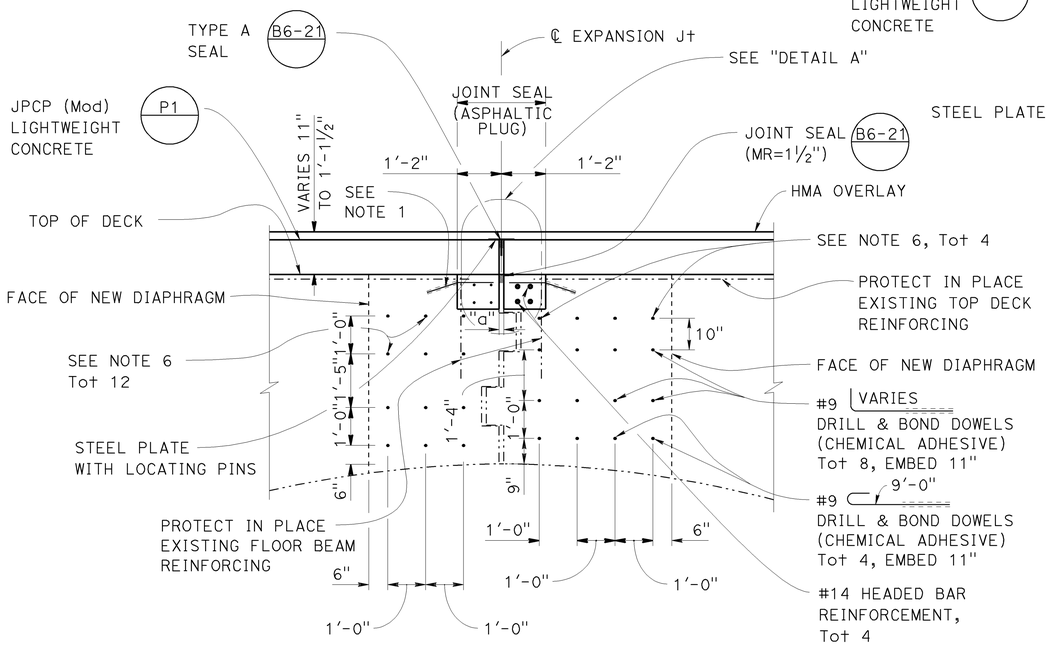
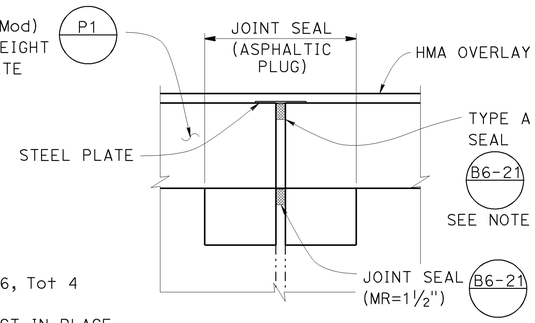


SECTION E-E

¾" = 1'-0"

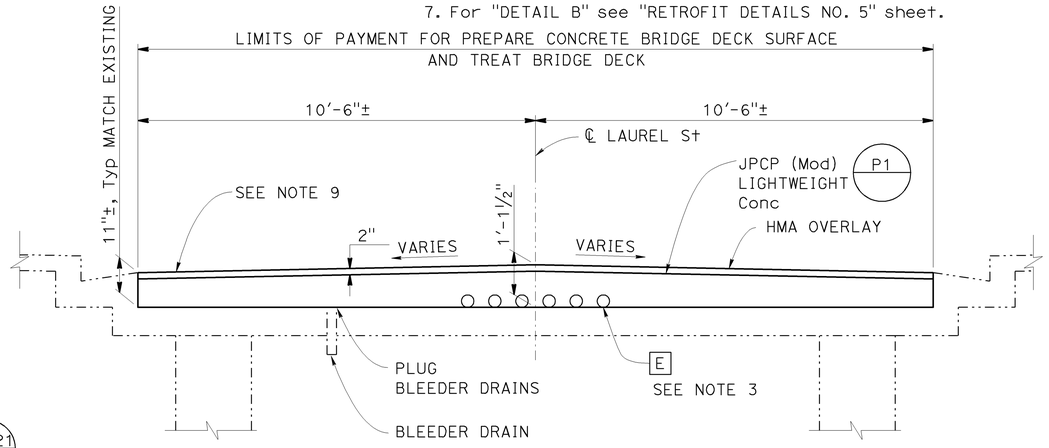


DETAIL A

1" = 1'-0"

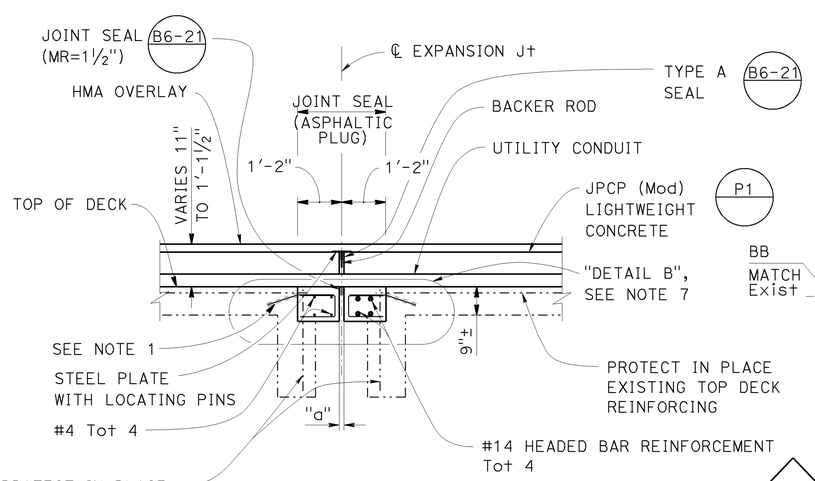
NOTES:

1. Drill and Bond Dowel #4 @ 6¾" O.C. embed 8" (1'-0" : 1 : 3)
2. For "a" dimension see B6-21
   All bridge type except CIP/PS.
3. See "GENERAL PLAN" sheet for list of utilities.
4. Bar extension shown for drill and bond dowels is length beyond embedment depth. See "DRILL AND BOND DOWEL DETAIL" on "RETROFIT DETAILS NO. 1" sheet.
5. For location of "SECTION E-E" and "SECTION F-F", see "RETROFIT DETAILS NO. 2" sheet.
6. Drill and Bond Dowel (Chemical Adhesive) #4 2'-0" Embed 5"
7. For "DETAIL B" see "RETROFIT DETAILS NO. 5" sheet.
8. Place Type A seal prior to opening JCPC (Mod) to vehicular traffic.
9. For " POLYMER MODIFIED EMULSION CHIP SEAL COAT", see "ROAD PLANS".



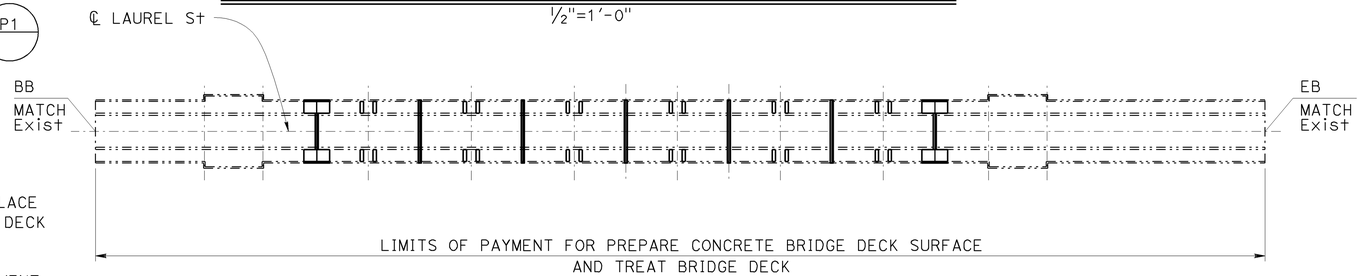
JOINTED PLAIN CONCRETE PAVEMENT (MOD) TYPICAL SECTION

½"=1'-0"



SECTION F-F

½" = 1'-0"



LIMITS OF PAYMENT FOR PREPARE CONCRETE BRIDGE DECK SURFACE AND TREAT BRIDGE DECK

No Scale

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	101	147

Peter B Smith — REGISTERED CIVIL ENGINEER — 1/4/13 DATE

03-04-13 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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T.Y. LIN INTERNATIONAL
404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
1/4/2013
SIGN OFF DATE

	BY	CHECKED
DESIGN	Dan Fitzwilliam	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
RETROFIT DETAILS NO.6

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	01-04-13	06-06-12	10/04/12	15	61

FILE => 57-0215-m-rd06.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	102	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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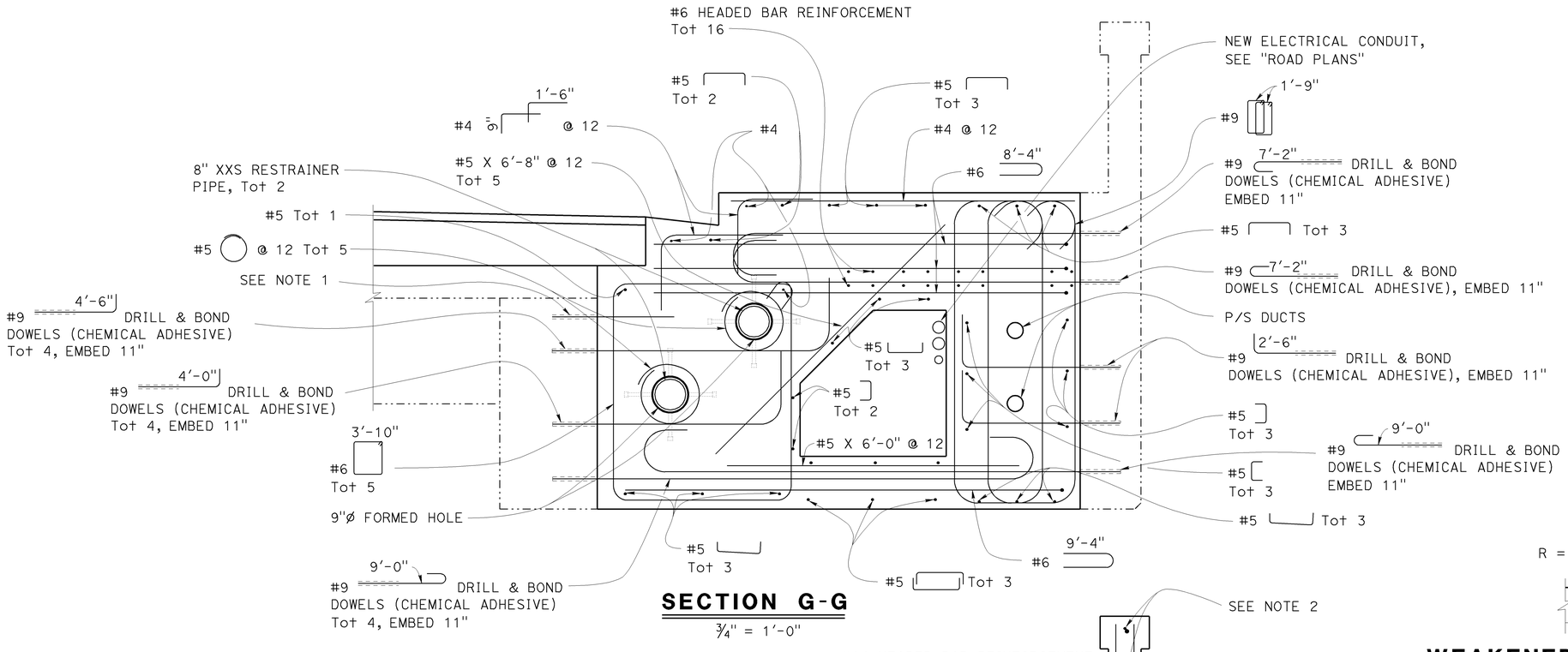
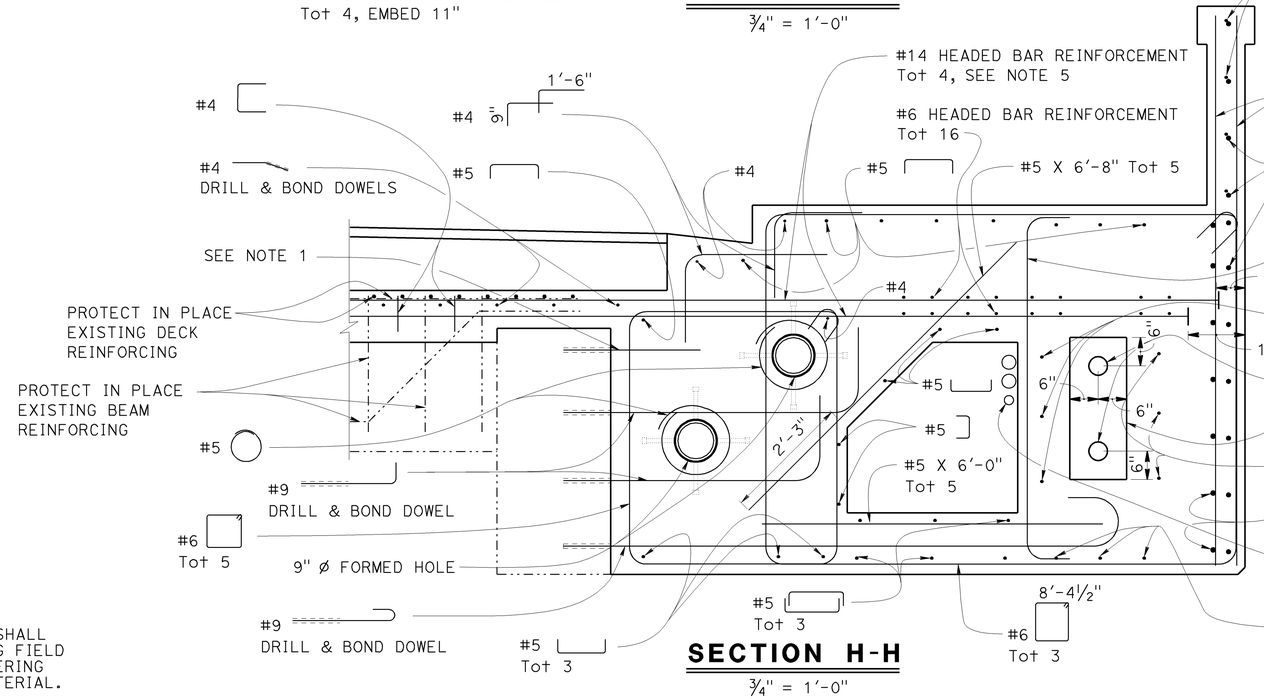
SAN DIEGO, CA 92108



SECTION G-G

3/4" = 1'-0"

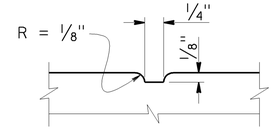


SECTION H-H

3/4" = 1'-0"

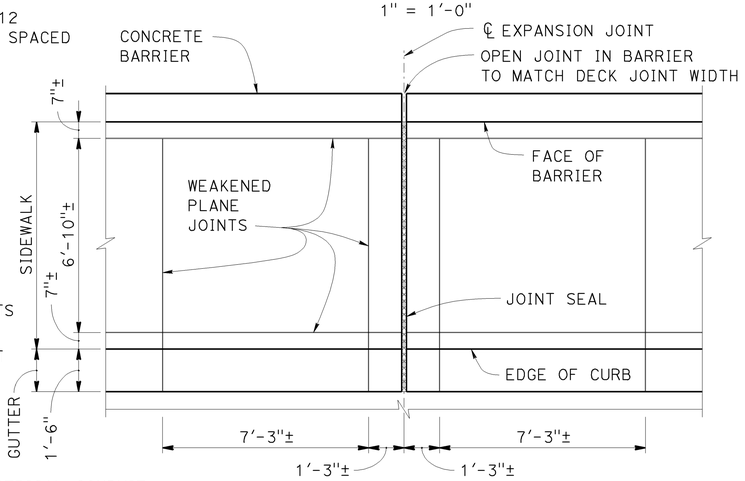
NOTES:

1. Drill and Bond Dowel (Chemical Adhesive) #4 2'-0" @ 1'-0" O.C. Embed 5"
2. Drill and Bond Dowel (Chemical Adhesive) #4 1'-2" @ 1'-0" O.C. Embed 5"
3. Bar extension shown for drill and bond dowels is length beyond embedment depth. See "DRILL AND BOND DOWEL DETAIL" on "RETROFIT DETAILS NO. 1" sheet.
4. For location of "SECTION G-G" and "SECTION H-H", see "RETROFIT DETAILS NO. 1" sheet.
5. No lap splices allowed.



WEAKENED PLANE JOINT DETAIL

1" = 1'-0"



SIDEWALK JOINT PLAN

3/8" = 1'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Peter Smith	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
RETROFIT DETAILS NO.7

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-12-12	06-08-12	10/04/12	16	61

FILE => 57-0215-m-rd07.dgn

USERNAME => s1333229 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	103	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

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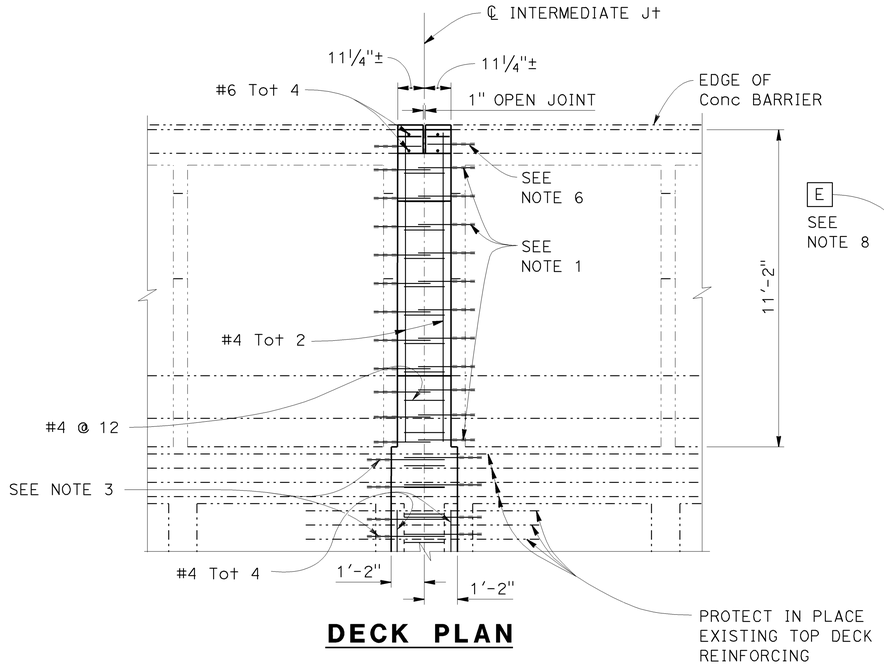
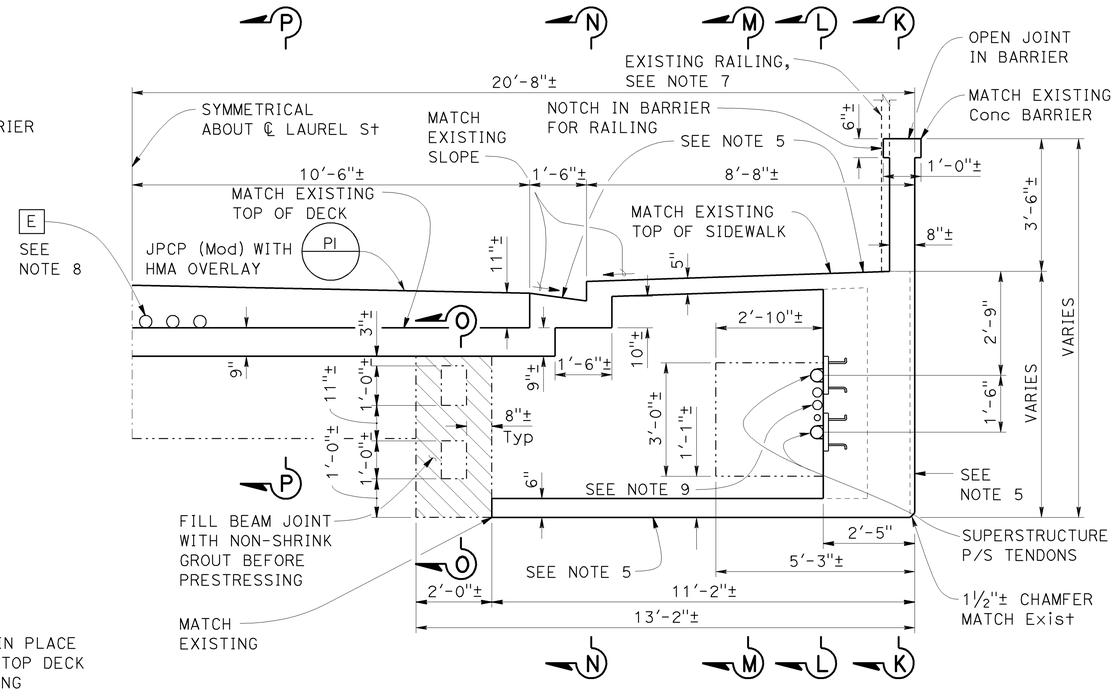
REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

T.Y. LIN INTERNATIONAL
404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108



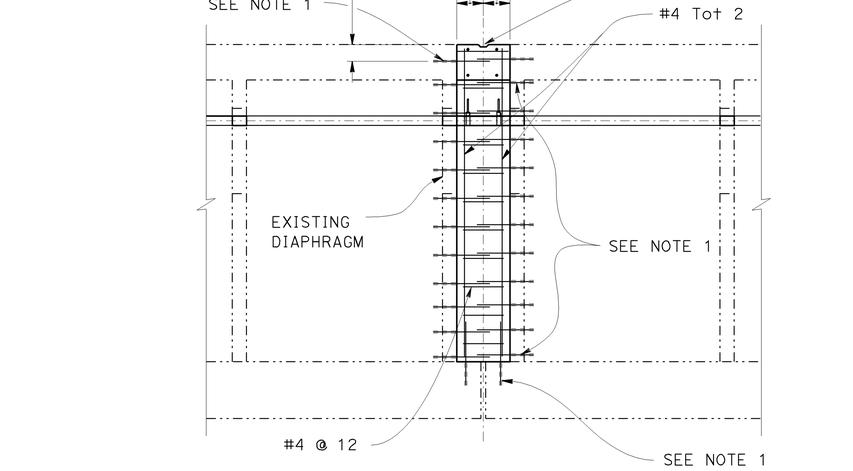
DECK PLAN



SHOWING DIMENSION

TYPICAL SECTION INTERMEDIATE JOINT

½" = 1'-0"

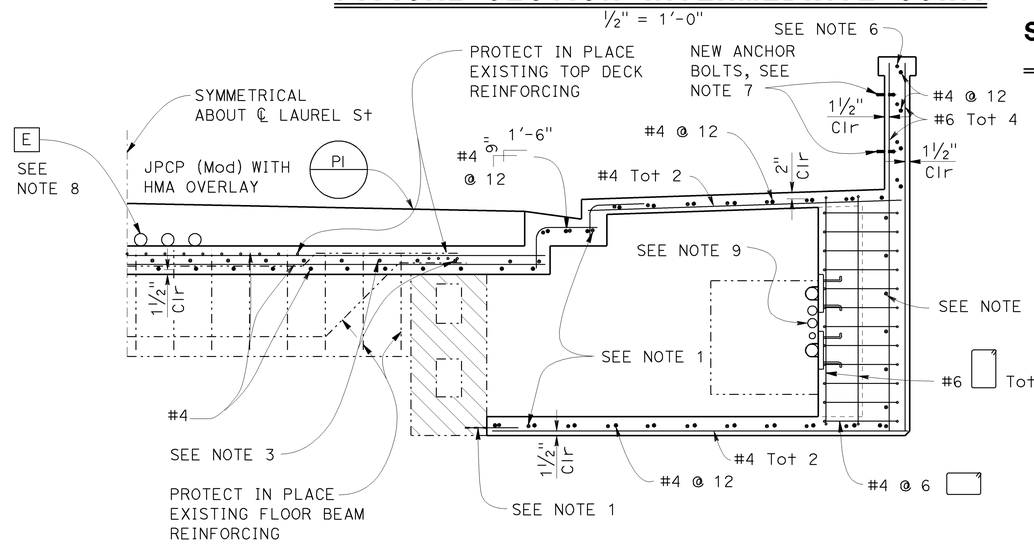


SOFFIT PLAN

RECONSTRUCTION PLAN AT INTERMEDIATE JOINT

⅜"=1'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



SHOWING REINFORCEMENT

TYPICAL SECTION INTERMEDIATE JOINT

½" = 1'-0"

NOTES:

1. Drill and Bond Dowel (Chemical Adhesive) #4 1'-5" @ 1'-0" O.C. Embed 5"
2. For "SECTION K-K", "SECTION L-L", "SECTION M-M", "SECTION N-N", "SECTION O-O", and "SECTION P-P", see "RETROFIT DETAILS NO.9" sheet
3. Drill and Bond Dowel #4 1'-7" @ 6¾" O.C., embed 8" (in deck slab)
4. Bar extension shown for drill and bond dowels is length beyond embedment depth. See "DRILL AND BOND DOWEL DETAIL" on "RETROFIT DETAILS NO. 1" sheet
5. Replica joint, see "RETROFIT DETAILS NO.9" sheet
6. Drill & bond dowel (Chemical Adhesive) #4 8" @ 1'-0" O.C. Embed 5"
7. Install anchor bolts and reinstall existing railing, see "DEMOLITION DETAILS NO. 3" sheet
8. See "GENERAL PLAN" for list of utilities
9. New electrical conduit, see "ROAD PLANS"

SUPERSTRUCTURE RETROFIT PRESTRESSING NOTES

f_{ps} = 270 KSI Low Relaxation Strand:

P_{jack} = 790 kips/tendon

Anchor Set = ⅜ in

Concrete: f'_c = 5.0 ksi @ 28 days

f'_{ci} = 4.0 ksi @ time of stressing

Jacking stress = 0.71 f_{ps}

Contractor shall submit elongation calculations based on initial stress at

☒ = 0.98 times jacking stress.

One end stressing shall be performed from either end.
Friction curvature: μ = 0.23/rad
Friction wobble: k = 0.0/ft
(for external tendons)

LEGEND:

▨ - Indicates Non-Shrink Grout f'_c = 5 ksi

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Dan Fitzwilliam	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO.	57-0215
POST MILES	1.4

LAUREL STREET OVERCROSSING
RETROFIT DETAILS NO.8

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10-04-12	17	61

FILE => 57-0215-m-rd08.dgn

USERNAME => s1333329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	104	147

Peter B Smith — 1/4/13
REGISTERED CIVIL ENGINEER — DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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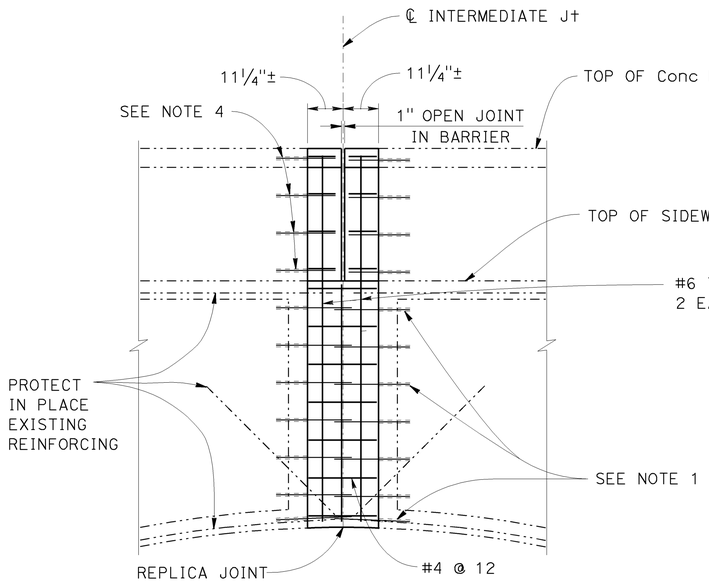
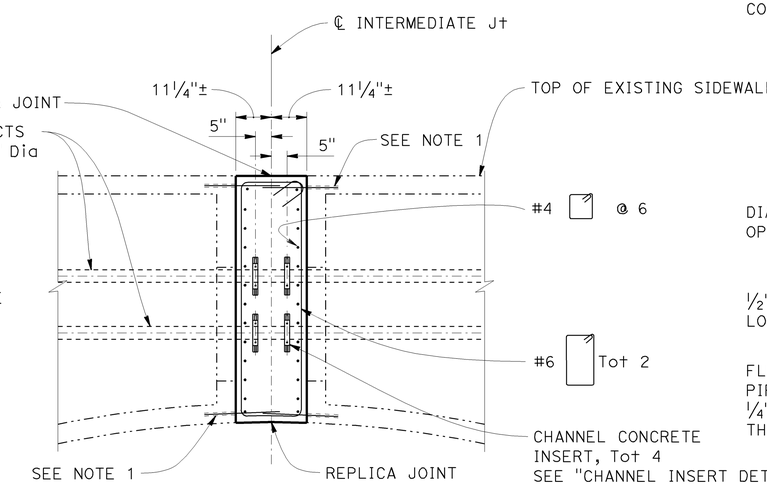
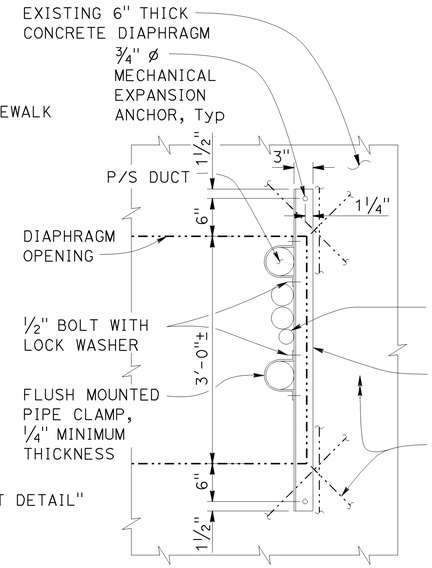
SAN DIEGO, CA 92108



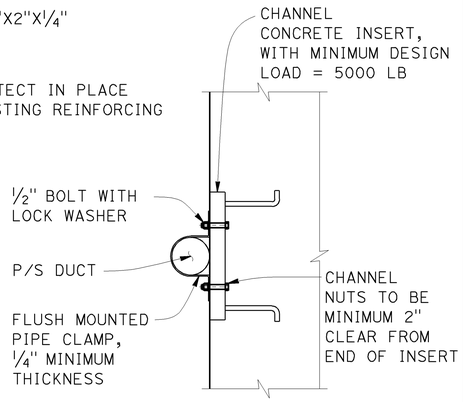
SECTION K-K
½"=1'-0"



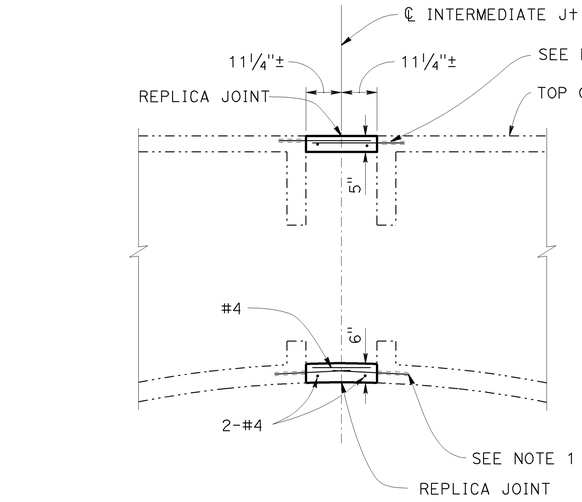
SECTION L-L
½"=1'-0"



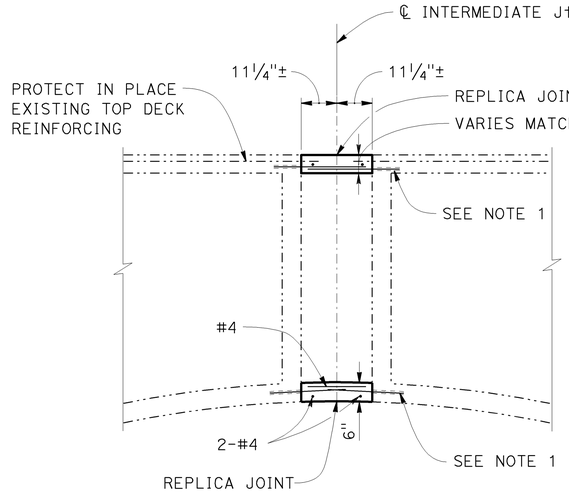
P/S TENDON DIAPHRAGM SUPPORT DETAIL
1"=1'-0"



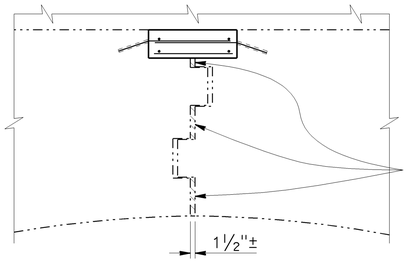
CHANNEL INSERT DETAIL
1½"=1'-0"



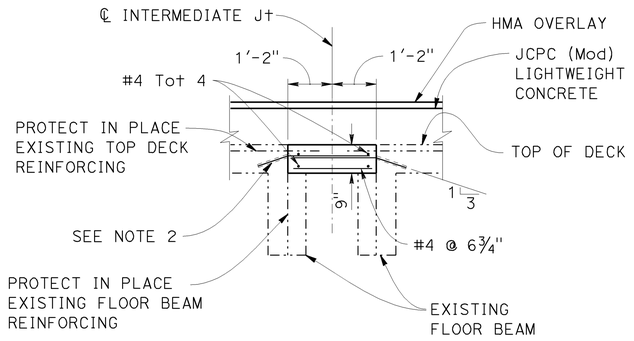
SECTION M-M
½"=1'-0"



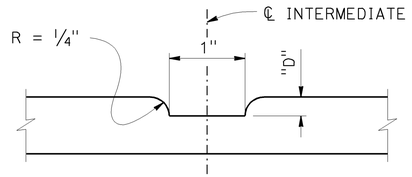
SECTION N-N
½"=1'-0"



SECTION O-O
½"=1'-0"



SECTION P-P
½"=1'-0"



PI

REPLICA JOINT DETAIL
1"=1'-0"

NOTE: Replica joint is located on curb, sidewalk, soffit, and vertical exterior surfaces. Location to match existing.

NOTES:

1. Drill and Bond Dowel (Chemical Adhesive) #4 1'-5" @ 1'-0", Embed 5"
2. Drill and Bond Dowel #4 1'-7" @ 6¾" O.C. embed 8" (1 : 3)
3. Bar extension shown for drill and bond dowels is length beyond embedment depth
4. Drill and Bond Dowel (Chemical Adhesive) #4 8" @ 1'-0", Embed 5"
5. For location of "SECTIONS" See "RETROFIT DETAIL NO. 8" sheet
6. For Details of JCPC (MOD) and HMA overlay, see "RETROFIT DETAILS NO. 6" sheet

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
1/4/2013
SIGN OFF DATE

DESIGN	BY Dan Fitzwilliam	CHECKED Oscar Henriquez
DETAILS	BY Oscar Colcol	CHECKED Oscar Henriquez
QUANTITIES	BY Sabina Piras	CHECKED Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO.	57-0215
POST MILES	1.4

LAUREL STREET OVERCROSSING
RETROFIT DETAILS NO.9

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

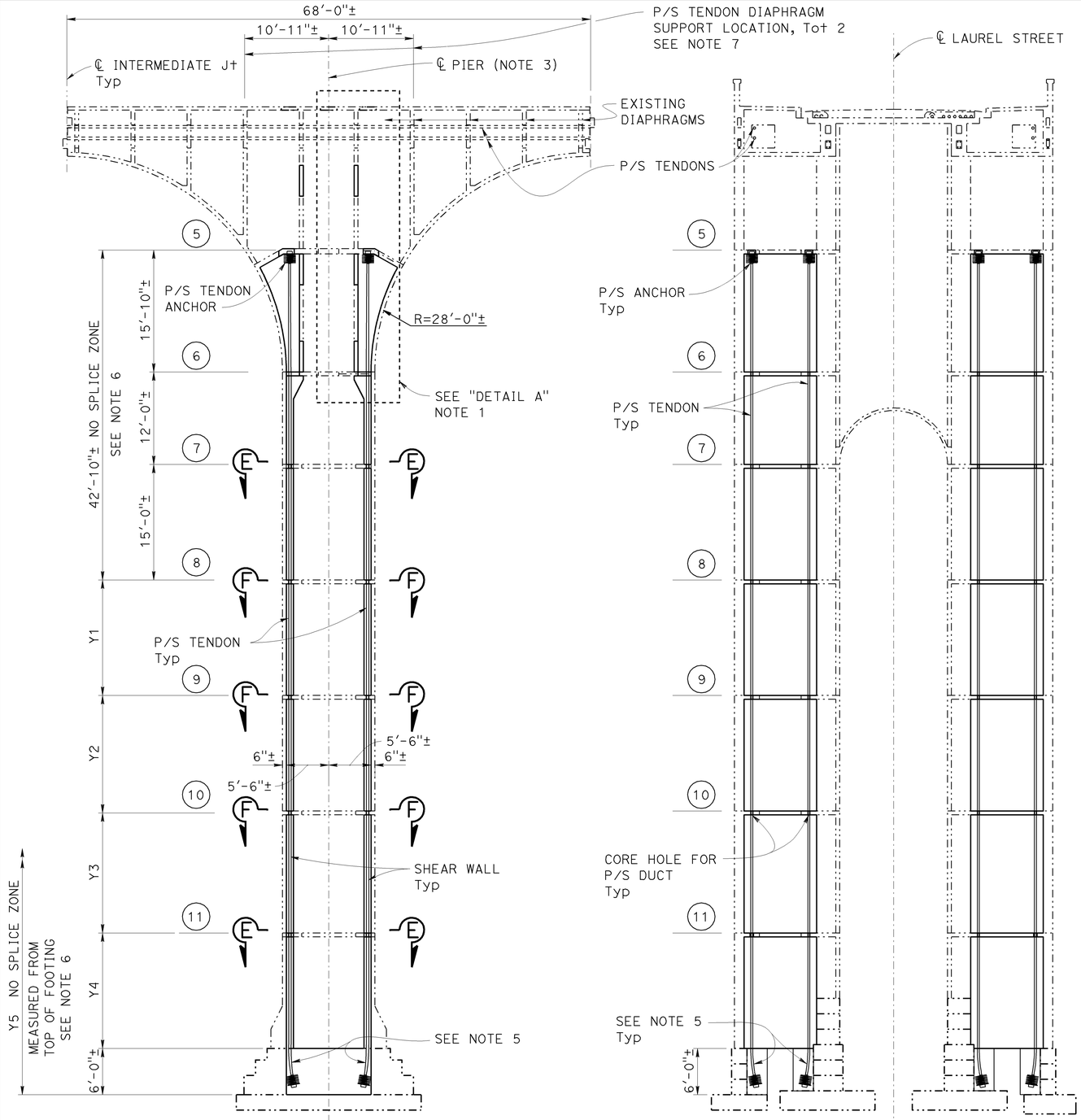
UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	01-04-13	06-08-12	10/04/12	18	61

FILE => 57-0215-m-rd09.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28



PART ELEVATION

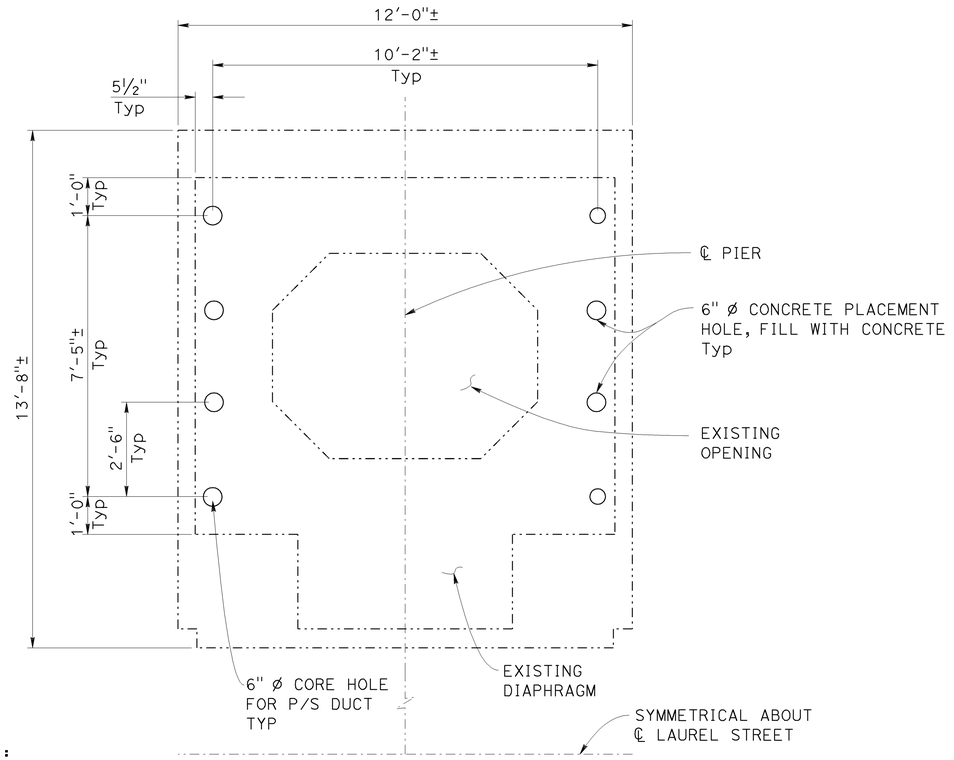
1/8"=1'-0"

PART TYPICAL SECTION

1/8"=1'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

PIER	Y1	Y2	Y3	Y4	Y5
PIER 2	15'-0"±	8'-10"	N/A	N/A	29'-10"±
PIER 3	15'-0"±	15'-0"±	15'-0"±	15'-10"±	36'-10"±
PIER 4	15'-0"±	15'-0"±	15'-0"±	15'-10"±	36'-10"±
PIER 5	15'-0"±	15'-0"±	15'-0"±	15'-10"±	36'-10"±
PIER 6N	15'-0"±	15'-0"±	7'-10"±	N/A	28'-10"±
PIER 6S	15'-0"±	15'-0"±	11'-10"±	N/A	32'-10"±
PIER 7N	14'-10"±	N/A	N/A	N/A	20'-10"±
PIER 7S	18'-10"±	N/A	N/A	N/A	24'-10"±



