WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project..... Sheet No. 53 of..... sheets

S. R. ..... Made by ..... Check by ..... Date ..... Supv. .....

Rdwy Slab (Int cell) member 3.

Moments @ Face of support, $3\frac{1}{2}''$ from ℄ int. wall near $0L_3$

$M_D = .54 + (1.62 - .54)\frac{3\frac{1}{2}/12}{1.483} = .75^{k'}$ Tension Bot.

$-M_{L+I} = 13.27 - (13.27 - 4.33)\frac{3\frac{1}{2}/12}{1.483} = 11.51^{k'}$

$+M_{L+I} = 1.75 - (1.75 - 1.51)$ " $= 1.70^{k'}$

$M_H = 1.47 - (1.47 - 1.28)$ " $= 1.43^{k'}$

$M_{NW} = 30\% [6.30 - (6.30 - 5.42)$ " $] = 1.84$

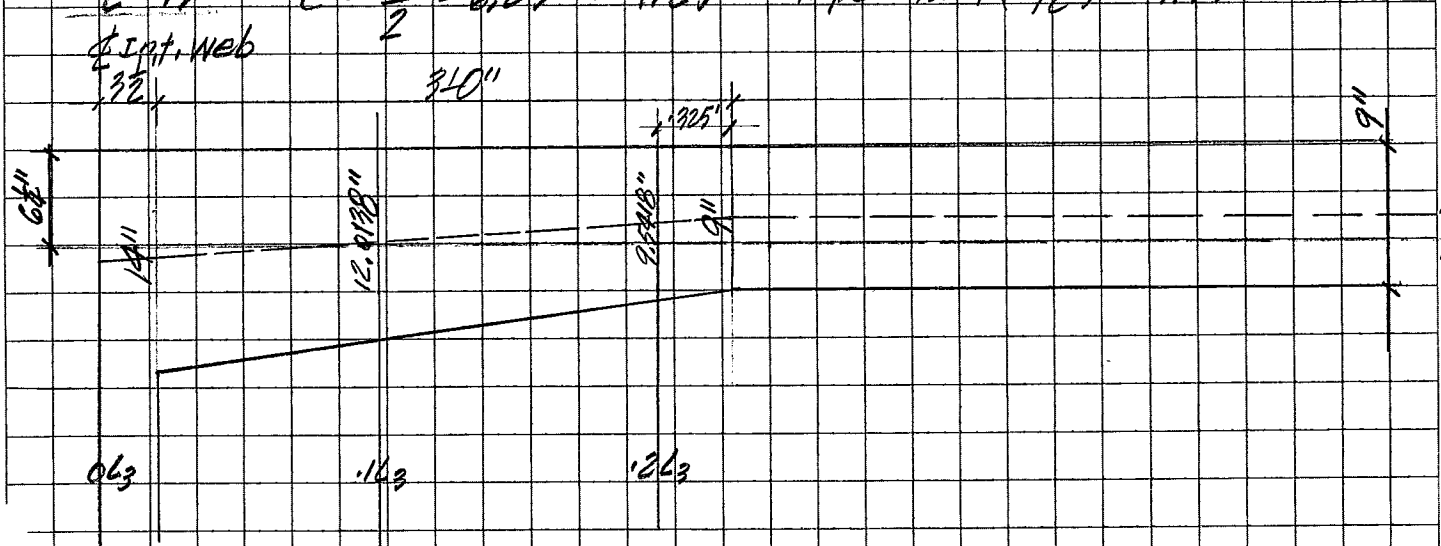
$M_T = .93 - (.93 - .82)$ " $= .91$

M_S. case A (4.77 — 10.48$^{k'}$) $M_S = 4.77 + (10.48 - 4.77)\frac{3\frac{1}{2}/12}{14.83} = 4.88^{k'}$ Tension Bot.

case B (3.52 — 10.97$^{k'}$) $M_S = 3.52 + (10.97 - 3.52)\frac{3\frac{1}{2}/12}{14.83} = 3.67^{k'}$

$t = 14''$ $e = \frac{14}{2} - 6.25 = .75''$ $M_{pe} = 76.27\left(\frac{.75}{12}\right) = 4.77^{k'}$ Tension Bot.

