DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	570R2	1204

REGISTERED ENGINEER - CIVIL

12-6-04
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Marwan N. Nader — No. C 054426 — Exp. 12/31/11 — CIVIL — STATE OF CALIFORNIA

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825 BATTERY STREET
SAN FRANCISCO, CA 94111

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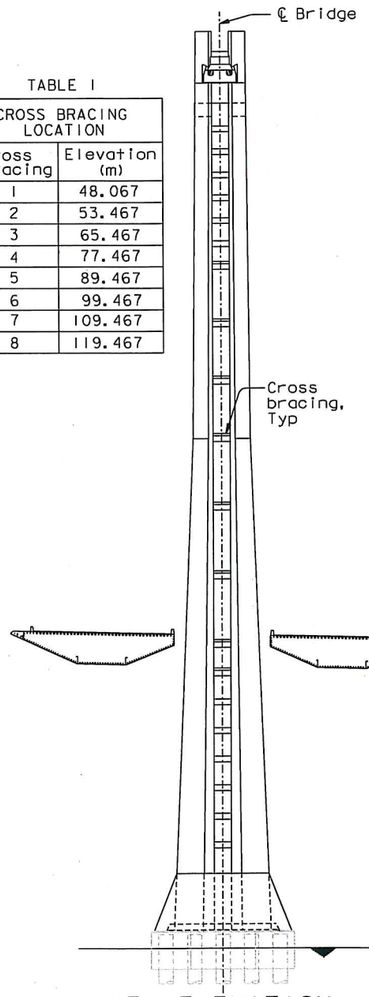
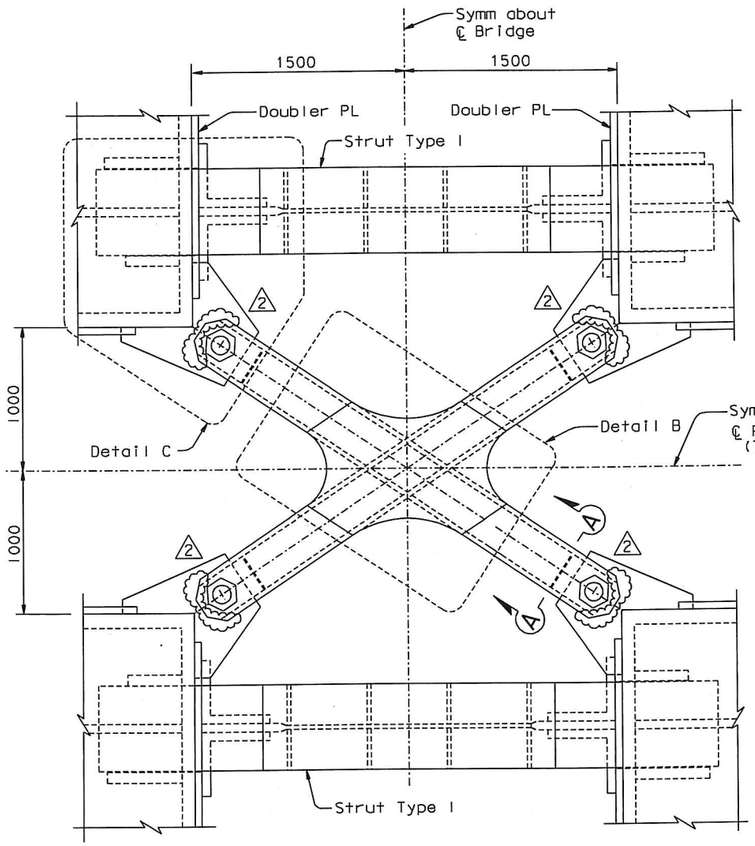
TABLE 1

CROSS BRACING LOCATION	
Cross bracing	Elevation (m)
1	48.067
2	53.467
3	65.467
4	77.467
5	89.467
6	99.467
7	109.467
8	119.467

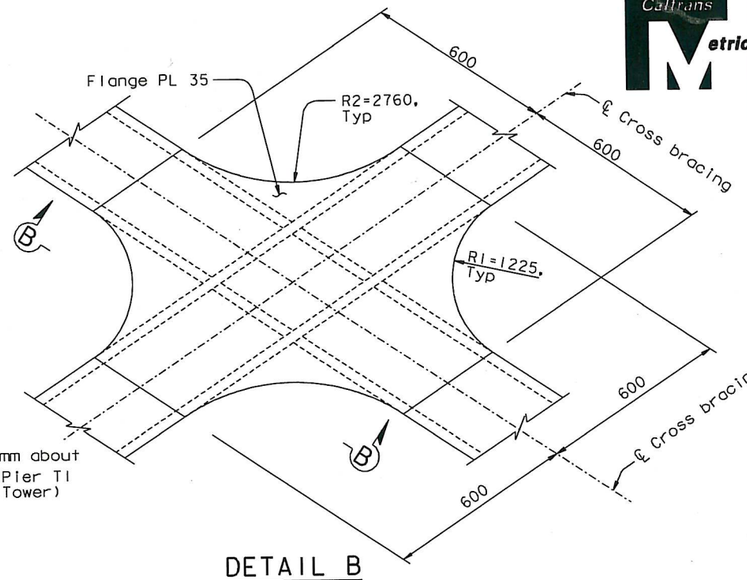


KEY ELEVATION
1:500

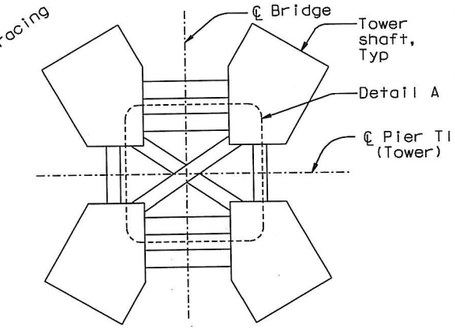


DETAIL A (see Note 1)

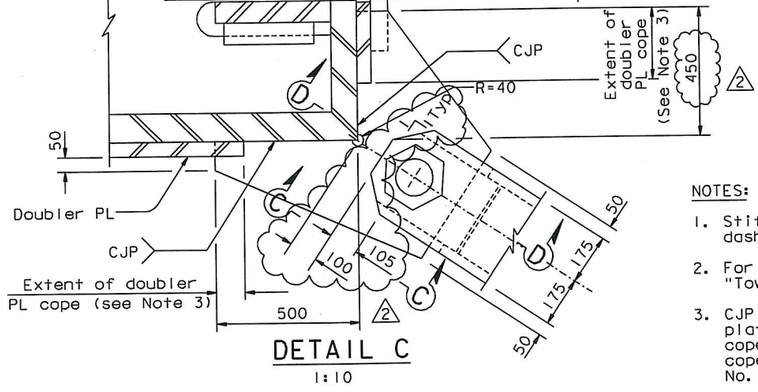
CROSS BRACING
1:20



DETAIL B
1:10
(Dimensions of gusset plate are given parallel to ℄ of cross bracing)



KEY PLAN VIEW
1:100



DETAIL C
1:10

NOTES:

1. Stiffeners inside tower shaft are shown in dashed line for clarity.
2. For Sections A-A, B-B, C-C and D-D, see "Tower Strut Details No.10" sheet.
3. CJP weld shall be provided between gusset plate and tower skin plate and in between cope of doubler plate. For doubler plate cope details, see "Tower Shaft Details No.11" sheet.

CONTRACT CHANGE ORDER NO. 6451
SHEET 3 OF 9

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
2	10/08/10	TOWER STRUT FACADES AND CROSS BRACING	NV	MN	6451
1	06/23/06	FIT LUG AND MISC	MN	NV	21

REVISIONS

R. Valizadeh/V. Toan/Y.L./W.L./F.C.
DESIGN OVERSIGHT
SIGN OFF DATE 10/08/10

	BY	CHECKED
DESIGN	M. Nader	S. Camo
DETAILS	L. Rus	S. Camo
QUANTITIES	L. Rus	Y. Zhang

PREPARED FOR THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

R. Manzanarez
PROJECT ENGINEER

BRIDGE NO. 34-0006L/R
KILOMETER POST 13.2/13.9

CU 04
EA 0120F1

SAN FRANCISCO OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT
SELF-ANCHORED SUSPENSION BRIDGE
(SUPERSTRUCTURE & TOWER)

TOWER STRUT DETAILS NO.9

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES (PRELIMINARY STAGE ONLY): 05/15/99 | 08/07/99 | 05/31/01 | 04/08/02 | 07/31/02 | 12/30/02 | 11/13/03

