

# ORIGINATION FORM

Proposed Revisions to a Standard Plans Index  
(Please provide all information – Incomplete forms will be returned)

## Contact Information:


Date: May 20, 2019  
Originator: **Derwood Sheppard**  
Phone: (850) 414-4334  
Email: derwood.sheppard@dot.state.fl.us

## Standard Plans:

Index Number: **524-001**  
Sheet Number (s): 1 and 2  
Index Title: Ditch Pavement and Sodding

## Summary of the changes:

Sheet 1: Clarified Note 7, filter fabric requirements. Deleted asterisk and notes in Table 1.

Sheet 2: Deleted the SOD PLACEMENT AT PIPE/CULVERT END TREATMENTS details and table and ADDED to Index 570-001 - Sheet 3. 

## Commentary / Background:

Adds uniformity to Endwall Indexes, and aligns Sodding with Standard Specification 570 for Performance Turf.

Other Index Affected: 524-001, 430-010, and Others.

## Other Affected Offices / Documents: (Provide name of responsible personnel)

- | Yes                                 | No                       |                                     |
|-------------------------------------|--------------------------|-------------------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Other Standard Plans – Rick Jenkins |
| <input type="checkbox"/>            | <input type="checkbox"/> | FDOT Design Manual –                |
| <input type="checkbox"/>            | <input type="checkbox"/> | Basis of Estimates Manual –         |
| <input type="checkbox"/>            | <input type="checkbox"/> | Standard Specifications –           |
| <input type="checkbox"/>            | <input type="checkbox"/> | Approved Product List –             |
| <input type="checkbox"/>            | <input type="checkbox"/> | Construction –                      |
| <input type="checkbox"/>            | <input type="checkbox"/> | Maintenance –                       |

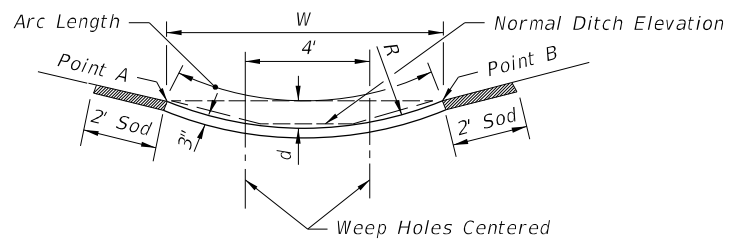
## Origination Package Includes: (Email or hand deliver package to Derwood Sheppard)

- | Yes                                 | N/A                      |   |
|-------------------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Redline Mark-ups                          |
| <input type="checkbox"/>            | <input type="checkbox"/> | Proposed Standard Plan Instructions (SPI) |
| <input type="checkbox"/>            | <input type="checkbox"/> | Revised SPI                               |
| <input type="checkbox"/>            | <input type="checkbox"/> | Other Support Documents                   |

## Implementation:

- Design Bulletin (Interim)    DCE Memo    Program Mgmt. Bulletin    FY-Standard Plans (Next Release)

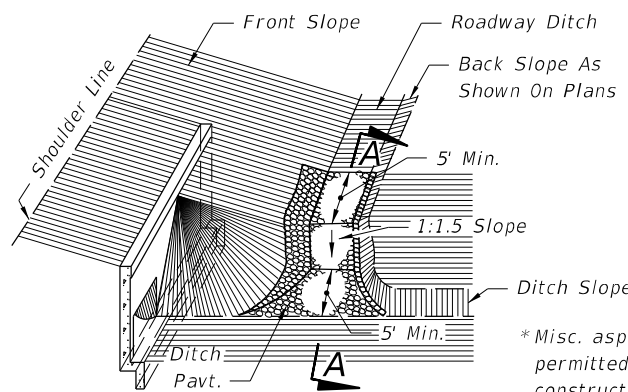
————— **Contact the Roadway Design Office for assistance in completing this form** —————



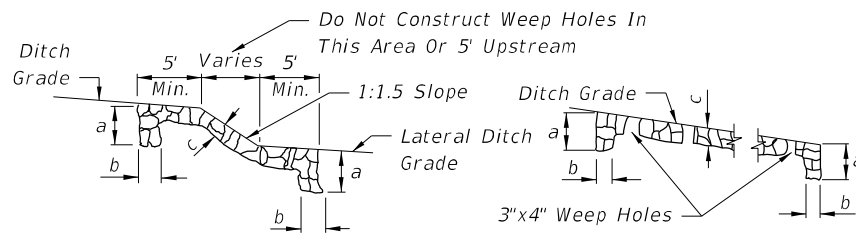
TO REPLACE:	W	d	R	Rows Of Weep Holes	Arc Length
6' Median Swale	6'	0.24'	19'	0	6.0'
<b>1:6 Front Slopes; 1:4 Back Slope</b>					
5' Ditch Bottom Width	10'	0.67'	19'	2	10.1'
4' Ditch Bottom Width	9'	0.54'	19'	2	9.1'
<b>1:4 Front Slopes &amp; Back Slope</b>					
5' Ditch Bottom Width	9'	0.74'	14'	2	9.2'
4' Ditch Bottom Width	8'	0.58'	14'	1 (in center)	8.1'

For use only where side slopes are 1:4 or flatter. Point "A" and "B" are to be the same elevation and should be used to locate the paved section.

