

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

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RIVERSIDE COUNTY TRANSPORTATION

NO. 300	CURB INLET CATCH BASIN
NO. 200	TYPE A-6 CURB & CUTTER
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NO. 207	CONCRETE DRIVEWAY APPROACH
NO. 209	CROSS GUTTER LAYOUT
NO. 209A	CROSS GUTTER LAYOUT (TYPICAL SECTION)
NO. 311	GUTTER DEPRESSION

CALTRANS STANDARD DRAWINGS

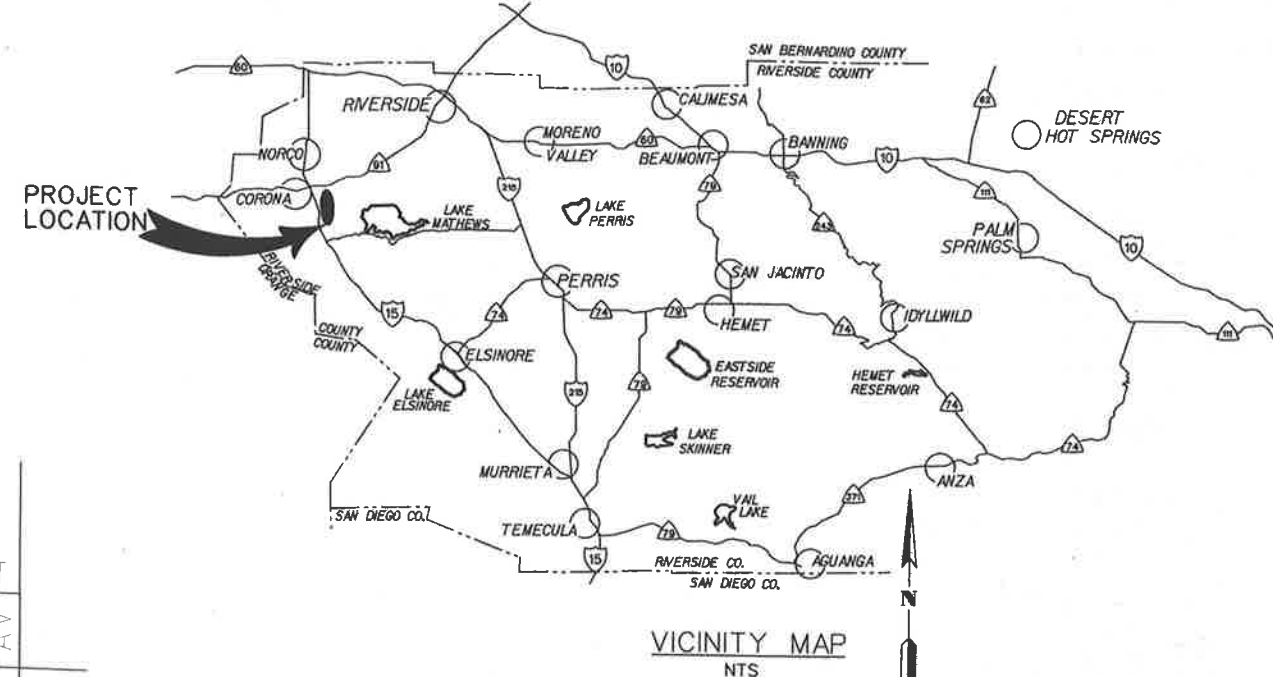
B11-47	CABLE RAILING
A73A	OBJECT MARKERS
D80	CAST-IN-PLACE REINFORCED CONCRETE SINGLE BOX CULVERT
D82	CAST-IN-PLACE REINFORCED CONCRETE SINGLE CULVERT- MISC. DETAILS

EVMWD

W-4	CONCRETE TRUST BLOCKS
W-7	JOINT DETAILS FOR MORTAR LINED AND CEMENT COATED PIPE

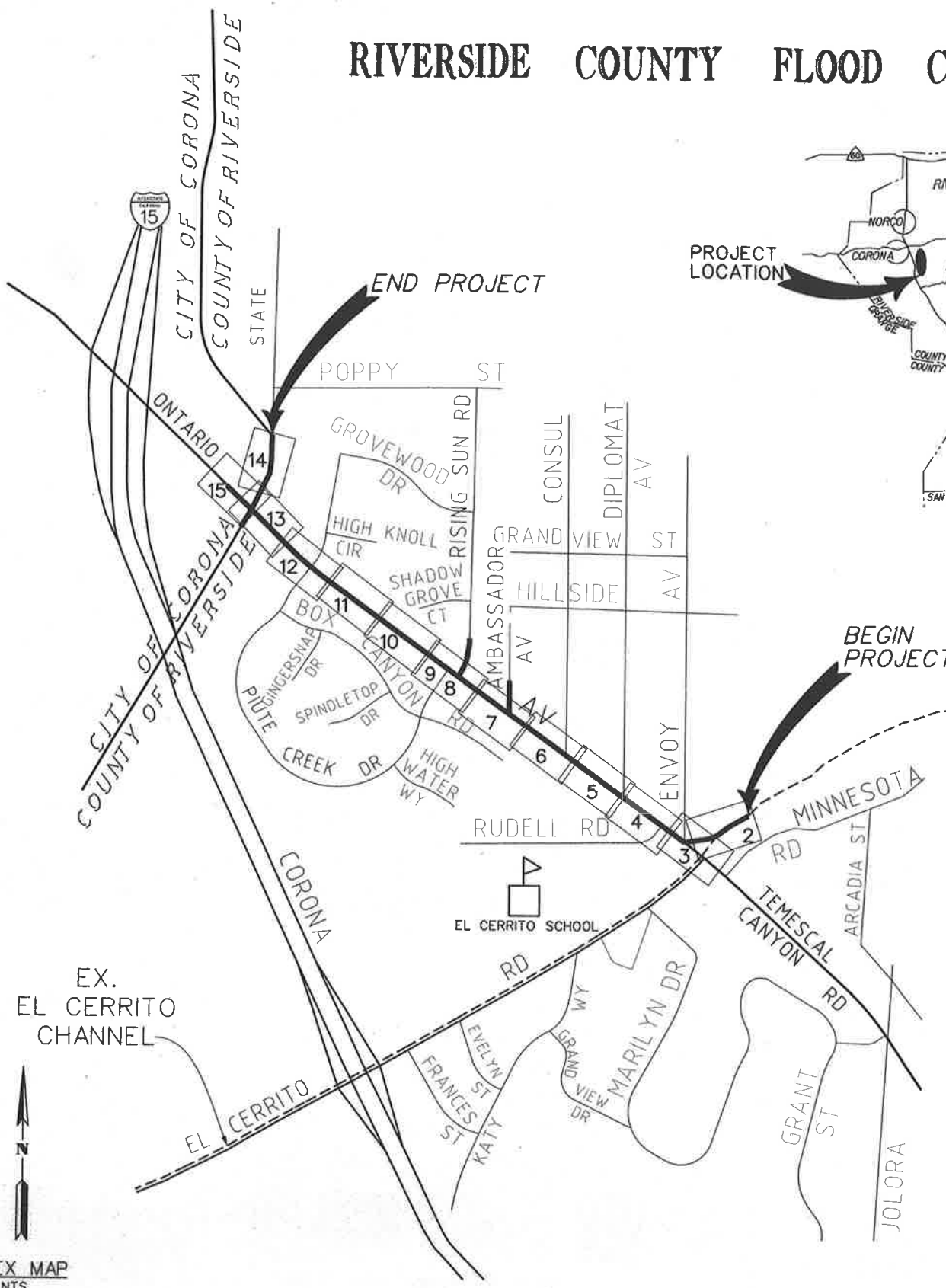
CITY OF CORONA

204	CATCH BASIN TYPE "A"
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GENERAL NOTES

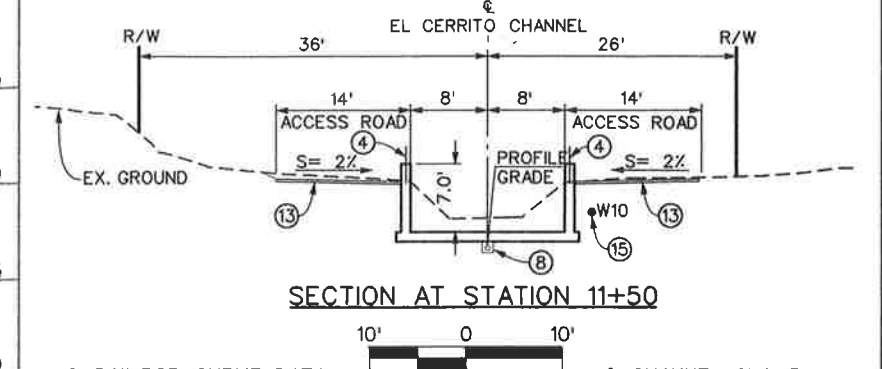
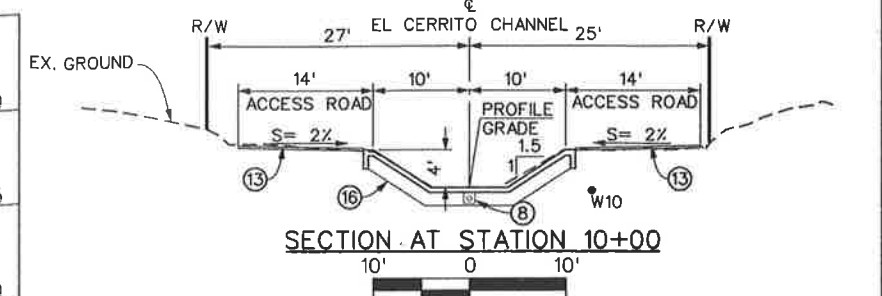
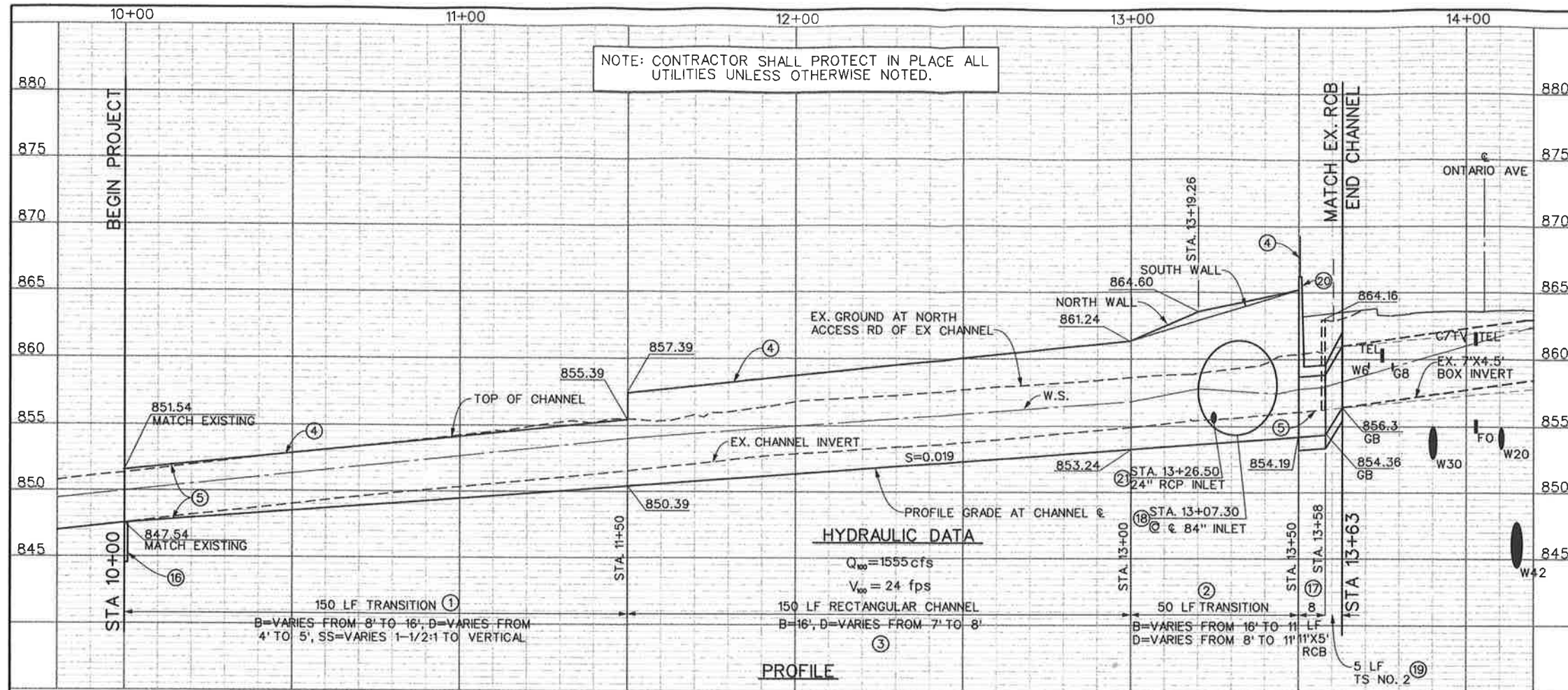
- BEDDING AND PAYLINES ARE SHOWN ON RCFC STANDARD DRAWING M815 UNLESS SHOWN OTHERWISE ON THESE PLANS.
- ALL STATIONING REFERS TO CENTERLINE OF CONSTRUCTION.
- ALL CHANNEL/STORM DRAIN REFERENCES AND CROSS SECTIONS ARE TAKEN LOOKING DOWNSTREAM.
- TOPOGRAPHY BY DIGITAL PHOTOGRAMMETRIC METHODS. AERIAL PHOTOGRAPHS TAKEN AT AN ALTITUDE NOT TO EXCEED A FLYING HEIGHT TO CONTOUR INTERVAL RATIO OF 1800. PHOTOGRAPHY DATED 01-03-07.
- THE VERTICAL DATUM IS DERIVED FROM NAVD 88. THE HORIZONTAL DATUM IS DERIVED FROM NAD 83.
- STANDARD DRAWINGS CALLED FOR ON THE PLAN & PROFILE SHALL CONFORM TO THE LATEST EDITION RCFC & WCD STD DRAWINGS, UNLESS OTHERWISE NOTED.
- ELEVATIONS AND LOCATIONS OF UTILITIES WERE OBTAINED FROM AVAILABLE INFORMATION AND ARE SHOWN APPROXIMATELY ON THESE PLANS. 48 HOURS BEFORE EXCAVATION CALL UNDERGROUND SERVICE ALERT AT 1-800-227-2600. ALL UTILITIES SHALL BE PROTECTED IN PLACE EXCEPT AS NOTED ON PLANS AND SPECIFICATIONS.
- THE CONTRACTOR IS REQUIRED TO CONTACT ALL UTILITY AGENCIES REGARDING TEMPORARY SUPPORT AND SHORING REQUIREMENTS FOR THE VARIOUS UTILITY LINES SHOWN ON THESE PLANS.
- UNLESS OTHERWISE SPECIFIED ALL OPENINGS RESULTING FROM CUTTING OR PARTIAL REMOVAL OF EXIST. CULVERTS, PIPES, OR SIMILAR STRUCTURES TO BE ABANDONED, SHALL BE SEALED AT BOTH ENDS WITH 6" MIN CLASS "B" CONCRETE.
- UNLESS OTHERWISE SPECIFIED, MINIMUM STREET RECONSTRUCTION SHALL BE 0.33' TYPE "B" ASPHALT CONCRETE OVER 6" CLASS 2 AGGREGATE BASE OR AS SPECIFIED BY THE ENGINEER.
- ALL RECONSTRUCTION, RESURFACING AND PAVEMENT DELINEATION, CURBS, SIDEWALKS AND OTHER IMPROVEMENTS ARE TO BE RECONSTRUCTED IN KIND AT THE SAME LOCATIONS AND ELEVATIONS AS THE EXISTING IMPROVEMENTS, UNLESS OTHERWISE NOTED.
- ⊕ INDICATES APPROX. SOIL BORING LOCATION PER SOILS REPORT DATED JULY 6, 2009
- THE CONTRACTOR IS REQUIRED TO PREPARE AND SUBMIT A SEWER AND WATER EMERGENCY SPILL PLAN TO THE CITY OF CORONA, DEPT OF WATER AND POWER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS REQUIRED TO PREPARE AND SUBMIT A SPILL RESPONSE PLAN TO COVER ANY ACCIDENTAL SEWER BRINE SPILLS.



INDEX MAP NTS

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY: <i>Mejia Salazar</i> DEPUTY DIRECTOR OF TRANSPORTATION DATE: 2/17/11	CITY OF CORONA APPROVED BY: <i>King D. Z...</i> CITY ENGINEER DATE: 2-14-11	Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services. TWO WORKING DAYS BEFORE YOU DIG	BENCH MARK B.M. NO. Z-12341 FD. 2" CAL DOT BRASS DISC MON. STAMPED "CL STATE ST 10+00 POT. 7+86.57 PI' CL ONTARIO AVE, DN 0.28' 912.023 EL. NAVD 88	REVISIONS REF. DESCRIPTION APPR. DATE	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011	RECOMMENDED FOR APPROVAL BY: <i>R...</i> DATE: 14 Feb 2011	APPROVED BY: <i>...</i> DATE: 2/14/11	CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 TITLE SHEET	PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 1 OF 47
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512412011 11.2



HYDRAULIC DATA

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 $V_{100} = 24 \text{ fps}$

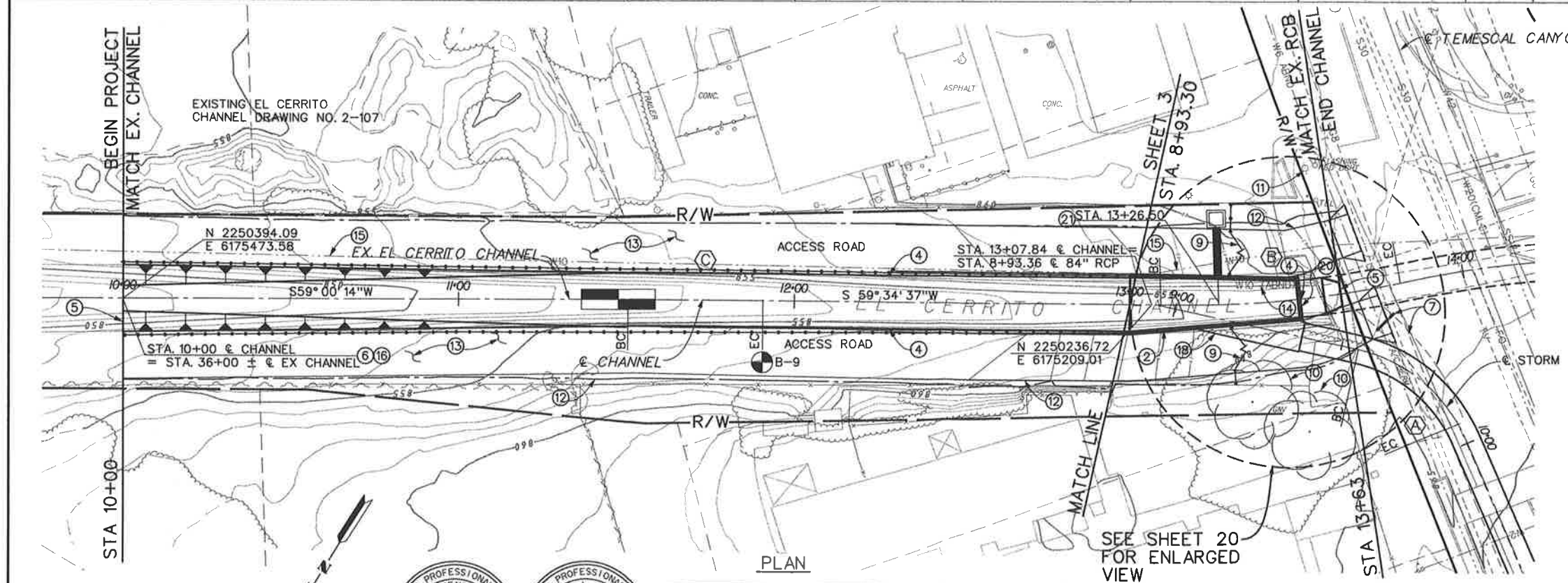
PROFILE

$S = 0.019$

CHANNEL CURVE DATA

Station	Curve Data
10+00	<p>(A) 84" RCP CURVE DATA</p> <p>$\Delta = 54^\circ 23' 46''$ $R = 45.00'$ $L = 42.72'$ $T = 23.12'$ $BC = \text{STA } 9+55.07$ $EC = \text{STA } 9+97.79$ $PI = N 2250209.65$ $E 6175128.61$</p>
11+50	<p>(B) CHANNEL CURVE DATA</p> <p>$\Delta = 12^\circ 15' 06''$ $R = 300.00'$ $L = 64.15'$ $T = 32.20'$ $BC = \text{STA } 13+14.66$ $EC = \text{STA } 13+78.81$ $PI = N 2250216.96$ $E 6175175.37$</p>
13+63	<p>(C) CHANNEL CURVE DATA</p> <p>$\Delta = 0^\circ 34' 24''$ $R = 3500.00'$ $L = 35.02'$ $T = 17.51'$ $BC = \text{STA } 11+55.30$ $EC = \text{STA } 11+90.32$ $PI = N 2250305.09$ $E 6175325.44$</p>

- NOTES**
- CONSTRUCT TRANSITION STRUCTURE PER DETAILS ON SHEET 25.
 - CONSTRUCT TRANSITION STRUCTURE AND HEADWALL PER DETAILS ON SHEET 24.
 - CONSTRUCT RECTANGULAR CHANNEL PER DETAILS ON SHEET 27.
 - INSTALL CABLE RAILING PER CALTRANS STD B11-47.
 - SAW CUT AND REMOVE EXISTING CHANNEL AND RCB.
 - EX. CHANNEL STATION PER EL CERRITO CHANNEL STAGE II DWG NO. 2-107
 - SAWCUT AND REMOVE INTERFERING PORTION OF EXISTING STRUCTURE AND PLUG USING CONCRETE BULKHEAD PER STD M816.
 - CONSTRUCT SUBDRAIN PER STD CH332 BETWEEN STA. 10+00 AND STA. 13+45.
 - INSTALL 14' DOUBLE DRIVE GATE AND CHAIN LINK FENCE PER STD M801.
 - TRIM EXISTING TREES AS DIRECTED BY THE ENGINEER.
 - CAUTION OVERHEAD UTILITY LINES.
 - CUT AND FILL SLOPES NOT TO EXCEED 1-1/2:1. FOR ALL GRADING WITHIN R/W.
 - CONSTRUCT 14' ACCESS ROAD WITH 3" THICK CLASS II AGGREGATE BASE.
 - REMOVE INTERFERING PORTION OF ABANDONED 10" WATER LINE. ABANDONED LINE IS PARTIALLY EMBEDDED IN EXISTING CHANNEL WALL.
 - EXISTING W10 TO BE RELOCATED PER DETAILS ON SHEET 34.
 - CONSTRUCT 3' CONCRETE CUT OFF WALL PER DETAILS SHEET 33.
 - CONSTRUCT 11'X5' RCB PER CALTRANS STD D80. FOR REINFORCEMENT AND WALL THICKNESS USE 10' COVER, 12' SPAN, AND 6' HEIGHT.
 - CONSTRUCT MODIFIED JS NO. 1 PER DETAILS ON SHEET 29. A=11' 48" 53", B=84", C=44.5' ELEV R=854.41, ELEV S=854.35
 - CONSTRUCT TS NO. 2 PER STD TS302.
 - CONSTRUCT PARAPET WALL PER DETAILS ON SHEET 32.
 - CONSTRUCT CONCRETE DROP INLET PER CB110 WITH OPENINGS ON 3 SIDES (E,W&S) V=45' AND 15'-24" RCP CLASS IV PER DETAILS ON SHT 17.



20' 0 20'

REGISTERED PROFESSIONAL ENGINEER
 GERALD KENT ALLEN
 No. 47004
 CIVIL
 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
 ROBERT J. CUTLER
 No. 44684
 CIVIL
 STATE OF CALIFORNIA

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 1-800-227-2600
 for the location of buried utility lines.
 Don't disrupt vital services.
 TWO WORKING DAYS BEFORE YOU DIG

REVISIONS	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL
 AND
 WATER CONSERVATION DISTRICT

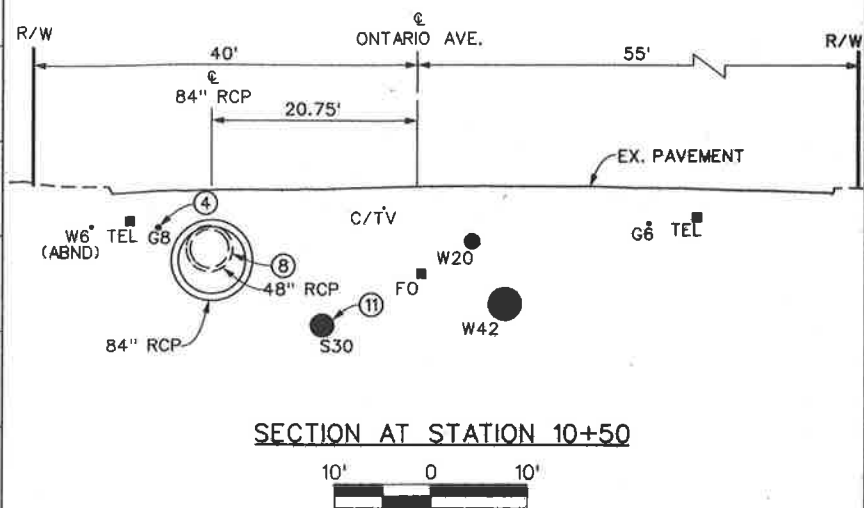
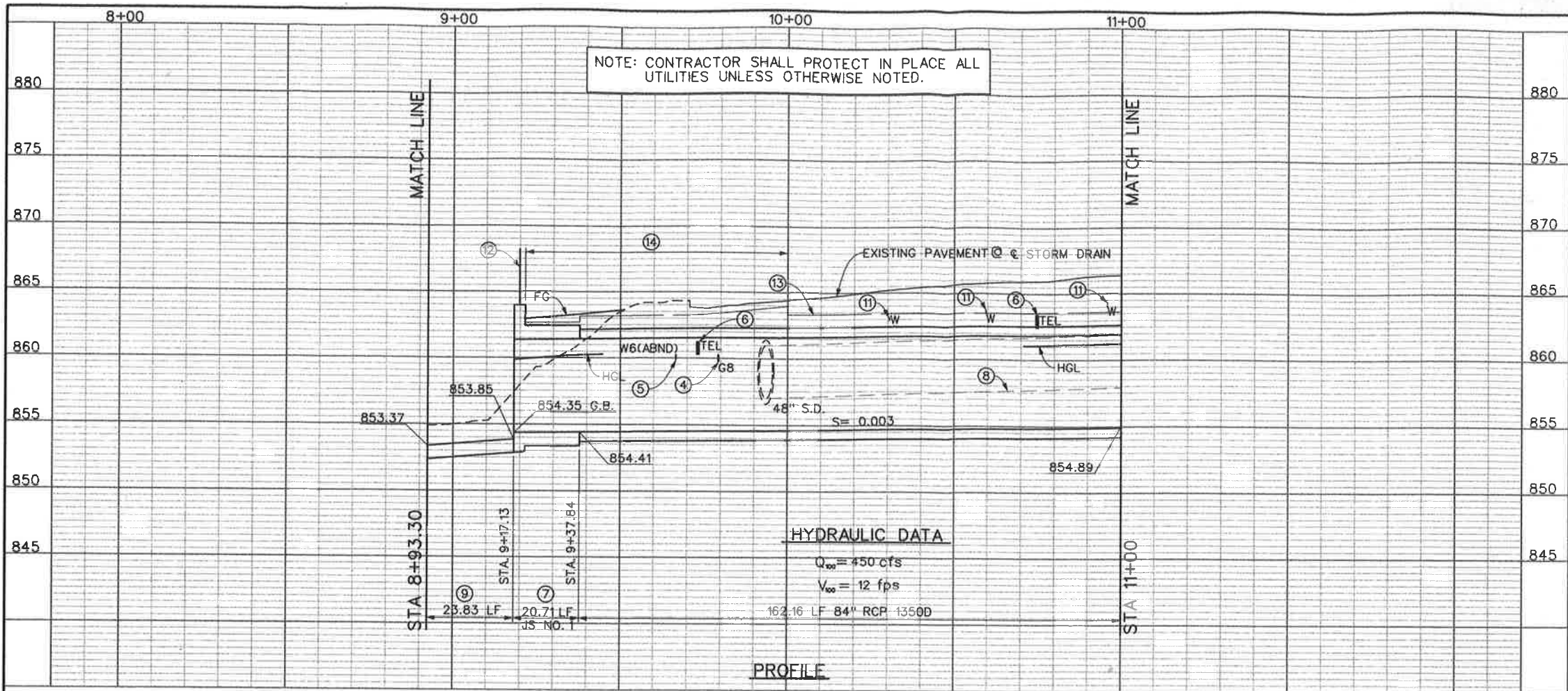
DESIGNED BY: K. AMIN
 DRAWN BY: M. HOWARD
 DATE DRAWN: FEBRUARY 2011

RECOMMENDED FOR APPROVAL BY:
 APPROVED BY:
 DATE: 2/10/11

**CORONA DRAINS EAST
 ONTARIO AVE.
 STORM DRAIN STAGE 1**

CHANNEL PLAN AND PROFILE
 STA. 10+00 TO STA. 13+63

PROJECT NO. 2-0-0351
 DRAWING NO. 2-416
 SHEET NO. 2 OF 47



SECTION AT STATION 10+50

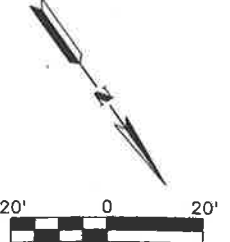
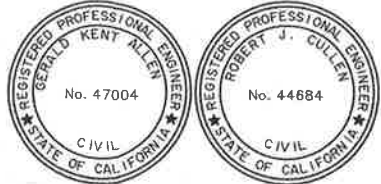
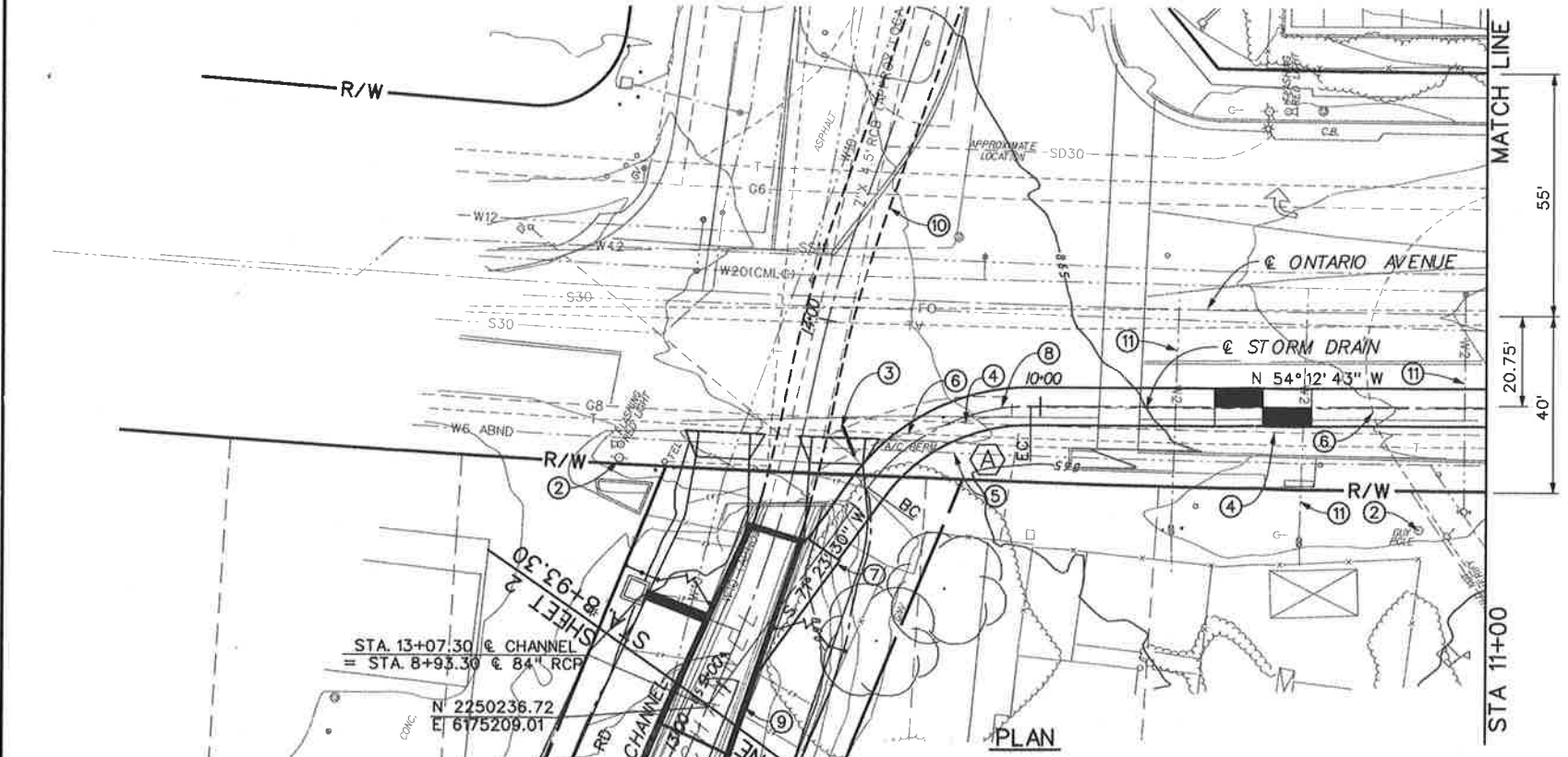
10' 0 10'

A ϕ 84" RCP CURVE DATA

$\Delta = 54^\circ 23' 46''$
 $R = 45.00'$
 $L = 42.72'$
 $T = 23.12'$
 $BC = STA 9+55.07$
 $EC = STA 9+97.79$
 $PI = N 2250209.65$
 $E 6175128.61$

NOTES

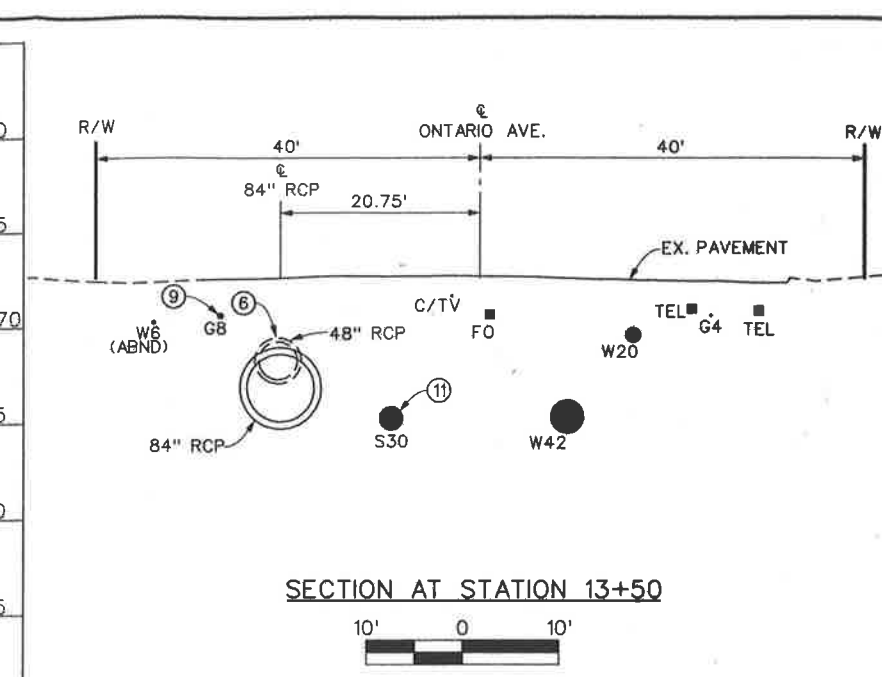
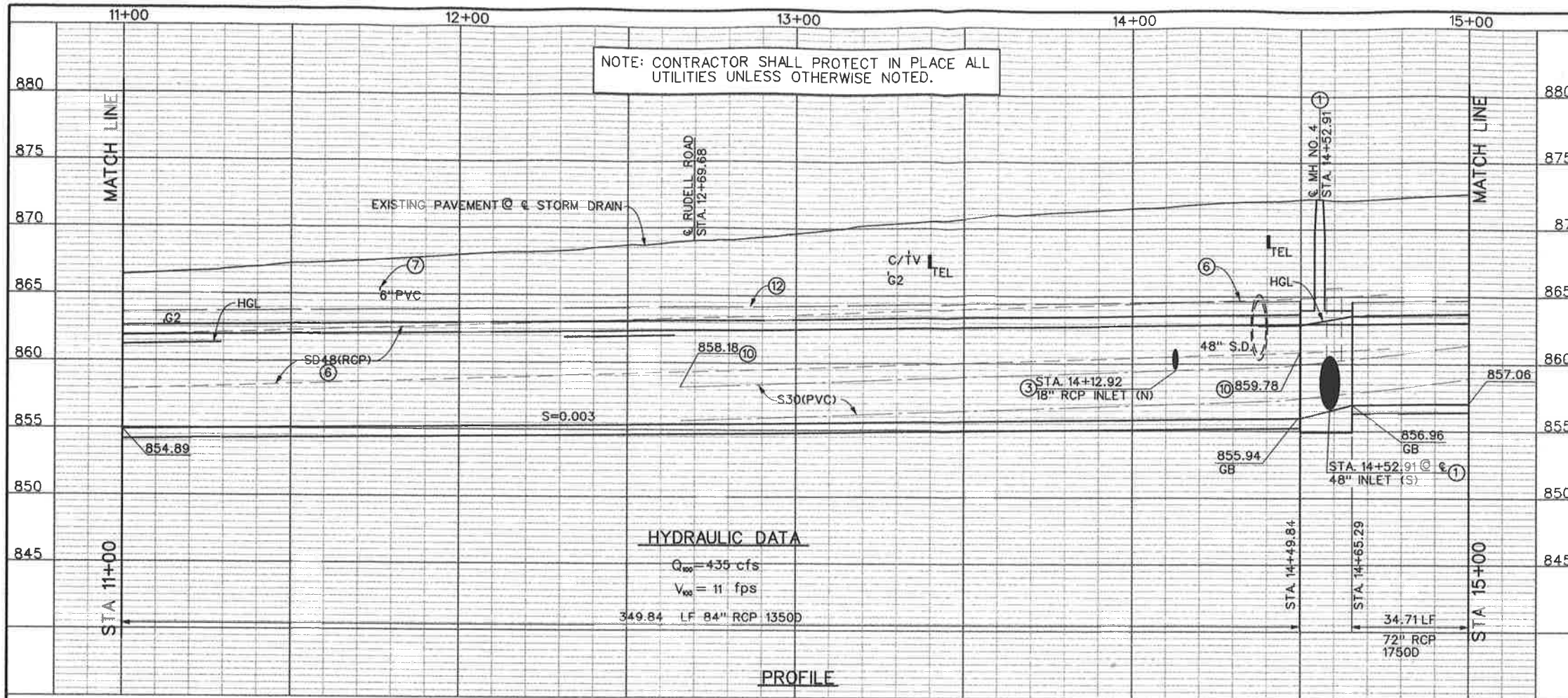
- 1 CONTRACTOR IS REQUIRED TO POTHOLE THE W42 AND S30 APPROX. EVERY 500' TO VERIFY THEIR LOCATION PRIOR TO INSTALLING STORM DRAIN AND PROTECT EXISTING LINES IN PLACE.
- 2 CAUTION OVERHEAD UTILITY LINES.
- 3 SAWCUT AND REMOVE INTERFERING PORTION OF EXISTING TRANSITION STRUCTURE AND PLUG USING CONCRETE BULKHEAD PER STD M816.
- 4 EX. 8" GAS LINE TO BE RELOCATED BY OTHERS. REMOVE INTERFERING PORTION OF THE ABANDONED 8" GAS LINE.
- 5 REMOVE INTERFERING PORTION OF ABANDONED 6" WATER LINE.
- 6 EX. TEL LINE TO BE RELOCATED BY OTHERS.
- 7 CONSTRUCT MODIFIED JS NO. 1 PER DETAILS ON SHEET 29. A=11' 48" 53", B=84", C=44.5', ELEV R= 854.41, ELEV S=854.35
- 8 REMOVE EX. 48" RCP STORM DRAIN AND RCB STRUCTURE (APPROX. FROM STA 9+60 TO 14+80)
- 9 CONSTRUCT TRANSITION STRUCTURE PER DETAILS ON SHEET 24.
- 10 EXISTING RCB TO BE RECONSTRUCTED BY OTHERS.
- 11 PROTECT EX WATER AND SEWER LINES IN PLACE.
- 12 INSTALL CABLE RAILING PER CALTRANS STD B11-47.
- 13 CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASMENT PER DETAIL ON SHEET 35.
- 14 CONTROLLED LOW STRENGTH MATERIAL (CLSM) BACKFILL, TO BOTTOM OF AC, OR ACCESS ROAD FROM STA. 9+37.84 TO STA. 10+00.



REVISIONS	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		
DESIGNED BY: K. AMIN	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i>	APPROVED BY: <i>[Signature]</i>
DRAWN BY: M. HOWARD	DATE: 2/10/11	DATE: 10-Feb-2011

CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 PLAN AND PROFILE STA. 8+93.30 TO STA. 11+00	PROJECT NO. 2-0-0351
	DRAWING NO. 2-416
	SHEET NO. 3 OF 47

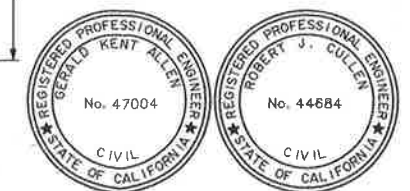
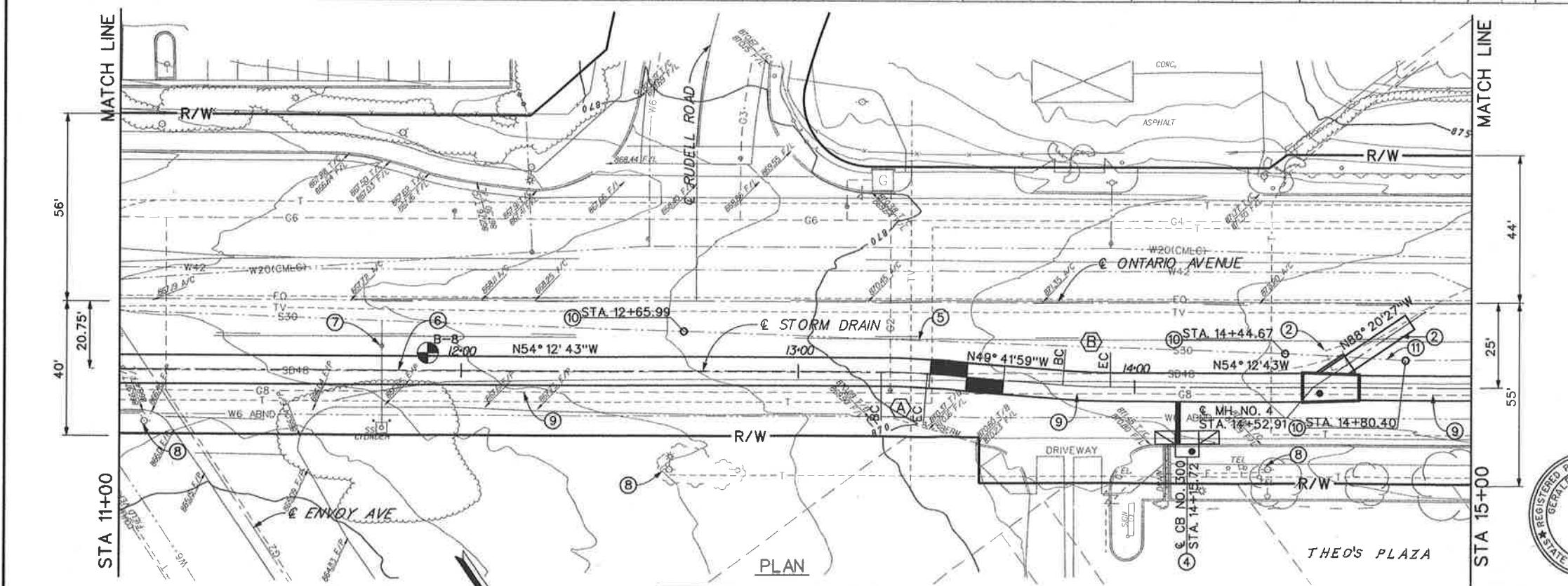


HYDRAULIC DATA

$Q_{100} = 435 \text{ cfs}$
 $V_{100} = 11 \text{ fps}$
 349.84 LF 84" RCP 1350D

A 84" RCP CURVE DATA		B 84" RCP CURVE DATA	
$\Delta = 4^\circ 30' 45''$	$R = 180.00'$	$\Delta = 4^\circ 30' 45''$	$R = 180.00'$
$L = 14.18'$	$T = 7.09'$	$L = 14.18'$	$T = 7.09'$
BC = STA 13+25.94	EC = STA 13+40.12	BC = STA 13+79.95	EC = STA 13+94.13
PI = N 2250419.21	E 6174837.91	PI = N 2250454.15	E 6174796.71

- NOTES**
- REMOVE INTERFERING PORTION OF EX. 48" RCP AND CONSTRUCT MH NO. 4 PER MH254. A=34° 07' 44", D₁=72", D₂= 84", B=48", C=13.00', ELEV S=859.24, ELEV R= 860.97 L=15.45'
 - SAW CUT AND REMOVE INTERFERING PORTION OF EX 48" RCP AND CONSTRUCT LATERAL PER DETAILS ON SHEET 16.
 - CONSTRUCT JUNCTION STRUCTURE NO. 4 PER STD. JS229.
 - CONSTRUCT CURB INLET CATCH BASIN PER COUNTY OF RIVERSIDE STD. NO. 300. W=7', H=4.5', 18 LF-18" RCP CL IV. SEE PROFILE ON SHEET 16.
 - CONTRACTOR IS REQUIRED TO POTHOLE THE W42 AND S30 APPROX. EVERY 500' TO VERIFY THEIR LOCATION PRIOR TO INSTALLING STORM DRAIN AND PROTECT EXISTING LINES IN PLACE.
 - REMOVE EXISTING 48" RCP STORM DRAIN AND MANHOLE (APPROX. FROM STA 9+60 TO 14+80).
 - PROTECT EX. ISOLATION VALVE IN PLACE.
 - CAUTION UTILITY LINES OVER HEAD.
 - EX. 8" GAS LINE TO BE RELOCATED BY OTHERS. REMOVE ABANDONED INTERFERING PORTION OF THE 8" GAS LINE.
 - LOCATION AND ELEVATION AT THIS POINT DETERMINED FROM POTHOLE AND SURVEY RESULTS.
 - PROTECT SAWPA S30" (PVC) LINE IN PLACE.
 - CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASMENT PER DETAIL ON SHEET 35.



Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2800 for the location of buried utility lines. Don't disrupt vital services. TWO WORKING DAYS BEFORE YOU DIG

REVISIONS	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

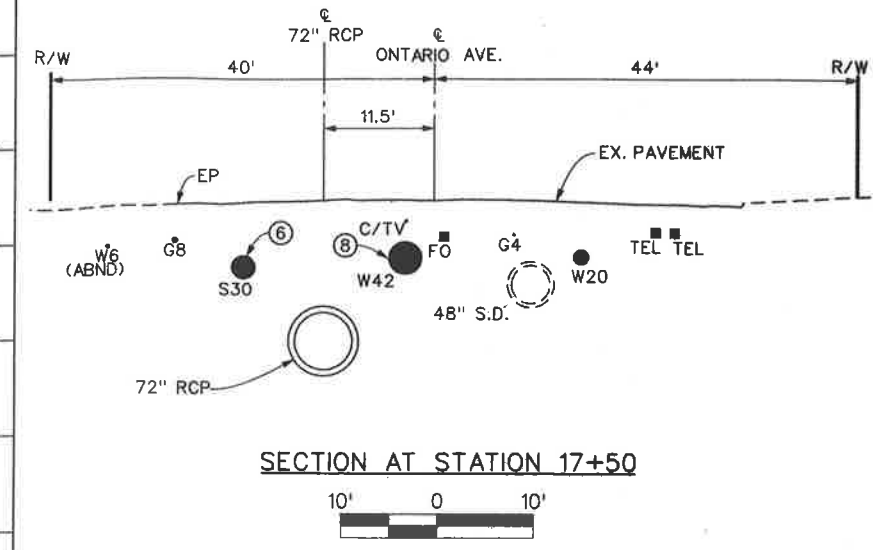
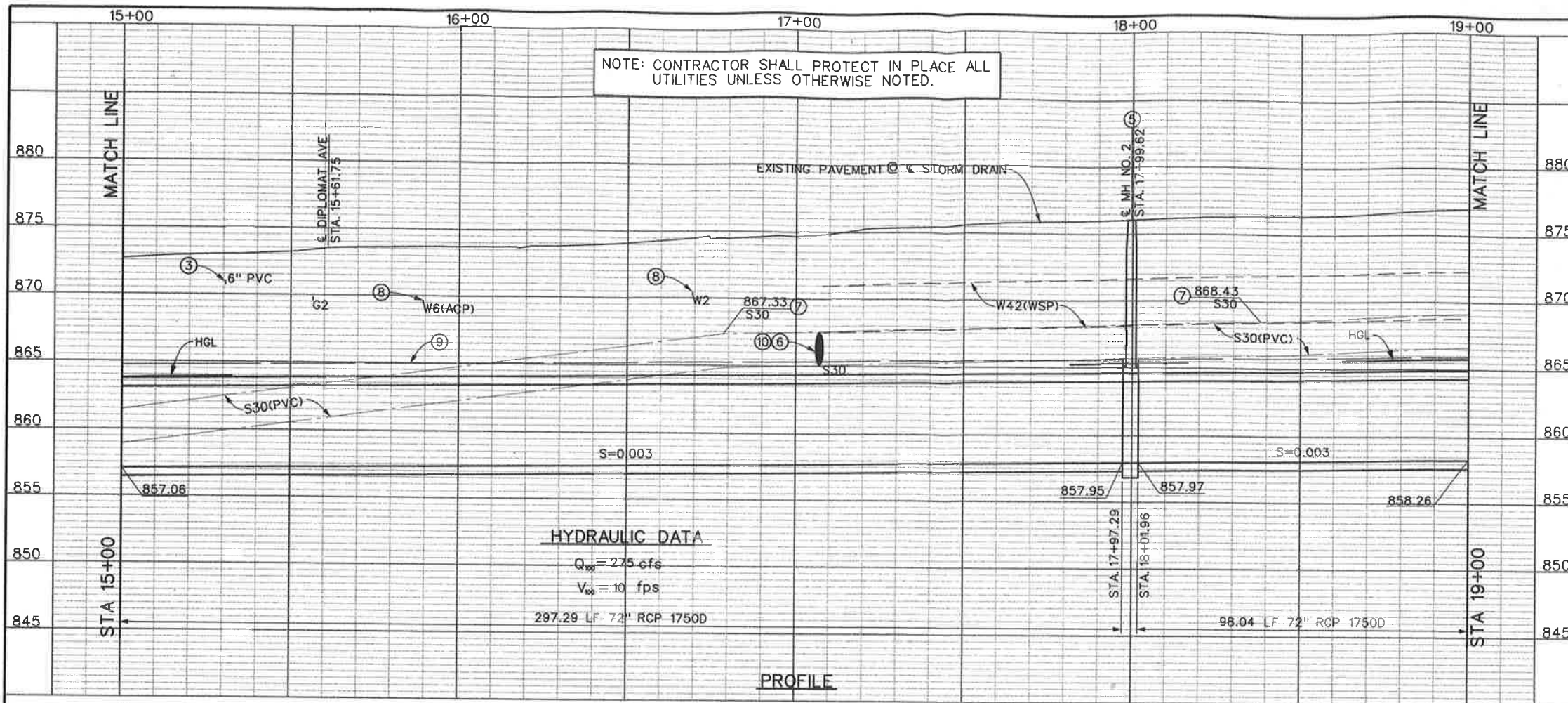
DESIGNED BY: K. AMIN
 DRAWN BY: M. HOWARD
 DATE DRAWN: FEBRUARY 2011

RECOMMENDED FOR APPROVAL BY: *[Signature]*
 DATE: 2/10/11

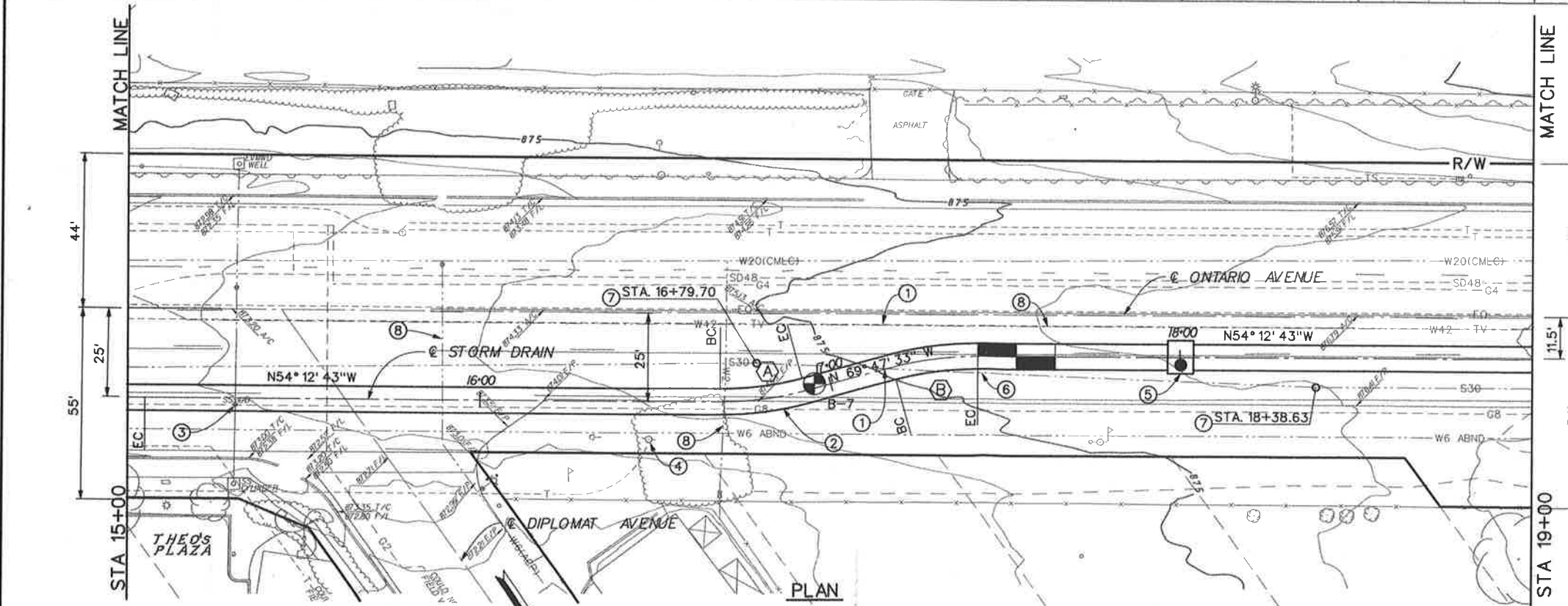
APPROVED BY: *[Signature]*
 DATE: 10-Feb-2011

CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 PLAN AND PROFILE
 STA. 11+00 TO STA. 15+00

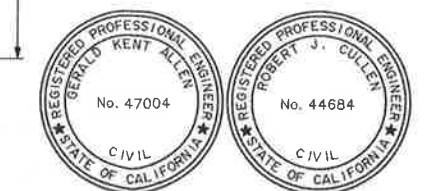
PROJECT NO. 2-0-0351
 DRAWING NO. 2-416
 SHEET NO. 4 OF 47



A 72" RCP CURVE DATA		B 72" RCP CURVE DATA	
Δ = 15° 34' 50"	R = 90.00'	Δ = 15° 34' 50"	R = 90.00'
L = 24.47'	T = 12.31'	L = 24.47'	T = 12.31'
BC = STA 16+68.06	EC = STA 16+92.53	BC = STA 17+18.17	EC = STA 17+42.64
PI = N 2250625.69	E 6174558.76	PI = N 2250643.06	E 6174511.59



- NOTES**
- CONTRACTOR IS REQUIRED TO POTHOLE THE W42 AND S30 APPROX. EVERY 500' TO VERIFY THEIR LOCATION PRIOR TO INSTALLING STORM DRAIN AND PROTECT EXISTING LINES IN PLACE.
 - EXISTING 8" GAS LINE TO BE RELOCATED BY OTHERS. REMOVE INTERFERING PORTION OF THE 8" GAS LINE (APPROX. FROM STA. 16+70 TO STA. 17+50)
 - ISOLATION VALVE TO BE RELOCATED BY OTHERS.
 - PROTECT EXISTING UTILITY POLE #19430 DURING CONSTRUCTION.
 - CONSTRUCT MH NO. 2 PER STD. MH252.
 - PROTECT EX. S30(PVC) IN PLACE.
 - LOCATION AND ELEVATION AT THIS POINT DETERMINED FROM POT HOLE AND SURVEY RESULTS.
 - PROTECT EX WATER AND SEWER LINES IN PLACE.
 - CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASEMENT PER DETAIL ON SHEET 35.
 - BACKFILL S30 LINE PER DETAILS ON SHEET 35.



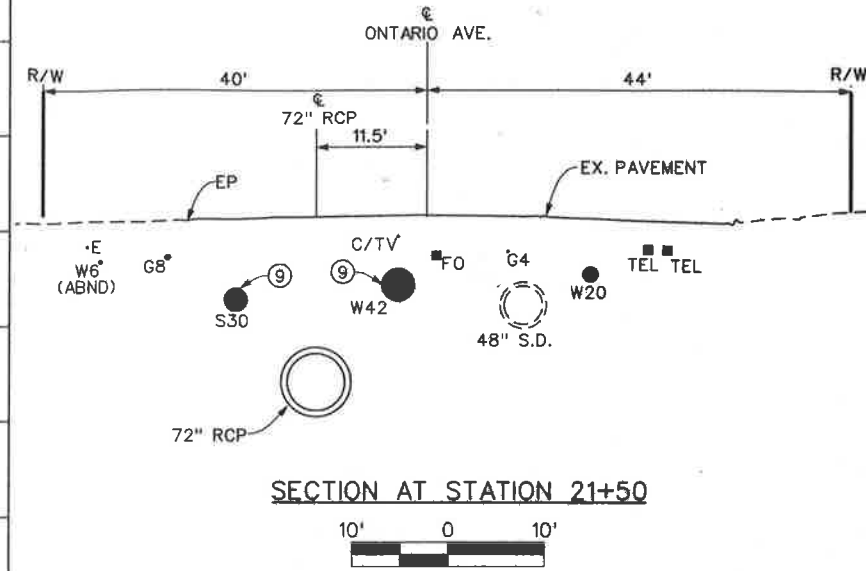
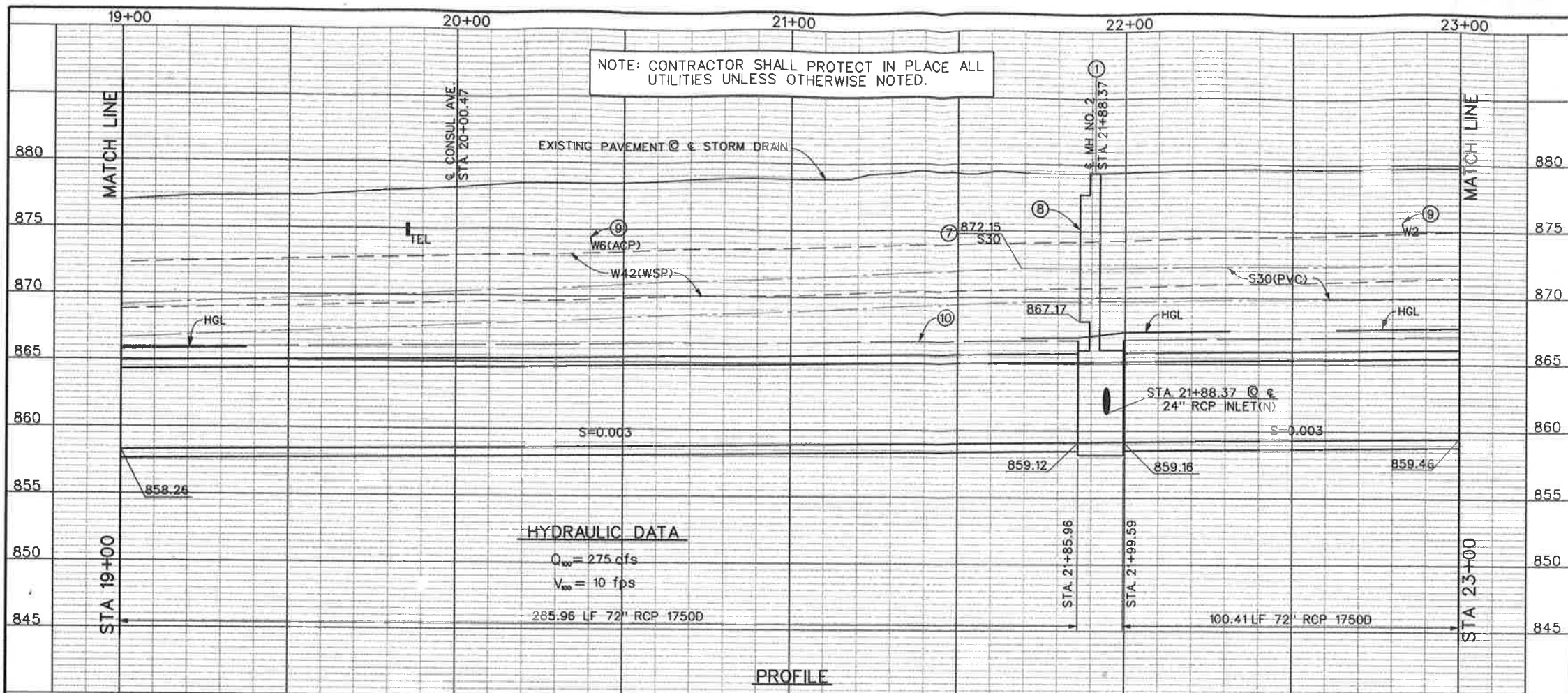
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Don't disrupt vital services.
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
DESIGNED BY: K. AMIN
DRAWN BY: M. HOWARD
DATE DRAWN: FEBRUARY 2011
RECOMMENDED FOR APPROVAL BY: *[Signature]*
DATE: 2/10/11
APPROVED BY: *[Signature]*
DATE: 10-20-11

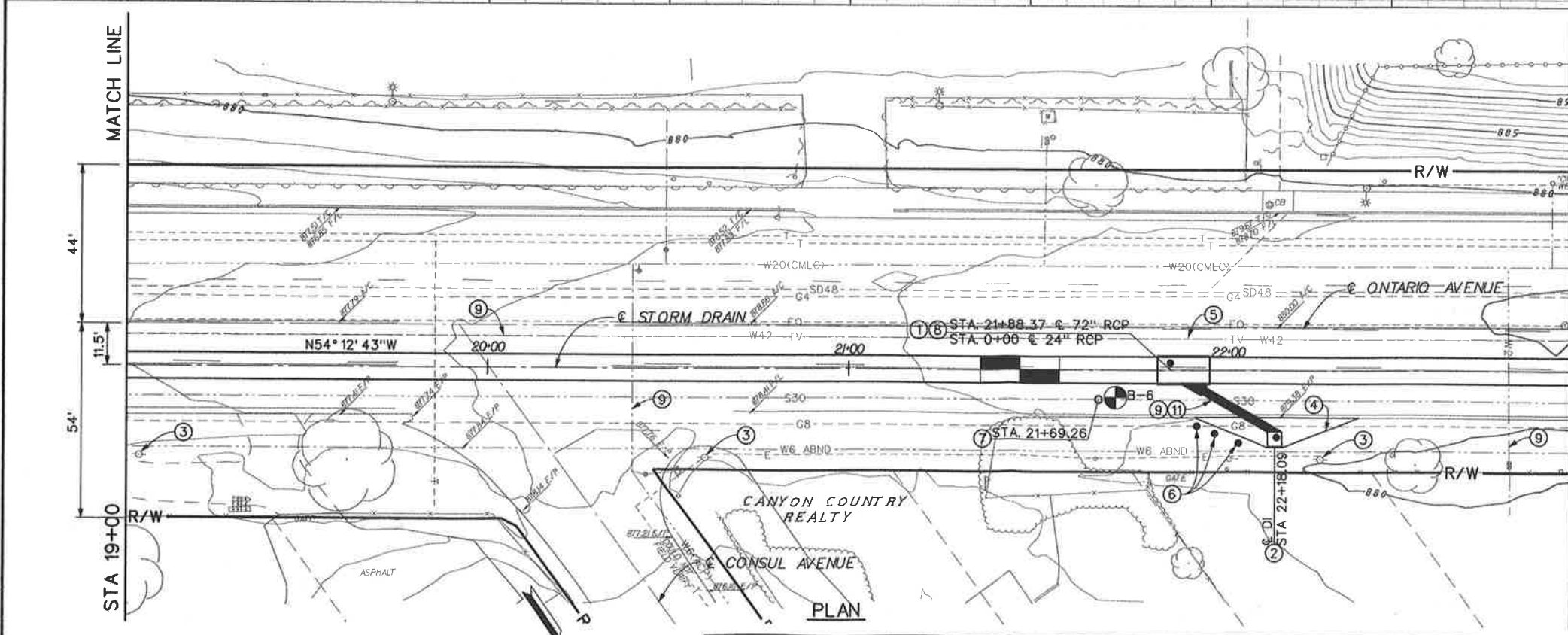
CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1
PLAN AND PROFILE
STA. 15+00 TO STA. 19+00

PROJECT NO. 2-0-0351
DRAWING NO. 2-416
SHEET NO. 5 OF 47



NOTES

- ① CONSTRUCT MH NO. 2 PER STD. MH254. A= 30° 00' 00", B=24", C=11.5', D₁ = D₂ = 72", L=13.63', ELEV R =863.79, ELEV S =862.15
- ② CONSTRUCT CONCRETE DROP INLET WITH OPENINGS ON 3 SIDES PER STD CB110. V=8', 22.8 LF-24" RCP CL IV. SEE PROFILE ON SHEET 16.
- ③ CAUTION OVERHEAD UTILITY LINES.
- ④ GRADE TO DRAIN AND CONSTRUCT 4" THICK AC APRON AND AC DIKE PER DETAILS ON SHEET 21.
- ⑤ CONTRACTOR IS REQUIRED TO POTHOLE THE W42 AND S30 APPROX. EVERY 500' TO VERIFY THEIR LOCATION PRIOR TO INSTALLING STORM DRAIN AND PROTECT EXISTING LINES IN PLACE.
- ⑥ INSTALL TYPE K-2 OBJECT MARKERS PER CALTRANS STD A73A. SEE DETAILS PER SHEET 21.
- ⑦ LOCATION AND ELEVATION AT THIS POINT DETERMINED FROM POT-HOLE AND SURVEY RESULTS.
- ⑧ CONSTRUCT MANHOLE SHAFT SAFETY LEDGE PER STD MH261.
- ⑨ PROTECT EX WATER AND SEWER LINES IN PLACE.
- ⑩ CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASEMENT PER DETAIL ON SHEET 35.
- ⑪ BACKFILL S30 LINE PER DETAILS ON SHEET 35.