SHEET 153R2 OF

Rev. Date: 5-18-98

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

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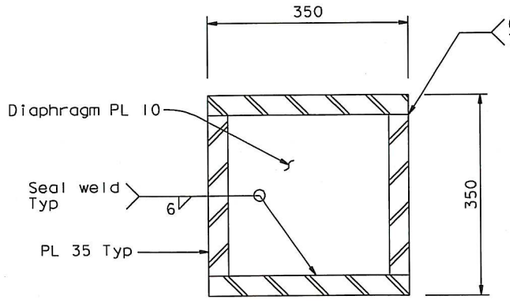
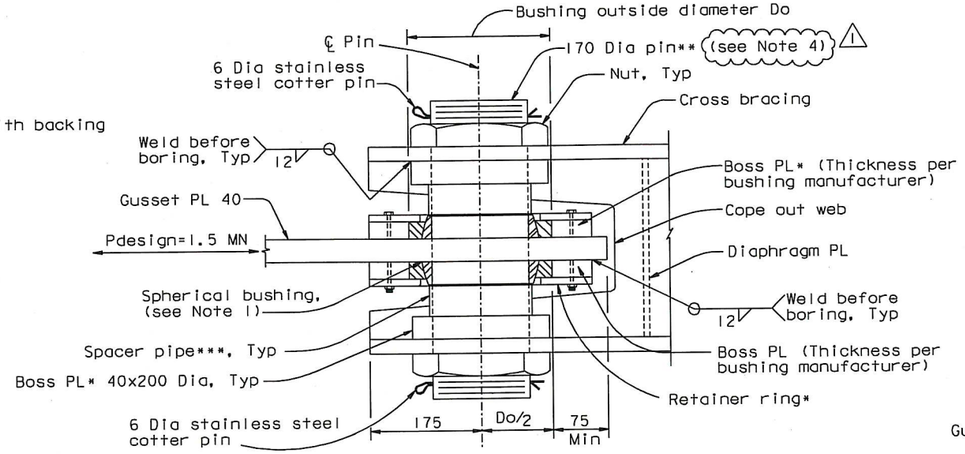
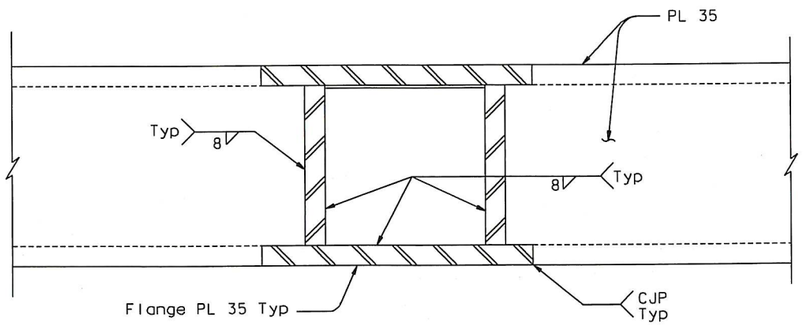


SECTION A-A
1:5



SECTION C-C
1:5

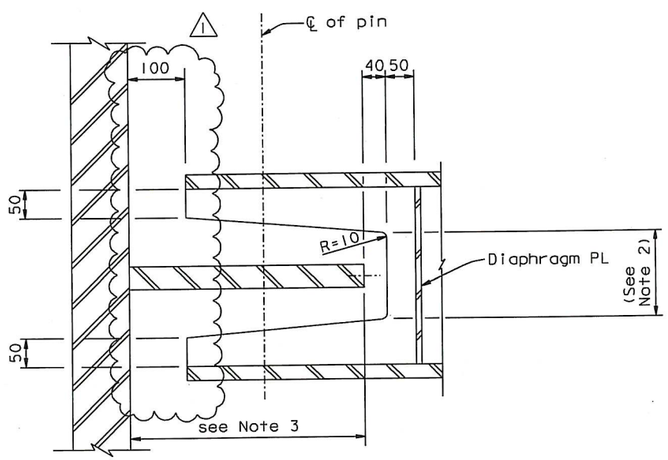
* A709M Grade 345
** A668 Grade F
*** A53 Grade B



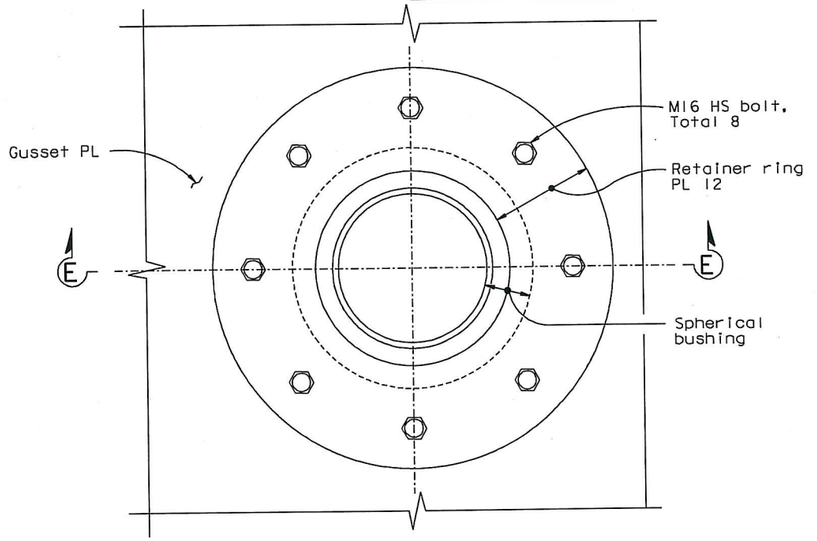
SECTION B-B
1:5

NOTES:

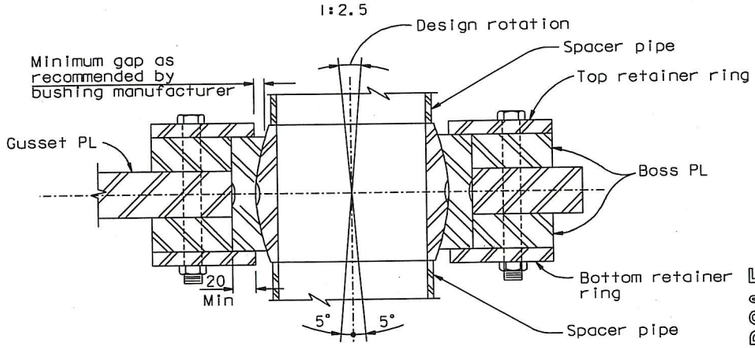
1. Maintenance-free steel spherical bushing shall accomodate a shaft diameter of 170 mm, a maximum angle of rotation of ±5 degrees, (about a horizontal axis) and a maximum dynamic load of 1.5 MN. 1
2. Cope out web as required to clear retainer rings and bolts.
3. Gusset plate shall be long enough to accomodate tolerance for distances between tower shafts.
1. 4. Pin hole diameter shall not exceed pin diameter by more than 0.8 mm per Caltrans Standard Specifications Section 55-3.15.



SECTION D-D (Pin not shown for clarity)
1:5



PLAN
1:2.5



SECTION E-E
1:2.5

RETAINER RING DETAIL
(Pin not shown for clarity)

CONTRACT CHANGE ORDER NO. 6451
SHEET 4 OF 9

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	571RI	1204

Caltrans Metric

REGISTERED ENGINEER - CIVIL
12-6-04
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Marwan N. Nader — No. C 054426 — Exp. 12/31/11 — CIVIL — STATE OF CALIFORNIA

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MARK	DATE	REVISIONS	BY	CH'D	CCO#
1	10/08/10	TOWER STRUT FACADES AND CROSS BRACING	NV	MN	6451

R. Valizadeh/V. Toan/Y.L./W.L./F.C.
DESIGN OVERSIGHT
Reza Valizadeh / Vong Toan / Y Liu
SIGN OFF DATE 10/08/10

	BY	CHECKED
DESIGN	M. Nader	S. Camo
DETAILS	L. Rus	S. Camo
QUANTITIES	L. Rus	Y. Zhang

PREPARED FOR THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

R. Manzanarez
PROJECT ENGINEER

BRIDGE NO. 34-0006L/R
KILOMETER POST 13.2/13.9

CU 04
EA 0120F1

DISREGARD PRINTS BEARING EARLIER REVISION DATES →
REVISION DATES (PRELIMINARY STAGE ONLY): 05/31/01 | 04/08/02 | 07/01/02 | 12/19/02

SAN FRANCISCO OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT
SELF-ANCHORED SUSPENSION BRIDGE
(SUPERSTRUCTURE & TOWER)

TOWER STRUT DETAILS NO. 10

SHEET 154RI OF

Rev. Date: 5-18-98

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

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DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	573R3	1204

