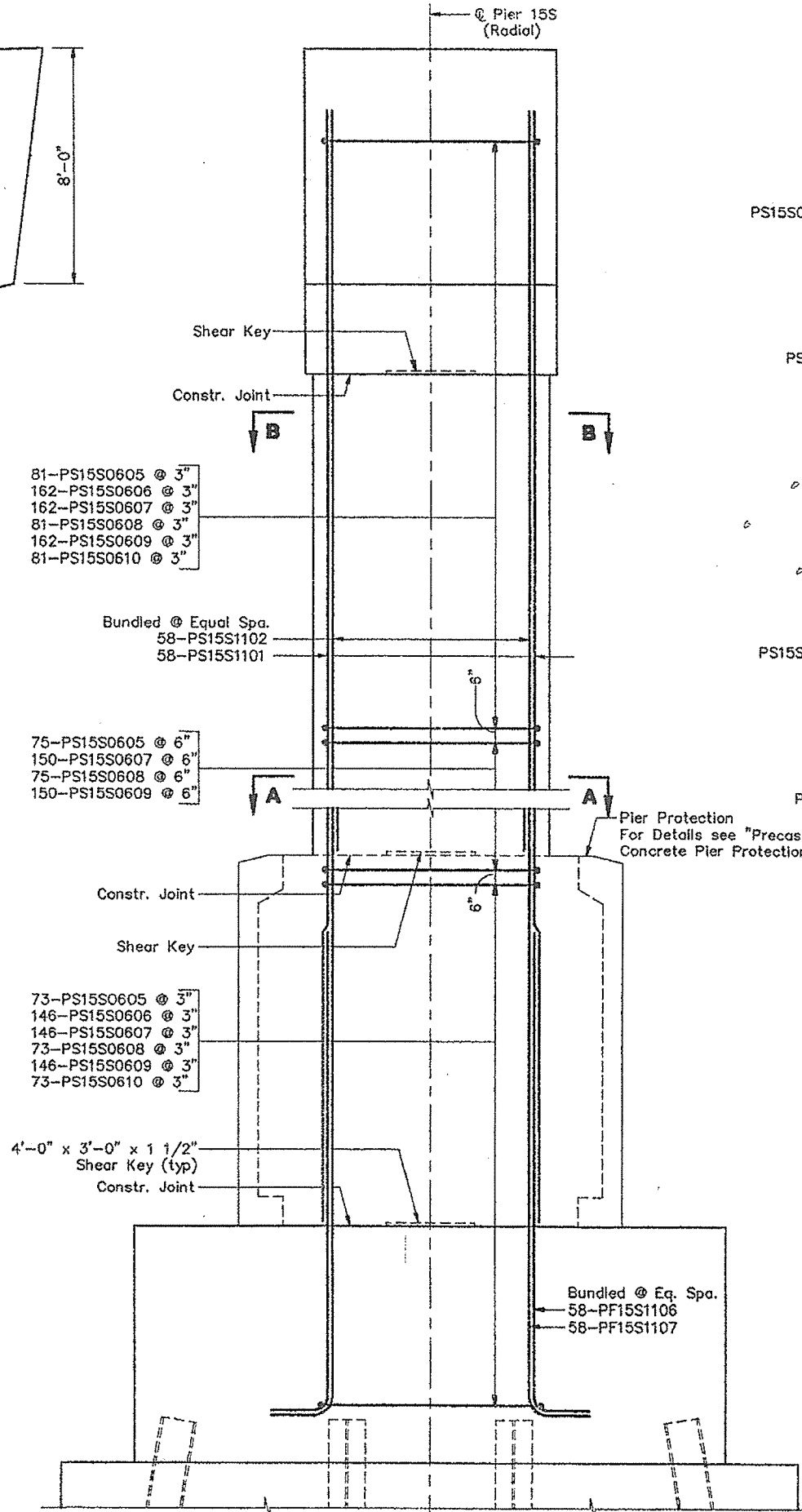
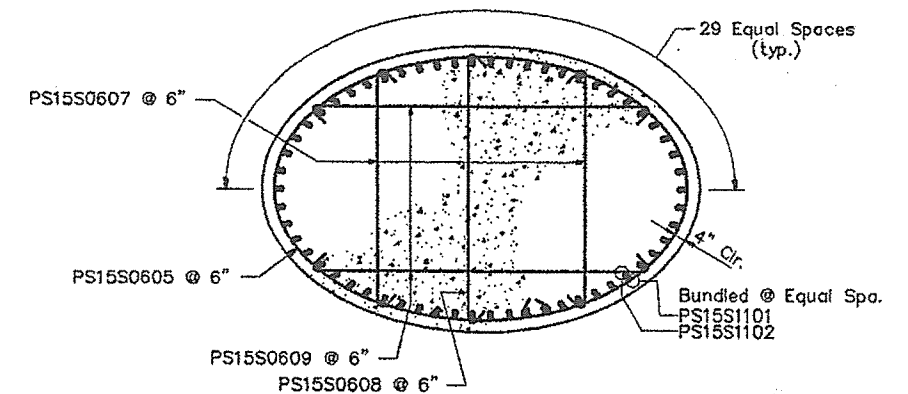


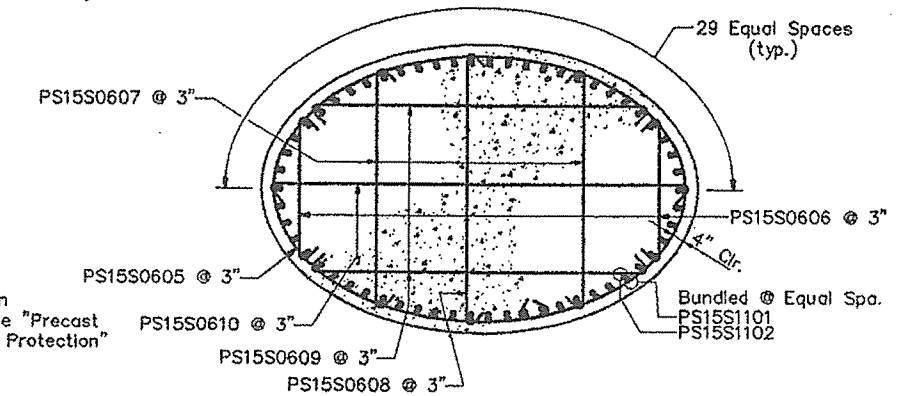
**FRONT ELEVATION**



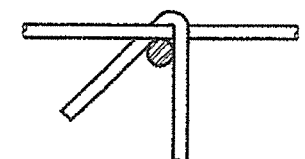
**SIDE ELEVATION**



**SECTION A-A**



**SECTION B-B**



**TIE CONNECTION DETAIL**

Note:  
Cap, footing and pier protection reinforcing  
not shown in elevation for clarity.

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

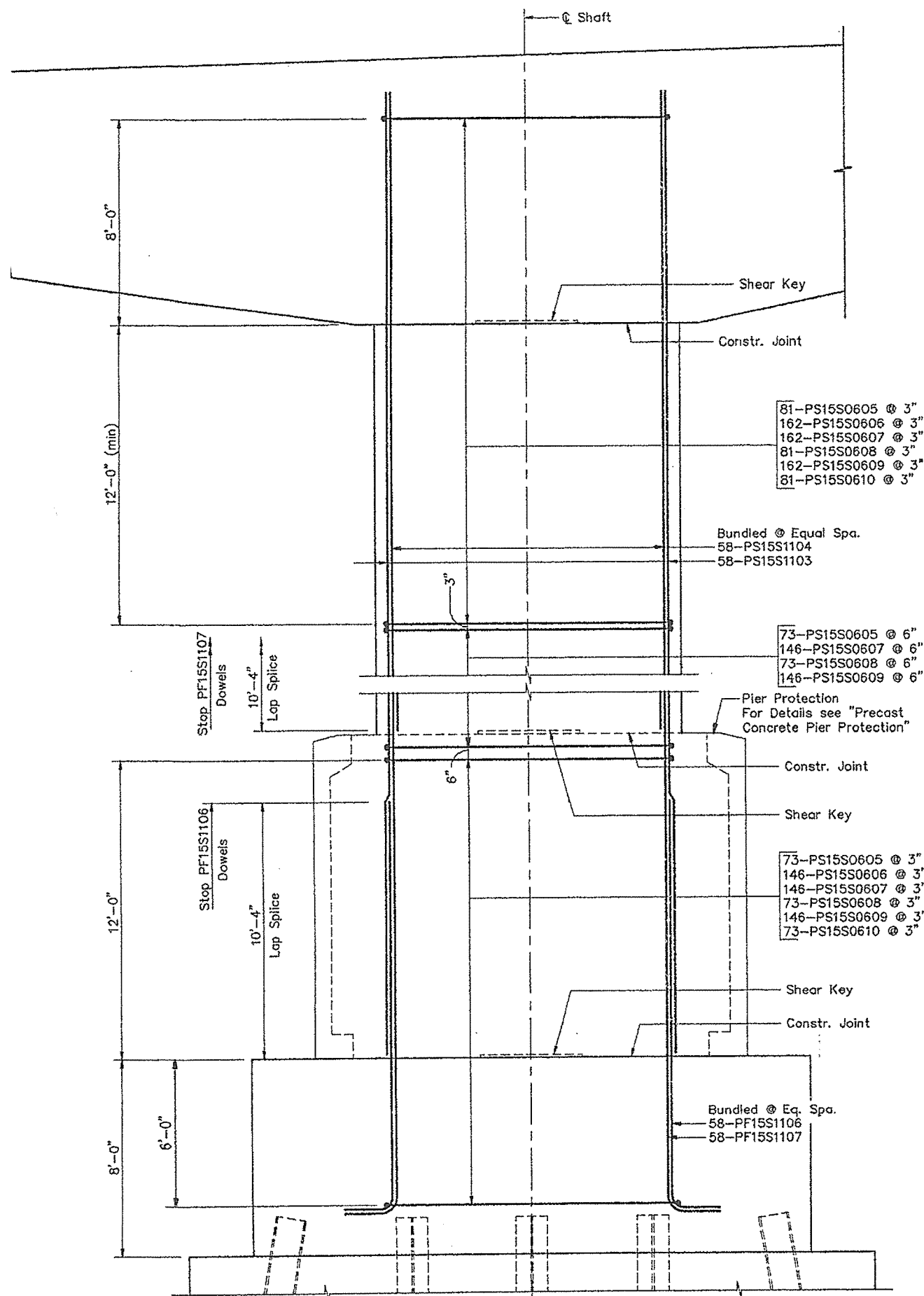
PORTLAND - S. PORTLAND BRIDGE

OVER FORE RIVER

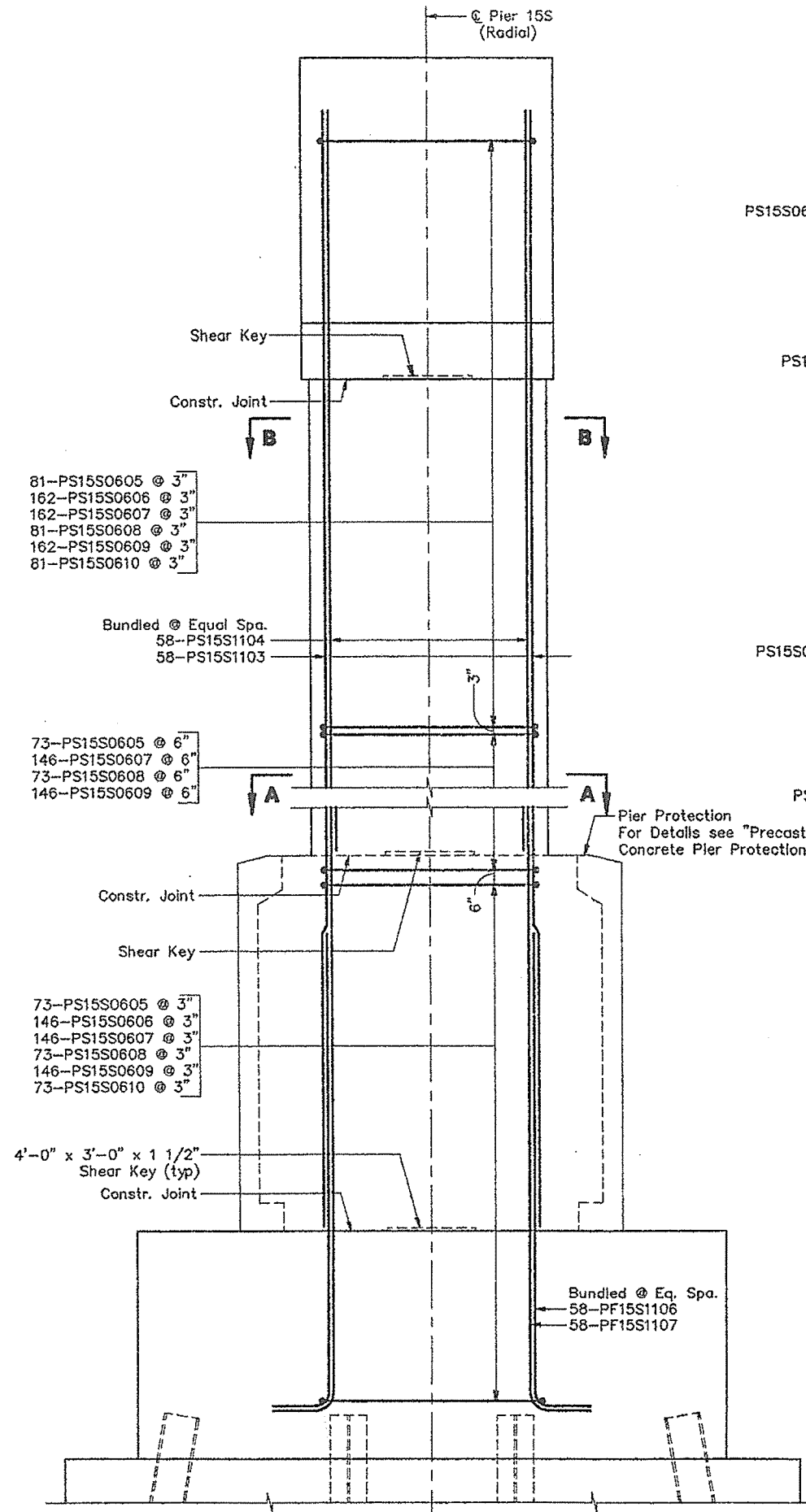
CUMBERLAND COUNTY

SHAFT REINFORCING  
PIER 15S (N.B.L.)

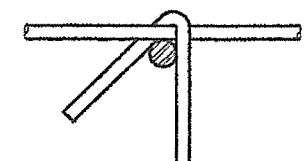
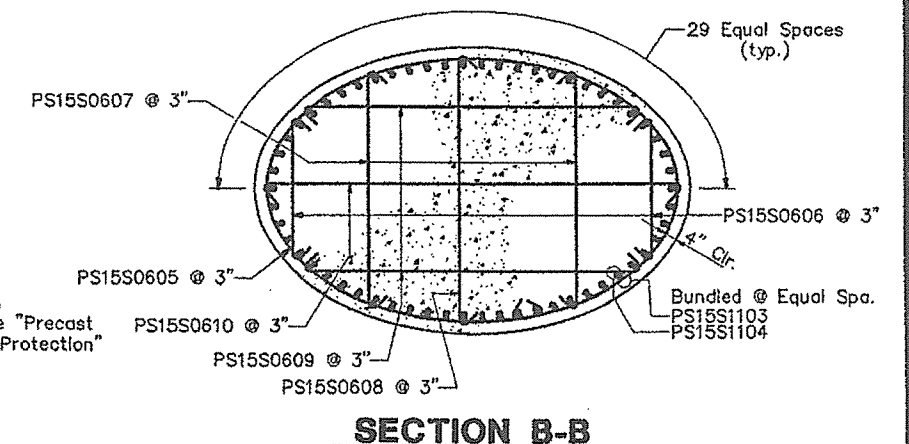
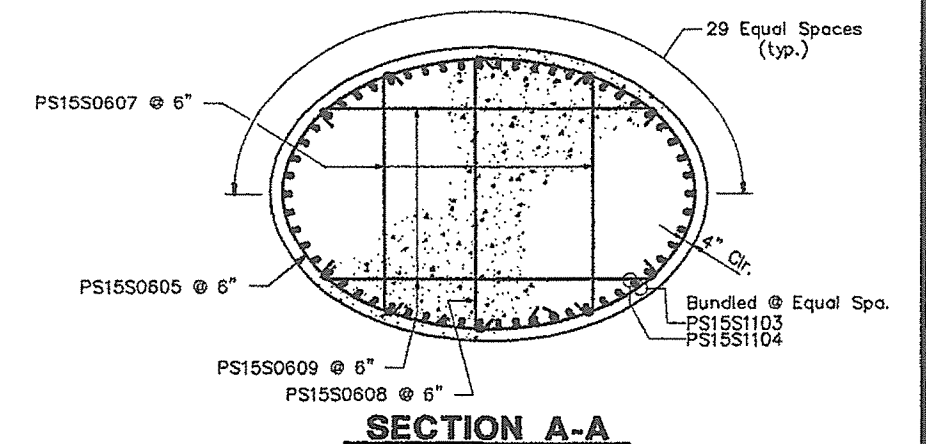
SHEET 143 OF 258 AUGUSTA, MAINE 6/27/94



**FRONT ELEVATION**



**SIDE ELEVATION**



**TIE CONNECTION DETAIL**

Note:  
Cap, footing and pier protection reinforcing  
not shown in elevation for clarity.

**STEEL ALTERNATIVE SUBSTRUCTURE**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

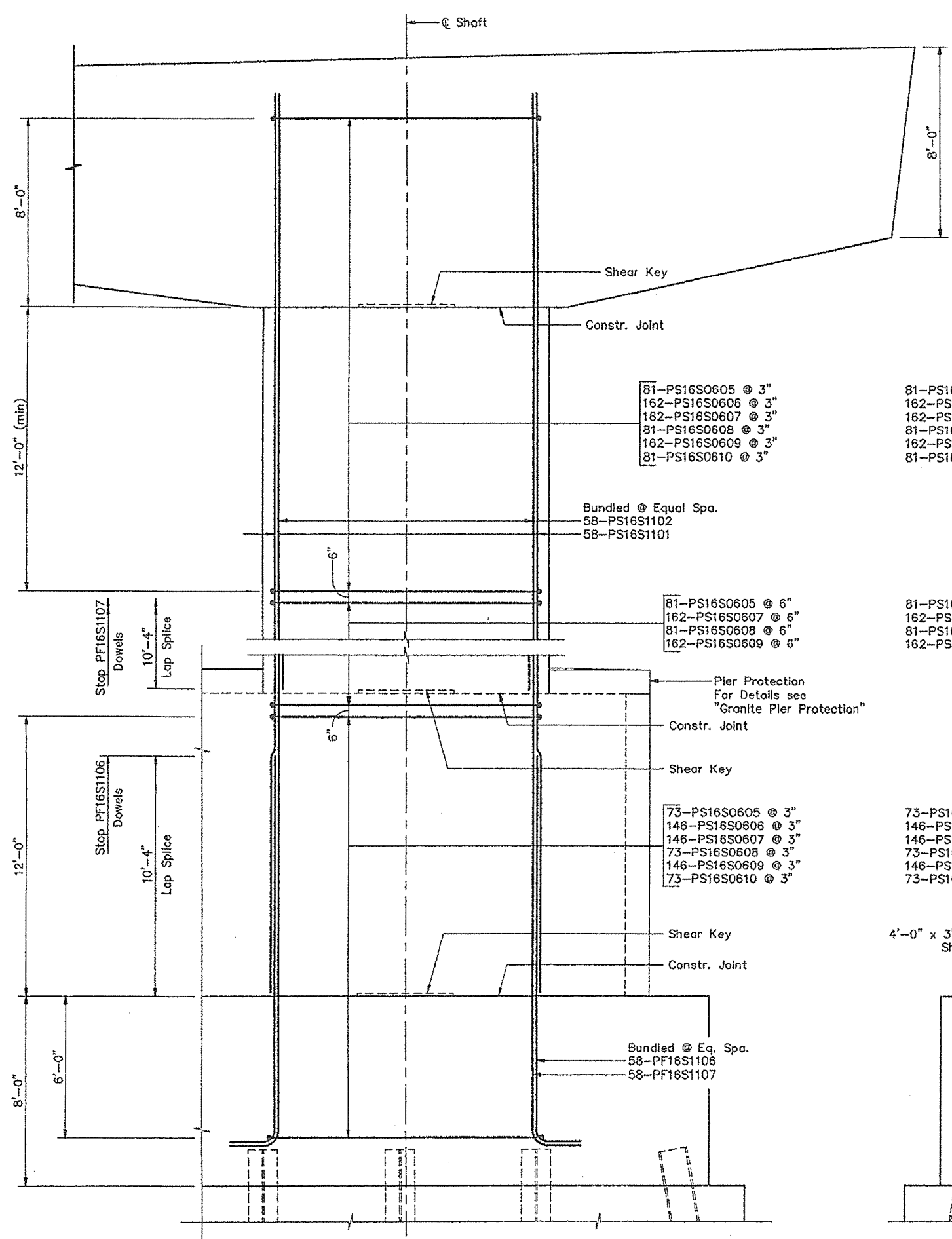
**PORTLAND - S. PORTLAND BRIDGE**

**OVER FORE RIVER**

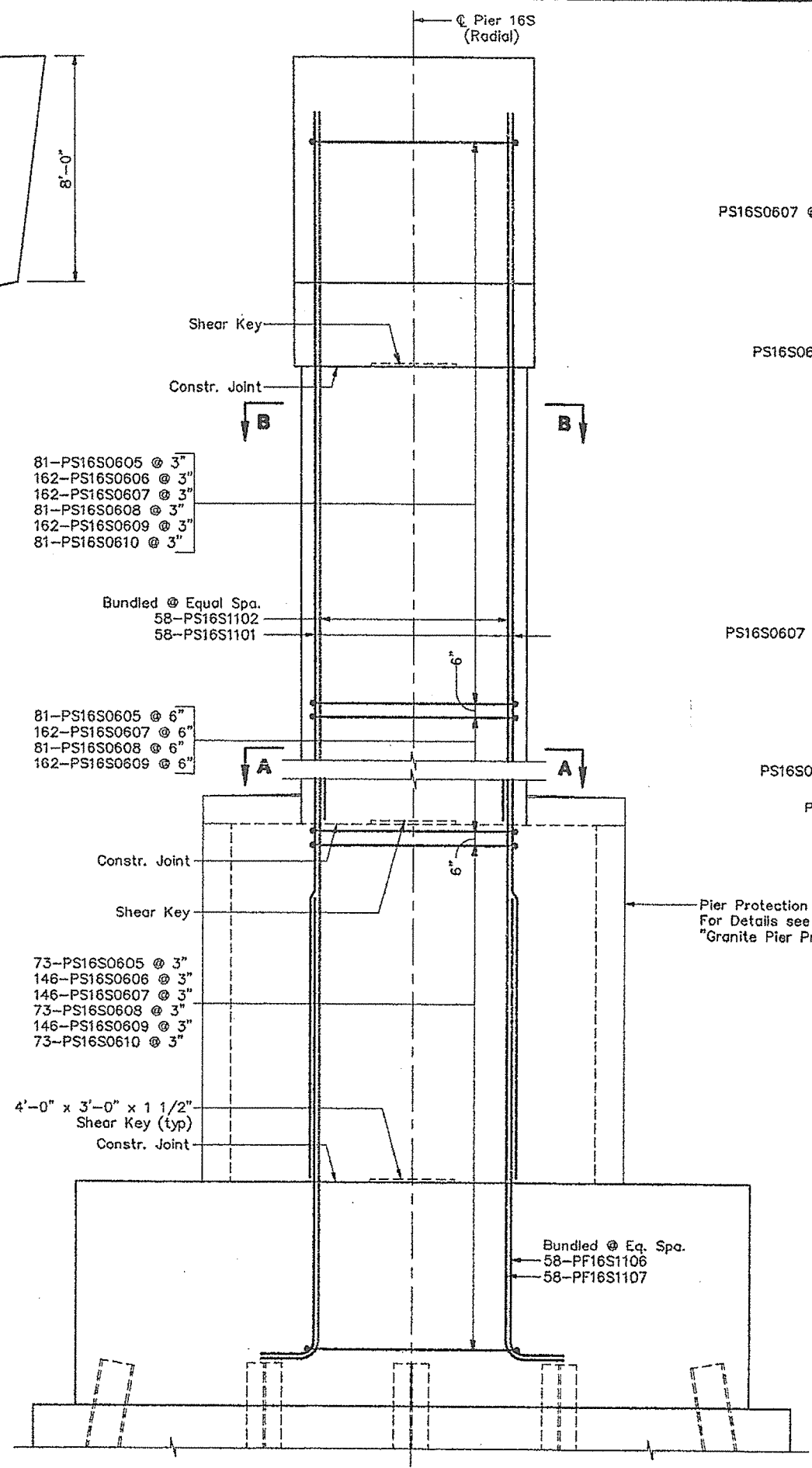
**CUMBERLAND COUNTY**

**SHAFT REINFORCING  
PIER 15S (S.B.L.)**

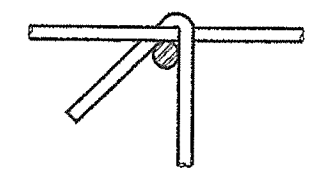
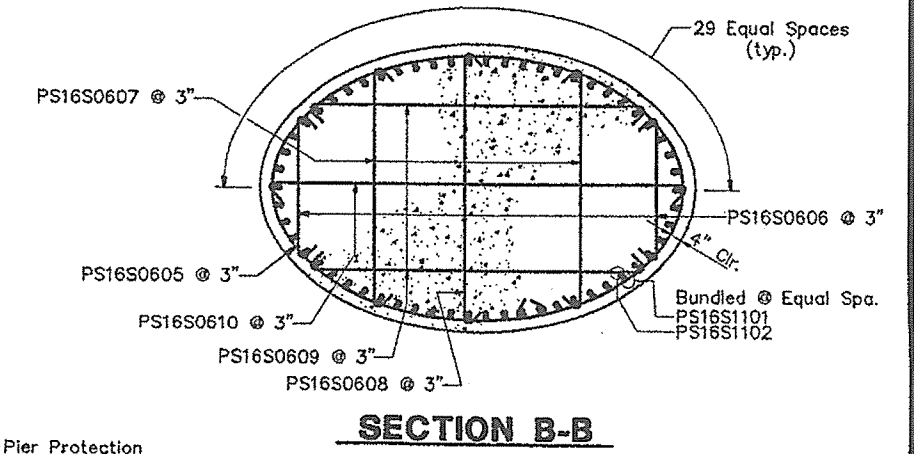
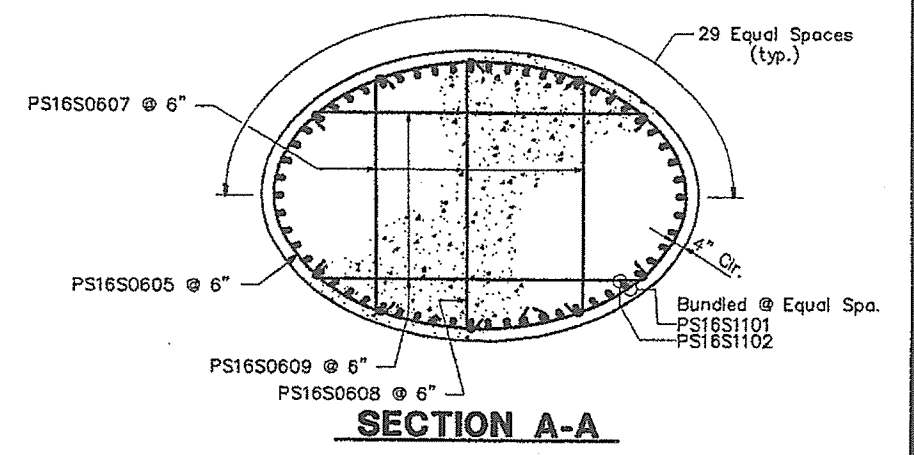
SHEET 164 OF 338 AUGUSTA, MAINE 6/27/94



**FRONT ELEVATION**



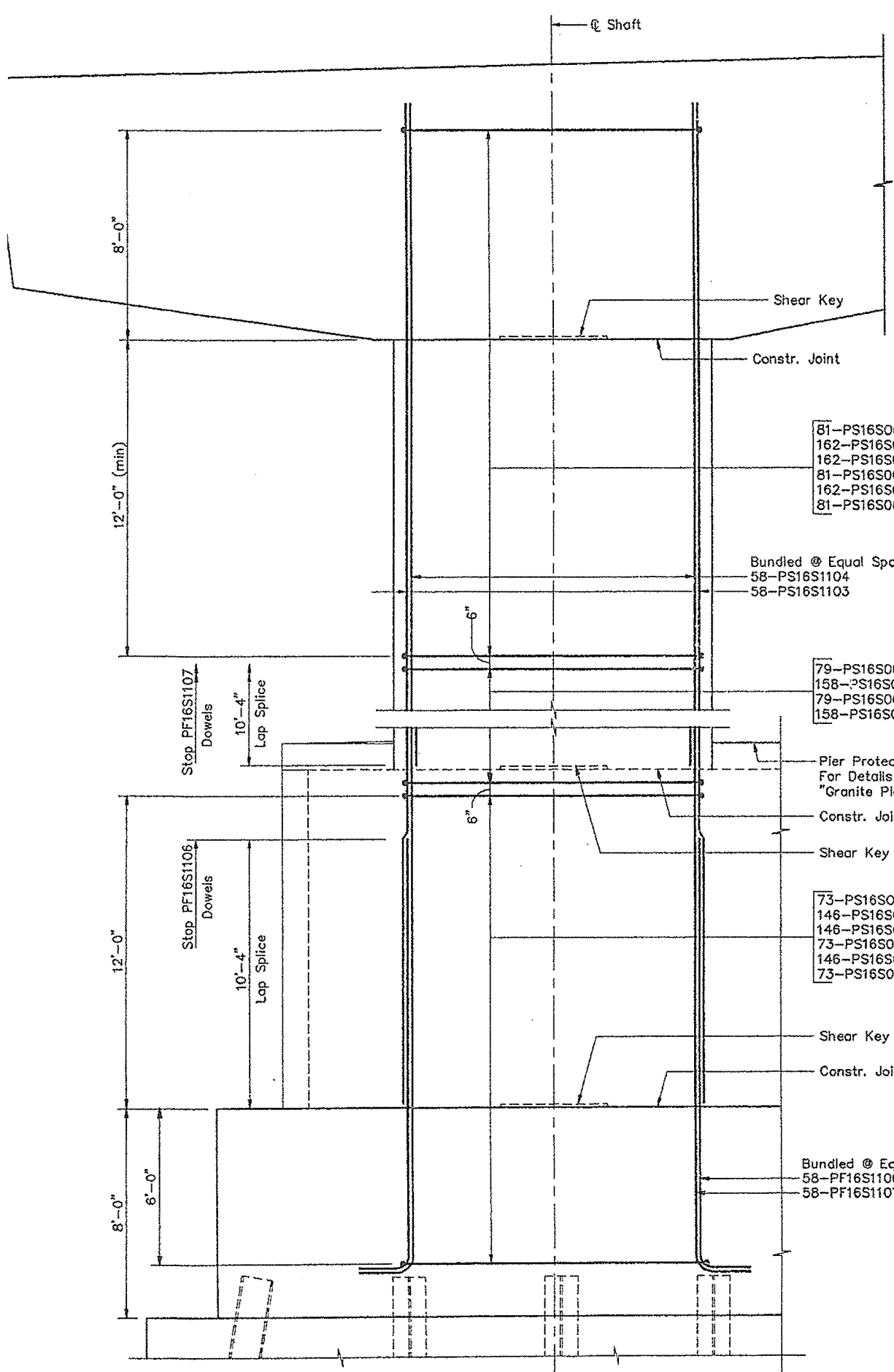
**SIDE ELEVATION**



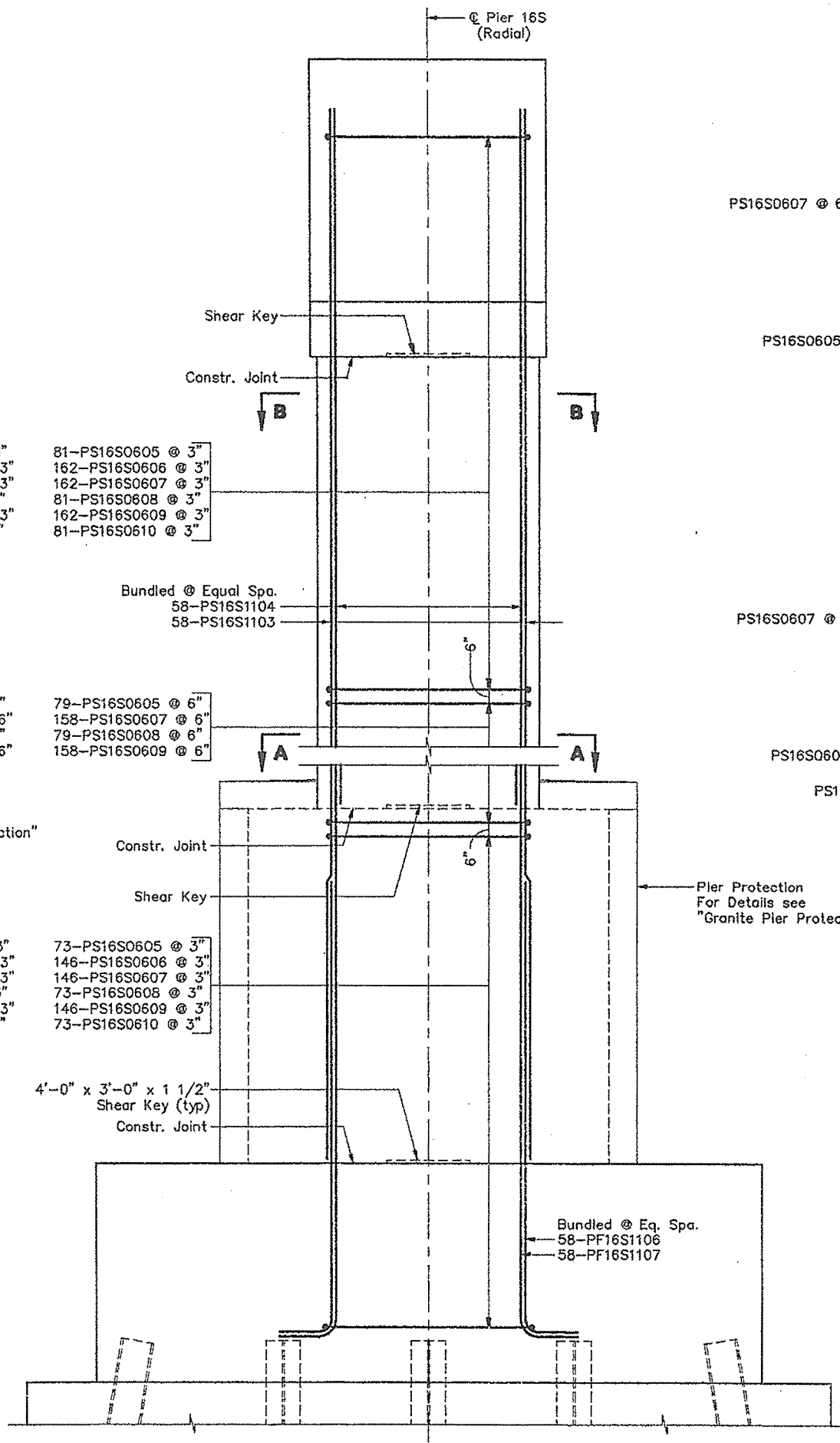
**TIE CONNECTION DETAIL**

Note:  
Cap, footing and pier protection reinforcing  
not shown in elevation for clarity.

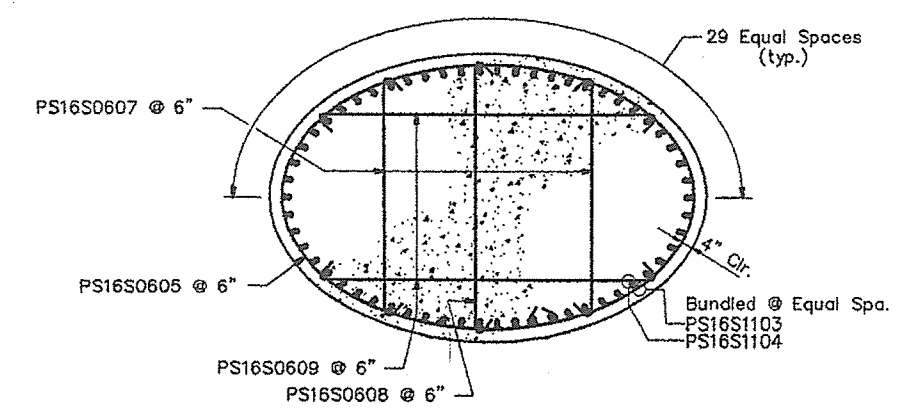
<b>STEEL ALTERNATIVE SUBSTRUCTURE</b>	
STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
<b>PORTLAND - S. PORTLAND BRIDGE</b>	
<b>OVER FORE RIVER</b>	
<b>CUMBERLAND COUNTY</b>	
<b>SHAFT REINFORCING PIER 16S (N.B.L.)</b>	
SHEET 155 OF 338 AUGUSTA, MAINE 6/27/99	



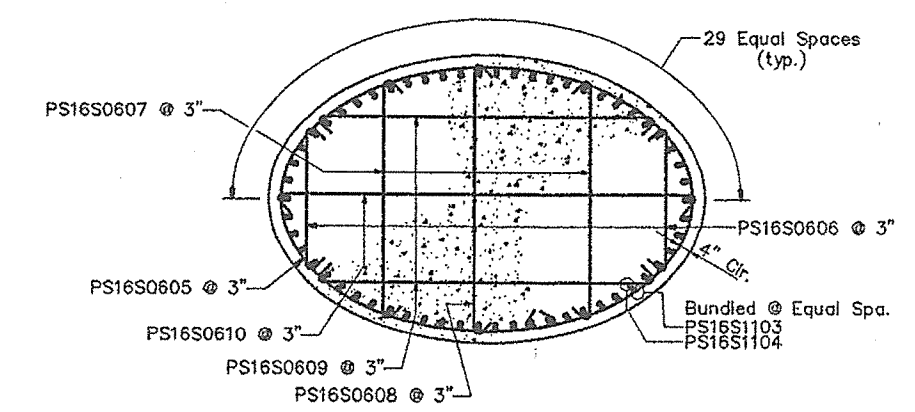
**FRONT ELEVATION**



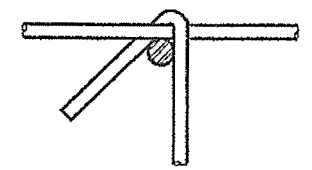
**SIDE ELEVATION**



**SECTION A-A**



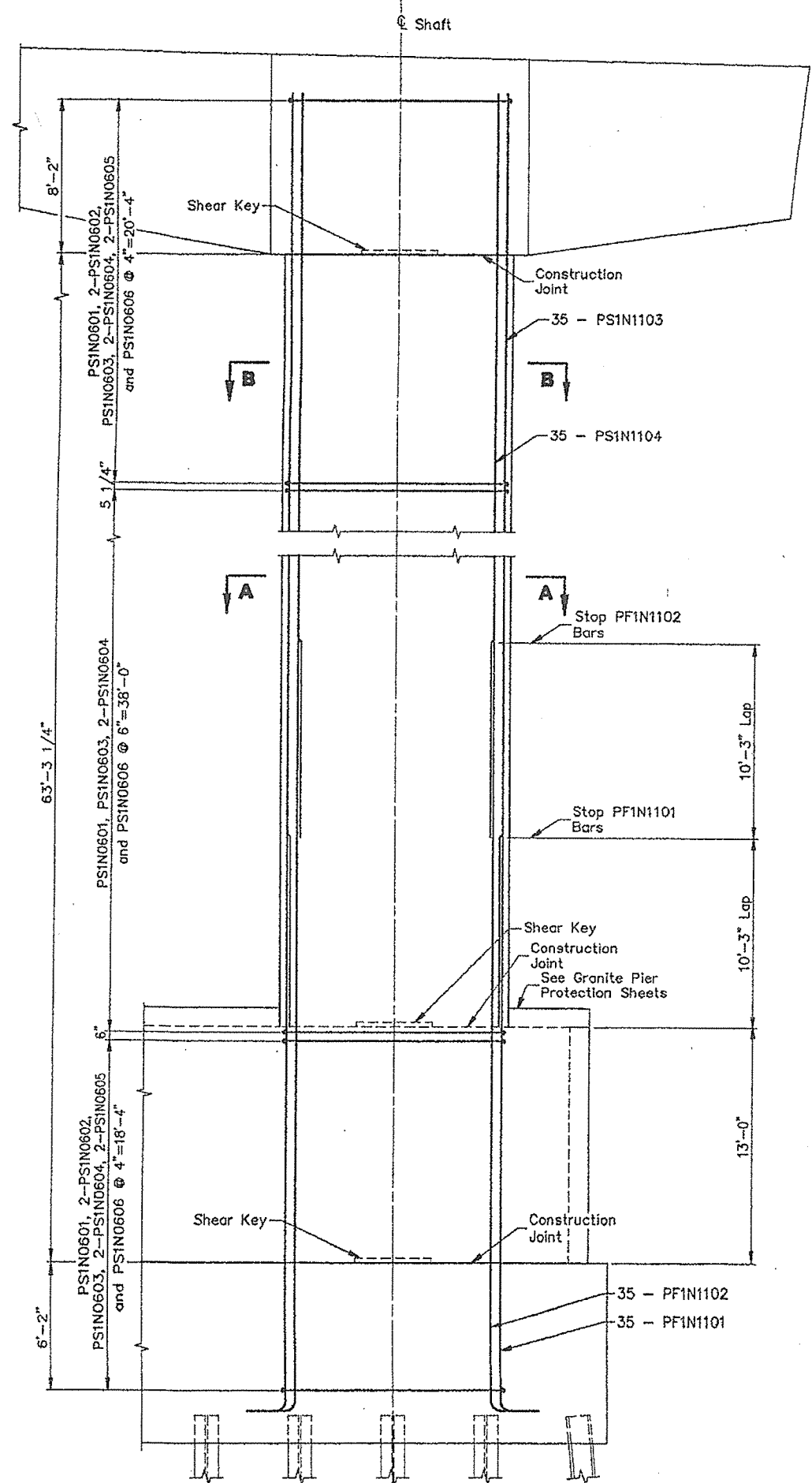
**SECTION B-B**



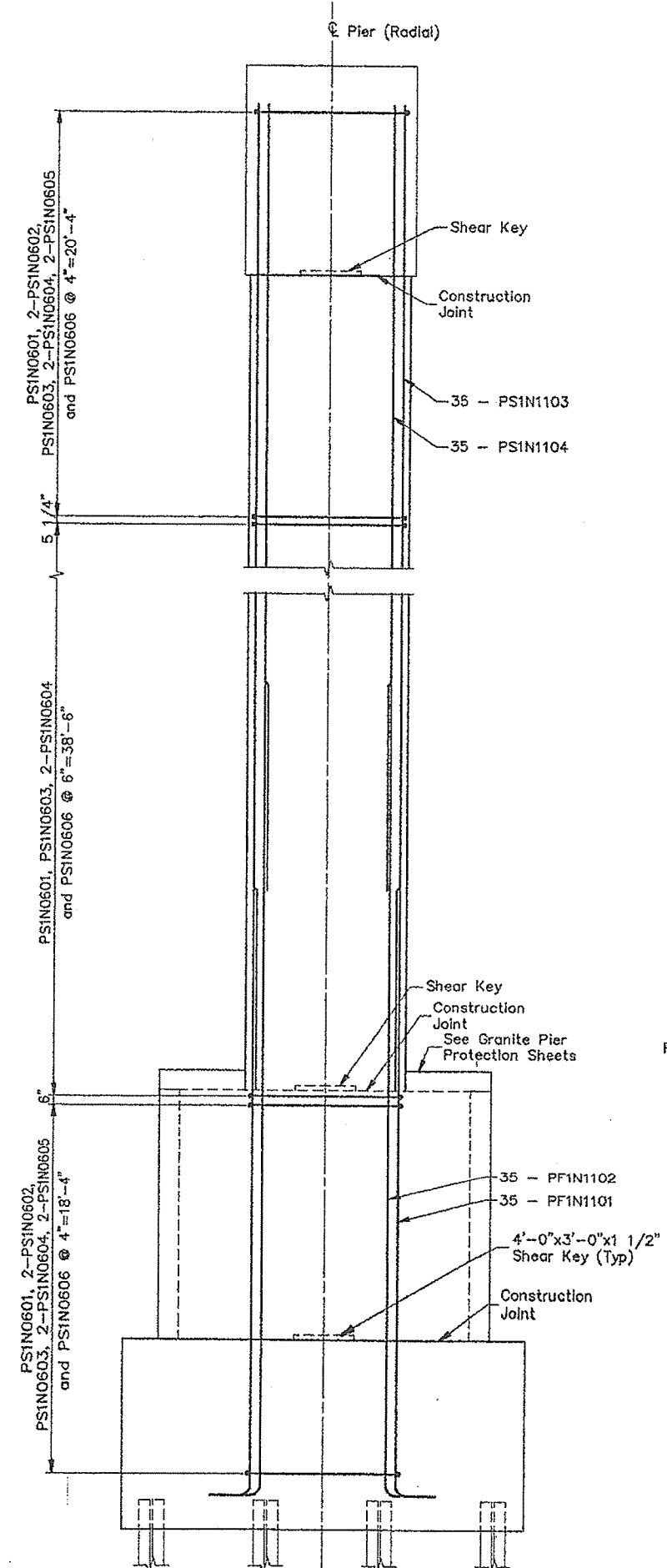
**TIE CONNECTION DETAIL**

Note:  
Cap, footing and pier protection reinforcing  
not shown in elevation for clarity.

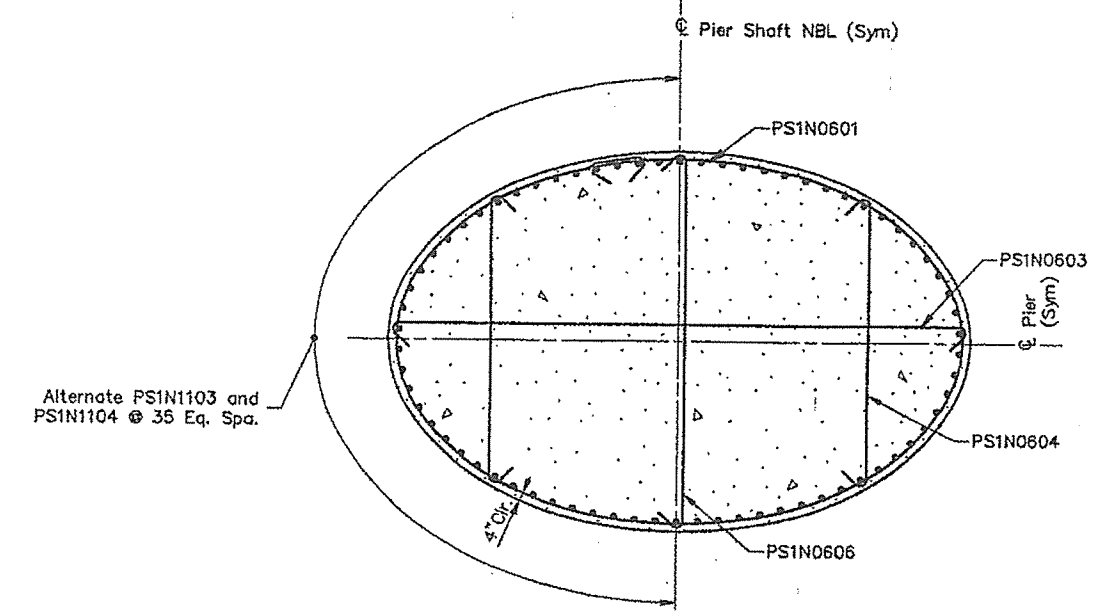
STEEL ALTERNATIVE SUBSTRUCTURE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE
OVER FORE RIVER
CUMBERLAND COUNTY
SHAFT REINFORCING PIER 16S (S.B.L.)



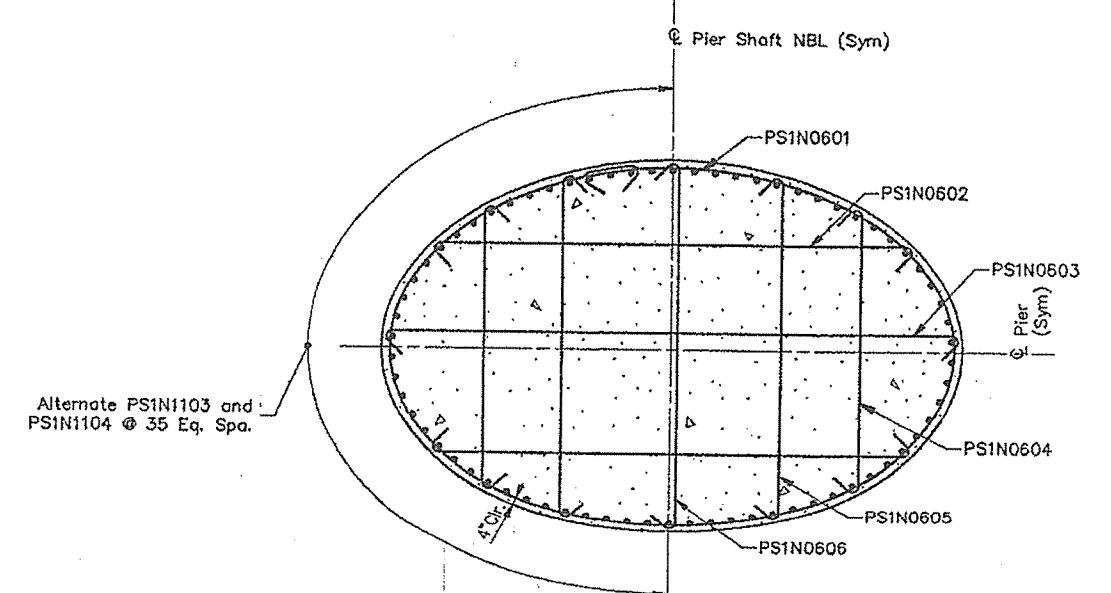
**ELEVATION**



**SIDE ELEVATION**



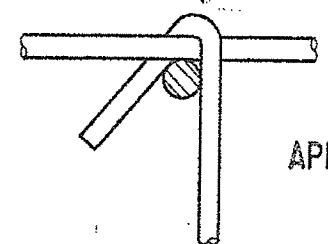
**SECTION A-A**



**SECTION B-B**

Notes: 1. Cap and footing reinforcing not shown in elevation for clarity.

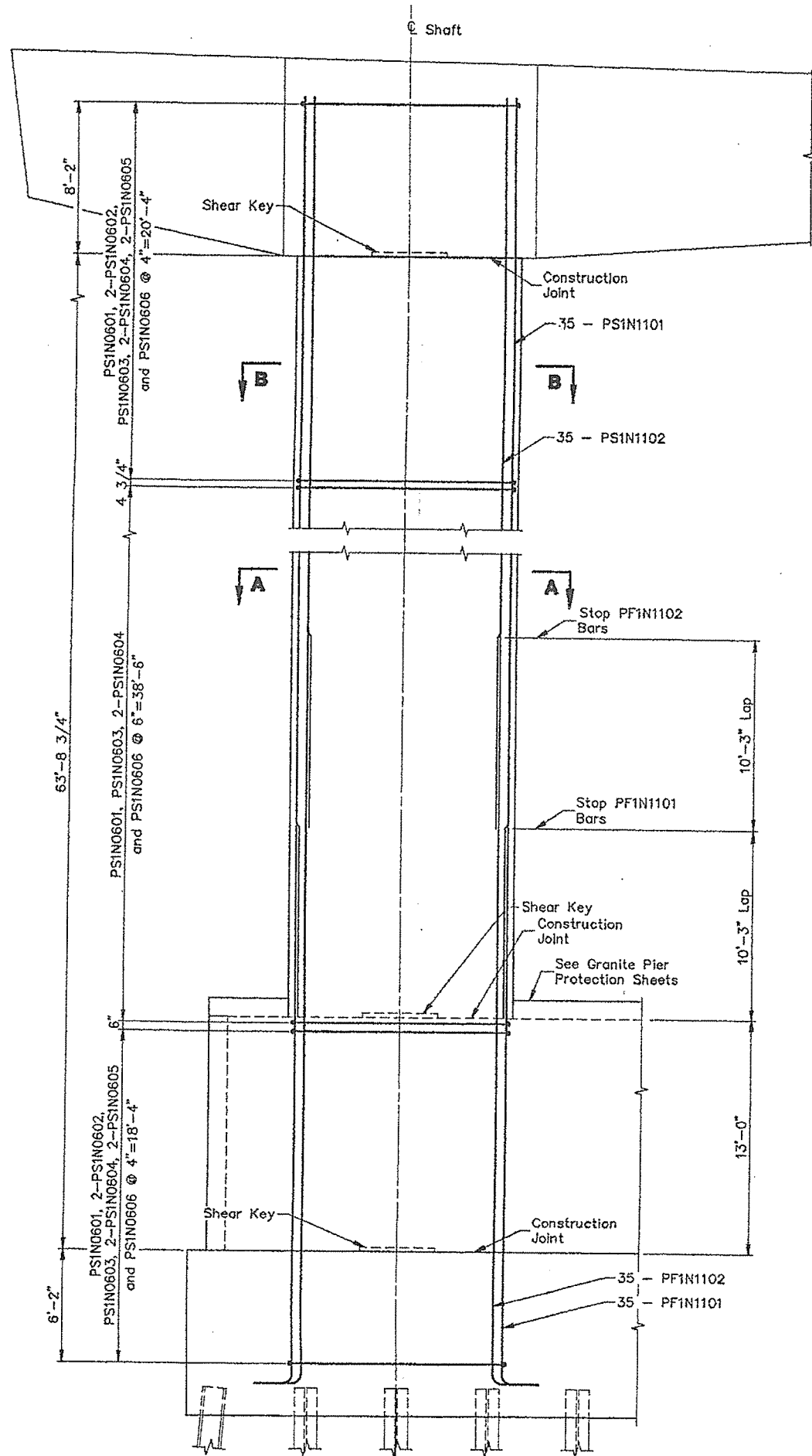
STEEL ALTERNATIVE SUBSTRUCTURE



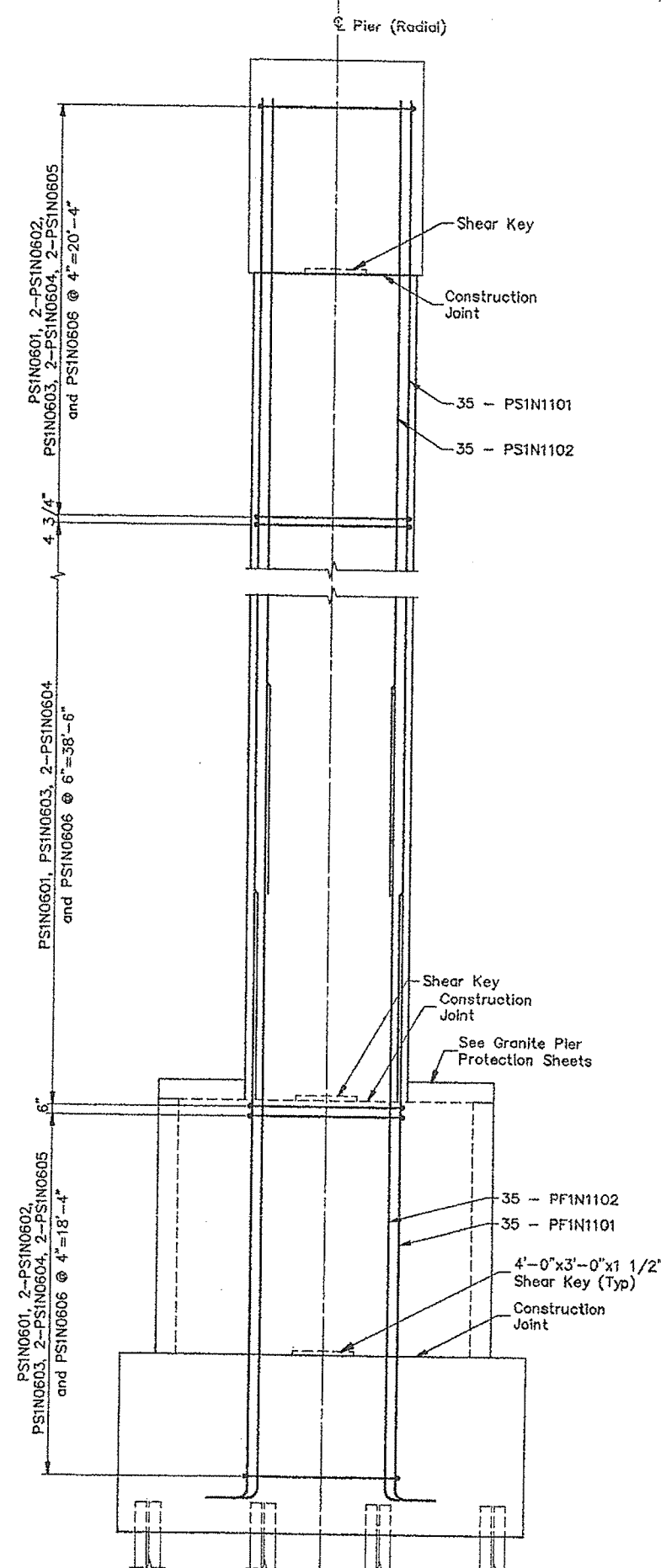
APR 13 1994

**TIE CONNECTION DETAIL**

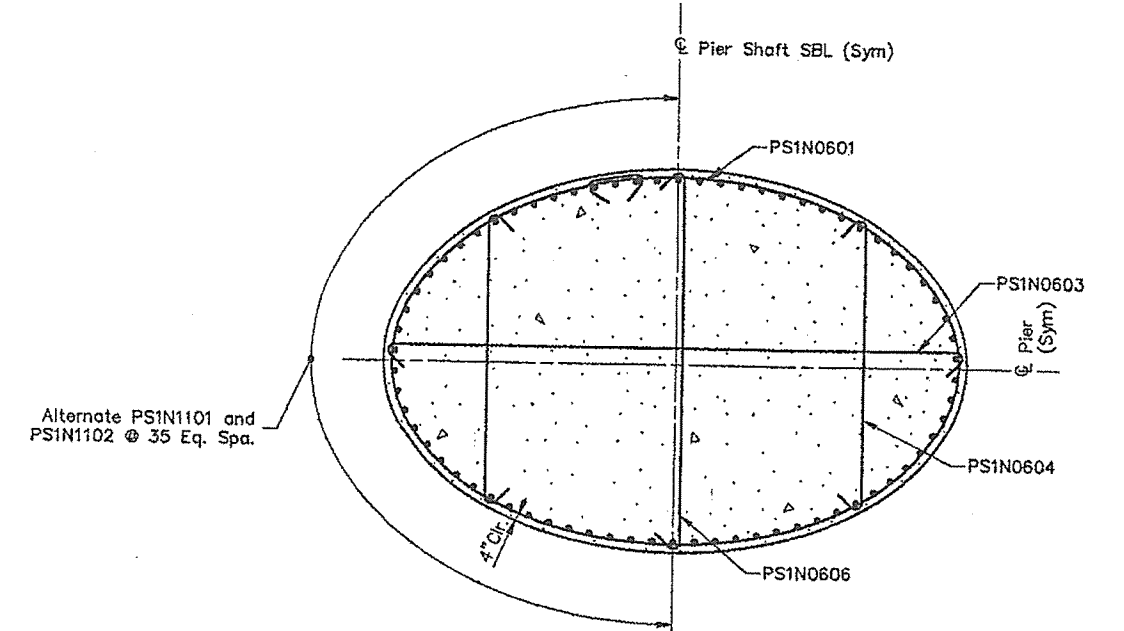
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
<b>PORTLAND - S. PORTLAND BRIDGE</b>
<b>OVER FORE RIVER</b>
<b>CUMBERLAND COUNTY</b>
<b>SHAFT REINFORCEMENT PIER 1N (N.B.L.)</b>
SHEET 157 OF 220 AUGUSTA, MAINE 4/13/94



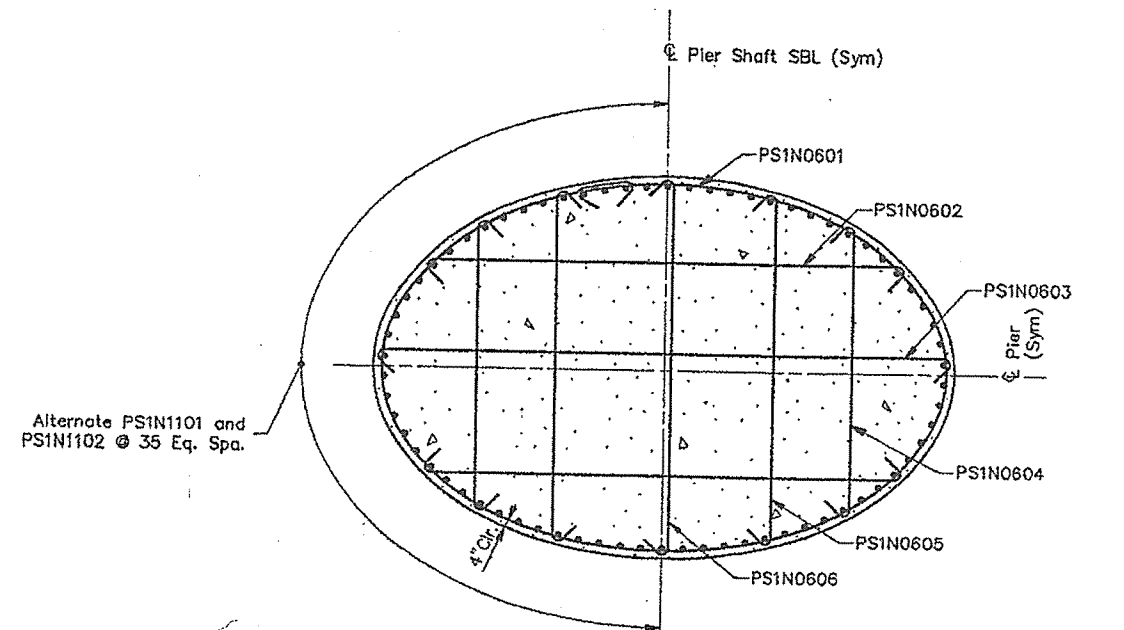
**ELEVATION**



**SIDE ELEVATION**



**SECTION A-A**



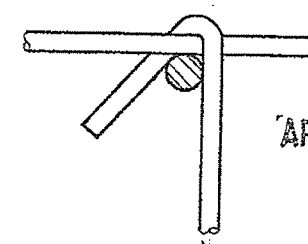
**SECTION B-B**

Notes: 1. Cap and footing reinforcing not shown in elevation for clarity.

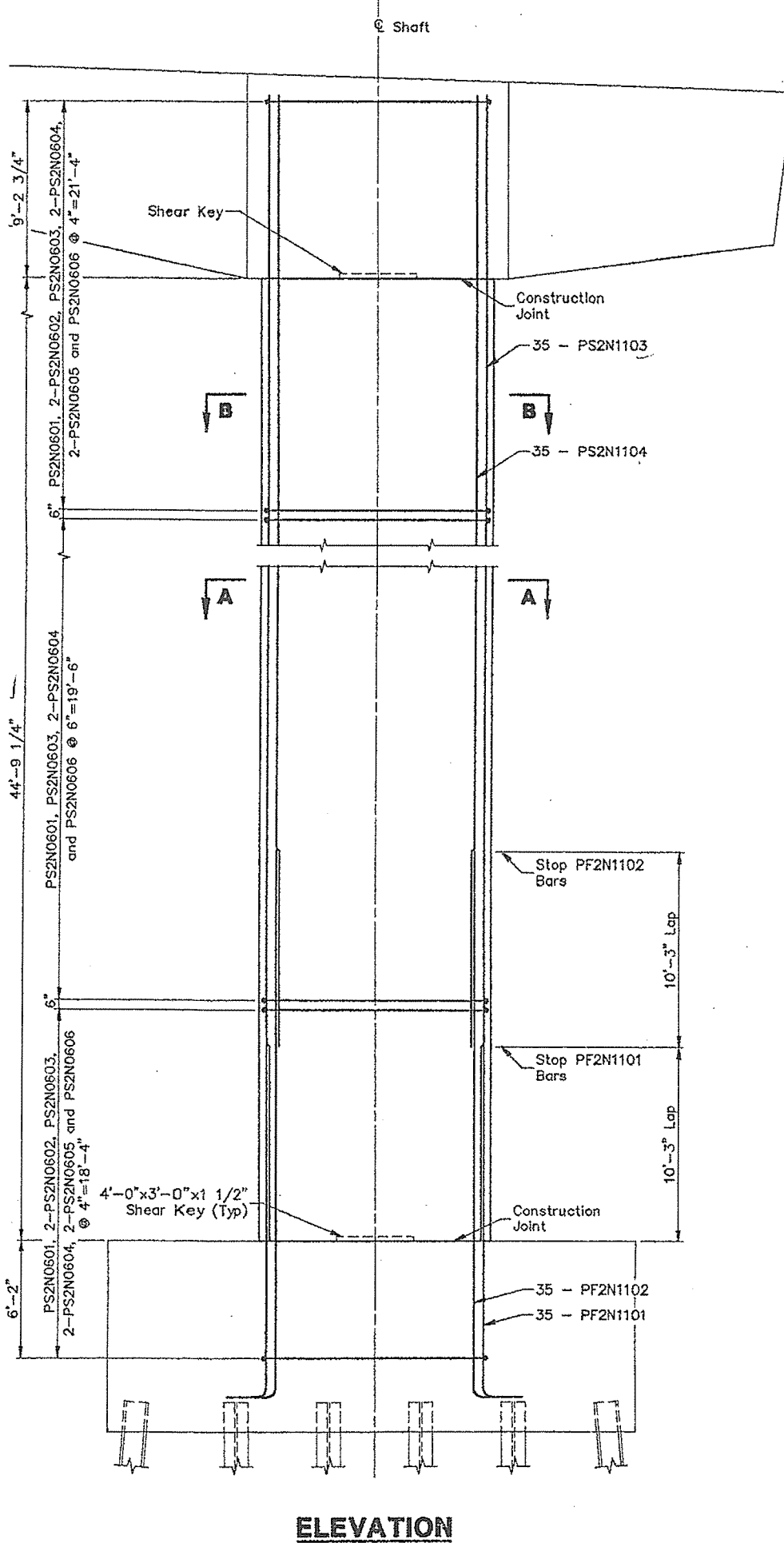
STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**PORTLAND - S. PORTLAND BRIDGE**  
**OVER FORE RIVER**  
**CUMBERLAND COUNTY**  
**SHAFT REINFORCEMENT**  
**PIER 1N (S.B.L.)**

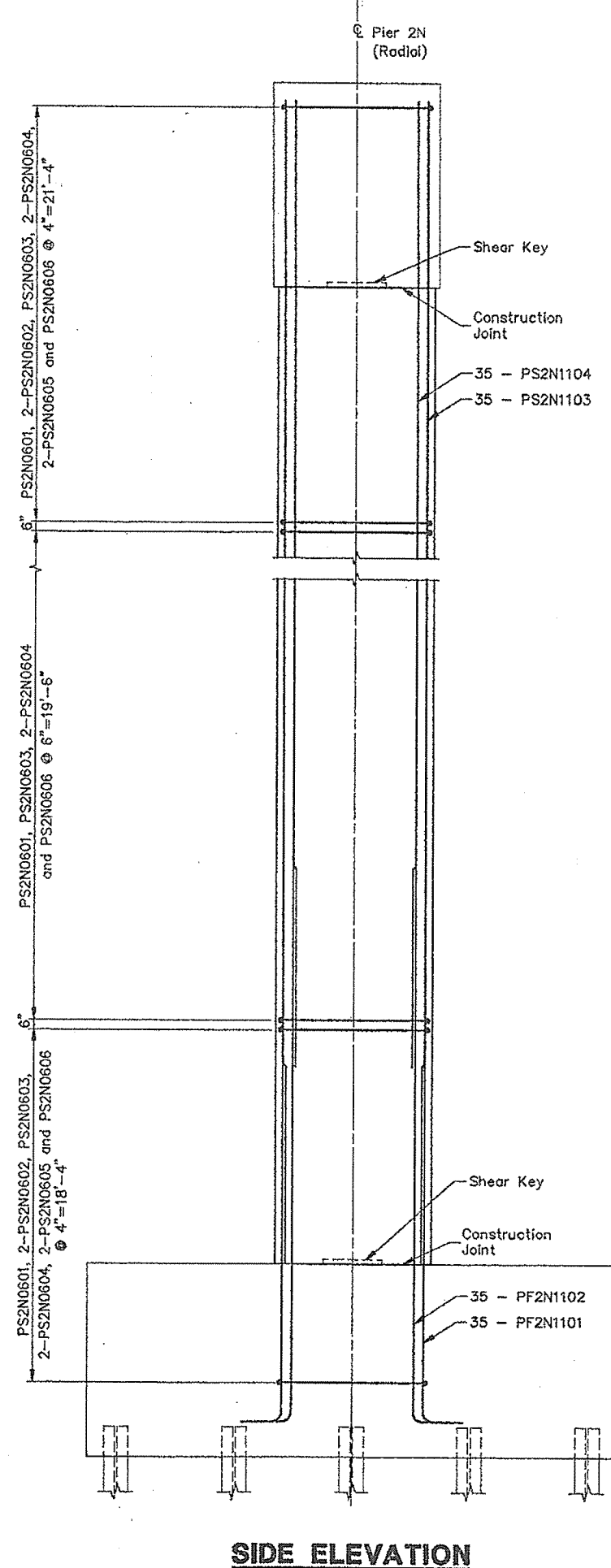
SHEET 158 OF 338 AUGUSTA, MAINE 4/13/94



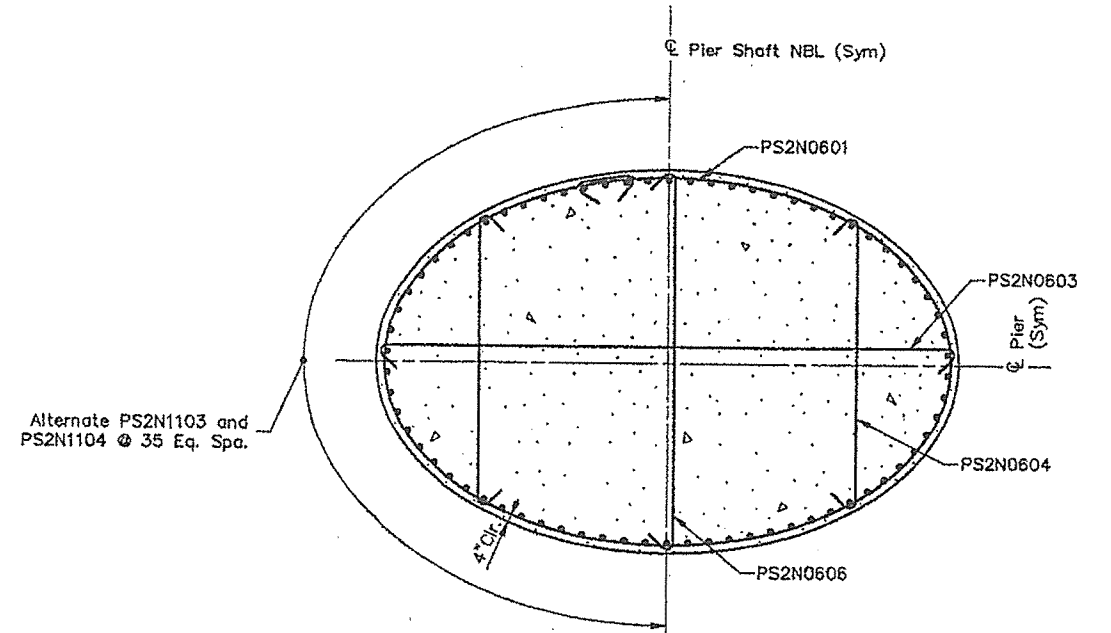
**TIE CONNECTION DETAIL**



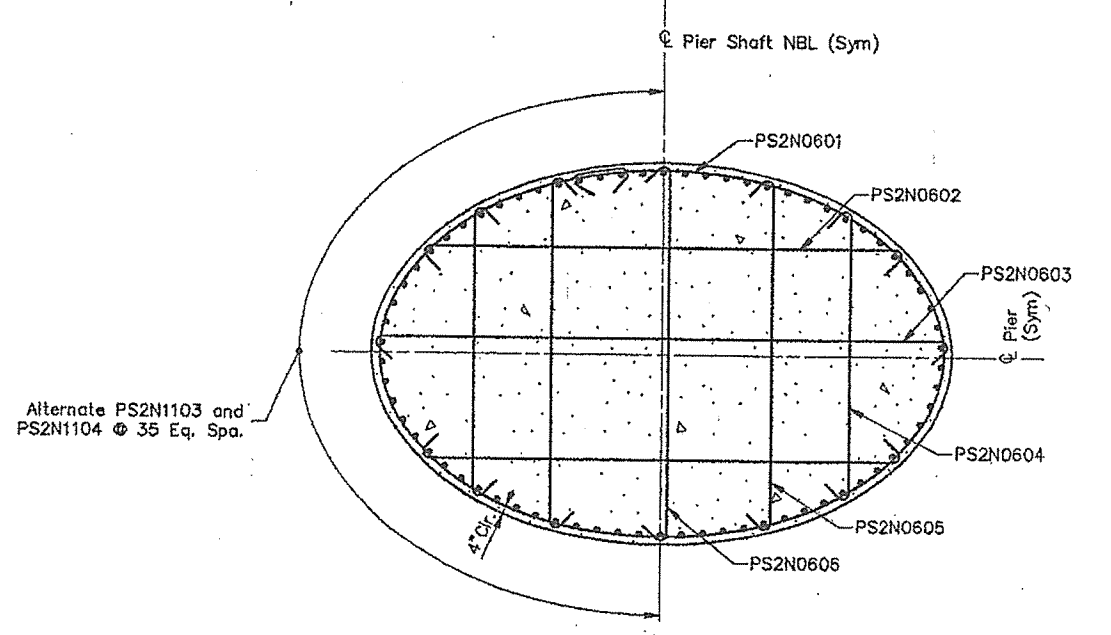
**ELEVATION**



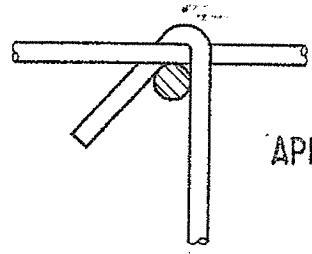
**SIDE ELEVATION**



**SECTION A-A**



**SECTION B-B**

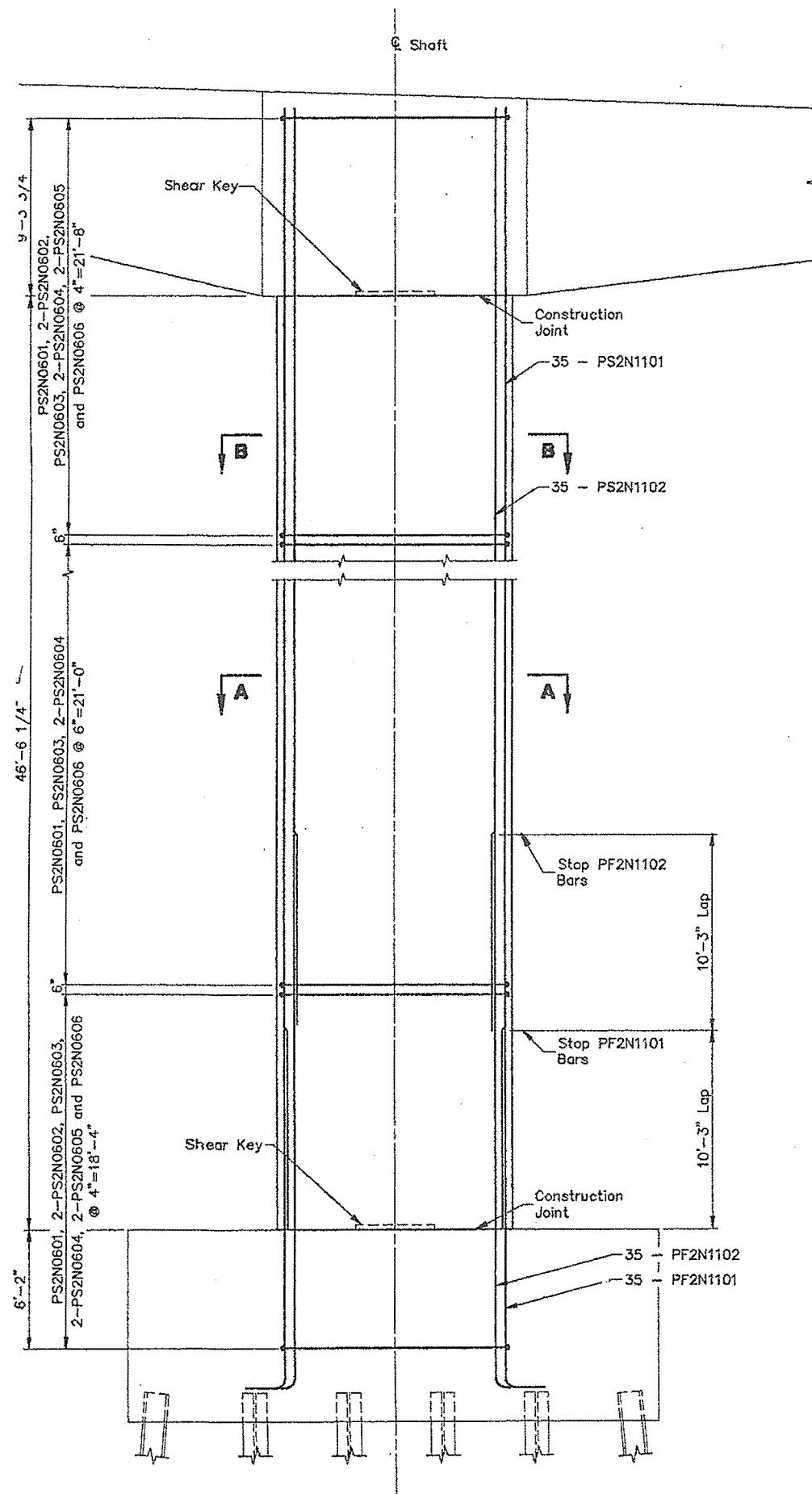


**TIE CONNECTION DETAIL**

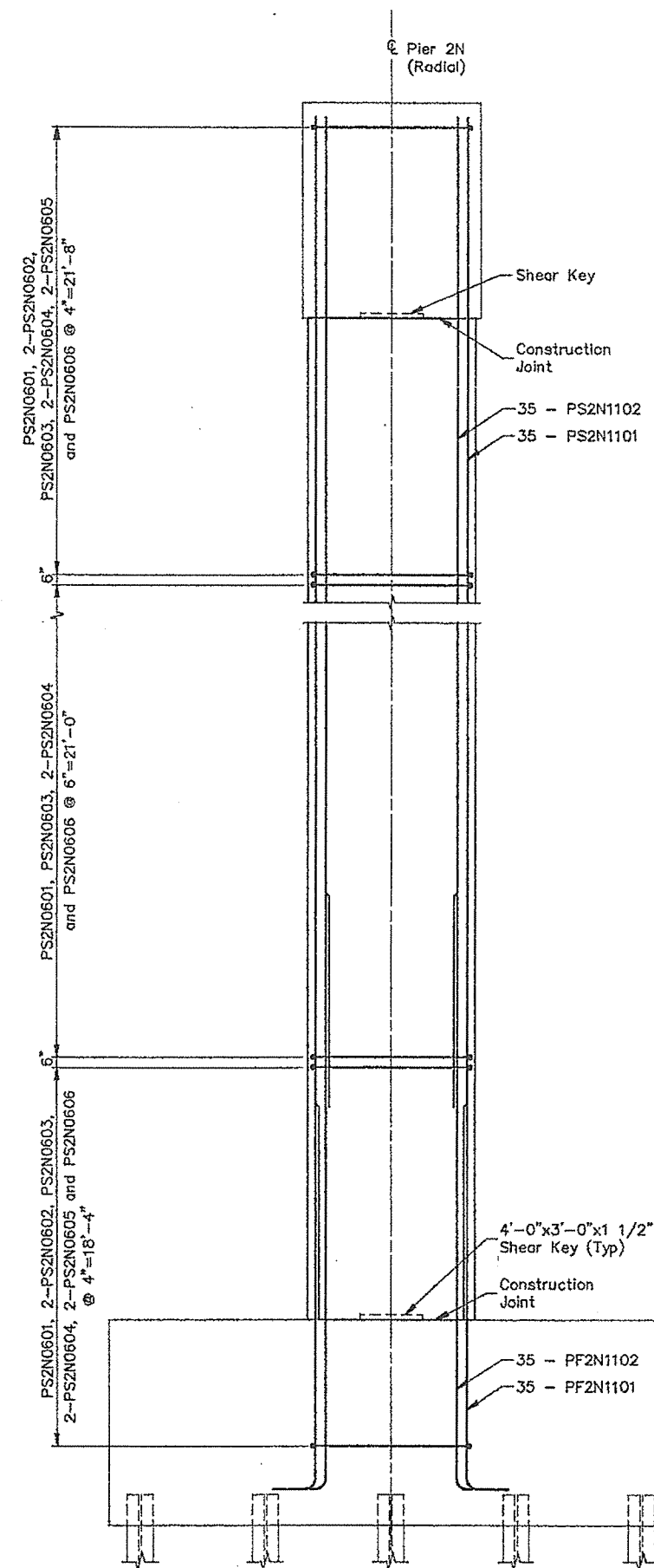
Notes: 1. Cap and footing reinforcing not shown in elevation for clarity.

STEEL ALTERNATIVE SUBSTRUCTURE

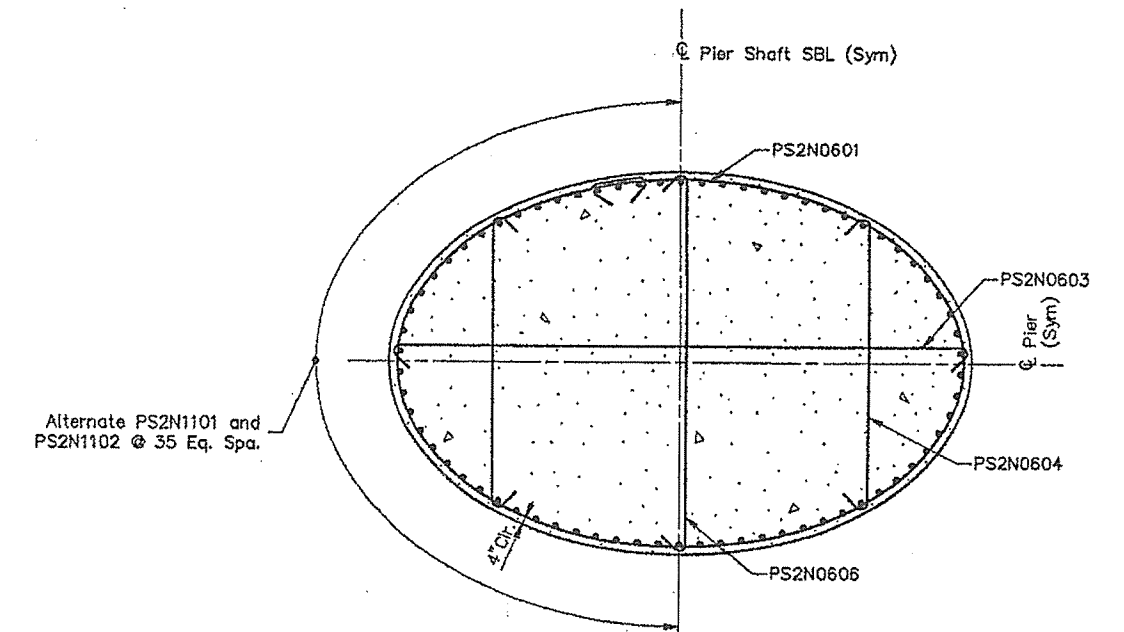
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**PORTLAND - S. PORTLAND BRIDGE**  
**OVER FORE RIVER**  
**CUMBERLAND COUNTY**  
**SHAFT REINFORCING**  
**PIER 2N (N.B.L.)**



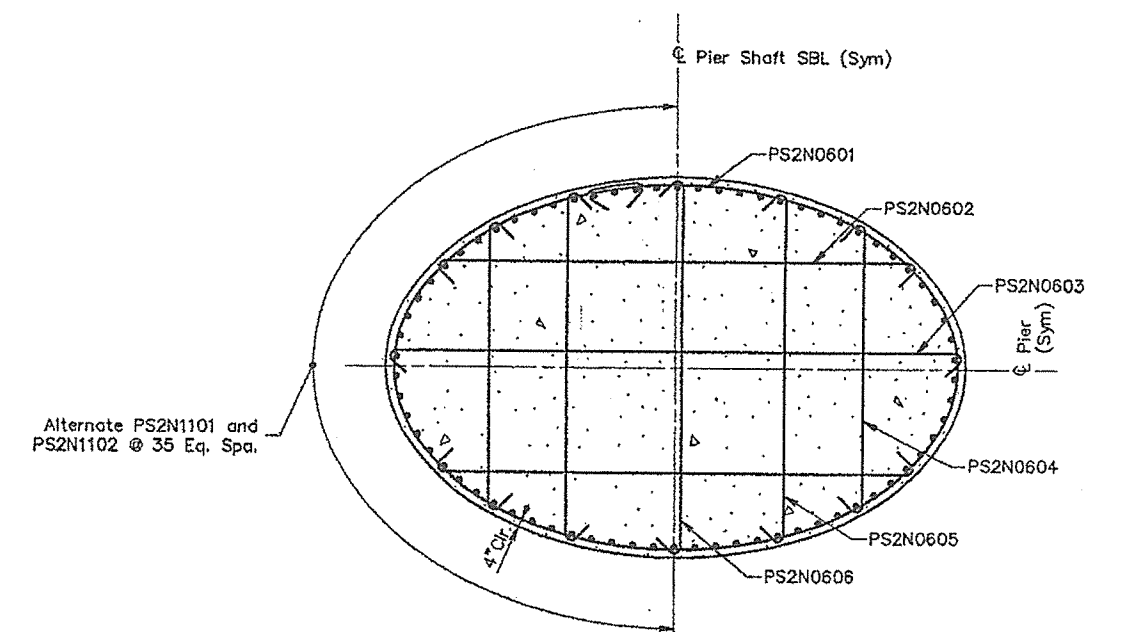
**ELEVATION**



**SIDE ELEVATION**



**SECTION A-A**



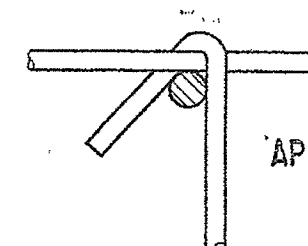
**SECTION B-B**

Notes: 1. Cap and footing reinforcing not shown in elevation for clarity.

**STEEL ALTERNATIVE SUBSTRUCTURE**

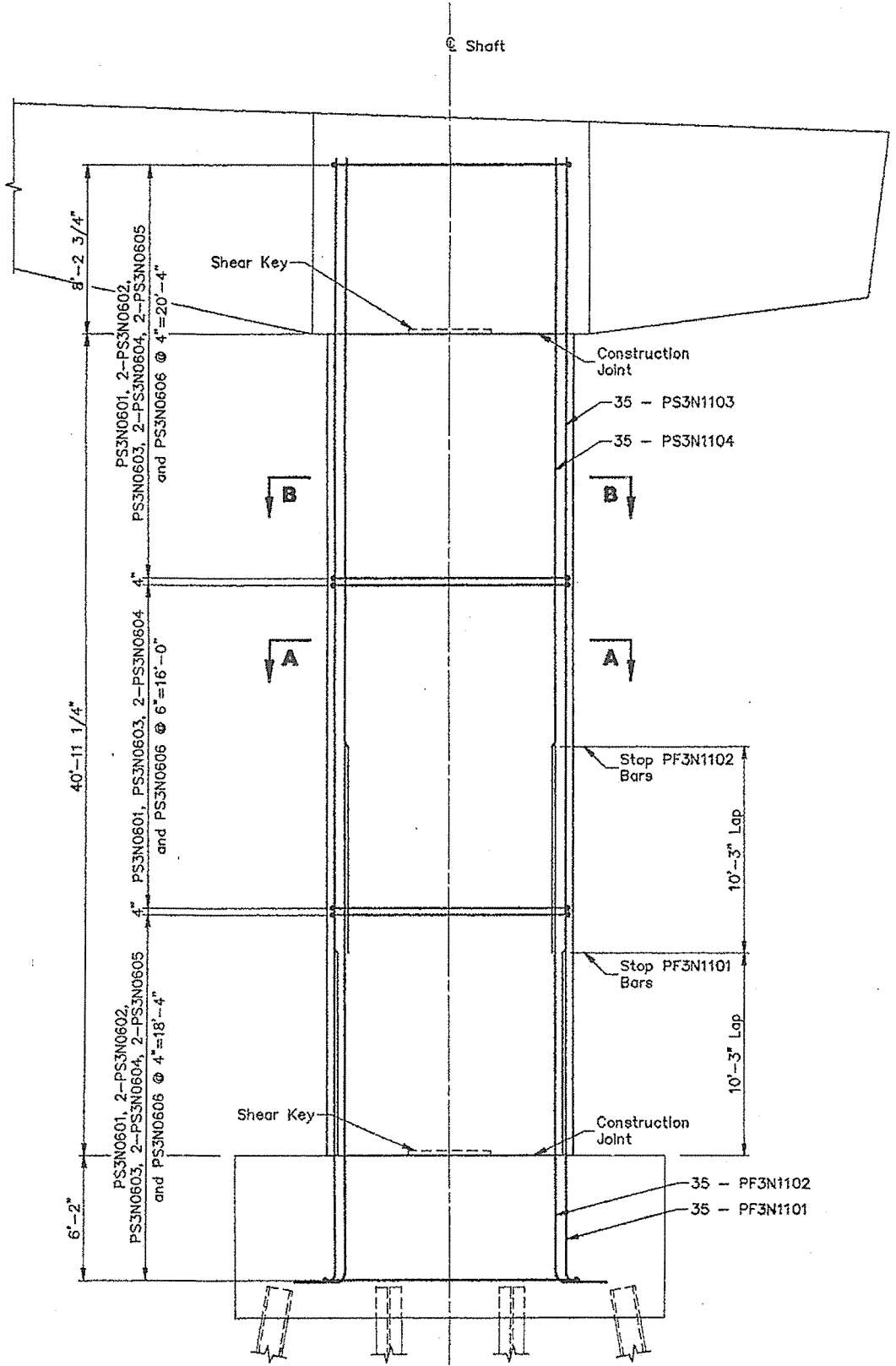
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**PORTLAND - S. PORTLAND BRIDGE**  
**OVER FORE RIVER**  
**CUMBERLAND COUNTY**  
**SHAFT REINFORCING**  
**PIER 2N (S.B.L.)**

SHEET 160 OF 338 AUGUSTA, MAINE 4/13/94

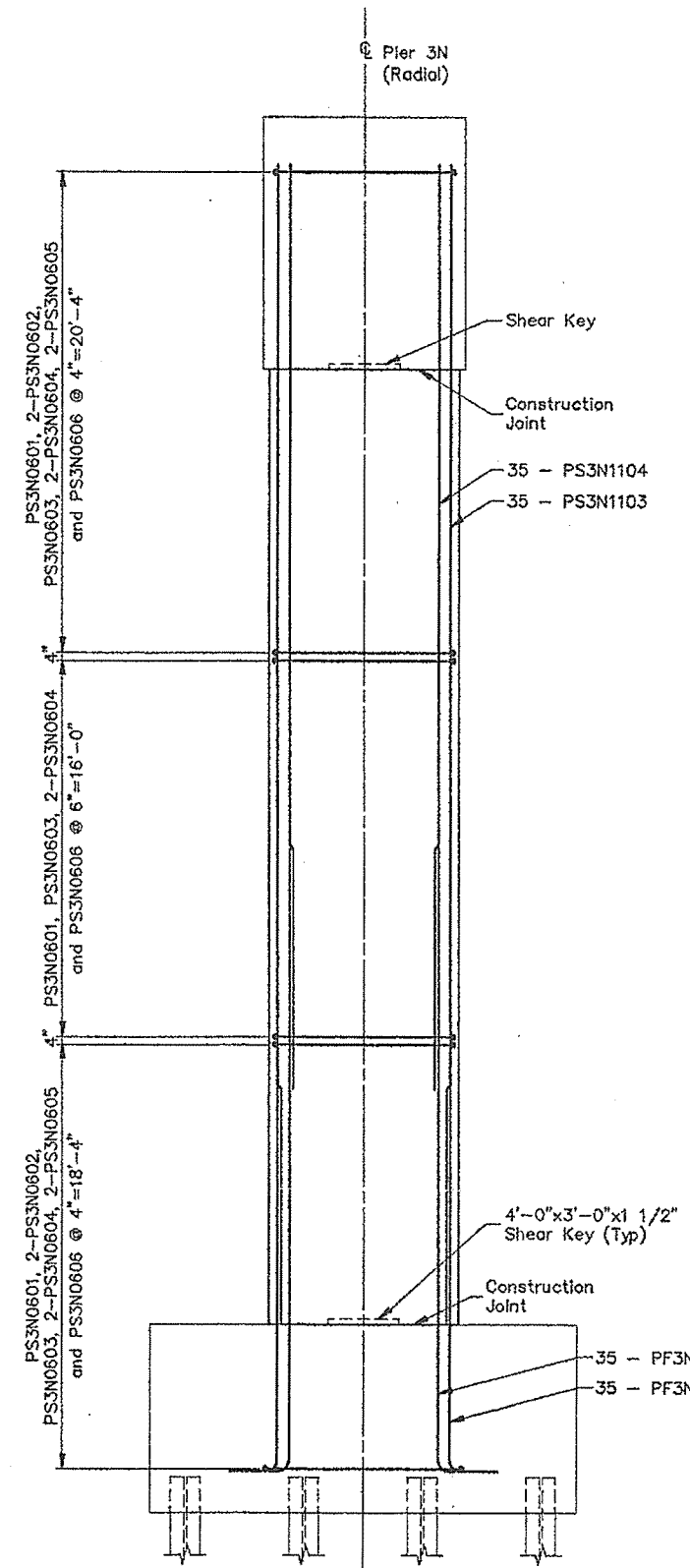


**TIE CONNECTION DETAIL**

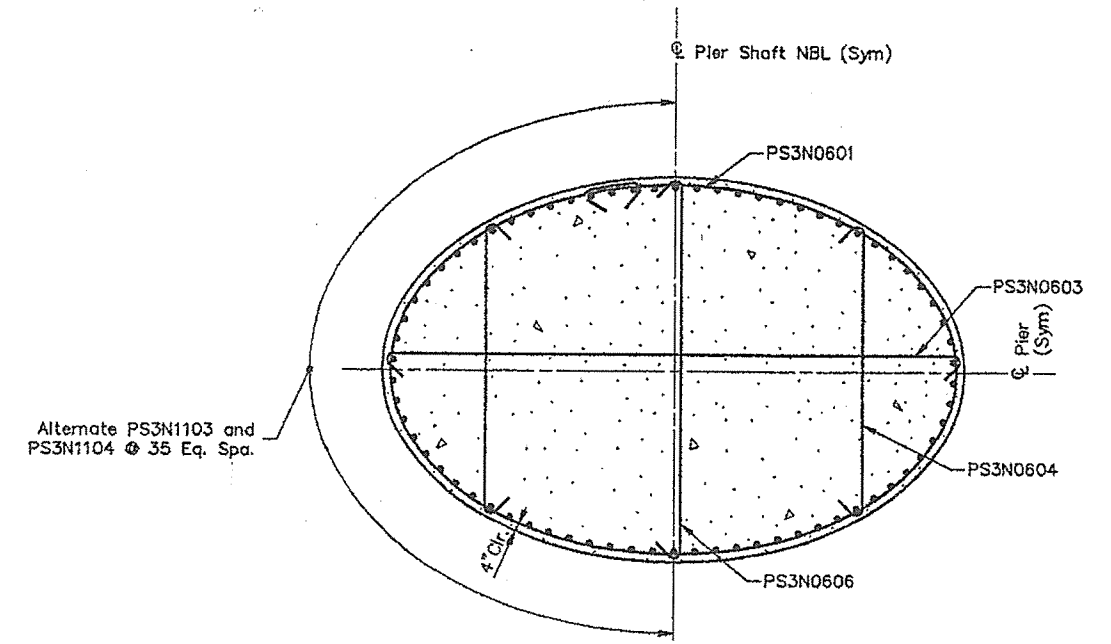
APR 13 1994



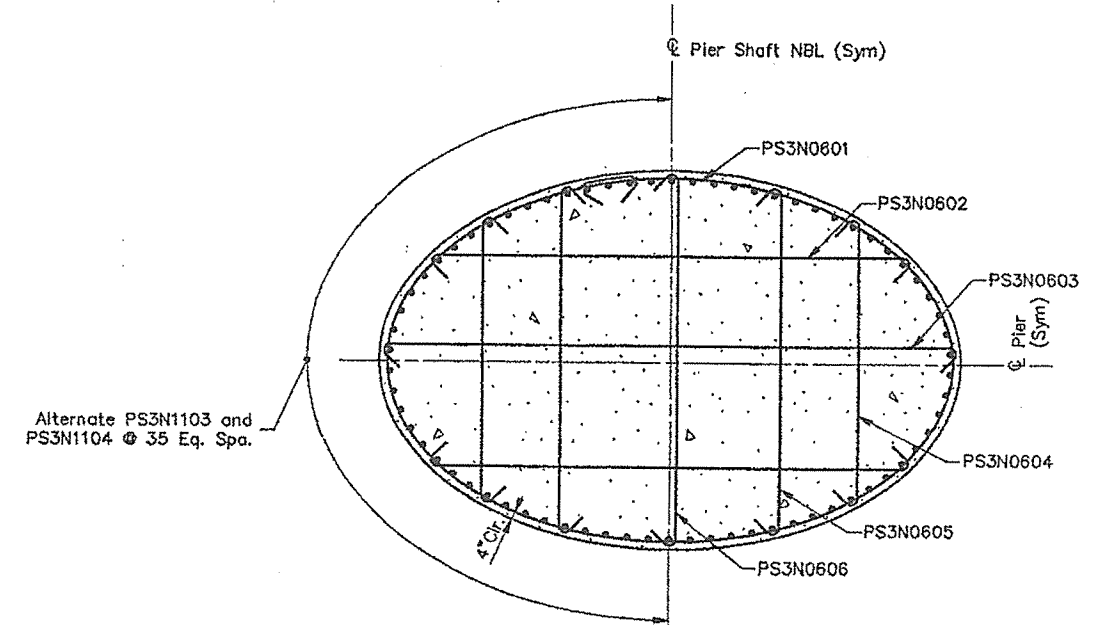
**ELEVATION**



**SIDE ELEVATION**

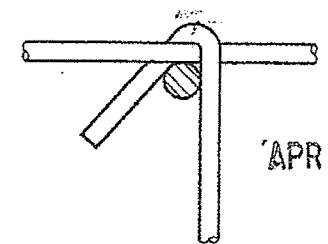


**SECTION A-A**



**SECTION B-B**

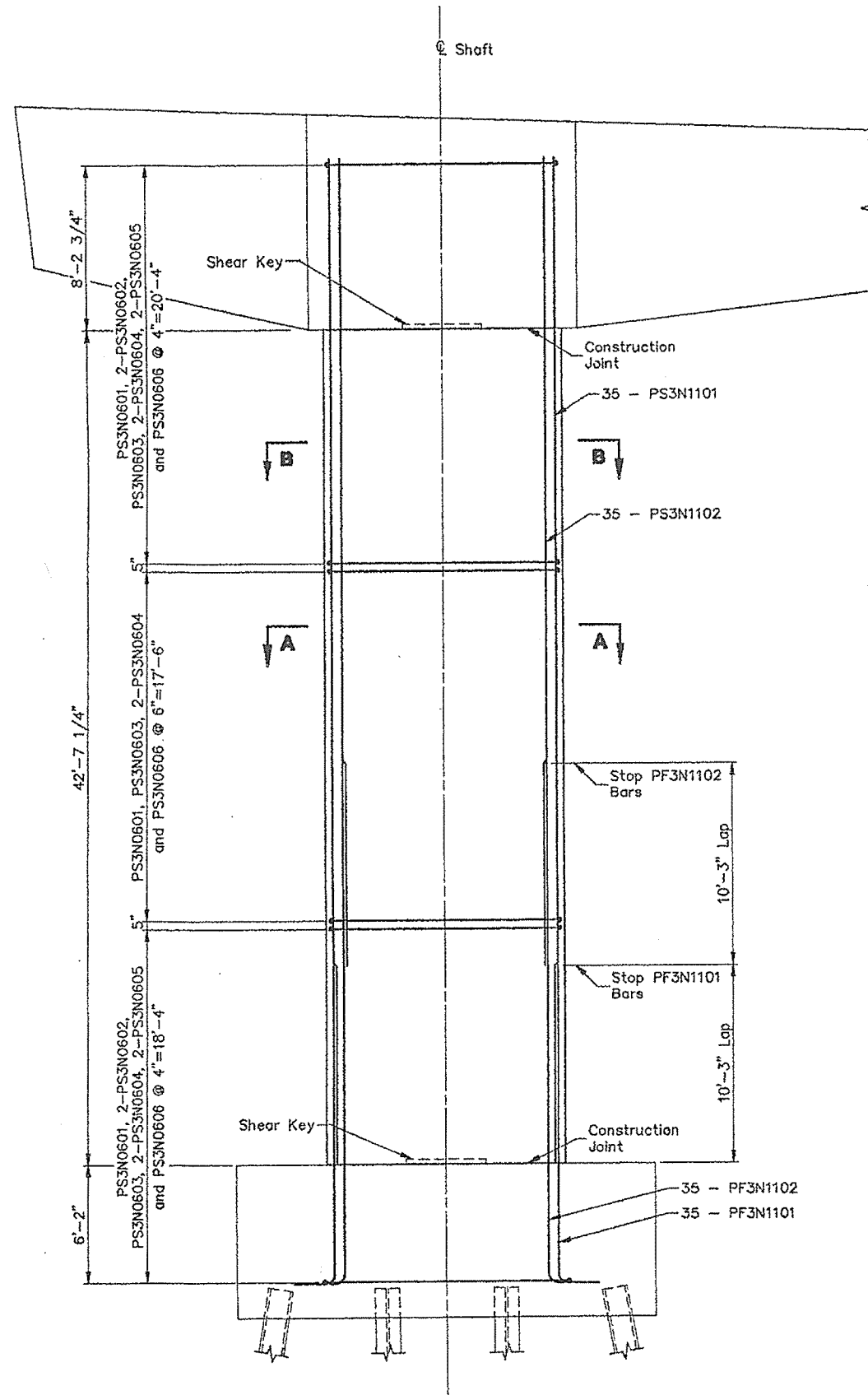
Notes: 1. Cap and footing reinforcing not shown in elevation for clarity.



