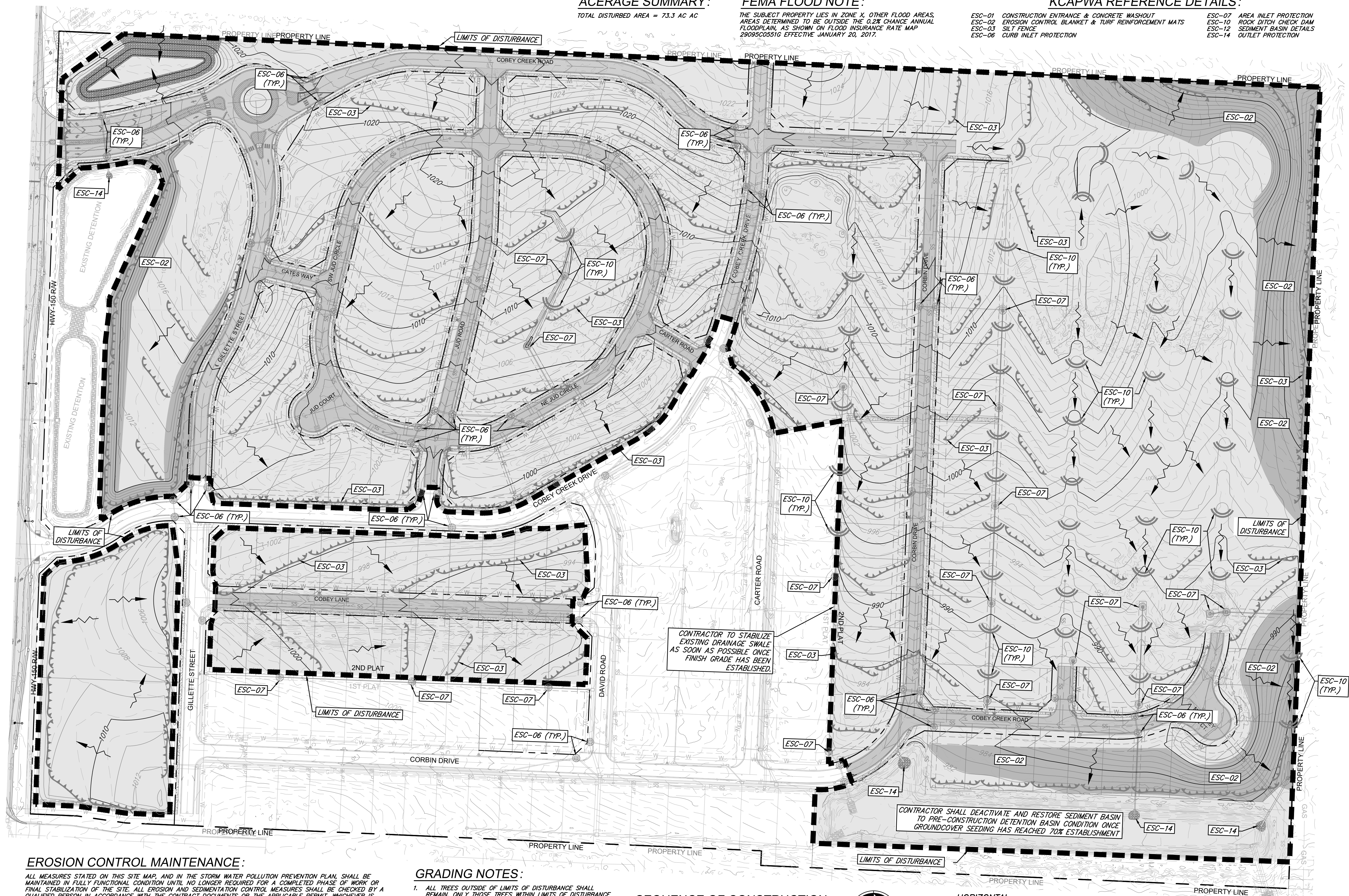
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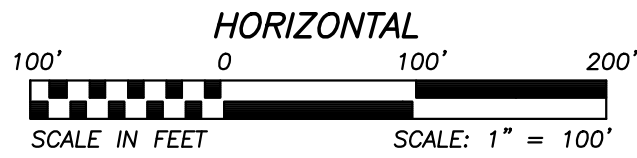
KCAPWA REFERENCE DETAILS:

- ESC-01 CONSTRUCTION ENTRANCE & CONCRETE WASHOUT
ESC-02 ROCK DITCH CHECK DAM
ESC-03 EROSION CONTROL BLANKET & TURF REINFORCEMENT MATS
ESC-04 SILT FENCE
ESC-05 CURB INLET PROTECTION
ESC-06 AREA INLET PROTECTION
ESC-07 ROCK DITCH CHECK DAM
ESC-08 SEDIMENT BASIN DETAILS
ESC-09 OUTLET PROTECTION



SEQUENCE OF CONSTRUCTION:

- SITE IMPROVEMENTS CONSIST PAVING STREETS, RE-ESTABLISHING GROUND COVER VEGETATION, DEACTIVATING SEDIMENT BASIN, AND REMOVING SILT FENCE AND INLET PROTECTION. WORK SHALL BE COMPLETED IN THE SEQUENCE AS FOLLOWS:
1. REMOVE CONSTRUCTION ENTRANCE/EXIT AS ROADS ARE PAVED.
 2. INSTALL CURB, ROAD PAVEMENT, AND REQUIRED SIDEWALKS ADJACENT TO TRACTS. ADJUST SILT FENCE AND SLOPE, SLOPE INTERRUPTS AS NECESSARY TO PREVENT MUD AND SILT FROM FLOWING LONG DISTANCES.
 3. SEED AND/OR SOD ALL DISTURBED AREAS ONCE FINISH GRADE HAS BEEN ACHIEVED. MAINTAIN SILT FENCE, SLOPE INTERRUPTS, STEEP SLOPE PROTECTION, AND INLET PROTECTION UNTIL VEGETATIVE COVER HAS BEEN ESTABLISHED OVER 70% OF THE TOTAL DISTURBED AREA.
 4. AS ALL DISTURBED AREAS ARE STABILIZED WITH VEGETATIVE COVER, STORM SEWER INLET PROTECTION, SILT FENCE, SLOPE INTERRUPTS, ROCK DITCH CHECKS, AND DIVERSION BERMS CAN BE REMOVED UPON CITY INSPECTION AND APPROVAL. ENSURE ENTIRE SITE IS STABILIZED PRIOR TO DEACTIVATION OF SEDIMENT BASIN.



LEGEND

- PROP. SLOPE DIRECTION
PROP. STORM PIPE
PROP. MAJOR CONTOUR
PROP. MINOR CONTOUR
EX. MAJOR CONTOUR
EX. MINOR CONTOUR
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ROCK CHECK DAM
BERM (ESC-10)

- INLET PROTECTION (ESC-06 OR ESC-07)
SILT FENCE W/ J HOOKS (ESC-03)
FINAL SEEDING (ALL AREAS UNPAVED)
STEEP SLOPE PROTECTION (ESC-02)
RIPRAP OUTLET PROTECTION (ESC-14)

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TOP AREA/ELEVATION - 108,226 FT²/978.00
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MAX. PERMANENT POOL VOLUME (50% OF POND) - 173,107 FT³
PERMANENT POOL TOP AREA/ELEVATION - 95,000 FT²/976.00
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PERMANENT POOL DEPTH - 10.0 FT
ACTUAL SEDIMENT VOLUME - 95,500 FT³

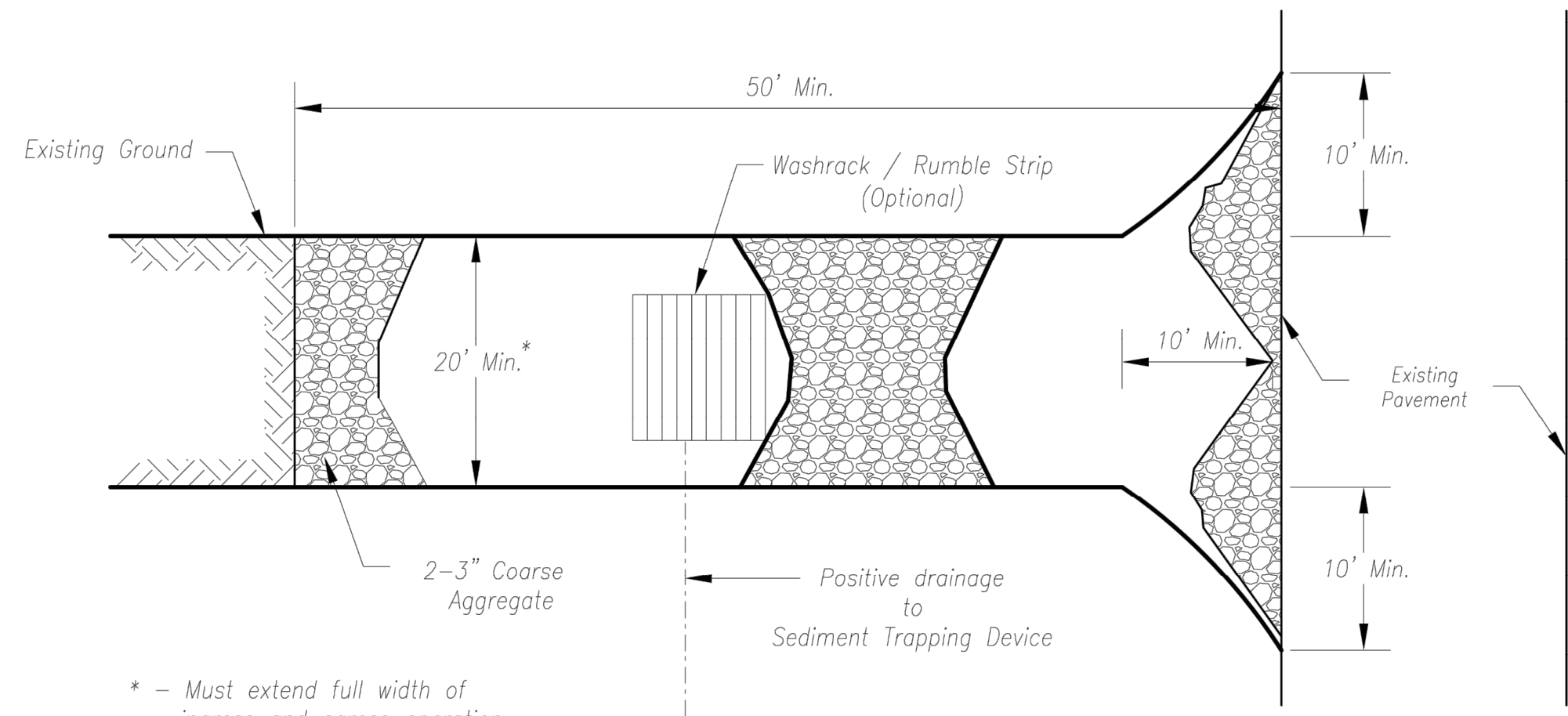
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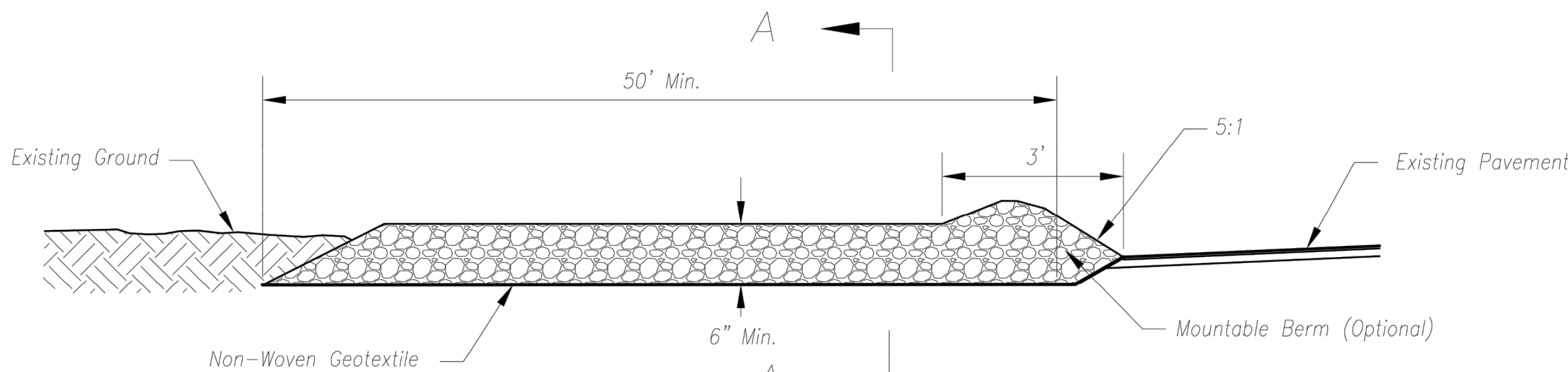
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STATE OF MISSOURI
GARRETT R. SATS
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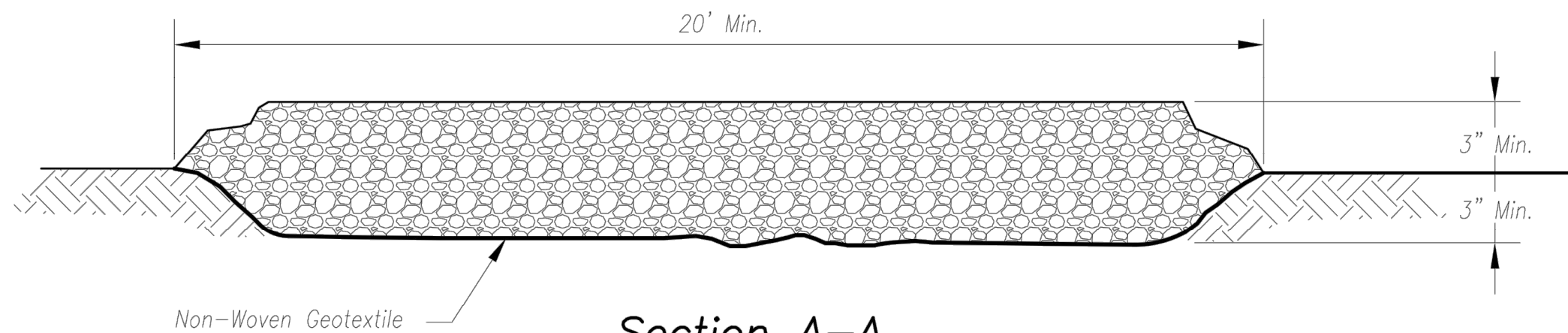
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Plan View
Not to Scale



Side Elevation
Not to Scale



Section A-A
Not to Scale

Notes for Construction Entrance:

1. Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
2. Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
3. If slope towards the public road exceeds 2%, construct a 6- to 8-inch high ridge with 3H:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
6. Divert all surface runoff and drainage from the entrance to a sediment control device.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

Maintenance for Construction Entrance:

1. Reshape entrance as needed to maintain function and integrity of Installation. Top dress with clean aggregate as needed.

