

ALTERNATIVE 3

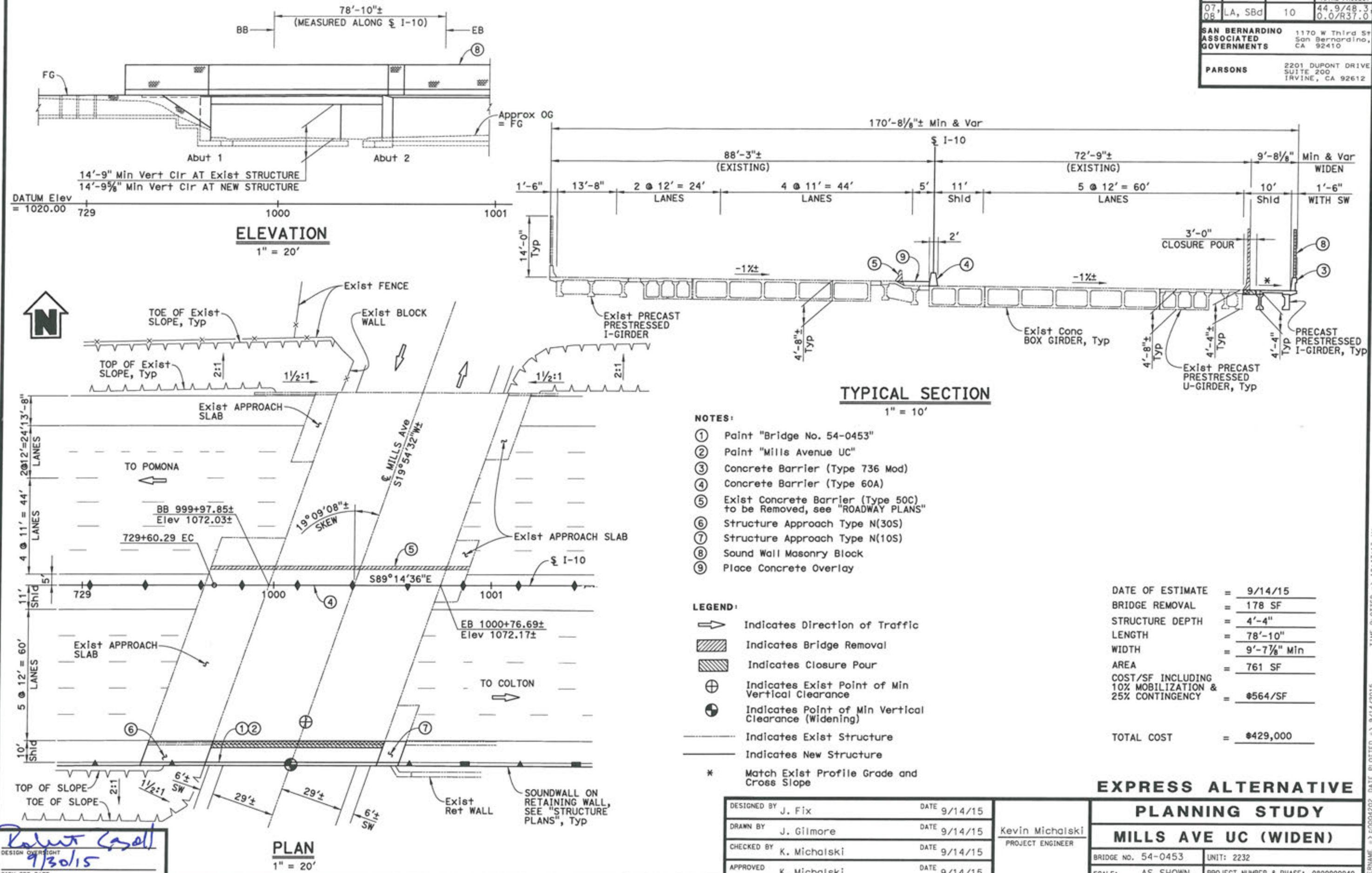
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, SBd	10	44.9/48.7 0.0/0.37.0

**SAN BERNARDINO
ASSOCIATED
GOVERNMENTS**

1170 W Third St
San Bernardino,
CA 92410

PARSONS

2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612





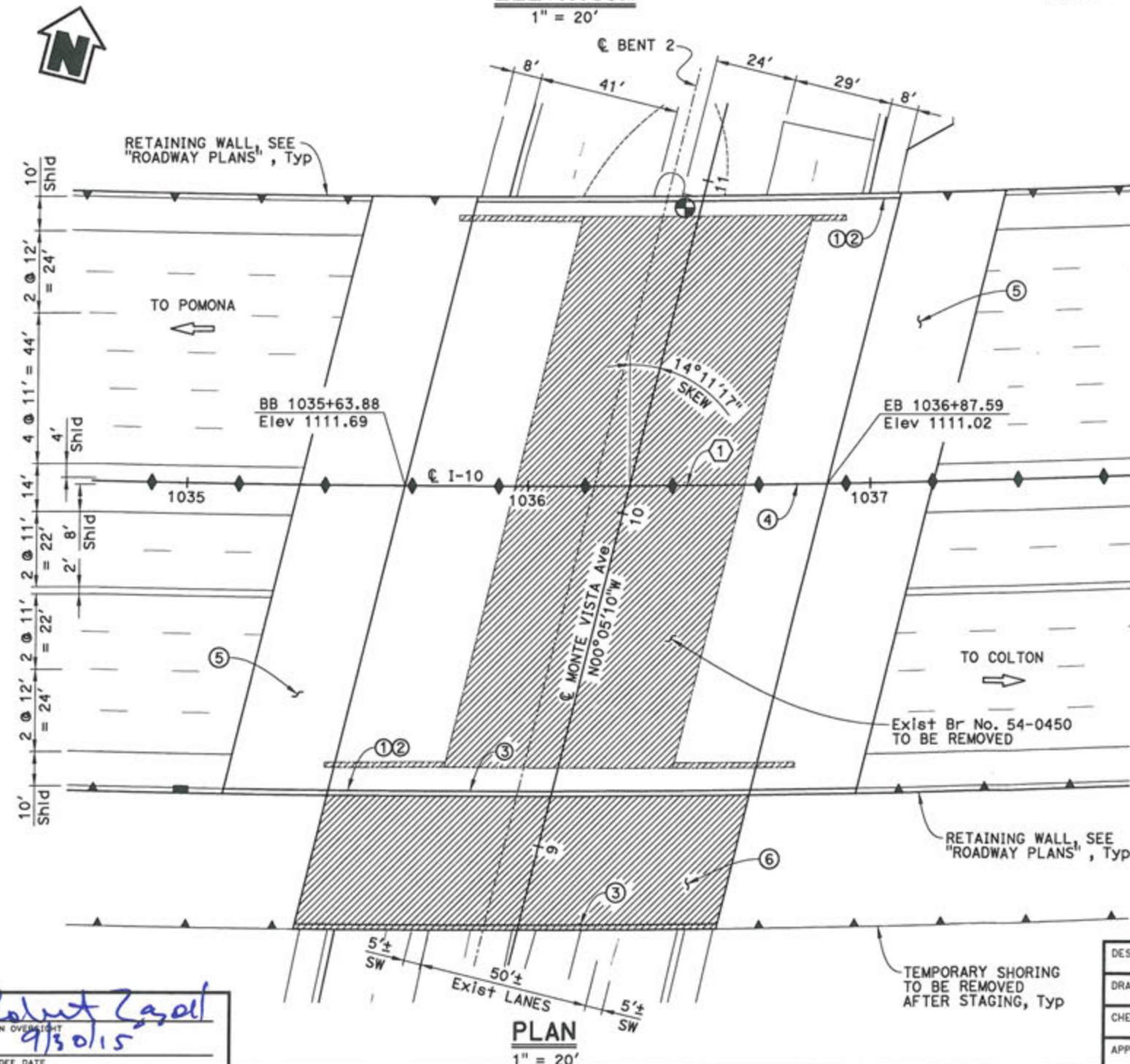
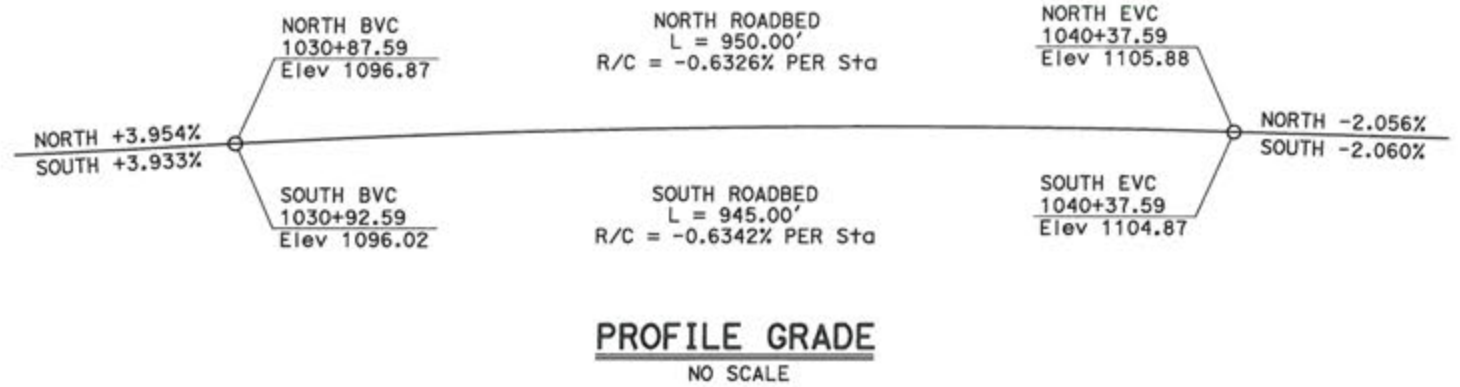
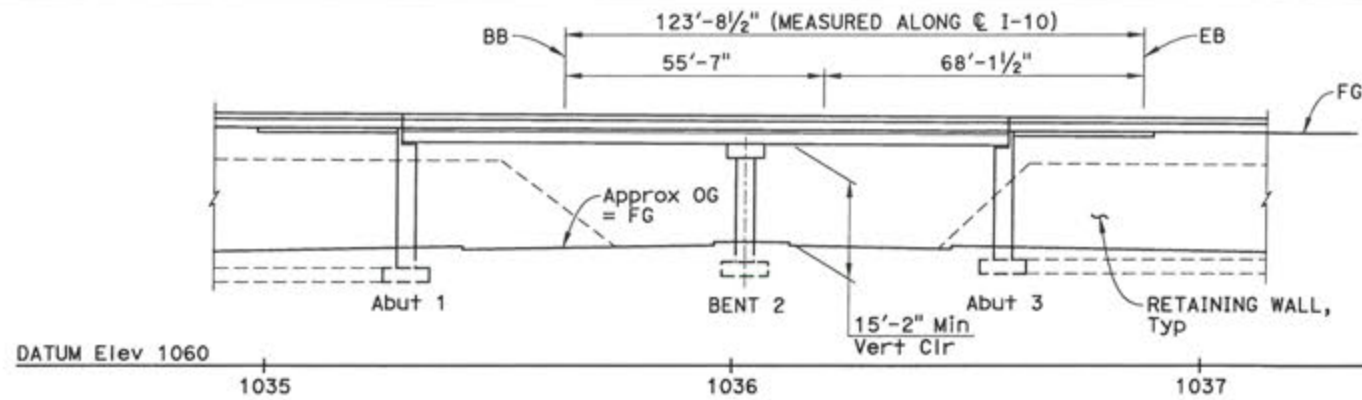
- | | |
|---|---|
|  | Indicates Direction of Travel |
|  | Indicates Bridge Removal |
|  | Indicates Closure Pour |
|  | Indicates Direction of Flow |
|  | Indicates Existing Structure |
|  | Indicates New Structure |
|  | Match Exist Profile Grade and Cross Slope |

- ① Paint "Br No. 54-0451"
- ② Paint "San Antonio Wash"
- ③ Concrete Barrier (Type 736 Mod)
- ④ Structure Approach, Type N(300)
- ⑤ Concrete Barrier (Type 60)
- ⑥ Temporary Railing, Type K
- ⑦ Place Concrete Overlay
- ⑧ Remove Exist Concrete Barrier (Type 50C Mod), See "ROADWAY PLANS"
- ⑨ Soundwall Masonry Block

DATE OF ESTIMATE	=	9/14/15
BRIDGE REMOVAL	=	2,259 SF
STRUCTURE DEPTH	=	3'-0"
LENGTH	=	108'-0"
WIDTH	=	28'-11"
AREA	=	3,123 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$401/SF
TOTAL COST	=	\$1,252,000

SAN ANTONIO WASH BRIDGE (WIDEN)

BRIDGE NO. 54-0451	UNIT: 08224
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040



NOTES:

- ① Paint "Br No. 54-0450"
- ② Paint "Monte Vista Ave UC"
- ③ Concrete Barrier (Type 736)
- ④ Concrete Barrier (Type 60A)
- ⑤ Structure Approach Type N(30S)
- ⑥ Temporary Structure to be removed after staging

LEGEND:

- ➔ Indicates Direction of Travel
- ▨ Indicates Bridge Removal
- ⊕ Indicates Point of Min Vertical Clearance
- Indicates Exist Structure
- Indicates New Structure

CURVE DATA ①

R = 5000.00'
Δ = 23°06'49"
T = 1022.43'
L = 2017.05'

DATE OF ESTIMATE	=	9/14/15
BRIDGE REMOVAL	=	15,354 SF
STRUCTURE DEPTH	=	3'-0"
LENGTH	=	123'-8 1/2"
WIDTH	=	174'-11 1/2"
AREA	=	21,644 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$222/SF
TEMPORARY BRIDGE	=	\$1,380,000
TOTAL COST	=	\$6,398,000

**EXPRESS ALTERNATIVE
PLANNING STUDY**

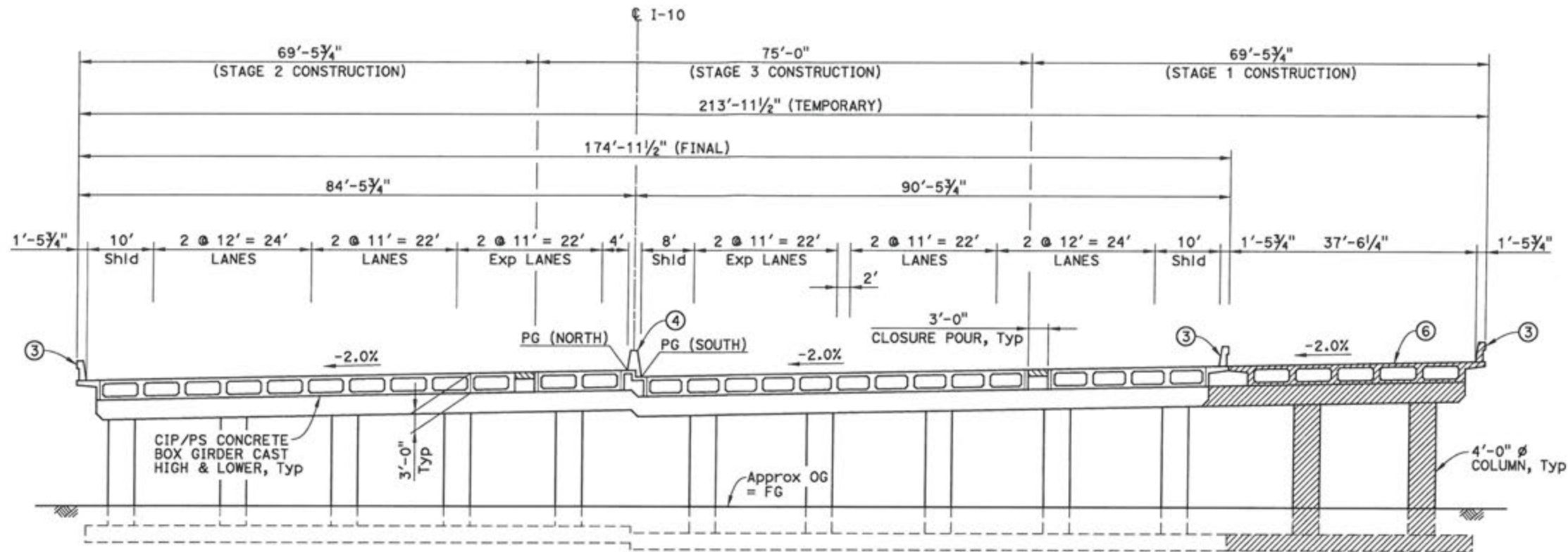
MONTE VISTA AVE UC (REPLACE)

BRIDGE NO. 54-0450	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY J. Fix	DATE 9/14/15
DRAWN BY F. Hakemi	DATE 9/14/15
CHECKED BY K. Michalski	DATE 9/14/15
APPROVED K. Michalski	DATE 9/14/15

Kevin Michalski
PROJECT ENGINEER

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, SBd	10	44.9/48.3, 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St San Bernardino CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



NOTE: Existing bridge not shown for clarity.

TYPICAL SECTION
1" = 10'

NOTES:

- ③ Concrete Barrier (Type 736)
- ④ Concrete Barrier (Type 60A)
- ⑥ Temporary Structure to be removed after staging

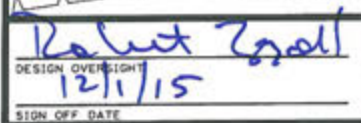
LEGEND:

- Indicates Bridge Removal
- Indicates Closure Pour

DESIGNED BY J. Fix		DATE 9/14/15	Kevin Michalski PROJECT ENGINEER		EXPRESS ALTERNATIVE PLANNING STUDY	
DRAWN BY F. Hakemi		DATE 9/14/15			MONTE VISTA AVE UC (REPLACE)	
CHECKED BY K. Michalski		DATE 9/14/15			BRIDGE NO. 54-0450	UNIT: 2232
APPROVED K. Michalski		DATE 9/14/15			SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

Robert Zsolt
DESIGN OVERSIGHT
9/30/15
SIGN OFF DATE

USERNAME => p004030A	DATE PLOTTED => 7/30/2015	TIME PLOTTED => 1:39:51 PM



PLAN
1" = 20'

TYPICAL SECTION
1" = 10'

NOTES:

- ① Paint "Br No. 54-1186"
- ② Paint "Central Ave UC"
- ③ Remove Exist Conc Barrier Type 27
- ④ Concrete Barrier (Type 736)
- ⑤ Exist Conc Barrier (Type 50C)
- ⑥ Structure Approach Type N(30S)
- ⑦ Exist MBGR to be removed, See "ROADWAY PLANS"
- ⑧ Exist masonry wall to be removed, See "ROADWAY PLANS"

LEGEND:

- | | |
|---|---|
|  | Indicates Direction of Travel |
|  | Indicates Bridge Removal (Portion) |
|  | Indicates Closure Pour |
|  | Indicates Exist Point
of Min Vertical Clearance |
|  | Indicates Point of Min
Vertical Clearance (Widening) |
|  | Indicates Exist Structure |
|  | Indicates New Structure |
|  | Match Exist Profile Grade
and Cross Slope |

DATE OF ESTIMATE	=	8/12/15
BRIDGE REMOVAL	=	756 SF
STRUCTURE DEPTH	=	3'-9"
LENGTH	=	189'-0"
WIDTH	=	4'-6 1/2" AVG
AREA	=	858 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$ 1,449/SF
TOTAL COST	=	\$ 1,244,000

EXPRESS ALTERNATIVE
PLANNING STUDY
CENTRAL AVE UC (WIDEN)

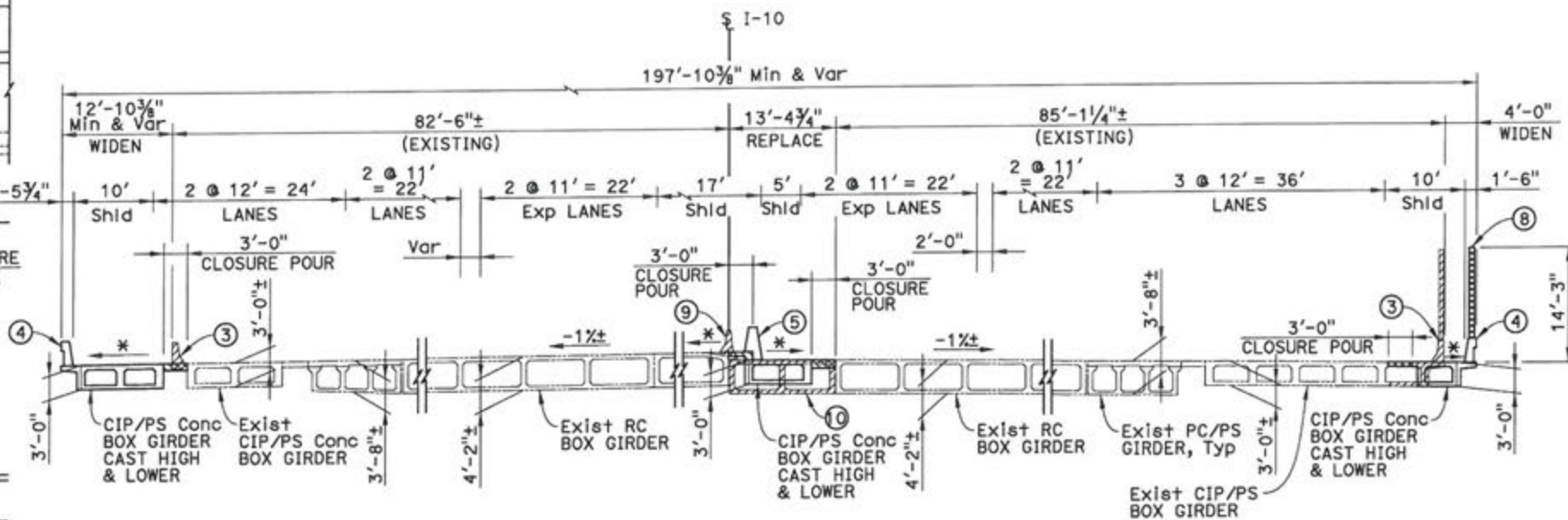
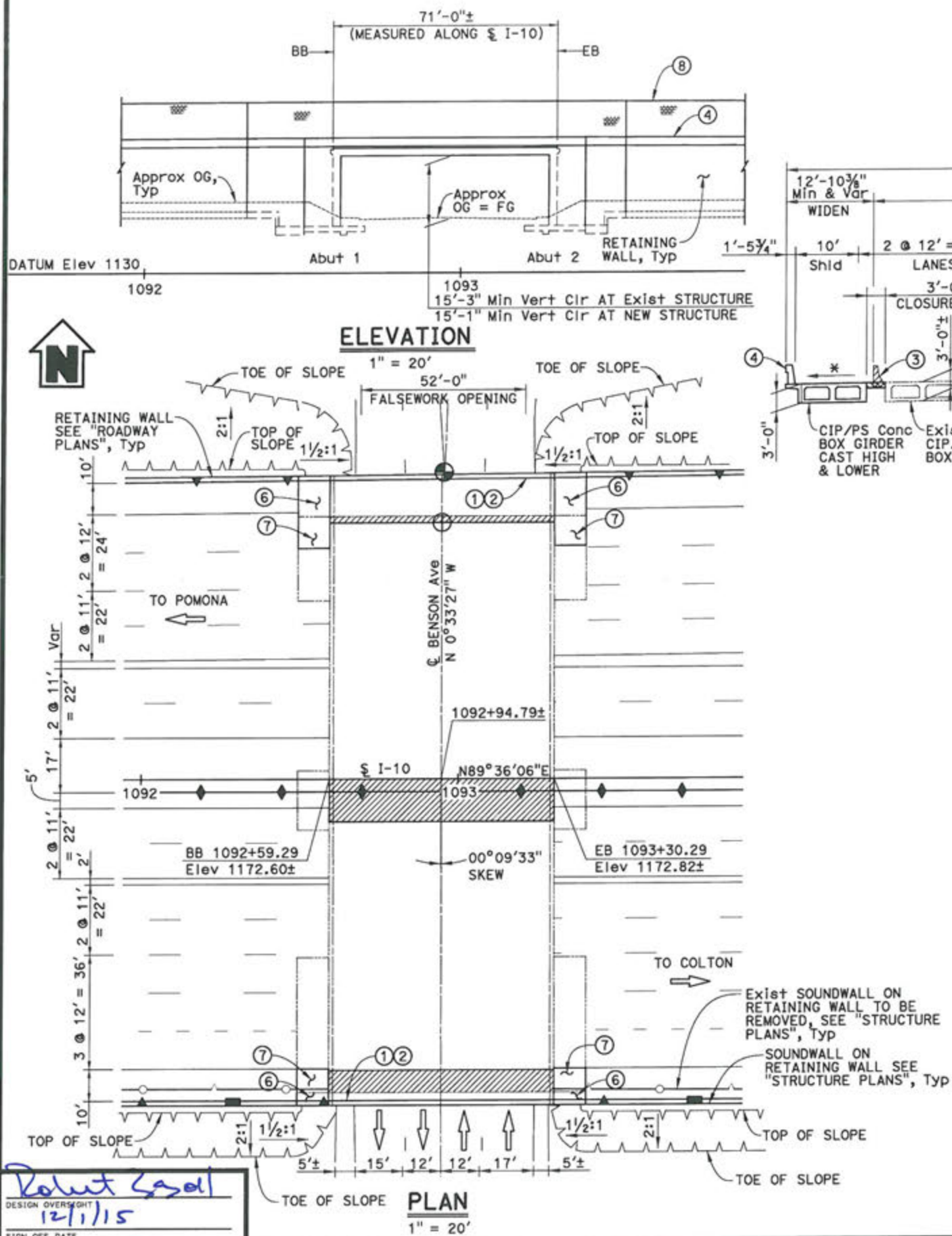
DESIGNED BY	J. Fix	DATE	5/13/15
DRAWN BY	J. Gilmore	DATE	5/13/15
CHECKED BY	K. Michalski	DATE	5/20/15
APPROVED	K. Michalski	DATE	8/12/15

Kevin Michalski
PROJECT ENGINEER

BRIDGE NO. 54-1186	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

FILE = c:\pwworking\pdpwise\p004020a\dms55509\54-1186-A-GP01.dgn CONTRACT NO.: 08-OC2500

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, Sbd	10	44.9/48. 0.0/037.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS		1170 W Third St San Bernardino CA 92410	
PARSONS		2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612	



TYPICAL SECTION

$$1'' = 10'$$

LEGEND:

- | | |
|---|--|
|  | Indicates Direction of Travel |
|  | Indicates Bridge Removal |
|  | Indicates Closure Pour |
|  | Indicates Exist Point of Min Vertical Clearance |
|  | Indicates Point of Min Vertical Clearance (Widening) |
|  | Match Exist Profile Grade and Cross Slope |
|  | Indicates Exist Structure |
|  | Indicates New Structure |

NOTES:

- ① Paint "Bridge No. 54-0448"
- ② Paint "Bridge Avenue UC"
- ③ Remove Existing Soundwall, Concrete Barrier and First Bay of Box Girder
- ④ Concrete Barrier (Type 736 Mod)
- ⑤ Concrete Barrier (Type 60A Mod)
- ⑥ Structure Approach Type N(10D)
- ⑦ Structure Approach Type R(10D)
- ⑧ Sound Wall Masonry Block
- ⑨ Remove Exist Concrete Barrier (Type 50C) Mod See "ROADWAY PLANS"
- ⑩ Remove two Bays of Box Girder

DATE OF ESTIMATE	=	8/12/15
BRIDGE REMOVAL	=	2,496 SF
STRUCTURE DEPTH	=	3'-0"
LENGTH	=	71'-0"
WIDTH	=	31'-3 $\frac{3}{8}$ " AV
AREA	=	2,221 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$517/SF
 TOTAL COST	=	 \$1,148,000

EXPRESS ALTERNATIVE

PLANNING STUDY

BENSON AVE UC (WIDEN)

BRIDGE NO. 54-0448	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY	J. Fix	DATE	5/13/15
DRAWN BY	J. Gilmore	DATE	5/13/15
CHECKED BY	K. Michalski	DATE	5/20/15
APPROVED	K. Michalski	DATE	8/12/15

Kevin Michalski
PROJECT ENGINEER

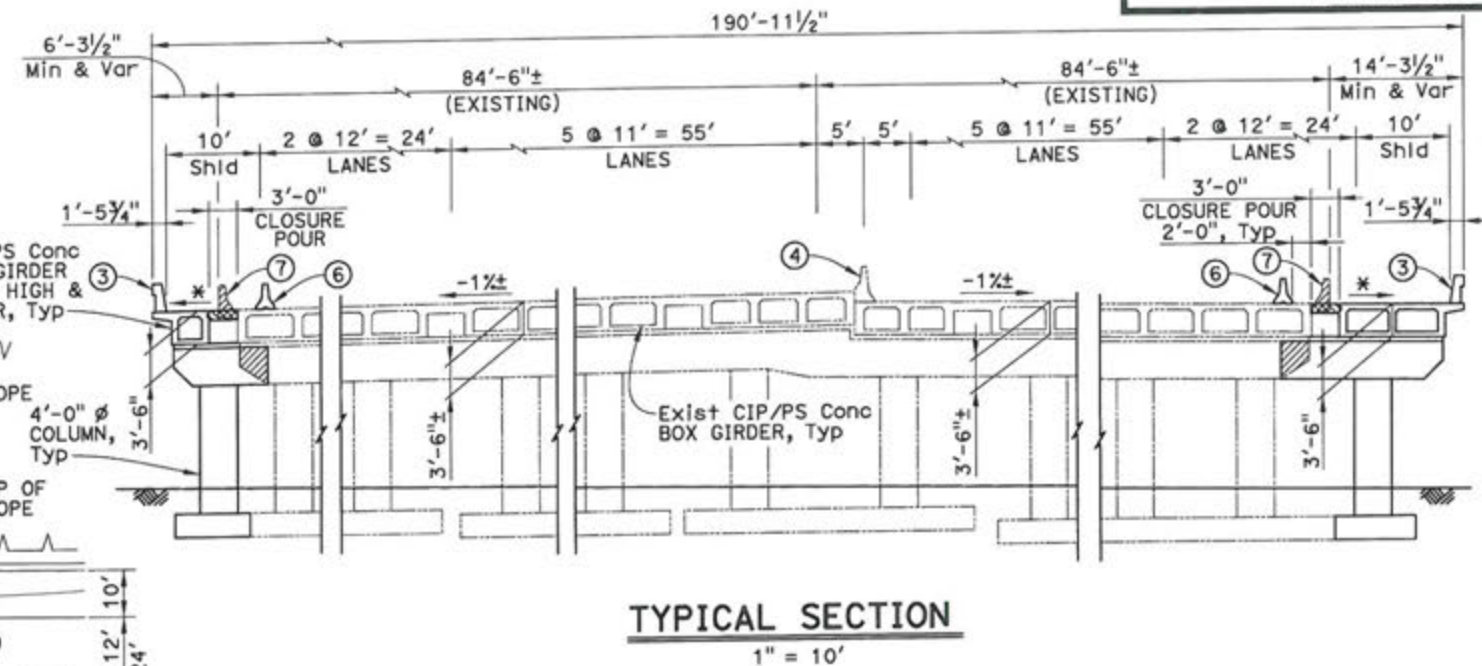
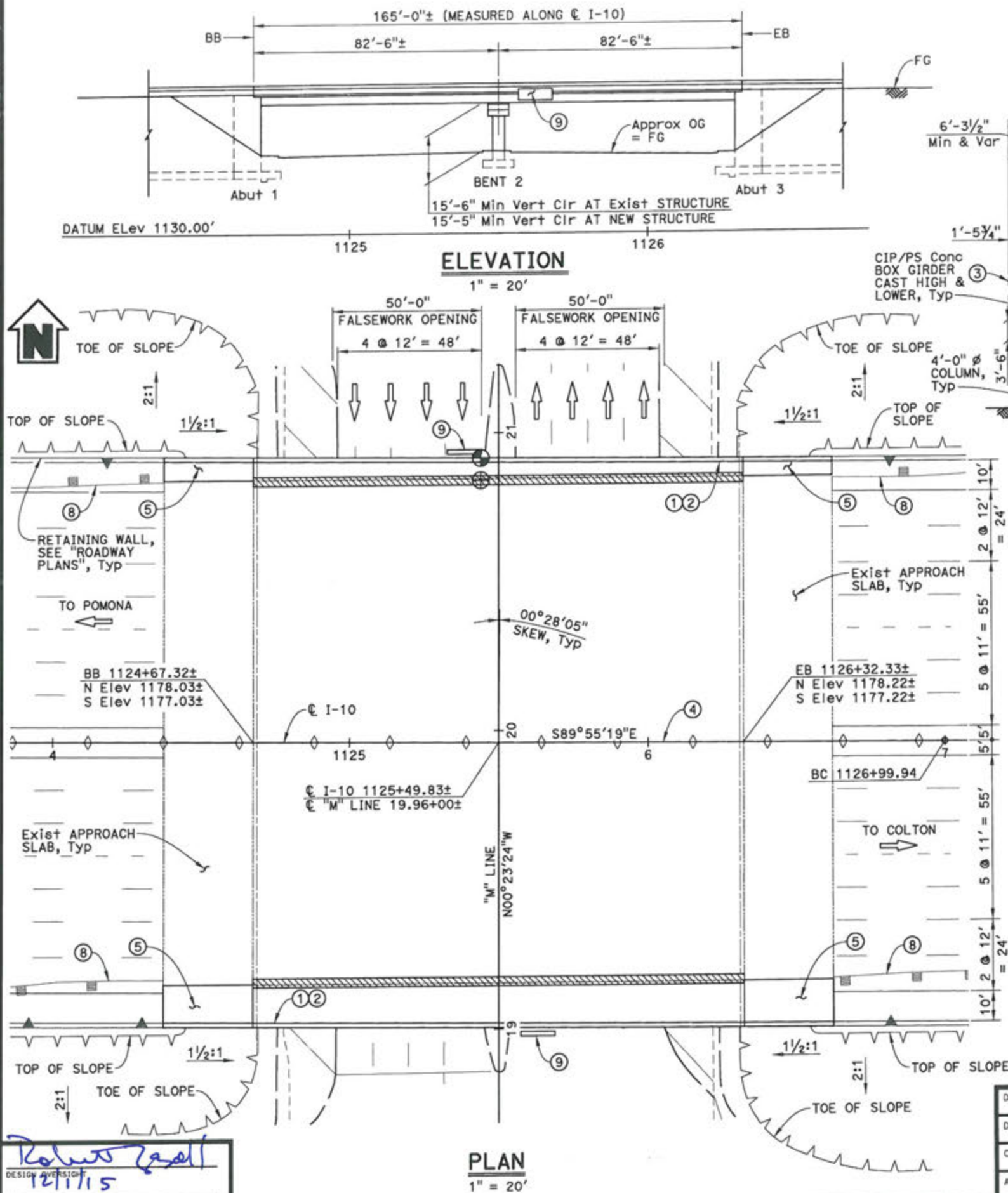
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, SBd	10	47.8/48.3 0.0/4.9

**SAN BERNARDINO
ASSOCIATED
GOVERNMENTS**

1170 W Third St
San Bernardino
CA 92410

PARSONS

2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612



- NOTES:**
- ① Paint "Br No. 54-1187"
 - ② Paint "Mountain Ave UC"
 - ③ Concrete Barrier (Type 736)
 - ④ Exist Conc Barrier (Type 50C)
 - ⑤ Structure Approach Type N(30D)
 - ⑥ Temporary Railing, Type K
 - ⑦ Remove Exist Conc Barrier Type 27
 - ⑧ Exist MBGR to be removed, See "ROADWAY PLANS"
 - ⑨ Structure Mounted Sign, See "ROADWAY PLANS"

- LEGEND:**
- | | |
|---|--|
|  | Indicates Direction of Travel |
|  | Indicates Bridge Removal (Portion) |
|  | Indicates Closure Pour |
|  | Indicates Exist Point of Min Vertical Clearance |
|  | Indicates Point of Min Vertical Clearance (Widening) |
|  | Indicates Exist Structure |
|  | Indicates New Structure |
|  | Match Exist Profile Grade and Cross Slope |

DATE OF ESTIMATE	=	8/12/15
BRIDGE REMOVAL	=	660 SF
STRUCTURE DEPTH	=	3'-6"
LENGTH	=	165'-0"
WIDTH	=	21'-11 1/2" AVG
AREA	=	3623 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$ 515/SF
TOTAL COST	=	\$ 1,868,000

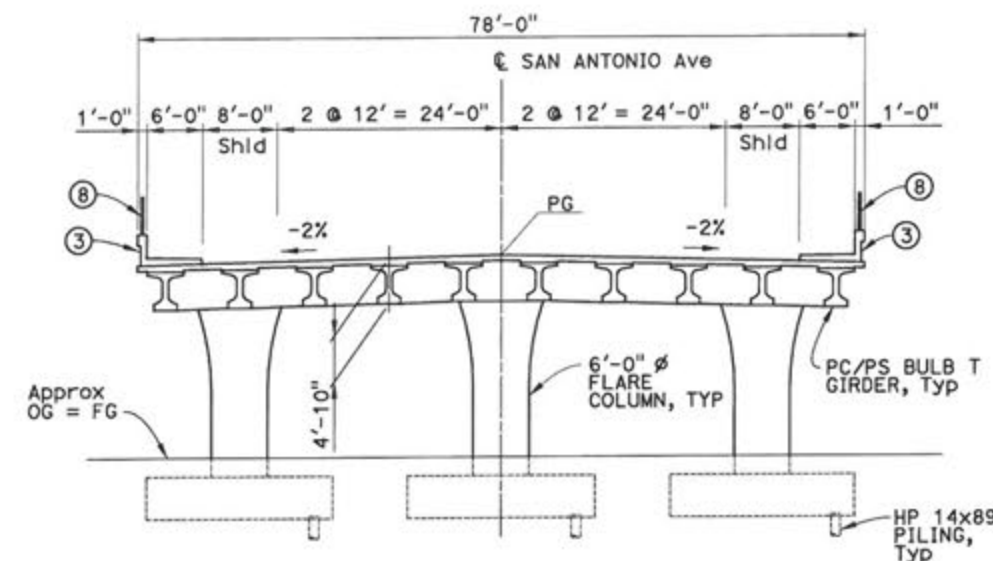
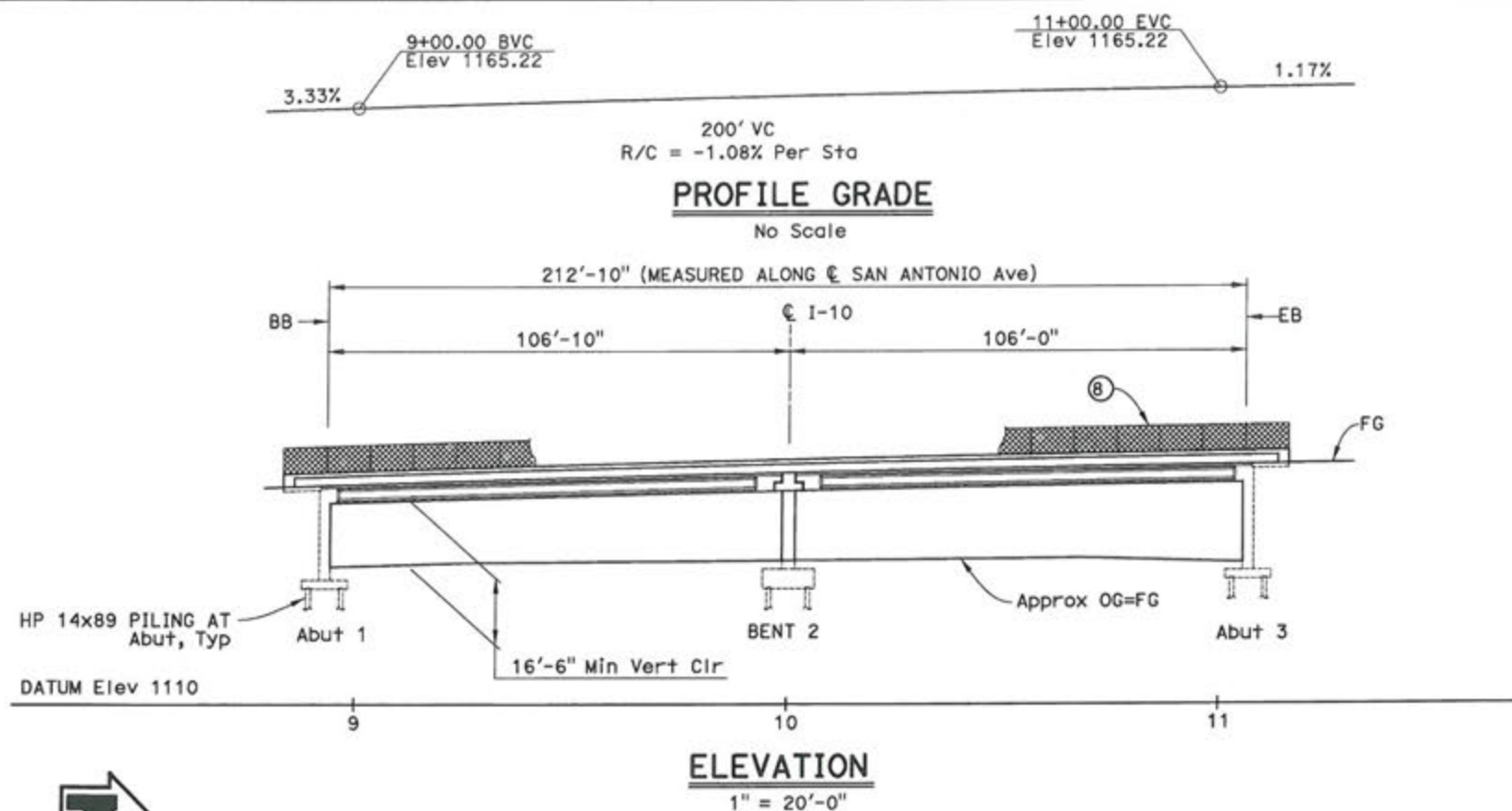
	EXPRESS ALTERNATIVE
	PLANNING STUDY
i	MOUNTAIN AVE UC (WIDEN)

BRIDGE NO. 54-1187	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY	L. Khaleghi	DATE	5/13/15
DRAWN BY	F. Hakemi	DATE	5/13/15
CHECKED BY	K. Michalski	DATE	5/20/15
APPROVED	K. Michalski	DATE	8/12/15

Kevin Michalski
PROJECT ENGINEER

DIST	COUNTY	ROUTE	POST MILES
07	LA, Sbd	10	44.9/48.3
08			0.0/0.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St San Bernardino CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



NOTE: All Piles not Shown

TYPICAL SECTION

1" = 10'-0"

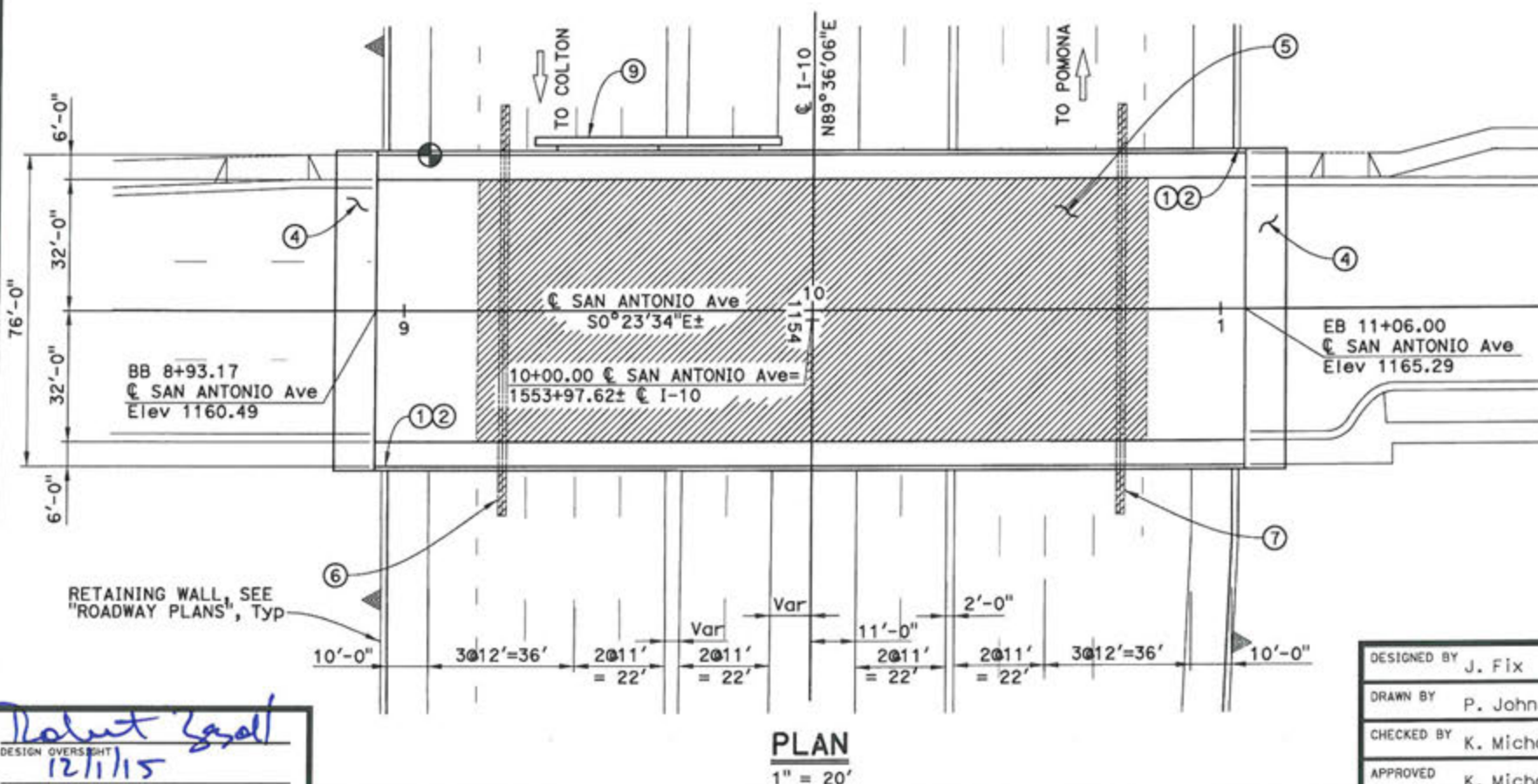
LEGEND:

- Indicates Direction of Travel
- Indicates Point of Minimum Vertical Clearance
- Indicates Existing Structure
- Indicates New Structure
- Indicates Bridge Removal

NOTES:

- Paint "Br No. 54-0446"
- Paint "San Antonio Ave OC"
- Concrete Barrier (Type 26)
- Structure Approach Type N(10S)
- Remove Exist Bridge (Br No. 54-0446)
- Remove Exist Tieback Wall No. 152
- Remove Exist Tieback Wall No. 153
- Chain Link Railing (Type 7)
- Structure Mounted Sign, See "ROADWAY PLANS"

DATE OF ESTIMATE	=	3/20/15
BRIDGE REMOVAL	=	13,088 SF
STRUCTURE DEPTH	=	4'-10"
LENGTH	=	212'-10"
WIDTH	=	78'-0"
AREA	=	16,601 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$297
TOTAL COST	=	\$5,194,000



DESIGNED BY	J. Fix	DATE	1/23/15
DRAWN BY	P. Johnson	DATE	1/23/15
CHECKED BY	K. Michalski	DATE	3/13/15
APPROVED	K. Michalski	DATE	3/20/15

Kevin Michalski
PROJECT ENGINEER

**EXPRESS ALTERNATIVE
PLANNING STUDY**

SAN ANTONIO AVE OC (REPLACE)

BRIDGE NO. 54-0446	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGN OVERSIGHT
12/1/15

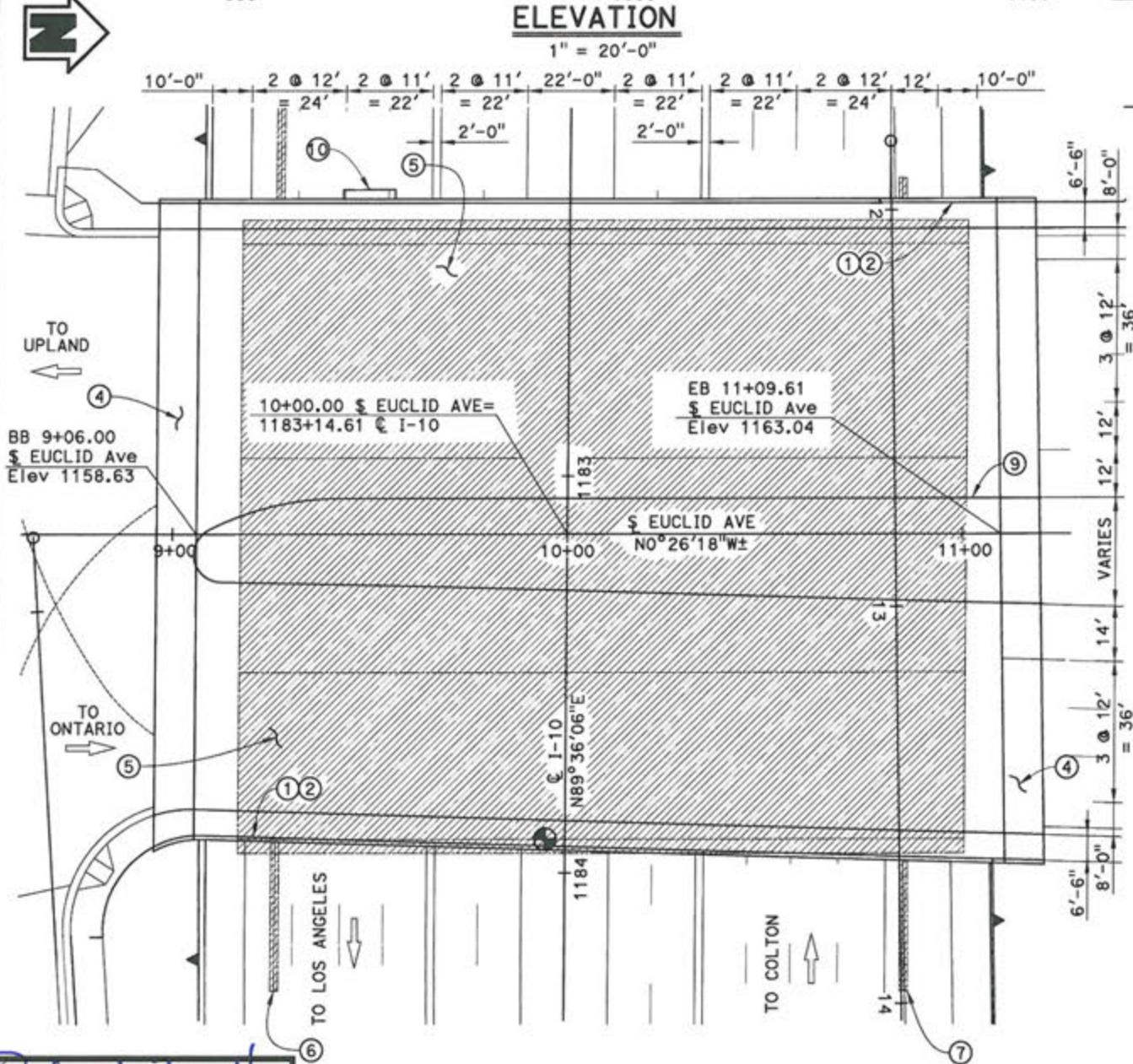
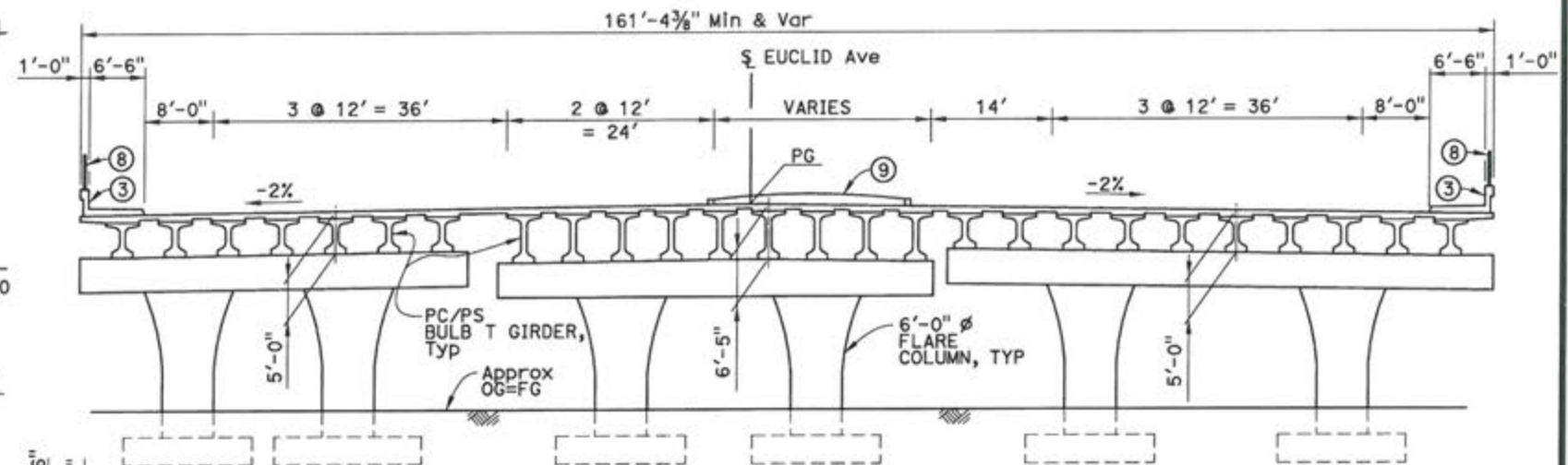
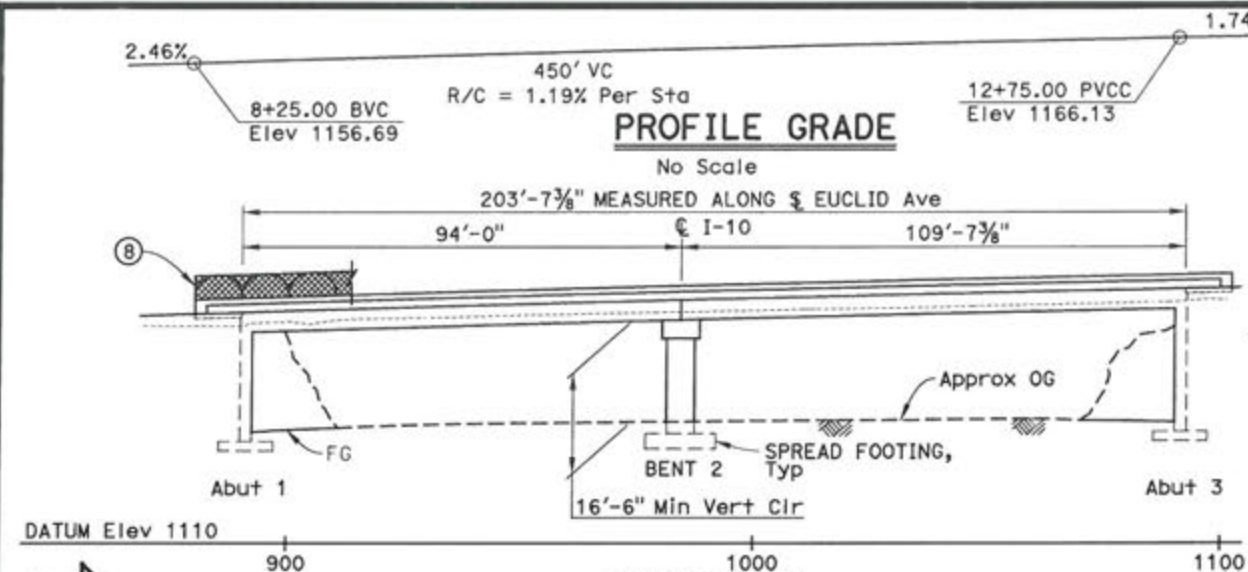
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, Sbd	10	44.9/48.3 0.0/R37.0

**SAN BERNARDINO
ASSOCIATED
GOVERNMENTS**

1170 W Third St
San Bernardino
CA 92410

PARSONS

2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612



PLAN
1" = 20'

DATE OF ESTIMATE	=	<u>3/20/15</u>
BRIDGE REMOVAL	=	<u>29,781 SF</u>
STRUCTURE DEPTH	=	<u>5'-0" Min & Var</u>
LENGTH	=	<u>203'-7³/₈"</u>
WIDTH	=	<u>161'-4³/₈" Min & Var</u>
AREA	=	<u>33,357 SF</u>
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	<u>\$296</u>
TOTAL COST	=	<u>\$10,483,000</u>

- NOTES:**

- ### LEGEND

EXPRESS ALTERNATIVE PLANNING STUDY

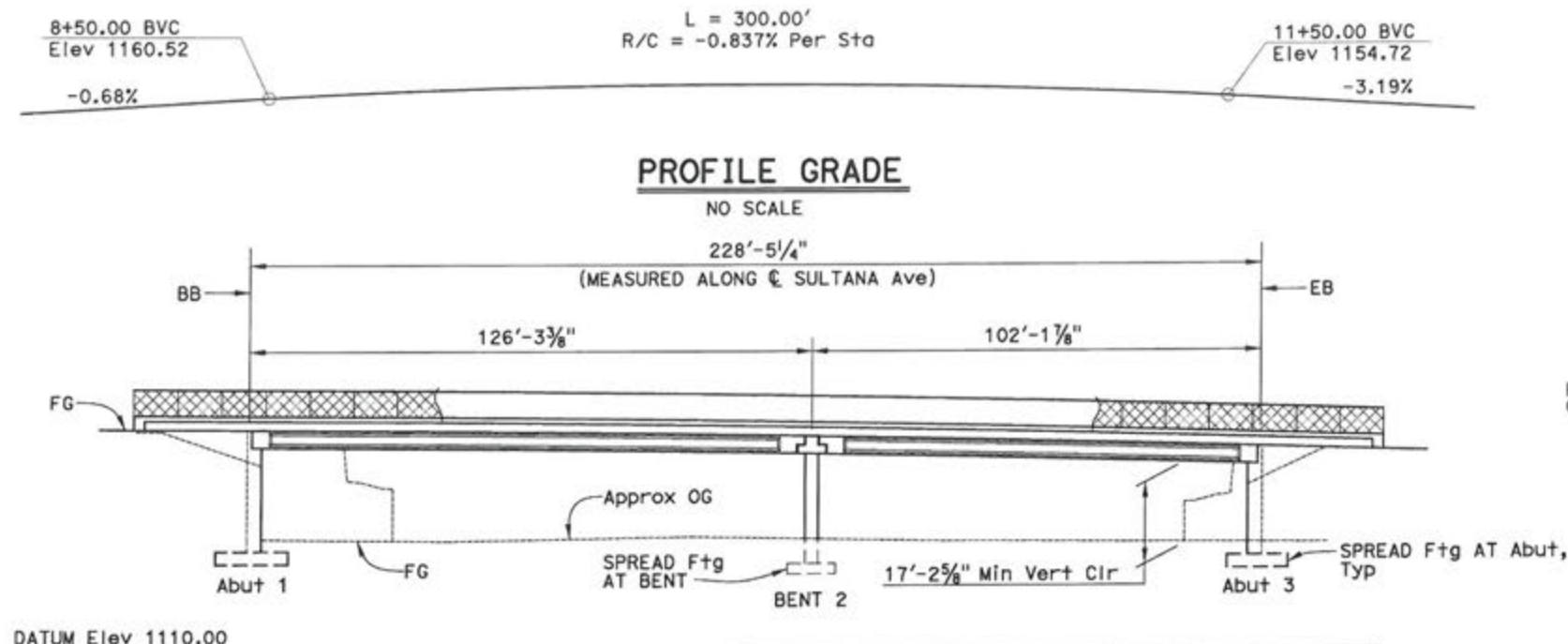
SR83/I-10 SEPARATION (REPLACE)