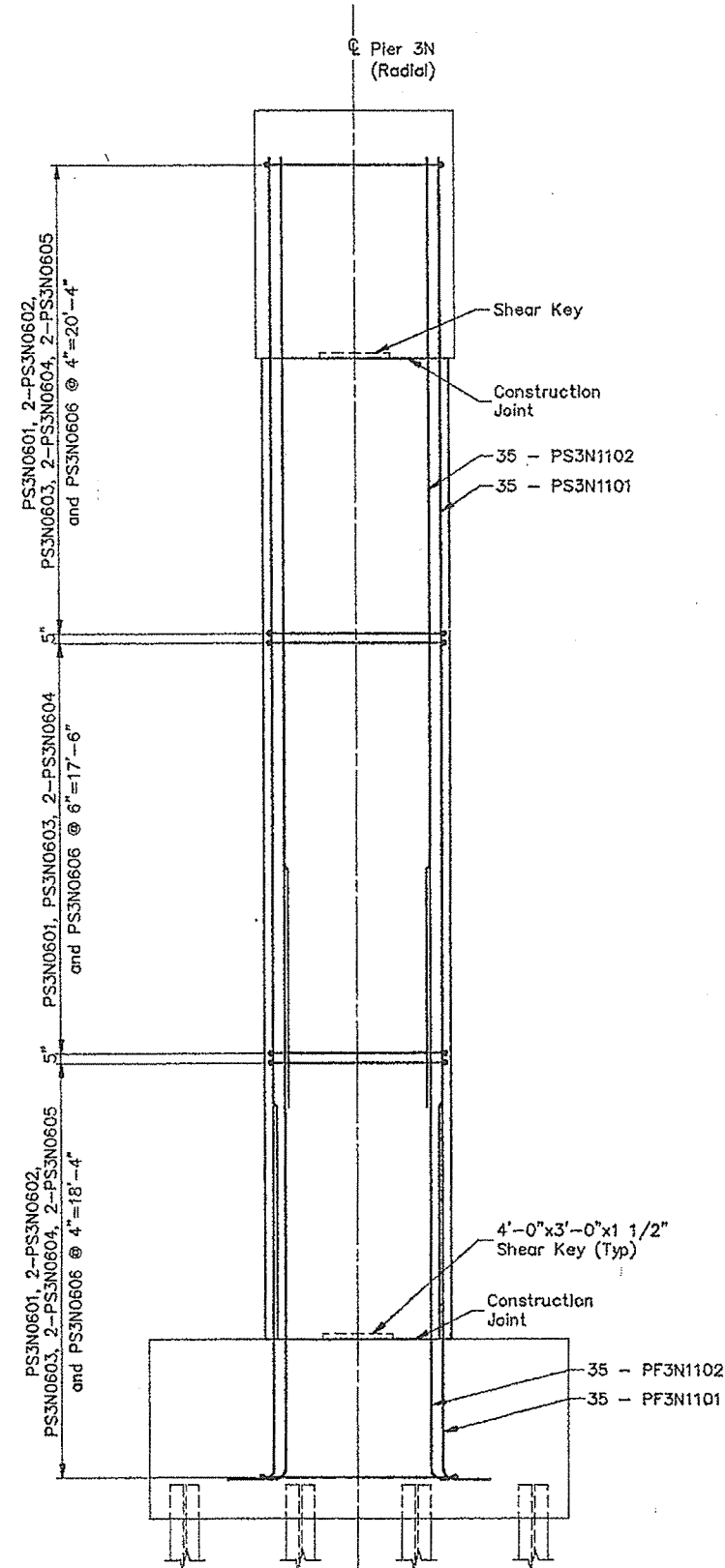
**TIE CONNECTION DETAIL**

STEEL ALTERNATIVE SUBSTRUCTURE

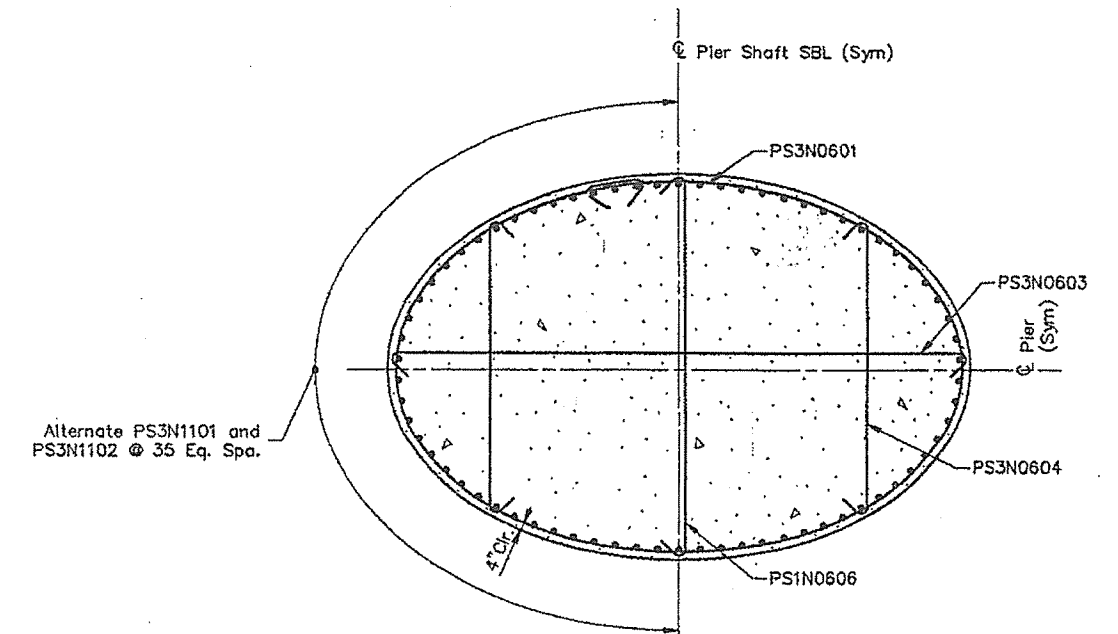
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**PORTLAND - S. PORTLAND BRIDGE**  
OVER FORE RIVER  
CUMBERLAND COUNTY  
**SHAFT REINFORCING  
PIER 3N (N.B.L.)**



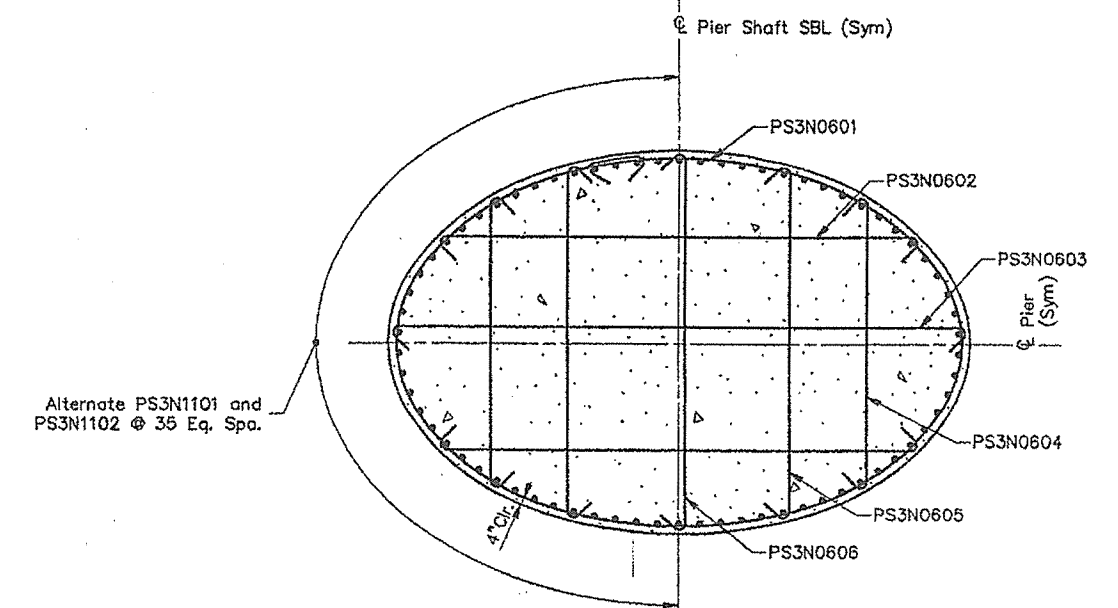
**ELEVATION**



**SIDE ELEVATION**



**SECTION A-A**



**SECTION B-B**

Notes: 1. Cap and footing reinforcing not shown in elevation for clarity.

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

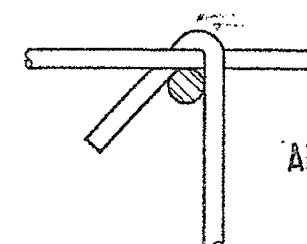
PORTLAND - S. PORTLAND BRIDGE

OVER FORE RIVER

CUMBERLAND COUNTY

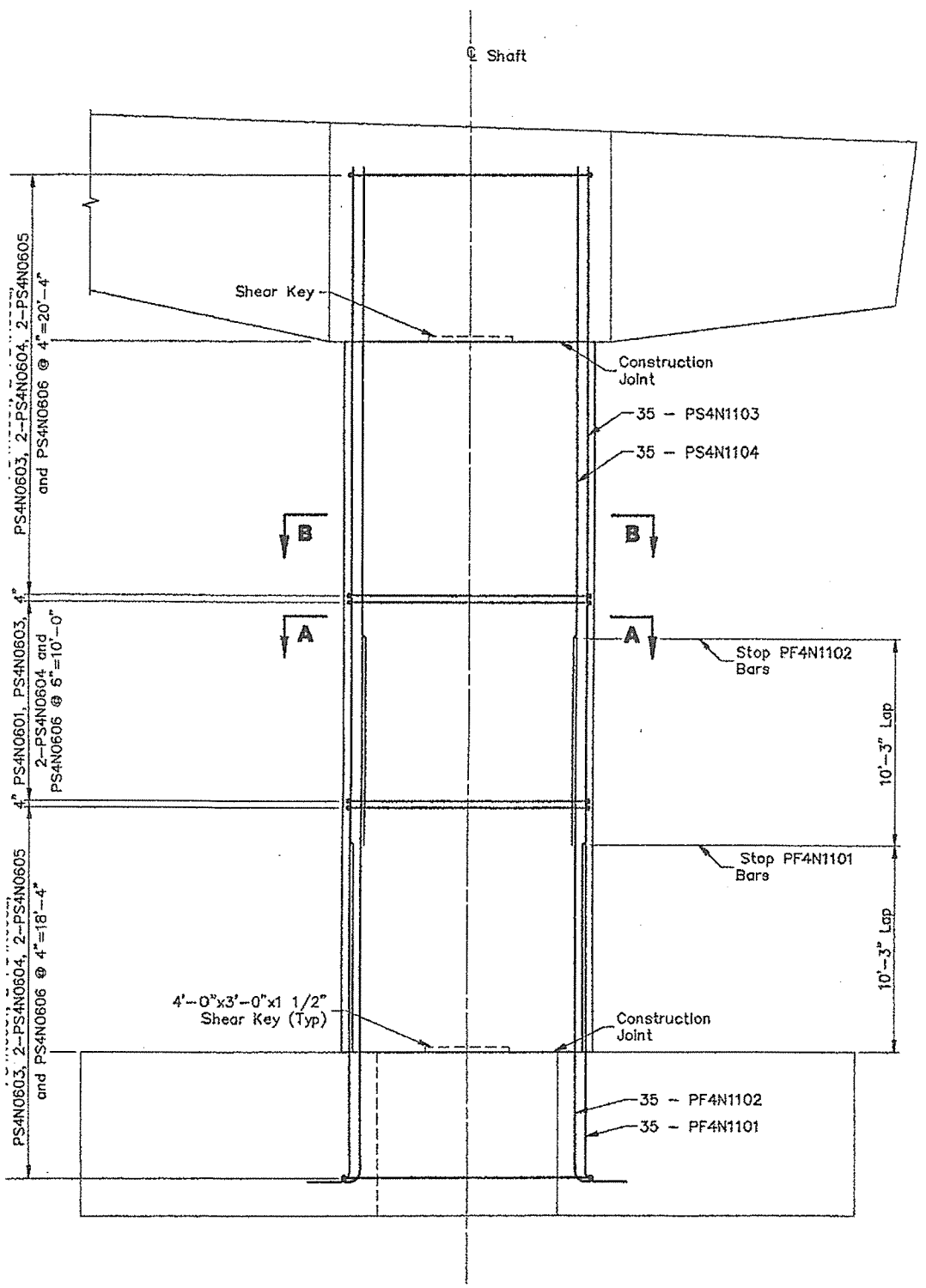
SHAFT REINFORCING  
PIER 3N (S.B.L.)

SHEET 162 OF 338 AUGUSTA, MAINE 4/13/94



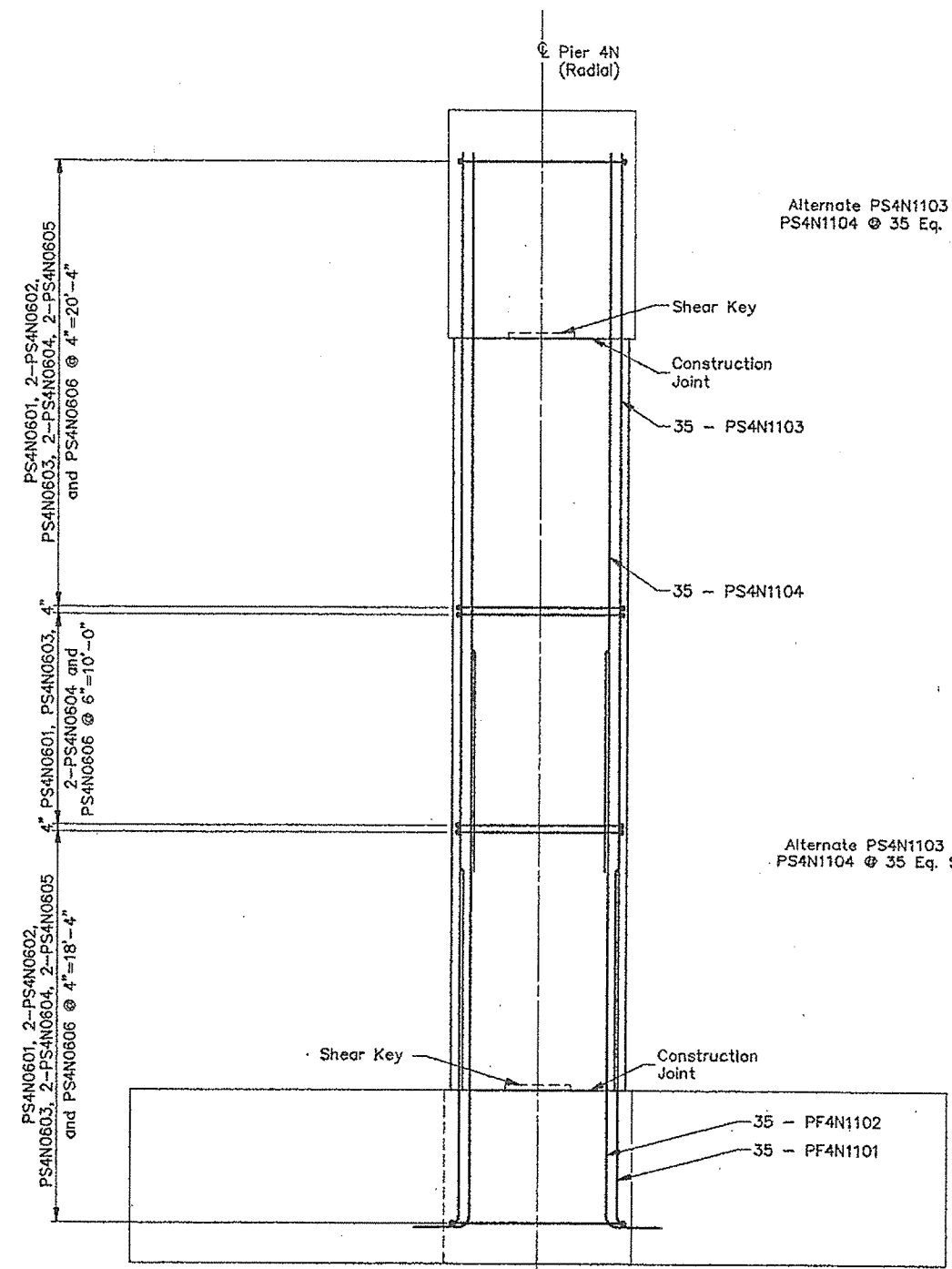
**TIE CONNECTION DETAIL**

APR 13 1994



### ELEVATION

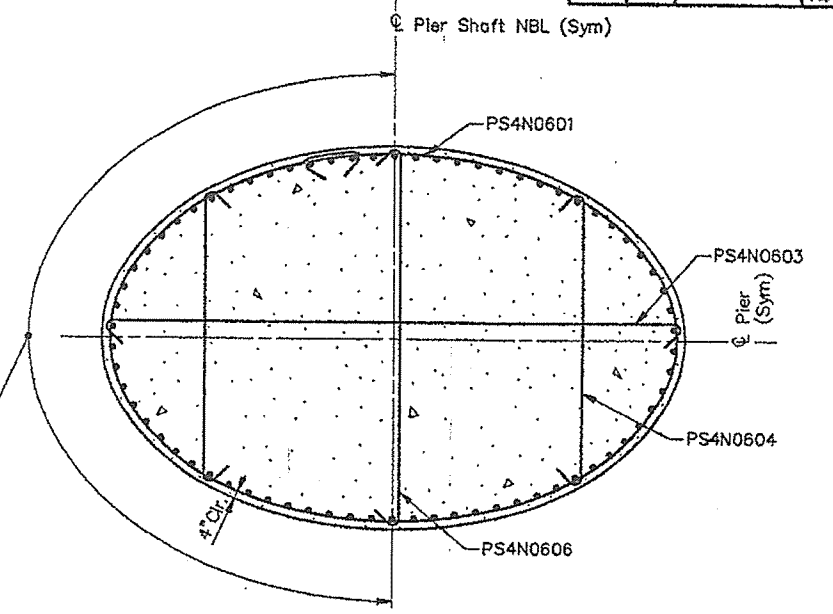
21'-0"x30'-0" Foundation rotated 32° from shaft alignment. Piles not shown for clarity.



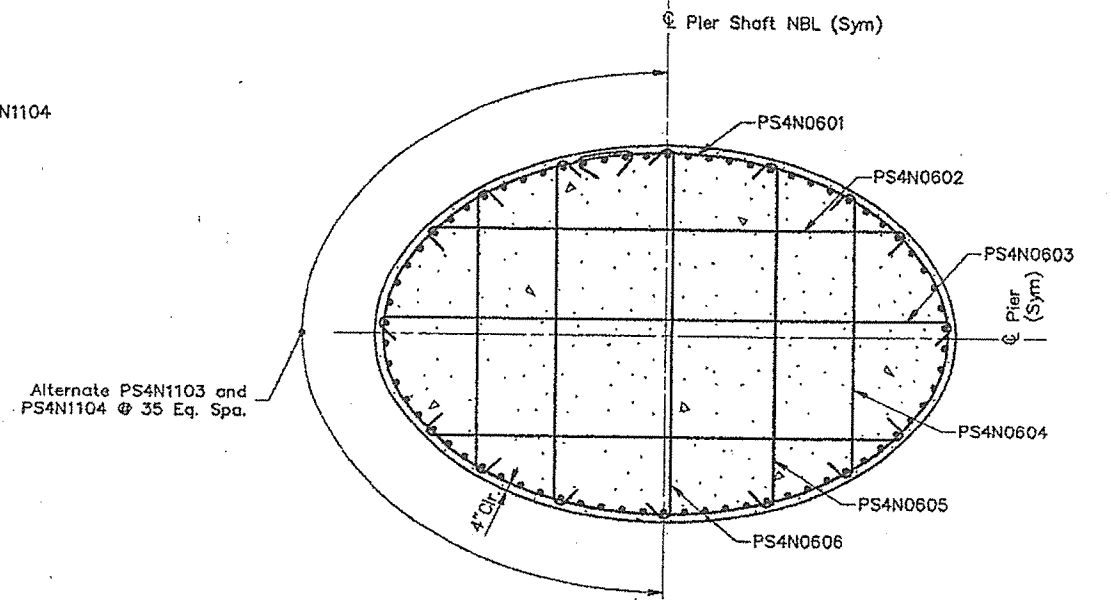
### SIDE ELEVATION

21'-0"x30'-0" Foundation rotated 32° from shaft alignment. Piles not shown for clarity.

Alternate PS4N1103 and PS4N1104 @ 35 Eq. Spa.



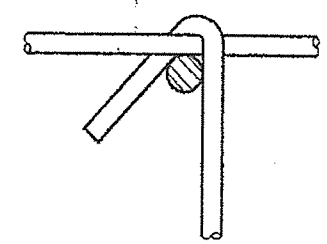
### SECTION A-A



### SECTION B-B

- Notes:
1. Cap and footing reinforcing not shown on elevation for clarity.
  2. For bar layout and footing orientation refer to Foundation Detail Sheet.

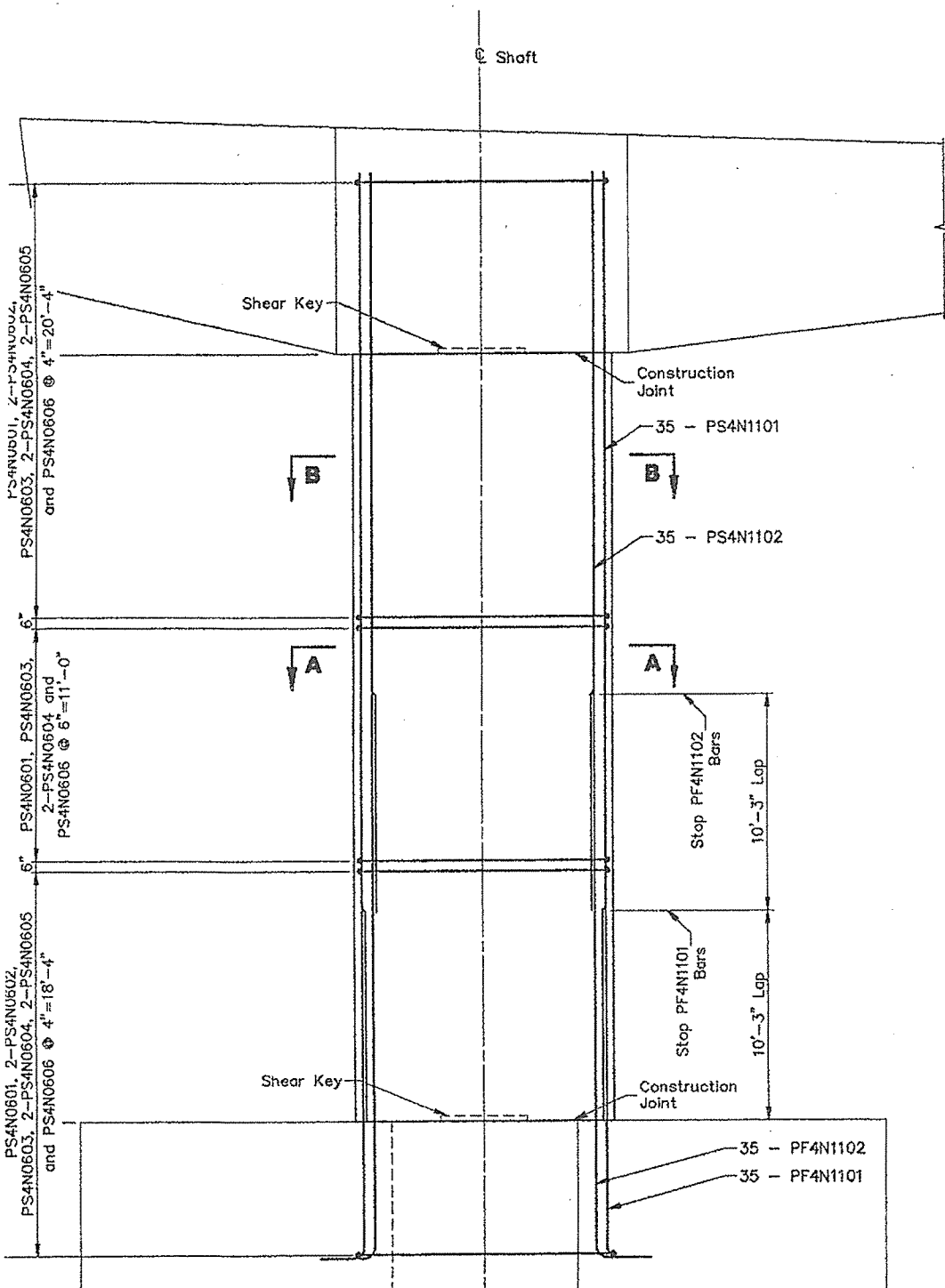
APR 13 1994



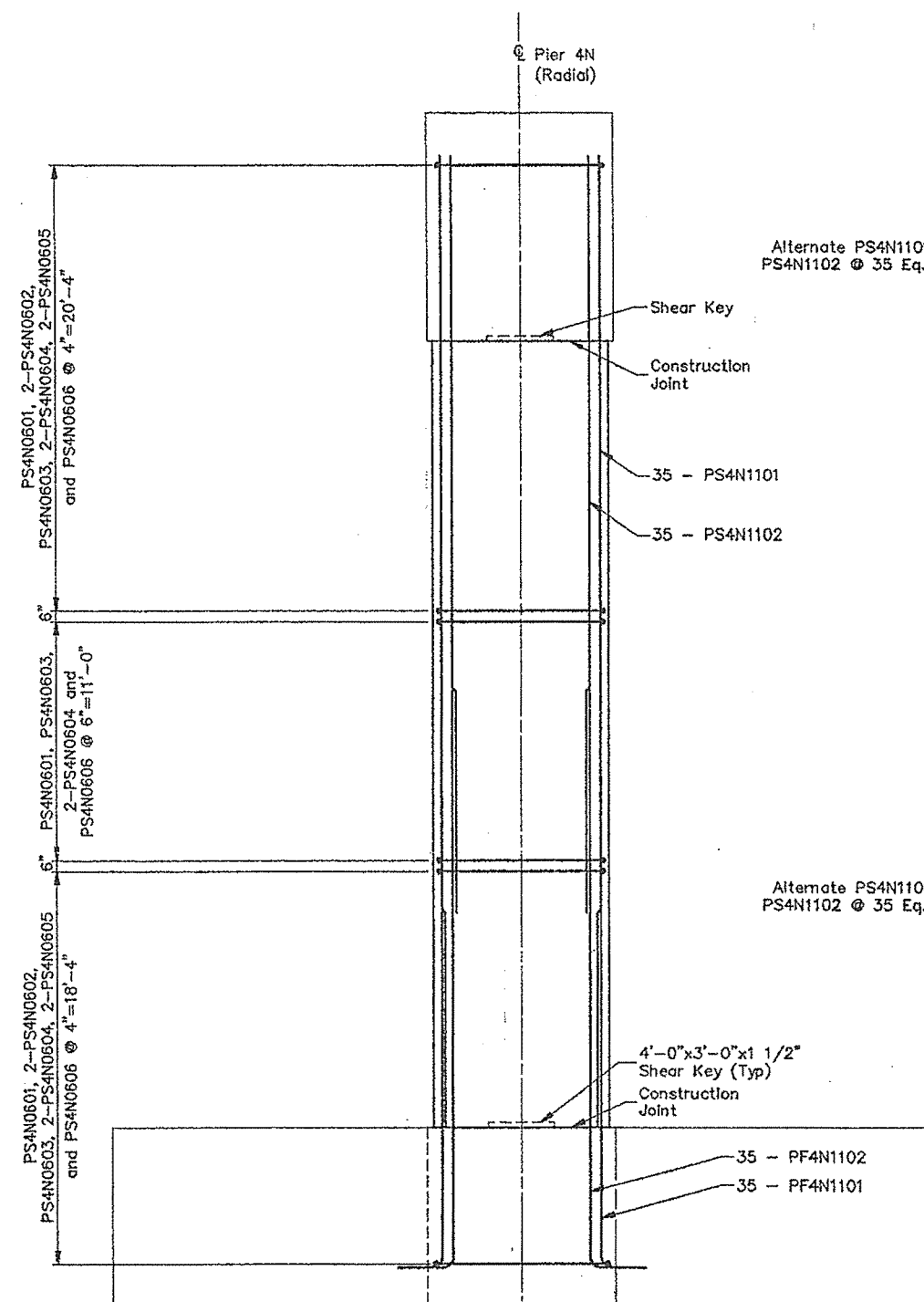
### TIE CONNECTION DETAIL

### STEEL ALTERNATIVE SUBSTRUCTURE

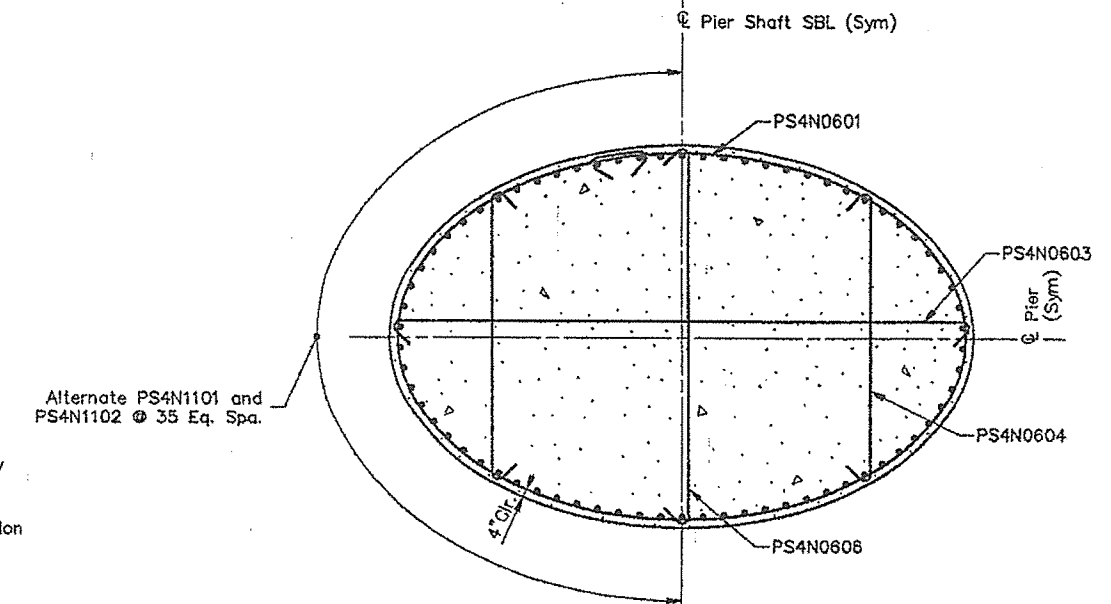
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE
OVER FORE RIVER
CUMBERLAND COUNTY
SHAFT REINFORCING PIER 4N (N.B.L.)



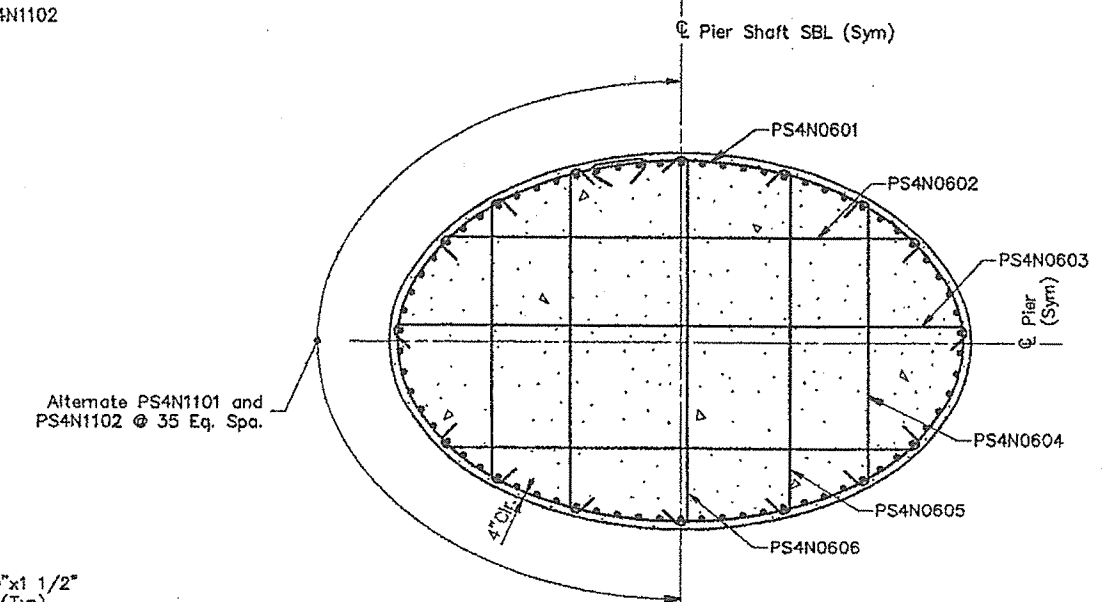
**ELEVATION**  
21'-0"x30'-0" Foundation rotated 32° from shaft alignment. Piles not shown for clarity.



**SIDE ELEVATION**  
21'-0"x30'-0" Foundation rotated 32° from shaft alignment. Piles not shown for clarity.



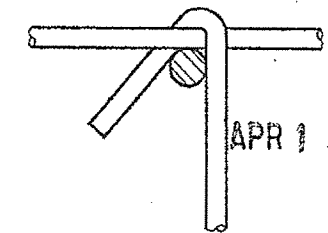
**SECTION A-A**



**SECTION B-B**

- Notes:**
1. Cap and footing reinforcing not shown in elevation for clarity.
  2. For bar layout and footing orientation refer to foundation detail sheet.

STEEL ALTERNATIVE SUBSTRUCTURE



**TIE CONNECTION DETAIL**

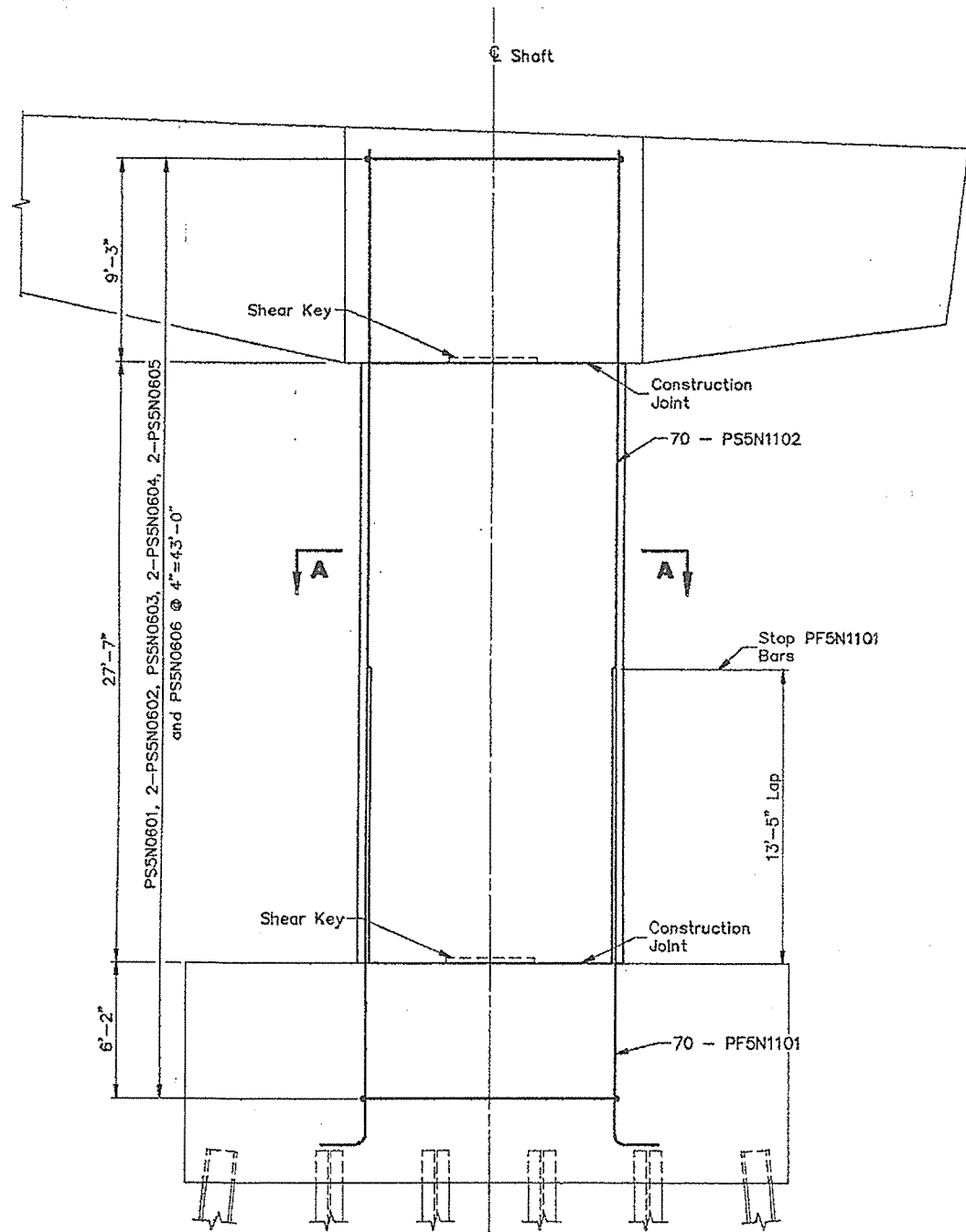
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND BRIDGE**

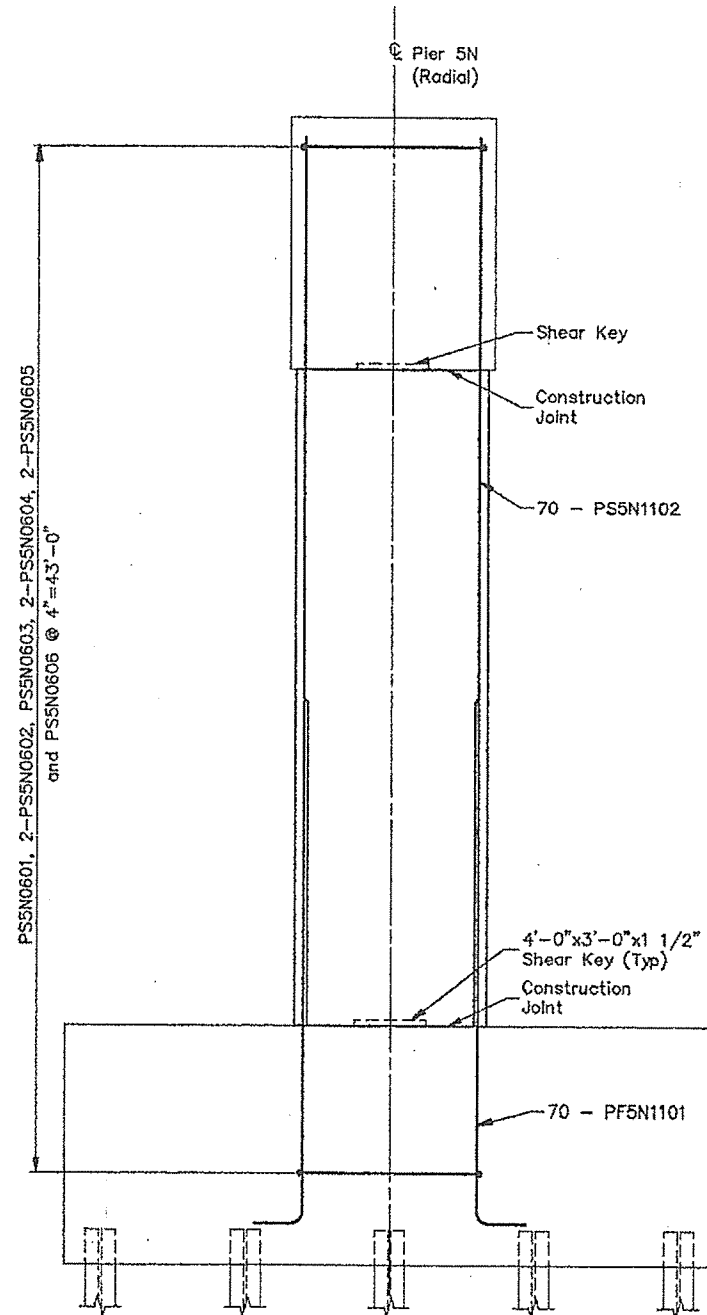
**OVER FORE RIVER**

**CUMBERLAND COUNTY**

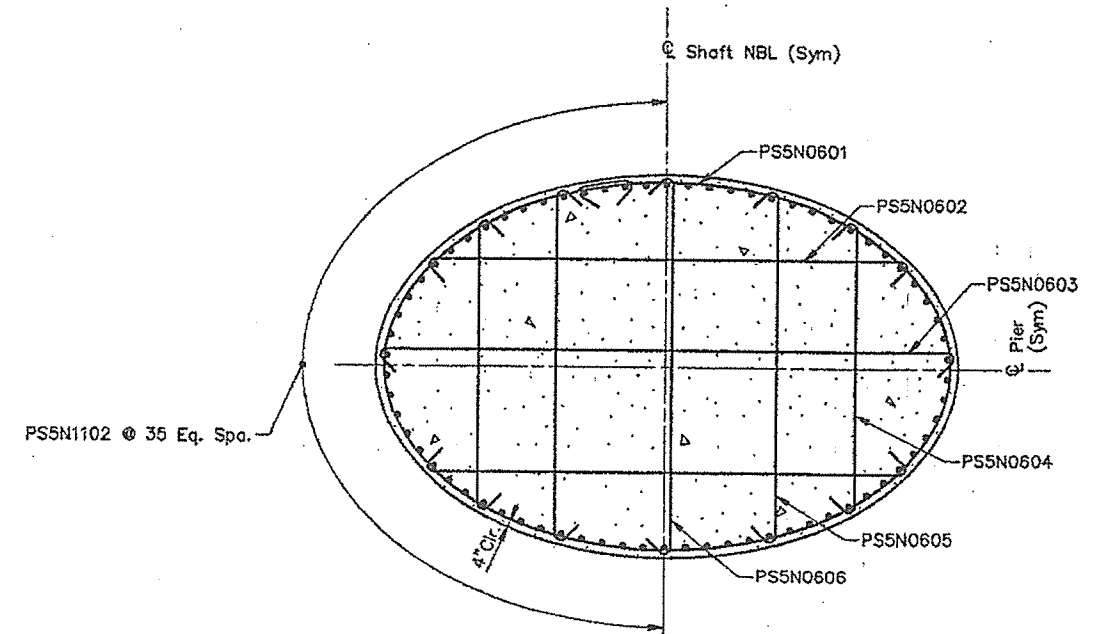
**SHAFT REINFORCING PIER 4N (S.B.L.)**



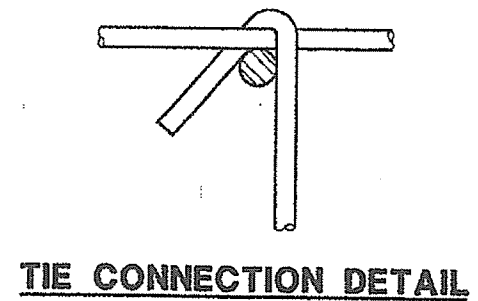
**ELEVATION**



**SIDE ELEVATION**



**SECTION A-A**



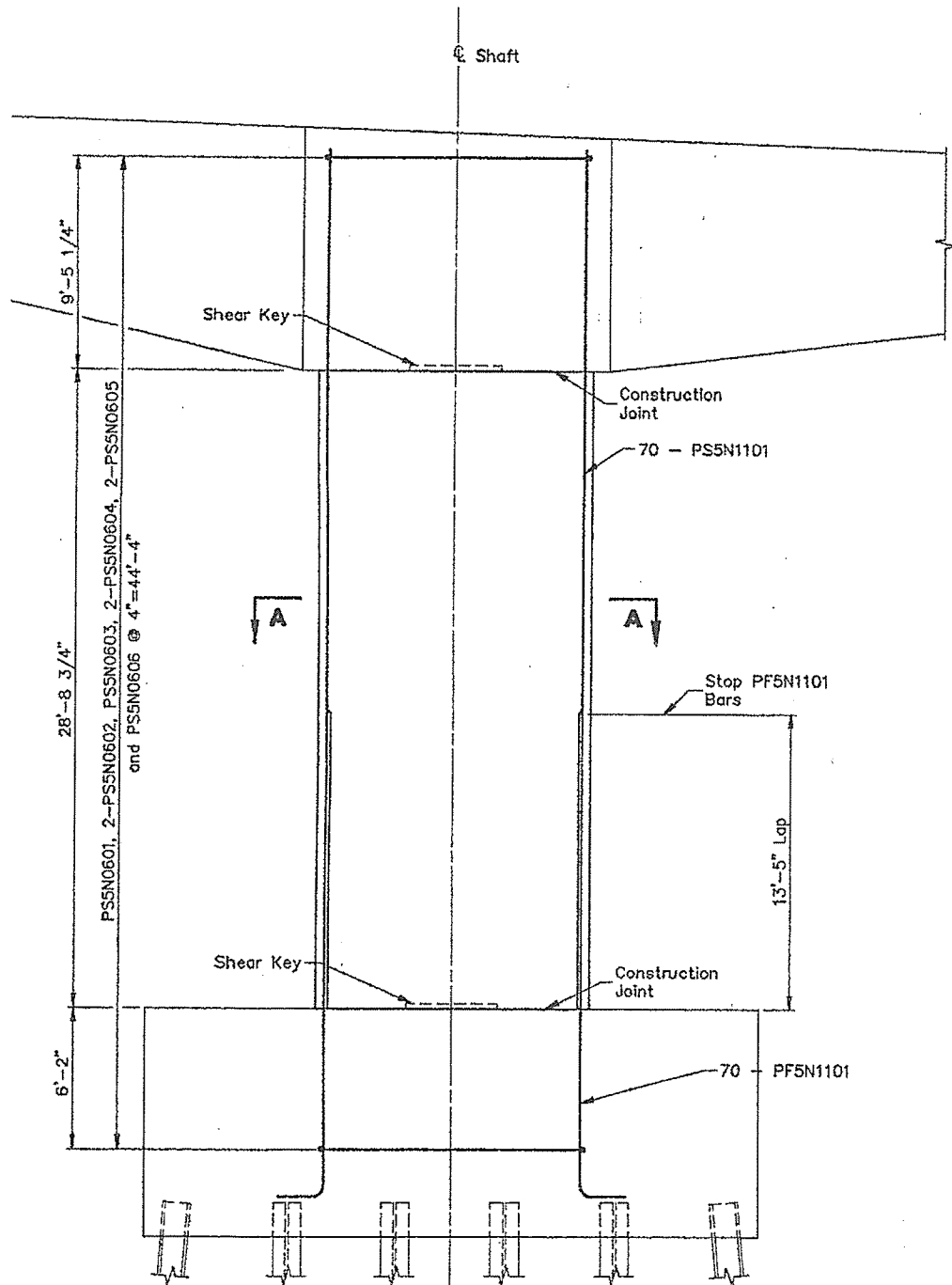
**TIE CONNECTION DETAIL**

Notes: 1. Cop and footing reinforcing not shown in elevation for clarity.

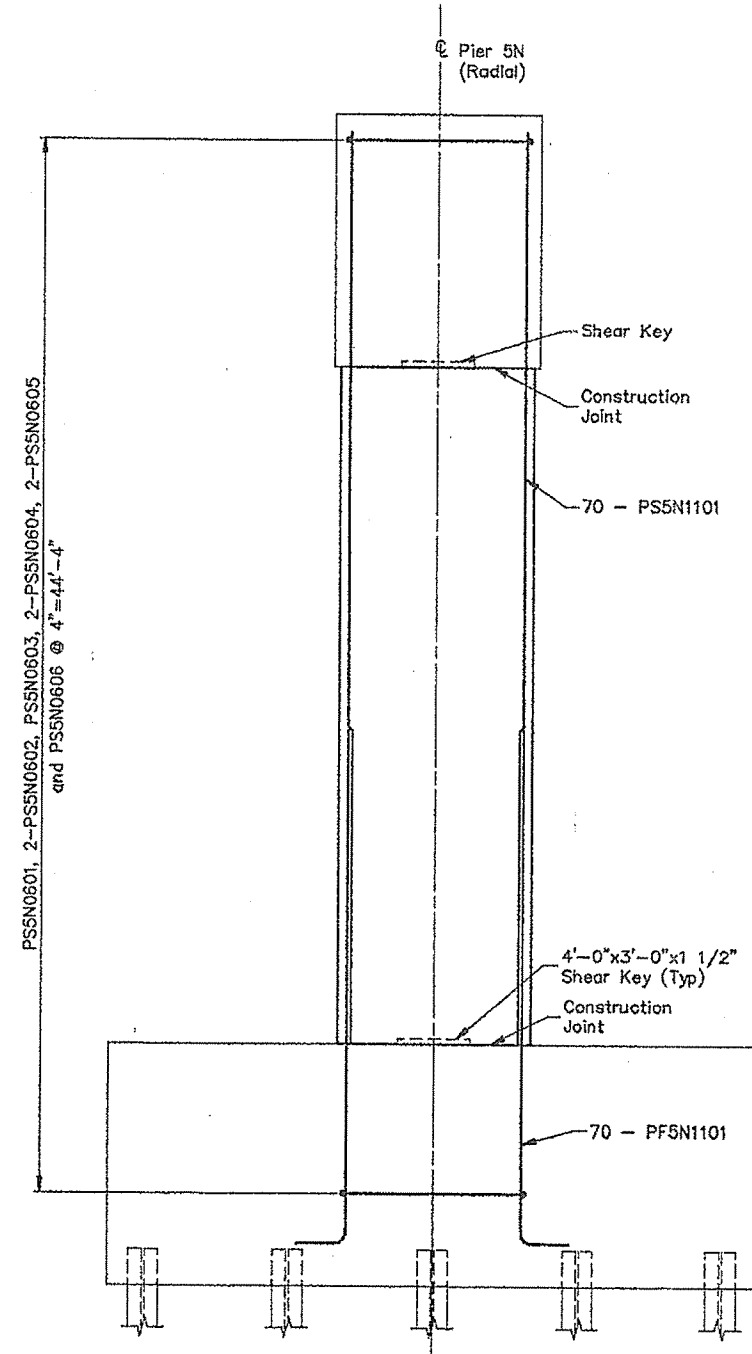
STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE
OVER FORE RIVER
CUMBERLAND COUNTY
SHAFT REINFORCING PIER 5N (N.B.L.)
SHEET 165 OF 338 AUGUSTA, MAINE 4/13/94

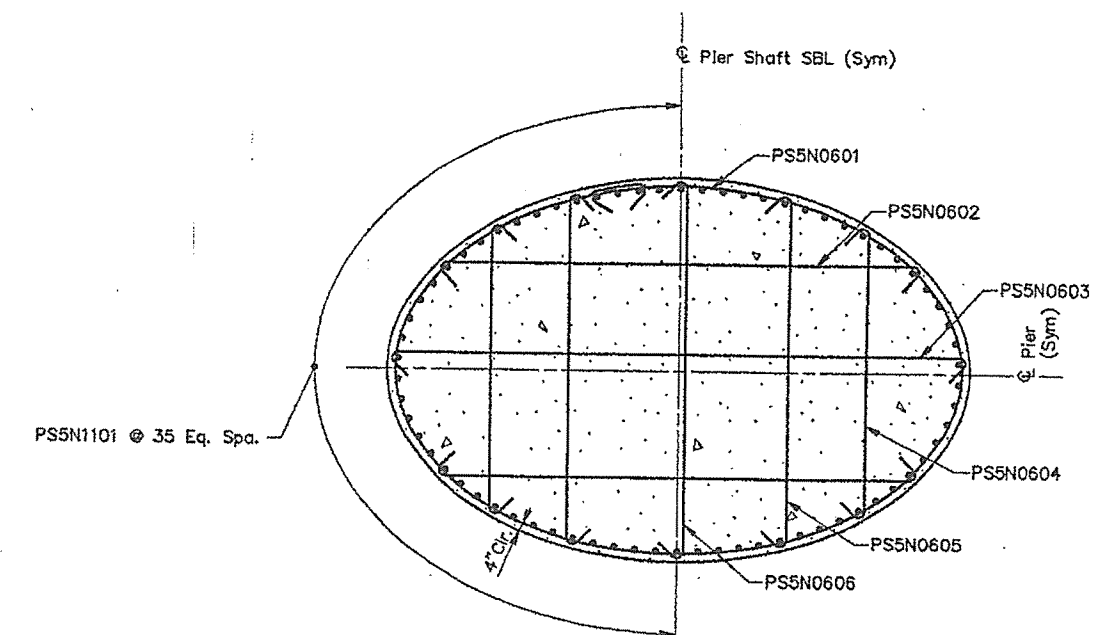
APR 13 1994



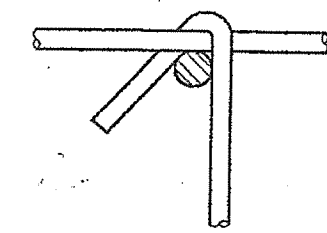
**ELEVATION**



**SIDE ELEVATION**



**SECTION A-A**



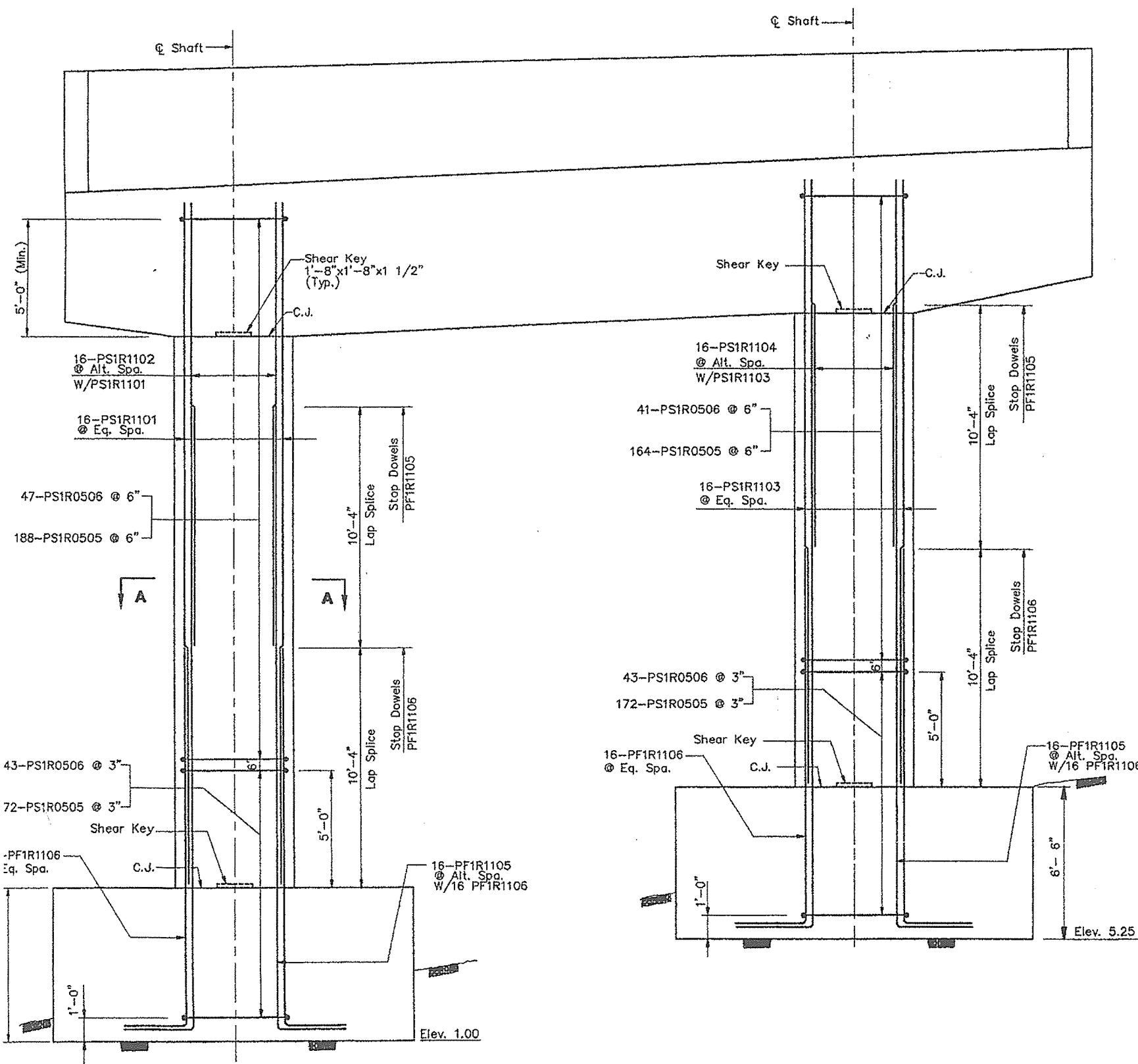
**TIE CONNECTION DETAIL**

Notes: 1. Cap and footing reinforcing not shown in elevation for clarity.

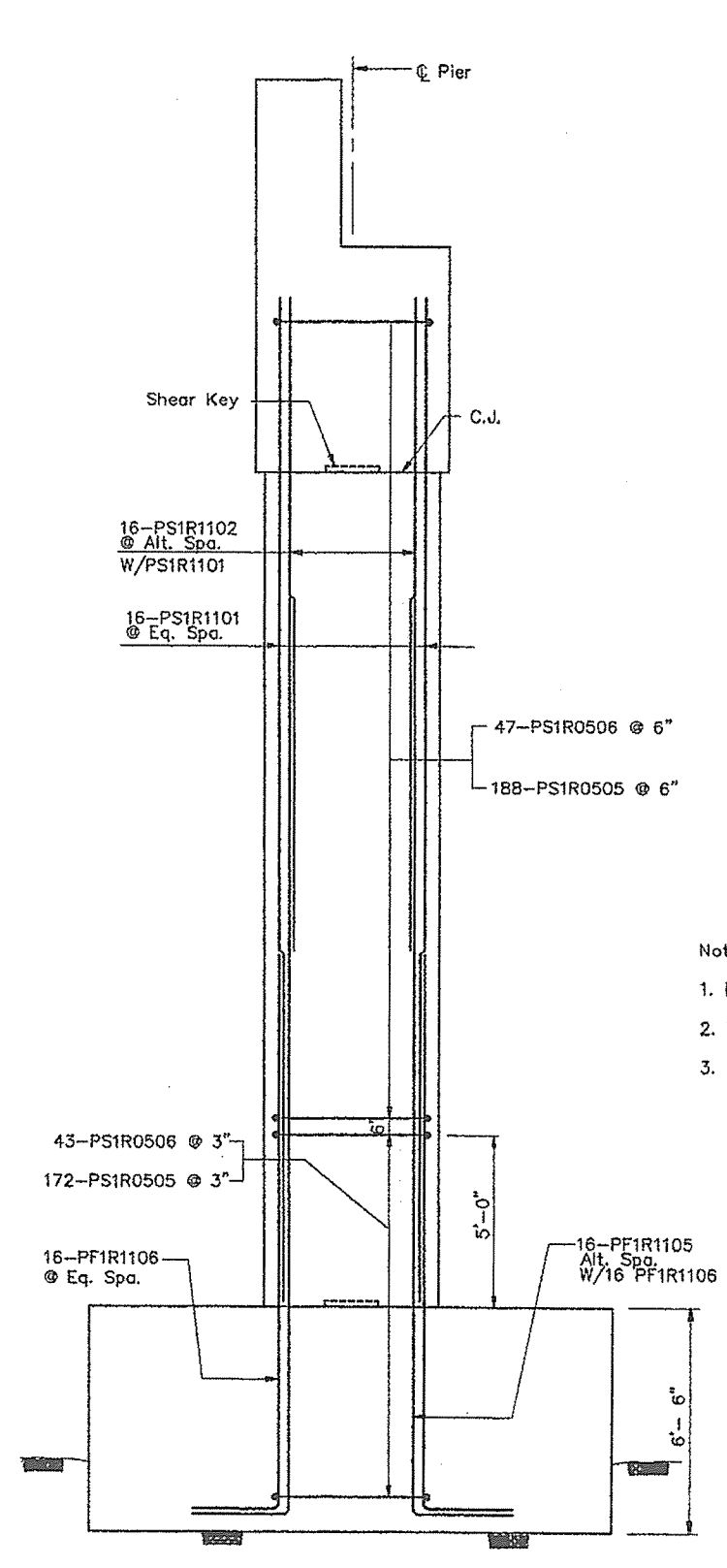
STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
<b>PORTLAND - 8. PORTLAND BRIDGE</b>
<b>OVER FORE RIVER</b>
<b>CUMBERLAND COUNTY</b>
<b>SHAFT REINFORCING PIER 5N (S.B.L.)</b>
SHEET 166 OF 338 AUGUSTA, MAINE 4/13/94

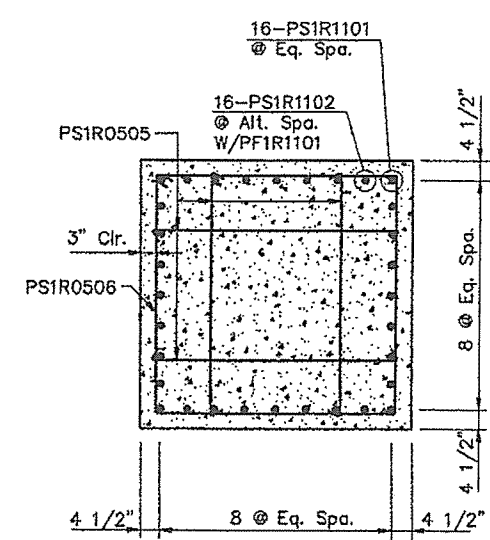
'APR 13 1994



**ELEVATION**



**END ELEVATION**

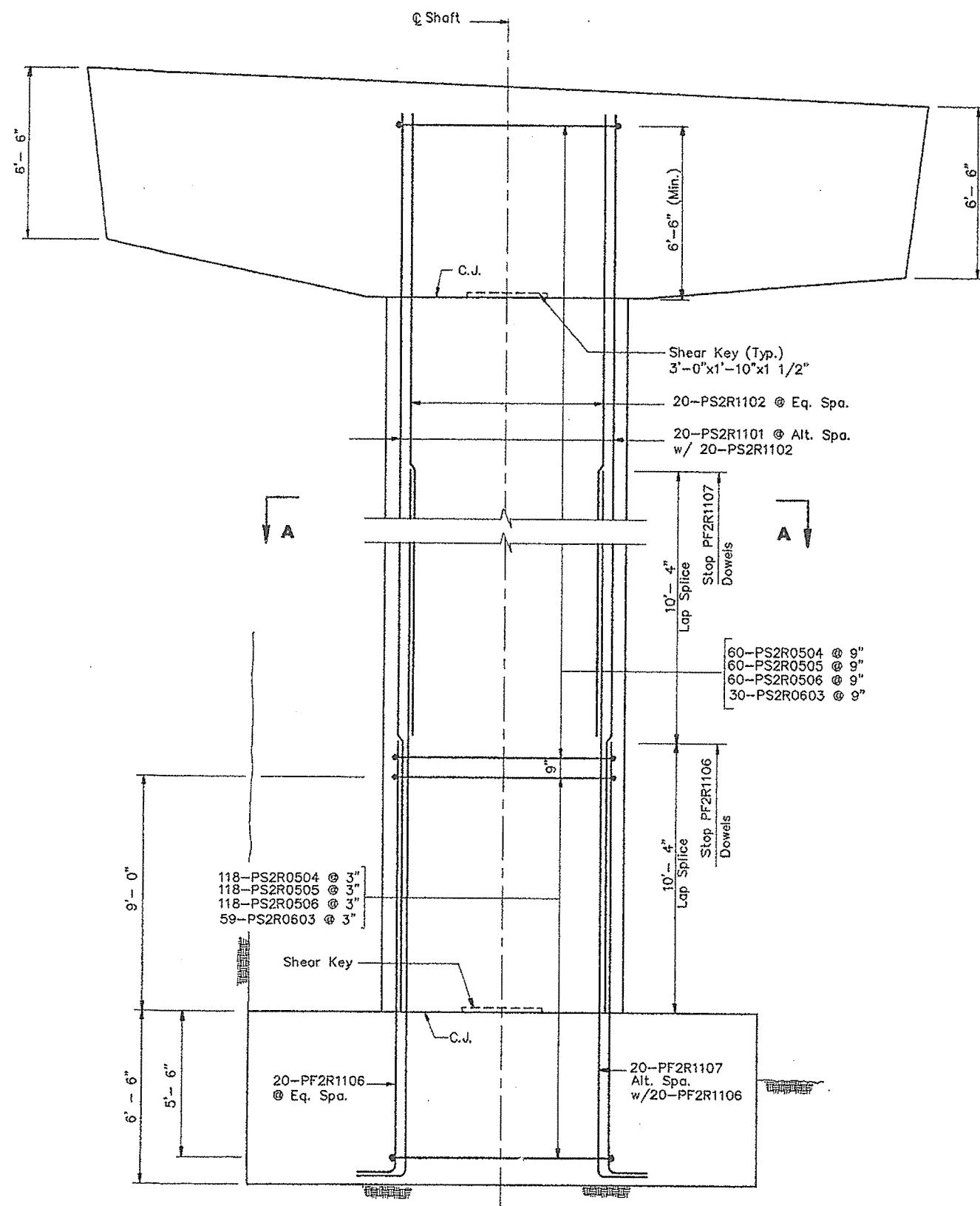


**SECTION A-A**

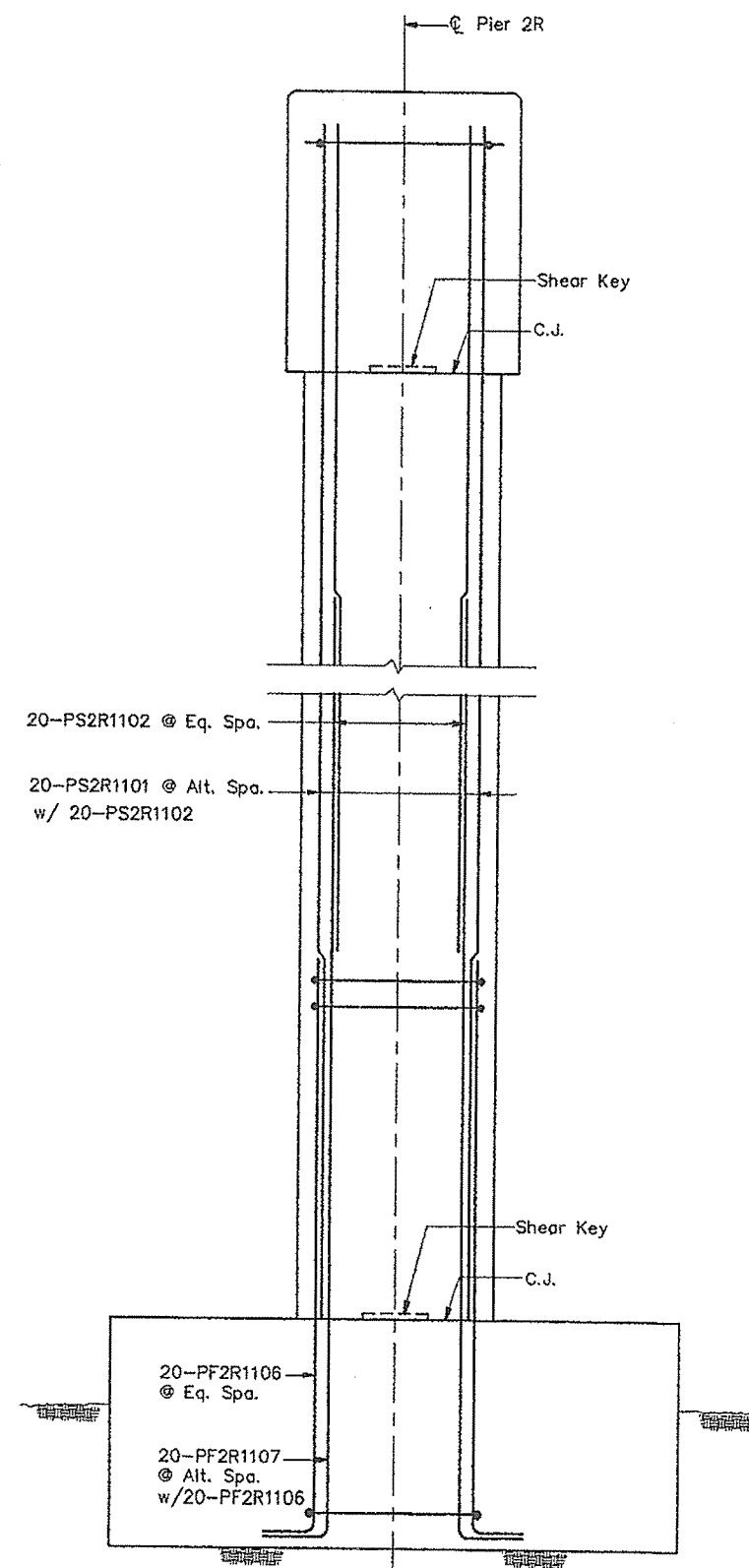
- Notes:
1. For Cap reinforcement, see Cap Reinforcing - Pier 1R.
  2. For Footing details, see Foundation Detail - Pier 1R.
  3. Cap and Footing reinforcement not show for clarity.

STEEL ALTERNATIVE SUBSTRUCTURE

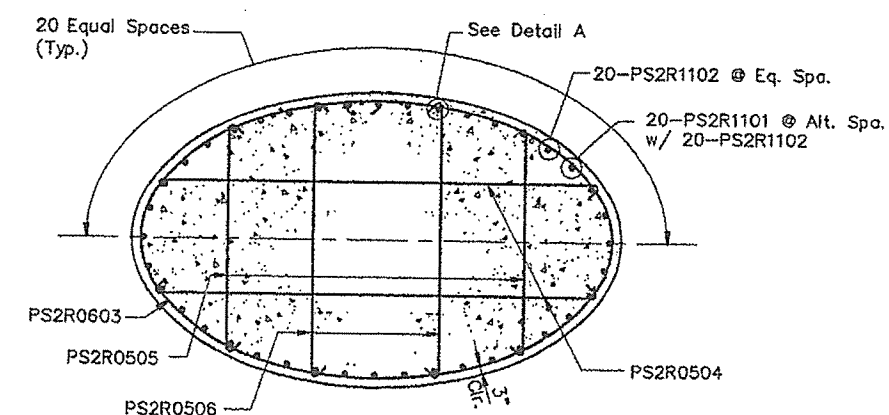
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE
OVER FORE RIVER
CUMBERLAND COUNTY
SHAFT REINFORCEMENT PIER 1R
SHEET 104 OF 234 AUGUSTA, MAINE 6/15/94



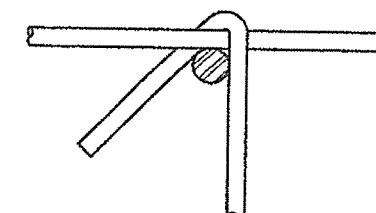
**ELEVATION**



**END ELEVATION**



**SECTION A-A**



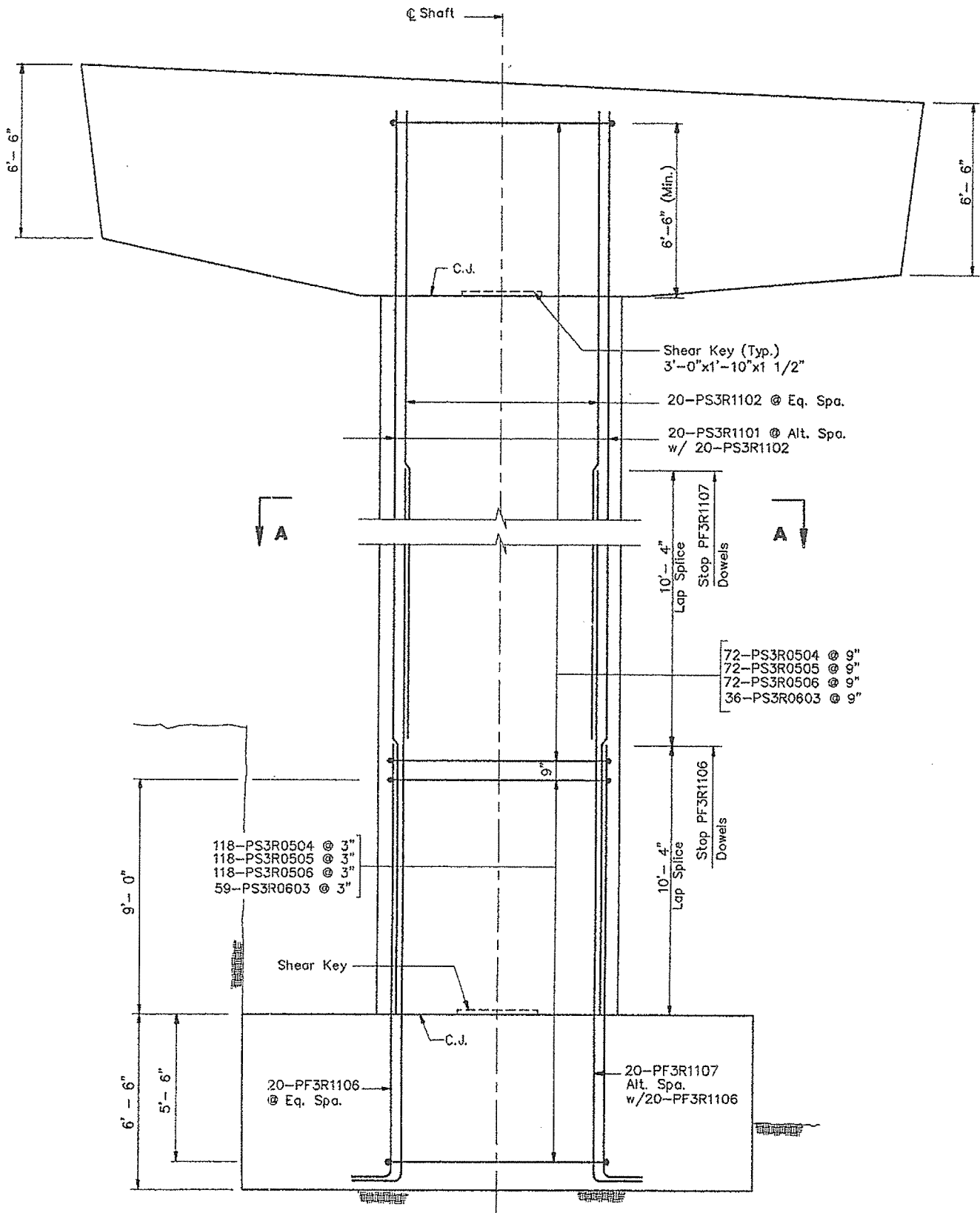
**DETAIL A: TIE CONNECTION**

**Notes:**

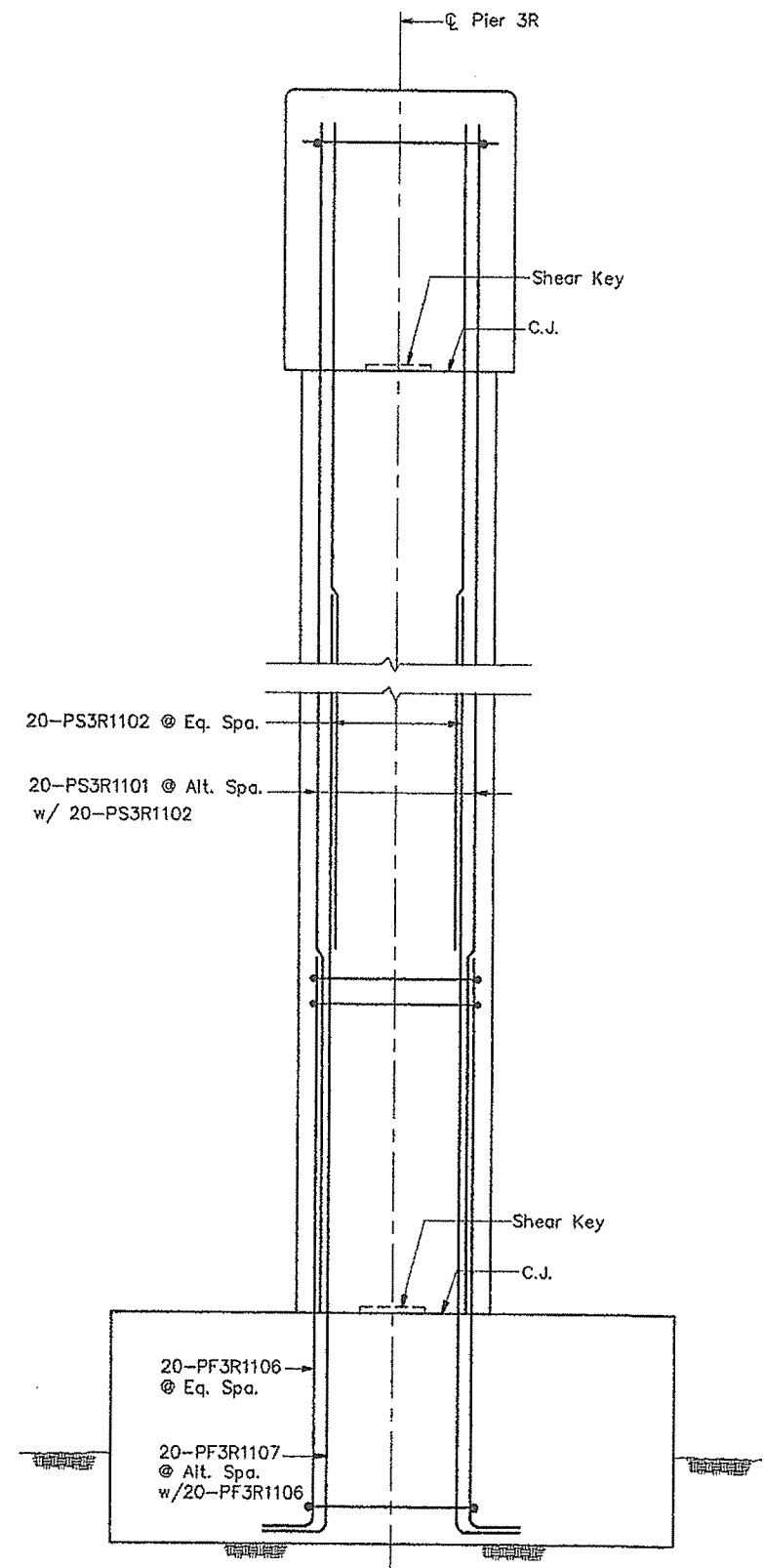
1. For cap reinforcing see Cap Reinforcing - Pier 2R.
2. For foundation details see Foundation Details - Pier 2R.
3. Cap and footing reinforcing not shown for clarity.

**STEEL ALTERNATIVE SUBSTRUCTURE**

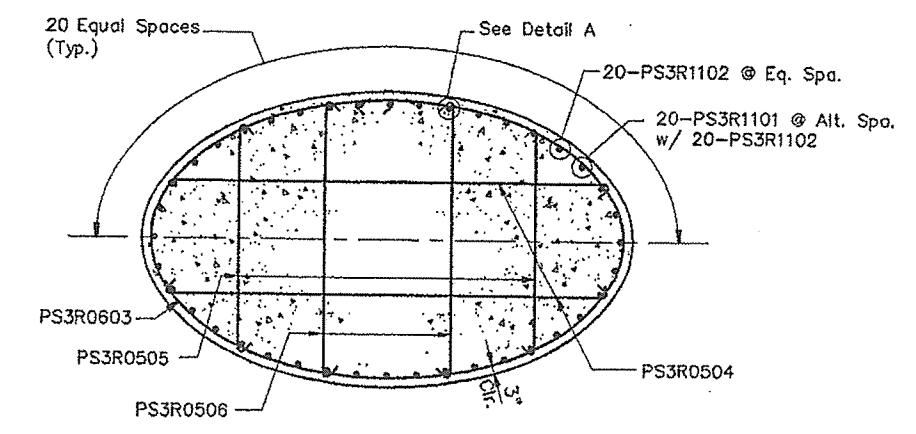
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE OVER FORE RIVER CUMBERLAND COUNTY
SHAFT REINFORCING PIER 2R



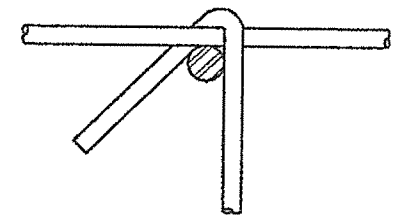
**ELEVATION**



**END ELEVATION**



**SECTION A-A**



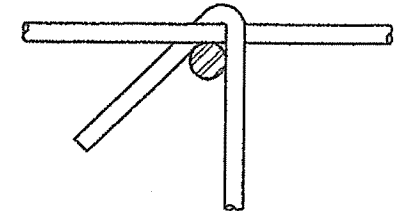
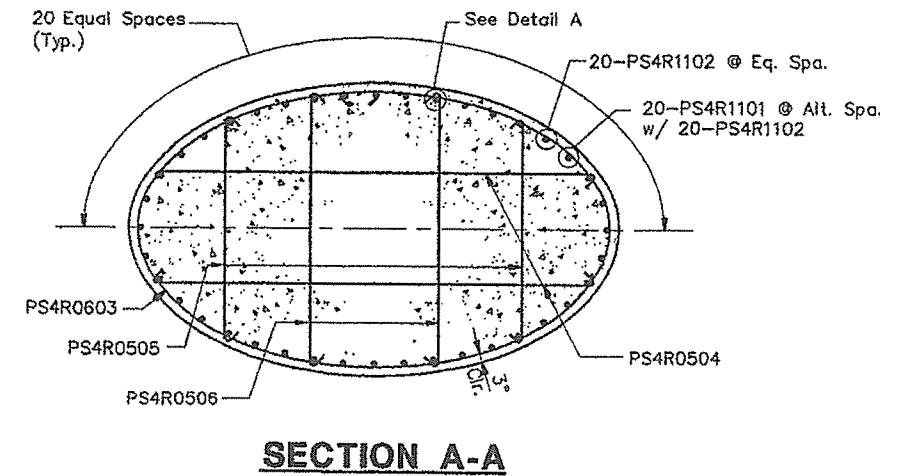
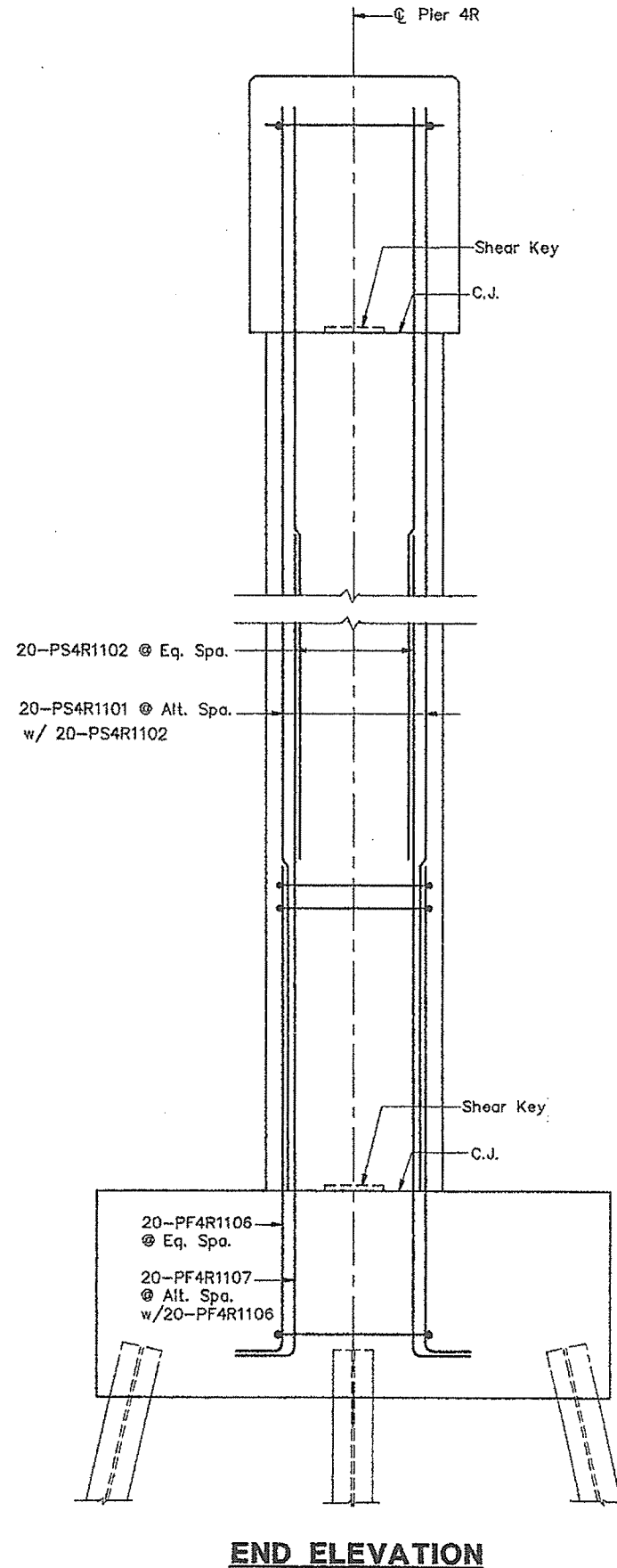
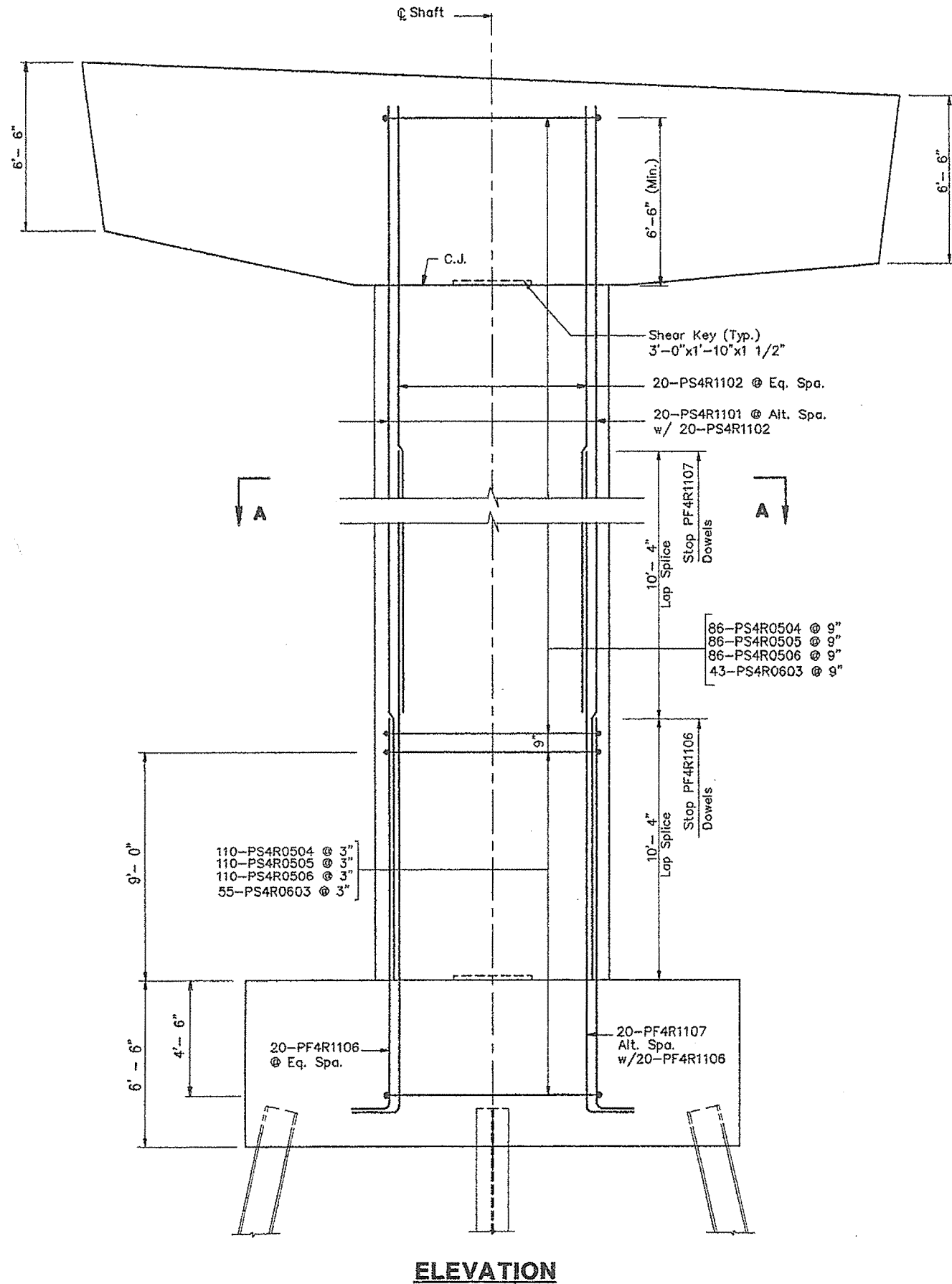
**DETAIL A: TIE CONNECTION**

Notes:

1. For cap reinforcing see Cap Reinforcing -- Pier 3R.
2. For foundation details see Foundation Details -- Pier 3R.
3. Cap and footing reinforcement not shown for clarity.

