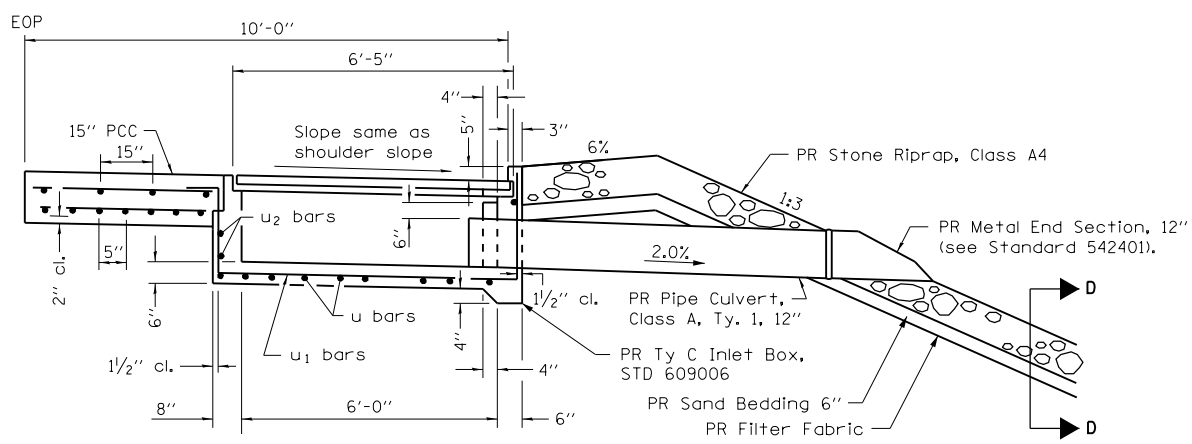
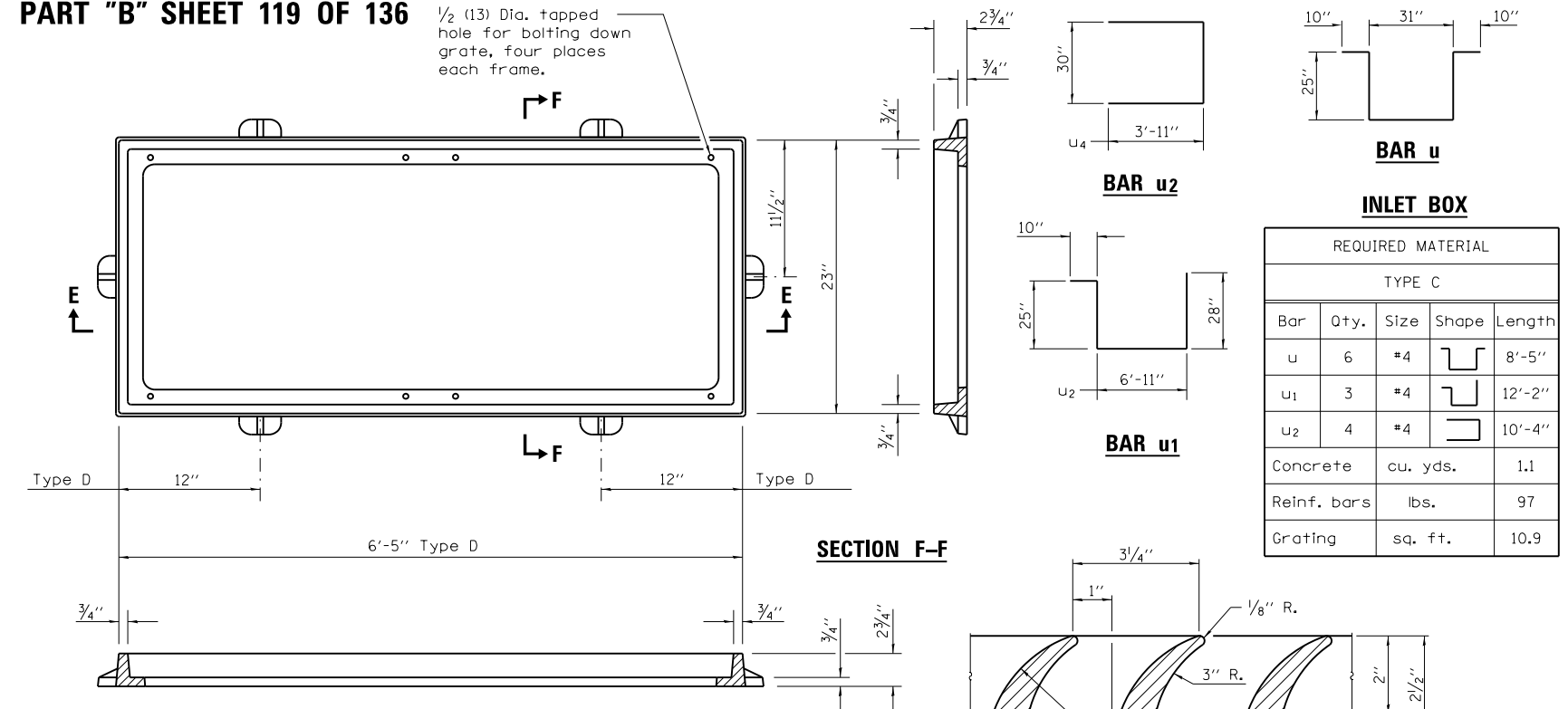


1/2 (13) Dia. tapped hole for bolting down grate, four places each frame.