REGISTERED ENGINEER - CIVIL

12-6-04
PLANS APPROVAL DATE

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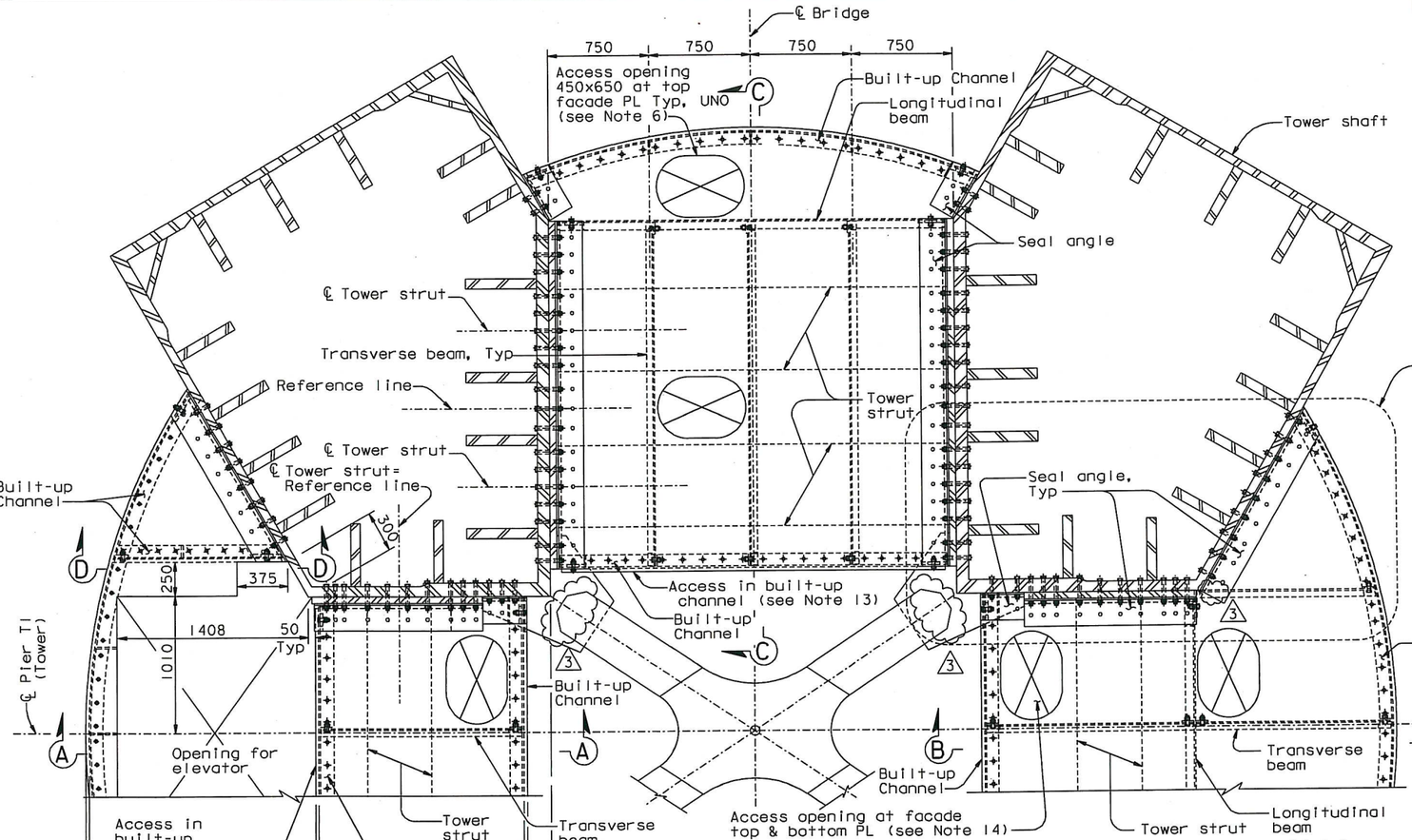
REGISTERED PROFESSIONAL ENGINEER — Marwan N. Nader — No. C 054426 — Exp. 12/31/11 — CIVIL — STATE OF CALIFORNIA

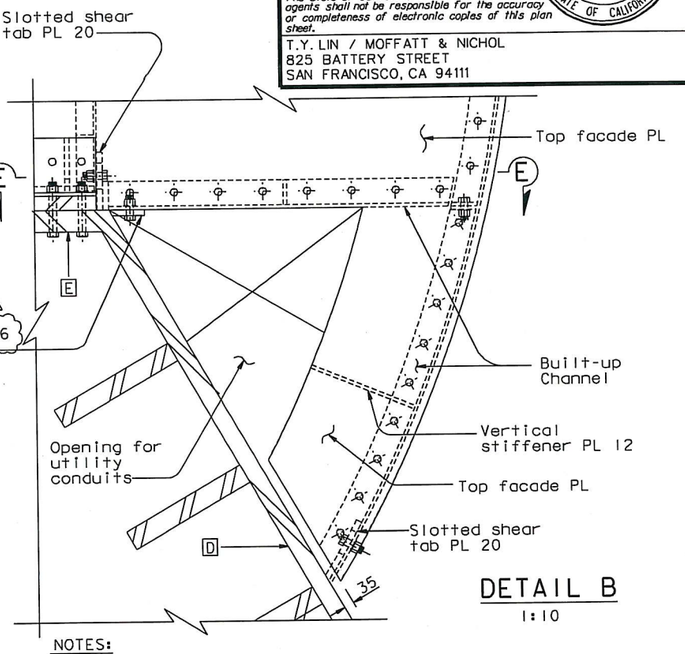
T.Y. LIN / MOFFATT & NICHOL
825 BATTERY STREET
SAN FRANCISCO, CA 94111

Caltrans Metric

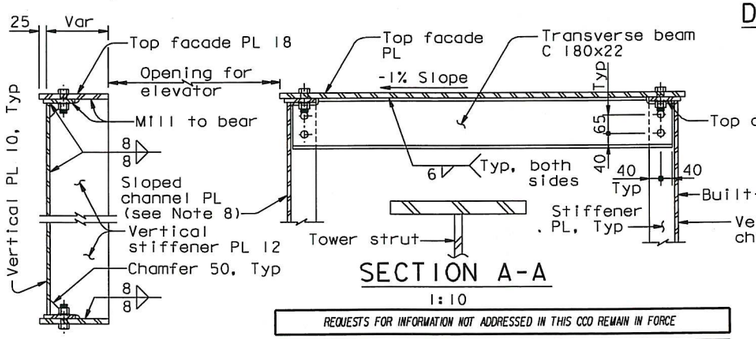
LEGEND:
- M24 A325-X Bolt
- O 24 Dia A307 Bolt



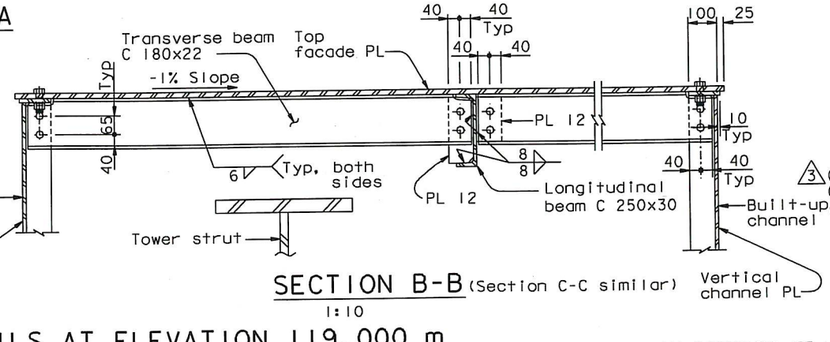
DETAIL A
1:20



DETAIL B
1:10



SECTION A-A
1:10



SECTION B-B (Section C-C similar)
1:10

NOTES:

1. For Detail D, see "Tower Strut Facade Details No. 4" sheet.
2. For tower shaft details, see "Tower Shaft Details" sheets.
3. All bolts are A325 M24 unless noted otherwise.
4. For Section D-D and E-E, see "Tower Strut Facade Details No. 3" sheet.
5. All details of tower strut facade shall account for the 1% slope of the tower top and bottom facade plates.
6. For access opening details, see "Tower Access Details" sheets. Access opening shall be located such that there is minimum interference with tower strut and tower strut facade framing system. Access openings may be offset subject to review and approval of the Engineer.
7. For details of built-up channel, see "Tower Strut Facade Details No. 3" sheet.
8. Vertical plate of built-up channel at corner of plate D E shall be sloped to match the slope of edge of plate E.
9. (3) At the Contractor's option, an alternative material may be used for the Shear tab PL 6, subject to review and approval of the Engineer. Also, the Contractor may use standard oversize holes.
10. Framing details and support at bottom of strut facade are similar to those at the top of strut facade, UNO.
11. For sealing details, see "Tower Strut Facade Details No. 4" sheet.
12. Access openings in built-up channel are provided for access between tower strut and built-up channel. For details, see View H-H on "Tower Strut Facade Details No. 3" sheet.
13. Access openings in built-up channel are provided for access between tower strut and built-up channel. For details, see View G-G on "Tower Strut Facade Details No. 3" sheet.
14. Access opening in top and bottom facade PL shall be provided at this location for strut facade Type B also.