**ALTERNATE DITCH PAVEMENT**



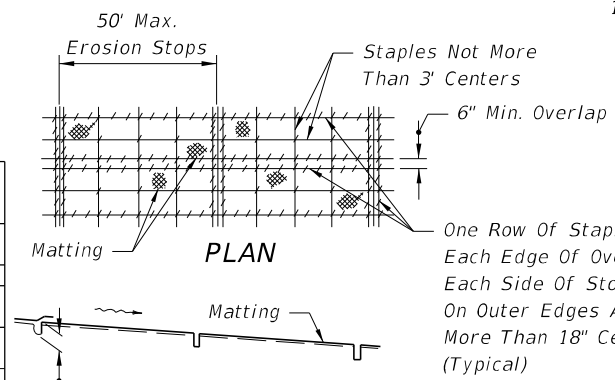
**JUNCTION OF ROADWAY DITCH\* AND LATERAL DITCH**



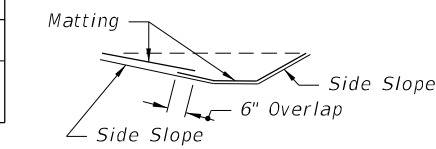
**SECTION AA**

**PROFILE OF DITCH PAVEMENT AT LOCATIONS OTHER THAN JUNCTION WITH LATERAL DITCH**

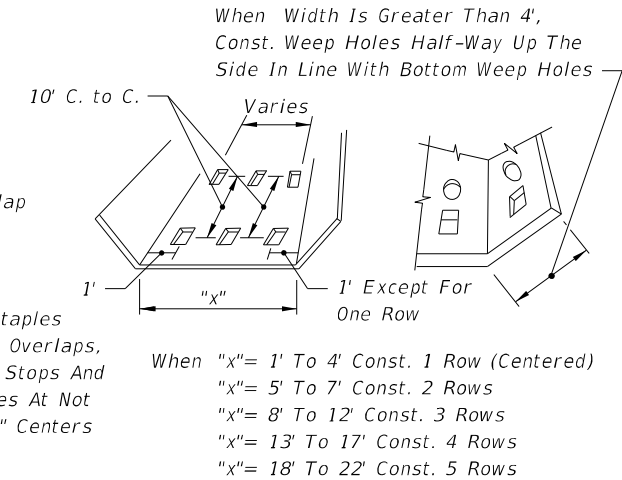
Pavement Type	Dimensions			Payment Unit	Basis Of Estimate	Filter Fabric Type	Velocity Range	References & Remarks
	a	b	c					
Concrete	24"	6"	3"	SY	SY	D-4	Low-High	Specification 524
Miscellaneous Asphalt	24"	12"	4"	TN	0.2 TN/SY	None	Low-Moderate	Specification 339
Riprap (Sand-Cement)	24"	12"	4"	CY	0.11 CY/SY	D-4	Low-Moderate	Specification 530, Grouting of joints required
Riprap (Ditch Lining)				TN	TN	D-2	Moderate-High	Specification 530



