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April 13, 2020

Stormwater Pollution Prevention Plan
For:
Saint Luke's East – Flex Facility & Northeast Parking Expansion
Lee's Summit, MO

Construction Operator(s):

SWPPP Contact(s):

McClure Engineering
Project No. 190891-000

SWPPP Preparation Date:
February 13, 2020
Updated March 13, 2020
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Estimated Project Dates:
Project Start Date: March 1, 2020
Project End Date: June 1, 2021

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SECTION 1: SITE EVALUATION, ASSESSMENT, AND PLANNING

1.1 Purpose of Plan

The purpose of this Construction Storm Water Pollution Prevention Plan is to demonstrate compliance with the requirements of the National Pollutant Discharge Elimination System (NPDES) for issuance of a General Permit for storm water discharges associated with construction activity. The General Permit requires the preparation and implementation of such a plan to prevent, as much as practicable, the release of pollutants in storm water runoff from the construction site to waters of the United States. Construction General Permit to be kept in Appendix E.

This Plan provides information about Saint Luke's East – Flex Facility and Northeast Parking Expansion construction site located in Lee's Summit, MO. Administrative requirements and potential storm water and non-storm water pollutant sources are identified. Best management practices to prevent the discharge of non-storm water materials in storm water runoff are also described.

The Saint Luke's East – Flex Facility & Northeast Parking Expansion includes approximately 5.8 & 1.9 acres of land located at the SW & NE corner of Highway 470 & NE Douglas St. This site is a part of the approximately 54.89 acres of Saint Luke's East Hospital. The site currently consists of Saint Luke's East Hospital. The site can be characterized as developed with slopes ranging from 1-9%. See Appendix C for project location map and Appendix D for site map.

There is one (1) outfall located on this site. The following is the latitude and longitude (to the nearest 15 seconds) for the outfall and the name of the receiving waters.

1. 38.94274 Degrees N. -94.38332 Degrees W.
   Receiving Water – Tributary to Unity Lake, to Little Cedar Creek

Is this project on Indian Lands?—NO
(If yes name of reservation,)

Is this project considered a federal facility?—NO

NPDES project or permit tracking number: MORA15423

1.2 Contact Information / Responsible Parties

Appendix A should be filled out and maintained with current contact information.
See Appendix N for Delegation of Authority form.

1.3 Topography and Drainage

The project site is located in Lee's Summit, Missouri. The topography of the property consists of low to moderately sloping grades. Elevations range from approximately 975 feet to approximately 995 feet throughout the proposed project site. The site generally drains to the north.

1.4 Soils

The soils on the project site were identified according to the USDA NRCS Web Soil Survey of Jackson County, Missouri. The following soil is found on the Project Site:

- Greenton-Urban land complex, 5 to 9 percent slopes
- Arisburg-Urban land complex, 1 to 5 percent slopes
- Udarents-Urban land-Sampsel complex, 2 to 5 percent slopes

1.5 Construction Site Estimates

The following are estimates of the construction site.
Total project area: 10.3 acres
Construction site area to be disturbed: 7.7 acres
Percentage impervious area before construction: 43.1%
Runoff coefficient before construction: approximately 0.559
Percentage impervious area after construction: 57.0%
Runoff coefficient after construction: 0.642

In determining the runoff coefficient for the project site, the Rational Method was used. This method is based on the amount of impervious area of both the existing and proposed conditions.

1.6 Receiving Waters

Pre-developed project site runoff flows north to an existing tributary to Unity Lake, then Little Cedar Creek. All of the developed project site runoff will be routed to an underground storm system, eventually contributing to Unity Lake, then Little Cedar Creek.

1.7 Endangered Species Certification

Are endangered or threatened species and critical habitats on or near this project?—YES, trees represent potential bat habitat. Tree removal is planned to occur within 11/1 – 3/31 window when bats are not within the trees per State and Federal guidance, so no critical habitat is being affected.

2.0 EROSION AND SEDIMENT CONTROL BMPS

A list of best management practices can be found in Appendix B.

2.1 Minimize Disturbed Area Protect / Natural Features and Soil

Stabilization methods include: the installation of silt fence and final grading followed by seeding/mulching. Steep slopes will be protected with erosion control blanket.

2.2 Construction Sequence

The project site will require moderate earthwork to complete the planned improvements. Soil disturbing activities will include excavation, trenching, backfilling, and final grading.

A record of the project site construction activities must be maintained as part of this Plan. Appendix G includes a form and instructions to record such information on an ongoing basis

Example:

Phase I
Describe phase
Duration of phase (start date, end date)
List BMPs associated with this phase
Describe stabilization methods for this phase (describe any temporary stabilization methods that will be used before final stabilization) the project will be constructed generally following the sequence indicated below:

- Site Best Management Practices will be installed.
- The site will be cleared and grubbed.
- The site will be graded to rough grade elevation.
- Disturbed areas Temporarily stabilized
- Construction
- Finish grading and Stabilization
- Removal of Temporary Best Management Practices

2.3 Control Stormwater Flowing onto and Through the Project

The surface water management during construction will be through the use of silt fences and soil stabilization measures (seeding). Storm water will be conveyed by overland surface flow to these erosion control measures. These measures will remove suspended solids before entering the open channel downstream.

2.4 Stabilized Soil

Temporary and permanent stabilization methods will be used on the project site. Two major stabilization methods that will be used on the site are preserving existing vegetation where possible and disturbing only the area needed for project construction. Disturbed portions of the site will be stabilized within 7 days after construction activity has temporarily or permanently ceased, with two exceptions – when snow cover precludes construction or construction will resume within 21 days. Stabilization practices may include temporary or permanent seeding, mulching, geo-textiles, sodding, or aggregate surfacing. Site access facilities (entrances/exits and parking areas) will be surfaced with aggregate to reduce sediment tracking.

2.5 Structural Practices

Temporary and permanent structural devices to divert, store, or limit runoff from disturbed areas will be used on the project site. Such devices may include silt fences, straw bale dikes,

catch basin inlet protection, and storm water detention basins. Details of the structural control measures are shown on the Erosion Control Plan.

2.6 Erosion Control Revisions

It will be the responsibility of the Construction Manager to revise the Erosion Control Plan Drawing if the location or types of control measures are changed in the field.

3.0 STORM WATER MANAGEMENT PLAN

3.1 General Description of Storm Water Management System

This storm water management plan was designed following EPA guidelines. Structural sediment control devices will be the main means of storm water management. Storm water sediment controls will be installed before any construction begins.

The storm water management system was designed in accordance with the EPA's guidance document entitled *Storm Water Management for Construction Activities – Developing Pollution Prevention Plans and Best Management Practices* (EPA 832-R-92-005, September 1992). Structural measures are the main means of storm water management. Storm water control measures are described and shown on the Erosion Control Plan Drawing.

It will be the responsibility of the Construction Manager to revise the Erosion Control Plan Drawing if the location or types of control measures are changed in the field.

4.0 POTENTIAL STORM WATER POLLUTANT SOURCES AND CONTROL MEASURES

4.1 Construction Silt and Dust

Pollutants from various sources have the potential to enter the storm water system during project construction. A description of these potential pollutants and control measures to reduce the risk of storm water contamination is provided below

The pre-development site generally drains southeast towards the existing drainage channel. Construction of the project will generate silt and fugitive dust.

Inlet protection will be installed around all existing inlets as shown on the Erosion Control Plan to control offsite discharges of silt. The inlet protection will be installed before site earthwork begins and will remain in place until construction is complete and all surfaces have been permanently stabilized. If construction in a particular area will cease temporarily, temporary soil stabilization will be implemented no more than 7 days after the construction has ceased unless activity will resume in that area within 21 days. Permanent stabilization will take place no later than 7 days after construction activities have permanently ceased in an area.

Fugitive dust may be generated during dry weather conditions. The Construction Manager will direct dust control. Water sprays will be used for dust control.

4.2 Offsite Sediment Tracking
Adjacent roads will be kept relatively free of excess mud, dirt, and rock tracked from the project site. The site access drive will be constructed with a stabilized construction entrance to reduce tracking of sediment offsite.

4.3 Petroleum Products
Construction equipment will require diesel fuel and oil on a regular basis so the potential exists for spills or leaks. All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to ensure proper operation and reduce the chance of leaks. No "topping off" of fuel tanks will be allowed to reduce the possibility of spills.

Petroleum products will be stored in clearly labeled and tightly sealed containers or tanks. Any asphalt used onsite will be applied according to the manufacture's recommendations. Any soil contaminated by fuel or oil spills will be removed and disposed of at an approved disposal site by the Contractor.

4.4 Sanitary Wastes
A licensed sanitary waste management contractor will collect all construction or temporary sanitary wastes from portable units. The units will be maintained on a regular basis.

4.5 Hazardous Wastes
All hazardous waste materials will be disposed of according to local or state regulation or the manufacturer's recommendations. The Construction Manager who will also be responsible for their implementation will instruct site personnel of these regulations and recommendations.

4.6 Fertilizers
Fertilizers will be applied as recommended by the manufacturer. After application, the fertilizer will be worked into the soil to limit exposure to storm waters. Fertilizers will be stored in a covered area or in watertight containers. Any partially used bags or containers will be properly sealed and stored to avoid spills or leaks.

4.7 Paints
All paint containers will be tightly sealed and properly stored to prevent leaks or spills. Paint will not be discharged to the storm water system. Unused paints will be disposed of according to local and/or state regulations. Spray painting will not occur on windy days and a drop cloth will be used to collect and dispose of drips and over-spray associated with all painting activities.

4.8 Concrete Trucks
Concrete trucks will be allowed to discharge surplus concrete or drum wash water on the site in such a manner that prevents contact with storm waters discharging from the site.

Dikes or barriers will be constructed around such an area to contain these materials until stable, at which time the materials will be disposed of in a manner acceptable to the Construction Manager.

4.9 Waste Materials

All construction waste material will be collected, deposited, and stored in metal dumpsters from a licensed solid waste management contractor. No construction waste materials will be buried onsite. Any burning will be conducted in accordance with local or state regulations. It is the responsibility of the Construction Manager to obtain any and all permissions and permits for burning if so locally allowed. The Construction Manager will instruct all site personnel of the proper waste disposal procedures.

4.10 Allowable Non-Storm Water Discharges

The following sources of non-storm water discharges from project construction activities may be combined with storm water discharges.

- Waters used to wash vehicles or to control dust
- Pavement wash waters not containing toxic or hazardous substances
- Uncontaminated dewatering discharges
- Fire fighting waters
- Vegetation watering
- Potable or spring water discharges

5.0 BEST MANAGEMENT PRACTICES

5.1 Good Housekeeping

The good housekeeping practices listed below will be followed to reduce the risk of potential pollutants entering storm water discharges. All construction personnel will be responsible for monitoring and maintaining housekeeping tasks or notifying the appropriate person of a problem.

- Store only enough products to do the job.
- Store all materials in a neat and orderly manner, in the appropriate containers and, if possible, under a roof or within an enclosure.
- Keep products in the original container with the original manufacturer's label.
- Do not mix products unless recommended by the manufacturer.
- Use all of a product before disposing of the container.
- Use and dispose of products according to the manufacturer's recommendations or the Construction Manager's direction.
- Perform regular inspections of the storm water system and the material storage areas.

- When and where appropriate, use posters, bulletin boards, or meetings to remind and inform construction personnel of required procedures.

5.2 Hazardous Materials

Storage areas for hazardous materials such as oils, greases, paints, fuels, and chemicals, must be provided with secondary containment to ensure that spills in these areas do not reach waters of the State. Contingencies for the proper disposal of contaminated soils shall be established (use of licensed hauler and approved landfill, for example) early in the construction period.

5.3 Spill Prevention and Response

In addition to the good housekeeping and hazardous materials storage procedures described above, spill prevention and cleanup practices will be as follows.

- Construction personnel will be informed of the manufacturer's recommended spill cleanup methods and the location of that information and cleanup supplies.
- Materials and equipment for the cleanup of a relatively small spill will be kept in the materials storage area. These facilities may include brooms, rags, gloves, shovels, goggles, sand, sawdust, plastic or metal trash containers, and protective clothing.
- All containers will be labeled, tightly sealed, and stacked or stored neatly and securely.

The spill response procedure will be as follows:

Step 1. Upon discovery of a spill, stop the source of the spill.

Step 2. Cease all spill material transfer until the release is stopped and waste removed from the spill site.

Step 3. Initiate containment to prevent spill from reaching State waters.

Step 4. Notify a Supervisor or the Construction Manager of the spill.

Step 5. The Construction Manager will coordinate further cleanup activities.

Step 6. Any significant spill of hazardous material will be reported to the appropriate state and/or local agencies at the following numbers:

National Response Center	1-800-424-8802
State Contacts:	
MDNR Environmental Missouri Response	(785) 291-3333 (24 hrs.)
Local Contacts:	
Fire Department	(816) 969-7360
Police Department	(816) 969-1700
Emergency	911

Step 7. Review the construction storm water pollution prevention plan and amend if needed. Record a description of the spill, cause, and cleanup measures taken.

6.0 INSPECTION, MAINTENANCE, AND REPORTING PROCEDURES

6.1 Inspections and Maintenance

Site inspection and facility maintenance are important features of an effective storm water management system. Qualified personnel will inspect disturbed areas of the site not finally stabilized, storage areas exposed to precipitation, all control measures, and site access areas to determine if the control measures and storm water management system are effective in preventing significant impacts to receiving waters. See Appendix L for Grading and Stabilization Activities Log. Refer to Appendix M for a training log of qualified personnel.

