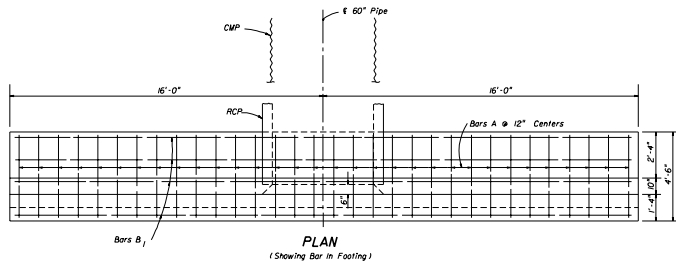
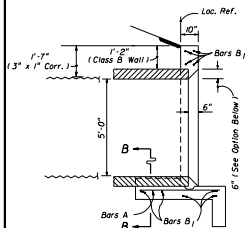


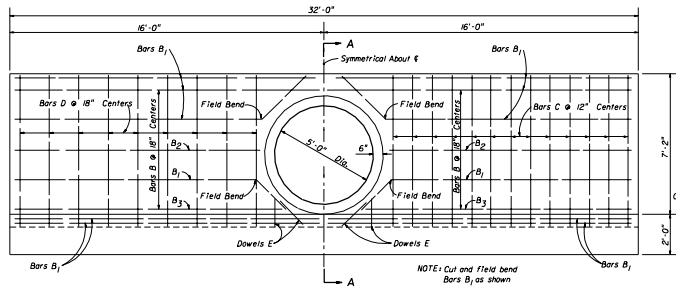
SECTION BB



PLAN
(Showing Bar in Footing)



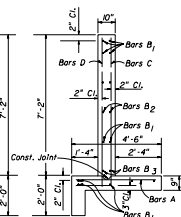
SECTION AA



HALF ELEVATION
(Showing Bars in Front Face of Wall)

HALF ELEVATION
(Showing Bars in Back Face of Wall)

NOTE: Cut and field bend bars B₁ as shown



TYPICAL SECTION THRU ENDWALL

| BILL OF REINFORCING STEEL | | | | | |
|---------------------------|------|-----------|--------|------------------|----------|
| MARK | SIZE | NO. REQ'D | LENGTH | LOCATION | BENDING |
| A | #4 | 32 | 4'-2" | Footing | Straight |
| B ₁ | #4 | 13 | 3'-8" | Footing And Wall | Straight |
| B ₂ | #4 | 4 | 12'-4" | Wall | Straight |
| B ₃ | #4 | 4 | 13'-9" | Wall | Straight |
| C | #4 | 26 | 9'-4" | Wall | Bend |
| D | #4 | 18 | 7'-6" | Wall | Straight |
| E | #4 | 8 | 1'-8" | Footing And Wall | Straight |

| BENDING DIAGRAM | | | | | |
|---|------|------|------|--|--|
| | | | | | |
| NOTE: All bar dimensions are out to out | | | | | |
| ESTIMATED QUANTITIES | | | | | |
| ITEM | UNIT | RCP | CMP | | |
| Concrete Class II | | 11.3 | 11.4 | | |
| Reinforcing Steel | Lb. | 695 | 695 | | |

GENERAL NOTES

- Straight concrete endwalls are intended for use outside the clear zone.
- Endwalls may be cast-in-place or precast construction. Cast-in-place endwalls shall conform to the details on this index, design specifications AASHTO 1989. 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.
- Reinforcing steel shall be either Grade 40 or 60.
- Concrete shall be Class II except concrete meeting the requirements of ASTM C 49 (4000 PSI) may be used in lieu of Class II concrete in precast units manufactured in plants which are under the Standard Operating Procedures for the inspection of precast drainage products.
- Chamfer: All exposed edges and corners to be chamfered $\frac{3}{8}$ " unless otherwise shown.
- Metal pipe shall be bituminous coated on all surfaces in contact with concrete and 12" beyond the boundary of contact. Any suitable bituminous material may be field applied.
- Sodding shall be in accordance with index No. 281 and paid for under the contract unit price for Sodding, SF.
- 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 Concrete, Class II (Endwalls), CT and Reinforcing Steel (Roadway), LB.