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE OVER FORE RIVER CUMBERLAND COUNTY
SHAFT REINFORCING PIER 3R
SHEET 169 OF 338 AUGUSTA, MAINE 6/17/94



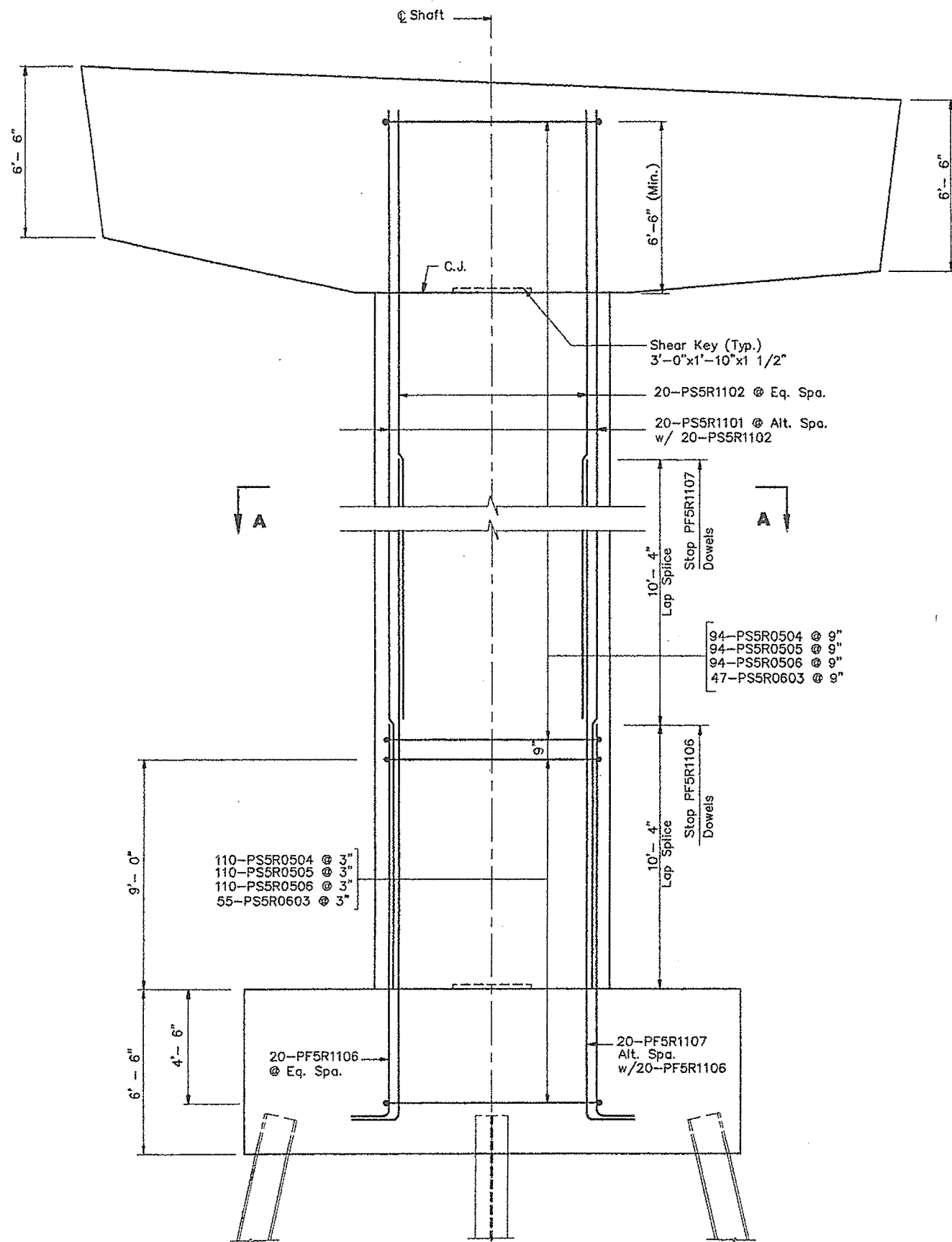
### DETAIL A: TIE CONNECTION

Notes:

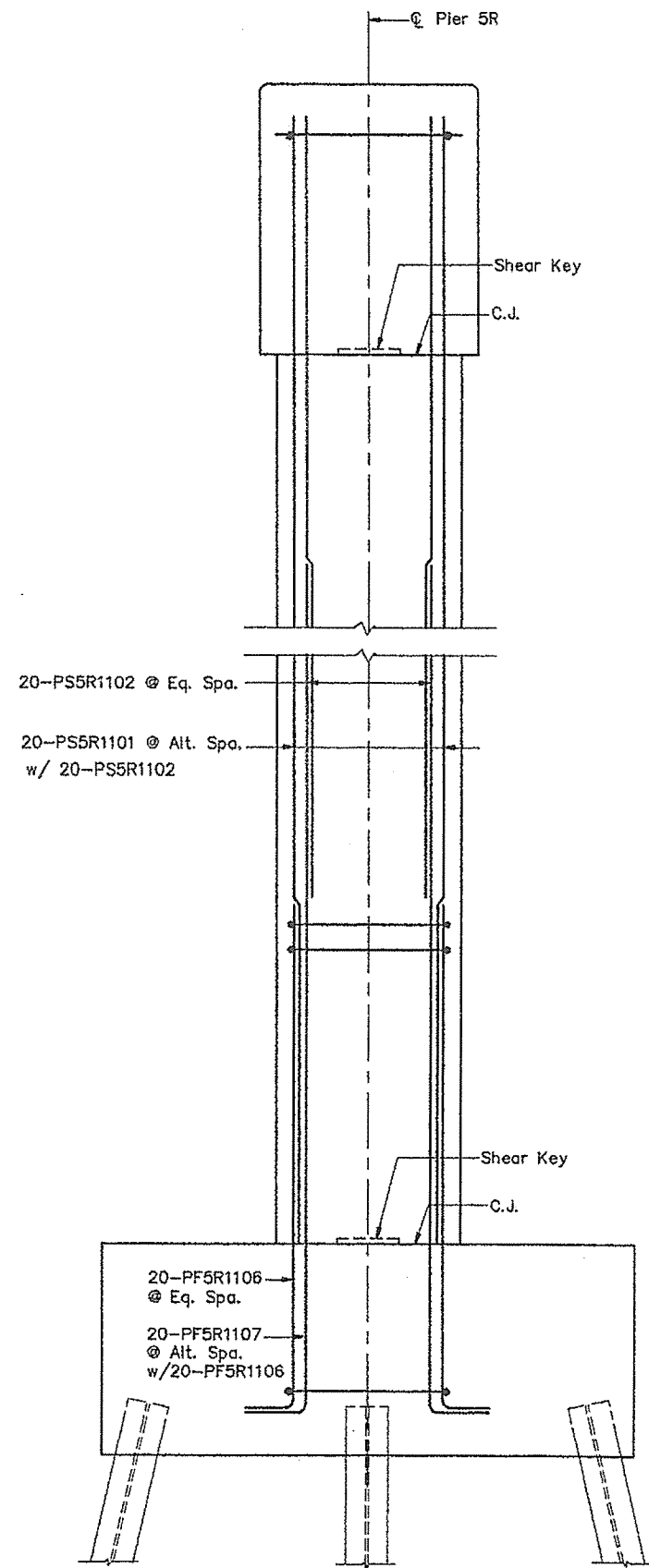
1. For cap reinforcement see Cap Reinforcing - Pier 4R.
2. For foundation details see Foundation Details - Pier 4R.
3. Cap and footing reinforcement not shown for clarity.

STEEL ALTERNATIVE SUBSTRUCTURE

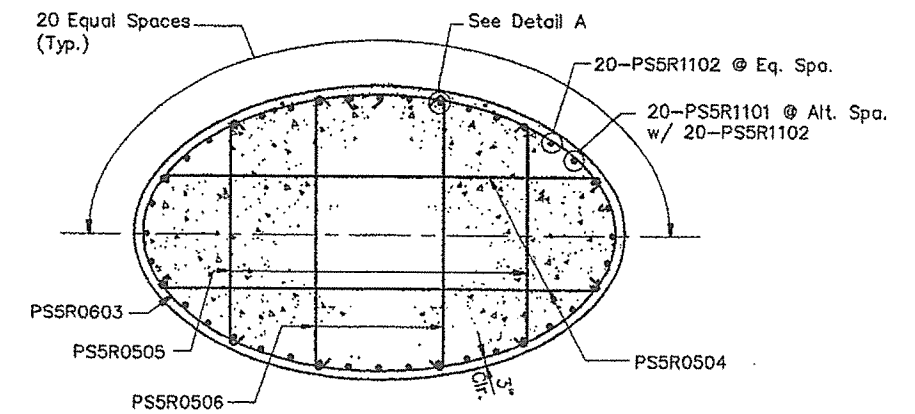
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE OVER FORE RIVER CUMBERLAND COUNTY
SHAFT REINFORCING PIER 4R
SHEET 170 OF 338 AUGUSTA, MAINE 6/15/94



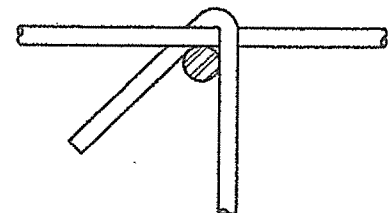
**ELEVATION**



**END ELEVATION**



**SECTION A-A**

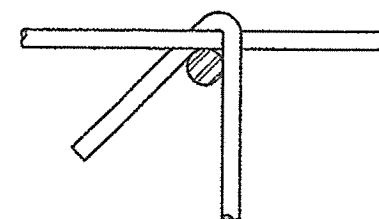
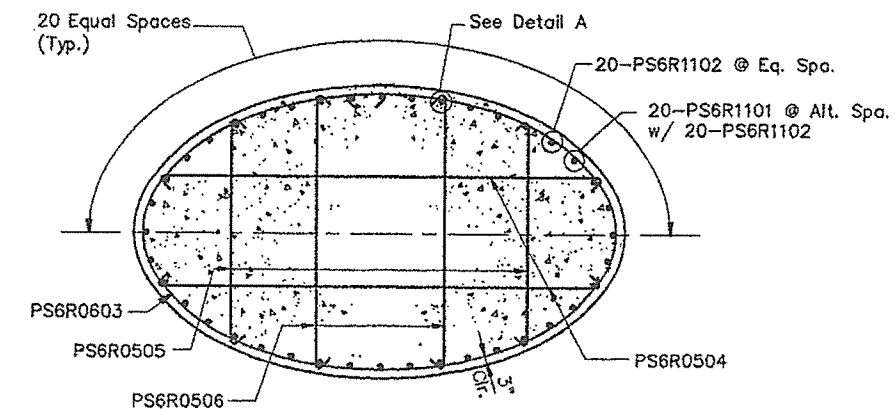
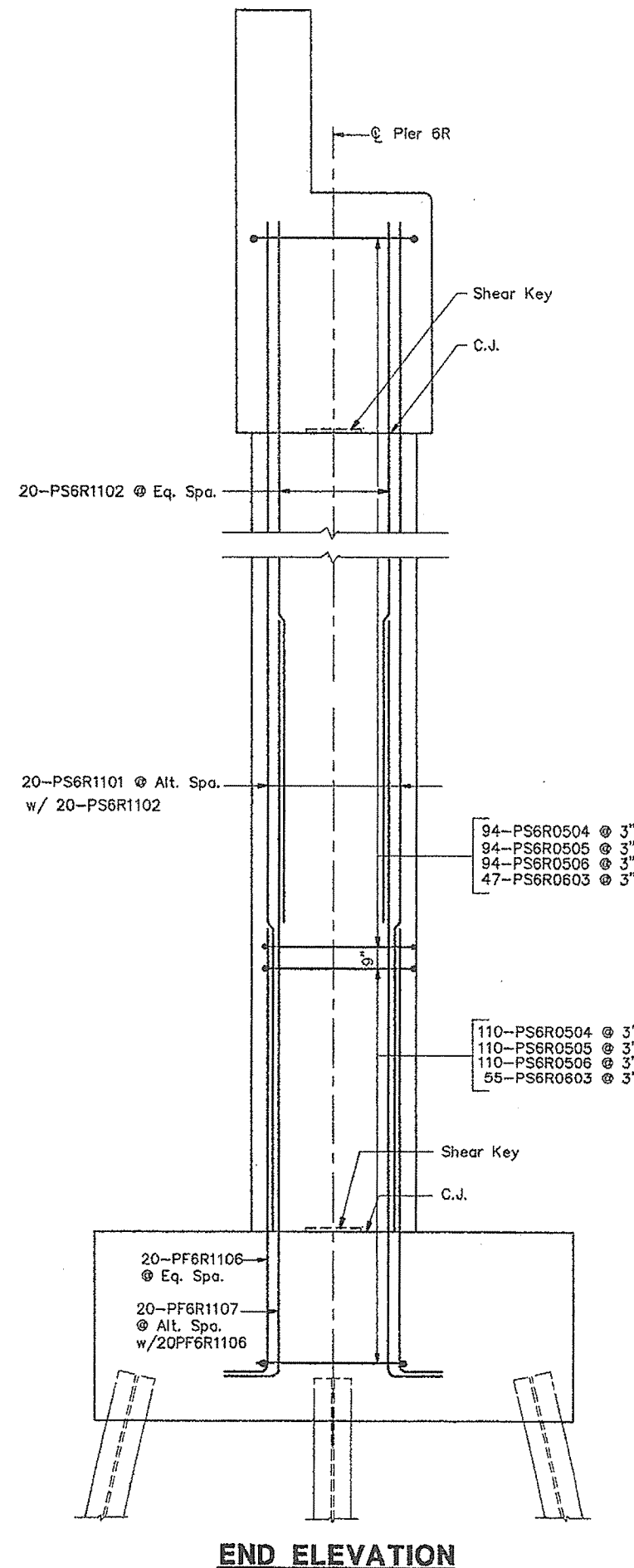
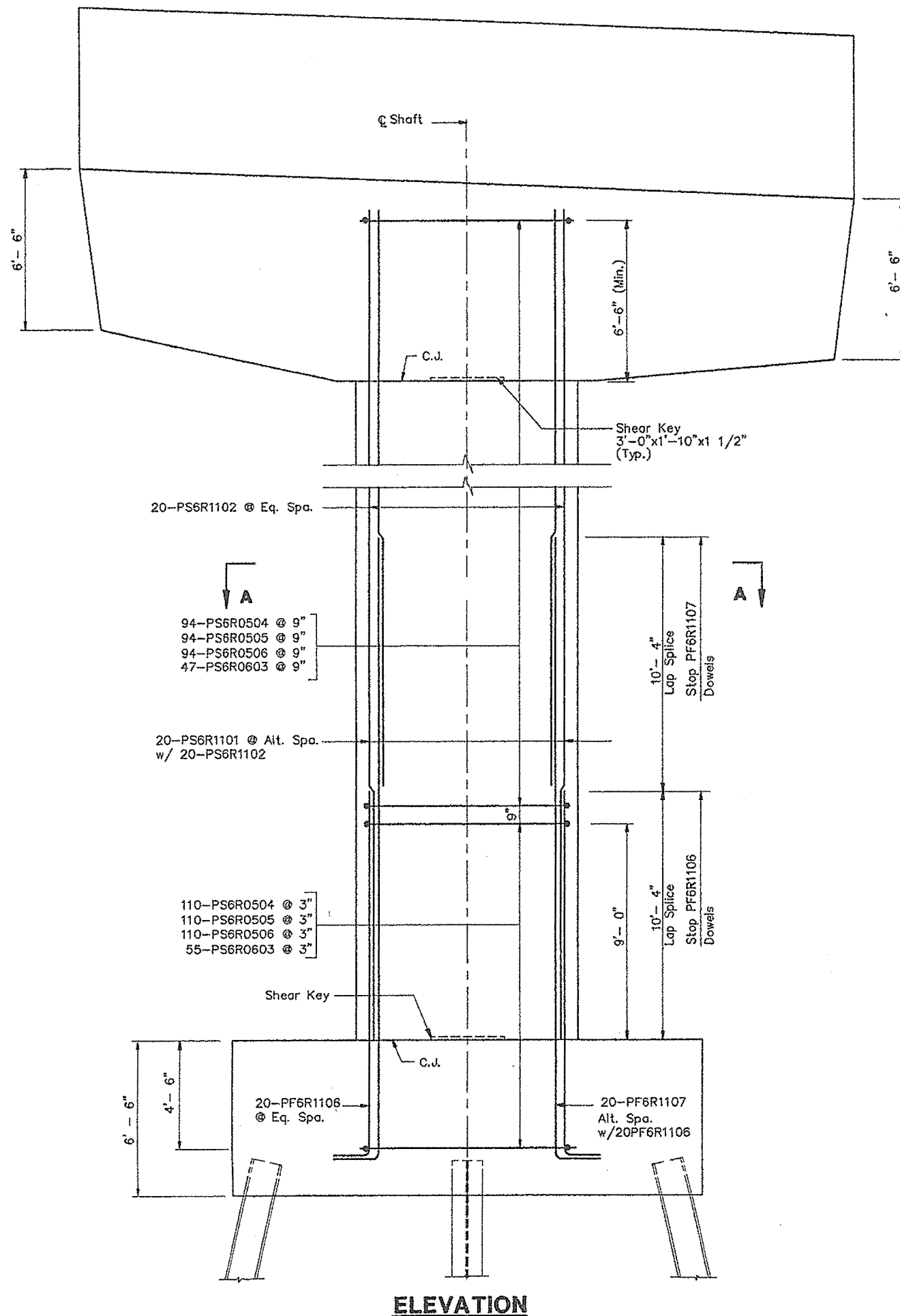


**DETAIL A: TIE CONNECTION**

- Notes:
1. For cap reinforcement see Cap Reinforcing - Pier 5R.
  2. For foundation details see Foundation Details - Pier 5R.
  3. Cap and footing reinforcement not shown for clarity.

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE OVER FORE RIVER CUMBERLAND COUNTY
SHAFT REINFORCING PIER 5R
SHEET 171 OF 338 AUGUSTA, MAINE 6/15/94



### DETAIL A: TIE CONNECTION

#### NOTES:

- For cap reinforcement see "Cap Reinforcing - Pier 6R".
- For foundation details see "Foundation Details - Pier 6R".
- Cap and footing reinforcement not shown for clarity.

#### STEEL ALTERNATIVE SUBSTRUCTURE

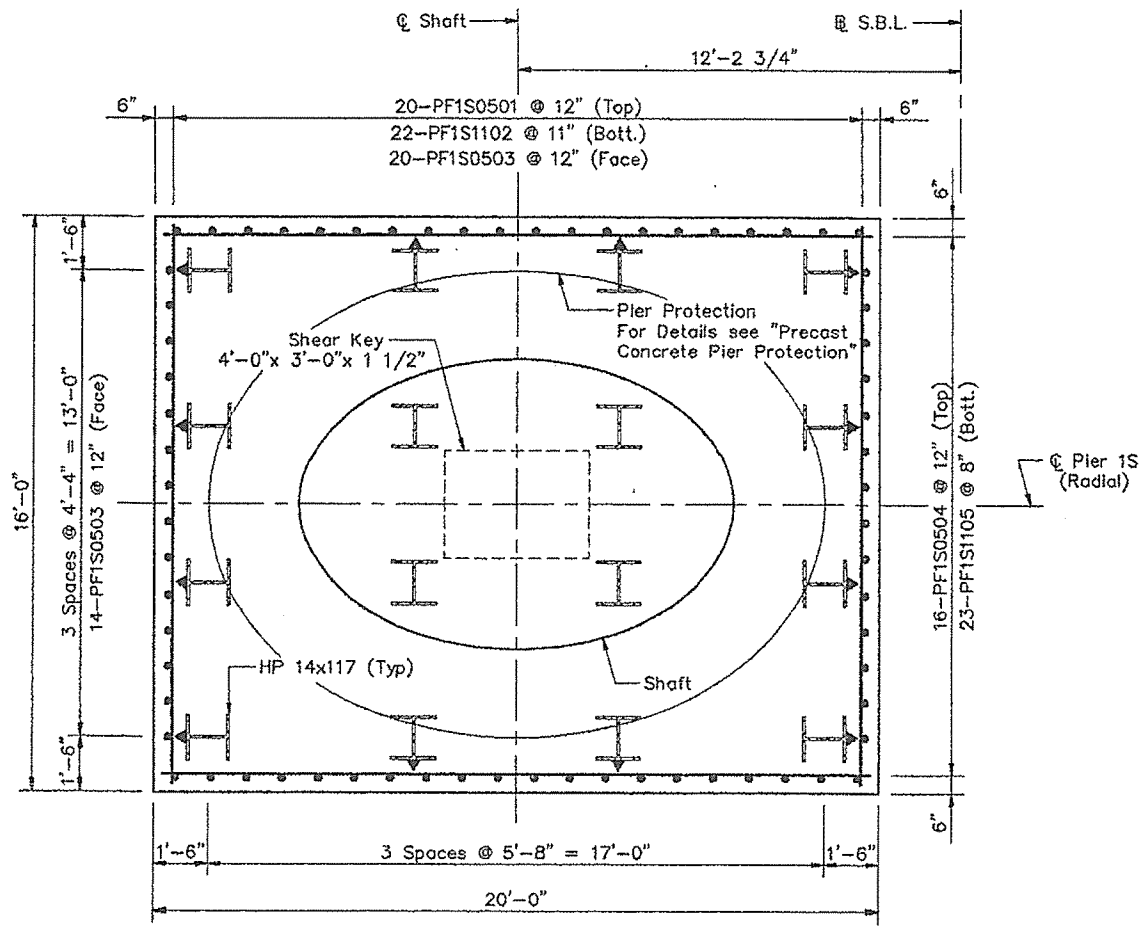
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND BRIDGE  
OVER FORE RIVER  
CUMBERLAND COUNTY**

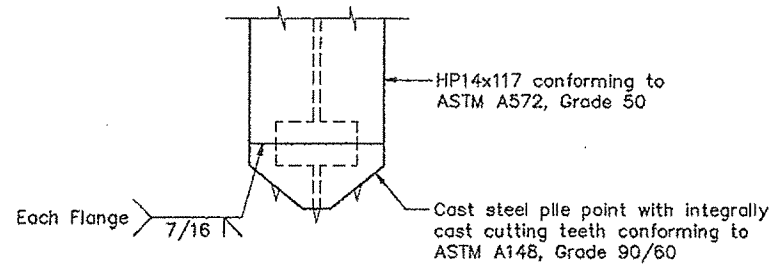
**SHAFT REINFORCING  
PIER 6R**

SHEET 172 OF 338 AUGUSTA, MAINE 6/19/94

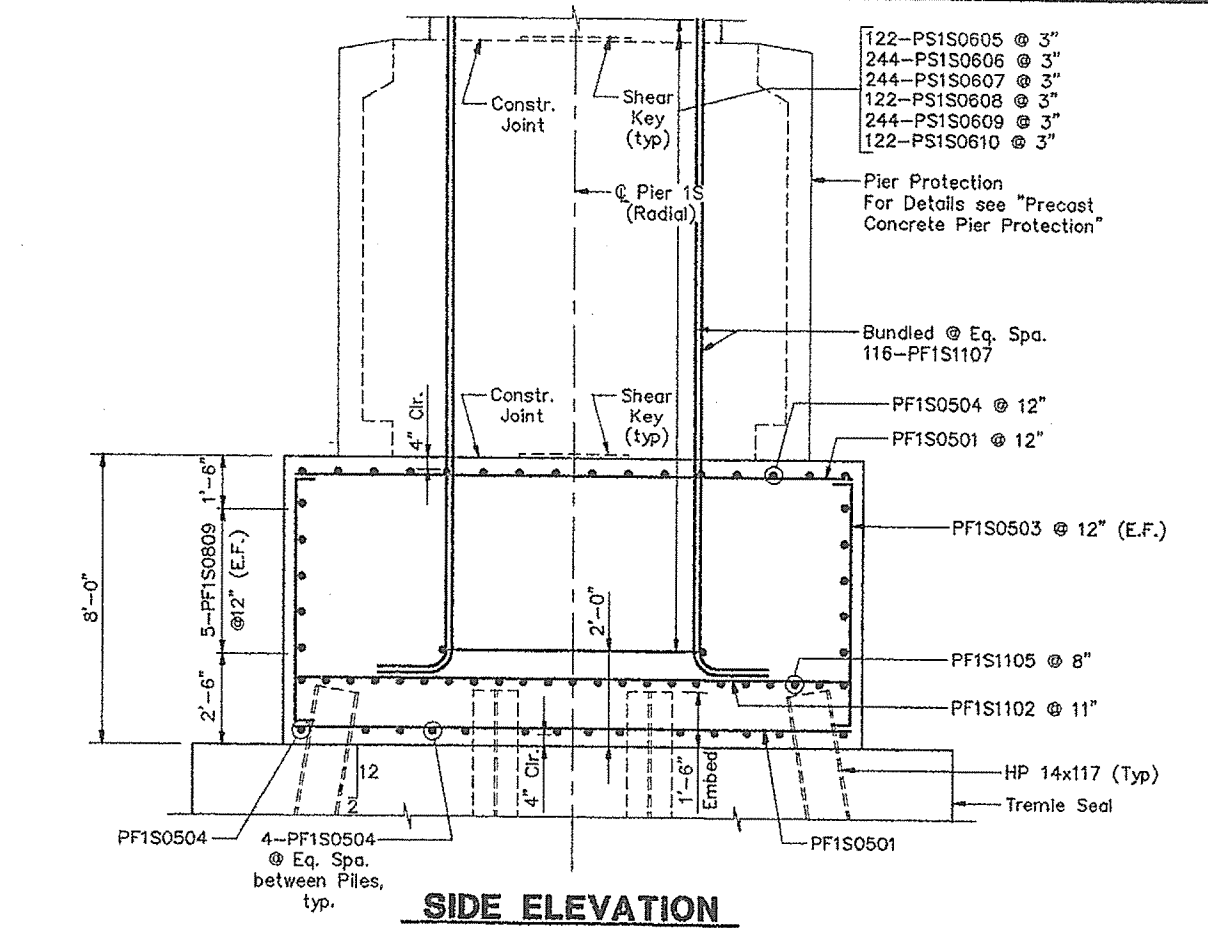




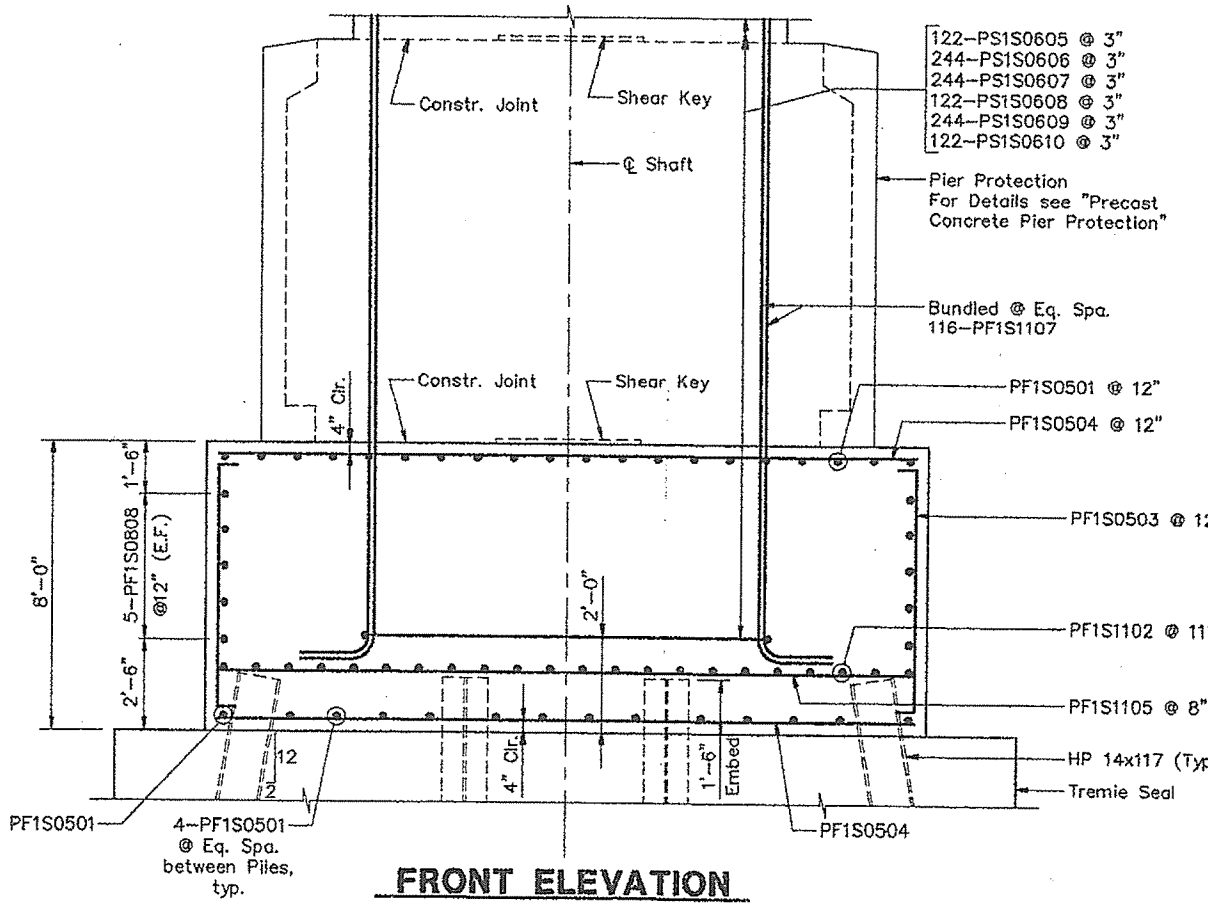
**PLAN**



**PILE TIP DETAIL**



**SIDE ELEVATION**



**FRONT ELEVATION**

Note:  
Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.  
Piles marked  $\perp$  shall be battered 2 inches per foot in the direction of the arrow.

**STEEL ALTERNATIVE SUBSTRUCTURE**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

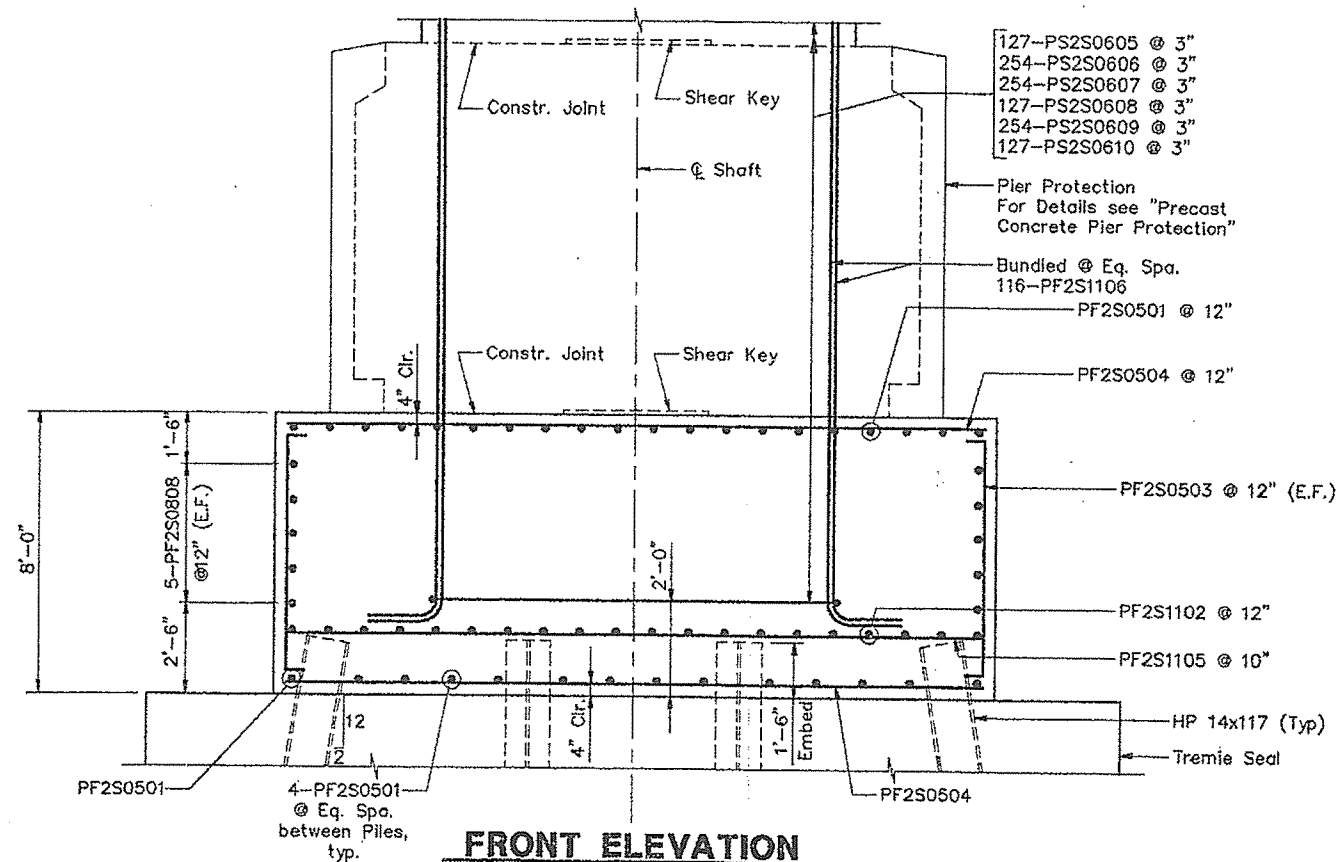
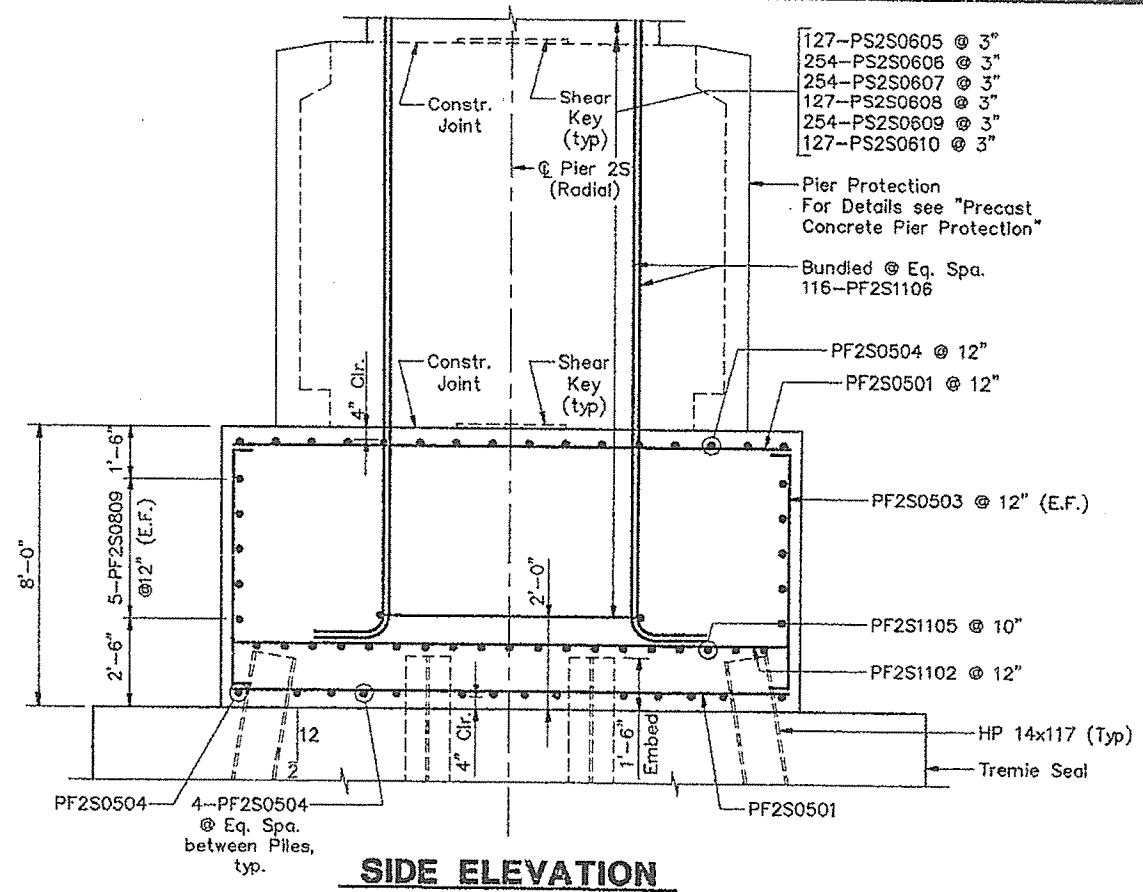
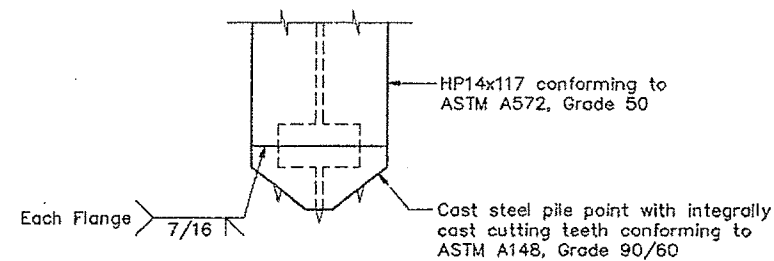
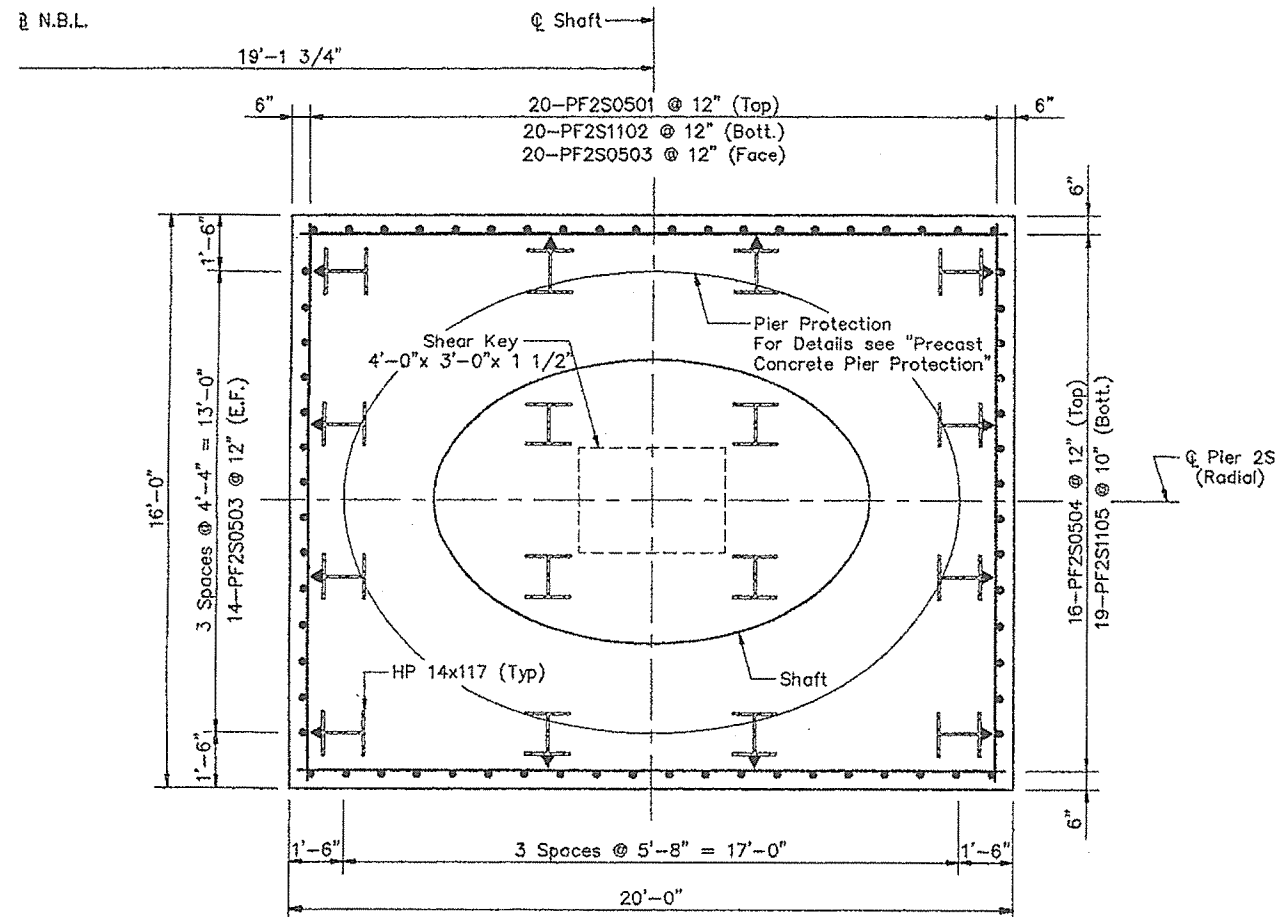
**PORTLAND - S. PORTLAND BRIDGE**


**OVER FORE RIVER**

**CUMBERLAND COUNTY**

**FOUNDATION DETAILS  
PIER 1S (S.B.L.)**

SHEET 174 OF 330 AUGUSTA, MAINE 4/13/94



Note:  
Adjust the reinforcing spacing in the top  
mat of the footing to accommodate shaft  
reinforcing.  
Piles marked  shall be battered 2 inches  
per foot in the direction of the arrow.

### STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORTLAND BRIDGE

OVER FORE RIVER

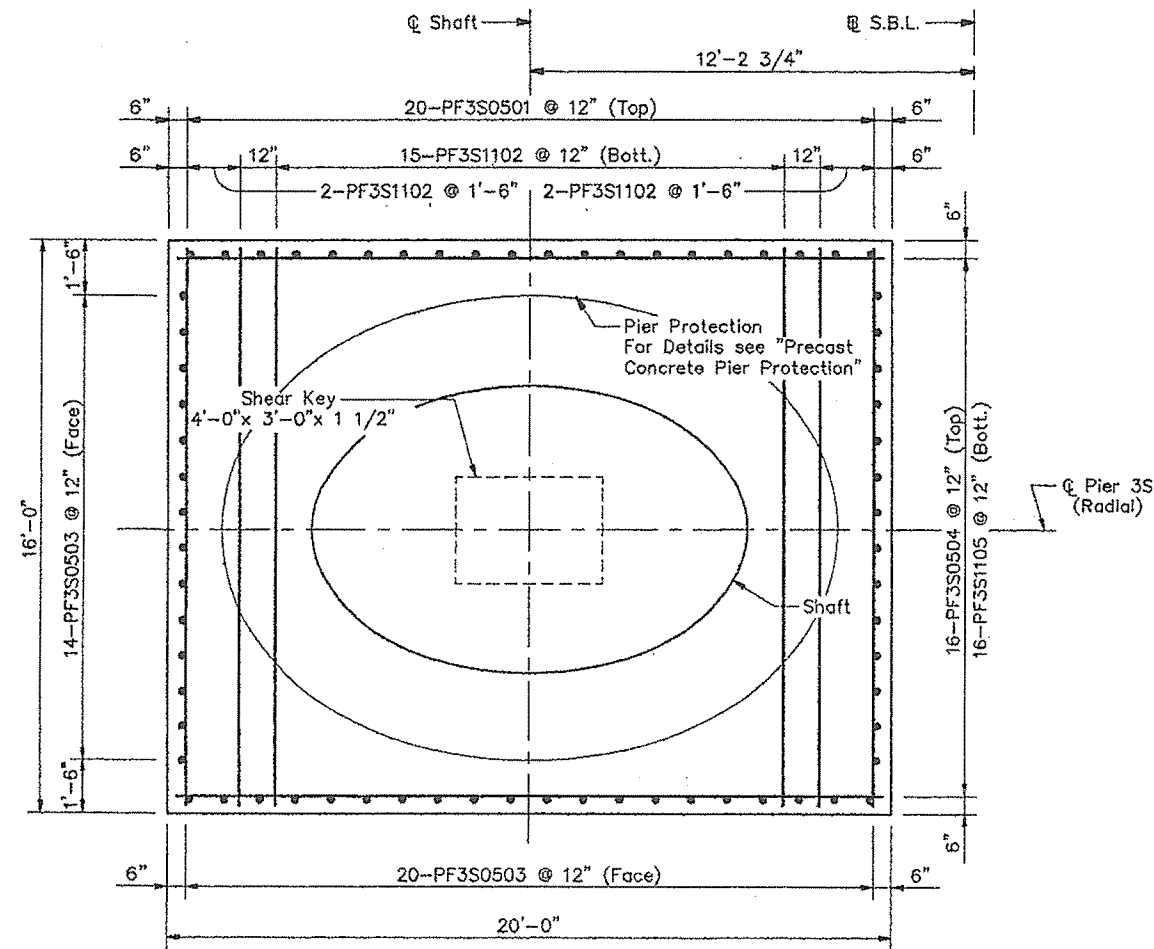
**CUMBERLAND COUNTY**

**FOUNDATION DETAILS  
PIER 2S (N.B.L.)**

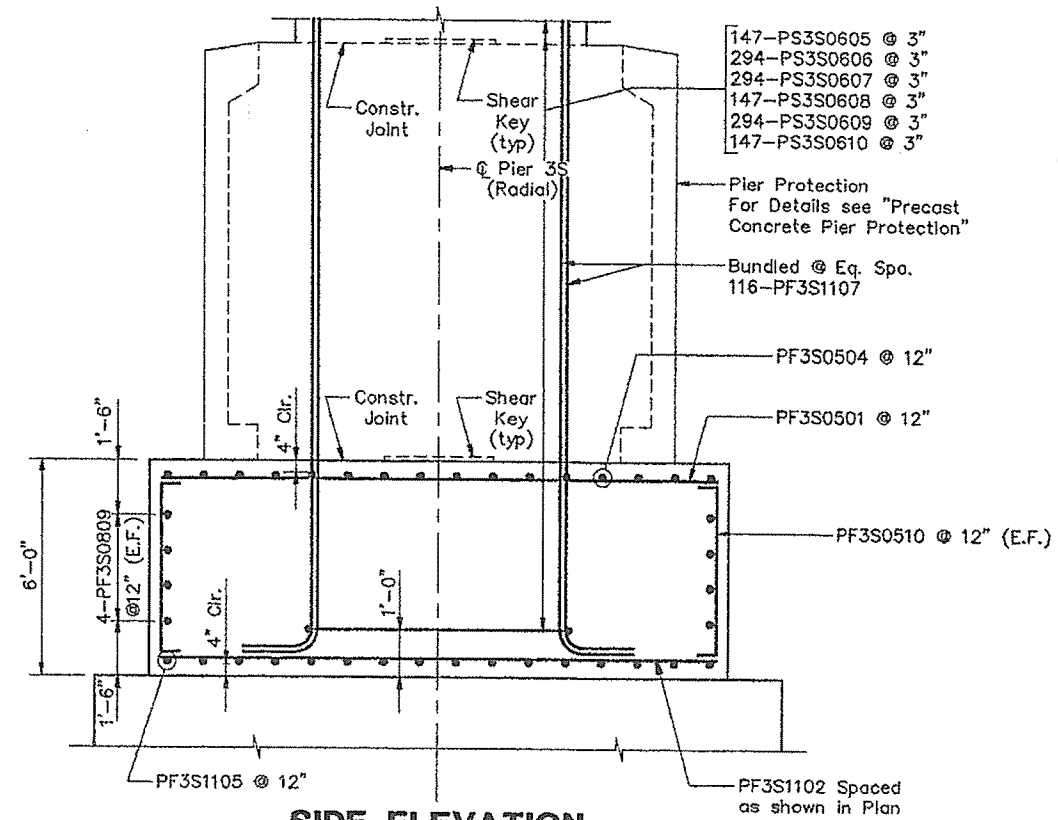
SHEET 175 OF 338 AUGUSTA, MAINE 4/13/94



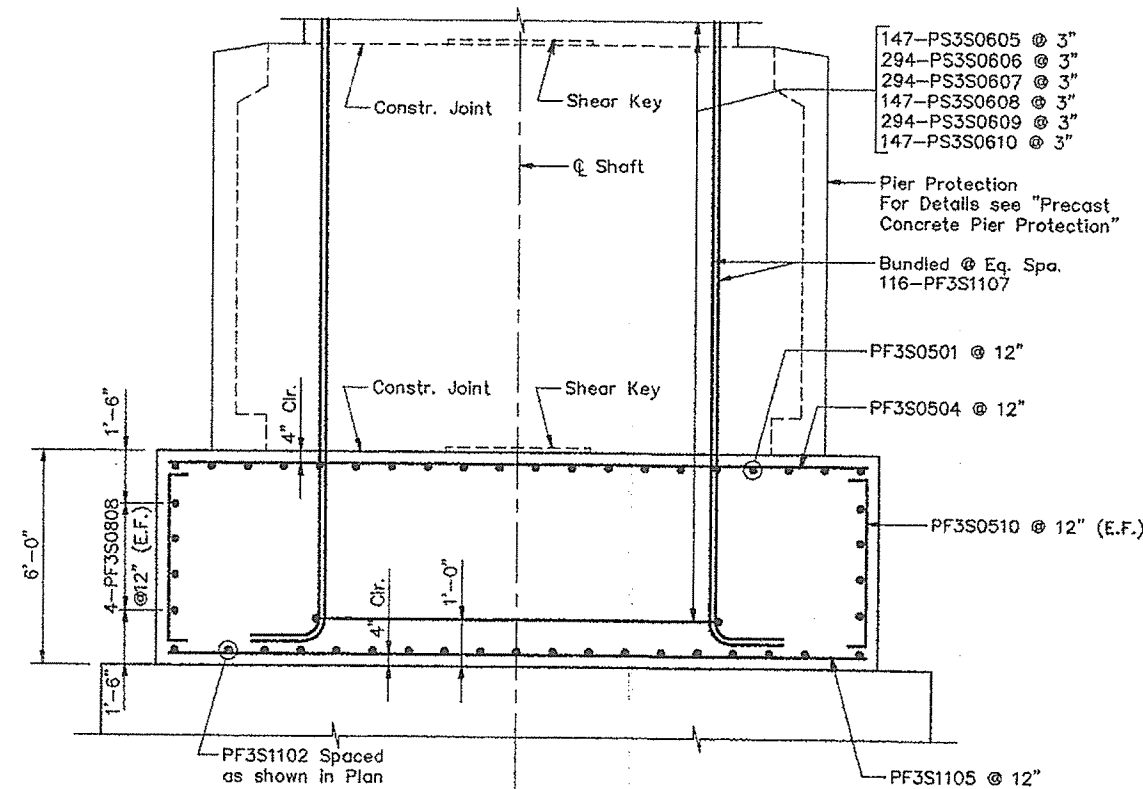




**PLAN**



**SIDE ELEVATION**



**FRONT ELEVATION**

Note:  
Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.

**STEEL ALTERNATIVE SUBSTRUCTURE**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND BRIDGE**

**OVER FORE RIVER**

**CUMBERLAND COUNTY**

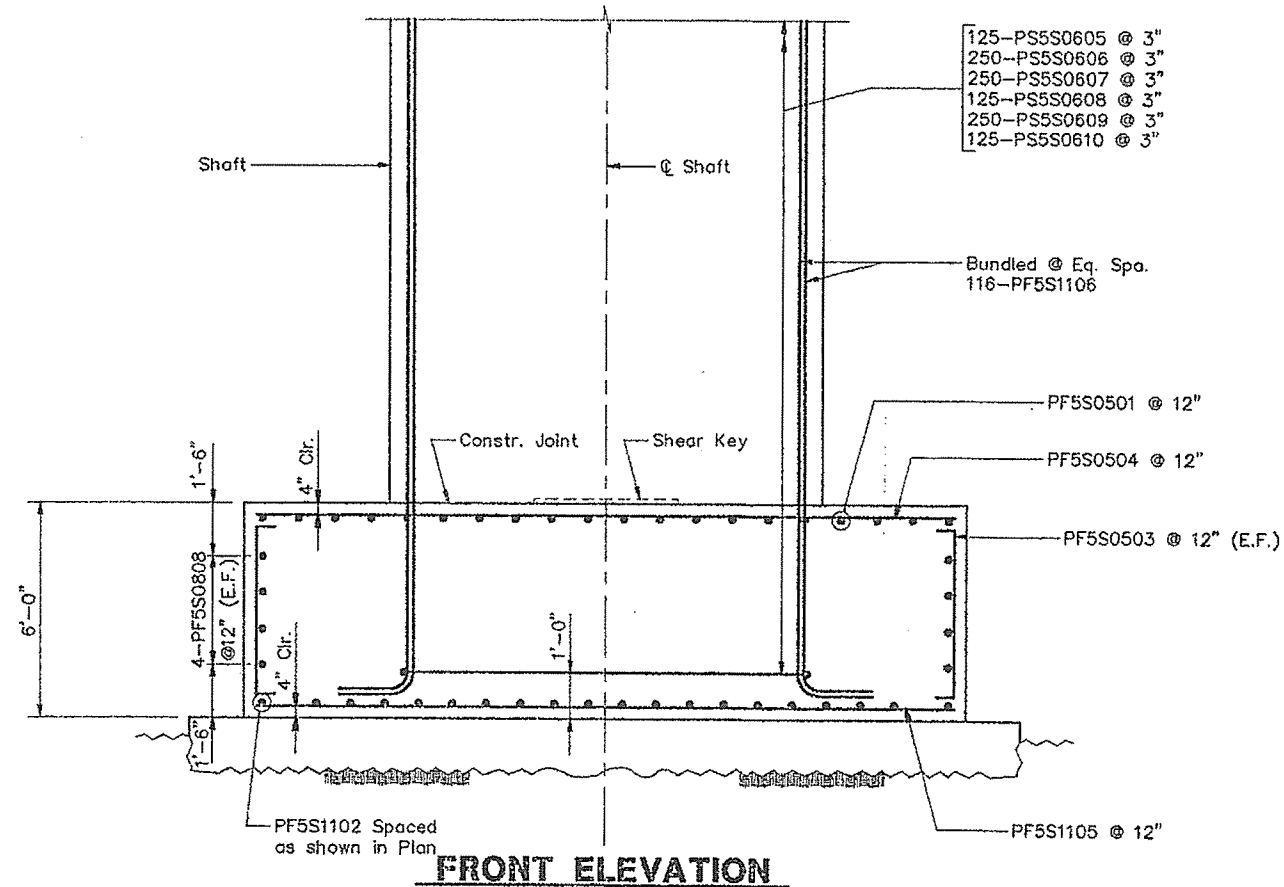
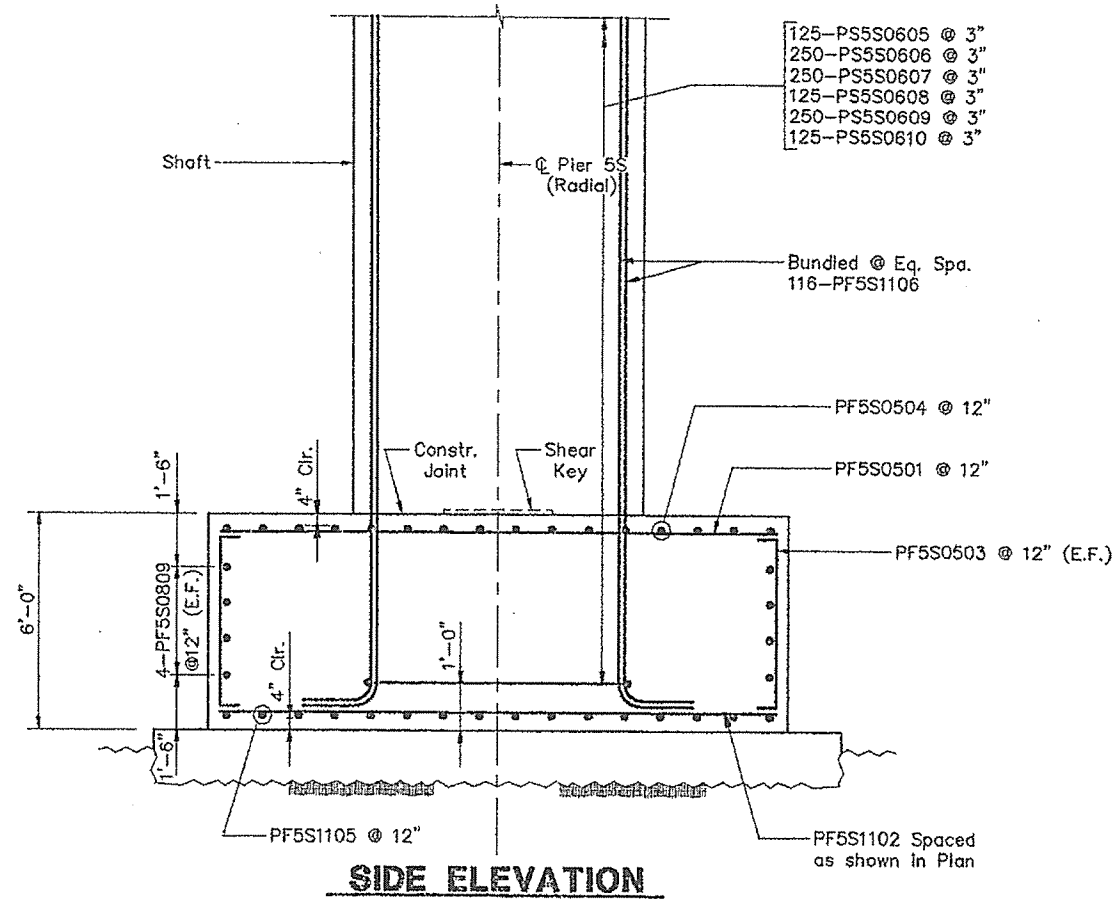
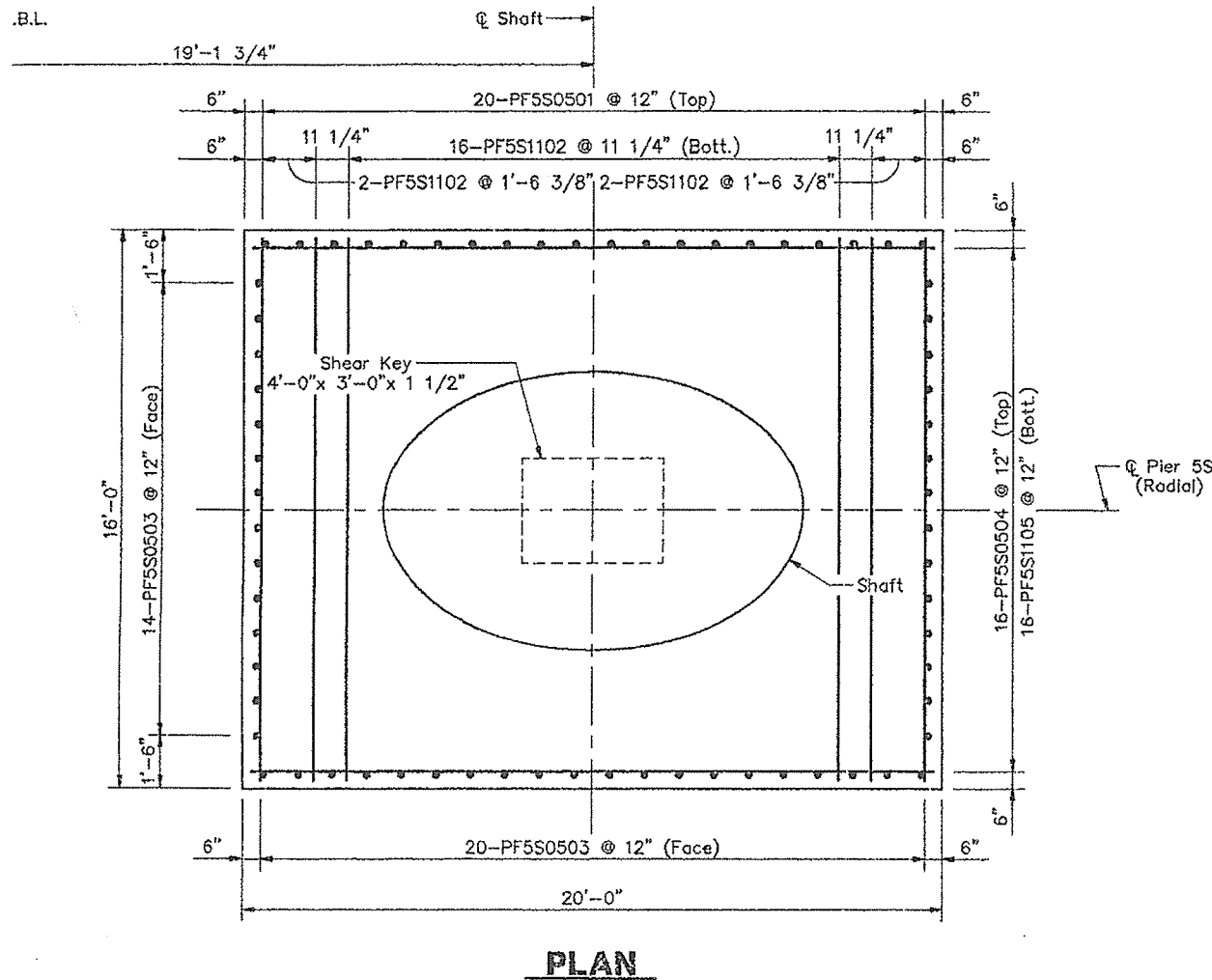
**FOUNDATION DETAILS  
PIER 3S (S.B.L.)**

SHEET 178 OF 338 AUGUSTA, MAINE 4/13/94





F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE		181	338

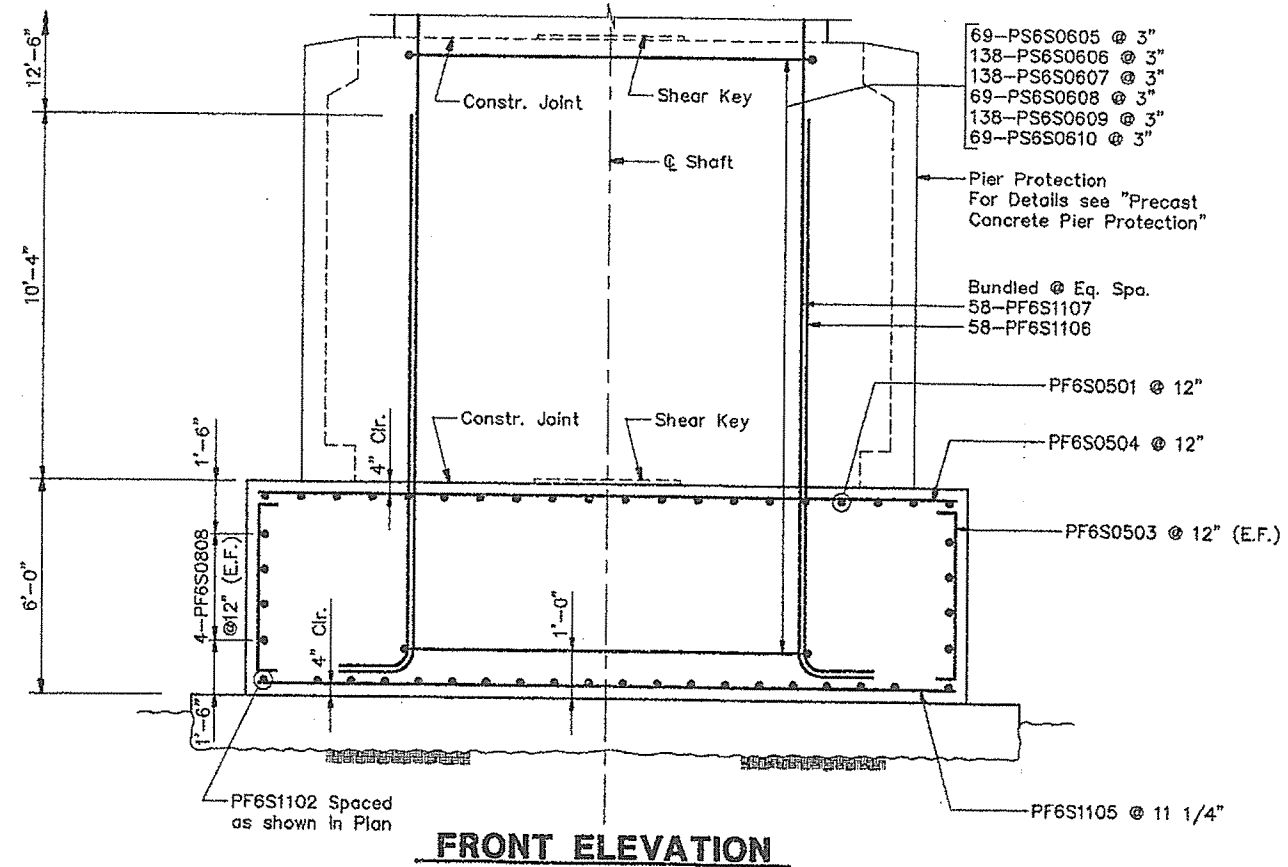
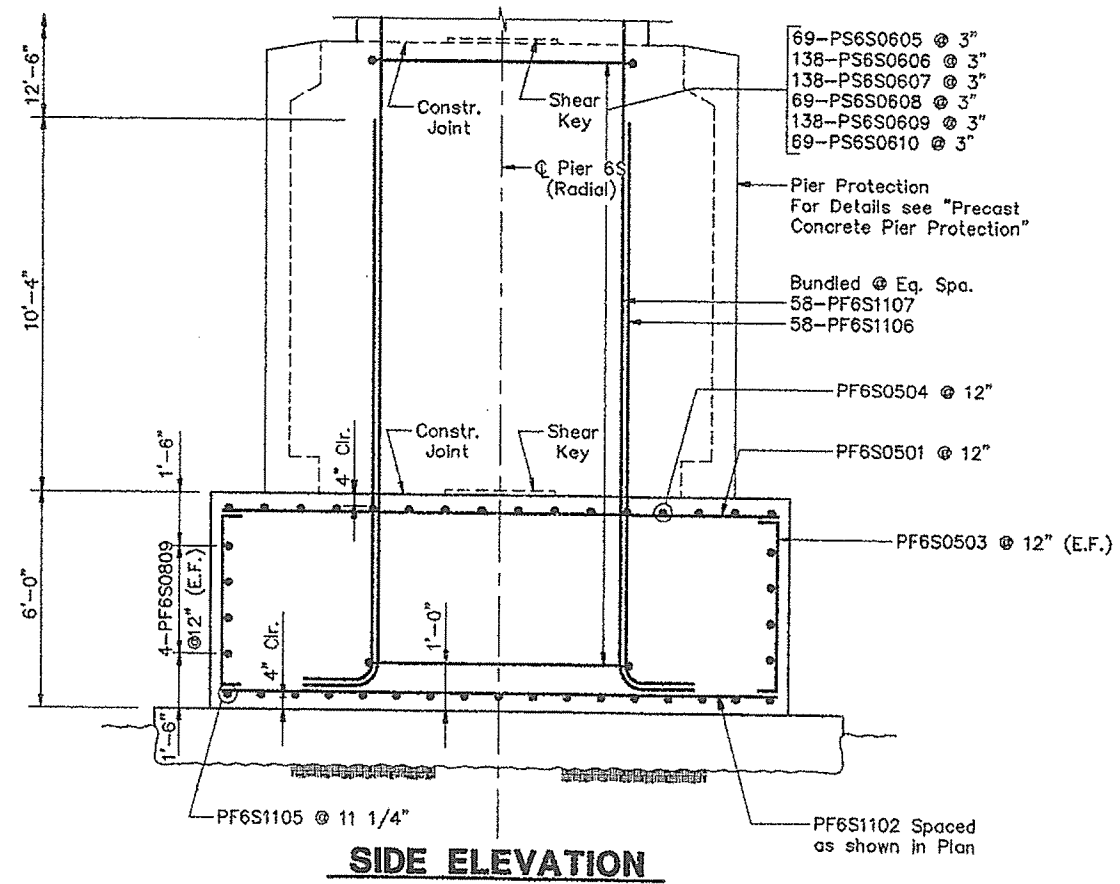
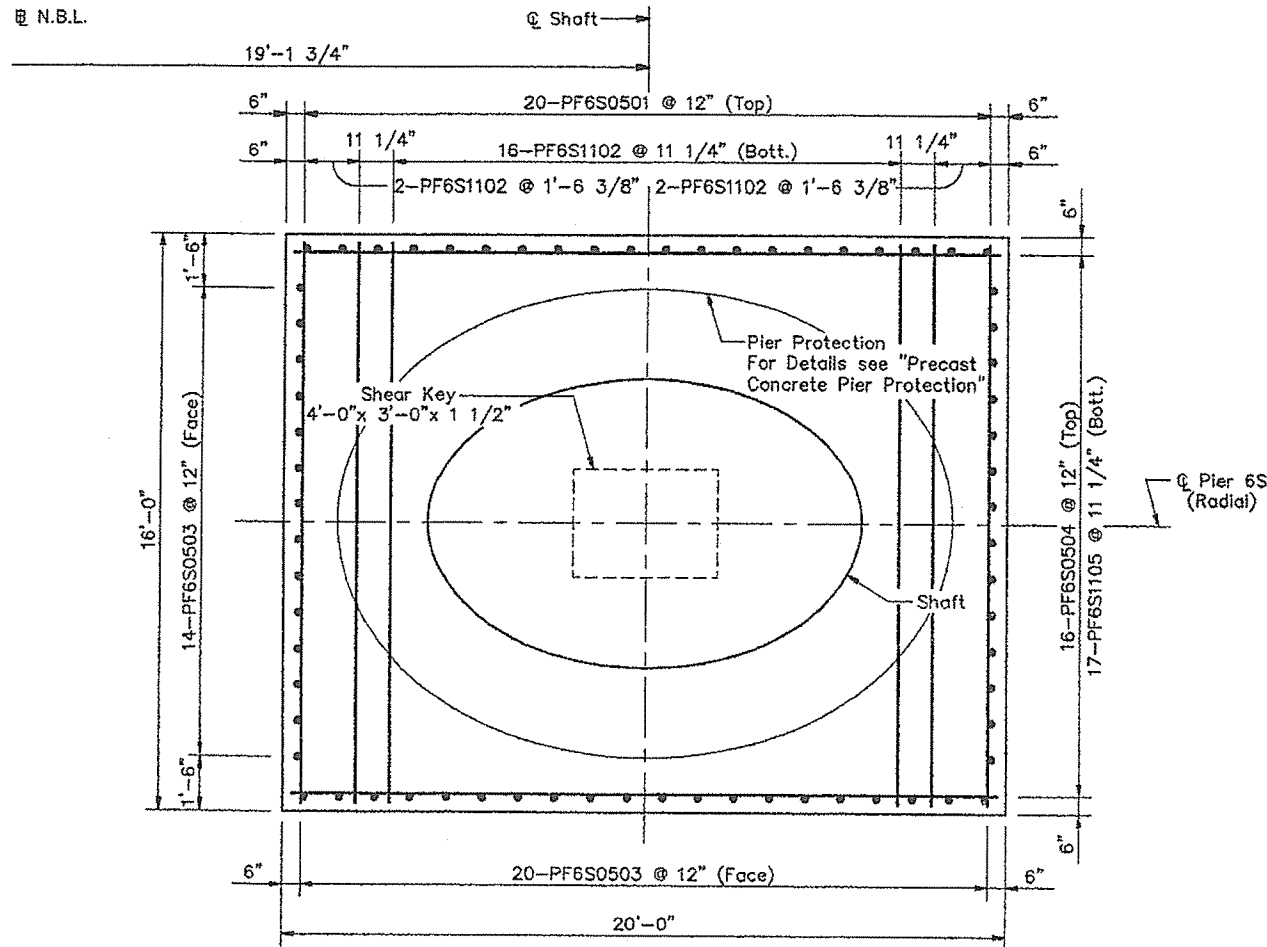


Note:  
Adjust the reinforcing spacing in the top  
mat of the footing to accommodate shaft  
reinforcing.

STEEL ALTERNATIVE SUBSTRUCTURE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE OVER FORE RIVER CUMBERLAND COUNTY
FOUNDATION DETAILS PIER 5S (N.B.L.)
SHEET 181 OF 338 AUGUSTA, MAINE 4/13/94



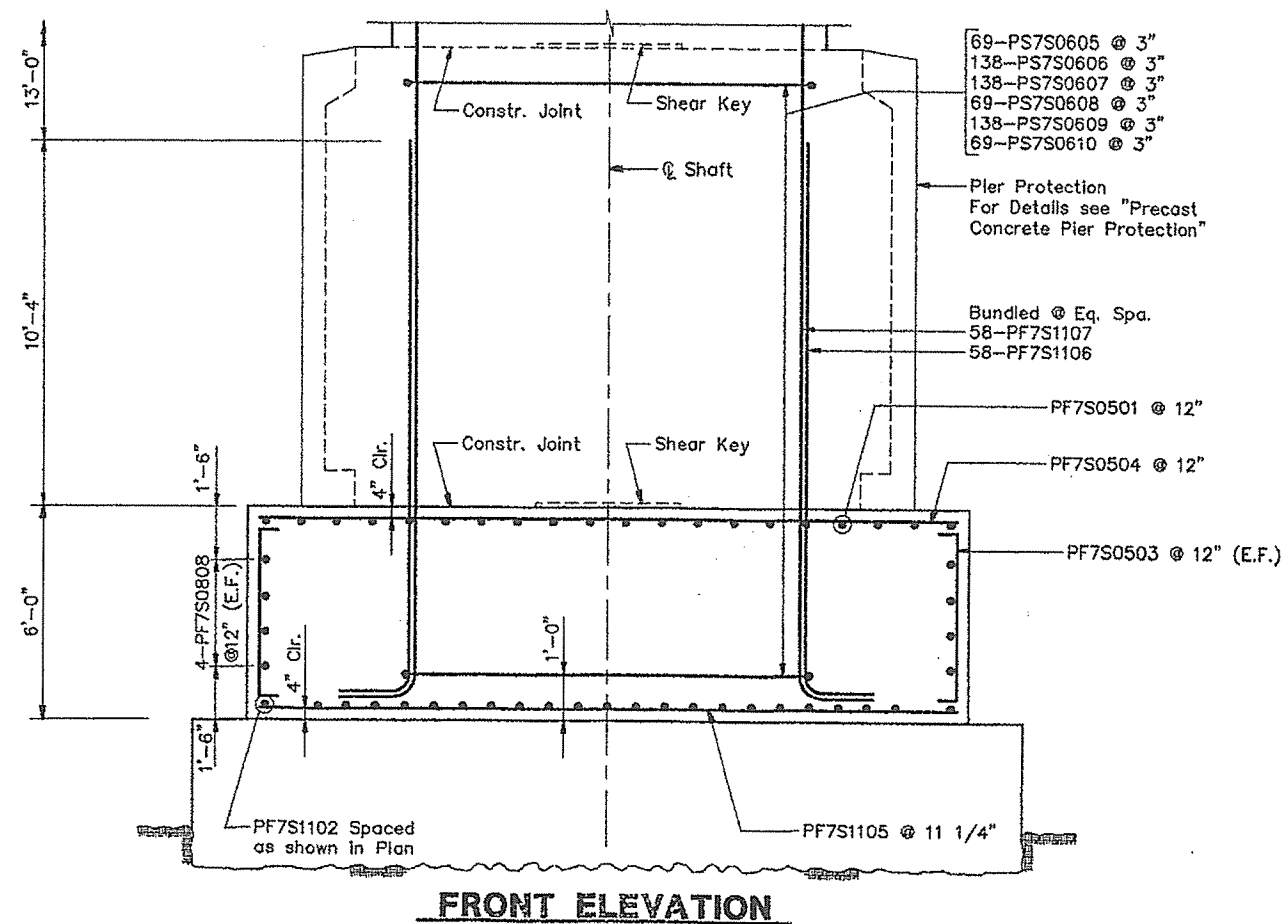
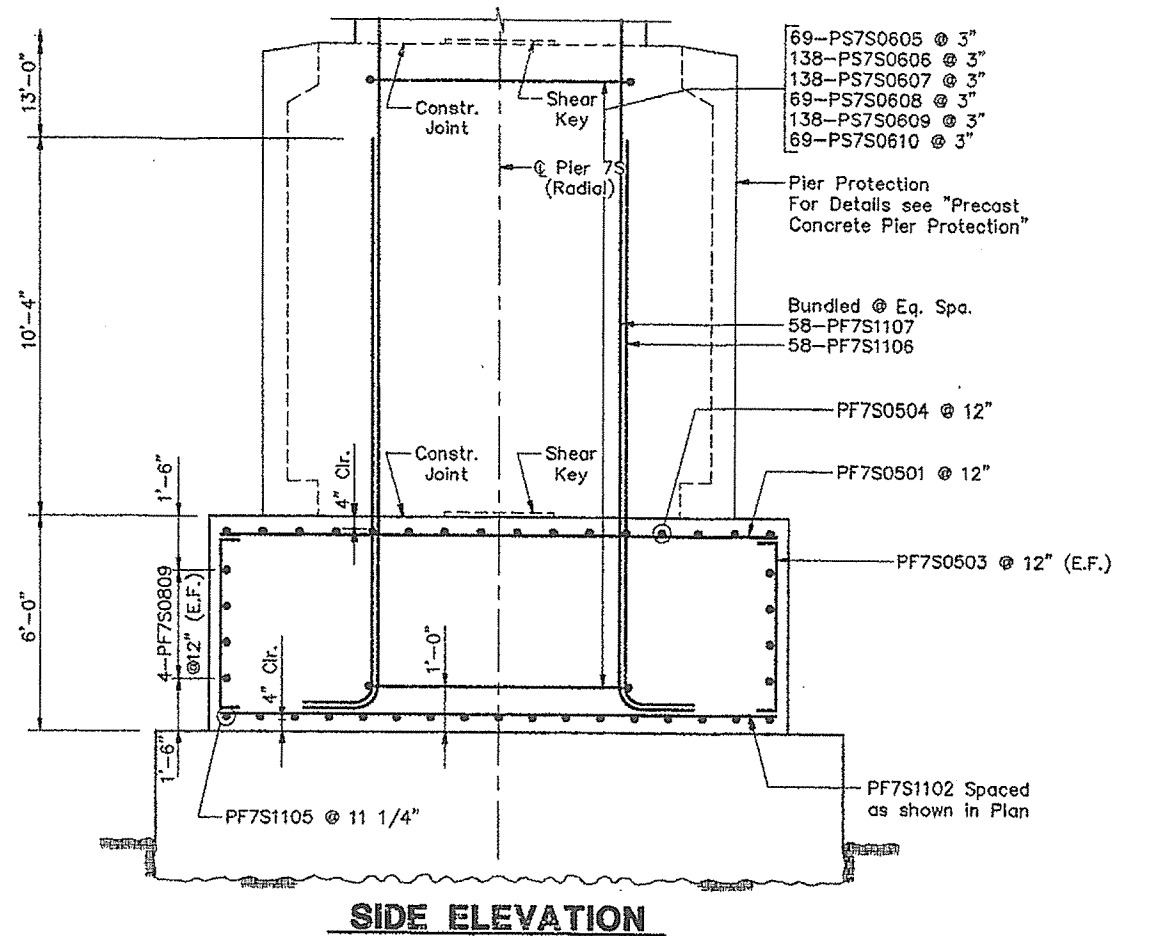
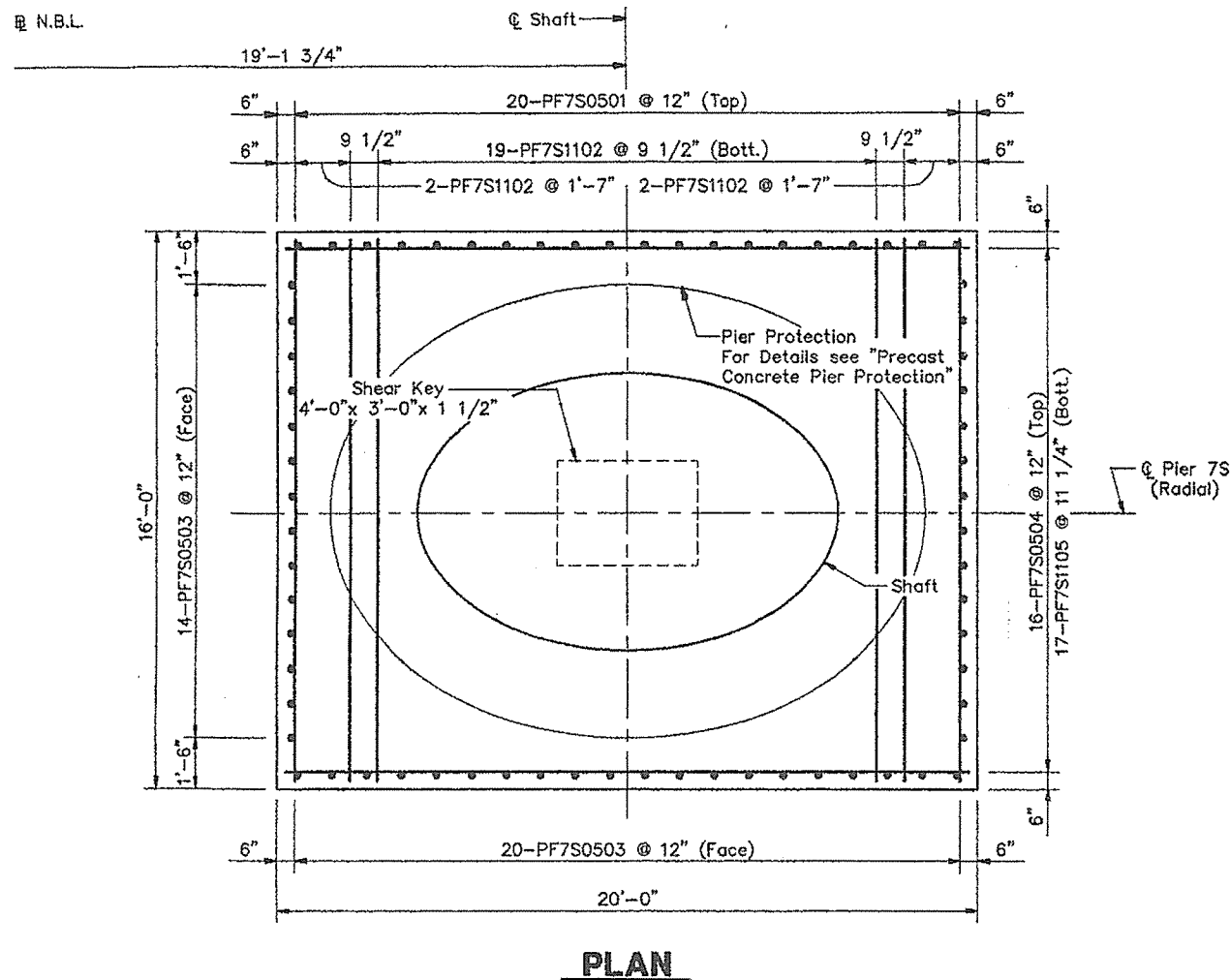
F.H.W.A. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	DPI-0068(002)	103	330



Note:  
Adjust the reinforcing spacing in the top  
mat of the footing to accommodate shaft  
reinforcing.

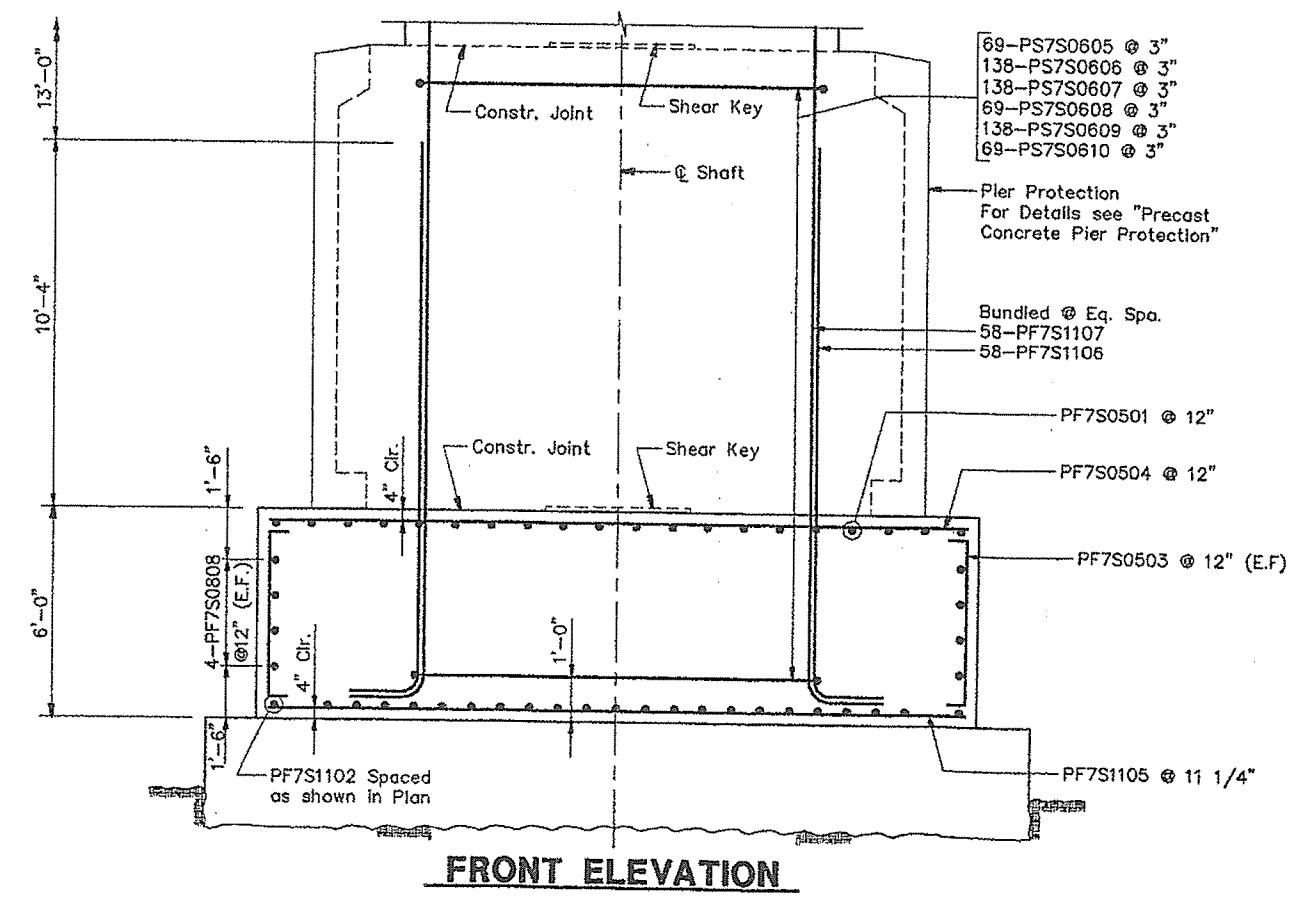
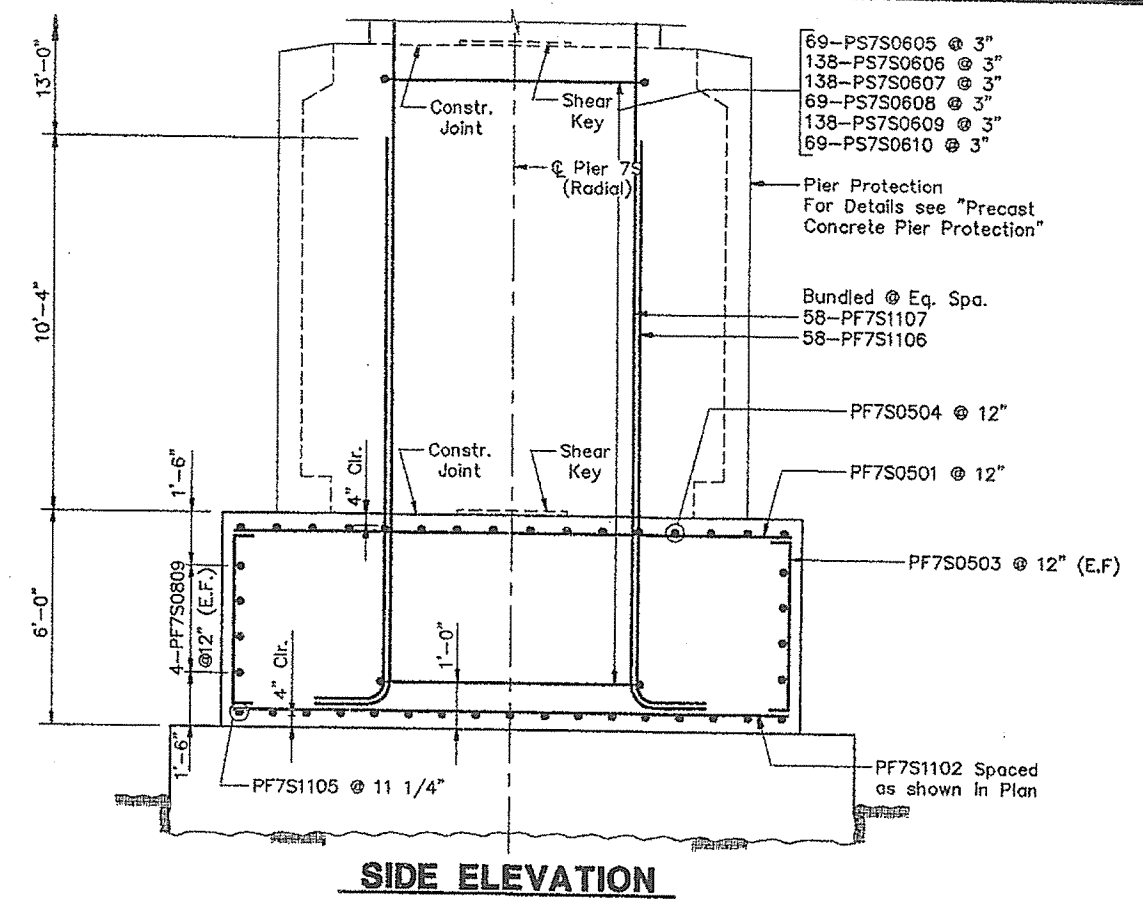
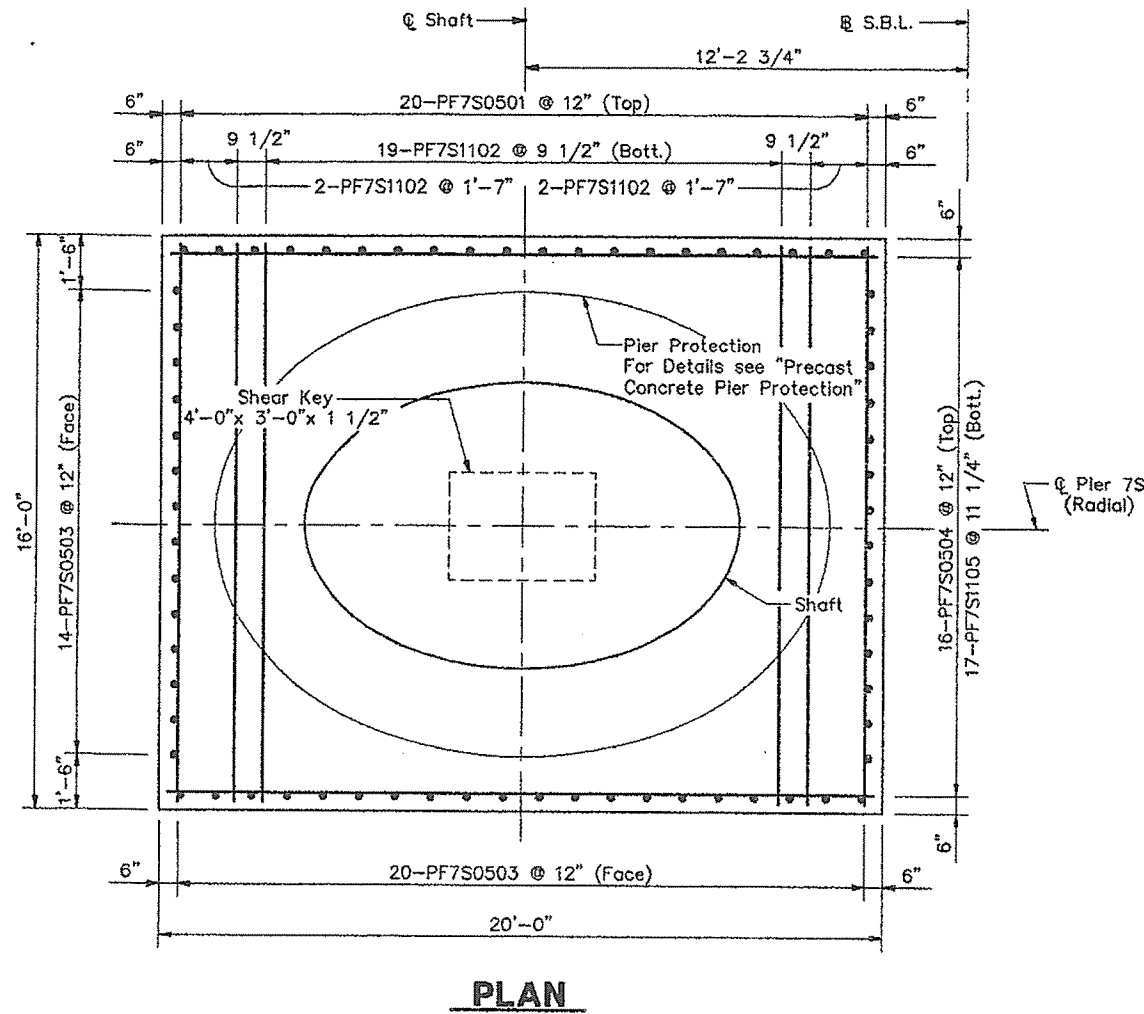
STEEL ALTERNATIVE SUBSTRUCTURE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE
OVER FORE RIVER
CUMBERLAND COUNTY
FOUNDATION DETAILS PIER 6S (N.B.L.)
SHEET 103 OF 330 AUGUSTA MAINE 10/27/98





Note:  
Adjust the reinforcing spacing in the top  
mat of the footing to accommodate shaft  
reinforcing.