6.2 Erosion and Sediment Controls

The following procedures will be used to maintain erosion and sedimentation controls.

- All control measures will be inspected at least once a week, within 24 hours of a ½ inch or more rainfall event, and daily during prolonged rainfall periods.
- All measures will be maintained in good working order. If a repair is necessary, it will be made within 24 hours of the inspection.
- Sediment will be removed from the silt barriers when it has reached one-third of the height of the barrier.
- Silt barriers will be inspected for depth of accumulated sediment, tears, attachment to posts, and stability on a weekly basis.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- Inspect riprap and aggregate covered areas for bare spots and washouts.
- The Construction Manager will select individuals to be responsible for inspections, maintenance, repairs, and reporting. The designated individuals will receive the necessary training from the Construction Manager to properly inspect and maintain the controls in good working order.
- Inspection Form 1 will be completed after each inspection.
- The completed Inspection Forms will be kept with this Plan in Appendix H.

6.3 Non-Storm Water Controls

The following procedures will be used to maintain the non-storm water controls.

- All control measures will be inspected at least once a week, within 24 hours of a ½ inch or more rainfall event, and daily during prolonged rainfall periods.
- All measures will be maintained in good working order. If a repair is necessary, it will be initiated within 24 hours of the inspection.

- The Construction Manager will select individuals to be responsible for inspections, maintenance, repairs, and reporting. The designated individuals will receive the necessary training from the Construction Manager to properly inspect and maintain the controls in good working order.
- Inspection Form 2 will be completed after each inspection.
- The completed Inspection Forms will be kept with this Plan in Appendix I.

6.4 Reporting

Inspection forms are provided on the following pages for recording inspections and maintenance of the erosion control measures: Erosion and Sedimentation Controls Inspection Form 1 Appendix H, and Non-Storm Water Source Controls Inspection Form 2 Appendix I, and Record of Plan Amendments Inspection Form 3 Appendix J. All disturbed areas and materials storage areas require inspection at least once a week, within 24 hours of a ½ inch or more rainfall and daily during prolonged rainfall periods. After each inspection, the inspector completes an inspection report and inserts that report in the corresponding appendix of this Plan. Any required maintenance is initiated within 24 hours of the inspection.

A fully signed copy of this Plan and any supporting materials must be maintained at the project site from the date of project initiation to the date of final stabilization. All records and supporting documents will be compiled in an orderly manner and maintained for a period of three years following final stabilization.

The generation of reports, as part of the construction process and inspection or amendment procedures, provides accurate records that can be used to evaluate the effectiveness of this Plan and document the plans compliance. Changes in design or construction of the storm water management system are documented and included with the Plan to facilitate Plan review or evaluation.

Plan amendments will be documented on the form in the Appendices of this Plan and on the drawings. A record of construction activities will be maintained in Appendix G of this Plan. Completed inspection and maintenance forms will be kept in corresponding Appendices and/or Appendix O of this Plan.

7.0 CERTIFICATION OF COMPLIANCE

7.1 Contractor Certifications

The Contractor Certification forms provided in this section indicate that each contractor or subcontractor working on the project site understands the terms, conditions, and intent of the NPDES General Permit for Construction Storm Water Discharges Associated with Construction Activity and will implement the measures described in this Plan appropriate to his area of work.

If additional sheets are needed due to more subcontractors on the site than sheets provided herein, additional sheets may be copied and inserted into booklet at the job site.

Subcontractor Certifications/Agreements can be found in Appendix K of this Plan.

Contractor/Subcontractor Certification

I certify, under penalty of law, that I understand the terms and conditions of the National Pollutant Discharge Elimination System (NPDES) General Permit that authorizes Storm Water Discharges Associated with Construction Activity from the construction site identified as part of this certification.

Date

Name/Title

Firm

Address

Phone

Nature of Contracted Service

Construction Area(s)

8.0 PROJECT COMPLETION

8.1 Project Completion

The MDNR Land Disturbance Permit may be terminated when the project is stabilized. The project is considered stabilized when perennial vegetation, pavement, buildings, or structures using permanent materials cover all areas that have been disturbed. With respect to areas that have been vegetated, vegetation cover shall be at least 70% density over 100% of the site. In order to terminate the permit, the permittee shall notify the Department by submitting Notice of Termination (NOT).

Permanent storm water control measures incorporated into the project site design include underground storm piping, on site curb inlets, water quality treatment basin, and a detention basin.

8.2 CERTIFICATION AND NOTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information 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**.**

Name_____Title:_____

Signature_____Title:_____

Repeat as needed for multiple construction operators at the site

SWPPP APPENDICES

Appendix A – Contact Information / Responsible Parties

Appendix B – Best Management Practices

Appendix C – General Location Map

Appendix D – Site Maps & Erosion Control Plans

Appendix E – Construction General Permit

Appendix F – NOI & Acknowledgement letter from EPA/State

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APPENDIX A
CONTACT INFORMATION / RESPONSIBLE PARTIES

Construction Operator(s):
Company or Organization Name:
Name:
Address:
City, State, Zip Code:
Telephone Number:
Email:
Area of control:

Project Manager(s) or Site Supervisor(s)
Company or Organization Name:
Name:
Address:
City, State, Zip Code:
Telephone Number:
Email:
Area of control:

SWPPP Contact:
Company or Organization Name:
Name:
Address:
City, State, Zip Code:
Telephone Number:
Email:
Area of control:

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Telephone Number:	816-756-0444 (office)
Email:	meblen@mecresults.com

Emergency 24-Hour Contact
Company or Organization Name:
Name:
Telephone Number:

APPENDIX B
BMP'S

DUST CONTROL

PRACTICE DESCRIPTION

Includes a wide range of techniques that reduce movement of windborne soil particles (dust) from disturbed soil surfaces. This practice applies to construction routes and other disturbed areas where on-site and off-site damage or hazards may occur if dust is not controlled**.**

RECOMMENDED MINIMUM REQUIREMENTS

Dust control measures should be designed by a qualified professional and plans and specifications should be made available to field personnel prior to start of construction. Whenever possible, leave undisturbed vegetated buffer areas between graded areas.

SCHEDULING: Plan and schedule construction operations so that the smallest area is disturbed at one time

EROSION CONTROL: Install surface stabilization measures immediately after completing the land grading

CONSTRUCTION

Any combination of the following may be used to help reduce the dust and air pollution at a construction site.

VEGETATIVE COVER: For areas not subjected to traffic, vegetation provides the most practical method of dust control (See *Temporary* or *Permanent Seeding*).

SPRINKLING: The site can be sprinkled with water until the surface is moist. This practice is effective for dust control on haul roads or other traffic routes, but constant repetition is required for effective control.

BARRIERS: Board fences placed perpendicular to the prevailing winds at intervals of 15 times the barrier height can control blowing soil. In areas of known dust problems, windbreak vegetation should be preserved.

STREET CLEANING: Use of a street sweeper in the area of a development site can aid in controlling dust.

MULCHING: This practice offers a fast and effective means of controlling dust when properly applied. Binders or tackifiers should be used to tack organic mulches (See *Mulching*). Mulching is not recommended for areas with heavy traffic.

MAINTENANCE

Maintain dust control measures continuously throughout dry weather periods, until all disturbed areas have been stabilized.

COMMON PROBLEMS

Drought conditions; results in dry soils and increase in dust problems use greater precautions during these periods.

EROSION CONTROL BLANKETS

PRACTICE DESCRIPTION RECOMMENDED

To aid in controlling erosion on critical areas by providing a protective cover made of straw, jute, wood or other plant fibers; plastic, nylon, paper or cotton. This practice is best utilized on slopes and channels where the erosion hazard is high, and plant growth is likely to be too slow to provide adequate protective cover. Erosion control blankets are typically used as an alternative to mulching but can also be used to provide structural erosion protection. Some important factors in the choice of a blanket are: soil conditions, steepness of slope, length of slope, type and duration of protection required to establish desired vegetation, and probable sheer stress.

MINIMUM REQUIREMENTS

Prior to the start of construction, the application of erosion control blankets should be designed by a qualified professional and plans and specifications should be available to field personnel. The field inspector should verify that installation is in accordance with the plans and specifications.

Numerous products designed to control erosion are available. Product installation procedures for manufactured erosion control blanket products should always be available from the manufacturer.

CONSTRUCTION

Grade the site in accordance with the approved design to a smooth and uniform surface, free of debris. Add and incorporate topsoil where needed.

Make sure seedbed is firm yet friable. Seed and fertilize as shown on the design plan.

INSTALATION

Erosion control products should be installed in accordance with the manufacturers' recommendations and specifications, including check slots and stapling materials.

Anchor product so that a continuous, firm contact (no tenting) with the soil surface/seed bed is maintained.

MAINTENANCE

Inspect after storm events, until vegetation is established, for erosion or undermining beneath the blankets. If any area shows erosion, pull back that portion of the blanket, add tamped soil and reseed; then resecure the blankets.

If blankets should become dislocated or damaged, repair or replace and resecure immediately.

LAND GRADING

PRACTICE DESCRIPTION

Reshaping the ground surface to provide suitable topography for buildings, facilities and other land uses, to control surface runoff, and to minimize soil erosion and sedimentation both during and after construction. This practice applies to sites where the existing topography must be modified to prepare for another land use, or where adapting proposed development to the existing landscape can reduce the erosion potential of the site and the cost of installing erosion and sedimentation control measures. Slope breaks, such as diversions or benches, can be used to reduce the length of continuous slopes and reduce erosion

RECOMMENDED MINIMUM REQUIREMENTS

Prior to start of construction, the site-grading plan should be designed by a qualified professional. The grading plan should show disturbed areas, cuts, fills and finished elevations for all graded areas. Plans and specifications should be referred to by field personnel throughout the construction process.

SCHEDULING CONSTRUCTION ACTIVITIES: So that the least area is disturbed at one time

MAINTENANCE COMMON PROBLEMS LAND GRADING

A constructed wall used to eliminate steep slopes between areas that have abrupt changes in grade. This practice is used to replace cut or fill slopes in confined areas or where a wall is necessary to achieve stable slopes. Retaining walls can be constructed of reinforced concrete, treated timbers, gabions, reinforced earth (a system of face panels and buried reinforcement strips), or other manufactured products such as interlocking concrete blocks. Prior to start of construction, retaining walls should be designed by a registered design professional. Plans and specifications should be referred to by field personnel throughout the construction process. Designing retaining walls is a complicated process. Each situation requires an individual design, which depends on specific site conditions.

MULCHING

PRACTICE DESCRIPTION

The application of plant residues such as straw or other suitable materials to the soil surface. Mulch protects the soil surface from the erosive force of raindrop impact and reduces the velocity of overland flow. It helps seedlings germinate and grow by conserving moisture, protecting against temperature extremes and controlling weeds. Mulch also maintains the infiltration capacity of the soil.

Mulch can be applied to seeded areas to help establish plant cover. It can also be used in unseeded areas to protect against erosion over the winter or until final grading and shaping can be accomplished.

RECOMMENDED MINIMUM REQUIREMENTS

Prior to start of construction, mulch requirements should be designed by a qualified professional. Plans and specifications should be referred to by field personnel throughout the construction process.

MATERIAL: As specified in the approved site plan. If not specified, select from mulch materials listed in Table 5.10. The choice should be based upon soils, slope steepness and length, flow conditions and time of year.

SITE PREPARATION MULCHING

Divert runoff water from areas above the site that will be mulched. Remove stumps, roots and other debris from the construction area. Grade area as needed to permit the use of equipment for seeding, mulching and maintenance. Shape area so that it is relatively smooth. If the area will be seeded, follow seeding specifications in the design plan and apply mulch immediately after seeding.

MULCHING: Spread straw or cereal grain mulch uniformly over the area with a power blower, hydroseeder or by hand. No more than 25% of the ground surface should be visible after spreading. Apply at the rates shown in Table 5.10. Use higher rates for steep slopes, channels and other erosive areas.

MAINTENANCE COMMON PROBLEMS

Inspect all mulched areas periodically and after rainstorms for erosion and damage to the mulch. Repair promptly and restore to original condition. Continue inspections until vegetation is well established. Keep mower height high if plastic netting is used to prevent netting from wrapping around mower blades or shaft.

COMMOM PROBLEMS: Erosion, washout and poor plant establishment repair eroded surface, reseed, remulch and anchor mulch. Mulch is lost to wind or stormwater runoff reapply mulch and anchor by crimping, netting or tacking.

INLET PROTECTION FABRIC DROP

PRACTIICE DESCRIPTION

A temporary fabric barrier placed around a drop inlet.

RECOMMENDED MINIMUM REQUIREMENTS

The maximum drainage area shall not exceed 1 acre per inlet.

The maximum height of fabric above the crest of the drop inlet shall be 1.5 feet. This height allows a shallow temporary de-silting pool to form behind the fabric but limits the pressure against the fabric if overtopping occurs. The selected height of the top of the barrier should allow overflow to the drop inlet and not let overflow bypass the inlet to unprotected lower areas. It may be necessary to build a temporary dike on the down slope side of the structure to prevent bypass flows.

For fabric barriers, use stakes of 2 x 4-inch wood (preferred) or equivalent metal with a minimum length of 3 feet. Space the stakes a maximum of 3 feet apart, and securely drive them into the ground to a depth of approximately 18 inches.

Drive the stakes close to the drop inlet so that overflow will fall directly into the structure and not on unprotected soil.

To provide needed stability to the installation, make a frame around the stakes a maximum of 1.5 ft above the top of the drop inlet. This will serve as a stable crest for overflow during rainfall. Place the bottom 12 inches of the fabric in a trench and backfill the trench with 12 inches of compacted soil or six inches of crushed gravel.

