PLANS AND SPECIAL PROVISIONS FOR THE CONSTRUCTION OF

LINCOLN AVENUE WIDENING OVER SANTA ANA RIVER

from Rio Vista Street

to Riverbend Parkway

including Widening Lincoln Avenue Bridge (55C-0017)

January 2013

VOLUME 2 OF 2

FUNDED BY
Proposition 1B
Road Funds

Contributions from:
County of Orange, City of Anaheim and City of Orange

ADMINISTERED BY
COUNTY OF ORANGE
OC PUBLIC WORKS DEPARTMENT
SANTA ANA, CALIFORNIA
IGNACIO G. OCHOA, INTERIM DIRECTOR

W.O. ER09343

Resident Engineers: Steve Tisell, Kevin Tran (AECOM)
Hamid Abedzadeh (County)

Inspectors: Aftab Loya, Tuan Tran (AECOM)
David Robinson, Amit Verma, Raymond Marcial (County)

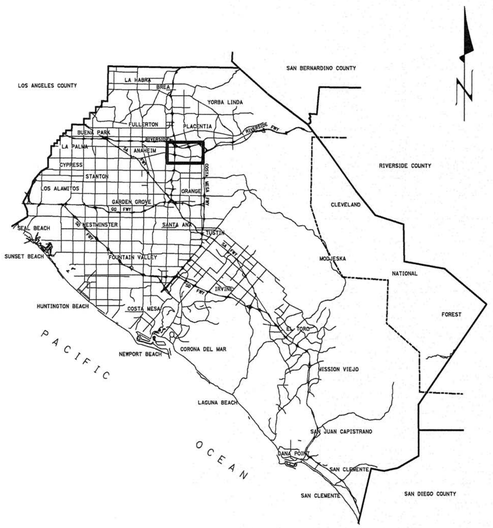
Contractor: Griffith Company, Inc.

Construction Start Date: August 7th, 2013

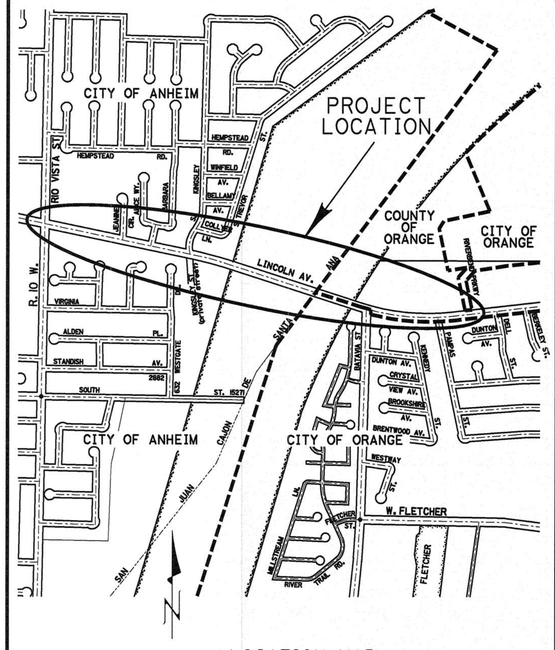
Construction Completion Date: January 2nd, 2015

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015



VICINITY MAP



LOCATION MAP

ORANGE COUNTY
OC PUBLIC WORKS
SANTA ANA, CALIFORNIA

IGNACIO G. OCHOA, INTERIM DIRECTOR

PLANS FOR CONSTRUCTION OF

LINCOLN AVENUE WIDENING OVER SANTA ANA RIVER

from Rio Vista Street
to Riverbend Parkway
including Widening Lincoln Avenue Bridge
(Bridge No. 55C-0017)

W.O. NO. ER09343

January 2013

FUNDED BY:
PROP 1B
Road Funds (City of Anaheim, City of Orange, and County of Orange)

MAINTAINED BY:
County of Orange
City of Anaheim
City of Orange

INDEX OF SHEETS

Roadway Plans

1	--	Title Sheet
2-4	SC	Survey Control
5-7	X	Typical Cross Sections
8-14	PP	Plan & Profile (Lincoln Avenue & Riverbend Parkway)
15-19	PP	Plan & Profile (Access Roads, Maintenance Road & Trails)
20-24	PP	Plan & Profile (Retaining Walls)
25	RD	Roadway Details
26	BC	Box Culvert Details
27-29	SD	Plan & Profile (Storm Drain)
30-31	DD	Drainage Details
32-37	U	Utilities

Signing, Striping & Traffic Handling Plans

38-41	SS	Signing & Striping (Lincoln Avenue)
42	SS	East Levee Trail Striping
43	TS	Traffic Signal (Lincoln Avenue & Batavia Street)
44	TS	Street Lighting
45-59	TH	Traffic Handling
60	DT	Bike & Equestrian Trail Detour

Bridge Widening Plans

See Sheet 62 of 90: General Notes & Index to Plans

Maintenance of Various Bridges in Orange County Phase I - Project No. 2
Upper Santa Ana River Area

See sheet 1 of 16 of Maintenance of Various Bridges in Orange County Plans

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

UTILITY OWNER	CONTACT	PHONE NO.
SC Gas Distribution	Diane Caballero	714-634-3115
SC Gas Transmission	Ron Silver	818-701-4536
Southern California Edison	Jeff Cessna	714-973-5454
Time Warner Cable	Chris Donnelly (in Orange)	714-903-8307
Time Warner Cable	Larry Lilly (in Anaheim)	714-903-8421
Verizon/MCI Network Services	Dan Gardner	951-536-1200
Level (3)	Rick Miller	720-888-7568
Orange County Water District	Ben Smith	714-378-3200
AT&T Transmission	Steve Shermoen	714-963-7964
AT&T Distribution	Jan Vessels	714-575-8465
Anaheim, Electrical	Alvin M. Aska	714-765-4147
Anaheim, Fiber Optic	Stephen Brezinski	714-765-4394
Anaheim, Water	Ha T. Quan	714-765-4187
Anaheim, Public Works	Karl Francis	714-765-5175
Orange, Water Department	Ramona Takahashi	714-288-2475
Orange County Sanitary District	Rich Leon	714-593-7242
Orange County Parks	Pete Hilebrecht	714-973-6833

DEVIATIONS FROM STANDARDS

Caltrans Highway Design Manual, Chapter 200
- Topic 204.4, grade break exceed 0.5% without vertical curve at various location due to existing conditions

Orange County Highway Design Manual, Chapter 300
-Topic 301.2, crossfall more than 1.7% due to existing conditions

Orange County Standard Plan 1209, Depressed Curb Driveway Approach
- Modified Per Sheet RD-1 to meet ADA standards

Orange County Standard Plan 1210, Flared Depressed Curb Driveway Approach
- Modified per Sheet RD-1 to meet ADA standards

Orange County Standard Plan 1305, Inlet Type V
- Modified per Sheet DD-1 for infiltration purpose

Orange County Standard Plan 1101, Major Highway Typical Sections
- Modified per Sheet X-1 due to existing conditions

City of Anaheim Standard Plan 160-A, Street and Highway Sections (Major Six Lanes)
- Modified per Sheet X-1 due to existing conditions

City of Orange Standard Plan 102, Standard Arterial Street Sections (Major)
- Modified per Sheet X-1 due to existing conditions

1-2-13
MARK VUKOJEVIC,P.E. Date
City Engineer, City of Anaheim

1/2/13
FRANK SUN, P.E. Date
City Engineer, City of Orange

1/8/13
IGNACIO G. OCHOA, P.E. Date
Director/Chief Engineer, OC Engineering

VERTICAL DATUM:

O.C.S. BM. # 1K-26-70
Elevation = 212.88 feet
Level year 2006
NGVD 1929

BASIS OF BEARINGS:

The basis of bearing hereon are based on the bearing between O.C.S. horizontal control station G.P.S. No. 4065 and station G.P.S. No. 0910, being N85°59'54"W, per records on file in the office of the Orange County Surveyor.

CITY APPROVALS

APPROVED: 1-2-13
MARK VUKOJEVIC,P.E. Date
City Engineer, City of Anaheim

APPROVED: 1/2/13
FRANK SUN, P.E. Date
City Engineer, City of Orange

OC PUBLIC WORKS

SUBMITTED: 1/7/13
DAVID SHARIFI, P.E. Date
Manager, Capital Projects

RECOMMENDED: 1/2/13
KHALID BAZMI, P.E. Date
Manager, Road Section

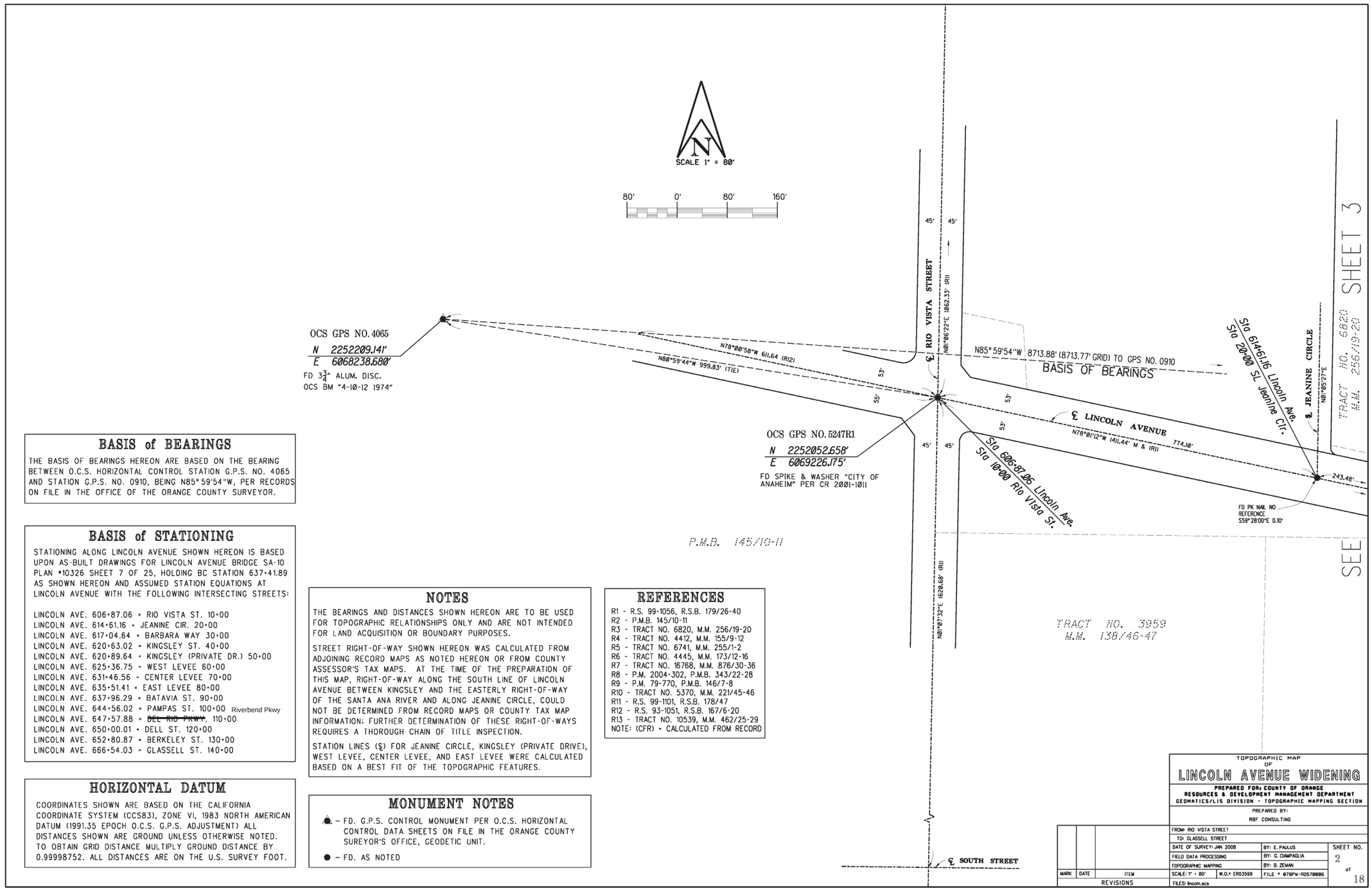
APPROVED: 1/8/13
IGNACIO G. OCHOA, P.E. Date
Director/Chief Engineer, OC Egnineering

NO.	DESCRIPTION	SHT.	APPROVED	DATE

REVISIONS

W. O. NO. ER09343
DWG. NO.

SHEET 1 OF 90



BASIS of BEARINGS

THE BASIS OF BEARINGS HEREON ARE BASED ON THE BEARING BETWEEN O.C.S. HORIZONTAL CONTROL STATION G.P.S. NO. 4065 AND STATION G.P.S. NO. 0910, BEING N85°59'54"W, PER RECORDS ON FILE IN THE OFFICE OF THE ORANGE COUNTY SURVEYOR.

BASIS of STATIONING

STATIONING ALONG LINCOLN AVENUE SHOWN HEREON IS BASED UPON AS-BUILT DRAWINGS FOR LINCOLN AVENUE BRIDGE SA-10 PLAN #10326 SHEET 7 OF 25, HOLDING BC STATION 637+41.89 AS SHOWN HEREON AND ASSUMED STATION EQUATIONS AT LINCOLN AVENUE WITH THE FOLLOWING INTERSECTING STREETS:

LINCOLN AVE. 606+87.06 = RIO VISTA ST. 10+00
LINCOLN AVE. 614+61.16 = JEANINE CIR. 20+00
LINCOLN AVE. 617+04.64 = BARBARA WAY 30+00
LINCOLN AVE. 620+63.02 = KINGSLEY ST. 40+00
LINCOLN AVE. 620+89.64 = KINGSLEY (PRIVATE DR.) 50+00
LINCOLN AVE. 625+36.75 = WEST LEVEE 60+00
LINCOLN AVE. 631+46.56 = CENTER LEVEE 70+00
LINCOLN AVE. 635+51.41 = EAST LEVEE 80+00
LINCOLN AVE. 637+96.29 = BATAVIA ST. 90+00
LINCOLN AVE. 644+56.02 = PAMPAS ST. 100+00 Riverbend Pkwy
LINCOLN AVE. 647+57.88 = ~~DEL RIO PKWY.~~ 110+00
LINCOLN AVE. 650+00.01 = DELL ST. 120+00
LINCOLN AVE. 652+80.87 = BERKELEY ST. 130+00
LINCOLN AVE. 666+54.03 = GLASSELL ST. 140+00

HORIZONTAL DATUM

COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, 1983 NORTH AMERICAN DATUM (1991.35 EPOCH O.C.S. G.P.S. ADJUSTMENT) ALL DISTANCES SHOWN ARE GROUND UNLESS OTHERWISE NOTED. TO OBTAIN GRID DISTANCE MULTIPLY GROUND DISTANCE BY 0.99998752. ALL DISTANCES ARE ON THE U.S. SURVEY FOOT.

NOTES

THE BEARINGS AND DISTANCES SHOWN HEREON ARE TO BE USED FOR TOPOGRAPHIC RELATIONSHIPS ONLY AND ARE NOT INTENDED FOR LAND ACQUISITION OR BOUNDARY PURPOSES.

STREET RIGHT-OF-WAY SHOWN HEREON WAS CALCULATED FROM ADJOINING RECORD MAPS AS NOTED HEREON OR FROM COUNTY ASSESSOR'S TAX MAPS. AT THE TIME OF THE PREPARATION OF THIS MAP, RIGHT-OF-WAY ALONG THE SOUTH LINE OF LINCOLN AVENUE BETWEEN KINGSLEY AND THE EASTERLY RIGHT-OF-WAY OF THE SANTA ANA RIVER AND ALONG JEANINE CIRCLE, COULD NOT BE DETERMINED FROM RECORD MAPS OR COUNTY TAX MAP INFORMATION; FURTHER DETERMINATION OF THESE RIGHT-OF-WAYS REQUIRES A THOROUGH CHAIN OF TITLE INSPECTION.

STATION LINES (℄) FOR JEANINE CIRCLE, KINGSLEY (PRIVATE DRIVE), WEST LEVEE, CENTER LEVEE, AND EAST LEVEE WERE CALCULATED BASED ON A BEST FIT OF THE TOPOGRAPHIC FEATURES.

MONUMENT NOTES

▲ – FD. G.P.S. CONTROL MONUMENT PER O.C.S. HORIZONTAL CONTROL DATA SHEETS ON FILE IN THE ORANGE COUNTY SUREYOR'S OFFICE, GEODETIC UNIT.

● – FD. AS NOTED

REFERENCES

R1 - R.S. 99-1056, R.S.B. 179/26-40
R2 - P.M.B. 145/10-11
R3 - TRACT NO. 6820, M.M. 256/19-20
R4 - TRACT NO. 4412, M.M. 155/9-12
R5 - TRACT NO. 6741, M.M. 255/1-2
R6 - TRACT NO. 4445, M.M. 173/12-16
R7 - TRACT NO. 16768, M.M. 876/30-36
R8 - P.M. 2004-302, P.M.B. 343/22-28
R9 - P.M. 79-770, P.M.B. 146/7-8
R10 - TRACT NO. 5370, M.M. 221/45-46
R11 - R.S. 99-1101, R.S.B. 178/47
R12 - R.S. 93-1051, R.S.B. 167/6-20
R13 - TRACT NO. 10539, M.M. 462/25-29
NOTE: (CFR) = CALCULATED FROM RECORD

TOPOGRAPHIC MAP
OF
LINCOLN AVENUE WIDENING

PREPARED FOR: COUNTY OF ORANGE
RESOURCES & DEVELOPMENT MANAGEMENT DEPARTMENT
GEOMATICS/LIS DIVISION - TOPOGRAPHIC MAPPING SECTION

PREPARED BY:
RBF CONSULTING

			FROM: RIO VISTA STREET		
			TO: GLASSELL STREET		
			DATE OF SURVEY: JAN 2008	BY: E. PAULUS	SHEET NO. 2 of 18
			FIELD DATA PROCESSING	BY: G. CIAMPAGLIA	
			TOPOGRAPHIC MAPPING	BY: B. ZEMAN	
MARK	DATE	ITEM	SCALE: 1" = 80'	W.O.# ER03599	FILE # 87BPW-RD578886
		REVISIONS	FILES: lincoln.scs		

NO RECORD DRAWING CHANGES

MARK	DESCRIPTION	DATE	APPR.

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

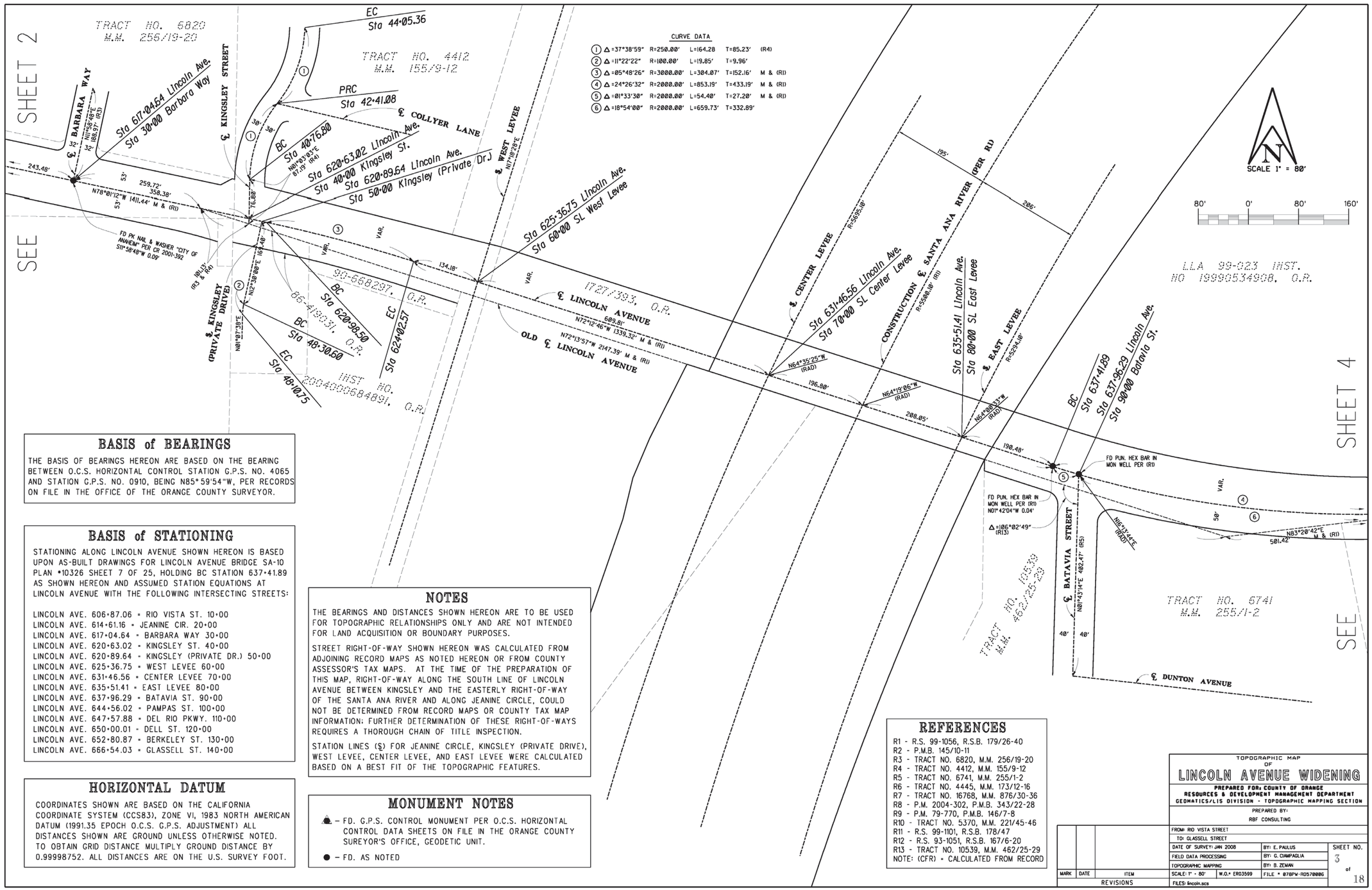
Survey Control

Sheet Reference Number

SC-1

Sheet 2 of 90

FILE NAME=B:\LincolnAveOverSAR\CAD\02-SurveyControl01.dgn



BASIS of BEARINGS

THE BASIS OF BEARINGS HEREON ARE BASED ON THE BEARING BETWEEN O.C.S. HORIZONTAL CONTROL STATION G.P.S. NO. 4065 AND STATION G.P.S. NO. 0910, BEING N85°59'54"W, PER RECORDS ON FILE IN THE OFFICE OF THE ORANGE COUNTY SURVEYOR.

BASIS of STATIONING

STATIONING ALONG LINCOLN AVENUE SHOWN HEREON IS BASED UPON AS-BUILT DRAWINGS FOR LINCOLN AVENUE BRIDGE SA-10 PLAN #10326 SHEET 7 OF 25, HOLDING BC STATION 637+41.89 AS SHOWN HEREON AND ASSUMED STATION EQUATIONS AT LINCOLN AVENUE WITH THE FOLLOWING INTERSECTING STREETS:

LINCOLN AVE. 606+87.06 = RIO VISTA ST. 10+00
LINCOLN AVE. 614+61.16 = JEANINE CIR. 20+00
LINCOLN AVE. 617+04.64 = BARBARA WAY 30+00
LINCOLN AVE. 620+63.02 = KINGSLEY ST. 40+00
LINCOLN AVE. 620+89.64 = KINGSLEY (PRIVATE DR.) 50+00
LINCOLN AVE. 625+36.75 = WEST LEVEE 60+00
LINCOLN AVE. 631+46.56 = CENTER LEVEE 70+00
LINCOLN AVE. 635+51.41 = EAST LEVEE 80+00
LINCOLN AVE. 637+96.29 = BATAVIA ST. 90+00
LINCOLN AVE. 644+56.02 = PAMPAS ST. 100+00
LINCOLN AVE. 647+57.88 = DEL RIO PKWY. 110+00
LINCOLN AVE. 650+00.01 = DELL ST. 120+00
LINCOLN AVE. 652+80.87 = BERKELEY ST. 130+00
LINCOLN AVE. 666+54.03 = GLASSELL ST. 140+00

HORIZONTAL DATUM

COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, 1983 NORTH AMERICAN DATUM (1991.35 EPOCH O.C.S. G.P.S. ADJUSTMENT) ALL DISTANCES SHOWN ARE GROUND UNLESS OTHERWISE NOTED. TO OBTAIN GRID DISTANCE MULTIPLY GROUND DISTANCE BY 0.99998752. ALL DISTANCES ARE ON THE U.S. SURVEY FOOT.

NOTES

THE BEARINGS AND DISTANCES SHOWN HEREON ARE TO BE USED FOR TOPOGRAPHIC RELATIONSHIPS ONLY AND ARE NOT INTENDED FOR LAND ACQUISITION OR BOUNDARY PURPOSES.

STREET RIGHT-OF-WAY SHOWN HEREON WAS CALCULATED FROM ADJOINING RECORD MAPS AS NOTED HEREON OR FROM COUNTY ASSESSOR'S TAX MAPS. AT THE TIME OF THE PREPARATION OF THIS MAP, RIGHT-OF-WAY ALONG THE SOUTH LINE OF LINCOLN AVENUE BETWEEN KINGSLEY AND THE EASTERLY RIGHT-OF-WAY OF THE SANTA ANA RIVER AND ALONG JEANINE CIRCLE, COULD NOT BE DETERMINED FROM RECORD MAPS OR COUNTY TAX MAP INFORMATION; FURTHER DETERMINATION OF THESE RIGHT-OF-WAYS REQUIRES A THOROUGH CHAIN OF TITLE INSPECTION.

STATION LINES (℄) FOR JEANINE CIRCLE, KINGSLEY (PRIVATE DRIVE), WEST LEVEE, CENTER LEVEE, AND EAST LEVEE WERE CALCULATED BASED ON A BEST FIT OF THE TOPOGRAPHIC FEATURES.

MONUMENT NOTES

▲ – FD. G.P.S. CONTROL MONUMENT PER O.C.S. HORIZONTAL CONTROL DATA SHEETS ON FILE IN THE ORANGE COUNTY SUREYOR'S OFFICE, GEODETIC UNIT.

● – FD. AS NOTED

REFERENCES

R1 - R.S. 99-1056, R.S.B. 179/26-40
R2 - P.M.B. 145/10-11
R3 - TRACT NO. 6820, M.M. 256/19-20
R4 - TRACT NO. 4412, M.M. 155/9-12
R5 - TRACT NO. 6741, M.M. 255/1-2
R6 - TRACT NO. 4445, M.M. 173/12-16
R7 - TRACT NO. 16768, M.M. 876/30-36
R8 - P.M. 2004-302, P.M.B. 343/22-28
R9 - P.M. 79-770, P.M.B. 146/7-8
R10 - TRACT NO. 5370, M.M. 221/45-46
R11 - R.S. 99-1101, R.S.B. 178/47
R12 - R.S. 93-1051, R.S.B. 167/6-20
R13 - TRACT NO. 10539, M.M. 462/25-29

NOTE: (CFR) = CALCULATED FROM RECORD

TOPOGRAPHIC MAP OF
LINCOLN AVENUE WIDENING

PREPARED FOR: COUNTY OF ORANGE
RESOURCES & DEVELOPMENT MANAGEMENT DEPARTMENT
GEOMATICS/LIS DIVISION - TOPOGRAPHIC MAPPING SECTION

PREPARED BY:
RBF CONSULTING

FROM: RIO VISTA STREET
TO: GLASSELL STREET
DATE OF SURVEY: JAN 2008 | BY: E. PAULUS | SHEET NO. 3 of 18
FIELD DATA PROCESSING | BY: G. CIAMPAGLIA
TOPOGRAPHIC MAPPING | BY: B. ZEMAN
SCALE: 1" = 80' | W.O.# ER03599 | FILE # 078PW-RD57888G
FILES: lincoln.scs

MARK	DATE	ITEM
REVISIONS		

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

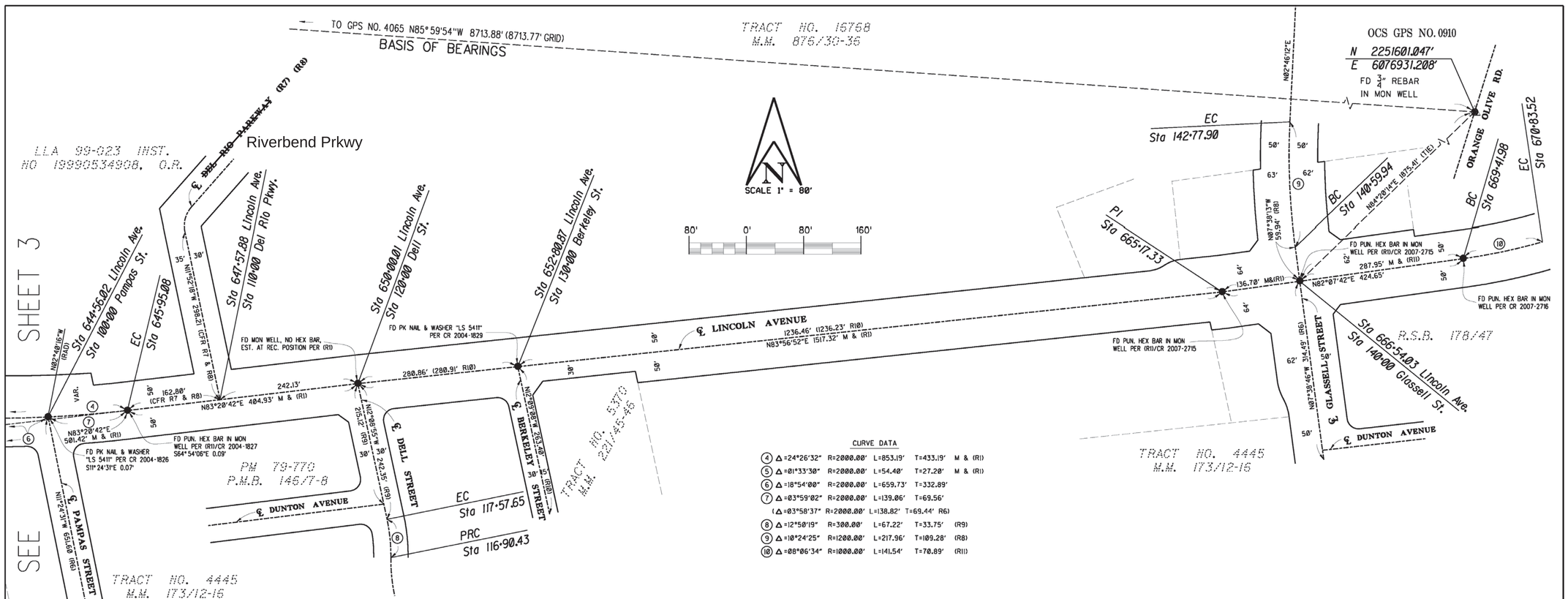
Survey Control

Sheet Reference Number

SC-2

Sheet 3 of 90

FILE NAME: B:\LincolnAveOverSAR\CAD\02-SurveyControl02.dgn



CURVE DATA

④	Δ=24°26'32"	R=2000.00'	L=853.19'	T=433.19'	M & (R1)
⑤	Δ=01°33'30"	R=2000.00'	L=54.40'	T=27.20'	M & (R1)
⑥	Δ=18°54'00"	R=2000.00'	L=659.73'	T=332.89'	
⑦	Δ=03°59'02"	R=2000.00'	L=139.06'	T=69.56'	
	(Δ=03°58'37"	R=2000.00'	L=138.82'	T=69.44'	R6)
⑧	Δ=12°50'19"	R=300.00'	L=67.22'	T=33.75'	(R9)
⑨	Δ=10°24'25"	R=1200.00'	L=217.96'	T=109.28'	(R8)
⑩	Δ=08°06'34"	R=1000.00'	L=141.54'	T=70.89'	(R11)

BASIS of STATIONING

STATIONING ALONG LINCOLN AVENUE SHOWN HEREON IS BASED UPON AS-BUILT DRAWINGS FOR LINCOLN AVENUE BRIDGE SA-10 PLAN #10326 SHEET 7 OF 25, HOLDING BC STATION 637+41.89 AS SHOWN HEREON AND ASSUMED STATION EQUATIONS AT LINCOLN AVENUE WITH THE FOLLOWING INTERSECTING STREETS:

LINCOLN AVE. 606+87.06 = RIO VISTA ST. 10+00
LINCOLN AVE. 614+61.16 = JEANINE CIR. 20+00
LINCOLN AVE. 617+04.64 = BARBARA WAY 30+00
LINCOLN AVE. 620+63.02 = KINGSLEY ST. 40+00
LINCOLN AVE. 620+89.64 = KINGSLEY (PRIVATE DR.) 50+00
LINCOLN AVE. 625+36.75 = WEST LEVEE 60+00
LINCOLN AVE. 631+46.56 = CENTER LEVEE 70+00
LINCOLN AVE. 635+51.41 = EAST LEVEE 80+00
LINCOLN AVE. 637+96.29 = BATAVIA ST. 90+00
LINCOLN AVE. 644+56.02 = PAMPAS ST. 100+00
LINCOLN AVE. 647+57.88 = ~~DEL RIO PKWY.~~ Riverbend Prkwy 110+00
LINCOLN AVE. 650+00.01 = DELL ST. 120+00
LINCOLN AVE. 652+80.87 = BERKELEY ST. 130+00
LINCOLN AVE. 666+54.03 = GLASSELL ST. 140+00

BASIS of BEARINGS

THE BASIS OF BEARINGS HEREON ARE BASED ON THE BEARING BETWEEN O.C.S. HORIZONTAL CONTROL STATION G.P.S. NO. 4065 AND STATION G.P.S. NO. 0910, BEING N85°59'54"W, PER RECORDS ON FILE IN THE OFFICE OF THE ORANGE COUNTY SURVEYOR.

HORIZONTAL DATUM

COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, 1983 NORTH AMERICAN DATUM (1991.35 EPOCH O.C.S. G.P.S. ADJUSTMENT) ALL DISTANCES SHOWN ARE GROUND UNLESS OTHERWISE NOTED. TO OBTAIN GRID DISTANCE MULTIPLY GROUND DISTANCE BY 0.99998752. ALL DISTANCES ARE ON THE U.S. SURVEY FOOT.

NOTES

THE BEARINGS AND DISTANCES SHOWN HEREON ARE TO BE USED FOR TOPOGRAPHIC RELATIONSHIPS ONLY AND ARE NOT INTENDED FOR LAND ACQUISITION OR BOUNDARY PURPOSES.

STREET RIGHT-OF-WAY SHOWN HEREON WAS CALCULATED FROM ADJOINING RECORD MAPS AS NOTED HEREON OR FROM COUNTY ASSESSOR'S TAX MAPS. AT THE TIME OF THE PREPARATION OF THIS MAP, RIGHT-OF-WAY ALONG THE SOUTH LINE OF LINCOLN AVENUE BETWEEN KINGSLEY AND THE EASTERLY RIGHT-OF-WAY OF THE SANTA ANA RIVER AND ALONG JEANINE CIRCLE, COULD NOT BE DETERMINED FROM RECORD MAPS OR COUNTY TAX MAP INFORMATION; FURTHER DETERMINATION OF THESE RIGHT-OF-WAYS REQUIRES A THOROUGH CHAIN OF TITLE INSPECTION.

STATION LINES (℄) FOR JEANINE CIRCLE, KINGSLEY (PRIVATE DRIVE), WEST LEVEE, CENTER LEVEE, AND EAST LEVEE WERE CALCULATED BASED ON A BEST FIT OF THE TOPOGRAPHIC FEATURES.

MONUMENT NOTES

▲ – FD. G.P.S. CONTROL MONUMENT PER O.C.S. HORIZONTAL CONTROL DATA SHEETS ON FILE IN THE ORANGE COUNTY SURVEYOR'S OFFICE, GEODETIC UNIT.

● – FD. AS NOTED

REFERENCES

R1 - R.S. 99-1056, R.S.B. 179/26-40
R2 - P.M.B. 145/10-11
R3 - TRACT NO. 6820, M.M. 256/19-20
R4 - TRACT NO. 4412, M.M. 155/9-12
R5 - TRACT NO. 6741, M.M. 255/1-2
R6 - TRACT NO. 4445, M.M. 173/12-16
R7 - TRACT NO. 16768, M.M. 876/30-36
R8 - P.M. 2004-302, P.M.B. 343/22-28
R9 - P.M. 79-770, P.M.B. 146/7-8
R10 - TRACT NO. 5370, M.M. 221/45-46
R11 - R.S. 99-1101, R.S.B. 178/47
R12 - R.S. 93-1051, R.S.B. 167/6-20
R13 - TRACT NO. 10539, M.M. 462/25-29
NOTE: (CFR) = CALCULATED FROM RECORD

TOPOGRAPHIC MAP
OF
LINCOLN AVENUE WIDENING

PREPARED FOR: COUNTY OF ORANGE
RESOURCES & DEVELOPMENT MANAGEMENT DEPARTMENT
GEOMATICS/LIS DIVISION - TOPOGRAPHIC MAPPING SECTION

PREPARED BY:
RBF CONSULTING

FROM: RIO VISTA STREET
TO: GLASSELL STREET

DATE OF SURVEY: JAN 2008	BY: E. PAULUS
FIELD DATA PROCESSING	BY: G. CIAMPAGLIA
TOPOGRAPHIC MAPPING	BY: B. ZEMAN
SCALE: 1" = 80'	W.O.# ER03599
FILES: lincoln.scs	FILE # 07BPW-RD57B0B6

SHEET NO. 4 of 18

MARK	DATE	ITEM
REVISIONS		

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

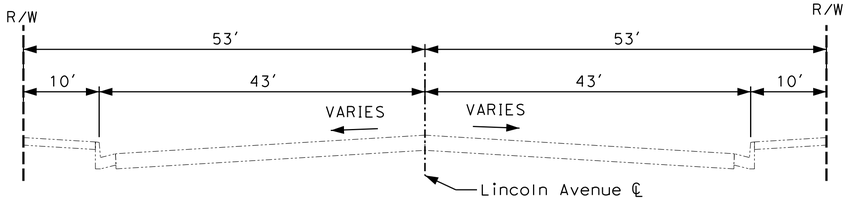
MARK	DESCRIPTION	DATE	APPR.

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

Sheet Reference Number
SC-3

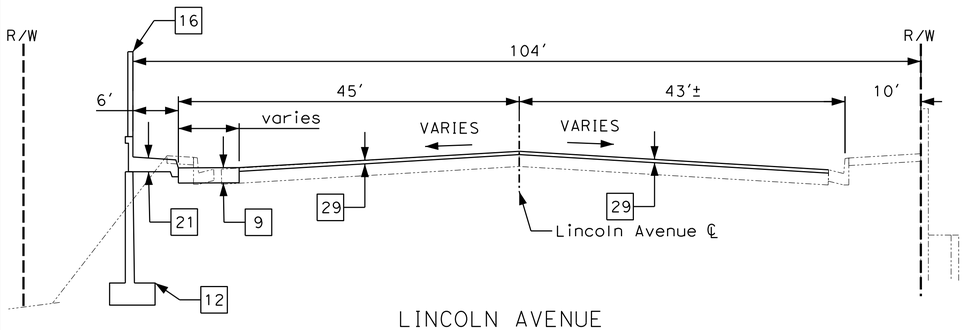
Sheet 4 of 90

FILE NAME: \Lincoln Ave Over SAR\CAD\02-SurveyControl03.dgn



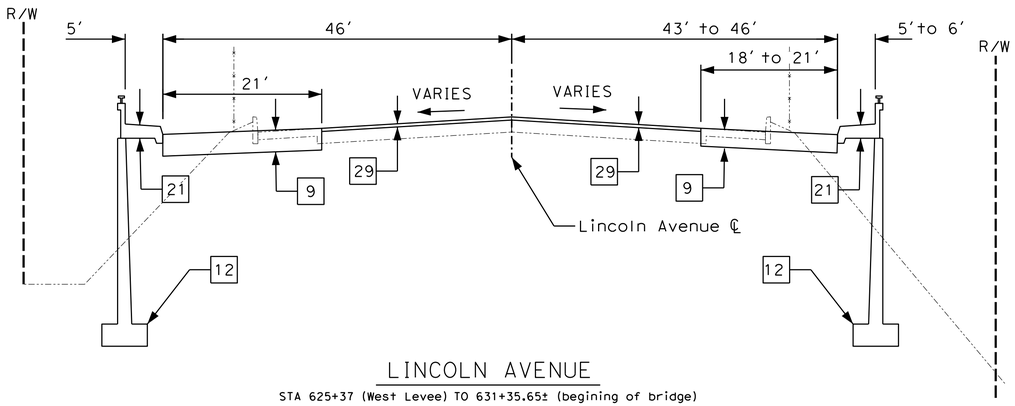
LINCOLN AVENUE

STA 606+87 (Rio Vista St) TO 620+63 (Kingsley St)



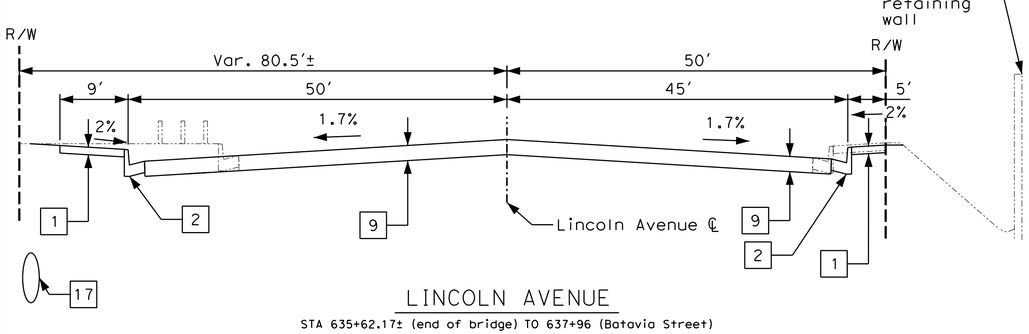
LINCOLN AVENUE

STA 620+63 (Kingsley St) TO 625+37 (West Levee)



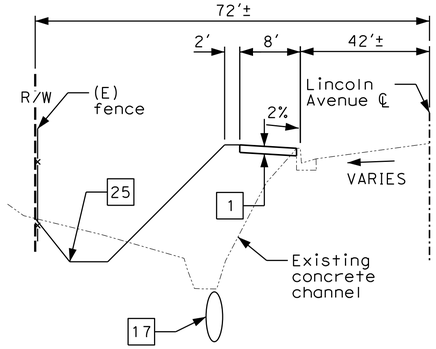
LINCOLN AVENUE

STA 625+37 (West Levee) TO 631+35.65± (begining of bridge)



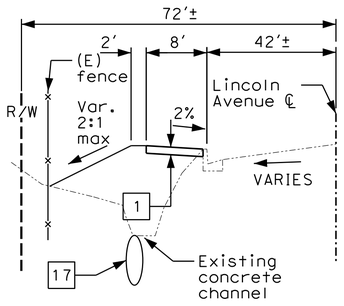
LINCOLN AVENUE

STA 635+62.17± (end of bridge) TO 637+96 (Batavia Street)



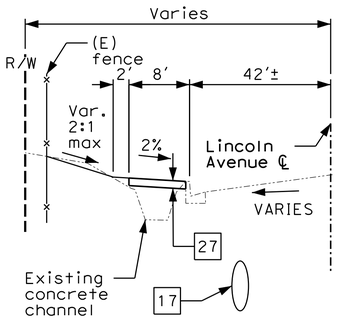
LINCOLN AVENUE

STA 639+77.82 TO 642+85



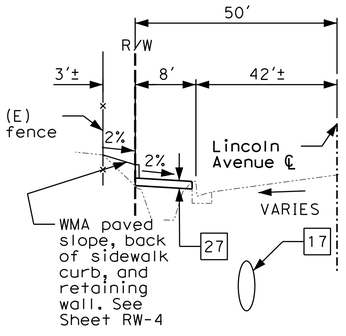
LINCOLN AVENUE

STA 639+77.82 TO 642+85



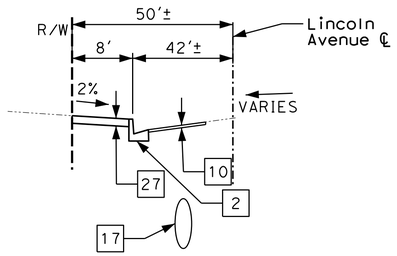
LINCOLN AVENUE

STA 642+85 TO 645+40



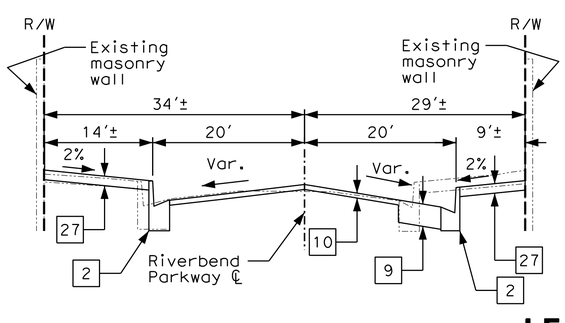
LINCOLN AVENUE

STA 645+40 TO 647+57.88 (Riverbend Pkwy)



LINCOLN AVENUE

STA 647+57.88 (Riverbend Prkwy) TO 649+00



RIVERBEND PARKWAY

STA 110+00 TO 111+14

LEGEND

Denotes existing

Denotes proposed

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct concrete barrier & sidewalk (type 26) per Caltrans Std Plan B11-54.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

NO RECORD DRAWING CHANGES

DISPOSITION

(1) Protect in place
(2) Remove
(3) Relocate
(4) Adjust to grade
(5) To be relocated by others
(6) To be Removed by others
(7) To be adjusted to grade by others
(8) Sawcut and join existing
(9) Sawcut and remove interfering portions
(10) Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

REGISTERED PROFESSIONAL ENGINEER — C. PHUNG — No. 73985 — Exp. 6/30/13 — CIVIL — STATE OF CALIFORNIA

1/25/2013 DATE

C. PHUNG

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/25/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

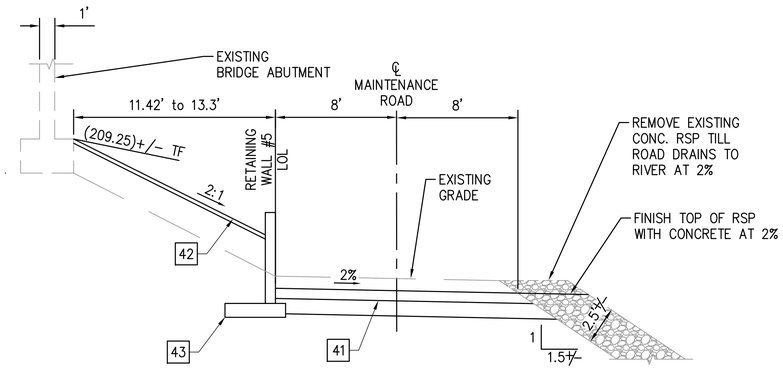
LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

Roadway Typical Cross Sections

Sheet Reference Number

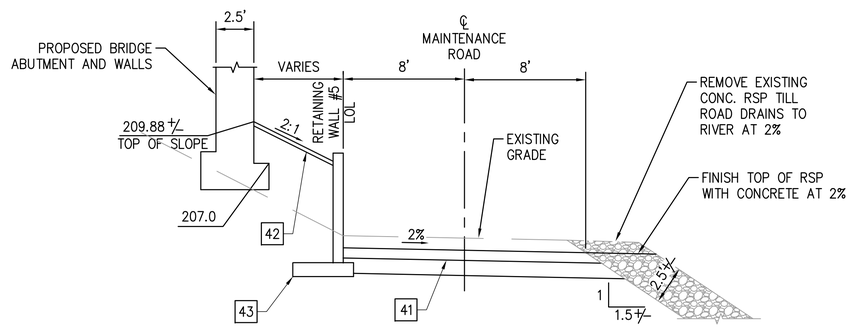
X-1

FILE NAME:B:\LincolnAveOverSAR\CAD\03.1-TypicalXSections.dgn



TYPICAL SECTION

STA 69+62 TO 70+36
SCALE: 1" = 5'



TYPICAL SECTION

STA 69+29 TO 69+62
STA 70+36 TO 70+70
SCALE: 1" = 5'

CONSTRUCTION NOTES

41 CONSTRUCT 6" PCC ON 8" CMB
42 CONSTRUCT 3" PCC SLOPE PAVING PER BRIDGE PLANS.
43 CONSTRUCT MASONRY RETAINING WALL PER SHEET RW 5

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
K. TAYLOR
4/26/2014
DATE

DESIGNED BY: K. KRIEGER
DRAWN BY: P. REYES
CHECKED BY: K. TAYLOR
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/8/2013
SCALE: AS NOTED

ORANGE COUNTY
PUBLIC WORKS

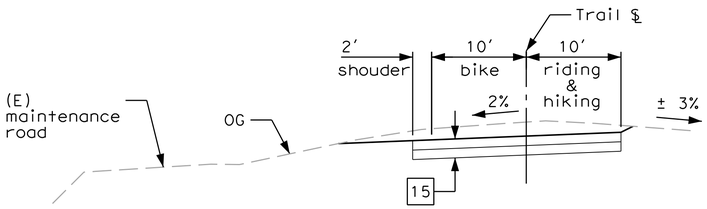
WILLDAN Engineering
2401 East Katella Ave, Suite 430, Anaheim, California 92806
(714)940-0350 FAX (714)940-0358

LINCOLN AVENUE
WIDENING
FROM
RIO VISTA ST
TO
RIVERBEND PW
TYPICAL X-SECTION
CENTRAL LEVEE

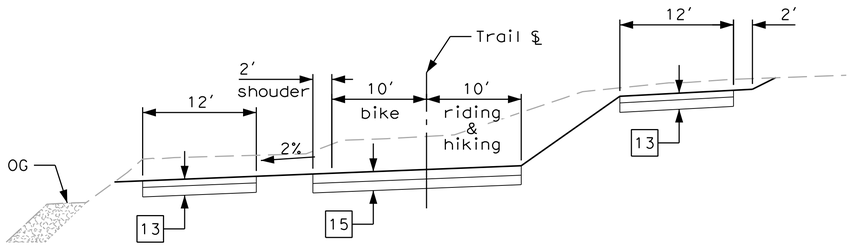
SHEET
REFERENCE
NUMBER

X-2

\\ANH-DC1\Division\101315 Lincoln Ave Bridge Proj\PS&E\plans\pl-DETL-01.dwg Plotted: 1/8/2013 2:57 PM

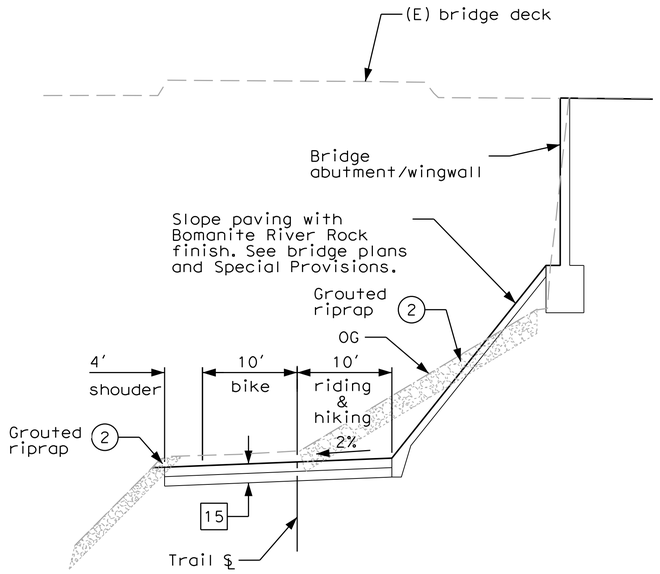


Trail Station 6+66.00 to 7+55.00

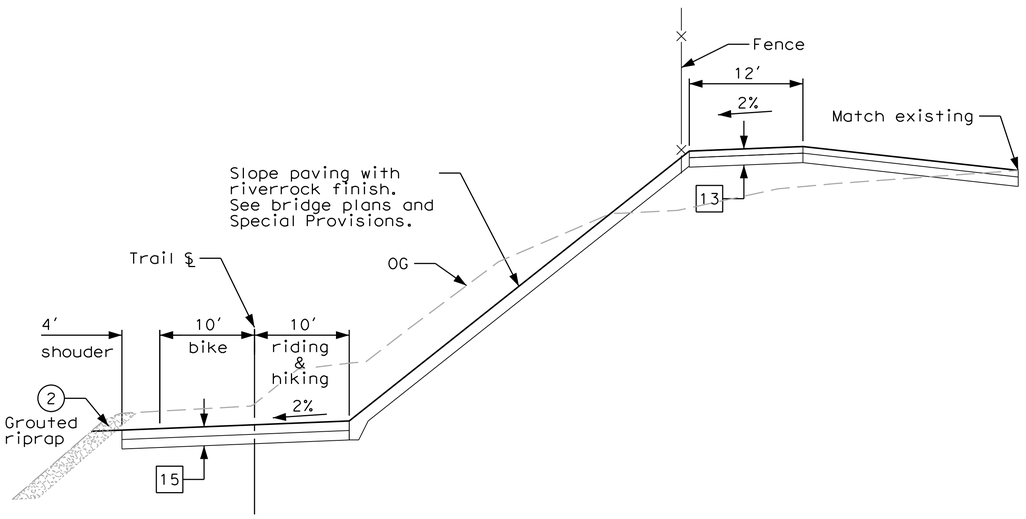


Trail Station 7+55.00 to 9+13.50

Trail Station 10+86.00 to 12+85.00

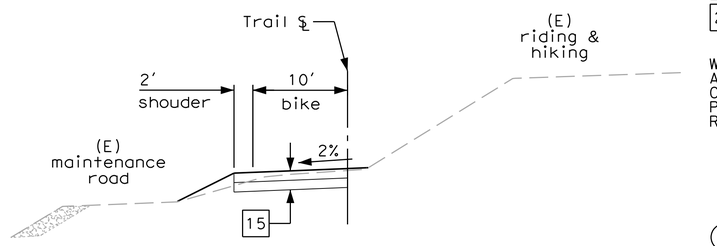


Trail Station 9+32.00 to 10+75.00



Trail Station 9+13.50 to 9+32.00

Trail Station 10+75.00 to 10+86.10



Trail Station 12+85.00 to 13+10.00

NO RECORD DRAWING CHANGES

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15′ ARHM/0.35′ WMAC/0.8′CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15′ min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35′ WMAC/0.50′CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5′PCC/0.5′CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct concrete barrier & sidewalk (type 26) per Caltrans Std Plan B11-54.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24′ driveway approach per Anaheim Std Plan 115-B. (R=10′, T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6′ chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER C. PHUNG No. 73985 Exp. 6/2013 CIVIL STATE OF CALIFORNIA
1/27/2013 DATE
C. PHUNG

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/27/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS
PREPARED BY:
CAPITAL PROJECTS

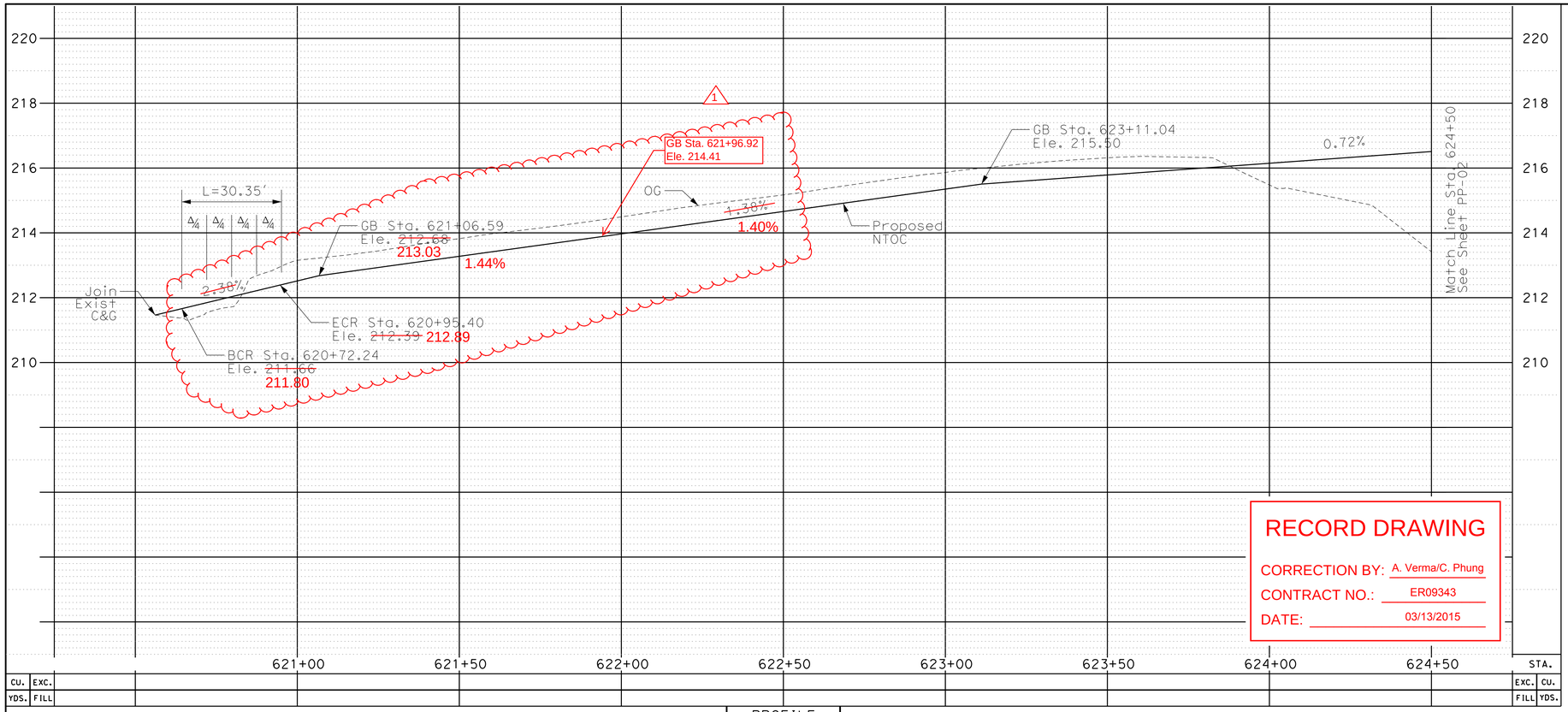
LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

Bike/Hiking & Riding Trail Typical Cross Sections

Sheet Reference Number

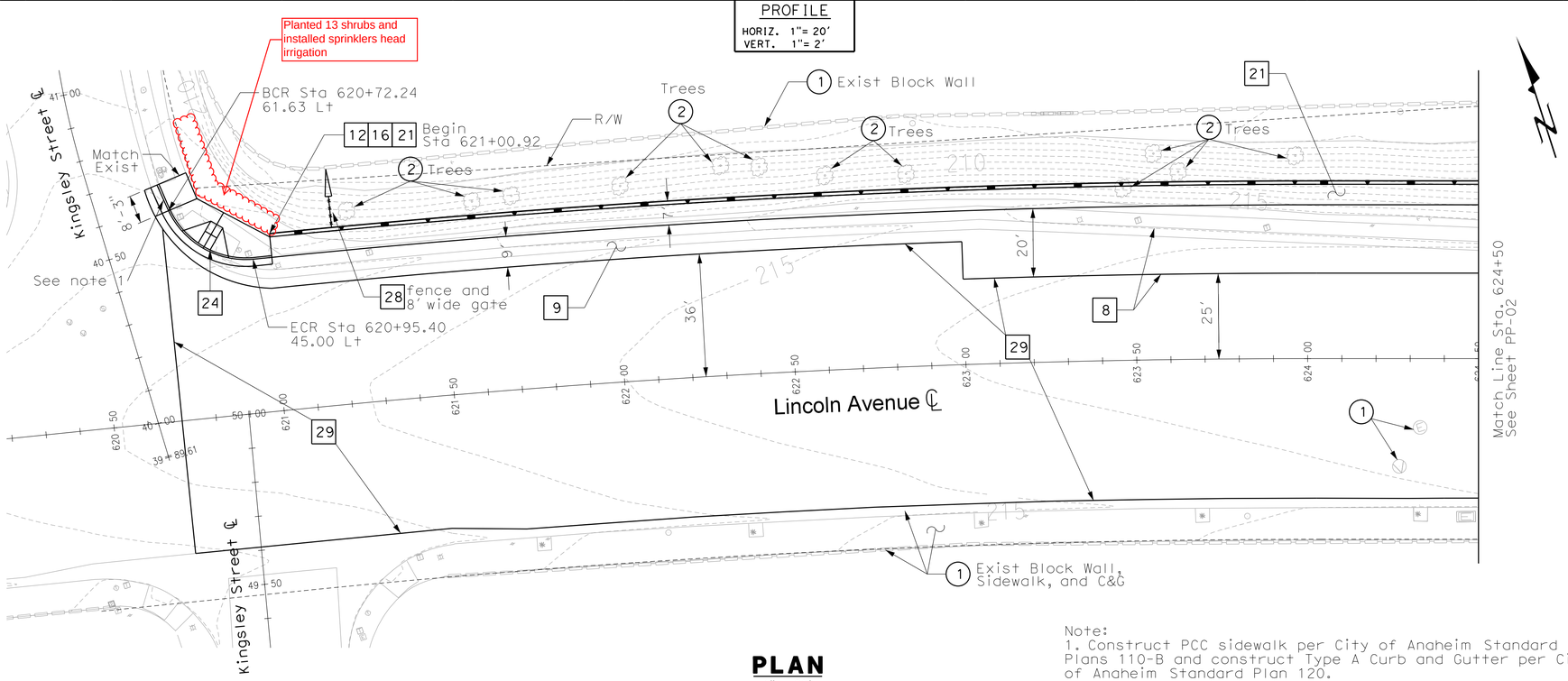
X-3

FILE NAME:B:\LincolnAveOverSAR\CAD\03.3-TypicalXSectionsBikeTrailEast.dgn



PROFILE
HORIZ. 1"= 20'
VERT. 1"= 2'

RECORD DRAWING
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015



PLAN
1" = 20'

Note:
1. Construct PCC sidewalk per City of Anaheim Standard Plans 110-B and construct Type A Curb and Gutter per City of Anaheim Standard Plan 120.

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct Concrete Barrier (Type 26A Modified) per detail on sheet RW-2R1.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24'driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6'chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.
1	Revised TOC Elev.	7/18/14	LO

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
LARRY QUACH, CIVIL ENGINEER, REGISTERED CIVIL ENGINEER, No C075951, STATE OF CALIFORNIA
DATE 3/5/2013

DESIGNED BY: L. QUACH
DRAWN BY: L. QUACH
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
SCALE: AS SHOWN
PLOT DATE: 3/5/2013

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

Lincoln Avenue
620+50 to
624+50

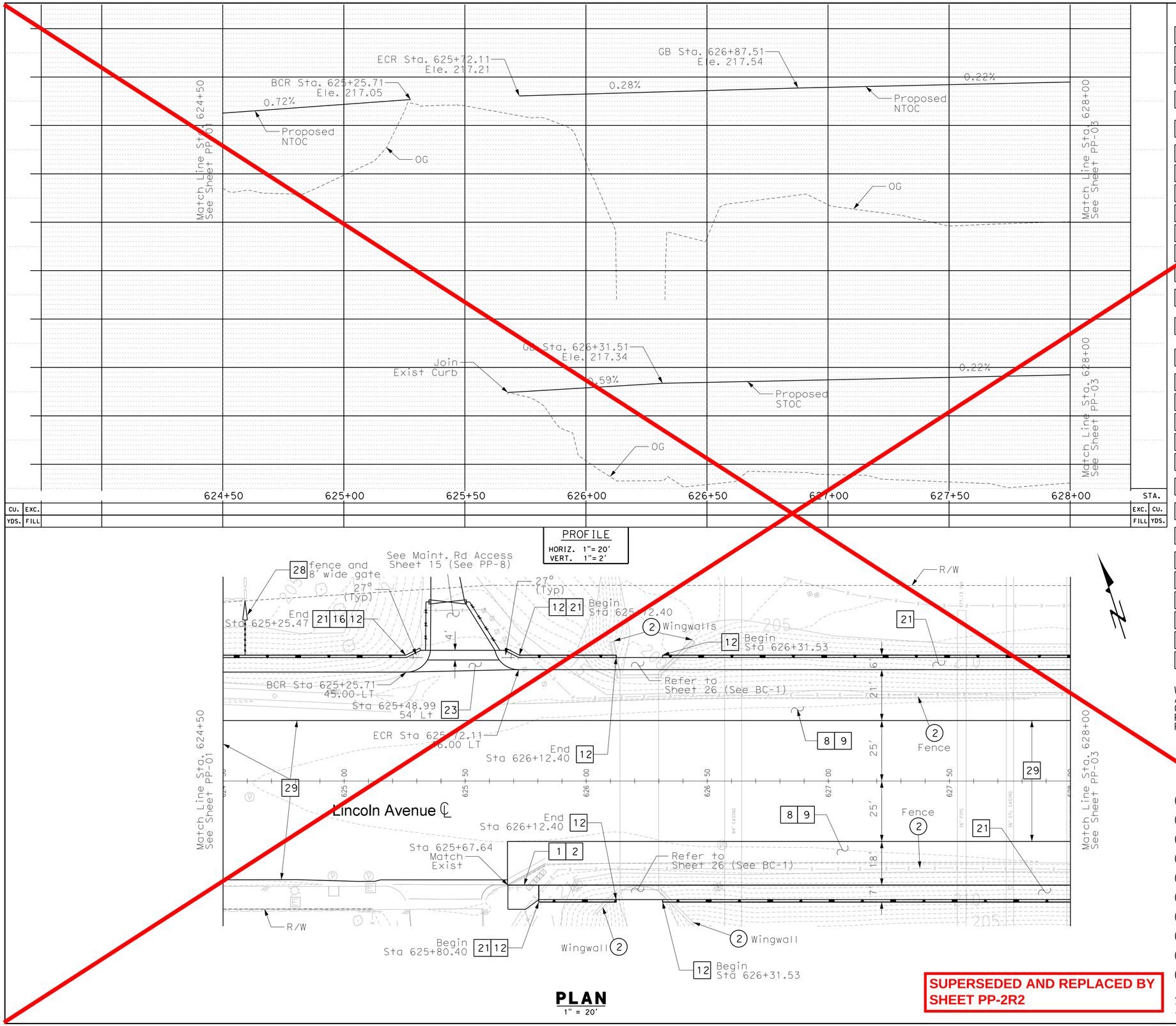
Sheet Reference Number

PP-1R1

Att 1 to Bulletin 2

Sheet 8 of 90

FILE NAME:B:\LincolnAveOverSAR\CADD\05.1-PPKingsleyBrdg01.dgn



PLAN
1" = 20'

SUPERSEDED AND REPLACED BY SHEET PP-2R2

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct Concrete Barrier (Type 26A Modified) per detail on sheet RW-2R1.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED CIVIL ENGINEER LARRY OUACH No C075951 CIVIL STATE OF CALIFORNIA
LARRY OUACH DATE 3/5/2013

DESIGNED BY: L. OUACH
DRAWN BY: L. OUACH
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 3/5/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

Lincoln Avenue
624+50 to
628+00

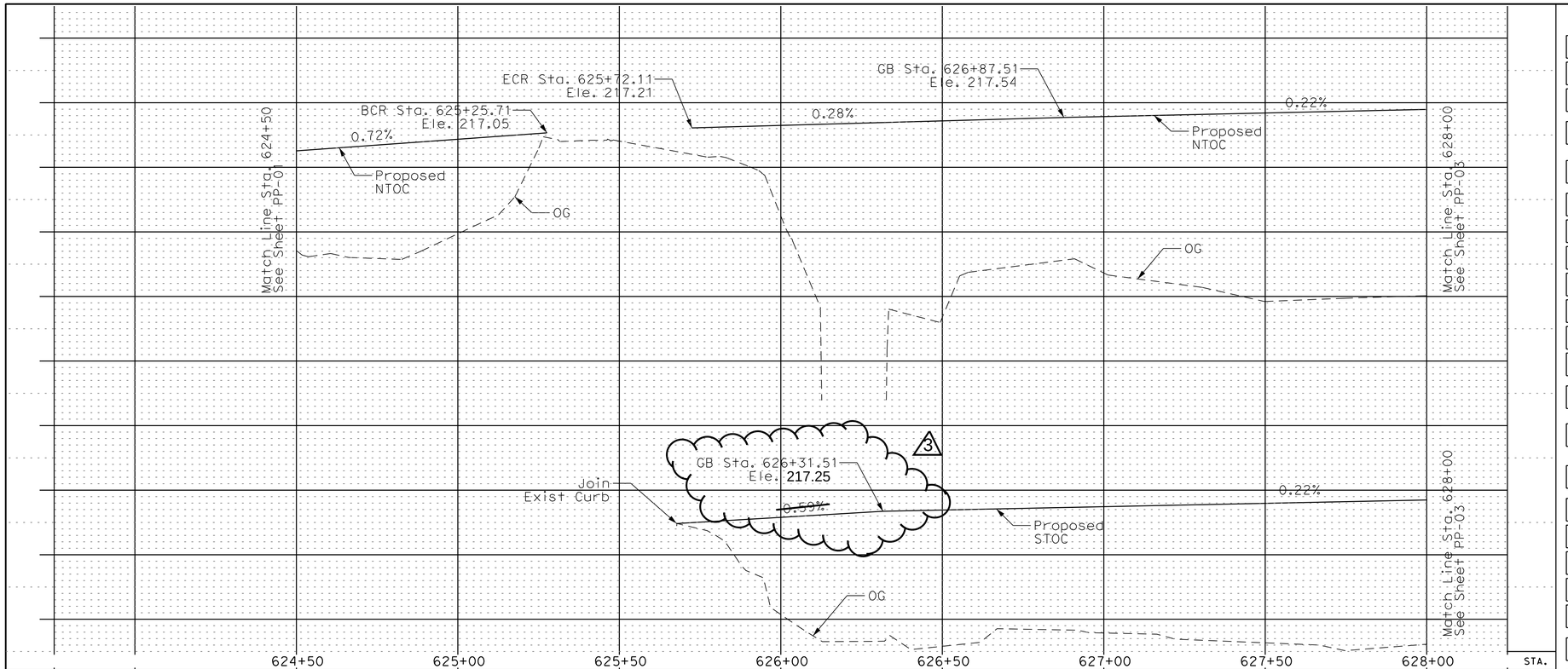
Sheet Reference Number

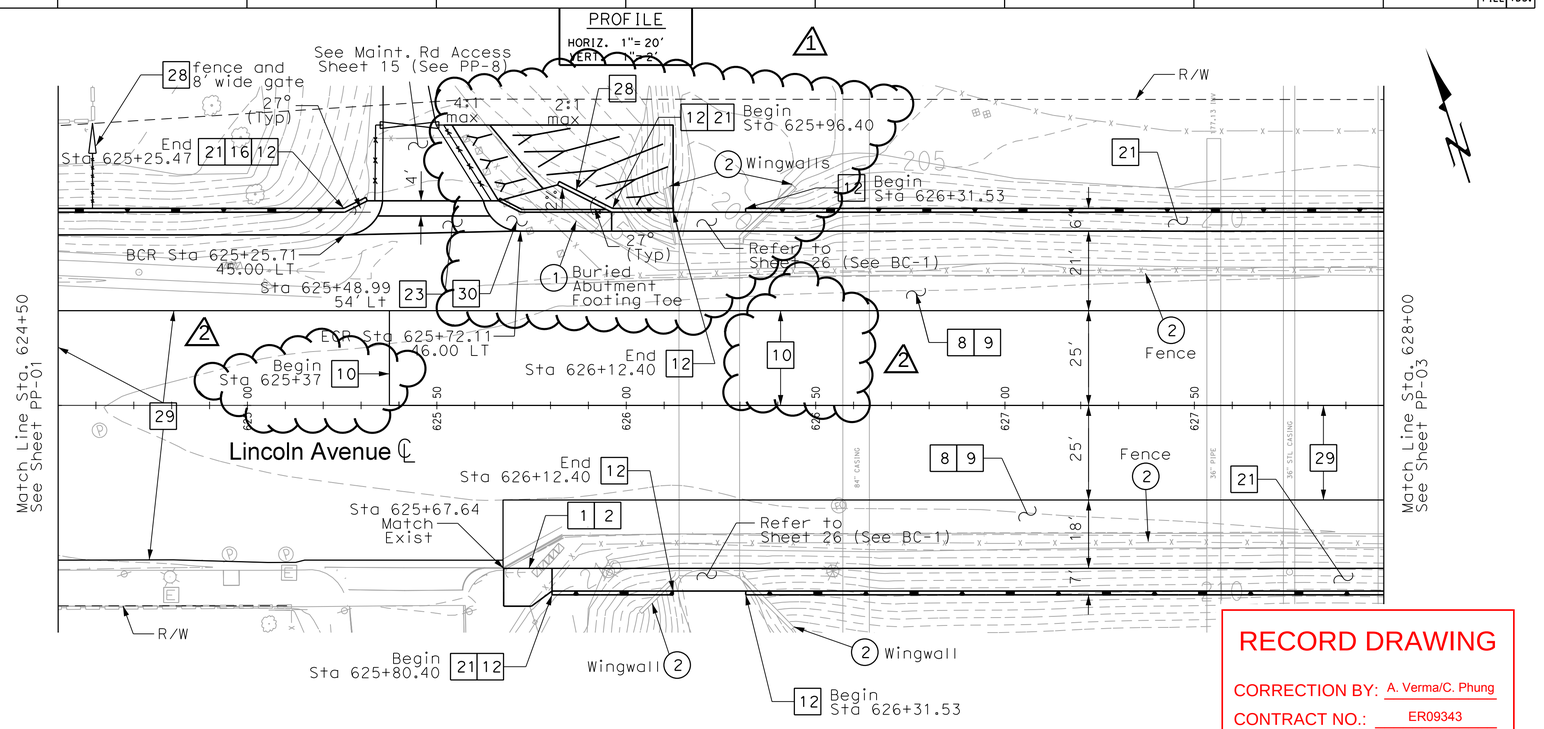
PP-2R1

Att 1 to Bulletin 2

Sheet 9 of 30

FILE NAME: B:\LincolnAveOverSAR\CAD\05.1-PPkingsleyBrdg02.dgn





PLAN
1" = 20'

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct Concrete Barrier (Type 26A Modified) per detail on sheet RW-2R1.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-0C.
29. Slurry seal asphalt cracks per plan and specification
30. Construct sidewalk per City of Anaheim std. plan 110-B with barrier per detail on sheet RW-2R2.

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

(1) Protect in place
(2) Remove
(3) Relocate
(4) Adjust to grade
(5) To be relocated by others
(6) To be Removed by others
(7) To be adjusted to grade by others
(8) Sawcut and join existing
(9) Sawcut and remove interfering portions
(10) Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

RECORD DRAWING
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.
3	Revise South TOC	10/14	LQ
2	Add Grind/Overlay	8/25/14	LQ
1	Remove Wall Sect.	5/7/14	LQ

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED CIVIL ENGINEER ★ STATE OF CALIFORNIA ★ CIVIL
LARRY QUACH No.C075951
LARRY QUACH DATE 5/7/2014

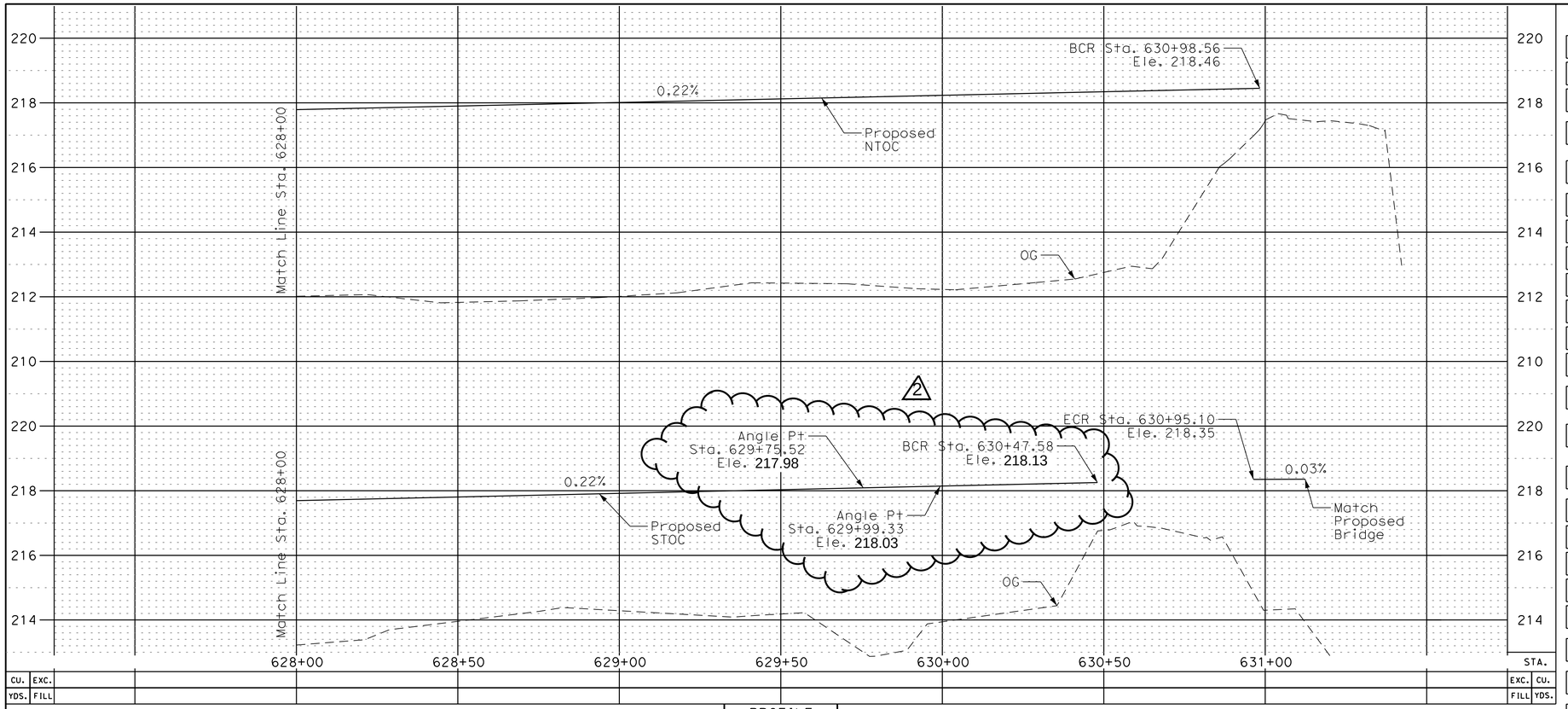
DESIGNED BY: L. OUACH
DRAWN BY: L. OUACH
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 8/28/2014
SCALE: AS SHOWN

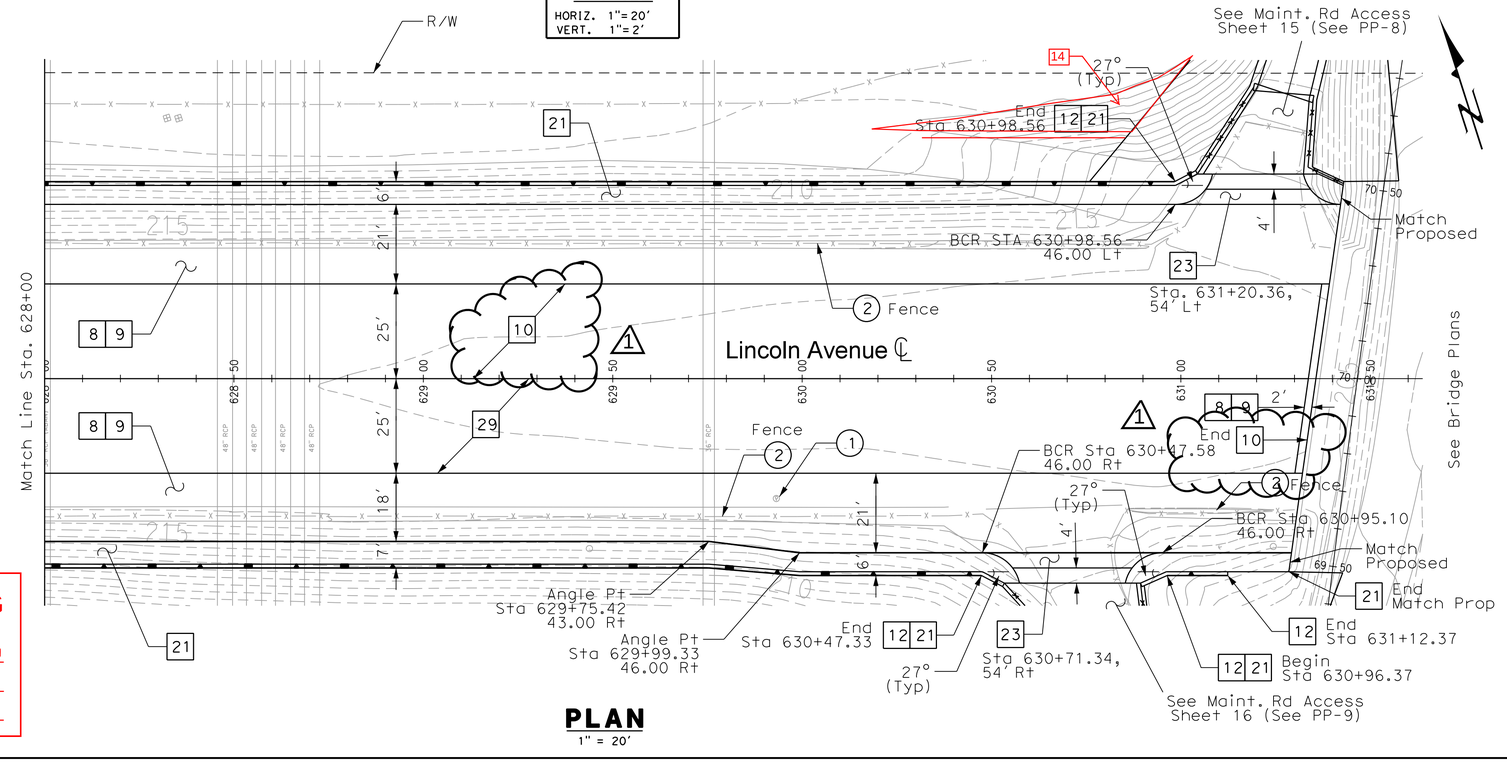
COUNTY OF ORANGE
OC PUBLIC WORKS
PREPARED BY: CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY
Lincoln Avenue
624+50 to 628+00

Sheet Reference Number
PP-2R2
Sheet 9 of 90

FILE NAME: S:\Road Projects\Bridge\LincolnAveOverSAR ER09343\Construction Support\20140825-ACGrind&Overlay\20140826-PPKingsleyBrdg02-Rev2.dgn





PLAN
1" = 20'

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct Concrete Barrier (Type 26A Modified) per detail on sheet RW-2R1.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

RECORD DRAWING
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.
2	Revise South TOC	10/14	LQ
1	Add Grind/Overlay	8/25/14	LQ

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED CIVIL ENGINEER ★ STATE OF CALIFORNIA ★ No.C075951 CIVIL
LARRY QUACH
DATE 8/28/2014

DESIGNED BY: L. QUACH
DRAWN BY: L. QUACH
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 8/28/2014
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS
PREPARED BY:
CAPITAL PROJECTS

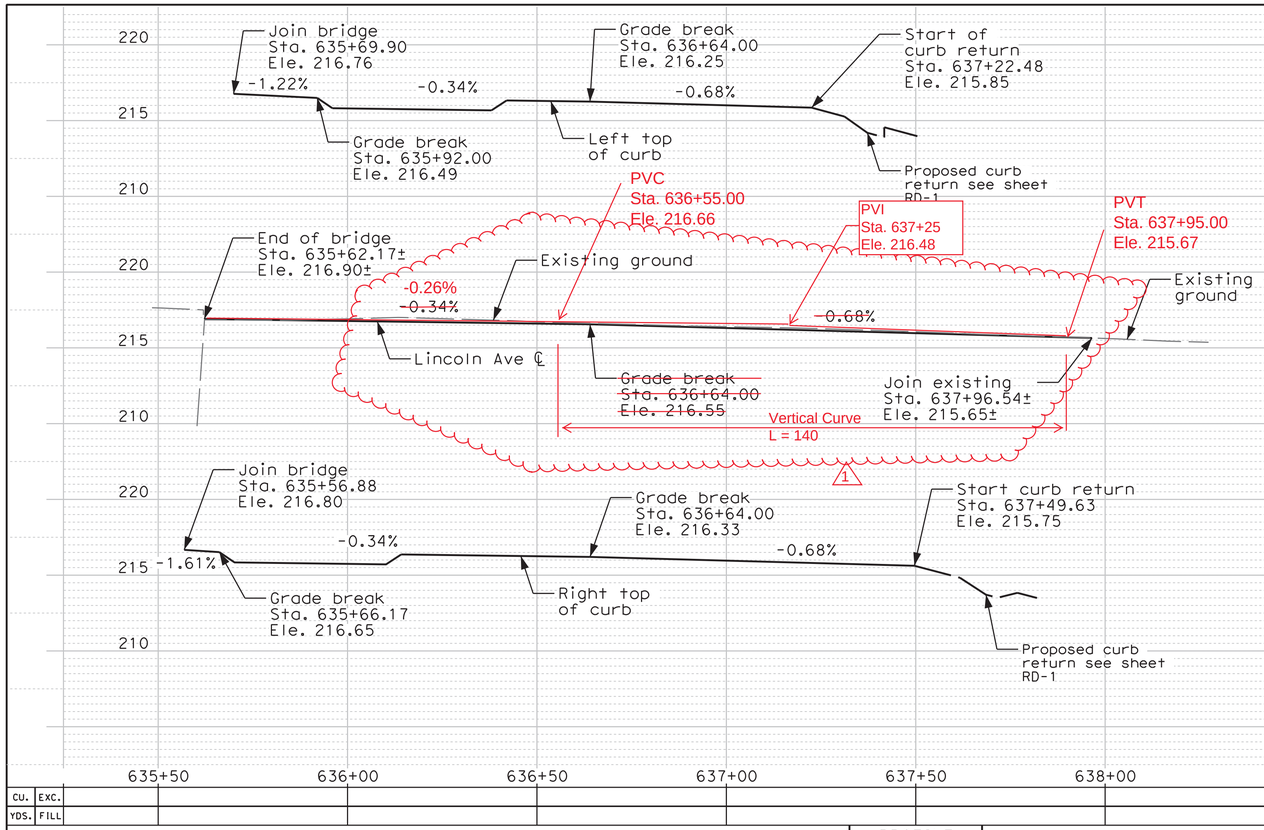
LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

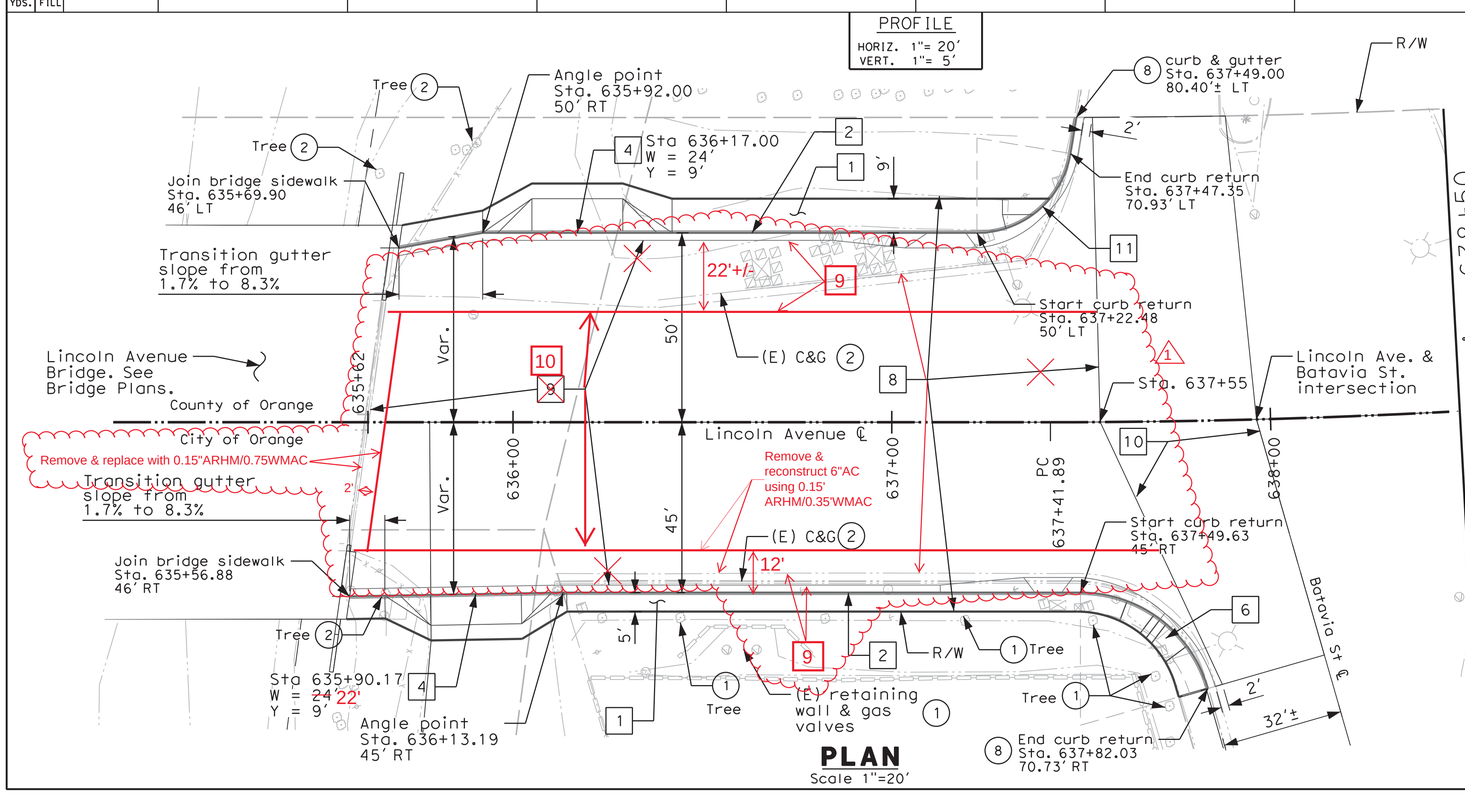
Lincoln Avenue
628+00 to
631+35

Sheet Reference Number
PP-3

Sheet 10 of 90

FILE NAMES:\Road Projects\Bridge\LincolnAveOverSAR ER09343\Construction Support\20140825-20140825-ACGrind&Overlay\20140827-PPKingsleyBrdg03-Rev1.dgn





PLAN
Scale 1"=20'

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct concrete barrier & sidewalk (type 26) per Caltrans Std Plan B11-54.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-0C.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

RECORD DRAWING
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.
1	Revise coldmill & overlay/ AC replacement limit.	11/17/14	

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER — C. PHUNG — No. 73985 — Exp. 6/2013 — CIVIL — STATE OF CALIFORNIA
1/24/2013
DATE
C. PHUNG

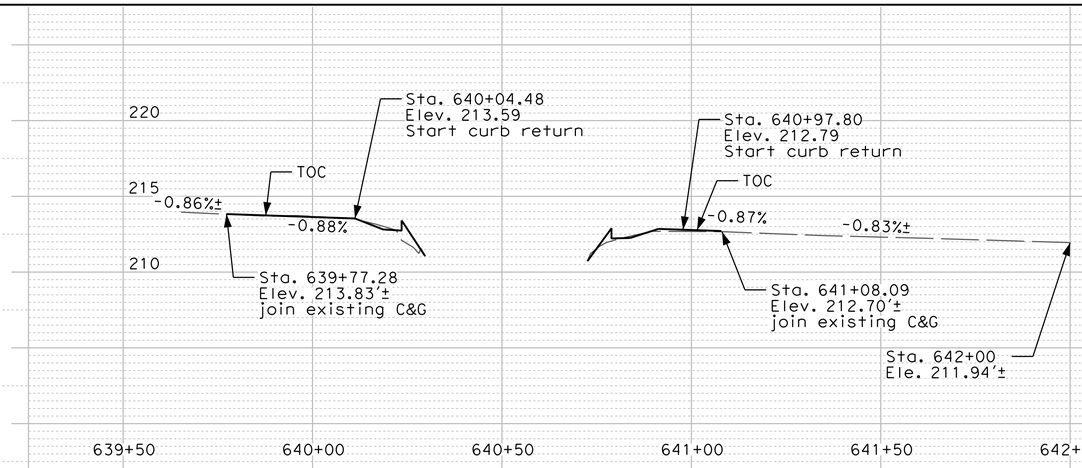
DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/24/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS
PREPARED BY:
CAPITAL PROJECTS

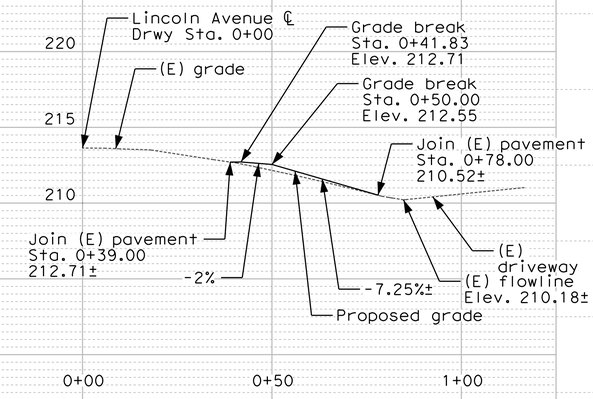
LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY
Lincoln Avenue
635+62 to
638+50

Sheet Reference Number
PP-4
Sheet 11 of 90

FILE NAME:\LincolnAveOverSAR\CAD\05.2-PPBrdgRiverbend01.dgn



Lincoln Avenue



RJ Noble Driveway

STA.

