STORM DRAIN IMPROVEMENT PLANS
TR. 32820

FOR

VAN DAELE DEVELOPMENT CORPORATION

GENERAL NOTES

1. QUANTITIES SHOWN ARE FOR INFORMATION ONLY AND THE CITY OF RIVERSIDE IS NOT RESPONSIBLE FOR THEIR ACCURACY.

2. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OR RIVERSIDE DEPT. OF PUBLIC WORKS, STANDARD DRAWINGS, ITS SUPPLEMENTAL NOTES AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION.

3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAR THE RIGHT OF WAY IN ACCORDANCE WITH THE PROVISIONS OF LAW AS IT AFFECTS EACH UTILITY INCLUDING IRRIGATION LINES, AND APPURTENANCES AND AT NO COST TO THE CITY.

4. NOTICE TO CONTRACTOR: THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OT OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

5. THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AND ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE CITY.

6. THE CONTRACTOR SHALL CALL IN A LOCATIONS REQUEST TO UNDERGROUND SERVICE ALERT (USA), PHONE NO. (800) 227-2600, TWO WORKING DAYS BEFORE DIGGING. NO CONSTRUCTION PERMIT WILL BE ISSUED BY THE PUBLIC WORKS DEPARTMENT INVOLVING EXCAVATION FOR UNDERGROUND FACILITIES UNLESS THE APPLICANT HAS BEEN PROVIDED AND INQUIRY IDENTIFICATION NUMBER BY U.S.A.

7. THE DEVELOPER SHALL BE RESPONSIBLE FOR PRESERVING OR RE-ESTABLISHING AND REFERENCING SURVEY MONUMENTS DESTROYED, DISTURBED OR BURIED AS A RESULT OF CONSTRUCTION SHOWN HEREON.

8. ALL FLAGGED ELEVATIONS SHALL BE STAKED IN THE FIELD BY THE PRIVATE ENGINEER.

9. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

10. THE CONCRETE COVER ON THE INSIDE OF ALL CONCRETE PIPE MUST BE INCREASED TO PROVIDE A MIN. OF 1.5" OVER THE REINFORCING WHEN THE DESIGN VELOCITIES EXCEED 20 FPS THE CONCRETE DESIGN STRENGTH IN THESE REACHES SHALL BE: FC = 5000 PSI. FOR VELOCITIES EXCEEDING 20 FPS. AND FC = 6000 PSI. FOR VELOCITIES EXCEEDING 30 FPS.

11. TRENCH BACKFILL TO BE PER CITY OF RIVERSIDE STD. NO. 453.

12. THE CONTRACTOR SHALL ADJUST MANHOLES TO FINAL GRADE AFTER PAVING IS COMPLETE.

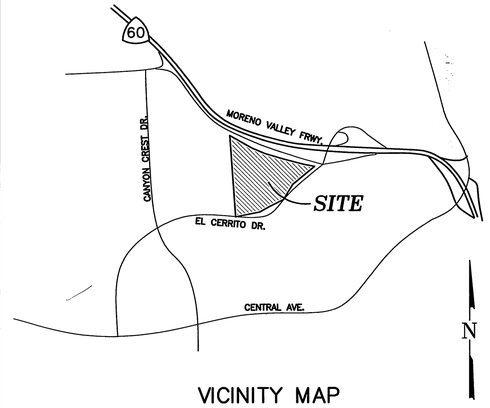
13. CONTRACTOR SHALL VERIFY EXISTING STORM DRAIN ELEVATIONS PRIOR TO CONSTRUCTION.

14. NO PERSON SHALL PERFORM ANY CONSTRUCTION ACTIVITY OR INSTALL ANY OBJECTS WITHIN THE PUBLIC RIGHT OF WAY OR EASEMENTS OF THE CITY OF RIVERSIDE WITHOUT A VALID CONSTRUCTION PERMIT OR A STREET OPENING PERMIT OR AN ENCROACHMENT PERMIT ISSUED BY THE CITY'S PUBLIC WORKS DEPARTMENT.

15. ON ALL AREAS WITHIN THE PUBLIC RIGHT OF WAY WHERE FILL IS ONE FOOT OR GREATER, A LETTER WILL BE REQUIRED FROM THE SOIL ENGINEER, CERTIFYING THE COMPACTION OF THE FILL BELOW SUBGRADE, PRIOR TO ISSUANCE OF THE CONSTRUCTION PERMIT/CUT SHEETS.