$t = 15''$ $e = \frac{15}{2} - 6.25 = 1.25''$ $M_{pe} = 76.27\left(\frac{1.25}{12}\right) = 7.94^{k'}$



MEMBER 3

33003209

DOT FORM 232-007 REVISED 9/81

Sheet No. 19

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project 3rd Lake wash. Floating Bridge - stage II Sheet No. 3 of sheets
S. R. 90 Made by YMT. Check by Date Supv. YFC/RTS

Transverse Design — pontoon D near Wall 5
section at Rdwy slab (Int cell) Face of support

$t = 14$ $e = .75''$ $M_{pe} = 4.77^{k'}$ tension Bot.
$A = 14(12) = 168^{in^2}$ $S = \frac{12}{6}(14)^2 = 392^{in^3}$

Group 5①: $D + H + (L + I) + M_{P/S}$ 100%

	Case A	Case B	Case C
M_D	.75		
M_H	1.43		
M_L	-11.61	1.70	
M_{pe}	4.77		
M_{2nd}	4.88 (11.83)		
	.32	13.53	

Group 5③: 5① + .3 Wave 125%

	Case A	Case B	Case C
5①	13.53		
.3W	1.84		
	15.37		

Group 5④: 5① + T 125%

	Case A	Case B	Case C
5①	13.53		
T	.91		
	14.44		

Group 5⑥: 5③ + T 140%

	Case A	Case B	Case C
5③	15.37		
T	.91		
	16.28		

$$f = -\frac{16.27}{168} \pm -\frac{16.28}{392} = -.454 \pm -.498 = -.952^{ksi} \text{ Max} < 2.0^{ksi}$$
$$= +.044^{ksi} \text{ Min.} \quad 0^{ksi}$$
tension inside

Flood Damage

Group 5⑦: 5① + DM

	Case A	Case B	Case C
5①			
DM			

Group 5⑨: 5③ + DM

	Case A	Case B	Case C
5③			
DM			

$f = \_\_\_ \pm \_\_\_ = \_\_\_ \pm \_\_\_ = \_\_\_^{ksi}$ Max $< 2.0^{ksi}$
$= \_\_\_^{ksi}$ Min. $-.212^{ksi}$

3303210

Form 232-007

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project 3rd Lake wash. Floating Bridge - Stage II Sheet No. 97 of ____ sheets
S. R. 90 Made by YMT. Check by ____ Date ____ Supv. YFC/RTS

Transverse Design — pontoon D near Wall 5
Section at Rdwy Slab (Int. cell) Face of support

$t = 15''$ $e = 1.25''$ $M_{pe} = 7.94^{k'}$

$A = 15(12) = 180^{in^2}$ $S = \frac{12}{6}(15)^2 = 450$

Group S①: D + H + (L + I) + $M_{P/S}$ 100%

	Case A	Case B	Case C
M_D	.75		
M_H	1.43		
M_L	-11.51	1.70	
M_{pe}	7.94		
M_{grd}	4.88 (15.00)		
	3.49	16.70	

Group S③: S① + .3 Wave 125%

	Case A	Case B	Case C
S①	16.70		
.3W	1.84		
	18.54		

Group S④: S① + T 125%

	Case A	Case B	Case C
S①	16.70		
T	.91		
	17.61		

Group S⑥: S③ + T 140%

	Case A	Case B	Case C
S③	18.54		
T	.91		
	19.45		

$$f = -\frac{16.27}{180} \pm \frac{19.45(12)}{450} = -.424 \pm .519 = -.942^{ksi} \text{ Max} < 2.0^{ksi}$$
$$= +.095^{ksi} \text{ Min. } 0^{ksi}$$
tension inside face.