CU.	EXC.										EXC.	CU.
YDS.	FILL										FILL	YDS.

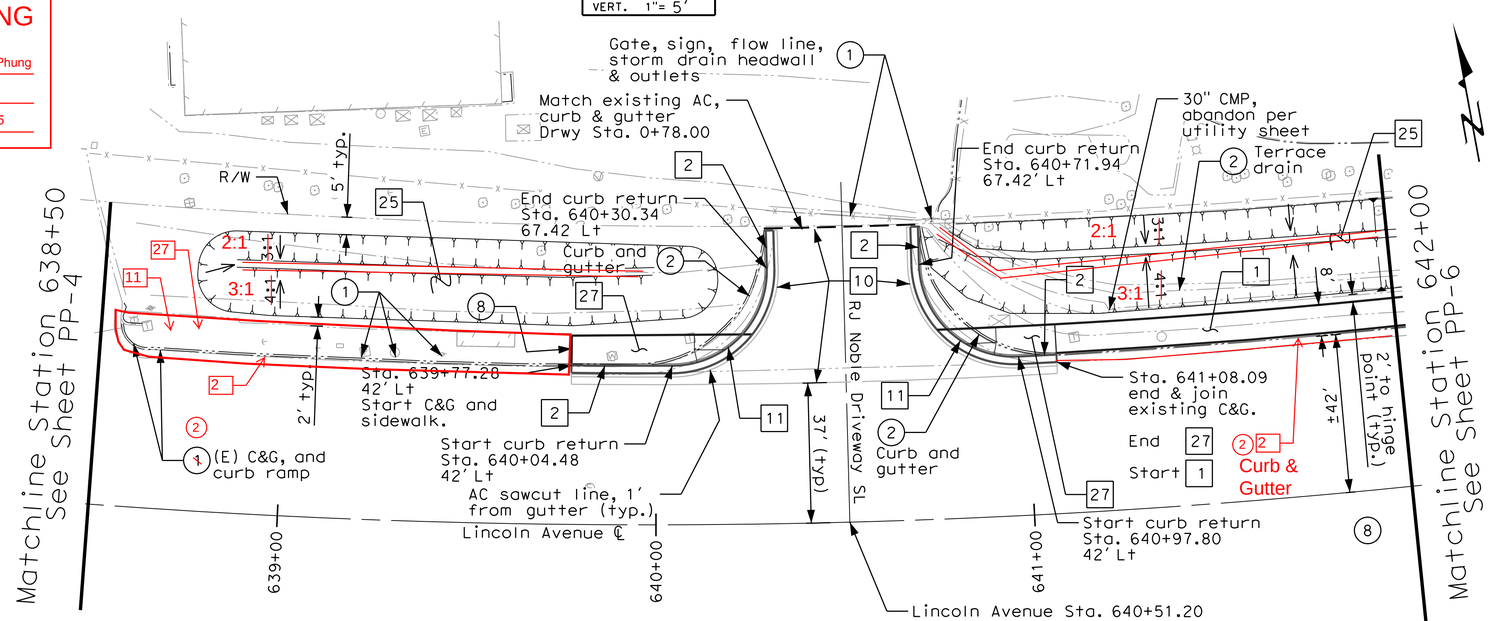
RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung

CONTRACT NO.: ER09343

DATE: 03/13/2015

PROFILE
HORIZ. 1"= 20'
VERT. 1"= 5'



PLAN

Scale 1"=20'

Notes:
1. For utility, see U sheets
2. For traffic signal, see traffic plans
3. For tree removal, see grading plans
4. For curb inlets, see SD sheets

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct concrete barrier & sidewalk (type 26) per Caltrans Std Plan B11-54.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

REGISTERED PROFESSIONAL ENGINEER — C. PHUNG — No. 73985 — Exp. 6/2013 — CIVIL — STATE OF CALIFORNIA

1/24/2013
DATE

C. PHUNG

COUNTY OF ORANGE
OC PUBLIC WORKS

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/24/2013
SCALE: AS SHOWN

PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

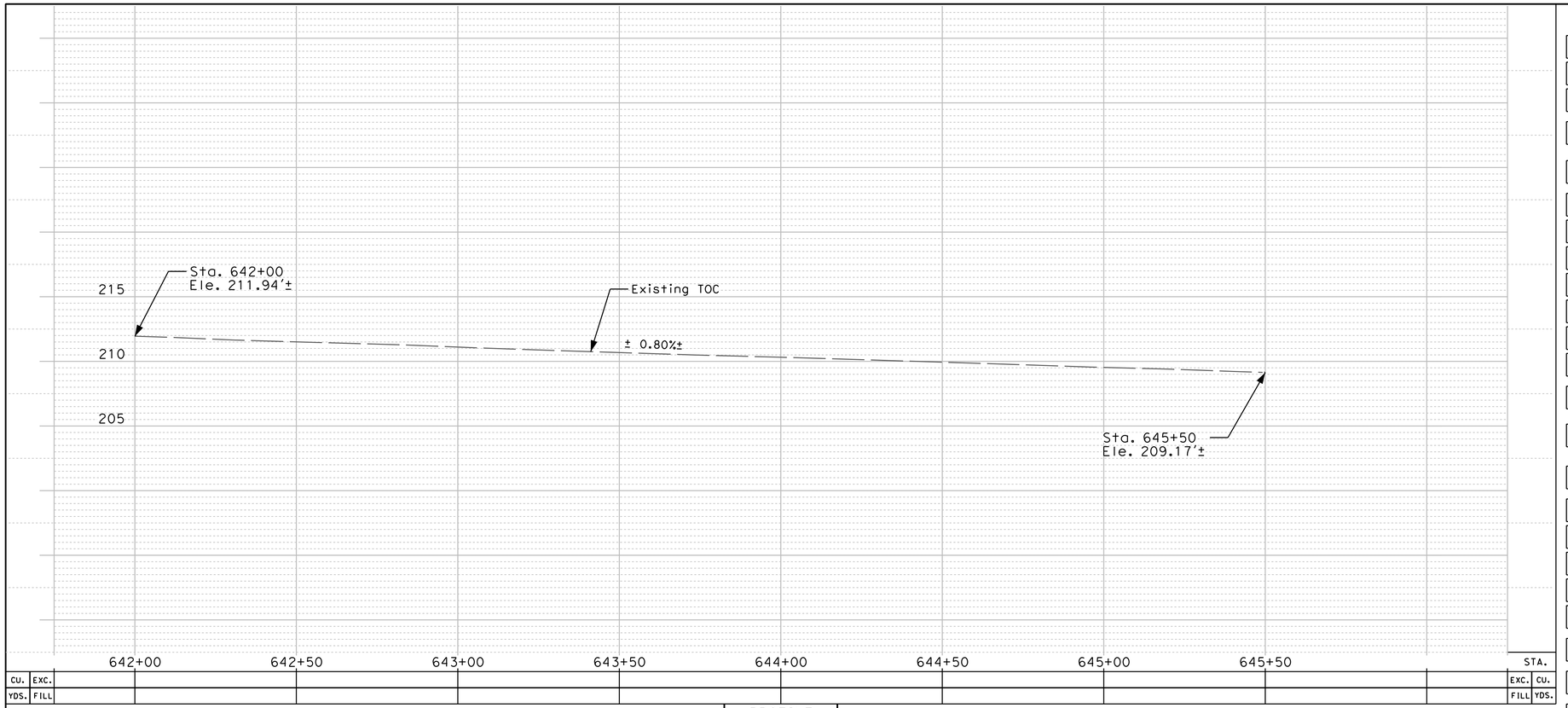
Lincoln Avenue
638+00 to
642+00

Sheet Reference Number

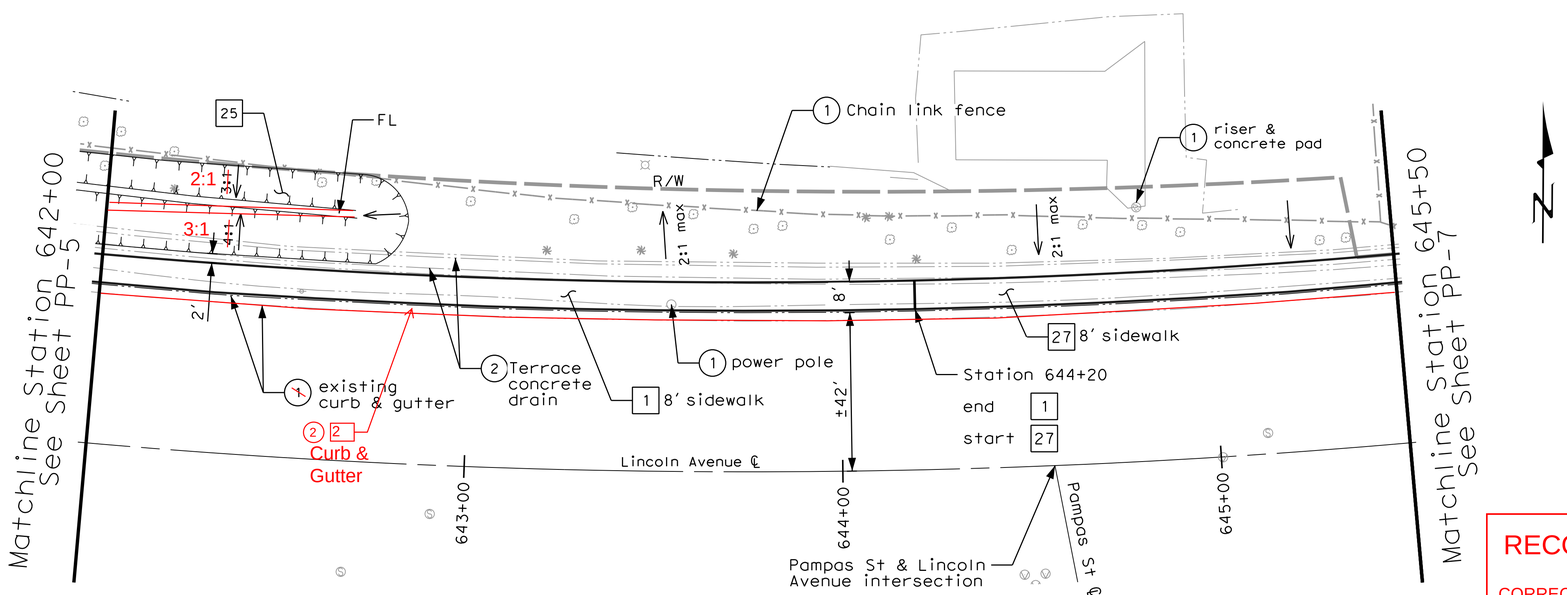
PP-5

Sheet 12 of 90

FILE NAME:\\LincolnAveOverSAR\CAD\05.2-PPBrdgRiverbend02.dgn



PROFILE
HORIZ. 1"= 20'
VERT. 1"= 5'



PLAN
Scale 1"=20'

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct concrete barrier & sidewalk (type 26) per Caltrans Std Plan B11-54.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-0C.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

RECORD DRAWING
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER — C. PHUNG — No. 73985 — Exp. 6/2013 — CIVIL — STATE OF CALIFORNIA
1/24/2013 DATE
C. PHUNG

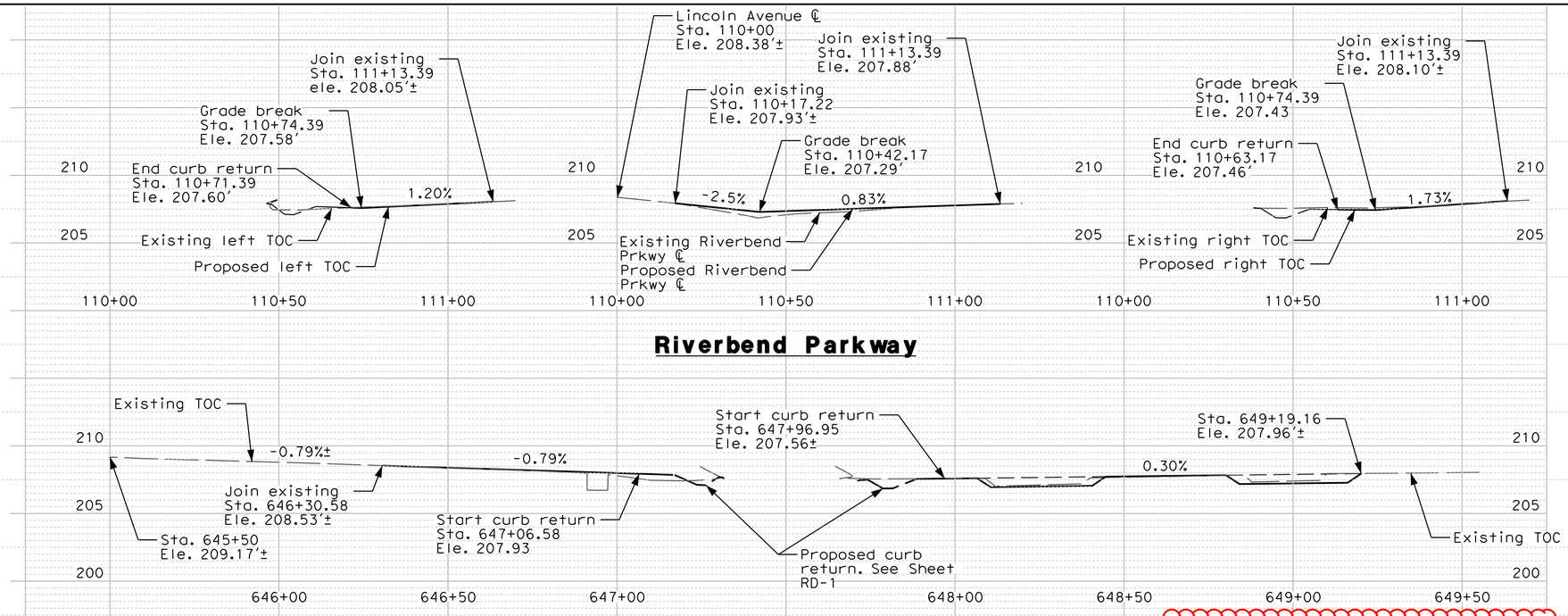
DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/24/2013
SCALE: AS SHOWN

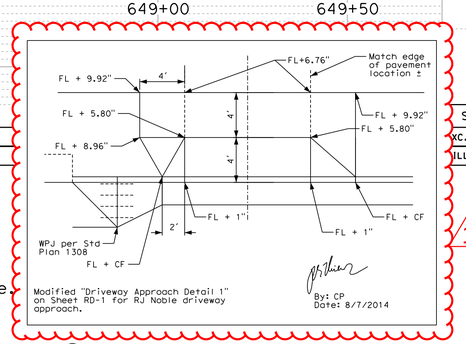
COUNTY OF ORANGE
OC PUBLIC WORKS
PREPARED BY:
CAPITAL PROJECTS

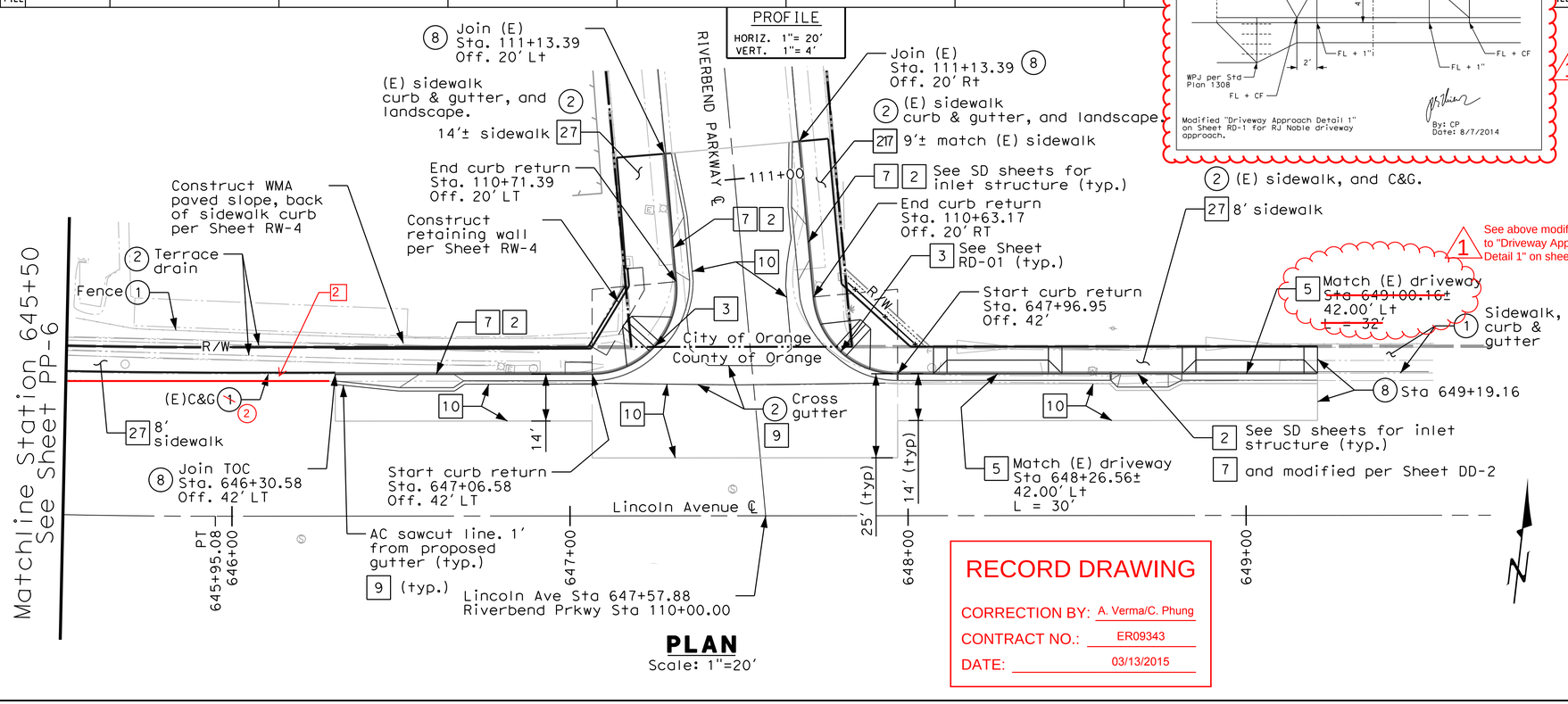
LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY
Lincoln Avenue
642+00 to 645+50

Sheet Reference Number
PP-6
Sheet 13 of 90

FILE NAME:B:\LincolnAveOverSAR\CAD\05.2-PPBrdgRiverbend03.dgn







PLAN
Scale: 1"=20'

RECORD DRAWING
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct concrete barrier & sidewalk (type 26) per Caltrans Std Plan B11-54.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-0C.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

MARK	DESCRIPTION	DATE	APPR.
1	mod. drwy approach to match (E) drwy	7/8/14	CP

COUNTY OF ORANGE CALIFORNIA

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER C. PHUNG No. 73985 Exp. 6/2013 CIVIL STATE OF CALIFORNIA
1/24/2013 DATE
C. PHUNG

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/24/2013
SCALE: AS SHOWN

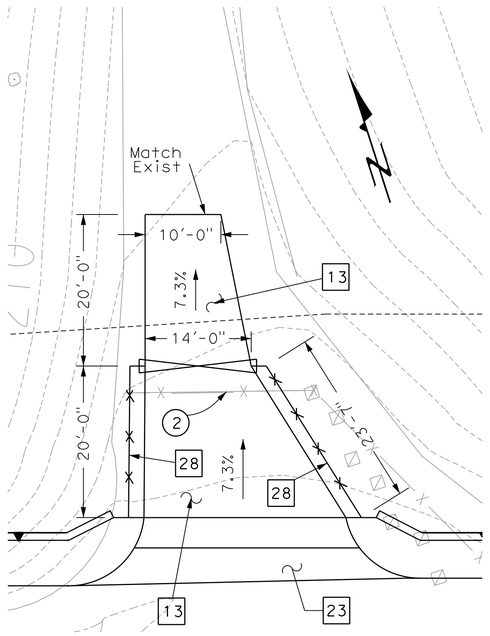
COUNTY OF ORANGE
OC PUBLIC WORKS
PREPARED BY: CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY
Lincoln Avenue
645+50 to 649+50

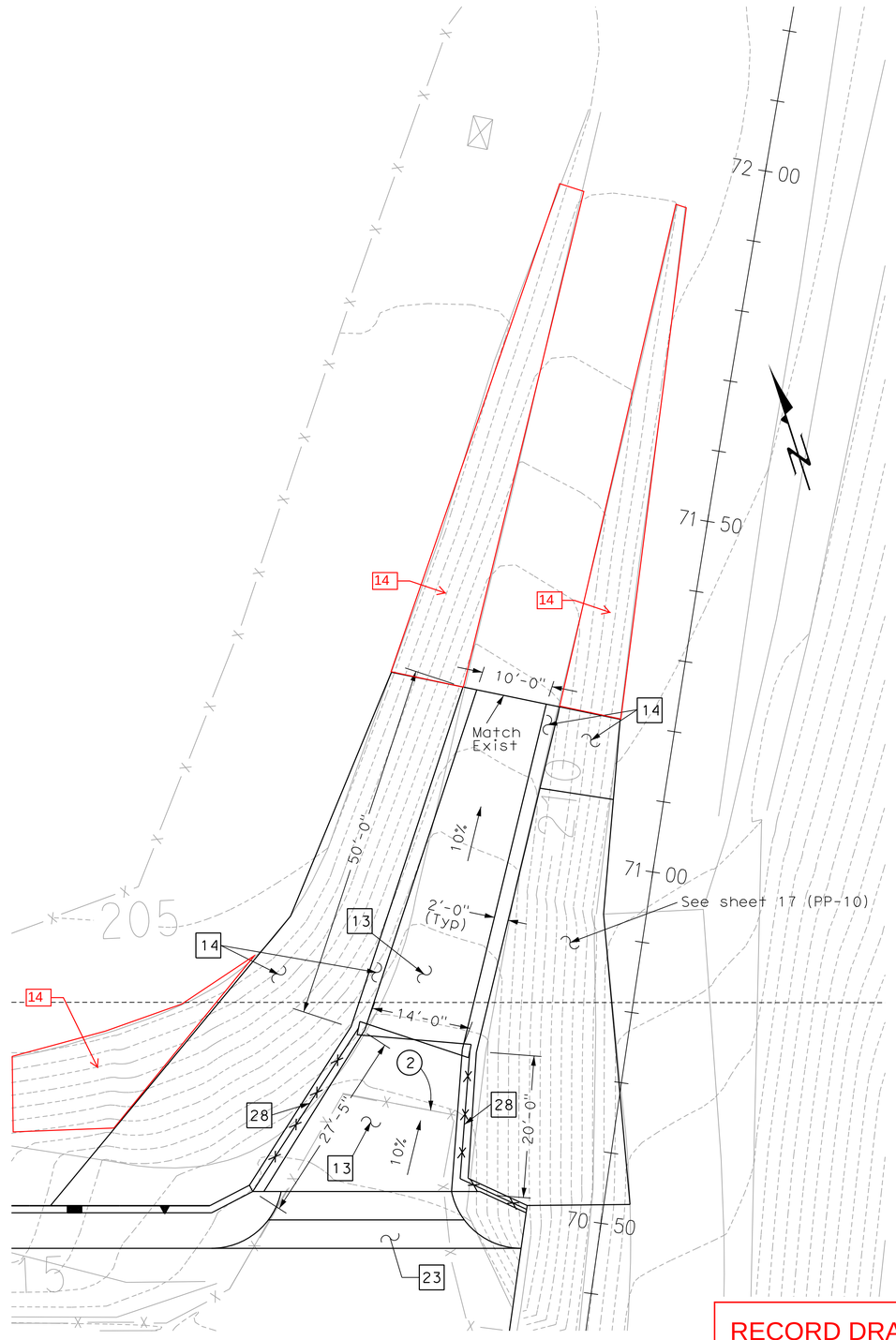
Sheet Reference Number
PP-7R1

Sheet 14 of 90

FILE NAME:B:\LincolnAveOverSAR\CAD\05.2-PPBrdgRiverbend04.dgn



West Levee Access - North
1" = 10'



Central Levee Access - North
1" = 10'

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct concrete barrier & sidewalk (type 26) per Caltrans Std Plan B11-54.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-0C.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

RECORD DRAWING
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE
CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED CIVIL ENGINEER LARRY D. QUACH No.C075951 STATE OF CALIFORNIA
LARRY QUACH — DATE 10/25/2013

COUNTY OF ORANGE
OC PUBLIC WORKS
PREPARED BY:
CAPITAL PROJECTS

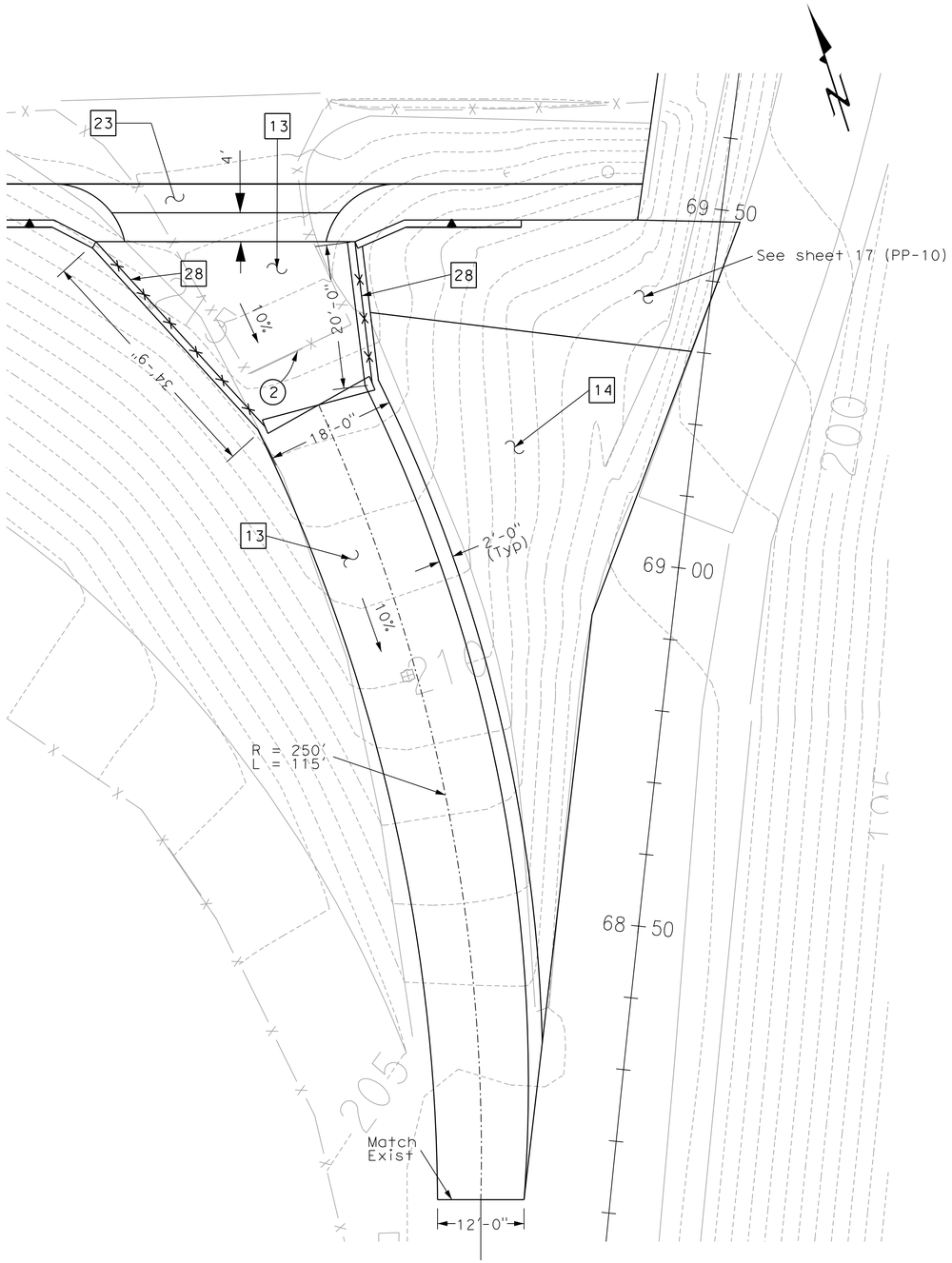
DESIGNED BY: L. QUACH
DRAWN BY: L. QUACH
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/25/2013
SCALE: AS SHOWN

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

West & Central Levee Access Ramp

Sheet Reference Number
PP-8

FILE NAME:B:\LincolnAveOverSAR\CAD\05.3-PPMntRdNorthAccess.dgn



Central Levee Access - South

1" = 10'

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct concrete barrier & sidewalk (type 26) per Caltrans Std Plan B11-54.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED CIVIL ENGINEER LARRY OUACH No.C075951 CIVIL STATE OF CALIFORNIA
LARRY OUACH DATE 2013

DESIGNED BY: L. OUACH
DRAWN BY: L. OUACH
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/25/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS
PREPARED BY:
CAPITAL PROJECTS

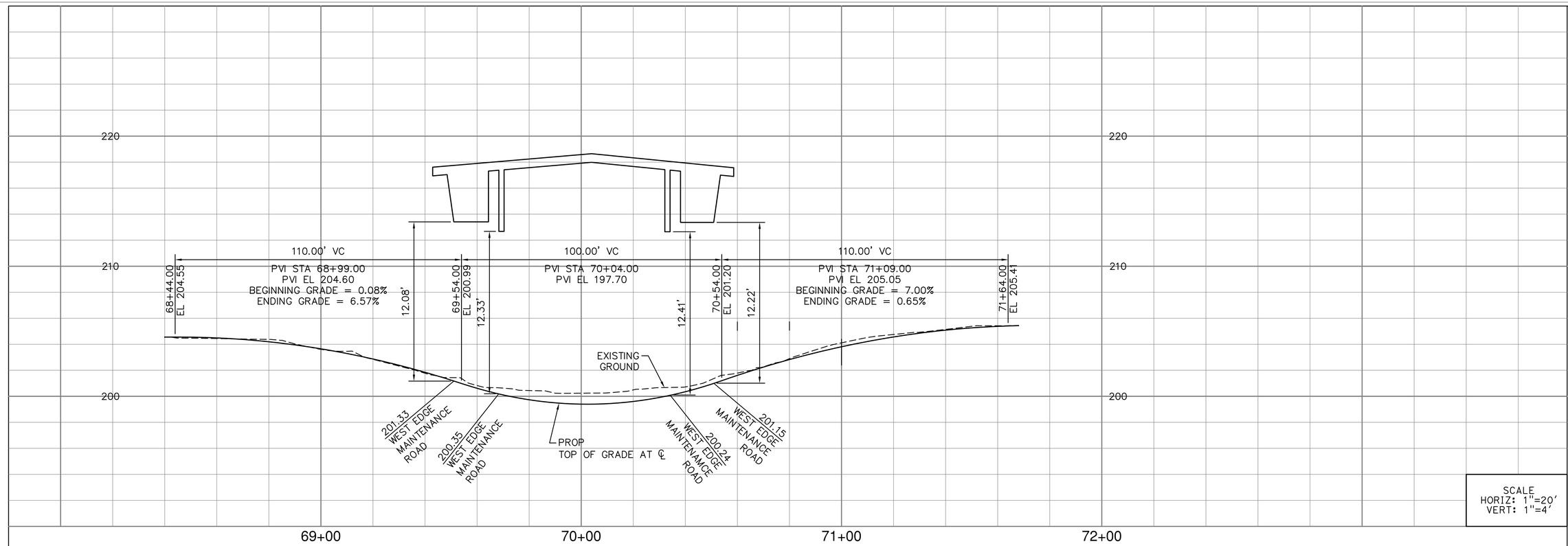
LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

Central Levee Access Ramp - South

Sheet Reference Number

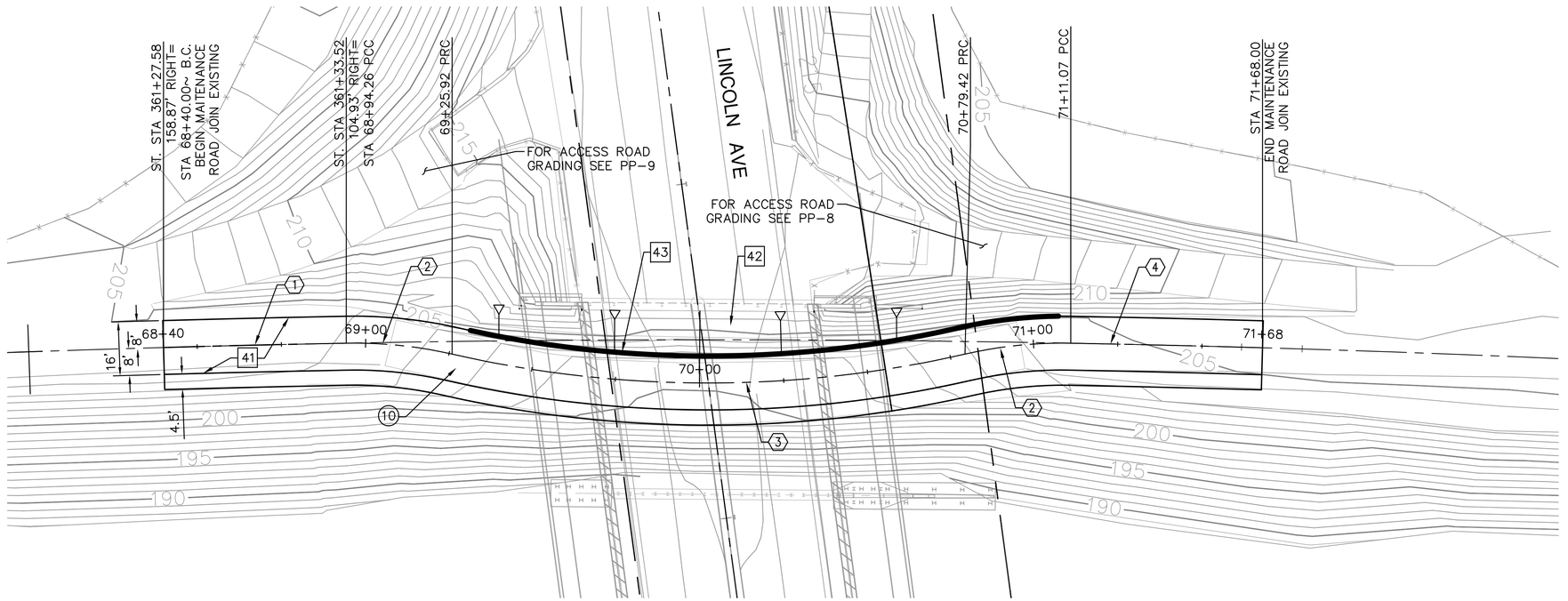
PP-9

FILE NAME B:\LincolnAveOverSAR\CAD\05.4-PPBMntRdSouthAccess.dgn



PROFILE

SCALE
HORIZ: 1"=20'
VERT: 1"=4'



PLAN
SCALE: 1"=20'

CURVE DATA

No.	R	Δ	L	T
1	5695.10'	00°32'45	54.26'	27.13'
2	130.00'	13°57'07"	31.66'	15.91'
3	341.67'	25°44'26"	153.50'	78.07'
4	5695.11'	00°34'22"	56.92'	28.46'

CONSTRUCTION NOTES

41 CONSTRUCT 6" PCC ON 8" CMB
42 CONSTRUCT 3" PCC SLOPE PAVING PER BRIDGE PLANS.
43 CONSTRUCT MASONRY RETAINING WALL PER SHEET RW 5

REMOVAL NOTES

10 REMOVE EXISTING PCC AND RSP

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
K. TAYLOR
4/26/2014
DATE

DESIGNED BY: K. KRIEGER
DRAWN BY: P. REYES
CHECKED BY: K. TAYLOR
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/8/2013
SCALE: AS NOTED

ORANGE COUNTY PUBLIC WORKS

WILLDAN Engineering
2401 East Katella Ave, Suite 430, Anaheim, California 92806
(714) 940-0500 FAX (714) 940-0501

LINCOLN AVENUE WIDENING FROM RIO VISTA ST TO RIVERBEND PW CENTRAL LEVEE UNDER XING

SHEET REFERENCE NUMBER
PP-10

Sheet 17 Of 90

\\ANH-DC1\Division\101315 Lincoln Ave Bridge Proj\PS&E\plans\pl-ACCS-01.dwg Plotted: 1/8/2013 3:05 PM

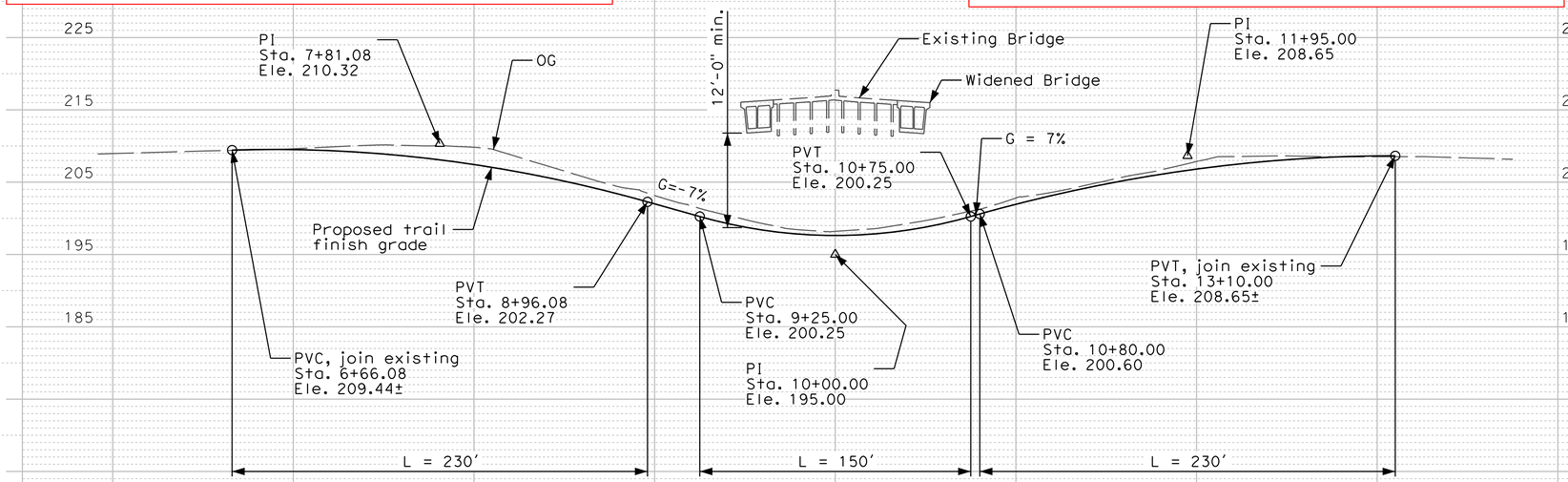
Table I:
3" water line relocation along south slope for OC Park:

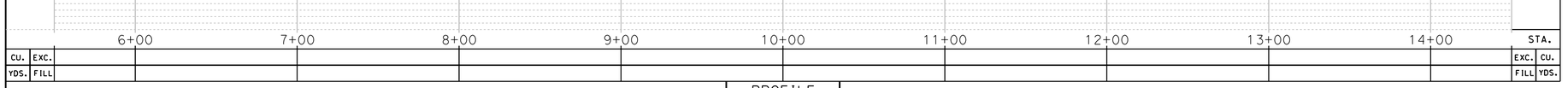
(AA,BB) = AA' South of Blackflow Preventer and BB' West Nursery Fence

(84',35'-9"), (112',41'-6"), (128',45'-9")

Table 2:
3" water line relocation
along north slope for OC Park:

(AA,BB) = (AA Trail Station, BB' East Edge of PCC Bike trail)
(10+75, 14'), (11+00, 12.5'), (11+25, 10.5'), (11+50, 6'), (11+75, 5'), (12+00, 6'), (12+25, 5'), (12+32,4.5'), (12+41,2.5')





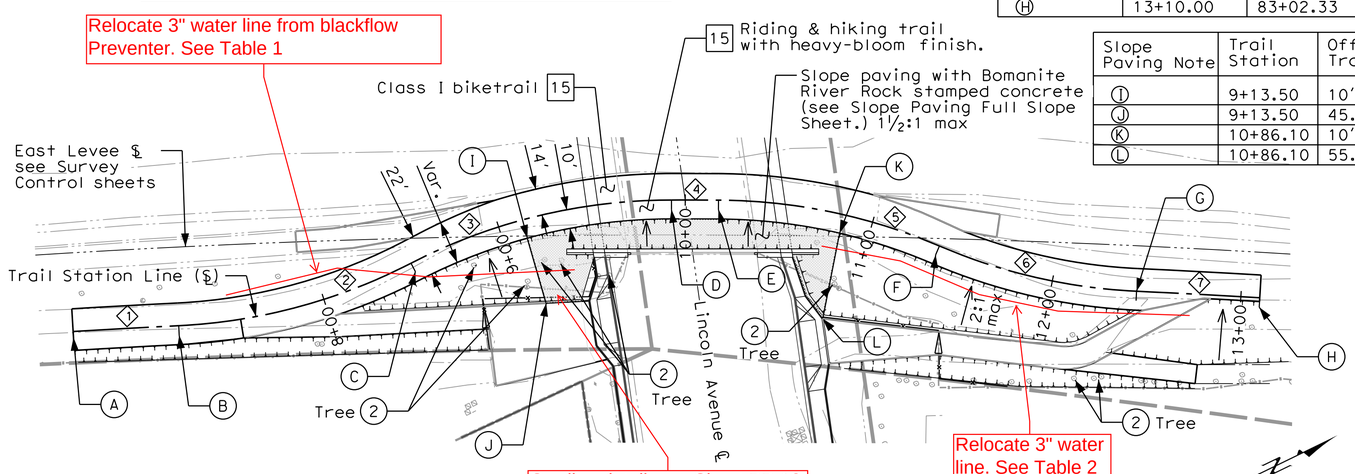
PROFILE
HORIZ. 1"= 40'
VERT. 1"= 10'

CURVE DATA

No.	R	Δ	T	L
1	5252.60	0°36'33"	27.92	55.84
2	300.00	24°26'25"	64.97	127.97
3	300.00	27°16'44"	72.80	142.83
4	5312.51	0°16'4"	12.42	24.84
5	300.00	22°54'21"	60.78	119.93
6	300.00	20°30'11"	54.26	107.35
7	5270.10	0°42'30"	32.58	65.16

Alignment note	Bike Trail Station	East Levee Station	Offset from East Levee	Note
A	6+66.08	76+71.52	41.50 RT	Join existing
B	7+21.91	77+27.79	41.50 RT	PCR
C	8+49.88	78+52.24	13.16 RT	PRC
D	9+92.71	79+90.09	18.41 LT	PCC
E	10+17.55	80+14.85	18.41 LT	PCC
F	11+37.49	81+31.71	03.95 RT	PRC
G	12+44.84	82+36.87	24.00 RT	PRC
H	13+10.00	83+02.33	24.00 RT	Join existing

Slope Paving Note	Trail Station	Offset from Trail Station	Note
I	9+13.50	10' RT	Start slope paving
J	9+13.50	45.70' RT	Start slope paving
K	10+86.10	10' RT	End slope paving
L	10+86.10	55.95' RT	End slope paving



Plan
Scale 1"=40'

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct concrete barrier & sidewalk (type 26) per Caltrans Std Plan B11-54.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

RECORD DRAWING
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER C. PHUNG No. 73985 Exp. 6/2013 CIVIL STATE OF CALIFORNIA
1/24/2013 DATE
C. PHUNG

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/24/2013
SCALE: AS SHOWN

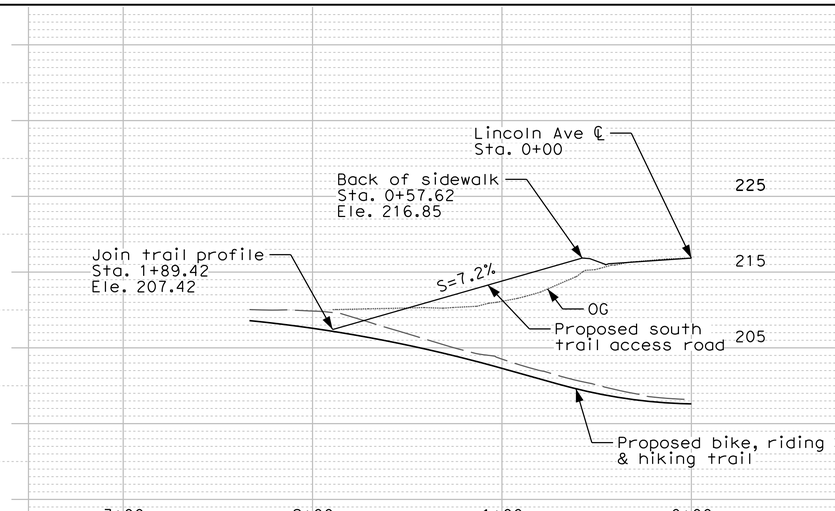
COUNTY OF ORANGE
OC PUBLIC WORKS
PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

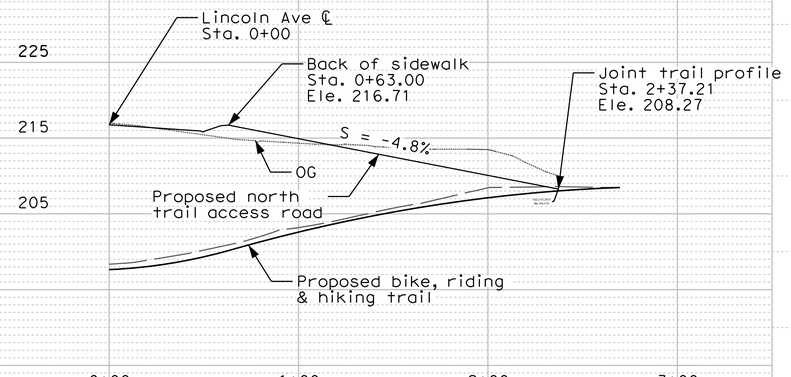
Bike/Hiking & Riding Trail

Sheet Reference Number
PP-11
Sheet 18 of 90

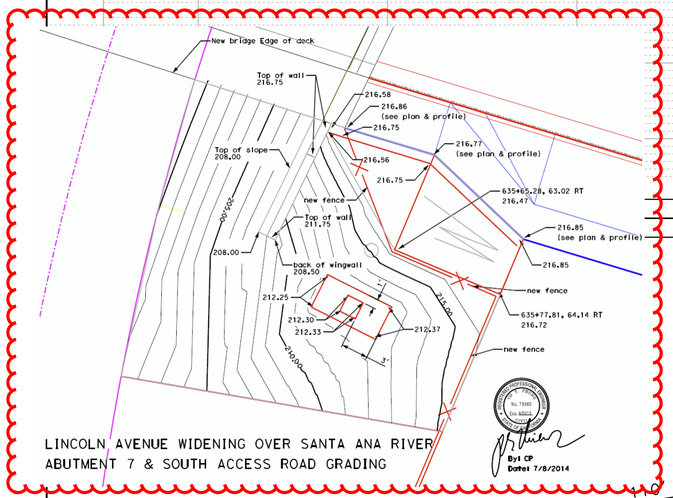
FILE NAME:\\FileServer\Design\BridgeProjects\LincolnAveOverSAR\CAD\05.5-PPBikeTrailEast01.dgn



South Access Road Profile



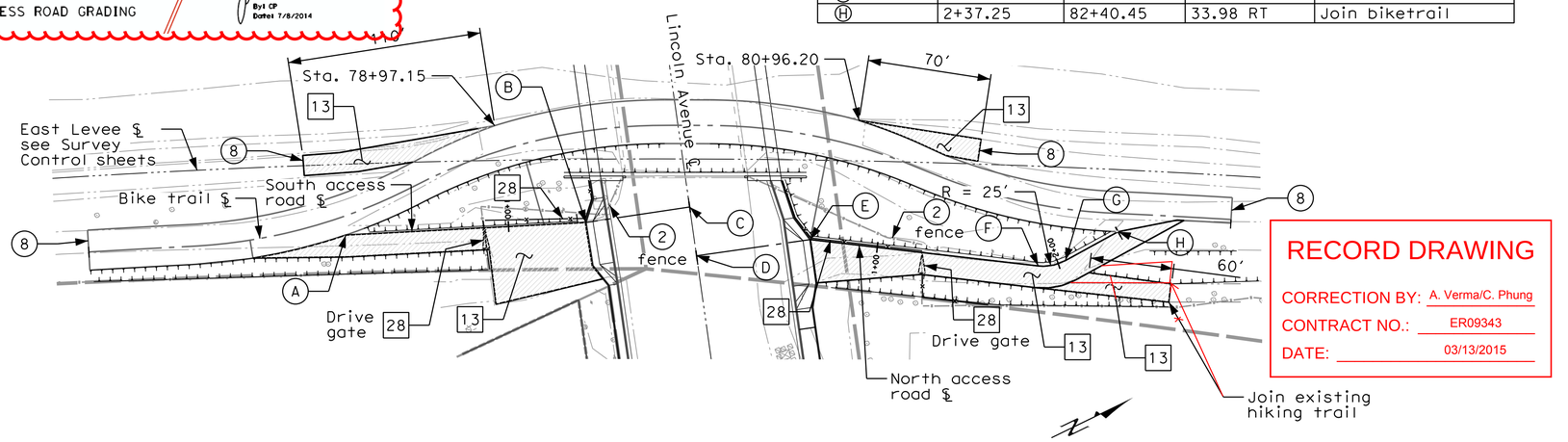
North Access Road Profile



PROFILE
HORIZ. 1"= 40'
VERT. 1"= 10'

	STA.	
	EXC.	CU.
	FILL	YDS.

Alignment Note	Access Road Station	East Levee ℄	Offset frm East Levee	Note
Ⓐ	1+89.42	78+13.81	38.82 RT	Join biketrail
Ⓑ	0+57.62	79+46.47	34.66 RT	PI
Ⓒ	0+00.00	80+03.81	26.32 RT	POE
Ⓓ	0+00.00	80+07.72	53.04 RT	POB
Ⓔ	0+63.00	80+70.59	43.59 RT	PI
Ⓕ	1+88.87	81+79.14	54.63 RT	PC
Ⓖ	2+04.29	82+12.06	51.11 RT	PT
Ⓗ	2+37.25	82+40.45	33.98 RT	Join biketrail



Plan

Scale 1" = 40'

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct concrete barrier & sidewalk (type 26) per Caltrans Std Plan B11-54.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-0C.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

RECORD DRAWING
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE
CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER
C. PHUNG
No. 73985
Exp. 6/2013
CIVIL
STATE OF CALIFORNIA
1/24/2013
DATE
C. PHUNG

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/24/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS
PREPARED BY:
CAPITAL PROJECTS

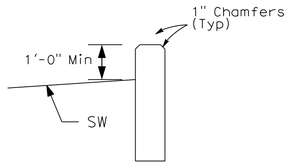
LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

East Levee
Access Road

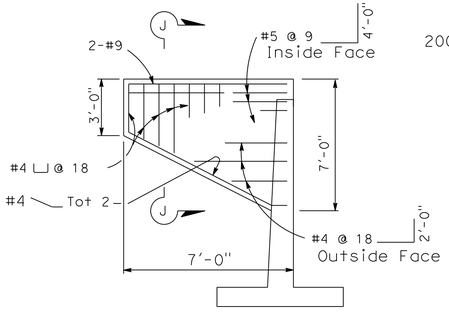
Sheet Reference Number
PP-12

Sheet 19 of 90

FILE NAME:\\FileServer\Design\BridgeProjects\LincolnAveOverSAR\CAD\05.5-PPEastBikeTrailAccRd.dgn

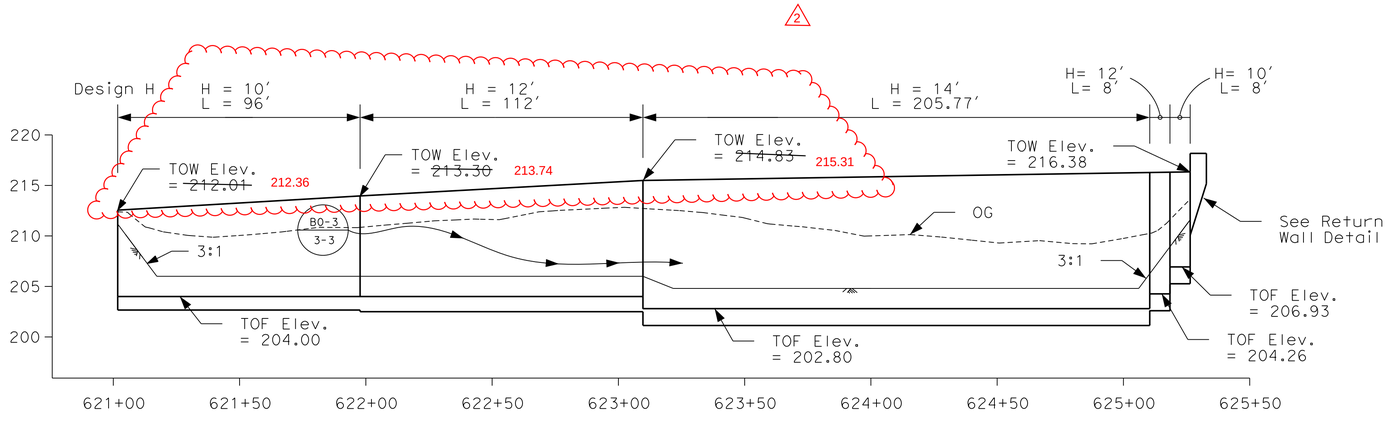


Section J-J
No Scale
Rebar Not Shown

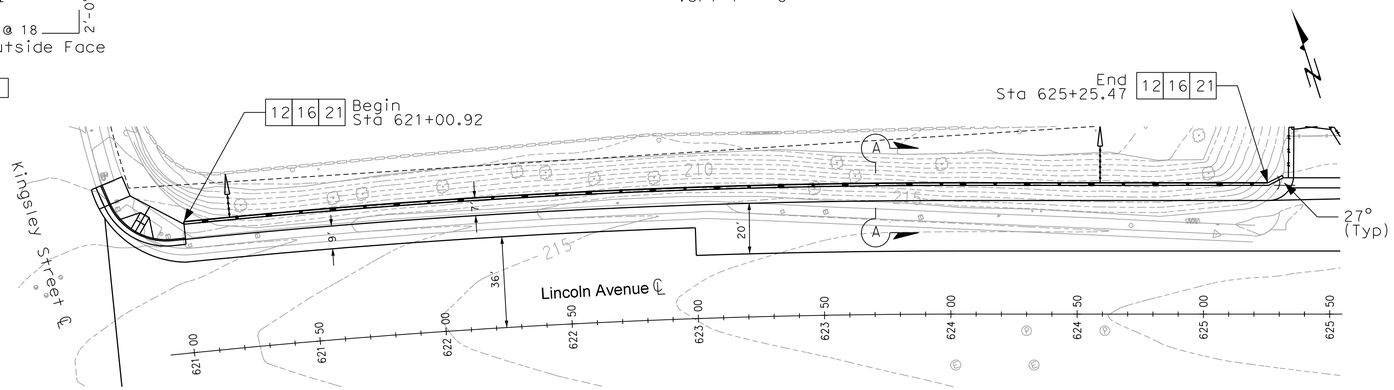


ELEVATION

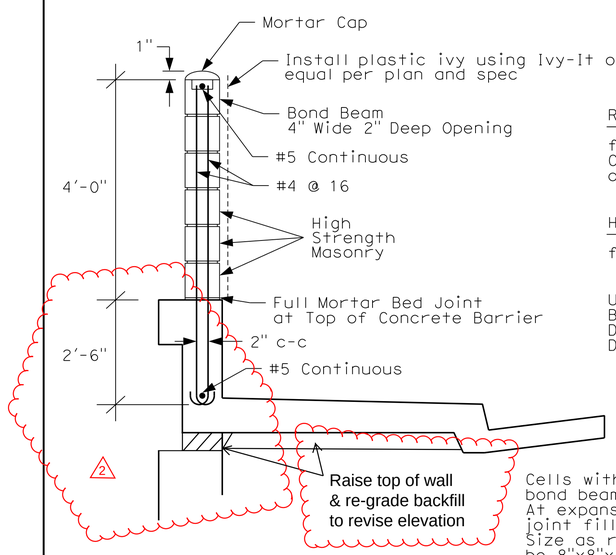
Return Wall Detail
No Scale
Monolithic Connection



ELEVATION
Horiz 1" = 30'
Vert 1" = 8'



PLAN
Horiz 1" = 30'
Vert 1" = 8'



Regular Strength

f'm = 1500 psi
Compressive Strength
of CMU = 1900 psi

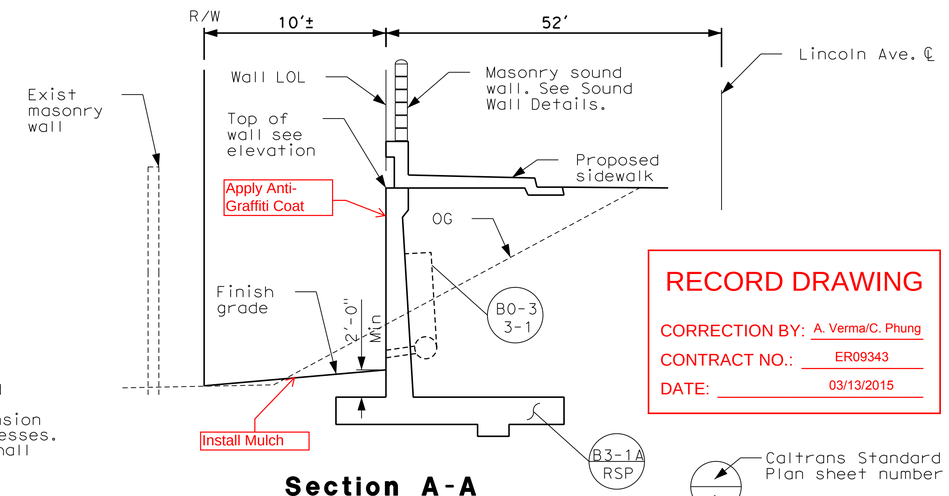
High Strength

f'm = 2000 psi

UBC '97 and
Bridge Design Specifications
Design Wind Load 27 psf
Design EQ 0.57 DL

Cells with vertical reinforcement and bond beams to be filled with grout. At expansion joints: continuous expansion joint filler placed in sash block recesses. Size as required for snug fit. CMU shall be 8"x8"x16".

Sound Wall Details
No Scale
Rebars in Barrier and Retaining Wall Not Shown For Clarity



Section A-A
No Scale

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

Caltrans Standard Plan sheet number

Detail number

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct Concrete Barrier (Type 26A Modified) per detail on sheet RW-2R1.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.
2	Revise Elevations	8/15/14	LQ

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
LARRY QUACH, CIVIL ENGINEER, No.C075951, REGISTERED CIVIL ENGINEER, STATE OF CALIFORNIA
DATE 3/5/2013

DESIGNED BY: L. QUACH
DRAWN BY: L. QUACH
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
SCALE: AS SHOWN
PLOT DATE: 3/5/2013

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

Retaining Wall #1

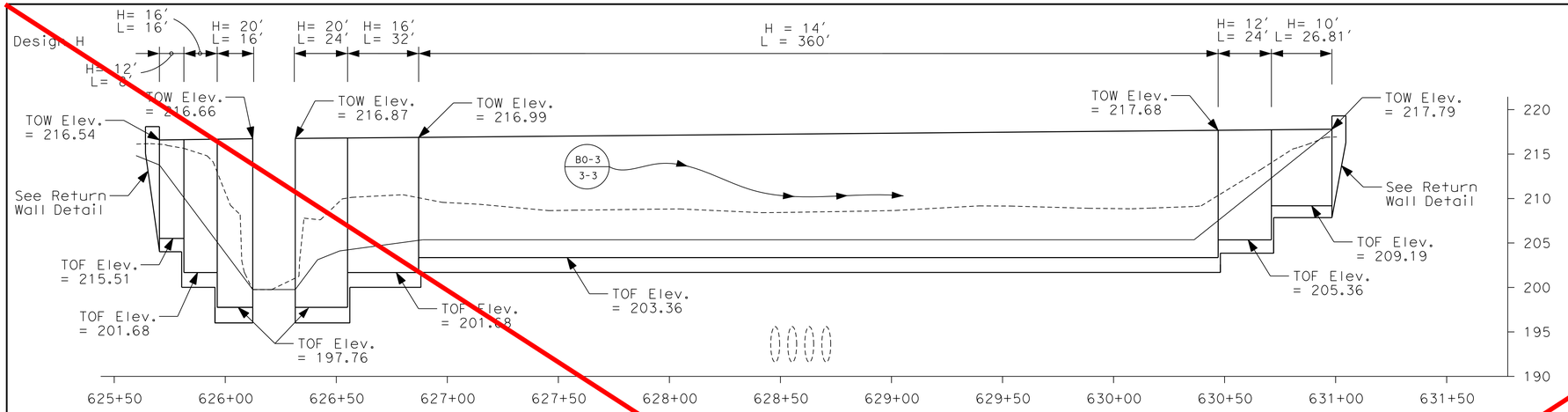
Sheet Reference Number

RW-1R1

Att 2 to Bulletin 2

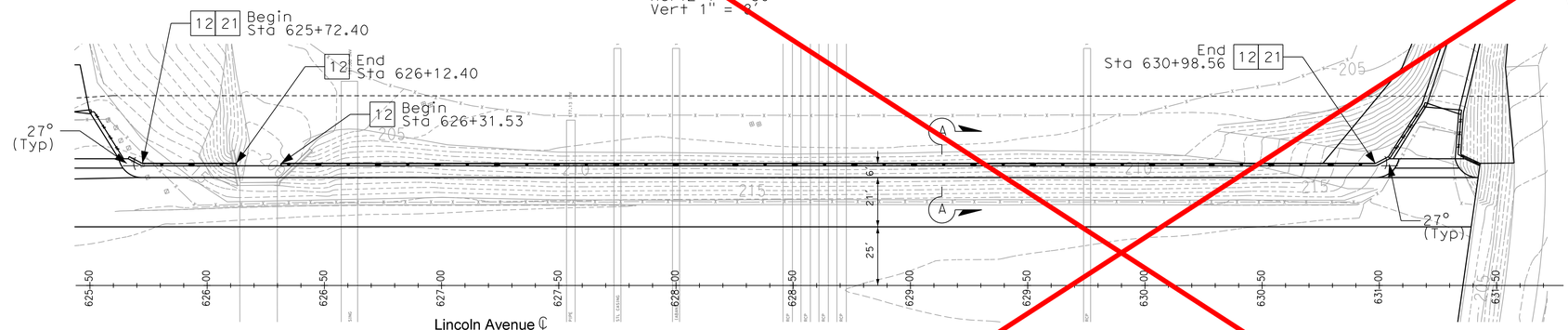
Sheet 20 of 90

FILE NAME:B:\LincolnAveOverSAR\CAD\05.6-PPRtngWall1 R1.dgn



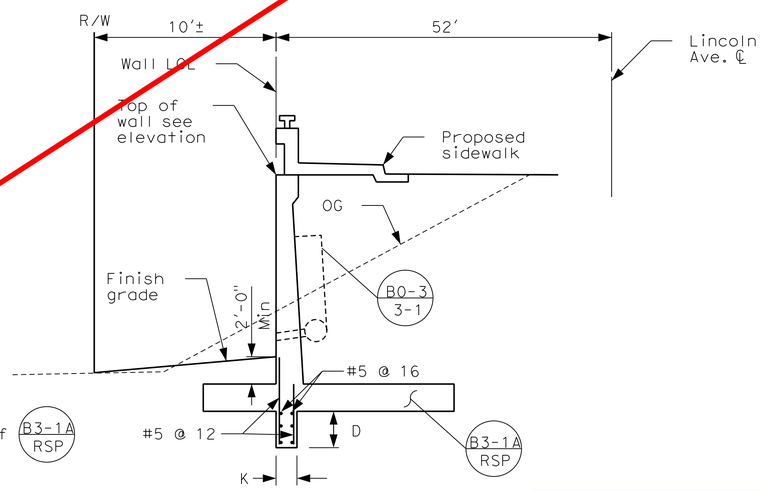
ELEVATION

Horiz 1" = 30'
Vert 1" = 8'



PLAN

Horiz 1" = 30'
Vert 1" = 8'



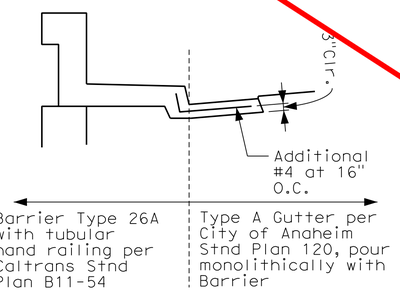
Caltrans Standard Retaining Wall Type 1 (Case 1) With Modified Key				
DESIGN H	14'	16'	18'	20'
D	1'-6"	2'-0"	2'-6"	2'-10"
K	2'-0"	2'-0"	2'-0"	2'-0"

All reinforcement shown is in addition to reinforcement of B3-1A RSP and barrier

Construct retaining wall per B3-1A RSP except as noted in Section A-A and table above

Section A-A

No Scale



Concrete Barrier (Type 26A Modified)

No Scale

Caltrans Standard Plan sheet number

Detail number

SUPERSEDED AND REPLACED BY SHEET RW-2R2

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct Concrete Barrier (Type 26A Modified) per detail on sheet RW-2R1.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED CIVIL ENGINEER ★ CHARLES LARRY OUACH ★ No.C075951 ★ CIVIL ★ STATE OF CALIFORNIA
LARRY OUACH
DATE 3/5/2013

DESIGNED BY: L. OUACH
DRAWN BY: L. OUACH
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 3/5/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

Retaining Wall #2

Sheet Reference Number

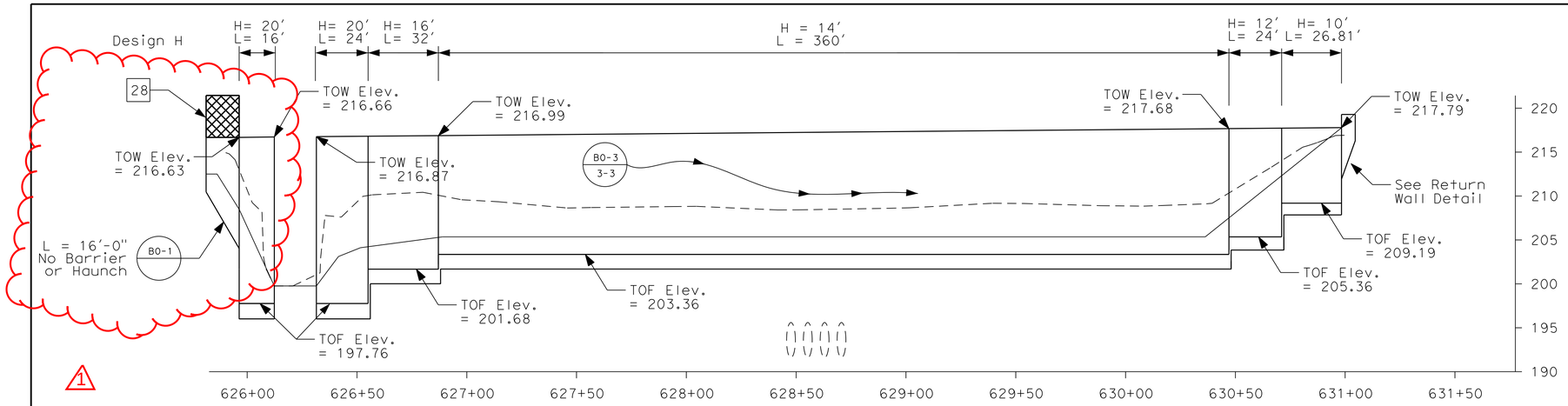
RW-2R1

Att 2 to Bulletin 2

Sheet 21 of 90

FILE NAME:B:\LincolnAveOverSAR\CAD\05.6-PPRtngWall2 R1.dgn

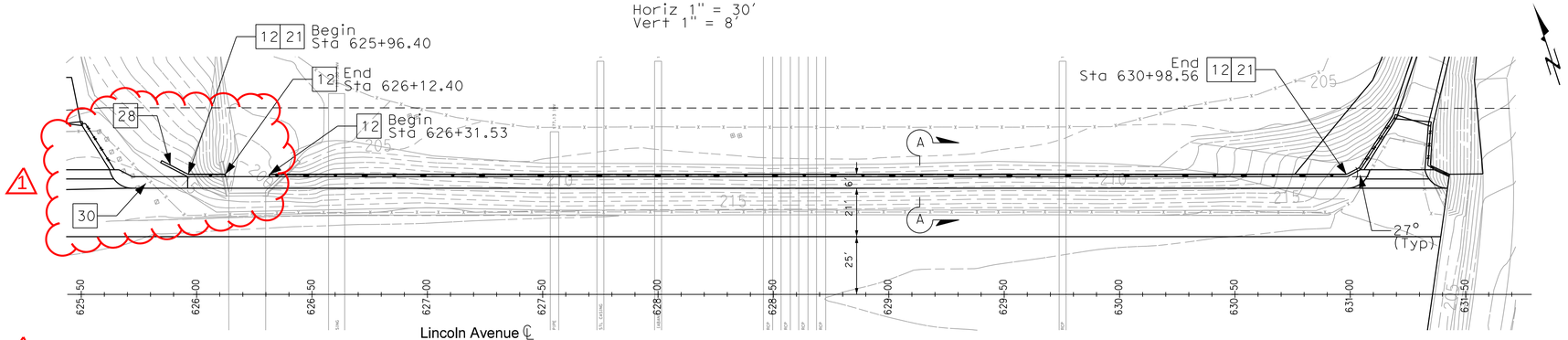
05.6-PPRtngWall2 R1.dgn 3/5/2013 12:55:17 PM



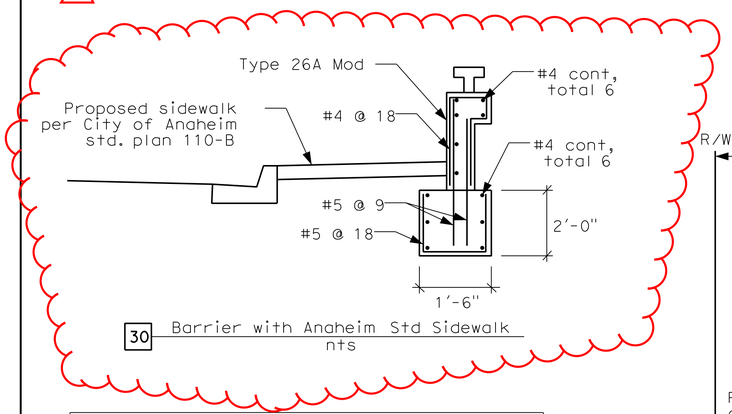
1

ELEVATION

Horiz 1" = 30'
Vert 1" = 8'

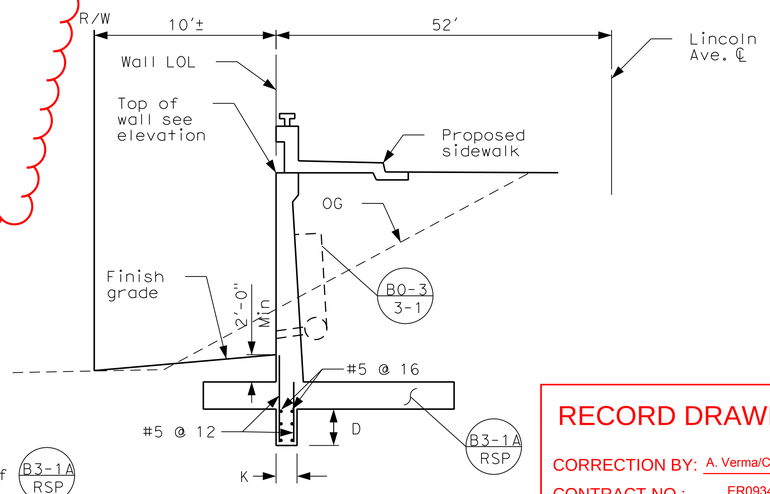


1



PLAN

Horiz 1" = 30'
Vert 1" = 8'



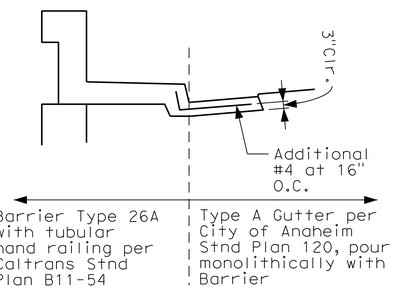
Caltrans Standard Retaining Wall Type 1 (Case 1) With Modified Key				
DESIGN H	14'	16'	18'	20'
D	1'-6"	2'-0"	2'-6"	2'-10"
K	2'-0"	2'-0"	2'-0"	2'-0"

All reinforcement shown is in addition to reinforcement of B3-1A RSP and barrier

Construct retaining wall per B3-1A RSP except as noted in Section A-A and table above

Section A-A

No Scale



Concrete Barrier (Type 26A Modified)

No Scale

Caltrans Standard Plan sheet number

Detail number

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung

CONTRACT NO.: ER09343

DATE: 03/13/2015

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct Concrete Barrier (Type 26A Modified) per detail on sheet RW-2R1.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-0C.
29. Slurry seal asphalt cracks per plan and specification
30. Construct sidewalk per City of Anaheim std. plan 110-B with barrier per detail on sheet RW-2R2.

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.
1	Remove Wall Sect.	5/7/14	LQ

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
LARRY QUACH, CIVIL ENGINEER, No.C075951, REGISTERED, STATE OF CALIFORNIA, CIVIL
DATE 5/7/2014

DESIGNED BY: L. QUACH
DRAWN BY: L. QUACH
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 5/12/2014
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

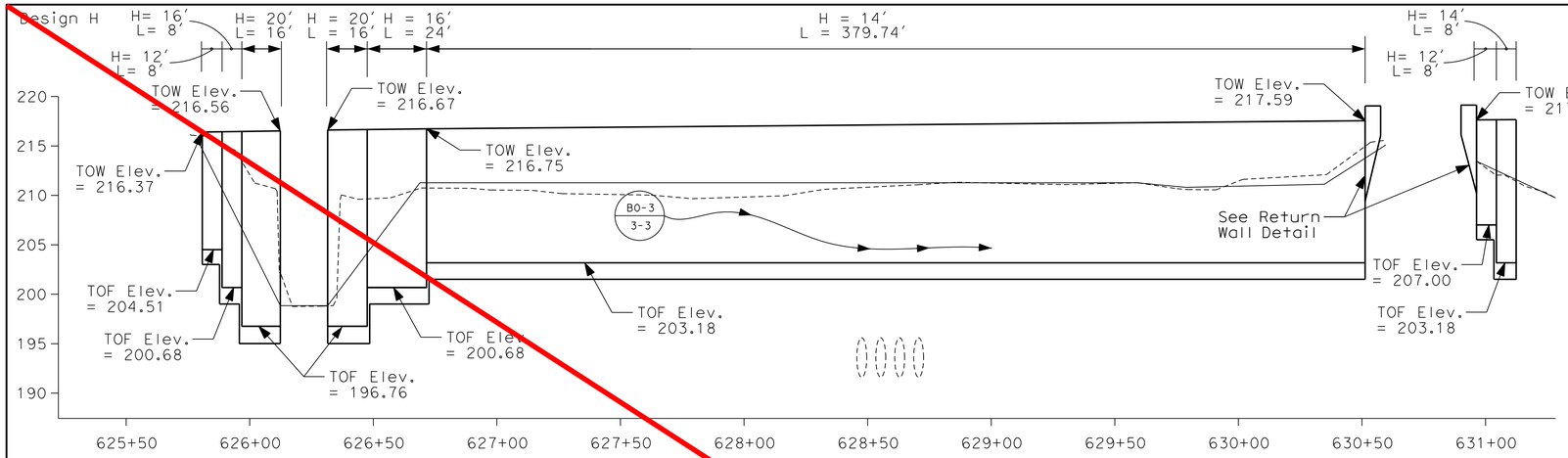
Retaining Wall #2

Sheet Reference Number

RW-2R2

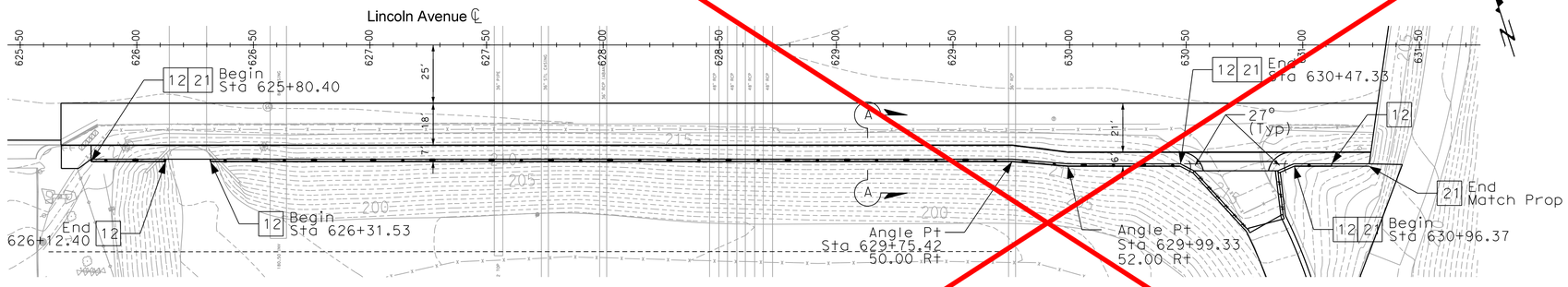
Sheet 21 of 90

FILE NAME:\SPHGONAS2801\Design\Road Projects\Bridge\LincolnAveOverSAR ER09343\Construction Support\CCO-R\rngWall2NOldWingwall\20140507-PPR\rngWall2 R1.dgn



ELEVATION

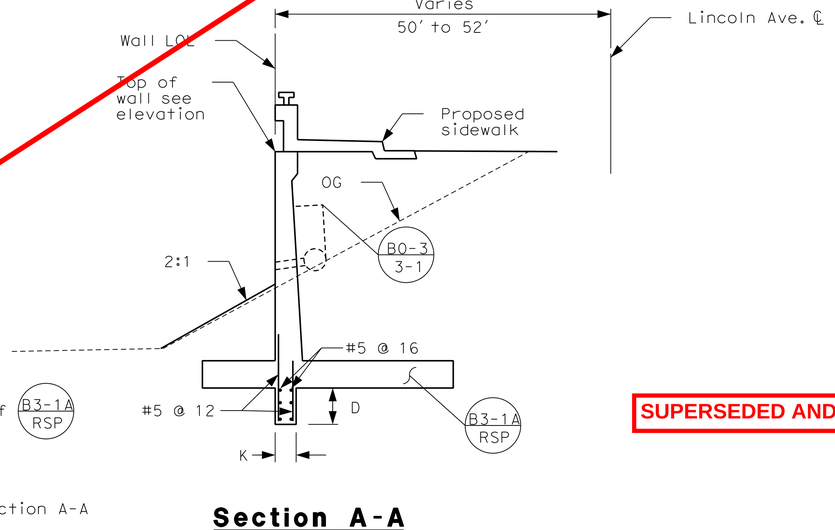
Horiz 1" = 30'
Vert 1" = 8'



PLAN

Horiz 1" = 30'
Vert 1" = 8'

Caltrans Standard Retaining Wall Type 1 (Case 1) With Modified Key				
DESIGN H	14'	16'	18'	20'
D	1'-6"	2'-0"	2'-6"	2'-10"
K	2'-0"	2'-0"	2'-0"	2'-0"



All reinforcement shown is in addition to reinforcement of B3-1A RSP and barrier

Construct retaining wall per B3-1A RSP except as noted in Section A-A and table above

Section A-A

No Scale

SUPERSEDED AND REPLACED BY SHEET RW-3R2

Caltrans Standard Plan sheet number

Detail number

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct Concrete Barrier (Type 26A Modified) per detail on sheet RW-2R1.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
LARRY QUACH, CIVIL ENGINEER, No.C075951, REGISTERED CIVIL ENGINEER, STATE OF CALIFORNIA
3/5/2013 DATE

DESIGNED BY: L. QUACH
DRAWN BY: L. QUACH
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 3/5/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS
PREPARED BY: CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

Retaining Wall #3

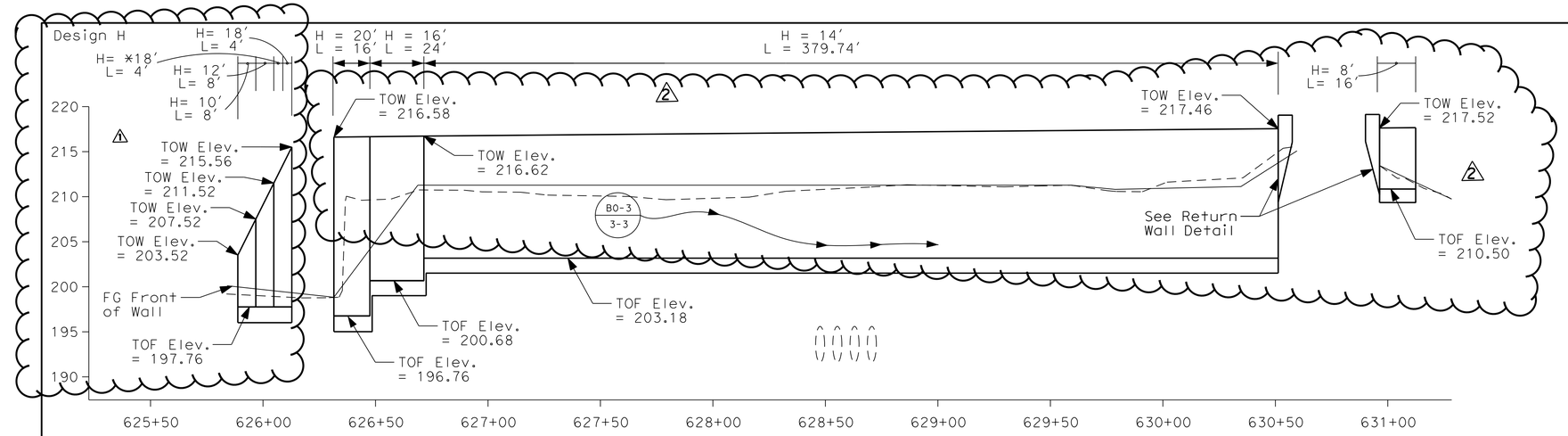
Sheet Reference Number

RW-3R1

Att 2 to Bulletin 2

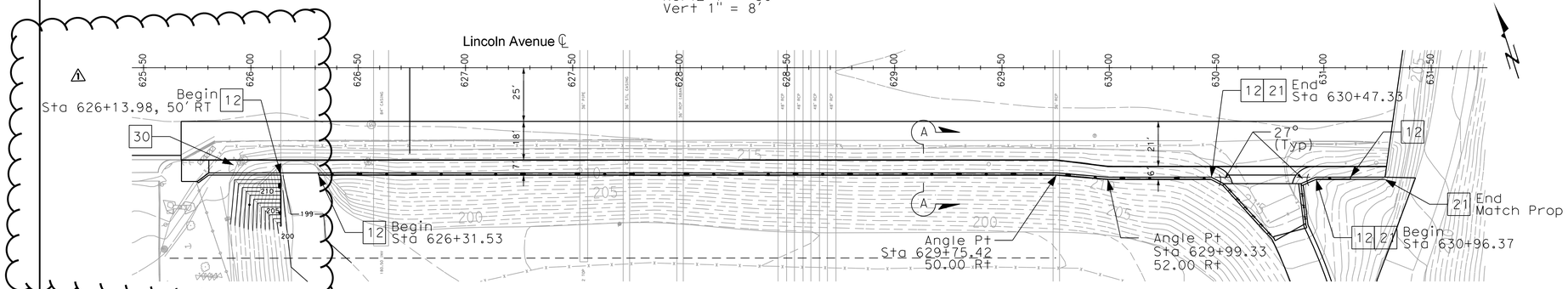
Sheet 22 of 90

FILE NAME:B:\LincolnAveOverSAR\CAD\05.6-PPR+ngWall3 R1.dgn



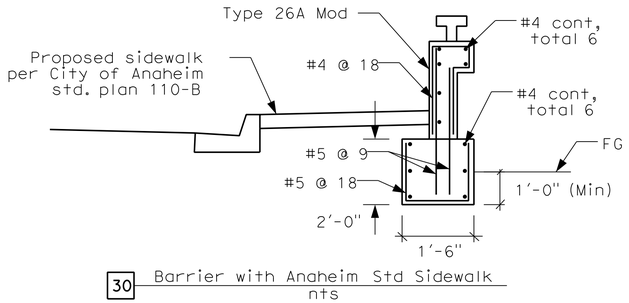
ELEVATION

Horiz 1" = 30'
Vert 1" = 8'

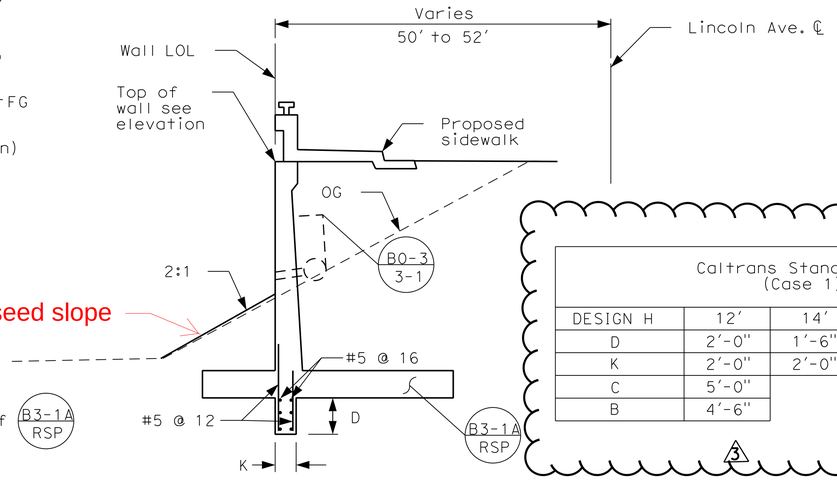


PLAN

Horiz 1" = 30'
Vert 1" = 8'



30 Barrier with Anaheim Std Sidewalk
nts



All reinforcement shown is in addition to reinforcement of B3-1A RSP and barrier

Construct retaining wall per B3-1A RSP except as noted in Section A-A and table above

Section A-A

No Scale

Caltrans Standard Retaining Wall Type 1
(Case 1) With Modified Key

DESIGN H	12'	14'	16'	×18'	18'	20'
D	2'-0"	1'-6"	2'-0"	3'-0"	2'-6"	2'-10"
K	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"
C	5'-0"			6'-0"		
B	4'-6"			5'-0"		

3

Caltrans Standard Plan sheet number

Detail number

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct Concrete Barrier (Type 26A Modified) per detail on sheet RW-2R1.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification
30. Construct sidewalk/barrier per detail on sheet RW-2R2

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

MARK	DESCRIPTION	DATE	APPR.
3	Revised footing dim.	8/20/14	LO
2	Revised Wall Elev.	7/29/14	LO
1	Revised Wall at Pole	7/8/14	LO

COUNTY OF ORANGE CALIFORNIA

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED CIVIL ENGINEER LARRY QUACH No.C075951 STATE OF CALIFORNIA
LARRY QUACH 2014
DATE

DESIGNED BY: L. QUACH
DRAWN BY: L. QUACH
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 8/22/2014
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

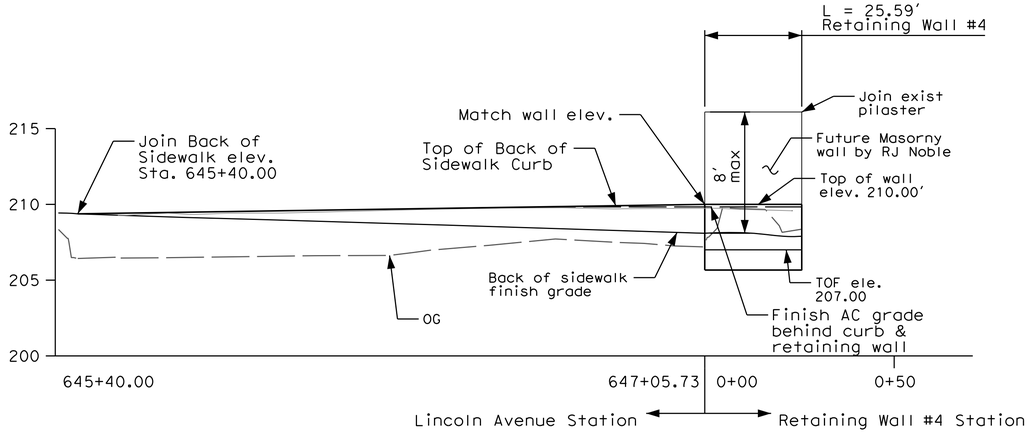
Retaining Wall #3

Sheet Reference Number

~~RW-3R1~~
RW-3R2

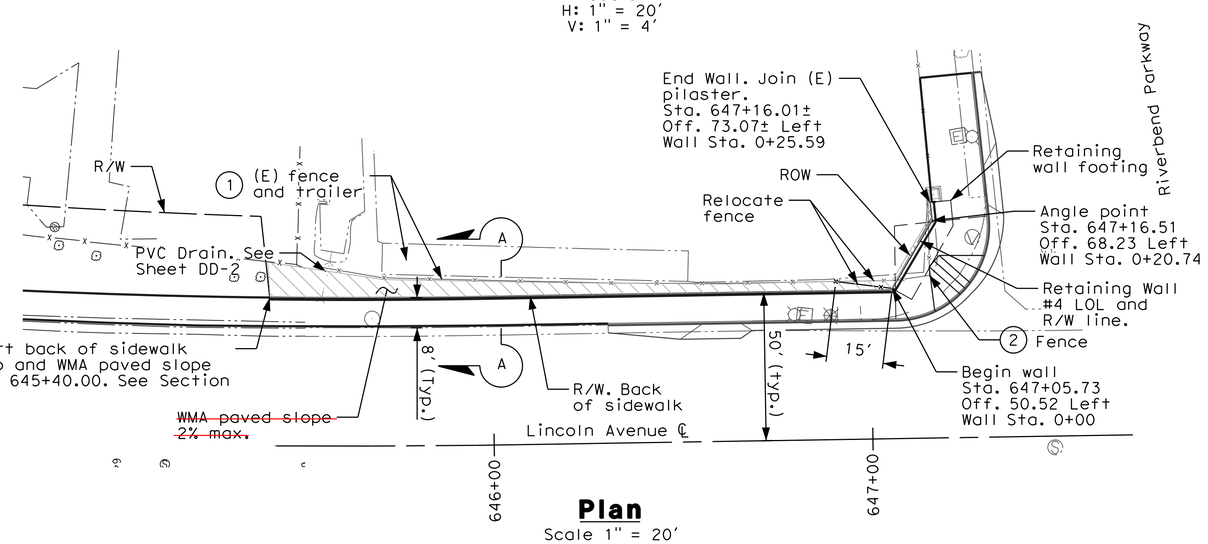
Sheet 22 of 90

FILE NAME:S:\Road Projects\Bridge\LincolnAveOverSAR ER09343\Construction Support\20140624-RW3Realignment4PowerPole\05.6-PRRtngWall3 R1.dgn



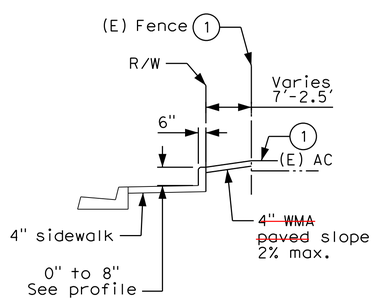
Profile

Scale
H: 1" = 20'
V: 1" = 4'

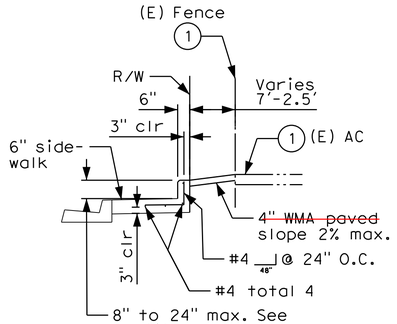


Plan

Scale 1" = 20'



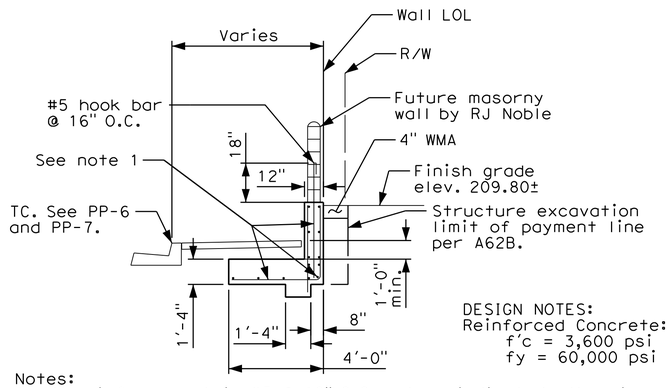
CURB HEIGHT ≤ 8"



CURB HEIGHT > 8"

Section A-A

NTS



DESIGN NOTES:
Reinforced Concrete:
f'c = 3,600 psi
fy = 60,000 psi

Notes:
1. All reinforcement is #5 @ 16" O.C. unless indicated otherwise.
2. See Caltrans Standard Plan A62B for limits of payment for excavation and backfill.