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RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

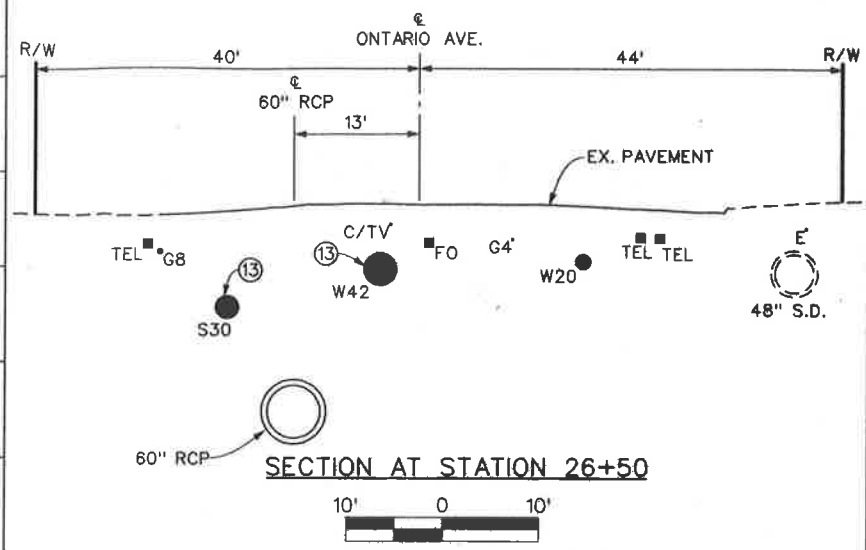
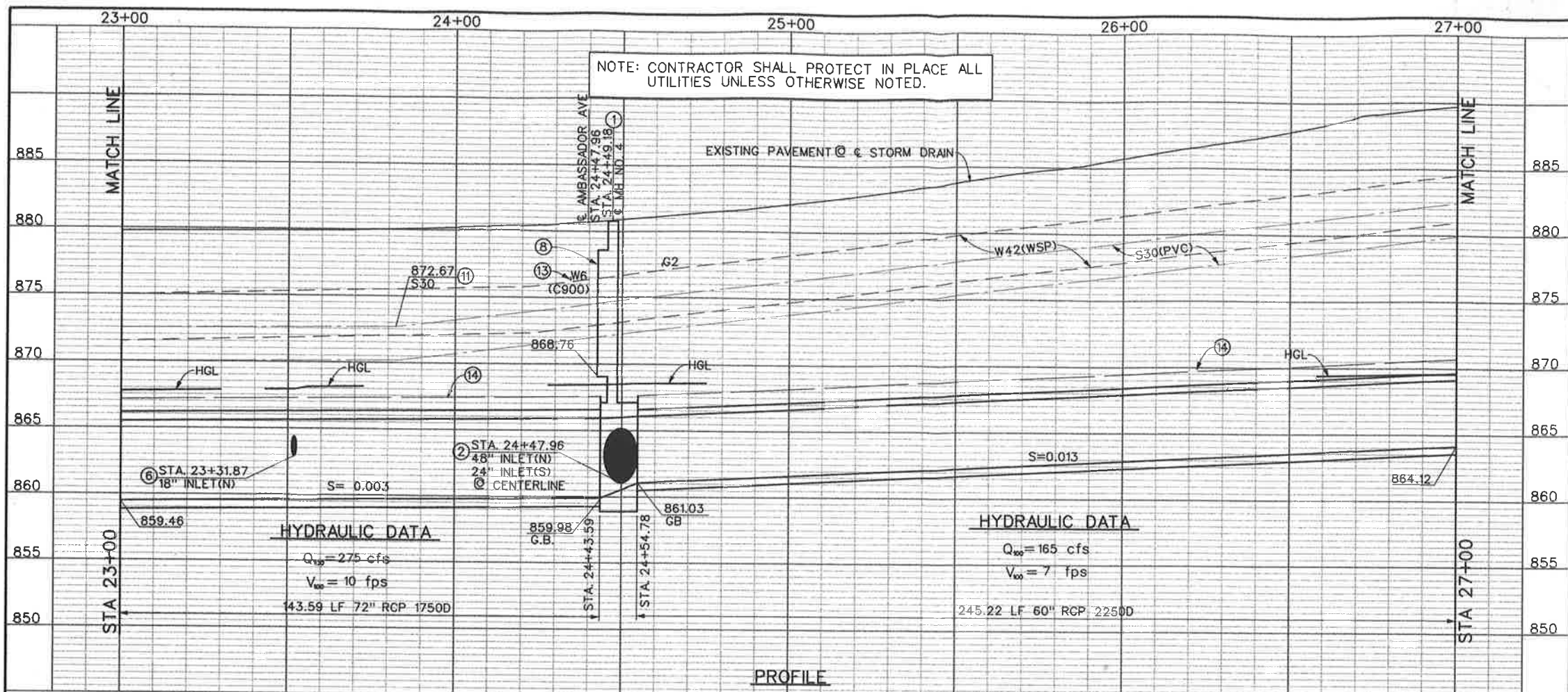
DESIGNED BY: K. AMIN
 DRAWN BY: M. HOWARD
 DATE DRAWN: FEBRUARY 2011

RECOMMENDED FOR APPROVAL BY: *[Signature]*
 DATE: 2/10/11

APPROVED BY: *[Signature]*
 DATE: 10-Feb-2011

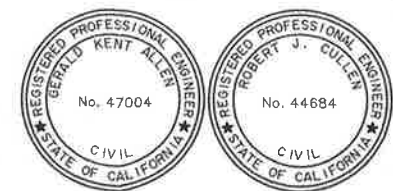
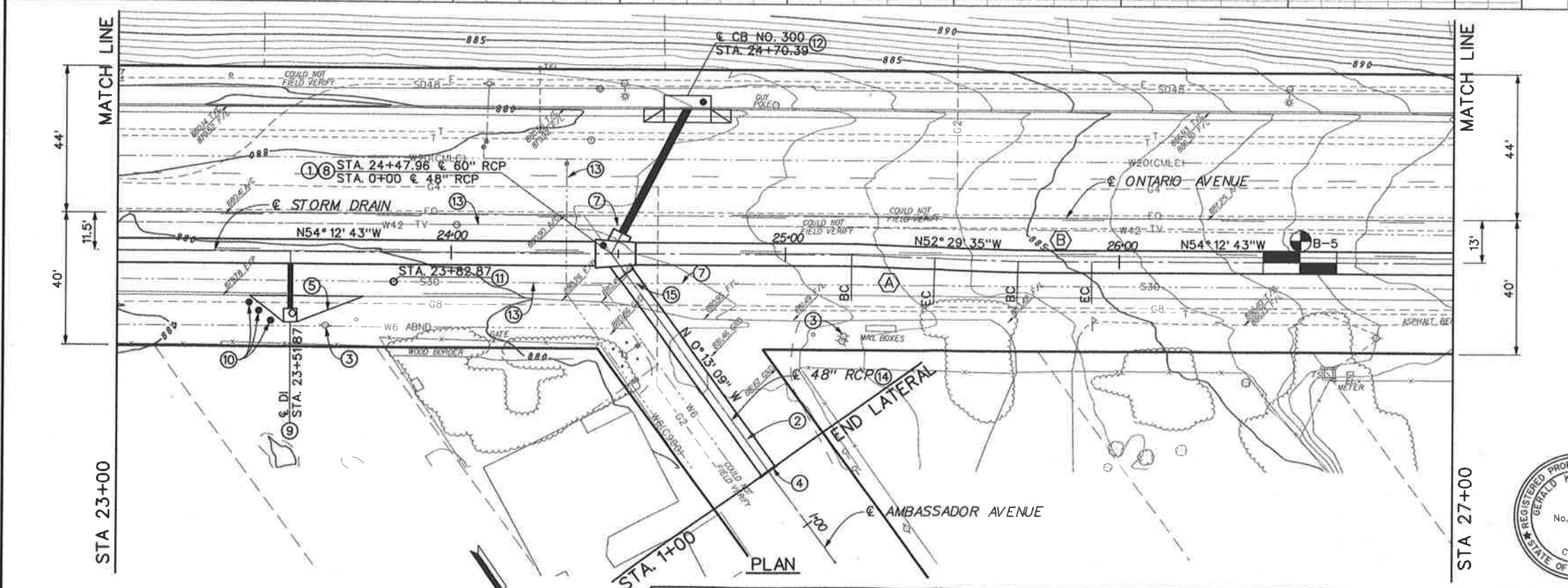
CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1
 PLAN AND PROFILE
 STA. 19+00 TO STA. 23+00

PROJECT NO. 2-0-0351
 DRAWING NO. 2-416
 SHEET NO. 6 OF 47

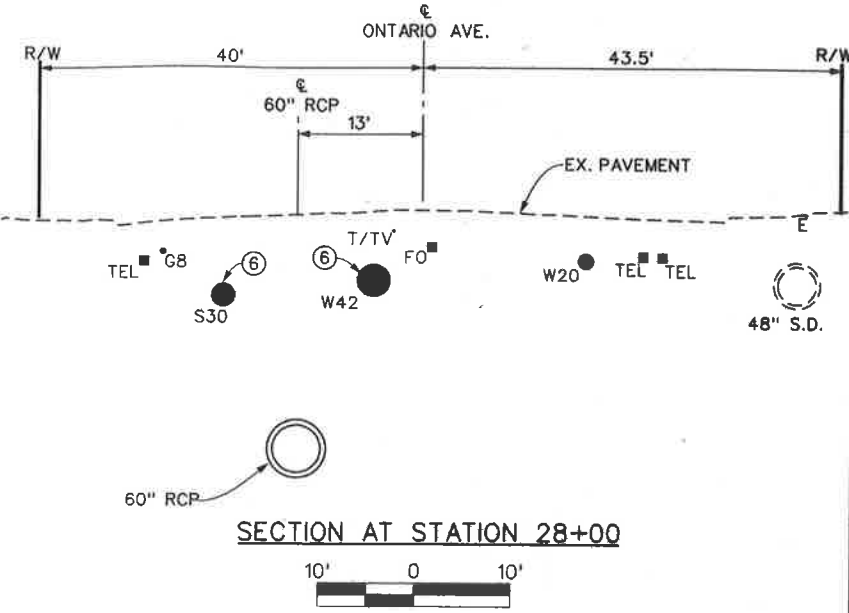
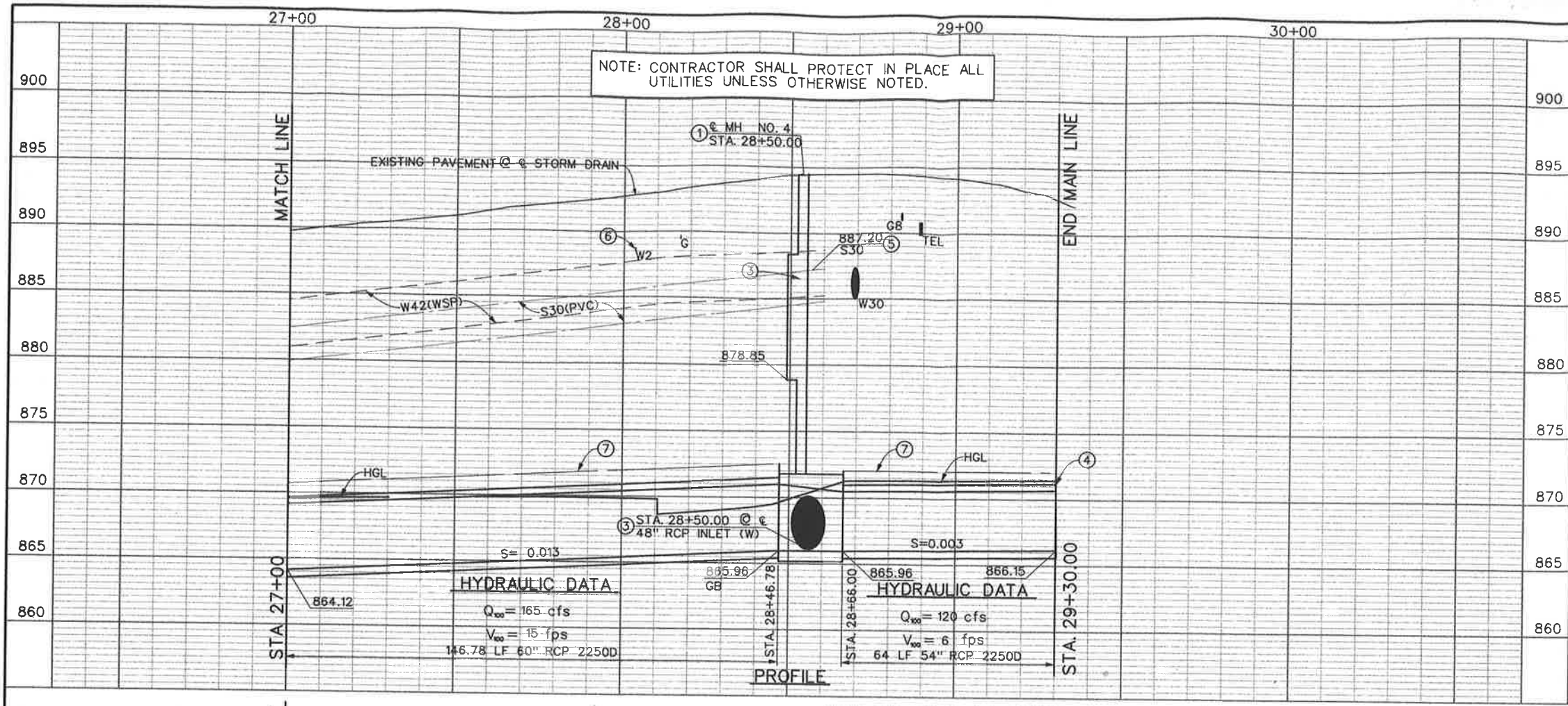


A) 72" RCP CURVE DATA		B) 72" RCP CURVE DATA	
Δ	1° 43' 09"	Δ	1° 43' 09"
R	400.00'	R	400.00'
L	12.00'	L	12.00'
T	6.00'	T	6.00'
BC	STA 25+13.77	BC	STA 25+63.77
EC	STA 25+18.77	EC	STA 25+75.77
PI	N 2251104.71	PI	N 2251135.15
	E 6173871.20		E 6173831.54

- NOTES**
- CONSTRUCT MH NO. 4 PER STD MH254. A₁ = 53° 59' 35", A₂ = 62° 49' 06", B₁ = 48", B₂ = 24", C₁ = 7.5", C₂ = 6", D₁ = 60", D₂ = 72" ELEV S₁ = 861.34, ELEV S₂ = 861.91, ELEV R₁ = 861.36 ELEV R₂ = 863.57
 - SEE 48" LATERAL PROFILE ON SHEET 17.
 - CAUTION UTILITY LINES OVERHEAD.
 - CONSTRUCT CONCRETE BULKHEAD PER STD M816.
 - GRADE TO DRAIN AND CONSTRUCT 4" THICK AC APRON AND AC DIKE PER DETAILS ON SHEET 21.
 - CONSTRUCT JUNCTION STRUCTURE 4 PER STD JS229.
 - CONTRACTOR IS REQUIRED TO POTHOLE THE W42 AND S30 APPROX. EVERY 500' TO VERIFY THEIR LOCATION PRIOR TO INSTALLING STORM DRAIN AND PROTECT EXISTING LINES IN PLACE.
 - CONSTRUCT MANHOLE SHAFT SAFETY LEDGE PER STD MH261.
 - CONSTRUCT CONCRETE DROP INLET WITH OPENINGS ON 3 SIDES PER STD CB110. V=9", 15.3 LF -18" RCP CL IV. SEE PROFILE ON SHEET 16.
 - INSTALL TYPE K-2 OBJECT MARKERS PER CALTRANS STD A73A. SEE DETAILS PER SHEET 21.
 - LOCATION AND ELEVATION AT THIS POINT DETERMINED FROM POTHOLE AND SURVEY RESULTS.
 - CONSTRUCT CURB INLET CATCH BASIN PER COUNTY OF RIVERSIDE STD NO. 300 W=14", H=8", 43 LF-24" RCP CL IV. SEE PROFILE ON SHEET 17.
 - PROTECT EX WATER AND SEWER LINES IN PLACE.
 - CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASUREMENT PER DETAIL ON SHEET 35.
 - BACKFILL S30 LINE PER DETAILS ON SHEET 35.



<p>Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2800</p> <p>for the location of buried utility lines. Don't disrupt vital services.</p> <p>TWO WORKING DAYS BEFORE YOU DIG</p>	<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>REF.</th> <th>DESCRIPTION</th> <th>APPR.</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REF.	DESCRIPTION	APPR.	DATE					<p>RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT</p>		<p>PROJECT NO. 2-0-0351</p>
		REF.	DESCRIPTION	APPR.	DATE							
<p>DESIGNED BY: K. AMIN</p> <p>DRAWN BY: M. HOWARD</p> <p>DATE DRAWN: FEBRUARY 2011</p>	<p>RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i></p> <p>DATE: 2/10/11</p>	<p>APPROVED BY: <i>[Signature]</i></p> <p>DATE: 10-Feb-2011</p>	<p>CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1</p> <p>PLAN AND PROFILE</p> <p>STA. 23+00 TO STA. 27+00</p>		<p>DRAWING NO. 2-416</p> <p>SHEET NO. 7 OF 47</p>							

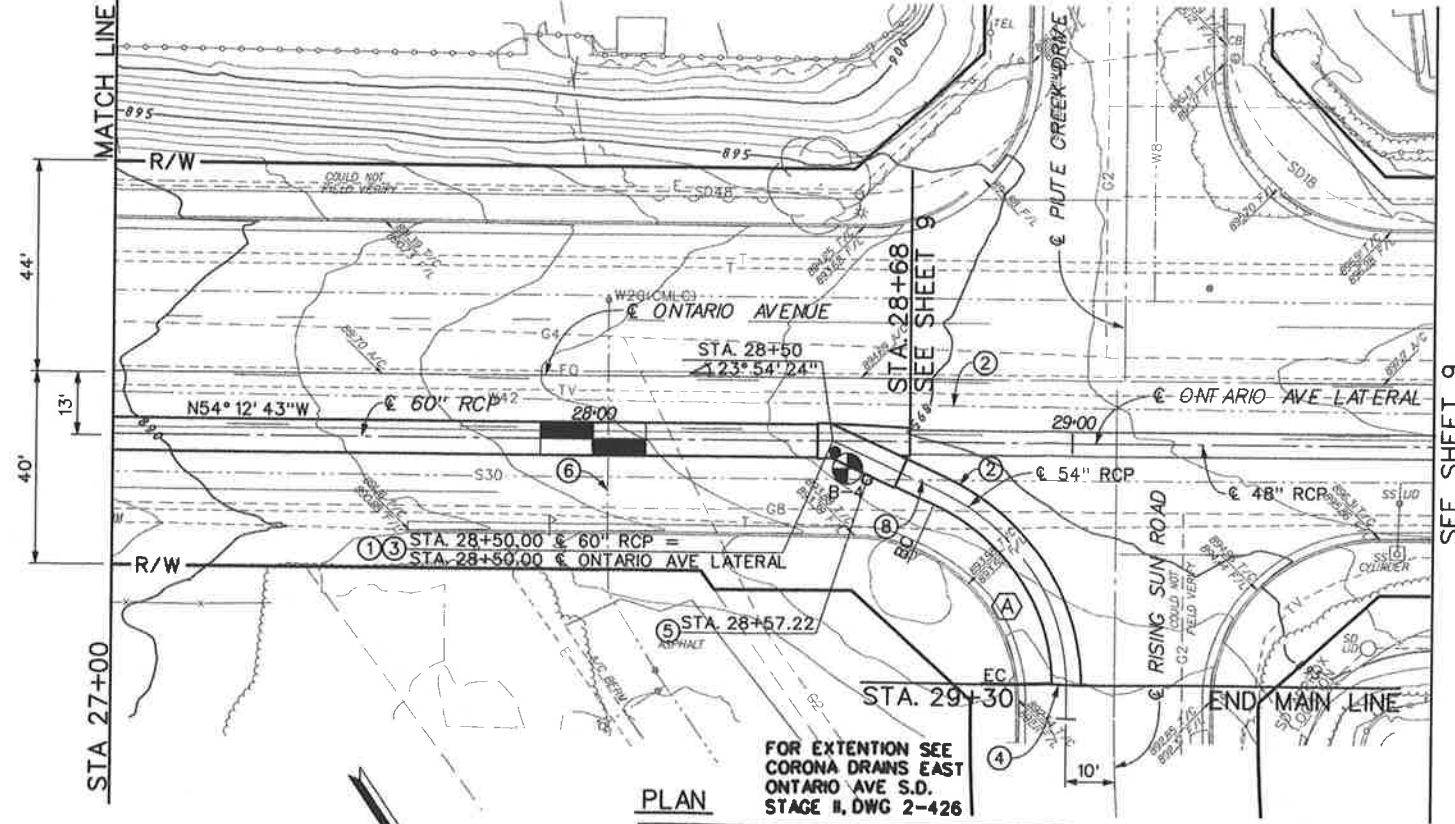


SECTION AT STATION 28+00

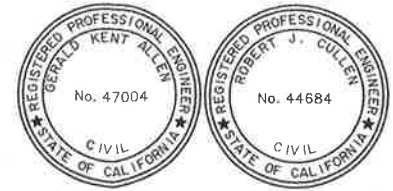
60" RCP

60" RCP CURVE DATA

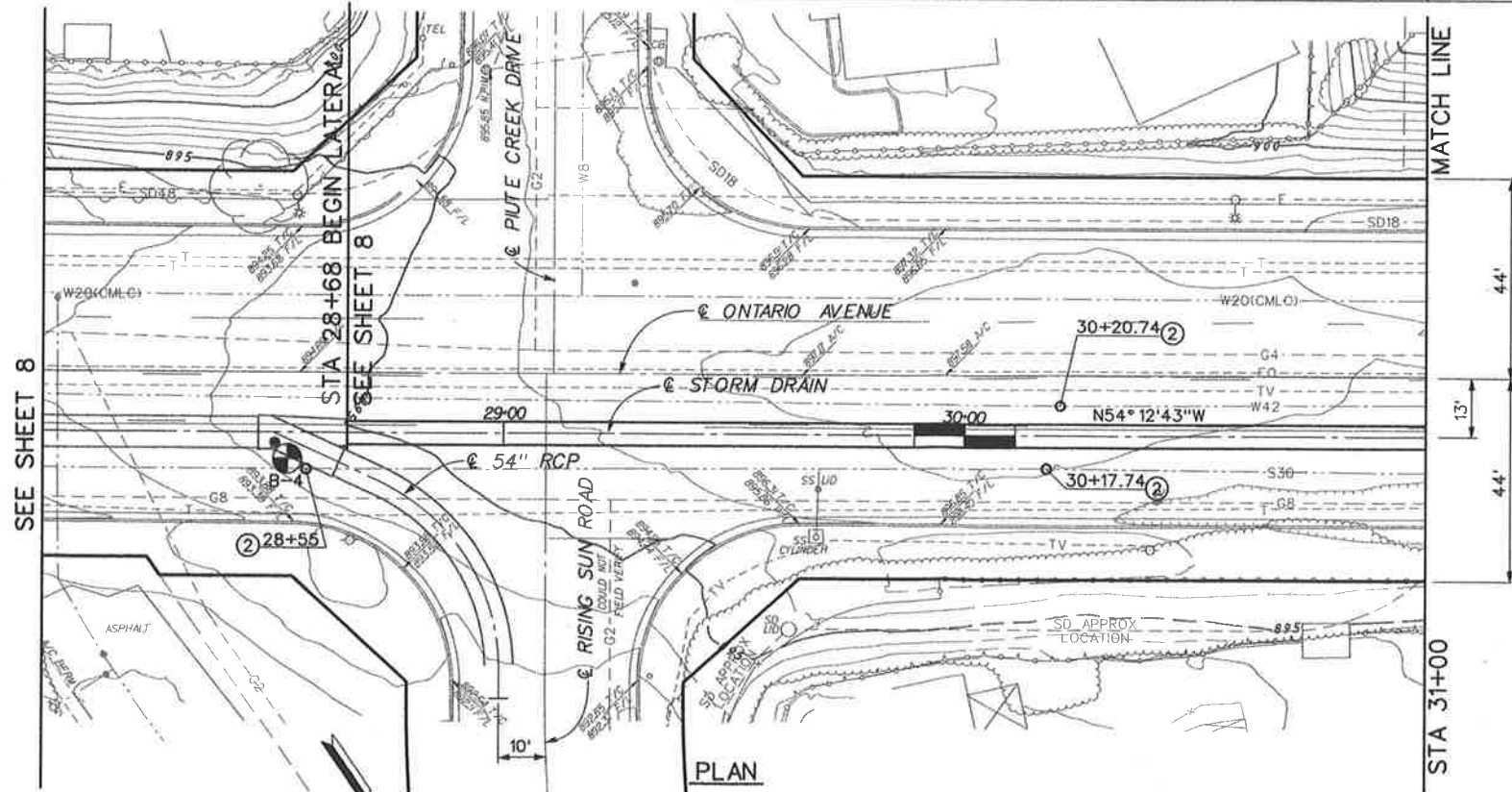
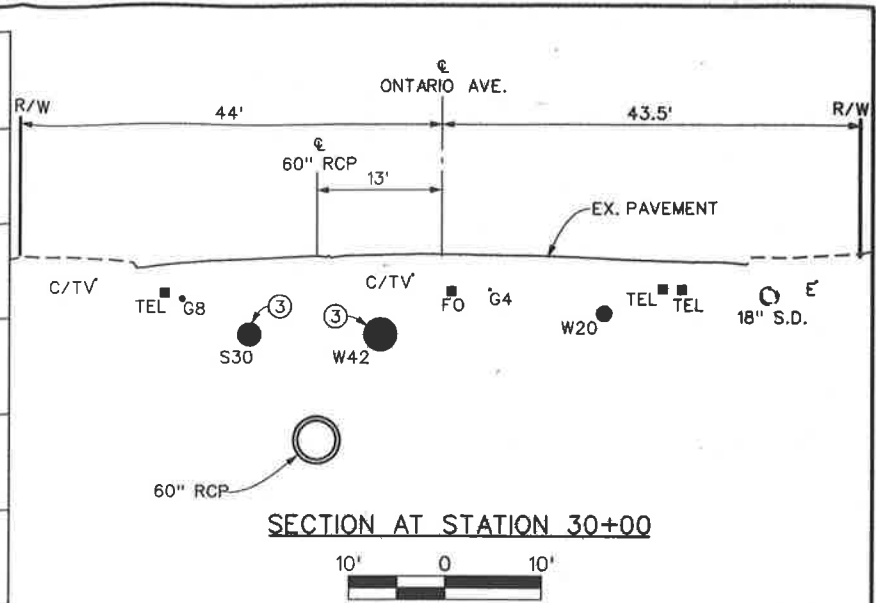
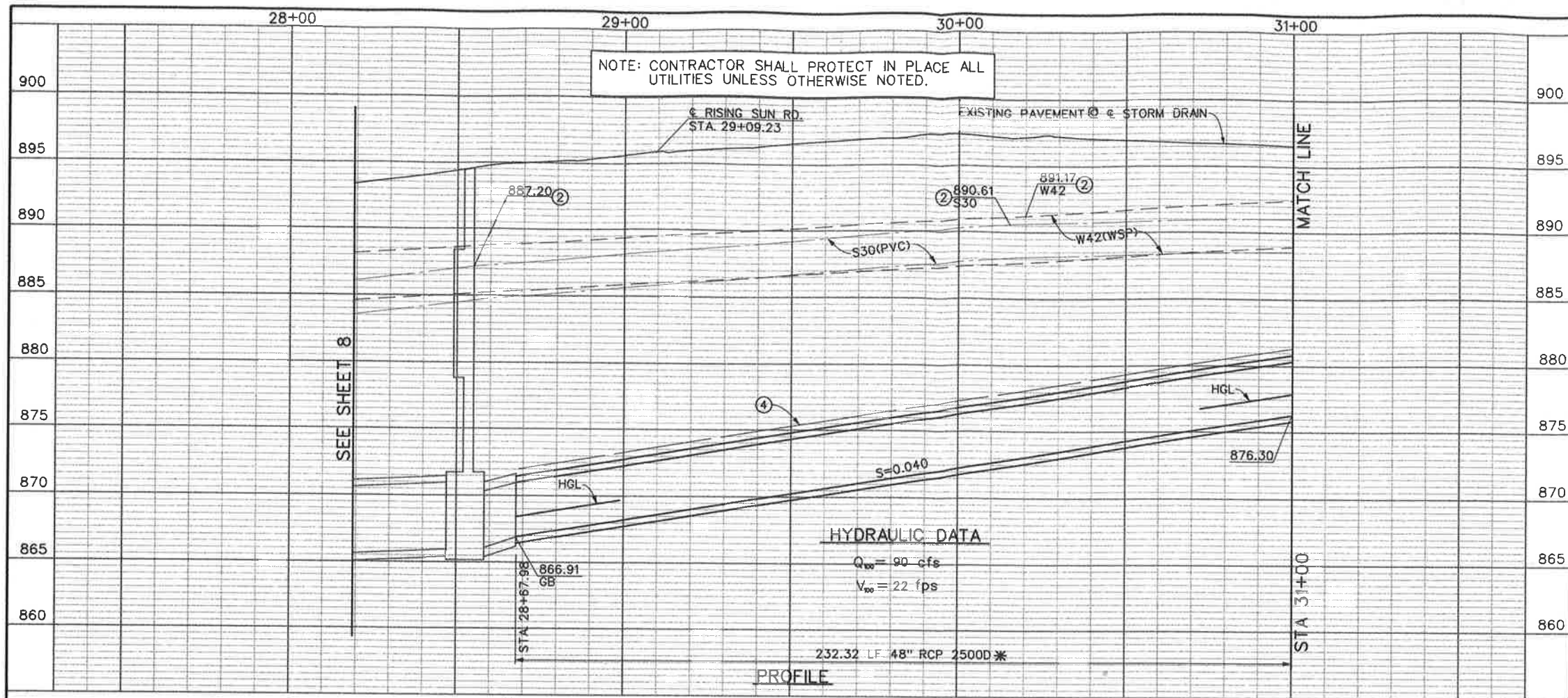
Δ	= 66° 05' 36"
R	= 45.00'
L	= 51.91'
T	= 29.28'
BC	= STA 28+74.56
EC	= STA 29+26.47
PI	= N 2251345.51 E 6173577.06



- NOTES**
- CONSTRUCT MH NO. 4 PER STD MH254. A=23° 54' 24", D₁=54", D₂=60", B=48", C=18.05' ELEV S=866.10 ELEV R=866.91
 - CONTRACTOR IS REQUIRED TO POTHOLE THE W42 AND S30 APPROX. EVERY 500' TO VERIFY THEIR LOCATION PRIOR TO INSTALLING STORM DRAIN AND PROTECT EXISTING LINES IN PLACE.
 - CONSTRUCT MANHOLE SHAFT SAFETY LEDGE PER STD MH261.
 - SEE CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 2, DWG #2-426 FOR CONTINUATION OF STORM DRAIN.
 - LOCATION AND ELEVATION AT THIS POINT DETERMINED FROM POTHOLE AND SURVEY RESULTS.
 - PROTECT EX WATER AND SEWER LINES IN PLACE.
 - CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASUREMENT PER DETAIL ON SHEET 35.
 - BACKFILL S30 LINE PER DETAILS ON SHEET 35.



<p>Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2800 for the location of buried utility lines. Don't disrupt vital services. TWO WORKING DAYS BEFORE YOU DIG</p>	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		<p>CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 PLAN AND PROFILE STA. 27+00 TO STA. 29+30</p>	PROJECT NO. 2-0-0351
	<p>DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011</p>	<p>RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/10/11</p>	<p>APPROVED BY: <i>[Signature]</i> DATE: 10-Feb-2011</p>		<p>DRAWING NO. 2-416</p>



*THE CONCRETE PIPE THICKNESS SHALL BE INCREASED TO PROVIDE A MINIMUM OF 1 1/2" COVER OVER THE REINFORCING STEEL. THE CONCRETE DESIGN STRENGTH SHALL BE A MINIMUM OF 5000 PSI.

NOTES

- 1 CONTRACTOR IS REQUIRED TO POTHOLE THE W42 AND S30 APPROX. EVERY 500' TO VERIFY THEIR LOCATION PRIOR TO INSTALLING STORM DRAIN AND PROTECT EXISTING LINES IN PLACE.
- 2 LOCATION AND ELEVATION AT THIS POINT DETERMINED FROM POTHOLE AND SURVEY RESULTS.
- 3 PROTECT EX WATER AND SEWER LINES IN PLACE.
- 4 CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASEMENT PER DETAIL ON SHEET 35.



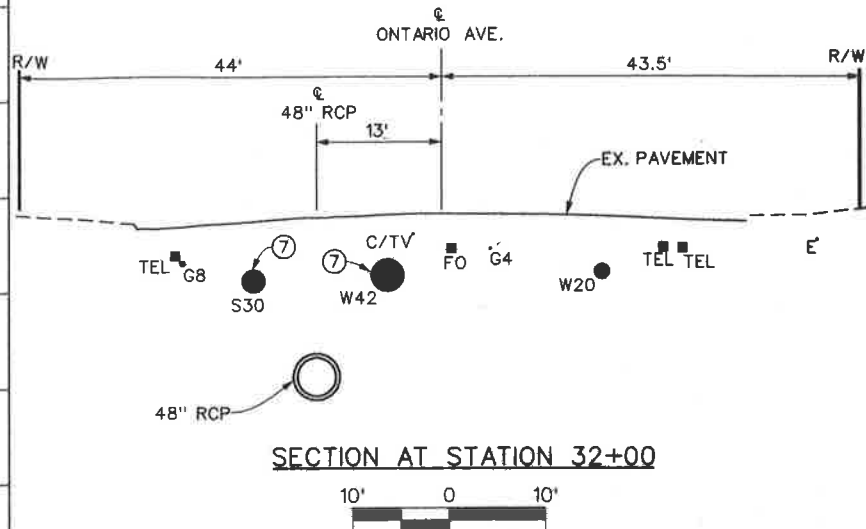
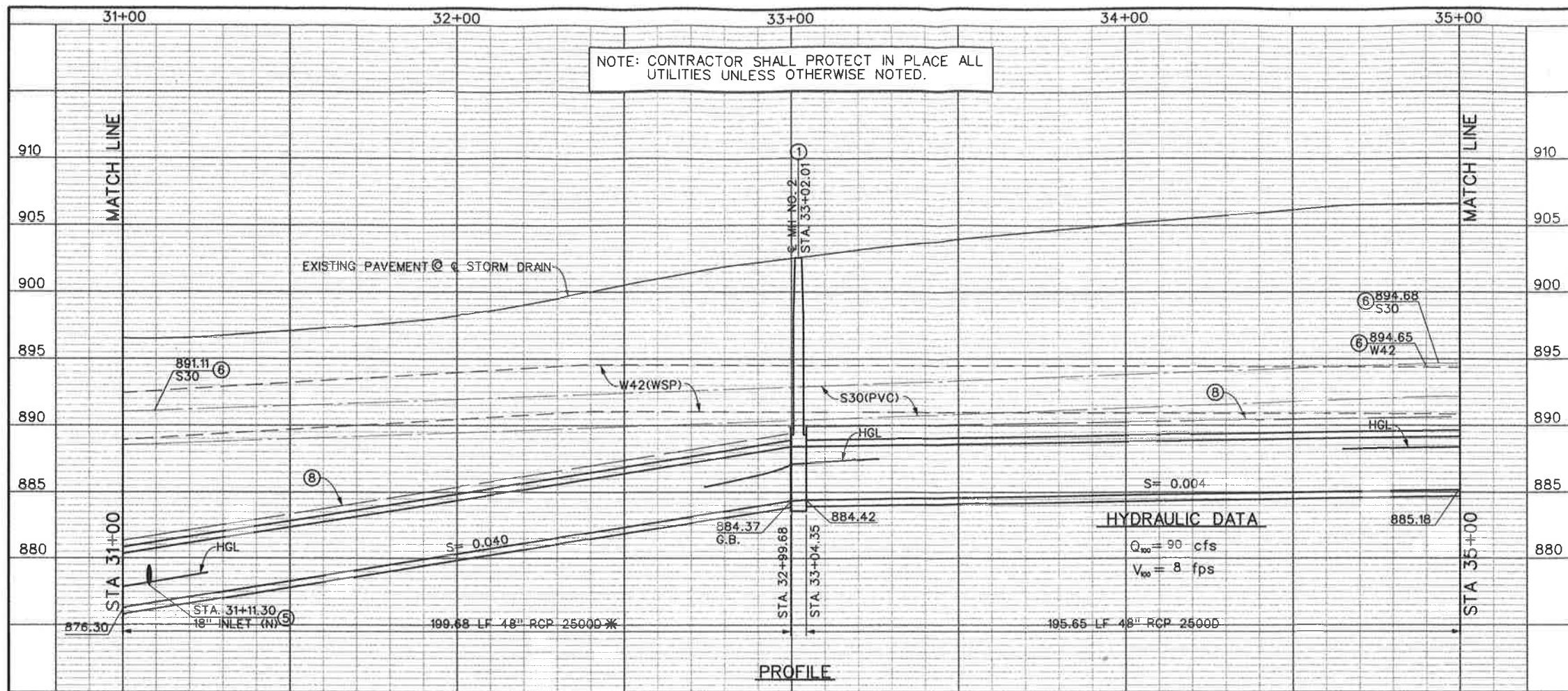
Don't Dig...Until You Call U.S.A. Toll Free
1-800-227-2600
 for the location of buried utility lines.
 Don't disrupt vital services.
 TWO WORKING DAYS BEFORE YOU DIG

REVISIONS	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
 DESIGNED BY: K. AMIN
 DRAWN BY: M. HOWARD
 DATE DRAWN: FEBRUARY 2011
 RECOMMENDED FOR APPROVAL BY: *[Signature]*
 DATE: 2/10/11
 APPROVED BY: *[Signature]*
 DATE: 10-Feb-2011

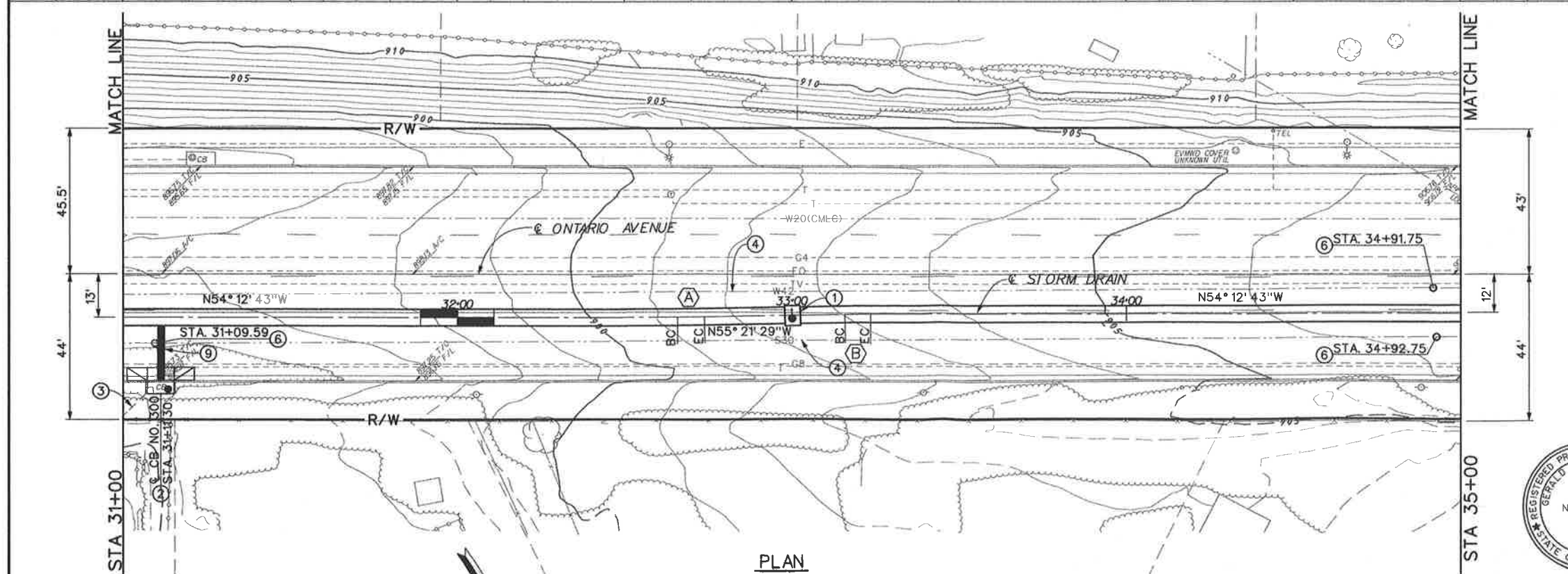
CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1
 PLAN AND PROFILE
 STA. 28+68 TO STA. 31+00

PROJECT NO. **2-0-0351**
 DRAWING NO. **2-416**
 SHEET NO. **9 OF 47**

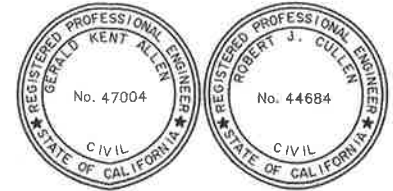


A 48" RCP CURVE DATA		B 48" RCP CURVE DATA	
Δ = 1° 08' 46"	R = 400.00'	Δ = 1° 08' 46"	R = 400.00'
L = 8.00'	T = 4.00'	L = 8.00'	T = 4.00'
BC = STA 32+65.77	EC = STA 32+73.77	BC = STA 33+15.77	EC = STA 33+23.77
PI = N 2251544.50	E 6173263.71	PI = N 2251572.93	E 6173222.57

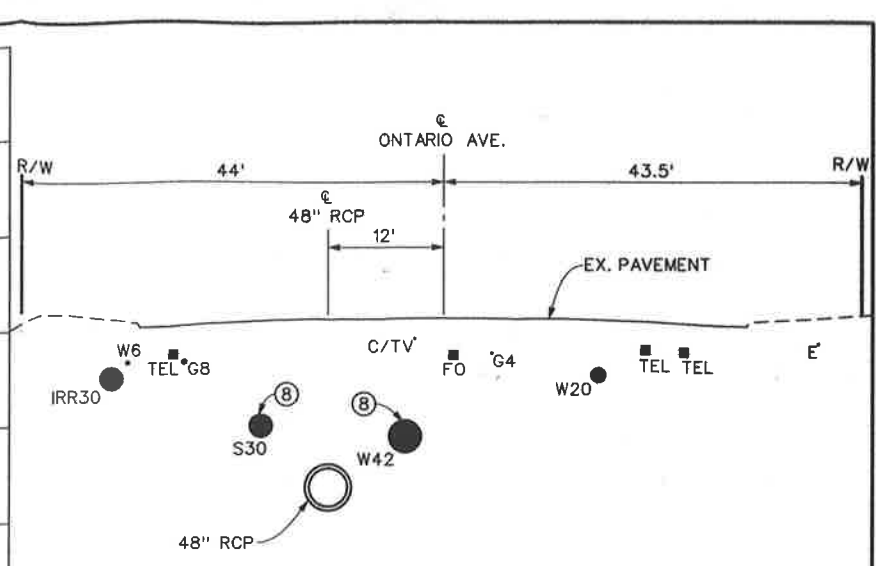
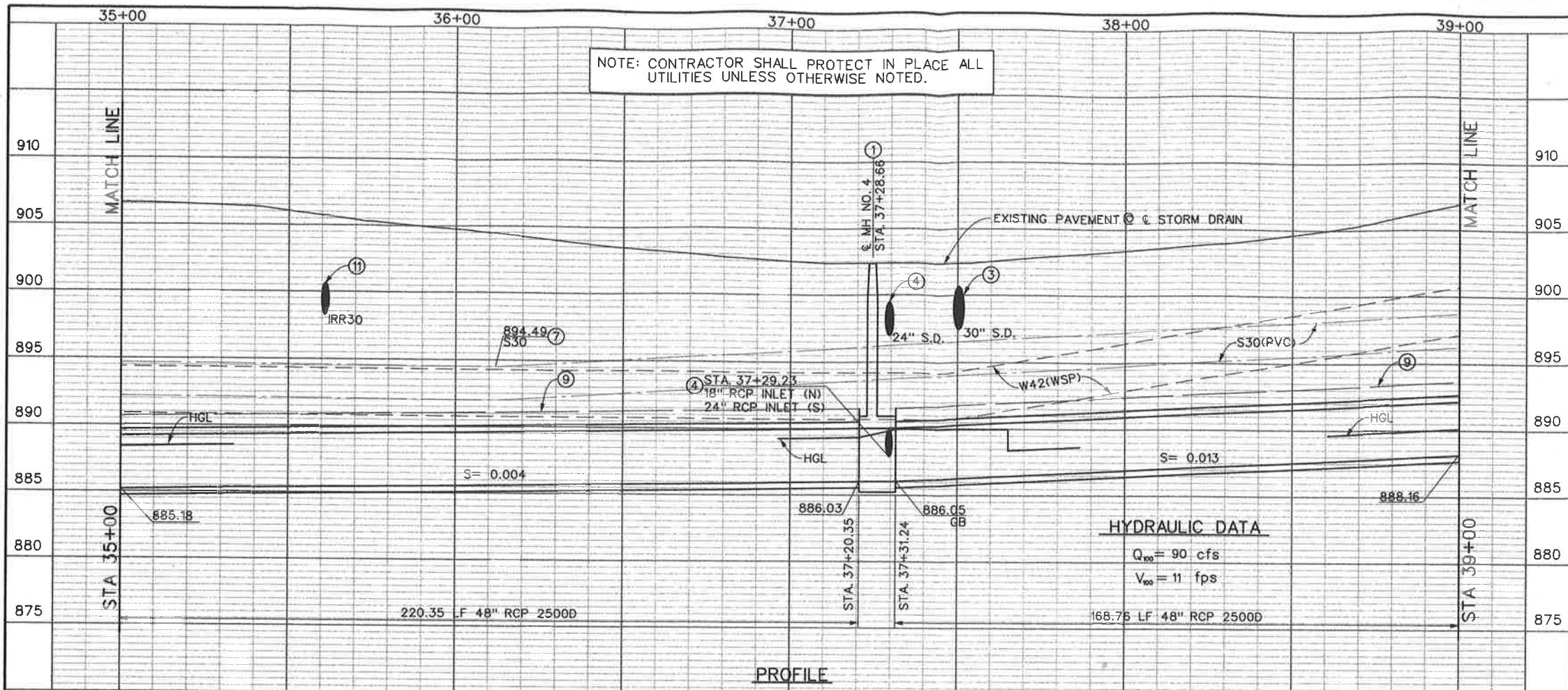
* THE CONCRETE PIPE THICKNESS SHALL BE INCREASED TO PROVIDE A MINIMUM OF 1 1/2" COVER OVER THE REINFORCING STEEL. THE CONCRETE DESIGN STRENGTH SHALL BE A MINIMUM OF 5000 PSI.



- NOTES**
- CONSTRUCT MH NO. 2 PER STD MH252.
 - REMOVE EXISTING CATCH BASIN AND CONSTRUCT CURB INLET CATCH BASIN PER COUNTY OF RIVERSIDE STD. NO. 300. W=7', H=8', 17.5 LF 18" RCP CL IV. SEE PROFILE SHEET 18.
 - REMOVE INTERFERING PORTION OF EXISTING STORM DRAIN AND PLUG.
 - CONTRACTOR IS REQUIRED TO POT-HOLE THE W42 AND S30 APPROX. EVERY 500' TO VERIFY THEIR LOCATION PRIOR TO INSTALLING STORM DRAIN AND PROTECT EXISTING LINES IN PLACE.
 - CONSTRUCT JUNCTION STRUCTURE NO. 4 PER STD JS229.
 - LOCATION AND ELEVATION AT THIS POINT DETERMINED FROM POT-HOLE AND SURVEY RESULTS.
 - PROTECT EX WATER AND SEWER LINES IN PLACE.
 - CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASMENT PER DETAIL ON SHEET 35.
 - BACKFILL S30 LINE PER DETAILS ON SHEET 35.



<p>Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2800</p> <p>For the location of buried utility lines. Don't disrupt vital services.</p> <p>TWO WORKING DAYS BEFORE YOU DIG</p>	<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DESCRIPTION	DATE				<p>RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT</p> <p>DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011</p>	<p>RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/10/11</p> <p>APPROVED BY: <i>[Signature]</i> DATE: 10-Feb-2011</p>	<p>PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 10 OF 47</p>
	NO.	DESCRIPTION	DATE							
<p>STA. 31+00 TO STA. 35+00</p>	<p>STORM DRAIN STAGE 1 PLAN AND PROFILE</p>	<p>CORONA DRAINS EAST ONTARIO AVE.</p>	<p>APPROVED BY: <i>[Signature]</i></p>	<p>DATE: 10-Feb-2011</p>						



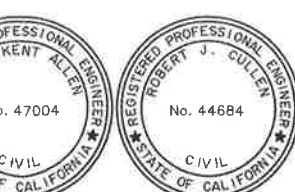
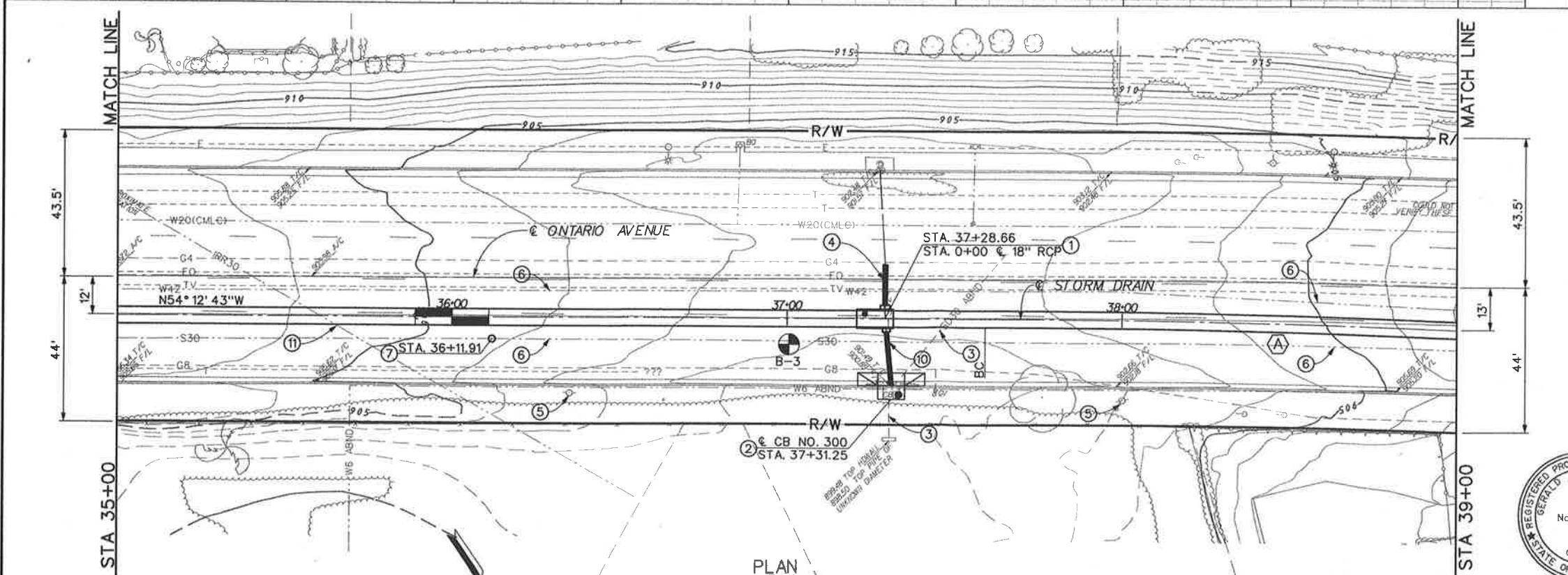
SECTION AT STATION 36+00

10' 0 10'

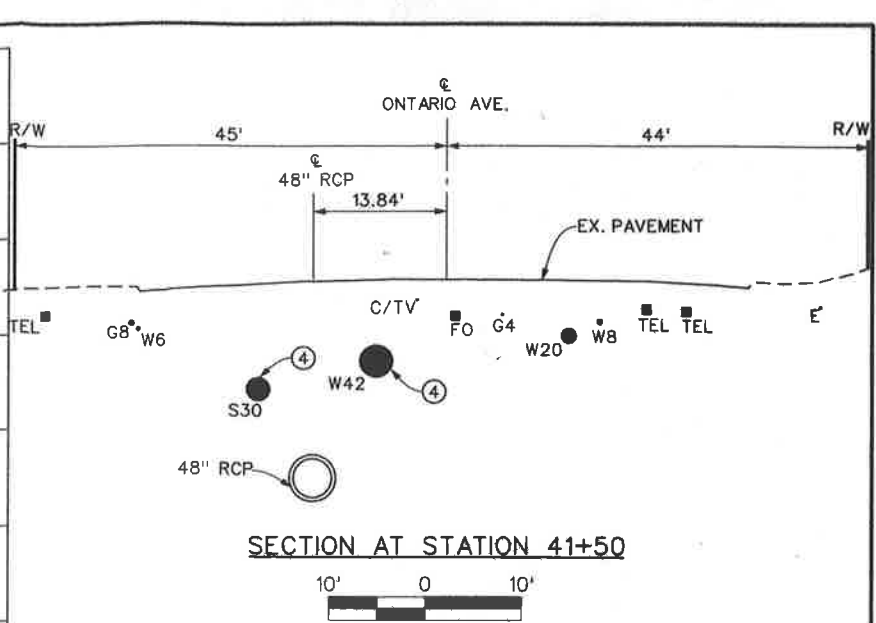
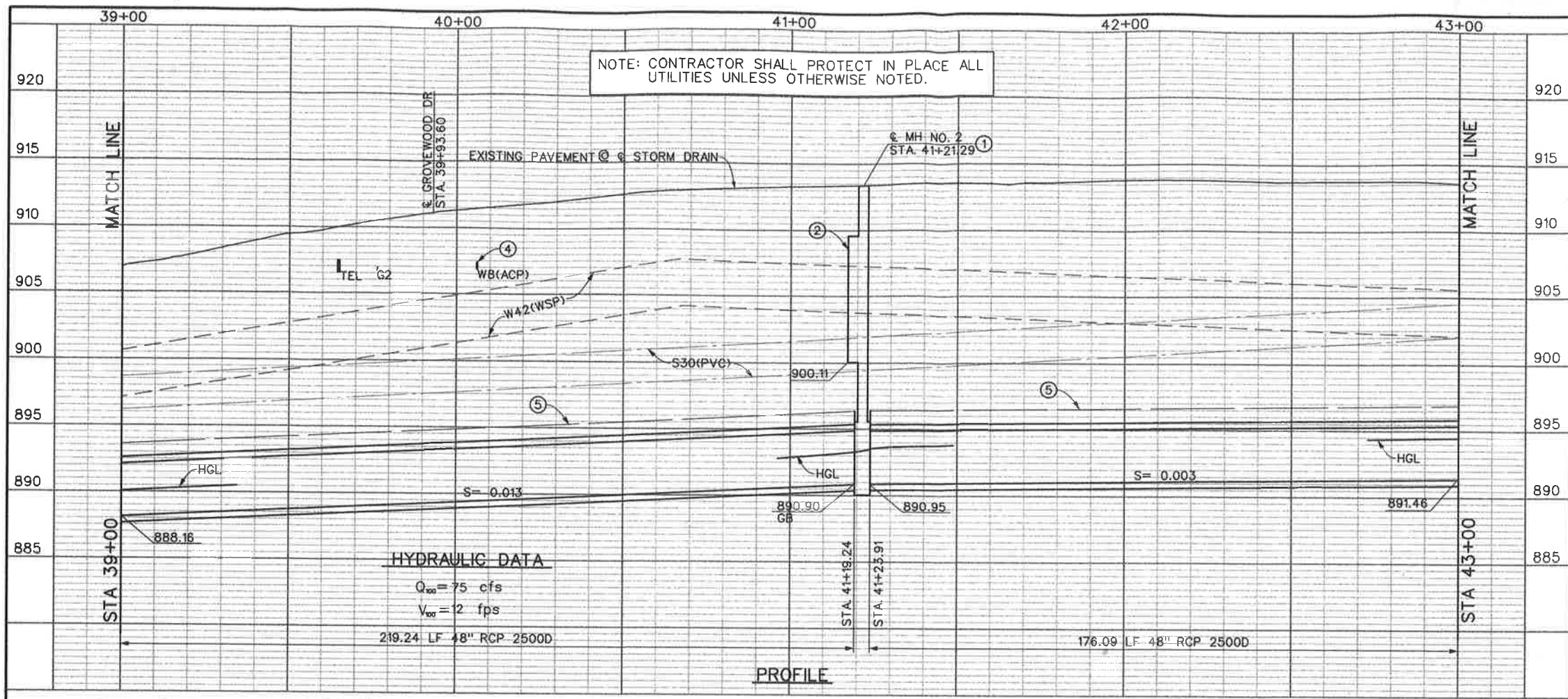
Δ & CURVE DATA

Δ = 3° 43' 58"
 R = 3500.00'
 L = 228.02'
 T = 114.05'
 BC = STA 37+58.79
 PCC = STA 39+86.81
 PI = N 2251896.35
 E 6172773.93

- NOTES**
- CONSTRUCT MH NO. 4 PER STD. MH254. A₁=89° 09' 33" A₂= 90° 0' 00", B₁=B₂=18", C₁=C₂=4.0', D₁= D₂=48", L=10.89', ELEV R₁=887.40, ELEV R₂=890.70, ELEV S₁=887.65, ELEV S₂=891.70
 - REMOVE EXISTING CATCH BASIN AND CONSTRUCT CURB INLET CATCH BASIN PER COUNTY OF RIVERSIDE STD NO. 300, W=7', H=7.5', 16.5 LF 18" RCP CL IV. SEE CONNECTOR PIPE PROFILE SHEET 18.
 - REMOVE INTERFERING PORTION OF EXISTING 30" STORM DRAIN AND PLUG.
 - REMOVE INTERFERING PORTION OF EXISTING 24" RCP AND JOIN TO MAINLINE PER DETAILS ON PROFILE SHEET 18.
 - CAUTION UTILITY LINES OVERHEAD
 - CONTRACTOR IS REQUIRED TO POTHOLE THE W42 AND S30 APPROX. EVERY 500' TO VERIFY THEIR LOCATION PRIOR TO INSTALLING STORM DRAIN AND PROTECT EXISTING LINES IN PLACE.
 - LOCATION AND ELEVATION AT THIS POINT DETERMINED FROM POTHOLE AND SURVEY RESULTS.
 - PROTECT EX WATER AND SEWER LINES IN PLACE.
 - CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASEMENT PER DETAIL ON SHEET 35.
 - BACKFILL S30 LINE PER DETAILS ON SHEET 35.
 - REMOVE AND REPLACE EX. 30" IRRIGATION LINE AS NECESSARY TO INSTALL STORM DRAIN SEE THE SPECIFICATIONS.



