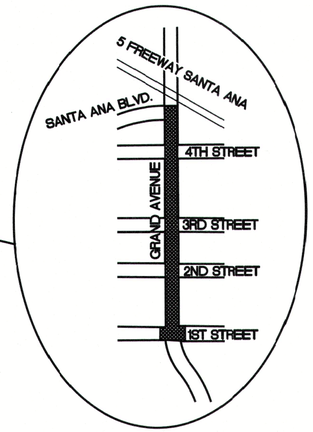
CITY OF SANTA ANA

PUBLIC WORKS AGENCY

PROJECT NO. 26-6711: GRAND AVENUE REHABILITATION FROM 1ST STREET TO SANTA ANA BOULEVARD



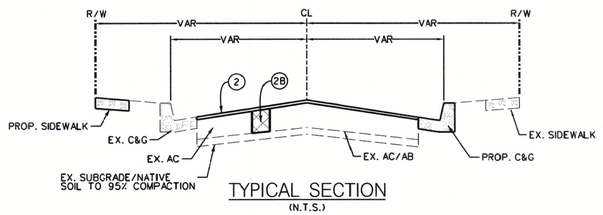
VICINITY MAP (NOT TO SCALE)



LOCATION MAP (NOT TO SCALE)

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AS WRITTEN AND PROMULGATED BY THE 2018 EDITION OF SOUTHERN CALIFORNIA CHAPTER OF THE A.P.W.A. A.G.C.C. JOINT COOPERATIVE COMMITTEE HEREIN REFERRED TO AS THE STANDARD SPECIFICATIONS AND THE CITY OF SANTA ANA STANDARD PLANS & SPECIFICATIONS (UNLESS SPECIFICALLY NOTED OTHERWISE OR IN THE SPECIAL PROVISIONS FOR THIS PROJECT).
2. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY OR STRUCTURE SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. NO CERTIFICATION IS MADE AS TO ACCURACY OR THOROUGHNESS OF THESE RECORDS. APPROVAL OF THIS PLAN BY THE CITY OF SANTA ANA DOES NOT CONSTITUTE AN EXISTENCE OR NONEXISTENCE OF ANY UNDERGROUND UTILITY OR SUBSTRUCTURE WITHIN THE LIMITS OF THIS PROJECT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES (BY POTHOLING OR OTHER MEANS). THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (811) 48 HOURS BEFORE ANY EXCAVATION.
3. THESE CONSTRUCTION DOCUMENTS WERE CREATED FROM DIGITIZED BASE INFORMATION PROVIDED BY THE CITY OF SANTA ANA. EXACT LAYOUTS OF ALL HARDSCAPE ELEMENTS MAY NEED TO BE MODIFIED AND SOME FIELD ADJUSTMENTS MAY BE NECESSARY. THE CONTRACTOR SHALL INCLUDE AS PART OF THE BID. TIME AND LABOR FOR ANY MODIFICATIONS NECESSARY TO IMPLEMENT THE INTENT OF THE DRAWINGS.



TYPICAL SECTION (N.T.S.)

ST-07289

CONSTRUCTION NOTES:

1. PROTECT IN PLACE.
2. COLDMILL 2 3/8" BELOW EXISTING PAVEMENT. PLACE 2" ARHM OVER 3/8" ARAM OVER EXISTING PAVEMENT AS SHOWN ON PLAN.
2A. CONSTRUCT 12" WIDE BY 12" DEEP AC ON COMPACTED SUBGRADE.
2B. COLDMILL ADDITIONAL 3 5/8" AC PAVEMENT AND PLACE BACK 2" ARHM AND 3/8" ARAM OVER 3 5/8" AC PAVEMENT.
3. CONSTRUCT 4" THICK PCC SIDEWALK PER C.S.A. STD. PLAN NO. 1104.
4. CONSTRUCT PCC CURB RAMP PER CALTRANS STD. PLAN NO. A88A AND AS SHOWN ON PLAN. COLOR OF DETECTABLE WARNING SURFACE SHALL BE DARK GRAY (FEDERAL STANDARD COLOR 36118).
5. CONSTRUCT 6" RESIDENTIAL PCC DRIVEWAY APPROACH PER C.S.A. STD. PLAN NO. 1112. DIMENSIONS PER PLAN.
6. CONSTRUCT A-2-8 PCC CURB & GUTTER PER C.S.A. STD PLAN NO. 1101 AND/OR MATCH EXISTING.
7. CONSTRUCT 8" COMMERCIAL PCC DRIVEWAY APPROACH PER C.S.A. STD. PLAN NO. 1112. DIMENSIONS PER PLAN.
8. ROOT SHAVE EXISTING TREE AND/OR SHRUB PER C.S.A. STD. PLAN 1124A. INSPECTOR TO CONTACT TREE SUPERVISOR AT (714)647-3330.
9. ADJUST SEWER MANHOLE FRAME AND COVER TO FINISHED GRADE PER C.S.A. STD. PLAN NO. 1201 AND 1211.
10. ADJUST STORM DRAIN MANHOLE FRAME AND COVER TO FINISHED GRADE PER C.S.A. STD. PLAN NO. 306 THROUGH 308.
11. FURNISH AND INSTALL NEW WATER VALVE FRAME AND COVER TO FINISH GRADE PER C.S.A STD. PLAN NO. 1410.
12. ADJUST SURVEY MONUMENT FRAME AND COVER TO FINISHED GRADE PER C.S.A STD. PLAN NO. 1117.
13. FURNISH AND INSTALL NEW #6 PULLBOX TO FINISH GRADE PER C.S.A. STD. PLAN NO. 1501.
14. FURNISH AND INSTALL NEW WATER METER FRAME AND COVER TO FINISHED GRADE PER C.S.A. STD. PLAN NO. 1401 AND 1402.
15. JOIN AND FEATHER AS DIRECTED BY THE ENGINEER.
16. CONSTRUCT 8' WIDE PCC CROSS GUTTER INCLUDING MONOLITHIC CURB PER C.S.A. STD. PLAN NO. 1109 AND AS SHOWN ON PLAN.
17. FURNISH AND INSTALL 6' DIAMETER LOOP DETECTOR. LOOPS SHALL BE PER C.S.A. STD. PLAN NO. 1506. INSTALL 2" DIAMETER PVC STUBOUT CONDUIT IF NECESSARY.
18. FURNISH AND INSTALL 6' DIAMETER LOOP DETECTOR. LOOPS SHALL BE PER CALTRANS. STD. PLAN NO. ES-5A AND ES-5B.
19. REMOVE, SALVAGE, AND RELOCATE EXISTING PEDESTRIAN PUSH BUTTON OUTSIDE OF PROPOSED PCC CURB RAMP.

NOTES:

A. ADJUST TO GRADE BY OTHERS (TYPE PER PLAN).

B. REMOVE EXISTING LOOP DETECTORS.

ABBREVIATIONS:

AB-	AGGREGATE BASE	FH-	FIRE HYDRANT	PP-	POWER POLE
AC-	ASPHALT CONCRETE	FL-	FLOWLINE	PROP-	PROPOSED
BCR-	BEGINNING OF CURVE RETURN	GUY-	GUY WIRE	RT-	RIGHT OF CENTERLINE
℄ OR CL-	CENTERLINE	LF-	LINEAR FEET	R/W-	RIGHT OF WAY
C&G-	CURB & GUTTER	LIP-	LIP OF GUTTER	S/W-	SIDEWALK
CLF-	CHAINLINK FENCE	LT-	LEFT OF CENTERLINE	SL-	STREETLIGHT
CONST-	CONSTRUCTION	MH-	MANHOLE	STA-	STATION
DWY-	DRIVEWAY	PB-	PULL BOX	TC-	TOP OF CURB
ECR-	END OF CURVE RETURN	PCC-	PORTLAND CEMENT CONCRETE	TS-	TRAFFIC SIGNAL
EP-	EDGE OF PAVEMENT	PKWY-	PARKWAY	WTR-	WATER
EX-	EXISTING	PPB-	PEDESTRIAN PUSH BUTTON		

LEGEND:

- SAWCUT AND REMOVE EXISTING PCC SLAB, CURB, GUTTER, CROSS GUTTER, AND/OR SIDEWALK AND RECONSTRUCT AS SHOWN ON THIS PLAN.
- COLDMILL EXISTING PAVEMENT AND RECONSTRUCT AS SHOWN ON THIS PLAN.
- SLOT PATCHES: SAWCUT AND REMOVE EXISTING AC PAVEMENT, SUBGRADE, AND/OR AB AND RECONSTRUCT AS SHOWN ON THIS PLAN.
- LOCALIZED REPAIRS: COLDMILL 6" BELOW EXISTING SURFACE AND RECONSTRUCT AS SHOWN ON THIS PLAN.

SHEET INDEX

SHEET NUMBER	DESCRIPTION	SHEET NAME
1	TITLE SHEET	AT01
2-10	STREET IMPROVEMENT PLAN	DA01 - DA09
11 - 12	CHANNELIZATION	CH01 - CH02

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811 Know what's below. Call before you dig.
Underground Service Alert of Southern California
TWO WORKING DAYS BEFORE YOU DIG
CALL BEFORE YOU DIG www.DigAlert.org

NOTICE TO CONTRACTOR

PURSUANT TO ASSEMBLY BILL 4216 NO EXCAVATION PERMIT IS VALID UNLESS THE CONTRACTOR CONTACTS AND OBTAINS A DIG ALERT TICKET NUMBER. CALL 811 AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING EXCAVATION.

APPROVALS:

RODOLFO ROSAS, PE — DATE 11/12/26
EXCUTIVE DIRECTOR
PUBLIC WORKS AGENCY

Cesar E Barrera
Cesar E Barrera (Nov 10, 2026 13:08:41 PST)

CESAR E. BARRERA, PE — DATE
ACTING DEPUTY PUBLIC WORKS DIRECTOR/CITY ENGINEER

PREPARED UNDER THE SUPERVISION OF:

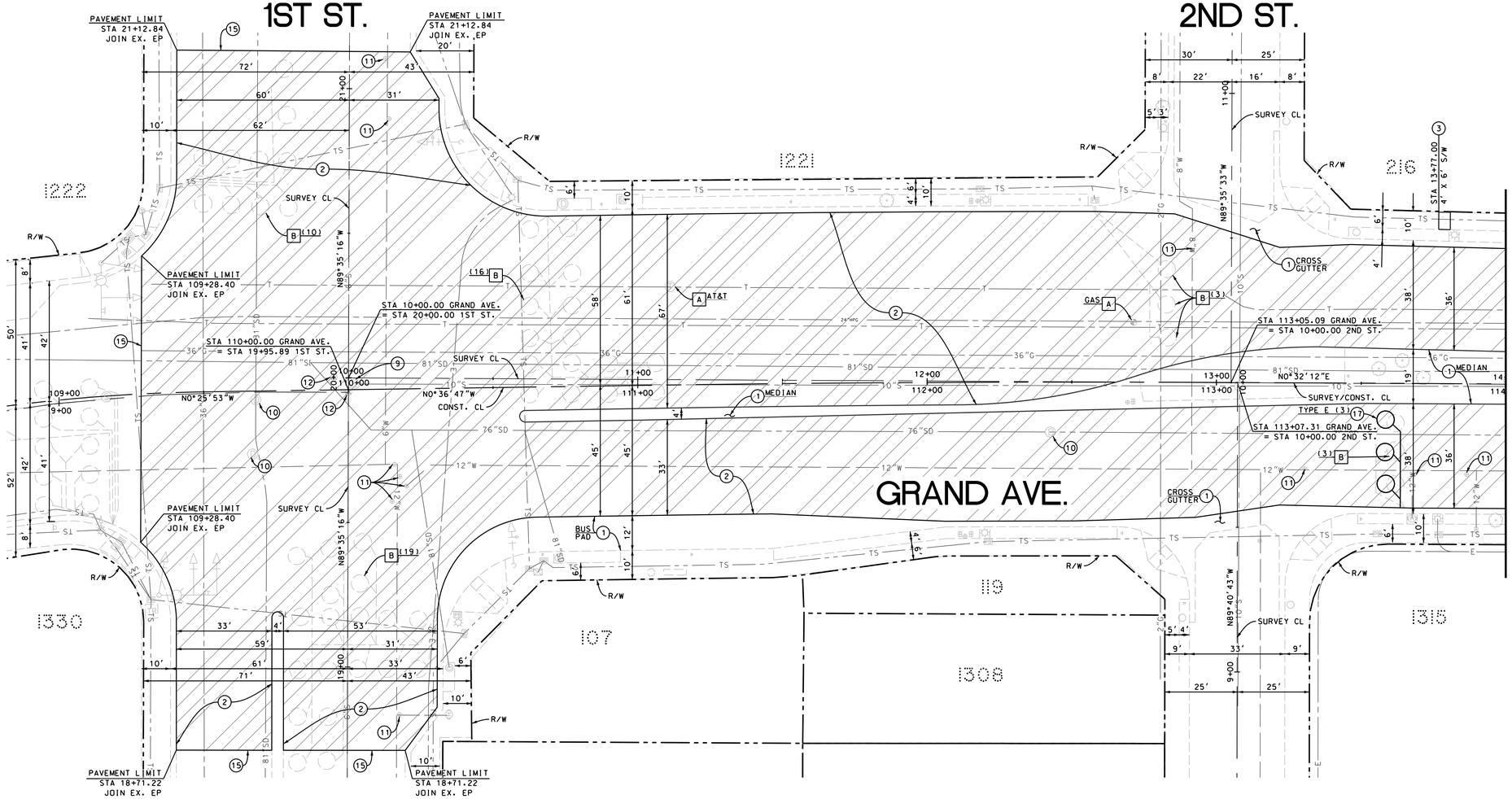
Digitally signed by Alex A. Bangean
DN: C=US, E=abangean@santa-ana.org, OU=PW, O=City of Santa Ana, CN=Alex A. Bangean
Date: 2026.11.12 10:07:50-08'00'

ALEX A. BANGEAN, PE — R.C.E NO: 88138 — DATE
SENIOR CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER ALEXANDRU A. BANGEAN RCE NO. 88138 Exp. 3/31/28 CIVIL STATE OF CALIFORNIA

PROJECT NO. 26-6711: GRAND AVENUE REHABILITATION FROM 1ST STREET TO SANTA ANA BOULEVARD

SHT-AT01-NNNN-000.DGN



(SCALE : 1" = 20')

FOR LOCAL REPAIRS, SEE SHEET DA06

CONSTRUCTION NOTES:

(1) PROTECT IN PLACE.

