

Attachment 6 – City of Santa Ana As-Built Plans with WSE's

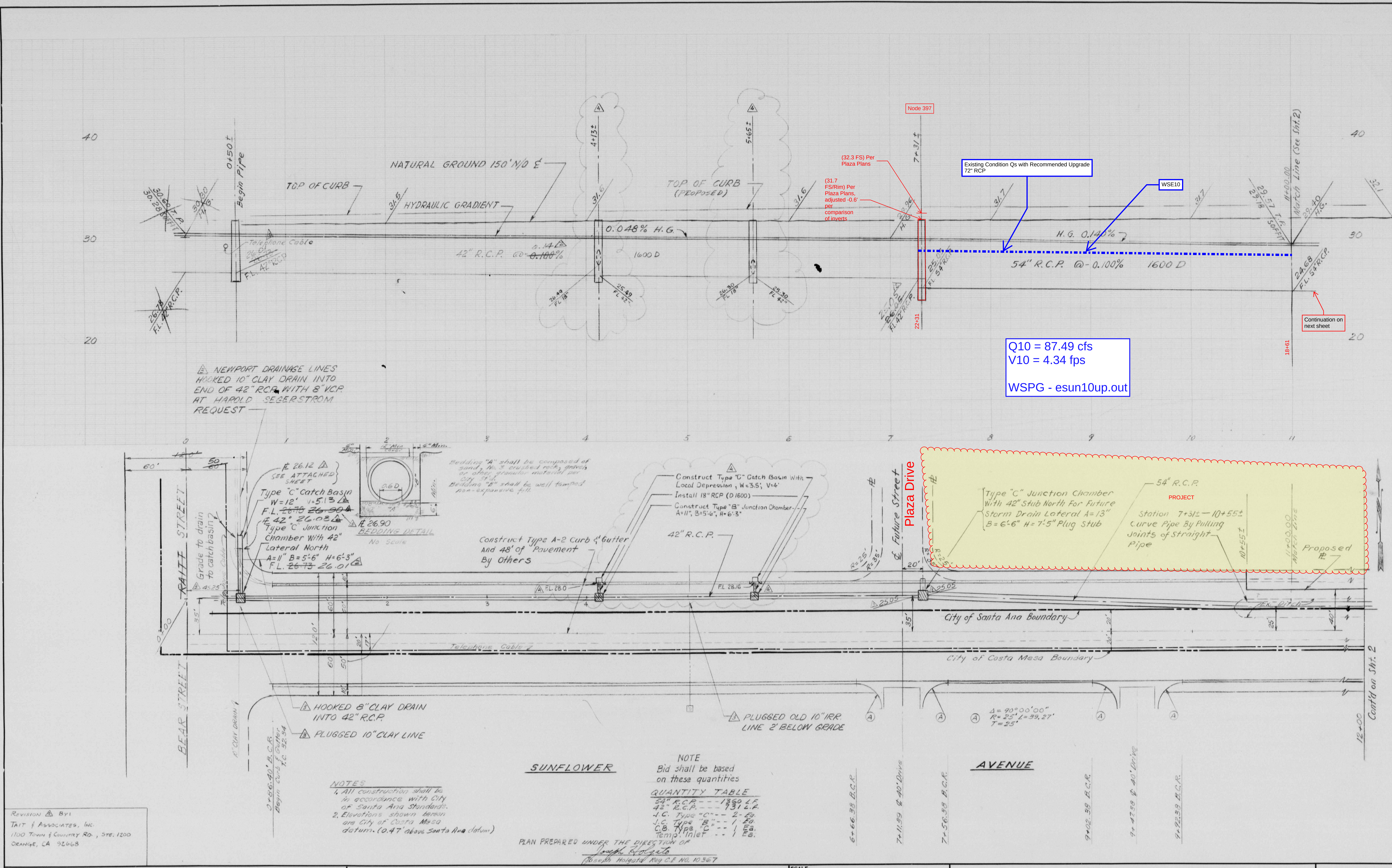
DRAWING NUMBER
1 of 2

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER
18-58

Sunflower Ave Storm Drain
RAIT ST
11+00



REVISIONS

NUMBER	DATE	INITIALS	DESCRIPTION
1	5/11/98	MTB	Added C.B. 18\"RCP\" & J.C. @ Sta 4+13 & 5+65

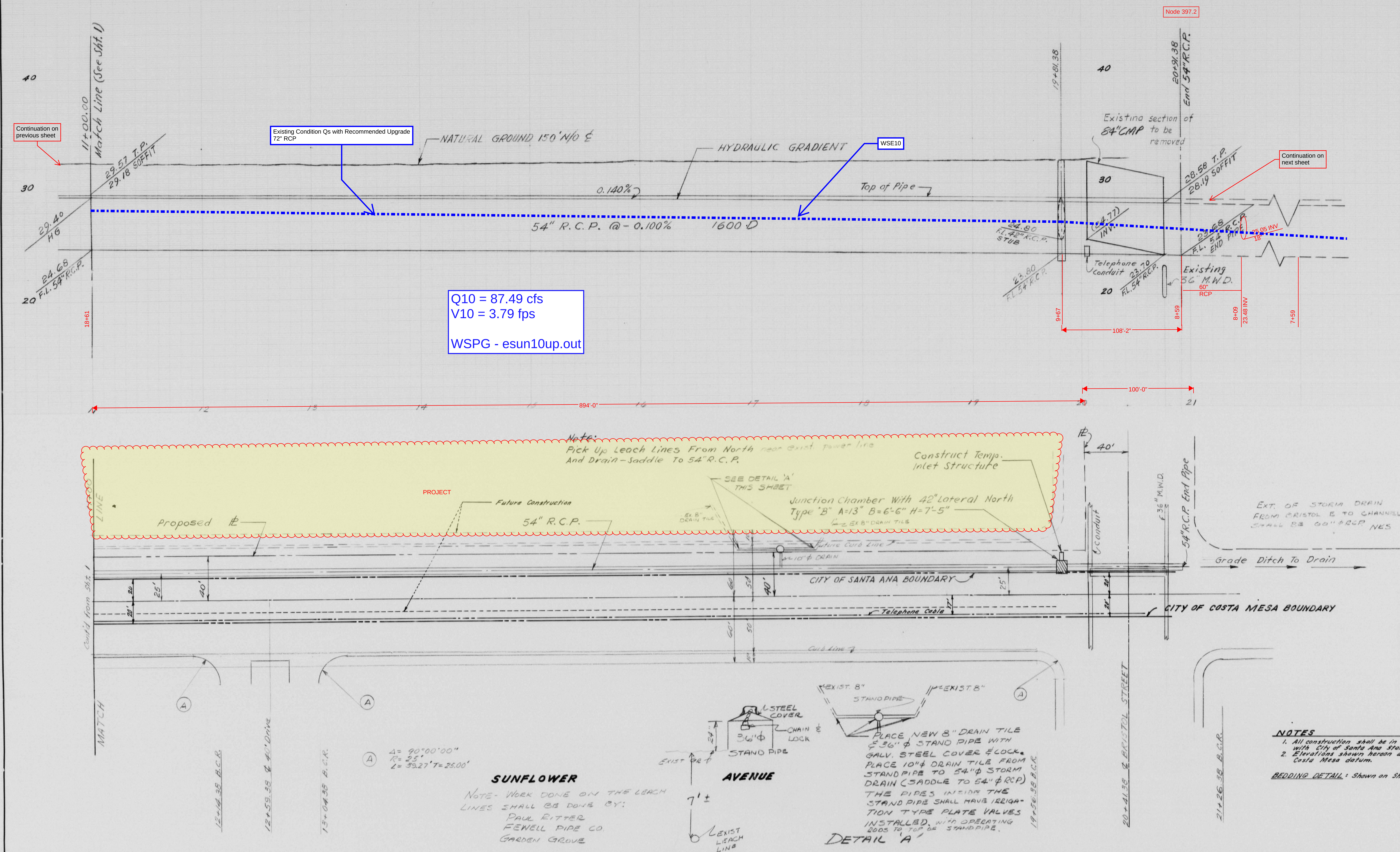
NOTE
Bid shall be based on these quantities

QUANTITY	TABLE
54\"RCP	1360 LF
42\"RCP	131 LF
J.C. Type \"C\"	2 EA
J.C. Type \"B\"	1 EA
C.B. Type \"C\"	1 EA
Temp. Inlet	1 EA

REVISIONS				REFERENCES				SUNFLOWER AVENUE STORM DRAIN FROM RAIT ST (BEAR ST) TO STATION 11+00			
NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	BENCH MARK	8 M. NO. 58-5A12-5 \" + \" North	DESIGNED BY	DATE	4-20-95		
1	5/11/98	MTB	Added C.B. 18\"RCP\" & J.C. @ Sta 4+13 & 5+65	MTB	EDGE 40\" DIA. Standard 2\" HIGH S.E. Corner		DRAWN BY	DATE	8/62		