<p>Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services. TWO WORKING DAYS BEFORE YOU DIG</p>	<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>APPR.</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		NO.	DESCRIPTION	APPR.	DATE					<p>RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT</p> <p>DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011</p>		<p>RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/10/11</p> <p>APPROVED BY: <i>[Signature]</i> DATE: 10-16-2011</p>		<p>CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 PLAN AND PROFILE STA. 35+00 TO STA. 39+00</p>		<p>PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 11 OF 47</p>	
	NO.	DESCRIPTION	APPR.	DATE														
<p>20' 0 20'</p>		<p>DATE: 2/10/11</p>		<p>DATE: 10-16-2011</p>		<p>STA. 35+00 TO STA. 39+00</p>		<p>11 OF 47</p>										

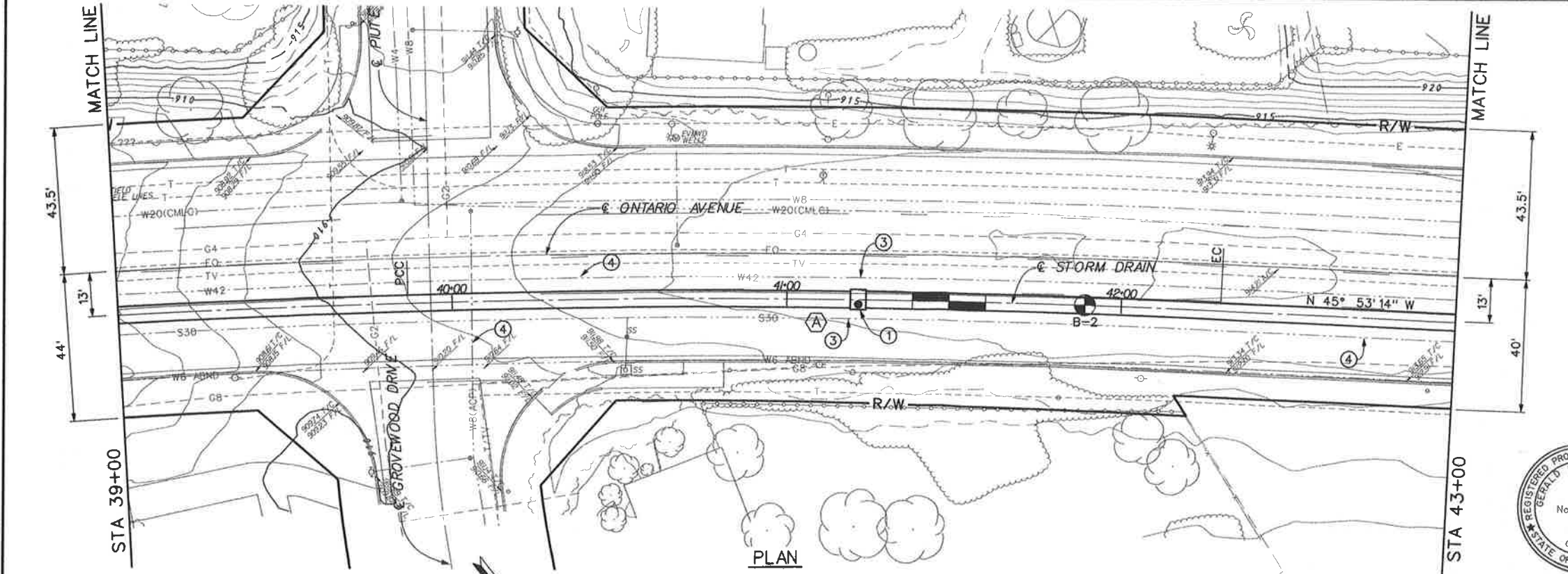


SECTION AT STATION 41+50

10' 0 10'

48" RCP CURVE DATA

Δ = 4° 35' 32"
 R = 3000.00'
 L = 240.45'
 T = 120.29'
 PCC = STA 39+86.81
 EC = STA 42+27.26
 PI = N 2252045.48
 E 6172593.16

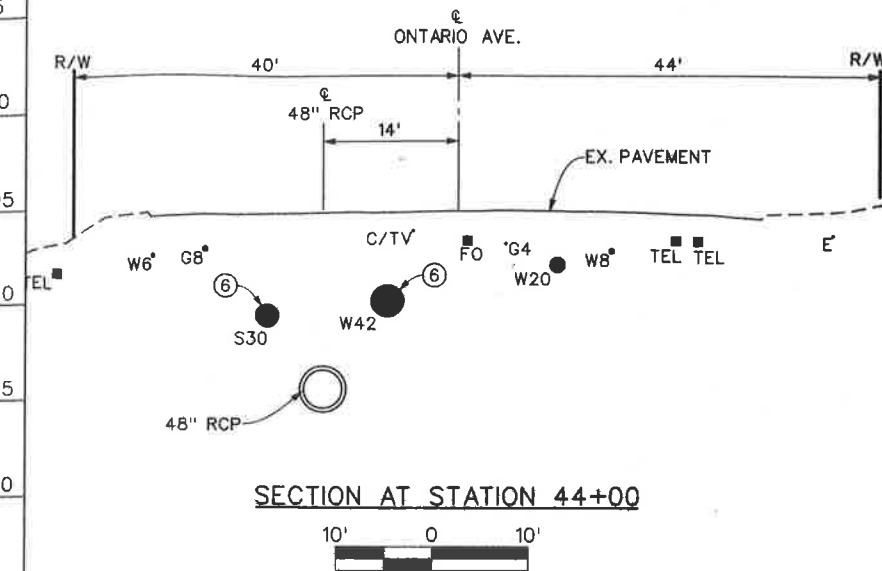
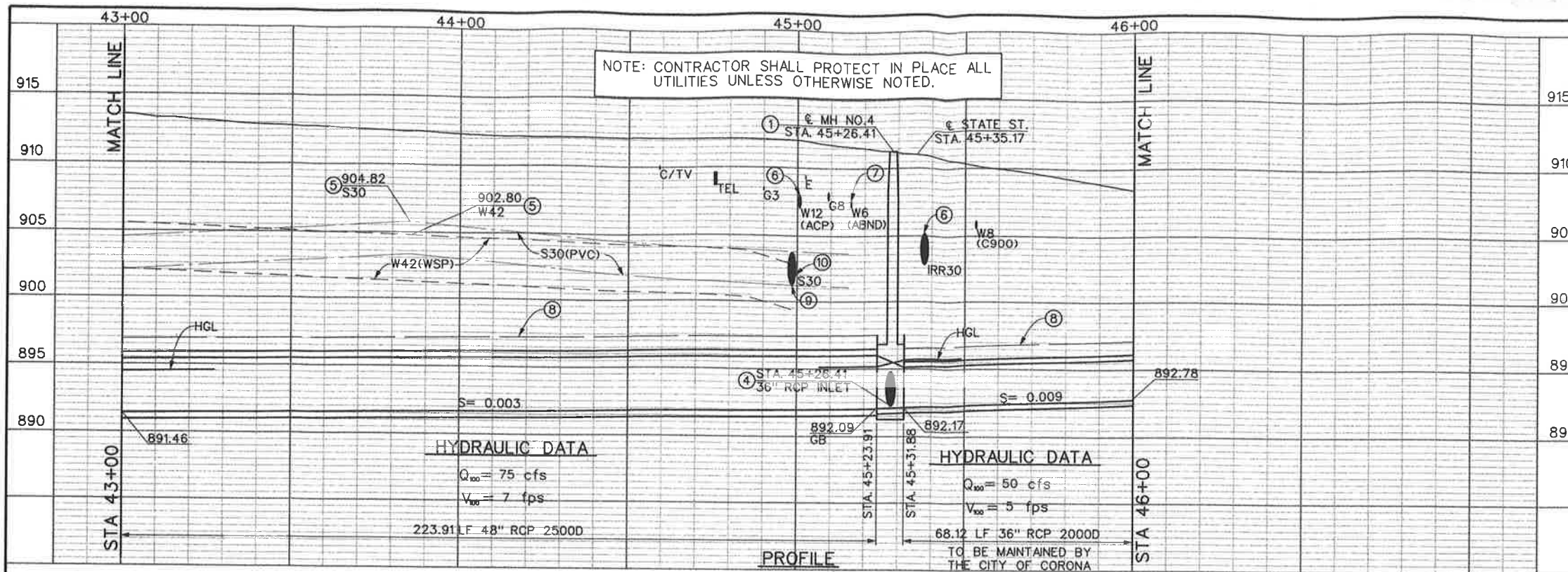


NOTES

- ① CONSTRUCT MH NO. 2 PER STD MH252.
- ② CONSTRUCT MANHOLE SHAFT SAFETY LEDGE PER STD MH261.
- ③ CONTRACTOR IS REQUIRED TO POTHOLE THE W42 AND S30 APPROX. EVERY 500' TO VERIFY THEIR LOCATION PRIOR TO INSTALLING STORM DRAIN AND PROTECT EXISTING LINES IN PLACE.
- ④ PROTECT EX WATER AND SEWER LINES IN PLACE.
- ⑤ CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASEMENT PER DETAIL ON SHEET 35.



<p>Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2800</p> <p>for the location of buried utility lines.</p> <p>Don't disrupt vital services.</p> <p>TWO WORKING DAYS BEFORE YOU DIG</p>	<p>REVISIONS</p> <table border="1"> <tr><th>NO.</th><th>DESCRIPTION</th><th>APPR.</th><th>DATE</th></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>	NO.	DESCRIPTION	APPR.	DATE													<p>RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT</p> <p>DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011</p>	<p>RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/10/11</p>	<p>APPROVED BY: <i>[Signature]</i> DATE: 10-Feb-2011</p>	<p>PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 12 OF 47</p>
	NO.	DESCRIPTION	APPR.	DATE																	
<p>CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 PLAN AND PROFILE</p> <p>STA. 39+00 TO STA. 43+00</p>																					

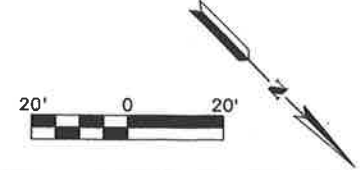
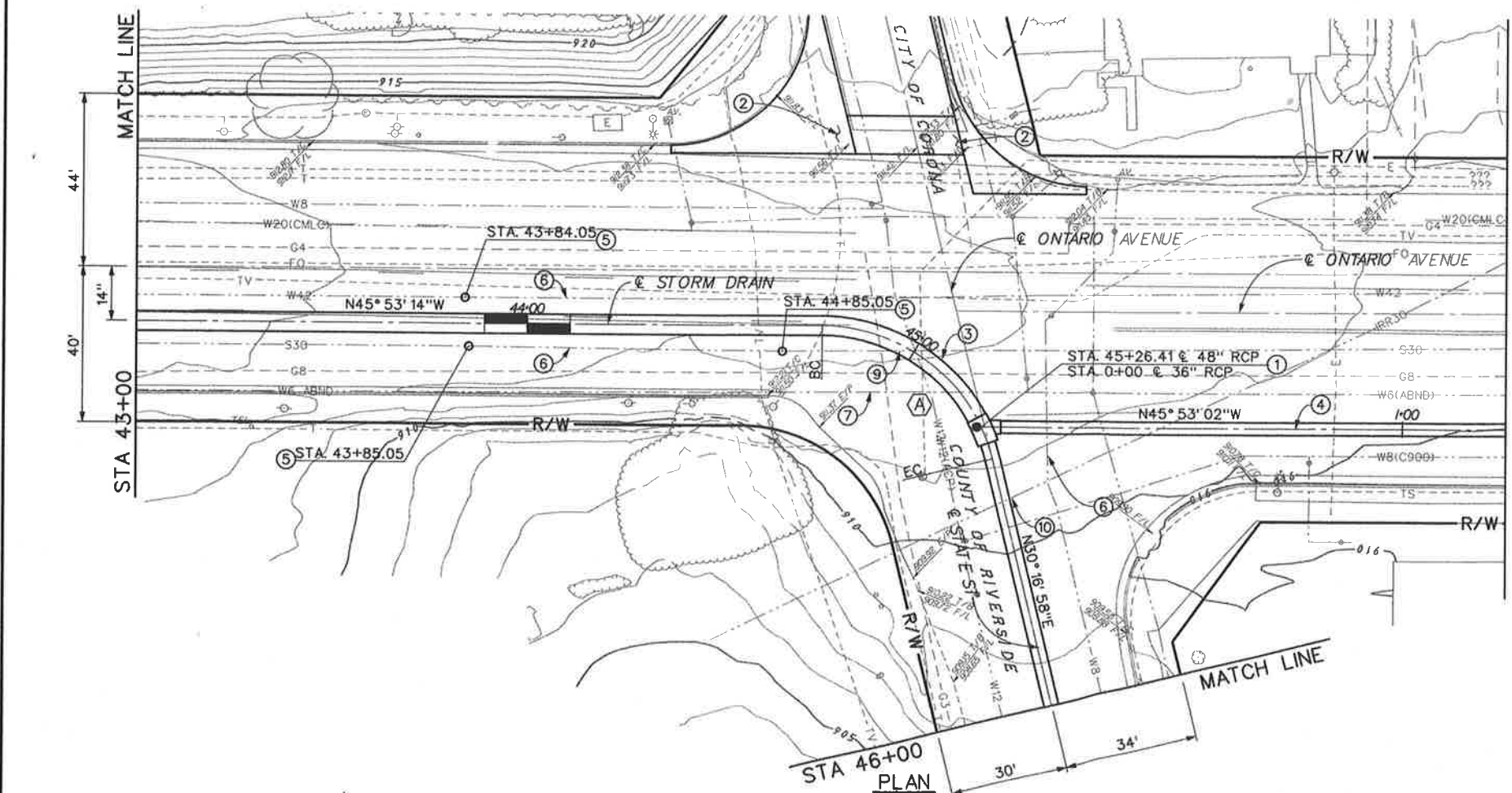


Ⓐ 48" RCP CURVE DATA

Δ	= 76° 10' 12"
R	= 45.00'
L	= 59.82'
T	= 35.27'
BC	= STA 44+75.34
EC	= STA 45+35.16
PI	= N 2252326.43 E 6172303.37

NOTES

- ① CONSTRUCT MH NO. 4 PER STD MH254. A=65° 1' 26", D₁=36" D₂=48", B=36", C=5.0' ELEV S=893.14, ELEV R=893.15, L= 7.97
- ② REMOVE EXISTING CROSS GUTTER, AND AC DIKE AND CONSTRUCT CROSS GUTTER PER COUNTY OF RIVERSIDE STD. NO. 209. SEE PLAN DETAILS ON SHEET 22.
- ③ CONTRACTOR IS REQUIRED TO POTHOLE THE W42 AND S30 APPROX. EVERY 500' TO VERIFY THEIR LOCATION PRIOR TO INSTALLING STORM DRAIN AND PROTECT EXISTING LINES IN PLACE.
- ④ SEE SHEET 15 FOR PLAN AND PROFILE.
- ⑤ LOCATION AND ELEVATION AT THIS POINT DETERMINED FROM POTHOLE AND SURVEY RESULTS.
- ⑥ PROTECT EXISTING WATER AND SEWER LINES IN PLACE.
- ⑦ REMOVE INTERFERING PORTION OF ABANDONED 6" WATERLINE.
- ⑧ CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASEMENT PER DETAIL ON SHEET 35.
- ⑨ BACKFILL S30 LINE PER DETAILS ON SHEET 35.
- ⑩ REMOVE AND REPLACE EX. 30" IRRIGATION LINE AS NECESSARY TO INSTALL STORM DRAIN SEE THE SPECIFICATIONS.



CITY OF CORONA

APPROVED BY: *K. D. 2011*
CITY ENGINEER
DATE: 2-11-11

Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2800

for the location of buried utility lines. Don't disrupt vital services.

TWO WORKING DAYS BEFORE YOU DIG

REVISIONS	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: K. AMIN
DRAWN BY: M. HOWARD
DATE DRAWN: FEBRUARY 2011

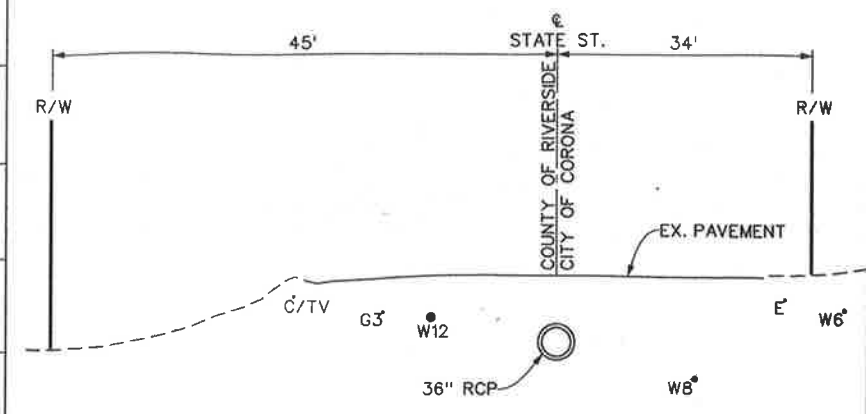
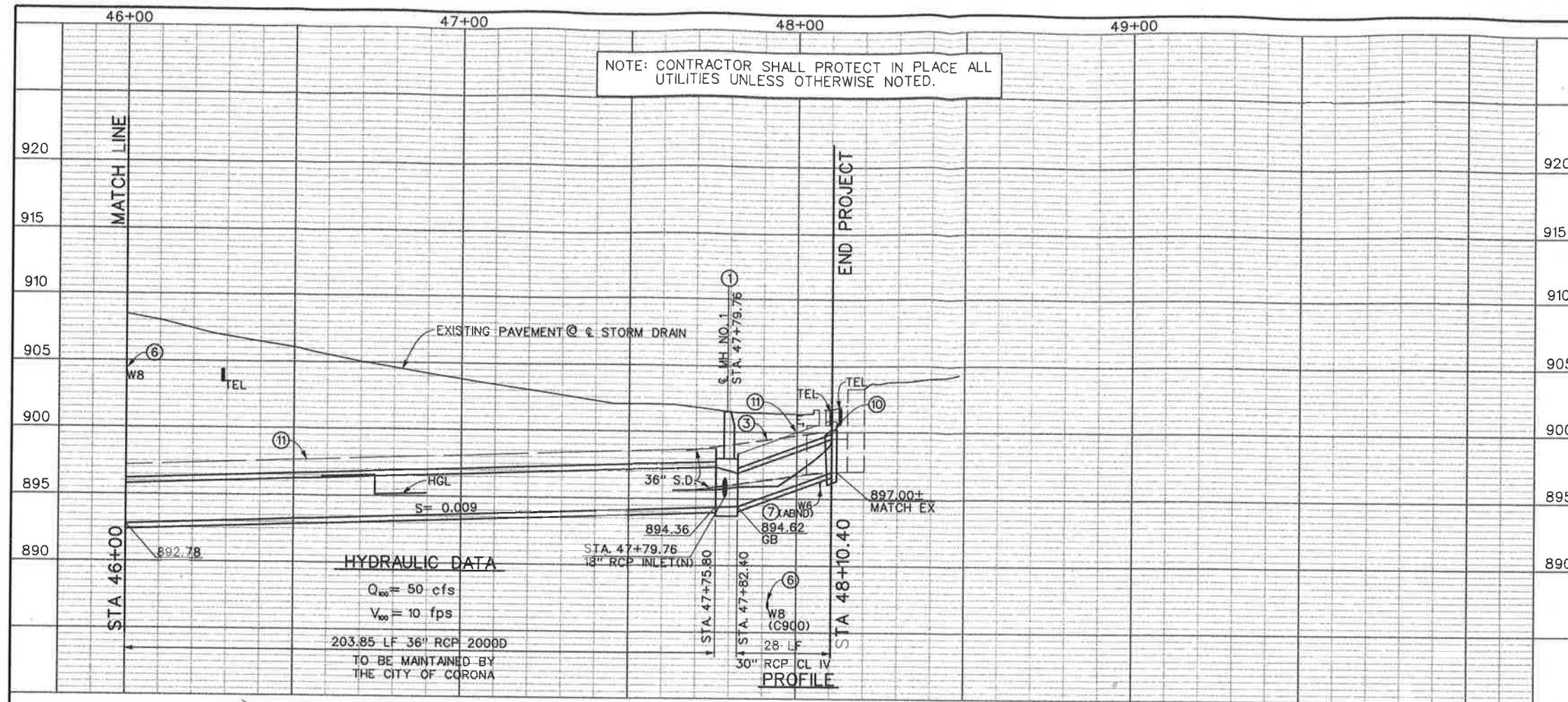
RECOMMENDED FOR APPROVAL BY: *[Signature]*
DATE: 2/10/11

APPROVED BY: *[Signature]*
DATE: 10-Feb-2011

CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 PLAN AND PROFILE

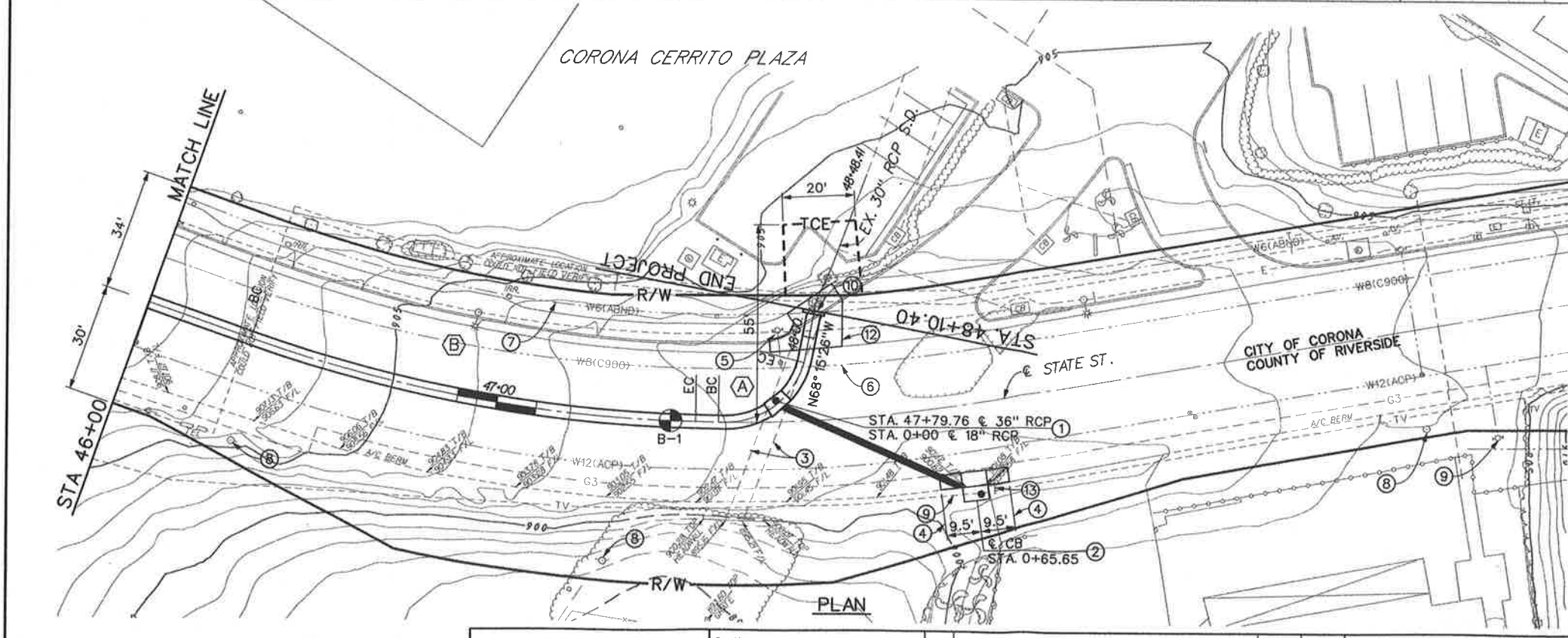
STA. 43+00 TO STA. 46+00

PROJECT NO. 2-0-0351
DRAWING NO. 2-416
SHEET NO. 13 OF 47

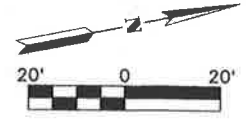


10' 0 10'

A	Curve Data	B	Curve Data
Δ	$79^{\circ} 26' 02''$	Δ	$19^{\circ} 06' 22''$
R	22.50'	R	392.50'
L	31.19'	L	130.89'
T	18.69'	T	66.06'
BC	STA 47+63.20	BC	STA 46+31.05
EC	STA 47+94.39	EC	STA 47+61.94
PI	N 2252581.11	PI	N 2252496.73
	E 6172419.48		E 6172402.81



- NOTES**
- CONSTRUCT MH NO.1 PER STD MH251 $D_1 = 30"$, $D_2 = 36"$, $L = 6.52$.
 - REMOVE OBJECT MAKERS, REMOVE AND REPLACE INTERFERING AC AND CONSTRUCT CURB INLET CATCH BASIN PER CITY OF CORONA STD NO. 204. $W = 7'$, $H = 5.5'$, 56.20-18" RCP CL IV. SEE PROFILE SHEET 18.
 - REMOVE INTERFERING PORTION OF EXISTING 36" CMP'S AND CONSTRUCT CONCRETE BULKHEAD PER STD M816.
 - LIMITS OF 6" AC BERM REMOVAL AND REPLACEMENT WITH 6" ASPHALT CONCRETE DIKES PER COUNTY OF RIVERSIDE STD. NO. 212.
 - PROTECT EXISTING FIRE HYDRANT IN PLACE.
 - PROTECT EXISTING WATERLINE IN PLACE.
 - REMOVE INTERFERING PORTION OF ABANDONED 6" WATERLINE.
 - CAUTION UTILITY LINES OVERHEAD.
 - EXISTING TV LINES TO BE RELOCATED BY OTHERS.
 - REMOVE EXISTING TRANSITION STRUCTURE. CONSTRUCT CONCRETE COLLAR PER STD M803.
 - CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASUREMENT PER DETAIL ON SHEET 35.
 - LIMITS OF CONCRETE SIDE WALK AND SPANDREL REMOVAL AND REPLACEMENT.
 - PROTECT EX. MAIL BOX IN PLACE.



CITY OF CORONA
 APPROVED BY: *[Signature]*
 CITY ENGINEER
 DATE: 2-14-11

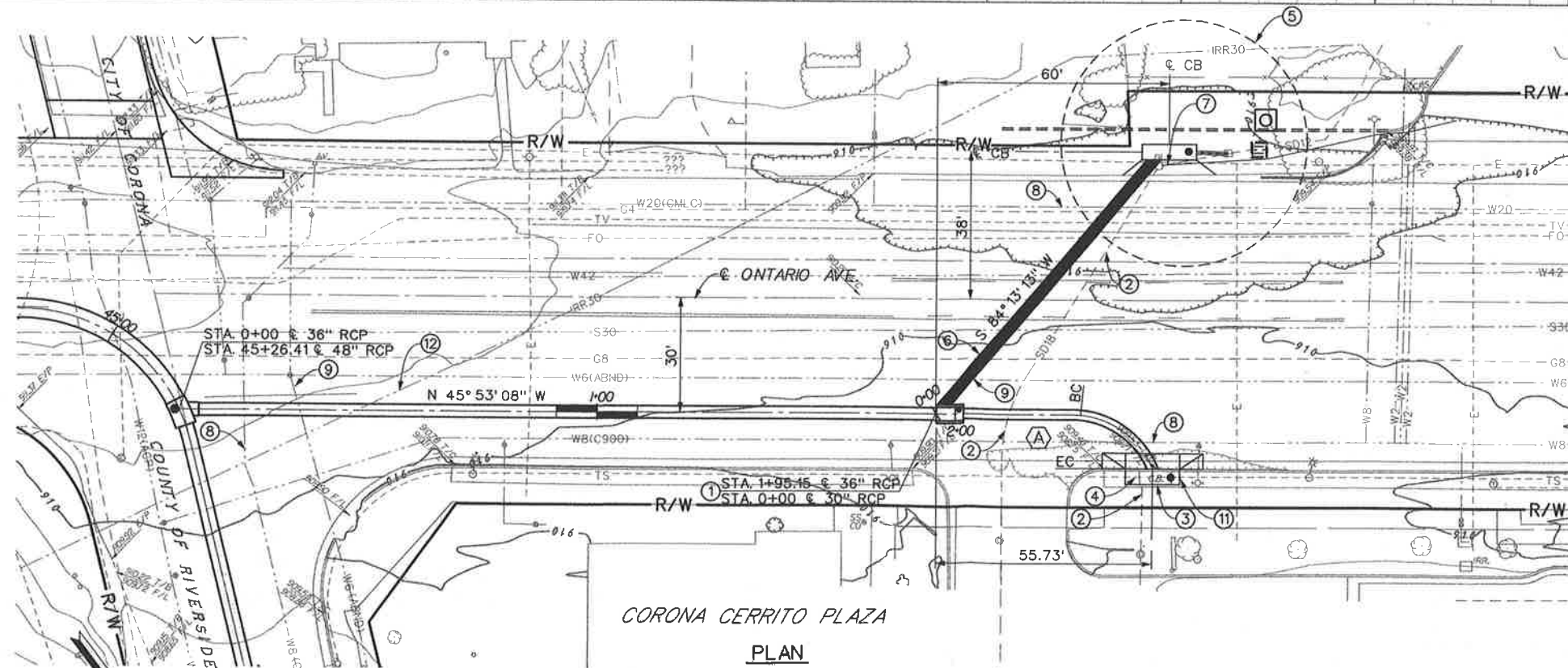
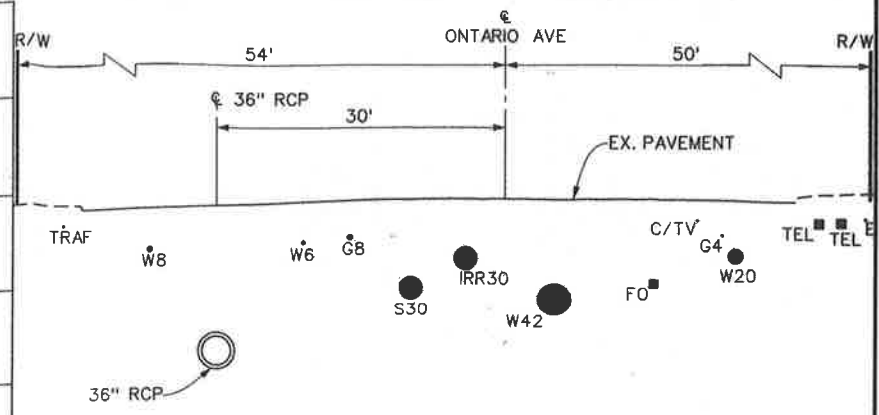
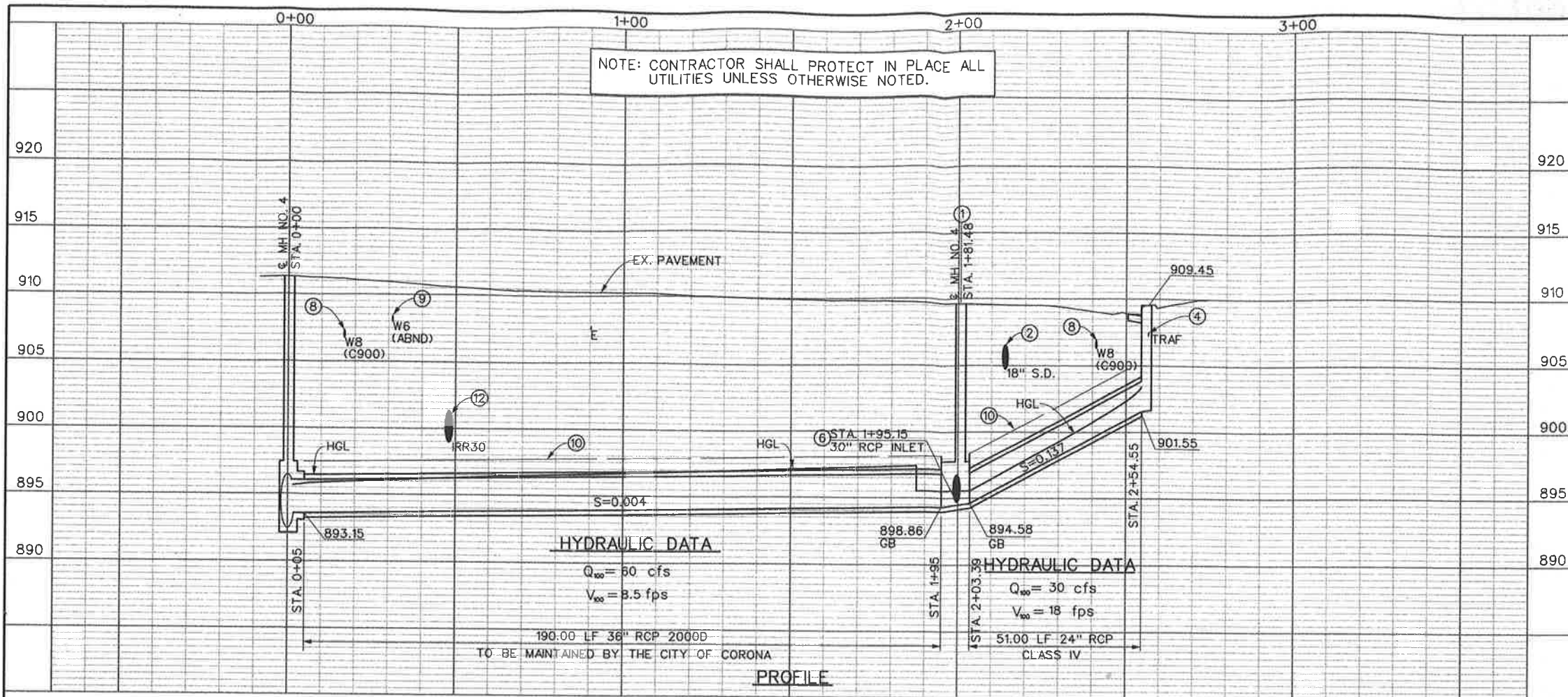
Don't Dig...Until You Call U.S.A. Toll Free
 1-800-227-2800
 for the location of buried utility lines.
 Don't disrupt vital services.
 TWO WORKING DAYS BEFORE YOU DIG

REVISIONS	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
 DESIGNED BY: K. AMIN
 DRAWN BY: M. HOWARD
 DATE DRAWN: FEBRUARY 2011
 RECOMMENDED FOR APPROVAL BY: *[Signature]*
 DATE: 2/14/11
 APPROVED BY: *[Signature]*
 DATE: 14-Feb-2011

CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1
 PLAN AND PROFILE
 STA. 46+00 TO STA. 48+15

PROJECT NO. 2-0-0351
 DRAWING NO. 2-416
 SHEET NO. 14 OF 47

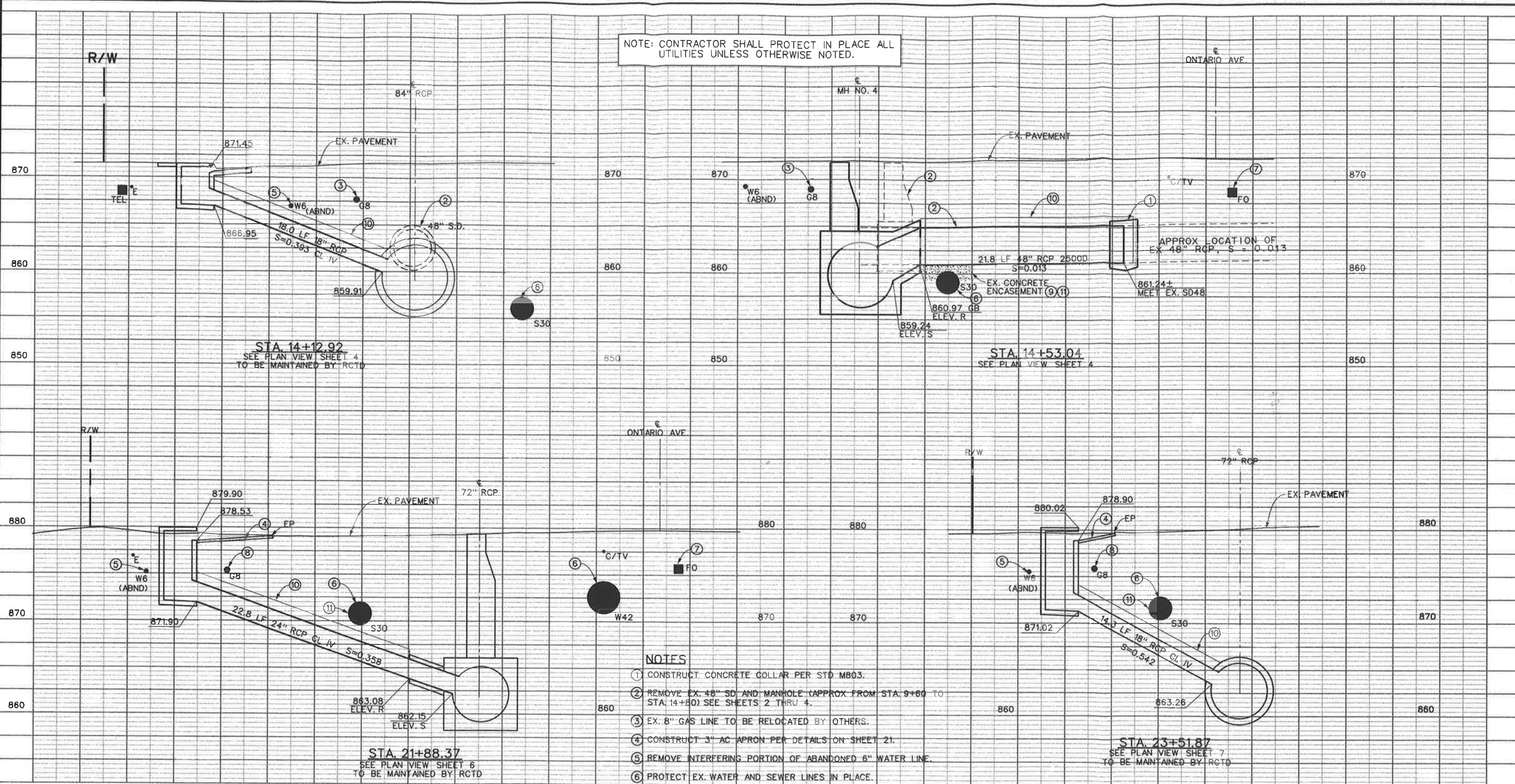


- NOTES**
- ① CONSTRUCT MH NO. 4 PER STD MH251. A=49° 53' 39", B=30", D₁=24", D₂=36", L=6.14'.
 - ② REMOVE INTERFERING PORTION OF EX STORM DRAIN AND PLUG WITH CONCRETE BULKHEAD PER STD MB16.
 - ③ REMOVE EXISTING CATCH BASIN AND CONSTRUCT CURB INLET CATCH BASIN PER CITY OF CORONA STD NO. 204. W=14", H=7.9'. SEE PROFILE ABOVE.
 - ④ EX. STREET LIGHT CONDUIT TO BE RELOCATED. SEE SPECIFICATIONS.
 - ⑤ SEE ENLARGED PLAN VIEW ON SHEET 19.
 - ⑥ CONSTRUCT 30" LATERAL PER DETAILS ON SHEET 18.
 - ⑦ REMOVE EXISTING CMP DROP INLET AND CONSTRUCT CURB INLET CATCH BASIN PER CITY OF CORONA STD NO. 204. W=14", H=10". 88 LF-30" CLASS IV RCP. CONSTRUCT WITH AC APRON PER DETAIL ON SHEET 19. SEE PROFILE ON SHEET 18.
 - ⑧ PROTECT EX. WATERLINES IN PLACE.
 - ⑨ REMOVE INTERFERING PORTION OF ABANDONED 6" WATERLINE.
 - ⑩ CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASMENT PER DETAIL ON SHEET 35.
 - ⑪ REPLACE LANDSCAPING AS REQUIRED.
 - ⑫ REMOVE AND REPLACE EX. 30" IRRIGATION LINE AS NECESSARY TO INSTALL STORM DRAIN SEE THE SPECIFICATIONS.



CITY OF CORONA APPROVED BY: CITY ENGINEER DATE: 2-14-11	Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services. TWO WORKING DAYS BEFORE YOU DIG	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	PROJECT NO. 2-0-0351
		DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011	RECOMMENDED FOR APPROVAL BY: DATE: 2/14/11	APPROVED BY: DATE: 14-Feb-2011

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



NOTES

- ① CONSTRUCT CONCRETE COLLAR PER STD M803.
- ② REMOVE EX. 48" SD AND MANHOLE (APPROX FROM STA. 9+80 TO STA. 14+80) SEE SHEETS 2 THRU 4.
- ③ EX. 8" GAS LINE TO BE RELOCATED BY OTHERS.
- ④ CONSTRUCT 3" AC APRON PER DETAILS ON SHEET 21.
- ⑤ REMOVE INTERFERING PORTION OF ABANDONED 6" WATER LINE.
- ⑥ PROTECT EX. WATER AND SEWER LINES IN PLACE.
- ⑦ PROTECT EXISTING FIBER OPTIC CABLES IN PLACE.
- ⑧ PROTECT EXISTING 8" GAS LINE IN PLACE.
- ⑨ REMOVE INTERFERING PORTION OF EXISTING ENCASUREMENT AS DIRECTED BY THE ENGINEER.
- ⑩ CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASUREMENT PER DETAIL ON SHEET 35.
- ⑪ BACKFILL S30 LINE PER DETAILS ON SHEET 35.



COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY:
[Signature]
DEPUTY DIRECTOR OF TRANSPORTATION
DATE: 2/17/11

Don't Dig...Until You Call U.S.A. Toll Free
1-800-227-2600
for the location of buried utility lines.
Don't disrupt vital services.
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT
DESIGNED BY: K. AMIN
DRAWN BY: M. HOWARD
DATE DRAWN: FEBRUARY 2011

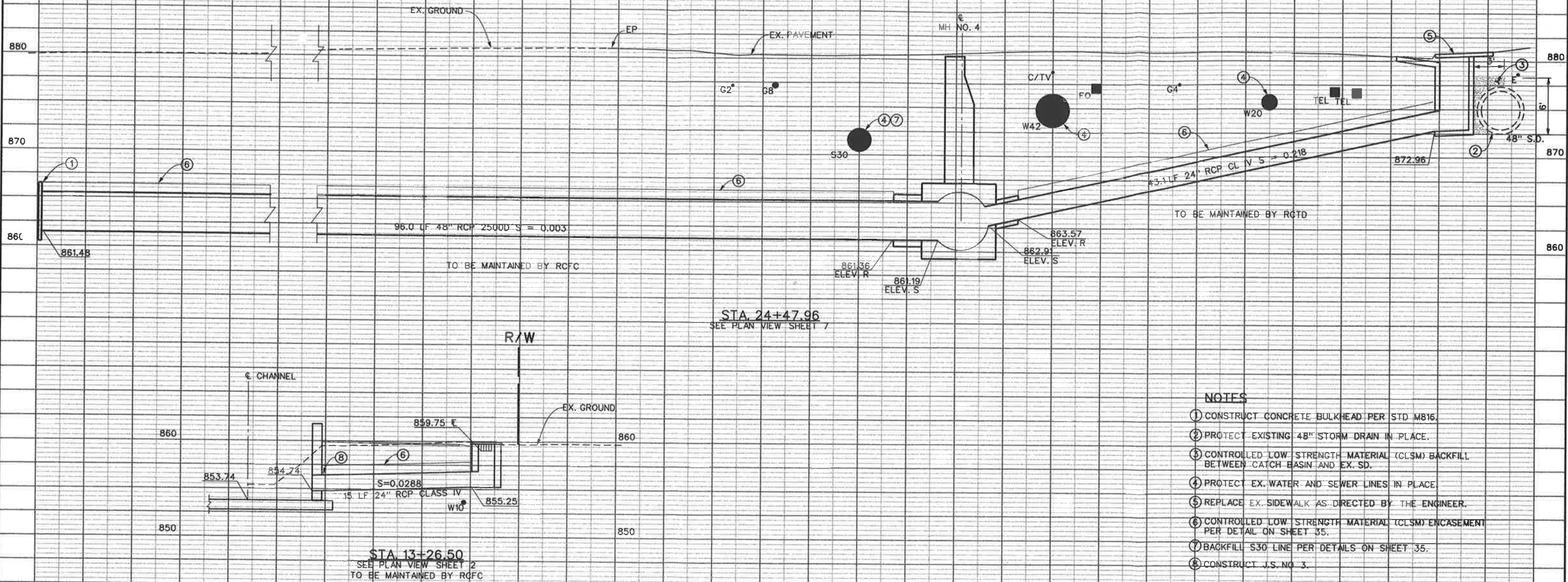
RECOMMENDED FOR APPROVAL BY:
[Signature]
DATE: 2/10/11

APPROVED BY:
[Signature]
DATE: 10-Feb-2011

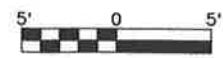
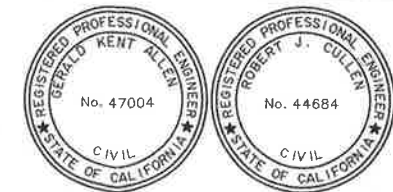
**CORONA DRAINS EAST
ONTARIO AVE.
STORM DRAIN STAGE 1**
CONNECTOR PIPE PROFILES

PROJECT NO.
2-0-0351
DRAWING NO.
2-416
SHEET NO.
16 OF 47

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



- NOTES**
- ① CONSTRUCT CONCRETE BULKHEAD PER STD M816.
 - ② PROTECT EXISTING 48" STORM DRAIN IN PLACE.
 - ③ CONTROLLED LOW STRENGTH MATERIAL (CLSM) BACKFILL BETWEEN CATCH BASIN AND EX. SD.
 - ④ PROTECT EX. WATER AND SEWER LINES IN PLACE.
 - ⑤ REPLACE EX. SIDEWALK AS DIRECTED BY THE ENGINEER.
 - ⑥ CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASEMENT PER DETAIL ON SHEET 35.
 - ⑦ BACKFILL S30 LINE PER DETAILS ON SHEET 35.
 - ⑧ CONSTRUCT J.S. NO. 3.



COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY:
Majid Salami
DEPUTY DIRECTOR OF TRANSPORTATION
DATE: 2/17/11

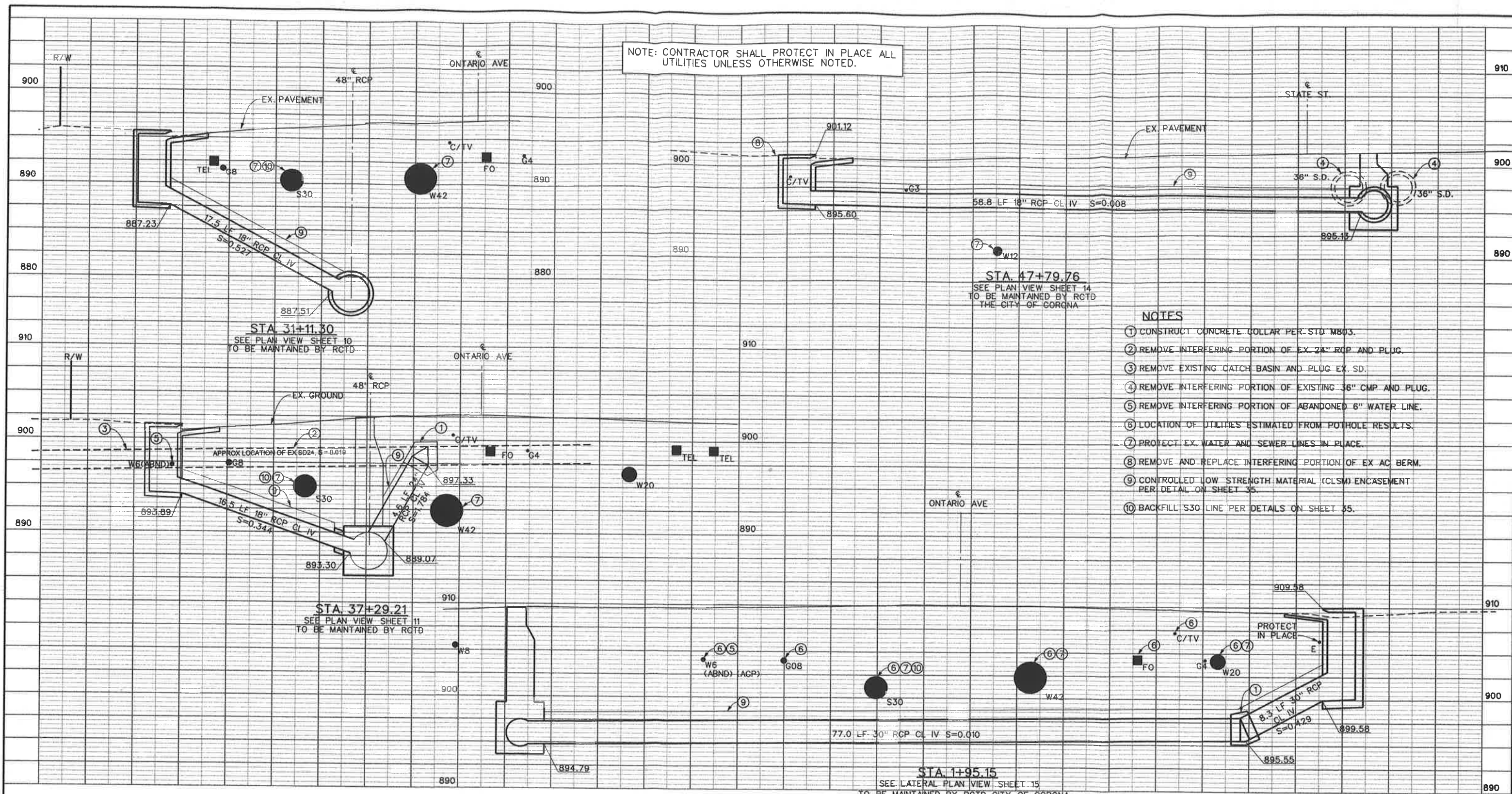


REVISIONS	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
DESIGNED BY: K. AMIN
DRAWN BY: M. HOWARD
DATE DRAWN: FEBRUARY 2011
RECOMMENDED FOR APPROVAL BY: *[Signature]*
DATE: 2/10/11
APPROVED BY: *[Signature]*
DATE: 10-Feb-2011

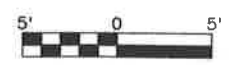
**CORONA DRAINS EAST
ONTARIO AVE.
STORM DRAIN STAGE 1**
CONNECTOR PIPE PROFILES

PROJECT NO. 2-0-0351
DRAWING NO. 2-416
SHEET NO. 17 OF 47

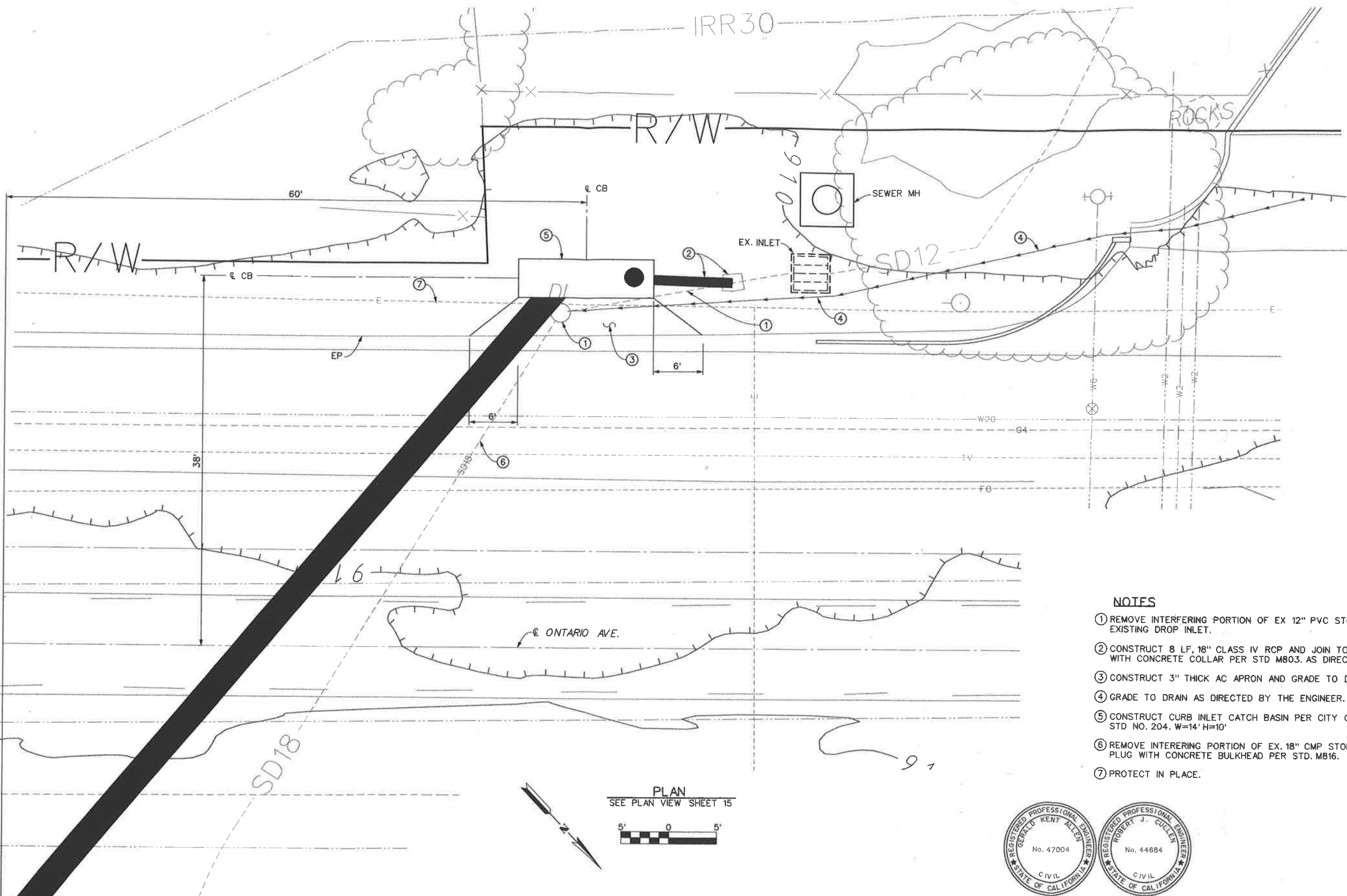


NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.

- NOTES**
- ① CONSTRUCT CONCRETE COLLAR PER STD MB03.
 - ② REMOVE INTERFERING PORTION OF EX. 24" RCP AND PLUG.
 - ③ REMOVE EXISTING CATCH BASIN AND PLUG EX. SD.
 - ④ REMOVE INTERFERING PORTION OF EXISTING 36" CMP AND PLUG.
 - ⑤ REMOVE INTERFERING PORTION OF ABANDONED 6" WATER LINE.
 - ⑥ LOCATION OF UTILITIES ESTIMATED FROM POT HOLE RESULTS.
 - ⑦ PROTECT EX. WATER AND SEWER LINES IN PLACE.
 - ⑧ REMOVE AND REPLACE INTERFERING PORTION OF EX. AC BERM.
 - ⑨ CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASEMENT PER DETAIL ON SHEET 35.
 - ⑩ BACKFILL S30 LINE PER DETAILS ON SHEET 35.



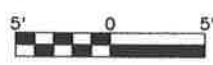
CITY OF CORONA APPROVED BY: <i>[Signature]</i> CITY ENGINEER DATE: 2/11/11		COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY: <i>[Signature]</i> DEPUTY DIRECTOR OF TRANSPORTATION DATE: 2/17/11		Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services. TWO WORKING DAYS BEFORE YOU DIG.		REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>APPR.</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		NO.	DESCRIPTION	APPR.	DATE					RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011 RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/10/11 APPROVED BY: <i>[Signature]</i> DATE: 10-FB-2011		CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 CONNECTOR PIPE PROFILES PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 18 OF 47	
NO.	DESCRIPTION	APPR.	DATE																



NOTES

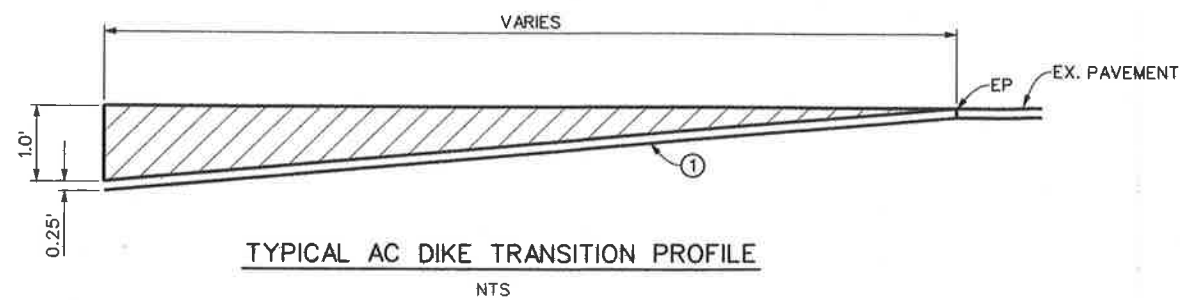
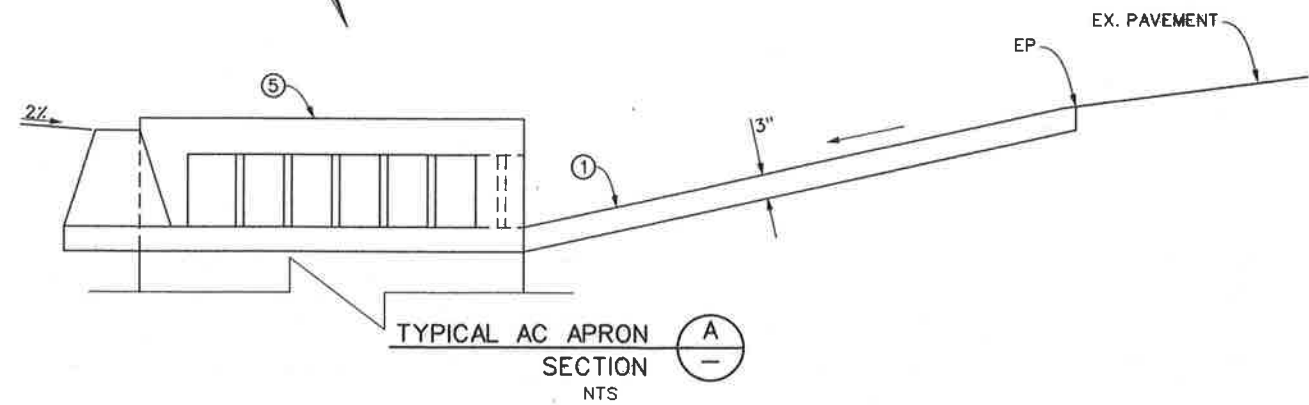
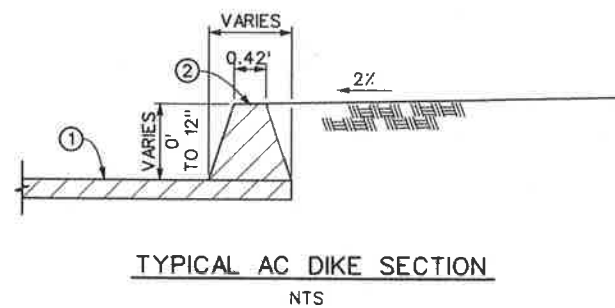
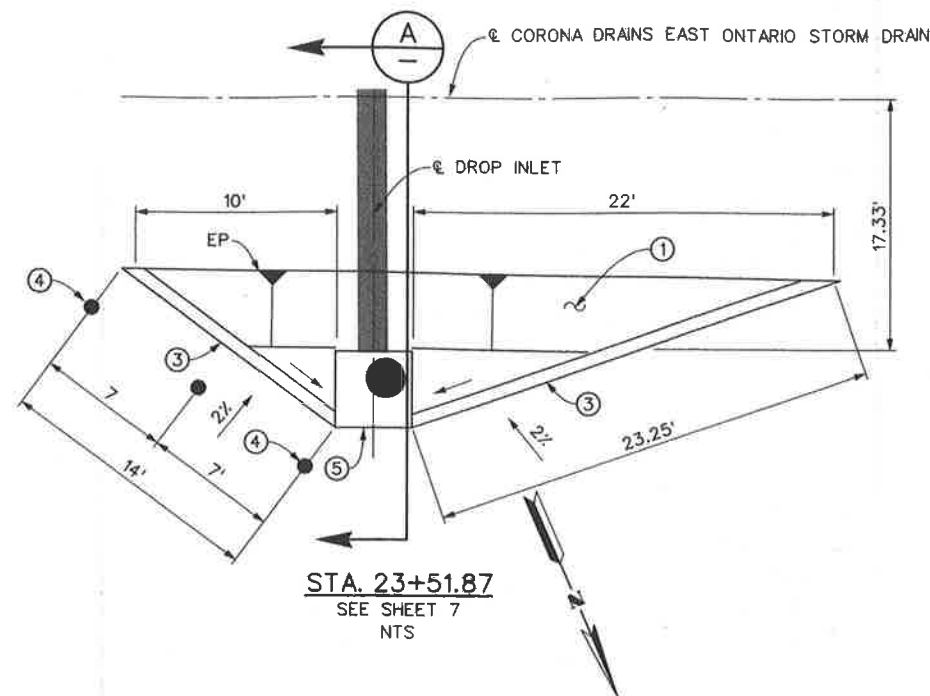
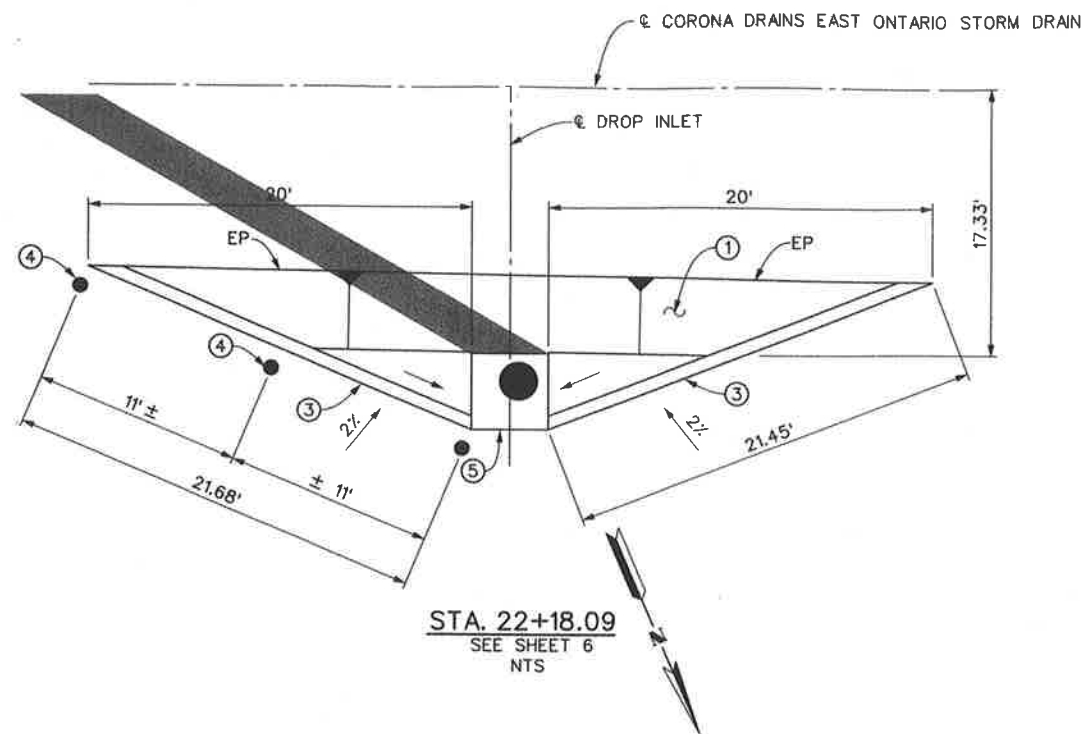
- ① REMOVE INTERFERING PORTION OF EX 12" PVC STORM DRAIN AND EXISTING DROP INLET.
- ② CONSTRUCT 8 LF, 18" CLASS IV RCP AND JOIN TO EXISTING STORM DRAIN WITH CONCRETE COLLAR PER STD M803. AS DIRECTED BY THE ENGINEER.
- ③ CONSTRUCT 3" THICK AC APRON AND GRADE TO DRAIN.
- ④ GRADE TO DRAIN AS DIRECTED BY THE ENGINEER.
- ⑤ CONSTRUCT CURB INLET CATCH BASIN PER CITY OF CORONA STD NO. 204. W=14' H=10'
- ⑥ REMOVE INTERFERING PORTION OF EX. 18" CMP STORM DRAIN AND PLUG WITH CONCRETE BULKHEAD PER STD. M816.
- ⑦ PROTECT IN PLACE.