SECTION F-F

1/4"=1'-0"

LEGEND:

(5) - Level designation

NOTES:

1. For "DETAIL A", see "RETROFIT DETAILS NO.11" sheet
2. For "SECTION E-E" see "RETROFIT DETAILS NO.12" sheet
3. Pier 4 shown, Piers 2, 3, 5, 6 & 7 similar
4. For "PRESTRESSING NOTES" see "RETROFIT DETAILS NO.11" sheet
5. Min radius for duct shall be 25' in plane of curvature
6. Vertical shear wall reinforcing shall be continuous in this zone
7. See "P/S TENDON DIAPHRAGM SUPPORT DETAIL" on "RETROFIT DETAILS NO. 9" sheet

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	105	147

Peter B Smith — 1/4/13
REGISTERED CIVIL ENGINEER — DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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T.Y. LIN INTERNATIONAL
404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
1/4/2013
SIGN OFF DATE

	BY	CHECKED
DESIGN	Dan Fitzwilliam	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO.	57-0215
POST MILES	1.4

LAUREL STREET OVERCROSSING
RETROFIT DETAILS NO.10

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

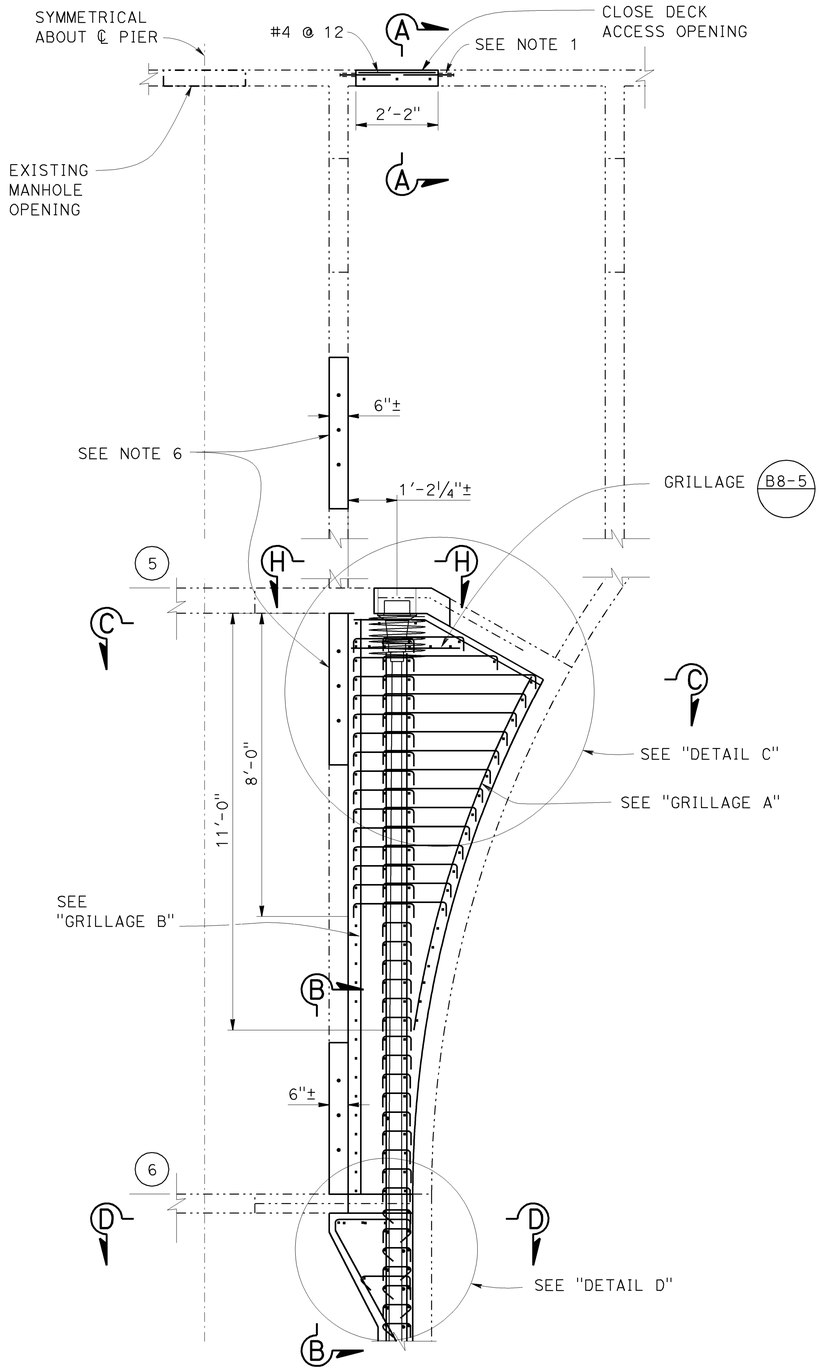
UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	01-04-13	06-08-12	10/04/12	19	61

FILE => 57-0215-m-rd10.dgn

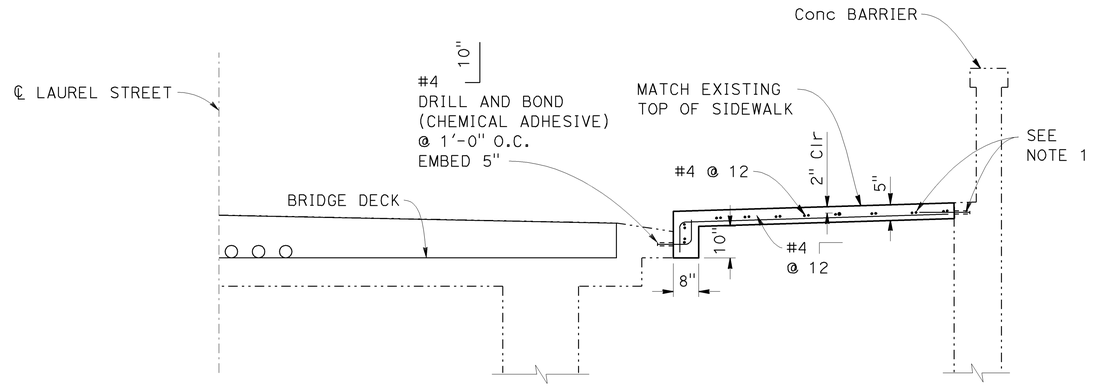
USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28



DETAIL A

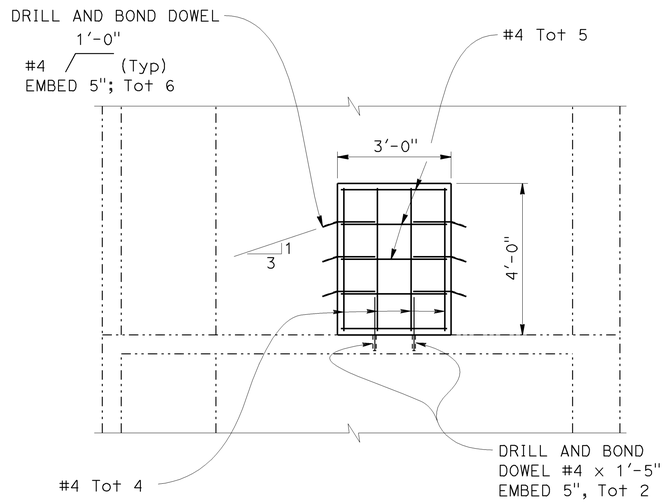
½"=1'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



SECTION A-A

½"=1'-0"



SECTION B-B

½"=1'-0"

LEGEND:

(5) - Level designation

PIER RETROFIT PRESTRESSING NOTES

f_{ps} = 270 KSI Low Relaxation Epoxy Coated Strand:

P_{jack} = 600 kips/tendon

Anchor Set = ⅜ in

Jacking stress = 0.73 f_{ps}

Concrete: f'_c = 5.0 ksi @ 28 days

f'_{ci} = 4.0 ksi @ time of stressing

Contractor shall submit elongation calculations based on initial stress at

☒ = 0.96 times jacking stress.

One end stressing shall be performed from top end only. Lower anchor shall be cast in new concrete with tendons in place.
Friction curvature: μ = 0.15/rad
Friction wobble: k = 0.0002/ft

NOTES:

1. Drill and Bond Dowel (Chemical Adhesive) #4 1'-4" @ 1'-0" O.C. all around perimeter of new concrete embed 5"
2. For "SECTION C-C",and "SECTION D-D", see "RETROFIT DETAILS NO.12" sheet
3. For "DETAIL C" and "DETAIL D" see "RETROFIT DETAILS NO.12" sheet
4. For "GRILLAGE A" and "GRILLAGE B" see "RETROFIT DETAILS NO.14" sheet
5. Bar extension shown for drill and bond dowels is length beyond embedment depth. See "DRILL AND BOND DOWEL DETAIL" on "RETROFIT DETAILS NO. 1" sheet
6. SEE "DEMOLITION DETAILS NO.6" sheet for location of opening. See "SECTION B-B" this sheet for reinforcing.
7. For location of "DETAIL A" see "RETROFIT DETAILS NO.10" sheet
8. For "SECTION H-H", see "RETROFIT DETAILS NO. 14" sheet

SEISMIC RETROFIT AND REHABILITATION

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	106	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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T.Y. LIN INTERNATIONAL
404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Dan Fitzwilliam	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO.	POST MILES
57-0215	1.4

LAUREL STREET OVERCROSSING
RETROFIT DETAILS NO.11

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10-04-12	20	61

FILE => 57-0215-m-rd11.dgn

USERNAME => s8133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	107	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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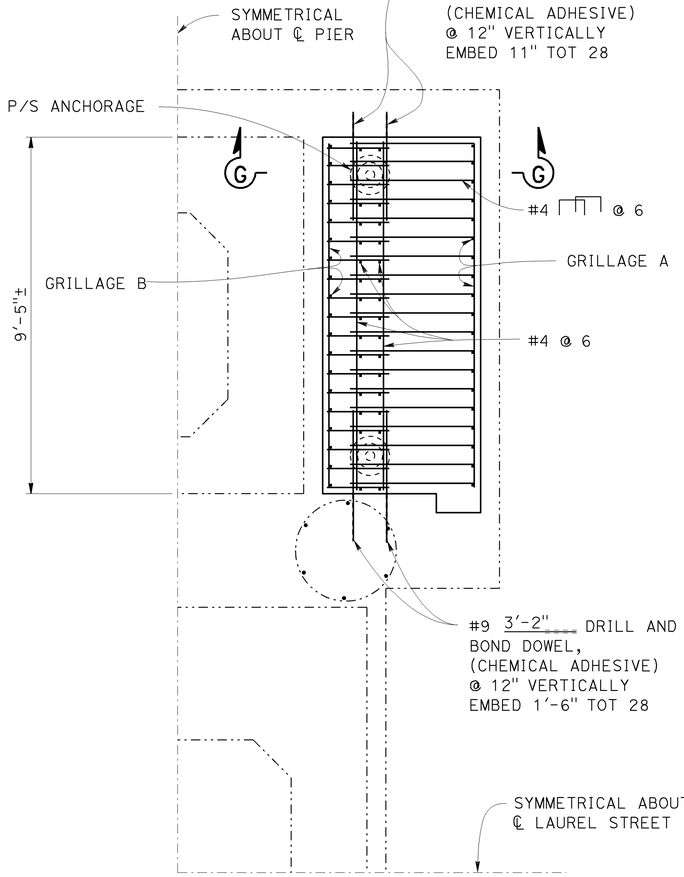
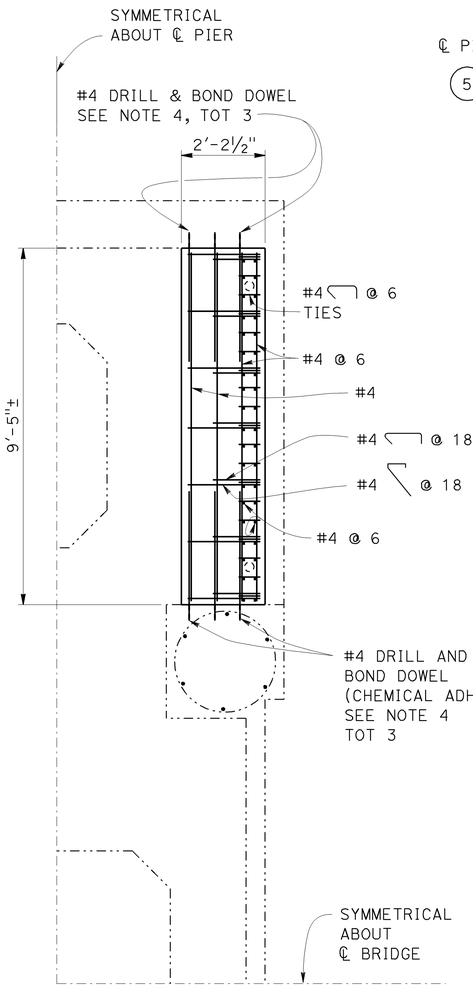
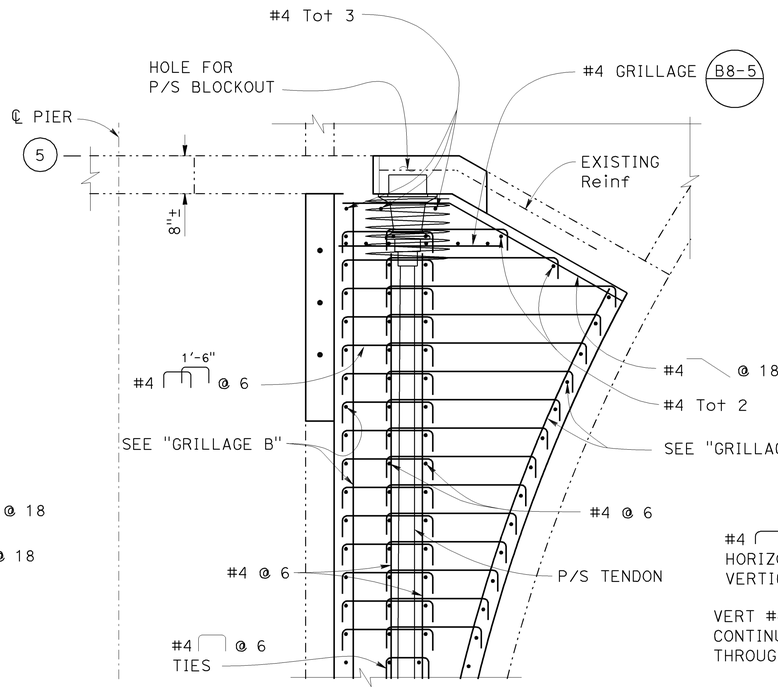


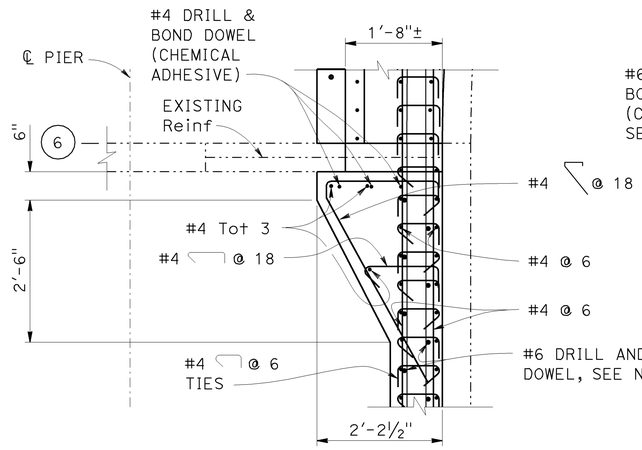
SECTION C-C
1/2"=1'-0"



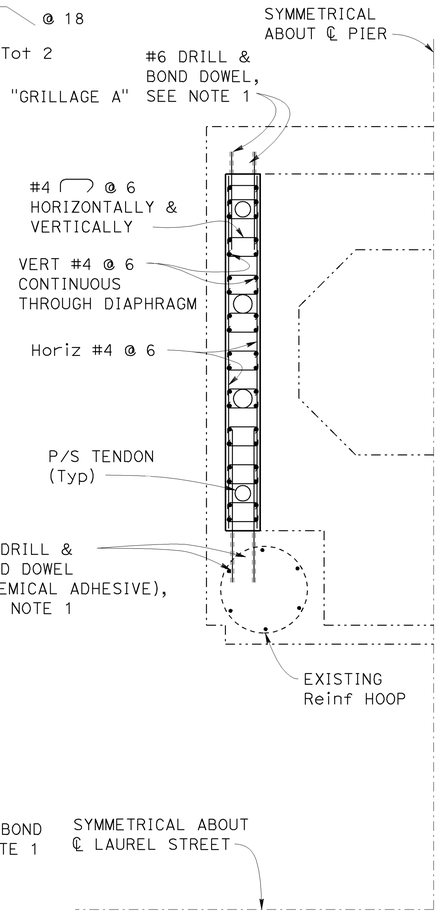
SECTION D-D
1/2"=1'-0"



DETAIL C
3/4"=1'-0"



DETAIL D
3/4"=1'-0"



SECTION E-E
1/2"=1'-0"

LEGEND:

(5) - Level designation

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTES:

1. For Drill and Bond dowel details see "RETROFIT DETAILS NO.13" sheet
2. For location of "SECTION C-C", "SECTION D-D", "DETAIL C" and "DETAIL D" see "RETROFIT DETAILS NO.11" sheet
3. For location of "SECTION E-E" see "RETROFIT DETAILS NO.10" sheet
4. Drill and Bond Dowel (Chemical Adhesive) #4 3'-0" embed 5"
5. For "SECTION G-G" see "RETROFIT DETAILS NO.14" sheet
6. Bar extension shown for drill and bond dowels is length beyond embedment depth. See "DRILL AND BOND DOWEL DETAIL" on "RETROFIT DETAILS NO. 1" sheet

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Dan Fitzwilliam	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO.	LAUREL STREET OVERCROSSING
57-0215	
POST MILES	RETROFIT DETAILS NO.12
1.4	

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 11-16-12 | 04-13-12 | 06-08-12 | 10/04/12

SHEET 21 OF 61

FILE => 57-0215-m-rd12.dgn

USERNAME => s1133229 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	108	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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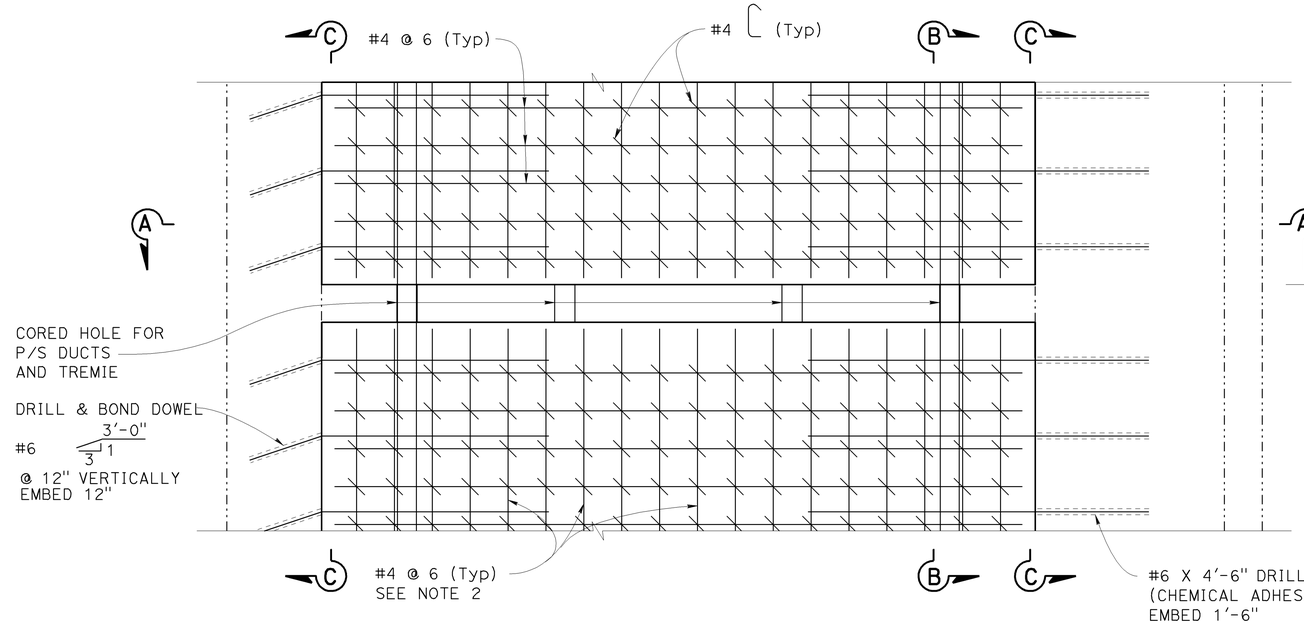
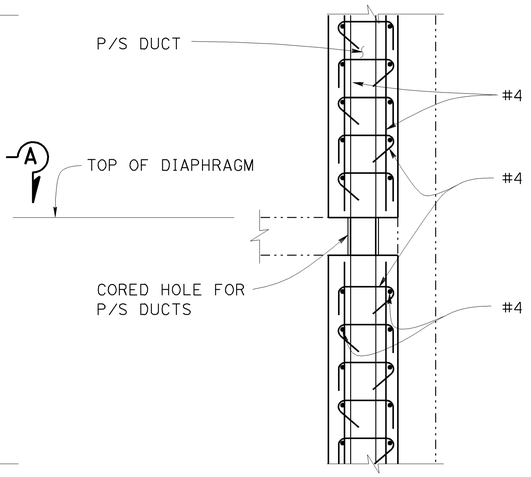
SAN DIEGO, CA 92108



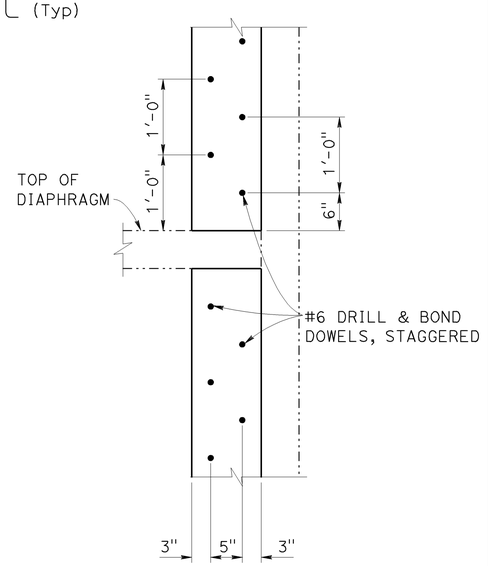
TYPICAL SHEAR WALL ELEVATION

1" = 1'-0"



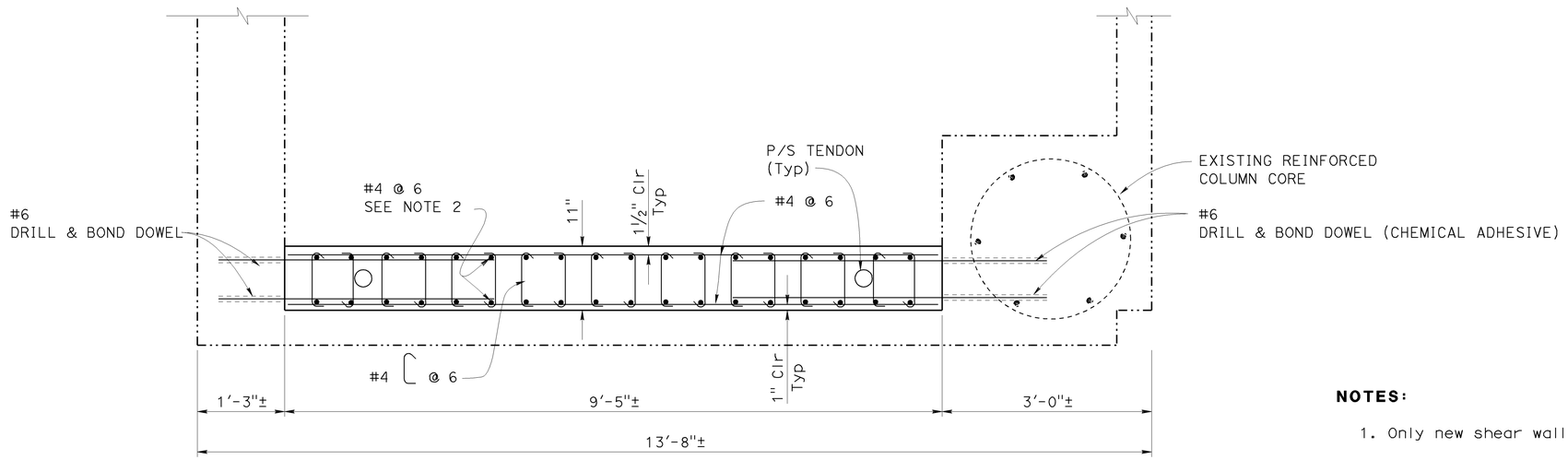
SECTION B-B

1" = 1'-0"



SECTION C-C

1" = 1'-0"



SECTION A-A

1" = 1'-0"

NOTES:

1. Only new shear wall reinforcment shown for clarity.
2. Terminate reinforcement at diaphragm except in No Splice Zone.

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Dan Fitzwilliam	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
RETROFIT DETAILS NO.13

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10/04/12	22	61

FILE => 57-0215-m-rd13.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	109	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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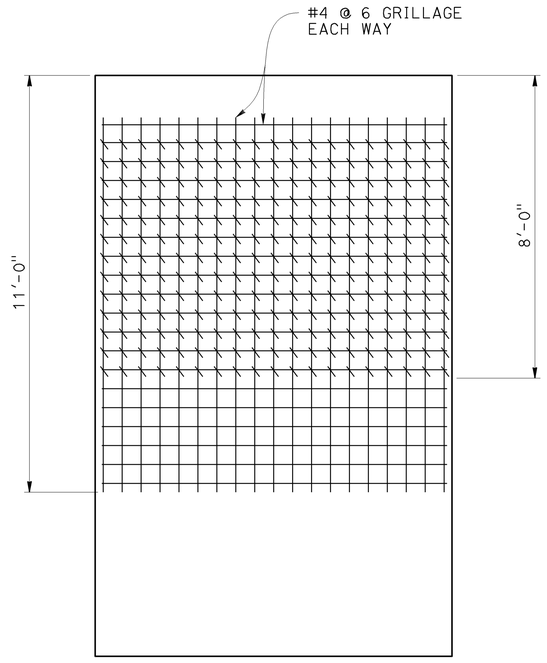
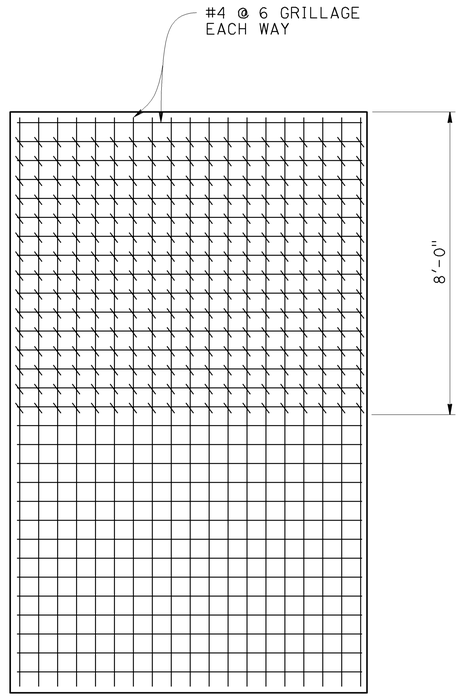
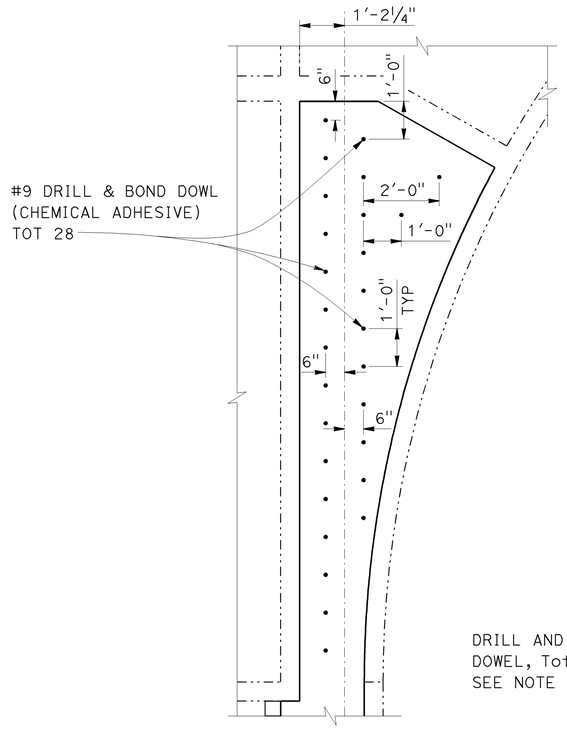


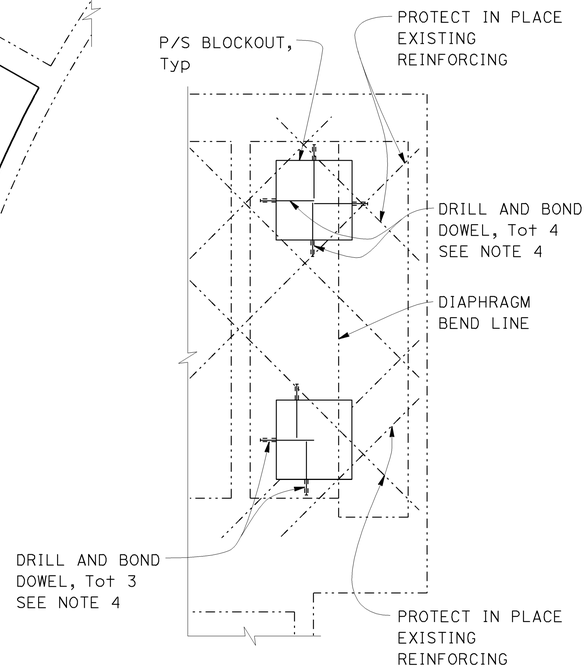
GRILLAGE A
1/2"=1'-0"



GRILLAGE B
1/2"=1'-0"



SECTION G-G
1/2"=1'-0"



SECTION H-H
1/2"=1'-0"

NOTES:

1. For location of "SECTIOIN G-G", see "RETROFIT DETAILS NO.12" sheet.
2. For location of "GRILLAGE A" and "GRILLAGE B", see "RETROFIT DETAILS NO.11" sheet
3. For location of "SECTION H-H", see "RETROFIT DETAILS NO. 11" sheet.
4. Drill and bond dowels (chemical adhesive) #4 @ 1'-0" embed 5". See "DRILL AND BOND DOWEL DETAIL" on "RETROFIT DETAILS NO. 1" sheet.

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Dan Fitzwilliam	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
RETROFIT DETAILS NO.14

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10/04/12	23	61

FILE => 57-0215-m-rd14.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	110	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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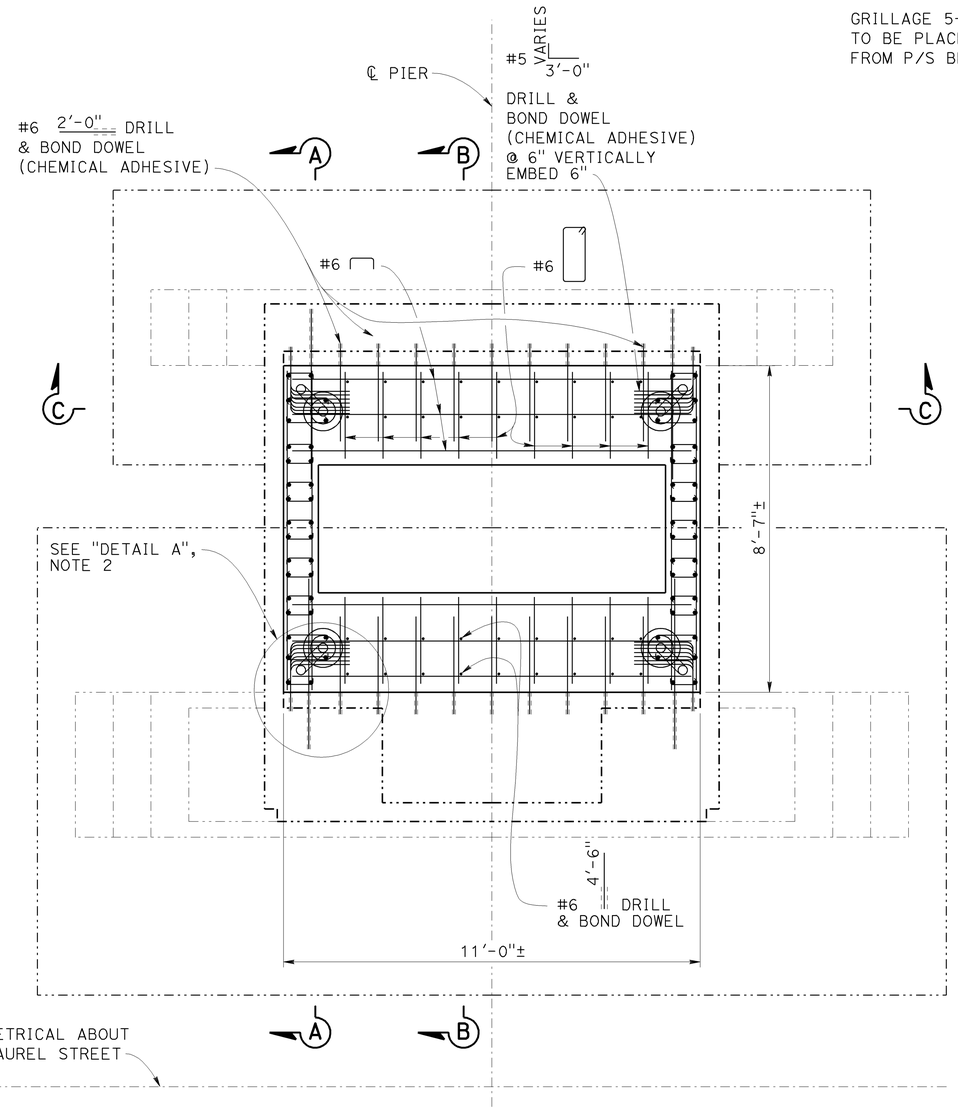
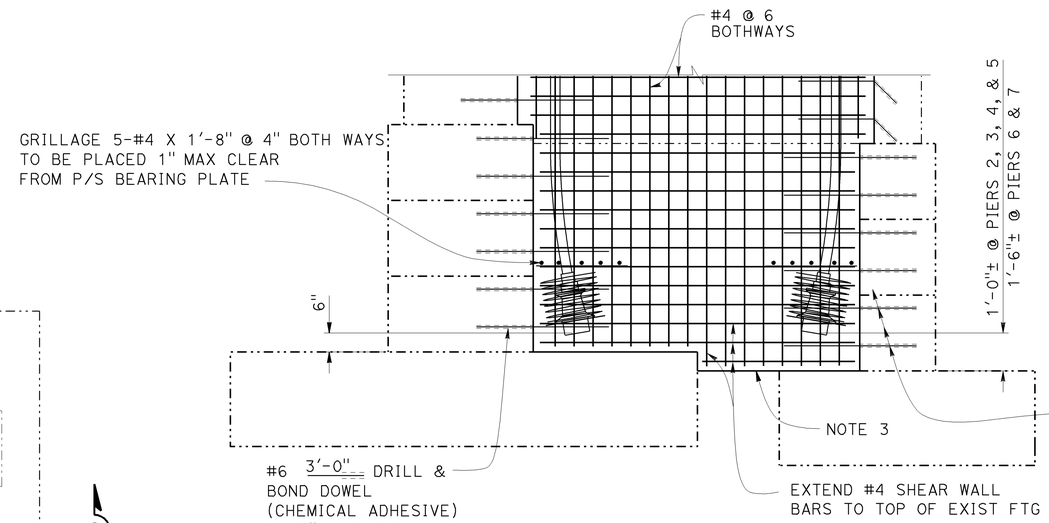


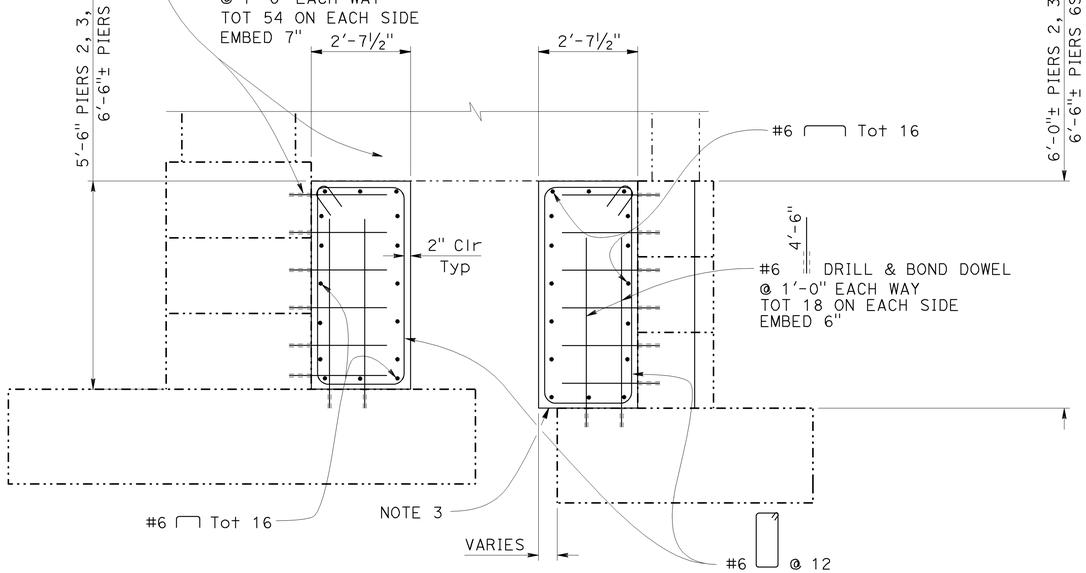
END BLOCK PART PLAN

½"=1'-0"



SECTION A-A

½"=1'-0"



SECTION B-B

½"=1'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTES:

1. For "SECTION C-C" see "RETROFIT DETAILS NO.16" sheet.
2. For "DETAIL A" see "RETROFIT DETAILS NO.16" sheet.
3. Pour against undisturbed material or form surface.
4. Bar extension shown for drill and bond dowels is length beyond embedment depth. See "DRILL AND BOND DOWEL DETAIL" on "RETROFIT DETAILS NO. 1" sheet.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Dan Fitzwilliam	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO.	57-0215
POST MILES	1.4

LAUREL STREET OVERCROSSING
RETROFIT DETAILS NO.15

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-06-12	10-04-12	24	61

FILE => 57-0215-m-rd15.dgn

USERNAME => s1333329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	111	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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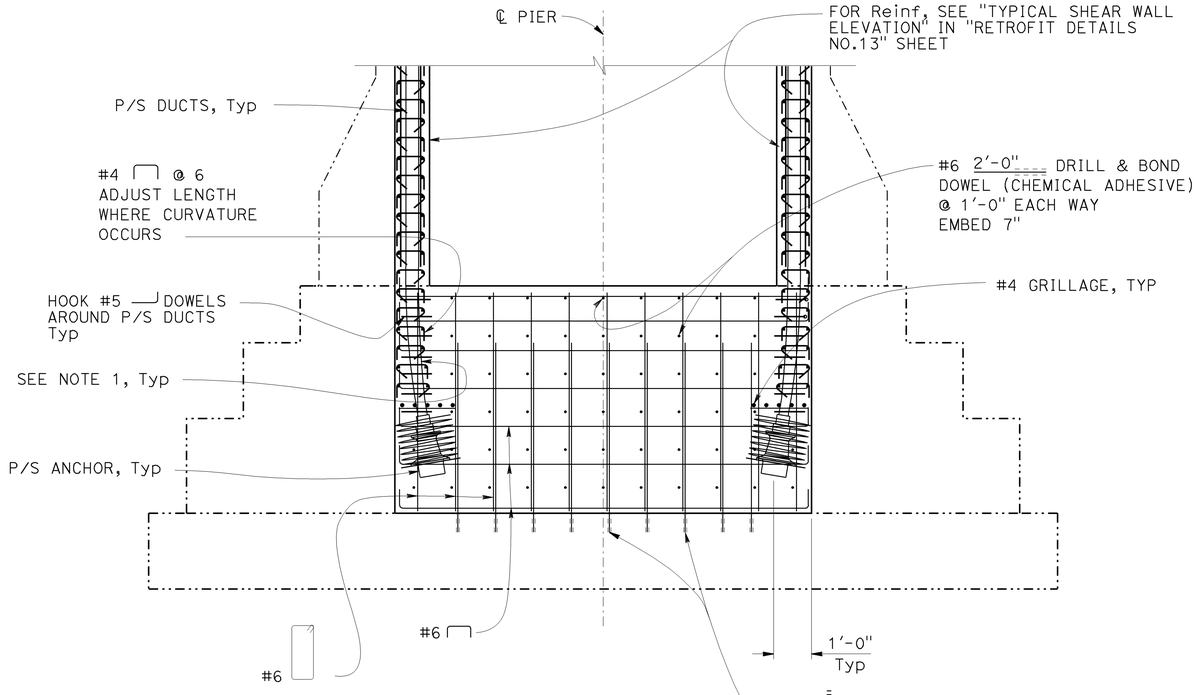
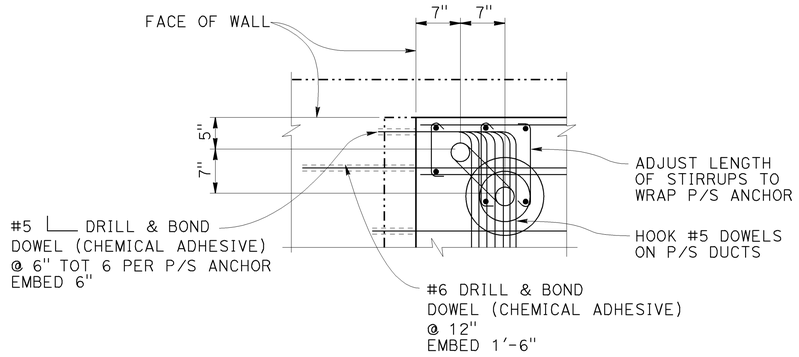
SAN DIEGO, CA 92108



SECTION C-C
1/2"=1'-0"