**LONGITUDINAL SECTION**

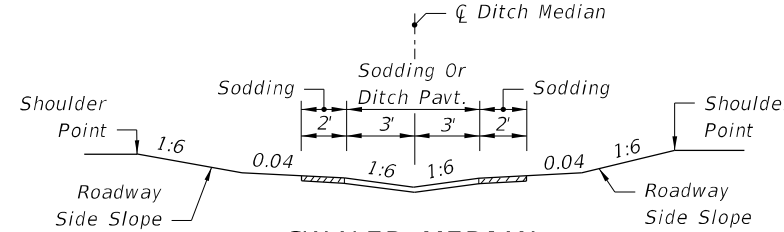


**SECTION MATTING FOR DITCH**

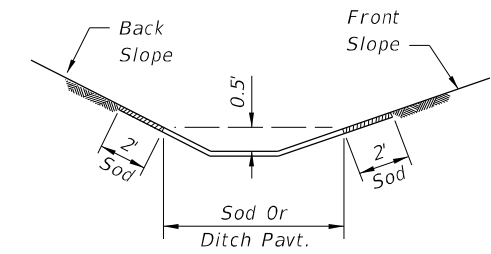


**WEEP HOLE ARRANGEMENT**

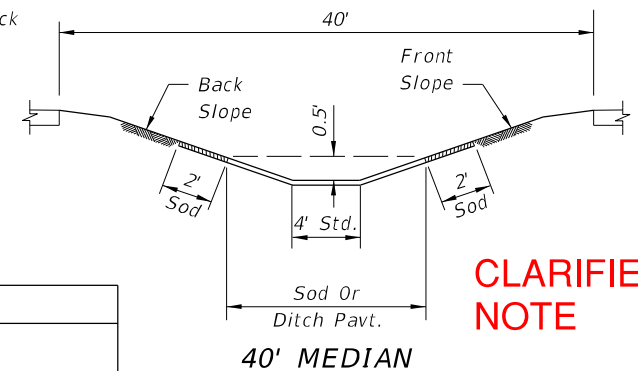
Note: All weep holes to be 3"x4" rectangle or 4" or 5" dia. circle hole. 1/2 cu. ft. (12" x 12" x 6") of No. 6 aggregate to be placed under each hole. 1 sq. ft. of galv. wire mesh (1/4" openings) shall be placed between the aggregate and the ditch pavement. Cost of holes, aggregate and wire mesh to be included in the cost of ditch pavement.



**SWALED MEDIAN (No Weep Holes)**

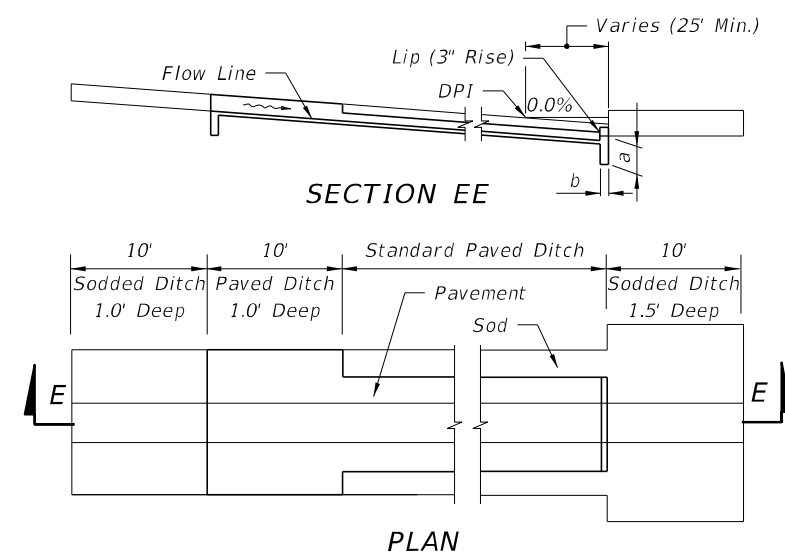


**ROADWAY SIDE DITCH**



**40' MEDIAN**

**CLARIFIED NOTE**



**PAVED DITCH END TREATMENT**

**GENERAL NOTES**

- Type of ditch pavement shall be as shown on plans.
- In concrete ditch pavement, contraction joints are to be spaced at 25' maximum intervals, or as directed by the Engineer. Contraction joints may be either formed (construction joint) or tooled. No open joints will be permitted in concrete ditch pavement.  
  
Expansion joints with 1/2" preformed joint filler shall be constructed at all inlets, endwalls, and at intervals of not more than 200'.
- Lip at end of ditch pavement shall normally be located downstream of DPI or on flatter grades where there is a decrease in ditch velocity.
- Toewalls are to be used with all ditch paving. A toewall is not required adjacent to drainage structures.
- When directed by the Engineer, weep hole spacing may be reduced to 5' minimum.
- For junction of R/W ditch spillway and lateral ditch, sides of paving to be 1' high minimum.
- For ditch pavements requiring filter fabric (See Table 1) place the filter fabric directly beneath the pavement for the entire length and width of the pavement. See Specification 985 for fabric requirements and application.
- When weep holes with aggregate are used, place filter fabric below the aggregate to form a mat continuous with the pavement filter fabric or underlapping the pavement filter fabric, if present.
- Ditch pavement requiring reinforcement shall be detailed in the plans.
- Cost of plastic filter fabric to be included in the contract unit price for ditch pavement.
- Sodding to be paid for under contract unit price for Performance Turf, SY