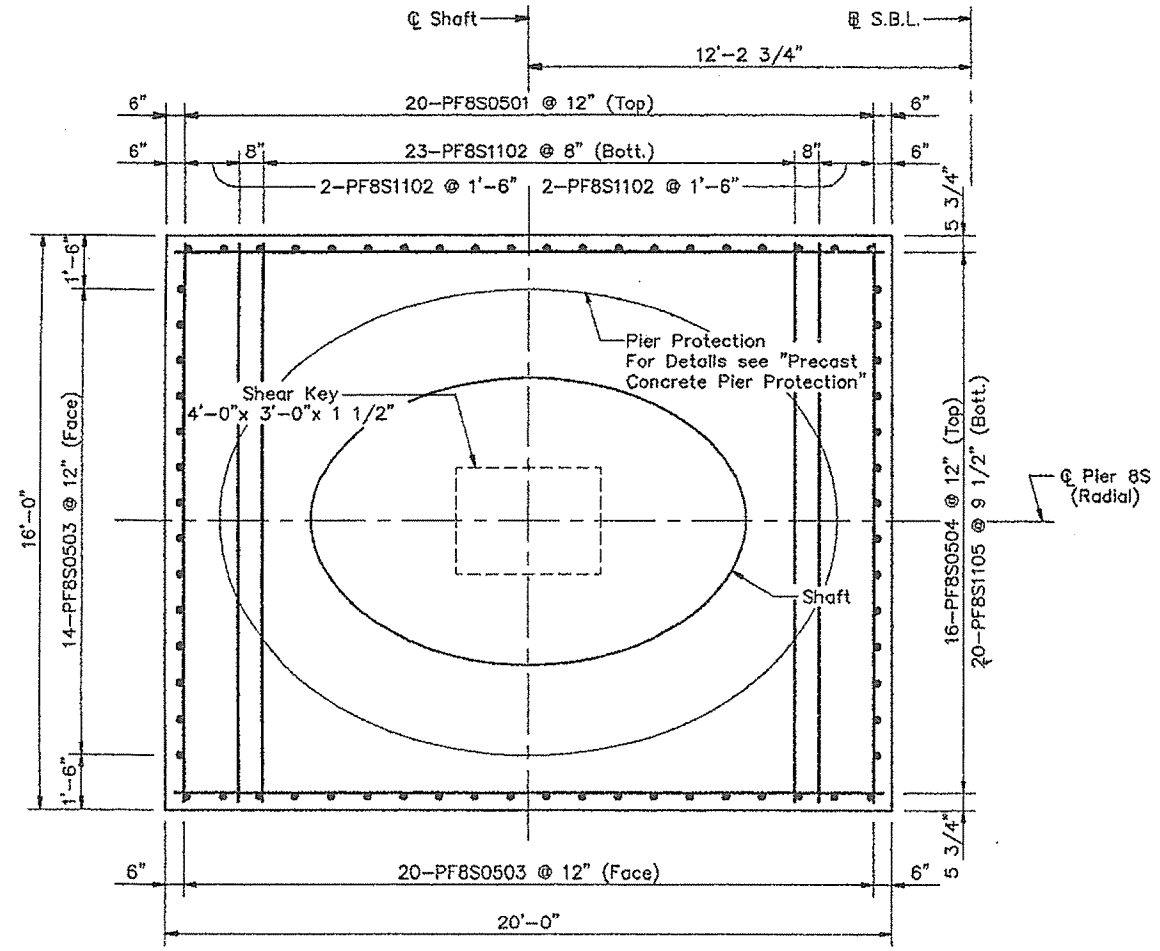
STEEL ALTERNATIVE SUBSTRUCTURE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE
OVER FORE RIVER
CUMBERLAND COUNTY
FOUNDATION DETAILS PIER 7S (N.B.L.)



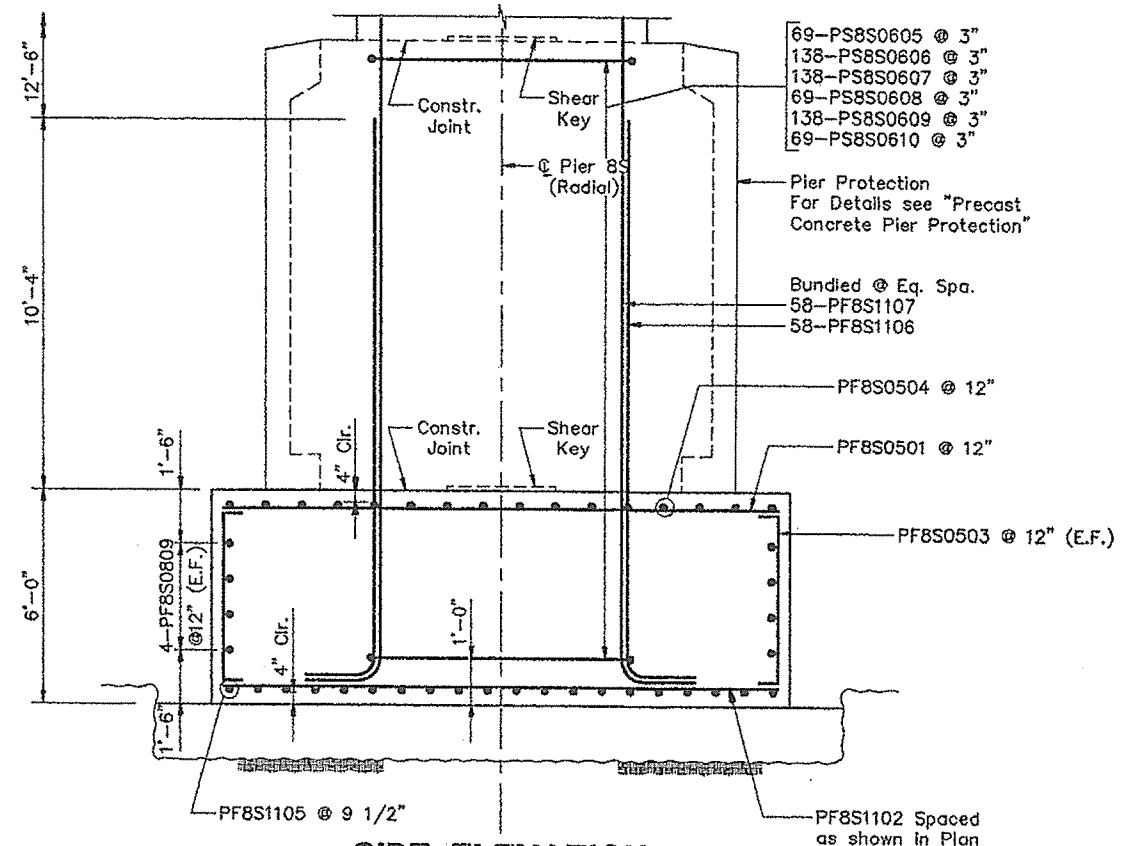
Note:  
Adjust the reinforcing spacing in the top  
mat of the footing to accommodate shaft  
reinforcing.

STEEL ALTERNATIVE SUBSTRUCTURE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
<b>PORTLAND - S. PORTLAND BRIDGE</b>
<b>OVER FORE RIVER</b>
<b>CUMBERLAND COUNTY</b>
<b>FOUNDATION DETAILS PIER 7S (S.B.L.)</b>
SHEET 186 OF 330 AUGUSTA, MAINE 6/27/94

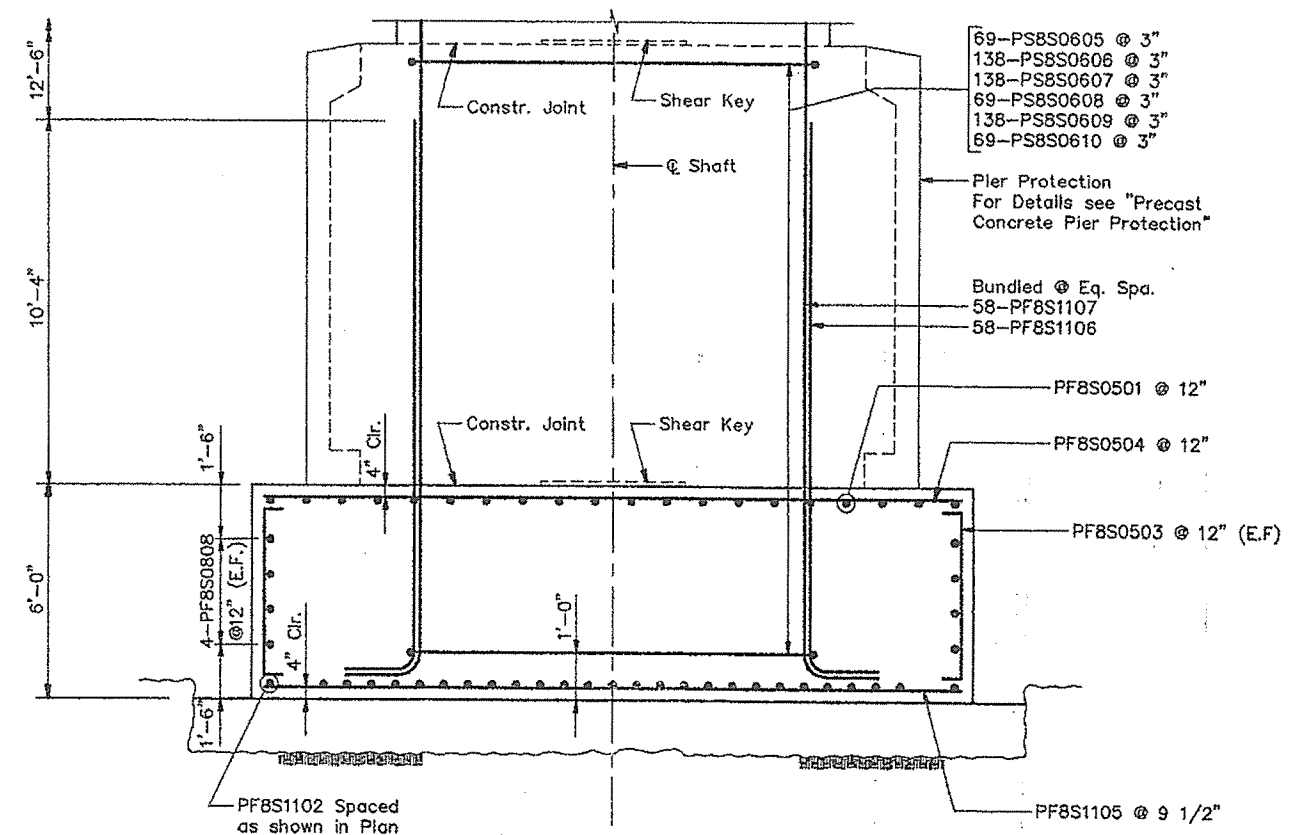




**PLAN**



**SIDE ELEVATION**

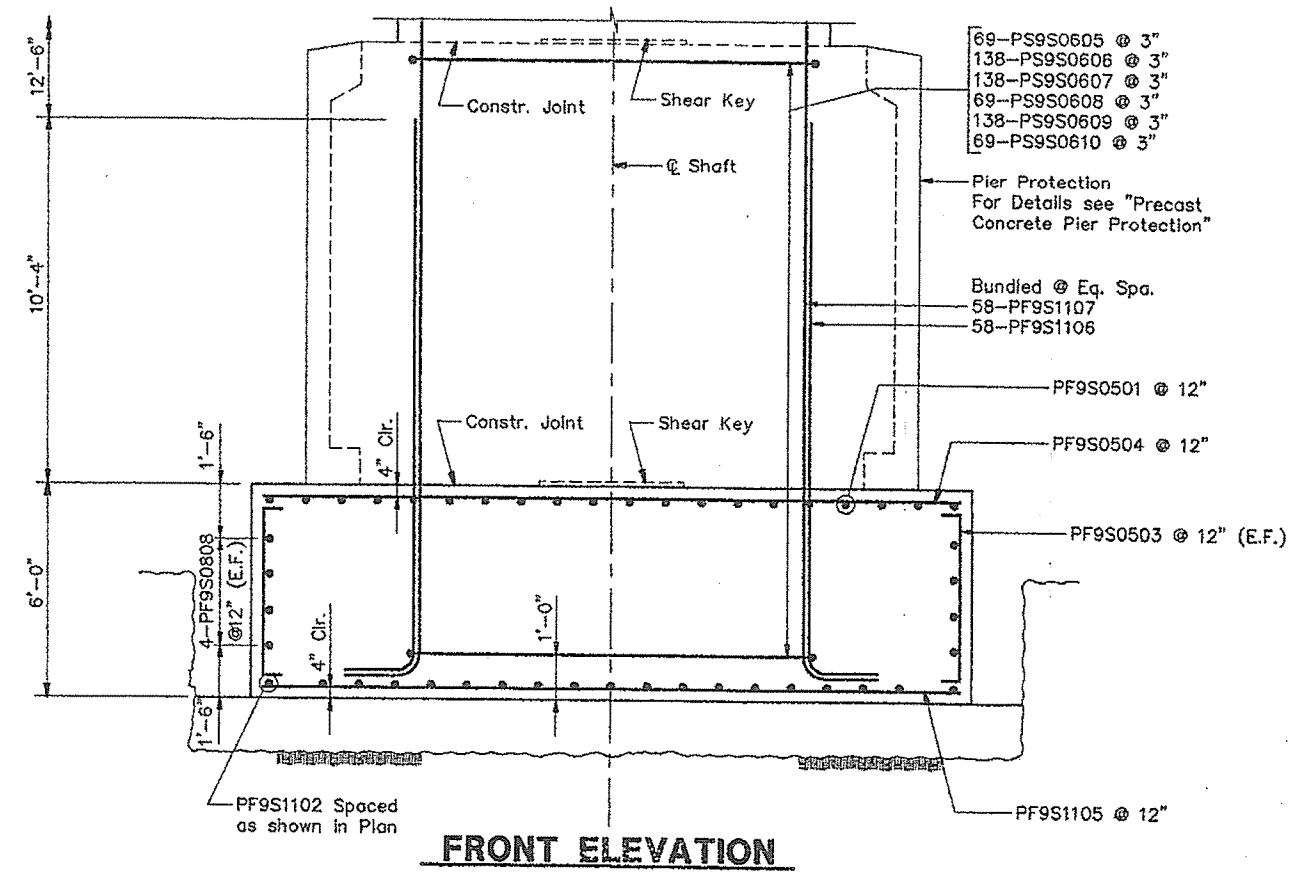
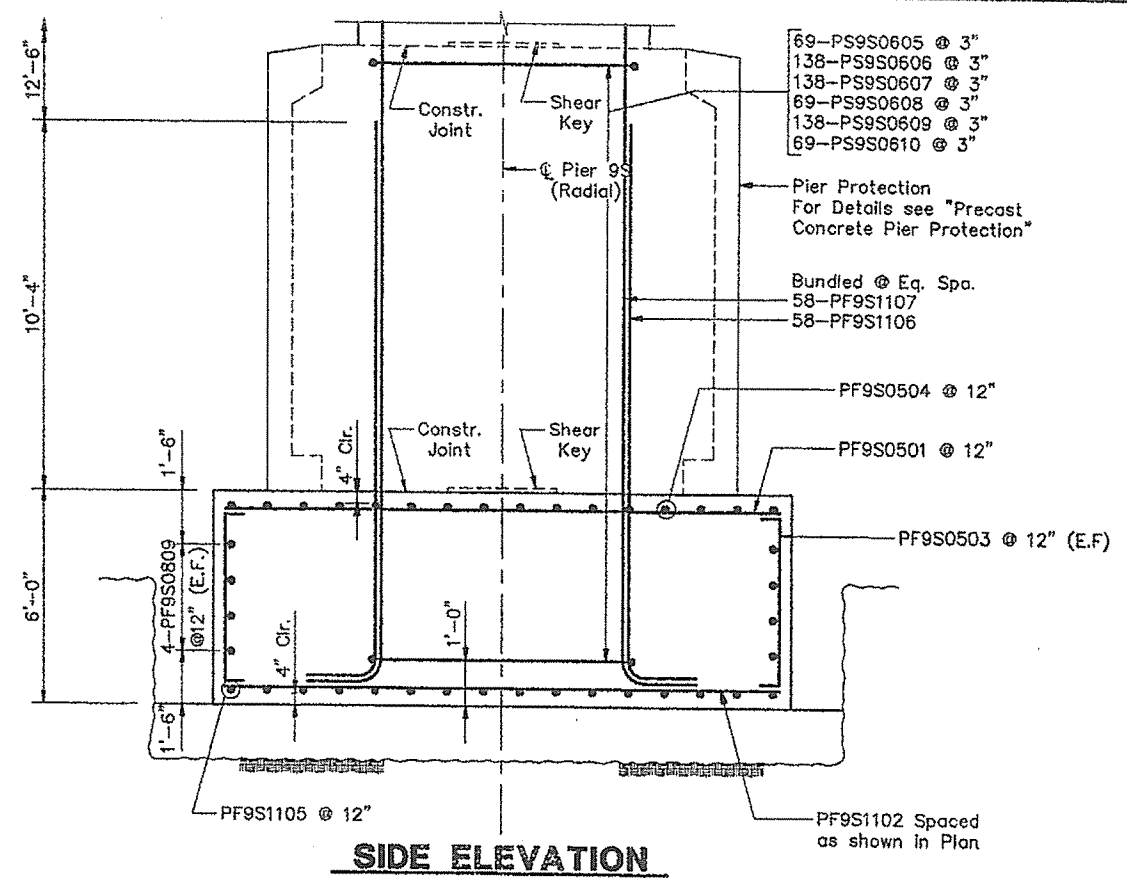
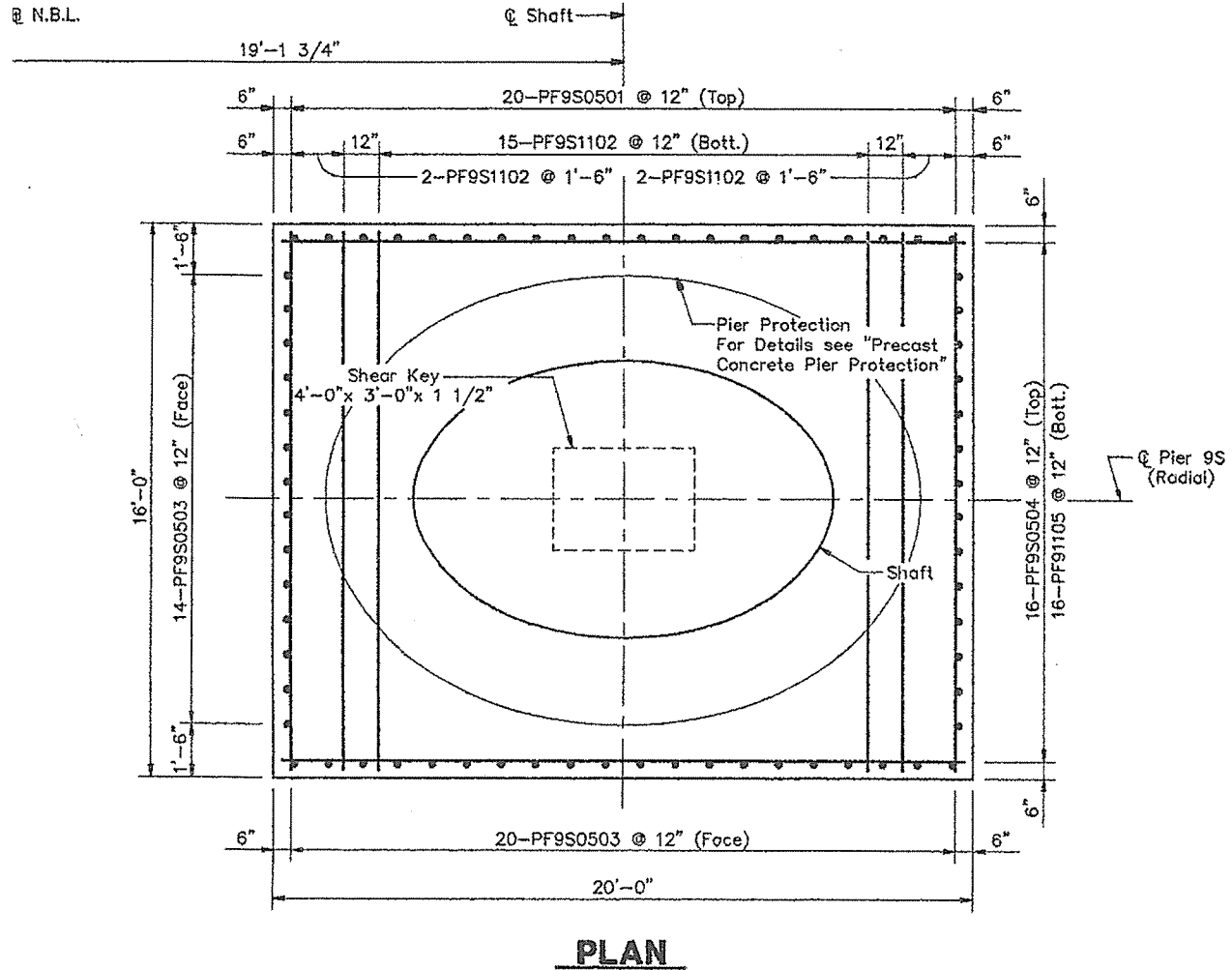


**FRONT ELEVATION**

Note:  
Adjust the reinforcing spacing in the top  
mat of the footing to accommodate shaft  
reinforcing.

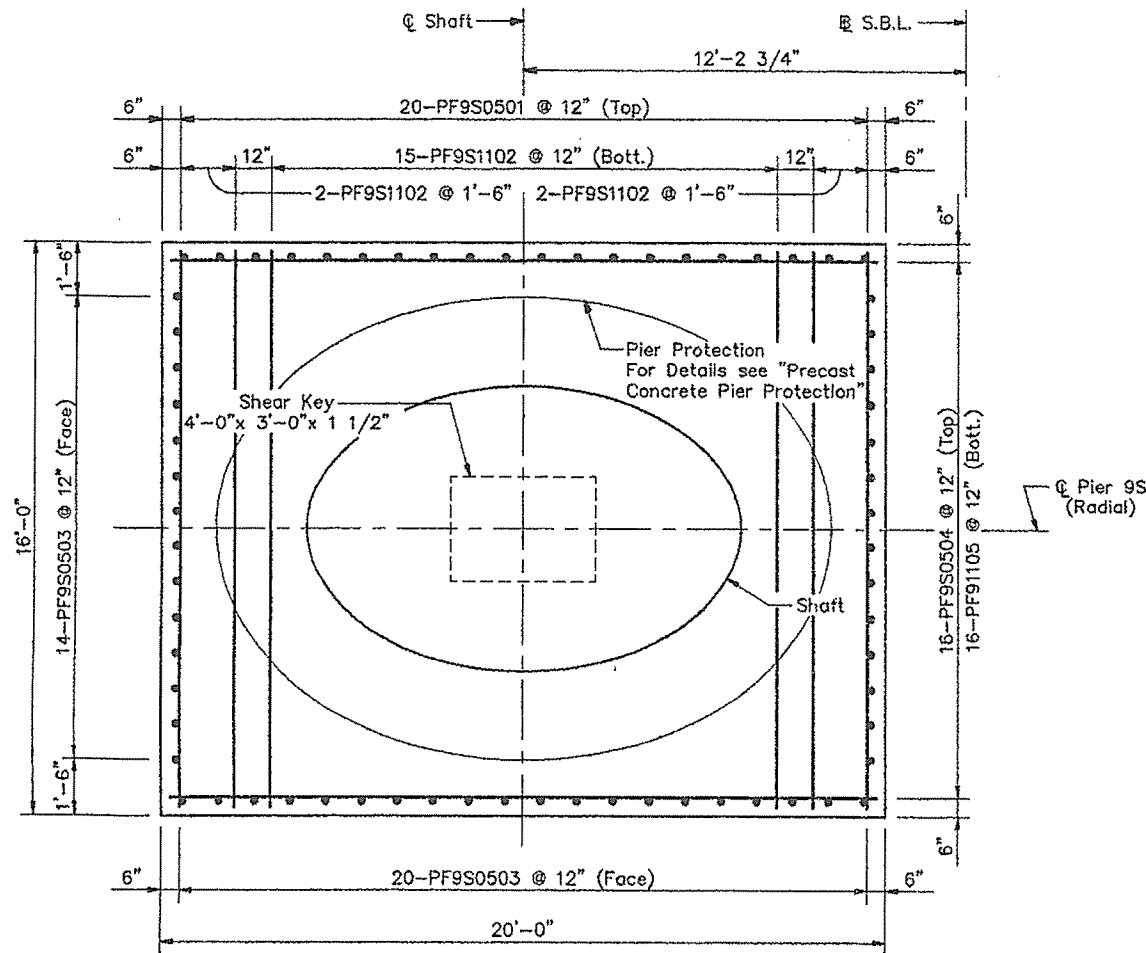
STEEL ALTERNATIVE SUBSTRUCTURE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE
OVER FORE RIVER
CUMBERLAND COUNTY
FOUNDATION DETAILS PIER 8S (S.B.L.)
SHEET 128 OF 330 AUGUSTA, MAINE 6/27/94

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	DPH-0068(002)	189	338

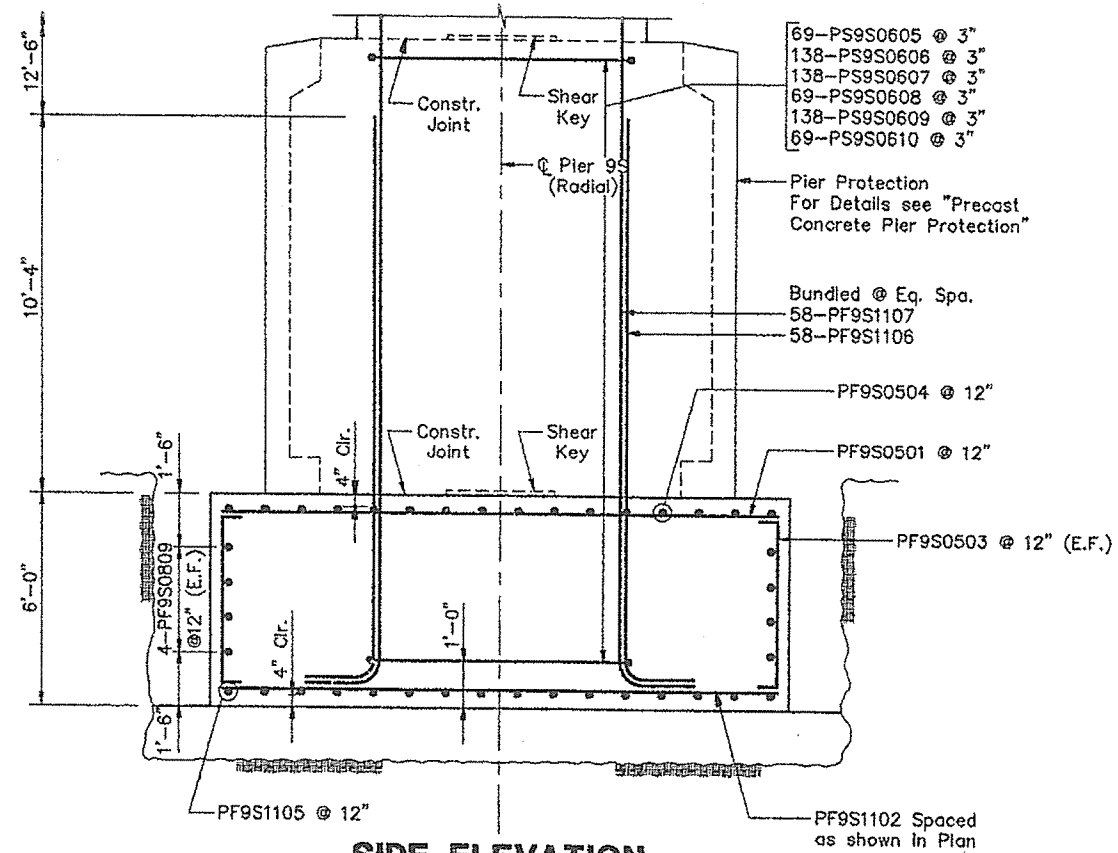


Note:  
Adjust the reinforcing spacing in the top  
mat of the footing to accommodate shaft  
reinforcing.

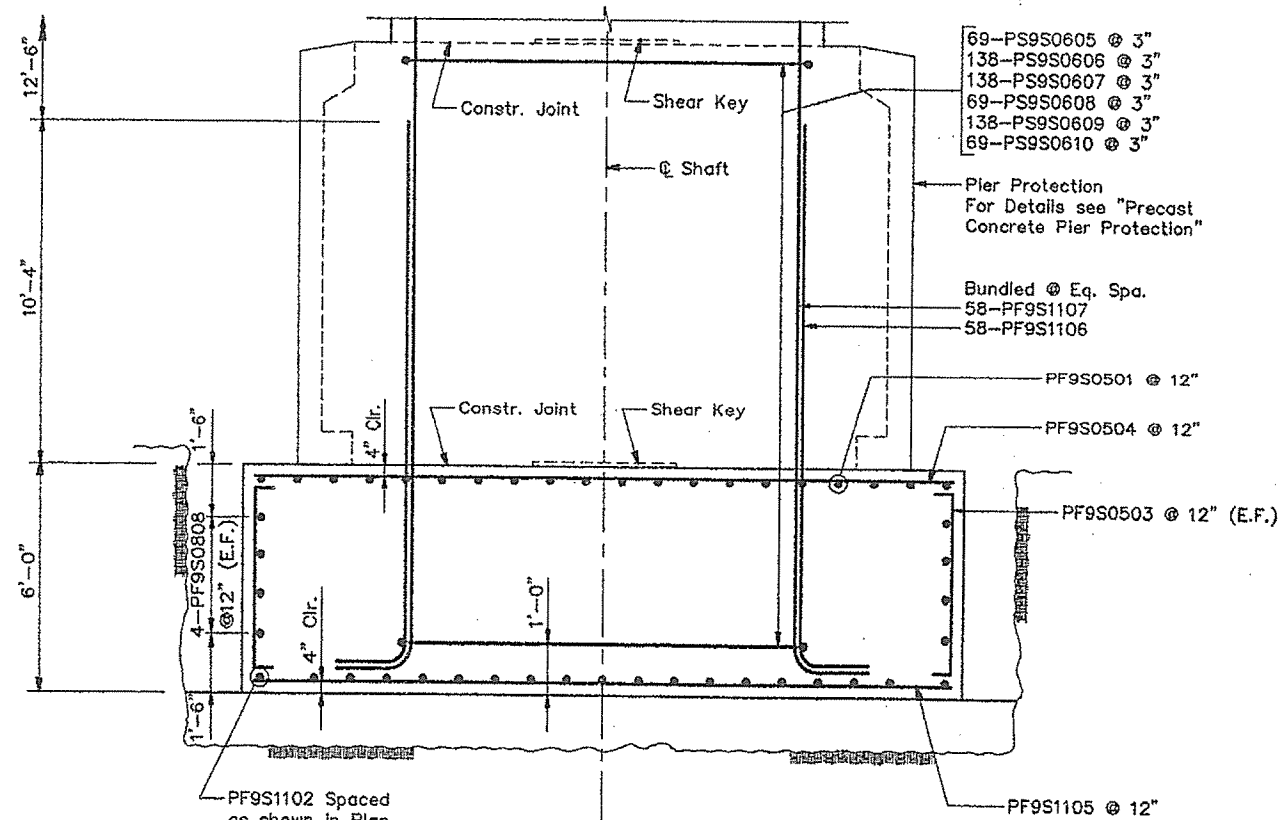
STEEL ALTERNATIVE SUBSTRUCTURE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE
OVER FORE RIVER
CUMBERLAND COUNTY
FOUNDATION DETAILS PIER 9S (N.B.L.)
SHEET 189 OF 338 AUGUSTA, MAINE 6/27/94



**PLAN**



**SIDE ELEVATION**



**FRONT ELEVATION**

Note:  
Adjust the reinforcing spacing in the top  
mat of the footing to accommodate shaft  
reinforcing.

**STEEL ALTERNATIVE SUBSTRUCTURE**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

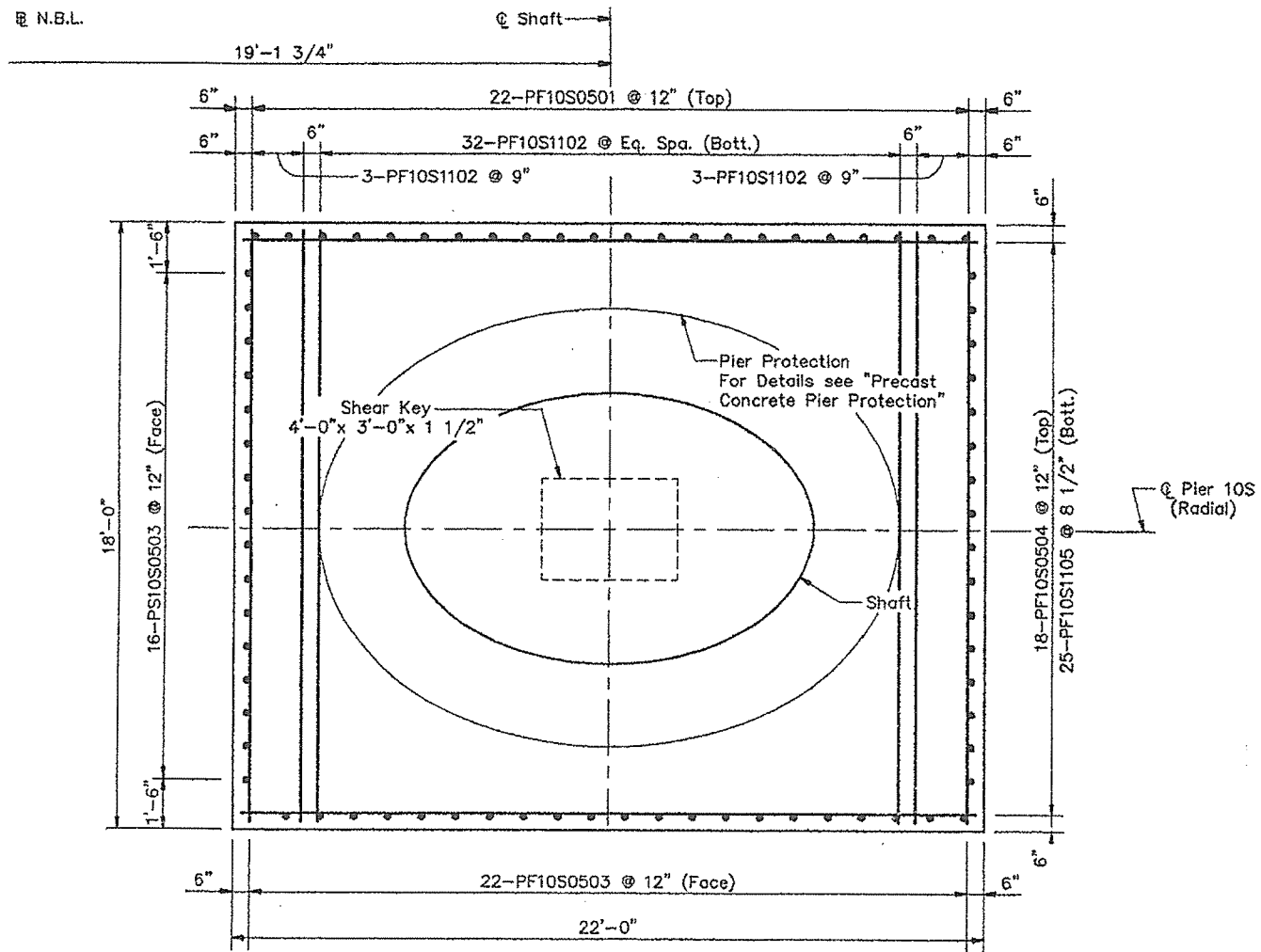
**PORTLAND - S. PORTLAND BRIDGE**

**OVER FORE RIVER**

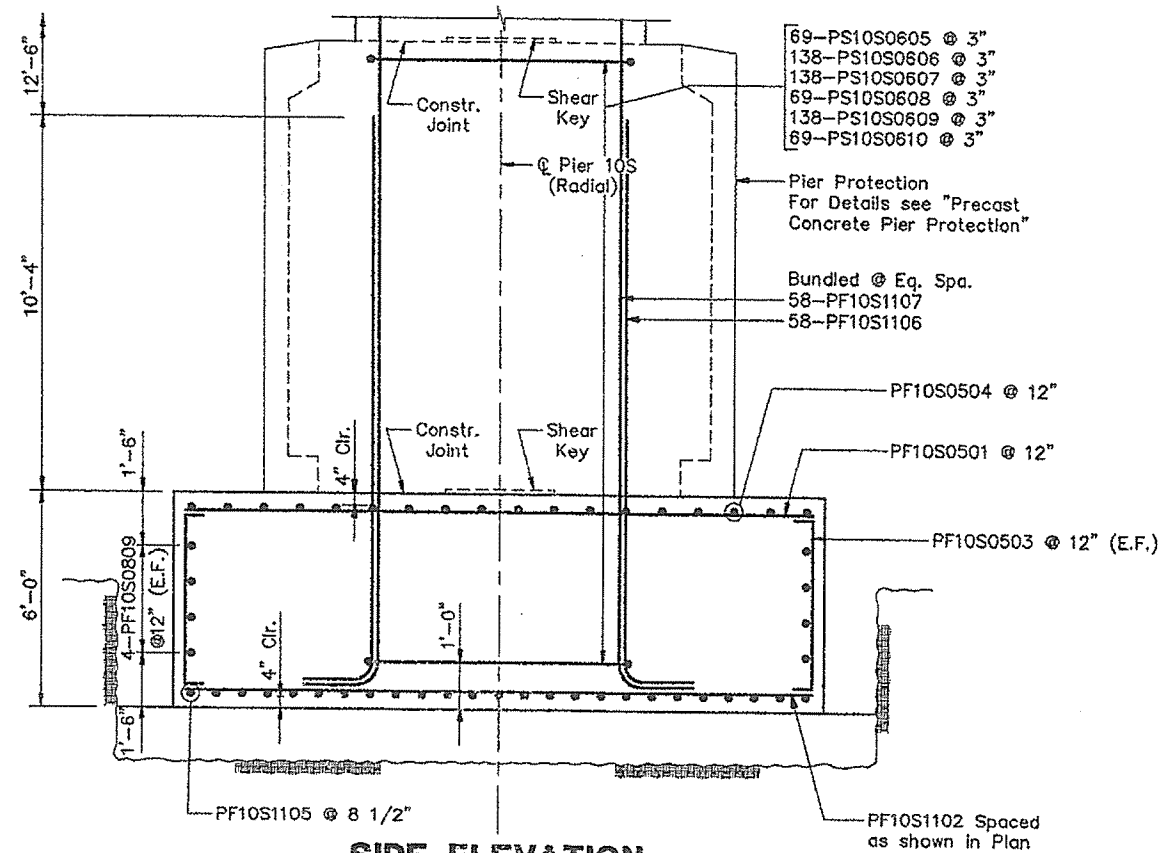
**CUMBERLAND COUNTY**

**FOUNDATION DETAILS  
PIER 9S (S.B.L.)**

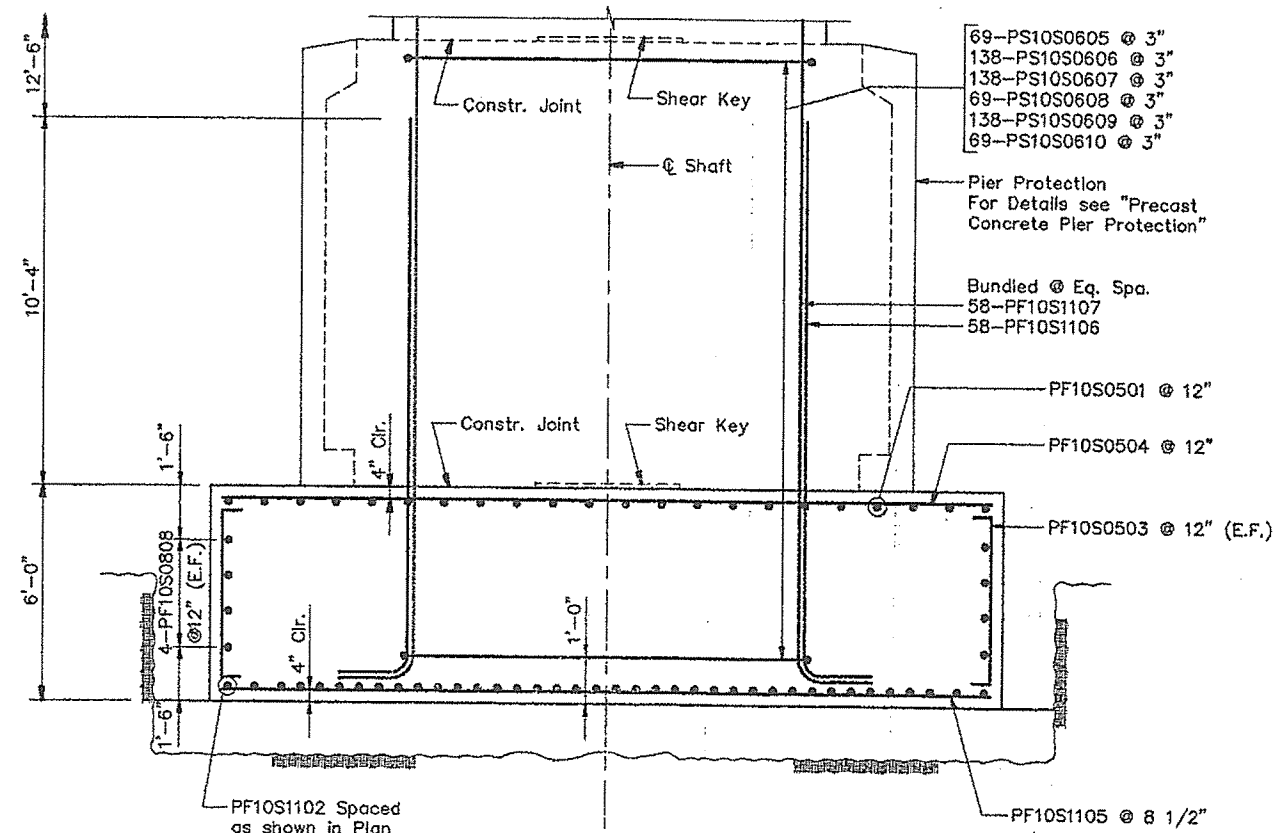
SHEET 190 OF 220 AUGUSTA, MAINE 6/27/74



**PLAN**



**SIDE ELEVATION**



**FRONT ELEVATION**

Note:  
Adjust the reinforcing spacing in the top  
mat of the footing to accomodate shaft  
reinforcing.

**STEEL ALTERNATIVE SUBSTRUCTURE**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

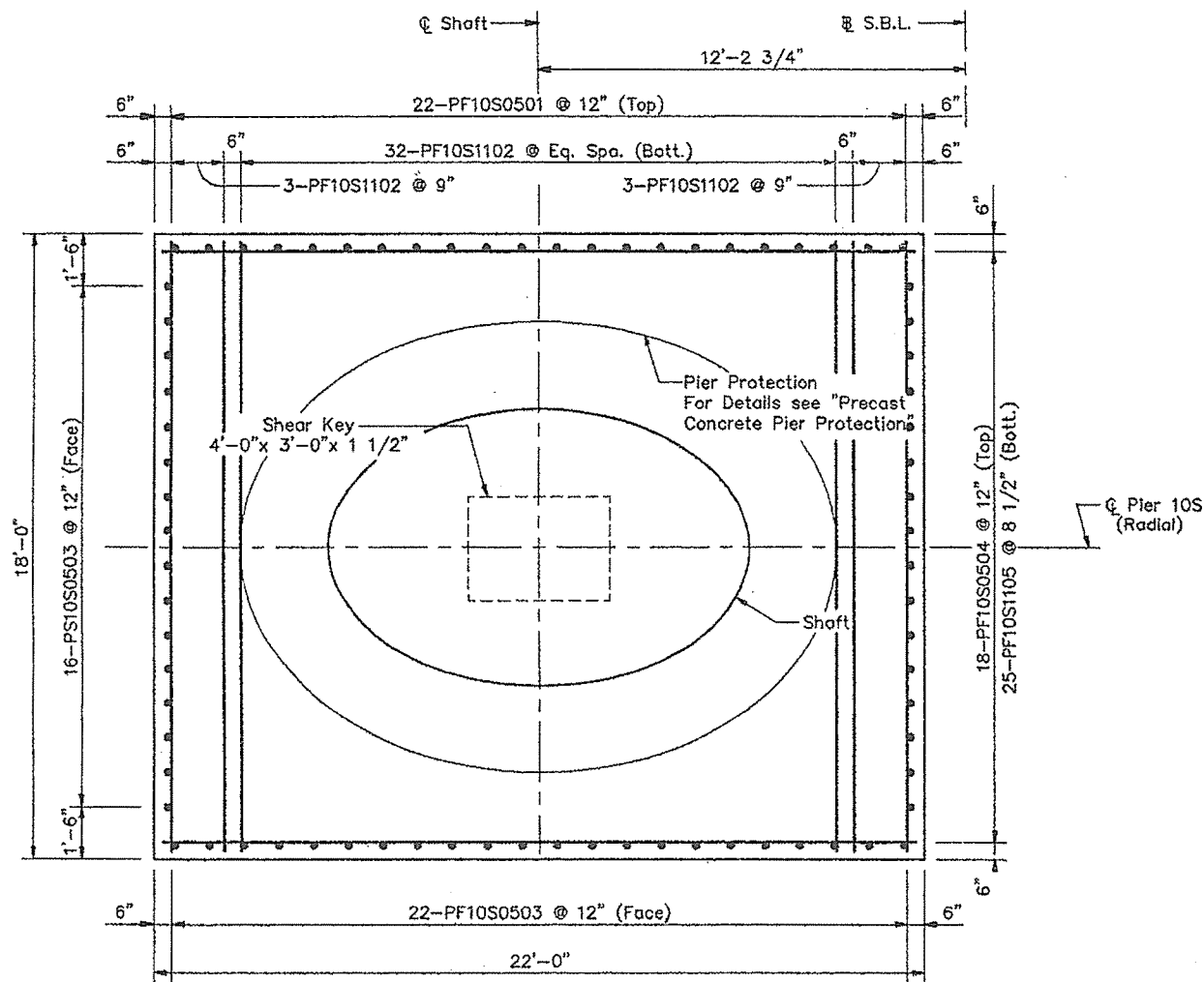
**PORTLAND - S. PORTLAND BRIDGE**

**OVER FORE RIVER**

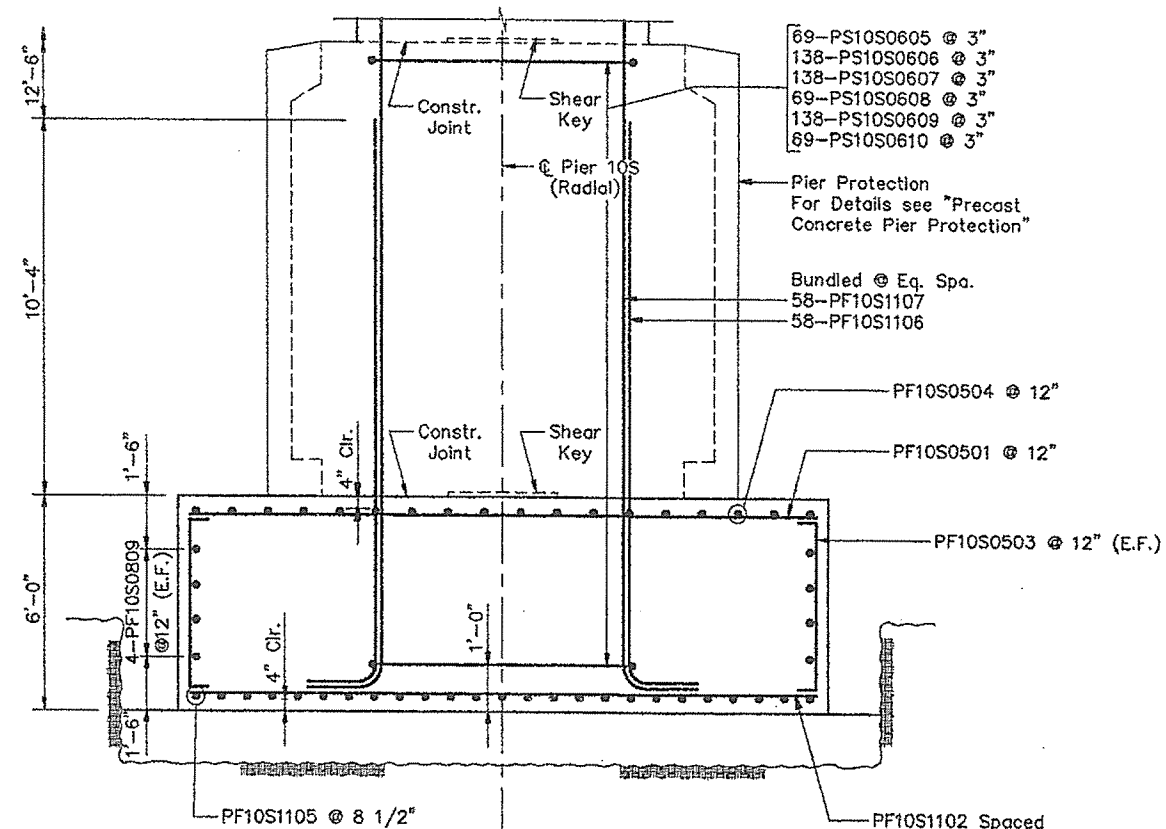
**CUMBERLAND COUNTY**

**FOUNDATION DETAILS  
PIER 10S (N.B.L.)**

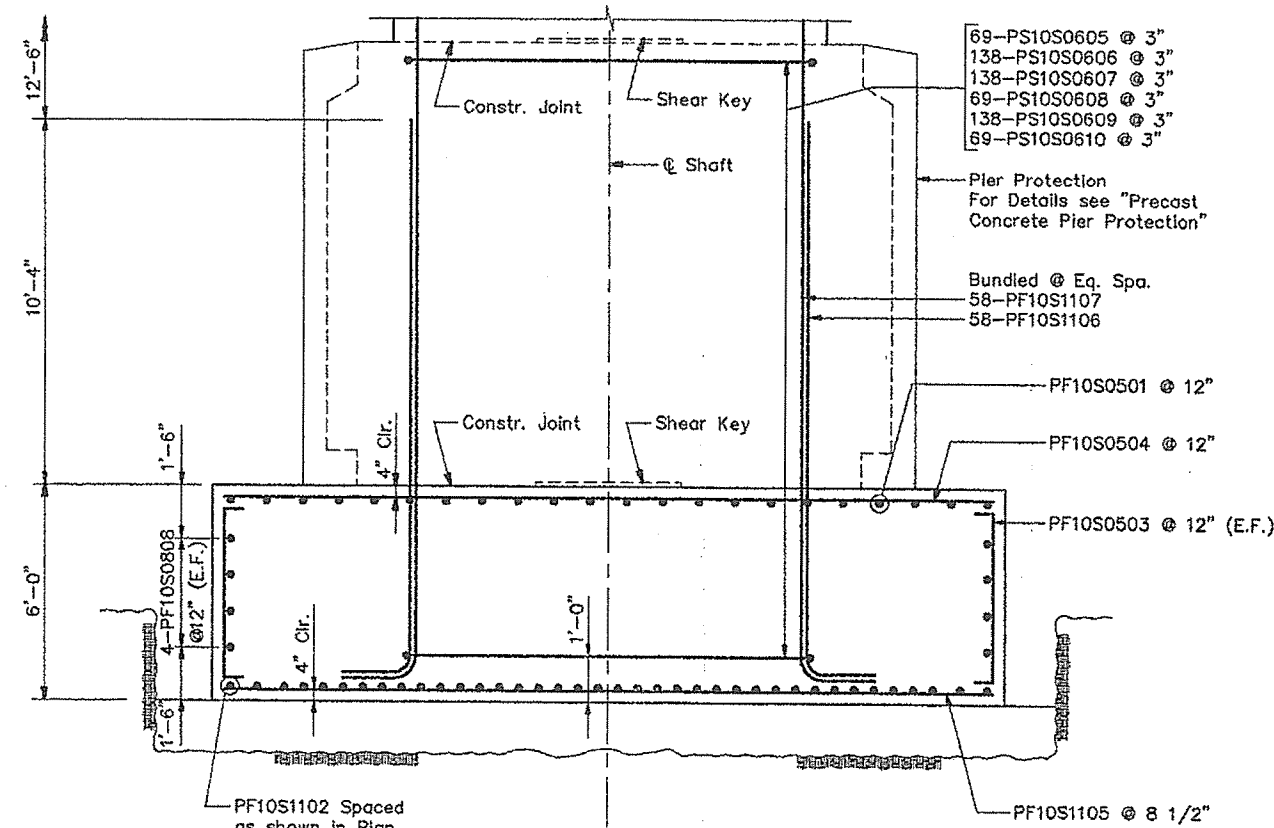
SHEET 191 OF 228 AUGUSTA, MAINE 6/27/94



**PLAN**



**SIDE ELEVATION**



**FRONT ELEVATION**

Note:  
Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.

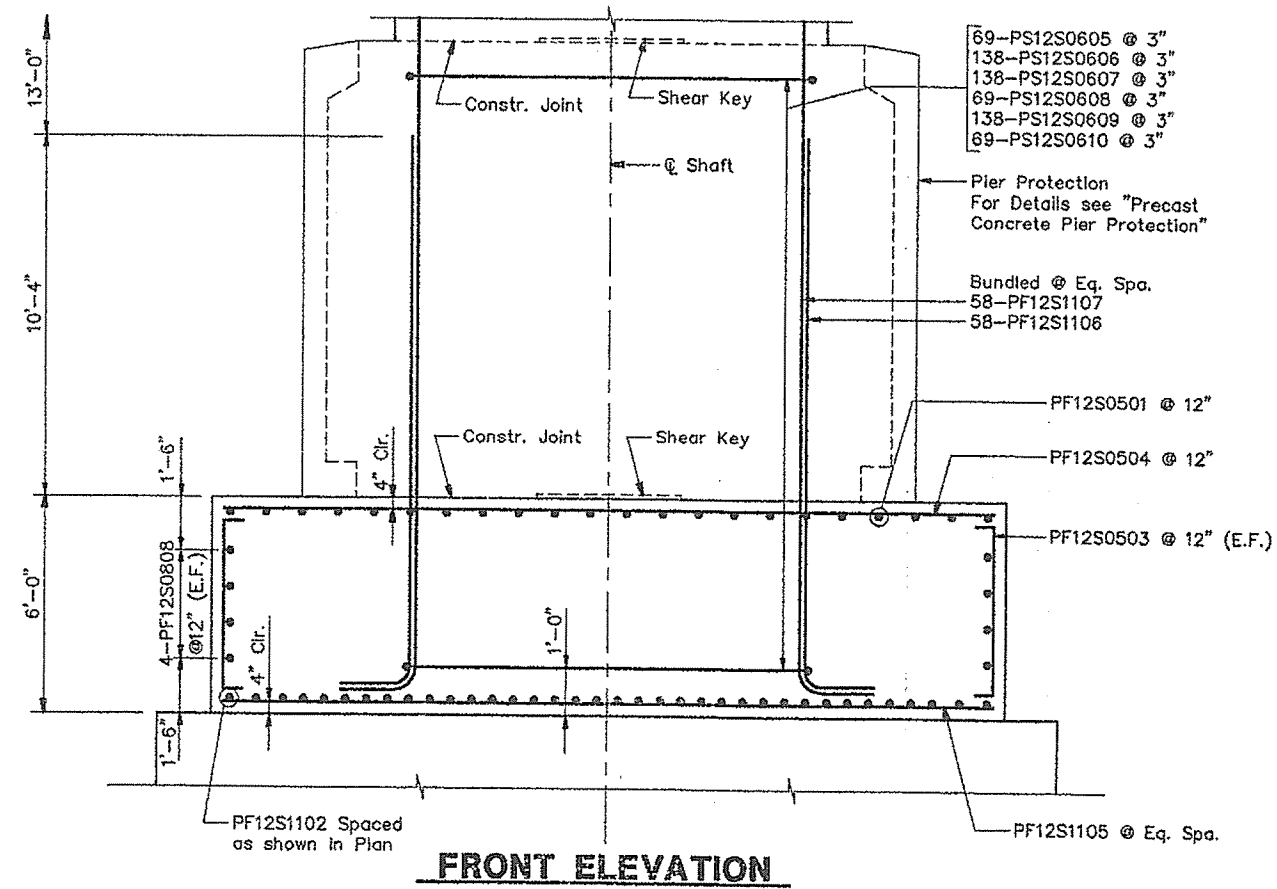
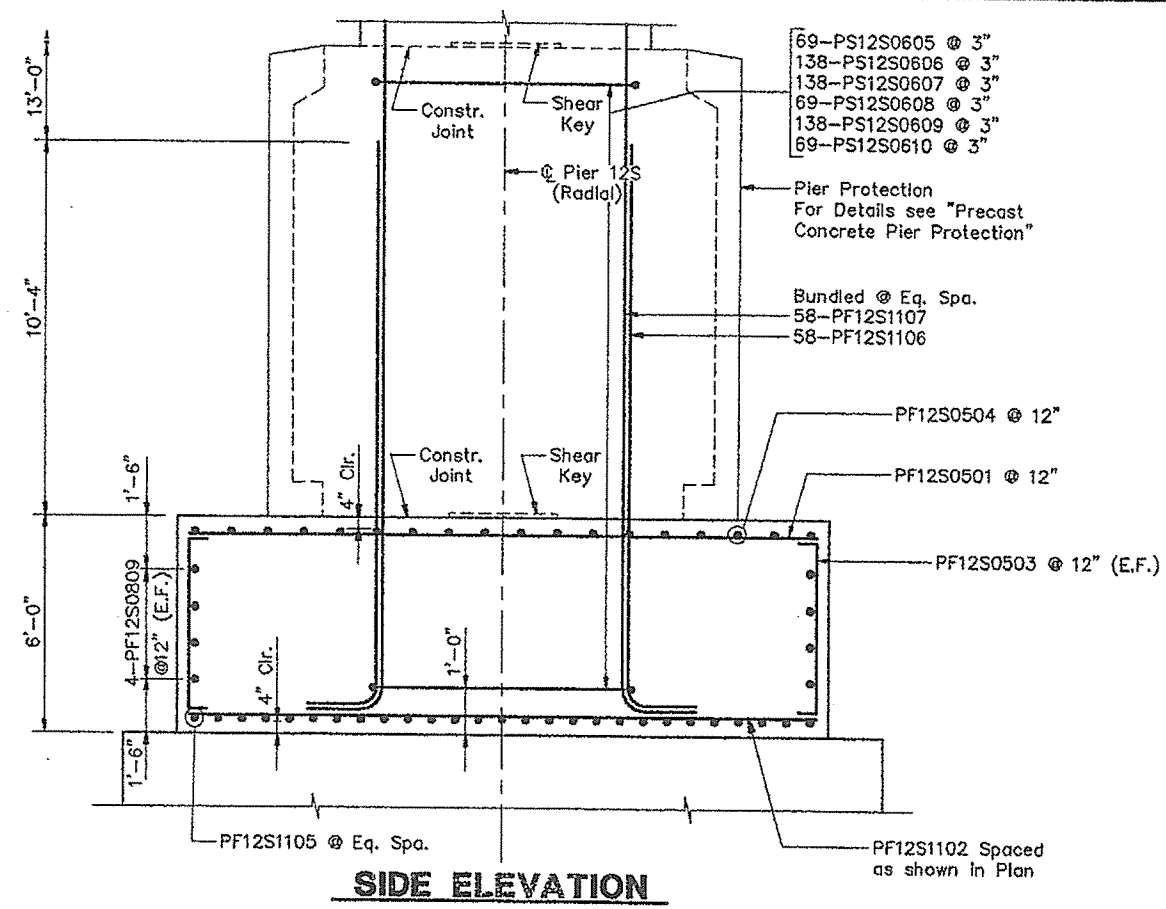
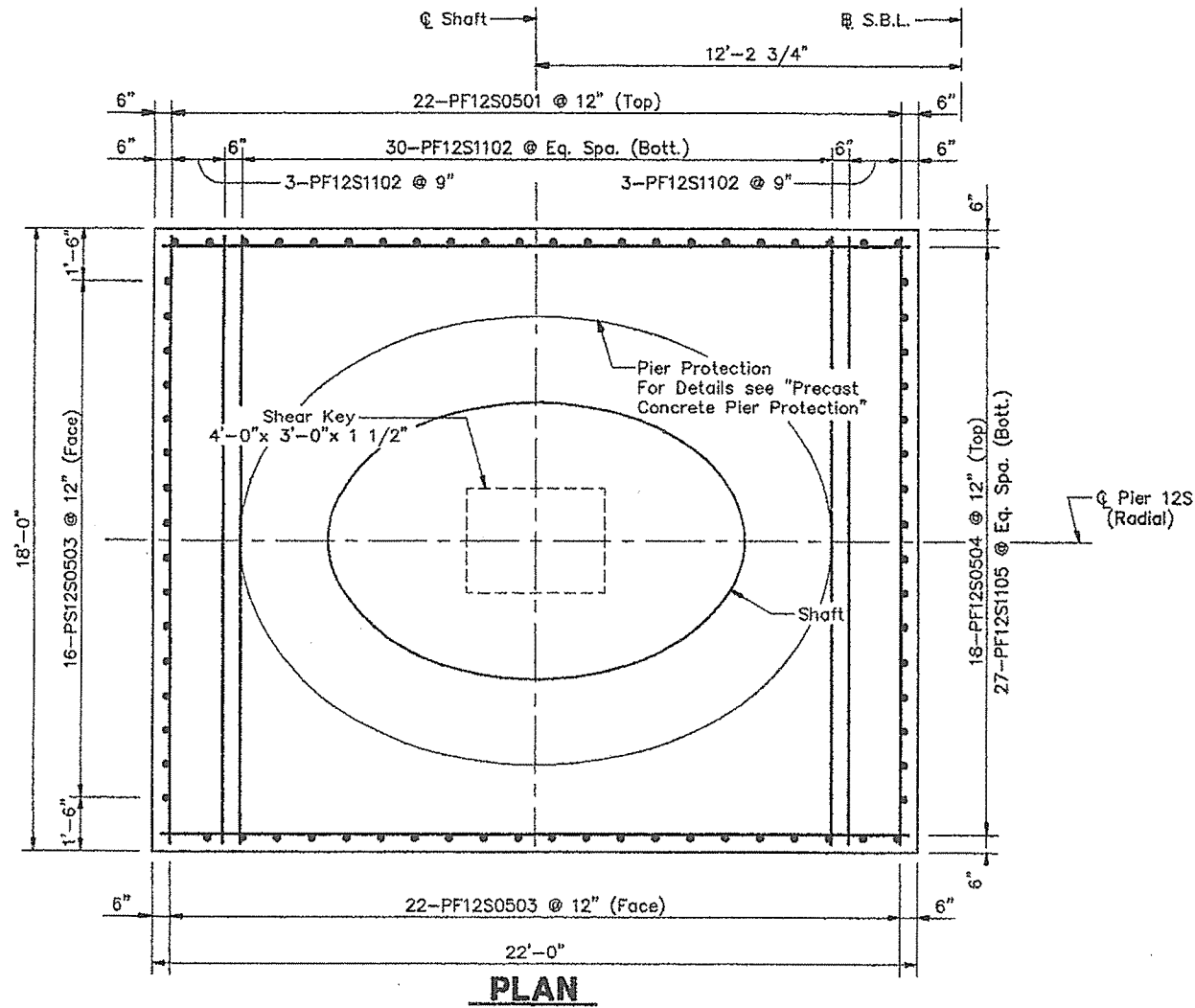
STEEL ALTERNATIVE SUBSTRUCTURE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE
OVER FORE RIVER
CUMBERLAND COUNTY
FOUNDATION DETAILS PIER 10S (S.B.L.)
SHEET 192 OF 338 AUGUSTA, MAINE 6/27/94







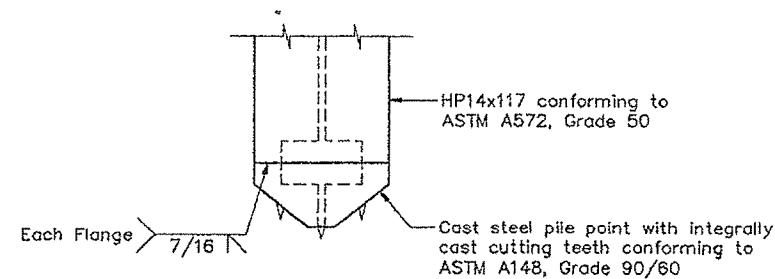
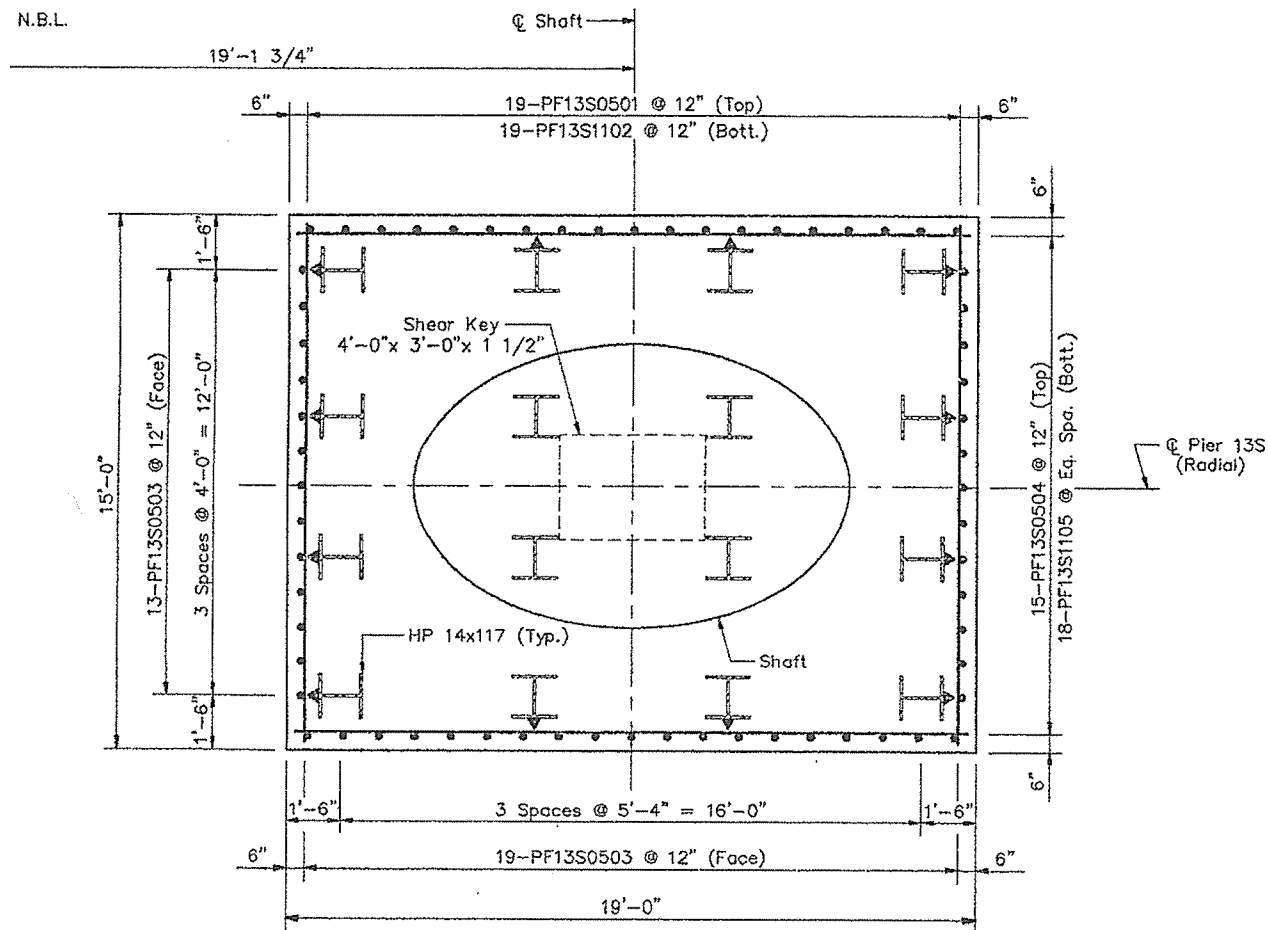
F.I.R.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	DP-0068(002)	196	226



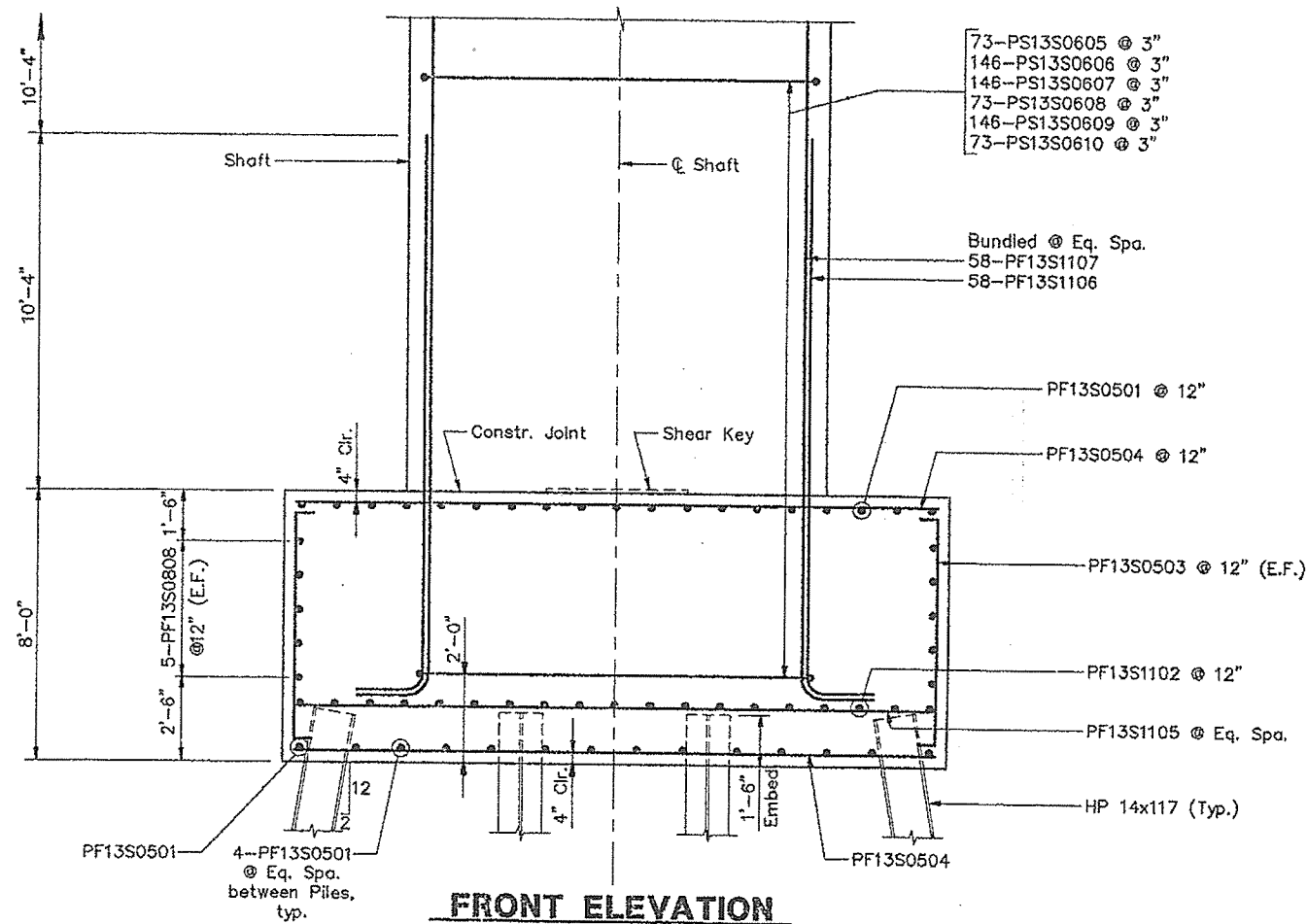
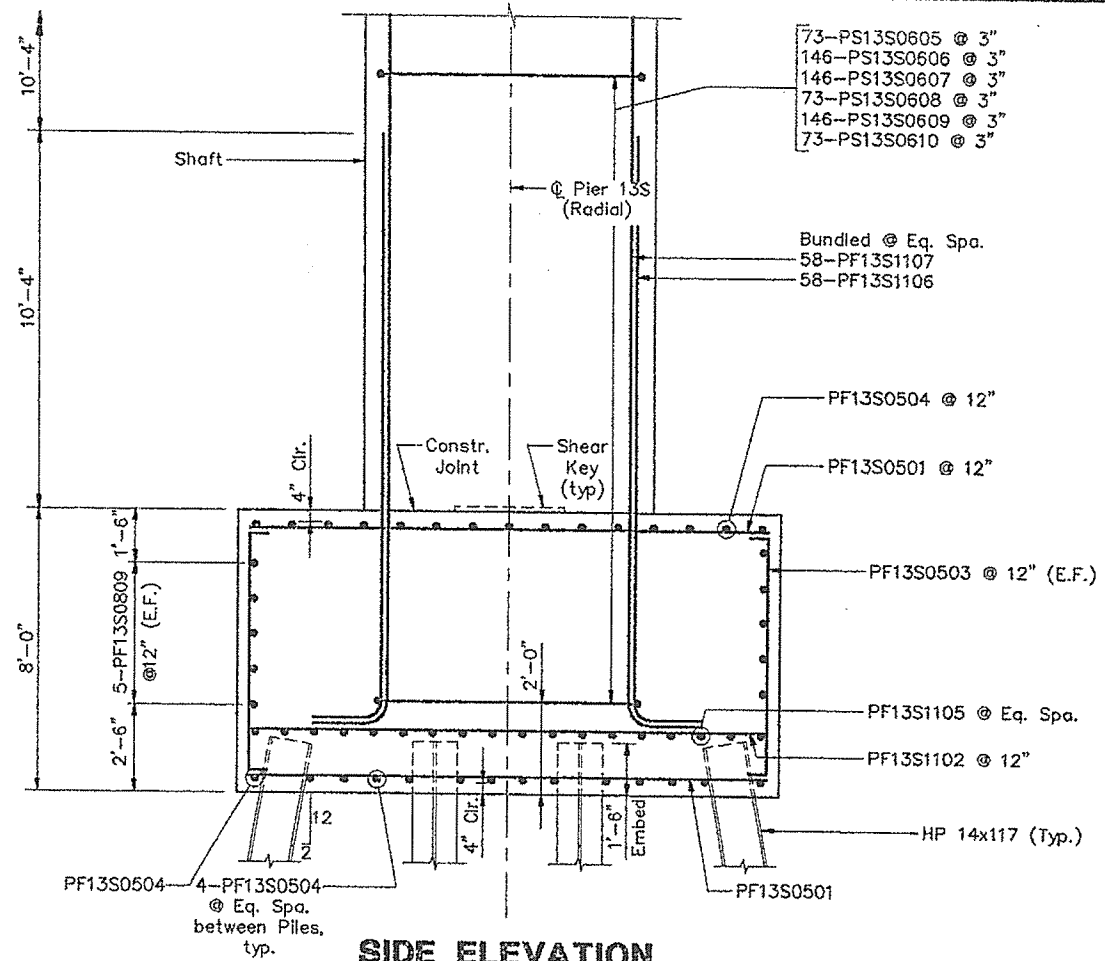
Note:  
Adjust the reinforcing spacing in the top  
mat of the footing to accommodate shaft  
reinforcing.

STEEL ALTERNATIVE SUBSTRUCTURE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE
OVER FORE RIVER
CUMBERLAND COUNTY
FOUNDATION DETAILS PIER 12S (S.B.L.)

SHEET 196 OF 226 AUGUSTA, MAINE 1/17/94



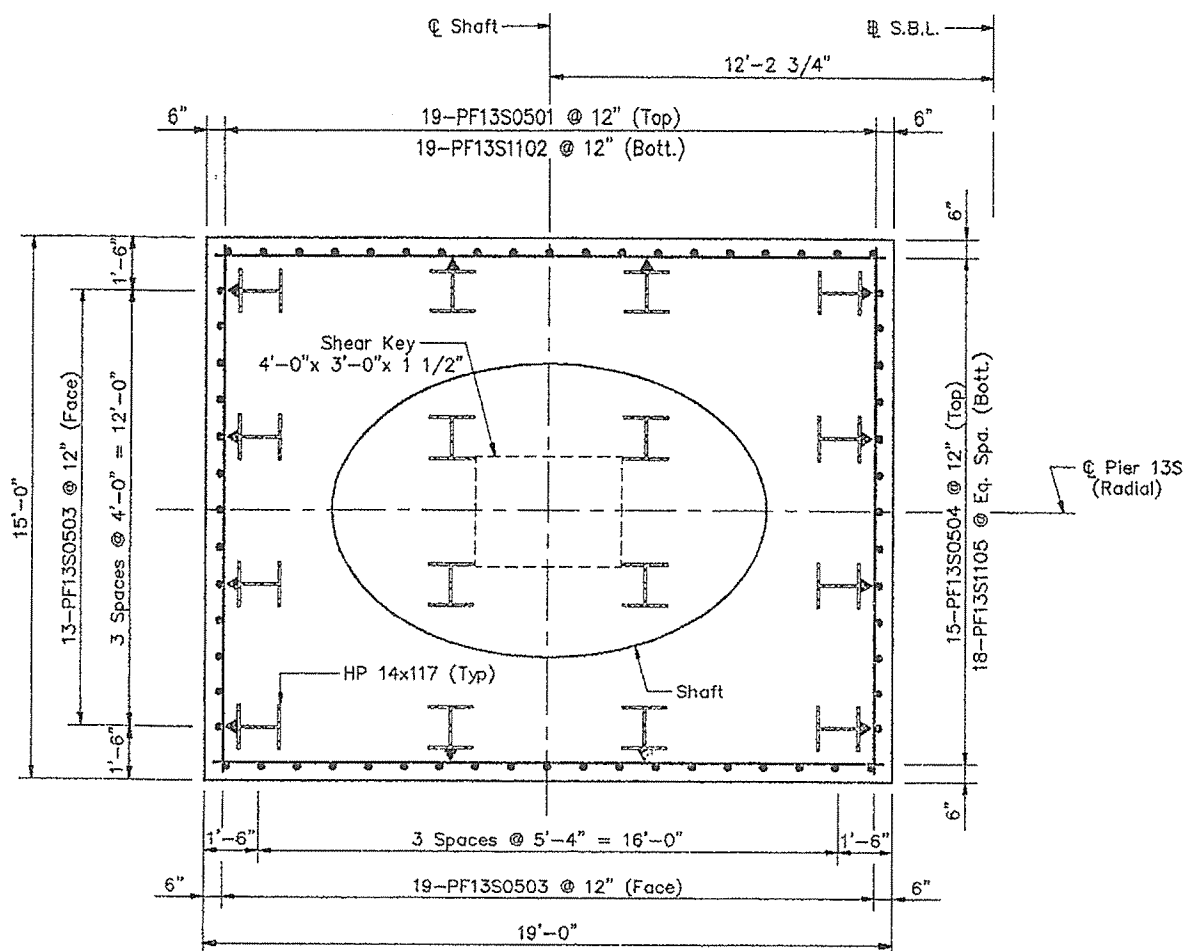
**PILE TIP DETAIL**



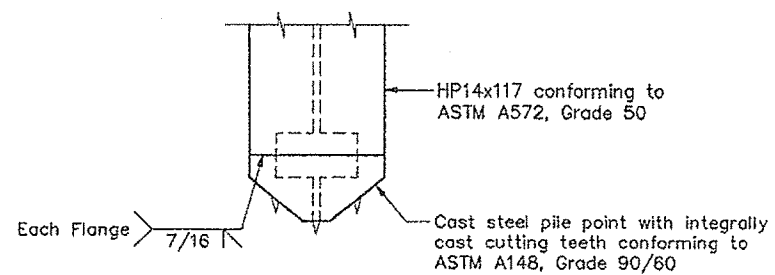
Note:  
Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.  
Piles marked  $\perp$  shall be battered 2 inches per foot in the direction of the arrow.

**STEEL ALTERNATIVE SUBSTRUCTURE**

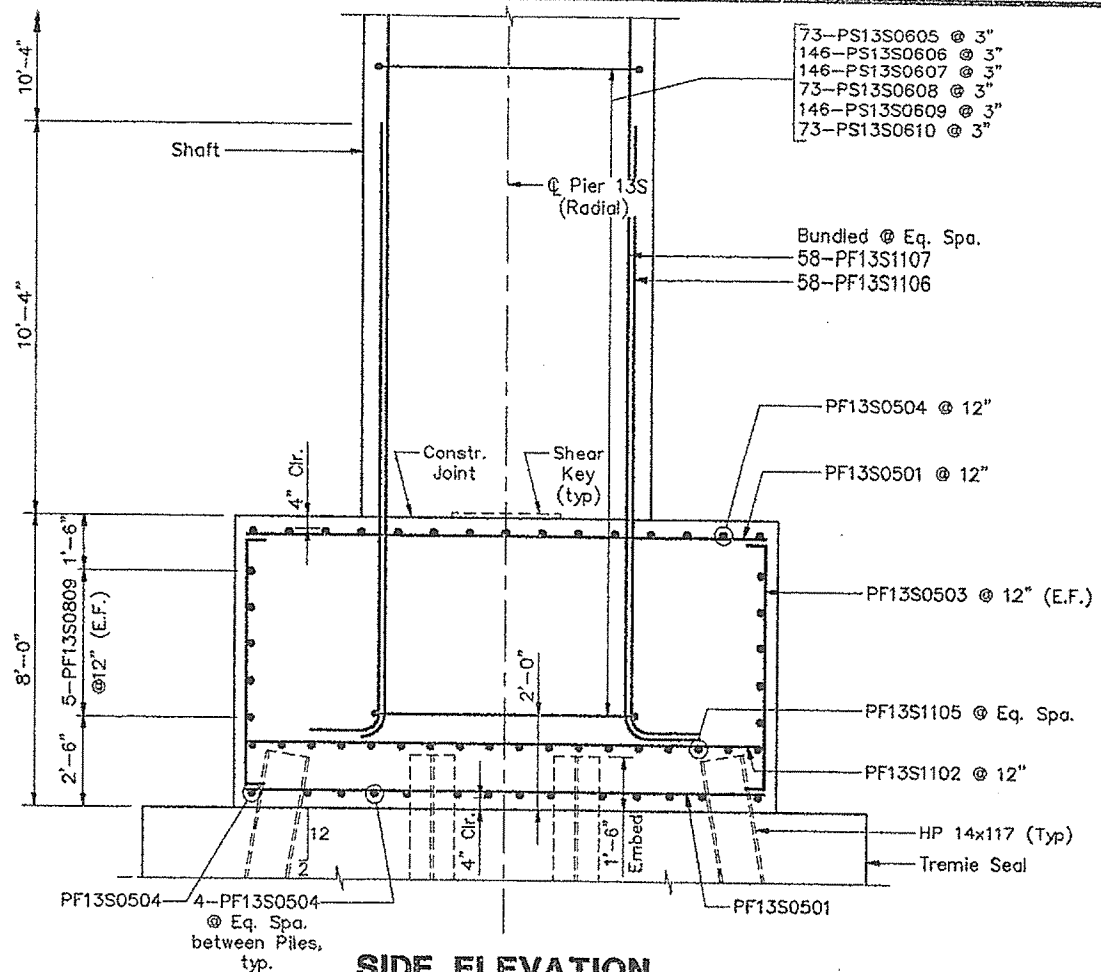
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
<b>PORTLAND - S. PORTLAND BRIDGE</b>
<b>OVER FORE RIVER</b>
<b>CUMBERLAND COUNTY</b>
<b>FOUNDATION DETAILS PIER 13S (N.B.L.)</b>



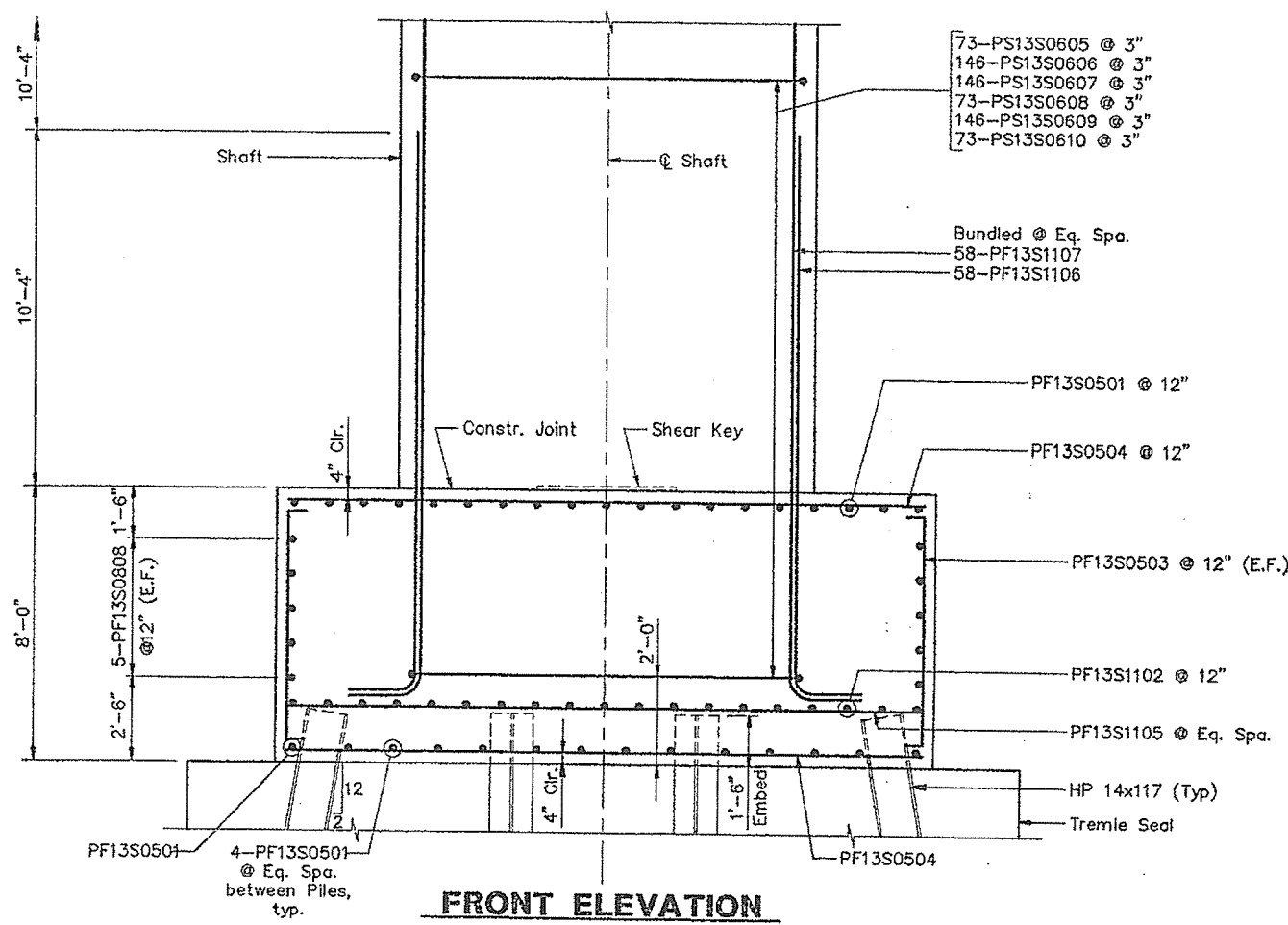
**PLAN**



**PILE TIP DETAIL**



**SIDE ELEVATION**



**FRONT ELEVATION**

Note:  
Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.  
Piles marked  $\perp$  shall be battered 2 inches per foot in the direction of the arrow.

**STEEL ALTERNATIVE SUBSTRUCTURE**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

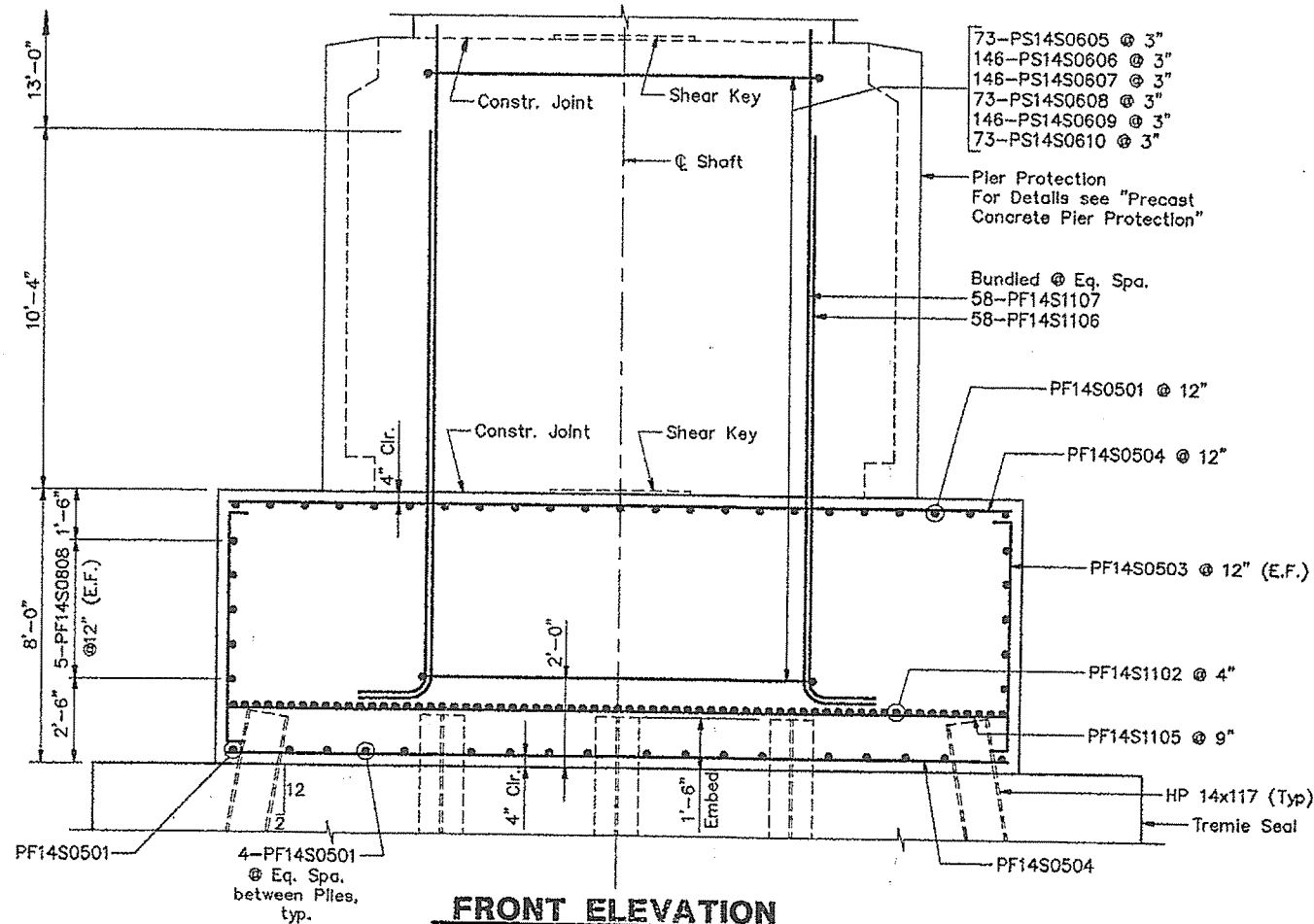
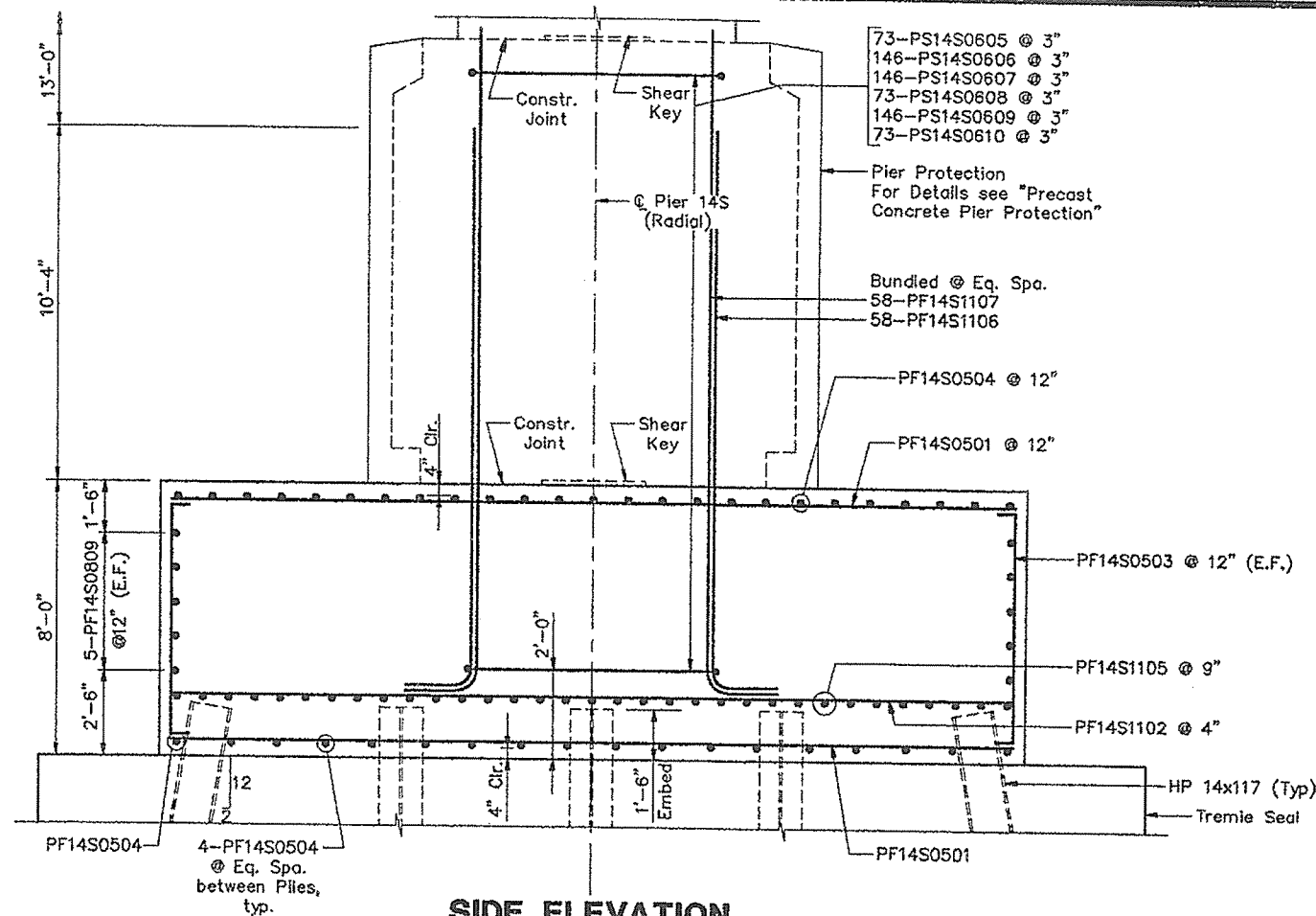
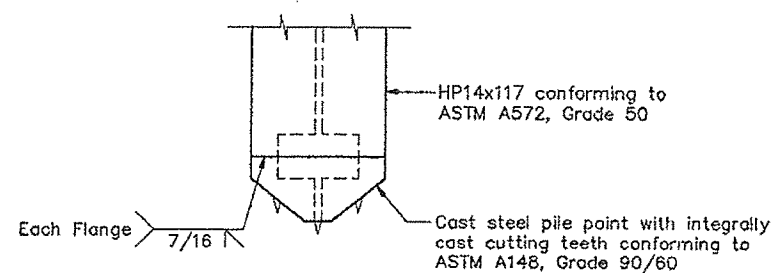
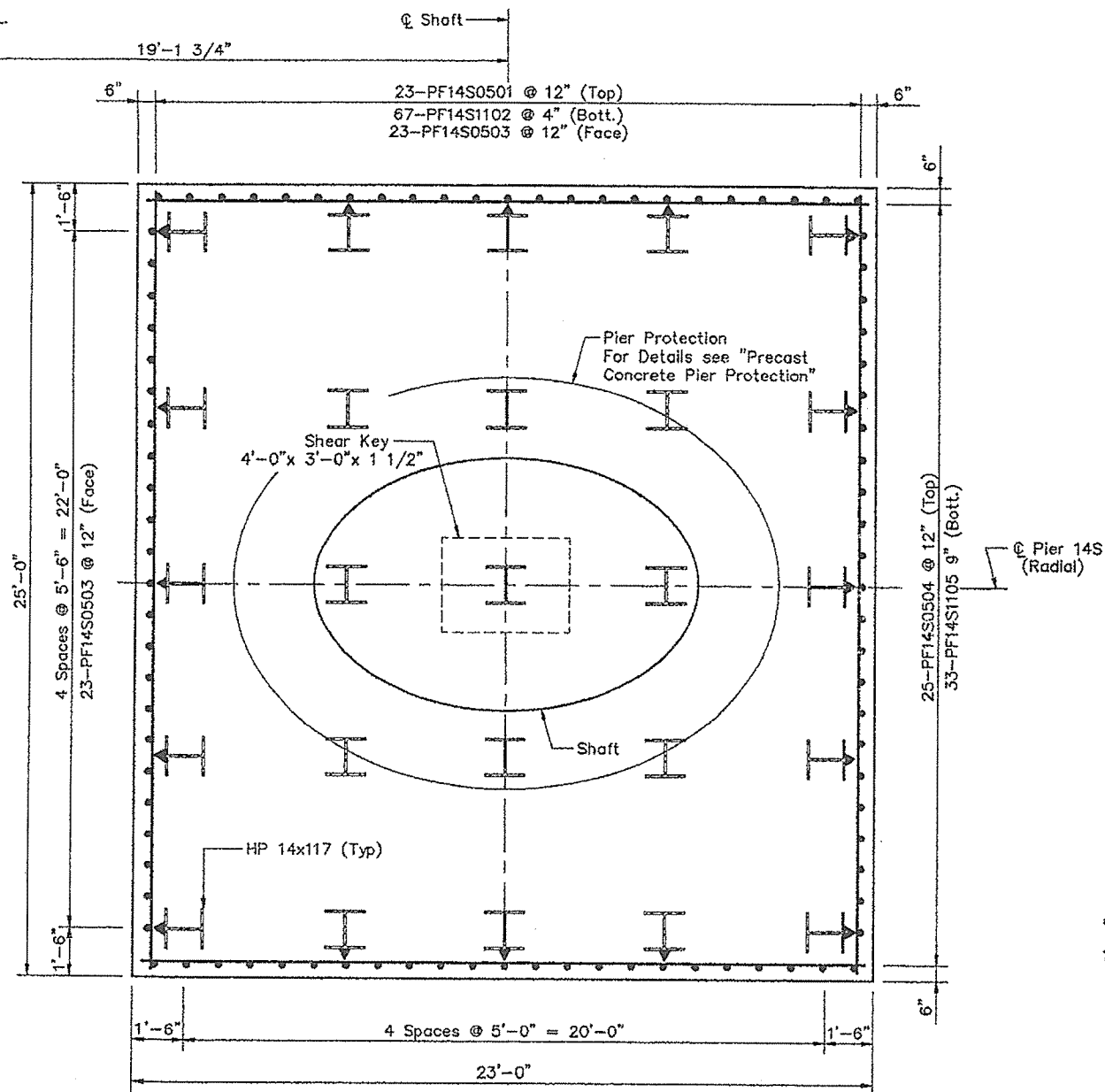
**PORTLAND - S. PORTLAND BRIDGE**

**OVER FORE RIVER**

**CUMBERLAND COUNTY**

**FOUNDATION DETAILS  
PIER 13S (S.B.L.)**

SHEET 198 OF 398 AUGUSTA, MAINE 4/13/94



Note:  
Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.  
Piles marked  $\nabla$  shall be battered 2 inches per foot in the direction of the arrow.