BRIDGE NO. 54-0445	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

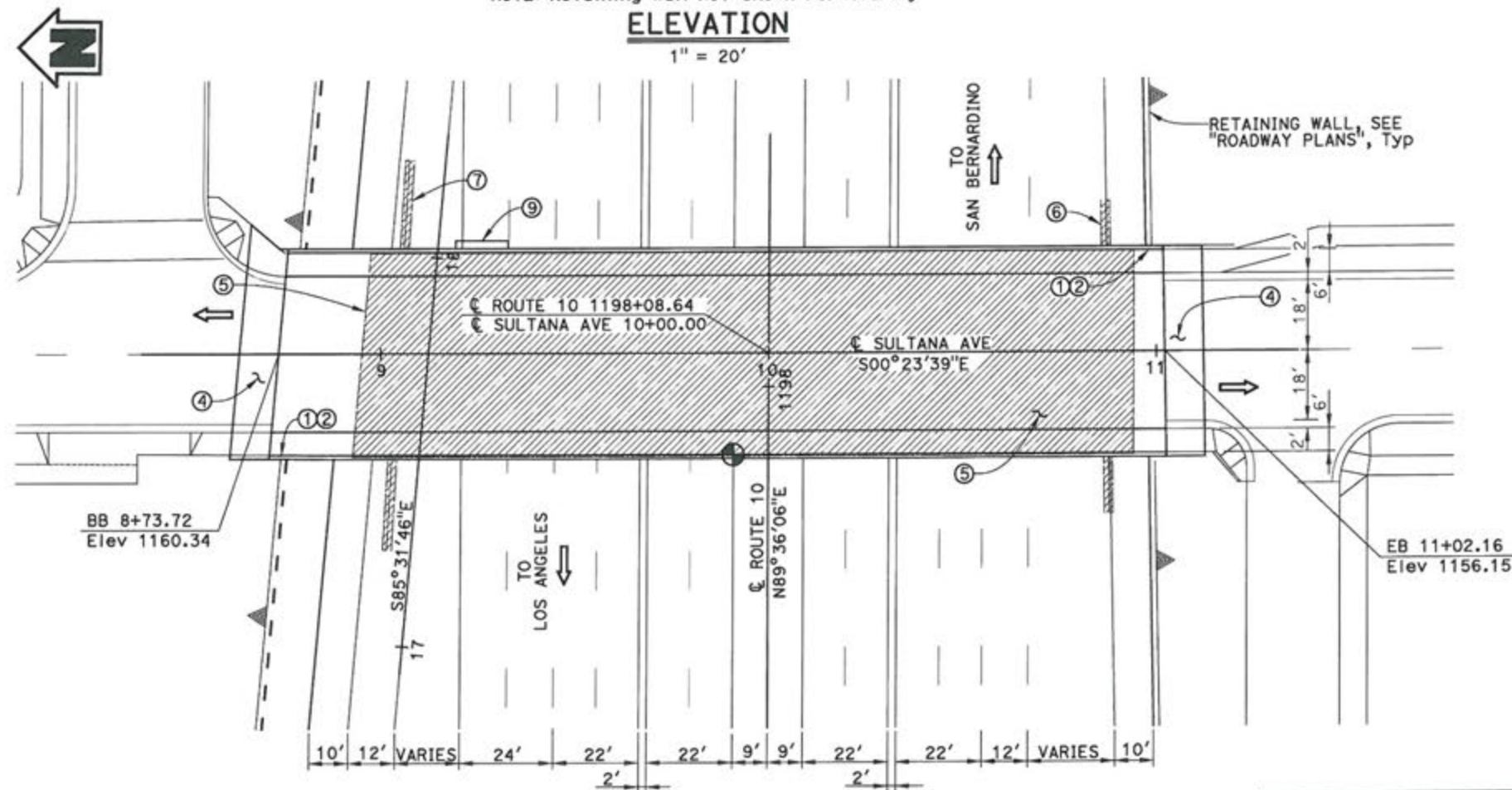
DESIGNED BY	J. Fix	DATE	1/23/15
DRAWN BY	A. Segura	DATE	1/23/15
CHECKED BY	K. Michalski	DATE	3/13/15
APPROVED	K. Michalski	DATE	3/20/15

Kevin Michalski
PROJECT ENGINEER

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, SBd	10	44.9/48.3, 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St San Bernardino CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



NOTE: Retaining Wall Not Shown For Clarity



PLAN
1" = 20'

Robert Zsall
DESIGN OVERSIGHT
12/1/15
SIGN OFF DATE

DESIGNED BY J. Fix	DATE 1/23/15
DRAWN BY P. Johnson	DATE 1/23/15
CHECKED BY K. Michalski	DATE 3/13/15
APPROVED K. Michalski	DATE 3/20/15

Kevin Michalski
PROJECT ENGINEER

EXPRESS ALTERNATIVE PLANNING STUDY	
SULTANA AVE OC (REPLACE)	
BRIDGE NO. 54-0444	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

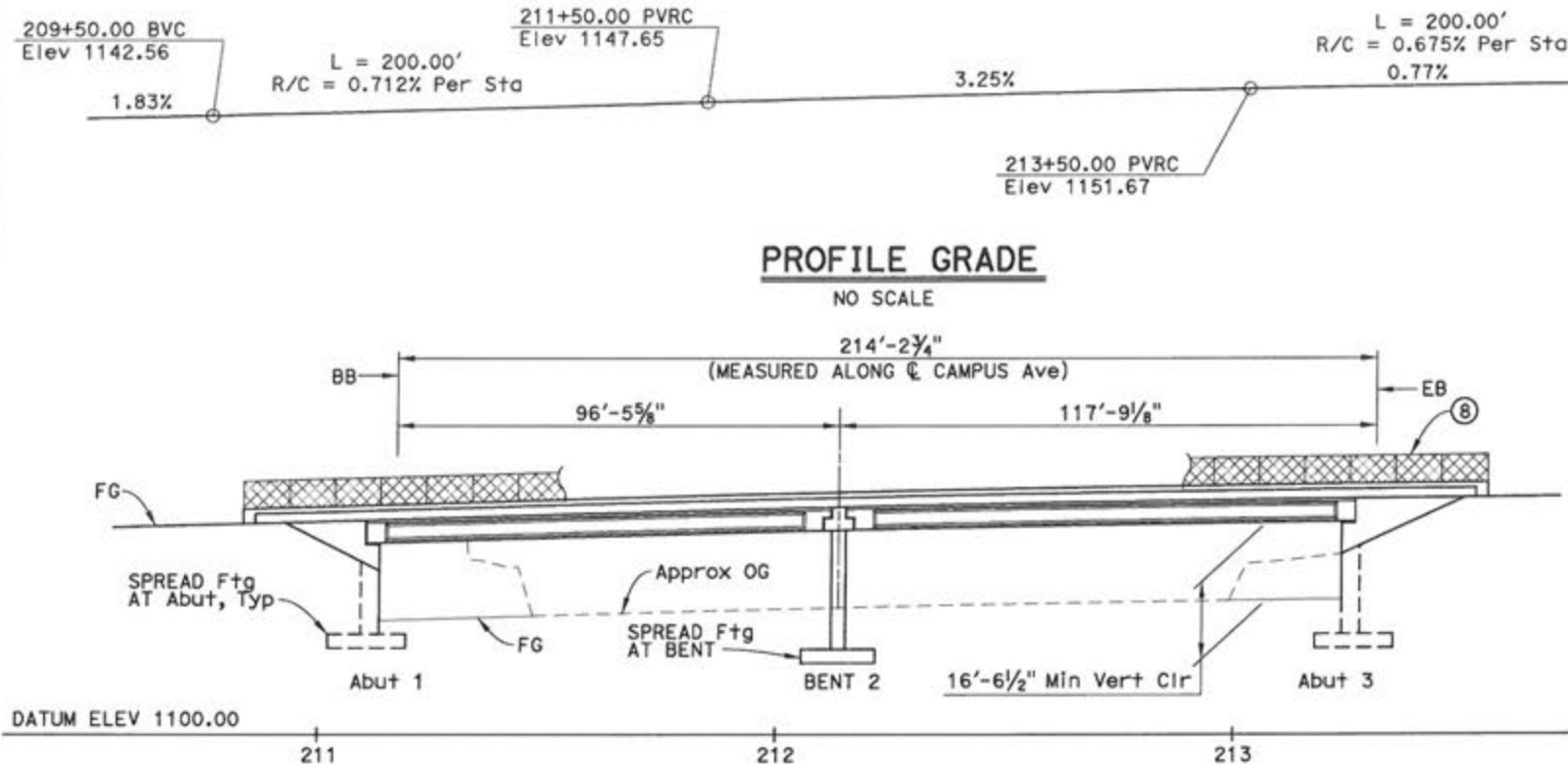
LEGEND:

- Indicates Direction of Travel
- Indicates Point of Minimum Vertical Clearance
- Indicates Existing Structure
- Indicates Bridge Removal

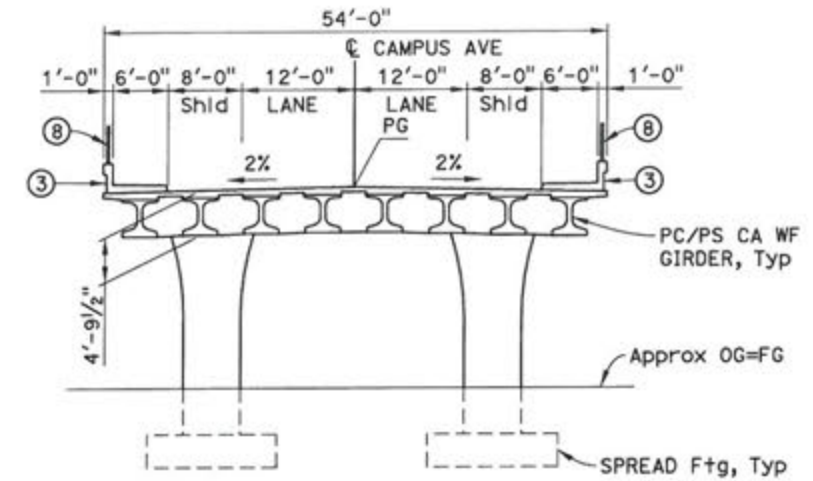
NOTES:

- Paint "Br No. 54-0444"
- Paint "Sultana Ave OC"
- Concrete Barrier (Type 26)
- Structure Approach, Type N(10S)
- Remove Exist Bridge (Br No. 54-0444)
- Remove Exist Tieback Wall No. 198
- Remove Exist Tieback Wall No. 199
- Chain Link Railing (Type 7)
- Structure Mounted Sign, See "Roadway Plans"

DATE OF ESTIMATE	3/20/15
BRIDGE REMOVAL	= 10,425 SF
STRUCTURE DEPTH	= 5'-3 1/2"
LENGTH	= 228'-5 1/4"
WIDTH	= 54'-0"
AREA	= 12,336 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$244
TOTAL COST	= \$3,219,000



Note: Retaining Walls Not Shown For Clarity



TYPICAL SECTION

1" = 10'

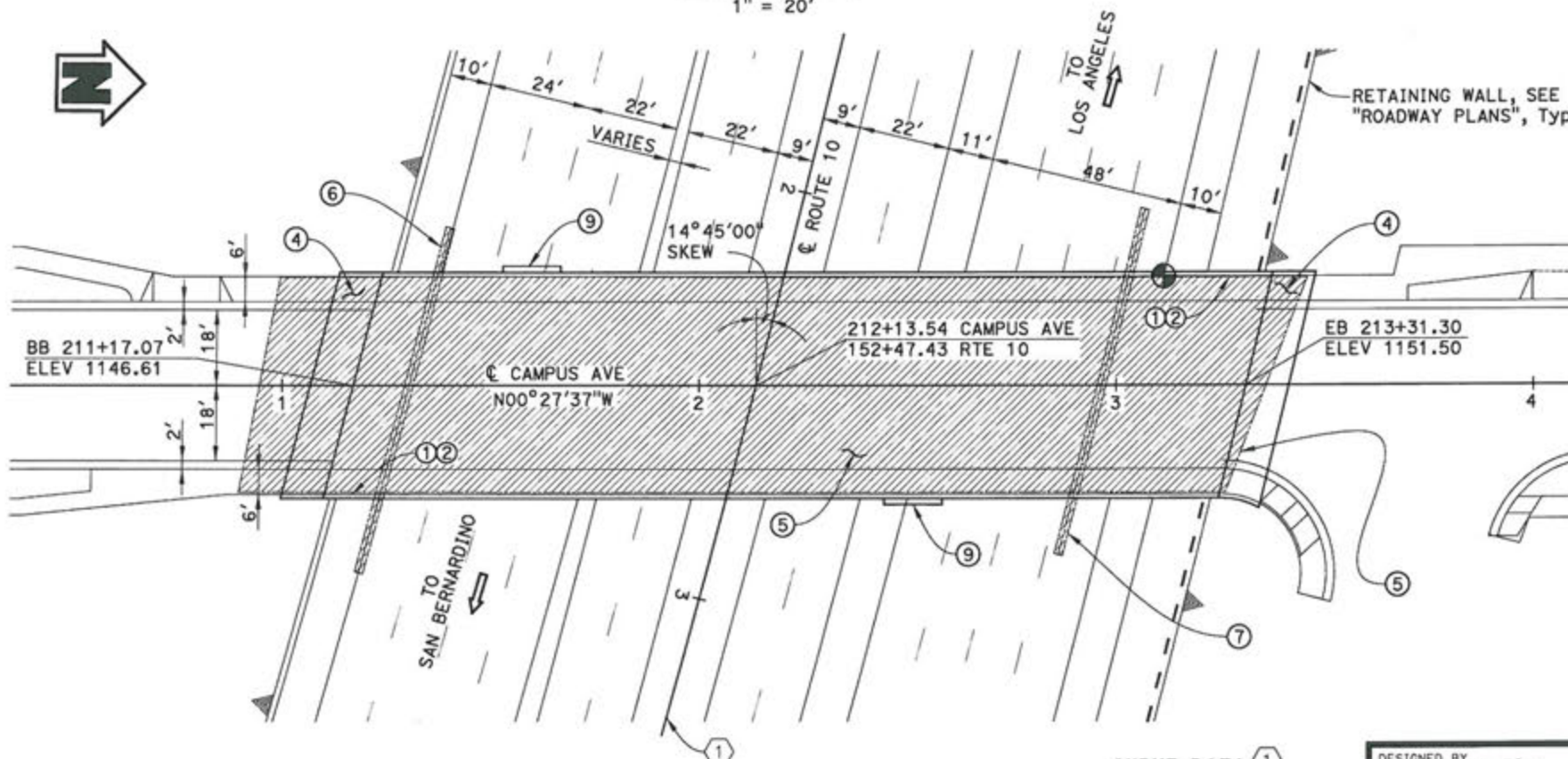
LEGEND:

- ➔ Indicates Direction of Travel
- ⊙ Indicates Point of Minimum Vertical Clearance
- Indicates Existing Structure
- ▨ Indicates Bridge Removal

NOTES:

- ① Point "Br No. 54-0443"
- ② Point "Campus Ave OC"
- ③ Concrete Barrier (Type 26)
- ④ Structure Approach Type N(10S)
- ⑤ Remove Exist Bridge (Br No. 54-0443)
- ⑥ Remove Exist Tie back Wall No. 210
- ⑦ Remove Exist Tie back Wall No. 211
- ⑧ Chain Link Railing (Type 7)
- ⑨ Structure Mounted Sign, See "Roadway Plans"

DATE OF ESTIMATE	3/20/15
BRIDGE REMOVAL	= 12,376 SF
STRUCTURE DEPTH	= 4'-9 1/2"
LENGTH	= 214'-2 3/4"
WIDTH	= 54'-0"
AREA	= 11,568 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$286
TOTAL COST	= \$3,560,000



PLAN
1" = 20'

CURVE DATA ①	
R = 4999.74'	Δ = 24°19'47"
T = 2123.07'	L = 1077.78'

DESIGNED BY J. Fix	DATE 1/23/15	Kevin Michalski PROJECT ENGINEER
DRAWN BY P. Johnson	DATE 1/23/15	
CHECKED BY K. Michalski	DATE 3/13/15	
APPROVED K. Michalski	DATE 3/20/15	

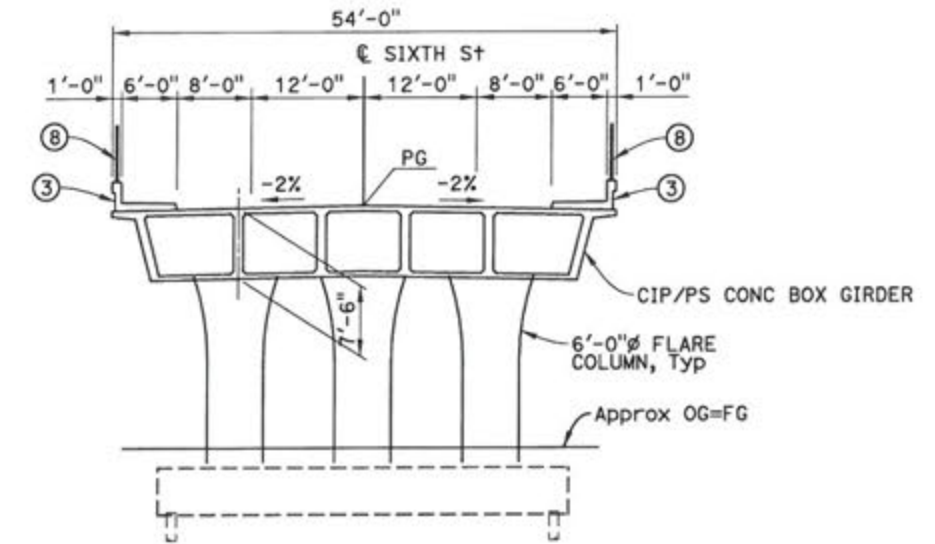
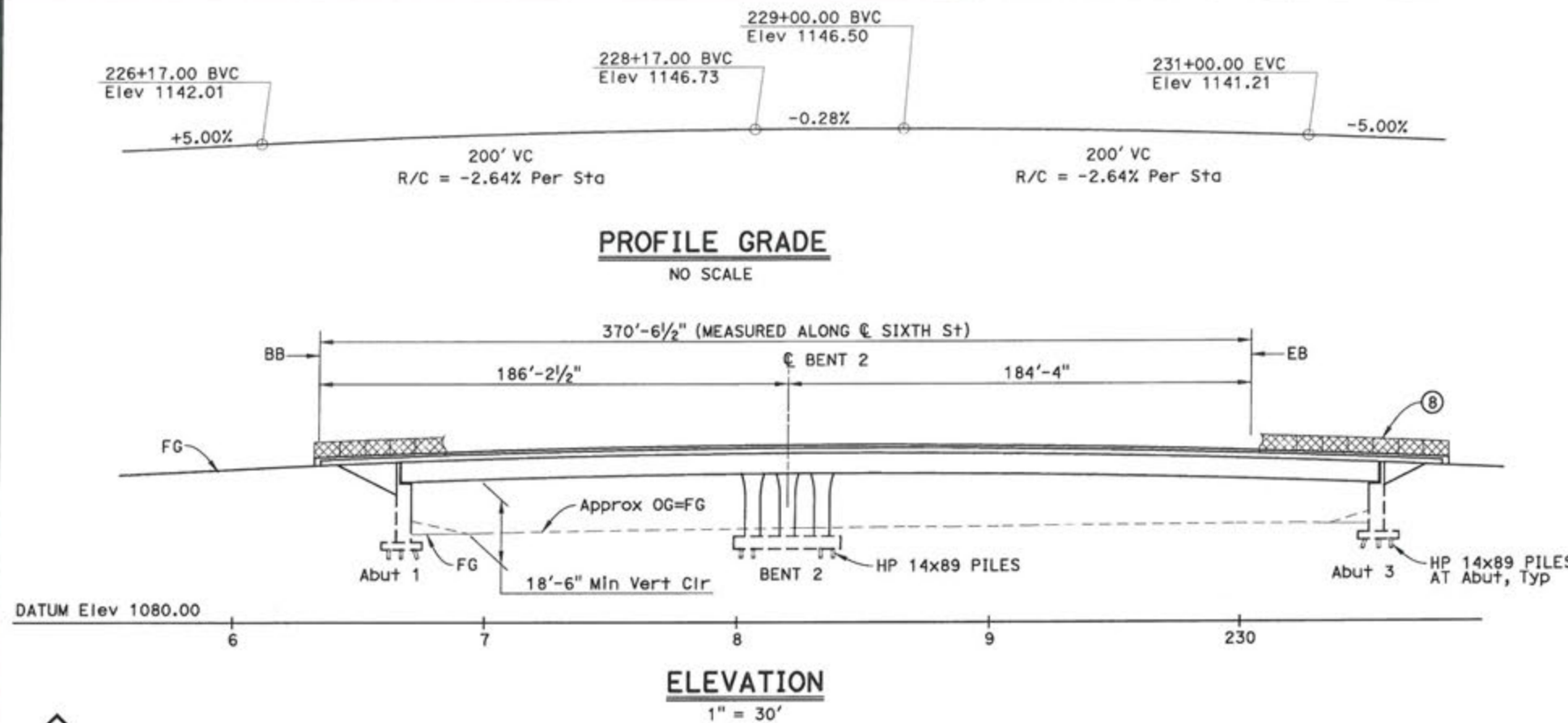
EXPRESS ALTERNATIVE PLANNING STUDY	
CAMPUS AVENUE OC (REPLACE)	
BRIDGE NO. 54-0443	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 080000040

DESIGN OVERSIGHT
12/1/15
SIGN OFF DATE

DIST	COUNTY	ROUTE	POST MILES
07	LA, SBD	10	TOTAL PROJECT
08			44.9/48.3
			0.0/R37.0

SAN BERNARDINO ASSOCIATED GOVERNMENTS 1170 W Third St
San Bernardino CA 92410

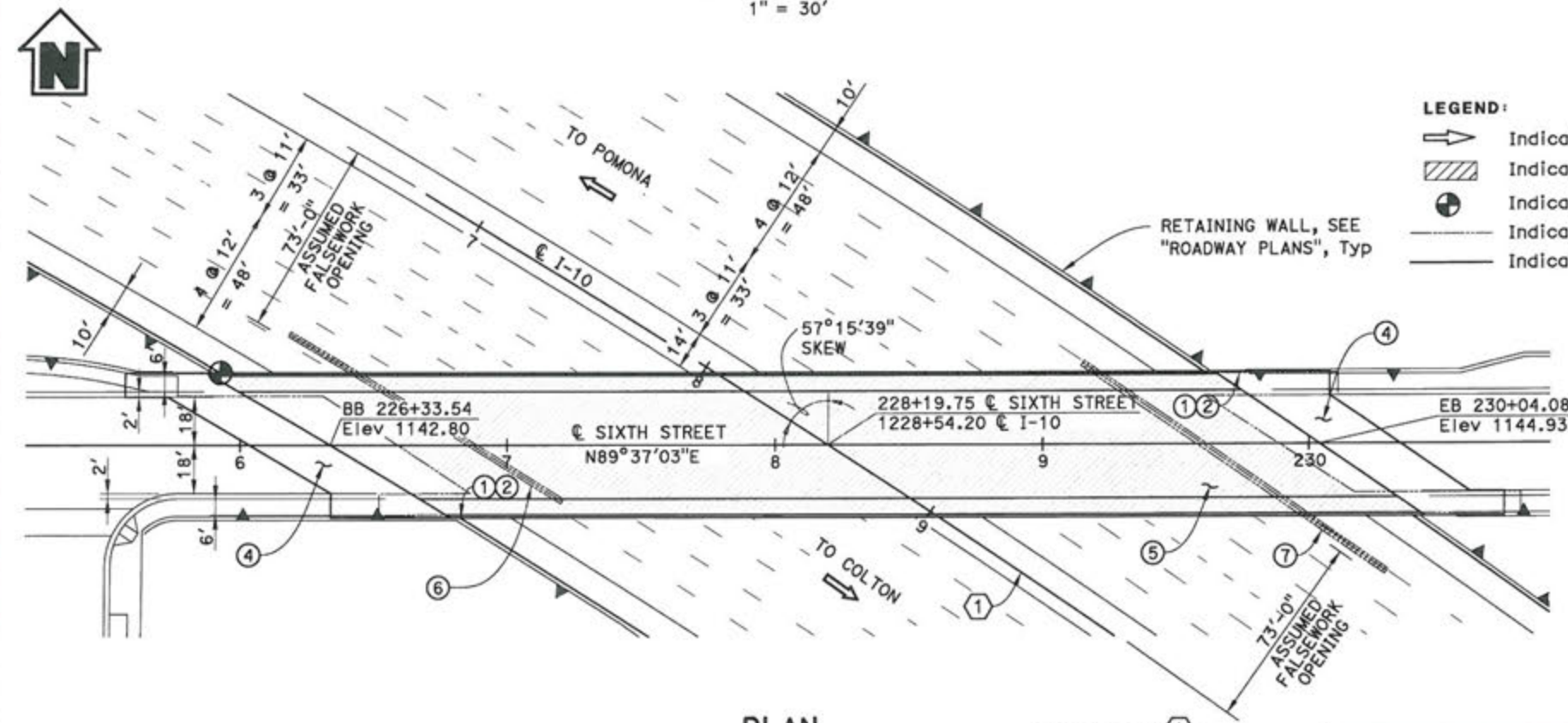
PARSONS 2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612



NOTE: ALL PILES NOT SHOWN

TYPICAL SECTION

1" = 10'



LEGEND:

- Indicates Direction of Travel
- Indicates Bridge Removal
- Indicates Point of Min Vertical Clearance
- Indicates Exist Structure
- Indicates New Structure

NOTES:

- Paint "Bridge No. 54-0442"
- Paint "Sixth Street OC"
- Concrete Barrier (Type 26)
- Structure Approach, Type N(30S)
- Remove Exist Bridge (Br No. 54-0442)
- Remove Exist Tieback Wall No. 226
- Remove Exist Tieback Wall No. 227
- Chain Link Railing (Type 7)

DATE OF ESTIMATE	3/20/15
BRIDGE REMOVAL	= 17,160 SF
STRUCTURE DEPTH	= 7'-6"
LENGTH	= 370'-6 1/2"
WIDTH	= 54'-0"
AREA	= 20,009 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$345
TOTAL COST	= \$7,241,000

EXPRESS ALTERNATIVE

PLANNING STUDY

SIXTH STREET OC (REPLACE)

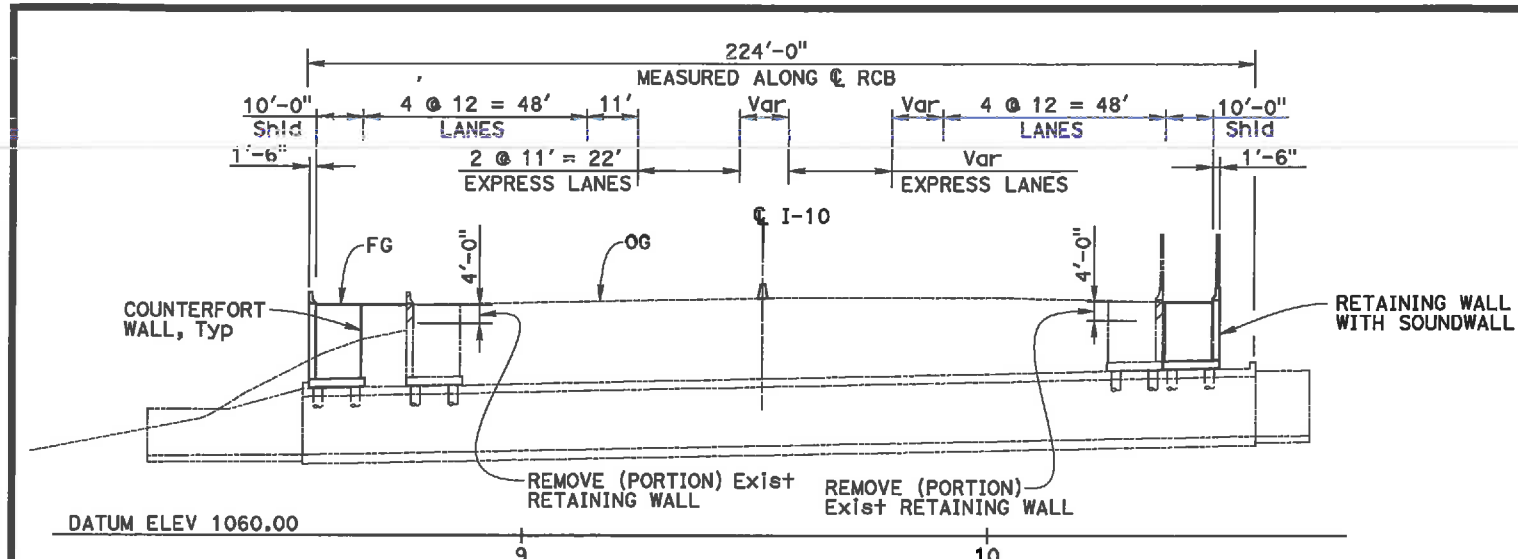
BRIDGE NO. 54-0442	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 080000040

CURVE DATA
R = 4800.00'
Δ = 10°42'14"
T = 449.67'
L = 896.73'

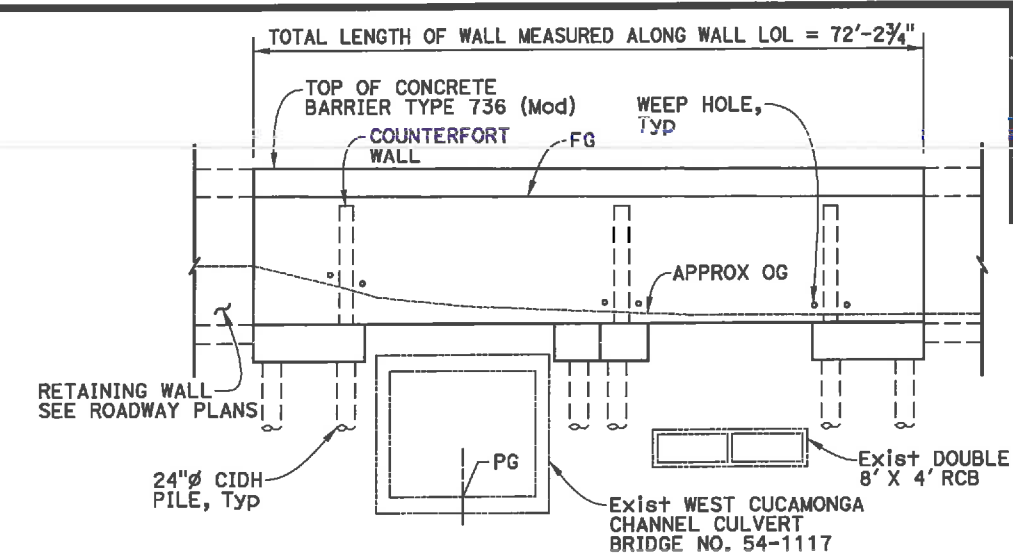
DESIGNED BY J. Fix	DATE 2/9/15
DRAWN BY A. Segura	DATE 2/10/15
CHECKED BY K. Michalski	DATE 3/13/15
APPROVED K. Michalski	DATE 3/20/15

Kevin Michalski
PROJECT ENGINEER

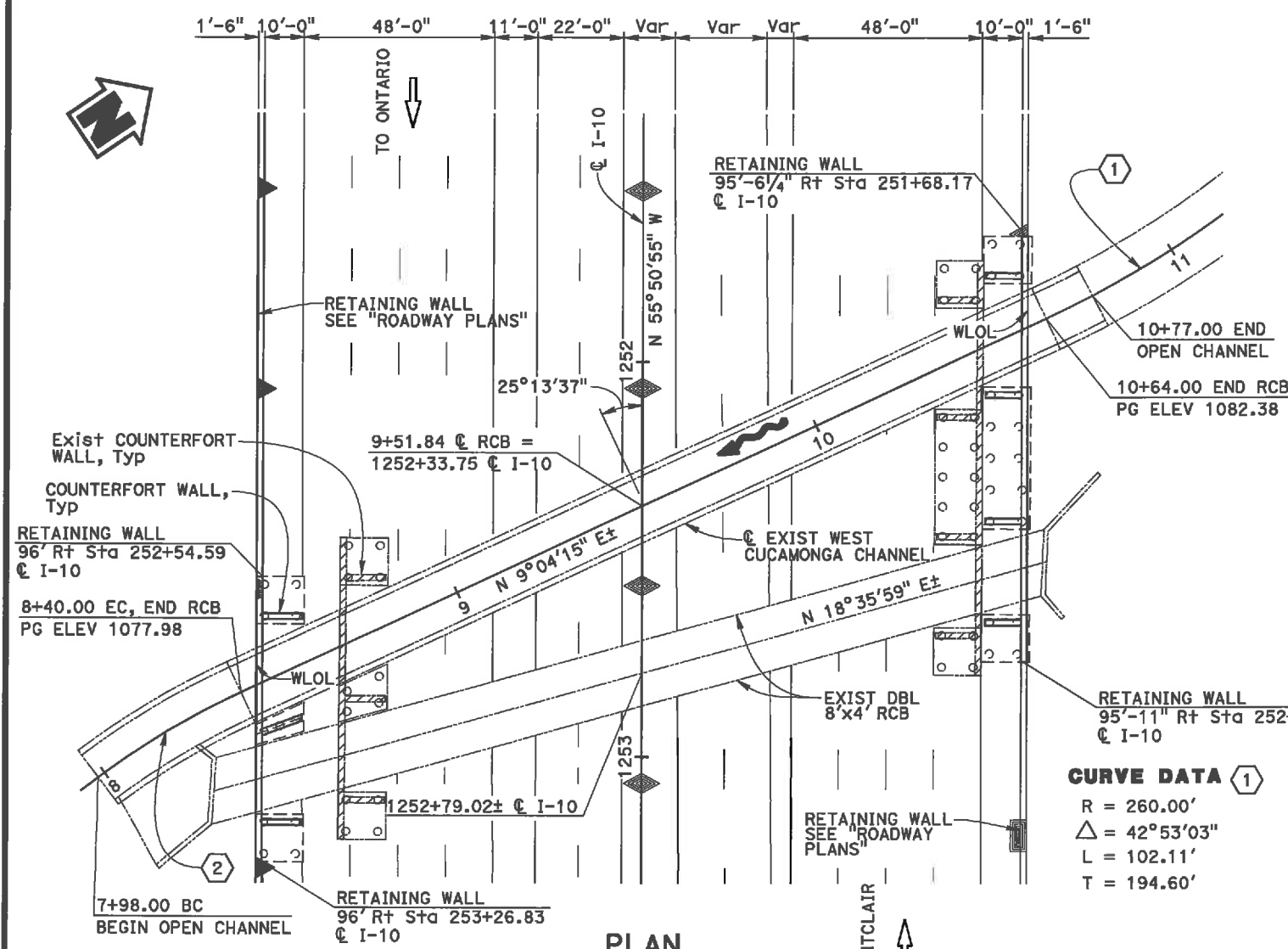
DESIGN OVERSIGHT
12/1/15



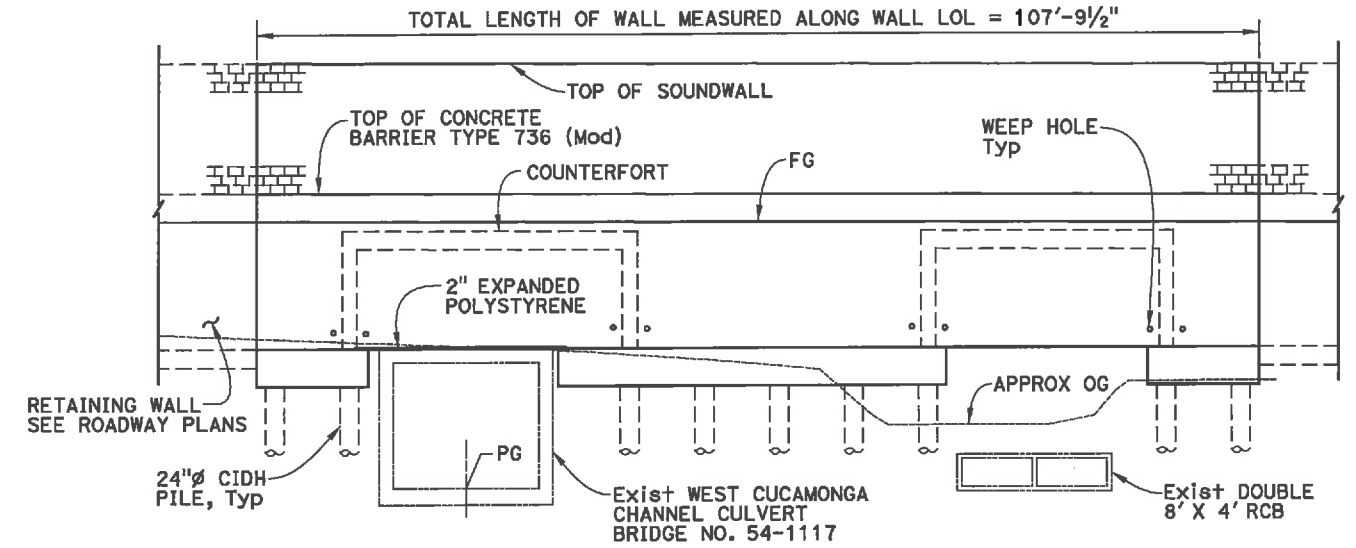
ELEVATION
1" = 20'



ELEVATION - WEST WALL
1" = 10'



PLAN
1" = 20'



MIRROR ELEVATION - EAST WALL
1" = 10'

- LEGEND:
- Indicates Direction of Travel
 - ▨ Indicates Wall Removal
 - ~ Indicates Direction of Flow
 - Indicates Exist Structure

CURVE DATA ①	CURVE DATA ②
R = 260.00'	R = 200.00'
Δ = 42°53'03"	Δ = 12°01'56"
L = 102.11'	L = 21.08'
T = 194.60'	T = 42.00'

DATE OF ESTIMATE	=	05/06/15
RW AREA	=	2340 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$321
TOTAL COST	=	\$752,000

DESIGN OVERSIGHT
6/29/15

DESIGNED BY	S. Mullangi	DATE	6/5/14
DRAWN BY	P. Johnson	DATE	6/5/14
CHECKED BY	J. Fix	DATE	6/5/14
APPROVED	K. Michalski	DATE	6/26/15

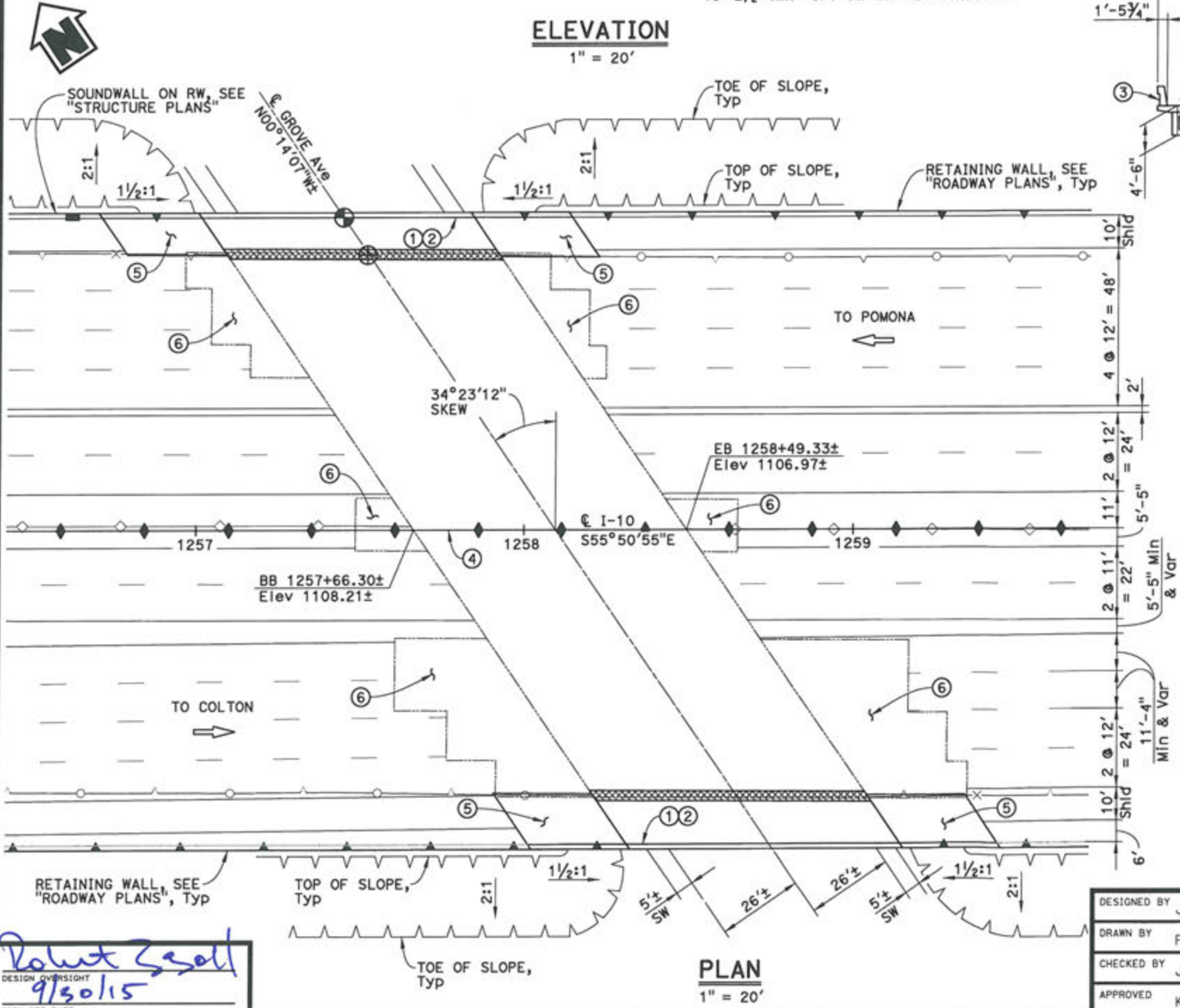
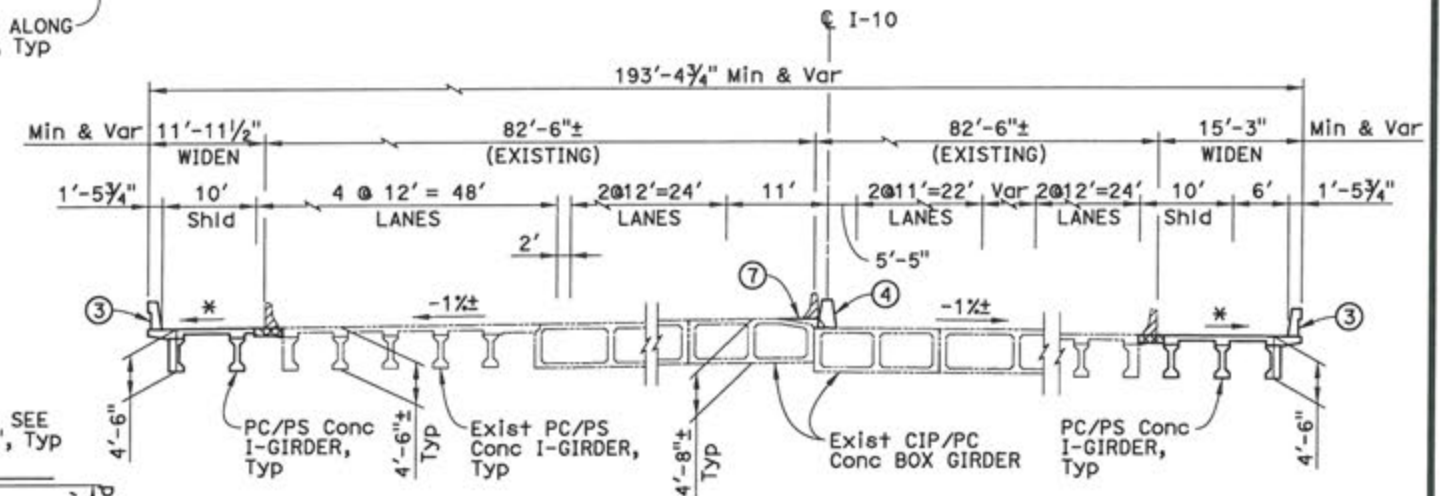
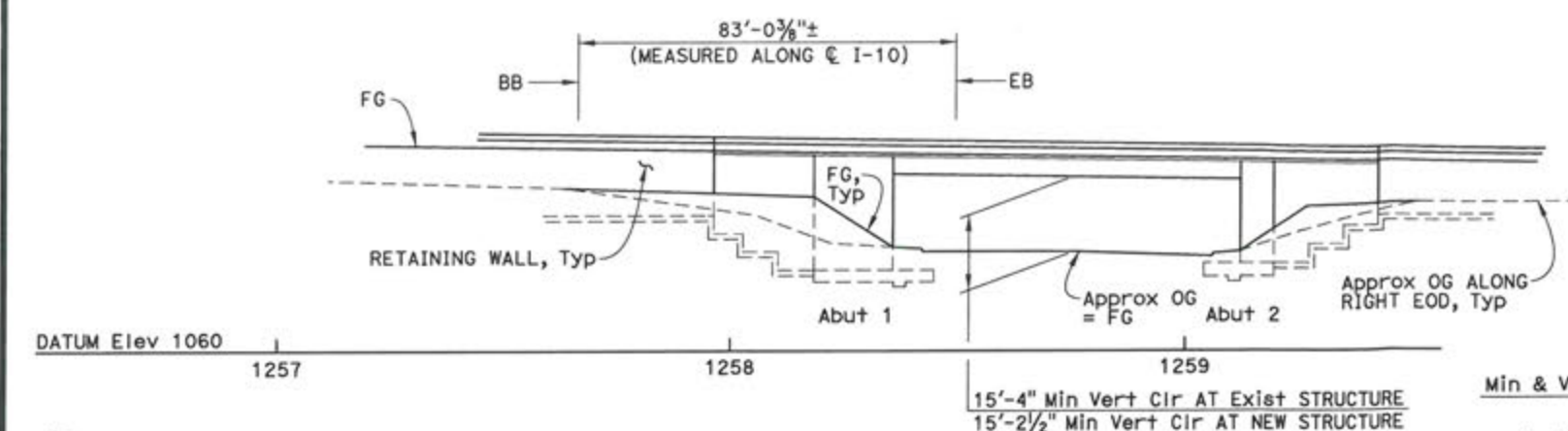
Kevin Michalski
PROJECT ENGINEER

EXPRESS ALTERNATIVE PLANNING STUDY	
WEST CUCAMONGA CHANNEL CULVERT	
BRIDGE NO. 54-1117	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DIST	COUNTY	ROUTE	POST MILES
07	LA, Sbd	10	44.9/48.3
08			0.0/R37.0

SAN BERNARDINO ASSOCIATED GOVERNMENTS 1170 W Third St
San Bernardino CA 92410

PARSONS 2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612



- NOTES:**
- ① Paint "Br No. 54-0441"
 - ② Paint "Grove Ave UC"
 - ③ Concrete Barrier (Type 736 Mod)
 - ④ Concrete Barrier (Type 60)
 - ⑤ Structure Approach Type N(300)
 - ⑥ Exist Approach Slab
 - ⑦ Place Concrete Overlay

- LEGEND:**
- ➔ Indicates Direction of Travel
 - ▨ Indicates Bridge Removal
 - ▨ Indicates Closure Pour
 - ⊕ Indicates Exist Point of Min Vertical Clearance
 - ⊗ Indicates Point of Min Vertical Clearance (Widening)
 - Indicates Exist Structure
 - Indicates New Structure
 - * Match Exist Profile Grade and Cross Slope

DATE OF ESTIMATE	=	9/14/15
BRIDGE REMOVAL	=	387 SF
STRUCTURE DEPTH	=	4'-6"
LENGTH	=	83'-0 3/8"
WIDTH	=	27'-8 3/8" Avg
AREA	=	2,300 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$364/SF
TOTAL COST	=	\$838,000

EXPRESS ALTERNATIVE	
PLANNING STUDY	
GROVE AVE UC (WIDEN)	
BRIDGE NO. 54-0441	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY	J. Fix	DATE	9/14/15
DRAWN BY	F. Hakemi	DATE	9/14/15
CHECKED BY	J. Fix	DATE	9/14/15
APPROVED	K. Michalski	DATE	9/14/15

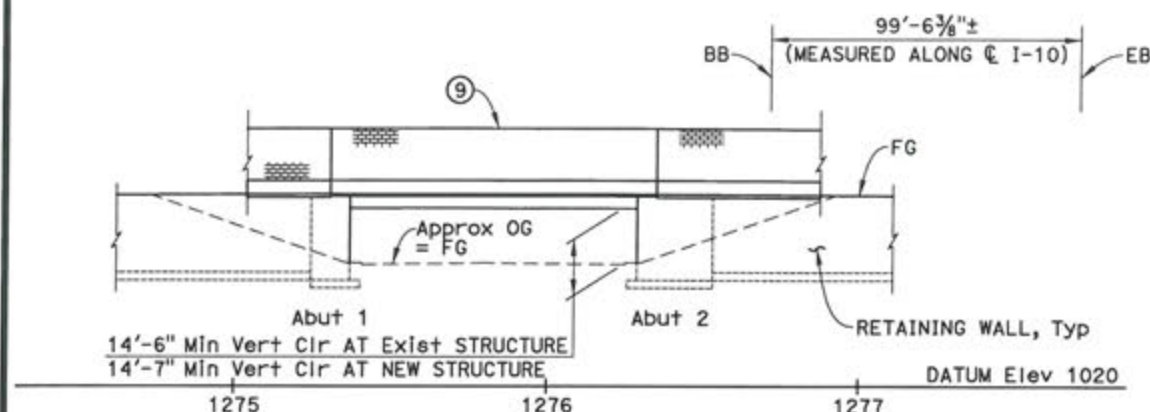
Kevin Michalski
PROJECT ENGINEER

DESIGN OVERSIGHT
9/30/15
SIGN OFF DATE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07	LA, SBD	10	44.9/48.3
08			0.0/R37.0

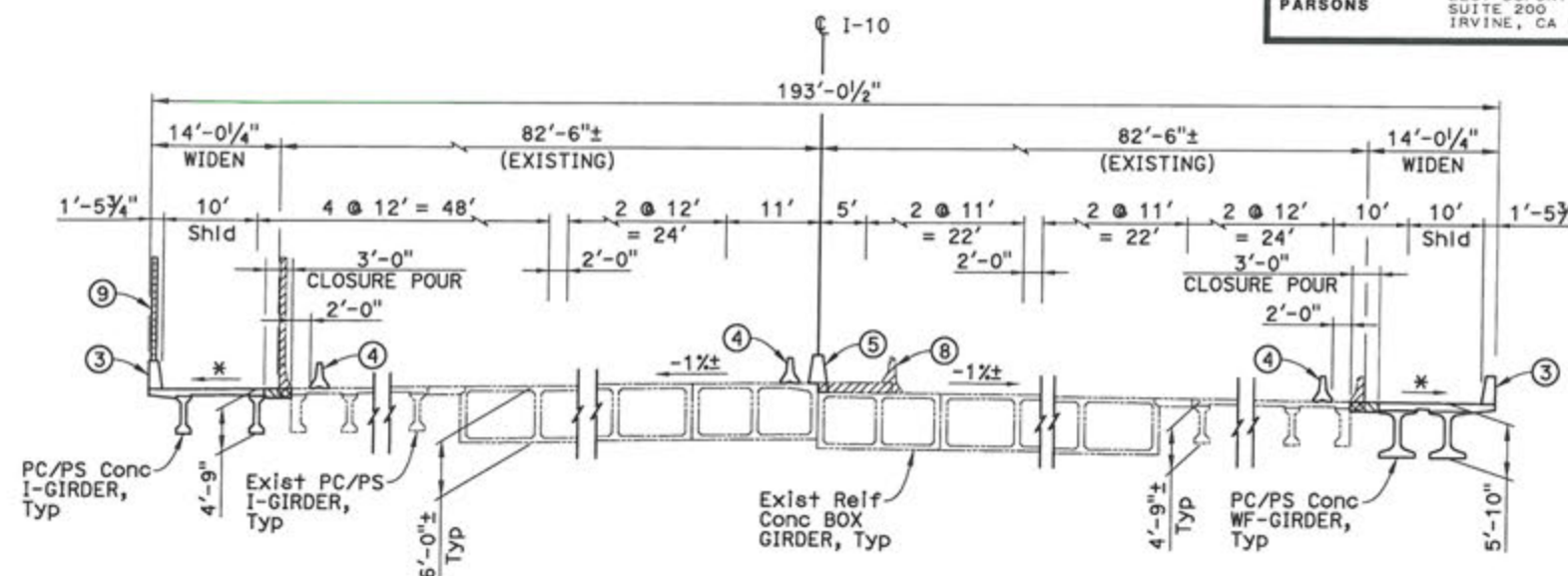
SAN BERNARDINO ASSOCIATED GOVERNMENTS 1170 W Third St
San Bernardino CA 92410

PARSONS 2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612



ELEVATION

1" = 30'



TYPICAL SECTION

1" = 10'

NOTES:

- 1 Paint "Br No. 54-0440"
- 2 Paint "Fourth St UC"
- 3 Concrete Barrier (Type 736 Mod)
- 4 Temporary Railing (Type K)
- 5 Concrete Barrier (Type 60D)
- 6 Structure Approach Type N(30S)
- 7 Existing Structure Approach
- 8 Remove Existing Concrete Barrier (Type 50C) Mod and Concrete Overlay
- 9 Soundwall Masonry Block

LEGEND:

- ➔ Indicates Direction of Travel
- ▨ Indicates Bridge Removal
- ▩ Indicates Closure Pour
- ⊕ Indicates Exist Point of Min Vertical Clearance
- ⊙ Indicates Point of Min Vertical Clearance (Widening)
- Indicates New Structure
- - - Indicates Exist Structure
- * Match Exist Profile Grade and Cross Slope

DATE OF ESTIMATE	=	7/2/15
BRIDGE REMOVAL	=	1,740 SF
STRUCTURE DEPTH	=	5'-10"
LENGTH	=	99'-6 3/8"
WIDTH	=	28'-0 1/2"
AREA	=	2,791 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$521/SF
TOTAL COST	=	\$1,453,000

EXPRESS ALTERNATIVE

PLANNING STUDY

FOURTH STREET UC (WIDEN)

BRIDGE NO. 54-0440	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 080000040

DESIGNED BY J. Fix	DATE 6/9/15
DRAWN BY J. Gilmore	DATE 6/9/15
CHECKED BY K. Michalski	DATE 6/23/15
APPROVED K. Michalski	DATE 7/2/15

Kevin Michalski
PROJECT ENGINEER

J. Gilmore

K. Michalski

K. Michalski

J. Fix

J. Gilmore

K. Michalski

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J. Fix

J. Gilmore

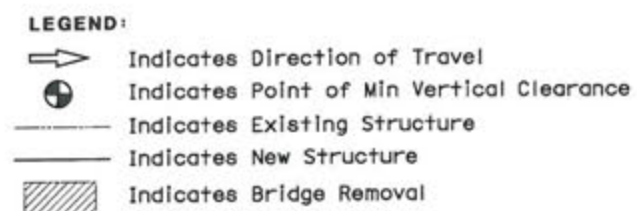
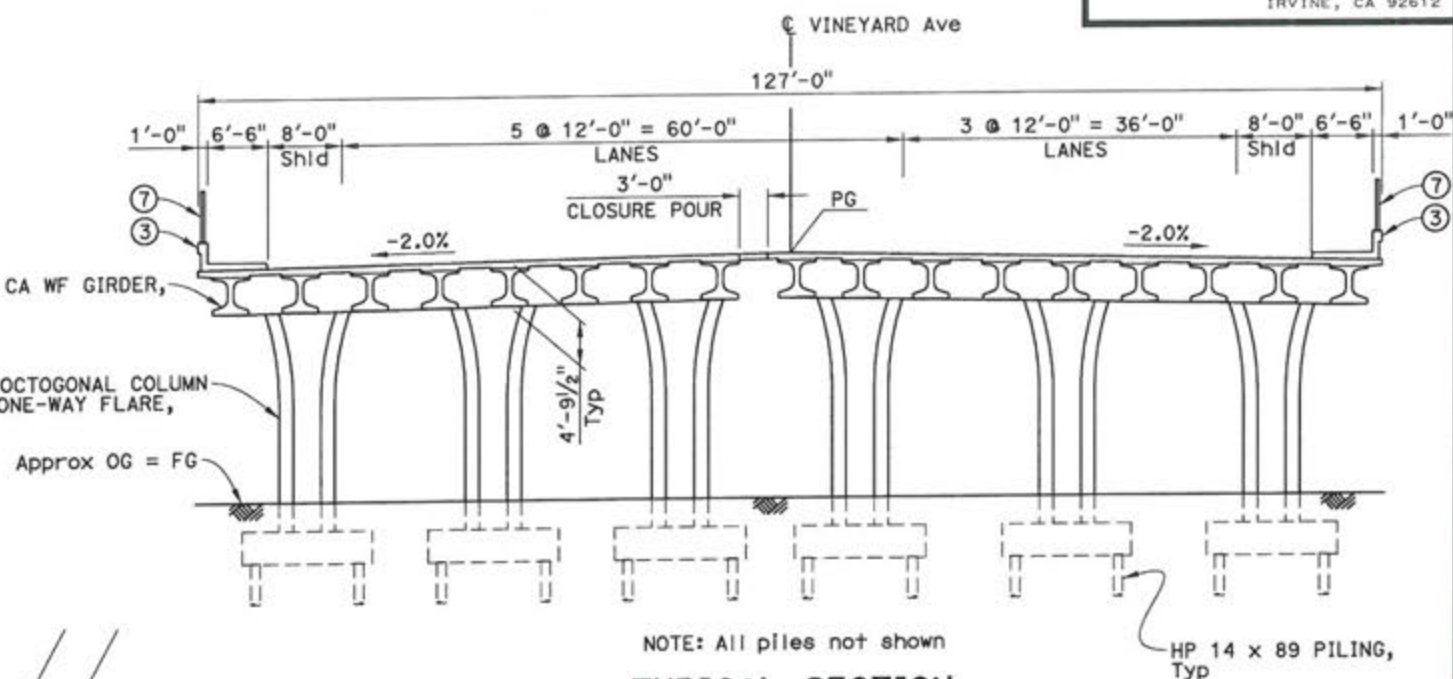
K. Michalski

K. Michalski

J. Fix

J. Gilmore

K. Michalski



- NOTES:**
- ① Paint "Bridge No. 54-0439"
 - ② Paint "Vineyard Ave OC"
 - ③ Concrete Barrier (Type 26)
 - ④ Structure Approach, Type N(30S)
 - ⑤ Remove Exist Bridge (Br No. 54-0439)
 - ⑥ Remove Exist retaining Wall No. 320
 - ⑦ Chain Link Railing (Type 7)
 - ⑧ Structure Mounted Sign, See "ROADWAY PLANS"

DATE OF ESTIMATE	=	8/12/15
BRIDGE REMOVAL	=	22,845 SF
STRUCTURE DEPTH	=	4'-9 $\frac{1}{2}$ "
LENGTH	=	215'-9 $\frac{3}{4}$ "
WIDTH	=	127'-0"
AREA	=	27,408 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$305/SF
TOTAL COST	=	\$8,819,000

EXPRESS ALTERNATIVE PLANNING STUDY VINEYARD AVE OC (REPLACE)
--

BRIDGE NO. 54-0439	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

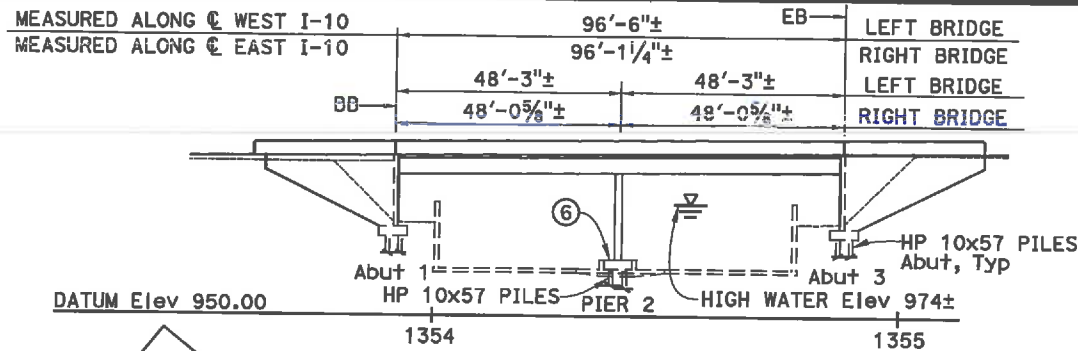
DESIGNED BY	J. Fix	DATE	04/02/15
DRAWN BY	P. Johnson	DATE	04/02/15
CHECKED BY	J. Fix	DATE	04/17/15
APPROVED	K. Michalski	DATE	08/12/15

Kevin Michalski
PROJECT ENGINEER

CURVE DATA 1
 $R = 20,000.00'$
 $\Delta = 0^\circ 51' 36''$
 $T = 150.11'$
 $L = 300.22'$

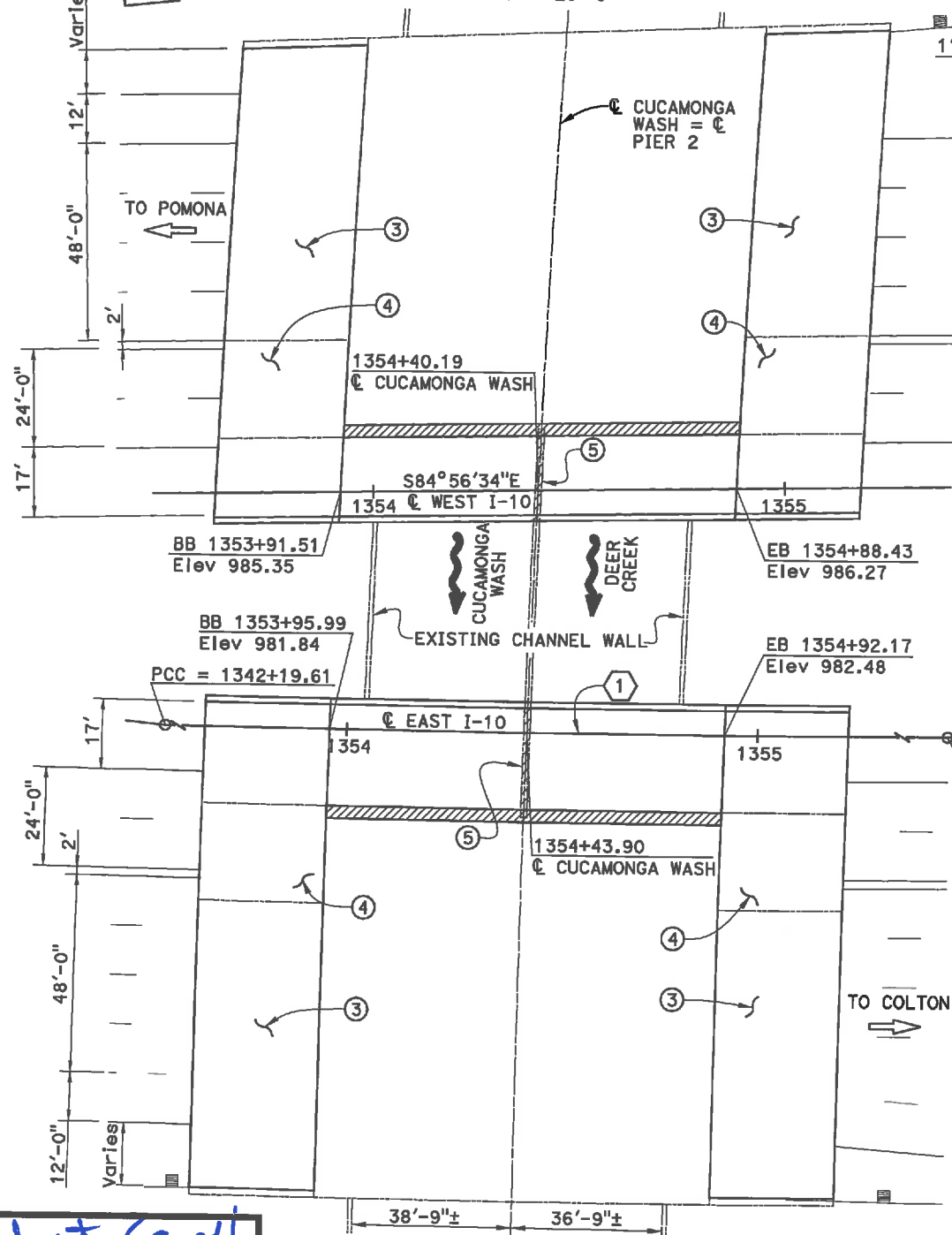
PLAN
1" = 20'

Robert Zsolt
DESIGN OVERSIGHT
12/1/15
SIGN OFF DATE



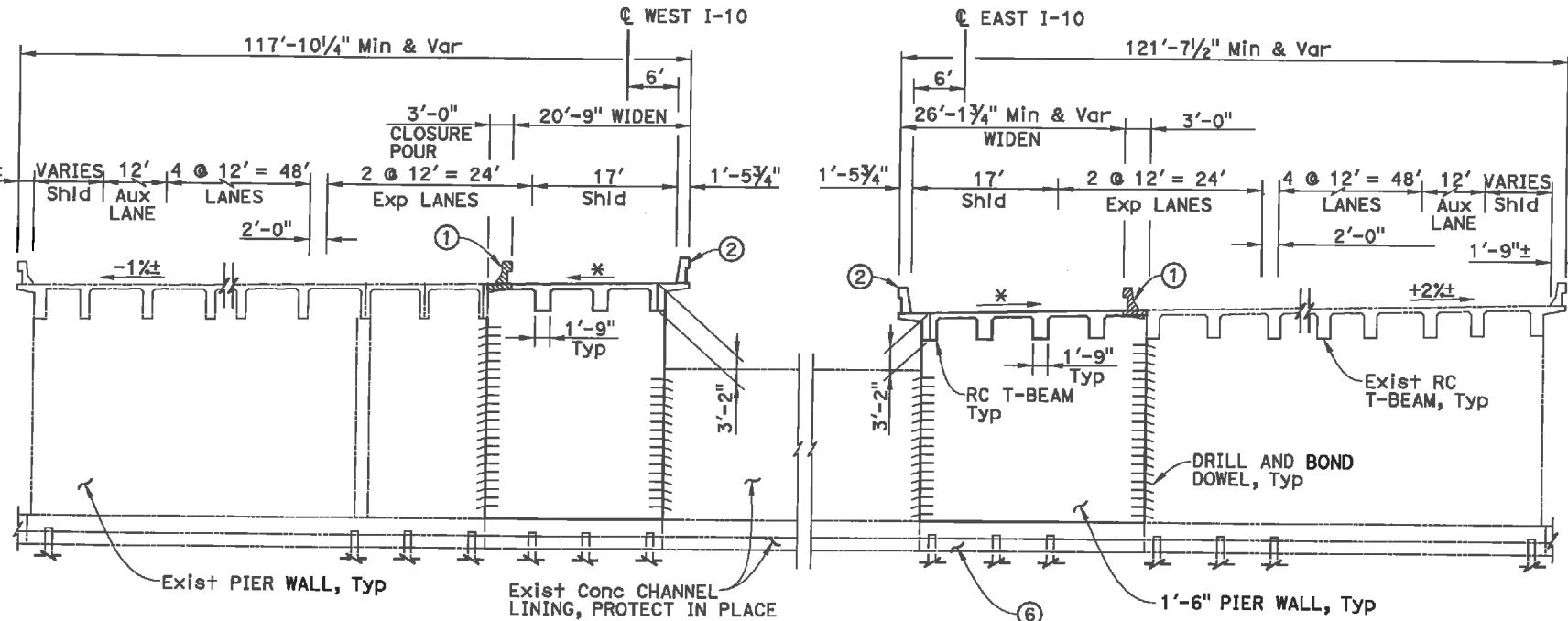
LEFT BRIDGE ELEVATION

1" = 20'-0"



PLAN

1" = 20'-0"



NOTE: ALL PILES NOT SHOWN.

