# EROSION AND SEDIMENT CONTROL PLANS FOR SUMMIT INNOVATION CENTER

## 1151 & 1221 NW WARD RD
## LEE'S SUMMIT, MISSOURI 64086

### GENERAL NOTES

1. THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.
2. ALL WORK IN PUBLIC EASEMENT AND RIGHT-OF-WAY SHALL BE INSTALLED PER THE REQUIREMENTS AND SPECIFICATIONS OF THE CITY OF LEE'S SUMMIT.
3. THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN ALL FEDERAL, STATE, AND LOCAL PERMITS REQUIRED FOR THIS PROJECT PRIOR TO COMMENCING CONSTRUCTION.
4. ANY WORK ADJACENT TO OR CROSSING EXISTING STREETS REQUIRES PROPER TRAFFIC CONTROL DEVICES. TRAFFIC CONTROL DEVICES SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
5. THE CONTRACTOR SHALL NOT DISRUPT ANY OPERATIONS OF ADJACENT PROPERTIES DURING CONSTRUCTION. IF DISRUPTION IS NECESSARY TO FACILITATE CONSTRUCTION, CONTRACTOR IS TO CONTACT ENGINEER FOR COORDINATION.
6. ANY UNFORESEEN CONDITIONS, SITE DISCOVERIES, OR INTERACTION WITH ADJACENT PROPERTY OWNERS OR THE CITY SHALL BE BROUGHT UP WITH THE ENGINEER IMMEDIATELY FOR REMEDY AND DOCUMENTATION. ANY MODIFICATION TO THE PLANS MUST BE AUTHORIZED BY THE ENGINEER WHERE APPLICABLE.
7. THE CONTRACTOR SHALL BE REQUIRED TO DEMOLISH, REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, PAVEMENTS, AND FEATURES NECESSARY TO CONSTRUCT THE IMPROVEMENTS SHOWN HEREON. ANY WASTE MATERIALS GENERATED DURING CONSTRUCTION SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS GOVERNING SUCH DISPOSAL.
8. THE CONTRACTOR SHALL PREVENT ANY TRASH, DEBRIS, OR LIQUID WASTES FROM BEING DISPOSED OF IN SANITARY SEWERS, STORM SEWERS, OR OPEN DRAINAGE SYSTEMS.
9. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DAMAGE CAUSED TO OTHER PROPERTIES DURING CONSTRUCTION. IN THE EVENT OF DAMAGE TO ADJACENT PROPERTY, STRUCTURES, OR IMPROVEMENTS, THE CONTRACTOR SHALL REPAIR OR REPLACE SUCH DAMAGE TO THE PRECONSTRUCTION CONDITION AT THE CONTRACTOR'S EXPENSE.
10. CONTRACTORS AT THE SITE SHALL BE SOLELY RESPONSIBLE FOR JOBSITE SAFETY FOR ALL ASPECTS OF WORK SHOWN HEREON.
11. ALL WORK AND MATERIALS USED IN THE CONSTRUCTION OF THE IMPROVEMENTS SHOWN HEREON SHALL COMPLY WITH ALL REFERENCED STANDARDS, SPECIFICATIONS, AND PLAN NOTES.
12. ALL BUILDINGS ARE SHOWN AS A REFERENCE ONLY. ALL BUILDINGS SHALL BE LOCATED AND CONSTRUCTED PER THE ARCHITECTURAL DRAWINGS PREPARED BY OTHERS.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES FOR FIELD LOCATIONS OF UNDERGROUND UTILITIES AFFECTED BY THE CONTRACT. ALL EXISTING UTILITIES INDICATED ON THESE PLANS ARE ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE ENGINEER; HOWEVER, ALL UTILITIES ACTUALLY EXISTING MAY NOT BE SHOWN. UTILITIES DAMAGED THROUGH THE NEGLIGENCE OF THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR.
14. ANY AND ALL HAZARDS SHALL BE PROPERLY IDENTIFIED AND BARRICADED FROM ACCESS DURING ALL NON-CONSTRUCTION PERIODS. ALL EXCAVATIONS AND HAZARDOUS AREAS SHALL BE FENCED OFF OR OTHERWISE SECURED AS TO NOT PRESENT A HAZARD TO THE GENERAL PUBLIC, AT A MINIMUM AT THE END OF EACH WORKING DAY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOBSITE SAFETY.
15. UNLESS SPECIFIED OTHERWISE, ALL CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE CITY OF LEE'S SUMMIT STANDARD SPECIFICATIONS, EXCEPT AS MODIFIED BY THESE PLANS.
16. PRIVATE EROSION & SEDIMENT CONTROL INSPECTIONS ARE REQUIRED IN ACCORDANCE WITH NPDES SCHEDULE AND REQUIREMENTS. AFTER INSPECTIONS, PROVIDE THE CITY OF LEE'S SUMMIT WITH REPORTS AND DOCUMENTATION.
17. A RIGHT-OF-WAY PERMIT IS REQUIRED FROM THE CITY OF LEE'S SUMMIT PUBLIC WORKS DEPARTMENT FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
18. WORKING HOURS SHALL BE FROM 7AM TO 7PM MONDAY THROUGH SATURDAY, WITH NO WORK ON SUNDAY WITHOUT PRIOR WRITTEN PERMISSION FROM THE CITY OF LEE'S SUMMIT.
19. CONTRACTOR SHALL PROVIDE ONE CHEMICALLY-TREATED PORTABLE TOILET FOR EVERY 20 EMPLOYEES ON THE JOB SITE.
20. FOLLOWING SUBSTANTIAL COMPLETION OF SITE/BUILDING IMPROVEMENTS, THE CONTRACTOR SHALL CONTACT THE ENGINEER TO PERFORM A CHECKLIST OF SITE IMPROVEMENTS PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