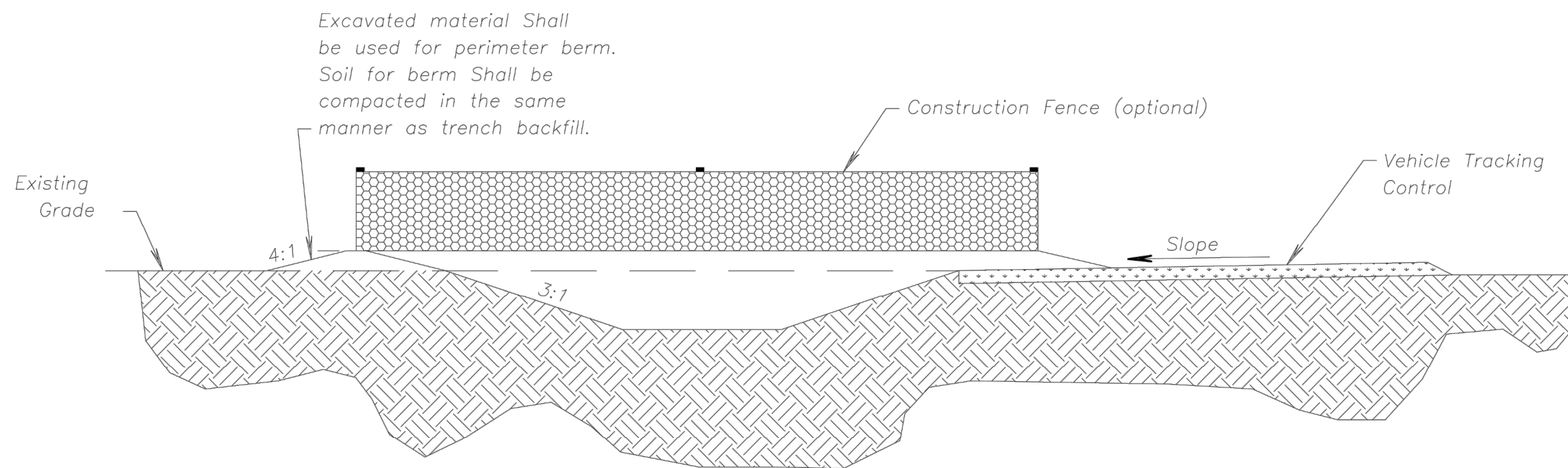
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

1. Concrete washout areas shall be installed prior to any concrete placement on site.
2. Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking pad shall be sloped towards the concrete washout area.
3. Vehicle tracking control is required at the access point to all concrete washout areas.
4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.

Maintenance for Concrete Washout:


1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water-tight container and disposed of properly.
4. Concrete washout areas shall remain in place until all concrete for the project is placed.
5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topsoil, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.



CONCRETE WASHOUT

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Kansas City Metro Chapter



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KANSAS CITY METRO CHAPTER

CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT

STANDARD DRAWING NUMBER ESC-01

ADOPTED: 10/24/2016

Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

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CLAYTON PROPERTIES GROUP
COBBY CREEK - 2ND PLAT - EROSION CONTROL

CONSTRUCTION ENTRANCE DETAILS

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI

GARRETT R. GATES

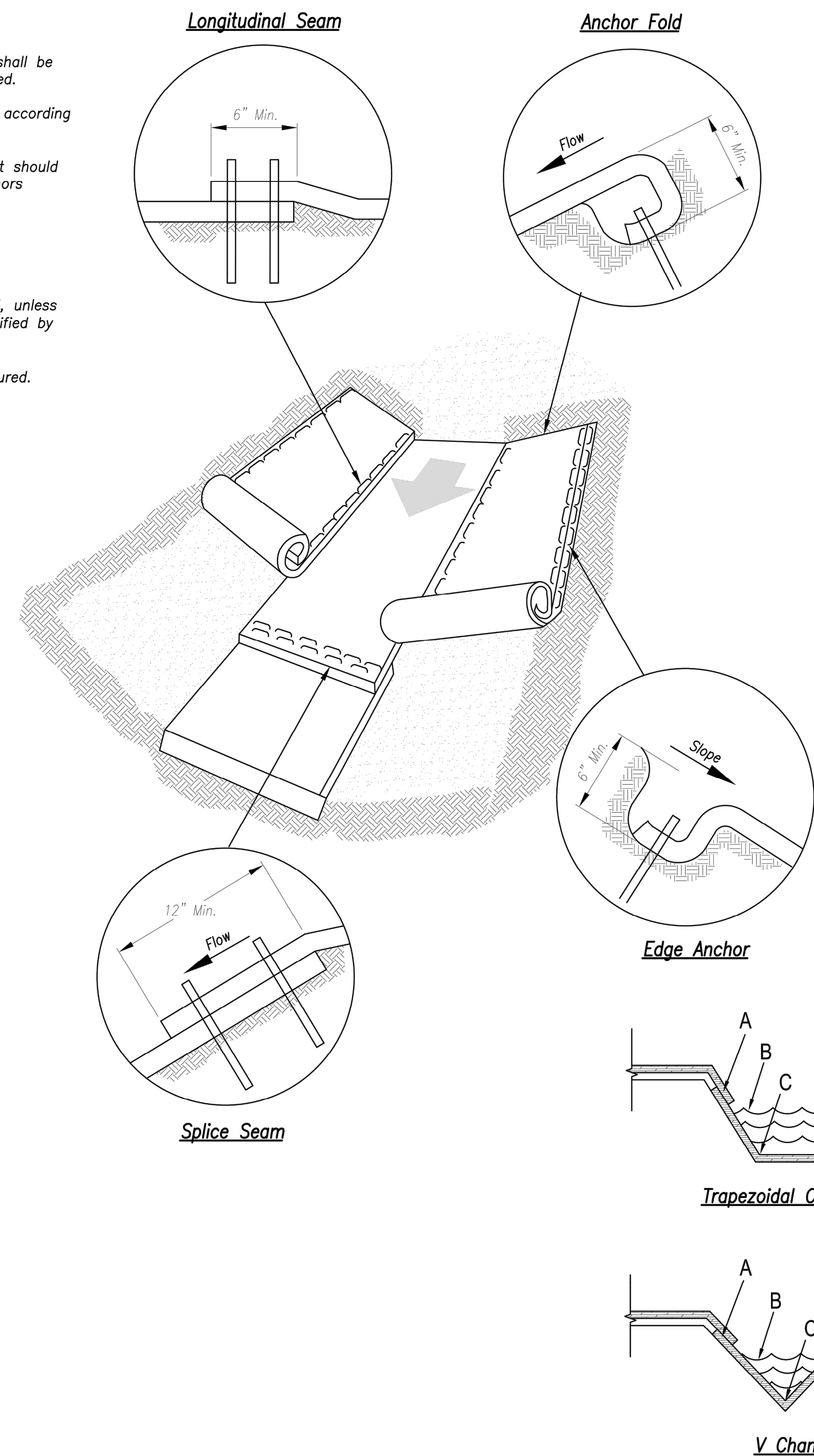
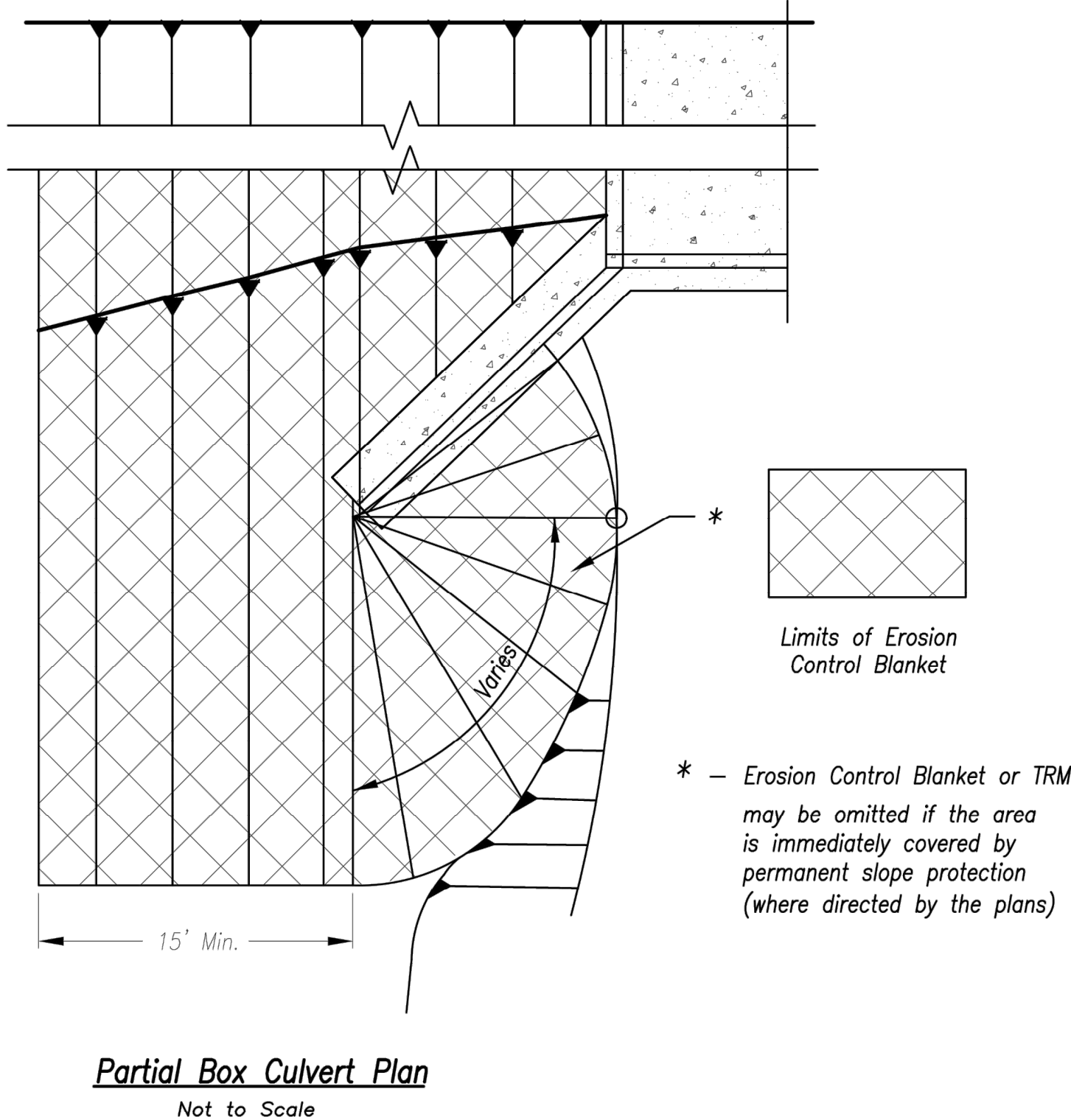
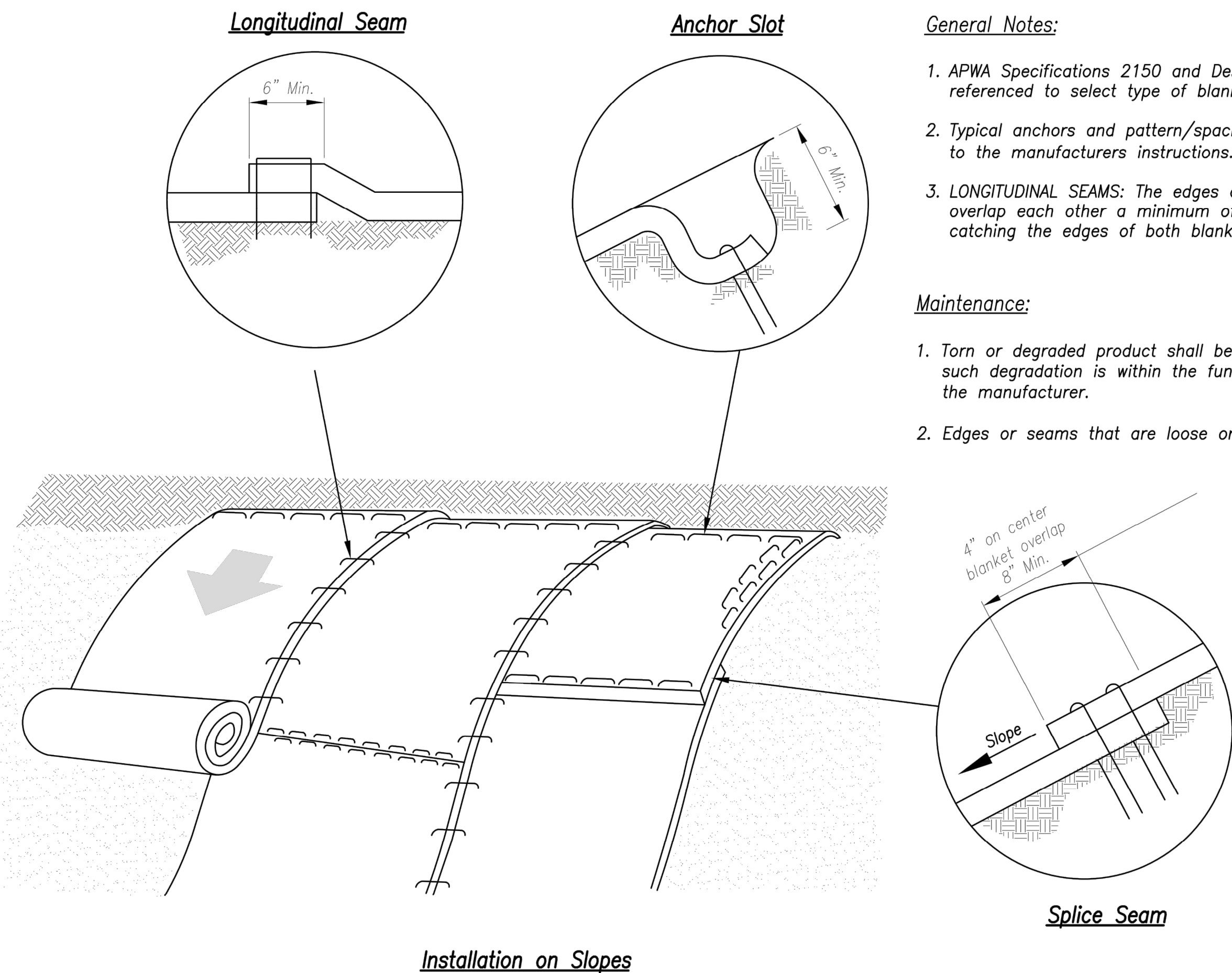
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KANSAS CITY METRO CHAPTER