TYPICAL SECTION

1" = 10'-0"

LEGEND:

- Indicates Direction of Travel
- ▨ Indicates Bridge Removal (Portion)
- ~ Indicates Direction of Flow
- Indicates Exist Structure
- * Match Exist Profile Grade and Cross Slope

NOTES:

- Remove existing concrete barrier and overhang
- Concrete Barrier Type 736
- Structure Approach Type N(300)
- Structure Approach Type R(300)
- Remove Concrete portion of existing Channel Wall
- Concrete (Channel Lining)

DATE OF ESTIMATE	=	1/22/15
BRIDGE REMOVAL	=	578 SF
STRUCTURE DEPTH	=	3'-2"
LENGTH	=	96'-4" Avg
WIDTH	=	46'-11 3/4" Avg
AREA	=	4523 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$434
TOTAL COST	=	\$1,965,000

CURVE DATA ①

R = 3280.83'
Δ = 9°42'47"
L = 556.18'
T = 278.76'

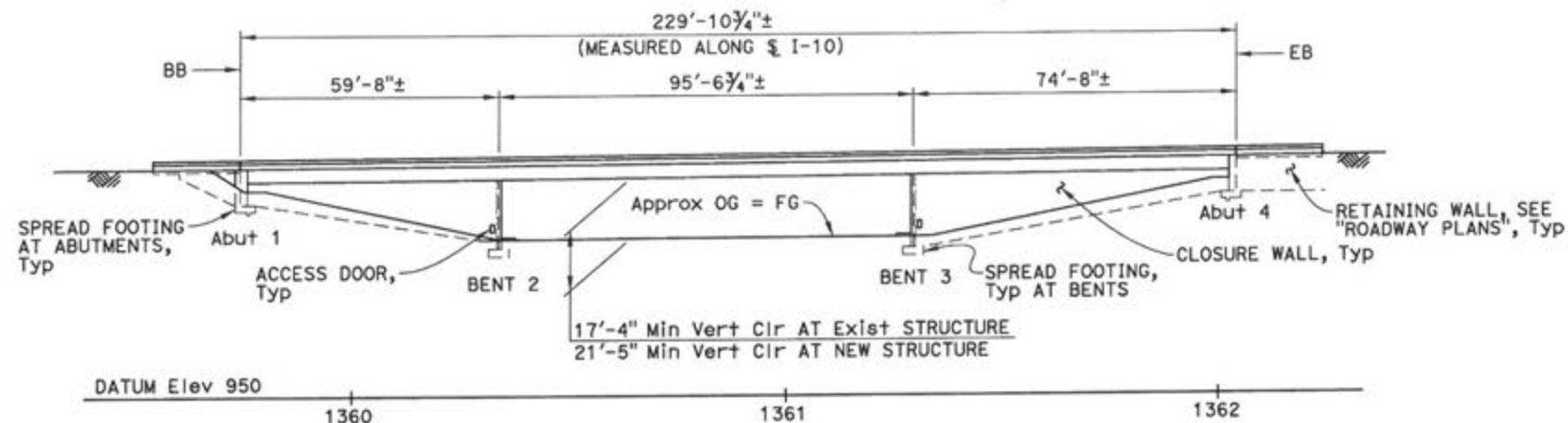
DESIGNED BY S. Mullangi	DATE 5/31/14	Kevin Michalski PROJECT ENGINEER
DRAWN BY P. Johnson	DATE 5/31/14	
CHECKED BY J. Fix	DATE 5/31/14	
APPROVED K. Michalski	DATE 6/26/15	

EXPRESS ALTERNATIVE
PLANNING STUDY

CUCAMONGA WASH BRIDGE (WIDEN)

BRIDGE NO. 54-438R/L	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07 08	LA, Sbd	10	44.9/48.3, 0.0/37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS		1170 W Third St San Bernardino CA 92410	
PARSONS		2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612	

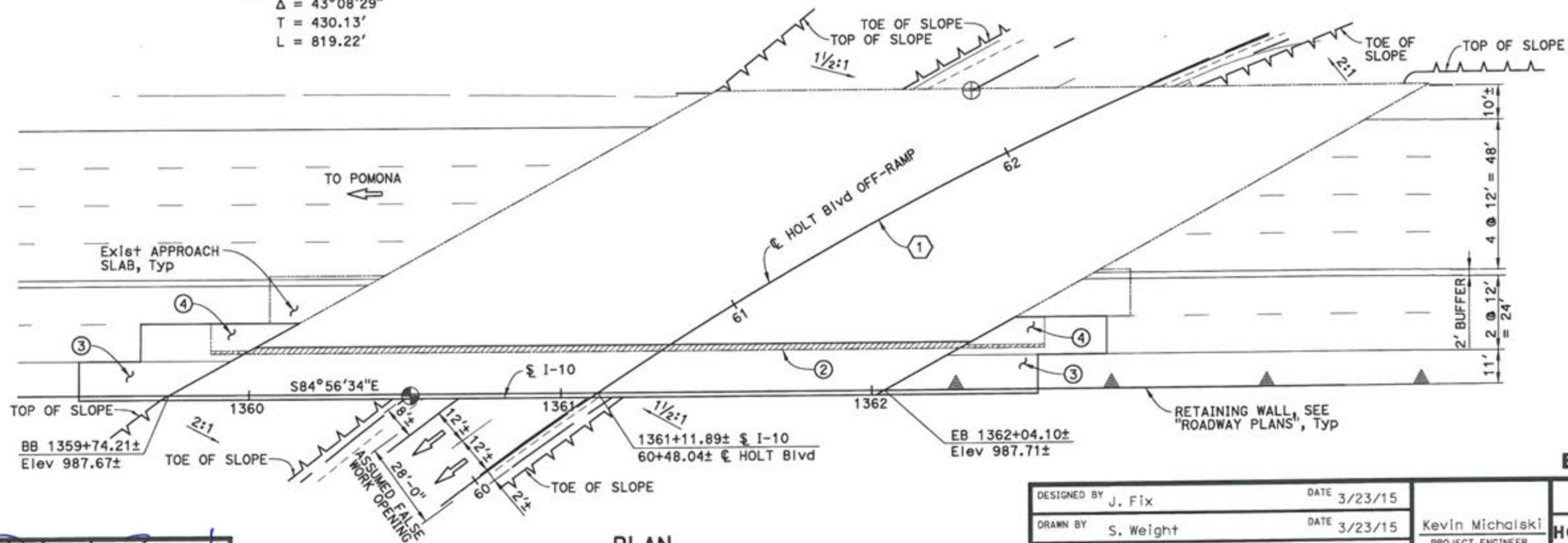


ELEVATION
1" = 20'



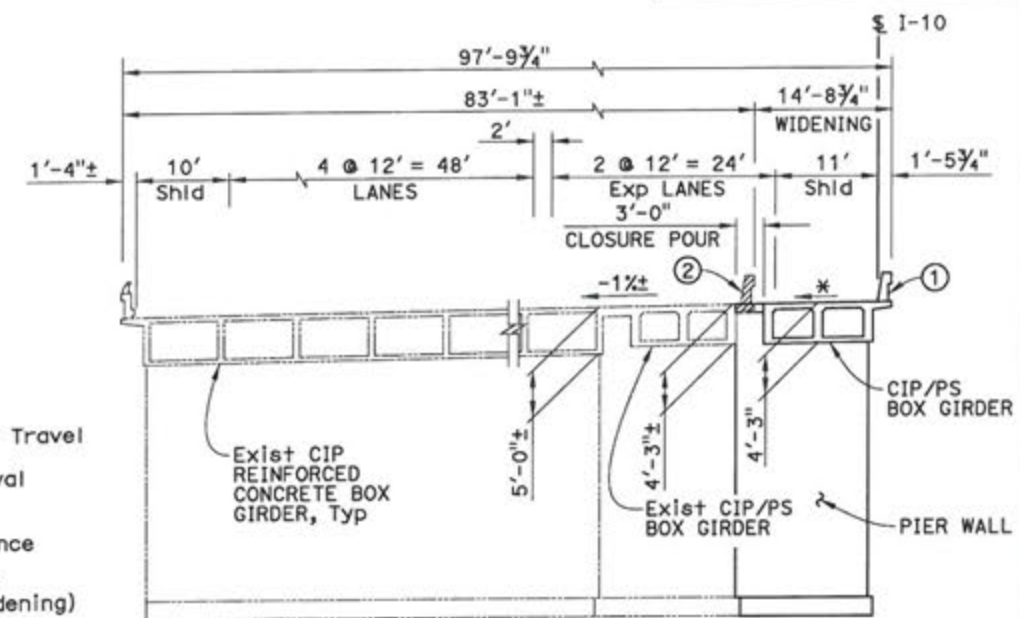
CURVE DATA

- ① $R = 1088.00'$
 $\Delta = 43^\circ 08' 29''$
 $T = 430.13'$
 $L = 819.22'$



PLAN
1" = 20'

TYPICAL SECTION

$$1'' = 10'$$


NOTES:

- ① Concrete Barrier (Type 736)
- ② Exist Conc Barrier (Type 25)
to be removed, See "ROADWAY PLANS"
- ③ Structure Approach Type N(30D)
- ④ Structure Approach Type R(30D)

DATE OF ESTIMATE	=	8/12/15
BRIDGE REMOVAL	=	549 SF
STRUCTURE DEPTH	=	4'-3"
LENGTH	=	229'-10 ³ / ₄ "
WIDTH	=	14'-8 ³ / ₄ "
AREA	=	3,386 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$285/SF
TOTAL COST	=	\$965,000

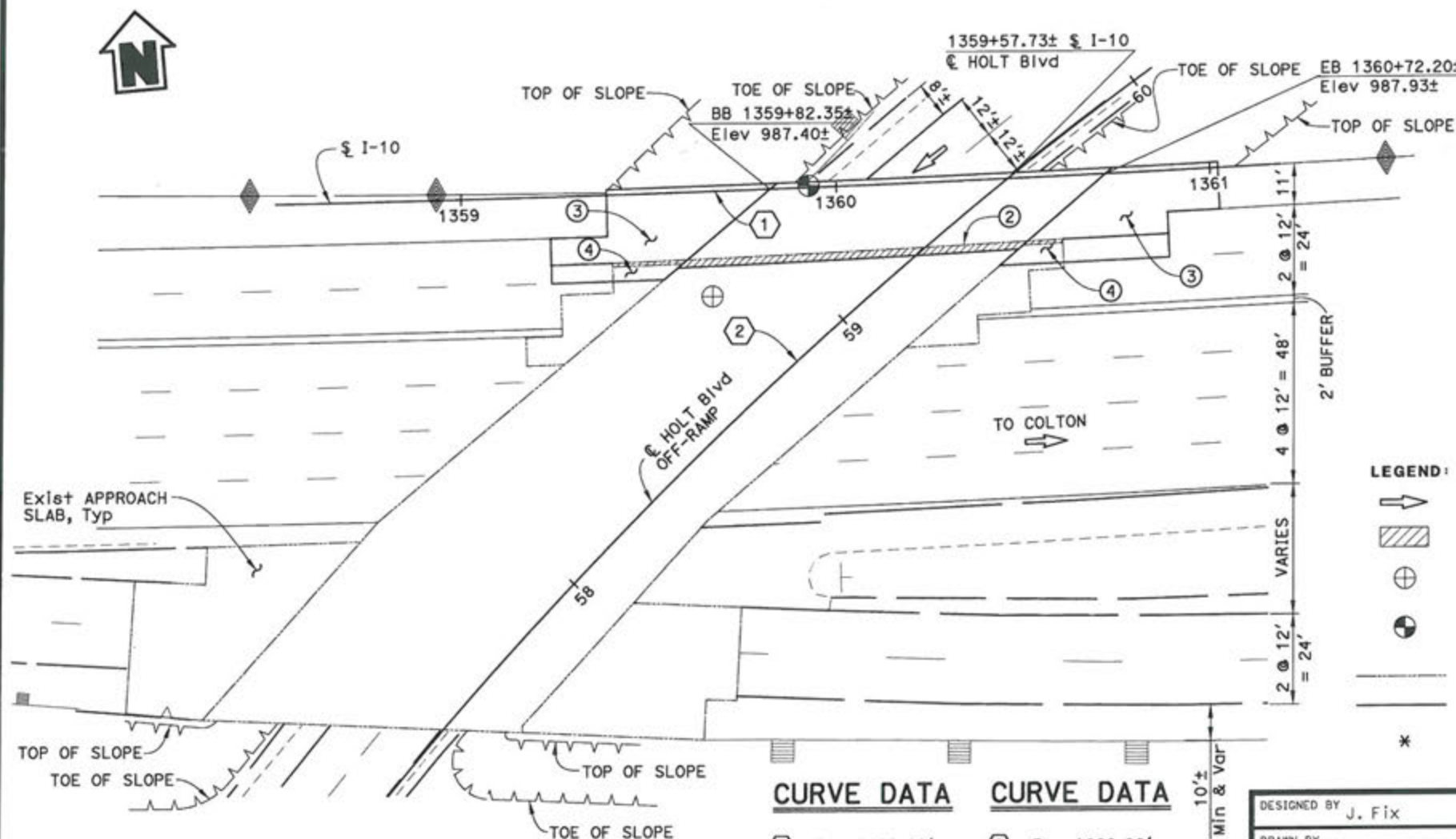
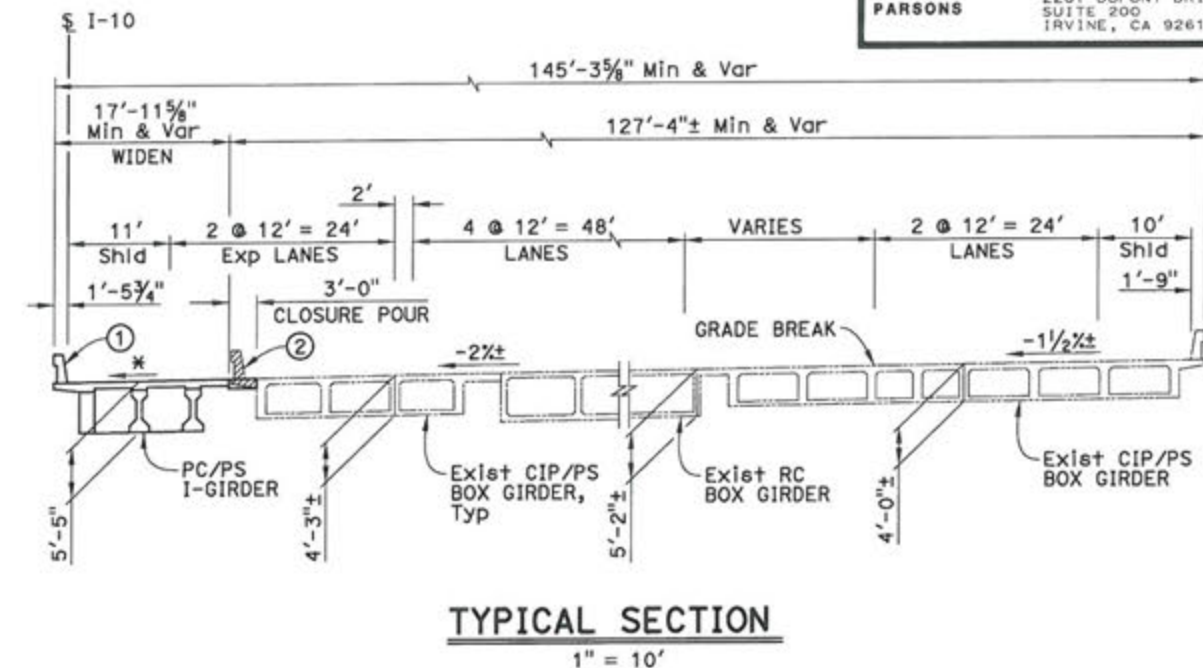
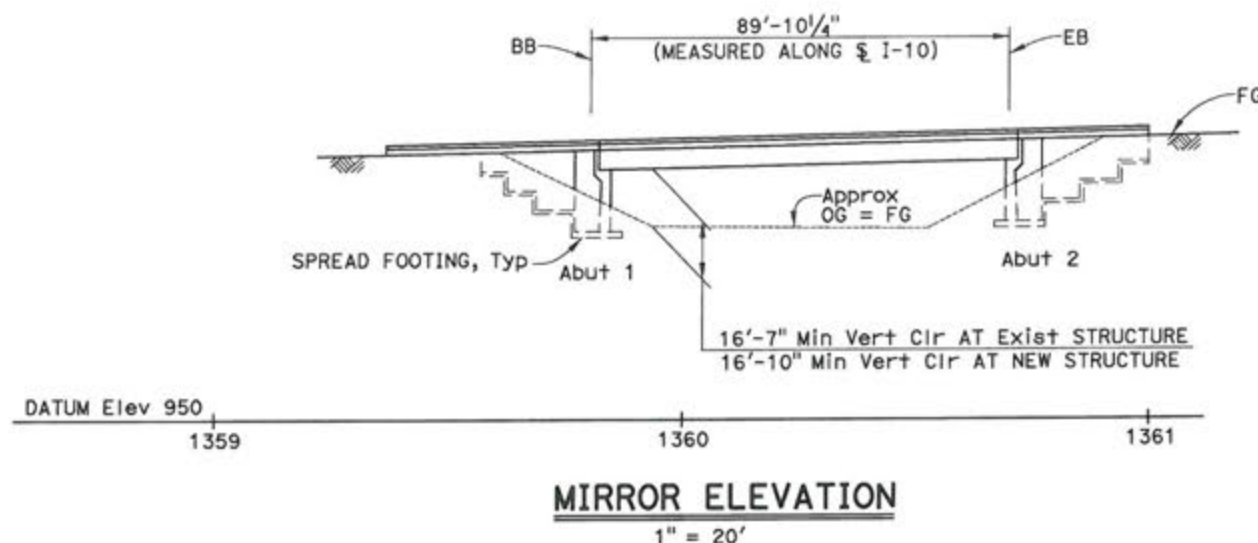
**EXPRESS ALTERNATIVE
PLANNING STUDY**

HOLT BLVD OFF-RAMP UC (LT WIDEN	
BRIDGE NO. 54-0437L	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY	J. Fix	DATE	3/23/15
DRAWN BY	S. Weight	DATE	3/23/15
CHECKED BY	J. Fix	DATE	4/10/15
APPROVED	K. Michalski	DATE	8/12/15

Kevin Michalski
PROJECT ENGINEER

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07 08	LA, Sbd	10	44.9/48.3 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St San Bernardino CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



CURVE DATA	CURVE DATA
① R = 9000.00' Δ = 10°30'53" T = 828.15' L = 1651.65'	② R = 1088.00' Δ = 43°08'29" T = 430.13' L = 819.22'

- LEGEND:**
- ➔ Indicates Direction of Travel
 - ▨ Indicates Bridge Removal
 - ⊕ Indicates Exist Point of Min Vertical Clearance
 - ⊙ Indicates Point of Min Vertical Clearance (Widening)
 - Indicates Exist Structure
 - Indicates New Structure
 - * Match Existing Profile Grade and Cross Slope

NOTES:

- ① Concrete Barrier (Type 736)
- ② Exist Conc Barrier (Type 25) to be removed, See "ROADWAY PLANS"
- ③ Structure Approach Type N(300)
- ④ Structure Approach Type R(300)

DATE OF ESTIMATE	= 8/12/15
BRIDGE REMOVAL	= 364 SF
STRUCTURE DEPTH	= 5'-5"
LENGTH	= 89'-10 1/4"
WIDTH	= 18'-8" Avg
AREA	= 1,681 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$492/SF
TOTAL COST	= \$827,000

**EXPRESS ALTERNATIVE
PLANNING STUDY**

HOLT BLVD OFF-RAMP UC (RT WIDEN)	
BRIDGE NO. 54-0437R	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 080000040

DESIGNED BY J. Fix	DATE 3/23/15
DRAWN BY S. Weight	DATE 3/23/15
CHECKED BY J. Fix	DATE 4/10/15
APPROVED K. Michalski	DATE 8/12/15

Kevin Michalski
PROJECT ENGINEER



- | | |
|---|---|
|  | Indicates Direction of Travel |
|  | Indicates Bridge Removal (Portion) |
|  | Indicates Direction of Flow |
|  | Indicates Exist Structure |
|  | Match Exist Profile Grade and Cross Slope |
|  | Concrete Barrier (Type 60A) |

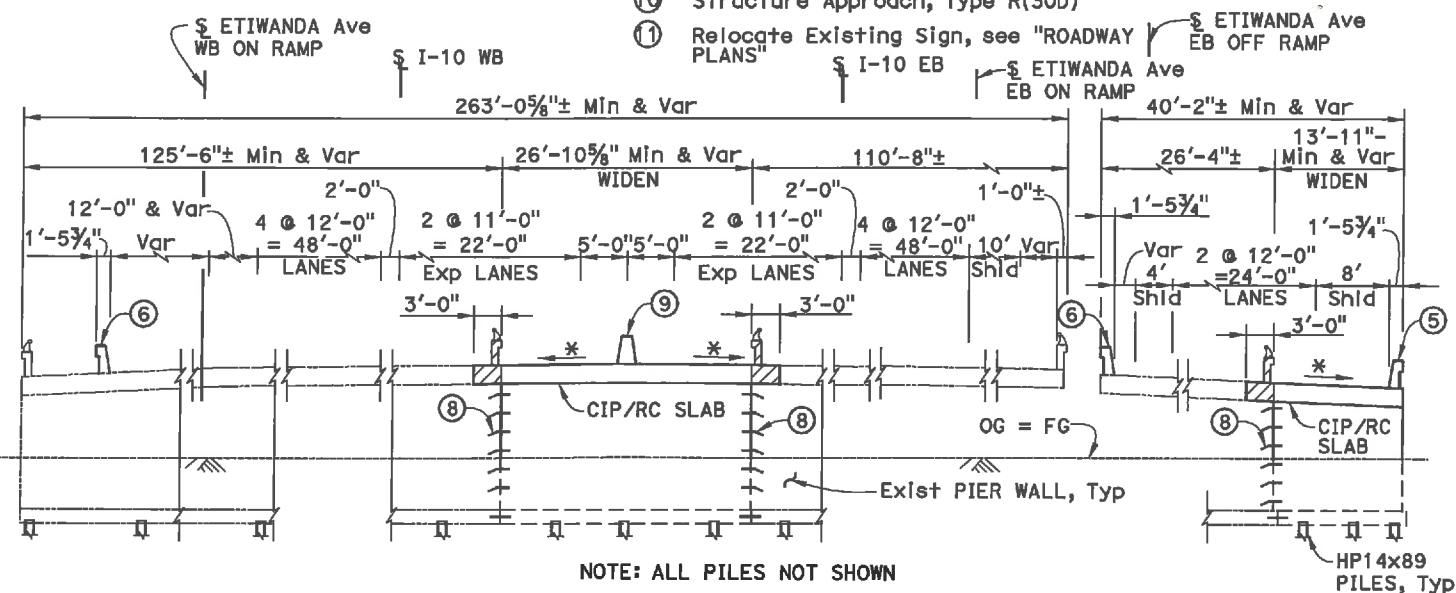
NOTES:

- ① Paint "Br No. 54-0378L"
- ② Paint "Br No. 54-0378R"
- ③ Paint "Br No. 54-0378S"
- ④ Paint "Etiwanda Wash"
- ⑤ Concrete Barrier (Type 736)
- ⑥ Concrete Barrier (Type 736 Mod)
- ⑦ Structure Approach, Type N(30D)
- ⑧ Drill and Bond Dowels
- ⑨ Concrete Barrier (Type 60A)
- ⑩ Structure Approach, Type R(30D)
- ⑪ Relocate Existing Sign, see "ROAD PLANS"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, SBd	10	44.9/48. 0.0/R37.

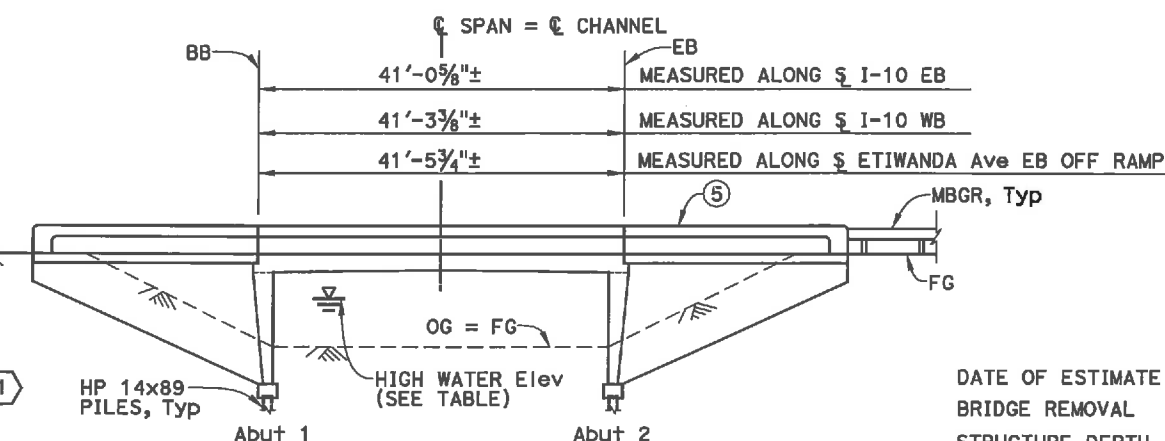
**SAN BERNARDINO
ASSOCIATED
GOVERNMENTS** 1170 W Third St
San Bernardino
CA 92415

PARSONS 2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612



NOTE: ALL PILES NOT SHOWN

TYPICAL SECTION

$$1'' = 10'$$


ELEVATION

NO SCALE

HIGH WATER ELEVATIONS	
BRIDGE No	HIGH WATER ELEVATION (Ft)
54-0378L	994'± - 991'±
54-0378S	990'± - 991'±

DATE OF ESTIMATE	=	5/6/15
BRIDGE REMOVAL	=	372 SF
STRUCTURE DEPTH	=	1'-9" ~ 2'-0"
LENGTH	=	41'-3" AVG
WIDTH	=	41'-7" AVG
AREA	=	1717 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$793
TOTAL COST	=	\$1,362,000

EXPRESS ALTERNATIVE

PLANNING STUDY

ETIWANDA WASH (WIDEN)

BRIDGE NO. 54-0378	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY	J. Fix	DATE	6/5/14
DRAWN BY	P. Johnson	DATE	6/5/14
CHECKED BY	S. Mullangi	DATE	6/5/14
APPROVED	K. Michalski	DATE	6/26/15

Kevin Michalski
PROJECT ENGINEER

FILE => c:\pw_working\ptqpwise\p004020a\dms55390\54-0378L-a-gp01exp.dgn CONTRACT NO.: 08-0C2500

TIME PLOTTED => 9:57:43 AM

USERNAME => p0040200 DATE PLOTTED => 6/23/2015

Diagram illustrating the ELEVATION view of the bridge structure. The structure is shown with spans and abutments. Key dimensions and labels include:

- Span lengths (measured along § WB-I-10):
 - Span 1: $32'-2'' \pm$
 - Span 2: $51'-6\frac{3}{4}'' \pm$
 - Span 3: $31'-6\frac{1}{4}'' \pm$
- Overall length: $115'-3'' \pm$
- Labels: FG (Finished Ground), EB (Existing Bridge), Abut 1, BENT 2, Approx OG (Original Ground), BENT 3, Abut 4, Approx FG (Approximate Finished Ground).
- Vertical clearance requirements:
 - 17'-2" Min Vert Clr AT Exist STRUCTURE
 - 16'-6" Min Vert Clr AT NEW STRUCTURE
- DATUM Elev 970
- Horizontal scale: 1" = 20'



- 1 Encase Columns in Concrete Pier Wall

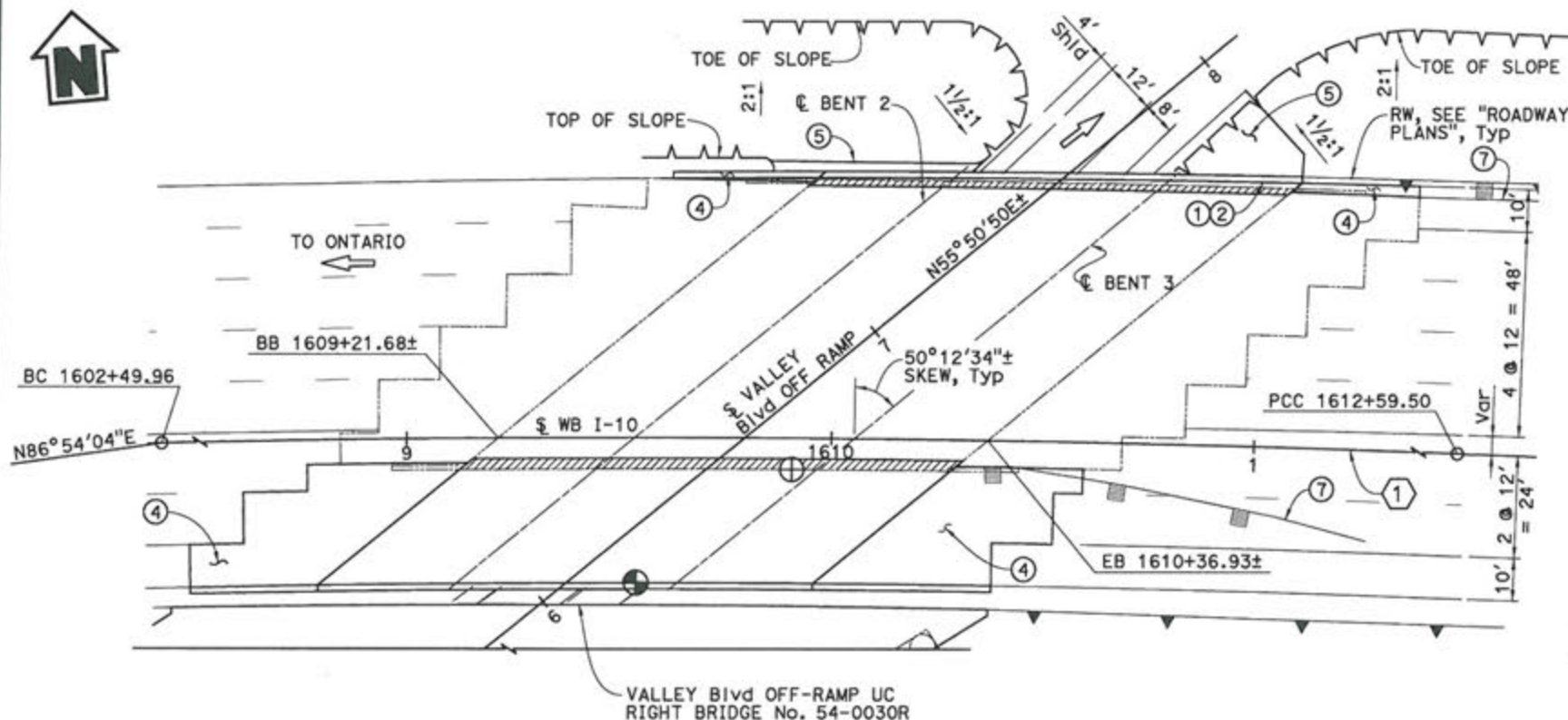
NOTES:

- ① Paint "Br No. 54-0030L"
- ② Paint "Valley Blvd Off-Ramp UC"
- ③ Concrete Barrier (Type 736)
- ④ Structure Approach Type N(30D)
- ⑤ Slope Paving
- ⑥ Remove Exist Type 1 Barrier and Overhang
- ⑦ Exist MBGR to be removed, see "ROADWAY PLANS"
- ⑧ Roadway lowered, see "ROADWAY PLANS"

LEGEND:

- | | |
|---|--|
|  | Indicates Direction of Travel |
|  | Indicates Point of Min Vertical Clearance (Widening) |
|  | Indicates Exist Point of Min Vertical Clearance |
|  | Indicates Bridge Removal |
|  | Indicates Closure Pour |
|  | Indicates Exist Structure |
|  | Indicates New Structure |
|  | Match Exist Profile Grade and Cross Slope |

DATE OF ESTIMATE	=	<u>8/12/15</u>
BRIDGE REMOVAL	=	<u>461 SF</u>
STRUCTURE DEPTH	=	<u>2'-7"</u>
LENGTH	=	<u>115'-3"</u>
WIDTH	=	<u>30'-6" AVG</u>
AREA	=	<u>3,515 SF</u>
BRIDGE COST/SQFT	=	<u>\$ 433/SF</u>
BRIDGE COST INCLUDING 10% MOBILIZATION AND 25% CONTINGENCY	=	<u>\$ 1,520,000</u>
SEISMIC RETROFIT	=	<u>\$ 822,000</u>
TOTAL COST	=	<u>\$ 2,342,000</u>



PLAN
1" = 20'

CURVE DATA 1

R = 4962.32'
 Δ = 11°39'23"
L = 1009.54'
T = 506.52'

DESIGNED BY	J. Fix	DATE	5/13/15
DRAWN BY	P. Johnson	DATE	5/13/15
CHECKED BY	K. Michalski	DATE	5/20/15
APPROVED	K. Michalski	DATE	8/12/15

Kevin Michalski
PROJECT ENGINEER

**EXPRESS ALTERNATIVE
PLANNING STUDY**

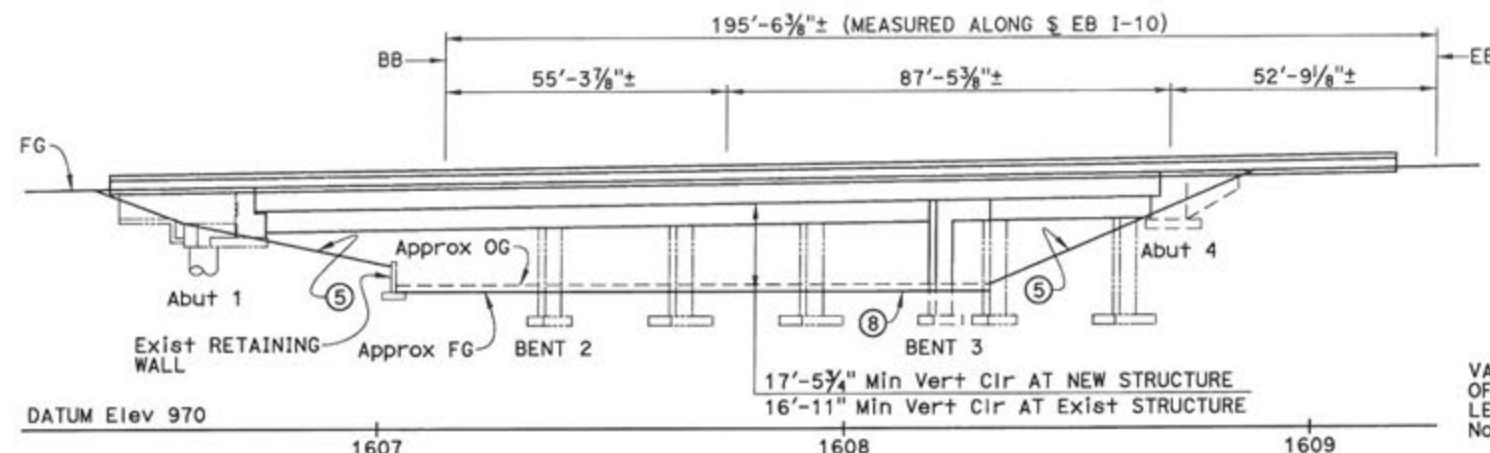
VALLEY BLVD OFF-RAMP UC (LT WIDEN)

BRIDGE NO. 54-0030L	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, SBd	10	44.9/48.3 0.0/R37.0

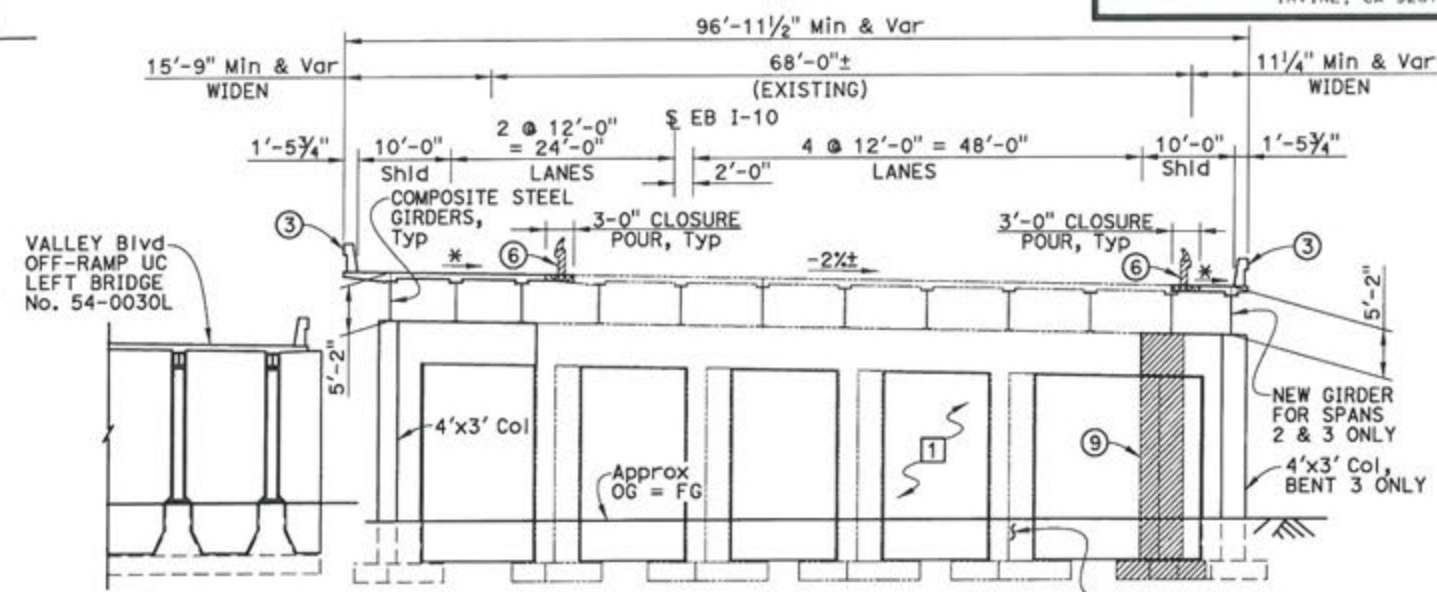
SAN BERNARDINO ASSOCIATED GOVERNMENTS 1170 W Third St
San Bernardino CA 92410

PARSONS 2201 DUPONT DRIVE
SUITE 200 IRVINE, CA 92612



DATE OF ESTIMATE	= 8/12/15
BRIDGE REMOVAL	= 782 SF
STRUCTURE DEPTH	= 5'-2"
LENGTH	= 195'-6 3/8"
WIDTH	= 23'-10 1/4" AVG
AREA	= 4,663 SF
BRIDGE COST/SQFT	= \$ 491/SF
BRIDGE COST INCLUDING 10% MOBILIZATION AND 25% CONTINGENCY	= \$ 2,288,000
SEISMIC RETROFIT	= \$ 651,000
TOTAL COST	= \$ 2,939,000

ELEVATION
1" = 20'



TYPICAL SECTION
1" = 10'

RETROFIT NOTES:

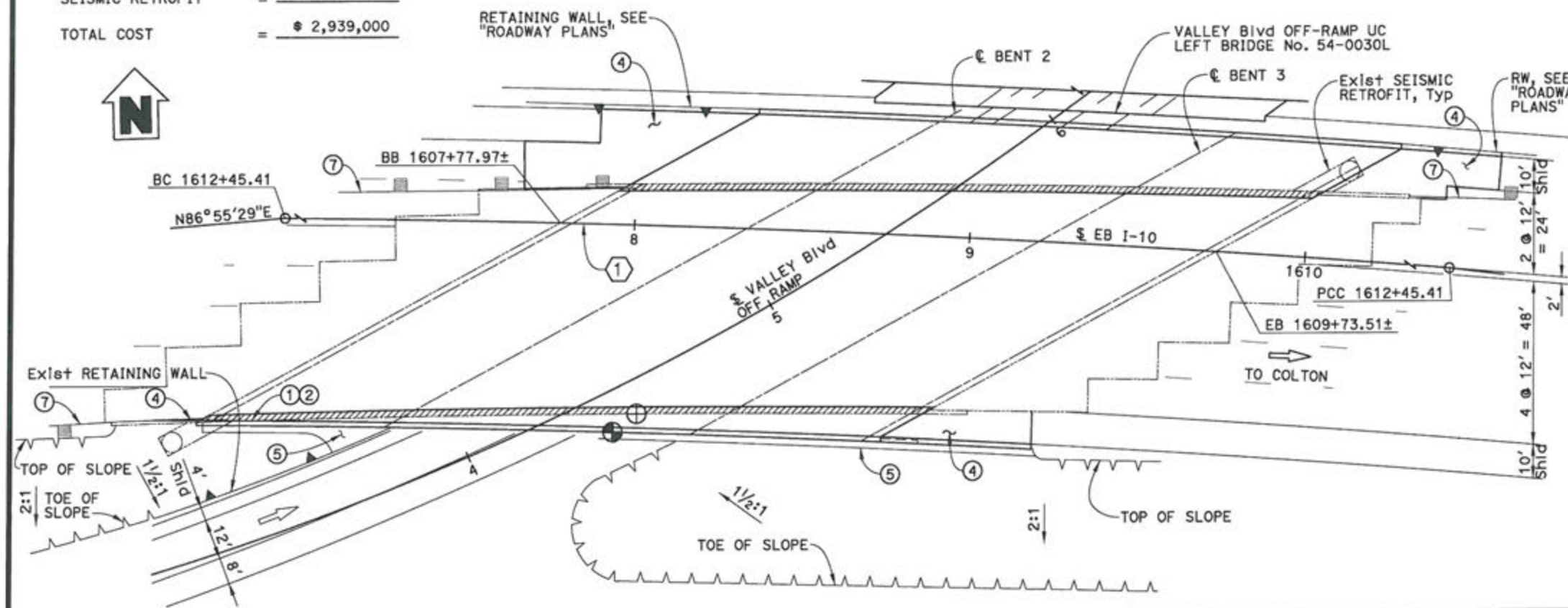
1 1'-6" Thick Infill Wall

NOTES:

- 1 Paint "Br No. 54-0030R"
- 2 Paint "Valley Blvd Off-Ramp UC"
- 3 Concrete Barrier (Type 736)
- 4 Structure Approach Type N(30D)
- 5 Slope Paving
- 6 Remove Exist Type 1 Barrier and Overhang
- 7 Exist MBGR to be removed, see "ROADWAY PLANS"
- 8 Roadway lowered, see "ROADWAY PLANS"
- 9 Provide Temporary Support and Remove Column

LEGEND:

- ➔ Indicates Direction of Travel
- ⊕ Indicates Point of Min Vertical Clearance (Widening)
- ⊕ Indicates Exist Point of Min Vertical Clearance
- ▨ Indicates Bridge Removal
- ▨ Indicates Closure Pour
- Indicates Exist Structure
- Indicates New Structure
- * Match Exist Profile Grade and Cross Slope



CURVE DATA	①
R = 4888.00'	
Δ = 11°56'16"	
L = 1018.44'	
T = 511.07'	

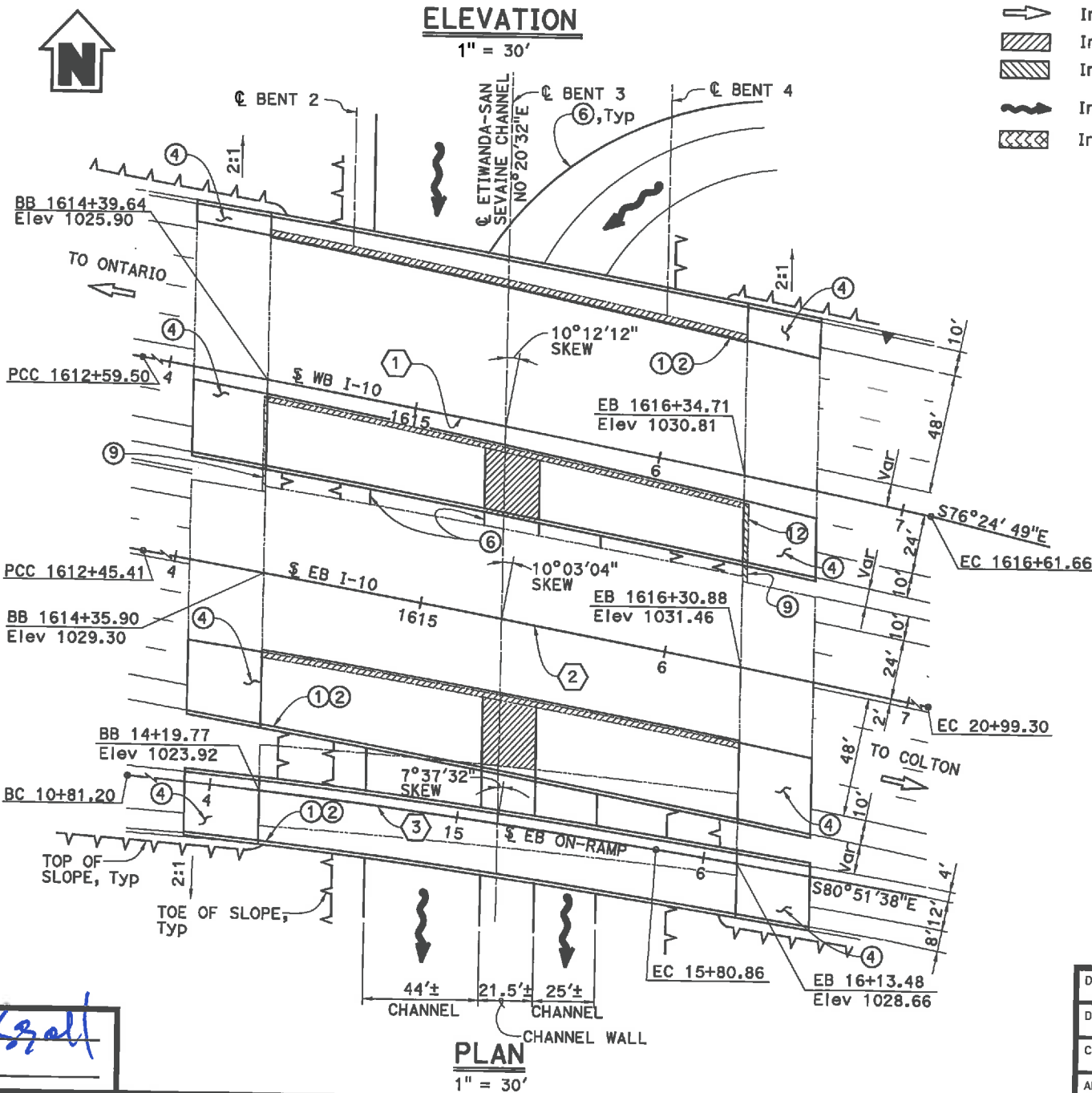
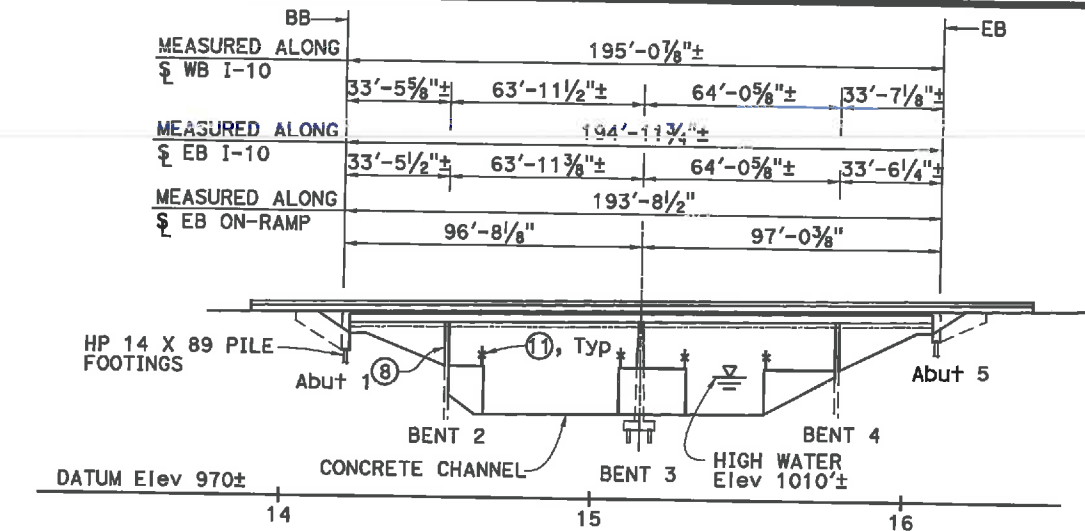
PLAN
1" = 20'

DESIGNED BY J. Fix	DATE 5/13/15
DRAWN BY P. Johnson	DATE 5/13/15
CHECKED BY K. Michalski	DATE 5/20/15
APPROVED K. Michalski	DATE 8/12/15

Kevin Michalski
PROJECT ENGINEER

EXPRESS ALTERNATIVE	
PLANNING STUDY	
VALLEY BLVD OFF-RAMP UC (RT WIDEN)	
BRIDGE NO. 54-0030R	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

Robert Scott
DESIGN OVERSIGHT
12/1/15
SIGN OFF DATE



NOTES:

- ① Paint "Br No. 54-0454"
- ② Paint "Etiwanda-San Sevaine Flood Control Channel Bridge"
- ④ Structure Approach, Type N(30D)
- ⑥ Channel wall, Exist
- ⑧ Bent Column, 15" Ø CISS Pile
- ⑨ Retaining Wall, Exist
- ⑪ Chain Link Fence Remove & Replace (Portion)
- ⑫ Retaining Wall Removal (Portion)

LEGEND:

- ➔ Indicates Direction of Travel
- ▨ Indicates Channel Wall Removal & Replacement
- ▩ Indicates Retaining Wall Removal
- ➔ Indicates Direction of Flow
- ▨ Indicates Chain Link Fencing

WIDENED STRUCTURES

DATE OF ESTIMATE	=	5/6/15
BRIDGE REMOVAL	=	1292 SF
STRUCTURE DEPTH	=	5'-0"
LENGTH	=	195'-1" Avg
WIDTH	=	63'-4" Avg
AREA	=	12,350 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$328
TOTAL COST	=	\$4,175,000

REPLACEMENT STRUCTURE

DATE OF ESTIMATE	=	5/6/15
BRIDGE REMOVAL	=	6253 SF
STRUCTURE DEPTH	=	4'-0"
LENGTH	=	193'-8 1/2"
WIDTH	=	26'-11 1/2"
AREA	=	5,222 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$345
TOTAL COST	=	\$1,924,000

CURVE DATA ①

R = 8000.00'
Δ = 5°01'44"
L = 702.15'
T = 351.31'

CURVE DATA ②

R = 10776.00'
Δ = 4°43'26"
L = 888.46'
T = 444.48'

CURVE DATA ③

R = 3150.00'
Δ = 9°05'19"
L = 499.66'
T = 250.36'

EXPRESS ALTERNATIVE
PLANNING STUDY

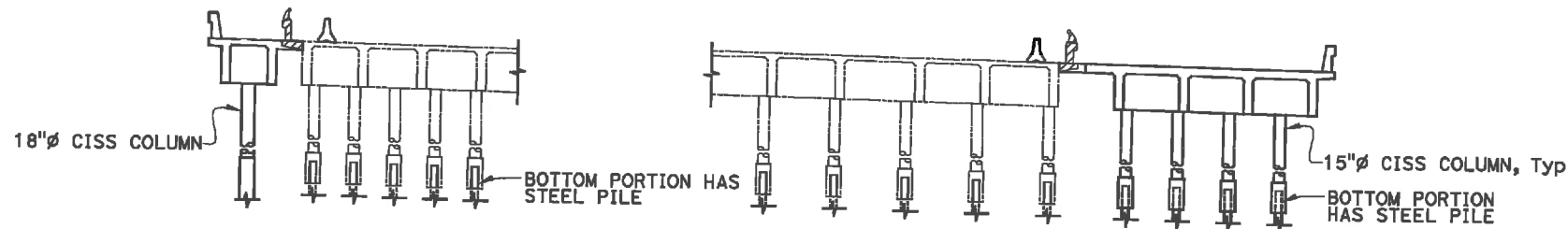
ETIWANDA-SAN SEVAINE FLOOD CONTROL CHANNEL (WIDEN) 1 of 2

BRIDGE NO. 54-0454L/R/S UNIT: 2232
SCALE: AS SHOWN PROJECT NUMBER & PHASE: 080000040

DESIGNED BY J. Fix	DATE 9/10/14
DRAWN BY J. Gilmore	DATE 9/11/14
CHECKED BY U. Sandira	DATE 9/22/14
APPROVED K. Michalski	DATE 6/26/15

Kevin Michalski
PROJECT ENGINEER

DIST	COUNTY	ROUTE	POST MILES
07, 08	LA, SBd	10	TOTAL PROJECT 44.9/48.3 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St San Bernardino CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