Fasten fabric securely by staples or wire to the stakes and frames. Joints must be overlapped to the next stake.

OPERATION AND MAINTENANCE

Inspect the fabric barrier after each rain and make repairs as needed.

Sediment deposits should be removed after each rainfall to provide adequate storage volume for the next rain. The sediment must be removed when the level of deposition reaches approximately one-half the height of the barrier. Be careful not to damage or undercut the fabric during sediment removal.

When the contributing drainage area has been adequately stabilized, remove all materials and any unstable sediment and dispose of them properly. Bring the disturbed area to the grade of the drop inlet and smooth and compact it. Appropriately stabilize all bare areas around the inlet.

SILT FENCE

PRACTICE DESCRIPTION

A temporary sediment barrier consisting of a geotextile fabric which is attached to supporting posts and trenched into the ground. Sediment laden runoff ponds uphill from the sediment fence and runoff is temporarily stored to allow sediment to settle out of the water. This practice applies where sheet erosion occurs on small disturbed areas. Sediment fences are intended to intercept and detain small amounts of sediment from disturbed areas in order to prevent sediment from leaving the site. Sediment fences can also prevent sheet erosion by decreasing the velocity of the runoff.

RECOMMENDED MINIMUM REQUIREMENTS

Prior to start of construction, sediment fences should be designed by a qualified professional. Plans and specifications should be referred to by field personnel throughout the construction process.

DRAINAGE AREA: Limited to 1/4 acre per 100 feet of fence. Area is further restricted by slope steepness as shown in Table 5.16.

LOCATION: Fence should be built on a nearly level grade and at least 10 feet from the toe of the slope to provide a broad shallow sediment pool. Install on the contour, where fence can intercept runoff as a sheet flow; not located crossing channels, waterways or other concentrated flow paths; not attached to existing trees.

LENGTH: Maximum of 600 feet; flare ends of fence uphill to temporarily impound water.

SPACING OF SUPPORT POSTS: 10 feet maximum for fence supported by wire; 6 feet maximum for high strength fabric without supportive wire backing

TRENCH: Bottom 1 foot of fence must be buried minimum of 6 inches deep.

IMPOUNDED WATER HEIGHT: Depth of impounded water should not exceed 1.5 feet at any point along the fence.

SUPPORT POSTS: 4-inch diameter wood or 1.33 lb/linear foot steel, buried or driven to a depth of 24 inches with support wire; 2-inch square wood or 1.0 lb/linear foot steel without support wire. Steel posts should have projections for fastening fabric.

SUPPORT WIRE: Wire fence (14-gauge with 6-inch mesh), necessary if standard strength fabric is used

REINFORCED, STABILIZED OUTLETS: Should be located to limit water depth to 1.5 feet measured at lowest point along crest line. Crest Height: 1 foot maximum Width of splash pad: 5 feet maximum
Length of splash pad: 5 feet minimum Supports: 4 foot spacing

SYNTHETIC GEOTEXTILE FABRIC: Conforming to specifications and containing ultraviolet light inhibitors and stabilizers. Minimum design life of 6 months.

MAINTENANCE

Inspect sediment fences at least once a week and after each rainfall. Make any required repairs immediately. Should the fabric of a sediment fence collapse, tear, decompose or become ineffective, replace it promptly. Remove sediment deposits as necessary to provide adequate storage volume for the next rain and to reduce pressure on the fence. Take care to avoid damaging or undermining the fence during cleanout.

SODDING

PRACTICE DESCRIPTION

The use of vegetative cover to provide immediate erosion control in disturbed areas

RECOMMENDED MINIMUM REQUIREMENTS

Prior to start of installation, plant materials and amendments should be specified by a qualified professional. Plans and specifications should be referred to by field personnel throughout the installation process.

PLANT SELECTION: High quality, healthy, moist, fresh sod. Select a variety that is well adapted to the region, intended use and desired level of maintenance. (See Table 5.9)

SOIL AMENDMENTS: Fertilizer and lime (if soil pH is less than 6.0) incorporated to a depth of 3 to 6 inches into the soil

SOIL SURFACE: Clear of clods, rocks, etc.; smooth and firm; not compacted clay or pesticide-treated soil

IRRIGATION: Required to ensure rooting

TIMING: Anytime of the year, except when the soil is frozen

INSTALLATION: Soil supplied nutrients are critical to sod establishment and continued plant growth. Test soil for nutrients and pH. Soil testing can be done at University Extension offices and private labs.

SITE PREPERATION: Apply amendments according to soil test recommendations. In the absence of a soil analysis, apply fertilizer amendments at the following maximum rates:

MAINTENANCE: Keep sod moist until it is fully rooted.

Mow to a height of 2 to 3 inches after sod is well rooted, in 2 to 3 weeks. Do not remove more than 1/3 of the leaf blade in any mowing.

Permanent, fine turf areas require yearly fertilization. Fertilize warm-season grass in late spring to early summer; cool-season grass in late winter and again in early fall.

COMMON PROBLEMS:

Sod laid on poorly prepared soil or unsuitable surface; grass dies because it is unable to root remove dead sod, prepare surface and resod.

Sod not adequately irrigated after installation; may cause root dieback or grass does not root rapidly and is subject to drying out irrigate sod and underlying soil to a depth of 4 inches and keep moist until roots are established.

Sod not anchored properly; may be loosened by runoff replace damaged areas and anchor sod.

Slow growth due to lack of nitrogen; may cause yellowing of leaf blades refertilize sod, but avoid fertilizing cool season grasses from late May through July.

Temporary Gravel Construction Entrance/Exit Pad

PRACTICE DESCRIPTON

A stone base designed to provide a buffer area where construction
Vehicles can drop their mud to avoid transporting it onto public roads.
This practice applies anywhere traffic will be leaving a construction
Site and moving directly onto a public road or other paved area.

RECOMMENDED MINIMUM REQUIREMENTS

Prior to start of construction, temporary gravel construction entrance/
Exit pads should be designed by a qualified professional and
Plans and specifications should be available to field personnel.

AGGREGATE SIZE: 2- to 3-inch washed stone

PAD DESIGN: Thickness: 6 inches minimum Width: 12 feet minimum or full width of roadway, whichever is greater Length: 50 feet minimum

WASHING FACILITY (OPTIONAL): Level area with minimum of 3 inches of washed stone

CONSTRUCTION

Avoid locating on steep slopes or at curves on public roads. If possible, Locate where permanent roads will eventually be constructed.

SITE PREPARATION GRADING

Remove all vegetation and other unsuitable material from the foundation area, grade and crown for positive drainage.

GRADING

If slope towards the road exceeds 2%, construct a 6- to 8-inch high ridge with 3:1 side slopes across the foundation approximately 15 feet from the entrance to divert runoff away from the public road.

Install pipe under the pad if needed to maintain drainage ditches along public roads.

Place stone to dimensions and grade shown on plans. Leave surface smooth and sloped for drainage. Divert all surface runoff and drainage from the stone pad to sediment trap or basin. If wet conditions are anticipated, place geotextile filter fabric on the graded foundation to improve stability.

MAINTENANCE

Inspect stone pad and sediment disposal area weekly and after storm events or heavy use. Reshape pad as needed for drainage and runoff control. Top-dress with clean 2-inch stone as needed.

Immediately remove mud or sediment tracked or washed onto public road. Repair any broken road pavement immediately. Remove all temporary road materials from areas where permanent
vegetation will be established.

TREE PROTECTION

PRACTIICE DESCRIPTION

The protection of individual trees from damage during construction operations.

RECOMMENDED MINIMUM REQUIREMENTS

The purpose of this practice is to reduce damage to and loss of individual trees during construction by implementing pre- to post-construction tree protection procedures.
This practice applies on development sites containing individual trees.

CRITERIA

The Critical Root Zone (CRZ) is one foot outside the perimeter of the leaf canopy of the tree to be protected. This area shall be protected from damage during construction operations.
Trees not identified to be protected shall be removed.
All required protection measures shall be installed prior to the commencement of any site development activity and shall remain in place and in working, functional order until all site development activities have ceased or the surrounding area has been stabilized.
No construction activities, including the placement of topsoil, shall be permitted within the CRZ. In addition, all roadways, parking areas, and storage areas shall be located outside any CRZ. Construction fencing (fluorescent polyethylene laminar safety netting), wooden snow fence, or approved equivalent with a minimum height of 40 inches shall be installed around the CRZ of all trees to be protected, prior to pruning. The fencing shall be secured to ground-mounted metal or wood posts spaced a maximum of 6 feet apart and maintained to prevent clearing, grading and development activities from encroaching within the CRZ. Appropriate soil erosion and sediment control measures shall be installed outside the CRZ to prevent sediment from reaching the CRZ.
Locate roadways, storage areas, parking pads, etc. at least 25 feet from the CRZ of an individual tree. Follow natural contours, where feasible to maintain the natural drainage patterns of the site so as not to cause the tree to get reduced moisture.
Do not trench within the CRZ of the protected tree. For roots impacted outside the CRZ, the roots shall be properly pruned according to the Society of American Foresters, National Arborist Association and International Society of Arboriculture standard of using the appropriate pruning tool to make a clean cut. The use of heavy equipment such as a backhoe for tree root pruning shall be prohibited.

CONSIDERATIONS

When working within the boundary of a municipality, local authorities such as the Urban Forester, City Arborist, Municipal Forester or Horticulturist, or Public Works officials should be contacted to determine locally enforced tree protection/preservation standards.
A professional forester or certified arborist should be consulted for any clearing of trees and any actions that deviate from criteria within this standard. On-site supervision is recommended.
Trees to be saved should be evaluated using the following criteria in priority order:
1) Species and condition (maintain slower growing trees in good condition),
2) Long-term suitability of the tree for its present location,
3) Length of time to mitigate losses,
4) Cost of mitigating tree losses,

5) Expected long-term maintenance costs for the tree compared to other trees of the same age/size,
6) Soil erosion prevention and reduction of storm water runoff,
7) The number of other trees growing under the same conditions and the precedent that would be set by removing the tree in question,
8) Impact on property value and aesthetics,
9) Ability to screen noise and visual improprieties or ability to enhance privacy, and
10) Ability to moderate temperature changes, provide shade and reduce wind forces.

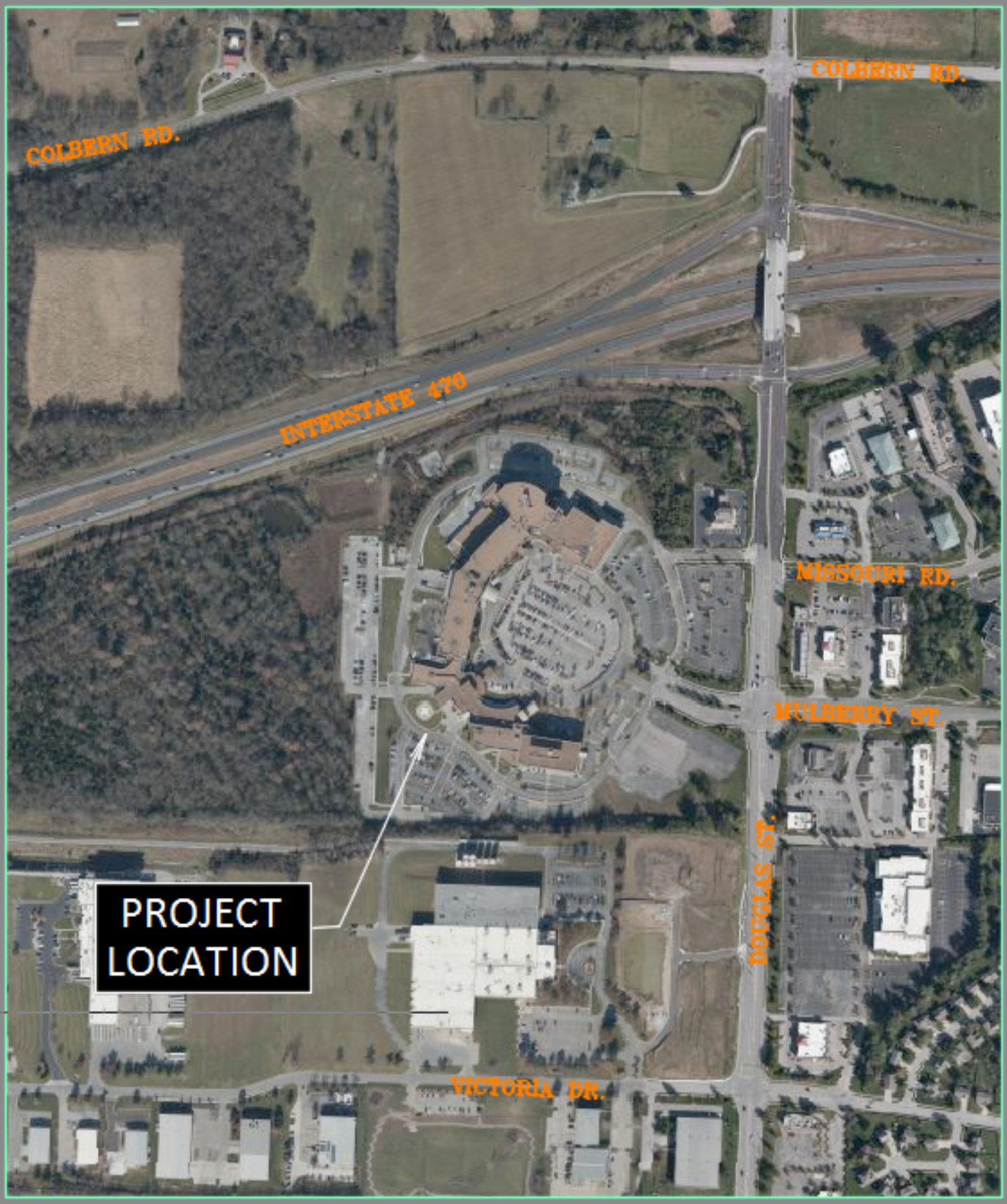
Trees to be removed should be evaluated using the following criteria in priority order:

1) In the opinion of the professional forester or certified arborist, there is a clear and reasonable risk of failure that could cause injury or property damage including existing utility service and corrective measures are not feasible and/or the tree is a safety hazard.
2) Tree is dead.
3) The tree is in poor condition with several dead branches or major crack(s).
4) Contiguous and fatal disease is present as diagnosed by a trained entomologist, plant pathologist or professional forester.
5) Current tree damage is beyond repair or the tree is in extremely poor shape due to storm damage or previous mechanical injury.
6) There is a potential of the tree to damage existing or future hardscape features such as driveways or sidewalks.
7) There is no feasible way to avoid disturbing the soil around, grading over, or placing a hardened surface within the critical root zone and the tree is an oak, hickory, red bud, horse chestnut, Kentucky coffee tree, larch, honey locust, or conifer. Consultation with a professional forester is required prior to using this criteria for tree removal.
8) Tree has a greater than 45 degree lean toward traffic or another target or it creates an unsafe vision clearance for pedestrians or vehicular traffic.
9) Tree is a fast growing or a weak wooded tree that is invasive such as box elder, silver maple, tree of heaven, Russian olive or black cherry. Exceptions may be made for large healthy specimens of these species.
10) Tree is within five feet of a structure or that when mature will have a canopy spread that will overlap the structure. Consult with an arborist or forester.
11) The tree could be successfully transplanted with a tree spade onto another site.
12) Trees that are non-native species or invasive.