EROSION CONTROL BLANKETS AND TURF REINFORMENT MATS

STANDARD DRAWING NUMBER ESC-02

ADOPTED: 10/24/2016

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - EROSION CONTROL

STEEP SLOPE PROTECTION DETAILS

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

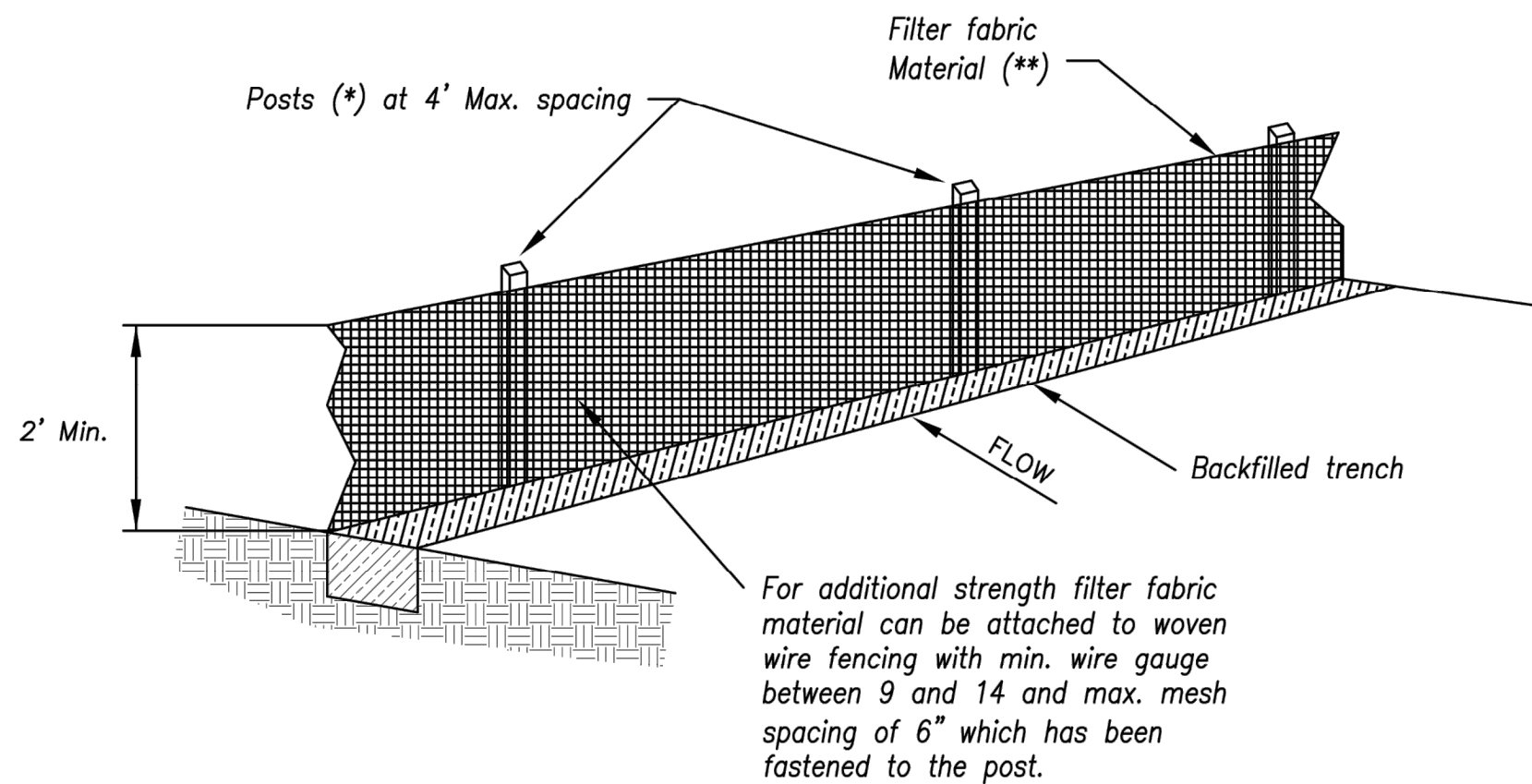
STATE OF MISSOURI

GARRETT R. GATES
Professional Engineer
PE-2021025089
03/14/22

SHEET NUMBER C802

6 OF 12

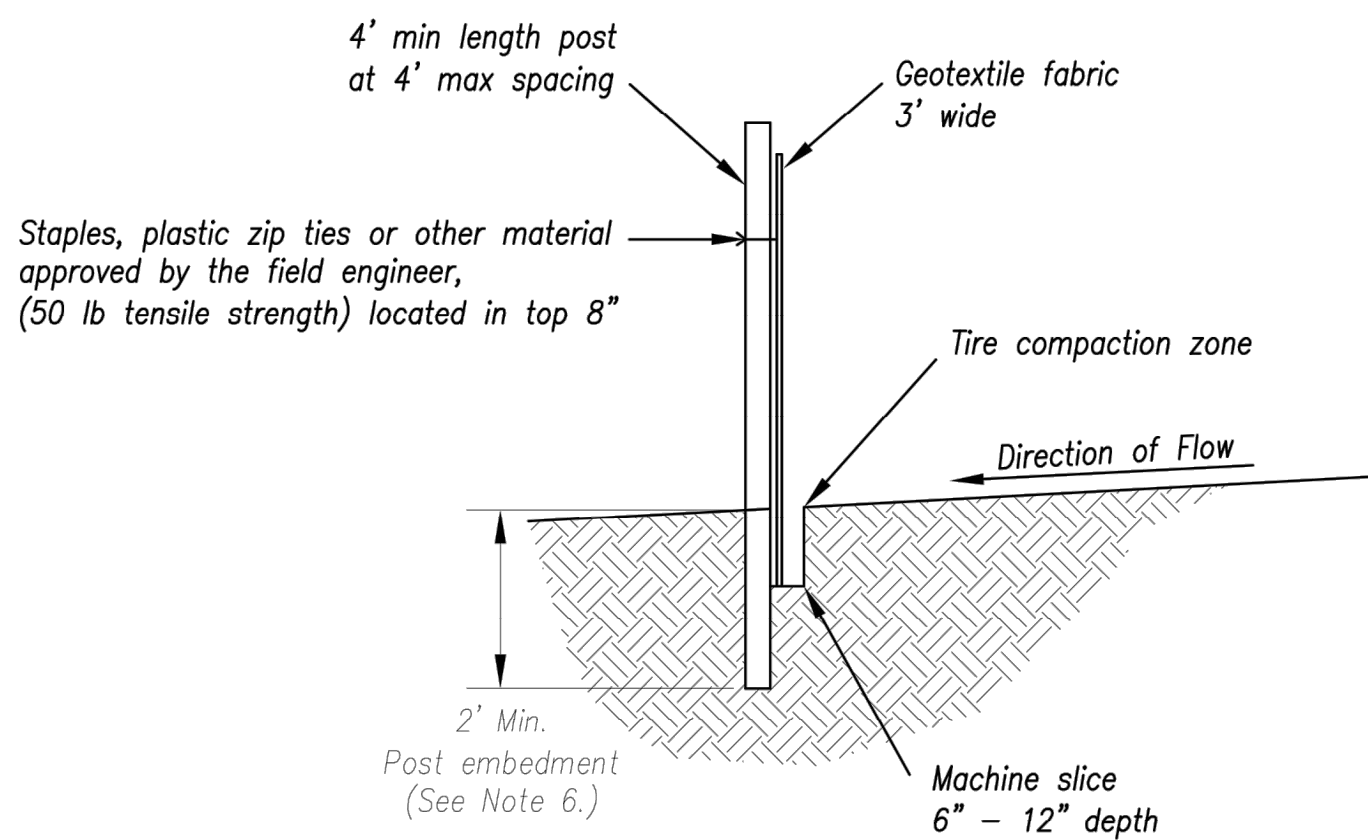
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- (*) POSTS
- MIN. LENGTH 4'
 - HARDWOOD 1 3/16" x 1 3/16"
 - NO.2 SOUTHERN PINE 2 5/8" x 2 5/8"
 - STEEL 1.33 LB/FT

(**) - Geotextile Fabric shall meet the requirements of AASHTO M288

SILT FENCE DETAILS
Not to Scale



Notes:

1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
4. Attach fabric to upstream side of post.
5. Install posts a minimum of 2' into the ground.
6. Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably used.

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches 1/2 the height of silt fence.
2. Repair as necessary to maintain function and structure.

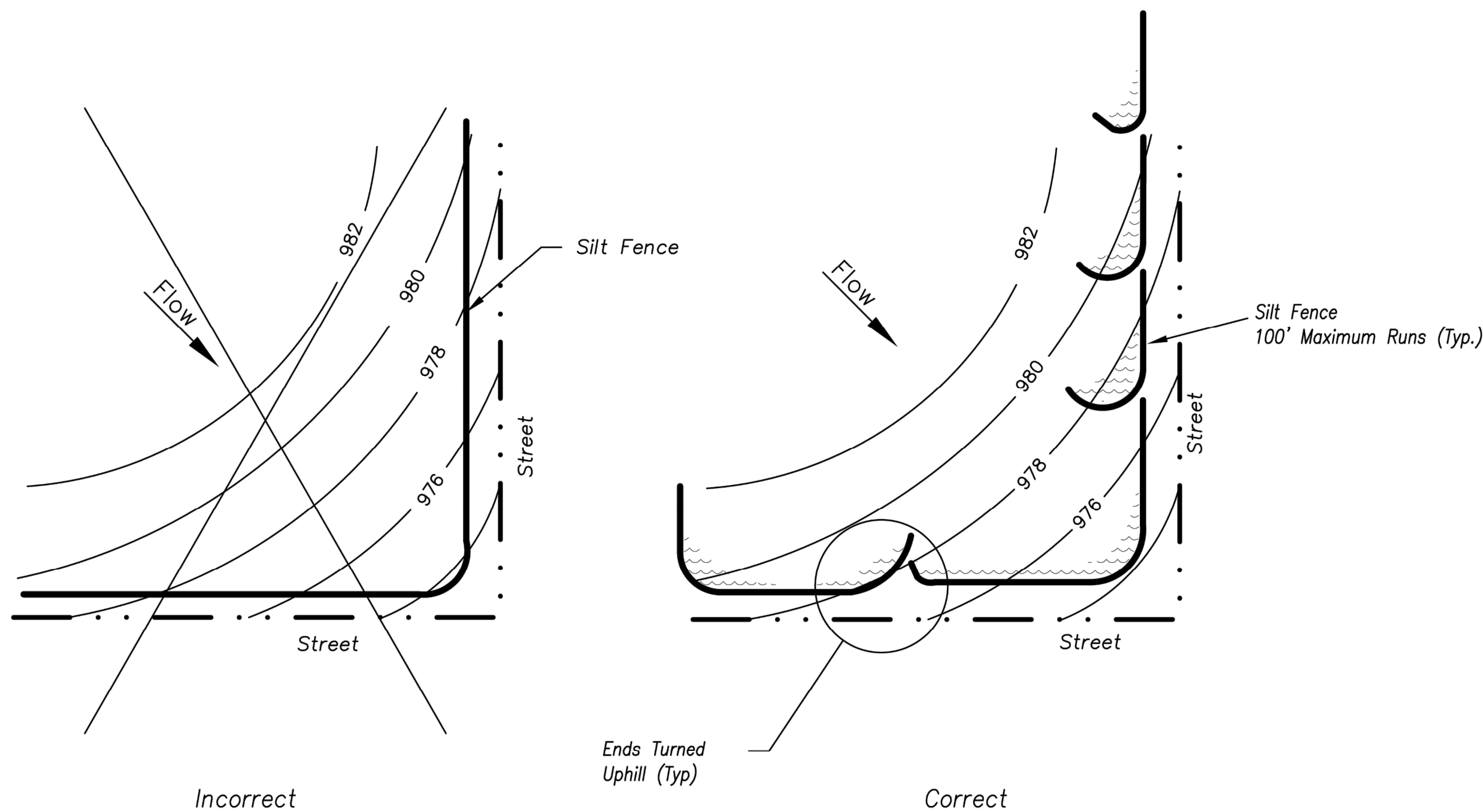
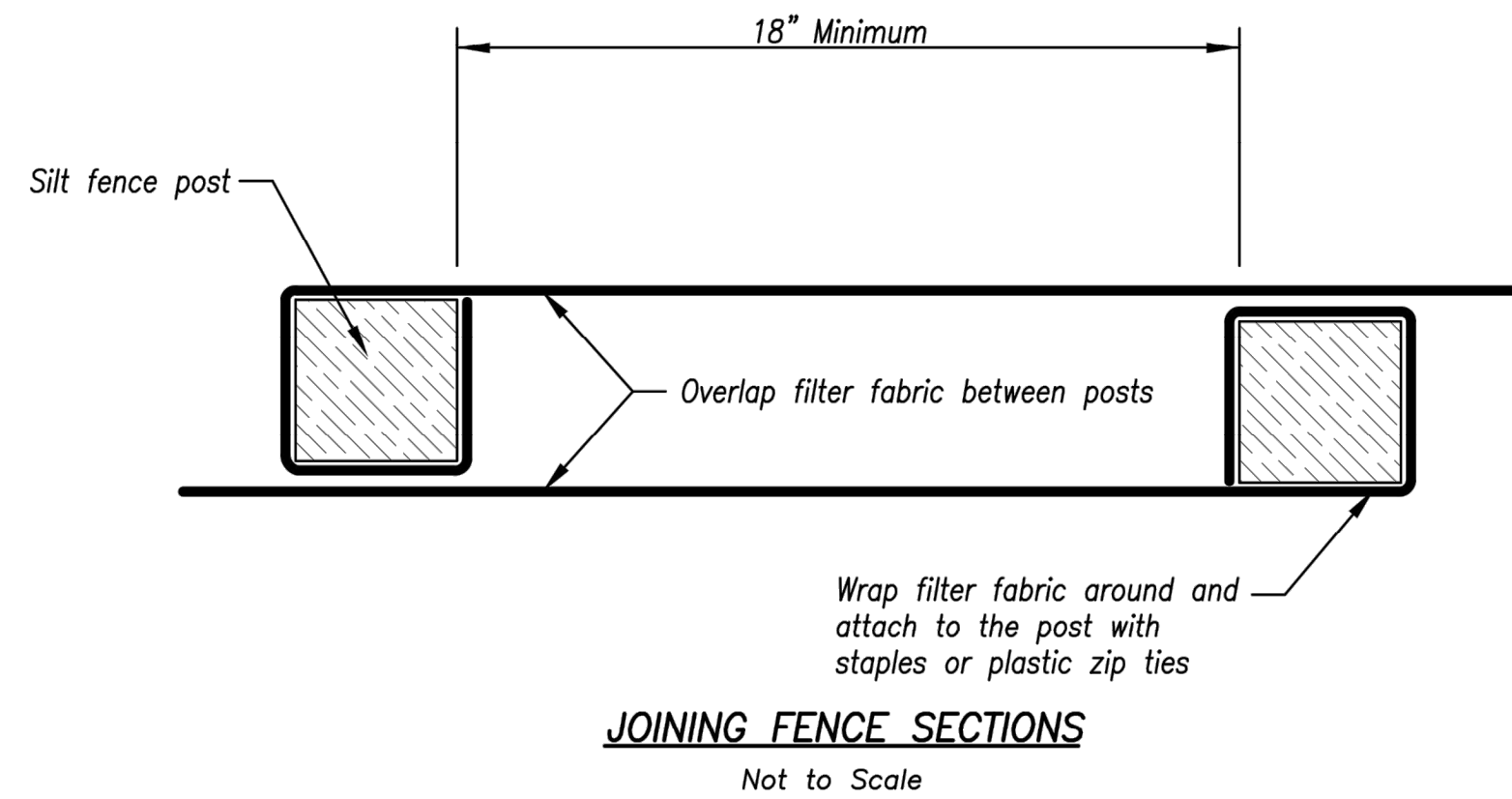
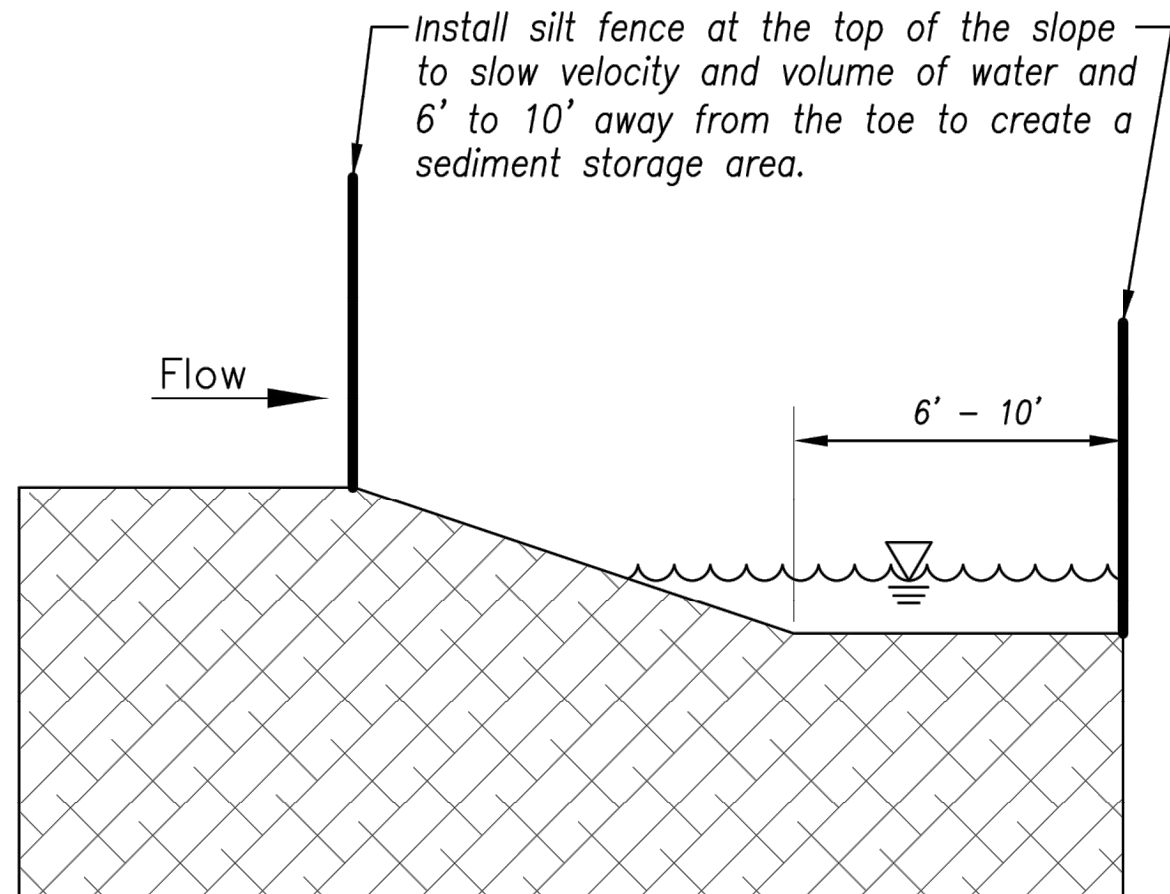