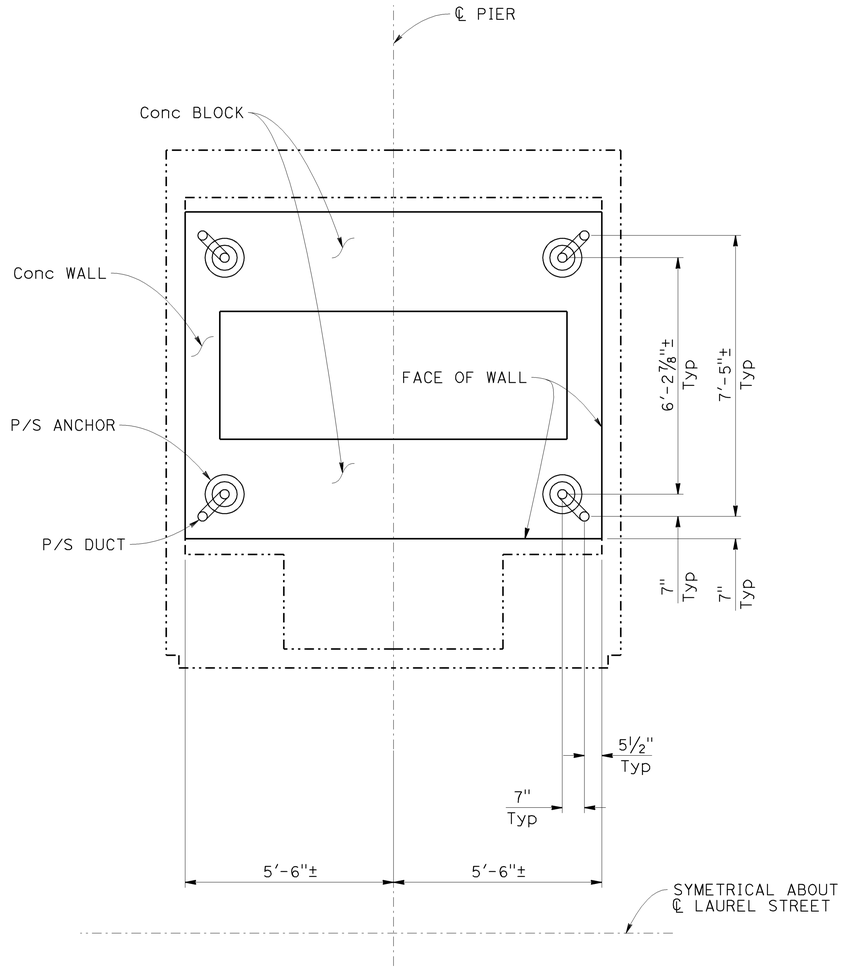


DETAIL A
1"=1'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTES:

1. Min radius for duct shall be 25' in plane of curvature.
2. 1'-0" Min clear from ℄ anchor to face of concrete, Typ.
3. Bar extension shown for drill and bond dowels is length beyond embedment depth. See "DRILL AND BOND DOWEL DETAIL" on "RETROFIT DETAILS NO. 1" sheet.
4. For location of "SECTION C-C" and "DETAIL A" see "RETROFIT DETAILS NO. 15" sheet



P/S ANCHOR LOCATION PLAN
1/2"=1'-0"

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Dan Fitzwilliam	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
RETROFIT DETAILS NO.16

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 11-16-12 | 04-13-12 | 06-08-12 | 10/04/12

SHEET 25 OF 61

FILE => 57-0215-m-rd16.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	112	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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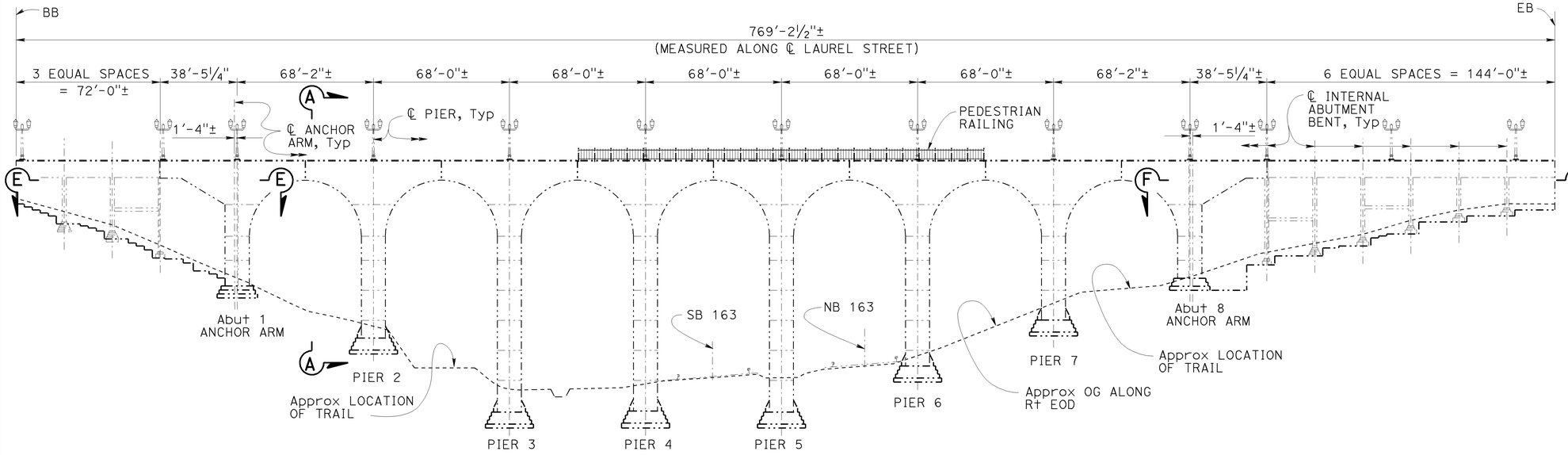
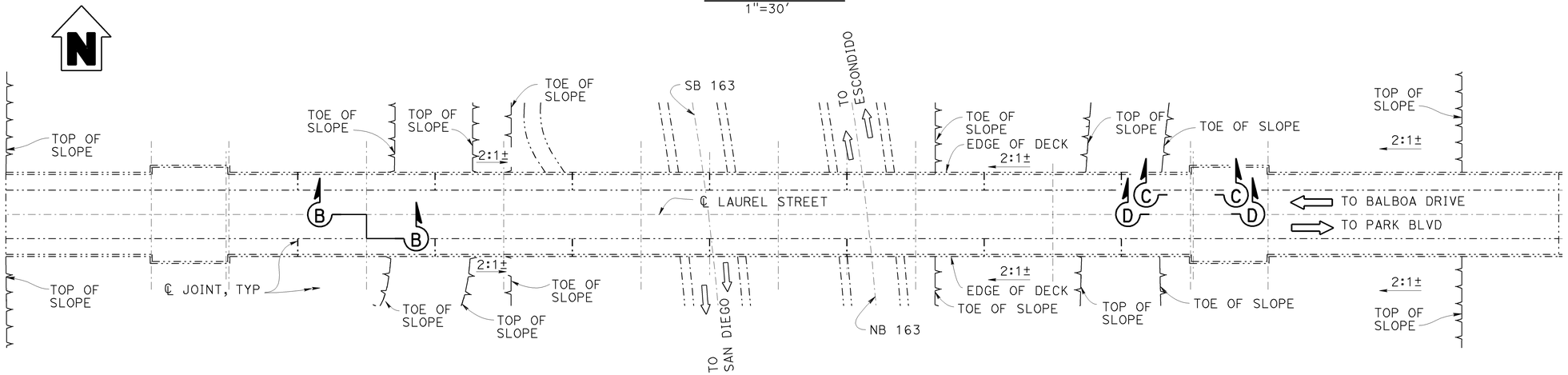
404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108



ELEVATION
1"=30'

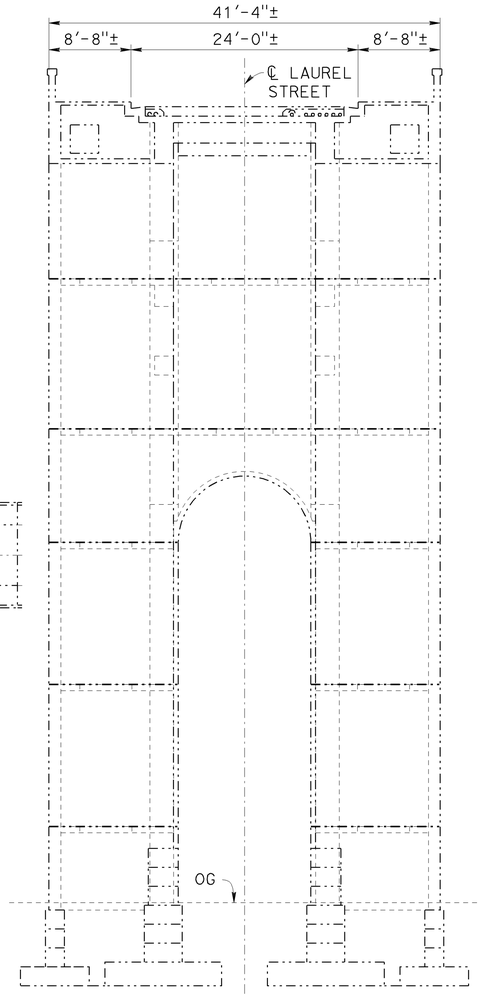


KEY PLAN
1"=30'

NOTES:

1. The rehabilitation plans depict the types of spalled and unsound concrete that may be encountered on the bridge. A full inspection of the bridge will be required to locate all areas of spalled and unsound concrete
2. For "SECTION A-A" and "SECTION B-B", see "REHABILITATION LAYOUT NO. 1" sheet.
3. For "SECTION C-C" and "SECTION D-D", see "REHABILITATION LAYOUT NO. 2" sheet.
4. For "SECTION E-E" and "SECTION F-F", see "REHABILITATION LAYOUT NO. 3" sheet.

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



TYPICAL SECTION
⅛" = 1'-0"

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Arash Monsefan	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Peter Smith

PREPARED FOR THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
REHABILITATION PLAN

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 11-16-12 | 04-13-12 | 06-08-12 | 10-04-12

SHEET 26 OF 61

FILE => 57-0215-m-sp01-gpr01.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	113	147

Peter B Smith — REGISTERED CIVIL ENGINEER — 1/4/13 DATE

03-04-13 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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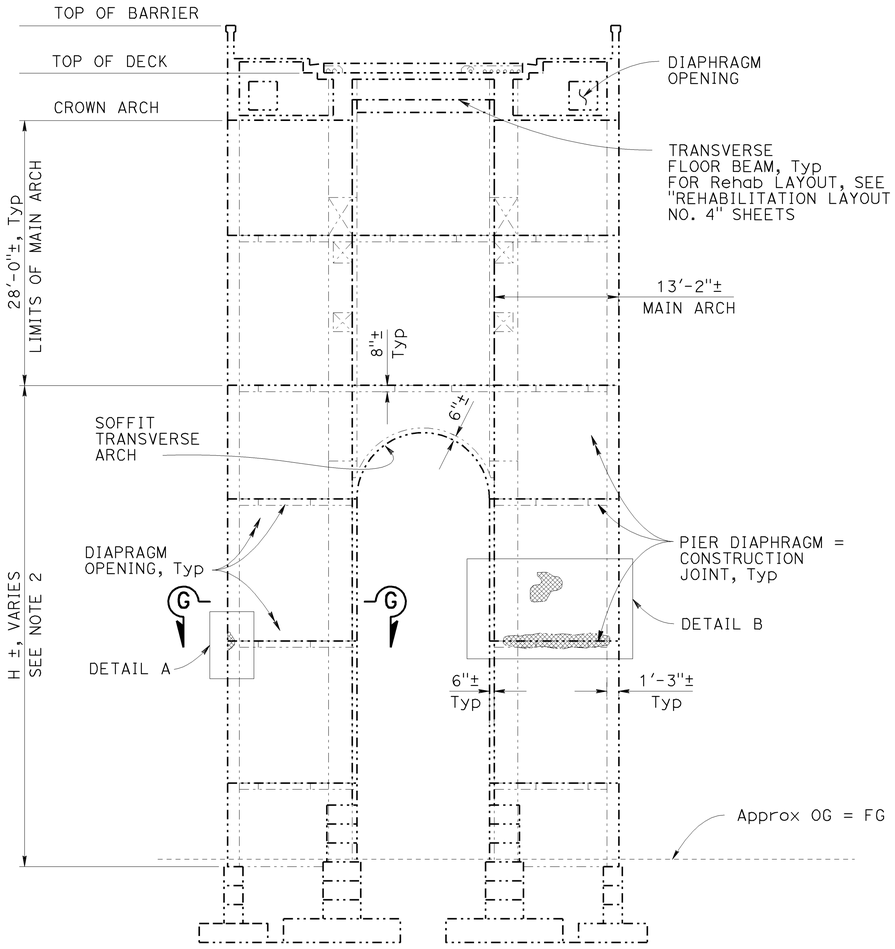
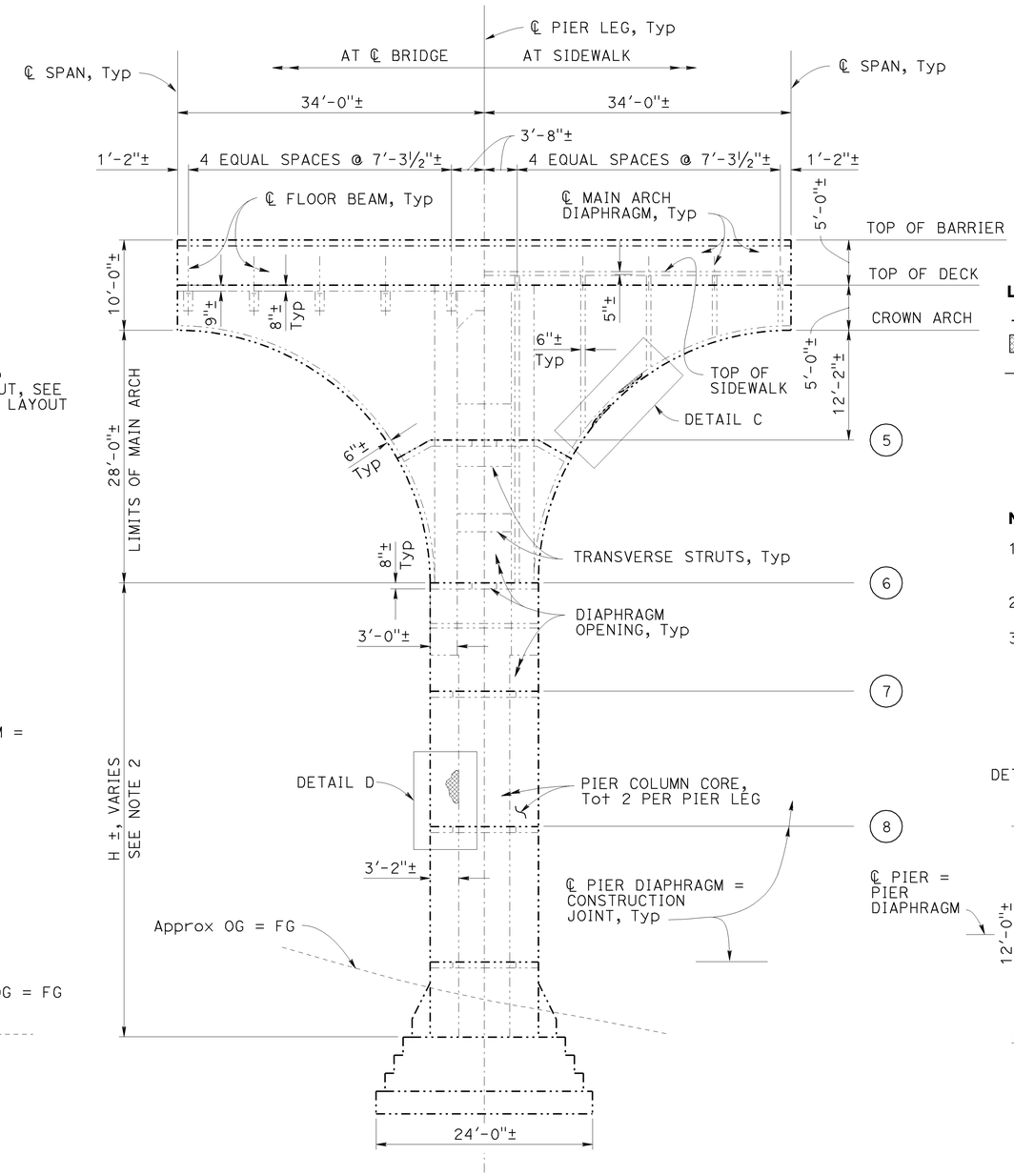


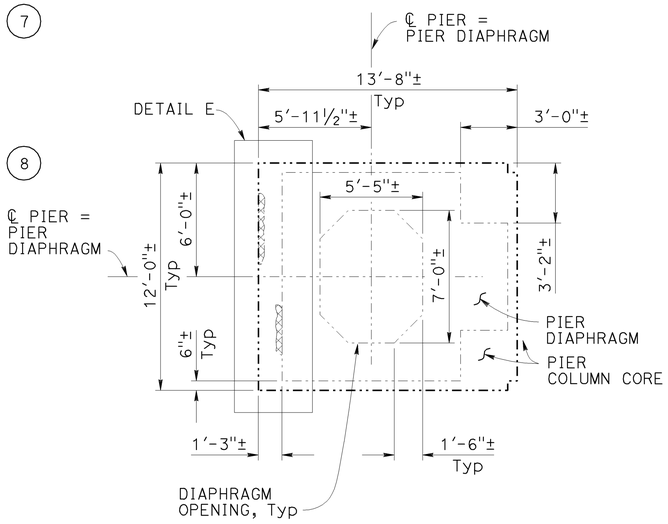
SECTION A-A

1/8"=1'-0"



SECTION B-B

1/8"=1'-0"



SECTION G-G

1/4"=1'-0"

LEGEND:

- Indicates existing structure
- Spalled Surface
- Indicates new concrete
- (5) - Level designation

NOTES:

1. For "Detail A", "Detail B", "Detail C", "Detail D" and "Detail E", see "REHABILITATION DETAILS NO.1" sheet.
2. For "H" see "REHABILITATION DETAILS NO.3" sheet.
3. For location of "SECTION A-A" and "SECTION B-B", see "REHABILITATION PLAN" sheet

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei — DESIGN OVERSIGHT — 1/4/2013 SIGN OFF DATE

	BY	CHECKED
DESIGN	Arash Monsefan	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Peter Smith

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith — PROJECT ENGINEER

BRIDGE NO. 57-0215 — POST MILES 1.4

LAUREL STREET OVERCROSSING
REHABILITATION LAYOUT NO.1

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

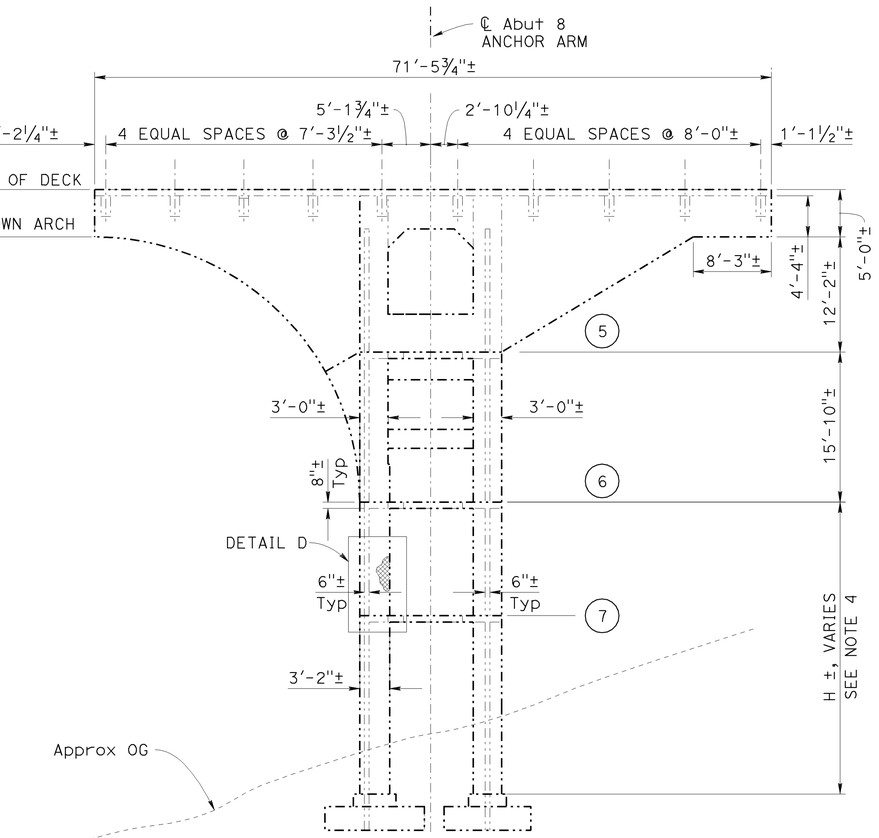
UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	01-04-13	05-06-13	10-04-13	27	61

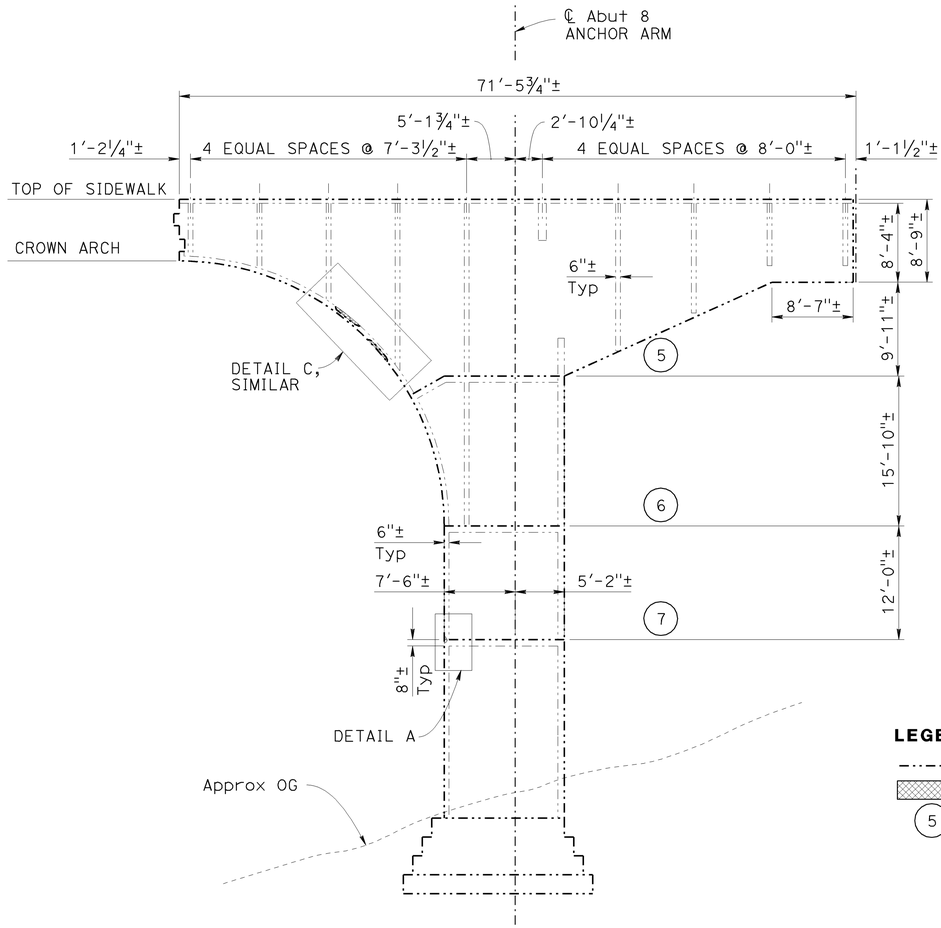
FILE => 57-0215-m-sp01-r101.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28



SECTION D-D

3/16"=1′-0"



SECTION C-C

3/16"=1′-0"

LEGEND:

- Indicates existing structure
- Spalled Surface
- (5) Level designation

NOTES:

1. Abutment 8 Anchor Arm shown, Abutment 1 Anchor Arm similar.
2. For rehabilitation details, see "REHABILITATION DETAILS NO. 1", "REHABILITATION DETAILS NO. 2" and "REHABILITATION DETAILS NO. 3" sheets.
3. For details not shown, see "REHABILITATION LAYOUT NO. 1" sheet.
4. For "H" see "REHABILITATION DETAILS NO. 3" sheet.
5. For location of " SECTION C-C" and "SECTION D-D", see "REHABILITATION PLAN" sheet.
6. For "DETAIL A", "DETAIL C" and "DETAIL D", see "REHABILITATION DETAILS NO.1" sheet.

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	114	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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SEISMIC RETROFIT AND REHABILITATION

LAUREL STREET OVERCROSSING
REHABILITATION LAYOUT NO.2

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Arash Monsefan	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Peter Smith

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10-04-12	28	61

FILE => 57-0215-m-sp01-rl02.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	115	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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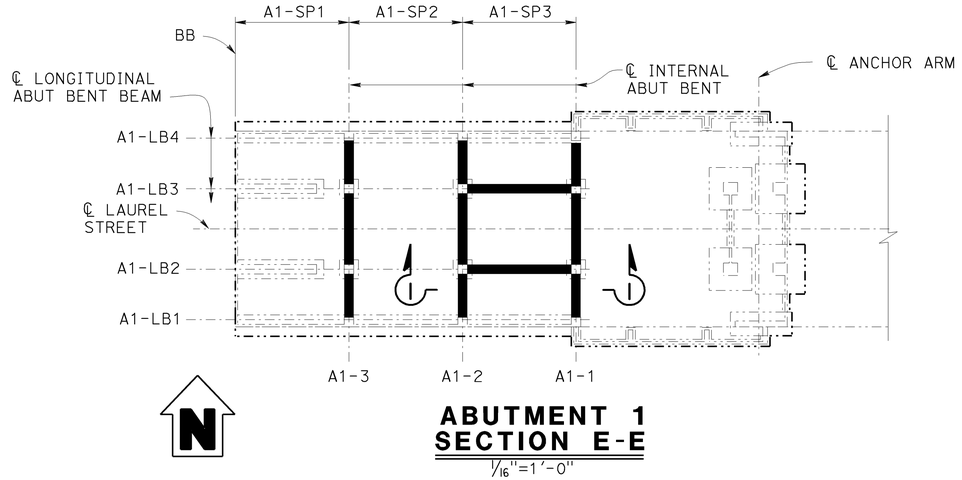
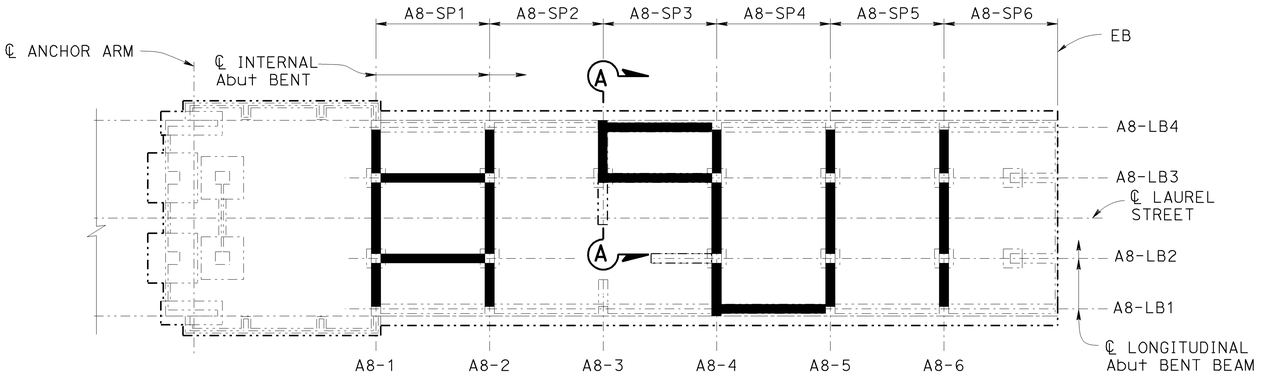


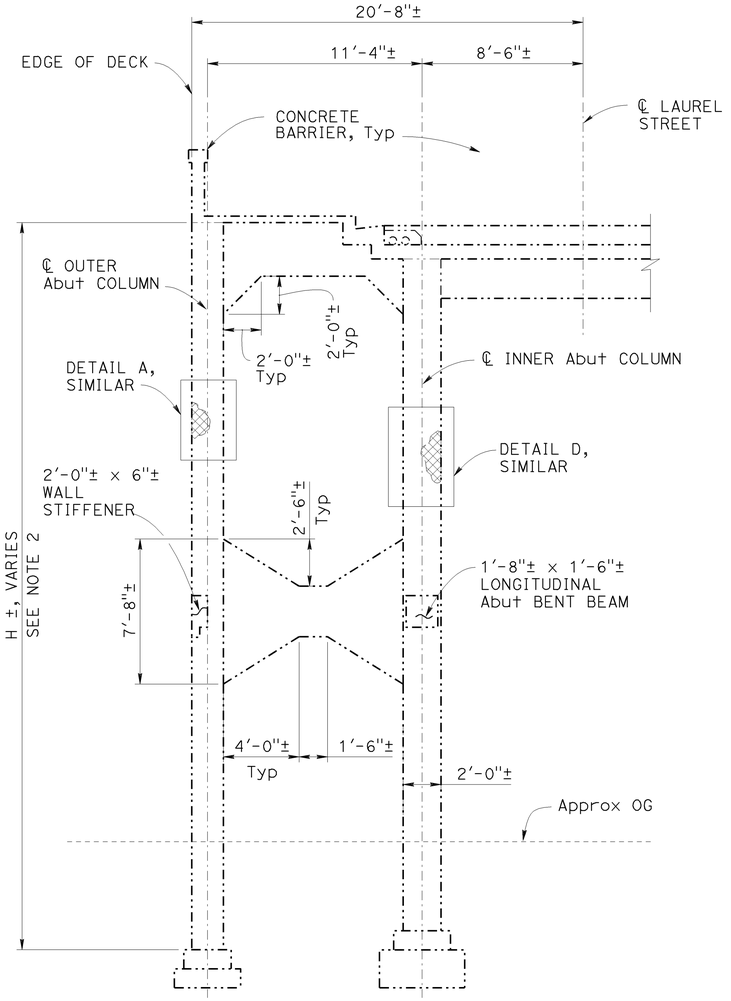
ABUTMENT 1 SECTION E-E

1/16"=1'-0"



ABUTMENT 8 SECTION F-F

1/16"=1'-0"



SECTION A-A

1/4"=1'-0"

Note: West face shown at Abut Bent in Abutment 8.
All other Abut Bents at Abutment 1 and 8 are similar.

LEGEND:

A#-LB# - Denotes Abutment number and Longitudinal Abutment Beam

A#-# - Denotes Abutment number and Abutment Bent

A#-SP# - Denotes internal Abutment span

—·—·— - Indicates existing structure

▨ - Spalled Surface

NOTES:

1. For "SECTION I-I", see "REHABILITATION DETAILS NO. 2" sheet.
2. For "H", see "REHABILITATION DETAILS NO. 3" sheet.
3. Catwalk and access systems not shwon for clarity.
4. For location of " SECTION E-E" and "SECTION F-F", see "REHABILITATION PLAN" sheet.
5. For "DETAIL A" AND "DETAIL D", see "REHABILITATION DETAILS NO.1" sheet.

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Arash Monsefan	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Peter Smith

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
REHABILITATION LAYOUT NO.3

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10-04-12	29	61

FILE => 57-0215-m-sp01-r103.dgn

USERNAME => s1133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	116	147

Peter B Smith — REGISTERED CIVIL ENGINEER — 1/4/13 DATE

03-04-13 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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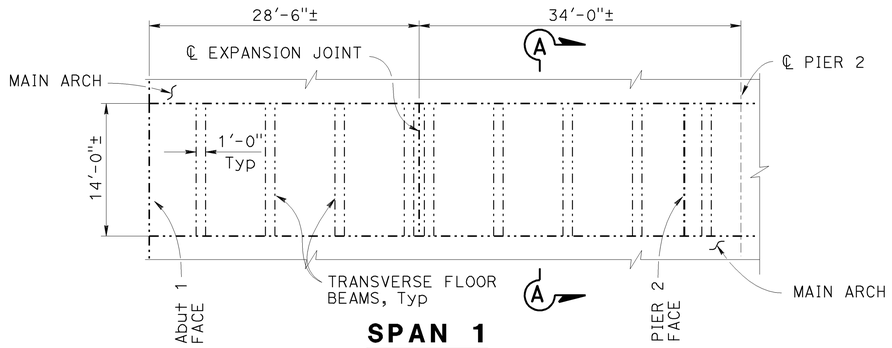
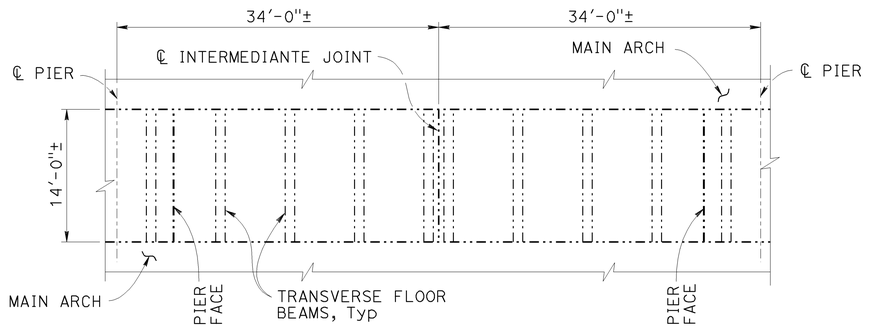
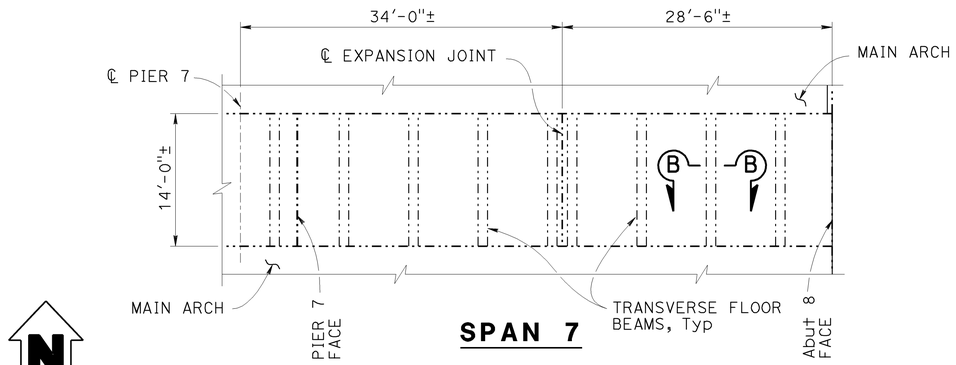


SPAN 1



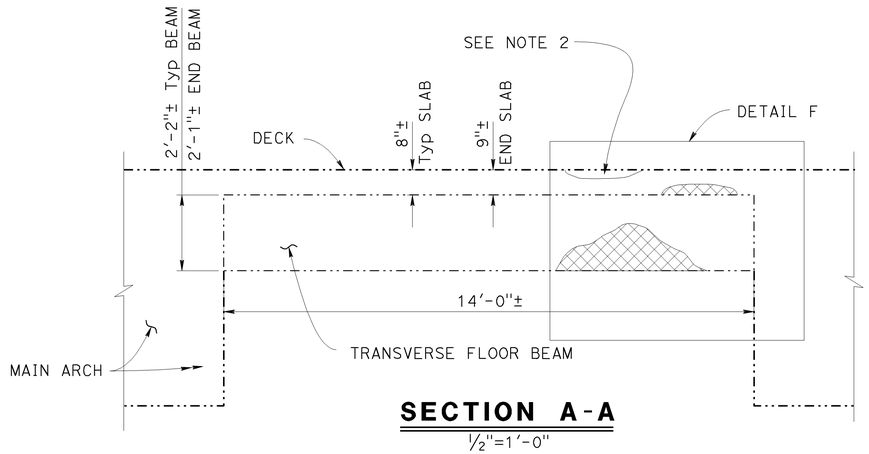
SPANS 2-6



SPAN 7

PART PLAN

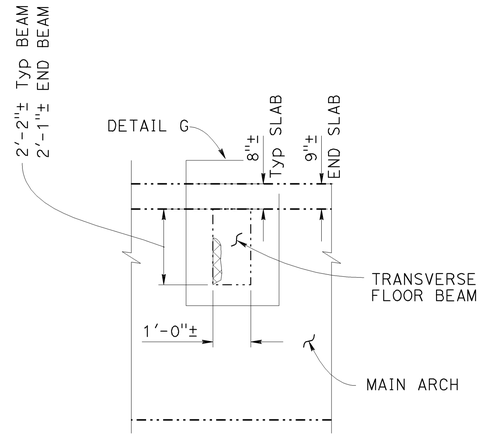
1/8"=1'-0"



SECTION A-A

1/2"=1'-0"

Note:
Span 1 & 7 shown, Spans 2-6 similar



SECTION B-B

1/2"=1'-0"

Note:
Span 1 & 7 shown, Spans 2-6 similar

LEGEND:

- Indicates existing structure
- Spalled Surface
- Indicates new concrete

NOTES:

1. For "DETAIL F" and "DETAIL G", see "REHABILITATION DETAILS NO. 2" sheet.
2. Remove unsound concrete in deck and place rapid setting concrete patch.

