DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	955SIRI	1204

REGISTERED ENGINEER - CIVIL

03-25-11

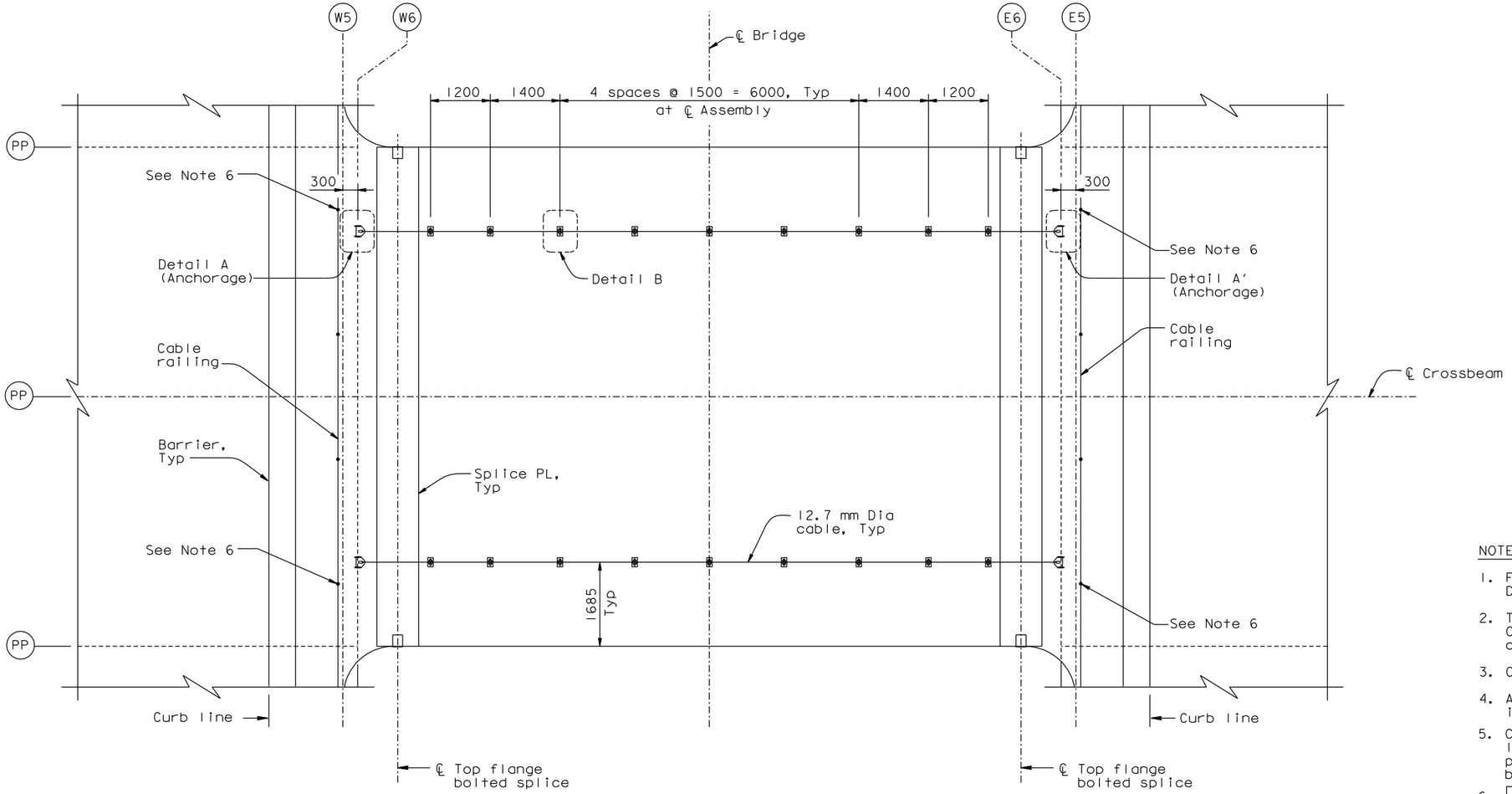
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER James P. Duxbury No. C 64677 Exp. 06/30/11 CIVIL STATE OF CALIFORNIA

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

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

Caltrans now has a web site! To get to the web site, go to: http://www.dot.ca.gov



CROSSBEAM SAFETY CABLE ALTERNATE PLAN (WELDED OPTION) (See Note 8)

1:50

NOTES:

1. For Details A, A' and B, see "Crossbeam Access Details No. 3B" sheet.
2. The cable shall be RRL preformed wire rope, 6x19 Class, IWRC, XIP, with minimum breaking strength of 118.3 kN.
3. Cable shall not be spliced between terminations.
4. All cable and hardware shall be galvanized and installed per manufacturer's recommendations.
5. Cable shall be installed with a deflection between 100 to 150 mm, measured from taut position, when pulled with an upward force of 0.13 kN at midpoint between any two padeyes.
6. No more than two (2) persons allowed on a single safety cable at any given time

   Post this information on a stainless steel plaque (200x300 minimum) on the cable railing posts at the locations shown (4 total). Plaque and mounting details shall be submitted for Engineer's review and approval.
7. For all cable segments, Contractor shall determine installation length by survey.
8. The Contractor may use the welded option or the bolted option. For bolted option, see "Crossbeam Access Details No. 3C" sheet.

100% PS&E

USERNAME => arivera DATE PLOTTED => 22 APR 2011 TIME PLOTTED => 13:41:38

CONTRACT CHANGE ORDER NO. ____
SHEET ____ OF ____

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

R. Valizadeh/V. Toan/Y.L./W.L./F.C.
DESIGN OVERSIGHT
SIGN OFF DATE 04/22/11

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
1	04/22/11	W2-OBG SAFETY CABLE	CC	JD	188
0	03/25/11	W2-OBG SAFETY CABLE	CC	JD	188

REVISIONS

DESIGN	BY C. Choi	CHECKED J. Duxbury	
DETAILS	BY L. Motal	CHECKED D. Turner	
QUANTITIES	BY L. Motal	CHECKED D. Turner	

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)

CROSSBEAM ACCESS DETAILS NO. 3A

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 03/25/11

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET 538SIRI OF

FILE => I:\bb\04-012001\sas\contract plans and cco\cco\cco#188\2-revision 04-22-11\dgn\akcad03a.dgn

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	955S2R1	1204

REGISTERED ENGINEER - CIVIL

03-25-11

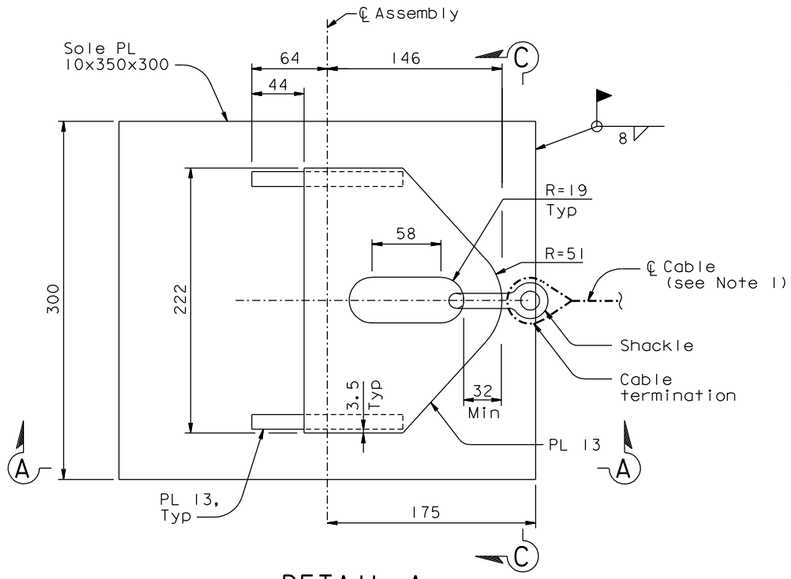
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER James P.Duxbury No. C 64677 Exp. 06/30/11 CIVIL STATE OF CALIFORNIA

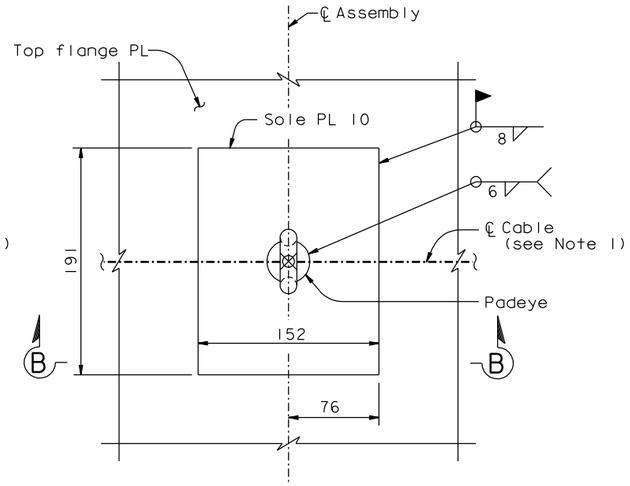
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