Flood Damage

Group S⑦: S① + DM

	Case A	Case B	Case C
S①			
DM			

Group S⑨: S③ + DM

	Case A	Case B	Case C
S③			
DM			

$f = \_\_\_ \pm \_\_\_ = \_\_\_ \pm \_\_\_ = \_\_\_^{ksi}$ Max < 2.0 ksi
$= \_\_\_^{ksi}$ Min. -.212 ksi

33003211

DOT Form 232-007 Sheet No.

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project..... Sheet No. 50 of..... sheets

S. R. ..... Made by ..... Check by ..... Date ..... Supv. .....

Rdwy slab, Int cell .1L3

$M_D = 1.62^{k'}$ tension Bot.

$M_{L+I} = -4.33^{k'}, +2.72^{k'}$

$M_H = 1.28^{k'}$

$M_{NW} = 30\%[5.42] = 1.63^{k'}$

$M_T = .82^{k'}$

M_S case A $M_S = 4.77 + (10.48 - 4.77) \cdot .1 = 5.34^{k'}$ tension Bot.

B $M_S = 3.52 + (10.97 - 3.52) \cdot .1 = 4.27^{k'}$

$t = 12.01$ $e = \frac{12}{2} - 6.25'' = -.25''$ $M_{pe} = -1.59^{k'}$ tension top.

33003213

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project 3rd Lake Wash. Floating Bridge - Stage II Sheet No. 21 of ____ sheets
S. R. 90 Made by YMT. Check by ____ Date ____ Supv. YFC/RTS

Transverse Design — pontoon D near Wall 5
section at .1L3

$t = 12.01''$ $c = -.25''$ $M_{pe} = -1.59^{k'}$
$A = 12.01(12) = 144$ $S = \frac{12}{6}(12)^2 = 288^{in^3}$

Group S①: D + H + (L + I) + $M_{P/S}$ 100%

	Case A	Case B	Case C
M_D	$1.62^{k'}$ tension bot.		
M_H	1.28		
M_L	-4.39 +2.72		
M_{pe}	-1.59		
M_{2nd}	5.94		
	(6.65)		
	$2.32^{k'}$ $9.37^{k'}$		

Group S③: S① + .3 Wave 125%

	Case A	Case B	Case C
S①	$9.37^{k'}$		
.3W	1.63		
	11.		

Group S④: S① + T 125%

	Case A	Case B	Case C
S①	9.37		
T	.82		
	10.19		

Group S⑥: S③ + T 140%

	Case A	Case B	Case C
S③	11.0		
T	.82		
	11.82		

$$f = \frac{-76.27}{144} \pm \frac{11.82(12)}{288} = -.530 \pm .493 = -1.022^{ksi} \text{ Max} < 2.0^{ksi}$$
$$= -.037^{ksi} \text{ Min.} \quad 0^{ksi}$$
0.K. –

Flood Damage

Group S⑦: S① + DM

	Case A	Case B	Case C
S①			
DM			

Group S⑨: S③ + DM

	Case A	Case B	Case C
S③			
DM			

$f = \_\_\_ \pm \_\_\_ = \_\_\_ \pm \_\_\_ = \_\_\_^{ksi}$ Max $< 2.0^{ksi}$
$= \_\_\_^{ksi}$ Min. $-.212^{ksi}$

33003213

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project..... Sheet No. 28 of..... sheets

S. R. ..... Made by ..... Check by ..... Date ..... Supv. .....

Rdwy slab .362

$M_D = 2.29^{k'}$

$M_{LL} = -3.89^{k'}, +6.80^{k'}$

$M_H = 1.10$

$M_{NW} = 30\%(4.54) = 1.36$

$M_T = .71^{k'}$

M_S Case A $M_S = 4.77 + (10.48 - 4.77) \cdot .2 = 5.91^{k'}$

B. $M_S = 3.52 + (10.97 - 3.52) \cdot .2 = 5.01$

$t = 9.54''$ $e = \frac{9.54}{2} - 6.25 = -1.48$ below N.A. $M_{pe} = 9.4^{k'}$ tension top

33003214

DOT FORM 232-007
REVISED 9/81

Sheet No. 29

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project 3rd Lake Wash. Floating Bridge - Stage II Sheet No. 51 of ____ sheets
S. R. 90 Made by YMT. Check by ____ Date ____ Supv. YFC/RTS