RW#4 Cross Section

Scale 1" = 4'

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct concrete barrier & sidewalk (type 26) per Caltrans Std Plan B11-54.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER C. PHUNG No. 73985 Exp. 6/2013 CIVIL STATE OF CALIFORNIA
C. PHUNG
1/30/2013 DATE

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/30/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS
PREPARED BY: CAPITAL PROJECTS

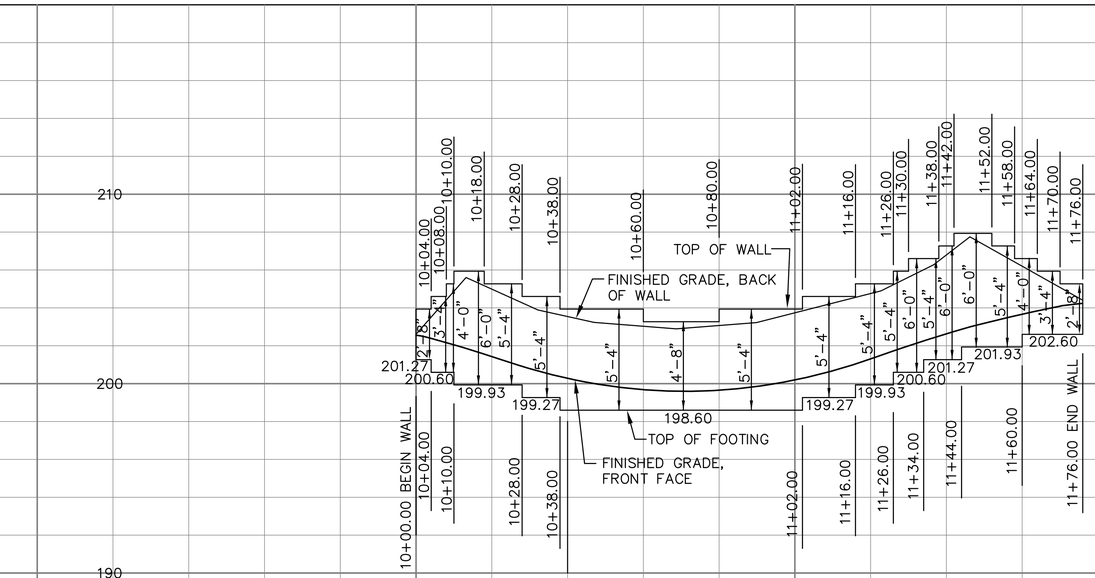
LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

Retaining Wall #4

Sheet Reference Number
RW-4

Sheet 23 of 90

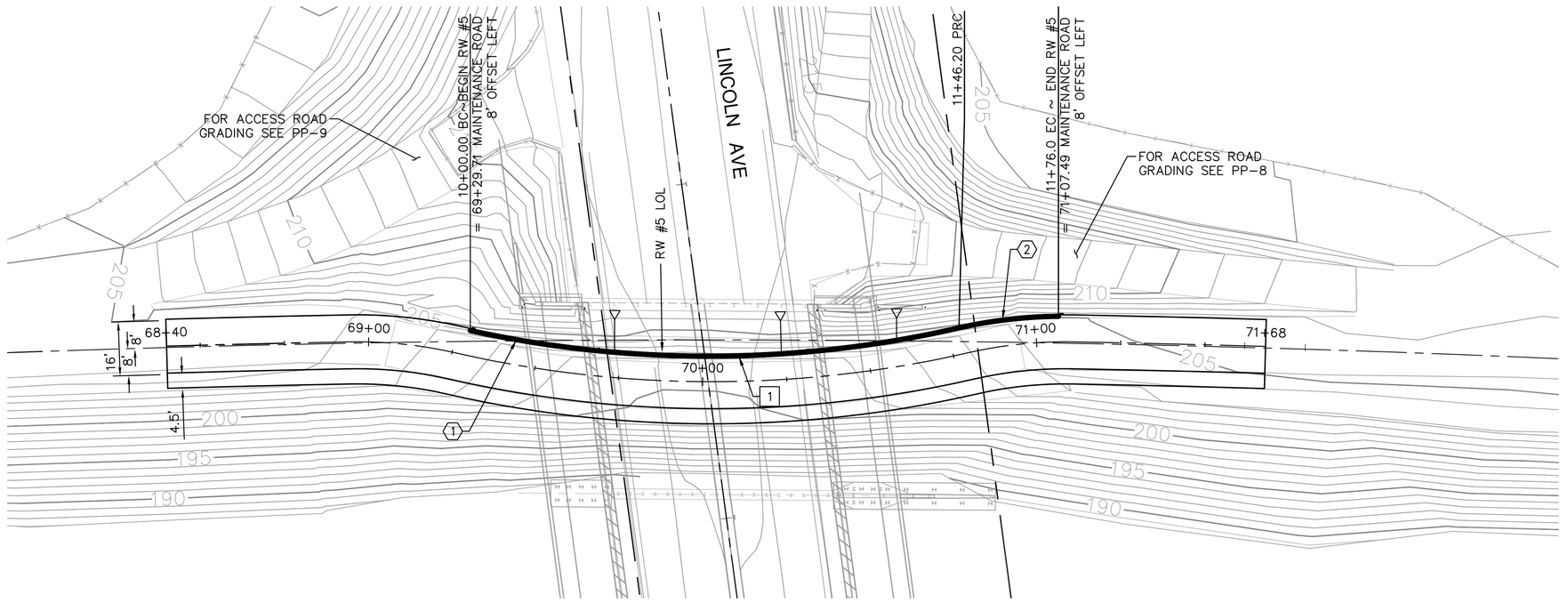
FILE NAME:B:\LincolnAveOverSAR\CAD\05.6-PRRtngWall4.dgn



RW #5

10+00 11+00 12+00

PROFILE



PLAN

SCALE: 1"=20'

CURVE DATA

No.	R	Δ	L	T
1	333.67'	25°06'16	146.20'	74.29'
2	138.00'	12°22'21"	29.80'	14.96'

CONSTRUCTION NOTES

1 CONSTRUCT MASONRY RETAINING WALL PER SPPWC STD PLAN NO. 618-3. TYPE B. OMIT MORTAR FROM VERTICAL JOINTS IN BOTH THE FIRST COURSE ABOVE FINISHED GRADE AND TOP COURSE AT 2'-8" CENTERS FOR WEEP HOLES. FILL ALL CELLS WITH GROUT.

SCALE
HORIZ: 1"=20'
VERT: 1"=4'

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER KENNETH C. TAYLOR NO. 54185 CIVIL ENGINEER STATE OF CALIFORNIA
4/26/2014 DATE
K. TAYLOR

DESIGNED BY: K. KRIEGER
DRAWN BY: P. REYES
CHECKED BY: K. TAYLOR
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/8/2013
SCALE: AS NOTED

ORANGE COUNTY PUBLIC WORKS

WILLDAN Engineering
2401 East Katella Ave, Suite 430, Anaheim, California 92806
(714) 978-8200 FAX (714) 978-8080

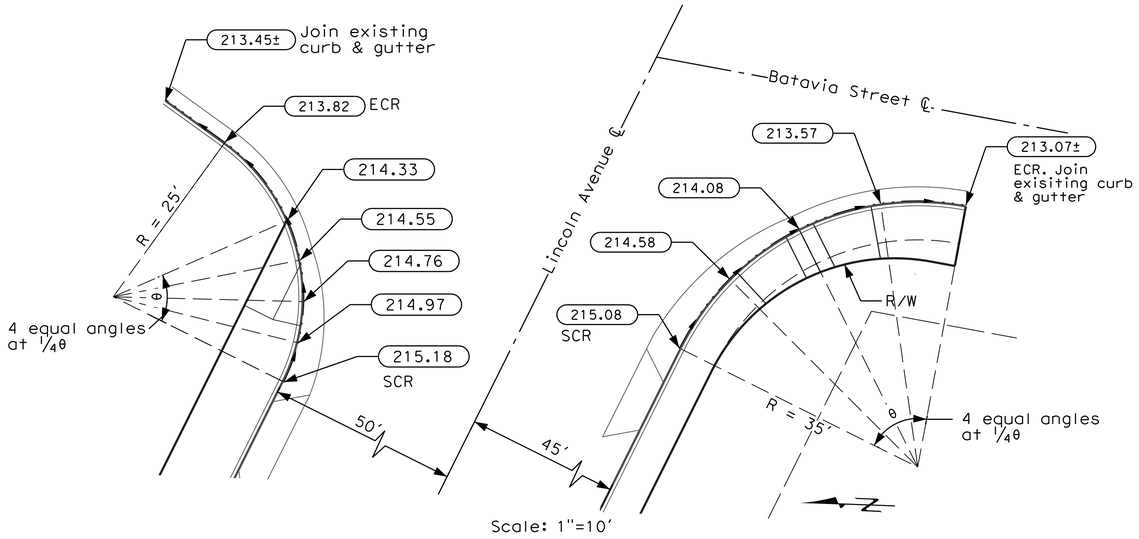
LINCOLN AVENUE WIDENING FROM RIO VISTA ST TO RIVERBEND PW
RETAINING WALL #5

SHEET REFERENCE NUMBER

RW 5

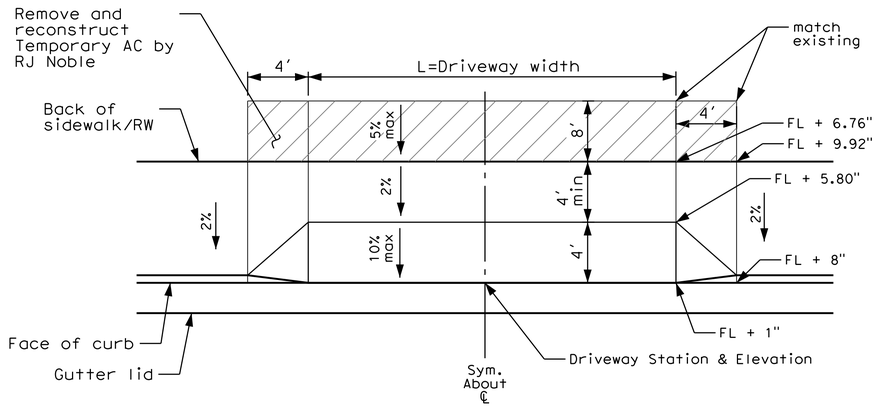
Sheet 24 Of 90

\\ANH-DC1\Division\101315 Lincoln Ave Bridge Proj\PS&E\plans\pl-WALL-A-03.dwg Plotted: 1/8/2013 3:07 PM



Scale: 1"=10'

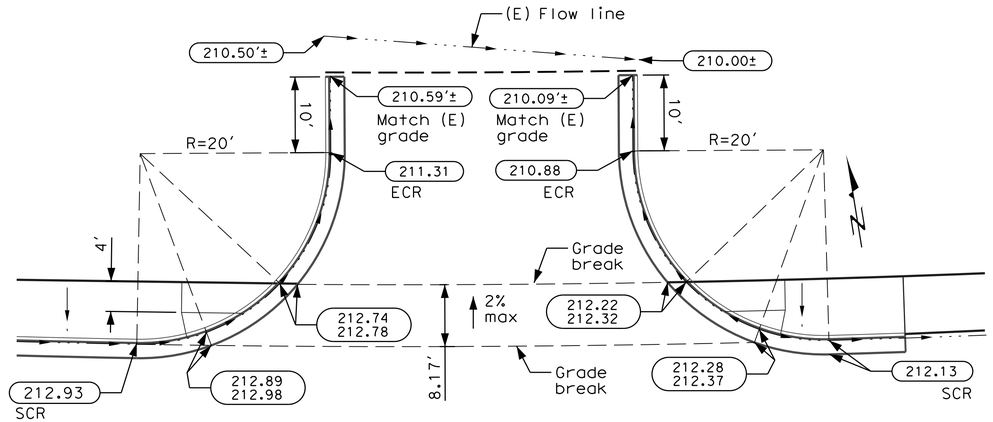
Curve Return Detail - Lincoln & Batavia



Driveway approach thickness shall be 8"
Depressed curb driveway approach shall per OCPW Std Plan 1209 except as shown.

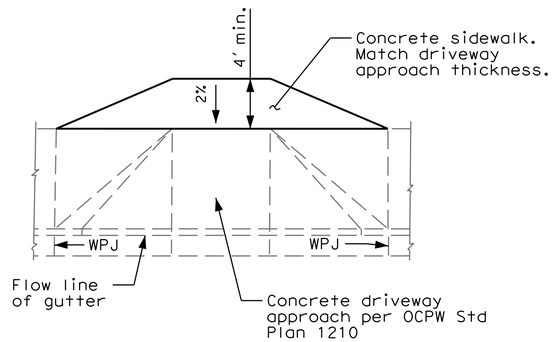
Driveway Approach Detail 1

Scale: 1"=5'



Scale: 1"=10'

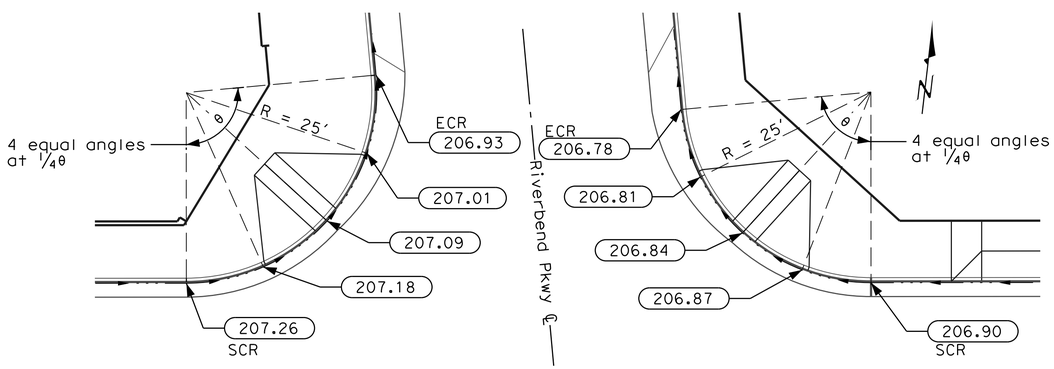
Curve Return Detail - Lincoln & RJ Noble Driveway



PLAN

Driveway Approach Detail 2

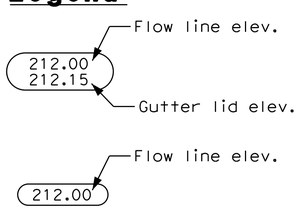
Scale: no-scale



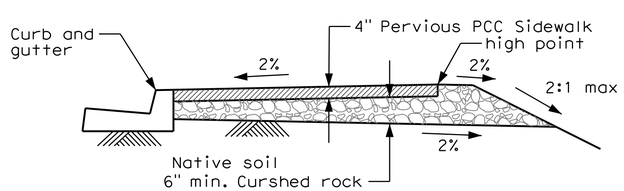
Scale: 1"=10'

Curve Return Detail - Lincoln & Riverbend

Legend:



ECR = end of curb return
SCR = start of curb return
(E) = existing



Pervious Sidewalk

Scale: no-scale

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER C. PHUNG No. 73985 Exp. 6/30/13 CIVIL STATE OF CALIFORNIA
1/24/2013 DATE
C. PHUNG

DESIGNED BY: C. PHUNG			
DRAWN BY: C. PHUNG	CHECKED BY: E. FRONDOSO	FILE NAME:	SCALE: AS SHOWN
DRAWING CODE:		PLOT DATE: 1/24/2013	

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

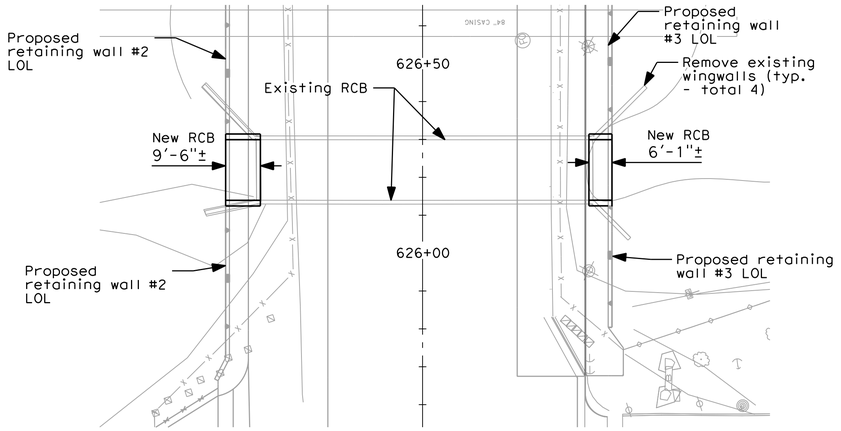
LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

Roadway Details

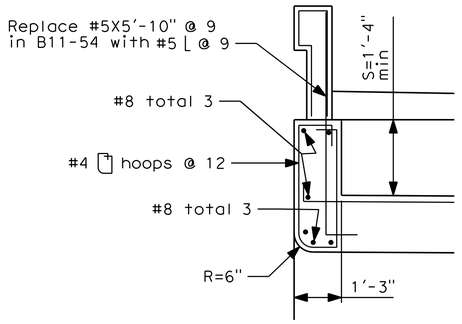
Sheet Reference Number

RD-1

FILE NAME:\\FileServer\Design\BridgeProjects\LincolnAveOverSAR\CAD\06.1-DetailCurbDrwy01.dgn

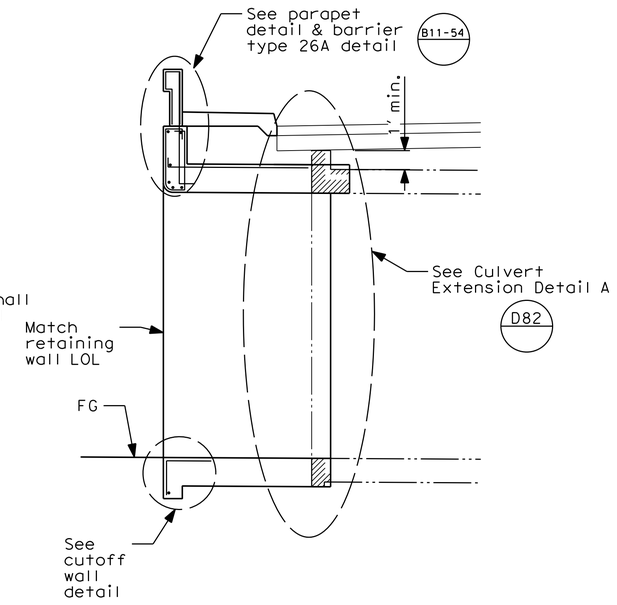


14"X16" REINFORCED CONCRETE BOX CULVERT (RCB)
PLAN

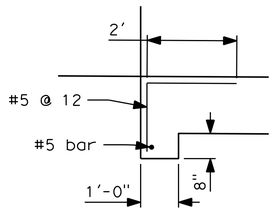


PARAPET DETAIL

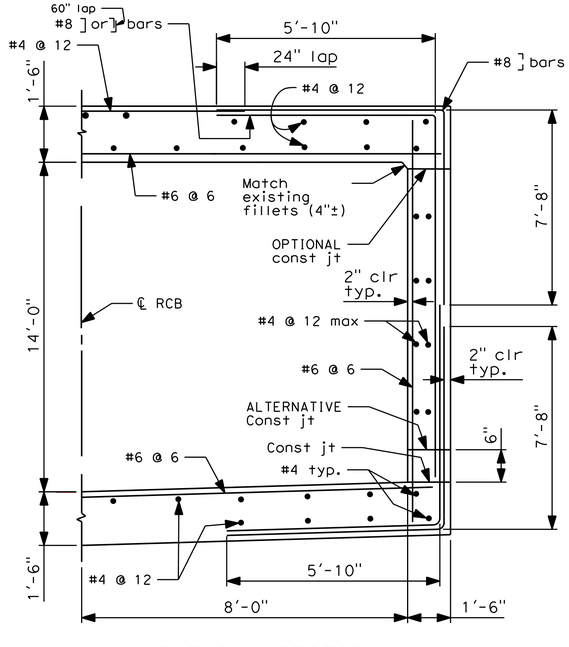
Type 26A barrier reinforcement shall per Caltrans Standard Plan B11-54 except as shown.



NORTH END SECTION
south end similar

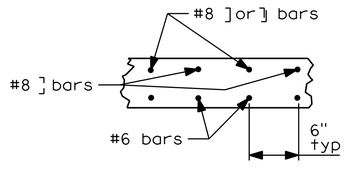


CUTOFF WALL DETAIL

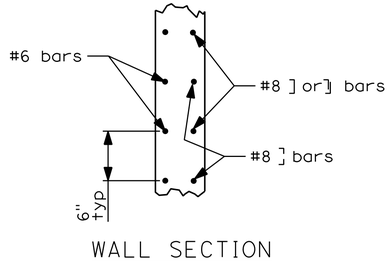


TYPICAL SECTION

Note:
For design and details not shown, see Standard Plan D82.



ROOF SECTION
INVERT SIMILAR



WALL SECTION

DESIGN NOTES:

Design Specifications:
AASHTO LRFD Bridge Design Specifications, 4th Edition with California Amendments.

Loading:
Live load: (AASHTO LRFD 3.6.1.2)
HL-93 consists of design truck or design tandem and design lane load.

Impact Factor: (Apply to roof slab only)
$IM = 33(1.0-0.125D_E) \geq 0\%$ (AASHTO LRFD 3.6.2.2)
D_E = minimum depth of earth cover

Earth load:
Earth pressure for two conditions: (per BDS 6.2.1)
140 pcf vertical, 35 pcf horizontal
140 pcf vertical, 100 pcf horizontal

Load Factors:
AASHTO LRFD Table 3.4.1.1 & Table 3.4.1.2

Unit stresses:
f'_c = 3600 psi
f_y = 60,000 psi

Distribution bars: #4 @ 12 maximum.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER C. PHUNG No. 73985 Exp 6/30/13 CIVIL STATE OF CALIFORNIA
C. PHUNG
1/26/2013
DATE

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/26/2013
SCALE: AS SHOWN

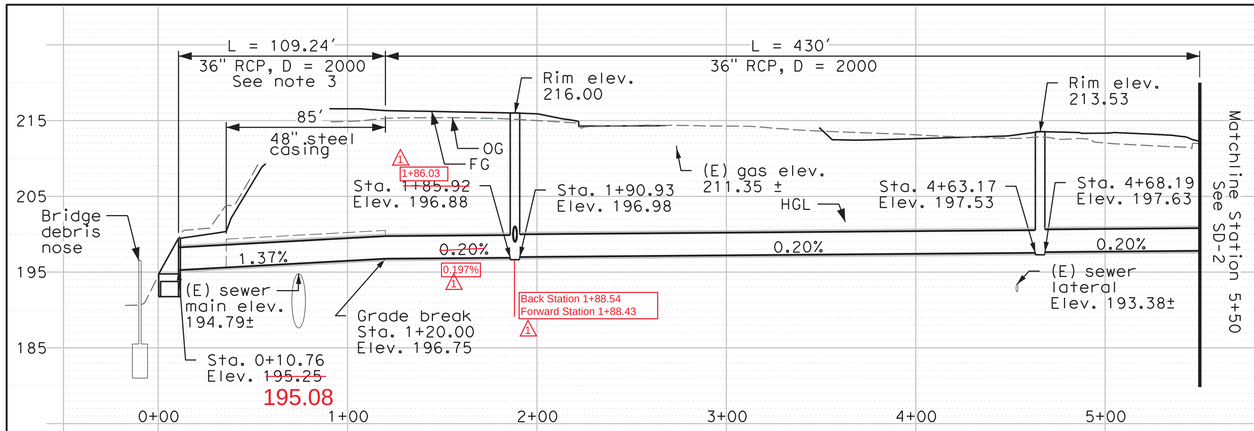
COUNTY OF ORANGE
OC PUBLIC WORKS
PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

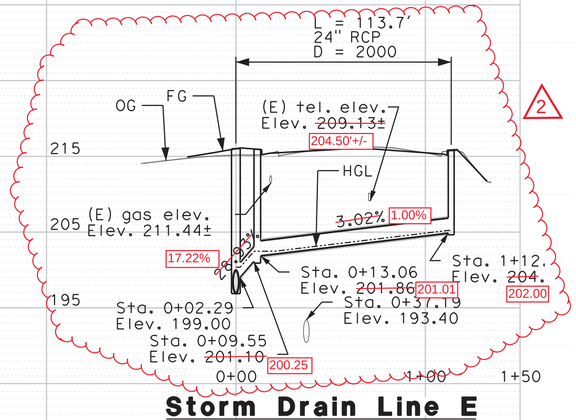
Box Culvert Details

Sheet Reference Number
BC-1

FILE NAME:B:\LincolnAveOverSAR\CAD\06.4-CulvertDetails01.dgn



Storm Drain Line A



Storm Drain Line E

SD Line	Station	Q10 (cfs)	So (%)	n	D (in)	V (fps)	dn (ft)	dc (ft)	Froude No.
A	0+10.76 to 1+20.00	34.48	1.37	0.015	36	9.62	1.52	1.90	1.55
	1+20.00 to 1+85.92	34.48	0.10	0.015	36	4.88	--	--	--
	1+90.93 to 4+63.17	30.15	0.10	0.015	36	4.27	--	--	--
	4+68.19 to 7+20.64	25.59	0.10	0.015	36	3.62	--	--	--
E	0+02.29 to 0+09.55	4.33	28.93	0.015	24	16.45	0.28	0.73	6.66
	0+13.07 to 1+12.66	2.60	3.02	0.015	24	6.38	0.37	0.56	2.20

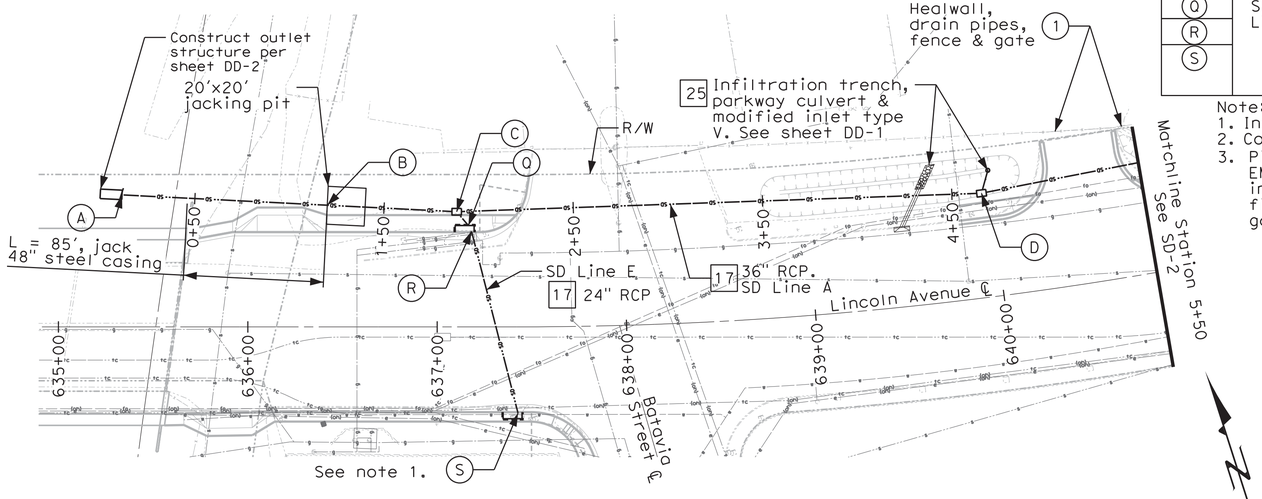
Hydraulic Data

CU.	EXC.	STA.	EXC.	CU.
YDS.	FILL		FILL	YDS.

PROFILE
HORIZ. 1"= 40'
VERT. 1"= 10'

Align. Note	SD Line	SD Line Station	Lincoln Ave ℄ Station	Offset frm Lincoln ℄	Note
(A)	SD Line A	0+10.76	635+33.79 / ~~635+33.60~~	73.68' / ~~96.68'~~ LT	See note 2
(B)		1+20.00	636+42.16 / ~~636+41.96~~	68.23' / ~~64.23'~~ LT	22
(C)		1+88.54 BS / 1+88.43 FS	637+10.30	60.79' LT	19
(D)		4+65.68	639+95.00	55.00' LT	19
(C)	SD Line E	0+00.00	See Line A		
(Q)		0+09.55	637+16.47	53.50 LT	
(R)		0+13.07	637+18.15	50.50 LT	18 L=10', 7
(S)		1+12.15	637+42.66	45.50 RT	18 L=10', 7 See note 1

Note:
1. Install Guardian Gate per Special Provisions.
2. Construct outlet structure per sheet DD-2.
3. Pipe should be per the requirement of EM1110-2-2902, which include but not limited to installation, flexible water tight joints and field testing of pipe joints. Use integral O-ring gasketed joint through the levee.



Plan
Scale: 1"=40'

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct concrete barrier & sidewalk (Type 26A Mod) per Caltrans Std Plan B11-54 and detail on sheet RW-2R1.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-0C.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

RECORD DRAWING
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.
1	Lower SD-E to avoid AT&T duck bank	4/7/2014	cf
2	Move SD-A 4' north to avoid old bridg abt	2/4/2014	cf

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER C. PHUNG No. 73985 Exp. 6/30/13 CIVIL STATE OF CALIFORNIA
3/5/2013 DATE
C. PHUNG

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 3/5/2013
SCALE: AS SHOWN

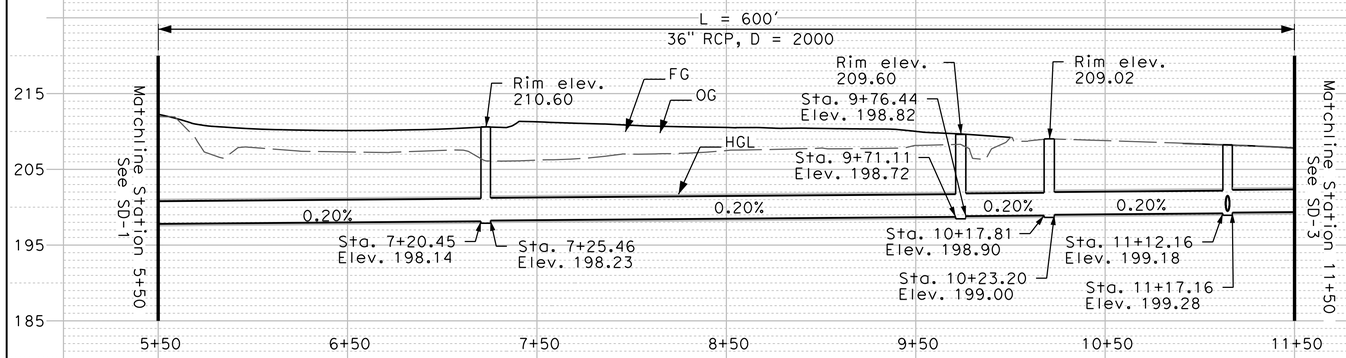
COUNTY OF ORANGE
OC PUBLIC WORKS
PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

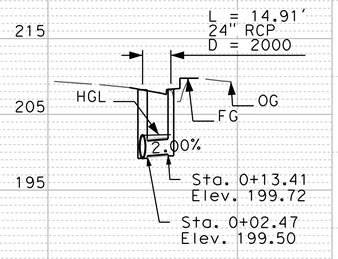
Storm Drain
Plan & Profile

Sheet Reference Number
SD-1 R1
Att 3 to Bulletin 2
Sheet 27 of 90

FILE NAME: S:\BridgeProjects\LincolnAveOverSAR\CAD\08.1-DrainagePP01 R1.dgn



Storm Drain Line A



Storm Drain Line D

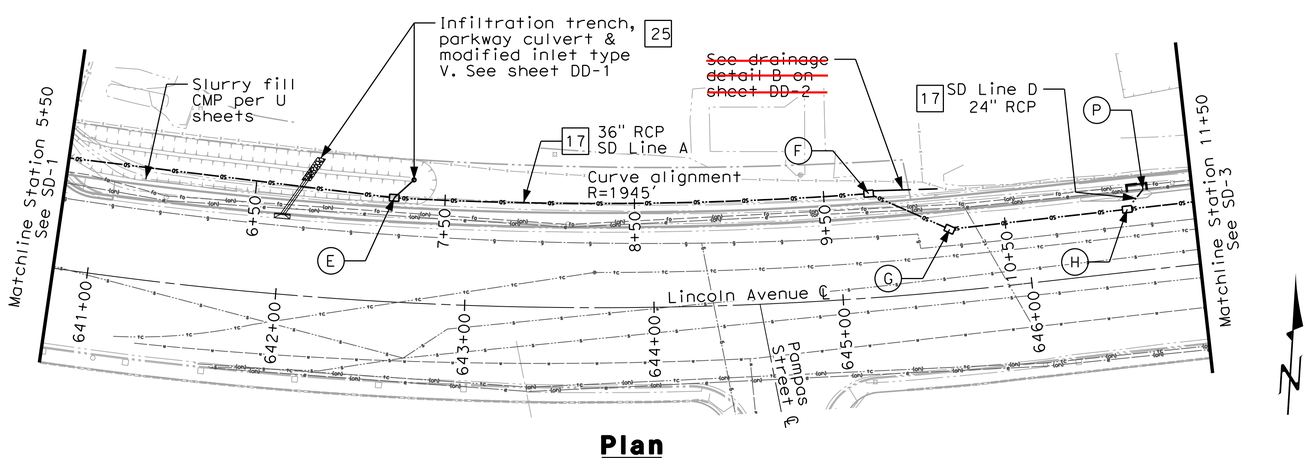
Line	Station	Q10 (cfs)	So (%)	n	D (in)	V (fps)	dn (ft)	dc (ft)	Froude No.
A	7+25.46 to 9+71.11	21.03	0.20	0.015	36	2.98	--	--	--
	9+76.44 to 10+17.81	16.47	0.20	0.015	36	2.33	--	--	--
	10+23.20 to 11+12.16	16.47	0.20	0.015	36	2.33	--	--	--
	11+17.16 to 11+80.86	12.44	0.20	0.015	36	1.76	--	--	--
D									
	0+02.47 to 0+13.41	4.03	2.00	0.015	24	1.28	--	--	--

Hydraulic Data

CU.	EXC.	STA.	STA.	EXC.	CU.
YDS.	FILL			FILL	YDS.

PROFILE
HORIZ. 1"= 40'
VERT. 1"= 10'

Align. Note	SD Line	SD Line Station	Lincoln Ave ℄ Station	Offset frm Lincoln ℄	Note
(E)	SD Line A	7+22.97	642+59.74	55.00' LT	19
(F)		9+73.62	645+17.48	55.00' LT	19
(G)		10+20.32	645+59.43	32.69' LT	19
(H)		11+14.67	646+54.36	33.00' LT	19
	SD Line D				
(H)		0+00.00	See Line A		
(P)		0+13.41	646+63.83	42.50 LT	18 L=10', 7



Plan

Scale: 1"=40'

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung

CONTRACT NO.: ER09343

DATE: 03/13/2015

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct concrete barrier & sidewalk (type 26) per Caltrans Std Plan B11-54.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER C. PHUNG No. 73985 Exp. 6/2013 CIVIL STATE OF CALIFORNIA
1/24/2013 DATE
C. PHUNG

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/24/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

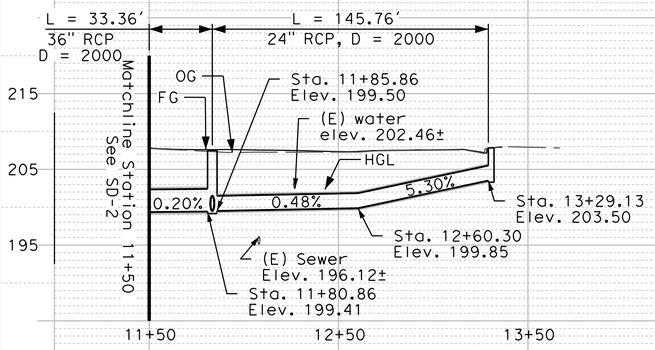
LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

Storm Drain
Plan & Profile

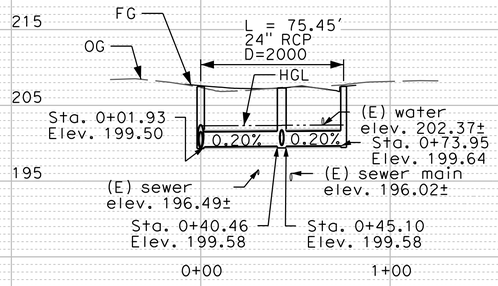
Sheet Reference Number
SD-2

Sheet 28 of 90

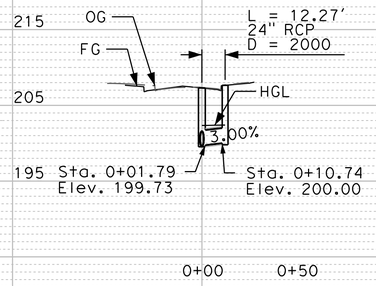
FILE NAME:\\FileServer\Design\BridgeProjects\LincolnAveOverSAR\CAD\08.1-DraingePP02.dgn



Storm Drain Line A



Storm Drain Line B



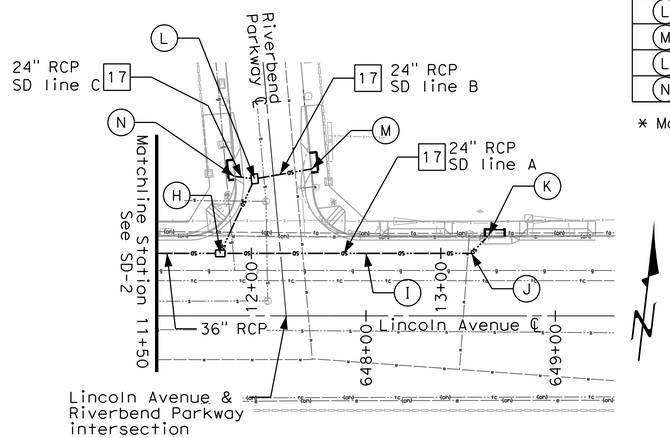
Storm Drain Line C

Line	Station	Q10 (cfs)	So (%)	n	D (in)	V (fps)	dn (ft)	dc (ft)	Froude No.
A	11+85.86 TO 12+60.30	6.92	0.48	0.015	36	2.20	--	--	--
	12+60.30 TO 13+16.04	6.92	5.30	0.015	36	10.38	0.53	0.93	2.98
	13+16.04 to 13+29.13	6.92	5.30	0.015	36	10.38	0.53	0.93	2.98
B	0+01.93 to 0+40.46	5.52	0.20	0.015	24	1.76	--	--	--
	0+45.10 to 0+73.95	4.07	0.20	0.015	24	1.30	--	--	--
C	0+01.79 to 0+10.74	1.45	3.00	0.015	24	0.46	--	--	--

Hydraulic Data

CU.	EXC.	STA.	EXC.	CU.
YDS.	FILL		FILL	YDS.

PROFILE
HORIZ. 1"=40'
VERT. 1"=10'



Plan

Scale: 1"=40'

Align. Note	SD Line	SD Line Station	Lincoln Ave ℄ Station	Offset frm Lincoln ℄	Note
H	SD Line A	11+83.37	647+23.07	33.00' LT	26
I		12+60.30	648+00.00	33.00' LT	22
J		13+16.04	648+55.74	33.00' LT	22
K		13+29.13	648+64.74	42.50' LT	18 L=10', 7 *
H	SD Line B	0+00.00			See SD Line A
L		0+43.35	647+41.24	72.36' LT	26
M		0+73.95	647+71.39	77.56' LT	18 L=10', 7
L	SD Line C	0+00.00			See SD Line B
N		0+10.74	647+30.58	73.64' LT	18 L=10', 7

* Modified local depression per detail on Sheet DD-2.

NO RECORD DRAWING CHANGES

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct concrete barrier & sidewalk (type 26) per Caltrans Std Plan B11-54.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-0C.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

MARK	DESCRIPTION	DATE	APPR.

COUNTY OF ORANGE CALIFORNIA

PREPARED UNDER THE RESPONSIBLE CHARGE OF: C. PHUNG — 1/24/2013 DATE

REGISTERED PROFESSIONAL ENGINEER — C. PHUNG — No. 73985 — Exp. 6/2013 — CIVIL — STATE OF CALIFORNIA

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/24/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS

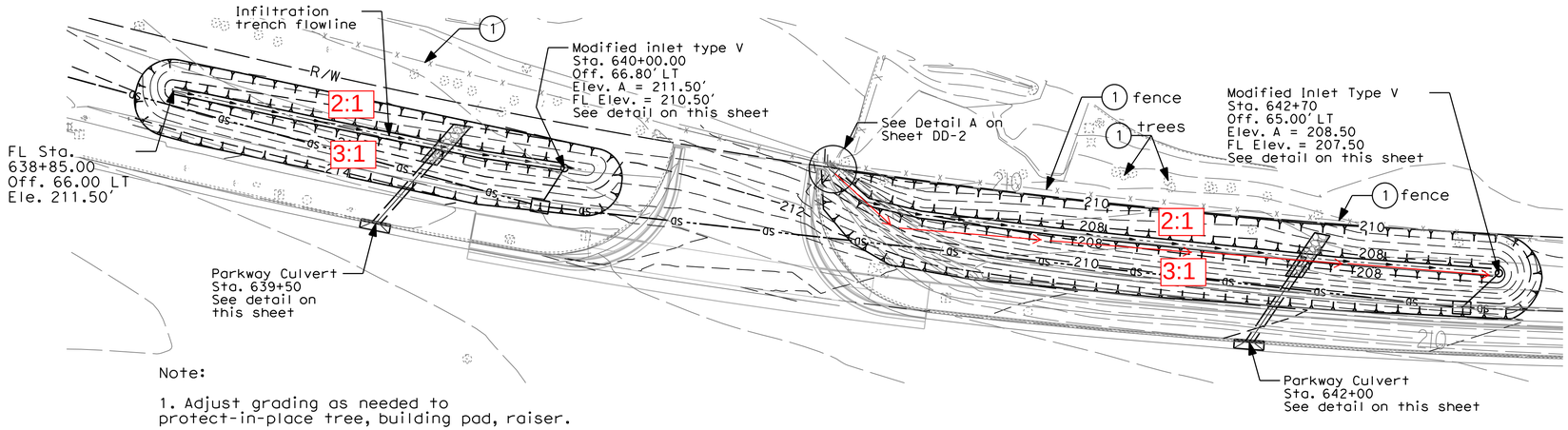
PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

Storm Drain
Plan & Profile

Sheet Reference Number
SD-3

FILE NAME:\\FileServer\Design\BridgeProjects\LincolnAveOverSAR\CAD\08.1-DraingePP03.dgn



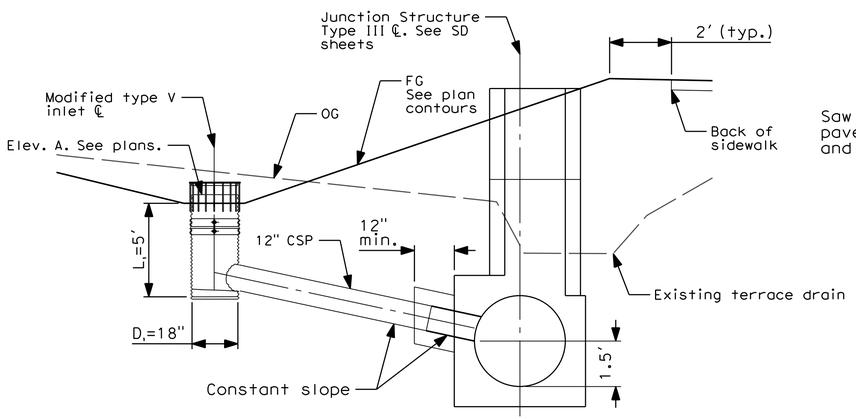
Note:

1. Adjust grading as needed to protect-in-place tree, building pad, raiser.

2. Protect in place all power/utility poles.

Infiltration Trench

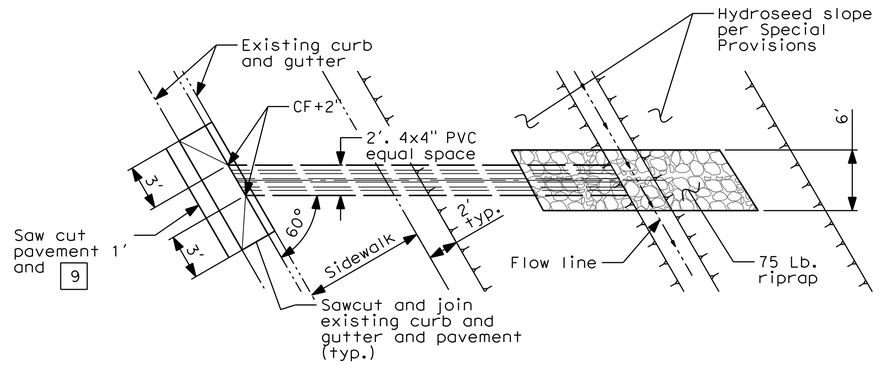
NTS



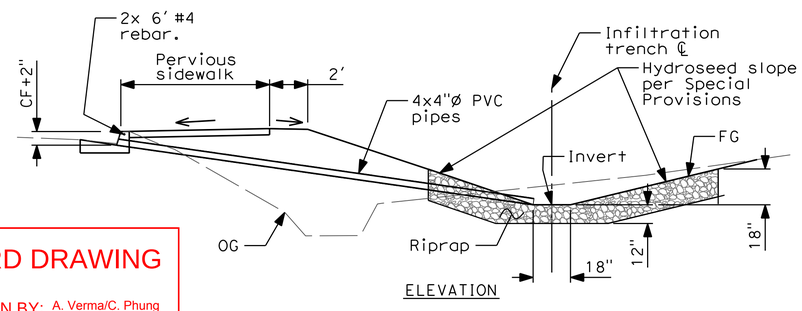
Note: Modified Inlet Type V and Junction Structure Type III shall per OCPW Standard Plans 1305 and 1312 except as shown.

Modified Inlet Type V

NTS



PLAN



ELEVATION

Parkway Culvert

NTS

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung

CONTRACT NO.: ER09343

DATE: 03/13/2015

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct concrete barrier & sidewalk (type 26) per Caltrans Std Plan B11-54.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

REGISTERED PROFESSIONAL ENGINEER — CHI PHUNG — No. 73985 — Exp. 6/2013 — CIVIL — STATE OF CALIFORNIA

1/24/2013 DATE

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/24/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

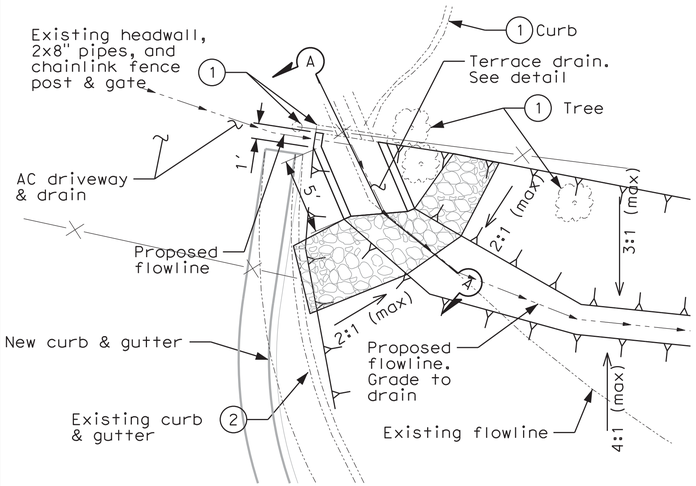
Lincoln Avenue Drainage Details

Sheet Reference Number

DD-1

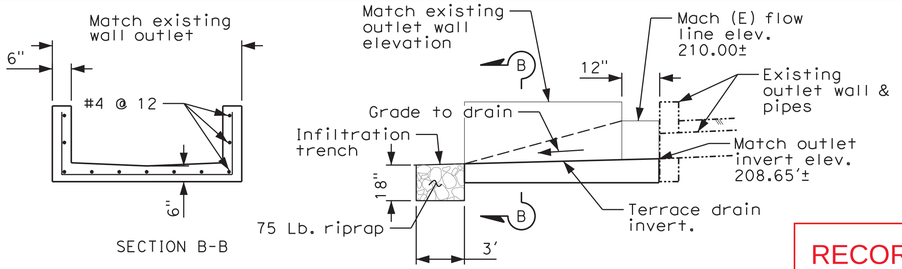
Sheet 30 of 90

FILE NAME:\\FileServer\Design\BridgeProjects\LincolnAveOverSAR\CAD\08.2-DrainageDetails01.dgn



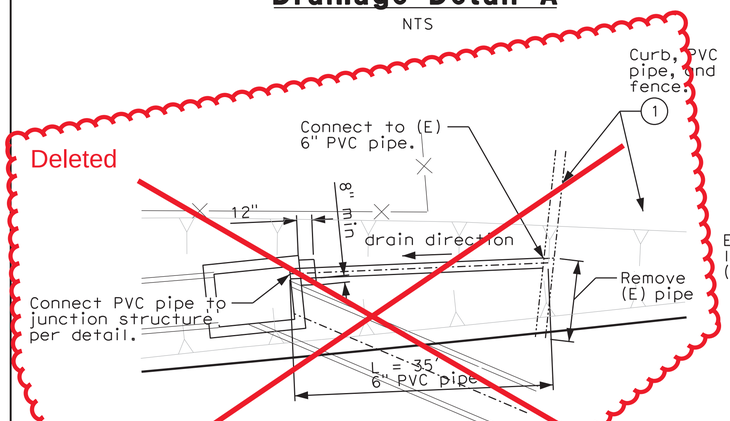
Drainage Detail A

NTS



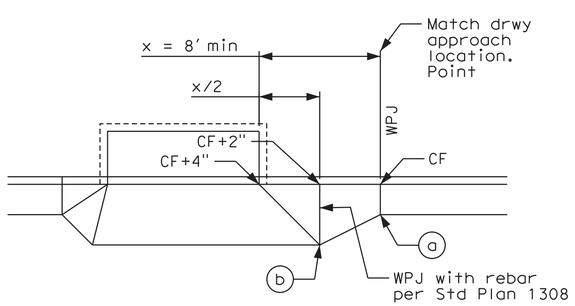
Terrace Drain

Deleted



Drainage Detail B

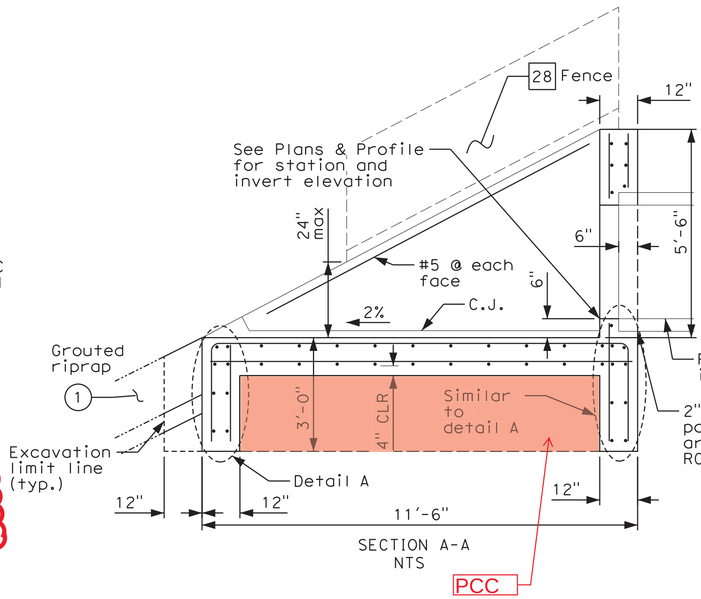
NTS

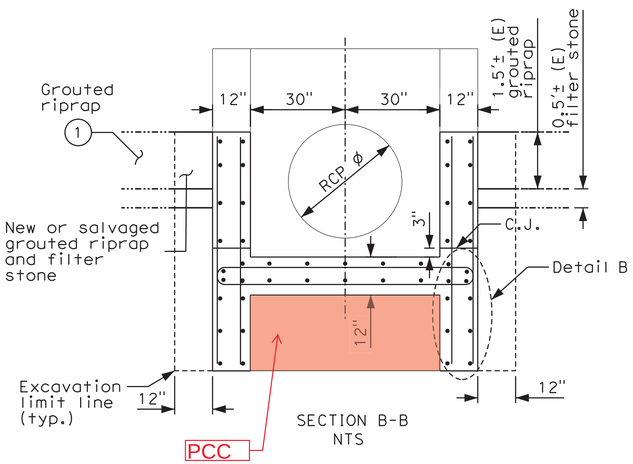


Modified local depression shall per OCWP Standard Plan 1308 except as shown

Modified Local Depression

NTS

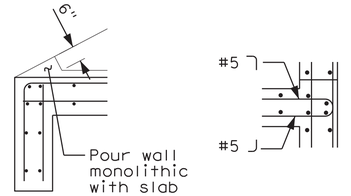




Note:
f'c = 3250 psi
fy = 60,000 psi
All reinforcement is #5 @ 12 with 3" clear cover except as shown.

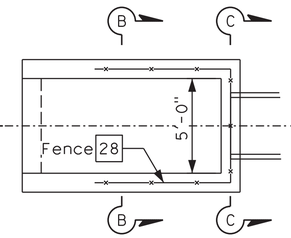
Outlet Structure

NTS

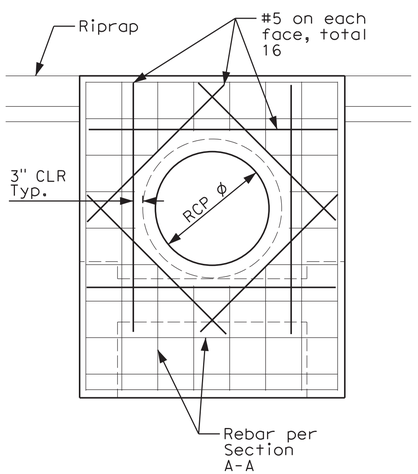


DETAIL A
NTS

DETAIL B
NTS



PLAN
NTS



SECTION C-C
NTS

CONSTRUCTION NOTES

1. Construct pervious PCC sidewalk per OCPW std. plan 1205 and Sheet RD-1.
2. Construct type A2-8 curb & gutter per OCPW std. plan 120-1-OC.
3. Construct curb ramp (type 1) per OCPW std. plan 1115 and Sheet RD-1.
4. Construct flared depressed curb driveway approach per OCPW std. plan 1210 & detail 2 on Sheet RD-1.
5. Construct depressed curb driveway approach per OCPW std. plan 1209 & detail 1 on Sheet RD-1.
6. Construct curb ramp (type 2) per OCPW std. plan 1115 and Sheet RD-1.
7. Construct local depression per OCPW Std. Plan 1308.
8. Sawcut and remove exist C&G, sidewalk & structural section.
9. Construct pavement using a structural section of 0.15' ARHM/0.35' WMAC/0.8'CMB.
10. Cold mill and overlay existing pavement using ARHM (0.15' min.)
11. Construct curb ramp (type 7) per OCPW Std. plan 1115 and details.
12. Construct retaining wall per Caltrans Std Plans and RW sheets.
13. Remove and reconstruct access road using a structrual section of 0.35' WMAC/0.50'CMB.
14. Construct 4" air placed concrete slope with 6"x6" W1.4 W.W.M. (slope varies) per access ramp sheets.
15. Remove AC/PCC biketrail and reconstruct class I biketrail, riding & hiking trail using a structural section of 0.5'PCC/0.5'CMB.
16. Construct sound wall per RW sheets.
17. Construct reinforced concrete pipe per SD sheets and OCPW Std Plan 1319.
18. Construct inlet type II per OCWP Std Plan 1302.
19. Construct junction structure type III per OCPW Std Plan 1312.
20. Construct pipe entrance to earth channel per OCPW Std Plan 1326.
21. Construct Concrete Barrier (Type 26A Modified) per detail on sheet RW-2R1.
22. Construct reinforced concrete collar per OCPW Std Plan 1317.
23. Construct 24' driveway approach per Anaheim Std Plan 115-B. (R=10', T=3.5")
24. Construct curb ramp (type 3, detail D) per Anaheim Std Plan 111-3.
25. Construct infiltration trench per sheet DD-1.
26. Construct junction structure type I per OCPW Std Plan 1310.
27. Construct impervious PCC sidewalk per OCPW std. plan 1205.
28. Construct 6' chain link fence and gate per OCWP Std plan 600-1-OC.
29. Slurry seal asphalt cracks per plan and specification

WMAC = warm mix asphalt concrete
ARHM = asphalt rubber hot mix
CMB = crushed miscellaneous base
PCC = Portland cement concrete
RCP = reinforced concrete pipe

DISPOSITION

1. Protect in place
2. Remove
3. Relocate
4. Adjust to grade
5. To be relocated by others
6. To be Removed by others
7. To be adjusted to grade by others
8. Sawcut and join existing
9. Sawcut and remove interfering portions
10. Grade to drain

Note: The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

RECORD DRAWING
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER — C.D. PHUNG — No. 73985 — Exp. 6/30/13 — CIVIL — STATE OF CALIFORNIA
3/5/2013 DATE
C.D. PHUNG

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 3/5/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS
PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

Lincoln Avenue Drainage Details

Sheet Reference Number
DD-2 R1
Att 3 to Bulletin 2
Sheet 31 of 90

FILE NAME:S:\BridgeProjects\LincolnAveOverSAR\CAD\08.2-DrainageDetails02ACOE.dgn

Utility Owner

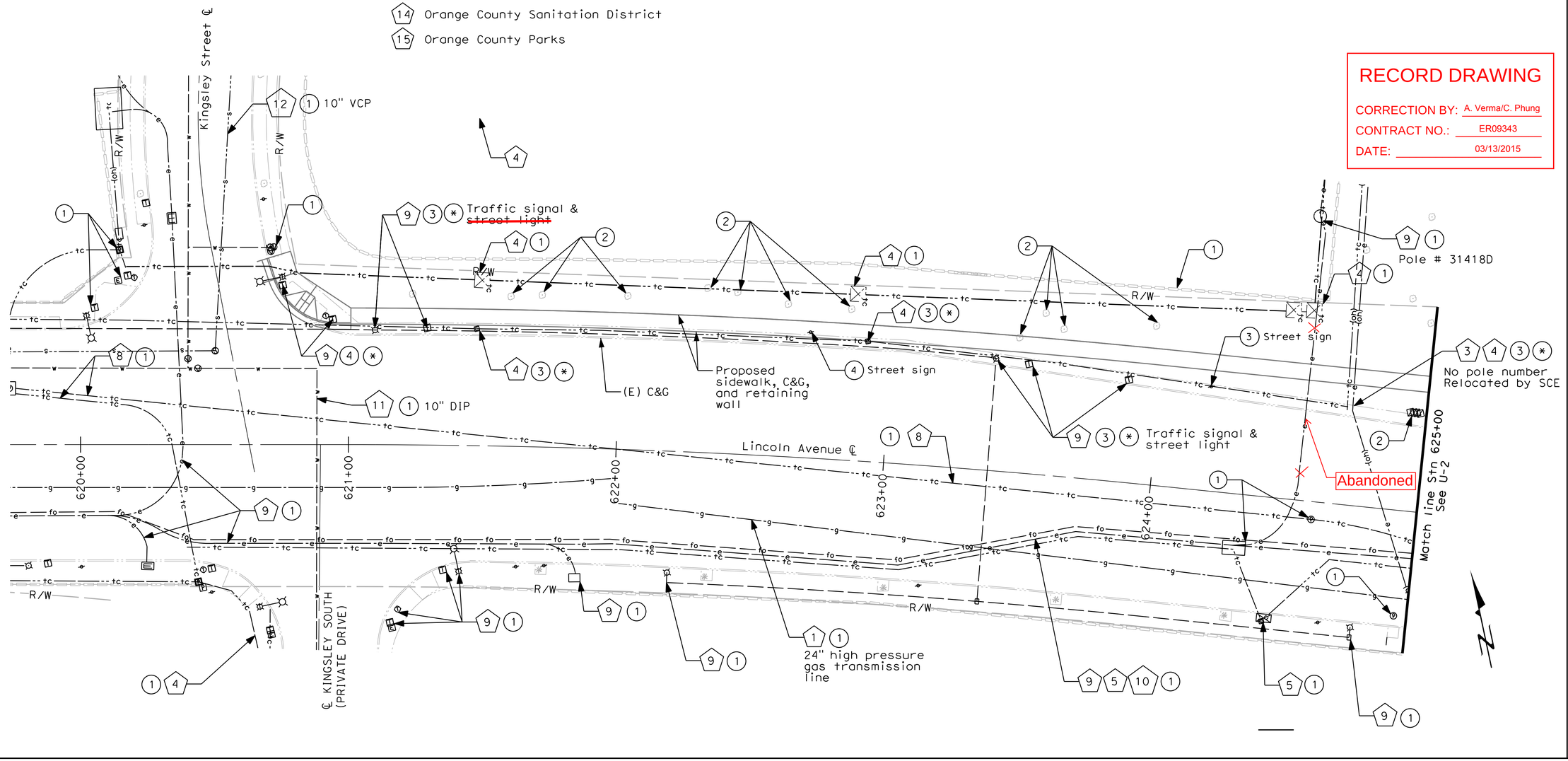
1. Southern California Gas, Transmission
2. Southern California Gas, Distribution
3. Southern California Edision
4. Time Warner Cable
5. MCI Network Services
6. Level (3)
7. Orange County Water District
8. AT&T, California PacBell & Long Distance
9. City of Anaheim, Electrical
10. City of Anaheim, Fiber Optic
11. City of Anaheim, Water
12. City of Anaheim, Public Works
13. City of Orange, Water
14. Orange County Sanitation District
15. Orange County Parks

LEGEND

- Denotes existing
- Denotes proposed
- ± Indicates approximate dimension, to be verified by Contractor
- Caltrans Standard Plans
- (1) Protect in place
- (2) Remove
- (3) Relocate
- (4) Adjust to grade
- (11) Replace and relocate
- (*) Work to be done by utility owner

Caltrans Stnd Plans: Abbreviations/ Line and Symbols (A10A, A10B, A10C, A10D, and A10E.)

- Control box
- Pull box - cable TV
- Pull box - eletrical
- Pull box - telephone
- Pull box - traffic
- Pull box - unknown
- Light pole - single
- Drop inlet
- Fire hydrant
- Guy anchor
- Irrigation stand pipe
- Vent pipe
- Utility pole
- Vault box - telephone
- Utility box/vault
- Palm tree
- Pipe inlet/outlet
- Post
- Manhole - sewer
- Manhole - telephone
- Sign
- Tree
- Valve
- Meter - gas
- Meter - water
- Meter - unknown
- Traffic signal
- Traffic signal with light



RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
CIVIL ENGINEER LARRY QUACH No.C073951 REGISTERED CIVIL ENGINEER STATE OF CALIFORNIA
LARRY QUACH
DATE 03/13/2015

DESIGNED BY: L. QUACH
DRAWN BY: L. QUACH
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/26/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

Utilities

Sheet Reference Number

U-1

FILE NAME:B:\LincolnAveOverSAR\CAD\09-Utilities01.dgn

Utility Owner

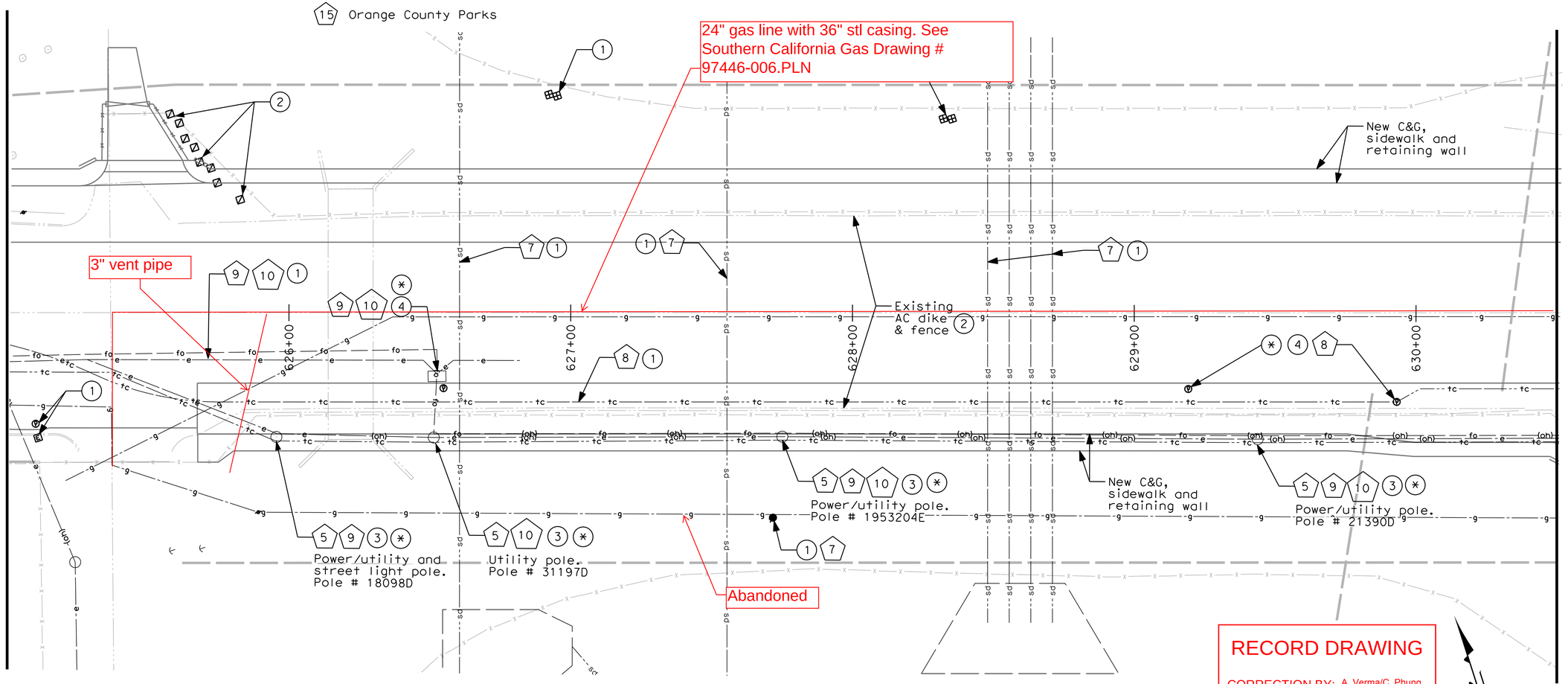
1. Southern California Gas, Transmission
2. Southern California Gas, Distribution
3. Southern California Edision
4. Time Warner Cable
5. MCI Network Services
6. Level (3)
7. Orange County Water District
8. AT&T, California PacBell & Long Distance
9. City of Anaheim, Electrical
10. City of Anaheim, Fiber Optic
11. City of Anaheim, Water
12. City of Anaheim, Public Works
13. City of Orange, Water
14. Orange County Sanitation District
15. Orange County Parks

LEGEND

- Denotes existing
- Denotes proposed
- ± Indicates approximate dimension, to be verified by Contractor
- Caltrans Standard Plans
- (1) Protect in place
- (2) Remove
- (3) Relocate
- (4) Adjust to grade
- (11) Replace and relocate
- (*) Work to be done by utility owner

Caltrans Stnd Plans: Abbreviations/ Line and Symbols (A10A, A10B, A10C, A10D, and A10E.)

- Control box
- Pull box - cable TV
- Pull box - eletrical
- Pull box - telephone
- Pull box - traffic
- Pull box - unknown
- Light pole - single
- Drop inlet
- Fire hydrant
- Guy anchor
- Irrigation stand pipe
- Vent pipe
- Utility pole
- Vault box - telephone
- Utility box/vault
- Palm tree
- Pipe inlet/outlet
- Post
- Manhole - sewer
- Manhole - telephone
- Sign
- Tree
- Valve
- Meter - gas
- Meter - water
- Meter - unknown
- Traffic signal
- Traffic signal with light



RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED CIVIL ENGINEER ★ CALIFORNIA ★ No C075951 ★ CIVIL ★ STATE OF
LARRY QUACH
DATE 1/26/2013

DESIGNED BY: L. OUACH
DRAWN BY: L. OUACH
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/26/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

Utilities

Sheet Reference Number

U-2

FILE NAME:B:\LincolnAveOverSAR\CAD\09-Utilities02.dgn

LEGEND

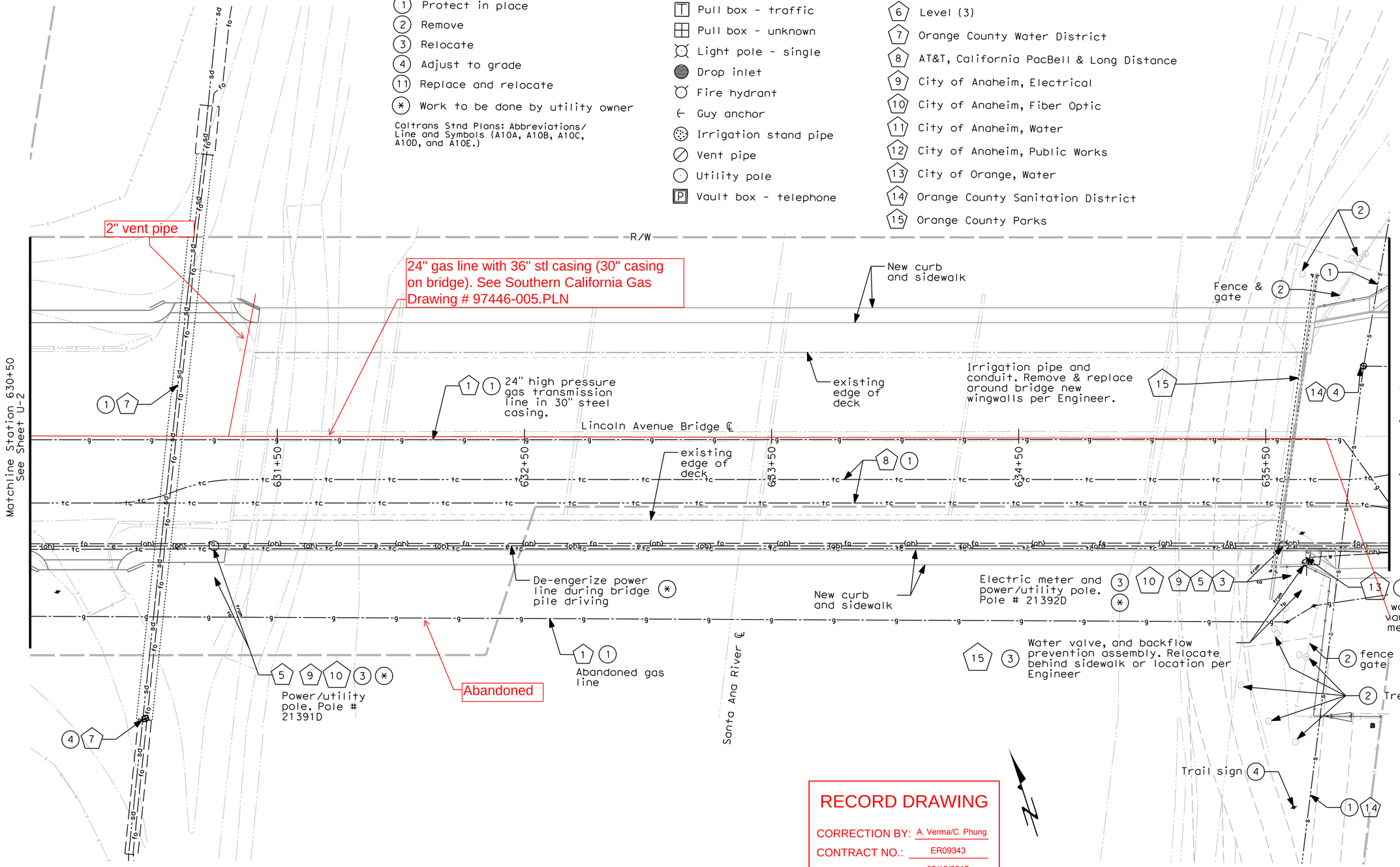
- Denotes existing
- Denotes proposed
- ± Indicates approximate dimension, to be verified by Contractor
- Caltrans Standard Plans
- (1) Protect in place
- (2) Remove
- (3) Relocate
- (4) Adjust to grade
- (11) Replace and relocate
- (*) Work to be done by utility owner

Caltrans Stnd Plans: Abbreviations/ Line and Symbols (A10A, A10B, A10C, A10D, and A10E.)

- Control box
- Pull box - cable TV
- Pull box - eletrical
- Pull box - telephone
- Pull box - traffic
- Pull box - unknown
- Light pole - single
- Drop inlet
- Fire hydrant
- Guy anchor
- Irrigation stand pipe
- Vent pipe
- Utility pole
- Vault box - telephone

Utility Owner

1. Southern California Gas, Transmission
2. Southern California Gas, Distribution
3. Southern California Edision
4. Time Warner Cable
5. MCI Network Services
6. Level (3)
7. Orange County Water District
8. AT&T, California PacBell & Long Distance
9. City of Anaheim, Electrical
10. City of Anaheim, Fiber Optic
11. City of Anaheim, Water
12. City of Anaheim, Public Works
13. City of Orange, Water
14. Orange County Sanitation District
15. Orange County Parks



RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung

CONTRACT NO.: ER09343

DATE: 03/13/2015

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER D. PHUNG — No. 73985 — Exp. 6/30/13 — CIVIL — STATE OF CALIFORNIA

1/26/2013 DATE

DESIGNED BY: C. PHUNG	CHECKED BY: E. FRONDOSO
DRAWN BY: C. PHUNG	DRAWING CODE:
FILE NAME:	SCALE: AS SHOWN
PLOT DATE: 1/26/2013	

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

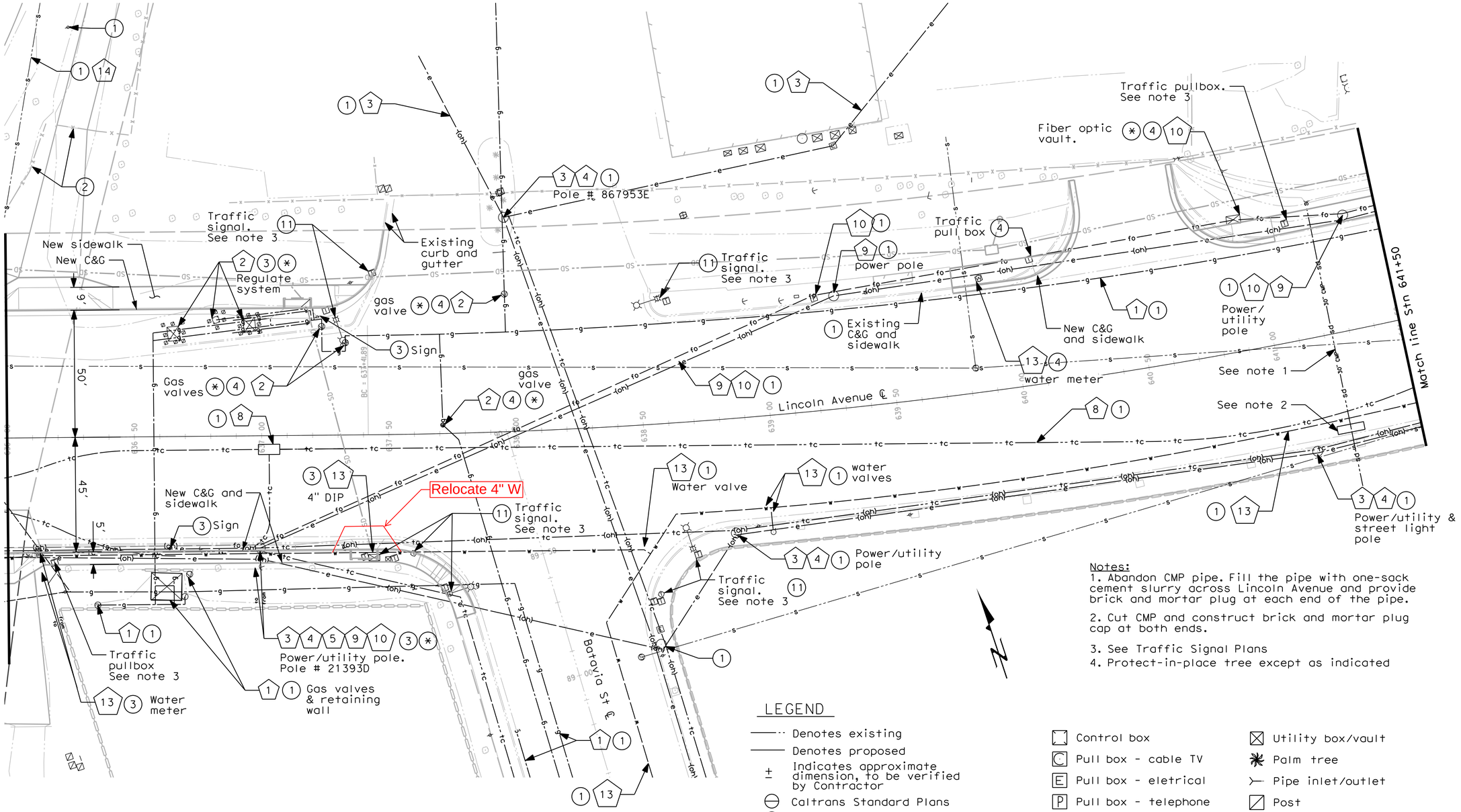
LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

Utilities

Sheet Reference Number

U-3

FILE NAME:B:\LincolnAveOverSAR\CAD\09-Utilities03.dgn



Utility Owner

1. Southern California Gas, Transmission
2. Southern California Gas, Distribution
3. Southern California Edision
4. Time Warner Cable
5. MCI Network Services
6. Level (3)
7. Orange County Water District
8. AT&T, California PacBell & Long Distance
9. City of Anaheim, Electrical
10. City of Anaheim, Fiber Optic
11. City of Anaheim, Water
12. City of Anaheim, Public Works
13. City of Orange, Water
14. Orange County Sanitation District
15. Orange County Parks

LEGEND

- Denotes existing
- Denotes proposed
- ± Indicates approximate dimension, to be verified by Contractor
- Caltrans Standard Plans
- (1) Protect in place
- (2) Remove
- (3) Relocate
- (4) Adjust to grade
- (11) Replace and relocate
- (*) Work to be done by utility owner

Caltrans Stnd Plans: Abbreviations/ Line and Symbols (A10A, A10B, A10C, A10D, and A10E.)

- Control box
- Pull box - cable TV
- Pull box - eletrical
- Pull box - telephone
- Pull box - traffic
- Pull box - unknown
- Light pole - single
- Drop inlet
- Fire hydrant
- Guy anchor
- Irrigation stand pipe
- Vent pipe
- Utility pole
- Vault box - telephone
- Utility box/vault
- Palm tree
- Pipe inlet/outlet
- Post
- Manhole - sewer
- Manhole - telephone
- Sign
- Tree
- Valve
- Meter - gas
- Meter - water
- Meter - unknown
- Traffic signal
- Traffic signal with light

Notes:

1. Abandon CMP pipe. Fill the pipe with one-sack cement slurry across Lincoln Avenue and provide brick and mortar plug at each end of the pipe.
2. Cut CMP and construct brick and mortar plug cap at both ends.
3. See Traffic Signal Plans
4. Protect-in-place tree except as indicated

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE
CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER — C. PHUNG — No. 73985 — Exp. 6/30/13 — CIVIL — STATE OF CALIFORNIA
1/30/2013 DATE
C. PHUNG

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/30/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

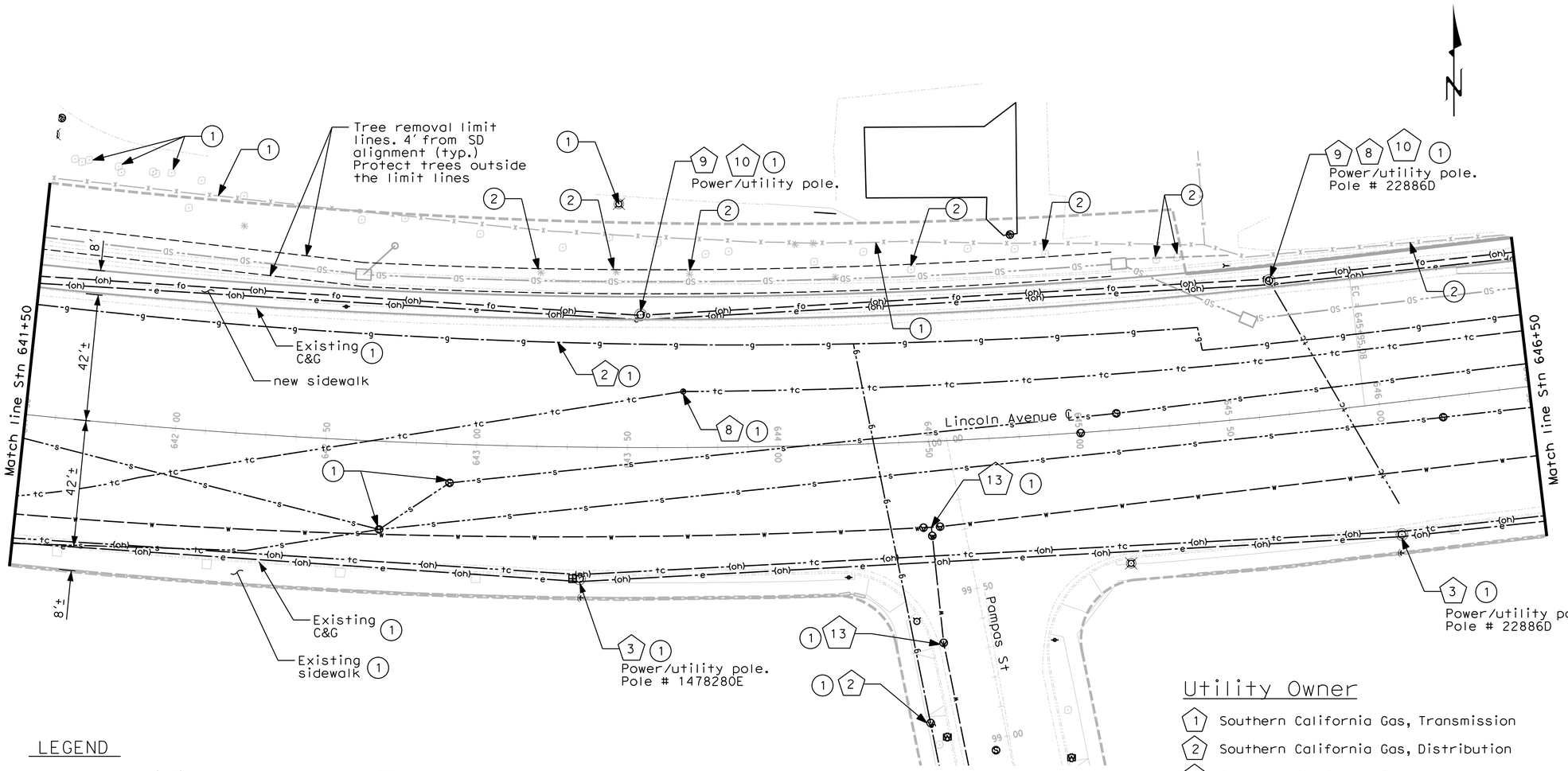
Utilities

Sheet Reference Number

U-4

Sheet 35 of 90

FILE NAME B:\LincolnAveOverSAR\CAD\09-Utilities04.dgn



LEGEND

- Denotes existing
- Denotes proposed
- ± Indicates approximate dimension, to be verified by Contractor
- Caltrans Standard Plans
- (1) Protect in place
- (2) Remove
- (3) Relocate
- (4) Adjust to grade
- (11) Replace and relocate
- (*) Work to be done by utility owner

Caltrans Stnd Plans: Abbreviations/ Line and Symbols (A10A, A10B, A10C, A10D, and A10E.)

- Control box
- Pull box - cable TV
- Pull box - eletrical
- Pull box - telephone
- Pull box - traffic
- Pull box - unknown
- Light pole - single
- Drop inlet
- Fire hydrant
- Guy anchor
- Irrigation stand pipe
- Vent pipe
- Utility pole
- Vault box - telephone
- Utility box/vault
- Palm tree
- Pipe inlet/outlet
- Post
- Manhole - sewer
- Manhole - telephone
- Sign
- Tree
- Valve
- Meter - gas
- Meter - water
- Meter - unknown
- Traffic signal
- Traffic signal with light

Utility Owner

1. Southern California Gas, Transmission
2. Southern California Gas, Distribution
3. Southern California Edision
4. Time Warner Cable
5. MCI Network Services
6. Level (3)
7. Orange County Water District
8. AT&T, California PacBell & Long Distance
9. City of Anaheim, Electrical
10. City of Anaheim, Fiber Optic
11. City of Anaheim, Water
12. City of Anaheim, Public Works
13. City of Orange, Water
14. Orange County Sanitation District
15. Orange County Parks

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER C. PHUNG No. 73985 Exp. 6/30/13 CIVIL STATE OF CALIFORNIA
C. PHUNG
3/5/2013 DATE

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 3/5/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

Utilities

Sheet Reference Number

U-5 R1

Att 4 to Bulletin 2

Sheet 36 of 90

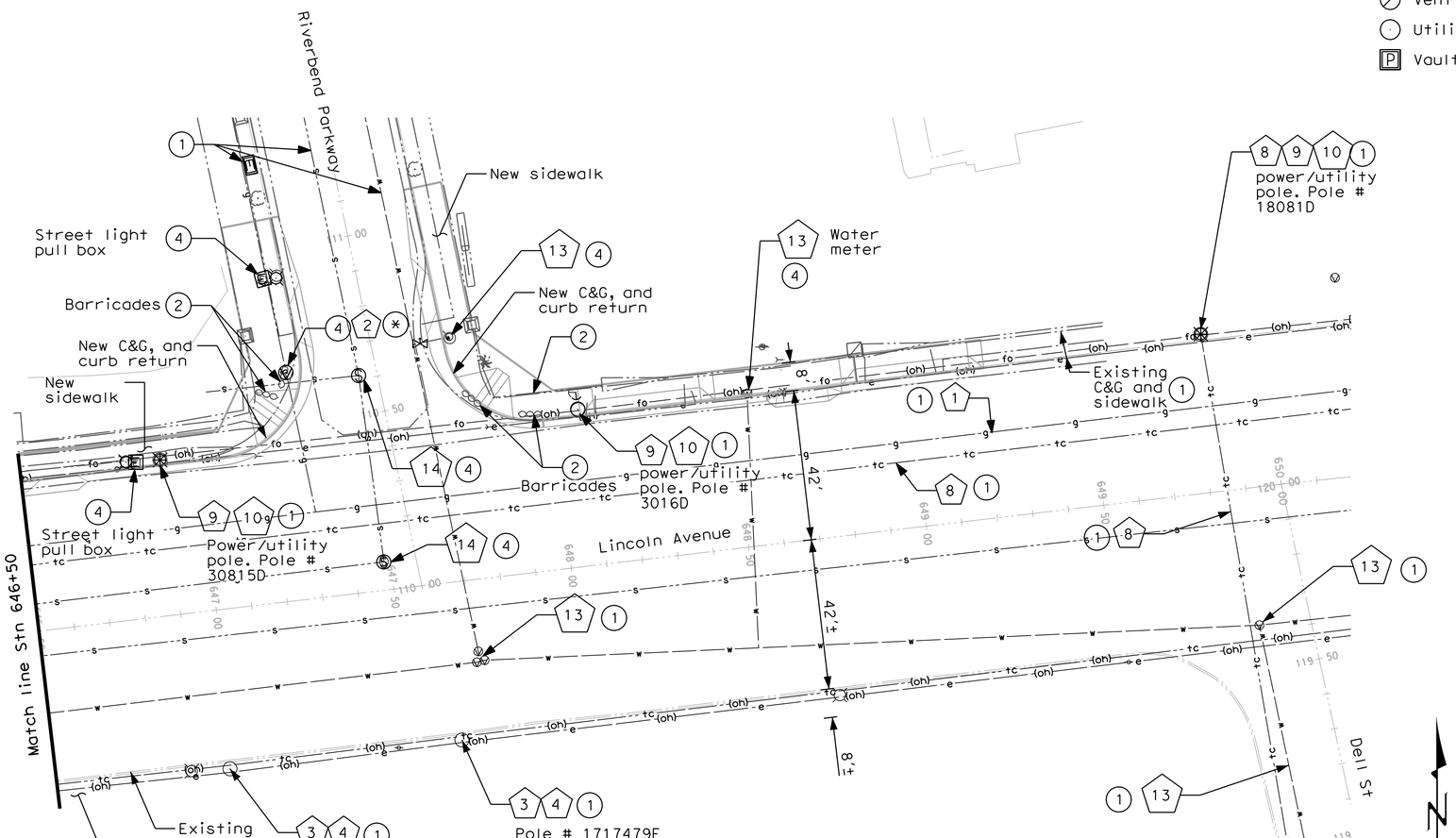
FILE NAME:S:\BridgeProjects\LincolnAveOverSAR\CAD\09-Utilities05.dgn

LEGEND

- Denotes existing
- Denotes proposed
- ± Indicates approximate dimension, to be verified by Contractor
- Caltrans Standard Plans
- (1) Protect in place
- (2) Remove
- (3) Relocate
- (4) Adjust to grade
- (11) Replace and relocate
- (*) Work to be done by utility owner

Caltrans Stnd Plans: Abbreviations/ Line and Symbols (A10A, A10B, A10C, A10D, and A10E.)