(2) COLDMILL 2 3/8" BELOW EXISTING PAVEMENT. PLACE 2" ARHM OVER 3/8" ARAM OVER EXISTING PAVEMENT AS SHOWN ON PLAN.

(3) CONSTRUCT 4" THICK PCC SIDEWALK PER C.S.A. STD. PLAN NO. 1104.

(9) ADJUST SEWER MANHOLE FRAME AND COVER TO FINISHED GRADE PER C.S.A. STD. PLAN NO. 1201 AND 1211.

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(11) FURNISH AND INSTALL NEW WATER VALVE FRAME AND COVER TO FINISH GRADE PER C.S.A STD. PLAN NO. 1410.

(12) ADJUST SURVEY MONUMENT FRAME AND COVER TO FINISHED GRADE PER C.S.A STD. PLAN NO. 1117.

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(17) FURNISH AND INSTALL 6' DIAMETER LOOP DETECTOR. LOOPS SHALL BE PER C.S.A. STD. PLAN NO. 1506. INSTALL 2" DIAMETER PVC STUBOUT CONDUIT IF NECESSARY.

NOTES:

[A] ADJUST TO GRADE BY OTHERS (TYPE PER PLAN).

[B] REMOVE EXISTING LOOP DETECTORS.

LEGEND:

- SAWCUT AND REMOVE EXISTING PCC SLAB, CURB, GUTTER, CROSS GUTTER, AND/OR SIDEWALK AND RECONSTRUCT AS SHOWN ON THIS PLAN.

- COLDMILL EXISTING PAVEMENT AND RECONSTRUCT AS SHOWN ON THIS PLAN.

811 Underground Service Alert of Southern California
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www.DigAlert.org

NOTICE TO CONTRACTOR

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PROJECT NO. 26-671I: GRAND AVENUE REHABILITATION FROM 1ST STREET TO SANTA ANA BOULEVARD

SHT-DA01-NNNN-ROD.DGN

FILE NO.: ST-07289

REVISIONS

NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED

REFERENCES

BENCHMARK NO.: XX-XXX-XX ELEV.: NNN.NN' NAVDYY

CONSTRUCTION COMPLETED:

REGISTERED PROFESSIONAL ENGINEER ALEXANDRU A. BANGEAN RCE NO. 88138 Exp. 3/31/28 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
ALEX A. BANGEAN
SENIOR CIVIL ENGINEER RCE NO.: 88138 — DATE 10/2026

REVIEWED FOR CONSTRUCTABILITY:
SEAN THOMAS
DESIGNED: AH DRAWN: MR CHECKED: AB — 10/2026
PRINCIPAL CIVIL ENGINEER RCE NO.: 80470 — 10/2026

RECOMMENDED FOR CONSTRUCTION:
JASON GABRIEL
PRINCIPAL CIVIL ENGINEER RCE NO.: 62968 — 10/2026

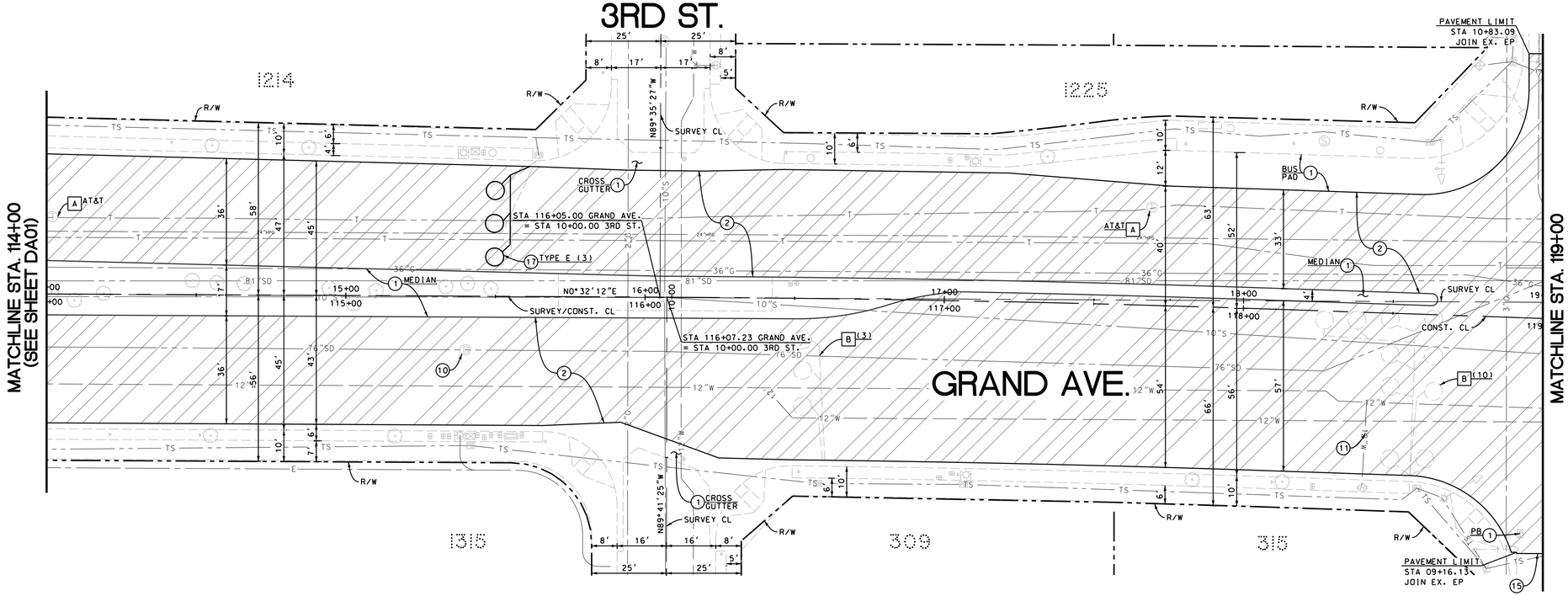
DA01

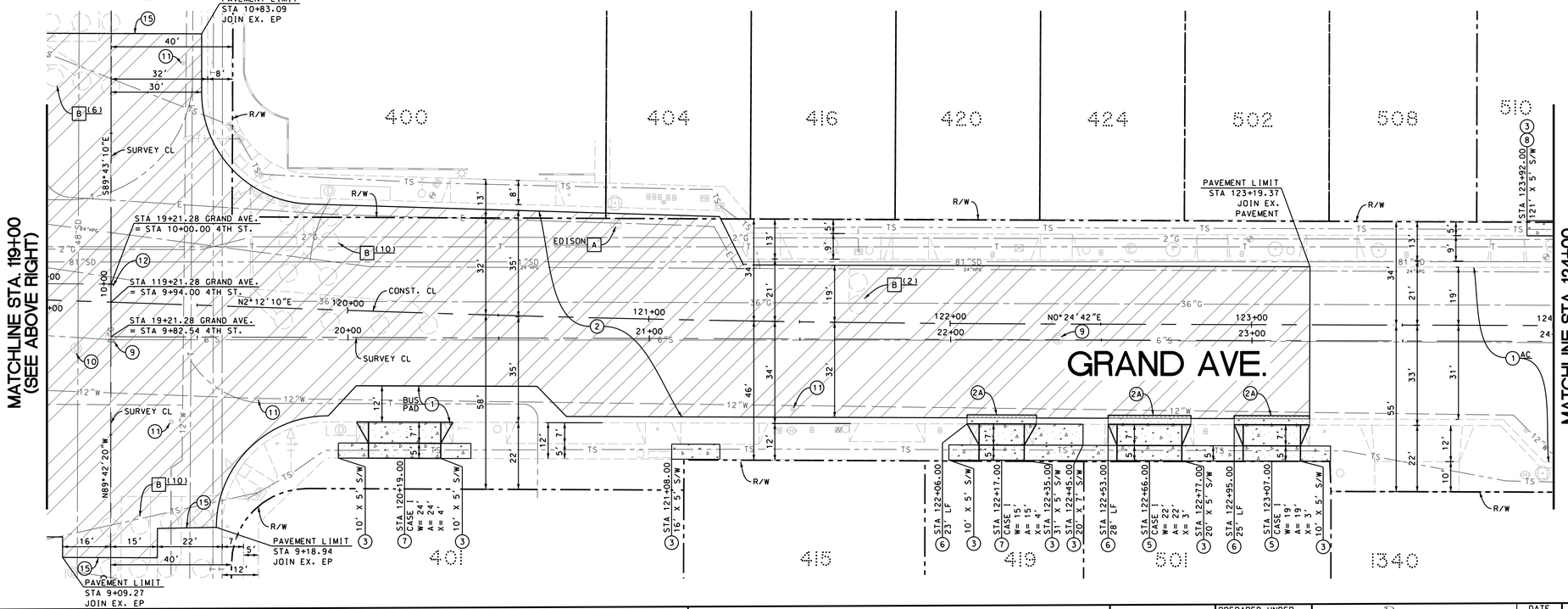
STREET IMPROVEMENT PLAN

GRAND AVENUE REHABILITATION

1ST STREET TO SANTA ANA BOULEVARD

PUBLIC WORKS AGENCY
CITY OF SANTA ANA





FOR LOCAL REPAIRS, SEE SHEET DA07

CONSTRUCTION NOTES:

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3. CONSTRUCT 4" THICK PCC SIDEWALK PER C.S.A. STD. PLAN NO. 1104.
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8. ROOT SHAVE EXISTING TREE AND/OR SHRUB PER C.S.A. STD. PLAN 1124A. INSPECTOR TO CONTACT TREE SUPERVISOR AT (714)647-3330.
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17. FURNISH AND INSTALL 6' DIAMETER LOOP DETECTOR. LOOPS SHALL BE PER C.S.A. STD. PLAN NO. 1506. INSTALL 2" DIAMETER PVC STUBOUT CONDUIT IF NECESSARY.

NOTES:

A. ADJUST TO GRADE BY OTHERS (TYPE PER PLAN).

B. REMOVE EXISTING LOOP DETECTORS.

LEGEND:

- SAWCUT AND REMOVE EXISTING PCC SLAB, CURB, GUTTER, CROSS GUTTER, AND/OR SIDEWALK AND RECONSTRUCT AS SHOWN ON THIS PLAN.
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- SLOT PATCHES: SAWCUT AND REMOVE EXISTING AC PAVEMENT. SUBGRADE, AND/OR AB AND RECONSTRUCT AS SHOWN ON THIS PLAN.