Figure A

SILT FENCE LAYOUT
Not to Scale



AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter
SILT FENCE

STANDARD DRAWING
NUMBER ESC-03
ADOPTED:
10/24/2016

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - EROSION CONTROL

SILT FENCE DETAILS

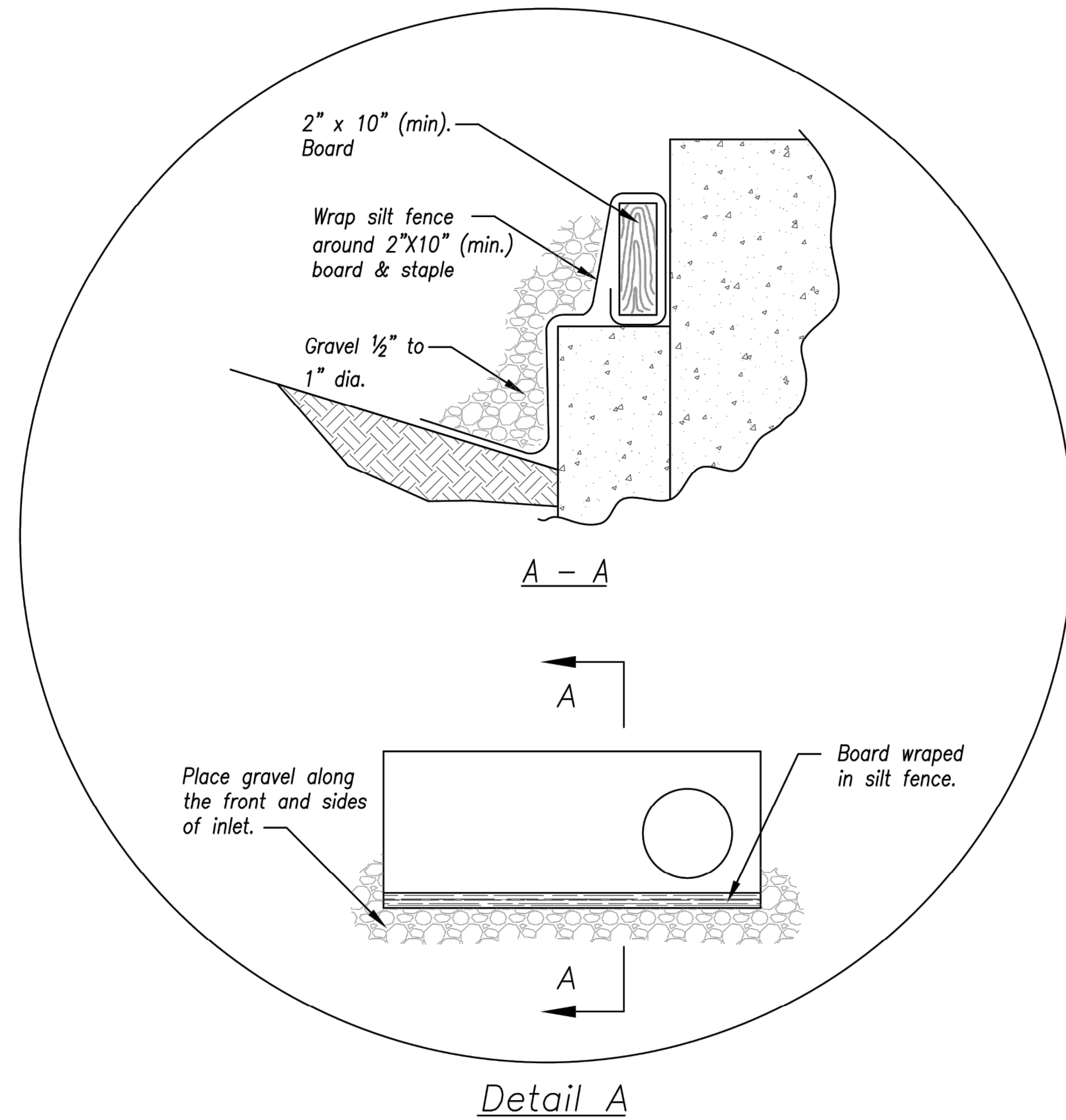
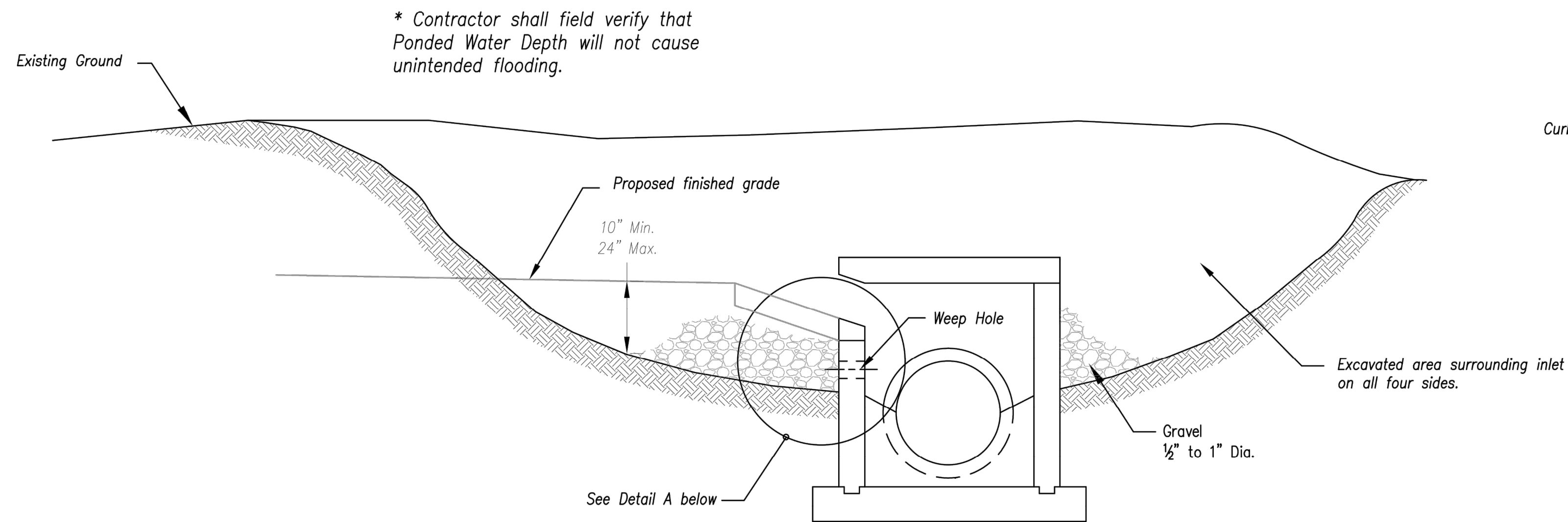
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Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

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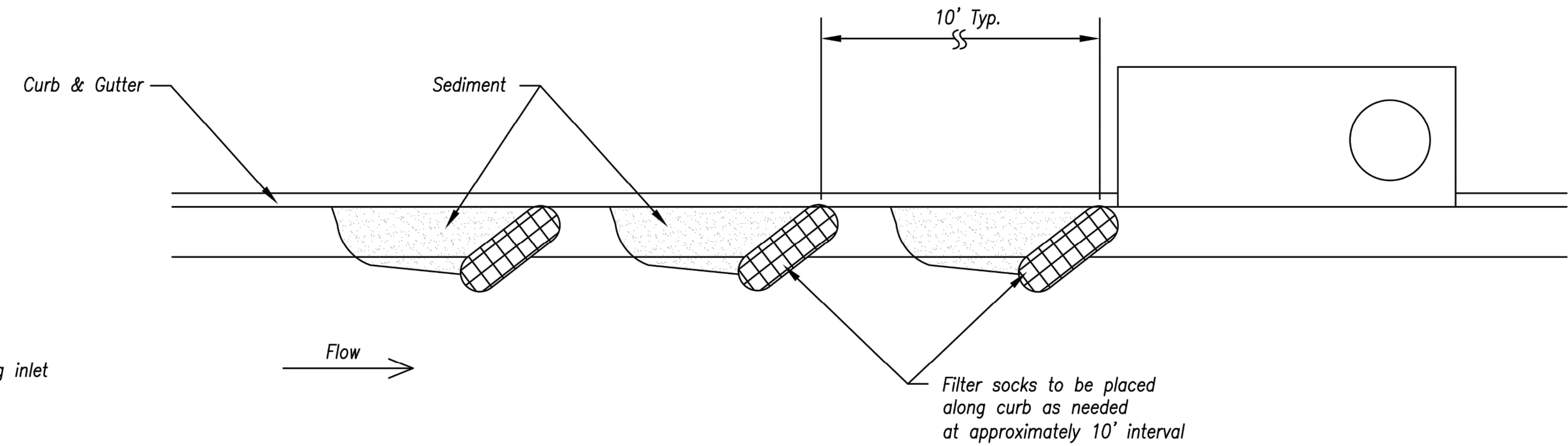
EARLY STAGE CURB INLET
(Open Box and Prior to Pouring
Curb and Inlet Throat)

Notes:

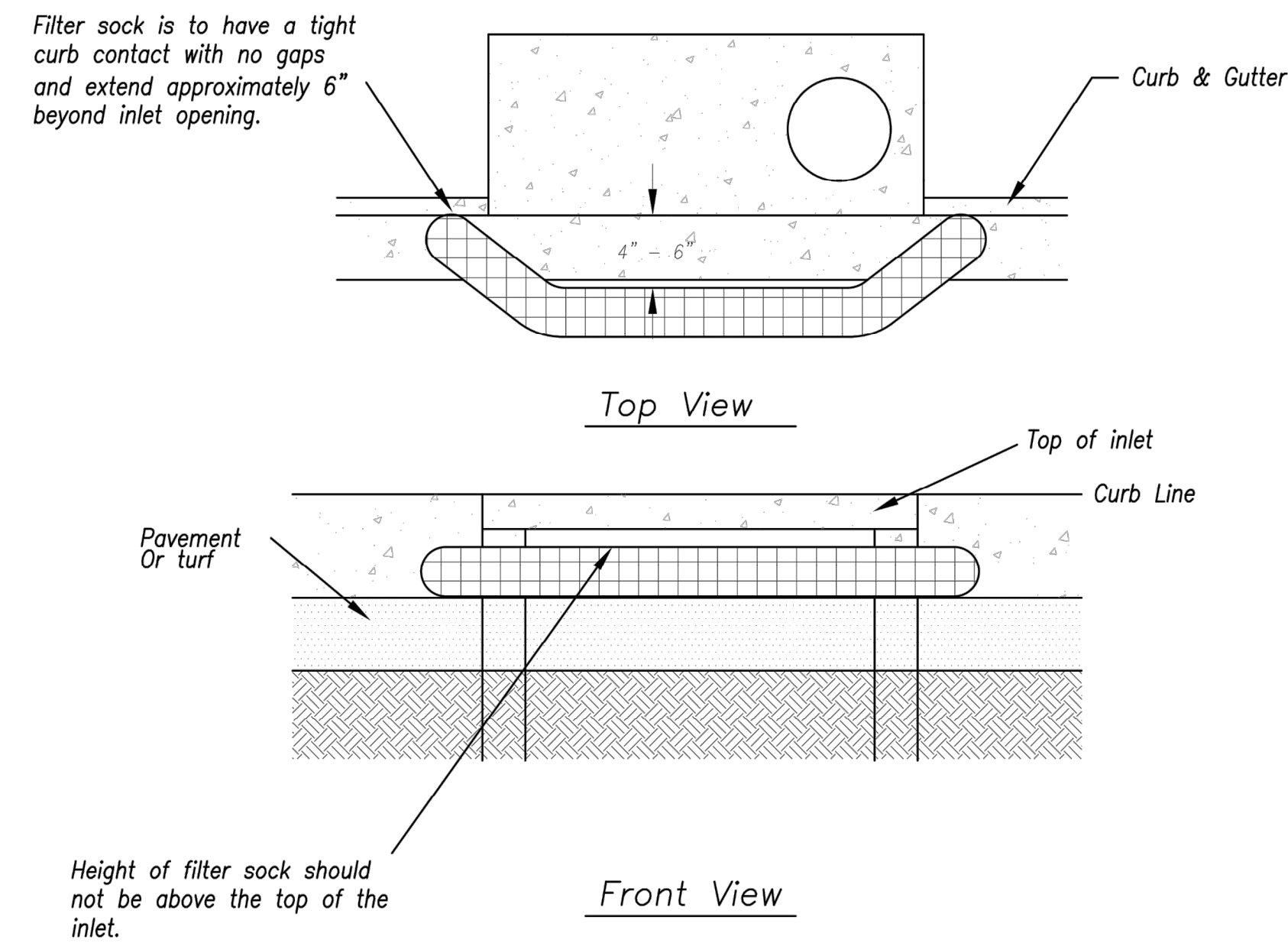
1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" X 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
3. Contractor to field verify ponding water shall not create a traffic hazard.

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.




On Grade Curb Inlet Protection



Sump Inlet Sediment Filter

LATE STAGE CURB INLET
(After Pouring Curb and Inlet Throat)

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CURB INLET PROTECTION	STANDARD DRAWING NUMBER ESC-06 ADOPTED: 10/24/2016

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CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - EROSION CONTROL

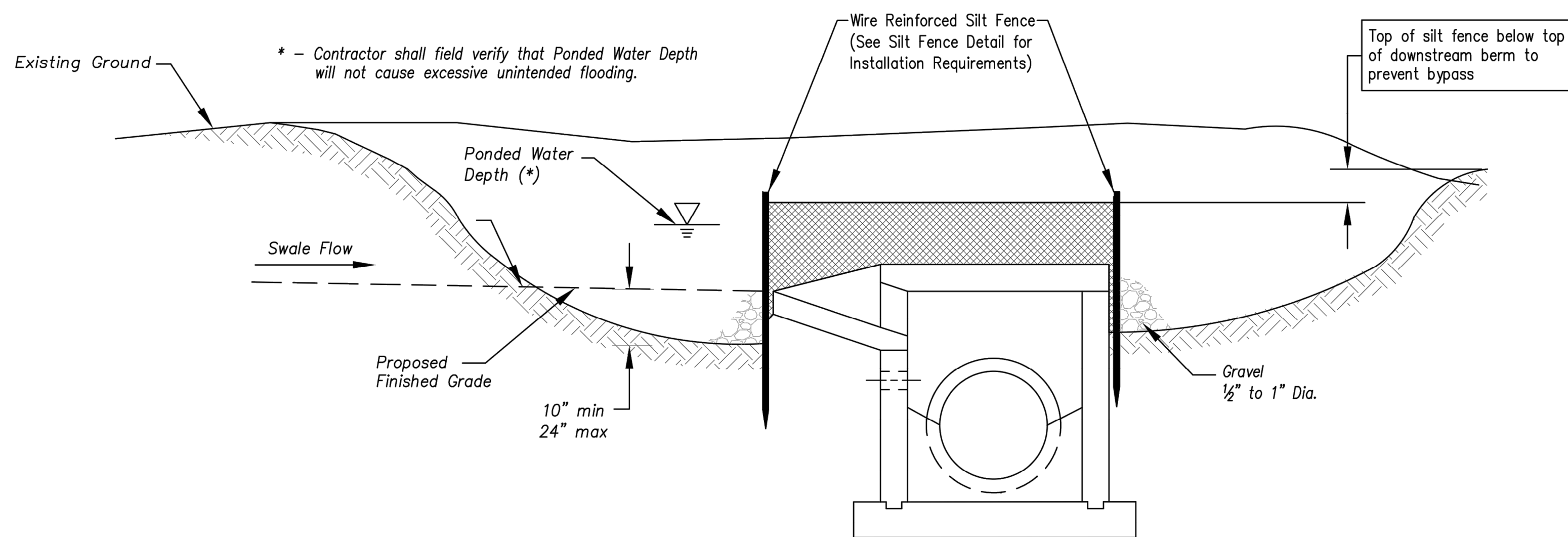
CURB INLET PROTECTION DETAILS

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

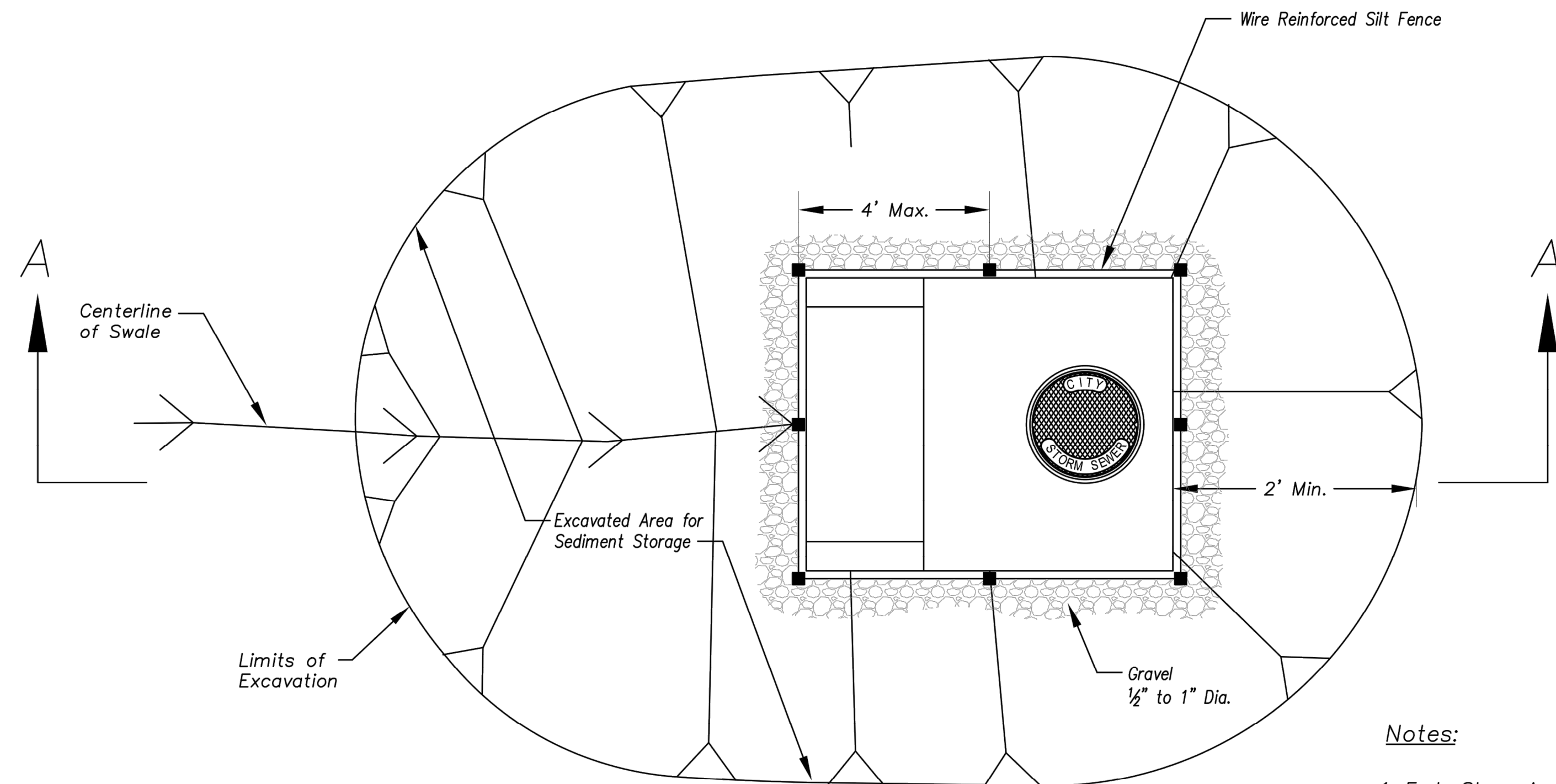


SHEET NUMBER
C804
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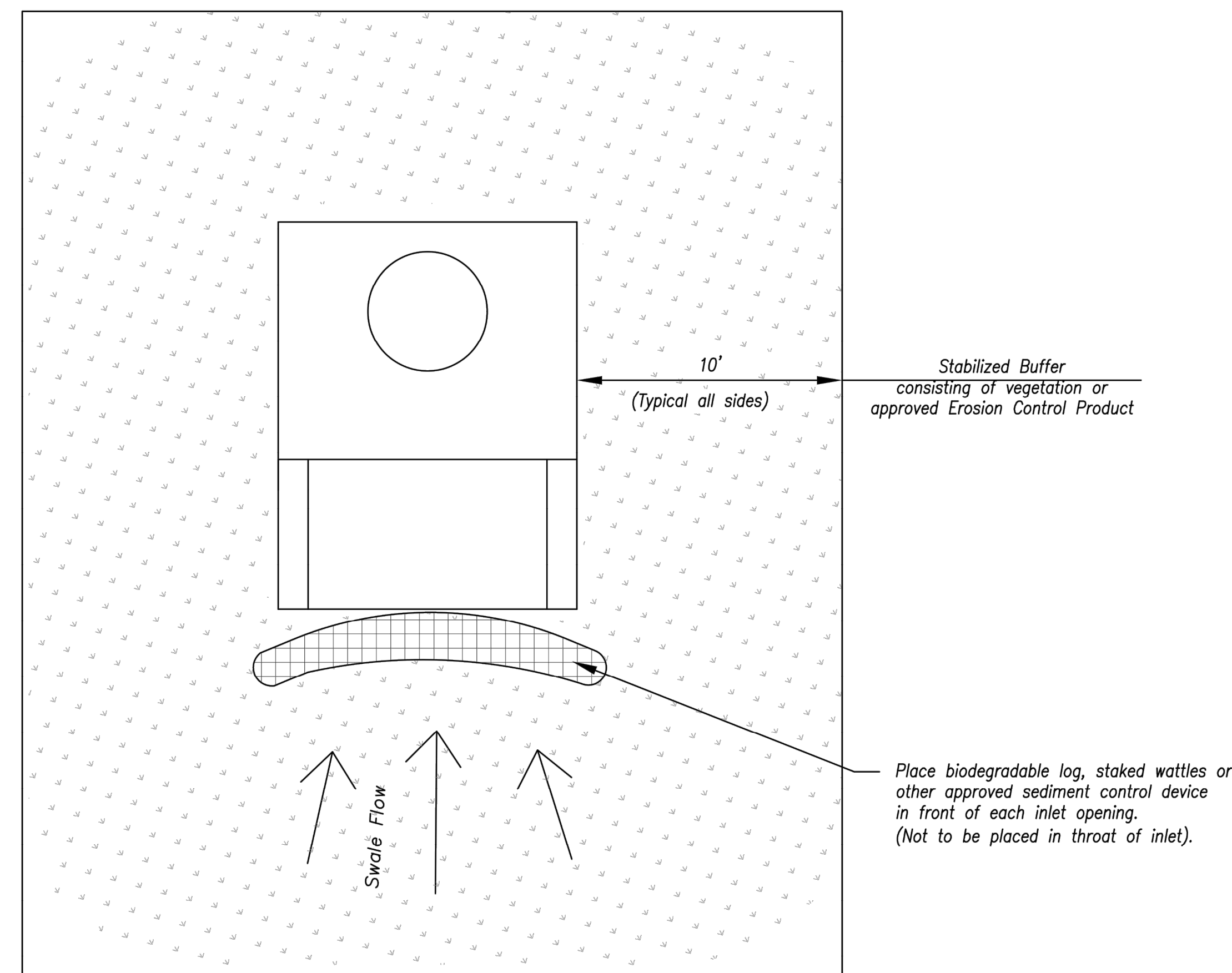
Section A-A
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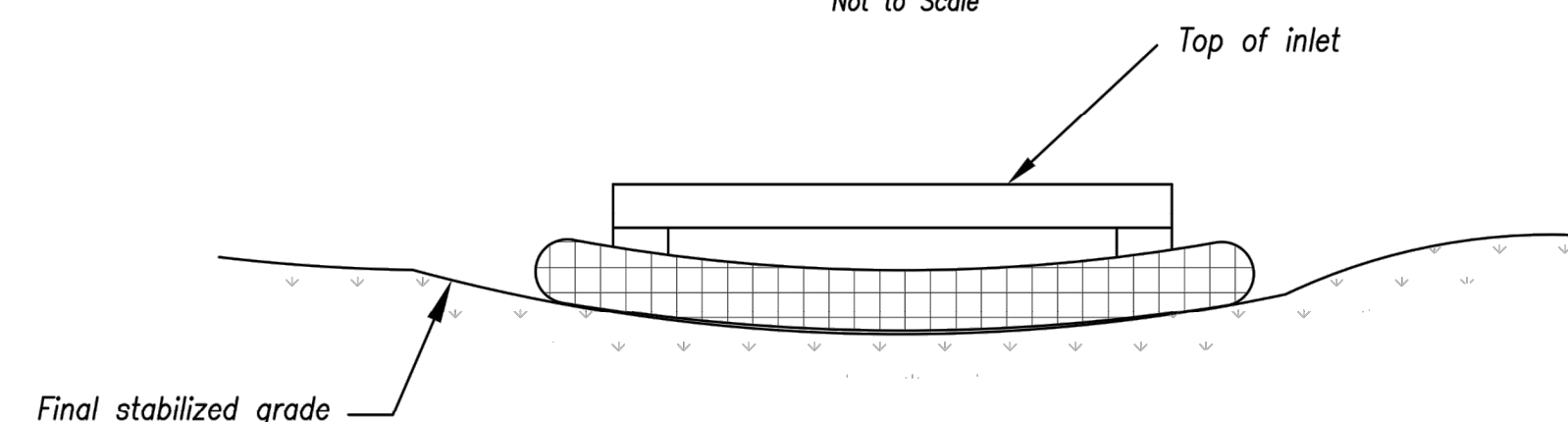
EARLY STAGE AREA INLET
(All open boxes and inlets not at final grade)

Notes:

1. Early Stage Area Inlet Sediment Barrier to be installed immediately after inlet or junction box is constructed.
2. Silt fence shall remain in place until excavated area is removed and Late Stage Area Inlet is being installed.
3. Backfill excavated area ONLY after final grading of the site. Stabilization of the site is to immediately follow.
4. Wire reinforced silt fence may be used in place of silt fence attached to wood frame.