- Control box
- Pull box - cable TV
- Pull box - eletrical
- Pull box - telephone
- Pull box - traffic
- Pull box - unknown
- Light pole - single
- Drop inlet
- Fire hydrant
- Guy anchor
- Irrigation stand pipe
- Vent pipe
- Utility pole
- Vault box - telephone
- Utility box/vault
- Palm tree
- Pipe inlet/outlet
- Post
- Manhole - sewer
- Manhole - telephone
- Sign
- Tree
- Valve
- Meter - gas
- Meter - water
- Meter - unknown
- Traffic signal
- Traffic signal with light



Utility Owner

1. Southern California Gas, Transmission
2. Southern California Gas, Distribution
3. Southern California Edision
4. Time Warner Cable
5. MCI Network Services
6. Level (3)
7. Orange County Water District
8. AT&T, California PacBell & Long Distance
9. City of Anaheim, Electrical
10. City of Anaheim, Fiber Optic
11. City of Anaheim, Water
12. City of Anaheim, Public Works
13. City of Orange, Water
14. Orange County Sanitation District
15. Orange County Parks

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF: C. PHUNG — REGISTERED PROFESSIONAL ENGINEER — No. 73985 — Exp. 6/30/13 — CIVIL — STATE OF CALIFORNIA — 1/27/2013 DATE

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. FRONDOSO
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/27/2013
SCALE: AS SHOWN

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

Utilities

Sheet Reference Number

U-6

Sheet 37 of 90

FILE NAME:B:\LincolnAveOverSAR\CAD\09-Utilities06.dgn

SIGN LEGEND



D11-1
(24" X 18")



M4-11
(24" X 12")



OCTA
(30" X 30")



R1-1
(36" X 36")



R2-1
(30" X 36")



R3-7
(30" X 30")


R4-7
(30" X 30")


R9-3A
(30" X 30")



R26
(12" X 18")

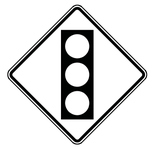


R26S (CA)
(12" X 18")

R81
(12" X 8")

R81A
(12" X 5")

R81B
(8" X 5")

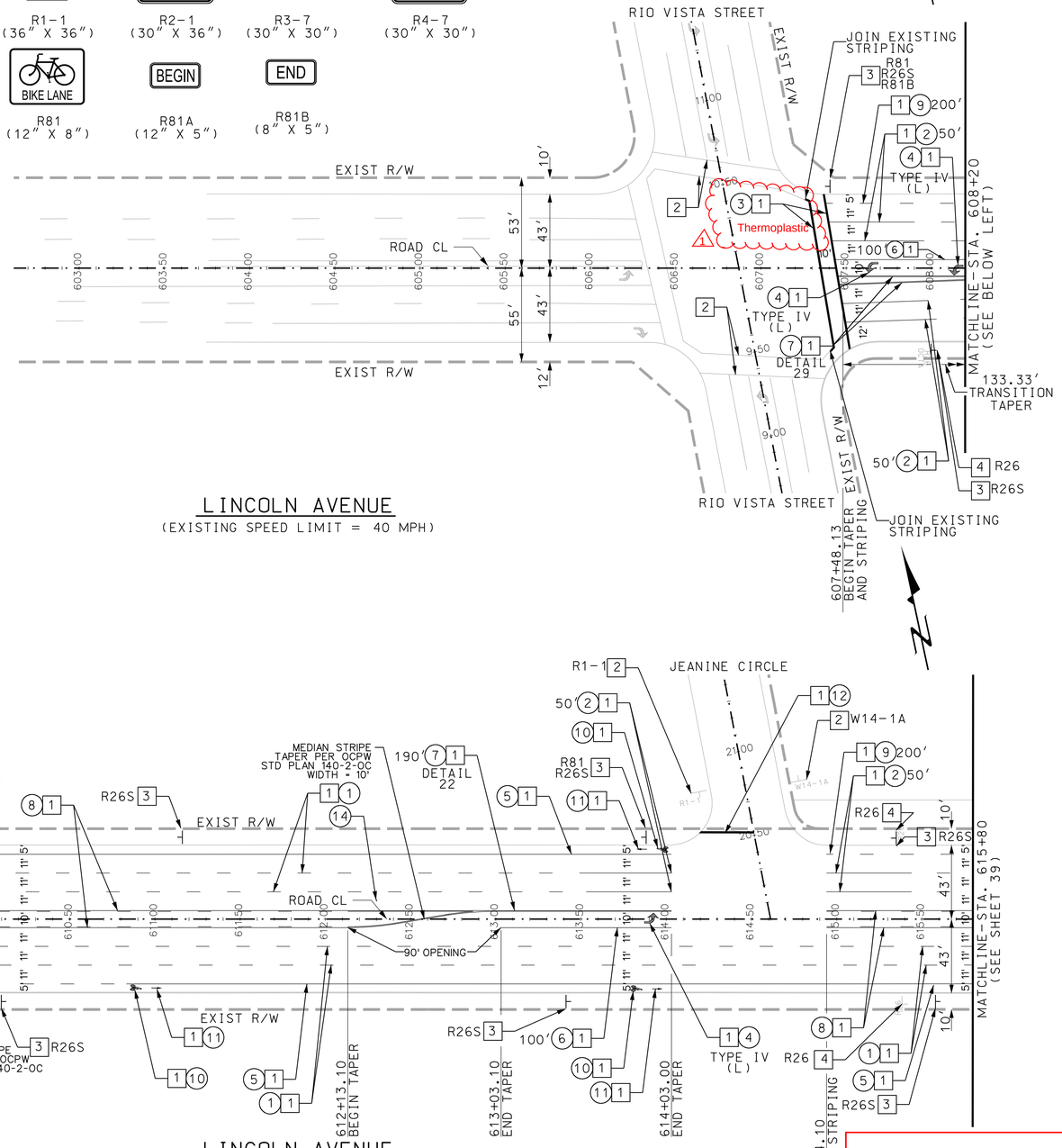

W3-3
(36" X 36")



W73A
(36" X 36")



W74
(36" X 36")



LINCOLN AVENUE
(EXISTING SPEED LIMIT = 40 MPH)

PLAN
1"=40'

CONSTRUCTION NOTES

1 — PAINT
2 — PROTECT
3 — INSTALL SIGN/POST AS SHOWN ON PLANS
4 — REMOVE EXISTING SIGN POST

PAVEMENT MARKERS AND TRAFFIC LANES PER CALTRANS STANDARD PLANS UNLESS OTHERWISE NOTED

1. INSTALL 4" WHITE DASHED LANE LINE PER STD PLAN A20A DETAIL 9 (WITHIN CITY OF ANAHEIM LIMITS INSTALL DASHED LANE LINE PER STD PLAN A20A DETAIL 10 IN CONJUNCTION WITH DETAIL 9)
2. INSTALL 4" WHITE SOLID LINE WITH TYPE "G" RPM AT THE END
3. INSTALL 12" SOLID WHITE CROSSWALK (10' CLEAR) LANE PER OCPW STD PLAN 1416
4. INSTALL PAVEMENT MARKING ARROW PER STD PLAN A24A (AS SHOWN ON PLANS) (THERMOPLASTIC WITHIN CITY OF ANAHEIM LIMITS)
5. INSTALL 6" SOLID WHITE BIKE LANE LINE PER STD PLAN A20D DETAIL 39
6. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
7. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR DETAIL 29 PER PLANS (WITHIN CITY OF ANAHEIM LIMITS INSTALL DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 IN CONJUNCTION WITH DETAIL 23, OR DETAIL 29 IN CONJUNCTION WITH DETAIL 30 EXCLUDING THE BRIDGE)
8. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20B DETAIL 32 (WITHIN CITY OF ANAHEIM LIMITS INSTALL DOUBLE YELLOW LANE LINE PER STD PLAN A20B DETAIL 32 IN CONJUNCTION WITH DETAIL 33, EXCLUDING THE BRIDGE)
9. INSTALL 6" WHITE DASHED BIKE LANE LINE PER STD PLAN A20D DETAIL 39A
10. INSTALL BIKE LANE SYMBOL WITH PERSON PER STD PLAN A24C
11. INSTALL BIKE LANE ARROW PER STD PLAN A24A
12. INSTALL 12" SOLID WHITE LIMIT LINE PER STD PLAN A24E
13. INSTALL PAINTED CONTINENTAL CROSSWALK PER CITY OF ANAHEIM PUBLIC WORKS STD PLAN 477
14. INSTALL BLUE REFLECTIVE MARKERS PER CITY OF ANAHEIM PUBLIC WORKS STD PLAN 457
15. INSTALL PAVEMENT MARKING PER STD PLAN A24D (AS SHOWN ON PLANS)
16. INSTALL 6" YELLOW DASHED BIKE LANE LINE PER STD PLAN A20D DETAIL 39A
17. INSTALL 8" WHITE LANE DROP LINE PER STD PLAN A20C DETAIL 37B

SIGNING AND STRIPING NOTES

1. CONTRACTOR SHALL REMOVE ALL CONFLICTING SIGNING, STRIPING AND PAVEMENT MARKINGS BY WET SANDBLASTING. BLACKING OUT STRIPING WILL NOT BE PERMITTED.
2. INSTALLATION OF ALL STRIPING, SIGNS, PAVEMENT MARKERS, AND LEGENDS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. ALL SIGNS, STRIPING, PAVEMENT MARKERS, AND LEGENDS SHALL CONFORM TO THE LATEST APPROVED/ ADOPTED EDITIONS OF THE CALTRANS STANDARD PLANS AND SPECIFICATIONS (2010) AND THE CALIFORNIA MUTCD (2012).
4. ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY THE ENGINEER OF WORK PRIOR TO ANY CHANGES BEING MADE IN THE FIELD.
5. ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLANS SHALL BE NEW SIGNS PROVIDED AND INSTALLED BY THE CONTRACTOR, EXCEPT FOR EXISTING SIGNS SPECIFICALLY INDICATED TO BE RELOCATED OR TO REMAIN.
6. CONTRACTOR SHALL VERIFY ALL CONTROLLING FEILD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
7. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN. THIS PLAN ACURATE FOR PAVEMENT STRIPING AND SIGNING PLANS.
8. PROJECT INFORMATION SIGN PER RDMD STD. PLAN 1418, APROXIMATE LOCATION SHOWN, EXACT LOCATION TO BE DETERMINED BY CONTRACTOR OR THE ENGINEER.

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.
1	Revise to thermoplastic per COA request	12/4/14	CP

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
PROFESSIONAL ENGINEER — JOSEPH MULVIHILL — No. 46011 — Exp. 12/31/14 — CIVIL — STATE OF CALIFORNIA
DATE
JOSEPH MULVIHILL

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

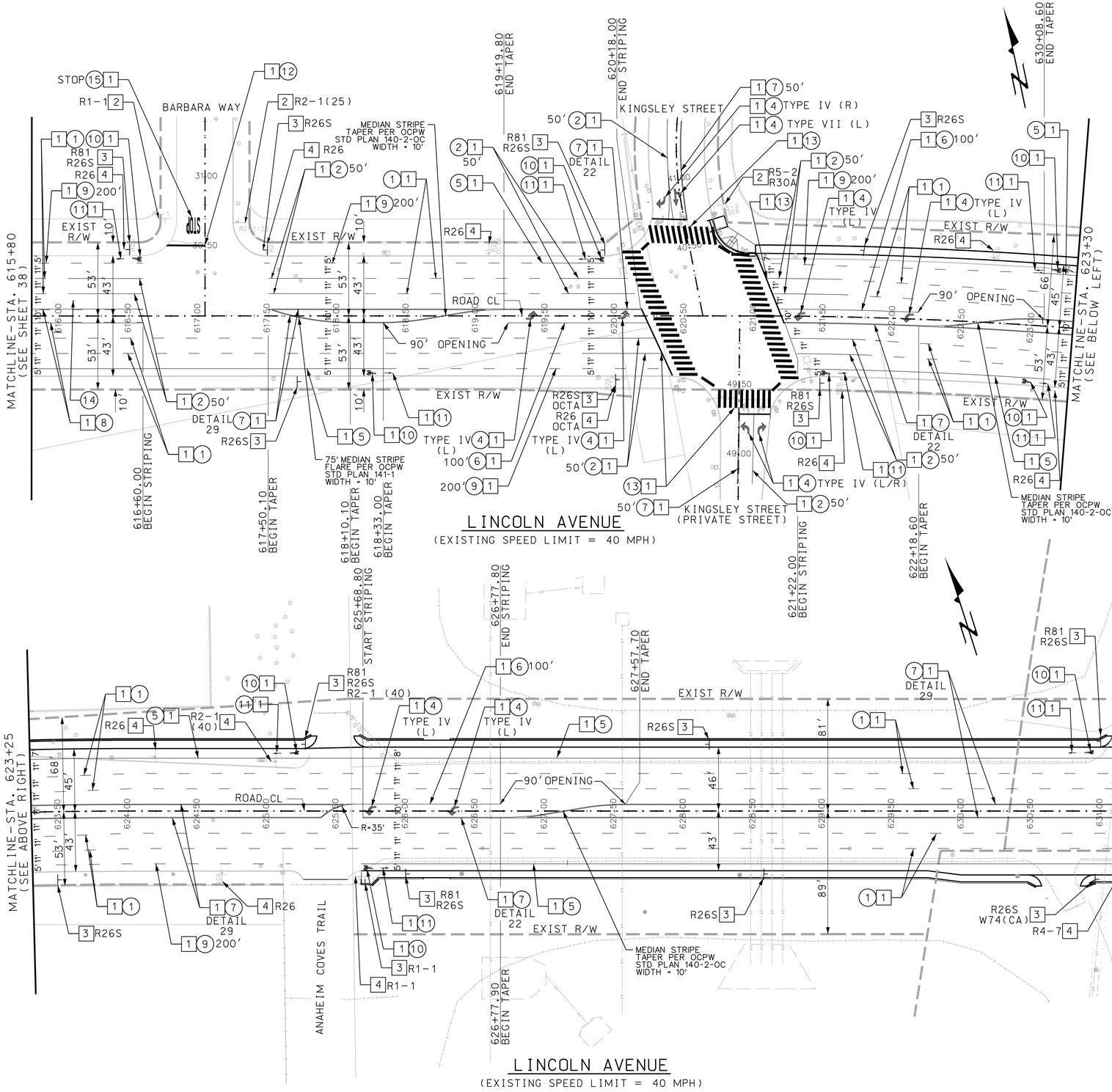
SIGNING AND STRIPING

STA 600+75 TO 615+80

Sheet Reference Number

SS-01 R1

Att 5 to Bulletin 2
Sheet 38 of 90



CONSTRUCTION NOTES

1. PAINT
2. PROTECT
3. INSTALL SIGN/POST AS SHOWN ON PLANS
4. REMOVE EXISTING SIGN AND POST

PAVEMENT MARKERS AND TRAFFIC LANES PER CALTRANS STANDARD PLANS UNLESS OTHERWISE NOTED

1. INSTALL 4" WHITE DASHED LANE LINE PER STD PLAN A20A DETAIL 9 (WITHIN CITY OF ANAHEIM LIMITS INSTALL DASHED LANE LINE PER STD PLAN A20A DETAIL 10 IN CONJUNCTION WITH DETAIL 9)
2. INSTALL 4" WHITE SOLID LINE WITH TYPE "G" RPM AT THE END
3. INSTALL 12" SOLID WHITE CROSSWALK (10' CLEAR) LANE PER OCPW STD PLAN 1416
4. INSTALL PAVEMENT MARKING ARROW PER STD PLAN A24A (AS SHOWN ON PLANS) (THERMOPLASTIC WITHIN CITY OF ANAHEIM LIMITS)
5. INSTALL 6" SOLID WHITE BIKE LANE LINE PER STD PLAN A20D DETAIL 39
6. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
7. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR DETAIL 29 PER PLANS (WITHIN CITY OF ANAHEIM LIMITS INSTALL DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 IN CONJUNCTION WITH DETAIL 23, OR DETAIL 29 IN CONJUNCTION WITH DETAIL 30 EXCLUDING THE BRIDGE)
8. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20B DETAIL 32 (WITHIN CITY OF ANAHEIM LIMITS INSTALL DOUBLE YELLOW LANE LINE PER STD PLAN A20B DETAIL 32 IN CONJUNCTION WITH DETAIL 33, EXCLUDING THE BRIDGE)
9. INSTALL 6" WHITE DASHED BIKE LANE LINE PER STD PLAN A20D DETAIL 39A
10. INSTALL BIKE LANE SYMBOL WITH PERSON PER STD PLAN A24C
11. INSTALL BIKE LANE ARROW PER STD PLAN A24A
12. INSTALL 12" SOLID WHITE LIMIT LINE PER STD PLAN A24E
13. INSTALL PAINTED CONTINENTAL CROSSWALK PER CITY OF ANAHEIM PUBLIC WORKS STD PLAN 477
14. INSTALL BLUE REFLECTIVE MARKERS PER CITY OF ANAHEIM PUBLIC WORKS STD PLAN 457
15. INSTALL PAVEMENT MARKING PER STD PLAN A24D (AS SHOWN ON PLANS)
16. INSTALL 6" YELLOW DASHED BIKE LANE LINE PER STD PLAN A20D DETAIL 39A
17. INSTALL 8" WHITE LANE DROP LINE PER STD PLAN A20C DETAIL 37B

SIGNING AND STRIPING NOTES

1. CONTRACTOR SHALL REMOVE ALL CONFLICTING SIGNING, STRIPING AND PAVEMENT MARKINGS BY WET SANDBLASTING. BLACKING OUT STRIPING WILL NOT BE PERMITTED.
2. INSTALLATION OF ALL STRIPING, SIGNS, PAVEMENT MARKERS, AND LEGENDS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. ALL SIGNS, STRIPING, PAVEMENT MARKERS, AND LEGENDS SHALL CONFORM TO THE LATEST APPROVED/ ADOPTED EDITIONS OF THE CALTRANS STANDARD PLANS AND SPECIFICATIONS (2010) AND THE CALIFORNIA MUTCD (2012).
4. ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY THE ENGINEER OF WORK PRIOR TO ANY CHANGES BEING MADE IN THE FIELD.
5. ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLANS SHALL BE NEW SIGNS PROVIDED AND INSTALLED BY THE CONTRACTOR, EXCEPT FOR EXISTING SIGNS SPECIFICALLY INDICATED TO BE RELOCATED OR TO REMAIN.
6. CONTRACTOR SHALL VERIFY ALL CONTROLLING FEILD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
7. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN. THIS PLAN ACURATE FOR PAVEMENT STRIPING AND SIGNING PLANS.
8. PROJECT INFORMATION SIGN PER RDMD STD. PLAN 1418, APROXIMATE LOCATION SHOWN, EXACT LOCATION TO BE DETERMINED BY CONTRACTOR OR THE ENGINEER.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
PROFESSIONAL ENGINEER JOSEPH MULVIHILL No. 46011 REGISTERED CIVIL STATE OF CALIFORNIA Exp. 12/31/14
DATE
JOSEPH MULVIHILL

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

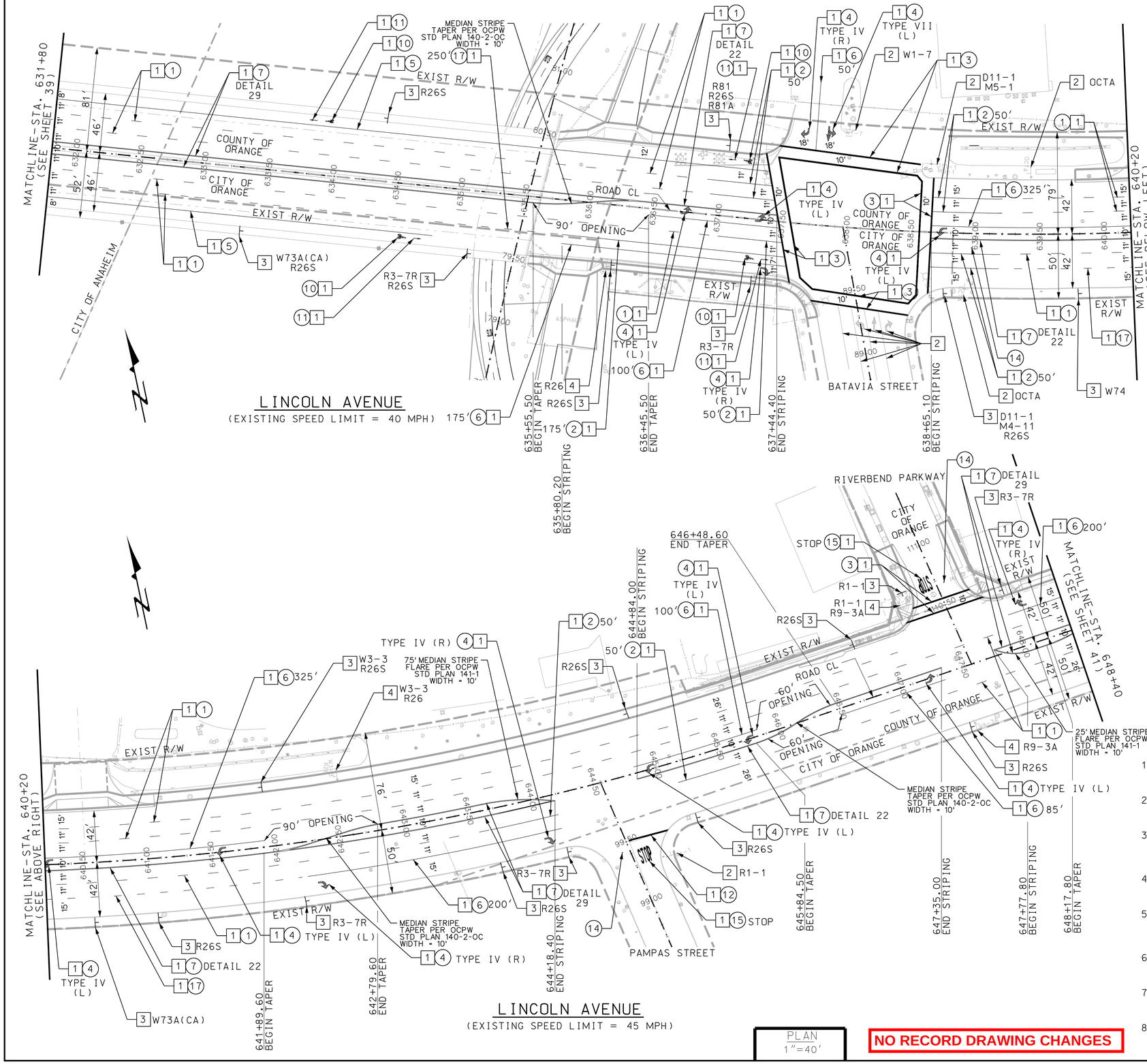
LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

SIGNING AND STRIPING
STA 615+80 TO 631+80

Sheet Reference Number

SS-02 R1

Att 5 to Bulletin 2
Sheet 39 of 90



CONSTRUCTION NOTES

1. PAINT
2. PROTECT
3. INSTALL SIGN/POST AS SHOWN ON PLANS
4. REMOVE EXISTING SIGN AND POST

PAVEMENT MARKERS AND TRAFFIC LANES PER CALTRANS STANDARD PLANS UNLESS OTHERWISE NOTED

1. INSTALL 4" WHITE DASHED LANE LINE PER STD PLAN A20A DETAIL 9 (WITHIN CITY OF ANAHEIM LIMITS INSTALL DASHED LANE LINE PER STD PLAN A20A DETAIL 10 IN CONJUNCTION WITH DETAIL 9)
2. INSTALL 4" WHITE SOLID LINE WITH TYPE "G" RPM AT THE END
3. INSTALL 12" SOLID WHITE CROSSWALK (10' CLEAR) LANE PER OCPW STD PLAN 1416
4. INSTALL PAVEMENT MARKING ARROW PER STD PLAN A24A (AS SHOWN ON PLANS) (THERMOPLASTIC WITHIN CITY OF ANAHEIM LIMITS)
5. INSTALL 6" SOLID WHITE BIKE LANE LINE PER STD PLAN A20D DETAIL 39
6. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
7. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR DETAIL 29 PER PLANS (WITHIN CITY OF ANAHEIM LIMITS INSTALL DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 IN CONJUNCTION WITH DETAIL 23, OR DETAIL 29 IN CONJUNCTION WITH DETAIL 30 EXCLUDING THE BRIDGE)
8. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20B DETAIL 32 (WITHIN CITY OF ANAHEIM LIMITS INSTALL DOUBLE YELLOW LANE LINE PER STD PLAN A20B DETAIL 32 IN CONJUNCTION WITH DETAIL 33, EXCLUDING THE BRIDGE)
9. INSTALL 6" WHITE DASHED BIKE LANE LINE PER STD PLAN A20D DETAIL 39A
10. INSTALL BIKE LANE SYMBOL WITH PERSON PER STD PLAN A24C
11. INSTALL BIKE LANE ARROW PER STD PLAN A24A
12. INSTALL 12" SOLID WHITE LIMIT LINE PER STD PLAN A24E
13. INSTALL PAINTED CONTINENTAL CROSSWALK PER CITY OF ANAHEIM PUBLIC WORKS STD PLAN 477
14. INSTALL BLUE REFLECTIVE MARKERS PER CITY OF ANAHEIM PUBLIC WORKS STD PLAN 457
15. INSTALL PAVEMENT MARKING PER STD PLAN A24D (AS SHOWN ON PLANS)
16. INSTALL 6" YELLOW DASHED BIKE LANE LINE PER STD PLAN A20D DETAIL 39A
17. INSTALL 8" WHITE LANE DROP LINE PER STD PLAN A20C DETAIL 37B

SIGNING AND STRIPING NOTES

1. CONTRACTOR SHALL REMOVE ALL CONFLICTING SIGNING, STRIPING AND PAVEMENT MARKINGS BY WET SANDBLASTING. BLACKING OUT STRIPING WILL NOT BE PERMITTED.
2. INSTALLATION OF ALL STRIPING, SIGNS, PAVEMENT MARKERS, AND LEGENDS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. ALL SIGNS, STRIPING, PAVEMENT MARKERS, AND LEGENDS SHALL CONFORM TO THE LATEST APPROVED/ADOPTED EDITIONS OF THE CALTRANS STANDARD PLANS AND SPECIFICATIONS (2010) AND THE CALIFORNIA MUTCD (2012).
4. ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY THE ENGINEER OF WORK PRIOR TO ANY CHANGES BEING MADE IN THE FIELD.
5. ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLANS SHALL BE NEW SIGNS PROVIDED AND INSTALLED BY THE CONTRACTOR, EXCEPT FOR EXISTING SIGNS SPECIFICALLY INDICATED TO BE RELOCATED OR TO REMAIN.
6. CONTRACTOR SHALL VERIFY ALL CONTROLLING FEILD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
7. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN. THIS PLAN ACURATE FOR PAVEMENT STRIPING AND SIGNING PLANS.
8. PROJECT INFORMATION SIGN PER RDMD STD. PLAN 1418, APROXIMATE LOCATION SHOWN, EXACT LOCATION TO BE DETERMINED BY CONTRACTOR OR THE ENGINEER.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
PROFESSIONAL ENGINEER JOSEPH MULVIHILL No. 46011 Exp. 12/31/14 CIVIL STATE OF CALIFORNIA
JOSEPH MULVIHILL — DATE

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

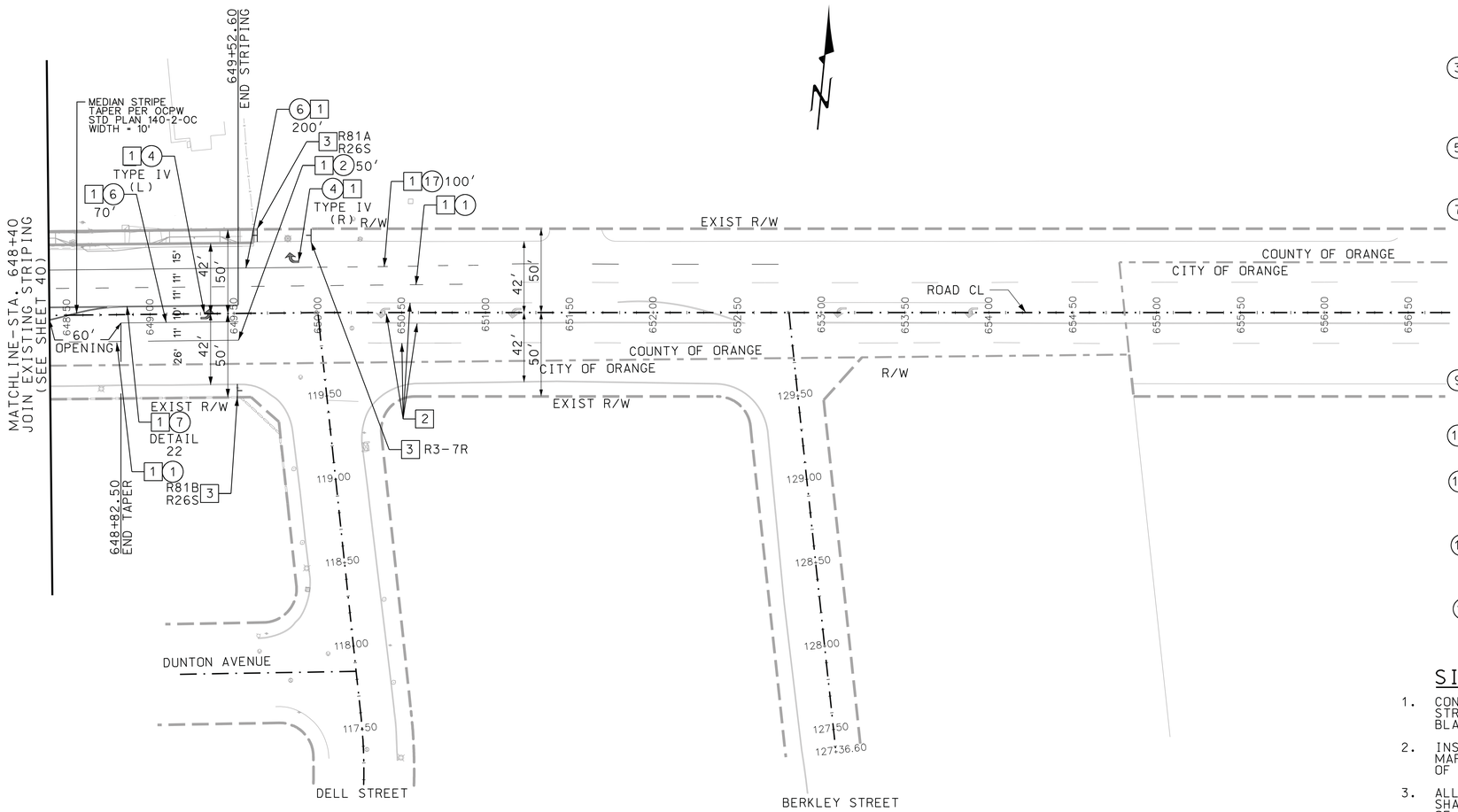
SIGNING AND STRIPING

STA 631+80 TO 648+40

Sheet Reference Number

SS-03 R1

Att 5 to Bulletin 2



LINCOLN AVENUE

(EXISTING SPEED LIMIT = 45 MPH)

PLAN
1"=40'

NO RECORD DRAWING CHANGES

CONSTRUCTION NOTES

1. PAINT
2. PROTECT
3. INSTALL SIGN/POST AS SHOWN ON PLANS
4. REMOVE EXISTING SIGN AND POST

PAVEMENT MARKERS AND TRAFFIC LANES PER CALTRANS STANDARD PLANS UNLESS OTHERWISE NOTED

1. INSTALL 4" WHITE DASHED LANE LINE PER STD PLAN A20A DETAIL 9 (WITHIN CITY OF ANAHEIM LIMITS INSTALL DASHED LANE LINE PER STD PLAN A20A DETAIL 10 IN CONJUNCTION WITH DETAIL 9)
2. INSTALL 4" WHITE SOLID LINE WITH TYPE "G" RPM AT THE END
3. INSTALL 12" SOLID WHITE CROSSWALK (10' CLEAR) LANE PER OCPW STD PLAN 1416
4. INSTALL PAVEMENT MARKING ARROW PER STD PLAN A24A (AS SHOWN ON PLANS) (THERMOPLASTIC WITHIN CITY OF ANAHEIM LIMITS)
5. INSTALL 6" SOLID WHITE BIKE LANE LINE PER STD PLAN A20D DETAIL 39
6. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
7. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR DETAIL 29 PER PLANS (WITHIN CITY OF ANAHEIM LIMITS INSTALL DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 IN CONJUNCTION WITH DETAIL 23, OR DETAIL 29 IN CONJUNCTION WITH DETAIL 30 EXCLUDING THE BRIDGE)
8. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20B DETAIL 32 (WITHIN CITY OF ANAHEIM LIMITS INSTALL DOUBLE YELLOW LANE LINE PER STD PLAN A20B DETAIL 32 IN CONJUNCTION WITH DETAIL 33, EXCLUDING THE BRIDGE)
9. INSTALL 6" WHITE DASHED BIKE LANE LINE PER STD PLAN A20D DETAIL 39A
10. INSTALL BIKE LANE SYMBOL WITH PERSON PER STD PLAN A24C
11. INSTALL BIKE LANE ARROW PER STD PLAN A24A
12. INSTALL 12" SOLID WHITE LIMIT LINE PER STD PLAN A24E
13. INSTALL PAINTED CONTINENTAL CROSSWALK PER CITY OF ANAHEIM PUBLIC WORKS STD PLAN 477
14. INSTALL BLUE REFLECTIVE MARKERS PER CITY OF ANAHEIM PUBLIC WORKS STD PLAN 457
15. INSTALL PAVEMENT MARKING PER STD PLAN A24D (AS SHOWN ON PLANS)
16. INSTALL 6" YELLOW DASHED BIKE LANE LINE PER STD PLAN A20D DETAIL 39A
17. INSTALL 8" WHITE LANE DROP LINE PER STD PLAN A20C DETAIL 37B

SIGNING AND STRIPING NOTES

1. CONTRACTOR SHALL REMOVE ALL CONFLICTING SIGNING, STRIPING AND PAVEMENT MARKINGS BY WET SANDBLASTING. BLACKING OUT STRIPING WILL NOT BE PERMITTED.
2. INSTALLATION OF ALL STRIPING, SIGNS, PAVEMENT MARKERS, AND LEGENDS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. ALL SIGNS, STRIPING, PAVEMENT MARKERS, AND LEGENDS SHALL CONFORM TO THE LATEST APPROVED/ ADOPTED EDITIONS OF THE CALTRANS STANDARD PLANS AND SPECIFICATIONS (2010) AND THE CALIFORNIA MUTCD (2012).
4. ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY THE ENGINEER OF WORK PRIOR TO ANY CHANGES BEING MADE IN THE FIELD.
5. ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLANS SHALL BE NEW SIGNS PROVIDED AND INSTALLED BY THE CONTRACTOR, EXCEPT FOR EXISTING SIGNS SPECIFICALLY INDICATED TO BE RELOCATED OR TO REMAIN.
6. CONTRACTOR SHALL VERIFY ALL CONTROLLING FEILD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
7. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN. THIS PLAN ACURATE FOR PAVEMENT STRIPING AND SIGNING PLANS.
8. PROJECT INFORMATION SIGN PER RDMD STD. PLAN 1418, APROXIMATE LOCATION SHOWN, EXACT LOCATION TO BE DETERMINED BY CONTRACTOR OR THE ENGINEER.

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
PROFESSIONAL ENGINEER JOSEPH MULVIHILL No. 46011 Exp. 12/31/14 CIVIL STATE OF CALIFORNIA
DATE
JOSEPH MULVIHILL

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

SIGNING AND STRIPING

STA 648+40 TO 675+00

Sheet Reference Number

SS-04 R1

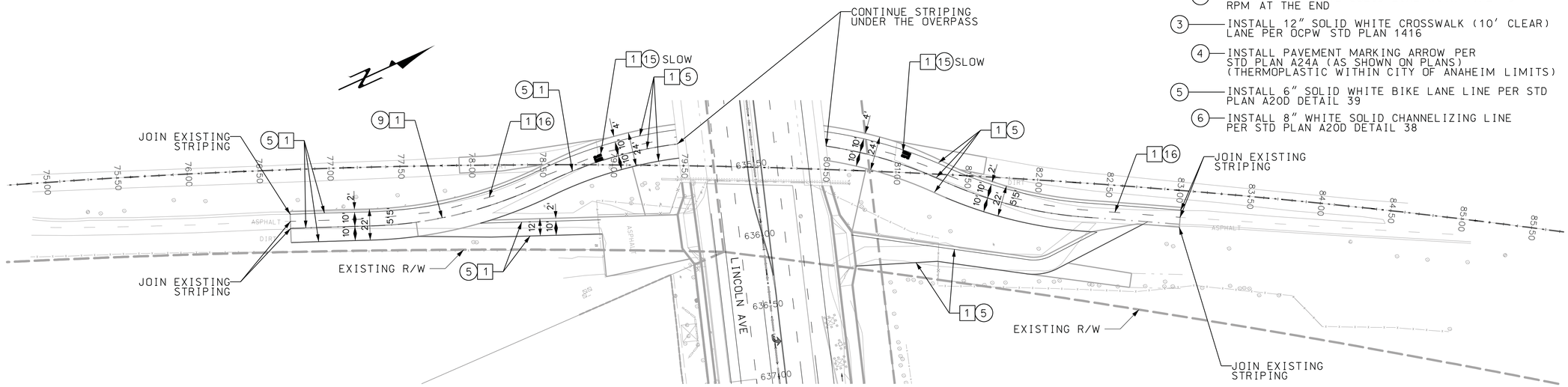
Att 5 to Bulletin 2
Sheet 41 of 90

CONSTRUCTION NOTES

1. PAINT
2. PROTECT
3. INSTALL SIGN/POST AS SHOWN ON PLANS
4. REMOVE EXISTING SIGN AND POST

PAVEMENT MARKERS AND TRAFFIC LANES PER CALTRANS STANDARD PLANS UNLESS OTHERWISE NOTED

1. INSTALL 4" WHITE DASHED LANE LINE PER STD PLAN A20A DETAIL 9 (WITHIN CITY OF ANAHEIM LIMITS INSTALL DASHED LANE LINE PER STD PLAN A20A DETAIL 10 IN CONJUNCTION WITH DETAIL 9)
2. INSTALL 4" WHITE SOLID LINE WITH TYPE "G" RPM AT THE END
3. INSTALL 12" SOLID WHITE CROSSWALK (10' CLEAR) LANE PER OCPW STD PLAN 1416
4. INSTALL PAVEMENT MARKING ARROW PER STD PLAN A24A (AS SHOWN ON PLANS) (THERMOPLASTIC WITHIN CITY OF ANAHEIM LIMITS)
5. INSTALL 6" SOLID WHITE BIKE LANE LINE PER STD PLAN A20D DETAIL 39
6. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38



SANTA ANA RIVER TRAIL

BIKEWAY AND EQUESTRIAN

SIGNING AND STRIPING NOTES

1. CONTRACTOR SHALL REMOVE ALL CONFLICTING SIGNING, STRIPING AND PAVEMENT MARKINGS BY WET SANDBLASTING. BLACKING OUT STRIPING WILL NOT BE PERMITTED.
2. INSTALLATION OF ALL STRIPING, SIGNS, PAVEMENT MARKERS, AND LEGENDS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. ALL SIGNS, STRIPING, PAVEMENT MARKERS, AND LEGENDS SHALL CONFORM TO THE LATEST APPROVED/ ADOPTED EDITIONS OF THE CALTRANS STANDARD PLANS AND SPECIFICATIONS (2010) AND THE CALIFORNIA MUTCD (2012).
4. ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY THE ENGINEER OF WORK PRIOR TO ANY CHANGES BEING MADE IN THE FIELD.
5. ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLANS SHALL BE NEW SIGNS PROVIDED AND INSTALLED BY THE CONTRACTOR, EXCEPT FOR EXISTING SIGNS SPECIFICALLY INDICATED TO BE RELOCATED OR TO REMAIN.
6. CONTRACTOR SHALL VERIFY ALL CONTROLLING FEILD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
7. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN. THIS PLAN ACURATE FOR PAVEMENT STRIPING AND SIGNING PLANS.
8. PROJECT INFORMATION SIGN PER RDMD STD. PLAN 1418, APROXIMATE LOCATION SHOWN, EXACT LOCATION TO BE DETERMINED BY CONTRACTOR OR THE ENGINEER.

PLAN
1"=40'

7. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR DETAIL 29 PER PLANS (WITHIN CITY OF ANAHEIM LIMITS INSTALL DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 IN CONJUNCTION WITH DETAIL 23, OR DETAIL 29 IN CONJUNCTION WITH DETAIL 30 EXCLUDING THE BRIDGE)
8. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20B DETAIL 32 (WITHIN CITY OF ANAHEIM LIMITS INSTALL DOUBLE YELLOW LANE LINE PER STD PLAN A20B DETAIL 32 IN CONJUNCTION WITH DETAIL 33, EXCLUDING THE BRIDGE)
9. INSTALL 6" WHITE DASHED BIKE LANE LINE PER STD PLAN A20D DETAIL 39A
10. INSTALL BIKE LANE SYMBOL WITH PERSON PER STD PLAN A24C
11. INSTALL BIKE LANE ARROW PER STD PLAN A24A
12. INSTALL 12" SOLID WHITE LIMIT LINE PER STD PLAN A24E
13. INSTALL PAINTED CONTINENTAL CROSSWALK PER CITY OF ANAHEIM PUBLIC WORKS STD PLAN 477
14. INSTALL BLUE REFLECTIVE MARKERS PER CITY OF ANAHEIM PUBLIC WORKS STD PLAN 457
15. INSTALL PAVEMENT MARKING PER STD PLAN A24D (AS SHOWN ON PLANS)
16. INSTALL 6" YELLOW DASHED BIKE LANE LINE PER STD PLAN A20D DETAIL 39A
17. INSTALL 8" WHITE LANE DROP LINE PER STD PLAN A20C DETAIL 37B

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

PROFESSIONAL ENGINEER — JOSEPH MULVIHILL — No. 46011 — Exp. 12/31/14 — CIVIL — STATE OF CALIFORNIA

JOSEPH MULVIHILL — DATE

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE,STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

SIGNING AND STRIPING

SANTA ANA RIVER

Sheet Reference Number

SS-05 R1

Att 5 to Bulletin 2

CONDUIT AND CONDUCTOR SCHEDULE

AWG or CABLE	CONDUCTOR RUN	1	2	3	4	5	6	7
#14 12 CSC	POLE ①	-/-	-/-	1/1	1/1	-/-	1/1	–
	POLE ②	-/-	-/-	-/-	1/1	-/-	1/1	–
	POLE ③	-/-	-/-	-/-	-/-	1/1	-/-	1/1	–
	POLE ④	-/-	-/-	-/-	-/-	-/-	2/2	–
	POLE ⑤	-/-	-/-	-/-	-/-	-/-	-/-	1/1	–
	POLE ⑥	-/-	-/-	-/-	-/-	2/2	2/2	–
	POLE ⑦	-/-	-/-	-/-	-/-	-/-	1/1	–
#14 3CSC	POLE ⑧	2/1	2/1	2/1	2/1	-/-	2/1	–
	POLE ⑨	-/-	2/1	2/1	2/1	-/-	2/1	–
	TOTAL CABLES 12/3 CONDUCTORS	2/1	4/2	5/3	6/5	2/3	8/11	–
#14	L.E.D. IISNS	2	2	2	2	2	2	–
#10	SIGNAL COMMON	1	1	1	1	1	2	–
#8	LUMINAIRES	2	2	2	2	2	2	–
#6	SIGNAL POWER	–	–	–	–	–	–	2
VIDEO CABLE		2	2	3	3	1	5	–
EVP CABLE		1	1	2	2	1	4	–
6 PR TELEPHONE I.C. 12		–	–	–	–	1	1	–
DLC	ø2	–	–	–	–	3	3	–
CONDUIT SIZE		(E) 3"	3"	3"	3"	3"	(2) 3"	3"*

(E)=EXISTING
* AS DIRECTED BY UTILITY COMPANY

POLE SCHEDULE

No.	STANDARD TYPE: WIND VELOCITY MPH	HEIGHT	SIGNAL MAST ARM: LENGTH	LUMINAIRE MAST ARM: FEET	VEHICLE SIGNAL MTG.: MAST	VEHICLE SIGNAL MTG.: POLE	PED SIGNAL MTG.	PPB: ø	PPB: ARROW	HPS LUM.	POLE LOCATION: A	POLE LOCATION: B	SPECIAL REQUIREMENTS
①	19-4-100	30'	30'	15'	2-MAS	SV-2-T	SP-1-T	6	E	250W	~~7.9~~ 7' 0"	~~5.1~~ 5'-11"	L.E.D IISNS*: "LINCOLN"
②	1-A	10'	-	-	-	TV-2-T	SP-1-T	3	N	-	~~9.8~~	~~4.4~~	
③	~~PPB POST~~							~~6~~	~~E~~		~~4.7~~	~~1.5~~	~~**BIKE PUSH BUTTON~~
④	61-5-100	30'	55'	15'	3-MAS	SV-2-T	SP-2-T	3/2	S/E	250W	0	3.0	L.E.D. IISNS: "← BATAVIA"
⑤	PPB POST	-	-	-	-	-	-	3	S	-	~~11.7~~	~~1.5~~	**BIKE PUSH BUTTON
⑥	61-5-100	30'	65'	15'	2-MAS	SV-2-T	SP-2-T	2/4	W/S	250W	~~6.3~~	~~7.4~~	L.E.D. ISNS: "LINCOLN"
⑦	PPB POST	-	-	-	3-MAS	SV-2-T	SP-2-T	2	W	-	~~7.8~~	~~1.5~~	**BIKE PUSH BUTTON
⑧	29-5-100	30'	50'	15'	3-MAS *1-MAS	SV-1-T	SP-1-T	4	N	250W	13	3.0	L.E.D. ISNS: "BATAVIA →"
⑨	1-A	10'	-	-	-	TV-1-T	SP-1-T	2/4	W/N	-	~~12.6~~	~~3.0~~	**BIKE PUSH BUTTON

B=20" and 12"-14" Northeast of the northeast corner of existing pull box

*MOUNT SIGNAL TO FACE WB TRAFFIC.
**INSTALL BIKE PUSH BUTTON ON ROADWAY SIDE OF POLE WITH R10-26 SIGN.

EXACT POLE LOCATIONS TO BE DETERMINED BY ENGINEER IN THE FIELD POTHOLE POLE FOUNDATION PRIOR TO ORDERING POLES & MAST ARMS.

A=0, and 24" behind sidewalk

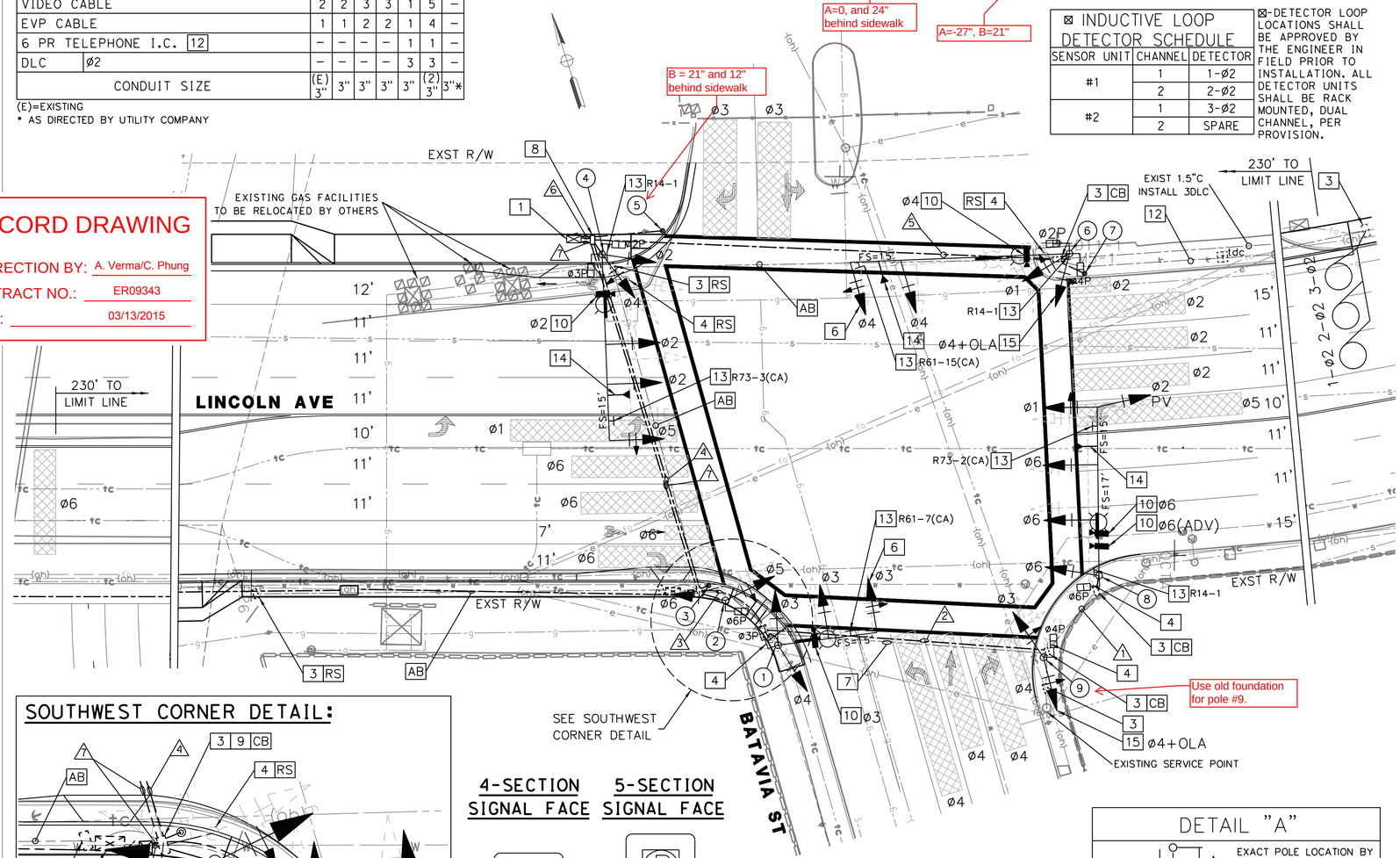
A=-27", B=21"

B = 21" and 12" behind sidewalk

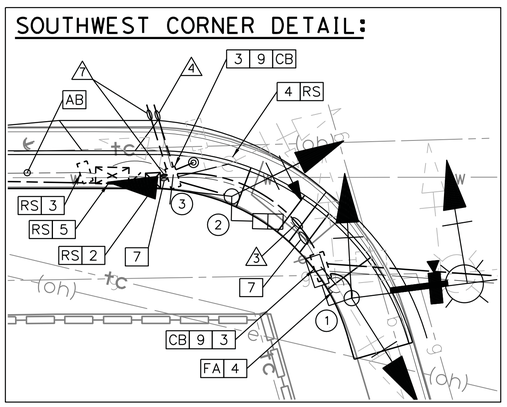
⊠ INDUCTIVE LOOP DETECTOR SCHEDULE

SENSOR UNIT	CHANNEL	DETECTOR
#1	1	1-ø2
	2	2-ø2
#2	1	3-ø2
	2	SPARE

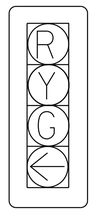
⊠-DETECTOR LOOP LOCATIONS SHALL BE APPROVED BY THE ENGINEER IN FIELD PRIOR TO INSTALLATION. ALL DETECTOR UNITS SHALL BE RACK MOUNTED, DUAL CHANNEL, PER PROVISION.



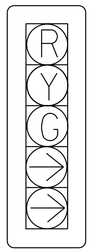
SOUTHWEST CORNER DETAIL:



4-SECTION SIGNAL FACE



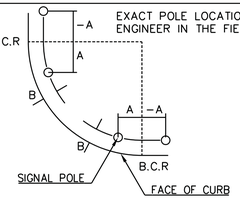
5-SECTION SIGNAL FACE



PHASE DIAGRAM

ø1	ø2	ø3	ø4
ø5 + OLA	ø6	ø7	ø8
ø5	OLA	NOT USED	NOT USED

DETAIL "A"



EXACT POLE LOCATION BY ENGINEER IN THE FIELD

POLE PLACEMENT DETAIL
(NO SCALE)

GENERAL NOTES

1. ALL WORK, MATERIAL AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF THE 2010 STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS, 2010 STANDARD SPECIFICATIONS, CURRENT AMENDMENTS, THE 2012 CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND SPECIAL PROVISIONS.
2. ALL EQUIPMENT AND MATERIALS SHALL BE NEW UNLESS OTHERWISE NOTED ON THE PLANS
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL WORK ON THIS PROJECT.
4. WHERE NEW CONDUCTOR CABLES ARE SPECIFIED, THE EXISTING CABLE SHALL BE REMOVED.
5. SALVAGED POLES, EQUIPMENT, AND SIGNS SHALL BE RETURNED COMPLETE WITH ALL ASSOCIATED HARDWARE TO THE COUNTY YARD PER COUNTY'S DIRECTION.
6. ALL NEW VEHICLE INDICATIONS SHALL BE 12" DIAMETER LIGHT EMITTING DIODE (L.E.D.) TYPE, WITH GLASS LENSES & REFLECTORS. ALL NEW VEHICLE SIGNAL HOUSINGS, VISORS AND BACKPLATES SHALL BE METAL (ALUMINUM).
7. ALL NEW PEDESTRIAN INDICATIONS SHALL BE L.E.D. TYPE WITH COUNTDOWN.
8. ALL NEW INTERNALLY ILLUMINATED STREET NAME SIGNS(IISNS) SHALL BE L.E.D. TYPE.
9. ALL SIGN NUMBERS REFER TO 2012 CALIFORNIA MUTCD.
10. LOCATIONS SHOWN FOR UNDERGROUND UTILITIES ARE APPROXIMATE. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUIT, OR STRUCTURES SHOWN ON THESE PLANS WAS OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS TO THE BEST OF OUR KNOWLEDGE. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT EXISTING UTILITIES. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS, OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL POTHOLE LOCATIONS OF NEW POLE AND CABINET FOUNDATIONS AND PULLBOXES TO AVOID CONFLICT WITH UTILITIES.
11. ALL NEW WIRING SHALL BE MARKED (TAGGED) WITHIN THE CONTROLLER CABINET FOR PHASE IDENTIFICATION.
12. ALL SIGNAL EQUIPMENT SHALL BE WIRED IN ACCORDANCE WITH THE SIGNAL PHASE DIAGRAM.
13. NEW PULLBOXES SHALL BE #6, UNLESS INDICATED OTHERWISE ON THE PLANS.
14. UNDERGROUND LIGHTING CONDUCTORS SHALL BE SPLICED IN PULLBOXES ONLY.
15. CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL FOR EXACT POLE AND EQUIPMENT LOCATIONS PRIOR TO INSTALLATION.
16. VIDEO DETECTION ZONES SHALL BE PLACED AT LIMIT LINE AND CENTERED IN THE LANE OR AS SHOWN ON THE PLANS.
17. THIS PLAN IS ACCURATE FOR SIGNAL WORK ONLY.
18. NEW CONDUIT FROM POLE TO PULLBOXES SHALL BE 2" CONDUIT, UNLESS INDICATED OTHERWISE ON THE PLANS.
19. TRAFFIC SIGNAL OWNED BY THE CITY OR ORANGE.

CONSTRUCTION NOTES

1. FURNISH AND INSTALL NEW TRAFFIC ASC/3 CONTROLLER WITH BPB INTERFANCE PANEL & BPB CONFIGURATION IN TYPE "P" ALUMINUM CABINET TO NEW P.C. CONCRETE TYPE "P" CONTROLLER CABINET FOUNDATION PER THIS PLAN AND THE SPECIAL PROVISIONS.
2. EXISTING TYPE III SERVICE CABINET & FOUNDATION. REMOVE AND SALVAGE, FURNISH AND INSTALL NEW TYPE III SERVICE CABINENT & EQUPIMENT. SEE SOUTHWEST CORNER DETAIL.
3. EXISTING PULL BOX
4. REMOVE AND SALVAGE EXISTING SIGNAL POLE, VEHICLE & PEDESTRIAN HEADS, PEDESTRIAN PUSH BUTTON ASSEMBLY, LUMINAIRE AND LUMINAIRE MAST ARM. EXISTING FOUNDATION TO BE ABANDONED PER THE SPECIAL PROVISIONS.
5. EXISTING SIGNAL CONTROLLER CABINET
6. FURNISH AND INSTALL 4-SECTION SIGNAL HEAD, SEE DETAIL.
7. EXISTING 3" CONDUIT AND CONDUCTORS FOR ELECTRICAL SERVICE CONNECTION. TO REMAIN, PROTECT IN PLACE.
8. INSTALL #6 PULL BOX WITH EXTENSION AT CONTROLLER.
9. RESET PULLBOX TO FINISHED GRADE.
10. FURNISH AND INSTALL NEW VIDEO DETECTION UNIT PER SPECIAL PROVISIONS AS DIRECTED BY THE ENGINEER WITH CABLE FROM CONTROLLER TO EACH CAMERA AS SPECIFIED BY THE MANUFACTURER. MODIFY CABINET AS REQUIRED PER DETECTION AS SHOWN.
11. EXISTING SIGNAL CONTROLLER CABINET
12. EXST 2" CONDUIT FROM TELEPHONE DEMARCATION CAPINET (TDM) TO TRAFFIC SIGNAL PULL BOX. PULL 6PR TELEPHONE CABLE FROM TDM TO CONTROLER CABINET. PULL 2 #12 CONDUCTORS FROM EXISTING 30A BREAKER IN THE SERVICE CAPINET TO TDM TO PROVIDE 120V SERVICE.
13. FURNISH AND INSTALL MAST ARM SIGN AND MOUNTING HARDWARE PER STD PLAN ES-7N AS SHOWN.
14. FURNISH AND INSTALL EVP OPTICOM SYSTEM 722 OR 711 DETECTOR AND CABLE.
15. FURNISH AND INSTALL 5-SECTION SIGNAL HEAD, SEE DETAIL.

LEGEND

- NEW VIDEO DETECTION CAMERA.
- NEW EVP DETECTOR.
- VIDEO DETECTION ZONE.
- RS — REMOVE AND SALVAGE EQUIPMENT.
- AB — ABANDON, IF APPLIED TO CONDUIT, REMOVE CONDUCTORS.
- RL — RELOCATE EQUIPMENT.
- CB — INSTALL CONDUIT INTO EXISTING PULLBOX.

RECORD DRAWING
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF: ALEJANDRO ANGEL, REGISTERED PROFESSIONAL ENGINEER, No. 72132, EXP. 6-30-14, CIVIL, STATE OF CALIFORNIA — 02/19/13 DATE

DESIGNED BY: B. GAUMOND
DRAWN BY: B. GAUMOND
CHECKED BY: C. ZHANG
DRAWING CODE:
FILE NAME:
PLOT DATE: 02/19/2013
SCALE: 1"=20'

ORANGE COUNTY OC PUBLIC WORKS

PREPARED BY: PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

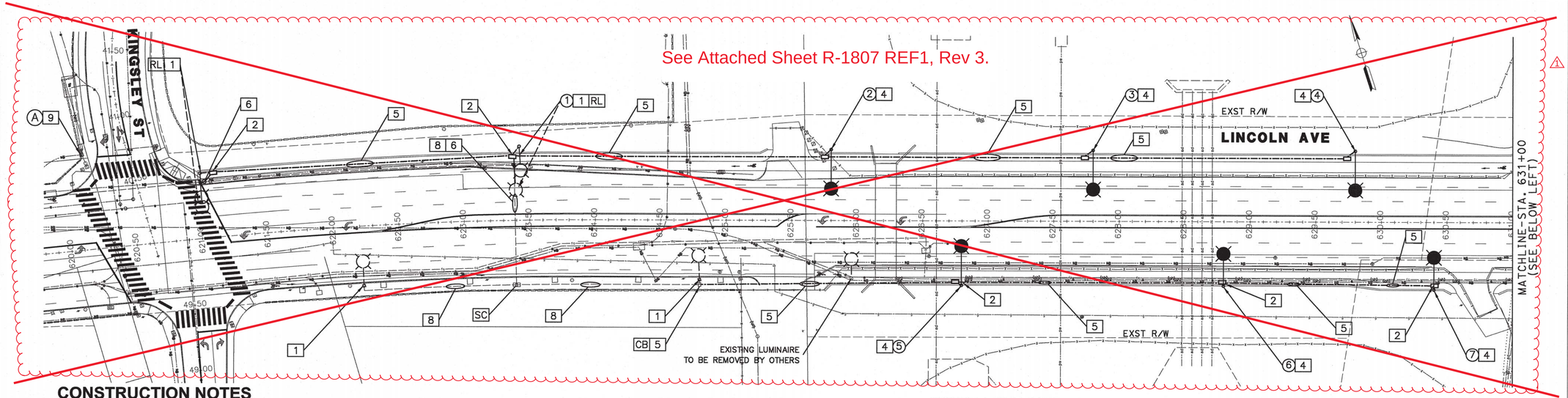
TRAFFIC SIGNAL MODIFICATION PLANS

Sheet Reference Number

TS-01 R1

Att 5 to Bulletin 2

See Attached Sheet R-1807 REF1, Rev 3.



CONSTRUCTION NOTES

1. EXISTING MARBELITE LIGHT NO. 736
2. FURNISH & INSTALL NO. 5 PULLBOX WITH BOLT DOWN LID TO BE MARKERD "STREET LIGHTING" PER CALTRAN STD ES-8.
3. EXISTING PULL BOX
4. FURNISH AND INSTALL TYPE 21 BARRIER RAIL MOUNTED LUMINAIRE PER CALTRAN STD ES-6A. LUMINAIRES TO BE COBRA HEAD STYLE 250 WATT HPS, 240 VOLT LUMINAIRES (G.E. TYP M-400A2, M2RC2OSOA2GMC3 OR EQUAL), COMPLETE WITH SHORTING CAP, LAMP, FUSE KIT FOR 240 VOLT AT 10 AMP, FUSE KIT TO BE INSTALLED INTO PULL BOX. SEE STREET LIGHT POLE SCHEDULE FOR DETAILS.
5. FURNISH AND INSTALL 2" CONDUIT MINIMUM 24" DEPTH WITH (3) #6 AWG CONDUCTORS. (NOTE: PVC CONDUIT NOT TO BE INSTALLED ACCROSS DRIVEWAY OR STREET. INSTALL 2" HD RIGID GALVANIZED STEEL OR APPROVED OTHER.)
6. INTERCEPT AND EXTEND EXISTING CONDUIT TO NEW #5 PULL BOX.
7. FURNISH AND INSTALL 2" HD RIGID GALVANIZED STEEL CONDUIT WITH (3) #6 AWG CONDUCTORS.
8. REMOVE EXISTING CONDUCTORS, FURNISH AND INSTALL (3) #6 AWG CONDUCTORS.
9. EXISTING TYPE III SERVICE METER CABINET & FOUNDATION
10. ATTACH NEW CONDUIT TO BRIDGE ABBUTMENT WALL.

RL RELOCATE PER COUNTY OF ORANGE STD. PLN. 1410.

CB INSTALL CONDUIT INTO EXISTING PULL BOX.

SC SPLICE NEW TO EXISTING CONDUCTORS.

LEGEND

NEW TYPE 21 LUMINAIRE

NEW #5 PULL BOX

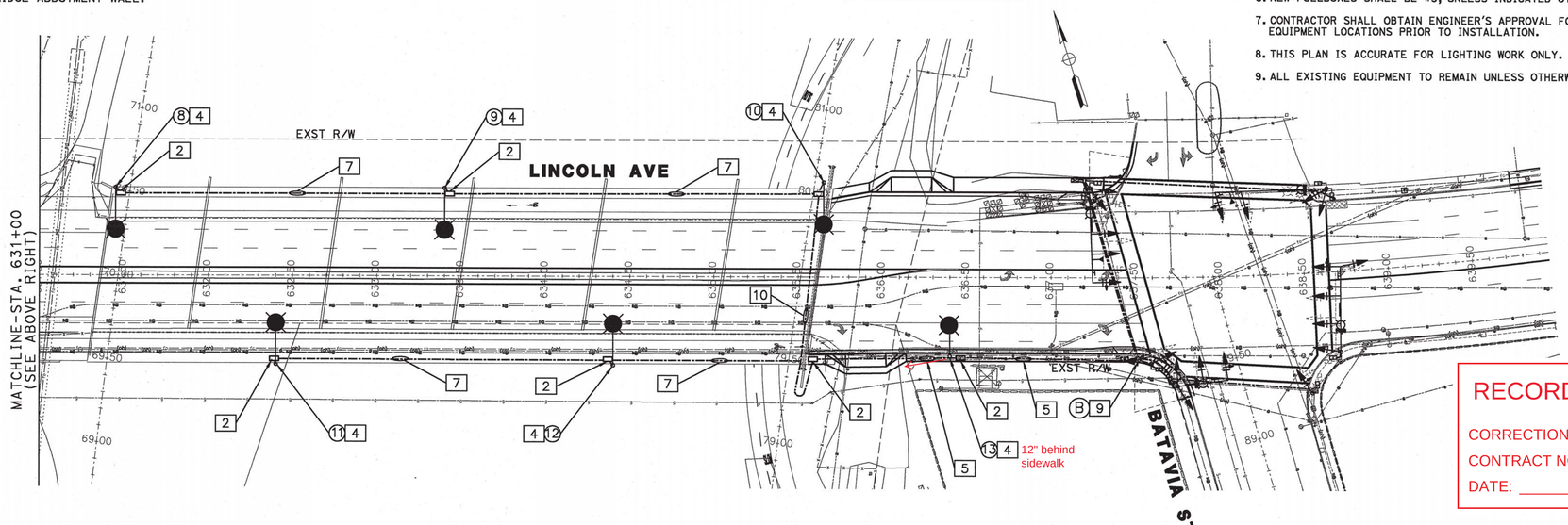
NEW CONDUIT

STREET LIGHT POLE SCHEDULE

SERVICE METER	POLE No.	STANDARD TYPE	STANDARD HIEGHT	MAST ARM LENGTH	HPS LUM.	STATION	
A	1	21	35'	15'	250W	~~623+40~~	
	2	21	35'	15'	250W	~~625+80~~	
	3	21	35'	15'	250W	~~627+80~~	
	4	21	35'	15'	250W	~~629+80~~	
	5	21	35'	15'	250W	~~626+80~~	
	6	21	35'	15'	250W	~~628+80~~	
	7	21	35'	15'	250W	~~630+40~~	
B	8	21	35'	15'	250W	~~631+45~~	631+53
	9	21	35'	15'	250W	~~633+40~~	633+48
	10	21	35'	15'	250W	~~635+40~~	635+42
	11	21	35'	15'	250W	~~632+40~~	632+50
	12	21	35'	15'	250W	~~634+40~~	634+45
	13	21	35'	15'	250W	~~636+40~~	636+12+/-

GENERAL NOTES

1. ALL WORK, MATERIAL AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF THE 2010 STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS, 2010 STANDARD SPECIFICATIONS, CURRENT AMENDMENTS, THE 2012 CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL WORK ON THIS PROJECT.
3. WHERE NEW CONDUCTOR CABLES ARE SPECIFIED, THE EXISTING CABLE SHALL BE REMOVED.
4. SALVAGED POLES, EQUIPMENT, AND SIGNS SHALL BE RETURNED COMPLETE WITH ALL ASSOCIATED HARDWARE TO THE COUNTY YARD PER COUNTY'S DIRECTION.
5. LOCATIONS SHOWN FOR UNDERGROUND UTILITIES ARE APPROXIMATE. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUIT, OR STRUCTURES SHOWN ON THESE PLANS WAS OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS TO THE BEST OF OUR KNOWLEDGE. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT EXISTING UTILITIES. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS, OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL POTHOLE LOCATIONS OF NEW POLE AND CABINET FOUNDATIONS AND PULLBOXES TO AVOID CONFLICT WITH UTILITIES.
6. NEW PULLBOXES SHALL BE #5, UNLESS INDICATED OTHERWISE ON THE PLANS.
7. CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL FOR EXACT POLE AND EQUIPMENT LOCATIONS PRIOR TO INSTALLATION.
8. THIS PLAN IS ACCURATE FOR LIGHTING WORK ONLY.
9. ALL EXISTING EQUIPMENT TO REMAIN UNLESS OTHERWISE NOTED.



RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung

CONTRACT NO.: ER09343

DATE: 03/13/2015

CCO #1 Sheet 1 of 3

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.
2	Revise SL station	6/20/14	
1	Replace street lights per City of Anaheim	2/3/14	

PREPARED UNDER THE RESPONSIBLE CHARGE OF: ALEJANDRO ANGEL, REGISTERED ENGINEER, No. 72703, EXP. 6-30-14, CIVIL, STATE OF CALIFORNIA — DATE 01/29/15

DESIGNED BY: B. GAUMOND | CHECKED BY: C. ZHANG | DRAWN BY: B. GAUMOND | DRAWING CODE: | FILE NAME: | PLOT DATE: 10/1/2012 | SCALE: 1"=40'

ORANGE COUNTY OC PUBLIC WORKS

PREPARED BY: PSOMAS, 3 HUTTON CENTRE DRIVE, STE 200, SANTA ANA, CA 92707, TEL: (714) 751-7373, FAX: (714) 545-8565

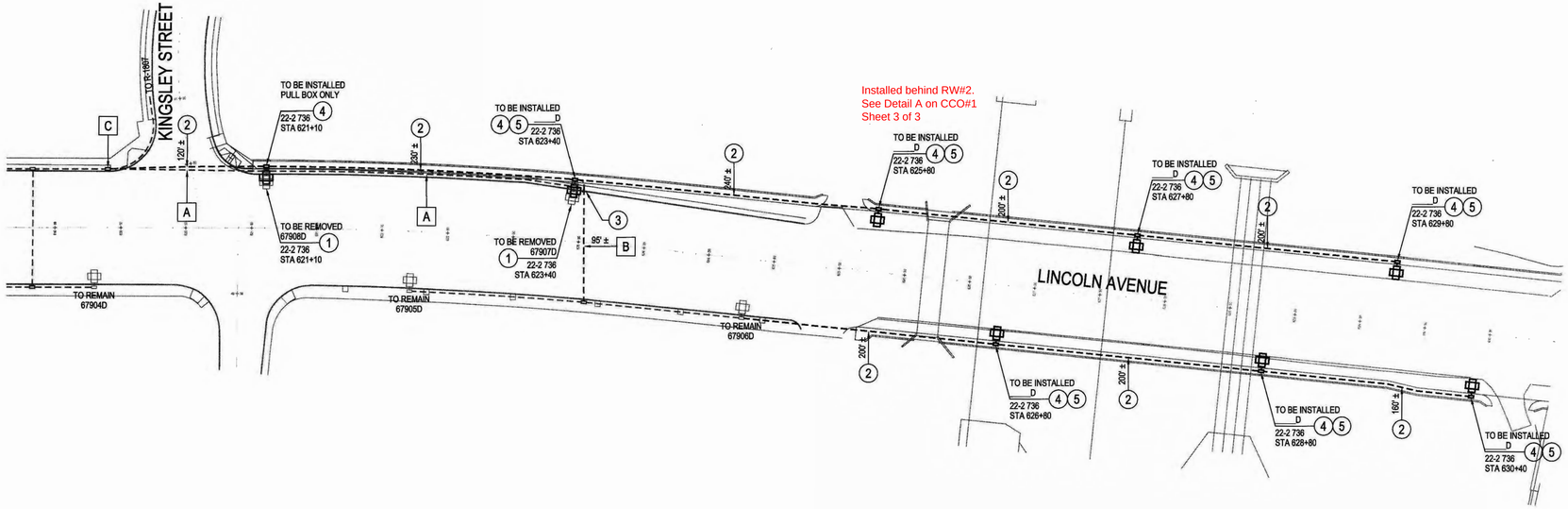
LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

STREET LIGHING

STA 620+50 TO 639+50

Sheet Reference Number

TS-02



N

EM134
WALNUT 12KV CIRCUIT
YORBA SUB

ELECTRICAL UTILITY UNDERGROUND GENERAL NOTES:

1. ***INSPECTION:*** THE DEVELOPER/CONTRACTOR SHALL CONTACT THE ELECTRICAL UTILITY INSPECTOR, NOT LESS THAN TWO (2) CALENDAR WEEKS PRIOR TO BEGINNING WORK TO ESTABLISH A PRE-CONSTRUCTION CONFERENCE FOR COORDINATION WITH THE ANAHEIM PUBLIC UTILITIES DEPARTMENT.
2. ***CONSTRUCTION SPECIFICATIONS:*** THE DEVELOPER/CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF THE "ELECTRICAL SPECIFICATIONS FOR UNDERGROUND SYSTEMS & DISTRIBUTION SUBSTRUCTURES" OF THE ANAHEIM PUBLIC *UTILITY* DEPARTMENT.
3. ***CABLE SEPARATION:*** ELECTRICAL POWER CABLES SHALL BE SEPARATED FROM TELEPHONE CABLES/CONDUIT, GAS LINES, WATER LINES, AND ALL OTHER PIPE SYSTEMS OR FOREIGN SUBSTRUCTURES BY AT LEAST 12 INCHES WHERE THEY ARE PARALLEL TO EACH OTHER, AND AT LEAST 6 INCHES WHERE THEY CROSS EACH OTHER.
4. ***CONDUIT IN STREET, ALLEY, OR EASEMENT:*** FOR ALL UTILITY POWER CABLES CROSSING UNDER A DEDICATED PUBLIC STREET, PRIVATE STREET, DRIVEWAY, ALLEY OR EASEMENT; THE CONTRACTOR SHALL INSTALL CONDUIT FOR CABLING AS PER CITY OF ANAHEIM ELECTRICAL SPECIFICATIONS.
5. ***RETAINING WALLS:*** RETAINING WALLS SHALL BE INSTALLED BY DEVELOPER TO PROTECT TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT OR STRUCTURES IN ALL SLOPE AREAS SUBJECT TO EROSION. DESIGN AND INSTALLATION SHALL COMPLY WITH CITY OF ANAHEIM BUILDING ORDINANCES AND ELECTRICAL UTILITY CONSTRUCTION STANDARDS.
6. ***EASEMENT DOCUMENTS:*** THE DEVELOPER/CONTRACTOR SHALL PROVIDE ENGINEERING DRAWINGS SHOWING METES AND BOUNDS WITH ALL BEARINGS NECESSARY FOR PREPARING EASEMENT DOCUMENTS.
7. ***APPLICATION FOR SERVICE:*** THE DEVELOPER/CONTRACTOR IS REQUIRED TO CONTACT THE NEW BUSINESS REPRESENTATIVE AT (714) 765-4201 EXTENSION 5003 (COMMERCIAL CONSTRUCTION) OR 5604 (RESIDENTIAL CONSTRUCTION) TO REQUEST AND MAKE APPLICATION FOR SERVICE 6 WEEKS PRIOR TO REQUIRED SERVICE DATE.
8. ***CONSTRUCTION COORDINATION:*** THE DEVELOPER/CONTRACTOR SHALL CONTACT THE ELECTRICAL UTILITY INSPECTOR ASSIGNED TO THE PROJECT, WITH 2 WORKING DAYS NOTICE, TO COORDINATE ELECTRICAL UTILITY INSPECTION WHEN THE PROJECT IS READY.
9. ***SERVICE PANEL INSPECTION:*** THE DEVELOPER/CONTRACTOR SHALL NOTIFY THE UTILITY ELECTRICAL METER SHOP AT (714) 765-6858 FOR SERVICE PANEL INSPECTION, APPROVAL AND RELEASE WHEN PANEL(S) IS (ARE) INSTALLED ON ALL COMMERCIAL INSTALLATIONS.
10. ***SERVICE RELEASE:*** BEFORE THE ELECTRICAL SERVICE TO ANY DEVELOPMENT CAN BE ENERGIZED, THE ELECTRICAL PANEL SHALL BE INSTALLED AND THREE (3) INSPECTION RELEASES,
    (1) CITY BUILDING DEPARTMENT;
    (2) UTIILTY ELECTRIC INSPECTOR;
    (3) UTIILTY ELECTRICAL METER SHOP;
    ARE REQUIRED AS WELL AS ANY OUTSTANDING ELECTRICAL FEES OR EASEMENT REQUIREMENTS.
11. ***PUBLIC RIGHT OF WAY:*** ALL WORK WITHIN PUBLIC R/W WILL REQUIRE A PUBLIC R/W EXCAVATION AND CONSTRUCTION PERMIT. CALL PUBLIC WORKS ENGINEERING AT (714) 765-4431 FOR REQUIREMENTS.

BY DEVELOPER/CONTRACTOR:

(1) REMOVE AND SALVAGE EXISTING STREET LIGHTS, LUMINARIES, CONDUCTORS AND/OR PULL BOXES, AND TRANSPORT TO THE CITY YARD AT 901 E. VERMONT AVENUE. ABANDON EXISTING CONDUIT AND DISPOSE CONCRETE STREET LIGHT BASE AT A LAND FILL.

(2) PROVIDE AND INSTALL NEW 1-2" GRAY PVC SCHEDULE 80 CONDUIT, WITH 3-#2 AL XHHW-2 CONDUCTORS, 24" MIN. DEPTH, PHASE CABLE INSULATION SHALL BE BLACK. NEUTRAL CABLE INSULATION SHALL BE WHITE OR IDENTIFIED WITH WHITE TAPE PER CU1500-5, CU1600-4, CU1600-4A, CU1600-98M, L103 AND L104. (NOTE: CONDUIT IN VEHICULAR TRAFFIC AREAS SHALL BE 1-2" STEEL HD GALV. CONDUIT OR 2" CONCRETE ENCASED - CLASS 450-C-2000).

(3) MANDREL EXISTING 1-2" HD GALV. CONDUIT, PER CU1600-96K. OBTAIN APPROVAL FROM UTILITIES INSPECTOR FOR MANDREL OF EXISTING CONDUIT.

IF EXISTING CONDUIT IS INTACT AND VERIFIED, LOCATE, EXCAVATE, EXPOSE AND RE-DIRECT EXISTING SECONDARY CONDUIT WITH NEW 1-2" HD GALV. CONDUIT, 24" MIN. DEEP PER CU1500-5, CU1600-4, CU1600-4A, CU1600-98M, WITH 3-#2 AL XHHW-2 CONDUCTORS IN CONDUIT FROM NEW PULL BOX TO EXISTING PULL BOX. (NOTE: CONDUIT IN VEHICULAR TRAFFIC AREAS SHALL BE 1-2" STEEL HD GALV. CONDUIT OR 2" CONCRETE ENCASED - CLASS 450-C-2000).

OTHERWISE, INSTALL NEW 1-2" GRAY PVC SCHEDULE 80 CONDUIT, 24" MIN. DEEP PER CU1500-5, CU1600-4 CU1600-4A, CU1600-98M, WITH 3-#2 AL XHHW-2 CONDUCTORS IN CONDUIT FROM NEW PULL BOX TO EXISTING PULL BOX. (NOTE: CONDUIT IN VEHICULAR TRAFFIC AREAS SHALL BE 1-2" STEEL HD GALV. CONDUIT OR 2" CONCRETE ENCASED - CLASS 450-C-2000).

(4) PROVIDE AND INSTALL 13" x 24" CONCRETE PULL BOX PER CITY OF ANAHEIM CONSTRUCTION STANDARD CU1500-1A AND L103 WITH BOLT DOWN LID TO BE MARKED "STREET LIGHT". PROVIDE AND INSTALL 3-4 POSITION CONNECTORS, FUSES, FUSE HOLDERS, AND MAKE CONNECTIONS PER CONSTRUCTION STANDARD L-104.

~~***NOTE TO CONTRACTOR: PULL BOX TO BE INSTALLED IN FRONT OF STREET LIGHTS.***~~

Pull box locations per Caltrans Standard Plan B11-54.

(5) PROVIDE AND INSTALL COMPLETE SINGLE ARM POLE AND FOUNDATION PER CITY OF ANAHEIM STREET LIGHT DESIGN NO. 749 PER CONSTRUCTION STANDARD L-139. LUMINARIES TO BE COBRA HEAD STYLE, 200 WATT HPS, 22000 LUMENS, COMPLETE WITH PHOTO EYE. PROVIDE AND INSTALL 1" GREY PVC SCHEDULE 40 CONDUIT WITH (2)-#6 CU THWN OR EQUAL CONDUCTORS FROM PULL BOX TO STREET LIGHT FUSE KIT AND #14 CU THWN UP THE POLE. ***10 AMP FUSES*** AND FUSE HOLDERS FOR ***240 VOLT OPERATION*** TO BE INSTALLED IN PULL BOX.

NOTE TO CONTRACTOR: STREET LIGHT BASE TO BE PER APPROVED ORANGE COUNTY PUBLIC WORKS PLANS. SEE DETAIL "A" FOR REFERENCE.

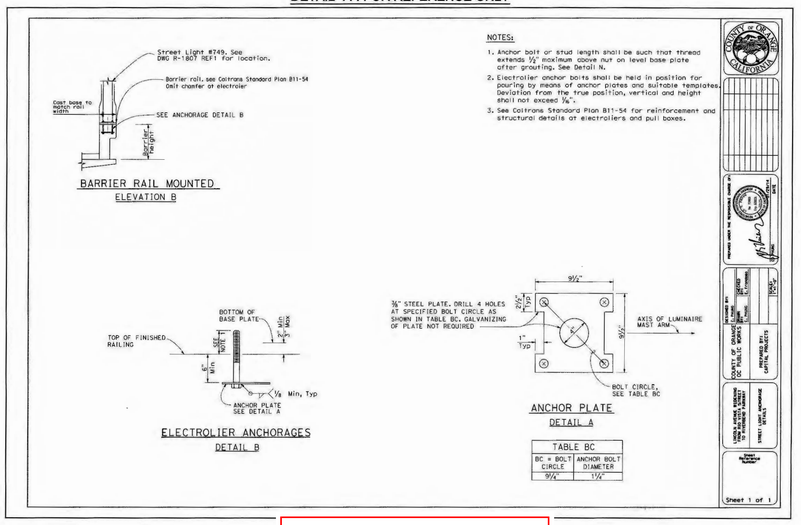
BY ANAHEIM PUBLIC UTILITIES:

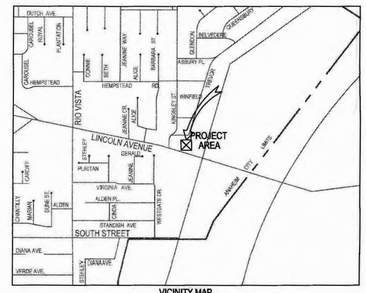
A REMOVE EXISTING STREET LIGHT CABLE AND ABANDON STREET LIGHT CONDUIT IN PLACE.

B REMOVE EXISTING STREET LIGHT CABLE. CONDUIT TO BE INTERCEPTED BY CONTRACTOR.

C MAKE CONNECTIONS AND ENERGIZE STREET LIGHTS.

DETAIL "A": FOR REFERENCE ONLY





CONTACT INFORMATION

CUSTOMER CONTACT:	CO PHUNG	(714) 245-4594
ELEC. INSPECTOR:	EDDIE RAMIREZ	(714) 240-3305
ELEC. METER SHOP:	MICHAEL BALTES	(714) 765-6858
ELEC. DESIGNER:	JASON RILLORAZA	(714) 765-4659

SECONDARY FED UNDERGROUND

LINCOLN AVENUE AND KINGSLEY STREET
LINCOLN AVENUE STREET WIDENING

RECORD DRAWING
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

ADDITIONAL SHEET
CCO #1 Sheet 2 of 3

NOTE: ENERGIZED CABLE IN THE IMMEDIATE VICINITY OF THE WORK; CONTRACTOR SHALL ASCERTAIN THE EXACT LOCATION AND PROTECT IN PLACE. NOTIFY UTILITIES INSPECTOR PRIOR TO ANY EXCAVATION.

Under ground Service Alert of Southern California
Call: TOLL FREE 1-800 227-2600
TWO WORKING DAYS BEFORE YOU DIG

NOTICE TO CONTRACTOR:

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES WAS OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. ADDITIONAL UNDERGROUND FACILITIES MAY EXIST, OR THE LOCATION OF THE FACILITIES MAY DIFFER FROM THE LOCATIONS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, DETERMINE THE EXACT LOCATION OF ALL SUCH UNDERGROUND FACILITIES PRIOR TO COMMENCEMENT OF ANY WORK OR ANY ACTION WHICH MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR CONTINUOUS AND PROPER OPERATION.

REGISTERED PROFESSIONAL ENGINEER — THANG QUOC NGUYEN — No. 16274 — Exp. 12/31/2014 — ELECTRICAL — STATE OF CALIFORNIA

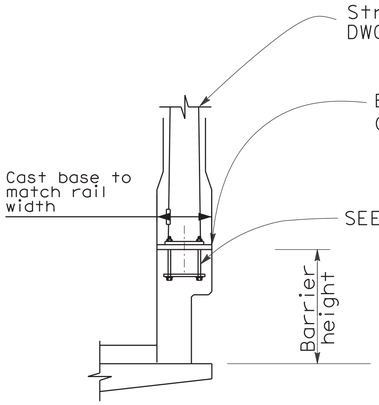
NO.	DATE	REVISIONS
3	02/03/14	CHANGE STREET LIGHT DESIGN TO 749
2	01/16/14	REMOVE 1 STREET LIGHT
1	04/16/13	ADDED 6 NEW STREET LIGHTS

CITY OF ANAHEIM PUBLIC UTILITIES
ELECTRICAL ENGINEERING DIVISION
201 SOUTH ANAHEIM BLVD. #701
ANAHEIM, CA 92805
(714) 765-5156
www.anaheim.net

G:\T&D\RC\R-1807 REF1.DWG

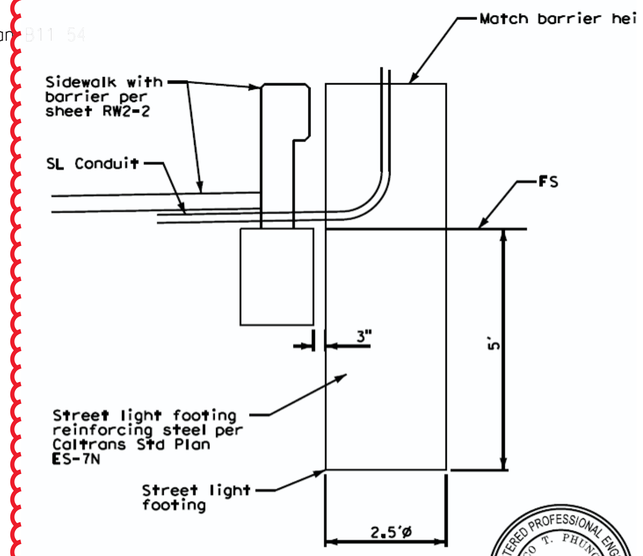
INSPECTOR W/O	1300906-03		
FIELD W/O	1300907-01		
ENGR.	JR		
P.E.	TM		
DRAFTER	JR		
ISSUE DATE	02/03/2014		
CONST. DATE	-		

UEC NO:	2013-00073	**DRAWING NUMBER**	**REV**
PROJECT:	1300000160	R-1807 REF1	3
PROGRAM:	6761		
SCALE:	1" = 50'		
SHEET	1 OF 1		



BARRIER RAIL MOUNTED

ELEVATION B

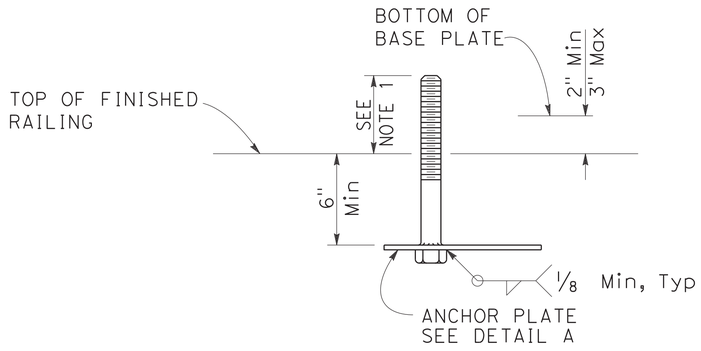


Detail A

NOTES:

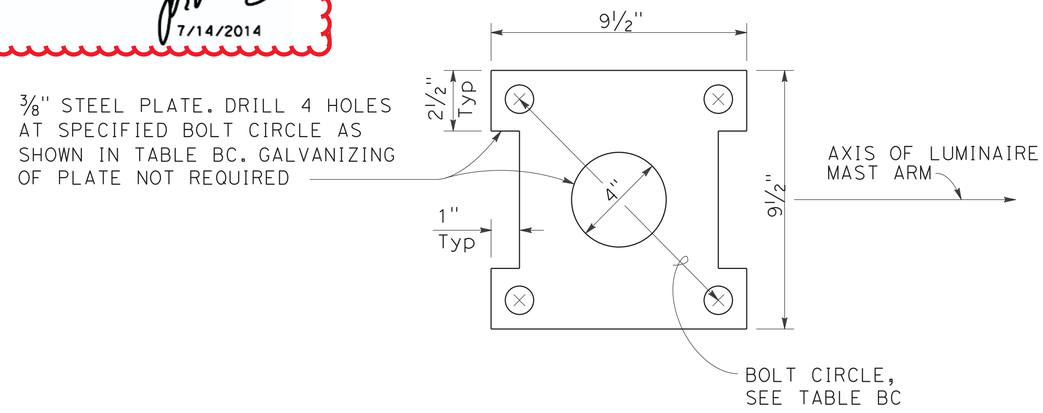
1. Anchor bolt or stud length shall be such that thread extends ½" maximum above nut on level base plate after grouting. See Detail N.
2. Electrolier anchor bolts shall be held in position for pouring by means of anchor plates and suitable templates. Deviation from the true position, vertical and height shall not exceed 1/16".
3. See Caltrans Standard Plan B11-54 for reinforcement and structural details at electroliers and pull boxes.