9/18/2018 3:21:05 PM

LAST REVISION	DESCRIPTION:
11/01/17	
11/01/19	

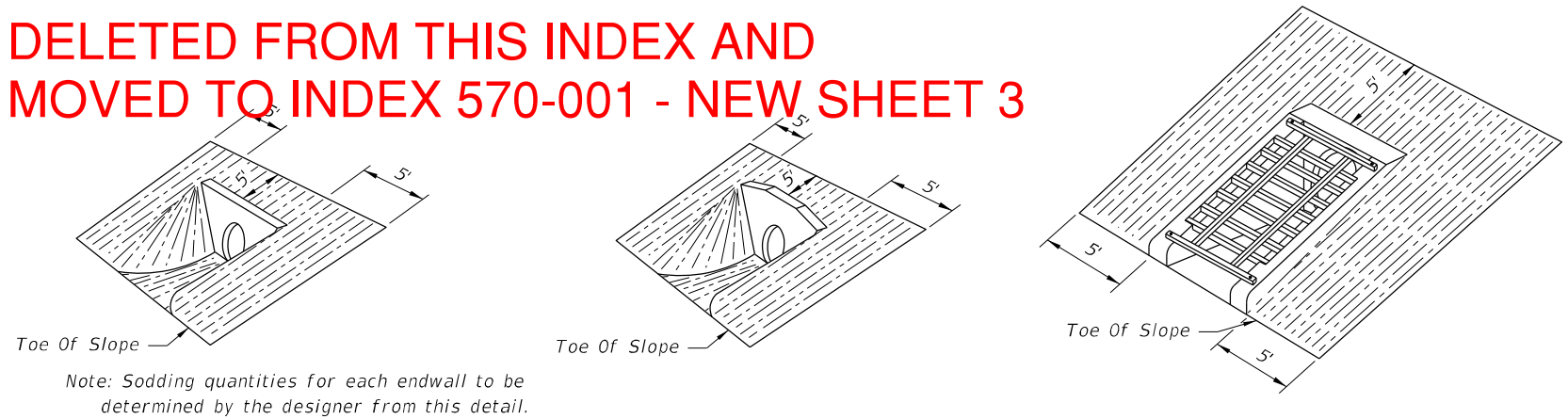
FDOT

FY 2019-20  
STANDARD PLANS

**DITCH PAVEMENT AND SODDING**

INDEX SHEET  
524-001 1 of 2

**DELETED FROM THIS INDEX AND  
MOVED TO INDEX 570-001 - NEW SHEET 3**

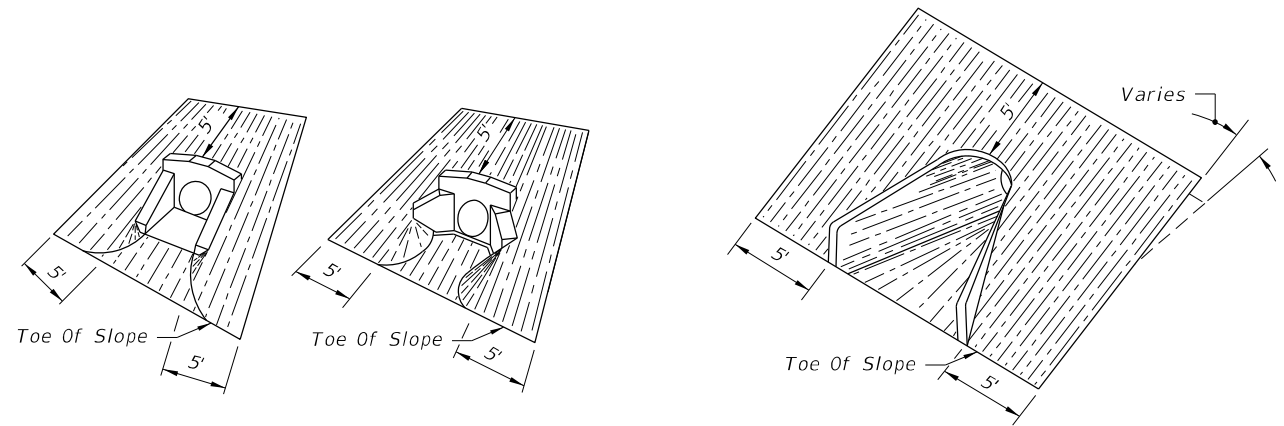


Note: Sodding quantities for each endwall to be determined by the designer from this detail.