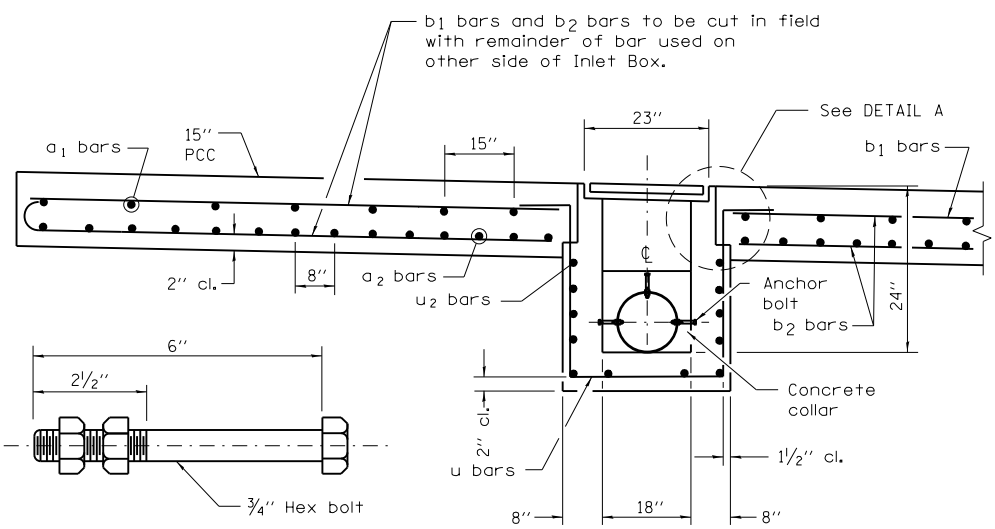
SECTION B-B



SECTION F-F  
DETAIL OF CAST FRAME

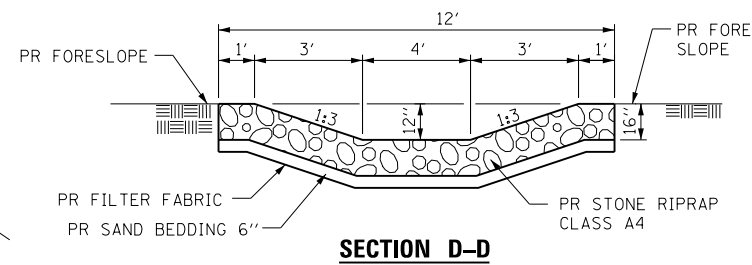
**REQUIRED MATERIAL**

| TYPE C         |          |      |       |        |
|----------------|----------|------|-------|--------|
| Bar            | Qty.     | Size | Shape | Length |
| u              | 6        | #4   | U     | 8'-5"  |
| u <sub>1</sub> | 3        | #4   | U     | 12'-2" |
| u <sub>2</sub> | 4        | #4   | U     | 10'-4" |
| Concrete       | cu. yds. |      |       | 1.1    |
| Reinf. bars    | lbs.     |      |       | 97     |
| Grating        | sq. ft.  |      |       | 10.9   |