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

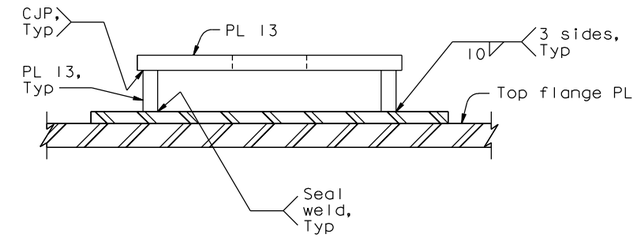
Caltrans now has a web site! To get to the web site, go to: http://www.dot.ca.gov



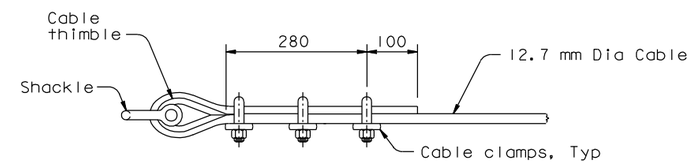
DETAIL A (Detail A' opposite)
1:2.5



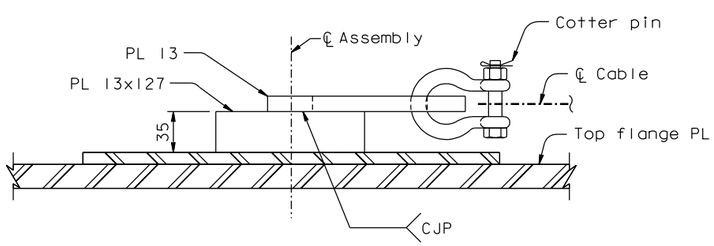
DETAIL B (Intermediate Padeye)
1:2.5



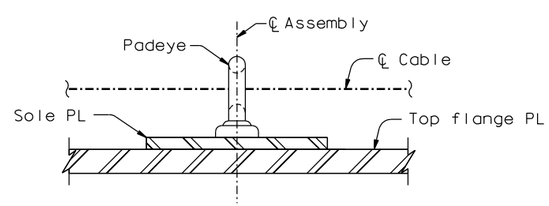
SECTION C-C (Shackle and Cable not shown for clarity)
1:2.5



CABLE TERMINATION DETAIL
NTS



SECTION A-A
1:2.5



SECTION B-B
1:2.5

NOTES:

1. For layout of cable, see "Crossbeam Access Details No. 3A" sheet. △1
2. Provide thimbles at all cable loops per manufacturer's recommendations.
3. Padeye shall be Crosby size No.5 or equivalent.
4. Sole plates and anchor plates shall have a minimum yield strength of Fy=50 ksi (345 MPa) and shall be A572 or equivalent.
5. Shackle shall be 0.5 in (12.7 mm) Crosby bolt type anchor shackle or equivalent, with a working load limit of at least 2 metric tons (19.6kN). Shackle shall be galvanized.
6. Assemblies shall be galvanized and painted. △1

100% PS&E

USERNAME => arivera DATE PLOTTED => 22 APR 2011 TIME PLOTTED => 13:42:35

CONTRACT CHANGE ORDER NO. ____
SHEET ____ OF ____

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

R. Valizadeh/V. Toan/Y.L./W.L./F.C.
DESIGN OVERSIGHT
SIGN OFF DATE 04/22/11

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
1	04/22/11	W2-OBG SAFETY CABLE	CC	JD	188
0	03/25/11	W2-OBG SAFETY CABLE	CC	JD	188

REVISIONS

	BY	CHECKED
DESIGN	C. Choi	J. Duxbury
DETAILS	L. Motal	C. Choi
QUANTITIES	L. Motal	C. Choi

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)

CROSSBEAM ACCESS DETAILS NO. 3B

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 → 03/25/11

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET 538S2R1 OF

FILE => I:\bb\04-012001\sas\contract plans and cco\cco\cco#188\2-revision 04-22-11\dgn\akcad03b.dgn