811 Know what's **below.** **Call** before you dig.

MISSOURI ONE CALL SYSTEM, INC. 1-800-344-7483 STOP-CALL BEFORE YOU DIG!

### UTILITIES

SANITARY & WATER
CITY OF LEE'S SUMMIT
JEFF THORN
1200 SE HAMBLEN STREET
LEE'S SUMMIT, MO 64081
PHONE (816) 969-1900

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

EVERGY
RON DEJARNETTE
1300 SE HAMBLEN ROAD
LEE'S SUMMIT, MO 64081
PHONE (816) 347-4316

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

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

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

### SHEET INDEX


SITE CIVIL
C001 COVER SHEET
C101 EROSION AND SEDIMENT CONTROL PLAN
C102 DETAILS


### FEMA INFORMATION:

THE SITE IS NOT LOCATED WITHIN ANY SPECIAL FLOOD HAZARD AREAS (SFHA) PER FEMA FIRM MAP 29095C0417G; EFFECTIVE DATE OF JANUARY 20, 2017. NO LETTERS OF MAP AMENDMENT OR REVISIONS ARE BEING PROPOSED.

### DEVELOPER

TOWNSEND SUMMIT, LLC.
230 SHILLING CIRCLE, SUITE 120
HUNT VALLEY, MARYLAND 21031
(303)-947-2044
CONTACT: STEVE RICH

### OIL & GAS WELLS

Per the Missouri Department of Natural Resources Well Database, there are no Active, Inactive or Capped Oil or Gas Wells Located on this Site.


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A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION
MISSOURI CERTIFICATE OF AUTHORITY #000062 EXPIRES 12/31/2023


DRAWING INFO.

| | |
|---|---|
| DRAWN BY: | CVM |
| LICENSE NO. | |
| CHECKED BY: | |
| LICENSE NO. | |
| DATE: | 03-08-2022 |
| JOB NUMBER: | 18CO10004 |

REVISIONS

| NO. | DESCRIPTION | BY | DATE |
|---|---|---|---|
| | | | |


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TOWNSEND SUMMIT LLC.