(SCALE : 1" = 20')

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PROJECT NO. 26-671I: GRAND AVENUE REHABILITATION FROM 1ST STREET TO SANTA ANA BOULEVARD

SHT-DA02-NNNN-ROD.DGN

FILE NO.: ST-07289

REVISIONS

NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED

REFERENCES

BENCHMARK NO.: XX-XXX-XX ELEV.: NNN.NN' NAVDYY

CONSTRUCTION COMPLETED:

REGISTERED PROFESSIONAL ENGINEER ALEXANDRU A. BANGEAN RCE NO. 88138 Exp. 3/31/28 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF: ALEX A. BANGEAN — SENIOR CIVIL ENGINEER RCE NO.: 88138 — DATE 10/2026

DESIGNED: AH DRAWN: MR CHECKED: AB — 10/2026

REVIEWED FOR CONSTRUCTABILITY: SEAN THOMAS — PRINCIPAL CIVIL ENGINEER RCE NO.: 80470 — 10/2026

RECOMMENDED FOR CONSTRUCTION: JASON GABRIEL — PRINCIPAL CIVIL ENGINEER RCE NO.: 62968 — 10/2026

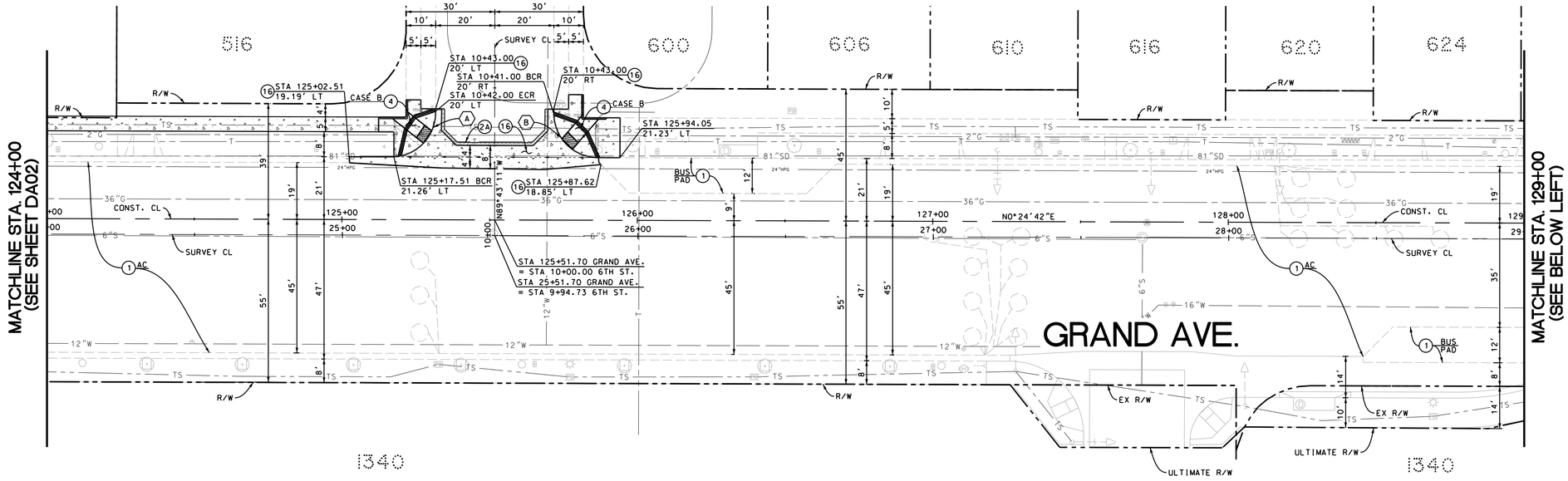
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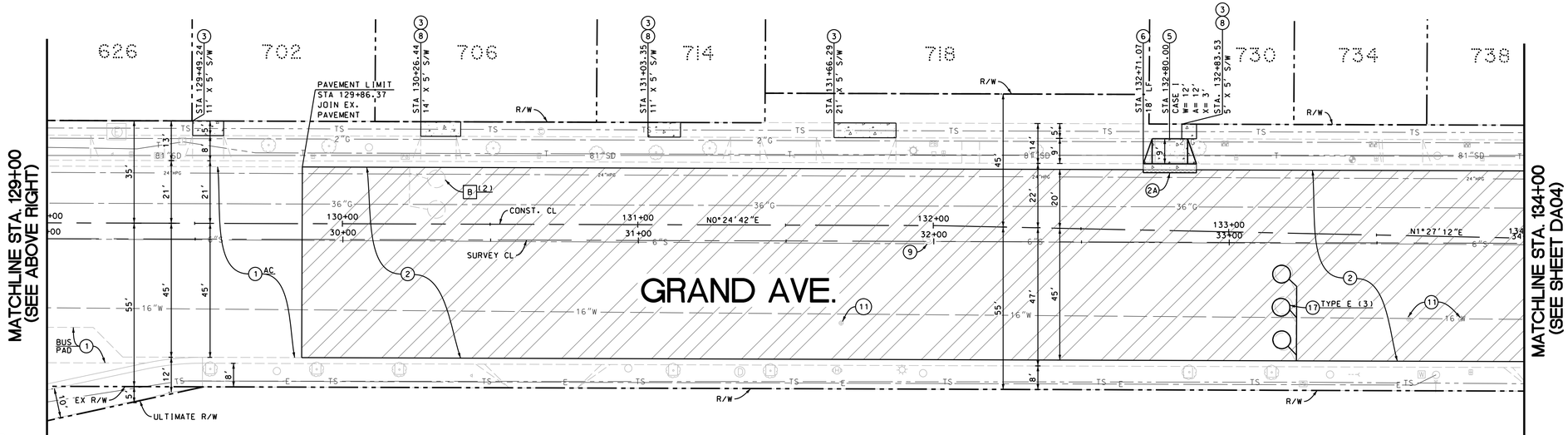
STREET IMPROVEMENT PLAN

GRAND AVENUE REHABILITATION

1ST STREET TO SANTA ANA BOULEVARD

PUBLIC WORKS AGENCY
CITY OF SANTA ANA





CONSTRUCTION NOTES:

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4. CONSTRUCT PCC CURB RAMP PER CALTRANS STD. PLAN NO. A88A AND AS SHOWN ON PLAN. COLOR OF DETECTABLE WARNING SURFACE SHALL BE DARK GRAY (FEDERAL STANDARD COLOR 36118)
5. CONSTRUCT 6" RESIDENTIAL PCC DRIVEWAY APPROACH PER C.S.A. STD. PLAN NO. 1112. DIMENSIONS PER PLAN.
6. CONSTRUCT A-2-8 PCC CURB & GUTTER PER C.S.A. STD PLAN NO. 1101 AND/OR MATCH EXISTING.
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16. CONSTRUCT 8' WIDE PCC CROSS GUTTER INCLUDING MONOLITHIC CURB PER C.S.A. STD. PLAN NO. 1109 AND AS SHOWN ON PLAN.
17. FURNISH AND INSTALL 6' DIAMETER LOOP DETECTOR. LOOPS SHALL BE PER C.S.A. STD. PLAN NO. 1506. INSTALL 2" DIAMETER PVC STUBOUT CONDUIT IF NECESSARY.

NOTES:

B. REMOVE EXISTING LOOP DETECTORS.

LEGEND:

- SAWCUT AND REMOVE EXISTING PCC SLAB, CURB, GUTTER, CROSS GUTTER, AND/OR SIDEWALK AND RECONSTRUCT AS SHOWN ON THIS PLAN.
- COLDMILL EXISTING PAVEMENT AND RECONSTRUCT AS SHOWN ON THIS PLAN.
- SLOT PATCHES: SAWCUT AND REMOVE EXISTING AC PAVEMENT, SUBGRADE, AND/OR AB AND RECONSTRUCT AS SHOWN ON THIS PLAN.

CURVE DATA				
	Δ	R	L	T
A	88° 24'7"	15'	23.14'	14.59'
B	89° 2'42"	15'	23.31'	14.75'

FOR LOCAL REPAIRS, SEE SHEET DA08

(SCALE : 1" = 20')

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PROJECT NO. 26-671I: GRAND AVENUE REHABILITATION FROM 1ST STREET TO SANTA ANA BOULEVARD

SHT-DA03-NNNN-R00.DGN

FILE NO.: ST-07289

REVISIONS

NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED

REFERENCES

BENCHMARK NO.: XX-XXX-XX ELEV.: NNN.NN' NAVD'YY

CONSTRUCTION COMPLETED:

REGISTERED PROFESSIONAL ENGINEER ALEXANDRU A. BANGEAN RCE NO. 88138 Exp. 3/31/28 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF: ALEX A. BANGEAN

REVIEWED FOR CONSTRUCTABILITY: SEAN THOMAS

RECOMMENDED FOR CONSTRUCTION: JASON GABRIEL

		DATE
SENIOR CIVIL ENGINEER	RCE NO.: 88138	10/2026
DESIGNED: AH DRAWN: MR CHECKED: AB		10/2026
PRINCIPAL CIVIL ENGINEER	RCE NO.: 80470	10/2026
PRINCIPAL CIVIL ENGINEER	RCE NO.: 62968	10/2026

DA03

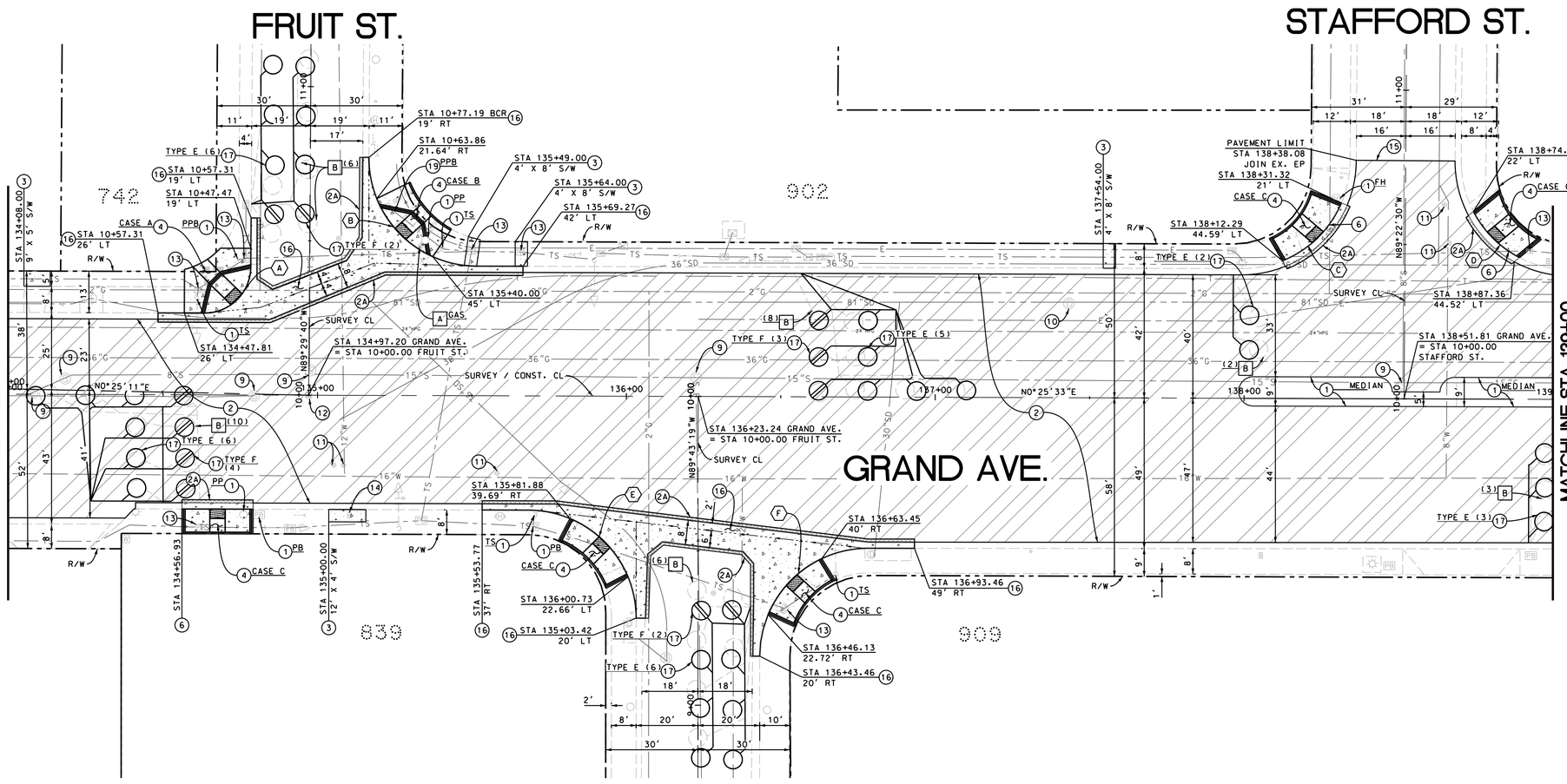
STREET IMPROVEMENT PLAN

GRAND AVENUE REHABILITATION

1ST STREET TO SANTA ANA BOULEVARD

PUBLIC WORKS AGENCY
CITY OF SANTA ANA

SHEET 04 OF 12



FRUIT ST.