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

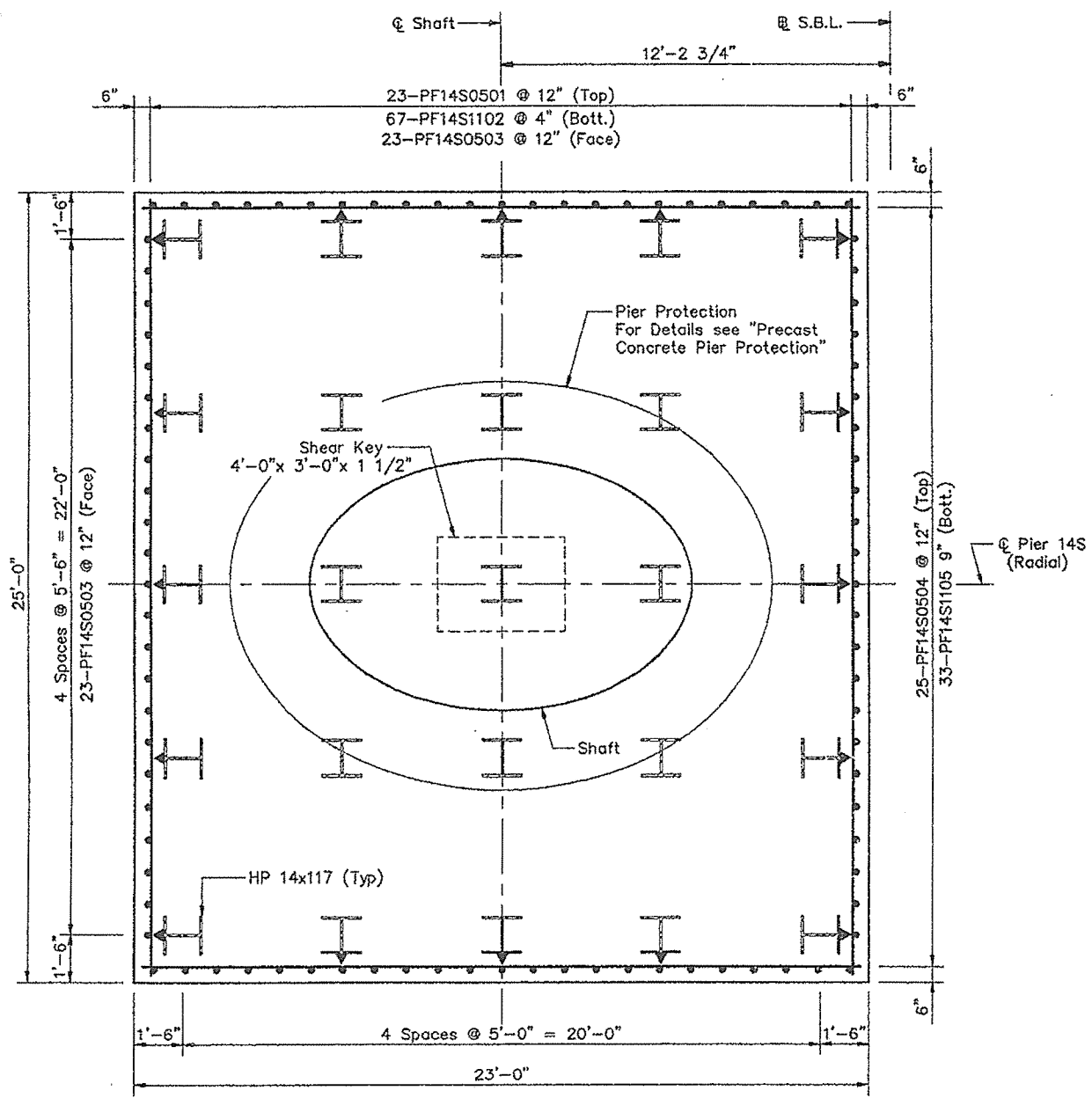
PORTLAND - S. PORTLAND BRIDGE

OVER FORE RIVER

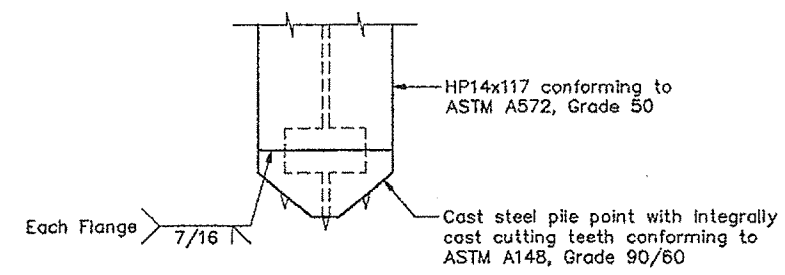
CUMBERLAND COUNTY

FOUNDATION DETAILS  
PIER 14S (N.B.L.)

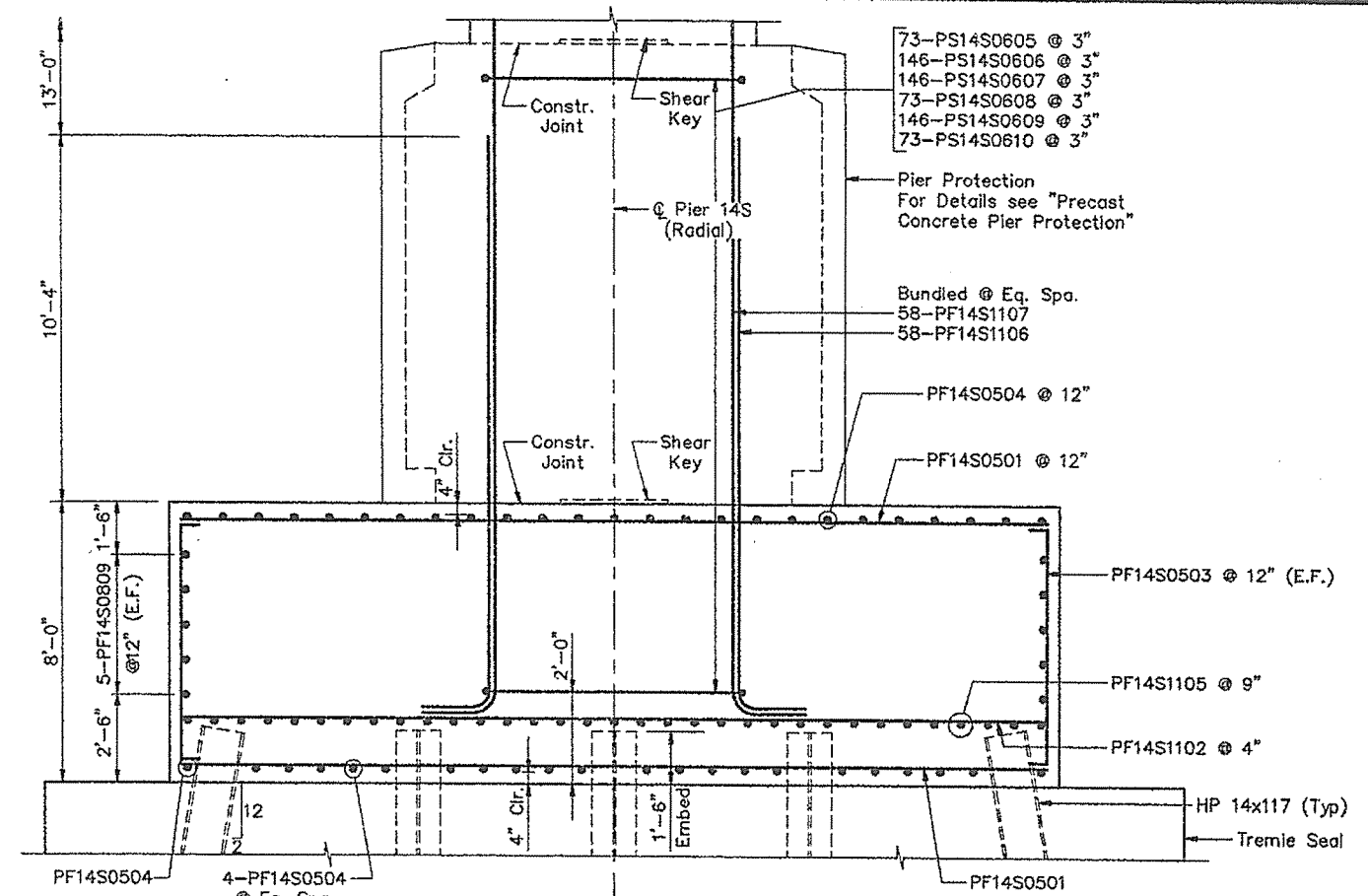
SHEET 199 OF 238 AUGUSTA, MAINE 01/27/94



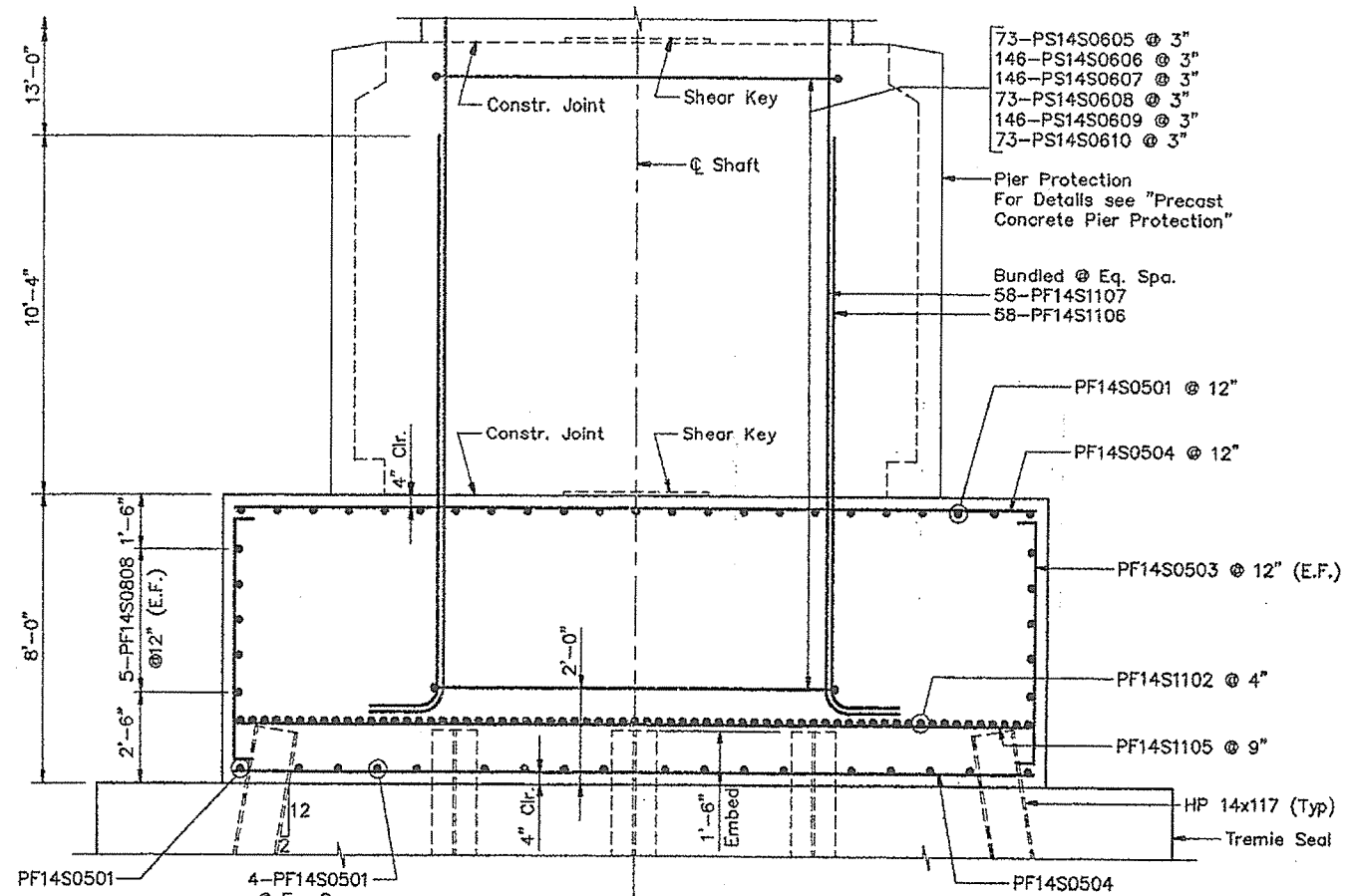
**PLAN**



**PILE TIP DETAIL**



**SIDE ELEVATION**



**FRONT ELEVATION**

Note:  
Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.  
Piles marked  $\perp$  shall be battered 2 inches per foot in the direction of the arrow.

**STEEL ALTERNATIVE SUBSTRUCTURE**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND BRIDGE**

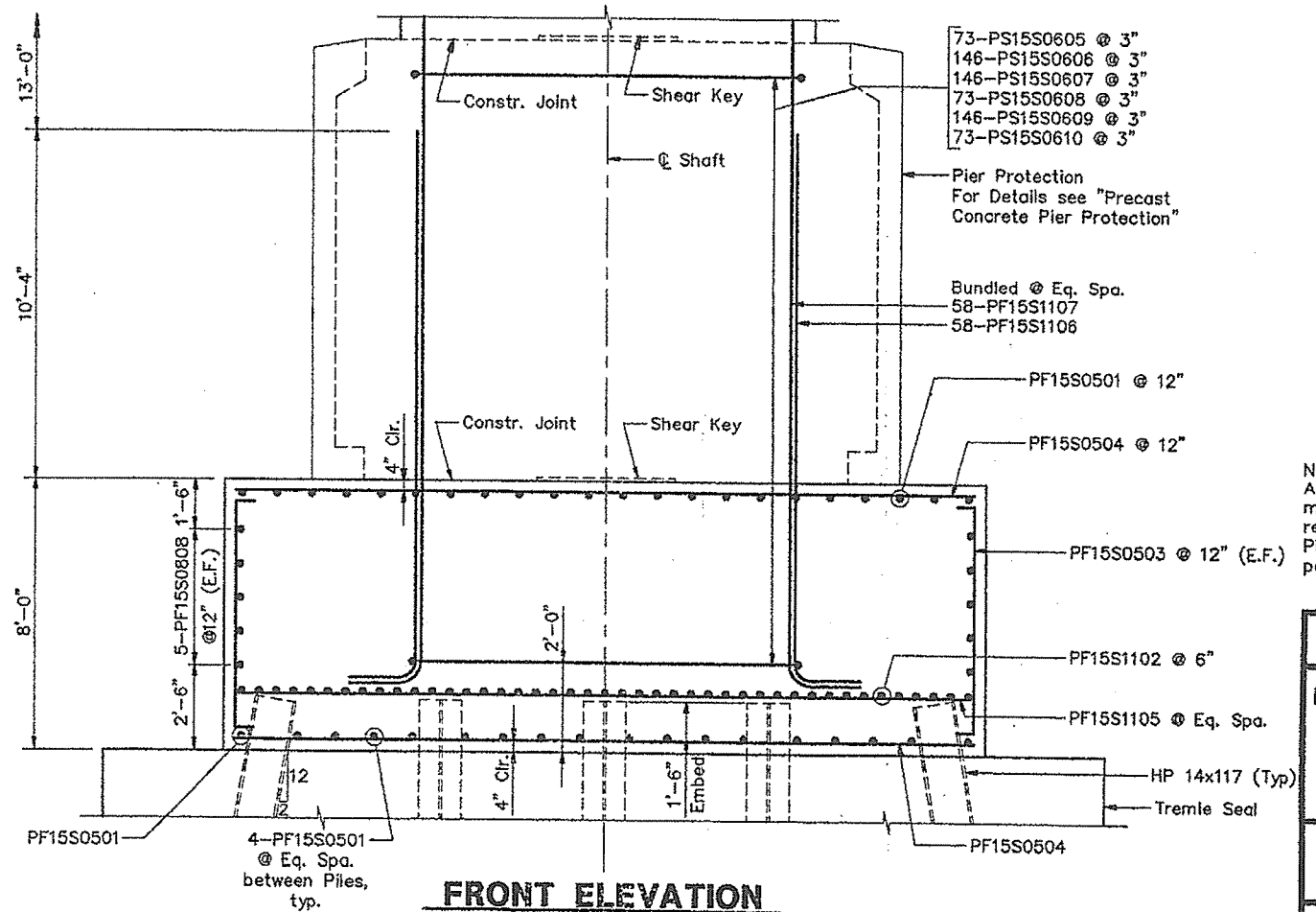
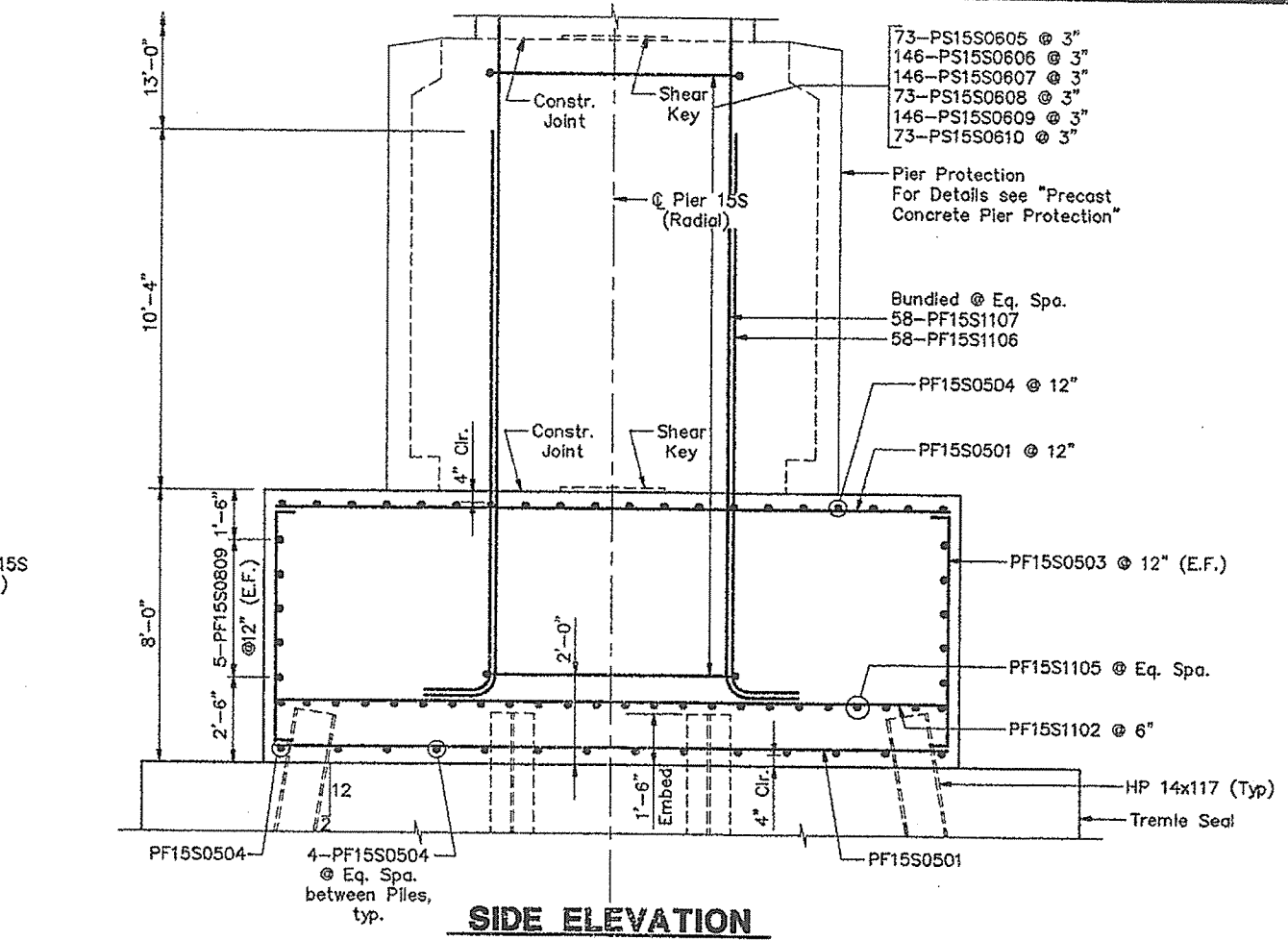
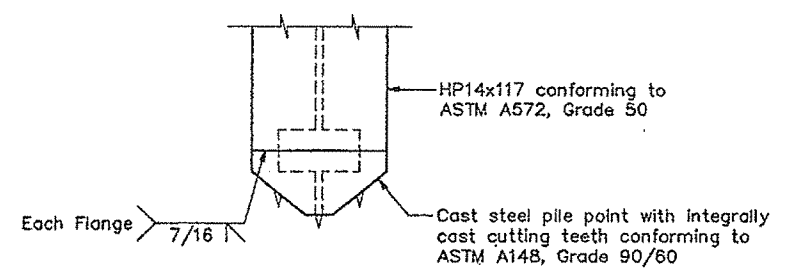
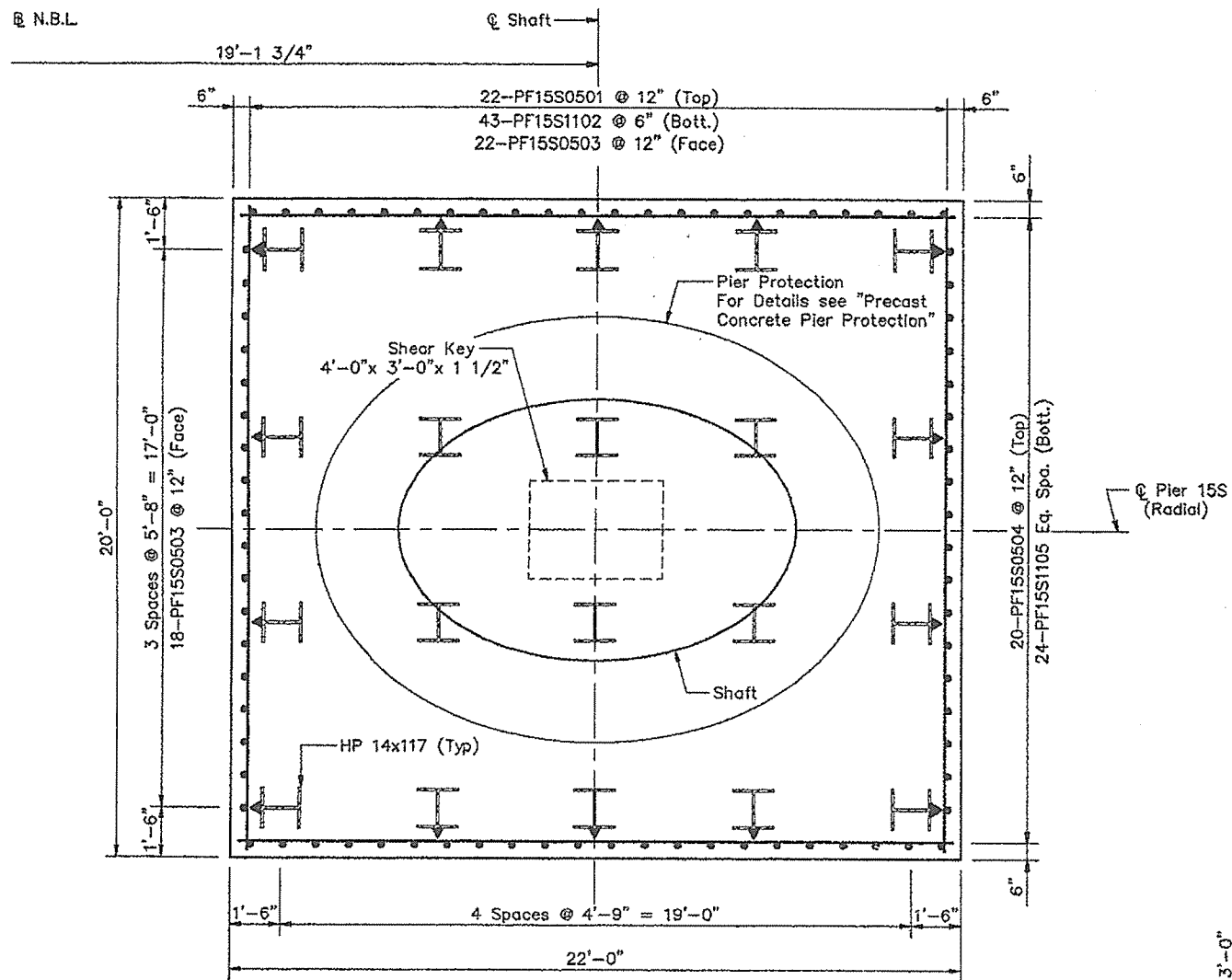
**OVER FORE RIVER**

**CUMBERLAND COUNTY**

**FOUNDATION DETAILS**  
**PIER 14S (S.B.L.)**

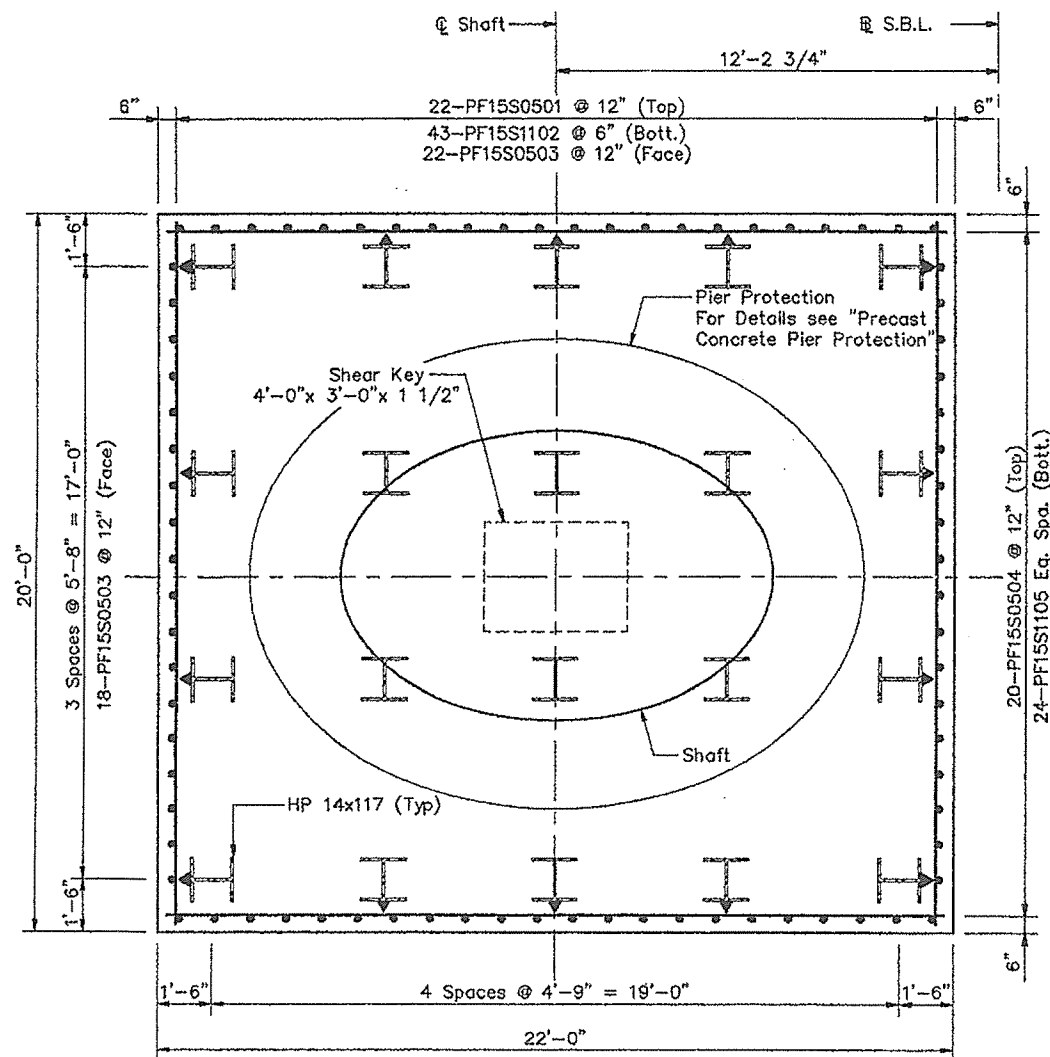
SHEET 200 OF 338 AUGUSTA, MAINE 6/27/94

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	DPH-0088(002)	201	338

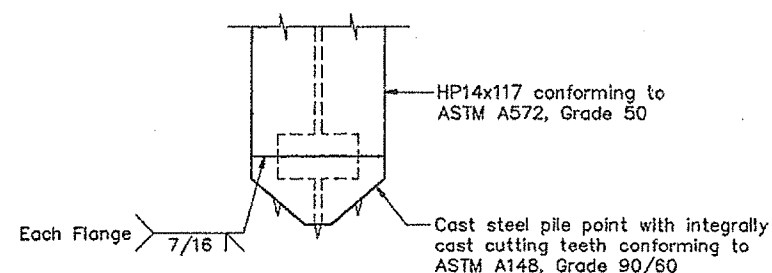


Note:  
 Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.  
 Piles marked  $\perp$  shall be battered 2 inches per foot in the direction of the arrow.

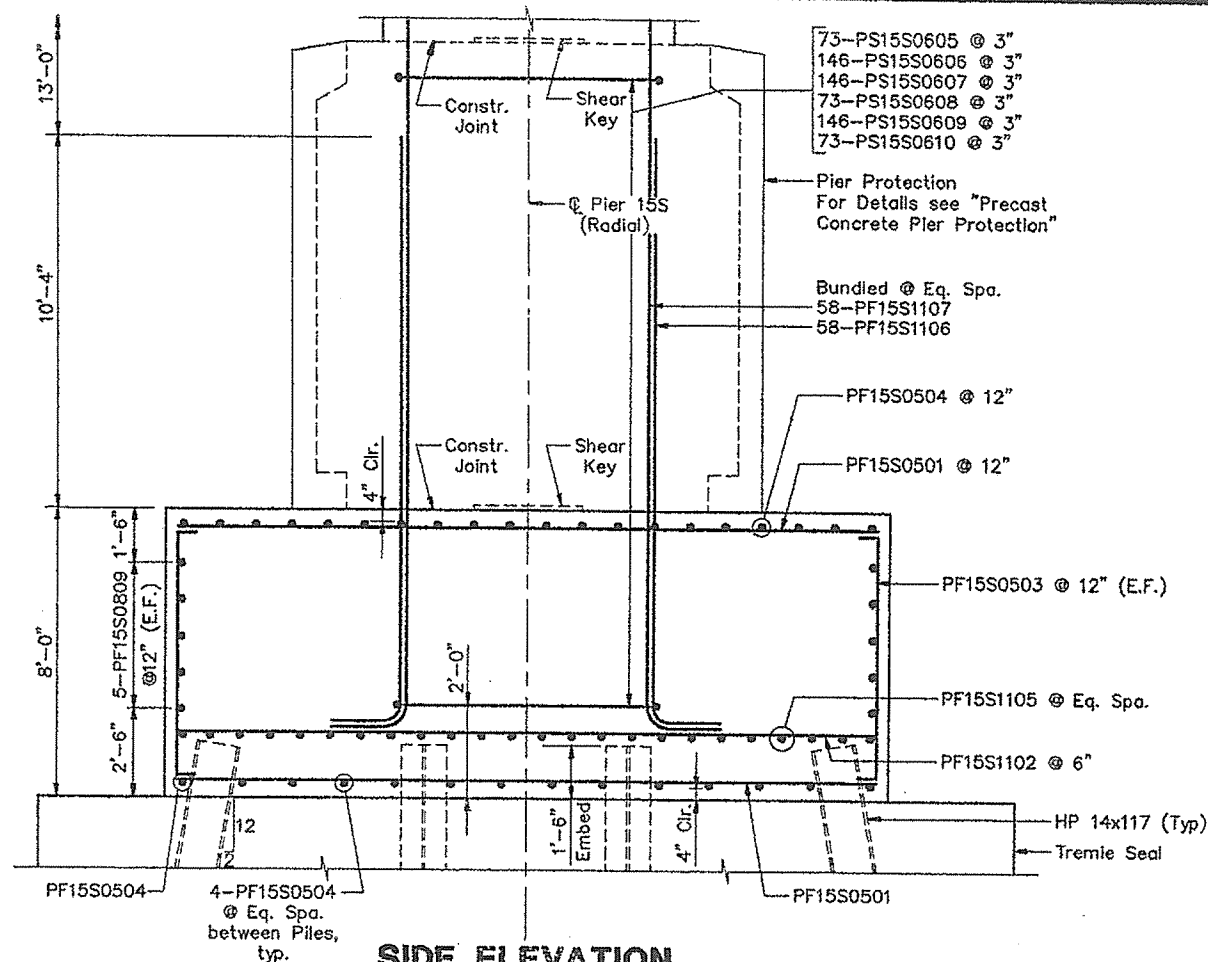
STEEL ALTERNATIVE SUBSTRUCTURE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE
OVER FORE RIVER
CUMBERLAND COUNTY
FOUNDATION DETAILS PIER 15S (N.B.L.)
SHEET 201 OF 338 AUGUSTA, MAINE 6/27/94



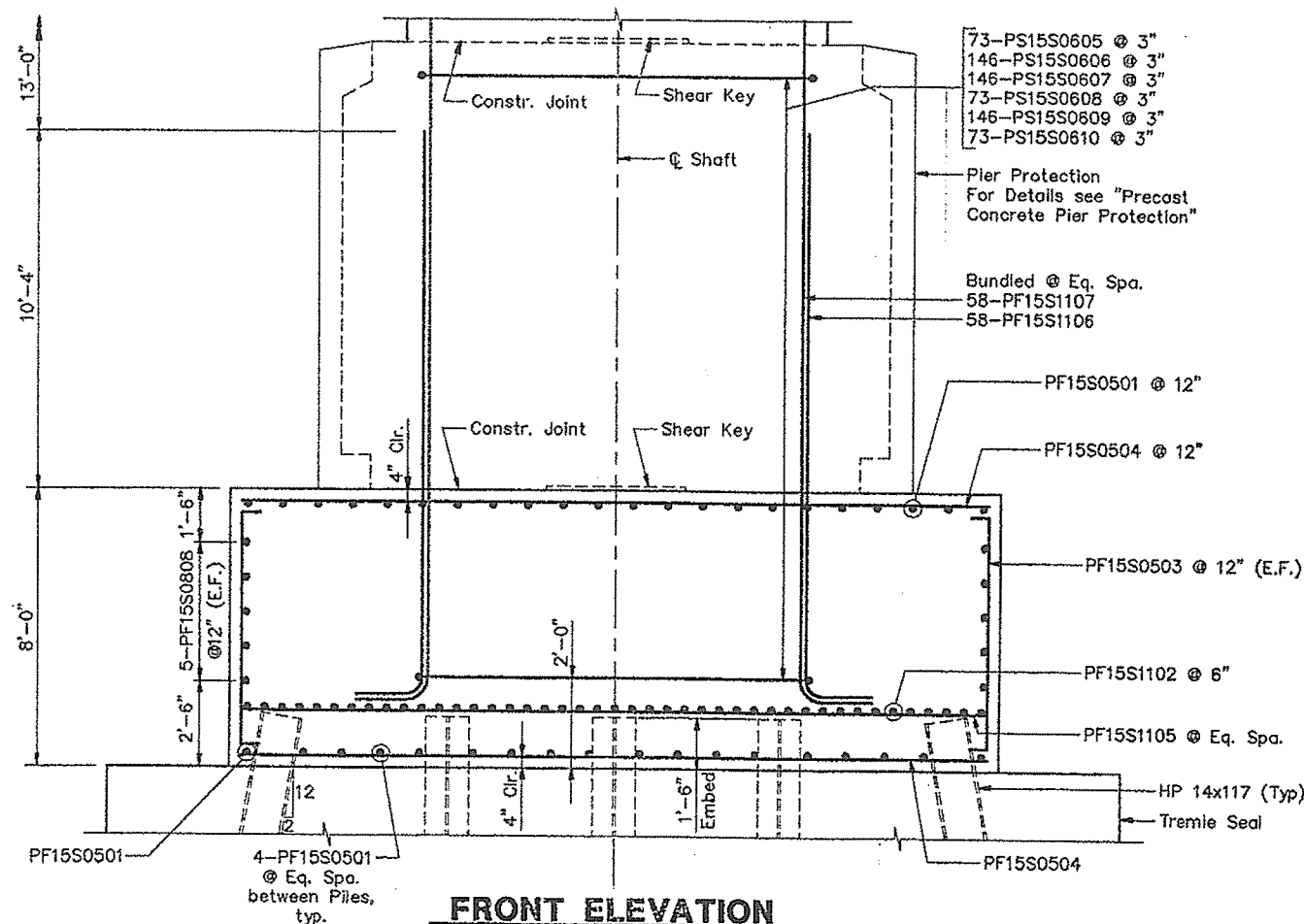
**PLAN**



**PILE TIP DETAIL**



**SIDE ELEVATION**



**FRONT ELEVATION**

Note:  
Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.  
Piles marked  $\perp$  shall be battered 2 inches per foot in the direction of the arrow.

**STEEL ALTERNATIVE SUBSTRUCTURE**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

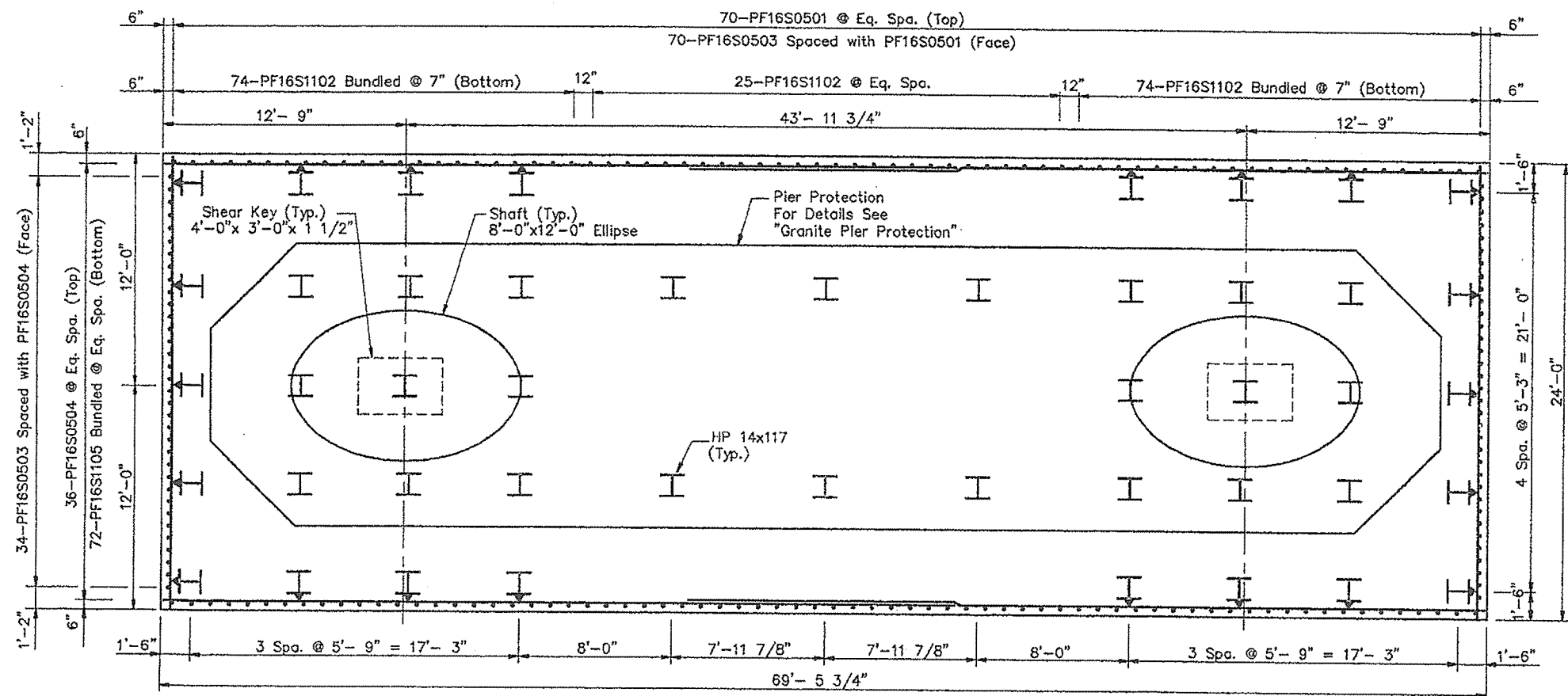
**PORTLAND - S. PORTLAND BRIDGE**

**OVER FORE RIVER**

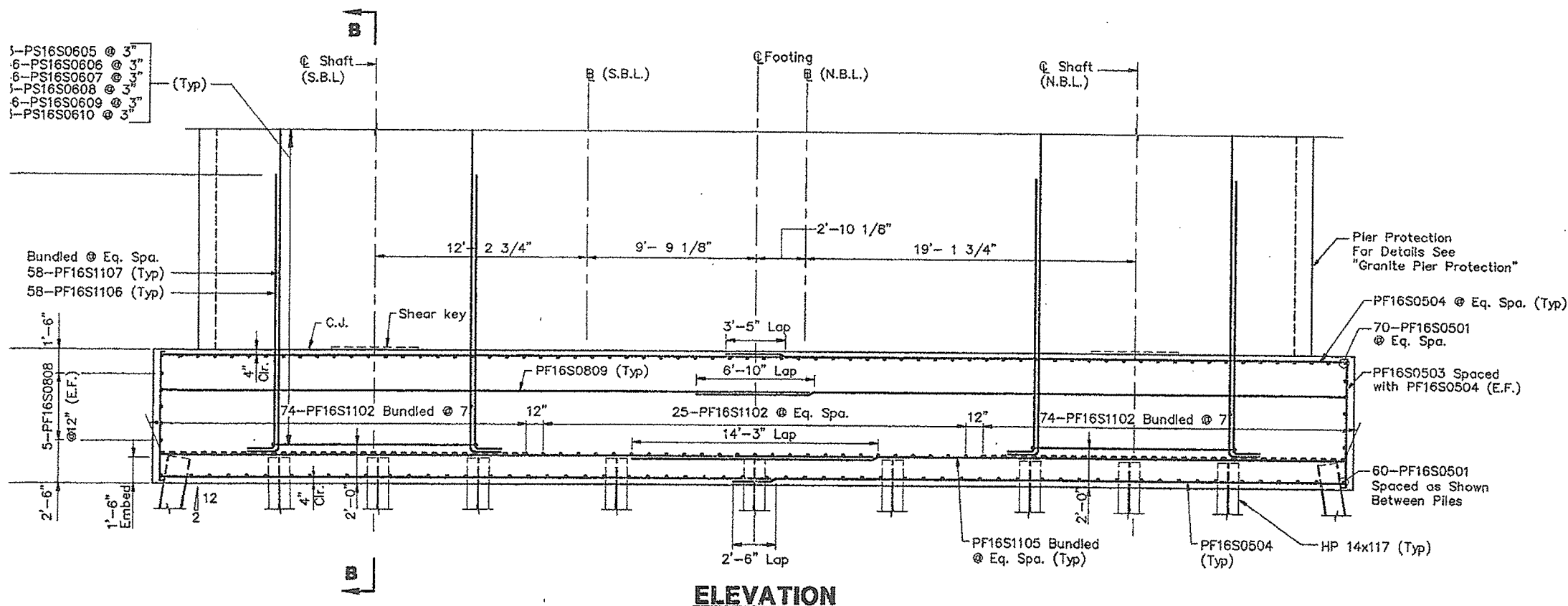
**CUMBERLAND COUNTY**

**FOUNDATION DETAILS  
PIER 15S (S.B.L.)**

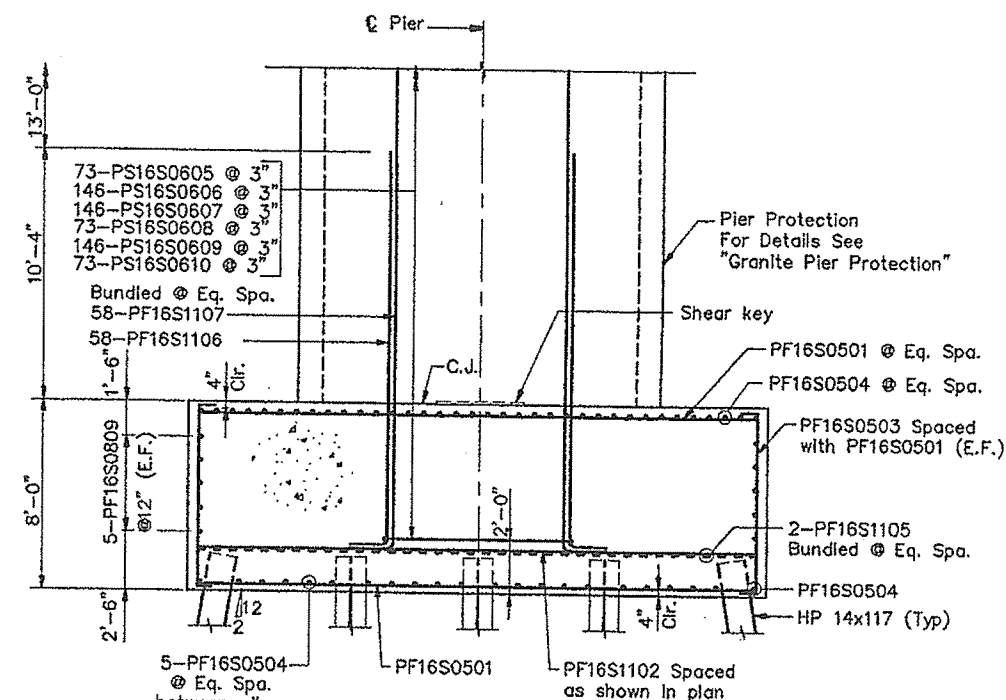
SHEET 202 OF 336 AUGUSTA, MAINE 10/27/94



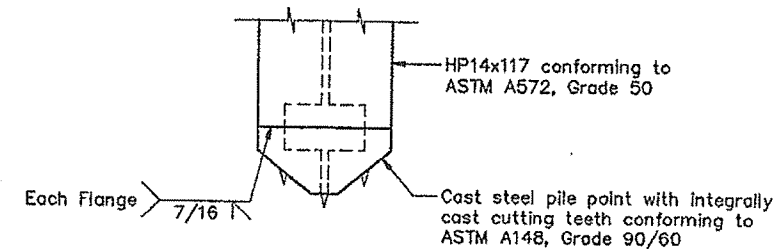
**PLAN**



**ELEVATION**



**SECTION B-B**



**PILE TIP DETAIL**

**Notes:**

1. Piles marked  $\rightarrow$  shall be battered 2 inches per foot in direction of the arrow.
2. Shaft reinforcement not shown for clarity.
3. Adjust the reinforcement spacing in the top mat of the footing to accommodate shaft reinforcement.

**STEEL ALTERNATIVE SUBSTRUCTURE**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

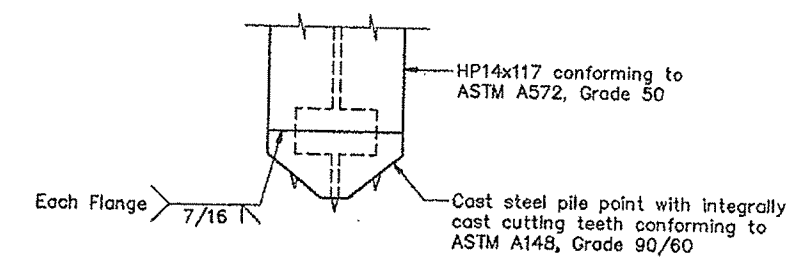
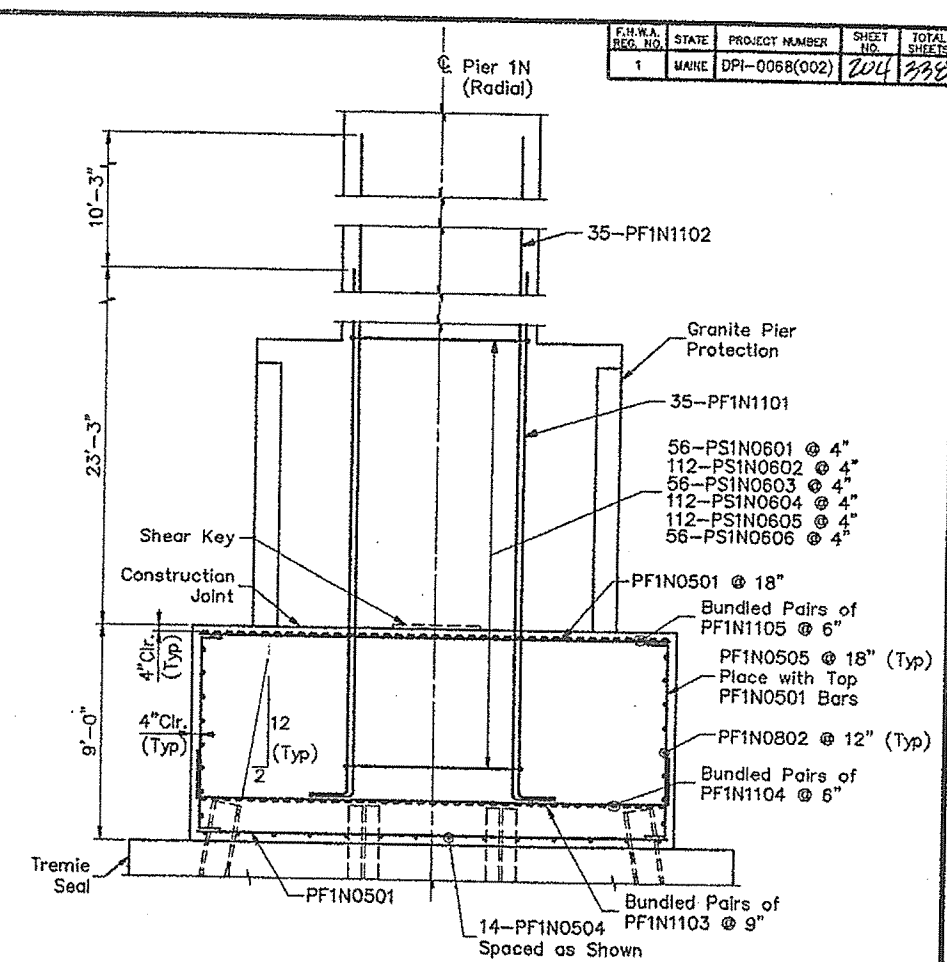
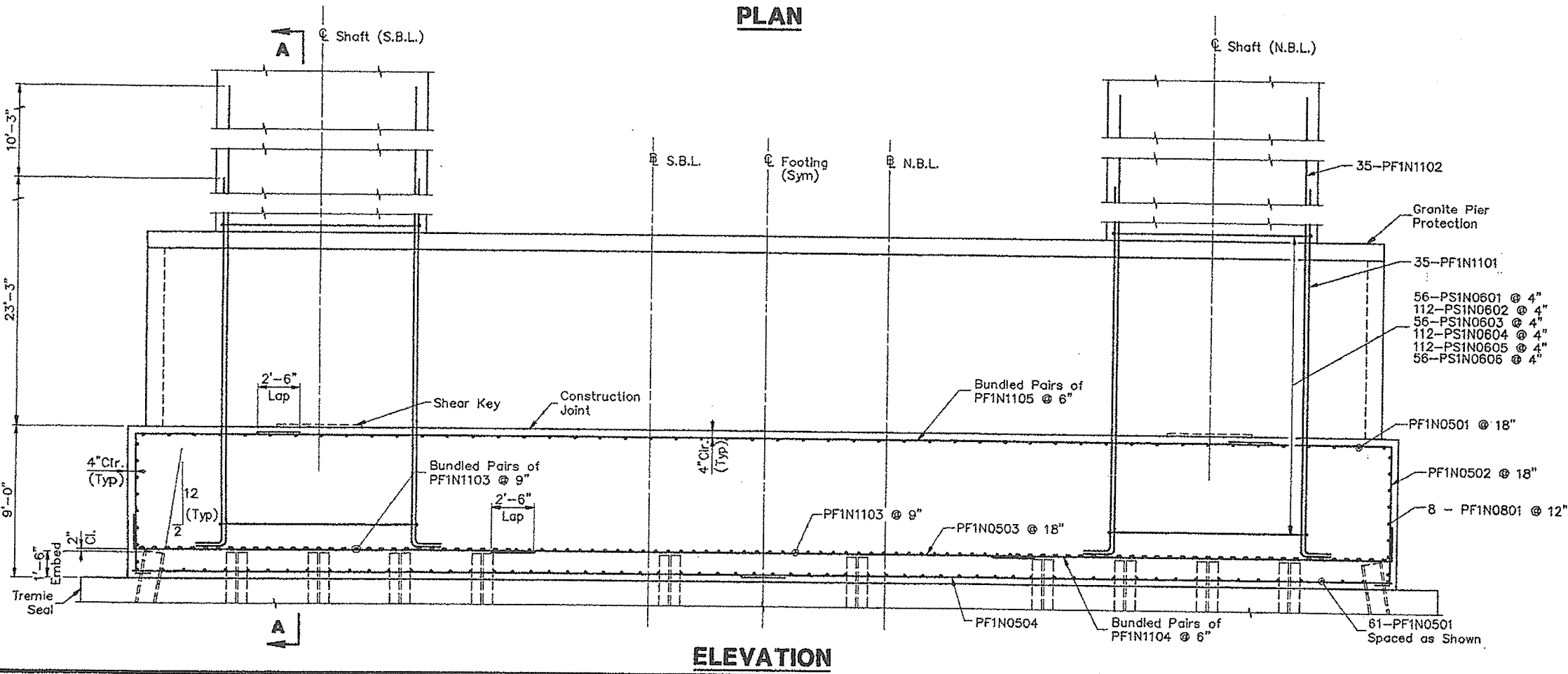
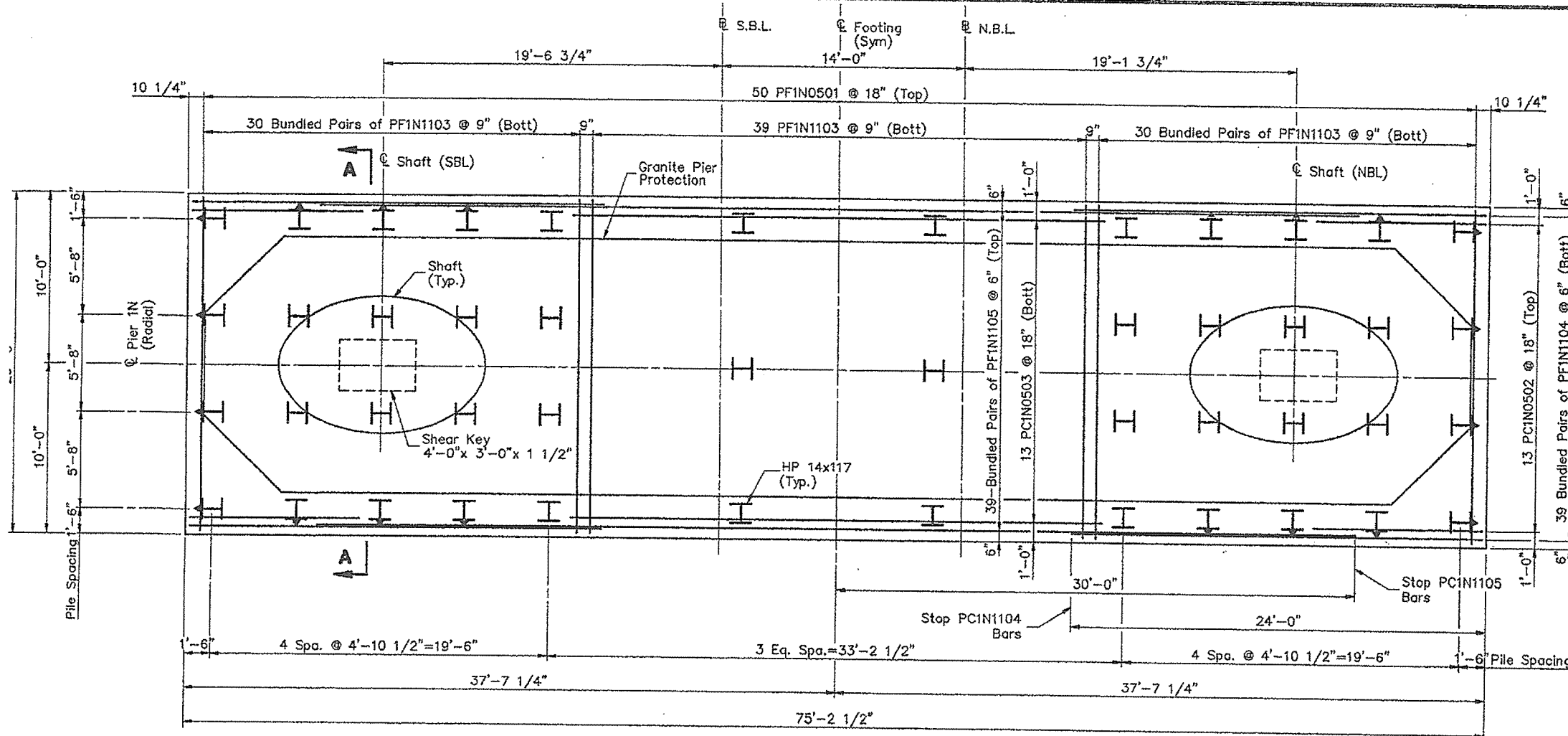
**PORTLAND - S. PORTLAND BRIDGE**

**OVER FORE RIVER**

**CUMBERLAND COUNTY**

**FOUNDATION DETAILS  
PIER 16S (N.B.L. & S.B.L.)**

SHEET 203 OF 330 AUGUSTA, MAINE 6/27/94



- Notes:**
1. Construction of Granite Pier Protection shall follow MDOT Standard Specification 525.
  2. Piles marked  $\perp$  shall be battered 2 inches per foot in direction of the arrow.
  3. Shaft reinforcement not shown for clarity.
  4. Adjust the reinforcement spacing in the top mat of the footing to accommodate shaft reinforcement.

**STEEL ALTERNATIVE SUBSTRUCTURE**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

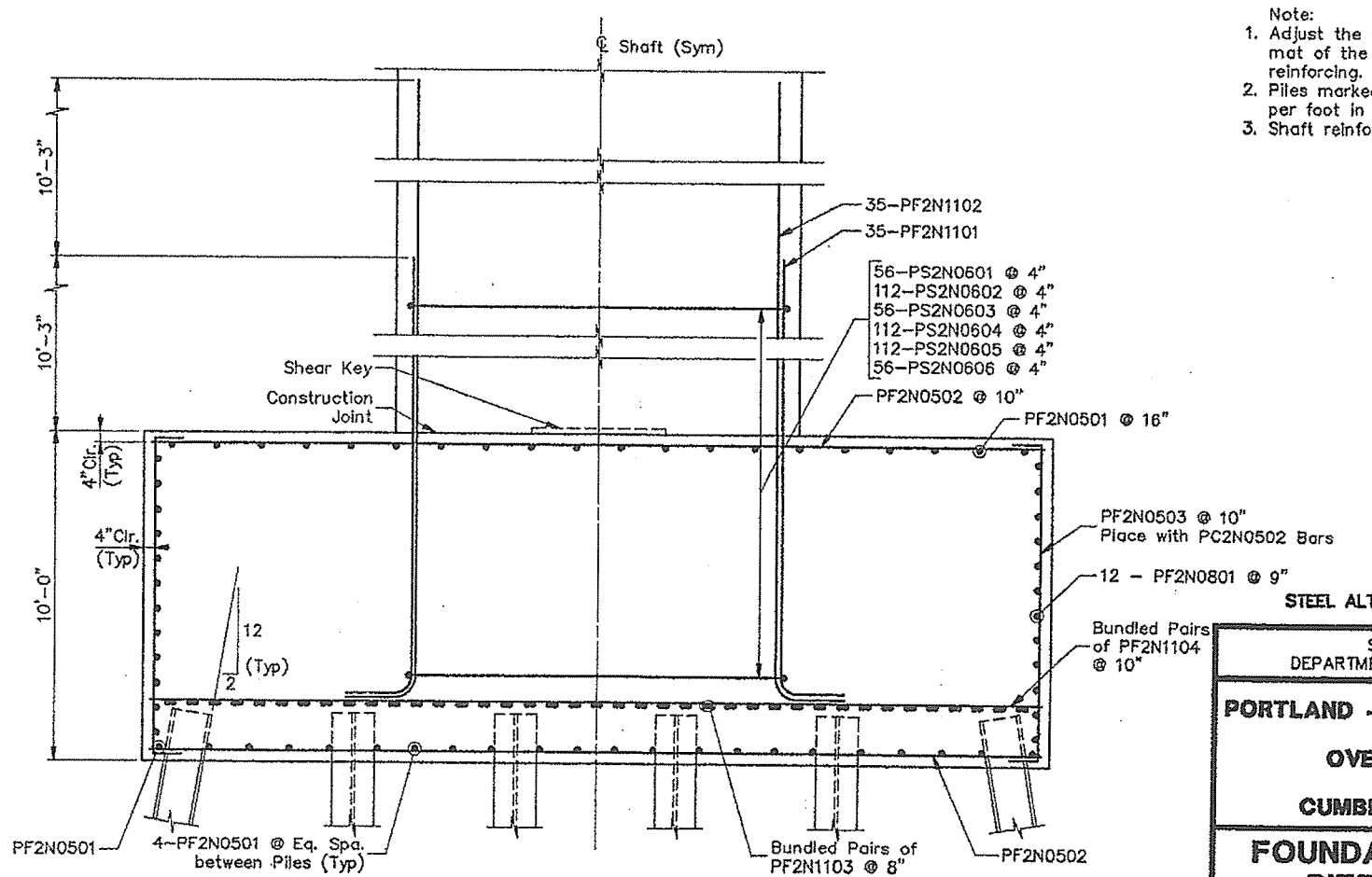
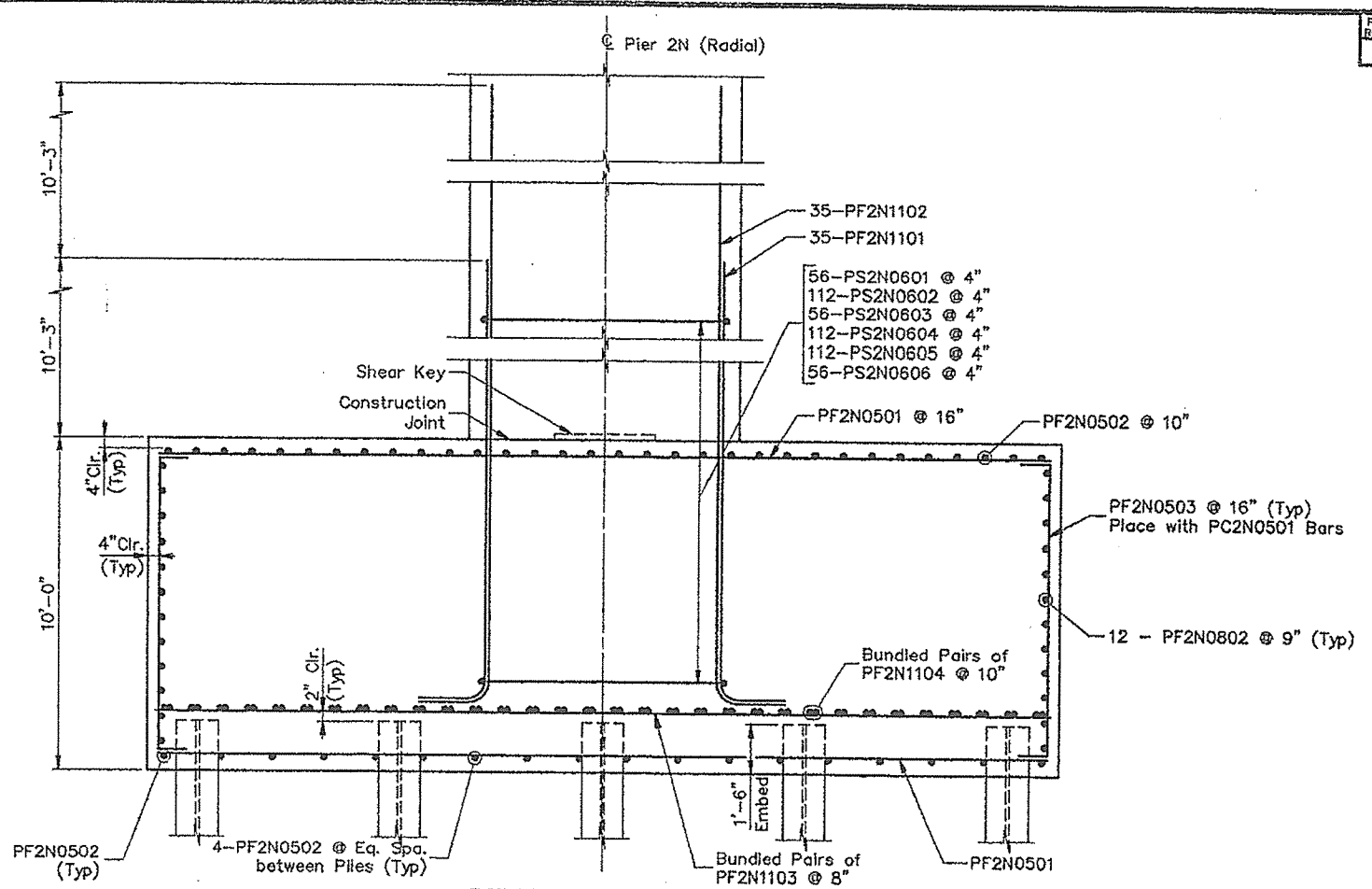
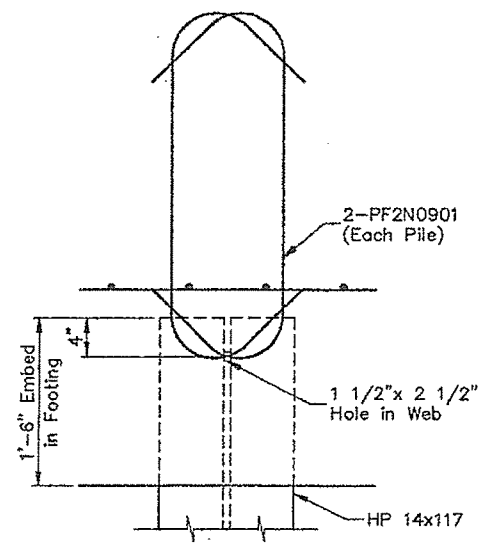
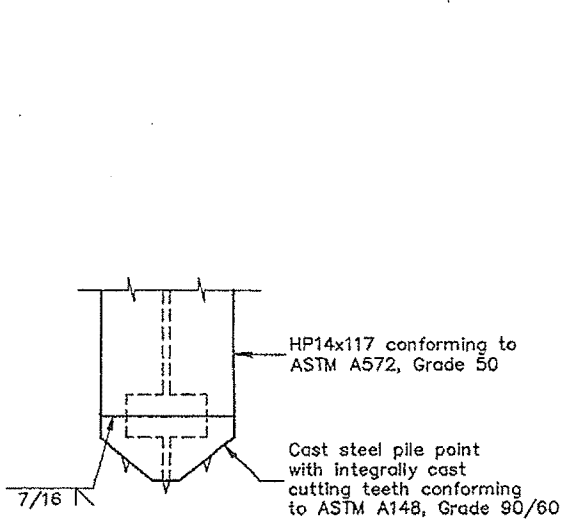
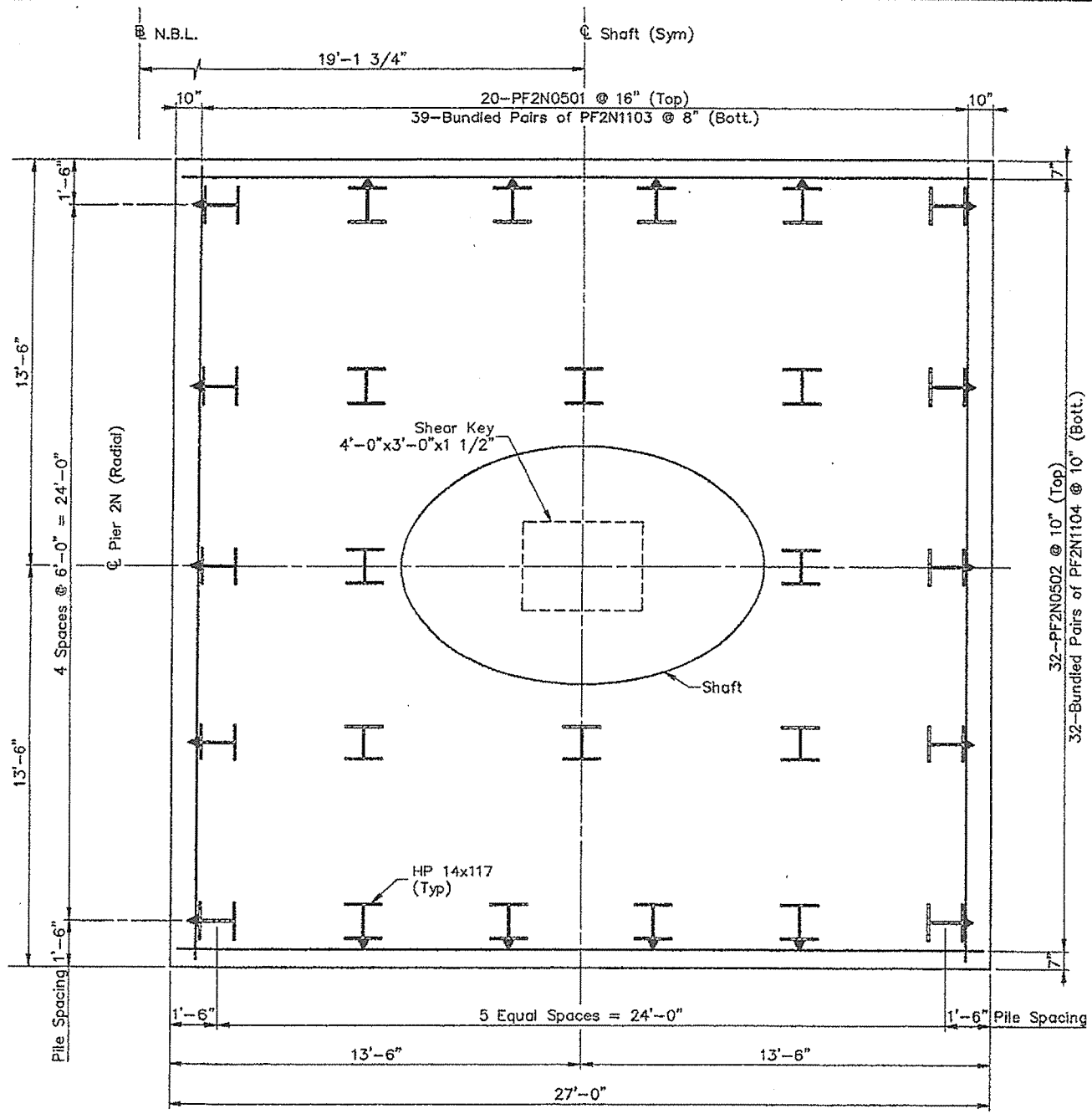
**PORTLAND - S. PORTLAND BRIDGE**

**OVER FORE RIVER**

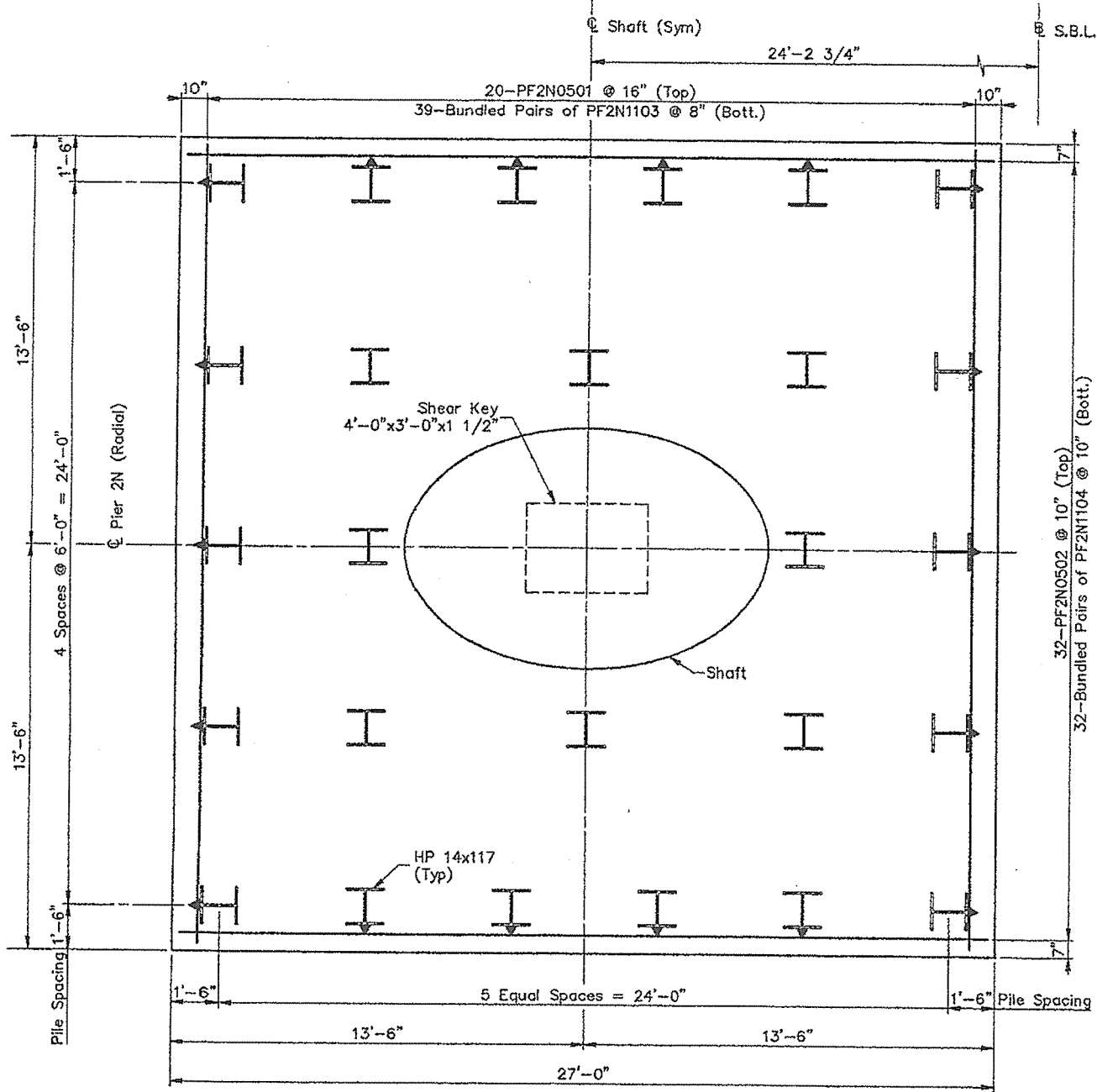
**CUMBERLAND COUNTY**

**FOUNDATION DETAILS**  
**PIER 1N (N.B.L. & S.B.L.)**

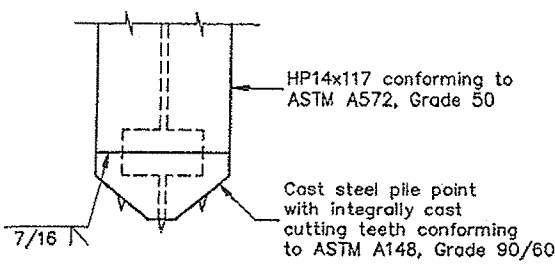
SHEET 204 OF 398 AUGUSTA, MAINE 6/94



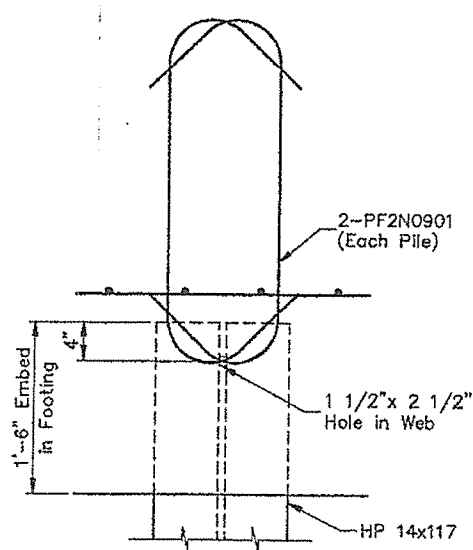
- Note:
1. Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.
  2. Piles marked  $\perp$  shall be battered 2 inches per foot in the direction of the arrow.
  3. Shaft reinforcement not shown for clarity.



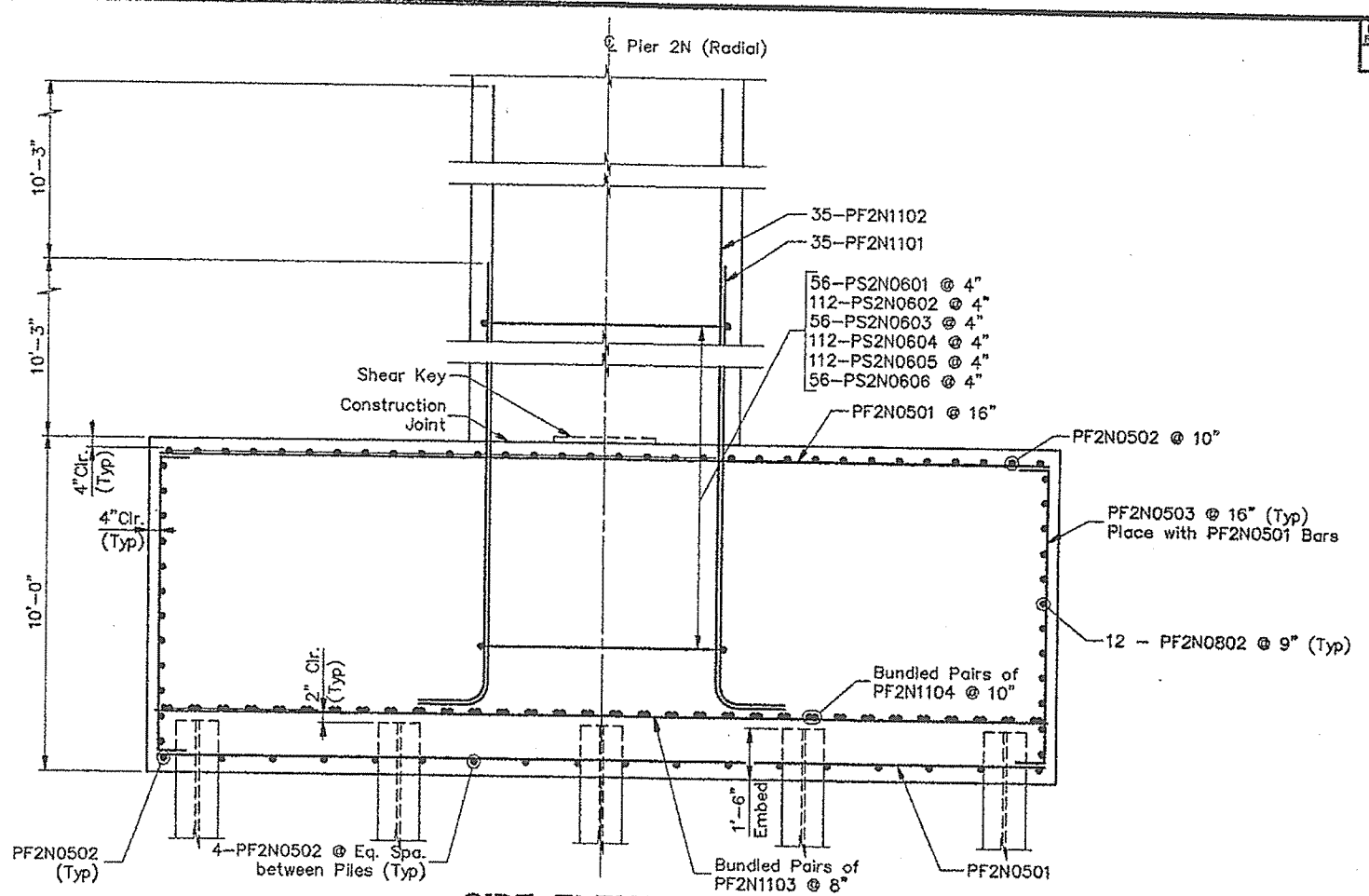
**PLAN**



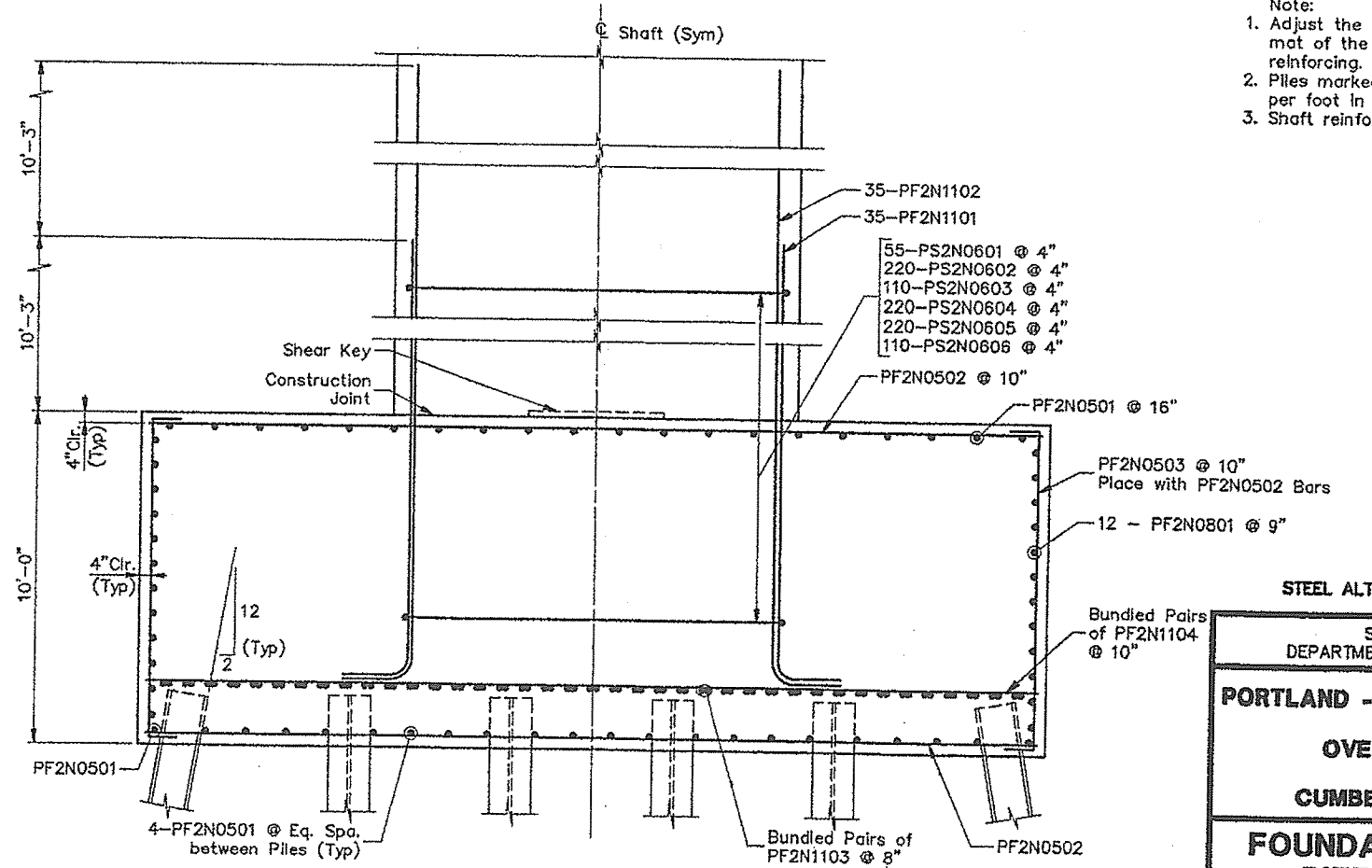
**PILE TIP DETAIL**



**PILE ANCHOR DETAIL**



**SIDE ELEVATION**

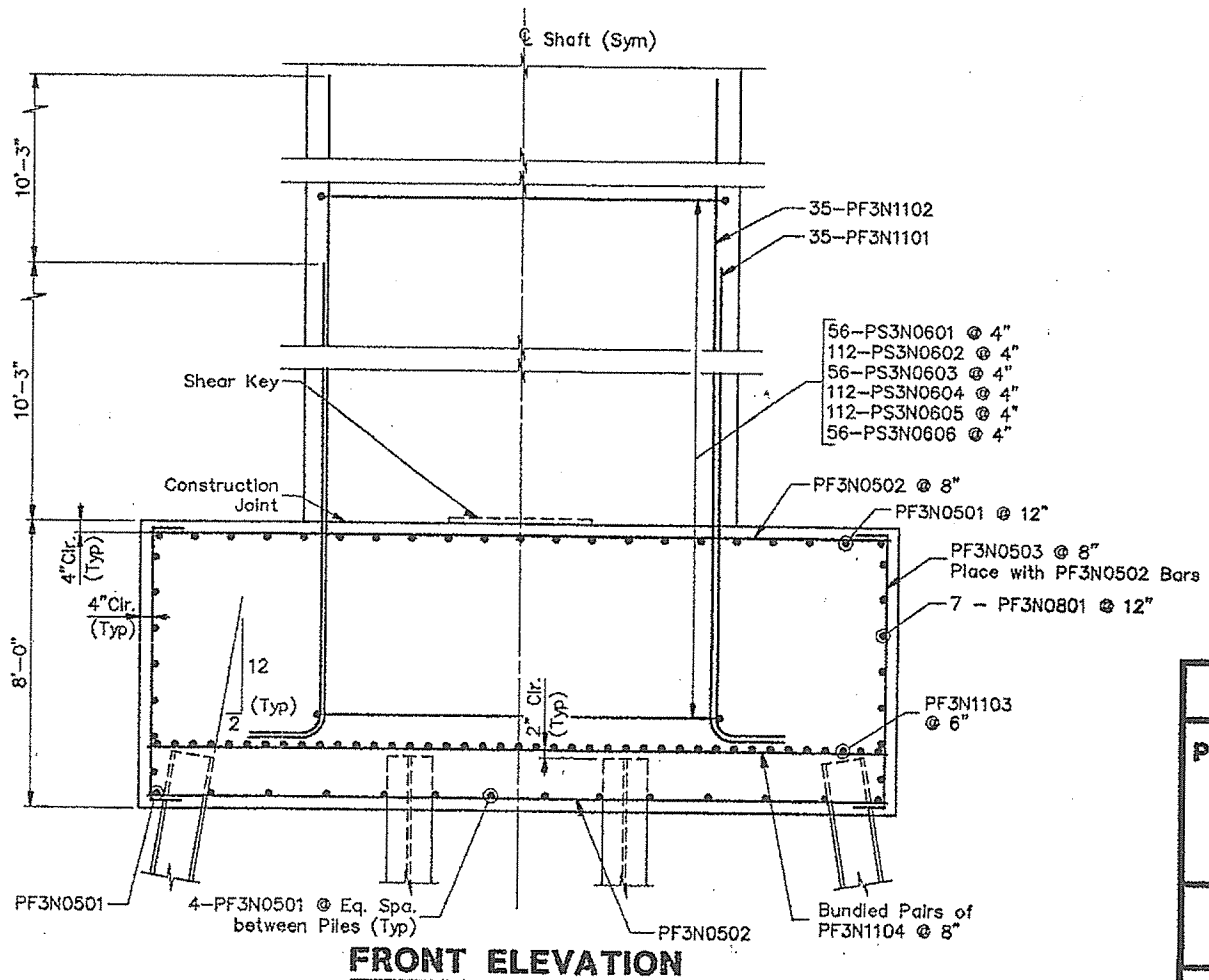
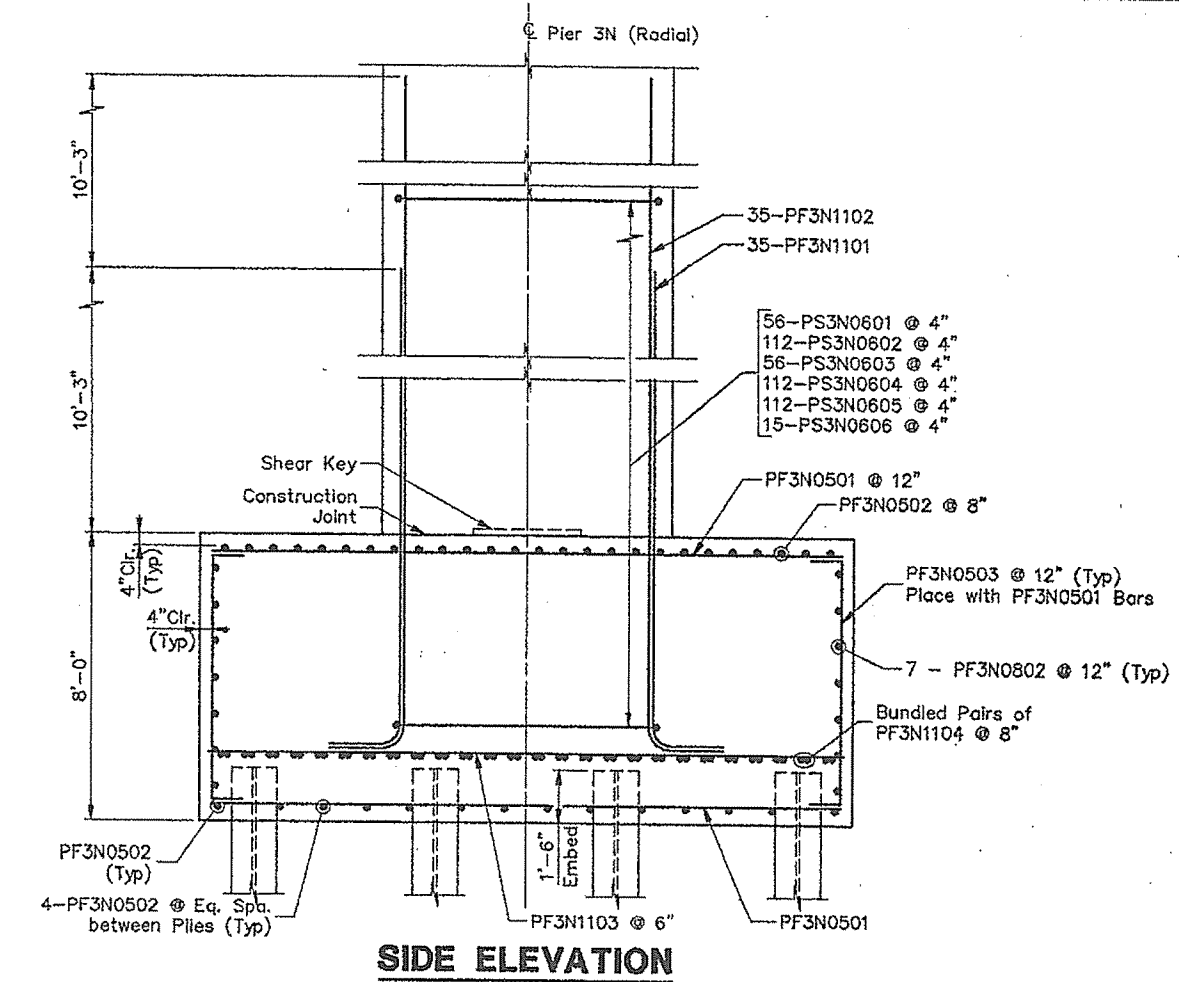
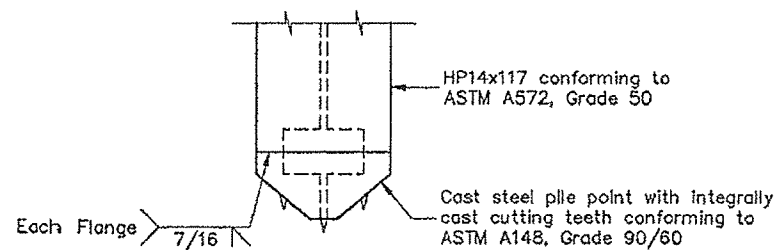
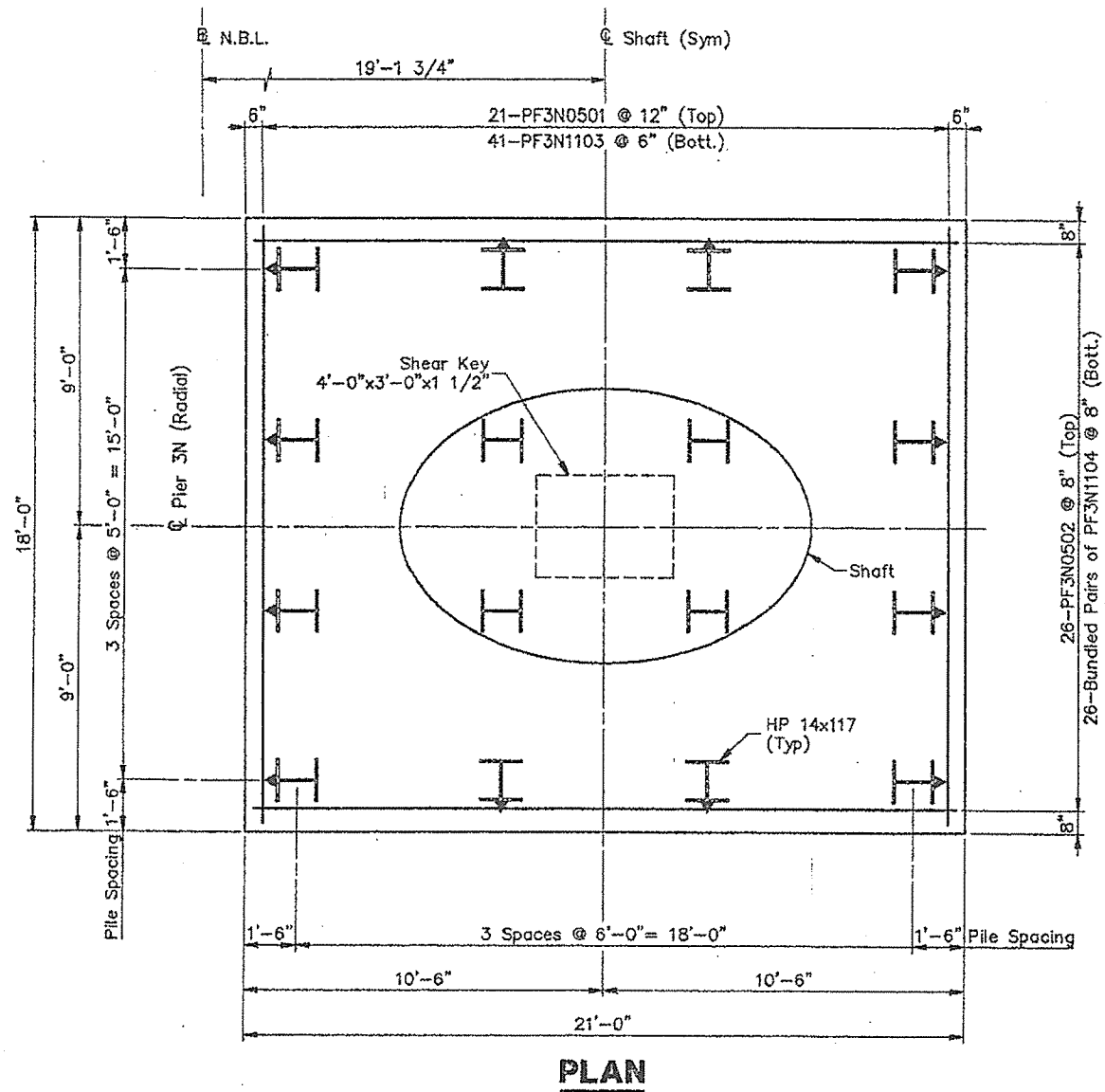


**FRONT ELEVATION**

- Note:
1. Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.
  2. Piles marked  $\nabla$  shall be battered 2 inches per foot in the direction of the arrow.
  3. Shaft reinforcement not shown for clarity.