2	5/11/98	MTB	Added C.B. 18\"RCP\" & J.C. @ Sta 4+13 & 5+65	MTB	Bear St & Sunflower Ave per Circuit NO. 1		CHECKED	DATE	8/62		
3	5/11/98	MTB	Added C.B. 18\"RCP\" & J.C. @ Sta 4+13 & 5+65	MTB	Book 1002. Elev. 34.67 This Plan = 34.20 Santa Ana Datum.		R/W APPROVED	DATE	8/62		
4	5/11/98	MTB	Added C.B. 18\"RCP\" & J.C. @ Sta 4+13 & 5+65	MTB			RECOMMENDED	DATE	8/62		
5	5/11/98	MTB	Added C.B. 18\"RCP\" & J.C. @ Sta 4+13 & 5+65	MTB			APPROVED	DATE	8/62		
6	5/11/98	MTB	Added C.B. 18\"RCP\" & J.C. @ Sta 4+13 & 5+65	MTB			R.E. NO.	DATE	8/62		

18-58

Sunflower Ave. Storm
Drainage Station 11+00
Station 19+56.38

[illegible][illegible]

SCALE:	HORIZ: 1"=40'	4-20-65
	VERT: 1"=4'	DATE
DESIGNED		
DRAWN		
CHECKED		2/65
R/W APPROVED		
RECOMMENDED	<i>W. H. H.</i>	8/24/65
APPROVED		
R. E. NO. 3873	<i>R. E. Wolford</i>	8/24/65