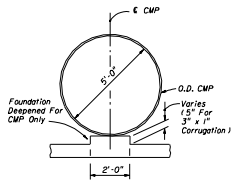
OPTIONAL ENTRANCE FOR CONCRETE PIPE

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

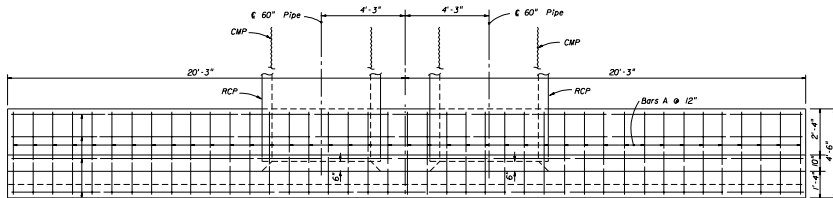
STRAIGHT CONCRETE ENDWALLS
SINGLE AND DOUBLE 60" PIPE

| DESIGNED BY | NAME | DATE | APPROVED BY | DATE |
|-------------|------|-------|-------------|-------|
| DESIGNED BY | TRU | 11/89 | APPROVED BY | 11/89 |
| CHECKED BY | TRU | 11/89 | DATE | 11/89 |

1 of 2 251

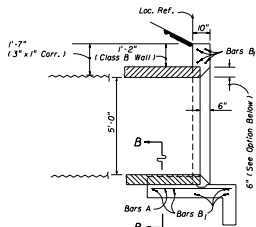


SECTION BB

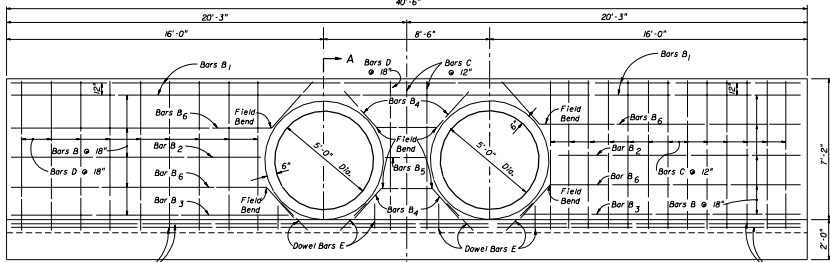


PLAN

(Showing Bar in Footing)



SECTION AA

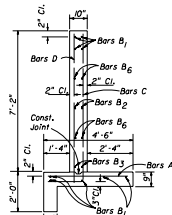


HALF ELEVATION

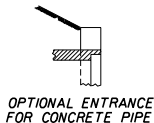
(Showing Bars in Front Face Of Wall)

HALF ELEVATION

(Showing Bars in Back Face Of Wall)



TYPICAL SECTION THRU ENDWALL



OPTIONAL ENTRANCE FOR CONCRETE PIPE

| BILL OF REINFORCING STEEL | | | | | | BENDING DIAGRAM | | | |
|---------------------------|------|-----------|--------|----------------|------------|---|---------|------|------|
| MARK | SIZE | NO. REQ'D | LENGTH | LOCATION | BENDING | 7'-6" | | | |
| A | #4 | 4 | 4'-2" | Footing | Straight | BAR C | | | |
| B1 | #4 | 9 | 40'-2" | Footing & Wall | Straight | NOTE: All bar dimensions are out to out | | | |
| B2 | #4 | 4 | 12'-6" | Wall | Straight | ESTIMATED QUANTITIES | | | |
| B3 | #4 | 4 | 13'-9" | Wall | Straight | ITEM | UNIT | RCP | CMP |
| B4 | #4 | 4 | 6'-0" | Wall | Field Bend | Concrete Class II | Cu. Yd. | 13.7 | 13.8 |
| B5 | #4 | 2 | 2'-2" | Wall | Straight | Reinforcing Steel | Lb. | 824 | 824 |
| B6 | #4 | 8 | 15'-0" | Wall | Field Bend | | | | |
| C | #4 | 29 | 9'-4" | Footing & Wall | Bend | | | | |
| D | #4 | 20 | 7'-6" | Footing & Wall | Straight | | | | |
| E | #4 | 16 | 7'-8" | Footing & Wall | Straight | | | | |

NOTE: See Sheet 1 of 2 For General Notes.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN
STRAIGHT CONCRETE ENDWALLS
SINGLE AND DOUBLE 60" PIPE

| | | | | |
|-------------|----------|------------|-------|----------------------|
| Designed By | Drawn By | Checked By | Date | Approved By |
| | | | | <i>A. M. McManus</i> |
| Drawn By | TRJ | TRJ | 10/10 | 13.8 |
| Checked By | WV | WV | 00 | 2 of 2 |