FOR LOCAL REPAIRS, SEE SHEET DA09

CONSTRUCTION NOTES:

1. PROTECT IN PLACE.
2. COLDMILL 2 3/8" BELOW EXISTING PAVEMENT. PLACE 2" ARHM OVER 3/8" ARAM OVER EXISTING PAVEMENT AS SHOWN ON PLAN.
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14. FURNISH AND INSTALL NEW WATER METER FRAME AND COVER TO FINISHED GRADE PER C.S.A. STD. PLAN NO. 1401 AND 1402.
15. JOIN AND FEATHER AS DIRECTED BY THE ENGINEER.
16. CONSTRUCT 8' WIDE PCC CROSS GUTTER INCLUDING MONOLITHIC CURB PER C.S.A. STD. PLAN NO. 1109 AND AS SHOWN ON PLAN.
17. FURNISH AND INSTALL 6' DIAMETER LOOP DETECTOR. LOOPS SHALL BE PER C.S.A. STD. PLAN NO. 1506. INSTALL 2" DIAMETER PVC STUBOUT CONDUIT IF NECESSARY.
18. FURNISH AND INSTALL 6' DIAMETER LOOP DETECTOR. LOOPS SHALL BE PER CALTRANS. STD. PLAN NO. ES-5A AND ES-5B.
19. REMOVE, SALVAGE, AND RELOCATE EXISTING PEDESTRIAN PUSH BUTTON OUTSIDE OF PROPOSED PCC CURB RAMP.

NOTES:

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[B] REMOVE EXISTING LOOP DETECTORS.

LEGEND:

- SAWCUT AND REMOVE EXISTING PCC SLAB, CURB, GUTTER, CROSS GUTTER, AND/OR SIDEWALK AND RECONSTRUCT AS SHOWN ON THIS PLAN.
- COLDMILL EXISTING PAVEMENT AND RECONSTRUCT AS SHOWN ON THIS PLAN.
- SLOT PATCHES: SAWCUT AND REMOVE EXISTING AC PAVEMENT. SUBGRADE, AND/OR AB AND RECONSTRUCT AS SHOWN ON THIS PLAN.

CURVE DATA				
	Δ	R	L	T
A	89° 47'52"	15'	23.51'	14.95'
B	43° 49'43"	35'	26.77'	14.08'
C	44° 55'45"	35'	27.45'	14.47'
D	35° 4'4"	35'	21.42'	11.06'
E	44° 44'58"	35'	27.34'	14.41'
F	42° 6'7"	35'	25.72'	13.47'

(SCALE : 1" = 20')

Underground Service Alert of Southern California
TWO WORKING DAYS BEFORE YOU DIG
Know what's below. Call before you dig.
www.DigAlert.org

NOTICE TO CONTRACTOR

PURSUANT TO ASSEMBLY BILL 4216 NO EXCAVATION PERMIT IS VALID UNLESS THE CONTRACTOR CONTACTS AND OBTAINS A DIG ALERT TICKET NUMBER. CALL 811 AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING EXCAVATION.

PROJECT NO. 26-6711: GRAND AVENUE REHABILITATION FROM 1ST STREET TO SANTA ANA BOULEVARD

SHT-DA04-NNNN-R00.DGN

FILE NO.: ST-07289

REVISIONS

NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED

REFERENCES

BENCHMARK NO.: XX-XXX-XX ELEV.: NNN.NN' NAVD'YY

CONSTRUCTION COMPLETED:

REGISTERED PROFESSIONAL ENGINEER ALEXANDRU A. BANGEAN RCE NO. 88138 Exp. 3/31/28 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF: ALEX A. BANGEAN — SENIOR CIVIL ENGINEER RCE NO.: 88138 — DATE 10/2026

DESIGNED: AH DRAWN: MR CHECKED: AB — 10/2026

REVIEWED FOR CONSTRUCTABILITY: SEAN THOMAS — PRINCIPAL CIVIL ENGINEER RCE NO.: 80470 — 10/2026

RECOMMENDED FOR CONSTRUCTION: JASON GABRIEL — PRINCIPAL CIVIL ENGINEER RCE NO.: 62968 — 10/2026

DA04

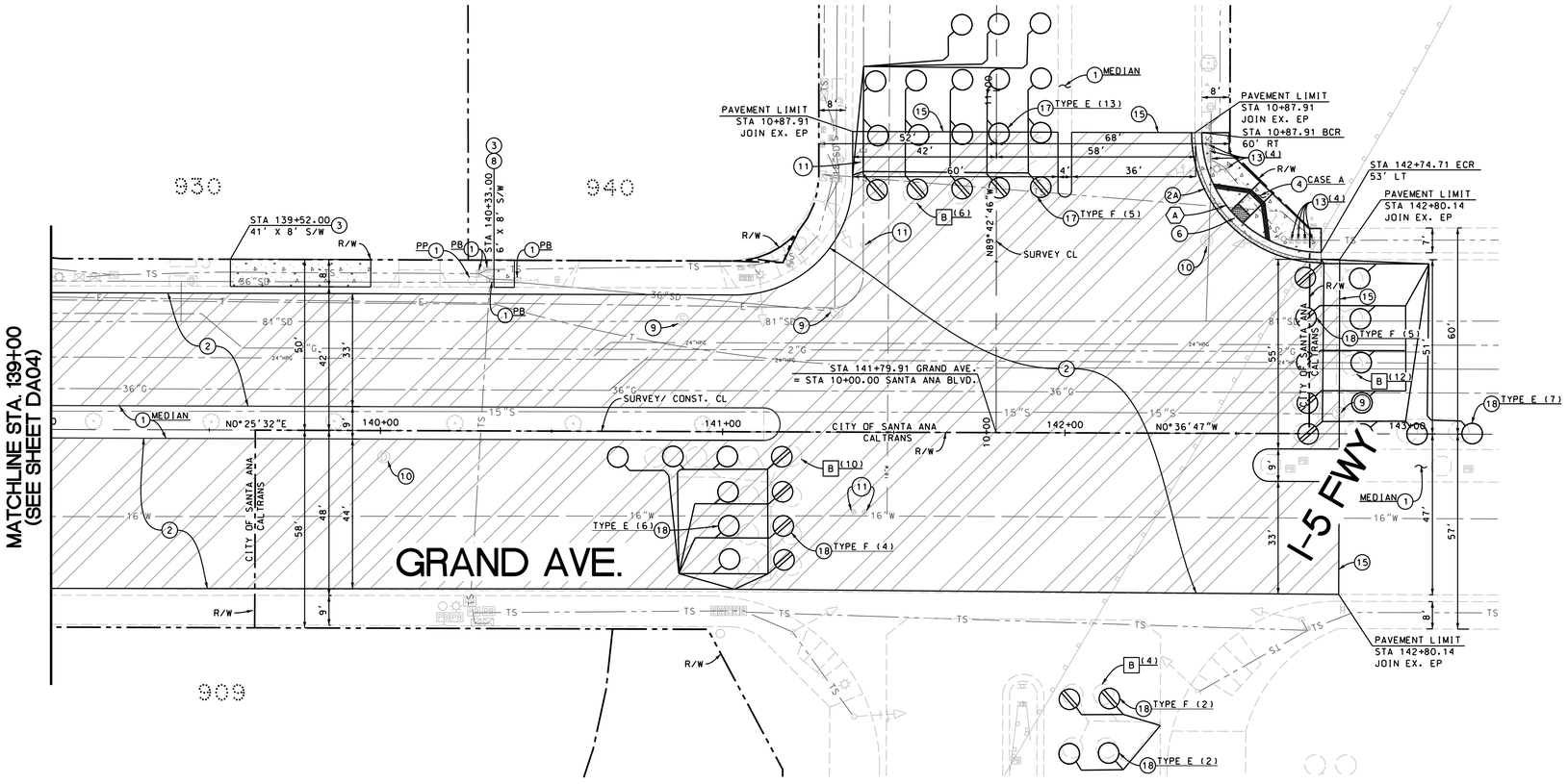
STREET IMPROVEMENT PLAN

GRAND AVENUE REHABILITATION

1ST STREET TO SANTA ANA BOULEVARD

PUBLIC WORKS AGENCY
CITY OF SANTA ANA

SHEET 05 OF 12



FOR LOCAL REPAIRS, SEE SHEET DA09

CONSTRUCTION NOTES:

1. PROTECT IN PLACE.
2. COLDMILL 2 3/8" BELOW EXISTING PAVEMENT. PLACE 2" ARHM OVER 3/8" ARAM OVER EXISTING PAVEMENT AS SHOWN ON PLAN.
2A. CONSTRUCT 12" WIDE BY 12" DEEP AC ON COMPACTED SUBGRADE.
3. CONSTRUCT 4" THICK PCC SIDEWALK PER C.S.A. STD. PLAN NO. 1104.
4. CONSTRUCT PCC CURB RAMP PER CALTRANS STD. PLAN NO. A88A AND AS SHOWN ON PLAN. COLOR OF DETECTABLE WARNING SURFACE SHALL BE DARK GRAY (FEDERAL STANDARD COLOR 36118).
6. CONSTRUCT A-2-8 PCC CURB & GUTTER PER C.S.A. STD PLAN NO. 1101 AND/OR MATCH EXISTING.
9. ADJUST SEWER MANHOLE FRAME AND COVER TO FINISHED GRADE PER C.S.A. STD. PLAN NO. 1201 AND 1211.
10. ADJUST STORM DRAIN MANHOLE FRAME AND COVER TO FINISHED GRADE PER C.S.A. STD. PLAN NO. 306 THROUGH 308.
11. FURNISH AND INSTALL NEW WATER VALVE FRAME AND COVER TO FINISH GRADE PER C.S.A STD. PLAN NO. 1410.
13. FURNISH AND INSTALL NEW #6 PULLBOX TO FINISH GRADE PER C.S.A. STD. PLAN NO. 1501.
15. JOIN AND FEATHER AS DIRECTED BY THE ENGINEER.
17. FURNISH AND INSTALL 6' DIAMETER LOOP DETECTOR. LOOPS SHALL BE PER C.S.A. STD. PLAN NO. 1506. INSTALL 2" DIAMETER PVC STUBOUT CONDUIT IF NECESSARY.
18. FURNISH AND INSTALL 6' DIAMETER LOOP DETECTOR. LOOPS SHALL BE PER CALTRANS. STD. PLAN NO. ES-5A AND ES-5B.

NOTES:

B REMOVE EXISTING LOOP DETECTORS.

LEGEND:

- SAWCUT AND REMOVE EXISTING PCC SLAB, CURB, GUTTER, CROSS GUTTER, AND/OR SIDEWALK AND RECONSTRUCT AS SHOWN ON THIS PLAN.
- COLDMILL EXISTING PAVEMENT AND RECONSTRUCT AS SHOWN ON THIS PLAN.
- SLOT PATCHES: SAWCUT AND REMOVE EXISTING AC PAVEMENT, SUBGRADE, AND/OR AB AND RECONSTRUCT AS SHOWN ON THIS PLAN.