A mitigation plan for damaged trees should be prepared in consultation with a professional forester or certified arborist and included with construction plans and contract documents. When site soil resources have been greatly altered, it is recommended a soil restoration strategy be implemented. The strategy may include:

a) Scarifying compacted areas
b) Adding top soil in areas of extreme erosion
c) Adding about 12 inches of well-rotted leaf compost
d) Adding ground cover using herbaceous vegetation, shrubs, and trees. Use of native species is encouraged.

APPENDIX C
GENERAL LOCATION MAP



GENERAL LOCATION

APPENDIX D
SITE MAP & EROSION CONTROL PLANS

PLAN FOR

SAINT LUKE'S EAST - FLEX FACILITY EXPANSION

CITY OF LEE'S SUMMIT, MISSOURI

GENERAL NOTES

1. ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF CITY OF LEE'S SUMMIT, MISSOURI.
2. LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS, NOT SLOPE MEASUREMENTS. ALL PAYMENTS SHALL BE MADE ON HORIZONTAL MEASUREMENTS.
3. THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE TAKEN FROM UTILITY COMPANY RECORDS AND ARE APPROXIMATE ONLY. THEY DO NOT CONSTITUTE ACTUAL FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT-OF-WAY DO SO ONLY AFTER GIVING NOTICE TO, AND OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. THE NAMES AND TELEPHONE NUMBERS OF UTILITY COMPANIES, EVEN IF ONLY REMOTELY INVOLVED WITH THIS PROJECT ARE AS FOLLOWS:

ELECTRIC	KANSAS CITY POWER & LIGHT CO.	888-474-5275
GAS	MISSOURI GAS ENERGY	816-756-5252
WATER	CITY OF LEE'S SUMMIT	816-969-1940
TELEPHONE	AT&T	800-464-7928
SEWER	CITY OF LEE'S SUMMIT	816-969-1940
CABLE TV	TIME WARNER	816-358-8833
	COMCAST	816-833-3400

THE CONTRACTOR MAY ALSO UTILIZE THE FOLLOWING TOLL FREE PHONE NUMBER PROVIDED BY "MISSOURI ONE CALL SYSTEM, INC.": 1-(800)-DIG RITE. THIS PHONE NUMBER IS APPLICABLE ANYWHERE WITHIN THE STATE OF MISSOURI. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY ALL THOSE COMPANIES WHICH HAVE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION TO BE PERFORMED.

5. PRIOR TO ORDERING PREFRABRICATED STRUCTURES, SHOP DRAWINGS SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL.
6. THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE.
7. CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES.
8. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED. ALL EXISTING UTILITIES SHALL BE ADJUSTED AS REQUIRED
9. ALL EXCESS AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF AT A LOCATION OFF SITE PROVIDED BY THE CONTRACTOR.
10. SUBGRADE SOIL FOR ALL CONCRETE STRUCTURES, REGARDLESS OF THE TYPE OR LOCATION, SHALL BE FIRM, DENSE AND THOROUGHLY COMPACTED AND CONSOLIDATED; SHALL BE FREE FROM MUCK AND MUD; AND SHALL BE SUFFICIENTLY STABLE TO REMAIN FIRM AND INTACT UNDER THE FEET OF THE WORKMEN OR MACHINERY ENGAGED IN SUBGRADE SURFACING, LAYING REINFORCING STEEL, AND DEPOSITING CONCRETE THEREON. IN ALL CASES WHERE SUBSOIL IS MUCKY OR WORKS INTO MUD OR MUCK DURING SUCH OPERATION, A SEAL COURSE OF EITHER CONCRETE OR ROCK SHALL BE PLACED BELOW SUBGRADE TO PROVIDE A FIRM BASE FOR WORKING AND FOR PLACING THE FLOOR SLAB.
11. ALL EXCAVATION SHALL BE UNCLASSIFIED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK EXCAVATION.

FLOOD NOTE:

THIS PROPERTY LIES WITHIN FLOOD ZONE X, DEFINED AS AREAS OF DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP, PREPARED BY THE FEDERAL EMERGENCY AGENCY'S NATIONAL FLOOD INSURANCE PROGRAM FOR LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, MAP NUMBER 29095C0409G AND DATED JANUARY 20, 2017.

SPECIFICATIONS

ALL WORK PERFORMED AND MATERIALS FURNISHED WITHIN PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF CITY OF LEE'S SUMMIT, MISSOURI. THE CONSTRUCTION AND MATERIALS FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS OF THE "AMERICAN PUBLIC WORKS ASSOCIATION, KANSAS CITY METROPOLITAN CHAPTER" AND ARE HEREBY MADE THE SPECIFICATIONS FOR THIS SET OF PLANS BY REFERENCE AS THOUGH FULLY SET FORTH HEREIN.

NOTE:

1. BY USE OF THESE PLANS THE CONTRACTOR AGREES THAT HE/SHE SHALL BE SOLELY RESPONSIBLE FOR THE SAFETY OF THE CONSTRUCTION WORKERS AND OF THE PUBLIC.
2. ALL CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS SET FORTH BY THE KANSAS CITY CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION AND THE CITY OF LEE'S SUMMIT, MISSOURI, WHICHEVER IS MORE STRICT.
3. THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTORS 48 HOURS PRIOR TO ANY LAND DISTURBANCE WORK AT (816)969-1200.

GENERAL LOCATION

PROJECT BENCHMARKS

BENCHMARK 1 ELEV.: 982.17
SET 5 PUNCH HOLES IN THE TOP OF A SOUTHWEST FLANGE BOLT ON A FIRE HYDRANT IN THE SOUTHEAST QUADRANT OF SOUTH RING ROAD AND DRIVE ENTRANCE SOUTHWEST OF THE HELICOPTER PAD.

BENCHMARK 2 ELEV.: 983.85
SET 5 PUNCH HOLES IN THE TOP OF A SOUTHWEST FLANGE BOLT ON A FIRE HYDRANT IN THE SOUTHEAST QUADRANT OF SOUTH RING ROAD AND PARK LOT E TO 50± DUE SOUTH OF THE SOUTHWEST CORNER OF MEDICAL OFFICE BUILDING.

LEGAL DESCRIPTION:

ALL OF LOT 1, SAINT LUKES HOSPITAL OF LEE'S SUMMIT LOTS 1 & 2, A SUBDIVISION OF LAND IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI.

CIVIL INDEX OF SHEETS

DESIGN ENGINEER

MATT EBLEN
1700 SWIFT AVE, SUITE 100
NORTH KANSAS CITY, MO
913-307-2588
MEBLEN@MECRESULTS.COM

PREPARED & SUBMITTED BY:

McCLURE
1700 SWIFT STREET, SUITE 100
NORTH KANSAS CITY, MISSOURI 64116

ENGINEER

DATE

ACCEPTED BY:

DATE

STATE OF MISSOURI
MATTHEW VAUGHN EBLEN
NUMBER PE-2002000598
PROFESSIONAL ENGINEER
MATTHEW VAUGHN EBLEN
PE–2002000598
04/23/2020

ACI BOLAND ARCHITECTS
1710 Wyandotte
Kansas City, MO 64108
T: 816.763.9600
ACI/Boland, Inc.
Kansas City | St. Louis
Licensee's Certificate of Authority Number:

CIVIL CONSULTANT
McClure Engineering Company
1700 Swift Ave., Suite 100
North Kansas City, MO 64116
Phone Number: 816.756.0444
Licensee's Certificate of Authority Number:

STRUCTURAL CONSULTANT
Structural Engineering Associates
1000 Walnut Street, Suite 1570
Kansas City, MO 64106
Phone Number: 816.421.1042
Licensee's Certificate of Authority Number:

MEP CONSULTANT
W.L. Cassell & Associates, Inc.
1600 Baltimore, Suite 300
Kansas City, MO 64108
Phone Number: 816.842.8437
Licensee's Certificate of Authority Number:

Saint Luke's East Hospital
Flex Facility Expansion
100 NE Saint Luke's Blvd
Lee's Summit, MO 64086
Construction Documents

Date	2.21.2020
Job Number	3-19092
Drawn By	KRM
Checked By	MVE

Revision

Number	Date	Description
1	03.02.2020	Addendum #1
2	03.12.2020	City Comments
3	04.03.2020	City Comments #2 & PR #1

C001

COVER SHEET

CONSTRUCTION DOCUMENTS

2/20/2020 9:58:31 AM

STATE OF MISSOURI
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PROFESSIONAL ENGINEER

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3	04.03.2020	City Comments #2 & PR #1

C002

EXISTING CONDITIONS

CONSTRUCTION DOCUMENTS

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PROJECT LOCATION

TEMPORARY CONSTRUCTION ENTRANCE (TYP.)

SILT FENCE (TYP.)

CURB INLET SEDIMENT BARRIER (TYP.)

FF= 985.00

CURB INLET SEDIMENT BARRIER (TYP.)

GRAVEL DROP INLET SEDIMENT TRAP (TYP.)

SILT FENCE (TYP.)

GRAVEL DROP INLET SEDIMENT TRAP (TYP.)

NORTH

30 15 0 30

EROSION CONTROL LEGEND

- SILT FENCE
- WATTLE BARRIER
- CONSTRUCTION ENTRANCE
- GRAVEL DROP INLET SEDIMENT TRAP
- CURB INLET SEDIMENT BARRIER
- 924 EXISTING 1' CONTOUR
- 925 EXISTING 5' CONTOUR
- 929 PROPOSED 1' CONTOUR
- 930 PROPOSED 5' CONTOUR

NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). A COPY OF THE SWPPP SHALL BE AVAILABLE ON SITE AT ALL TIMES.
2. THE EROSION CONTROL FEATURES, NOTES AND SPECIFICATIONS IN THE SWPPP REPRESENT THE MINIMUM REQUIREMENTS ACCEPTABLE. LOCATIONS ARE TYPICAL AND MAY VARY ACCORDING TO CONTRACTORS STAGING AND LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL ADJUST, MODIFY AND ADD TO THIS PLAN AS NECESSARY TO CONTROL EROSION, SILTATION AND POLLUTION.
3. IT SHALL BE EACH CONTRACTOR'S RESPONSIBILITY TO CONTROL EROSION AND PREVENT POLLUTION FOR ALL WORK WHICH THEY ARE DIRECTLY INVOLVED.
4. EROSION CONTROL DEVICES ALONG THE DOWN SLOPE SIDE OF THE PROJECT SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY GRADING WORK.
5. WHEN POSSIBLE, WITHOUT ADVERSELY AFFECTING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL: MINIMIZE THE AMOUNT OF SURFACE AREA WHICH IS EXPOSED AT ONE TIME, LEAVE GRADED AREAS WITH A ROUGH TEXTURE, CONSTRUCT TEMPORARY TERRACES DURING GRADING OPERATIONS, AND LIMIT UNNECESSARY VEHICLE TRAFFIC IN GRADED AREAS.
6. THE SPILLAGE OF DEBRIS, INCLUDING THE TRACKING OF SOIL, OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE AVOIDED. THEREFORE THE CONTRACTOR SHALL PROVIDE STABILIZED DRIVES AT ALL ACCESS LOCATIONS AS NECESSARY AND SHALL REMOVE PROMPTLY ANY MATERIAL WHICH FINDS ITS WAY INTO THE PUBLIC RIGHT-OF WAY.
7. SILT FENCES SHALL BE PLACED ON A CONTOUR ELEVATION ALONG THE DOWNHILL SIDE AND FOR THE FULL EXTENT OF THE DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS. THE LAST FIVE FEET ON EACH END OF RUN OF SILT FENCE/STRAW BALE DIKE SHALL BE PLACED FACING UPHILL AT 90 DEGREES TO THE CONTOUR LINE.
8. THE CONTRACTOR SHALL PREVENT SILT AND SEDIMENT FROM ENTERING THE STORM SEWER SYSTEM. STRAW BALE DIKES/SILT FENCE PLACED AROUND ALL STORM SEWER INLETS EXCEPT DURING CONSTRUCTION OPERATIONS WHICH REQUIRE THEIR REMOVAL IS ONE METHOD OF MEETING THE ABOVE REQUIREMENT.
9. EACH CONTRACTOR SHALL INSPECT THEIR EROSION CONTROL DEVICES EVERY 7 DAYS AND WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN DEPTH. THE CONTRACTOR SHALL REPAIR DAMAGE, CLEAN OUT SEDIMENT AND ADD ADDITIONAL CONTROL DEVICES AS NEEDED AS SOON AS PRACTICABLE AFTER INSPECTION. DEFICIENCIES MUST BE CORRECTED WITHIN 7 DAYS OF INSPECTION.
10. ALL AREAS UPON REACHING FINAL GRADE SHALL BE FINAL SEEDED AS SOON AS POSSIBLE. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL SOIL DISTURBING ACTIVITIES ARE COMPLETE AND A UNIFORM PERENNIAL COVER WITH A DENSITY OF 70 % (MINIMUM) IS ESTABLISHED.
11. WHERE GRADED AREAS DRAIN ONTO PAVED AREAS, SILT FENCE SHALL BE PLACED AT THE BACK OF CURB TO PREVENT SILT FROM ENTERING THE PAVED AREAS. WHEN THESE EROSION CONTROL DEVICES ARE NOT PLACED ON THE CONTOUR, THEN THEY SHALL HAVE INSTALLED AT 50' INTERVALS A 5' LENGTH PLACED AT 90 DEGREES TO THE MAIN LENGTH.
12. REMOVE CONCRETE WASH OUT AREA AFTER ALL CONCRETE WORK IS COMPLETE. AFTER REMOVAL OF THE CONCRETE WASHOUT AREA THE CONTRACTOR SHALL ESTABLISH PERMANENT GROUND COVER (SEED) IN THE AREA WHERE THE WASH OUT WAS LOCATED. CONTRACTOR TO DETERMINE CONCRETE WASHOUT LOCATION.
13. ALL STORM SEWER INLETS SHALL HAVE INLET PROTECTION AFTER STORM SEWER CONSTRUCTION.
14. CONTRACTOR SHALL INSTALL CONCRETE WASHOUT AREAS AT VARIOUS LOCATIONS AS REQUIRED TO FACILITATE CONSTRUCTION
15. BY USE OF THESE PLANS THE CONTRACTOR AGREES THAT HE SHALL BE SOLELY RESPONSIBLE FOR THE SAFETY OF THE CONSTRUCTION WORKERS AND OF THE PUBLIC.
16. CONTRACTOR SHALL FURNISH EVIDENCE THAT THEIR INSURANCE MEETS THE REQUIREMENTS OF THE CITY MUNICIPAL CODE.

STATE OF MISSOURI
MATTHEW VAUGHN EBLEN
NUMBER PE-2002000598
PROFESSIONAL ENGINEER
MATTHEW VAUGHN EBLEN
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04/23/2020

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2	03.12.2020	CITY COMMENTS

C101

EROSION CONTROL PLAN-1

CONSTRUCTION DOCUMENTS

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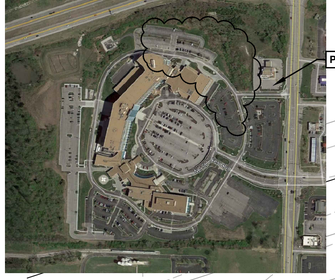

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1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). A COPY OF THE SWPPP SHALL BE AVAILABLE ON SITE AT ALL TIMES.
2. THE EROSION CONTROL FEATURES, NOTES AND SPECIFICATIONS IN THE SWPPP REPRESENT THE MINIMUM REQUIREMENTS ACCEPTABLE. LOCATIONS ARE TYPICAL AND MAY VARY ACCORDING TO CONTRACTORS STAGING AND LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL ADJUST, MODIFY AND ADD TO THIS PLAN AS NECESSARY TO CONTROL EROSION, SILTATION AND POLLUTION.
3. IT SHALL BE EACH CONTRACTOR'S RESPONSIBILITY TO CONTROL EROSION AND PREVENT POLLUTION FOR ALL WORK WHICH THEY ARE DIRECTLY INVOLVED.
4. EROSION CONTROL DEVICES ALONG THE DOWN SLOPE SIDE OF THE PROJECT SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY GRADING WORK.
5. WHEN POSSIBLE, WITHOUT ADVERSELY AFFECTING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL: MINIMIZE THE AMOUNT OF SURFACE AREA WHICH IS EXPOSED AT ONE TIME, LEAVE GRADED AREAS WITH A ROUGH TEXTURE, CONSTRUCT TEMPORARY TERRACES DURING GRADING OPERATIONS, AND LIMIT UNNECESSARY VEHICLE TRAFFIC IN GRADED AREAS.
6. THE SPILLAGE OF DEBRIS, INCLUDING THE TRACKING OF SOIL, OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE AVOIDED. THEREFORE THE CONTRACTOR SHALL PROVIDE STABILIZED DRIVES AT ALL ACCESS LOCATIONS AS NECESSARY AND SHALL REMOVE PROMPTLY ANY MATERIAL WHICH FINDS ITS WAY INTO THE PUBLIC RIGHT-OF WAY.
7. SILT FENCES SHALL BE PLACED ON A CONTOUR ELEVATION ALONG THE DOWNHILL SIDE AND FOR THE FULL EXTENT OF THE DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS. THE LAST FIVE FEET ON EACH END OF RUN OF SILT FENCE/STRAW BALE DIKE SHALL BE PLACED FACING UPHILL AT 90 DEGREES TO THE CONTOUR LINE.
8. THE CONTRACTOR SHALL PREVENT SILT AND SEDIMENT FROM ENTERING THE STORM SEWER SYSTEM. STRAW BALE DIKES/SILT FENCE PLACED AROUND ALL STORM SEWER INLETS EXCEPT DURING CONSTRUCTION OPERATIONS WHICH REQUIRE THEIR REMOVAL IS ONE METHOD OF MEETING THE ABOVE REQUIREMENT.
9. EACH CONTRACTOR SHALL INSPECT THEIR EROSION CONTROL DEVICES EVERY 7 DAYS AND WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN DEPTH. THE CONTRACTOR SHALL REPAIR DAMAGE, CLEAN OUT SEDIMENT AND ADD ADDITIONAL CONTROL DEVICES AS NEEDED AS SOON AS PRACTICABLE AFTER INSPECTION. DEFICIENCIES MUST BE CORRECTED WITHIN 7 DAYS OF INSPECTION.
10. ALL AREAS UPON REACHING FINAL GRADE SHALL BE FINAL SEEDED AS SOON AS POSSIBLE. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL SOIL DISTURBING ACTIVITIES ARE COMPLETE AND A UNIFORM PERENNIAL COVER WITH A DENSITY OF 70 % (MINIMUM) IS ESTABLISHED.
11. WHERE GRADED AREAS DRAIN ONTO PAVED AREAS, SILT FENCE SHALL BE PLACED AT THE BACK OF CURB TO PREVENT SILT FROM ENTERING THE PAVED AREAS. WHEN THESE EROSION CONTROL DEVICES ARE NOT PLACED ON THE CONTOUR, THEN THEY SHALL HAVE INSTALLED AT 50' INTERVALS A 5' LENGTH PLACED AT 90 DEGREES TO THE MAIN LENGTH.
12. ALL STORM SEWER INLETS SHALL HAVE INLET PROTECTION AFTER STORM SEWER CONSTRUCTION.
13. CONTRACTOR SHALL INSTALL CONCRETE WASHOUT AREAS AT VARIOUS LOCATIONS AS REQUIRED TO FACILITATE CONSTRUCTION
14. BY USE OF THESE PLANS THE CONTRACTOR AGREES THAT HE SHALL BE SOLELY RESPONSIBLE FOR THE SAFETY OF THE CONSTRUCTION WORKERS AND OF THE PUBLIC.
15. CONTRACTOR SHALL FURNISH EVIDENCE THAT THEIR INSURANCE MEETS THE REQUIREMENTS OF THE CITY MUNICIPAL CODE.

2

THE CONTRACTOR SHALL REFERENCE ALL NOTES ON SHEET C202 SPECIFIC TO TREE REMOVAL AND PROTECTION OF THE EMERGENT WETLAND AND EMERGENT WETLAND BUFFER.

EROSION CONTROL LEGEND

- SILT FENCE
- 924 — EXISTING 1' CONTOUR
- 925 — EXISTING 5' CONTOUR
- ROCK DITCH CHECK
- WATTLE BARRIER

NORTH

40 20 0 40

STATE OF MISSOURI
MATTHEW VAUGHN EBLEN
NUMBER PE-2002000598
PROFESSIONAL ENGINEER
MATTHEW VAUGHN EBLEN
PE–2002000598
04/23/2020

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Saint Luke's East Hospital Flex Facility Expansion

100 NE Saint Luke's Blvd
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Construction Documents

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Drawn By	KRM
Checked By	MVE

Revision

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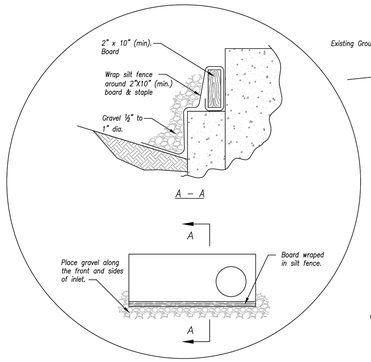
2	03.12.2020	CITY COMMENTS

CONSTRUCTION DOCUMENTS

C102

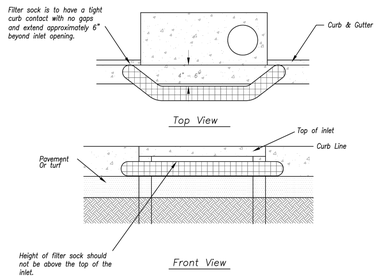
EROSION CONTROL PLAN-2



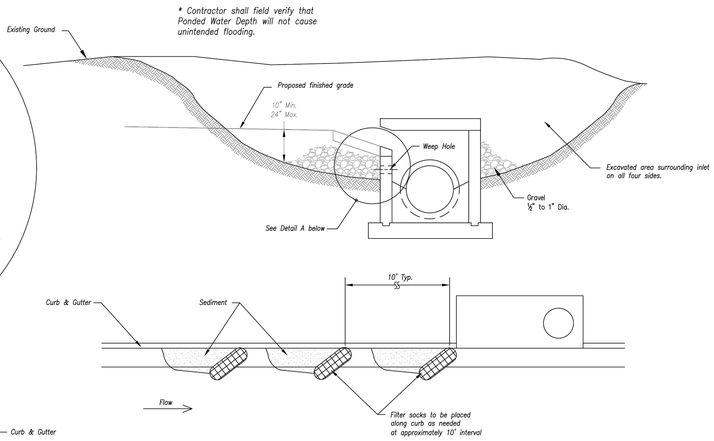
Detail A

EARLY STAGE CURB INLET

(Open Box and Prior to Pouring



Sump Inlet Sediment Filter



On Grade Curb Inlet Protection

Notes:

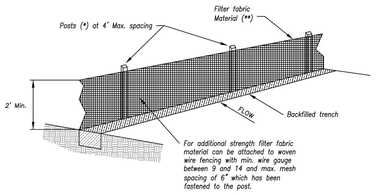
1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" X 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When 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 ha 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.

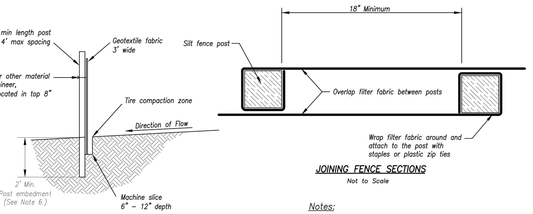
AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter
KANSAS CITY METRO CHAPTER

CURB INLET PROTECTION	STANDARD DRAWING NUMBER ESC-06
	ADOPTED:



(*) POSTS
- MIN. LENGTH 4'
- HARDWOOD 1 ⅜" x 1 ⅜"
- NO.2 SOUTHERN PINE 2 ⅝" x 2 ⅝"
- STEEL 1.33 LB/FT

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



JOINING FENCE SECTIONS

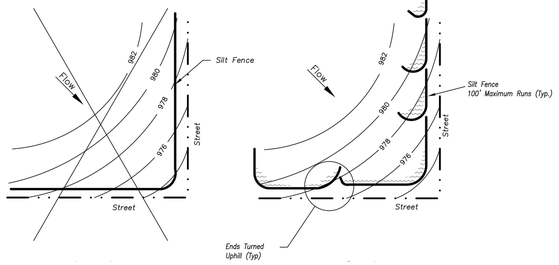
Not to Scale

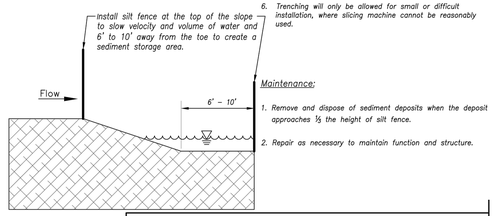
Notes:

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.

SILT FENCE DETAILS

Not to Scale





Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ½ the height of silt fence.
2. Repair as necessary to maintain function and structure.