1



ELECTROLIER ANCHORAGES

DETAIL B



ANCHOR PLATE

DETAIL A

TABLE BC	
BC = BOLT CIRCLE	ANCHOR BOLT DIAMETER
9 1/4"	1 1/4"

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

ADDITIONAL SHEET

CCO #1 Sheet 3 of 3

COUNTY OF ORANGE CALIFORNIA

1	Add SL footing detail	7/14/14 CP

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER CO T. PHUNG No. 73985 Exp. 6/30/15 CIVIL STATE OF CALIFORNIA
07/29/14 DATE
CO PHUNG

DESIGNED BY: C. PHUNG
DRAWN BY: C. PHUNG
CHECKED BY: E. Frondoso
SCALE: 1"=1'-0"

COUNTY OF ORANGE
OC PUBLIC WORKS

PREPARED BY:
CAPITAL PROJECTS

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

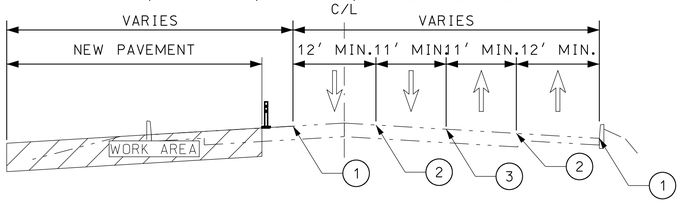
STREET LIGHT ANCHORAGE DETAILS

Sheet Reference Number

Sheet 1 of 1

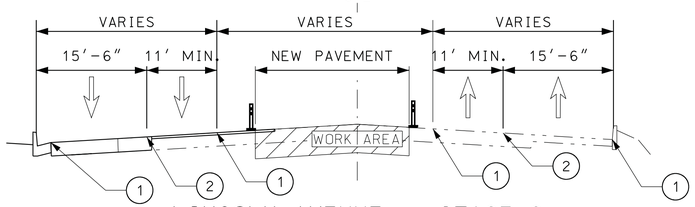
TRAFFIC REQUIREMENTS

STAGE	WORK	SHEET
0	INSTALL ALL TEMPORARY TRAFFIC CONTROL DEVICES, AND DETOURS PER BIKEWAY AND EQUESTRIAN TRAIL HANDLING PLAN. CONSTRUCT MAINTENANCE ROAD, BIKE/ EQUESTRIAN TRAIL, AND BRIDGE FOOTINGS.	58 & 60
1	INSTALL ALL TEMPORARY TRAFFIC CONTROL DEVICES, AND DETOURS PER TRAFFIC HANDLING PLAN STAGE 1. SHIFT TRAFFIC TO THE SOUTH SIDE OF LINCOLN AVENUE, MAINTAINING TWO LANES OF TRAVEL IN EACH DIRECTION. CONSTRUCT NORTH LINCOLN AVENUE WIDENING, REHABILITATION, ADA RAMPS, DRIVEWAYS, SIDEWALK, AND BRIDGE WIDENING.	46-49
2	INSTALL ALL TEMPORARY TRAFFIC CONTROL DEVICES, AND DETOURS PER TRAFFIC HANDLING PLAN STAGE 2. SHIFT WESTBOUND TRAFFIC TO NEWLY WIDENED NORTH LINCOLN AVENUE AND EASTBOUND AGAINGST EXISTING SOUTHERN CURB, MAINTAINING TWO LANES OF TRAVEL IN EACH DIRECTION. REMOVE MEDIAN ON LINCOLN AVENUE BRIDGE OVER SANTA ANA RIVER. CONSTRUCT CENTER PORTION ON LINCOLN AVENUE AND MILL AND OVERLAY EXISTING PAVEMENT.	50-53
3	INSTALL ALL TEMPORARY TRAFFIC CONTROL DEVICES, AND DETOURS PER TRAFFIC HANDLING PLAN STAGE 3. SHIFT TRAFFIC TO THE NORTH SIDE OF LINCOLN AVENUE, MAINTAINING TWO LANES OF TRAVEL IN EACH DIRECTION. CONSTRUCT SOUTH LINCOLN AVENUE WIDENING, REHABILITATION, ADA RAMPS, DRIVEWAYS, SIDEWALK, AND BRIDGE WIDENING.	54-57



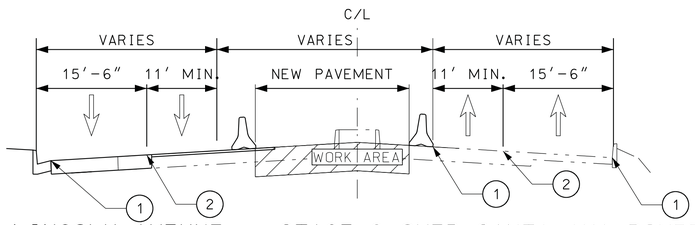
LINCOLN AVENUE – STAGE 1

NOT TO SCALE



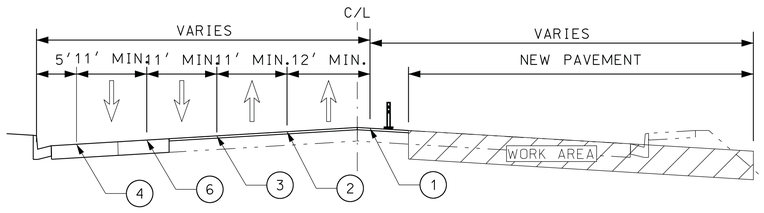
LINCOLN AVENUE – STAGE 2

NOT TO SCALE



LINCOLN AVENUE – STAGE 2 OVER SANTA ANA RIVER

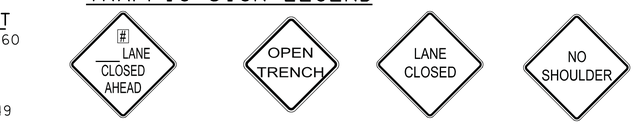
NOT TO SCALE

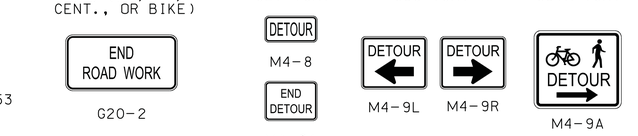


LINCOLN AVENUE – STAGE 3

NOT TO SCALE

TRAFFIC SIGN LEGEND











CONSTRUCTION NOTES

1. INSTALL 4″ WHITE TEMPORARY EDGE LINE PER CALTRANS STD PLAN A20B DETAIL 27B
2. INSTALL 4″ WHITE TEMPORARY LANE LINE PER CALTRANS STD PLAN A20A DETAIL 8
3. INSTALL 4″ YELLOW TEMPORARY TWO DIRECTION NO PASSING LINE PER CALTRANS STD PLAN A20A DETAIL 21
4. INSTALL 6″ SOLID WHITE BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39
5. INSTALL 6″ WHITE DASHED BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39A
6. INSTALL 4″ WHITE DASHED LANE LINE PER CALTRANS STD PLAN A20A DETAIL 9
7. INSTALL 4″ WHITE SOLID LANE LINE WITH TYPE "G" RPM AT THE END
8. INSTALL 8″ WHITE SOLID TEMPORARY CHEVRON (20′ ON CENTER)
9. FURNISH AND INSTALL TEMPORARY CHAIN LINK FENCE
10. INSTALL 8″ WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
11. INSTALL 4″ DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR 29
12. INSTALL 4″ WHITE OR YELLOW LANE LINE EXTENSION THROUGH INTERSECTION CALTRANS PER STD PLAN A20D DETAIL 40 OR 41

PORTABLE CHANGEABLE MESSAGE SIGN NOTES

1. CONTRACTOR SHALL INSTALL PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) AT THE BEGINNING AND ENDING OF THE CONSTRUCTION PROJECT. DISPLAY MESSAGE PER PLAN.
2. CONTRACTOR SHALL PROGRAM EACH SCREEN OF THE OF ALL PCMS TO FLASH FOR TWO (2) SECONDS.

** TWO WEEKS PRIOR TO CONSTRUCTION AS DIRECTED BY ENGINEER

SCREEN 1	SCREEN 2
MAJCONST	XX/XX/XX
LINCOLN	TO
AVENUE	XX/XX/XX

** DURING CONSTRUCTION

SCREEN 1	SCREEN 2
MAJ WORK	EXPECT
LINCOLN	DELAYS
AVENUE	

TRAFFIC HANDLING PLAN GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST APPROVED/ ADOPTED EDITIONS OF THE STATE OF CALIFORNIA STANDARD PLANS AND SPECIFICATIONS (2010), THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES MUTCD (2012), THE PROJECT SPECIAL PROVISIONS, AND THESE PLANS.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN THEIR PROPER POSITION AT ALL TIMES AND SHALL BE REPAIRED, REPLACED, OR CLEANED AS NECESSARY TO PRESERVE THEIR APPEARANCE AND CONTINUITY.
3. THE ENGINEER RESERVES THE RIGHT TO OBSERVE THESE TRAFFIC CONTROL PLANS IN USE AND MAKE ANY CHANGES NECESSITATED BY FIELD CONDITIONS. ALL SUCH CHANGES SHALL SUPERCEDE THESE PLANS AND WILL BE DONE SOLELY AT THE CONTRACTOR'S EXPENSE.
4. UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES AND RESTORE ALL PERMANENT SIGNING AND STRIPING IMPACTED BY CONSTRUCTION TO THEIR ORIGINAL CONDITION. CONTRACTOR RESPONSIBLE FOR THE REPAIR OF ALL DAMAGE TRAFFIC LOOPS WITHIN 72 HOURS OF DAMAGE TO THEM.
5. ALL STRIPING, PAVEMENT MARKINGS, AND LEGENDS SHALL CONFORM TO CALTRANS STANDARD PLANS A20A–A20D AND A24A–A24E.
6. SIGNS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2012 EDITION. SIGN SIZE SHALL BE THE STANDARD SIZE, UNLESS OTHERWISE NOTED ON THE PLAN.
7. ALL TEMPORARY STRIPING, PAVEMENT MARKINGS, AND LEGENDS SHALL BE IN PAINT.
8. CONSTRUCTION OPERATIONS SHALL BE CONDUCTED IN SUCH A MANNER AS TO CAUSE AS LITTLE INCONVENIENCE AS POSSIBLE TO ABUTTING PROPERTY OWNERS. CONTRACTOR SHALL DISTRIBUTE ADVISORY NOTICES TO EACH BUSINESS, ASSOCIATION, OR RESIDENCE WHICH WILL BE AFFECTED BY CLOSURE OR RESTRICTION TO ACCESS. SAID NOTICES ARE IN THE FORM OF A DOOR KNOB CARD WHICH ARE FURNISHED BY THE COUNTY FOR ACTIVITIES THAT WOULD AFFECT ACCESS OPERATIONS AND THE CONTRACTOR SHALL FILL IN THE DAY AND DATE FOR SCHEDULED WORK AND DISTRIBUTE NOTICES AT LEAST 36 HOURS BUT NOT MORE THAN 72 HOURS, EXCLUDING SUNDAYS, PRIOR TO THE WORK. CONTRACTOR SHALL PROVIDE ACCESS OR TEMPORARY ACCESS TO ALL BUSINESS AND RESIDENTIAL DRIVEWAYS EXCEPT AT THOSE TIMES WHEN CONSTRUCTION OPERATIONS SPECIFICALLY PROHIBIT ACCESS, BUT IN NO CASE LONGER THAN EIGHT (8) HOURS UNLESS OTHERWISE APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL CONTACT THE BUSINESS OR RESIDENCE OF THE NATURE AND DURATION AT LEAST TWENTY-FOUR (24) HOURS PRIOR TO ACCESS RESTRICTION.
9. ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM TRAVEL LANES BY THE CLOSE OF WORKING HOURS EACH DAY, UNLESS THEY ARE BEING USED TO PROTECT WORK. THE CONTRACTOR MAY LEAVE SIGN(S) OVERNIGHT IF THEY ARE SECURE AND DO NOT OBSTRUCT ANY WALKWAY OR ROADWAY. IN ADDITION, ANY SIGN(S) LEFT IN PLACE DURING NON-WORKING HOURS SHALL BE NON-VISIBLE AND COVERED. ALL TRAFFIC CONTROL DEVICES NOT BEING USED SHALL BE STAGED IN ONE AREA ON-SITE.
10. ALL CONFLICTING STRIPING, PAVEMENT MARKINGS, SYMBOLS AND RAISED PAVEMENT MARKERS SHALL BE REMOVED BY A METHOD APPROVED BY THE ENGINEER PRIOR TO ANY CHANGE IN TRAFFIC PATTERN.
11. TWO (2) TRAFFIC LANES SHALL BE MAINTAINED IN EACH DIRECTION AT ALL TIMES WITH 11′ MINIMUM WIDTHS AND 5′ MINIMUM CLEARANCES FROM OPEN EXCAVATIONS AND A MINIMUM OF 2′ FROM VERTICAL OBSTRUCTIONS. OPEN TRENCH WITH LESS THAN 5′ OF CLEARANCE SHALL BE PROTECTED BY K RAIL BARRIERS/ TEMPORARY CRASH CUSHIONS INSTALLED PER CALTRANS STD.
12. CONTRACTOR SHALL POST UNEVEN LANE SYMBOL OR STEEL PLATES AHEAD SIGNS FOR PAVEMENT SURFACE DISRUPTIONS OF 1/2″ OR GREATER. PAVEMENT DISRUPTIONS OF 1″ OR GREATER SHALL HAVE BEVELED EDGES OF FOUR HORIZONTAL TO ONE VERTICAL (4:1). CONTRACTOR SHALL INSTALL CAUTION STEEL PLATES AHEAD SIGNS IN ADVANCE OF STEEL PLATES.
13. PLACE ADDITIONAL LANE CLOSED C30 SIGNS ON TYPE II BARRICADES AS DIRECTED BY THE COUNTY ENGINEER THROUGHOUT EXTENDED WORK AREAS IN EACH LANE THAT IS CLOSED. INSTALL OPEN TRENCH C27 SIGNS WHENEVER AN OPEN EXCAVATION AREA EXISTS ADJACENT TO THE TRAVELED WAY.
14. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN DISABILITY ACT (ADA) AS RELATED TO PEDESTRIAN ACCESS AND SHALL MAINTAIN PEDESTRIAN ACCESS AT ALL TIMES PER ADA REQUIREMENTS. SIDEWALK CLOSURE/DETOUR SHALL COMPLY WITH THE CALIFORNIA 2012 MUTCD.
15. THE CONTRACTOR SHALL COVER OR REMOVE ALL CONFLICTING SIGNS.
16. CONTRACTOR SHALL PROVIDE COUNTY OF ORANGE WITH TRAFFIC HANDLING PLANS FOR REMOVING STRIPING AND RE-STRIPING WORK THAT IS NOT SHOWN IN THE PLANS.
17. THE FOLLOWING AGENCIES SHALL BE NOTIFIED FIVE (5) DAYS IN ADVANCE OF ANY DETOUR AND/OR CONSTRUCTION ACTIVITIES.

CITY OF ANAHEIM	(714) 765-5176
CITY OF ORANGE	(714) 744-5525
(OCTA) ORANGE COUNTY TRANSPORTATION AUTHORITY	(714) 530-6060
COUNTY OF ORANGE	(714) 560-6282

18. ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE ENGINEER.
19. CONTRACTOR SHALL STAGE WORK THROUGH INTERSECTIONS SO THAT LOCAL TRAFFIC HAS ACCESS AT ALL TIMES, MORE IMPORTANTLY AT SIGNALIZED INTERSECTIONS. ALL SIGNALIZED INTERSECTIONS SHALL BE CONSTRUCTED OVERNIGHT.
20. WORKING HOURS WITHIN THE PUBLIC TRAVEL WAY: 9:00 AM – 3:00 PM, MONDAY THRU FRIDAY, EXCLUDING WEEKENDS AND HOLIDAYS. NIGHT HOURS MAY BE PERMITTED FOR CONSTRUCTION ACTIVITIES UPON WRITTEN REQUEST AND APPROVAL BY THE ENGINEER.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
PROFESSIONAL ENGINEER JOSEPH MULVIHILL No. 46011 Exp. 12/31/14 CIVIL STATE OF CALIFORNIA
12/31/2013
DATE
JOSEPH MULVIHILL

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY

TRAFFIC HANDLING

INDEX, GENERAL NOTES, AND PCMS PLAN

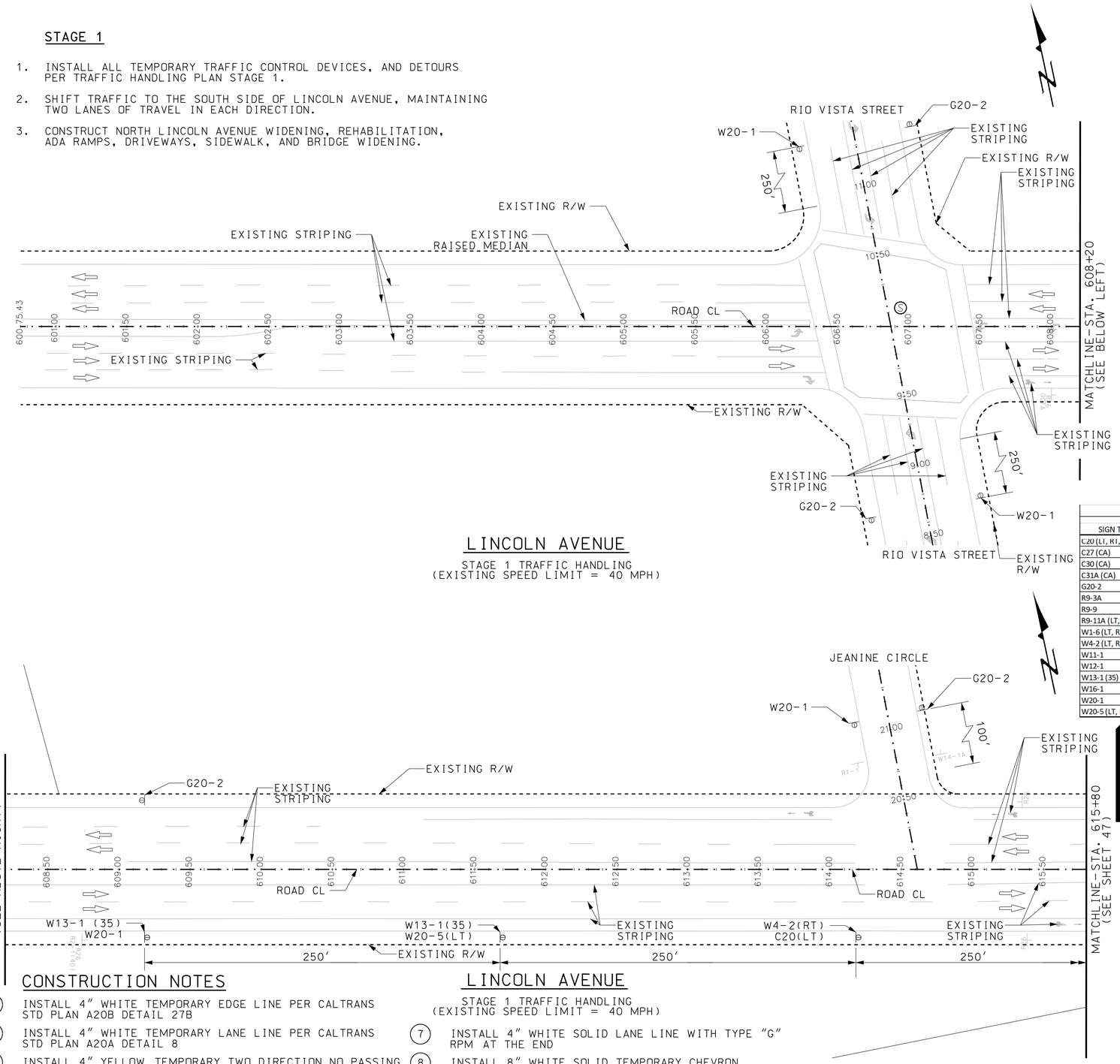
Sheet Reference Number

TH-01 R1

Att 5 to Bulletin 2

STAGE 1

1. INSTALL ALL TEMPORARY TRAFFIC CONTROL DEVICES, AND DETOURS PER TRAFFIC HANDLING PLAN STAGE 1.
2. SHIFT TRAFFIC TO THE SOUTH SIDE OF LINCOLN AVENUE, MAINTAINING TWO LANES OF TRAVEL IN EACH DIRECTION.
3. CONSTRUCT NORTH LINCOLN AVENUE WIDENING, REHABILITATION, ADA RAMPS, DRIVEWAYS, SIDEWALK, AND BRIDGE WIDENING.



LINCOLN AVENUE

STAGE 1 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 40 MPH)

CONSTRUCTION NOTES

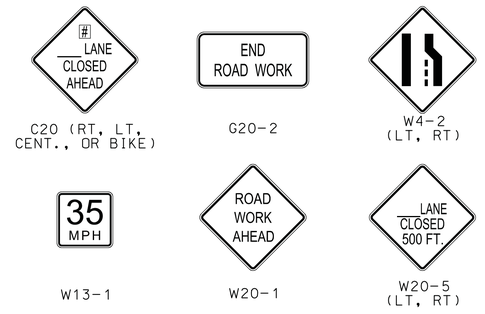
1. INSTALL 4" WHITE TEMPORARY EDGE LINE PER CALTRANS STD PLAN A20B DETAIL 27B
2. INSTALL 4" WHITE TEMPORARY LANE LINE PER CALTRANS STD PLAN A20A DETAIL 8
3. INSTALL 4" YELLOW TEMPORARY TWO DIRECTION NO PASSING LINE PER CALTRANS STD PLAN A20A DETAIL 21
4. INSTALL 6" SOLID WHITE BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39
5. INSTALL 6" WHITE DASHED BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39A
6. INSTALL 4" WHITE DASHED LANE LINE PER CALTRANS STD PLAN A20A DETAIL 9
7. INSTALL 4" WHITE SOLID LANE LINE WITH TYPE "G" RPM AT THE END
8. INSTALL 8" WHITE SOLID TEMPORARY CHEVRON (20' ON CENTER)
9. FURNISH AND INSTALL TEMPORARY CHAIN LINK FENCE
10. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
11. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR 29
12. INSTALL 4" WHITE OR YELLOW LANE LINE EXTENSION THROUGH INTERSECTION PER CALTRANS STD PLAN A20D DETAIL 40 OR 41

LINCOLN AVENUE

STAGE 1 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 40 MPH)

PLAN
1"=40'

TRAFFIC SIGN LEGEND



LINCOLN AVENUE BRIDGE WIDENING - STAGE I TRAFFIC HANDLING SIGN SUMMARY

SIGN TYPE	SIGN SIZE	ON SIGN POST	ON W/ ANOTHER SIGN	ON DELINEATOR	ON TYPE III BARRICADE	ON W/ ANOTHER SIGN	ON TYPE II W/ FLASHER
C20 (LT, RT, BIKE)	36" X 36"	1	2				
C27 (CA)	36" X 36"						4
C30 (CA)	30" X 30"				12		
C31A (CA)	36" X 36"						3
G20-2	36" X 18"	14					
R9-3A	30" X 36"				4		
R9-9	24" X 12"					2	
R9-11A (LT, RT)	24" X 12"					2	
W1-6 (LT, RT)	48" X 24"					3	
W4-2 (LT, RT)	36" X 36"	2					
W11-1	30" X 30"		6			8	
W12-1	30" X 30"				1		
W13-1 (35)	24" X 24"		4				
W16-1	18" X 24"	6			8		
W20-1	36" X 36"	14					
W20-5 (LT, RT)	36" X 36"	2					

NOTE: THE TRAFFIC CONTROL HANDLING SIGN SUMMARY REPRESENTS THE MINIMUM NUMBER OF SIGNS NECESSARY TO PROVIDE TRAFFIC HANDLING. SITE CONDITIONS MAY REQUIRE MORE SIGNAGE, TRAFFIC CONTROL DEVICES, K RAIL, AND OTHER DEVICES TO PROTECT THE ACTIVE WORK ZONE FROM THE TRAFFIC. ADDITIONAL ITEMS WILL BE INCLUDED IN THE BID ITEM FOR TRAFFIC HANDLING AND NO ADDITIONAL COMPENSATION WILL BE GRANTED.

LEGEND

- TYPE II BARRICADE, (WITH STEADY BURN TYPE C OR D ALONG SIDE OF TRAVEL WAY. WITH FLASHER AT APPROACHES TO HAZARDS WITH NO ARROW BOARDS)
- TYPE III BARRICADE (MIN 8' WIDTH) (TWO 4' WIDE BARRICADES)
- SIGN (PER MUTCD CODE)
- DELINEATOR WITH WHITE RETROREFLECTIVE TAPE (THICKER CONE PLATFORM)
- FLASHING ARROW SIGN
- SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL (NOT A PAVEMENT MARKING)
- HIGH LEVEL WARNING DEVICE
- K RAIL (TRAFFIC BARRIER WITH WARNING LIGHT)
- CRASH CUSHION WITH TYPE P MARKER PANEL (CALTRANS STD PLAN T2)
- WORK AREA
- EXISTING DRIVEWAY

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
JOSEPH MULVIHILL — DATE

PROFESSIONAL ENGINEER — JOSEPH MULVIHILL — No. 46011 — Exp. 12/31/14 — CIVIL — STATE OF CALIFORNIA

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

TRAFFIC HANDLING
STAGE 1

STA. 600+76 TO STA. 615+80

Sheet Reference Number

TH-02 R1

Att 5 to Bulletin 2
Sheet 46 of 90

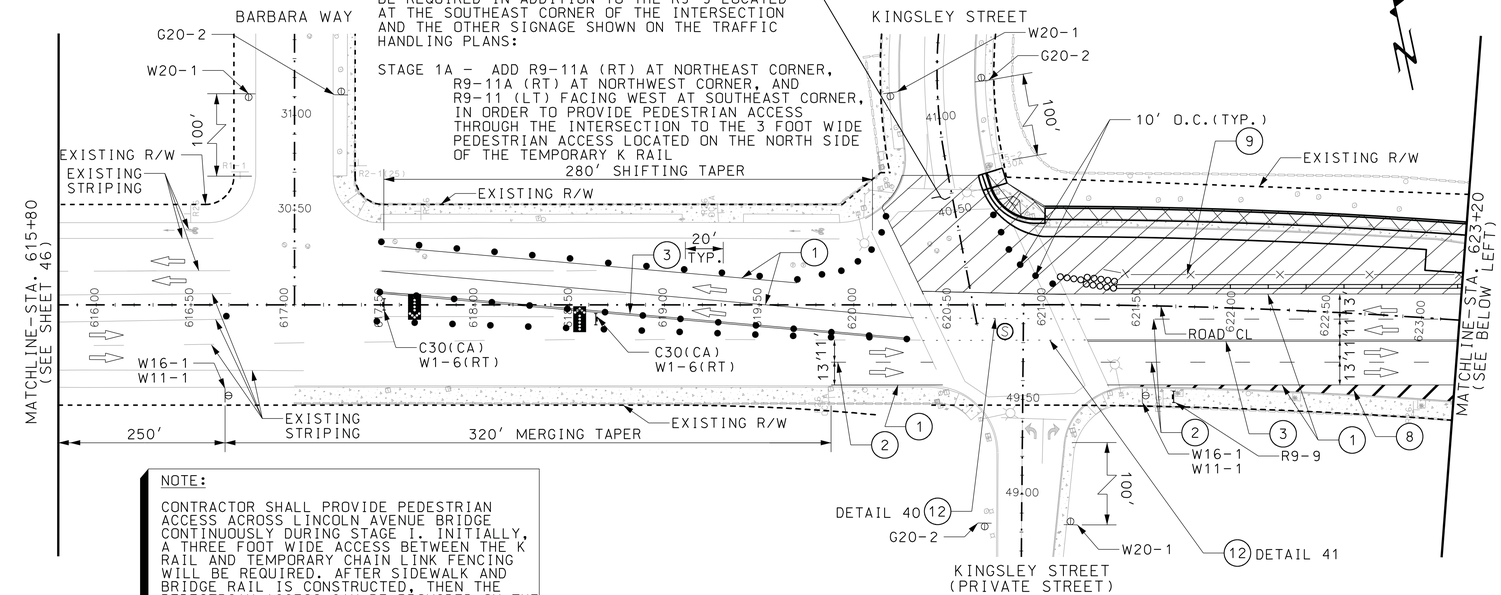
** SEE SHEET 59 FOR TYPICAL INTERSECTION STAGING DETAIL.

DURING STAGE 1 WORK NEAR THE INTERSECTION OF KINGSLEY STREET AND LINCOLN AVENUE, THE CONTRACTOR SHALL HAVE MULTIPLE STAGES TO MAINTAIN PEDESTRIAN ACCESS THROUGH THE INTERSECTION. THE FOLLOWING SIGNAGE WILL BE REQUIRED IN ADDITION TO THE R9-9 LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION AND THE OTHER SIGNAGE SHOWN ON THE TRAFFIC HANDLING PLANS:

STAGE 1A - ADD R9-11A (RT) AT NORTHEAST CORNER, R9-11A (RT) AT NORTHWEST CORNER, AND R9-11 (LT) FACING WEST AT SOUTHEAST CORNER, IN ORDER TO PROVIDE PEDESTRIAN ACCESS THROUGH THE INTERSECTION TO THE 3 FOOT WIDE PEDESTRIAN ACCESS LOCATED ON THE NORTH SIDE OF THE TEMPORARY K RAIL

STAGE 1B (NORTHWEST QUADRANT OF INTERSECTION) - ADD R9-11 (LT) FACING WEST AT SOUTHEAST CORNER.

STAGE 1B (NORTHEAST QUADRANT OF INTERSECTION) - ADD R9-11A (RT) AT NORTHEAST CORNER, R9-11A (LT) AT SOUTHWEST CORNER, AND R9-11A (LT) FACING SOUTH AT SOUTHEAST CORNER.

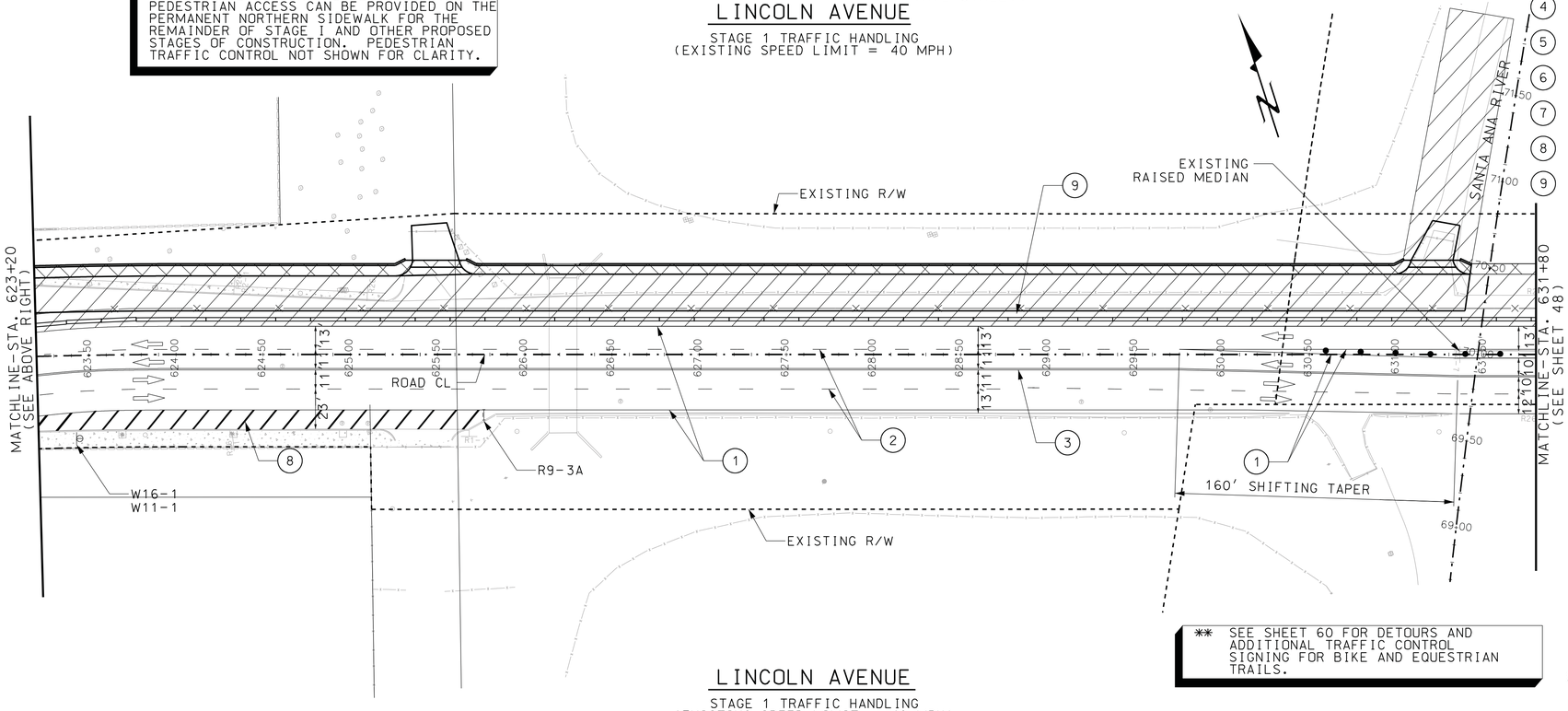


NOTE:

CONTRACTOR SHALL PROVIDE PEDESTRIAN ACCESS ACROSS LINCOLN AVENUE BRIDGE CONTINUOUSLY DURING STAGE I. INITIALLY, A THREE FOOT WIDE ACCESS BETWEEN THE K RAIL AND TEMPORARY CHAIN LINK FENCING WILL BE REQUIRED. AFTER SIDEWALK AND BRIDGE RAIL IS CONSTRUCTED, THEN THE PEDESTRIAN ACCESS CAN BE PROVIDED ON THE PERMANENT NORTHERN SIDEWALK FOR THE REMAINDER OF STAGE I AND OTHER PROPOSED STAGES OF CONSTRUCTION. PEDESTRIAN TRAFFIC CONTROL NOT SHOWN FOR CLARITY.

LINCOLN AVENUE

STAGE 1 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 40 MPH)



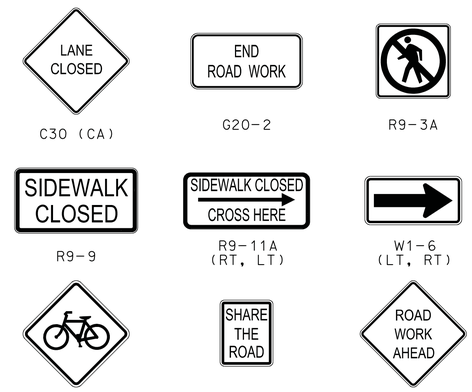
** SEE SHEET 60 FOR DETOURS AND ADDITIONAL TRAFFIC CONTROL SIGNING FOR BIKE AND EQUESTRIAN TRAILS.

LINCOLN AVENUE

STAGE 1 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 40 MPH)

PLAN
1"=40'

TRAFFIC SIGN LEGEND



CONSTRUCTION NOTES

1. INSTALL 4" WHITE TEMPORARY EDGE LINE PER CALTRANS STD PLAN A20B DETAIL 27B
2. INSTALL 4" WHITE TEMPORARY LANE LINE PER CALTRANS STD PLAN A20A DETAIL 8
3. INSTALL 4" YELLOW TEMPORARY TWO DIRECTION NO PASSING LINE PER CALTRANS STD PLAN A20A DETAIL 21
4. INSTALL 6" SOLID WHITE BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39
5. INSTALL 6" WHITE DASHED BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39A
6. INSTALL 4" WHITE DASHED LANE LINE PER CALTRANS STD PLAN A20A DETAIL 9
7. INSTALL 4" WHITE SOLID LANE LINE WITH TYPE "G" RPM AT THE END
8. INSTALL 8" WHITE SOLID TEMPORARY CHEVRON (20' ON CENTER)
9. FURNISH AND INSTALL TEMPORARY CHAIN LINK FENCE
10. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
11. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR 29
12. INSTALL 4" WHITE OR YELLOW LANE LINE EXTENSION THROUGH INTERSECTION PER CALTRANS STD PLAN A20D DETAIL 40 OR 41

LEGEND

- TYPE II BARRICADE, (WITH STEADY BURN TYPE C OR D ALONG SIDE OF TRAVEL WAY, WITH FLASHER AT APPROACHES TO HAZARDS WITH NO ARROW BOARDS)
- TYPE III BARRICADE (MIN 8' WIDTH) (TWO 4' WIDE BARRICADES)
- SIGN (PER MUTCD CODE)
- DELINEATOR WITH WHITE RETROREFLECTIVE TAPE (THICKER CONE PLATFORM)
- FLASHING ARROW SIGN
- SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL (NOT A PAVEMENT MARKING)
- HIGH LEVEL WARNING DEVICE
- K RAIL (TRAFFIC BARRIER WITH WARNING LIGHT)
- CRASH CUSHION WITH TYPE P MARKER PANEL (CALTRANS STD PLAN T2)
- WORK AREA - STAGE 1A (SEE NOTE ON SHEET)
- WORK AREA - STAGE 1B
- EXISTING DRIVEWAY

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
PROFESSIONAL ENGINEER JOSEPH MULVIHILL No. 46011 Exp. 12/31/14 CIVIL STATE OF CALIFORNIA
DATE 10/15/2013
JOSEPH MULVIHILL

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8863

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

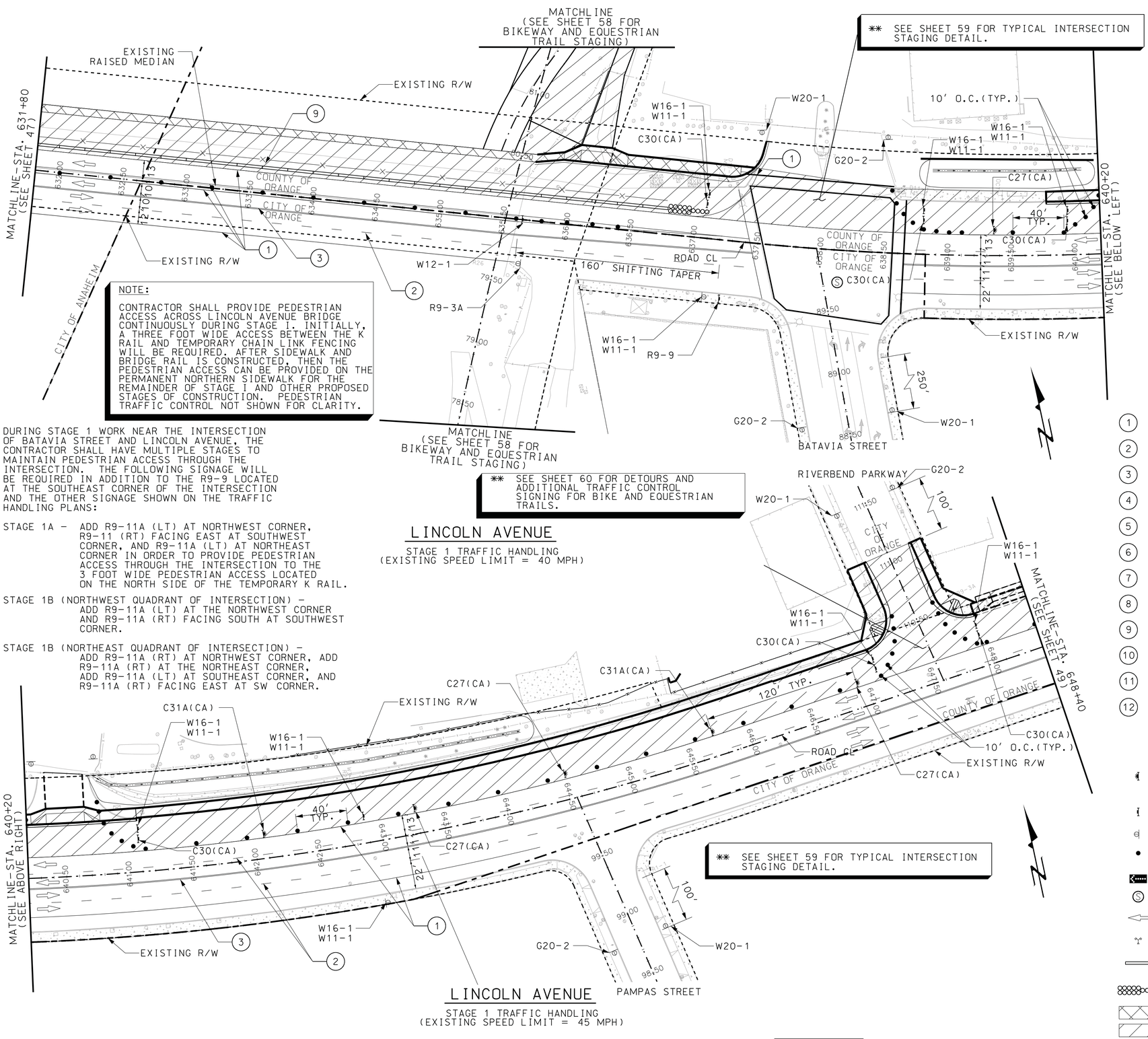
TRAFFIC HANDLING
STAGE 1

STA. 615+80 TO STA. 631+80

Sheet Reference Number

TH-03 R1

Att 5 to Bulletin 2
Sheet 47 of 90



NOTE:

CONTRACTOR SHALL PROVIDE PEDESTRIAN ACCESS ACROSS LINCOLN AVENUE BRIDGE CONTINUOUSLY DURING STAGE I. INITIALLY, A THREE FOOT WIDE ACCESS BETWEEN THE K RAIL AND TEMPORARY CHAIN LINK FENCING WILL BE REQUIRED. AFTER SIDEWALK AND BRIDGE RAIL IS CONSTRUCTED, THEN THE PEDESTRIAN ACCESS CAN BE PROVIDED ON THE PERMANENT NORTHERN SIDEWALK FOR THE REMAINDER OF STAGE I AND OTHER PROPOSED STAGES OF CONSTRUCTION. PEDESTRIAN TRAFFIC CONTROL NOT SHOWN FOR CLARITY.

DURING STAGE 1 WORK NEAR THE INTERSECTION OF BATAVIA STREET AND LINCOLN AVENUE, THE CONTRACTOR SHALL HAVE MULTIPLE STAGES TO MAINTAIN PEDESTRIAN ACCESS THROUGH THE INTERSECTION. THE FOLLOWING SIGNAGE WILL BE REQUIRED IN ADDITION TO THE R9-9 LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION AND THE OTHER SIGNAGE SHOWN ON THE TRAFFIC HANDLING PLANS:

STAGE 1A – ADD R9-11A (LT) AT NORTHWEST CORNER, R9-11 (RT) FACING EAST AT SOUTHWEST CORNER, AND R9-11A (LT) AT NORTHEAST CORNER IN ORDER TO PROVIDE PEDESTRIAN ACCESS THROUGH THE INTERSECTION TO THE 3 FOOT WIDE PEDESTRIAN ACCESS LOCATED ON THE NORTH SIDE OF THE TEMPORARY K RAIL.

STAGE 1B (NORTHWEST QUADRANT OF INTERSECTION) – ADD R9-11A (LT) AT THE NORTHWEST CORNER AND R9-11A (RT) FACING SOUTH AT SOUTHWEST CORNER.

STAGE 1B (NORTHEAST QUADRANT OF INTERSECTION) – ADD R9-11A (RT) AT NORTHWEST CORNER, ADD R9-11A (RT) AT THE NORTHEAST CORNER, ADD R9-11A (LT) AT SOUTHEAST CORNER, AND R9-11A (RT) FACING EAST AT SW CORNER.

LINCOLN AVENUE

STAGE 1 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 40 MPH)

LINCOLN AVENUE

STAGE 1 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 45 MPH)

PLAN
1"=40'

NO RECORD DRAWING CHANGES

TRAFFIC SIGN LEGEND

OPEN TRENCH — C27 (CA)	LANE CLOSED — C30 (CA)	NO SHOULDER — C31A (CA)
END ROAD WORK — G20-2	R9-3A	SIDEWALK CLOSED — R9-9
SIDEWALK CLOSED CROSS HERE — R9-11A (RT, LT)	W11-1	W12-1
SHARE THE ROAD — W16-1	ROAD WORK AHEAD — W20-1	

CONSTRUCTION NOTES

1. INSTALL 4" WHITE TEMPORARY EDGE LINE PER CALTRANS STD PLAN A20B DETAIL 27B
2. INSTALL 4" WHITE TEMPORARY LANE LINE PER CALTRANS STD PLAN A20A DETAIL 8
3. INSTALL 4" YELLOW TEMPORARY TWO DIRECTION NO PASSING LINE PER CALTRANS STD PLAN A20A DETAIL 21
4. INSTALL 6" SOLID WHITE BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39
5. INSTALL 6" WHITE DASHED BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39A
6. INSTALL 4" WHITE DASHED LANE LINE PER CALTRANS STD PLAN A20A DETAIL 9
7. INSTALL 4" WHITE SOLID LANE LINE WITH TYPE "G" RPM AT THE END
8. INSTALL 8" WHITE SOLID TEMPORARY CHEVRON (20' ON CENTER)
9. FURNISH AND INSTALL TEMPORARY CHAIN LINK FENCE
10. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
11. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR 29
12. INSTALL 4" WHITE OR YELLOW LANE LINE EXTENSION THROUGH INTERSECTION CALTRANS PER STD PLAN A20D DETAIL 40 OR 41

LEGEND

- TYPE II BARRICADE, (WITH STEADY BURN TYPE C OR D ALONG SIDE OF TRAVEL WAY. WITH FLASHER AT APPROACHES TO HAZARDS WITH NO ARROW BOARDS)
- TYPE III BARRICADE (MIN 8' WIDTH) (TWO 4' WIDE BARRICADES)
- SIGN (PER MUTCD CODE)
- DELINEATOR WITH WHITE RETROREFLECTIVE TAPE (THICKER CONE PLATFORM)
- FLASHING ARROW SIGN
- SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL (NOT A PAVEMENT MARKING)
- HIGH LEVEL WARNING DEVICE
- K RAIL (TRAFFIC BARRIER WITH WARNING LIGHT)
- CRASH CUSHION WITH TYPE P MARKER PANEL (CALTRANS STD PLAN T2)
- WORK AREA – STAGE 1A (SEE NOTE ON SHEET)
- WORK AREA – STAGE 1B
- EXISTING DRIVEWAY

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
PROFESSIONAL ENGINEER — JOSEPH MULVIHILL — No. 46011 — Exp. 12/31/14 — CIVIL — STATE OF CALIFORNIA
JOSEPH MULVIHILL — DATE

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

TRAFFIC HANDLING
STAGE 1

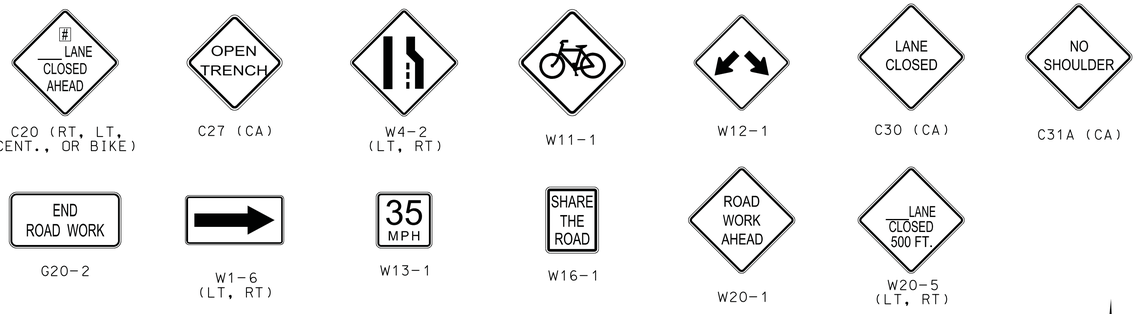
STA. 631+80 TO STA. 648+40

Sheet Reference Number

TH-04 R1

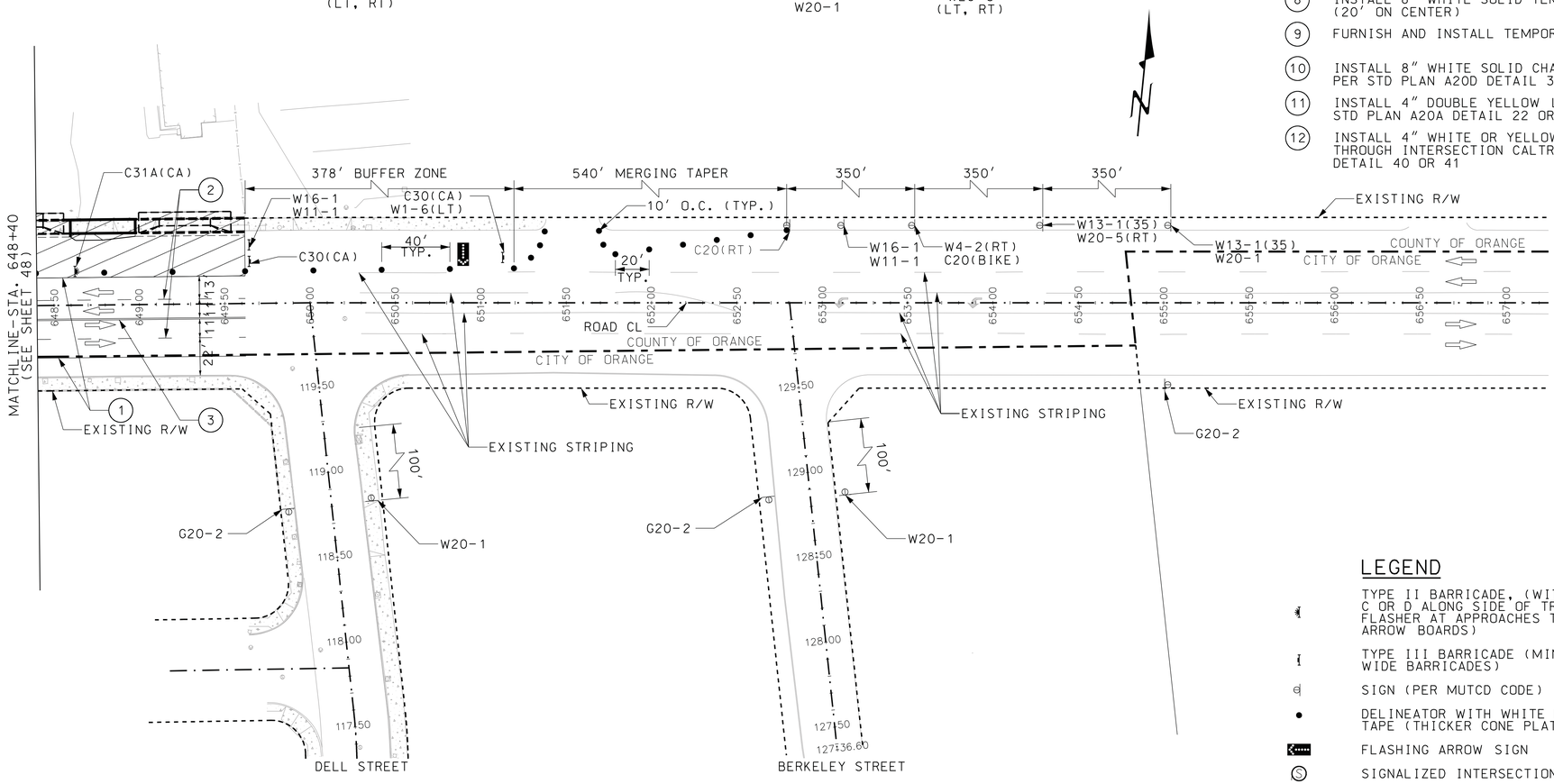
Att 5 to Bulletin 2
Sheet 48 of 90

TRAFFIC SIGN LEGEND



CONSTRUCTION NOTES

1. INSTALL 4" WHITE TEMPORARY EDGE LINE PER CALTRANS STD PLAN A20B DETAIL 27B
2. INSTALL 4" WHITE TEMPORARY LANE LINE PER CALTRANS STD PLAN A20A DETAIL 8
3. INSTALL 4" YELLOW TEMPORARY TWO DIRECTION NO PASSING LINE PER CALTRANS STD PLAN A20A DETAIL 21
4. INSTALL 6" SOLID WHITE BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39
5. INSTALL 6" WHITE DASHED BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39A
6. INSTALL 4" WHITE DASHED LANE LINE PER CALTRANS STD PLAN A20A DETAIL 9
7. INSTALL 4" WHITE SOLID LANE LINE WITH TYPE "G" RPM AT THE END
8. INSTALL 8" WHITE SOLID TEMPORARY CHEVRON (20' ON CENTER)
9. FURNISH AND INSTALL TEMPORARY CHAIN LINK FENCE
10. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
11. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR 29
12. INSTALL 4" WHITE OR YELLOW LANE LINE EXTENSION THROUGH INTERSECTION CALTRANS PER STD PLAN A20D DETAIL 40 OR 41



LEGEND

- TYPE II BARRICADE, (WITH STEADY BURN TYPE C OR D ALONG SIDE OF TRAVEL WAY. WITH FLASHER AT APPROACHES TO HAZARDS WITH NO ARROW BOARDS)
- TYPE III BARRICADE (MIN 8' WIDTH) (TWO 4' WIDE BARRICADES)
- SIGN (PER MUTCD CODE)
- DELINEATOR WITH WHITE RETROREFLECTIVE TAPE (THICKER CONE PLATFORM)
- FLASHING ARROW SIGN
- SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL (NOT A PAVEMENT MARKING)
- HIGH LEVEL WARNING DEVICE
- K RAIL (TRAFFIC BARRIER WITH WARNING LIGHT)
- CRASH CUSHION WITH TYPE P MARKER PANEL (CALTRANS STD PLAN T2)
- WORK AREA
- EXISTING DRIVEWAY

LINCOLN AVENUE

STAGE 1 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 45 MPH)

PLAN
1"=40'

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
JOSEPH MULVIHILL — DATE
REGISTERED PROFESSIONAL ENGINEER — JOSEPH MULVIHILL — No. 46011 — Exp. 12/31/14 — CIVIL — STATE OF CALIFORNIA

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

TRAFFIC HANDLING
STAGE 1

STA. 648+40 TO STA. 657+00

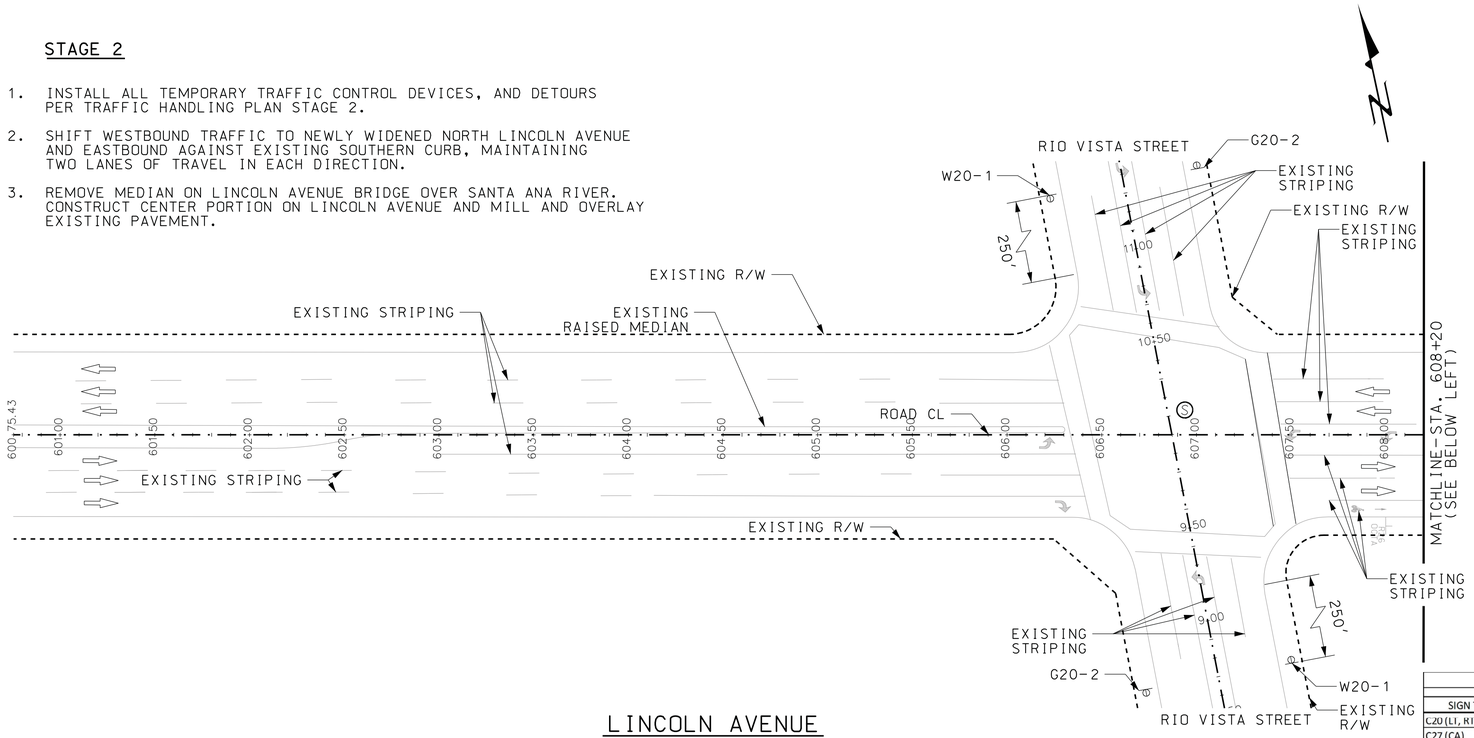
Sheet Reference Number

TH-05 R1

Att 5 to Bulletin 2
Sheet 49 of 90

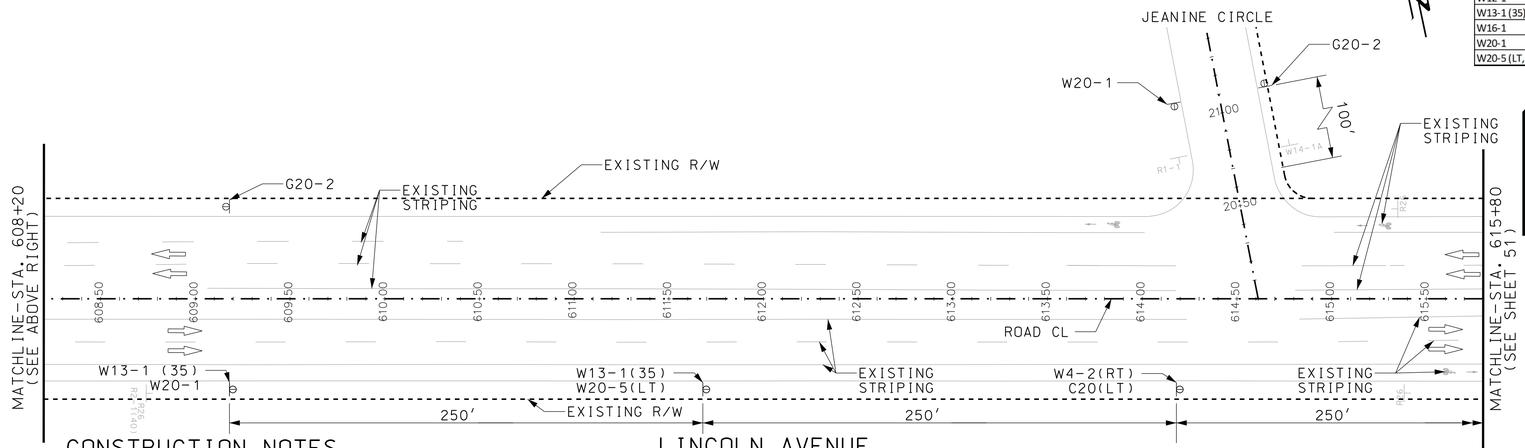
STAGE 2

1. INSTALL ALL TEMPORARY TRAFFIC CONTROL DEVICES, AND DETOURS PER TRAFFIC HANDLING PLAN STAGE 2.
2. SHIFT WESTBOUND TRAFFIC TO NEWLY WIDENED NORTH LINCOLN AVENUE AND EASTBOUND AGAINST EXISTING SOUTHERN CURB, MAINTAINING TWO LANES OF TRAVEL IN EACH DIRECTION.
3. REMOVE MEDIAN ON LINCOLN AVENUE BRIDGE OVER SANTA ANA RIVER. CONSTRUCT CENTER PORTION ON LINCOLN AVENUE AND MILL AND OVERLAY EXISTING PAVEMENT.



LINCOLN AVENUE

STAGE 2 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 40 MPH)



CONSTRUCTION NOTES

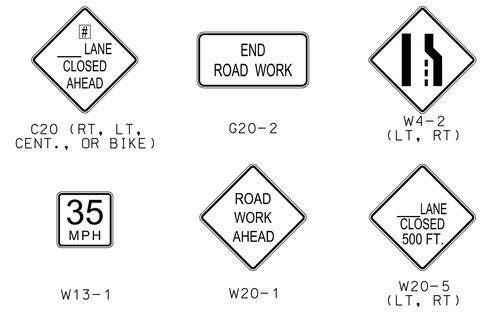
1. INSTALL 4" WHITE TEMPORARY EDGE LINE PER CALTRANS STD PLAN A20B DETAIL 27B
2. INSTALL 4" WHITE TEMPORARY LANE LINE PER CALTRANS STD PLAN A20A DETAIL 8
3. INSTALL 4" YELLOW TEMPORARY TWO DIRECTION NO PASSING LINE PER CALTRANS STD PLAN A20A DETAIL 21
4. INSTALL 6" SOLID WHITE BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39
5. INSTALL 6" WHITE DASHED BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39A
6. INSTALL 4" WHITE DASHED LANE LINE PER CALTRANS STD PLAN A20A DETAIL 9
7. INSTALL 4" WHITE SOLID LANE LINE WITH TYPE "G" RPM AT THE END
8. INSTALL 8" WHITE SOLID TEMPORARY CHEVRON (20' ON CENTER)
9. FURNISH AND INSTALL TEMPORARY CHAIN LINK FENCE
10. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
11. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR 29
12. INSTALL 4" WHITE OR YELLOW LANE LINE EXTENSION THROUGH INTERSECTION PER CALTRANS STD PLAN A20D DETAIL 40 OR 41

LINCOLN AVENUE

STAGE 1 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 40 MPH)

PLAN
1"=40'

TRAFFIC SIGN LEGEND



LINCOLN AVENUE BRIDGE WIDENING - STAGE II TRAFFIC HANDLING SIGN SUMMARY

SIGN TYPE	SIGN SIZE	ON SIGN POST	ON W/ ANOTHER SIGN	ON DELINEATOR	ON TYPE III BARRICADE	ON W/ ANOTHER SIGN	ON TYPE II W/ FLASHER
C20 (LT, RT, BIKE)	36" X 36"	2					
C27 (CA)	36" X 36"						8
C30 (CA)	30" X 30"				5		
C31A (CA)	36" X 36"						11
G20-2	36" X 18"	14					
R3-2	30" X 36"	2					
W1-6 (LT, RT)	48" X 24"					3	
W4-2 (LT, RT)	36" X 36"		2				
W11-1	30" X 30"		2				
W12-1	30" X 30"			2			
W13-1 (35)	24" X 24"		4				
W16-1	18" X 24"	2					
W20-1	36" X 36"	14					
W20-5 (LT, RT)	36" X 36"	2					

NOTE: THE TRAFFIC CONTROL HANDLING SIGN SUMMARY REPRESENTS THE MINIMUM NUMBER OF SIGNS NECESSARY TO PROVIDE TRAFFIC HANDLING. SITE CONDITIONS MAY REQUIRE MORE SIGNAGE, TRAFFIC CONTROL DEVICES, K RAIL, AND OTHER DEVICES TO PROTECT THE ACTIVE WORK ZONE FROM THE TRAFFIC. ADDITIONAL ITEMS WILL BE INCLUDED IN THE BID ITEM FOR TRAFFIC HANDLING AND NO ADDITIONAL COMPENSATION WILL BE GRANTED.

LEGEND

- TYPE II BARRICADE, (WITH STEADY BURN TYPE C OR D ALONG SIDE OF TRAVEL WAY. WITH FLASHER AT APPROACHES TO HAZARDS WITH NO ARROW BOARDS)
- TYPE III BARRICADE (MIN 8' WIDTH) (TWO 4' WIDE BARRICADES)
- SIGN (PER MUTCD CODE)
- DELINEATOR WITH WHITE RETROREFLECTIVE TAPE (THICKER CONE PLATFORM)
- FLASHING ARROW SIGN
- SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL (NOT A PAVEMENT MARKING)
- HIGH LEVEL WARNING DEVICE
- K RAIL (TRAFFIC BARRIER WITH WARNING LIGHT)
- CRASH CUSHION WITH TYPE P MARKER PANEL (CALTRANS STD PLAN T2)
- WORK AREA
- EXISTING DRIVEWAY

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
JOSEPH MULVIHILL — DATE

PROFESSIONAL ENGINEER — JOSEPH MULVIHILL — No. 46011 — Exp. 12/31/14 — CIVIL — STATE OF CALIFORNIA

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

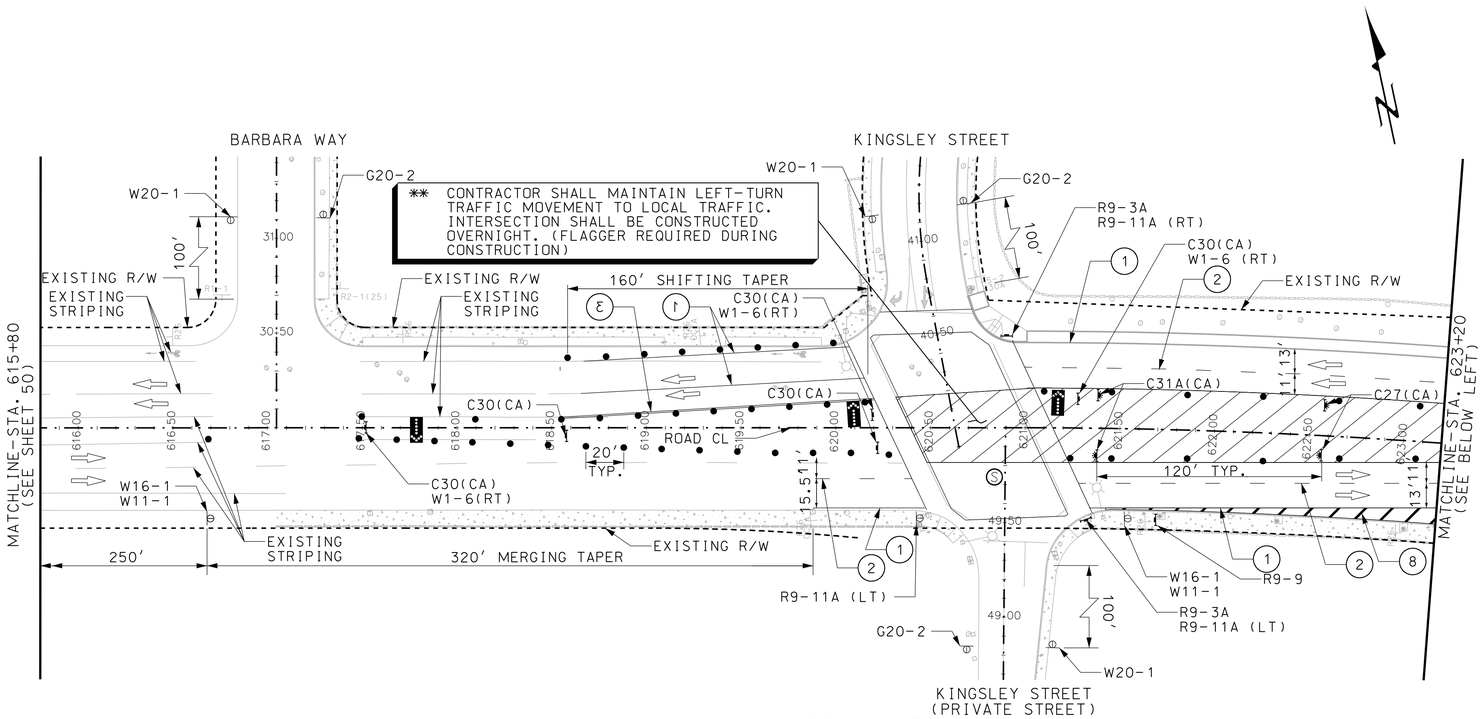
TRAFFIC HANDLING
STAGE 2

STA. 600+76 TO STA. 615+80

Sheet Reference Number

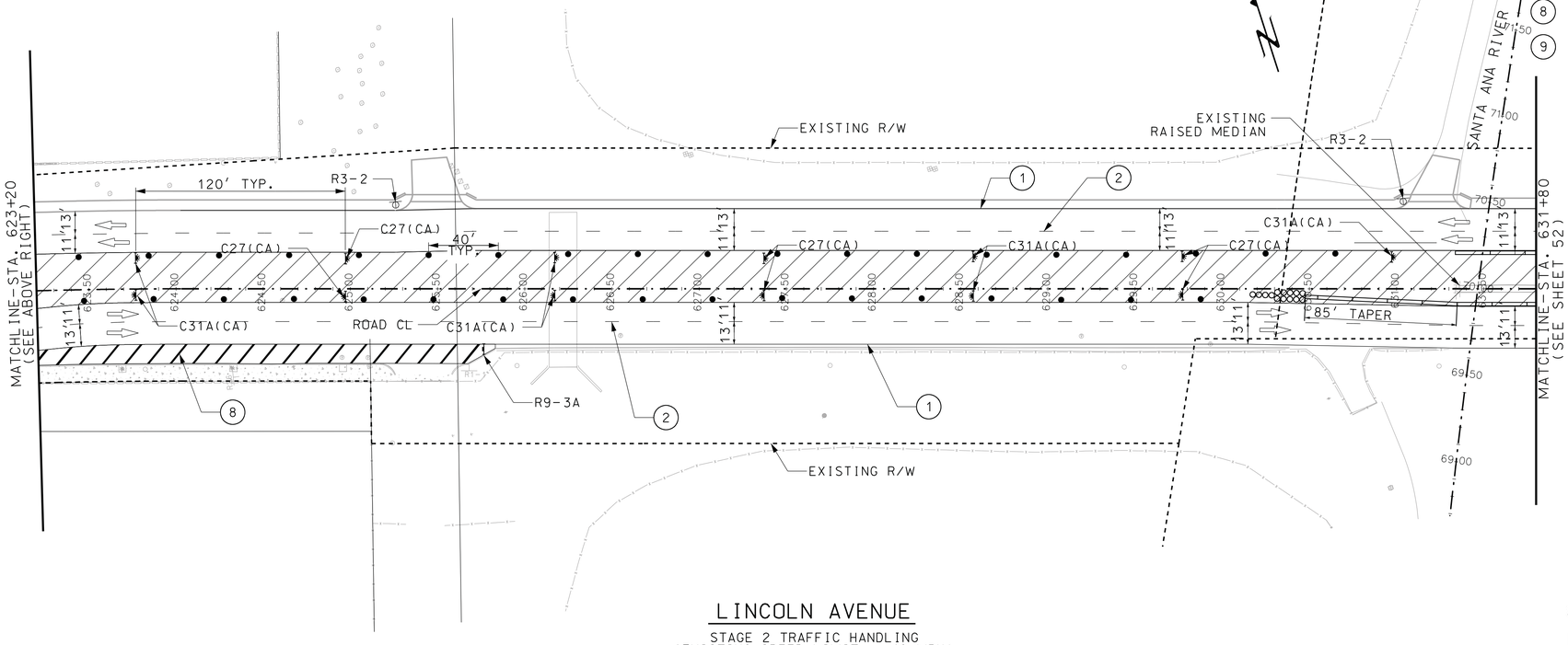
TH-06 R1

Att 5 to Bulletin 2
Sheet 50 of 90



LINCOLN AVENUE

STAGE 2 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 40 MPH)



LINCOLN AVENUE

STAGE 2 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 40 MPH)

PLAN
1"=40'

NO RECORD DRAWING CHANGES

TRAFFIC SIGN LEGEND

OPEN TRENCH	LANE CLOSED	NO SHOULDER	END ROAD WORK
C27 (CA)	C30 (CA)	C31A (CA)	G20-2
R3-2	R9-3A	SIDEWALK CLOSED	SIDEWALK CLOSED CROSS HERE
		R9-9	R9-11A
W1-6 (RT, LT)	W11-1	W16-1	W20-1
		SHARE THE ROAD	ROAD WORK AHEAD

CONSTRUCTION NOTES

1. INSTALL 4" WHITE TEMPORARY EDGE LINE PER CALTRANS STD PLAN A20B DETAIL 27B
2. INSTALL 4" WHITE TEMPORARY LANE LINE PER CALTRANS STD PLAN A20A DETAIL 8
3. INSTALL 4" YELLOW TEMPORARY TWO DIRECTION NO PASSING LINE PER CALTRANS STD PLAN A20A DETAIL 21
4. INSTALL 6" SOLID WHITE BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39
5. INSTALL 6" WHITE DASHED BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39A
6. INSTALL 4" WHITE DASHED LANE LINE PER CALTRANS STD PLAN A20A DETAIL 9
7. INSTALL 4" WHITE SOLID LANE LINE WITH TYPE "G" RPM AT THE END
8. INSTALL 8" WHITE SOLID TEMPORARY CHEVRON (20' ON CENTER)
9. FURNISH AND INSTALL TEMPORARY CHAIN LINK FENCE
10. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
11. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR 29
12. INSTALL 4" WHITE OR YELLOW LANE LINE EXTENSION THROUGH INTERSECTION CALTRANS PER STD PLAN A20D DETAIL 40 OR 41

LEGEND

- TYPE II BARRICADE, (WITH STEADY BURN TYPE C OR D ALONG SIDE OF TRAVEL WAY. WITH FLASHER AT APPROACHES TO HAZARDS WITH NO ARROW BOARDS)
- TYPE III BARRICADE (MIN 8' WIDTH) (TWO 4' WIDE BARRICADES)
- SIGN (PER MUTCD CODE)
- DELINEATOR WITH WHITE RETROREFLECTIVE TAPE (THICKER CONE PLATFORM)
- FLASHING ARROW SIGN
- SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL (NOT A PAVEMENT MARKING)
- HIGH LEVEL WARNING DEVICE
- K RAIL (TRAFFIC BARRIER WITH WARNING LIGHT)
- CRASH CUSHION WITH TYPE P MARKER PANEL (CALTRANS STD PLAN T2)
- WORK AREA
- EXISTING DRIVEWAY

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
JOSEPH MULVIHILL — PROFESSIONAL ENGINEER — No. 46011 — Exp. 12/31/14 — CIVIL — STATE OF CALIFORNIA — DATE

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

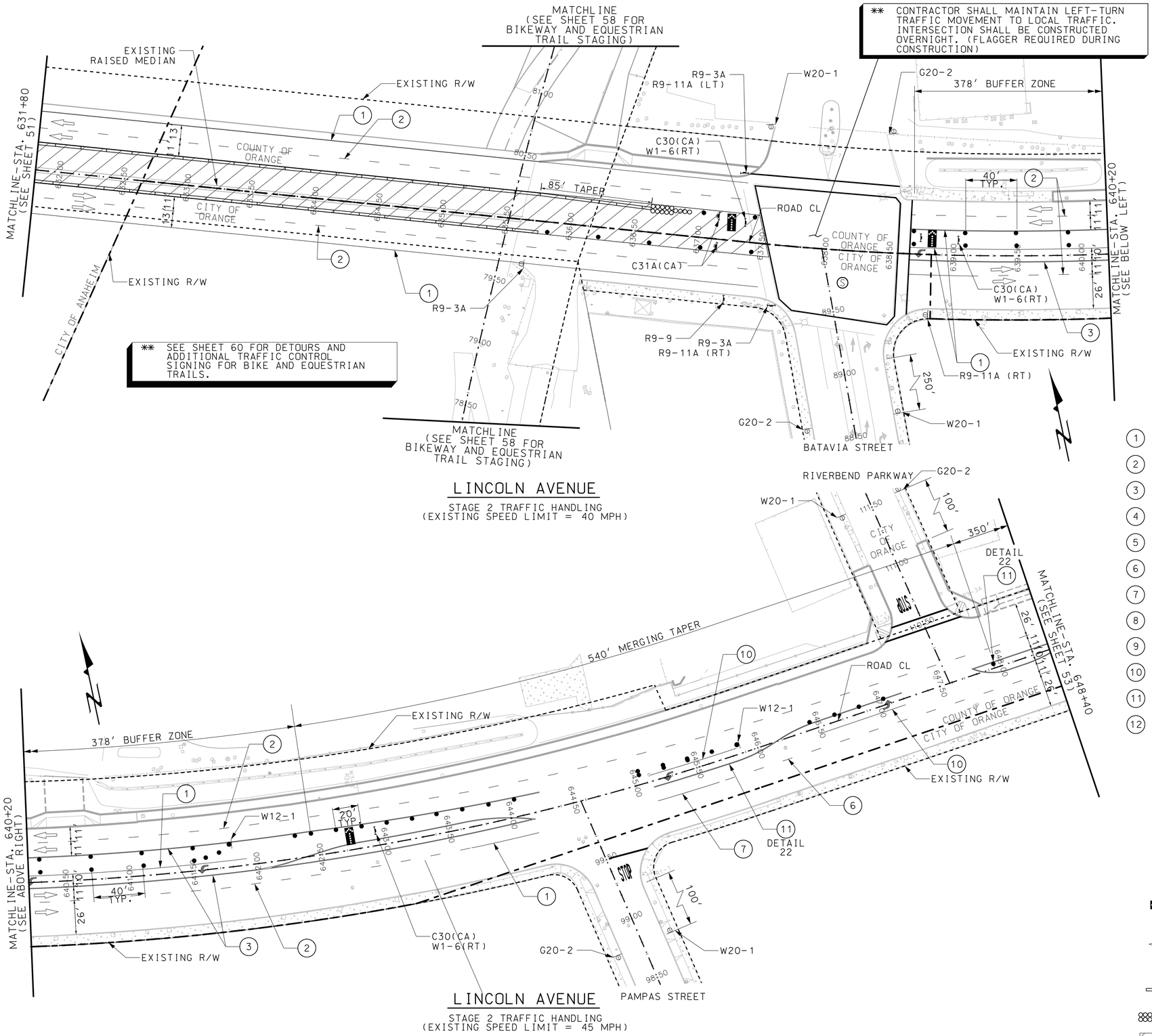
LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

TRAFFIC HANDLING
STAGE 2
STA. 615+80 TO STA. 631+80

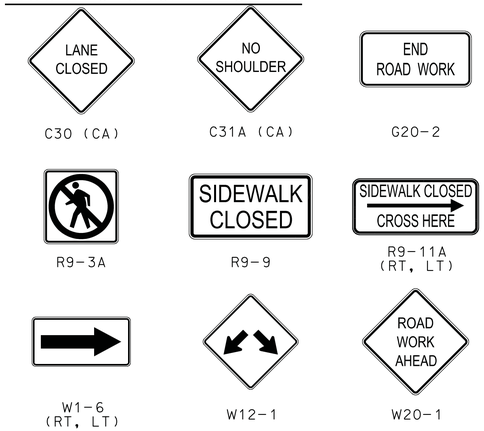
Sheet Reference Number

TH-07 R1

Att 5 to Bulletin 2
Sheet 51 of 90



TRAFFIC SIGN LEGEND



CONSTRUCTION NOTES

1. INSTALL 4" WHITE TEMPORARY EDGE LINE PER CALTRANS STD PLAN A20B DETAIL 27B
2. INSTALL 4" WHITE TEMPORARY LANE LINE PER CALTRANS STD PLAN A20A DETAIL 8
3. INSTALL 4" YELLOW TEMPORARY TWO DIRECTION NO PASSING LINE PER CALTRANS STD PLAN A20A DETAIL 21
4. INSTALL 6" SOLID WHITE BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39
5. INSTALL 6" WHITE DASHED BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39A
6. INSTALL 4" WHITE DASHED LANE LINE PER CALTRANS STD PLAN A20A DETAIL 9
7. INSTALL 4" WHITE SOLID LANE LINE WITH TYPE "G" RPM AT THE END
8. INSTALL 8" WHITE SOLID TEMPORARY CHEVRON (20' ON CENTER)
9. FURNISH AND INSTALL TEMPORARY CHAIN LINK FENCE
10. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
11. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR 29
12. INSTALL 4" WHITE OR YELLOW LANE LINE EXTENSION THROUGH INTERSECTION CALTRANS PER STD PLAN A20D DETAIL 40 OR 41

LEGEND

- TYPE II BARRICADE, (WITH STEADY BURN TYPE C OR D ALONG SIDE OF TRAVEL WAY. WITH FLASHER AT APPROACHES TO HAZARDS WITH NO ARROW BOARDS)
- TYPE III BARRICADE (MIN 8' WIDTH) (TWO 4' WIDE BARRICADES)
- SIGN (PER MUTCD CODE)
- DELINEATOR WITH WHITE RETROREFLECTIVE TAPE (THICKER CONE PLATFORM)
- FLASHING ARROW SIGN
- SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL (NOT A PAVEMENT MARKING)
- HIGH LEVEL WARNING DEVICE
- K RAIL (TRAFFIC BARRIER WITH WARNING LIGHT)
- CRASH CUSHION WITH TYPE P MARKER PANEL (CALTRANS STD PLAN T2)
- WORK AREA
- EXISTING DRIVEWAY

PLAN
1"=40'

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
PROFESSIONAL ENGINEER JOSEPH MULVIHILL No. 46011 Exp. 12/31/14 CIVIL STATE OF CALIFORNIA
JOSEPH MULVIHILL
DATE

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

TRAFFIC HANDLING
STAGE 2

STA. 631+80 TO STA. 648+40

Sheet Reference Number

TH-08 R1

Att 5 to Bulletin 2
Sheet 52 of 90

TRAFFIC SIGN LEGEND



C20 (RT, LT, CENT., OR BIKE)



G20-2



W4-2 (LT, RT)



W13-1



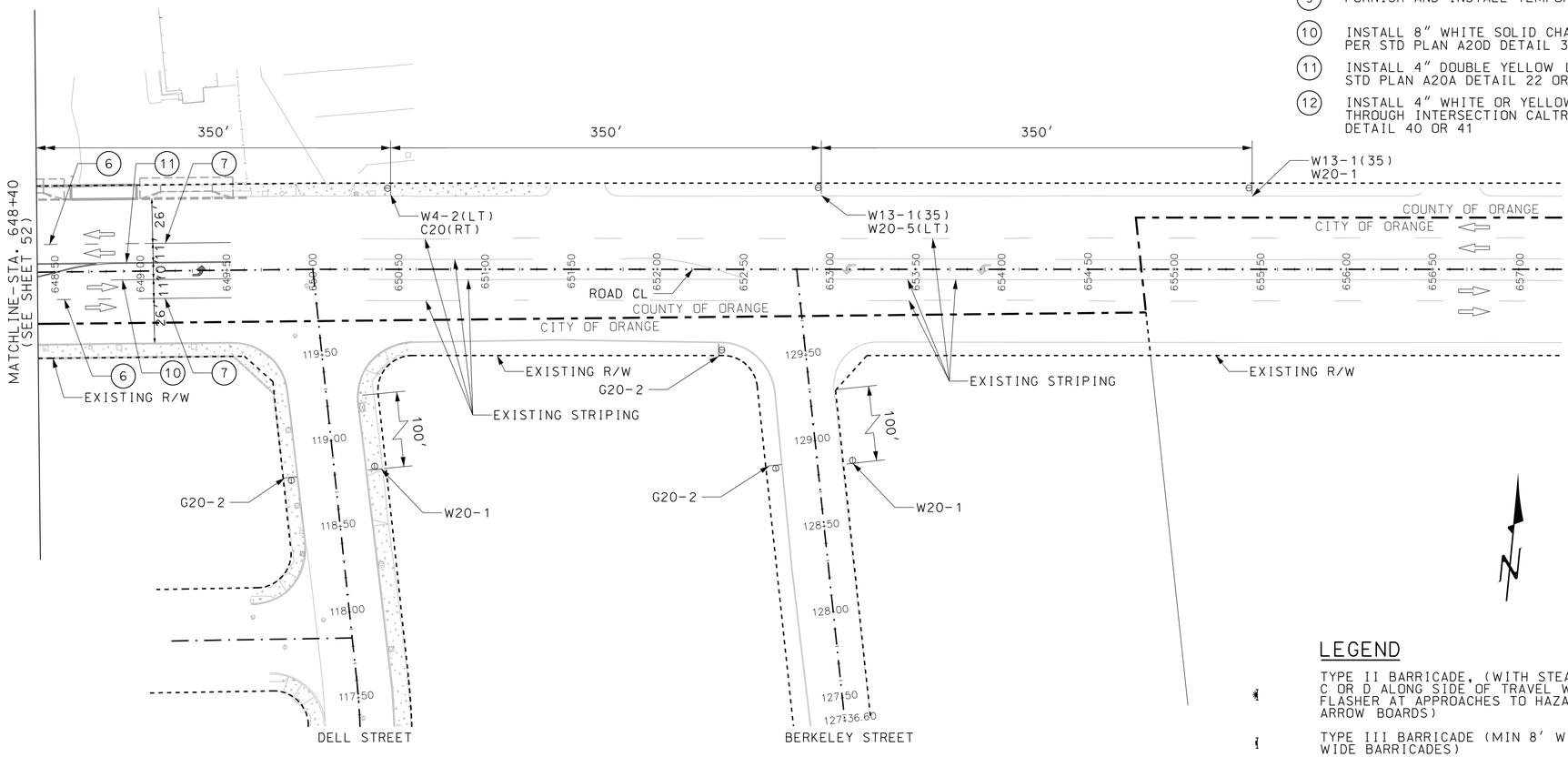
W20-1



W20-5 (LT, RT)

CONSTRUCTION NOTES

1. INSTALL 4" WHITE TEMPORARY EDGE LINE PER CALTRANS STD PLAN A20B DETAIL 27B
2. INSTALL 4" WHITE TEMPORARY LANE LINE PER CALTRANS STD PLAN A20A DETAIL 8
3. INSTALL 4" YELLOW TEMPORARY TWO DIRECTION NO PASSING LINE PER CALTRANS STD PLAN A20A DETAIL 21
4. INSTALL 6" SOLID WHITE BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39
5. INSTALL 6" WHITE DASHED BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39A
6. INSTALL 4" WHITE DASHED LANE LINE PER CALTRANS STD PLAN A20A DETAIL 9
7. INSTALL 4" WHITE SOLID LANE LINE WITH TYPE "G" RPM AT THE END
8. INSTALL 8" WHITE SOLID TEMPORARY CHEVRON (20' ON CENTER)
9. FURNISH AND INSTALL TEMPORARY CHAIN LINK FENCE
10. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
11. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR 29
12. INSTALL 4" WHITE OR YELLOW LANE LINE EXTENSION THROUGH INTERSECTION CALTRANS PER STD PLAN A20D DETAIL 40 OR 41



LEGEND

- TYPE II BARRICADE, (WITH STEADY BURN TYPE C OR D ALONG SIDE OF TRAVEL WAY. WITH FLASHER AT APPROACHES TO HAZARDS WITH NO ARROW BOARDS)
- TYPE III BARRICADE (MIN 8' WIDTH) (TWO 4' WIDE BARRICADES)
- SIGN (PER MUTCD CODE)
- DELINEATOR WITH WHITE RETROREFLECTIVE TAPE (THICKER CONE PLATFORM)
- FLASHING ARROW SIGN
- SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL (NOT A PAVEMENT MARKING)
- HIGH LEVEL WARNING DEVICE
- K RAIL (TRAFFIC BARRIER WITH WARNING LIGHT)
- CRASH CUSHION WITH TYPE P MARKER PANEL (CALTRANS STD PLAN T2)
- WORK AREA
- EXISTING DRIVEWAY

LINCOLN AVENUE

STAGE 2 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 45 MPH)

PLAN
1"=40'

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
PROFESSIONAL ENGINEER JOSEPH MULVIHILL No. 46011 Exp. 12/31/14 CIVIL STATE OF CALIFORNIA
JOSEPH MULVIHILL
DATE

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

TRAFFIC HANDLING
STAGE 2

STA. 648+40 TO STA. 657+00

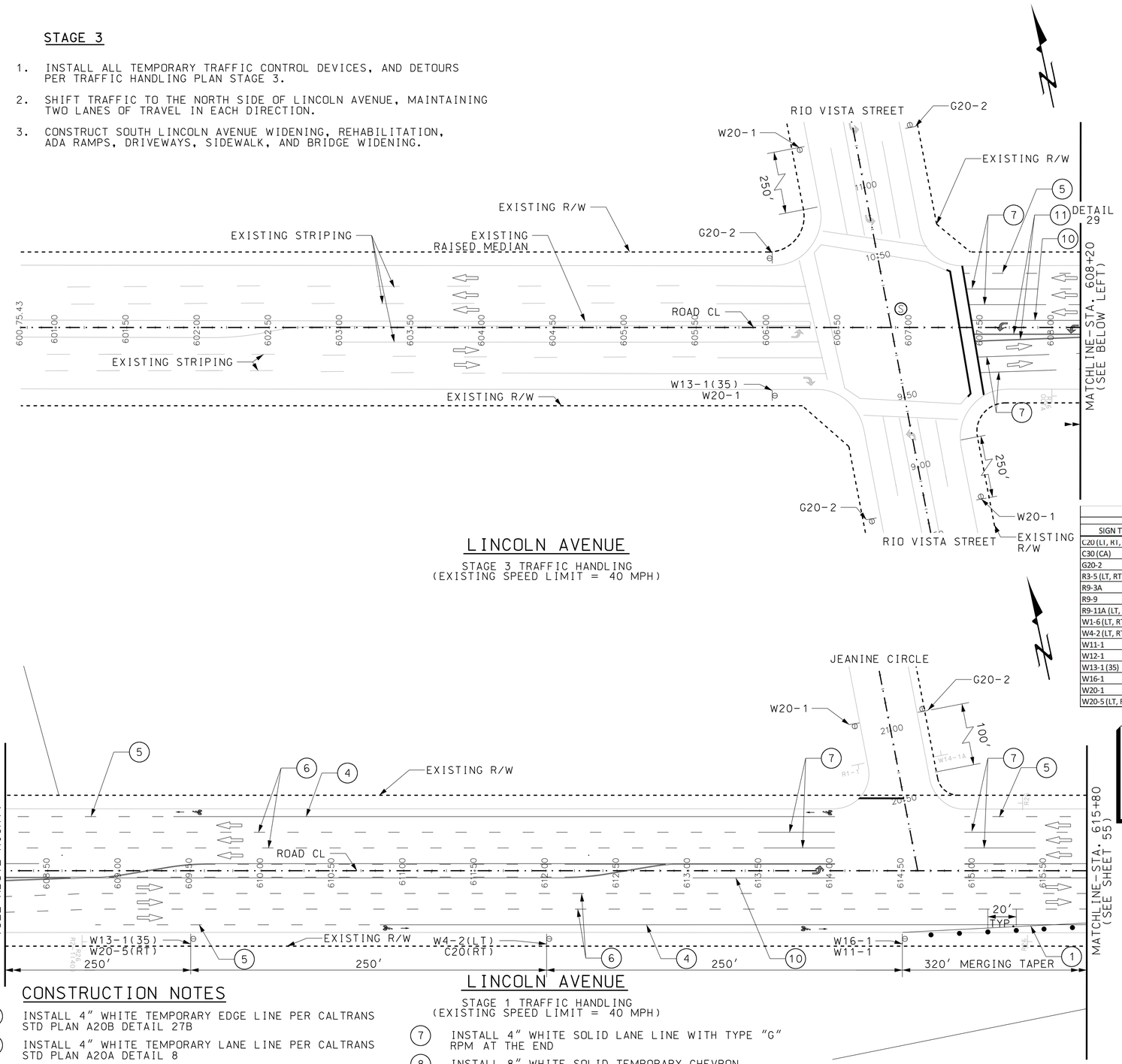
Sheet Reference Number

TH-09 R1

Att 5 to Bulletin 2
Sheet 53 of 90

STAGE 3

1. INSTALL ALL TEMPORARY TRAFFIC CONTROL DEVICES, AND DETOURS PER TRAFFIC HANDLING PLAN STAGE 3.
2. SHIFT TRAFFIC TO THE NORTH SIDE OF LINCOLN AVENUE, MAINTAINING TWO LANES OF TRAVEL IN EACH DIRECTION.
3. CONSTRUCT SOUTH LINCOLN AVENUE WIDENING, REHABILITATION, ADA RAMPS, DRIVEWAYS, SIDEWALK, AND BRIDGE WIDENING.



LINCOLN AVENUE

STAGE 3 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 40 MPH)

TRAFFIC SIGN LEGEND

# LANE CLOSED AHEAD — C20 (RT, LT, CENT., OR BIKE)	END ROAD WORK — G20-2	W4-2 (LT, RT)
35 MPH — W13-1	ROAD WORK AHEAD — W20-1	LANE CLOSED 500 FT. — W20-5 (LT, RT)

LINCOLN AVENUE BRIDGE WIDENING STAGE III TRAFFIC HANDLING SIGN SUMMARY

SIGN TYPE	SIGN SIZE	ON SIGN POST	ON W/ ANOTHER SIGN	ON DELINEATOR	ON TYPE III BARRICADE	ON W/ ANOTHER SIGN	ON TYPE II W/ FLASHER
C20 (LT, RT, BIKE)	36" X 36"	2					
C30 (CA)	30" X 30"				4		
G20-2	36" X 18"	14					
R3-5 (LT, RT)	30" X 36"						2
R9-3A	30" X 36"				4		
R9-9	24" X 12"					2	
R9-11A (LT, RT)	24" X 12"					2	
W1-6 (LT, RT)	48" X 24"					3	
W4-2 (LT, RT)	36" X 36"		2				
W11-1	30" X 30"		1			1	
W12-1	30" X 30"			1			
W13-1(35)	24" X 24"		4				
W16-1	18" X 24"	1			1		
W20-1	36" X 36"	14					
W20-5 (LT, RT)	36" X 36"	2					

NOTE: THE TRAFFIC CONTROL HANDLING SIGN SUMMARY REPRESENTS THE MINIMUM NUMBER OF SIGNS NECESSARY TO PROVIDE TRAFFIC HANDLING. SITE CONDITIONS MAY REQUIRE MORE SIGNAGE, TRAFFIC CONTROL DEVICES, K RAIL, AND OTHER DEVICES TO PROTECT THE ACTIVE WORK ZONE FROM THE TRAFFIC. ADDITIONAL ITEMS WILL BE INCLUDED IN THE BID ITEM FOR TRAFFIC HANDLING AND NO ADDITIONAL COMPENSATION WILL BE GRANTED.