SUNFLOWER AVENUE STORM DRAIN
FROM STATION 11+00 TO STATION 19+56.35

DEPARTMENT OF PUBLIC WORKS
CITY OF SANTA ANA *MIF* SHEET NO. 2 OF 2

NOTES

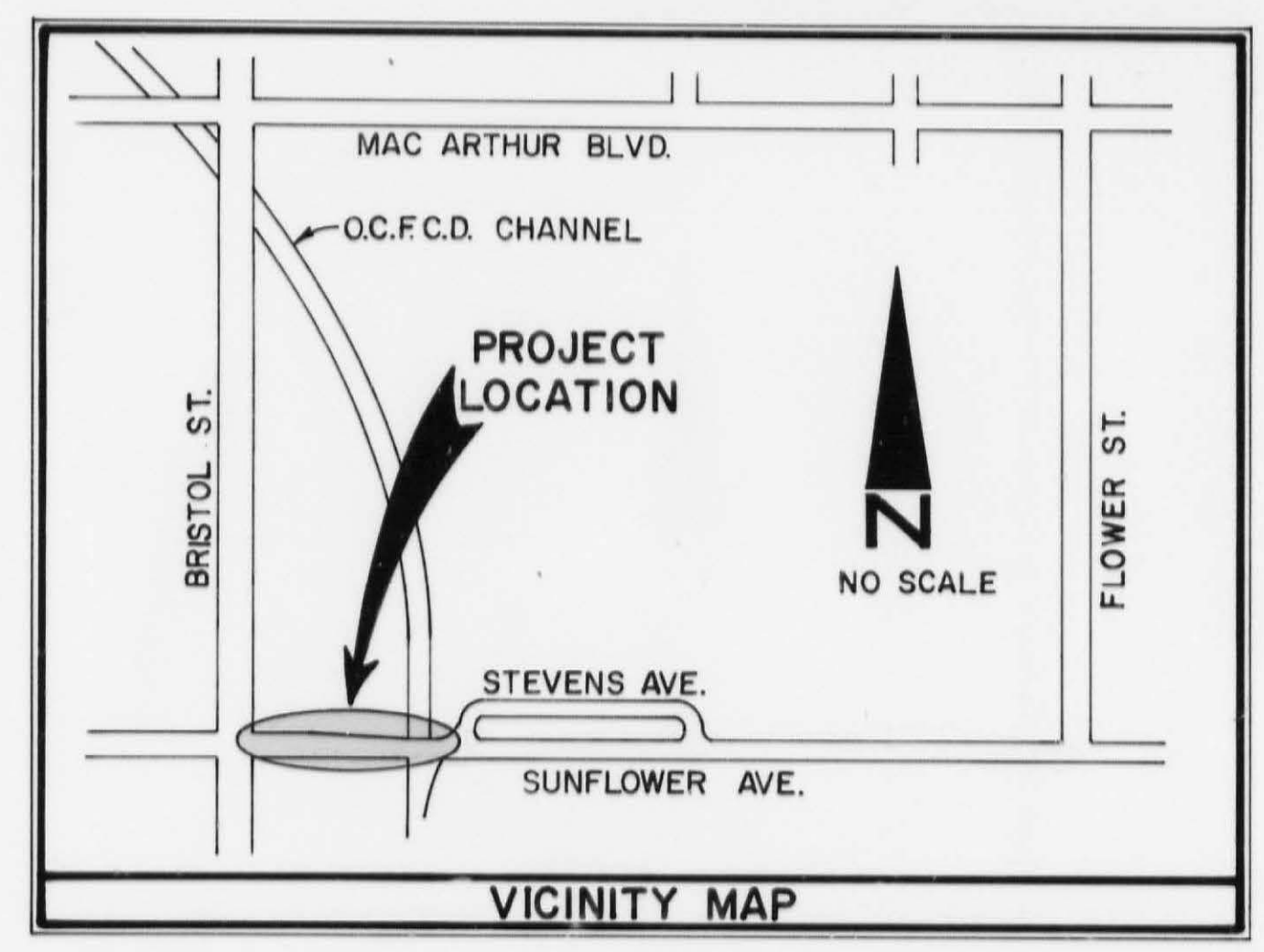
1. All construction shall be in accordance with City of Santa Ana Standards.
2. Elevations shown hereon are City of Costa Mesa datum.