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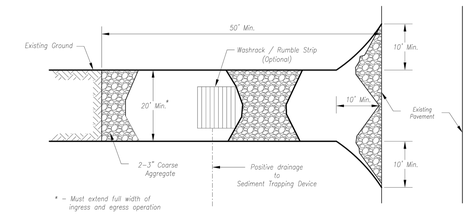
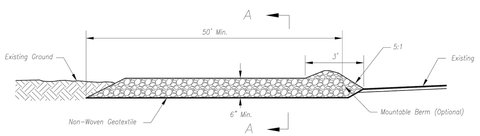
Kansas City Metro Chapter
KANSAS CITY METRO CHAPTER

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



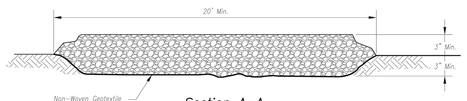
Plan View

Not to Scale



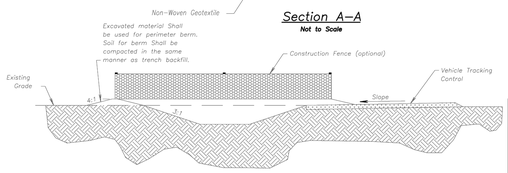
Side Elevation

Not to Scale



Section A–A

Not to Scale



CONCRETE WASHOUT

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.

Notes for Construction Entrance:

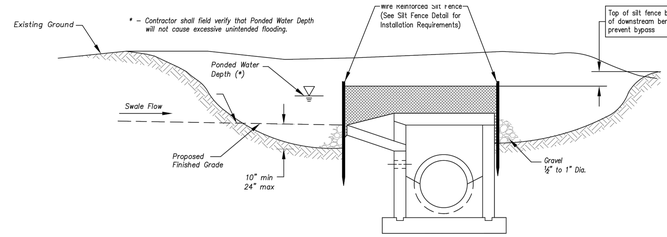
1. Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
2. Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
3. If slope towards the public road exceeds 2%, construct a 6– to 8–inch high ridge with 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.

Maintenance for Construction Entrance:

6. Divert all surface runoff and drainage from the entrance to a sediment control BMP. Maintain entrance as needed to maintain function and integrity of Installation. Top dress with clean aggregate as needed.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

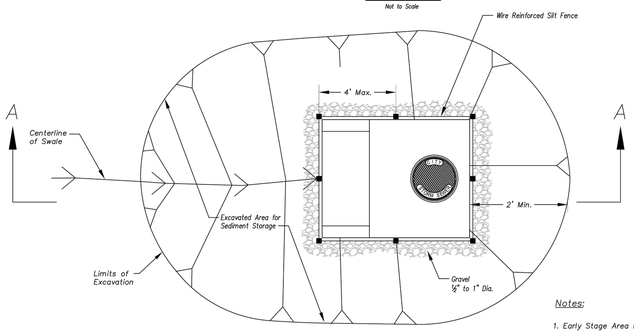
AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter
KANSAS CITY METRO CHAPTER

CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT	STANDARD DRAWING NUMBER ESC-01
	ADOPTED: 10/24/2016



Section A–A

Not to Scale



Plan

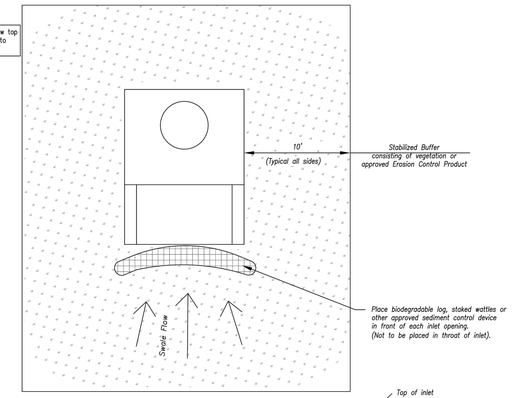
Not to Scale

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.

EARLY STAGE AREA INLET

(All open boxes and inlets not at final grade)



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.

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.

AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter
KANSAS CITY METRO CHAPTER

AREA INLET AND JUNCTION BOX PROTECTION	STANDARD DRAWING NUMBER ESC-07
	ADOPTED: 10/24/2016

STATE OF MISSOURI
MATTHEW VAUGHN EBLEN
NUMBER PE-2002000598
PROFESSIONAL ENGINEER
MATTHEW VAUGHN EBLEN
PE–2002000598
04/23/2020

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Phone Number: 816.842.8437
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Saint Luke's East Hospital Flex Facility Expansion

100 NE Saint Luke's Blvd
Lee's Summit, MO 64086
Construction Documents

Date	2.21.2020
Job Number	3-19092
Drawn By	KRM
Checked By	MVE

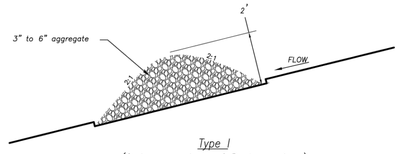
Revision

Number	Date	Description
2	03.12.2020	CITY COMMENTS

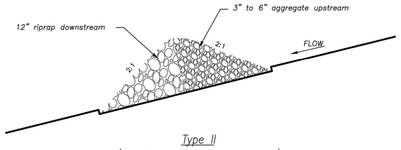
C103

CONSTRUCTION DOCUMENTS

EROSION CONTROL DETAILS-1



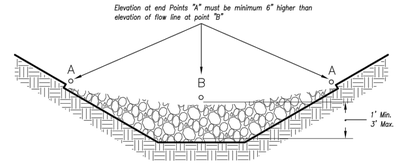
Type I
(2 Acres or less of Drainage Area)
Not to Scale



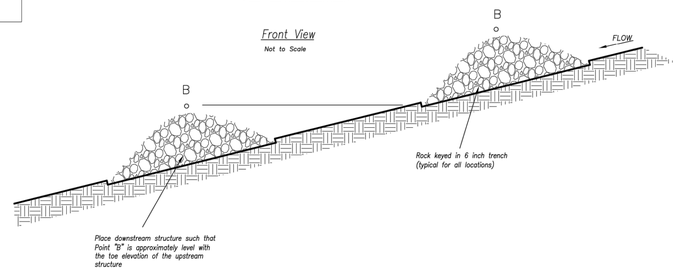
Type II
(2–10 Acres of Drainage Area)
Not to Scale

ROCK DITCH CHECK

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.	



Front View
Not to Scale



Spacing Between Check Dams (all types)
Not to Scale

Notes:

1. Rock check dams shall be used only for drainage areas less that 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.

AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter APWA American Public Works Association
KANSAS CITY METRO CHAPTER

ROCK DITCH CHECKS

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

STATE OF MISSOURI
MATTHEW VAUGHN EBLEN
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PROFESSIONAL ENGINEER
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04/23/2020

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C104

EROSION CONTROL DETAILS-2

CONSTRUCTION DOCUMENTS

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PLAN FOR

SAINT LUKE'S EAST - NORTH PARKING LOT EXPANSION

CITY OF LEE'S SUMMIT, MISSOURI

GENERAL NOTES

1. ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF CITY OF LEE'S SUMMIT, MISSOURI.
2. LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS, NOT SLOPE MEASUREMENTS. ALL PAYMENTS SHALL BE MADE ON HORIZONTAL MEASUREMENTS.
3. THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE TAKEN FROM UTILITY COMPANY RECORDS AND ARE APPROXIMATE ONLY. THEY DO NOT CONSTITUTE ACTUAL FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT-OF-WAY DO SO ONLY AFTER GIVING NOTICE TO, AND OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. THE NAMES AND TELEPHONE NUMBERS OF UTILITY COMPANIES, EVEN IF ONLY REMOTELY INVOLVED WITH THIS PROJECT ARE AS FOLLOWS:

ELECTRIC	KANSAS CITY POWER & LIGHT CO.	888-474-5275
GAS	MISSOURI GAS ENERGY	816-756-5252
WATER	CITY OF LEE'S SUMMIT	816-969-1940
TELEPHONE	AT&T	800-464-7928
SEWER	CITY OF LEE'S SUMMIT	816-969-1940
CABLE TV	TIME WARNER	816-358-8833
	COMCAST	816-833-3400

THE CONTRACTOR MAY ALSO UTILIZE THE FOLLOWING TOLL FREE PHONE NUMBER PROVIDED BY "MISSOURI ONE CALL SYSTEM, INC.": 1-(800)-DIG RITE. THIS PHONE NUMBER IS APPLICABLE ANYWHERE WITHIN THE STATE OF MISSOURI. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY ALL THOSE COMPANIES WHICH HAVE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION TO BE PERFORMED.

5. PRIOR TO ORDERING PREFRABRICATED STRUCTURES, SHOP DRAWINGS SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL.
6. THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE.
7. CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES.
8. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED. ALL EXISTING UTILITIES SHALL BE ADJUSTED AS REQUIRED
9. ALL EXCESS AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF AT A LOCATION OFF SITE PROVIDED BY THE CONTRACTOR.
10. SUBGRADE SOIL FOR ALL CONCRETE STRUCTURES, REGARDLESS OF THE TYPE OR LOCATION, SHALL BE FIRM, DENSE AND THOROUGHLY COMPACTED AND CONSOLIDATED; SHALL BE FREE FROM MUCK AND MUD; AND SHALL BE SUFFICIENTLY STABLE TO REMAIN FIRM AND INTACT UNDER THE FEET OF THE WORKMEN OR MACHINERY ENGAGED IN SUBGRADE SURFACING, LAYING REINFORCING STEEL, AND DEPOSITING CONCRETE THEREON. IN ALL CASES WHERE SUBSOIL IS MUCKY OR WORKS INTO MUD OR MUCK DURING SUCH OPERATION, A SEAL COURSE OF EITHER CONCRETE OR ROCK SHALL BE PLACED BELOW SUBGRADE TO PROVIDE A FIRM BASE FOR WORKING AND FOR PLACING THE FLOOR SLAB.
11. ALL EXCAVATION SHALL BE UNCLASSIFIED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK EXCAVATION.
12. THERE ARE NO RECORDS OF OIL/GAS WELLS LOCATED ONSITE PER THE MISSOURI DEPARTMENT OF NATURAL RESOURCES' ONLINE DATABASE OF OIL & GAS WELL PERMITS.

FLOOD NOTE:

THIS PROPERTY LIES WITHIN FLOOD ZONE X, DEFINED AS AREAS OF DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP, PREPARED BY THE FEDERAL EMERGENCY AGENCY'S NATIONAL FLOOD INSURANCE PROGRAM FOR LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, MAP NUMBER 29095C0409G AND DATED JANUARY 20, 2017.

SPECIFICATIONS

ALL WORK PERFORMED AND MATERIALS FURNISHED WITHIN PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF CITY OF LEE'S SUMMIT, MISSOURI. THE CONSTRUCTION AND MATERIALS FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS OF THE "AMERICAN PUBLIC WORKS ASSOCIATION, KANSAS CITY METROPOLITAN CHAPTER" AND ARE HEREBY MADE THE SPECIFICATIONS FOR THIS SET OF PLANS BY REFERENCE AS THOUGH FULLY SET FORTH HEREIN.

NOTE:

1. BY USE OF THESE PLANS THE CONTRACTOR AGREES THAT HE/SHE SHALL BE SOLELY RESPONSIBLE FOR THE SAFETY OF THE CONSTRUCTION WORKERS AND OF THE PUBLIC.
2. ALL CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS SET FORTH BY THE KANSAS CITY CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION AND THE CITY OF LEE'S SUMMIT, MISSOURI, WHICHEVER IS MORE STRICT.
3. THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTORS 48 HOURS PRIOR TO ANY LAND DISTURBANCE WORK AT (816)969-1200.

GENERAL LOCATION

PROJECT BENCHMARKS

BENCHMARK 1 ELEV.: 982.17
SET 5 PUNCH HOLES IN THE TOP OF A SOUTHWEST FLANGE BOLT ON A FIRE HYDRANT IN THE SOUTHEAST QUADRANT OF SOUTH RING ROAD AND DRIVE ENTRANCE SOUTHWEST OF THE HELICOPTER PAD.

BENCHMARK 2 ELEV.: 983.85
SET 5 PUNCH HOLES IN THE TOP OF A SOUTHWEST FLANGE BOLT ON A FIRE HYDRANT IN THE SOUTHEAST QUADRANT OF SOUTH RING ROAD AND PARK LOT E TO 50± DUE SOUTH OF THE SOUTHWEST CORNER OF MEDICAL OFFICE BUILDING.

LEGAL DESCRIPTION:

ALL OF LOT 1, SAINT LUKES HOSPITAL OF LEE'S SUMMIT LOTS 1 & 2, A SUBDIVISION OF LAND IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI.