**STEEL ALTERNATIVE SUBSTRUCTURE**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**PORTLAND - S. PORTLAND BRIDGE**  
**OVER FORE RIVER**  
**CUMBERLAND COUNTY**  
**FOUNDATION DETAILS**  
**PIER 2N (S.B.L.)**  
SHEET 206 OF 338 AUGUSTA, MAINE 6/94



- Note:
1. Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.
  2. Piles marked  $\perp$  shall be battered 2 inches per foot in the direction of the arrow.
  3. Shaft reinforcement not shown for clarity.

APR 13 1994

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

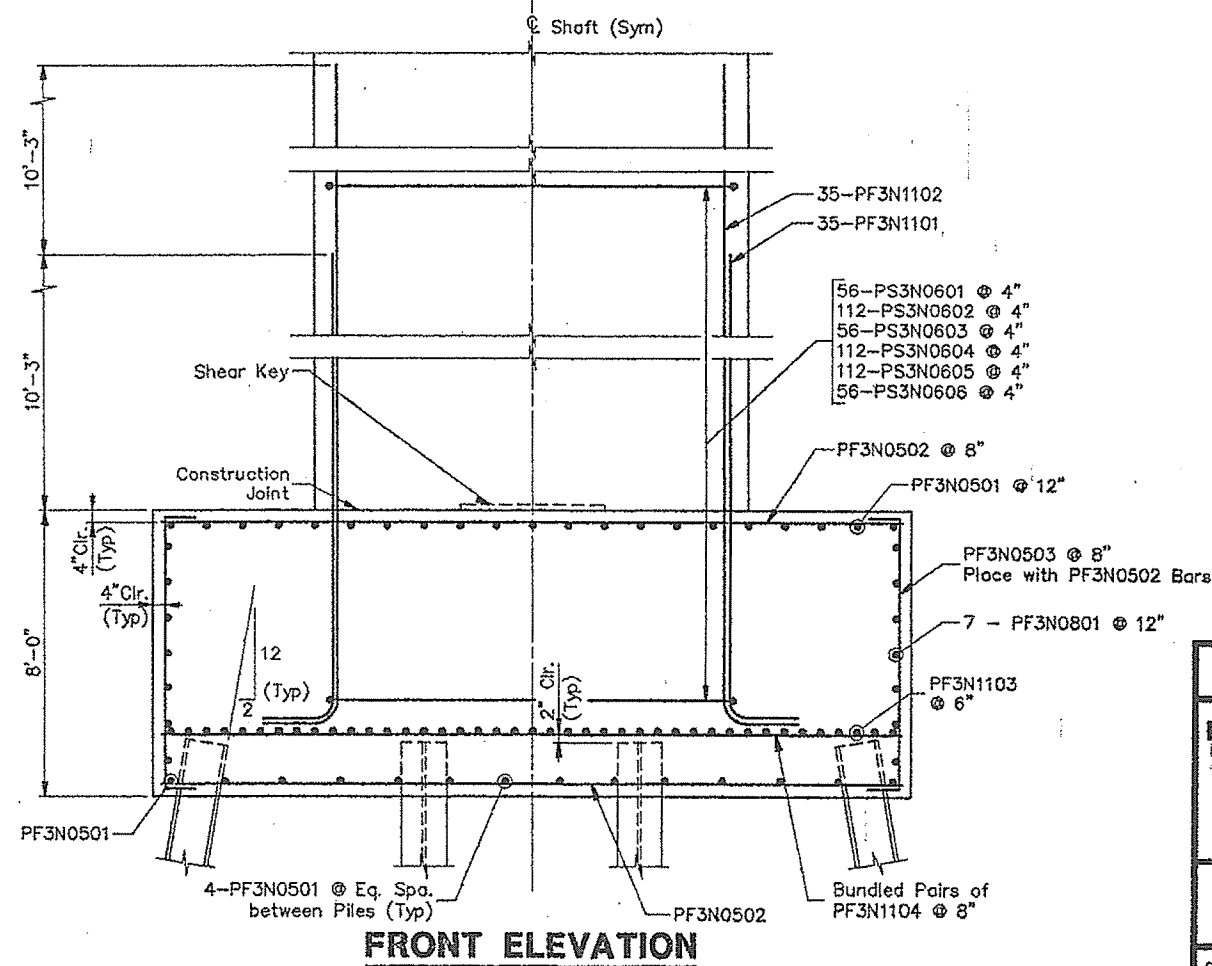
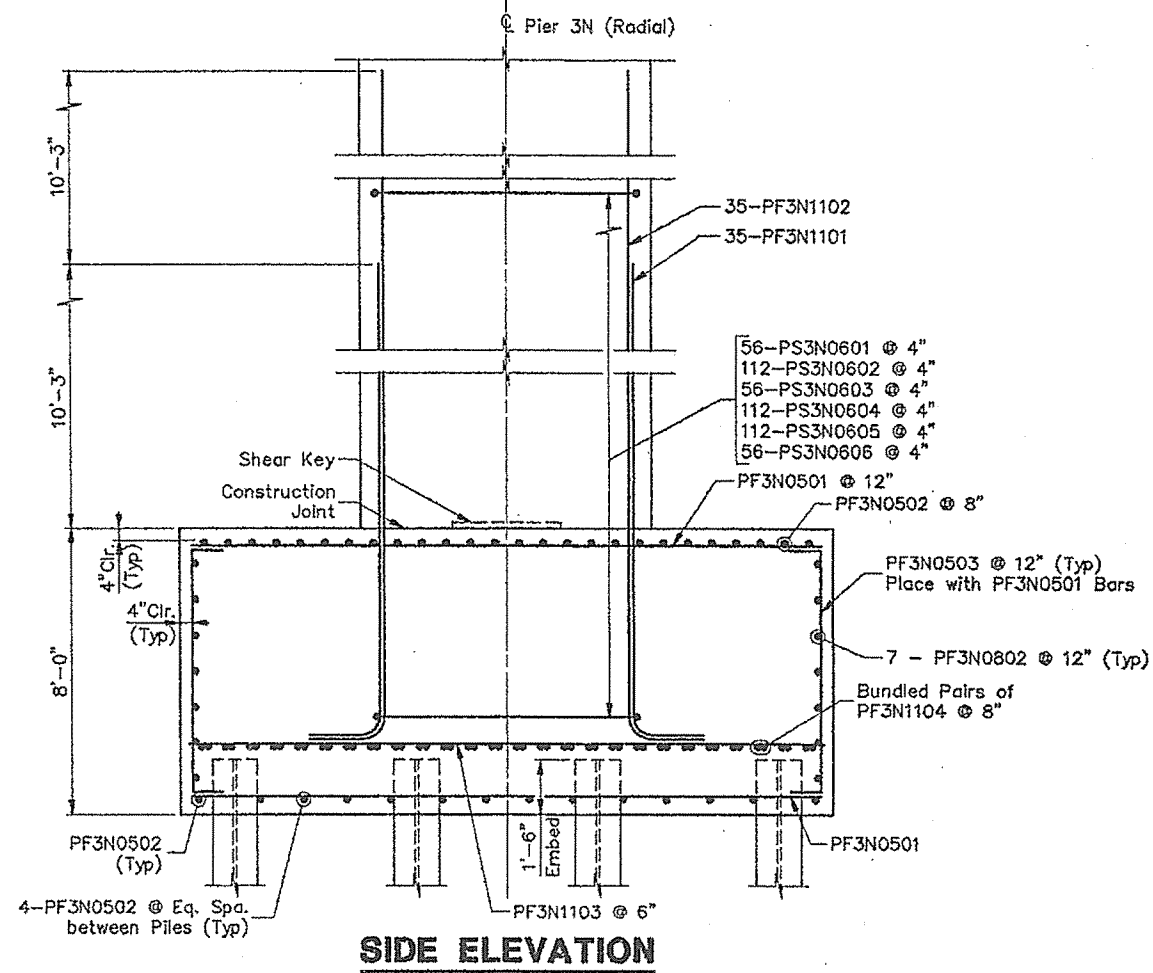
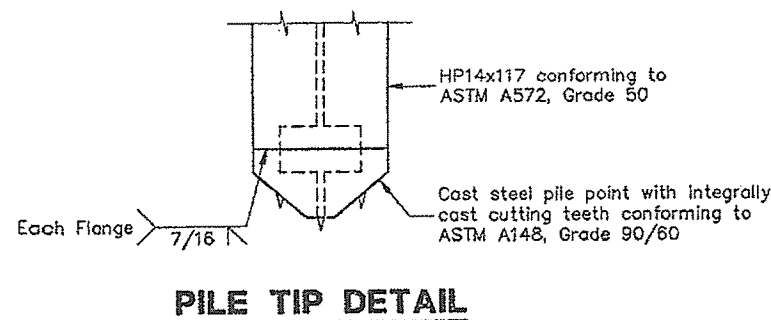
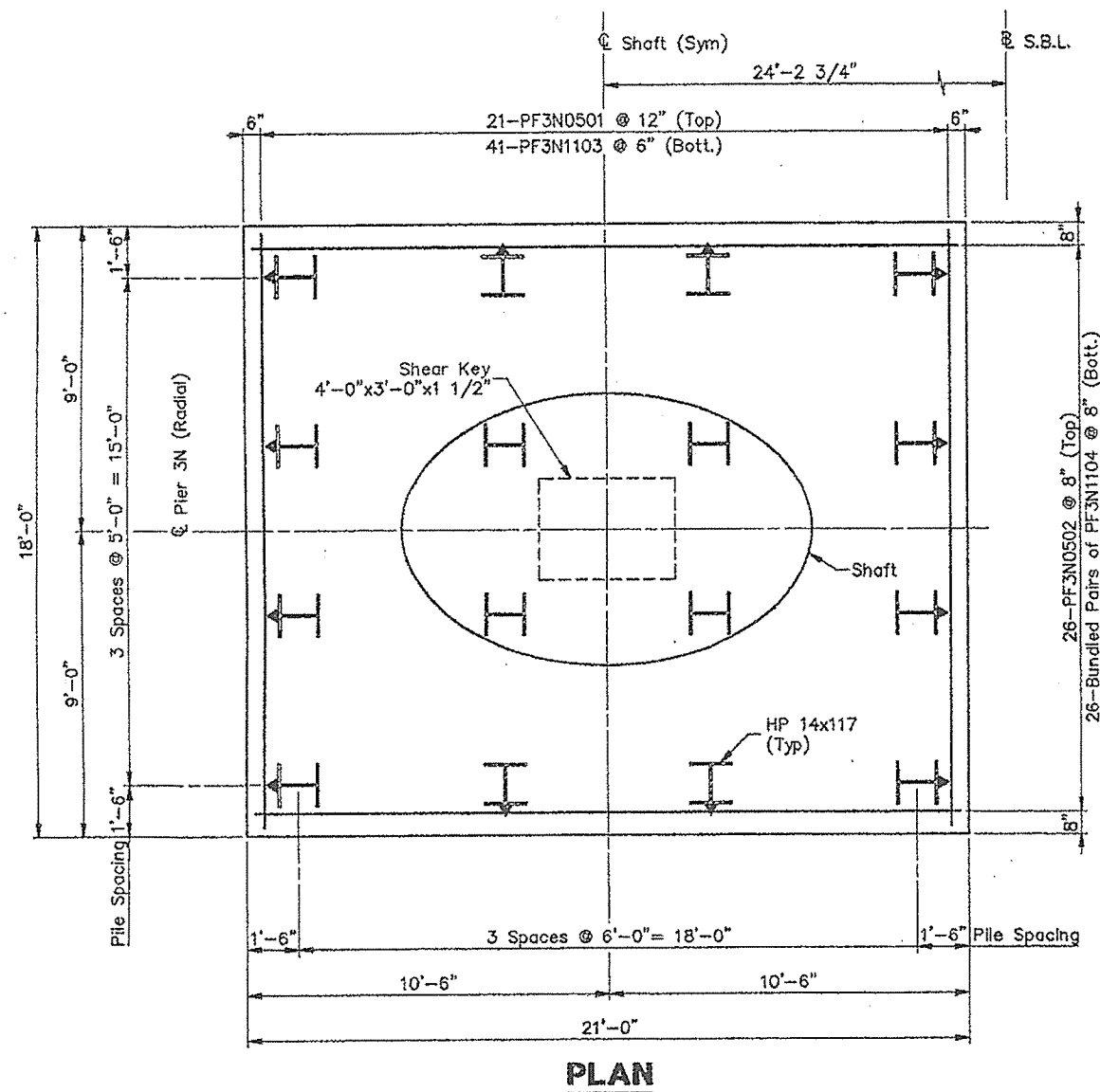
PORTLAND - S. PORTLAND BRIDGE

OVER FORE RIVER

CUMBERLAND COUNTY

FOUNDATION DETAILS  
PIER 3N (N.B.L.)

SHEET 207 OF 338 AUGUSTA, MAINE 4/13/94



- Note:
1. Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.
  2. Piles marked  $\perp$  shall be battered 2 inches per foot in the direction of the arrow.
  3. Shaft reinforcement not shown for clarity.

APR 13 1994

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION

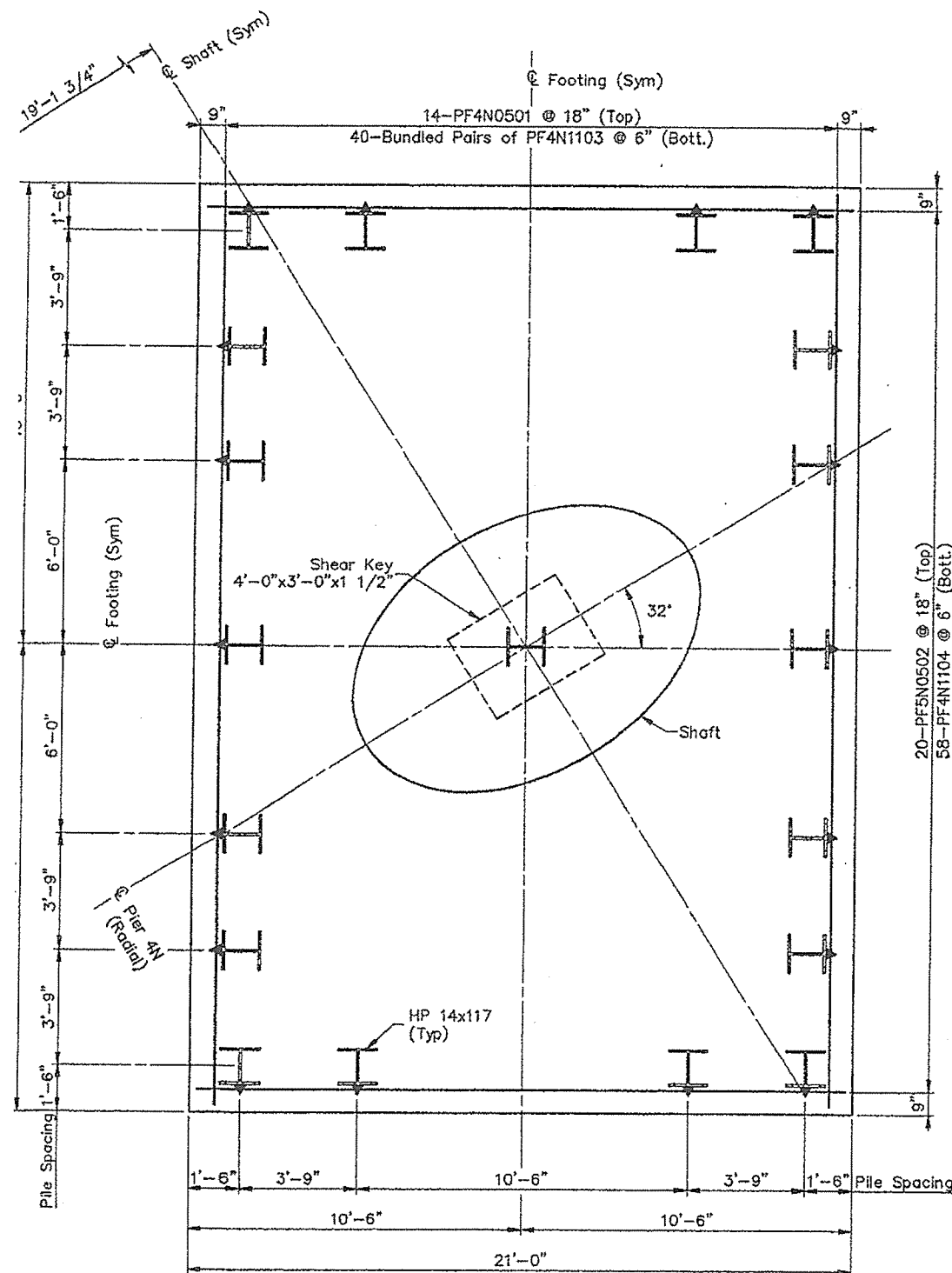
PORTLAND - S. PORTLAND BRIDGE

OVER FORE RIVER

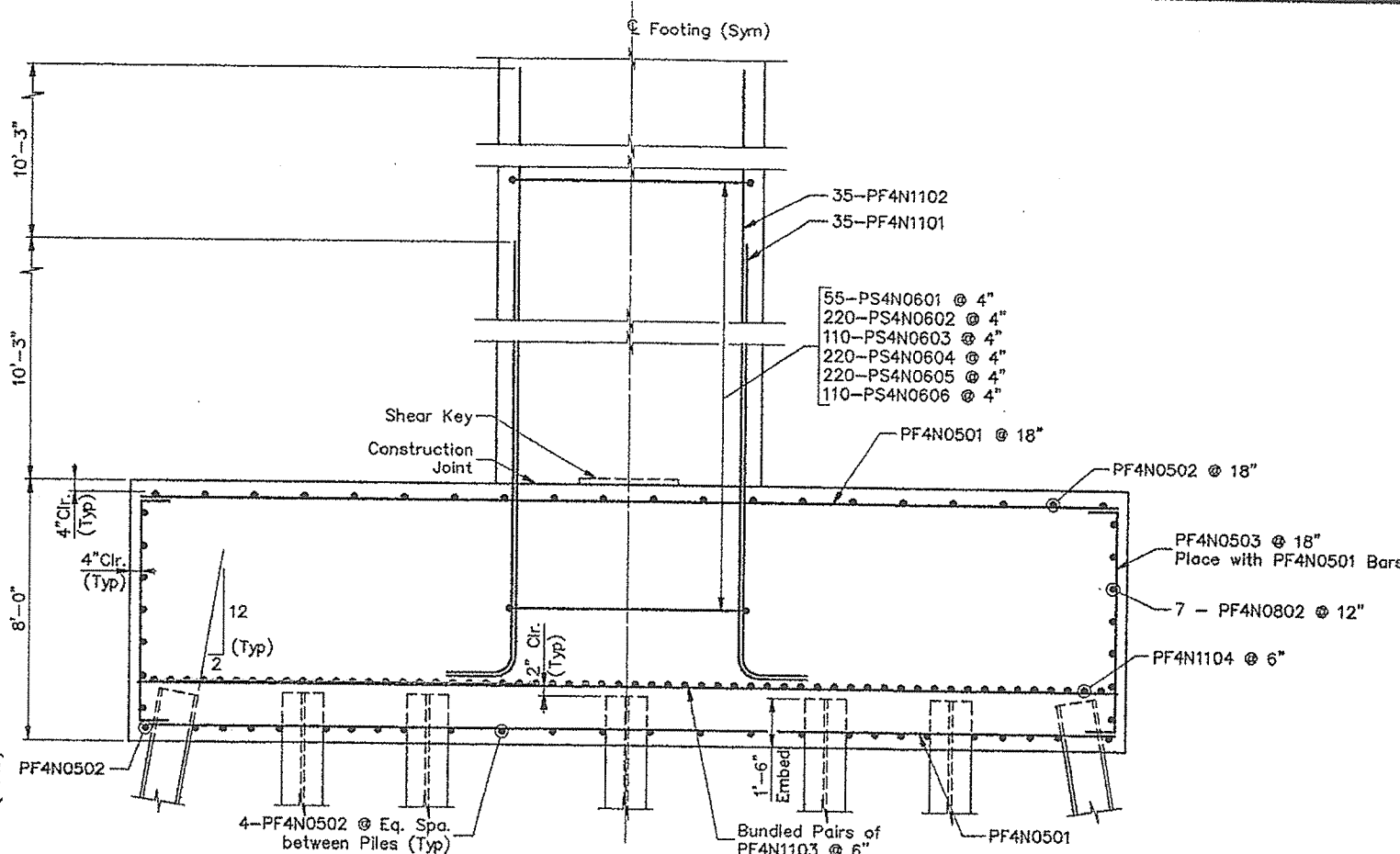
CUMBERLAND COUNTY

FOUNDATION DETAILS  
 PIER 3N (S.B.L.)

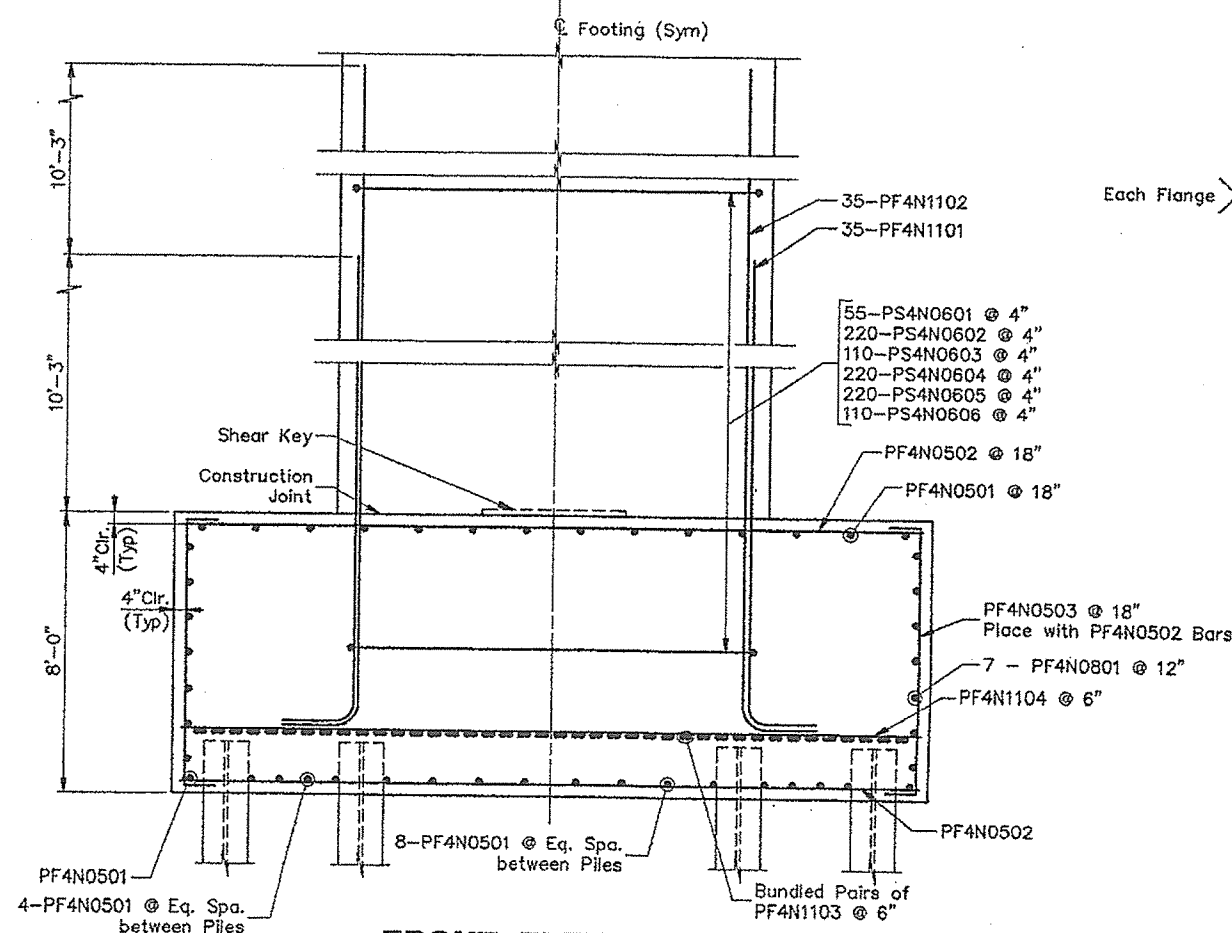
SHEET 208 OF 338 AUGUSTA, MAINE 4/13/94



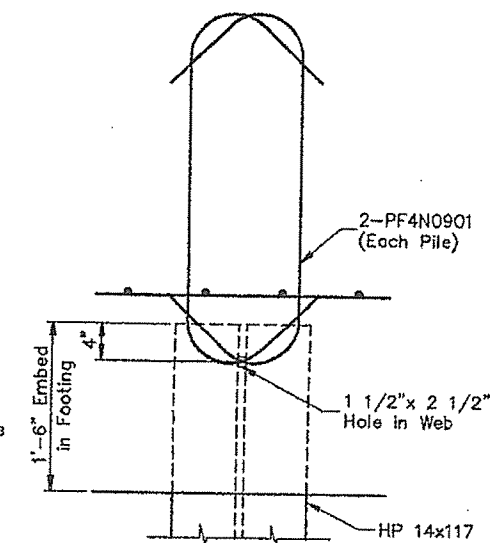
**PLAN**



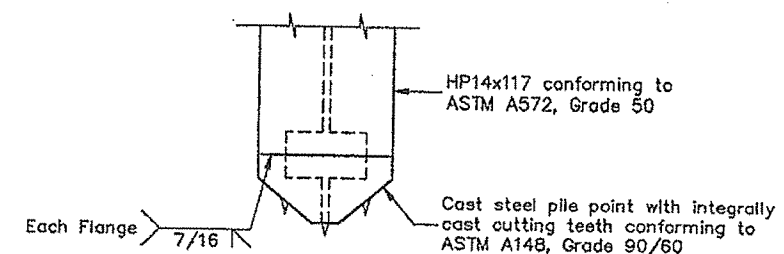
**SIDE ELEVATION**



**FRONT ELEVATION**



**PILE ANCHOR DETAIL**



**PILE TIP DETAIL**

- Note:
1. Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.
  2. Piles marked  $\nabla$  shall be battered 2 inches per foot in the direction of the arrow.
  3. Shaft reinforcement not shown for clarity.

**STEEL ALTERNATIVE SUBSTRUCTURE**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND BRIDGE**

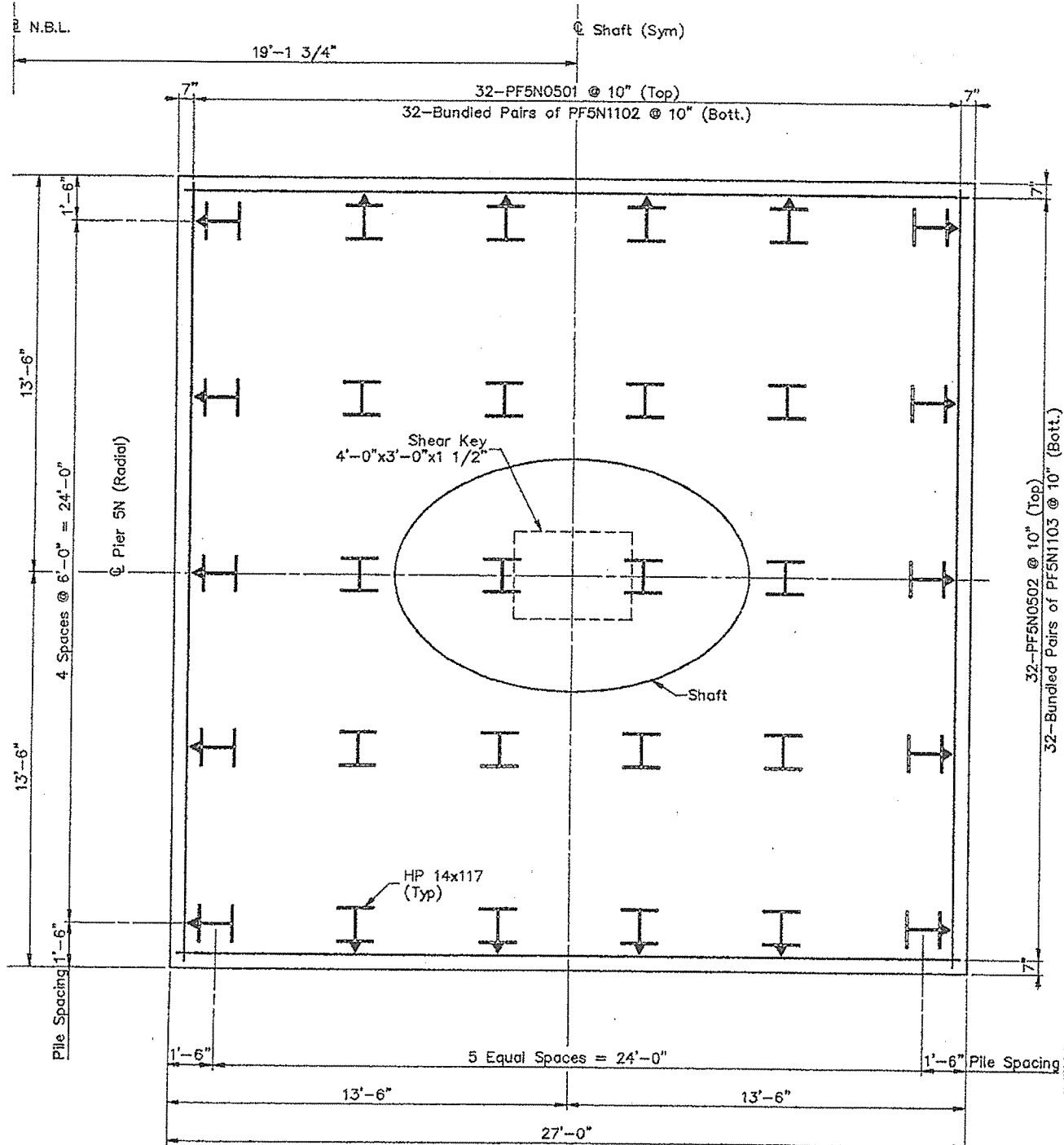
**OVER FORE RIVER**

**CUMBERLAND COUNTY**

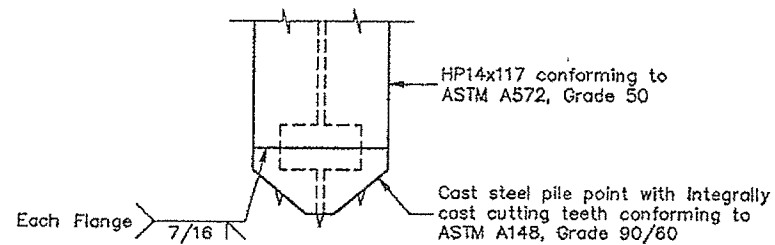
**FOUNDATION DETAILS**

**PIER 4N (N.B.L.)**

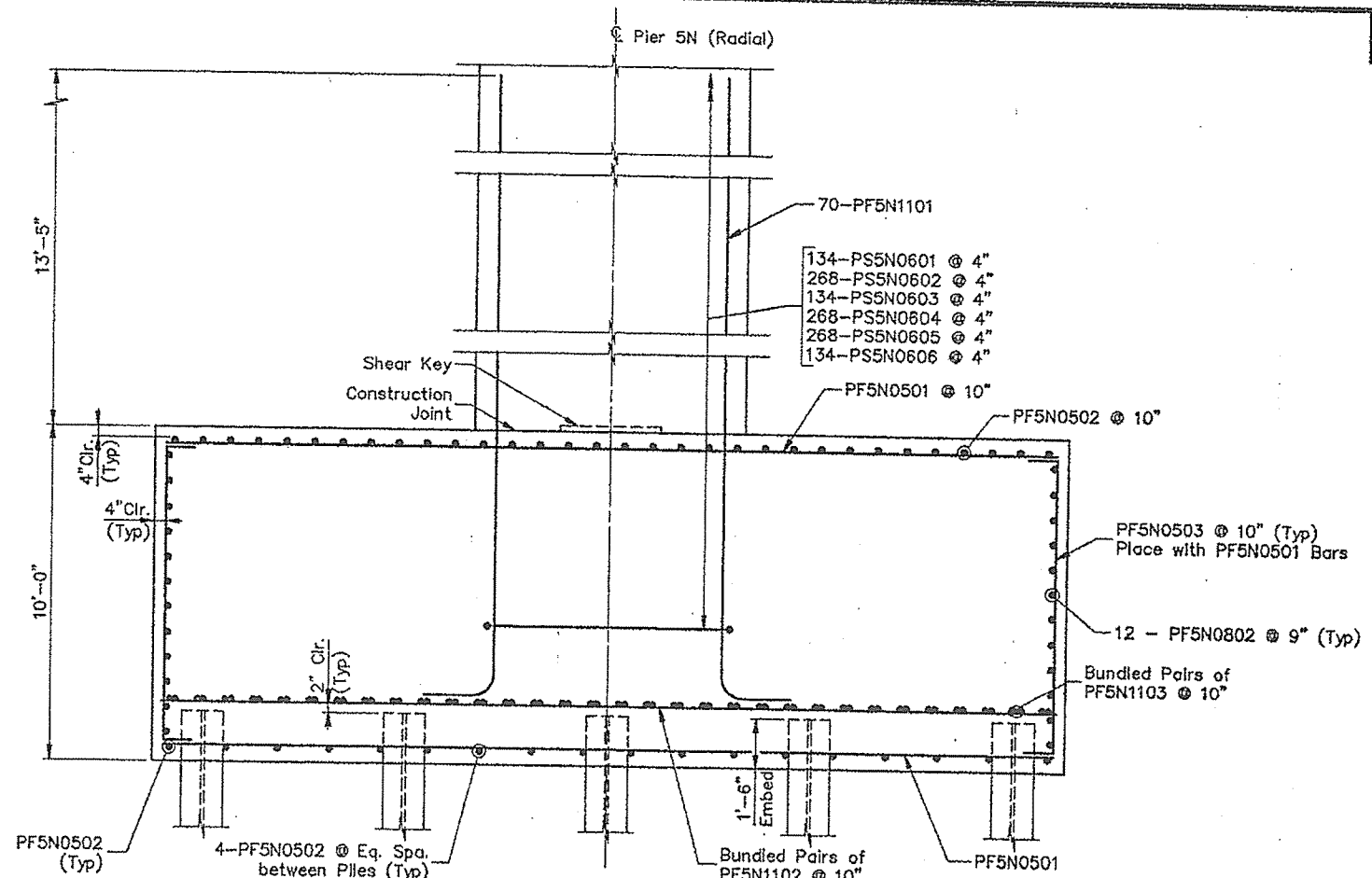




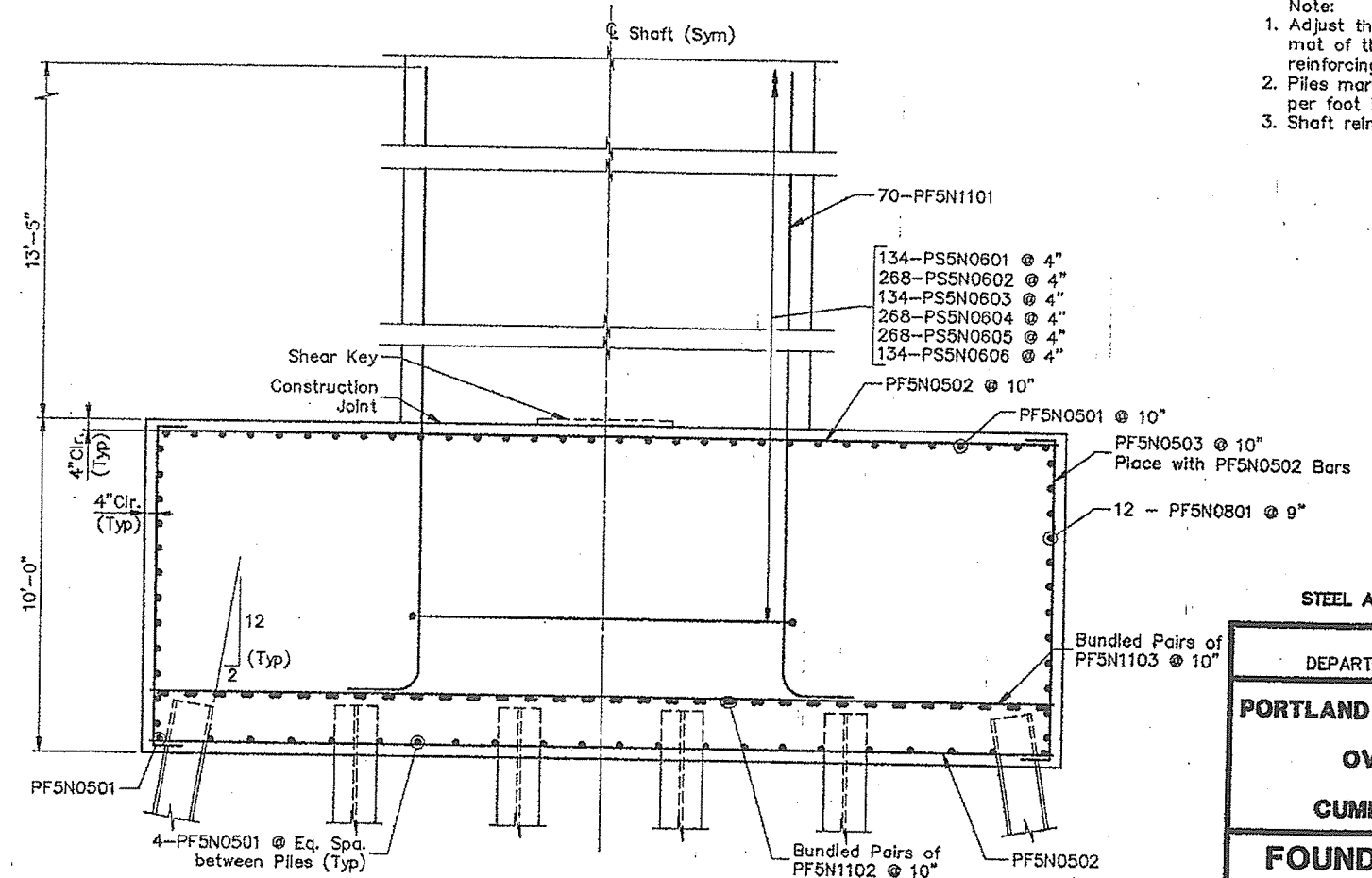
**PLAN**



**PILE TIP DETAIL**



**SIDE ELEVATION**

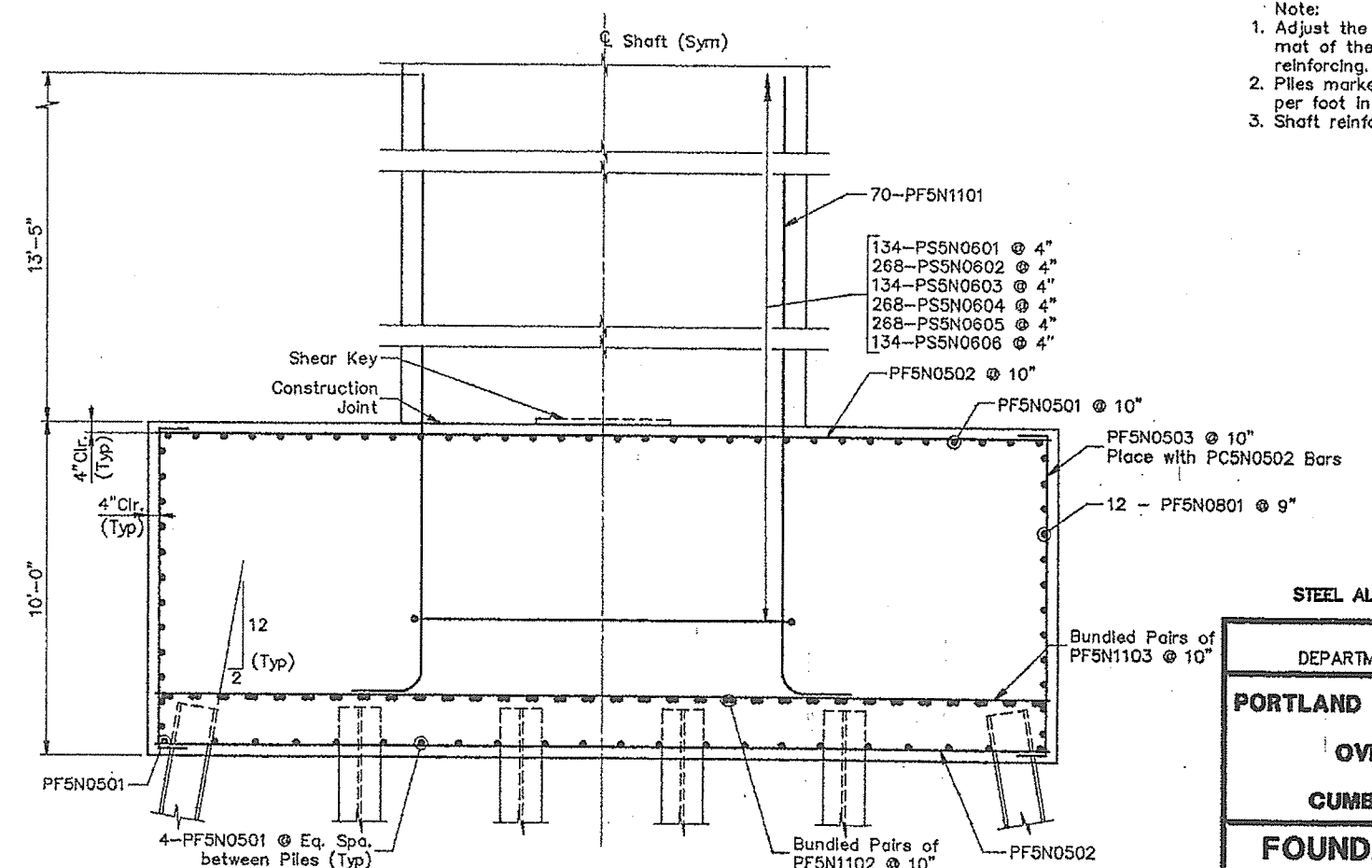
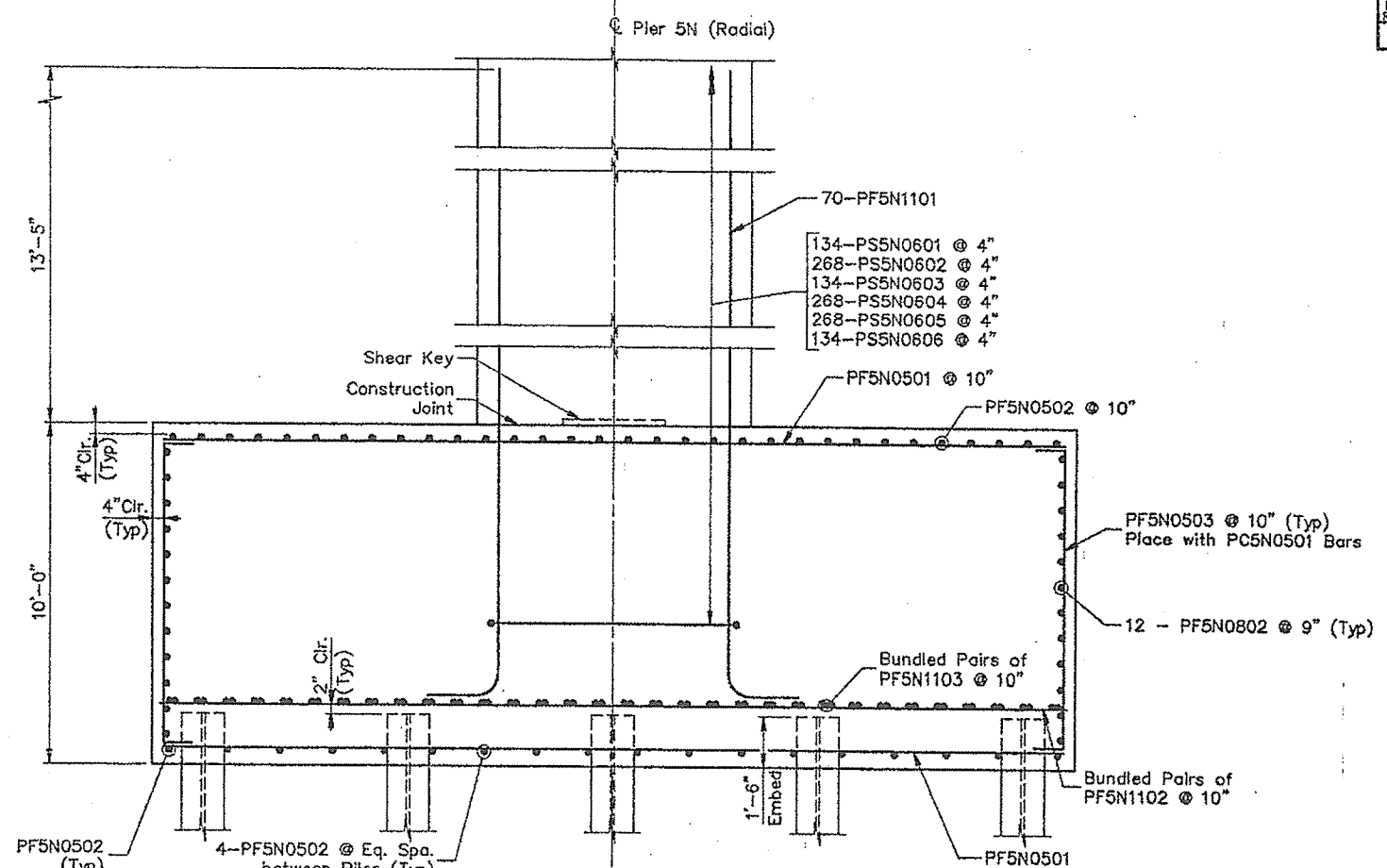
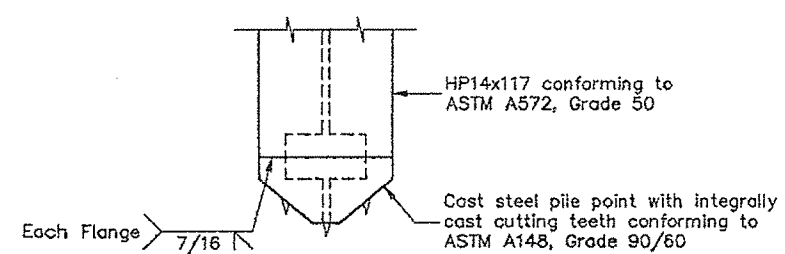
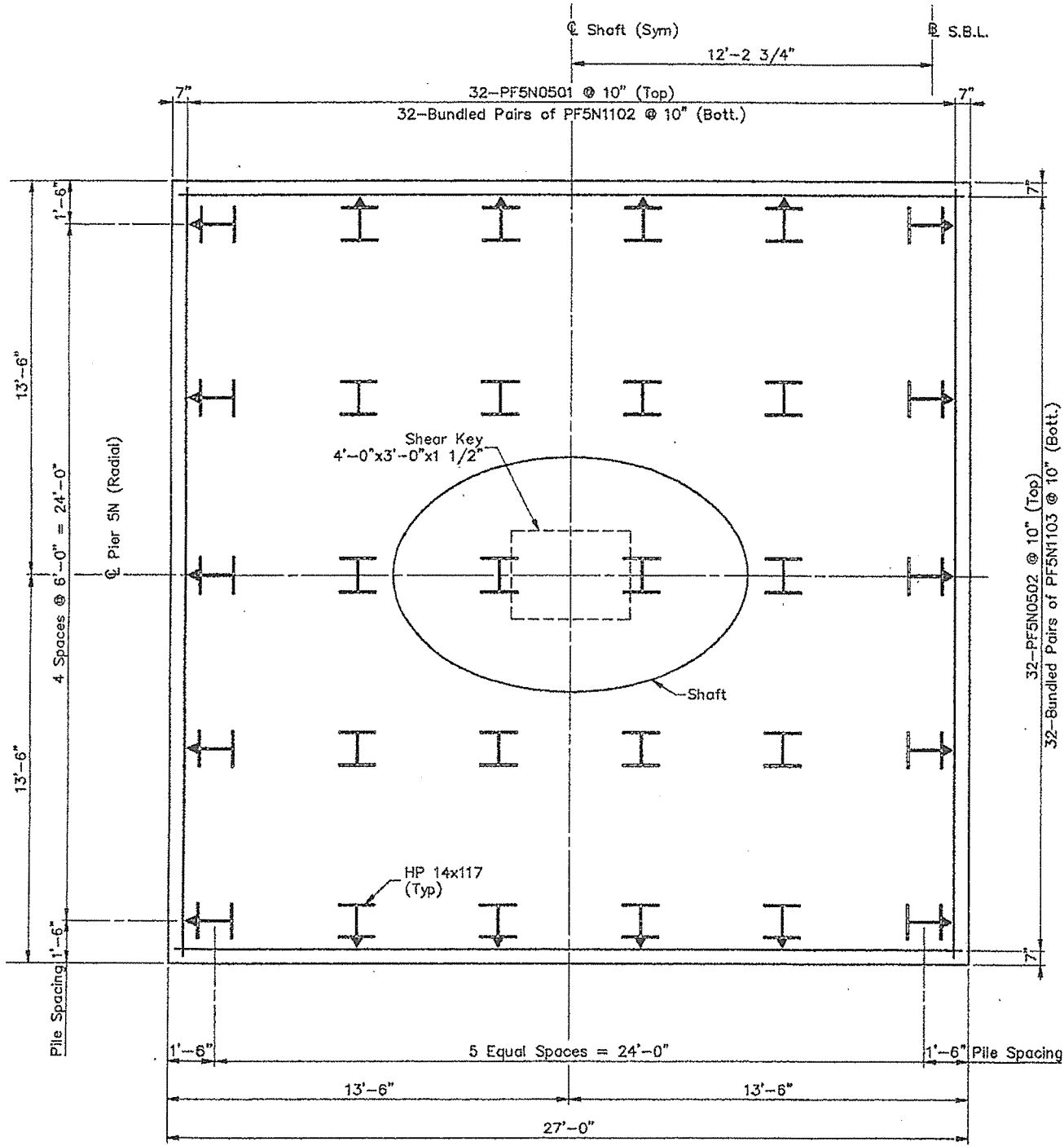


**FRONT ELEVATION**

- Note:
1. Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.
  2. Piles marked  $\perp$  shall be battered 2 inches per foot in the direction of the arrow.
  3. Shaft reinforcement not shown for clarity.

APR 13 1994

STEEL ALTERNATIVE SUBSTRUCTURE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE
OVER FORE RIVER
CUMBERLAND COUNTY
FOUNDATION DETAILS PIER 5N (N.B.L.)
SHEET 211 OF 370 AUGUSTA, MAINE 4/13/94



- Note:
1. Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.
  2. Piles marked  $\rightarrow$  shall be battered 2 inches per foot in the direction of the arrow.
  3. Shaft reinforcement not shown for clarity.

APR 13 1994

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

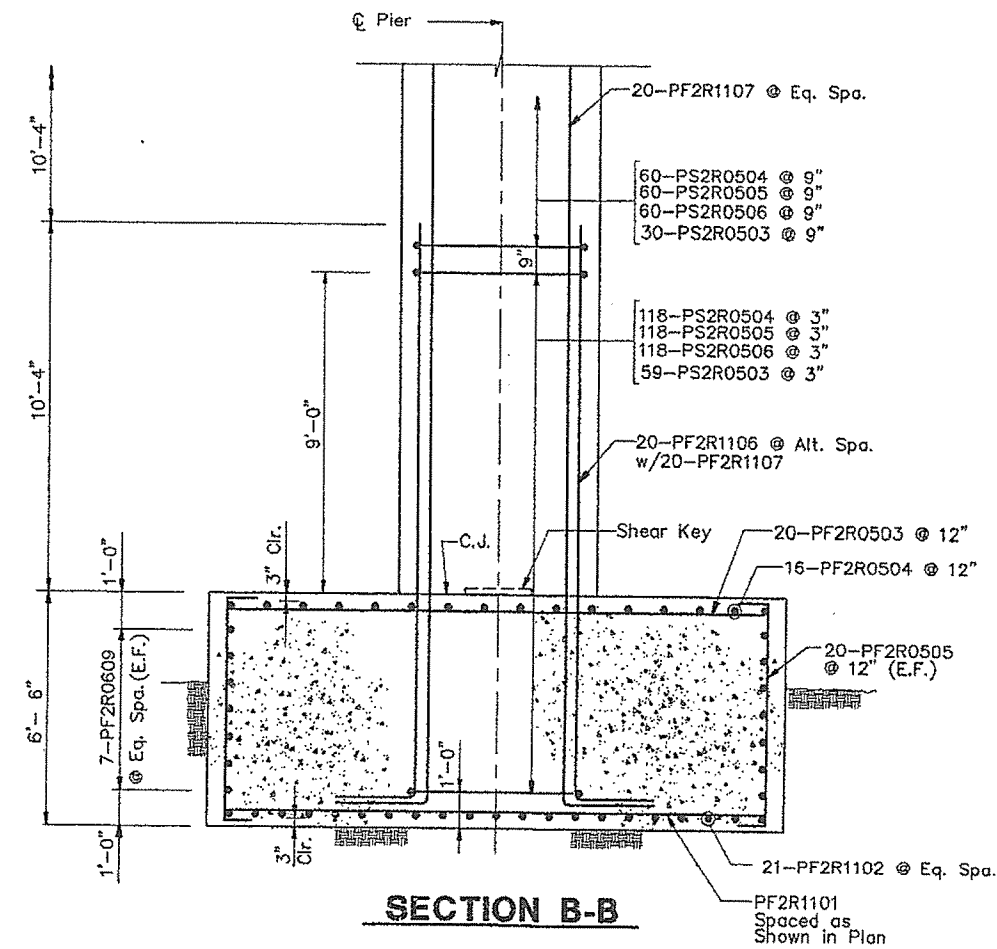
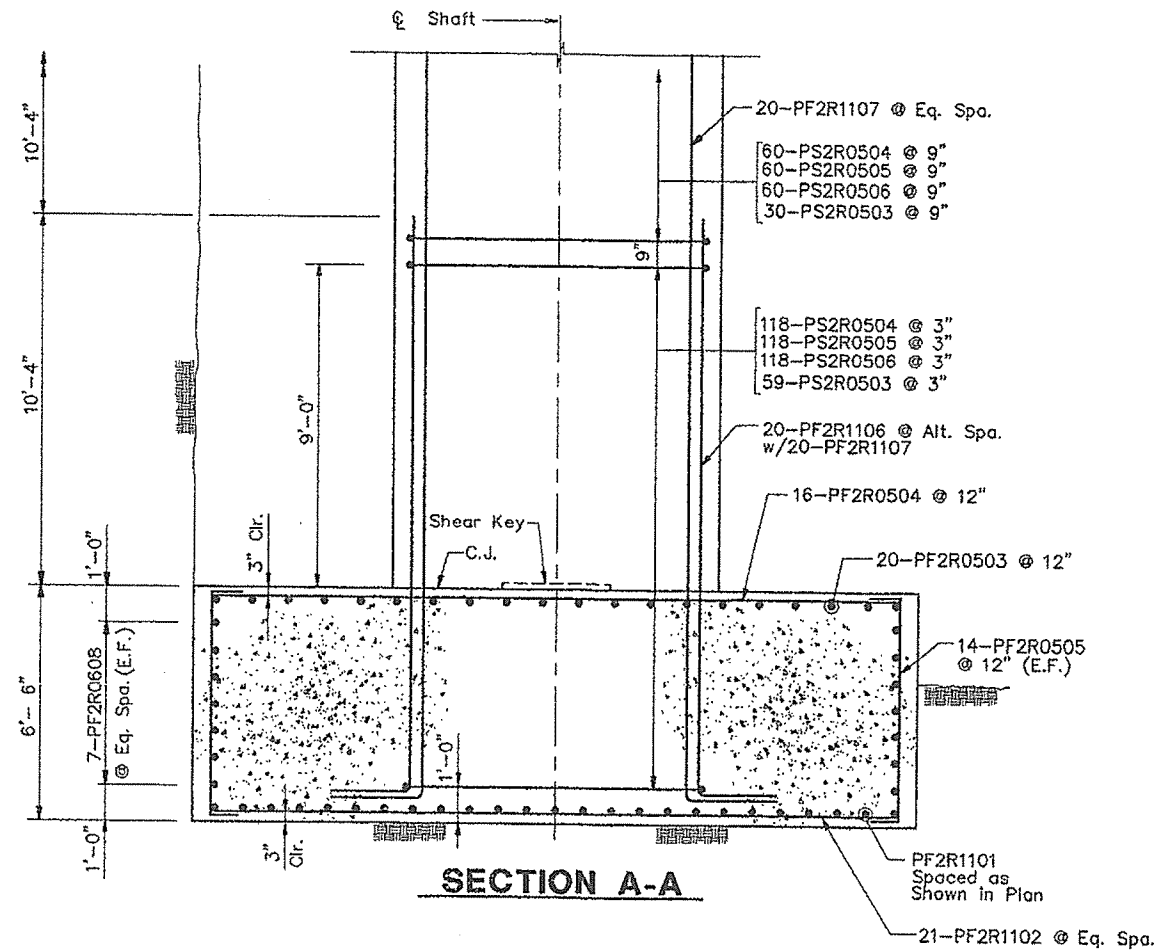
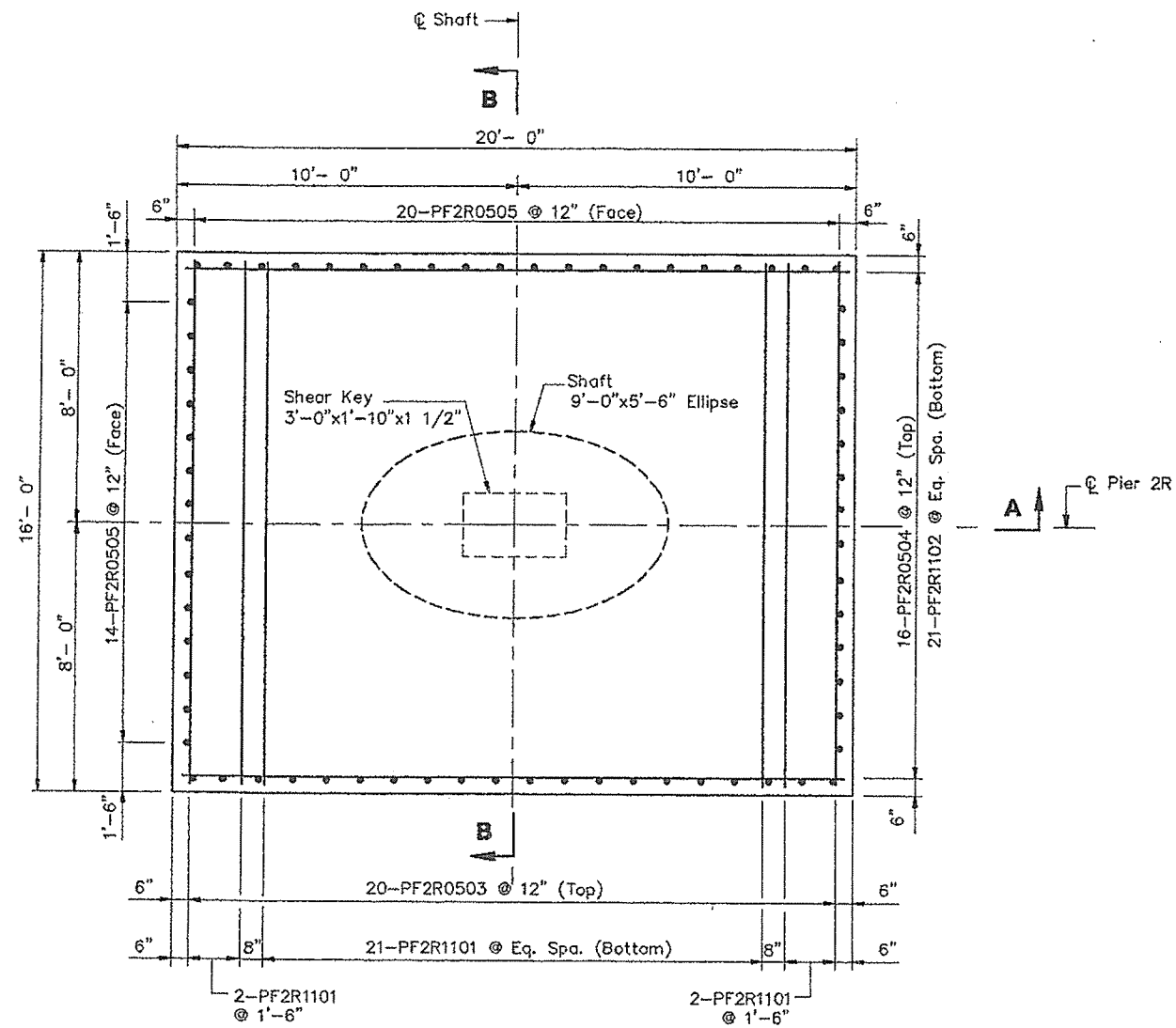
**PORTLAND - S. PORTLAND BRIDGE**

**OVER FORE RIVER**

**CUMBERLAND COUNTY**

**FOUNDATION DETAILS  
PIER 5N (S.B.L.)**





- Notes:
- Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

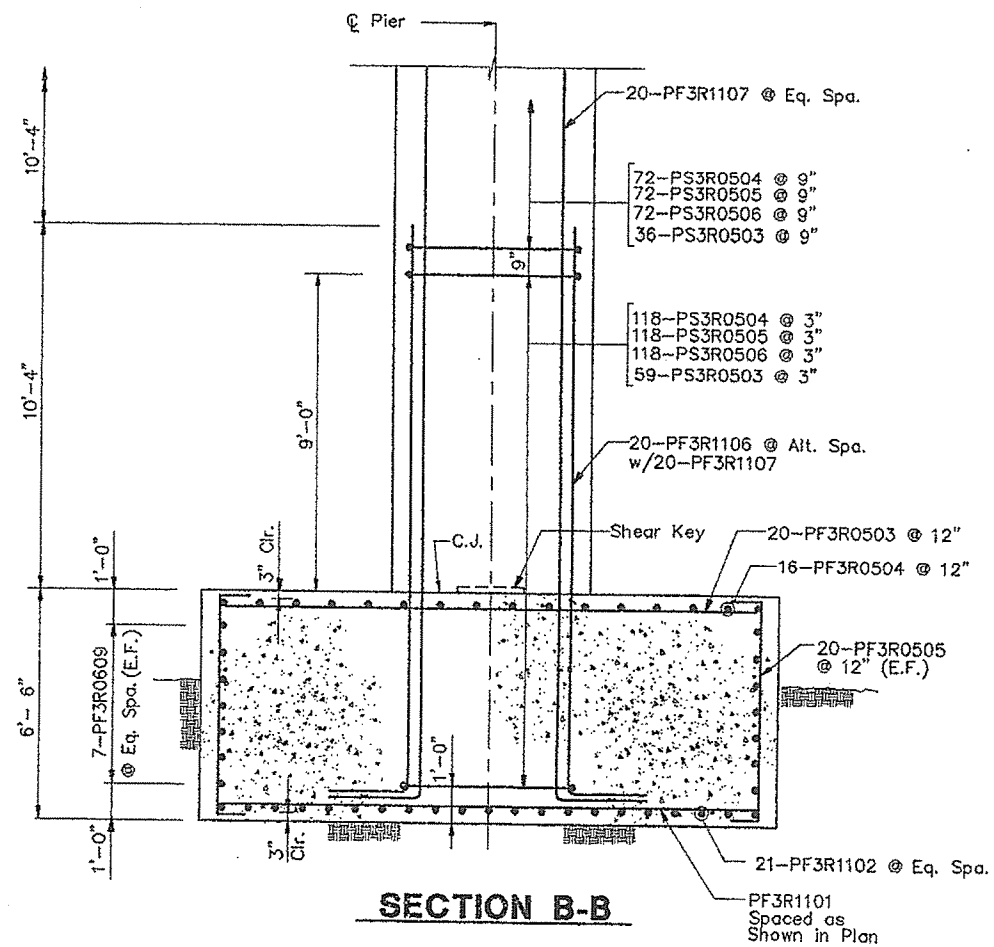
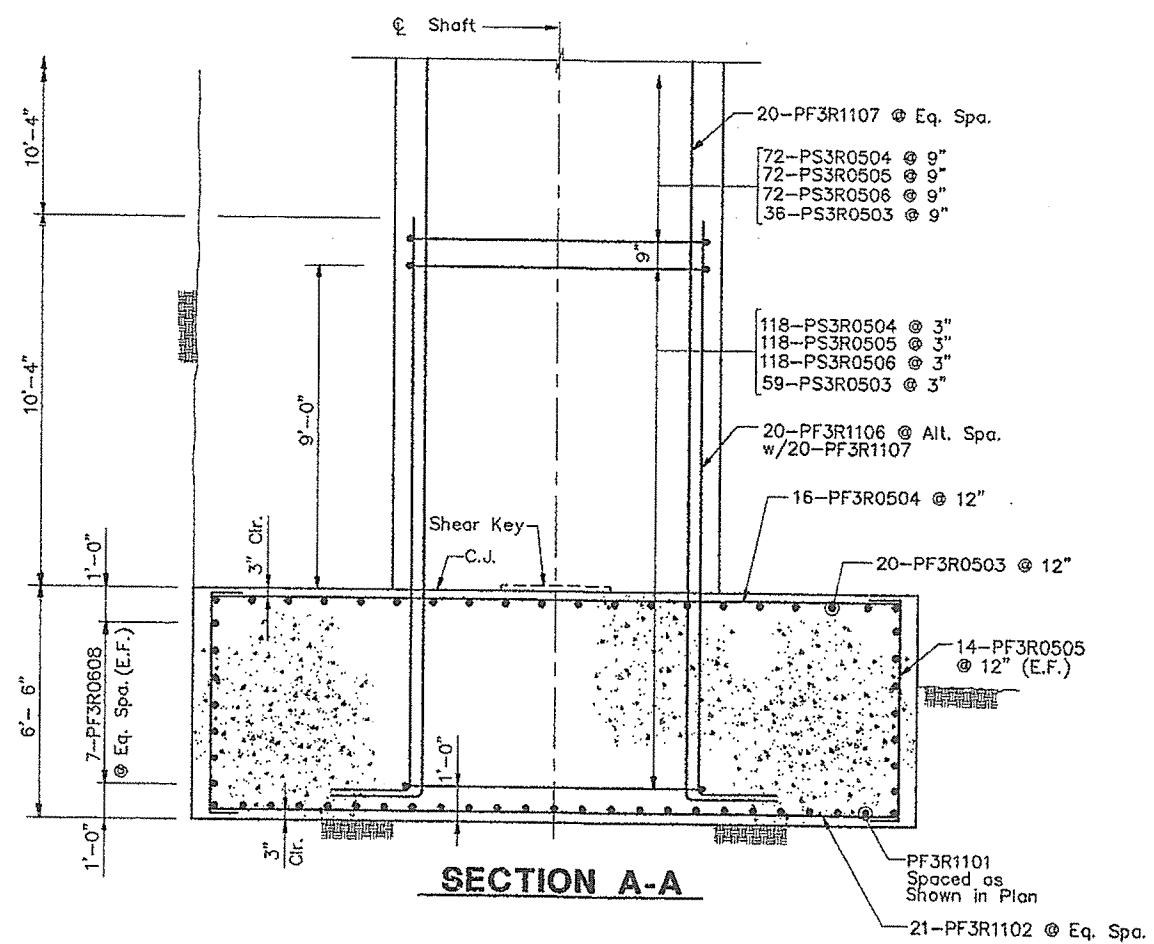
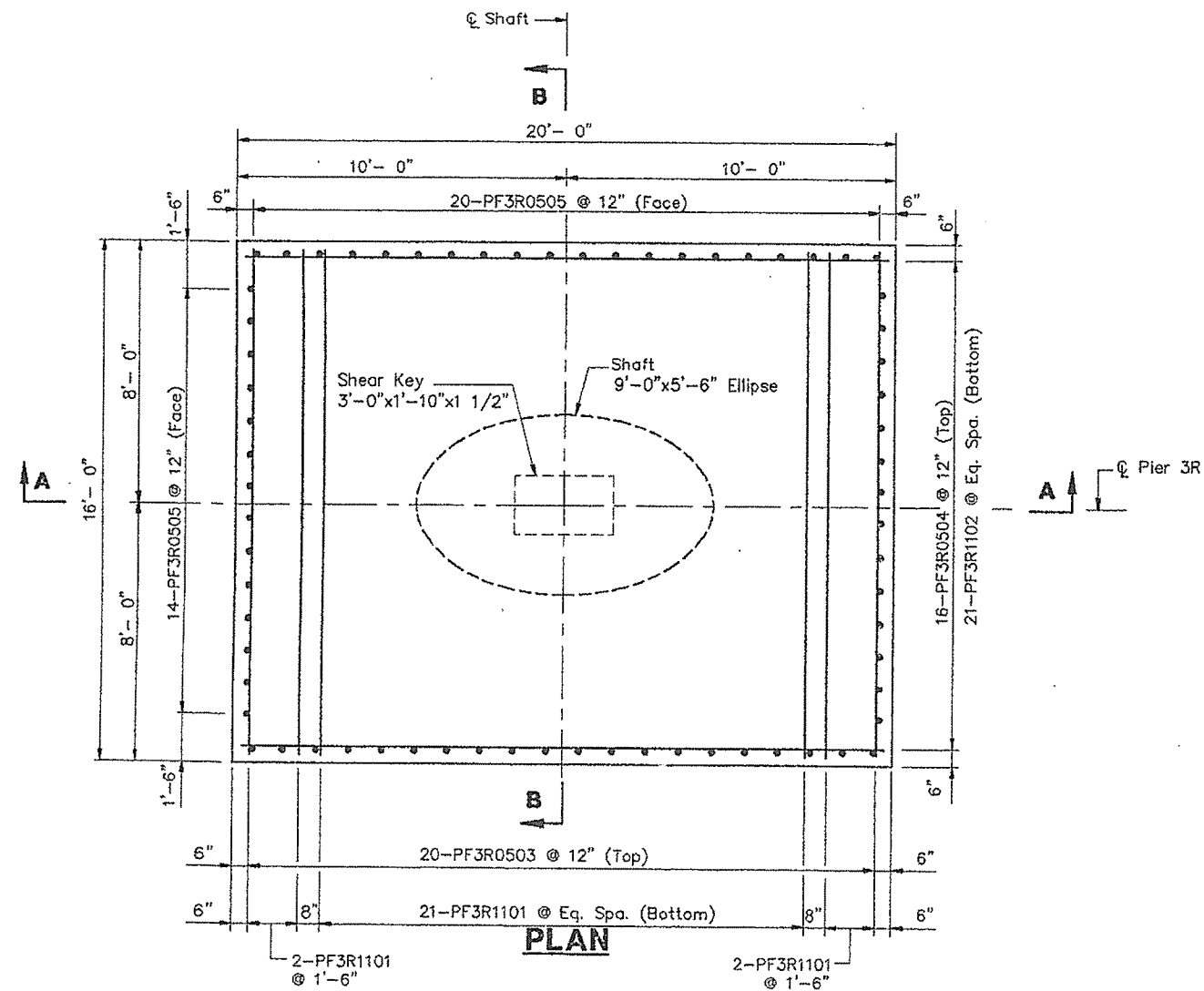
**PORTLAND - S. PORTLAND BRIDGE**

**OVER FORE RIVER**

**CUMBERLAND COUNTY**

**FOUNDATION DETAILS**

**PIER 2R**

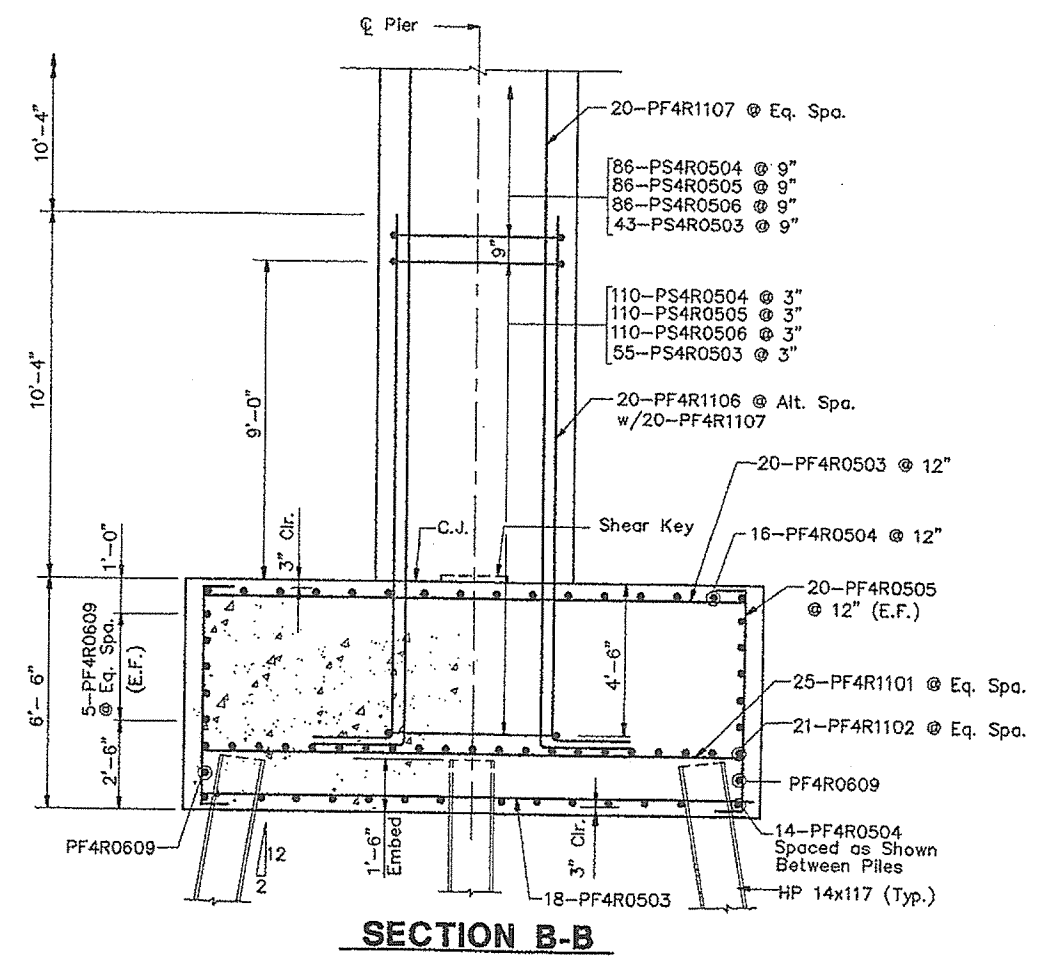
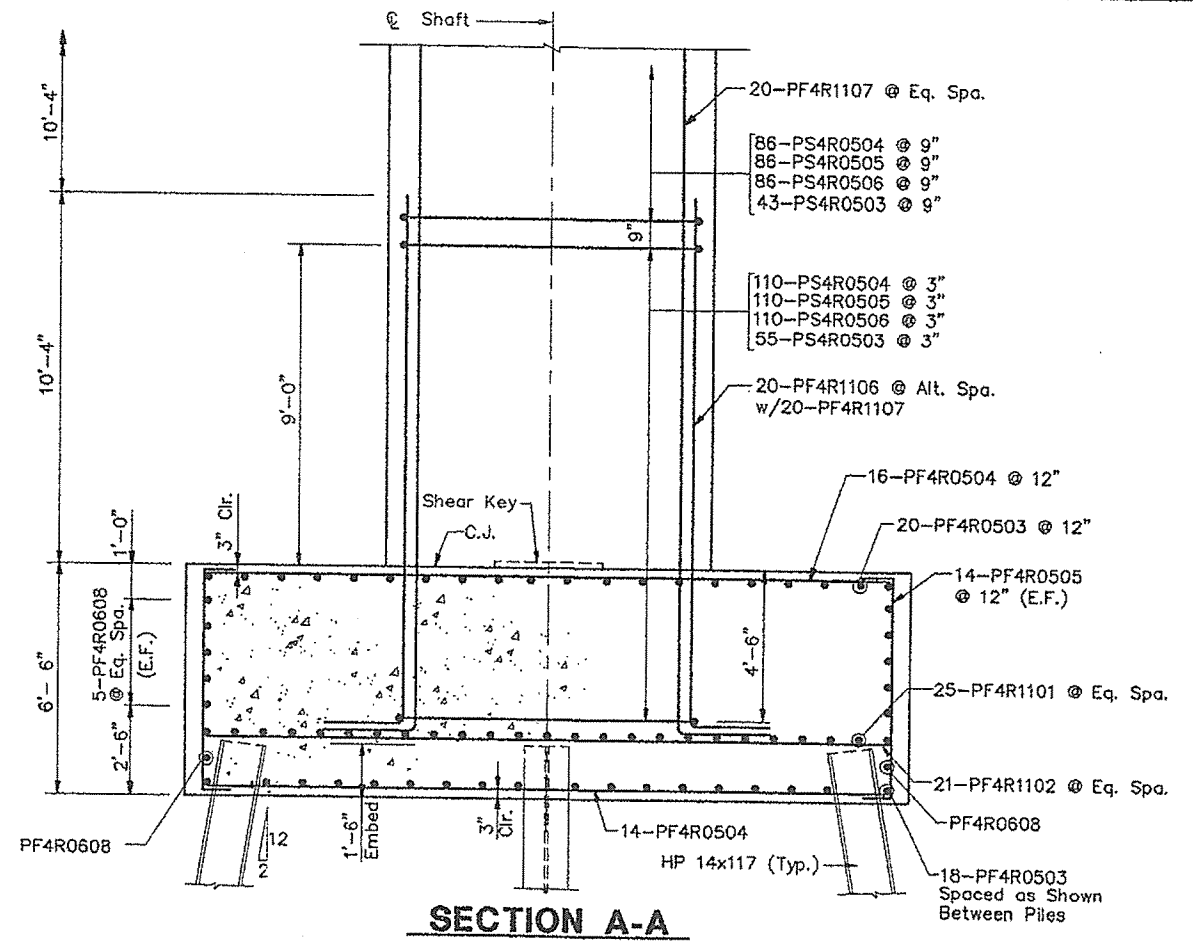
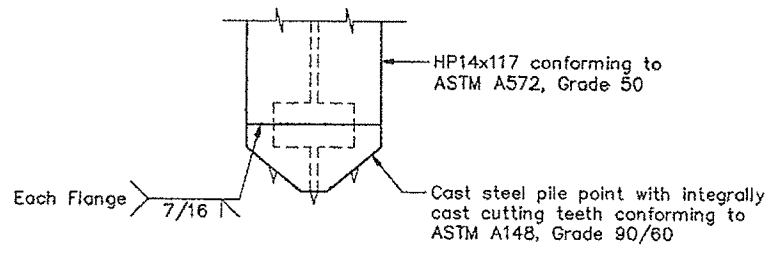
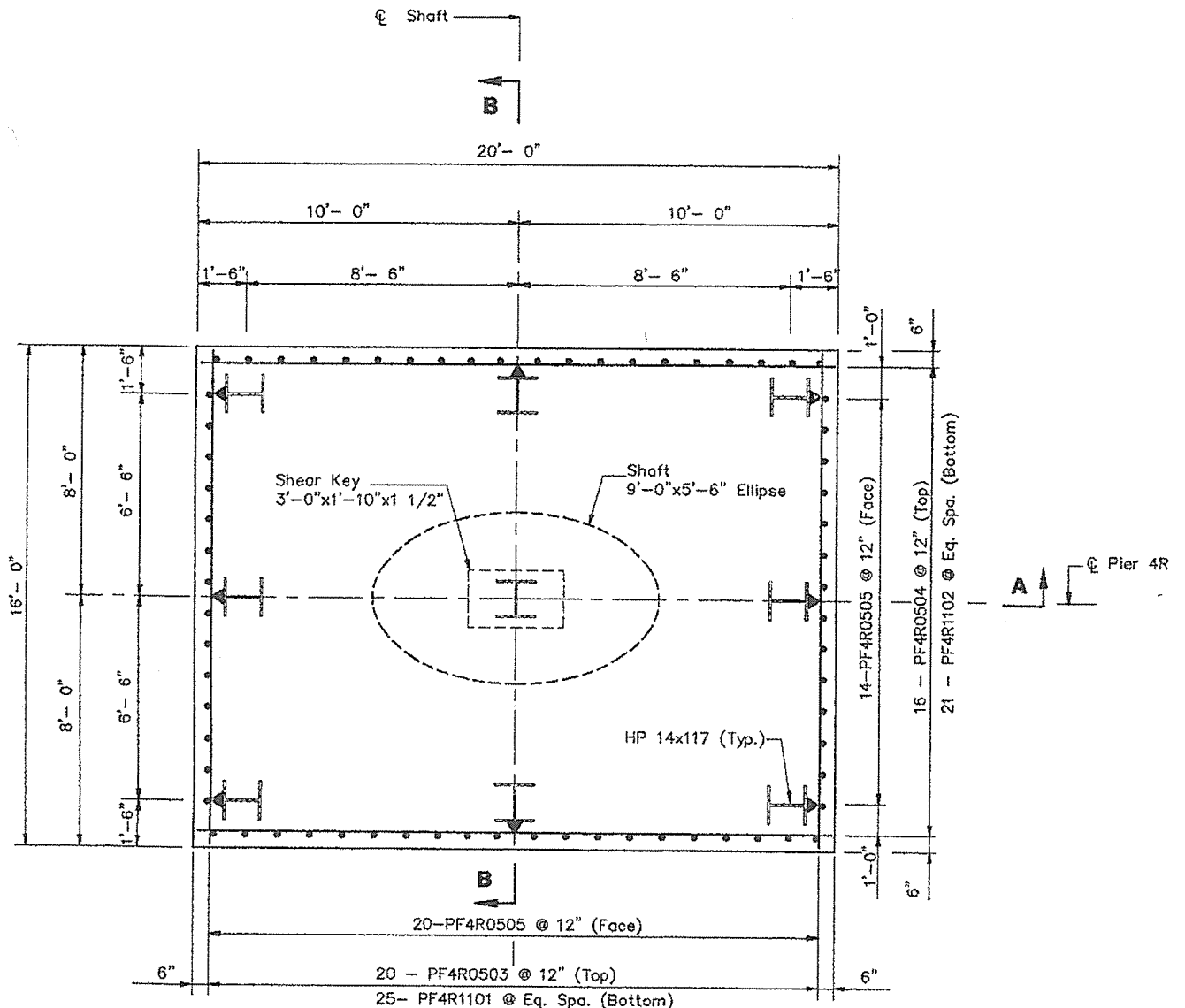



Notes:

- Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
**PORTLAND - S. PORTLAND BRIDGE**  
**OVER FORE RIVER**  
**CUMBERLAND COUNTY**  
**FOUNDATION DETAILS**  
**PIER 3R**



- Notes:
1. Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.
  2. Shaft reinforcement not shown for clarity.
  3. Piles marked  shall be battered 2 inches per foot in direction of the arrow.

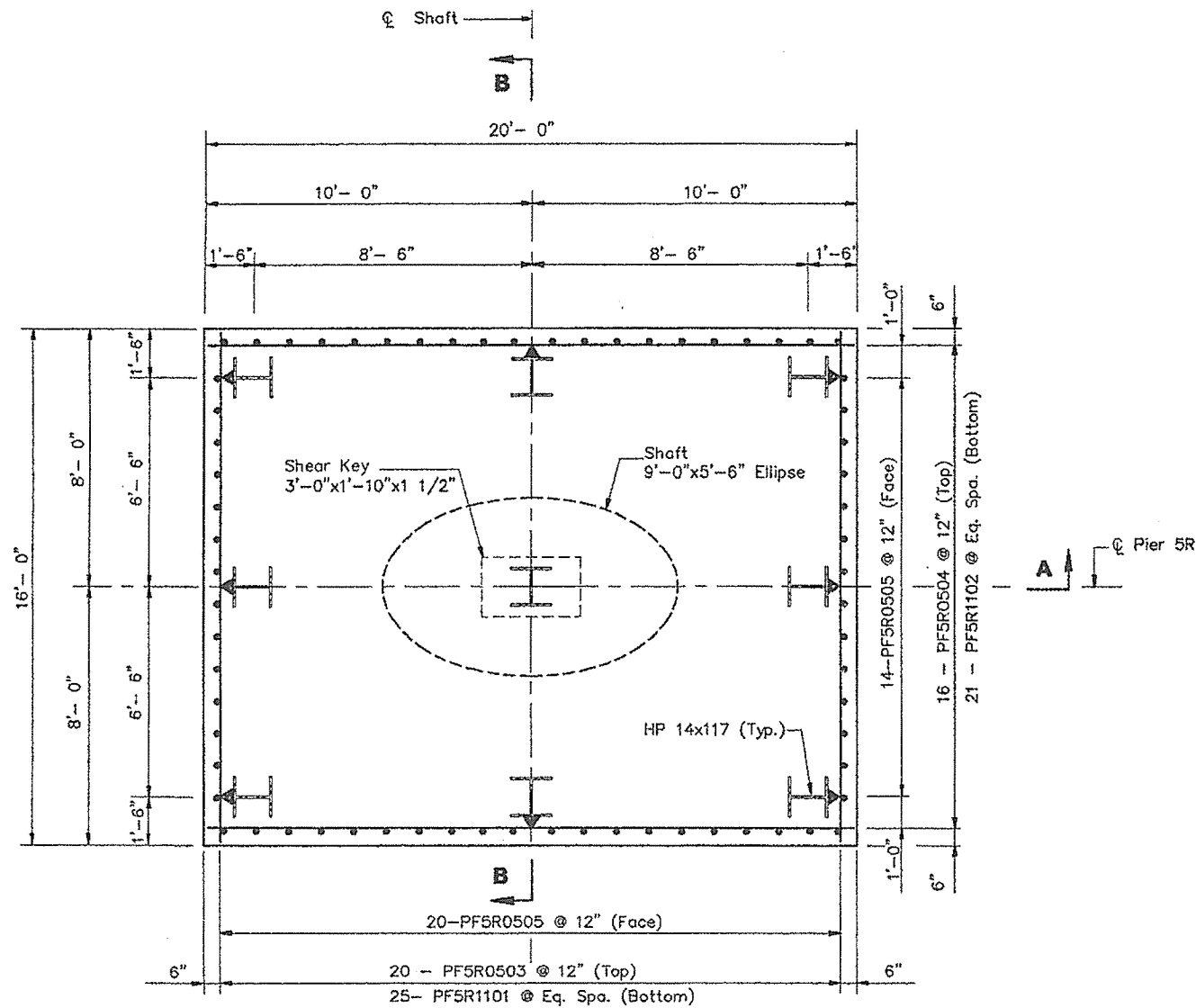
STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

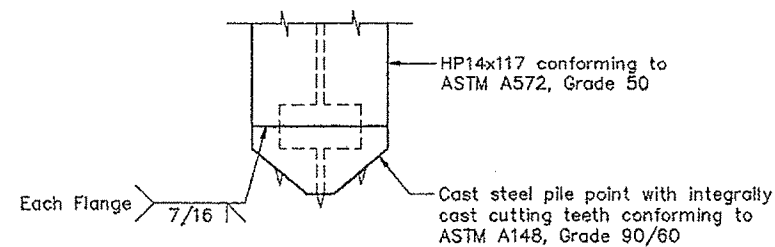
PORTLAND - S. PORTLAND BRIDGE  
OVER FORE RIVER  
CUMBERLAND COUNTY

FOUNDATION DETAILS  
PIER 4R

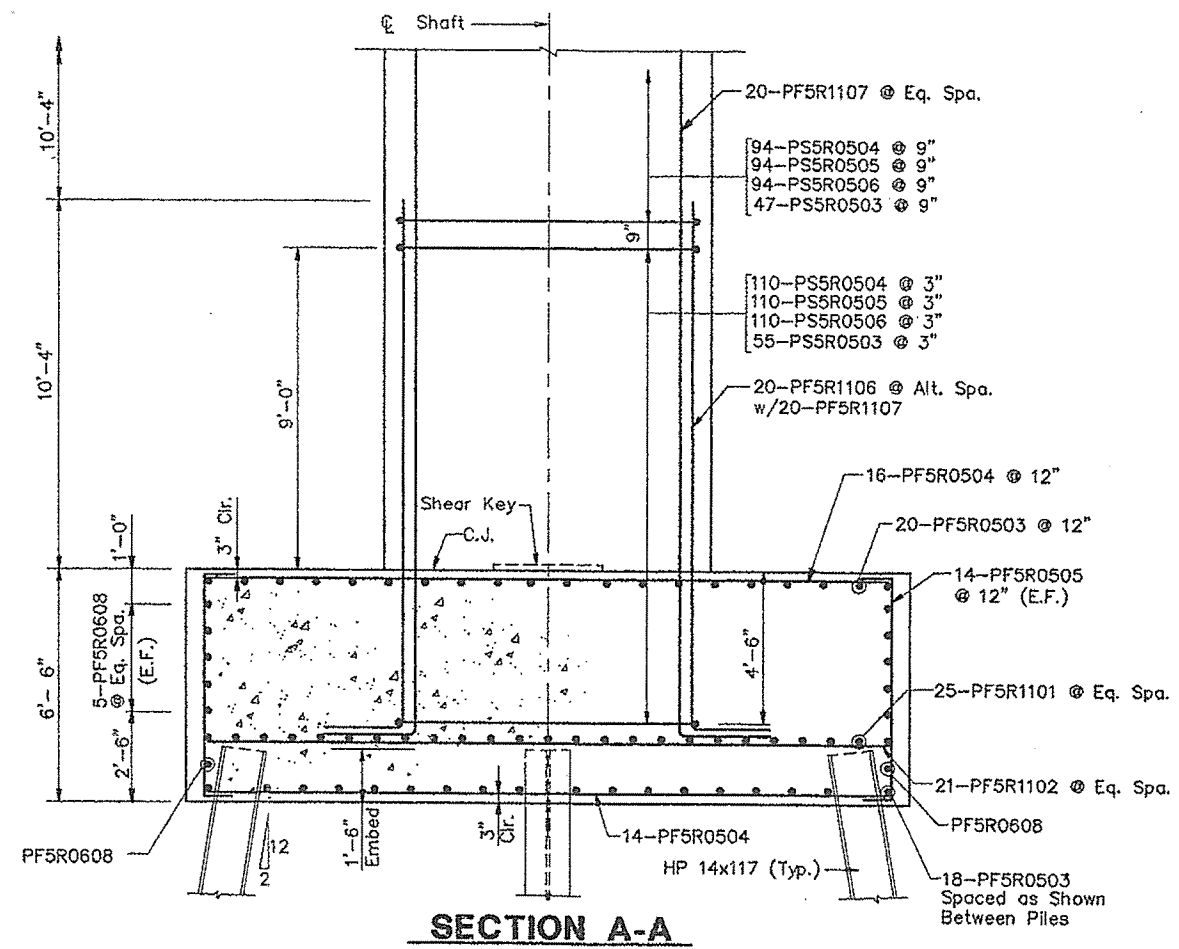
SHEET 216 OF 338 AUGUSTA, MAINE 6/16/94



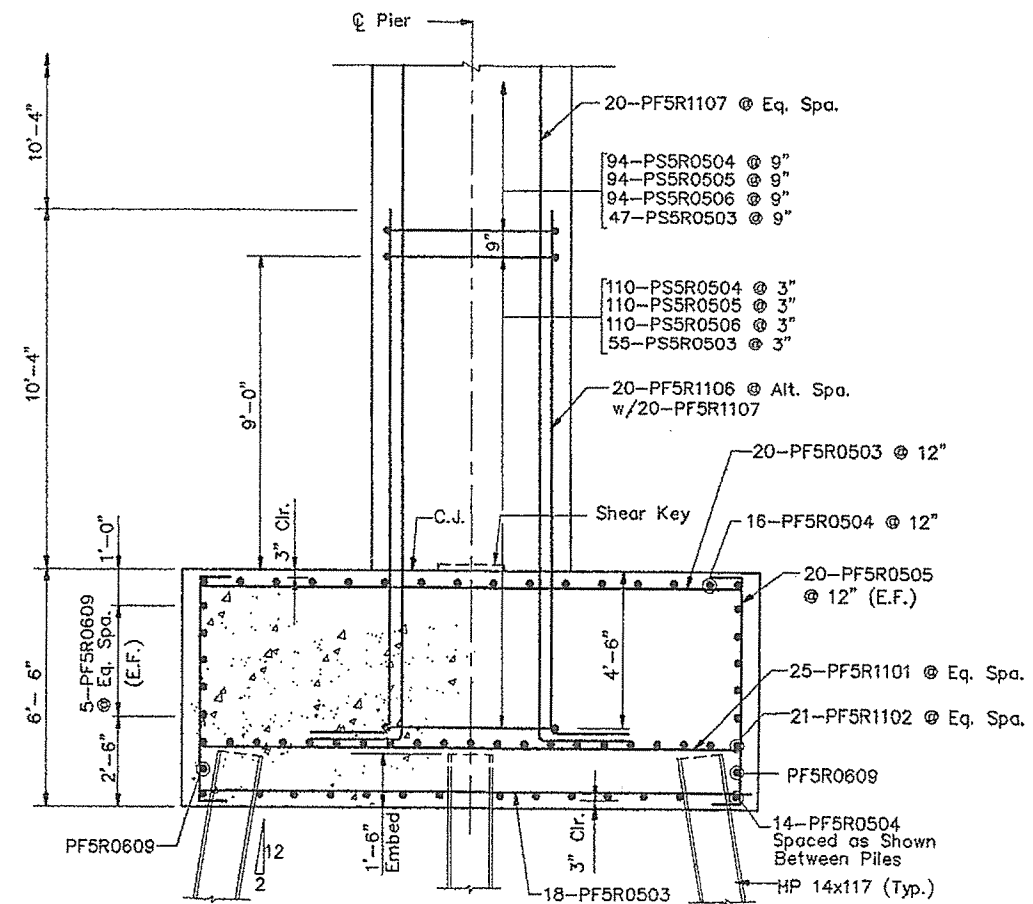
**PLAN**



**PILE TIP DETAIL**




**SECTION A-A**



**SECTION B-B**

**Notes:**

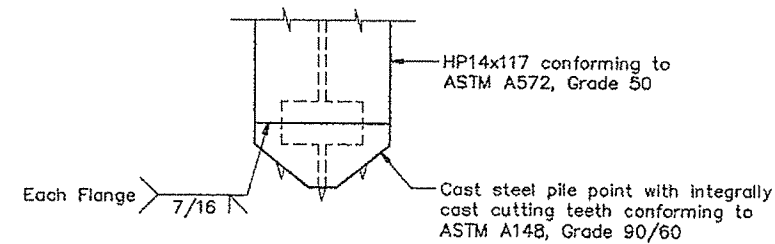
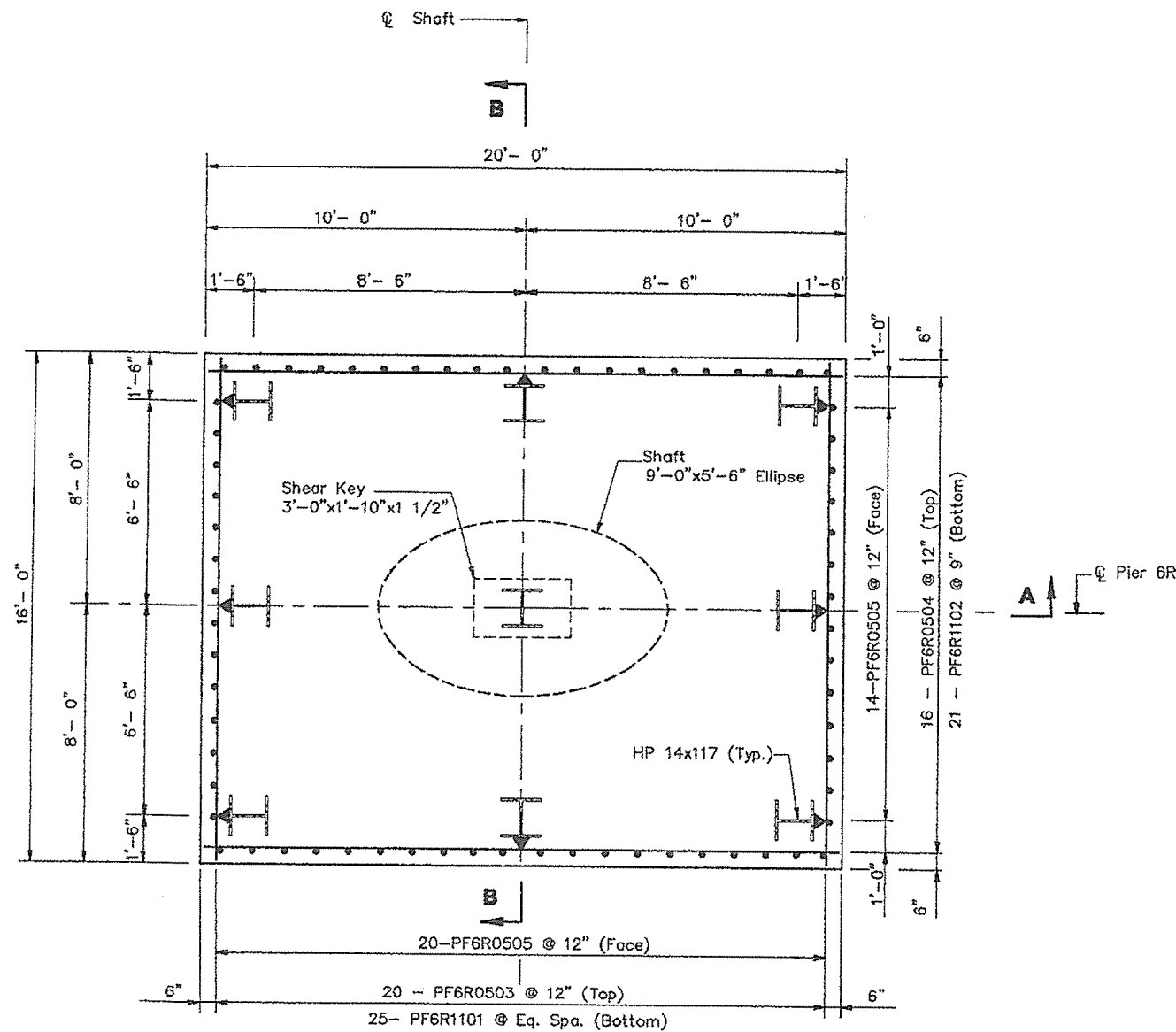
1. Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.
2. Shaft reinforcement not shown for clarity.
3. Piles marked  shall be battered 2 inches per foot in direction of the arrow.