BEDDING DETAIL: Shown on Sheet No. 1

1 of 1
1-86-14
STREET & STORM DRAIN IMPROVEMENT
SUNFLOWER AVE
BRISTOL - 650
PR. 2 1377 & 4038
E/D BRISTOL



PROJECT NOS. 1377 & 4038 SUNFLOWER AVENUE

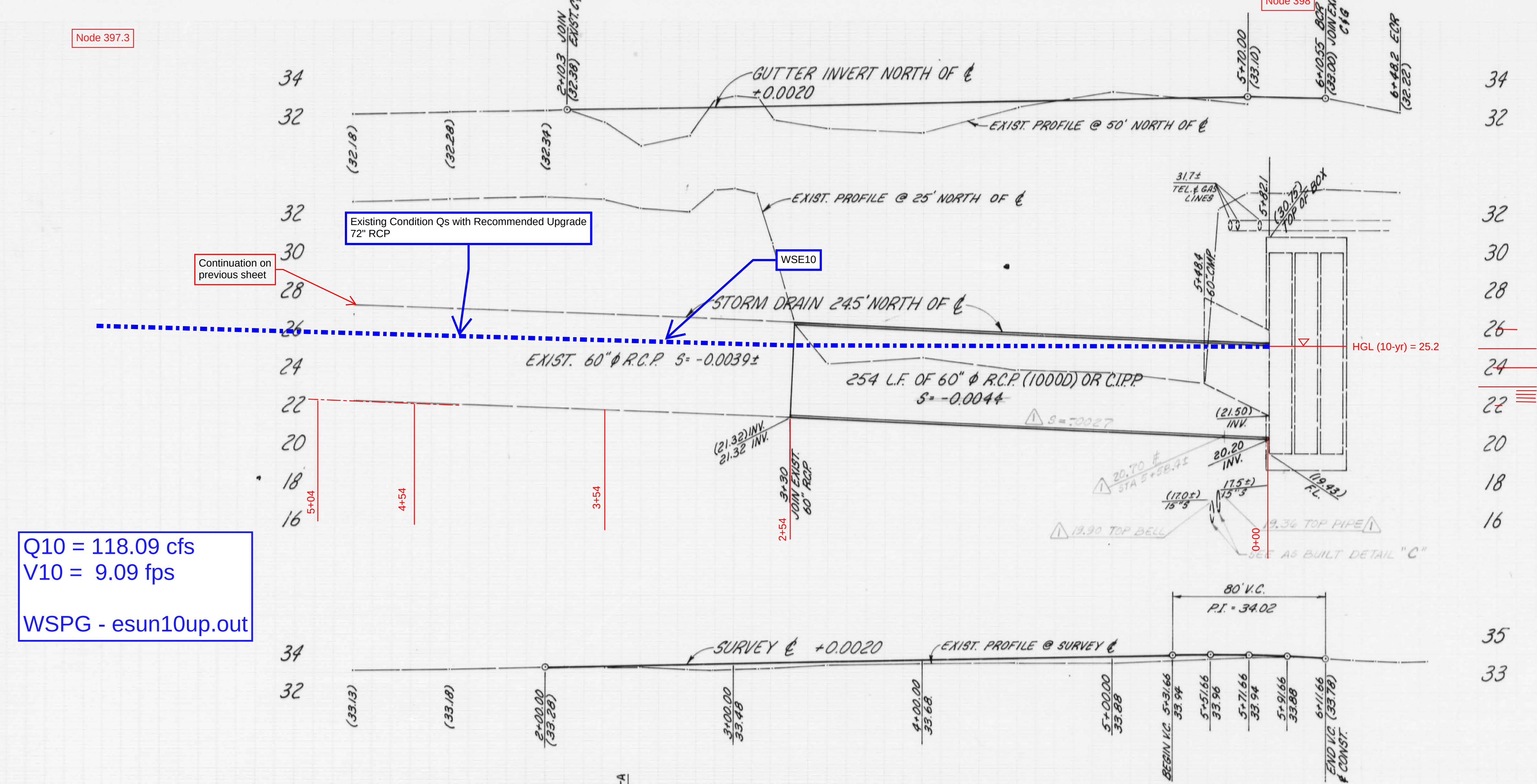


- ### GENERAL NOTES
- CONSTRUCT SHADED PORTION ONLY.
 - UTILITIES SHOWN ON THESE PLANS ARE CORRECT AND ACCURATE TO THE EXTENT OF AVAILABLE RECORDS AND KNOWLEDGE. THE CONTRACTOR, HOWEVER, IS REQUIRED TO TAKE STEPS TO ASCERTAIN THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO DOING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE.
 - ALL SALVAGEABLE ITEMS SUCH AS TRAFFIC CONTROL DEVICES TO BE DEPOSITED AT CITY YARD, 750 E. WARNER AVE., BY CONTRACTOR.
 - CONTRACTOR SHALL CONTACT CHUCK VELASQUEZ OF PACIFIC TELEPHONE PRIOR TO EXCAVATION. (PH. 546-3177)
 - CONTRACTOR SHALL OBTAIN A PERMIT FROM CITY OF COSTA MESA PRIOR TO START OF CONSTRUCTION. COST: \$300. BEFORE ANY ELECTRIC CABLE OR CONDUIT IS PLACED IN STREET LINES, THE LOCATIONS FOR THE PROPOSED STREETS ARE TO BE VERIFIED BY THE CONSTRUCTION INSPECTOR (TA) 3440S AFTER THESE LOCATIONS HAVE BEEN MAILED OUT BY THE DEVELOPER / CONTRACTOR.
- ### CONSTRUCTION NOTES
- CONSTRUCT 4" A.C. WITH SEAL COAT OVER 18" A.B.
 - CONSTRUCT 3" A.C. WITH SEAL COAT OVER 6" A.B.
 - CONSTRUCT VARIABLE THICKNESS A.C. CAP WITH SEAL COAT.
 - JOIN & FEATHER AS REQUIRED.
 - CONSTRUCT A-2-B R.C.C. CURB & GUTTER PER STD. PLAN NO. 101.
 - CONSTRUCT SIDEWALK PER STD. PLAN NO. 104.
 - CONSTRUCT DRIVE APPROACH PER STD. PLAN NO. 112.
 - CONSTRUCT 4" THICK SIDEWALK WITH 3" x 3" TREE WELLS PER STD. 104. PLANT IS GAL. TREES - TYPE PER C.S.A.
 - CONSTRUCT WHEELCHAIR RAMP PER STD. PLAN NO. 121.
 - CONSTRUCT 254 L.F. OF 60" R.C.P. (1000D) OR CIPP (FULLER FORM) & P.C.C. CRADLE (SEE DETAIL 1B).
 - CLEAN EXISTING STORM DRAIN OF "ACCUMULATED DIRT" AS DIRECTED BY THE ENGINEER.
 - ADJUST SURVEY WELL MONUMENT TO FINISHED GRADE.
 - ADJUST MANHOLE TO FINISHED GRADE.
 - CONSTRUCT R.C.C. COLLAR PER DETAIL 1A.
 - INSTALL 25,500 LSV UNDERGROUND SERVICE STREET LIGHT