DETAILS AT ELEVATION 119.000 m
(Other elevations similar)

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
		REVISIONS			
3	10/08/10	TOWER STRUT FACADES AND CROSS BRACING	NV	MN	64SI
2	07/18/08	TOWER ACCESS	MN	NV	65
1	07/11/08	TOWER STRUT FACADES AND CROSS BRACING	MN	NV	64

CONTRACT CHANGE ORDER NO. 64SI
SHEET 5 OF 9

	BY	CHECKED
DESIGN	M. Nader	M. Gulyas
DETAILS	L. Rus	M. Gulyas
QUANTITIES	L. Rus	Y. Zhang

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

R. Manzanarez
PROJECT ENGINEER

CU 04
EA 0120F1

BRIDGE NO. 34-0006L/R
KILOMETER POST 13.2/13.9

SAN FRANCISCO OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT
SELF-ANCHORED SUSPENSION BRIDGE
(SUPERSTRUCTURE & TOWER)

TOWER STRUT FACADE DETAILS NO. 2

SHEET 156R3 OF

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY):
05/02/99 | 05/17/01 | 01/30/02 | 07/01/02 | 12/19/02

R. Valizadeh/V. Toan/Y.L./W.L./F.C.
DESIGN OVERSIGHT
SIGN OFF DATE 10/08/10

Rev. Date: 5-18-98

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

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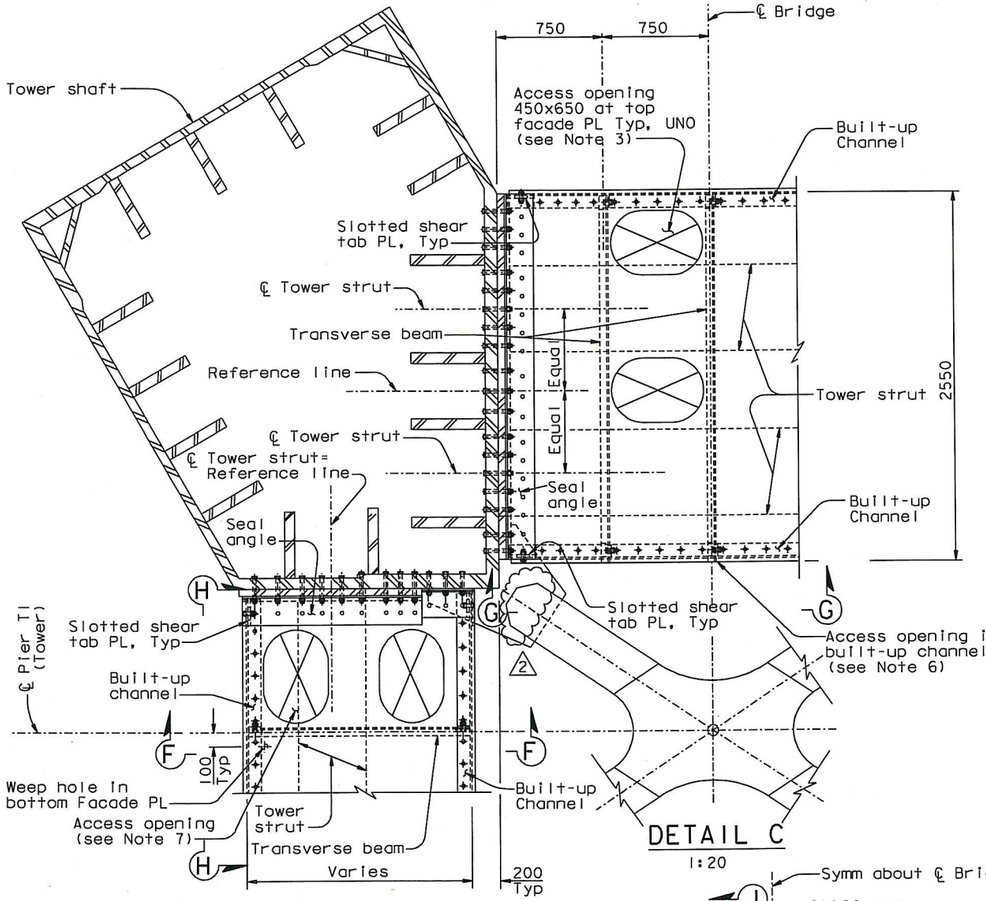
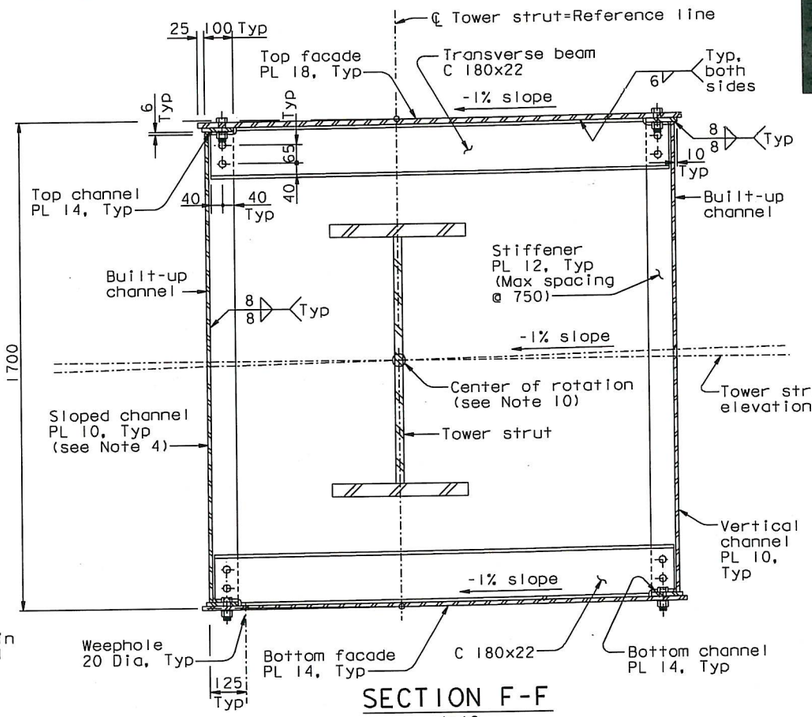


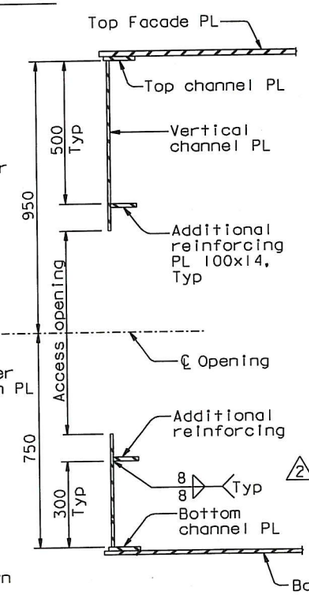
DETAIL C

1:20



SECTION F-F

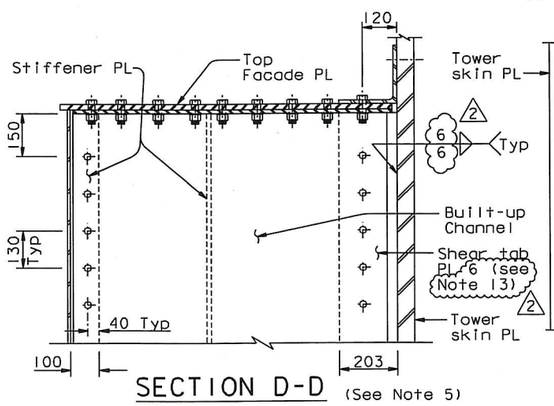
1:10



SECTION J-J

1:10

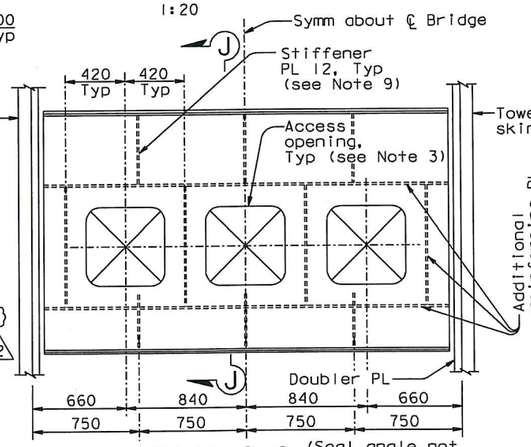
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN



SECTION D-D (See Note 5)

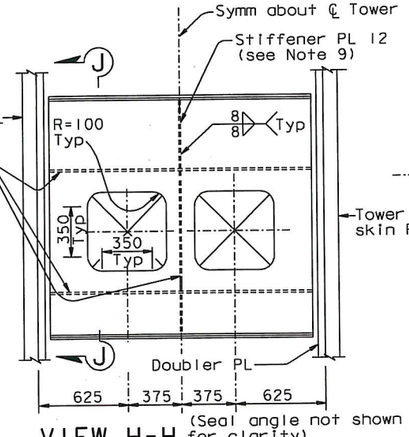
1:10

(Section E-E similar)



VIEW G-G (Seal angle not shown for clarity)

1:20



VIEW H-H

1:20

(Seal angle not shown for clarity)
(Access openings do not exist between elevation 18.000 m and 77.000 m)