16. ANY TRAFFIC CONTROL STRIPING OBLITERATED AND/OR BADLY WORN DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR WITHIN 5 DAYS AFTER NOTIFICATION FROM THE CITY INSPECTORS.

INDEX MAP



VICINITY MAP

NO SCALE

OWNER	JOB ADDRESS
VAN DAELE DEVELOPMENT CORPORATION 2900 ADAMS STREET STE C-25 RIVERSIDE, CA 92504 (951)354-2121	NORTHWEST CORNER OF SYCAMORE CANYON BLVD. AND EL CERRITO DRIVE
SOIL ENGINEER	**CIVIL ENGINEER**
JOHN R. BYERLY INCORPORATED 2257 S. LILAC AVE. BLOOMINGTON, CA 92316-2907 (909) 877-1324 SOIL REPORT NO 7016	THIELMANN ENGINEERS 221 S. GLASSELL STREET ORANGE, CA 92866 (714) 744-9700 FAX 744-9312

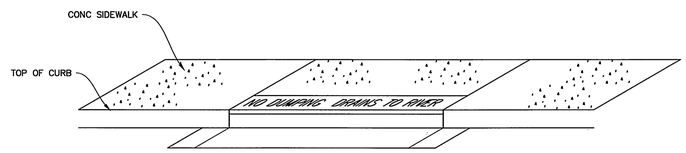
ASSESSOR'S PARCEL No'S

253-190-002, -006, -008, -011, 253-240-025, 051-978-745

CONSTRUCTION NOTES

(1)	CONSTRUCT 48" RCP 1800-D	43	LF
(3)	CONSTRUCT 30" RCP 1800-D	992	LF
(4)	CONSTRUCT 24" RCP 2000-D	255	LF
(5)	CONSTRUCT 18" RCP 2000-D	372	LF
(6)	CONSTRUCT CATCH BASIN PER STD PLAN 405	6	EA
(7)	CONSTRUCT JUNCTION STRUCTURE C PER STD DWG 422	2	EA
(8)	CONSTRUCT CONCRETE COLLAR PER STD DWG 424	2	EA
(9)	CONSTRUCT JUNCTION BOX PER DETAIL D-9 SHEET 4	2	EA
(10)	CONSTRUCT MANHOLE EZ PER STD. DWG. 431	1	EA
(11)	CONSTRUCT CLEANOUT BOX PER STD. DWG. 425	3	EA
(12)	CONSTRUCT 8" PVC SDR 35 LOW FLOW DRAIN	504	LF
(13)	CONSTRUCT PARKWAY DRAIN PER APWA STD 151-1	5	EA
(14)	PLACE ROCK RIP RAP APRON 25'x20'x15', 1/4 TON CALTRANS SPEC, METHOD A, 36" DEEP	44	CY
(15)	INSTALL VELOCITY RINGS PER APWA STD PLAN 383-1, H=3"	4	EA
(16)	CONSTRUCT JUNCTION STRUCTURE B PER STD DWG 421	1	EA
(17)	CONSTRUCT CATCH BASIN PER RCFC&WCD STD CB110,W=7',H=18",V=7.64'	1	EA
(18)	CONSTRUCT DOWNDRAIN TO PIPE TRANSITION PER DETAIL 18 SHEET 4	1	EA
(19)	REMOVE RCP TO CONNECTION POINT	350	LF
(20)	PLACE ROCK RIP RAP APRON 20'x20'x10', 1/4 TON GROUTED, CALTRANS SPEC, METHOD A, 36" DEEP	33	CY
(21)	REMOVE EXIST HEADWALL	2	EA
(23)	CONSTRUCT MANHOLE AX PER STD. DWG. 430	1	EA
(24)	CONSTRUCT HEADWALL PER CALTRANS STD. D89	2	EA

STD DWG REFERS TO CITY OF RIVERSIDE STANDARD DRAWING



NOTES

A STENCILS SHALL HAVE 2" LETTERS AS FOLLOWS:
" NO DUMPING DRAINS TO RIVER"

B PLACE BOTH STENCILS CENTERED ON THE CATCH BASIN OPENING AND WITHIN THE TOP OF CURB.

C SPRAY BOTH STENCILS WITH WHITE PAINT.

D REMOVE STENCILS WHEN PAINT IS DRY.