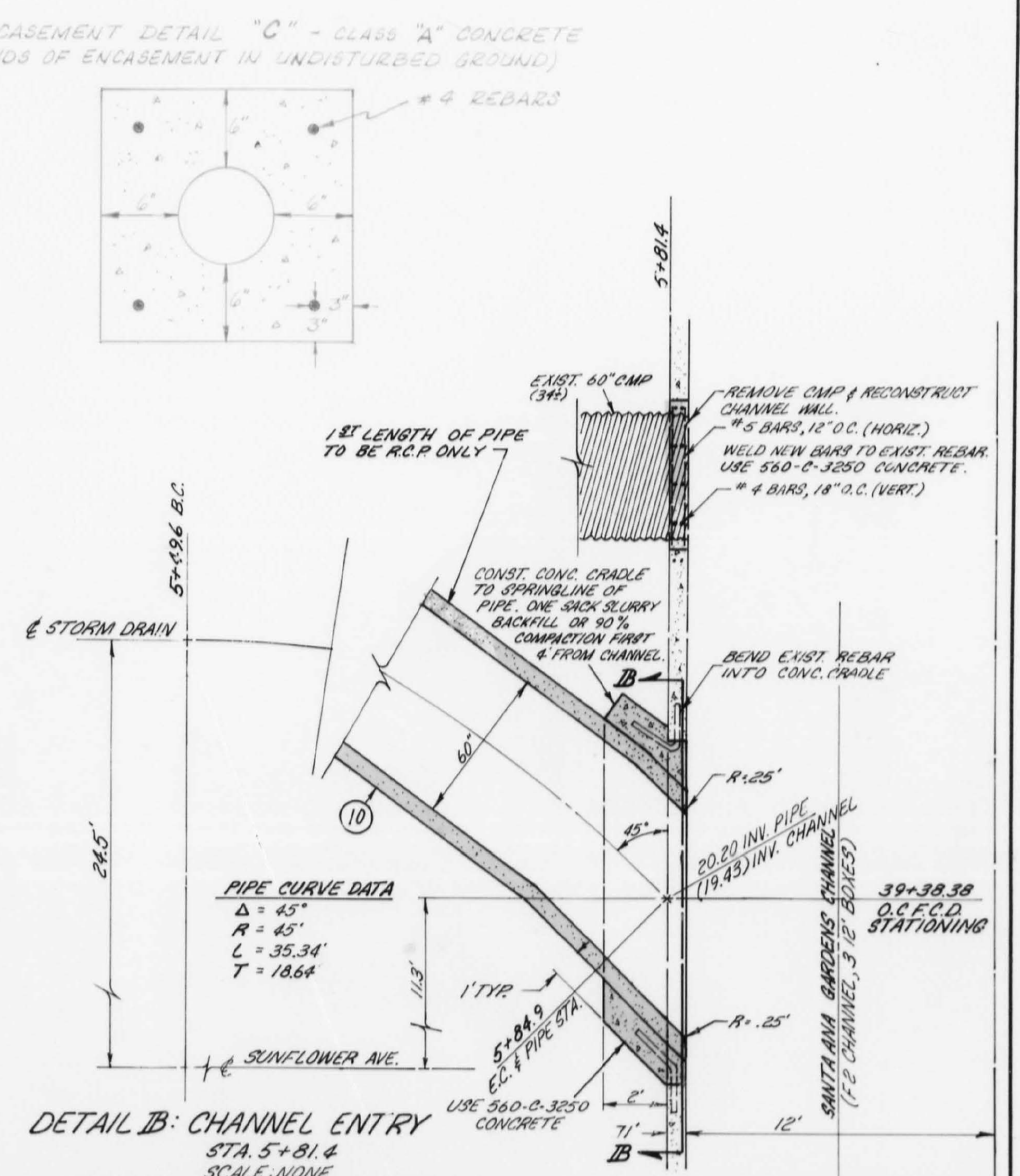
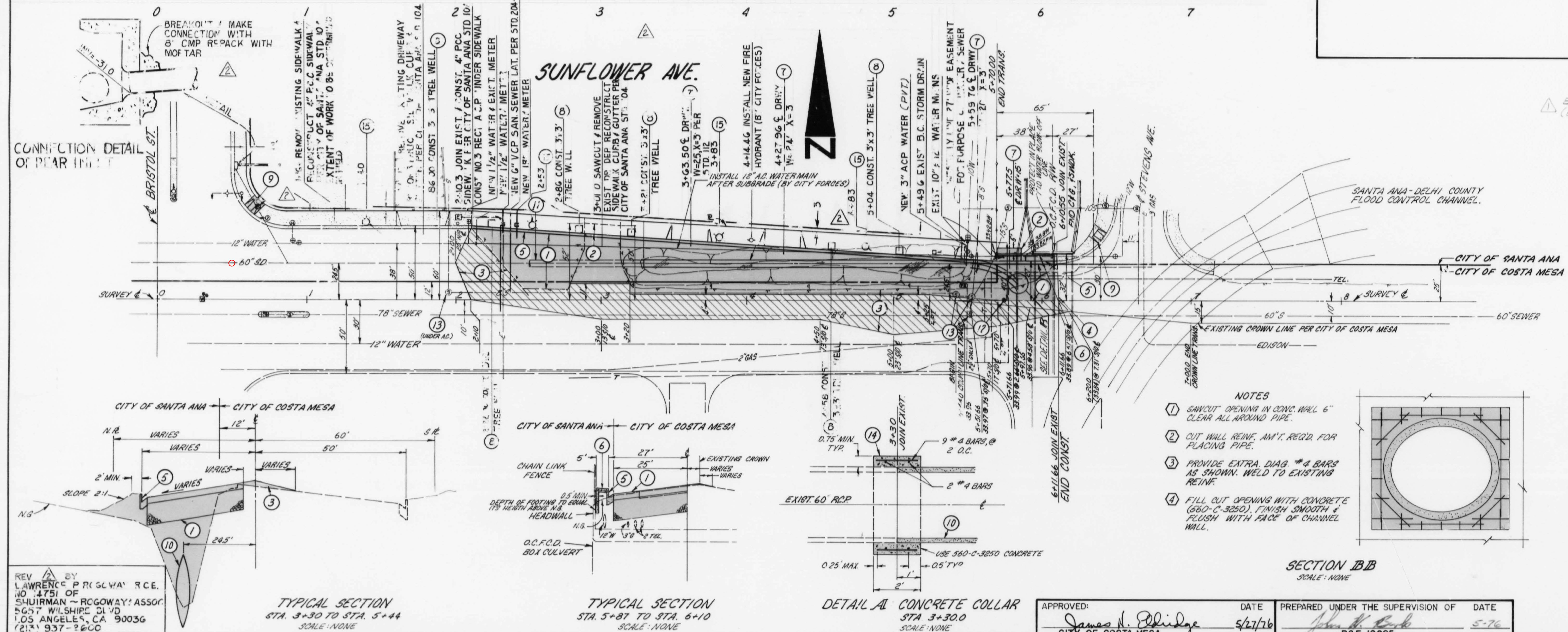
ORANGE COUNTY FLOOD CONTROL DISTRICT