(EXCEPT INDEX 430-030)  
STRAIGHT ENDWALL

STRAIGHT ENDWALL  
INDEX 430-030

U-TYPE ENDWALL  
INDEX 430-011



U-TYPE WINGS      45° WINGS  
WINGED ENDWALLS  
INDEX 430-040

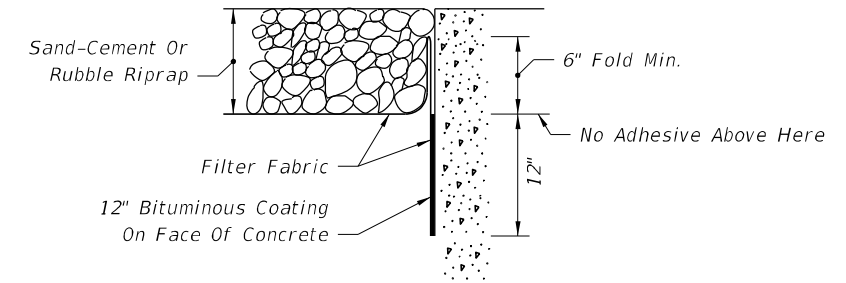
FLARED END SECTION  
INDEX 430-020

TABLE 2: SOD QUANTITIES (SY)

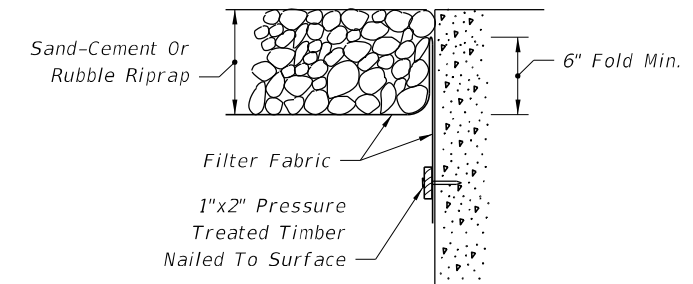
PIPE SIZE	INDEX 430-030				INDEX 430-011				INDEX 430-040				INDEX 430-020								
	SLOPE				SLOPE				SLOPE				ALL SLOPES								
	1:2	1:3	1:4	1:6	1:2	1:3	1:4	1:6	1:2	1:3	1:4	1:6									
	PIPES				PIPES				PIPES				PIPES								
	1	2	3	1	2	3	1	2	3	1	2	3	1	1	1	1	1	1	1		
12"																				10	
15"	19	21	24	22	26	29	26	30	33	34	38	43	13 (15)	16	17	23	15	17	20	25	11
18"	21	24	27	25	29	33	30	34	38	39	44	50	14 (16)	17	19	25	16	18	22	28	11
21"																					12
24"	26	30	34	32	37	42	38	44	50	50	58	66	15 (17)	19	21	28	19	22	26	34	14
27"																					15
30"	31	37	42	39	46	53	46	55	63	62	74	85	17 (18)	21	24	32	21	25	30	40	16
36"	37	44	52	46	56	65	56	67	79	76	91	107					24	29	35	47	18
42"	43	53	62	55	67	79	67	82	96	91	111	132					27	32	39	54	19
48"	50	62	73	64	79	93	78	97	115	108	133	158					30	36	44	61	21
54"	57	71	85	74	92	110	91	113	136	126	157	188									21
60"																					22
66"																					25
72"																					26

( ) Endwall With Baffles

SOD PLACEMENT AT PIPE/CULVERT END TREATMENTS



BONDED OPTION



NAILED OPTION

Note: Either option may be used unless otherwise called for in the plans.

FILTER FABRIC PLACEMENT AT CONCRETE STRUCTURE

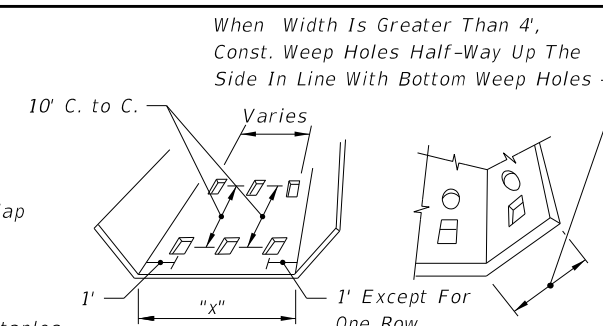
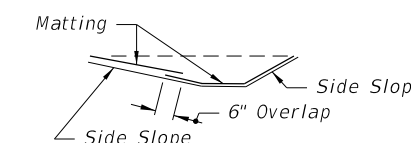
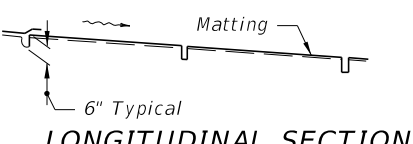
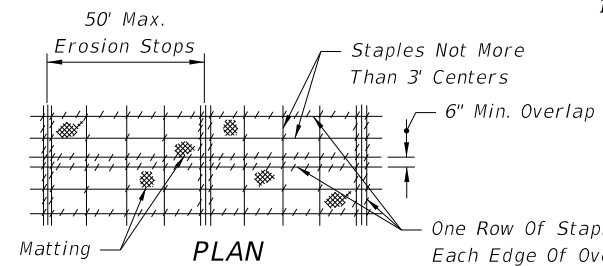
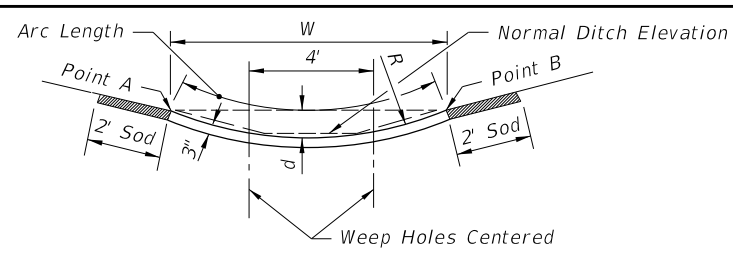
LAST REVISION  
11/01/17