PLAN
SEE PLAN VIEW SHEET 15



STA 1+95.15

CITY OF CORONA		REVISIONS		RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1		PROJECT NO. 2-0-0351
APPROVED BY: <i>[Signature]</i> CITY ENGINEER	DATE: 2-14-11	DESIGNED BY: K. AMIN	DRAWN BY: M. HOWARD	DATE DRAWN: FEBRUARY 2011	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i>	APPROVED BY: <i>[Signature]</i>	DATE: 10 Feb 2011	DRAWING NO. 2-416
REF.	DESCRIPTION	APPR.	DATE	DATE: 2/14/11	DATE: 10 Feb 2011	MISC DETAILS		SHEET NO. 19 OF 47

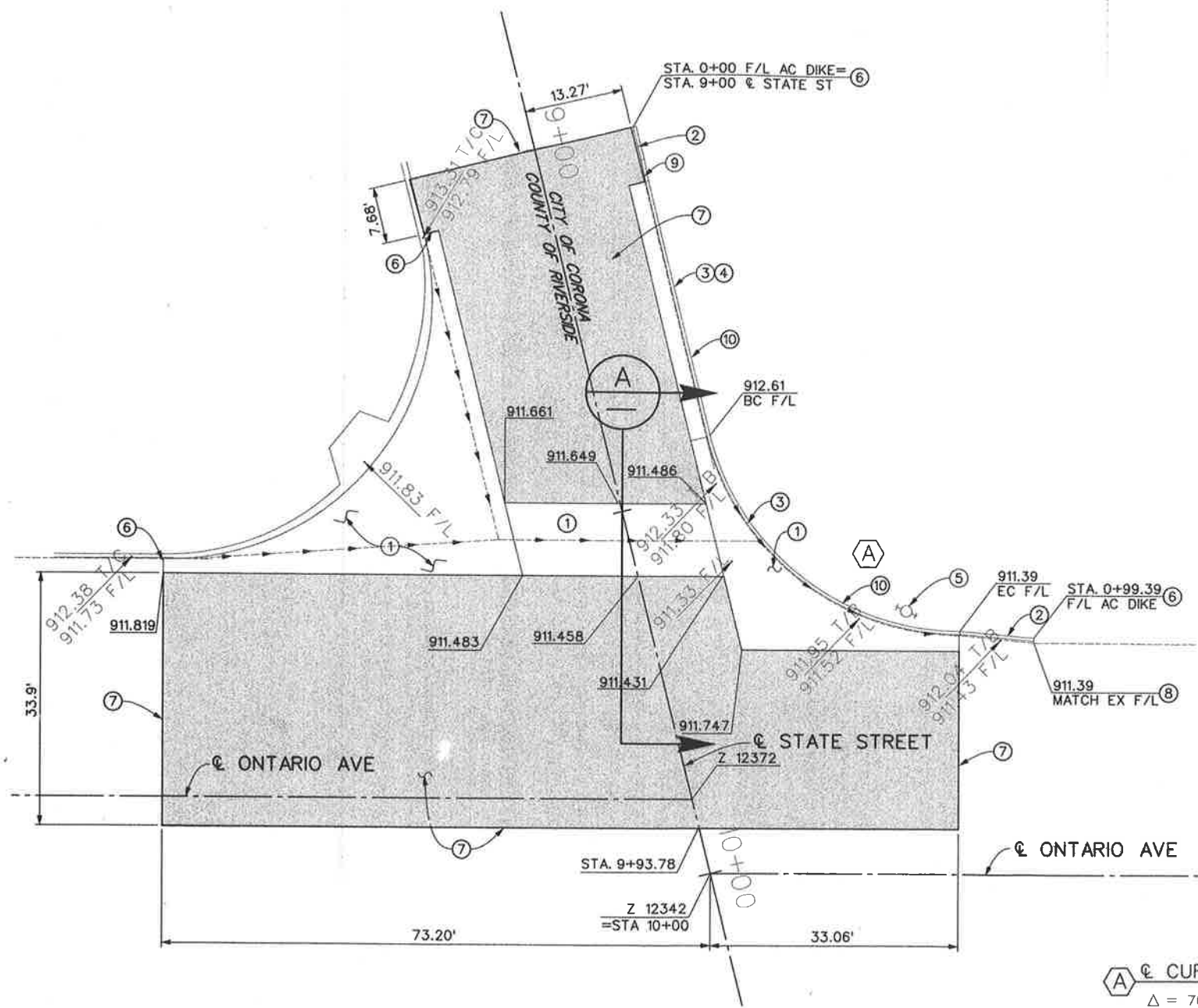


NOTES

- ① CONSTRUCT 3" THICK AC APRON AROUND INLET PER DETAILS ON THIS SHEET.
- ② CONSTRUCT AC DIKE PER COUNTY OF RIVERSIDE STD NO. 212 WITH MODIFICATIONS PER THIS SHEET.
- ③ CONSTRUCT AC DIKE TRANSITION PER DETAILS ON THIS SHEET.
- ④ INSTALL TYPE K-2 OBJECT MARKERS PER CALTRANS STD A73A. EQUALLY SPACED PER LAYOUT ON THIS SHEET. AS DIRECTED BY THE ENGINEER.
- ⑤ CONSTRUCT CONCRETE WITH INLET WITH OPENINGS ON 3 SIDES (E,W&S), PER STD CB110. SEE PROFILE ON SHEET 16.



REVISIONS			RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT			CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 MISC. DETAILS		PROJECT NO. 2-0-0351
DESIGNED BY:	K. AMIN	RECOMMENDED FOR APPROVAL BY:	<i>Donald Spill</i>	APPROVED BY:	<i>Robert J. Cullen</i>	DRAWING NO. 2-416		SHEET NO. 21 OF 47
DRAWN BY:	M. HOWARD	DATE:	2/10/11	DATE:	10-12-2011	DRAWING NO. 2-416		SHEET NO. 21 OF 47
DATE DRAWN:	FEBRUARY 2011					DRAWING NO. 2-416		SHEET NO. 21 OF 47
REF.	DESCRIPTION	APPR.	DATE			DRAWING NO. 2-416		SHEET NO. 21 OF 47



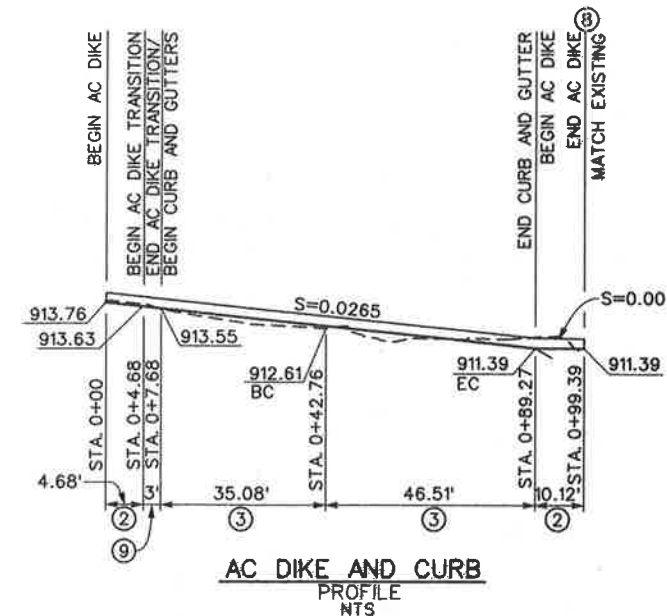
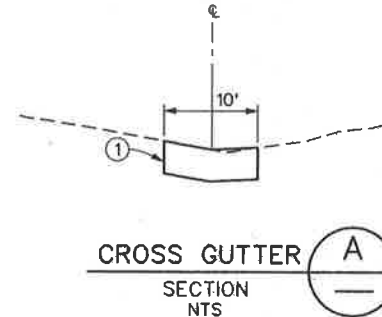
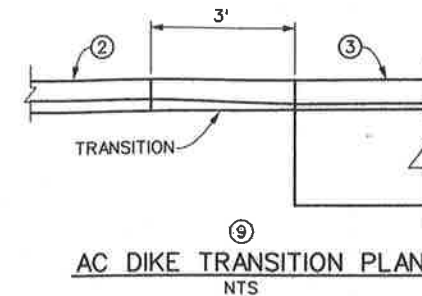
AC DIKE, CURB, AND CROSS GUTTER PLAN VIEW

ALSO SEE PLAN VIEW SHEET 13



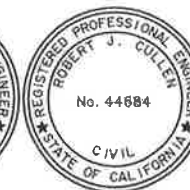
A CURB RETURN CURVE DATA

$\Delta = 76^{\circ} 08' 39''$
 $R = 35.00'$
 $L = 46.51'$
 $T = 27.42'$

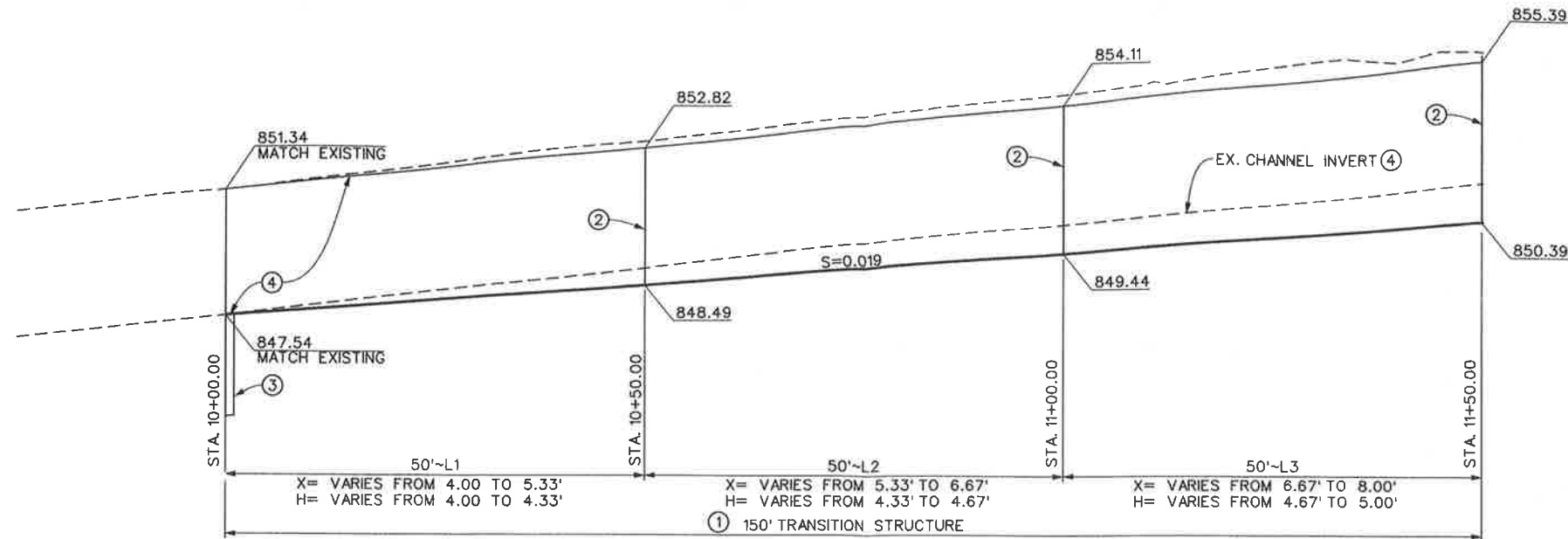


NOTES

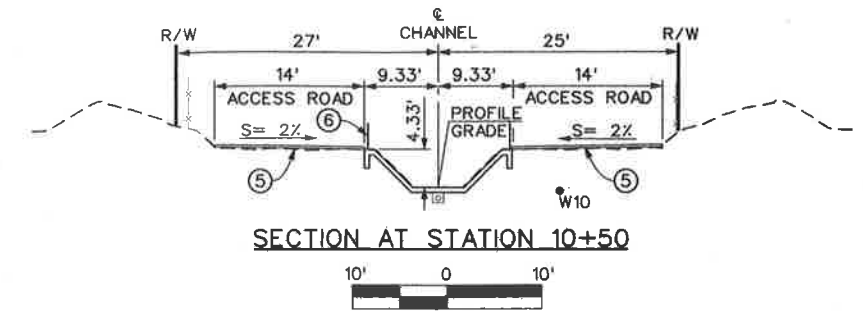
- 1 REMOVE EXISTING CROSS GUTTER AND SPANDREL CONSTRUCT CROSS GUTTER AND SPANDREL PER THIS DETAIL SHEET AND SECTION PER COUNTY OF RIVERSIDE STD NO. 209.
- 2 CONSTRUCT 6" ASPHALT CONCRETE DIKE PER PLAN AND PROFILE ON THIS SHEET AND COUNTY OF RIVERSIDE STD NO. 212.
- 3 CONSTRUCT TYPE A-6 CURB PER PLAN AND PROFILE ON THIS SHEET AND COUNTY OF RIVERSIDE STD NO. 200.
- 4 REMOVE EXISTING AC DIKE.
- 5 PROTECT EX. FIRE HYDRANT IN PLACE.
- 6 LIMITS OF REMOVAL.
- 7 GRIND EXISTING AC AND PLACE 0.1" OVERLAY TO MEET EXISTING AC.
- 8 MATCH EX AC DIKE.
- 9 CONSTRUCT AC DIKE TRANSITION PER THIS SHEET.
- 10 GRADE AREA AS DIRECTED BY THE ENGINEER.



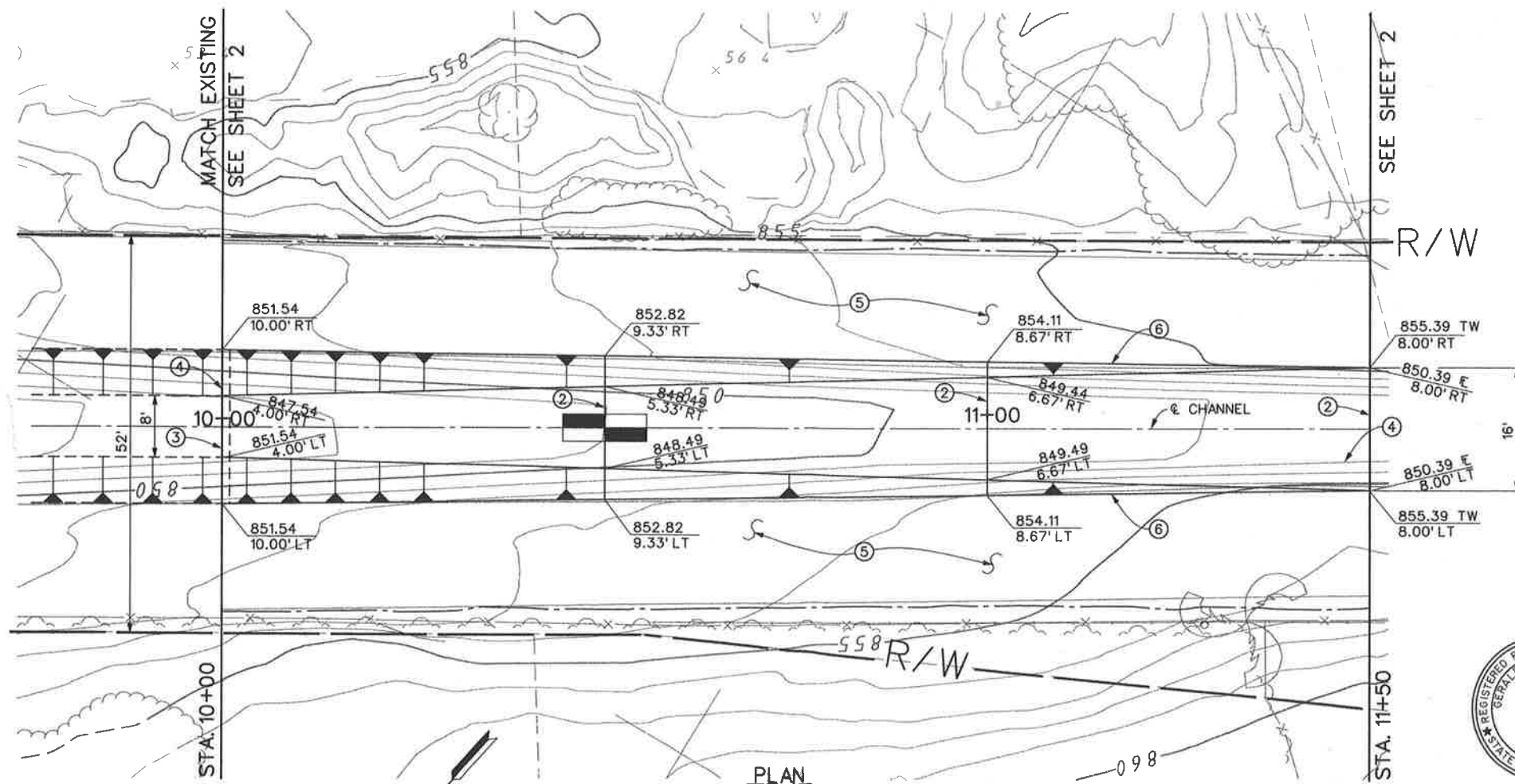
CITY OF CORONA APPROVED BY: <i>[Signature]</i> CITY ENGINEER DATE: 2-14-11		COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY: <i>[Signature]</i> DEPUTY DIRECTOR OF TRANSPORTATION DATE: 2/17/11		REVISIONS REF. DESCRIPTION APPR. DATE		RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011		RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/10/11		APPROVED BY: <i>[Signature]</i> DATE: 10-Feb-2011		CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 MISCELLANEOUS DETAILS STATE STREET CROSS GUTTER DETAIL		PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 22 OF 47	
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PROFILE



SECTION AT STATION 10+50



PLAN

NOTES

- ① SEE SHEET 25 FOR STRUCTURAL DETAILS AND SECTION.
- ② CONSTRUCT TRANSVERSE CONSTRUCTION JOINT PER DETAIL ON SHEET 32.
- ③ CONSTRUCT 3' CUT-OFF WALL PER DETAIL ON SHEET 33.
- ④ SAWCUT AND REMOVE THE EXISTING CHANNEL.
- ⑤ CONSTRUCT 14' ACCESS RD WITH 3" CLASS II AGGREGATE BASE.
- ⑥ INSTALL CABLE RAILING PER CALTRANS STD B11-47.

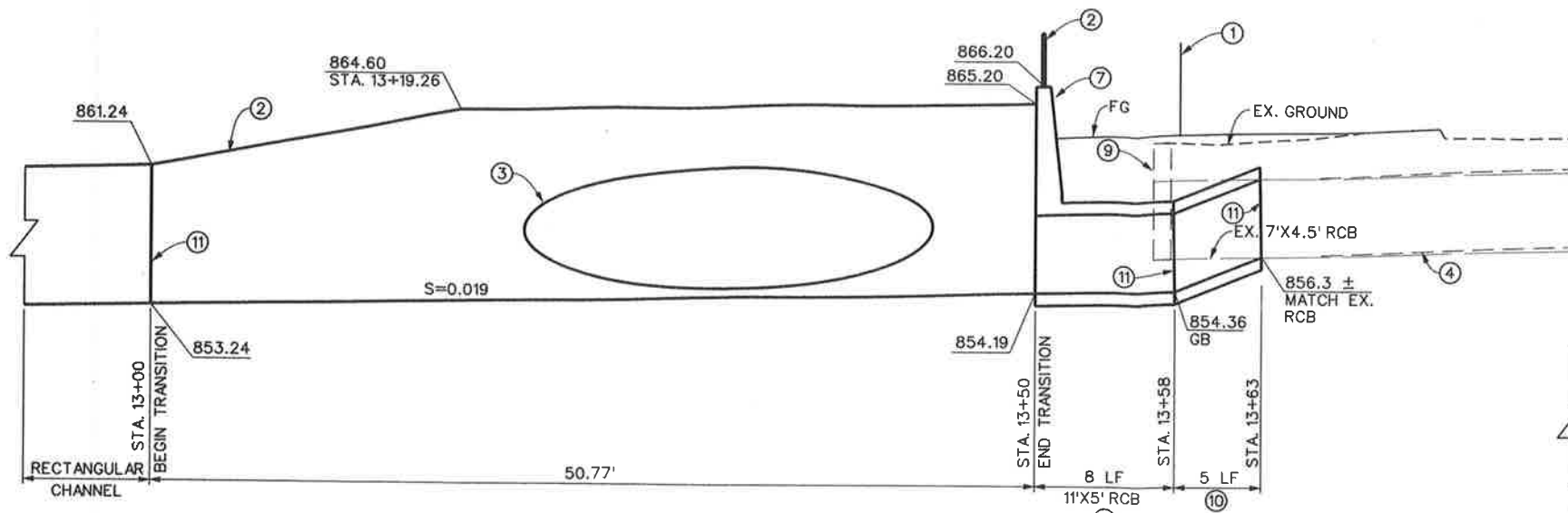


REF.	DESCRIPTION	APPR.	DATE

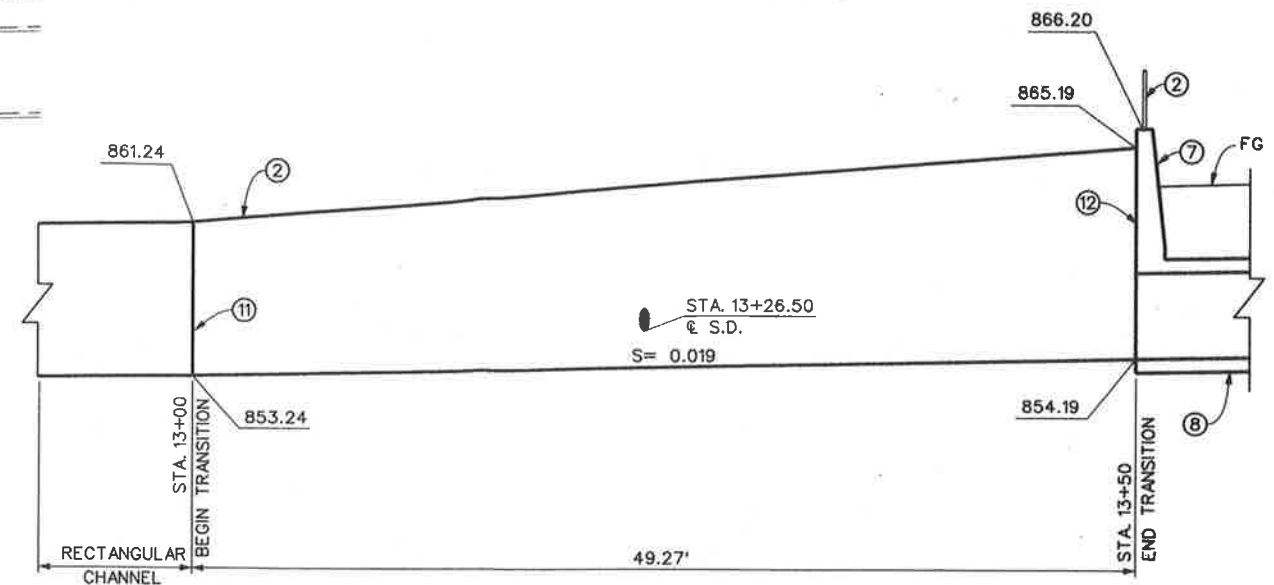
DESIGNED BY: K. AMIN			RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i>			APPROVED BY: <i>[Signature]</i>		
DRAWN BY: M. HOWARD			DATE: 2/10/11			DATE: 10-Feb-2011		
DATE DRAWN: FEBRUARY 2011								

**CORONA DRAINS EAST
ONTARIO AVE.
STORM DRAIN STAGE 1**
STRUCTURE DETAILS
CHANNEL TRANSITION

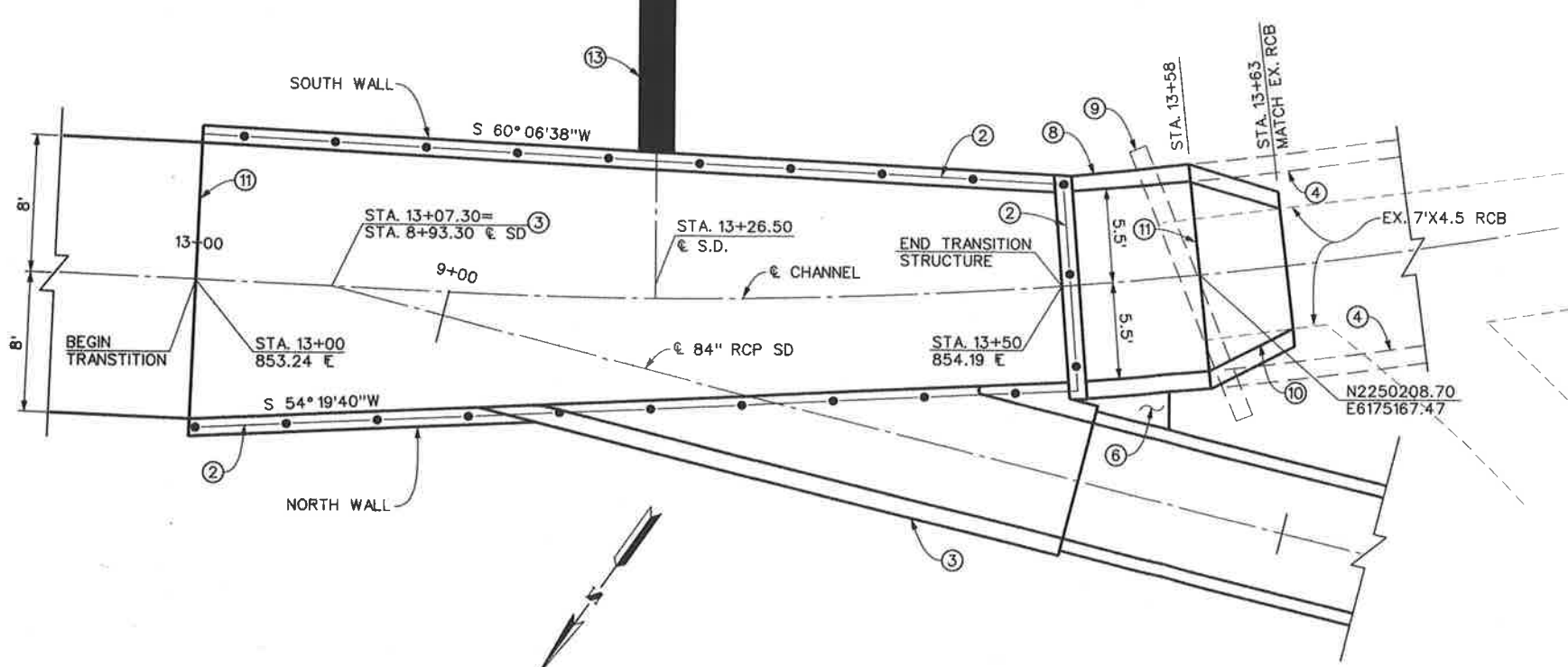
PROJECT NO.
2-0-0351
DRAWING NO.
2-416
SHEET NO.
23 OF 47



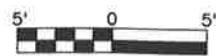
NORTH WALL PROFILE



SOUTH WALL PROFILE



TRANSITION STRUCTURE PLAN



NOTES

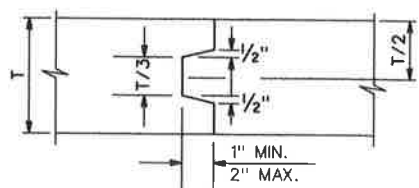
- ① REMOVE EX. CHAIN LINK FENCE.
- ② INSTALL CABLE RAILING PER CALTRANS STD B11-47.
- ③ CONSTRUCT JS NO. 1 PER STD JS 226 AND MODIFICATIONS SHOWN PER THIS SHEET. A=11° 48' 53", B=84", C=44.5' ELEV R=854.35 ELEV S=854.41' AND SHEETS 29 THRU 31.
- ④ EXISTING RCB TO BE RECONSTRUCTED BY OTHERS.
- ⑤ CONSTRUCT RECTANGULAR CHANNEL TRANSITION STRUCTURE PER STRUCTURAL DETAILS ON SHEET 28.
- ⑥ CLSM BACKFILL FROM STA. 13+50 TO STA. 13+56 TO FULL HEIGHT OF STRUCTURE.
- ⑦ SEE SHEET 32 FOR PARAPET WALL DETAILS.
- ⑧ CONSTRUCT 11' X 5' RCB PER CALTRANS STD D80. FOR REINFORCEMENT AND WALL THICKNESS USE SPAN = 12', HEIGHT=6', AND COVER=10'.
- ⑨ REMOVE EX. HEADWALL AND INTERFERING PORTION OF EX CHANNEL AND 7'X4.5' RCB.
- ⑩ CONSTRUCT TRANSITION STRUCTURE #2 PER STD TS302.
- ⑪ TRANSVERSE CONSTRUCTION JOINT PER DETAIL ON SHEET 32.
- ⑫ TRANSVERSE EXPANSION JOINT PER DETAIL ON SHEET 32.
- ⑬ CONSTRUCT CONCRETE DROP INLET PER CB110 WITH OPENINGS ON 3 SIDES (E,W&S) V=4.5' AND 15'-24" RCP CLASS IV PER DETAILS ON SHT 17.



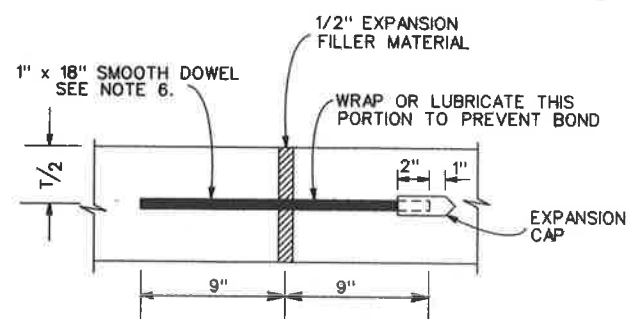
REF.	DESCRIPTION	APPR.	DATE

DESIGNED BY: K. AMIN		RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i>	
DRAWN BY: M. HOWARD		APPROVED BY: <i>[Signature]</i>	
DATE DRAWN: FEBRUARY 2011		DATE: 2/10/11	DATE: 10-10-2014

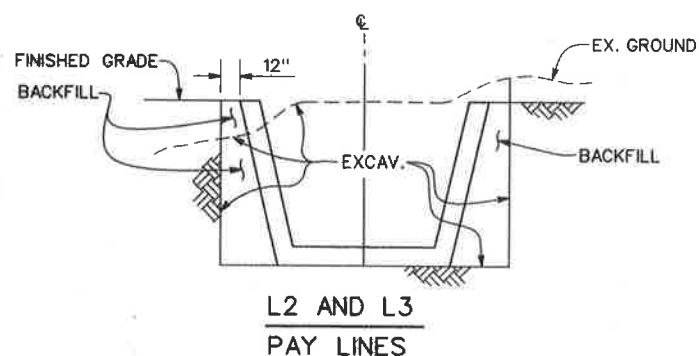
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		PROJECT NO. 2-0-0351
CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1		DRAWING NO. 2-416
STRUCTURE DETAILS TRANSITION STRUCTURE		SHEET NO. 24 OF 47



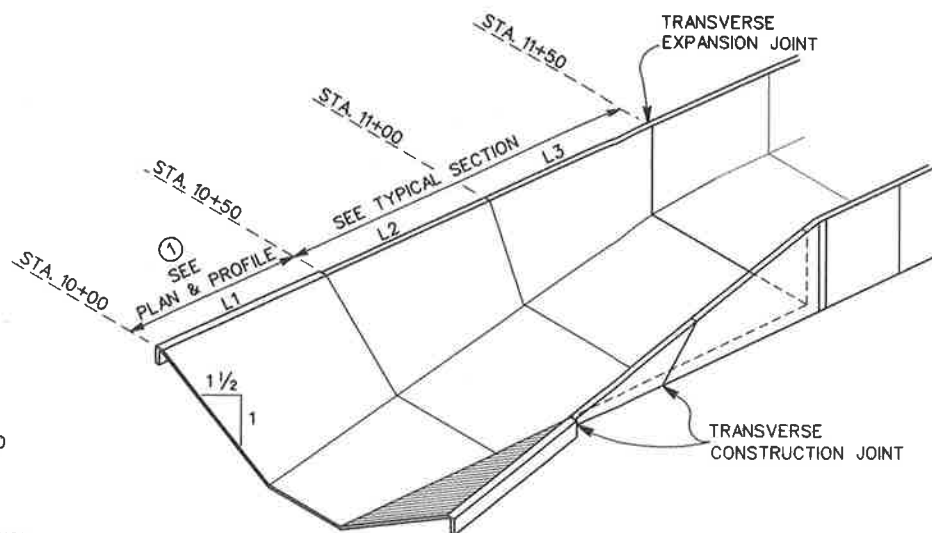
TRANSVERSE CONSTRUCTION JOINT
DETAIL A



TRANSVERSE EXPANSION JOINT
DETAIL B



L2 AND L3
PAY LINES



TYPICAL SECTION
NTS

SPLICES			
BAR	LENGTH	SEC.	REMARKS
4	25		
5	31		
6	37		
7	54		
8	62		

DESIGN DATA
 LIVE LOAD = 2' SURCHARGE
 SOIL DENSITY = 136 PCF
 LATERAL LOAD = 44 PCF

ALLOWABLE STRESSES
 $f_s = 4000$ PSI
 $f_c = 1600$ PSI
 $f_a = 24,000$ PSI
 $f_y = 60,000$ PSI

DATA	DETAIL		SCHEDULE	
	10+50 TO 11+00	11+00 TO 11+50	11+00 TO 11+50	11+50 TO 12+00
STATION TO STATION	10+50 TO 11+00	11+00 TO 11+50	11+00 TO 11+50	11+50 TO 12+00
X	5.33'	6.67'	6.67'	8.0'
Y	9.33'	8.67'	8.67'	8.0'
HEIGHT	4.33'	4.67'	4.67'	5.0'
WALLS T ₁	10"		10"	
WALLS T ₂	10"		10"	
BOTTOM SLAB T ₃	12"		12"	
A BARS	#4 @ 6"		#4 @ 6"	
HORIZ. LENGTH	6'-4"	7'-7"	7'-7"	9'-8"
SLOPE LENGTH	5'-2"	4'-6"	4'-6"	5'-7"
B BARS				
HORIZ. LENGTH				
SLOPE LENGTH				
C BARS	#4 @ 6"		#4 @ 6"	
SLOPE LENGTH	5'-2"	4'-6"	4'-6"	5'-7"
D BARS	#4 @ 6"		#4 @ 6"	
HORIZ. LENGTH	11'-7"	13'-4"	13'-7"	17'-4"
CONCRETE C ₁ /L.F.	0.80	0.80	0.86	0.86
STEEL LBS./L.F.	139	139	139	139

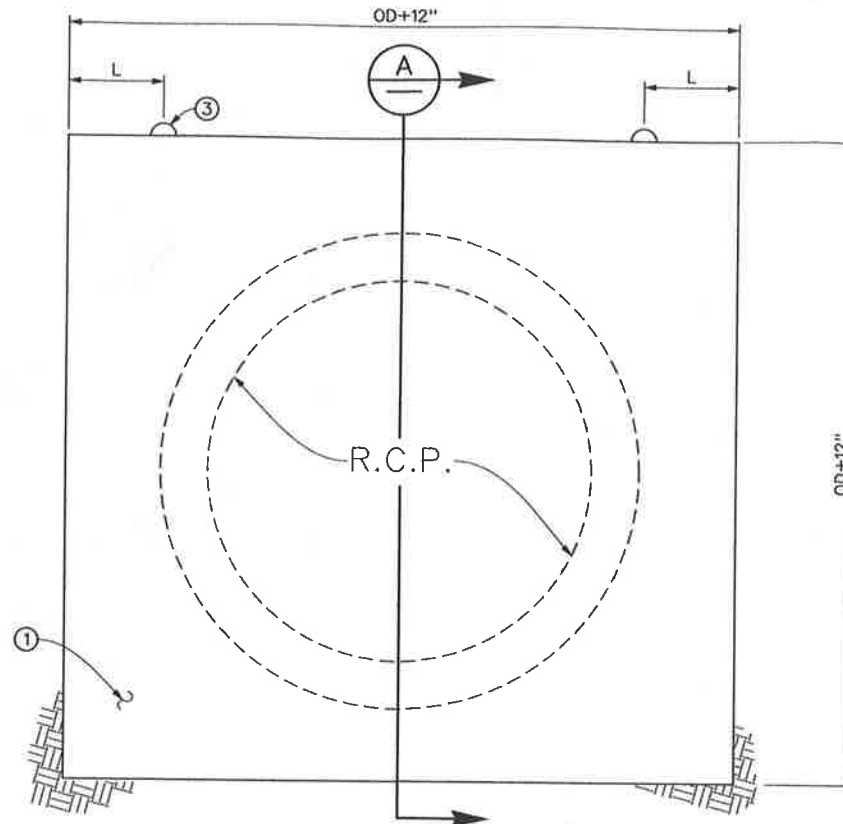
NOTES

- CHANNEL THICKNESS AND REINFORCEMENT PER STD CH326
- STRUCTURAL CONCRETE SHALL BE CLASS "A".
- ALL LONGITUDINAL BARS SHALL BE #4 @ 18 INCHES. PLACE BARS IN BOTTOM SLAB SYMMETRICALLY ABOUT CENTERLINE. PLACE BARS IN WALLS STARTING AT TOP WITH 2 INCHES CLEAR COVER.
- CLEAR COVER FOR STEEL SHALL BE 2 INCHES EACH FACE FOR WALLS AND 3 INCHES EACH FACE FOR BOTTOM SLAB.
- STEEL IS DIMENSIONED TO BACK OF BAR BEND.
- FOR CONSTRUCTION ON CURVES, STRAIGHT TRANSVERSE BARS IN THE SLAB SHALL BE ALIGNED RADIALLY WITH SPACING MEASURED AT WALLS. FOR L-BARS IN WALLS, SPACING SHALL BE MEASURED BETWEEN VERTICAL LEGS OF BARS.
- ALL TRANSVERSE CONSTRUCTION JOINTS SHALL BE IN A VERTICAL PLANE NORMAL TO THE CENTERLINE. CONTINUOUS KEYWAYS SHALL BE CONSTRUCTED AS SHOWN IN DETAIL A. A COMPLETE CURTAIN OF TRANSVERSE STEEL SHALL BE PLACED 3 INCHES FROM EACH FACE OF THE JOINTS AND LONGITUDINAL STEEL WILL NOT BE CONTINUOUS THROUGH THE JOINTS. AN EXPANSION JOINT SHALL BE CONSTRUCTED BETWEEN THE REINFORCED CONCRETE TRANSITION AND REINFORCED CONCRETE BOX SECTIONS AS SHOWN DETAIL B. DOWELS SHALL BE PLACED AT 18 INCH SPACING CENTERED IN THE MIDDLE OF THE BOTTOM SLAB AND THE TOP THIRD OF SIDE WALLS. A MINIMUM OF 3 DOWELS PER SLAB AND WALLS SHALL BE PLACED.
- WEEPHOLES SHALL BE FORMED IN BOTH WALLS PER STD. CH326 AT A SPACING OF 10 FEET.
- ALL QUANTITIES SHOWN ARE APPROXIMATE.
- ALL SPLICES ARE SUBJECT TO APPROVAL BY THE ENGINEER.
- SECTION L1 PAY LIMIT PER STANDARD CH326.
- T₁ SHOULD BE 12" MINIMUM. IF T₁ IS LESS THAN 12", WIDEN TOP TO 12" AS SHOWN.

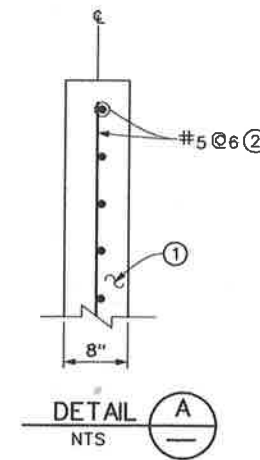


REVISIONS			RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT			CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 STRUCTURE DETAILS TRANSITION STRUCTURE	PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 25 OF 47
REF.	DESCRIPTION	APPR. DATE	DESIGNED BY: K. AMIN	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i>	APPROVED BY: <i>[Signature]</i>		
			DRAWN BY: M. HOWARD	DATE: 2/10/11	DATE: 1-6-11-2011		

BULKHEAD DATA: ID= 60" L= 1'-8"
P= 1'-8" T= 8"

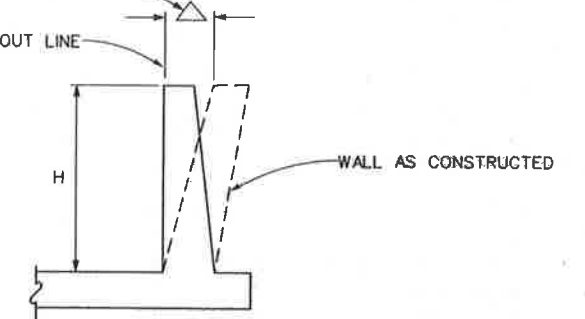


MODIFIED CONCRETE BULKHEAD



△ = VARIES FROM 3/16" @ H=7' TO 3/8" @ H=11'

VERTICAL LAYOUT LINE



WALL CONSTRUCTION OFFSET

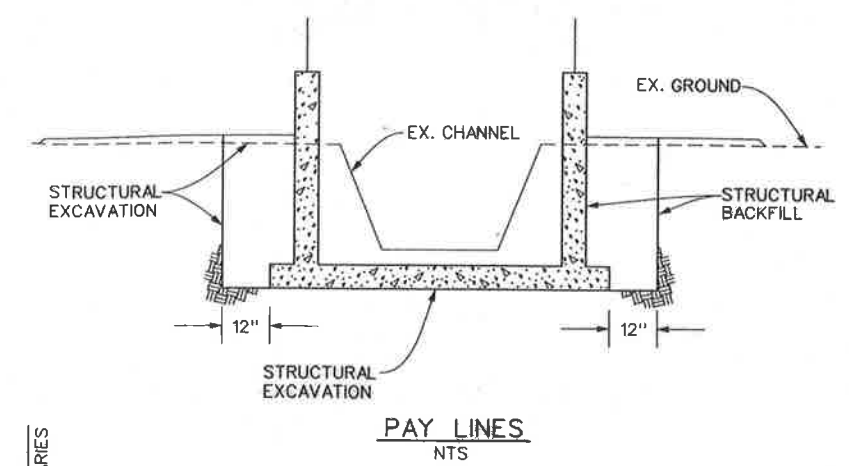
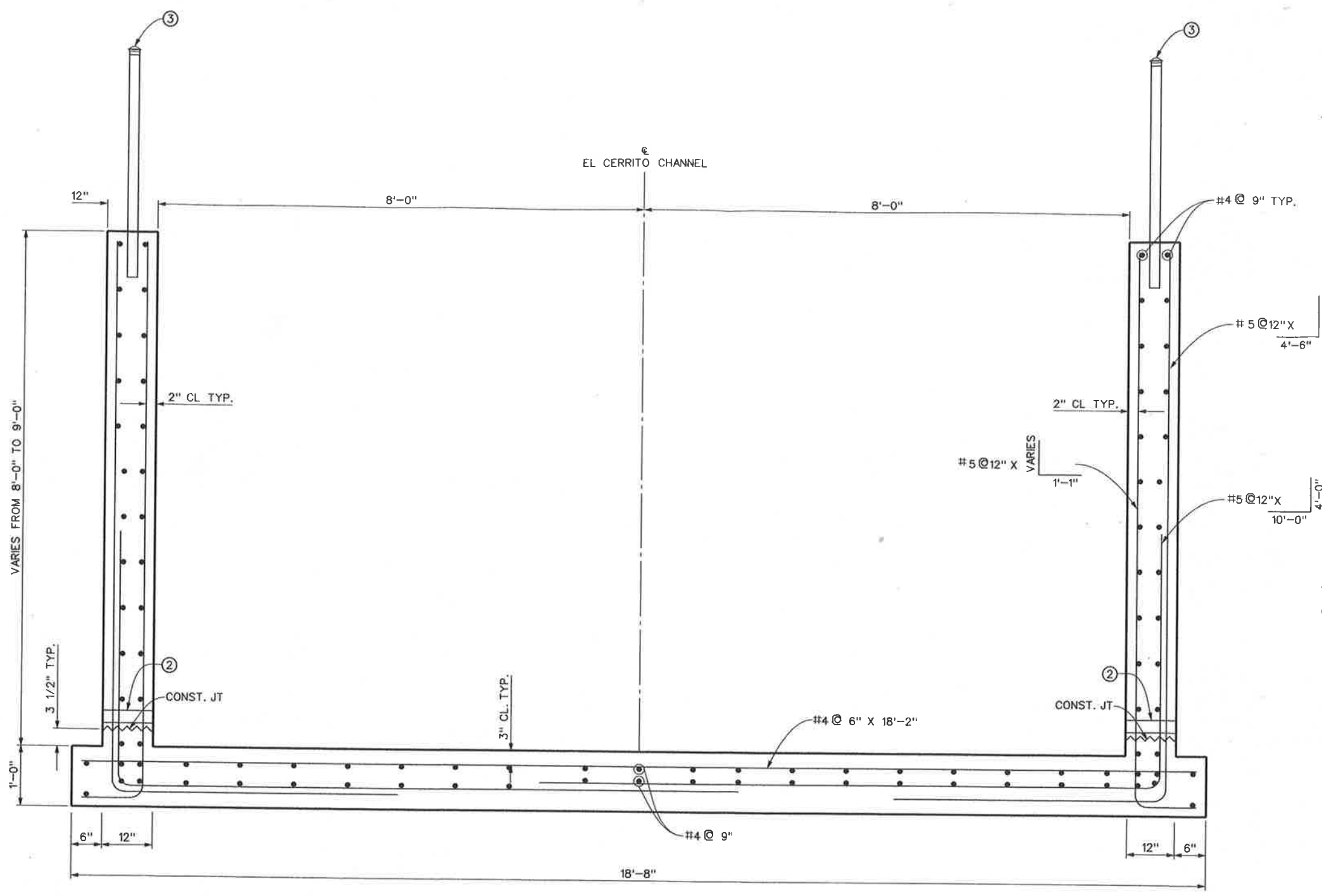
N.T.S.

NOTES

- ① CONCRETE SHALL BE CLASS "A" 4000PSI
- ② REINFORCING STEEL SHALL BE #5 @ 6" O.C.E.W. CENTERED IN THE BULKHEAD.
- ③ LIFTING DETAILS SHALL BE PER M816.



REVISIONS			RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT			CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 MODIFIED CONCRETE BULKHEAD STRUCTURE DETAILS		PROJECT NO. 2-0-0351
DESIGNED BY:	K. AMIN	RECOMMENDED FOR APPROVAL BY:	<i>[Signature]</i>	APPROVED BY:	<i>[Signature]</i>	DRAWING NO. 2-416		DRAWING NO. 2-416
DRAWN BY:	M. HOWARD	DATE DRAWN:	FEBRUARY 2011	DATE:	2/10/11	DATE:		10-Feb-2011
REF.	DESCRIPTION	APPR.	DATE			SHEET NO. 26 OF 47		



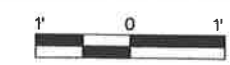
DESIGN DATA
 LIVE LOAD = 2' SURCHARGE
 SOIL DENSITY = 136 PCF
 LATERAL LOAD = 44 PCF

ALLOWABLE STRESSES
 $f_c = 4000$ PSI
 $f_s = 1600$ PSI
 $f_t = 24,000$ PSI
 $f_y = 60,000$ PSI

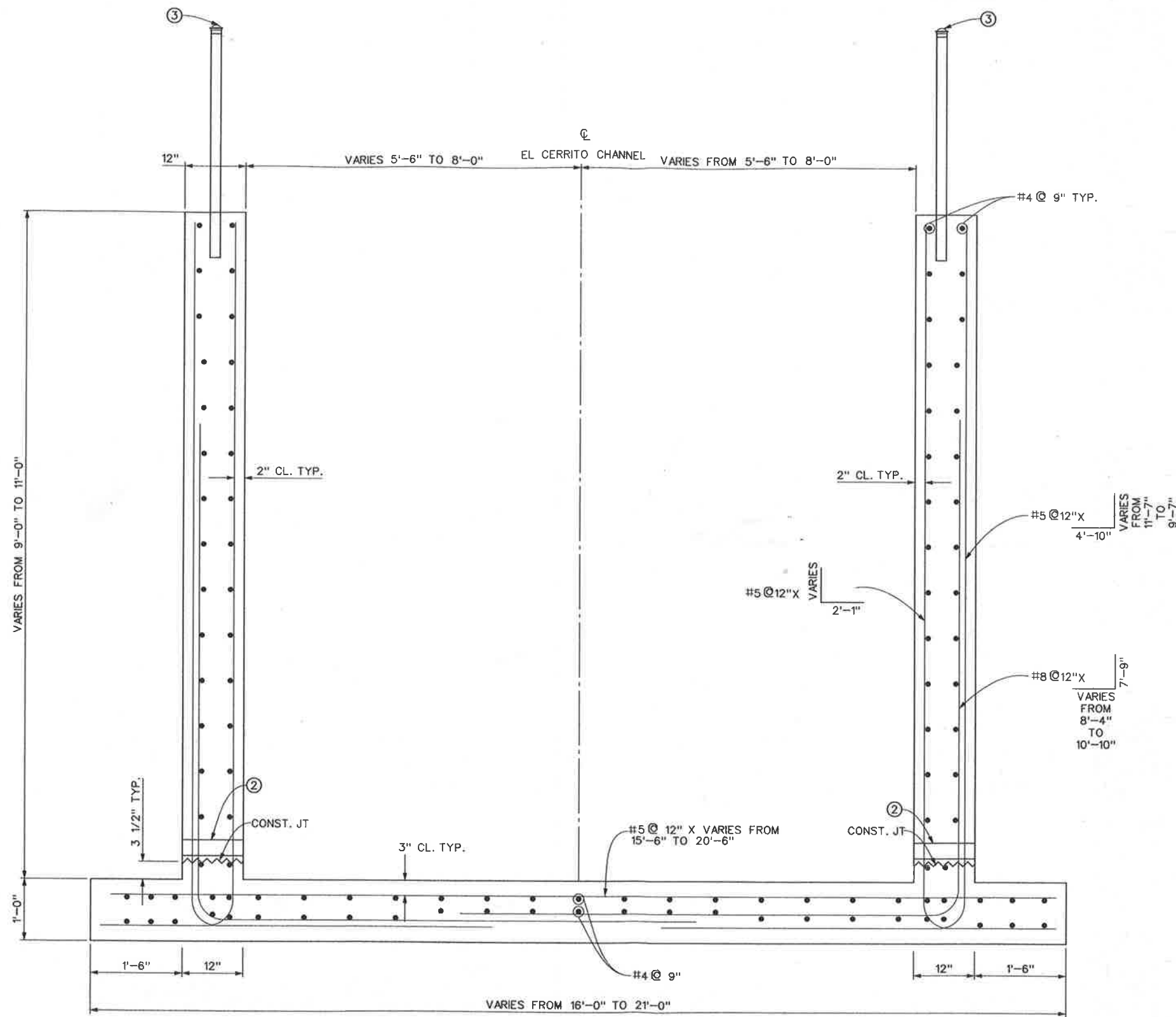
LATERAL LOAD DESIGN HEIGHT = 8 FEET

- NOTES**
- ALL CONCRETE FOR THE STRUCTURE IS CLASS "A" CONCRETE, RECTANGULAR CHANNEL.
 - INSTALL 2 1/2" Ø WEEPHOLE WITH FILTER MATERIAL PER STD CH326.
 - INSTALL CABLE RAILING PER CALTRANS STD B11-47.
 - TRANSVERSE CONSTRUCTION JOINTS ARE REQUIRED IN WALLS AND INVERT AT A SPACING OF 50'. TRANSVERSE JOINTS IN WALL FOOTINGS AND WALLS SHALL BE KEYED.
 - STEEL IS DIMENSIONED TO BACK OF BAR BEND.
 - FOR CONSTRUCTION ON CURVES, STRAIGHT TRANSVERSE BARS SHALL BE ALIGNED RADIALLY WITH SPACING MEASURED AT FACE OF WALL. FOR L-BARS IN WALLS, SPACING SHALL BE MEASURED AT FACE BETWEEN THE VERTICAL LEGS OF BARS.
 - ALL TRANSVERSE CONSTRUCTION JOINTS SHALL BE IN A VERTICAL PLANE NORMAL TO THE CENTERLINE AND THE SPACING THEREOF SHALL NOT EXCEED 50' OR BE LESS THAN 10'. CONTINUOUS KEYWAYS SHALL BE CONSTRUCTED AS SHOWN ON SHEET 32. A COMPLETE CURTAIN OF TRANSVERSE STEEL SHALL BE PLACED 3" FROM EACH FACE OF THE JOINTS AND LONGITUDINAL STEEL WILL NOT BE CONTINUOUS THROUGH THE JOINTS. IN ADDITION, EXPANSION JOINTS SHALL BE CONSTRUCTED BETWEEN REINFORCED CONCRETE CHANNEL AND REINFORCED CONCRETE BOX SECTIONS AS SHOWN ON SHEET 32. DOWELS SHALL BE PLACED AT 12" SPACING CENTERED IN THE MIDDLE THIRD OF THE BOTTOM SLAB AND THE TOP THIRD OF SIDE WALLS. A MINIMUM OF 3 DOWELS PER SLAB AND WALLS SHALL BE PLACED.
 - WEEPHOLES SHALL BE FORMED AS SHOWN IN BOTH WALLS AT A SPACING OF 10' WITH ONE CUBIC FOOT OF FILTER MATERIAL WRAPPED IN FILTER FABRIC PLACED AT EACH HOLE.

RECTANGULAR CHANNEL TRANSITION
 STA. 11+50 TO STA. 13+00



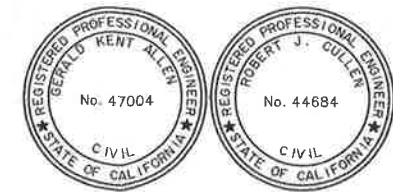
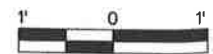
REVISIONS			RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT			CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 STRUCTURE DETAILS RECTANGULAR CHANNEL		PROJECT NO. 2-0-0351
DESIGNED BY: K. AMIN	RECOMMENDED FOR APPROVAL BY:	APPROVED BY:	DATE DRAWN: FEBRUARY 2011	DATE: 2/10/11	DATE: 10-FB-2011	DRAWING NO. 2-416		SHEET NO. 27 OF 47
REF.	DESCRIPTION	APPR.	DATE					



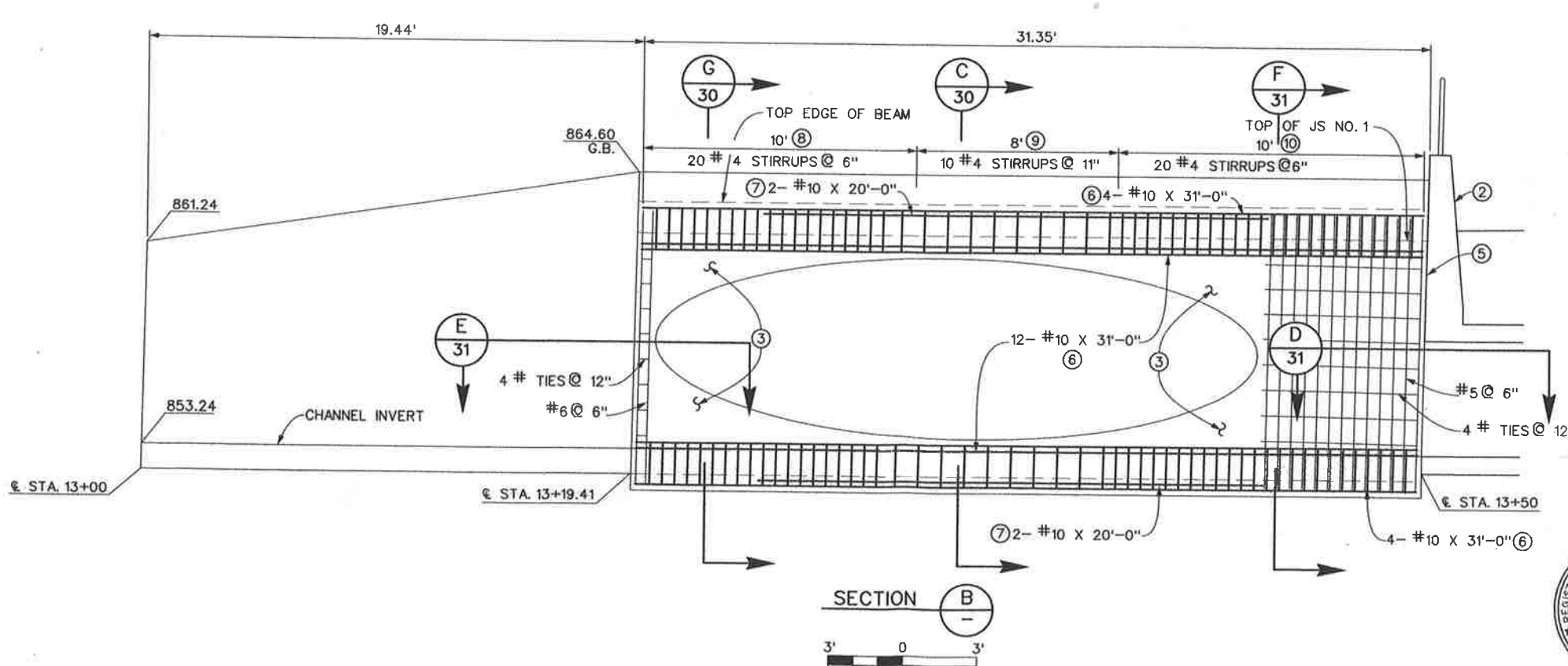
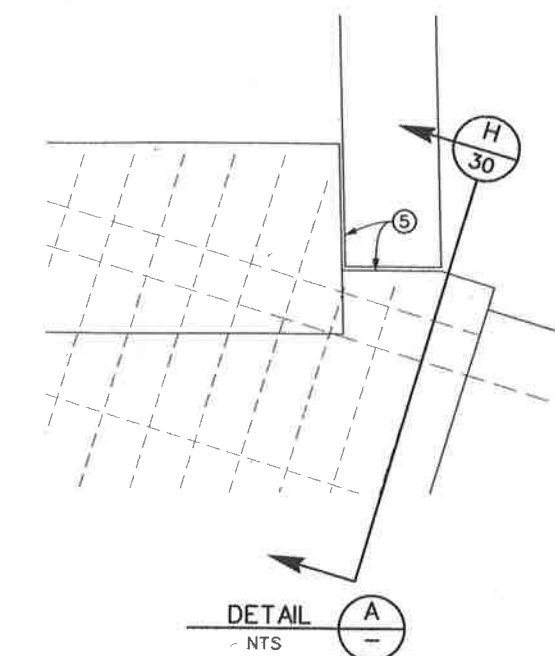
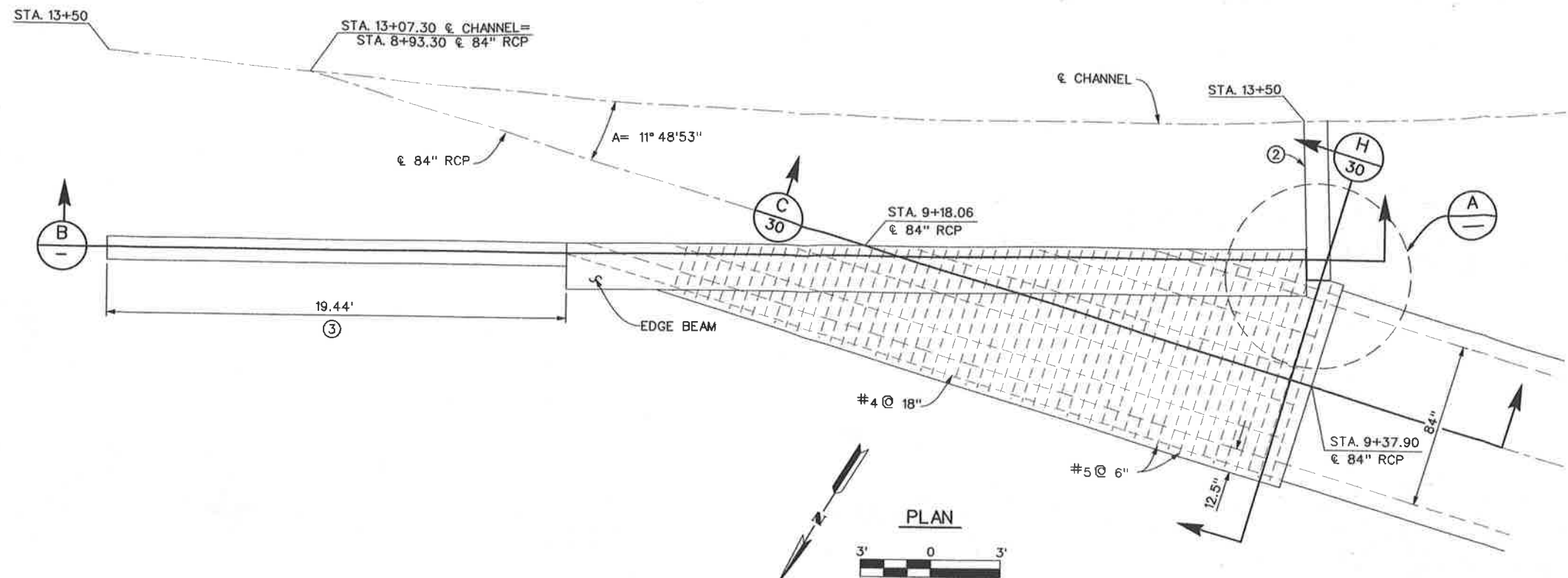
DESIGN DATA
 LIVE LOAD = 2' SURCHARGE
 SOIL DENSITY = 136 PCF
 LATERAL LOAD = 44 PCF
 ALLOWABLE STRESSES
 $f_c = 4000$ PSI
 $f_s = 1600$ PSI
 $f_t = 24,000$ PSI
 $f_y = 60,000$ PSI
 LATERAL LOAD DESIGN
 HEIGHT = 10 FEET

- NOTES**
- 1 ALL CONCRETE FOR THE STRUCTURE IS CLASS "A" CONCRETE, RECTANGULAR CHANNEL.
 - 2 INSTALL 2 1/2" Ø WEEPHOLE WITH FILTER MATERIAL PER STD CH326.
 - 3 INSTALL CABLE RAILING PER CALTRANS STD B11-47.
 - 4 STEEL IS DIMENSIONED TO BACK OF BAR BEND.
 - 5 FOR CONSTRUCTION ON CURVES, STRAIGHT TRANSVERSE BARS SHALL BE ALIGNED RADIALLY WITH SPACING MEASURED AT FACE OF WALL. FOR L-BARS IN WALLS, SPACING SHALL BE MEASURED AT FACE BETWEEN THE VERTICAL LEGS OF BARS.
 - 6 ALL TRANSVERSE CONSTRUCTION JOINTS SHALL BE IN A VERTICAL PLANE NORMAL TO THE CENTERLINE AND THE SPACING THEREOF SHALL NOT EXCEED 50' OR BE LESS THAN 10'. CONTINUOUS KEYWAYS SHALL BE CONSTRUCTED AS SHOWN ON SHEET 32. A COMPLETE CURTAIN OF TRANSVERSE STEEL SHALL BE PLACED 3" FROM EACH FACE OF THE JOINTS AND LONGITUDINAL STEEL WILL NOT BE CONTINUOUS THROUGH THE JOINTS. IN ADDITION, EXPANSION JOINTS SHALL BE CONSTRUCTED BETWEEN REINFORCED CONCRETE CHANNEL AND REINFORCED CONCRETE BOX SECTIONS AS SHOWN ON SHEET 32. DOWELS SHALL BE PLACED AT 12" SPACING CENTERED IN THE MIDDLE THIRD OF THE BOTTOM SLAB AND THE TOP THIRD OF SIDE WALLS. A MINIMUM OF 3 DOWELS PER SLAB AND WALLS SHALL BE PLACED.
 - 7 WEEPHOLES SHALL BE FORMED AS SHOWN IN BOTH WALLS AT A SPACING OF 10' WITH ONE CUBIC FOOT OF FILTER MATERIAL WRAPPED IN FILTER FABRIC PLACED AT EACH HOLE.