Transverse Design — pontoon D near Wall 5
Section at 2L3

$t = 9.54''$ $e = -1.48$ $M_{pe} = -9.41^{k'}$ tension top.
$A = 9.54(12) = 114$ $S = \frac{12}{6}(9.54)^2 = 182$

Group S①: D + H + (L + I) + $M_{P/S}$ 100%

	Case A	Case B	Case C
M_D	2.29		
M_H	1.10		
M_L	-3.89 6.80		
M_{pe}	-9.41		
M_{2nd}	5.24 (-.68)		
	-4.57 6.12		

Group S③: S① + .3 Wave 125%

	Case A	Case B	Case C
S①	6.12		
.3W	1.36		
	7.48		

Group S④: S① + T 125%

	Case A	Case B	Case C
S①	6.12		
T	.71		
	6.83		

Group S⑥: S③ + T 140%

	Case A	Case B	Case C
S③	7.48		
T	.71		
	8.19		

$f = -\frac{76.27}{114} \pm -\frac{8.19(12)}{182} = -.669 \pm .540 = -1.209^{ksi}$ Max < 2.0^{ksi}
$= -.129^{ksi}$ Min. 0^{ksi}
O.K.

Flood Damage

Group S⑦: S① + DM

	Case A	Case B	Case C
S①			
DM			

Group S⑨: S③ + DM

	Case A	Case B	Case C
S③			
DM			

$f = \_\_\_ \pm \_\_\_ = \_\_\_ \pm \_\_\_ = \_\_\_^{ksi}$ Max < 2.0^{ksi}
$= \_\_\_^{ksi}$ Min. $-.212^{ksi}$

33003215

Form 232-007

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project..... Sheet No. 60 of..... sheets

S. R. ..... Made by ..... Check by ..... Date ..... Supv. .....

Rdwy slab. .343

$M_D = 2.58^{k'}$

$M_{L+I} = -3.81^{k'}, +6.71^{k'}$

$M_H = .91$

$M_{NW} = 30\%(3.67) = 1.10^{k'}$

$M_T = .60^{k'}$

M_S case A. $M_S = 4.77 + (10.48 - 4.77).3 = 6.48^{k'}$ tension Bot.

B. $M_S = 3.52 + (10.97 - 3.52).3 = 5.76$

$t = 9''$ $e = \frac{9}{2} - 6.25 = -1.75$ $M_{pe} = 76.27\left(\frac{-1.75}{12}\right) = -11.12$ tension top.

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DOT FORM 232-007
REVISED 9/81

Sheet No. 26

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project 3rd Lake wash. Floating Bridge - Stage II Sheet No. ____ of ____ sheets
S. R. 90 Made by YMT. Check by ____ Date ____ Supv. YFC/RTS

Transverse Design — pontoon D near Wall 5
section at .363

$t = 9''$ $e = -1.75''$ below N.A. $M_{pe} = -11.12^{k'}$ tension top.
$A = 9(12) = 108$ $S = \frac{12}{6}(9)^2 = 162$

Group S①: D + H + (L + I) + $M_{P/S}$ 100%

	Case A	Case B	Case C
M_D	2.58		
M_H	.91		
M_L	-3.81 6.71		
M_{pe}	-11.12		
M_{2nd}	6.48		
	(-1.15)		
	-4.96 5.56$^{k'}$		

Group S③: S① + .3 Wave 125%

	Case A	Case B	Case C
S①	5.56$^{k'}$		
.3W	1.10		
	6.66		

Group S④: S① + T 125%

	Case A	Case B	Case C
S①	5.56		
T	.60		
	6.16$^{k'}$		

Group S⑥: S③ + T 140%

	Case A	Case B	Case C
S③	6.66		
T	.60		
	7.26$^{k'}$		

$f = -\frac{76.27}{108} \pm -\frac{7.26(12)}{162} = -.706 \pm -.538 = -1.244^{ksi}$ Max < 2.0^{ksi}
$= -.168^{ksi}$ Min. 0^{ksi}
O.K. ✓

