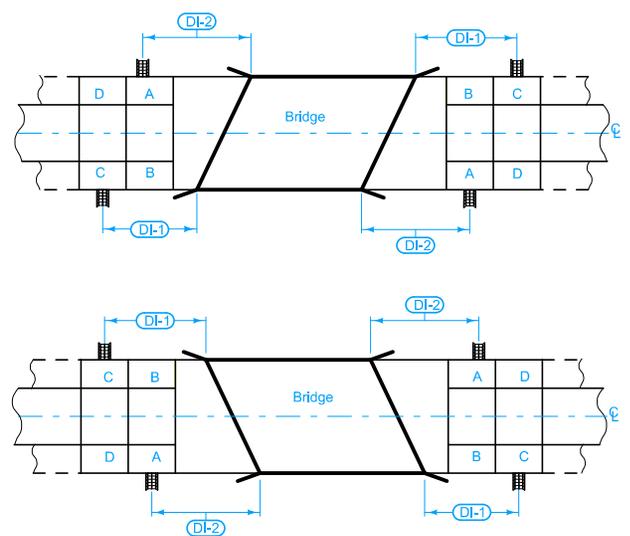


PLAN



PCC SHOULDER PANEL LOCATIONS ②

Price bid for "Bridge End Drain, DR-401" is full compensation for furnishing, installing, and constructing the Bridge End Drain as shown.

- ① Continue 4 inch sloped curb to edge of flume per section B-B. Refer to BR-201, BR-202, BR-203, or BR-204 for details of 4 inch curb.
- ② DI-1 and DI-2 distances measured from center of Bolt Pattern.
- ③ Extend TRM flume 4 feet beyond toe of slope.
- ④ Abut Outlet or Channel Scour Protection panels to the edge of the pavement to prevent from being undercut by water. Cut panels to fit around guardrail posts to ensure pavement edge contract. No deduction will be made for area of Outlet or Channel Scour Protection panel removed for guardrail posts.

Possible Contract Items:  
 Bridge End Drain, DR-401  
 Paved Shoulder, Portland Cement Concrete (Paved Shoulder Panel for Bridge End Drain)

Incidental to Paved Shoulder:  
 Modified Subbase  
 Polymer Grid

Incidental to Bridge End Drain:  
 Transition Mat  
 Seeding and Fertilizing  
 Soil Fill  
 Special Ditch Control (Wood Excelsior Mat)  
 Turf Reinforced Mat, Type 2  
 Watering for Sod, Special Ditch Control, or Slope Protection  
 Mobilization for Watering

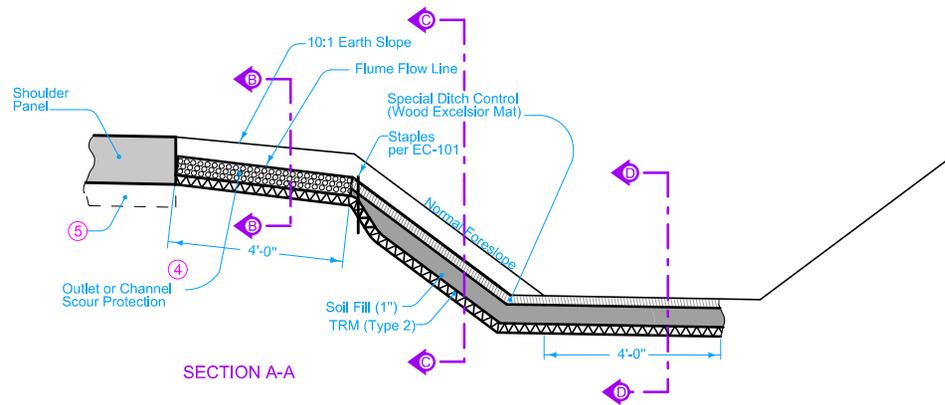
Possible Tabulation:  
 104-8A

<b>IOWA DOT</b>	REVISION	
	1	4-19-16
	<b>DR-401</b>	
STANDARD ROAD PLAN		SHEET 1 of 2

REVISIONS: Modified note 2 to eliminate requirement to place center of flume a minimum of 9 feet from a joint, Changed Section B-B from V shape to flume shape.

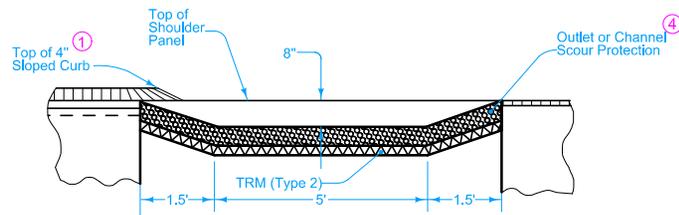
APPROVED BY DESIGN METHODS ENGINEER  
*Brian Smith*

SCOUR PROTECTION  
FOR BRIDGE END DRAIN

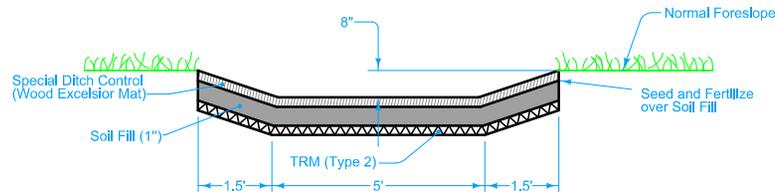


SECTION A-A

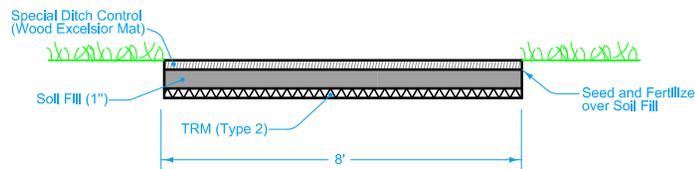
- ① Continue 4 inch sloped curb to edge of flume per section B-B. Refer to BR-201, BR-202, BR-203, or BR-204 for details of 4 inch curb.
- ④ Abut Outlet or Channel Scour Protection panels to the edge of the pavement to prevent from being undercut by water. Cut panels to fit around guardrail posts to ensure pavement edge contact. No deduction will be made for area of Outlet or Channel Scour Protection panel removed for guardrail posts.
- ⑤ Install modified subbase and polymer grid under PCC shoulder panels as shown in Section A-A on BR-201, BR-202, BR-203, or BR-204.
- ⑥ Transition the flume flow line depth from 3 inches at the downstream edge of Outlet or Channel Scour Protection to 8 inches with an approximate transition rate of 1 inch vertical per 1 foot horizontal.
- ⑦ Transition the flume flow line depth from 8 inches at the toe of slope to 0 inches with an approximate transition rate of 2 inches vertical per 1 foot horizontal.



SECTION B-B



SECTION C-C



SECTION D-D

<b>IOWA DOT</b>	REVISION	
	1	4-19-16
<b>STANDARD ROAD PLAN</b>		<b>DR-401</b>
		SHEET 2 of 2
<small>REVISIONS: Modified note 2 to eliminate requirement to place center of flume a minimum of 9 feet from a joint. Changed Section B-B from V shape to flume shape.</small>		
<i>Brian Smith</i> <small>APPROVED BY DESIGN METHODS ENGINEER</small>		
<b>SCOUR PROTECTION FOR BRIDGE END DRAIN</b>		