CURVE DATA				
	Δ	R	L	T
A	89° 51'59"	35'	54.90'	34.92'

(SCALE : 1" = 20')

Underground Service Alert of Southern California
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NOTICE TO CONTRACTOR

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PROJECT NO. 26-6711: GRAND AVENUE REHABILITATION FROM 1ST STREET TO SANTA ANA BOULEVARD

SHT-DA05-NNNN-RDO.DGN

FILE NO.: ST-07289

REVISIONS

NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED

REFERENCES

BENCHMARK NO.: XX-XXX-XX ELEV.: NNN.NN' NAVDYY

CONSTRUCTION COMPLETED:

REGISTERED PROFESSIONAL ENGINEER ALEJANDRO A. BANGEAN RCE NO. 88138 Exp. 3/31/28 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF: ALEX A. BANGEAN

REVIEWED FOR CONSTRUCTABILITY: SEAN THOMAS

RECOMMENDED FOR CONSTRUCTION: JASON GABRIEL

		DATE
SENIOR CIVIL ENGINEER	RCE NO.: 88138	10/2026
DESIGNED: AH	DRAWN: MR CHECKED: AB	10/2026
PRINCIPAL CIVIL ENGINEER	RCE NO.: 80470	10/2026
PRINCIPAL CIVIL ENGINEER	RCE NO.: 62968	10/2026

STREET IMPROVEMENT PLAN

GRAND AVENUE REHABILITATION

1ST STREET TO SANTA ANA BOULEVARD

PUBLIC WORKS AGENCY
CITY OF SANTA ANA

DA05

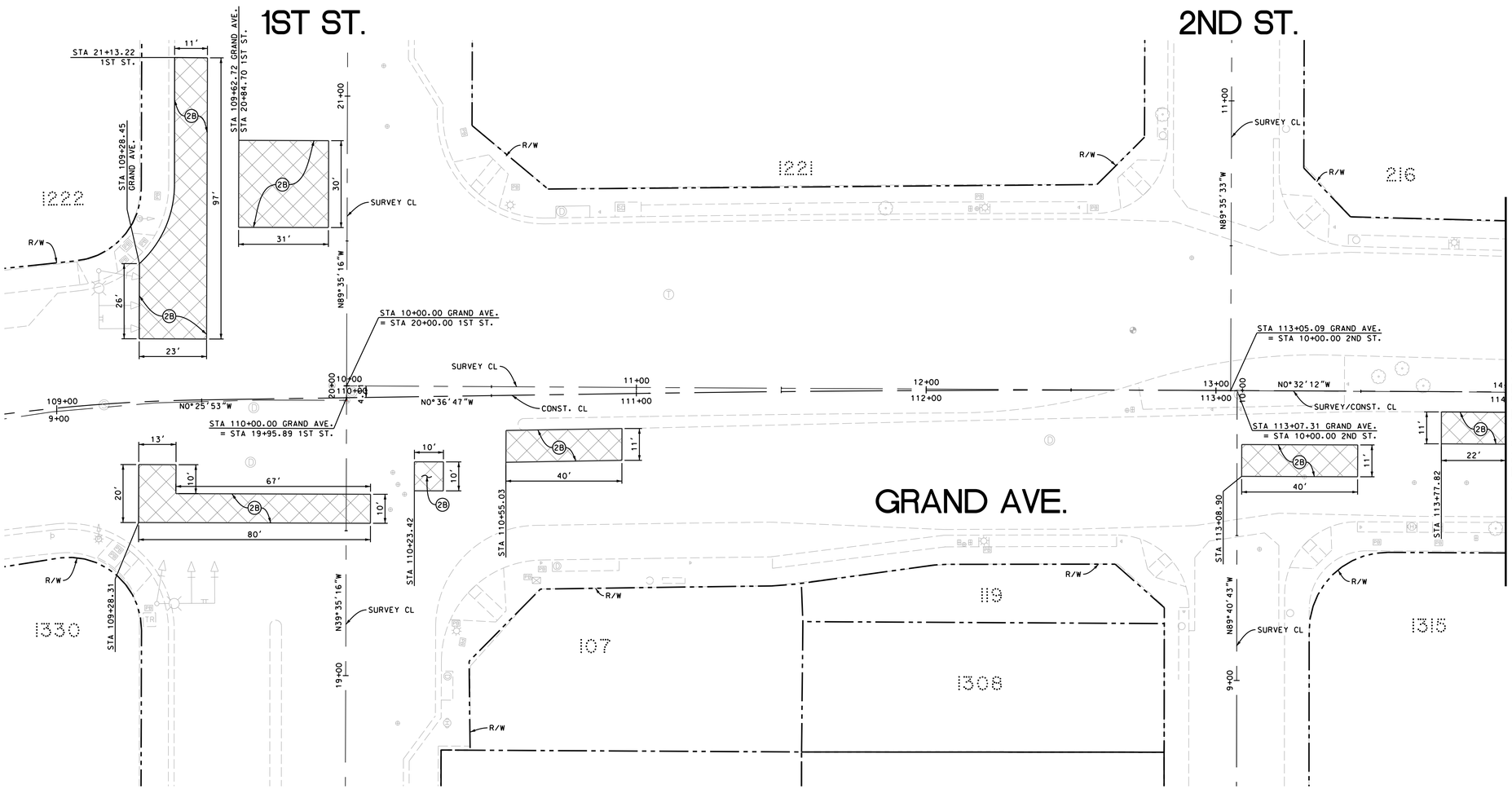
SHEET 06 OF 12

CONSTRUCTION NOTES:

(2B) COLDMILL ADDITIONAL 3 5/8" AC PAVEMENT AND PLACE BACK 2" ARHM AND 3/8" ARAM OVER 3 5/8" AC PAVEMENT.

LEGEND:

- LOCALIZED REPAIRS: COLDMILL 6" BELOW EXISTING SURFACE AND RECONSTRUCT AS SHOWN ON THIS PLAN.



MATCHLINE STA. 114+00
(SEE SHEET DA02)

PROJECT NO. 26-671: GRAND AVENUE REHABILITATION FROM 1ST STREET TO SANTA ANA BOULEVARD

(SCALE : 1" = 20')

FOR REHABILITATION IMPROVEMENTS, SEE SHEET DA01

811 Know what's below. Call before you dig.
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NOTICE TO CONTRACTOR

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SHT-DA06-NNNNN-ROO.DGN

FILE NO.: ST-07289

REVISIONS

NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED

REFERENCES

BENCHMARK NO.: XX-XXX-XX ELEV.: NNN.NN' NAVD88Y

CONSTRUCTION COMPLETED:

REGISTERED PROFESSIONAL ENGINEER ALEXANDRU A. BANGEAN RCE NO. 88138 Exp. 3/31/28 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF: ALEX A. BANGEAN	SENIOR CIVIL ENGINEER RCE NO.: 88138	10/2026
	DESIGNED: AH DRAWN: MR CHECKED: AB	10/2026
REVIEWED FOR CONSTRUCTABILITY: SEAN THOMAS	PRINCIPAL CIVIL ENGINEER RCE NO.: 80470	10/2026
RECOMMENDED FOR CONSTRUCTION: JASON CABRIEL	PRINCIPAL CIVIL ENGINEER RCE NO.: 62968	10/2026

DA06

STREET IMPROVEMENT PLAN

GRAND AVENUE REHABILITATION

1ST STREET TO SANTA ANA BOULEVARD

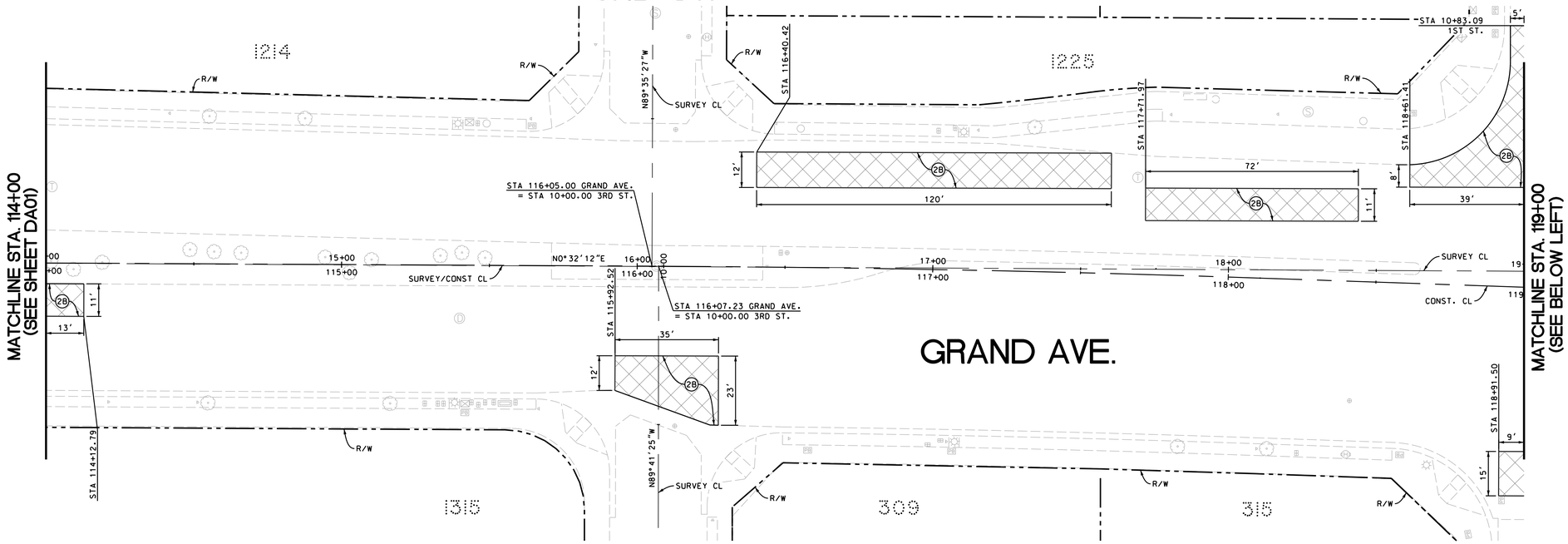
PUBLIC WORKS AGENCY
CITY OF SANTA ANA

CONSTRUCTION NOTES:

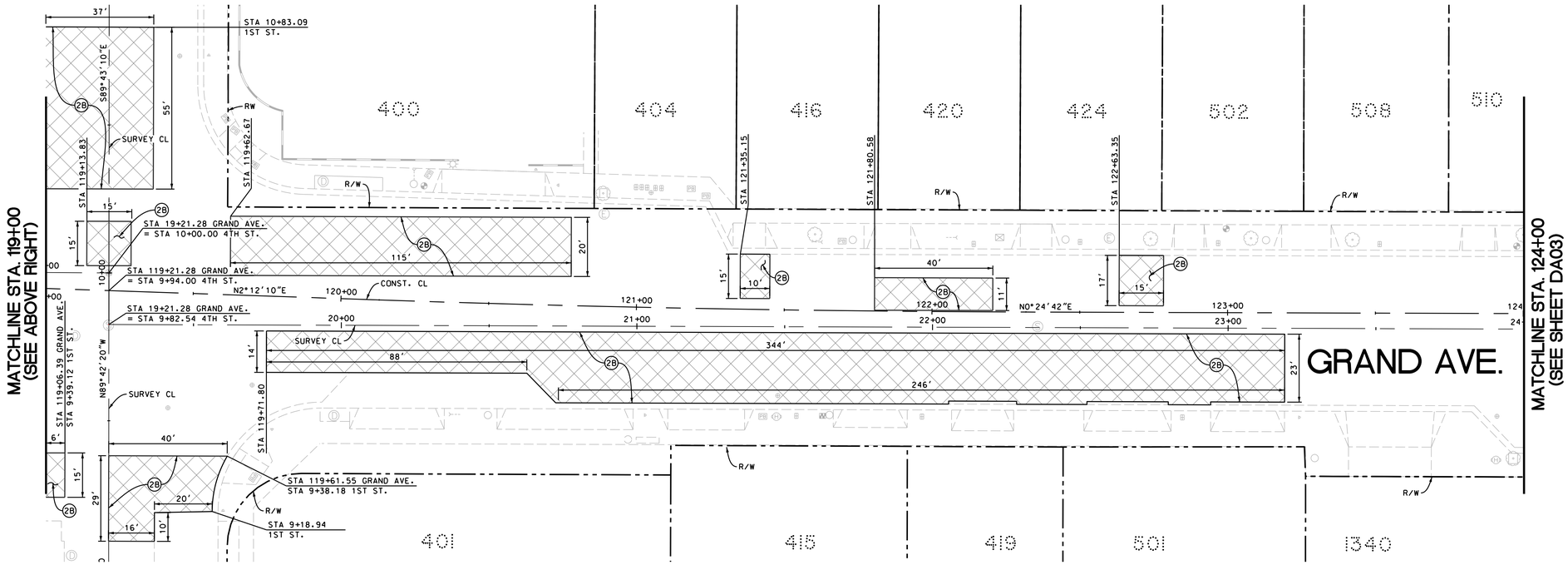
(2B) COLDMILL ADDITIONAL 3 5/8" AC PAVEMENT AND PLACE BACK 2" ARHM AND 3/8" ARAM OVER 3 5/8" AC PAVEMENT.

LEGEND:

- LOCALIZED REPAIRS: COLDMILL 6" BELOW EXISTING SURFACE AND RECONSTRUCT AS SHOWN ON THIS PLAN.