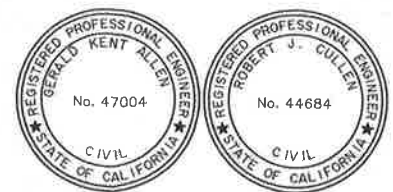
RECTANGULAR CHANNEL HEIGHT TRANSITION
 STA. 13+00 TO STA. 13+50



REVISIONS				RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT			CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 STRUCTURE DETAILS RECTANGULAR CHANNEL		PROJECT NO. 2-0-0351
REF.	DESCRIPTION	APPR.	DATE	DESIGNED BY: K. AMIN	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i>	APPROVED BY: <i>[Signature]</i>	STRUCTURE DETAILS RECTANGULAR CHANNEL		DRAWING NO. 2-416
				DRAWN BY: M. HOWARD	DATE: 2/10/11	DATE: 10-Feb-2011			SHEET NO. 28 OF 47
				DATE DRAWN: FEBRUARY 2011					



- NOTES**
- 1 CONCRETE IS CLASS "A" CONCRETE, 4000 PSI.
 - ② SEE SHEET 32 FOR PARAPET WALL DETAIL.
 - ③ SEE SHEET 28 FOR RECTANGULAR CHANNEL DETAIL.
 - ④ CONSTRUCT KEYED CONSTRUCTION JOINT PER SHEET 32 AT STA. 13+19.41
 - ⑤ PLACE 1/2" PREMOLDED EXPANSION JOINT FILTER BETWEEN CHANNEL WALL AND BOX PARAPET WALL.
 - ⑥ FROM ℓ STA. 13+19.41 TO ℓ STA. 13+49.79
 - ⑦ FROM ℓ STA. 13+24.10 TO ℓ STA. 13+43.73
 - ⑧ FROM ℓ STA. 13+20.41 TO ℓ STA. 13+30.24
 - ⑨ FROM ℓ STA. 13+30.24 TO ℓ STA. 13+38.08
 - ⑩ FROM ℓ STA. 13+38.08 TO ℓ STA. 13+47.91

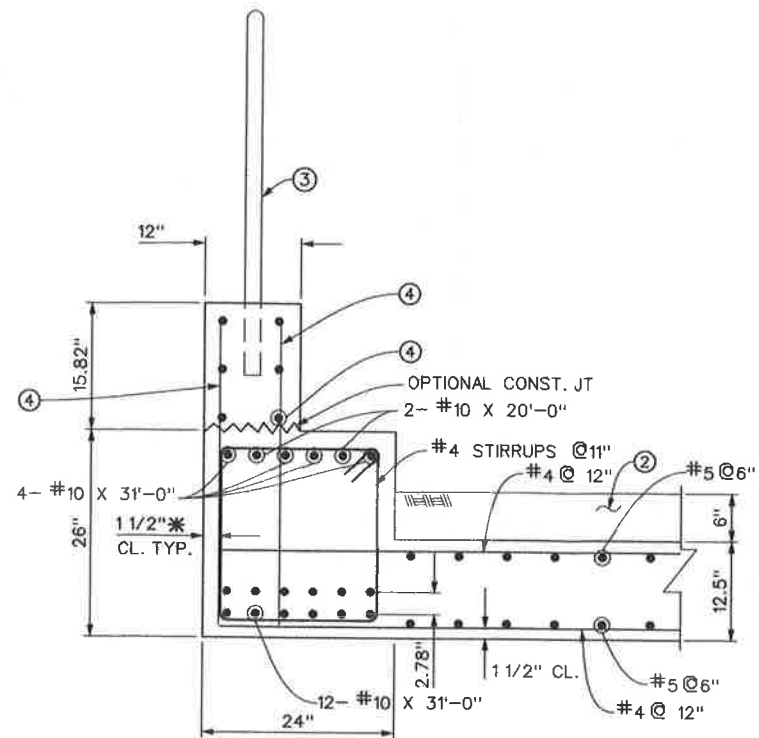
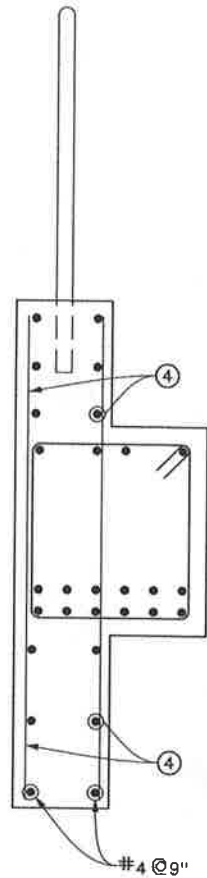


REF.	DESCRIPTION	APPR.	DATE

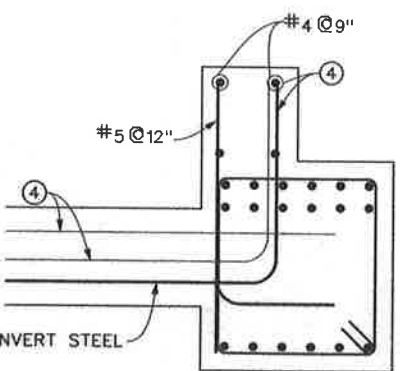
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		
DESIGNED BY: K. AMIN	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i>	APPROVED BY: <i>[Signature]</i>
DRAWN BY: M. HOWARD	DATE DRAWN: FEBRUARY 2011	DATE: 10-10-2011

CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1
 MODIFIED JUNCTION NO. 1
 STRUCTURAL DETAILS

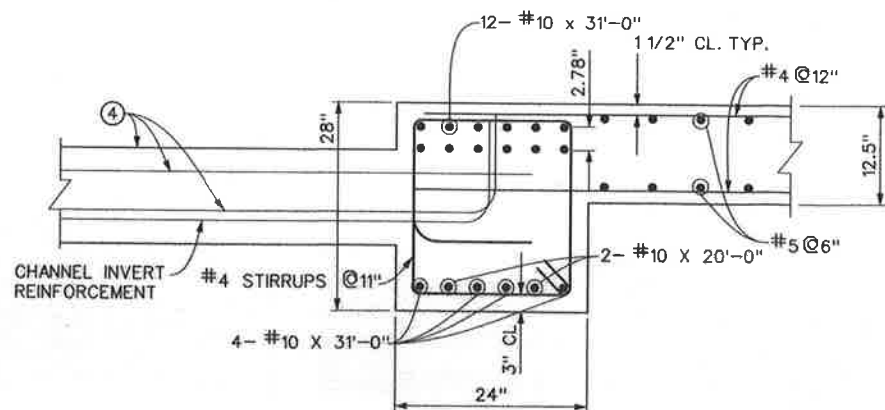
PROJECT NO.	2-0-0351
DRAWING NO.	2-416
SHEET NO.	29 OF 47



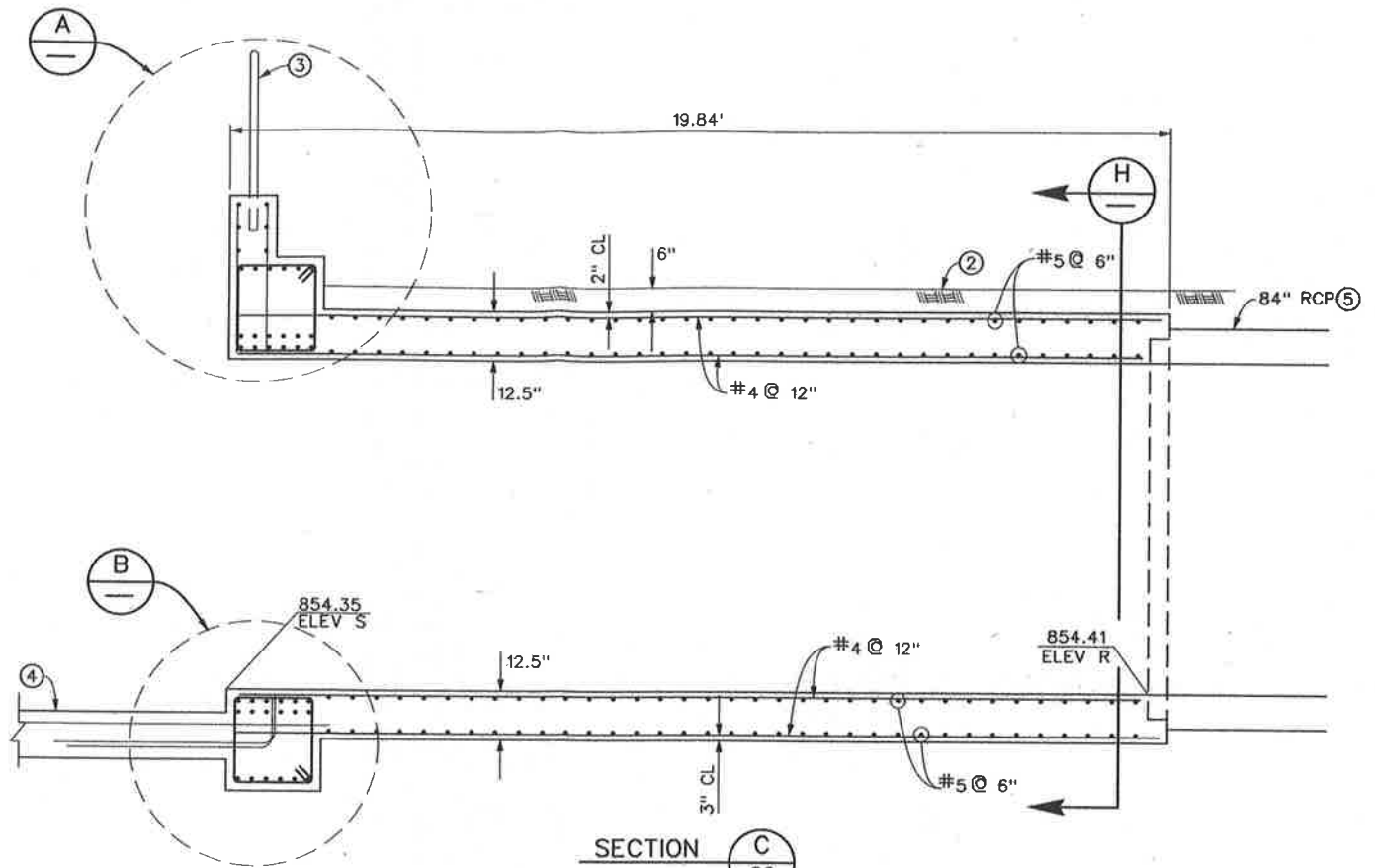
TOP EDGE BEAM DETAIL (A)



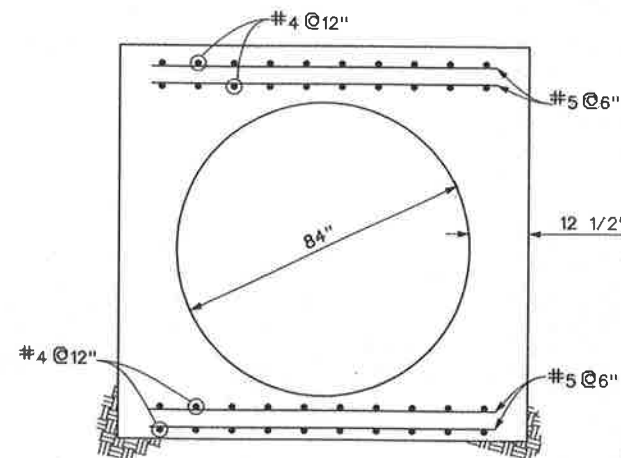
EAST COLUMN DETAIL (G) NTS



BOTTOM EDGE BEAM DETAIL (B)



SECTION C (29)



SECTION H (29)

NOTES

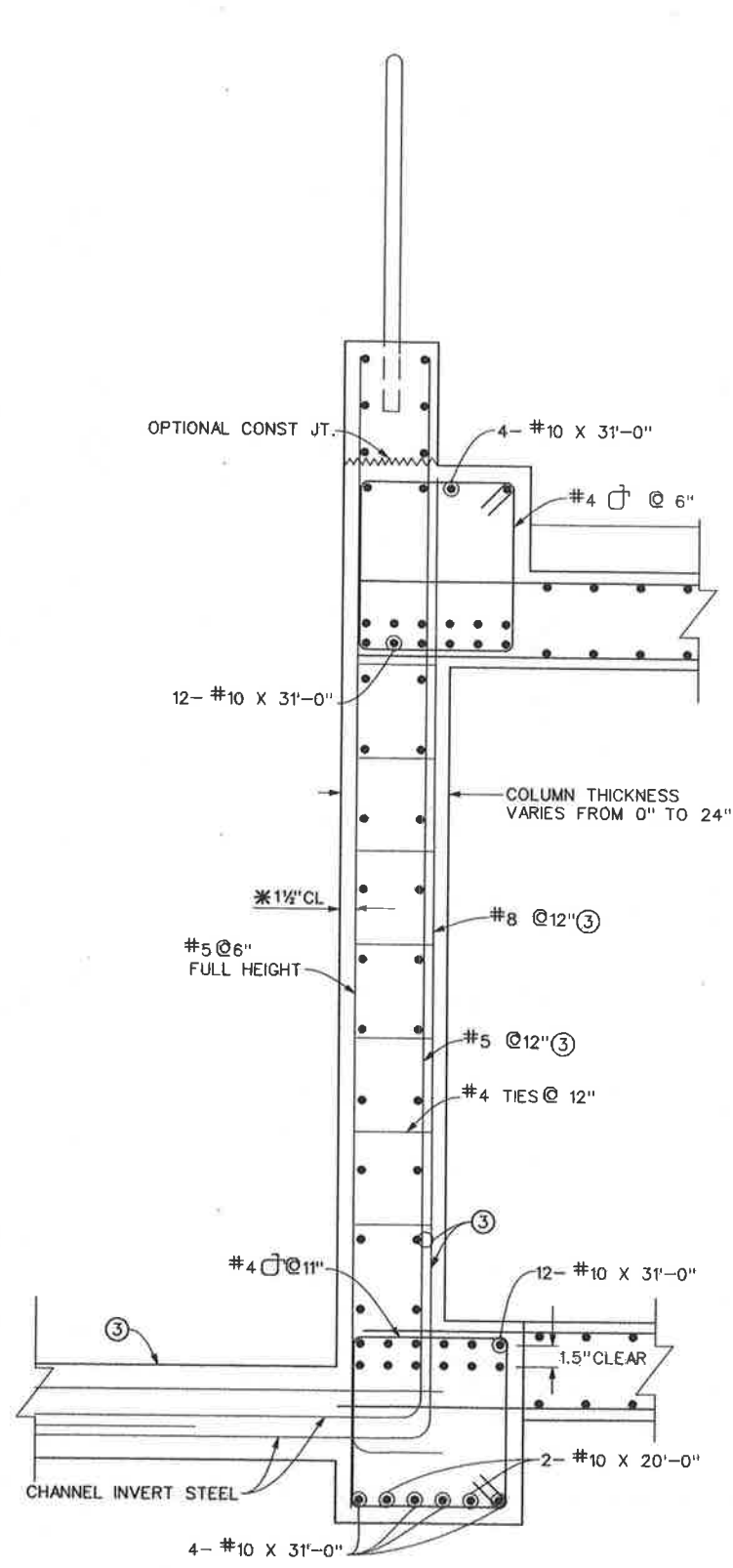
- 1 CONCRETE IS CLASS "A" CONCRETE, 4000 PSI.
 - 2 CONSTRUCT 3" THICK CLASS II AGGREGATE BASE ACCESS ROAD.
 - 3 INSTALL CABLE RAILING PER CALTRANS STD B11-47.
 - 4 RECTANGULAR CHANNEL REINFORCEMENT PER DETAILS ON SHEET 28.
 - 5 CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASEMENT PER DETAIL ON SHEET 35.
- *REINFORCING STEEL CLEARANCE FOR INSIDE FACE OF RECTANGULAR CHANNEL REINFORCING IS REDUCED TO 1 1/2" CLEAR FOR JUNCTION STRUCTURE #1.



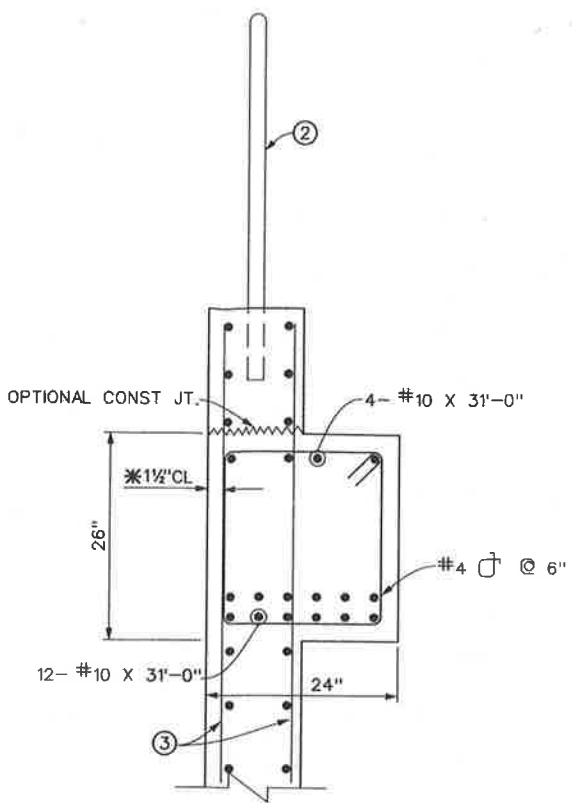
REF.	DESCRIPTION	APPR.	DATE

DESIGNED BY: K. AMIN		RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i>		APPROVED BY: <i>[Signature]</i>	
DRAWN BY: M. HOWARD		DATE: 2/10/11		DATE: 10-Feb-2011	
DATE DRAWN: FEBRUARY 2011					

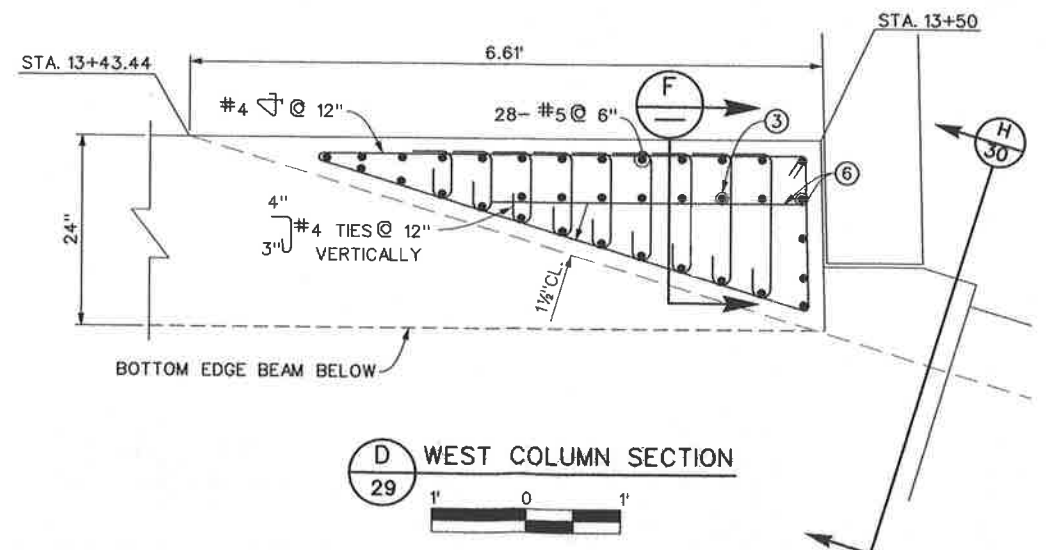
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 MODIFIED JUNCTION NO. 1 STRUCTURAL DETAILS	PROJECT NO.	2-0-0351
	DRAWING NO.	2-416
	SHEET NO.	30 OF 47



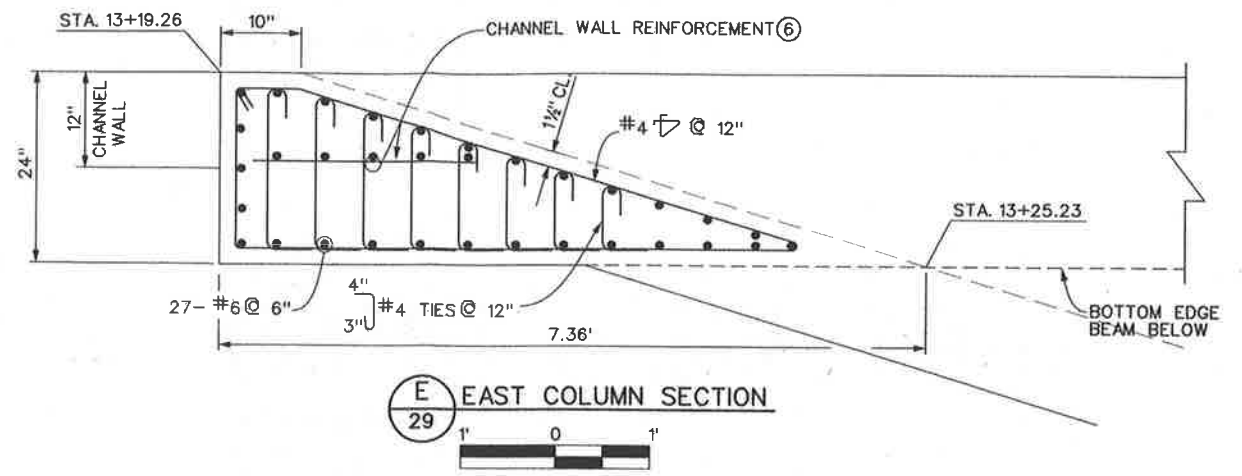
WEST COLUMN SECTION F
NTS 29



TOP EDGE BEAM DETAIL
NTS
STA. 13+20.41 TO STA. 13+30.24
STA. 13+38.08 TO STA. 13+47.91



D WEST COLUMN SECTION
29



E EAST COLUMN SECTION
29

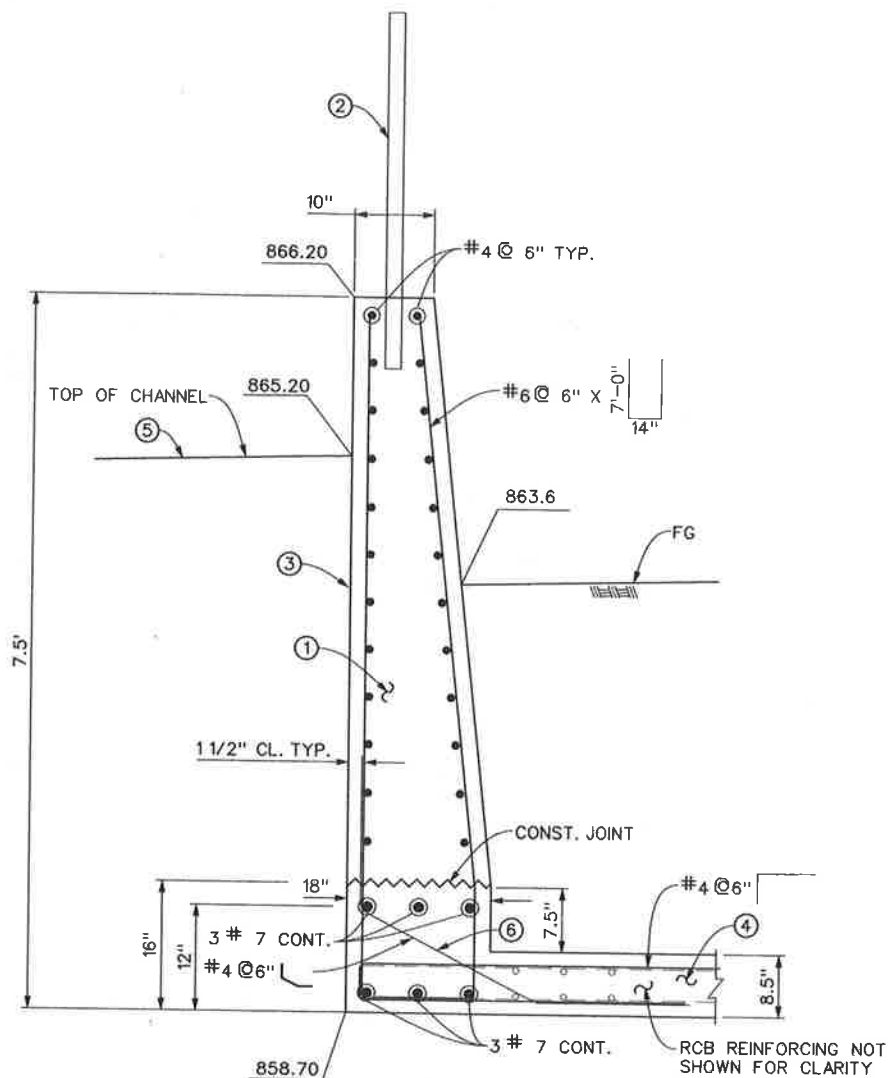
NOTES

- 1 CONCRETE IS CLASS "A" CONCRETE, 4000 PSI.
 - 2 INSTALL CABLE RAILING PER CALTRANS STD B11-47.
 - 3 CONSTRUCT RECTANGULAR CHANNEL PER DETAILS ON SHEET 28.
 - 4 SEE TOP EDGE BEAM DETAIL PER THIS SHEET.
 - 5 SEE WEST COLUMN SECTION PER THIS SHEET.
 - 6 CHANNEL WALL REINFORCEMENT CONTINUES INTO THE FILLET'S.
- *REINFORCING STEEL CLEARANCE FOR INSIDE FACE OF RECTANGULAR CHANNEL REINFORCING IS REDUCED TO 1 1/2" CLEAR FOR JUNCTION STRUCTURE #1.

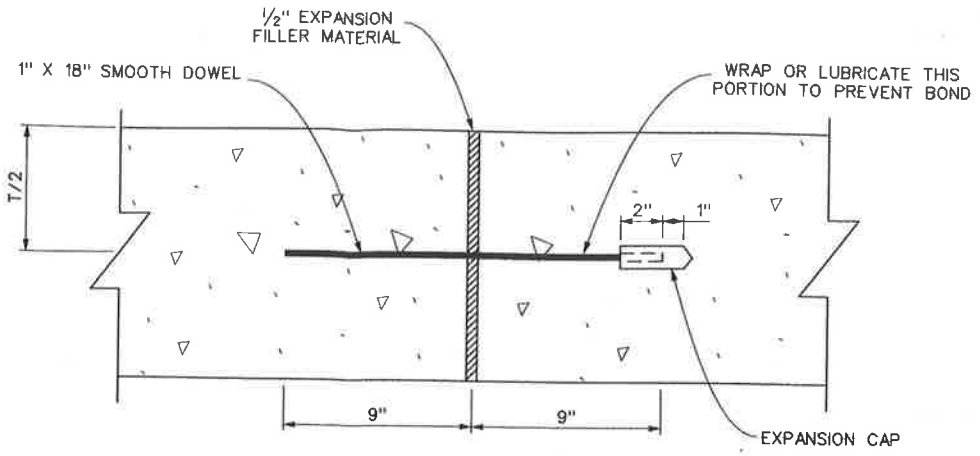


REVISIONS				RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT			CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1	PROJECT NO. 2-0-0351
REF.	DESCRIPTION	APPR.	DATE	DESIGNED BY: K. AMIN	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i>	APPROVED BY: <i>[Signature]</i>		
				DATE DRAWN: FEBRUARY 2011	DATE: 2/10/11	DATE: 10-FEB-2011	DRAWING NO. 2-416	
							SHEET NO. 31 OF 47	

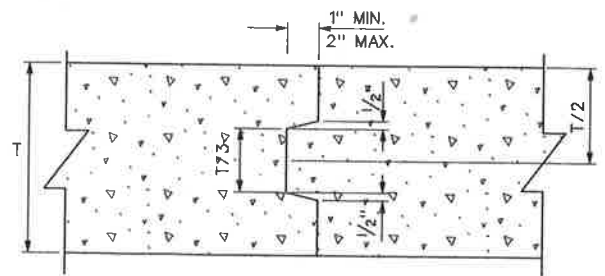
MODIFIED JUNCTION NO. 1
STRUCTURAL DETAILS



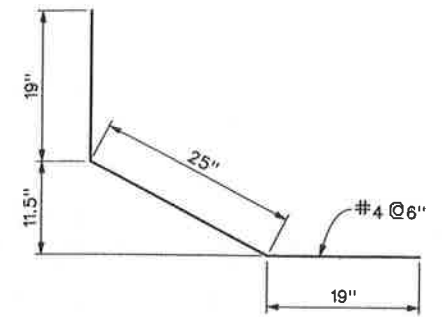
PARAPET WALL DETAIL
STA. 13+50



TRANSVERSE EXPANSION JOINT DETAIL
TYP. DOWEL DETAIL
N.T.S.



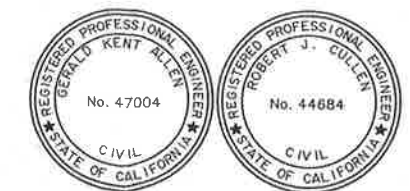
TRANSVERSE CONSTRUCTION JOINT DETAIL
N.T.S.



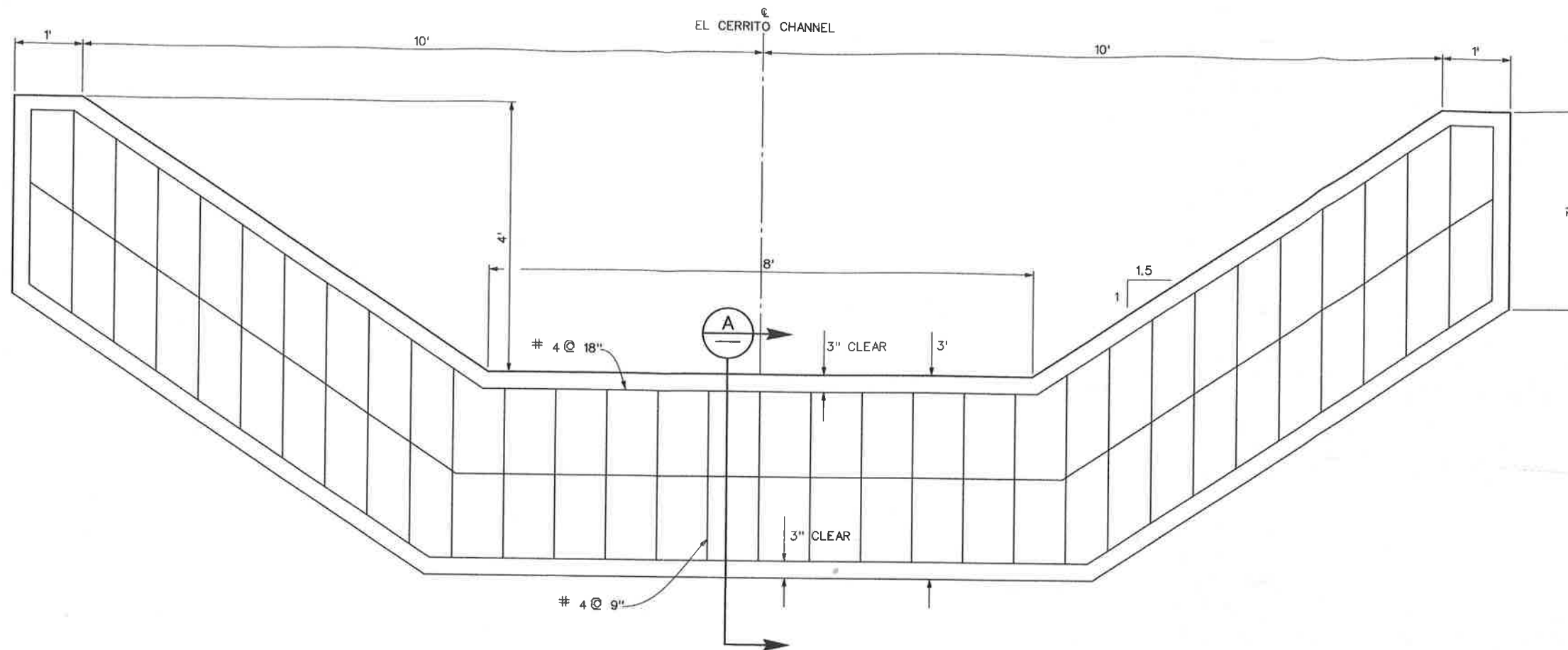
DIAGONAL BAR DETAIL
N.T.S.

NOTES

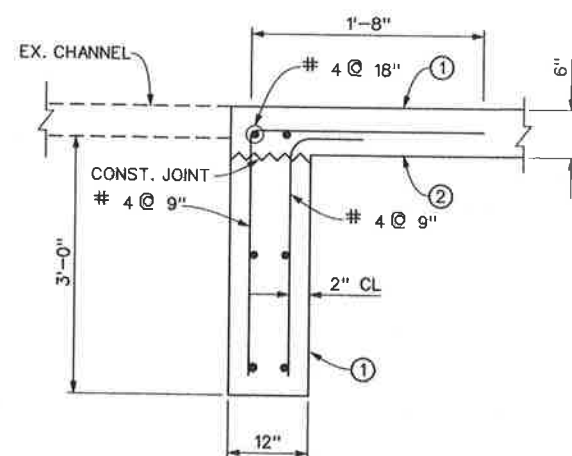
- ① CONCRETE IS 3600 PSI PER CALTRANS STD D82. FOR RCB AND PARAPET.
- ② INSTALL CABLE RAILING PER CALTRANS STD B11-47.
- ③ PLACE 1/2" PRE-MOLDED EXPANSION JOINT FILLER BETWEEN CHANNEL WALL AND THE BOX/PARAPET WALL.
- ④ CONSTRUCT 11'X5' RCB PER CALTRANS STD D80. FOR REINFORCEMENT AND WALL THICKNESS USE SPAN= 12', HEIGHT= 6', COVER=10'.
- ⑤ SEE SHEET 28 FOR RECTANGULAR CHANNEL DETAIL.
- ⑥ SEE DIAGONAL BAR DETAIL PER THIS SHEET.



REVISIONS			RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 PARAPET WALL AND CONSTRUCTION JOINT DETAILS STRUCTURAL DETAILS	PROJECT NO. 2-0-0351
REF.	DESCRIPTION	APPR.	DATE	DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011		
				RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/10/11	APPROVED BY: <i>[Signature]</i> DATE: 10-Feb-2011	DRAWING NO. 2-416
						SHEET NO. 32 OF 47



STATION 10+00



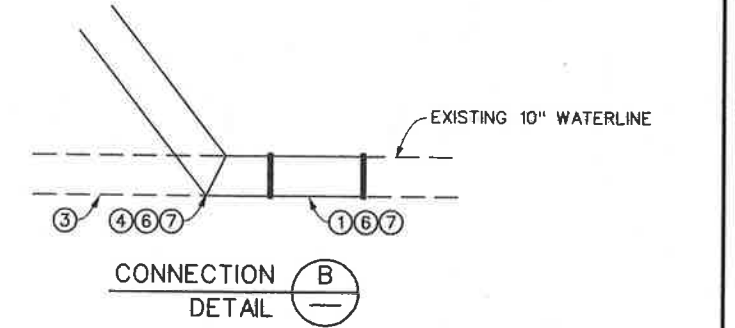
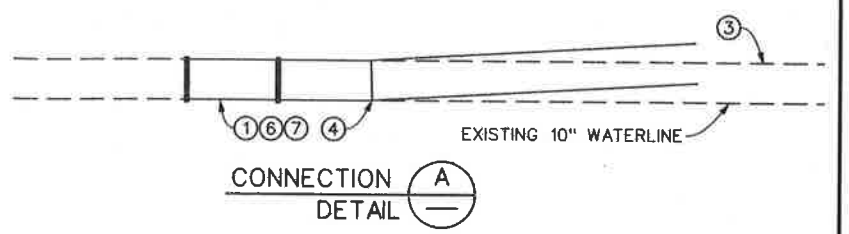
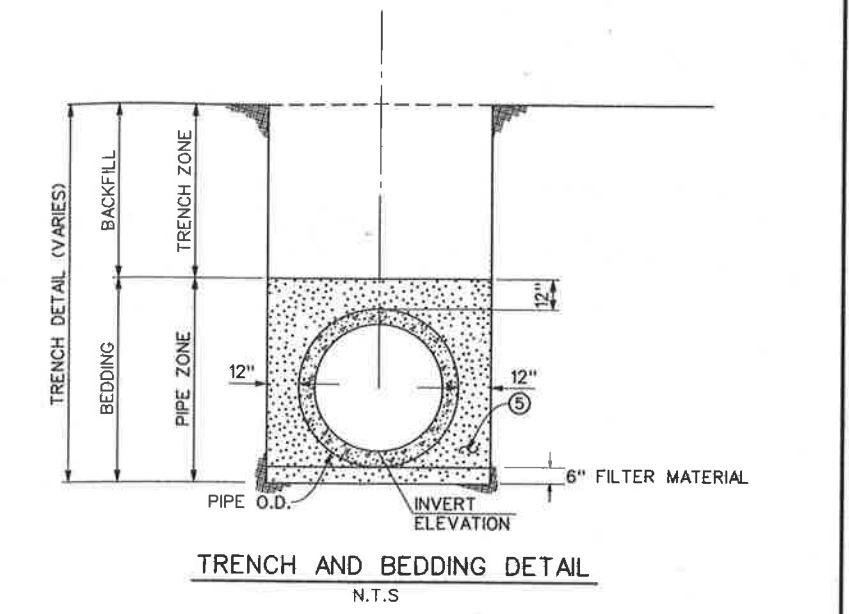
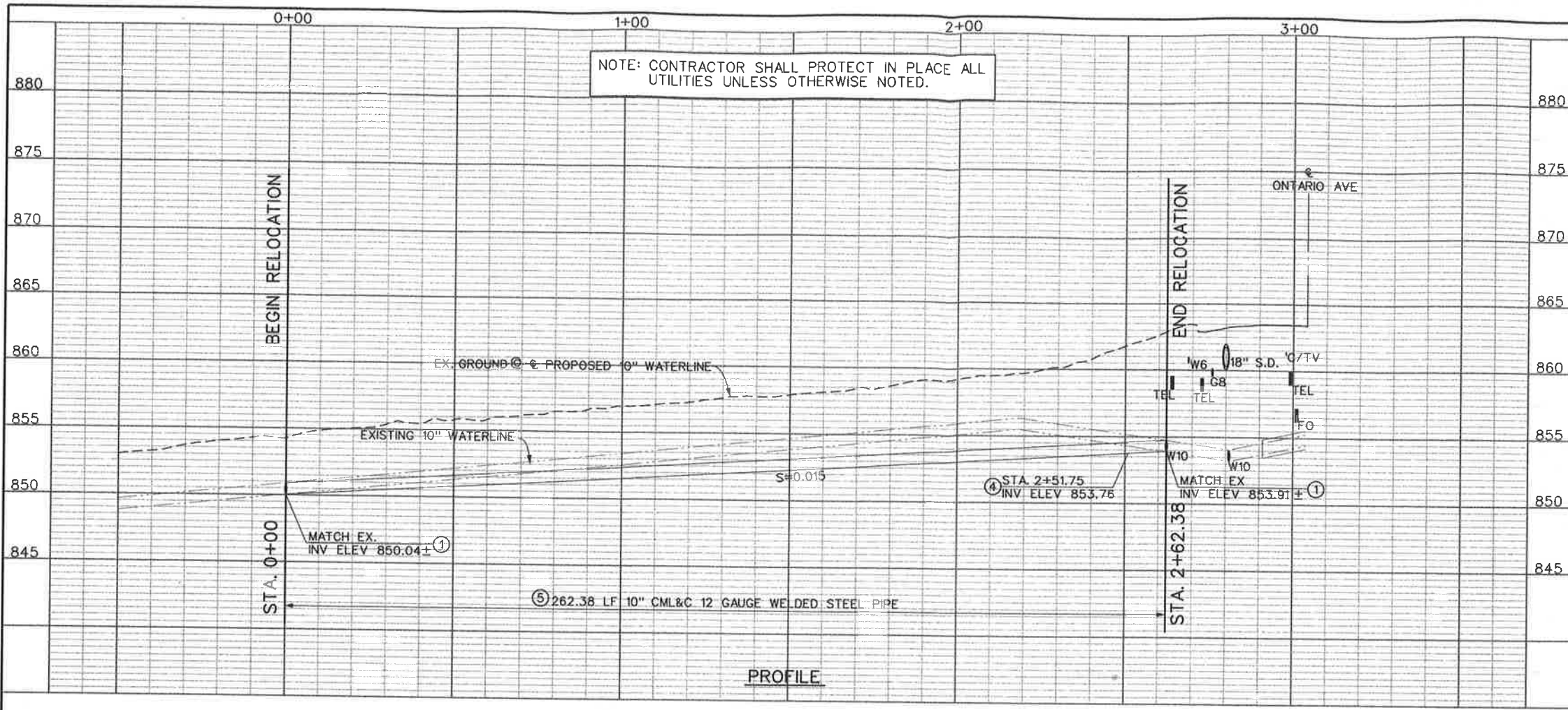
SECTION A
NTS

NOTES

- ① CONCRETE IS CLASS "A" CONCRETE, RECTANGULAR CHANNEL.
- ② CHANNEL THICKNESS REINFORCEMENT PER STD CH326.



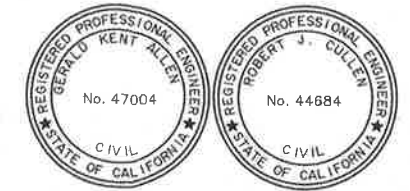
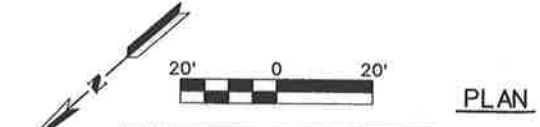
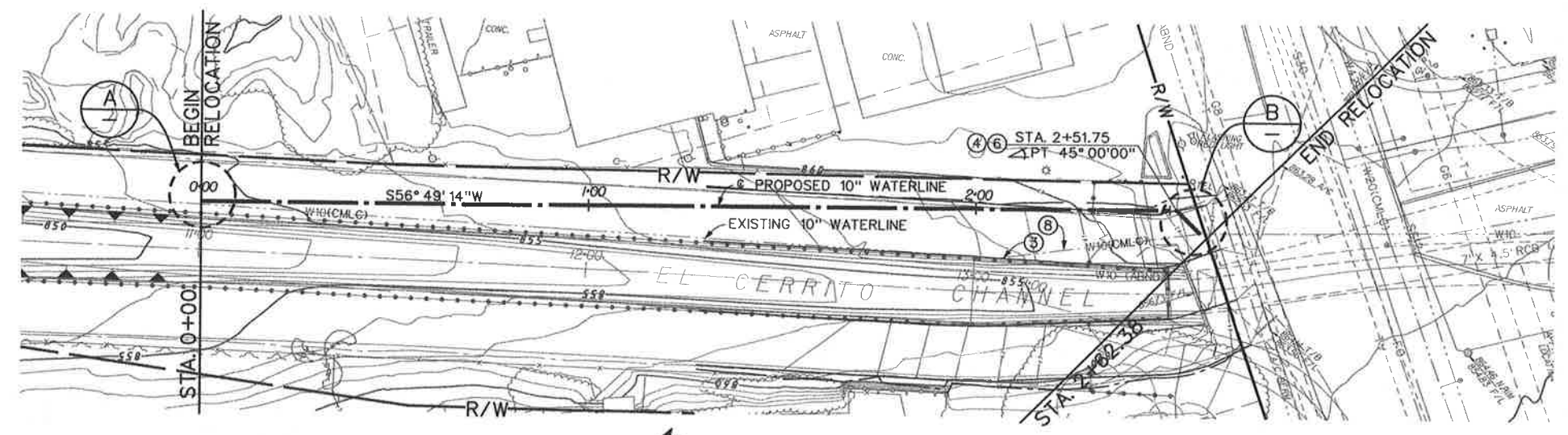
REVISIONS			RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT			CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 CUT OFF WALL DETAILS STRUCTURAL DETAILS STA. 10+00		PROJECT NO. 2-0-0351
DESIGNED BY:	K. AMIN	RECOMMENDED FOR APPROVAL BY:	<i>[Signature]</i>	APPROVED BY:	<i>[Signature]</i>	DATE:	2/10/11	DRAWING NO. 2-416
DRAWN BY:	M. HOWARD	DATE DRAWN:	FEBRUARY 2011	DATE:	10-1-2011			SHEET NO. 33 OF 47
REF.	DESCRIPTION	APPR.	DATE					



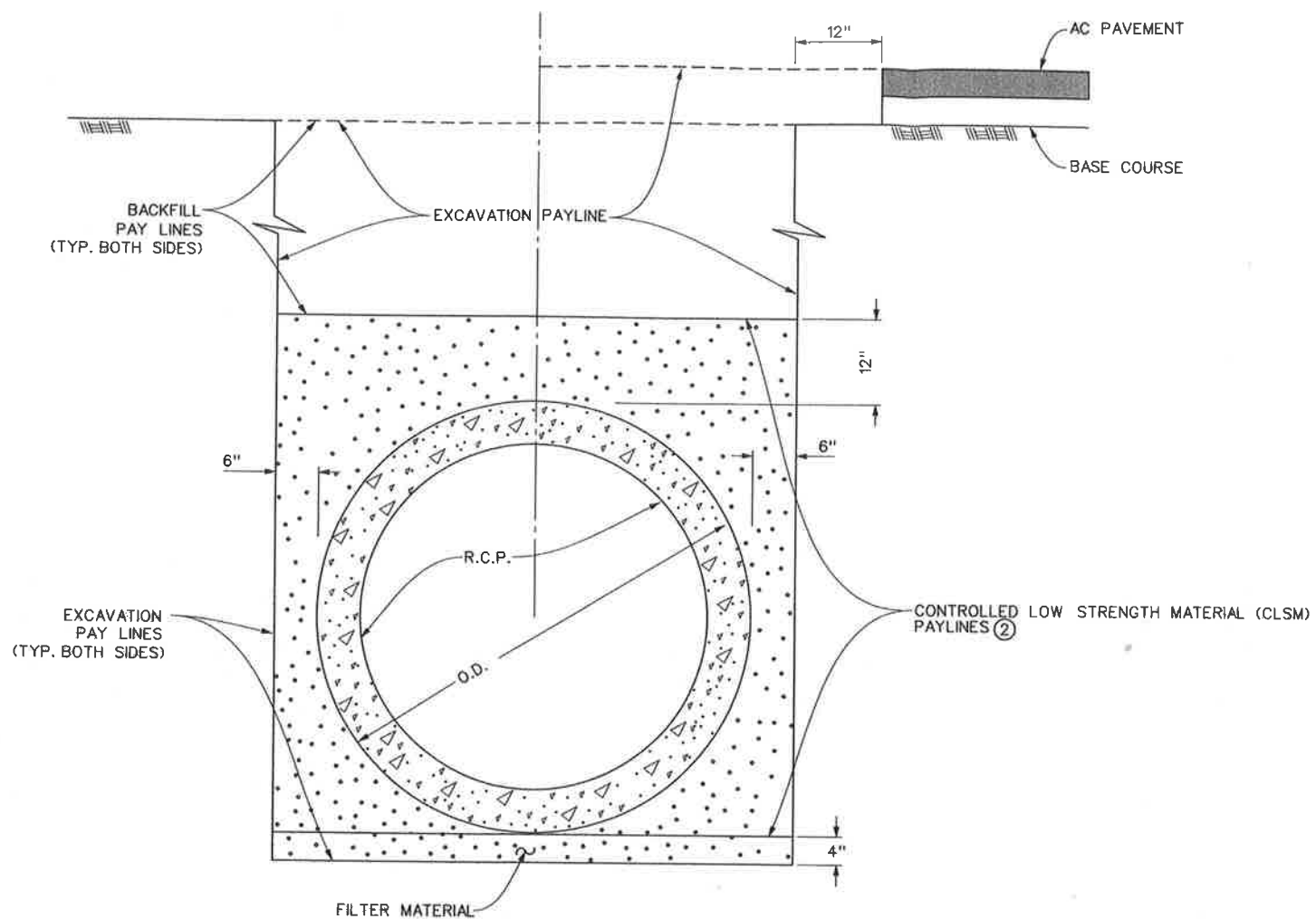
ITEM	QTY	UNITS
10" 12 GAUGE WELDED STEEL PIPE, CMCL	270	LF
10" X 10" SLEEVE	2	EA

NOTES

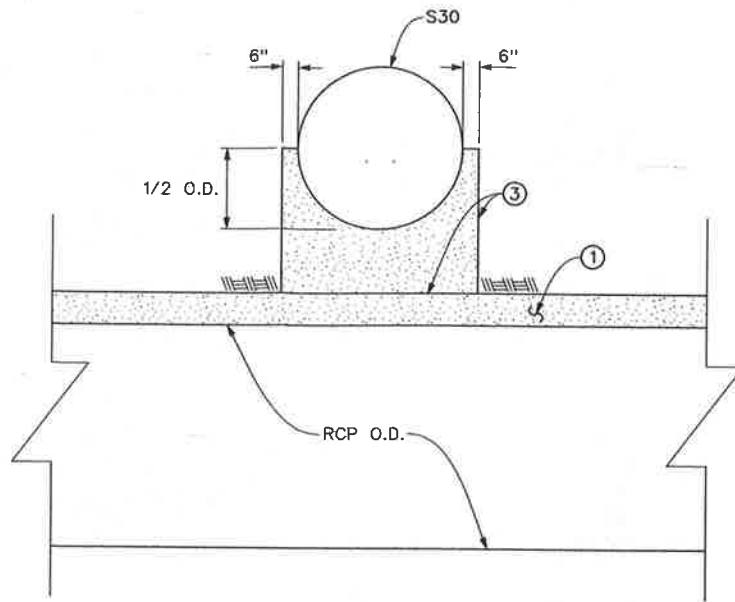
- ① INSTALL 10" X 10" SLEEVE.
- ② INSTALL 10" BEND (FLG).
- ③ REMOVE INTERFERING PORTION OF EXISTING 10" WATERLINE.
- ④ WELDED CONNECTION.
- ⑤ CONTROLLED LOW STRENGTH MATERIAL (CLSM) BACKFILL.
- ⑥ INSTALL THRUST BLOCK PER EVMWD STD W-4.
- ⑦ ALL JOINTS SHALL BE WELDED PER EVMWD STD W-7.
- ⑧ CONTRACT SHALL HOT TAP THE EXISTING WATERLINE.



Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services. TWO WORKING DAYS BEFORE YOU DIG	REVISIONS REF. DESCRIPTION APPR. DATE	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011	RECOMMENDED FOR APPROVAL BY: [Signature] DATE: 2/10/11	APPROVED BY: [Signature] DATE: 10-15-2011	PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 34 OF 47
	CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 10" WATER RELOCATION				



TYPICAL
R.C.P. BEDDING & PAY LINES
NTS



TYPICAL
S30 CROSSING BACKFILL
NTS

NOTES

- ① CONTROLLED LOW STRENGTH MATERIAL (CLSM) BACKFILL PER THIS SHEET.
- ② CLSM BEDDING/BACKFILL FOR RCP.
- ③ CLSM BACKFILL BETWEEN RCP & S30.

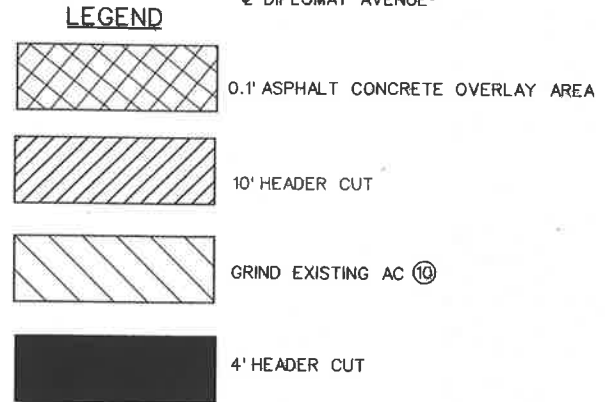
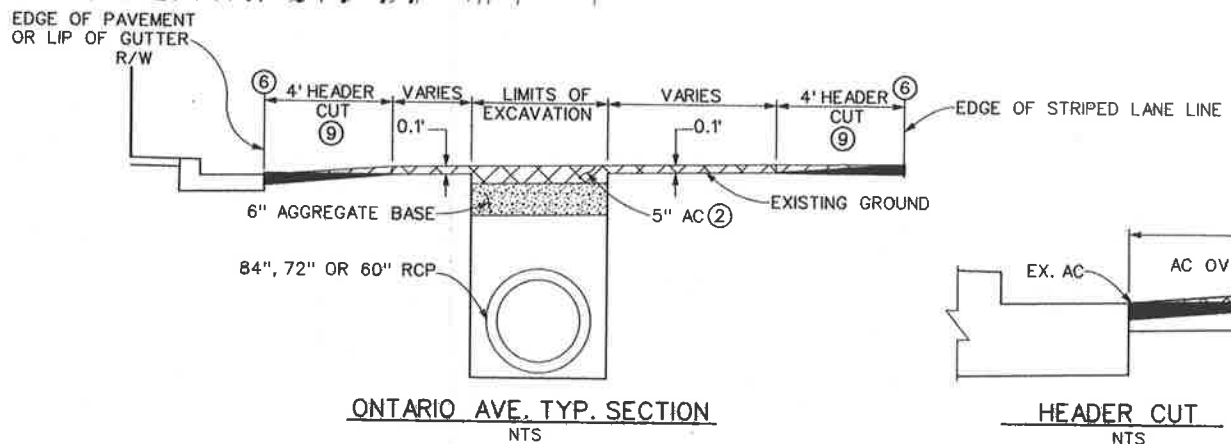
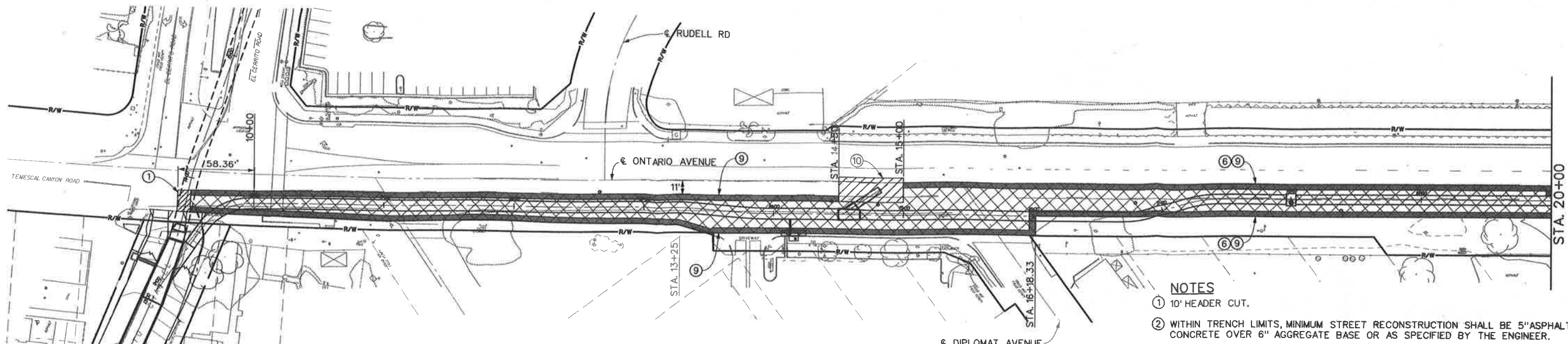


REF.	DESCRIPTION	APPR.	DATE

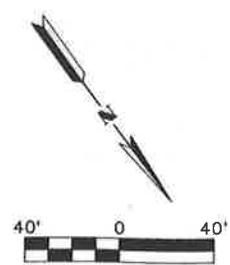
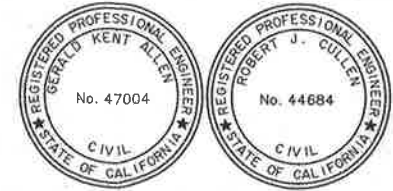
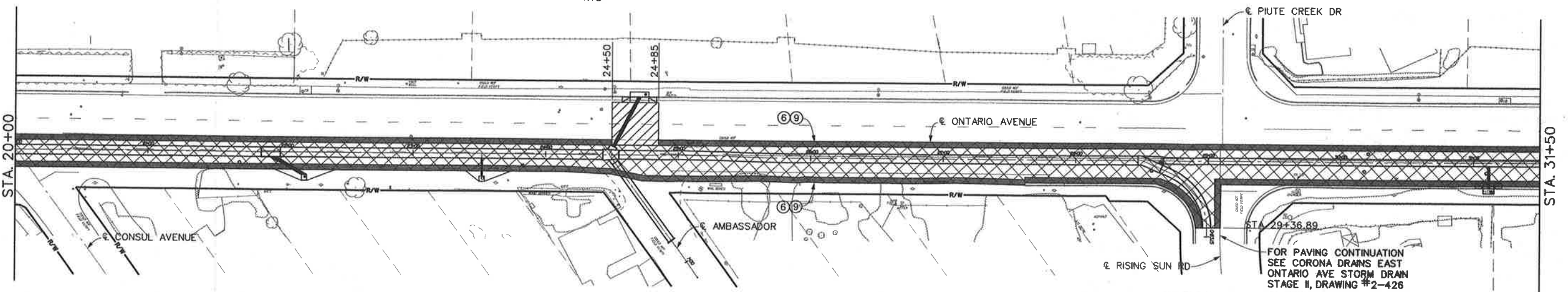
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		
DESIGNED BY: K. AMIN	RECOMMENDED FOR APPROVAL BY: <i>Gerard Kent Allen</i>	APPROVED BY: <i>Robert J. Cullen</i>
DRAWN BY: M. HOWARD	DATE: 2/10/11	DATE: 10-FEB-2011
DATE DRAWN: FEBRUARY 2011		

**CORONA DRAINS EAST
ONTARIO AVE.
STORM DRAIN STAGE 1**
RCP BEDDING AND PAY LINES

PROJECT NO. 2-0-0351
DRAWING NO. 2-416
SHEET NO. 35 OF 47



- NOTES**
- ① 10' HEADER CUT.
 - ② WITHIN TRENCH LIMITS, MINIMUM STREET RECONSTRUCTION SHALL BE 5" ASPHALT CONCRETE OVER 6" AGGREGATE BASE OR AS SPECIFIED BY THE ENGINEER.
 - 3 ALL ASPHALT CONCRETE PAVING SHALL BE TYPE "B"
 - 4 ALL AGGREGATE BASE SHALL BE CLASS II
 - 5 PROTECT IN PLACE ALL MANHOLES / VALVES. ADJUST TO GRADE AS REQUIRED.
 - ⑥ 0.1' ASPHALT CONCRETE OVERLAY SHALL EXTEND FROM THE LIP OF THE GUTTER OR EDGE OF PAVEMENT TO THE LIMITS OF THE GRINDING/HEADER CUT AS DIRECTED.
 - 7 INSTALL / REPLACE ALL DISTURBED STRIPING, YELLOW CENTER LINE, WHITE EDGE LINES AND REFLECTIVE PAVEMENT IN KIND.
 - 8 ALL SIGNING, STRIPING, AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH SECTION 84 OF THE CALTRANS STANDARD SPECIFICATIONS (LATEST EDITION) AND WITH ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL LAWS.
 - ⑨ 4' HEADER CUT PER TYPICAL SECTION ON THIS SHEET
 - ⑩ GRIND EXISTING AC AND PLACE 0.1' OVERLAY TO MEET EXISTING GROUND

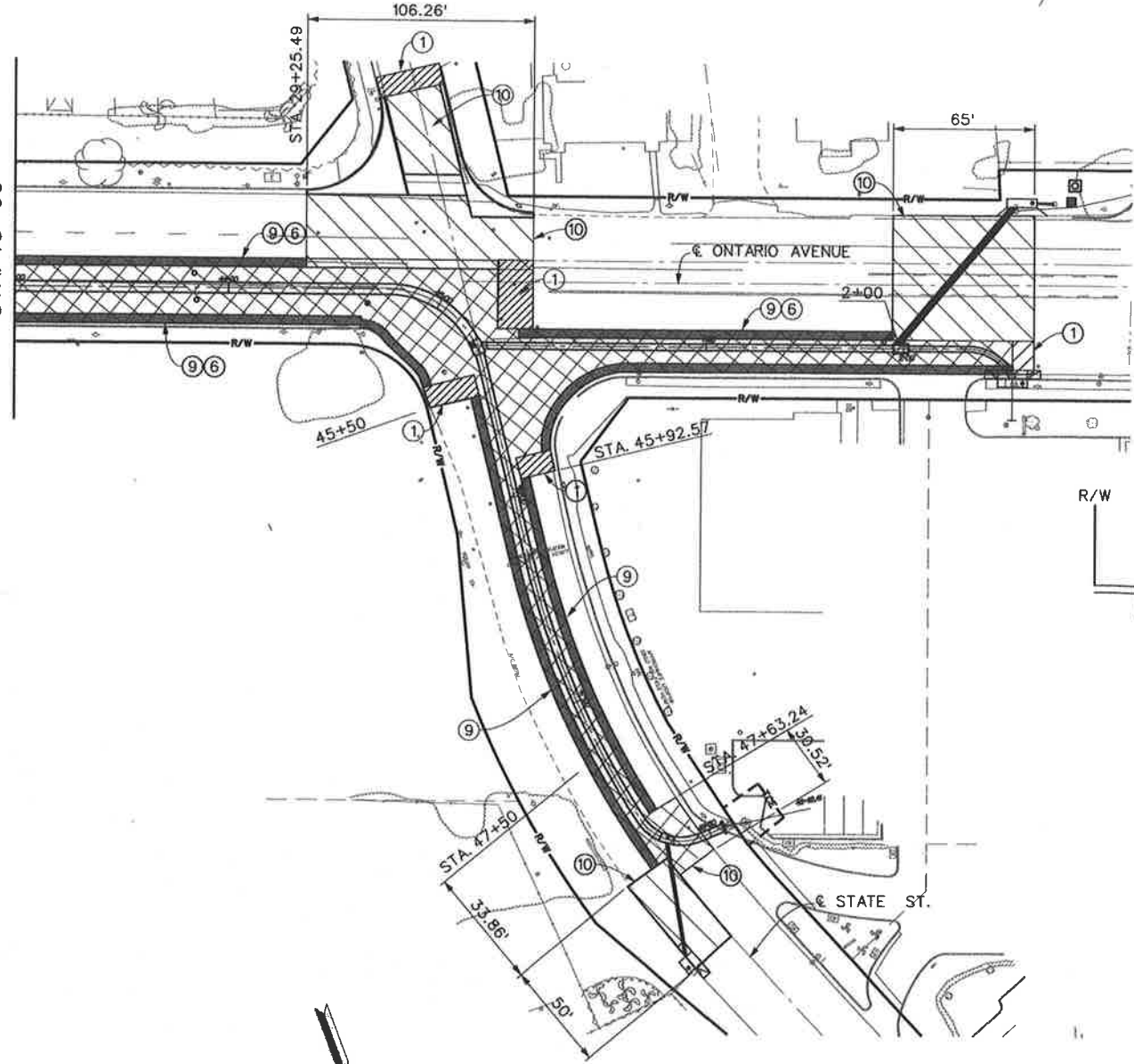
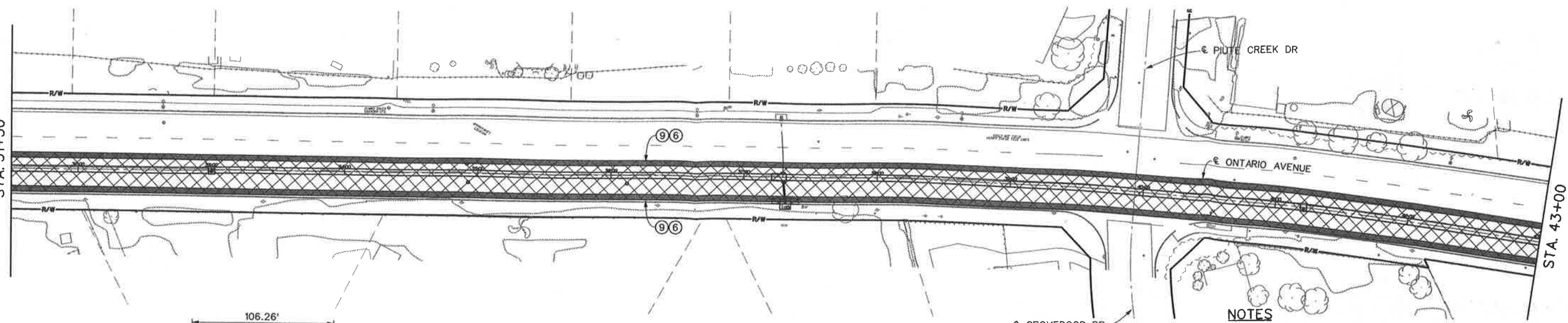


COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY: <i>Majid Salmer</i> DEPUTY DIRECTOR OF TRANSPORTATION DATE: 2/17/11		REVISIONS <table border="1"> <tr><th>REF.</th><th>DESCRIPTION</th><th>APPR.</th><th>DATE</th></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>		REF.	DESCRIPTION	APPR.	DATE													RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011 RECOMMENDED FOR APPROVAL BY: <i>Gerald Kent Allen</i> DATE: 2/10/11 APPROVED BY: <i>Robert J. Cullen</i> DATE: 10-Feb-2011		PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 36 OF 47
REF.	DESCRIPTION	APPR.	DATE																			
CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 STREET IMPROVEMENT PLAN																						

STA. 31+50

STA. 43+00





STA. 43+00

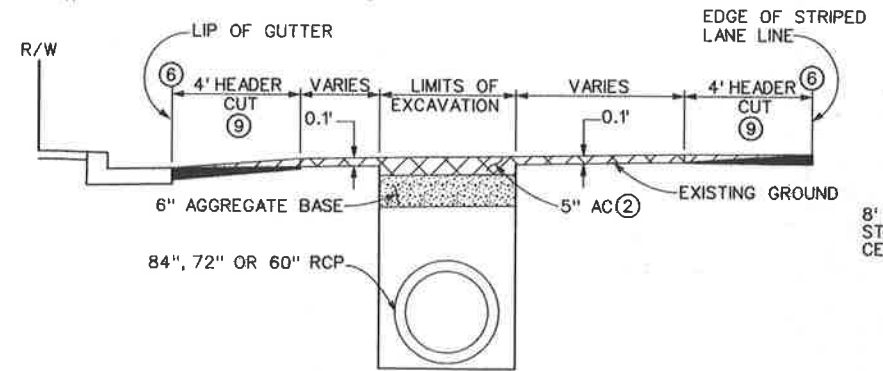


NOTES

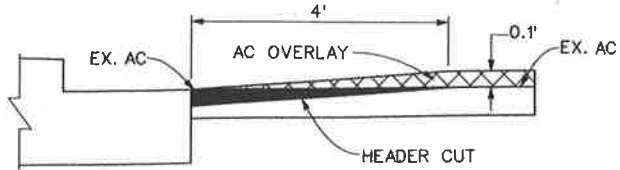
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- 7 INSTALL / REPLACE ALL DISTURBED STRIPING, YELLOW CENTER LINE, WHITE EDGE LINES AND REFLECTIVE PAVEMENT IN KIND.
- 8 ALL SIGNING, STRIPING, AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH SECTION B4 OF THE CALTRANS STANDARD SPECIFICATIONS (LATEST EDITION) AND WITH ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL LAWS.
- ⑨ 4' HEADER CUT PER TYPICAL SECTION ON THIS SHEET
- ⑩ GRIND EXISTING AC AND PLACE 0.1' OVERLAY TO MEET EXISTING GROUND
- ⑪ REPAVING ON STATE ST. SHALL EXTEND FROM 8' EAST TO 8' WEST OF STATE ST. CENTERLINE. AS DIRECTED BY THE ENGINEER.