**STEEL ALTERNATIVE SUBSTRUCTURE**

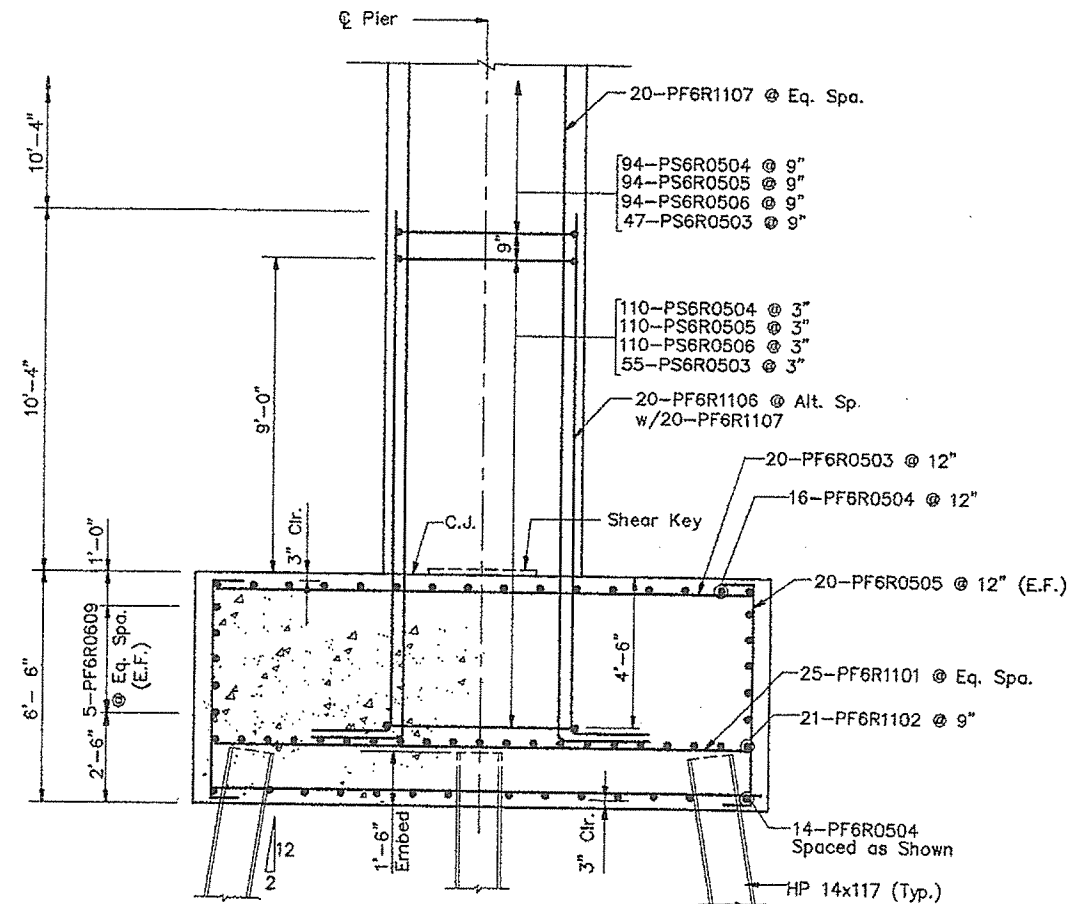
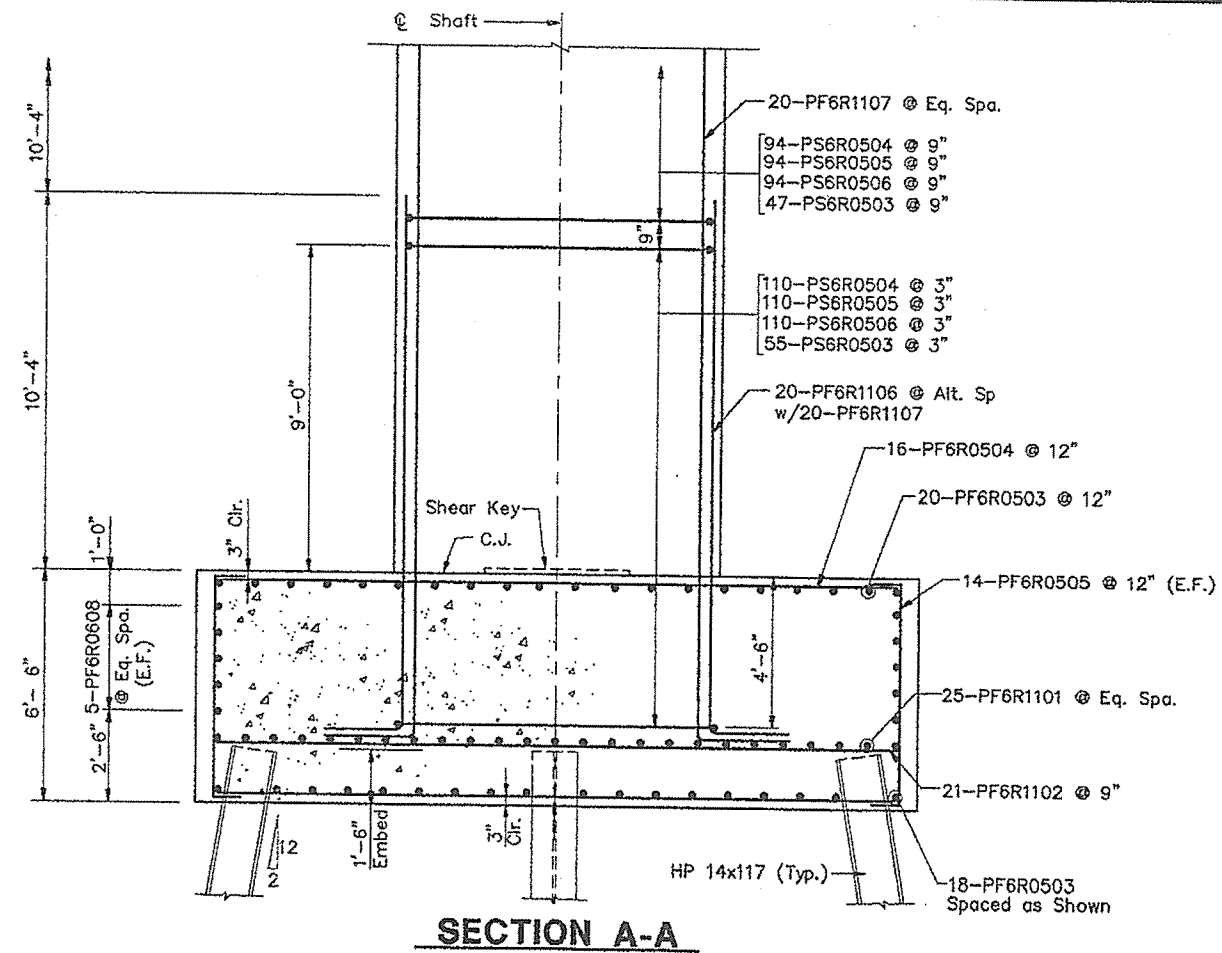
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND BRIDGE**  
**OVER FORE RIVER**  
**CUMBERLAND COUNTY**

**FOUNDATION DETAILS**  
**PIER 5R**



PILE TIP DETAIL

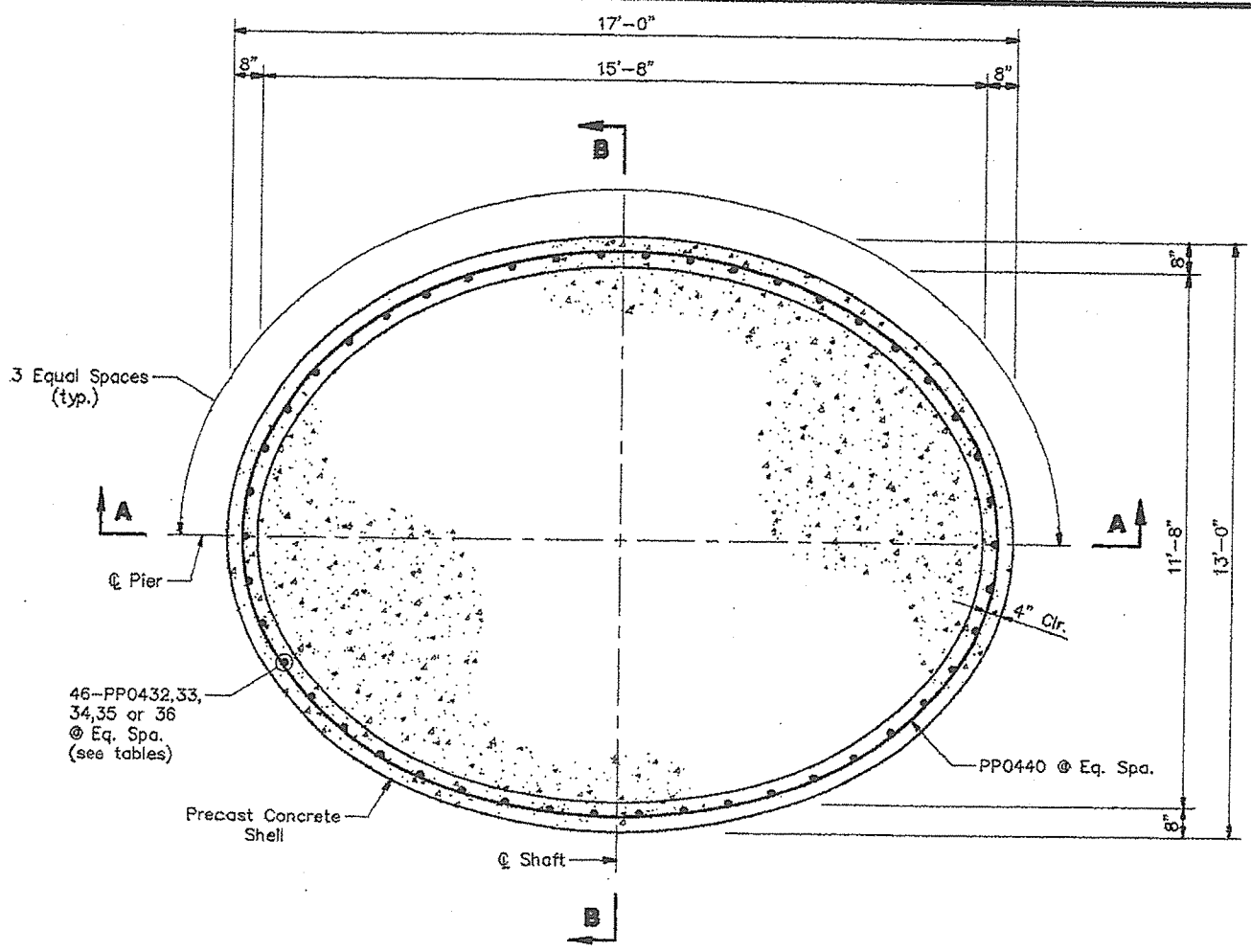


Notes:

1. Adjust the reinforcing spacing in the top mat of the footing to accommodate shaft reinforcing.
2. Shaft reinforcement not shown for clarity.
3. Piles marked shall be battered 2 inches per foot in direction of the arrow.

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
**PORTLAND - S. PORTLAND BRIDGE**  
**OVER FORE RIVER**  
**CUMBERLAND COUNTY**  
**FOUNDATION DETAILS**  
**PIER 6R**

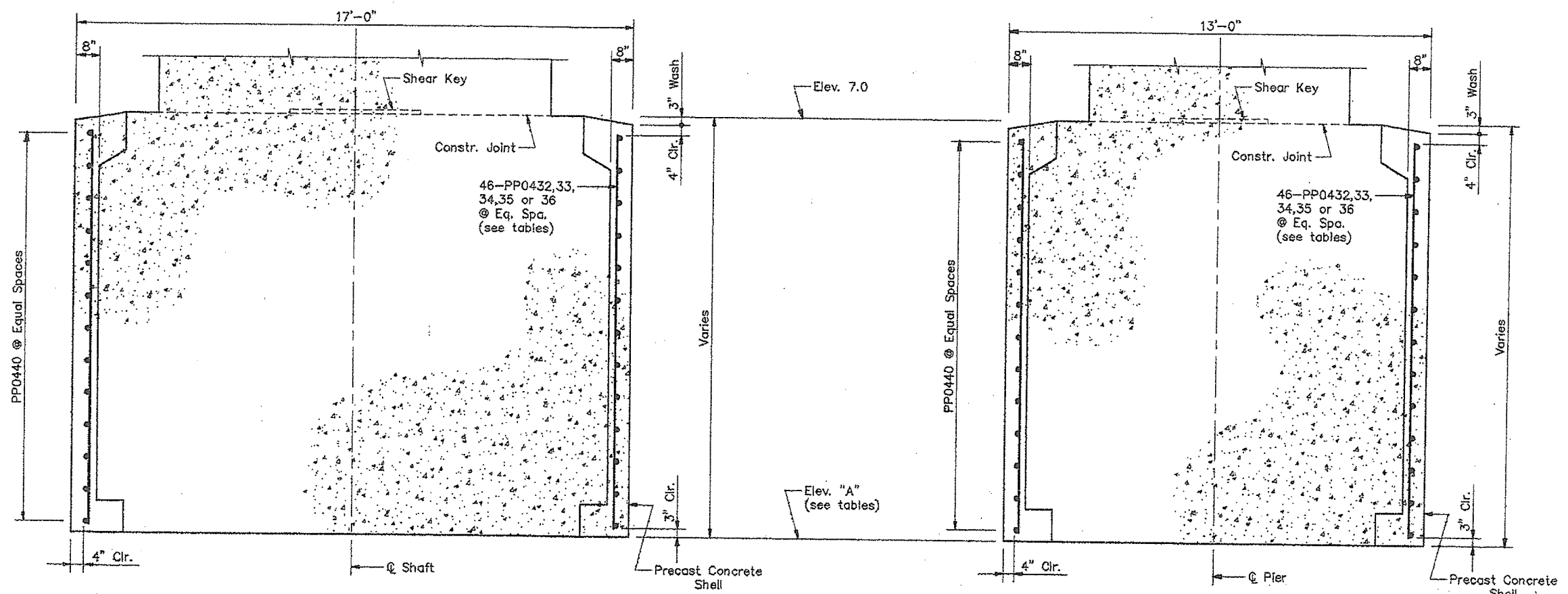


**PIER PROTECTION - PLAN**

PIER	ELEV. "A"	REINFORCING BARS		
		MARK	NO.	LENGTH
1S (N.B.L.)	-2.0	PP0436	46	8'-2"
		PP0440	9	47'-4 1/4"
1S (S.B.L.)	-4.5	PP0434	46	10'-8"
		PP0440	12	47'-4 1/4"
2S (N.B.L.)	-3.5	PP0435	46	9'-8"
		PP0440	11	47'-4 1/4"
2S (S.B.L.)	-4.5	PP0434	46	10'-8"
		PP0440	12	47'-4 1/4"
3S (S.B.L.)	-4.5	PP0434	46	10'-8"
		PP0440	12	47'-4 1/4"
4S (S.B.L.)	-4.5	PP0434	46	10'-8"
		PP0440	12	47'-4 1/4"
6S (N.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"
6S (S.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"

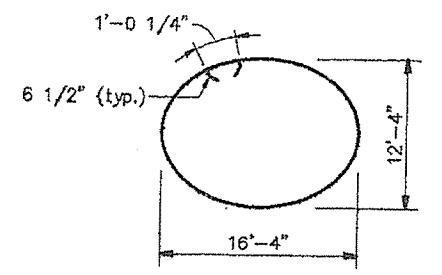
PIER	ELEV. "A"	REINFORCING BARS		
		MARK	NO.	LENGTH
7S (N.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"
7S (S.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"
8S (N.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"
8S (S.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"
9S (N.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"
9S (S.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"
10S (N.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"
10S (S.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"

PIER	ELEV. "A"	REINFORCING BARS		
		MARK	NO.	LENGTH
11S (N.B.L.)	-4.5	PP0434	46	10'-8"
		PP0440	12	47'-4 1/4"
11S (S.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"
12S (N.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"
12S (S.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"
14S (N.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"
14S (S.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"
15S (N.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"
15S (S.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"



**SECTION A-A**

**SECTION B-B**



**PP0440 BENDING DIAGRAM**

Revised per Addendum #3

Note:  
Precast concrete pier protection to be used for piers 1S, 2S, 3S (S.B.L. only), 4S (S.B.L. only), 6S thru 12S, 14S and 15S.  
Contractor may propose cast-in-place concrete pier protection as a substitute for the precast concrete pier protection details shown. Column reinforcing not shown for clarity.

STEEL ALTERNATIVE SUBSTRUCTURE

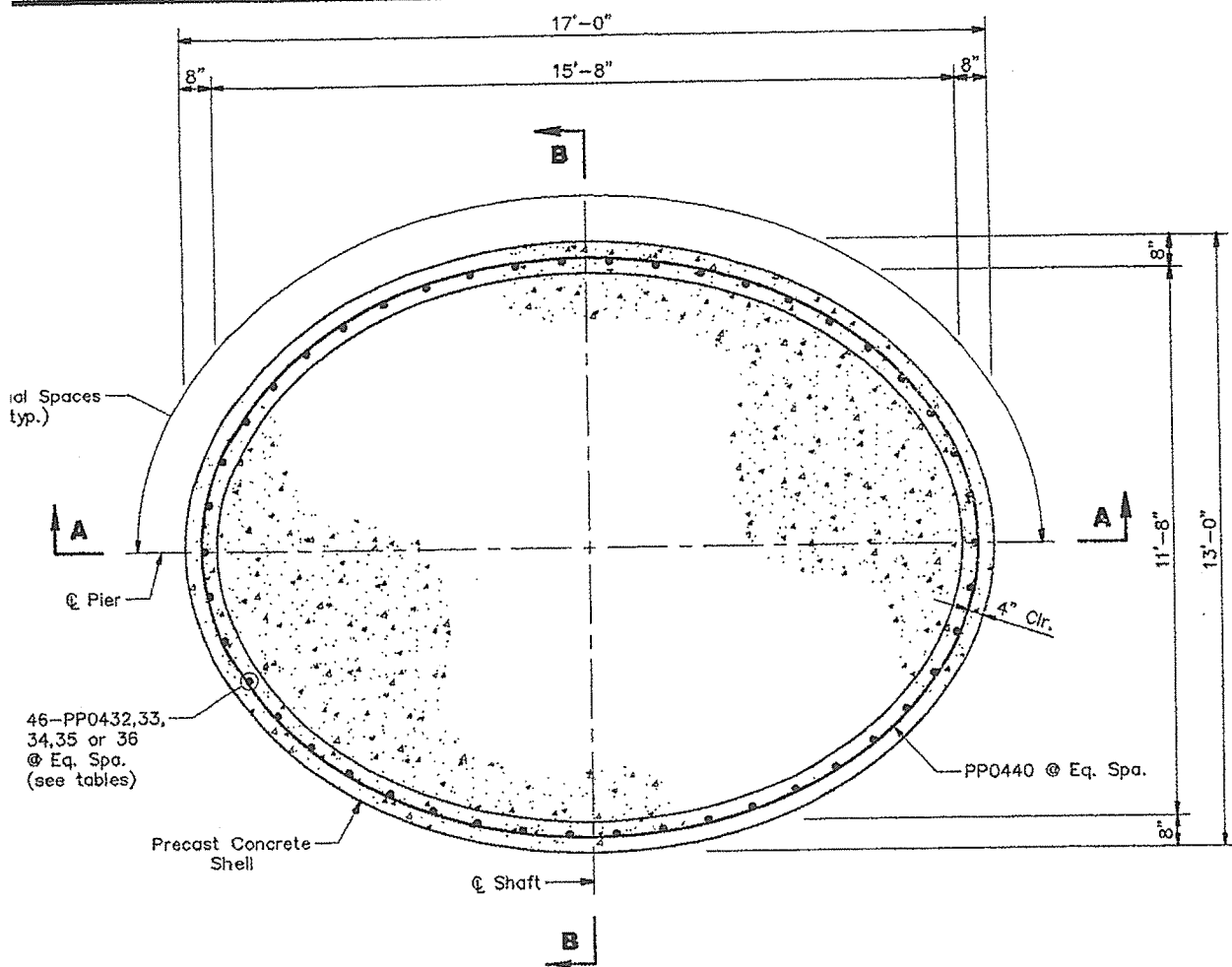
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORTLAND BRIDGE

OVER FORE RIVER

CUMBERLAND COUNTY

PRECAST CONCRETE  
PIER PROTECTION

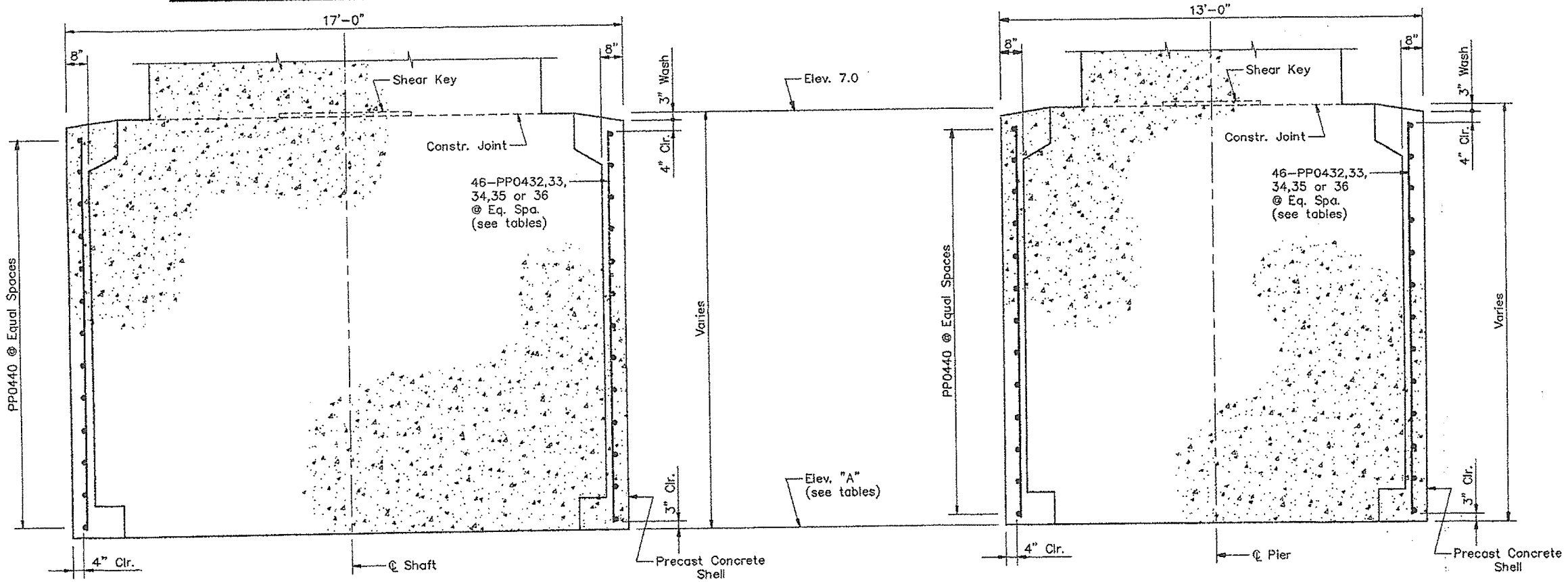


PIER PROTECTION - PLAN

PIER	ELEV. "A"	REINFORCING BARS		
		MARK	NO.	LENGTH
1S (N.B.L.)	-2.0	PP0436	46	8'-2"
		PP0440	9	47'-4 1/4"
1S (S.B.L.)	-4.5	PP0434	46	10'-8"
		PP0440	12	47'-4 1/4"
2S (N.B.L.)	-3.5	PP0435	46	9'-8"
		PP0440	11	47'-4 1/4"
2S (S.B.L.)	-4.5	PP0434	46	10'-8"
		PP0440	12	47'-4 1/4"
3S (S.B.L.)	-4.5	PP0434	46	10'-8"
		PP0440	12	47'-4 1/4"
4S (S.B.L.)	-4.5	PP0434	46	10'-8"
		PP0440	12	47'-4 1/4"
6S (N.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"
6S (S.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"

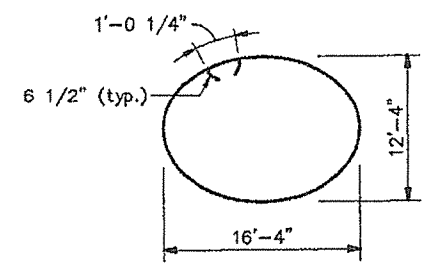
PIER	ELEV. "A"	REINFORCING BARS		
		MARK	NO.	LENGTH
7S (N.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"
7S (S.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"
8S (N.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"
8S (S.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"
9S (N.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"
9S (S.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"
10S (N.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"
10S (S.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"

PIER	ELEV. "A"	REINFORCING BARS		
		MARK	NO.	LENGTH
11S (N.B.L.)	-4.5	PP0434	46	10'-8"
		PP0440	12	47'-4 1/4"
11S (S.B.L.)	-5.5	PP0433	46	11'-8"
		PP0440	13	47'-4 1/4"
12S (N.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"
12S (S.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"
14S (N.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"
14S (S.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"
15S (N.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"
15S (S.B.L.)	-6.0	PP0432	46	12'-2"
		PP0440	13	47'-4 1/4"



SECTION A-A

SECTION B-B



PP0440 BENDING DIAGRAM

Note:  
Precast concrete pier protection to be used for piers 1S, 2S, 3S (S.B.L. only), 4S (S.B.L. only), 6S thru 12S, 14S and 15S.  
Contractor may propose cast in place concrete pier protection as a substitute for the precast concrete pier protection details shown.  
Column reinforcing not shown for clarity.

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

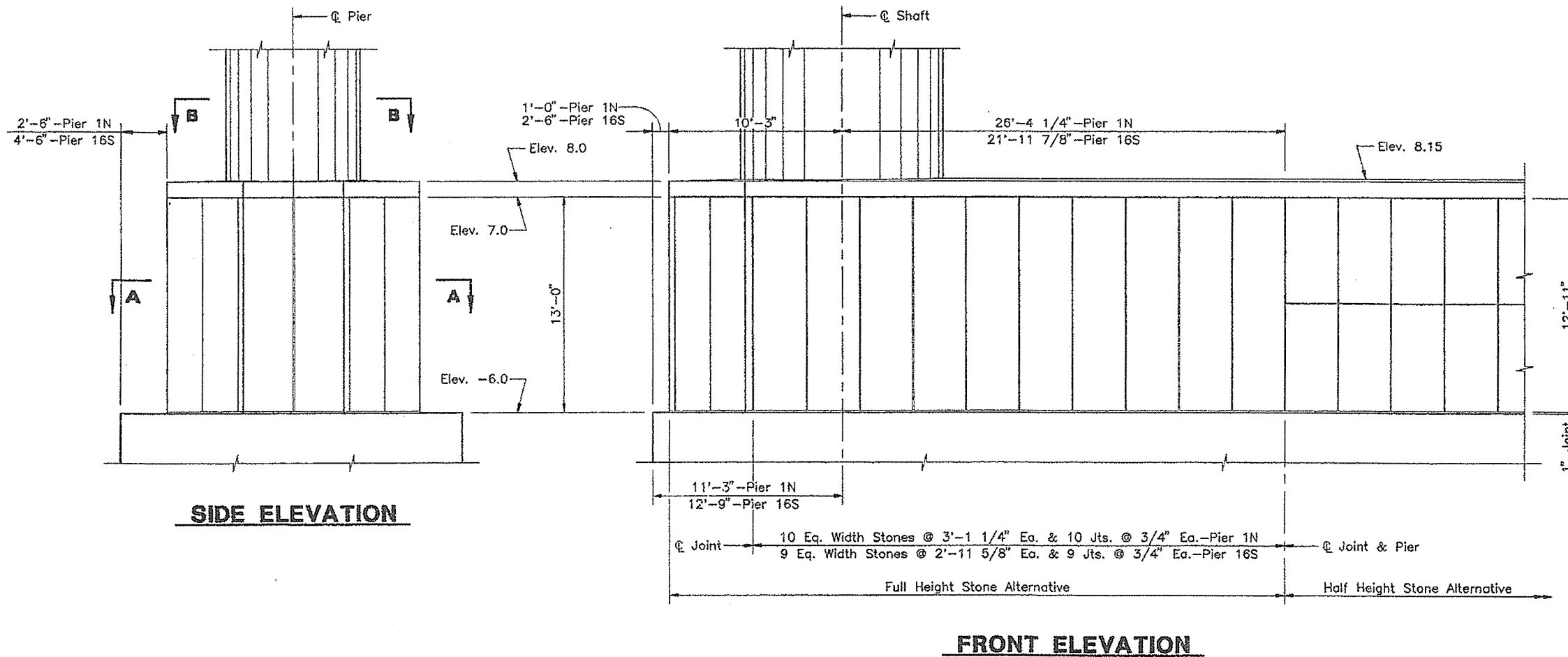
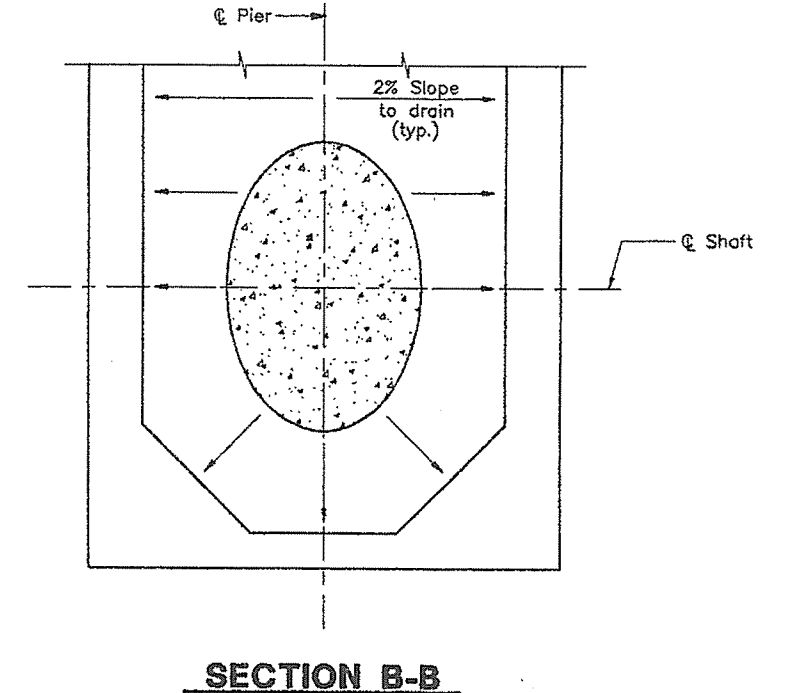
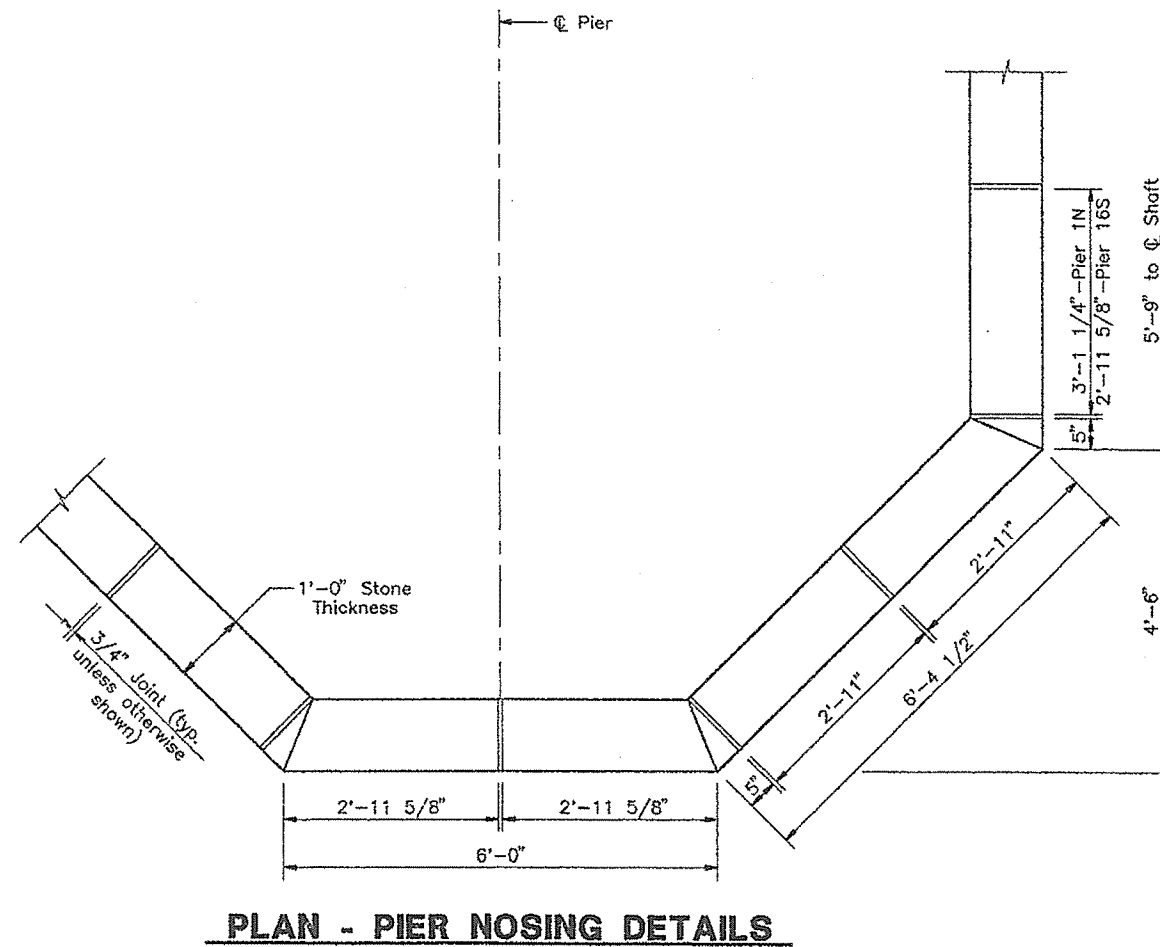
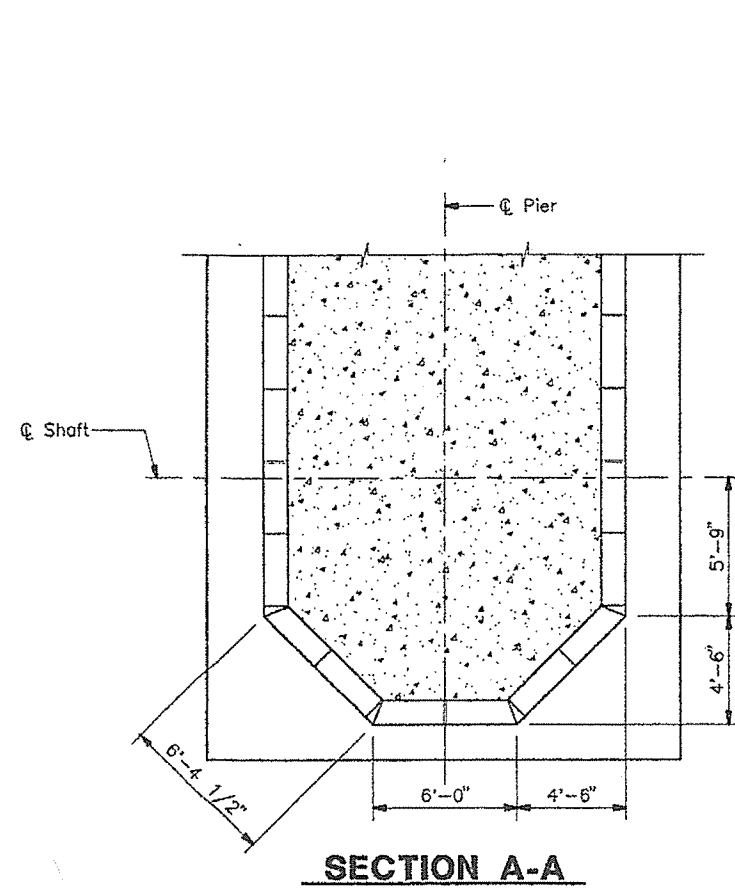
PORTLAND - S. PORTLAND BRIDGE

OVER FORE RIVER

CUMBERLAND COUNTY

PRECAST CONCRETE  
PIER PROTECTION

SHEET 219 OF 230 AUGUSTA, MAINE 6/17/94



STEEL ALTERNATIVE SUBSTRUCTURE

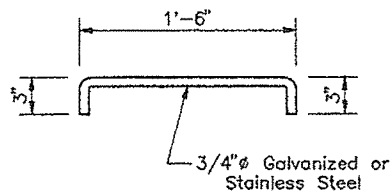
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORTLAND BRIDGE  
OVER FORE RIVER  
CUMBERLAND COUNTY

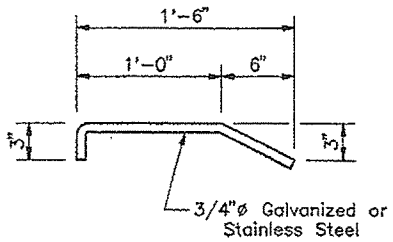
GRANITE PIER PROTECTION

SHEET 220 OF 330 AUGUSTA, MAINE 6/27/95

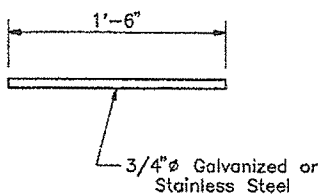




ANCHOR TYPE A

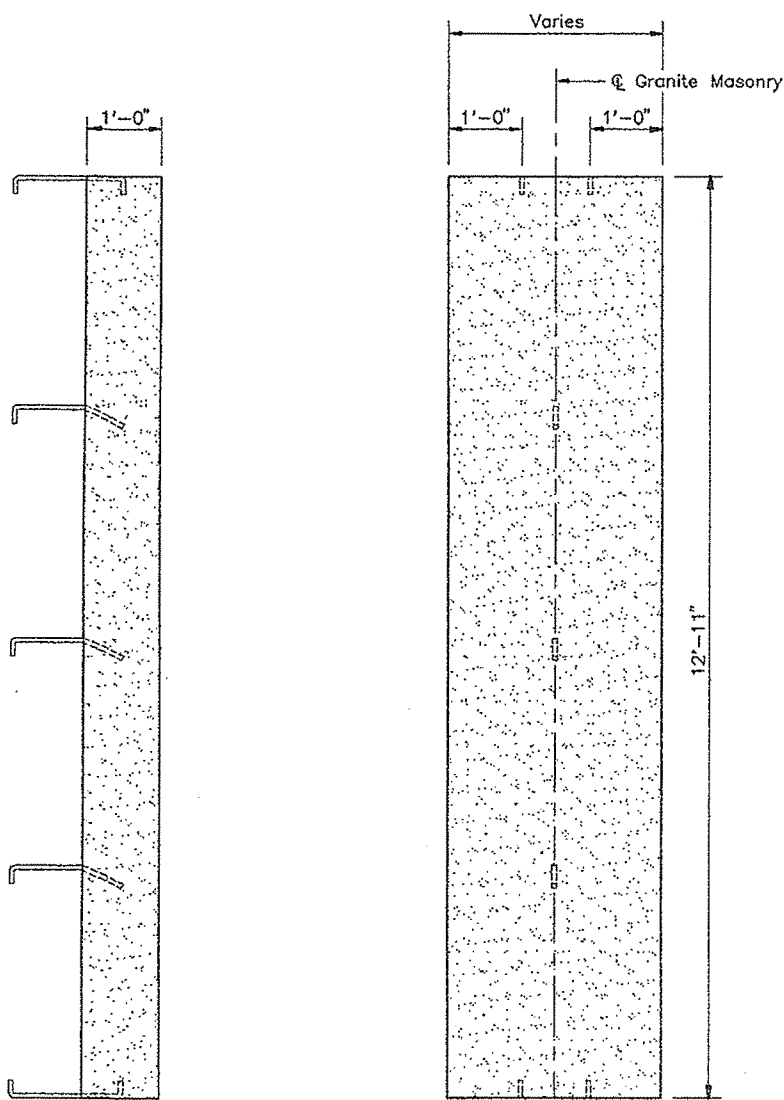


ANCHOR TYPE B



ANCHOR TYPE C

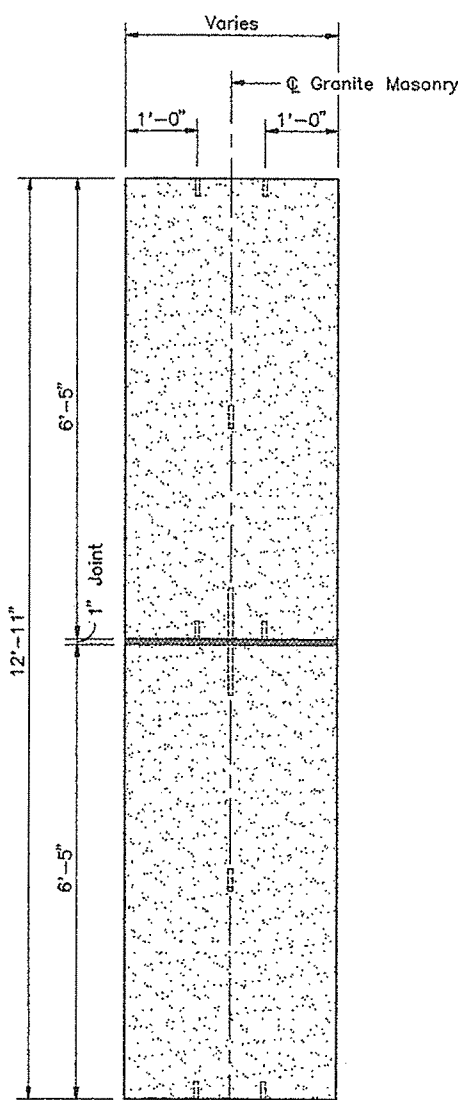
ANCHOR SCHEDULE				
LOCATION		TYPE A	TYPE B	TYPE C
Pier 1N	Full Height Stone Alt.	208	156	—
	Half Height Stone Alt.	312	104	52
Pier 16S	Full Height Stone Alt.	192	144	—
	Half Height Stone Alt.	288	96	48



SIDE VIEW

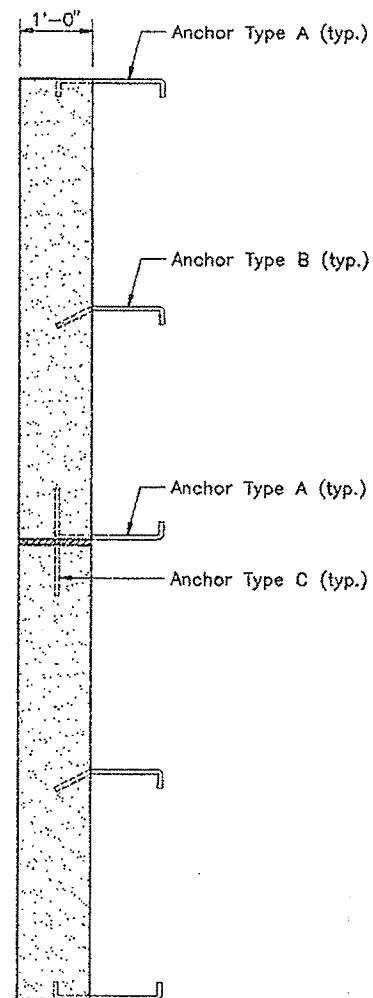
FRONT VIEW

FULL HEIGHT ALTERNATIVE

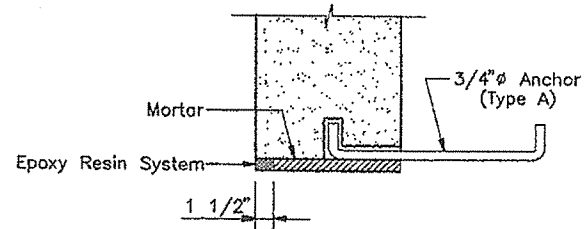


FRONT VIEW

HALF HEIGHT ALTERNATIVE



SIDE VIEW



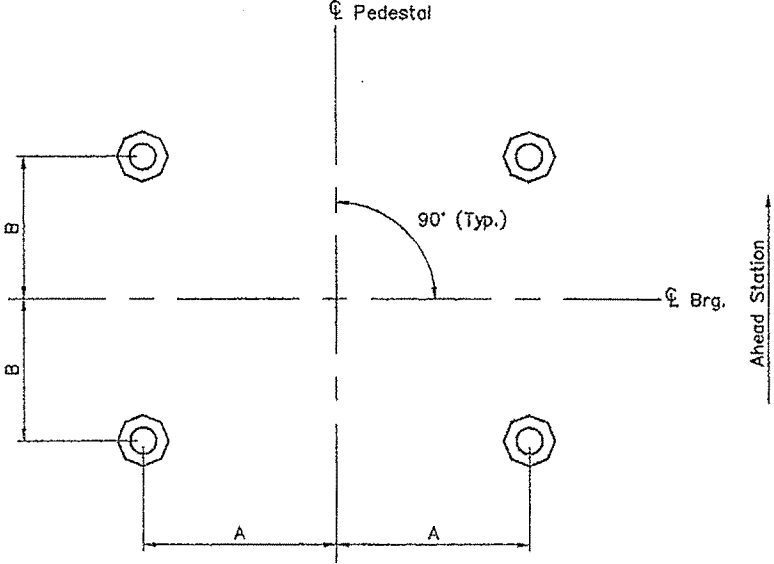
MORTAR JOINT/ANCHORAGE DETAIL

Note:  
Granite masonry shall be furnished and placed  
in accordance with standard specification 525.

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND BRIDGE OVER FORE RIVER CUMBERLAND COUNTY
GRANITE PIER PROTECTION
SHEET 222 OF 330 AUGUSTA, MAINE 6/17/90

LOCATION	A	B	ANCHOR BOLT DIAMETER	EMBEDMENT LENGTH
South Abutment	1'-7 1/2"	5 3/4"	2"	1'-8"
Pier 1S	2'-0"	9 1/2"	2 1/2"	2'-1"
Pier 2S	1'-9 1/2"	7 1/2"	3 1/4"	2'-9"
Pier 3S	2'-0"	9 1/2"	2 1/2"	2'-0"
Pier 4S (bak)	1'-7"	5 3/4"	2"	1'-8"
Pier 4S (ahd)	1'-7"	5 3/4"	2"	1'-8"
Pier 5S	2'-0"	9 3/4"	2 1/2"	2'-1"
Pier 6S	1'-10"	9"	2 1/2"	2'-1"
Pier 7S	1'-10"	8 3/4"	3"	2'-6"
Pier 8S	2'-0"	10"	2 1/2"	2'-1"
Pier 9S (bak)	1'-7"	5 1/2"	2"	1'-8"
Pier 9S (ahd)	1'-5 1/2"	5 1/2"	2"	1'-8"
Pier 10S	1'-11"	10"	2 1/2"	2'-1"
Pier 11S	1'-8"	8 3/4"	2 1/2"	2'-1"
Pier 12S	1'-11"	10"	2 1/2"	2'-1"
Pier 13S (bak)	1'-5 1/2"	5 1/2"	2"	1'-8"
Pier 13S (ahd)	1'-5 1/2"	5 1/2"	2"	1'-8"
Pier 14S	1'-11"	10"	2 1/2"	2'-1"
Pier 15S	1'-8"	8 1/2"	2 1/2"	2'-1"
Pier 16S	1'-11"	10"	2 1/2"	2'-1"
South Bascule	1'-5"	5"	2 1/2"	2'-1"
North Bascule	1'-5 1/2"	7 1/2"	2"	1'-8"
Pier 1N	1'-11"	11"	2 1/2"	2'-1"
Pier 2N	1'-9 1/2"	9 1/2"	3"	2'-6"
Pier 3N	2'-1"	11"	3"	2'-6"
Pier 4N (bak)	1'-6 1/2"	6 1/2"	2"	1'-8"
Pier 4N (ahd)	1'-7"	7"	2"	1'-8"
Pier 5N	2'-6"	1'-0 1/2"	3"	2'-6"
North Abutment Brg. # 1	1'-6"	6"	2 1/2"	2'-1"
North Abutment Brg. # 2	9 1/2"	0"	1 1/2"	1'-3"
North Abutment Brg. # 3	8 1/2"	0"	1 1/2"	1'-3"
Pier 1R (ahd)	1'-4"	4"	1 1/2"	1'-3"
Pier 2R	1'-5"	7"	1 1/2"	1'-3"
Pier 3R (bak)	1'-4"	4"	1 1/2"	1'-3"
Pier 3R (ahd)	1'-7 1/2"	4 1/4"	1 1/2"	1'-3"
Pier 4R	1'-8"	5 1/2"	1 1/2"	1'-3"
Pier 5R	1'-5"	5 1/2"	1 1/2"	1'-3"
Pier 6R (bak)	1'-5"	4 1/2"	1 1/2"	1'-3"
Pier 6R (ahd)	1'-10"	7"	1 1/2"	1'-3"



ANCHOR BOLT LAYOUT PLAN

- Notes:
- Contractor shall be aware that anchor bolts for pot bearings will be drilled and grouted by others according to the given dimensions. Contractor shall provide adequate clearance for reinforcing bars to avoid cutting of bars during drilling operation.
  - Contractor shall dress each pedestal over the area given above as 2A x 2B plus 5" all around to the exact elevation as shown in these plans or as determined by the Engineer.

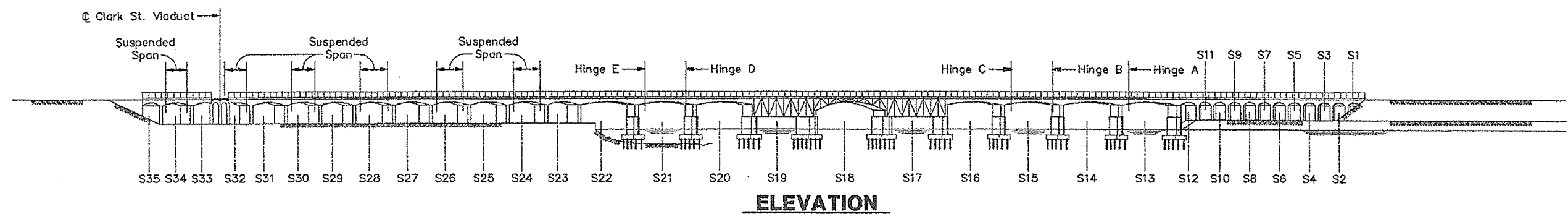
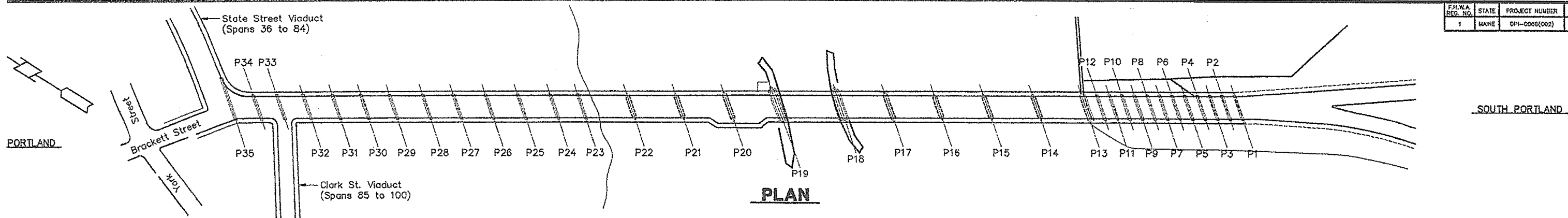
STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORTLAND BRIDGE  
OVER FORE RIVER  
CUMBERLAND COUNTY

BEARING ANCHOR  
BOLT LAYOUT

SHEET 223 OF 338 AUGUSTA, MAINE 10/27/94



EXISTING BRIDGE DEMOLITION SCHEDULE (AREAS OF INTERFERENCE WITH NEW BRIDGE CONSTRUCTION)		
SECTION	BRIDGE LOCATION AND TYPE	BRIDGE REMOVAL
1	Spans S4, S5 & S6 at South end of project. Concrete girders with arch fascias. Three-column bents, 25 ft. spans, 44 ft. roadway with 8 ft. sidewalks on each side. Footings with timber piles.	Remove spans S4, S5 & S6, and piers P5 & P6 for construction of new Pier 14S. Traffic to be maintained on temporary bridge. Superstructure removal between expansion joints at Piers P4 and P7. Demolition work is on land. Disposal is to Harborview Park at North end of project.
2	State Street Viaduct at North end of project. Spans 65 thru 84 to be removed. (21 spans at 12'-3" = 257'-3"). Concrete slab bridge on side slope. Arch fascia wall on pedestal footings on South side. Gravity retaining wall on north side to Pier 70. 44 ft. roadway with 8 ft. sidewalks on each side.	Remove spans 65 to 84 for construction of new bridge. Entire viaduct to be closed. Demolition work is on land. Disposal is to Harborview Park.

Note:  
Refer to special provision for instructions regarding the disposal of materials.

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

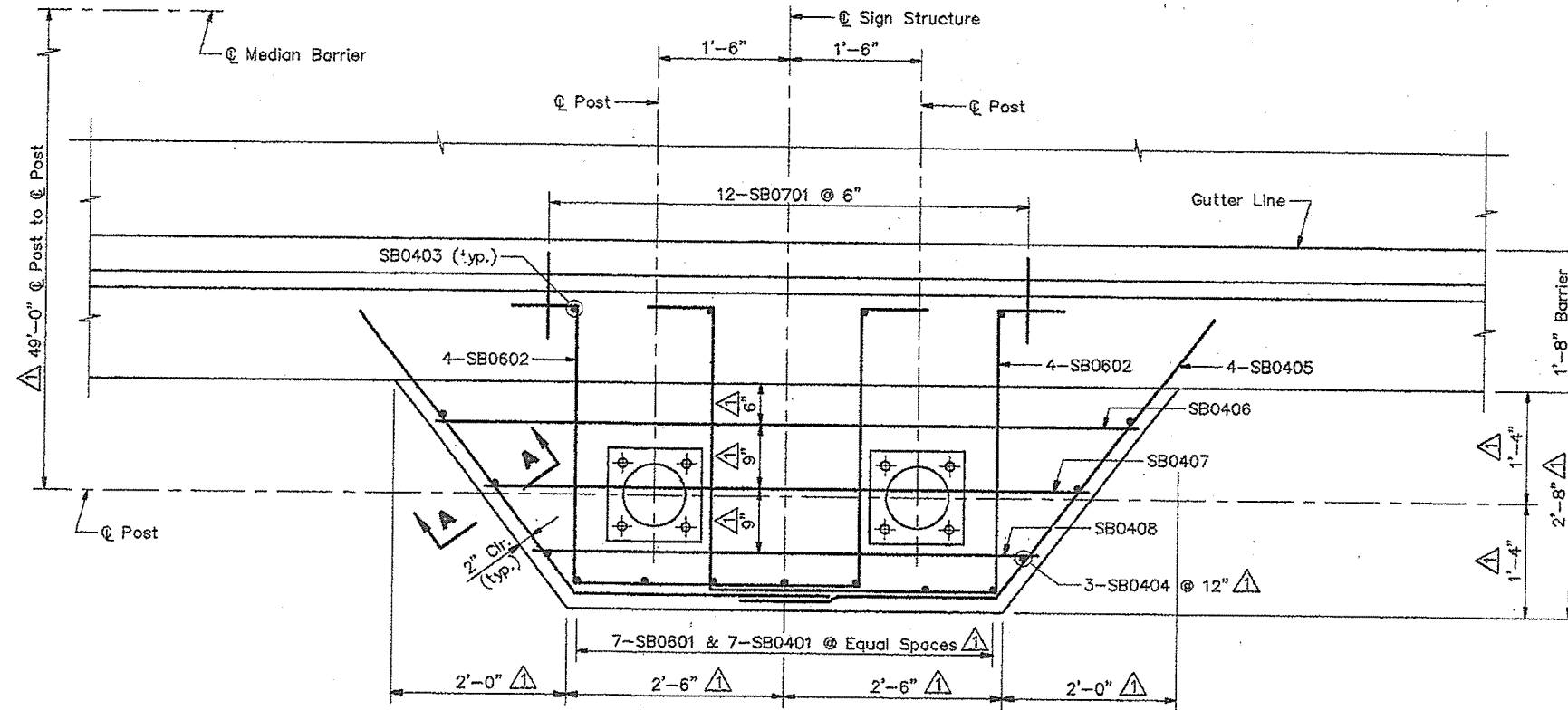
PORTLAND - S. PORTLAND BRIDGE

OVER FORE RIVER

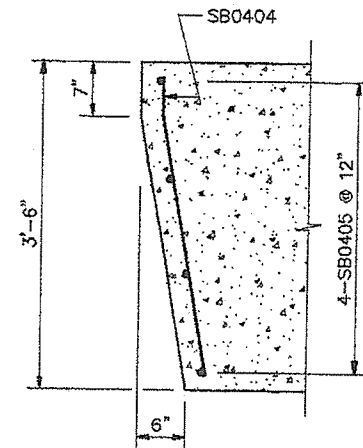
CUMBERLAND COUNTY

EXISTING BRIDGE  
DEMOLITION SCHEDULE

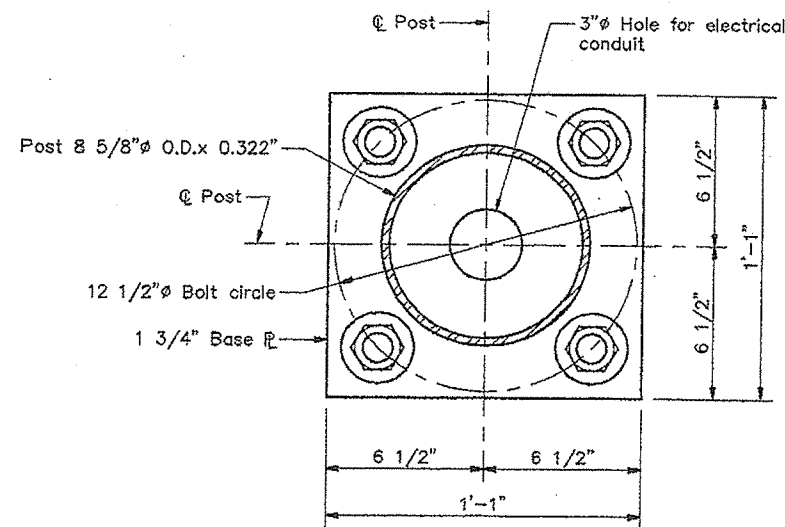
SHEET 224 OF 338 AUGUSTA, MAINE 6/27/94



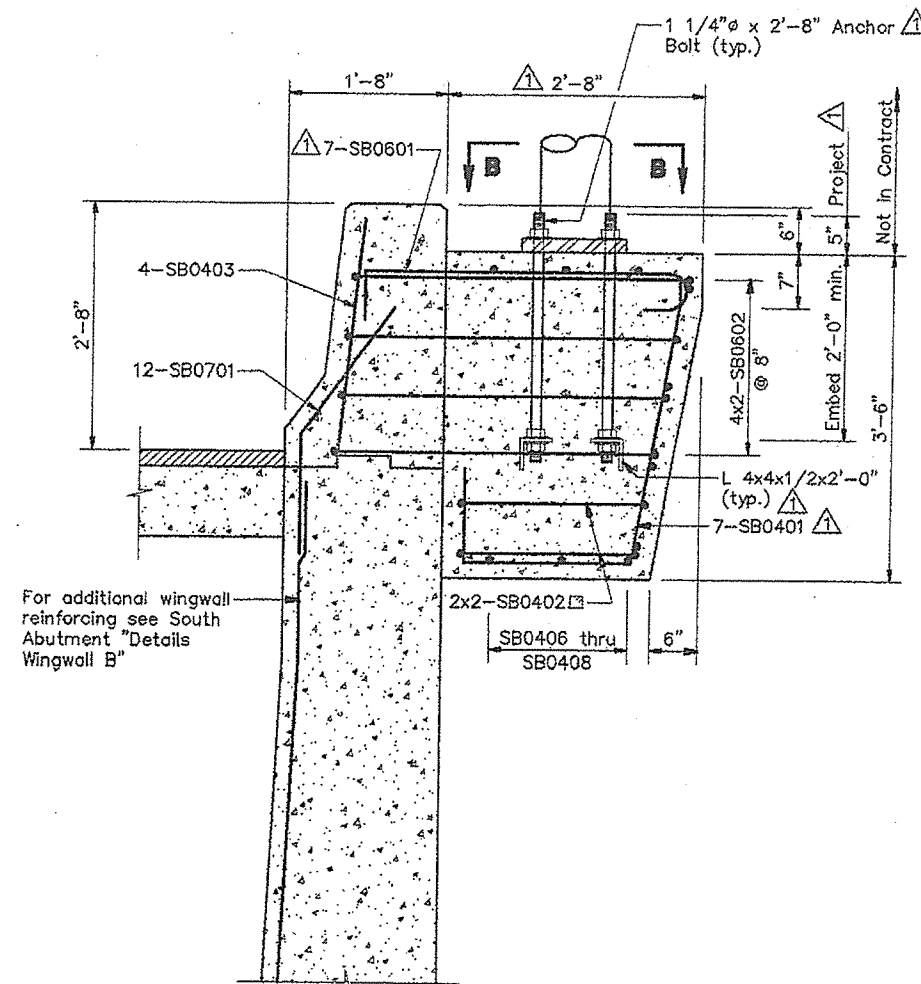
**PLAN AT WINGWALL B** ⚠



**SECTION A-A**



**VIEW B-B** ⚠



**SECTION AT WINGWALL B**

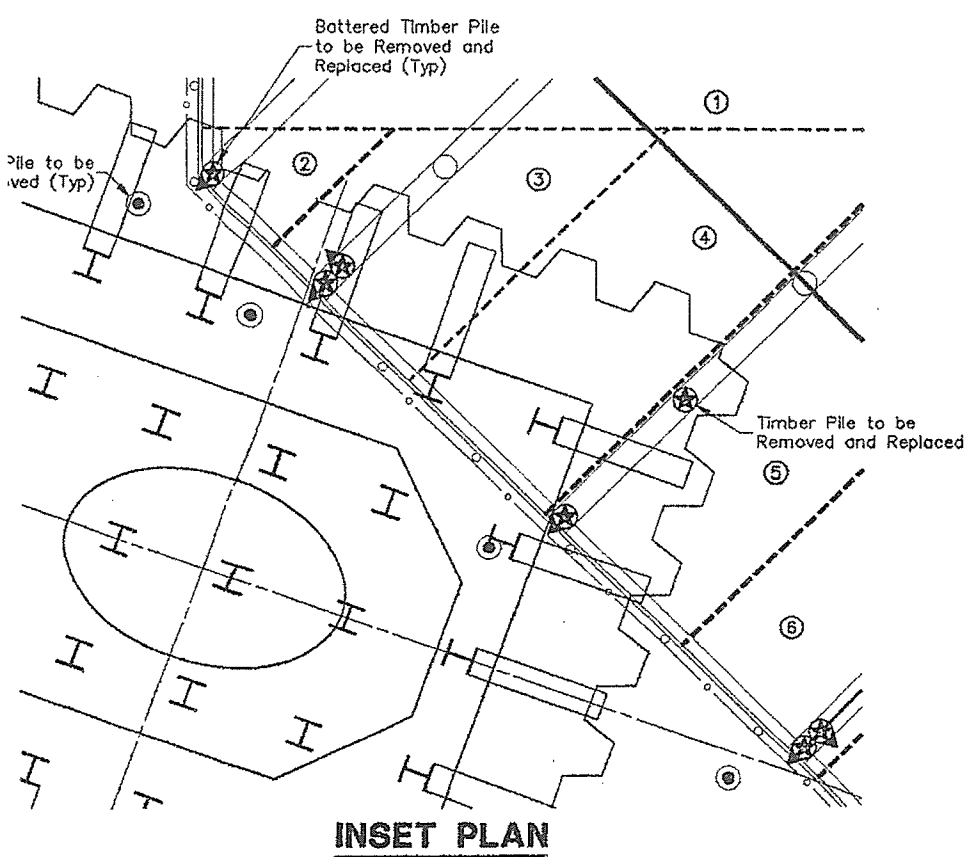
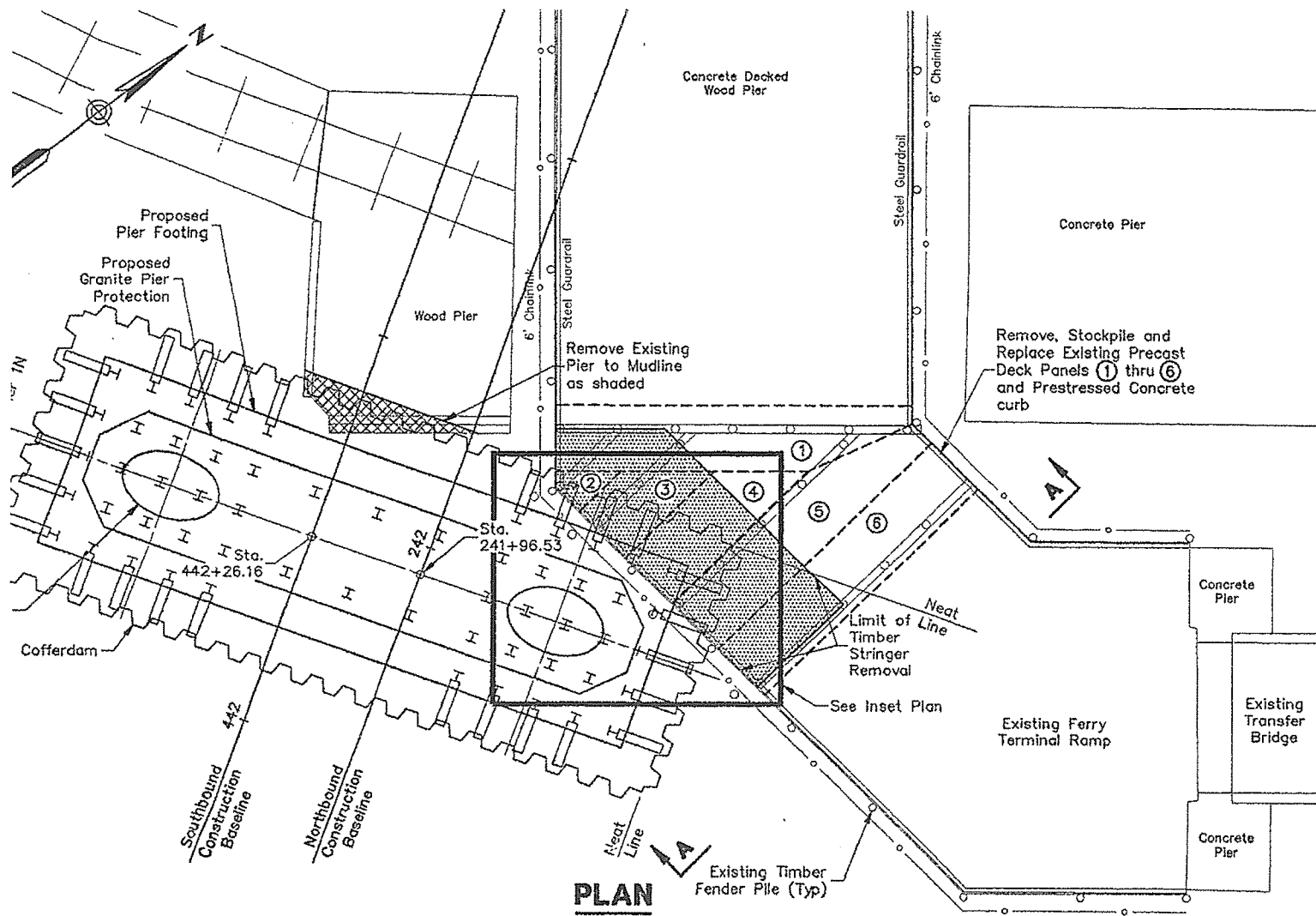
⚠ Revise station. Move support to median barrier 7/25/94  
See Addendum # 2

Notes:  
For sign structure support location at South Abutment see "Details Wingwall B".  
Sign structure supports shall be mounted plumb.

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**PORTLAND - S. PORTLAND BRIDGE  
OVER FORE RIVER  
CUMBERLAND COUNTY**  
**OVERHEAD SIGN STRUCTURE  
SUPPORT DETAILS  
STA. 406+45.00** ⚠

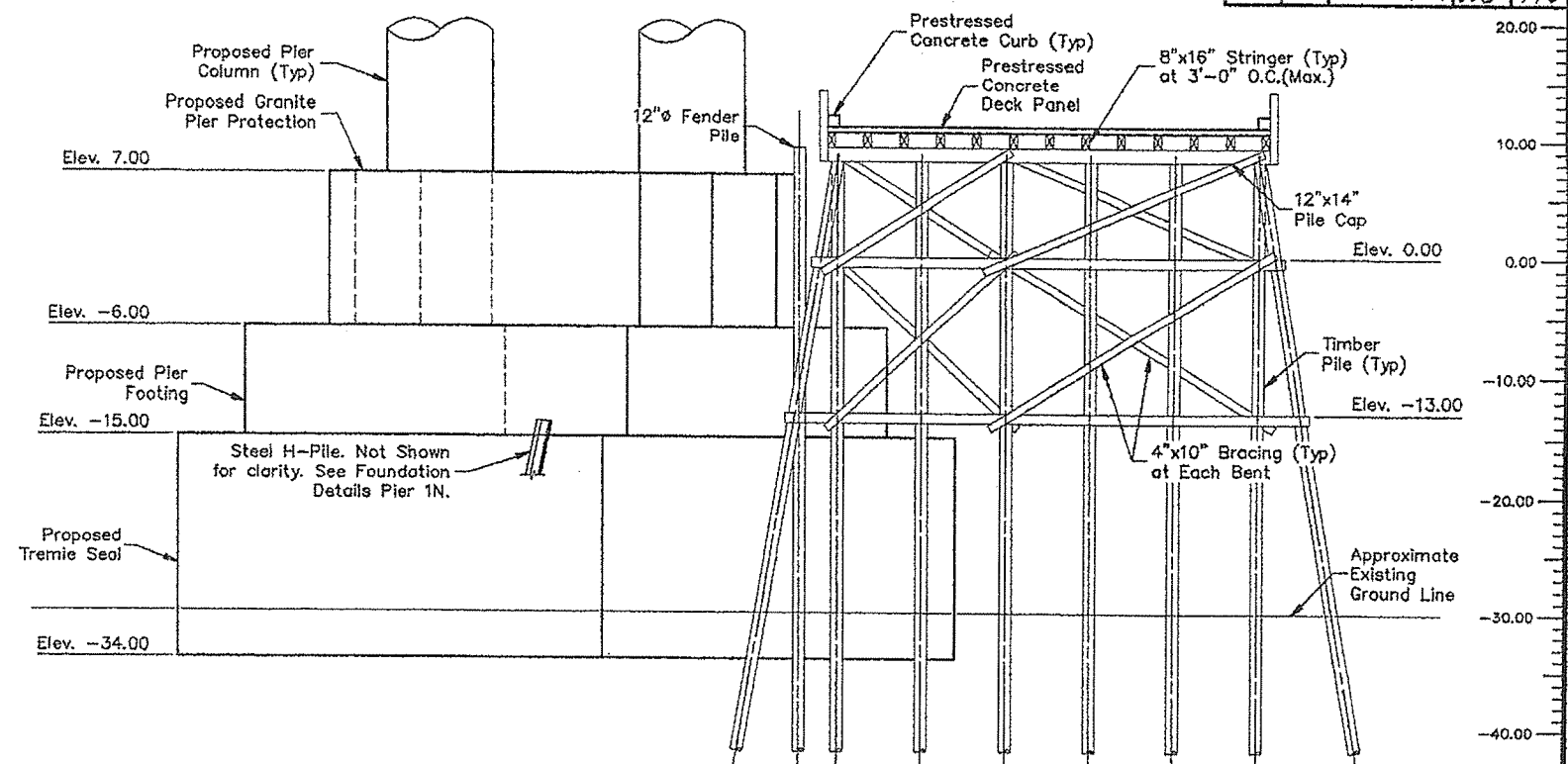




MATERIAL SCHEDULE					
MATERIALS TO BE REMOVED			REPLACEMENT MATERIALS		
Description	Unit	Qty	Description	Unit	Qty
Precast Concrete Deck (8'-0" Wide; 7 1/2" Thick; Length Varies)	SF	1150	Existing Precast Deck w/New Fasteners	SF	1150
Precast Concrete Curb	LF	60	Existing Curb w/New Fasteners	LF	60
Guard Rail	LF	60	New Guardrail (Type 3)	LF	60
Chain Link Fence	LF	60	New Chainlink Fence	LF	60
Timber Piles	EA	11	New Timber Piles	EA	7
4"x10" Bracing	LF	440	New Timber Stringer	LF	160
8"x16" Stringer	LF	160	New Timber Bracing	LF	440
12"x14" Pile Cap	LF	30	New Timber Pile Cap	LF	40
Existing Timber Pier Demolition to Mudline	SF	800	Pile Support Socket	EA	5
			Joint/Pocket Sealant and Backer Rod (2 Part flow-able, marine application)	As Required	

TIMBER SPECIFICATION

- Timber Piles (65 ft length) unless supported on tremie
  - Southern pine to ASTM D25 and ASTM D2899
  - 2.5 lbs/CF CCA retention
  - Minimum tip circumference 25"
  - Piles shall be driven to refusal of 1 1/2"/5 blows of the hammer, based on hammer capacity of 15000 ft/lbs and weight of hammer equal to weight of pile being driven. Where pile bearing is on tremie concrete refer to detail.
- Pile Cap (12" x 14")
  - Southern yellow pine No. 1SR; S4S; 1.0 lbs/CF CCA retention.
  - Splice with 4" x 10" material in accordance with splice detail.
- Stringers/Bracing (8" x 16") (4" x 10")
  - Southern yellow pine No. 1SR; S4S; 1.0 lbs/CF CCA retention.



SECTION A-A

GENERAL NOTES

- Access to, dismantling of, and reconstruction of the existing Ferry Pier in order to accommodate pier construction is subject to Ferry Terminal operation requirements. Refer to specifications. Special Provision Section 108 - Prosecution and Progress, Construction Constraints.
- The contractor is required to use new materials for the reconstruction of the timber pier following placement of pier 1N unless otherwise noted in accordance with the material schedule provided.
- All existing material to be reused shall be carefully removed and temporarily stored in a manner to prevent damage prior to replacement.
- All existing material which will not be reused shall be removed from the site and disposed of in accordance with applicable Federal and State regulations.
- Existing pier construction information obtained from the following sources:
  - Harriman/Jordan/Associated; Portland International Ferry Terminal Marine Facilities; "Vehicle Dock Plan & Details"; Sht 4 of 18; 7 Jan 70
  - Childs Engineering Corps; International Ferry Terminal; "Access Pier and Transfer Bridge, Existing Conditions"; Aug 1986
  - TEC Associates; Portland International Ferry Terminal; "IFT Ramp Repair"; C-1; 1993
- All fasteners shall be galvanized to ASTM A-128 or A-153. N.Y. Dock Dept. washers to be used at all timber bolted connections. Use 3/4" diameter bolts unless otherwise noted.
- Where no details are provided, the replacement structure shall meet or exceed the original design standards of the dock construction.
- Replacement fender piles are not required within the footprint of the proposed Pier 1N footing.
- All timber field cuts shall be treated with 2 coats of brush applied preservative treatment.

SEQUENCE OF CONSTRUCTION AND METHOD OF PAYMENT

- The construction sequence for the work is as follows:
  - Dismantle existing piers to the extent shown providing temporary support where required.
  - Install cofferdam and drive piles for bridge Pier 1N placement. Place tremie seal.
  - Timber pier reconstruction may be undertaken in tandem with footing placement. This will require cofferdam sheeting to be cut flush with tremie seal at completion of bridge pier construction.
  - Blocking may be required to achieve level stringer alignment prior to replacement of precast deck construction. Blocking material must be preapproved prior to use.
  - Install joint/pocket sealant system at completion of reconstruction.
- Dismantling of existing piers and reconstruction in accordance with the material schedule provided shall be incidental to other work.

STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

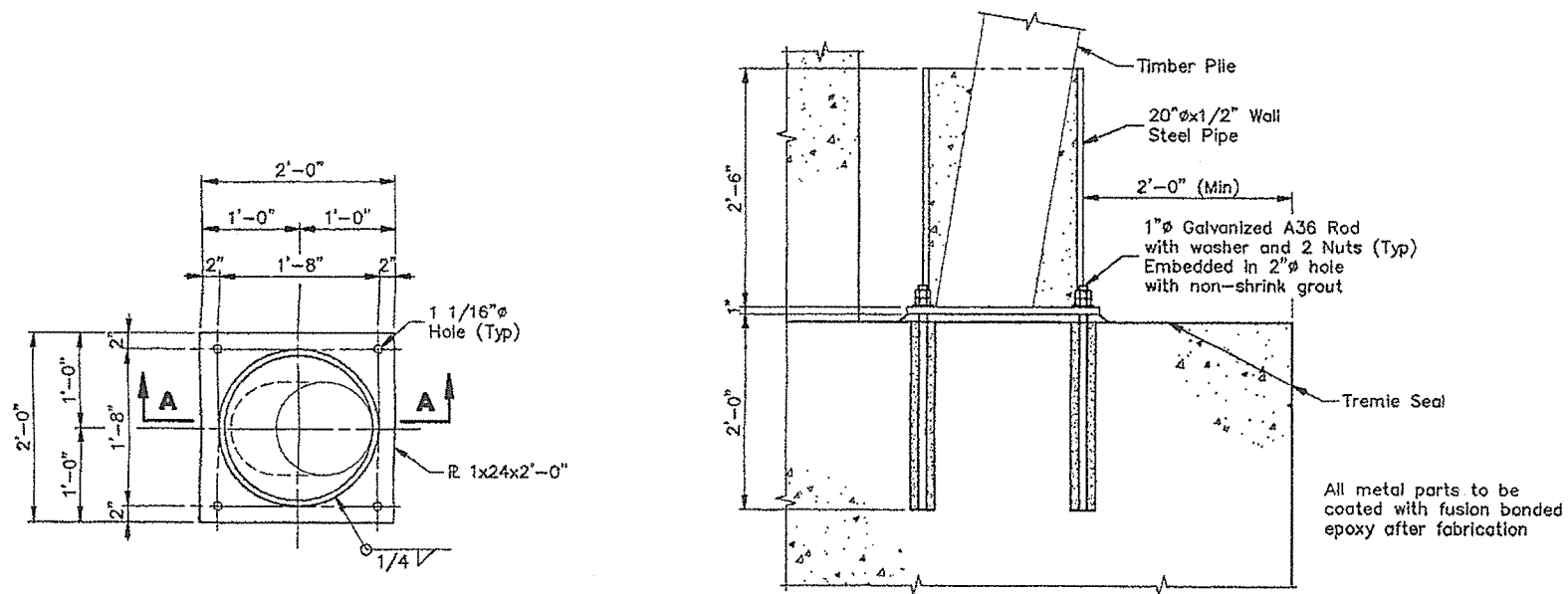
**PORTLAND - S. PORTLAND BRIDGE**

**OVER FORE RIVER**

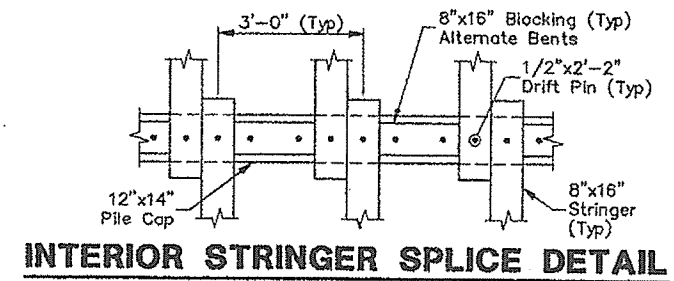
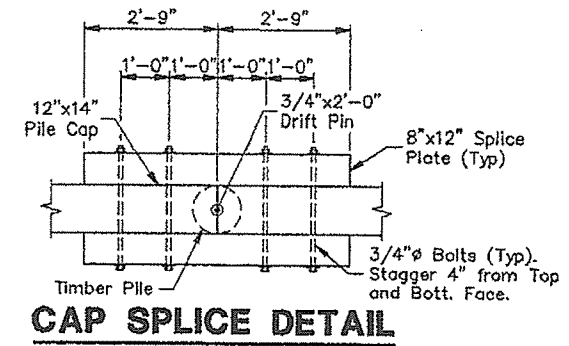
**CUMBERLAND COUNTY**

**PIER 1N IMPACT TO FERRY TERMINAL RAMP**

SHEET 226 OF 338 AUGUSTA, MAINE 6/94



**PILE SUPPORT ON FOUNDATION**  
 (5 Required)



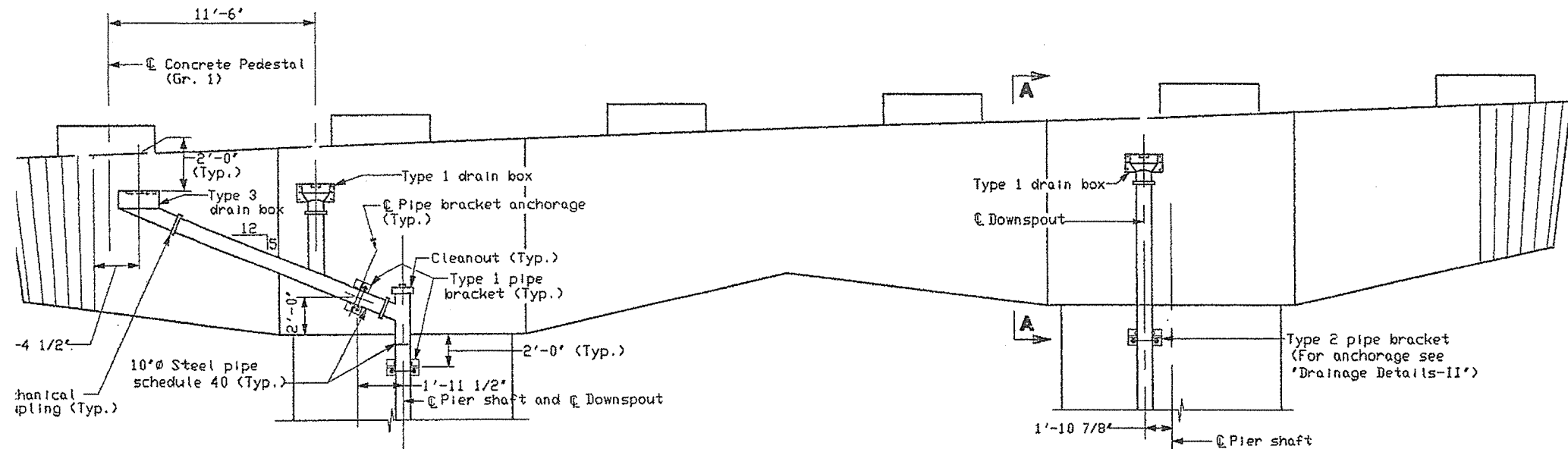
STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION

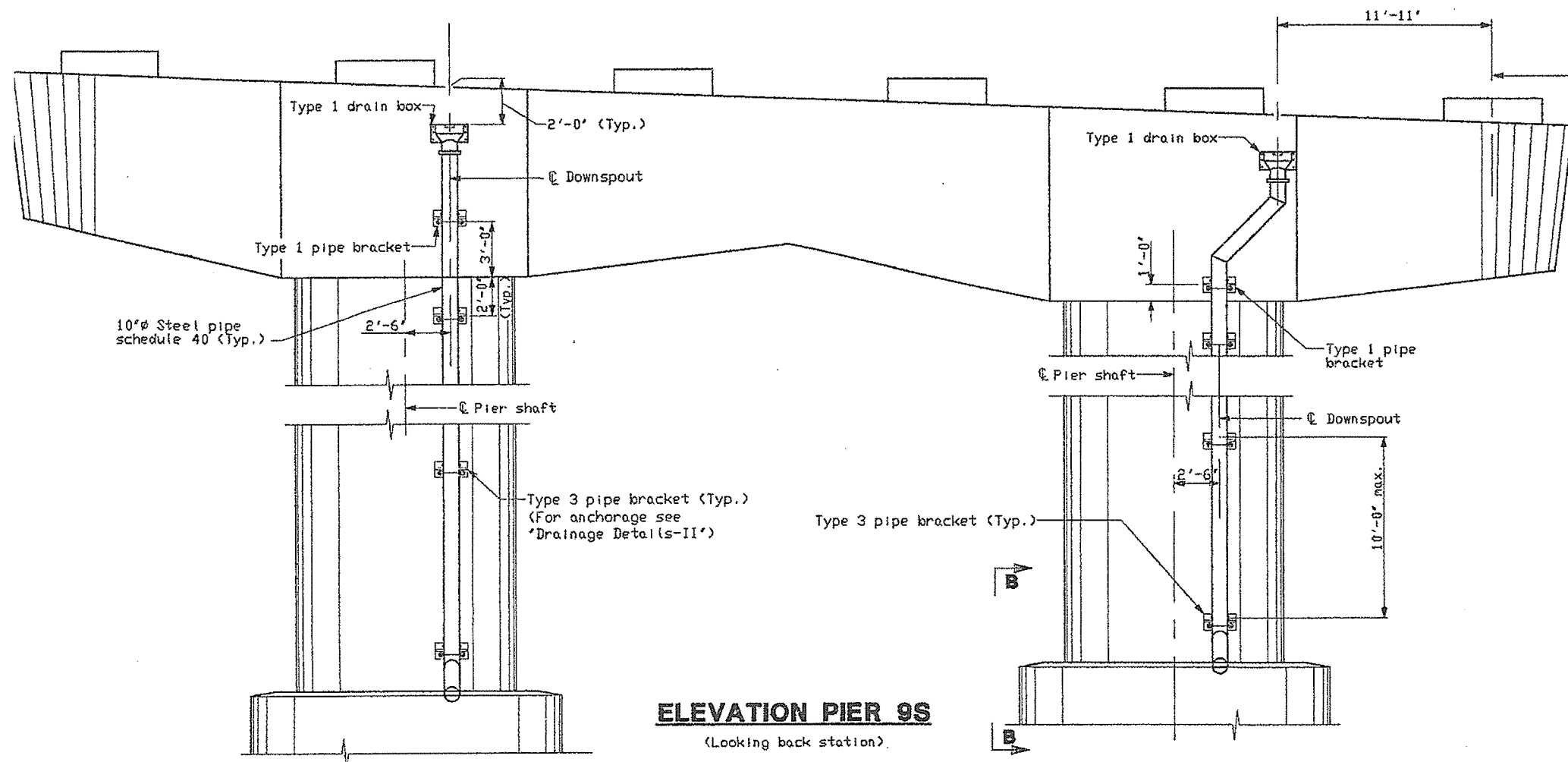
**PORTLAND - S. PORTLAND BRIDGE**  
**OVER FORE RIVER**  
**CUMBERLAND COUNTY**

**PIER 1N IMPACT  
 DETAILS**

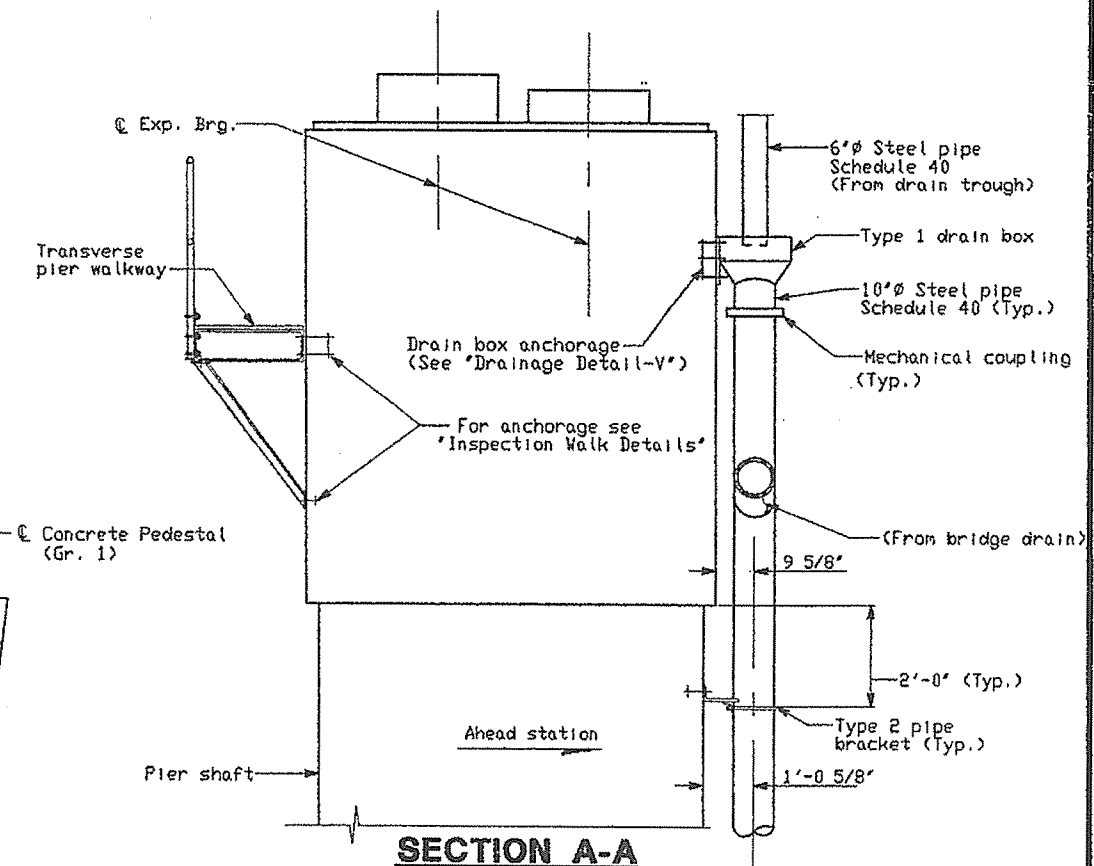
SHEET 27 OF 77 AUGUSTA, MAINE 6/99



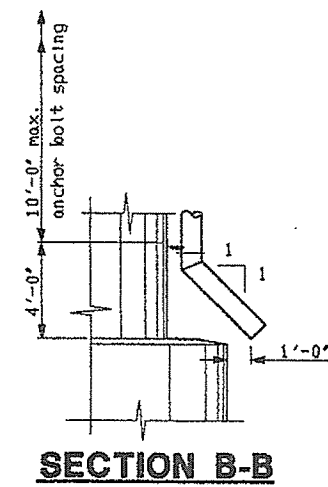
**ELEVATION PIER 4S**  
(Looking back station)



**ELEVATION PIER 9S**  
(Looking back station)



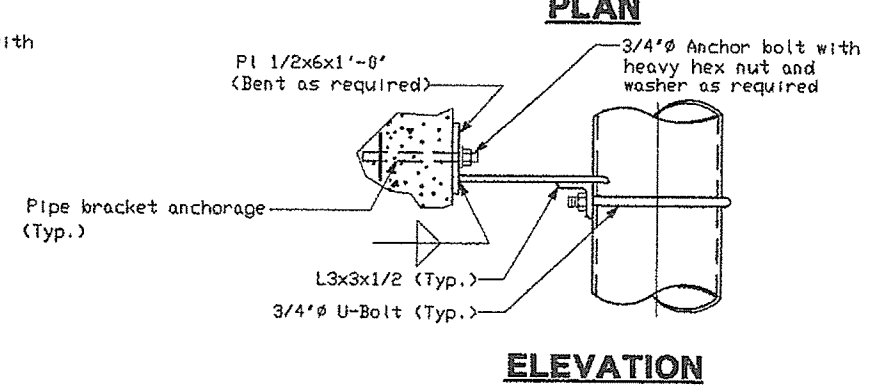
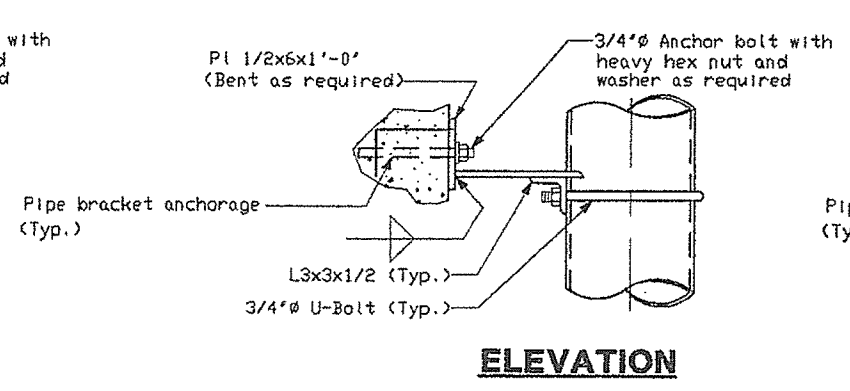
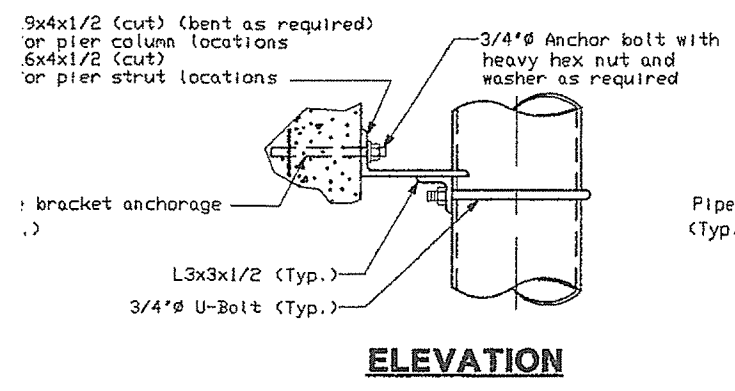
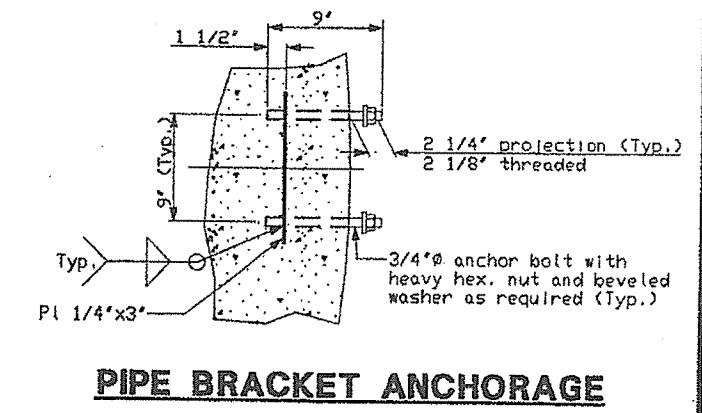
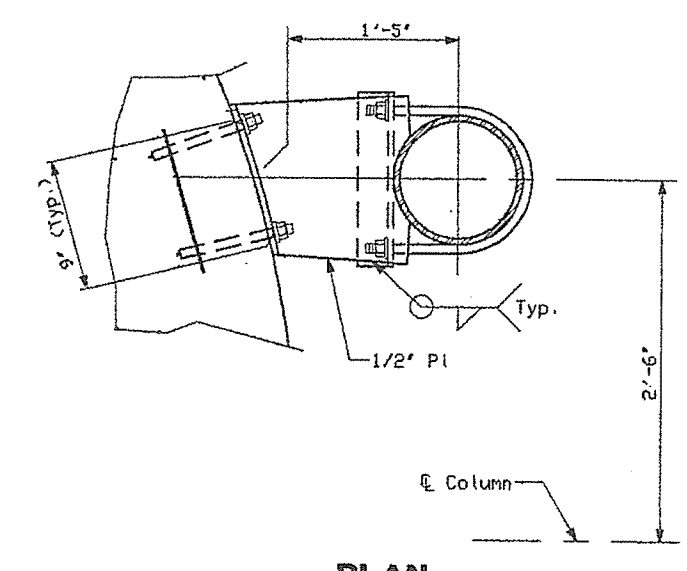
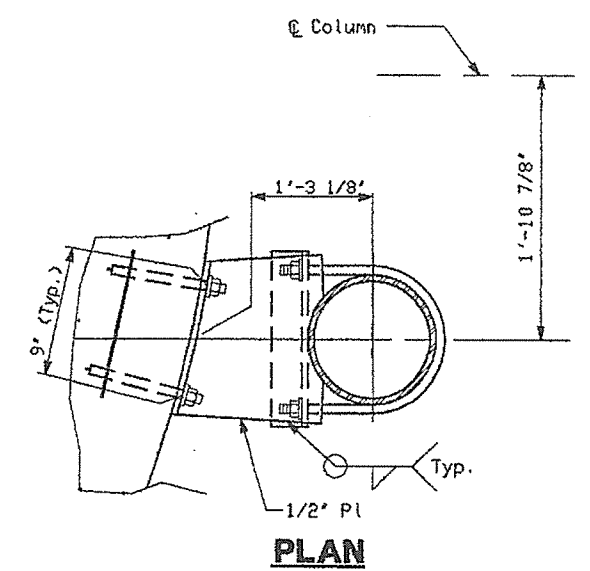
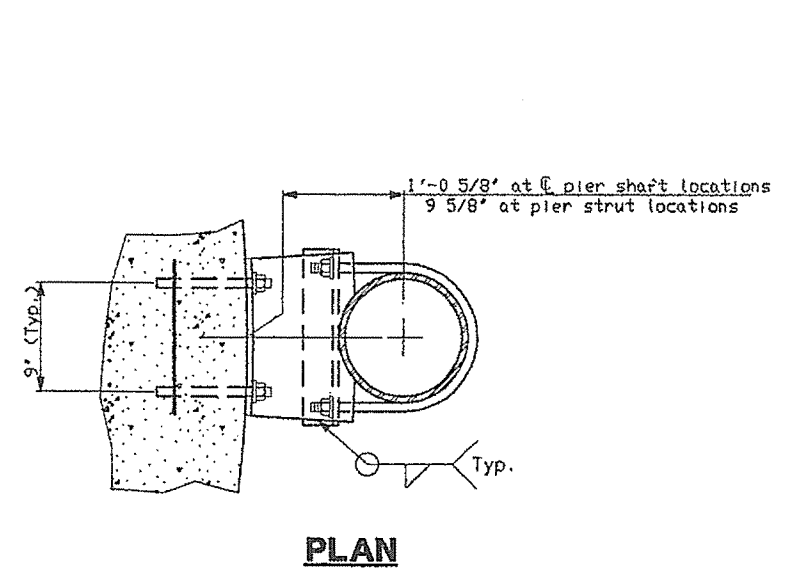
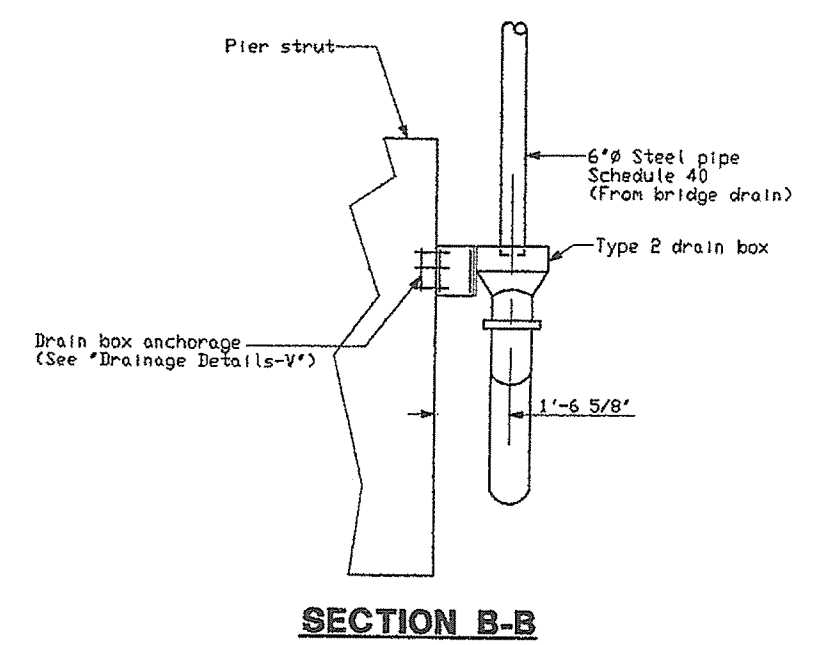
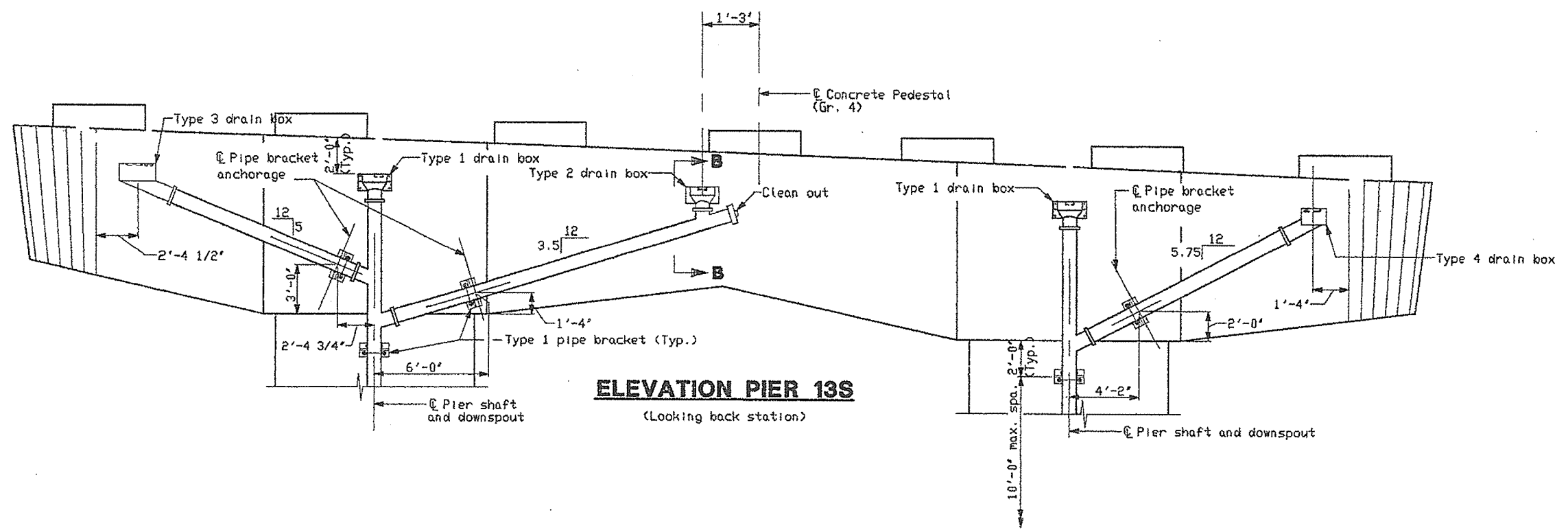
**SECTION A-A**



**SECTION B-B**

NOTES:  
All drain boxes and anchoring hardware shall be galvanized M183, unless noted.  
Transverse and longitudinal walkways not shown.  
Piping shall be A53, galvanized.  
Only anchorages for support of drainpipe, drain boxes and inspection walkway are included in this contract.