Flood Damage

Group S⑦: S① + DM

	Case A	Case B	Case C
S①			
DM			

Group S⑨: S③ + DM

	Case A	Case B	Case C
S③			
DM			

$f = \_\_\_ \pm \_\_\_ = \_\_\_ \pm \_\_\_ = \_\_\_^{ksi}$ Max < 2.0^{ksi}
$= \_\_\_^{ksi}$ Min. -.212^{ksi}

33003217

DOT Form 232-007 Sheet No. 27

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project..... Sheet No. 28 of..... sheets

S. R. ..... Made by ..... Check by ..... Date ..... Supv. .....

Rdwy slab .563

$M_D = 2.23^{k'}$

$M_{LL} = -3.66^{k'}, +6.64$

$M_H = .53^{k'}$

$M_{NW} = 30\% (1.91) = .57^{k'}$

$M_T = .37^{k'}$

M_S case A $M_S = (9.77 + 10.48)\frac{1}{2} = 7.625^{k'}$

B $M_S = (9.52 + 10.97)\frac{1}{2} = 7.245^{k'}$

$t = 9''$ $e = \frac{9}{2} - 6.25 = -1.75$ $M_{pe} = 76.27(-\frac{1.75}{12}) = -11.12^{k'}$ tension top.

33003218

DOT FORM 232-007
REVISED 9/81

Sheet No.

28

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project 3rd Lake Wash. Floating Bridge - Stage II Sheet No. ____ of ____ sheets
S. R. 90 Made by YMT. Check by ____ Date ____ Supv. YFC/RTS

Transverse Design — pontoon D near Wall 5
Section at .56 ℓ

$t = 9''$ $e = -1.75''$ $M_{pe} = -11.12^{k'}$
$A = 9(12) = 108$ $S = \frac{12}{6}(9)^2 = 162$

Group 5①: D + H + (L + I) + $M_{P/S}$ 100%

	Case A	Case B	Case C
M_D	2.23		
M_H	.53		
M_L	-3.66	+6.64	
M_{pe}	-11.12		
M_{end}	7.62 (-.74)		
	-4.40	+5.90	

Group 5③: 5① + .3 Wave 125%

	Case A	Case B	Case C
5①	5.90		
.3W	.57		
	6.47		

Group 5④: 5① + T 125%

	Case A	Case B	Case C
5①			
T			

Group 5⑥: 5③ + T 140%

	Case A	Case B	Case C
5③	6.47		
T	.37		
	6.84		

$f = -\frac{76.27}{108} \pm \frac{-6.84(12)}{162} = -.706 \pm -.507 = -1.213^{ksi}$ Max $< 2.0^{ksi}$
$= -.200^{ksi}$ Min. 0^{ksi}
O.K.

Flood Damage

Group 5⑦: 5① + DM

	Case A	Case B	Case C
5①			
DM			

Group 5⑨: 5③ + DM

	Case A	Case B	Case C
5③			
DM			

$f = \_\_\_ \pm \_\_\_ = \_\_\_ \pm \_\_\_ = \_\_\_^{ksi}$ Max $< 2.0^{ksi}$
$= \_\_\_^{ksi}$ Min. $-.212^{ksi}$

3300319

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project..... Sheet No. 64 of..... sheets

S. R. ..... Made by ..... Check by ..... Date ..... Supv. .....

Rdwy slab .8L3.

$M_{DL} = -.58^{K'}$

$M_{L+I} = -3.44^{K'}, \ +2.10^{K'}$

$M_H = -.04$

$M_{NW} = 30\%(-.72) = -.21$

$M_T = .03^{K'}$

M_S case A $M_S = 4.77 + (10.48 - 4.77).8 = 9.33^{K'}$ tension Bot.

B $M_S = 3.52 + (10.97 - 3.52).8 = 9.48^{K'}$ "

$t = 9.4''$ $e = \frac{9.54}{2} - 6.25 = -1.48$ $M_{pe} = -9.41^{K'}$ tension top.