LEGEND

- TYPE II BARRICADE, (WITH STEADY BURN TYPE C OR D ALONG SIDE OF TRAVEL WAY. WITH FLASHER AT APPROACHES TO HAZARDS WITH NO ARROW BOARDS)
- TYPE III BARRICADE (MIN 8' WIDTH) (TWO 4' WIDE BARRICADES)
- SIGN (PER MUTCD CODE)
- DELINEATOR WITH WHITE RETROREFLECTIVE TAPE (THICKER CONE PLATFORM)
- FLASHING ARROW SIGN
- SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL (NOT A PAVEMENT MARKING)
- HIGH LEVEL WARNING DEVICE
- K RAIL (TRAFFIC BARRIER WITH WARNING LIGHT)
- CRASH CUSHION WITH TYPE P MARKER PANEL (CALTRANS STD PLAN T2)
- WORK AREA
- EXISTING DRIVEWAY

CONSTRUCTION NOTES

1. INSTALL 4" WHITE TEMPORARY EDGE LINE PER CALTRANS STD PLAN A20B DETAIL 27B
2. INSTALL 4" WHITE TEMPORARY LANE LINE PER CALTRANS STD PLAN A20A DETAIL 8
3. INSTALL 4" YELLOW TEMPORARY TWO DIRECTION NO PASSING LINE PER CALTRANS STD PLAN A20A DETAIL 21
4. INSTALL 6" SOLID WHITE BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39
5. INSTALL 6" WHITE DASHED BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39A
6. INSTALL 4" WHITE DASHED LANE LINE PER CALTRANS STD PLAN A20A DETAIL 9
7. INSTALL 4" WHITE SOLID LANE LINE WITH TYPE "G" RPM AT THE END
8. INSTALL 8" WHITE SOLID TEMPORARY CHEVRON (20' ON CENTER)
9. FURNISH AND INSTALL TEMPORARY CHAIN LINK FENCE
10. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
11. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR 29
12. INSTALL 4" WHITE OR YELLOW LANE LINE EXTENSION THROUGH INTERSECTION PER CALTRANS STD PLAN A20D DETAIL 40 OR 41

LINCOLN AVENUE

STAGE 1 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 40 MPH)

PLAN
1"=40'

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
JOSEPH MULVIHILL — DATE

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

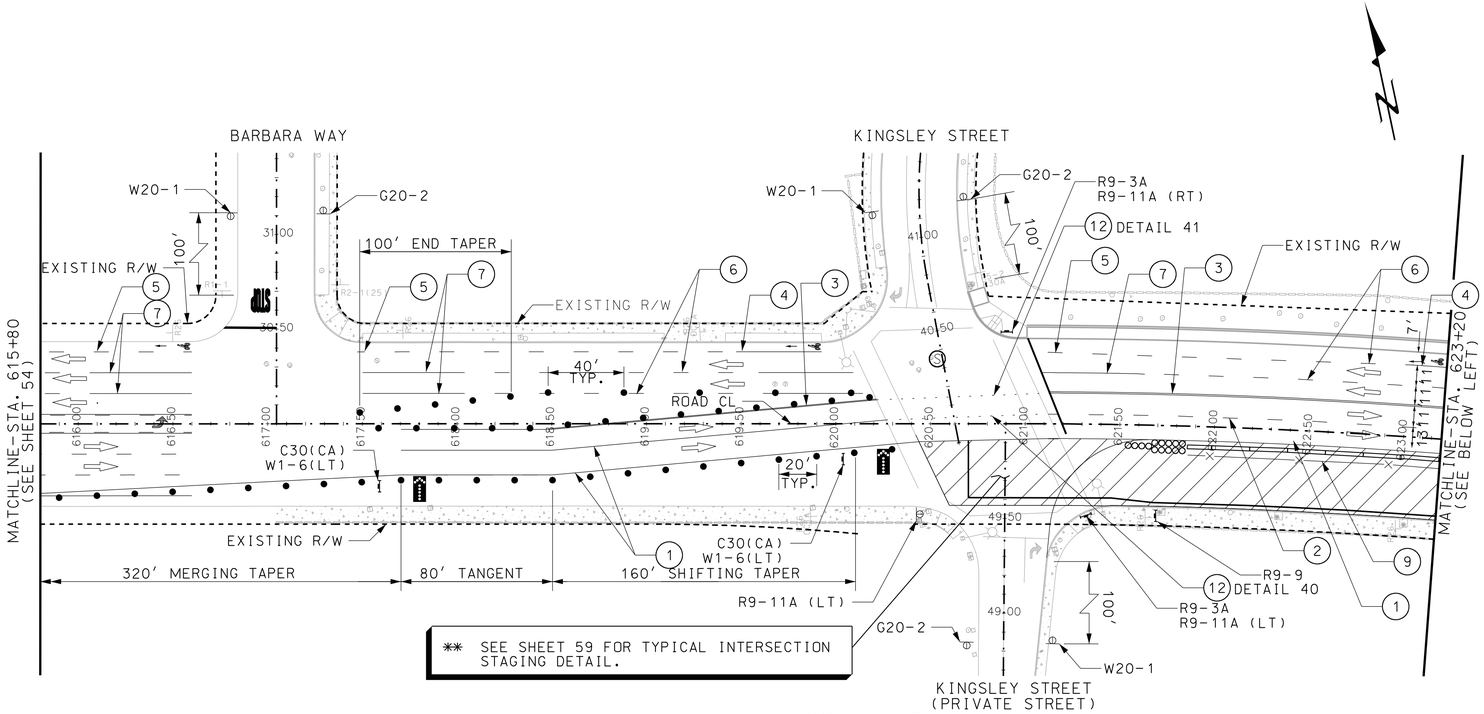
TRAFFIC HANDLING
STAGE 3

STA. 600+76 TO STA. 615+80

Sheet Reference Number

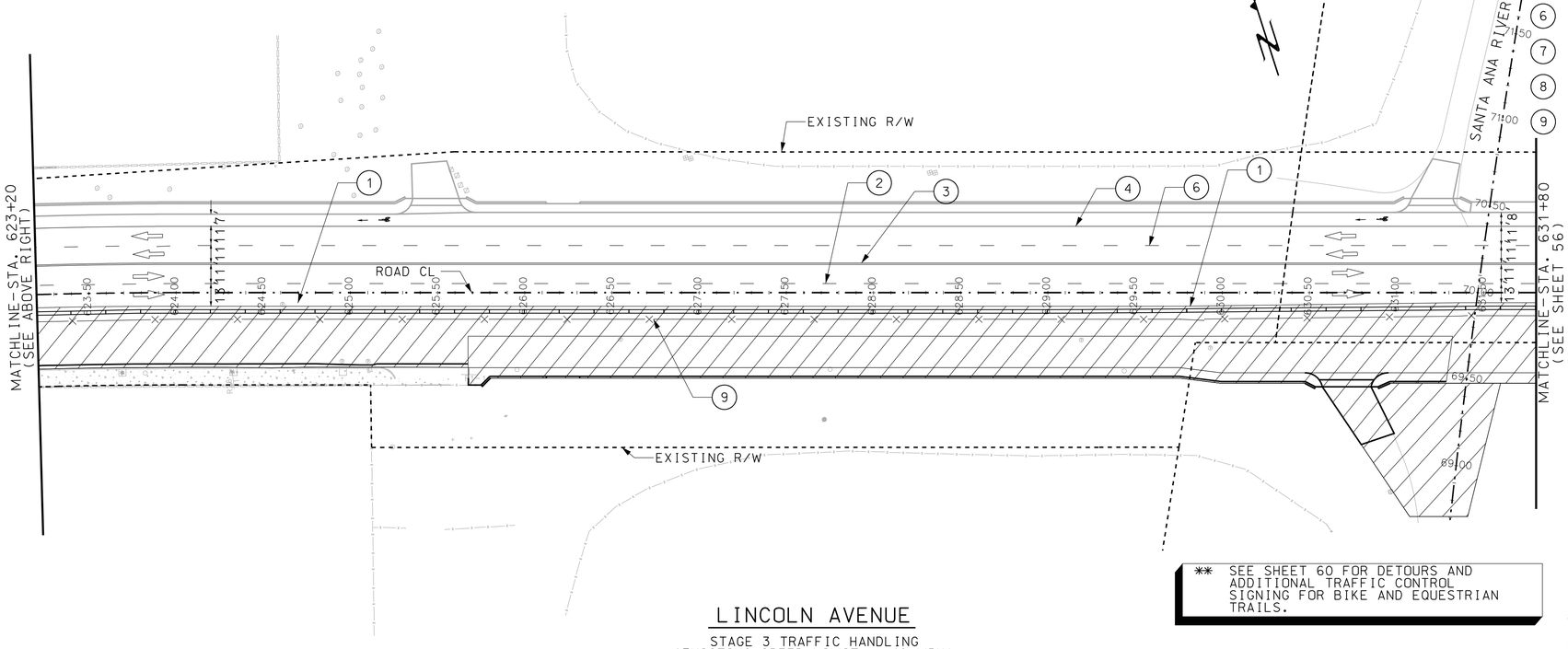
TH-10 R1

Att 5 to Bulletin 2
Sheet 54 of 90



LINCOLN AVENUE

STAGE 3 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 40 MPH)



LINCOLN AVENUE

STAGE 3 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 40 MPH)

PLAN
1"=40'

NO RECORD DRAWING CHANGES

TRAFFIC SIGN LEGEND

LANE CLOSED C30 (CA)	END ROAD WORK G20-2	R9-3A
SIDEWALK CLOSED R9-9	SIDEWALK CLOSED CROSS HERE R9-11A (RT, LT)	W1-6 (RT, LT)
ROAD WORK AHEAD W20-1		

CONSTRUCTION NOTES

1. INSTALL 4" WHITE TEMPORARY EDGE LINE PER CALTRANS STD PLAN A20B DETAIL 27B
2. INSTALL 4" WHITE TEMPORARY LANE LINE PER CALTRANS STD PLAN A20A DETAIL 8
3. INSTALL 4" YELLOW TEMPORARY TWO DIRECTION NO PASSING LINE PER CALTRANS STD PLAN A20A DETAIL 21
4. INSTALL 6" SOLID WHITE BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39
5. INSTALL 6" WHITE DASHED BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39A
6. INSTALL 4" WHITE DASHED LANE LINE PER CALTRANS STD PLAN A20A DETAIL 9
7. INSTALL 4" WHITE SOLID LANE LINE WITH TYPE "G" RPM AT THE END
8. INSTALL 8" WHITE SOLID TEMPORARY CHEVRON (20' ON CENTER)
9. FURNISH AND INSTALL TEMPORARY CHAIN LINK FENCE
10. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
11. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR 29
12. INSTALL 4" WHITE OR YELLOW LANE LINE EXTENSION THROUGH INTERSECTION CALTRANS PER STD PLAN A20D DETAIL 40 OR 41

LEGEND

- TYPE II BARRICADE, (WITH STEADY BURN TYPE C OR D ALONG SIDE OF TRAVEL WAY. WITH FLASHER AT APPROACHES TO HAZARDS WITH NO ARROW BOARDS)
- TYPE III BARRICADE (MIN 8' WIDTH) (TWO 4' WIDE BARRICADES)
- SIGN (PER MUTCD CODE)
- DELINEATOR WITH WHITE RETROREFLECTIVE TAPE (THICKER CONE PLATFORM)
- FLASHING ARROW SIGN
- SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL (NOT A PAVEMENT MARKING)
- HIGH LEVEL WARNING DEVICE
- K RAIL (TRAFFIC BARRIER WITH WARNING LIGHT)
- CRASH CUSHION WITH TYPE P MARKER PANEL (CALTRANS STD PLAN T2)
- WORK AREA
- EXISTING DRIVEWAY

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
PROFESSIONAL ENGINEER JOSEPH MULVIHILL No. 46011 Exp. 12/31/14 CIVIL STATE OF CALIFORNIA
JOSEPH MULVIHILL DATE

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

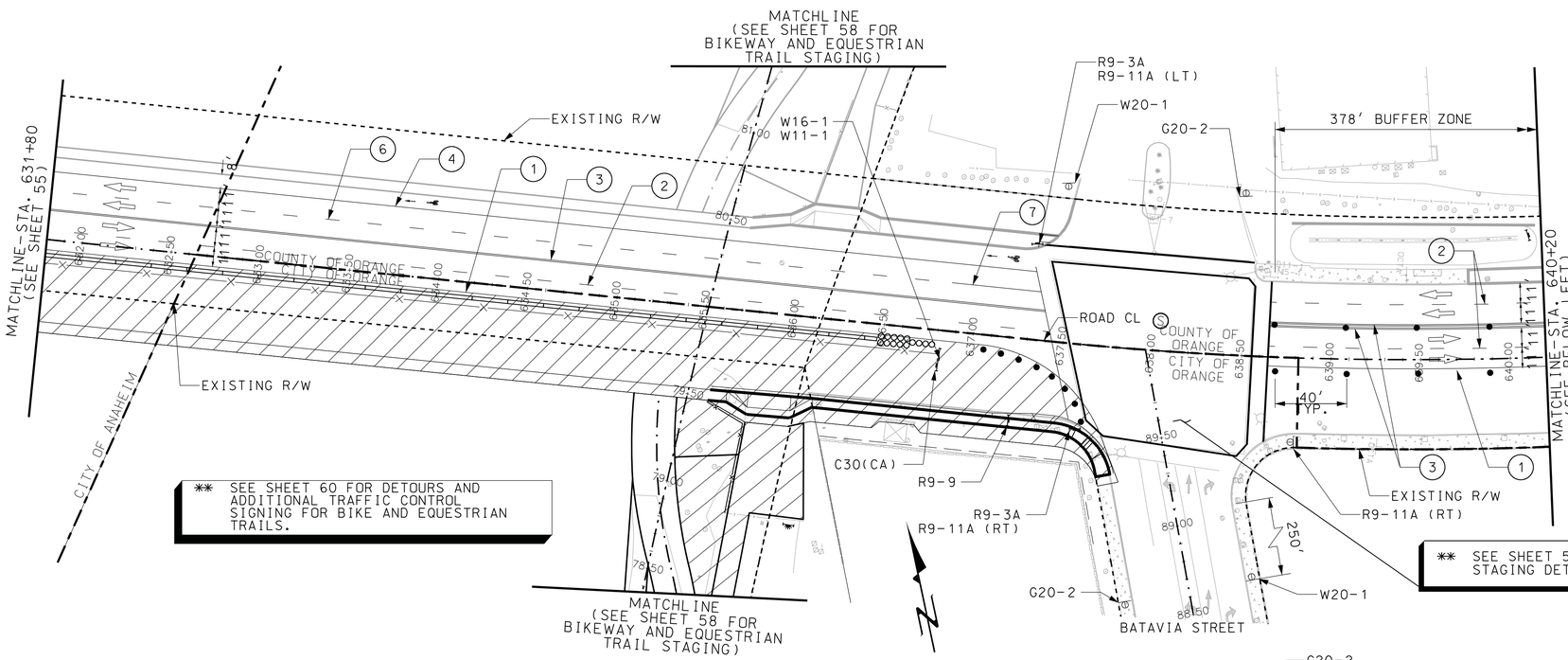
LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

TRAFFIC HANDLING
STAGE 3
STA. 615+80 TO STA. 631+80

Sheet Reference Number

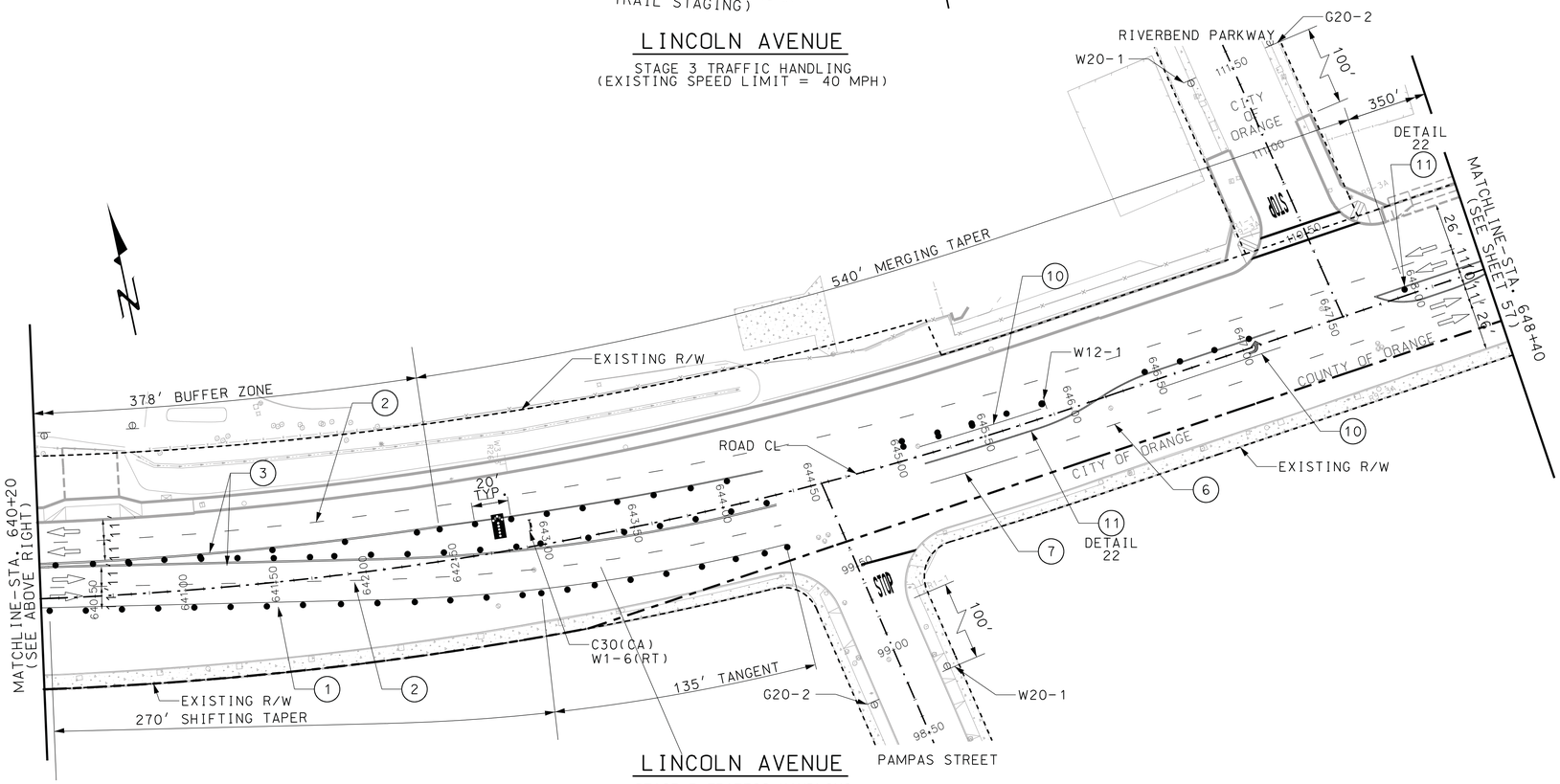
TH-11 R1

Att 5 to Bulletin 2
Sheet 55 of 90



LINCOLN AVENUE

STAGE 3 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 40 MPH)



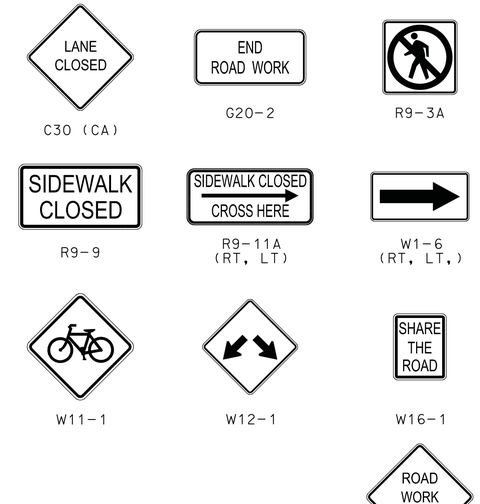
LINCOLN AVENUE

STAGE 3 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 45 MPH)

PLAN
1"=40'

NO RECORD DRAWING CHANGES

TRAFFIC SIGN LEGEND



CONSTRUCTION NOTES

1. INSTALL 4" WHITE TEMPORARY EDGE LINE PER CALTRANS STD PLAN A20B DETAIL 27B
2. INSTALL 4" WHITE TEMPORARY LANE LINE PER CALTRANS STD PLAN A20A DETAIL 8
3. INSTALL 4" YELLOW TEMPORARY TWO DIRECTION NO PASSING LINE PER CALTRANS STD PLAN A20A DETAIL 21
4. INSTALL 6" SOLID WHITE BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39
5. INSTALL 6" WHITE DASHED BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39A
6. INSTALL 4" WHITE DASHED LANE LINE PER CALTRANS STD PLAN A20A DETAIL 9
7. INSTALL 4" WHITE SOLID LANE LINE WITH TYPE "G" RPM AT THE END
8. INSTALL 8" WHITE SOLID TEMPORARY CHEVRON (20' ON CENTER)
9. FURNISH AND INSTALL TEMPORARY CHAIN LINK FENCE
10. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
11. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR 29
12. INSTALL 4" WHITE OR YELLOW LANE LINE EXTENSION THROUGH INTERSECTION CALTRANS PER STD PLAN A20D DETAIL 40 OR 41

LEGEND

- TYPE II BARRICADE, (WITH STEADY BURN TYPE C OR D ALONG SIDE OF TRAVEL WAY. WITH FLASHER AT APPROACHES TO HAZARDS WITH NO ARROW BOARDS)
- TYPE III BARRICADE (MIN 8' WIDTH) (TWO 4' WIDE BARRICADES)
- SIGN (PER MUTCD CODE)
- DELINEATOR WITH WHITE RETROREFLECTIVE TAPE (THICKER CONE PLATFORM)
- FLASHING ARROW SIGN
- SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL (NOT A PAVEMENT MARKING)
- HIGH LEVEL WARNING DEVICE
- K RAIL (TRAFFIC BARRIER WITH WARNING LIGHT)
- CRASH CUSHION WITH TYPE P MARKER PANEL (CALTRANS STD PLAN T2)
- WORK AREA
- EXISTING DRIVEWAY

COUNTY OF ORANGE
CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
JOSEPH MULVIHILL
PROFESSIONAL ENGINEER — No. 46011 — Exp. 12/31/14 — CIVIL — STATE OF CALIFORNIA
DATE

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

TRAFFIC HANDLING
STAGE 3

STA. 631+80 TO STA. 648+40

Sheet Reference Number

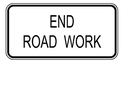
TH-12 R1

Att 5 to Bulletin 2
Sheet 56 of 90

TRAFFIC SIGN LEGEND



C20 (RT, LT, CENT., OR BIKE)



G20-2



W4-2 (LT, RT)



W13-1



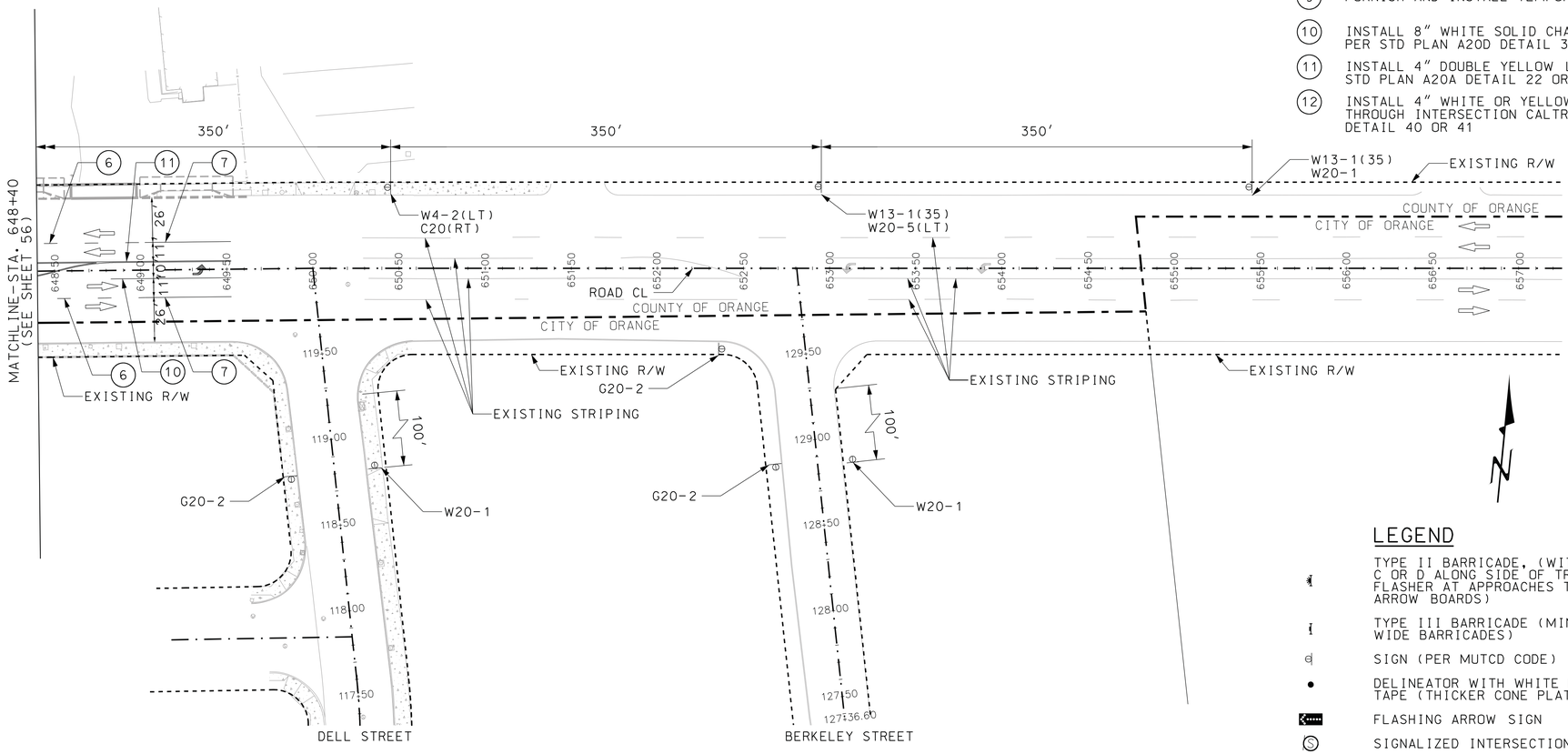
W20-1



W20-5 (LT, RT)

CONSTRUCTION NOTES

1. INSTALL 4" WHITE TEMPORARY EDGE LINE PER CALTRANS STD PLAN A20B DETAIL 27B
2. INSTALL 4" WHITE TEMPORARY LANE LINE PER CALTRANS STD PLAN A20A DETAIL 8
3. INSTALL 4" YELLOW TEMPORARY TWO DIRECTION NO PASSING LINE PER CALTRANS STD PLAN A20A DETAIL 21
4. INSTALL 6" SOLID WHITE BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39
5. INSTALL 6" WHITE DASHED BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39A
6. INSTALL 4" WHITE DASHED LANE LINE PER CALTRANS STD PLAN A20A DETAIL 9
7. INSTALL 4" WHITE SOLID LANE LINE WITH TYPE "G" RPM AT THE END
8. INSTALL 8" WHITE SOLID TEMPORARY CHEVRON (20' ON CENTER)
9. FURNISH AND INSTALL TEMPORARY CHAIN LINK FENCE
10. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
11. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR 29
12. INSTALL 4" WHITE OR YELLOW LANE LINE EXTENSION THROUGH INTERSECTION CALTRANS PER STD PLAN A20D DETAIL 40 OR 41



LEGEND

- TYPE II BARRICADE, (WITH STEADY BURN TYPE C OR D ALONG SIDE OF TRAVEL WAY. WITH FLASHER AT APPROACHES TO HAZARDS WITH NO ARROW BOARDS)
- TYPE III BARRICADE (MIN 8' WIDTH) (TWO 4' WIDE BARRICADES)
- SIGN (PER MUTCD CODE)
- DELINEATOR WITH WHITE RETROREFLECTIVE TAPE (THICKER CONE PLATFORM)
- FLASHING ARROW SIGN
- SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL (NOT A PAVEMENT MARKING)
- HIGH LEVEL WARNING DEVICE
- K RAIL (TRAFFIC BARRIER WITH WARNING LIGHT)
- CRASH CUSHION WITH TYPE P MARKER PANEL (CALTRANS STD PLAN T2)
- WORK AREA
- EXISTING DRIVEWAY

LINCOLN AVENUE

STAGE 3 TRAFFIC HANDLING
(EXISTING SPEED LIMIT = 45 MPH)

PLAN
1"=40'

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
JOSEPH MULVIHILL — DATE

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

TRAFFIC HANDLING
STAGE 3

STA. 648+40 TO STA. 657+00

Sheet Reference Number

TH-13 R1

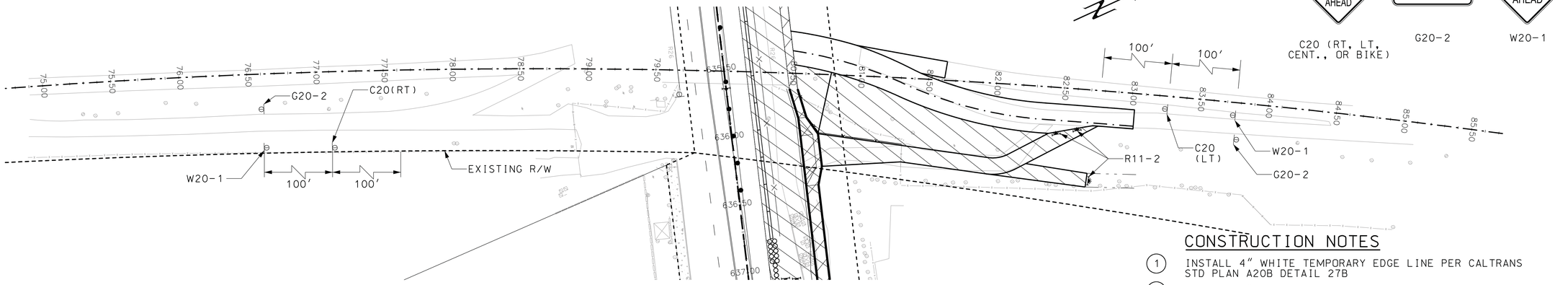
Att 5 to Bulletin 2
Sheet 57 of 90

LINCOLN AVENUE BRIDGE WIDENING - STAGE 0 TRAFFIC HANDLING SIGN SUMMARY							
SIGN TYPE	SIGN SIZE	ON SIGN POST	ON W/ ANOTHER SIGN	ON DELINEATOR	ON TYPE III BARRICADE	ON W/ ANOTHER SIGN	ON TYPE II W/ FLASHER
C20 (LT, RT, Bike)	36" X 36"	2					
G20-2	36" 18"	2					
R11-2	48" X 36"				5		
W20-1	36" X 36"	2					

TRAFFIC SIGN LEGEND



C20 (RT, LT, CENT., OR BIKE) | G20-2 | W20-1



** SEE SHEET 60 FOR DETOURS AND ADDITIONAL TRAFFIC CONTROL SIGNING FOR BIKEWAY AND EQUESTRIAN TRAILS.

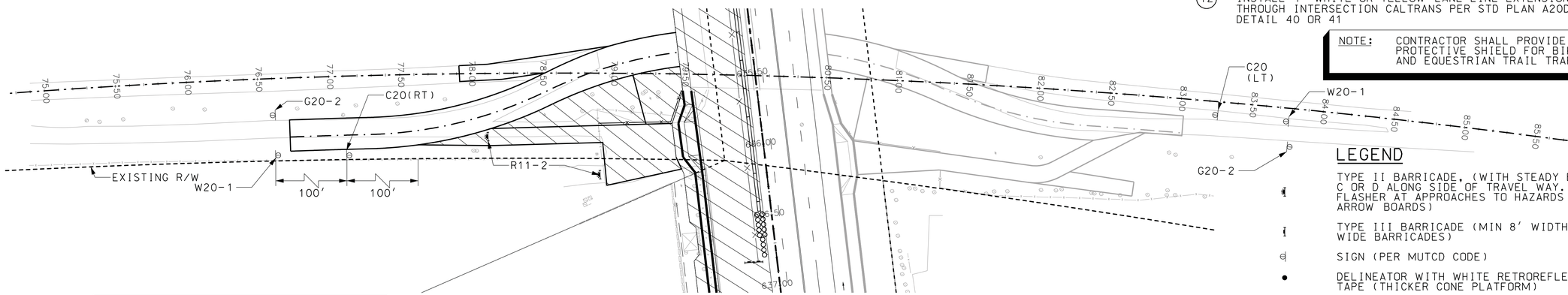
LINCOLN AVENUE

BIKEWAY AND EQUESTRIAN TRAIL HANDLING
STAGE 1

CONSTRUCTION NOTES

1. INSTALL 4" WHITE TEMPORARY EDGE LINE PER CALTRANS STD PLAN A20B DETAIL 27B
2. INSTALL 4" WHITE TEMPORARY LANE LINE PER CALTRANS STD PLAN A20A DETAIL 8
3. INSTALL 4" YELLOW TEMPORARY TWO DIRECTION NO PASSING LINE PER CALTRANS STD PLAN A20A DETAIL 21
4. INSTALL 6" SOLID WHITE BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39
5. INSTALL 6" WHITE DASHED BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39A
6. INSTALL 4" WHITE DASHED LANE LINE PER CALTRANS STD PLAN A20A DETAIL 9
7. INSTALL 4" WHITE SOLID LANE LINE WITH TYPE "G" RPM AT THE END
8. INSTALL 8" WHITE SOLID TEMPORARY CHEVRON (20' ON CENTER)
9. FURNISH AND INSTALL TEMPORARY CHAIN LINK FENCE
10. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
11. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR 29
12. INSTALL 4" WHITE OR YELLOW LANE LINE EXTENSION THROUGH INTERSECTION CALTRANS PER STD PLAN A20D DETAIL 40 OR 41

NOTE: CONTRACTOR SHALL PROVIDE PROTECTIVE SHIELD FOR BIKEWAY AND EQUESTRIAN TRAIL TRAFFIC.



** SEE SHEET 60 FOR DETOURS AND ADDITIONAL TRAFFIC CONTROL SIGNING FOR BIKEWAY AND EQUESTRIAN TRAILS.

LINCOLN AVENUE

BIKEWAY AND EQUESTRIAN TRAIL HANDLING
STAGE 3

LEGEND

- TYPE II BARRICADE, (WITH STEADY BURN TYPE C OR D ALONG SIDE OF TRAVEL WAY. WITH FLASHER AT APPROACHES TO HAZARDS WITH NO ARROW BOARDS)
- TYPE III BARRICADE (MIN 8' WIDTH) (TWO 4' WIDE BARRICADES)
- SIGN (PER MUTCD CODE)
- DELINEATOR WITH WHITE RETROREFLECTIVE TAPE (THICKER CONE PLATFORM)
- FLASHING ARROW SIGN
- SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL (NOT A PAVEMENT MARKING)
- HIGH LEVEL WARNING DEVICE
- K RAIL (TRAFFIC BARRIER WITH WARNING LIGHT)
- CRASH CUSHION WITH TYPE P MARKER PANEL (CALTRANS STD PLAN T2)
- WORK AREA
- EXISTING DRIVEWAY

PLAN
1"=40'

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
PROFESSIONAL ENGINEER JOSEPH MULVIHILL No. 46011 Exp. 12/31/14 CIVIL STATE OF CALIFORNIA
DATE
JOSEPH MULVIHILL

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=40'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

BIKEWAY AND EQUESTRIAN TRAIL STAGING

SANTA ANA RIVER

Sheet Reference Number

TH-14 R1

Att 5 to Bulletin 2
Sheet 58 of 90

TRAFFIC SIGN LEGEND



C20 (MOD)
(RT, LT, CENT., OR BIKE



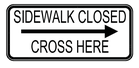
C30 (CA)

G20-2

R3-5



R9-3A



R9-11A
(LT, RT)

W1-6
(LT, RT)



W4-2
(RT, LT)



W6-3

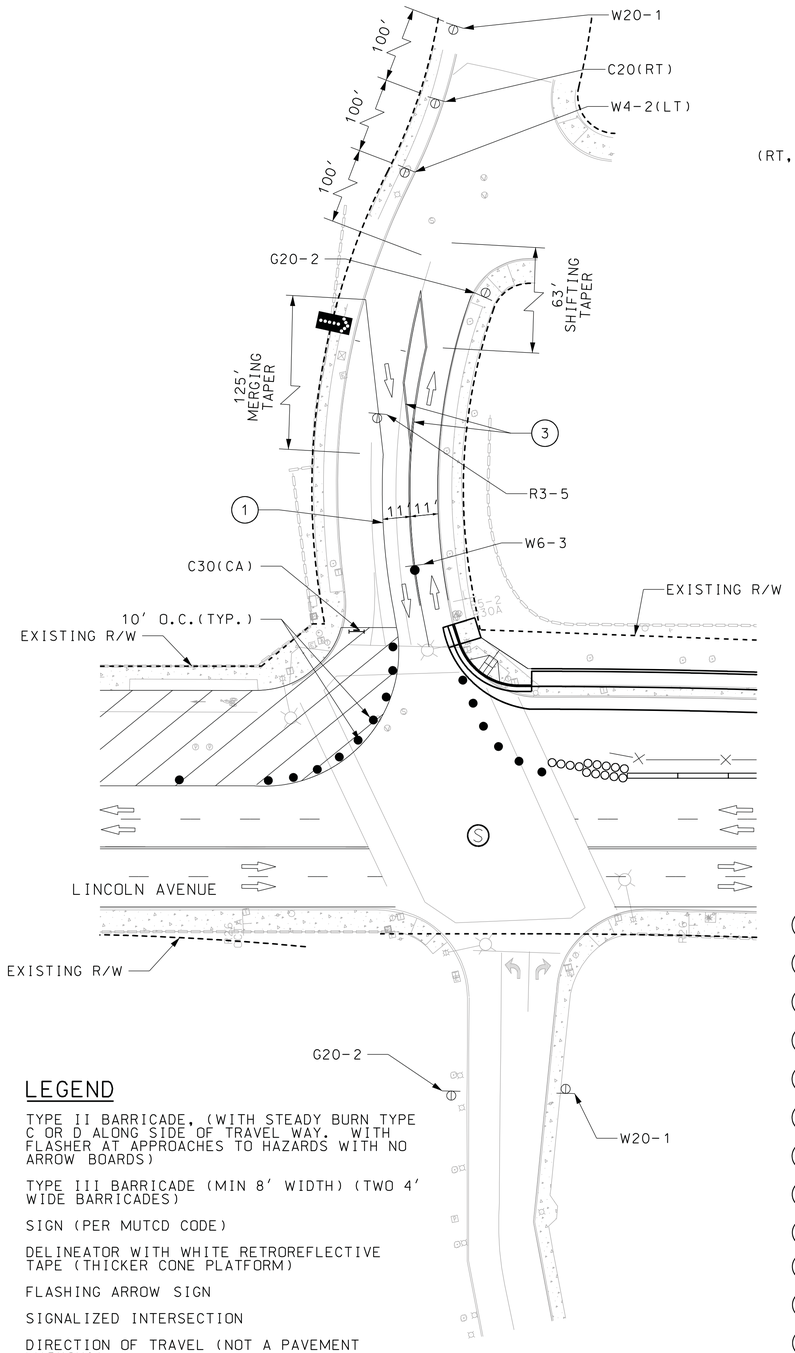
W20-1

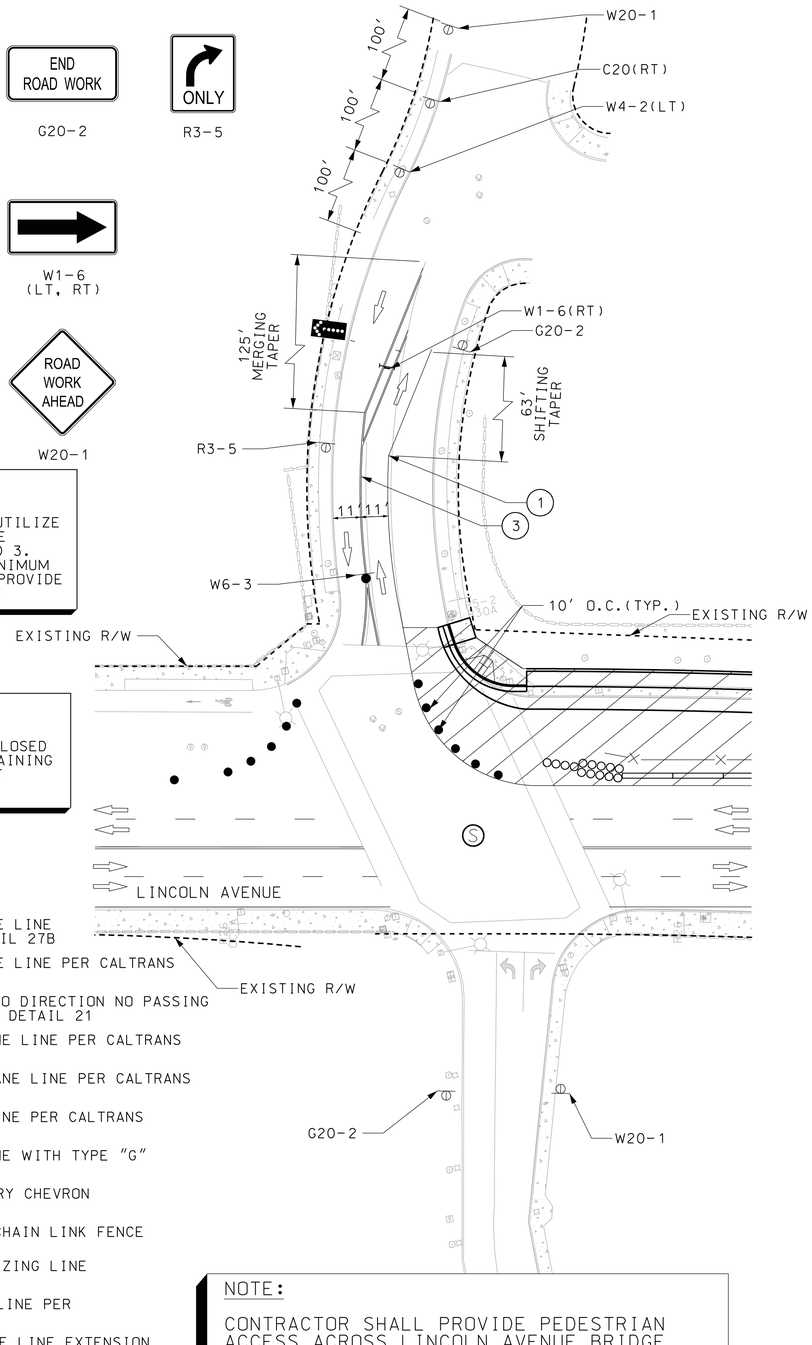
NOTE:

THIS TYPICAL DETAIL SHALL BE UTILIZE FOR NIGHT WORK THROUGH ALL THE INTERSECTIONS FOR PHASES 1 AND 3. THIS DETAIL REPRESENTS THE MINIMUM NUMBER OF SIGNS NECESSARY TO PROVIDE PHASING THRU THE INTERSECTION.

NOTE:

INTERSECTION WILL NEED TO BE CLOSED WITH A DETOUR TO COMPLETE REMAINING WORK WITHIN INTERSECTION. NOT INCLUDED IN WORK AREAS SHOWN.





LEGEND

- TYPE II BARRICADE, (WITH STEADY BURN TYPE C OR D ALONG SIDE OF TRAVEL WAY. WITH FLASHER AT APPROACHES TO HAZARDS WITH NO ARROW BOARDS)
- TYPE III BARRICADE (MIN 8' WIDTH) (TWO 4' WIDE BARRICADES)
- SIGN (PER MUTCD CODE)
- DELINEATOR WITH WHITE RETROREFLECTIVE TAPE (THICKER CONE PLATFORM)
- FLASHING ARROW SIGN
- SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL (NOT A PAVEMENT MARKING)
- HIGH LEVEL WARNING DEVICE
- K RAIL (TRAFFIC BARRIER WITH WARNING LIGHT)
- CRASH CUSHION WITH TYPE P MARKER PANEL (CALTRANS STD PLAN T2)
- WORK AREA
- EXISTING DRIVEWAY

CONSTRUCTION NOTES

1. INSTALL 4" WHITE TEMPORARY EDGE LINE PER CALTRANS STD PLAN A20B DETAIL 27B
2. INSTALL 4" WHITE TEMPORARY LANE LINE PER CALTRANS STD PLAN A20A DETAIL 8
3. INSTALL 4" YELLOW TEMPORARY TWO DIRECTION NO PASSING LINE PER CALTRANS STD PLAN A20A DETAIL 21
4. INSTALL 6" SOLID WHITE BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39
5. INSTALL 6" WHITE DASHED BIKE LANE LINE PER CALTRANS STD PLAN A20D DETAIL 39A
6. INSTALL 4" WHITE DASHED LANE LINE PER CALTRANS STD PLAN A20A DETAIL 9
7. INSTALL 4" WHITE SOLID LANE LINE WITH TYPE "G" RPM AT THE END
8. INSTALL 8" WHITE SOLID TEMPORARY CHEVRON (20' ON CENTER)
9. FURNISH AND INSTALL TEMPORARY CHAIN LINK FENCE
10. INSTALL 8" WHITE SOLID CHANNELIZING LINE PER STD PLAN A20D DETAIL 38
11. INSTALL 4" DOUBLE YELLOW LANE LINE PER STD PLAN A20A DETAIL 22 OR 29
12. INSTALL 4" WHITE OR YELLOW LANE LINE EXTENSION THROUGH INTERSECTION CALTRANS PER STD PLAN A20D DETAIL 40 OR 41

TYPICAL INTERSECTION STAGING DETAIL

(STAGE 1 AND 3)

PLAN
1"=30'

NOTE:

CONTRACTOR SHALL PROVIDE PEDESTRIAN ACCESS ACROSS LINCOLN AVENUE BRIDGE CONTINUOUSLY DURING STAGE I. INITIALLY, A THREE FOOT WIDE ACCESS BETWEEN THE K RAIL AND TEMPORARY CHAIN LINK FENCING WILL BE REQUIRED. AFTER SIDEWALK AND BRIDGE RAIL IS CONSTRUCTED, THEN THE PEDESTRIAN ACCESS CAN BE PROVIDED ON THE PERMANENT NORTHERN SIDEWALK FOR THE REMAINDER OF STAGE I AND OTHER PROPOSED STAGES OF CONSTRUCTION. PEDESTRIAN TRAFFIC CONTROL NOT SHOWN FOR CLARITY.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

PROFESSIONAL ENGINEER — JOSEPH MULVIHILL — No. 46011 — Exp. 12/31/14 — CIVIL — STATE OF CALIFORNIA — 10/31/13

DATE

JOSEPH MULVIHILL

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: 1"=30'

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8885

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

TRAFFIC HANDLING
TYPICAL
INTERSECTION
STAGING DETAIL

Sheet Reference Number

TH-15 R1

Att 5 to Bulletin 2
Sheet 59 of 90



SANTA ANA RIVER

BIKEWAY AND EQUESTRIAN TRAIL DETOUR
(NOT TO SCALE)

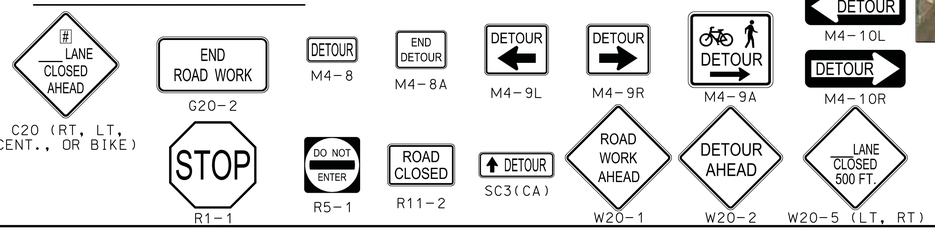
LEGEND

- TYPE II BARRICADE, (WITH STEADY BURN TYPE C OR D ALONG SIDE OF TRAVEL WAY, WITH FLASHER AT APPROACHES TO HAZARDS WITH NO ARROW BOARDS)
- SIGN (PER MUTCD CODE)
- DETOUR
- PROJECT SIGN (PER COUNTY OF ORANGE STD PLAN 1418)
  - A. PROJECT NAME: LINCOLN AVENUE WIDENING FROM RIO VISTA STREET TO RIVERBEND PARKWAY
  - B. FUNDED BY: COUNTY OF ORANGE
  - C. DURATION: TRAIL CLOSED MON/YR TO MON/YR
  - D. INFORMATION/CONTACT: (714) 560-6282

DETOUR OPERATIONS AND MAINTENANCE

1. BIKEWAY AND EQUESTRIAN TRAIL DETOURS SHALL REMAIN OPEN 24 HOURS, 7 DAYS A WEEK.
2. CONTRACTOR SHALL KEEP BIKEWAY AND EQUESTRIAN TRAIL DETOURS FREE OF DIRT AND DEBRIS WHILE OPEN TO THE PUBLIC.
3. CONTRACTOR SHALL NOT LEAVE PROJECT MATERIALS ON THE DETOUR ROUTE AT ANY TIME.
4. CONTRACTOR SHALL LIMIT DRIVING ON THE DETOUR ROUTES.
5. CONTRACTOR SHALL YIELD TO BIKEWAY AND EQUESTRIAN TRAIL PEDESTRIANS, AS THEY HAVE THE RIGHT-OF-WAY.
6. CONTRACTOR SHALL COORDINATE WITH THE COUNTY OF ORANGE PARKS PRIOR TO THE INSTALLATION OF THE DETOUR. CONTACT ALICIA RAISH, SUPERVING MAINTENANCE TECHNICIAN, AT (714) 973 - 6833.

DETOUR SIGN LEGEND



NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

PROFESSIONAL ENGINEER JOSEPH MULVIHILL No. 46011 Exp. 12/31/14 CIVIL STATE OF CALIFORNIA

JOSEPH MULVIHILL — DATE

DESIGNED BY: V. HELLENS
DRAWN BY: V. HELLENS
CHECKED BY: J. LEVITUS
DRAWING CODE:
FILE NAME:
PLOT DATE:
SCALE: NTS

ORANGE COUNTY
OC PUBLIC WORKS

PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
TEL: (714) 751-7373
FAX: (714) 545-8883

LINCOLN AVENUE WIDENING
FROM RIO VISTA STREET
TO RIVERBEND PARKWAY

TRAFFIC HANDLING BIKEWAY AND EQUESTRIAN TRAIL DETOUR

SANTA ANA RIVER

Sheet Reference Number

DT-01 R1

Att 5 to Bulletin 2
Sheet 60 of 90

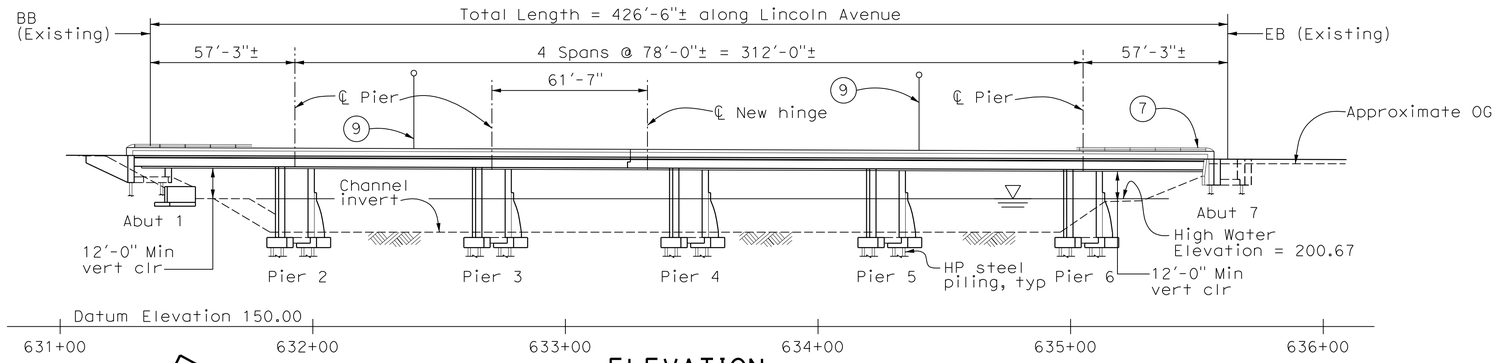
BB 631+35.65±
Elev 218.32±

-0.34% ±

EB 635+62.17±
Elev 216.90±

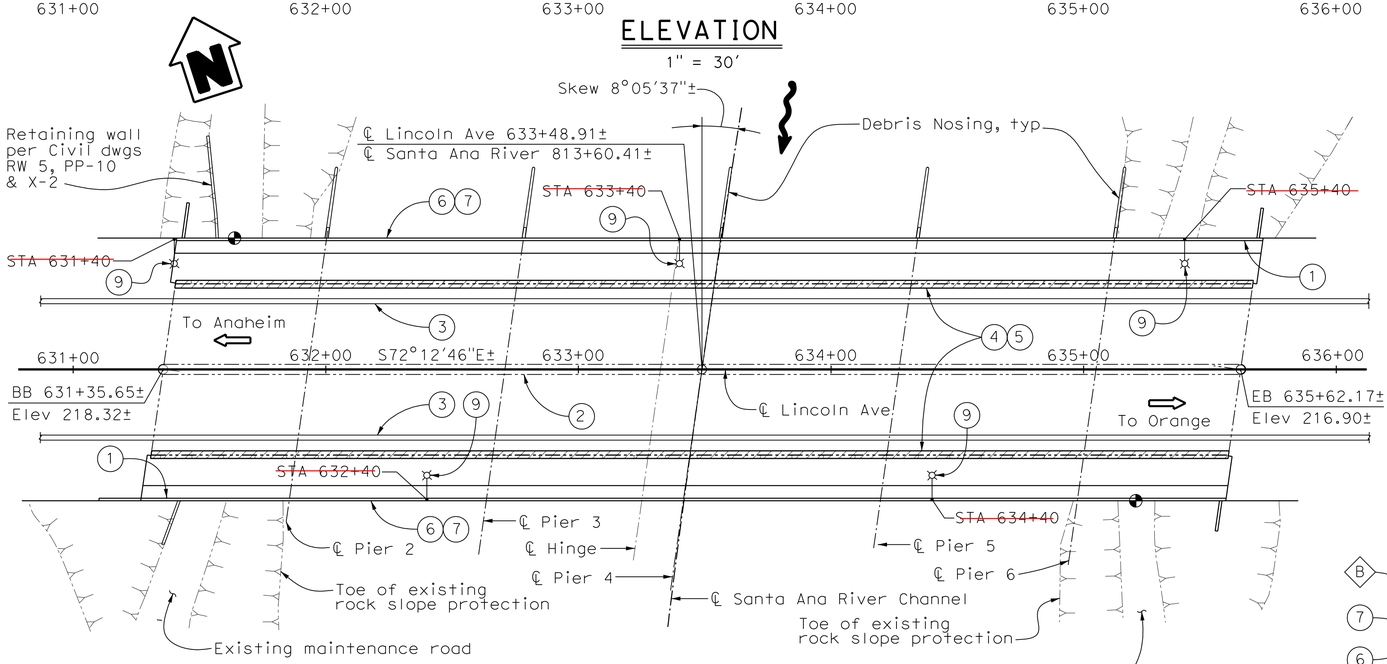
PROFILE GRADE

No Scale



ELEVATION

1" = 30'



PLAN

1" = 30'

LEGEND

- Denotes Bridge Lighting locations
- Denotes Existing Structure
- Denotes New Structure
- Indicates direction of traffic
- Indicates direction of flow
- Denotes Bridge Removal (Portion)
- Denotes Deck Closure Pour
- Denotes Existing Metal Beam Guard Railing to be removed
- Denotes High Water Elevation
- Indicates Point of Minimum Vertical Clearance

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

RECORD DRAWING

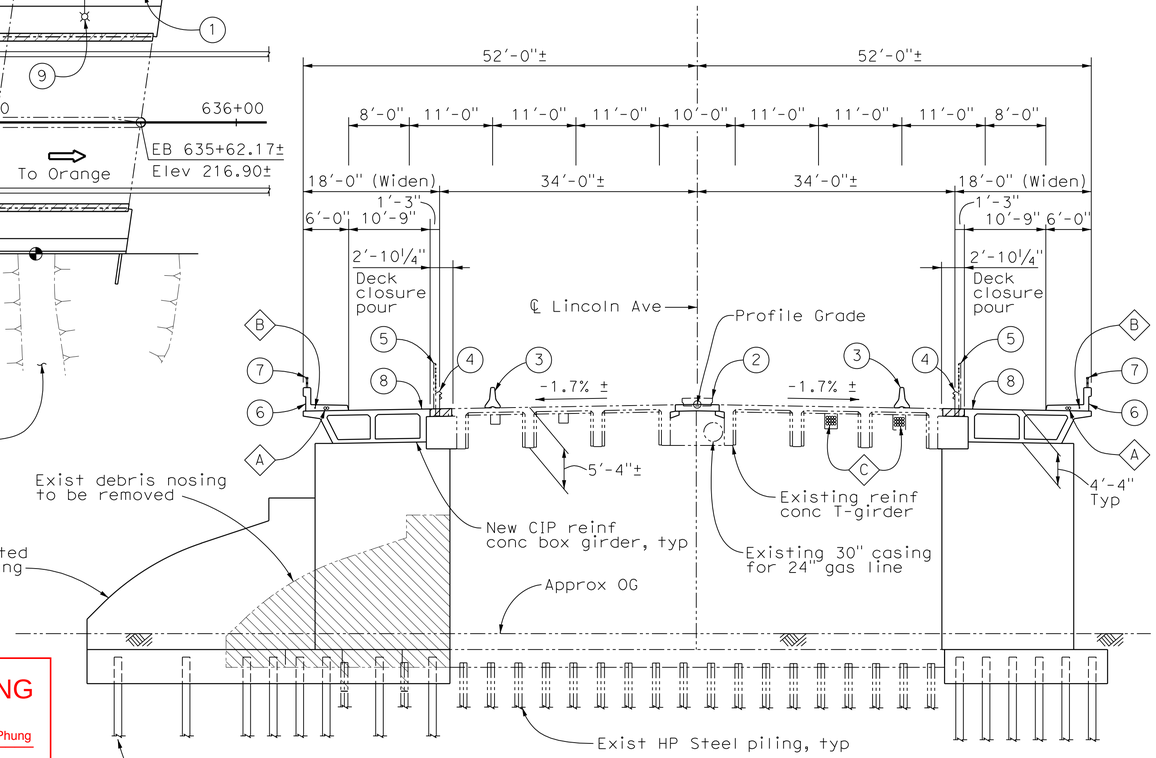
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

LEGEND

1. Paint "Lincoln Ave Bridge" & "Bridge No. 55C-0017"
2. Remove existing raised concrete median and replace with new at grade median
3. Temporary railing Type "K"
4. Remove & dispose of existing metal beam guard railing
5. Remove & dispose of existing fencing
6. Concrete barrier Type 26
7. Tubular Hand Railing
8. Widen structure shall match existing grade and cross slope
9. Type 21 Luminaire, see and Street Lighting Plan ES-6A - and ES-6B -

UTILITY LEGEND

- A. Future utility openings
- B. Conduit for Bridge Lighting
- C. Existing AT&T lines to be protected in place



TYPICAL SECTION

1" = 10'

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
G. SARAH
REGISTERED PROFESSIONAL ENGINEER
R. SARAH
No. C51155
Exp 09/30/13
CIVIL
STATE OF CALIFORNIA
1/11/2013
DATE

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

ORANGE COUNTY
PUBLIC WORKS

PREPARED BY:
McLEAN & SCHULTZ
3040 Saturn Street, Ste 105
Brea, CA 92821

LINCOLN AVENUE
BRIDGE
WIDENING
OVER
SANTA ANA RIVER

SHEET
REFERENCE
NUMBER

GENERAL PLAN

Sheet 61 Of 90

GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

DESIGN: AASHTO LRFD Bridge Design Specifications, Fourth Edition and the Caltrans Amendments, preface dated November, 2011.

SEISMIC DESIGN:

Caltrans Seismic Design Criteria (SDC), Version 1.6, dated November 2010.

DEAD LOAD:

Includes 35 psf for future wearing surface.

LIVE LOADING:

HL93 and permit design load.

SEISMIC LOADING:

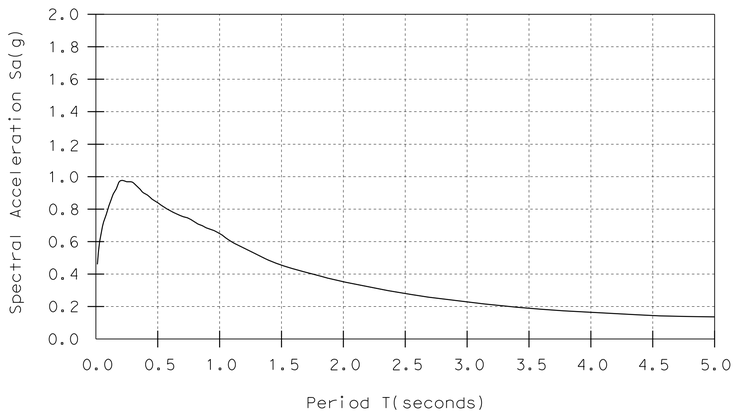
Soil Profile Type D, shear wave velocity V_{S30}=340 m/s
Earthquake Magnitude = 7.1
Peak Ground Acceleration = 0.48 g

CONCRETE:

f_y = 60 ksi

f'_c = 4000 psi and 3600 psi

n = 8



CALTRANS ARS CURVE
WITH NEAR-FAULT EFFECT INCLUDED

INDEX TO PLANS

SHEET NO.	TITLE
1.	GENERAL PLAN
2.	GENERAL NOTES & INDEX TO PLANS
3.	STAGE CONSTRUCTION DETAILS NO. 1
4.	STAGE CONSTRUCTION DETAILS NO. 2
5.	FOUNDATION PLAN
6.	ABUTMENT 1 LAYOUT
7.	ABUTMENT 7 LAYOUT
8.	ABUTMENT DETAILS NO. 1
9.	ABUTMENT DETAILS NO. 2
10.	ABUTMENT DETAILS NO. 3
11.	ABUTMENT DETAILS NO. 4
12.	PIER LAYOUT
13.	PIER DETAILS NO. 1
14.	PIER DETAILS NO. 2
15.	PIER DETAILS NO. 3
16.	PIER DEBRIS WALL
17.	TYPICAL SECTION
18.	GIRDER LAYOUT
19.	GIRDER LONGITUDINAL SECTION
20.	GIRDER REINFORCEMENT NO. 1
21.	GIRDER REINFORCEMENT NO. 2
22.	HINGE DETAILS NO. 1
23.	HINGE DETAILS NO. 2
24.	HINGE DETAILS NO. 3
25.	CABLE RESTRAINER TYPE 1
26.	CABLE RESTRAINER TYPE 2
27.	CABLE RESTRAINER ADJUSTMENT HARDWARE
28.	LIMITS OF EXCAVATION AND BACKFILL
29.	SLOPE PAVING - FULL SLOPE
30.	LOG OF TEST BORINGS

CONCRETE STRENGTH AND TYPE LIMITS

NO SCALE

LEGEND

- Structural Concrete, Bridge (f'_c = 4500 psi @ 28 days)
- Structural Concrete, Bridge (f'_c = 4000 psi @ 28 days)
- Structural Concrete, Bridge Footing (f'_c = 3600 psi @ 28 days)
- Structural Concrete, Wing Walls (f'_c = 3600 psi @ 28 days)
- Seal Course Concrete

PLAN SYMBOLS

- Indicates new structure
- Indicates existing structure
- Caltrans Standard Plan Sheet No.
- Detail No.
- A — Section Identification

CALTRANS STANDARD PLANS DATED 2010

A10A	ABBREVIATIONS (SHEET 1 OF 2)
A10B	ABBREVIATIONS (SHEET 2 OF 2)
A10C	LINES AND SYMBOLS (SHEET 1 OF 3)
A10D	LINES AND SYMBOLS (SHEET 2 OF 3)
A10E	LINES AND SYMBOLS (SHEET 3 OF 3)
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
T3A	TEMPORARY RAILING (TYPE K)
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B0-5	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING=2")
B7-1	BOX GIRDER DETAILS
B11-51	TUBULAR HAND RAILING
B11-54	CONCRETE BARRIER TYPE 26
B14-5	WATER SUPPLY LINE (DETAILS) (PIPE SIZES LESS THAN 4")
ES-6A	ELECTRICAL SYSTEMS (LIGHTING STANDARD, TYPES 15 AND 21)
ES-6B	ELECTRICAL SYSTEMS (ELECTROLIER ANCHORAGE AND GROUTING FOR TYPE 15 AND TYPE 21 BARRIER RAIL MOUNTED)

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

RECORD DRAWING
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH NO. C51155 Exp 09/30/13 CIVIL STATE OF CALIFORNIA
1/11/2013 DATE
G. SARAH

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

ORANGE COUNTY PUBLIC WORKS

PREPARED BY: McLEAN & SCHULTZ 3040 Saturn Street, Ste 105 Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

SHEET REFERENCE NUMBER

GENERAL NOTES & INDEX TO PLANS

STAGE CONSTRUCTION NOTES

STAGE 0: MAINTENACE ROAD / BIKE TRAIL (MR/BT) & BRIDGE SUBSTRUCTURE

1. Provide detour route for the bike trail (See Civil Plans)
2. Regrade the MR/BT (See Civil Plans)
3. Construct temporary cofferdam around footings for piers (as necessary) for substructure construction. Contractor must secure permit from OCWD (Orange County Water District), OCFCD (Orange County Flood Control District), USACE (United States Army Corps of Engineers), and County of Orange for excavating in the river.
4. Demolish existing debris nose.
5. Excavate foundation in the channel and install piles for foundation.
6. Construct pile cap.
7. Construct pier walls and new debris walls.
8. Provide temporary lateral support for new pier walls

BRIDGE SUPERSTRUCTURE

STAGE I: BRIDGE SUPERSTRUCTURE NORTH WIDENING

1. Place K-rails on north side of Lincoln Ave.
2. Remove existing guard railing and portion of existing deck overhang.
3. Form the cast-in-place superstructure.
4. Form and place deck rebars and concrete deck.
5. Construct Type 26 barrier with raised sidewalk.
6. Remove shoring and all the formwork from the river.
7. Reconstruct the channel embankment.
8. Place closure pour.
9. Remove K-rails.

STAGE II: BRIDGE MEDIAN RECONSTRUCTION

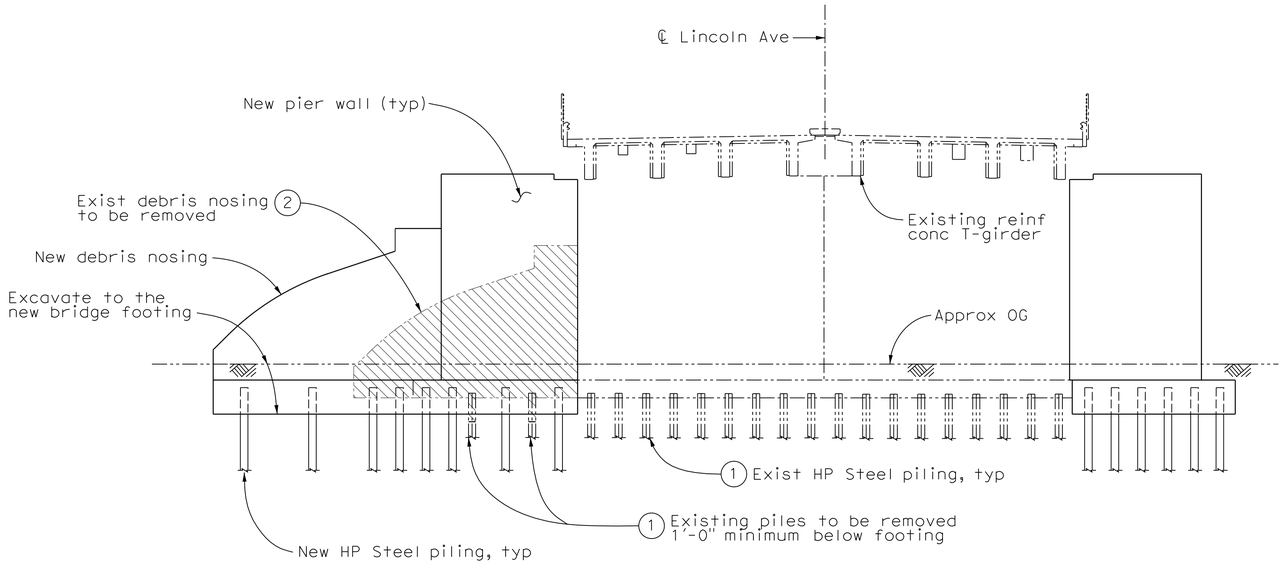
1. Place K-rail on on both sides of the median.
2. Remove existing median.
3. Form cast-in-place at grade median.
4. Remove K-rails.

STAGE III: BRIDGE SUPERSTRUCTURE SOUTH WIDENING

1. Place K-rail on on south side of Lincoln Ave.
2. Follow steps 2 thru 9 of Stage I for the south widening construction. (Same as north widening).

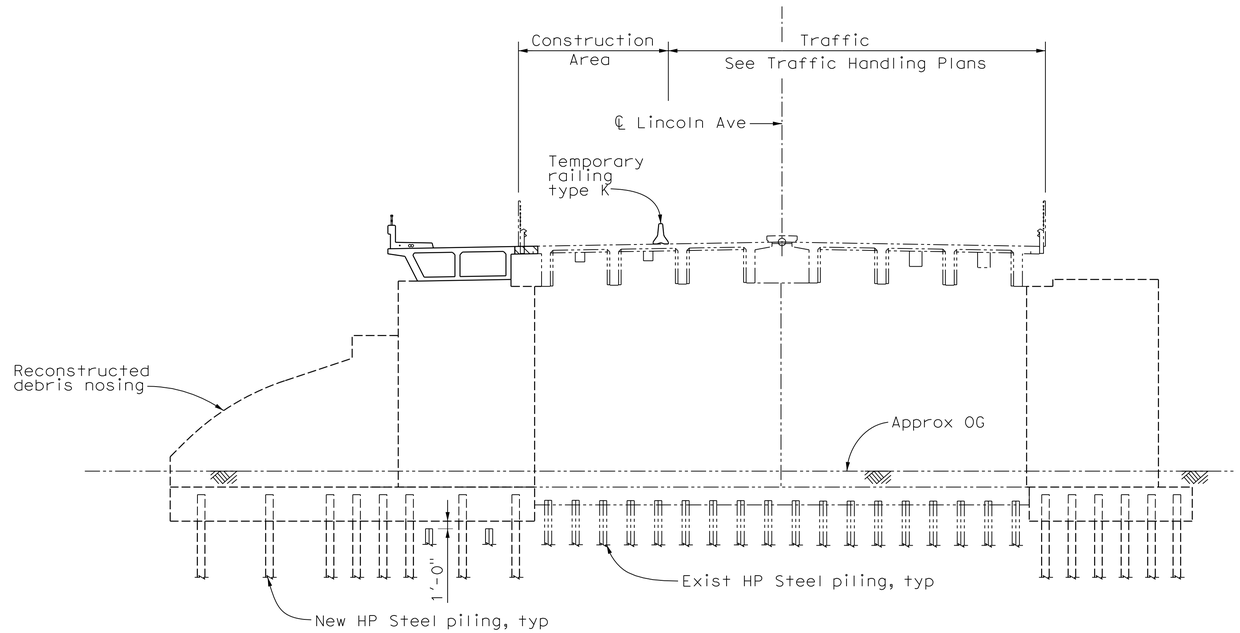
LEGEND

- Indicates bridge removal (portion)
- Denotes existing structure
- Denotes new structure
- Denotes new structure constructed in previous stage
- ± Indicates approximate dimension to be verified by the Contractor.
- (1) Protect in place
- (2) Remove



STAGE 0

1" = 10'



STAGE I

1" = 10'

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH NO. C51155 Exp 09/30/13 CIVIL STATE OF CALIFORNIA
1/11/2013 DATE
G. SARAH

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

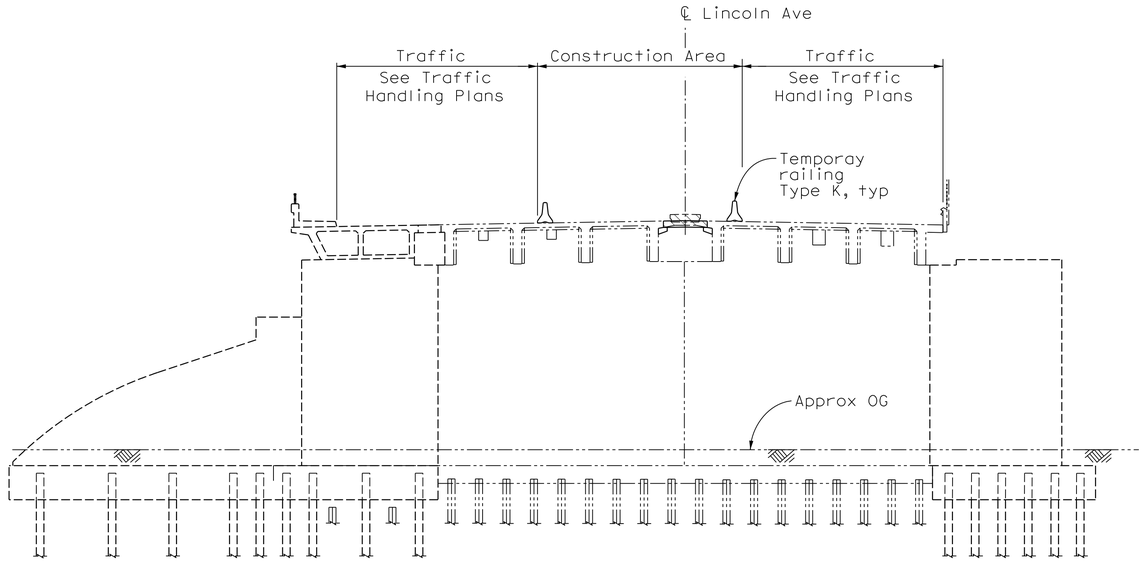
ORANGE COUNTY PUBLIC WORKS

PREPARED BY: McLEAN & SCHULTZ 3040 Saturn Street, Ste 105 Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

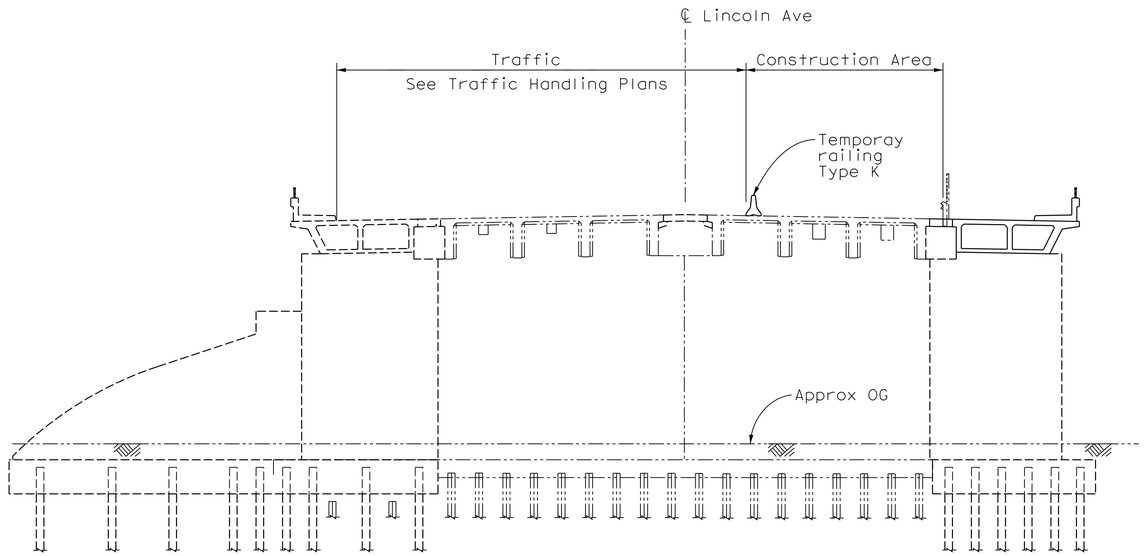
SHEET REFERENCE NUMBER

STAGE CONSTRUCTION DETAILS NO. 1



STAGE II

1" = 10'



STAGE III

1" = 10'

Note:
See "Stage Construction Details No.1" sheet
for stage construction notes and legend.

Note:
Verify all controlling field dimensions
before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

REGISTERED PROFESSIONAL ENGINEER R. SARAH No. C51155 Exp 09/30/13 CIVIL STATE OF CALIFORNIA

1/11/2013 DATE

G. SARAH

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

ORANGE COUNTY
PUBLIC WORKS

PREPARED BY:
McLEAN & SCHULTZ
3040 Saturn Street, Ste 105
Brea, CA 92821

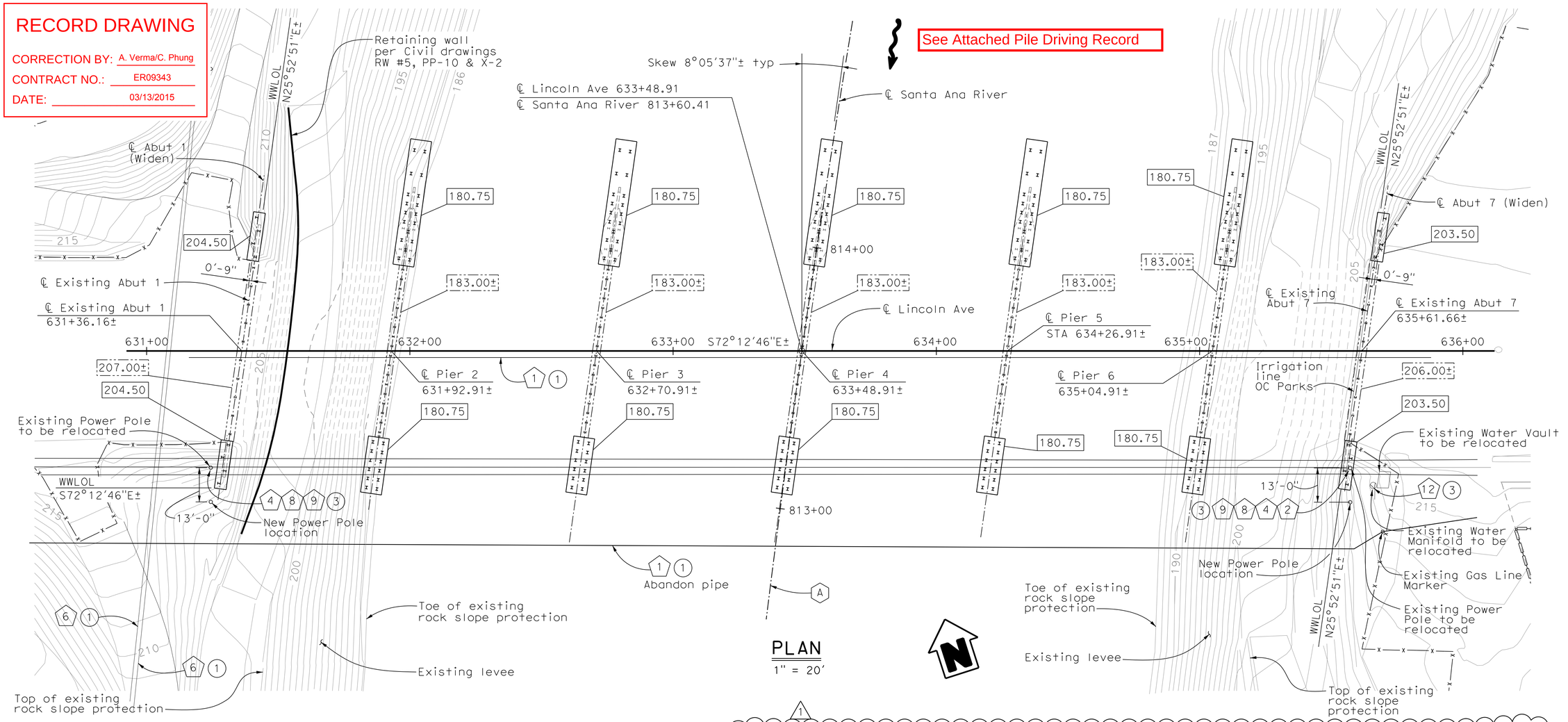
LINCOLN AVENUE
BRIDGE
WIDENING
OVER
SANTA ANA RIVER

SHEET
REFERENCE
NUMBER

STAGE
CONSTRUCTION
DETAILS NO. 2

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015



PLAN
1" = 20'

HYDROLOGIC SUMMARY			
Drainage Area: Unknown			
	Design Flood	Base Flood	Overtopping Flood/ Flood Of Record
Frequency	190 yrs	Not Available	Not Available
Discharge	42,000 ft^3/s		
Water Surface Elevation At Bridge	200.67 ft		
Flood plain data are based upon information available when the plans were prepared and are shown to meet federal requirements. The accuracy of said information is not warranted by the County and interested or affected parties should make their own investigation.			

CURVE DATA

(A) ℄ Santa Ana River
R = 800.14'±
Δ = 27°54'53"±
T = 1988.34'±
L = 3897.70'±

FOUNDATION PLAN NOTES

1. Bearing for all abutments and piers is N25°52'51"E±
2. Structure excavation Type A is required at Piers 2 thru 6, see "Limits of Excavation and Backfill" sheet for pay limits.
3. Submit shoring plans to the Engineer and USACE.

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

(1)

PILE DATA TABLE - STEEL HP 14x89								
Locations	~~Pile Capacity In Compression (kips)~~		Nominal Resistance (kips)		Cut-Off Elevation (ft)	Design Tip Elevation (ft)	Specified Tip Elevation (ft)	~~Nominal Driving Resistance (kip)~~
	~~Service~~	~~Nominal~~	Compression	Tension				
Abut 1	~~280~~	~~560~~	200	N/A	204.92	167 (a) (b)	167	~~560~~
Pier 2 thru 6	~~180~~	~~360~~	228	N/A	184.25	167 (a) (b)	167	~~360~~
Abut 7	~~280~~	~~560~~	200	N/A	203.92	167 (a) (b)	167	~~560~~

LEGEND

- Denotes Existing Structure
- Denotes New Structure
- Denotes direction of flow
- XXX.XX — Denotes bottom of new footing elevation
- XXX.XX± — Denotes bottom of existing footing elevation
- (1) Protect-in-place
- (3) Relocate

PILE DATA TABLE NOTES

1. Design tip elevations are controlled by:
   (a) Compression (Strength Limit)
   (b) Lateral Loading
2. The actual tip elevation shall not be raised above the specified tip elevation.
3. Tensile loads on piles are negligible.

UTILITIES

(1) Southern California Gas Company
(2) Southern California Edison
(4) MCI Network Services
(6) OCWD
(8) City Of Anaheim, Electrical
(9) City Of Anaheim, Fiber Optic
(12) City Of Orange, Water Department

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.
1	REVISED PILE DATA	9/18/13	

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH NO. C51555 Exp. 09/30/13 STATE OF CALIFORNIA
G. SARAH — 1/11/2013 DATE

DESIGNED BY: G. SARAH
DRAWN BY: WB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

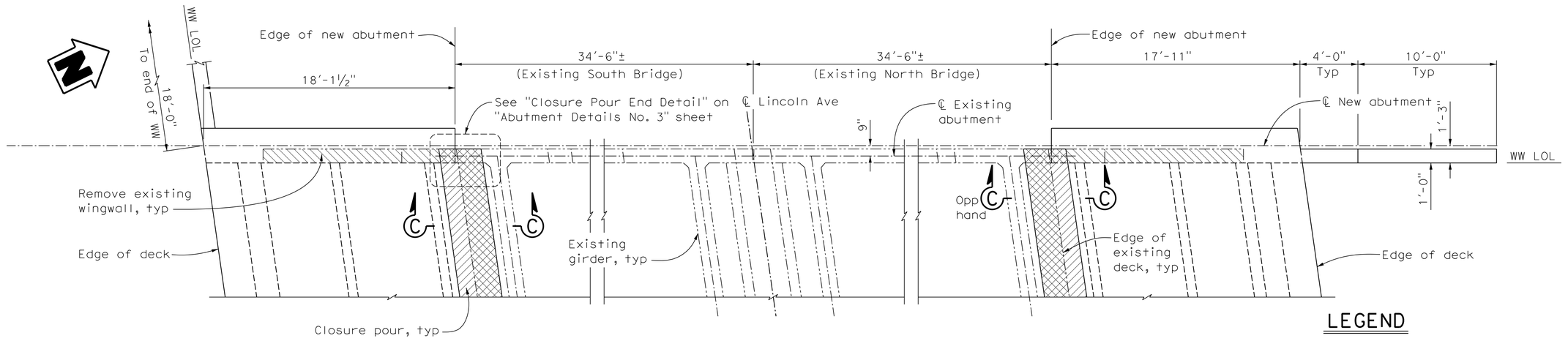
ORANGE COUNTY PUBLIC WORKS

PREPARED BY: McLEAM & SCHULTZ
3040 Saturn Street, Ste 105
Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

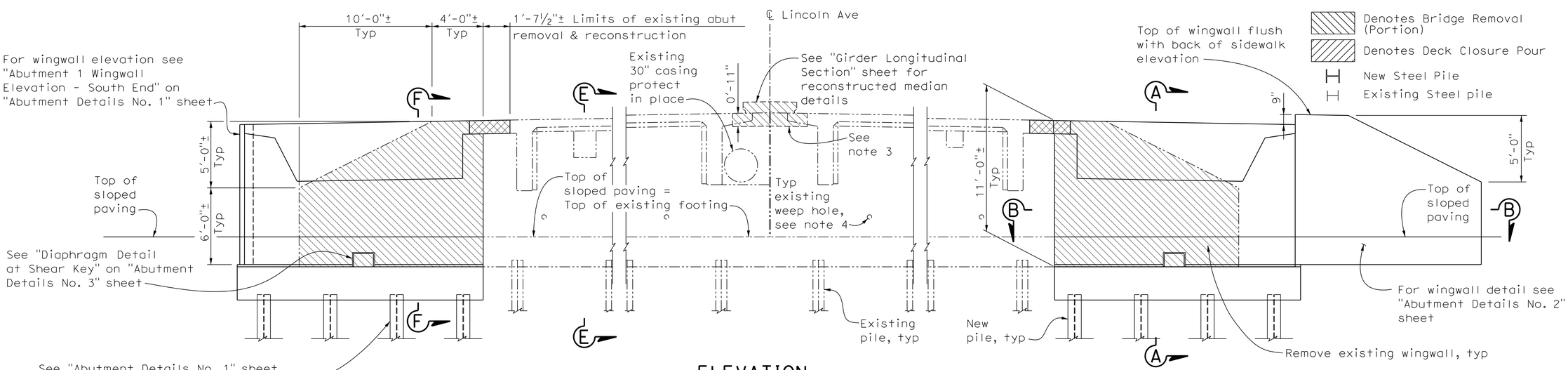
SHEET REFERENCE NUMBER

FOUNDATION PLAN



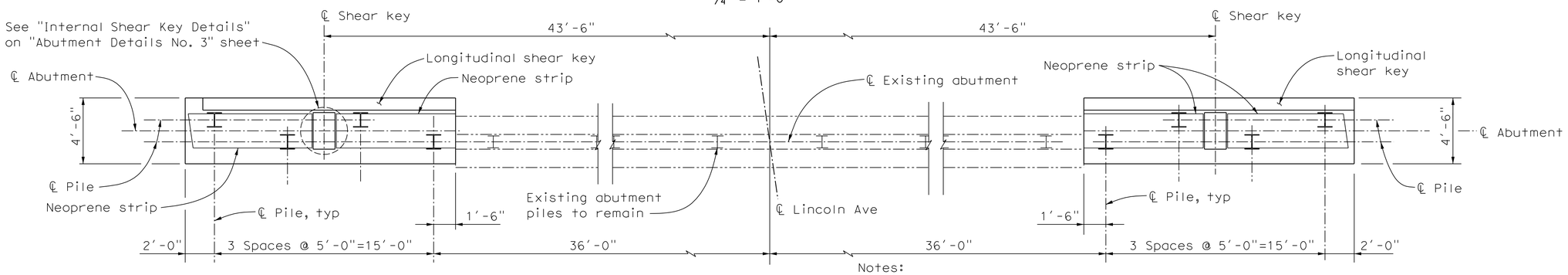
ABUTMENT 1 - PLAN

¼" = 1'-0"



ELEVATION

¼" = 1'-0"



PILE LAYOUT

¼" = 1'-0"

LEGEND

- Denotes Existing Structure
- Denotes New Structure
- Denotes Bridge Removal (Portion)
- Denotes Deck Closure Pour
- New Steel Pile
- Existing Steel pile

Notes:
1. For sections A-A & B-B see "Abutment Details No.1" sheet.
2. For sections C-C, E-E, & F-F see "Abutment Details No. 2" sheet.
3. After top of existing abutment wall partial removal, seal top surface with epoxy and place 1" expansion joint material between bottom of reconstructed median and top of wall.
4. All existing abutment weep holes to be cleaned.

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF: G. SARAH — DATE 1/11/2013

REGISTERED PROFESSIONAL ENGINEER R. SARAH No. C51155 Exp 09/30/13 CIVIL STATE OF CALIFORNIA

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

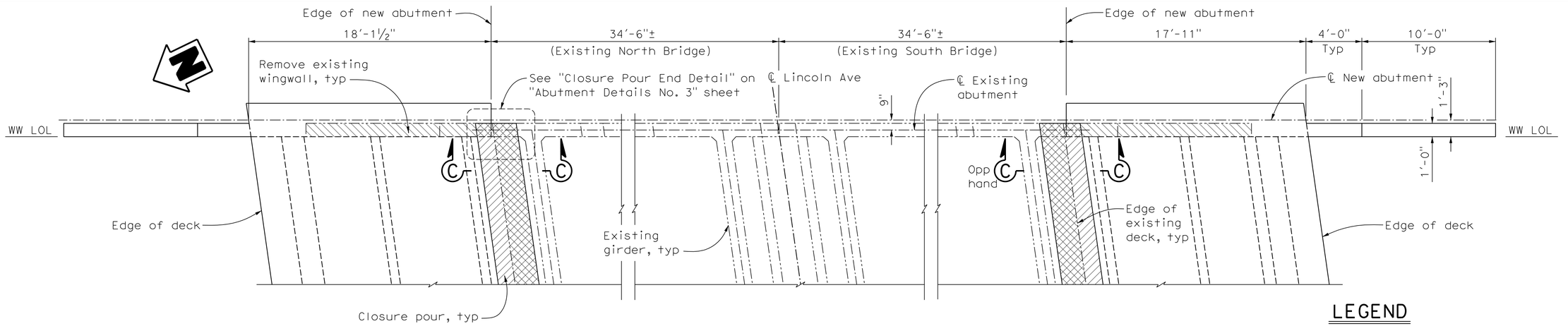
ORANGE COUNTY PUBLIC WORKS

PREPARED BY: McLEAN & SCHULTZ 3040 Saturn Street, Ste 105 Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

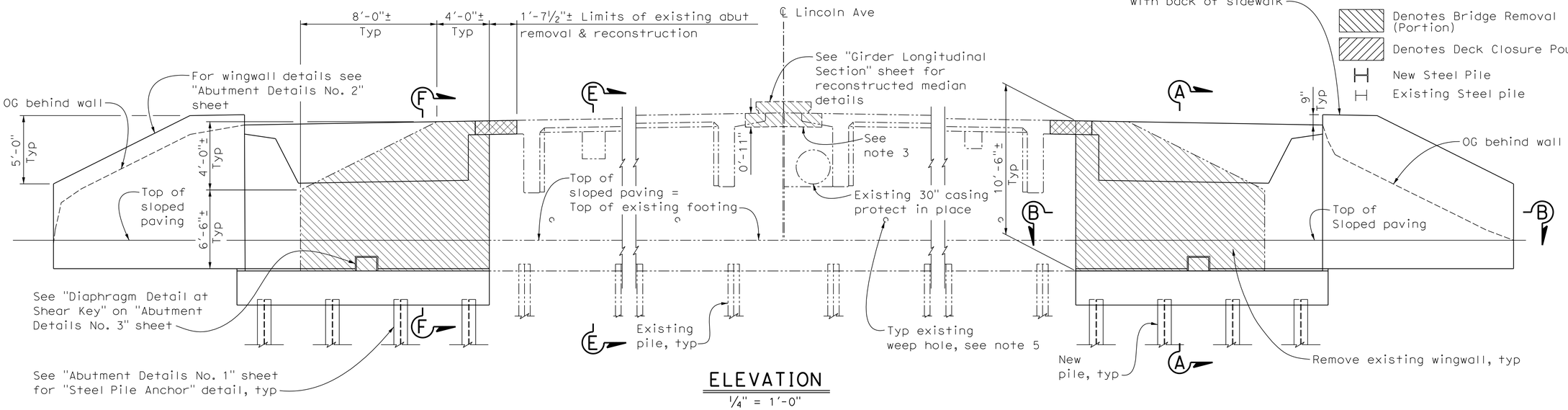
SHEET REFERENCE NUMBER

ABUTMENT 1 LAYOUT



ABUTMENT 7 - PLAN

1/4" = 1'-0"



ELEVATION

1/4" = 1'-0"

LEGEND

- Denotes Existing Structure
- Denotes New Structure
- Denotes Bridge Removal (Portion)
- Denotes Deck Closure Pour
- New Steel Pile
- Existing Steel pile

Notes:

1. For sections A-A & B-B see "Abutment Details No.1" sheet.
2. For sections C-C, E-E, & F-F see "Abutment Details No. 2" sheet.
3. After top of existing abutment wall partial removal, seal top surface with epoxy and place 1" expansion joint material between bottom of reconstructed median and top of wall.
4. Pile layout of Abutment 7 similar to Abutment 1, see "Abutment 1 Layout" sheet.
5. All existing abutment weep holes to be cleaned.