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
1/4/2013
SIGN OFF DATE

	BY	CHECKED
DESIGN	Arash Monsefan	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Peter Smith

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
REHABILITATION LAYOUT NO.4

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 11-16-12 | 01-04-13 | 06-08-12 | 10/04/12

SHEET 30 OF 61

FILE => 57-0215-m-sp01-rl04.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	117	147

Peter B Smith — 1/4/13
REGISTERED CIVIL ENGINEER — DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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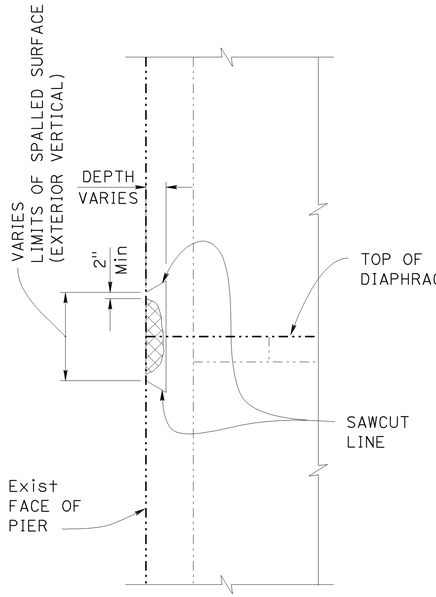
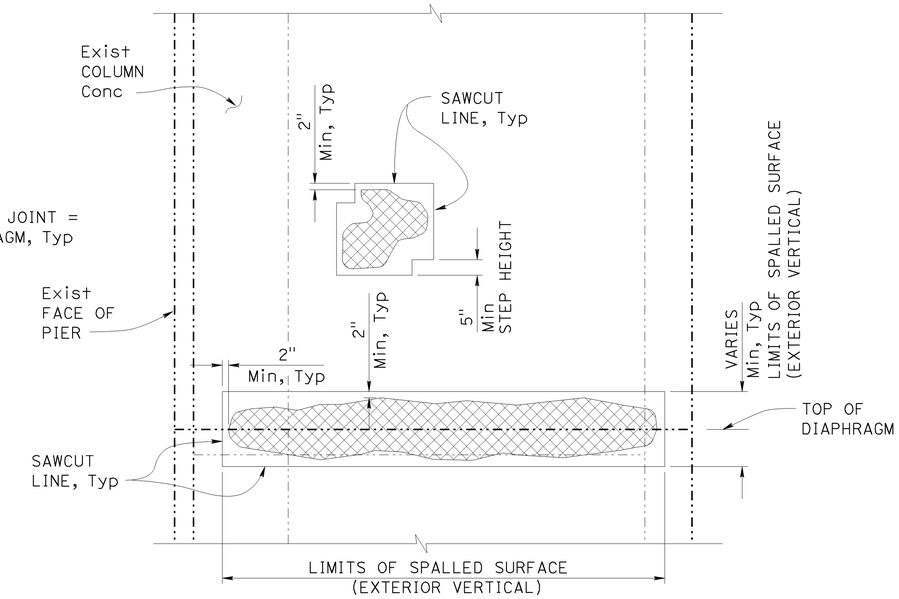
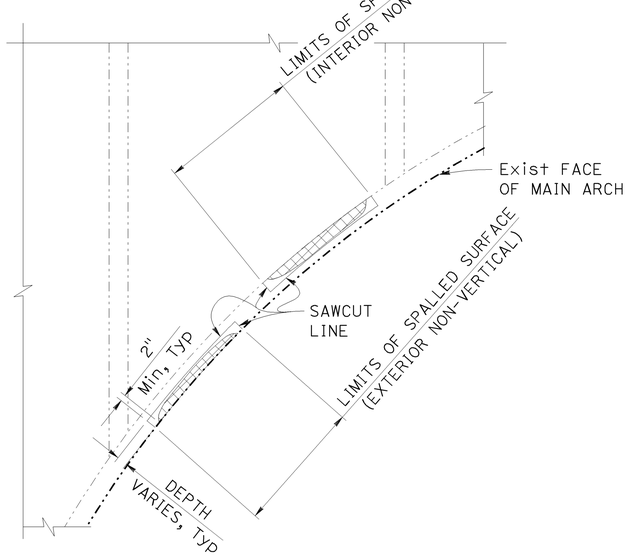


DETAIL A
No Scale

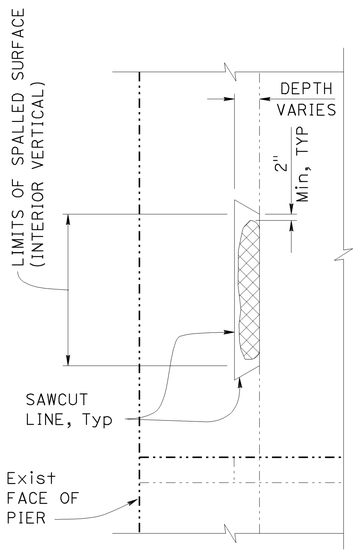


DETAIL B
No Scale

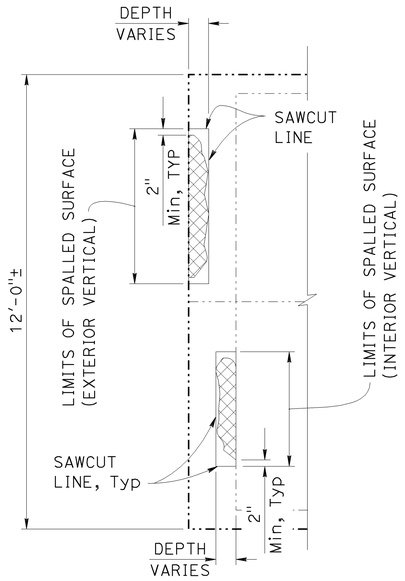


DETAIL C
No Scale

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



DETAIL D
No Scale



DETAIL E
No Scale

LEGEND:

- Spalled Surface
- Indicates existing concrete
- Indicates new concrete

NOTES:

1. Limits of removal to be determined by the Engineer.
2. For removal depth exceeding 1/3 of nominal depth, staged removal and replacement of unsound concrete shall be required.
3. When staged removal and replacement is required, contractor shall be limited to remove and replace only $\frac{1}{3}$ of the nominal width of any particular component at one time.
4. Rehabilitation details shown are similar for abutment components, transverse floor beams, main arches, deck, and anchor arms.
5. For "ESTIMATE OF SPALLED SURFACE" see "REHABILITATION DETAIL NO.3" sheet.
6. See "SPALLED SURFACE REPAIR DETAIL" on "REHABILITATION DETAILS NO. 3" sheet.
7. All exterior concrete removal and replacement shall be textured and colored to match existing, refer to project special provisions.
8. Protect in place existing reinforcing. Saw cut lines shall be horizontal or vertical aligned with existing board form lines.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
1/4/2013
SIGN OFF DATE

	BY	CHECKED
DESIGN	Arash Monsefan	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Peter Smith

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
REHABILITATION DETAILS NO.1

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 11-16-12 | 01-04-13 | 06-06-12 | 10/04/12

SHEET 31 OF 61

FILE => 57-0215-m-sp02-rd01.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	118	147

Peter B Smith — 1/4/13
REGISTERED CIVIL ENGINEER — DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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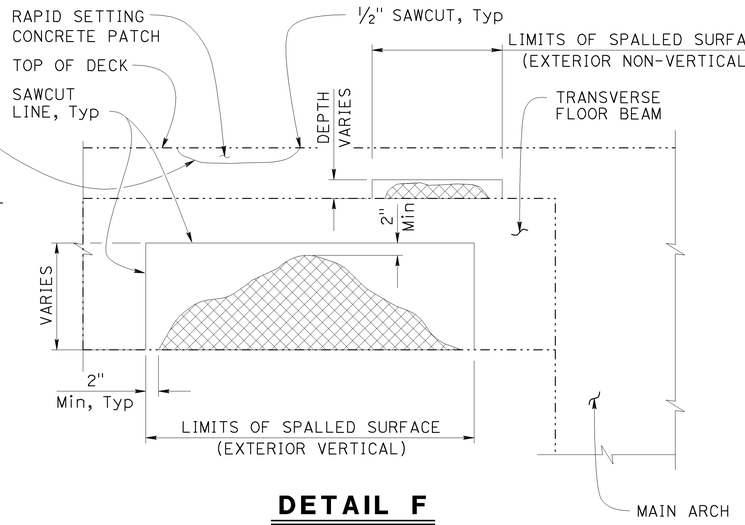
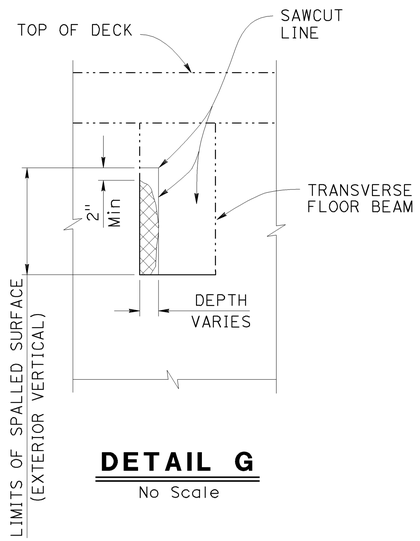
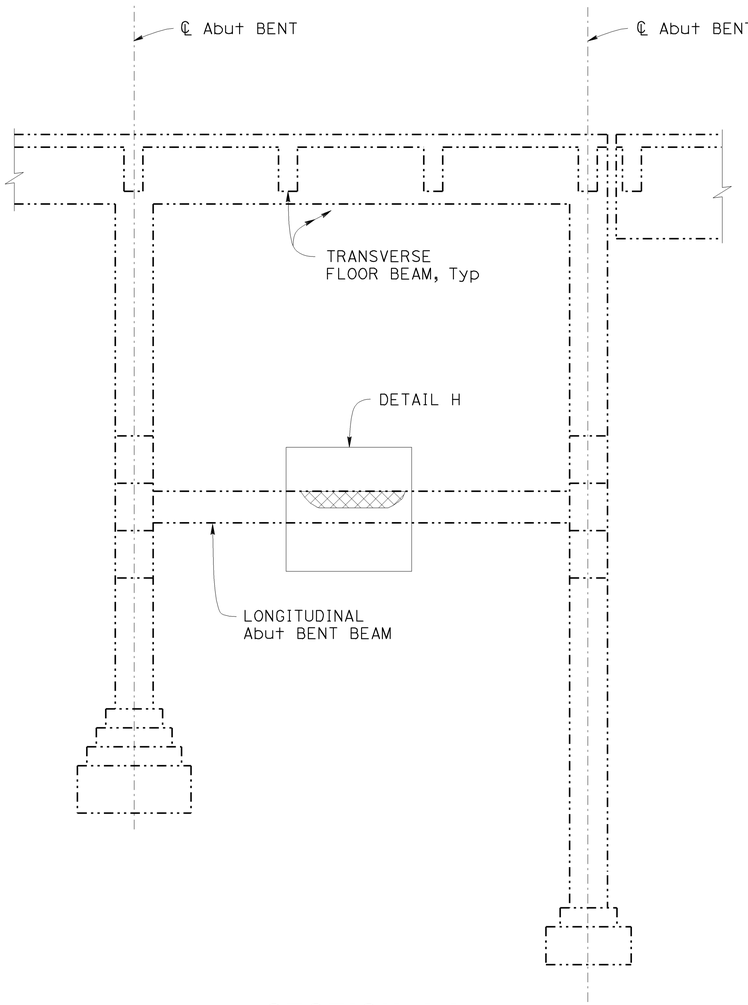


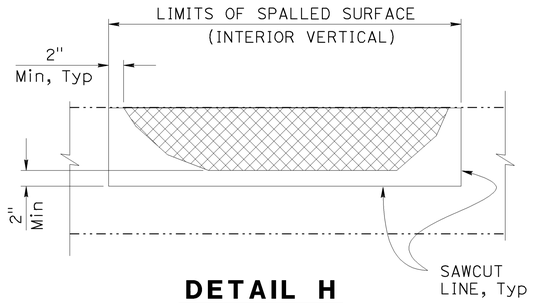
DETAIL F
No Scale



DETAIL G
No Scale



SECTION I-I
1/4"=1'-0"



DETAIL H
No Scale

LEGEND:

- Spalled Surface
- Indicates existing concrete
- Indicates new concrete

NOTES:

1. Limits of removal to be determined by the Engineer.
2. Repair details shown are similar for abutment components, transverse floor beams, main arches, deck, and anchor arms.
3. For "ESTIMATE OF SPALLED SURFACE" see "REHABILITATION DETAIL NO.3" sheet.
4. All exterior concrete removal and replacement shall be textured and colored to match existing, refer to project Special Provisions.
5. Protect in place existing reinforcing.
6. For location of "DETAIL F" and "DETAIL G", see "REHABILITATION LAYOUT NO.4" SHEET.
7. See "SPALLED SURFACE REPAIR DETAIL" on "REHABILITATION DETAILS NO. 3" sheet.
8. For location of "SECTION I-I", see "REHABILATION LAYOUT NO. 3" sheet.

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
1/4/2013
SIGN OFF DATE

	BY	CHECKED
DESIGN	Arash Monsefan	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Peter Smith

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
REHABILITATION DETAILS NO.2

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	01-04-13	06-08-12	10/04/12	32	61

FILE => 57-0215-m-sp02-rd02.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	119	147

Peter B Smith — 1/4/13
REGISTERED CIVIL ENGINEER — DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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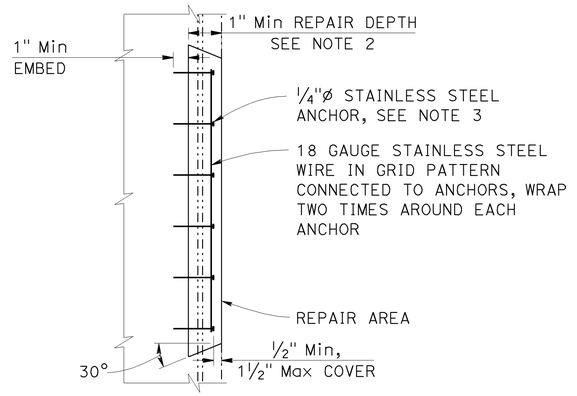
SAN DIEGO, CA 92108

ESTIMATE OF REMOVE UNSOUND CONCRETE AND RAPID SETTING CONCRETE PATCH	
APPROXIMATE AREA DAMAGED (%)	APPROXIMATE DEPTH (INCHES)
10	3



SPALLED SURFACE REPAIR DETAIL

No Scale

PIER AND ABUTMENT HEIGHT				
PIER	H (Ft)±	ABUTMENT		H (Ft)±
ABUTMENT 1 ANCHOR ARM	27′-0"	ABUTMENT 1		
PIER 2	50′-10"		A1-1	42′-10"
PIER 3	87′-10"		A1-2	33′-0"
PIER 4	87′-10"		A1-3	25′-10"
PIER 5	87′-10"	ABUTMENT 8	A8-1	46′-4"
PIER 6N	64′-10"		A8-2	41′-10"
PIER 6S	68′-10"		A8-3	37′-3"
PIER 7N	41′-10"		A8-4	31′-11"
PIER 7S	45′-10"		A8-5	27′-9"
ABUTMENT 8 ANCHOR ARM	24′-4"		A8-6	25′-3"

ESTIMATE OF SPALLED SURFACE (SF)				
LOCATION	EXTERIOR VERTICAL	EXTERIOR NON-VERTICAL	INTERIOR VERTICAL	INTERIOR NON-VERTICAL
PIER 2	1431	-	643	-
PIER 3	1550	-	798	-
PIER 4	1113	-	910	-
PIER 5	1113	-	910	-
PIER 6	970	-	793	-
PIER 7	1633	-	768	-
ARCH SOFFITS, DECK BEAMS, & DECK SOFFIT	266	4345	-	233
ABUTMENT 1 (WEST)	644	-	1369	2013
ABUTMENT 8 (EAST)	1394	-	1672	2508
TOTAL AREA	10112	4345	7865	4754

NOTE:

1. For location of "H", see "REHABILITATION LAYOUT NO.1", "REHABILITATION LAYOUT NO.2", and "REHABILITATION LAYOUT NO.3" sheets.
2. At locations where the repair area is on vertical or overhead surface and the depth of repair is 1" or greater, add stainless steel anchors and wire to the repair area.
3. Anchors are to be installed 2" from the edge of the repair area and spaced at 1′-0" centers throughout the repair. Use a minimum of 2 anchors per repair area.

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
1/4/2013
SIGN OFF DATE

	BY	CHECKED
DESIGN	Arash Monsefan	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Peter Smith

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
REHABILITATION DETAILS NO.3

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 11-16-12 | 01-04-13 | 05-06-13 | 10-04-13

SHEET 33 OF 61

FILE => 57-0215-m-sp02-rd03.dgn

USERNAME => s1333329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	120	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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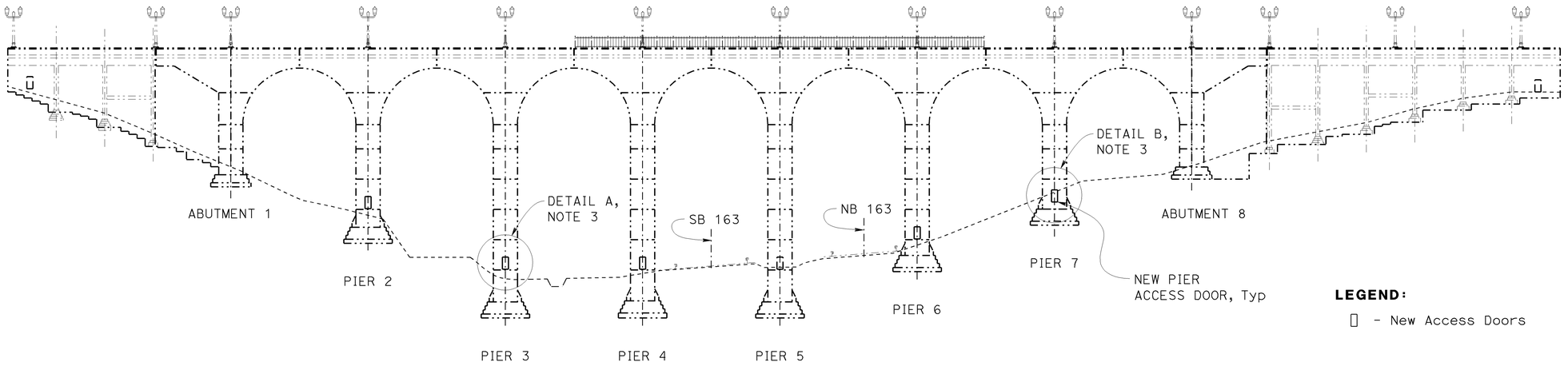
SAN DIEGO, CA 92108



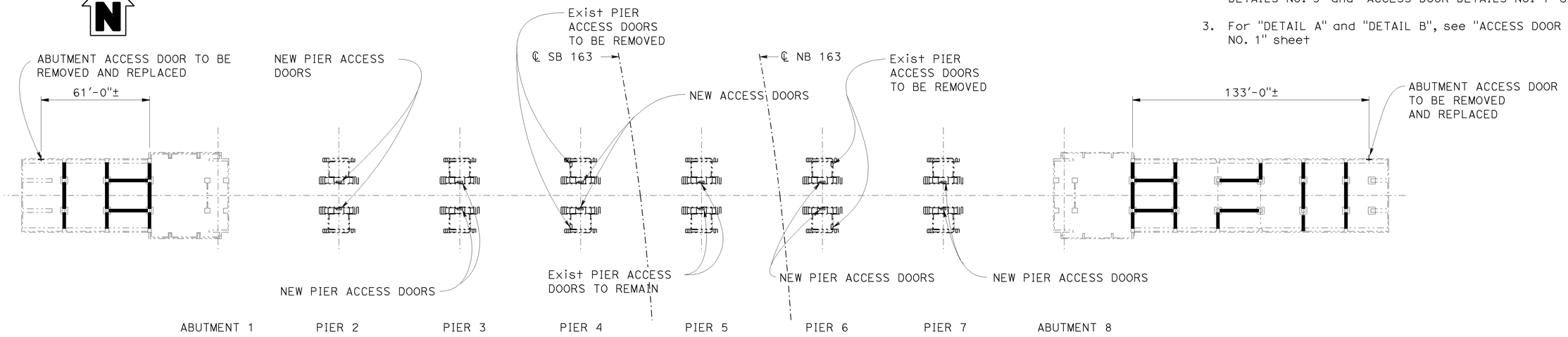
ELEVATION
1"=30'-0"

LEGEND:

▯ - New Access Doors

NOTES:

1. For Pier Access Door Details, see "ACCESS DOOR DETAILS NO. 1", and "ACCESS DOOR DETAILS NO. 2" sheets
2. For Abutment Access Door Details, see "ACCESS DOOR DETAILS NO. 3" and "ACCESS DOOR DETAILS NO. 4" sheets
3. For "DETAIL A" and "DETAIL B", see "ACCESS DOOR DETAILS NO. 1" sheet



PLAN
1"=30'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Carolina Lopez-Toro	Peter Smith
DETAILS	Oscar Colcol	Peter Smith
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
ACCESS DOOR GENERAL PLAN

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
12-12-11	04-13-12	06-08-12	10/04/12	34	61

FILE => 57-0215-m-xaccess01.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	121	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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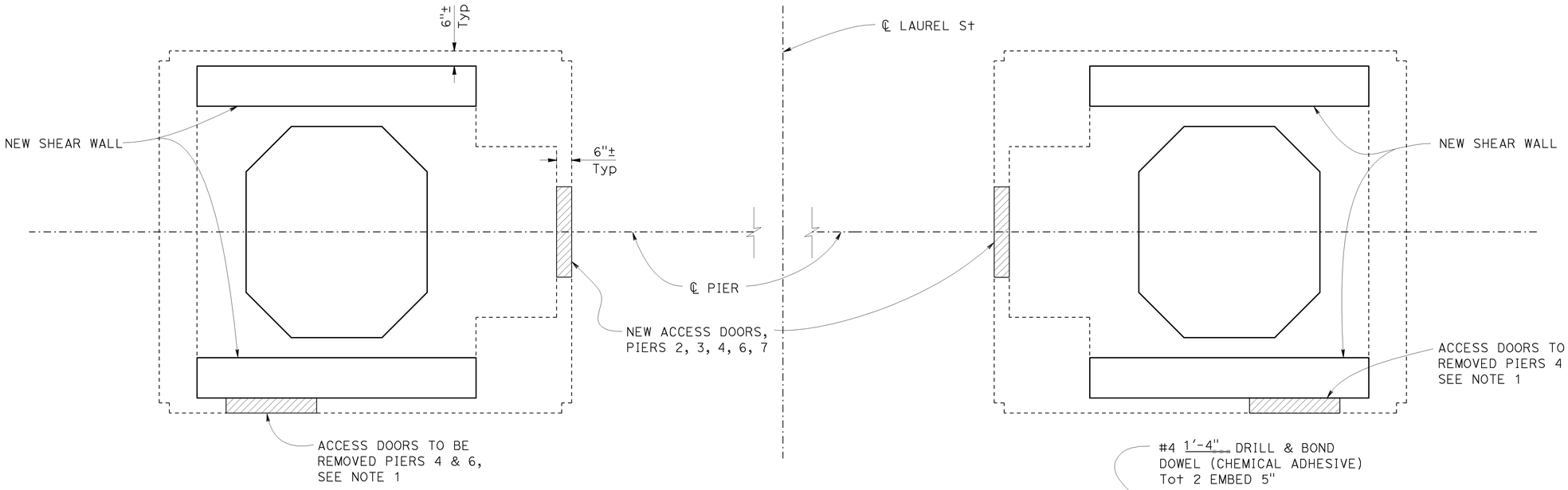
SAN DIEGO, CA 92108



TYPICAL PIER ACCESS DOOR PLAN

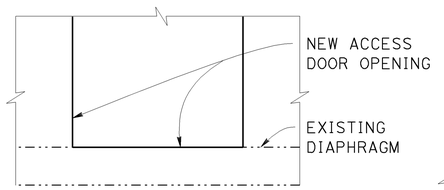
1/2"=1'-0"

LEGEND:

- ·-·-· - Indicates Exist Structure
- ——— - Indicates New Structure
- ▨ - Indicates Bridge Removal (Portion)

NOTES:

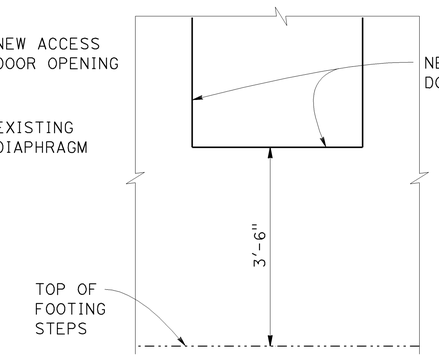
1. Remove existing door and frame. Fill opening with concrete and reinforcing steel as shown on "EXISTING PIER ACCESS DOOR CLOSURE DETAILS".
2. Drill and bond #4 X 1'-9" @ 1'-0" O.C. all around existing opening limits, embed 5".
3. For "DETAIL A" and "DETAIL B" locations, see "ACCESS DOOR GENERAL PLAN" sheet.
4. Length shown for drill & bond dowel (Chemical Adhesive) is length beyond embedment depth. See "DRILL AND BOND DOWEL DETAIL" on "RETROFIT DETAILS NO. 1" sheet.



DETAIL A

3/4"=1'-0"

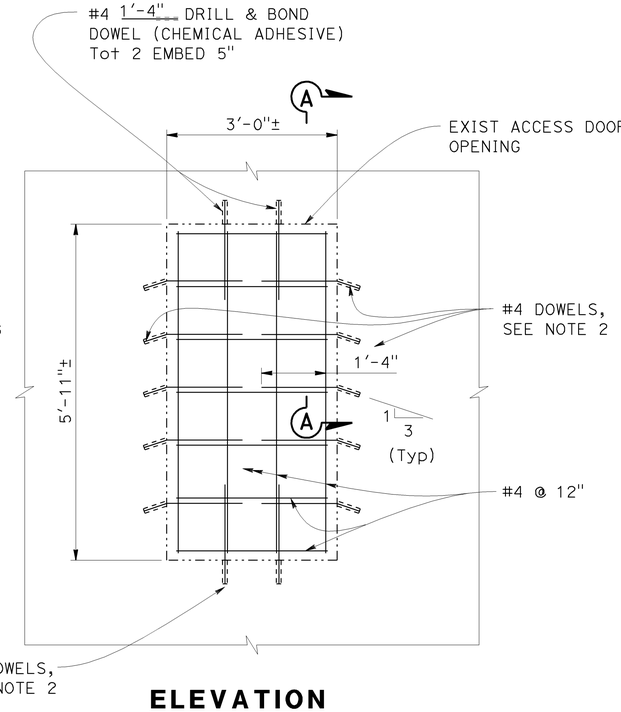
PIERS 2, 3, 4, & 6



DETAIL B

3/4"=1'-0"

PIER 7



ELEVATION

SECTION A-A

EXISTING PIER ACCESS DOOR CLOSURE DETAILS

3/4"=1'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Carolina Lopez-Toro	Peter Smith
DETAILS	Oscar Colcol	Peter Smith
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
ACCESS DOOR DETAILS NO. 1

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
12-12-11	04-12-12	06-08-12	10/04/12	35	61

FILE => 57-0215-m-xaccess02.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	122	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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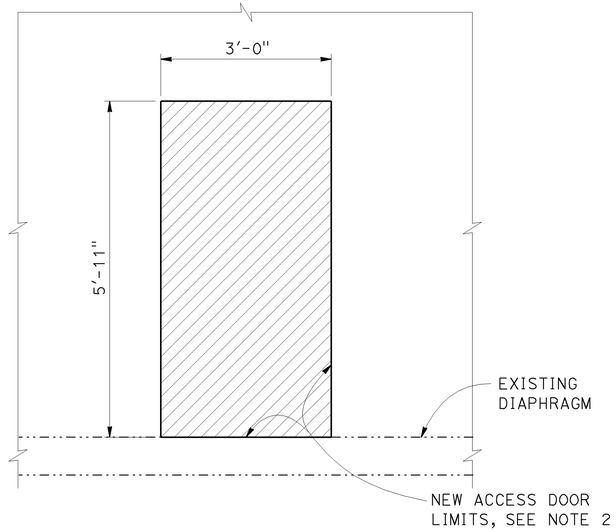
SAN DIEGO, CA 92108

LEGEND:

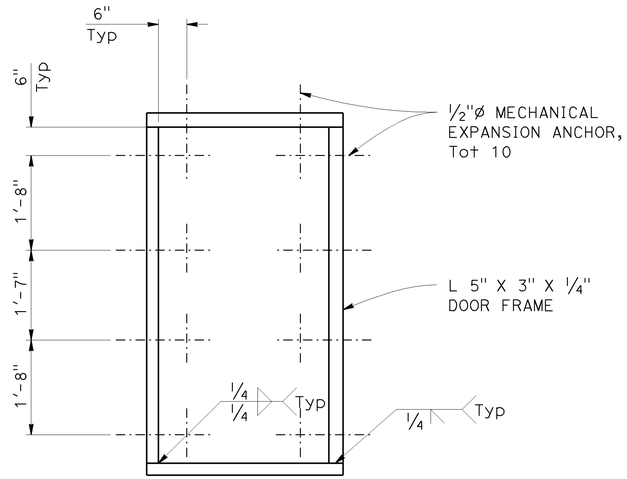
▨ - Indicates Bridge Removal (Portion)

NOTES:

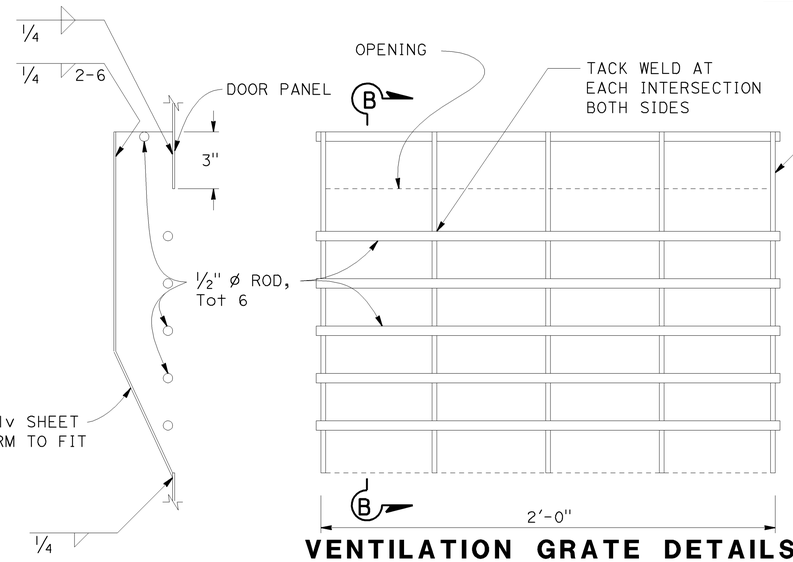
1. For new access door opening details at abutments, see "ACCESS DOOR DETAILS NO. 3" and "ACCESS DOOR DETAILS NO. 4" sheets
2. Repair spalled concrete prior to installation of door frame.



REMOVAL DETAILS



DOOR FRAME ANCHOR LAYOUT



SECTION B-B

VENTILATION GRATE DETAILS

3"=1'-0"

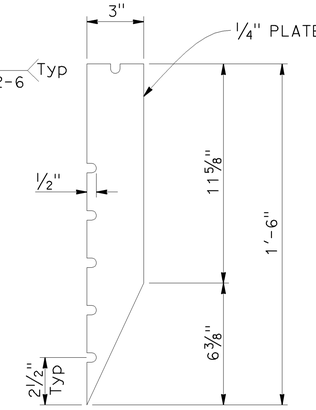
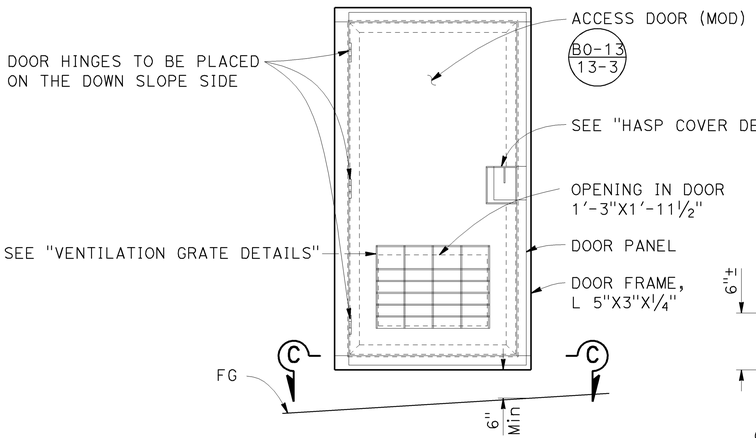


PLATE DETAIL

PIER ACCESS DOOR OPENING DETAILS

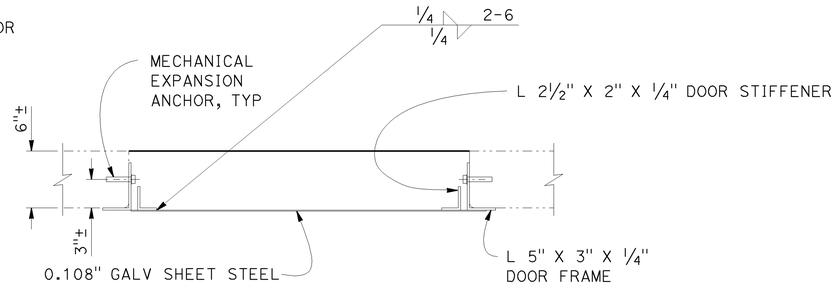
¾"=1'-0"



TYPICAL DOOR ELEVATION

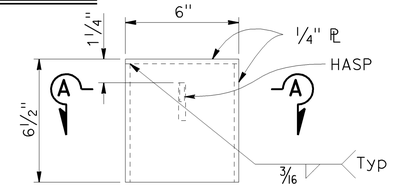
¾"=1'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

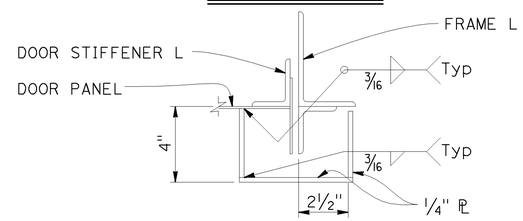


SECTION C-C

1½"=1'-0"



ELEVATION



SECTION A-A

HASP COVER DETAILS

3"=1'-0"

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Carolina Lopez-Toro	Peter Smith
DETAILS	Oscar Colcol	Peter Smith
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
ACCESS DOOR DETAILS NO. 2

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
12-12-11	04-12-12	06-08-12	10/04/12	36	61

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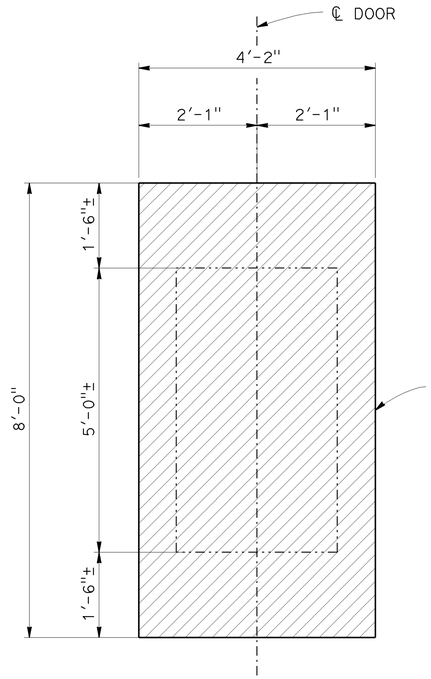

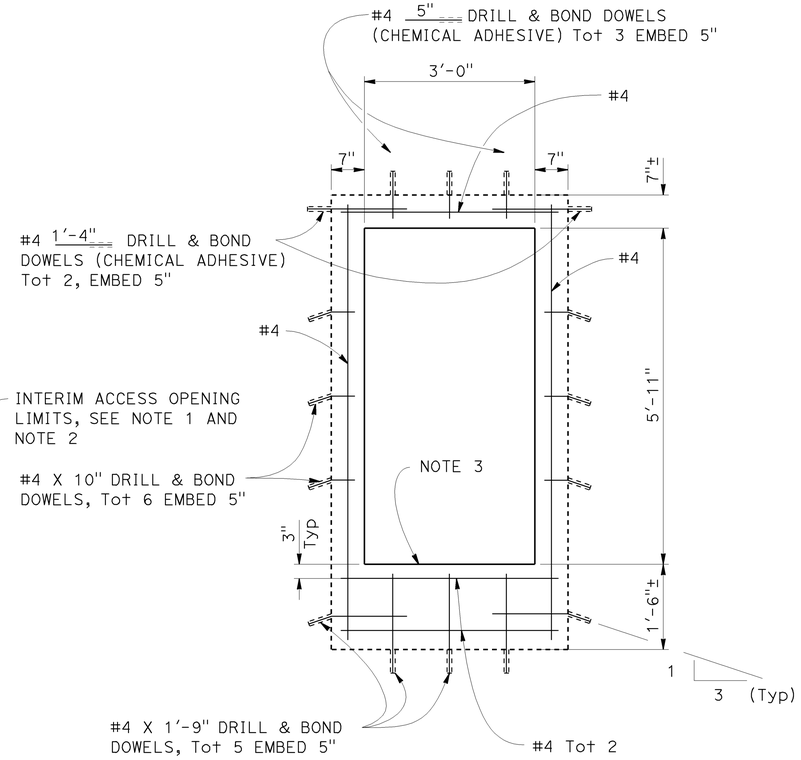

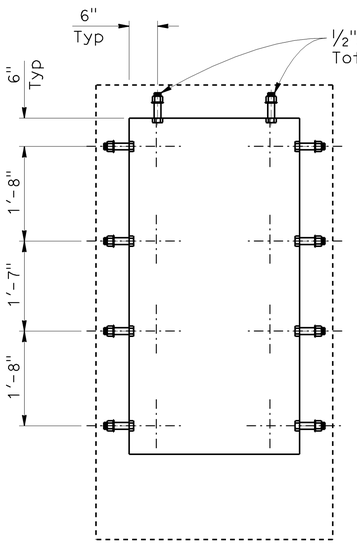

LEGEND:

- Indicates Bridge Removal (Portion)

REMOVAL DETAIL

DOOR OPENING DETAIL

DOOR FRAME ANCHOR LAYOUT

ABUTMENT 1 ACCESS DOOR OPENING DETAILS

¾"=1'-0"

NOTES:

1. Interim access opening is intended to allow access for abutment grading work.
2. Access opening height shall be adjusted as shown on "DOOR OPENING DETAIL" when installing the new access door.
3. Repair spalled concrete prior to installation of door frame.
4. For Door Details, see "ACCESS DOOR DETAILS NO. 2" sheet.
5. Length shown for drill and bond dowel (Chemical Adhesive) is length beyond embedment depth. See "DRILL AND BOND DOWEL DETAIL" on "RETROFIT DETAILS NO. 1" sheet.

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	123	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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T.Y. LIN INTERNATIONAL
404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108

DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Carolina Lopez-Toro	Peter Smith
DETAILS	Oscar Colcol	Peter Smith
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

SEISMIC RETROFIT AND REHABILITATION

LAUREL STREET OVERCROSSING

ACCESS DOOR DETAILS NO. 3

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
12-12-11	04-13-12	06-08-12	10-04-12	37	61

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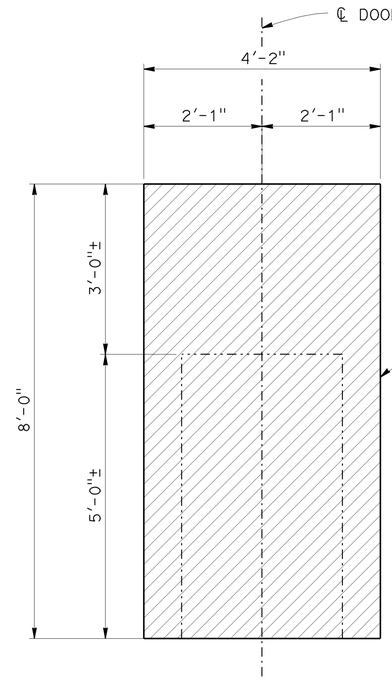

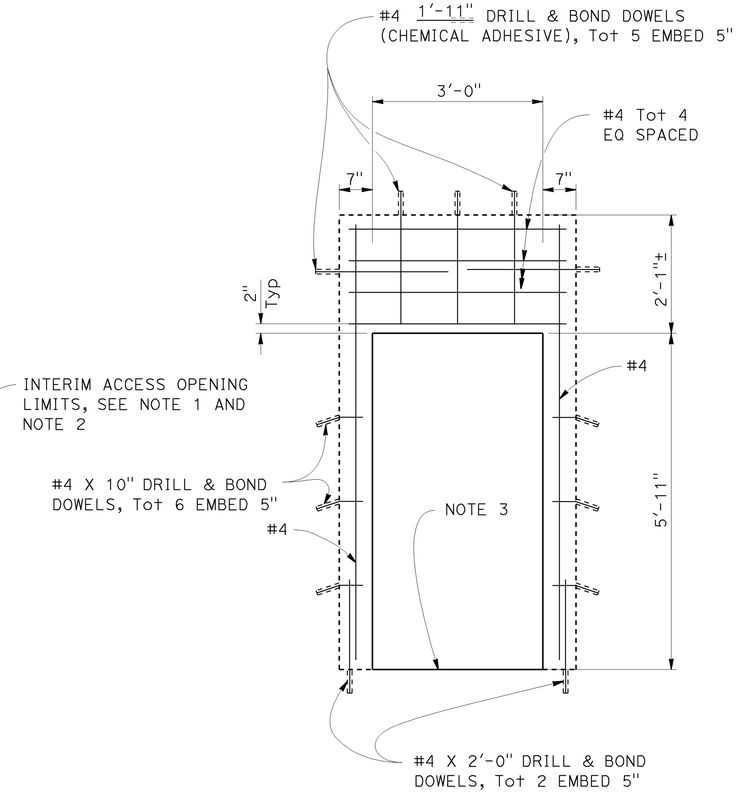

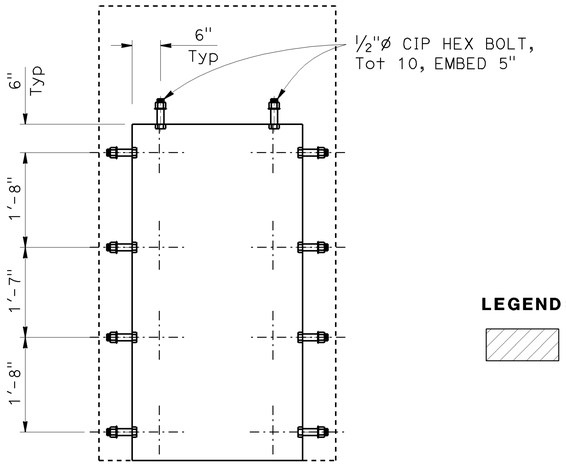

LEGEND:

- Indicates Bridge Removal (Portion)

REMOVAL DETAIL

DOOR OPENING DETAIL

DOOR FRAME ANCHOR LAYOUT

ABUTMENT 8 ACCESS DOOR OPENING DETAILS

¾"=1'-0"

NOTES:

1. Interim access opening is intended to allow access for abutment grading work.
2. Access opening height shall be adjusted as shown on "DOOR OPENING DETAIL" when installing the new access door.
3. Repair spalled concrete prior to installation of door frame.
4. For Door Details, see "ACCESS DOOR DETAILS NO. 2" sheet.
5. Length shown for Drill and Bond Dowel (Chemical Adhesive) is length beyond embedment depth. See "DRILL AND BOND DOWEL DETAIL" on "RETROFIT DETAILS NO. 1" sheet.