LEGEND

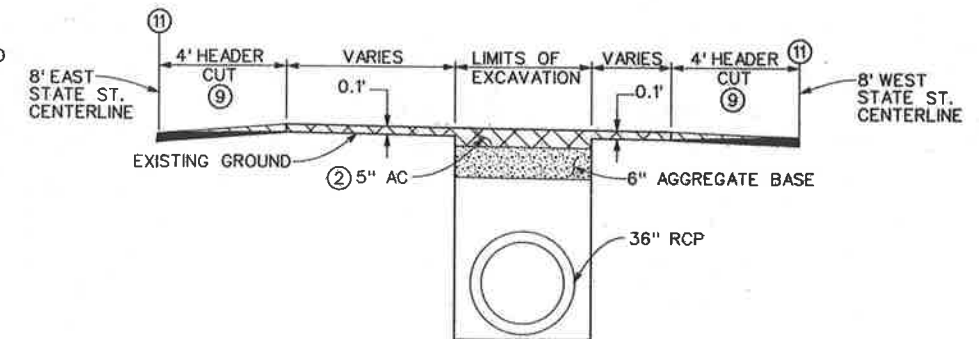
-  0.1' ASPHALT CONCRETE OVERLAY AREA
-  10' HEADER CUT
-  GRIND EXISTING AC ⑩
-  4' HEADER CUT



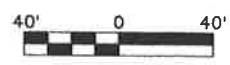
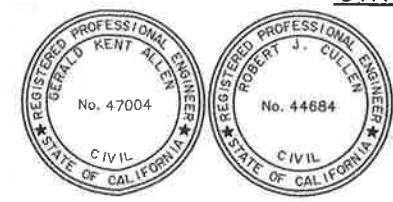
ONTARIO AVE. TYP. SECTION
(WEST OF STATE ST.)
NTS



HEADER CUT
NTS

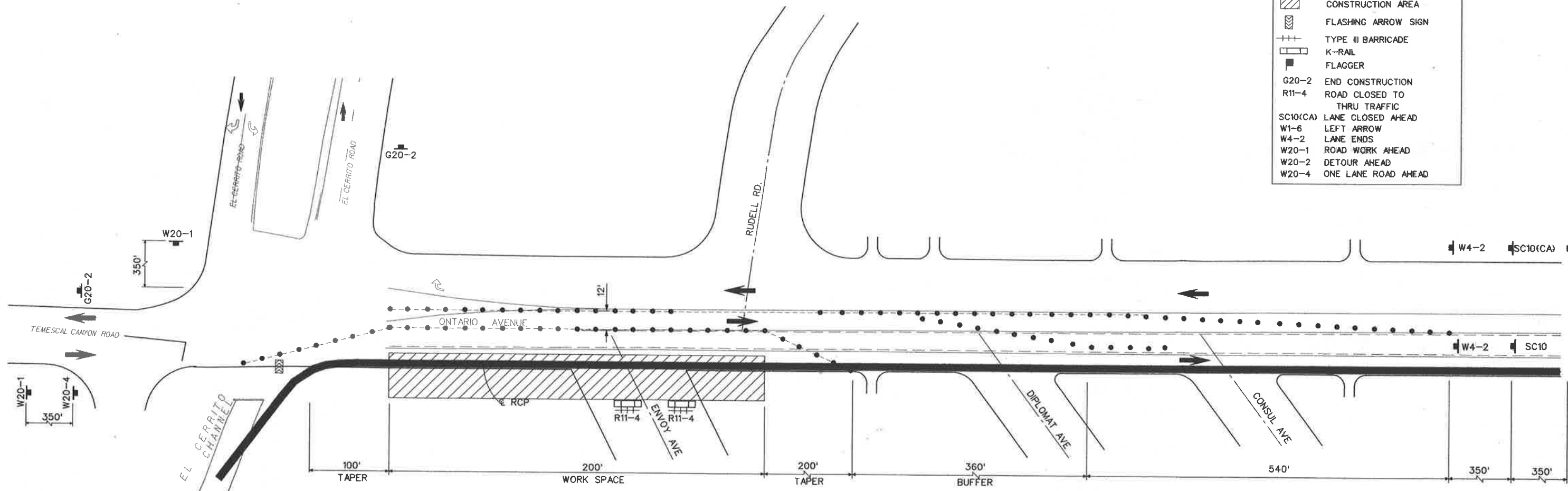


STATE ST. TYP. SECTION
NTS



CITY OF CORONA APPROVED BY: <i>[Signature]</i> CITY ENGINEER DATE: 2-14-11		COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY: <i>[Signature]</i> DEPUTY DIRECTOR OF TRANSPORTATION DATE: 2/17/11		REVISIONS REF. DESCRIPTION APPR. DATE		RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011		APPROVED BY: <i>[Signature]</i> DATE: 10-FEB-2011		CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 STREET IMPROVEMENT PLAN		PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 37 OF 47	
---	--	---	--	--	--	--	--	--	--	---	--	---	--

LEGEND	
•	CONES
▬	SIGNS
←	DIRECTION OF TRAVEL
▨	CONSTRUCTION AREA
⚡	FLASHING ARROW SIGN
+++	TYPE III BARRICADE
▬	K-RAIL
■	FLAGGER
G20-2	END CONSTRUCTION
R11-4	ROAD CLOSED TO THRU TRAFFIC
SC10(CA)	LANE CLOSED AHEAD
W1-6	LEFT ARROW
W4-2	LANE ENDS
W20-1	ROAD WORK AHEAD
W20-2	DETOUR AHEAD
W20-4	ONE LANE ROAD AHEAD



EL CERRITO RD AND ENVOY AVE INTERSECTION CLOSURE
NTS

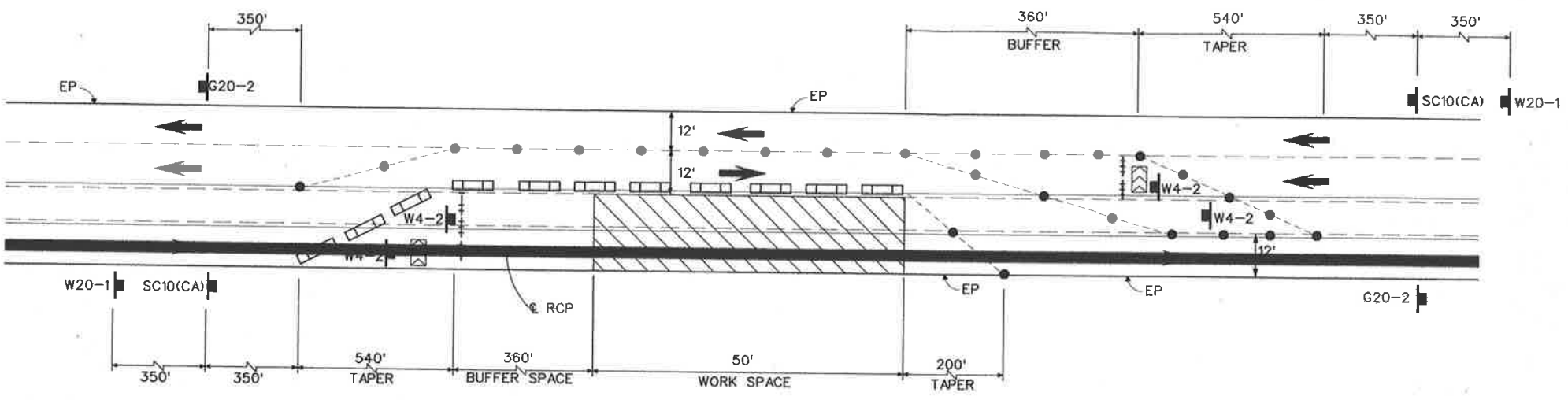
NOTES

- 1 THESE ARE THE MINIMUM TRAFFIC CONTROL REQUIREMENTS. ADDITIONAL TRAFFIC CONTROL MAY BE REQUIRED TO FACILITATE PUBLIC SAFETY AND TRAFFIC FLOW IF DEEMED NECESSARY BY THE ENGINEER, THE RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT.
- 2 ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE 2010 CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), WITH ALL OTHER APPLICABLE FEDERAL STATE AND LOCAL LAWS.
- 3 FLASHING YELLOW BEACONS, TYPE B, SHALL ILLUMINATE ALL W20-1 SIGNS AND TYPE III BARRICADES USED AT THE WORK AREA DURING HOURS OF DARKNESS.
- 4 WORKED SPACE SHALL BE PROTECTED FROM VEHICULAR AND PEDESTRIANS TRAFFIC BY USING K-RAILS.
- 5 PRIVATE PROPERTY AND EMERGENCY ACCESS SHALL BE MAINTAINED AT ALL TIMES.
- 6 FOR TYPICAL LANE CLOSURE DETAIL SEE SHEET 39.
- 7 MINIMUM 6' HIGH CHAIN LINK TEMPORARY FENCING SHALL SURROUND ALL OPEN EXCAVATIONS OUTSIDE OF WORKING HOURS.



COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY: <i>[Signature]</i> DEPUTY DIRECTOR OF TRANSPORTATION DATE: 2/17/11	REVISIONS		RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 TRAFFIC CONTROL PLANS	PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 38 OF 47
	DESIGNED BY: K. AMIN	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i>	APPROVED BY: <i>[Signature]</i>	DATE: 10-FEB-2011		
DRAWN BY: M. HOWARD	DATE DRAWN: FEBRUARY 2011	DATE: 2/10/11	DATE: 10-FEB-2011			

LEGEND	
•	CONES
▬	SIGNS
←	DIRECTION OF TRAVEL
▨	CONSTRUCTION AREA
▧	FLASHING ARROW SIGN
+++	TYPE III BARRICADE
▭	K-RAIL
▬	FLAGGER
G20-2	END CONSTRUCTION
SC10(CA)	LANE CLOSED AHEAD
W4-2	LANE ENDS
W20-1	ROAD WORK AHEAD



ONTARIO AVE TYPICAL LANE CLOSURE
NTS



NOTES

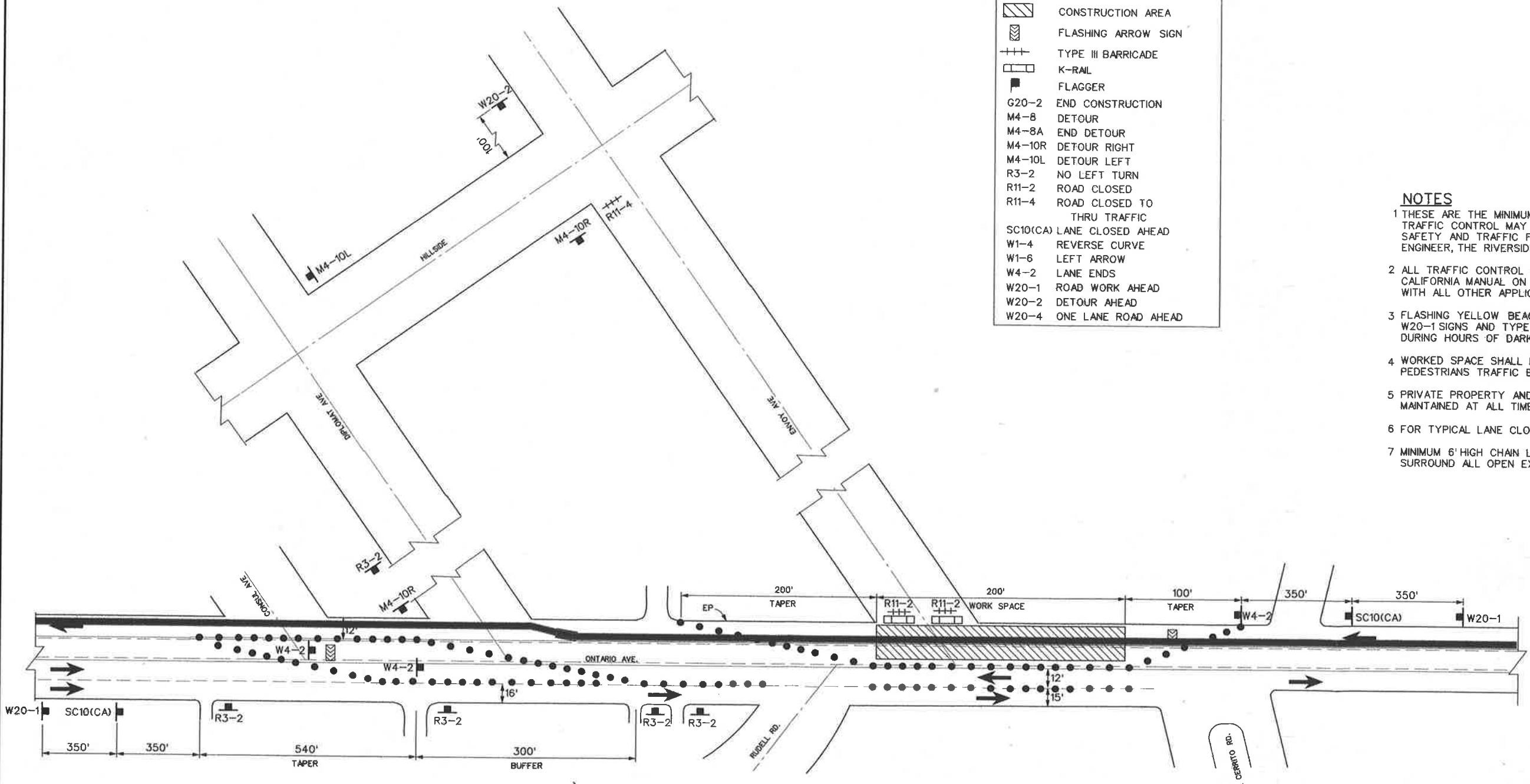
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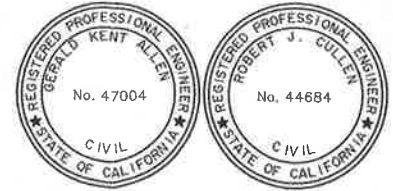
COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY: DEPUTY DIRECTOR OF TRANSPORTATION DATE: 2/17/11	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	PROJECT NO. 2-0-0351
	DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011	RECOMMENDED FOR APPROVAL BY: DATE: 2/10/11	APPROVED BY: DATE: 10-Feb-2011
REF. DESCRIPTION APPR. DATE	CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 TRAFFIC CONTROL PLANS	SHEET NO. 39 OF 47	

LEGEND	
	CONES
	SIGNS
	DIRECTION OF TRAVEL
	CONSTRUCTION AREA
	FLASHING ARROW SIGN
	TYPE III BARRICADE
	K-RAIL
	FLAGGER
G20-2	END CONSTRUCTION
M4-8	DETOUR
M4-8A	END DETOUR
M4-10R	DETOUR RIGHT
M4-10L	DETOUR LEFT
R3-2	NO LEFT TURN
R11-2	ROAD CLOSED
R11-4	ROAD CLOSED TO THRU TRAFFIC
SC10(CA)	LANE CLOSED AHEAD
W1-4	REVERSE CURVE
W1-6	LEFT ARROW
W4-2	LANE ENDS
W20-1	ROAD WORK AHEAD
W20-2	DETOUR AHEAD
W20-4	ONE LANE ROAD AHEAD

- NOTES**
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ENVOY AVE. INTERSECTION CLOSURE
NTS

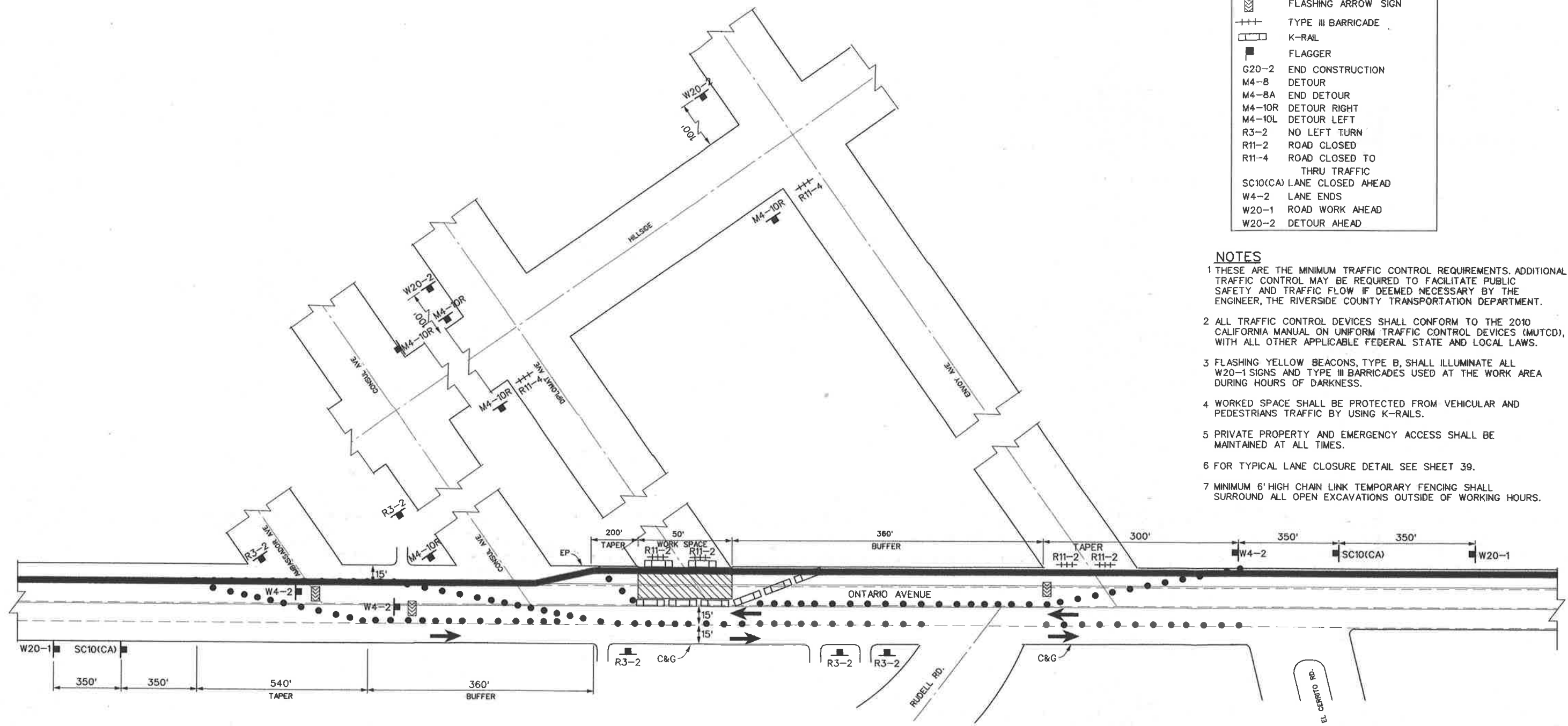


COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY: <i>[Signature]</i> DEPUTY DIRECTOR OF TRANSPORTATION DATE: 2/17/11	REVISIONS		RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 TRAFFIC CONTROL PLANS ENVOY AVE. CLOSURE	PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 40 OF 47
	DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/18/11	APPROVED BY: <i>[Signature]</i> DATE: 10-FB-2011	REF. DESCRIPTION APPR. DATE		

LEGEND	
•	CONES
↑	SIGNS
←	DIRECTION OF TRAVEL
▨	CONSTRUCTION AREA
⚡	FLASHING ARROW SIGN
+++	TYPE III BARRICADE
▭	K-RAIL
■	FLAGGER
G20-2	END CONSTRUCTION
M4-8	DETOUR
M4-8A	END DETOUR
M4-10R	DETOUR RIGHT
M4-10L	DETOUR LEFT
R3-2	NO LEFT TURN
R11-2	ROAD CLOSED
R11-4	ROAD CLOSED TO THRU TRAFFIC
SC10(CA)	LANE CLOSED AHEAD
W4-2	LANE ENDS
W20-1	ROAD WORK AHEAD
W20-2	DETOUR AHEAD

NOTES

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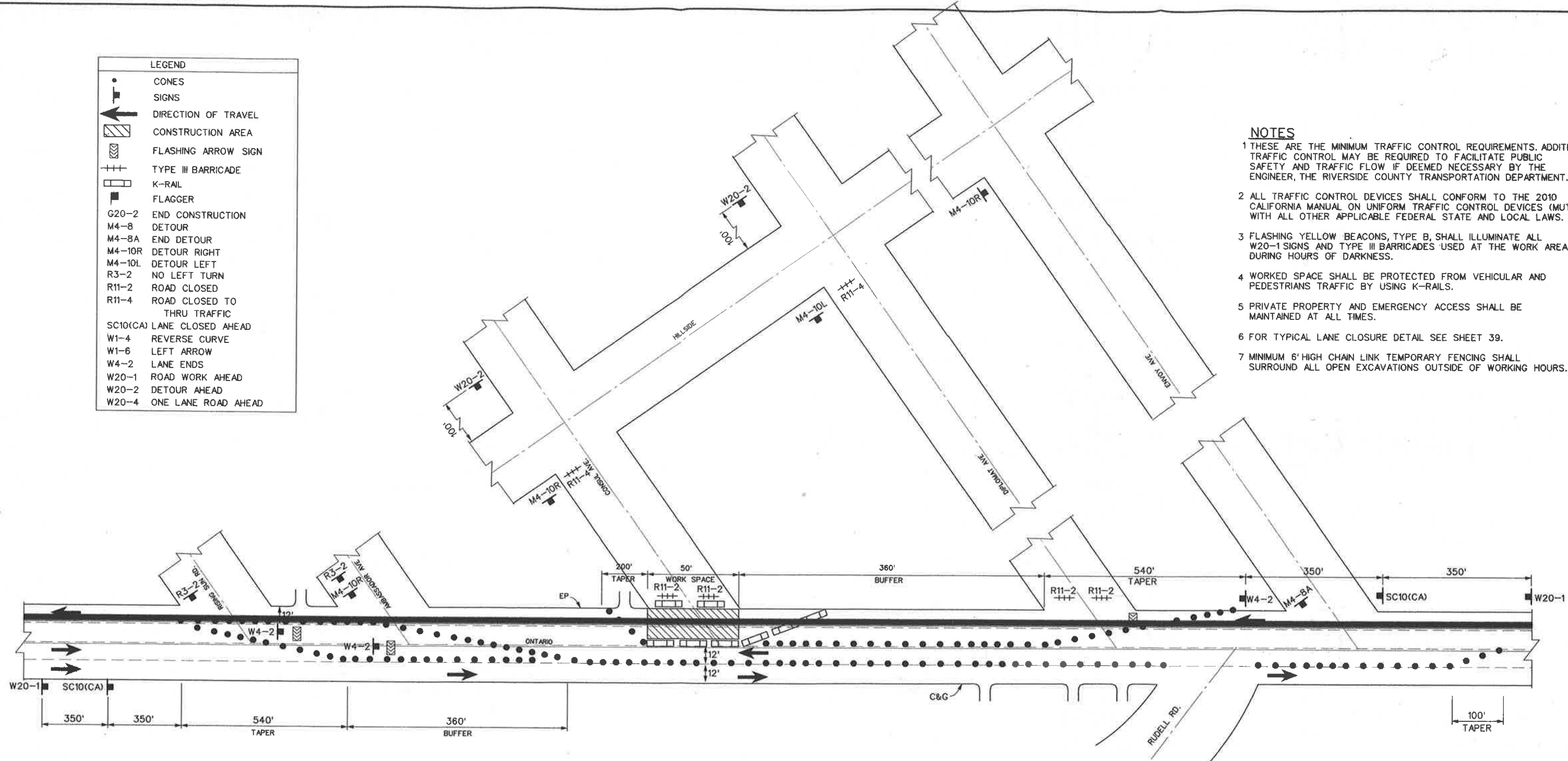
DIPLOMAT AVE INTERSECTION CLOSURE
NTS



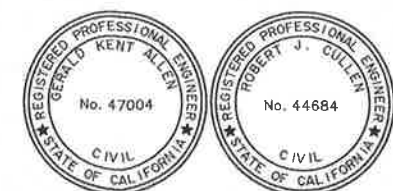
COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY: <i>[Signature]</i> DEPUTY DIRECTOR OF TRANSPORTATION DATE: 2/17/11	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 TRAFFIC CONTROL PLANS DIPLOMAT AVE. CLOSURE	PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 41 OF 47
	REF. DESCRIPTION APPR. DATE	DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/10/11		

LEGEND	
	CONES
	SIGNS
	DIRECTION OF TRAVEL
	CONSTRUCTION AREA
	FLASHING ARROW SIGN
	TYPE III BARRICADE
	K-RAIL
	FLAGGER
G20-2	END CONSTRUCTION
M4-8	DETOUR
M4-8A	END DETOUR
M4-10R	DETOUR RIGHT
M4-10L	DETOUR LEFT
R3-2	NO LEFT TURN
R11-2	ROAD CLOSED
R11-4	ROAD CLOSED TO THRU TRAFFIC
SC10(CA)	LANE CLOSED AHEAD
W1-4	REVERSE CURVE
W1-6	LEFT ARROW
W4-2	LANE ENDS
W20-1	ROAD WORK AHEAD
W20-2	DETOUR AHEAD
W20-4	ONE LANE ROAD AHEAD

- NOTES**
- 1 THESE ARE THE MINIMUM TRAFFIC CONTROL REQUIREMENTS. ADDITIONAL TRAFFIC CONTROL MAY BE REQUIRED TO FACILITATE PUBLIC SAFETY AND TRAFFIC FLOW IF DEEMED NECESSARY BY THE ENGINEER, THE RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT.
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 - 5 PRIVATE PROPERTY AND EMERGENCY ACCESS SHALL BE MAINTAINED AT ALL TIMES.
 - 6 FOR TYPICAL LANE CLOSURE DETAIL SEE SHEET 39.
 - 7 MINIMUM 6' HIGH CHAIN LINK TEMPORARY FENCING SHALL SURROUND ALL OPEN EXCAVATIONS OUTSIDE OF WORKING HOURS.



CONSUL AVE INTERSECTION CLOSURE
NTS

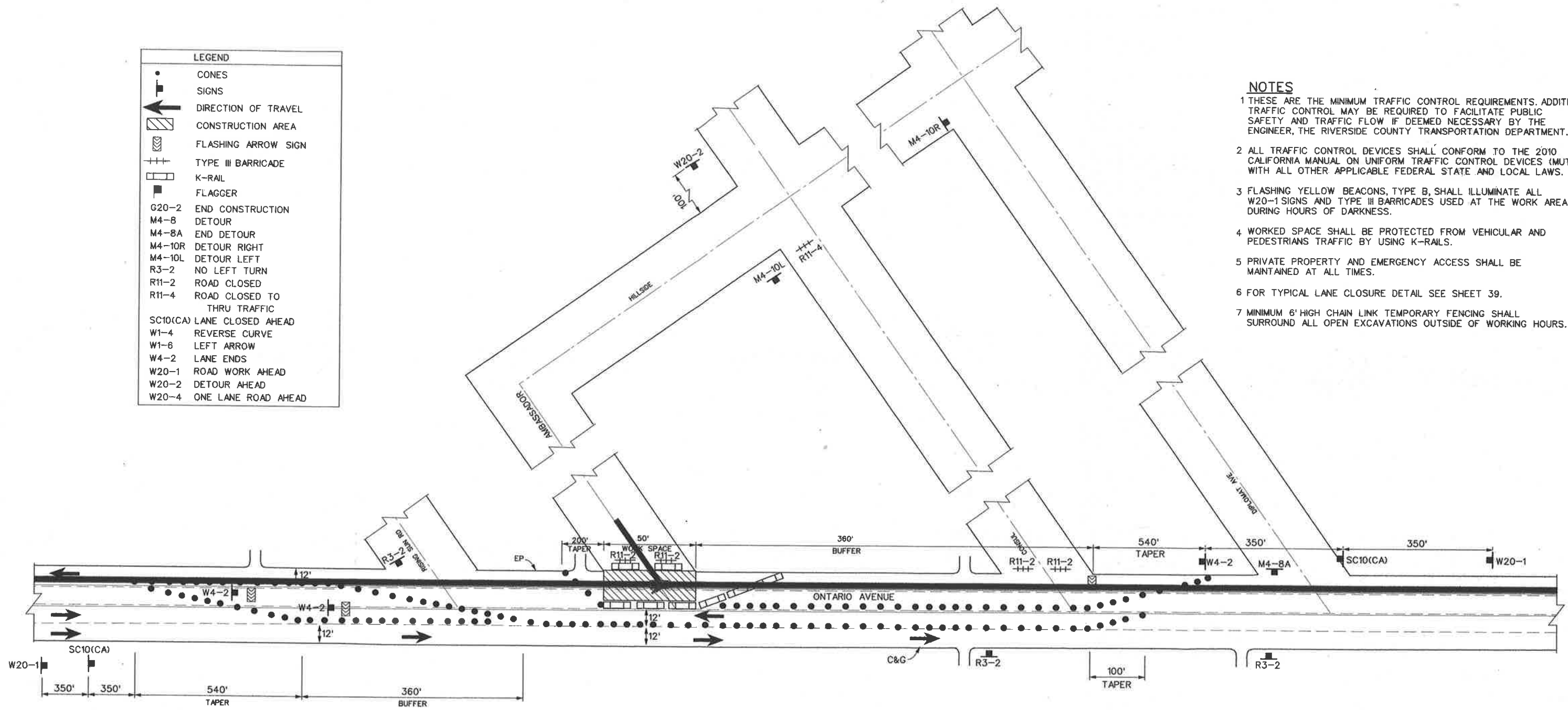


COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY: DEPUTY DIRECTOR OF TRANSPORTATION DATE: 2/17/11	REVISIONS <table border="1"> <thead> <tr> <th>REF.</th> <th>DESCRIPTION</th> <th>APPR.</th> <th>DATE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REF.	DESCRIPTION	APPR.	DATE													RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011	RECOMMENDED FOR APPROVAL BY: DATE: 2/10/11	APPROVED BY: DATE: 2-10-2011	PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 42 OF 47
		REF.	DESCRIPTION	APPR.	DATE																
COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY: DEPUTY DIRECTOR OF TRANSPORTATION DATE: 2/17/11	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011	RECOMMENDED FOR APPROVAL BY: DATE: 2/10/11	APPROVED BY: DATE: 2-10-2011	CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 TRAFFIC CONTROL PLANS CONSUL AVE CLOSURE																	

LEGEND	
	CONES
	SIGNS
	DIRECTION OF TRAVEL
	CONSTRUCTION AREA
	FLASHING ARROW SIGN
	TYPE III BARRICADE
	K-RAIL
	FLAGGER
	G20-2 END CONSTRUCTION
	M4-8 DETOUR
	M4-8A END DETOUR
	M4-10R DETOUR RIGHT
	M4-10L DETOUR LEFT
	R3-2 NO LEFT TURN
	R11-2 ROAD CLOSED
	R11-4 ROAD CLOSED TO THRU TRAFFIC
	SC10(CA) LANE CLOSED AHEAD
	W1-4 REVERSE CURVE
	W1-6 LEFT ARROW
	W4-2 LANE ENDS
	W20-1 ROAD WORK AHEAD
	W20-2 DETOUR AHEAD
	W20-4 ONE LANE ROAD AHEAD

NOTES

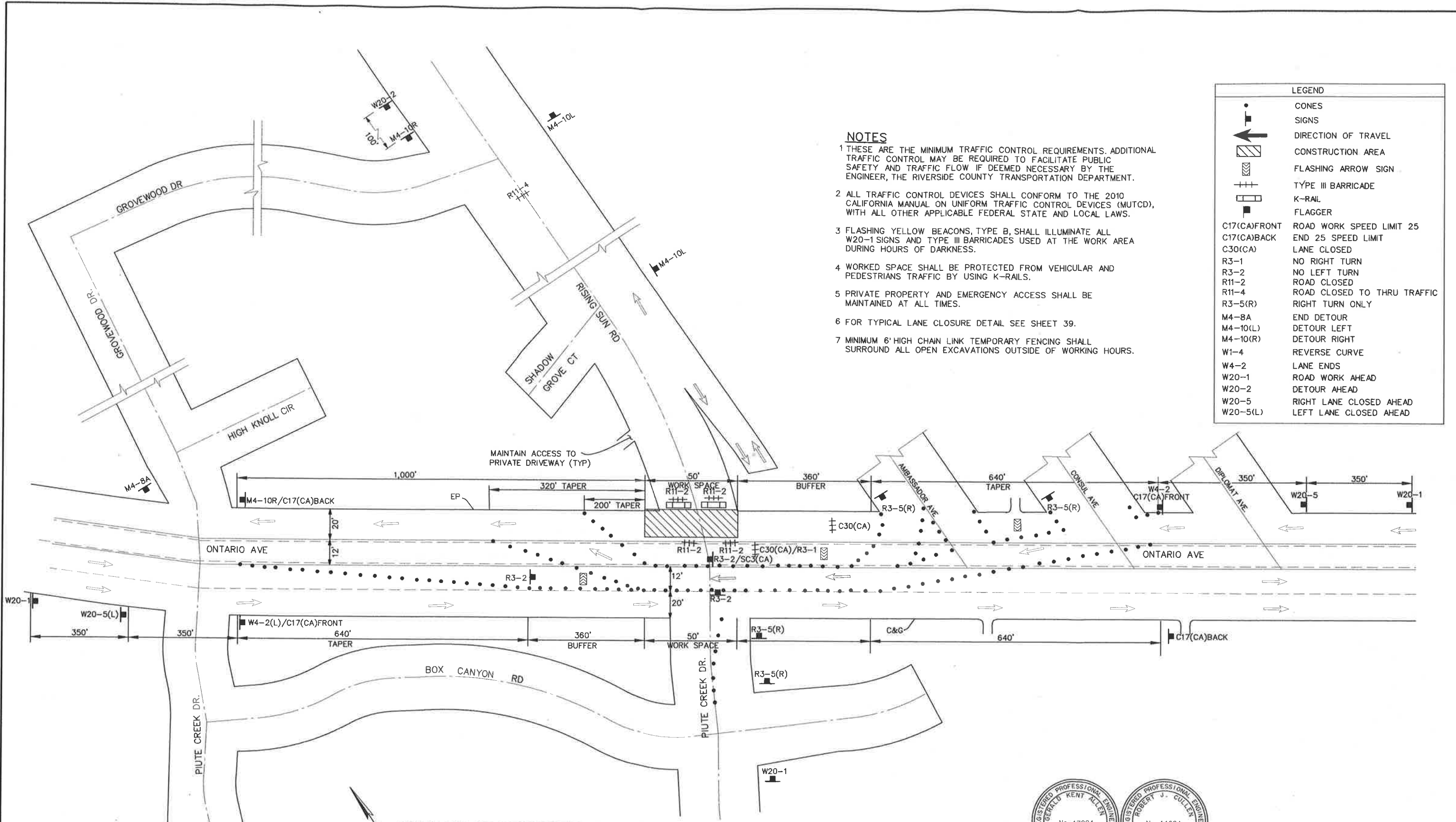
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- 6 FOR TYPICAL LANE CLOSURE DETAIL SEE SHEET 39.
- 7 MINIMUM 6' HIGH CHAIN LINK TEMPORARY FENCING SHALL SURROUND ALL OPEN EXCAVATIONS OUTSIDE OF WORKING HOURS.



AMBASSADOR AVE INTERSECTION CLOSURE
NTS



COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY: <i>[Signature]</i> DEPUTY DIRECTOR OF TRANSPORTATION DATE: 2/12/11	REVISIONS		RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 43 OF 47
	DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/10/11	APPROVED BY: <i>[Signature]</i> DATE: 10-10-2011	CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 TRAFFIC CONTROL PLANS AMBASSADOR AVE. CLOSURE	



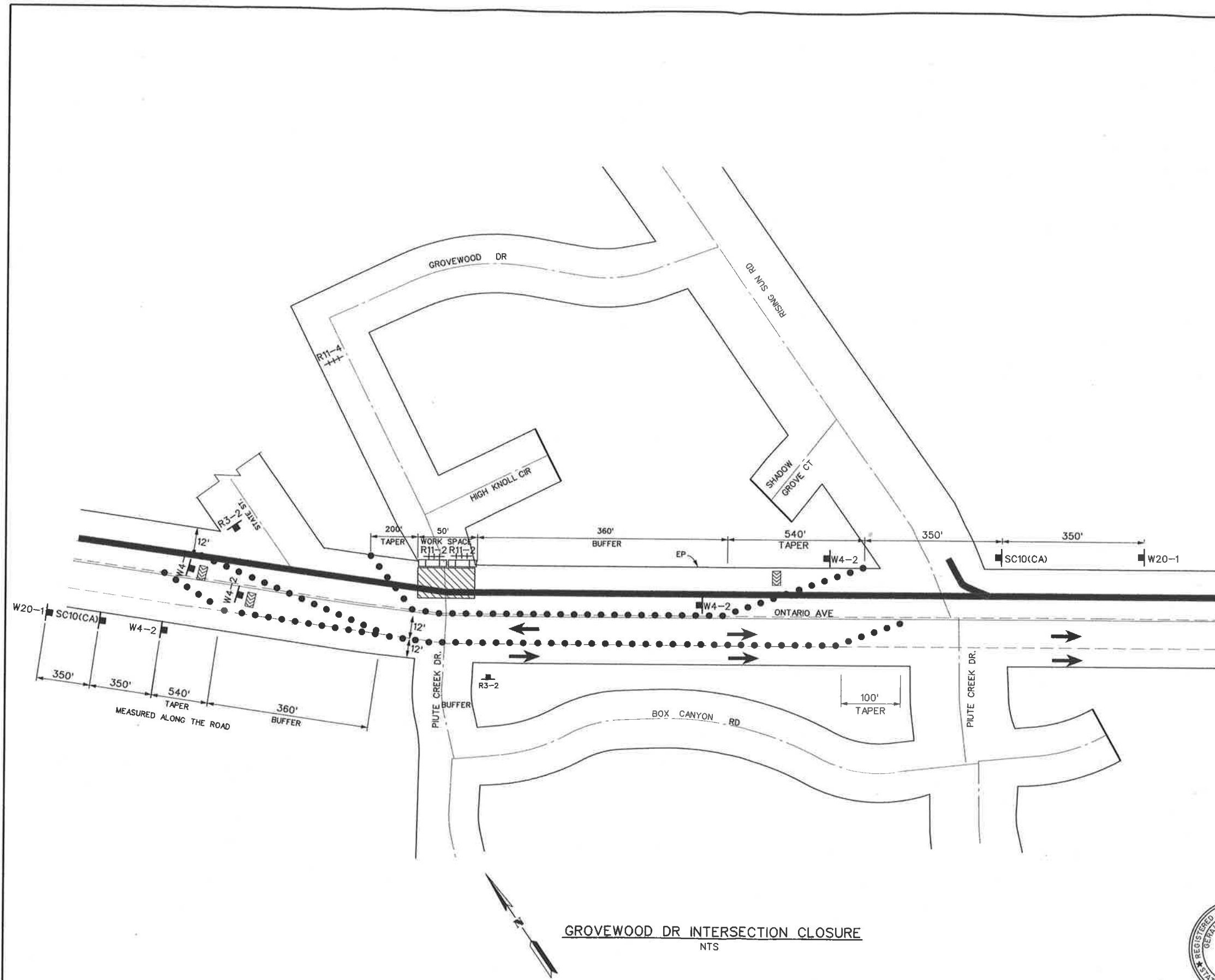
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LEGEND	
	CONES
	SIGNS
	DIRECTION OF TRAVEL
	CONSTRUCTION AREA
	FLASHING ARROW SIGN
	TYPE III BARRICADE
	K-RAIL
	FLAGGER
C17(CA)FRONT	ROAD WORK SPEED LIMIT 25
C17(CA)BACK	END 25 SPEED LIMIT
C30(CA)	LANE CLOSED
R3-1	NO RIGHT TURN
R3-2	NO LEFT TURN
R11-2	ROAD CLOSED
R11-4	ROAD CLOSED TO THRU TRAFFIC
R3-5(R)	RIGHT TURN ONLY
M4-8A	END DETOUR
M4-10(L)	DETOUR LEFT
M4-10(R)	DETOUR RIGHT
W1-4	REVERSE CURVE
W4-2	LANE ENDS
W20-1	ROAD WORK AHEAD
W20-2	DETOUR AHEAD
W20-5	RIGHT LANE CLOSED AHEAD
W20-5(L)	LEFT LANE CLOSED AHEAD

RISING SUN DR INTERSECTION CLOSURE
NTS



COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY: <i>[Signature]</i> DEPUTY DIRECTOR OF TRANSPORTATION DATE: 2/17/11		REVISIONS <table border="1"> <tr> <th>REF.</th> <th>DESCRIPTION</th> <th>APPR.</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	REF.	DESCRIPTION	APPR.	DATE					RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011 APPROVED BY: <i>[Signature]</i> RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/10/11	CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 TRAFFIC CONTROL PLANS RISING SUN DR. CLOSURE	PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 44 OF 47
REF.	DESCRIPTION	APPR.	DATE										

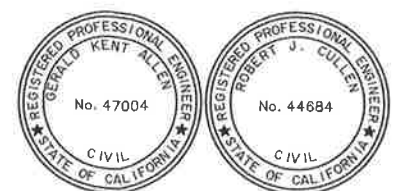


LEGEND	
	CONES
	SIGNS
	DIRECTION OF TRAVEL
	CONSTRUCTION AREA
	FLASHING ARROW SIGN
	TYPE III BARRICADE
	K-RAIL
	FLAGGER
G20-2	END CONSTRUCTION
M4-8	DETOUR
M4-8A	END DETOUR
M4-10	DETOUR RIGHT
R3-21	NO RIGHT TURN
R3-2	NO LEFT TURN
R11-2	ROAD CLOSED
R11-4	ROAD CLOSED TO THRU TRAFFIC
SC10(CA)	LANE CLOSED AHEAD
W1-4	REVERSE CURVE
W4-2	LANE ENDS
W1-6	LEFT ARROW
W20-1	ROAD WORK AHEAD
W20-2	DETOUR AHEAD
W20-4	ONE LANE ROAD AHEAD

NOTES

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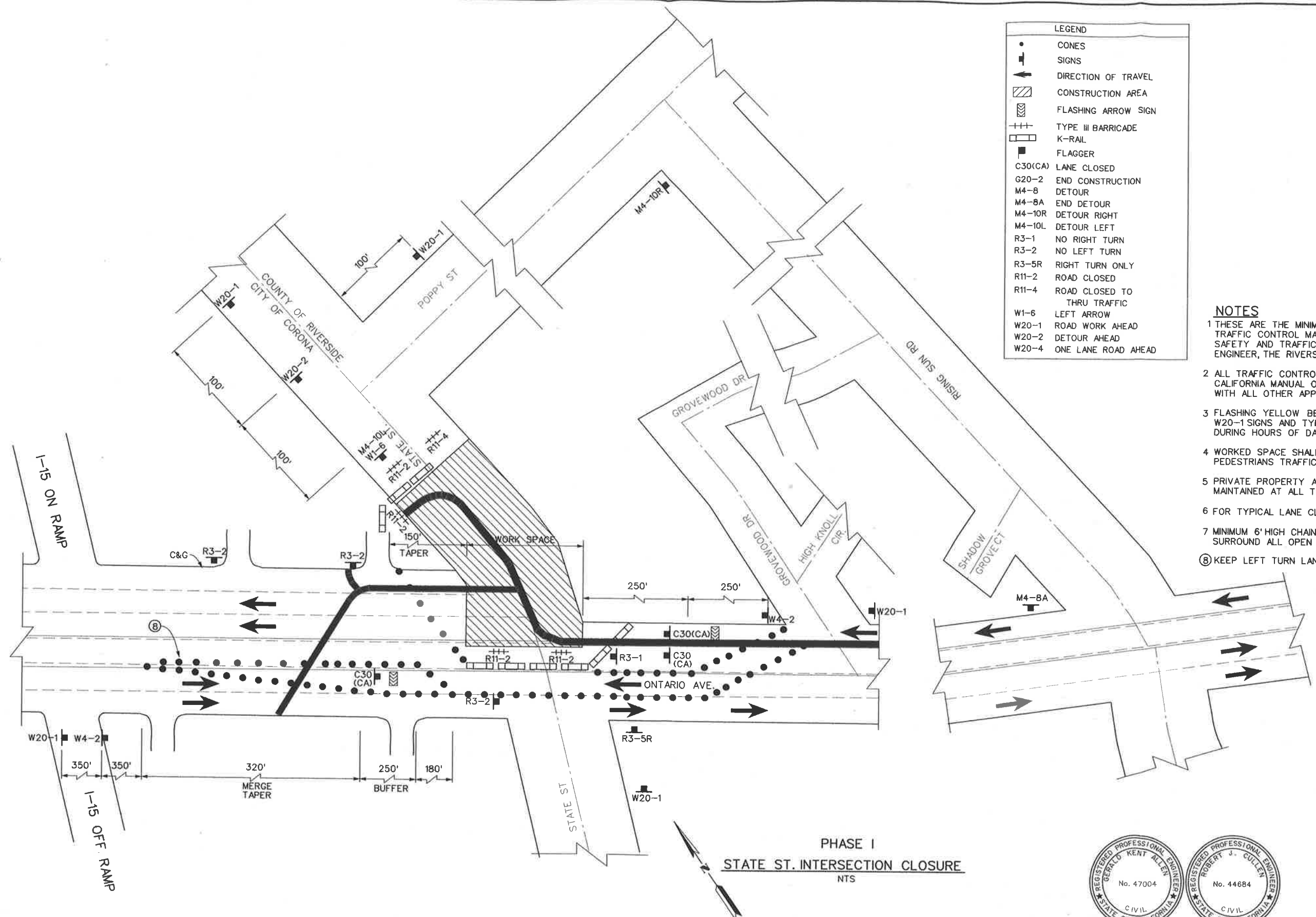
GROVEWOOD DR INTERSECTION CLOSURE NTS



COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY: <i>[Signature]</i> DEPUTY DIRECTOR OF TRANSPORTATION DATE: 2/17/11	REVISIONS		RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 TRAFFIC CONTROL PLANS GROVEWOOD DR CLOSURE	PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 45 OF 47
	DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/10/11	APPROVED BY: <i>[Signature]</i> DATE: 10-F-0-2011	REF. DESCRIPTION APPR. DATE		

LEGEND	
•	CONES
⊣	SIGNS
→	DIRECTION OF TRAVEL
▨	CONSTRUCTION AREA
⚡	FLASHING ARROW SIGN
+++	TYPE III BARRICADE
▭	K-RAIL
⬮	FLAGGER
C30(CA)	LANE CLOSED
G20-2	END CONSTRUCTION
M4-8	DETOUR
M4-8A	END DETOUR
M4-10R	DETOUR RIGHT
M4-10L	DETOUR LEFT
R3-1	NO RIGHT TURN
R3-2	NO LEFT TURN
R3-5R	RIGHT TURN ONLY
R11-2	ROAD CLOSED
R11-4	ROAD CLOSED TO THRU TRAFFIC
W1-6	LEFT ARROW
W20-1	ROAD WORK AHEAD
W20-2	DETOUR AHEAD
W20-4	ONE LANE ROAD AHEAD

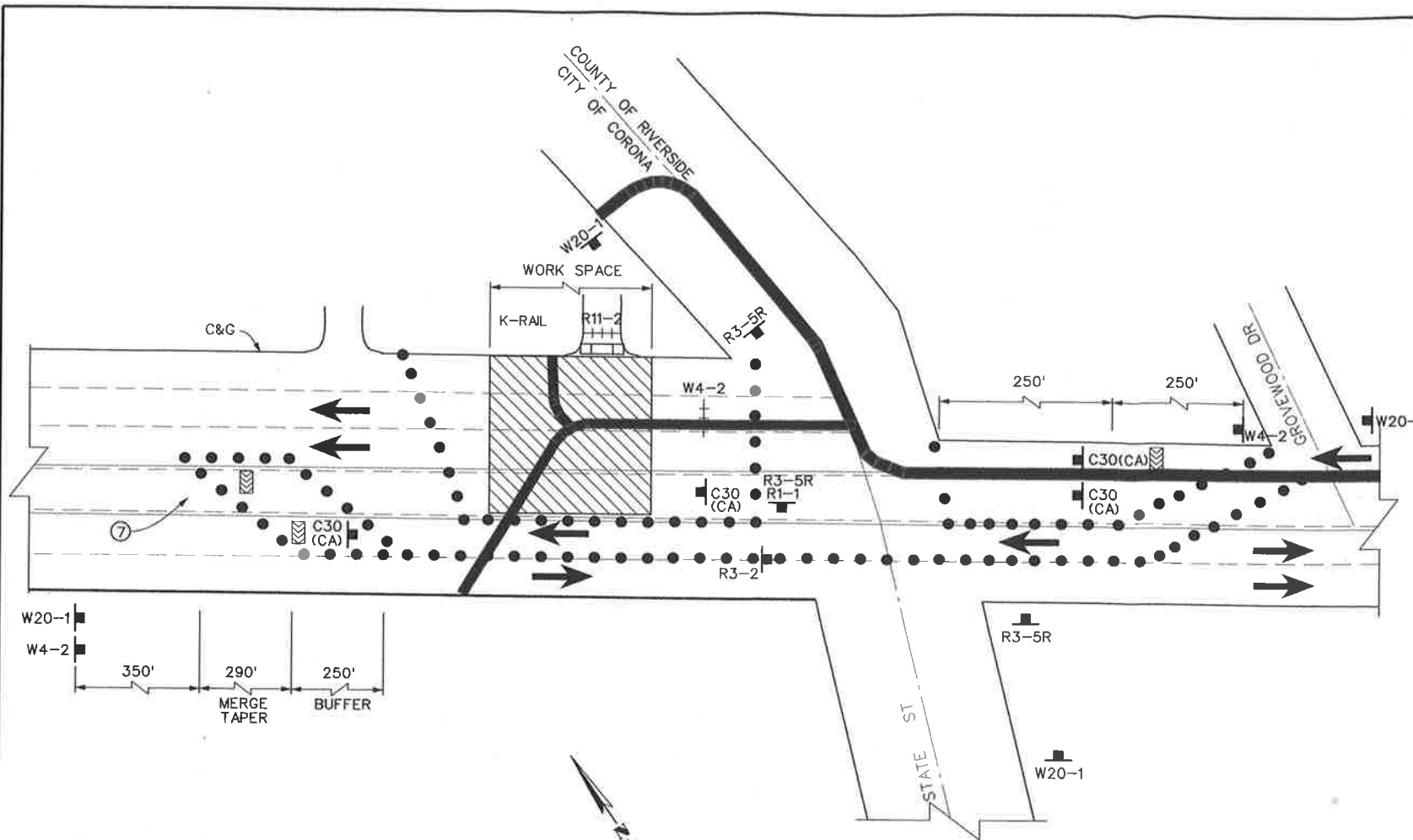
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 - KEEP LEFT TURN LANE OPEN FOR CERRITO PLAZA ACCESS.



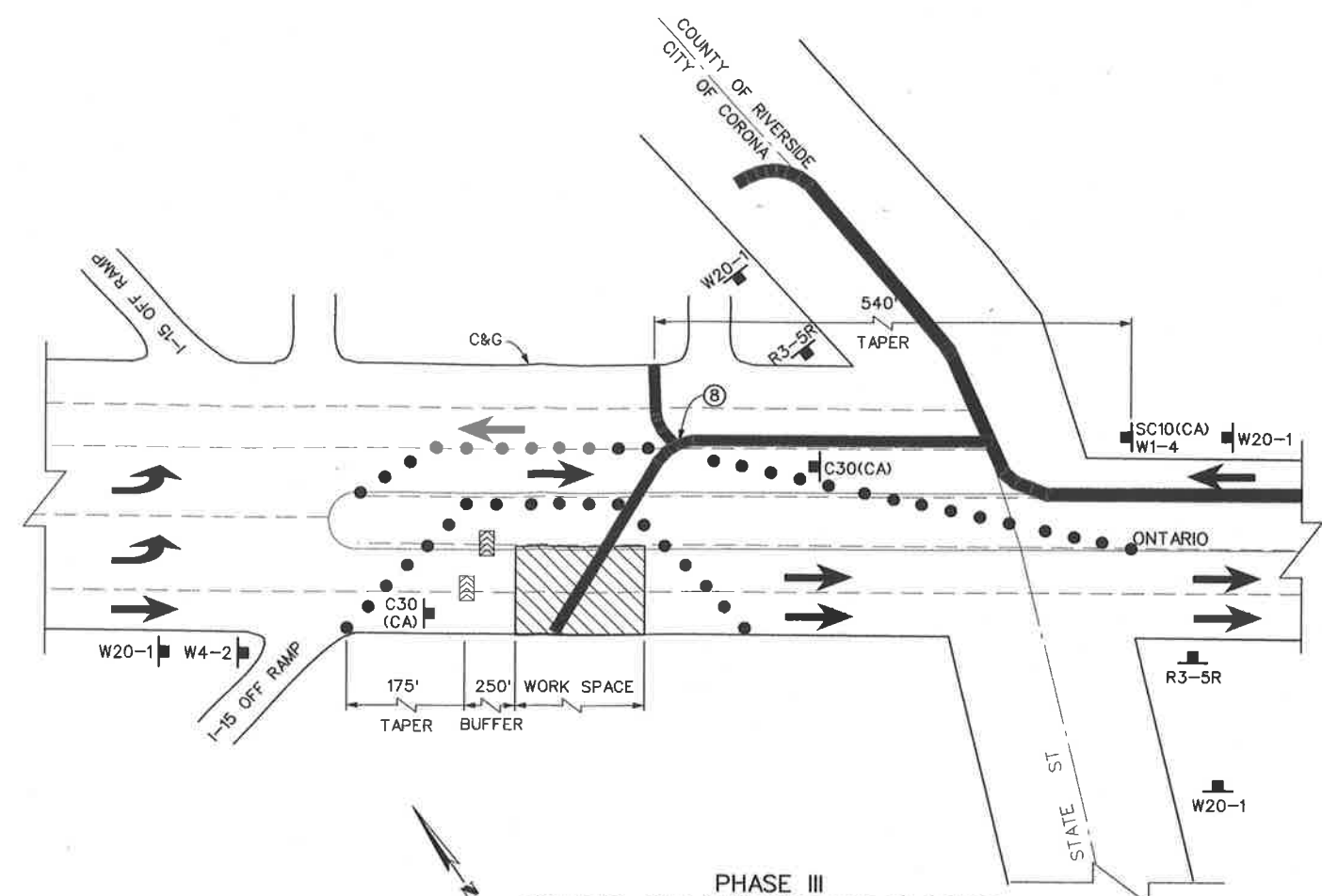
**PHASE I
STATE ST. INTERSECTION CLOSURE
NTS**



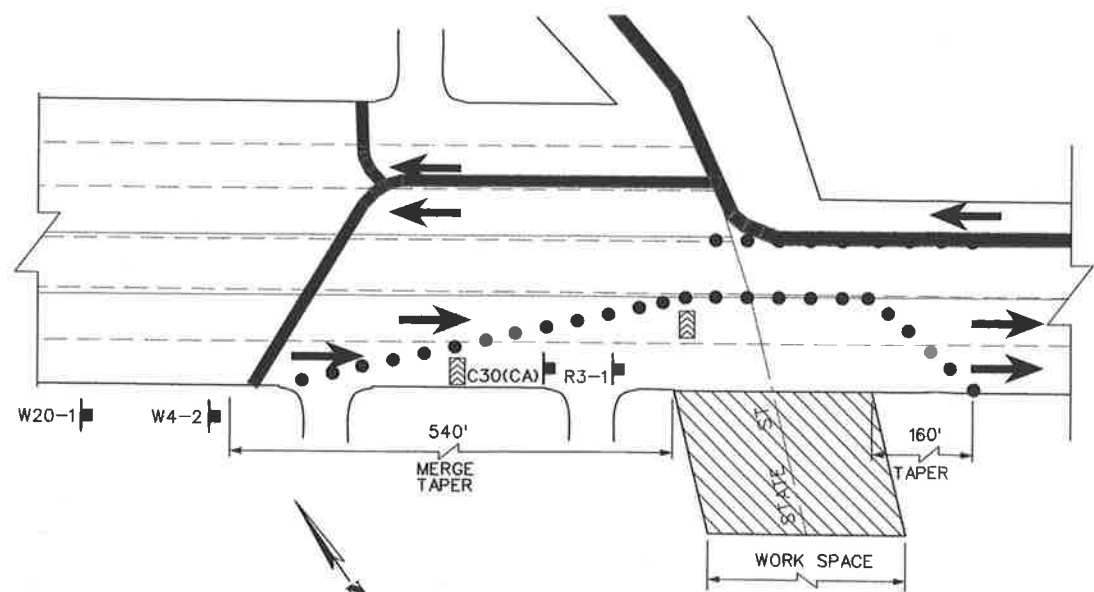
CITY OF CORONA APPROVED BY: <i>[Signature]</i> CITY ENGINEER DATE: 2-14-11		COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY: <i>[Signature]</i> DEPUTY DIRECTOR OF TRANSPORTATION DATE: 2/14/11		REVISIONS REF. DESCRIPTION APPR. DATE		RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT DESIGNED BY: K. AMIN DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011		RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/10/11		APPROVED BY: <i>[Signature]</i> DATE: 16-FEB-2011		CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 1 TRAFFIC CONTROL PLANS STATE STREET CLOSURE		PROJECT NO. 2-0-0351 DRAWING NO. 2-416 SHEET NO. 46 OF 47	
--	--	--	--	---	--	---	--	--	--	--	--	---	--	---	--



PHASE II
ONTARIO AVE. (45MPH) LANE CLOSURE
NTS



PHASE III
ONTARIO AVE. (45MPH) LANE CLOSURE
NTS



PHASE IV
ONTARIO AVE. (45MPH) LANE CLOSURE
NTS

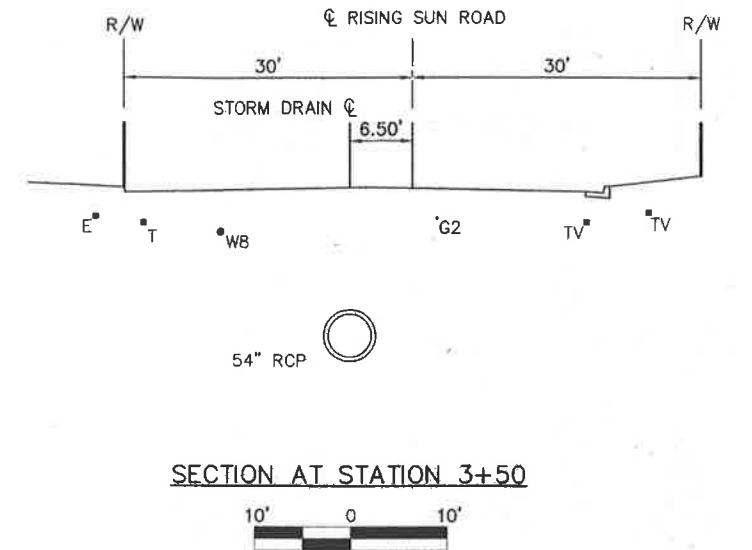
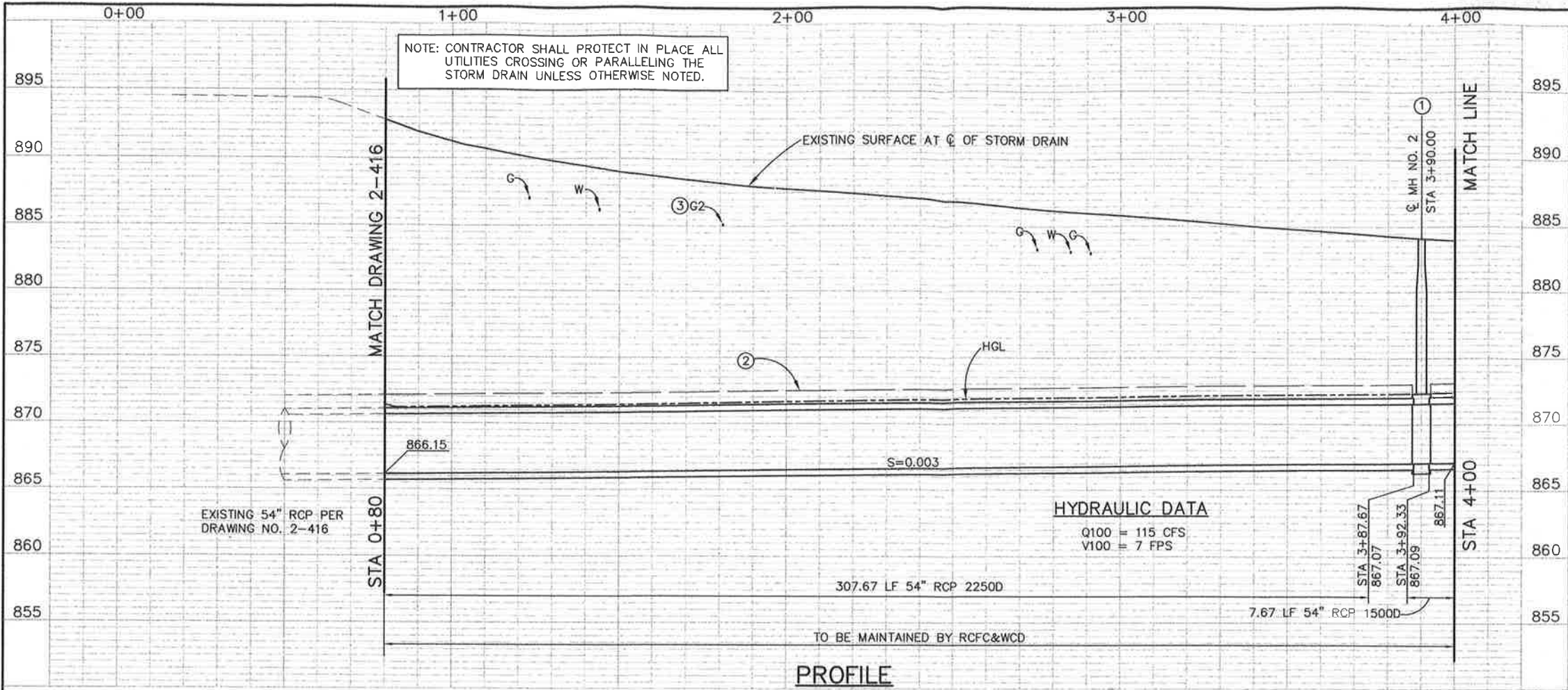
LEGEND

- CONES
- ➔ DIRECTION OF TRAVEL
- ▨ CONSTRUCTION AREA
- ⚡ FLASHING ARROW SIGN
- +++ TYPE III BARRICADE
- ▭ K-RAIL
- ⚑ FLAGGER
- C9A(CA) FLAGGER SYMBOL
- C30(CA) LANE CLOSED
- G20-2 END CONSTRUCTION
- M4-8 DETOUR
- M4-8A END DETOUR
- M4-10 DETOUR RIGHT
- R1-1 STOP
- R3-1 NO RIGHT TURN
- R11-2 ROAD CLOSED
- R3-5R RIGHT TURN ONLY
- R4-7A KEEP RIGHT
- R11-4 ROAD CLOSED TO THRU TRAFFIC
- SC10(CA) LANE CLOSED AHEAD
- W1-4 REVERSE CURVE
- W1-6 LEFT ARROW
- W4-2 LANE ENDS
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 - 8 PROVIDE OPENING FOR CERRITO PLAZA ACCESS.