DESCRIPTION:  
11/01/19

FDOT  
FY 2019-20  
STANDARD PLANS

DITCH PAVEMENT AND SODDING

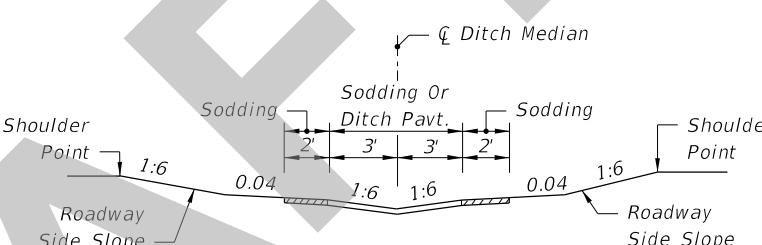
INDEX SHEET  
524-001 2 of 2



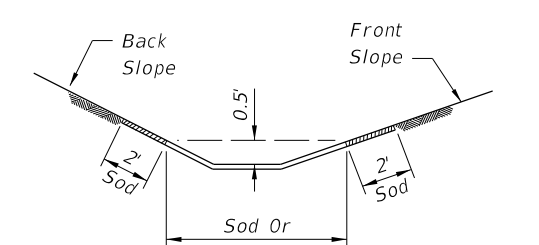
When "x" = 1' To 4' Const. 1 Row (Centered)  
 "x" = 5' To 7' Const. 2 Rows  
 "x" = 8' To 12' Const. 3 Rows  
 "x" = 13' To 17' Const. 4 Rows  
 "x" = 18' To 22' Const. 5 Rows

Note: All weep holes to be 3"x4" rectangle or 4" or 5" dia. circle hole. 1/2 cu. ft. (12" x 12" x 6") of No. 6 aggregate to be placed under each hole. 1 sq. ft. of galv. wire mesh (1/4" openings) shall be placed between the aggregate and the ditch pavement. Cost of holes, aggregate and wire mesh to be included in the cost of ditch pavement.