NOTE: For information not shown, see
Typical Section - Bent 3

**PARTIAL TYPICAL SECTION -
BENTS 2 & 4**

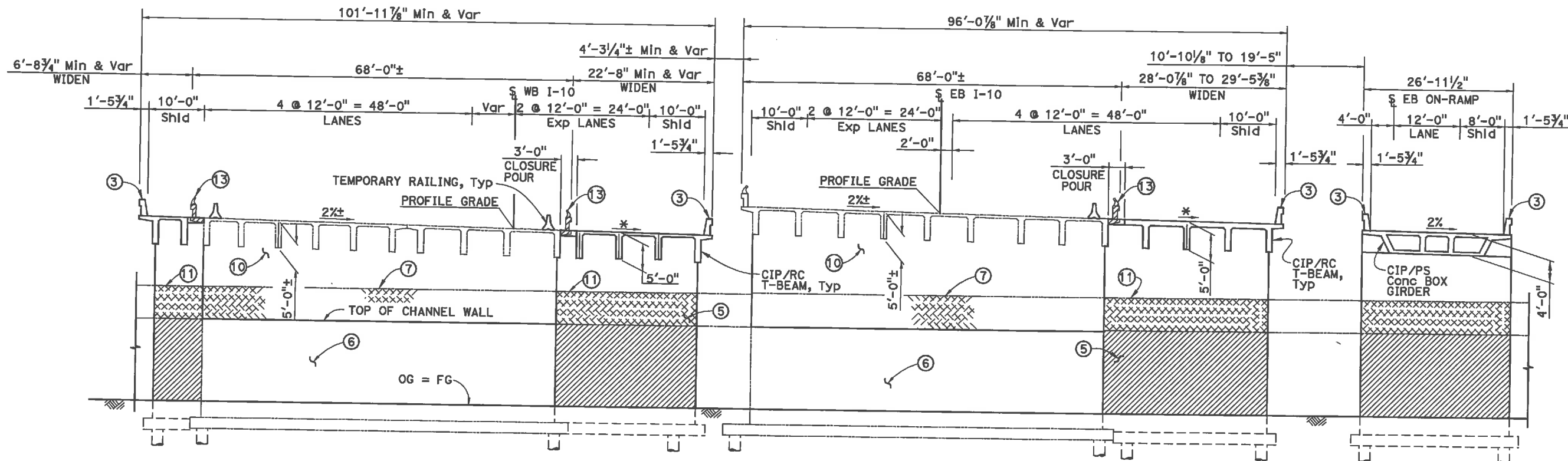
1" = 10'

NOTES:

- ① Paint "Br No. 54-0454"
- ② Paint "Etiwanda-San Sevaine Flood Control Channel Bridge"
- ③ Concrete Barrier (Type 736)
- ⑤ Pier wall, Widening
- ⑥ Channel wall, Exist
- ⑦ Chain Link Fence, Exist
- ⑩ Pier Wall, Exist
- ⑪ Chain Link Fence Remove & Replace (Portion)
- ⑬ Exist Concrete Barrier (Type 1) to be removed

LEGEND:

- Indicates Channel Wall Removal & Replacement
- Indicates Chain Link Fencing
- * Match Exist Profile Grade and Cross Slope



NOTE: ALL PILES NOT SHOWN

TYPICAL SECTION - BENT 3

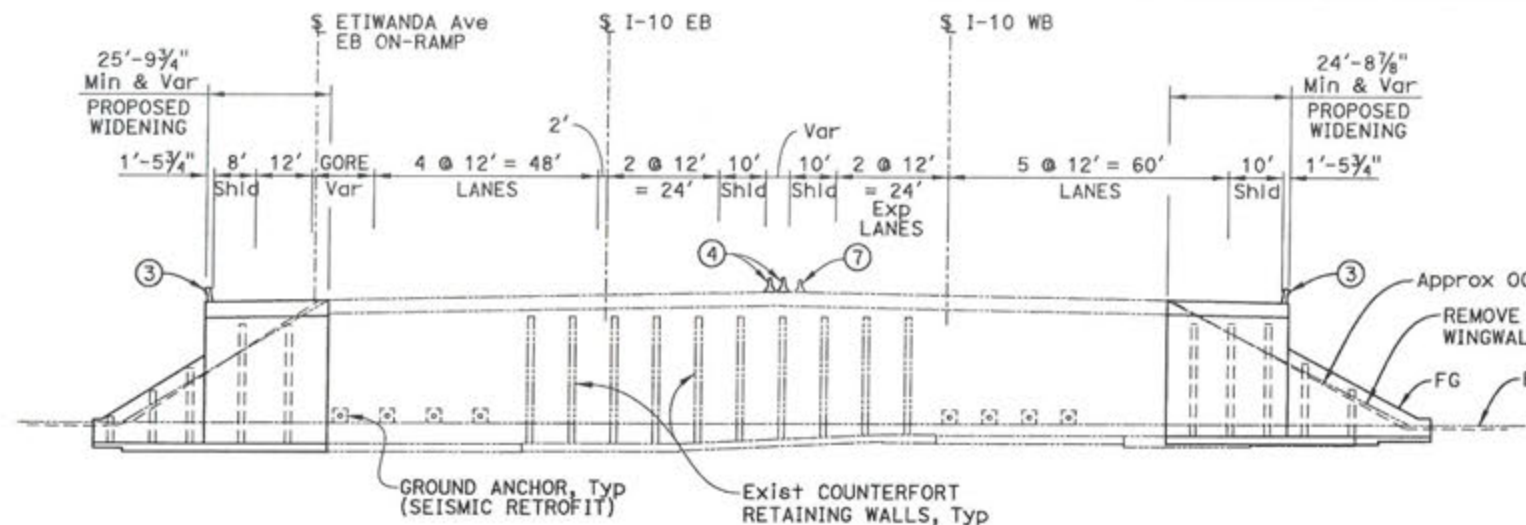
1" = 10'

DESIGNED BY	J. Fix	DATE	9/10/14
DRAWN BY	J. Gilmore	DATE	9/11/14
CHECKED BY	U. Sandira	DATE	9/22/14
APPROVED	K. Michalski	DATE	6/26/15

Kevin Michalski
PROJECT ENGINEER

EXPRESS ALTERNATIVE PLANNING STUDY	
ETIWANDA-SAN SEVAINE FLOOD CONTROL CHANNEL (WIDEN) 2 of 2	
BRIDGE NO. 54-0454L/R/S	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGN OVERSIGHT
6/29/15



DATUM Elev 975±

ELEVATION

1" = 20'

CURVE DATA ①

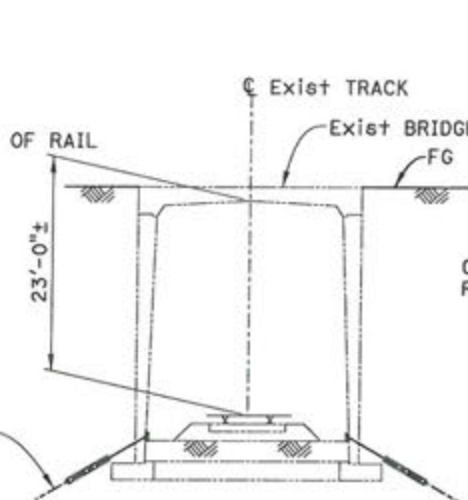
R = 8000.00'
Δ = 5°01'44"
L = 702.15'
T = 351.31'

CURVE DATA ②

R = 10776.00'
Δ = 4°43'26"
L = 888.46'
T = 444.48'

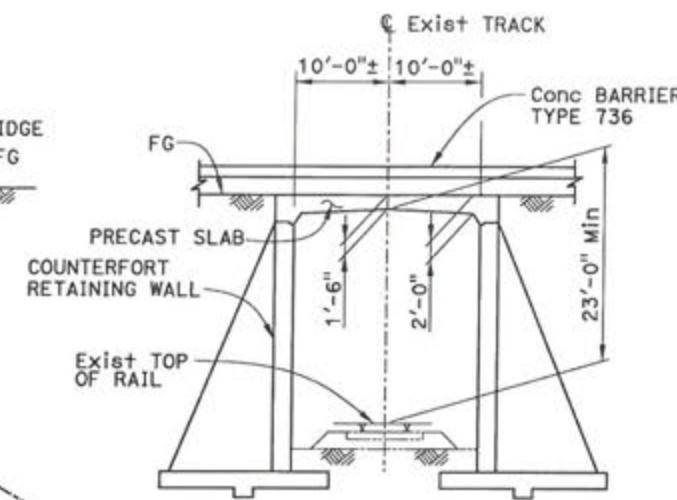
CURVE DATA ③

R = 3000.00'
Δ = 3°18'04"
L = 172.84.98'
T = 86.45'



SECTION B-B

1" = 10'



SECTION A-A

1" = 10'

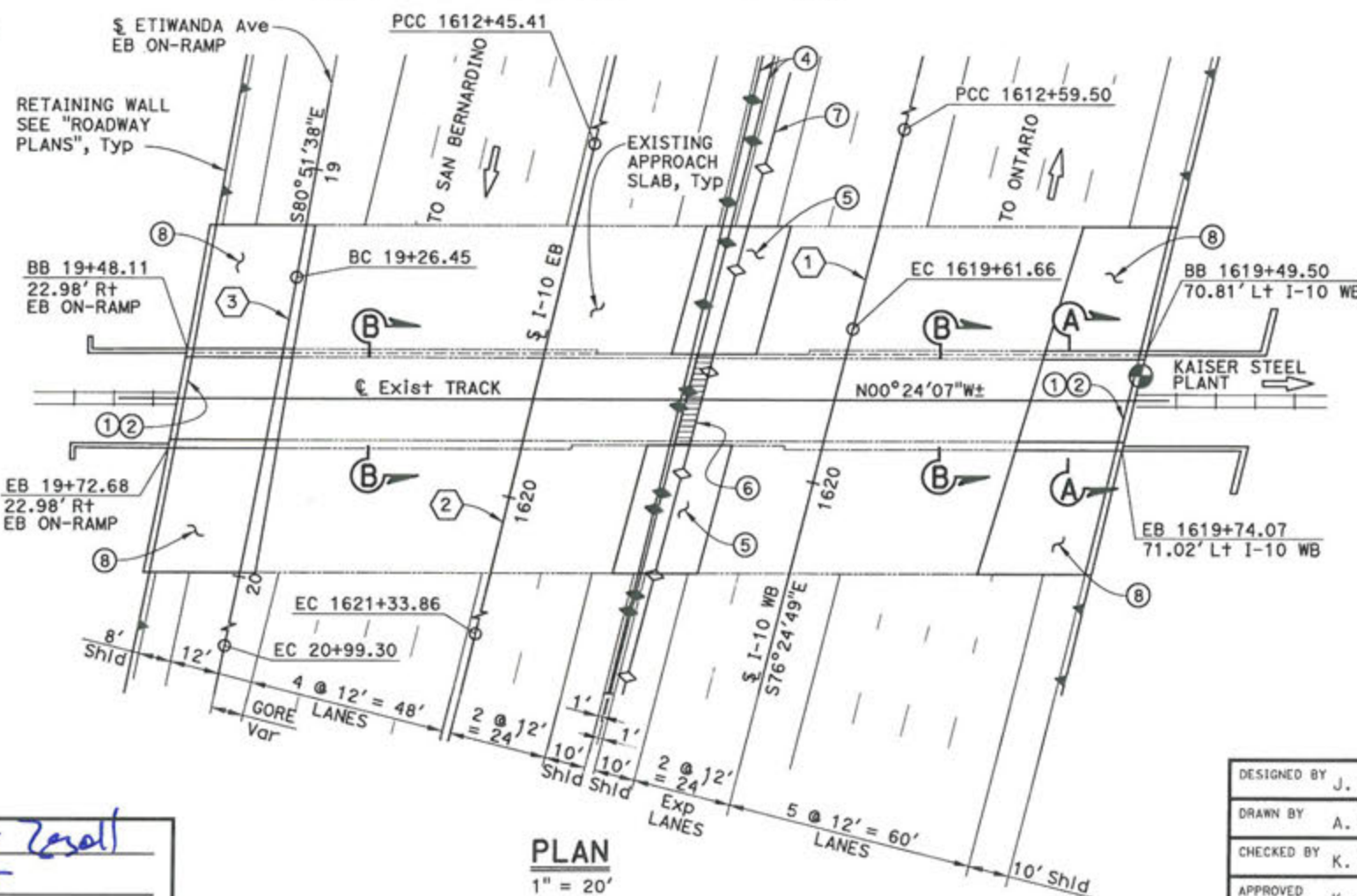
LEGEND:

- ➔ Indicates Direction of Travel
- ⊙ Indicates Point of Min Vertical Clearance (Widening)
- Indicates Exist Structure
- Indicates New Structure

NOTES:

- ① Paint "Br No. 54-0416"
- ② Paint "Kaiser Spur Overhead"
- ③ Concrete Barrier Type 736
- ④ Concrete Barrier Type 60A
- ⑤ Structure Approach, Type R(30S)
- ⑥ Polyester Concrete Overlay
- ⑦ Remove Exist Conc Barrier Type 50C (Mod)
- ⑧ Structure Approach, Type N(30S)

DATE OF ESTIMATE	=	7/15/15
STRUCTURE DEPTH	=	1'-6" ~ 2'-0"
LENGTH	=	24'-0"
WIDTH	=	51'-6"
AREA	=	1236 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY (WITHOUT GROUND ANCHORS)	=	\$1,482
RETROFIT COST (INCLUDING GROUND ANCHORS)	=	\$244,000
TOTAL COST	=	\$2,076,000



PLAN

1" = 20'

DESIGNED BY	J. Fix	DATE	09/22/14
DRAWN BY	A. Segura	DATE	11/20/14
CHECKED BY	K. Michalski	DATE	12/05/14
APPROVED	K. Michalski	DATE	12/05/14

Kevin Michalski
PROJECT ENGINEER

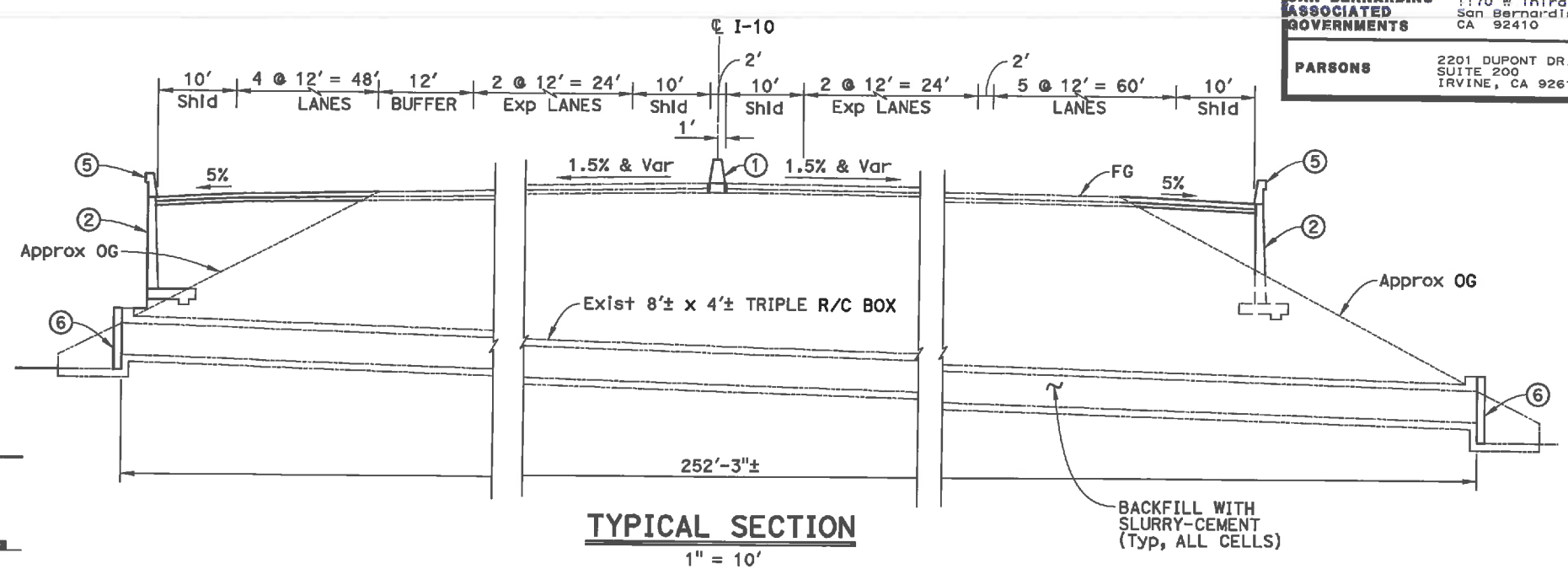
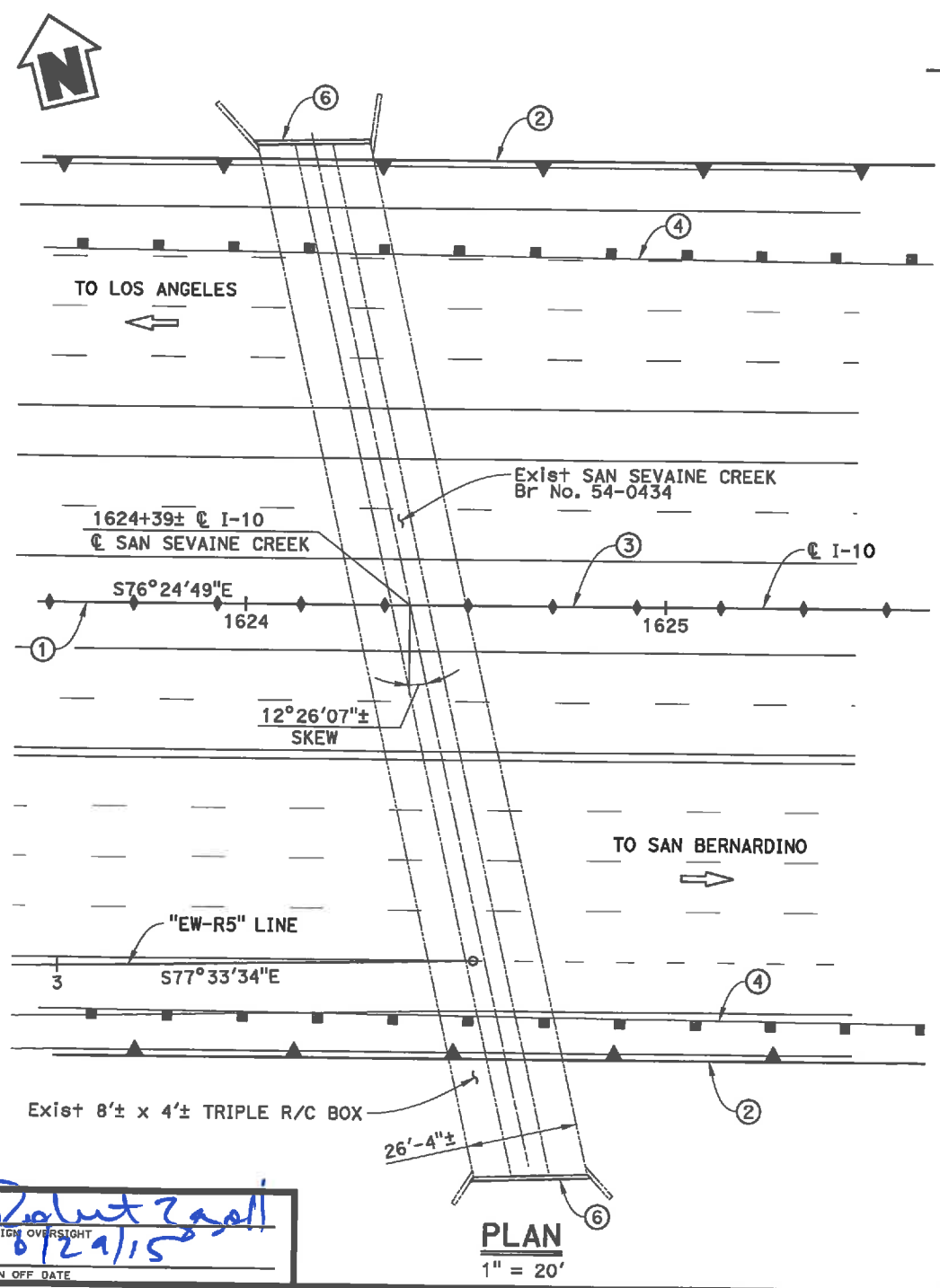
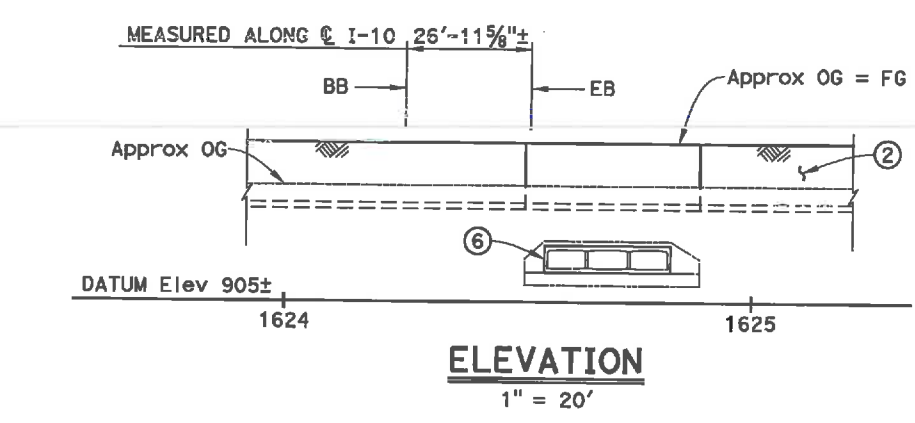
EXPRESS ALTERNATIVE PLANNING STUDY

KAISER SPUR OH (WIDEN)

BRIDGE NO. 54-0416	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 080000040

Robert Zsolt
12/1/15
SIGN OFF DATE

DIST	COUNTY	ROUTE	POST MILES
07, 08	LA, SBd	10	TOTAL PROJECT 44.9/48.3, 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St San Bernardino CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



NOTES:

- ① Concrete Barrier Type 60G
- ② Retaining Wall, see "ROADWAY PLANS"
- ③ Remove Exist Concrete Barrier (Type 50), see "ROADWAY PLANS"
- ④ Exist MBGR to be Removed, see "ROADWAY PLANS"
- ⑤ Concrete Barrier (Type 736), see "ROADWAY PLANS"
- ⑥ Concrete Closure Wall

DATE OF ESTIMATE	=	5/6/15
LENGTH	=	26'-4"±
WIDTH	=	252'-3"±
AREA	=	6,642 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$46
TOTAL COST	=	\$305,000

LEGEND:

➡ Indicates Direction of Travel

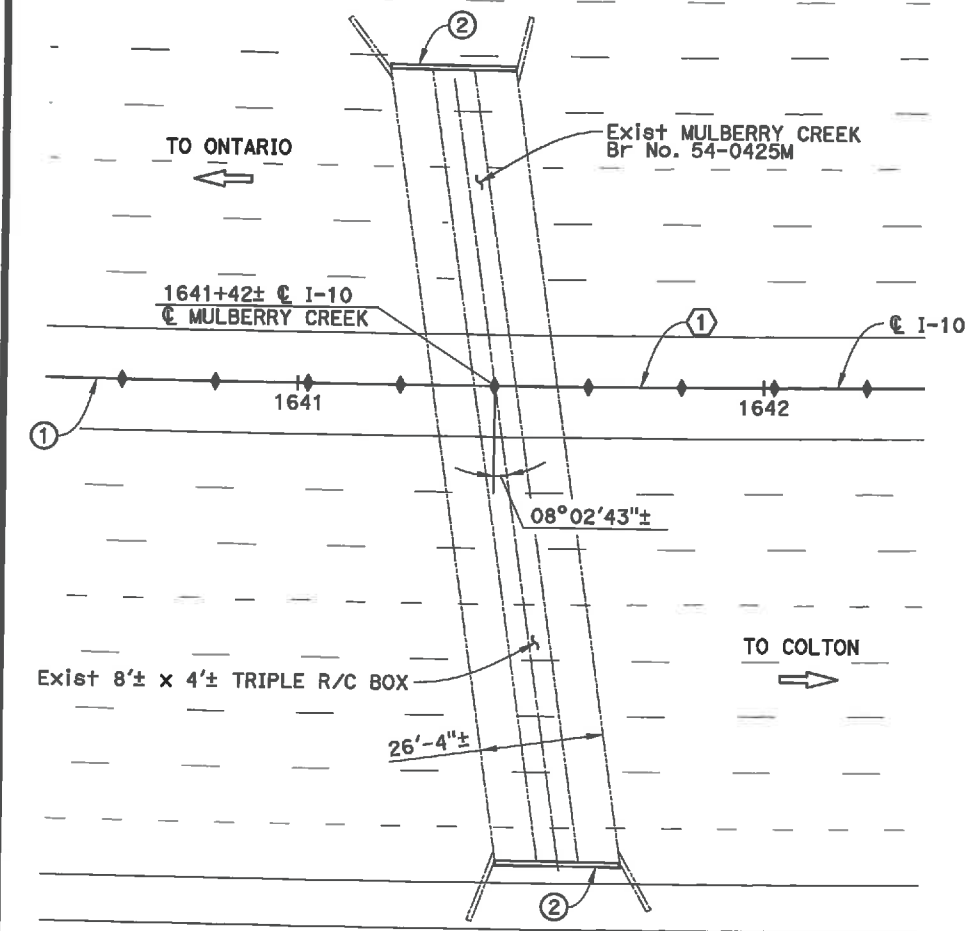
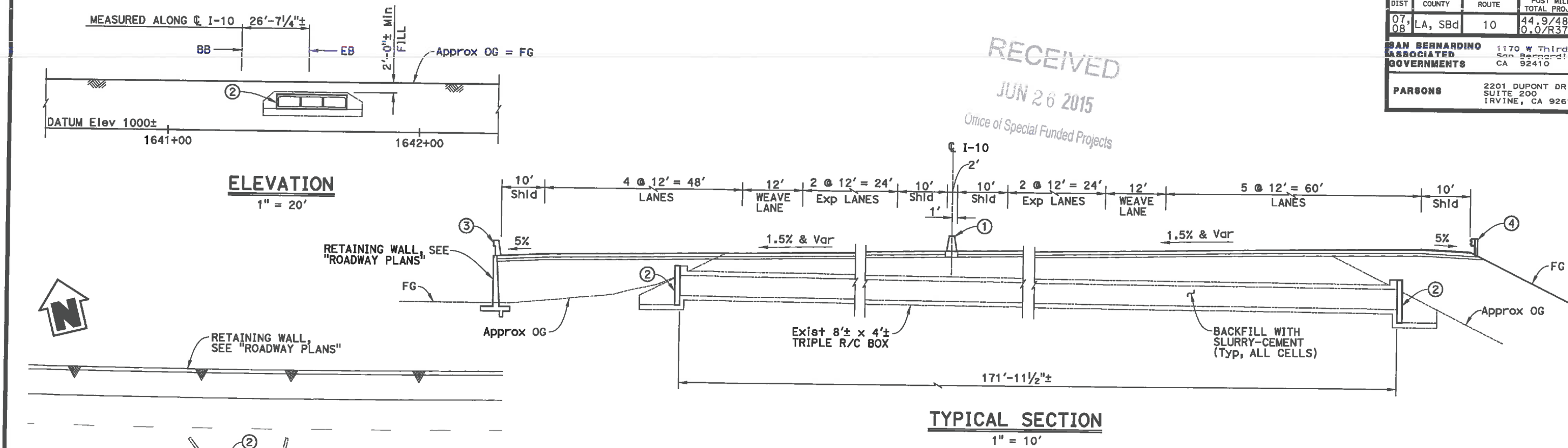
DESIGNED BY J. Fix	DATE 09/22/14
DRAWN BY F. Hakemi	DATE 11/20/14
CHECKED BY K. Michalski	DATE 12/05/14
APPROVED K. Michalski	DATE 6/26/15

Kevin Michalski
PROJECT ENGINEER

EXPRESS ALTERNATIVE PLANNING STUDY	
SAN SEVAINE CREEK (ABANDON)	
BRIDGE NO. 54-0434	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 080000040

DESIGN OVERSIGHT
6/24/15

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, Sbd	10	44.9/48.3 0.0/37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS		1170 W Third St San Bernardino CA 92410	
PARSONS		2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612	



DATE OF ESTIMATE	=	<u>5/6/15</u>
LENGTH	=	<u>26'-4"</u>
WIDTH	=	<u>171'-11 1/2"</u>
AREA	=	<u>4,528 SF</u>
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	<u>\$ 51</u>
TOTAL COST	=	<u>\$ 229,000</u>

NOTES:

- ① Concrete Barrier (Type 60G)
- ② Concrete Closure Wall
- ③ Concrete Barrier (Type 736), see "ROADWAY PLANS"
- ④ Midwest Guardrail System, see "ROADWAY PLANS"

LEGEND:

⇒ Indicates Direction of Travel

CURVE DATA

- ① $R = 7000.00'$
 $\Delta = 15^\circ 31' 31''$
 $T = 954.23'$
 $L = 1896.77'$

EXPRESS ALTERNATIVE PLANNING STUDY

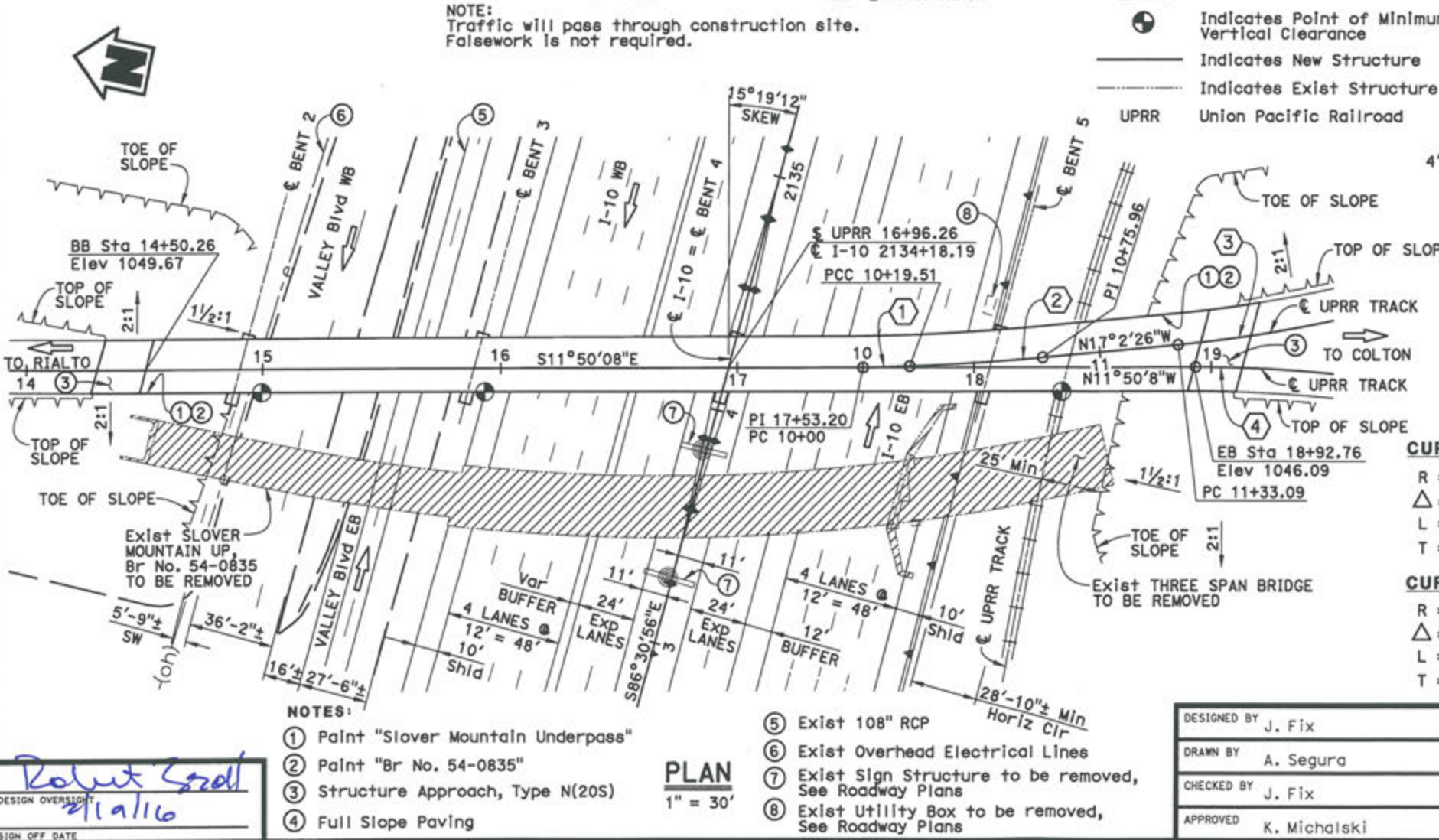
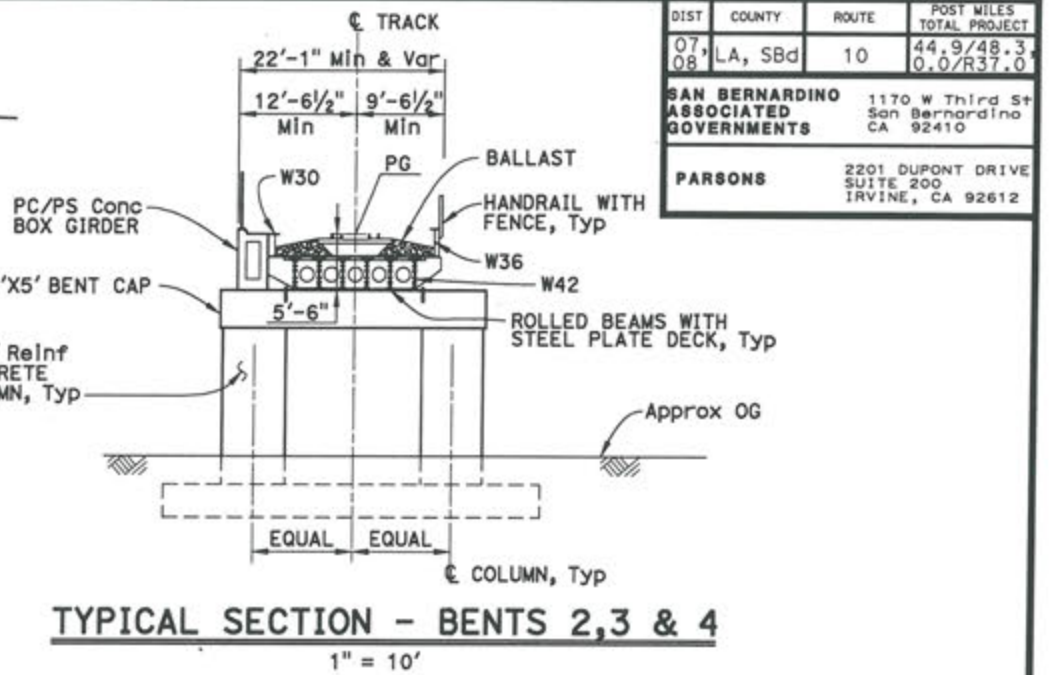
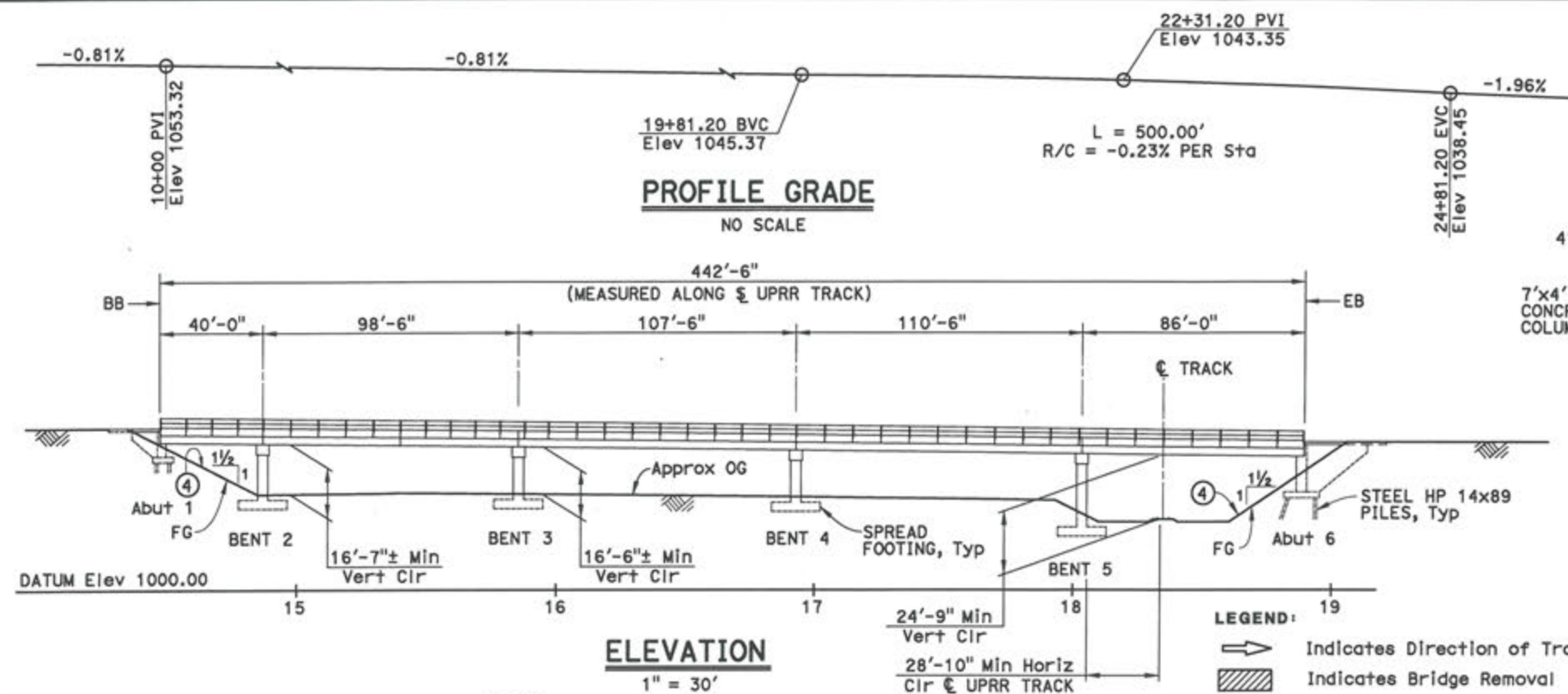
MULBERRY CREEK (ABANDON)

BRIDGE NO. 54-0425M	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY	J. Fix	DATE	09/22/14	Kevin Michalski PROJECT ENGINEER
DRAWN BY	F. Hakemi	DATE	11/20/14	
CHECKED BY	K. Michalski	DATE	12/05/14	
APPROVED	K. Michalski	DATE	6/26/15	

FILE => c:\pw_working\ptgpwise\p004020a\dms56302\54-0425-a-gp01.dgn CONTRACT NO.: 08-0C2500

USERNAME => p004020a DATE PLOTTED => 6/23/2015 TIME PLOTTED => 10:52:01 AM



CURVE DATA ①		CURVE DATA ③		DATE OF ESTIMATE = 1/29/16	
R = 1145.92'		R = 573.68'		BRIDGE REMOVAL	= 9813 SF
Δ = 0°58'31"		Δ = 39°21'27"		STRUCTURE DEPTH	= 5'-6"
L = 19.51'		L = 394.07'		LENGTH	= 442'-6"
T = 9.75'		T = 205.17'		WIDTH	= 22'-1" TO 32'-8 1/2"
CURVE DATA ②		CURVE DATA ④		AREA	
R = 1005.47'		R = 603.80'		COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	
Δ = 3°13'02"		Δ = 65°15'06"		TOTAL COST	
L = 56.46'		L = 687.64'		= \$719	
T = 28.24'		T = 386.53'		= \$7,630,000	

EXPRESS ALTERNATIVE	
PLANNING STUDY	
SLOVER MOUNTAIN UP (REPLACE)	
BRIDGE NO. 54-0835	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 080000040

DESIGNED BY J. Fix	DATE 8/7/15
DRAWN BY A. Segura	DATE 1/29/16
CHECKED BY J. Fix	DATE 1/29/16
APPROVED K. Michalski	DATE 1/29/16

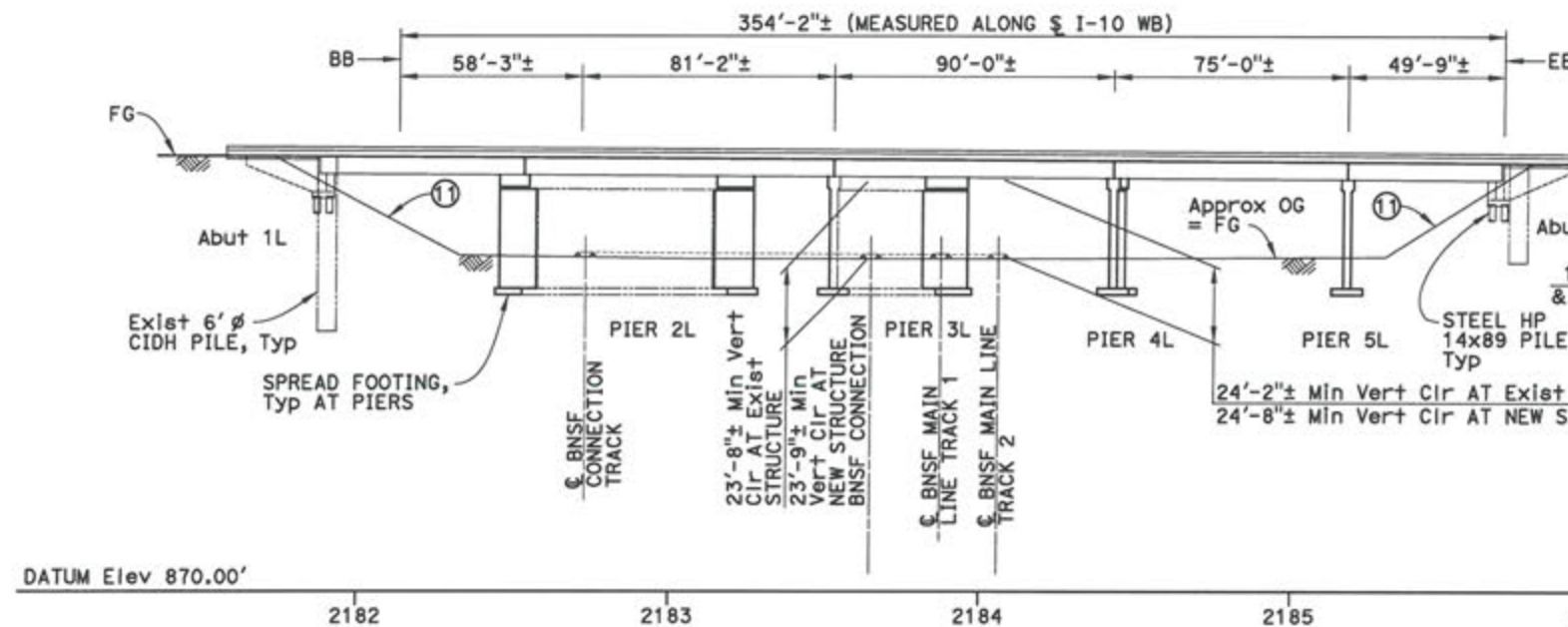
Kevin Michalski
PROJECT ENGINEER

DESIGN OVERSIGHT
SIGN OFF DATE
ADVANCE PLANNING STUDY SHEET (ENGLISH) (REV. 7/16/10)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07	LA, SBd	10	44.9/48.3
08			0.0/R37.0

SAN BERNARDINO ASSOCIATED GOVERNMENTS 1170 W Third St 2nd Floor San Bernardino CA 92410

PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612

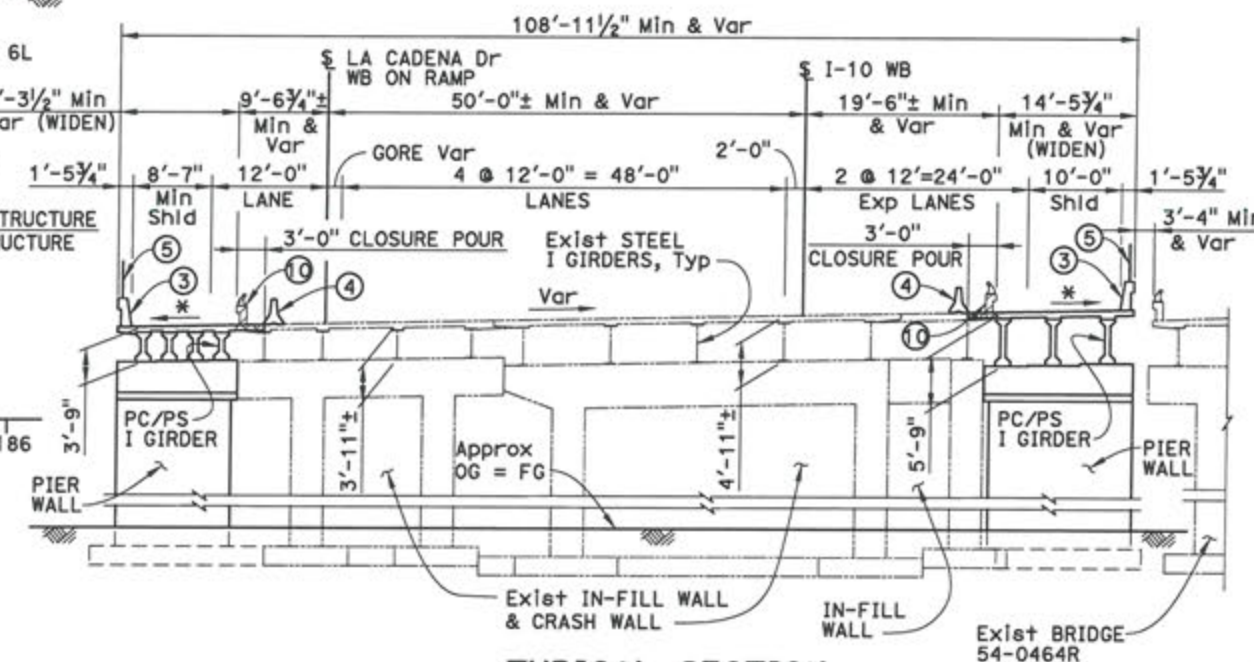


DEVELOPED ELEVATION

1" = 30'

LEGEND:

- ➔ Indicates Direction of Traffic
- ▨ Indicates Bridge Removal
- ▨ Indicates Closure Pour
- ⊕ Indicates Existing Point of Minimum Vertical Clearance
- ⊙ Indicates Point of Minimum Vertical Clearance (Widening)
- Indicates Exist Structure
- Indicates New Structure
- * Match Exist Profile Grade and Cross Slope
- BNSF Burlington Northern Santa Fe Railroad



TYPICAL SECTION

1" = 10'

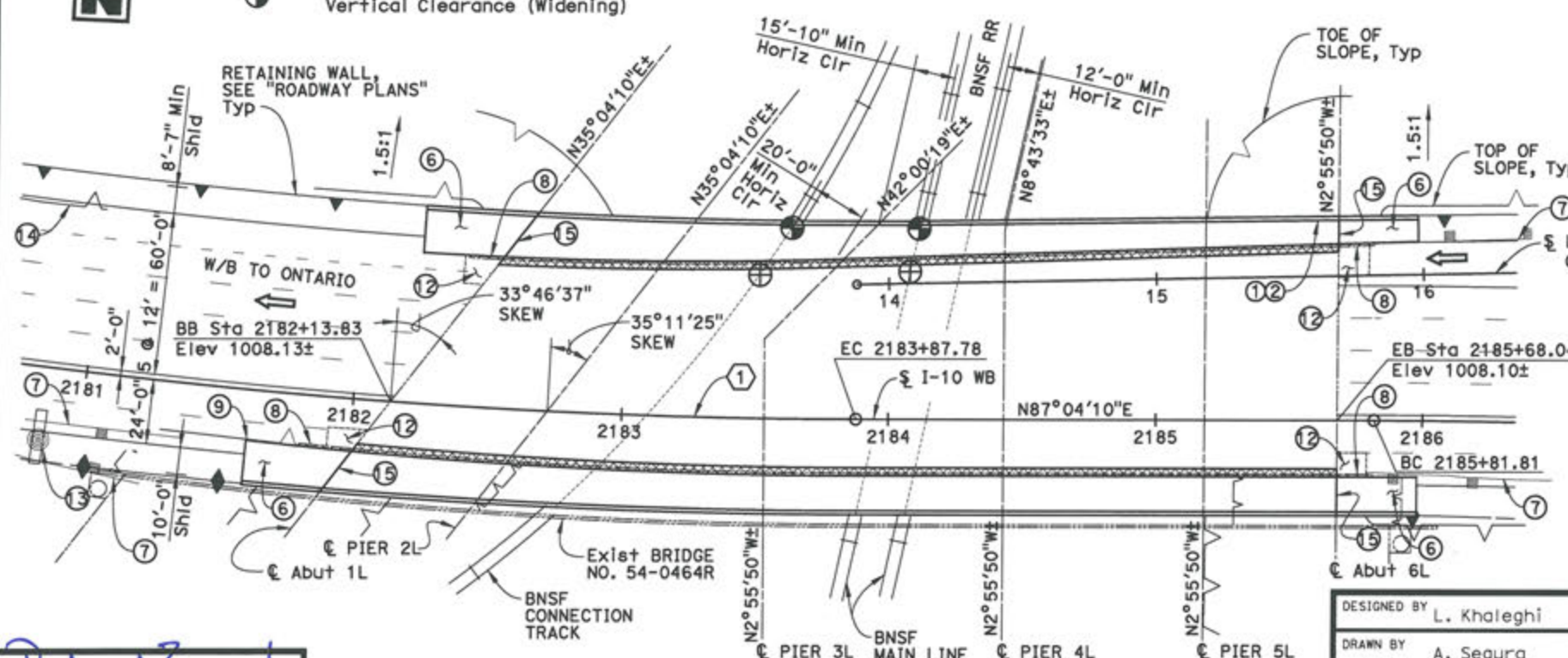
NOTES:

- ① Paint "Bridge No. 54-0464L"
- ② Paint "Colton OH Left"
- ③ Concrete Barrier (Type 736 Modified)
- ④ Temporary Railing, Type K, See "ROADWAY PLANS"
- ⑤ Chain Link Railing (Type 7)
- ⑥ Structure Approach Type N (30S)
- ⑦ Exist MBGR to be removed, See "ROADWAY PLANS"
- ⑧ Remove top portion exist wingwall
- ⑨ Remove top portion exist retaining wall
- ⑩ Remove exist Type 9 Barrier
- ⑪ Slope Paving
- ⑫ Exist Approach Slab
- ⑬ Remove Exist-sign pole, See "ROADWAY PLANS"
- ⑭ Remove Exist retaining wall, See "ROADWAY PLANS"
- ⑮ Joint Seal Type A

CURVE DATA ①

R = 2363'
 Δ = 12°16'26"
 T = 262.97'
 L = 506.20'

DATE OF ESTIMATE	=	1/29/16
BRIDGE REMOVAL	=	2125
STRUCTURE DEPTH	=	3'-9"; 5'-9"
LENGTH	=	354'-2"
WIDTH	=	10'-3 1/2" TO 17'-0"; 14'-5 3/4" TO 15'-11 1/2"
AREA	=	10,223 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$293
TOTAL COST	=	\$3,000,000



PLAN

1" = 30'

DESIGNED BY	L. Khaleghi	DATE	8/7/15
DRAWN BY	A. Segura	DATE	1/29/16
CHECKED BY	K. Michalski	DATE	1/29/16
APPROVED	K. Michalski	DATE	1/29/16

Kevin Michalski
PROJECT ENGINEER

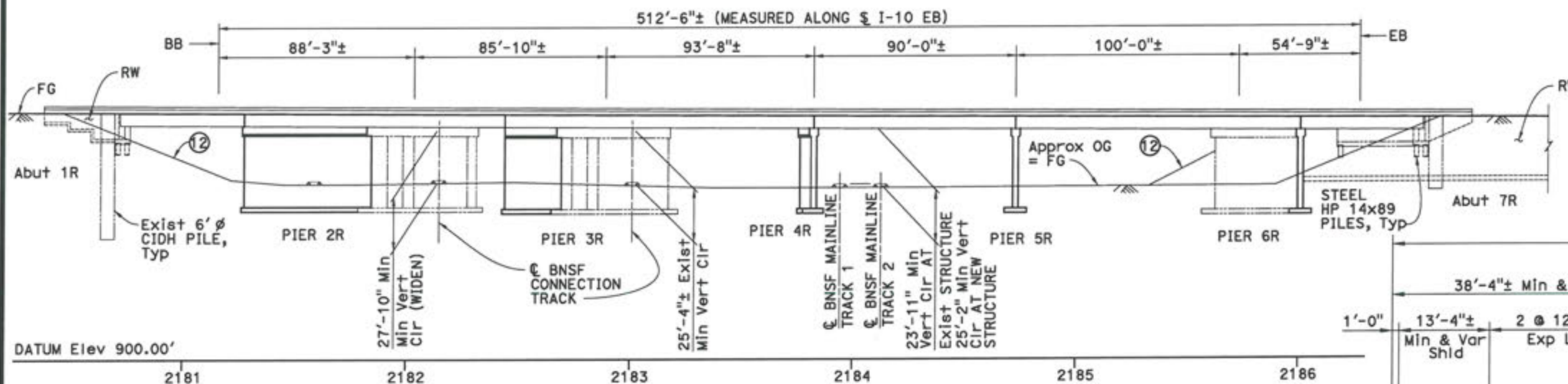
**EXPRESS ALTERNATIVE
PLANNING STUDY
COLTON OH LEFT (WIDEN)**

BRIDGE NO. 54-0464L	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 080000040

DIST	COUNTY	ROUTE	POST MILES
07	LA, Sbd	10	TOTAL PROJECT
08			44.9/48.3
			0.0/R37.0

SAN BERNARDINO ASSOCIATED GOVERNMENTS 1170 W Third St
2nd Floor
San Bernardino
CA 92410

PARSONS 2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612



DEVELOPED ELEVATION

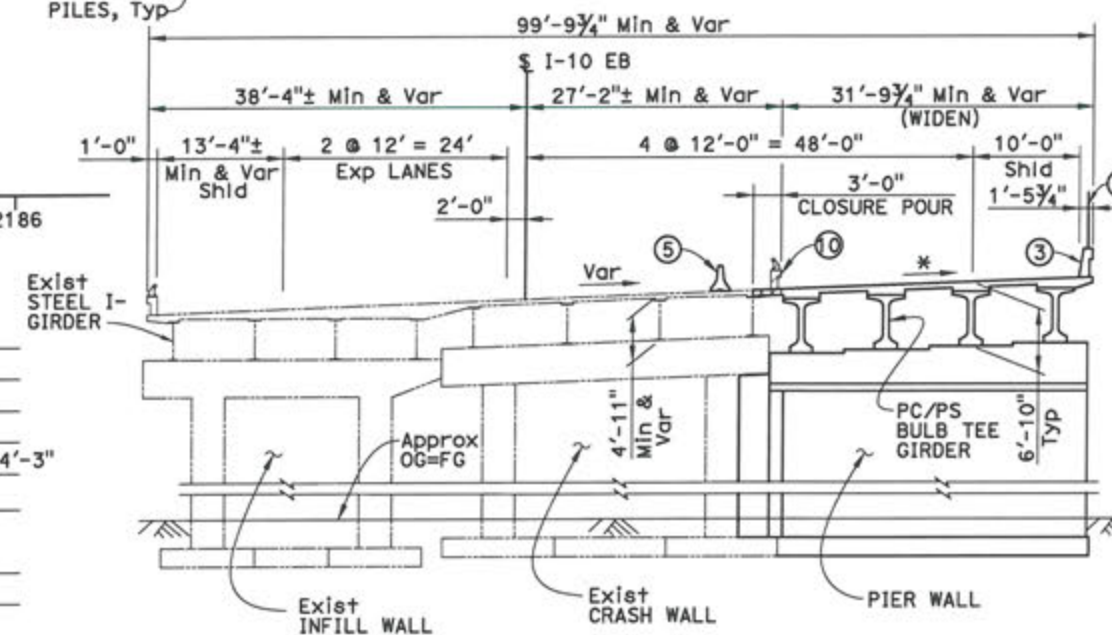
1" = 30'

LEGEND:

- ➔ Indicates Direction of Traffic
- ▨ Indicates Bridge Removal
- ▨ Indicates Closure Pour
- ⊕ Indicates Existing Point of Minimum Vertical Clearance
- ⊙ Indicates Point of Minimum Vertical Clearance (Widening)

- Indicates Exist Structure
- Indicates New Structure
- * Match Exist Profile Grade and Cross Slope
- BNSF Burlington Northern Santa Fe Railroad

DATE OF ESTIMATE 1/29/16
BRIDGE REMOVAL = 1684 SF
STRUCTURE DEPTH = 6'-10"
LENGTH = 512'-6"
WIDTH = 31'-9 3/4" TO 34'-3"
AREA = 16,929 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY = \$273
TOTAL COST = \$4,618,000



TYPICAL SECTION

1" = 10'

NOTES:

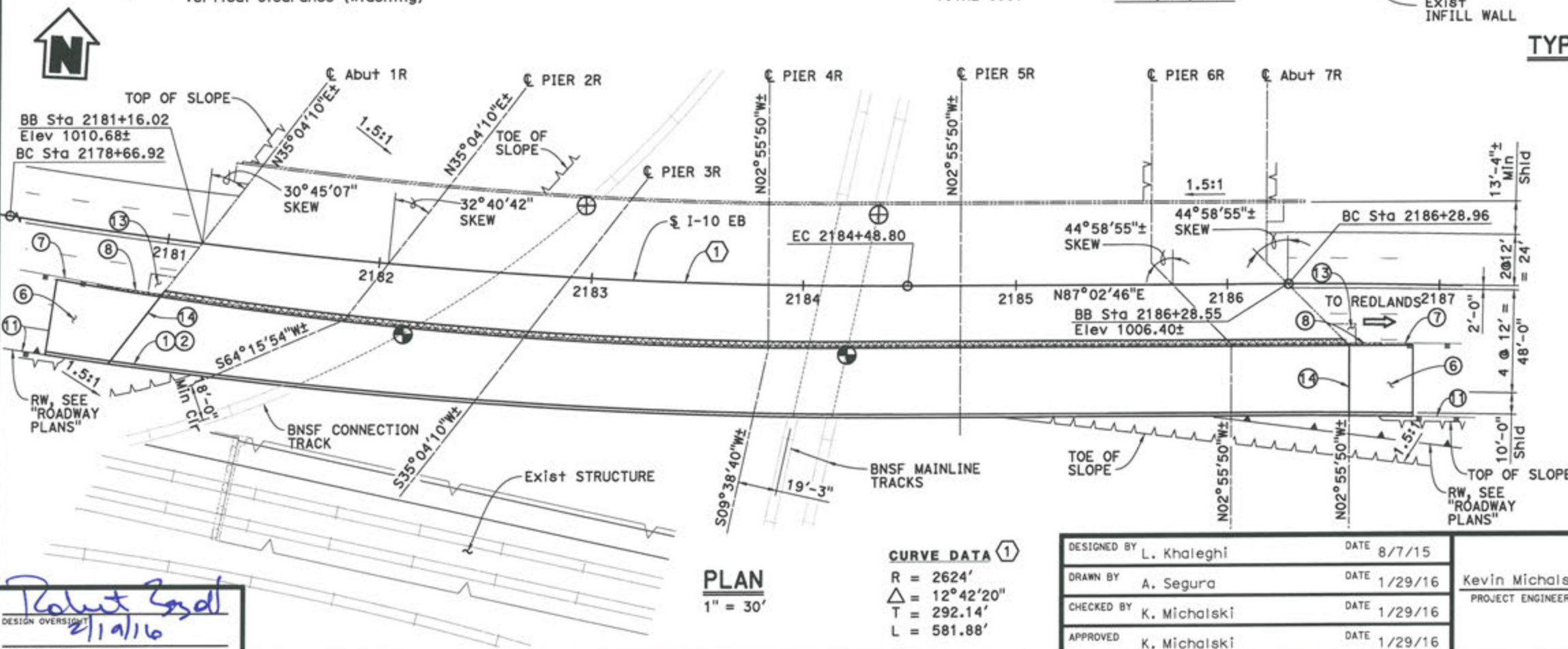
- ① Paint "Bridge No. 54-0464R"
- ② Paint "Colton OH Right"
- ③ Concrete Barrier (Type 736 Modified)
- ④ Chain Link Railing (Type 7)
- ⑤ Temporary Railing Type K, See "ROADWAY PLANS"
- ⑥ Structure Approach, Type N (30S)
- ⑦ Exist MBGR to be removed, See "ROADWAY PLANS"
- ⑧ Remove Top Portion Exist Retaining Wall
- ⑨ Remove Top Portion Exist Wingwall
- ⑩ Remove Exist Type 9 Barrier
- ⑪ MBGR, See "ROADWAY PLANS"
- ⑫ Slope Paving
- ⑬ Exist Approach Slab
- ⑭ Joint Seal Type A

EXPRESS ALTERNATIVE

PLANNING STUDY

COLTON OH RIGHT (WIDEN)

BRIDGE NO. 54-0464R	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 080000040



PLAN

1" = 30'