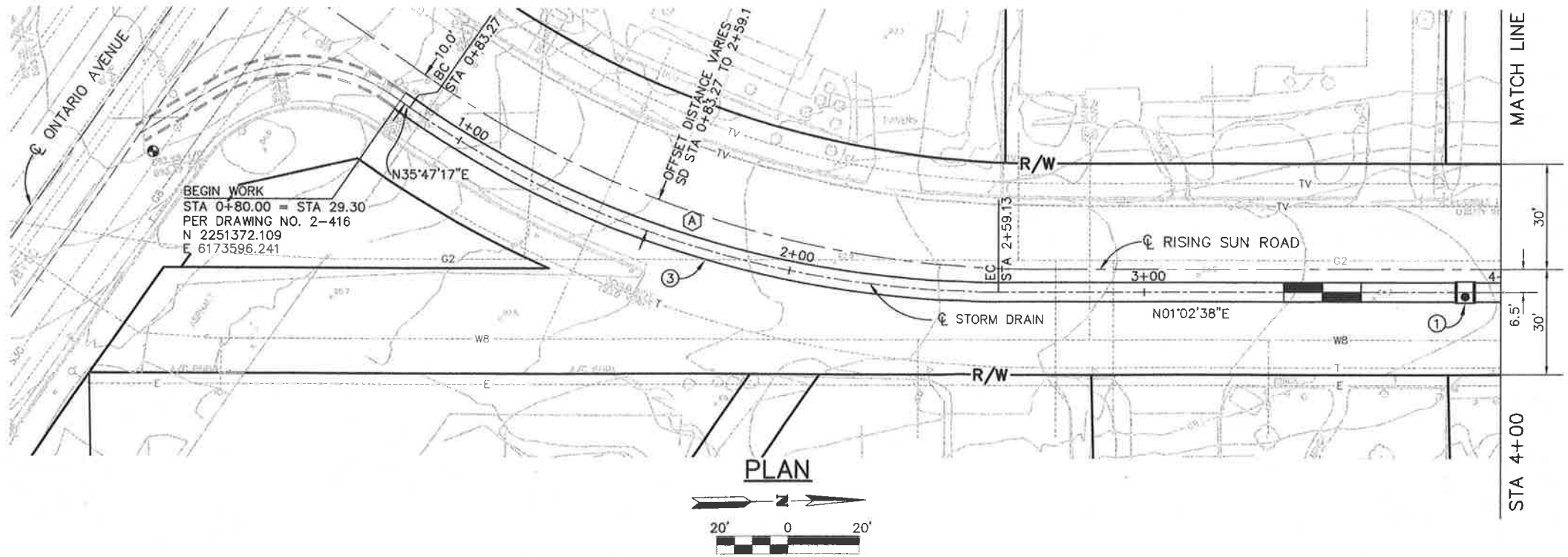


<p>CITY OF CORONA</p> <p>APPROVED BY: <i>[Signature]</i> CITY ENGINEER</p> <p>DATE: 2-14-11</p>	<p>COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT</p> <p>APPROVED BY: <i>[Signature]</i> DEPUTY DIRECTOR OF TRANSPORTATION</p> <p>DATE: 2/17/11</p>	<p>RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT</p> <p>DESIGNED BY: K. AMIN</p> <p>DRAWN BY: M. HOWARD</p> <p>DATE DRAWN: FEBRUARY 2011</p>	<p>APPROVED BY: <i>[Signature]</i></p> <p>DATE: 2/10/11</p>								
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REF.	DESCRIPTION	APPR.	DATE								
<p>CITY OF CORONA</p>		<p>COUNTY OF RIVERSIDE</p>									
<p>PROJECT NO. 2-0-0351</p>		<p>DRAWING NO. 2-416</p>									
<p>SHEET NO. 47 OF 47</p>		<p>DATE: 10-FEB-2011</p>									



(A) 54" RCP CURVE DATA

Δ	=	34°44'39"
R	=	290.00'
L	=	175.86'
T	=	90.73'
BC	=	STA 0+83.27
EC	=	STA 2+59.13
PI	=	N 2251448.36 E 6173651.21



- NOTES**
- ① CONSTRUCT MANHOLE NO. 2 PER STD. MH252
 - ② CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASEMENT PER DETAIL ON SHEET 7
 - ③ PROTECT EXISTING 2" POLYETHYLENE GAS LINE IN PLACE

SEE SHEET 3

CVALDO CORPORATION
CIVIL ENGINEERING
6600 JURUPA AVENUE, SUITE 14
RIVERSIDE, CA 92504
(951) 686-0401



BENCH MARK
B.M. NO. Z-12341
FD. 2" CAL. DOT BRASS DISC MON.
STAMPED "CL STATE ST 10+00
POT. 7+86.57 PI" CL ONTARIO
AVE., DN 0.28'
912.023 EL. NAVD 88

Michael David Cairns 1/17/11
MICHAEL DAVID CAIRNS
DATE

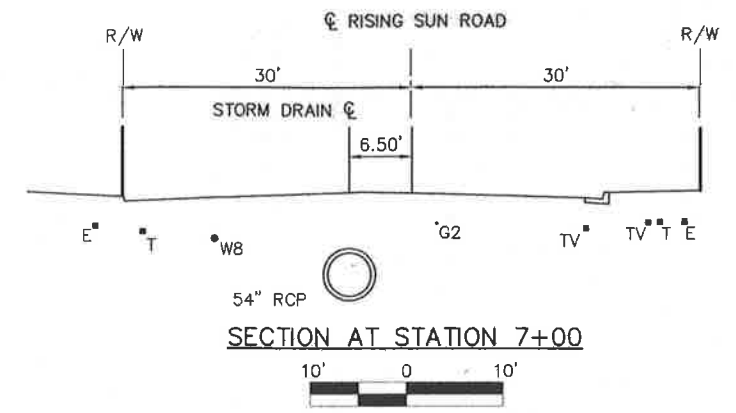
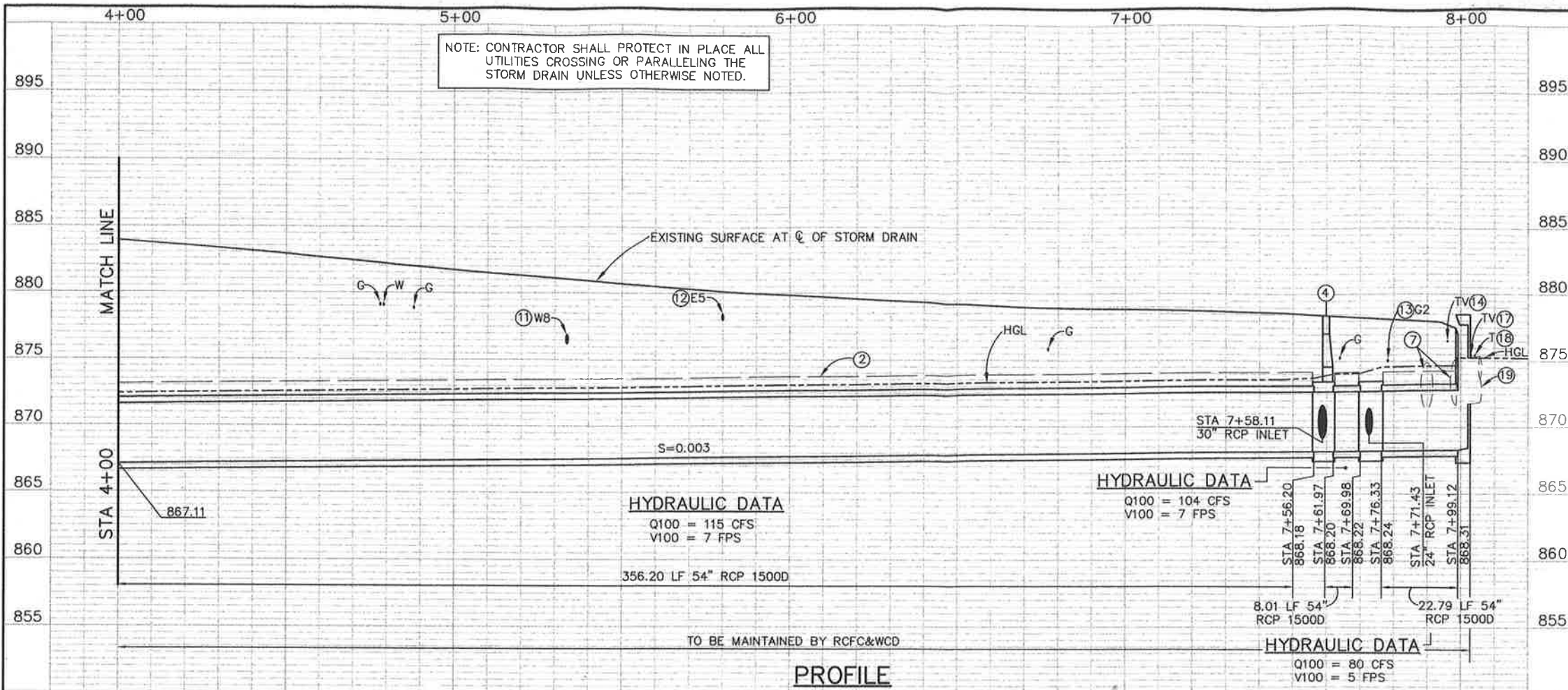


REVISIONS	ENGINEER	RCFC&WCD

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: *[Signature]*
APPROVED BY: *[Signature]*
DATE: 2/10/11
DATE: 10-Feb-2011

CORONA DRAINS EAST
ONTARIO AVE. STORM DRAIN
STAGE 2
PLAN AND PROFILE
STA. 0+80 TO STA. 4+00

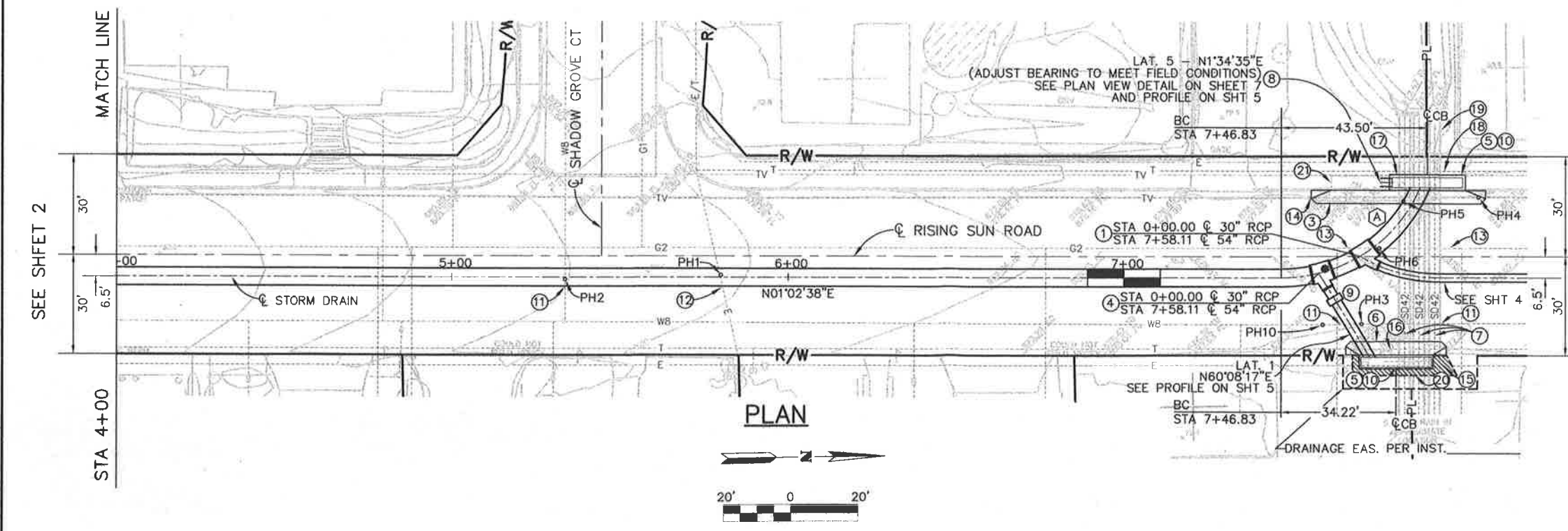
PROJECT NO. **2-0-0351**
DRAWING NO. **2-426**
SHEET NO. **2 OF 11**



① 54" RCP CURVE DATA
 Δ = 65°59'47"
 R = 45.00'
 L = 51.83'
 T = 29.22'
 BC = STA 7+46.83
 EC = STA 7+98.66
 PI = N 2252055.91
 E 6173662.28

POTHOLE DATA				
NO.	UTILITY	SIZE	MATERIAL	COVER
PH1	ELECTRIC	4"	PVC	1.80'
PH2	WATER	8"	ACP	4.00'
PH3	WATER	8"	ACP	7.70'
PH4	TV	1.5"	PVC	1.40'
PH5	SD	42"	CMP	3.00'
PH6	GAS	2"	PE	3.00'
PH10	WATER	8"	ACP	7.00'

- NOTES**
- CONSTRUCT TRANSITION STRUCTURE NO. 3 PER STD. TS303 STA 7+71.43, A=62'39"08", B=24", C=6.47', D=54", R=869.53, S=869.47
 - CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASUREMENT PER DETAIL ON SHEET 7
 - CONSTRUCT A SINGLE CONTINUOUS GUTTER DEPRESSION FOR A CURB OPENING CATCH BASIN PER RCTD STD. NO. 311. GUTTER DEPRESSION TO SPAN BOTH THE EXISTING 14" INLET AND NEW 21" INLET AS IF THEY ARE A SINGLE INLET. SAWCUT AND REMOVE THE EXISTING PAVEMENT AND CONCRETE CURB AND GUTTER AS REQUIRED TO ACCOMMODATE THE GUTTER DEPRESSION. (ADJACENT CURB IS 8" HIGH)
 - CONSTRUCT MANHOLE NO. 4 PER STD. MH254 STA 7+58.11, A=73'27"43", B=30", C=5.44', D=54", R=870.22, S=868.98
 - CONSTRUCT CURB INLET CATCH BASIN PER RCTD STD. NO. 300, WEST SIDE, W=21', H=10.16', SEE ADDITIONAL DETAILS ON SHEET 6 EAST SIDE, W=21', H=5.18', SEE ADDITIONAL DETAILS ON SHEET 6
 - CONSTRUCT GUTTER DEPRESSION FOR CURB OPENING CATCH BASIN PER RCTD STD. NO. 311 CASE C. EAST SIDE TAPERED CURB FACE TO BE 4' BOTH ENDS.
 - REMOVE EXISTING TRIPLE 42" CMP BETWEEN THE 2 NEW CATCH BASINS. CONNECT THE CMP PIPES TO THE WEST CATCH BASIN PER DETAIL ON SHEET 6. SEAL THE REMAINING DOWNSTREAM CMP PIPES WITH CONCRETE BULKHEADS PER STD. M816.
 - PROTECT EXISTING CATCH BASIN IN PLACE AND CONNECT TO NEW CATCH BASIN WITH 3.59' 24" RCP 2000D PER SHEET 5.
 - CONSTRUCT CONCRETE COLLAR PER STD. NO. M803
 - SAW CUT, REMOVE AND REPLACE EXISTING AC AND PCC IN KIND AS REQUIRED
 - PROTECT EXISTING 8" ACP WATER MAIN IN PLACE
 - PROTECT EXISTING 4" PVC ELECTRICAL LINE IN PLACE
 - PROTECT EXISTING 2" POLYETHYLENE GAS LINE IN PLACE
 - EXISTING 1.5" PVC TV LINE TO BE RELOCATED BY OTHERS
 - EXISTING ELECTRICAL LINE (UNKNOWN SIZE) TO BE RELOCATED BY OTHERS
 - EXISTING TELEPHONE LINE (UNKNOWN SIZE) TO BE RELOCATED BY OTHERS
 - EXISTING TV LINE (UNKNOWN SIZE) TO BE RELOCATED BY OTHERS
 - EXISTING TELEPHONE LINE (UNKNOWN SIZE) TO BE RELOCATED BY OTHERS
 - EXISTING TRIPLE 42" CMP TO REMAIN
 - SAWCUT AND REMOVE EXISTING CONCRETE WITHIN HATCHED AREA AND REPLACE IN KIND. VERIFY LIMITS OF WORK W/ DISTRICT INSPECTOR PRIOR TO CUTTING. MATCH ELEVATION OF NEW TOP OF CURB AND EXISTING ADJACENT DRIVEWAY.
 - EXISTING CATCH BASIN - PROTECT IN PLACE. SEE ADDITIONAL DETAILS ON SHEET 7.



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BENCH MARK
 B.M. NO. Z-12341
 FD. 2" CAL. DOT BRASS DISC MON.
 STAMPED "CL STATE ST 10+00
 POT, 7+86.57 PI" CL ONTARIO
 AVE., DN 0.28'
 912.023 EL. NAVD 88

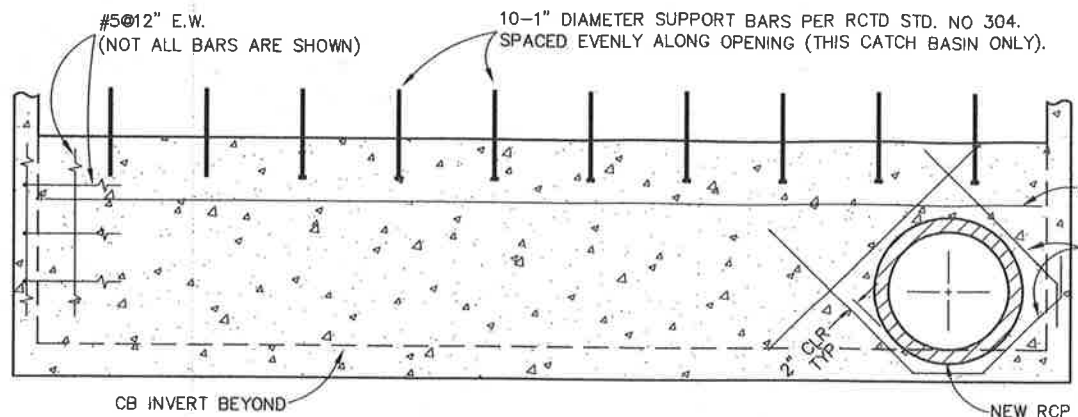
Michael David Cairns
 MICHAEL DAVID CAIRNS
 DATE 1/12/11
 REGISTERED PROFESSIONAL ENGINEER
 NO. 58839
 EXP. 6/30/11
 CIVIL
 STATE OF CALIFORNIA

REVISIONS	ENGINEER	RCFC&WCD

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
 RECOMMENDED FOR APPROVAL BY: *[Signature]*
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 DATE: 2/10/11
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CORONA DRAINS EAST
ONTARIO AVE. STORM DRAIN
STAGE 2
 PLAN AND PROFILE
 STA. 4+00 TO STA. 7+98.66

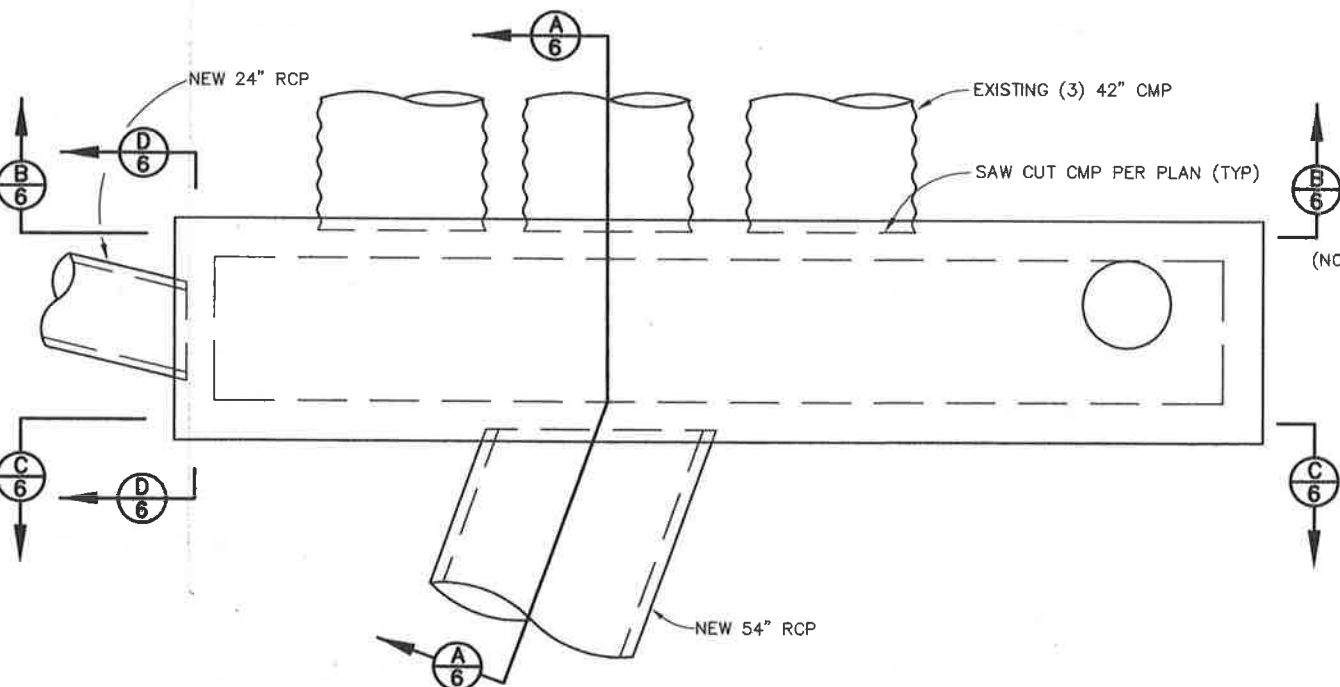
PROJECT NO. **2-0-0351**
 DRAWING NO. **2-426**
 SHEET NO. **3** OF **11**



NOTE:
THIS CATCH BASIN TO BE CONSTRUCTED PER RCTD STD. 300 EXCEPT FOR FRONT WALL T=8", BOTTOM SLAB T=8", AND FRONT WALL SUPPORT BARS AND REINFORCING STEEL MODIFIED AS SHOWN ABOVE. SEE OTHER STRUCTURAL GENERAL NOTES THIS SHEET. CATCH BASIN TOP SLAB NOT SHOWN.

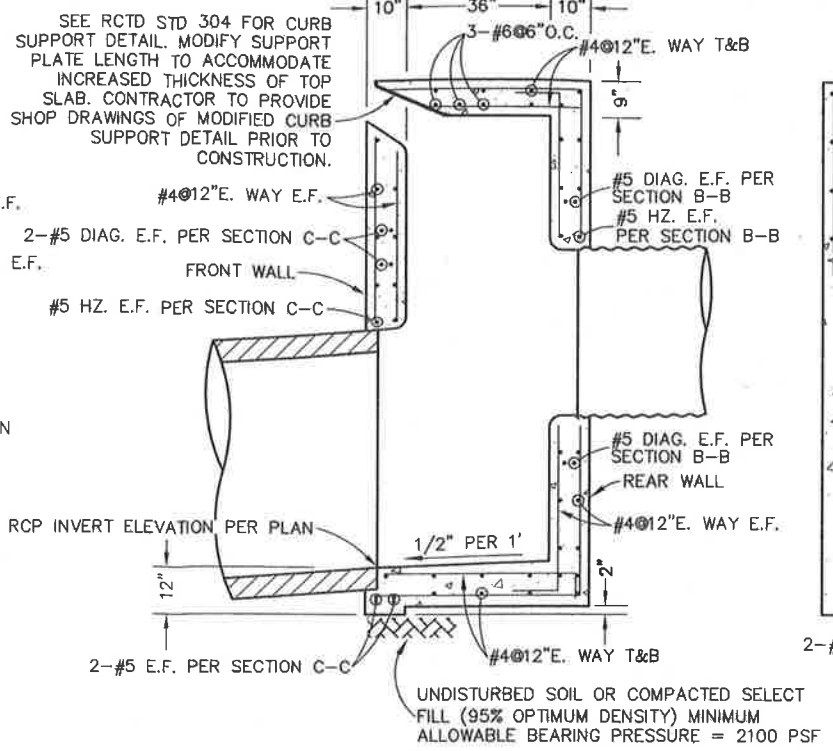
MODIFIED CB300 CURB INLET CATCH BASIN - EAST SIDE RISING SUN ROAD
FRONT WALL SECTION

SEE SHEET 3
SCALE 1/2" = 1'

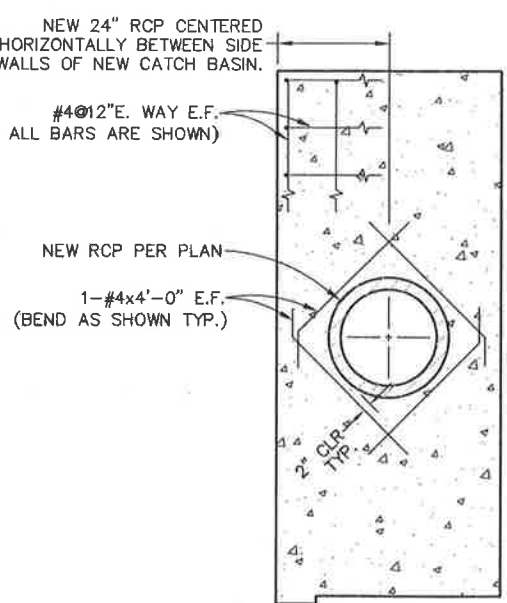


MODIFIED CB300 CURB INLET CATCH BASIN - WEST SIDE RISING SUN ROAD
PLAN VIEW

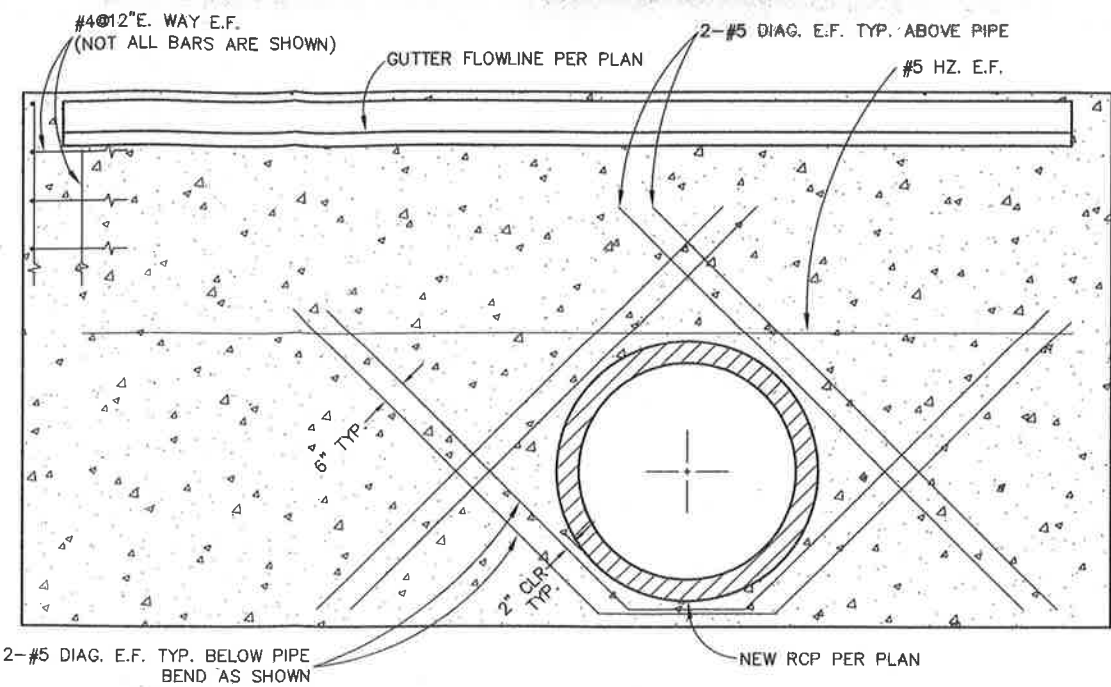
SEE SHEET 3
SCALE 1/2" = 1'



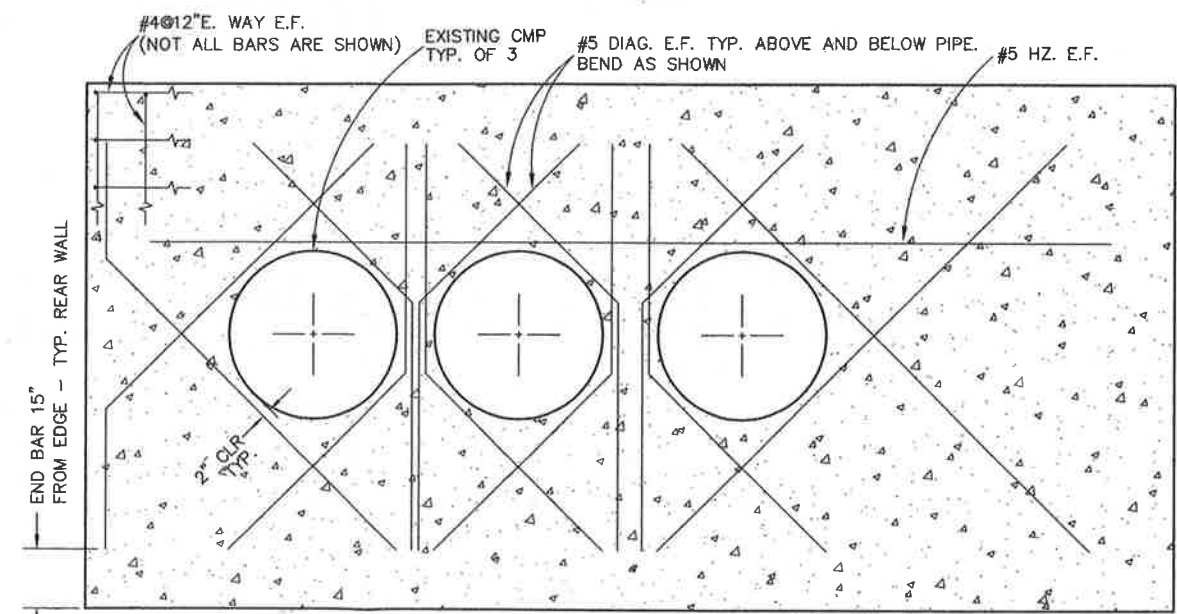
SECTION A-A
SCALE 1/2" = 1'



SECTION D-D - SIDE WALL SECTION
SCALE 1/2" = 1'



SECTION C-C - FRONT WALL SECTION
SCALE 1/2" = 1'



SECTION B-B - REAR WALL SECTION
SCALE 1/2" = 1'

STRUCTURAL GENERAL NOTES:

- CURB INLET CATCH BASIN SHALL BE CONSTRUCTED ACCORDING TO RCTD STANDARD NO. 300 (SHTS. 1 & 2) AND STANDARD NO. 304, UNLESS NOTED OTHERWISE.
- ALL CONCRETE & CONCRETE WORK SHALL COMPLY WITH ACI 301, CONTRACT SPECIFICATIONS, AND THE ACI 318 (LATEST EDITION).
- REINFORCING STEEL SHALL BE NEW ASTM A615 GR. 60 DEFORMED BARS.
- ALL DETAILING, FABRICATION AND PLACING OF REINFORCING SHALL FOLLOW THE ACI DETAILS & DETAILING OF CONCRETE REINFORCEMENT, ACI 315 (LATEST ED.).
- REINFORCING STEEL SHALL BE SECURED AND SUPPORTED ACCORDING TO CRSI MANUAL OF STD. PRACTICE.
- UNLESS OTHERWISE SHOWN, ALL LAP SPLICES FOR REINFORCING STEEL SHALL BE 40D MINIMUM & ALL HOOKS SHALL BE STANDARD HOOKS.
- UNLESS OTHERWISE SHOWN, THE MINIMUM EMBEDMENT SHALL BE 40D.
- TYPE II CEMENT SHALL BE USED FOR CONCRETE MIX AND SLUMP OF CONCRETE SHALL BE 4 INCHES MAXIMUM.
- CONCRETE FOR THE CATCH BASINS SHOWN ON THIS SHEET SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 4000 PSI @ 28 DAYS.
- ALL CONCRETE SHALL BE CURED WITH A RIVERSIDE COUNTY APPROVED CURING COMPOUND EXCEPT WHERE MOIST CURING IS SPECIFIED.
- ALL CONCRETE SURFACES TO RECEIVE GROUT OR FRESH CONCRETE SHALL BE ROUGHENED BY SANDBLASTING TO A MINIMUM SURFACE PROFILE OF 1/8".



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POT, 7+86.57 PI" CL ONTARIO
AVE., DN 0.28'

Michael David Cairns
MICHAEL DAVID CAIRNS
DATE: 1/17/11

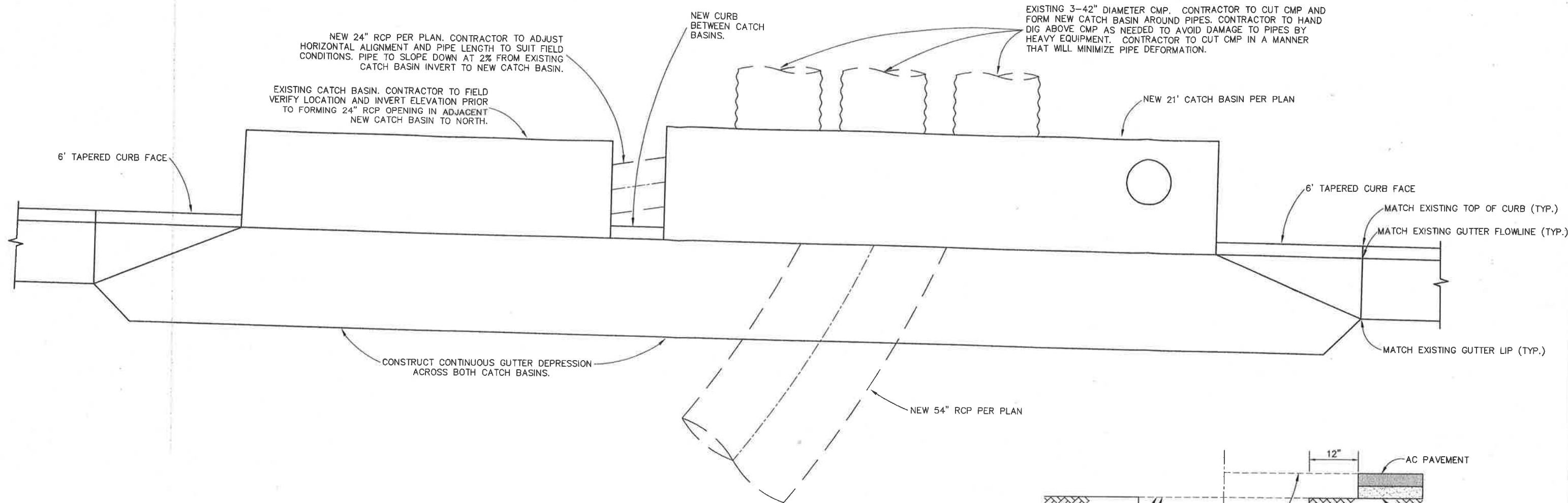


REVISIONS	ENGINEER	RCFC&WCD

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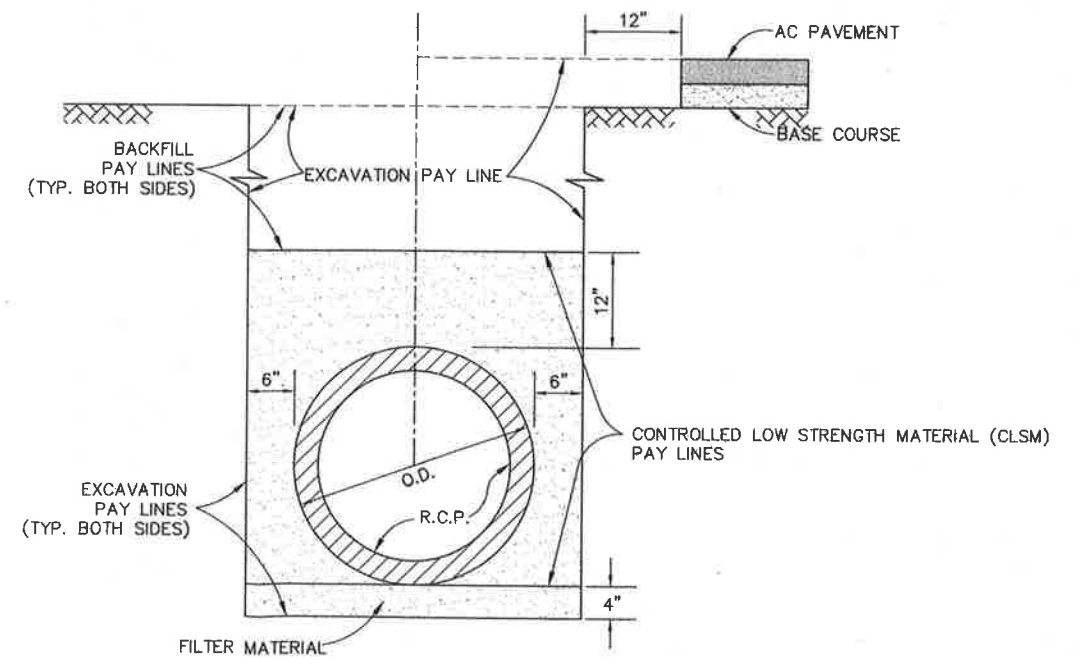
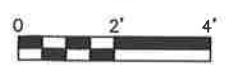
CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 2
MISCELLANEOUS DETAILS

PROJECT NO. 2-0-0351
DRAWING NO. 2-426
SHEET NO. 6 OF 11



EXISTING 14' AND NEW 21' CURB INLET CATCH BASIN

SEE SHEET 3
SCALE 1/2" = 1'



TYPICAL RCP BEDDING & PAY LINES

NTS

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Michael David Cairns 1/11/11
MICHAEL DAVID CAIRNS DATE

REGISTERED PROFESSIONAL ENGINEER
MICHAEL DAVID CAIRNS
NO. 59839
EXP. 6/30/11
CIVIL
STATE OF CALIFORNIA

REVISIONS	ENGINEER	RCFC&WCD			
REF.	DESCRIPTION	APPR.	DATE	APPR.	DATE

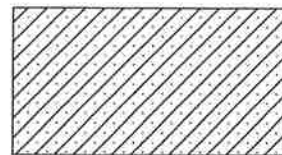
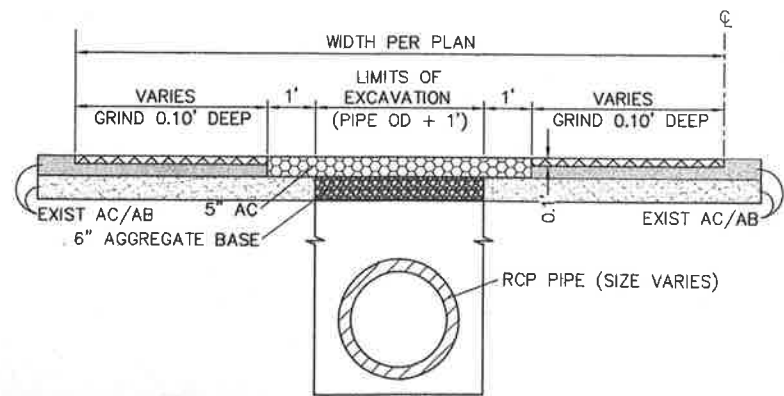
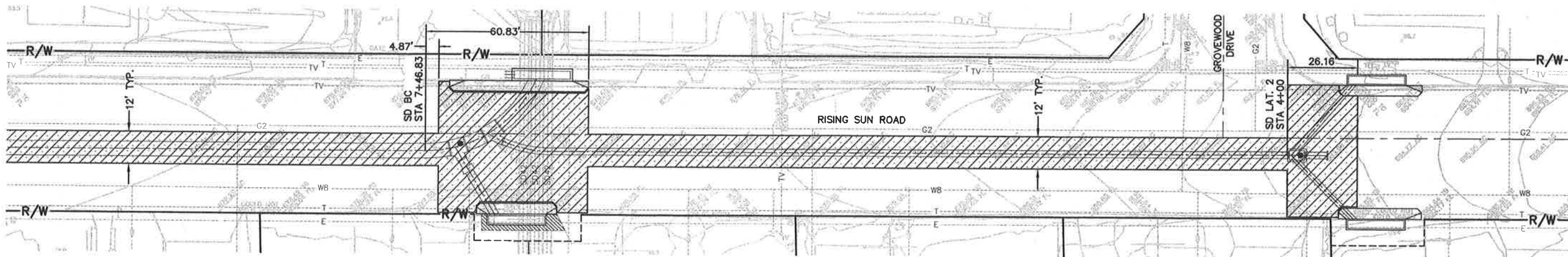
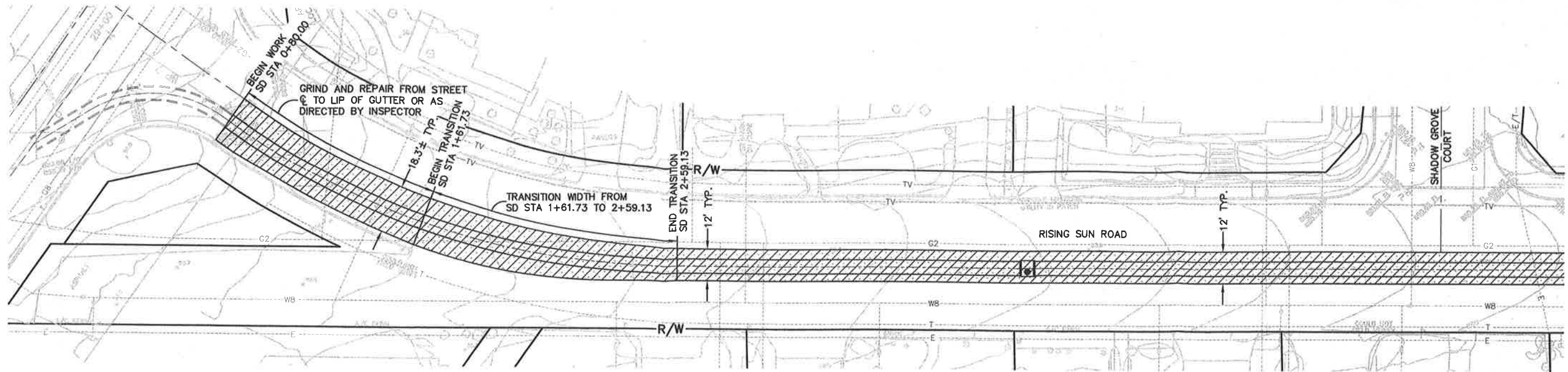
RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

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APPROVED BY: *[Signature]* DATE: 10 Feb 2011

CORONA DRAINS EAST
ONTARIO AVE. STORM DRAIN
STAGE 2
MISCELLANEOUS DETAILS

PROJECT NO. 2-0-0351
DRAWING NO. 2-426
SHEET NO. 7 OF 11



LIMITS OF TRENCH AND PAVEMENT REPAIR PER DETAIL THIS SHEET.

TYPICAL TRENCH AND PAVEMENT REPAIR

NTS

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 912.023 EL. NAVD 88

mill 1/17/11
 MICHAEL DAVID CAIRNS DATE



REF.	DESCRIPTION	APPR.	DATE	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
 RECOMMENDED FOR APPROVAL BY: *[Signature]* DATE: 2/10/11
 APPROVED BY: *[Signature]* DATE: 10-20-2011

CORONA DRAINS EAST
ONTARIO AVE. STORM DRAIN
STAGE 2
 STREET IMPROVEMENTS

PROJECT NO. 2-0-0351
 DRAWING NO. 2-426
 SHEET NO. 8 OF 11

LEGEND

- CONES
- ⊥ SIGNS
- ← DIRECTION OF TRAVEL
- ⊥⊥ TYPE III BARRICADE
- ▨ CONSTRUCTION AREA
- ▭ K-RAIL
- ⚡ FLASHING ARROW SIGN

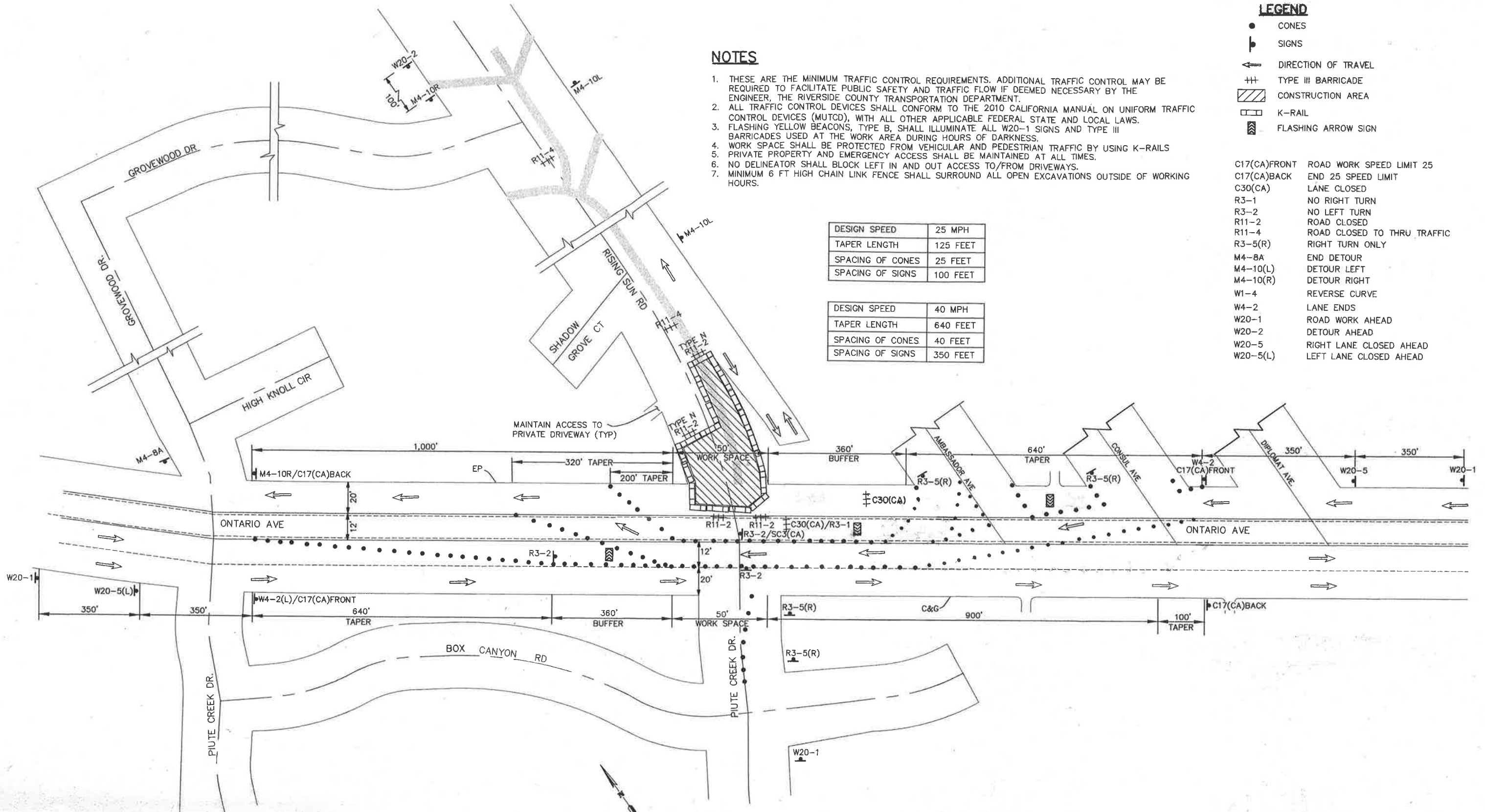
NOTES

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- C17(CA)FRONT ROAD WORK SPEED LIMIT 25
- C17(CA)BACK END 25 SPEED LIMIT
- C30(CA) LANE CLOSED
- R3-1 NO RIGHT TURN
- R3-2 NO LEFT TURN
- R11-2 ROAD CLOSED
- R11-4 ROAD CLOSED TO THRU TRAFFIC
- R3-5(R) RIGHT TURN ONLY
- M4-8A END DETOUR
- M4-10(L) DETOUR LEFT
- M4-10(R) DETOUR RIGHT
- W1-4 REVERSE CURVE
- W4-2 LANE ENDS
- W20-1 ROAD WORK AHEAD
- W20-2 DETOUR AHEAD
- W20-5 RIGHT LANE CLOSED AHEAD
- W20-5(L) LEFT LANE CLOSED AHEAD

DESIGN SPEED	25 MPH
TAPER LENGTH	125 FEET
SPACING OF CONES	25 FEET
SPACING OF SIGNS	100 FEET

DESIGN SPEED	40 MPH
TAPER LENGTH	640 FEET
SPACING OF CONES	40 FEET
SPACING OF SIGNS	350 FEET



RISING SUN ROAD AT ONTARIO AVENUE CLOSURE

NOT TO SCALE

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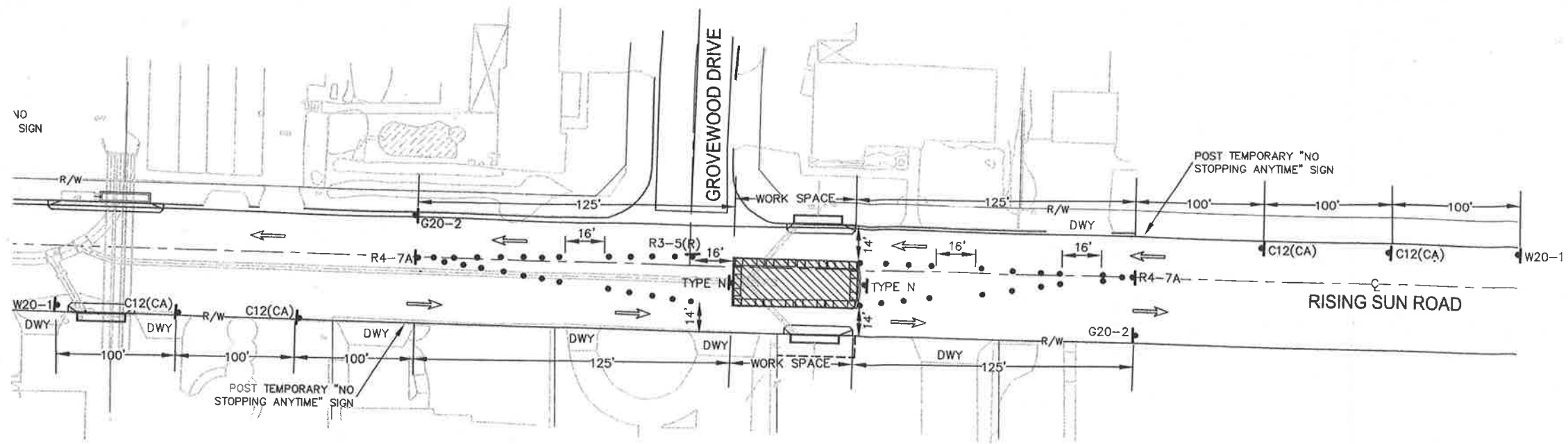
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REVISIONS	ENGINEER	RCFC&WCD

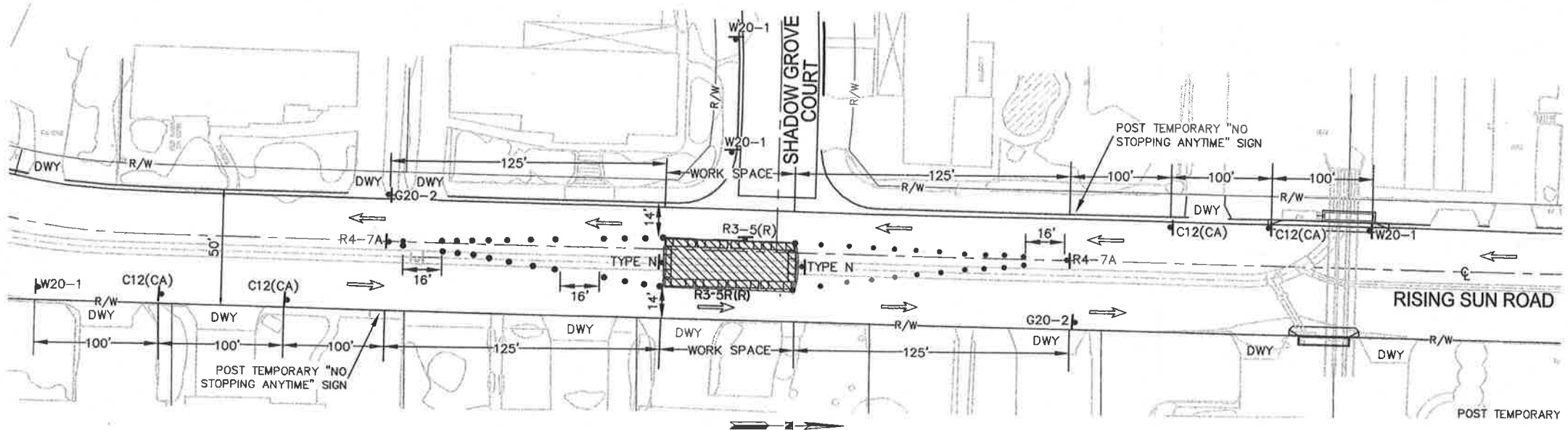
RIVERSIDE COUNTY FLOOD CONTROL
 AND
 WATER CONSERVATION DISTRICT
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 APPROVED BY: *[Signature]*
 DATE: 2/10/11
 DATE: 10-26-2011

CORONA DRAINS EAST
ONTARIO AVE. STORM DRAIN
STAGE 2
 TRAFFIC CONTROL PLAN

PROJECT NO.
2-0-0351
 DRAWING NO.
2-426
 SHEET NO.
9 OF 11



RISING SUN ROAD TYPICAL CLOSURE SHOWN AT GROVEWOOD DRIVE
NOT TO SCALE



RISING SUN ROAD TYPICAL LANE CLOSURE SHOWN AT SHADOW GROVE COURT
NOT TO SCALE

LEGEND

- CONES
- ⊣ SIGNS
- ← DIRECTION OF TRAVEL
- +++ TYPE III BARRICADE
- ▨ CONSTRUCTION AREA
- ▭ K-RAIL
- W20-1 ROAD WORK AHEAD
- G20-2 END CONSTRUCTION
- C12(CA) NARROW LANE
- R4-7A KEEP RIGHT
- R3-5R RIGHT TURN ONLY

DESIGN SPEED	25 MPH
TAPER LENGTH	125 FEET
SPACING OF CONES	25 FEET
SPACING OF SIGNS	100 FEET

NOTES

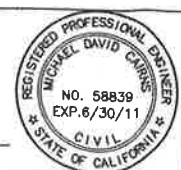
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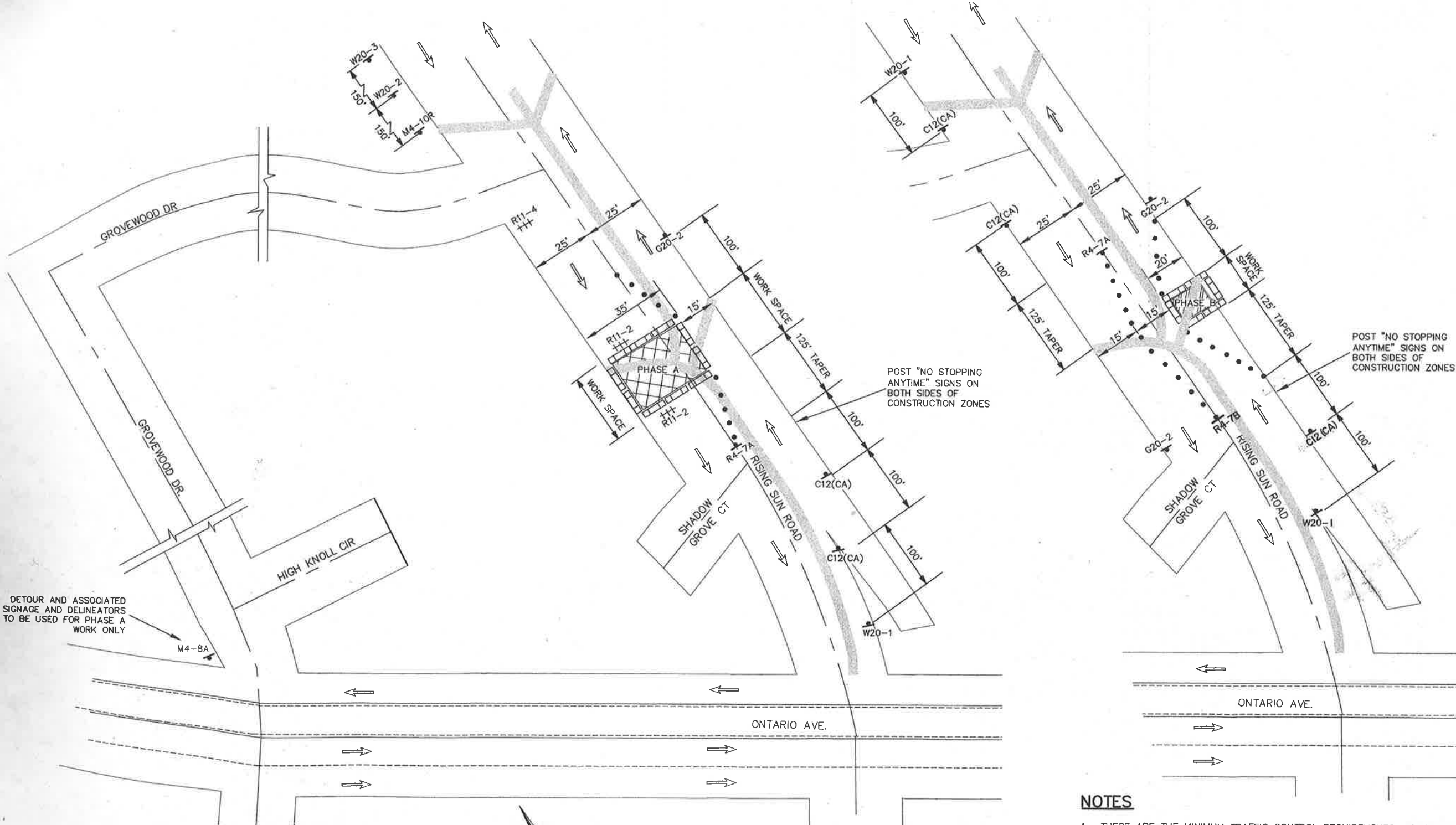


REVISIONS	ENGINEER	RCFC&WCD

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
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CORONA DRAINS EAST ONTARIO AVE. STORM DRAIN STAGE 2
TRAFFIC CONTROL PLAN

PROJECT NO. 2-0-0351
DRAWING NO. 2-426
SHEET NO. 10 OF 11



LEGEND

- CONES
 - ⊥ SIGNS
 - ← DIRECTION OF TRAVEL
 - +++ TYPE III BARRICADE
 - ▨ CONSTRUCTION AREA
 - ▭ K-RAIL
- G20-2 END CONSTRUCTION
 - C12(CA) NARROW LANE
 - R4-7A KEEP RIGHT
 - R11-2 ROAD CLOSED
 - R11-4 ROAD CLOSED TO THRU TRAFFIC
 - M4-8A END DETOUR
 - M4-10R DETOUR RIGHT
 - W4-2 LANE ENDS
 - W20-1 ROAD WORK AHEAD
 - W20-2 DETOUR AHEAD
 - W20-3 ROAD CLOSED AHEAD
 - W20-5 RIGHT LANE CLOSED AHEAD

DESIGN SPEED	25 MPH
TAPER LENGTH	125 FEET
SPACING OF CONES	25 FEET
SPACING OF SIGNS	100 FEET

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RISING SUN ROAD TYPICAL CONSTRUCTION PHASES AT LATERALS
NOT TO SCALE

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Michael David Cairns 1/17/11
MICHAEL DAVID CAIRNS DATE



REVISIONS	ENGINEER	RCFC&WCD

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
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CORONA DRAINS EAST
ONTARIO AVE. STORM DRAIN
STAGE 2
TRAFFIC CONTROL PLAN

PROJECT NO. 2-0-0351
DRAWING NO. 2-426
SHEET NO. 11 OF 11

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

INDEX

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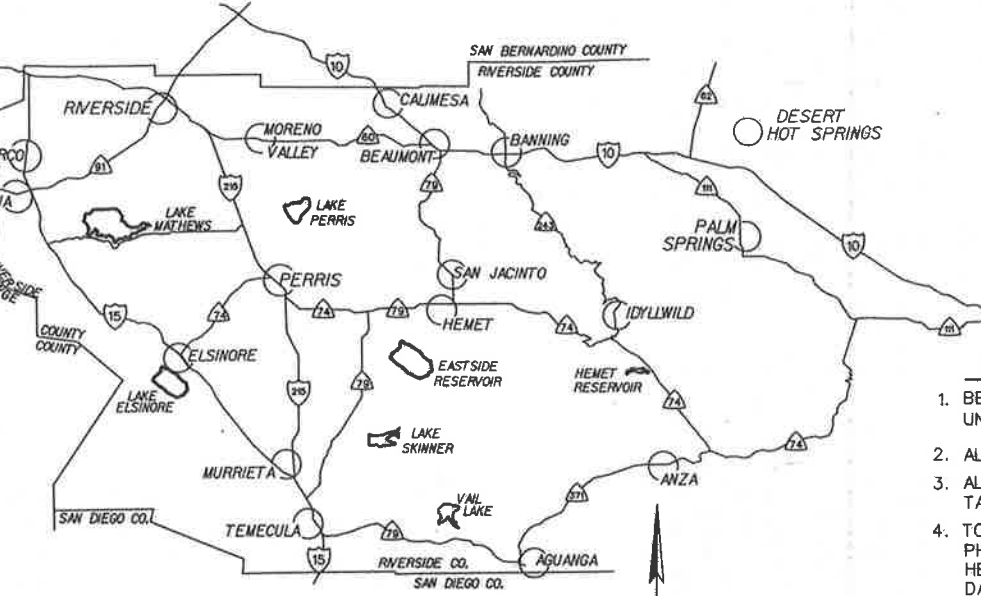
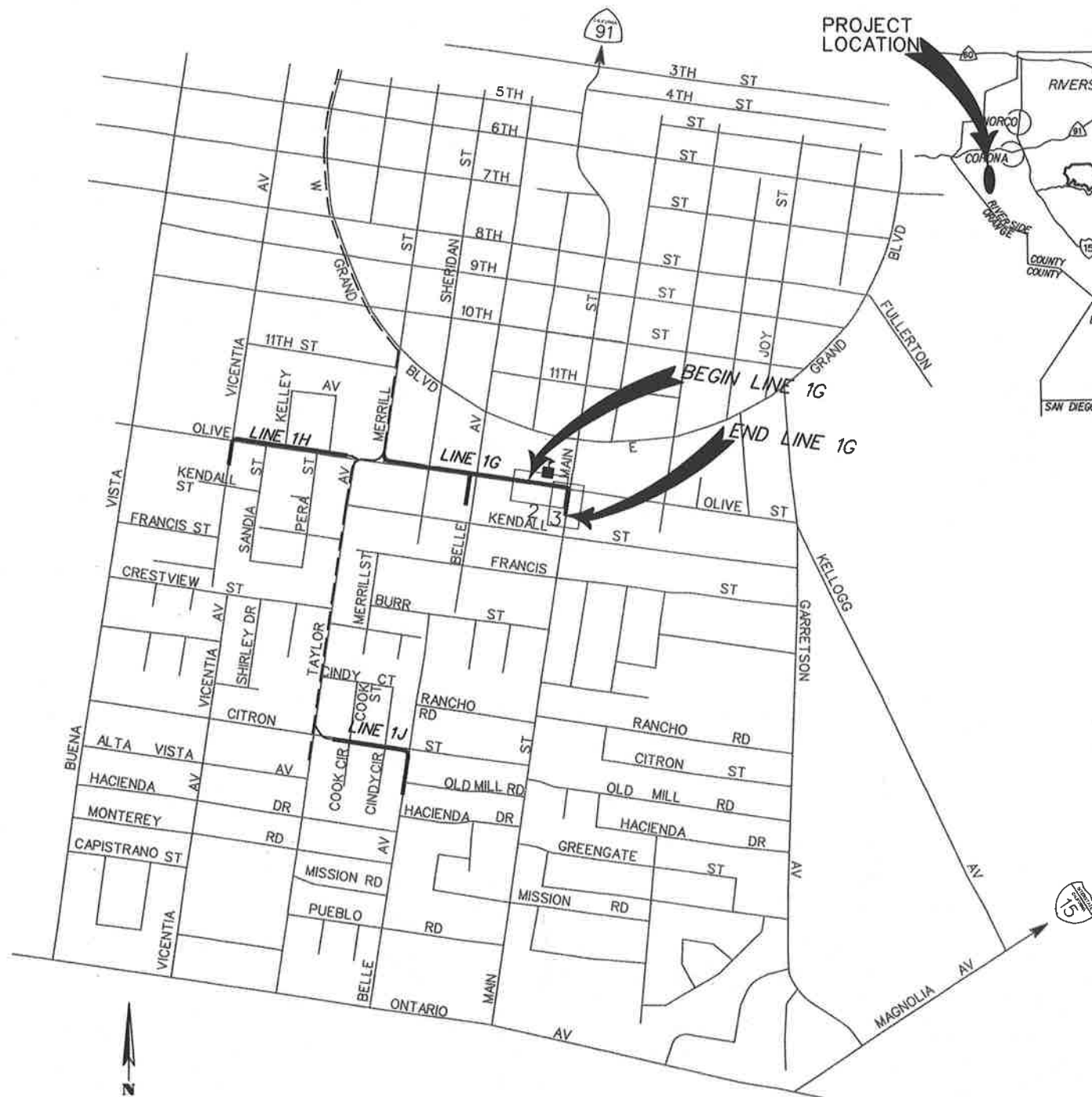
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CONNECTOR PIPE PROFILES	4-5
BEDDING, PAYLINES AND STREET RESURFACING REQUIREMENTS	6-7
LOCAL DEPRESSION DETAILS	8
PAVING LIMITS	9-10
TRAFFIC CONTROL PLANS	11-12