ALL INSTALLATIONS AND WORK AFFECTING FLOOD CONTROL DISTRICT FACILITIES SHALL CONFORM WITH DISTRICT'S STANDARD SPECIFICATIONS AND WITH THE PROVISIONS OF THE CONSTRUCTION PERMIT GRANTED BY THE DISTRICT. CONTRACTOR SHALL MAINTAIN A COPY OF SAID PERMIT AND STAMPED PLANS ON THE JOB SITE. USE OF DISTRICT PROPERTY AND CONFORMANCE WITH THE ABOVE SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY DISTRICT'S DULY ASSIGNED INSPECTOR.

DISTRICT INSPECTOR SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF ANY WORK IN ACCORDANCE WITH PERMIT PROVISIONS.



Q10 = 118.09 cfs
V10 = 9.09 fps
WSPG - esun10up.out



REVISED BY LAWRENCE P. RIGGVA' R.C.E. NO. 1751 OF SQUIRMAN - RIGGWAY ASSOC. 5657 WILSHIRE BLVD LOS ANGELES, CA 90036 (213) 937-2600								SECTION 10B SCALE: NONE		
TYPICAL SECTION STA. 5+50 TO STA. 5+44 SCALE: NONE		TYPICAL SECTION STA. 5+0 TO STA. 6+10 SCALE: NONE		DETAIL A CONCRETE COLLAR STA. 5+50.0 SCALE: NONE		APPROVED: James H. Bridges CITY OF COSTA MESA		DATE 5/21/76	PREPARED UNDER THE SUPERVISION OF R.C.E. 10605 DATE 5-76	
FILE NO. 1 86 - 14		REVISIONS				REFERENCES				SCALE: PLAN: 1\"/>
NUMBER		DATE	INITIALS	DESCRIPTION	APPROVED	REF. PLANS: 1-83-12, 1-107-1, 47-24, 79-52, W-55				DATE
(1)		4/1/76	J.M.	AS BUILT CONSTRUCTION	D.K. 8-71	BM #103 (LEV. 34.39 CHIS. TO T.O. PC OF NW CURB RETURN, BRISTOL & BARRY)				4-76
(2)		4/1/76	J.M.	ADDED LOCATION OF DRIVEWAYS, TREE WELLS, STREET LIGHTS, SIDEWALK CURB & GUTTER. UTILITY FROM STA 1+16 TO STA 5+70	J.B.					4-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76
										5-76