UNDERGROUND SERVICE ALERT
CALL TOLL FREE
1-800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

CITY OF RIVERSIDE
PUBLIC UTILITIES DEPARTMENT-ELECTRIC
OVERHEAD & UNDERGROUND
REVIEWED BY: 6.7.06 DATE

CITY OF RIVERSIDE WATER
REVIEWED BY: 6/7/06 DATE

BENCH MARK No. H8-J3 ELEV. 1088.225
LOCATION: PK NAIL AND CITY ENGINEER TAG IN THE CATCH BASIN WING AT THE NORTHEASTERLY CURB RETURN AT CANYON CREST DRIVE AND EL CERRITO DRIVE.

PW05-1069

THIELMANN ENGINEERS
221 S GLASSELL ST ORANGE, CA 92866
(714) 744-9700 FAX (714) 744-9312
CITY BUSINESS TAX CERTIFICATE NO.122545 EXPIRES 11-28-06

DATE	BY	MARK	REVISIONS	APPR.	DATE

ENGINEER
DESIGNED BY JT DRAWN BY JS CHECKED BY GT

REGISTERED PROFESSIONAL ENGINEER JENS THIELMANN No. 25742 Exp. 12-31-07 CIVIL STATE OF CALIFORNIA

PREPARED BY JENS THIELMANN DATE 6-6-06
R.C.E. No. 25742 EXP. DATE 12/31/07

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

APPROVED BY	DATE	BY
PRINCIPAL ENGINEER	6/26/06	RTZ

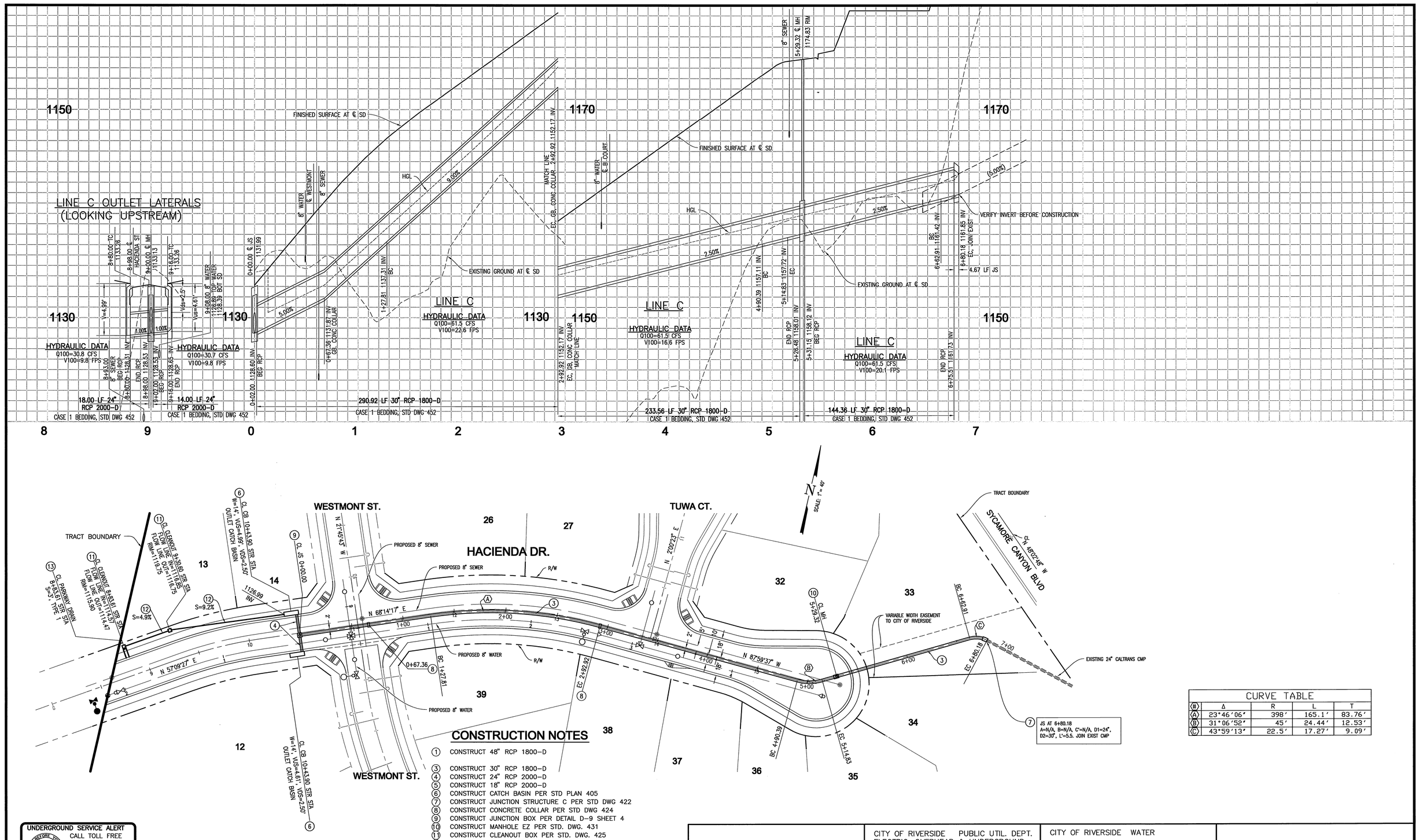
APPROVED BY
CITY ENGINEER