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	955S3	1204

REGISTERED ENGINEER - CIVIL

04-22-11

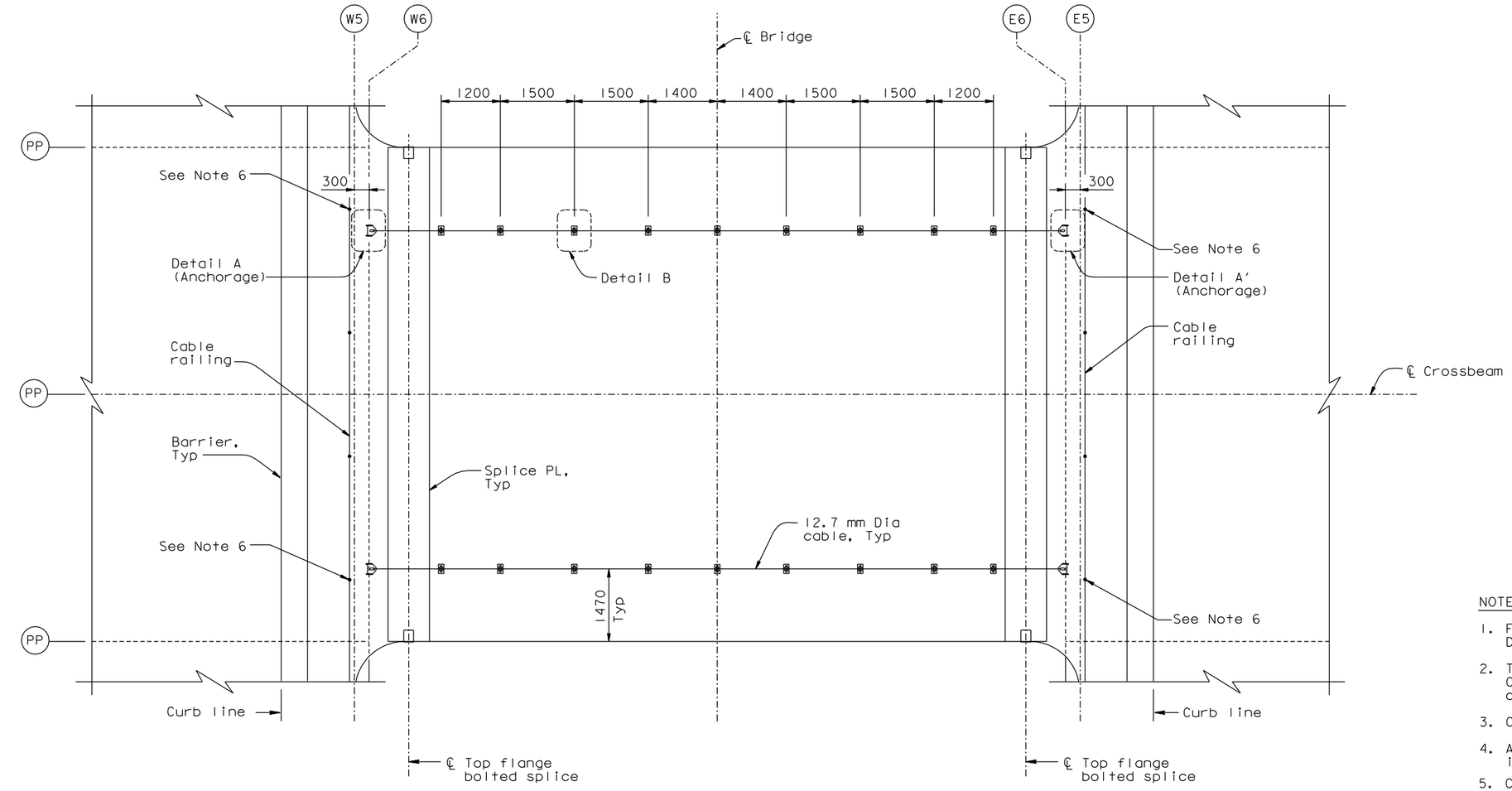
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER James P. Duxbury No. C 64677 Exp. 06/30/11 CIVIL STATE OF CALIFORNIA

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

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

Caltrans now has a web site! To get to the web site, go to: http://www.dot.ca.gov



CROSSBEAM SAFETY CABLE
ALTERNATE PLAN (BOLTED OPTION)

1:50

NOTES:

1. For Details A, A' and B, see "Crossbeam Access Details No. 3D" sheet.
2. The cable shall be RRL preformed wire rope, 6x19 Class, IWRC, XIP, with minimum breaking strength of 118.3 kN.
3. Cable shall not be spliced between terminations.
4. All cable and hardware shall be galvanized and installed per manufacturer's recommendations.
5. Cable shall be installed with a deflection between 100 to 150 mm, measured from taut position, when pulled with an upward force of 0.13 kN at midpoint between any two padeyes.
6. No more than two (2) persons allowed on a single safety cable at any given time

   Post this information on a stainless steel plaque (200x300 minimum) on the cable railing posts at the locations shown (4 total). Plaque and mounting details shall be submitted for Engineer's review and approval.
7. For all cable segments, Contractor shall determine installation length by survey.