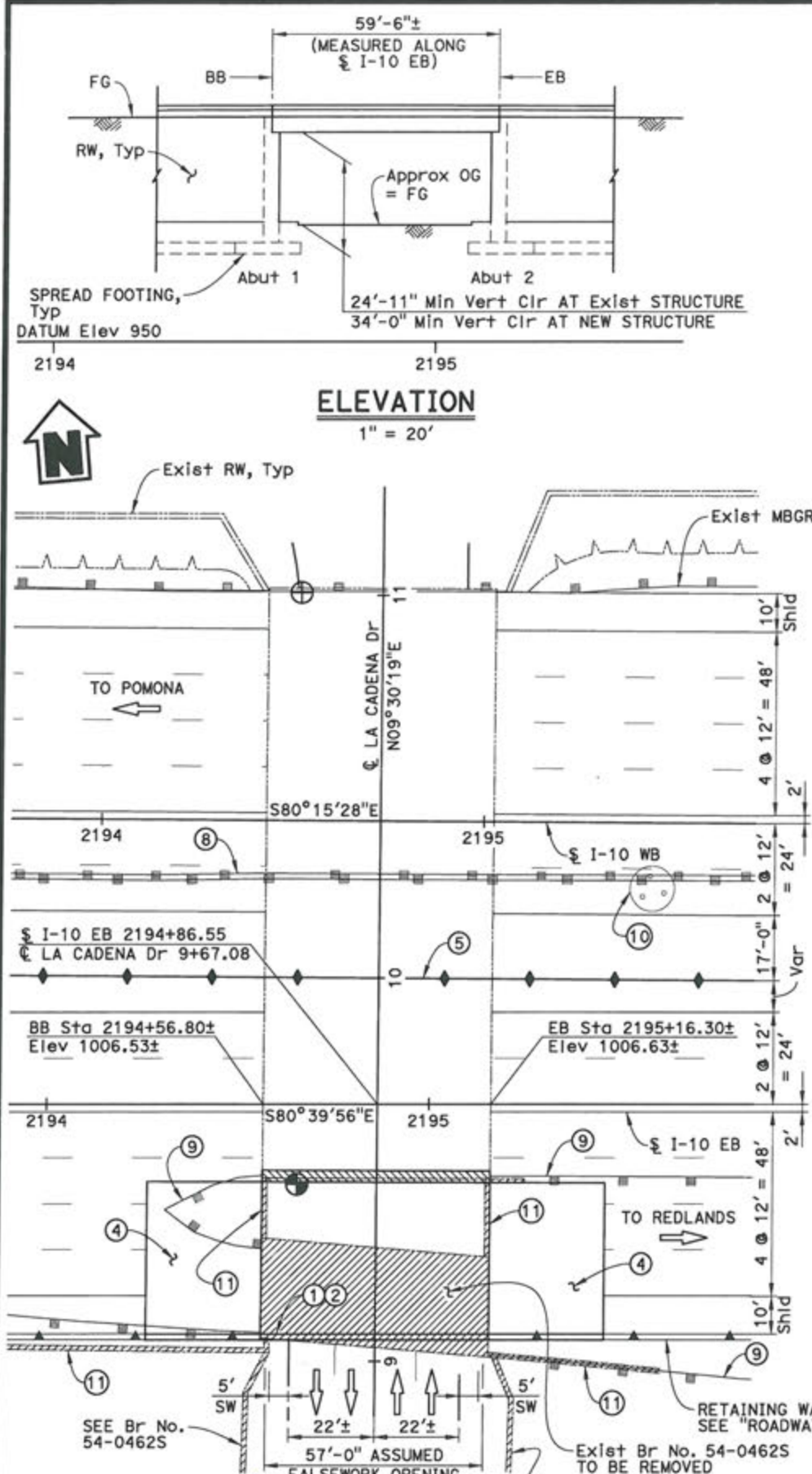
CURVE DATA ①

R = 2624'
Δ = 12°42'20"
T = 292.14'
L = 581.88'

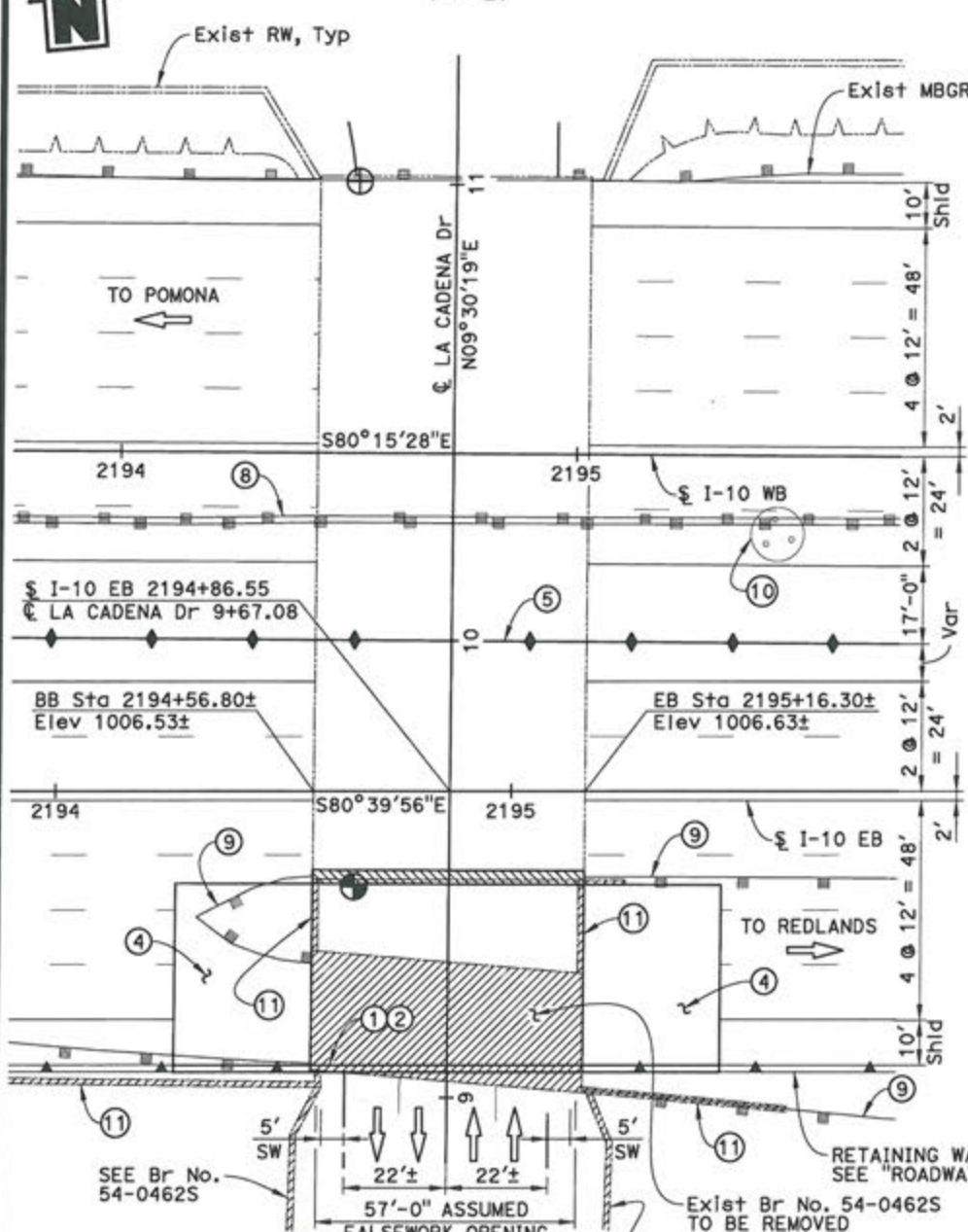
DESIGNED BY L. Khaleghi	DATE 8/7/15
DRAWN BY A. Segura	DATE 1/29/16
CHECKED BY K. Michalski	DATE 1/29/16
APPROVED K. Michalski	DATE 1/29/16

Kevin Michalski
PROJECT ENGINEER

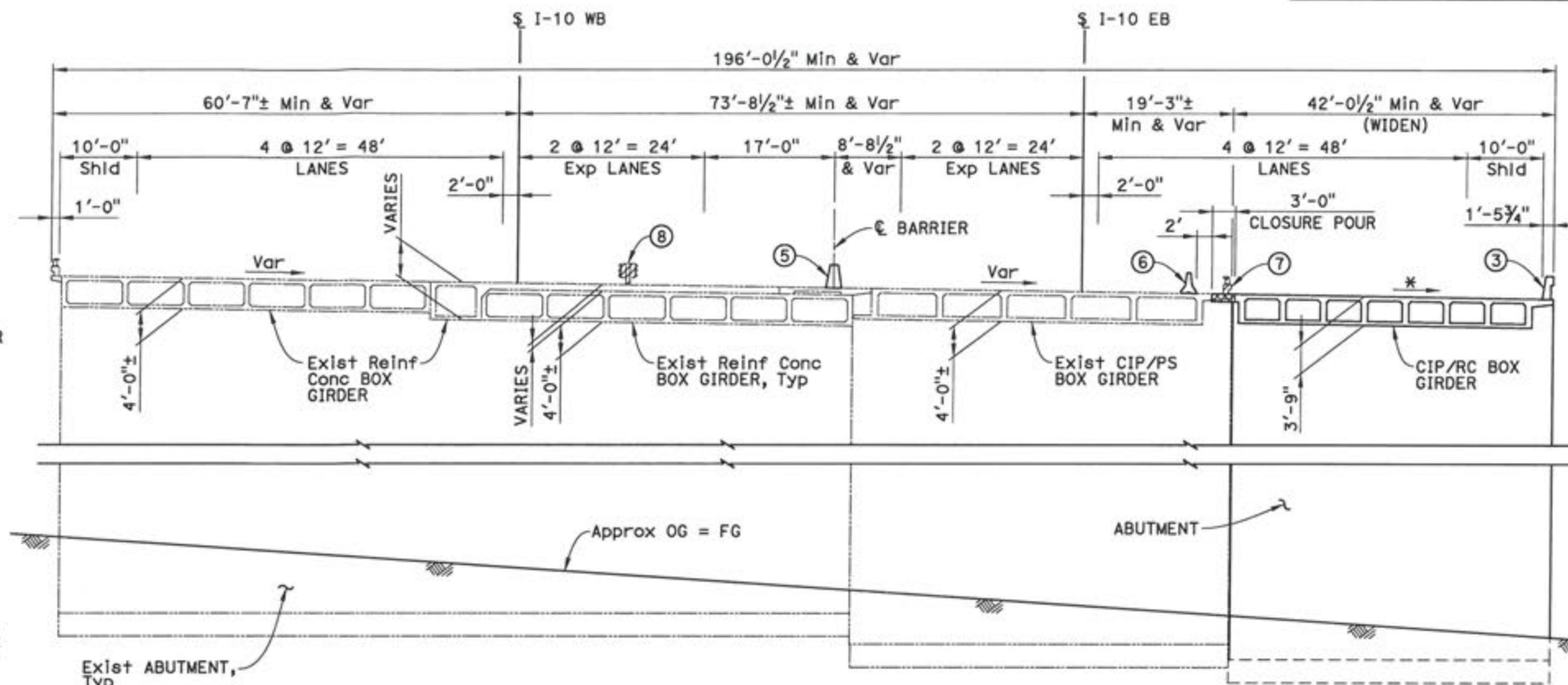
Robert Esdell
DESIGN OVERSIGHT
2/19/16
SIGN OFF DATE



ELEVATION

$$1'' = 20'$$


PLAN

 $1'' = 20'$ 

TYPICAL SECTION

$$1'' = 10'$$

LEGEND:

- | | |
|---|--|
|  | Indicates Direction of Traffic |
|  | Indicates Bridge Removal |
|  | Indicates Closure Pour |
|  | Indicates Point of existing minimum Vertical Clearance |
|  | Indicates Point of minimum Vertical Clearance (Widening) |
|  | Indicates Exist Structure |
|  | Indicates New Structure |
|  | Match Exist Profile Grade and Cross Slope |

NOTES:

- ① Paint "Br No. 54-0462"
- ② Paint "La Cadena Dr UC"
- ③ Concrete Barrier Type 736
- ④ Structure Approach Type N(30D)
- ⑤ Concrete Barrier (Type 60A)
- ⑥ Temporary Railing Type K, see "ROADWAY PLANS"
- ⑦ Remove Exist Type 9 Conc Barrier
- ⑧ Exist Double MBGR to be removed, see "ROADWAY PLANS"
- ⑨ Exist MBGR to be removed, see "ROADWAY PLANS"
- ⑩ Exist Utility to remain
- ⑪ Remove Exist retaining wall

DATE OF ESTIMATE	=	<u>6/25/15</u>
BRIDGE REMOVAL	=	<u>1695 SF</u>
STRUCTURE DEPTH	=	<u>3'-9"</u>
LENGTH	=	<u>59'-6"</u>
WIDTH	=	<u>42'-0 1/2" TO 42'-2 1/2"</u>
AREA	=	<u>2506 SF</u>
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	<u>\$ 630</u>
TOTAL COST	=	<u>\$ 1,580,000</u>

**EXPRESS ALTERNATIVE
PLANNING STUDY**

LA CADENA DRIVE UC (WIDEN)	
BRIDGE NO. 54-0462	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 080000040

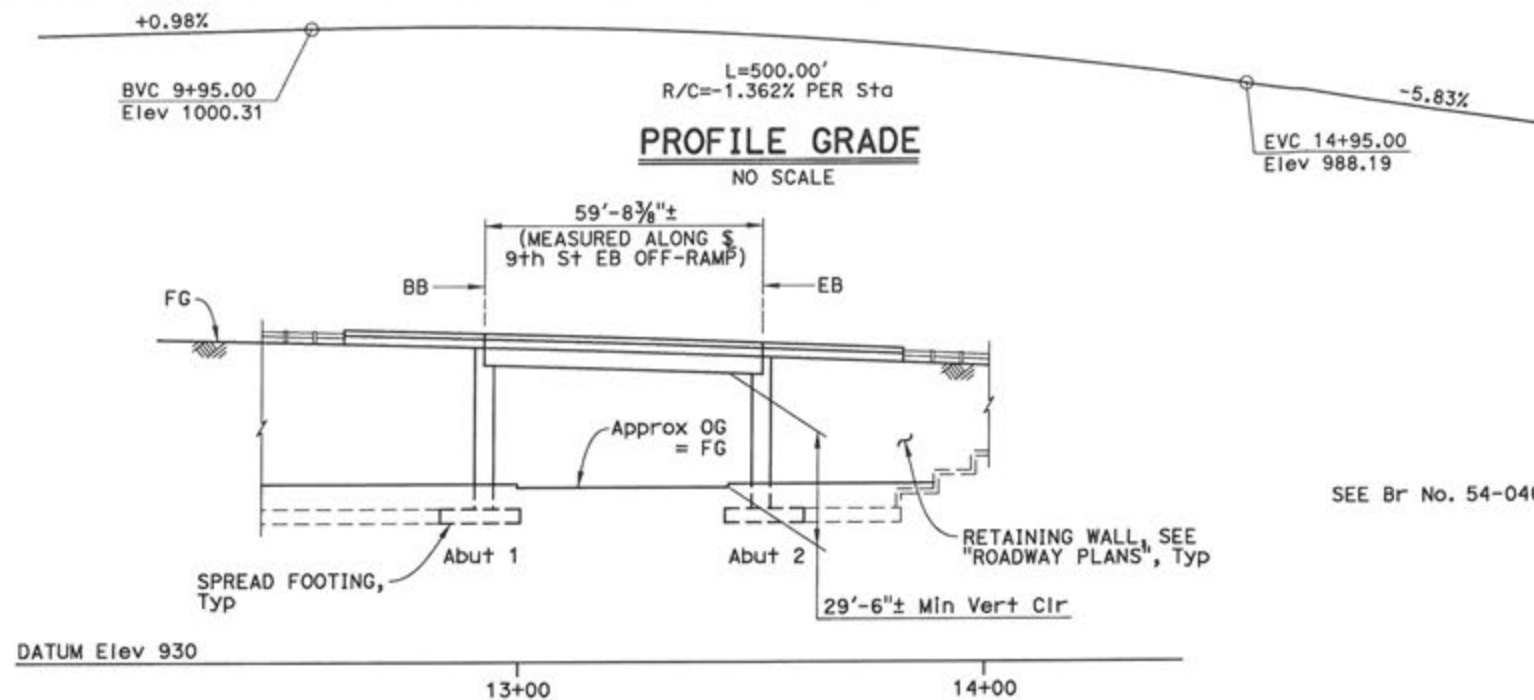
DESIGNED BY	L. Khaleghi	DATE	6/25/15
DRAWN BY	F. Hakemi	DATE	6/25/15
CHECKED BY	K. Michalski	DATE	6/25/15
APPROVED	K. Michalski	DATE	6/25/15

Kevin Michalski
PROJECT ENGINEER

DIST	COUNTY	ROUTE	POST MILES
07	LA, SBA	10	TOTAL PROJECT
08			44.9/48.3
			0.0/R37.0

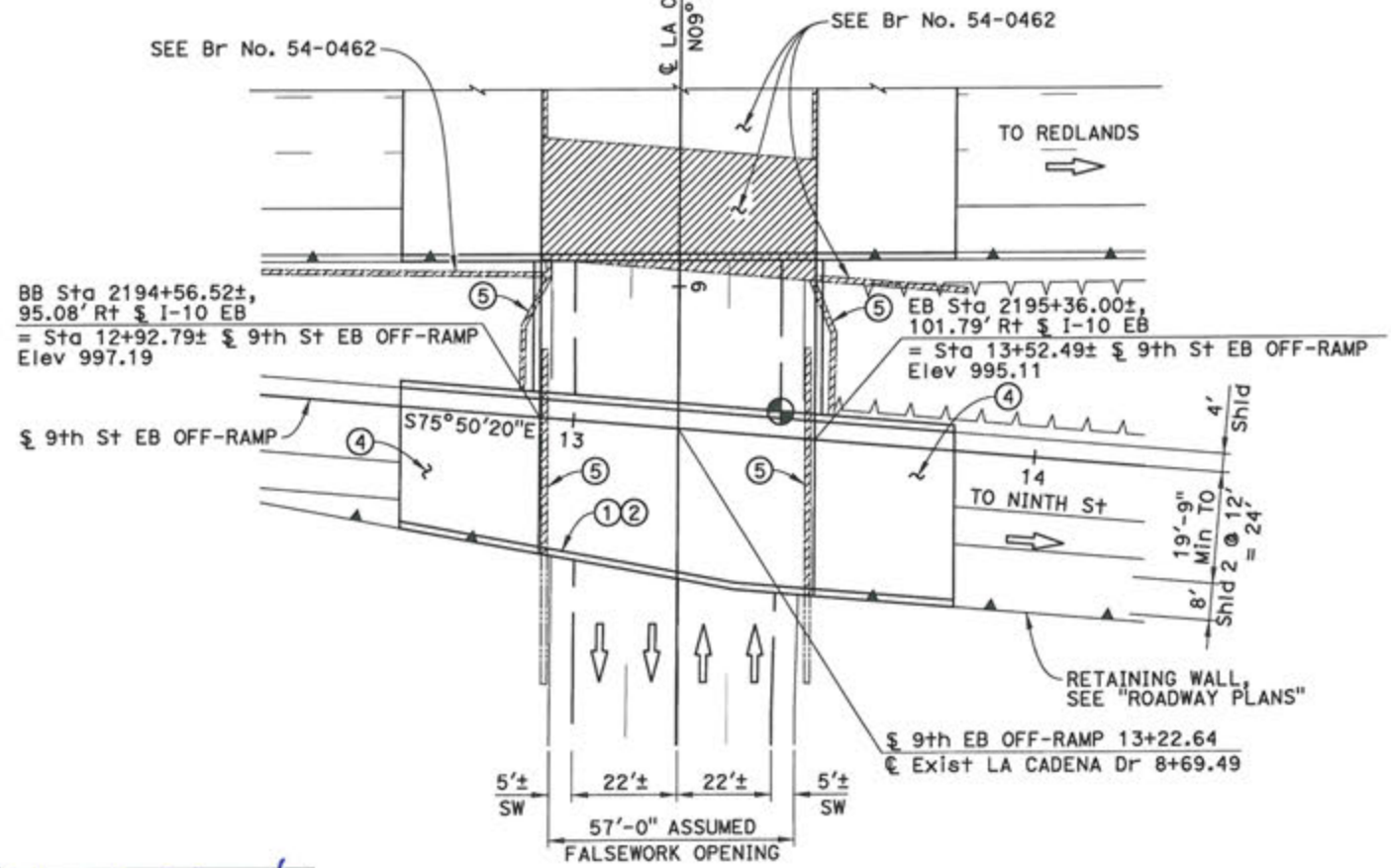
SAN BERNARDINO ASSOCIATED GOVERNMENTS 1170 W Third St
2nd Floor
San Bernardino
CA 92410

PARSONS 2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612



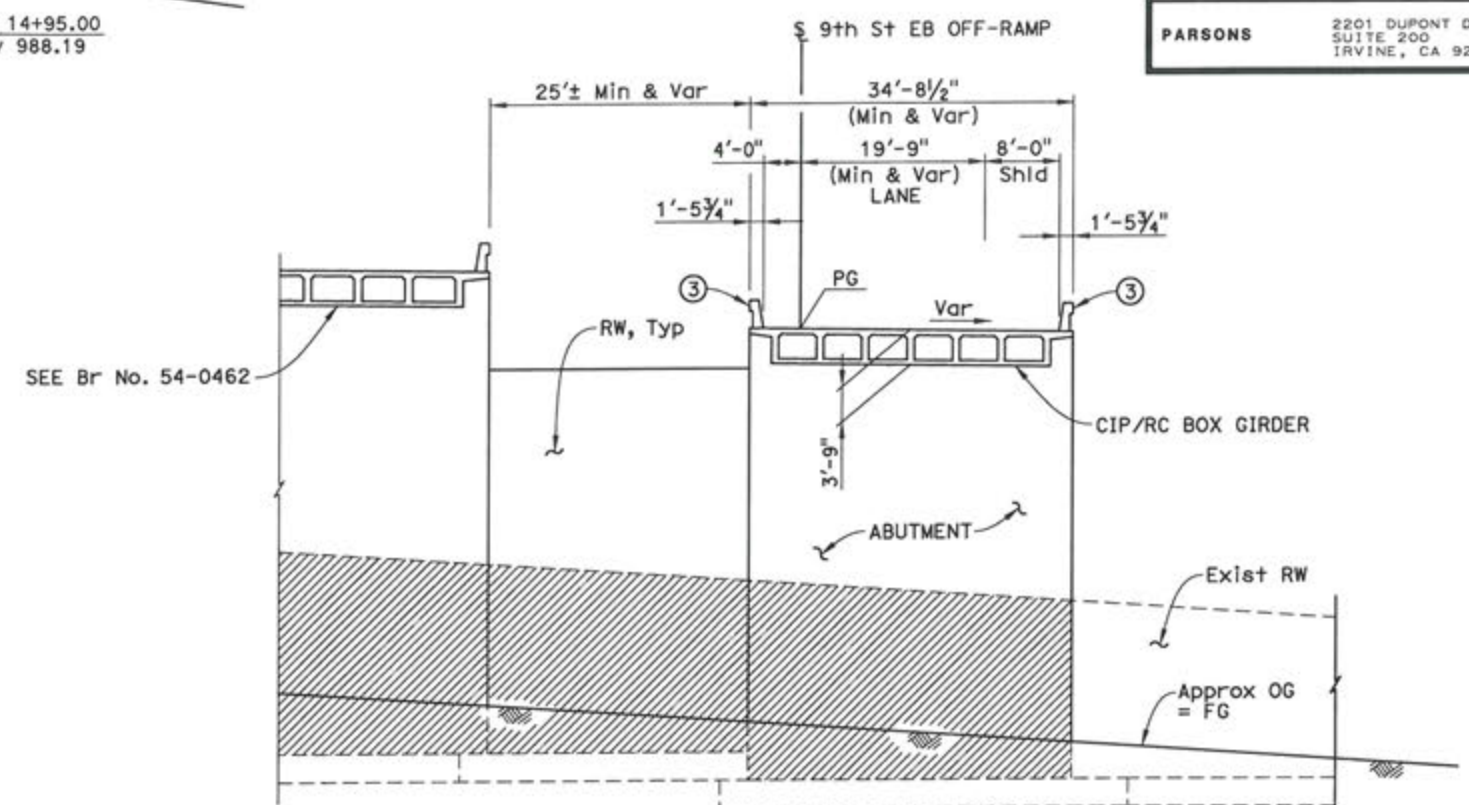
ELEVATION

1" = 20'



PLAN

1" = 20'



TYPICAL SECTION

1" = 10'

LEGEND:

- Indicates Direction of Traffic
- ▨ Indicates Bridge or Retaining Wall Removal (Portion)
- ⊙ Indicates Point of Min Vertical Clearance
- Indicates Exist Structure
- Indicates New Structure

NOTES:

- Paint "Br No. 54-0462S"
- Paint "La Cadena Dr EB Off-Ramp"
- Concrete Barrier (Type 736)
- Structure Approach Type N(300)
- Remove Existing Retaining Wall (Portion)

DATE OF ESTIMATE	=	9/14/15
BRIDGE REMOVAL	=	0 SF
RETAINING WALL REMOVAL (PORTION)	=	122 LF
STRUCTURE DEPTH	=	3'-9"
LENGTH	=	59'-8 3/8"
WIDTH	=	34'-8 1/2" TO 38'-11 1/2"
AREA	=	2199 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$ 630
TOTAL COST	=	\$ 1,385,000

EXPRESS ALTERNATIVE PLANNING STUDY

LA CADENA DR UC (EB OFF) (REPLACE)

BRIDGE NO. 54-0462S	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

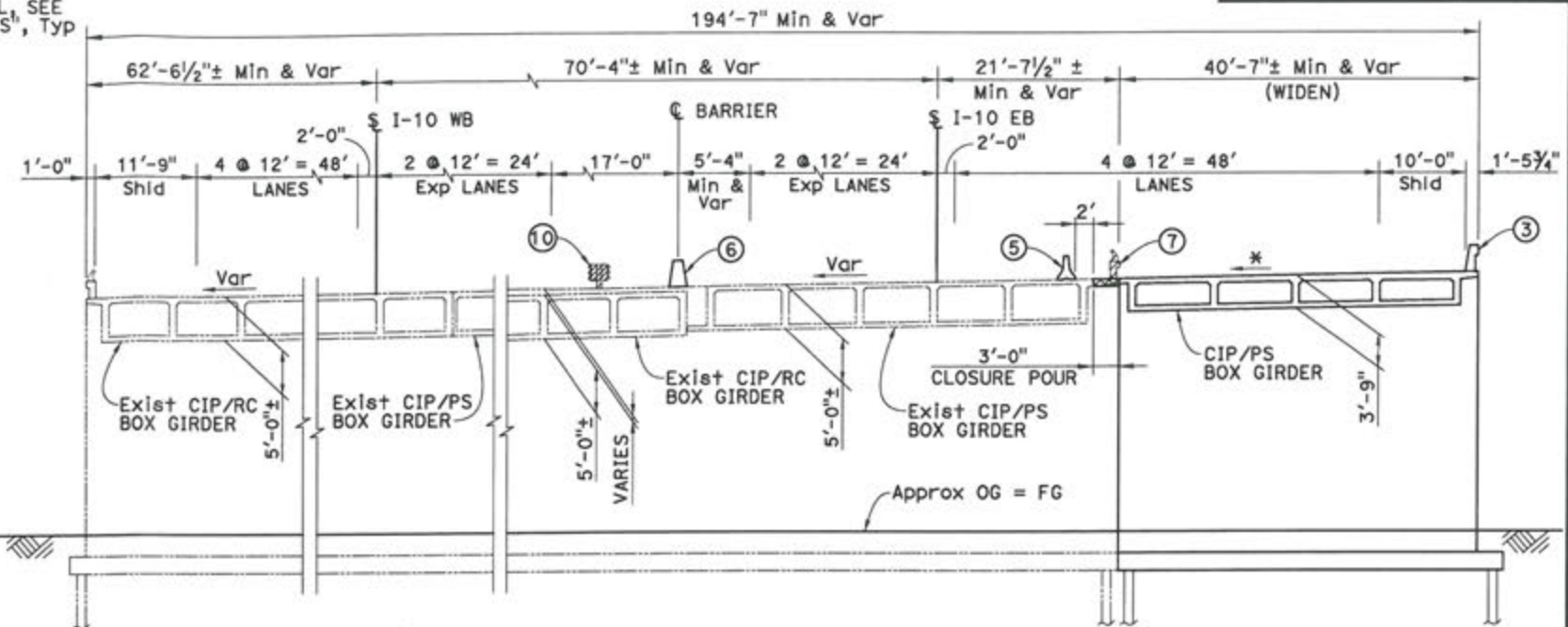
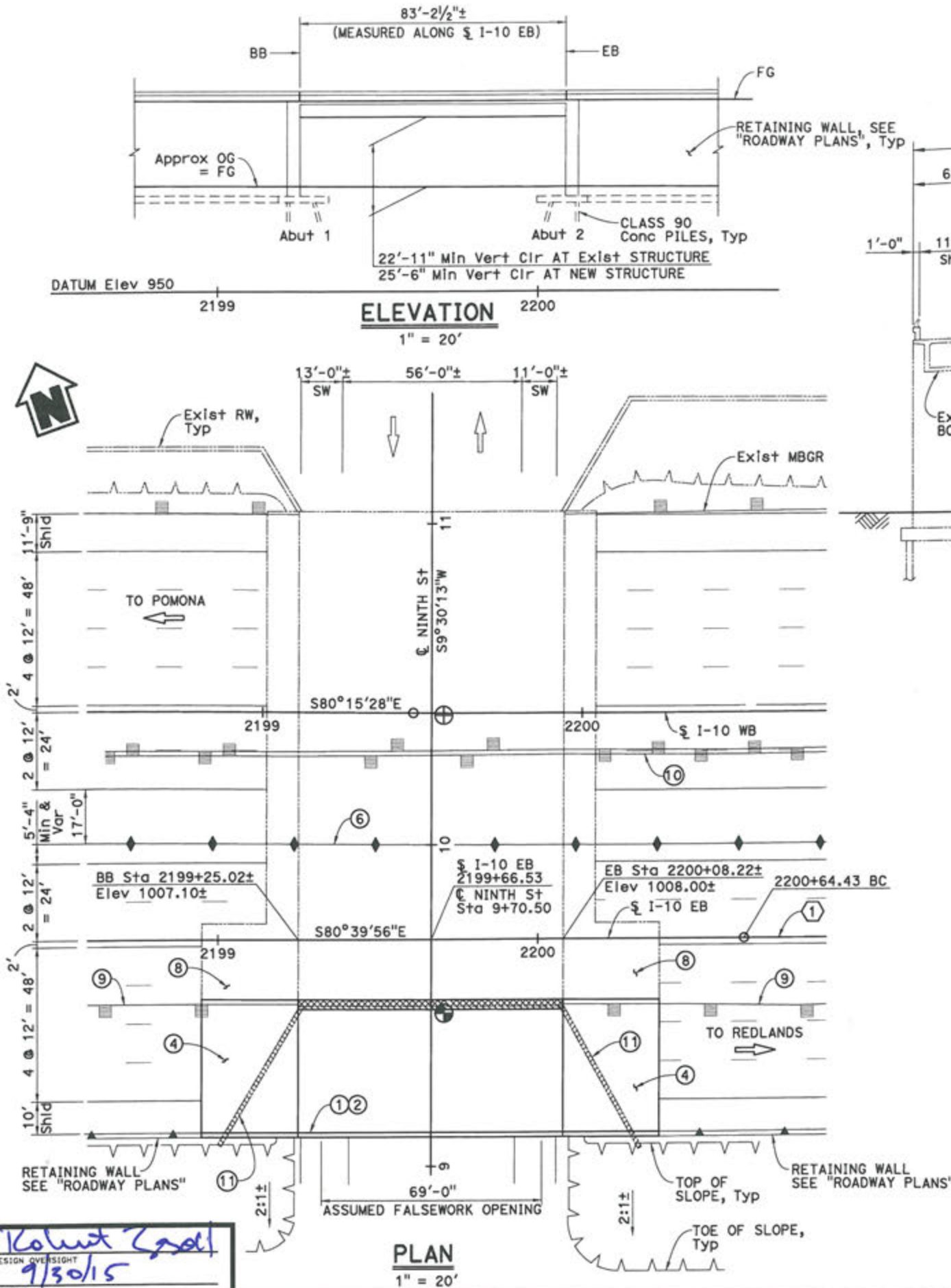
DESIGNED BY	L. Khaleghi	DATE	9/14/15
DRAWN BY	F. Hakemi	DATE	9/14/15
CHECKED BY	K. Michalski	DATE	9/14/15
APPROVED	K. Michalski	DATE	9/14/15

Kevin Michalski
PROJECT ENGINEER

Robert Coxell
DESIGN OVERSIGHT
9/30/15
SIGN OFF DATE

DIST	COUNTY	ROUTE	POST MILES
07	LA, SBA	10	TOTAL PROJECT
08			44.9/48.3
			0.0/R37.0

SAN BERNARDINO ASSOCIATED GOVERNMENTS	1170 W Third St 2nd Floor San Bernardino CA 92410
PARSONS	2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



CURVE DATA ①
 R = 7867.00'
 Δ = 3°57'50"
 T = 272.24'
 L = 544.26'

- NOTES:**
- ① Paint "Br. No. 54-0461"
 - ② Paint "Ninth Street UC"
 - ③ Concrete Barrier Type 736
 - ④ Structure Approach, Type N(300)
 - ⑤ Temporary Railing, Type K, See "ROADWAY PLANS"
 - ⑥ Concrete Barrier (Type 60A)
 - ⑦ Remove Exist Type 9 Concrete Barrier
 - ⑧ Exist Approach Slab
 - ⑨ Exist MBGR to be removed, see "ROADWAY PLANS"
 - ⑩ Exist Double MBGR to be removed, See "ROADWAY PLANS"
 - ⑪ Remove Exist Wingwall

- LEGEND:**
- ➔ Indicates Direction of Traffic
 - ▨ Indicates Bridge Removal (Portion)
 - ▨ Indicates Closure Pour
 - ⊕ Indicates Point of Existing Minimum Vertical Clearance
 - ⊗ Indicates Point of Minimum Vertical Clearance (Widening)
 - Indicates Exist Structure
 - Indicates New Structure
 - * Match Exist Profile Grade and Cross Slope

DATE OF ESTIMATE	=	9/14/15
BRIDGE REMOVAL	=	270 SF
STRUCTURE DEPTH	=	3'-9"
LENGTH	=	83'-0"
WIDTH	=	40'-7" TO 40'-10"
AREA	=	3379 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$ 353
TOTAL COST ***	=	\$ 1,194,000

**EXPRESS ALTERNATIVE
 PLANNING STUDY
 NINTH STREET UC (WIDEN)**

DESIGNED BY	L. Khaleghi	DATE	9/14/15
DRAWN BY	A. Segura	DATE	9/14/15
CHECKED BY	K. Michalski	DATE	9/14/15
APPROVED	K. Michalski	DATE	9/14/15

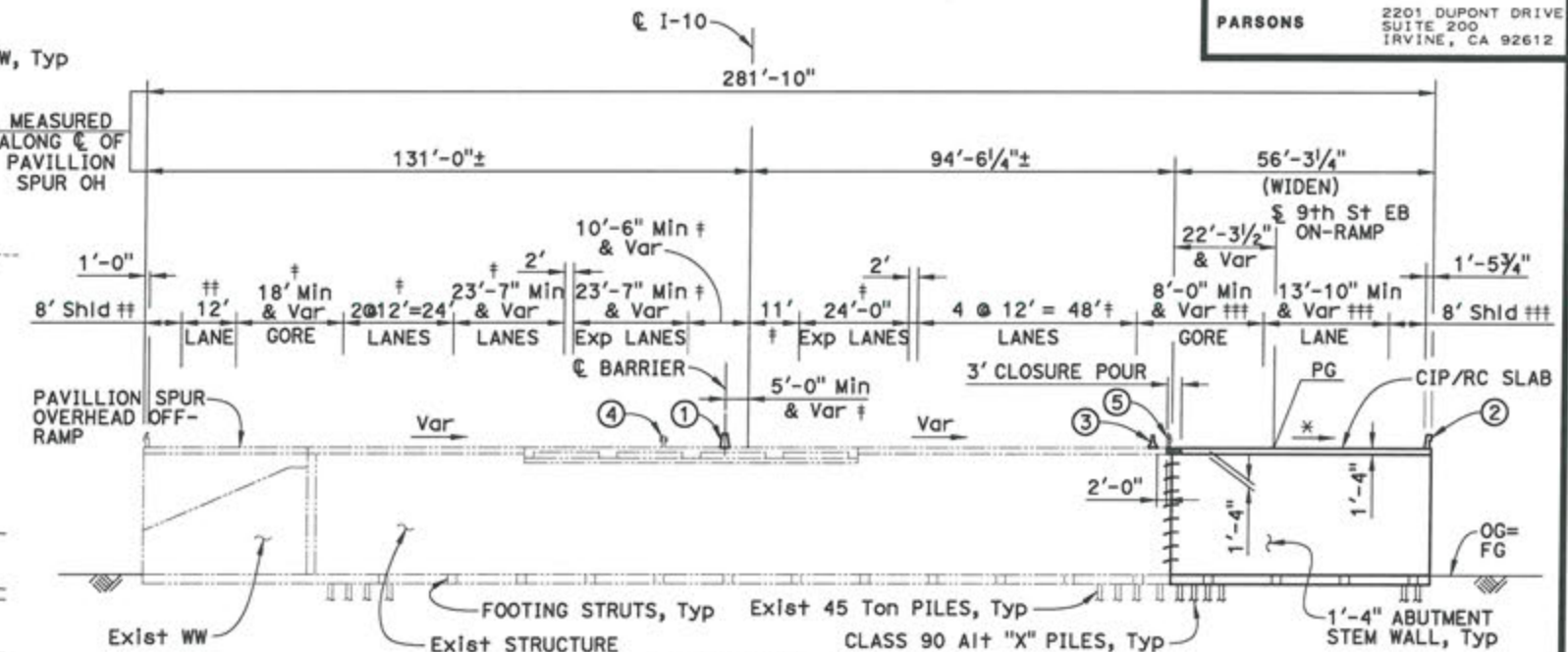
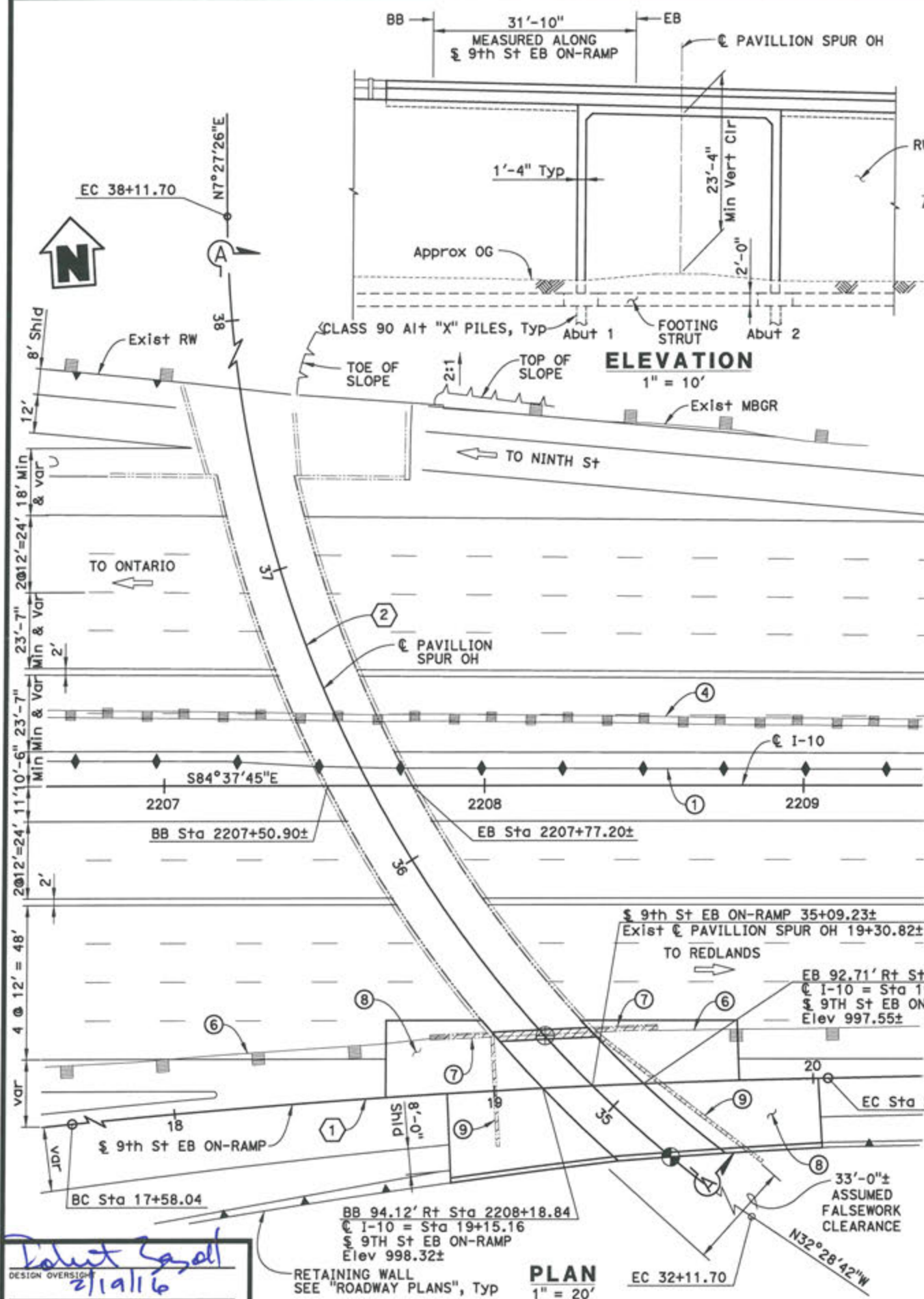
Kevin Michalski
 PROJECT ENGINEER

BRIDGE NO. 54-0461	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

Kolbert Z...
 DESIGN OVERSIGHT
 9/30/15
 SIGN OFF DATE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07	LA, Sbd	10	44.9/48.3
08			0.0/R37.0

SAN BERNARDINO ASSOCIATED GOVERNMENTS	1170 W Third St 2nd Floor San Bernardino CA 92410
PARSONS	2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



NOTES:

- Concrete Barrier Type 60A
- Concrete Barrier Type 736
- Temporary Railing Type K See "ROADWAY PLANS"
- Exist Double MBGR to be Removed, See "ROADWAY PLANS"
- Remove Exist Type 9 Concrete Barrier
- Exist MBGR to be Removed, See "ROADWAY PLANS"
- Remove Portion Exist Wingwall
- Structure Approach, Type N(30S)
- Remove Exist Retaining Wall

LEGEND:

- Direction of Traffic
- Indicates Bridge Removal (Portion) or Retaining Wall Removal
- Indicates Point of Minimum Vertical Clearance
- Indicates Existing Point of Minimum Vertical Clearance
- Indicates New Structure
- Indicates Exist Structure
- Match exist profile grade and cross slope
- Measured normal to I-10
- Measured normal to Left EOD
- Measured normal to Right EOD

SECTION A-A 1" = 20'

CURVE DATA ①

R = 3000'
Δ = 3°11'29"
L = 167.10'
T = 83.57'

CURVE DATA ②

R = 382.24'
Δ = 90°0'0"
L = 600.00'
T = 382.24'

DATE OF ESTIMATE	=	1/29/16
OTHER STRUCTURE REMOVAL	=	1709 SF
BRIDGE REMOVAL	=	96 SF
STRUCTURE DEPTH	=	1'-4"
LENGTH	=	31'-10"
WIDTH	=	56'-3 1/4" & Var
AREA	=	1791 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$477
TOTAL COST	=	\$855,000

EXPRESS ALTERNATIVE PLANNING STUDY

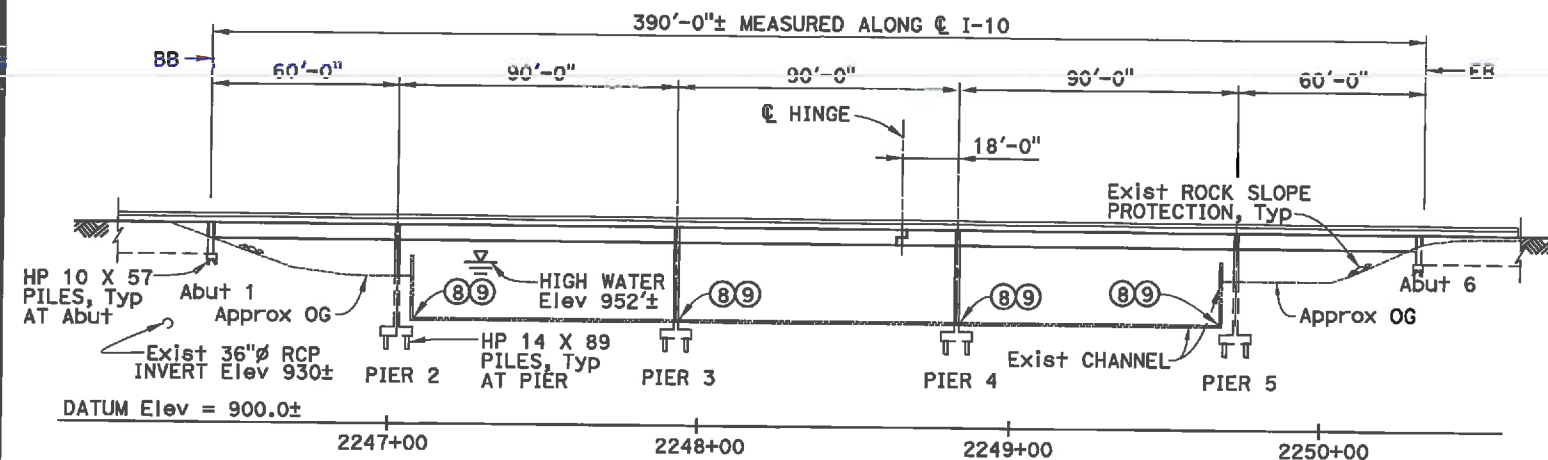
PAVILLION SPUR OH (WIDEN)

BRIDGE NO. 54-0460	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 080000040

DESIGNED BY	L. Khaleghi	DATE	8/7/15
DRAWN BY	A. Segura	DATE	1/29/16
CHECKED BY	K. Michalski	DATE	1/29/16
APPROVED	K. Michalski	DATE	1/29/16

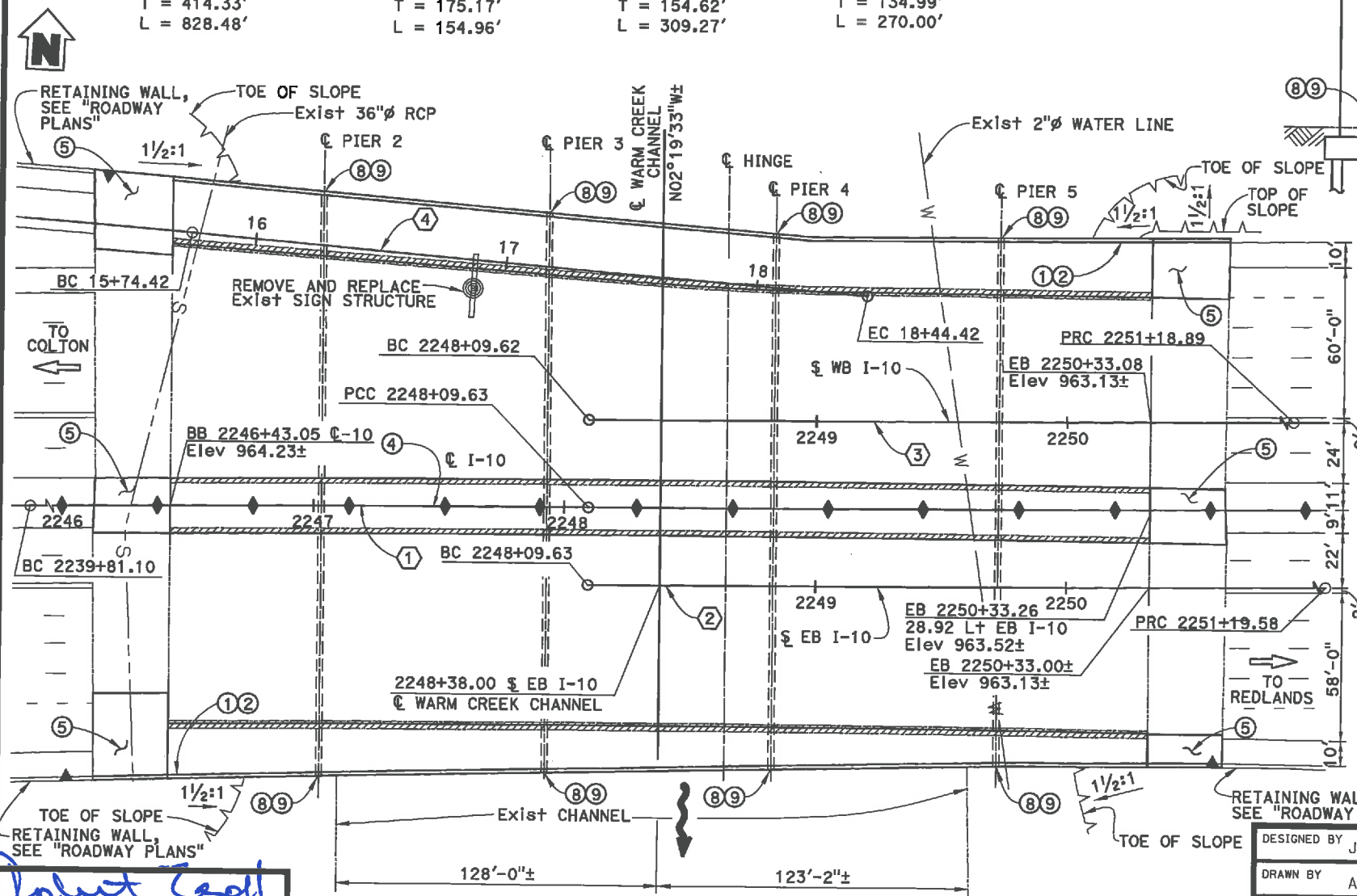
Kevin Michalski
PROJECT ENGINEER

DIST	COUNTY	ROUTE	TOTAL MILES POST PROJECT
07 08	LA, Sbd	10	44.9/48.3 0.0/37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS		1170 W Third St San Bernardino CA 92410	
PARSONS		2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612	

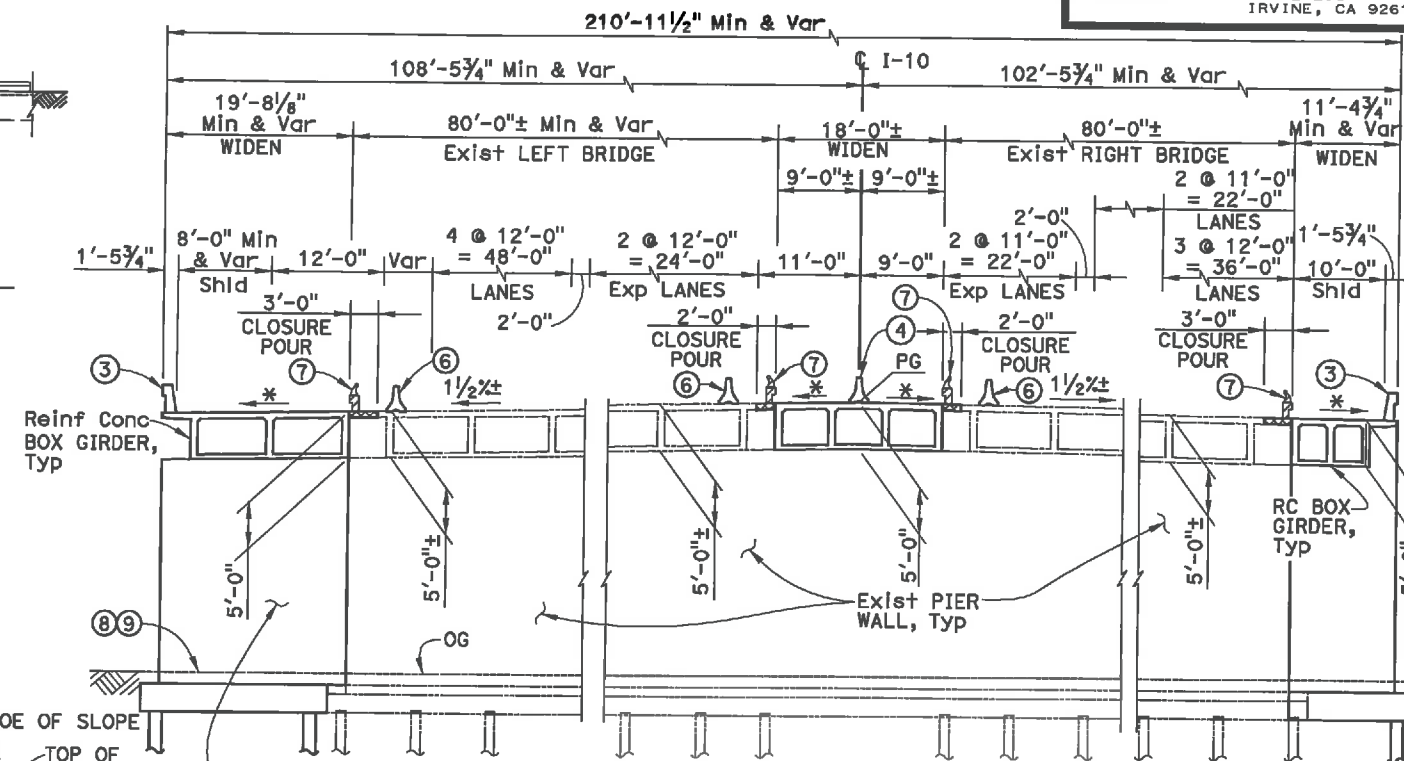


ELEVATION
1" = 30'

CURVE DATA ①	CURVE DATA ②	CURVE DATA ③	CURVE DATA ④
R = 20,000'	R = 30,040'	R = 29,974'	R = 29,924'
$\Delta = 02^{\circ}22'25''$	$\Delta = 0^{\circ}35'28''$	$\Delta = 0^{\circ}35'28''$	$\Delta = 0^{\circ}31'01''$
T = 414.33'	T = 175.17'	T = 154.62'	T = 134.99'
L = 828.48'	L = 154.96'	L = 309.27'	L = 270.00'



PLAN
1" = 30'



NOTE: ALL PILES NOT SHOWN
TYPICAL SECTION
1" = 10'

- NOTES:**
- ① Paint "Br. No. 54-0830"
 - ② Paint "Warm Creek Bridge"
 - ③ Concrete Barrier (Type 736)
 - ④ Median Concrete Barrier (Type 60A)
 - ⑤ Structure Approach Type N(300)
 - ⑥ Temporary Railing Type K
 - ⑦ Exist Concrete Barrier (Type 9)
to be removed
 - ⑧ Remove Concrete (Channel)
 - ⑨ Concrete (Channel Lining)

- LEGEND:**
-  Indicates Direction of Travel
 -  Indicates Direction of Flow
 -  Indicates Bridge Removal (Portion)
 -  Indicates Closure Pour
 -  Indicates Retaining Wall
 -  Indicates Median Concrete Barrier (Type 60A)
 -  Indicates Existing Structure
 -  Match Existing Profile Grade and Cross Slope
- NS"
- EX**

DATE OF ESTIMATE	=	5/6/15
BRIDGE REMOVAL	=	5655 SF
STRUCTURE DEPTH	=	5'-0"
LENGTH	=	390'-0"
WIDTH	=	54'-8 ⁵ / ₈ " Avg
AREA	=	21,341 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$288
TOTAL COST	=	\$6,147,000

EXPRESS ALTERNATIVE PLANNING STUDY WARM CREEK BRIDGE (WIDEN)

BRIDGE NO. 54-0830L/R	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

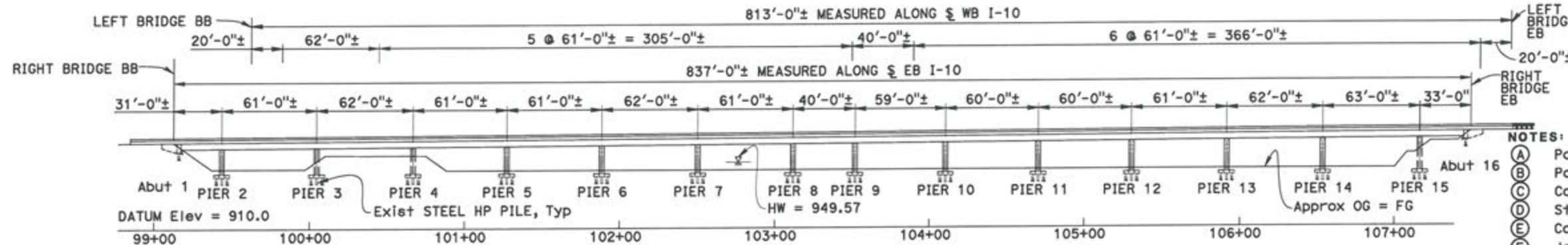
DESIGN OVERSIGHT
6/29/15
SIGN OFF DATE

ADVANCE PLANNING STUDY SHEET (ENGLISH) (REV. 7/16/10)

DESIGNED BY	J. Fix	DATE	9/10/14
DRAWN BY	A. Segura	DATE	9/11/14
CHECKED BY	J. Fix	DATE	9/16/14
APPROVED	K. Michalski	DATE	6/26/15

Kevin Michalski
PROJECT ENGINEER

FILE => c:\pw_working\ptgpwise\p004020a\dms55435\54-083-a-gp01Exp.dgn CONTRACT NO.: 08-OC2500



DIST	COUNTY	ROUTE	POST MILES
07	LA, Sbd	10	44.9/48.3
08			0.0/R37.0

SAN BERNARDINO ASSOCIATED GOVERNMENTS
1170 W Third St
San Bernardino
CA 92410

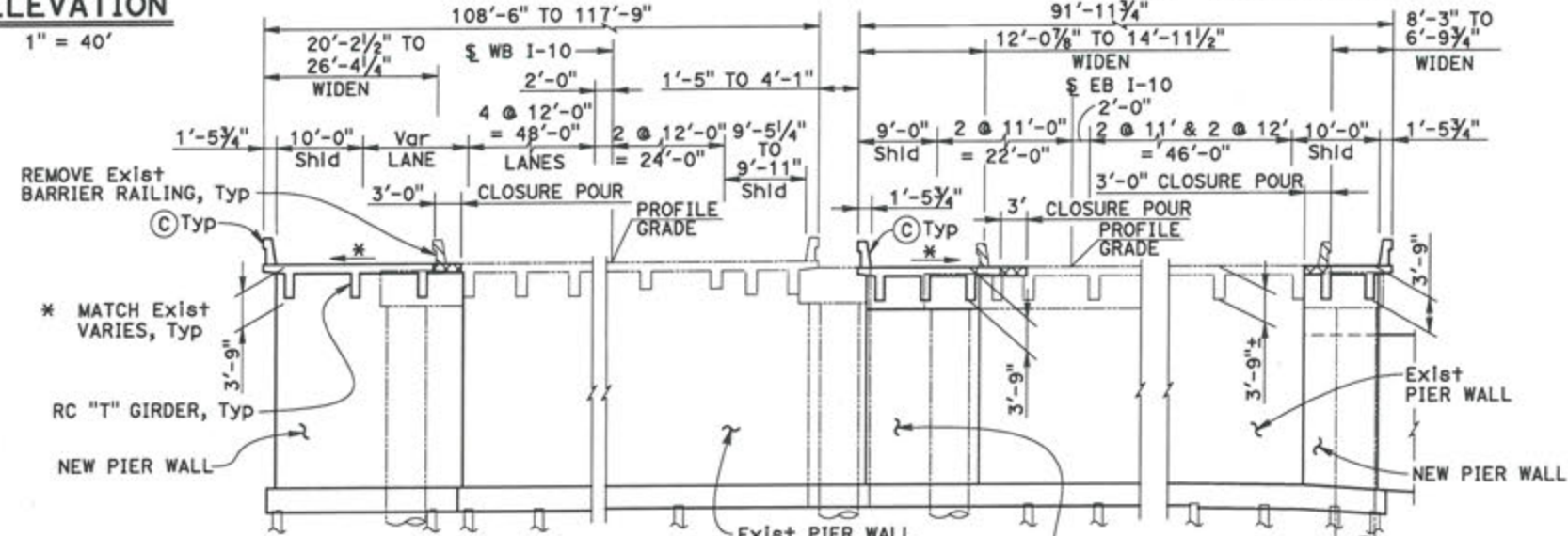
PARSONS
2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612

LEGEND:

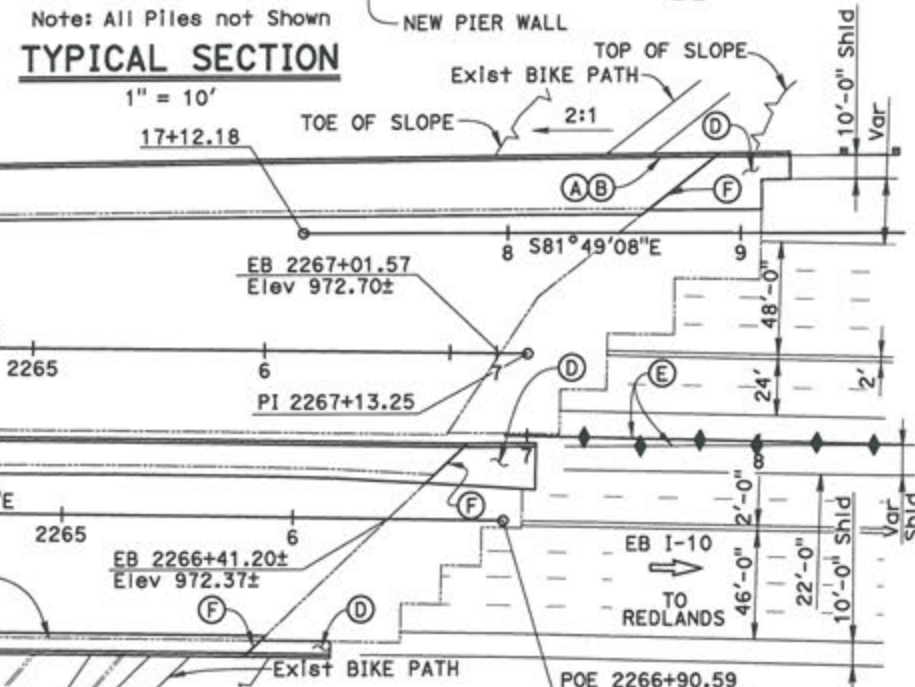
- Indicates Direction of Travel
- Indicates Closure Pour
- Indicates Bridge Removal
- Direction of Flow
- MBGR, see "Roadway Plans"
- Indicates New Structure
- Indicates Existing Structure
- Barrier, Type 60

DATE OF ESTIMATE	=	1/29/16
BRIDGE REMOVAL	=	7185 SF
STRUCTURE DEPTH	=	3'-9"
LENGTH	=	825' Average
WIDTH	=	44'-4" Average
AREA	=	36,572 SF
BRIDGE COST/SQFT	=	\$314/SF
BRIDGE COST INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$11,496,000
SEISMIC RETROFIT	=	**
TOTAL	=	\$11,496,000

ELEVATION
1" = 40'

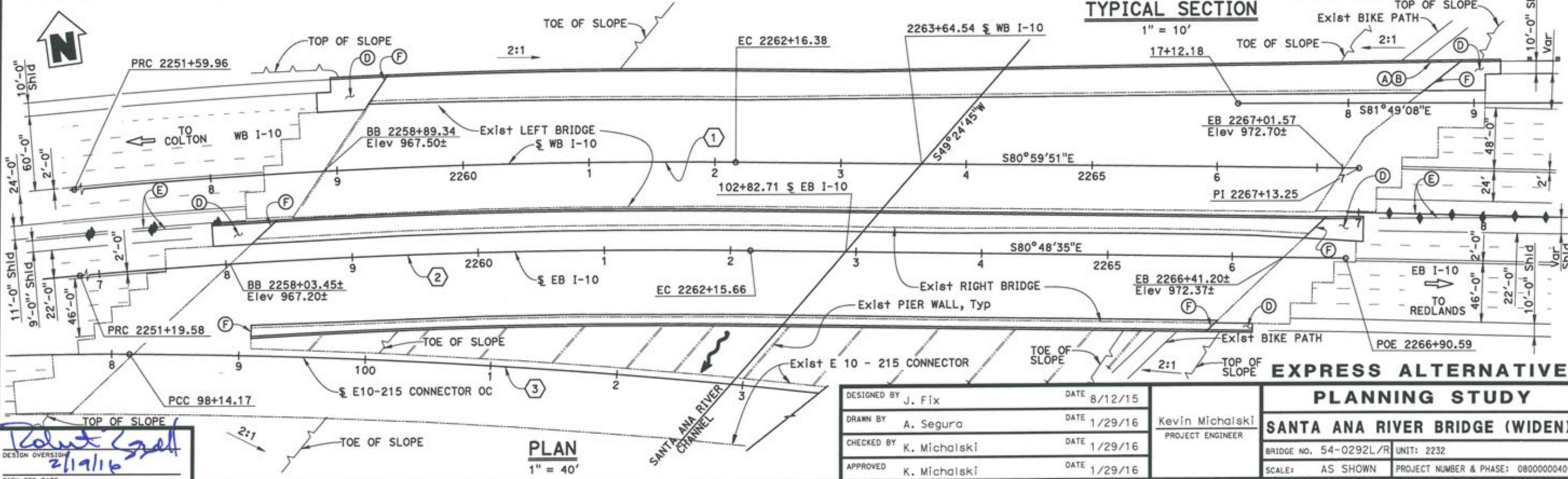


TYPICAL SECTION
1" = 10'



CURVE DATA ①	CURVE DATA ②	CURVE DATA ③
R = 5012.52'	R = 5154.00'	R = 5200.00'
Δ = 12°04'32"	Δ = 12°11'05"	Δ = 6°33'21"
L = 1056.42'	L = 1096.08'	L = 594.99'
T = 530.17'	T = 550.11'	T = 297.82'

** Seismic retrofit is being performed under separate project (EA 0q910)

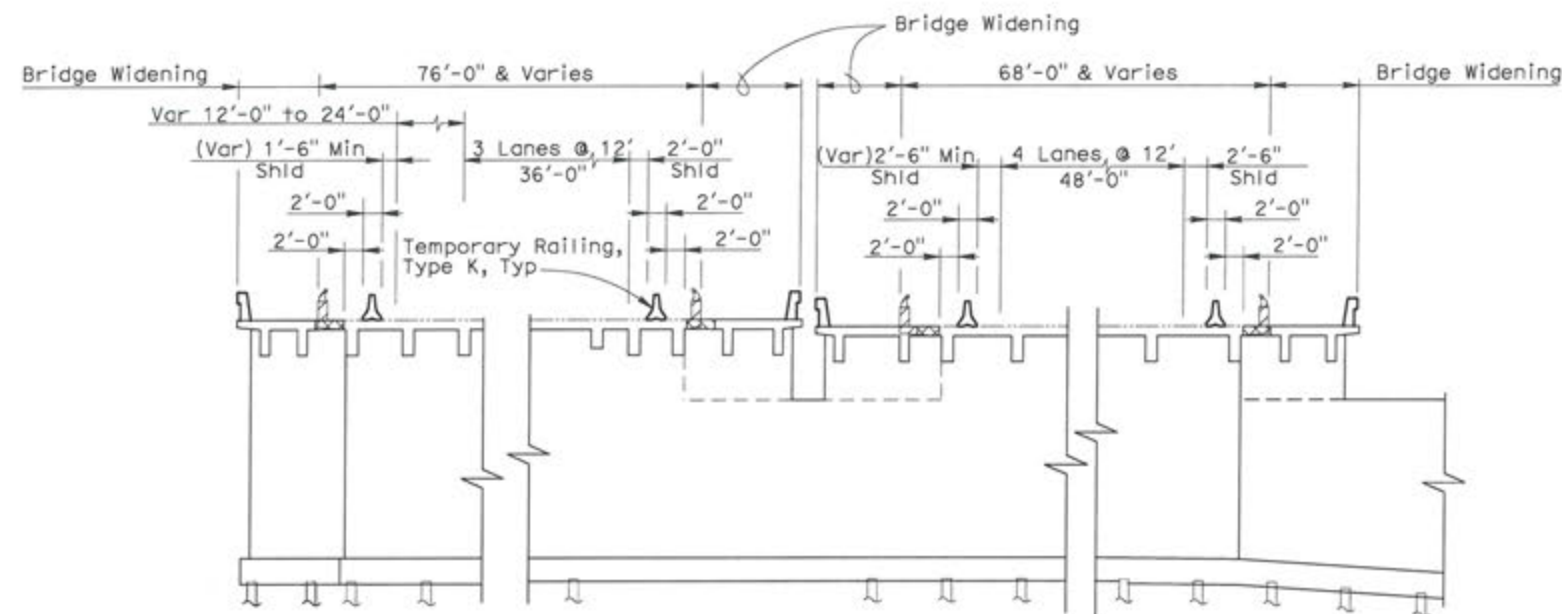


DESIGNED BY	J. Fix	DATE	8/12/15
DRAWN BY	A. Segura	DATE	1/29/16
CHECKED BY	K. Michalski	DATE	1/29/16
APPROVED	K. Michalski	DATE	1/29/16

Kevin Michalski
PROJECT ENGINEER

EXPRESS ALTERNATIVE PLANNING STUDY	
SANTA ANA RIVER BRIDGE (WIDEN)	
BRIDGE NO. 54-0292L/R	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 080000040

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, SBd	10	44.9/48.3 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St San Bernardino CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



Note:
For information not shown refer to "Typical Section" on
"Planing Study 1 of 2" sheet.

TYPICAL SECTION DURING CONSTRUCTION

1" = 10'

DESIGN OVERSIGHT
2/19/16
SIGN OFF DATE

DESIGNED BY	J. Fix	DATE	8/12/15
DRAWN BY	A. Segura	DATE	1/29/16
CHECKED BY	K. Michalski	DATE	1/29/16
APPROVED	K. Michalski	DATE	1/29/16

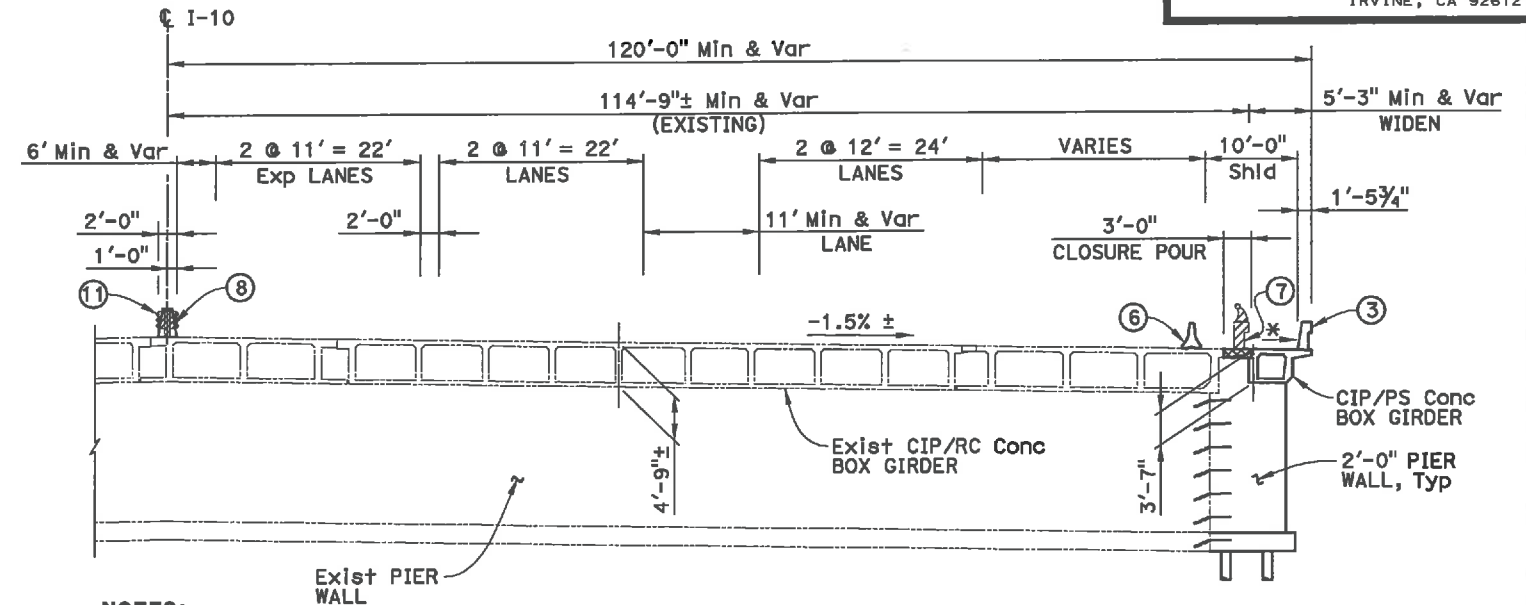
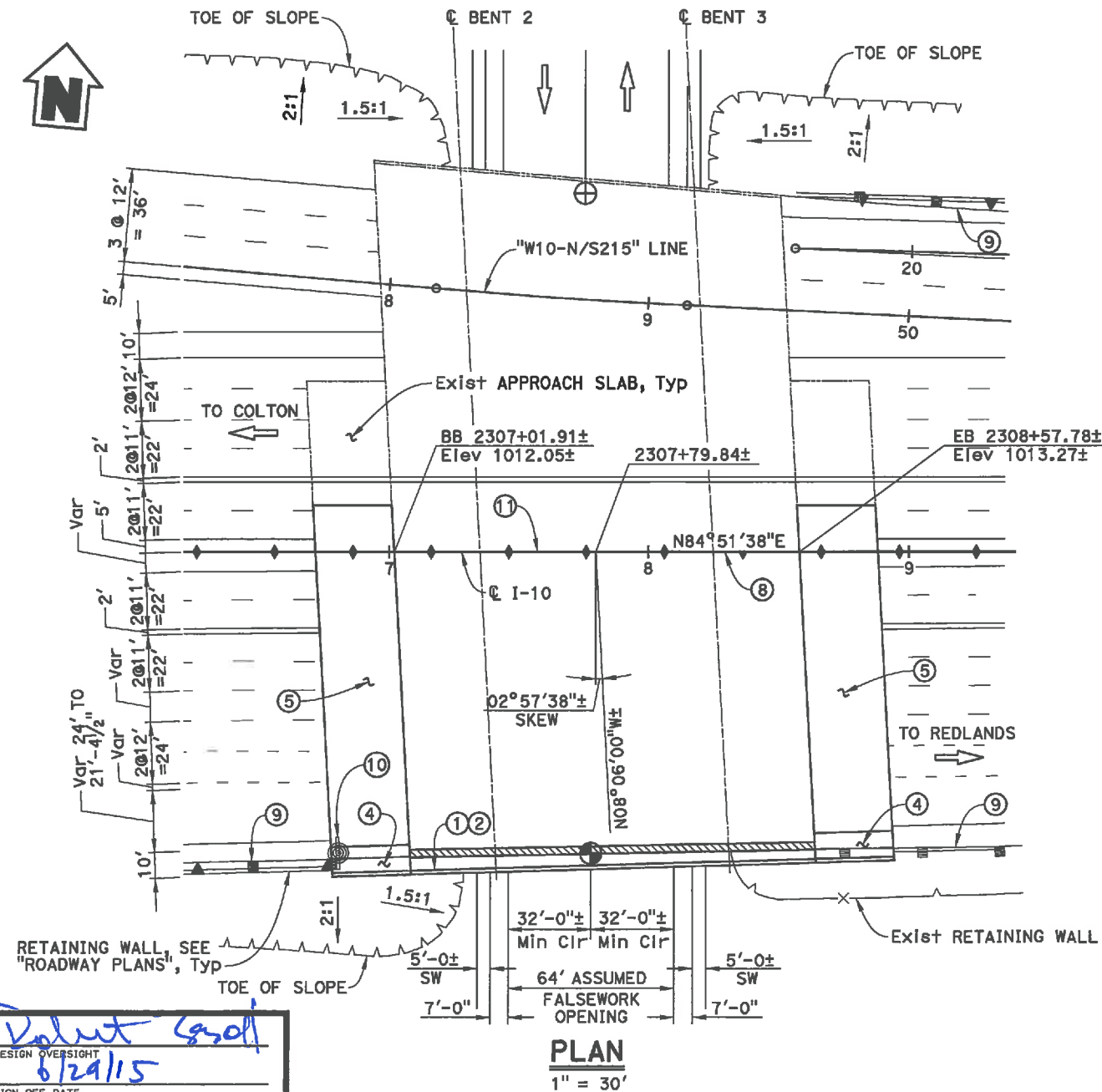
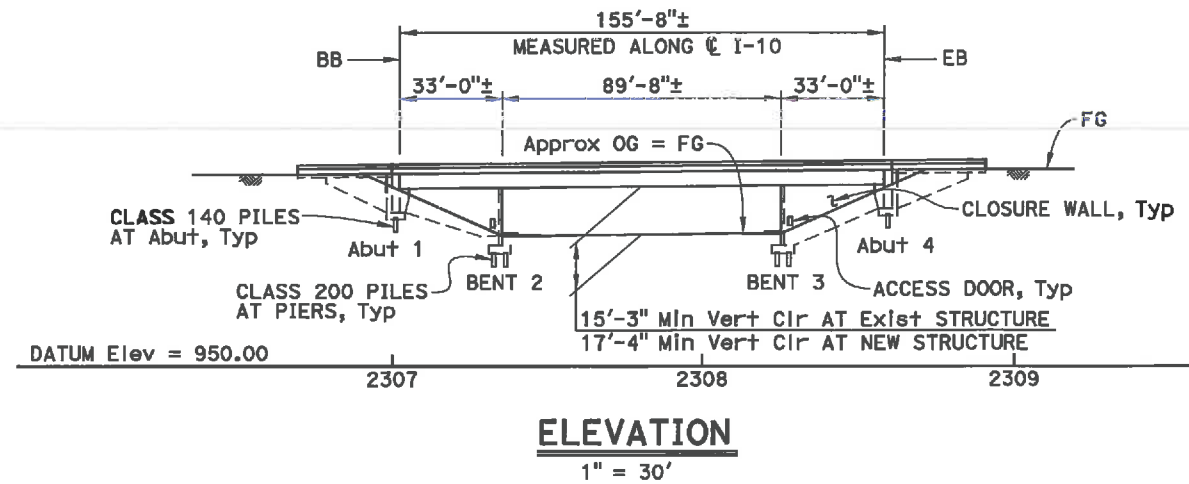
Kevin Michalski
PROJECT ENGINEER

EXPRESS ALTERNATIVE PLANNING STUDY

SANTA ANA RIVER BRIDGE (WIDEN)

BRIDGE NO. 54-0292L/R	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, Sbd	10	44.9/48.3, 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St San Bernardino CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



NOTES:

- ① Paint "Br No. 54-0601"
- ② Paint "Hunts Lane UC"
- ③ Concrete Barrier (Type 736)
- ④ Structure Approach Type N(30D)
- ⑤ Structure Approach Type R(30D)
- ⑥ Temporary Railing (Type K)
- ⑦ Remove Exist Type 9 Barrier, Salvage Metal Bridge Railing
- ⑧ Concrete Barrier (Type 60GA), See "ROADWAY PLANS"
- ⑨ Exist MBGR to be removed, see "ROADWAY PLANS"
- ⑩ Remove Exist Overhead Sign Structure
- ⑪ Remove Exist DMBB, See "ROADWAY PLANS"

TYPICAL SECTION

1" = 10'

LEGEND:

- ➔ Indicates Direction of Travel
- ▨ Indicates Bridge Removal
- ▨ Indicates Closure Pour
- ⊕ Indicates Exist Point of Min Vertical Clearance
- ⊕ Indicates Exist Point of Min Vertical Clearance (Widening)
- Indicates New Structure
- Indicates Exist Structure
- * Match Exist Profile Grade and Cross Slope

DATE OF ESTIMATE	=	5/6/15
BRIDGE REMOVAL	=	467 SF
STRUCTURE DEPTH	=	3'-7"
LENGTH	=	155'-8"
WIDTH	=	5'-3" Min & Var
AREA	=	904 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$ 1,272
TOTAL COST	=	\$ 1,150,000

EXPRESS ALTERNATIVE

PLANNING STUDY

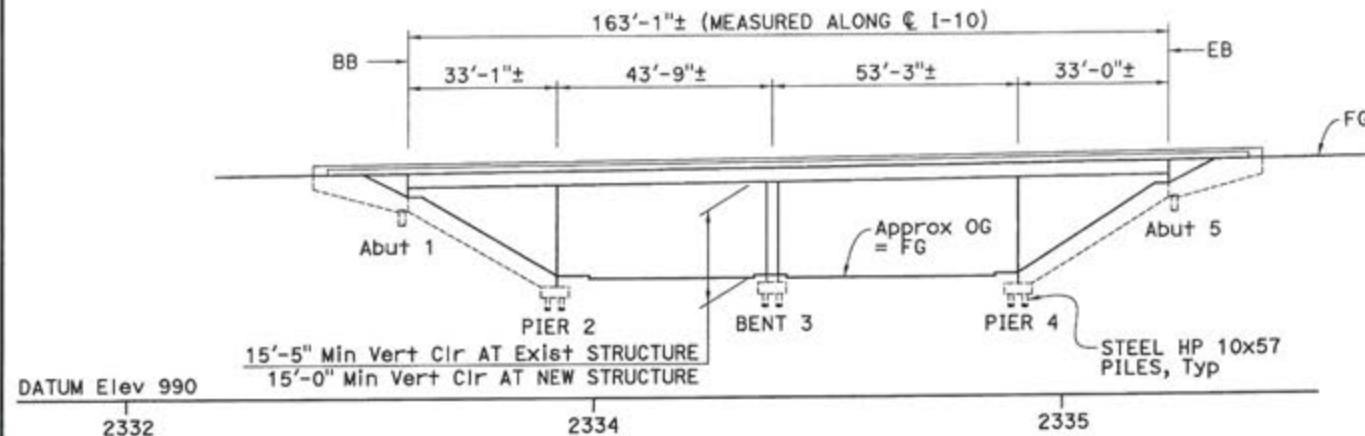
HUNTS LANE UC (WIDEN)

DESIGNED BY	J. Fix	DATE	09/22/14
DRAWN BY	F. Hakemi	DATE	10/22/14
CHECKED BY	K. Michalski	DATE	12/05/14
APPROVED	K. Michalski	DATE	6/26/15

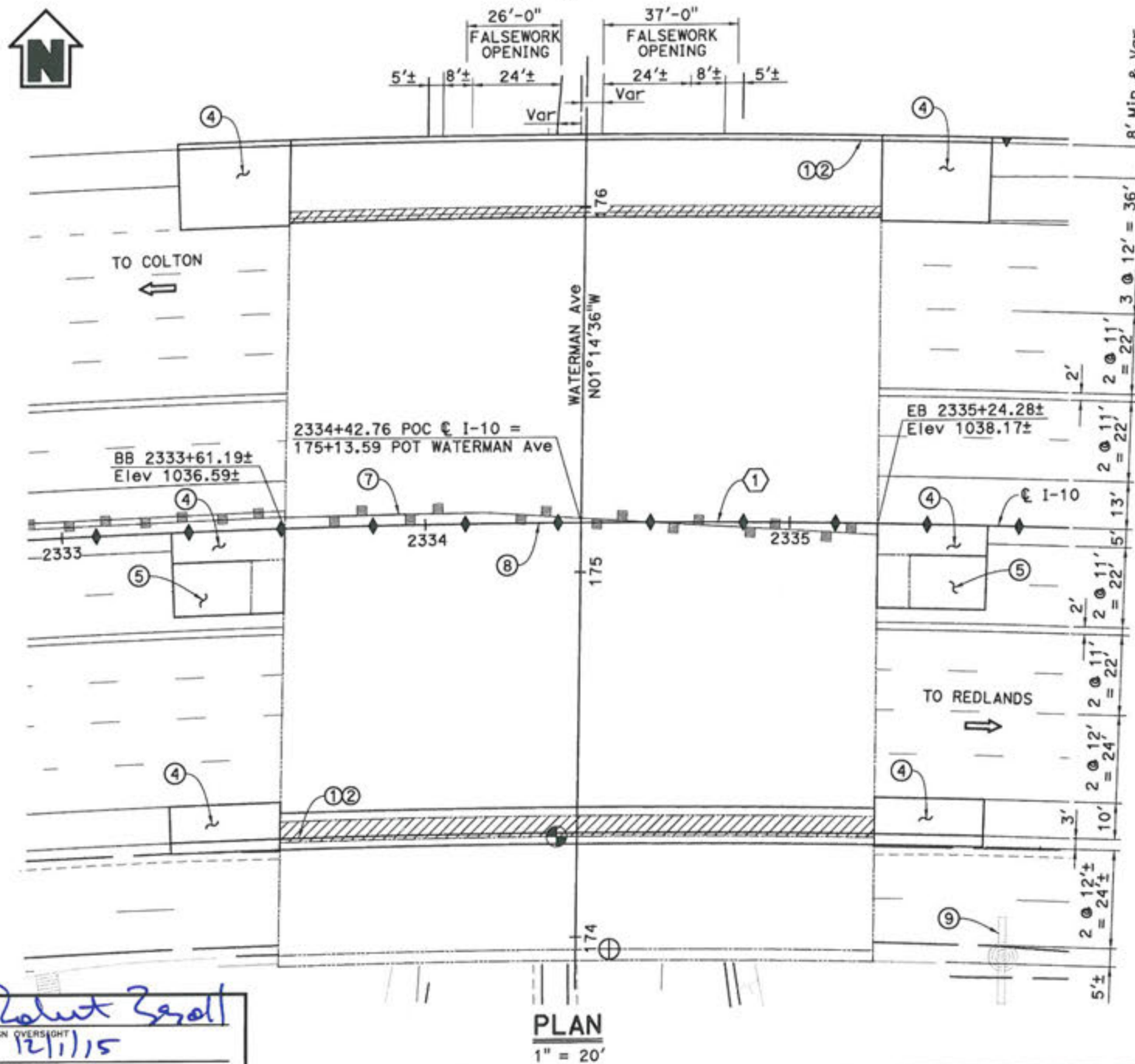
Kevin Michalski
PROJECT ENGINEER

BRIDGE NO. 54-0601	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, Sbd	10	44.9/48.3, 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St San Bernardino CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



ELEVATION
1" = 20'



NOTES:

- ① Paint "Br No. 54-0600"
- ② Paint "Waterman Ave UC"
- ③ Concrete Barrier (Type 736)
- ④ Structure Approach Type N(30D)
- ⑤ Structure Approach Type R(30D)
- ⑥ Temporary Railing (Type K)
- ⑦ Remove Exist Double Metal Beam Guard Rail
- ⑧ Concrete Barrier (Type 60C Mod)
- ⑨ Remove & Replace Exist Sign Structure, see "ROADWAY PLANS"

LEGEND:

- Indicates Direction of Travel
- ▨ Indicates Bridge Removal
- ⊕ Indicates Exist Point of Min Vertical Clearance
- ⊙ Indicates Point of Min Vertical Clearance (Widening)
- Indicates Exist Structure
- Indicates New Structure

CURVE DATA ①

$$\begin{aligned}
 R &= 3002.99' \\
 \Delta &= 14^{\circ}00'10'' \\
 T &= 368.80' \\
 L &= 733.92'
 \end{aligned}$$

DATE OF ESTIMATE	= 8/12/15
BRIDGE REMOVAL	= 1,957 SF
STRUCTURE DEPTH	= 3'-0"
LENGTH	= 163'-1"
WIDTH	= 25'-2 1/2"
AREA	= 4,111 SF
BRIDGE COST/SQFT	= \$462/SF
BRIDGE COST INCLUDING 10% MOBILIZATION AND 25% CONTINGENCY	= \$2,448,000
SEISMIC RETROFIT	= \$337,000
TOTAL COST	= \$2,785,000

**EXPRESS ALTERNATIVE
PLANNING STUDY**

WATERMAN AVE UC (WIDEN)

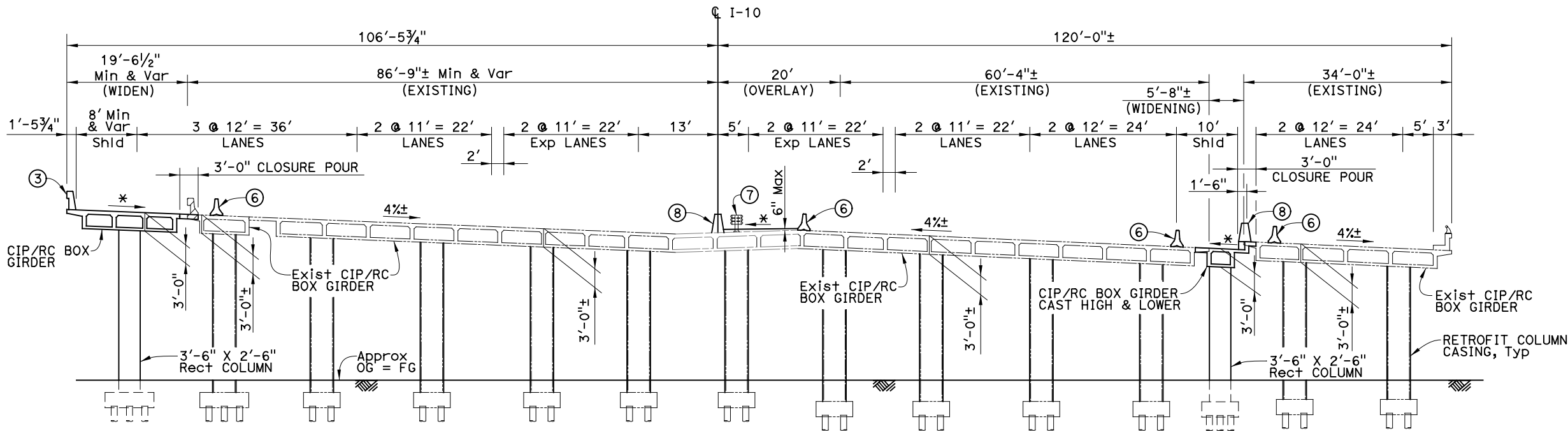
BRIDGE NO. 54-0600	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 080000040

DESIGNED BY J. Fix	DATE 4/02/15
DRAWN BY A. Segura	DATE 4/02/15
CHECKED BY J. Fix	DATE 4/17/15
APPROVED K. Michalski	DATE 8/12/15

Kevin Michalski
PROJECT ENGINEER

Robert Zsolt
DESIGN OVERSIGHT
12/1/15
SIGN OFF DATE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, SBd	10	44.9/48.3, 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St San Bernardino CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



NOTE: All Piles Not Shown.

TYPICAL SECTION

1" = 10'

NOTES:

- ③ Concrete Barrier (Type 736)
- ⑥ Temporary Railing (Type K)
- ⑦ Remove Exist Double Metal Beam Guard Rail
- ⑧ Concrete Barrier (Type 60C Mod)

LEGEND:

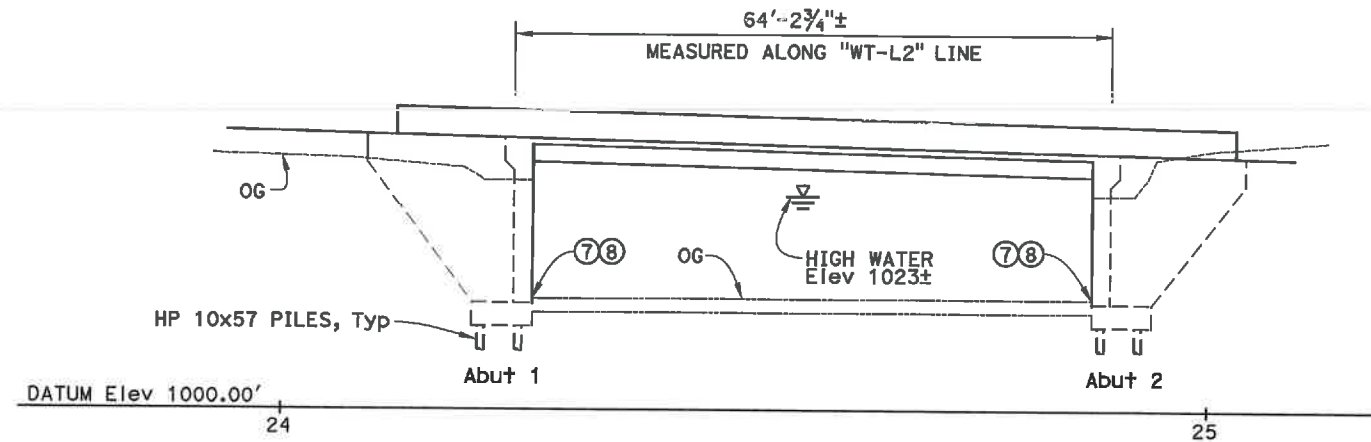
- Indicates Bridge Removal
- Indicates Exist Structure
- Indicates New Structure
- * Match Existing Profile Grade and Cross Slope

DESIGNED BY J. Fix	DATE 4/02/15
DRAWN BY A. Segura	DATE 4/02/15
CHECKED BY J. Fix	DATE 4/17/15
APPROVED K. Michalski	DATE 5/13/15

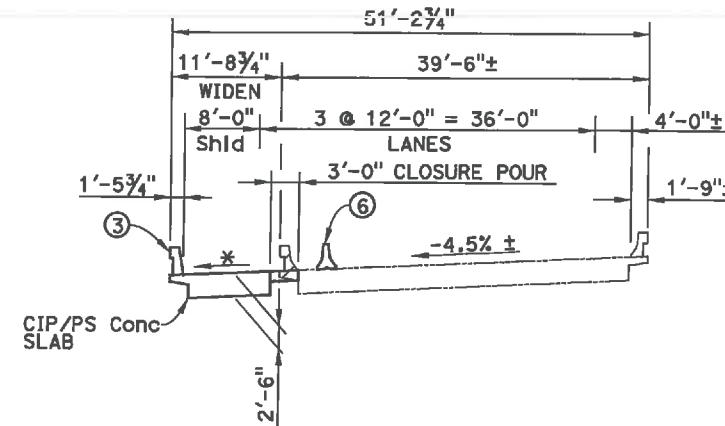
Kevin Michalski
PROJECT ENGINEER

EXPRESS ALTERNATIVE PLANNING STUDY	
WATERMAN AVE UC (WIDEN)	
BRIDGE NO. 54-0600	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 080000040

DESIGN OVERSIGHT
SIGN OFF DATE



MIRRORED ELEVATION
1" = 10'



TYPICAL SECTION
1" = 10'

NOTES:

- ① Paint "Br No. 54-1105K"
- ② Paint "San Timoteo Creek"
- ③ Concrete Barrier (Type 736)
- ④ Structure Approach Type N(30D)
- ⑤ Remove Exist wingwall
- ⑥ Temporary Railing, Type K
- ⑦ Remove Concrete (Channel)
- ⑧ Concrete (Channel Lining)

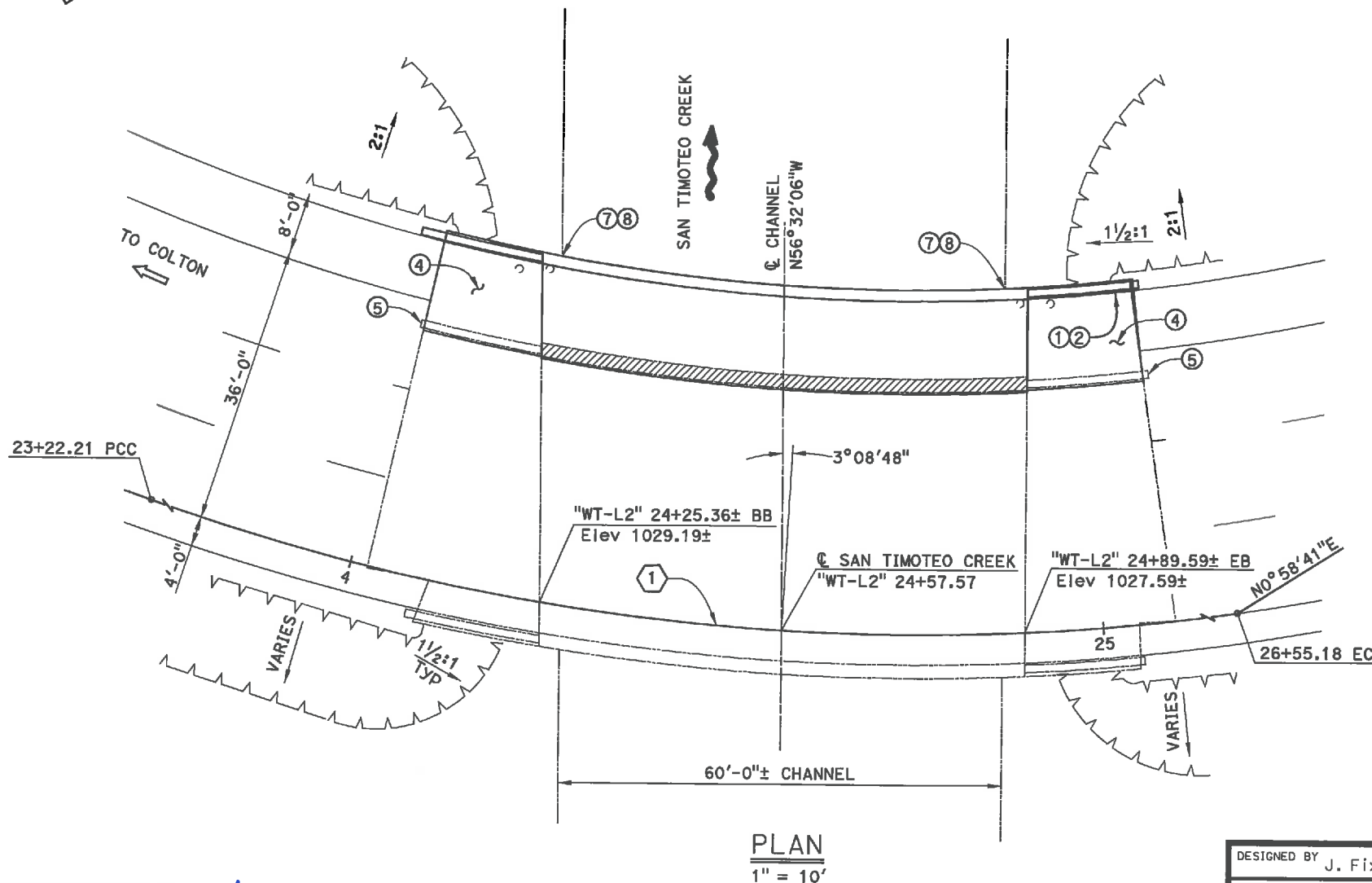
LEGEND:

- ← Indicates Direction of Travel
- Indicates Existing Structure
- ▨ Indicates Bridge Removal (Portion)
- * Match Exist Profile Grade & Cross Slope

CURVE DATA ①

R = 300.00'
Δ = 63°35'36"
T = 185.98'
L = 332.97'

DATE OF ESTIMATE	=	5/6/15
BRIDGE REMOVAL	=	111 SF
STRUCTURE DEPTH	=	2'-6"
LENGTH	=	55'-8 7/8"
WIDTH	=	11'-8 3/4"
AREA	=	654 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$ 446
TOTAL COST	=	\$ 292,000



PLAN
1" = 10'

DESIGNED BY	J. Fix	DATE	9/22/14
DRAWN BY	A. Segura	DATE	9/22/14
CHECKED BY	U. Sandira	DATE	9/22/14
APPROVED	K. Michalski	DATE	6/26/15

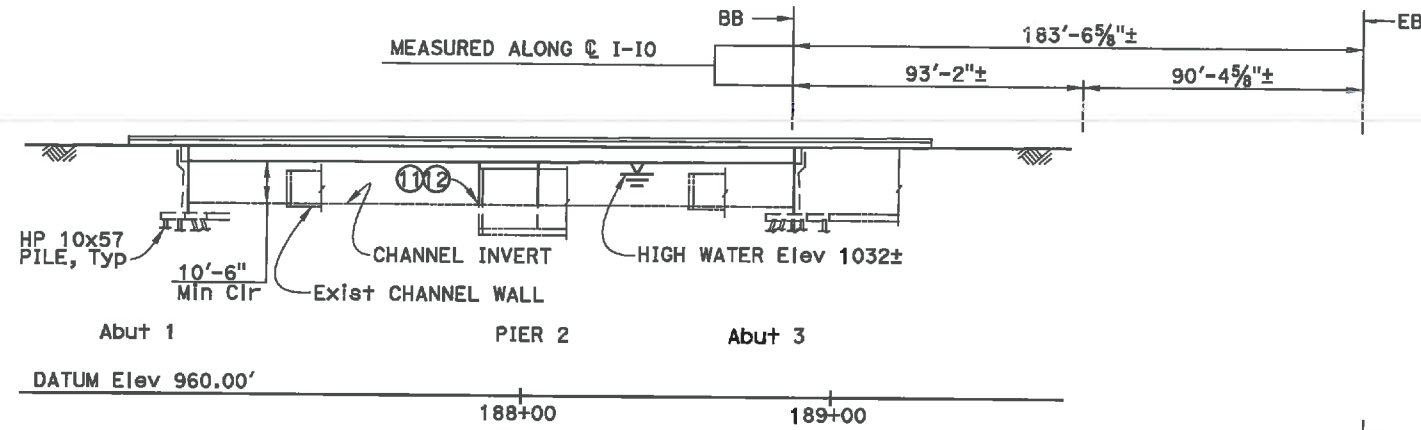
Kevin Michalski
PROJECT ENGINEER

EXPRESS ALTERNATIVE
PLANNING STUDY

SAN TIMOTEO CREEK WB ON-RAMP (WIDEN)

BRIDGE NO. 54-1105K	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGN OVERSIGHT
6/29/15
SIGN OFF DATE



MIRROR ELEVATION
1" = 30'

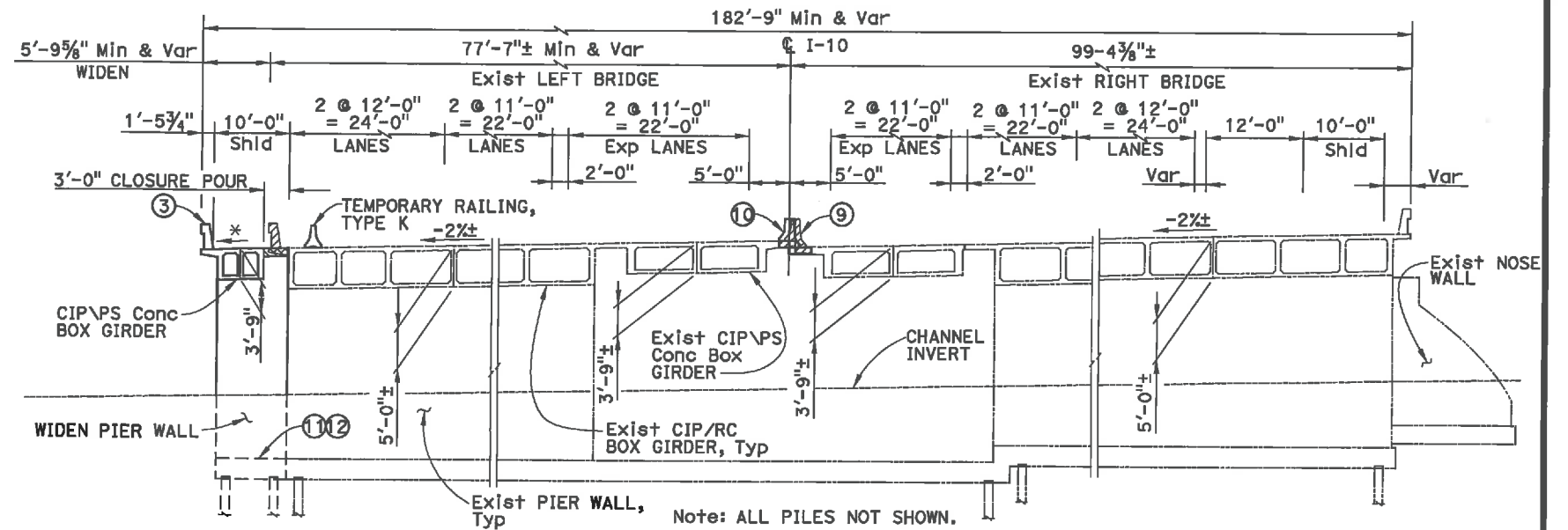
NOTES:

- ① Paint "Br No. 54-0599"
- ② Paint "San Timoteo Creek Bridge"
- ③ Concrete Barrier (Type 736)
- ④ Retaining Wall, See "Road Plans"
- ⑤ MBGR, See "ROADWAY PLANS"
- ⑥ Structure Approach Type N(30S)
- ⑦ Remove Exist wingwall
- ⑧ Exist Channel Wall
- ⑨ Exist Concrete Barrier (Type 50A) to be removed, see "ROADWAY PLANS"
- ⑩ Concrete Barrier (Type 60C)
- ⑪ Remove Concrete (Channel)
- ⑫ Concrete (Channel Lining)

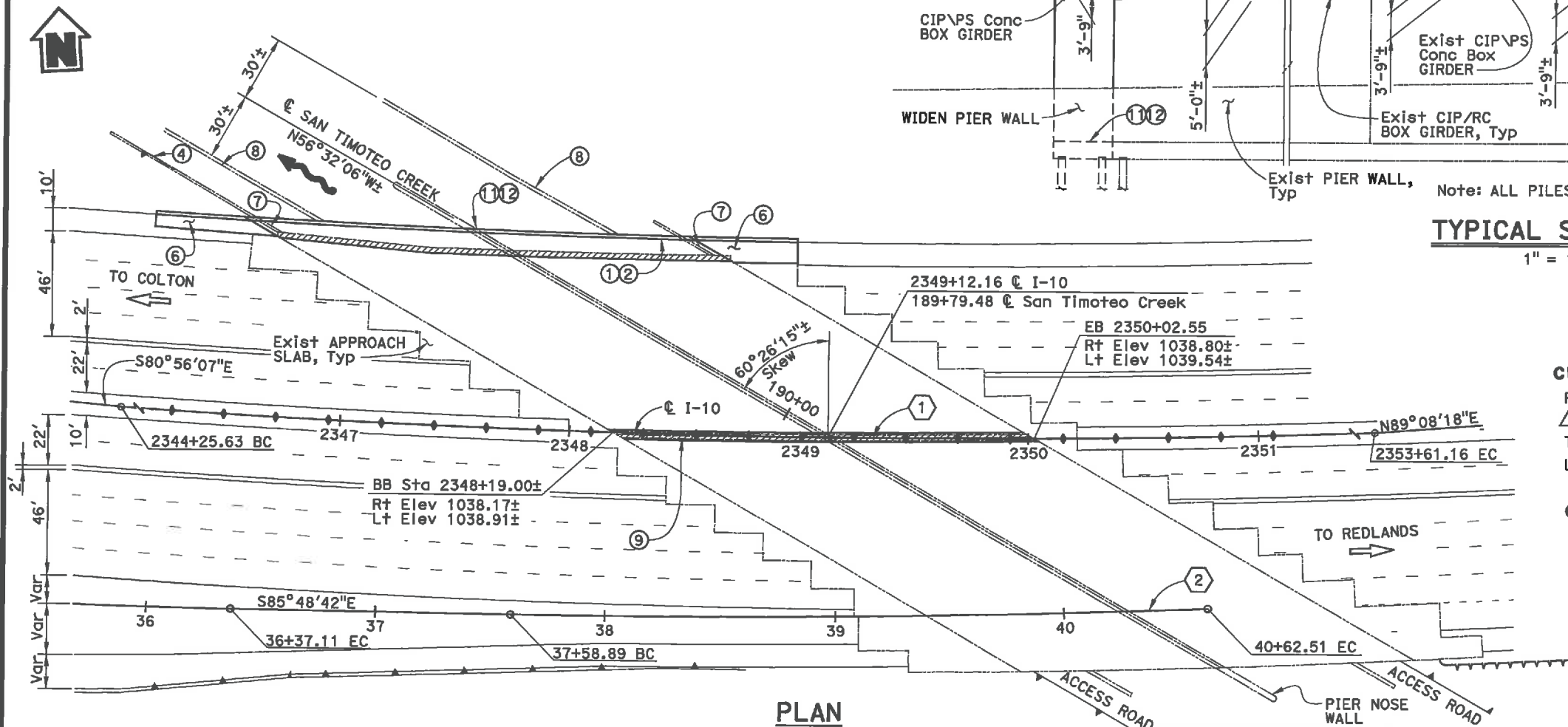
LEGEND:

- ➔ Indicates Direction of Travel
- Indicates Existing Structure
- ▨ Indicates Bridge Removal
- Concrete Barrier (Type 60A)
- Indicates Retaining Wall, see "Roadway Plans"
- ~ Indicates Direction of Flow
- * Match Exist Profile Grade and Cross Slope

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, SBd	10	44.9/48.3 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS 1170 W Third St San Bernardino CA 92415			
PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612			



TYPICAL SECTION
1" = 10'



PLAN
1" = 30'

CURVE DATA ①

R = 5400.00'
 Δ = 9°55'35"
 T = 468.94'
 L = 935.53'

CURVE DATA ②

R = 5475.00'
 Δ = 3°10'39"
 T = 151.86'
 L = 303.62'

DATE OF ESTIMATE	=	5/6/15
BRIDGE REMOVAL	=	2639 SF
STRUCTURE DEPTH	=	3'-9"
LENGTH	=	185'-1 3/8"
WIDTH	=	9'-7" Avg
AREA	=	1777 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$559
TOTAL COST	=	\$994,000

**EXPRESS ALTERNATIVE
PLANNING STUDY**

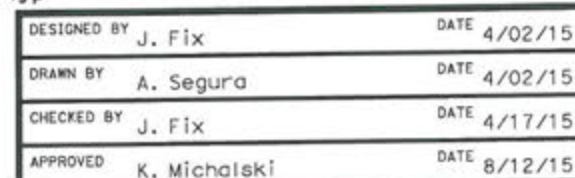
SAN TIMOTEO CREEK BRIDGE (WIDEN)

BRIDGE NO. 54-0599	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY	J. Fix	DATE	9/22/14
DRAWN BY	A. Segura	DATE	9/22/14
CHECKED BY	U. Sandira	DATE	9/22/14
APPROVED	K. Michalski	DATE	6/26/15

Kevin Michalski
PROJECT ENGINEER

DESIGN OVERSIGHT
6/29/15

ADVANCE PLANNING STUDY SHEET (ENGLISH) (REV. 7/16/10)

- NOTES:

- ① Paint "Br No. 54-0598"
- ② Paint "Tippecanoe Ave UC"
- ③ Concrete Barrier (Type 736)
- ④ Structure Approach Type N(30D)
- ⑤ Exist Structure Approach
- ⑥ Temporary Railing, Type K

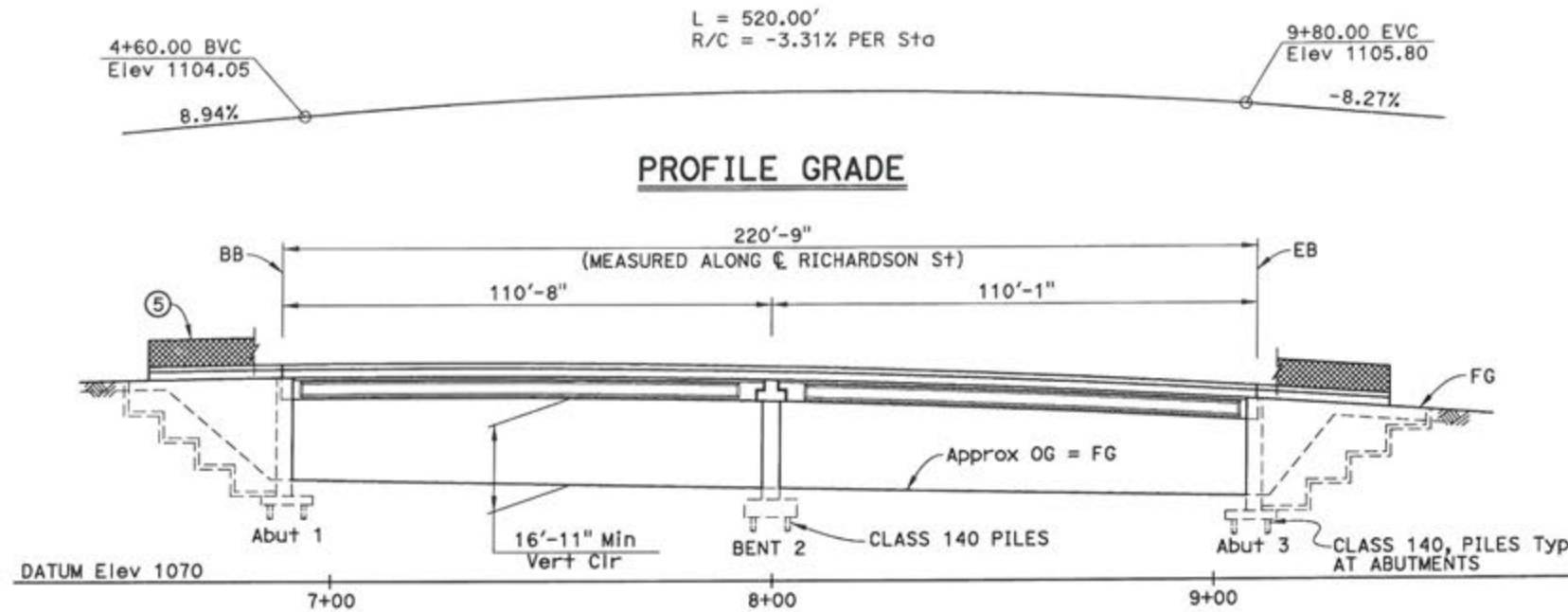
- LEGEND:**

- | | |
|---|---|
|  | Indicates Direction of Travel |
|  | Indicates Bridge Removal |
|  | Indicates Point of Minimum Vertical Clearance |
|  | Indicates Exist Point of Minimum Vertical Clearance |
|  | Indicates Existing Structure |
|  | Indicates New Structure |
|  | Match Existing Profile Grade and Cross Slope |

EXPRESS ALTERNATIVE	
PLANNING STUDY	
TIPPECANOE AVE UC (WIDEN)	

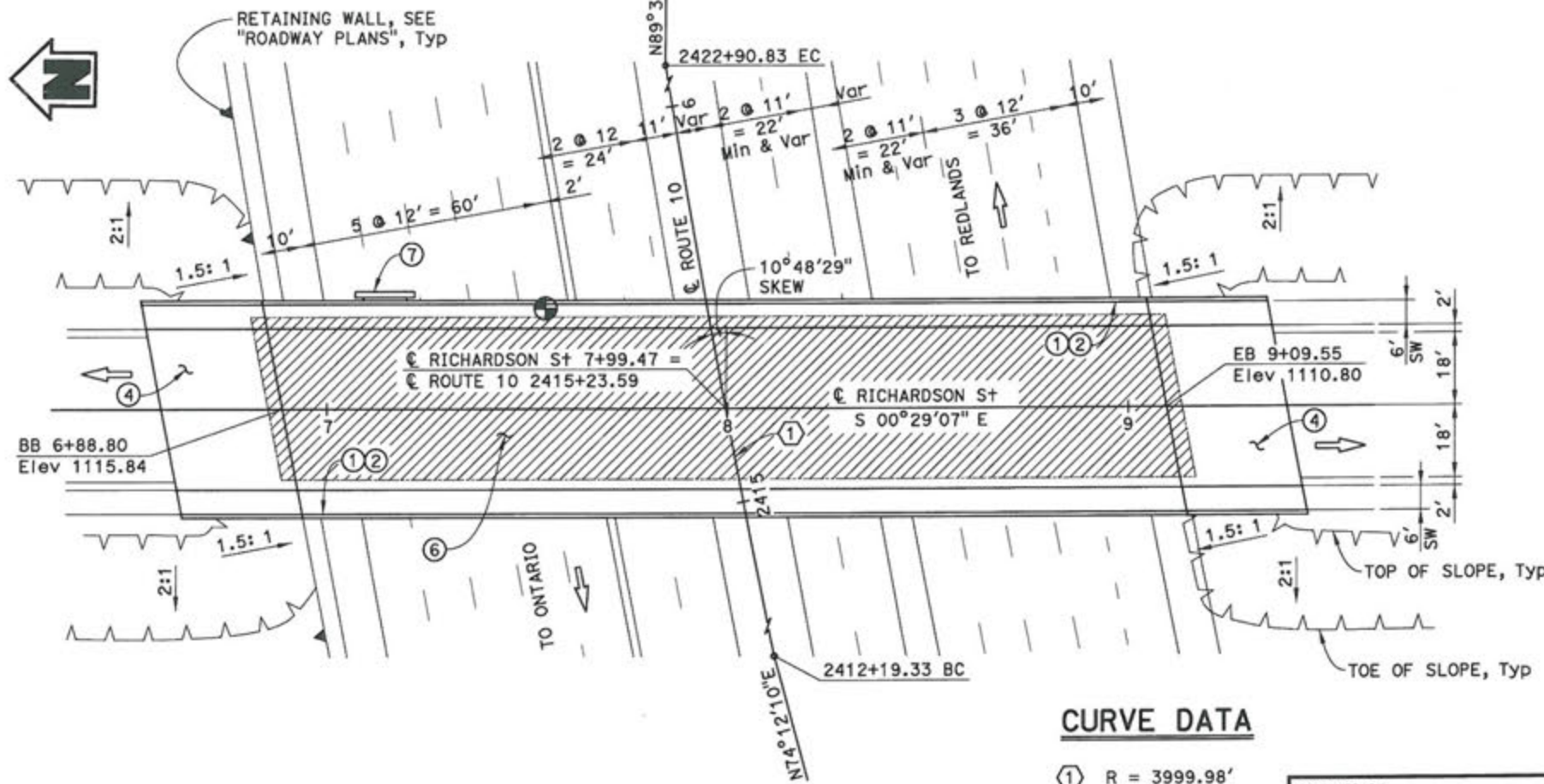
BRIDGE NO. 54-0598	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, SBd	10	44.9/48.3, 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St San Bernardino CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



ELEVATION

1" = 20'

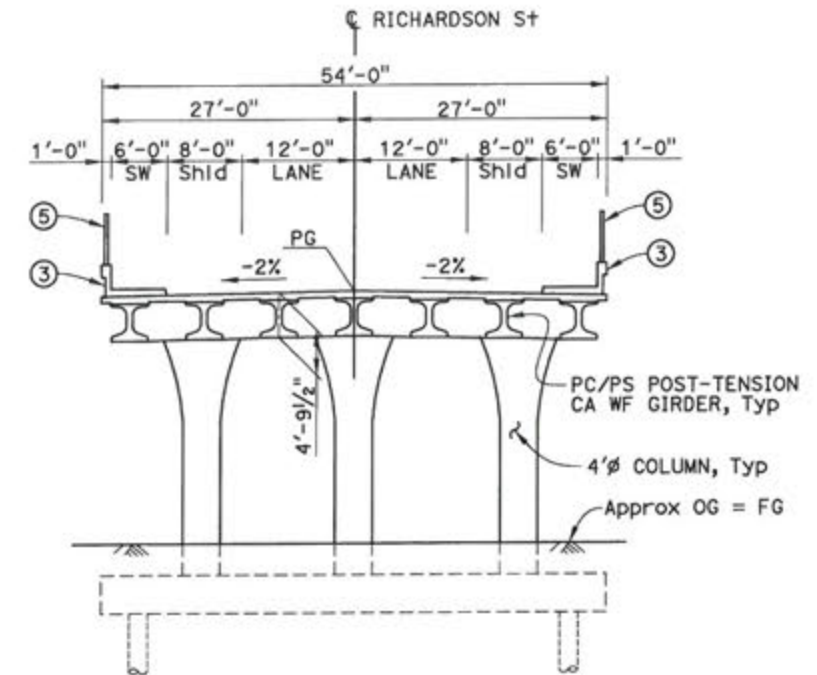


CURVE DATA

- ① R = 3999.98'
Δ = 15°20'54"
T = 538.97'
L = 1071.49'

PLAN

1" = 20'



TYPICAL SECTION

1" = 10'

NOTES:

- Paint "Br No. 54-0597"
- Paint "Richardson Street OC"
- Concrete Barrier (Type 26)
- Structure Approach, Type N(30S)
- Chain Link Railing (Type 7)
- Remove Exist Bridge (Br No. 54-0597)
- Structure Mounted Sign, see "ROADWAY PLANS"

LEGEND:

- Indicates Direction of Travel
- ▨ Indicates Bridge Removal
- ⊙ Indicates Point of Min Vertical Clearance
- Indicates Exist Structure
- Indicates New Structure

DATE OF ESTIMATE	=	3/20/15
BRIDGE REMOVAL	=	9,202 SF
STRUCTURE DEPTH	=	4'-9 1/2"
LENGTH	=	220'-9"
WIDTH	=	54'-0"
AREA	=	11,921 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$374
TOTAL COST	=	\$4,644,000