DETAIL AT ELEVATION 109.000 m (Other elevation similar)

LEGEND:

⊕ M24 A325-X Bolt

O 24 Dia A307 Bolt

NOTES:

1. All bolts are A325 M24 unless noted otherwise.
2. All details of tower strut facade shall account for the 1% slope of the tower top and bottom facade plates.
3. For access opening details, see "Tower Access Details" sheets. Access opening shall be located such that there is minimum interference with tower strut and tower strut facade framing system.
4. Vertical plate of built-up channel at corner of plate D E shall be sloped to match the slope of edge of plate E.
5. For tightening the bolts shown in Section D-D, the nuts may be tack welded.
6. Access openings in built-up channel are provided for access between tower strut and built-up channel, see View G-G.
7. This access opening is at tower strut facade between elevation 18 and 77 only. For access between tower strut and built-up channel, between elevations 89 to 109, access opening is provided in built-up channel instead, see View H-H.
8. Additional reinforcing plates are required for built-up channel with access openings.
9. Stiffener plates shall be terminated as required for openings in built-up channel.
10. The center of rotation shall be located at the intersection of the Reference line with the tower strut elevation line.
11. For sealing details, see "Tower Strut Facade Details No.4" sheet.
12. For access in bottom facade PL, see Note 14 on "Tower Strut Facade Details No.2" sheet.
13. At the Contractor's option, an alternative material may be used for the Shear tab PL 6, subject to review and approval of the Engineer. Also, the Contractor may use standard oversize holes.

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	574R2	1204

REGISTERED ENGINEER - CIVIL

Marwan N. Nader No. C 054426 Exp. 12/31/11 CIVIL STATE OF CALIFORNIA

12-6-04

PLANS APPROVAL DATE

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825 BATTERY STREET
SAN FRANCISCO, CA 94111

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REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
2	10/08/10	TOWER STRUT FACADES AND CROSS BRACING	NV	MN	64SI
1	07/11/08	TOWER STRUT FACADES AND CROSS BRACING	MN	NV	64

REVISIONS

CONTRACT CHANGE ORDER NO. 64SI

SHEET 6 OF 9

	BY	CHECKED
DESIGN	M. Nader	M. Gulyas
DETAILS	L. Rus	M. Gulyas
QUANTITIES	L. Rus	Y. Zhang

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

R. Manzanarez
PROJECT ENGINEER

CU 04
EA 0120F1

BRIDGE NO. 34-0006L/R

KILOMETER POST 13.2/13.9

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)=> 05/29/01 | 01/03/02 | 01/29/02 | 12/19/02

SHEET 157R2 OF

SAN FRANCISCO OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT
SELF-ANCHORED SUSPENSION BRIDGE
(SUPERSTRUCTURE & TOWER)

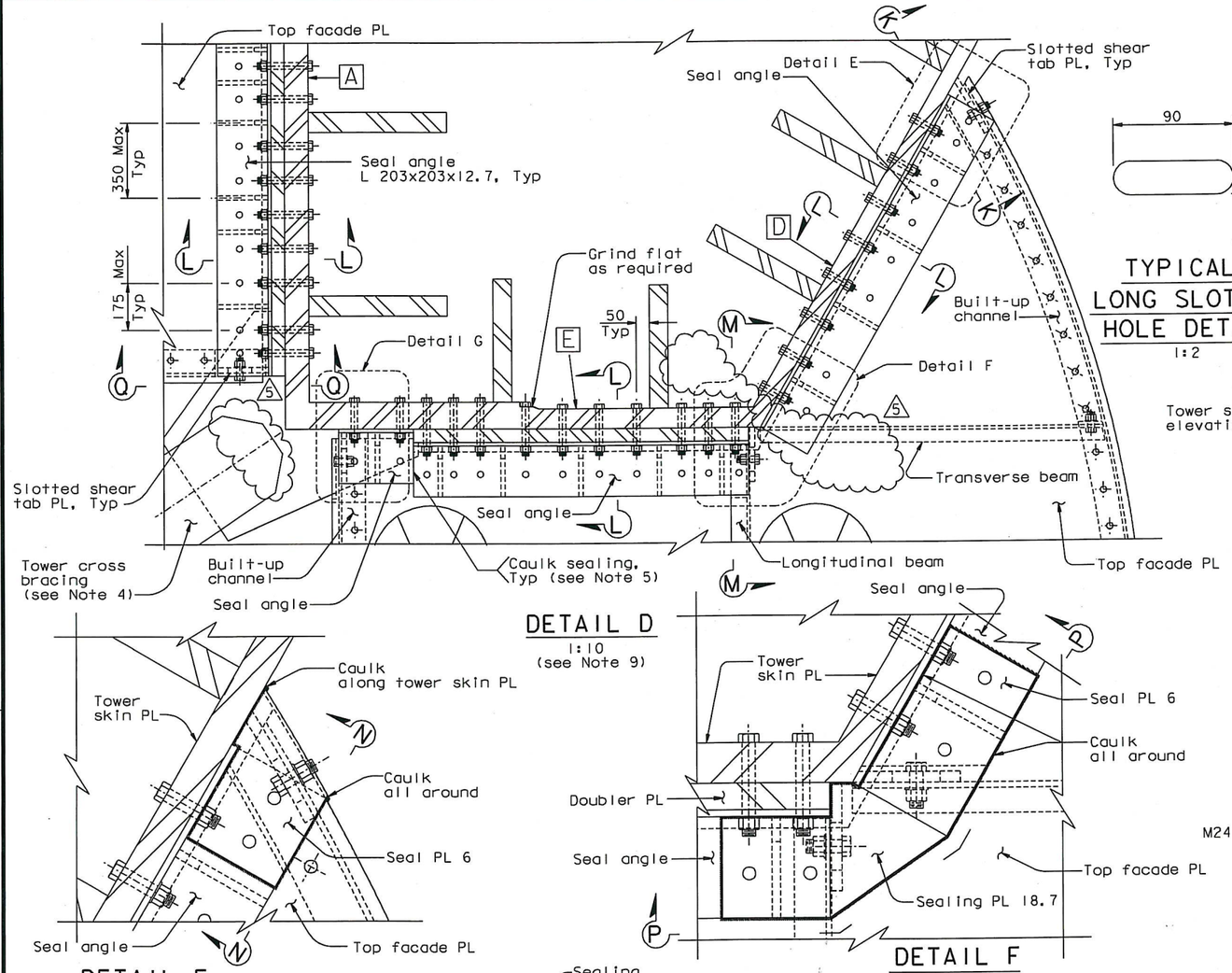
TOWER STRUT FACADE DETAILS NO. 3

R. Valizadeh/V. Toan/Y.L./W.L./F.C.
DESIGN OVERSIGHT
SIGN OFF DATE 10/08/10

Rev. Date: 5-18-98

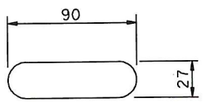
ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

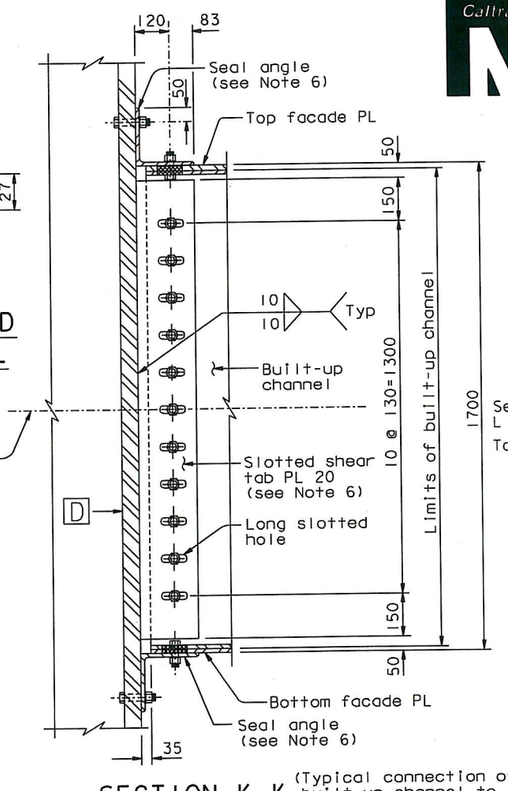
FILE => I:\bb\04-012001\sas\contract plans and cco\cco\cco#64si\2-revision 10-08-10\dgn\detws12.dgn



TYPICAL LONG SLOTTED HOLE DETAIL

1:2



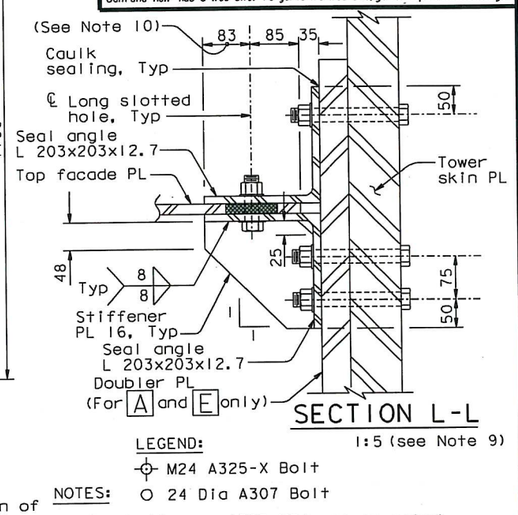


Tower strut elevation

SECTION K-K

(Typical connection of built-up channel to tower shaft UNO)