DATE 6/26/06

STORM DRAIN PLAN
TRACT 32820
STORM DRAIN IMPROVEMENT PLANS
TITLE SHEET

ACCOUNT NO
D-793

SHEET 1 OF 4

INDEXED 6-26-06



UNDERGROUND SERVICE ALERT
CALL TOLL FREE
1-800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

CITY OF RIVERSIDE PUBLIC UTIL. DEPT.
ELECTRIC, OVERHEAD & UNDERGROUND
APPROVED BY: DATE 6.7.06

CITY OF RIVERSIDE WATER
REVIEWED BY: DATE 6/7/06

PW05-1069

THIELMANN ENGINEERS
221 S GLASSELL ST ORANGE, CA 92866
(714) 744-9700 FAX (714) 744-9312

DATE	BY	MARK	REVISIONS	APPR.	DATE

ENGINEER
DESIGNED BY JT DRAWN BY GT CHECKED BY JT

REGISTERED PROFESSIONAL ENGINEER JENS THIELMANN No. 25742 Exp. 12-31-07 CIVIL STATE OF CALIFORNIA

PREPARED BY DATE 6-6-06
JENS THIELMANN
R.C.E. No. 25742 EXP. DATE 12/31/07

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

APPROVED BY	DATE	BY
PRINCIPAL ENGINEER	6/16/06	

APPROVED BY
CITY ENGINEER
DATE 6/22/06

STORM DRAIN PLANS
TRACT 32820
PLAN AND PLOTTING
LINE C

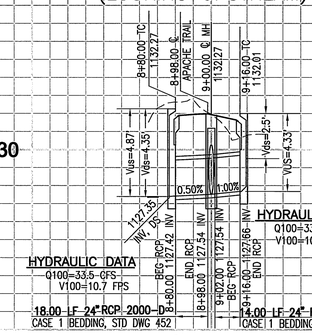
HORIZONTAL SCALE: 1"=40' VERTICAL SCALE: 1"=4'