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH GEORGES No. C51155 Exp 09/30/13 STATE OF CALIFORNIA C.I.V.I.L.
1/11/2013 DATE
G. SARAH

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

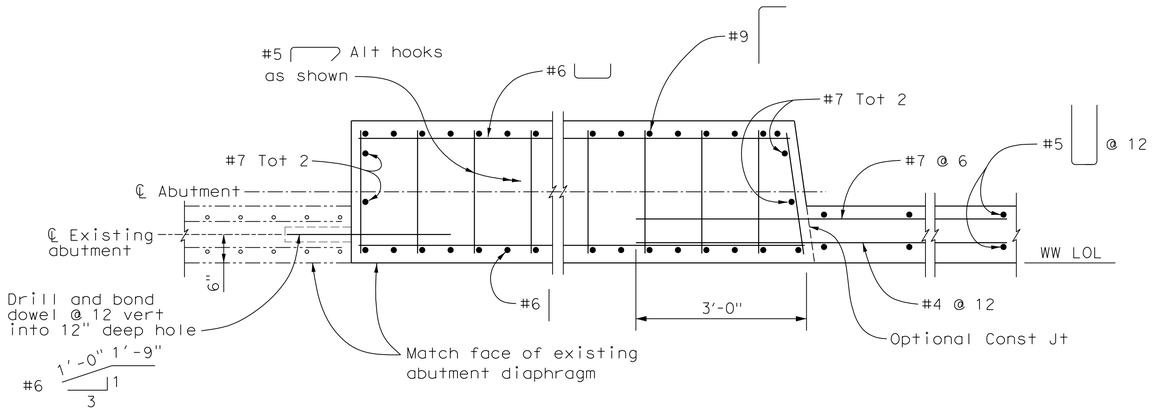
ORANGE COUNTY PUBLIC WORKS

PREPARED BY: McLEAN & SCHULTZ 3040 Saturn Street, Ste 105 Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

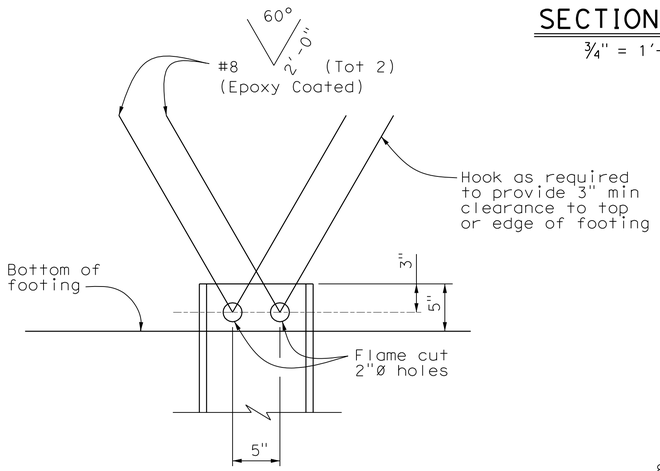
SHEET REFERENCE NUMBER

ABUTMENT 7 LAYOUT



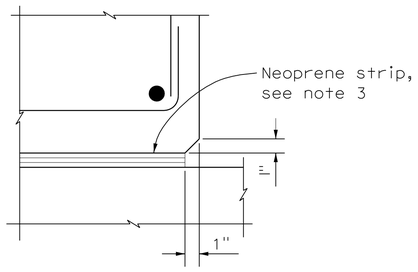
SECTION B-B

¾" = 1'-0"



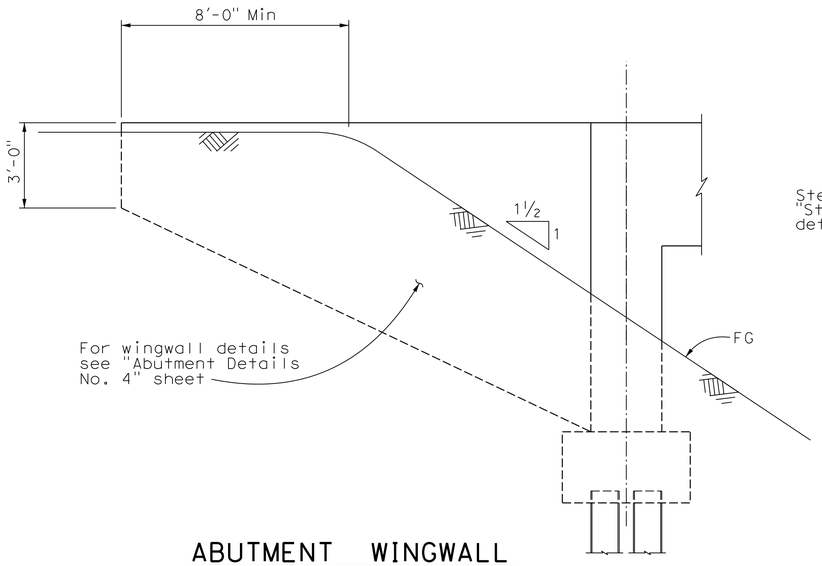
STEEL PIPE ANCHOR

1½" = 1'-0"



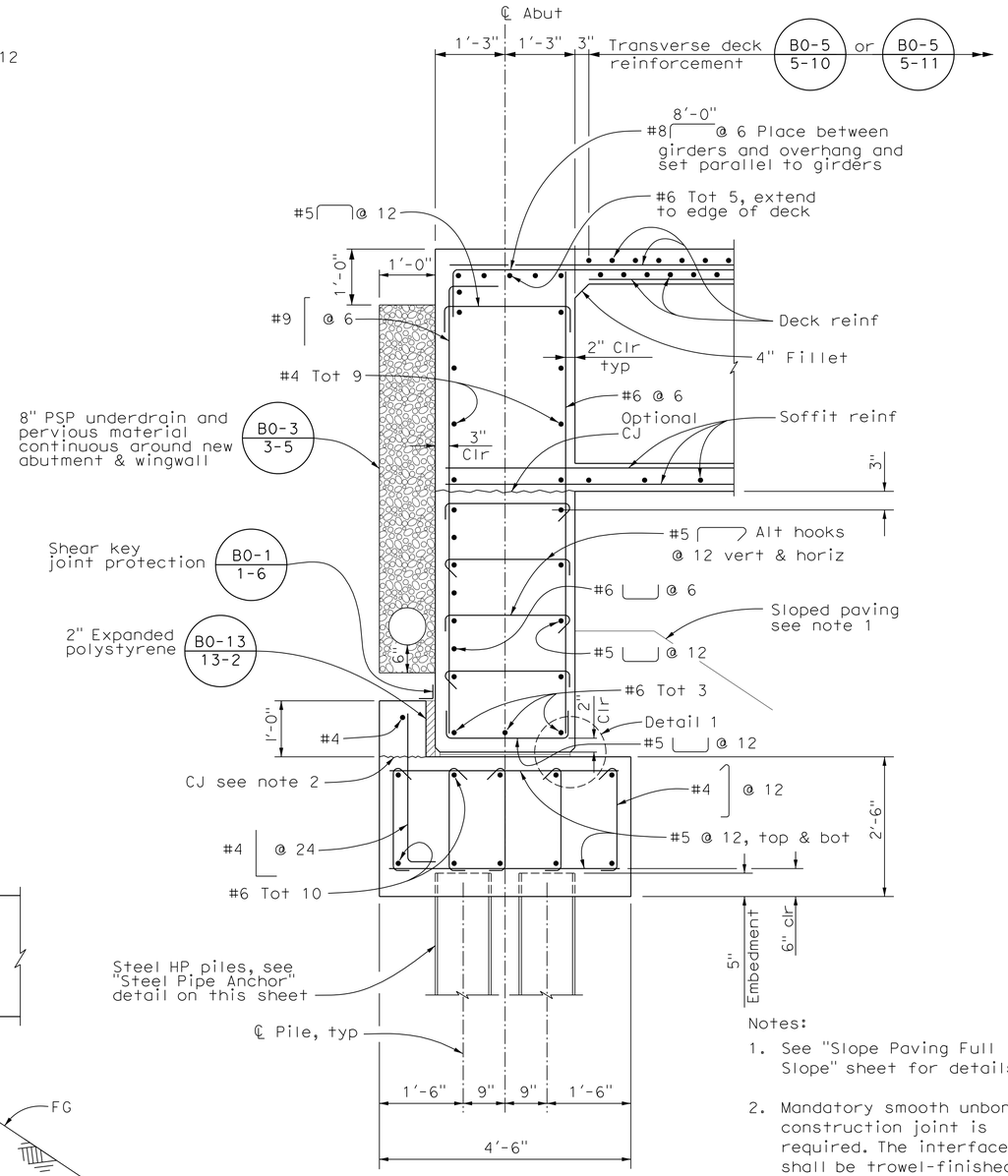
DETAIL 1

NO SCALE



ABUTMENT WINGWALL ELEVATION - SOUTH END

NO SCALE



SECTION A-A

¾" = 1'-0"

Notes:

1. See "Slope Paving Full Slope" sheet for details.
2. Mandatory smooth unbonded construction joint is required. The interfaces shall be trowel-finished smooth before application of a bond breaker.
3. 2'-0" x ¼" Thick neoprene sheet coat with grease and top with 2'-4" x 14 gauge galvanized sheet metal.

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH NO. C51155 Exp 09/30/13 CIVIL STATE OF CALIFORNIA
1/11/2013 DATE
G. SARAH

DESIGNED BY: G. SARAH	CHECKED BY: O. HENRIQUEZ	SCALE: AS NOTED
DRAWN BY: WB	DRAWING CODE:	FILE NAME:
		PLOT DATE: 1/11/2013

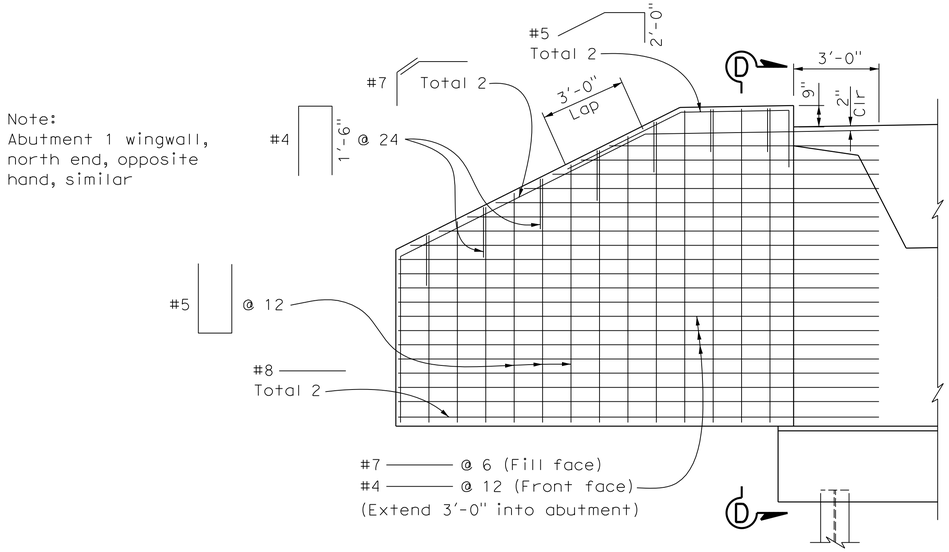
ORANGE COUNTY PUBLIC WORKS

PREPARED BY:
McLEAN & SCHULTZ
3040 Saturn Street, Ste 105
Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

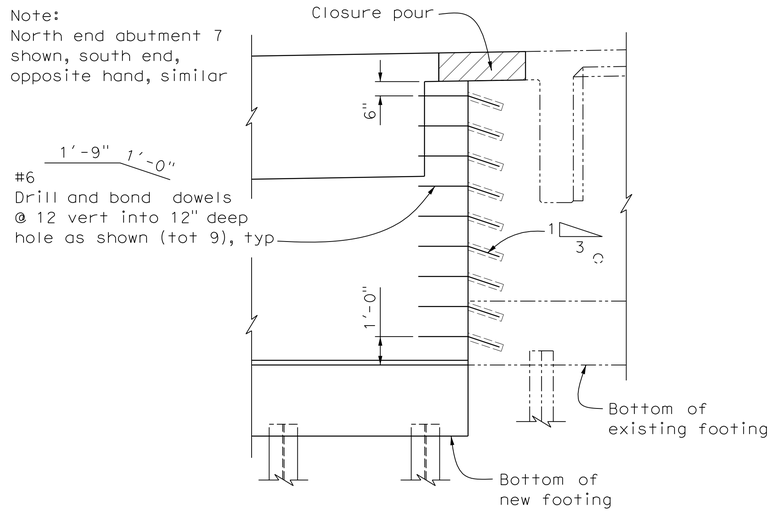
SHEET REFERENCE NUMBER

ABUTMENT DETAILS NO.1



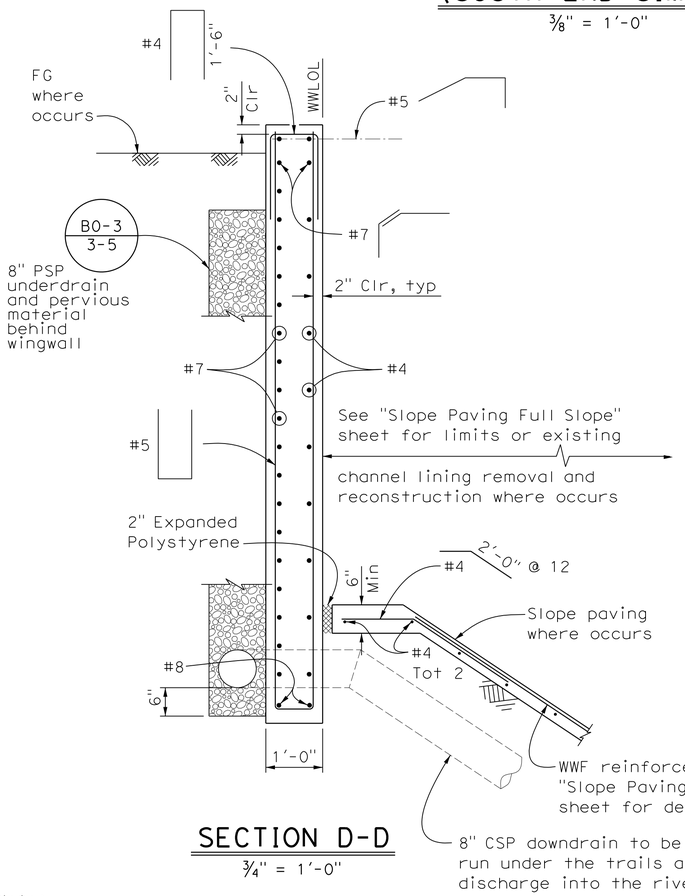
ABUTMENT 7 WINGWALL - NORTH END (SOUTH END SIMILAR)

3/8" = 1'-0"



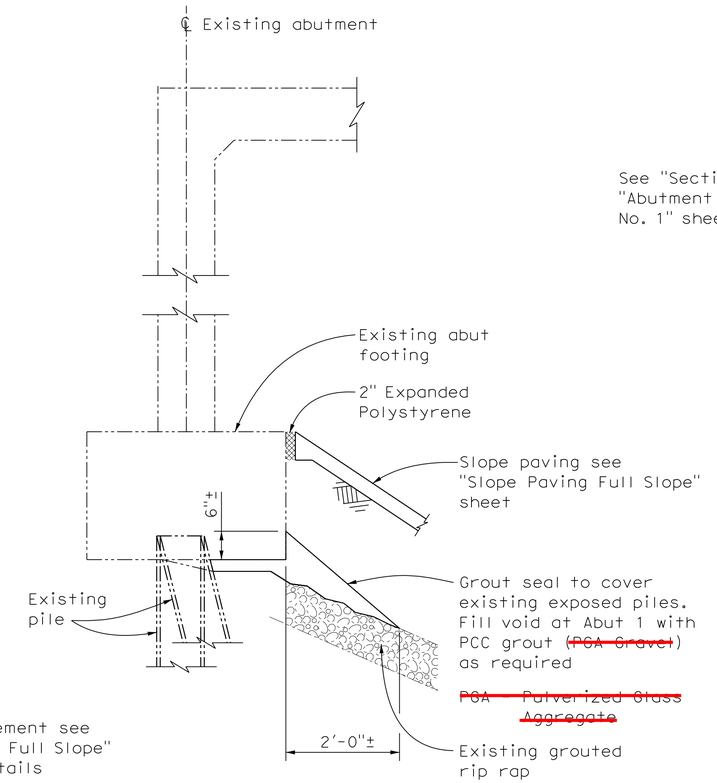
SECTION C-C

3/8" = 1'-0"



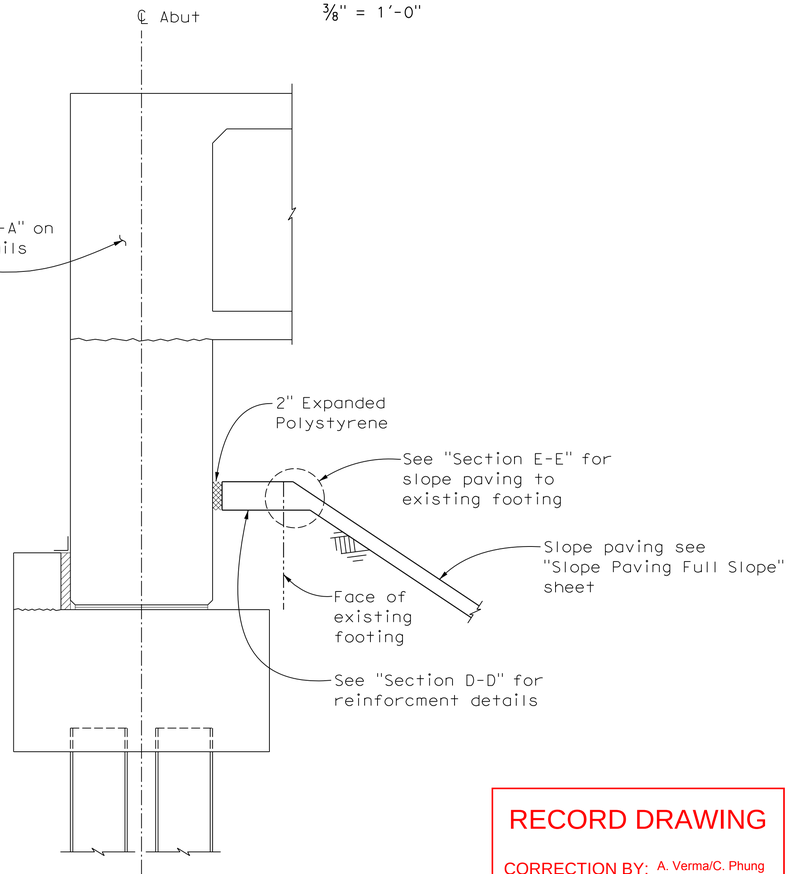
SECTION D-D

3/4" = 1'-0"



SECTION E-E

3/4" = 1'-0"



SECTION F-F

3/4" = 1'-0"

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH No. C51555 Exp 09/30/13 CIVIL STATE OF CALIFORNIA
1/11/2013 DATE
G. SARAH

DESIGNED BY: G. SARAH	CHECKED BY: O. HENRIQUEZ		SCALE: AS NOTED
DRAWN BY: MB	DRAWING CODE:	FILE NAME:	PLOT DATE: 1/11/2013

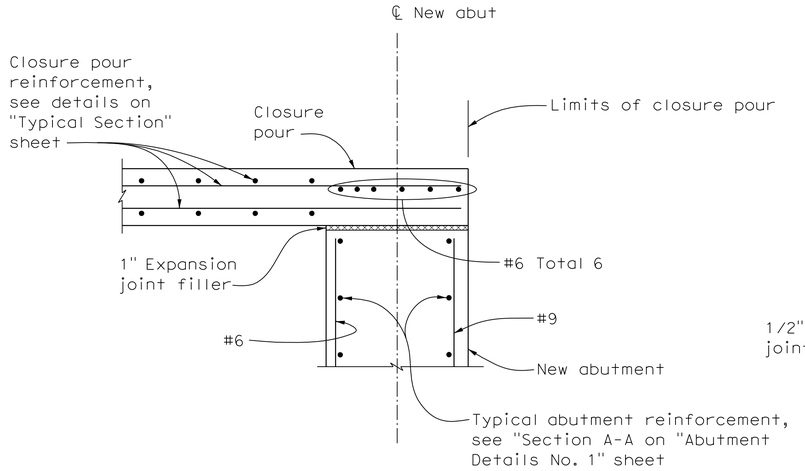
ORANGE COUNTY PUBLIC WORKS

PREPARED BY:
McLEAN & SCHULTZ
3040 Saturn Street, Ste 105
Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

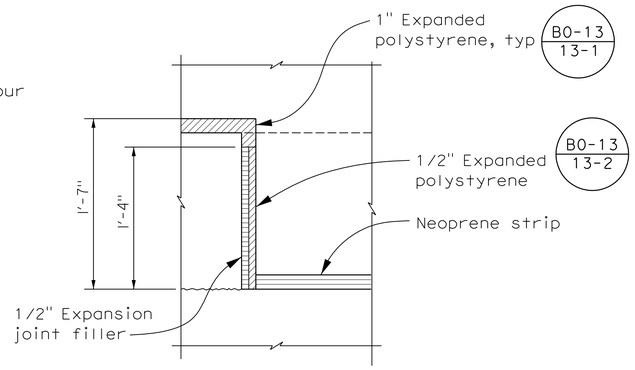
SHEET REFERENCE NUMBER

ABUTMENT DETAILS NO.2



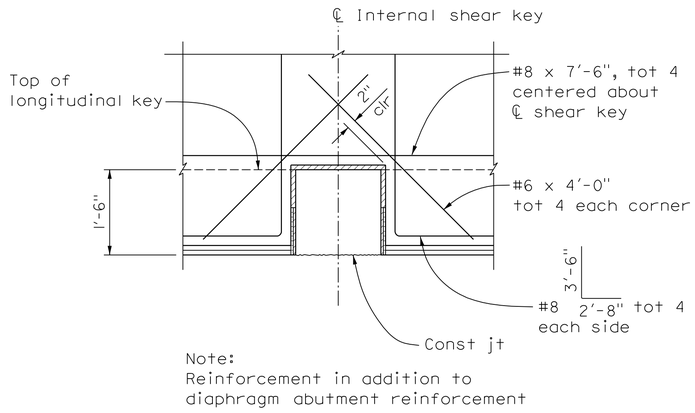
SECTION H-H

3/4" = 1'-0"



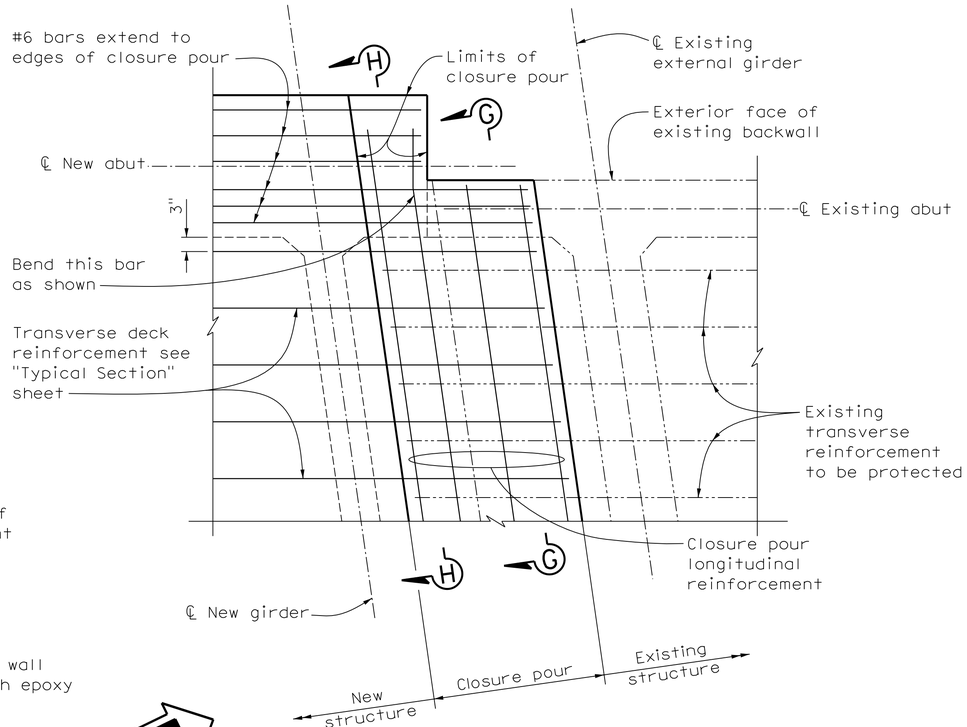
DETAIL 2

NO SCALE



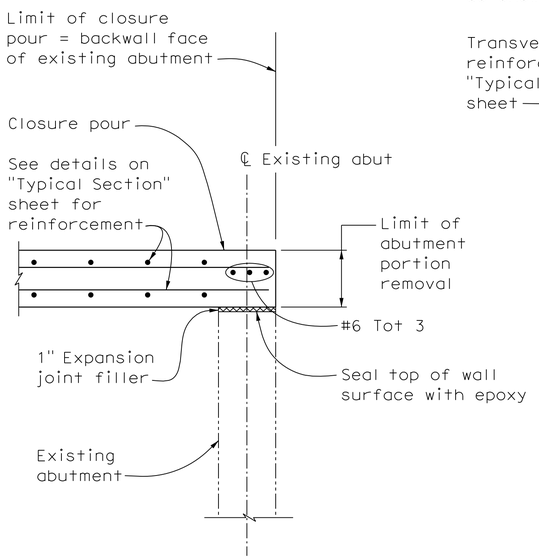
Note:
Reinforcement in addition to diaphragm abutment reinforcement

DIAPHRAGM DETAIL AT SHEAR KEY



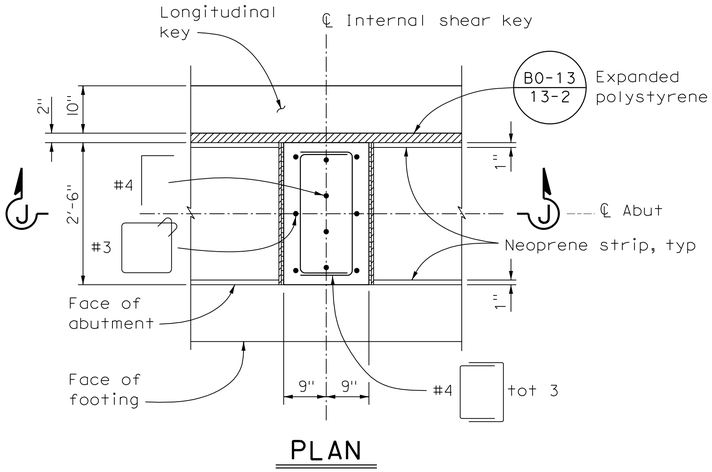
CLOSURE POUR END DETAIL

3/8" = 1'-0"

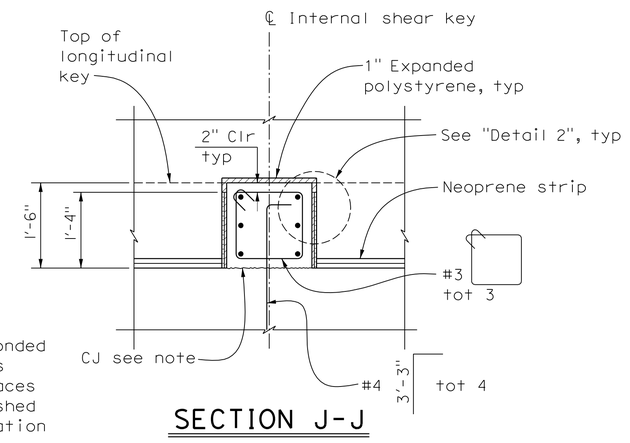


SECTION G-G

3/4" = 1'-0"



PLAN



SECTION J-J

Note:
Mandatory smooth unbonded construction joint is required. The interfaces shall be trowel-finished smooth before application of a bond breaker.

INTERNAL SHEAR KEY DETAILS

3/4" = 1'-0"

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

REGISTERED PROFESSIONAL ENGINEER R. SARAH NO. C51155 Exp 09/30/13 CIVIL STATE OF CALIFORNIA

G. SARAH — 1/11/2013 DATE

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

ORANGE COUNTY PUBLIC WORKS

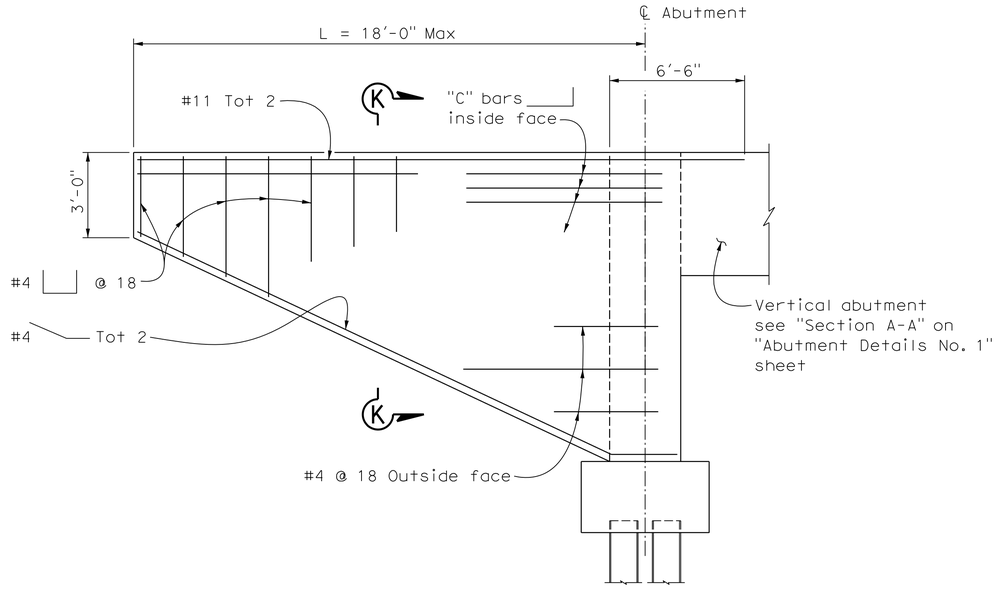
PREPARED BY: McLEAN & SCHULTZ 3040 Saturn Street, Ste 105 Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

SHEET REFERENCE NUMBER

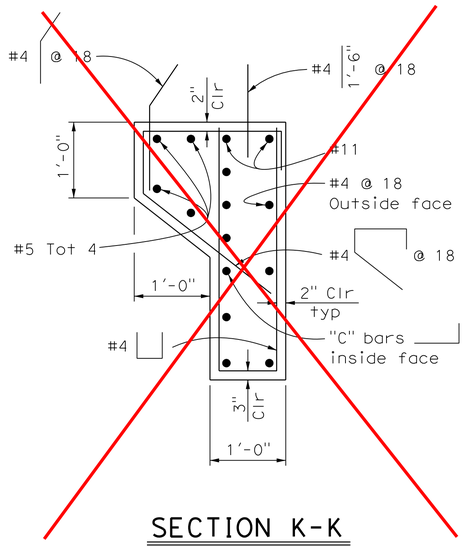
ABUTMENT DETAILS NO.3

Sheet 70 Of 90



ABUTMENT 1 WINGWALL ELEVATION - SOUTH END

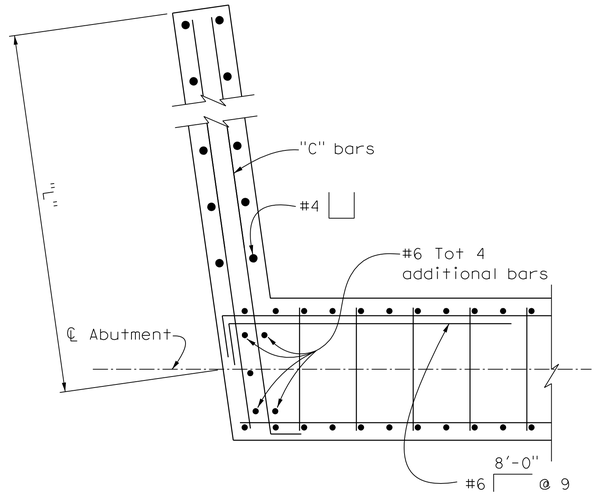
NO SCALE



SECTION K-K

NO SCALE

"L"	"C" Bars
12'-0"	#5 @ 9
14'-0"	#6 @ 9
16'-0"	#7 @ 9
18'-0"	#8 @ 9
20'-0"	#9 @ 9



CORNER DETAIL

NO SCALE

Note:
Verify all controlling field dimensions
before ordering or fabricating any material.

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung

CONTRACT NO.: ER09343

DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

REGISTERED PROFESSIONAL ENGINEER R. SARAH GEORGES No. C51155 Exp 09/30/13 STATE OF CALIFORNIA C.I.V.I.L.

1/11/2013 DATE

G. SARAH

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

ORANGE COUNTY PUBLIC WORKS

PREPARED BY: McLEAN & SCHULTZ 3040 Saturn Street, Ste 105 Brea, CA 92821

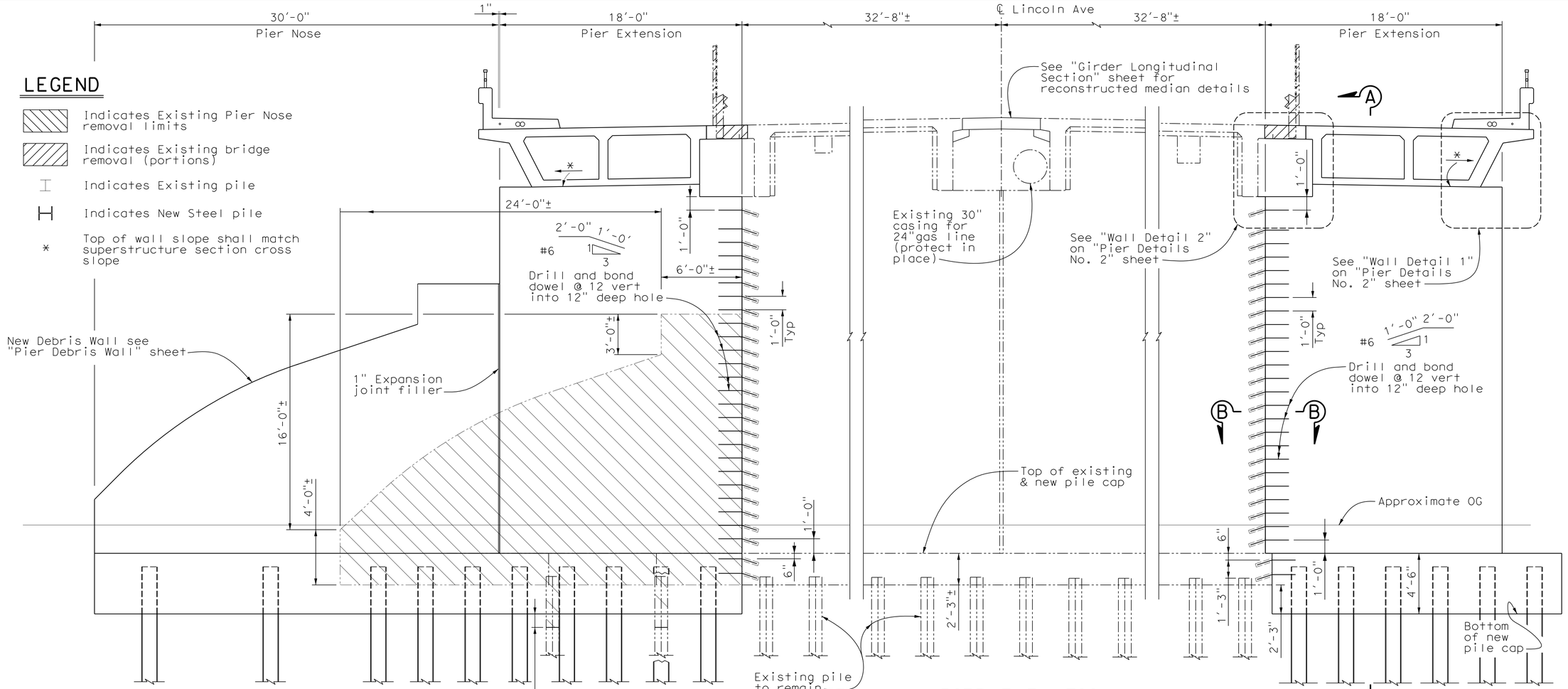
LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

SHEET REFERENCE NUMBER

ABUTMENT DETAILS NO.4

LEGEND

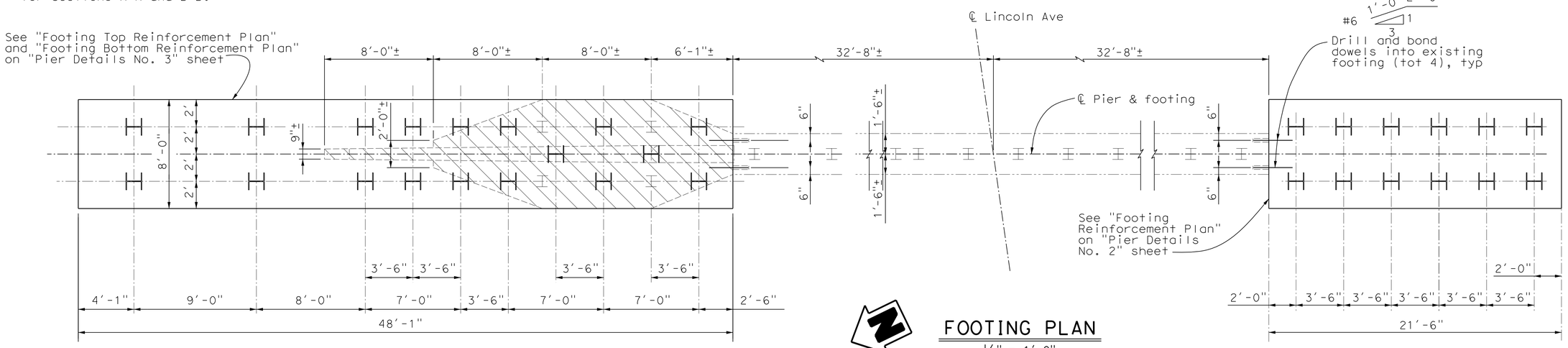
- Indicates Existing Pier Nose removal limits
- Indicates Existing bridge removal (portions)
- Indicates Existing pile
- Indicates New Steel pile
- * Top of wall slope shall match superstructure section cross slope



Note:
See "Pier Details No. 1" sheet for Sections A-A and B-B.

PIER ELEVATION

1/4" = 1'-0"



FOOTING PLAN

1/4" = 1'-0"

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

REGISTERED PROFESSIONAL ENGINEER R. SARAH NO. C51555 Exp 09/30/13 CIVIL STATE OF CALIFORNIA

1/11/2013 DATE

G. SARAH

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

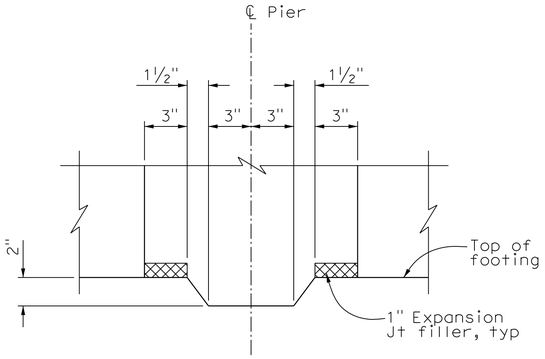
ORANGE COUNTY PUBLIC WORKS

PREPARED BY:
McLEAN & SCHULTZ
3040 Saturn Street, Ste 105
Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

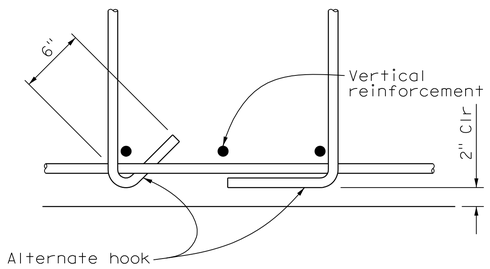
SHEET REFERENCE NUMBER

PIER LAYOUT



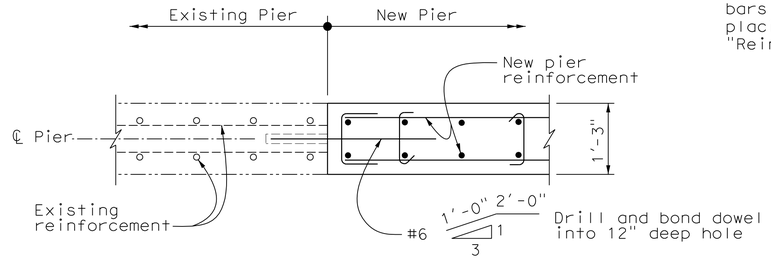
KEY DETAIL

NO SCALE



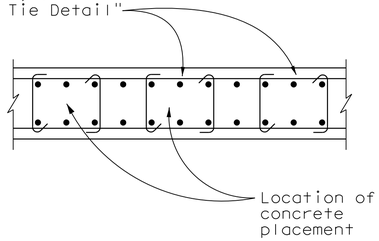
REINFORCEMENT TIE DETAIL

NO SCALE



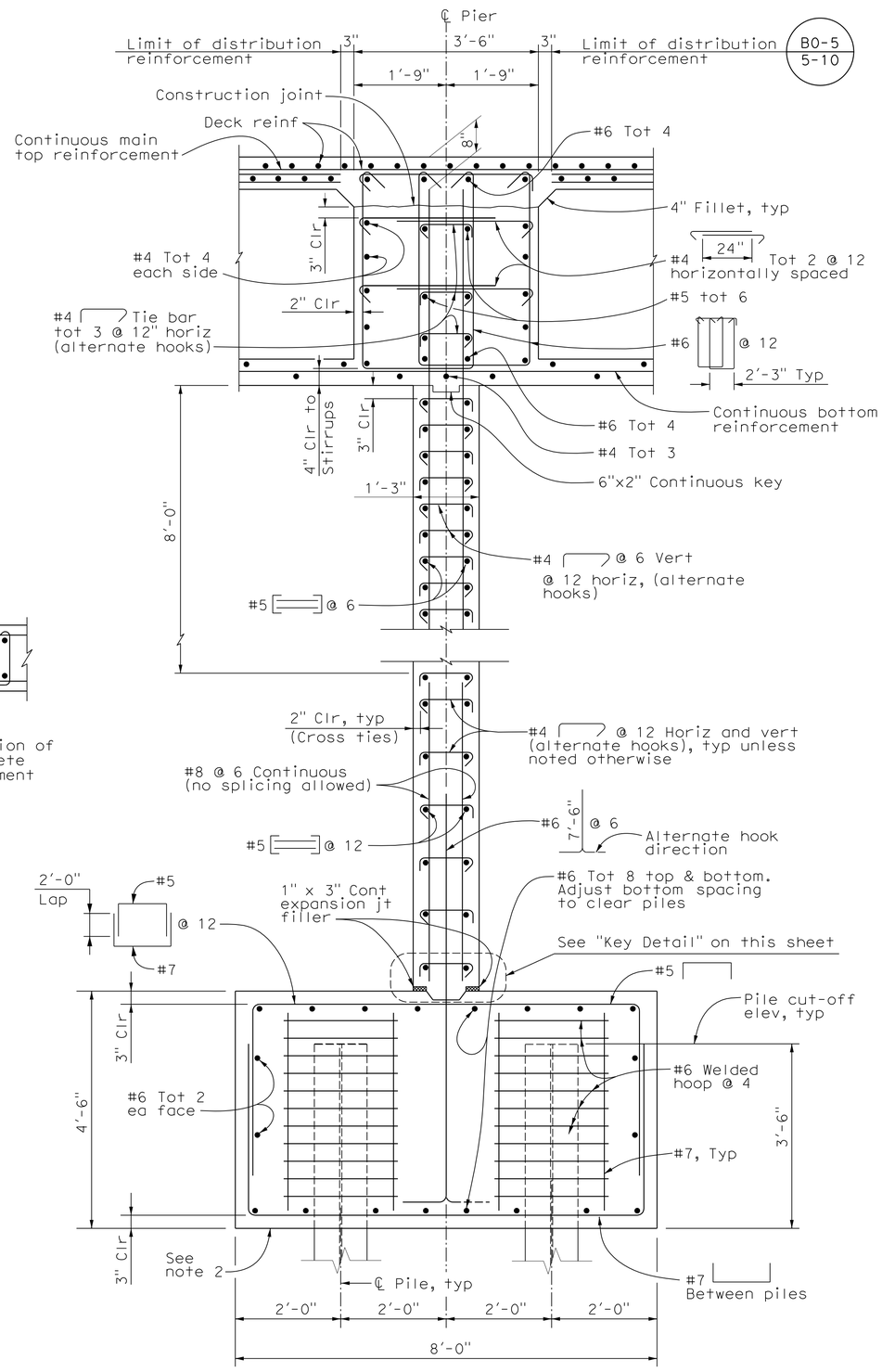
SECTION B-B

¾"=1'-0"



REBAR DETAIL

¾"=1'-0"



SECTION A-A

¾"=1'-0"

NOTES:

1. Provide temporary lateral support for pier wall until girders and end diaphragms are constructed.
2. Place Seal course. Not shown here for clarity. See "Limits of Excavation and Backfill" sheet for more info.
3. Do not de-water. Provide shoring for the footing construction.

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH No. C51155 Exp. 09/30/13 CIVIL STATE OF CALIFORNIA
G. SARAH — DATE 1/11/2013

DESIGNED BY: G. SARAH
DRAWN BY: WB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

ORANGE COUNTY PUBLIC WORKS

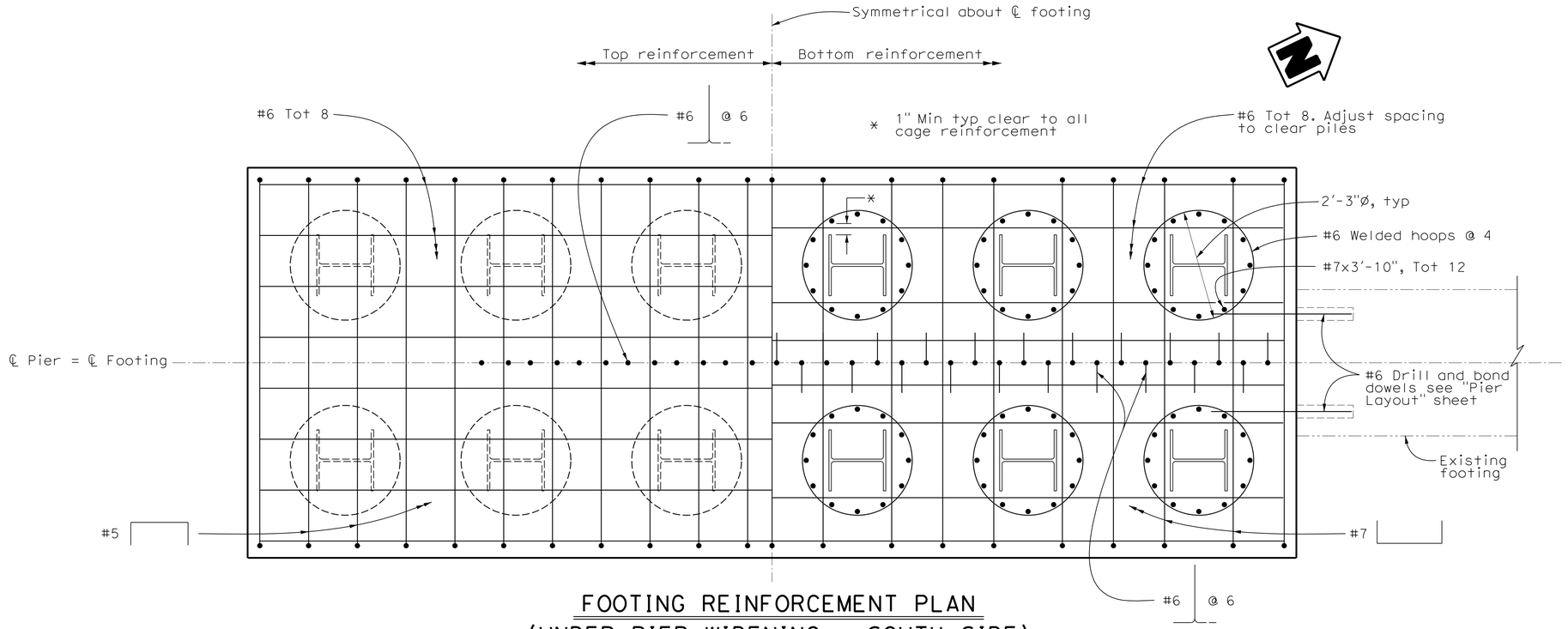
PREPARED BY: McLEAN & SCHULTZ 3040 Saturn Street, Ste 105 Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

SHEET REFERENCE NUMBER

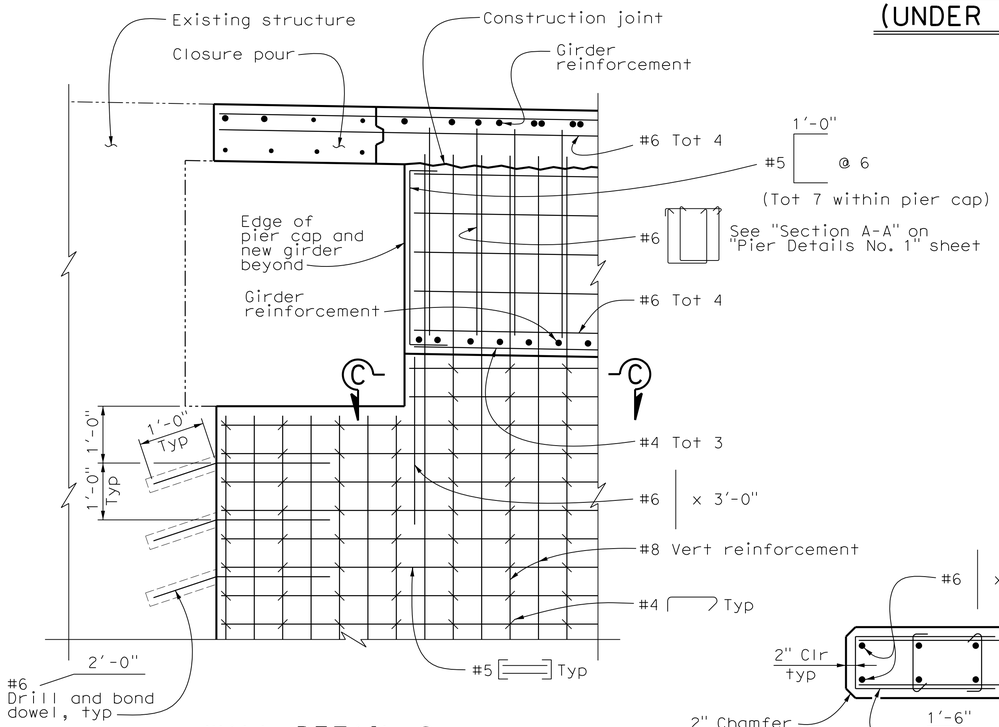
PIER DETAILS NO. 1

Sheet 73 Of 90



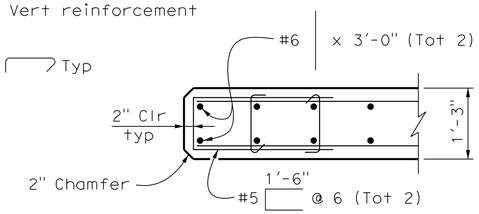
FOOTING REINFORCEMENT PLAN
(UNDER PIER WIDENING - SOUTH SIDE)

¾" = 1'-0"



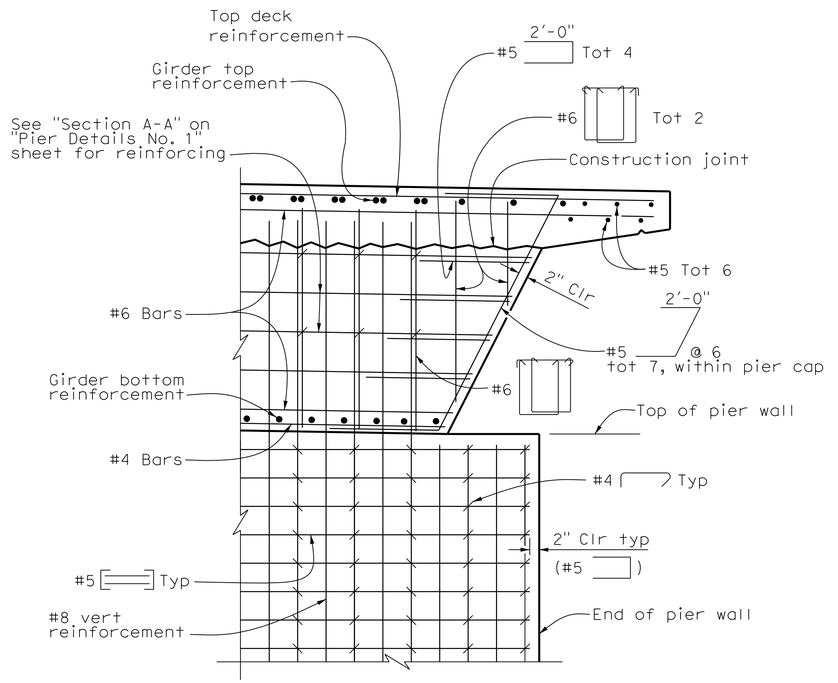
WALL DETAIL 2

¾" = 1'-0"



SECTION C-C

¾" = 1'-0"



WALL DETAIL 1

¾" = 1'-0"

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH NO. C51155 Exp 09/30/13 CIVIL STATE OF CALIFORNIA
1/11/2013 DATE
G. SARAH

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

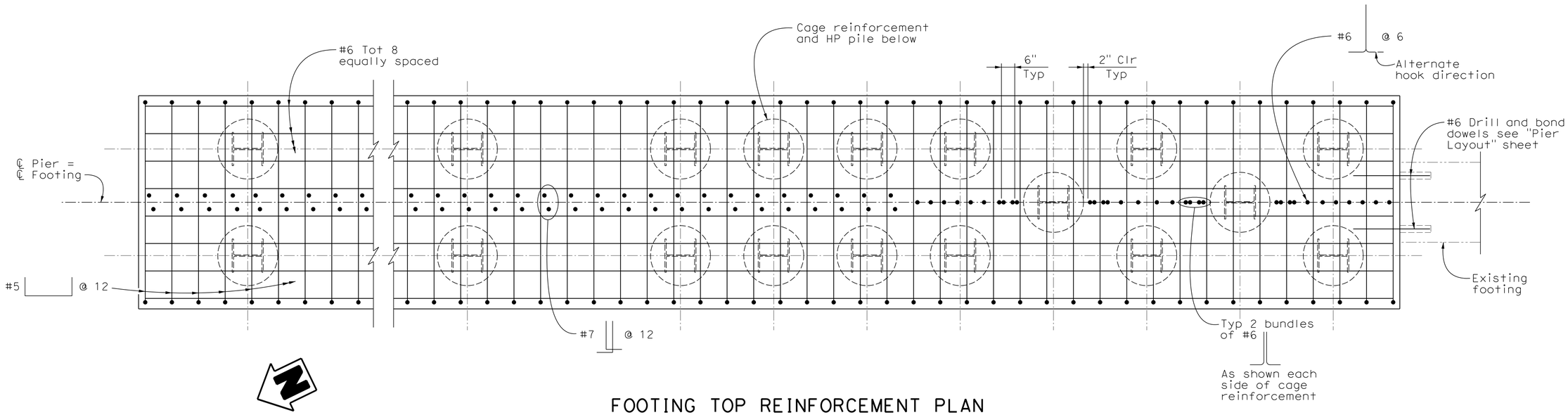
ORANGE COUNTY PUBLIC WORKS

PREPARED BY: McLEAN & SCHULTZ 3040 Saturn Street, Ste 105 Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

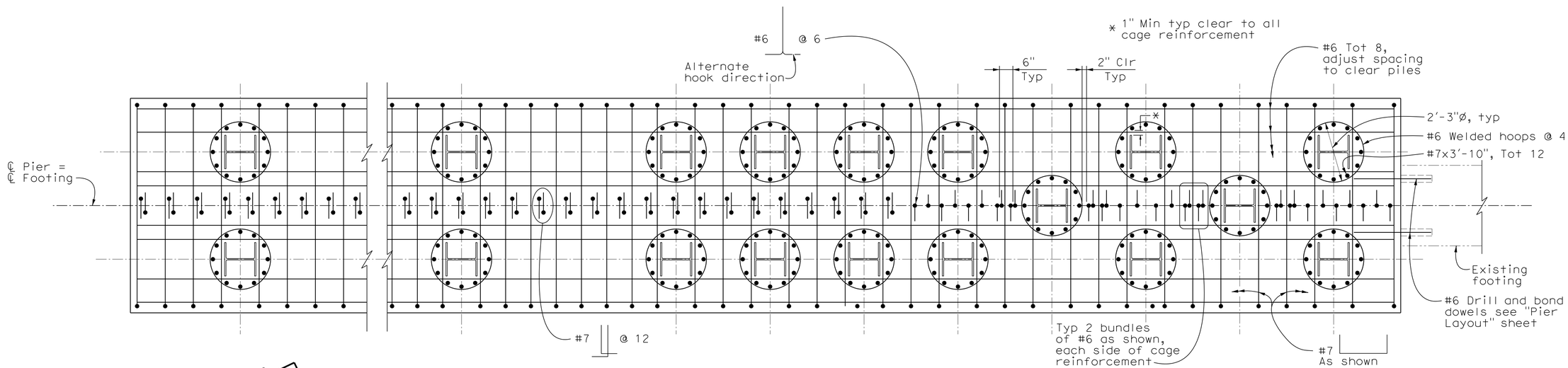
SHEET REFERENCE NUMBER

PIER DETAILS NO. 2



FOOTING TOP REINFORCEMENT PLAN
(UNDER PIER WIDENING AND DEBRIS WALL - NORTH SIDE)

½" = 1'-0"



FOOTING BOTTOM REINFORCEMENT PLAN
(UNDER PIER WIDENING AND DEBRIS WALL - NORTH SIDE)

½" = 1'-0"

Note:
Verify all controlling field dimensions
before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH No. C51555 Exp 09/30/13 CIVIL STATE OF CALIFORNIA
1/11/2013 DATE
G. SARAH

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

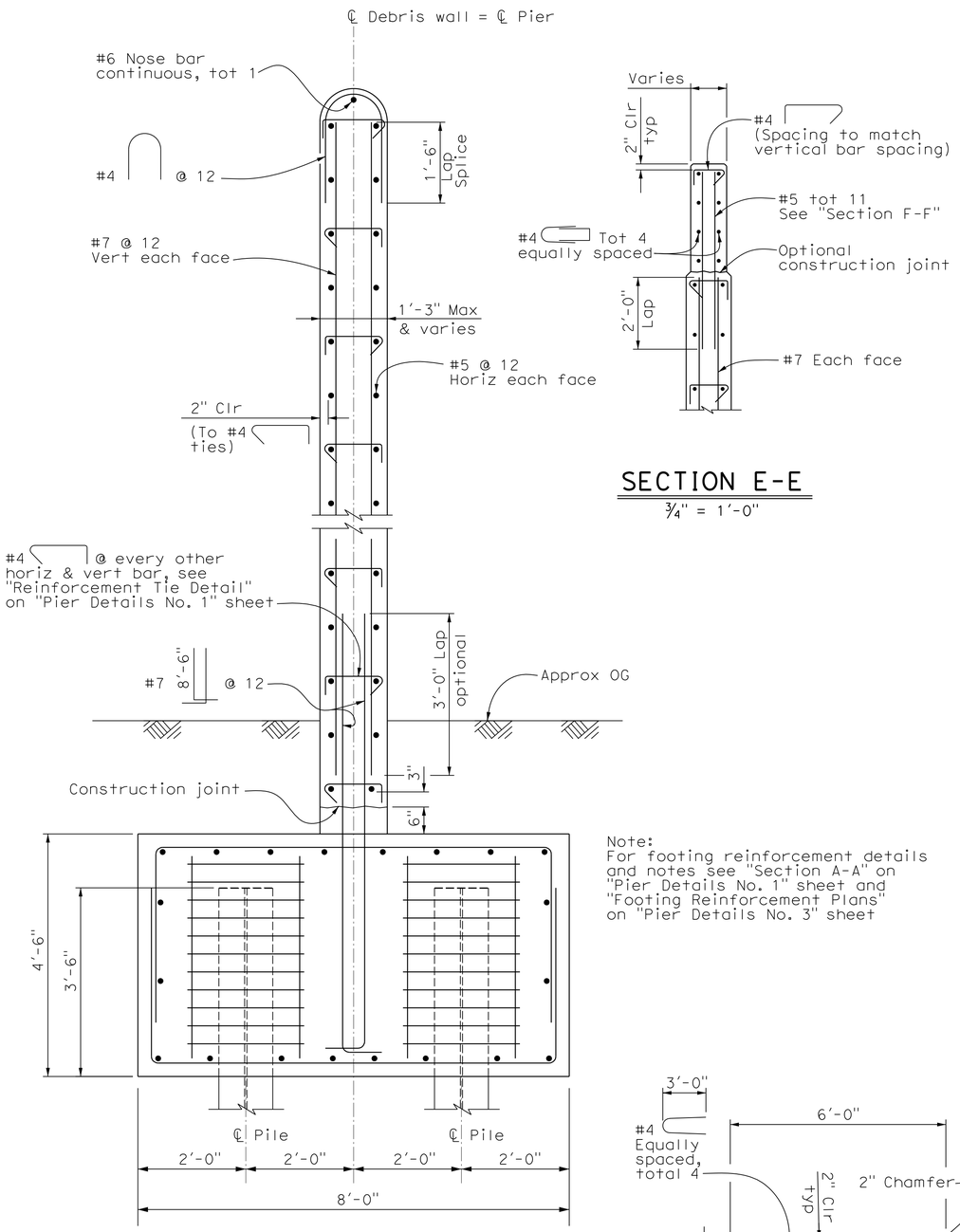
ORANGE COUNTY PUBLIC WORKS

PREPARED BY:
McLEAN & SCHULTZ
3040 Saturn Street, Ste 105
Brea, CA 92821

LINCOLN AVENUE
BRIDGE
WIDENING
OVER
SANTA ANA RIVER

SHEET REFERENCE NUMBER

PIER DETAILS NO. 3



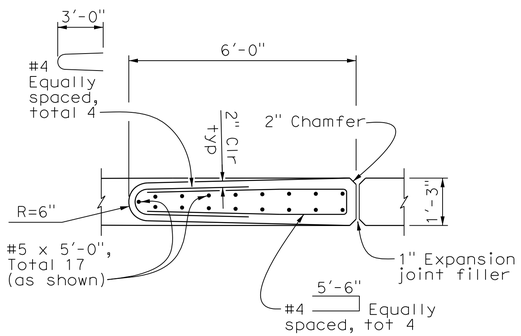
SECTION E-E

¾" = 1'-0"

Note:
For footing reinforcement details and notes see "Section A-A" on "Pier Details No. 1" sheet and "Footing Reinforcement Plans" on "Pier Details No. 3" sheet

SECTION D-D

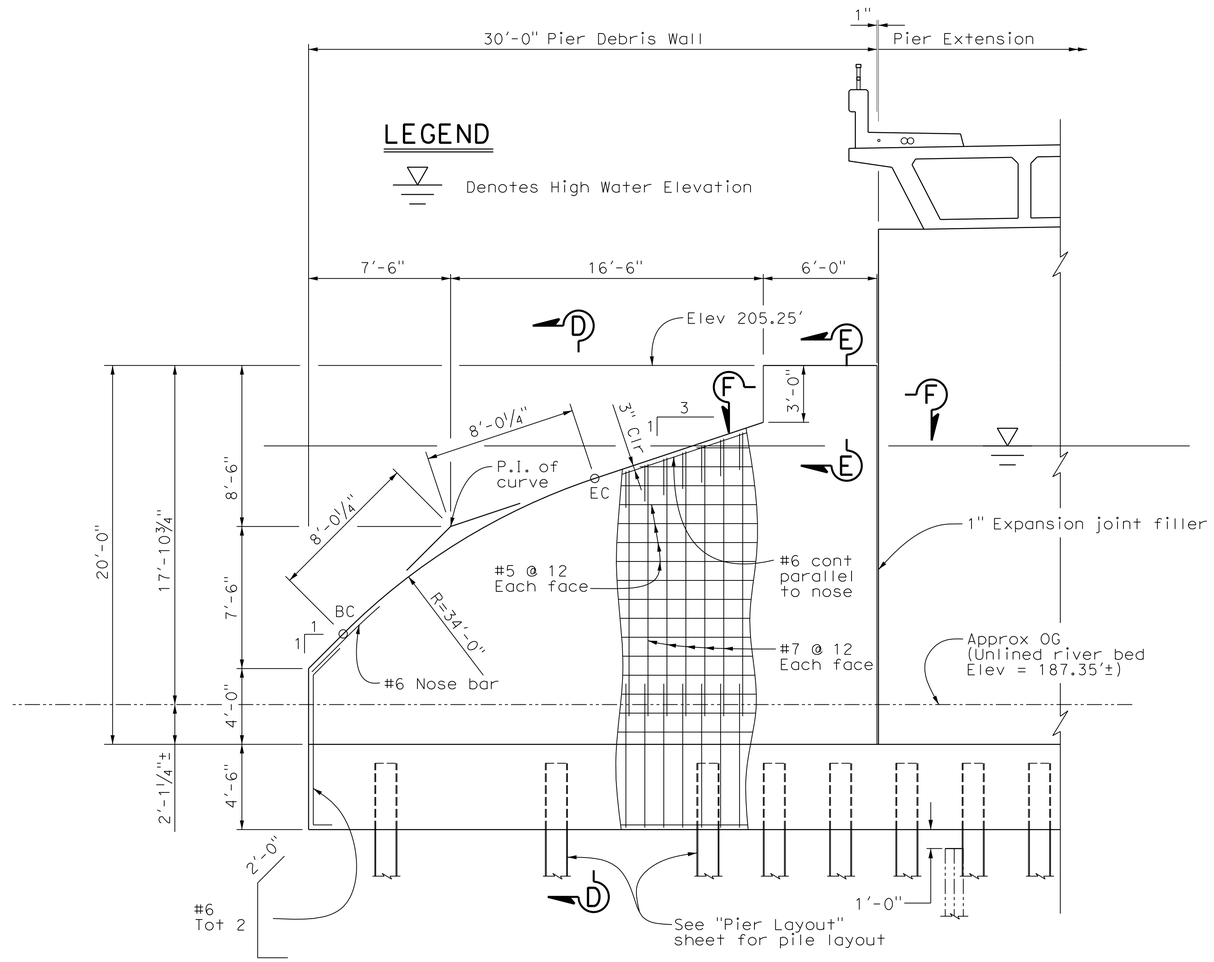
¾" = 1'-0"



SECTION F-F

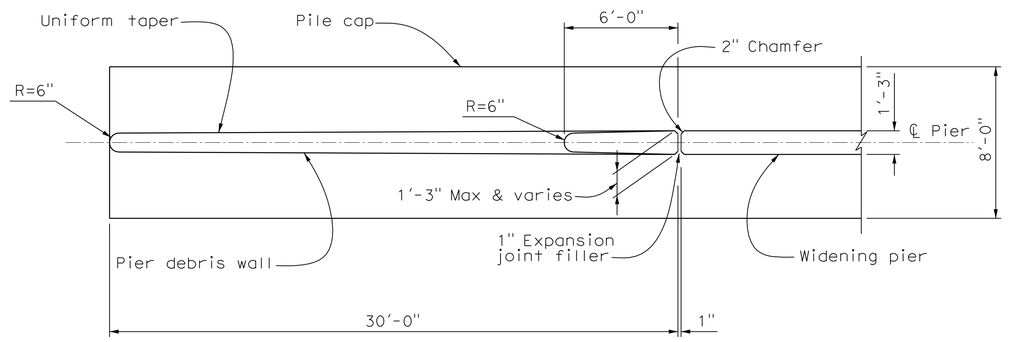
½" = 1'-0"

Note:
Verify all controlling field dimensions before ordering or fabricating any material.



DEBRIS WALL ELEVATION

¼" = 1'-0"



DEBRIS WALL PLAN

¼" = 1'-0"

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
G. SARAH
1/11/2013
DATE

REGISTERED PROFESSIONAL ENGINEER R. SARAH NO. C51555 Exp 09/30/13 CIVIL STATE OF CALIFORNIA

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

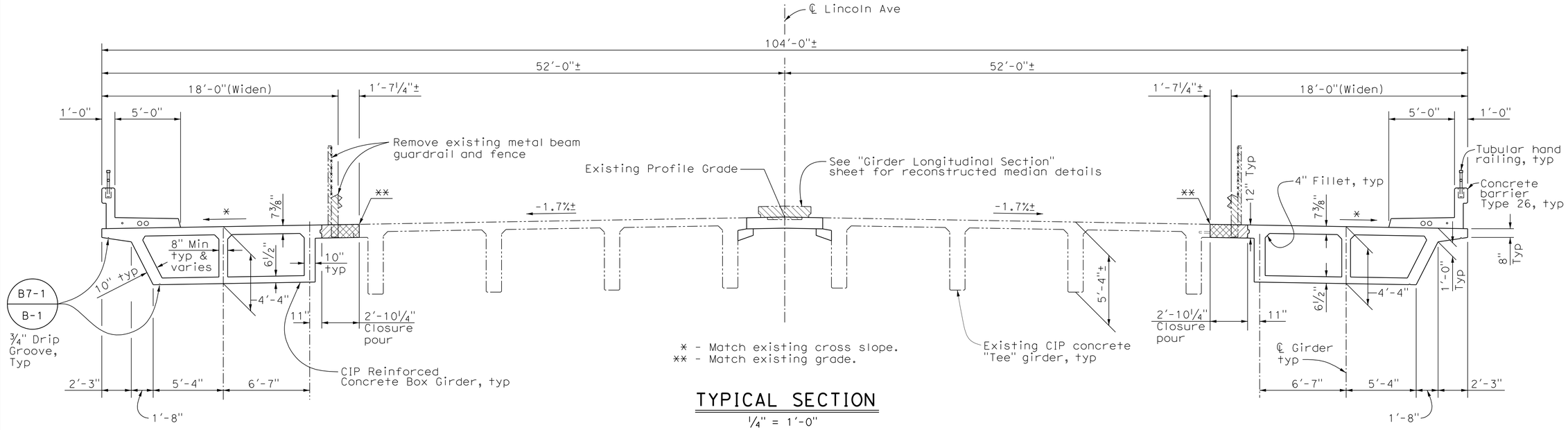
ORANGE COUNTY PUBLIC WORKS

PREPARED BY: McLEAN & SCHULTZ 3040 Saturn Street, Ste 105 Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

SHEET REFERENCE NUMBER

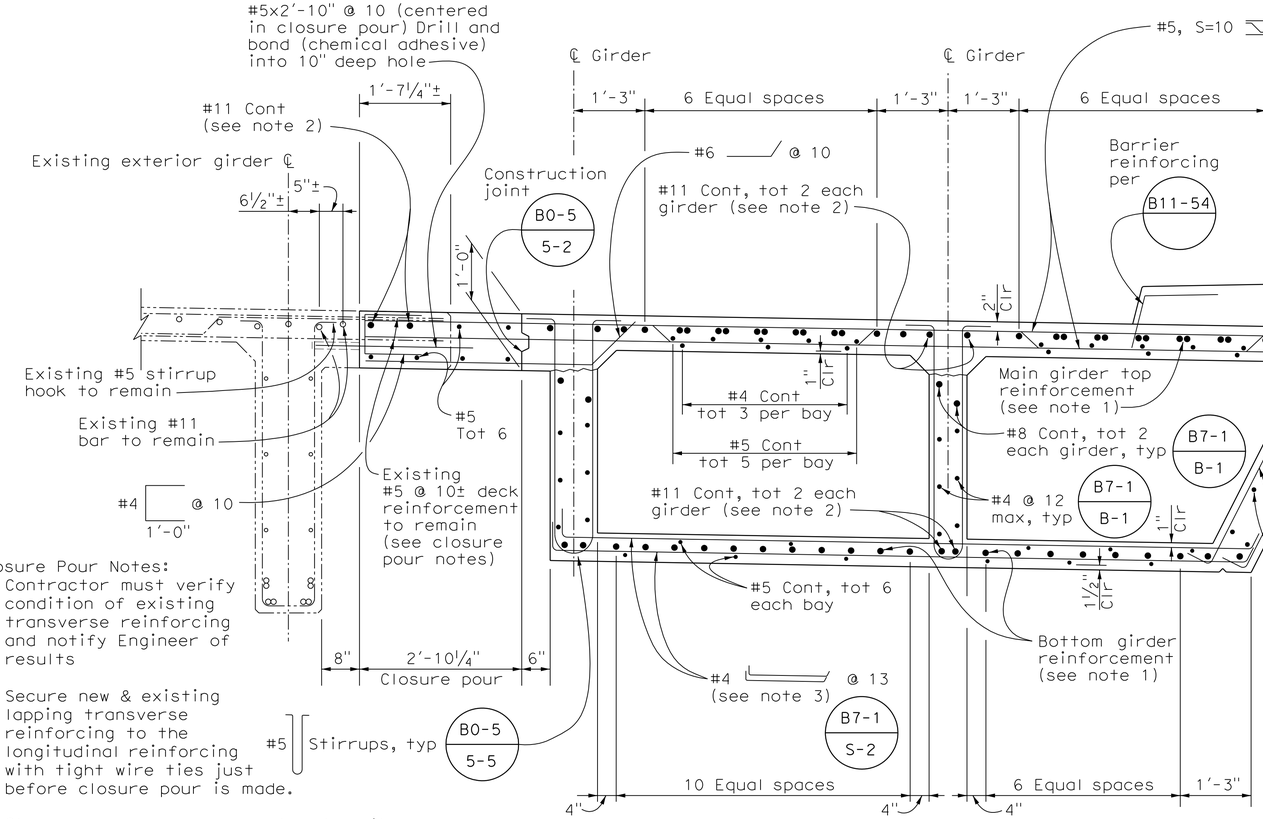
PIER DEBRIS WALL



* - Match existing cross slope.
** - Match existing grade.

TYPICAL SECTION

¼" = 1'-0"



(Right Section - Left Section Similar)

PARTIAL TYPICAL SECTION

¾" = 1'-0"

Closure Pour Notes:
1. Contractor must verify condition of existing transverse reinforcing and notify Engineer of results
2. Secure new & existing lapping transverse reinforcing to the longitudinal reinforcing with tight wire ties just before closure pour is made.
3. Closure pour must not be placed until concrete barrier Type 26 is completed.

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

LEGEND

- Denotes Existing Structure
- Denotes New Structure
- Denotes Bridge Removal (Portion)
- Denotes Deck Closure Pour

FALSEWORK RELEASE NOTES

Alternative 1:
Falsework shall be released as soon as permitted by the specifications. Closure pour must not be placed sooner than 60 days after the falsework has been released.

Alternative 2:
Falsework must not be released less than 28 days after the last concrete has been placed. Closure pour must not be placed sooner than 14 days after the falsework has been released.

When Falsework Release Alternative 2 is used, camber values are 0.75 times those shown, on "Girder Longitudinal Section" sheet.

NOTES

1. For top and bottom main girder reinforcement see "Girder Reinforcement No.1" and "Girder Reinforcement No.2" sheets.
2. #11 Continuous reinforcement shall be mechanical service spliced. No welded service splices are allowed on the bridge superstructure. Splice shall not be within 0.25 x span length from ℄ span for bottom reinforcement and 0.25 x span length from ℄ pier for top reinforcment.
3. Transverse reinforcement must be placed parallel to ℄ piers and spaced along ℄ Lincoln Avenue.
4. For girder stirrup spacing see "Girder Longitudinal Section" sheet.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH No. C51555 Exp. 09/30/13 STATE OF CALIFORNIA
G. SARAH
DATE 1/11/2013

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

ORANGE COUNTY PUBLIC WORKS

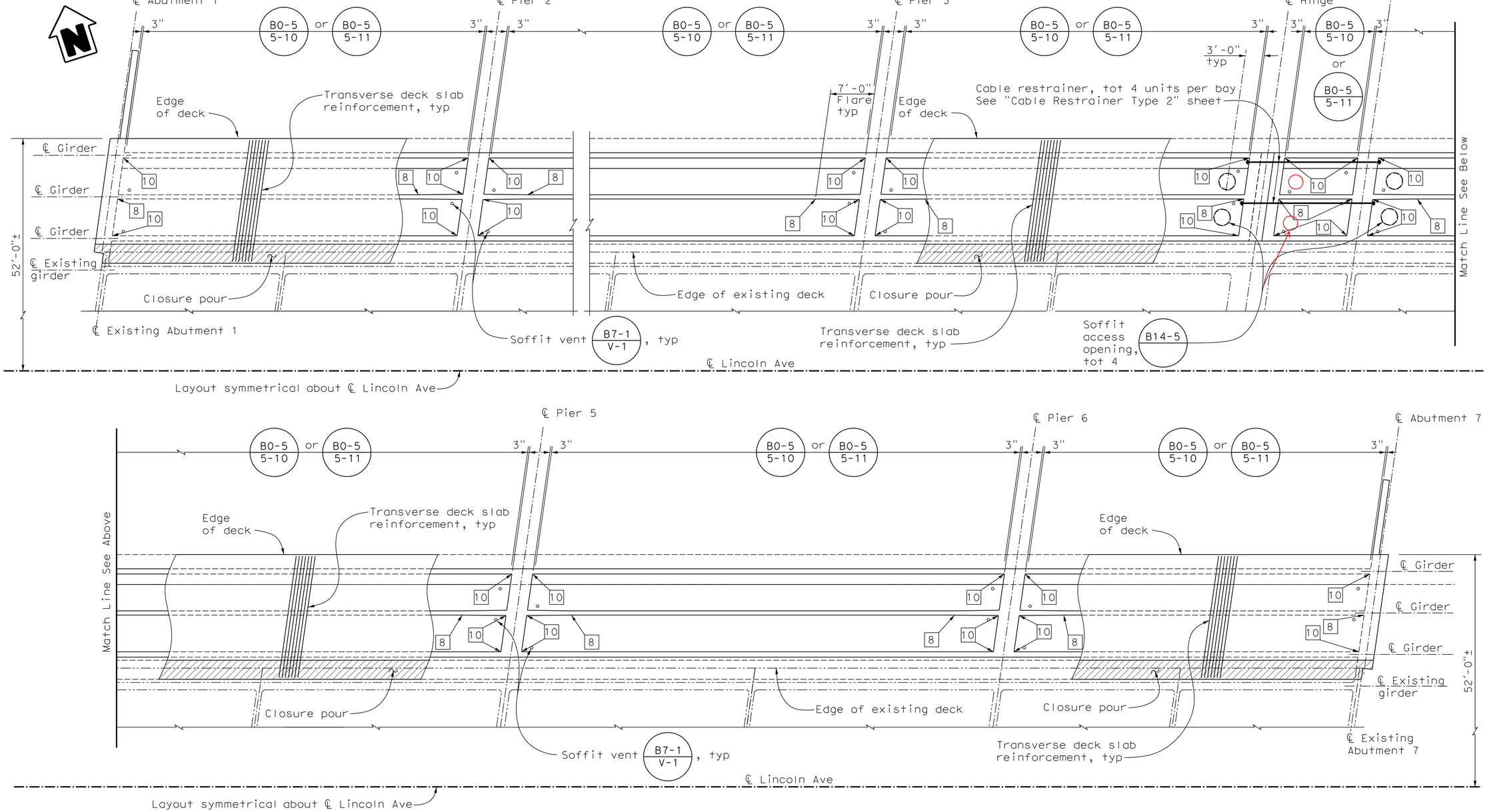
PREPARED BY: McLEAN & SCHULTZ 3040 Saturn Street, Ste 105 Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

SHEET REFERENCE NUMBER

TYPICAL SECTION

Sheet 77 Of 90



GIRDER LAYOUT

1/8" = 1'-0"

North widening shown,
South widening symetrical

LEGEND

- Denotes Existing Structure
- Denotes New Structure
- Indicates girder stem width in inches
- Denotes Deck Closure Pour

Note:
Verify all controlling field dimensions
before ordering or fabricating any material.

RECORD DRAWING
CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH NO. C51155 Exp. 09/30/13 CIVIL STATE OF CALIFORNIA
1/11/2013 DATE
G. SARAH

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

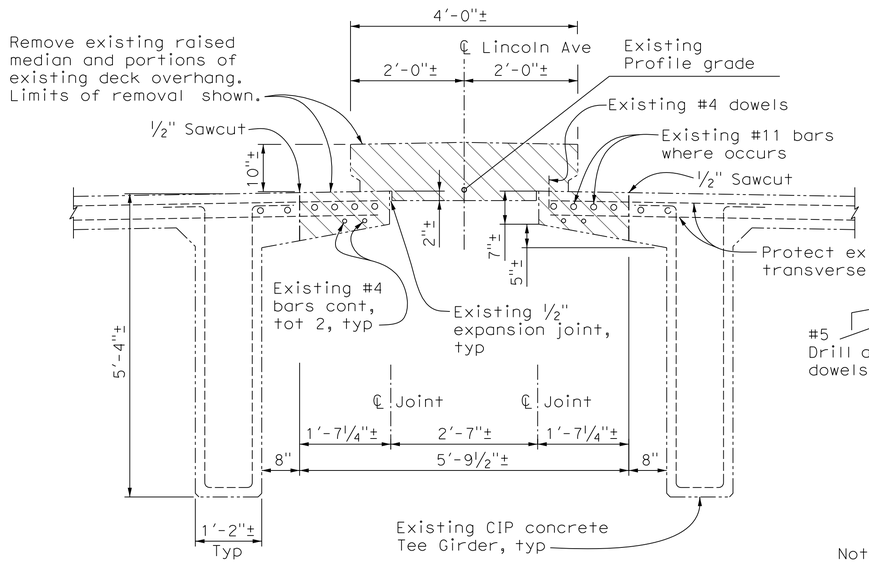
ORANGE COUNTY PUBLIC WORKS

PREPARED BY:
McLEAN & SCHULTZ
3040 Saturn Street, Ste 105
Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

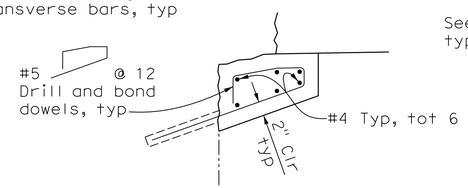
SHEET REFERENCE NUMBER

GIRDER LAYOUT

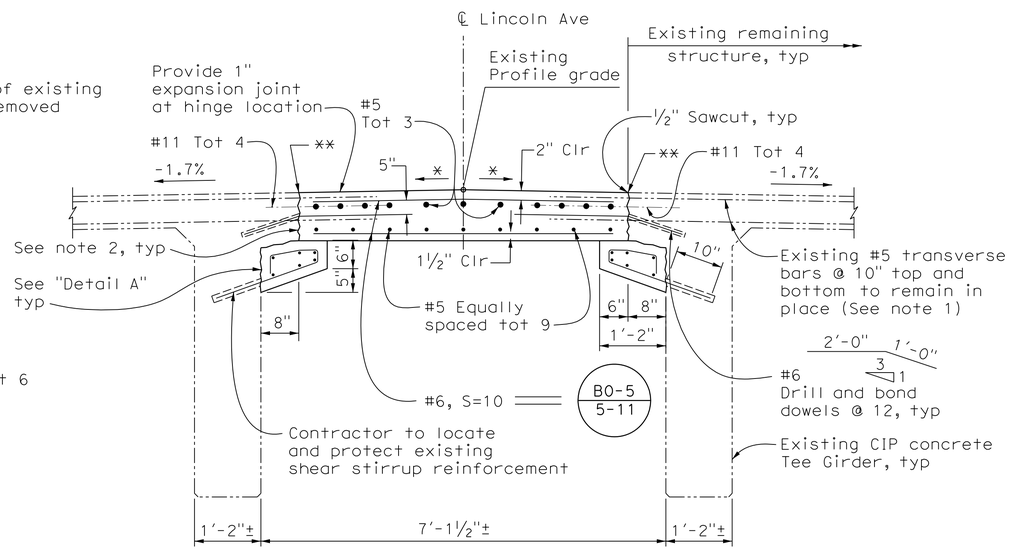


LEGEND

- Denotes portion of existing concrete to be removed
- * Match existing cross slope
- ** Match existing grade



DETAIL A



Notes:

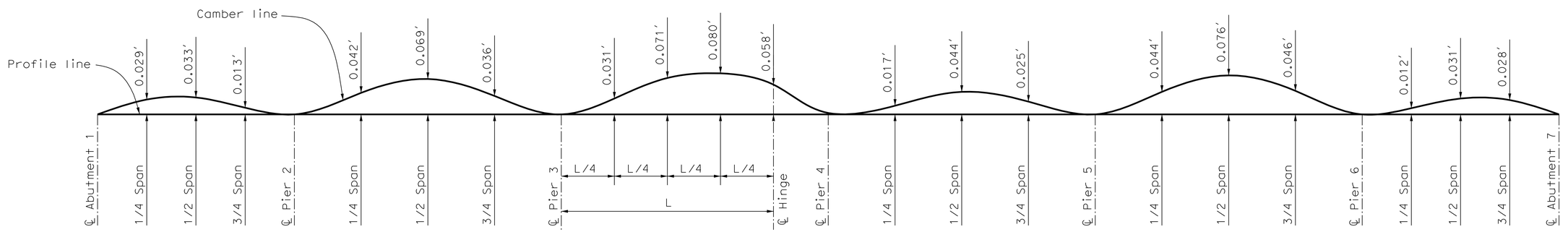
1. Replace any damaged existing transverse deck reinforcement with an additional #6 drill and bond into 6" hole
2. The interface shall be clean and free of laitance and shall be roughened to a full depth of approximately 1/4 "

RAISED MEDIAN AND DECK REMOVAL DETAIL

¾" = 1'-0"

CAST-IN-PLACE AT GRADE MEDIAN DETAIL

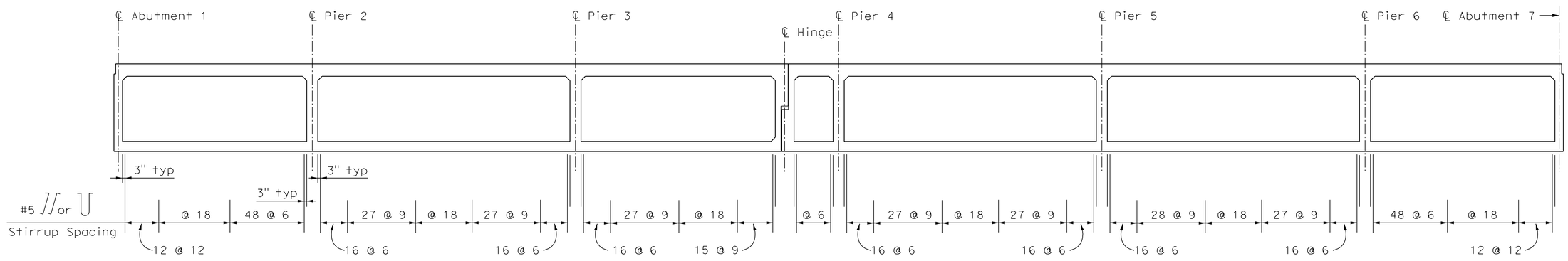
¾" = 1'-0"



CAMBER DIAGRAM (NORTH AND SOUTH WIDENING)

NO SCALE

Note:
Camber does not include allowance for falsework settlement.



LONGITUDINAL SECTION (NORTH AND SOUTH WIDENING)

NO SCALE

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH No. C51555 Exp. 09/30/13 CIVIL STATE OF CALIFORNIA
1/11/2013 DATE
G. SARAH

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

ORANGE COUNTY PUBLIC WORKS

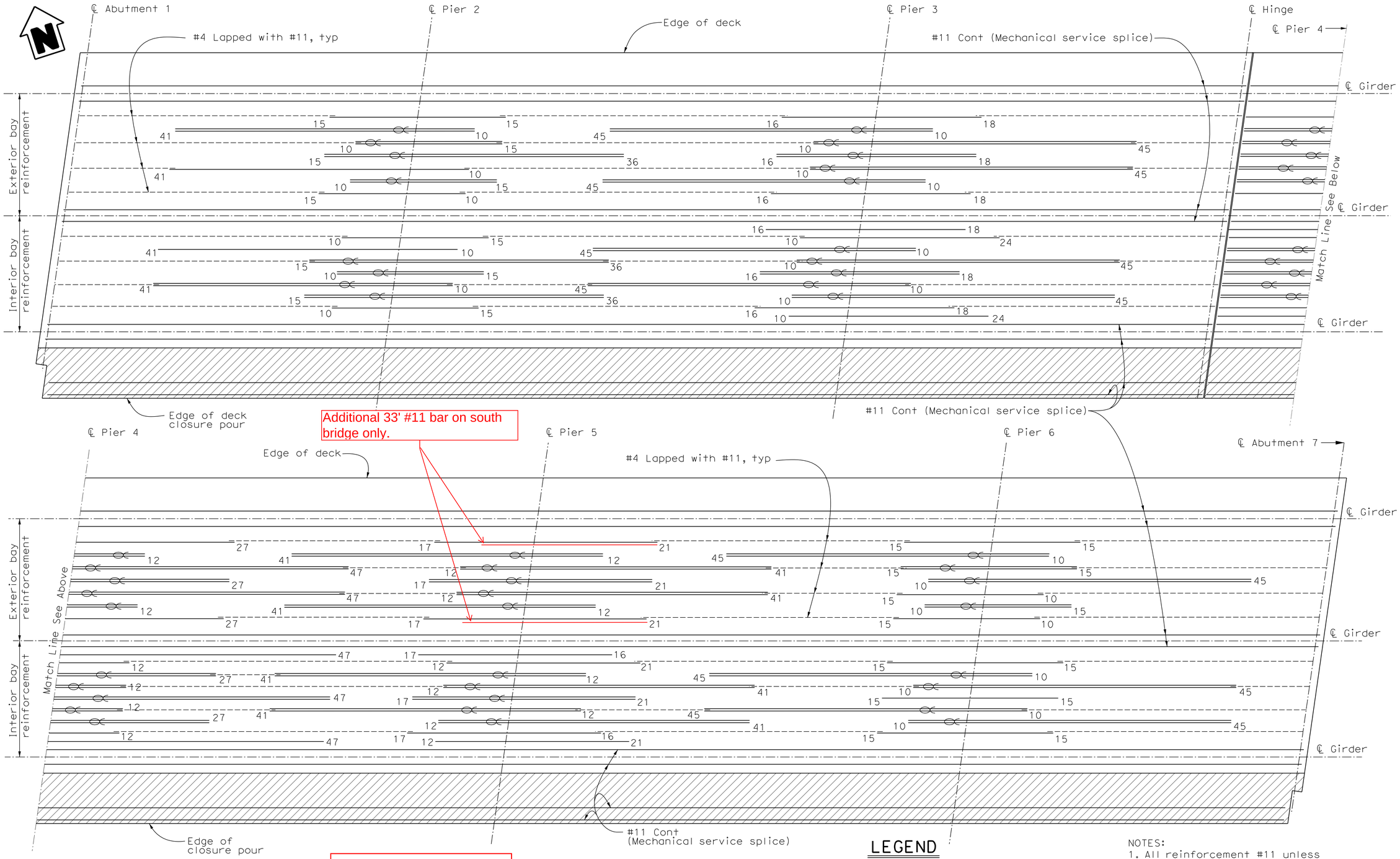
PREPARED BY:
McLEAN & SCHULTZ
3040 Saturn Street, Ste 105
Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

SHEET REFERENCE NUMBER

GIRDER LONGITUDINAL SECTION

Sheet 79 Of 90



Note:
Verify all controlling field dimensions before ordering or fabricating any material.