CIVIL INDEX OF SHEETS

DESIGN ENGINEER
MATT EBLEN
1700 SWIFT AVE, SUITE 100
NORTH KANSAS CITY, MO
913-307-2588
MEBLEN@MECRESULTS.COM

PREPARED & SUBMITTED BY:

McCLURE
1700 SWIFT STREET, SUITE 100
NORTH KANSAS CITY, MISSOURI 64116

ENGINEER _____ DATE _____

ACCEPTED BY:

_____ DATE _____

STATE OF MISSOURI
MATTHEW VAUGHN EBLEN
NUMBER PE-2002000598
PROFESSIONAL ENGINEER
MATTHEW VAUGHN EBLEN
PE-2002000598
08/11/2020

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Licensee's Certificate of Authority Number:

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Structural Engineering Associates
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MEP CONSULTANT
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1600 Baltimore, Suite 300
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Phone Number: 816.842.8437
Licensee's Certificate of Authority Number:

Saint Luke's East Hospital
North Parking Lot Expansion

100 NE Saint Luke's Blvd
Lee's Summit, MO 64086
Construction Documents

Date	7.17.2020
Job Number	3-19092
Drawn By	KRM
Checked By	MVE

Revision

Number	Date	Description
1	08.10.2020	City Comment #1

C700

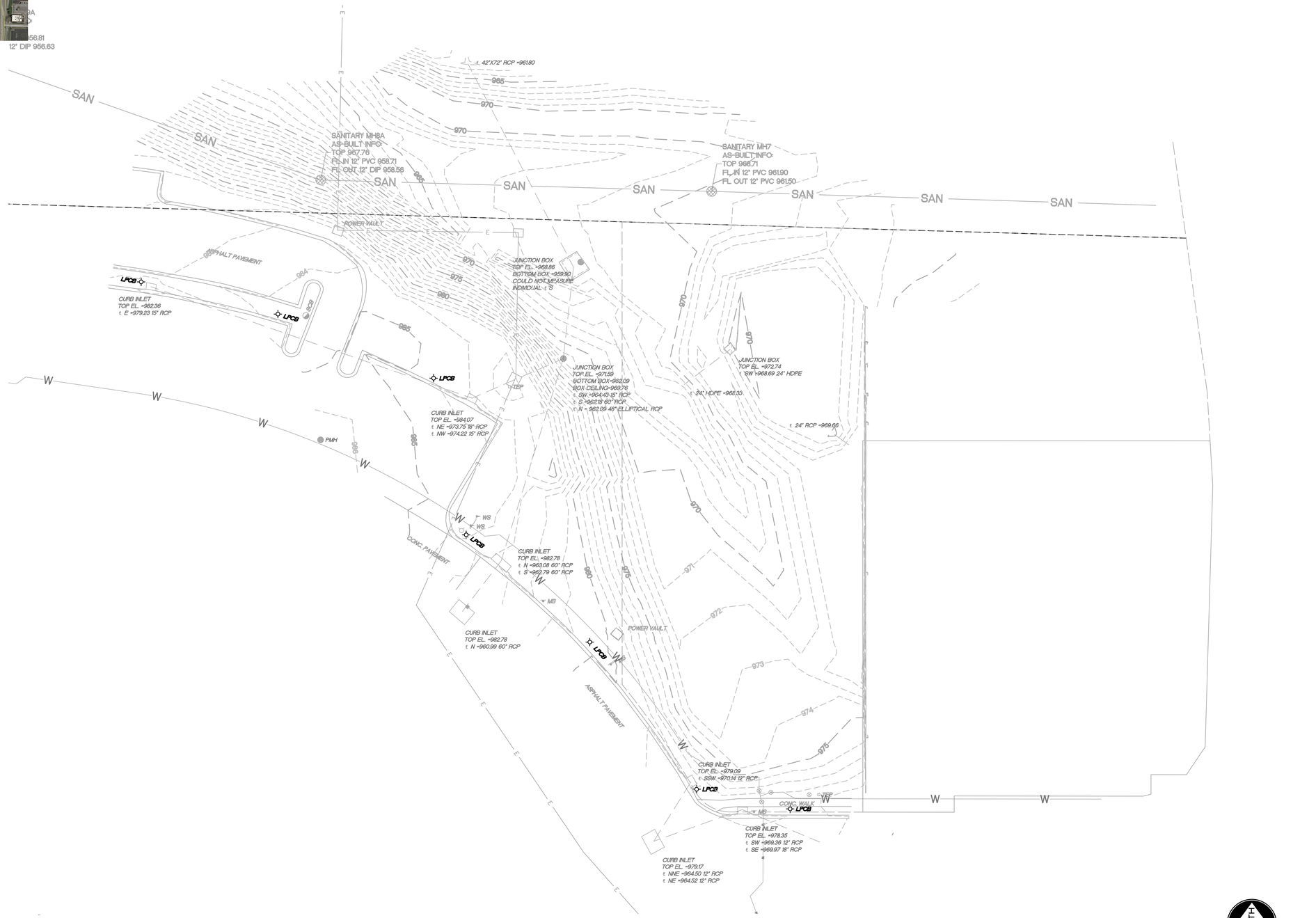
COVER SHEET

BID PACKAGE #4.04.24.2020

P:\190891-000\06-DRAWINGS\KRM\PARKING LOT\190891-000 COVER-NORTH.DWG

2/20/2020 9:58:31 AM

PROJECT LOCATION



P:\190891-000\06-DRAWINGS\KRM\PARKING LOT\190891-000 EXCON-NORTH.DWG

BID PACKAGE #4.04.24.2020

STATE OF MISSOURI
MATTHEW VAUGHN EBLEN
NUMBER PE-2002000598
PROFESSIONAL ENGINEER

MATTHEW VAUGHN EBLEN
PE-2002000598
08/11/2020

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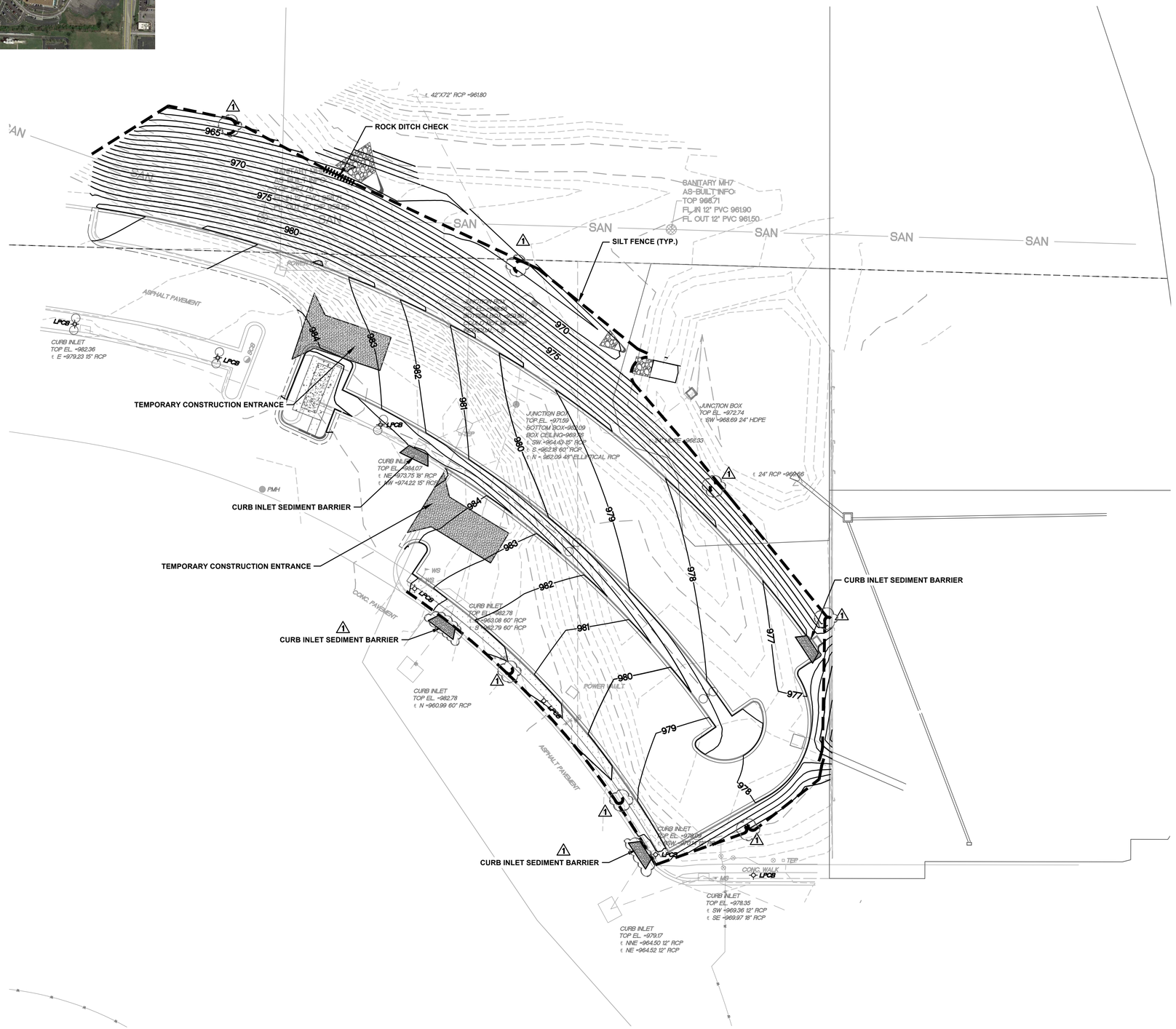
1	08.10.2020	City Comment #1

C702

EXISTING CONDITIONS



EROSION CONTROL LEGEND

- SILT FENCE
- CONSTRUCTION ENTRANCE
- CURB INLET SEDIMENT BARRIER
- 924 — EXISTING 1' CONTOUR
- 925 — EXISTING 5' CONTOUR
- 929 — PROPOSED 1' CONTOUR
- 930 — PROPOSED 5' CONTOUR
- ROCK DITCH CHECK

NORTH

40 20 0 40

NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). A COPY OF THE SWPPP SHALL BE AVAILABLE ON SITE AT ALL TIMES.
2. THE EROSION CONTROL FEATURES, NOTES AND SPECIFICATIONS IN THE SWPPP REPRESENT THE MINIMUM REQUIREMENTS ACCEPTABLE. LOCATIONS ARE TYPICAL AND MAY VARY ACCORDING TO CONTRACTORS STAGING AND LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL ADJUST, MODIFY AND ADD TO THIS PLAN AS NECESSARY TO CONTROL EROSION, SILTATION AND POLLUTION.
3. IT SHALL BE EACH CONTRACTOR'S RESPONSIBILITY TO CONTROL EROSION AND PREVENT POLLUTION FOR ALL WORK WHICH THEY ARE DIRECTLY INVOLVED.
4. EROSION CONTROL DEVICES ALONG THE DOWN SLOPE SIDE OF THE PROJECT SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY GRADING WORK.
5. WHEN POSSIBLE, WITHOUT ADVERSELY AFFECTING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL: MINIMIZE THE AMOUNT OF SURFACE AREA WHICH IS EXPOSED AT ONE TIME, LEAVE GRADED AREAS WITH A ROUGH TEXTURE, CONSTRUCT TEMPORARY TERRACES DURING GRADING OPERATIONS, AND LIMIT UNNECESSARY VEHICLE TRAFFIC IN GRADED AREAS.
6. THE SPILLAGE OF DEBRIS, INCLUDING THE TRACKING OF SOIL, OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE AVOIDED. THEREFORE THE CONTRACTOR SHALL PROVIDE STABILIZED DRIVES AT ALL ACCESS LOCATIONS AS NECESSARY AND SHALL REMOVE PROMPTLY ANY MATERIAL WHICH FINDS ITS WAY INTO THE PUBLIC RIGHT-OF WAY.
7. SILT FENCES SHALL BE PLACED ON A CONTOUR ELEVATION ALONG THE DOWNHILL SIDE AND FOR THE FULL EXTENT OF THE DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS. THE LAST FIVE FEET ON EACH END OF RUN OF SILT FENCE/STRAW BALE DIKE SHALL BE PLACED FACING UPHILL AT 90 DEGREES TO THE CONTOUR LINE.
8. THE CONTRACTOR SHALL PREVENT SILT AND SEDIMENT FROM ENTERING THE STORM SEWER SYSTEM. STRAW BALE DIKES/SILT FENCE PLACED AROUND ALL STORM SEWER INLETS EXCEPT DURING CONSTRUCTION OPERATIONS WHICH REQUIRE THEIR REMOVAL IS ONE METHOD OF MEETING THE ABOVE REQUIREMENT.
9. EACH CONTRACTOR SHALL INSPECT THEIR EROSION CONTROL DEVICES EVERY 7 DAYS AND WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN DEPTH. THE CONTRACTOR SHALL REPAIR DAMAGE, CLEAN OUT SEDIMENT AND ADD ADDITIONAL CONTROL DEVICES AS NEEDED AS SOON AS PRACTICABLE AFTER INSPECTION. DEFICIENCIES MUST BE CORRECTED WITHIN 7 DAYS OF INSPECTION.
10. ALL AREAS UPON REACHING FINAL GRADE SHALL BE FINAL SEEDED AS SOON AS POSSIBLE. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL SOIL DISTURBING ACTIVITIES ARE COMPLETE AND A UNIFORM PERENNIAL COVER WITH A DENSITY OF 70 % (MINIMUM) IS ESTABLISHED.
11. WHERE GRADED AREAS DRAIN ONTO PAVED AREAS, SILT FENCE SHALL BE PLACED AT THE BACK OF CURB TO PREVENT SILT FROM ENTERING THE PAVED AREAS. WHEN THESE EROSION CONTROL DEVICES ARE NOT PLACED ON THE CONTOUR, THEN THEY SHALL HAVE INSTALLED AT 50' INTERVALS A 5' LENGTH PLACED AT 90 DEGREES TO THE MAIN LENGTH.
12. ALL STORM SEWER INLETS SHALL HAVE INLET PROTECTION AFTER STORM SEWER CONSTRUCTION.
13. CONTRACTOR SHALL INSTALL CONCRETE WASHOUT AREAS AT VARIOUS LOCATIONS AS REQUIRED TO FACILITATE CONSTRUCTION
14. BY USE OF THESE PLANS THE CONTRACTOR AGREES THAT HE SHALL BE SOLELY RESPONSIBLE FOR THE SAFETY OF THE CONSTRUCTION WORKERS AND OF THE PUBLIC.
15. CONTRACTOR SHALL FURNISH EVIDENCE THAT THEIR INSURANCE MEETS THE REQUIREMENTS OF THE CITY MUNICIPAL CODE.