STEEL ALTERNATIVE SUBSTRUCTURE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
<b>PORTLAND - S. PORTLAND BRIDGE</b>
<b>OVER FORE RIVER</b>
<b>CUMBERLAND COUNTY</b>
<b>DRAINAGE DETAILS - I</b>
SHEET 228 OF 398 AUGUSTA, MAINE 6/28/94



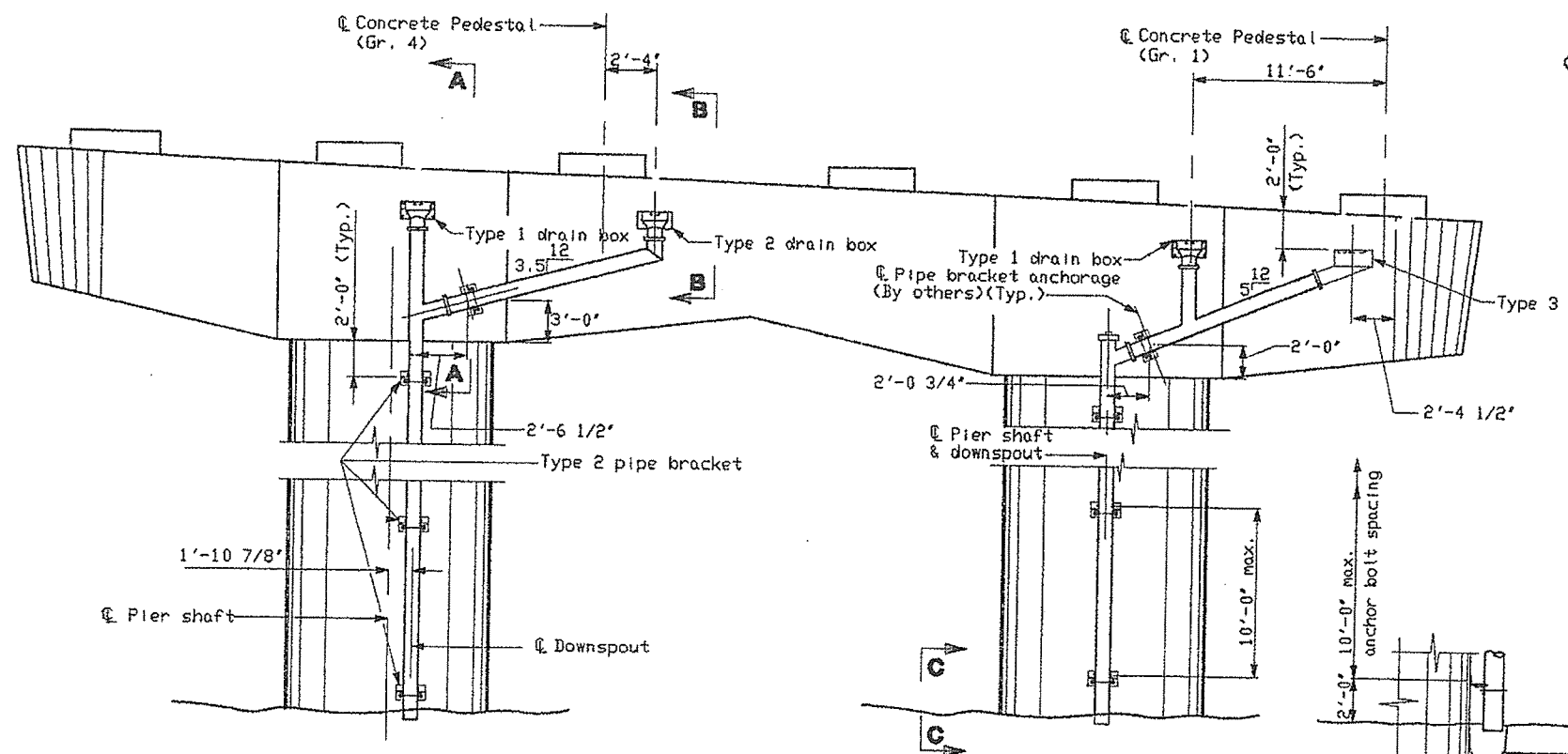
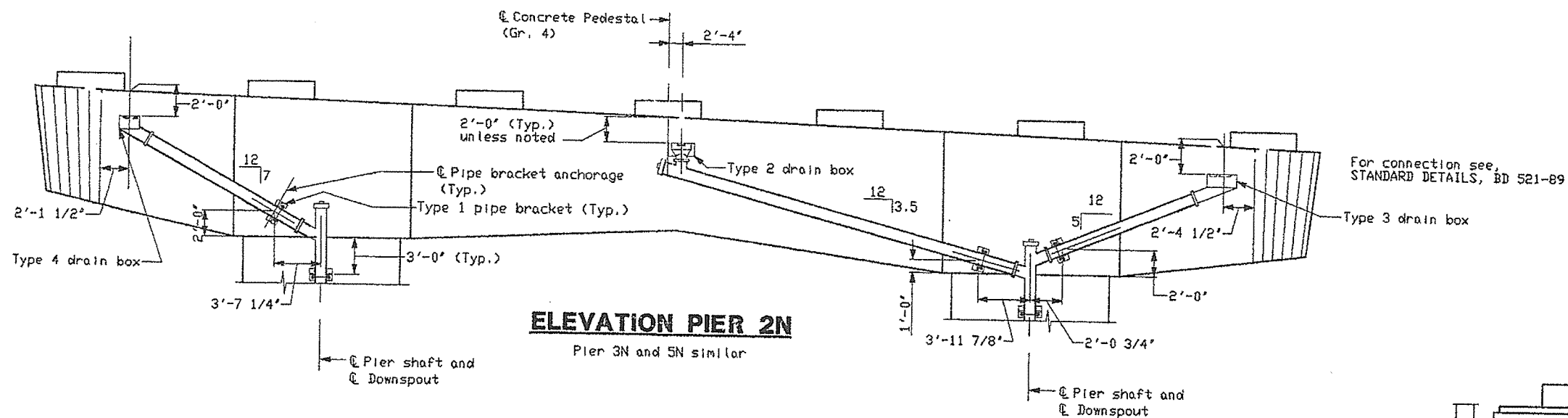
**TYPE 1 PIPE BRACKET DETAIL**

**TYPE 2 PIPE BRACKET DETAIL**

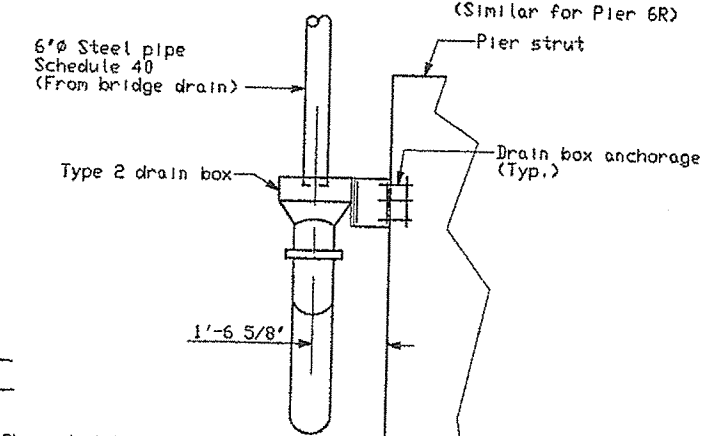
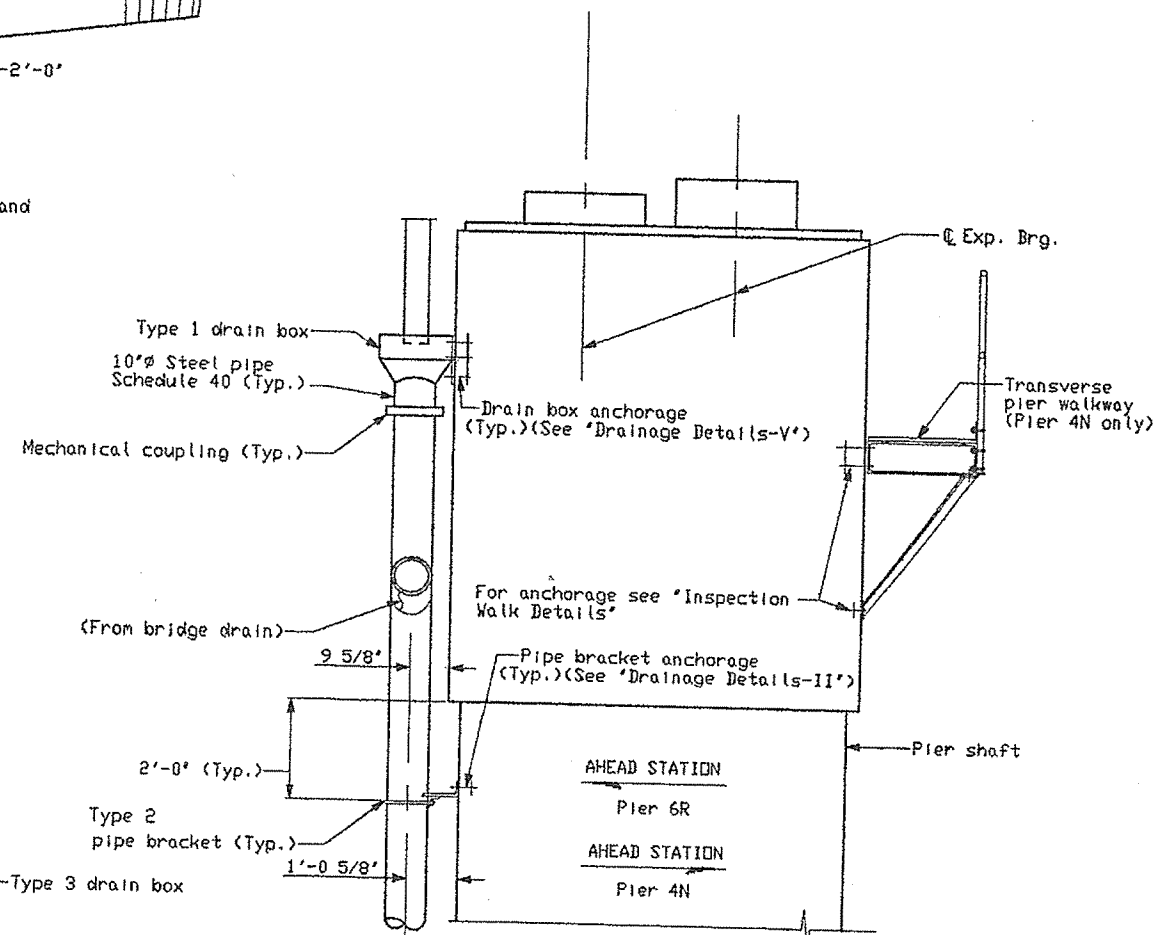
**TYPE 3 PIPE BRACKET DETAIL**

NOTES:  
See DRAINAGE DETAILS - I.

STEEL ALTERNATIVE SUBSTRUCTURE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
<b>PORTLAND - S. PORTLAND BRIDGE</b>
<b>OVER FORE RIVER</b>
<b>CUMBERLAND COUNTY</b>
<b>DRAINAGE DETAILS - II</b>
SHEET 229 OF 238 AUGUSTA, MAINE 6/20/94

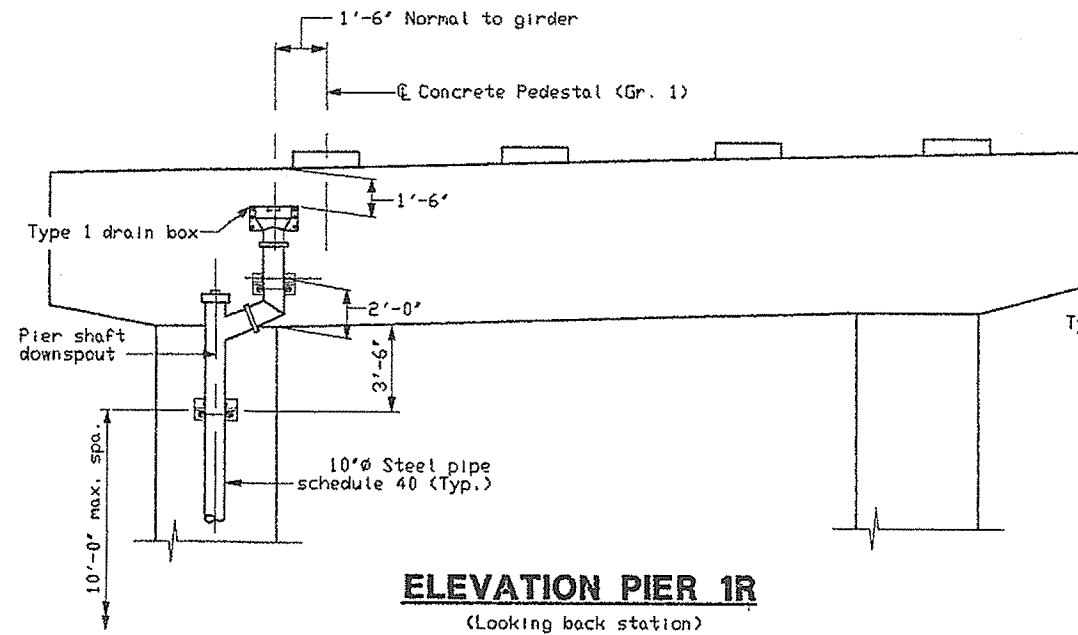


**SECTION C-C**  
(Typical detail, all land piers)

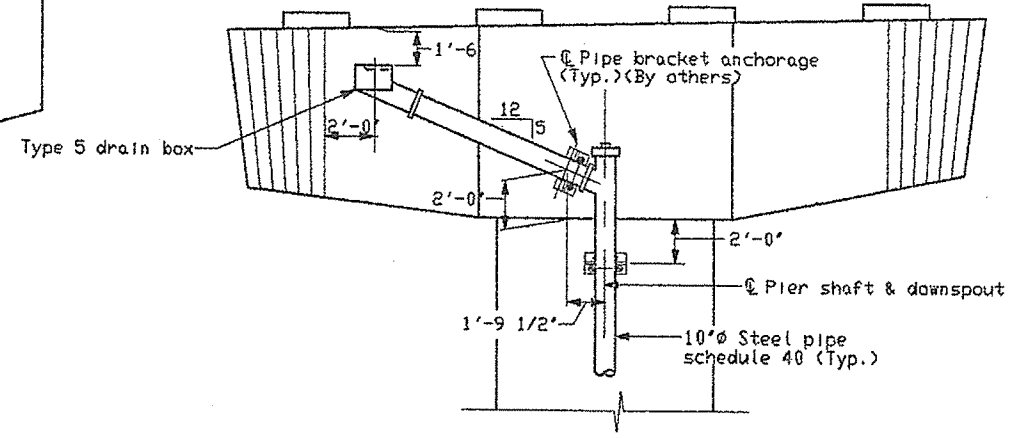


NOTES:  
See DRAINAGE DETAILS - I

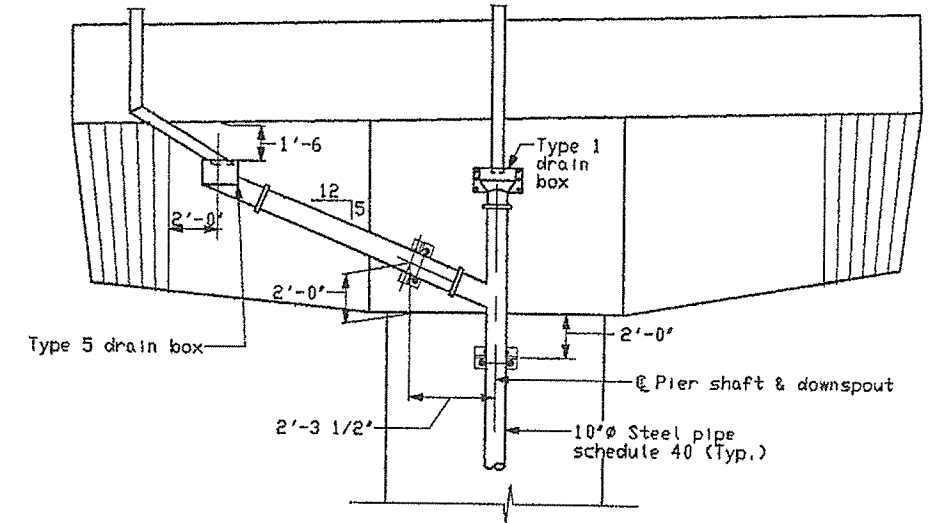
STEEL ALTERNATIVE SUBSTRUCTURE  
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**PORTLAND - S. PORTLAND BRIDGE**  
OVER FORE RIVER  
CUMBERLAND COUNTY  
**DRAINAGE DETAILS - III**



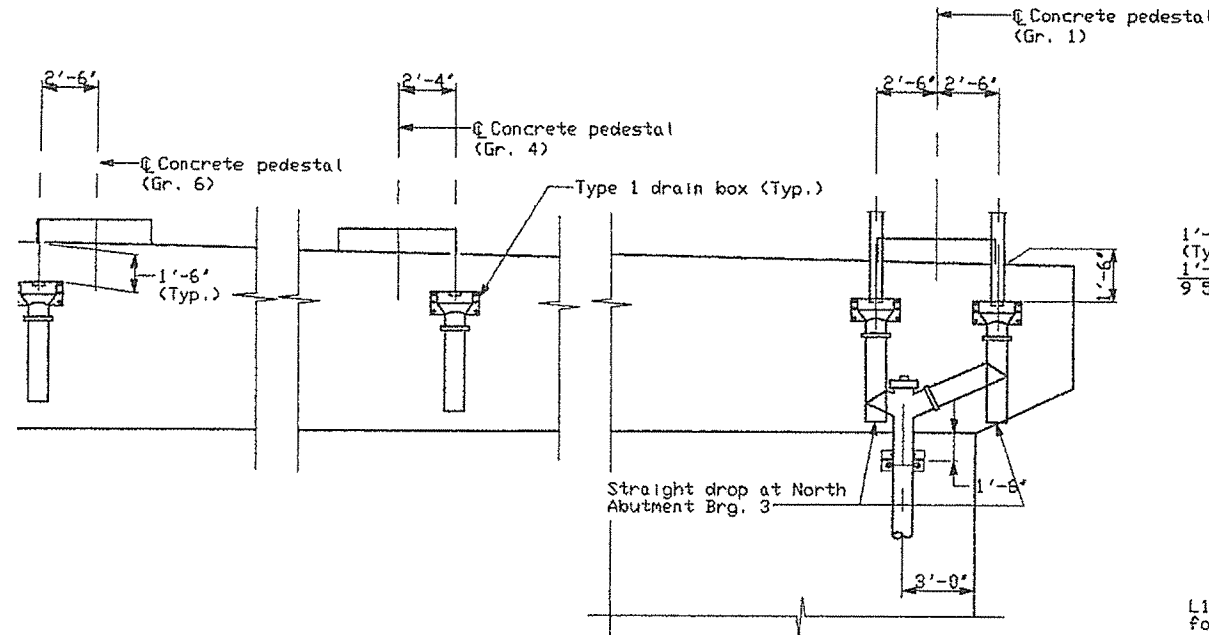
**ELEVATION PIER 1R**  
(Looking back station)



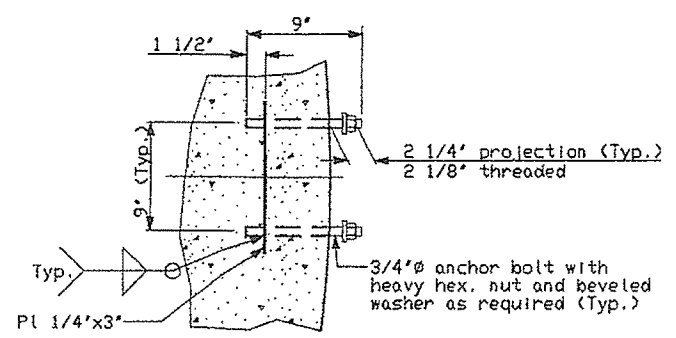
**ELEVATION PIER 3R**  
Pier 5R similar  
(Looking back station)



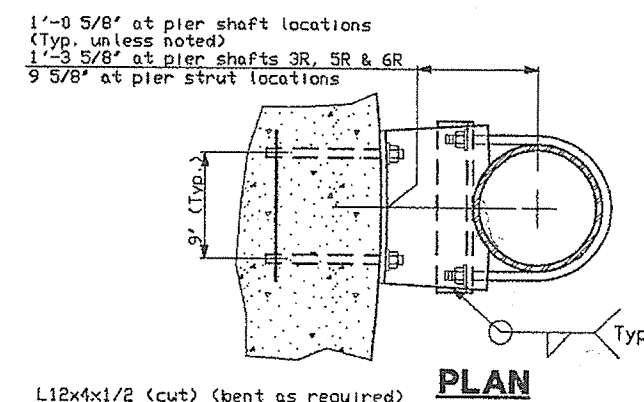
**ELEVATION PIER 6R**  
(Looking back station)



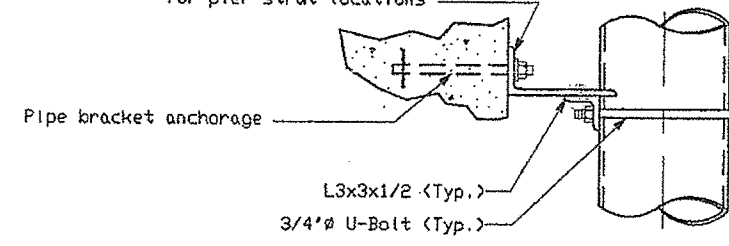
**ELEVATION NORTH ABUTMENT**



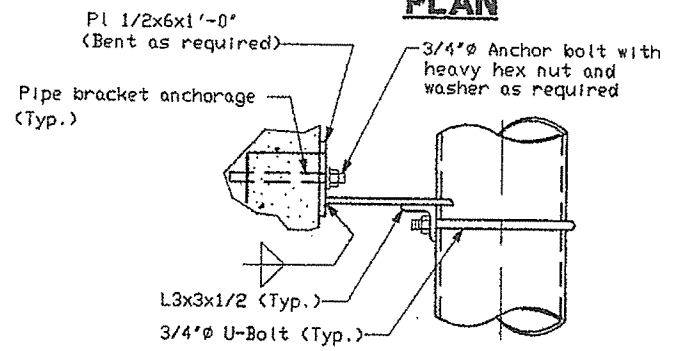
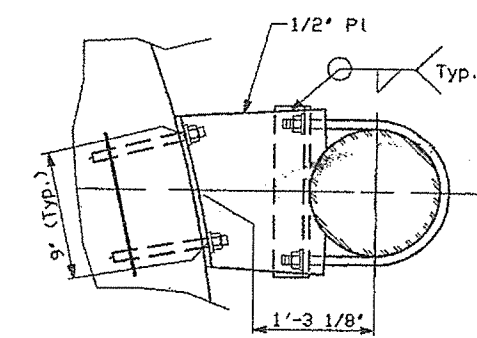
**PIPE BRACKET ANCHORAGE**



L12x4x1/2 (cut) (bent as required) for Beach St. Pier 3R, 5R & 6R column locations  
L9x4x1/2 (cut) (bent as required) for pier column locations  
L6x4x1/2 (cut) for pier strut locations



**TYPE 1 PIPE BRACKET DETAIL**



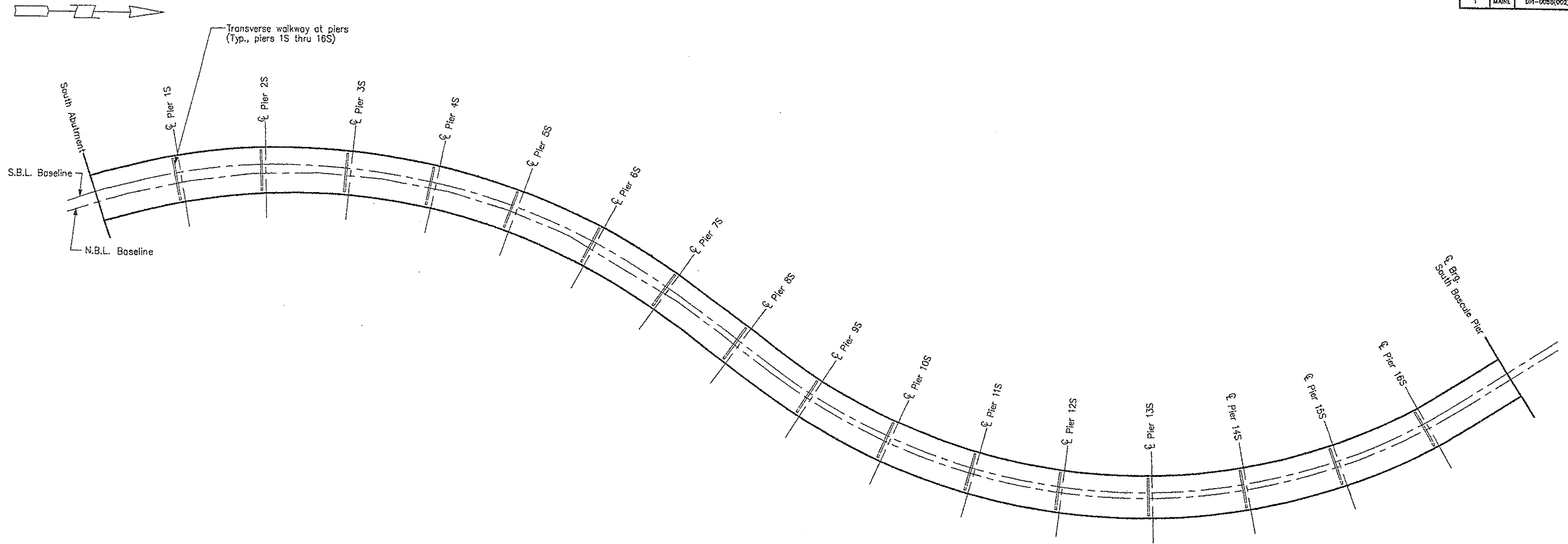
**TYPE 2 PIPE BRACKET DETAIL**

NOTES:  
See DRAINAGE DETAILS - 1.

STEEL ALTERNATIVE SUBSTRUCTURE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
<b>PORTLAND - S. PORTLAND BRIDGE</b>
<b>OVER FORE RIVER</b>
<b>CUMBERLAND COUNTY</b>
<b>DRAINAGE DETAILS - IV</b>
SHEET 231 OF 330 AUGUSTA, MAINE 6/20/34



F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	DPI-0088(002)	233	238



**PLAN - SOUTH APPROACH**

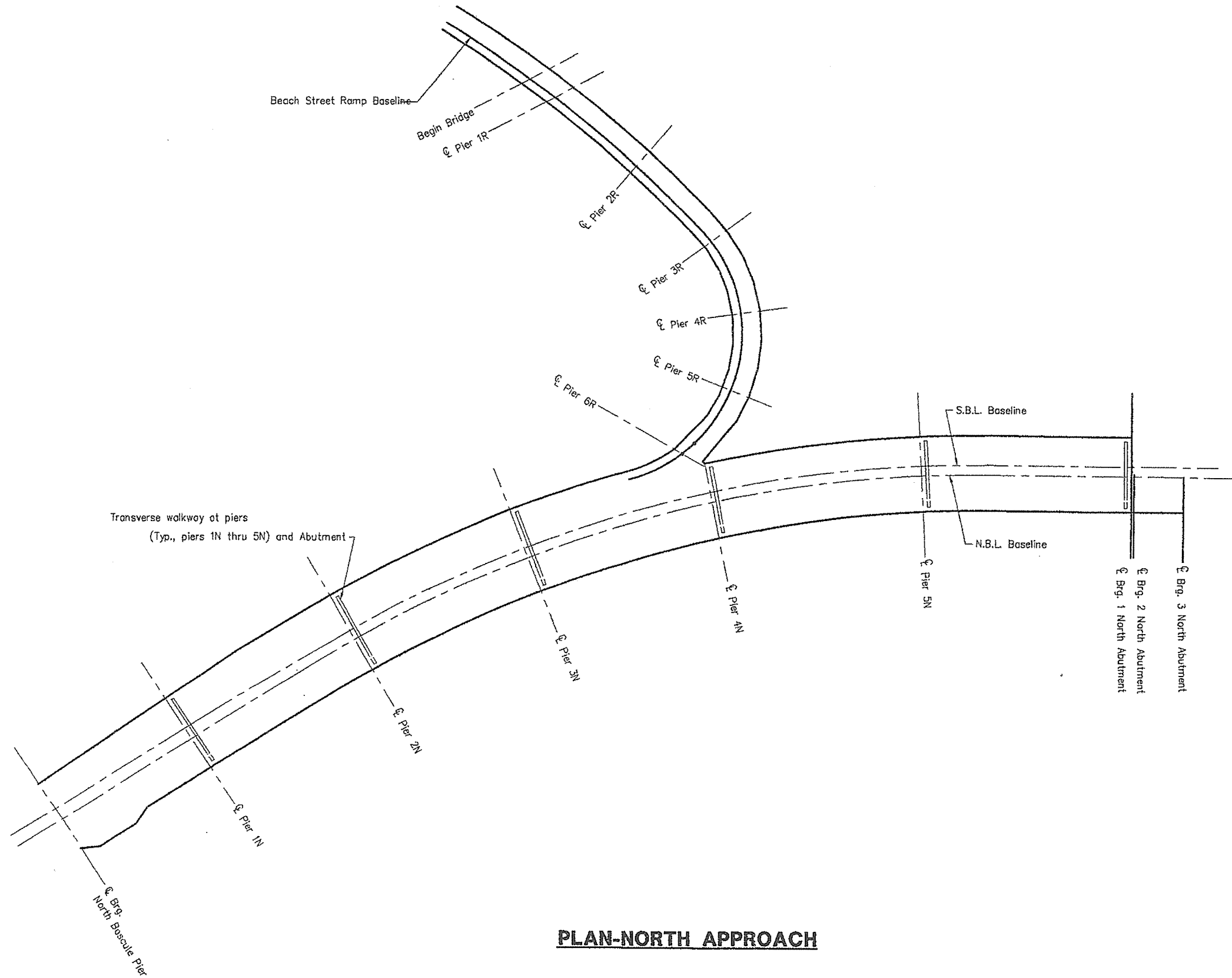
STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND BRIDGE  
OVER FORE RIVER  
CUMBERLAND COUNTY**

**INSPECTION WALK  
LOCATION PLAN I**

SHEET 233 OF 238 AUGUSTA, MAINE 6/28/79



# **PLAN-NORTH APPROACH**

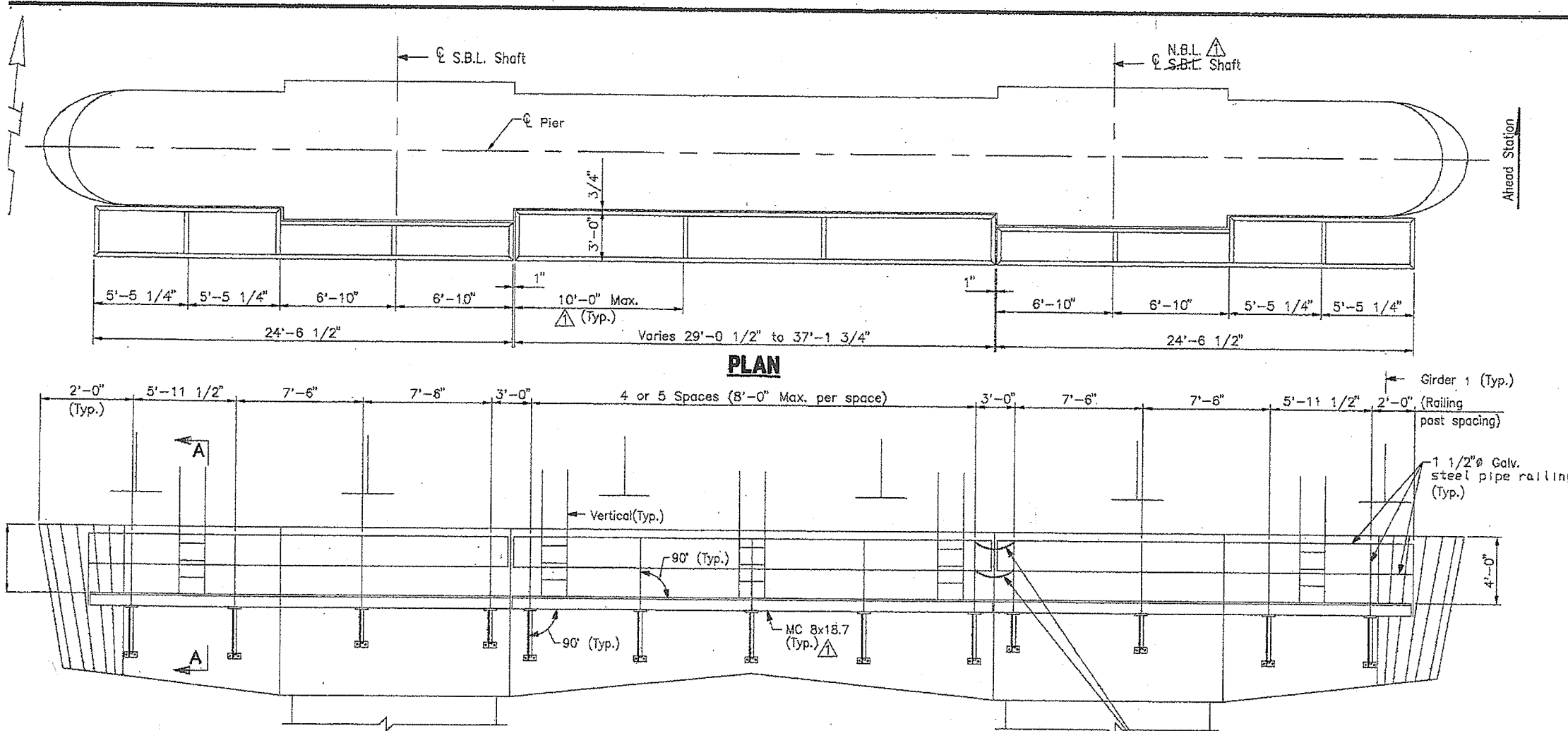
STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND BRIDGE  
OVER FORE RIVER  
CUMBERLAND COUNTY**

**INSPECTION WALK  
LOCATION PLAN II**

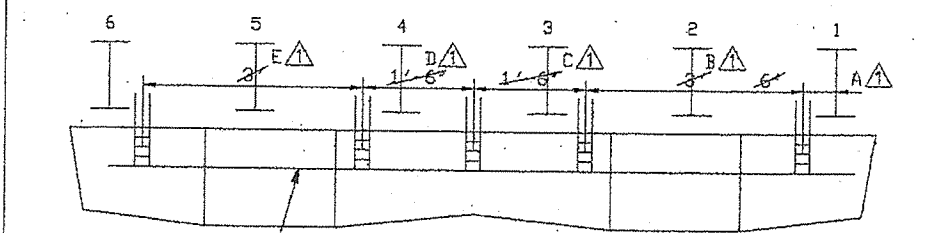
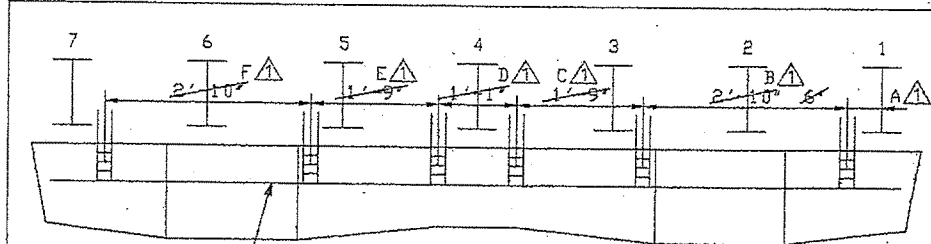
SHEET 234 OF 338 AUGUSTA, MAINE 6/20/94



**TYPICAL ELEVATION PIER TRANSVERSE WALKWAY**

Looking ahead station  
(Walkway parallels finished pier top elevation)

5/16" Welded-link hot galvanized steel chain with heavy duty latch hook and threaded chain connector



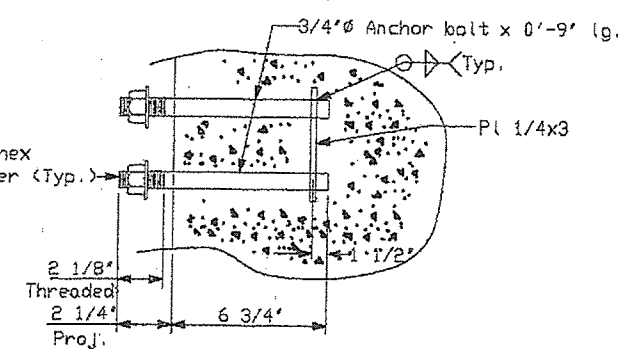
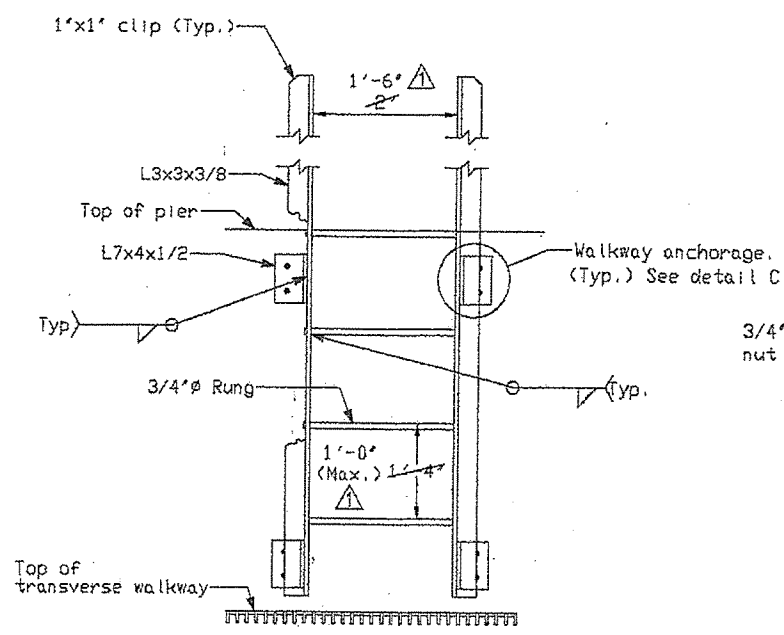
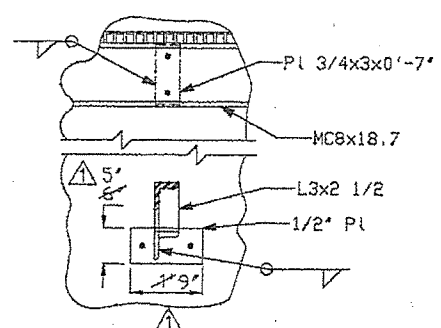
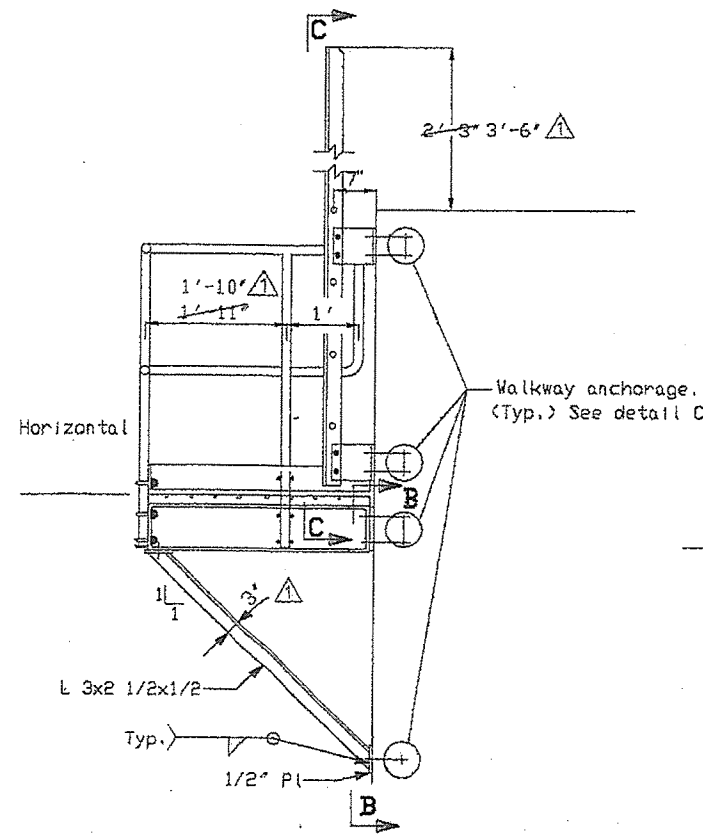
**TABLE OF DIMENSIONS FOR PIER LADDERS**

Pier No.	A	B	C	D	E	F
Typ. Pier*	3'-5 1/2"	No additional ladders required for typ. piers				
3S	3'-5 1/2"	21'-1'	10'-5 1/16"	6'-11"	10'-5 1/8"	21'-1'
5S, 9S, & 13S	3'-5 1/2"	23'-3'	11'-0"	11'-0"	23'-3'	-
16S	3'-5 1/2"	19'-0"	12'-3 1/2"	6'-11"	12'-4 11/16"	19'-0"

\*Typical piers include all South approach piers not listed in table.

Note:

Anchor bolt system for support of pier transverse walkway is in the contract. All remaining details will be by others.



△ Revise dimensions  
Clarify labels  
1/10/95

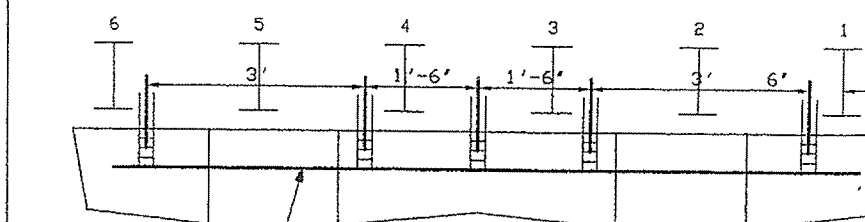
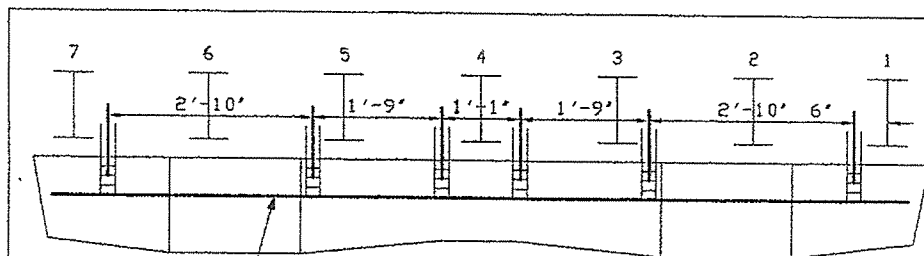
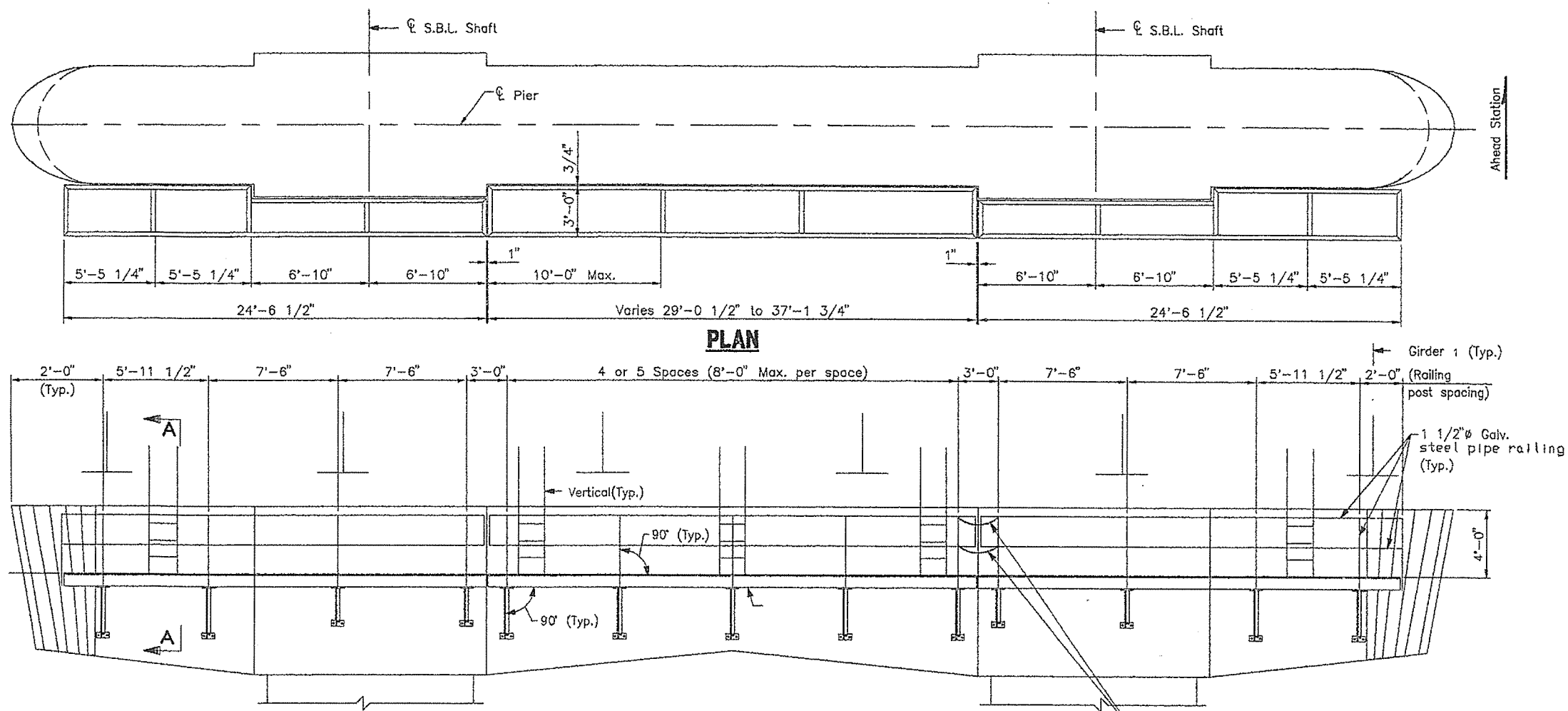
**STEEL ALTERNATIVE SUBSTRUCTURE**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND BRIDGE  
OVER FORE RIVER  
CUMBERLAND COUNTY**

**INSPECTION WALK**

**DETAIL C**



### TABLE OF DIMENSIONS FOR PIER LADDERS

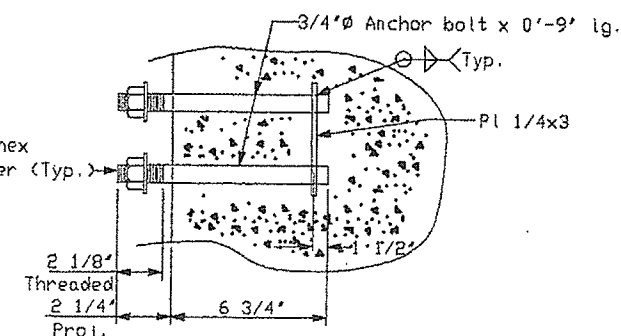
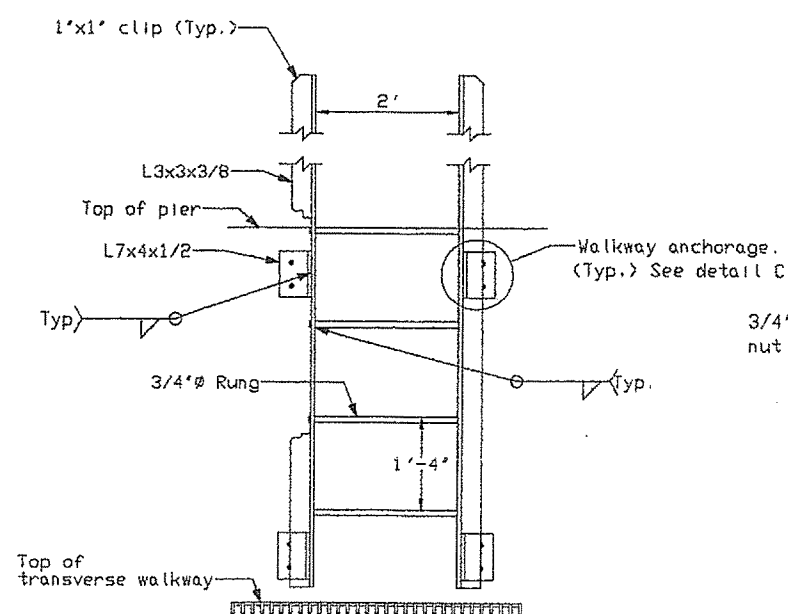
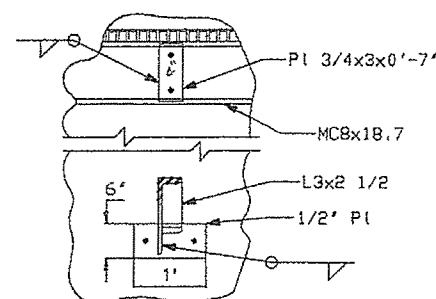
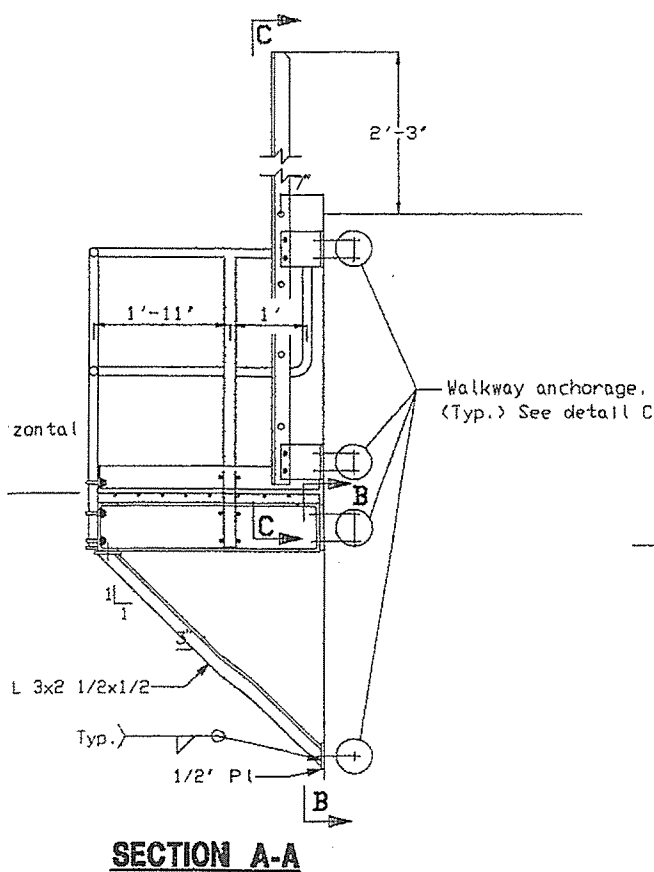
Pier No.	A	B	C	D	E	F
Typ. Pier*	3'-5 1/2'	No additional ladders required for typ. piers				
3S	3'-5 1/2'	21'-1'	10'-5 1/16'	6'-11'	10'-5 1/8'	21'-1'
5S, 9S, & 13S	3'-5 1/2'	23'-3'	11'-0"	11'-0"	23'-3'	-
16S	3'-5 1/2'	19'-0"	12'-3 1/2'	6'-11'	12'-4 11/16'	19'-0"

\*Typical piers include all South approach piers not listed in table.



Looking ahead station  
(Walkway parallels finished pier top elevation)

- 5/16"Ø Welded-link hot galvanized steel chain with heavy duty latch hook and threaded chain connector



Note 1

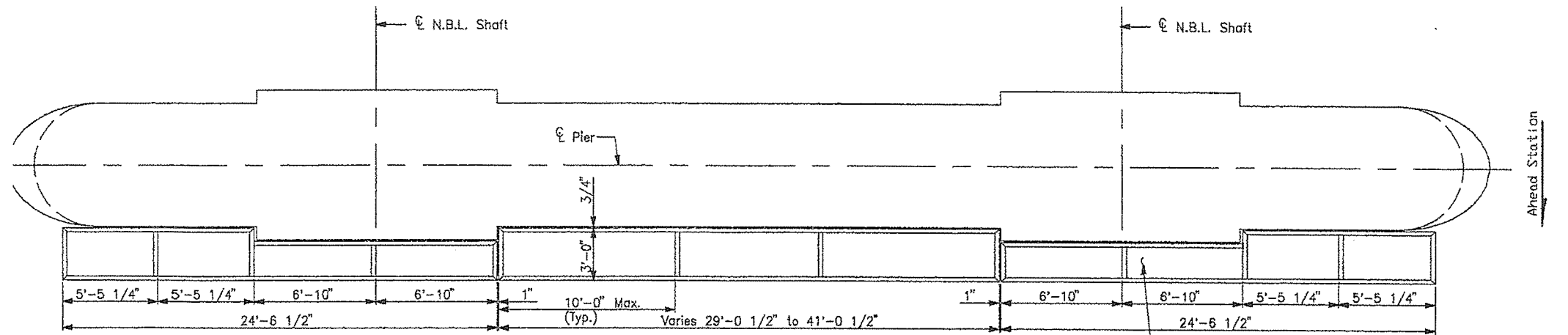
Anchor bolt system for support of pier transverse walkway  
is in the contract. All remaining details will be by others.

## STEEL ALTERNATIVE SUBSTRUCTURE

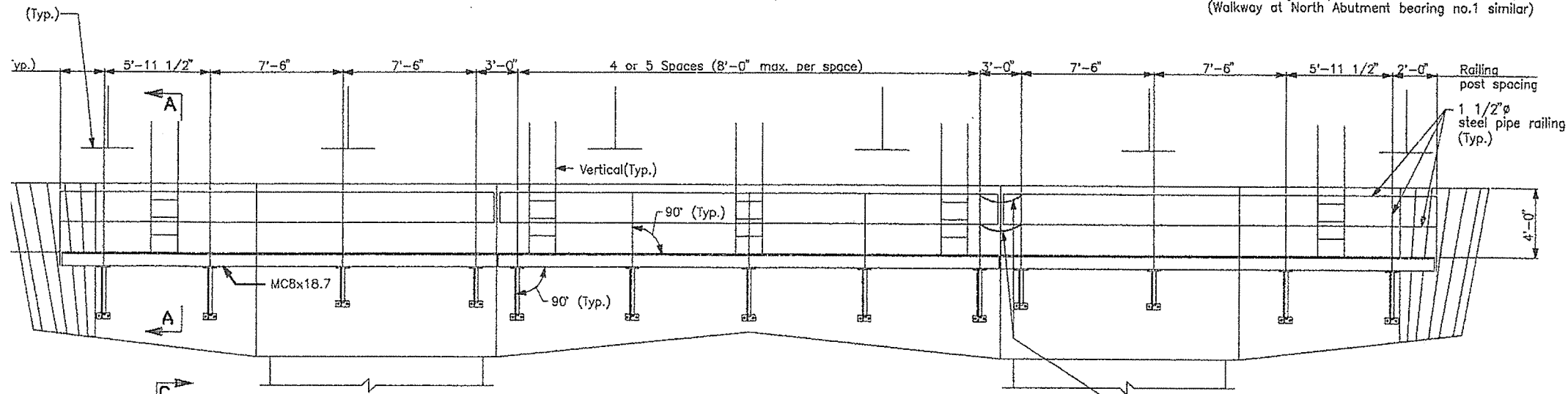
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND BRIDGE  
OVER FORE RIVER  
CUMBERLAND COUNTY**

## INSPECTION WALK DETAILS - I



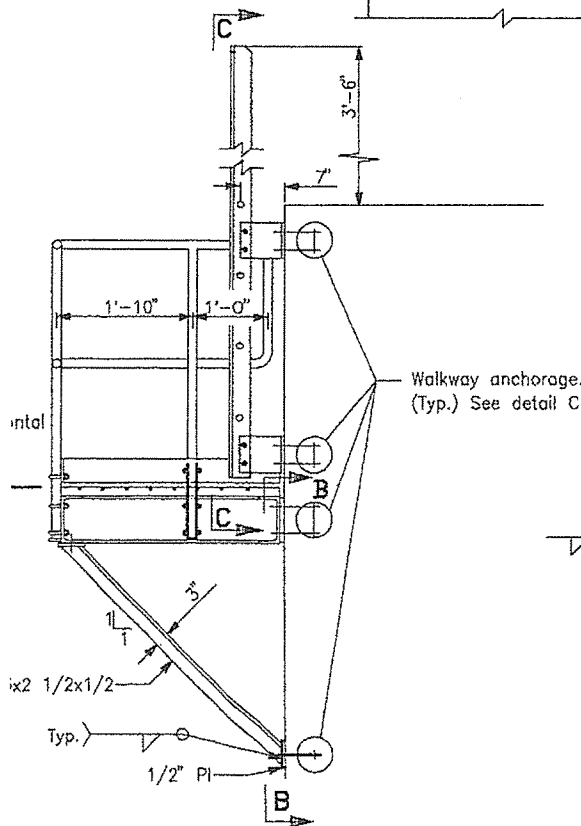
**PLAN**



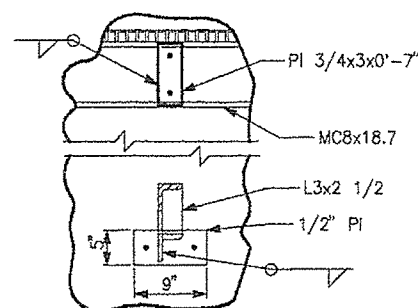
**TYPICAL ELEVATION PIER TRANSVERSE WALKWAY**

Looking back station for piers 1N, 2N, 3N, 4N and 5N  
North Abutment at bearing no. 1 similar  
(Walkway parallels finished pier top elevation)

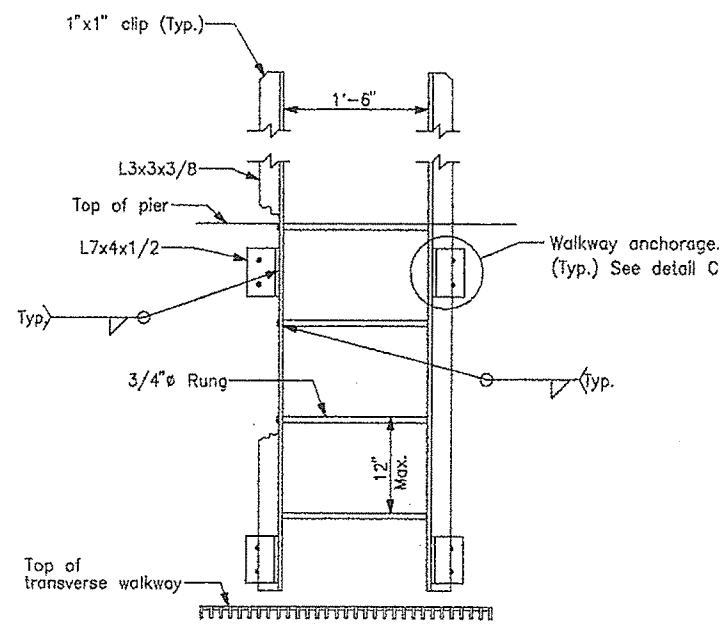
5/16" Welded-link hot galvanized steel chain with heavy duty latch hook and threaded chain connector



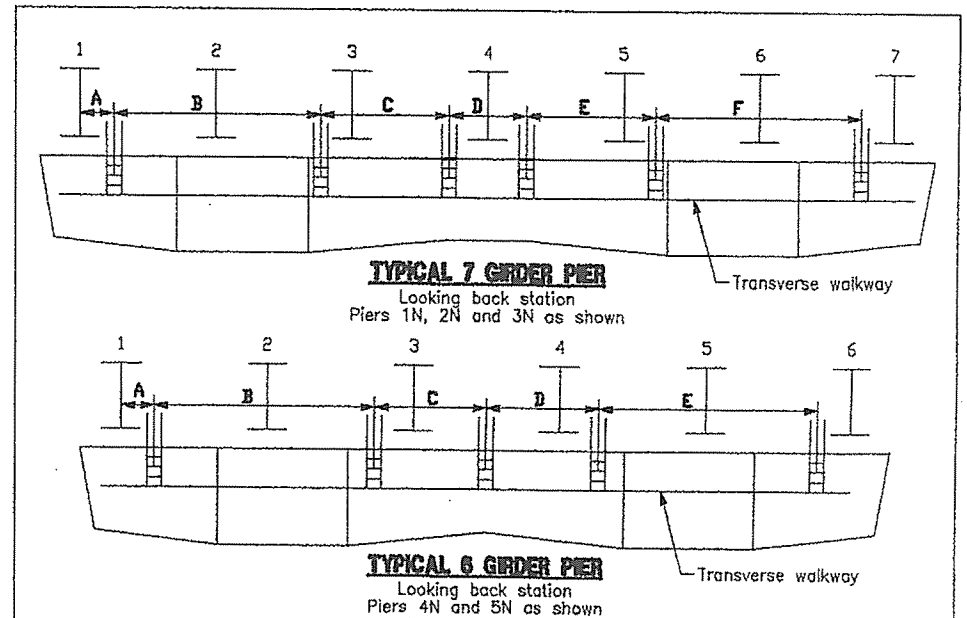
**SECTION A-A**



**SECTION B-B**



**SECTION C-C**

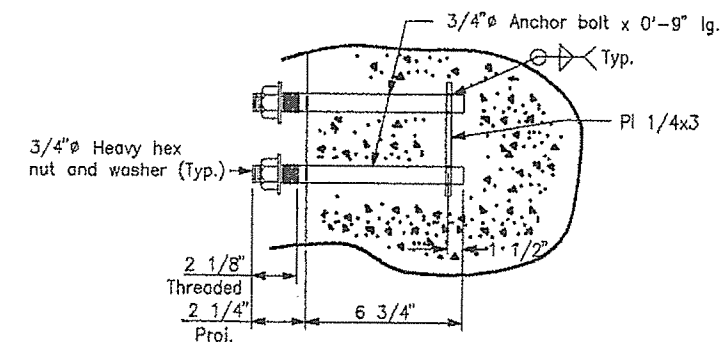


**TABLE OF DIMENSIONS FOR PIER LADDERS**

Pier No.	A	B	C	D	E	F
1N	3'-5 1/2"	22'-8 1/2"	15'-1"	8'-0"	15'-1"	17'-5 1/2"
2N	3'-5 1/2"	No additional ladders required				
3N	3'-5 1/2"	22'-8 1/2"	15'-1"	8'-0"	22'-2"	12'-6 1/2"
4N	3'-5 1/2"	No additional ladders required				
5N	3'-5 1/2"	22'-8 1/2"	11'-6 1/2"	11'-6 1/2"	22'-8 1/2"	-
N. Abutment (Bearing no.1)	3'-5 1/2"	No additional ladders required				

No walkways or ladders are required on Beach street ramp piers

Note:  
Anchor bolt system for support of pier transverse walkway is in this contract. All remaining details will be by others.



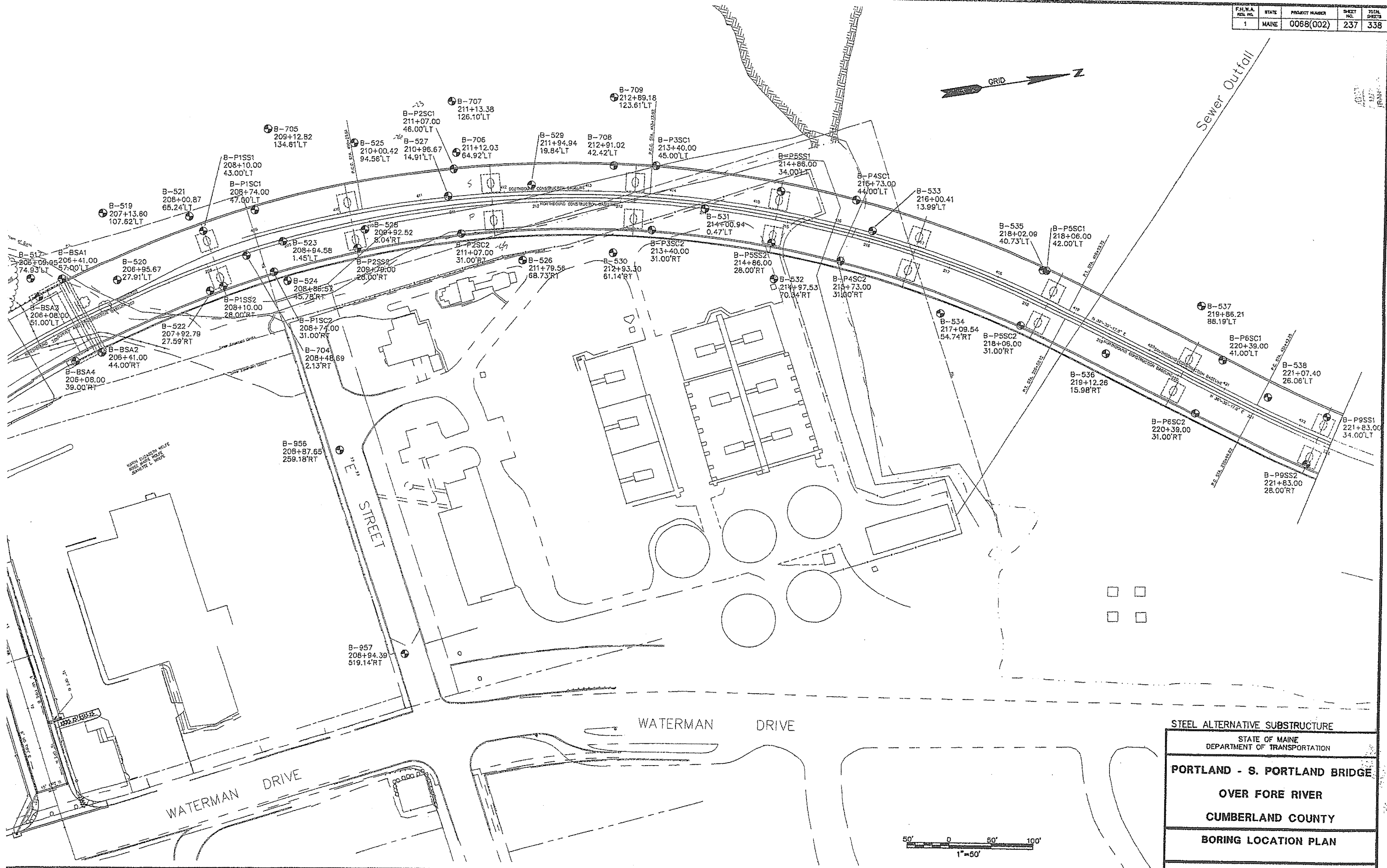
**DETAIL C**

**STEEL ALTERNATIVE SUBSTRUCTURE**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND BRIDGE  
OVER FORE RIVER  
CUMBERLAND COUNTY**

**INSPECTION WALK  
DETAILS - II**



**STEEL ALTERNATIVE SUBSTRUCTURE**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND BRIDGE**

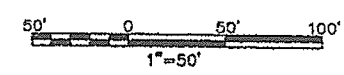
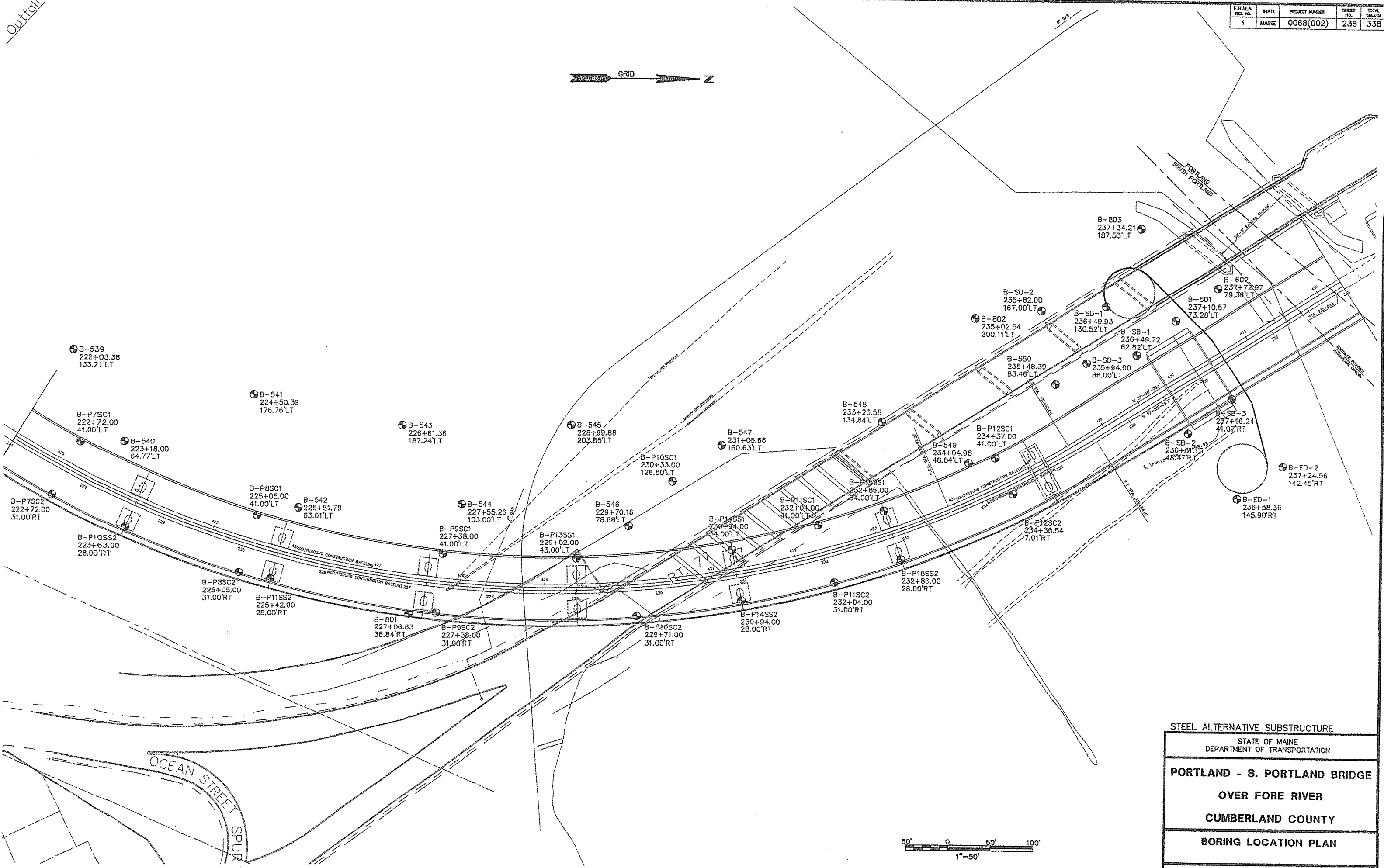
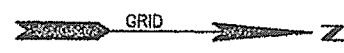
**OVER FORE RIVER**

**CUMBERLAND COUNTY**

**BORING LOCATION PLAN**

Outfall

F.H.W.A. PROJECT NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	0068(002)	238	338



STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORTLAND BRIDGE

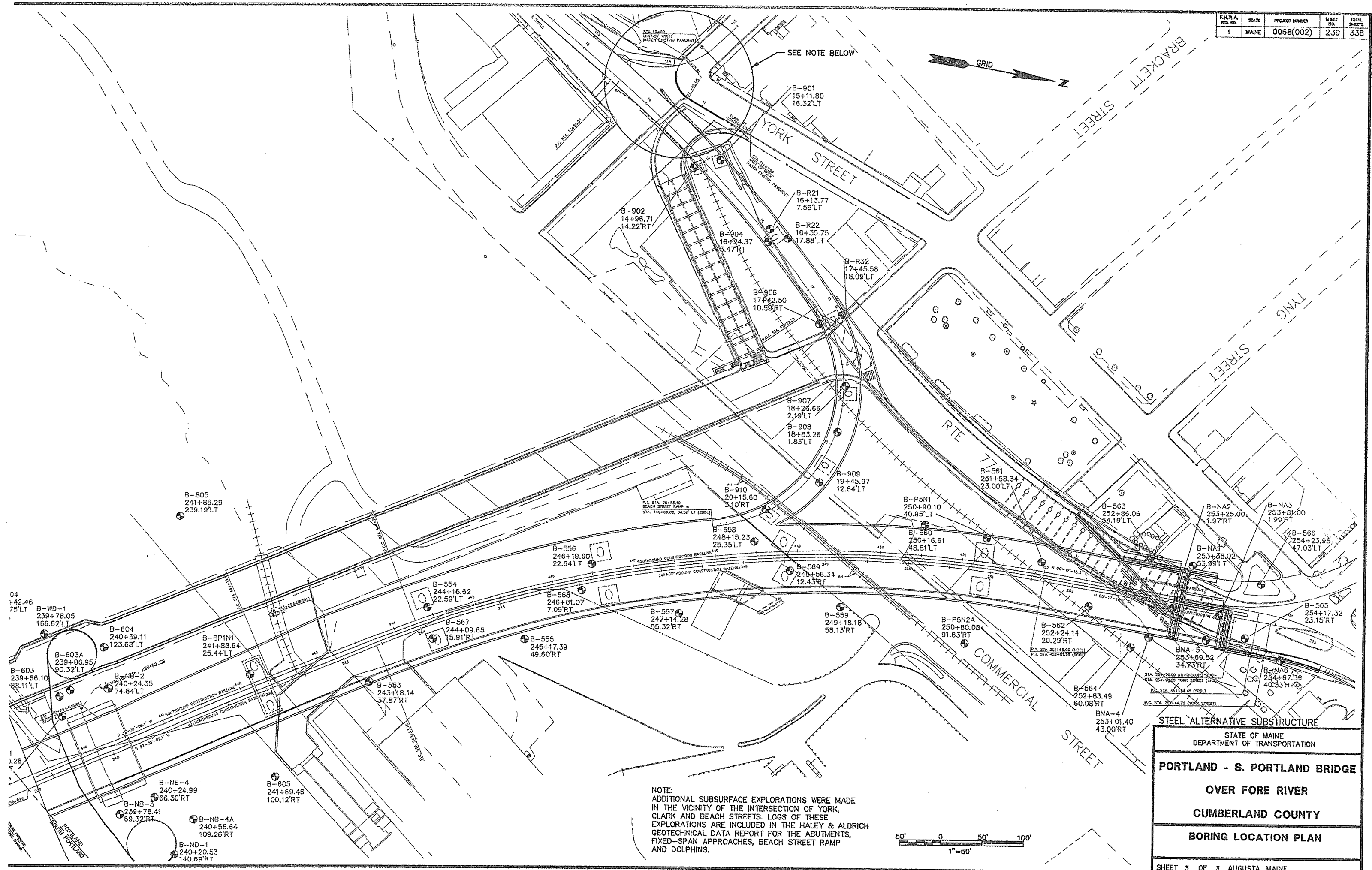
OVER FORE RIVER

CUMBERLAND COUNTY

BORING LOCATION PLAN

SHEET 2 OF 3 AUGUSTA, MAINE

F.H.W.A. PROJECT NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	0068(002)	239	338



STEEL ALTERNATIVE SUBSTRUCTURE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORTLAND BRIDGE

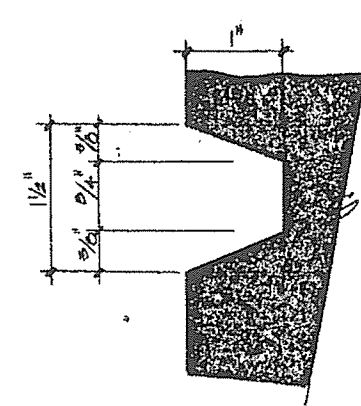
OVER FORE RIVER

CUMBERLAND COUNTY

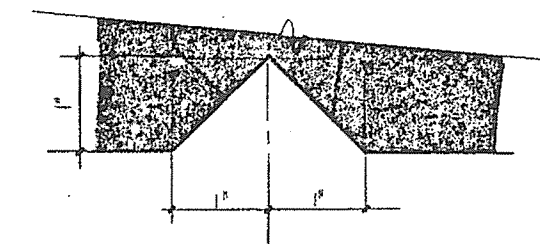
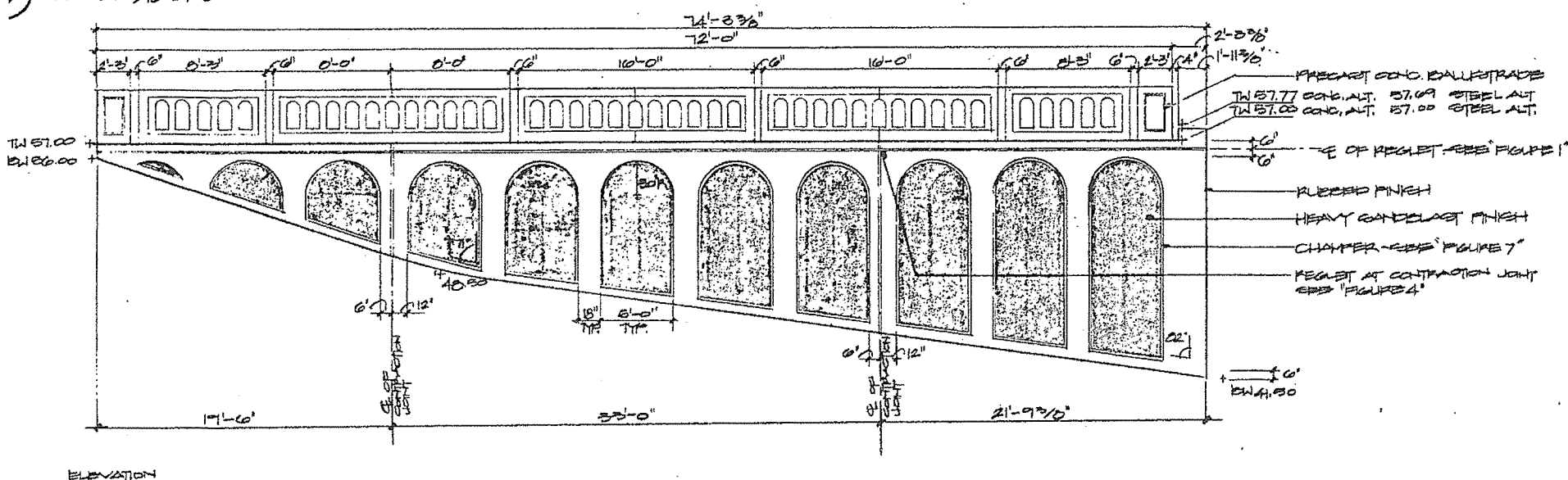
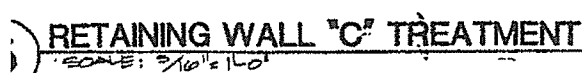
BORING LOCATION PLAN

SHEET 3 OF 3 AUGUSTA, MAINE

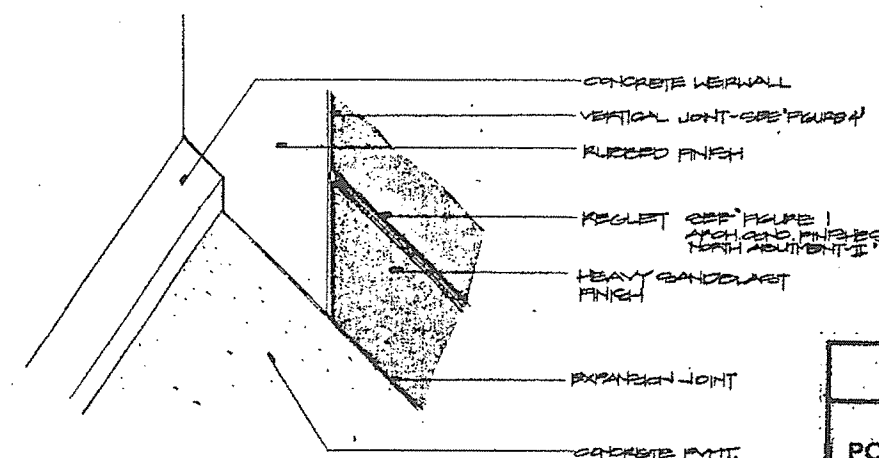
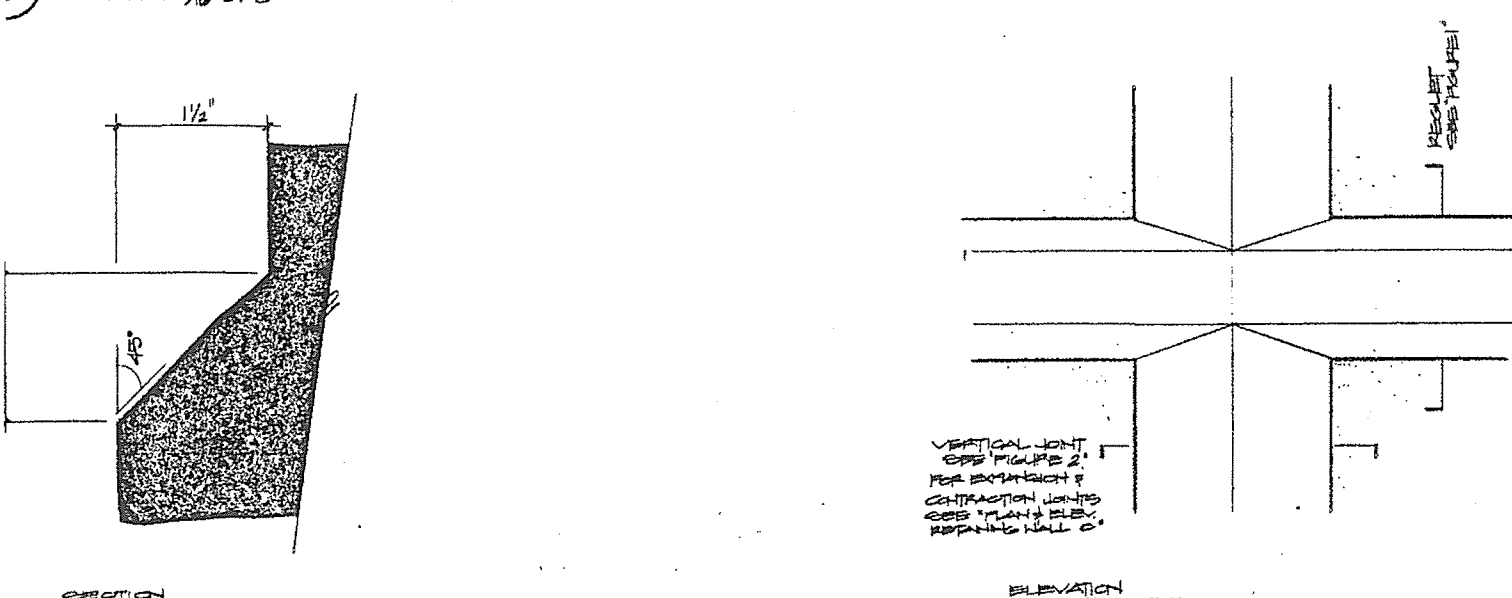




1 REGLET  
SCALE: FULL SIZE



**2 VERTICAL JOINT**  
SCALE: FULL SIZE



NOTES:  
FOR EXPANDED & CONTRACTION JOINTS SEE  
"PLAN & ELEVATION REPAIRING WALL C"  
FOR VERTICAL JOINTS SEE "FIGURE 2"

**Carol R. Johnson & Associates, Inc.**  
Landscape Architects • Site Planners  
1100 Massachusetts Ave., Cambridge, Mass. 02138

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORTLAND BRIDGE  
OVER FORE RIVER  
CUMBERLAND COUNTY

ARCHITECTURAL CONCRETE  
FINISHES - NORTH ABUTMENT - 1

SHEET 241 AUGUSTA, MAINE

7 CHAMFER  
SCALE: FULL SIZE

4 REGLET AT VERTICAL JOINT  
SCALE: FULL SIZE

③ RETAINING WALL "C" END TREATMENT  
SCALE: 3/8" = 1'-0"