NCTCOG Construction Standards Fifth Edition

Division 1000 Drawings

Slides 2 - 3: 1030A, 1030B Interceptor Swale
Slides 4 - 5: 1040A, 1040B Diversion Dike
Slides 6 - 7: 1050A, 1050B Triangular Sediment Filter Dike
Slides 8 - 9: 1080A, 1080B Sand Bag Check Dam
Slide 10: 1090 Stone Outlet, Sediment Trap
Slide 11: 1110 Pipe Slope Drain

*When providing comments on the following drawings, please preface edits with your initials.*
1. All trees, brush, stumps, obstructions and other material shall be removed and disposed of so as not to interfere with the proper functioning of the swale.

2. The swale shall be excavated or shaped to line, grade and cross-section as required to meet criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.

3. All earth removed and not needed in construction shall be disposed of in an approved spoil site so that it will not interfere with the functioning of the swale.

4. Diverted runoff from a disturbed or exposed upland area shall be conveyed to a sediment trapping device.

5. The on-site location may need to be adjusted to meet field conditions in order to utilize the most suitable outlet.

6. For grades less than 2 percent and velocities less than 6 feet per second, the minimum required channel stabilization shall be grass, erosion control mats or mulching. For grades in excess of 2 percent or velocities exceeding 6 feet per second, stabilization is required in the form of turf reinforcement mats (or a layer of crushed stone or rip-rap with appropriate size, gradation, and thickness as specified in the SWPPP).

7. Minimum compaction for the swale shall be 90 percent standard proctor.

8. Inspection shall be as specified in the SWPPP.
RUNOFF FLOW

POSITIVE DRAINAGE

CROSS-SECTION

PLAN VIEW

DIKE TO BE PLACED IN 8" LIFTS, COMPACTED TO 95% STD. PROCTOR DENSITY

3:1 SLOPE OR FLATTER

18" MIN.

8" MIN.

24" MIN.

FLOW

EXISTING GROUND

TURF REINFORCEMENT MAT OR A LAYER OF CRUSHED STONE OR RIPRAP IS REQUIRED WHEN VELOCITIES EXCEED 6 FPS OR SLOPE EXCEEDS 2%

CROSS SECTION

DIVERSION DIKE

STANDARD SPECIFICATION REFERENCE

202.7 *

DATE

OCT. '04

STANDARD DRAWING NO.

1040A
DIVERSION DIKE GENERAL NOTES:

1. ALL DIKES SHALL BE PLACED IN 8" LIFTS OR LESS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.

2. ALL DIVERSION DIKES SHALL HAVE POSITIVE DRAINAGE TO A CONTROLLED OUTLET.

3. DIVERTED RUNOFF FROM A PROTECTED OR STABILIZED AREA SHALL HAVE ITS OUTLET FLOW DIRECTED TO AN UNDISTURBED STABILIZED AREA OR INTO A LEVEL SPREADER OR GRADE STABILIZATION STRUCTURE.

4. DIVERTED RUNOFF FROM A DISTURBED OR EXPOSED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.

5. FOR GRADES LESS THAN 2 PERCENT AND VELOCITIES LESS THAN 6 FEET PER SECOND, THE MINIMUM REQUIRED CHANNEL STABILIZATION SHALL BE GRASS, EROSION CONTROL MATS OR MULCHING. FOR GRADES IN EXCESS OF 2 PERCENT OR VELOCITIES EXCEEDING 6 FEET PER SECOND, STABILIZATION IS REQUIRED IN THE FORM OF TURF REINFORCEMENT MATS (OR A LAYER OF CRUSHED STONE OR RIP-RAP WITH APPROPRIATE SIZE, GRADATION, AND THICKNESS AS SPECIFIED IN THE SWPPP).

6. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP.
CT - Assume this means 3” to 5” depth
1. DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.

2. THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE, AND FABRIC SHALL BE OVERLAPPED A MINIMUM OF 12”.

3. THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF TYPE 'A' RIP RAP, OR TOED-IN 6" WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED TO A DEPTH OF 4 INCHES.

4. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 6-INCH WIRE STAPLES ON 2-FOOT CENTERS ON BOTH EDGES AND SKIRTS.

5. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 6” TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED HOAT RINGS.

6. THE DIKE STRUCTURE SHALL BE 6 GA. 6” X 6” WIRE MESH, 18” ON A SIDE.

7. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.

8. THE FILTER DIKE SHALL BE REMOVED WHEN FINAL STABILIZATION IS ACHIEVED OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED.

9. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES APPROXIMATELY 6-INCHES IN DEPTH. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CT - Should there be a maximum length?
CT - pipe spacing 24” minimum?
Provide edits/additions below:

JCI - Is this detail ever used? I have only used the rock check dams.

MP- We have only used the rock check dams. Easier to remove after construction is complete.
JCI - Is the 4’ min for the filter fabric?

CT - 1’ minimum

JCI - Water surface of top of bank?
CROSS SECTION

NOTE:
DO NOT LOCATE EMERGENCY SPILLWAY ON EARTH BERM

PLAN VIEW

EXCAVATED AREA FOR STORAGE AS NECESSARY, SHAPE MAY VARY

EMERGENCY SPILLWAY

STABILIZATION RIP RAP, MATTINGS OR OTHER ACCEPTABLE MATERIAL

ENERGY DISSIPATION CONCRETE BLOCKS

DEWATERING OUTLET

OUTFALL

EARTH BERM
Next Steps

Determine action items for subcommittee members and NCTCOG staff
Next Meeting – Possible Dates

Next meeting scheduled for **Monday, August 6, 2018**

at 10 a.m. in the Regional Forum Room

**SEPTEMBER 2018**

<table>
<thead>
<tr>
<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OCTOBER 2018**

<table>
<thead>
<tr>
<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>28</td>
<td>29</td>
<td>30</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>