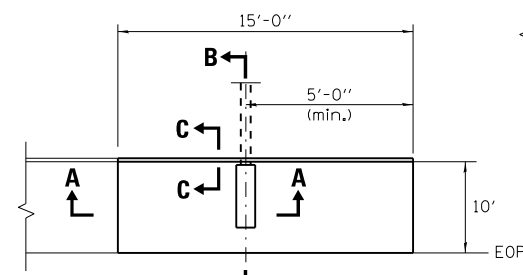


SECTION A-A

**ANCHOR BOLT**  
(Used to tie pipe to concrete collar)

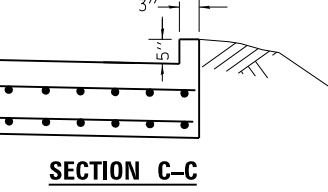


SECTION D-D

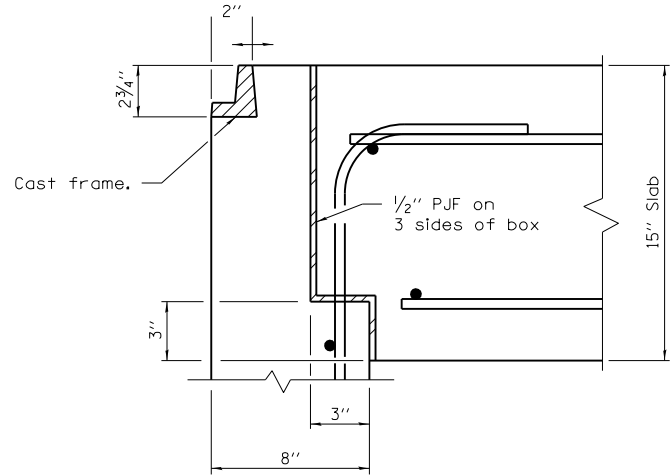


TYPICAL DETAIL PLAN  
APPROACH SHOULDER &  
DRAIN DETAIL

STA. 1946+81.24 LT  
STA. 1946+81.24 RT  
STA. 1946+81.24 LT  
STA. 1946+81.24 RT



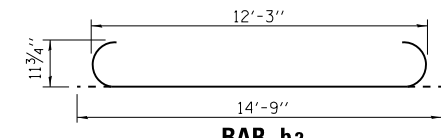
BOX OUTLET  
WHEN PRECAST



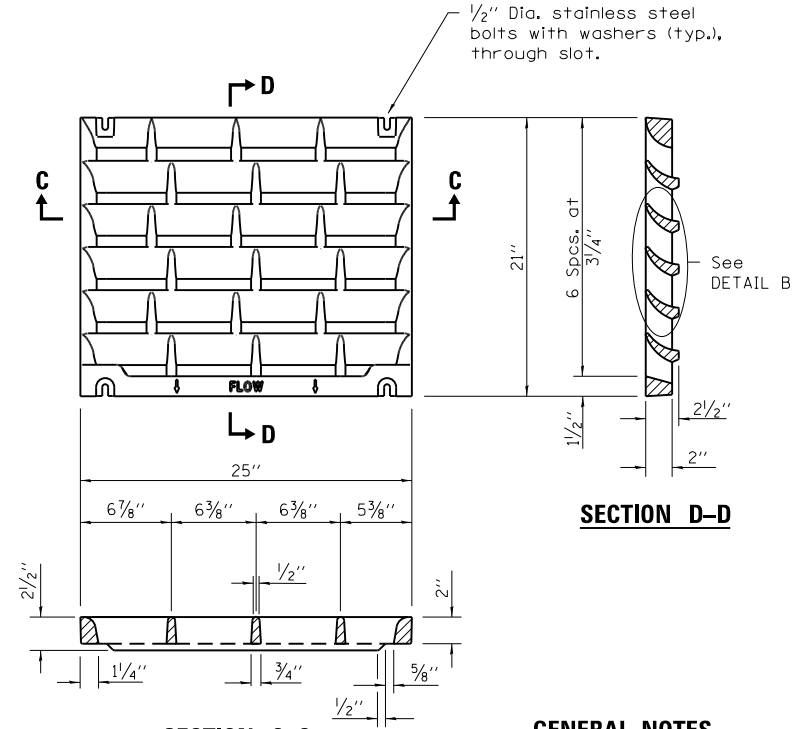
DETAIL A

**REQUIRED MATERIAL**

| APPROACH SHLDR PVT |          |      |       |        |
|--------------------|----------|------|-------|--------|
| Bar                | Qty.     | Size | Shape | Length |
| a <sub>1</sub>     | 13       | #4   | —     | 9'-9"  |
| a <sub>2</sub>     | 31       | #5   | —     | 9'-9"  |
| b <sub>1</sub>     | 5        | #4   | —     | 14'-9" |
| b <sub>2</sub>     | 15       | #9   | U     | 14'-9" |
| Concrete           | cu. yds. |      |       | 5.7    |
| Reinf. bars        | lbs.     |      |       | 1,202  |



BAR b2



SECTION C-C  
DETAIL OF CAST GRATE

**GENERAL NOTES**

All exposed edges of the inlet, except the upper perimeter, shall be beveled 3/4 (20).

All dimensions are in inches (millimeters) unless otherwise shown.

| INLET TYPE | SHOULDER WIDTH | O-O GRATING FRAME | INLET BOX INSIDE WIDTH | INLET BOX INSIDE LENGTH |
|------------|----------------|-------------------|------------------------|-------------------------|
| Type D     | 10'            | 6'-5"             | 6'-0"                  | 18"                     |

|                                    |                 |           |
|------------------------------------|-----------------|-----------|
| USER NAME = sparksgw               | DESIGNED - BTM  | REVISED - |
| PLOT SCALE = 40.0000' / in.        | DRAWN - BTM     | REVISED - |
| PLOT DATE = Sep-06-2013 09:28:40AM | CHECKED - JSA   | REVISED - |
|                                    | DATE - 12/19/12 | REVISED - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

APPROACH PAVEMENT SHOULDER & DRAINS DETAILS  
& MISCELLANEOUS DETAILS

SCALE: SHEET NO. OF SHEETS STA. TO STA.

|                                 |           |                    |                           |               |
|---------------------------------|-----------|--------------------|---------------------------|---------------|
| F.A.I. RE. 72                   | SECTION * | COUNTY SANGAMON    | TOTAL SHEETS 194          | SHEET NO. 177 |
| * (84-10-1RS-3,84-10-2RS-4)BR,I |           | CONTRACT NO. 72C90 | ILLINOIS FED. AID PROJECT |               |

(84-10-1,2RS-3 & (84-10-2RS-4