Cover Sheet

1151 &1221 NW WARD RD
LEE'S SUMMIT, JACKSON COUNTY, MO

STATE OF MISSOURI
THOMAS P. WOOTEN
NUMBER E-2000150081
03-08-22
REGISTERED PROFESSIONAL ENGINEER

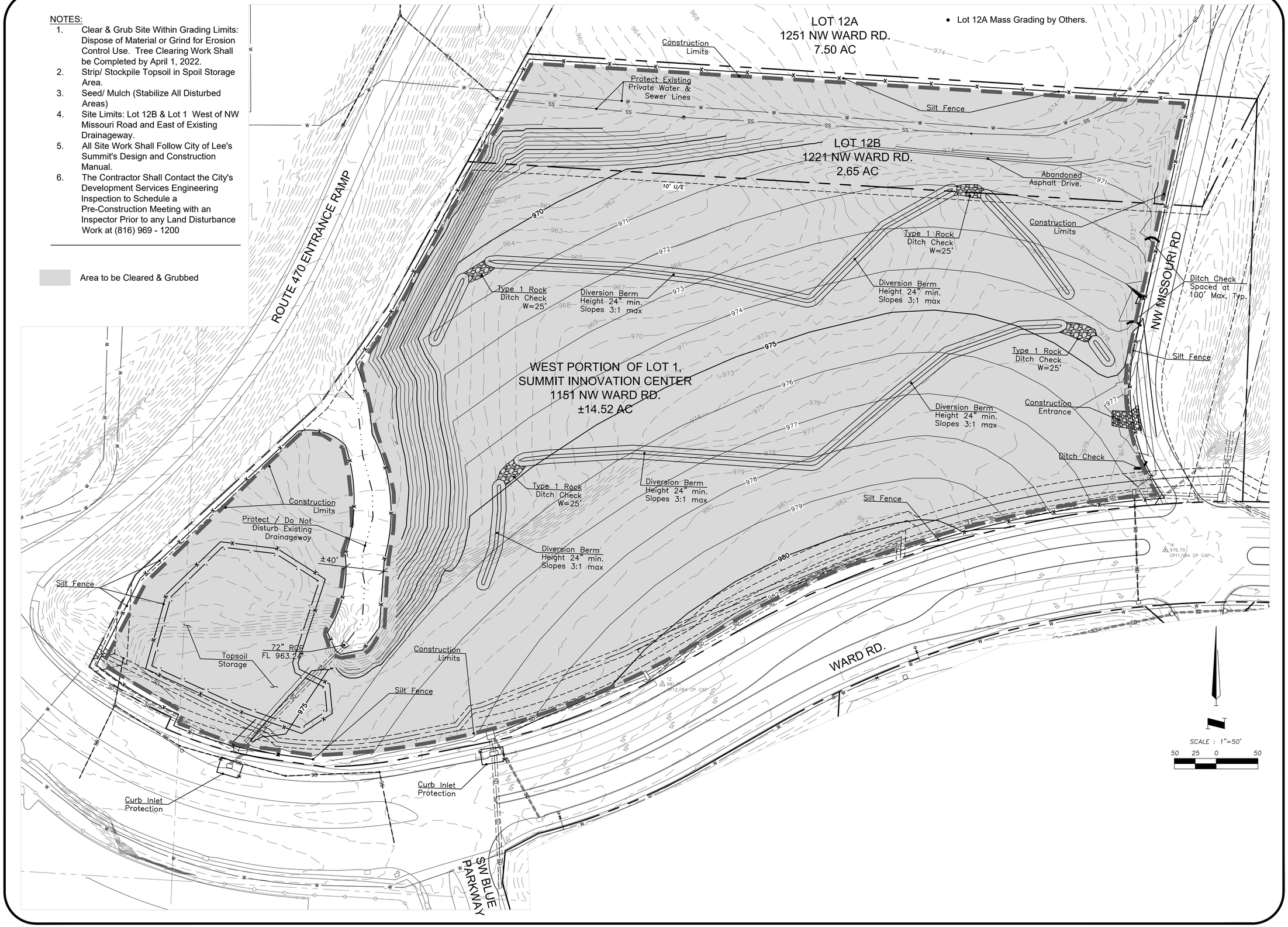
SHEET NUMBER
C001
1 OF 3


Mar 08, 2022 - 9:26am Plotted By: cmilner Z:\AE-COL\1-Projects\18co10004 - Townsend - GSA\1 Lot 1 SIC - 2022\Dwg\SIC - 2022 -West Lot 1 & Lot 12B - 220225 CVM.dwg Layout: C001

NOTES:

1. Clear & Grub Site Within Grading Limits: Dispose of Material or Grind for Erosion Control Use. Tree Clearing Work Shall be Completed by April 1, 2022.
2. Strip/ Stockpile Topsoil in Spoil Storage Area.
3. Seed/ Mulch (Stabilize All Disturbed Areas)
4. Site Limits: Lot 12B & Lot 1 West of NW Missouri Road and East of Existing Drainageway.
5. All Site Work Shall Follow City of Lee's Summit's Design and Construction Manual.
6. The Contractor Shall Contact the City's Development Services Engineering Inspection to Schedule a Pre-Construction Meeting with an Inspector Prior to any Land Disturbance Work at (816) 969 - 1200

Area to be Cleared & Grubbed





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| LICENSE NO. | |
| CHECKED BY: | |
| LICENSE NO. | |
| DATE: | 03-08-2022 |
| JOB NUMBER: | 18CO10004 |

