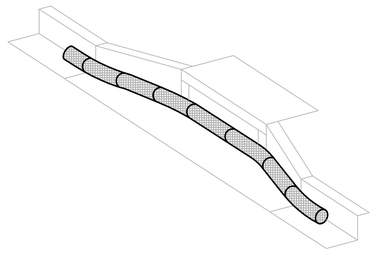


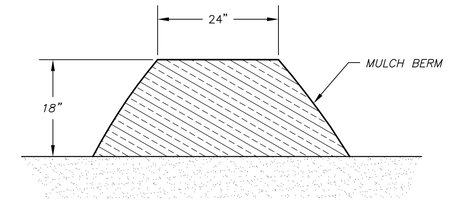
NOTES:

1. THE GUTTERBUDDY® OR APPROVED EQUAL SHALL BE A FILTER MANUFACTURED FROM RECYCLED SYNTHETIC FIBERS OR APPROVED ALTERNATIVE.
2. THE GUTTERBUDDY® WILL BE MANUFACTURED TO BE 9" IN DIAMETER AND SHALL HAVE A MINIMUM LENGTH OF 24" LONGER THAN THE CURB INLET OPENING. THIS WILL ALLOW FOR SUFFICIENT LENGTH TO COVER THE INLET WITH 12" BEYOND THE INLET ON BOTH ENDS.
3. THE GUTTERBUDDY® SHALL BE CLEANED IF A VISUAL INSPECTION SHOWS SILT AND DEBRIS BUILD UP AROUND THE GUTTERBUDDY®.
4. PONDING IS LIKELY IF SEDIMENT IS NOT REMOVED REGULARLY. INSPECTION OF GUTTERBUDDY® SHOULD BE ON A REGULAR BASIS AND IMMEDIATELY AFTER MAJOR RAIN EVENTS.

GUTTERBUDDY INLET PROTECTION 1

NOT TO SCALE

ALTERNATE INLET PROTECTION METHODS SUCH AS GRAVEL FILTER WITH 2"X4" BOARD AT INLET OPENING MAY BE UTILIZED AT CONTRACTOR'S DISCRETION.

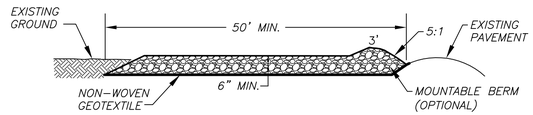


MULCH BERM NOTES:

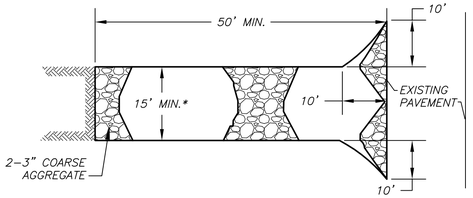
1. THE EROSION CONTROL BERM SHALL BE PLACED, UNCOMPACTED, IN A WINDROW AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE INSPECTOR.
2. PARALLEL TO THE BASE OF THE SLOPE, OR AROUND THE PERIMETER OF OTHER AFFECTED AREAS, CONSTRUCT A MULCH BERM. FOR MAXIMUM WATER FILTRATION ABILITY OR FOR STEEP SLOPES, CONSTRUCT A TRAPEZOIDAL MULCH BERM. IN EXTREME CONDITIONS AND WHERE SPECIFIED BY THE ENGINEER, A SECOND BERM SHALL BE CONSTRUCTED AT THE TOP OF THE SLOPE.
3. DO NOT USE MULCH BERMS IN ANY RUNOFF CHANNELS.
4. PLACE BERMS ON DENUDED AREAS AS SOON AS POSSIBLE. MULCH/COMPOST AND/OR TEMPORARY OR PERMANENT VEGETATION SHALL BE APPLIED/ESTABLISHED ABOVE THE MULCH BERMS WHEN NECESSARY FOR ADDITIONAL EROSION CONTROL.
5. WHEN SEDIMENT FILLS THE AREA BEHIND THE MULCH BERM TO 1/2 THE HEIGHT OF THE BERM THE CONTRACTOR SHALL REMOVE THE SEDIMENT AND PLUGGED MULCH AND RESHAPE BERM WITH CLEAN MULCH AS NEEDED.