1:10 (see Note 9)



SECTION L-L

1:5 (see Note 9)

DETAIL E (Detail G similar)

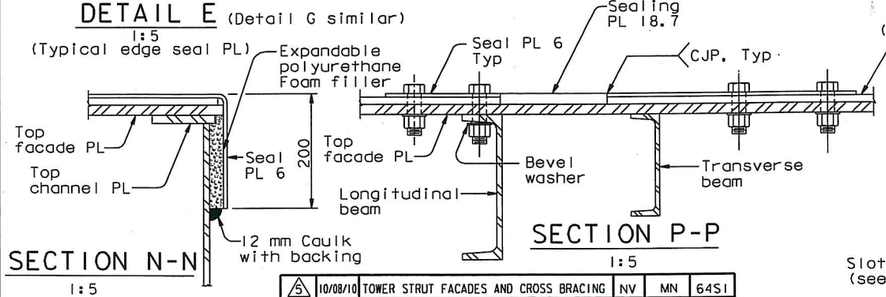
1:5

(Typical edge seal PL)

DETAIL F

1:5

(Typical corner seal PL)

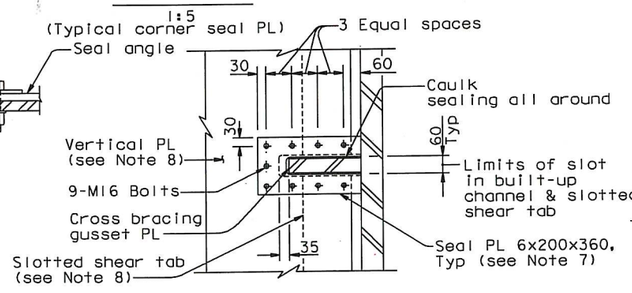


SECTION N-N

1:5

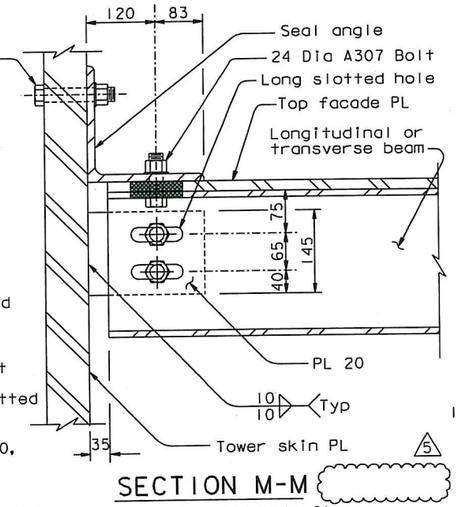
SECTION P-P

1:5



SECTION Q-Q (Typical gusset seal PL)

1:10



SECTION M-M

1:5 (see Note 9)

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

LEGEND:

- M24 A325-X Bolt
- O 24 Dia A307 Bolt

NOTES:

1. All bolts are A325 M24 unless noted otherwise.
2. For details of built-up channel, see "Tower Strut Facade Details No.3" sheet.
3. All details of tower strut facade shall account for the 1% slope of the tower top and bottom facade plates.
4. For tower cross bracing location, see "Tower Strut Details No.9" sheet.
5. Seal plates and sealant material shall be placed such that the interior of the tower strut facade is properly sealed from the exterior.
6. PTFE film (0.5 thick) shall be applied on the faying surfaces between the slotted shear tab and the built-up channel plate, between the seal angle and the top facade PL, and between the seal angle and the bottom facade PL.
7. Seal plate shall be tight fit to the cross bracing gusset plate.
8. Cope vertical channel plate and slotted shear tab as necessary to accomodate cross bracing gusset plate. Slot location shall match slot in doubler plate . For doubler plate slot details, see "Tower Shaft Details No.11" sheet.
9. For sealing plate details, see Details E,F and Sections N-N,P-P,Q-Q.
10. At the Contractor's option, exterior sealing angle may be coped as required for clearance with access door cover plate to accommodate design movement, subject to review and approval of the Engineer.

MARK	DATE	REVISIONS	BY	CH'D	CCO#
5	10/08/10	TOWER STRUT FACADES AND CROSS BRACING	NV	MN	64SI
4	10/17/08	CAULKING	NV	MN	66
3	10/01/08	TOWER ACCESS	NV	MN	65
2	07/11/08	TOWER STRUT FACADES AND CROSS BRACING	NV	MN	64
1	08/01/07	TOWER STRUT FACADE PTFE	NV	MN	48

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

CONTRACT CHANGE ORDER NO. 64SI

SHEET 7 OF 9

	BY	CHECKED
DESIGN	M. Nader	M. Gulyas
DETAILS	L. Rus	M. Gulyas
QUANTITIES	L. Rus	Y. Zhang

R. Valizadeh/V. Toan/Y. L. /W. L. /F. C.

DESIGN OVERSIGHT

Ryan Valizadeh / Vonp. Toan / Y. Liu

SIGN OFF DATE 10/08/10

Rev. Date: 5-18-98

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

R. Manzanarez

PROJECT ENGINEER

BRIDGE NO. 34-0006L/R

KILOMETER POST 13.2/13.9

CU 04

EA 0120F1

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY): 08/27/99 | 05/31/01 | 04/08/02 | 05/29/02 | 12/19/02

SHEET 158R5 OF

FILE => I:\bb\04-01200I\sas\contract plans and cco\cco\cco#64si\2-revision 10-08-10\dgn\aetwsI3.dgn

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	575R5	1204

REGISTERED ENGINEER - CIVIL

12-6-04

PLANS APPROVAL DATE

Marwan N. Nader, No. C 054426, Exp. 12/31/11, CIVIL, REGISTERED PROFESSIONAL ENGINEER, STATE OF CALIFORNIA

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SAN FRANCISCO OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT
SELF-ANCHORED SUSPENSION BRIDGE
(SUPERSTRUCTURE & TOWER)

TOWER STRUT FACADE DETAILS NO. 4

100 % PS&E

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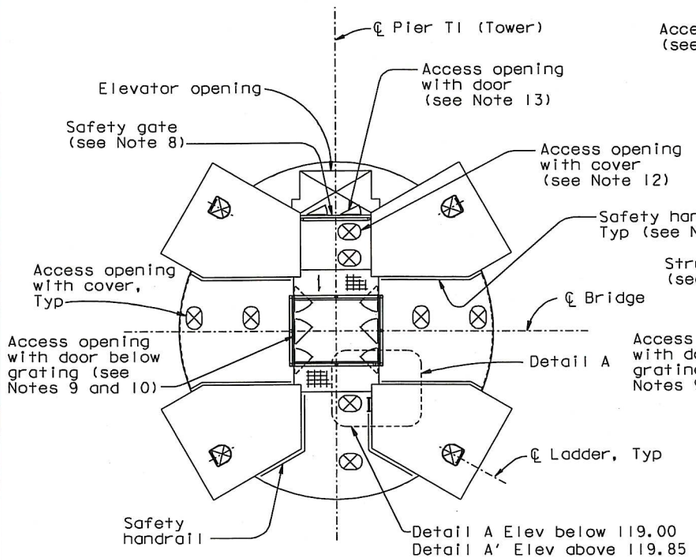
DATE PLOTTED => 11 OCT 2010

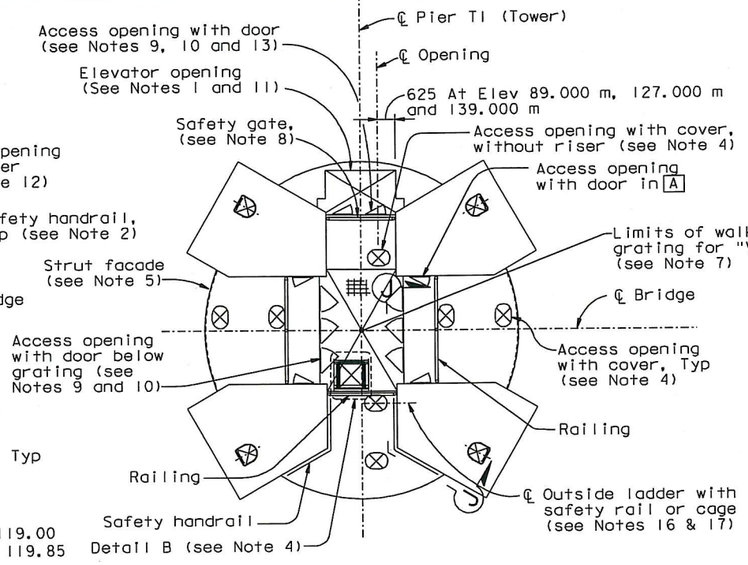
USERNAME => arivera



SECTION D-D

NTS

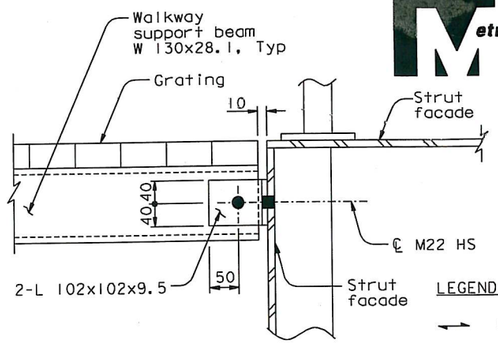
Typical for all tower strut facades UNO in Section E-E. Facade Type A is shown. Type B similar (see Notes 5 and 10)