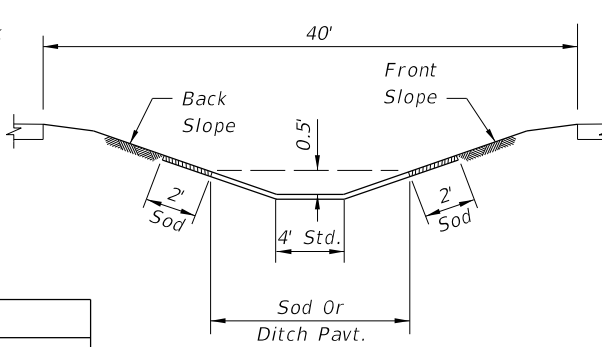
**WEEP HOLE ARRANGEMENT**



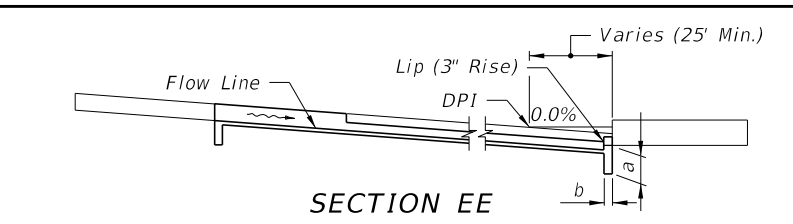
**SWALED MEDIAN (No Weep Holes)**



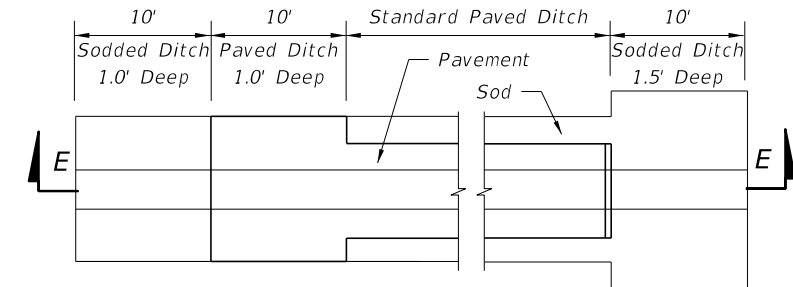
**ROADWAY SIDE DITCH**



**40' MEDIAN**



**SECTION EE**



**PLAN**

**PAVED DITCH END TREATMENT**

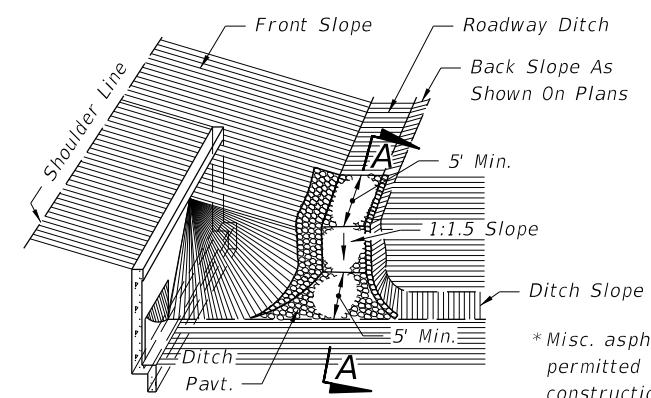
**GENERAL NOTES**

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3. Lip at end of ditch pavement shall normally be located downstream of DPI or on flatter grades where there is a decrease in ditch velocity.
4. Toewalls are to be used with all ditch paving. A toewall is not required adjacent to drainage structures.
5. When directed by the Engineer, weep hole spacing may be reduced to 5' minimum.
6. For junction of R/W ditch spillway and lateral ditch, sides of paving to be 1' high minimum.
7. Filter fabric is required under all ditch pavement, except for miscellaneous asphalt, regardless of the pavement thickness. Place the filter fabric directly beneath the pavement for the entire length and width of the pavement. See Specification 985 for fabric requirements and application.
8. When weep holes with aggregate are used, place filter fabric below the aggregate to form a mat continuous with the pavement filter fabric or underlapping the pavement filter fabric, if present.
9. Ditch pavement requiring reinforcement shall be detailed in the plans.
10. Cost of plastic filter fabric to be included in the contract unit price for ditch pavement.
11. Sodding to be paid for under contract unit price for Performance Turf, SY

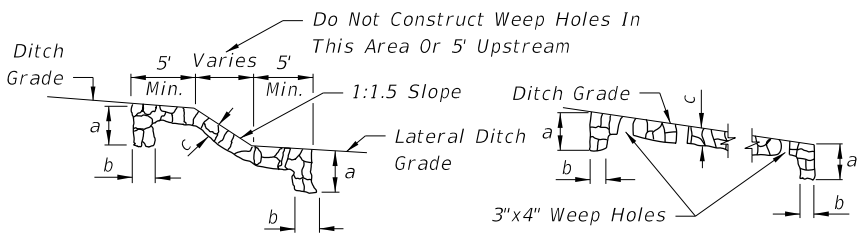
TO REPLACE:	W	d	R	Rows Of Weep Holes	Arc Length
6' Median Swale	6'	0.24'	19'	0	6.0'
<b>1:6 Front Slopes; 1:4 Back Slope</b>					
5' Ditch Bottom Width	10'	0.67'	19'	2	10.1'
4' Ditch Bottom Width	9'	0.54'	19'	2	9.1'
<b>1:4 Front Slopes &amp; Back Slope</b>					
5' Ditch Bottom Width	9'	0.74'	14'	2	9.2'
4' Ditch Bottom Width	8'	0.58'	14'	1 (in center)	8.1'

For use only where side slopes are 1:4 or flatter. Point "A" and "B" are to be the same elevation and should be used to locate the paved section.