MULCH BERM 2

NOT TO SCALE



SIDE ELEVATION



* MUST EXTEND FULL WIDTH OF INGRESS AND EGRESS OPERATION

PLAN VIEW

TEMPORARY CONSTRUCTION ENTRANCE PAD NOTES:

A) INSTALLATION:
1. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
2. 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 AWAY FROM IT.
3. PLACE STONE TO DIMENSIONS AND GRADE AS SHOWN ON PLANS. LEAVE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.
4. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE.

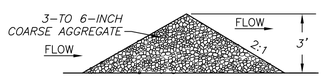
B) TROUBLESHOOTING:
1. INADEQUATE RUNOFF CONTROL TO THE EXTENT THAT SEDIMENT WASHES ONTO PUBLIC ROAD – INSTALL DIVERSIONS OR OTHER RUNOFF CONTROL MEASURES.
2. SMALL STONE, THIN PAD, OR DETERIORATION OF GEOTEXTILE FABRIC RESULTS IN RUTS AND MUDDY CONDITIONS AS STONE IS PRESSED INTO SOIL – INCREASE STONE SIZE OR PAD THICKNESS OR REPLACE GEOTEXTILE FABRIC.
3. PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC – EXTEND PAD BEYOND THE MINIMUM 50 FOOT LENGTH AS NECESSARY.

C) INSPECTION MAINTENANCE:
1. INSPECT STONE PAD AND SEDIMENT DISPOSAL AREA WEEKLY AND AFTER 1/2-INCH OR GREATER STORM EVENTS.
2. RESHAPE PAD AS NEEDED FOR PROPER DRAINAGE AND RUNOFF CONTROL.
3. TOP DRESS WITH CLEAN 2 AND 3 INCH STONE AS NEEDED.
4. IMMEDIATELY REMOVE MUD OR SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROAD. REPAIR ANY BROKEN ROAD PAVEMENT IMMEDIATELY.
5. REMOVE ALL TEMPORARY ROAD MATERIALS FROM AREAS WHERE PERMANENT VEGETATION WILL BE ESTABLISHED.

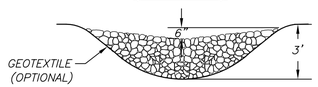
TEMPORARY CONSTRUCTION ENTRANCE 3

NOT TO SCALE

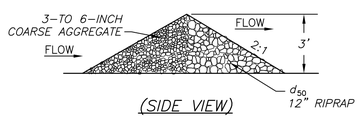
ROCK CHECK DAM
2 ACRES OR LESS OF DRAINAGE AREA



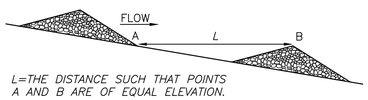
(SIDE VIEW)



ROCK DITCH CHECK
2-10 ACRES OF DRAINAGE AREA



(SIDE VIEW)



L=THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION.

SPACING BETWEEN DITCH CHECKS

ROCK DITCH CHECK (CHECK DAM) NOTES:

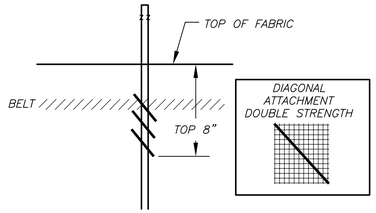
A) CONSTRUCTION SPECIFICATIONS & INSTALLATION:
1. THE DRAINAGE AREA OF THE DITCH OR SWALE BEING PROTECTED SHALL NOT EXCEED 2 ACRES WHEN A COARSE AGGREGATE IS USED ALONE AND SHALL NOT EXCEED 10 ACRES WHEN A COMBINATION OF CLASS I RIPRAP AND COARSE AGGREGATE IS USED. AN EFFORT SHOULD BE MADE TO EXTEND THE STONE TO THE TOP OF CHANNEL BANKS.
2. THE MAXIMUM HEIGHT OF THE DAM SHALL BE 3 FEET. THE CENTER OF THE CHECK DAM IS AT THE SAME ELEVATION AS THE TOP OF THE OUTER EDGES.
3. FOR ADDED STABILITY, THE BASE OF THE CHECK DAM CAN BE KEYED INTO THE SOIL APPROXIMATELY 6 INCHES.
4. THE MAXIMUM SPACING BETWEEN DAMS SHOULD BE SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.
5. STONE SHOULD BE PLACED ACCORDING TO THE CONFIGURATION TO THE LEFT. HAND OR MECHANICAL PLACEMENT WILL BE NECESSARY TO ACHIEVE COMPLETE COVERAGE OF THE DITCH OR SWALE AND TO INSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.
6. GEOTEXTILE MAY BE USED UNDER THE STONE TO PROVIDE A STABLE FOUNDATION AND TO FACILITATE REMOVAL OF THE STONE.

B) INSPECTION AND MAINTENANCE:
1. CHECK DAMS SHOULD BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH STORM EVENT OF 1/2-INCH OR GREATER. SEDIMENT SHALL BE REMOVED WHEN IT REACHES ONE HALF OF THE ORIGINAL HEIGHT OF THE DAM.
2. REGULAR INSPECTIONS SHOULD BE MADE TO ENSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES. EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM SHALL BE CORRECTED.

C) REMOVAL OF PRACTICE:
1. UNLESS THEY ARE TO BE PERMANENT, CHECK DAMS MUST BE REMOVED WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED. IN TEMPORARY DITCHES AND SWALES, CHECK DAMS SHOULD BE REMOVED AND THE DITCH FILLED WHEN THEY ARE NO LONGER NEEDED. IN PERMANENT STRUCTURES, CHECK DAMS SHOULD BE REMOVED WHEN A PERMANENT LINING CAN BE INSTALLED. IN THE CASE OF GRASS-LINED DITCHES, CHECK DAMS SHOULD BE REMOVED WHEN THE GRASS HAS MATURED SUFFICIENTLY TO PROTECT THE DITCH OR SWALE. THE AREA BENEATH THE CHECK DAMS SHOULD BE SEEDED AND MULCHED IMMEDIATELY AFTER THEY ARE REMOVED. THE USE OF FILTER CLOTH UNDERNEATH THE STONE WILL MAKE REMOVAL OF THE STONE EASIER.

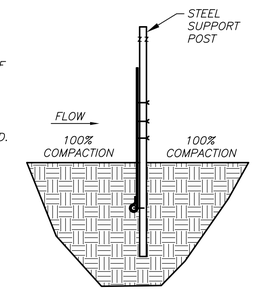
ROCK DITCH CHECK INSTALLATION 4

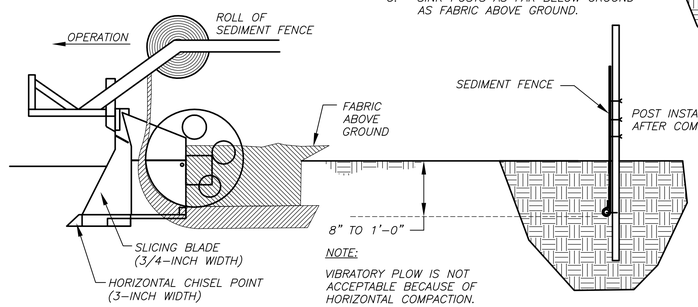
NOT TO SCALE



SEDIMENT FENCE INSTALLATION SLICING METHOD NOTES:

1. LIMIT PONDING HEIGHT TO 24".
2. ATTACH FABRIC TO UPSTREAM SIDE OF POST.
3. DRIVE OVER EACH SIDE OF SEDIMENT FENCE 2 TO 4 TIMES WITH DEVICE EXERTING 60 PSI OR GREATER AFTER MATERIAL IS SLICED INTO THE GROUND.
4. SPACE POSTS A MAX OF 7' ON OPEN RUNS AND 4' ON POOLING AREAS.
5. SINK POSTS AS FAR BELOW GROUND AS FABRIC ABOVE GROUND.