SECTION E-E

NTS

(Shown for tower strut facade corresponding to tower strut at Elev 139.000 m, safety gates and door locations at Elev 53.000 m, 89.000 m and 127.000 m are similar)



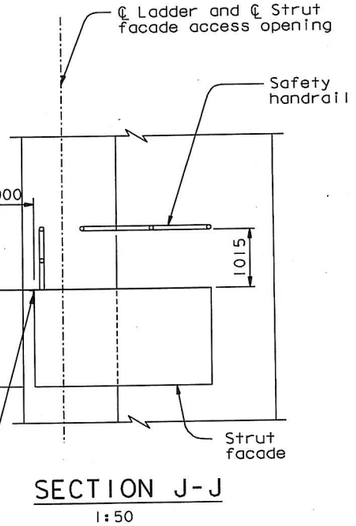
SECTION G-G

(Section G'-G' similar)

1:5

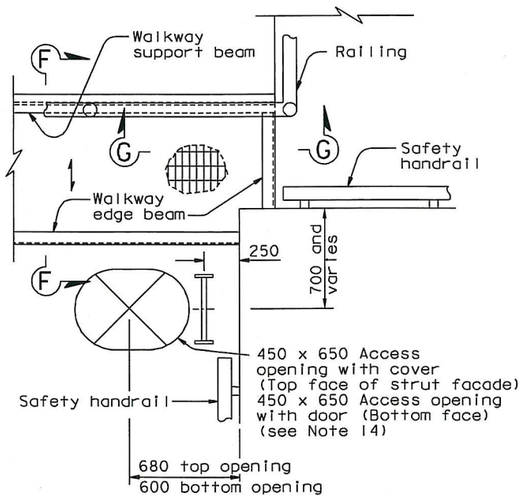
LEGEND:

- Direction of main reinforcement of grating
- Access opening
- A — Tower shaft skin plate A



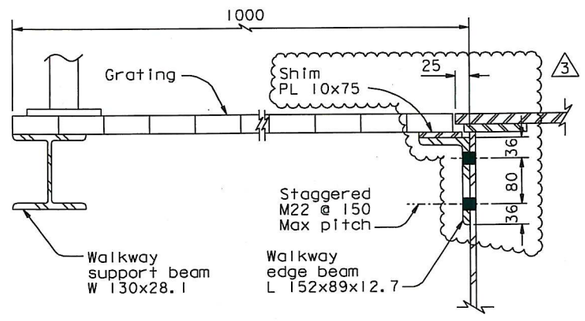
SECTION J-J

1:50



DETAIL A

1:20



SECTION F-F

1:5

NOTES:

1. For elevator opening details, see "Tower Strut Facade Details" sheets.
2. For railing and safety handrail details, see "Tower Access Details No.8" sheet.
3. For ladder details not shown, see "Tower Access Details No.7" sheet.
4. For Detail B and access cover details, see "Tower Access Details No.9" sheet. All covers are with risers, unless noted otherwise.
5. For strut facade, see "Tower Strut Facade Details" sheets.
6. Galvanized steel grating with fasteners to be provided by Contractor. Grating working load shall be 4.8 kN/m² (100psf) unless noted otherwise.
7. Gratings at elevations 53.000, 89.000 and 139.000 shall support "VAB" equipment, to be supplied by others. Walkway grating for "VAB" shall be galvanized steel grating with fasteners to be provided by Contractor. Grating working load shall be 14.8 kN/m² (300psf).
8. For Safety gate details, see "Road Plans" sheets.
9. For access opening and door details, see "Tower Access Details No.4" sheet. Access openings are without door unless noted otherwise.
10. For location of access openings in strut facade, see "Tower Strut Facade Details" sheets.
11. For location of elevator landing and safety enclosures, see "Tower Elevator Support Details" sheets.
12. This access opening is to be provided in strut facades from elevation 18.000 m to 77.000 m only.
13. These access openings are to be provided between elevation 89.000 m to 143.000 m.
14. For bottom face access opening provide door to swing in. Door shall open clear of obstructions. For other details, see door at vertical face of tower strut facade on "Tower Access Details No.4" sheet.
15. The Contractor shall provide ladders inside the front facades to align with the exterior ladder segments. Ladder do not penetrate the strut facade plates.
16. At locations where ladder lengths exceed 6.5 meters, contraction joints shall be provided. Ladder length is defined as the distance between the centerlines of the top and bottom end supports. Contraction joints shall be located below ladder supports unless noted otherwise. For contraction joint details, see "Tower Access Details No.7" sheet.
17. Ladder supports shall be spaced at 6 meters maximum.
18. For Section Z-Z and Detail A', see "Tower Access Details No.3A" sheet.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

CONTRACT CHANGE ORDER NO. 6451
SHEET 8 OF 9

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
3	09/24/10	TOWER STRUT FACADES AND CROSS BRACING	NV	MN	6451
2	07/17/09	ELEVATOR DETAILS	TH	MN	85
1	07/18/08	TOWER ACCESS	NV	MN	65

REVISIONS

R. Valizadeh/V. Toan/Y.L./W.L./F.C.
DESIGN OVERSIGHT
SIGN OFF DATE 09/24/10

Rev. Date: 5-18-98

	BY	CHECKED
DESIGN	M. Nader	M. Gulyas
DETAILS	G. Baker	L. Rus
QUANTITIES	D. Turner	J. Leventini

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

R. Manzanarez
PROJECT ENGINEER

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 04
EA 0120F1

BRIDGE NO. 34-0006L/R
KILOMETER POST 13.2/13.9

DISREGARD PRINTS BEARING EARLIER REVISION DATES →
REVISION DATES (PRELIMINARY STAGE ONLY): 05/15/98 08/07/98 03/27/01 04/08/02 07/01/02 12/19/02

SHEET 502R3 OF

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DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	919R3	1204

REGISTERED ENGINEER - CIVIL
12-6-04
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Marwan N. Nader — No. C 054426 — Exp. 12/31/11 — CIVIL — STATE OF CALIFORNIA

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SAN FRANCISCO OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT
SELF-ANCHORED SUSPENSION BRIDGE
(SUPERSTRUCTURE & TOWER)