STREET & STORM DRAIN IMPROVEMENT
SUNFLOWER AVENUE
BRISTOL ST. TO 650' EAST OF BRISTOL ST.
DEPARTMENT OF PUBLIC WORKS
CITY OF SANTA ANA
SHEET NO. 1 OF 1
W.O. # 48791 & 73012

Q10 = 61.4 cfs
V10 = 4.89 fps
WSPG - eplaz10up.out

Existing Condition Os with Recommended Upgrade

Existing Condition Qs with Recommended Upgrade

WSE:

Existing Condition Qs with Recommended Upgrade

Existing Condition Qs with Recommended Upgrade
18" RCP (SUFFICIENT)

GENERAL NOTES

1. ALL WORK SHOWN HEREON SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF THE STD. SPECIFICATIONS OF THE CITY OF SANTA ANA.
2. ALL CATCH BASIN TYPE "C" HEREON SHALL BE PER STD. NO. 303A.
3. PROFILE STATIONING IS ALONG E.

PLAN SCALE: 1"=40

R/W & CURVE DATA

Q10=1.97 cfs

Q10 at SH
= 2.0 cfs

MIF
19 MAY 1972

VA 71-4

TOUPS ENGINEERING, INC.
CONSULTING CIVIL ENGINEERS - 1801 N. COLLEGE AVE., SANTA ANA CALIF. 714-541-4431

PLAZA DRIVE-STORM DRAIN
SUNFLOWER AVENUE TO MACARTHUR BLVD.

DEPARTMENT OF PUBLIC WORKS
CITY OF SANTA ANA

SHEET NO. 3 OF 3

PREPARED UNDER THE SUPERVISION OF		6-28-71
<i>Paul N. Byrnes</i> PAUL N. BYRNES		KCE 20874
DESIGNED	P.N.D.	
DRAWN	D.M.	5-4-71
CHECKED	R.N. OS	
R/W APPROVED		
RECOMMENDED	QM	8-2-71
APPROVED	<i>John E. Starnes</i>	
ASSISTANT DIRECTOR, PUBLIC WORKS DEPT. OF IND.		8-3-71

[illegible]

FILE NO.