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	124	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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T.Y. LIN INTERNATIONAL
404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Carolina Lopez-Toro	Peter Smith
DETAILS	Oscar Colcol	Peter Smith
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
ACCESS DOOR DETAILS NO. 4

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 12-12-11 | 04-13-12 | 06-08-12 | 10-04-12

SHEET 38 OF 61

FILE => 57-0215-m-xaccess05.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	125	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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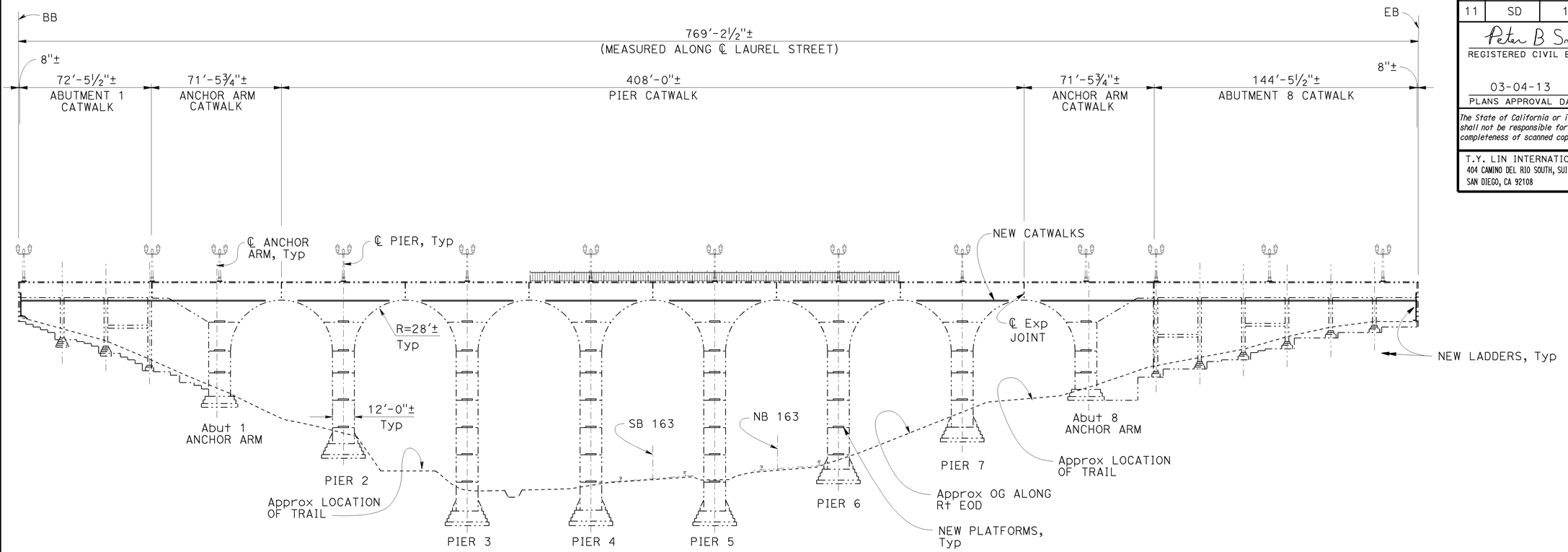
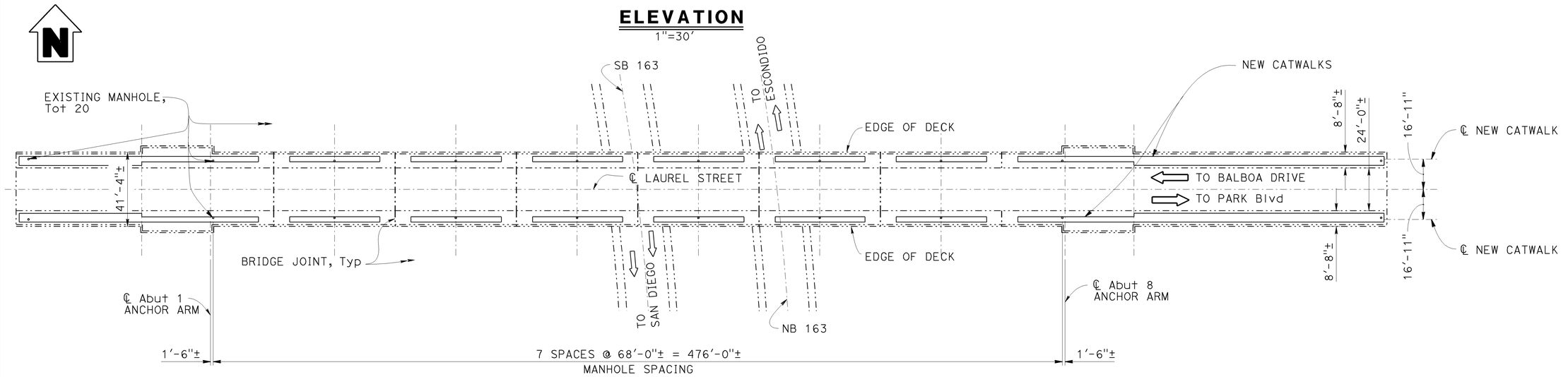
SAN DIEGO, CA 92108



ELEVATION
1"=30'



PLAN
1"=30'

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

DESIGN	BY Tim Fuller	CHECKED Robert Barton
DETAILS	BY Oscar Colcol	CHECKED Robert Barton
QUANTITIES	BY Tim Fuller	CHECKED Cathleen Ma

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO.	57-0215
POST MILES	1.4

LAUREL STREET OVERCROSSING
LADDERS, CATWALKS, & PLATFORMS

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10/04/12	39	61

FILE => 57-0215-m-xcatwalk01.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	126	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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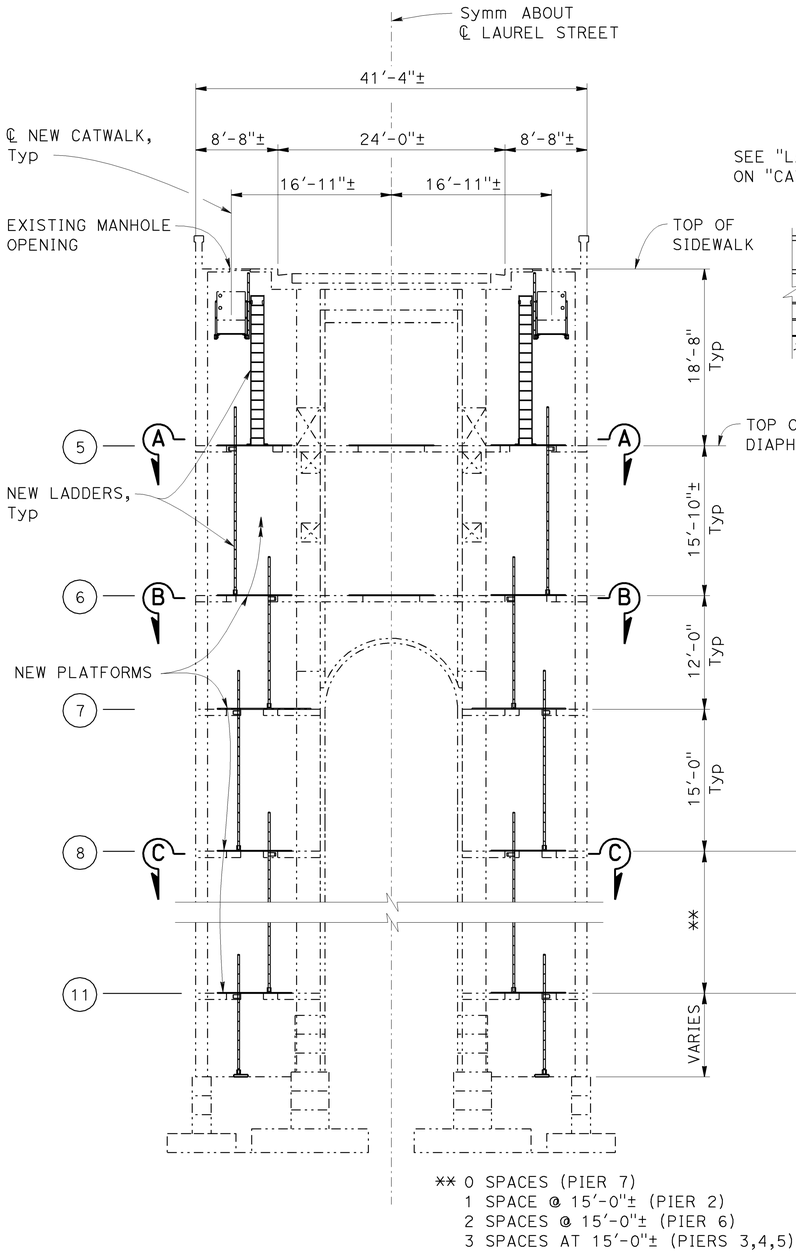
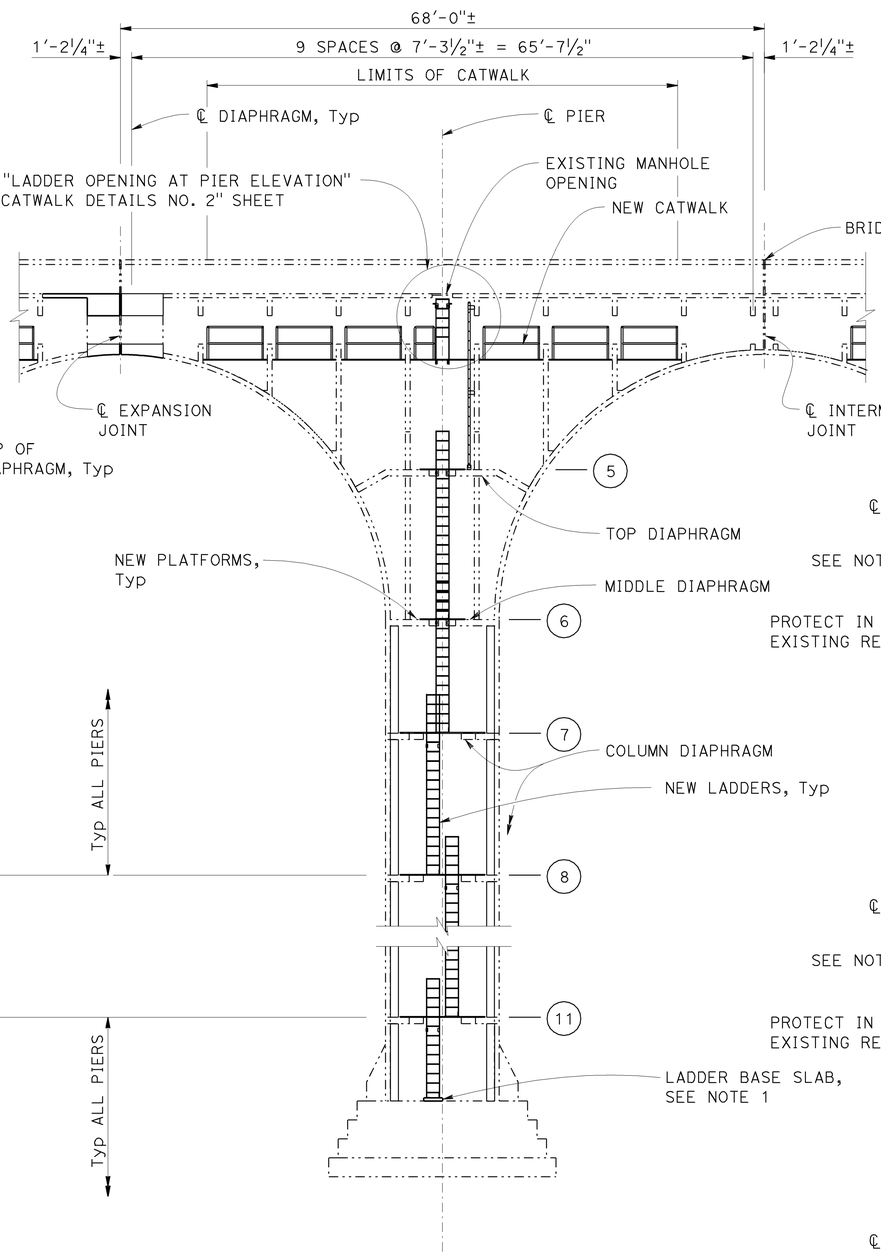


** 0 SPACES (PIER 7)
1 SPACE @ 15′-0"± (PIER 2)
2 SPACES @ 15′-0"± (PIER 6)
3 SPACES AT 15′-0"± (PIERS 3,4,5)

TYPICAL PIER SECTION

1/8"=1′-0"



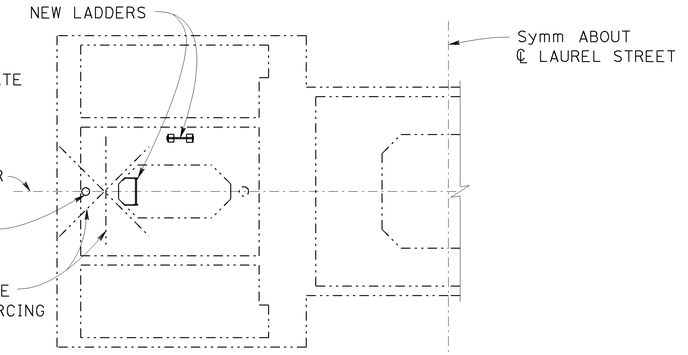
TYPICAL PIER ELEVATION

1/8"=1′-0"

NOTES:

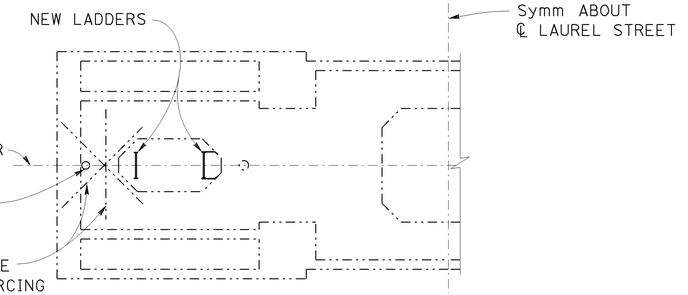
1. For "LADDER BASE DETAILS", see "LADDER DETAILS NO. 2" sheet.
2. Pier 2 shown, others similar.
3. Offset ladders at each platform below level (8).
4. Core 5"ø hole in diaphragms for electrical conduit; for Electrical Conduit Details, see "ROAD PLANS".

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



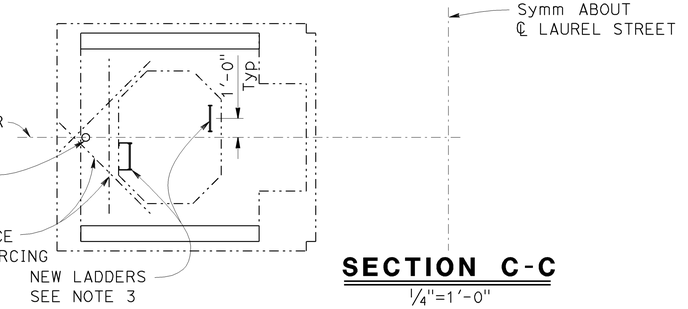
SECTION A-A

¼"=1′-0"



SECTION B-B

¼"=1′-0"



SECTION C-C

¼"=1′-0"

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Tim Fuller	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Tim Fuller	Cathleen Ma

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
PIER LADDER PLAN

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10/04/12	40	61

FILE => 57-0215-m-xcatwalk02.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	127	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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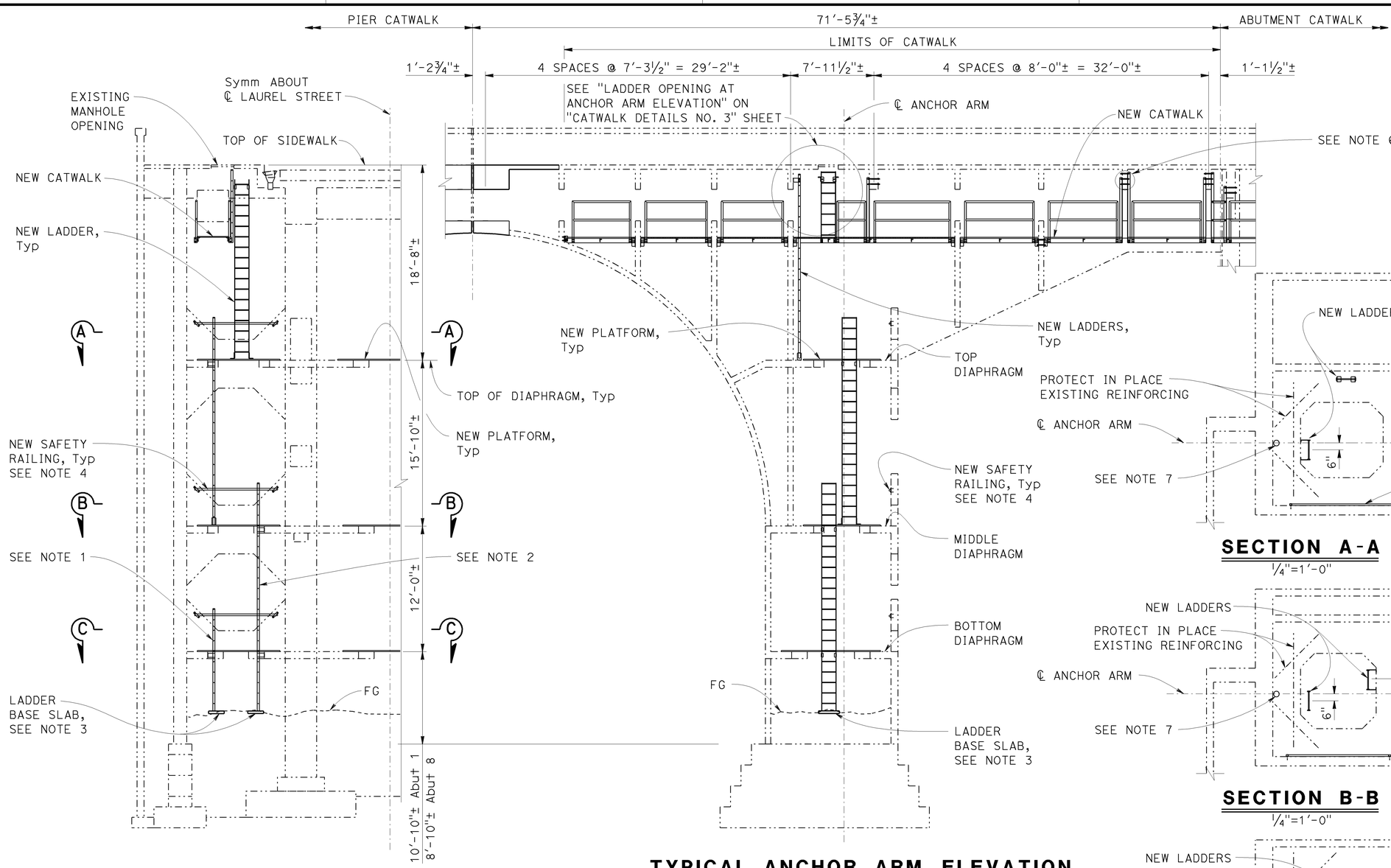
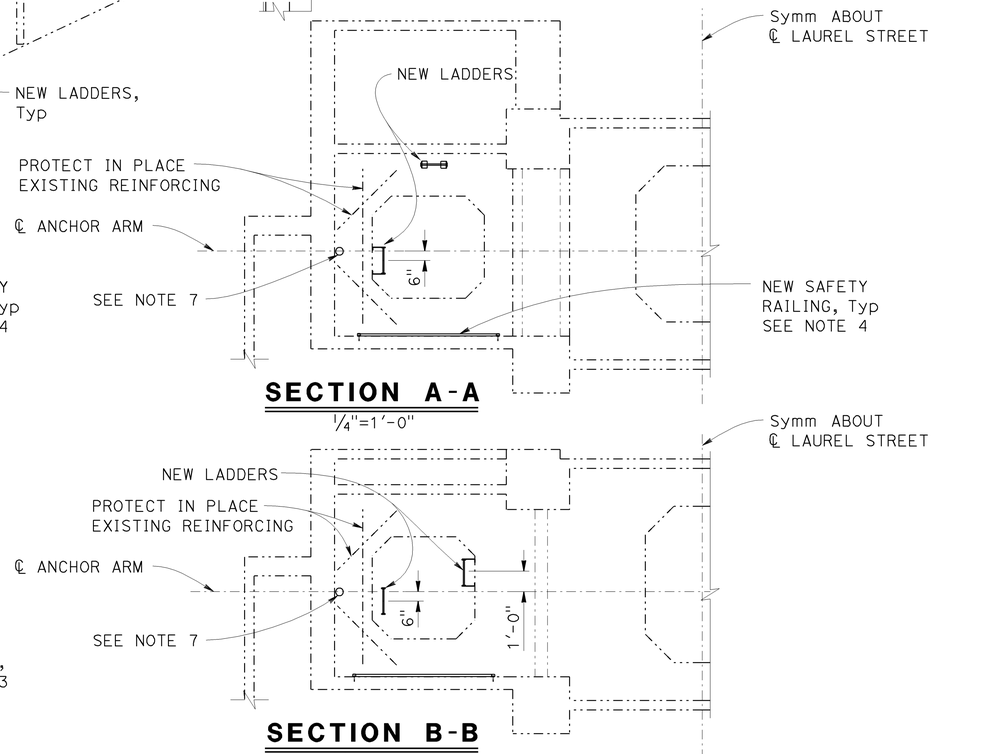
SAN DIEGO, CA 92108



TYPICAL ANCHOR ARM SECTION
3/16"=1'-0"

TYPICAL ANCHOR ARM ELEVATION
3/16"=1'-0"



SECTION A-A
¼"=1'-0"

SECTION B-B
¼"=1'-0"

SECTION C-C
¼"=1'-0"

NOTES:

1. At Abut 1 offset bottom ladder on opposite side platform.
2. At Abut 8 extend ladder beyond platform down to FG.
3. For "LADDER BASE DETAILS", see "LADDER DETAILS NO. 2" sheet.
4. For Safety Railing Details, see "CATWALK DETAILS NO. 3" sheet.
5. Abut 8 shown Abut 1 similar.
6. See "DETAIL 3" and "SECTION A-A" on "ABUTMENT CATWALK PLAN" sheet for hanger details.
7. Core 5"ø hole in diaphragm for electric conduit. For Electrical Conduit Details, see "ROAD PLANS".

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Jack H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Tim Fuller	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Tim Fuller	Cathleen Ma

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO.	LAUREL STREET OVERCROSSING
57-0215	
POST MILES	ANCHOR ARM LADDER PLAN
1.4	

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

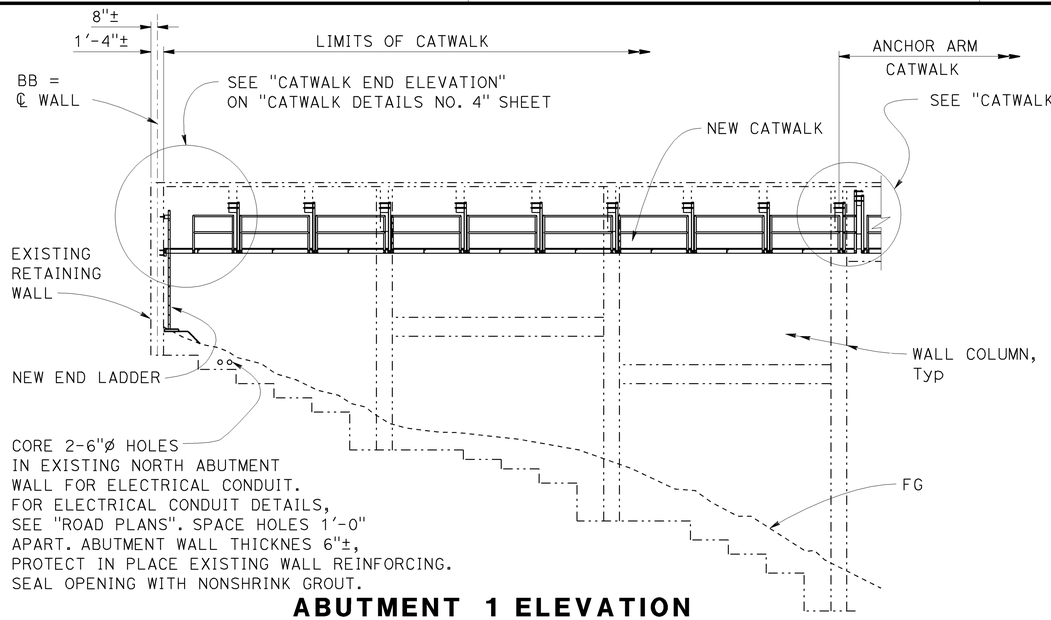
UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-06-12	10/04/12	41	61

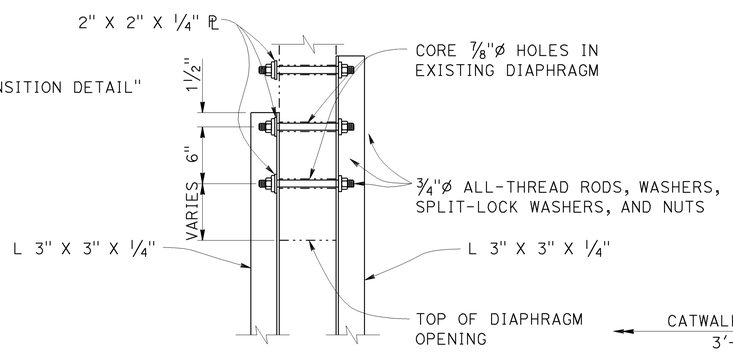
FILE => 57-0215-m-xcatwalk03.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28



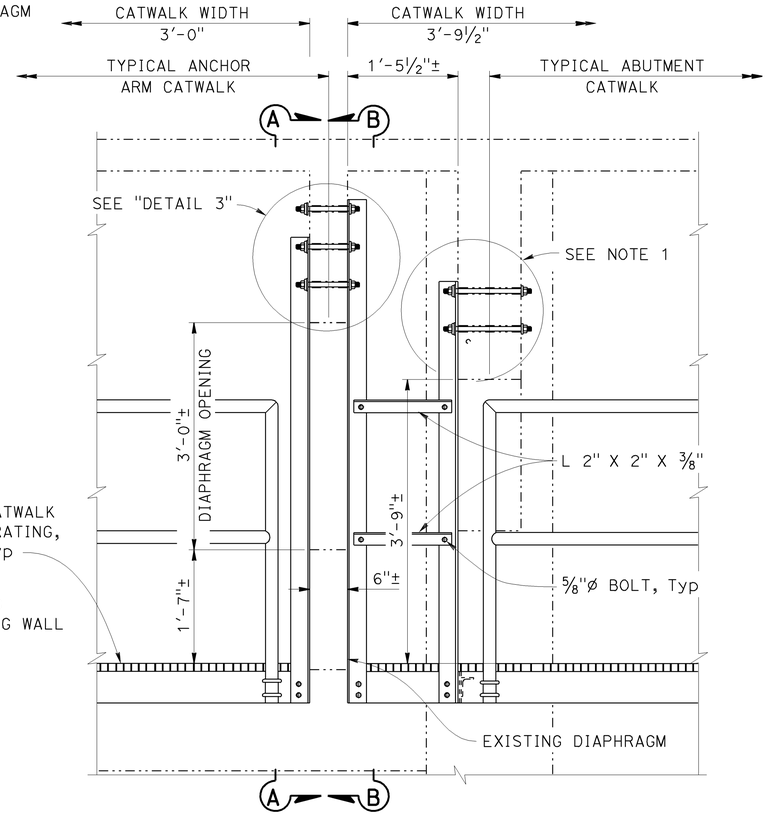
ABUTMENT 1 ELEVATION

1/8"=1'-0"



DETAIL 3

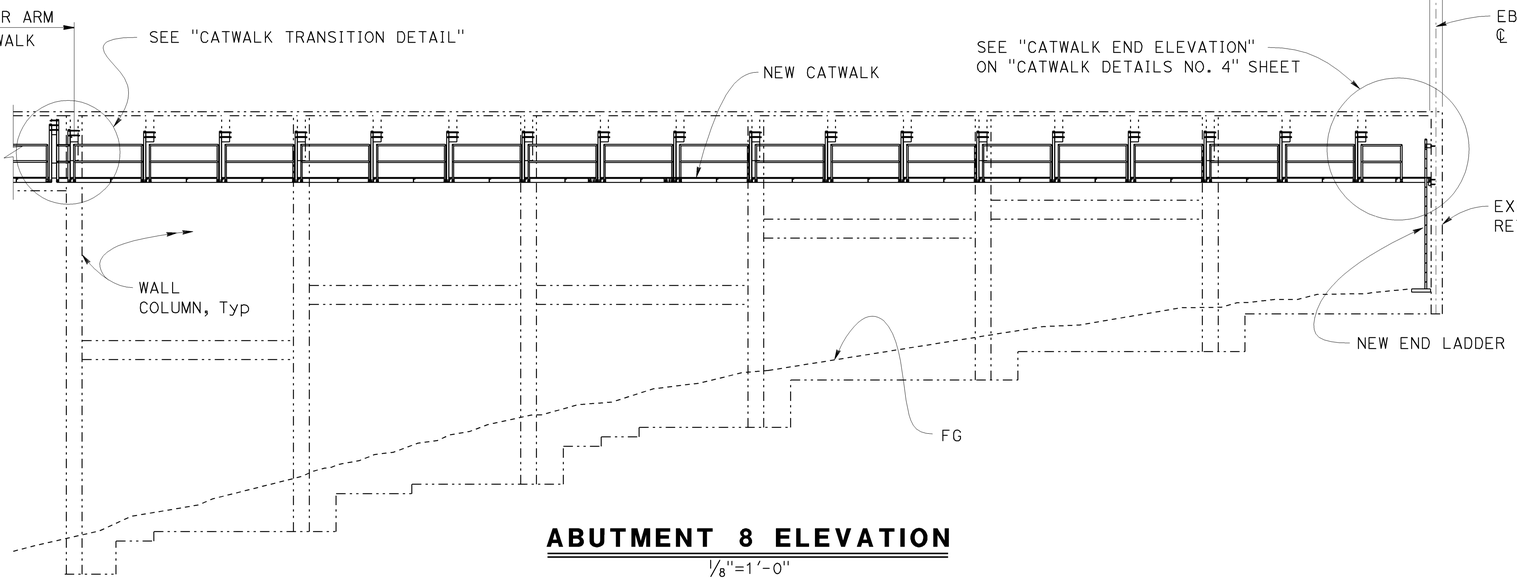
1 1/2"=1'-0"

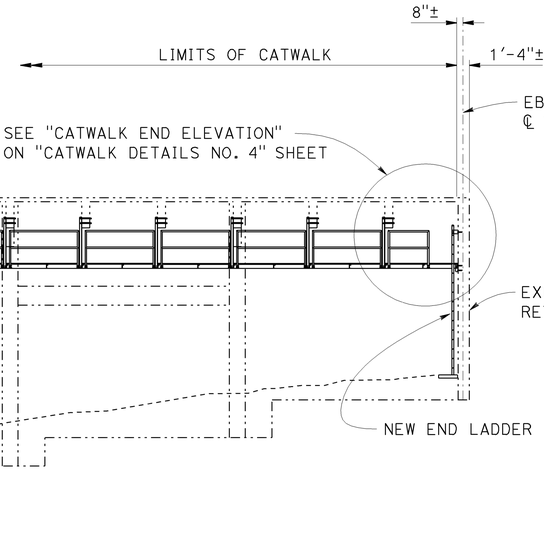


CATWALK TRANSITION DETAIL

1"=1'-0"

NOTE: Abutment 8 shown, Abutment 1 similar except opposite hand





ABUTMENT 8 ELEVATION

1/8"=1'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTES:

1. See "DETAIL 1" on "CATWALK DETAILS NO.4" sheet.
2. For "SECTION A-A" and "SECTION B-B", see "CATWALK DETAILS NO. 6" sheet.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	128	147

Peter B Smith — REGISTERED CIVIL ENGINEER — 1/4/13 DATE

03-04-13 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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SAN DIEGO, CA 92108

SEISMIC RETROFIT AND REHABILITATION

LAUREL STREET OVERCROSSING

ABUTMENT CATWALK PLAN

	BY	CHECKED
DESIGN	Tim Fuller	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Tim Fuller	Cathleen Ma

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith — PROJECT ENGINEER

BRIDGE NO. 57-0215 — POST MILES 1.4

Frank H. Wei — DESIGN OVERSIGHT — 1/4/2013 SIGN OFF DATE

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 11-16-12 | 01-04-13 | 06-06-12 | 10/04/12

SHEET 42 OF 61

FILE => 57-0215-m-xcatwalk04.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	129	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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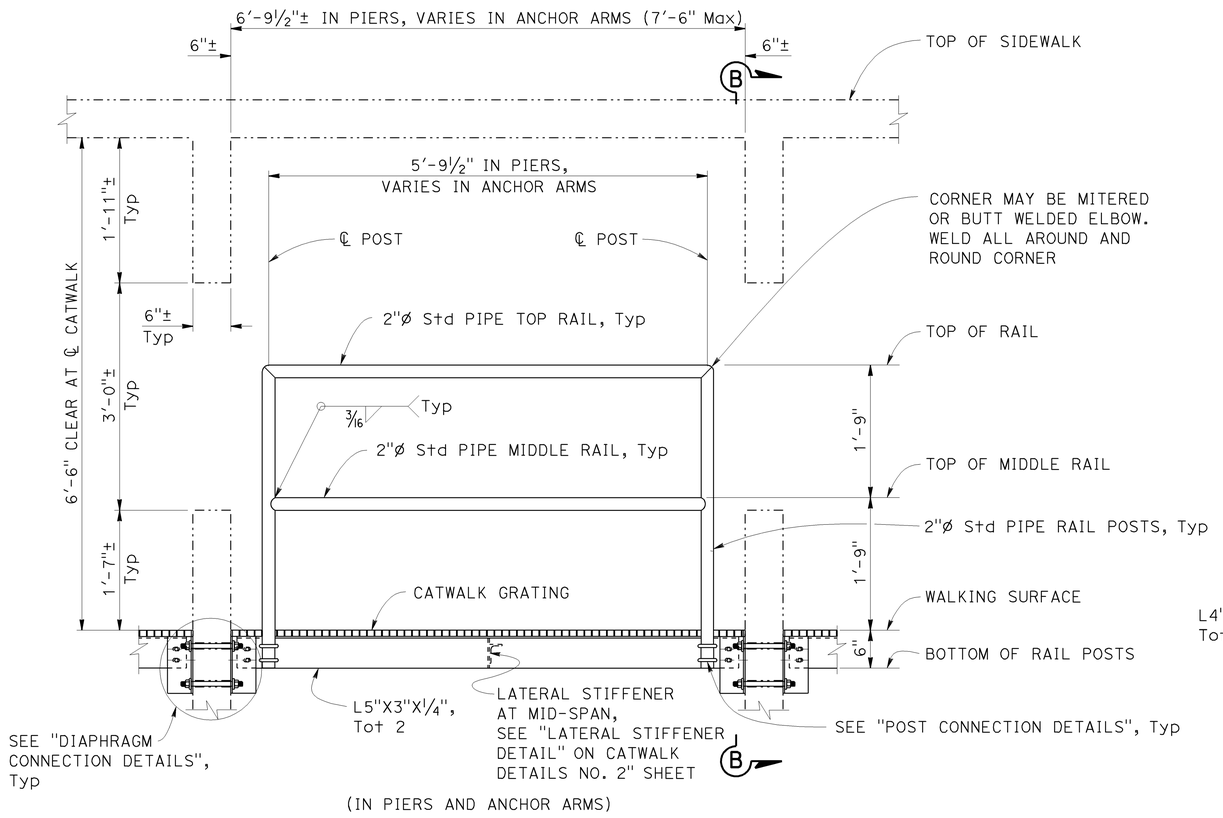
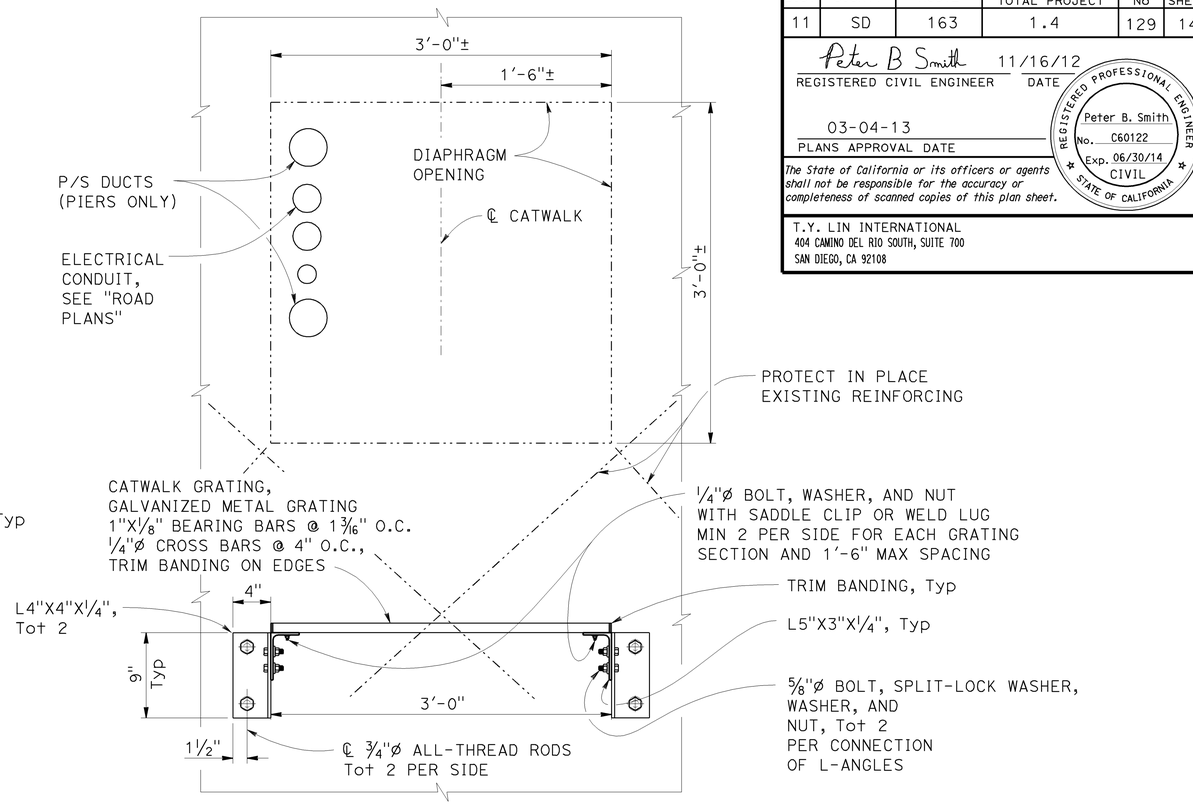
SAN DIEGO, CA 92108



(IN PIERS AND ANCHOR ARMS)

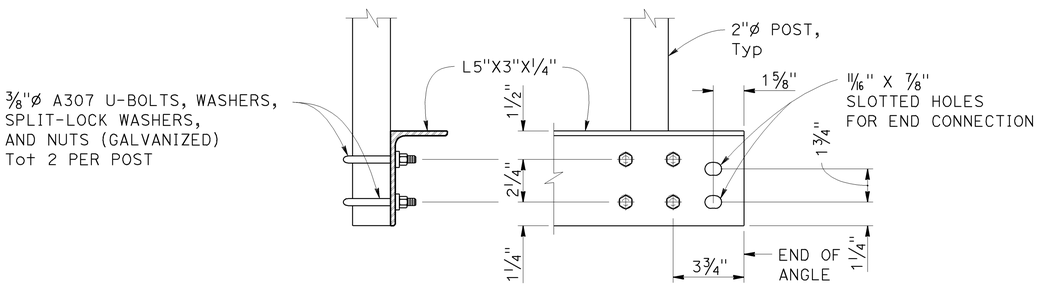
TYPICAL CATWALK ELEVATION

1"=1'-0"



SECTION B-B

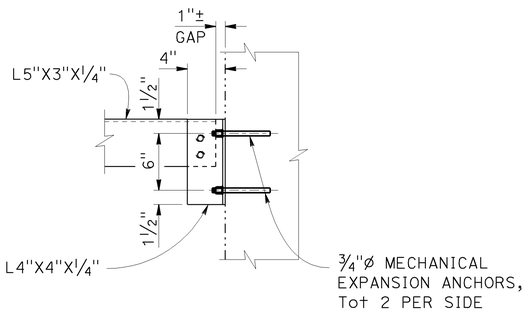
1½"=1'-0"



SECTION ELEVATION

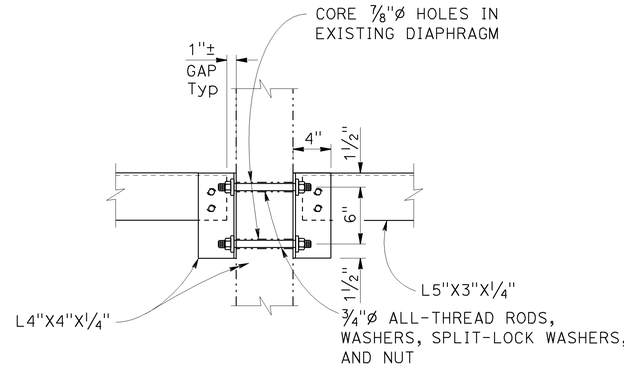
POST CONNECTION DETAILS

3"=1'-0"



END CONNECTION DETAILS

1½"=1'-0"
(GRATING NOT SHOWN)



DIAPHRAGM CONNECTION DETAILS

1½"=1'-0"
(GRATING NOT SHOWN)

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Tim Fuller	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Tim Fuller	Cathleen Ma

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
CATWALK DETAILS NO. 1

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10/04/12	43	61

FILE => 57-0215-m-xcatwalk05.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	130	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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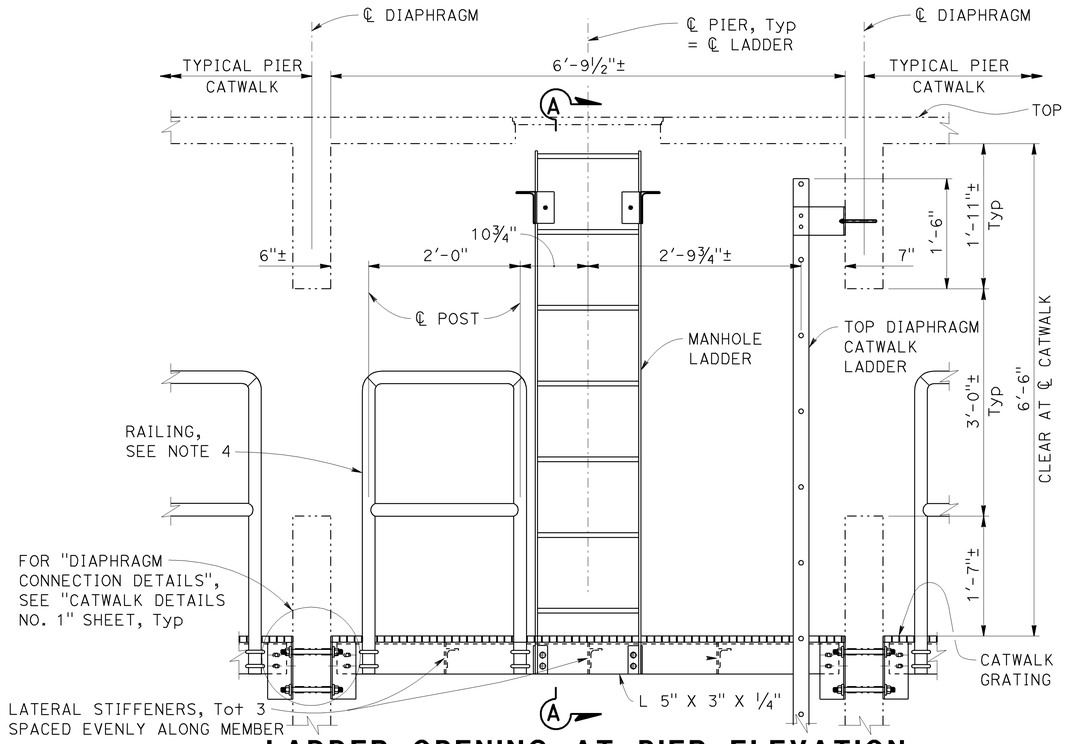
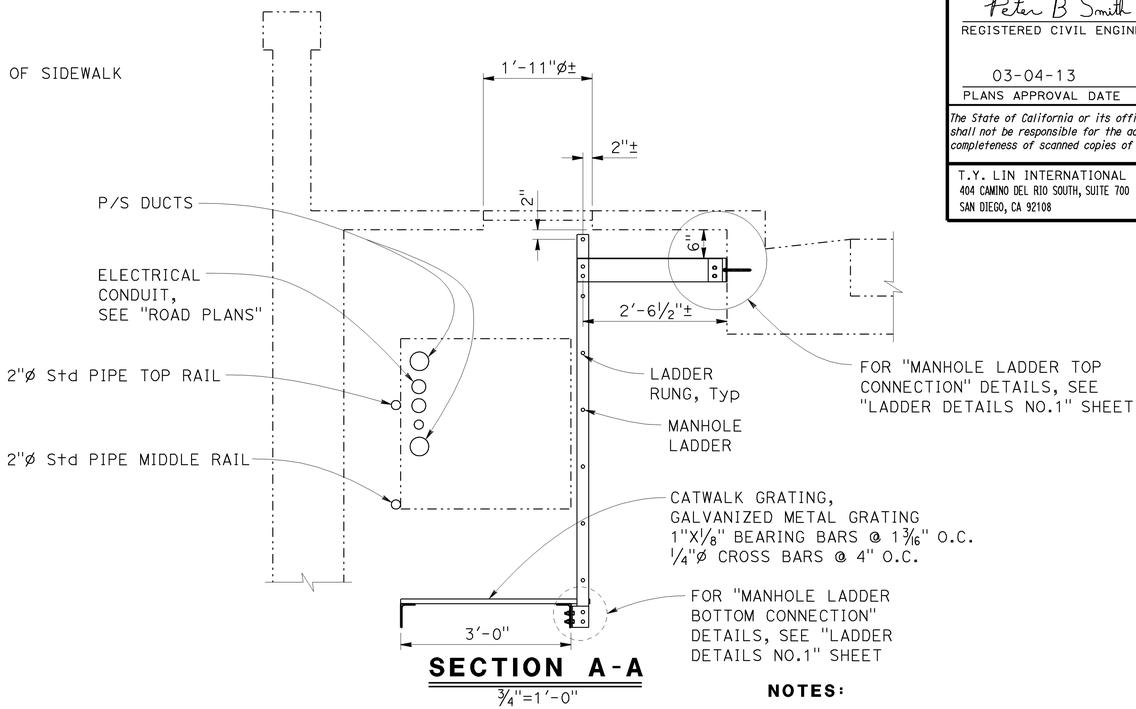
SAN DIEGO, CA 92108



LADDER OPENING AT PIER ELEVATION

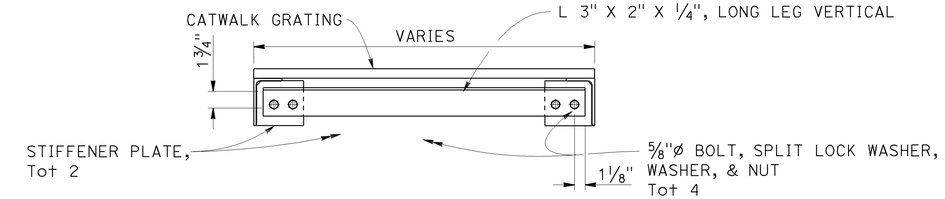


SECTION A-A

¾"=1'-0"

NOTES:

1. See "LADDER DETAILS" on "LADDER DETAILS NO. 1" sheet.
2. Grating cantilevered past L-angle. Adjust grating to allow ladder rail thru.
3. Omit railing at ladder opening.
4. For railing details, see "CATWALK DETAILS NO. 1" sheet.