CONTRACT CHANGE ORDER NO. ____
SHEET ____ OF ____

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

R. Valizadeh/V. Toan/Y.L./W.L./F.C.
DESIGN OVERSIGHT
SIGN OFF DATE 04/22/11

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
0	04/22/11	W2-OBG SAFETY CABLE	CC	JD	188

REVISIONS

DESIGN	BY	C. Choi	CHECKED	J. Duxbury
DETAILS	BY	L. Motal	CHECKED	D. Turner
QUANTITIES	BY	L. Motal	CHECKED	D. Turner

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)

CROSSBEAM ACCESS DETAILS NO. 3C

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 04/22/11

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET 538S3 OF

FILE => I:\bb\04-012001\sas\contract plans and cco\cco\cco#188\2-revision 04-22-11\dgn\akcad03c.dgn

USERNAME => arivera DATE PLOTTED => 22 APR 2011 TIME PLOTTED => 13:43:07

100% PS&E

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	955S4	1204

Caltrans Metric

REGISTERED ENGINEER - CIVIL

04-22-11

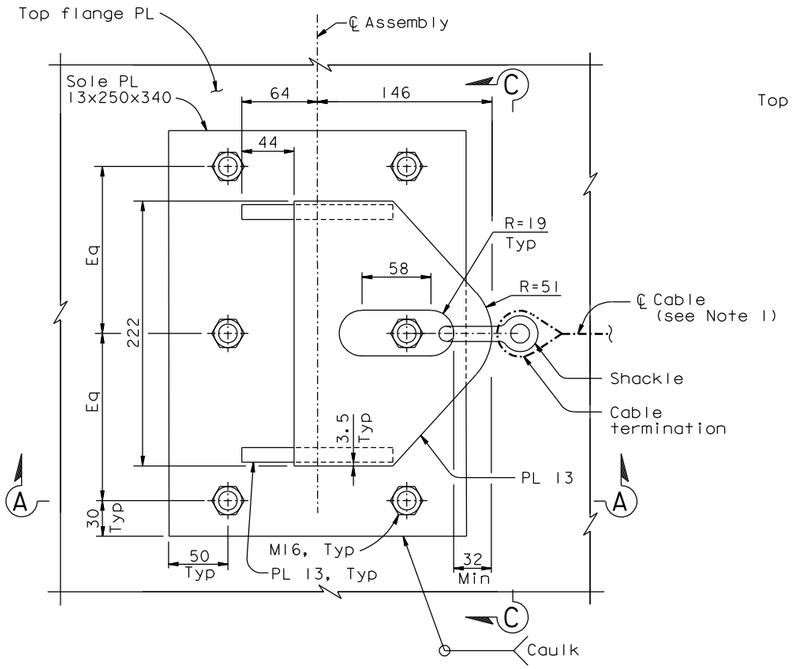
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER James P. Duxbury No. C 64677 Exp. 06/30/11 CIVIL STATE OF CALIFORNIA

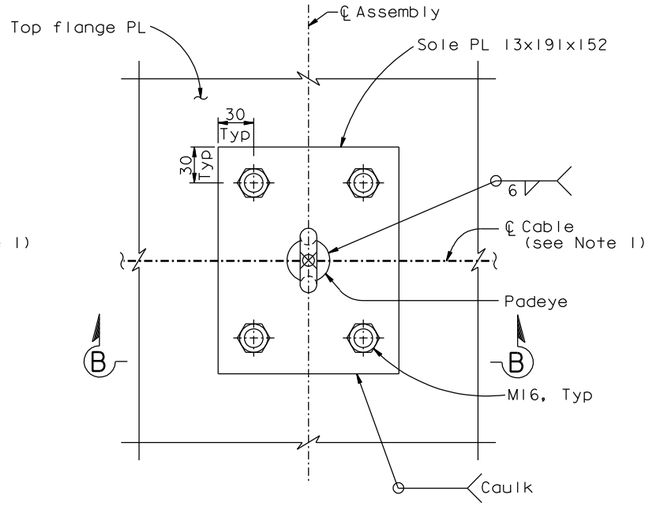
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