EXPRESS ALTERNATIVE PLANNING STUDY

RICHARDSON ST OC (REPLACE)

BRIDGE NO. 54-0597	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY J. Fix	DATE 1/23/15
DRAWN BY P. Johnson	DATE 1/23/15
CHECKED BY K. Michalski	DATE 3/13/15
APPROVED K. Michalski	DATE 3/20/15

Kevin Michalski
PROJECT ENGINEER

Robert Zosell
12/1/15
DESIGN OVERSIGHT
SIGN OFF DATE

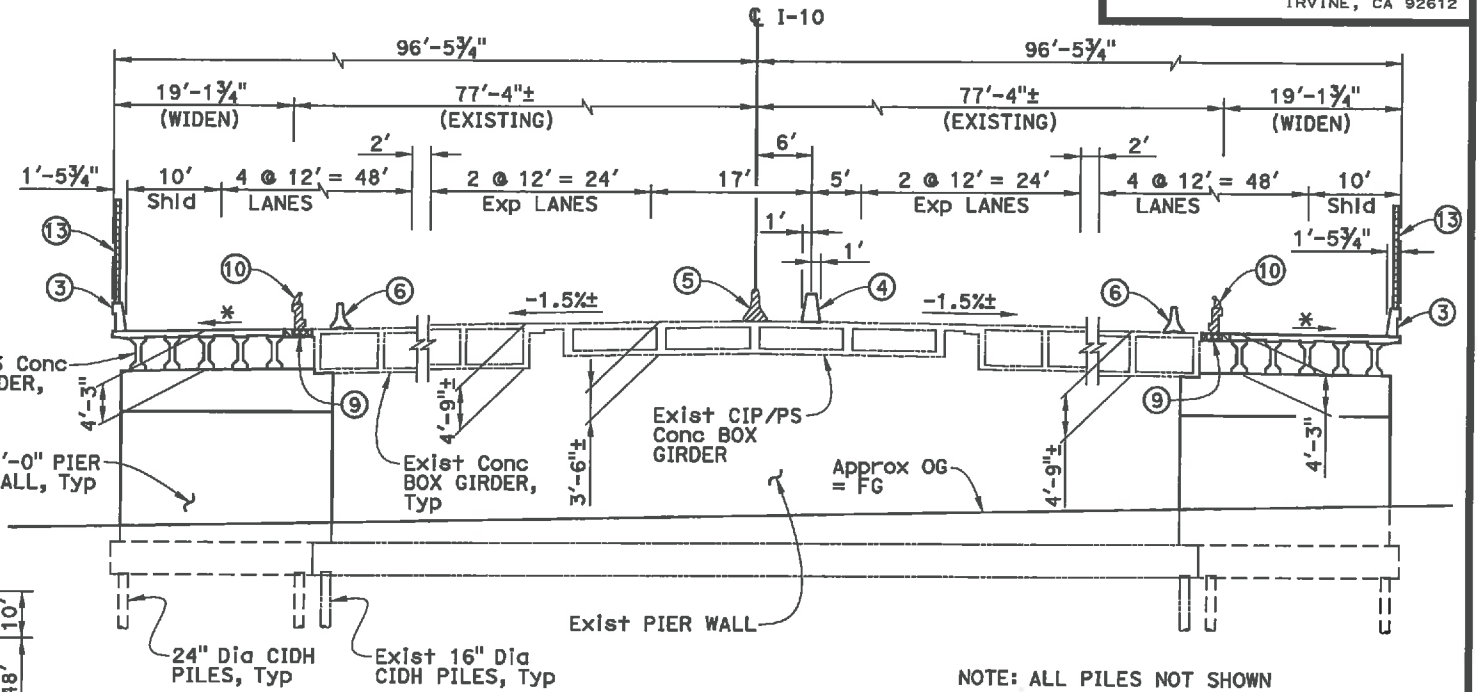
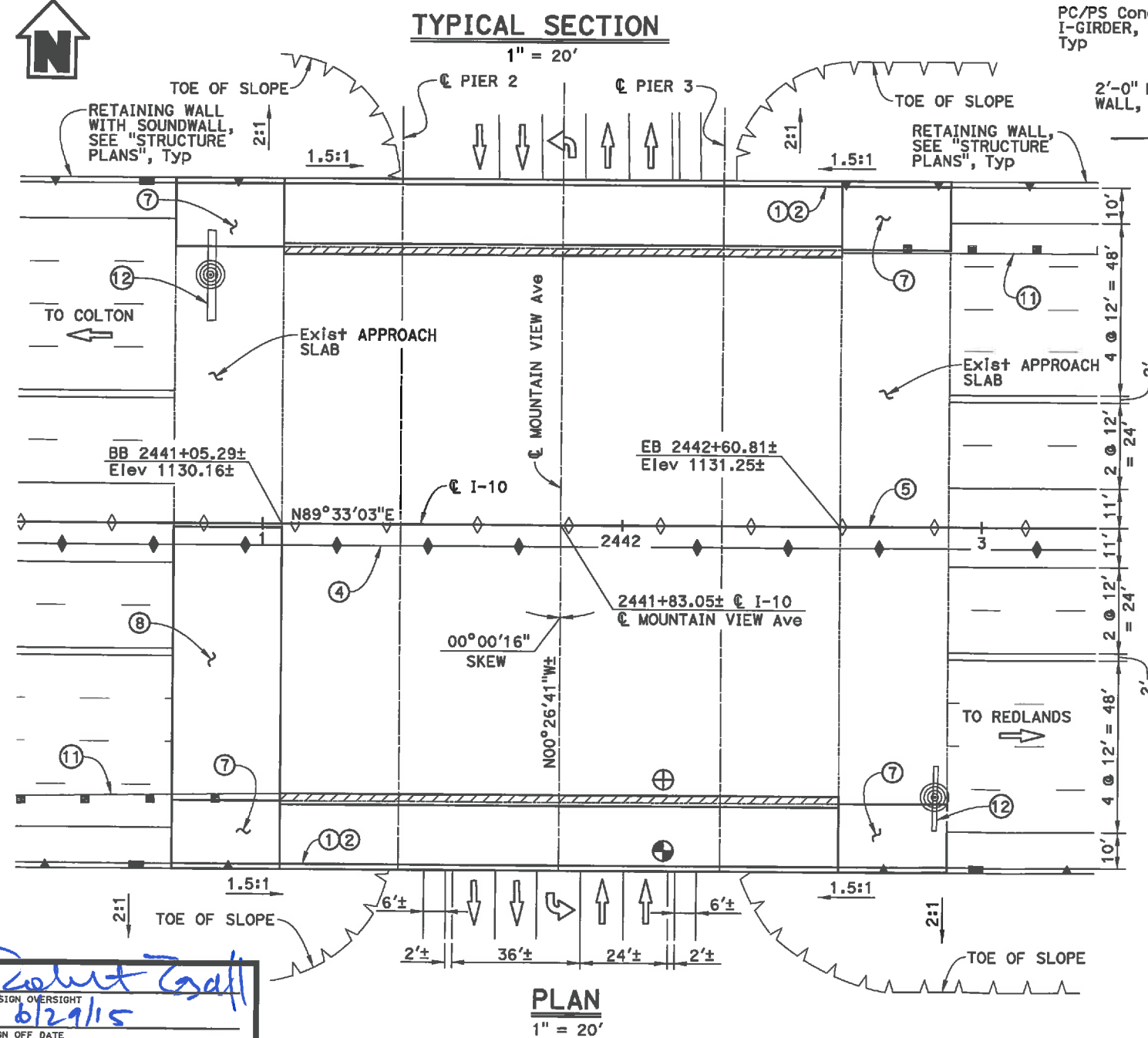
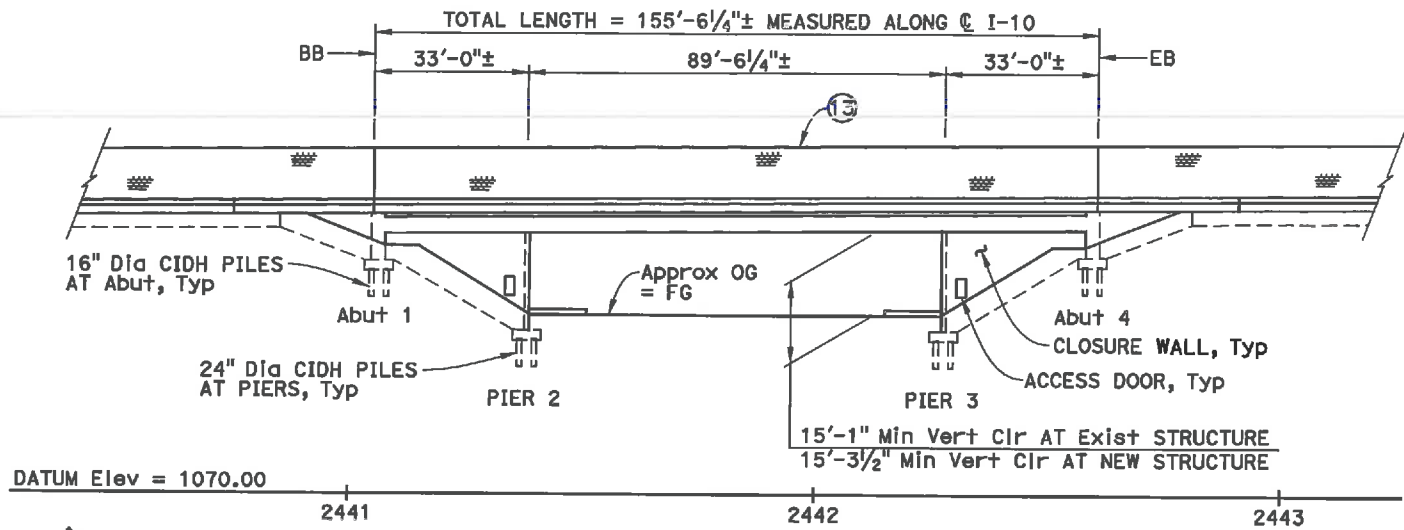
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, Sbd	10	44.9/48.3, 0.0/R37.0

**SAN BERNARDINO
ASSOCIATED
GOVERNMENTS**

1170 W Third St
San Bernardino
CA 92410

PARSONS

2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612



NOTE: ALL PILES NOT SHOWN

TYPICAL SECTION

 $1^{12} = 10^4$

NOTES:

- ① Paint "Br No. 54-0596"
- ② Paint "Mountain View Ave UC"
- ③ Concrete Barrier (Type 736 Mod)
- ④ Concrete Barrier (Type 60A)
- ⑤ Exist Conc Barrier (Type 50A) to be removed, see "ROADWAY PLANS"
- ⑥ Temporary Railing, Type K
- ⑦ Structure Approach Type N(30D)
- ⑧ Structure Approach Type R(30D)
- ⑨ Closure Pour (3'-0")
- ⑩ Remove Exist Type 1 Barrier, Salvage Metal Bridge Railing
- ⑪ Exist MBGR to be removed, See, "ROADWAY PLANS"
- ⑫ Remove and replace Exist Sign Structure, see "ROADWAY PLANS"
- ⑬ 14'-0" Soundwall Masonry Block

LEGEND:

- | | |
|---|---|
|  | Indicates Direction of Travel |
|  | Indicates Bridge Removal |
|  | Indicates Exist Point
of Min Vertical Clearance |
|  | Indicates Point of Min
Vertical Clearance (Widening) |
|  | Indicates Exist Structure |
|  | Indicates New Structure |
|  | Match Exist Profile Grade
and Cross Slope |

DATE OF ESTIMATE	=	<u>5/6/15</u>
BRIDGE REMOVAL	=	<u>648 SF</u>
STRUCTURE DEPTH	=	<u>4'-3"</u>
LENGTH	=	<u>155'-6 1/4"</u>
WIDTH	=	<u>38'-3 1/2"</u>
AREA	=	<u>5955 SF</u>
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	<u>\$ 380</u>
TOTAL COST	=	<u>\$ 2,265,000</u>

EXPRESS ALTERNATIVE DATE

PLANNING STUDY

MOUNTAIN VIEW AVE UC (WIDEN)	
BRIDGE NO. 54-0596	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY	J. Fix	DATE	9/22/14
DRAWN BY	F. Hakemi	DATE	9/22/14
CHECKED BY	K. Michalski	DATE	12/5/14
APPROVED	K. Michalski	DATE	6/26/15

Kevin Michalski
PROJECT ENGINEER

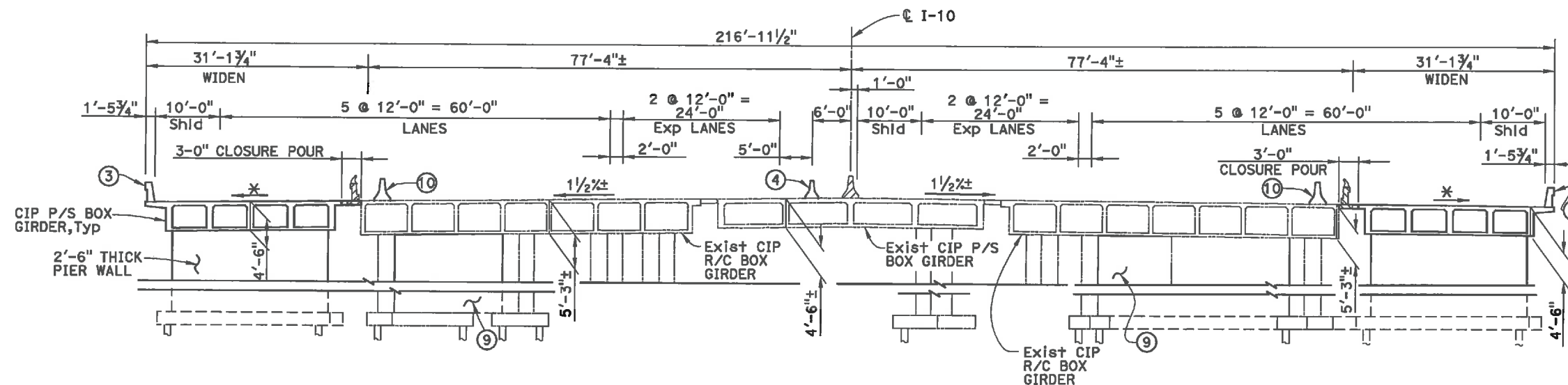
NOTES:

- ③ Concrete Barrier, Type 736
- ④ Concrete Barrier, Type 60A
- ⑨ 1'-6" Thick Infill Wall (Seismic Retrofit)
- ⑩ Temporary Railing, Type "K"

LEGEND:

-  Indicates Direction of Travel
-  Indicates Bridge Removal
-  Indicates Direction of Flow
-  Indicates Retaining Wall
-  Indicates Existing Structure
- * Match Exist Profile Grade and Cross Slope

DIST	COUNTY	ROUTE	POST MILES
07 08	LA, SBd	10	TOTAL PROJECT 44.9/48.3 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St San Bernardino CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



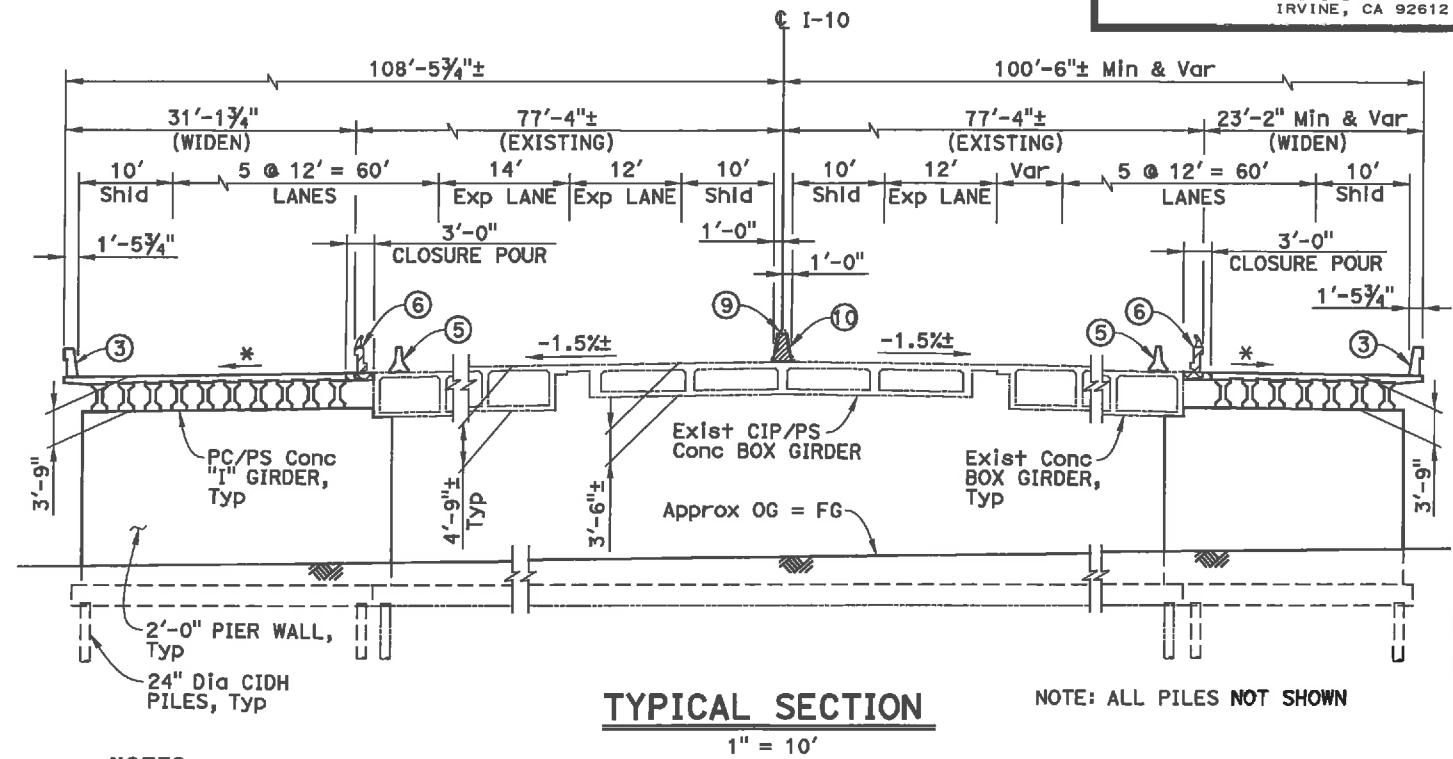
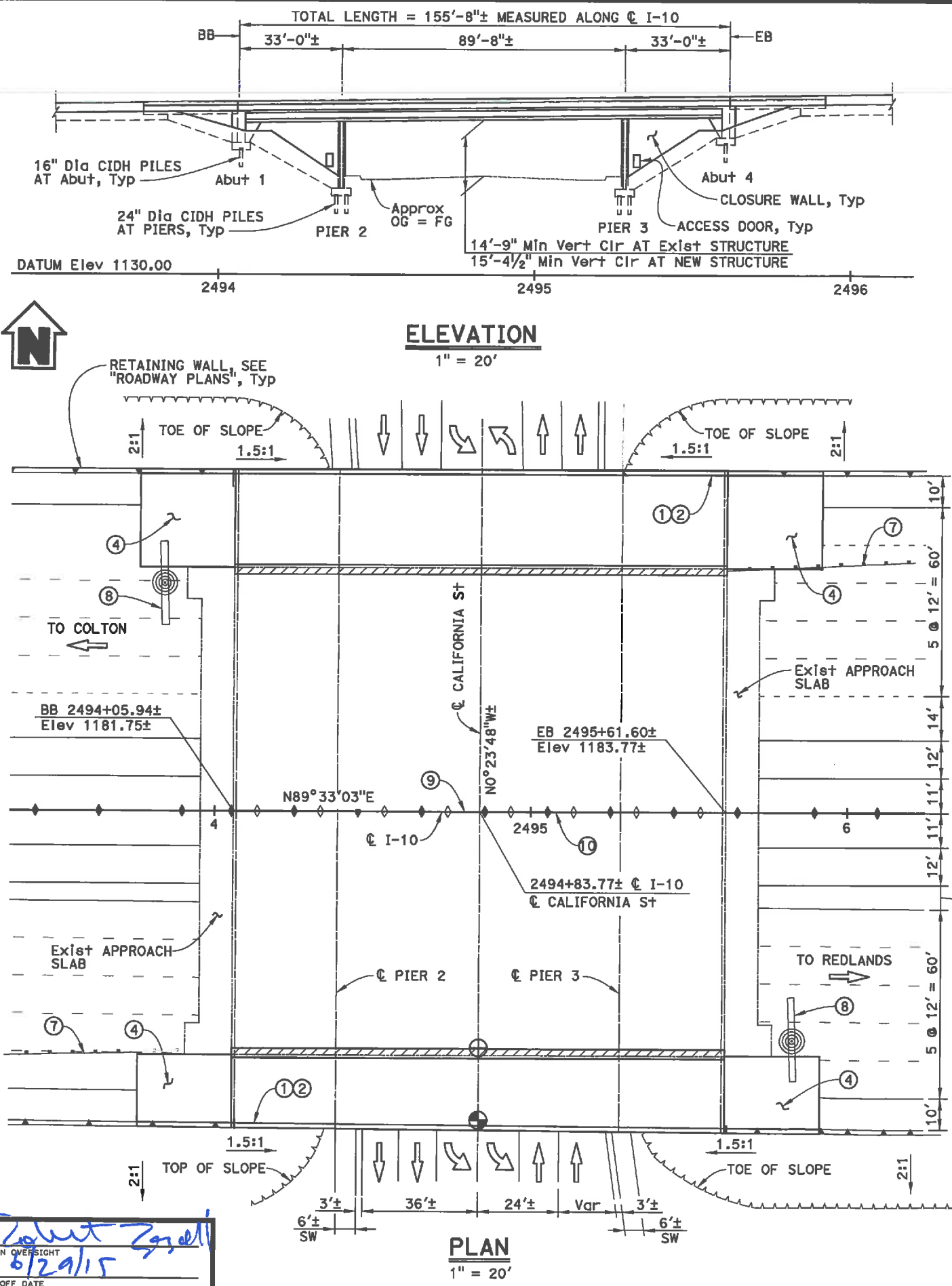
TYPICAL SECTION
1" = 10'-0"

DESIGNED BY J. Fix	DATE 9/22/14	Kevin Michalski PROJECT ENGINEER		EXPRESS ALTERNATIVE PLANNING STUDY	
DRAWN BY A. Segura	DATE 9/22/14			WEST REDLANDS OH (WIDEN) 2 OF 2	
CHECKED BY U. Sandira	DATE 9/22/14			BRIDGE NO. 54-0570	UNIT: 2232
APPROVED K. Michalski	DATE 6/26/15			SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

FILE => c:\pw_working\ptgwise\p004020a\dms55433\54-0570r1-a-gp02.dgn CONTRACT NO.: 08-0C2500

USERNAME => p004020a DATE PLOTTED => 6/23/2015 TIME PLOTTED => 10:26:04 AM

DIST	COUNTY	ROUTE	POST MILES
07, 08	LA, SBd	10	TOTAL PROJECT 44.9/48.3 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St San Bernardino CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



- NOTES:**
- Paint "Br No. 54-0595"
 - Paint "California Street UC"
 - Concrete Barrier (Type 736)
 - Structure Approach Type N(30D)
 - Temporary Railing, Type K
 - Remove Exist Type 1 Barrier
 - Exist MBGR to be removed, see "ROADWAY PLANS"
 - Remove and Replace Exist Sign Structure, see "ROADWAY PLANS"
 - Remove Exist Concrete Barrier (Type 50A), see "ROADWAY PLANS"
 - Concrete Barrier (Type 60GA), see "ROADWAY PLANS"

- LEGEND:**
- Indicates Direction of Travel
 - Indicates Bridge Removal
 - Indicates Exist Point of Min Vertical Clearance
 - Indicates Point of Min Vertical Clearance (Widening)
 - Indicates Exist Structure
 - Indicates New Structure
 - Match Exist Profile Grade and Cross Slope

DATE OF ESTIMATE	=	5/6/15
BRIDGE REMOVAL	=	649 SF
STRUCTURE DEPTH	=	3'-9"
LENGTH	=	155'-8"
WIDTH	=	54'-3 3/4" Min & Var
AREA	=	8547 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$ 354
TOTAL COST	=	\$ 3,024,000

EXPRESS ALTERNATIVE PLANNING STUDY	
CALIFORNIA STREET UC (WIDEN)	
BRIDGE NO. 54-0595	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY	J. Fix	DATE	9/22/14
DRAWN BY	P. Johnson	DATE	9/22/14
CHECKED BY	K. Michalski	DATE	12/05/14
APPROVED	K. Michalski	DATE	6/26/15

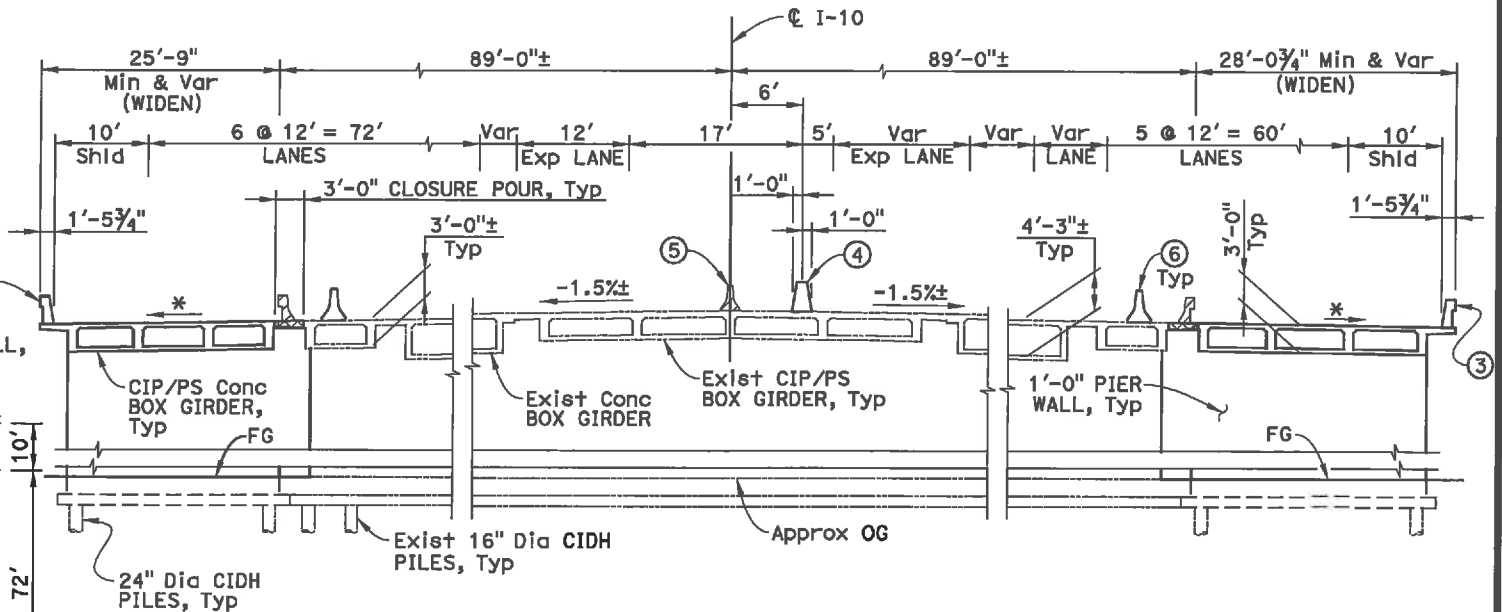
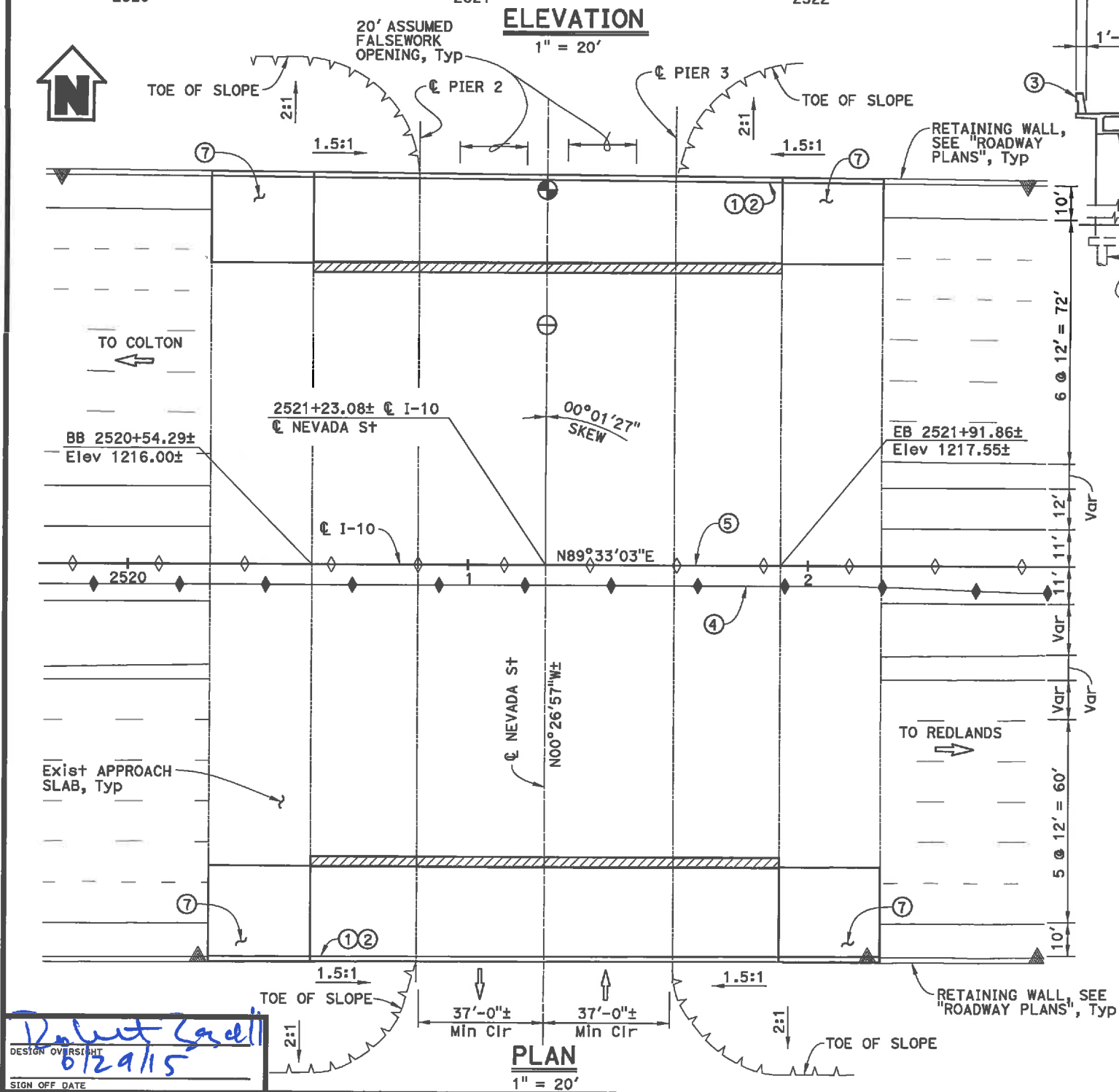
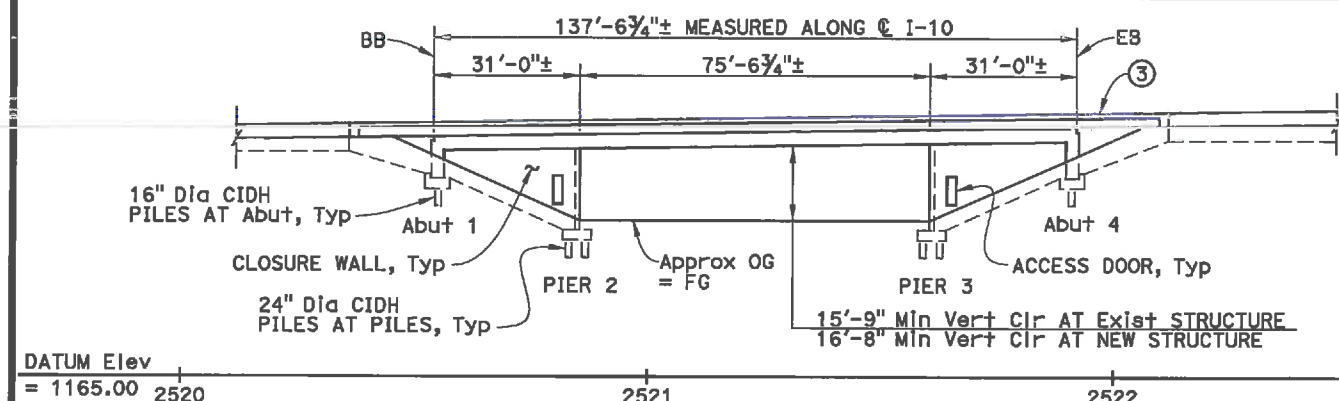
Kevin Michalski
PROJECT ENGINEER

Robert Ziegler
DESIGN OVERSIGHT
6/29/15
SIGN OFF DATE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, Sbd	10	44.9/48.3, 0.0/R37.0

SAN BERNARDINO ASSOCIATED GOVERNMENTS 1170 W Third St San Bernardino CA 92410

PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



TYPICAL SECTION
1" = 10'

- NOTES:**
- Paint "Br No. 54-0594"
 - Paint "Nevada Street UC"
 - Concrete Barrier (Type 736)
 - Concrete Barrier (Type 60A)
 - Exist Conc Barrier (Type 50A) to be removed, See "ROADWAY PLANS"
 - Temporary Railing, Type K
 - Structure Approach Type N(300)
- LEGEND:**
- Indicates Direction of Travel
 - ▨ Indicates Bridge Removal
 - ⊕ Indicates Exist Point of Min Vertical Clearance
 - ⊙ Indicates Point of Min Vertical Clearance (Widening)
 - Indicates Exist Structure
 - Indicates New Structure
 - * Match Exist Profile Grade and Cross Slope

DATE OF ESTIMATE	=	5/6/15
BRIDGE REMOVAL	=	825 SF
STRUCTURE DEPTH	=	3'-0"
LENGTH	=	137'-6 3/4"
WIDTH	=	53'-6 3/4" Min & Var
AREA	=	7,415 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$280/SF
TOTAL COST	=	\$2,076,000

EXPRESS ALTERNATIVE	
PLANNING STUDY	
NEVADA STREET UC (WIDEN)	
BRIDGE NO. 54-0594	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

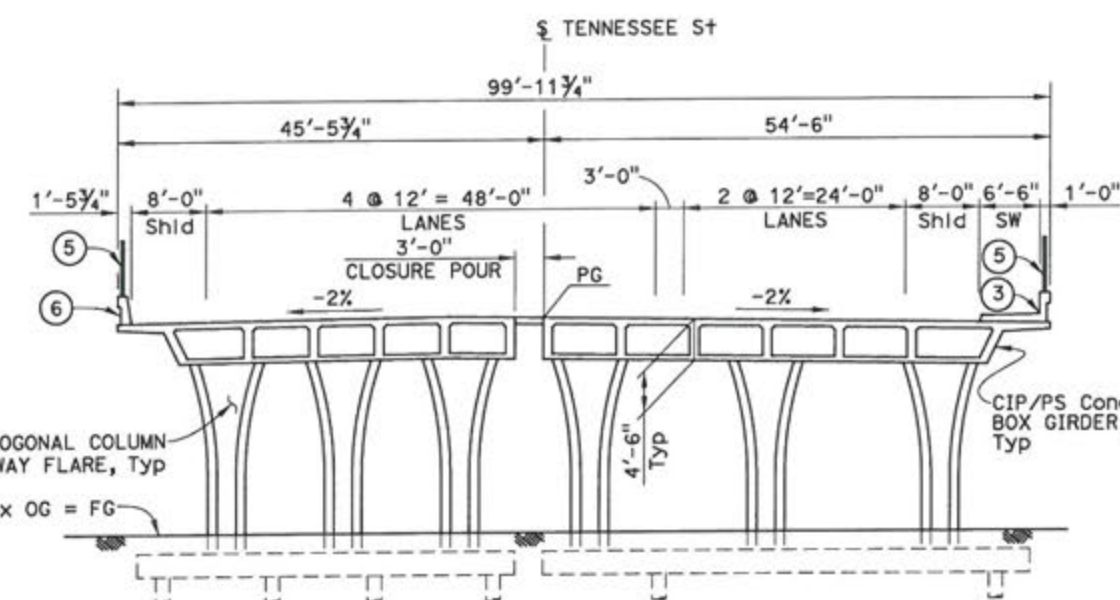
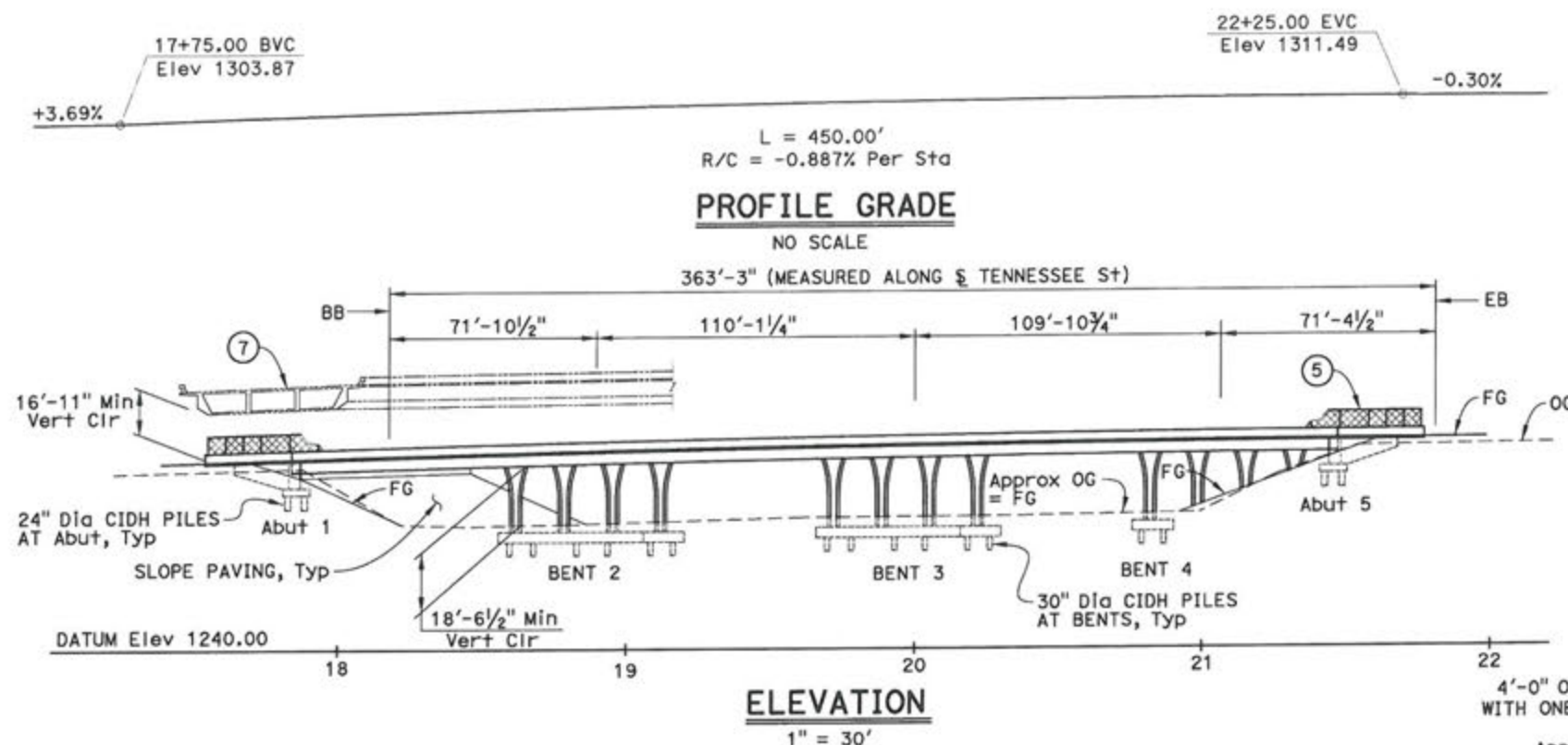
DESIGNED BY	J. Fix	DATE	09/22/14
DRAWN BY	A. Segura	DATE	09/22/14
CHECKED BY	K. Michalski	DATE	12/05/14
APPROVED	K. Michalski	DATE	6/26/15

Kevin Michalski
PROJECT ENGINEER

Robert Caselli
6/29/15
SIGN OFF DATE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
07, 08	LA, Sbd	10	44.9/48.1 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS		1170 W Third St San Bernardino CA 92410	
PARSONS		2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612	

DATE OF ESTIMATE		8/12/15
BRIDGE REMOVAL	=	27,316 SF
STRUCTURE DEPTH	=	4'-6"
LENGTH	=	363'-3"
WIDTH	=	99'-11 $\frac{3}{4}$ "
AREA	=	36,318 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$245/SF
TOTAL COST	=	\$9,432,000



NOTE: All piles not shown

TYPICAL SECTION

$$1'' = 10'$$

LEGEND:

- | | |
|---|---|
|  | Indicates Existing Structure |
|  | Indicates Bridge Removal |
|  | Indicates Direction of Traffic |
|  | Indicates Point of Minimum Vertical Clearance |

NOTES:

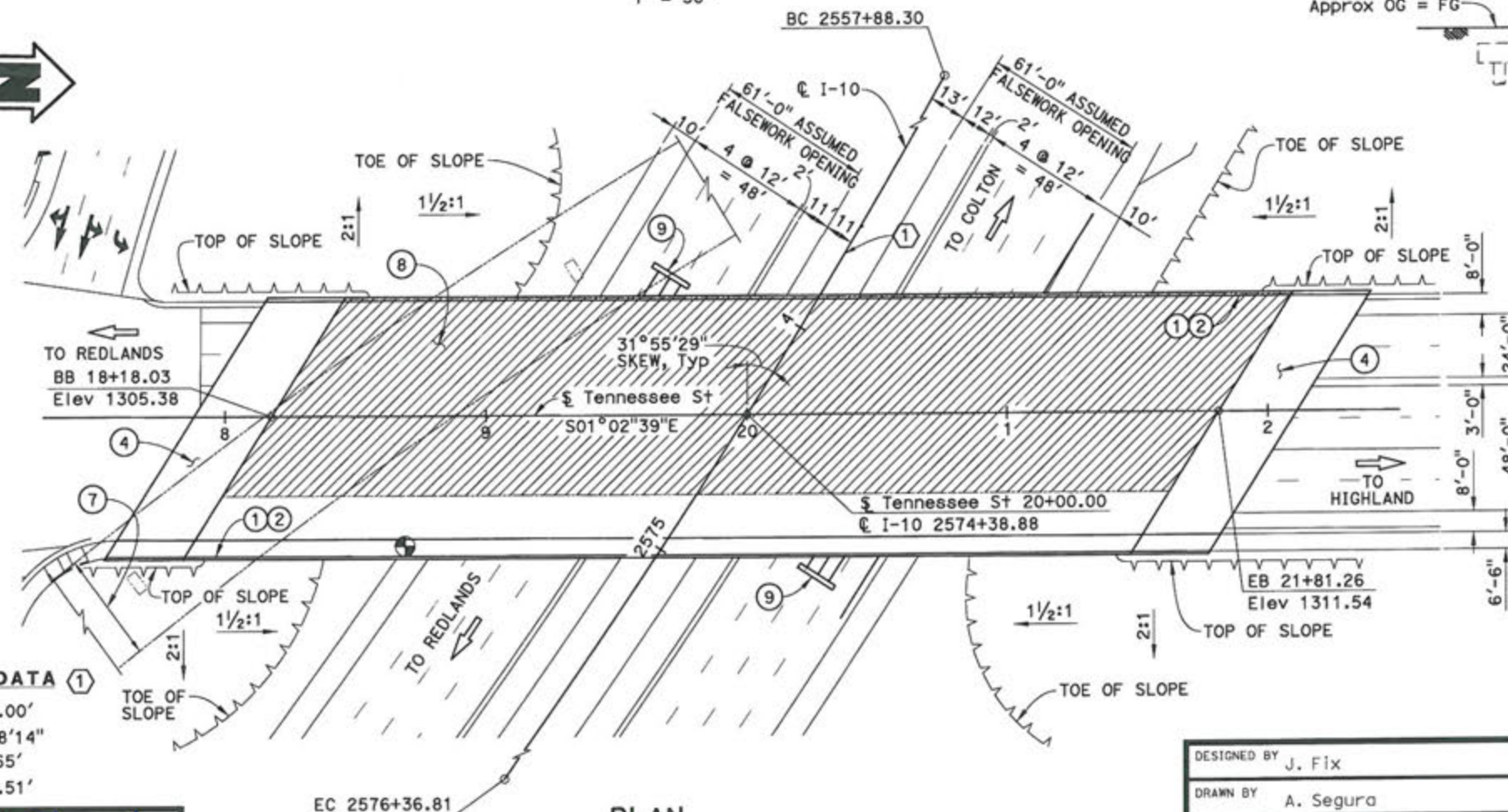
- ① Paint "Br No. 54-0592"
- ② Paint "Tennessee Street OC"
- ③ Concrete Barrier (Type 26)
- ④ Structure Approach Type N(30S)
- ⑤ Chain Link Railing, Type 7
- ⑥ Concrete Barrier (Type 736)
- ⑦ EXISTING EAST CONNECTOR SEPARATION
(Br NO. 54-0929G)
- ⑧ REMOVE Exist Bridge (Br NO. 54-0592)
- ⑨ Structure Mounted Sign, see "ROADWAY PLANS"

EXPRESS ALTERNATIVE

PLANNING STUDY

TENNESSEE ST OC (REPLACE)

BRIDGE NO. 54-0592	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040



PLAN

$$1'' = 30'$$

CURVE DATA (1)
 $R = 3000.00'$
 $\Delta = 35^\circ 18' 14''$
 $T = 954.65'$
 $L = 1848.51'$

Robert Zsolt
DESIGN OVERSIGHT
12/1/15
SIGN OFF DATE

DESIGNED BY	J. Fix	DATE	4/02/15
DRAWN BY	A. Segura	DATE	4/02/15
CHECKED BY	J. Fix	DATE	4/17/15
APPROVED	K. Michalski	DATE	8/12/15

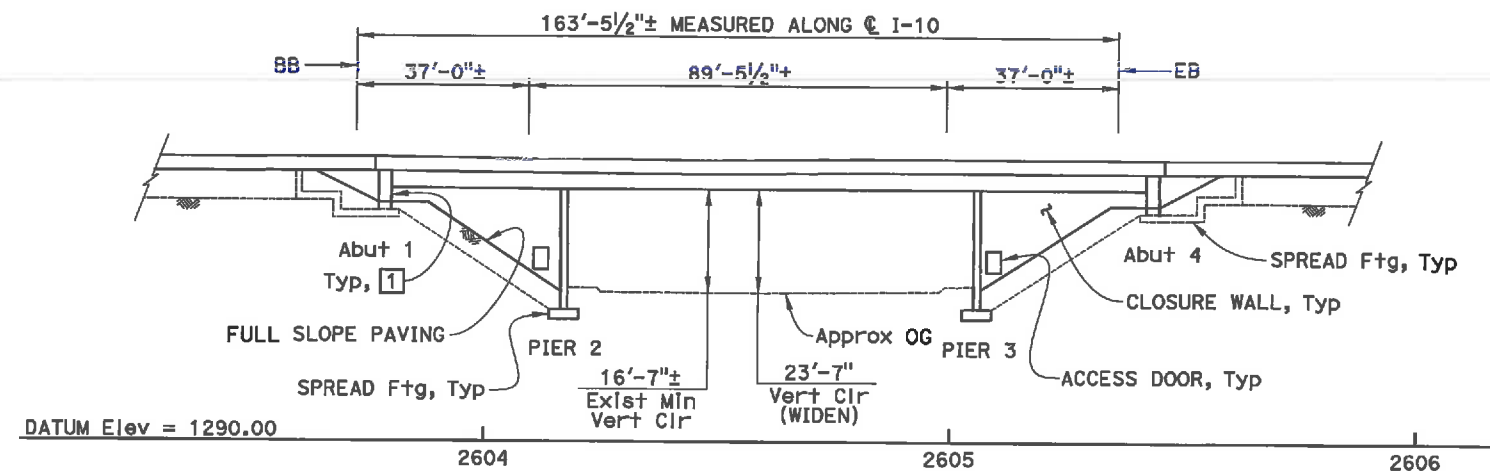
Kevin Michalski
PROJECT ENGINEER

FILE => c:\pw_working\ptg\pwline\p0040200\dms56409\54-0592-a-gp01.dgn CONTRACT NO.: 08-OC2500

DIST	COUNTY	ROUTE	POST MILES
07, 08	LA, Sbd	10	44.9/48.3 0.0/R37.0

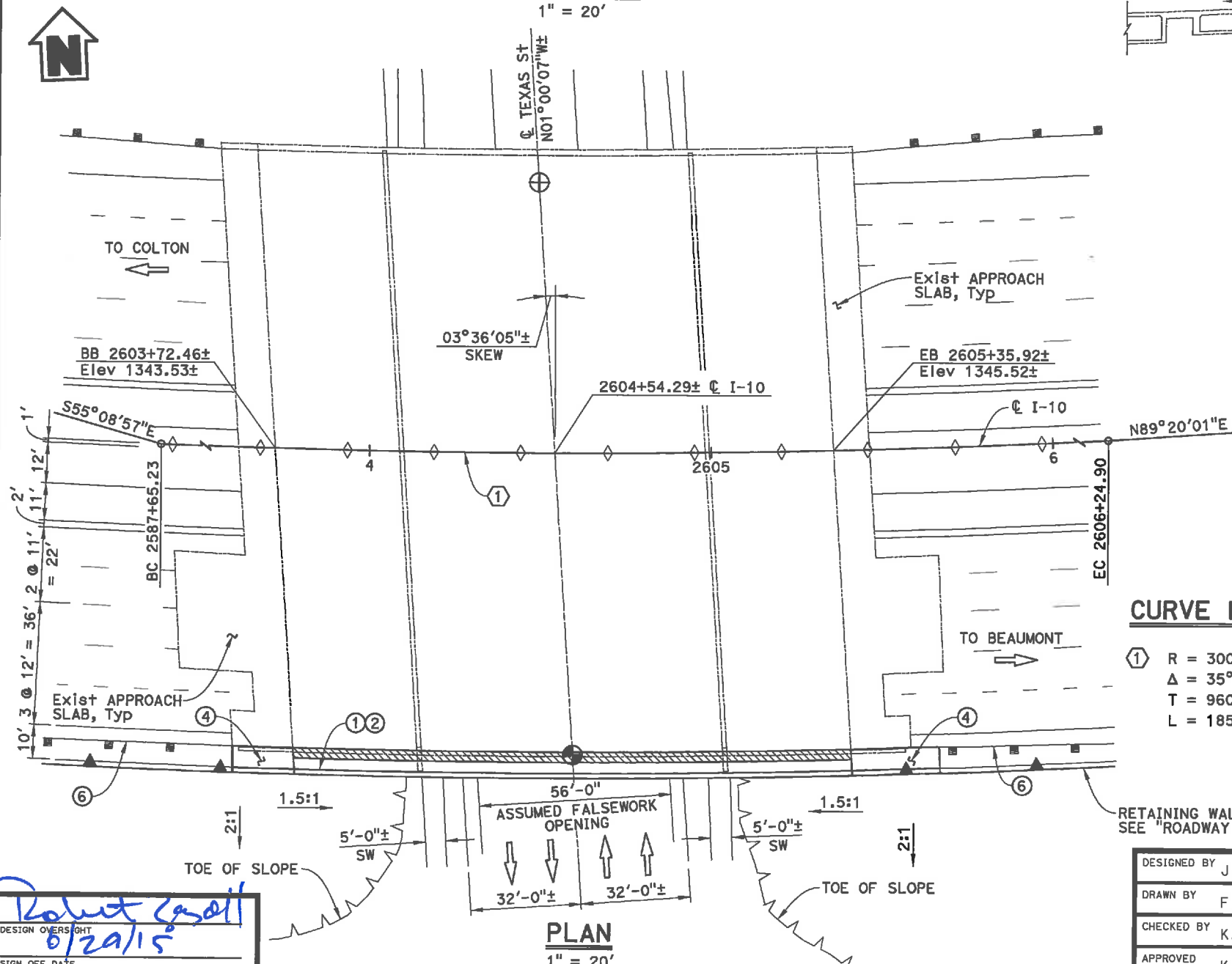
SAN BERNARDINO ASSOCIATED GOVERNMENTS 1170 W Third St
San Bernardino CA 92410

PARSONS 2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612



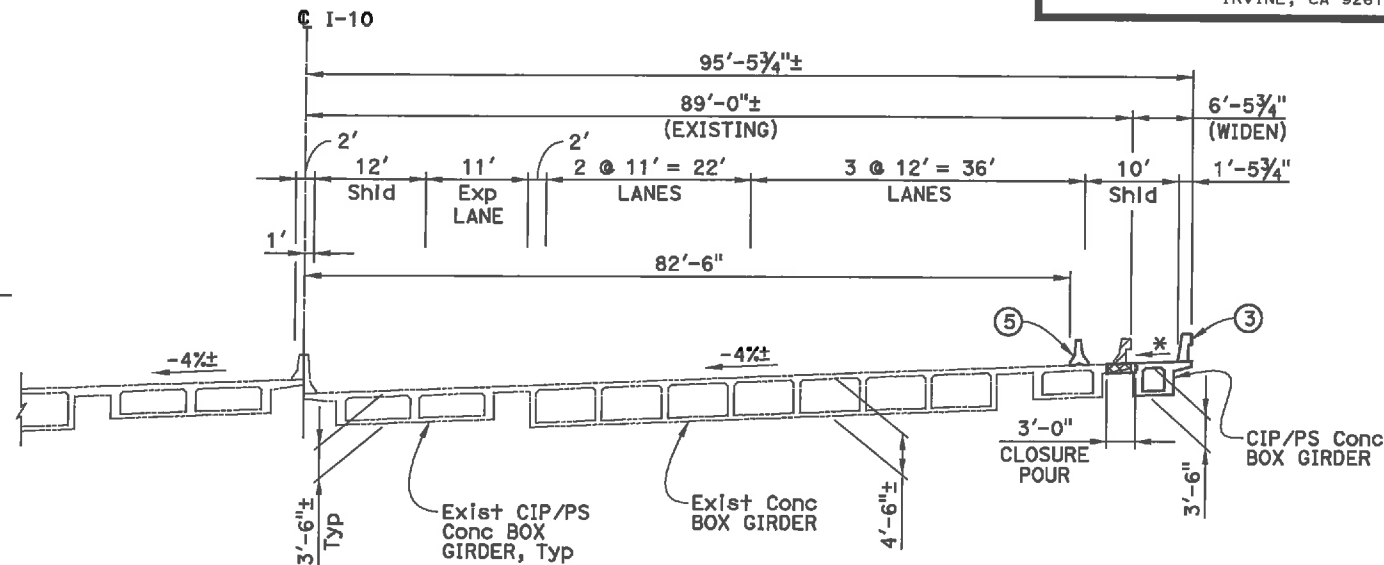
ELEVATION

1" = 20'



PLAN

1" = 20'



TYPICAL SECTION

1" = 10'

NOTES:

- Paint "Br No. 54-0583"
- Paint "Texas Street UC"
- Concrete Barrier (Type 736)
- Structure Approach Type N(300)
- Temporary Railing, Type K
- Exist MBGR to be removed, See, "ROADWAY PLANS"

RETROFIT NOTES:

- Abutment Retrofit

LEGEND:

- Indicates Direction of Travel
- ▨ Indicates Bridge Removal
- ▨ Indicates Closure Pour
- ⊕ Indicates Exist Point of Min Vertical Clearance
- ⊙ Indicates Point of Min Vertical Clearance (Widening)
- Indicates Exist Structure
- Indicates New Structure
- * Match Exist Profile Grade and Cross Slope

DATE OF ESTIMATE	=	5/6/15
BRIDGE REMOVAL	=	490 SF
STRUCTURE DEPTH	=	3'-6"
LENGTH	=	163'-5 1/8"
WIDTH	=	6'-5 3/4"
AREA	=	1059 SF
BRIDGE COST/SF	=	\$ 620
BRIDGE COST INCLUDING 10% MOBILIZATION AND 25% CONTINGENCY	=	\$ 656,000
SEISMIC RETROFIT	=	\$ 51,000
TOTAL COST	=	\$ 707,000

CURVE DATA

- R = 3000.00'
Δ = 35°31'01"
T = 960.80'
L = 1859.67'

EXPRESS ALTERNATIVE PLANNING STUDY

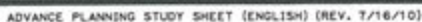
TEXAS STREET UC (WIDEN)

BRIDGE NO. 54-0583	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY J. Fix	DATE 09/22/14
DRAWN BY F. Hakemi	DATE 10/23/14
CHECKED BY K. Michalski	DATE 12/05/14
APPROVED K. Michalski	DATE 6/26/15

Kevin Michalski
PROJECT ENGINEER

Robert Caselli
DESIGN OVERSIGHT
6/22/15
SIGN OFF DATE



NOTE: ALL PILES NOT SHOWN
TYPICAL SECTION

- | | |
|--------------------|------------------------------------|
| BRIDGE NO. 54-0580 | UNIT: 2232 |
| SCALE: AS SHOWN | PROJECT NUMBER & PHASE: 0800000040 |

DESIGNED BY	J. Fix	DATE	7/30/15
DRAWN BY	F. Hakemi	DATE	1/29/16
CHECKED BY	K. Michalski	DATE	1/29/16
APPROVED	K. Michalski	DATE	1/29/16