FOR REHABILITATION IMPROVEMENTS, SEE SHEET DA02



(SCALE : 1" = 20')

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NOTICE TO CONTRACTOR

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PROJECT NO. 26-6711: GRAND AVENUE REHABILITATION FROM 1ST STREET TO SANTA ANA BOULEVARD

SHT-DA07-NNNNN-ROO.DGN

FILE NO.: ST-07289

REVISIONS

NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED

REFERENCES

BENCHMARK NO.: XX-XXX-XX ELEV.: NNN.NN' NAVDYY

CONSTRUCTION COMPLETED:

REGISTERED PROFESSIONAL ENGINEER ALEXANDRU A. BANGEAN RCE NO. 88138 Exp. 3/31/28 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
ALEX A. BANGEAN
SENIOR CIVIL ENGINEER RCE NO.: 88138 — DATE 10/2026

REVIEWED FOR CONSTRUCTABILITY:
SEAN THOMAS
DESIGNED: AH DRAWN: MR CHECKED: AB — 10/2026
PRINCIPAL CIVIL ENGINEER RCE NO.: 80470 — 10/2026

RECOMMENDED FOR CONSTRUCTION:
JASON GABRIEL
PRINCIPAL CIVIL ENGINEER RCE NO.: 62968 — 10/2026

DA07

STREET IMPROVEMENT PLAN

GRAND AVENUE REHABILITATION

1ST STREET TO SANTA ANA BOULEVARD

PUBLIC WORKS AGENCY
CITY OF SANTA ANA

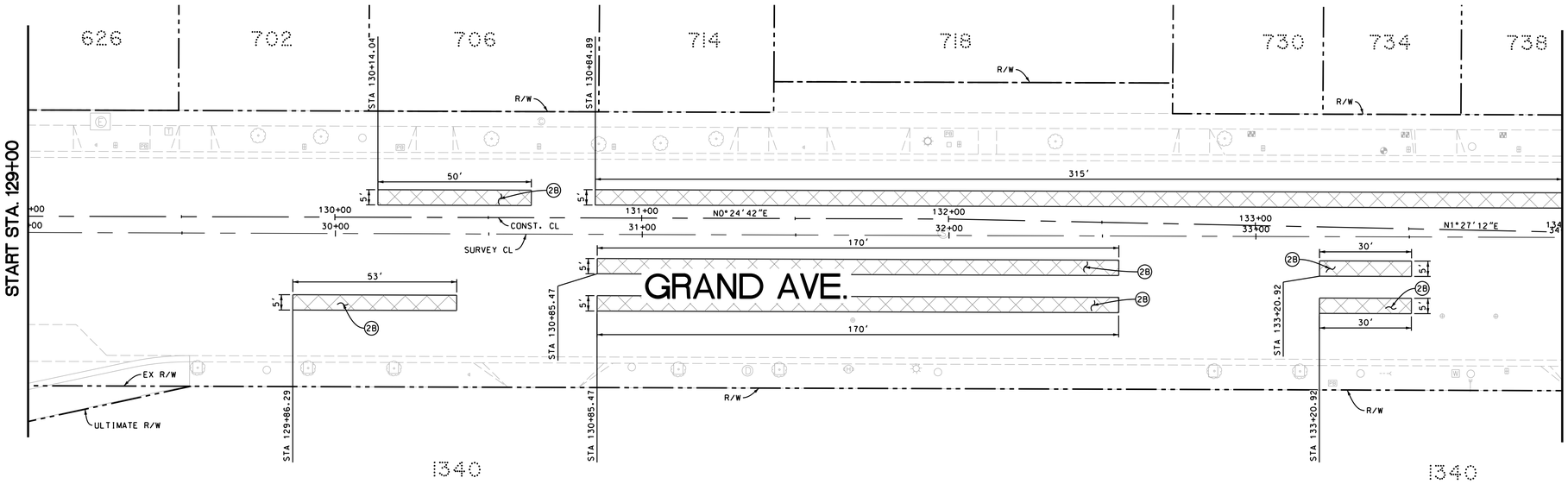
SHEET 08 OF 12

CONSTRUCTION NOTES:

(2B) COLDMILL ADDITIONAL 3 5/8" AC PAVEMENT AND PLACE BACK 2" ARHM AND 3/8" ARAM OVER 3 5/8" AC PAVEMENT.

LEGEND:

- LOCALIZED REPAIRS: COLDMILL 6" BELOW EXISTING SURFACE AND RECONSTRUCT AS SHOWN ON THIS PLAN.



FOR REHABILITATION IMPROVEMENTS, SEE SHEET DA03

(SCALE : 1" = 20')

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CALL BEFORE YOU DIG
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NOTICE TO CONTRACTOR

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PROJECT NO. 26-671I: GRAND AVENUE REHABILITATION FROM 1ST STREET TO SANTA ANA BOULEVARD

SHT-DA08-NNNNN-ROO.DGN

FILE NO.: ST-07289

REVISIONS

NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED

REFERENCES

BENCHMARK NO.: XX-XXX-XX ELEV.: NNN.NN' NAVDYY

CONSTRUCTION COMPLETED:

REGISTERED PROFESSIONAL ENGINEER ALEXANDRU A. BANGEAN RCE NO. 88138 Exp. 3/31/28 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF: ALEX A. BANGEAN

REVIEWED FOR CONSTRUCTABILITY: SEAN THOMAS

RECOMMENDED FOR CONSTRUCTION: JASON CABRIEL

		DATE
SENIOR CIVIL ENGINEER	RCE NO.: 88138	10/2026
DESIGNED: AH DRAWN: MR CHECKED: AB		10/2026
PRINCIPAL CIVIL ENGINEER	RCE NO.: 80470	10/2026
PRINCIPAL CIVIL ENGINEER	RCE NO.: 62968	10/2026

STREET IMPROVEMENT PLAN

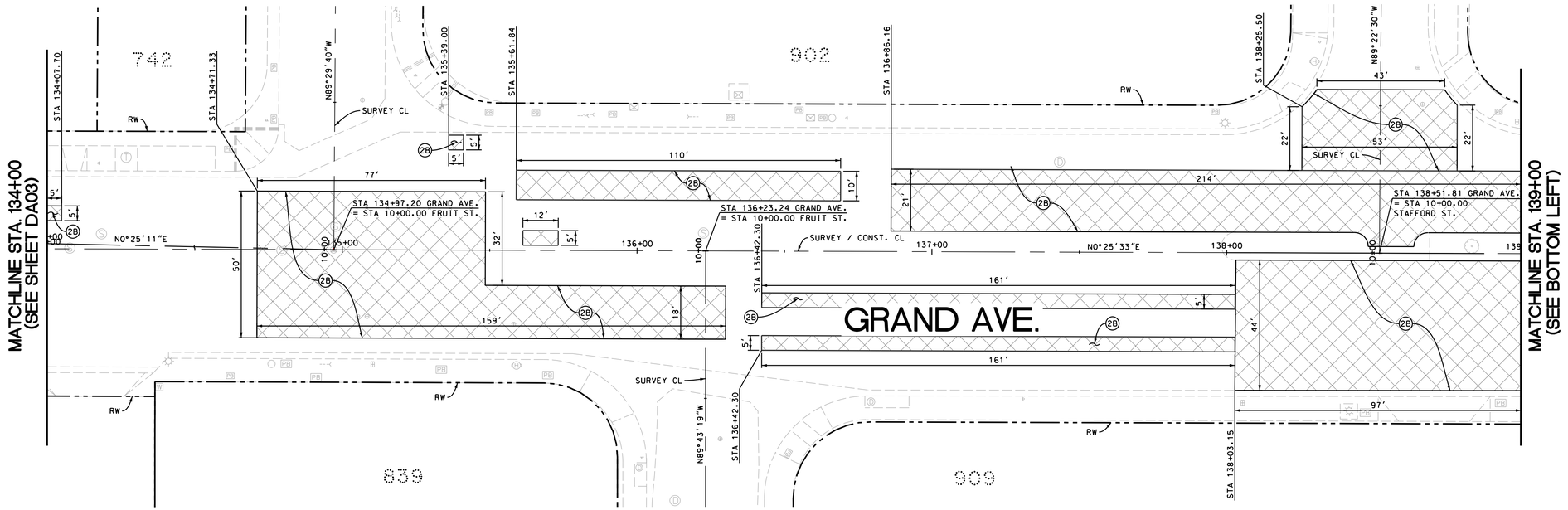
DA08

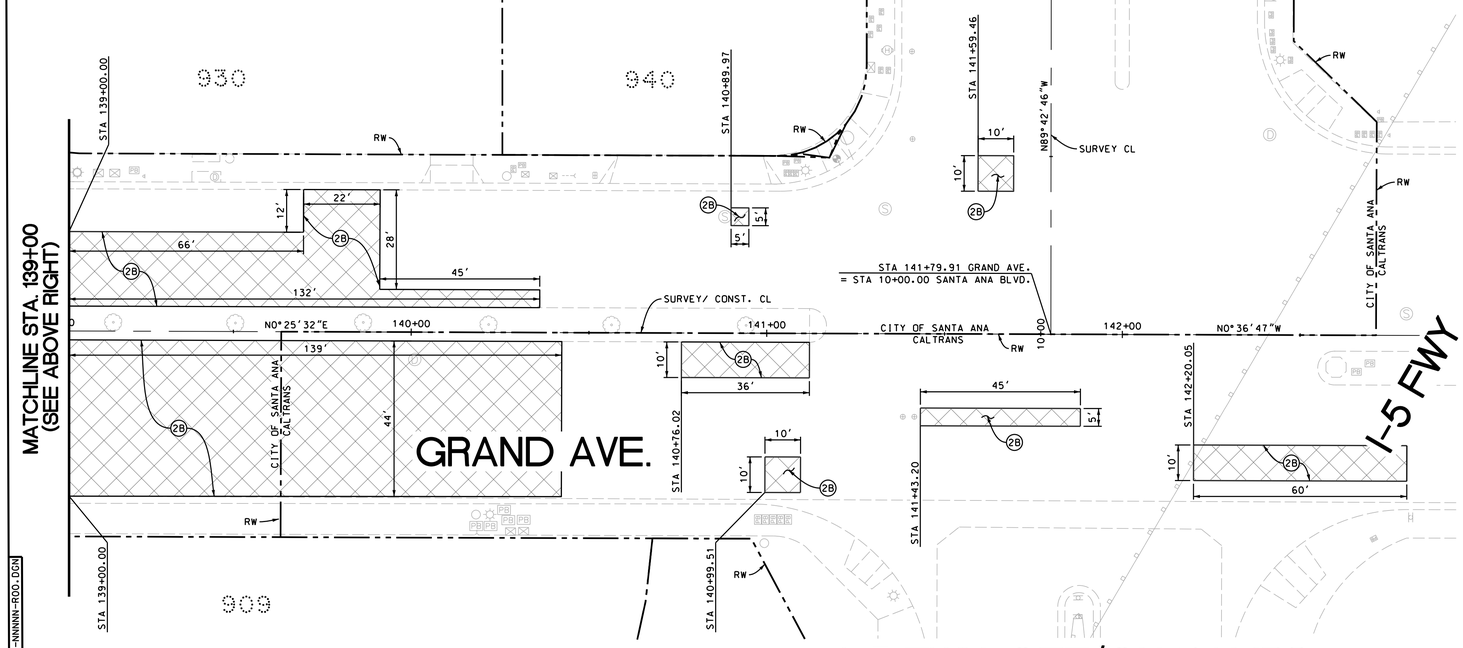
GRAND AVENUE REHABILITATION

1ST STREET TO SANTA ANA BOULEVARD

PUBLIC WORKS AGENCY
CITY OF SANTA ANA

SHEET 09 OF 12





CONSTRUCTION NOTES:

(2B) COLDMILL ADDITIONAL 3 5/8" AC PAVEMENT AND PLACE BACK 2" ARHM AND 3/8" ARAM OVER 3 5/8" AC PAVEMENT.

LEGEND:

- LOCALIZED REPAIRS: COLDMILL 6" BELOW EXISTING SURFACE AND RECONSTRUCT AS SHOWN ON THIS PLAN.