STATE OF MISSOURI
MATTHEW VAUGHN EBLEN
NUMBER PE-2002000598
PROFESSIONAL ENGINEER

MATTHEW VAUGHN EBLEN
PE--2002000598
08/11/2020

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Job Number	3-19092
Drawn By	KRM
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Revision

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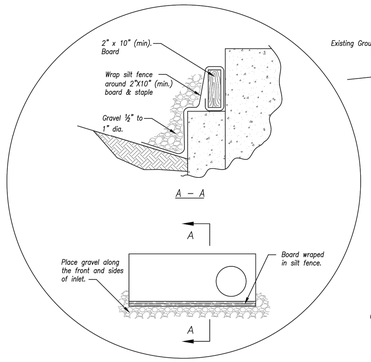
1	08.10.2020	City Comment #1

C703

EROSION CONTROL

BID PACKAGE #4.04.24.2020

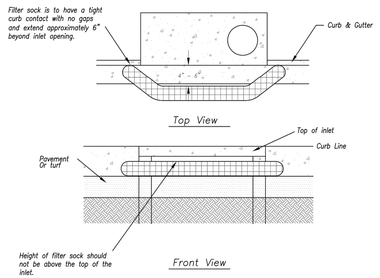
P:\1190891-000\06-DRAWINGS\KRM\PARKING LOT\1190891-000 ERO - NORTH.DWG



Detail A

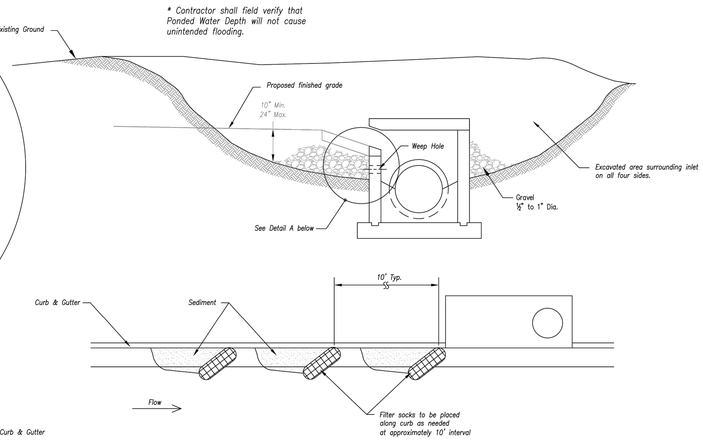
EARLY STAGE CURB INLET

(Open Box and Prior to Pouring



Sump Inlet Sediment Filter

* Contractor shall field verify that Ponded Water Depth will not cause unintended flooding.



On Grade Curb Inlet Protection

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.

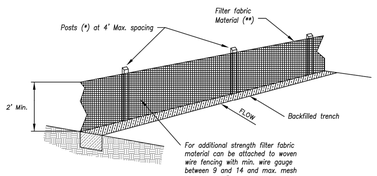
Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage ha 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.

AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter
KANSAS CITY METRO CHAPTER

CURB INLET PROTECTION

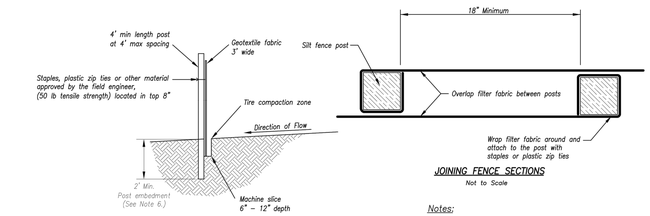
STANDARD DRAWING NUMBER ESC-06
ADOPTED:



(*) POSTS

- MIN. LENGTH 4'
- HARDWOOD 1 ⅜" x 1 ⅜"
- NO.2 SOUTHERN PINE 2 ⅜" x 2 ⅜"
- STEEL 1.33 LB/FT

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

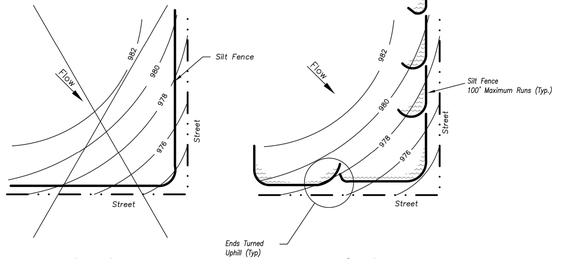


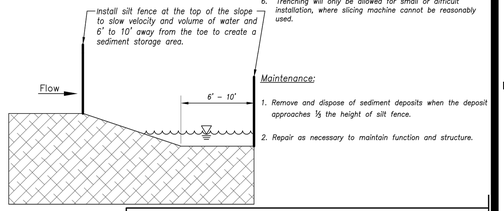
JOINING FENCE SECTIONS

Not to Scale

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.

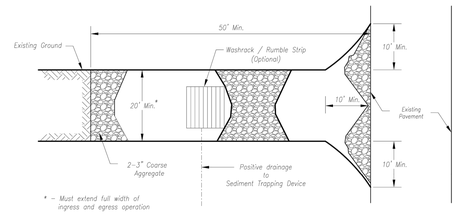
Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ½ the height of silt fence.
2. Repair as necessary to maintain function and structure.

AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter
KANSAS CITY METRO CHAPTER

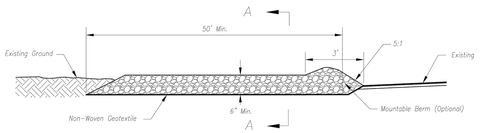
SILT FENCE

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



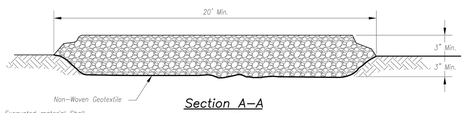
Plan View

Not to Scale



Side Elevation

Not to Scale



Section A–A

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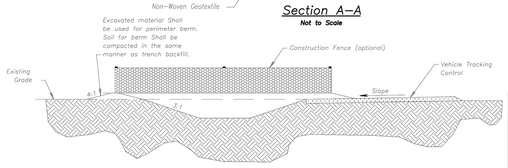


CONCRETE WASHOUT

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.

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.

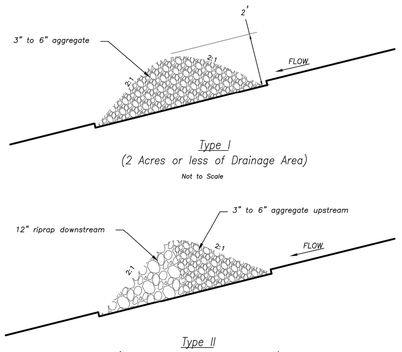
Maintenance for Construction Entrance:

6. Divert all surface runoff and drainage from the entrance to a sediment control. Maintain entrance as needed to maintain function and integrity of installation. Top dress with clean aggregate as needed.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter
KANSAS CITY METRO CHAPTER

CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT

STANDARD DRAWING NUMBER ESC-01
ADOPTED: 10/24/2016



Type I

(2 Acres or less of Drainage Area)

Not to Scale

Type II

(2–10 Acres of Drainage Area)

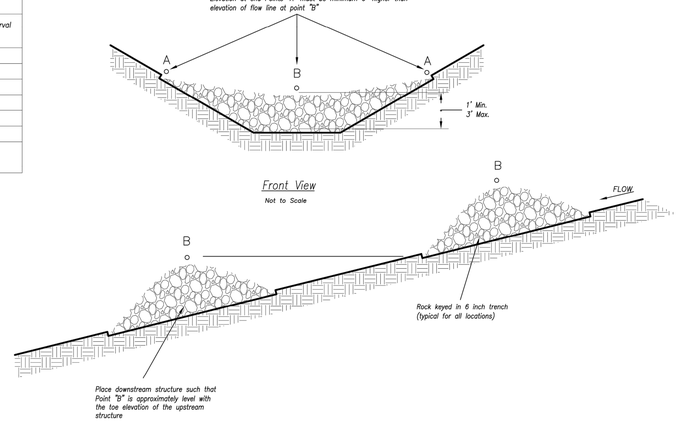
Not to Scale

ROCK DITCH CHECK

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.



Spacing Between Check Dams (all types)

Not to Scale

Notes:

1. Rock check dams shall be used only for drainage areas less that 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.

AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter
KANSAS CITY METRO CHAPTER

ROCK DITCH CHECKS

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

BID PACKAGE #4.04.24.2020

STATE OF MISSOURI
MATTHEW VAUGHN EBLEN
NUMBER PE-2002000598
PROFESSIONAL ENGINEER
MATTHEW VAUGHN EBLEN
PE–2002000598
08/11/2020

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1	08.10.2020	City Comment #1

C704

EROSION CONTROL DETAILS

Appendix E
Construction General Permit

Appendix F
NOI and Acknowledgement Letter from EPA/State

Appendix G
Construction Activity Record

An accurate and up-to-date record of construction activity must be maintained as a part of this Plan. Record the information below on an ongoing basis.

- Dates when major soil disturbing activities occur
- Dates when construction activities temporarily cease on a portion of the site
- Dates when construction activities permanently cease on a portion of the site
- Dates when stabilization measures are initiated

Date	Activity

Appendix H
Inspection Form 1
Erosion and Sedimentation Controls

Visually inspect disturbed areas of the construction site that have not been finally stabilized. Inspections to be completed every 7 days and within 24 hours of a rainfall event of ½ inch or more. Maintenance to be performed within 24 hours of inspection.

Inspector: _____

Inspection Date: _____

Date of last rainfall: _____

Amount of last rainfall: _____ inches

Report on the condition of the erosion and sedimentation controls installed at the construction site. Check for tears in silt barriers, for securely attached fabric to fence posts, and for depth of sediment in front of the silt barriers. The depth of sediment should not exceed one-third of the barrier height. Seeding/planting areas and riprap aggregate areas should be inspected for bare spots and washouts.

Area	Condition of Control	Maintenance Required/Completion Date

Appendix I
Inspection Form 2
Non-Storm Water Source Controls

Visually inspect material storage and construction areas. Inspections to be completed every 7 days and within 24 hours of a rainfall event of ½ inch or more. Maintenance to be performed within 24 hours of inspection.

Inspector: _____

Inspection Date: _____

Date of last rainfall: _____

Amount of last rainfall: _____ inches

Construction Dust – Is there excessive dust at the site that requires watering?

_____

_____

Sediment Tracking – Is _____ Street mostly free from mud, dirt, or rock?

Is washdown required? _____

Are graveled areas adequately covered? _____

Petroleum/Chemical Products – Are spill containment structures secured? _____
Product containers securely sealed? _____

Sanitary Waste – Do potable sanitary units need service? _____

Hazardous Waste – Are hazardous wastes stored and disposed of in compliance with state and local regulations? _____

Appendix I
Inspection Form 2
Non-Storm Water Source Controls
(Continued)

Construction Waste – Are all construction waste materials collected and stored in approved dumpsters? _____

Material Storage Areas Exposed to Precipitation – Are materials handled and stored in a manner to prevent leakage and prevent pollutants from entering the storm water system?

_____

Other Non-Storm Water Discharges – Are waters from line flushing, pavement wash down and dewatering directed to the storm water system prior to discharge? _____

Maintenance Required	**Maintenance Completed Date**

Appendix J
Inspection Form 3
Record of Plan Amendments

Storm Water Pollution Prevention Plan

INSPECTION AND MAINTENANCE REPORT FORM

CHANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:

_____
_____
_____
_____
_____
_____
_____

REASONS FOR CHANGES:

_____
_____
_____
_____
_____
_____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for the gathering of 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.

SIGNATURE: _____ DATE: _____

Appendix K
Subcontractor Certifications/Agreements

SUBCONTRACTOR CERTIFICATION
STORMWATER POLLUTION PREVENTION PLAN

Project Number: _____

Project Title: _____

Operator(s): _____

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above named project:

Company: _____

Address: _____

Telephone Number: _____

Type of construction service to be provided: _____

_____

_____

Signature: _____

Title: _____

Date: _____

Appendix L
Grading and Stabilization Activities Log

Project Name:
SWPPP Contact:

Date Grading Activity Initiated	Description of Grading Activity	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures are Initiated	Description of Stabilization Measure and Location

Appendix M
SWPPP Training Log

Stormwater Pollution Prevention Training Log

Project Name:

Project Location:

Instructor's Name(s):

Instructor's Title(s):

Course Location: _____ Date: _____

Course Length (hours): _____

Stormwater Training Topic: *(check as appropriate)*

- ❑ Erosion Control BMPs
- ❑ Emergency Procedures
- ❑ Sediment Control BMPs
- ❑ Good Housekeeping BMPs
- ❑ Non-Stormwater BMPs

Specific Training Objective:_____

_____

Attendee Roster: *(attach additional pages as necessary)*

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Appendix N
Delegation of Authority Form

Delegation of Authority

I, _____ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the _____ construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

_____ (name of person or position)
_____ (company)
_____ (address)
_____ (city, state, zip)
_____ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in _____ (Reference State Permit), and that the designee above meets the definition of a "duly authorized representative" as set forth in _____ (Reference State Permit).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information 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.

Name: _____

Company: _____

Title: _____

Signature: _____

Date: _____

Appendix O Reports