CITY OF CORONA

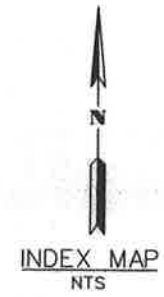
204 CATCH BASIN TYPE "A"

GENERAL NOTES

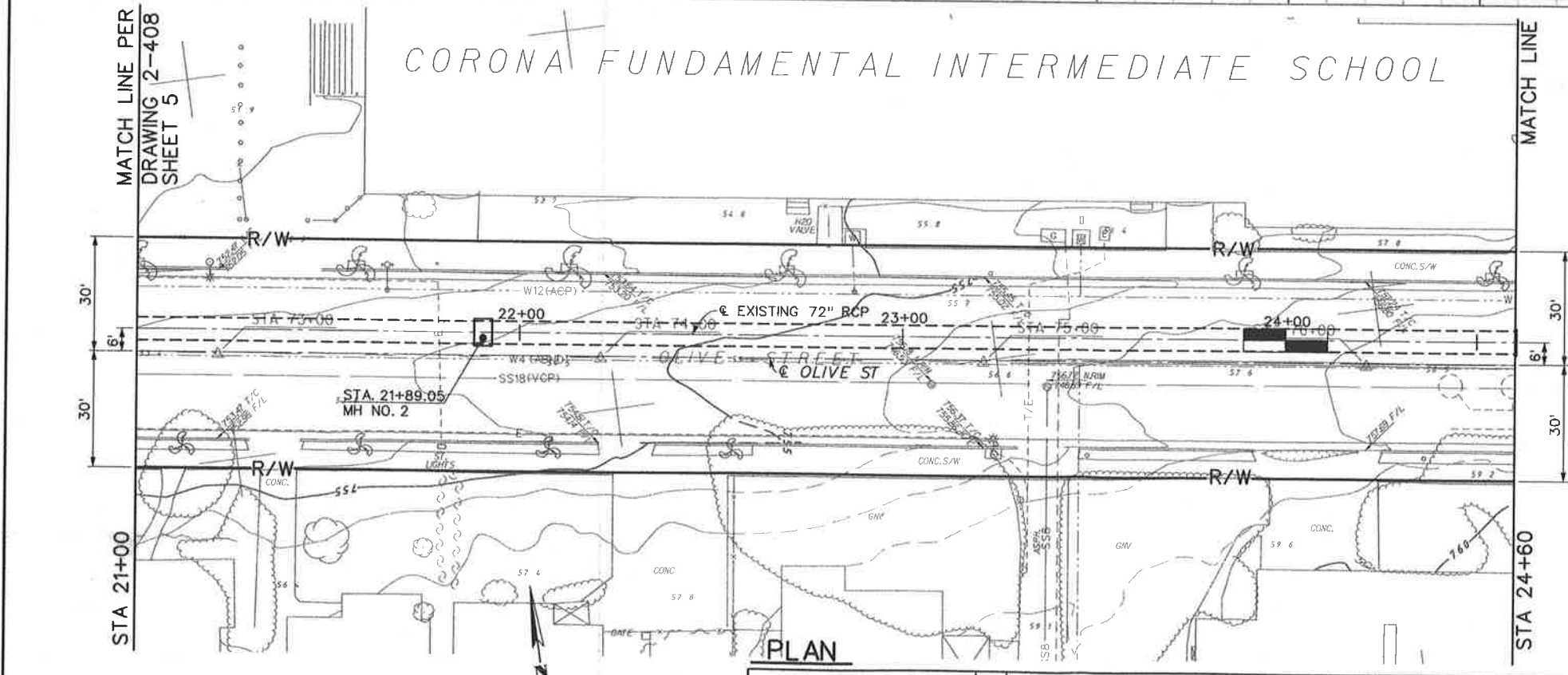
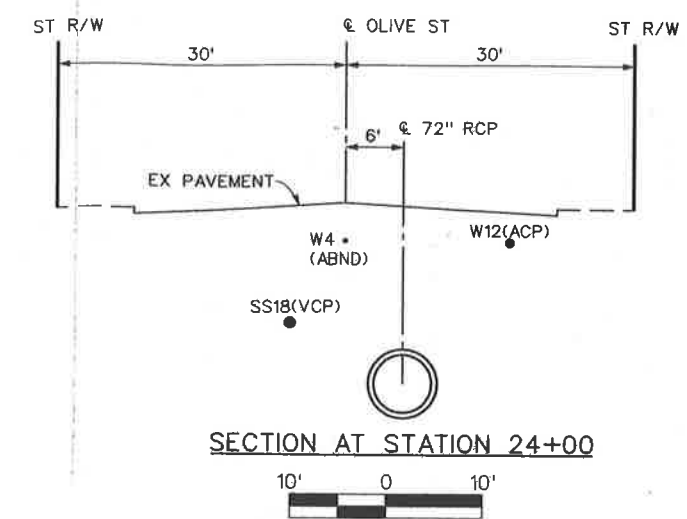
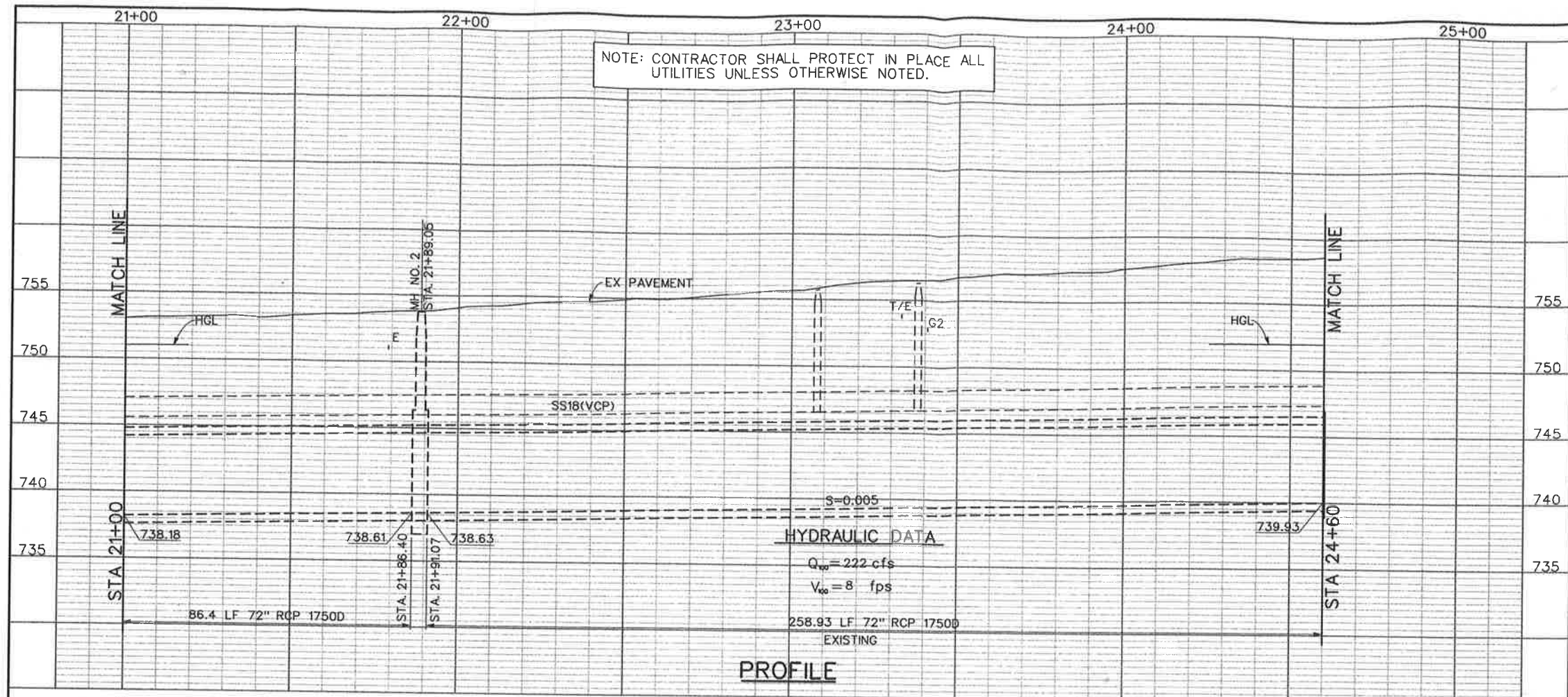
- BEDDING AND PAYLINES ARE SHOWN ON RCFC STANDARD DRAWING M815 UNLESS SHOWN OTHERWISE ON THESE PLANS.
- ALL STATIONING REFERS TO CENTERLINE OF CONSTRUCTION.
- ALL CHANNEL/STORM DRAIN REFERENCES AND CROSS SECTIONS ARE TAKEN LOOKING DOWNSTREAM.
- TOPOGRAPHY BY DIGITAL PHOTOGRAMMETRIC METHODS. AERIAL PHOTOGRAPHS TAKEN AT AN ALTITUDE NOT TO EXCEED A FLYING HEIGHT TO CONTOUR INTERVAL RATIO OF 1800. PHOTOGRAPHY DATED 04-09-02.
- THE VERTICAL DATUM IS DERIVED FROM NAVD 88. THE HORIZONTAL DATUM IS DERIVED FROM NAD 83.
- STANDARD DRAWINGS CALLED FOR ON THE PLAN & PROFILE SHALL CONFORM TO RCFC & WCD STD DRAWINGS, UNLESS OTHERWISE NOTED.
- ELEVATIONS AND LOCATIONS OF UTILITIES WERE OBTAINED FROM AVAILABLE INFORMATION AND ARE SHOWN APPROXIMATELY ON THESE PLANS. 48 HOURS BEFORE EXCAVATION CALL UNDERGROUND SERVICE ALERT AT 1-800-227-2600. ALL UTILITIES SHALL BE PROTECTED IN PLACE EXCEPT AS NOTED ON PLANS AND SPECIFICATIONS. EXCAVATION WITHIN THE APPROXIMATE LOCATION OF SUBSURFACE INSTALLATION SHALL CONFORM TO SECTION 4216.4 OF CALIFORNIA GOVERNMENT CODE 4216 DATED JAN. 2007.
- THE CONTRACTOR IS REQUIRED TO CONTACT ALL UTILITY AGENCIES REGARDING TEMPORARY SUPPORT AND SHORING REQUIREMENTS FOR THE VARIOUS UTILITY LINES SHOWN ON THESE PLANS.
- ALL OPENINGS RESULTING FROM CUTTING OR PARTIAL REMOVAL OF EXIST. CULVERTS, PIPES, OR SIMILAR STRUCTURES TO BE ABANDONED, SHALL BE SEALED AT BOTH ENDS WITH 6" MIN CLASS "B" CONCRETE.
- ALL PAVEMENT DELINEATION, CURBS, SIDEWALKS AND OTHER IMPROVEMENTS ARE TO BE RECONSTRUCTED IN KIND AT THE SAME LOCATIONS AND ELEVATIONS AS THE EXISTING IMPROVEMENTS, UNLESS OTHERWISE NOTED.
- ⊕ INDICATES APPROX. SOIL BORING LOCATION PER SOILS REPORT DATED 6/15/06.
- THE CONTRACTOR IS REQUIRED TO PREPARE AND SUBMIT A SEWER AND WATER EMERGENCY SPILL PLAN TO THE CITY OF CORONA, DEPT OF WATER AND POWER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.



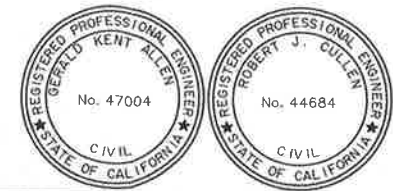
VICINITY MAP
NTS



CITY OF CORONA APPROVED BY: <i>[Signature]</i> CITY ENGINEER DATE: 2-14-11		Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services. TWO WORKING DAYS BEFORE YOU DIG		BENCH MARK B.M. NO. PS 3015 BRASS DISC W/ CHISELED "X" IN CAPPED WELL DN. 0.59' AT INT. OF ONTARIO AVE. AND MAIN STREET. 910.141 EL. NAVD 88		REVISIONS <table border="1"> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>APPR.</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>		NO.	DESCRIPTION	APPR.	DATE					RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT DESIGNED BY: A. XIE, J. O. DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011 DATE: 12-15-2011		APPROVED BY: <i>[Signature]</i> DATE: 2/17/11		CORONA DRAINS LINE 1G STAGE II TITLE SHEET		PROJECT NO. 2-0-0223 DRAWING NO. 2-422 SHEET NO. 1 OF 12	
NO.	DESCRIPTION	APPR.	DATE																				



★ SHEET INCLUDED FOR REFERENCE ONLY ★



Don't Dig...Until You Call U.S.A. Toll Free
 1-800-227-2600
 for the location of buried utility lines.
 Don't disrupt vital services.
 TWO WORKING DAYS BEFORE YOU DIG

REVISIONS	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

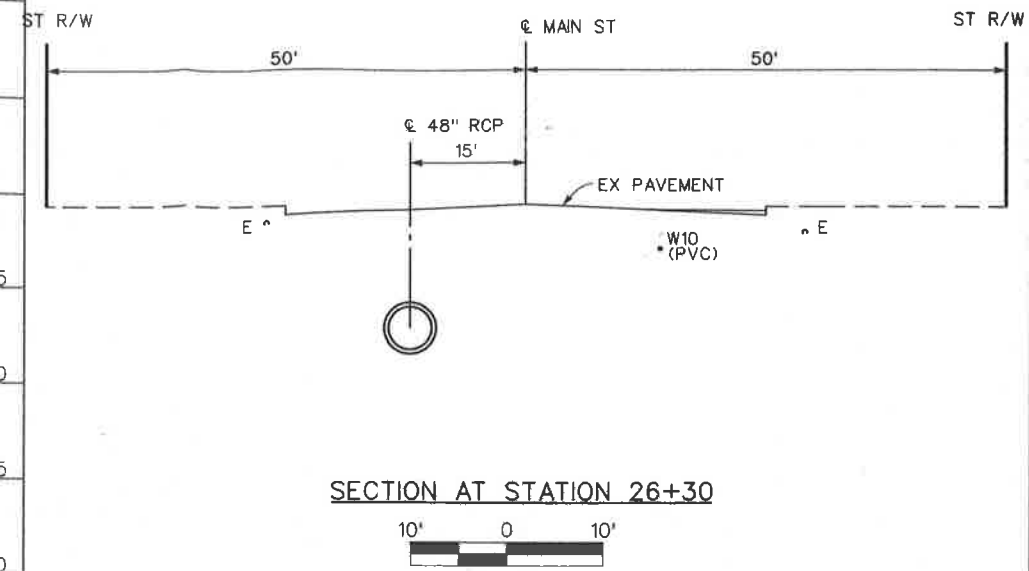
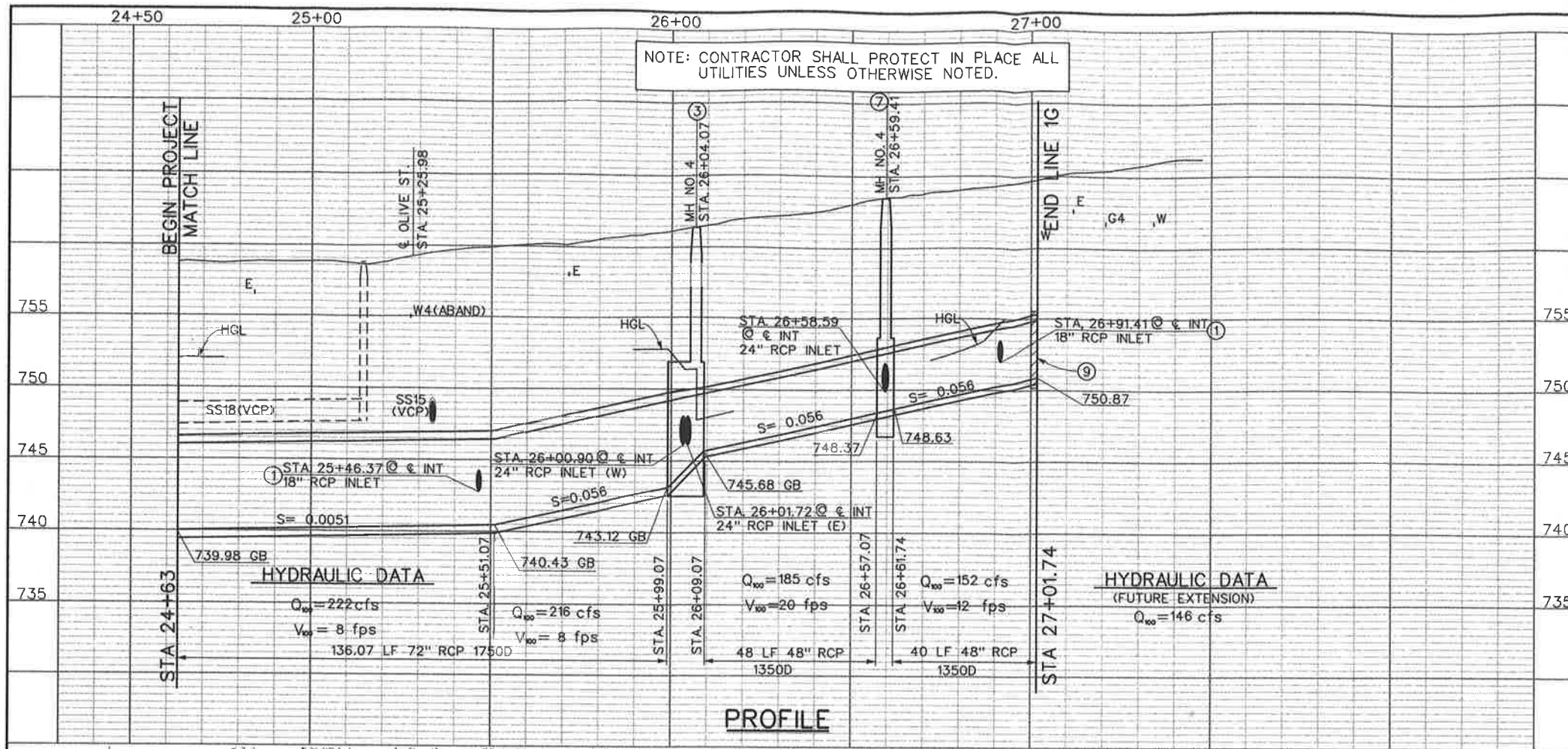
DESIGNED BY: A. XIE, J. O.
 DRAWN BY: M. HOWARD
 DATE DRAWN: FEBRUARY 2011

RECOMMENDED FOR APPROVAL BY: [Signature]
 DATE: 2/10/11

APPROVED BY: [Signature]
 DATE: 11-Feb-2011

CORONA DRAINS LINE 1G
 STAGE II
 STA 21+00 TO STA 24+50

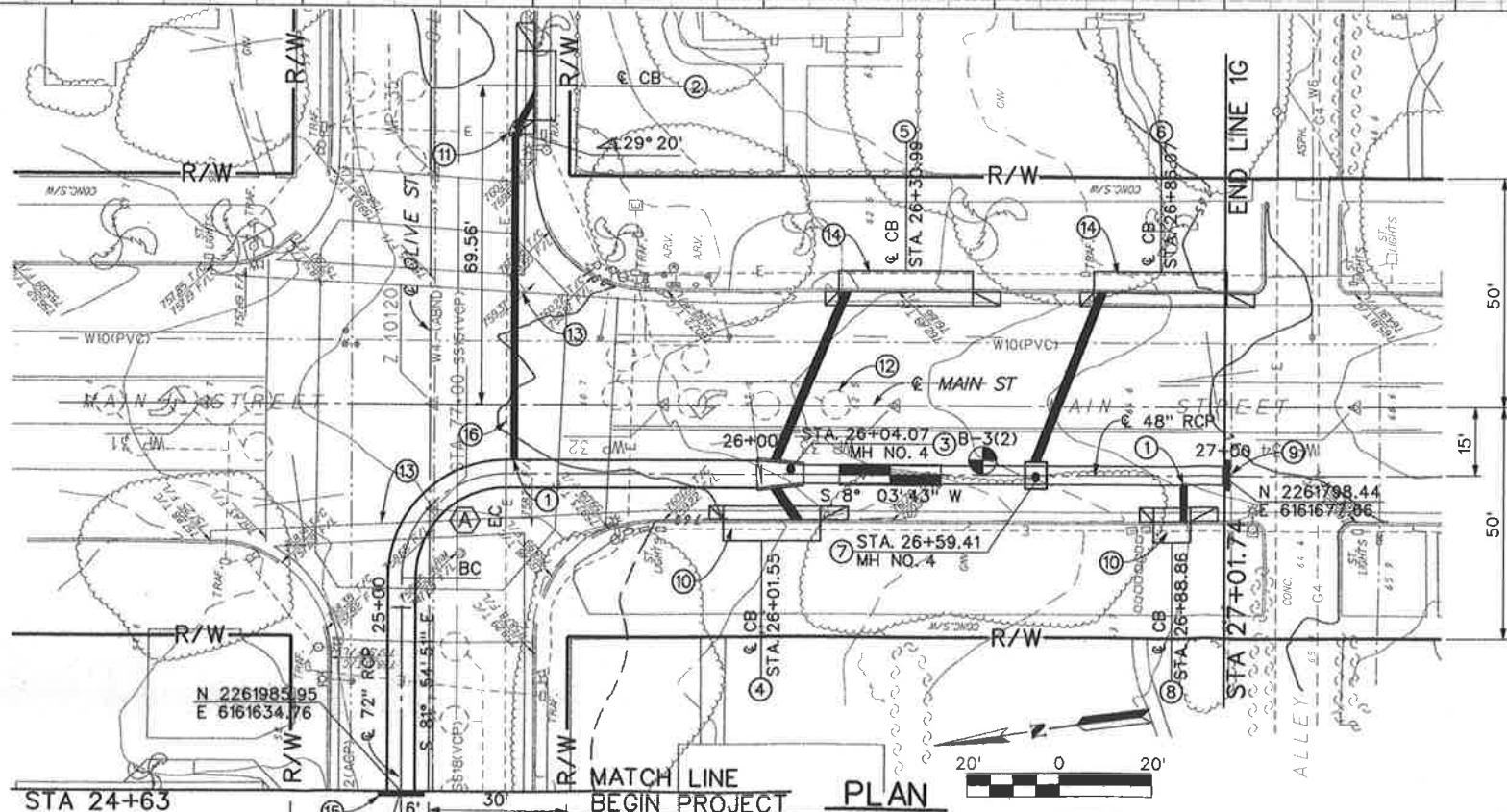
PROJECT NO. 2-0-0223
 DRAWING NO. 2-422
 SHEET NO. 2 OF 12



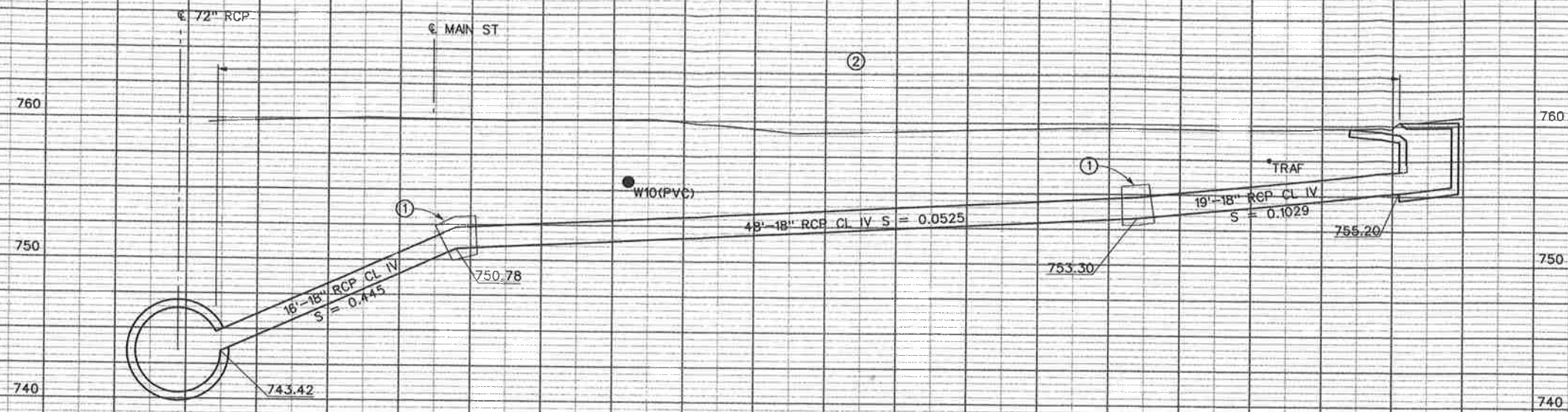
- NOTES**
- CONSTRUCT JS NO. 4 PER STD JS229.
 - CONSTRUCT CB PER CITY OF CORONA STD NO. 204. W=14' V=5' 83'-18" RCP CL IV. SEE PROFILE SHEET 4.
 - CONSTRUCT MH NO. 4 PER STD MH254. EAST: A=67° 29'08", B=24", C= 6.0', D₁=48", D₂=72", ELEV S=747.11, ELEV R= 748.54; WEST: A=55° 36'41", B=24", C= 6.0', ELEV S= 747.47 ELEV R= 749.85.
 - CONSTRUCT CB PER CITY OF CORONA STD NO. 204. W=21', V=5.5', 9'-24" RCP CL IV. SEE PROFILE ON SHEET 5.
 - CONSTRUCT CB PER CITY OF CORONA STD NO. 204. W=28', V=5.7' 39'-24" RCP CL IV. SEE PROFILE ON SHEET 5.
 - CONSTRUCT CB PER CITY OF CORONA STD NO. 204. W=28', V=6.6' 40'-24" RCP CL IV. SEE PROFILE ON SHEET 5.
 - CONSTRUCT MH NO. 4 PER STD MH254. A=69° 22'46", B=24", C=6.0', D₁= 48", ELEV S=750.27 ELEV R=751.38.
 - CONSTRUCT CB PER CITY OF CORONA STD NO. 204. W=7', V=6' 11'-18" RCP CL IV. SEE PROFILE ON SHEET 5.
 - CONSTRUCT CONCRETE BULKHEAD PER STD M816.
 - RELOCATE EX. STREET LIGHT CONDUIT.
 - CONSTRUCT CONCRETE COLLAR PER STD M803.
 - REPLACE TRAFFIC LOOP DETECTOR.
 - RECONSTRUCT CROSS GUTTER PER CITY STD 106-0.
 - RELOCATE TRAFFIC SIGNAL CONDUIT.
 - REMOVE TEMPORARY STEEL PLATE BULKHEAD.
 - PROTECT IN PLACE.

72" RCP CURVE DATA

Δ = 89° 58' 34"
 R = 22.50'
 L = 35.33'
 T = 22.49'
 BC = STA 25+09.28
 EC = STA 25+44.62
 PI = N 2261976.28
 E 6161702.85

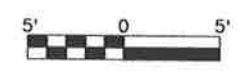


CITY OF CORONA APPROVED BY: <i>K. D. [Signature]</i> CITY ENGINEER DATE: 2-14-11	Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services. TWO WORKING DAYS BEFORE YOU DIG.	REVISIONS DESCRIPTION APPR. DATE	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		PROJECT NO. 2-0-0223 DRAWING NO. 2-422 SHEET NO. 3 OF 12
			DESIGNED BY: A. XIE, J. O. DRAWN BY: M. HOWARD DATE DRAWN: FEBRUARY 2011	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/11/11	

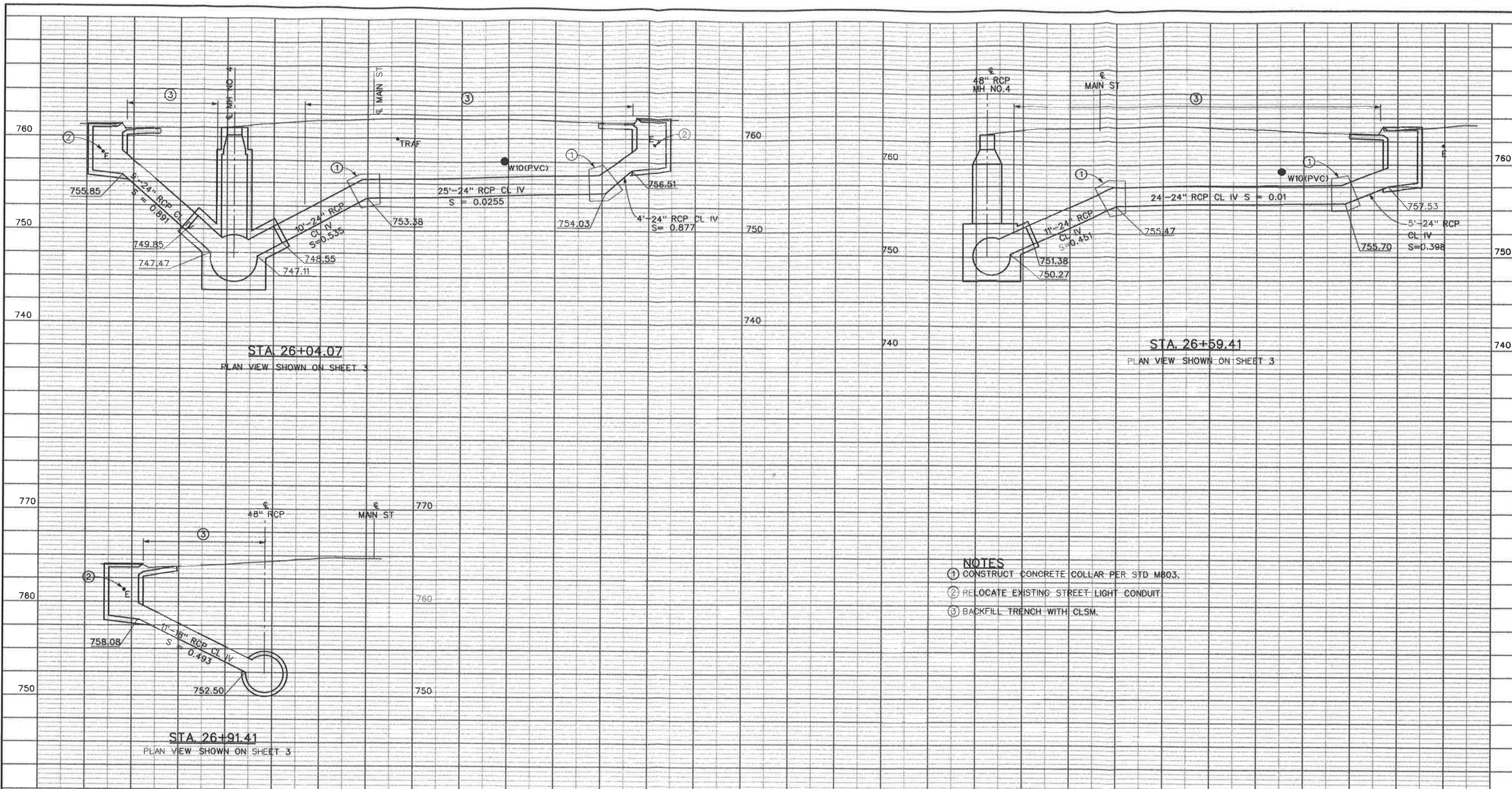


STA. 25+46.37
 PLAN VIEW SHOWN ON SHEET 3

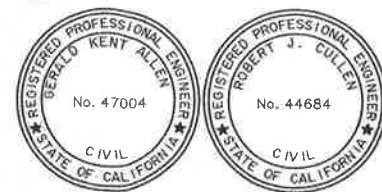
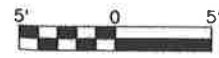
- NOTES**
- ① CONSTRUCT CONCRETE COLLAR PER STD M803.
 - ② BACKFILL TRENCH WITH CLSM.



<p>Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600</p> <p>for the location of buried utility lines. Don't disrupt vital services.</p> <p>TWO WORKING DAYS BEFORE YOU DIG. REF.</p>	REVISIONS		RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		CORONA DRAINS LINE 1G STAGE II CONNECTOR PIPE PROFILES	PROJECT NO. 2-0-0223
						DRAWING NO. 2-422
						SHEET NO. 4 OF 12



- NOTES**
- ① CONSTRUCT CONCRETE COLLAR PER STD M803.
 - ② RELOCATE EXISTING STREET LIGHT CONDUIT
 - ③ BACKFILL TRENCH WITH CLSM.



Don't Dig...Until You Call U.S.A. Toll Free
1-800-227-2600
 for the location of buried utility lines.
 Don't disrupt vital services.
 TWO WORKING DAYS BEFORE YOU DIG

REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

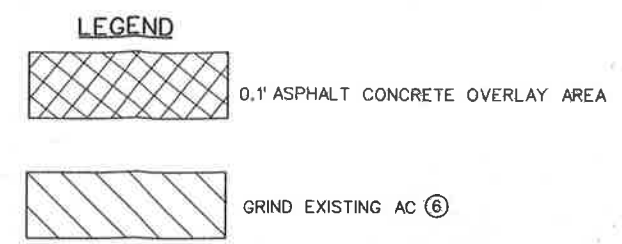
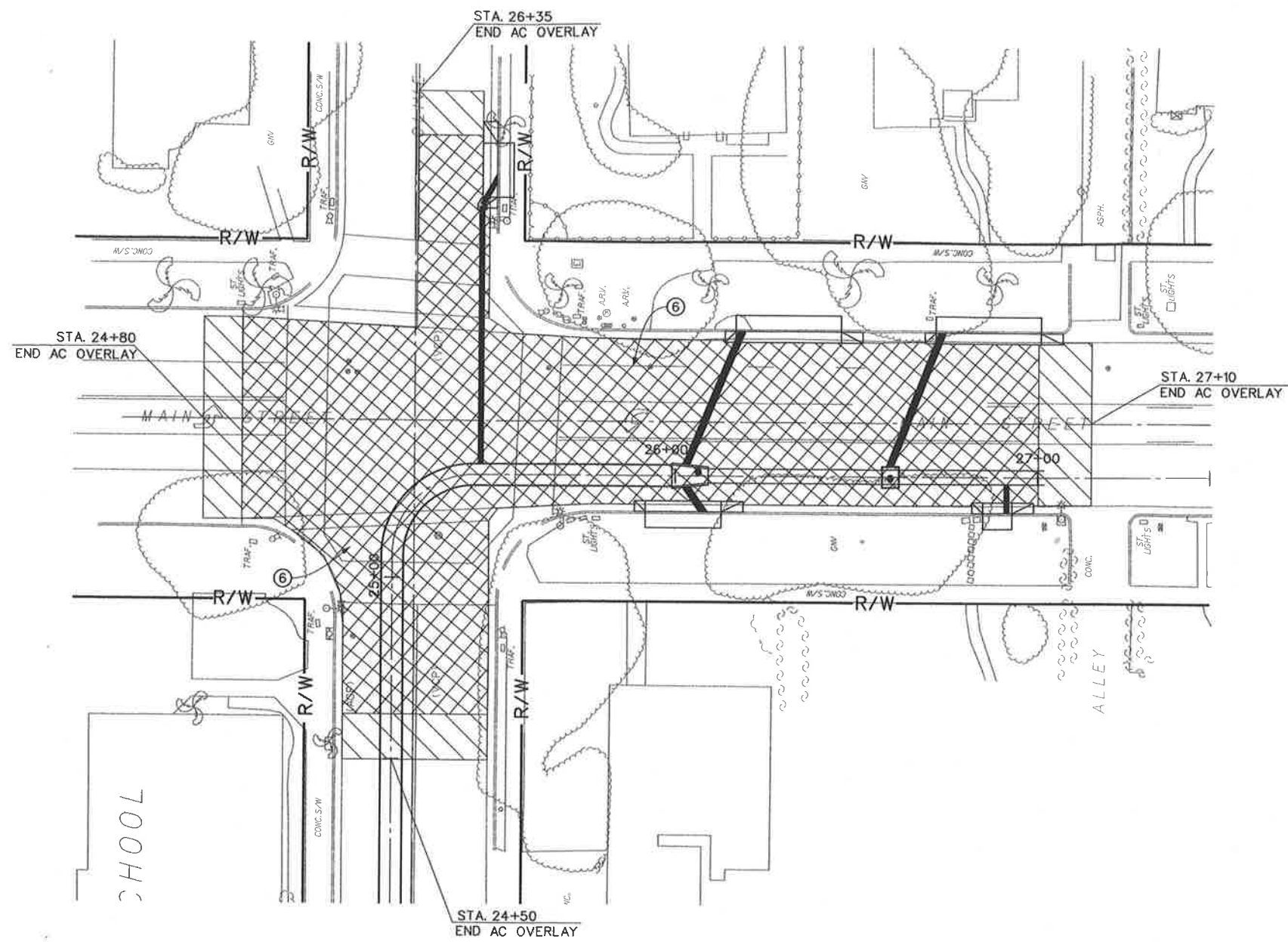
DESIGNED BY: A. XIE, J. O.
 DRAWN BY: M. HOWARD
 DATE DRAWN: FEBRUARY 2011

RECOMMENDED FOR APPROVAL BY: *[Signature]*
 DATE: 2/10/11

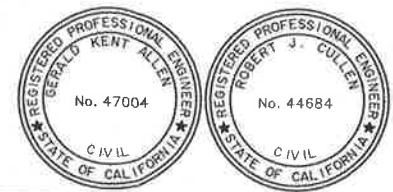
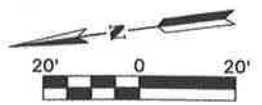
APPROVED BY: *[Signature]*
 DATE: 10-Feb-2011

**CORONA DRAINS
 LINE 1G
 STAGE II
 CONNECTOR PIPE PROFILES**

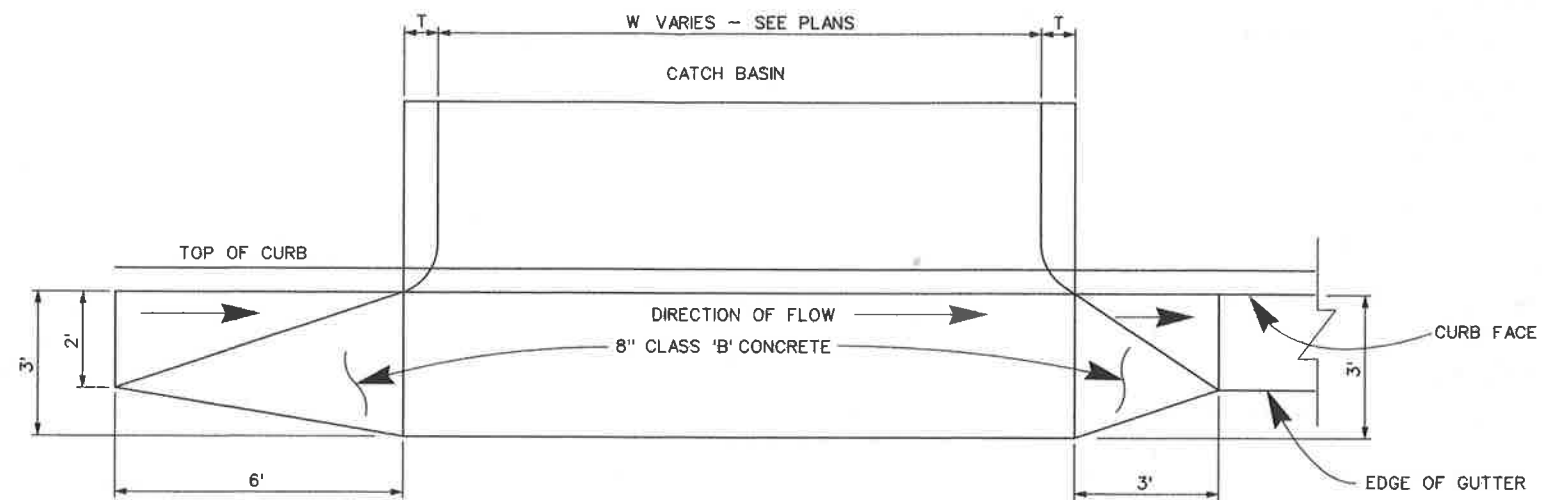
PROJECT NO. **2-0-0223**
 DRAWING NO. **2-422**
 SHEET NO. **5 OF 12**



- NOTES**
- 1 WITHIN TRENCH LIMITS, MINIMUM STREET RECONSTRUCTION SHALL BE 5" ASPHALT CONCRETE OR AS SPECIFIED BY THE ENGINEER.
 - 2 ALL ASPHALT CONCRETE PAVING SHALL BE TYPE "B"
 - 3 PROTECT IN PLACE ALL MANHOLES / VALVES ADJUST TO GRADE AS REQUIRED.
 - 4 INSTALL / REPLACE ALL DISTURBED STRIPING, YELLOW CENTER LINE, WHITE EDGE LINES AND REFLECTIVE PAVEMENT IN KIND.
 - 5 ALL SIGNING, STRIPING, AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH SECTION B4 OF THE CALTRANS STANDARD SPECIFICATIONS (LATEST EDITION) AND WITH ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL LAWS.
- ⑥ GRIND EXISTING AC AND PLACE 0.1' OVERLAY TO MEET EXISTING GROUND



REVISIONS			RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		CORONA DRAINS LINE 1G STAGE II PAVING PLAN	PROJECT NO. 2-0-0223
DESIGNED BY: A. XIE, J. O.	RECOMMENDED FOR APPROVAL BY:	APPROVED BY:				DRAWING NO. 2-422
DRAWN BY: M. HOWARD	DATE DRAWN: FEBRUARY 2011	DATE: 2/10/11			SHEET NO. 6 OF 12	
REF.	DESCRIPTION	APPR.	DATE			



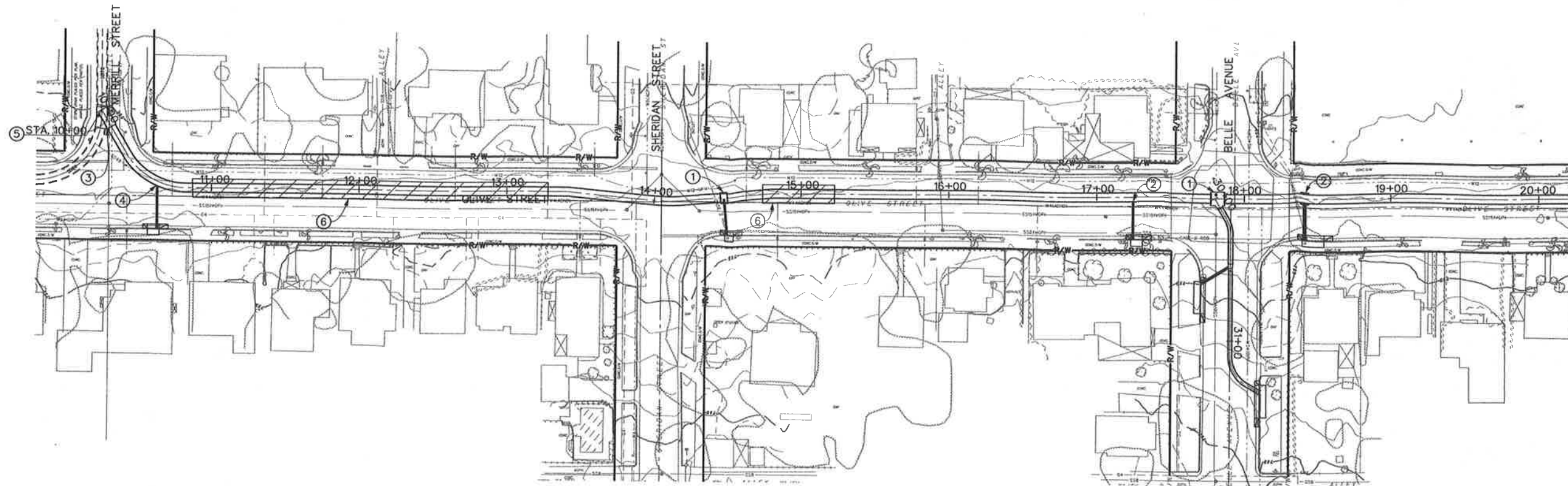
LOCAL DEPRESSION DETAILS
 PER CITY OF CORONA STD NO. 204
 NTS

NOTES

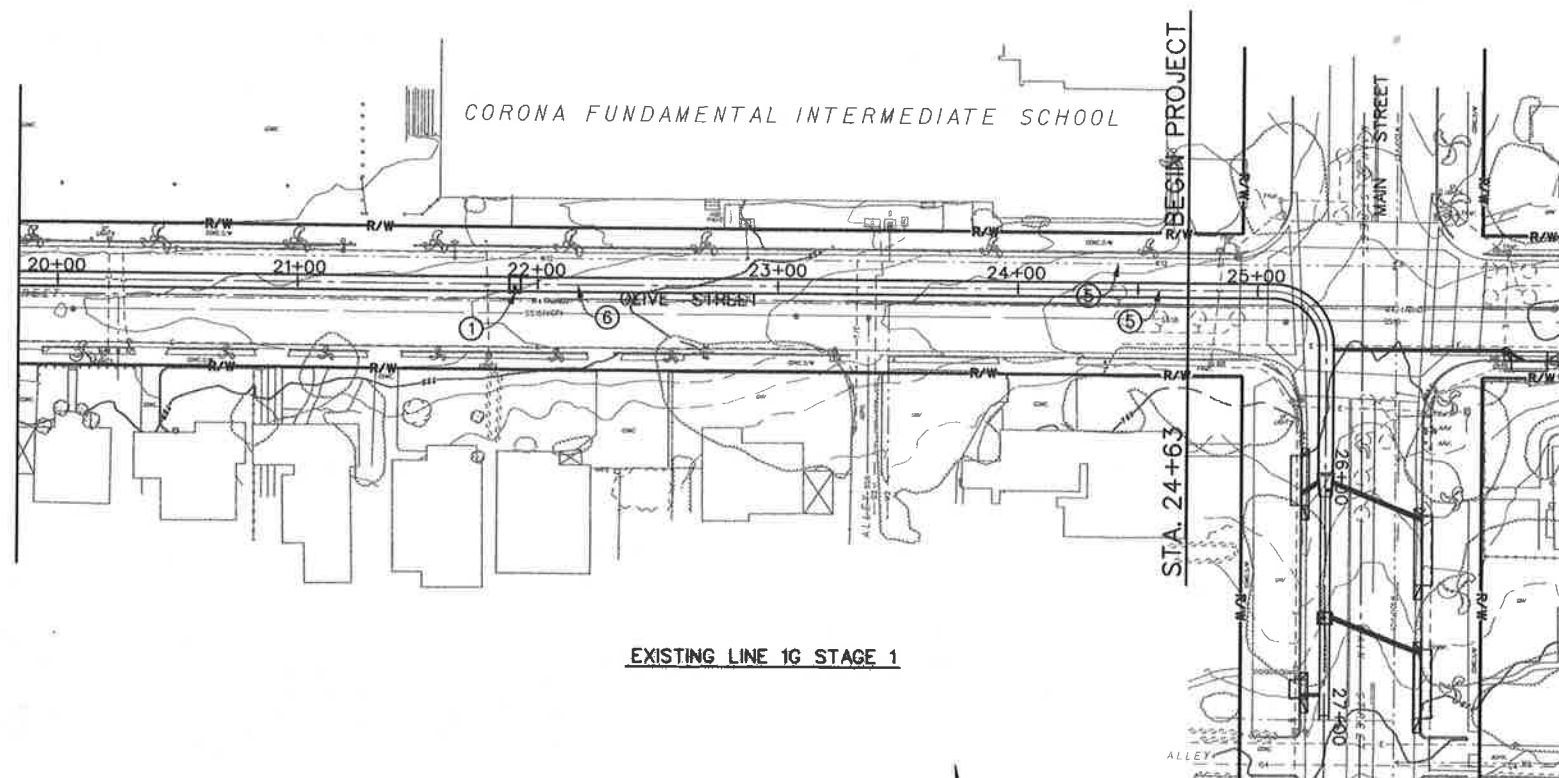
1. FOR CATCH BASIN WALL THICKNESS T,
 SEE CITY OF CORONA STD NO. 204



CITY OF CORONA		REVISIONS		RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		CORONA DRAINS LINE 1G STAGE II LOCAL DEPRESSION DETAILS		PROJECT NO. 2-0-0223
APPROVED BY: <i>[Signature]</i> CITY ENGINEER				DESIGNED BY: A. XIE, J. O.	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i>	APPROVED BY: <i>[Signature]</i>		DRAWING NO. 2-422
DATE: 2-14-11				DATE DRAWN: FEBRUARY 2011	DATE: 2/14/11	DATE: 14 FEB 2011		SHEET NO. 8 OF 12
REF.	DESCRIPTION	APPR.	DATE					



EXISTING LINE 1G STAGE 1

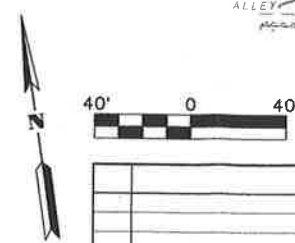


EXISTING LINE 1G STAGE 1

LINE 1G STAGE 2

NOTES

- ① PATCH AND FINISH EXISTING MANHOLE.
- ② PATCH AND FINISH EXISTING JUNCTION STRUCTURE.
- ③ EXISTING MANHOLE REQUIRES EXTENSIVE REPAIR, PATCHING AND FINISHING. SEE SPECIFICATIONS.
- ④ TRIM RCP, PATCH AND FINISH EXISTING JUNCTION STRUCTURE.
- ⑤ REMOVE DIRT, SAND AND MISCELLANEOUS CONSTRUCTION DEBRIS FROM STA. 10+00 TO STA. 24+60.
- ⑥ REMOVE AND RECONSTRUCT, PAVEMENT AND BACKFILL FROM STA. 10+90 TO STA. 12+63 AND FROM STA. 14+75 TO STA. 15+25. SEE SPECIFICATIONS.



PLAN



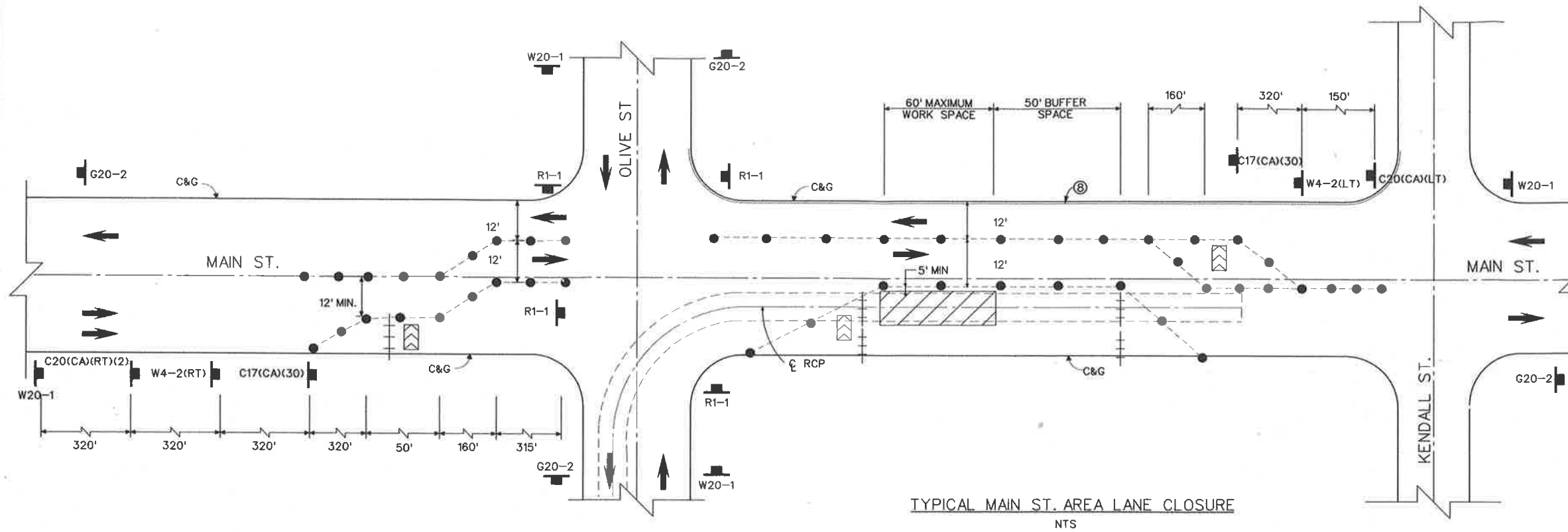
REVISIONS		
REF.	DESCRIPTION	APPR. DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		
DESIGNED BY: A. XIE, J. O.	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i>	APPROVED BY: <i>[Signature]</i>
DRAWN BY: M. HOWARD	DATE: 2/10/11	DATE: 10-Feb-2011
DATE DRAWN: FEBRUARY 2011		

CORONA DRAINS
LINE 1G
STAGE II
LINE 1G STAGE 1 REPAIR

PROJECT NO.
2-0-0223
DRAWING NO.
2-422
SHEET NO.
10 OF 12

LEGEND	
•	CONES
■	SIGNS
←	DIRECTION OF TRAVEL
▨	CONSTRUCTION AREA
⊠	FLASHING ARROW SIGN
+++	TYPE III BARRICADE
C17(CA)	ROAD WORK SPEED LIMIT
C20(CA)	RIGHT/LEFT LANE CLOSED AHEAD
G20-2	END CONSTRUCTION
R1-1	STOP SIGN
W4-2	LANE ENDS SYMBOL
W20-1	ROAD WORK AHEAD



TYPICAL MAIN ST. AREA LANE CLOSURE
NTS

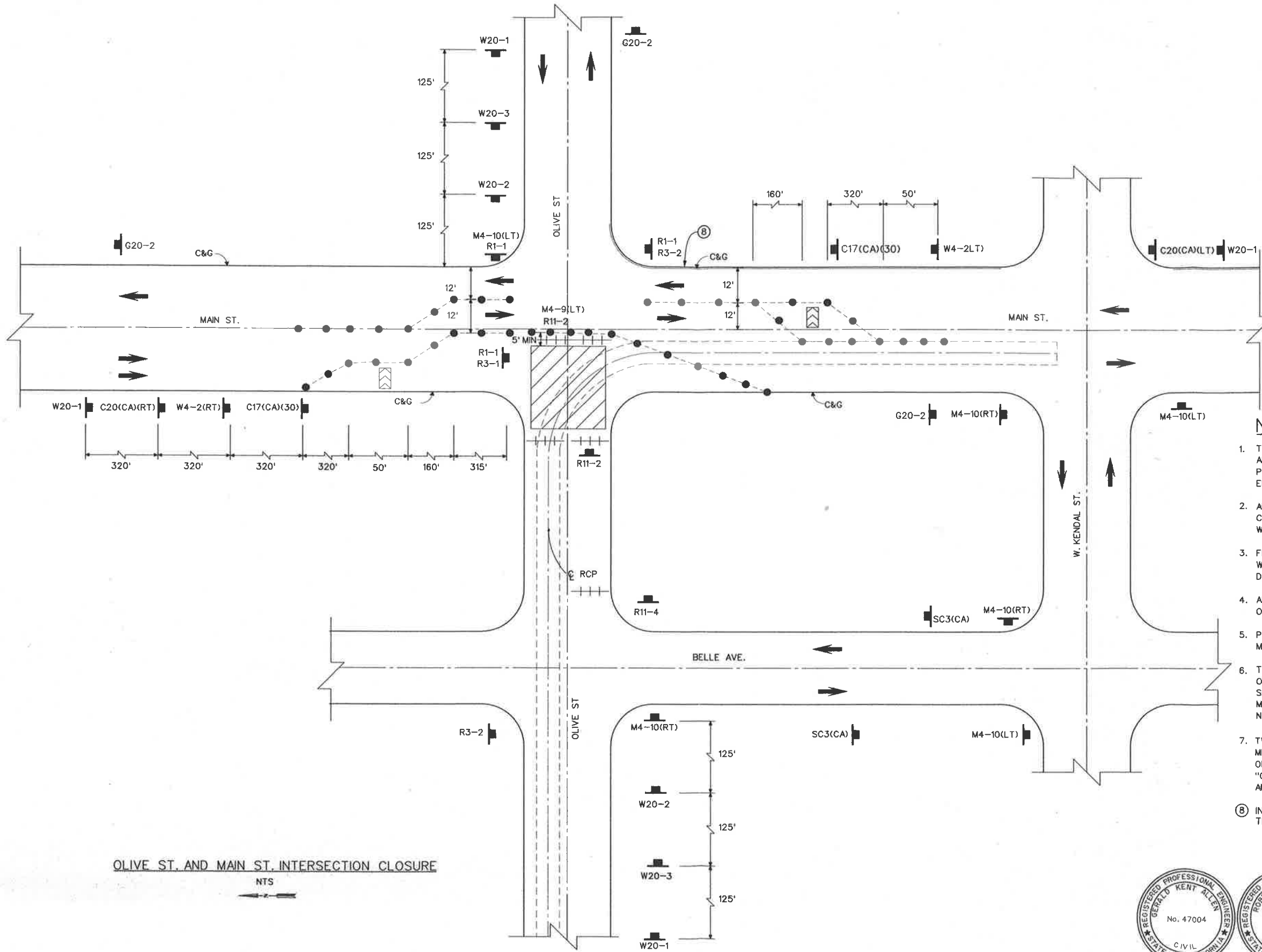
NOTES

1. THESE ARE THE MINIMUM TRAFFIC CONTROL REQUIREMENTS. ADDITIONAL TRAFFIC CONTROL MAY BE REQUIRED TO FACILITATE PUBLIC SAFETY AND TRAFFIC FLOW IF DEEMED NECESSARY BY THE ENGINEER OR THE CITY OF CORONA.
 2. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE 2010 CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), WITH ALL OTHER APPLICABLE FEDERAL STATE AND LOCAL LAWS.
 3. FLASHING YELLOW BEACONS, TYPE B, SHALL ILLUMINATE ALL W20-1 SIGNS AND TYPE III BARRICADES USED AT THE WORK AREA DURING HOURS OF DARKNESS.
 4. ALL TRENCHES SHALL BE BACKFILLED OR PLATED AT THE END OF EACH WORK DAY.
 5. PRIVATE PROPERTY AND EMERGENCY ACCESS SHALL BE MAINTAINED AT ALL TIMES.
 6. THE CITY OF CORONA WILL MODIFY THE OPERATION OF THE TRAFFIC SIGNAL DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE CITY OF CORONA TRAFFIC SIGNAL OPERATIONS MANAGER AT 951.736.2266, 48 HOURS PRIOR TO CONSTRUCTION NEAR THE TRAFFIC SIGNAL.
 7. TWO WEEKS PRIOR TO BEGINNING CONSTRUCTION ON MAIN ST, A FLASHING MESSAGE BOARD SHALL BE PLACED AT THE INTERSECTIONS OF MAIN ST AND ONTARIO AVE. AND MAIN ST AND 3RD ST. THE SIGNS SHALL SAY "CONSTRUCTION AHEAD FROM (DATE) TO (DATE) - USE ALTERNATE ROUTE" AND SHALL REMAIN UNTIL CONSTRUCTION ON MAIN ST IS COMPLETE.
- ⑧ INSTALL TEMPORARY AC IN THE EXISTING GUTTER TO MAINTAIN THE 12' DRIVING LANE. AS DIRECTED BY THE ENGINEER.



CITY OF CORONA		RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		PROJECT NO. 2-0-0223
APPROVED BY: <i>DM</i> CIVIL ENGINEER DATE: 2-14-11	REVISIONS	DESIGNED BY: A. XIE, J. O.	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/10/11	DRAWING NO. 2-422
		DRAWN BY: M. HOWARD	APPROVED BY: <i>[Signature]</i> DATE: 10-19-2011	SHEET NO. 11 OF 12
		DATE DRAWN: FEBRUARY 2011		
REF.	DESCRIPTION	APPR.	DATE	

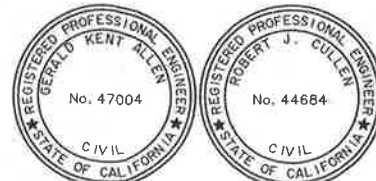
CORONA DRAINS
LINE 1G, 1H, AND 1J
TRAFFIC CONTROL PLAN



LEGEND	
•	CONES
↓	SIGNS
←	DIRECTION OF TRAVEL
▨	CONSTRUCTION AREA
⚡	FLASHING ARROW SIGN
+++	TYPE III BARRICADE
C17(CA)	ROAD WORK SPEED LIMIT
C20(CA)	RIGHT/LEFT LANE CLOSED AHEAD
G20-2	END CONSTRUCTION
M4-10	DETOUR RIGHT /LEFT ARROW
R1-1	STOP SIGN
R3-1	NO RIGHT TURN SYMBOL
R3-2	NO LEFT TURN SYMBOL
R11-2	ROAD CLOSED
R11-4	ROAD CLOSED TO THRU TRAFFIC
SC3(CA)	DETOUR STRAIGHT ARROW
W4-2	"LANE ENDS SYMBOL"
W20-1	ROAD WORK AHEAD
W20-2	DETOUR AHEAD
W20-3	ROAD CLOSED AHEAD

- NOTES**
- THESE ARE THE MINIMUM TRAFFIC CONTROL REQUIREMENTS. ADDITIONAL TRAFFIC CONTROL MAY BE REQUIRED TO FACILITATE PUBLIC SAFETY AND TRAFFIC FLOW IF DEEMED NECESSARY BY THE ENGINEER OR THE CITY OF CORONA.
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 - ALL TRENCHES SHALL BE BACKFILLED OR PLATED AT THE END OF EACH WORK DAY.
 - PRIVATE PROPERTY AND EMERGENCY ACCESS SHALL BE MAINTAINED AT ALL TIMES.
 - THE CITY OF CORONA WILL MODIFY THE OPERATION OF THE TRAFFIC SIGNAL DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE CITY OF CORONA TRAFFIC SIGNAL OPERATIONS MANAGER AT 951.736.2266, 48 HOURS PRIOR TO CONSTRUCTION NEAR THE TRAFFIC SIGNAL.
 - TWO WEEKS PRIOR TO BEGINNING CONSTRUCTION ON MAIN ST, A FLASHING MESSAGE BOARD SHALL BE PLACED AT THE INTERSECTIONS OF MAIN ST AND ONTARIO AVE. AND MAIN ST AND 3RD ST. THE SIGNS SHALL SAY "CONSTRUCTION AHEAD FROM (DATE) TO (DATE) - USE ALTERNATE ROUTE" AND SHALL REMAIN UNTIL CONSTRUCTION ON MAIN ST IS COMPLETE.
- (B) INSTALL TEMPORARY AC IN THE EXISTING GUTTER TO MAINTAIN THE 12' DRIVING LANE. AS DIRECTED BY THE ENGINEER.

OLIVE ST. AND MAIN ST. INTERSECTION CLOSURE
NTS



CITY OF CORONA		RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		CORONA DRAINS LINE 1G STAGE II TRAFFIC CONTROL PLAN		PROJECT NO. 2-0-0223
APPROVED BY: <i>DM</i> CITY ENGINEER DATE: 2-14-11	REVISIONS	DESIGNED BY: A. XIE, J. O.	RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 2/10/11	APPROVED BY: <i>[Signature]</i> DATE: 10-16-2011		DRAWING NO. 2-422
DATE: 2-14-11	REF. DESCRIPTION APPR. DATE	DRAWN BY: M. HOWARD				SHEET NO. 12 OF 12