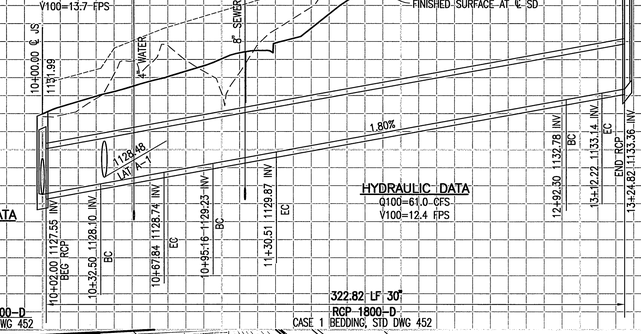
ACCOUNT NO
D-793
SHEET 2 OF 4

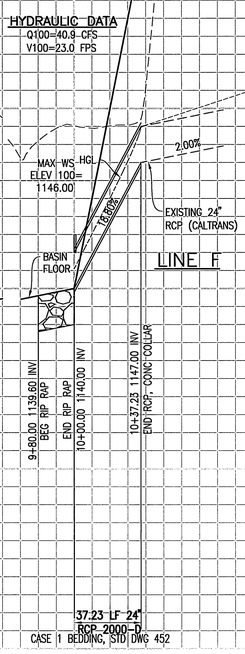
RIZ

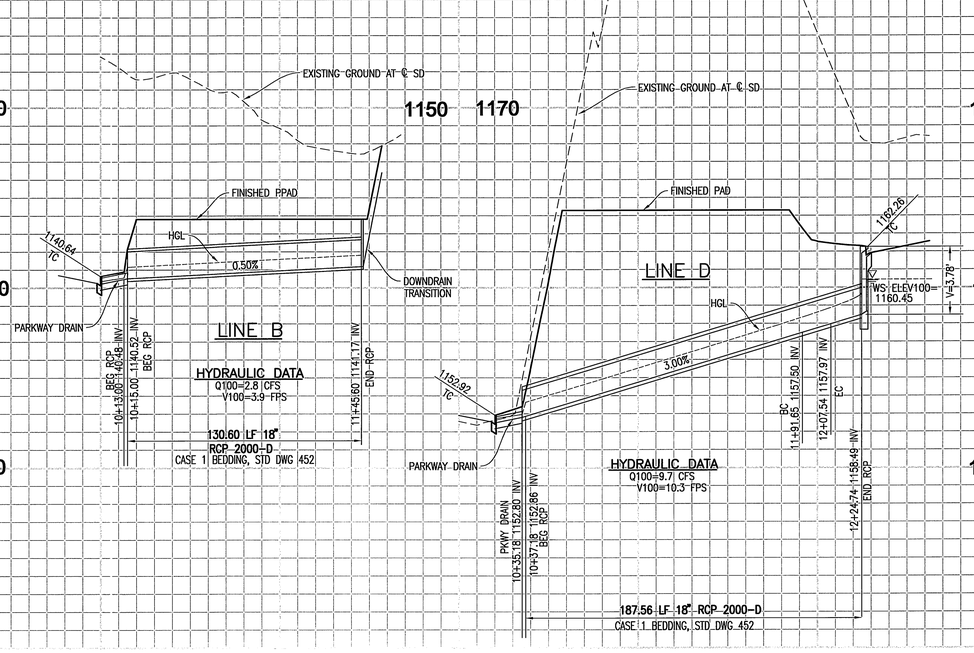
INDEXED 6-26-06 GH

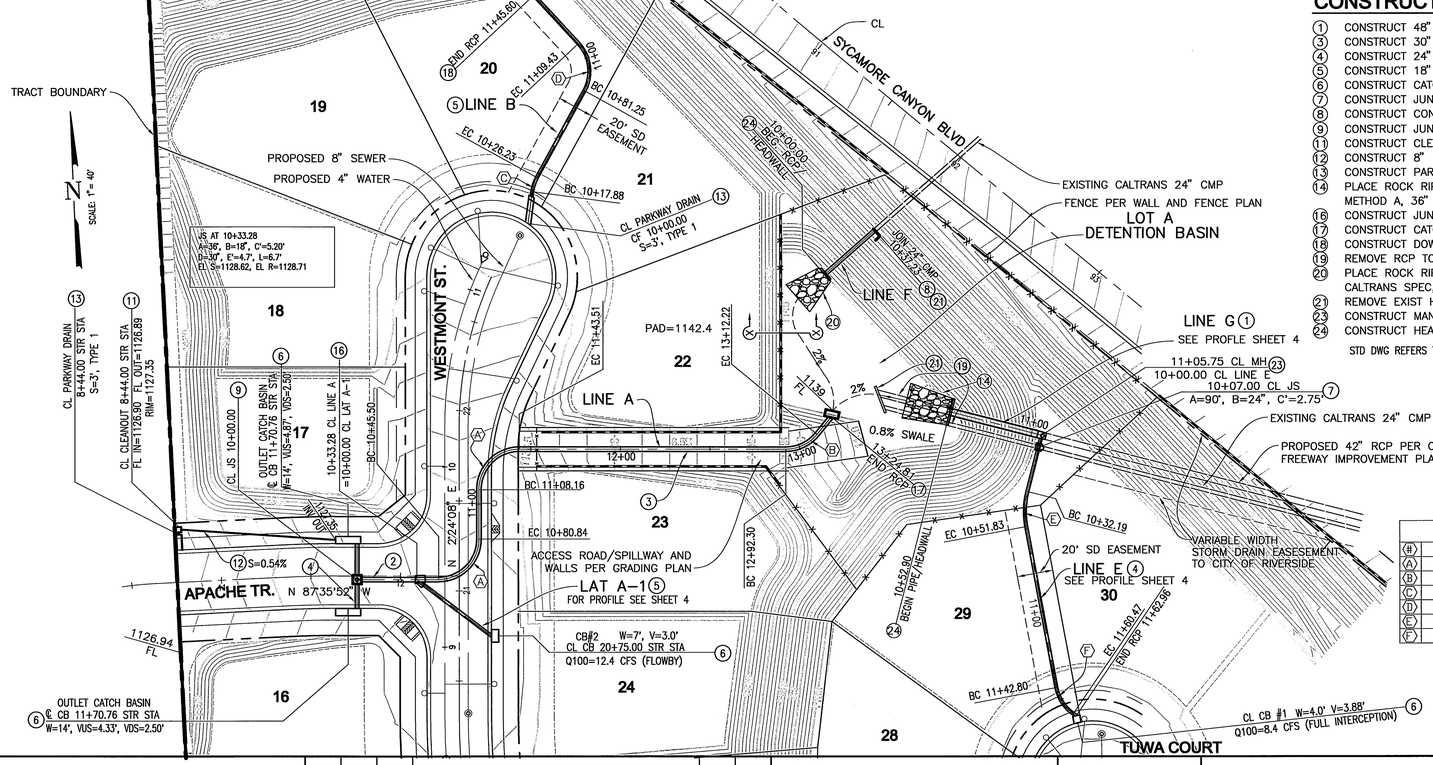
LINE A OUTLET LATERALS (LOOKING UPSTREAM)