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

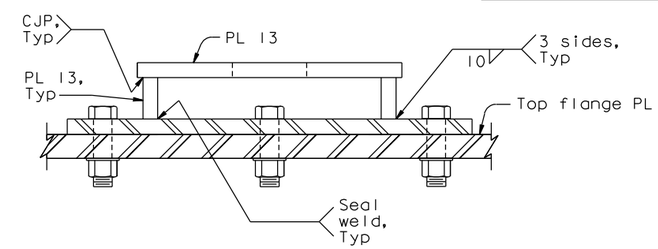
Caltrans now has a web site! To get to the web site, go to: http://www.dot.ca.gov



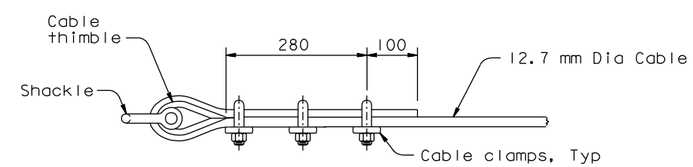
DETAIL A (Detail A' opposite)
1:2.5



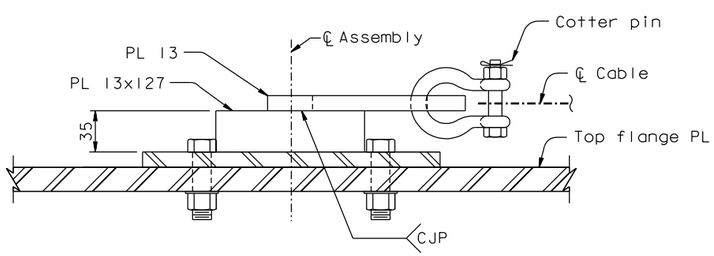
DETAIL B (Intermediate Padeye)
1:2.5



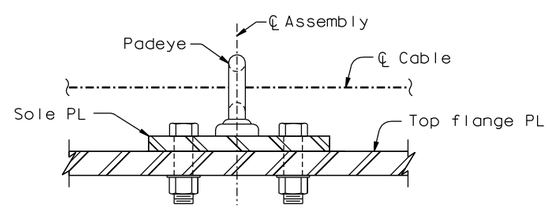
SECTION C-C (Shackle and Cable not shown for clarity)
1:2.5



CABLE TERMINATION DETAIL
NTS



SECTION A-A
1:2.5



SECTION B-B
1:2.5

NOTES:

1. For layout of cable, see "Crossbeam Access Details No. 3C" sheet.
2. Provide thimbles at all cable loops per manufacturer's recommendations.
3. Padeye shall be Crosby size No. 5 or equivalent.
4. Sole plates and anchor plates shall have a minimum yield strength of Fy=50 ksi (345 MPa) and shall be A572 or equivalent.
5. Shackle shall be 0.5 in (12.7 mm) Crosby bolt type anchor shackle or equivalent, with a working load limit of at least 2 metric tons (19.6kN). Shackle shall be galvanized.
6. Assemblies shall be galvanized and painted. Class B faying surfaces are not required between sole PL 13 and crossbeam top flange PL.
7. At the Contractor's option, 5/8 inch Dia HS bolts may be used in lieu of M16 bolts.

CONTRACT CHANGE ORDER NO. _____
SHEET ____ OF ____

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

R. Valizadeh/V. Toan/Y.L./W.L./F.C.
DESIGN OVERSIGHT
SIGN OFF DATE 04/22/11

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
0	04/22/11	W2-OBG SAFETY CABLE	CC	JD	188

REVISIONS

DESIGN	BY C. Choi	CHECKED J. Duxbury	
DETAILS	BY L. Motal	CHECKED C. Choi	
QUANTITIES	BY L. Motal	CHECKED C. Choi	

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)

CROSSBEAM ACCESS DETAILS NO. 3D

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 04/22/11

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET 538S4 OF

FILE => I:\bb\04-012001\sas\contract plans and cco\cco\cco#188\2-revision 04-22-11\dgn\akcad03d.dgn

USERNAME => arivera DATE PLOTTED => 22 APR 2011 TIME PLOTTED => 13:43:52

100 % PS&E