Plan
Not to Scale



Front View

LATE STAGE AREA INLET
(Area inlets at final grade and existing inlets)

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.

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KANSAS CITY
METRO CHAPTER

AREA INLET AND
JUNCTION BOX PROTECTION

STANDARD DRAWING
NUMBER ESC-07
ADOPTED:
10/24/2016

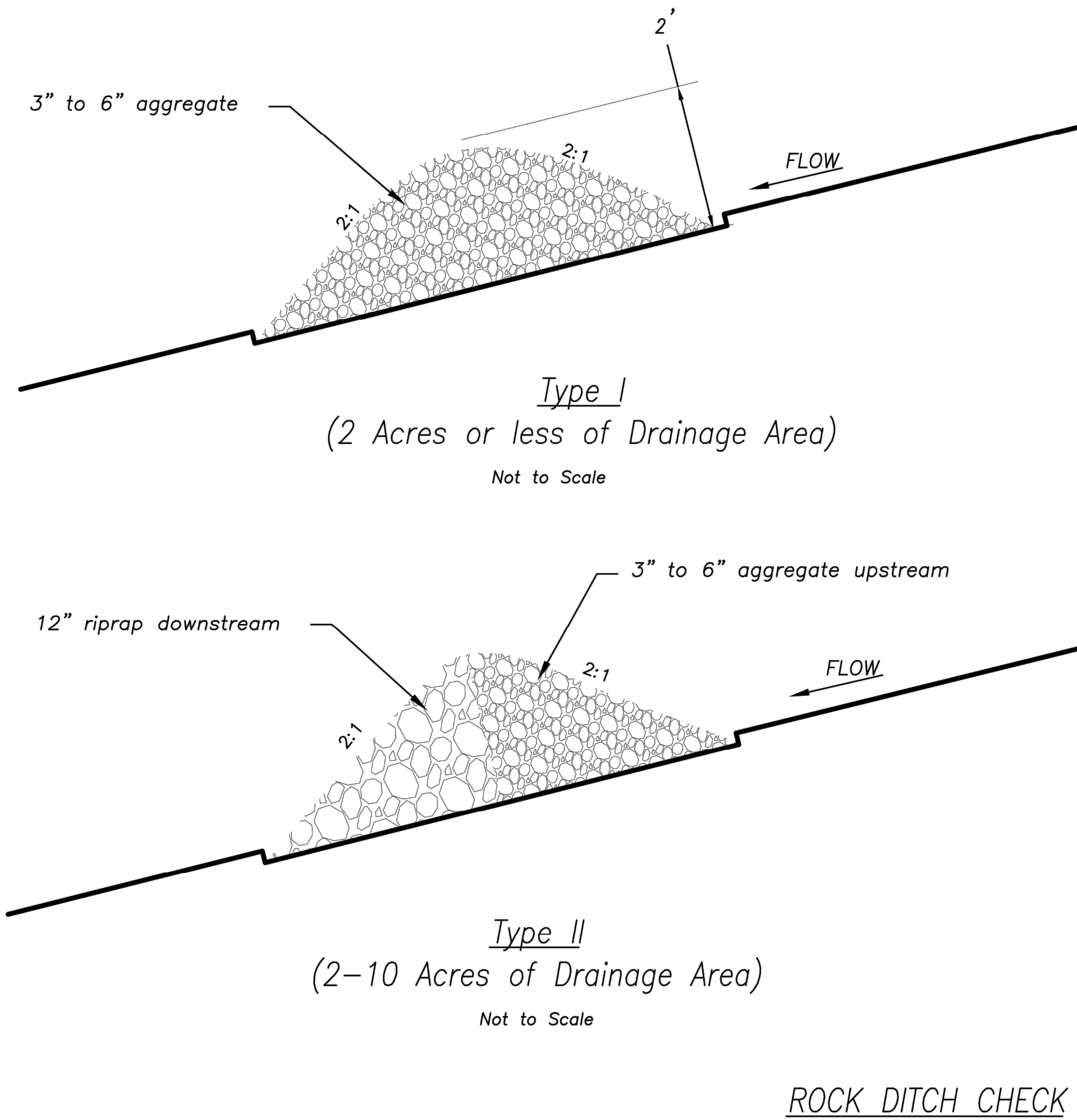
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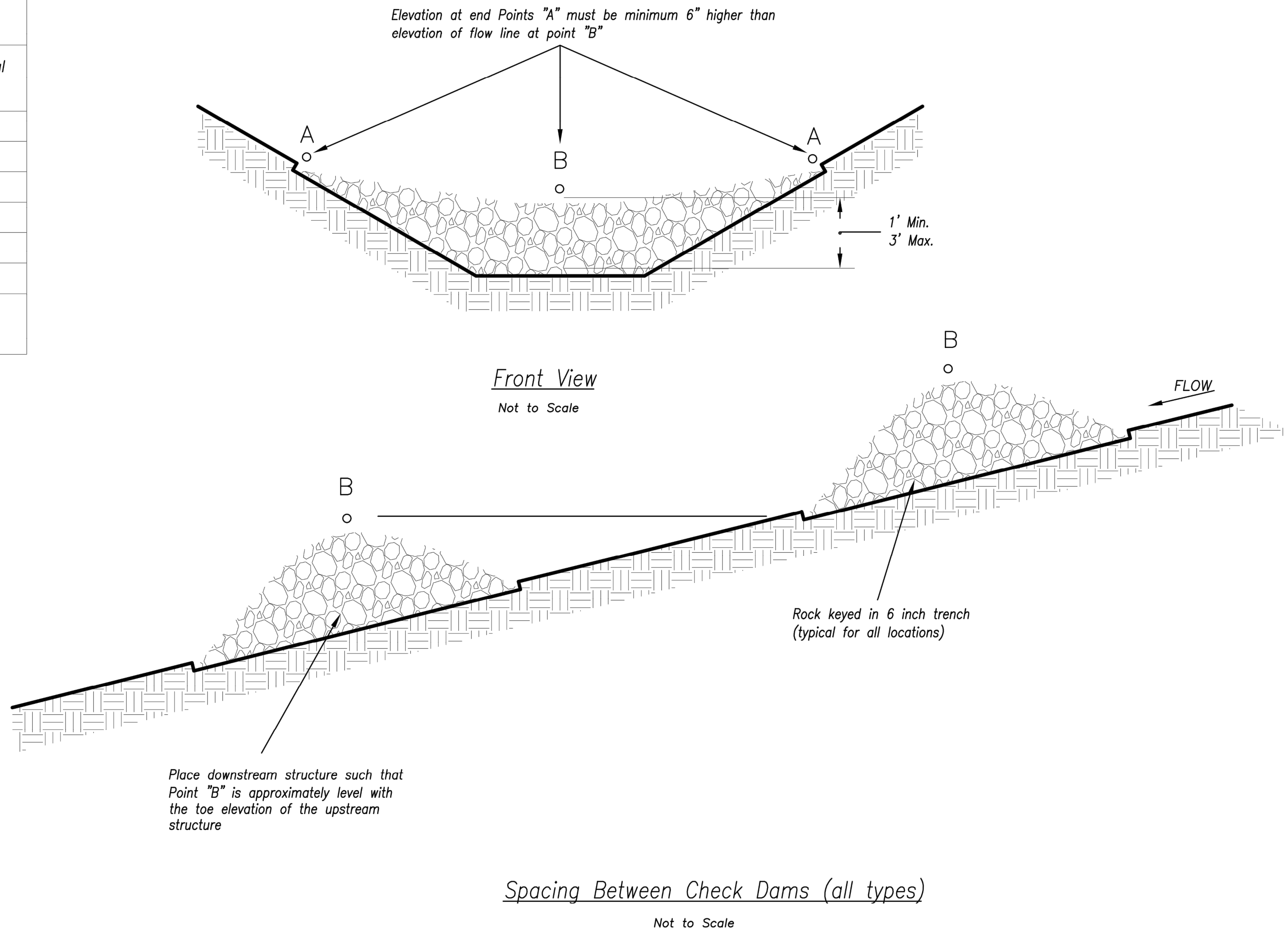
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Temporary Rock Ditch Check Spacing	
Ditch Centerline Slope (%)	Spacing Interval (Feet)
5.0	60
6.0	50
7.0	43
8.0	36
9.0	33
10.0	29
Note: Use this spacing only for Rock Ditch Checks.	




Notes:

1. Rock check dams shall be used only for drainage areas less than 10 acres unless approved by the City Engineer.
2. Use rock checks only in situations where the ditch slope exceeds 6%.

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ½ the height of the ditch check.
2. Replace and reshape as necessary to maintain function and integrity of installation.

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

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	KANSAS CITY METRO CHAPTER
ROCK DITCH CHECKS	STANDARD DRAWING NUMBER ESC-10 ADOPTED: 10/24/2016

CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - EROSION CONTROL

ROCK DITCH CHECK DETAILS

S29, T47N, R31W
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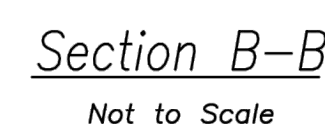
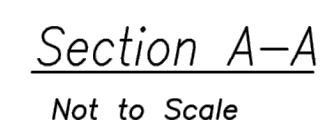
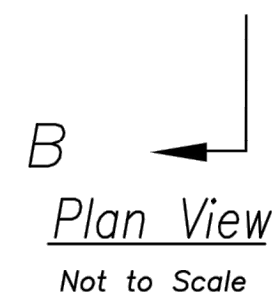


SHEET NUMBER
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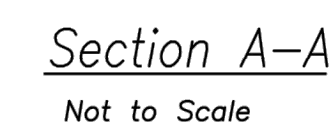
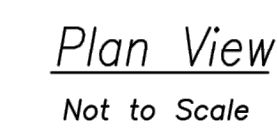
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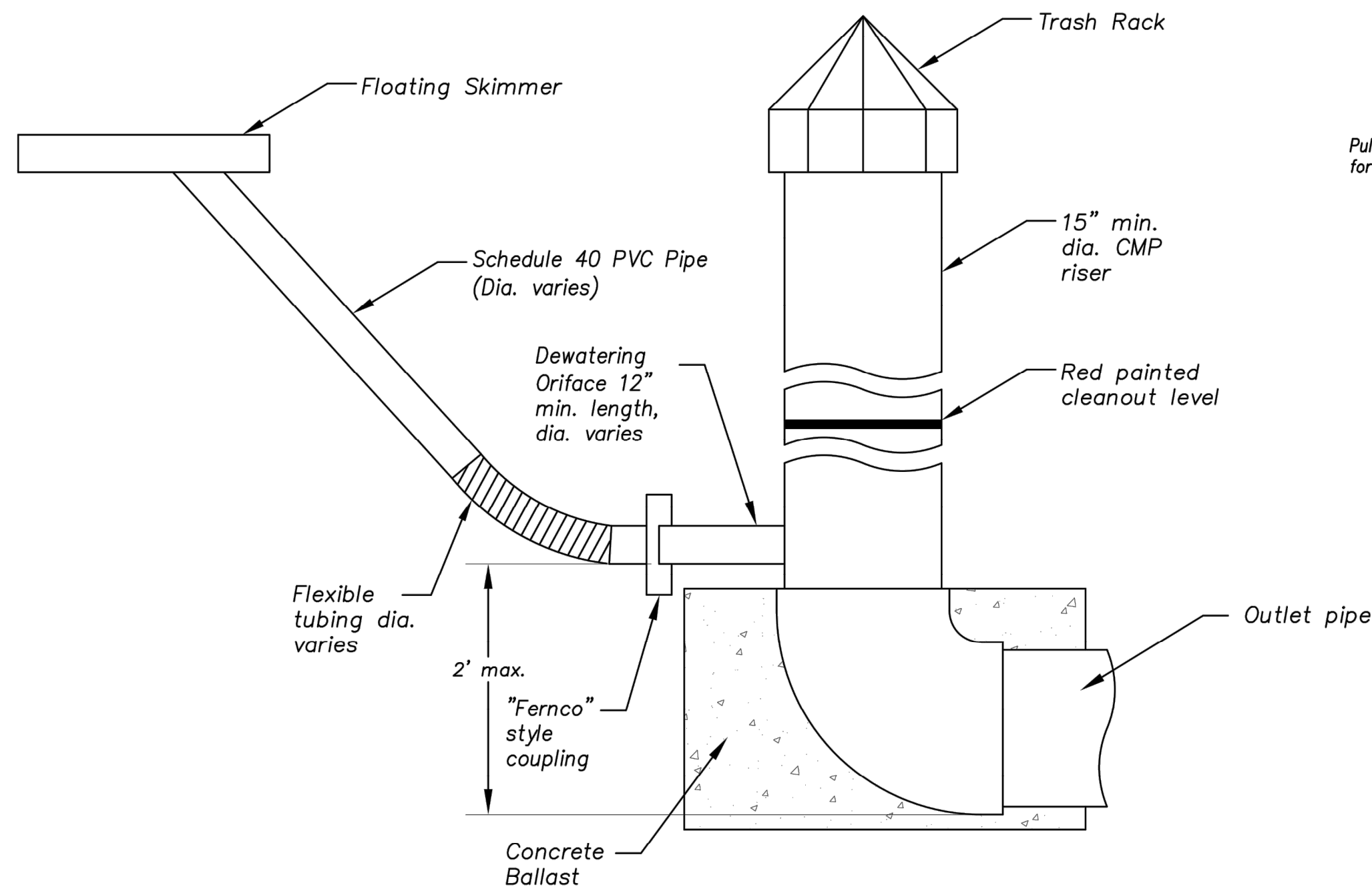


