

BILL OF REINFORCING STEEL							
MARK	SIZE	NO. REQD.	LENGTH	LOCATION	BENDING		
Α	5	68	4'-11"	Footing	Straight		
В	4	17	35'-8"	Footing & Wall	Straight		
С	5	34	10'-5"	Wall	Bend		
D	4	20	8'-7"	Wall	Straight		
Ε	4	4	2'-6"	Wall	Straight		
F	4	4	1'-6"	Wall	Straight		
BENDING DIAGRAM							
10"							



NOTE: All bar dimensions are out to out

## ESTIMATED QUANTITIES ITEM UNIT CMP14.4 Class II Concrete 14.5 Cu. Yd. Reinforcing Steel Lb. 1249 1249

Bars B @ 18" Const. TYPICAL SECTION THRU ENDWALL

	18'-0"	18'-0"	
Bars B	Symmetrical About ©	A	- Bars B
	Field Bend  Bars C @ 10" Centers  Field Bend  Bars Bars	Bars D @ 18" Centers —	-
		NOTE: Cut and Field Bend Bars B As Shown	
	HALF ELEVATION	A HALF ELEVATION	

## GENERAL NOTES

(Showing Bars In Front Face Of Wall)

- 1. Straight concrete endwalls are intended for use outside the clear zone.
- 2. Endwalls may be cast-in-place or precast construction. Cast-in-place endwalls shall conform to the details on this Index. Precast construction which adheres to this Index, including any additional reinforcement required for handling which shall be determined by the Contractor or supplier, does not require additional approvals. Deviations from this Index, for precast units, shall require the approval of the State Drainage Engineer prior to construction. For precast construction, see Index No. 201 for opening and grouting details.
- 3. Reinforcing steel shall be either Grade 40 or 60.

(Showing Bars In Back Face Of Wall)

4. Concrete shall be Class II, except ASTM C478 (4000 psi) concrete may be substituted for precast items manufactured in plants meeting the requirements of Section 449 of the Specifications.

- 5. Chamfer: All exposed edges and corners to be chamfered  $rac{3}{4}$ " unless otherwise shown.
- 6. That portion of corrugated Metal pipe in direct contact with the concrete slab and extending 12" beyond shall have a continuous bituminous coating of 0.004" minimum thickness coated applied prior to placing of the concrete.
- 7. Sodding shall be in accordance with Index No. 281 and paid for under the contract unit price for Performance Turf, SY.
- 8. Basis of payment for either cast-in-place or precast construction shall be the estimated quantities tabulated on the Index. Concrete and reinforcing steel shall be paid for under the contract unit prices for Class II Concrete (Endwalls), CY and Reinforcing Steel (Roadway), LB.

**REVISION** 07/01/15

(Class B\_Wall) -

В

В

SECTION AA

OPTIONAL ENTRANCE

FOR CONCRETE PIPE

DESCRIPTION:

Option Below)

- Bars A



FY 2016-17 DESIGN STANDARDS

SINGLE AND DOUBLE 72" PIPE

INDEX NO. 253

SHEET NO. 1 of 2