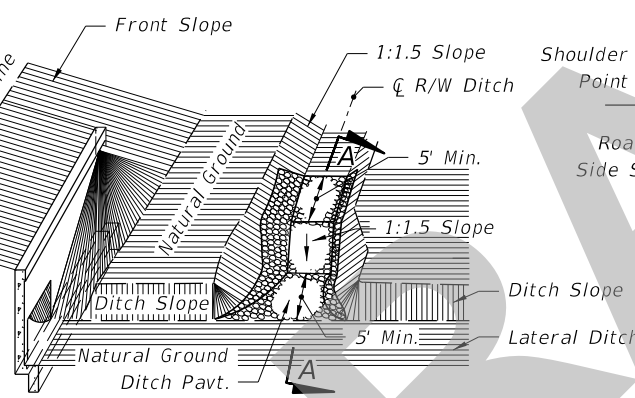
**ALTERNATE DITCH PAVEMENT**



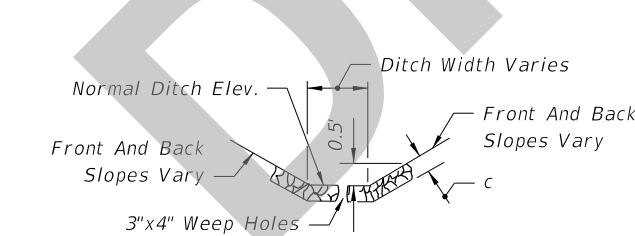
**JUNCTION OF ROADWAY DITCH\* AND LATERAL DITCH**



**SECTION AA PROFILE OF DITCH PAVEMENT AT LOCATIONS OTHER THAN JUNCTION WITH LATERAL DITCH**



**JUNCTION OF R/W DITCH\* AND LATERAL DITCH**



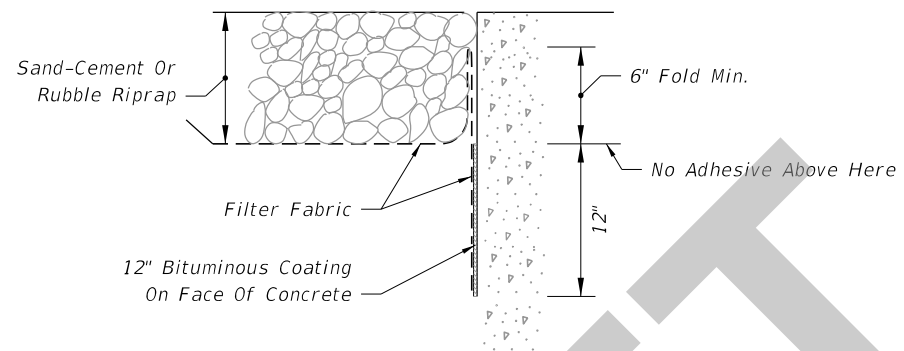
**TYPICAL SECTION**

**TABLE 1: DITCH PAVEMENT**

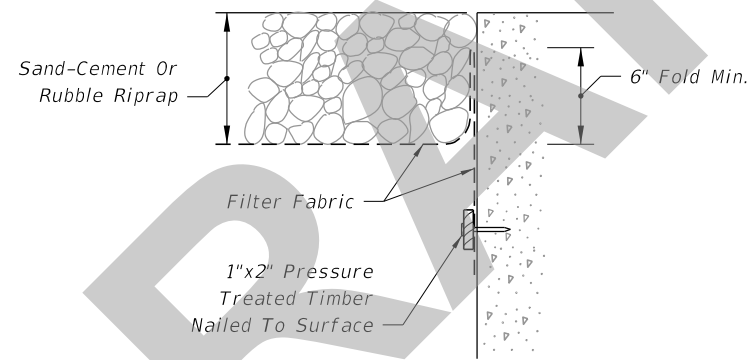
Pavement Type	Dimensions			Payment Unit	Basis Of Estimate	Filter Fabric Type	Velocity Range	References & Remarks
	a	b	c					
Concrete	24"	6"	Varies	SY	SY	D-4	Low-High	Specification 524
Miscellaneous Asphalt	24"	12"	4"	TN	0.2 TN/SY	None	Low-Moderate	Specification 339
Riprap (Sand-Cement)	24"	12"	4"	CY	0.11 CY/SY	D-4	Low-Moderate	Specification 530, Grouting of joints required
Riprap (Ditch Lining)				TN	TN	D-2	Moderate-High	Specification 530

8/27/2019 6:33:20 AM

LAST REVISION 11/01/19	DESCRIPTION:
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**BONDED OPTION**




**NAILED OPTION**

Note: Either option may be used unless otherwise called for in the plans.

**FILTER FABRIC PLACEMENT AT CONCRETE STRUCTURE**

8/27/2019 6:33:21 AM

LAST REVISION 11/01/19	REVISION DESCRIPTION:	 FY 2020-21 STANDARD PLANS	DITCH PAVEMENT AND SODDING	INDEX 524-001	SHEET 2 of 2
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