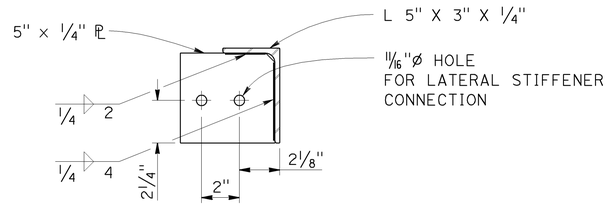
NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

LADDER OPENING AT PIER PLAN

1"=1'-0"

LATERAL STIFFENER DETAIL

1½"=1'-0"



STIFFENER PLATE DETAIL

3"=1'-0"

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Tim Fuller	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Tim Fuller	Cathleen Ma

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
CATWALK DETAILS NO. 2

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10/04/12	44	61

FILE => 57-0215-m-xcatwalk06.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	131	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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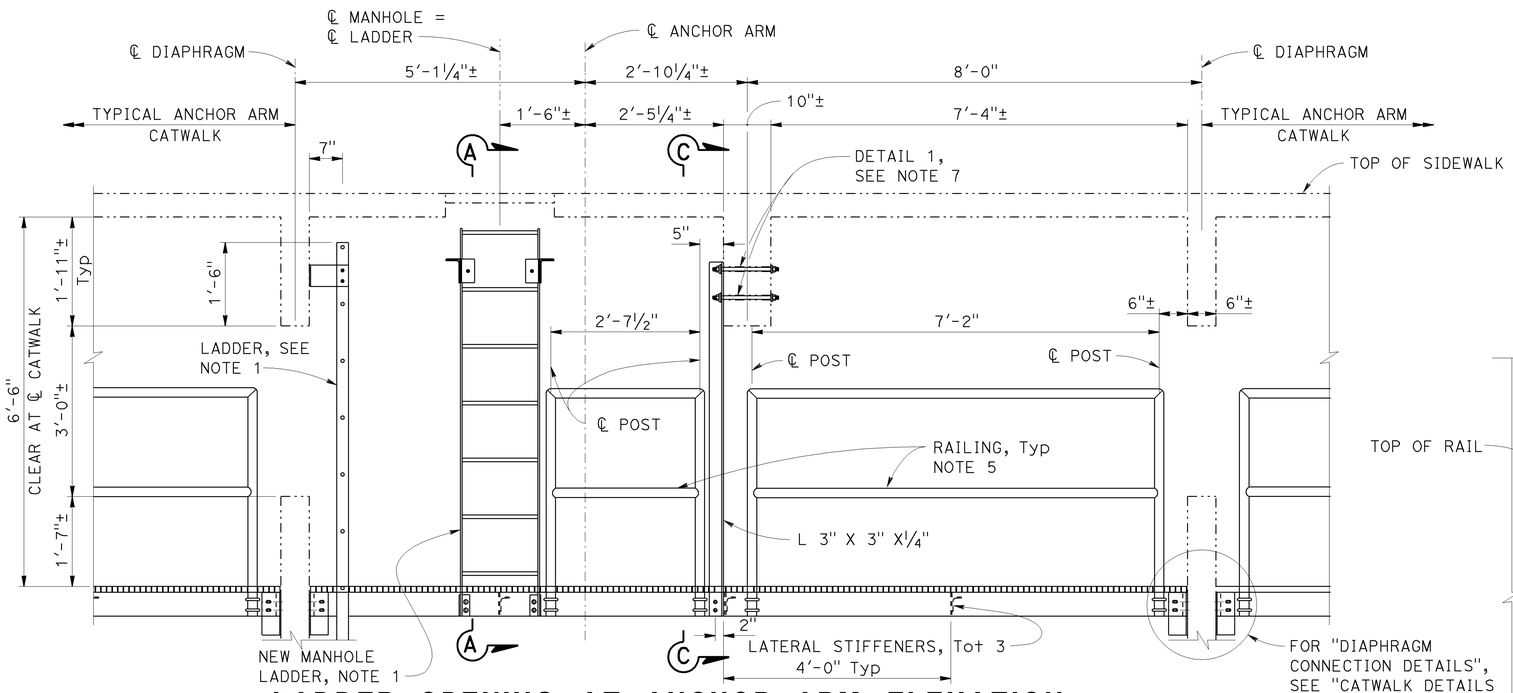
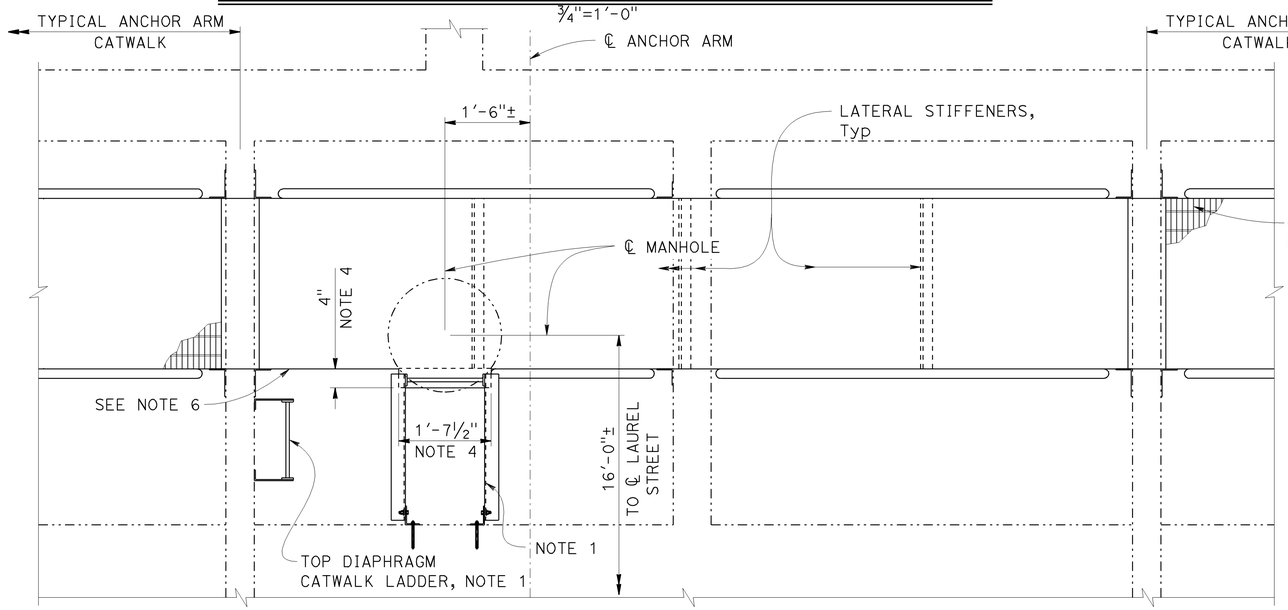


LADDER OPENING AT ANCHOR ARM ELEVATION

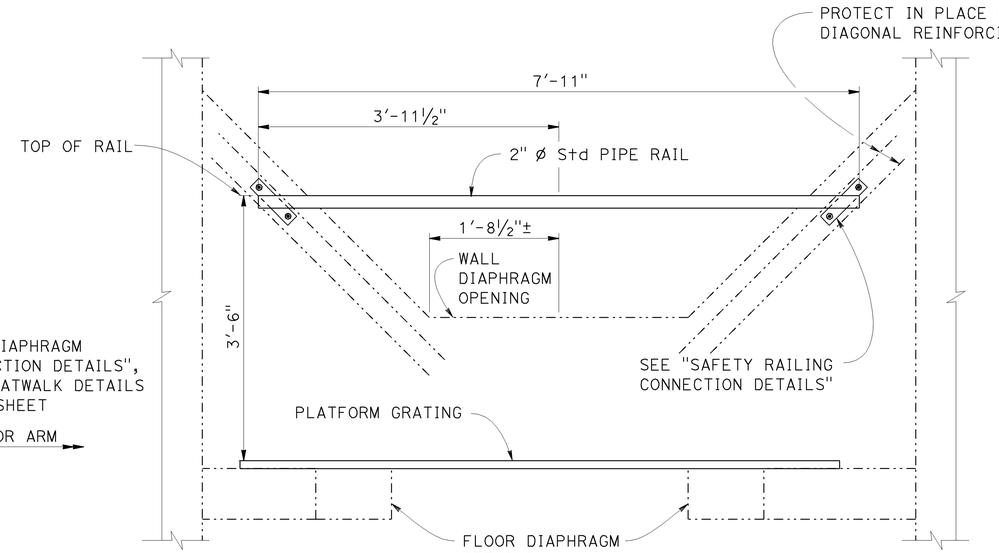
¾"=1'-0"



LADDER OPENING AT ANCHOR ARM PLAN

¾"=1'-0"

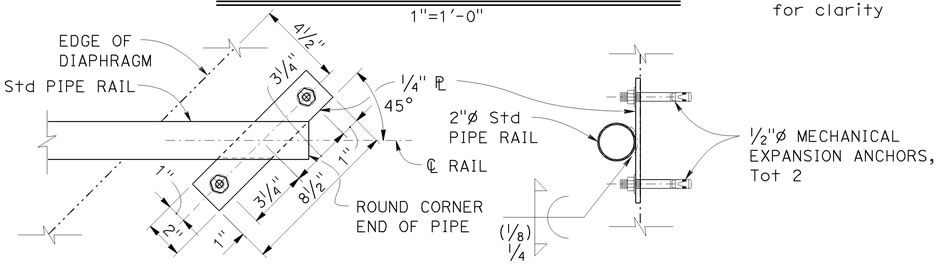
NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



SAFETY RAILING ELEVATION

1"=1'-0"

NOTE: Ladder not shown for clarity



ELEVATION

3"=1'-0"

SECTION

3"=1'-0"

SAFETY RAILING CONNECTION DETAILS

NOTES:

1. For "LADDER DETAILS", see "LADDER DETAILS NO. 1" sheet.
2. For "SECTION A-A", see "CATWALK DETAILS NO. 2" sheet.
3. For "SECTION C-C", see "CATWALK DETAILS NO. 7" sheet.
4. Grating cantilevered past L-angle. Adjust grating to allow ladder rails thru.
5. For railing details, see "CATWALK DETAILS NO. 1" sheet.
6. Omit railing at ladder opening.
7. For "DETAIL 1", see "CATWALK DETAILS NO. 4" sheet.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Tim Fuller	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Tim Fuller	Cathleen Ma

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
CATWALK DETAILS NO. 3

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

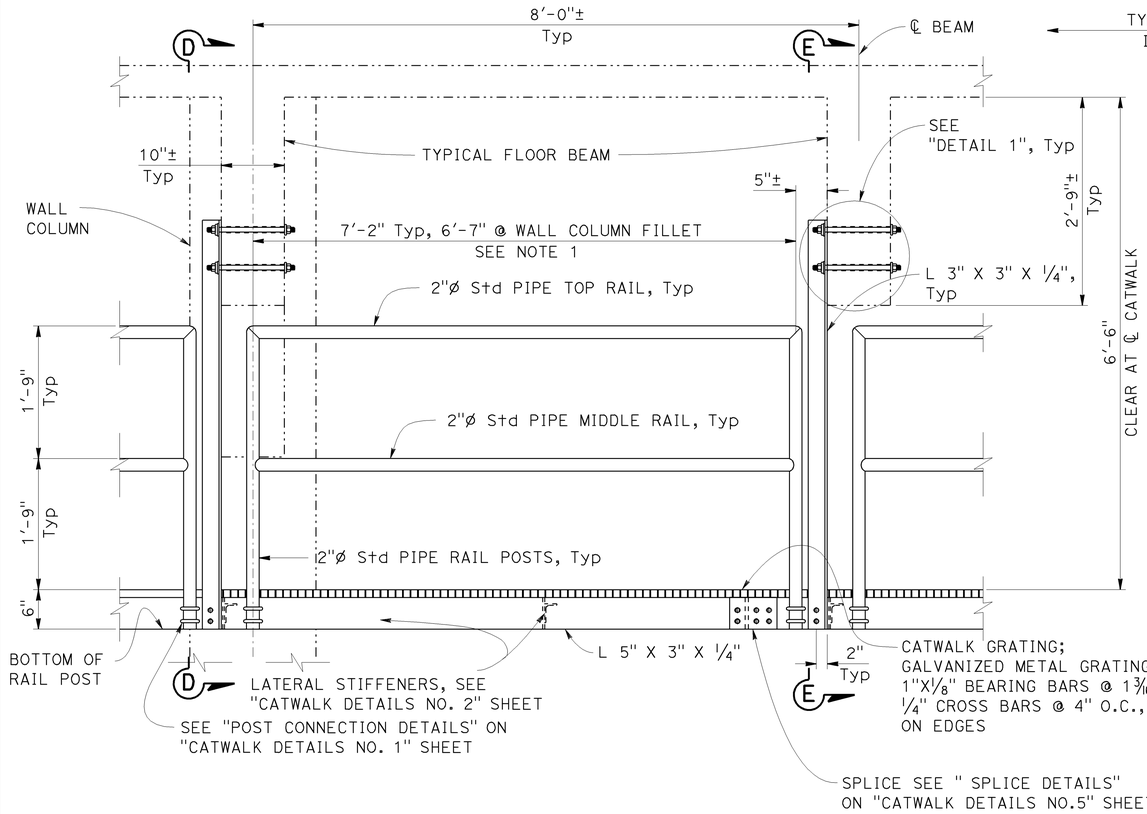
UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

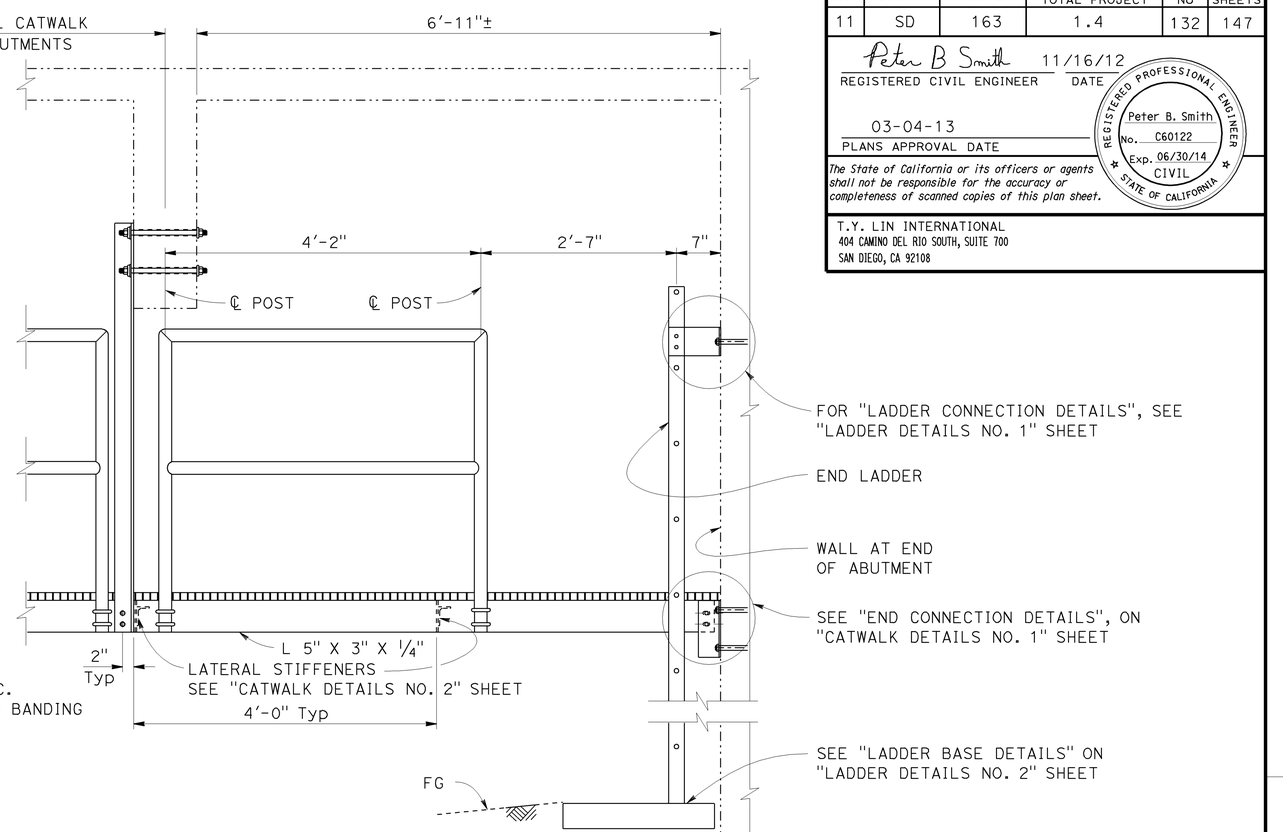
DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10-04-12	45	61

FILE => 57-0215-m-xcatwalk07.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28



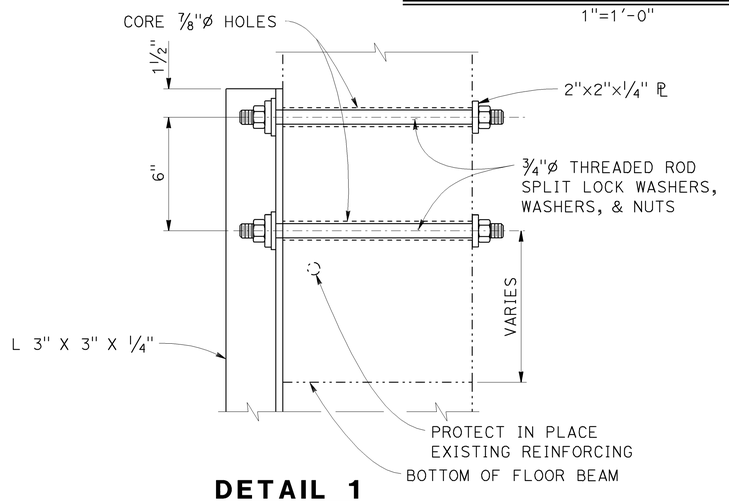


TYPICAL CATWALK ELEVATION IN ABUTMENT

1"=1'-0"

CATWALK END ELEVATION

1"=1'-0"



DETAIL 1

3"=1'-0"

NOTES

1. Railing adjacent to abutment wall column fillet to be 6'-7" long.
2. For railing details, see "CATWALK DETAILS NO. 1" sheet.
3. For "SECTION D-D", see "CATWALK DETAILS NO. 7" sheet.
4. For "SECTION E-E", see "CATWALK DETAILS NO. 8" sheet.

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	132	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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SAN DIEGO, CA 92108

SEISMIC RETROFIT AND REHABILITATION

LAUREL STREET OVERCROSSING

CATWALK DETAILS NO. 4

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Tim Fuller	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Tim Fuller	Cathleen Ma

PREPARED FOR THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10-04-12	46	61

FILE => 57-0215-m-xcatwalk08.dgn

USERNAME => s1333329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	133	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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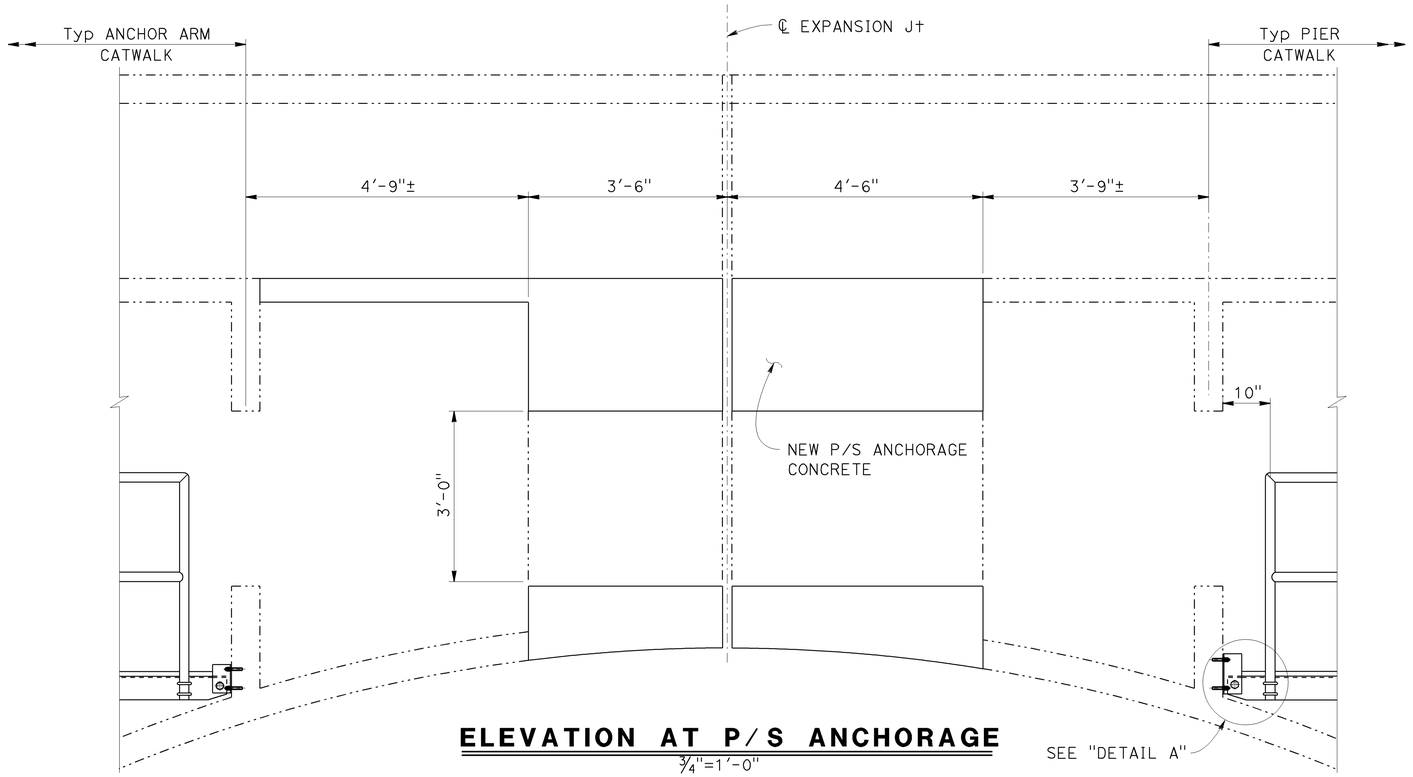
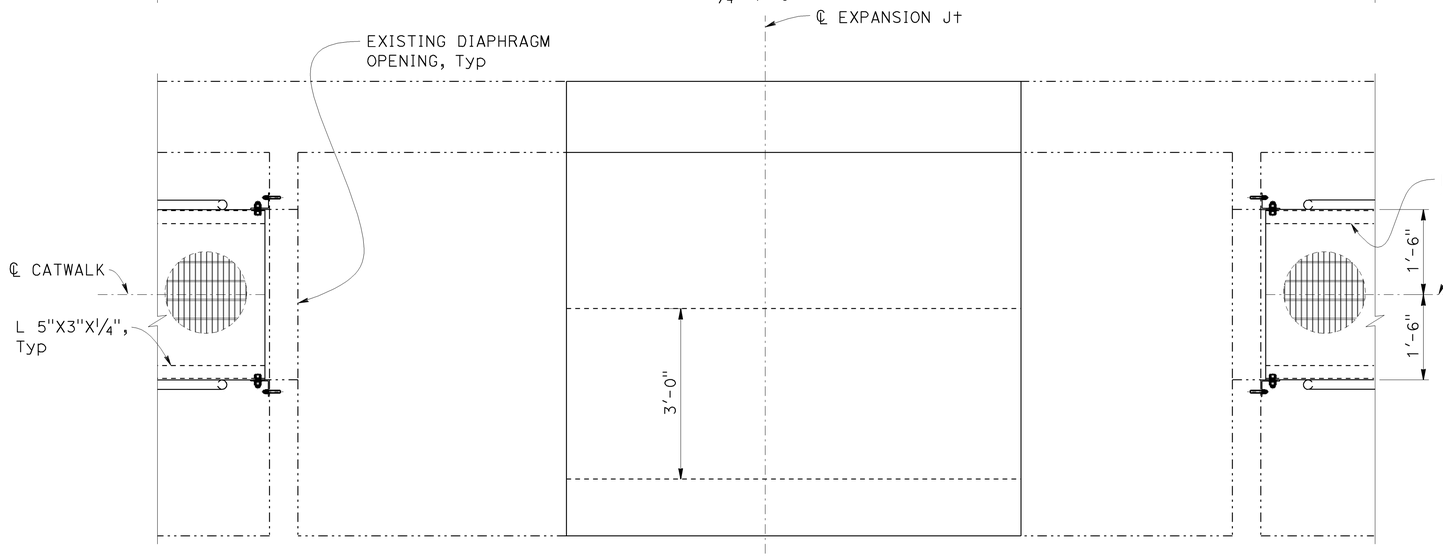
SAN DIEGO, CA 92108



ELEVATION AT P/S ANCHORAGE

3/4"=1'-0"



PLAN AT P/S ANCHORAGE

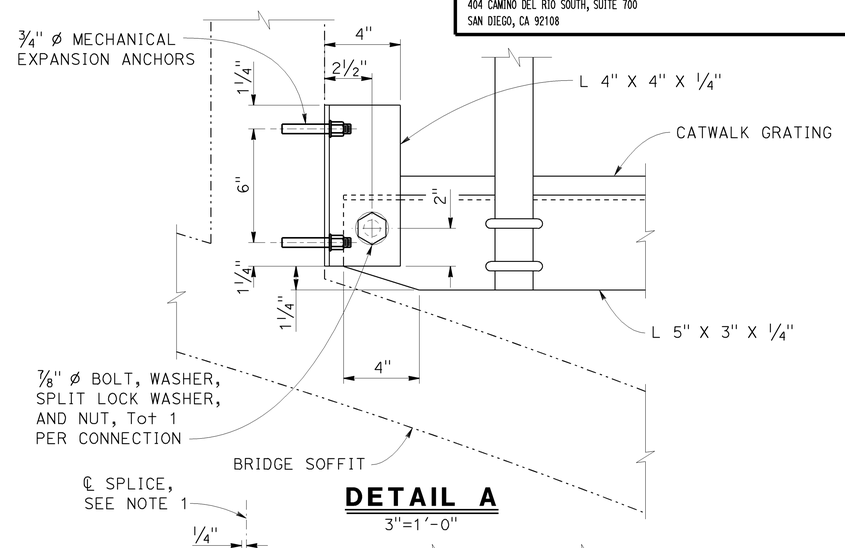
3/4"=1'-0"

Note: Catwalk grating not shown for clarity.

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

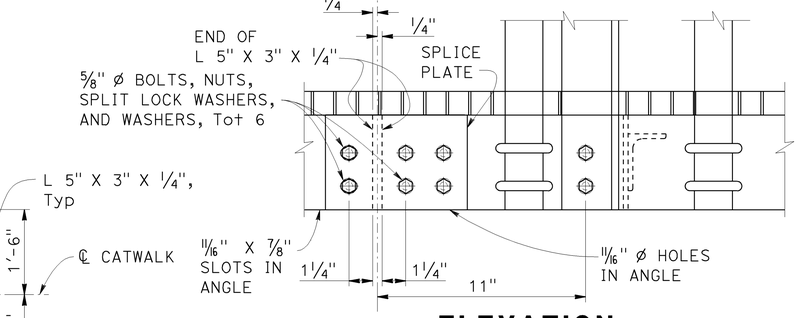
NOTES:

1. Catwalk splices to be spaced at 50'-0" maximum. For catwalk and connection details not shown, see "CATWALK DETAILS NO. 1" sheet.

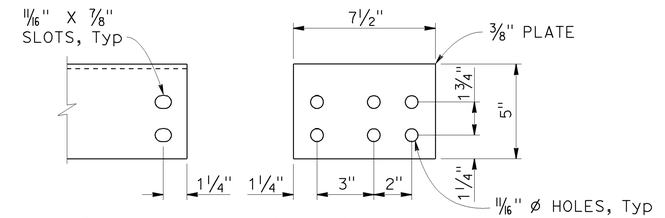


DETAIL A

3"=1'-0"



ELEVATION



ANGLE END SPLICE PLATE SPLICE DETAIL

3"=1'-0"

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Tim Fuller	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Tim Fuller	Cathleen Ma

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
CATWALK DETAILS NO. 5

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10/04/12	47	61

FILE => 57-0215-m-xcatwalk09.dgn

USERNAME => S133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	134	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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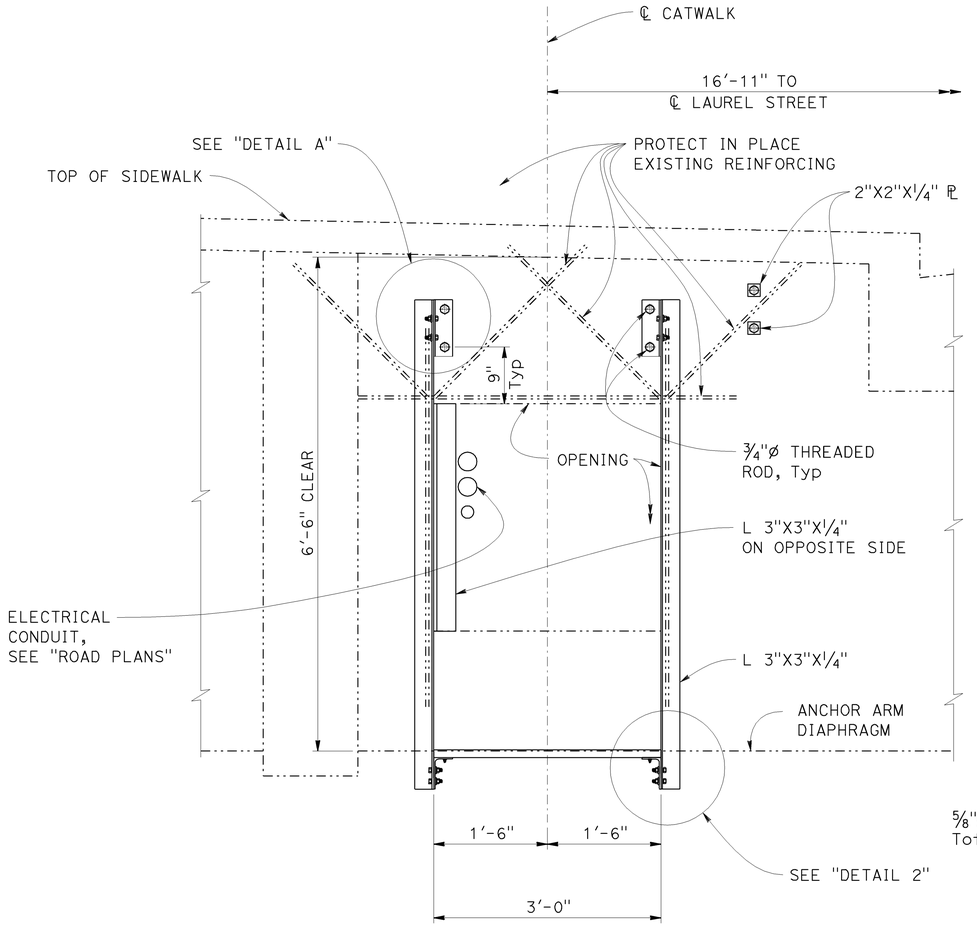
T.Y. LIN INTERNATIONAL
404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108

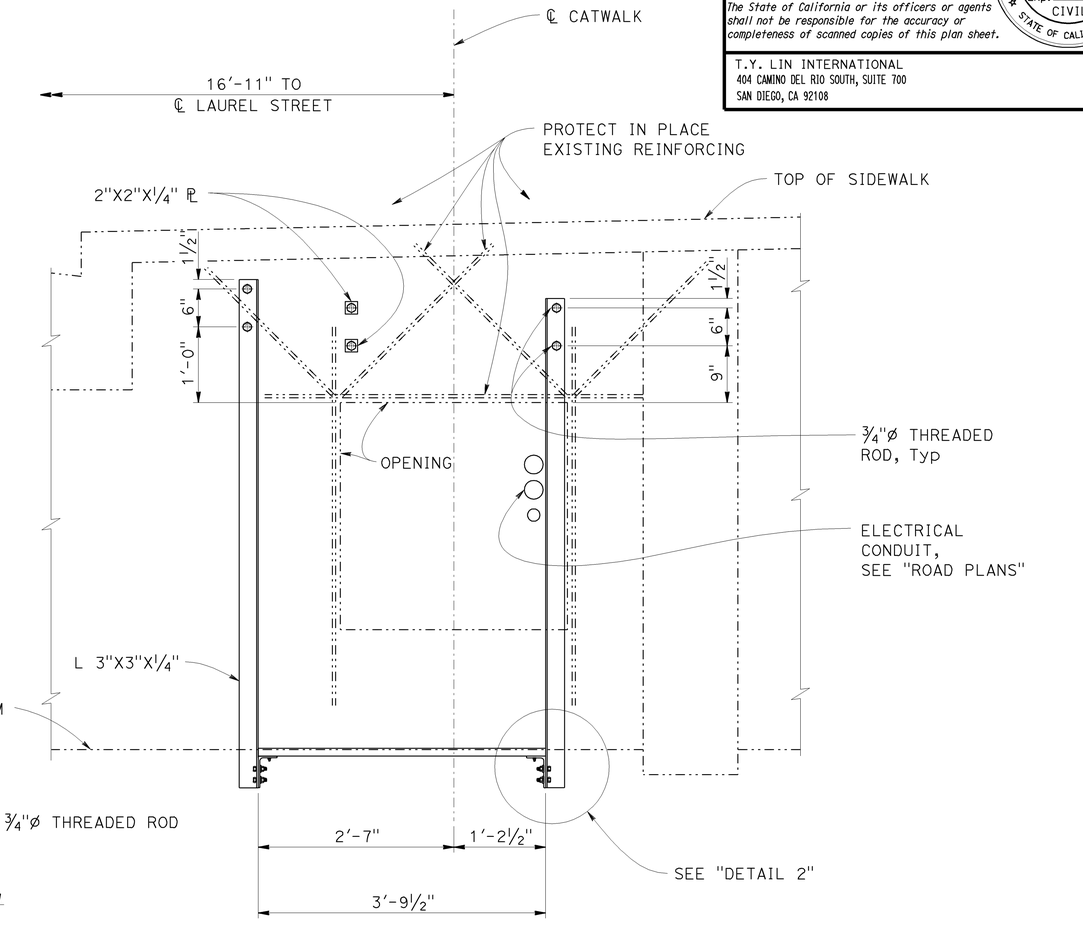
NOTES:

1. For "DETAIL 2", see "CATWALK DETAILS NO. 8" sheet.
2. For location of "SECTION A-A", and "SECTION B-B", see "ABUTMENT CATWALK PLAN" sheet.



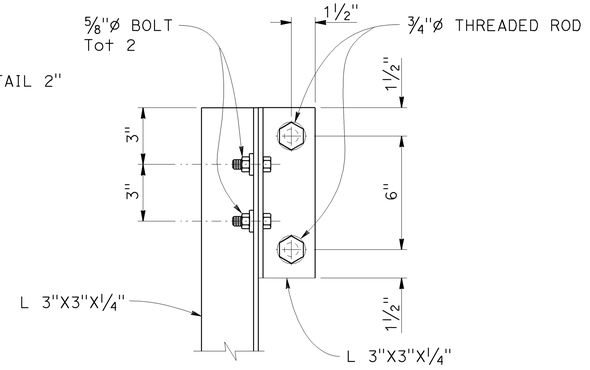
SECTION A-A

1"=1'-0"



SECTION B-B

1"=1'-0"



DETAIL A

3"=1'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Arash Monsefan	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Peter Smith

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO.	57-0215
POST MILES	1.4

LAUREL STREET OVERCROSSING
CATWALK DETAILS NO. 6

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	05-08-12	10-04-12	48	61

FILE => 57-0215-m-xcatwalk10.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 08:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	135	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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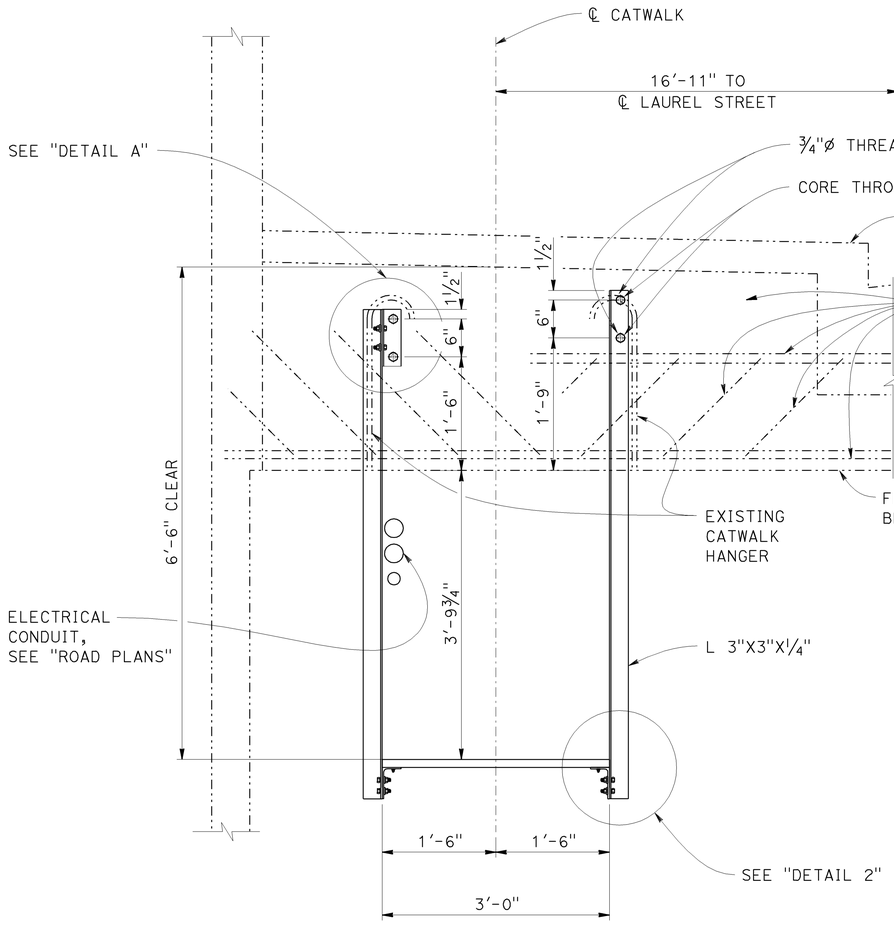
404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108

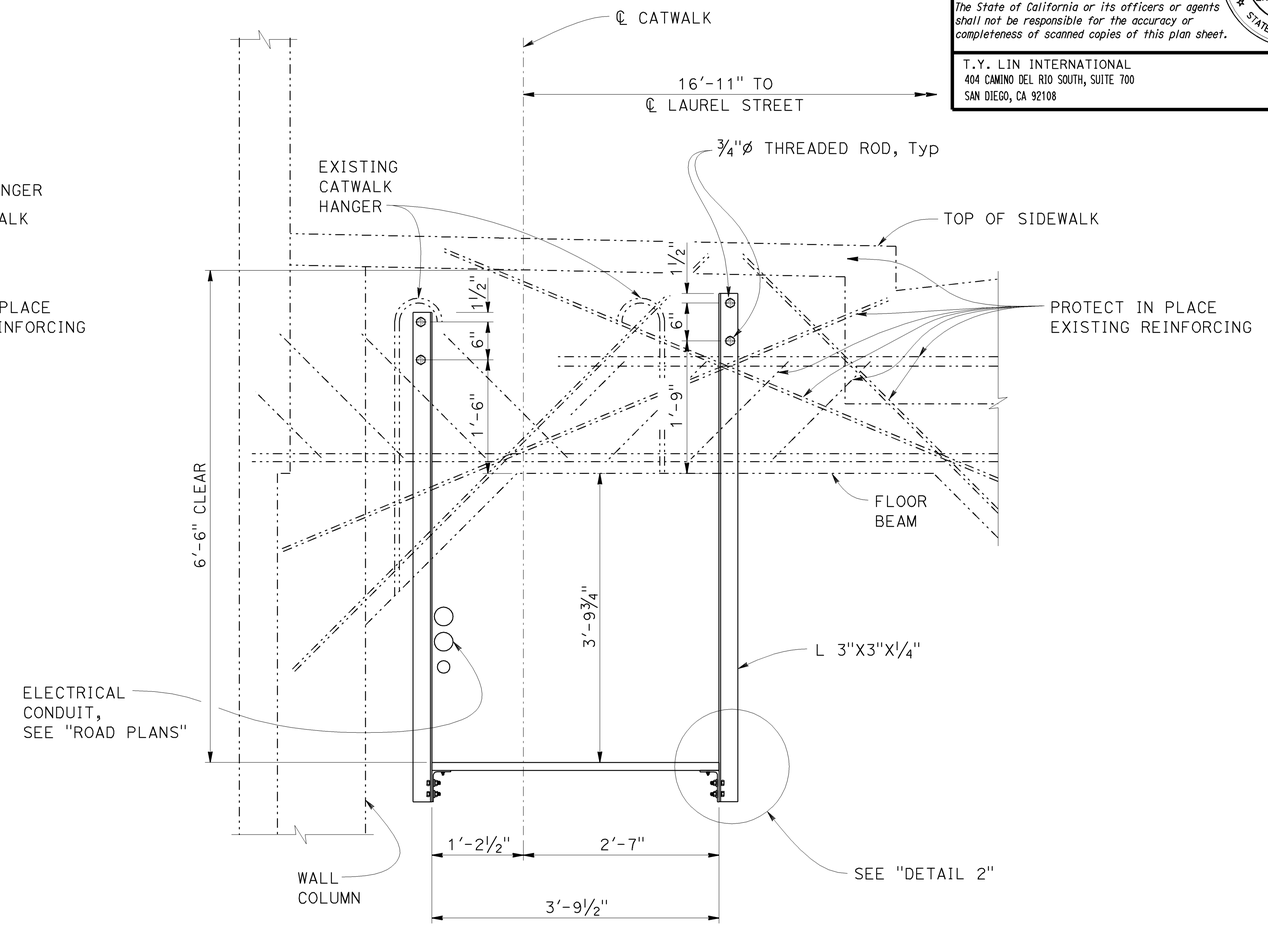
NOTES:

1. For "DETAIL A", see "CATWALK DETAILS NO. 6" sheet.
2. For "DETAIL 2", see "CATWALK DETAILS NO. 8" sheet.
3. For location of "SECTION C-C", see "CATWALK DETAILS NO. 3" sheet.
4. For location of "SECTION D-D", see "CATWAL DETAILS NO. 4" sheet.