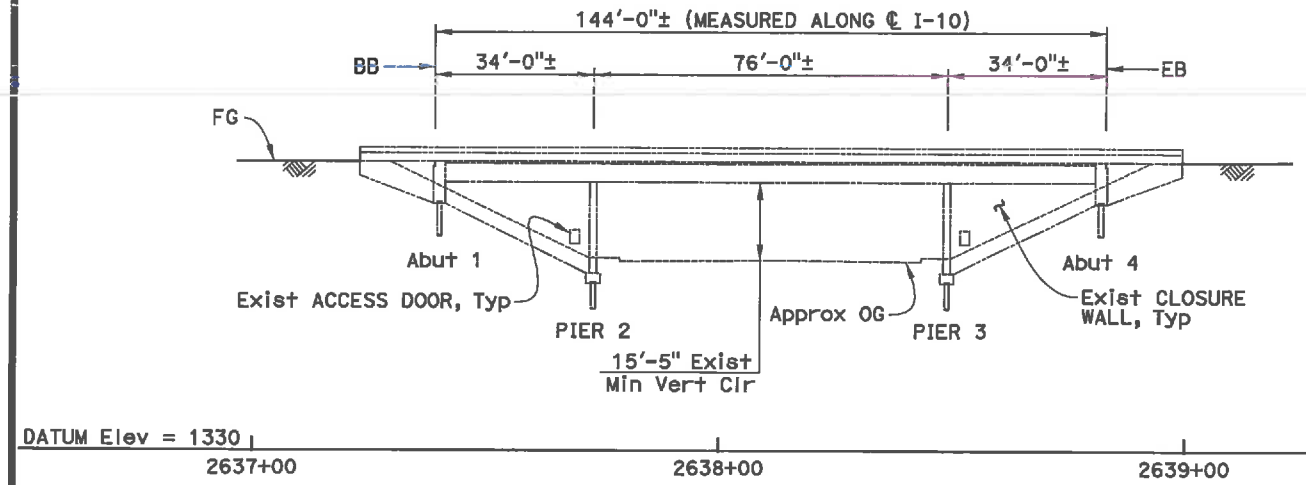
Kevin Michalski
PROJECT ENGINEER

FILE => c:\pw_working_xm\ptg\p0004202\dm657397\54-0580-a-gp01.dgn

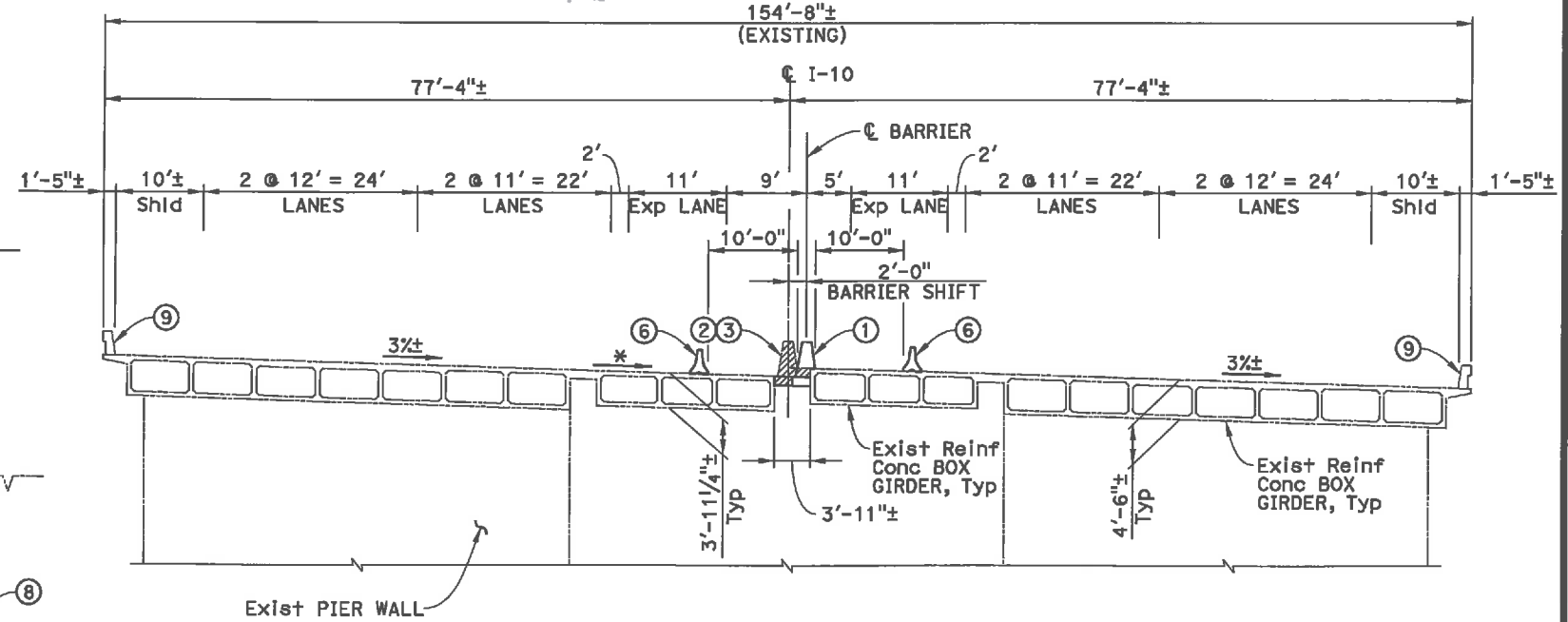
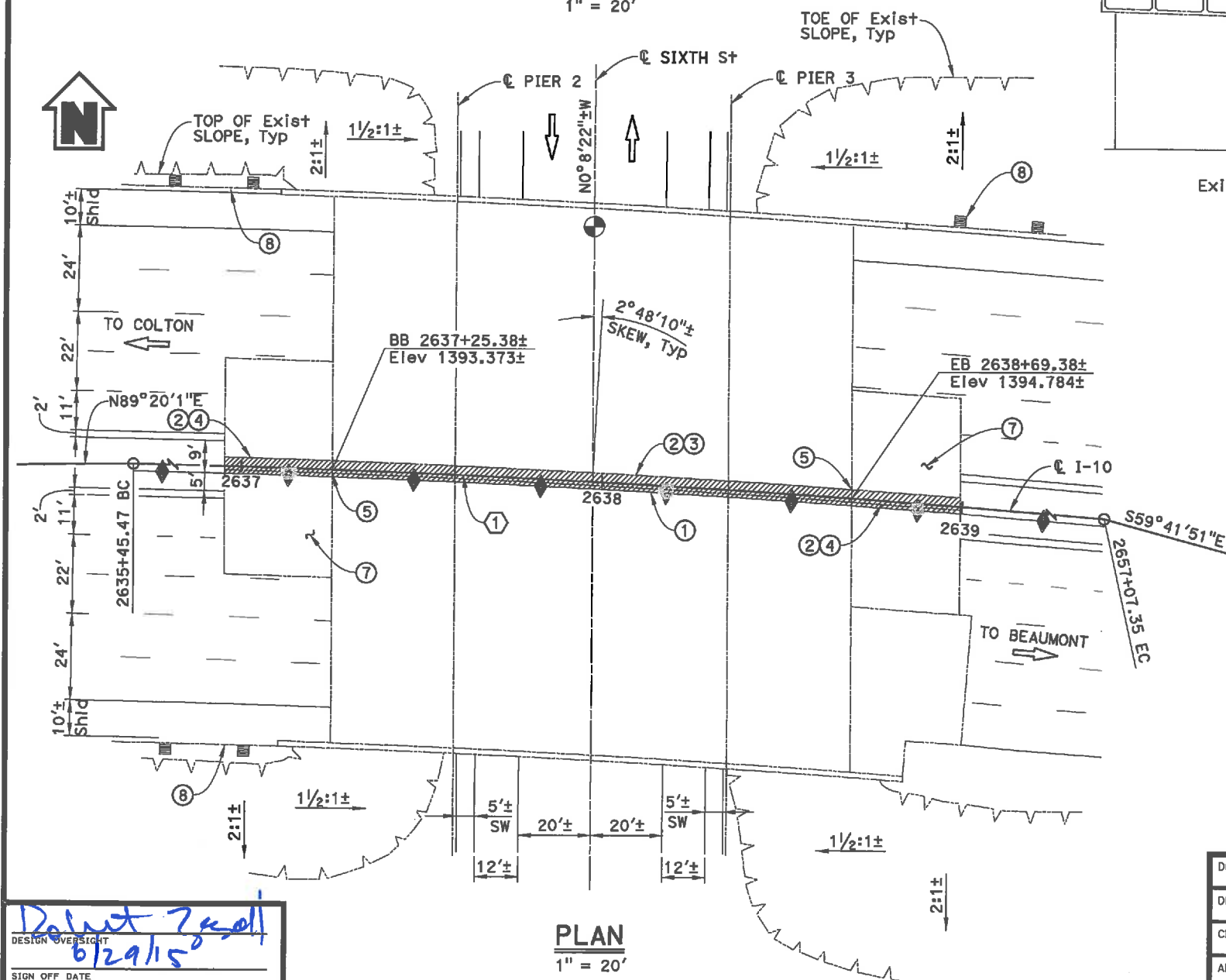
CONTRACT NO.: 08-OC2500

RECEIVED
JUN 26 2015
Office of Special Funded Projects

DIST	COUNTY	ROUTE	POST MILES
07, 08	LA, SBd	10	44.9/48.3 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St San Bernardino CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



ELEVATION
1" = 20'



TYPICAL SECTION
1" = 10'

NOTES:

- Concrete Barrier Type 60A (Mod)
- Remove Exist Concrete Barrier Type 60A (Mod)
- Remove Exist Overhang and Reconstruct
- Structure Approach Slab Type R(30D)
- Remove and Replace Portion Joint Seal (MR=1/2")
- Temporary Railing, Type K, See "ROADWAY PLANS"
- Exist Approach Slab
- Exist MBGR
- Exist 1/2"Ø and 2"Ø Utility Conduits

LEGEND:

- Indicates direction of traffic
- Indicates Point of existing minimum vertical clearance
- Indicates Exist Structure
- Indicates New Construction
- Indicates Bridge Removal
- Match Exist Profile Grade and Cross Slope

CURVE DATA

- ① R = 3999.72'
Δ = 30°58'08"
T = 1108.05'
L = 2161.88'

DATE OF ESTIMATE	=	04/30/15
BRIDGE REMOVAL	=	808 SF
STRUCTURE DEPTH	=	-
LENGTH	=	144'-0"
WIDTH	=	3'-11 1/2"
AREA	=	570 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$ 384
TOTAL COST	=	\$ 219,000

EXPRESS ALTERNATIVE
PLANNING STUDY

SIXTH STREET UC (MODIFY)

BRIDGE NO. 54-0579	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY	L. Khaleghi	DATE	04/30/15
DRAWN BY	F. Hakemi	DATE	04/30/15
CHECKED BY	K. Michalski	DATE	04/30/15
APPROVED	K. Michalski	DATE	6/26/15

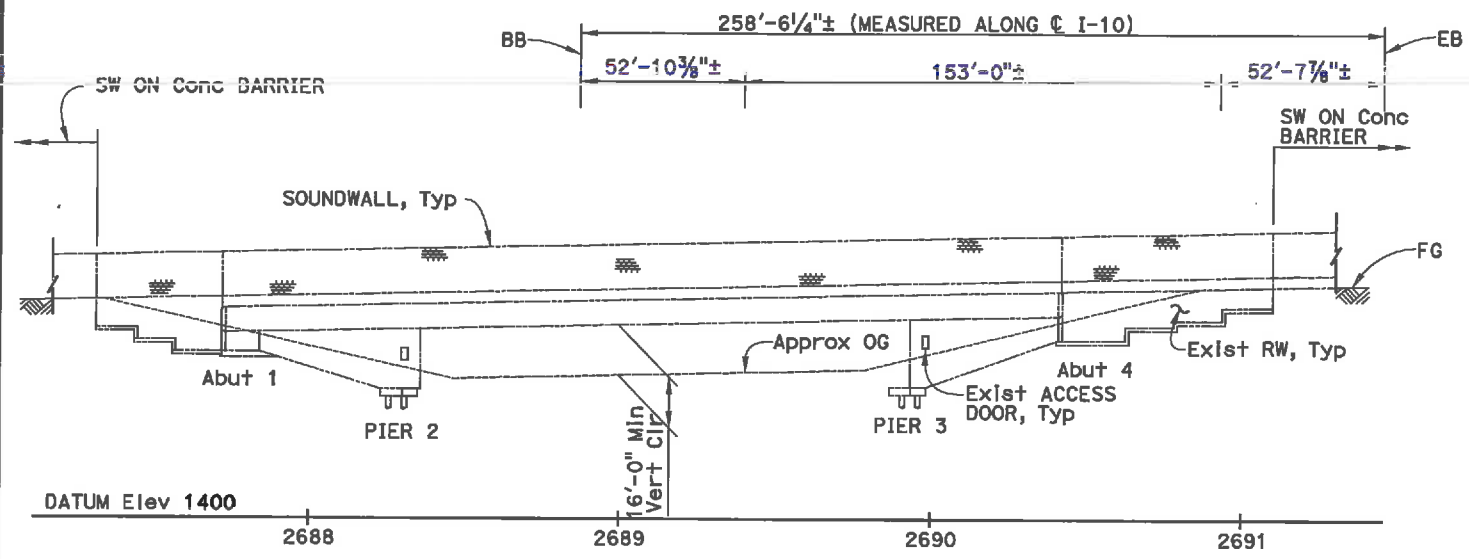
Kevin Michalski
PROJECT ENGINEER

DESIGN OVERSIGHT
6/29/15

DIST	COUNTY	ROUTE	POST MILES
07	LA, SBd	10	44.9/48.3
08			0.0/R37.0

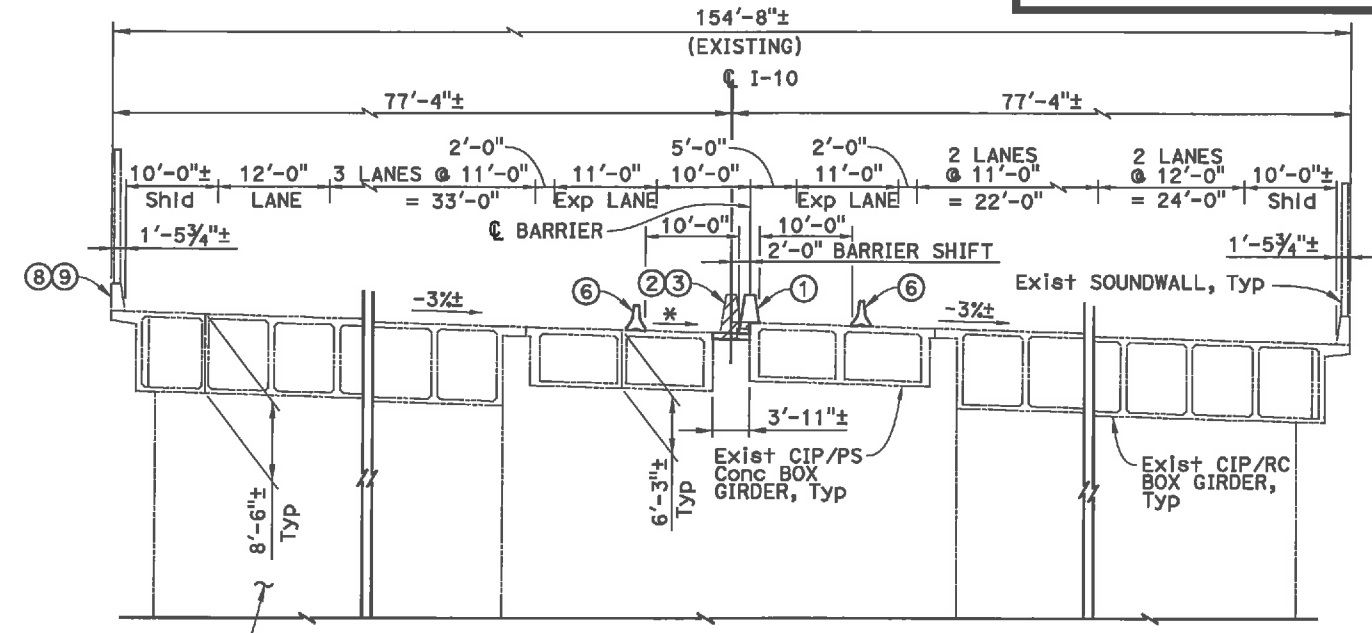
SAN BERNARDINO ASSOCIATED ENGINEERS
1170 W Third St
San Bernardino
CA 92410

PARSONS
2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612



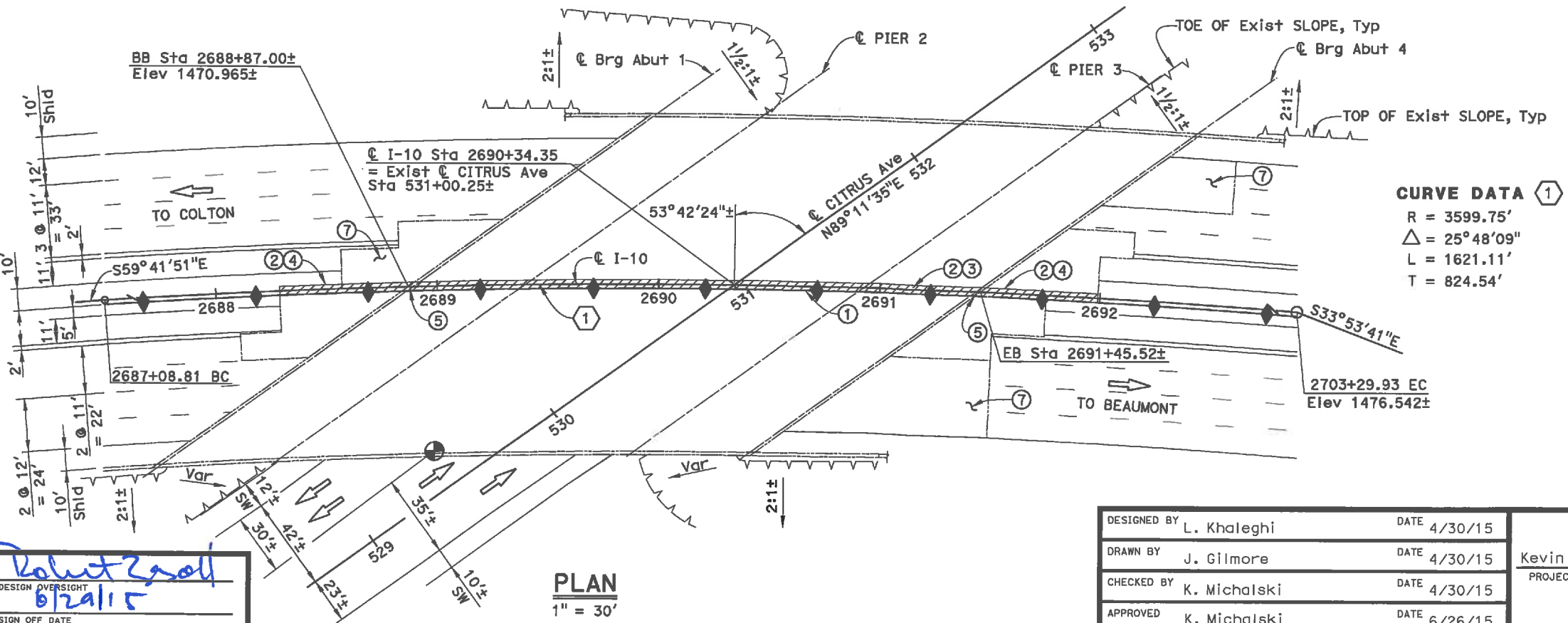
ELEVATION
1" = 30'

- LEGEND:**
- ➔ Indicates Direction of Traffic
 - ⊙ Indicates Existing Point of Minimum Vertical Clearance
 - Indicates Existing Structure
 - Indicates New Construction
 - ▨ Indicates Bridge Removal
 - * Match Existing Profile Grade and Cross Slope



TYPICAL SECTION
1" = 10'

- NOTES:**
- Concrete Barrier Type 60A (Mod)
 - Remove Exist Concrete Barrier Type 60A (Mod)
 - Remove Exist Overhang and Reconstruct
 - Structure Approach Slab Type R(30S)
 - Remove and Replace Portion Joint Seal (MR=1 1/2")
 - Temporary Railing, Type K, See "ROADWAY PLANS"
 - Existing Approach Slab
 - Existing Water Supply Line
 - Existing 1 1/2" and 2" Utility Conduits



CURVE DATA ①
R = 3599.75'
Δ = 25°48'09"
L = 1621.11'
T = 824.54'

DATE OF ESTIMATE	=	04/30/15
BRIDGE REMOVAL	=	1261 SF
STRUCTURE DEPTH	=	-
LENGTH	=	258'-6 1/4"
WIDTH	=	3'-11 1/2"
AREA	=	1023 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$ 243
TOTAL COST	=	\$ 249,000

EXPRESS ALTERNATIVE PLANNING STUDY	
CITRUS AVENUE UC (MODIFY)	
BRIDGE NO. 54-0584	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY	L. Khaleghi	DATE	4/30/15
DRAWN BY	J. Gilmore	DATE	4/30/15
CHECKED BY	K. Michalski	DATE	4/30/15
APPROVED	K. Michalski	DATE	6/26/15

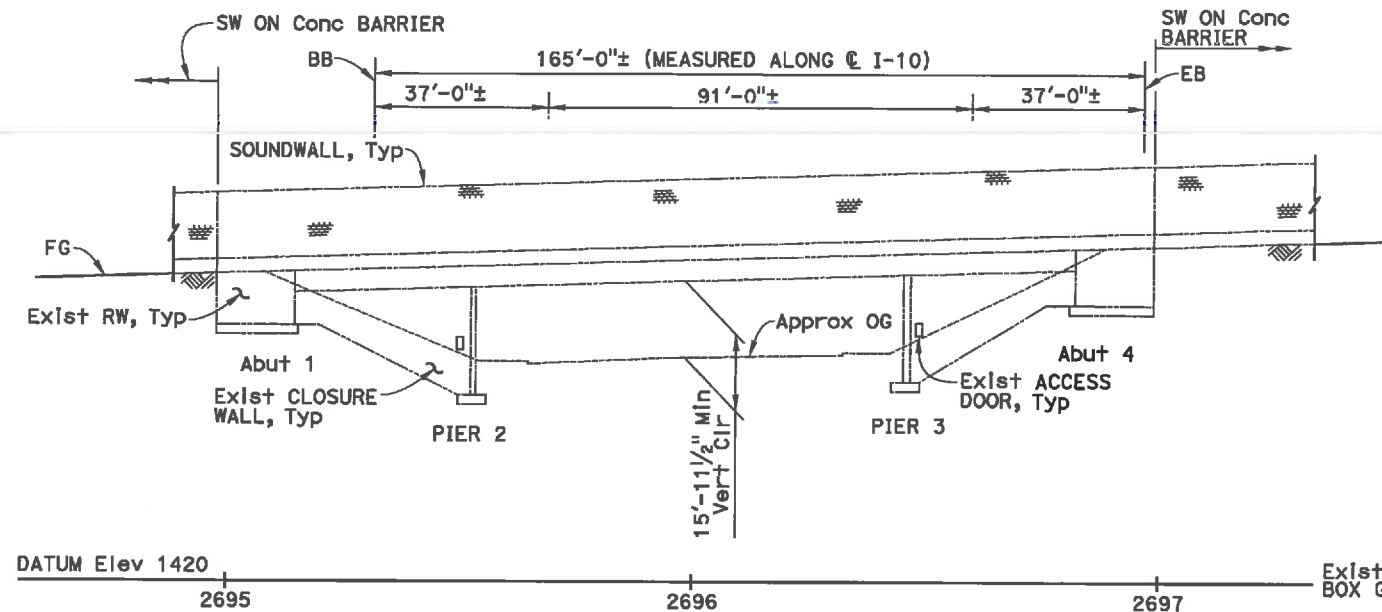
Kevin Michalski
PROJECT ENGINEER

Robert Zsall
DESIGN OVERSIGHT
6/2/15
SIGN OFF DATE

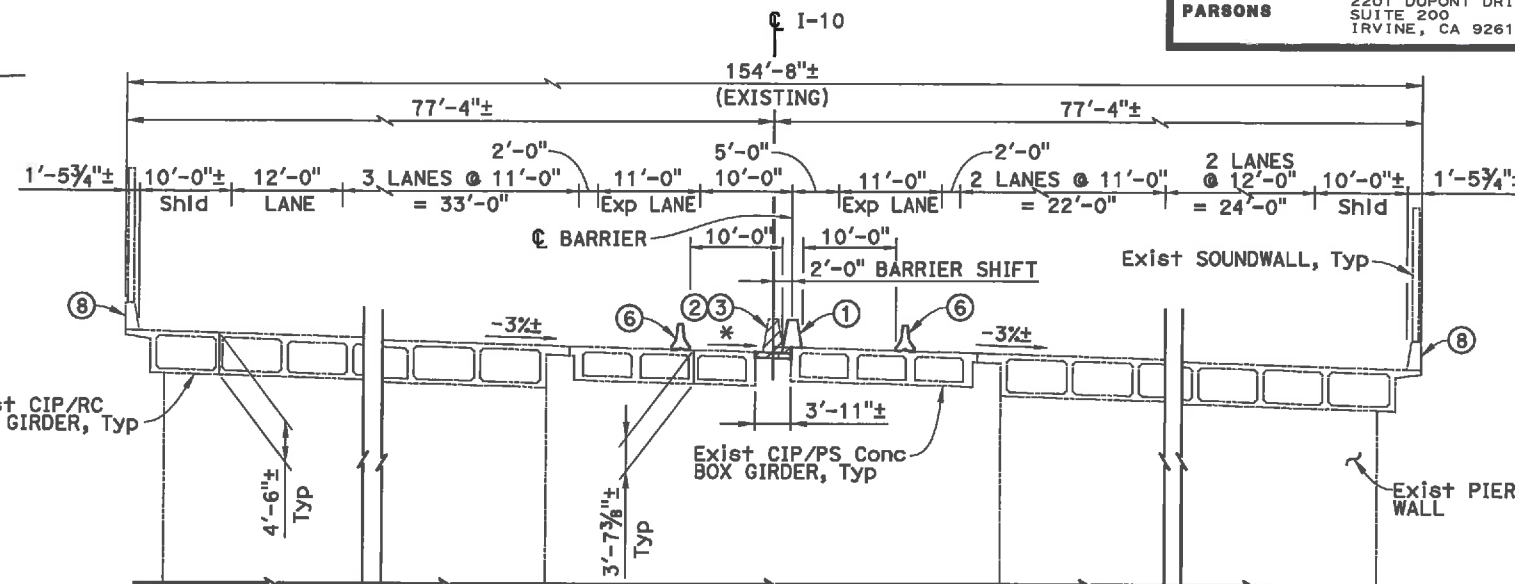
DIST	COUNTY	ROUTE	POST MILES
07	LA, Sbd	10	44.9/48.3
08			0.0/R37.0

SAN BERNARDINO ASSOCIATED GOVERNMENTS 1170 W Third St
2nd Floor
San Bernardino
CA 92415

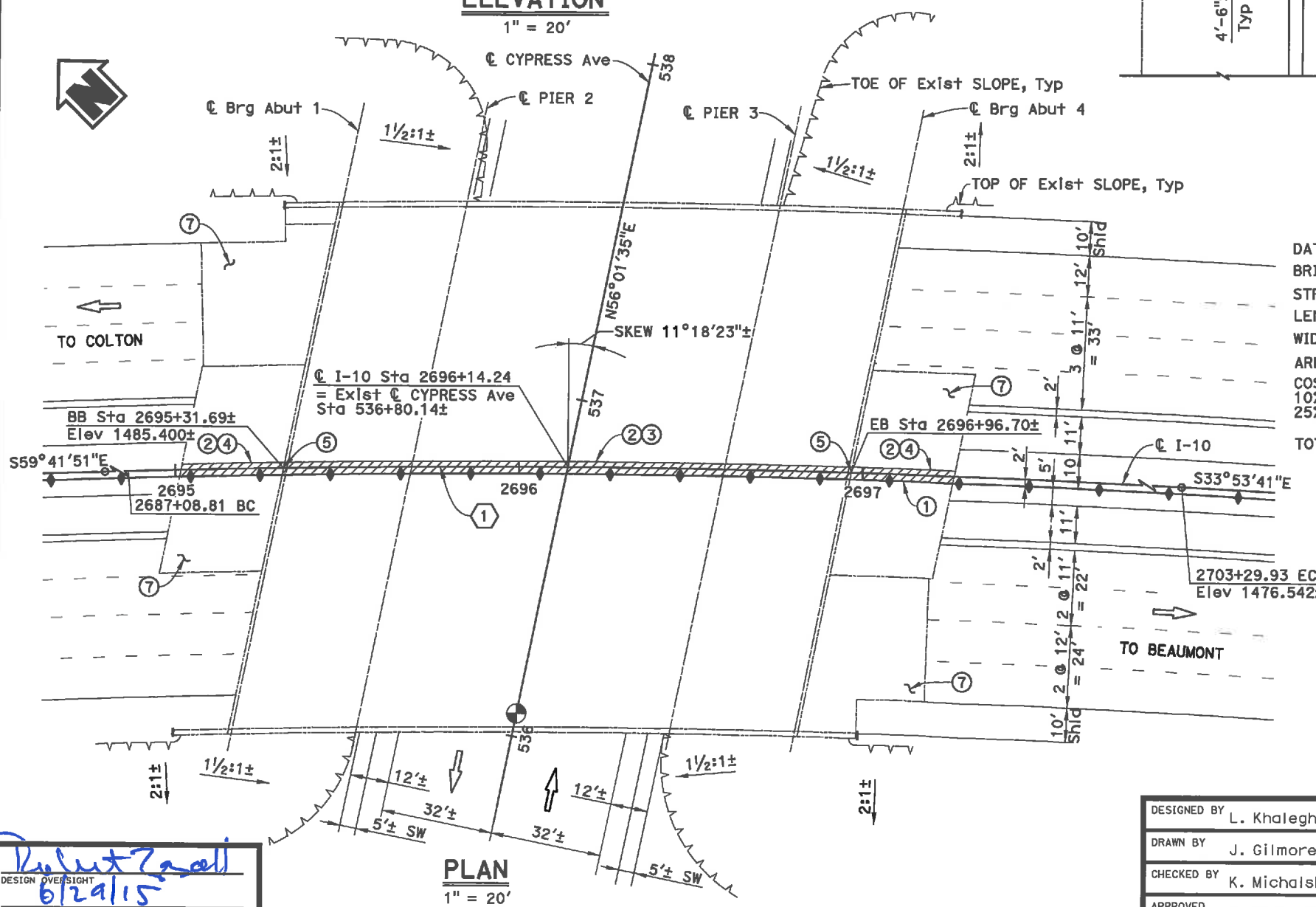
PARSONS 2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612



ELEVATION
1" = 20'



TYPICAL SECTION
1" = 10'



PLAN
1" = 20'

DATE OF ESTIMATE	=	04/30/15
BRIDGE REMOVAL	=	889 SF
STRUCTURE DEPTH	=	-
LENGTH	=	165'-0"
WIDTH	=	3'-11 3/8"
AREA	=	651 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$325
TOTAL COST	=	\$212,000

NOTES:

- Concrete Barrier Type 60A (Mod)
- Remove Existing Concrete Barrier Type 60A (Mod)
- Remove Existing Concrete Overhang and Reconstruct
- Structure Approach Slab Type R (300)
- Remove and Replace Portion Joint Seal (MR = 1 1/2")
- Temporary Railing, Type K, See "ROADWAY PLANS"
- Existing Approach Slab
- Exlt 1 1/2" ϕ and 2" ϕ Utility Conduits

LEGEND:

- Indicates Direction of Traffic
- Indicates Point of Minimum Vertical Clearance
- Indicates Existing Structure
- Indicates New Construction
- Indicates Bridge Removal
- * Match Existing Profile Grade and Cross Slope
- Indicates Concrete Barrier Type 60A (Mod)

CURVE DATA ①
R = 3599.75'
 Δ = 25°48'09"
T = 824.54'
L = 1621.11'

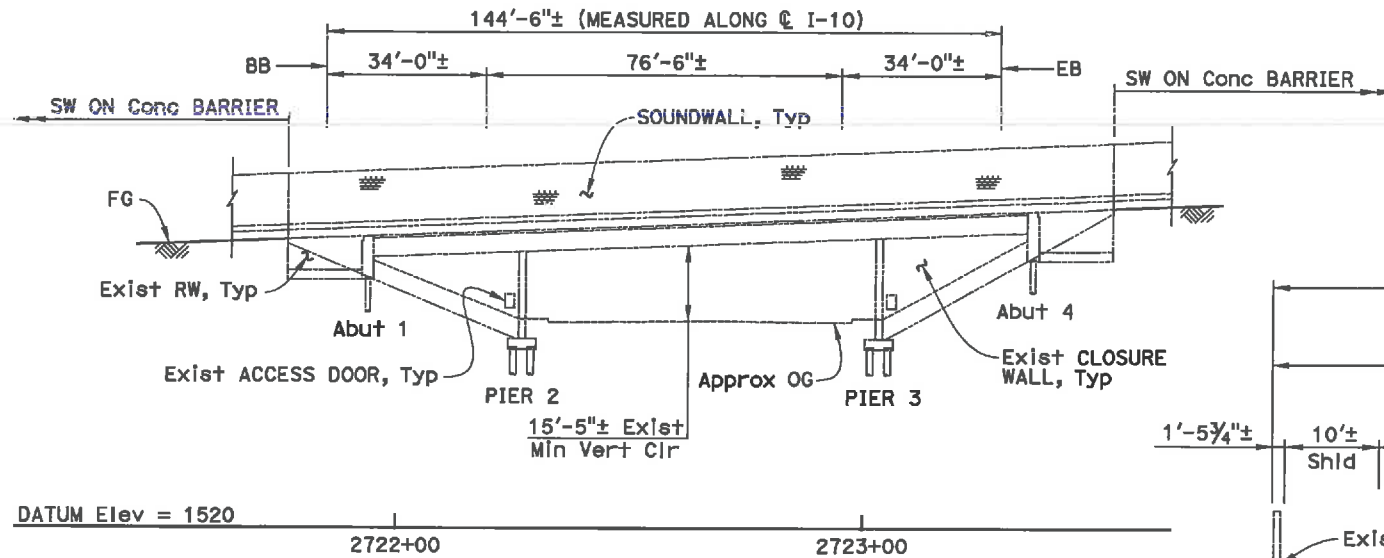
DESIGNED BY	L. Khaleghi	DATE	4/30/15
DRAWN BY	J. Gilmore	DATE	4/30/15
CHECKED BY	K. Michalski	DATE	4/30/15
APPROVED	K. Michalski	DATE	6/26/15

Kevin Michalski
PROJECT ENGINEER

EXPRESS ALTERNATIVE	
PLANNING STUDY	
CYPRESS AVENUE UC (MODIFY)	
BRIDGE NO. 54-0585	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

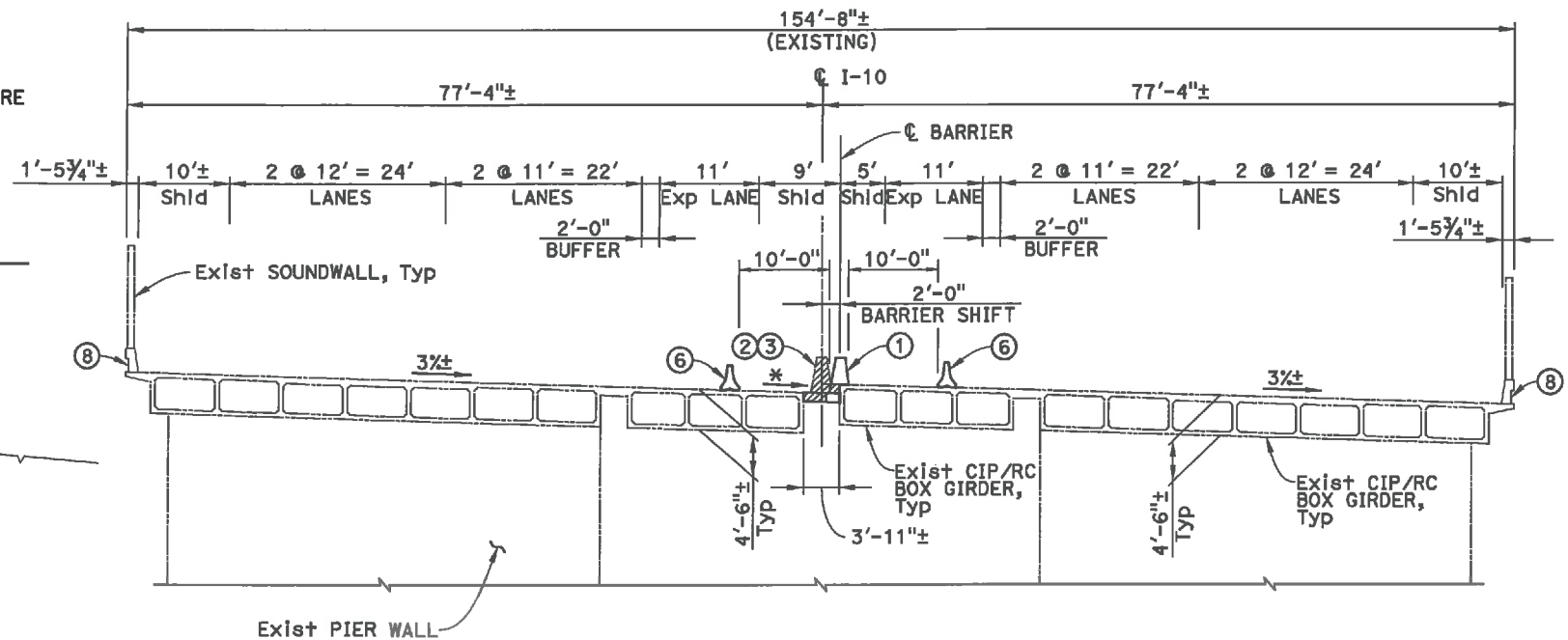
DESIGN OVERSIGHT
6/29/15

DIST	COUNTY	ROUTE	POST MILES
07, 08	LA, SBd	10	TOTAL PROJECT 44.9/48.3 0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St San Bernardino CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



ELEVATION

1" = 20'



TYPICAL SECTION

1" = 10'

LEGEND:

- Indicates direction of traffic
- ⊙ Indicates Point of existing minimum vertical clearance
- Indicates Exist Structure
- Indicates New Construction
- ▨ Indicates Bridge Removal
- * Match Exist Profile Grade and Cross Slope
- ◆ Concrete Barrier Type 60 (Mod)

NOTES:

- ① Concrete Barrier Type 60 (Mod)
- ② Remove Existing Concrete Barrier Type 60A (Mod)
- ③ Remove Existing Concrete Overhang and Reconstruct
- ④ Structure Approach Slab Type R (300)
- ⑤ Remove and Replace Portion Joint Seal (MR = 1 1/2)
- ⑥ Temporary Railing, Type K, See "ROADWAY PLANS"
- ⑦ Existing Approach Slab
- ⑧ Exist 1 1/2" Dia and 2" Dia Utility Conduits

CURVE DATA

- ① R = 3999.72'
Δ = 13°42'29"
T = 480.76'
L = 956.93'

DATE OF ESTIMATE	=	04/30/15
BRIDGE REMOVAL	=	806 SF
STRUCTURE DEPTH	=	-
LENGTH	=	144'-6"
WIDTH	=	3'-11 1/4"
AREA	=	569 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$385
TOTAL COST	=	\$219,000

EXPRESS ALTERNATIVE

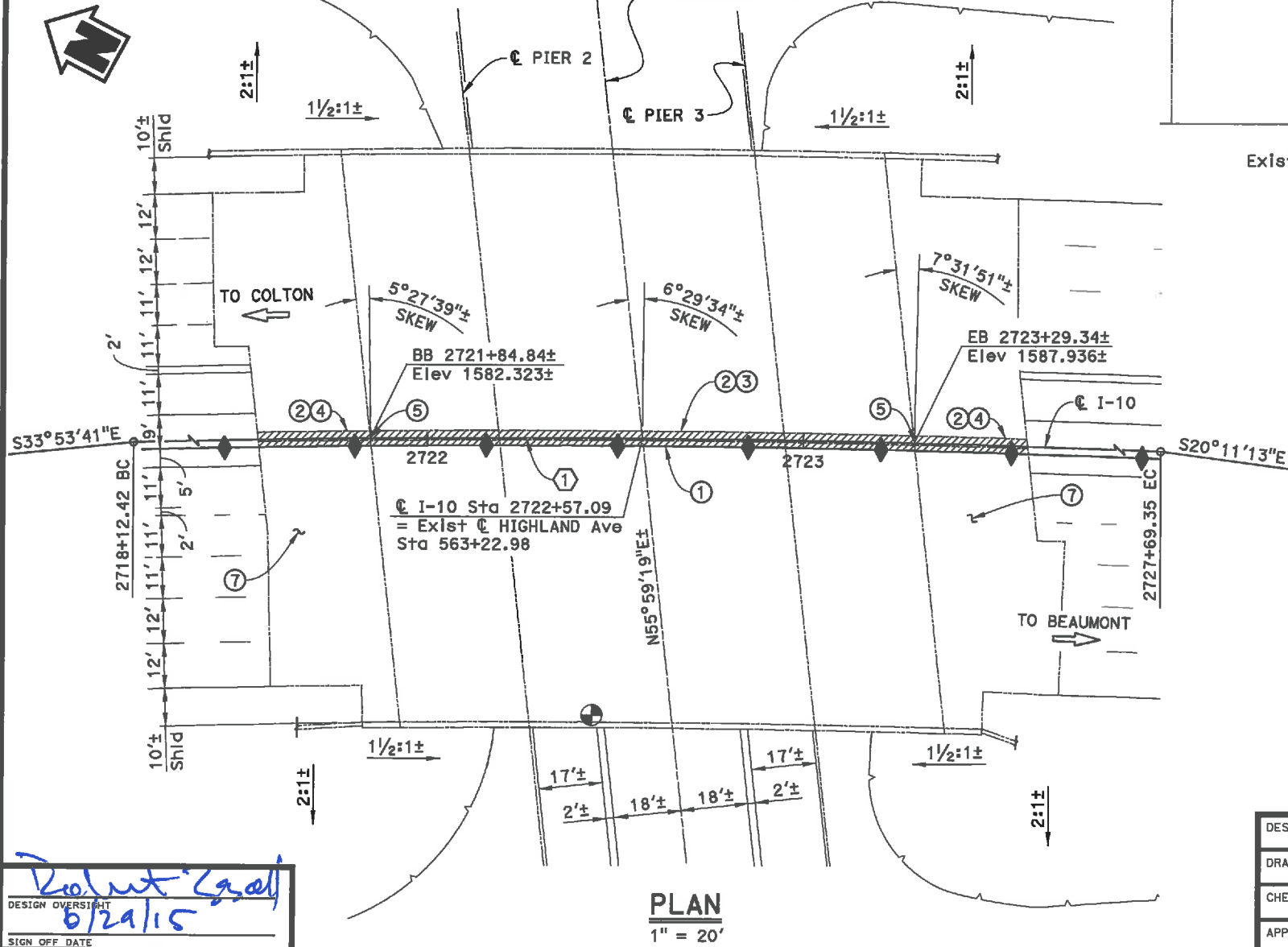
PLANNING STUDY

HIGHLAND AVENUE UC (MODIFY)

BRIDGE NO. 54-0587	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY	L. Khaleghi	DATE	4/30/15
DRAWN BY	F. Hakemi	DATE	4/30/15
CHECKED BY	K. Michalski	DATE	4/30/15
APPROVED	K. Michalski	DATE	6/26/15

Kevin Michalski
PROJECT ENGINEER

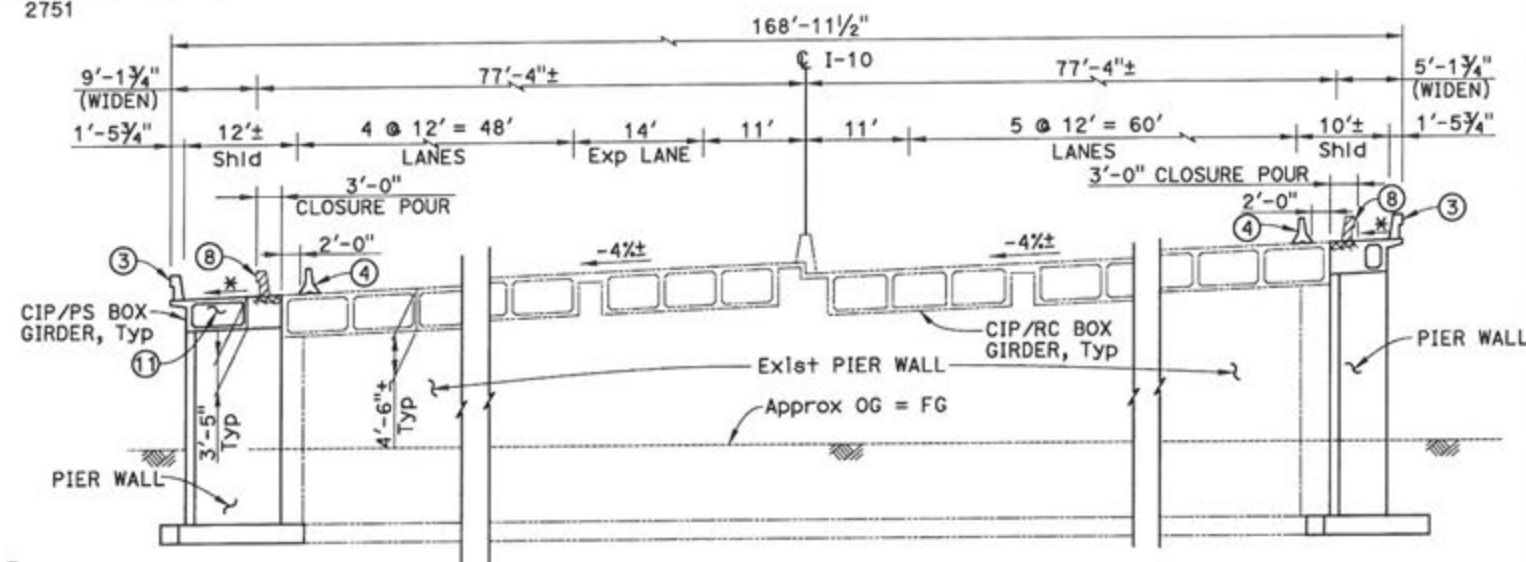
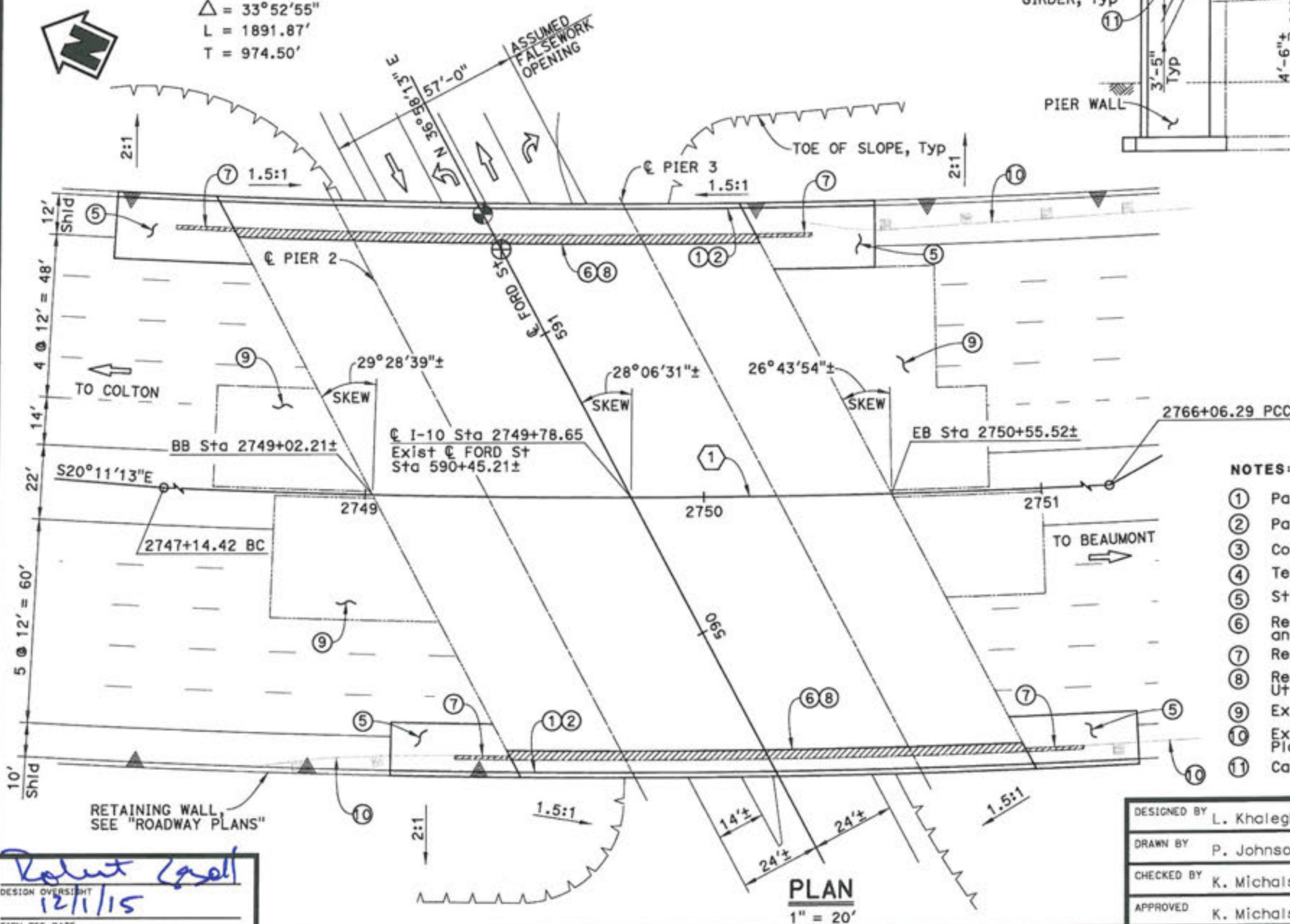


PLAN

1" = 20'

DESIGN OVERSIGHT
6/29/15
SIGN OFF DATE

ELEVATION
1" = 20'

$$\begin{aligned} R &= 3199.23' \\ \Delta &= 33^\circ 52' 55'' \\ L &= 1891.87' \\ T &= 974.50' \end{aligned}$$


TYPICAL SECTION
1" = 10'

DATE OF ESTIMATE	=	7/23/15
BRIDGE REMOVAL	=	818 SF
STRUCTURE DEPTH	=	3'-5"
LENGTH	=	153'-3 ³ / ₄ "
WIDTH	=	14'-3 ¹ / ₂ "
AREA	=	2191 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$497
TOTAL COST	=	\$1,090,000

LEGEND:

- NOTES:**
- ① Paint "Br No. 54-0588"
 - ② Paint "Ford St UC"
 - ③ Concrete Barrier Type 736 (Mod)
 - ④ Temporary Railing, Type K
 - ⑤ Structure Approach, Type N(300)
 - ⑥ Remove Exist Type 732 (Mod) Barrier and Refinish Bridge Deck
 - ⑦ Remove Exist Wingwall
 - ⑧ Remove and Relocate 1 1/2"ø and 2"ø Utility Conduits
 - ⑨ Exist Approach Slab
 - ⑩ Exist MBGR to be Removed, see "Roadway Plans"
 - ⑪ Cast High and Lower Construction

- | | |
|---|--|
|  | Indicates direction of traffic |
|  | Indicates Point of Minimum Vertical Clearance |
|  | Indicates Point of Existing Minimum Vertical Clearance |
|  | Indicates Exist Structure |
|  | Indicates New Structure |
|  | Indicates Bridge Removal |
|  | Indicates Closure Pour |
|  | Match Exist Profile Grade and Cross Slope |
|  | Retaining Wall, see "Roadway Plans" |

EXPRESS ALTERNATIVE

PLANNING STUDY

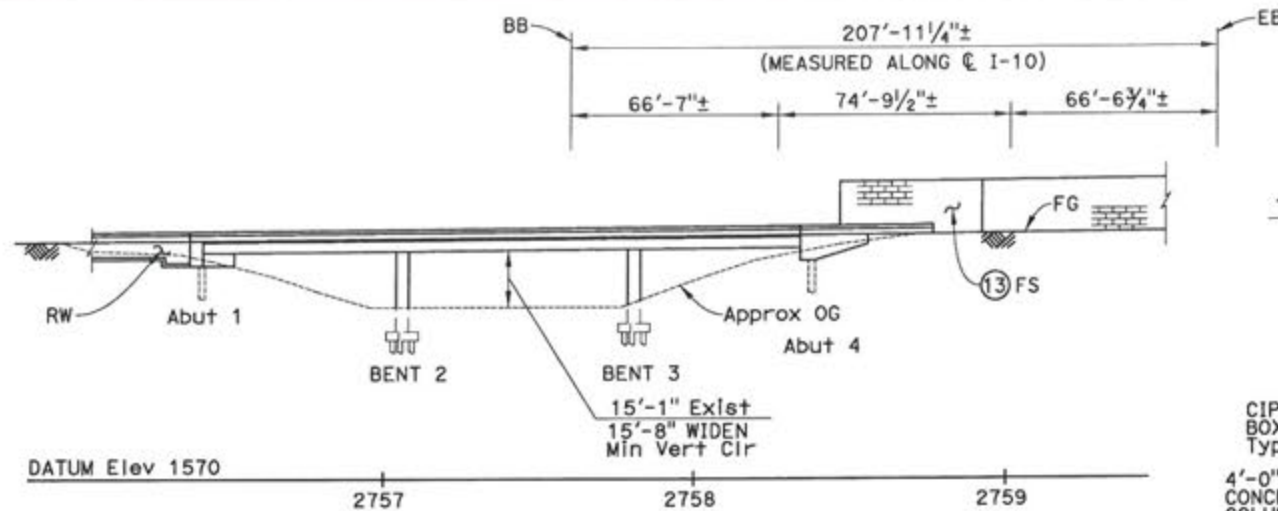
FORD STREET UC (WIDEN)

BRIDGE NO. 54-0588	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

DESIGNED BY	L. Khaleghi	DATE	7/23/15
DRAWN BY	P. Johnson	DATE	7/23/15
CHECKED BY	K. Michalski	DATE	7/23/15
APPROVED	K. Michalski	DATE	7/23/15

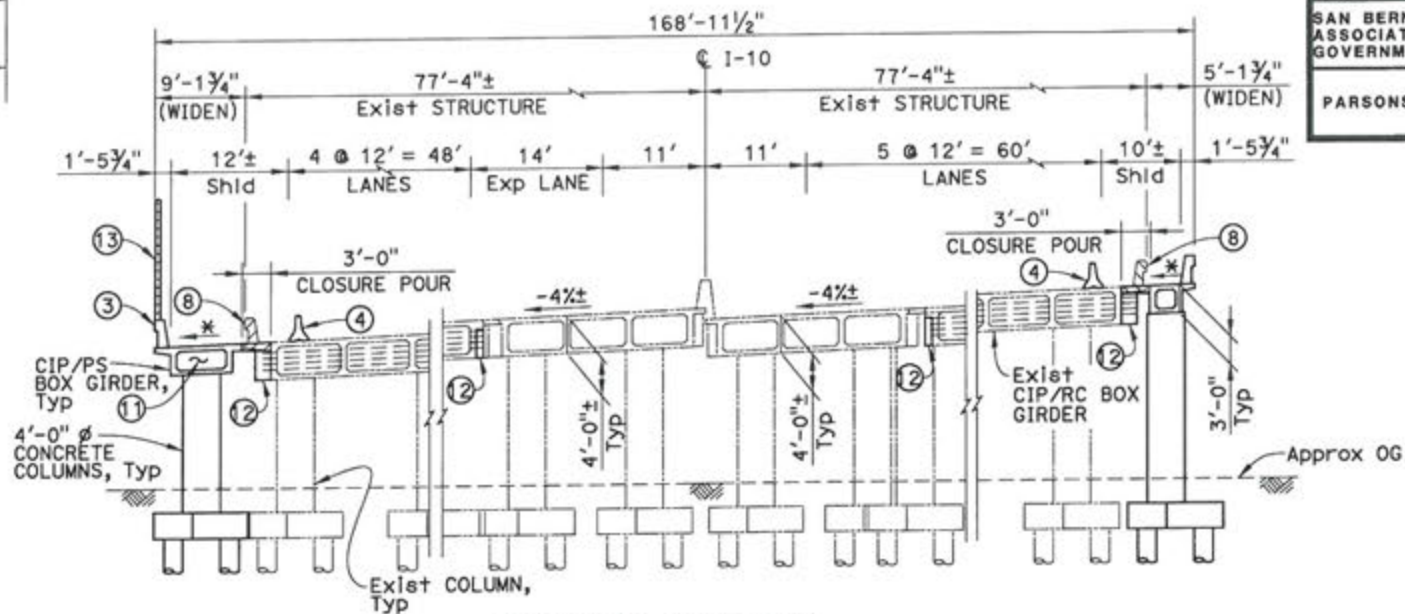
Kevin Michalski
PROJECT ENGINEER

DIST	COUNTY	ROUTE	POST MILES
07	LA, Sbd	10	44.9/48.3
08			0.0/R37.0
SAN BERNARDINO ASSOCIATED GOVERNMENTS			1170 W Third St 2nd Floor San Bernardino, CA 92410
PARSONS			2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612



ELEVATION
1" = 30'

DATE OF ESTIMATE	=	7/23/15
BRIDGE REMOVAL	=	1109 SF
STRUCTURE DEPTH	=	3'-0"
LENGTH	=	207'-11 1/4"
WIDTH	=	14'-3 1/2"
AREA	=	2972 SF
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$580
PRELIMINARY SEISMIC RETROFIT	=	\$198,000
TOTAL COST	=	\$1,724,000



TYPICAL SECTION
1" = 10'

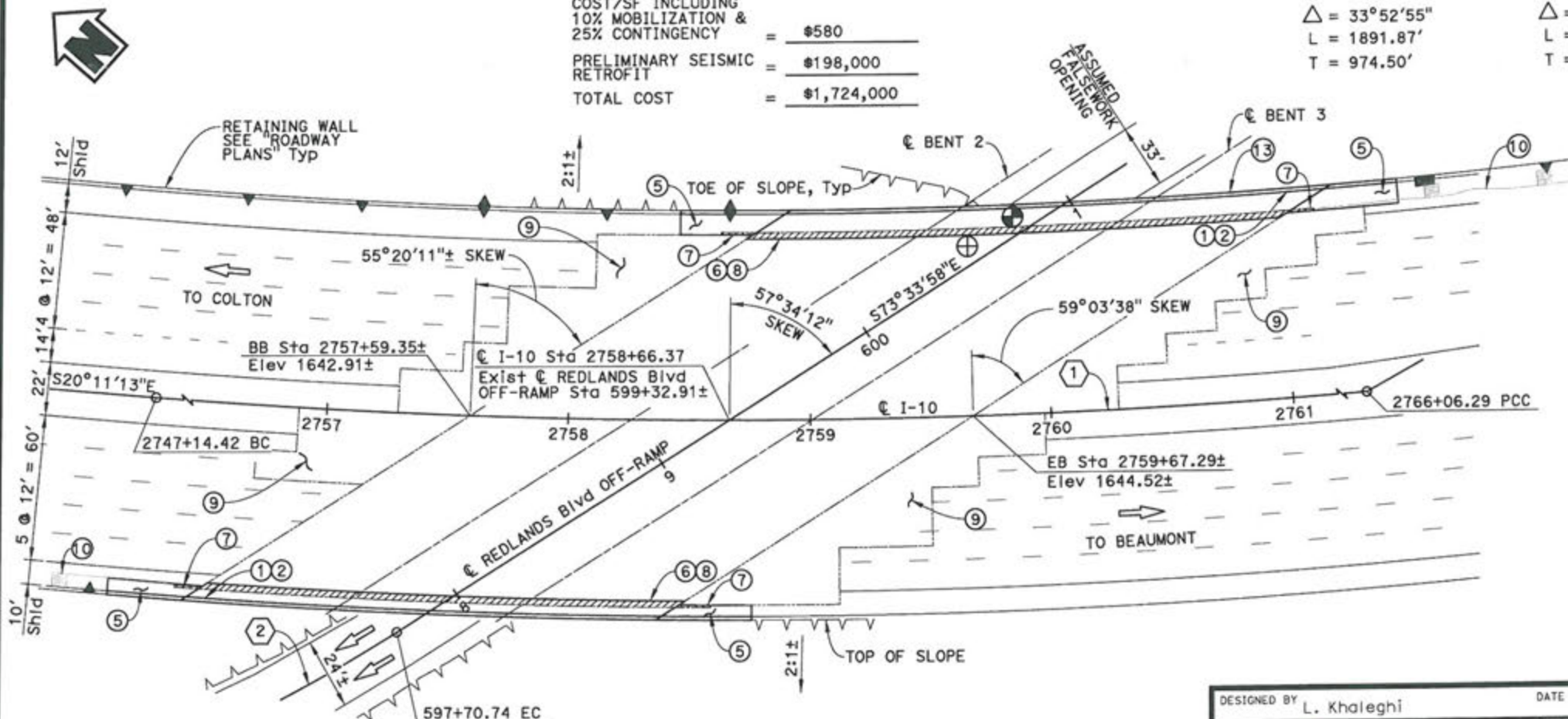
CURVE DATA ①	CURVE DATA ②
R = 3199.23'	R = 700.00'
Δ = 33°52'55"	Δ = 19°35'56"
L = 1891.87'	L = 239.45'
T = 974.50'	T = 120.90'

NOTES:

- ① Paint "Br No. 54-0589"
- ② Paint "Redlands Blvd Off-Ramp UC"
- ③ Concrete Barrier Type 736 (Mod)
- ④ Temporary Railing, Type K
- ⑤ Structure Approach, Type N(300)
- ⑥ Remove Exist Type 732 (Mod) Barrier and Refinish Bridge Deck
- ⑦ Remove Exist Wingwall
- ⑧ Remove and Relocate 1/2"Ø and 2"Ø Utility Conduits
- ⑨ Exist Approach Slab
- ⑩ Exist MBGR to be Removed, see Roadway Plans
- ⑪ Cast High and Lower Construction
- ⑫ Provide Anchor Blocks and Prestress Bent Cap
- ⑬ Soundwall (Barrier Masonry Block H=14'-0")

LEGEND:

- Indicates Direction of Traffic
- ⊕ Indicates Point of Minimum Vertical Clearance
- ⊕ Indicates Point of Minimum Vertical Clearance for Existing Structure
- Indicates Exist Structure
- Indicates New Structure
- ▨ Indicates Bridge Removal
- * Match Exist Profile Grade and Cross Slope



PLAN
1" = 30'

DESIGNED BY	L. Khaleghi	DATE	7/23/15
DRAWN BY	P. Johnson	DATE	7/23/15
CHECKED BY	K. Michalski	DATE	7/23/15
APPROVED	K. Michalski	DATE	7/23/15

Kevin Michalski
PROJECT ENGINEER

EXPRESS ALTERNATIVE PLANNING STUDY	
REDLANDS BLVD OFF-RAMP UC (WIDEN)	
BRIDGE NO. 54-0589	UNIT: 2232
SCALE: AS SHOWN	PROJECT NUMBER & PHASE: 0800000040

X *Robert Groll*
DESIGN OVERSIGHT
X
SIGN OFF DATE
12/11/15