NOTE:

VIBRATORY PLOW IS NOT ACCEPTABLE BECAUSE OF HORIZONTAL COMPACTION.

SEDIMENT FENCE (AKA SILT FENCE) NOTES:

1. SEDIMENT FENCE MAY BE USED IN LIEU OF MULCH BERMS AT CONTRACTOR'S DISCRETION.
2. REFER TO APWA KANSAS CITY METROPOLITAN CHAPTER DETAIL ESC-12 FOR SUPER SEDIMENT FENCE CONSTRUCTION SPECIFICATIONS.
3. THE MAXIMUM SLOPE LENGTH ABOVE THE FENCE SHOULD BE LESS THAN 100 FEET.
4. NO DITCH OR DRAINAGE WAY WITH AN AREA GREATER THAN 5 ACRES SHALL BE ENCLOSED ABOVE A SILT FENCE.
5. NO SILT FENCE SHALL BE CONSTRUCTED IN A LIVE STREAM OR DRAINAGE WAY WITH EXPECTED FLOWS GREATER THAN 1 CFS.
6. THE FILTER FABRIC SHALL HAVE A MINIMUM FILTERING EFFICIENCY OF 75%. A MINIMUM TENSILE STRENGTH OF 30 LBS. PER LINEAR INCH AND A FLOW RATE OF 0.3 GALLONS PER SQUARE FOOT PER MINUTE. THE FILTER FABRIC SHALL ALSO HAVE ULTRAVIOLET RAY INHIBITORS TO ASSURE A LIFE USE EXPECTANCY OF 6 MONTHS AT 0 TO 100 DEGREES FAHRENHEIT.
7. THE FILTER FABRIC SHALL BE 36 INCHES OR LESS IN HEIGHT, WITH JOINTS AT EVERY POST AVOIDING OVERLAP IF POSSIBLE (6" MIN. OVERLAP IF NECESSARY) AND POSTS SPACED EVERY 10 FEET WITH WIRE MESH SUPPORT OR 6 FEET WITHOUT SUPPORT, MAKING SURE THAT A MIN. OF 8" OF FABRIC IS BURIED IN THE 4"X4" TRENCH.
8. THE SILT FENCE SHALL BE INSPECTED AFTER EVERY RAINFALL TO DETERMINE IF ANY PART OF THE FENCE NEEDS TO BE REPAIRED OR REPLACED. IF IT IS DETERMINED THAT THE FENCE NEEDS ANY REPAIR OR REPLACEMENT THIS SHALL BE DONE IMMEDIATELY.
9. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH RAINFALL OR BEFORE THEY ACCUMULATE TO 1/2 OF THE FENCE HEIGHT.

SEDIMENT FENCE DETAIL 5

NOT TO SCALE

HDR
3741 NE TROON DR
LEE'S SUMMIT, MO 64064
816.347.1100

MO STATE CERTIFICATE OF AUTHORITY #000856

PROJECT FOR

LANDROCK DEVELOPMENT, LLC

CREEKSIDE AT RAINTREE LOTS 1 THRU 31
LEE'S SUMMIT, MISSOURI

MARK	DATE	DESCRIPTION
B	04/20/2017	CITY RESUBMITTAL
A	03/08/2017	CITY SUBMITTAL

PROJECT NUMBER	10028825-276408
ORIGINAL ISSUE	MARCH 7, 2017

PROJECT MANAGER	SIMON SUN
PROJECT ENGINEER	WILL NEDS, E.I.T.

SHEET NAME

EROSION AND SEDIMENT CONTROL DETAILS

SCALE: NO SCALE

SHEET NUMBER

01C-CR-06

FILE NAME: 01C-CR-06.dwg

PERMIT REVIEW DRAWINGS