SECTION C-C

1"=1'-0"



SECTION D-D

1"=1'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Arash Monsefan	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Peter Smith

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO.	57-0215
POST MILES	1.4

LAUREL STREET OVERCROSSING

CATWALK DETAILS NO. 7

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	05-08-12	10/04/12	49	61

FILE => 57-0215-m-xcatwalk11.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	136	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Peter B. Smith
No. C60122
Exp. 06/30/14
CIVIL
STATE OF CALIFORNIA

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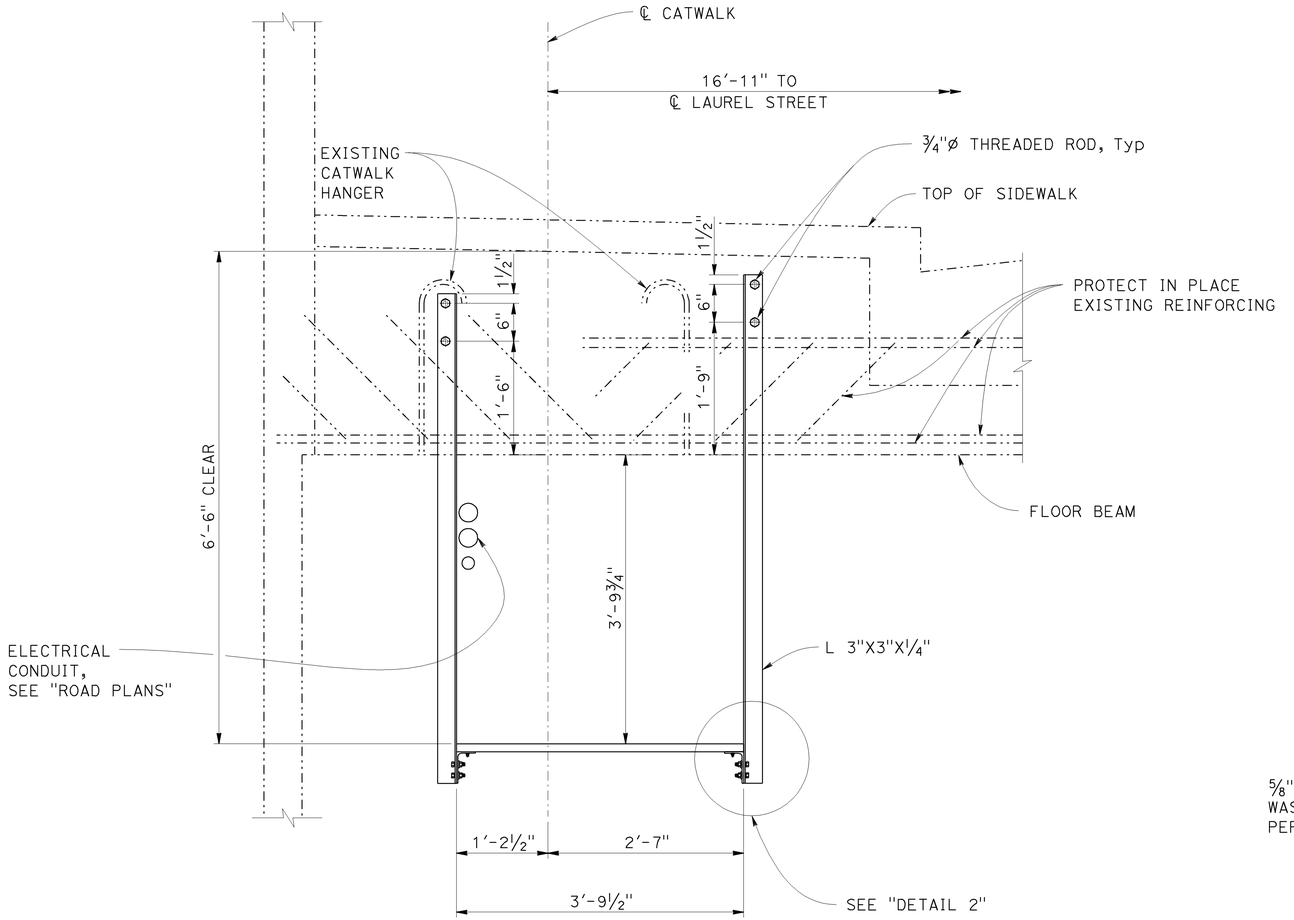
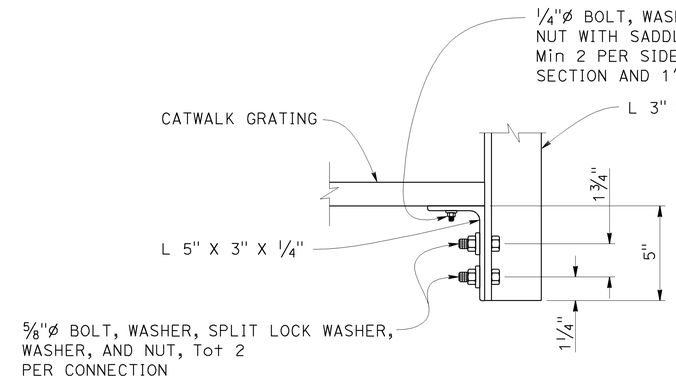
404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108

NOTES:

1. For location of "SECTION E-E", see "CATWALK DETAILS NO. 4" sheet.



SECTION E-E
1"=1′-0"



DETAIL 2
3"=1′-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Arash Monsefan	Oscar Henriquez
DETAILS	Oscar Colcol	Oscar Henriquez
QUANTITIES	Sabina Piras	Peter Smith

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
CATWALK DETAILS NO. 8

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

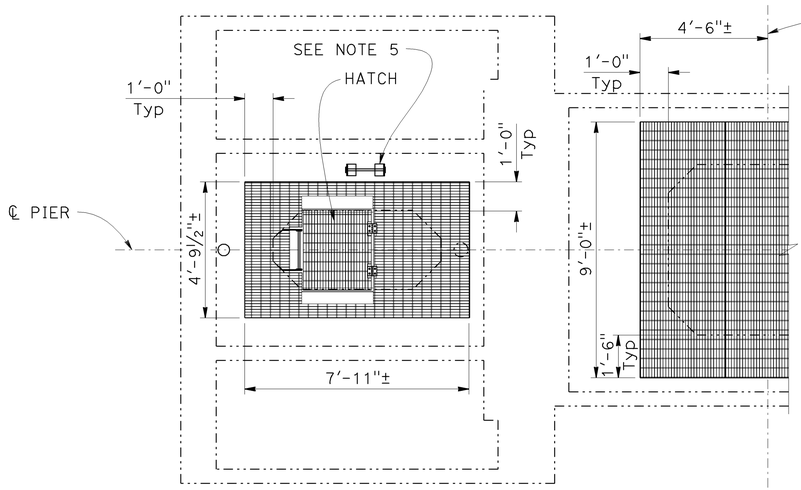
UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

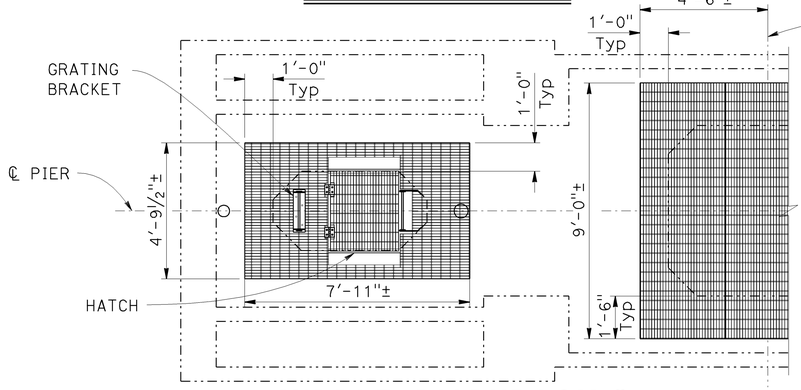
REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10-04-12	50	61

FILE => 57-0215-m-xcatwalk12.dgn

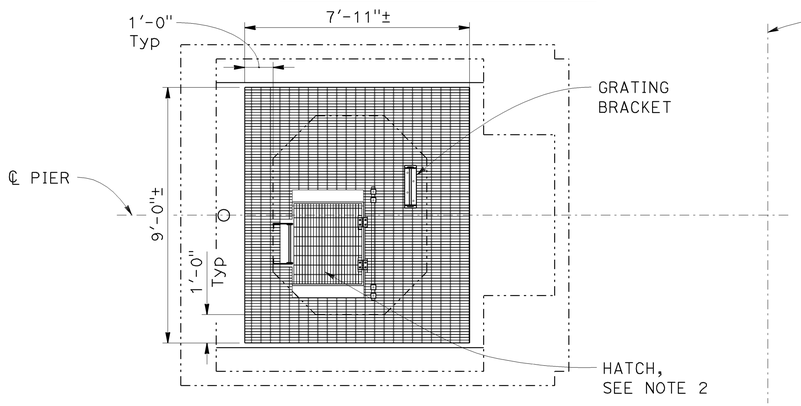
USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28



TOP DIAPHRAGM ⑤



MIDDLE DIAPHRAGM ⑥

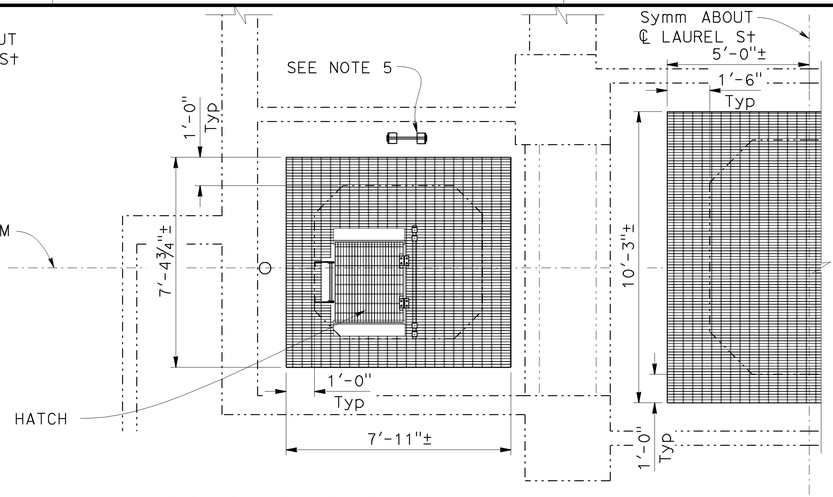


COLUMN DIAPHRAGM ⑦-⑪

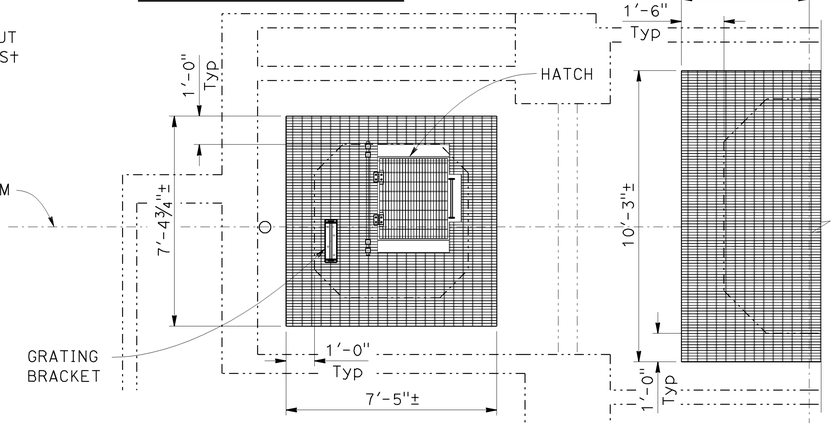
PIER PLATFORMS

3/8"=1'-0"

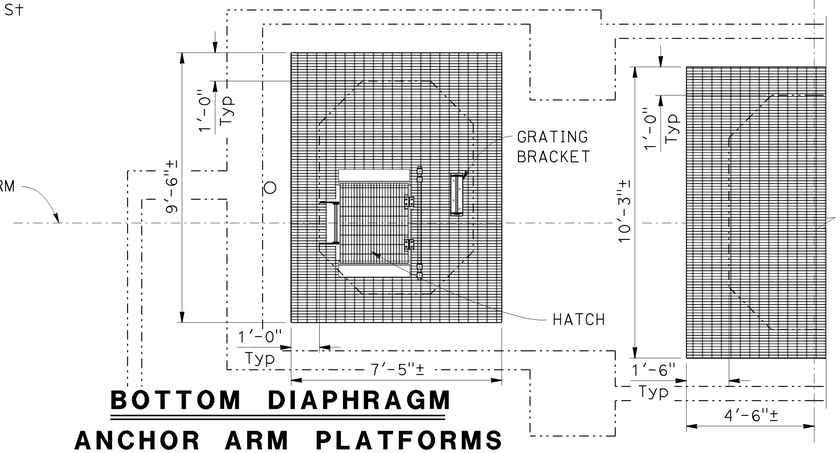
NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



TOP DIAPHRAGM



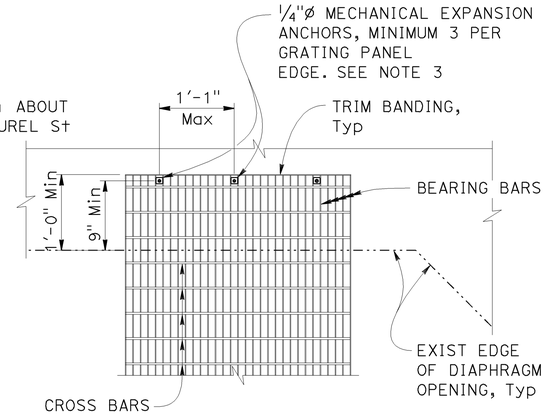
MIDDLE DIAPHRAGM



BOTTOM DIAPHRAGM

ANCHOR ARM PLATFORMS

3/8"=1'-0"



PLATFORM CONNECTION DETAILS

1"=1'-0"

NOTE: Not all grating shown for clarity

NOTES:

1. For Hatch Details, see "LADDER DETAILS NO. 2" sheet.
2. Hatch alternates sides at pier column diaphragms.
3. Grating fastened to Mechanical Expansion Anchors with welded lugs or saddle clips.
4. Platform grating to be galvanized metal grating with 1¼"X⅛" bearing bars @ 1 3/16" O.C. and ¼"Ø cross bars @ 4" O.C.
5. For connection, see "LADDER BASE DETAILS" on "LADDER DETAILS NO. 2" sheet.
6. For Grating Bracket Details, see "LADDER DETAILS NO. 2" sheet.

LEGEND:

⑤ - Level designation

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	137	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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T.Y. LIN INTERNATIONAL
404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Tim Fuller	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Tim Fuller	Cathleen Ma

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
PLATFORM GRATING LAYOUT

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

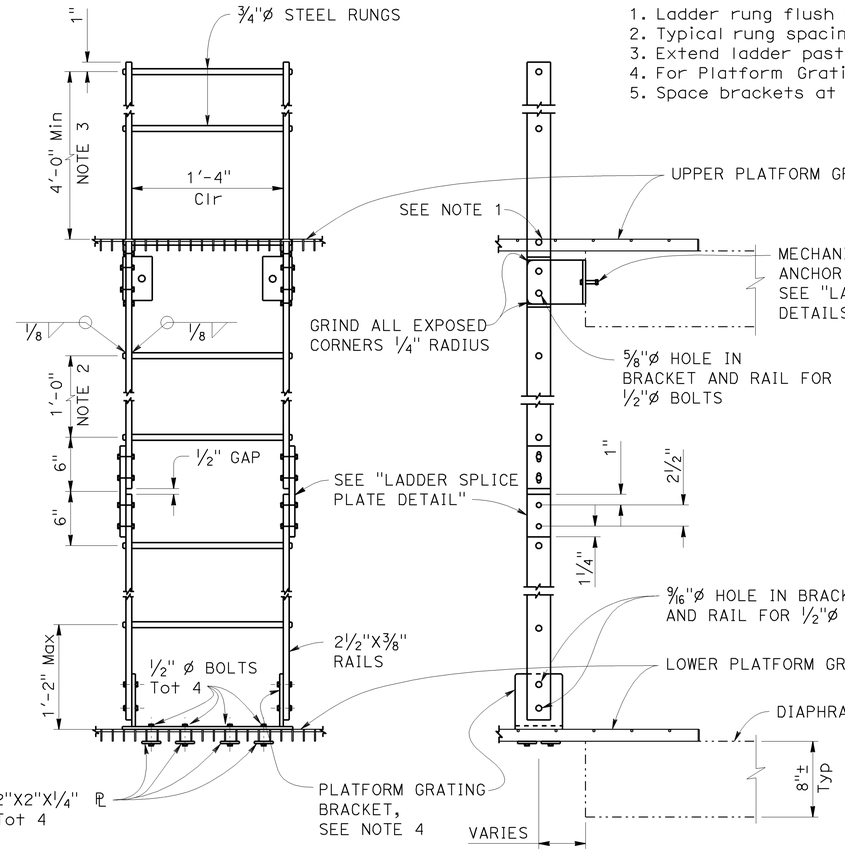
REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10/04/12	51	61

FILE => 57-0215-m-xcatwalk13.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

NOTES:

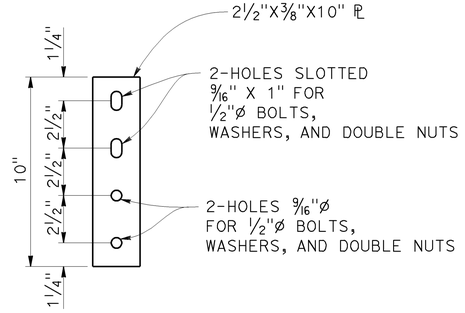
1. Ladder rung flush with upper platform grating.
2. Typical rung spacing.
3. Extend ladder past upper grating or catwalk. Not applicable at manhole ladders.
4. For Platform Grating Bracket Details, see "LADDER DETAILS NO. 2" sheet.
5. Space brackets at 15'-10" Max.



ELEVATION **SECTION**

LADDER DETAILS

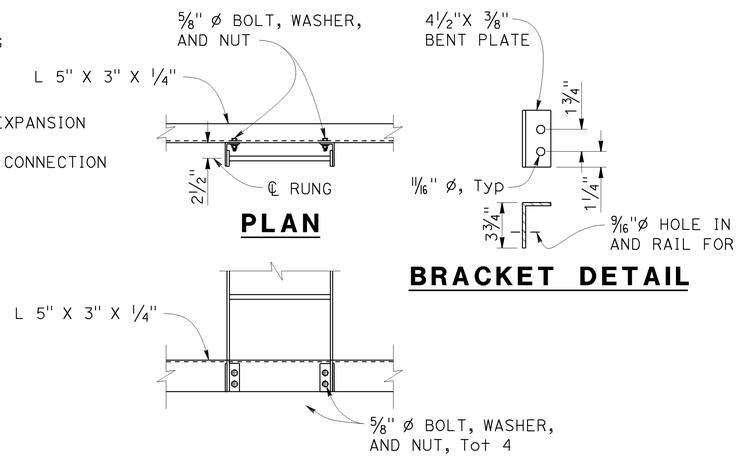
1½"=1'-0"



LADDER SPLICE PLATE DETAIL

3"=1'-0"

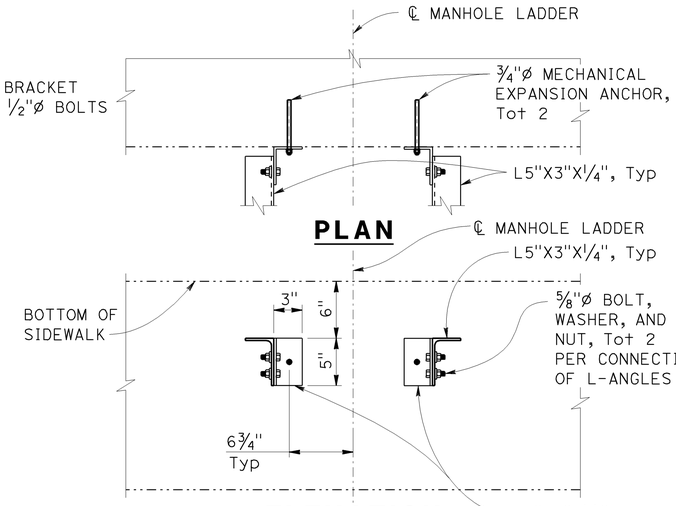
NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



MANHOLE LADDER BOTTOM CONNECTION

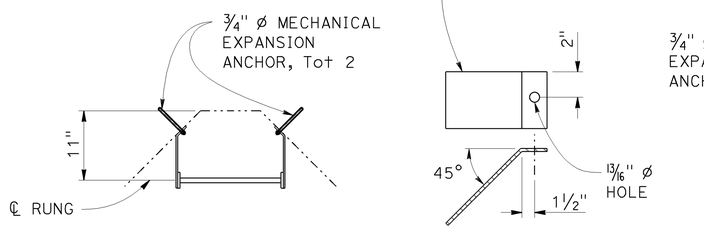
No Scale

NOTE: Catwalk grating not shown for clarity.

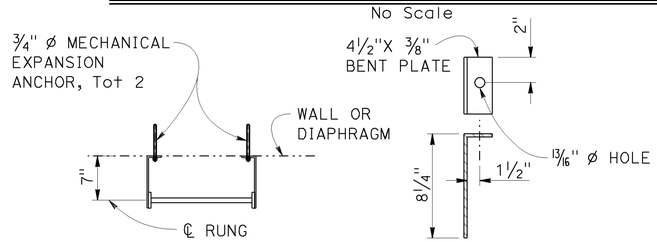


MANHOLE LADDER TOP CONNECTION

No Scale



CONNECTION TO CHAMFERED DIAPHRAGM



CONNECTION TO DIAPHRAGM OR WALL

LADDER CONNECTION DETAILS (SEE NOTE 5)

No Scale

SEISMIC RETROFIT AND REHABILITATION

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	138	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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T.Y. LIN INTERNATIONAL
404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Tim Fuller	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Tim Fuller	Cathleen Ma

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
LADDER DETAILS NO. 1

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10-04-12	52	61

FILE => 57-0215-m-xcatwalk14.dgn

USERNAME => 81133229 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	139	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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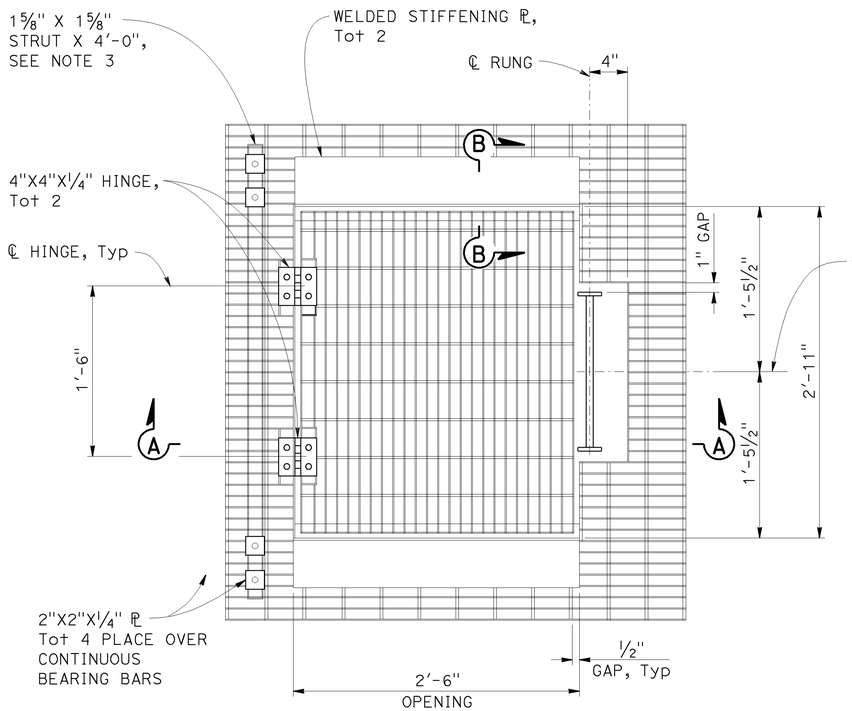
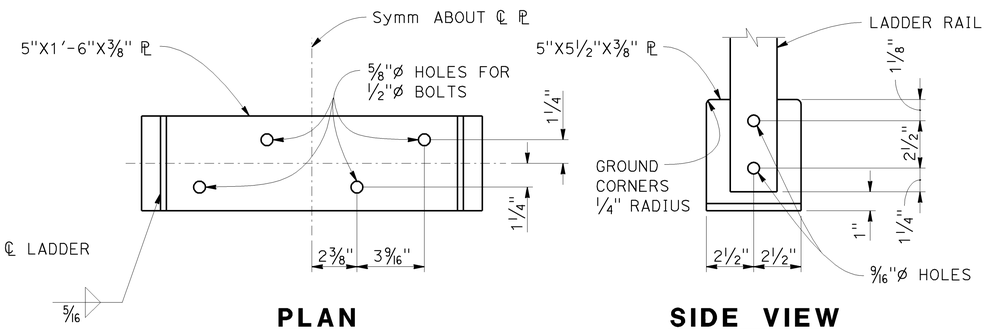
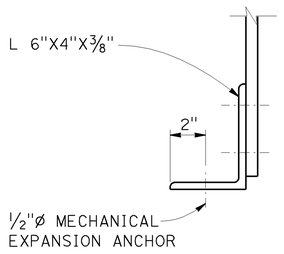


PLAN
1½"=1'-0"

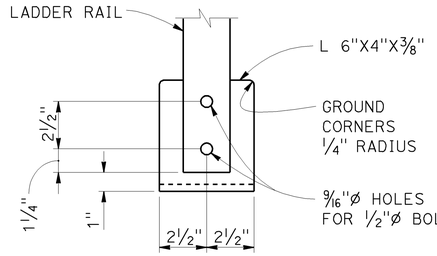


PLAN
SIDE VIEW

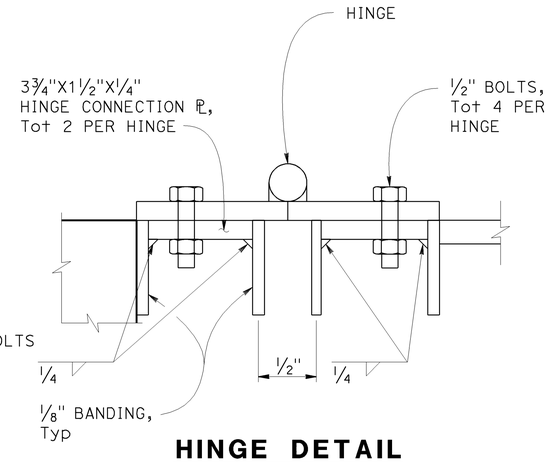
GRATING BRACKET DETAILS
3"=1'-0"



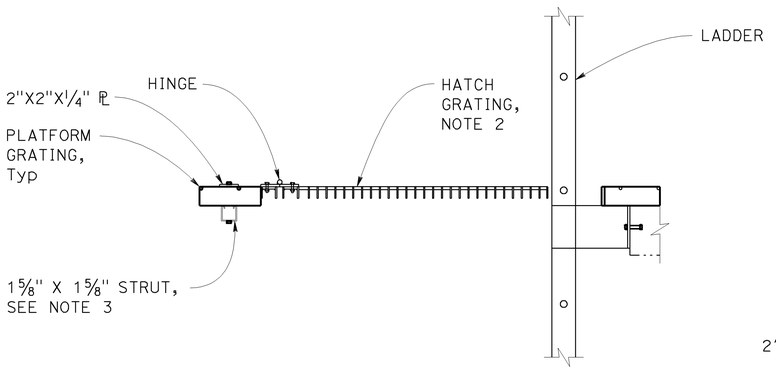
ELEVATION



SIDE VIEW



HINGE DETAIL
1"=1'-0"

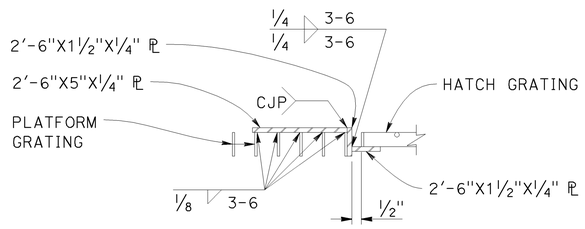


SECTION A-A
1½"=1'-0"

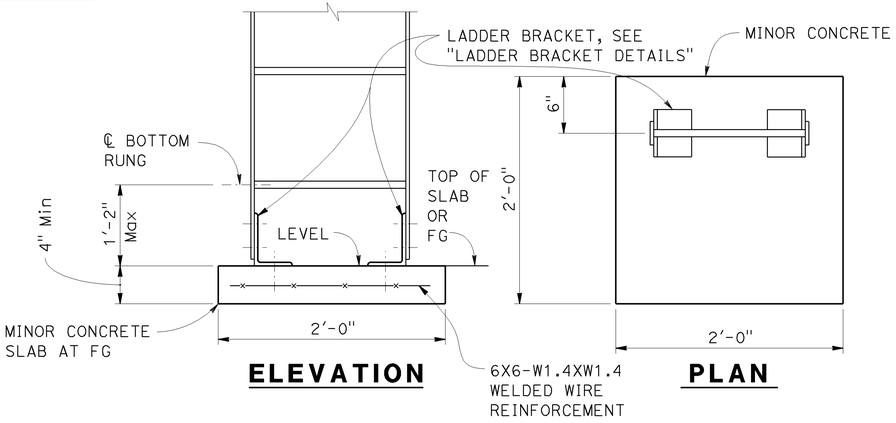
LADDER BRACKET DETAILS
3"=1'-0"

NOTES:

1. Grating opening and hatch cover to be trim banded all around.
2. Hatch grating to be galvanized metal grating with ¾"X⅛" bearing bars @ 1 3⁄16" O.C. and ¼"ø cross bars @ 4" O.C.
3. Attach strut underneath grating with 4 -½"ø bolts, channel nuts, and 2"X2"X¼" ℙ. Strut to be 8" Max from ends of cut bearing bars. Strut to be located at column platforms 7-11 and all anchor arm platforms.



SECTION B-B
3"=1'-0"



ELEVATION
PLAN

LADDER BASE DETAILS
1½"=1'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

HATCH DETAIL

SEISMIC RETROFIT AND REHABILITATION

DESIGN OVERSIGHT: Frank H. Wei; 11/16/2012; SIGN OFF DATE					
	DESIGN	BY Tim Fuller	CHECKED Robert Barton	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	Peter Smith, PROJECT ENGINEER
	DETAILS	BY Oscar Colcol	CHECKED Robert Barton		BRIDGE NO. 57-0215; POST MILES 1.4
	QUANTITIES	BY Tim Fuller	CHECKED Cathleen Ma		LAUREL STREET OVERCROSSING; LADDER DETAILS NO. 2

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

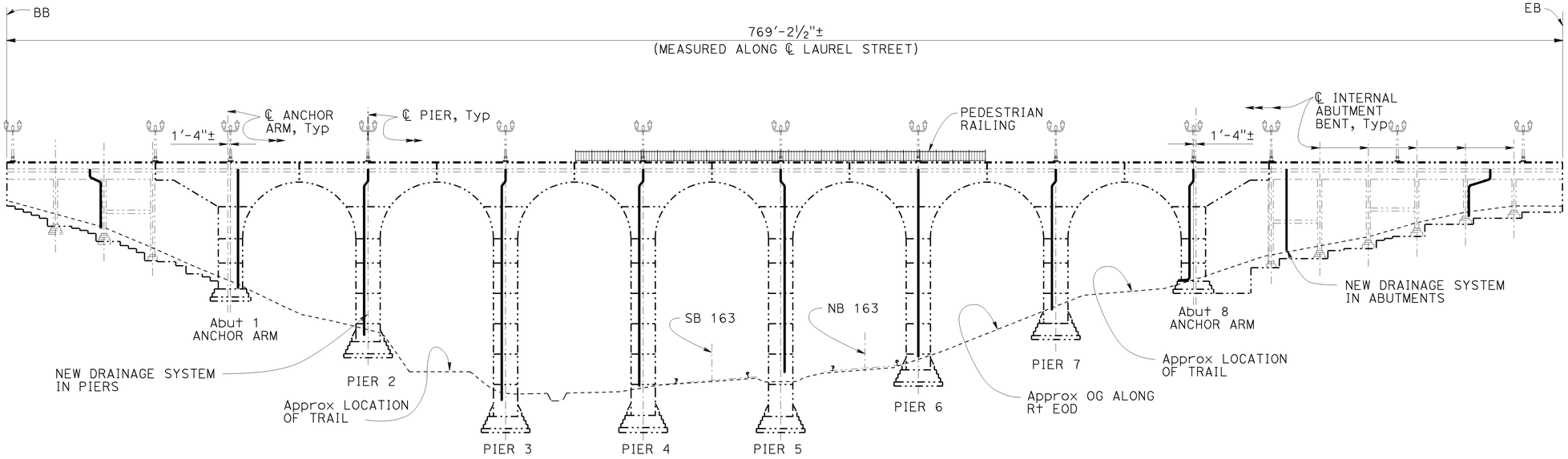
UNIT: _____ PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

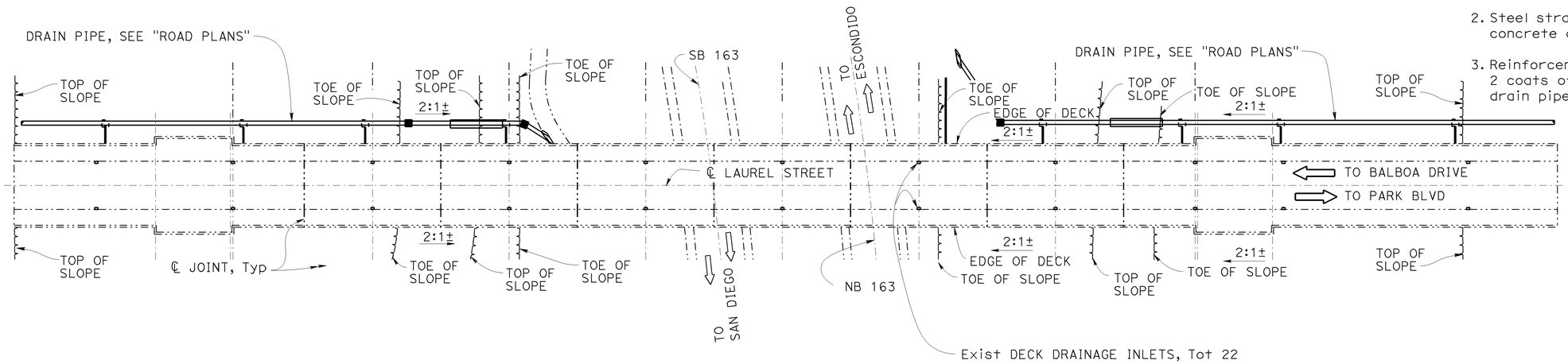
REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10-04-12	53	61

FILE => 57-0215-m-xcatwalk15.dgn

USERNAME => s133323 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28



ELEVATION
1"=30'



PLAN
1"=30'

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTES:

1. All pipes to be NPS 6 x 0.135" welded steel pipe except as noted and galvanized. Fittings and bends shall have a minimum wall thickness of ⅛". All joints or connections to be butt welded or connected by a steel pipe sleeve and to be smooth throughout inside of pipe except as noted. All bends to be on 1'-6" minimum radius measured along ℄ pipe. All bends to be smooth. Pipes not encased in concrete to be supported by suitable galvanized hangers @ 10'-0" maximum spacing throughout. Galvanize deck drain assembly after fabrication.
2. Steel straps to be ⅛" X 1½" with 2 - ½" concrete anchorage devices @ 10'-0" maximum centers.
3. Reinforcement exposed from coring shall receive 2 coats of zinc rich primer. At exterior walls seal drain pipe through core hole with nonshrink grout.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	140	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108

SEISMIC RETROFIT AND REHABILITATION

LAUREL STREET OVERCROSSING
DRAINAGE PLAN

	BY	CHECKED
DESIGN	Peter Smith	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10-04-12	54	61

FILE => 57-0215-m-xdrainage01.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	141	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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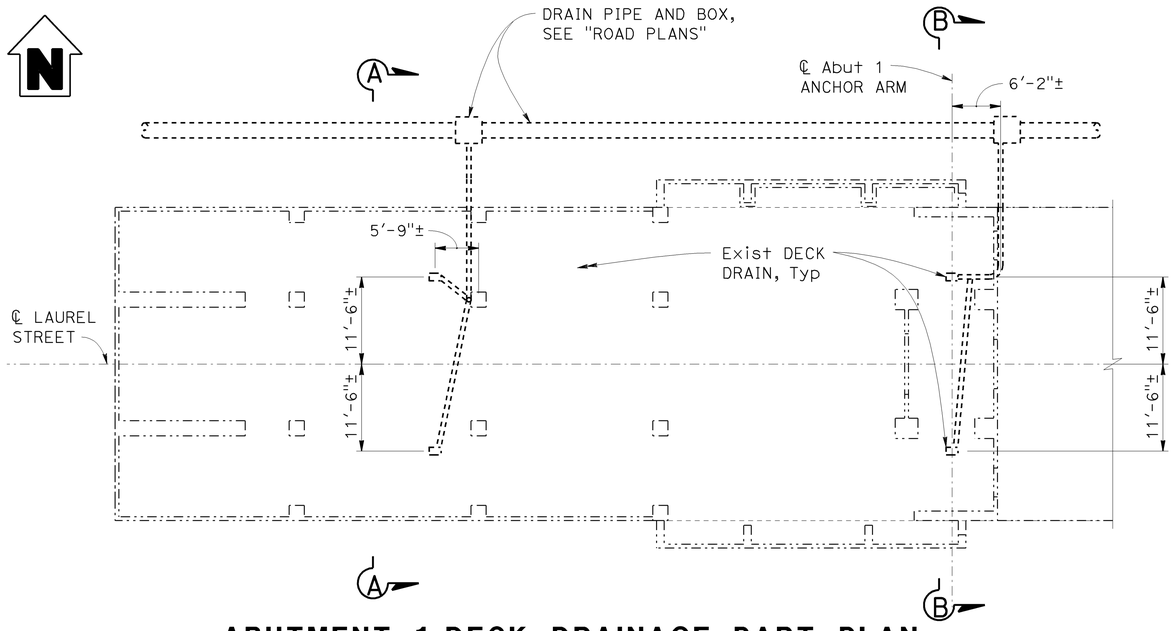
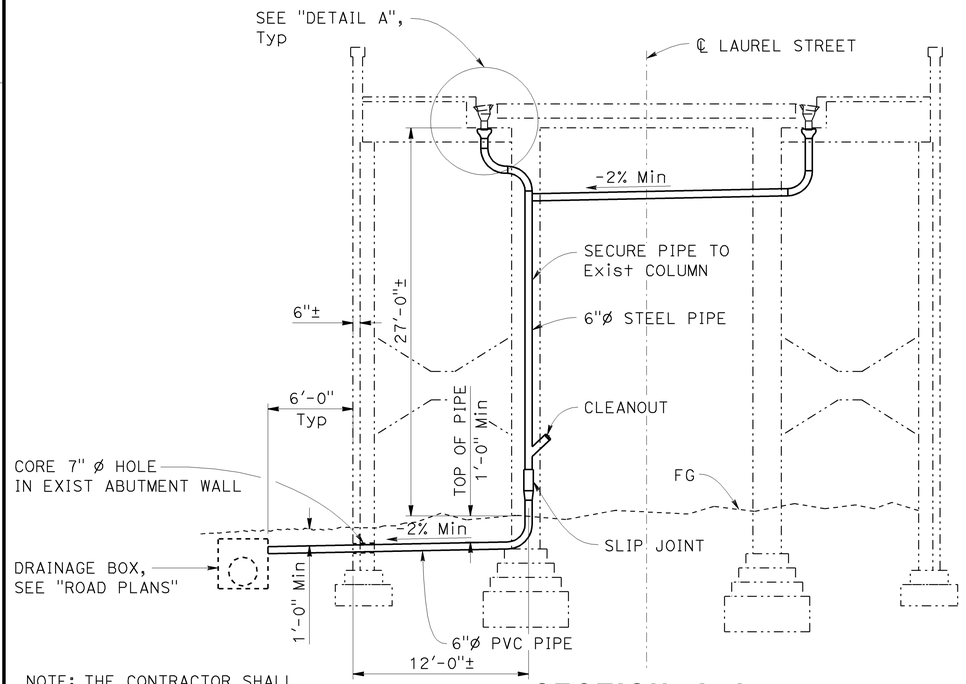