REVISIONS

| NO. | DESCRIPTION | BY | DATE |
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| | | | |


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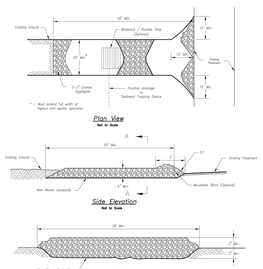
# TOWNSEND SUMMIT LLC.
## EROSION & SEDIMENT CONTROL PLAN
LEE'S SUMMIT, JACKSON COUNTY, MO

STATE OF MISSOURI
THOMAS P. WOOTEN
NUMBER E-2000150081
03-08-22
REGISTERED PROFESSIONAL ENGINEER

SHEET NUMBER
C101
2 OF 3


Mar 08, 2022 – 9:27am Plotted By: cminor Z:\AE-COL\1-Projects\18co10004 – Townsend – GSA\1 Lot 1 SIC – 2022\Dwg\SIC – 2022 –West Lot 1 & Lot 12B – 220225 CVM.dwg Layout: C101




Notes for Construction Entrance:

1. Avoid loading on steep slopes, at curves on public roads, or downhill of disturbed areas.
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 entrance to prevent runoff from the right-of-way from the public road to direct runoff them it.
4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
6. Divert all surface runoff and drainage from the entrance to a sediment control device.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

Maintenance for Construction Entrance:

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

CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

1. Concrete washout areas shall be installed prior to any concrete delivery to site.
2. Concrete washout area shall include a flat subsurface pit (pad location) for the amount of concrete to be poured on site. The slope of the pit shall be a minimum of 1% and a flat area at the bottom of the trench pit 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, other 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 to avoid or prevent spills.

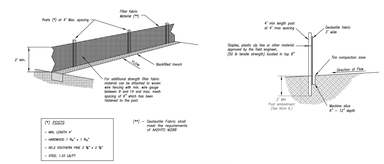
Maintenance for Concrete Washout:

1. Concrete washout materials shall be removed once the materials have filled the washout to approximately FEB full.
2. Concrete washout area shall be enlarged as necessary to maintain capacity for washout materials.
3. Concrete washout water, washed pieces of concrete and all other materials shall be disposed of off site and properly from the job site in a manner and location in accordance with all local ordinances.
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 and compacted to prevent future settlement. Any disturbance associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.

CONCRETE WASHOUT

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

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT
STANDARD DRAWING NUMBER ESC-01
ADOPTED: 10/24/2006




(*) POSTS
- MIN. LENGTH 4'
- HARDWOOD = 1 ¾" x 1 ¾"
- W.O.V. EUCALYPTUS MIN 2 ¾" x 2 ¾"
- STEEL - T.X1.1&T

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

SILT FENCE DETAILS
Not to Scale

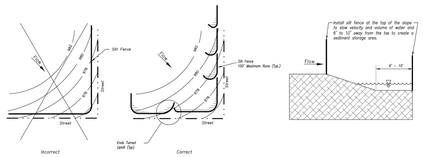
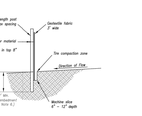



Figure A

SILT FENCE LAYOUT
Not to Scale

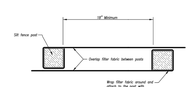



Notes:

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 (Figure A).
4. Attach fabric to downhill side of post.
5. Install posts a minimum of 2' into the ground.
6. Trenching will only be allowed for small or difficult installations, where skinny 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.

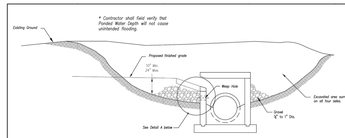


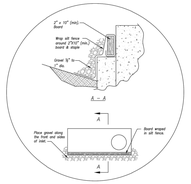

JOINING FENCE SECTIONS
Not to Scale




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

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
SILT FENCE
STANDARD DRAWING NUMBER ESC-03
ADOPTED: 10/24/2006



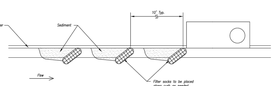

EARLY STAGE CURB INLET
(Open Box and Prior to Pouring Curb and Inlet Throat)

Notes:

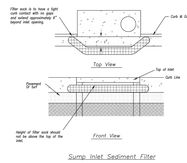
1. Immediately following inlet construction and prior to pouring concrete, the inlet shall be protected from clogging by installing 2" x 10" (min.) board wrapped in silt fence. Place gravel along the front and sides of inlet on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
3. Contractor to field verify ponding water shall not create a traffic hazard.