FOR REHABILITATION IMPROVEMENTS, SEE SHEET DA04 AND DA05

(SCALE : 1" = 20')

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PROJECT NO. 26-6711: GRAND AVENUE REHABILITATION FROM 1ST STREET TO SANTA ANA BOULEVARD

SHT-DA09-NNNN-RDO.DGN

FILE NO.: ST-07289

REVISIONS

NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED

REFERENCES

BENCHMARK NO.: XX-XXX-XX ELEV.: NNN.NN' NAVDYY

CONSTRUCTION COMPLETED:

REGISTERED PROFESSIONAL ENGINEER ALEXANDRU A. BANGEAN RCE NO. 88138 Exp. 3/31/28 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
ALEX A. BANGEAN
SENIOR CIVIL ENGINEER RCE NO.: 88138 — DATE 10/2026
DESIGNED: AH DRAWN: MR CHECKED: AB — 10/2026

REVIEWED FOR CONSTRUCTABILITY:
SEAN THOMAS
PRINCIPAL CIVIL ENGINEER RCE NO.: 80470 — 10/2026

RECOMMENDED FOR CONSTRUCTION:
JASON GABRIEL
PRINCIPAL CIVIL ENGINEER RCE NO.: 62968 — 10/2026

DA09

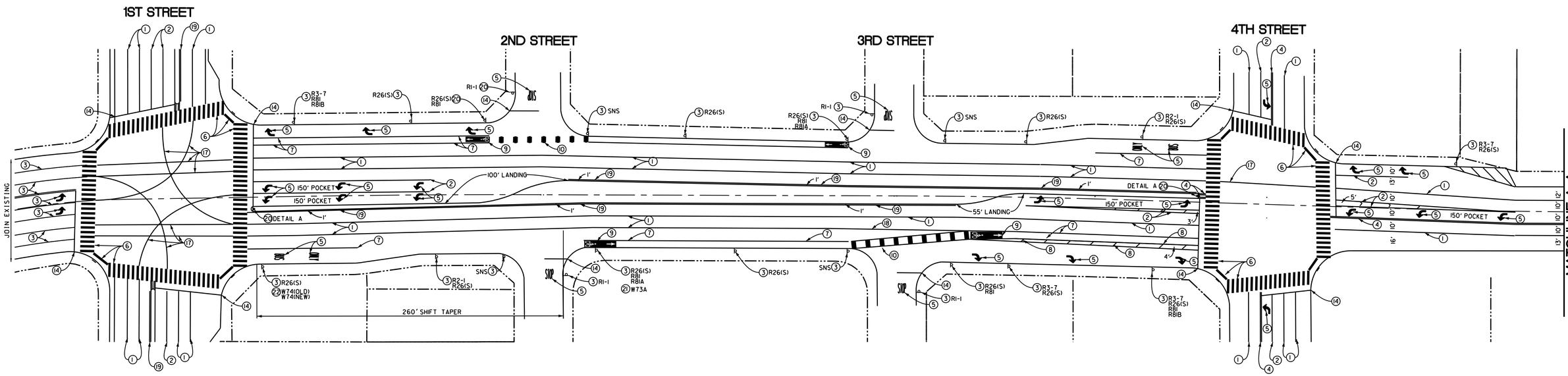
STREET IMPROVEMENT PLAN

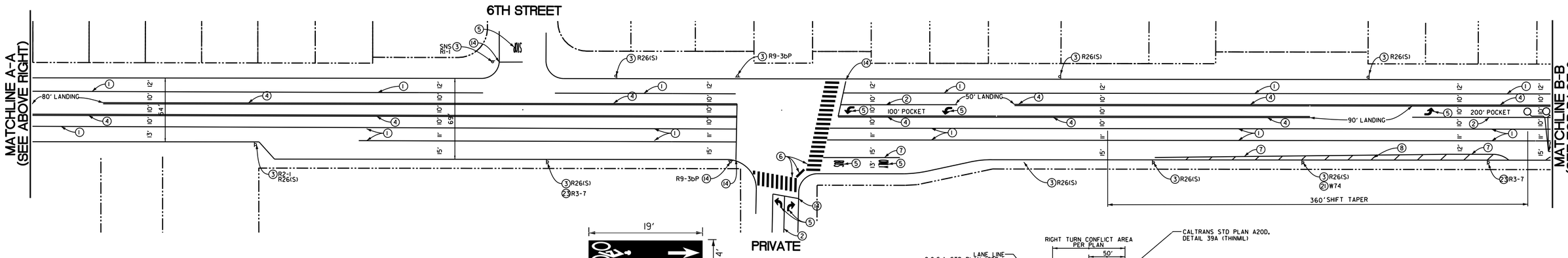
GRAND AVENUE REHABILITATION

1ST STREET TO SANTA ANA BOULEVARD

PUBLIC WORKS AGENCY
CITY OF SANTA ANA

*\\coso.pri\vol6\PWA\Engineering\CIP Engineering_Projects\Active (by Project Number)\26-6711 Grand Ave Rehab 1st to Santa Ana\CADD\Working\TRAFFIC\





DETAIL 'E'
BIKE LANE LEGEND SPACING
(SOLID WHITE FIGURES ON BIKE LANE GREEN)
(M.M.A.)
NO SCALE

GENERAL NOTES

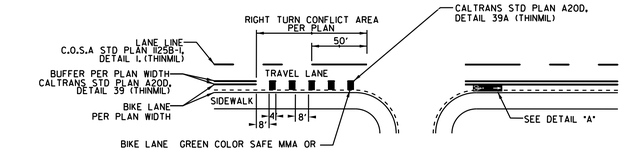
1. ALL STRIPING SHALL CONFORM TO THE CITY OF SANTA ANA STANDARD PLAN NO. 1125 (A THROUGH E). ALL ITEMS OR DETAILS NOT COVERED IN THE CITY STANDARD PLANS SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE STATE OF CALIFORNIA STANDARD PLANS AND SPECIFICATIONS DATED 2018.
2. ALL STRIPING AND PAVEMENT MARKINGS SHALL BE THERMOPLASTIC. ALL CURB MARKINGS AND MEDIAN NOSE MARKINGS SHALL BE PAINT UNLESS NOTED OTHERWISE.
3. ALL CROSSWALKS, LIMIT LINES, AND LEGENDS SHALL BE WHITE UNLESS NOTED OTHERWISE.
4. ALL NEW SIGNS MUST BE INSTALLED ON NEW 2"x2" PERFORATED AND GALVANIZED METAL POSTS UNLESS NOTED OTHERWISE. ALL SALVAGED SIGNS SHALL BE DELIVERED TO THE CITY CORPORATE YARD. CONTACT CITY MAINTENANCE AT (714) 647-3339 PRIOR TO DELIVERY.
5. UNLESS NOTED OTHERWISE, ALL LIMIT LINES SHALL BE PLACED AS CLOSE AS POSSIBLE TO THE BACK OF ADJACENT BACK OF WALK BUT SHALL NOT ENCROACH INTO THE LANDING AREA OF THE WHEEL CHAIR RAMP.
6. ALL CONFLICTING STRIPING, PAVEMENT MARKINGS, AND RAISED PAVEMENT MARKERS SHALL BE REMOVED EVEN IF NOT SHOWN ON THE PLAN. REMOVAL OF STRIPING AND PAVEMENT MARKINGS SHALL BE DONE BY WET SAND BLASTING AND/OR GRINDING. ALL DAMAGED PAVEMENT DUE TO REMOVAL SHALL BE REPAIRED AS NECESSARY TO MAINTAIN A SMOOTH AND UNIFORM SURFACE.
7. ALL FIRE HYDRANT LOCATIONS SHALL BE MARKED WITH BLUE REFLECTIVE RPM PER SANTA ANA STD. PLAN NO. 1125A.
8. ALL NEW SCHOOL SIGNS SHALL BE OF THE TYPE WITH FLUORESCENT YELLOW-GREEN BACKGROUND AND BLACK LETTERING AND BORDERS.
9. ALL NEW SIGNS SHALL HAVE TAMPER-PROOF SCREWS.

CONSTRUCTION NOTES

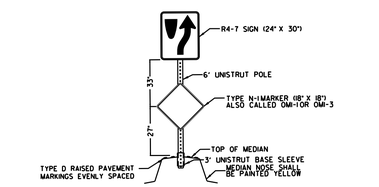
(1) INSTALL WHITE LANE LINE PER CITY OF SA STD. PLAN NO. 1125B-1, DETAIL '1'.
(2) INSTALL TURN LANE LINE PER CITY OF SA STD. PLAN NO. 1125B-1, DETAIL '2'.
(3) PROTECT IN PLACE.
(4) INSTALL DOUBLE YELLOW PER CITY OF SA STD. PLAN NO. 1125B-1, DETAIL '4'.
(5) INSTALL OR REFRESH LEGEND AS SHOWN. GRIND EXISTING LEGEND IF NECESSARY.
(6) INSTALL CONTINENTAL CROSSWALK PER DETAIL 'C'.
(7) INSTALL 4" WHITE RIGHT EDGE LINE PER CALTRANS STD. PLAN A20B, DETAIL '27A'.
(8) INSTALL 6" WHITE CHEVRON OR STRIPE @ 45 DEG. EVERY 20' O.C.
(9) INSTALL BIKE LANE LEGEND PER DETAIL 'E'.
(10) INSTALL GREEN MERGING AREA PER DETAIL 'B'.
(11) INSTALL NEW SIGN(S) ONLY ON EXISTING POST OR STREET LIGHT. RESET SIGNS AND/OR REPLACE EXISTING POLE TO MEET 7' MIN. ADA REQUIREMENT, IF NECESSARY.
(12) INSTALL 12" WIDE WHITE LIMIT LINE/STOP BAR AND CROSSWALK, IF AT A STOP LOCATION, INSTALL PER DETAIL 'D'.
(13) INSTALL CYCLE LANE SEPARATORS PER DETAIL 'E'
(14) INSTALL 24" WIDE WHITE LIMIT/STOP BARS.
(15) INSTALL 5 ROWS OF RPM'S TYPE 'D' TWO-WAY YELLOW RETROREFLECTIVE. EACH ROW MUST BE INSTALLED AT 1' (OFFSET), FOR THE FULL WITH OF THE TRAVEL LANE, PER DETAIL 'F'.
(16) INSTALL NEW SIGN(S) ON NEW POST, AS SHOWN.
(17) INSTALL LANE LINE EXTENSION PER CITY OF SA STD. PLAN NO. 1125B-2, DETAIL '8'.
(18) INSTALL 8" LANE DROP LINE PER COSA STD PLAN 1125B-1, DETAIL 3
(19) INSTALL 4" YELLOW LEFT EDGE LINE PER CALTRANS STD. PLAN A20B, DETAIL '24'.
(20) INSTALL RAISED MEDIAN ISLAND TREATMENT AND OBJECT MARKER PER DETAIL SPECIFIED ON PLAN.
(21) INSTALL NEW SIGN(S) ONLY ON EXISTING POST OR STREET LIGHT. RESET SIGNS AND/OR REPLACE
(22) REMOVE EXISTING SIGN(S). INSTALL NEW SIGN(S) AS SHOWN.
(23) REMOVE EXISTING SIGN(S) ONLY.
(24) INSTALL NEW SIGN(S) AND POST PER STD. PLAN NO. 1504.
(25) INSTALL LEGEND PER STANDARD HIGHWAY SIGNS (SHS), SECTION 10-23, DETAIL 'F', 15'X6'.

SIGN LEGEND

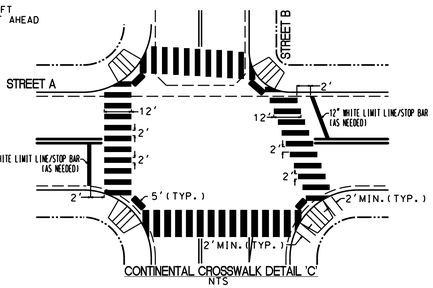
R1-1	STOP (36"X36")
R81	BIKE LANE SYMBOL (24" X 18")
R81A(BEGIN)	BEGIN PLATE (12" x 6")
R81B(END)	END PLATE (8" x 6")
R26(S)	NO STOPPING ANY TIME (12" X 18")
R3-7	GRADE CROSSING ADVANCE WARNING (36"X36")
R10-7	DEAD END (18"X18")
R2-1(40MPH)	SPEED LIMIT 40 MPH (36" x 48")
R9-3bP	CROSS AT CROSSWALK
R9-3	NO PED CROSSING
SNS	STREET NAME SIGN
W12-2	BRIDGE HEIGHT
W34A	XXXFT AHEAD
I-7	TRAIN
W74	THRU TRAFFIC MURGE LEFT
W73A	RIGHT LANE TURNS RIGHT AHEAD



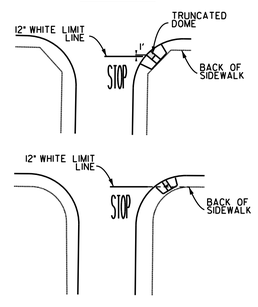
DETAIL 'B'
NO SCALE



OBJECT MARKER DETAIL 'A'
NOT TO SCALE



DETAIL 'D'



811 Underground Service Alert of Southern California
TWO WORKING DAYS BEFORE YOU DIG
Know what's below. Call before you dig.
www.DigAlert.org
NOTICE TO CONTRACTOR
PURSUANT TO ASSEMBLY BILL 4216 NO EXCAVATION PERMIT IS VALID UNLESS THE CONTRACTOR CONTACTS AND OBTAINS A DIG ALERT TICKET NUMBER. CALL 811 AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING EXCAVATION.