ABUTMENT 1 DECK DRAINAGE PART PLAN

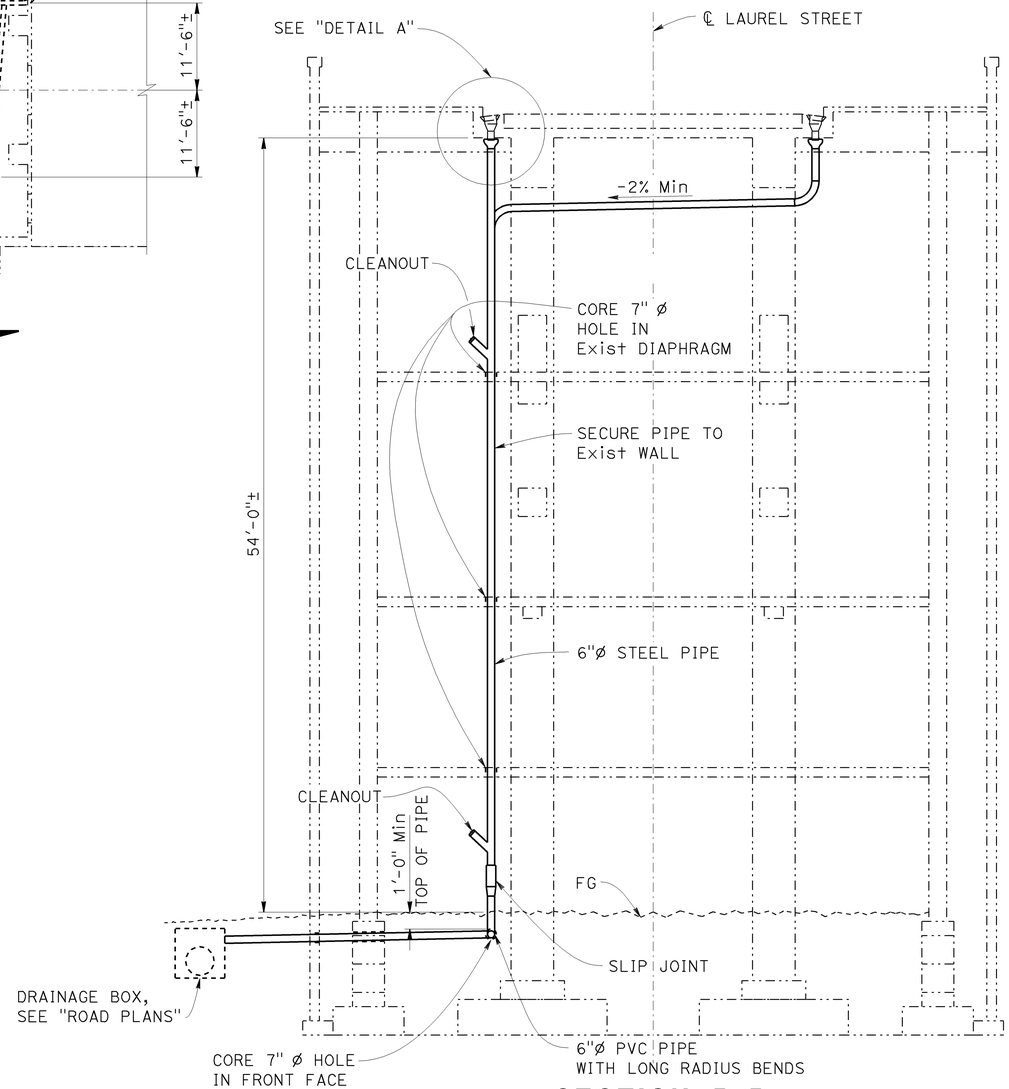
1"=10'-0"



NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

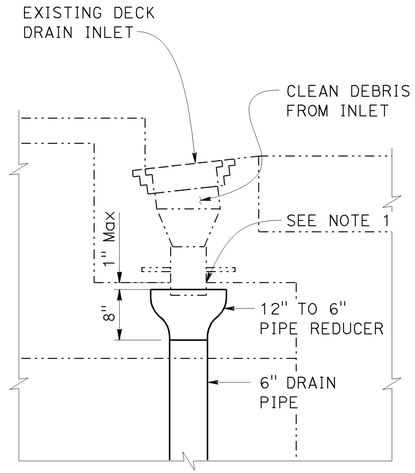
SECTION A-A

3/16"=1'-0"



SECTION B-B

3/16"=1'-0"



DETAIL A

1"=1'-0"

NOTES:

1. Where drain pipe exists, remove existing drain pipe maintaining an extension of pipe 2" beyond underside of bridge deck
2. For "SLIP JOINT DETAIL", see "DRAINAGE DETAILS NO. 5" sheet

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Peter Smith	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
DRAINAGE DETAILS NO. 1

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10/04/12	55	61

FILE => 57-0215-m-xdrainage02.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	142	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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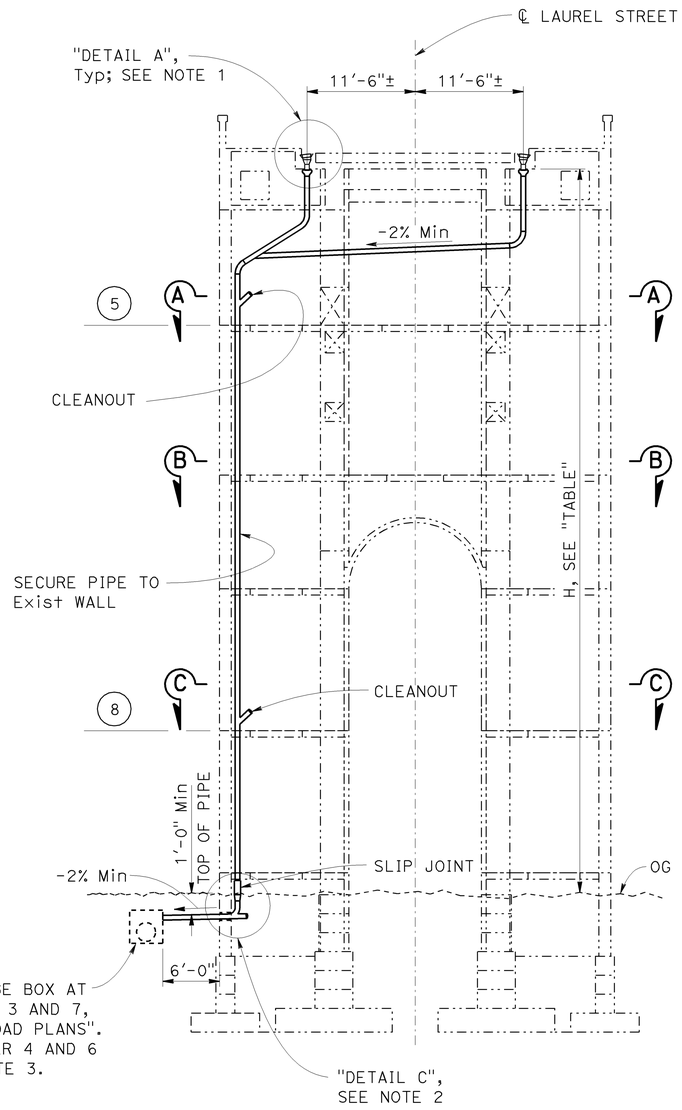
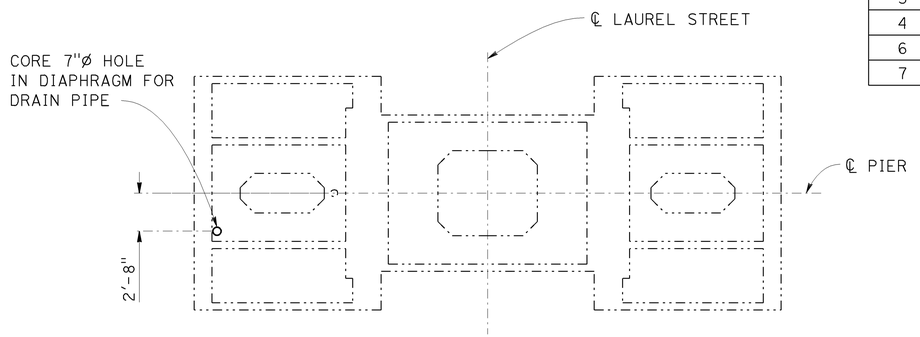


ELEVATION - PIERS 2, 3, 4, 6 & 7

1/8"=1'-0"

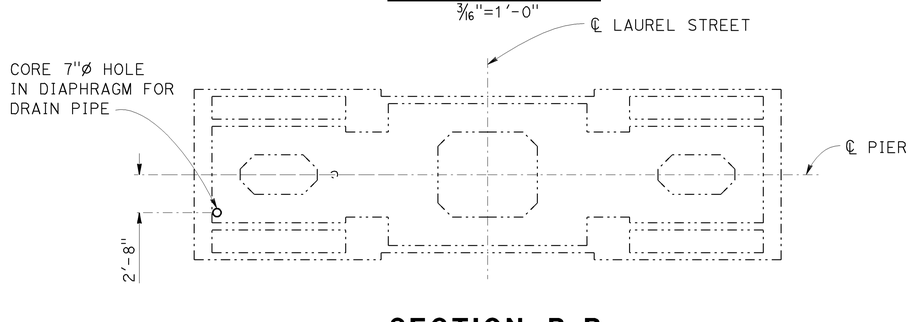
(Pier 2 shown)

TABLE	
PIER	H
2	77'-0"±
3	109'-0±
4	106'-0"±
6	92'-0"±
7	66'-0"±



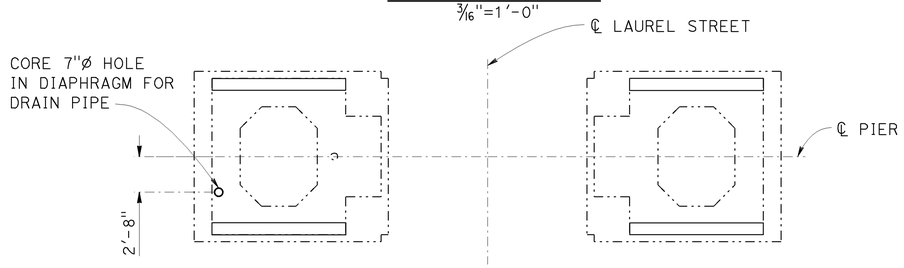
SECTION A-A

3/16"=1'-0"



SECTION B-B

3/16"=1'-0"



SECTION C-C

3/16"=1'-0"

NOTES:

1. For "DETAIL A", see "DRAINAGE DETAILS NO. 1" sheet.
2. For "DETAIL C", see "DRAINAGE DETAILS NO. 5" sheet. Drain pipe may be cast into pier seismic retrofit concrete.
3. At Pier 4 connect to intercept ditch and at Pier 6 connect to existing inlet see "ROAD PLANS".

LEGEND:

(5) - Level designation

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Peter Smith	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
DRAINAGE DETAILS NO. 2

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

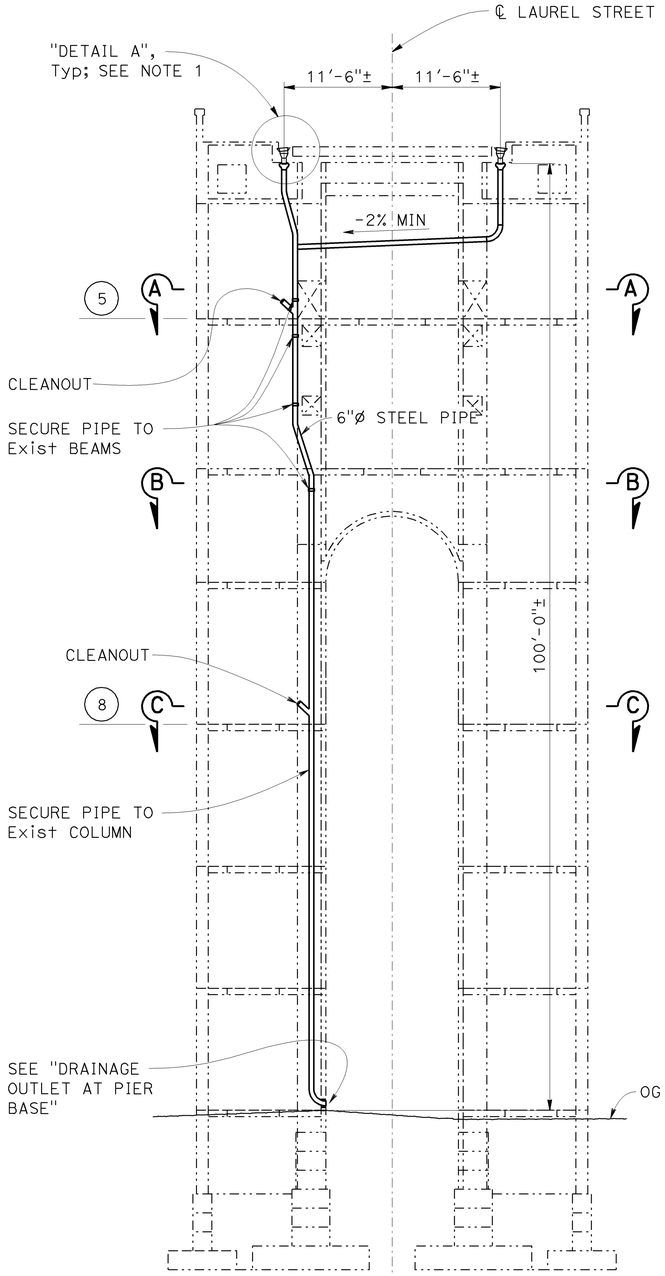
UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10-04-12	56	61

FILE => 57-0215-m-xdrainage03.dgn

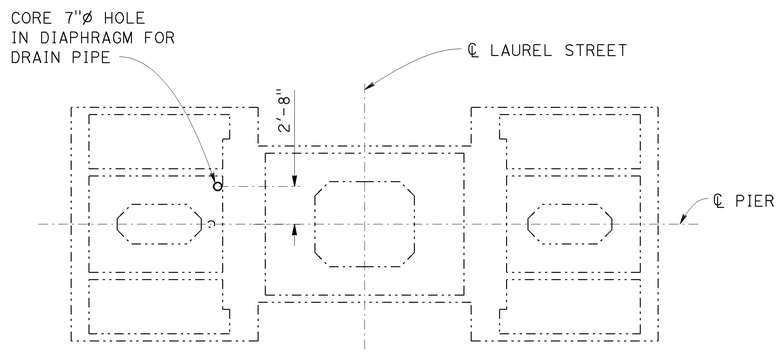
USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28



ELEVATION - PIER 5

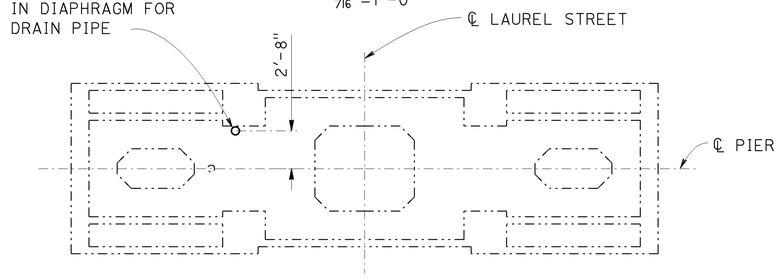
1/8"=1'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



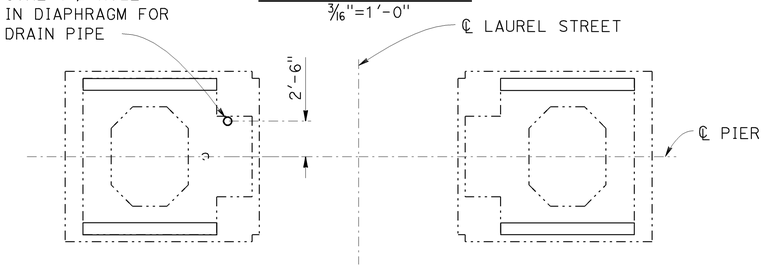
SECTION A-A

3/16"=1'-0"



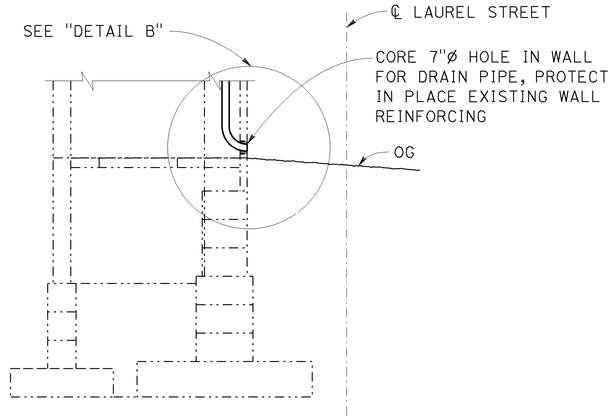
SECTION B-B

3/16"=1'-0"



SECTION C-C

3/16"=1'-0"

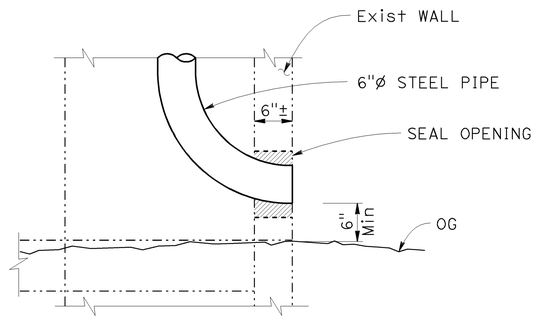


DRAINAGE OUTLET AT PIER BASE

3/16"=1'-0"

NOTES:

1. For "DETAIL A", see "DRAINAGE DETAILS NO. 1" sheet.



DETAIL B

1"=1'-0"

LEGEND:

(5) - Level designation

SEISMIC RETROFIT AND REHABILITATION

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	143	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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T.Y. LIN INTERNATIONAL
404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Pete Smith	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
DRAINAGE DETAILS NO. 3

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

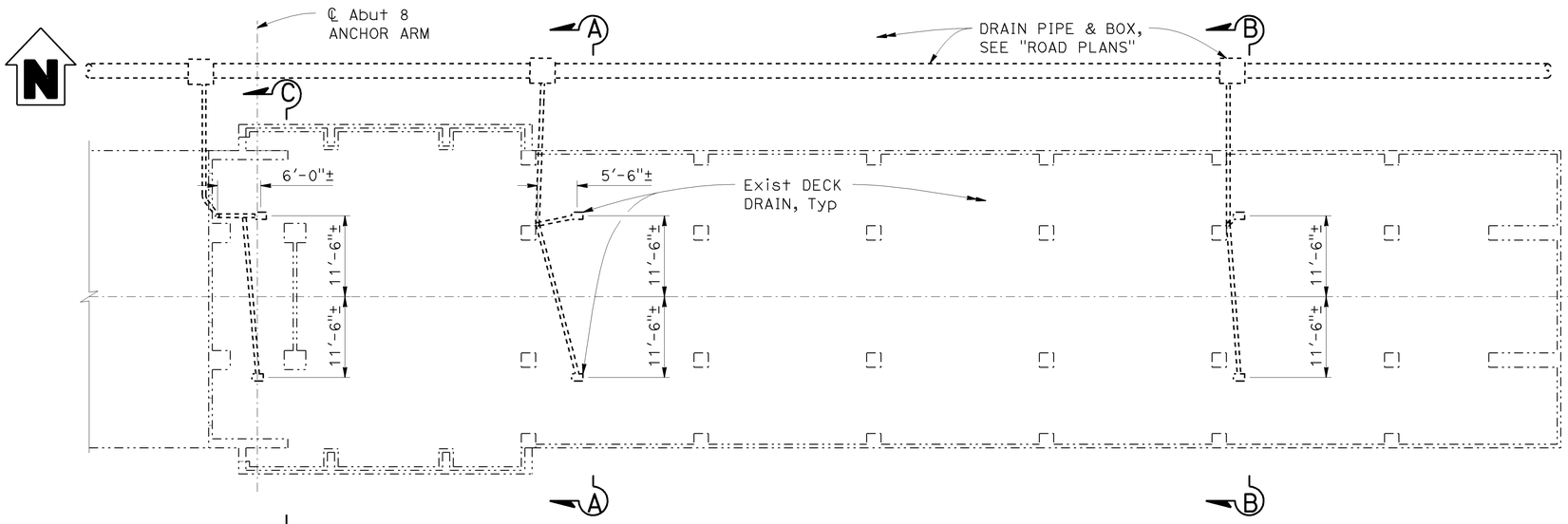
UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10/04/12	57	61

FILE => 57-0215-m-xdrainage04.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

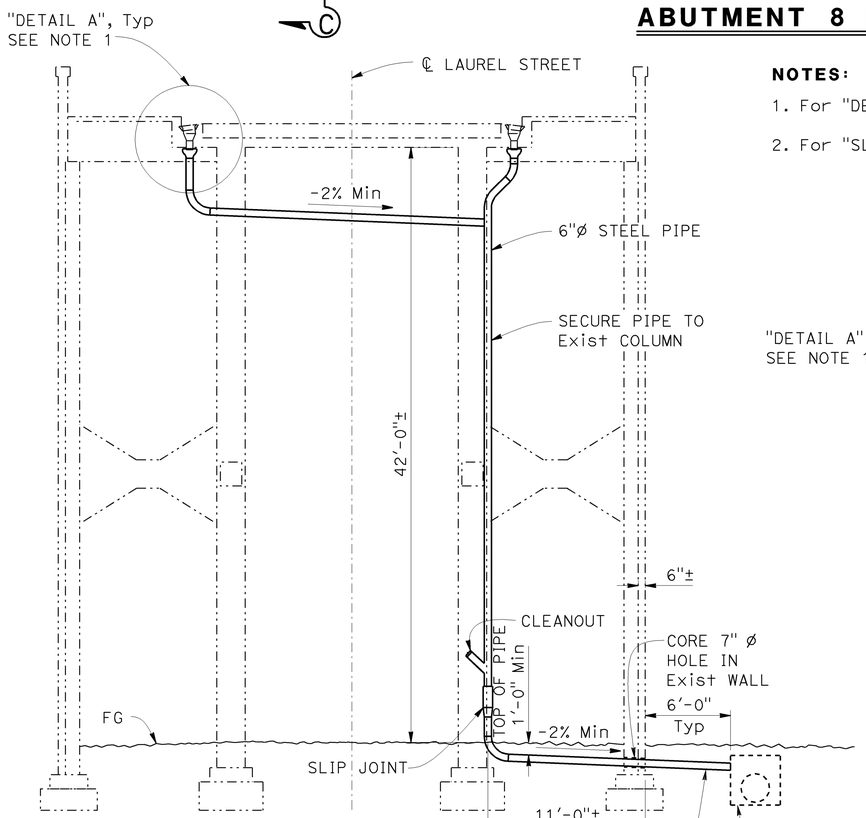


ABUTMENT 8 DECK DRAINAGE PART PLAN

1"=10'-0"

NOTES:

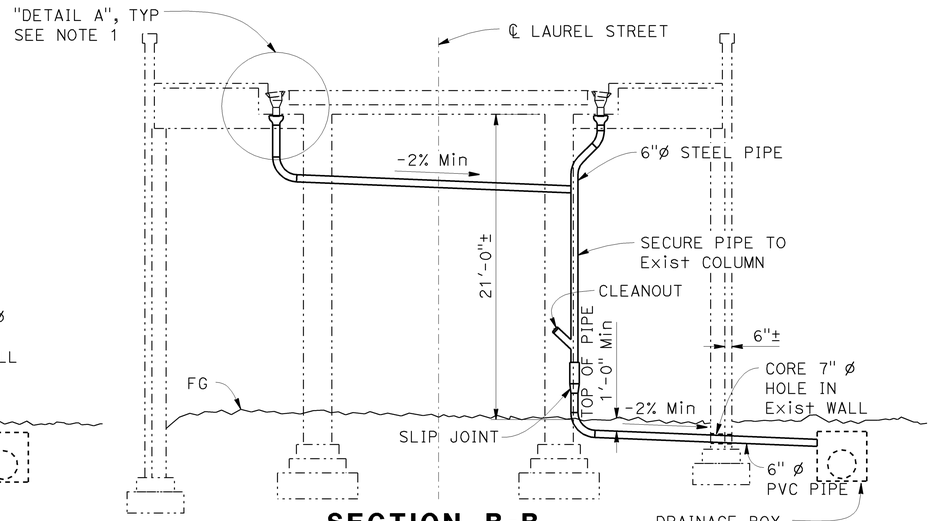
1. For "DETAIL A", see "DRAINAGE DETAILS NO. 1" sheet.
2. For "SLIP JOINT DETAIL", see "DRAINAGE DETAILS NO. 5" sheet.



SECTION A-A

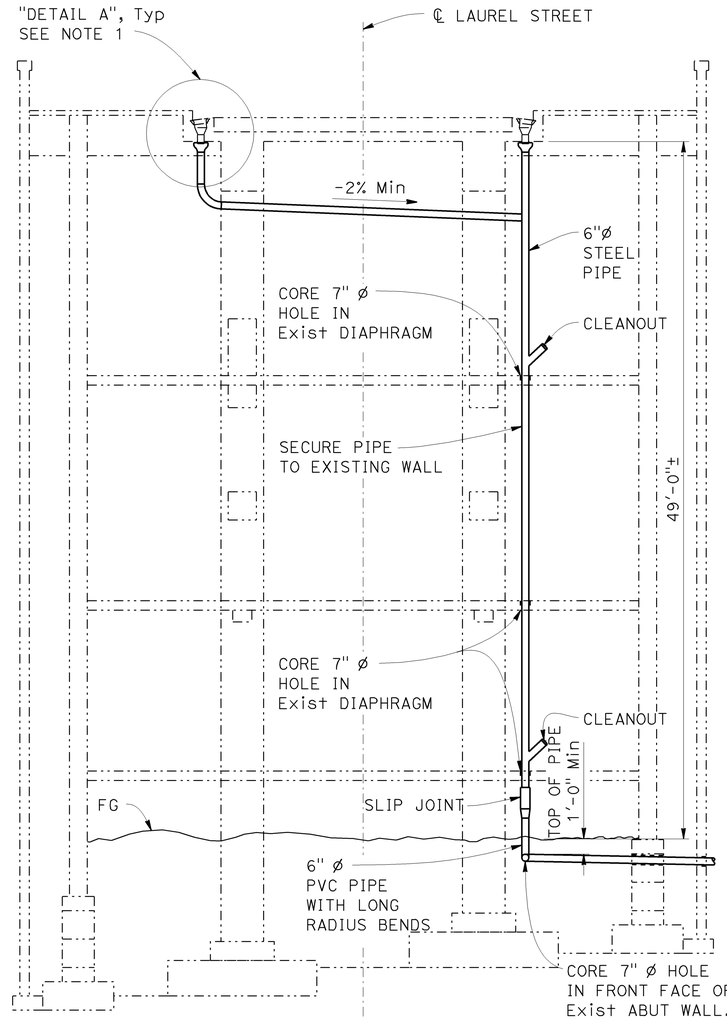
3/16"=1'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



SECTION B-B

3/16"=1'-0"



SECTION C-C

3/16"=1'-0"

SEISMIC RETROFIT AND REHABILITATION

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	144	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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T.Y. LIN INTERNATIONAL
404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Peter Smith	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
DRAINAGE DETAILS NO. 4

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-06-12	10/04/12	58	61

FILE => 57-0215-m-xdrainage05.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	145	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Peter B. Smith
No. C60122
Exp. 06/30/14
CIVIL
STATE OF CALIFORNIA

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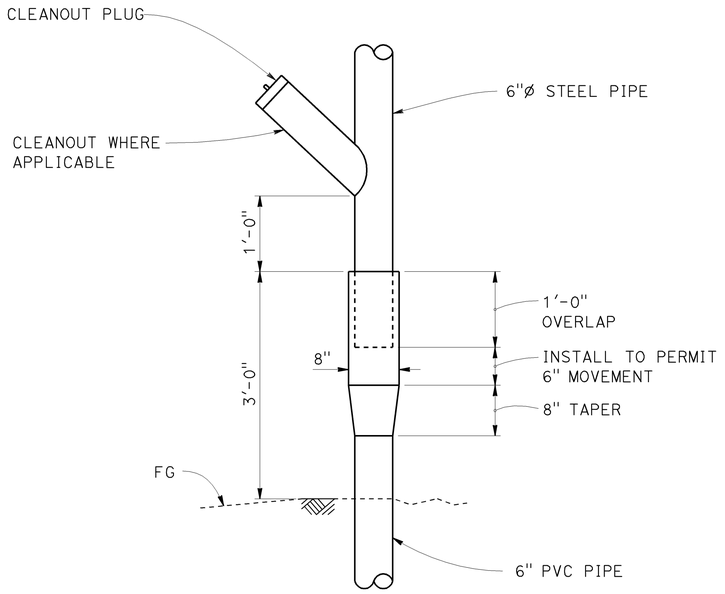
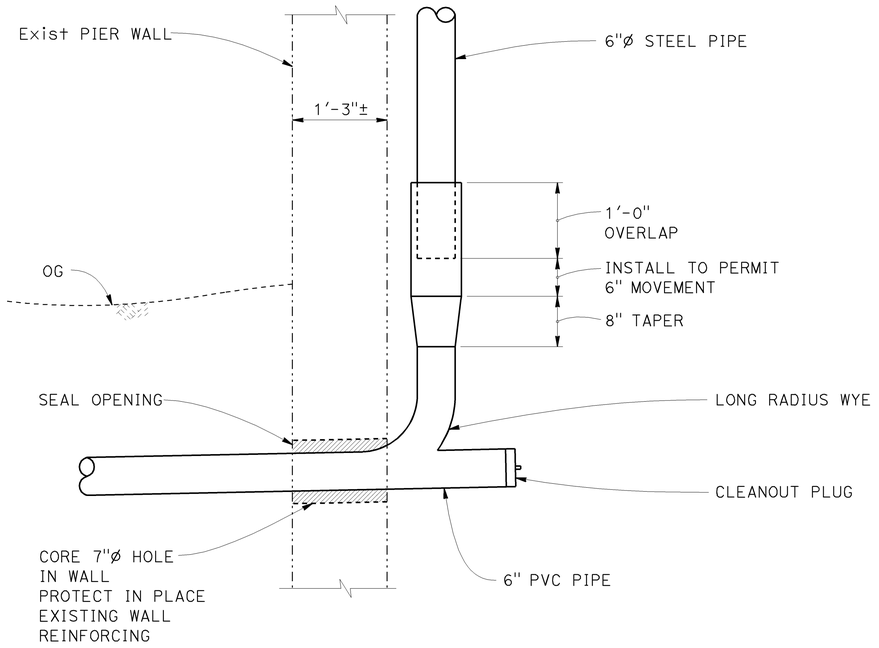


SLIP JOINT DETAIL

1"=1'-0"



DETAIL C

1"=1'-0"

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Peter Smith	Robert Barton
DETAILS	Oscar Colcol	Robert Barton
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
DRAINAGE DETAILS NO. 5

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10/04/12	59	61

FILE => 57-0215-m-xdrainage06.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	146	147

Peter B Smith — 1/4/13
REGISTERED CIVIL ENGINEER — DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Peter B. Smith — No. C60122 — Exp. 06/30/14 — CIVIL — STATE OF CALIFORNIA

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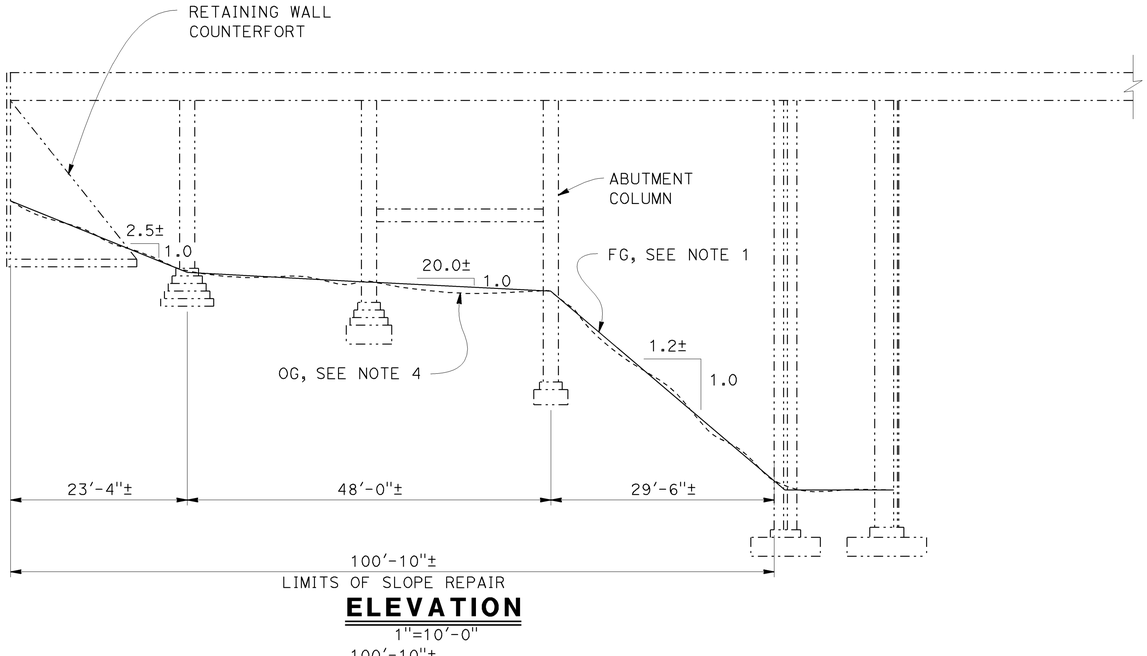
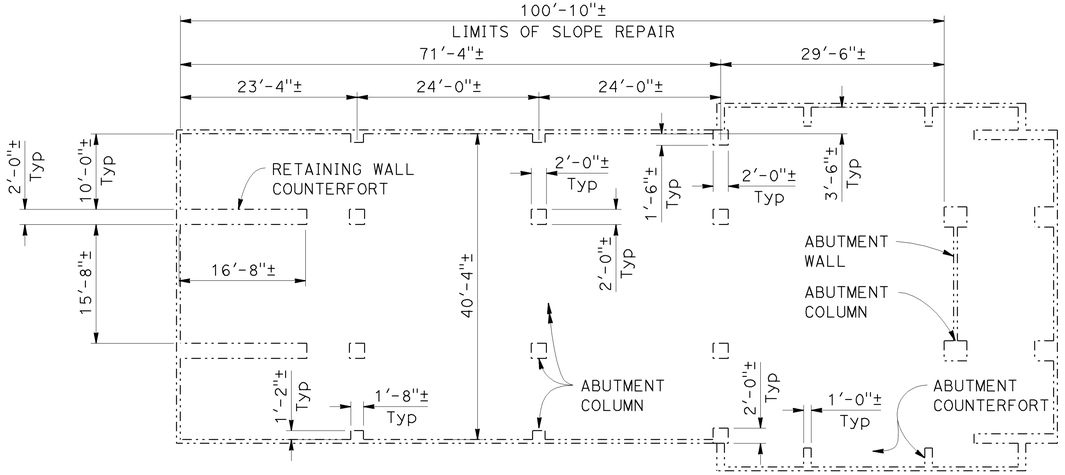
SAN DIEGO, CA 92108



ELEVATION
1"=10′-0"



PLAN
1"=10′-0"

ESTIMATE OF REPAIR ABUTMENT SLOPE FOR ABUTMENT 1 AND ABUTMENT 8	
APPROXIMATE EXCAVATION DEPTH (Ft)	APPROXIMATE BACKFILL DEPTH (Ft)
1.0	2.0

NOTES:

1. The intent of this Drawing is to show the approximate slope gradings within the interior of Abutment. Use imported material to create a smooth surface.
2. Remove all trash, and debris from the slope.
3. Fill drainage gullies with soil.
4. Actual OG to be determined by contractor.

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

INTERIOR ABUTMENT 1 SLOPE REPAIR

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
1/4/2013
SIGN OFF DATE

	BY	CHECKED
DESIGN	Peter Smith	Tim Fuller
DETAILS	Oscar Colcol	Tim Fuller
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO.	LAUREL STREET OVERCROSSING
57-0215	
POST MILES	SLOPE REPAIR DETAILS NO. 1
1.4	

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	01-04-13	06-06-12	10/04/12	60	61

FILE => 57-0215-m-xslope01.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	SD	163	1.4	147	147

Peter B Smith 11/16/12
REGISTERED CIVIL ENGINEER DATE

03-04-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Peter B. Smith
No. C60122
Exp. 06/30/14
CIVIL
STATE OF CALIFORNIA

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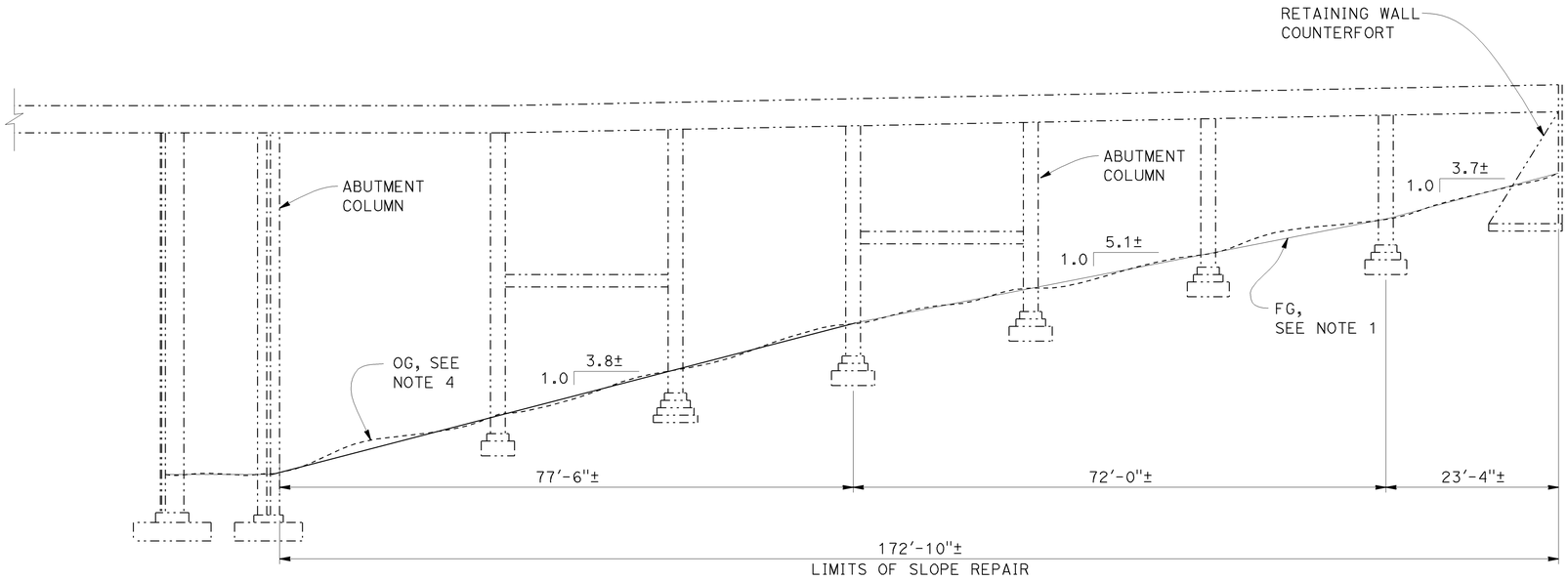
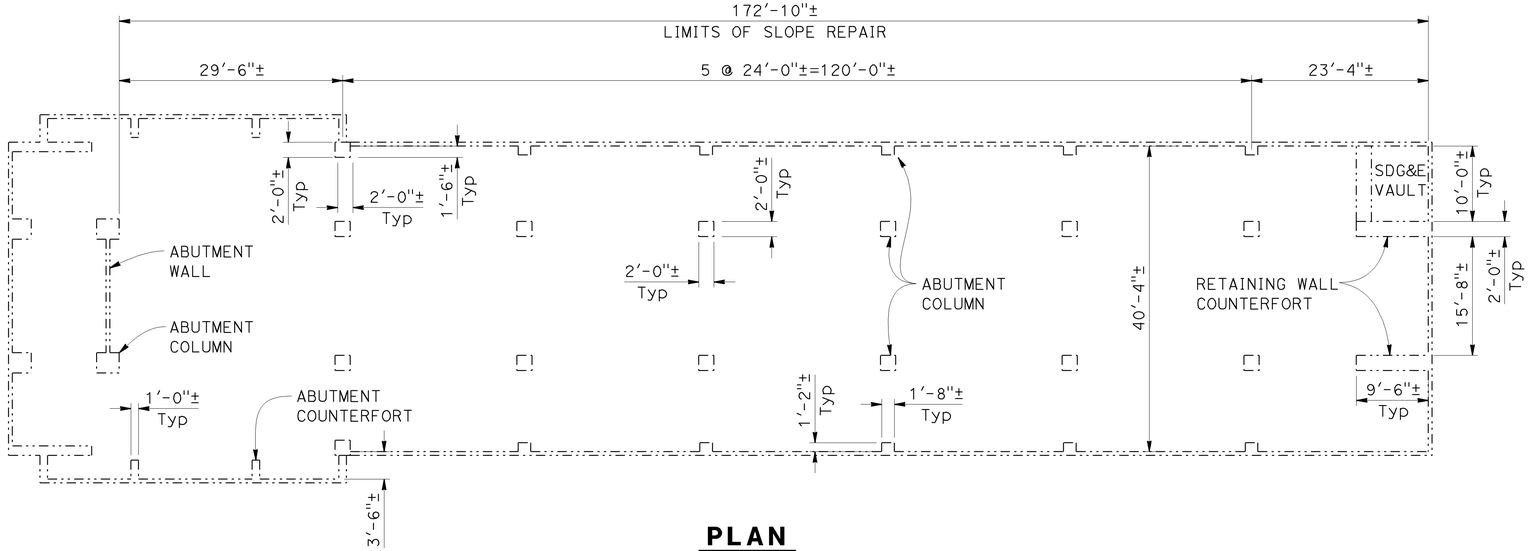


ELEVATION
1"=1′-0"



PLAN
1"=1′-0"

NOTES:

1. The intent of this Drawing is to show the approximate slope gradings within the interior of Abutment. Use imported material to create a smooth slope.
2. Remove all trash, and debris from the slope.
3. Fill drainage gullies with soil.
4. Actual OG to be determined by contractor.
5. Exclude SDG&E Vault from limits of slope repair.

INTERIOR ABUTMENT 8 SLOPE REPAIR

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

SEISMIC RETROFIT AND REHABILITATION

Frank H. Wei
DESIGN OVERSIGHT
11/16/2012
SIGN OFF DATE

	BY	CHECKED
DESIGN	Peter Smith	Tim Fuller
DETAILS	Oscar Colcol	Tim Fuller
QUANTITIES	Sabina Piras	Dina Tobia

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Peter Smith
PROJECT ENGINEER

BRIDGE NO. 57-0215
POST MILES 1.4

LAUREL STREET OVERCROSSING
SLOPE REPAIR DETAILS NO. 2

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: _____
PROJECT NUMBER & PHASE: 1100000225 1 CONTRACT NO.: 11-264111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-16-12	04-13-12	06-08-12	10/04/12	61	61

FILE => 57-0215-m-xslope02.dgn

USERNAME => s133329 DATE PLOTTED => 05-FEB-2013 TIME PLOTTED => 06:28