33003220

DOT FORM 232-007
REVISED 9/81

Sheet No. 30

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project 3rd Lake wash. Floating Bridge - Stage II Sheet No. ____ of ____ sheets
S. R. 90 Made by YMT. Check by ____ Date ____ Supv. YFC/RTS

Transverse Design — pontoon D near Wall 5
Section at .863

$t = 9.54''$ $e = -1.48$ below N.A. $M_{pe} = -9.41^{k'}$
$A = 114^{in^2}$ $S = \frac{12}{6}(9.54) = 182^{in^3}$

Group S①: D + H + (L + I) + $M_{P/S}$ 100%

	Case A	Case B	Case C
M_D	-.58		
M_H	-.04		
M_L	-3.44	+2.10	
M_{pe}	-9.41		
M_{end}	9.48 (-.155)		
	-3.99	1.55	

Group S③: S① + .3 Wave 125%

	Case A	Case B	Case C
S①	-3.99		
.3W	-.21		
	-4.20		

Group S④: S① + T 125%

	Case A	Case B	Case C
S①	-3.99		
T	-.03		
	4.02		

Group S⑥: S③ + T 140%

	Case A	Case B	Case C
S③	-4.20		
T	-.03		
	-4.23		

$$f = -\frac{76.27}{114} \pm -\frac{4.23(12)}{182} = -.669 \pm -.279 = -.948^{ksi} \text{ Max} < 2.0^{ksi}$$
$$= -.390^{ksi} \text{ Min.} \quad 0^{ksi}$$
O.K.

Flood Damage

Group S⑦: S① + DM

	Case A	Case B	Case C
S①			
DM			

Group S⑨: S③ + DM

	Case A	Case B	Case C
S③			
DM			

$f = \_\_\_ \pm \_\_\_ = \_\_\_ \pm \_\_\_ = \_\_\_^{ksi}$ Max $< 2.0^{ksi}$
$= \_\_\_^{ksi}$ Min. $-.212^{ksi}$

33003221

Form 232-007 Sheet No.

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project 3rd Lake wash. Floating Bridge - Stage II Sheet No. 67 of ___ sheets
S. R. 90 Made by YMT. Check by ___ Date ___ Supv. YFC/RTS

Transverse Design — pontoon D near Wall 5
section at .9L3

$t = 12.01''$ $e = -.245''$ $M_{pe} = -1.59^{k'}$
$A = 12(12) = 144$ $S = 288^{in^3}$

Group S①: D + H + (L + I) + $M_{P/S}$ 100%

	Case A	Case B	Case C
M_D	-2.20		
M_H	-.22		
M_L	-4.53 +.56		
M_{pe}	-1.56		
M_{2nd}	10.23 (6.25)		
	$1.72^{k'}$ $6.81^{k'}$		

Group S③: S① + .3 Wave 125%

	Case A	Case B	Case C
S①	6.81		
.3W	-.48		
	6.33		

Group S④: S① + T 125%

	Case A	Case B	Case C
S①	6.81		
T	.08		
	$6.89^{k'}$		

Group S⑥: S③ + T 140%

	Case A	Case B	Case C
S③	6.33		
T	.08		
	6.41		

$f = -\frac{76.27}{144} \pm \frac{6.89(12)}{288} = -.530 \pm -.287 = -.817^{ksi}$ Max < 2.0^{ksi}
$= -.243^{ksi}$ Min. 0^{ksi}
o.k.

Flood Damage

Group S⑦: S① + DM

	Case A	Case B	Case C
S①			
DM			

Group S⑨: S③ + DM

	Case A	Case B	Case C
S③			
DM			

$f = \_\_\_ \pm \_\_\_ = \_\_\_ \pm \_\_\_ = \_\_\_^{ksi}$ Max < 2.0^{ksi}
$= \_\_\_^{ksi}$ Min. $-.212^{ksi}$

33003222

33

Form 232-007

Sheet No.