47-12

PLAZA DRIVE: SUNFLOWER AVE - MACARTHUR BLVD
STEAM DRAIN
VA: 71-4 8/71

41-47-12

VA: 71-4

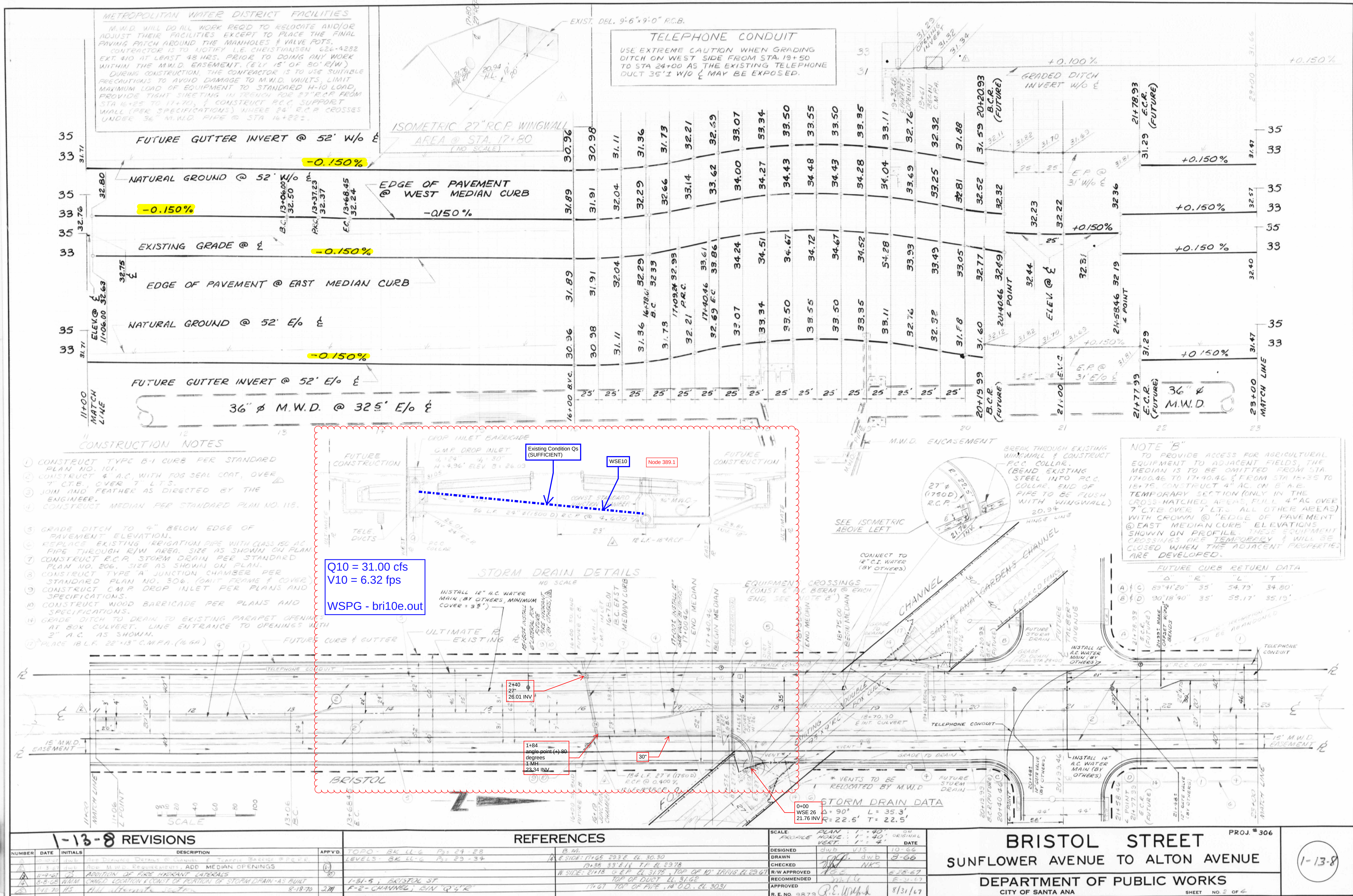
8/71

3074

47-12

1-13-8

20F4



Q10 = 108.4 cfs
V10 = 5.1 fps

WSPG - mac10e.out

Node 388.2

WSE10

Existing Condition Qs
63" RCP (SUFFICIENT)

Node 388.1

SO 0.1
0+00
22.04N
HGL - 2

JX
221.91
22.48INV
13 cfs

SH
75.8 cfs

GENERAL NOTES

1. CONSTRUCT SHADED PORTION ONLY.
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH CITY OF SANTA ANA STANDARDS & SPECIFICATIONS.
3. STATIONING IS ALONG SURVEY CENTERLINE.
4. UTILITIES SHOWN ON THESE PLANS ARE CORRECT AND ACCURATE TO THE EXTENT OF AVAILABLE RECORDS AND KNOWLEDGE. THE CONTRACTOR, HOWEVER, IS REQUIRED TO TAKE STEPS TO ASCERTAIN THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO DOING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE.

CONSTRUCTION NOTES

1. CONSTRUCT STORM DRAIN, SIZE #D" AS SHOWN.
2. CONSTRUCT TYPE "C" CATCH BASIN PER STANDARD PLANS NOS. 303A, 305A & 305B, MODIFIED AS SHOWN PER DETAIL THIS SHEET.
3. CONSTRUCT TYPE "B" JUNCTION CHAMBER PER STANDARD PLANS NOS. 307 & 309.
4. PLACE CONNECTOR PIPE, SIZE # "D" AS SHOWN.
5. CONSTRUCT 217' L.F. 14" ACP (JOHNS-MANVILLE CLASS 2400 NON-PRESSURE OR APPROVED EQUAL) IRRIGATION LINE.

PIPE CURVE DATA
 $\Delta = 17^\circ 23' 52''$
 $R = 591'$
 $L = 179.45'$
 $T = 90.42'$

SECTION A-A
SCALE: 1" = 4'

MACARTHUR BOULEVARD

DETAIL JUNCTION CHAMBER
STA. 46+83.74
SCALE: 1" = 5'

CATCH BASIN CURB ARMOR DETAIL
NO SCALE

DETAIL JUNCTION CHAMBER
STA. 51+30.00
SCALE: 1" = 5'

CATCH BASIN AND
CONNECTOR PIPE DETAILS
SCALE: 1" = 10'

FILE NO.

REVISIONS

NUMBER	DATE	INITIALS	DESCRIPTION	APP'D.
1	9-15-72	771	AS BUILT	

REFERENCES

Topo.: Book LL-12, Pg. 133-138
Levels: Book LL-12, Pg. 139-144
Book LL-13, Pg. 59-62
Bench Mark: QCS Tag So. End East Hdwl. Drain. Chnl.
Crossing Bristol Elev. 33.01
T.B.M.: Mon. & Int. Bristol & MacArthur Elev. 31.57
Dray File: 1-13A-8

SCALE: PROFILE: (HORIZ. 1" = 40') PLAN: 1" = 40' (VERT. 1" = 4')	DATE
DESIGNED B.S. MI	10-71
DRAWN M.H.	10-71
CHECKED J.V. RS	
R/W APPROVED J.V.	2-7-72
RECOMMENDED J.V.	2-72
APPROVED R.C.E. NO. 9879 Ronald E. Winters	2/10/72

PROJECT NO.
**STORM DRAIN
MACARTHUR BLVD.
PLAZA DRIVE TO BRISTOL STREET**
DEPARTMENT OF PUBLIC WORKS
CITY OF SANTA ANA
SHEET NO. 3 OF 4
N.O. 48435