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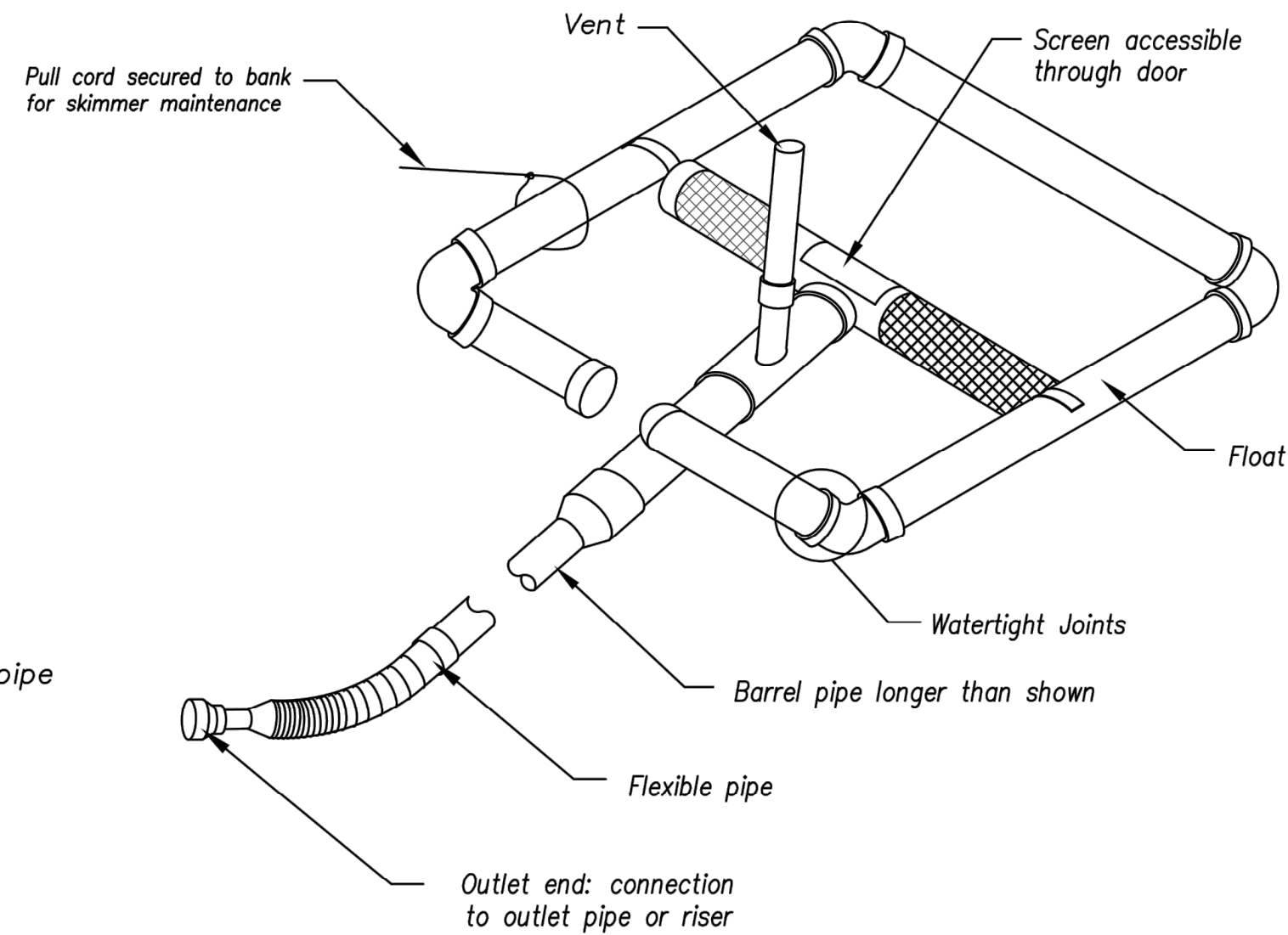


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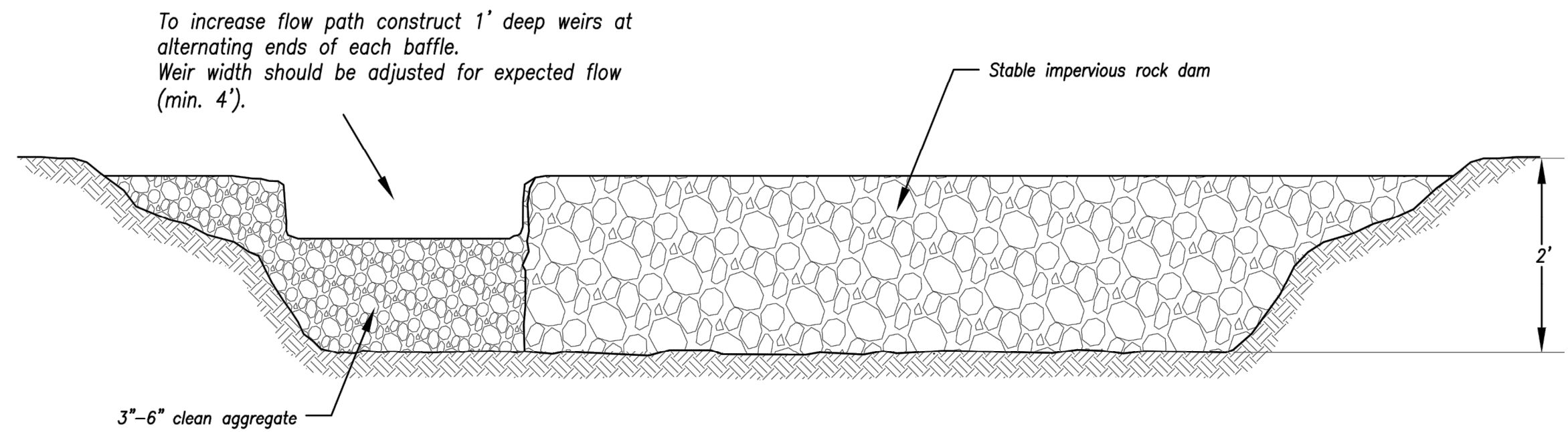


PRINCIPAL SPILLWAY DETAIL

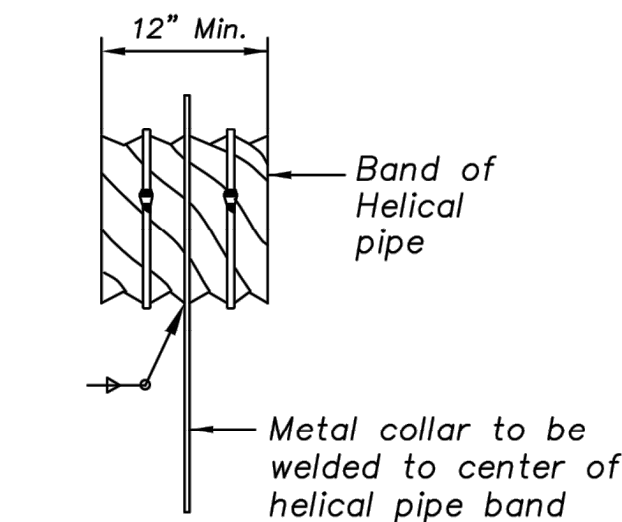
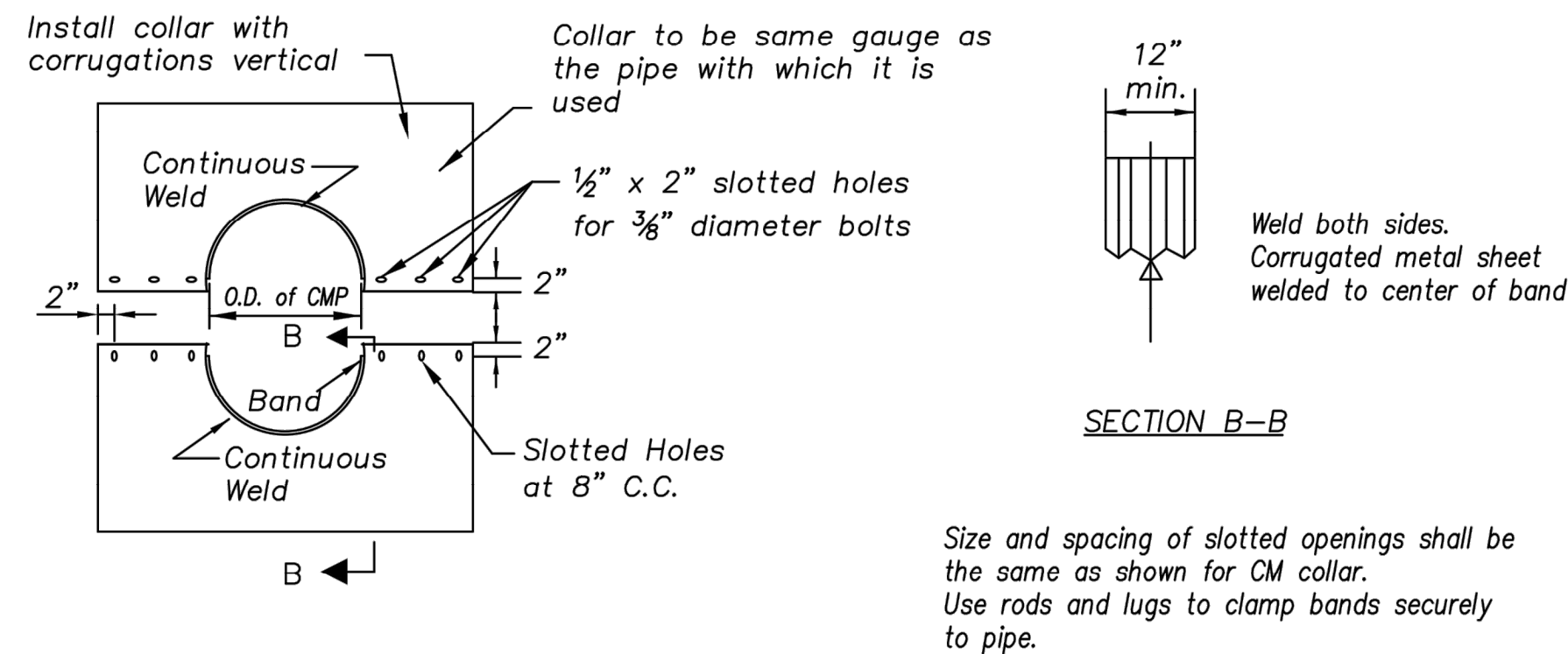


SKIMMER DETAIL (Typ.) *

* Designer to provide specific details per application (e.g. pipe sizes, screen sizes, perforation, etc.) as required.



Option A - Rock with Weir

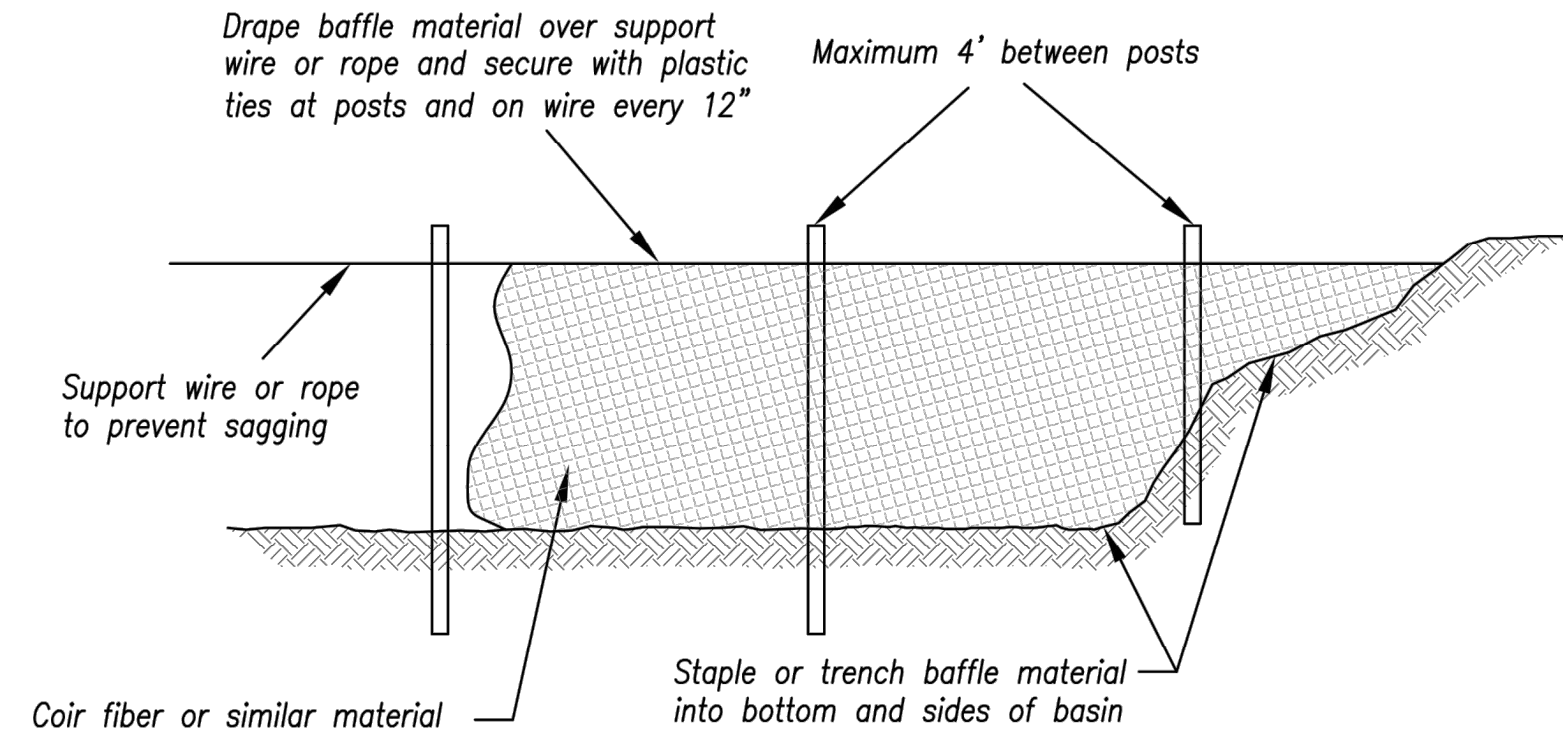


PARTIAL ELEVATION

Anti-Seepage Collar Notes:

- Connections between the anti-seepage collar and the barrel must be watertight.
- P = projection distance. Sized as required to achieve at least a 10% increase in seepage length.
- 14xP = Max. spacing between collars.
- Collars shall generally be placed in the middle third of the embankment, and within the saturated zone.
- All materials to be in accordance with construction material specifications.
- When specified on the plans, coating of collars shall be in accordance with construction material specifications.
- Unassembled collars shall be marked by painting or tagging to identify matching pairs.
- The lap between the two half sections and between the pipe and connecting band shall be caulked with asphalt mastic at the time of installation.
- Each collar shall be furnished with two (2) 1/2 inch diameter rods with standard tank lugs for connecting the collars to the pipe.
- For bands and collars, modification of the details shown may be used providing equal water tightness is maintained and detailed drawings are Submitted and approved by the Engineer prior to delivery.
- Two other types of anti-seep collars are:
 - Corrugated metal, similar to above, except shop welded to a 4 ft. section of the pipe and connected to the pipe with connecting bands.
 - Concrete, 6 inches thick, formed around the pipe with #3 rebar spaced 15".