Maintenance:

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




On Grade Curb Inlet Protection

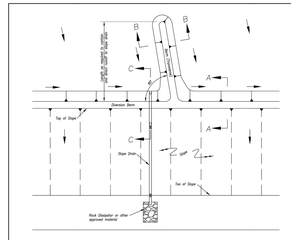



Sump Inlet Sediment Filter

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

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

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
CURB INLET PROTECTION
STANDARD DRAWING NUMBER ESC-04
ADOPTED: 10/24/2006




TYPICAL PLAN VIEW OF DIVERSION BERM AND SLOPE DRAIN

Notes for Diversion Berm:

1. Slope drains are optional, but may be required by the engineer if the berm is at the top of a steep slope.
2. Diversion berms must be installed as a first step in the land-disturbing activity and must be functional prior to upslope land disturbances.
3. The berm should be adequately compacted to prevent failure.
4. Temporary or permanent seeding and mulch shall be applied to the berm immediately following its construction.
5. Place the berm so as to minimize damages by construction operations and traffic.
6. The berm must discharge to a temporary sediment trap or stabilized area.
7. All trees, brush, stumps, obstructions and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the berm.
8. The diversion shall be excavated or shaped to line, grade and cross-section as required to meet the criteria specified herein, free of irregularities which will impede flow.
9. Fills shall be compacted as needed to prevent unequal settlement that would cause damage in the completed diversion. Fill material should be free of roots or other extraneous organic debris, rocks or other objectionable materials.

Maintenance:

1. Berm shall be reshaped, compacted, and stabilized as necessary to maintain its function.
2. Breaches in the berm shall be repaired immediately.

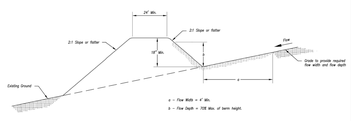
Notes for Slope Drain:

1. Slope Drain and Diversion Berm may be used on either project temporary or project backslopes.
2. Discharge of Slope Drains shall be into stabilized ditch or area, or into Sediment Basin.
3. Pipe shall be secured in place as approved by Engineer.

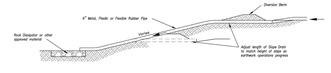
Maintenance:

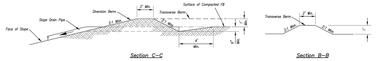
1. Accumulation of any visible sediment at the inlet and outlet shall be removed promptly.
2. Outlet conditions shall be repaired if scour is observed. Leaking or damaged section of pipe shall be repaired immediately.
3. Barriers directing water to the inlet shall be monitored for continuity and effectiveness.

TYPICAL PROFILE OF DIVERSION BEAM
Not to Scale




TYPICAL PROFILE OF DIVERSION BERM



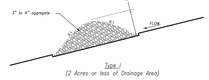

Section C–C

Section B–B

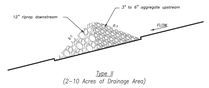
TYPICAL PROFILE OF DIVERSION BERM WITH SLOPE DRAIN

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

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
DIVERSION BERMS AND SLOPE DRAINS
STANDARD DRAWING NUMBER ESC-09
ADOPTED: 10/24/2006



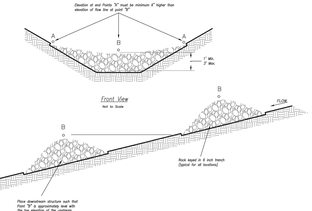

Type I
(2 Acres or less of Drainage Area)
Not to Scale




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 | 42 |
| 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 10.

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
ROCK DITCH CHECKS
STANDARD DRAWING NUMBER ESC-10
ADOPTED: 10/24/2006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MISSOURI CERTIFICATE OF AUTHORITY #000062 EXPIRES 12/31/2023


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| NO. | DESCRIPTION | BY | DATE |
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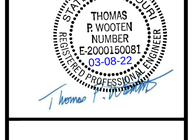
DETAILS

LEE'S SUMMIT, JACKSON COUNTY, MO




SHEET NUMBER
C102
3 OF 3

Mar 08, 2022 – 9:26am Plotted By: cminor Z:\AE-CO\1-Projects\18co10004 – Townsend – GSA\1 Lot 1 SIC – 2022\Dwg\SIC – 2022 –West Lot 1 & Lot 1-2B – Details.dwg Layout: Layout1