TOWER ACCESS DETAILS NO. 3

100% PS&E

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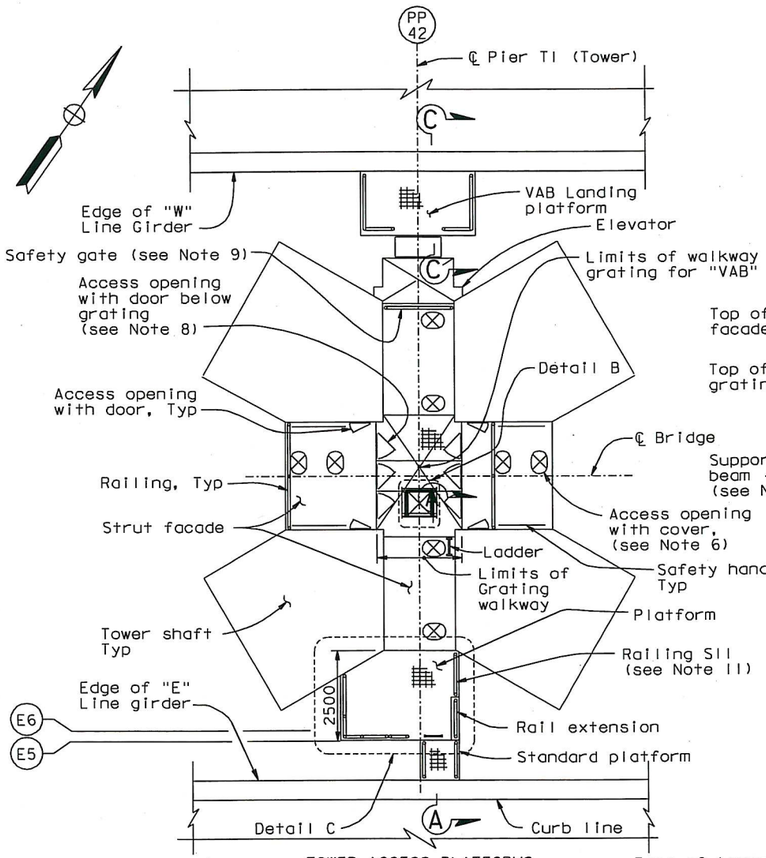
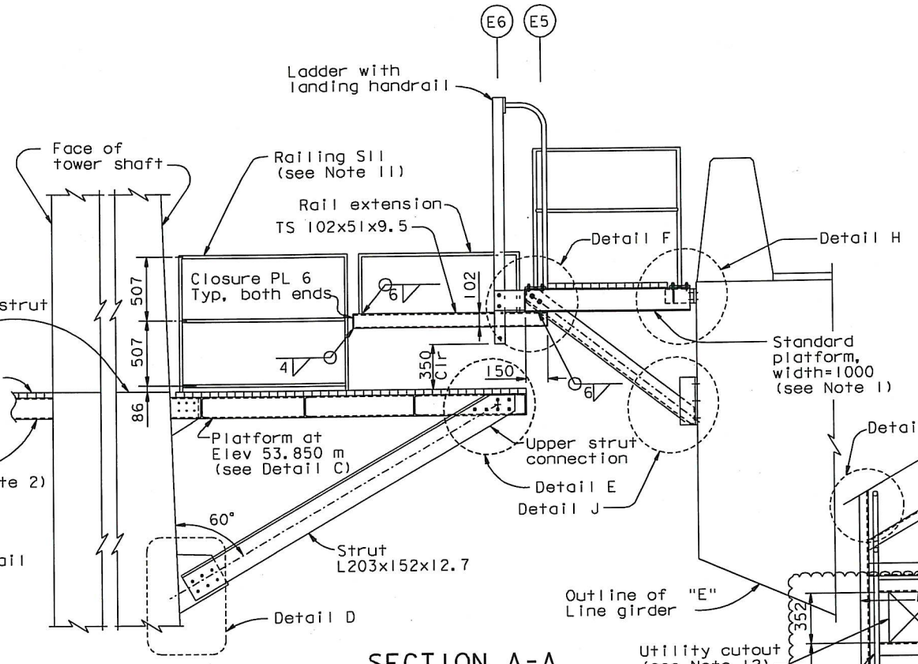


TOWER ACCESS PLATFORMS

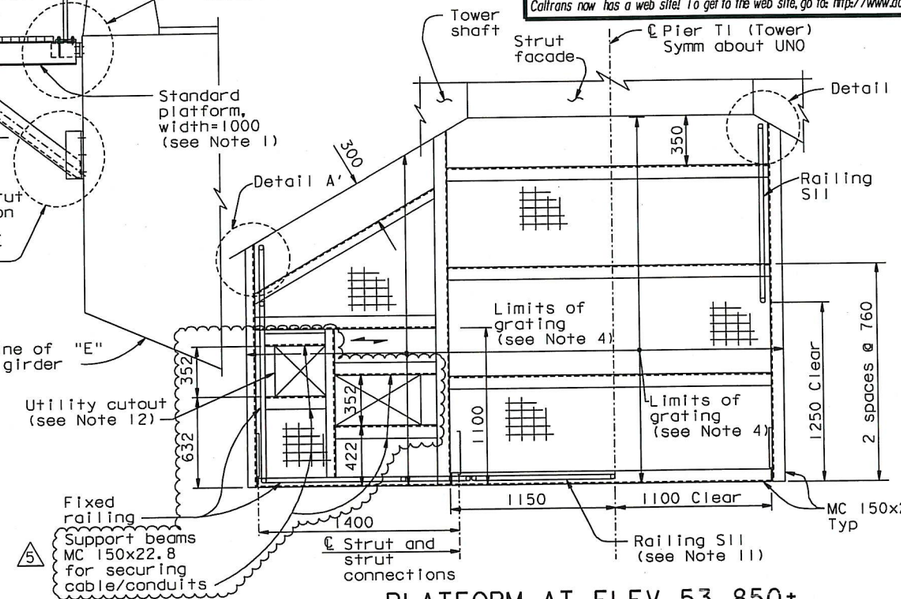
SECTION F-F

NTS



SECTION A-A

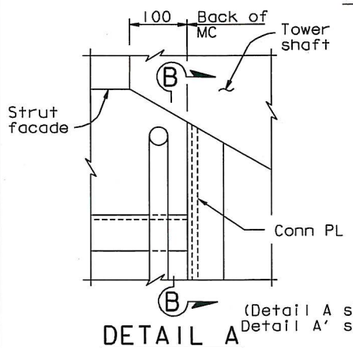
1:20



PLATFORM AT ELEV 53.850±

DETAIL C

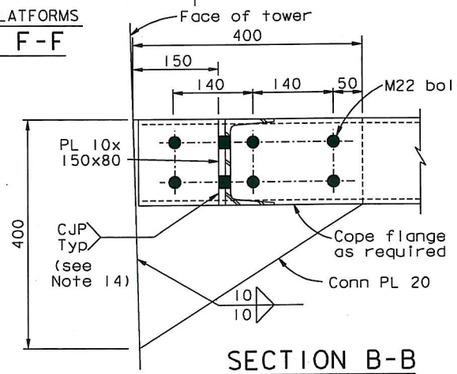
1:20



(Detail A shown, Detail A' similar)

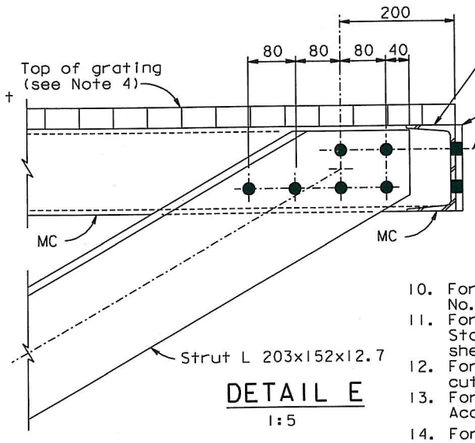
DETAIL A

1:5



SECTION B-B

1:5



DETAIL E

1:5

LEGEND:

(E6) Girder Working Line 6 on "E" Line.

NOTES:

1. For standard platform details, see "Tower Access Details No.9" sheet.
2. For walkway support beam details, see "Tower Access Details No.3" sheet.
3. For railing details, see "Tower Access Details No.8" sheet.
4. Grating shall be galvanized steel grating with fasteners. Grating working load shall be 14.4 kN/m².
5. For Section C-C, Details D, see "Tower Access Details No. 11" sheet.
6. For access opening cover details, see "Tower Access Details No.9" sheet. All covers are with risers unless noted otherwise.
7. For location of Tower access opening in strut facade, see "Tower Strut Facade Details" sheets.
8. For access opening and door details, see "Tower Access Details No.4" sheet.
9. For safety gate details, see "Road Plans" sheets.
10. For Detail B, see "Tower Access Details No.9" sheet.
11. For Railing S11 see Index to Caltrans Standard Plans on "General Notes No.1" sheet.
12. For dimensions and locations of utility cutouts in grating, see "Road Plans".
13. For Details F, H and J, see "Tower Access Details No. 12" sheet.
14. For the shear plate that is connected to the channel on the front (open) side, a double-sided 6 mm fillet weld may be used. Shear plate shall be connected to channel flanges and web.

CONTRACT CHANGE ORDER NO. 64S1
SHEET 9 OF 9

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

MARK	DATE	REVISIONS	BY	CH'D	CCO#
5	09/24/10	TOWER STRUT FACADES AND CROSS BRACING	NV	MN	64S1
4	09/25/09	HANDRAIL AND PLATFORMS	MN	TH	114
3	06/12/09	HANDRAIL	MN	TH	114
2	08/15/08	TOWER ACCESS	JD	MN	65
1	09/07/07	MECHANICAL MODIFICATIONS	JD	MN	31

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DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	926R5	1204

REGISTERED ENGINEER - CIVIL

12-6-04
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Marwan N. Nader — No. C 054426 — Exp. 12/31/11 — CIVIL — STATE OF CALIFORNIA

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DESIGN	BY	CHECKED
	M. Nader	M. Gulyas
DETAILS	G. Baker	L. Rus
QUANTITIES	D. Turner	J. Leventini

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

R. Manzanarez
PROJECT ENGINEER

BRIDGE NO. 34-0006L/R
KILOMETER POST 13.2/13.9

SAN FRANCISCO OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT
SELF-ANCHORED SUSPENSION BRIDGE (SUPERSTRUCTURE & TOWER)

TOWER ACCESS DETAILS NO. 10

R. Vallzadeh/V. Toan/Y.L./W.L./F.C.
DESIGN OVERSIGHT
SIGN OFF DATE 09/24/10

Rev. Date: 5-18-98

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 04
EA 0120F1

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY) → 05/23/95 | 05/23/99 | 05/23/01 | 01/08/02 | 01/07/02 | 12/19/02

SHEET 509R5 OF

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