PROJECT NO. 26-671I: GRAND AVENUE REHABILITATION FROM 1ST STREET TO SANTA ANA BOULEVARD

FILE NO.: TF-XXXXX

REVISIONS

NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED

REFERENCES

BENCHMARK NO.: XX-XXX-XX

CONSTRUCTION COMPLETED:

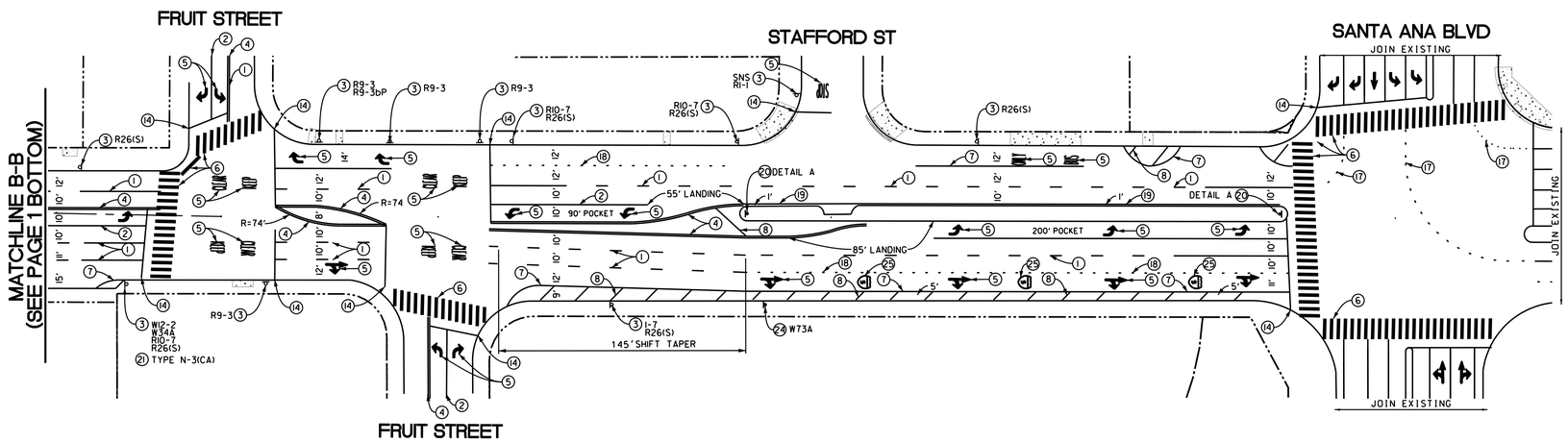
REGISTERED PROFESSIONAL ENGINEER — ZDENEK KEKULA — No. C66219 — Exp. 6-30-28 — CIVIL — STATE OF CALIFORNIA

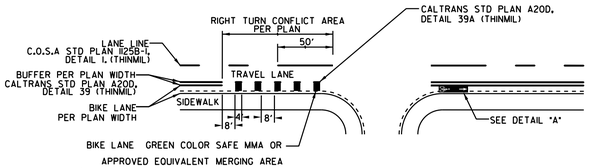
PREPARED UNDER THE SUPERVISION OF: ZED KEKULA	PRINCIPAL CIVIL ENGINEER RCE NO:66219	10/2026
	DESIGNED: DA DRAWN: DA CHECKED: RC	10/2026
REVIEWED FOR CONSTRUCTABILITY: SEAN THOMAS	PRINCIPAL CIVIL ENGINEER RCE NO:80470	10/2026
RECOMMENDED FOR CONSTRUCTION: ZED KEKULA	PRINCIPAL CIVIL ENGINEER RCE NO.: 66219	10/2026

CHANNELIZATION PLAN
GRAND AVE
1ST STREET TO SANTA ANA BLVD

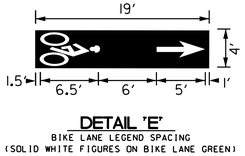
PUBLIC WORKS AGENCY
CITY OF SANTA ANA

CH-01
SHEET 11 OF 12

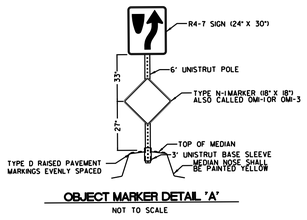




DETAIL 'B'
NO SCALE

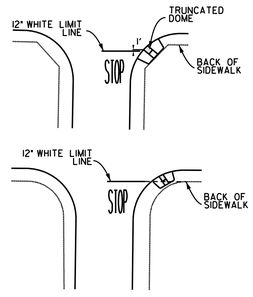


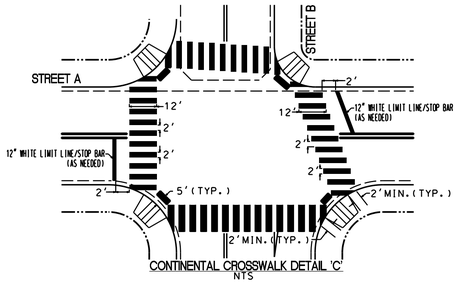
DETAIL 'E'
BIKE LANE LEGEND SPACING
(SOLID WHITE FIGURES ON BIKE LANE GREEN)
(M.M.A.)
NO SCALE



OBJECT MARKER DETAIL 'A'
NOT TO SCALE

DETAIL 'D'





CONTINENTAL CROSSWALK DETAIL 'C'
NTS

GENERAL NOTES

1. ALL STRIPING SHALL CONFORM TO THE CITY OF SANTA ANA STANDARD PLAN NO. 1125 (A THROUGH E). ALL ITEMS OR DETAILS NOT COVERED IN THE CITY STANDARD PLANS SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE STATE OF CALIFORNIA STANDARD PLANS AND SPECIFICATIONS DATED 2018.
2. ALL STRIPING AND PAVEMENT MARKINGS SHALL BE THERMOPLASTIC. ALL CURB MARKINGS AND MEDIAN NOSE MARKINGS SHALL BE PAINT UNLESS NOTED OTHERWISE.
3. ALL CROSSWALKS, LIMIT LINES, AND LEGENDS SHALL BE WHITE UNLESS NOTED OTHERWISE.
4. ALL NEW SIGNS MUST BE INSTALLED ON NEW 2"x2" PERFORATED AND GALVANIZED METAL POSTS UNLESS NOTED OTHERWISE. ALL SALVAGED SIGNS SHALL BE DELIVERED TO THE CITY CORPORATE YARD. CONTACT CITY MAINTENANCE AT (714) 647-3339 PRIOR TO DELIVERY.
5. UNLESS NOTED OTHERWISE, ALL LIMIT LINES SHALL BE PLACED AS CLOSE AS POSSIBLE TO THE BACK OF ADJACENT BACK OF WALK BUT SHALL NOT ENCROACH INTO THE LANDING AREA OF THE WHEEL CHAIR RAMP.
6. ALL CONFLICTING STRIPING, PAVEMENT MARKINGS, AND RAISED PAVEMENT MARKERS SHALL BE REMOVED EVEN IF NOT SHOWN ON THE PLAN. REMOVAL OF STRIPING AND PAVEMENT MARKINGS SHALL BE DONE BY WET SAND BLASTING AND/OR GRINDING. ALL DAMAGED PAVEMENT DUE TO REMOVAL SHALL BE REPAIRED AS NECESSARY TO MAINTAIN A SMOOTH AND UNIFORM SURFACE.
7. ALL FIRE HYDRANT LOCATIONS SHALL BE MARKED WITH BLUE REFLECTIVE RPM PER SANTA ANA STD. PLAN NO. 1125A.
8. ALL NEW SCHOOL SIGNS SHALL BE OF THE TYPE WITH FLUORESCENT YELLOW-GREEN BACKGROUND AND BLACK LETTERING AND BORDERS.
9. ALL NEW SIGNS SHALL HAVE TAMPER-PROOF SCREWS.

CONSTRUCTION NOTES

(1) INSTALL WHITE LANE LINE PER CITY OF SA STD. PLAN NO. 1125B-1, DETAIL '1'.
(2) INSTALL TURN LANE LINE PER CITY OF SA STD. PLAN NO. 1125B-1, DETAIL '2'.
(3) PROTECT IN PLACE.
(4) INSTALL DOUBLE YELLOW PER CITY OF SA STD. PLAN NO. 1125B-1, DETAIL '4'.
(5) INSTALL OR REFRESH LEGEND AS SHOWN. GRIND EXISTING LEGEND IF NECESSARY.
(6) INSTALL CONTINENTAL CROSSWALK PER DETAIL 'C'.
(7) INSTALL 4" WHITE RIGHT EDGE LINE PER CALTRANS STD. PLAN A20B, DETAIL '27A'.
(8) INSTALL 6" WHITE CHEVRON OR STRIPE @ 45 DEG. EVERY 20' O.C.
(9) INSTALL BIKE LANE LEGEND PER DETAIL 'E'.
(10) INSTALL GREEN MERGING AREA PER DETAIL 'B'.
(11) INSTALL NEW SIGN(S) ONLY ON EXISTING POST OR STREET LIGHT. RESET SIGNS AND/OR REPLACE EXISTING POLE TO MEET 7' MIN. ADA REQUIREMENT, IF NECESSARY.
(12) INSTALL 12" WIDE WHITE LIMIT LINE/STOP BAR AND CROSSWALK. IF AT A STOP LOCATION, INSTALL PER DETAIL 'D'.
(13) INSTALL CYCLE LANE SEPARATORS PER DETAIL 'E'
(14) INSTALL 24" WIDE WHITE LIMIT/STOP BARS.
(15) INSTALL 5 ROWS OF RPM'S TYPE 'D' TWO-WAY YELLOW RETROREFLECTIVE. EACH ROW MUST BE INSTALLED AT 1' (OFFSET), FOR THE FULL WITH OF THE TRAVEL LANE, PER DETAIL 'F'.
(16) INSTALL NEW SIGN(S) ON NEW POST, AS SHOWN.
(17) INSTALL LANE LINE EXTENSION PER CITY OF SA STD. PLAN NO. 1125B-2, DETAIL '8'.
(18) INSTALL 8" LANE DROP LINE PER COSA STD PLAN 1125B-1, DETAIL 3
(19) INSTALL 4" YELLOW LEFT EDGE LINE PER CALTRANS STD. PLAN A20B, DETAIL '24'.
(20) INSTALL RAISED MEDIAN ISLAND TREATMENT AND OBJECT MARKER PER DETAIL SPECIFIED ON PLAN.
(21) INSTALL NEW SIGN(S) ONLY ON EXISTING POST OR STREET LIGHT. RESET SIGNS AND/OR REPLACE
(22) REMOVE EXISTING SIGN(S). INSTALL NEW SIGN(S) AS SHOWN.
(23) REMOVE EXISTING SIGN(S) ONLY.
(24) INSTALL NEW SIGN(S) AND POST PER STD. PLAN NO. 1504.
(25) INSTALL LEGEND PER STANDARD HIGHWAY SIGNS (SHS), SECTION 10-23, DETAIL 'F', 15'X6'.

SIGN LEGEND

R1-1	STOP (36"X36")
R81	BIKE LANE SYMBOL (24" X 18")
R81A(BEGIN)	BEGIN PLATE (12" x 6")
R81B(END)	END PLATE (8" x 6")
R26(S)	NO STOPPING ANY TIME (12" X 18")
R3-7	GRADE CROSSING ADVANCE WARNING (36"X36")
R10-7	DEAD END (18"X18")
R2-1(40MPH)	SPEED LIMIT 40 MPH (36" x 48")
R9-3bP	CROSS AT CROSSWALK
R9-3	NO PED CROSSING
SNS	STREET NAME SIGN
W12-2	BRIDGE HEIGHT
W34A	XXXFT AHEAD
I-7	TRAIN
W74	THRU TRAFFIC MURGE LEFT
W73A	RIGHT LANE TURNS RIGHT AHEAD

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TWO WORKING DAYS BEFORE YOU DIG
Know what's below. Call before you dig.
CALL BEFORE YOU DIG
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PROJECT NO. 26-671: GRAND AVENUE REHABILITATION FROM 1ST STREET TO SANTA ANA BOULEVARD

\\cosa.private\PWA\Engineering\CIP Engineering_Projects\active (by Project Number)\26-671: Grand Ave Rehab 1st to Santa Ana\CADD\Working\TRAFFIC

FILE NO.: TF-XXXXX

REVISIONS					
NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED

REFERENCES
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CONSTRUCTION COMPLETED:

REGISTERED PROFESSIONAL ENGINEER — ZDENEK KEKULA — No. C56219 — Exp. 6-30-28 — CIVIL — STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF: ZED KEKULA — PRINCIPAL CIVIL ENGINEER — RCE NO:66219 — DATE 10/2026
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CH-02

CHANNELIZATION PLAN
GRAND AVE
1ST STREET TO SANTA ANA BLVD

PUBLIC WORKS AGENCY
CITY OF SANTA ANA

SHEET 12 OF 12