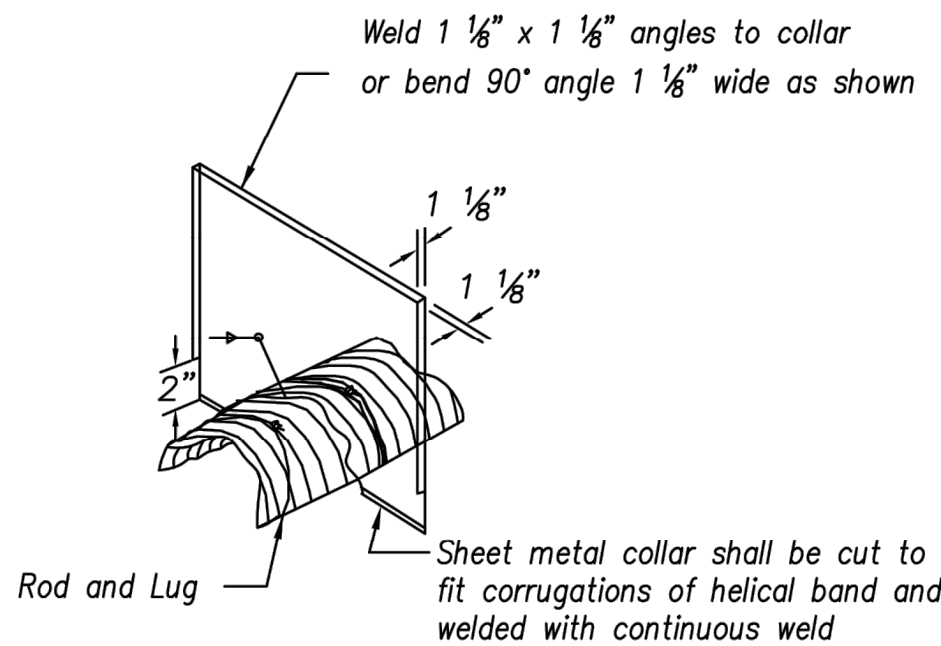
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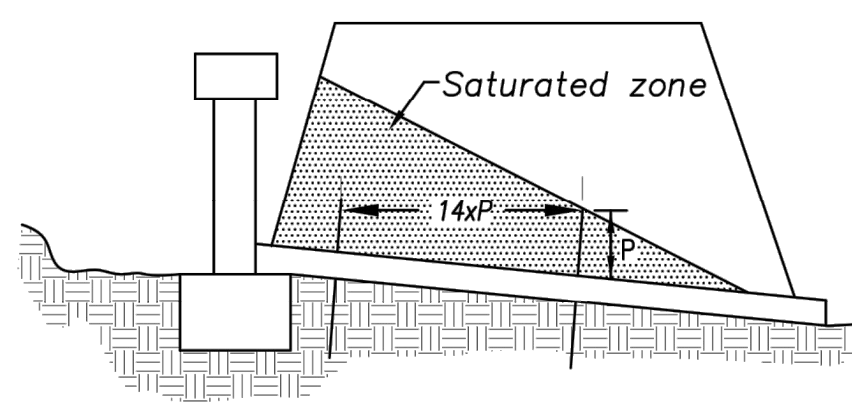
Option B - Coir Fiber Material

BAFFLE DETAILS

Not to Scale



ISOMETRIC VIEW




ANTI-SEEPAGE COLLAR LOCATIONS

CORRUGATED METAL ANTI-SEEPAGE COLLAR DETAIL

Not to Scale

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STANDARD DRAWING
NUMBER ESC-12
ADOPTED:
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SEDIMENT BASIN - DETAILS

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5	JOB NUMBER:		

CLAYTON PROPERTIES GROUP
COBEY CREEK - 2ND PLAT - EROSION CONTROL

SEDIMENT BASIN DETAILS

S29, T47N, R31W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



SHEET NUMBER
C808
12 OF 12

APPENDIX F

STORMWATER INSPECTION FORM

STORM WATER POLLUTION PREVENTION PLAN

INSPECTION REPORT (Page 1 of 3)

Cobey Creek – 2nd Plat Lee's Summit, Jackson County, MISSOURI

Inspections/reports must be completed A MINIMUM OF ONCE PER 7 DAY PERIOD & AFTER A RAINFALL THAT PRODUCES AN ONSITE RUNOFF EVENT (.5" IN 24 HRS.) SEE INSPECTIONS IN SWPPP.

Inspection Type:	<input type="checkbox"/> Routine (every 7 calendar days)	<input type="checkbox"/> During Storm	Date: _____
	<input type="checkbox"/> Pre-Storm (where required)	<input type="checkbox"/> Post-Storm	

Weather information for period since last inspection: _____ Weather during inspection: _____

Storm Start Time: _____

Storm Duration: _____ Description of any discharge during inspection: _____

Amount of Rainfall (in inches): _____

Based on the results of the inspection, necessary control modifications shall be initiated within 24 hours and completed within 48 hours. These reports shall be kept on file as part of the Storm Water Pollution Prevention Plan for at least three (3) years from the date of completion and submission of the Final Stabilization Certification/Termination Checklist and Request for Termination. A copy of the SWPPP shall be kept at the site at all times during construction.

Certification Statement:

"I certify under penalty of perjury that I personally conducted this inspection and I personally prepared this inspection summary report noting the deficiencies in BMPs and the corrective actions taken. I certify that the information in this report is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including fines and imprisonment for knowing violations"

Name of Inspector: _____ Title of Inspector: _____

Qualifications of Inspector: _____

Inspector's Signature: _____

Construction phasing/sequencing is consistent with the SWPPP and Erosion Control Plans:	<input type="checkbox"/> Yes	<input type="checkbox"/> No
---	------------------------------	-----------------------------

Compliance Certification

I certify that, based on no incidents of non-compliance identified during the inspection, the site is in compliance with the SWPPP and the Construction General Permit

Name of Site Superintendent (Printed): _____

Signature of Site Superintendent: _____

Date: _____

Form C-1 Continued

Date: _____

Inspection Areas	Satisfactory			Location	Maintenance Needed Indicate if BMP is Inadequate For The Location	Implementation Date of Corrective Action
	Yes	No	N/A			
Points of Discharge (if inaccessible inspect nearby downstream locations)						
Construction Entrance/Exit						
Perimeter Control Measures						
Temporary Sediment Basins, Gravel and Rip-rap Basins and Sediment Traps						
Inlet Protection						
Outlet Stabilization						
Material Laydown and Staging Area						
Storm Drainage Culverts						
Curb and Gutter						
Stormwater Detention/Retention Facility						
Vehicle Service Area Berm						
Concrete Washout						
Slope Stabilization						
Stormwater channels						

Form C-1 Continued

Date: _____

Inspection Areas	Satisfactory			Location	Maintenance Needed Indicate if BMP is Inadequate For The Location	Implementation Date of Corrective Action
	Yes	No	N/A			
Temporary or Permanent Seeding, Sodding, Mulching or Landscaping						
Pipe Slope Drains						
Material Management and Storage						
Solid and Construction Waste						
Sanitary Wastes						
Non-Stormwater Discharges						
Location(s) Where Additional BMP is Needed That Was Not Shown On The Plan						

"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 persons 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 fines and imprisonment for knowing violations."

Signature of Site Superintendent _____ Date _____

Page 3 of 3

APPENDIX G

SPILL REPORT FORM

Spill Report Form

Cobey Creek – 2nd Plat:

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 H

RECORDS OF STABILIZATION & 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 and the Request for Termination (Form H) is filed. This form must be updated continuously throughout the project until the FORM H is filed.

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: _____

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: _____

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: _____

Description of Activity: _____
Site Contractor: _____ Begin (date): _____ End(date): _____
Location: _____

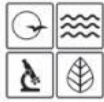
Description of Activity: _____
Site Contractor: _____ Begin (date): _____ End(date): _____
Location: _____

Description of Activity: _____
Site Contractor: _____ Begin (date): _____ End(date): _____
Location: _____

Description of Activity: _____
Site Contractor: _____ Begin (date): _____ End(date): _____
Location: _____

APPENDIX I

REQUEST FOR TERMINATION OF A GENERAL PERMIT



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH
REQUEST FOR TERMINATION OF OPERATING PERMIT
(REPLACES TERMINATION FORMS H AND J)

FOR OFFICE USE ONLY

DATE RECEIVED

IF A FACILITY OR SITE HAS BEEN SOLD, BUT PERMITTED ACTIVITIES HAVE NOT CEASED, A TRANSFER OF OWNERSHIP FORM (MO 780-1517) MUST BE COMPLETED RATHER THAN A TERMINATION FORM.

ALL APPLICABLE SECTIONS OF THIS FORM MUST BE COMPLETED.

1. FACILITY INFORMATION

PERMIT NUMBER		COUNTY	
NAME OF FACILITY			
PHYSICAL ADDRESS		CITY	STATE ZIP CODE
FACILITY CONTACT NAME	FACILITY CONTACT TELEPHONE NUMBER	FACILITY CONTACT EMAIL	

2. OWNER

NAME		TELEPHONE NUMBER WITH AREA CODE	
ADDRESS		CITY	STATE ZIP CODE
EMAIL			

3. CONTINUING AUTHORITY

NAME		TELEPHONE NUMBER WITH AREA CODE	
ADDRESS		CITY	STATE ZIP CODE
EMAIL			

4. REASON FOR TERMINATION REQUEST (CHECK ONE)

- ☐ Permitted activities have ceased, or facility is closed (must select facility type in section five and attach photographs or any other supporting documents as required)
- ☐ General Permit MO-G _____ or MO-R _____ has been issued and covers all regulated activities
- ☐ Site specific permit MO- _____ has been issued and covers all regulated activities
- ☐ Facility has obtained a "No Exposure" certification, MO-NX _____
- ☐ Industrial activity (SIC Code # _____) is not regulated
- ☐ For CAFOs, facility size is unregulated (Class II and smaller operations only)
- ☐ Other (Specify)

MO 780-2814 (07-17)

5. FACILITY TYPE (CHECK ONE FACILITY TYPE, COMPLETE ONLY IF PERMITTED ACTIVITY HAS CEASED OR FACILITY HAS CLOSED)

- ☐ For land disturbance sites, the area is stabilized; perennial vegetation, pavement, buildings, or other permanent structures cover all areas that have been disturbed; no further land disturbance activities are planned; all building construction (commercial or residential) is completed; temporary best management practices are removed, and construction equipment is removed. With respect to areas that have been vegetated, vegetation cover shall be at least 70 percent over 100 percent of the site not covered in impervious material. Attach photographs showing stabilized areas.
- ☐ For wastewater treatment plants, the treatment plant is removed and sludge was removed and properly disposed of, and a closure plan in accordance with [10 CSR 20-6.010\(12\)](#) or [10 CSR 20-6.015\(5\)](#) was approved and implemented. Attach documentation required by the approved closure plan and photographs of the closed area. See facility closure fact sheet at dnr.mo.gov/pubs/pub2568.htm for more information on closure requirements for wastewater treatment plants.
- ☐ For industrial facilities, regulated activities have ceased, no "significant materials" remain on site, and disturbed areas are properly stabilized and/or vegetated. The area is stabilized when perennial vegetation, pavement, buildings, or structures using permanent materials cover all areas that have been disturbed. Vegetation cover shall be at least 70 percent over 100 percent of the site not covered in impervious material. Attach applicable closure documents and photographs of the closed area that demonstrate no permitted activities or materials remain.
- ☐ For quarries or sand and gravel operations, submit documentation of release from the department's Land Reclamation Program.
- ☐ For landfills, official closure has been received from department's Solid Waste Management Program (SWMP); cap is vegetated as required by SWMP; and any additional industrial activities are permitted appropriately (i.e. transfer stations, mulching operations, land disturbance, etc.). Attach official SWMP closure letter and permit numbers of any continuing active industrial or land disturbance activities.
- ☐ For CAFOs
- ☐ Class I CAFOs must properly close lagoons and waste storage structures per a closure plan in accordance with [10 CSR 20-6.300\(6\)](#) and approved by the department. Please attach photographs of closed lagoons. Also attach any additional information which supports closure of facility.
- ☐ Class II CAFOs must close waste storage structures in accordance with [10 CSR 20-6.300\(6\)\(B\)](#), or shall continue to maintain all storage structures so there is no discharge to waters of the state. Attach photographs of closed or re-purposed lagoons, or an explanation of "no discharge" methods. Also attach any additional information that supports closure of facility.

6. CERTIFICATION

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 ensure 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.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
SIGNATURE	DATE SIGNED

7. MAIL COMPLETED COPY TO:

<p>For Site Specific (MO-), Abandoned Mine And Land Reclamation (MO-G05), Land Disturbance By County Or City (MO-R100), Pesticide Application (MO-G87), Sewer Extension Construction (MO-GC) and CAFO (MO-G01, MO-GS1) Permit Terminations:</p> <p>Missouri Department of Natural Resources Water Protection Program Water Pollution Control Branch Attn: Operating Permits Section P.O. Box 176 Jefferson City, MO 65102-0176</p>	<p>For General Permit Terminations (MO-G or MO-R):</p> <p>Send to the appropriate regional office. Regional office is determined based on the county where the facility is physically located.</p> <p>To determine the correct regional office for the permitted facility, please see dnr.mo.gov/regions/</p>
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MO 780-2814 (07-17)

APPENDIX J

GENERAL PERMIT

Document is stored at:
120 SE 30th Street
Lee's Summit, MO 64082