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project..... Sheet No. 66 of..... sheets

S. R. ..... Made by ..... Check by ..... Date ..... Supv. .....

Rdwy slab .963

$M_D = -2.20^{k'}$

$M_{L+I} = -4.53^{k'}, +.56$

$M_H = -.22$

$M_{NW} = 30\%(-1.6) = -.48^{k'}$

$M_T = -.08$

M_S case A $M_S = 4.77 + (10.48 - 4.77).9 = 9.91^{k'}$

B $M_S = 3.52 + (10.97 - 3.52).9 = 10.23^{k'}$

$t = 12.01''$ $e = \frac{12.01}{2} - 6.75 = -.245''$ $M_{pe} = 76.27\left(\frac{-.245}{12}\right) = -1.56^{k'}$ tension top.

33003223

DOT FORM 232-007
REVISED 9/81

Sheet No.

32

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project..... Sheet No. 68 of..... sheets

S. R. ..... Made by ..... Check by ..... Date ..... Supv. .....

Rdwy slab Int. cell Face of support near 1.0 L3

$-M_D = 4.23 - (4.23 - 2.20)\frac{3\frac{1}{2}/12}{1.483} = 3.83$ tension top.

$-M_{L+I} = 12.23 - (12.23 - 3.43)$ " $= 10.50$

$M_{L+I} = 1.91 - (1.91 - 1.65)$ " $= 1.86^{K'}$

$M_H = -.41^{K'}$

$-M_{NW} = 30\% [2.48 - (2.48 - 1.60)\frac{3\frac{1}{2}/12}{1.483}] = .69^{K'}$

$M_T = -.19$

M_S case A $M_S = 10.48 - (10.48 - 4.77)\frac{3\frac{1}{2}/12}{1.483} = 9.36^{K'}$ tension Bot.

B $M_S = 10.97 - (10.97 - 3.52)$ " $= 9.51$ "

$t_1 = 14''$ $e = \frac{14}{2} - 6.25 = .75''$ $M_{pe} = 76.25\left(\frac{.75}{12}\right) = 4.77^{K'}$ tension Bot.

33003234

DOT FORM 232-007 REVISED 9/81

Sheet No.

33

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BRIDGE & STRUCTURES BRANCH

Project 3rd Lake Wash. Floating Bridge - Stage II Sheet No. ____ of ____ sheets
S. R. 90 Made by YMT. Check by ____ Date ____ Supv. YFC/RTS

Transverse Design — pontoon D near Wall 5
Section at Rdwy Slab @ Face of support near 1.0 L_3

$t = 14''$ $c = .75''$ $M_{pe} = 4.77^{k'}$
$A = 12(14) = 168$ $S = \frac{12}{6}(14)^2 = 392^{in^3}$

Group S①: $D + H + (L + I) + M_{P/S}$ 100%

	Case A	Case B	Case C
M_D	-3.83		
M_H	-.41		
M_L	-10.50	+1.86	
M_{pe}	4.77		
M_{2nd}	9.51 (10.04)		
	-.46	11.90	

Group S③: S① + .3 Wave 125%

	Case A	Case B	Case C
S①	11.90		
.3W	-.69		
	11.21		

Group S④: S① + T 125%

	Case A	Case B	Case C
S①	11.90		
T	-.19		
	11.71		

Group S⑥: S③ + T 140%

	Case A	Case B	Case C
S③	11.21		
T	-.19		
	11.02		

$$f = \frac{-76.27}{168} \pm \frac{11.90(12)}{392} = -.454 \pm .364 = -.818^{ksi} \text{ Max} < 2.0^{ksi}$$
$$= -.090^{ksi} \text{ Min.} \quad 0^{ksi}$$
O.K.

Flood Damage

Group S⑦: S① + DM

	Case A	Case B	Case C
S①			
DM			

Group S⑨: S③ + DM

	Case A	Case B	Case C
S③			
DM			

$$f = \quad \pm \quad = \quad \pm \quad = \quad ^{ksi} \text{ Max} < 2.0^{ksi}$$
$$= \quad ^{ksi} \text{ Min.} \quad -.212^{ksi}$$

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Form 232-007 Sheet No.