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung

CONTRACT NO.: ER09343

DATE: 03/13/2015

TOP GIRDER REINFORCEMENT

NO SCALE

North widening shown,
South widening symetrical

LEGEND

------ Indicates #4 bars

Indicates horizontally bundled bars (2 bars bundle)

Indicates New Structure

Indicates Deck Closure Pour

NOTES:
1. All reinforcement #11 unless noted otherwise.
2. No splice allowed in #11 bars unless noted otherwise.
3. Numbers at end of #11 rebars indicate bar length in feet from ℄ Pier.

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

REGISTERED PROFESSIONAL ENGINEER R. SARAH NO. C5155 Exp 09/30/13 CIVIL STATE OF CALIFORNIA

G. SARAH — DATE 1/11/2013

DESIGNED BY: G. SARAH	CHECKED BY: O. HENRIQUEZ	SCALE: AS NOTED
DRAWN BY: MB	DRAWING CODE:	PLOT DATE: 1/11/2013
	FILE NAME:	

ORANGE COUNTY PUBLIC WORKS

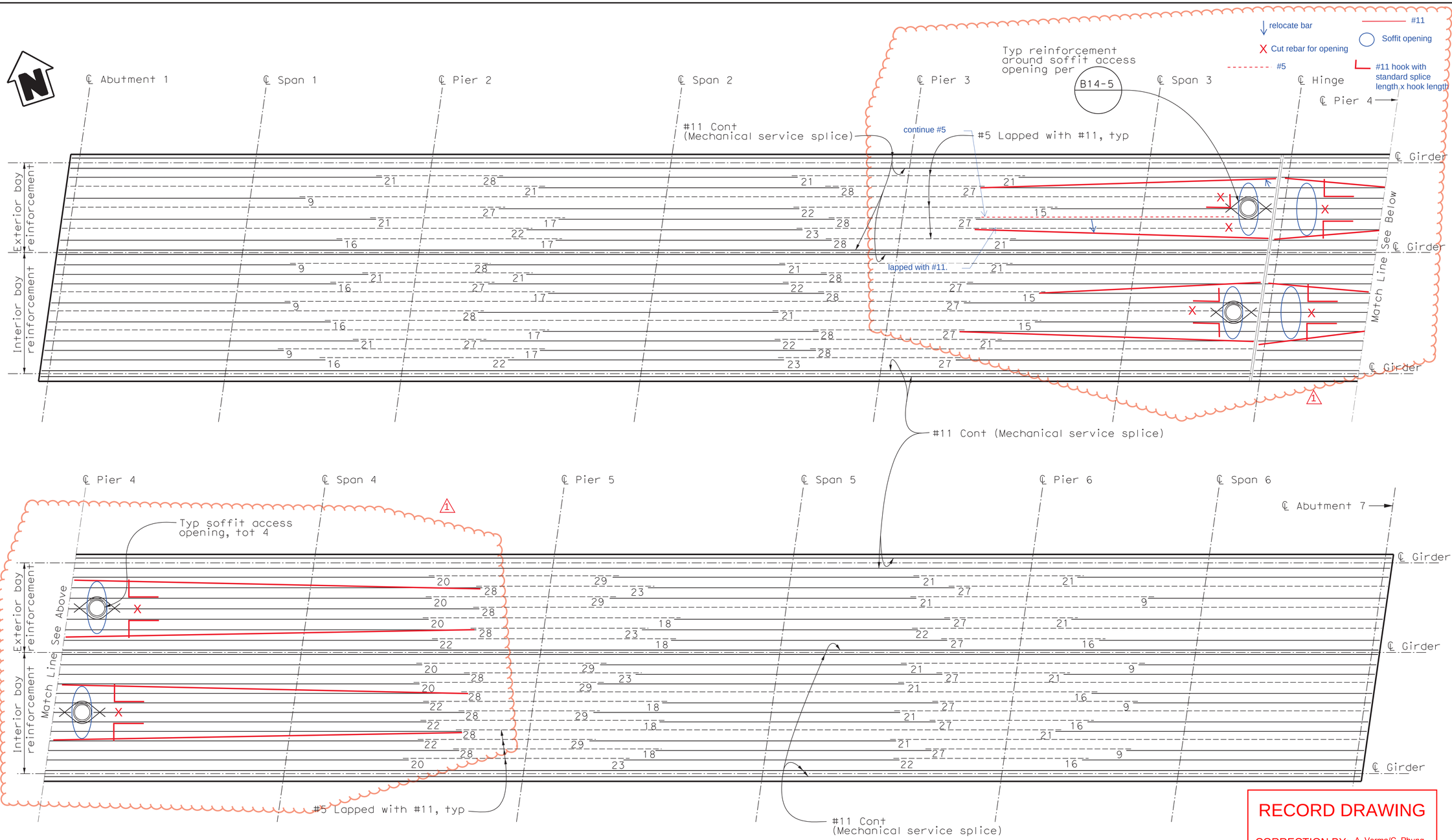
PREPARED BY:
McLEAN & SCHULTZ
3040 Saturn Street, Ste 105
Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

SHEET REFERENCE NUMBER

GIRDER REINFORCEMENT NO. 1

Sheet 80 Of 90



BOTTOM GIRDER REINFORCEMENT

NO SCALE

North widening shown,
South widening symetrical

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

LEGEND

------ Indicates #5 bars

——— Indicates New Structure

NOTES:
1. All reinforcement #11 unless noted otherwise.
2. No splice allowed in #11 bars unless noted otherwise.
3. Numbers at end of #11 rebars indicate bar length in feet from ℄ Span.

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung
CONTRACT NO.: ER09343
DATE: 03/13/2015

81R1

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.
1	Rebar layout for soffit opening	4/1/2014	GS

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH No. C51555 Exp 09/30/13 STATE OF CALIFORNIA
1/11/2013 DATE
G. SARAH

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

ORANGE COUNTY PUBLIC WORKS

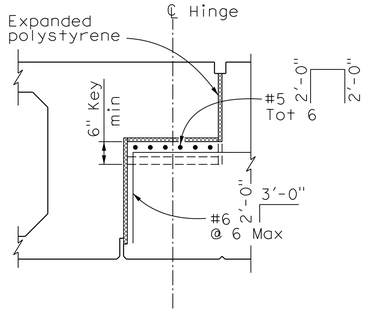
PREPARED BY: McLEAN & SCHULTZ 3040 Saturn Street, Ste 105 Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

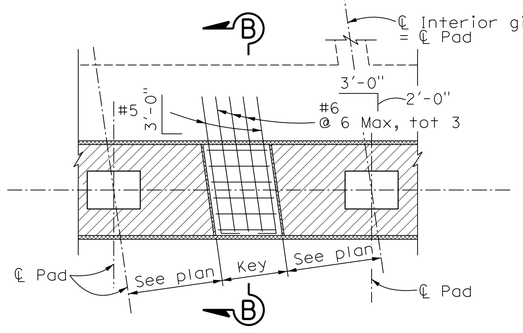
SHEET REFERENCE NUMBER

GIRDER REINFORCEMENT NO. 2

Sheet 81 Of 90



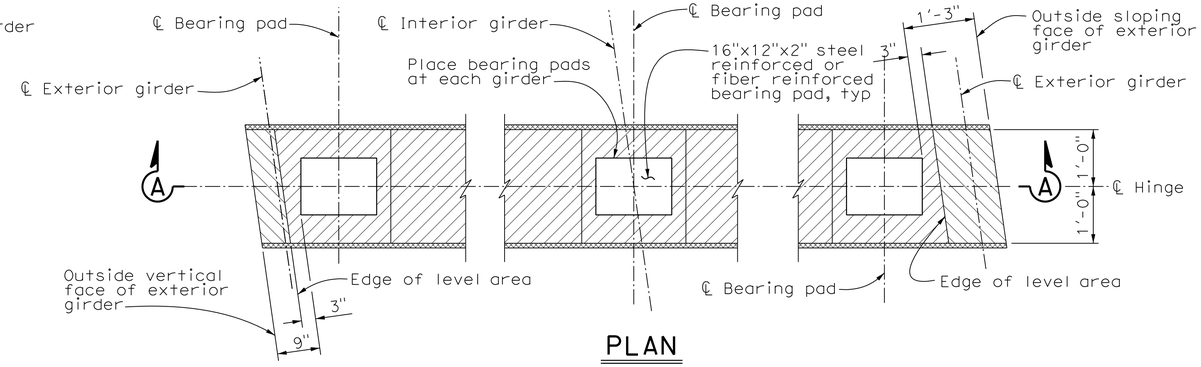
SECTION B-B



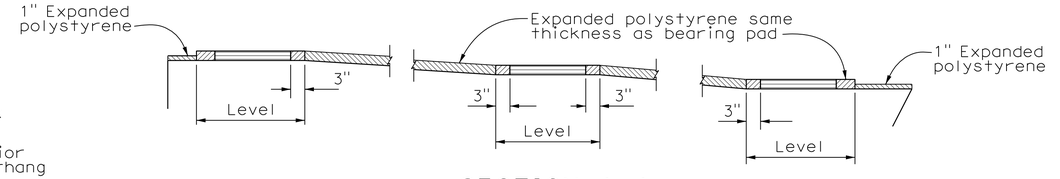
PLAN

KEY DETAIL

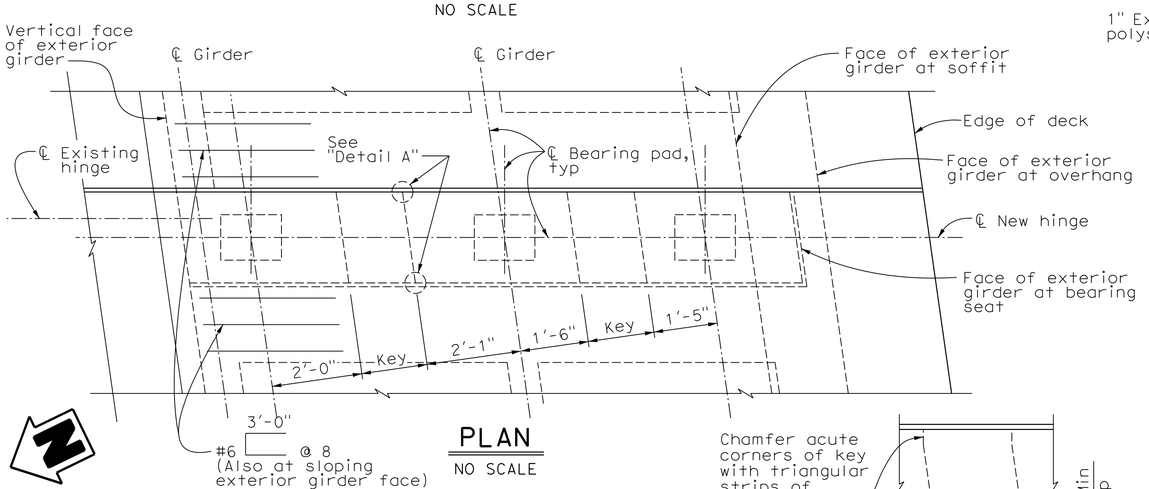
NO SCALE



PLAN

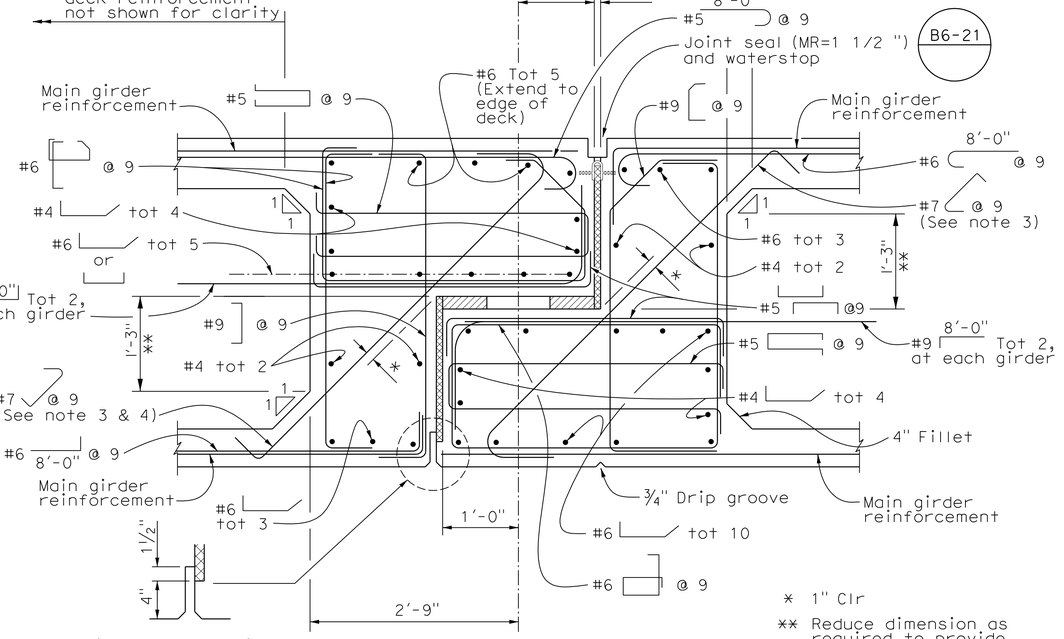


SECTION A-A



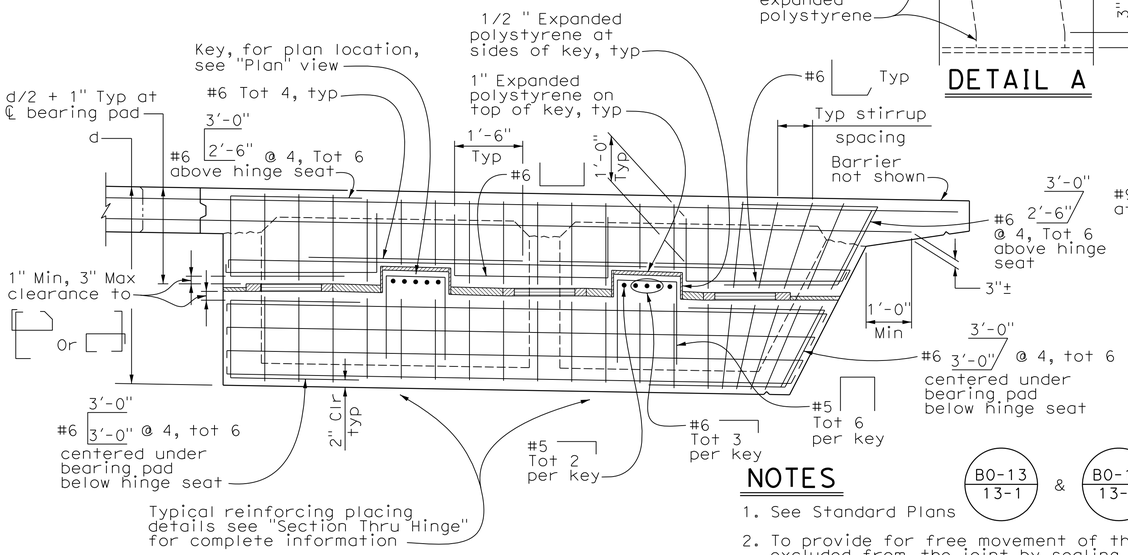
PLAN

NO SCALE



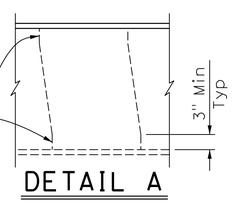
TYPICAL BEARING DETAIL

3/4" = 1'-0"



SECTION AT ℄ HINGE

NO SCALE



DETAIL A

NOTES

1. See Standard Plans B0-13 13-1 & B0-13 13-2
2. To provide for free movement of the completed hinge, concrete is to be excluded from the joint by sealing all openings
3. Bars may be placed with hooks horizontal if required for clearance
4. Adjust angle of bars at key to clear
5. Reinforcement shall be spaced along ℄ of hinge and placed parallel to ℄ structure

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
G. SARAH
DATE 1/11/2013

REGISTERED PROFESSIONAL ENGINEER R. SARAH NO. C51555 Exp 09/30/13 CIVIL STATE OF CALIFORNIA

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

ORANGE COUNTY PUBLIC WORKS

PREPARED BY:
McLEAN & SCHULTZ
3040 Saturn Street, Ste 105
Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

SHEET REFERENCE NUMBER

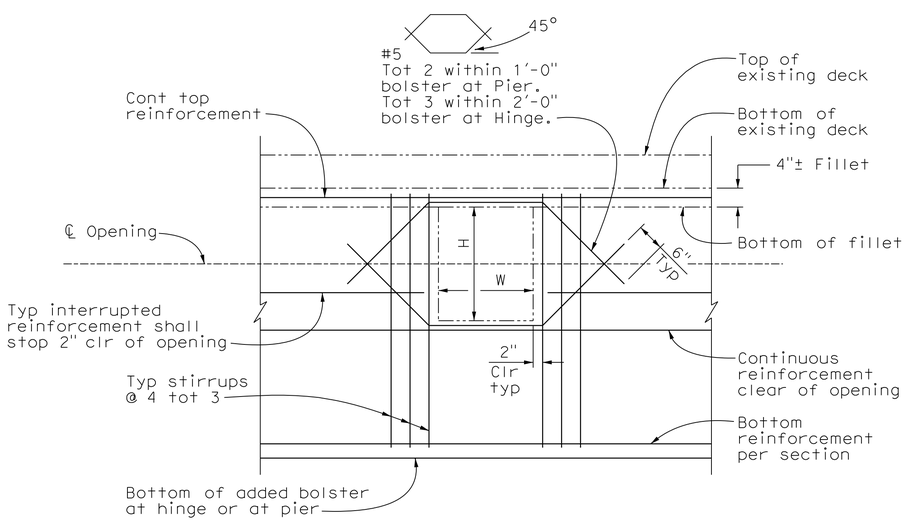
HINGE DETAILS NO. 1

Sheet 82 Of 90

EXISTING UTILITIES OPENING		
Location	W	H
North Section (Exterior & Interior Bay)	1'-3"±	1'-3"±
South Section (Exterior & Interior Bay)	1'-8"±	2'-0""±

UTILITIES OPENING TABLE

NO SCALE



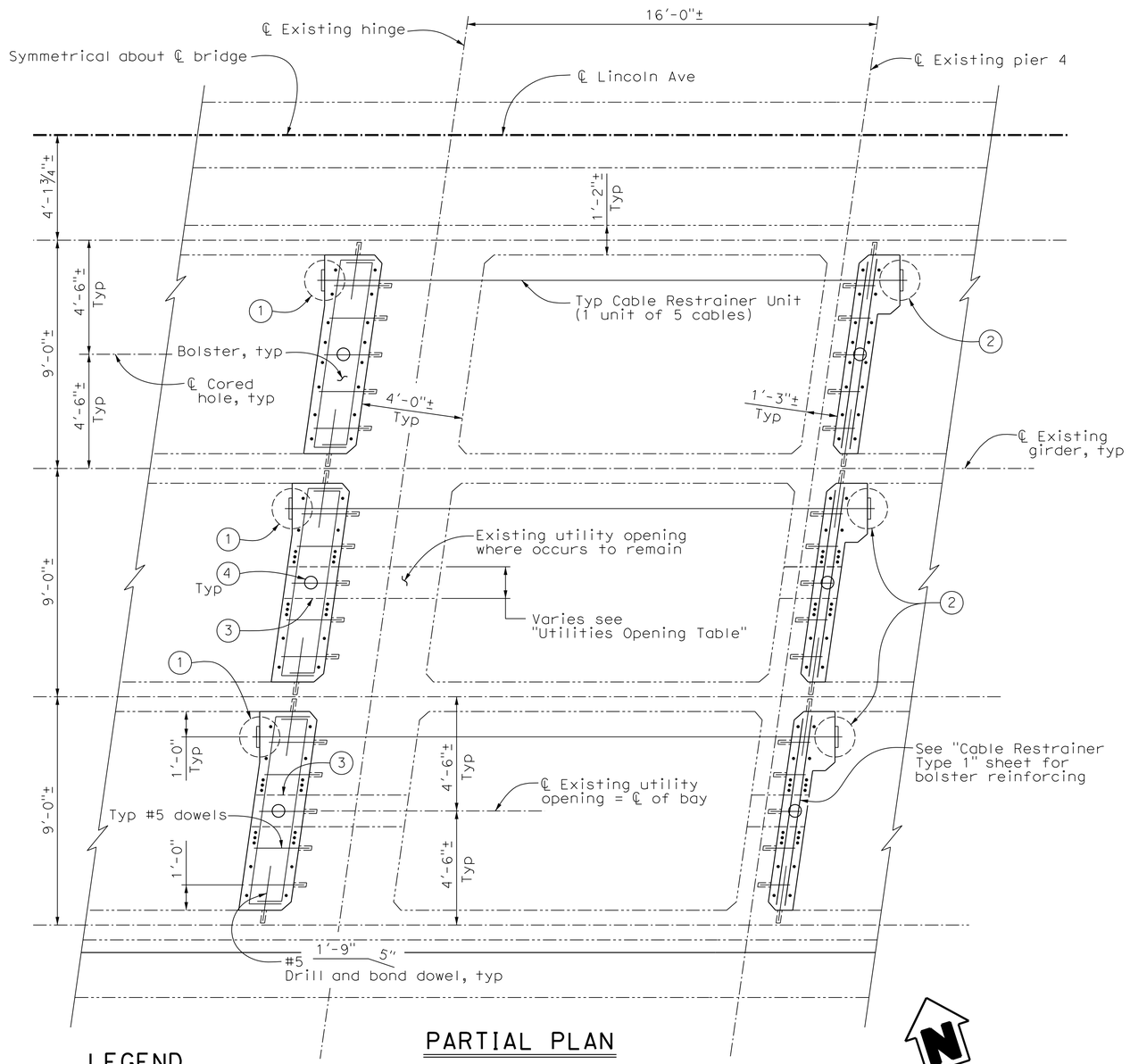
Notes:

1. For exact locations and dimensions of openings see "Cable Restrainer (Retrofit) Layout" and "Existing Utilities Opening" table on this sheet
2. Opening dimensions in bolster shall match existing opening dimensions in pier cap and hinge
3. All reinforcement shown and detailed to be placed in addition to reinforcement shown in other places
4. Stirrups added are same size as stirrups shown on "Cable Restrainer Type 1" sheet

UTILITY OPENING DETAIL

¾" = 1'-0"

Note:
Verify all controlling field dimensions before ordering or fabricating any material.



PARTIAL PLAN

LEGEND

1. See "Detail 1" on "Hinge Details No. 3" sheet
2. See "Detail 2" on "Hinge Details No. 3" sheet
3. Opening in bolster matching existing opening. Protect utility lines where occurs in place.
4. Optional 6" diameter cored hole in existing deck for concrete placement, (1) per Bolster, Total 6. Existing deck bars are not to be cut. Fill hole with concrete.

-·-·-·- Denotes existing structure

——— Denotes new structure

CABLE RESTRAINER (RETROFIT) LAYOUT

⅜" = 1'-0"

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

REGISTERED PROFESSIONAL ENGINEER R. SARAH No. C51555 Exp 09/30/13 CIVIL STATE OF CALIFORNIA

G. SARAH — 1/11/2013 DATE

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

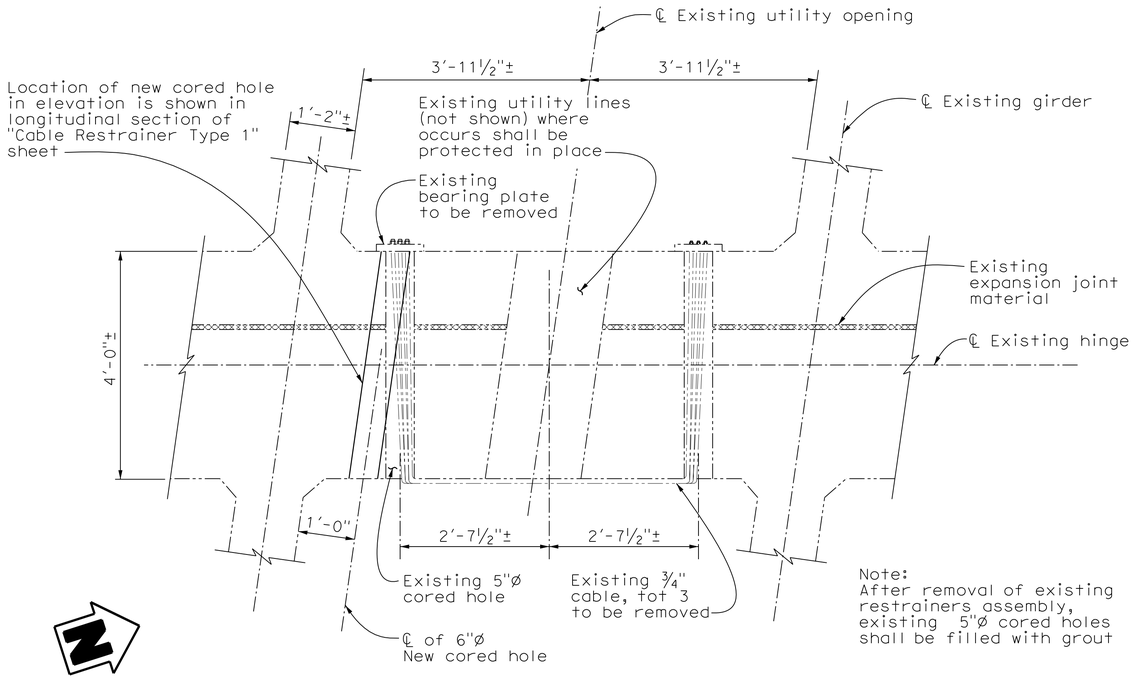
ORANGE COUNTY PUBLIC WORKS

PREPARED BY: MCLEAN & SCHULTZ 3040 Saturn Street, Ste 105 Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

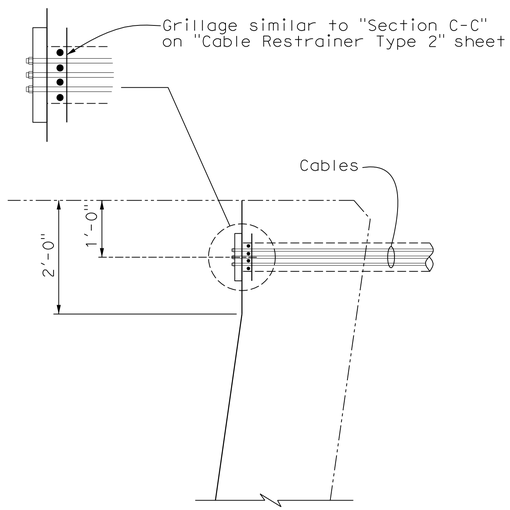
SHEET REFERENCE NUMBER

HINGE DETAILS NO. 2



EXISTING CABLE RESTRAINER REMOVAL

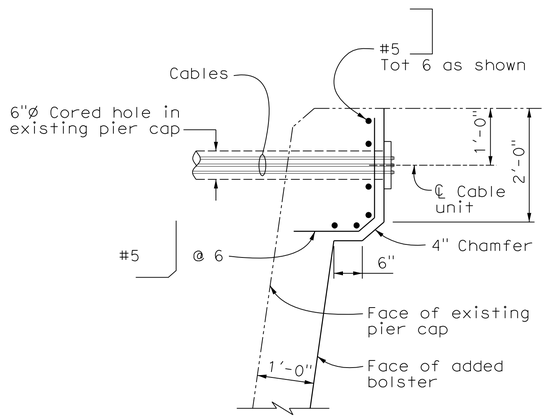
¾" = 1′-0"



END ANCHORAGE
AT HINGE - PARTIAL PLAN

DETAIL 1

¾" = 1′-0"



END ANCHORAGE
AT PIER CAP - PARTIAL PLAN

DETAIL 2

¾" = 1′-0"

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH GEORGES No. C51155 Exp 09/30/13 STATE OF CALIFORNIA C.I.V.I.L.
1/11/2013 DATE
G. SARAH

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

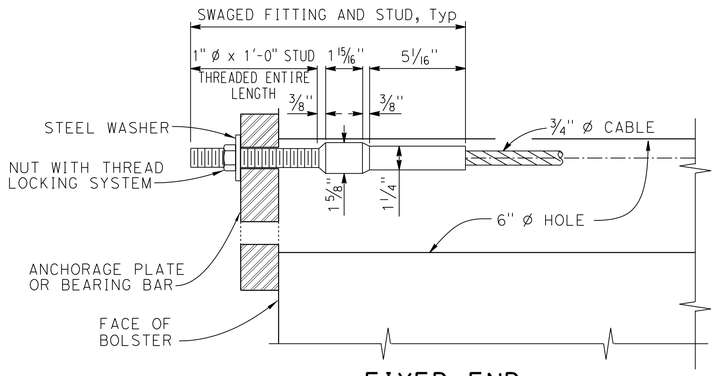
ORANGE COUNTY PUBLIC WORKS

PREPARED BY:
McLEAN & SCHULTZ
3040 Saturn Street, Ste 105
Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

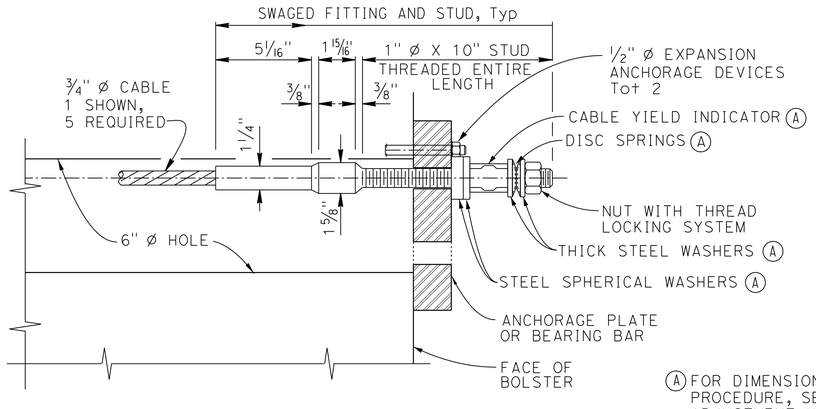
SHEET REFERENCE NUMBER

HINGE DETAILS NO. 3



FIXED END (TYPICAL BRACKET ANCHORAGE)

(SINGLE-END ADJUSTMENT RESTRAINER UNITS)

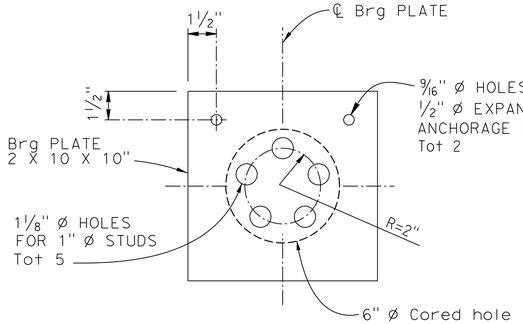


ADJUSTMENT END

(A) FOR DIMENSIONS AND INSTALLATION PROCEDURE, SEE "CABLE RESTRAINER ADJUSTMENT HARDWARE" SHEET xs7-090

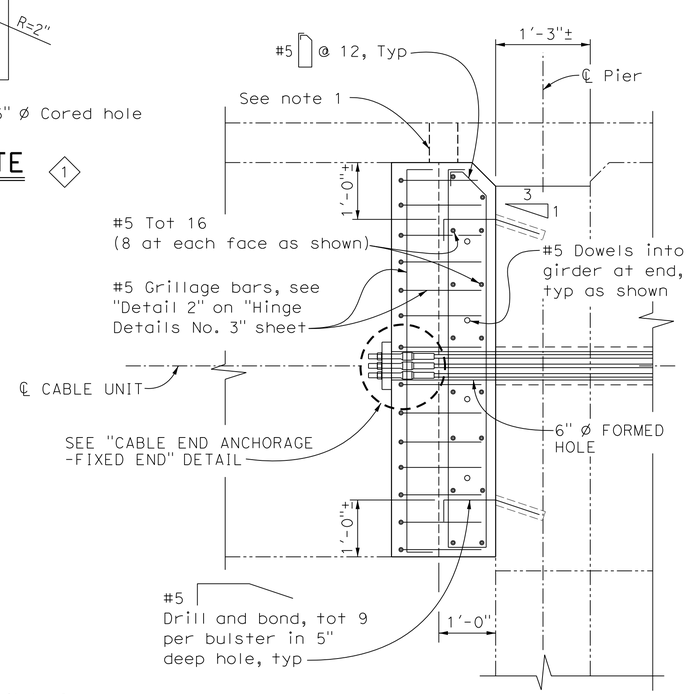
CABLE END ANCHORAGE

3" = 1'-0"



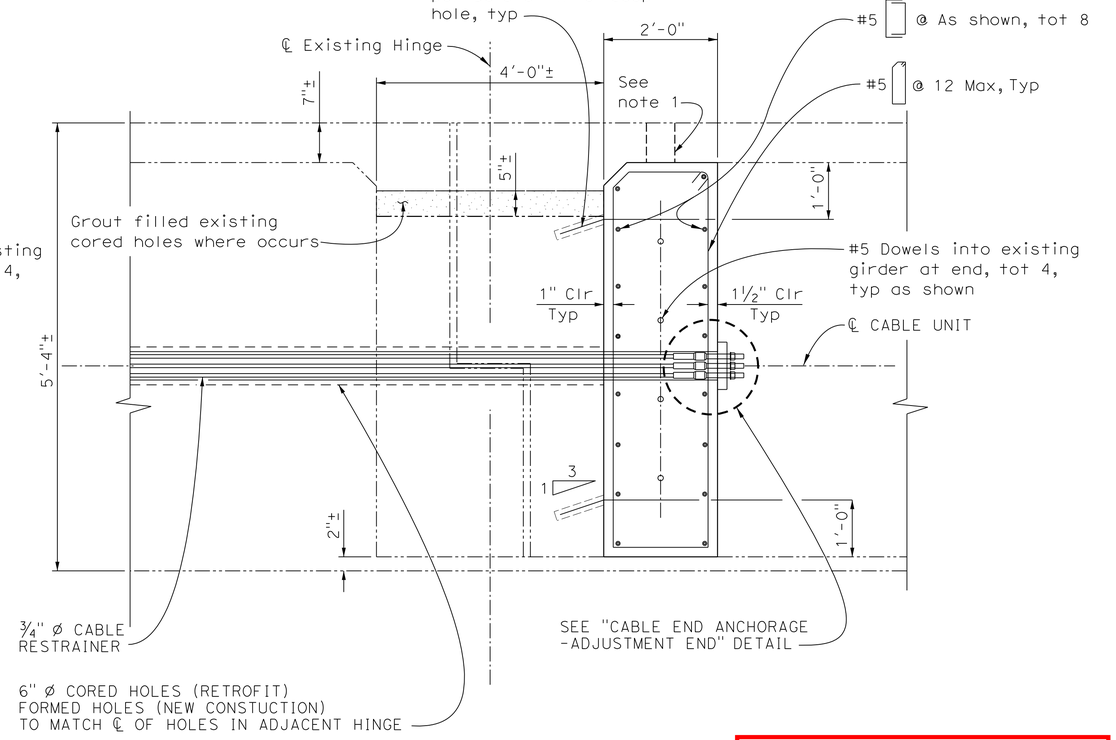
BEARING PLATE (1)

3" = 1'-0"



(1) LONGITUDINAL SECTION

1" = 1'-0"



LEGEND

(1) Revised Detail

Notes:

1. Optional cored hole as needed in existing deck for new concrete placement. See locations shown on "Hinge Details No. 2" sheet.

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

STANDARD DRAWING		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES
FILE NO. xs7-040	APPROVAL DATE July 2011		

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH NO. C51155 Exp 09/30/13 CIVIL STATE OF CALIFORNIA
1/11/2013 DATE
G. SARAH

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

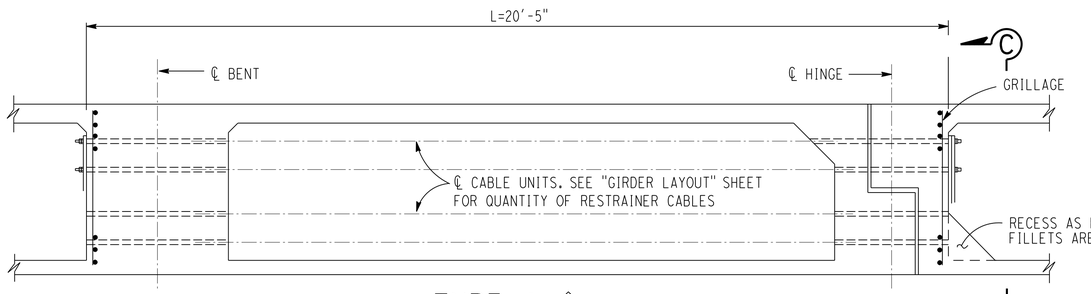
ORANGE COUNTY PUBLIC WORKS

PREPARED BY: McLEAN & SCHULTZ 3040 Saturn Street, Ste 105 Brea, CA 92821

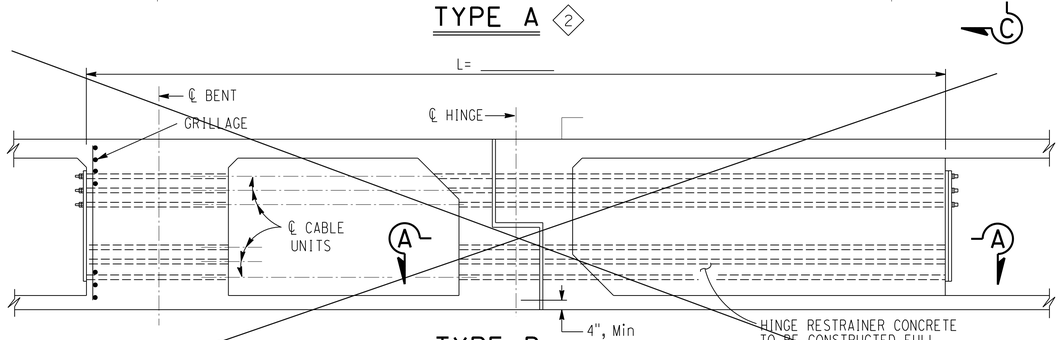
LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

SHEET REFERENCE NUMBER

CABLE RESTRAINER TYPE 1

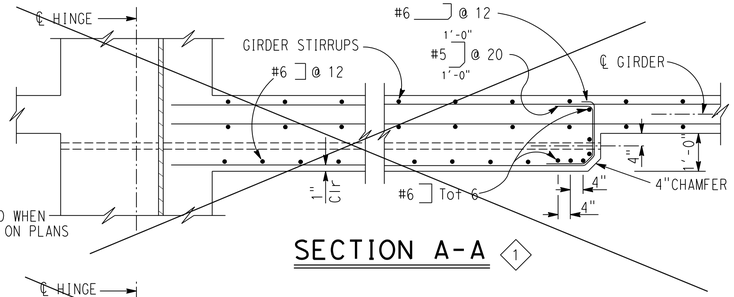


TYPE A ◇2

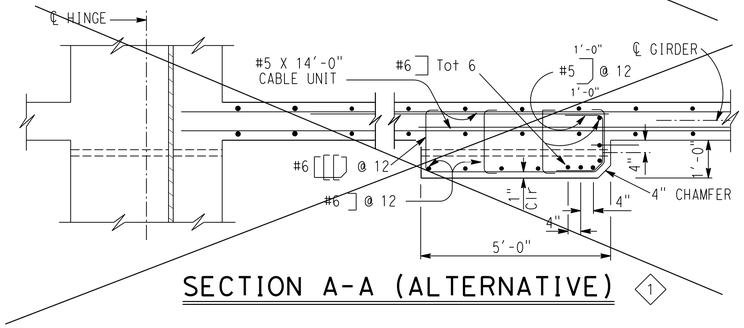


TYPE B

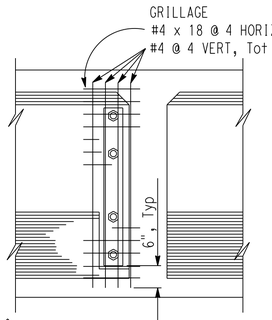
LONGITUDINAL HINGE RESTRAINER ◇1



SECTION A-A ◇1

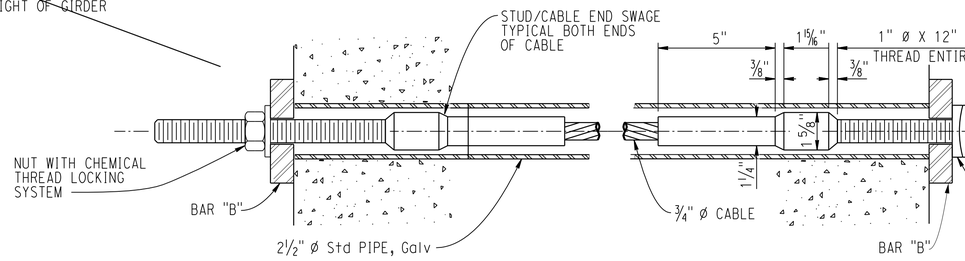


SECTION A-A (ALTERNATIVE) ◇1



◇2 SECTION C-C

NOTE: SLOPE TO MATCH SLOPING EXTERIOR GIRDERS



FIXED END

SWAGE STUD DETAIL

(A) FOR DIMENSIONS AND INSTALLATION PROCEDURE, SEE "CABLE RESTRAINER ADJUSTMENT HARDWARE" SHEET xs7-090

ADJUSTMENT END

LEGEND

◇1 Deleted Details

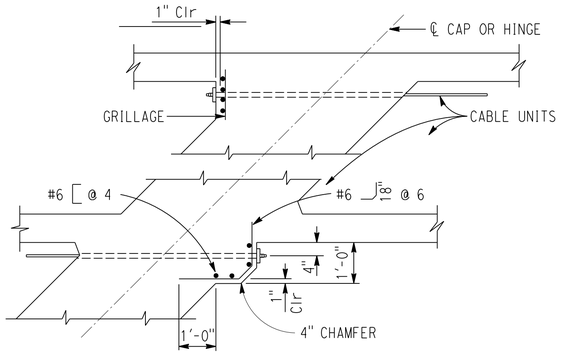
◇2 Revised Details

◇3 Deleted Notes

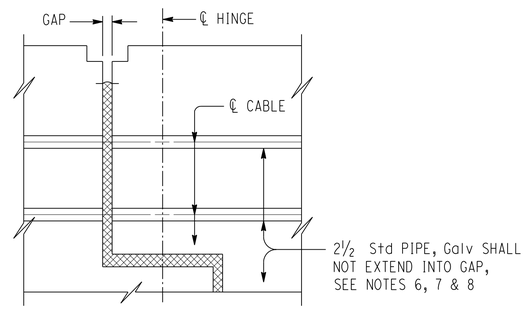
◇4 Revised Notes

NOTES:

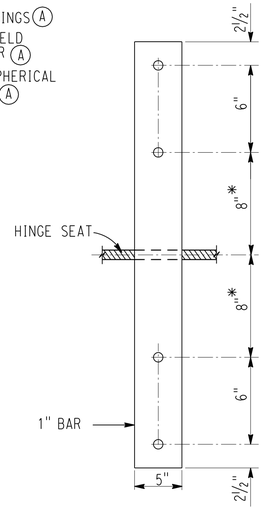
1. Restrainer units to be on tangent alignment
3. ~~2. Anchor nuts shall not be set until 30 days following completion of prestressing for CIP prestressed bridges~~
4. 3. See other sheets for location and number of longitudinal ~~and vertical hinge~~ restrainers, and table of joint openings
4. Contractor may install restrainers in horizontal arrangement with approval of the Engineer. The location shall be in the middle ½ depth of the structure
5. An alternative is to place restrainers in two horizontal layers, equally located above and below the mid structure depth. The number of restrainers in each layer shall not differ by more than one
6. The ends of pipe shall be covered or capped to prevent concrete gnd debris from entering the pipe until hinge concrete is placed
7. Care should be taken to align the pipes on each side of the hinge
8. All ends of pipes must be flush with or slightly recessed from the concrete. The inside edges of the pipes must be smooth to prevent fraying of cables



END ANCHORAGE DETAILS AT HINGE OR CAP PART PLAN



HINGE DETAIL ◇2



◇2 DETAIL - BAR B

* DIMENSION MAY BE ADJUSTED TO CLEAR REINFORCEMENT

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

STANDARD DRAWING		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES
FILE NO. xs7-050	APPROVAL DATE January 2012		

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF: G. SARAH — DATE 1/11/2013

REGISTERED PROFESSIONAL ENGINEER R. SARAH NO. C51155 Exp 09/30/13 CIVIL STATE OF CALIFORNIA

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

ORANGE COUNTY PUBLIC WORKS

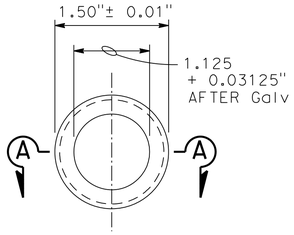
PREPARED BY: McLEAN & SCHULTZ 3040 Saturn Street, Ste 105 Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

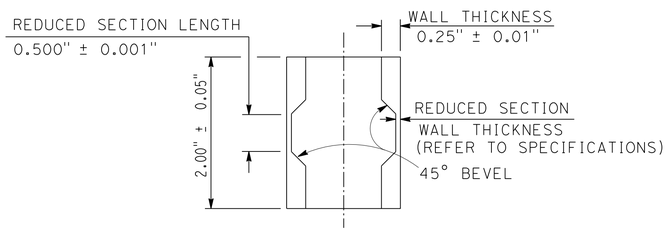
SHEET REFERENCE NUMBER

CABLE RESTRAINER TYPE 2

Sheet 86 Of 90



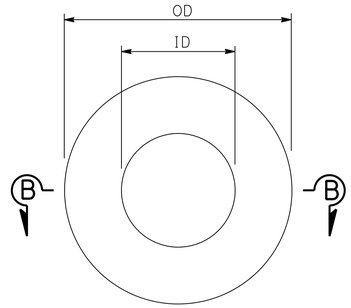
END VIEW



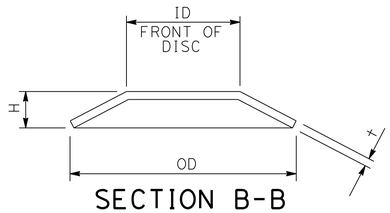
SECTION A-A

"ALL DIMENSIONS ARE BEFORE GALVANIZING EXCEPT AS NOTED"

CABLE YIELD INDICATOR

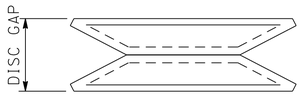


PLAN



SECTION B-B

(SINGLE SPRING)



AS INSTALLED ON STUD

NOTE: FOR DIMENSIONS NOT SHOWN, SEE TABLE

DISC SPRING

DISC SPRINGS AND WASHERS

ALL DIMENSIONS IN INCHES, EXCEPT AS NOTED

	DISC SPRING					STEEL SPHERICAL WASHER			THICK WASHER		
L*	ID	OD	†	H	COLOR CODE	ID	OD	NOMINAL THICKNESS	ID	OD	†**
00.0 - 25.0	1.00	2.00	0.065	0.130	WHITE	1.19	2.25	0.50	1.03	2.00	0.25
25.1 - 31.9	1.00	2.00	0.084	0.136	RED	1.19	2.25	0.50	1.03	2.00	0.25
32.0 - 37.9	1.00	2.00	0.097	0.145	BLUE	1.19	2.25	0.50	1.03	2.00	0.25
38.0 - 45.0	1.25	2.50	0.120	0.180	YELLOW	1.31	2.50	0.50	1.16	2.00	0.25

* For limits of length L (ft), use effective length of cable, from face-to-face outer surfaces of anchorage plate or bearing bar. Refer to Bridge detail sheets for approximate length required.

** MINIMUM VALUE

NOTE: All OD and ID dimensions for washers and disc springs shall meet the dimensional tolerances for hardened steel washers, ASTM F436

RESTRAINER UNIT INSTALLATION PROCEDURE

1a. For typical 'girder to opposite girder' or 'bent cap to girder' restrainers with one adjustment end:

Place nut, washer and Thread Locking System on fixed end stud prior to tightening the cable

The adjustment end shall be at the same end of the cable for all restrainers at a specific hinge or bent

Tighten the nuts on the cable from the Adjustment End of restrainer until the disc springs collapse and there is no disc gap remaining between the discs

1b. For typical "U" or "V" shaped restrainers units with two adjustment ends: Install Cable Yield Indicator, spherical washers, disc springs, washers and nuts on both adjustment ends of cable type restrainers

The ends of the cable must be adjusted simultaneously.

Tighten the nuts on the cable from the adjustment ends of restrainer until the disc springs collapse and there is no disc gap remaining between the discs on either end of the cable

2. Place thread locking system on adjustment end(s) after tightening the cable but before backing off the nut(s)

Back off the nut(s) at the adjustable anchorage(s) a distance equal to the maximum additional amount that the hinge is expected to open, relative to existing ambient conditions, as shown on the plans for movement rating

NO RECORD DRAWING CHANGES

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

STANDARD DRAWING		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES
FILE NO. xs7-090	APPROVAL DATE July 2011		

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF: G. SARAH

REGISTERED PROFESSIONAL ENGINEER R. SARAH No. C51555 Exp 09/30/13 CIVIL STATE OF CALIFORNIA

DATE 1/11/2013

DESIGNED BY: G. SARAH
DRAWN BY: MB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

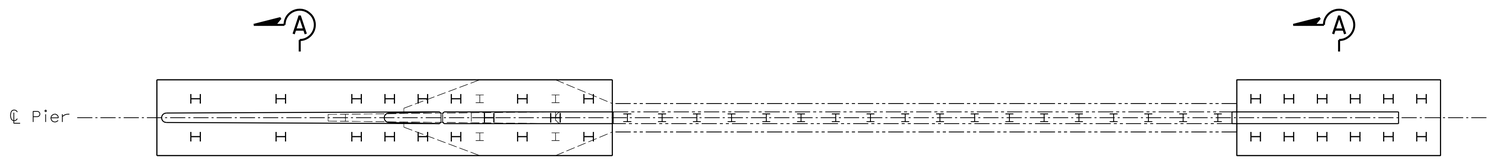
ORANGE COUNTY PUBLIC WORKS

PREPARED BY: McLEAN & SCHULTZ 3040 Saturn Street, Ste 105 Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

SHEET REFERENCE NUMBER

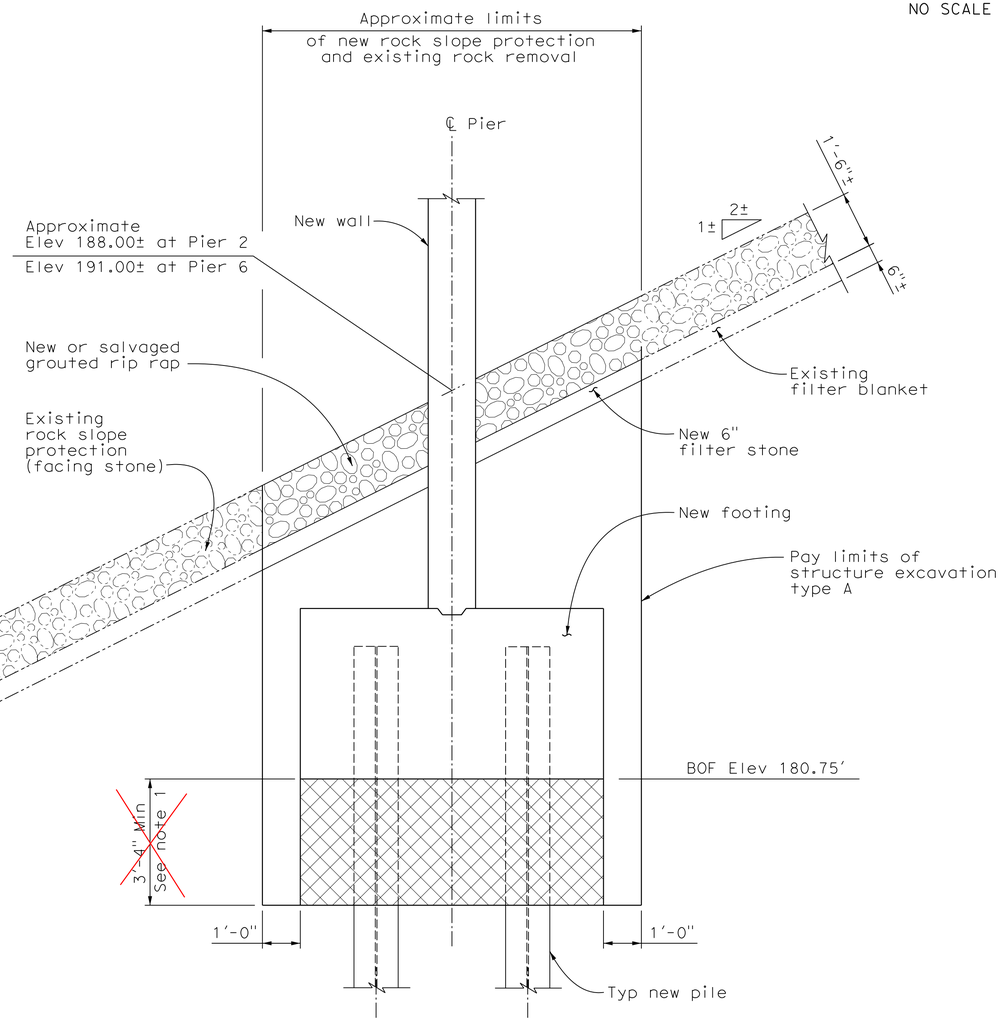
CABLE RESTRAINER ADJUSTMENT HARDWARE



PLAN VIEW

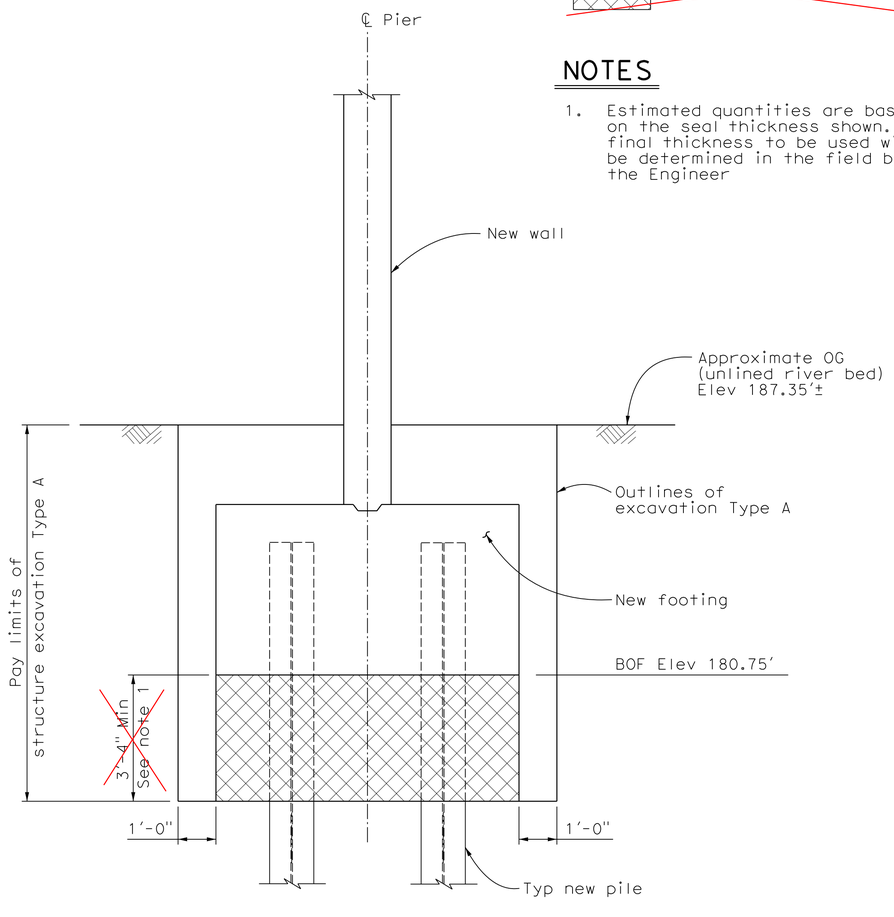
PIERS 2 THRU 6

NO SCALE



PIERS 2 AND 6

(PIER 6 SHOWN, PIER 2 SIMILAR)



PIERS 3, 4 AND 5

SECTION A-A

½" = 1'-0"

LEGEND

Denotes existing structure

Denotes new construction

Seal course concrete

NOTES

1. Estimated quantities are based on the seal thickness shown. The final thickness to be used will be determined in the field by the Engineer

Note:
Verify all controlling field dimensions
before ordering or fabricating any material.

RECORD DRAWING

CORRECTION BY: A. Verma/C. Phung

CONTRACT NO.: ER09343

DATE: 03/13/2015

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

REGISTERED PROFESSIONAL ENGINEER R. SARAH No. C51155 Exp 09/30/13 CIVIL STATE OF CALIFORNIA

G. SARAH — DATE 1/11/2013

DESIGNED BY: G. SARAH
DRAWN BY: WB
CHECKED BY: O. HENRIQUEZ
DRAWING CODE:
FILE NAME:
PLOT DATE: 1/11/2013
SCALE: AS NOTED

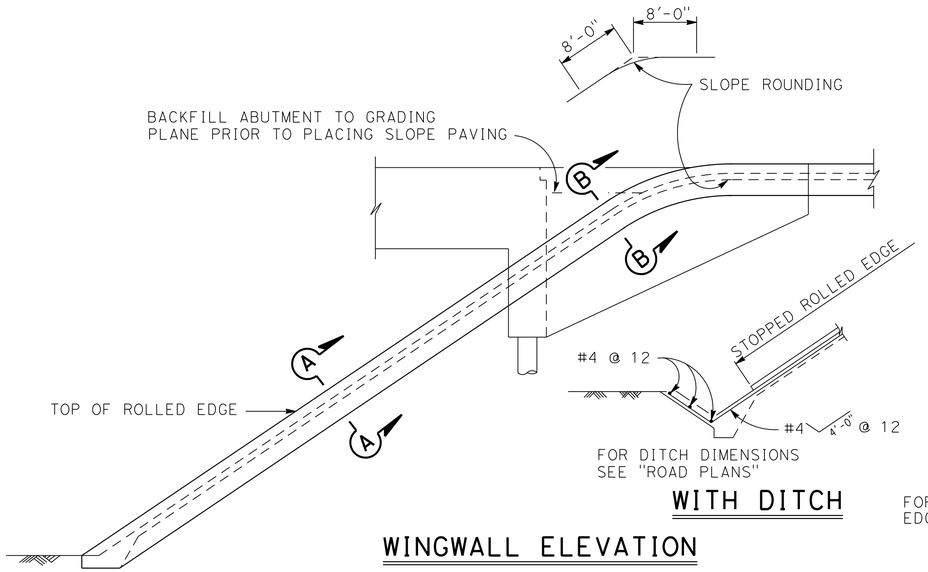
ORANGE COUNTY PUBLIC WORKS

PREPARED BY: McLEAN & SCHULTZ
3040 Saturn Street, Ste 105
Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

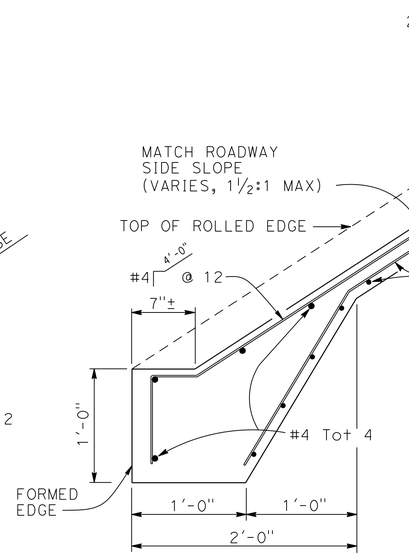
SHEET REFERENCE NUMBER

LIMITS OF EXCAVATION AND BACKFILL

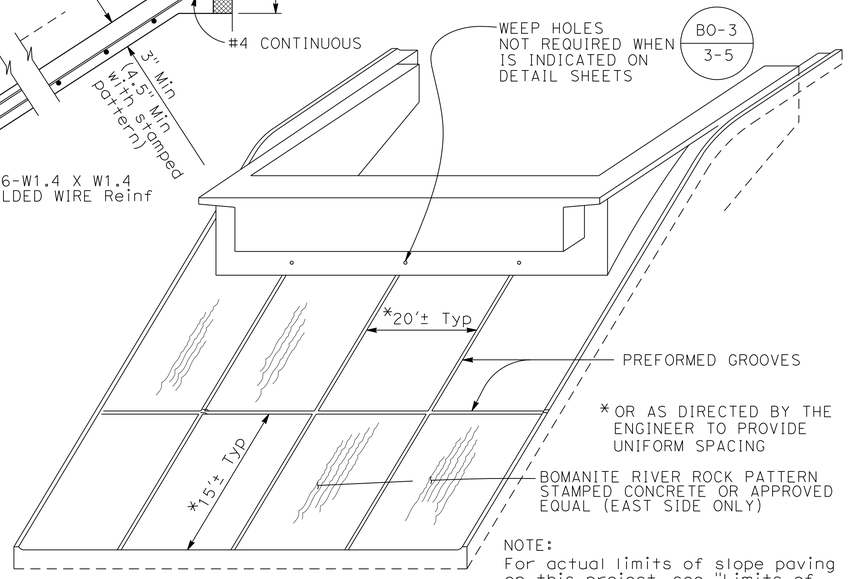


WITH DITCH

WINGWALL ELEVATION

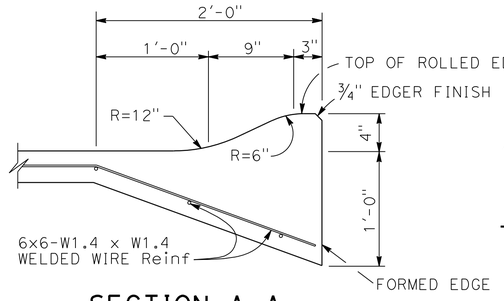


TYPICAL SECTION CONCRETE PAVING

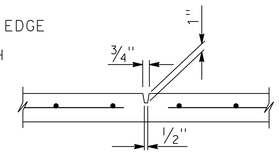


PICTORIAL VIEW OF TYPICAL INSTALLATION

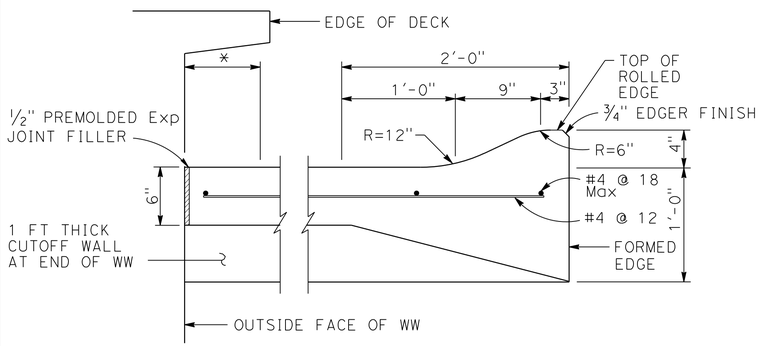
NO SCALE



SECTION A-A

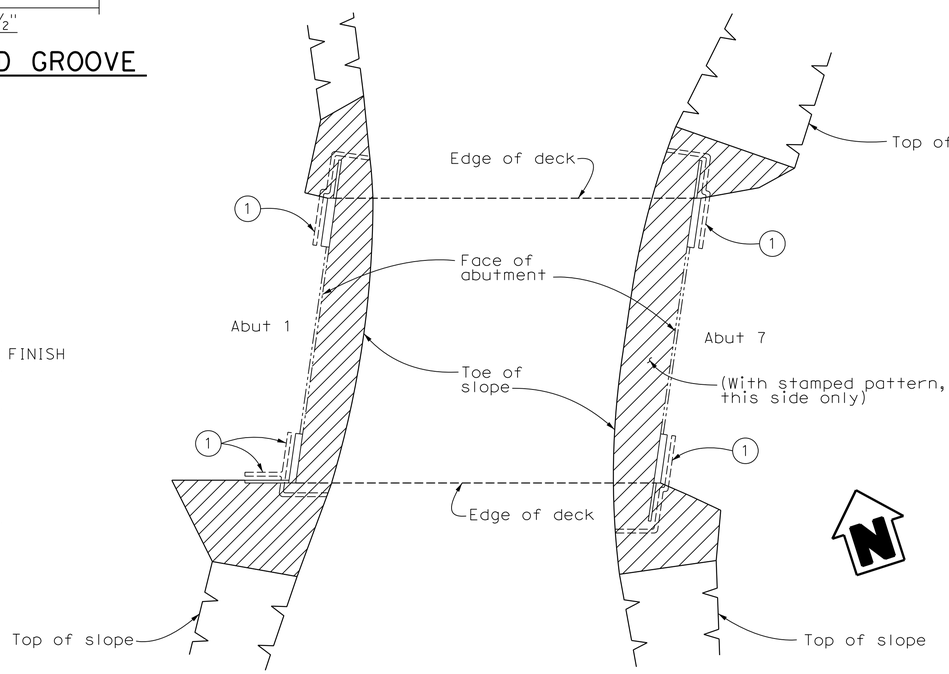


PREFORMED GROOVE



SECTION B-B

* THIS DIMENSION BECOMES ZERO WHEN EDGE OF DECK IS AT OUTSIDE FACE OF WW



LIMITS OF SLOPE PAVING

NO SCALE

LEGEND

Indicates limits of payment for slope paving, typ. See OC Civil drawings for actual limits and stationing

(1) 8" Perforated steel pipe (0.063" thick) underdrain behind abutment and wingwall as shown on "Limits of Slope Paving." Connect to downdrain to be run under the tracks and discharge into the river. Applicable when BO-3 / 3-5 is indicated on "Abutment Details" sheets.

Note:
Verify all controlling field dimensions before ordering or fabricating any material.

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER R. SARAH NO. C51155 Exp 09/30/13 CIVIL STATE OF CALIFORNIA
1/11/2013 DATE
G. SARAH

DESIGNED BY: G. SARAH	CHECKED BY: O. HENRIQUEZ	SCALE: AS NOTED
DRAWN BY: MB	DRAWING CODE:	
	FILE NAME:	
	PLOT DATE: 1/11/2013	

ORANGE COUNTY PUBLIC WORKS

PREPARED BY:
McLEAN & SCHULTZ
3040 Saturn Street, Ste 105
Brea, CA 92821

LINCOLN AVENUE BRIDGE WIDENING OVER SANTA ANA RIVER

SHEET REFERENCE NUMBER

SLOPE PAVING FULL SLOPE

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
XX	ORANGE	LINCOLN AVE.		1	1

REGISTERED ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSEPH G. FRANZONE No. GE 2189 Exp. 12-31-13 GEOTECHNICAL STATE OF CALIFORNIA

GeoLogic Associates
Geologists, Hydrogeologists, and Engineers
3921-A East La Palma Avenue, Anaheim, CA 92807

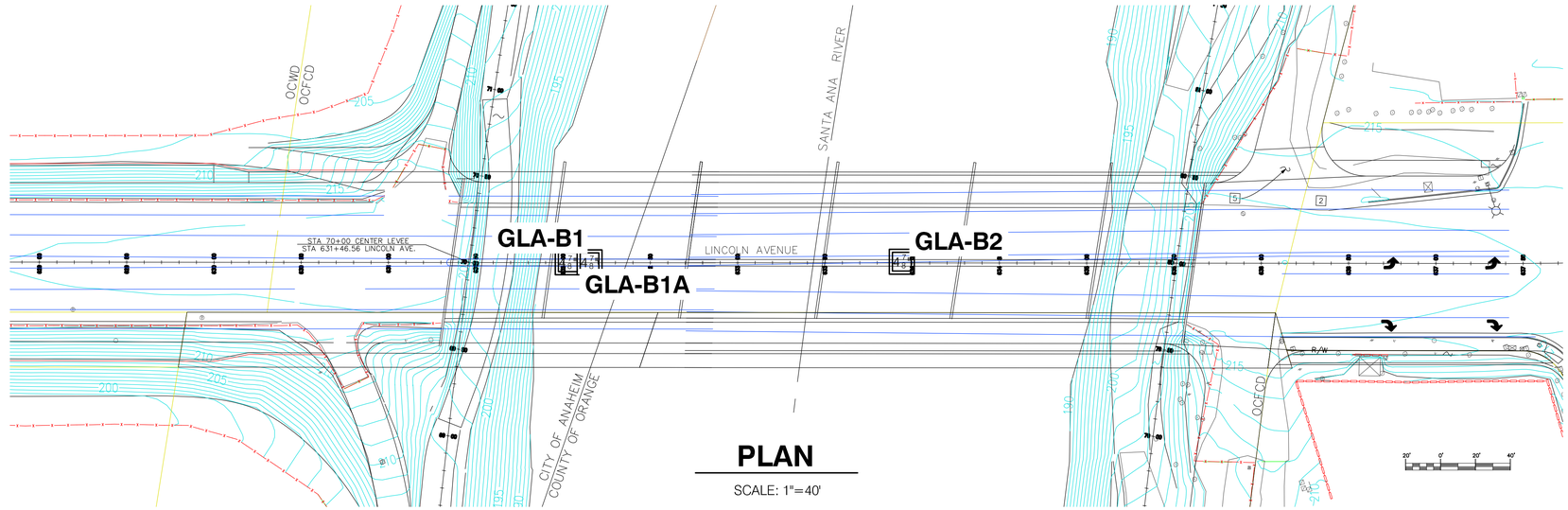
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

Project No. 2011-0181

PLATE I

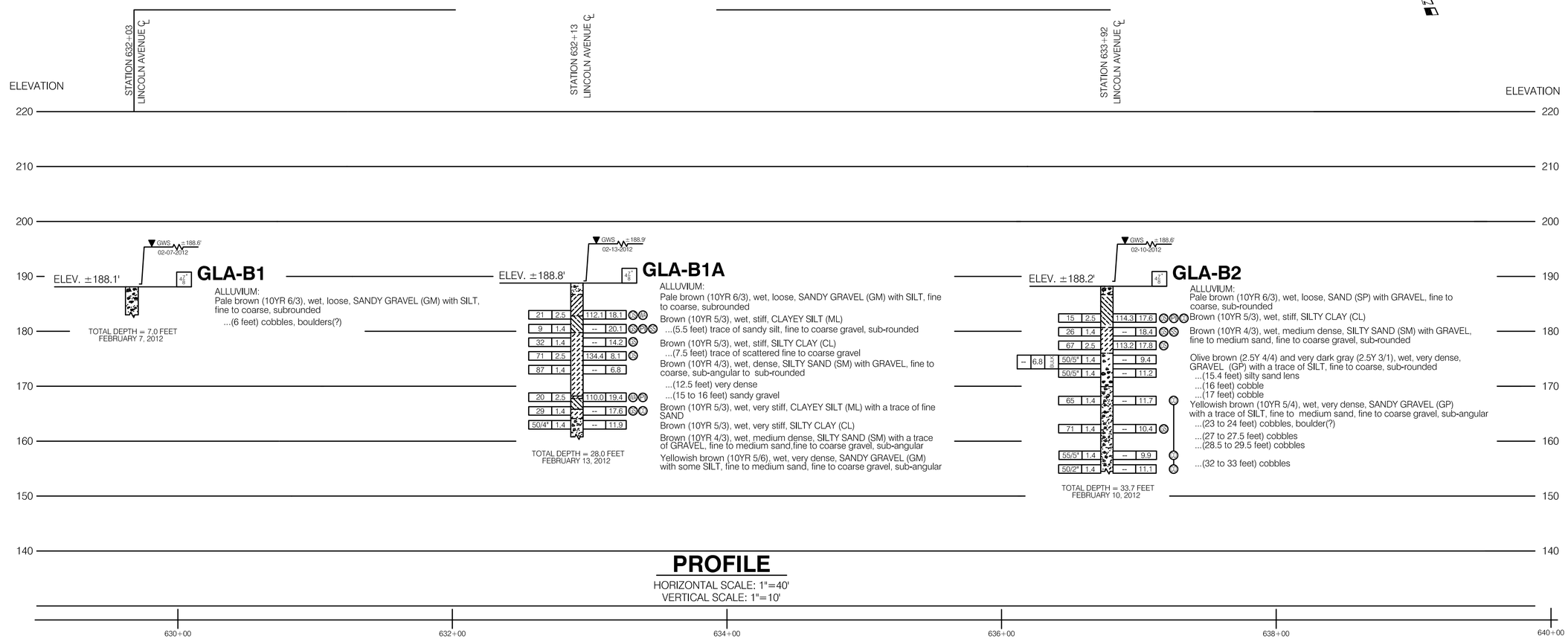
Notes to Geotechnical Laboratory Testing Legend

- (D) = Direct Shear Test (ASTM D3080)
- (P) = Particle Analysis (ASTM D422)
- (R) = Corrosivity Testing (Cal Test 417, 422, and 643)



PLAN

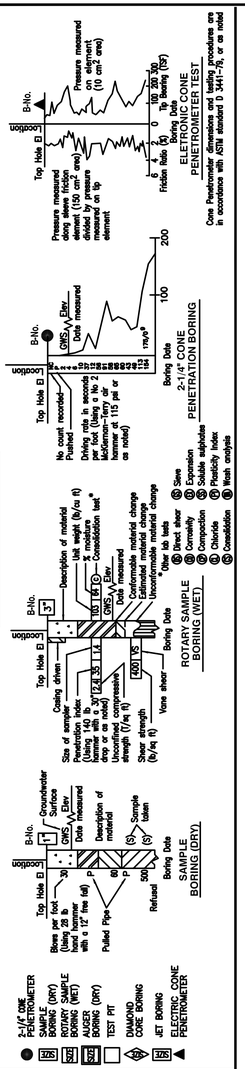
SCALE: 1"=40'



PROFILE

HORIZONTAL SCALE: 1"=40'
VERTICAL SCALE: 1"=10'

LEGEND OF BORING OPERATIONS



LEGEND OF EARTH MATERIALS

GRAVEL · SAND · SILT · CLAY · SANDY CLAY or CLAYEY SAND · SANDY SILT or SILTY SAND · SILTY CLAY · CLAYEY SILT · PEAT and/or ORGANIC MATTER · FILL MATERIAL · IGNEOUS ROCK · SEDIMENTARY ROCK · METAMORPHIC ROCK

CONSISTENCY CLASSIFICATION FOR SOILS
According to the Standard Penetration Test (ASTM D-1586)

SPT N-Value (Blows/Ft)	Granular	SPT N-Value (Blows/Ft)	Cohesive
0-4	Very Loose	<2	Very Soft
5-10	Loose	2-4	Soft
11-30	Medium Dense	5-8	Firm
31-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very stiff
		>30	Hard

NOTE: Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

DESIGN OVERSIGHT	DRAWN BY	JGF	BRIDGE NO. XXXXXXXXXX
SIGN OFF DATE	CHECK BY	DML	POST MILE
GEOLOGIC ASSOCIATES FIELD INVESTIGATOR	PREPARED FOR THE COUNTY OF ORANGE DEPARTMENT OF PUBLIC WORKS	PROJECT ENGINEER	
DATE FEBRUARY 7-13, 2012			

LINCOLN AVENUE BRIDGE
LOG OF TEST BORINGS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY) | SHEET | OF

NO RECORD DRAWING CHANGES

ORANGE COUNTY PUBLIC WORKS

SANTA ANA, CALIFORNIA

JESS A. CARBAJAL, DIRECTOR

PLANS FOR CONSTRUCTION OF

MAINTENANCE OF VARIOUS BRIDGES IN ORANGE COUNTY

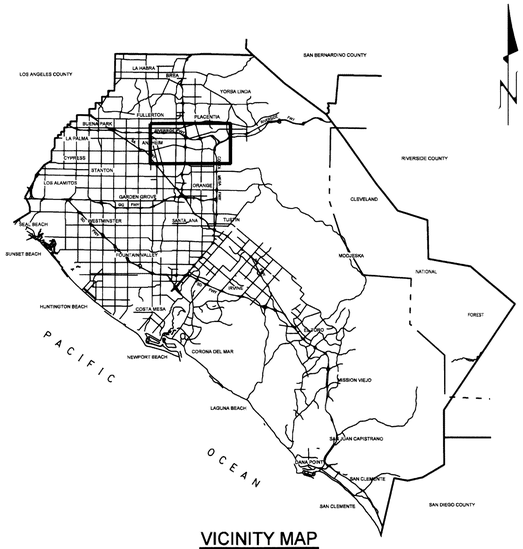
PHASE 1 – PROJECT No. 2, UPPER SANTA ANA RIVER AREA

W.O. NO. ER20260

MAY 2011

FUNDED BY: COUNTY OF ORANGE

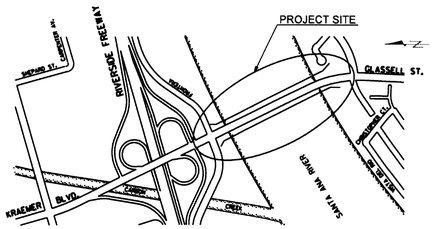
MAINTAINED BY: COUNTY OF ORANGE, CITY OF ANAHEIM AND CITY OF ORANGE



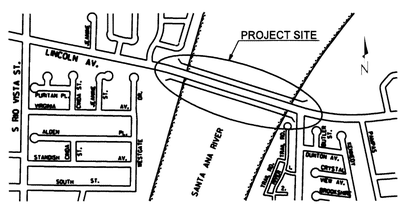
VICINITY MAP
(NO SCALE)

INDICATES AREA SHOWN ON LOCATION MAP

T.G. 769-F5 & G3



KREAMER BLVD/GLASSELL ST BRIDGE OVER SANTA ANA RIVER
BRIDGE # 55C-0130, THOMAS GUIDE: 769-G3



LINCOLN AVENUE BRIDGE OVER SANTA ANA RIVER
BRIDGE # 55C-0017, THOMAS GUIDE: 769-F5

LOCATION MAP
(NO SCALE)

INDEX OF SHEETS

SHEET		DESCRIPTION
1	TITLE SHEET	
2	BR. 55C-0017	GENERAL PLAN
3	BR. 55C-0017	MISCELLANEOUS DETAILS
4	BR. 55C-0130	GENERAL PLAN
5–6	BR. 55C-0130	MISCELLANEOUS DETAILS NO. 1 – 2

UTILITY OWNER	CONTACT	PHONE NO.
AT&T	STEVE CIOLEK	714–237–6019
CITY OF ANAHEIM	FRED BARVARZ	714–765–4187
MCI COMMUNICATIONS (VERIZON BUSINESS)	CHUCH TRIMBLE	909–421–3339
ORANGE COUNTY WATER DISTRICT	DAIVD YOUNGBLOOD	714–378–8245
QWEST	TERRY CARMER	714–666–9219
THE GAS COMPANY	MIKE BATISTA	818–701–4543
UNDERGROUND SERVICE ALERT	FRED ADJARIAN	800–422–4133

NO RECORD DRAWING CHANGES

NO.	DESCRIPTION	SHT.	APPROVED	DATE

REVISIONS

W. O. NO. ER20260

DWG. NO. _____

SHEET 1 OF 6

OC PUBLIC WORKS

APPROVED FOR CONTRACT ADMINISTRATION PURPOSES:

SUBMITTED: _____ 3/3/11 DATE
JAVIER SOTO, P.E.
MANAGER, ROAD / CAPITAL PROJECTS

RECOMMENDED: _____ 3/3/11 DATE
TED RIGONI, P.E., PMP
MANAGER, ROAD SECTION

APPROVED: _____ 3/9/11 DATE
IGNACIO G. OCHOA, P.E.
DIRECTOR / OC ENGINEERING /CHIEF ENGINEER

QA/QC CERTIFICATION

QA/QC CERTIFICATION OF PEER REVIEW

THE UNDERSIGNED HEREBY CERTIFIES THAT A THOROUGH PROFESSIONAL QA/QC OF THESE PLANS AND THE REQUIRED DESIGNS WERE CONDUCTED BY ME, A PROFESSIONAL ENGINEER WITH EXPERTISE AND EXPERIENCE IN THE APPROPRIATE FIELDS OF ENGINEERING, AND THAT ALL APPROPRIATE CORRECTIONS HAVE BEEN MADE.

McLEAN & SCHULTZ
REVIEWER _____

DATE 3/1/2011

REGISTERED CIVIL ENGINEER — MONTSERRAT MARTIN — No. 64771 — Exp. 6/30/11 — CIVIL — STATE OF CALIFORNIA

PREPARED BY

McLEAN & SCHULTZ
3040 SATURN STREET, STE 105
BREA, CA 92821

APPROVED: _____
REGISTERED CIVIL ENGINEER

DATE 3-1-11

REGISTERED CIVIL ENGINEER — OSCAR E. HENRIQUEZ — No. 58008 — Exp. 6/30/12 — CIVIL — STATE OF CALIFORNIA

CITY OF ANAHEIM

APPROVED _____ 3-1-12 DATE
MARK VUKOJEVIC, P.E.
CITY ENGINEER

CITY OF ORANGE

APPROVED _____ 3/22/11 DATE
FRANK SUN, P.E.
DEPUTY PUBLIC WORKS DIRECTOR/
CITY ENGINEER

UNDERGROUND SERVICE ALERT

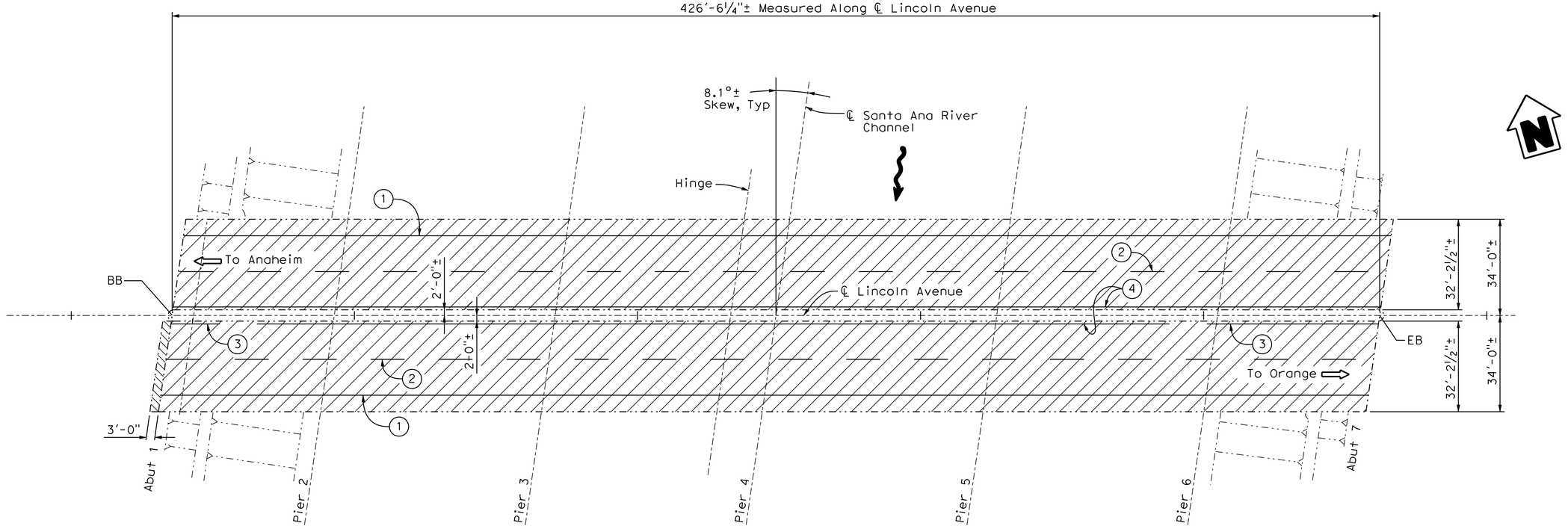
CALL 1-800-422-4133 TWO (2) WORKING DAYS PRIOR TO EXCAVATION

FILE NAME : $FILE$

DATE PLOTTED : $DATE$

LEGEND

——·——·——	Indicates Existing.
⇨	Indicates direction of traffic.
≈→	Indicates direction of flow.
▨	Indicates limits of clean and treat bridge deck with high molecular weight methacrylate.
▨	Indicates limits of AC approach leveling and repair, in kind.
①	Remove and replace existing striping and pavement markers per "Caltrans Standard Plan A20B Detail 27B".
②	Remove and replace existing striping and pavement markers per "Caltrans Standard Plan A20A Detail 9".
③	Remove and replace existing striping and pavement markers per "Caltrans Standard Plan A20A Detail 21".
④	Remove and replace existing striping and pavement markers per "Caltrans Standard Plan A20B Detail 26".



PLAN
1" = 20-0"

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

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER OSCAR E. HENRIQUEZ NO. C58008 STATE OF CALIFORNIA
12/10/10
DATE
O. HENRIQUEZ

DESIGNED BY: O. HENRIQUEZ
DRAWN BY: HV / RE
CHECKED BY: M. MARTIN
DRAWING CODE:
FILE NAME:
PLOT DATE: 12/10/10
SCALE: AS NOTED

ORANGE COUNTY PUBLIC WORKS

PREPARED BY:
McLEAN & SCHULTZ
3040 Saturn Street, Ste 105
Brea, CA 92821

MAINTENANCE OF VARIOUS BRIDGES IN ORANGE COUNTY
UPPER SANTA ANA RIVER AREA BRIDGES - PHASE I
LINCOLN AVENUE BRIDGE ACROSS SANTA ANA RIVER
BR. NO. 55C-0017

SHEET REFERENCE NUMBER

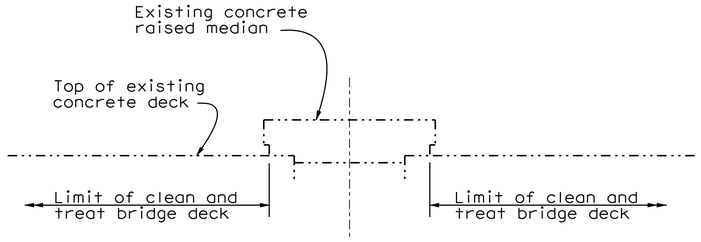
GENERAL PLAN

Sheet 2 of 16

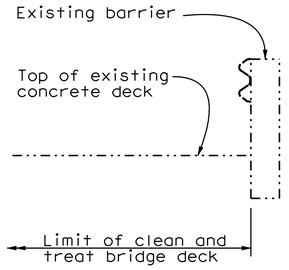
SHEET 1 OF 2

DECK REPAIR TABLE

BRIDGE NAME	BRIDGE NUMBER	TOTAL DECK AREA (SQ FT)	APPROXIMATE AREA DAMAGED (%)	APPROXIMATE DEPTH (INCHES)	REMOVE UNSOUND CONCRETE (CF)	RAPID SETTING CONCRETE PATCH (CF)
Lincoln Avenue Bridge Across Santa Ana River	55C-0017	27,476	2	2	92	92



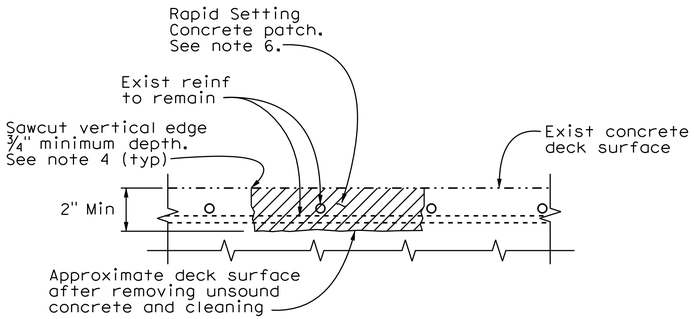
RAISED MEDIAN



BARRIER

TYPICAL LIMITS OF DECK WORK

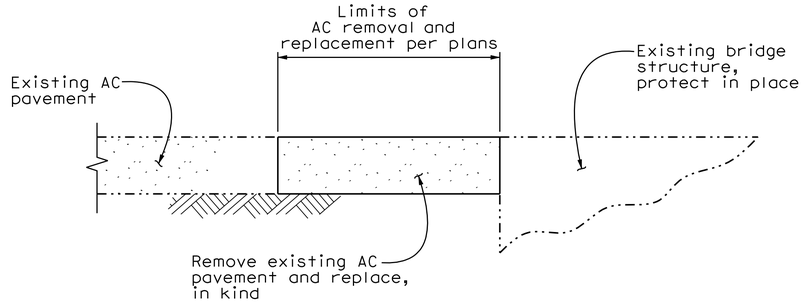
NO SCALE



DECK DAMAGE REPAIR DETAIL

NO SCALE

Location will be determined by the Engineer. Reinforcement may be encountered during deck concrete removal and is to remain undamaged.



AC LEVELING AND REPAIR DETAIL

NO SCALE

DECK REPAIR NOTES:

1. Existing reinforcement shall be protected in place during unsound concrete removal and patching operations.
2. It is responsibility of the Contractor to repair any reinforcement that is accidentally cut by saw cutting operations.
3. When existing transverse reinforcement is exposed in the deck surface, saw cutting shall be waived with the approval of the Engineer.
4. The sawcut depth shall not exceed ¾" or the concrete cover over the top steel reinforcing bars, whichever is less.
5. Remove unsound Portland Cement concrete and unsound concrete patches to expose sound, hard concrete substrate. Replace original deck surface with rapid setting concrete patch.
6. Rapid setting concrete repairs shall conform to the sections entitled "Patches," "General Provisions Applicable to All Patches," and "Rapid Setting Concrete Patches in Deck Surfaces" of the special provisions.

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

NO RECORD DRAWING CHANGES

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:
O. HENRIQUEZ
DATE 12/10/10
REGISTERED PROFESSIONAL ENGINEER OSCAR E. HENRIQUEZ NO. C58008 STATE OF CALIFORNIA

DESIGNED BY: O. HENRIQUEZ	CHECKED BY: M. MARTIN	SCALE: AS NOTED
DRAWN BY: HV / RE	DRAWING CODE:	PLOT DATE: 12/10/10
	FILE NAME:	

ORANGE COUNTY PUBLIC WORKS

PREPARED BY:
McLEAN & SCHULTZ
3040 Saturn St. Ste 105
Brea, CA 92821

MAINTENANCE OF VARIOUS BRIDGES IN ORANGE COUNTY
UPPER SANTA ANA RIVER AREA BRIDGES - PHASE I
LINCOLN AVENUE BRIDGE ACROSS SANTA ANA RIVER
BR. NO. 55C-0017

SHEET REFERENCE NUMBER
MISCELLANEOUS DETAILS
Sheet 3 of 16
SHEET 2 OF 2