CONSTRUCTION NOTES

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8. CONSTRUCT CONCRETE COLLAR PER STD DWG 424
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12. CONSTRUCT 8" PVC SDR 35 LOW FLOW DRAIN
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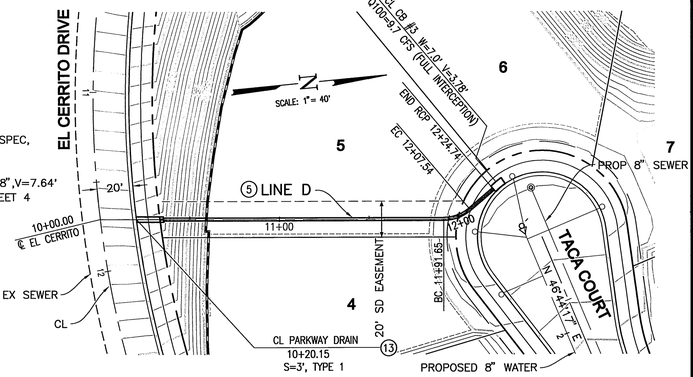
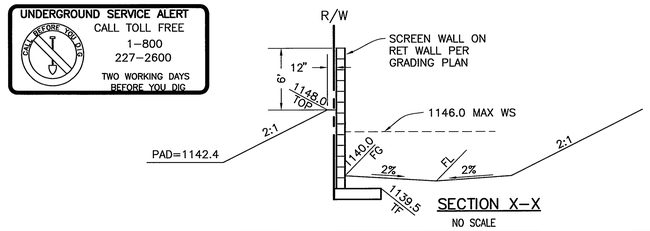
21. REMOVE EXIST HEADWALL
23. CONSTRUCT MANHOLE AX PER STD. DWG. 430
24. CONSTRUCT HEADWALL PER CALTRANS STD. D89

STD DWG REFERS TO CITY OF RIVERSIDE STANDARD DRAWING





(#)	Δ	R	L	T
(A)	90°00'00"	22.5'	35.34'	22.5'
(B)	50°42'52"	22.5'	19.92'	10.66'
(C)	21°15'51"	22.5'	8.35'	4.22'
(D)	71°45'15"	22.5'	28.18'	16.27'
(E)	24°59'43"	45'	19.63'	9.97'
(F)	45°00'00"	22.5'	17.67'	9.32'

CURVE TABLE

UNDERGROUND SERVICE ALERT
CALL TOLL FREE 1-800 227-2600
TWO WORKING DAYS BEFORE YOU DIG

CITY OF RIVERSIDE PUBLIC UTIL. DEPT. ELECTRIC, OVERHEAD & UNDERGROUND
APPROVED BY: _____ DATE 6.7.06

CITY OF RIVERSIDE WATER
REVIEWED BY: MW McLeod DATE 6/7/06

PW05-1069

THIELMANN ENGINEERS
221 S GLASSELL ST ORANGE, CA 92866
(714) 744-9700 FAX (714) 744-9312

DATE	BY	MARK	APPR.	DATE
ENGINEER		REVISIONS		

DESIGNED BY JT DRAWN BY GT CHECKED BY JT

REGISTERED PROFESSIONAL ENGINEER JENS THIELMANN No. 25742 Exp. 12-31-07 CIVIL STATE OF CALIFORNIA

PREPARED BY: Jens Thielmann DATE 6-6-06
JENS THIELMANN
R.C.E. No. 25742 EXP. DATE 12/31/07

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

APPROVED BY	DATE	BY
PRINCIPAL ENGINEER	6/16/06	RH

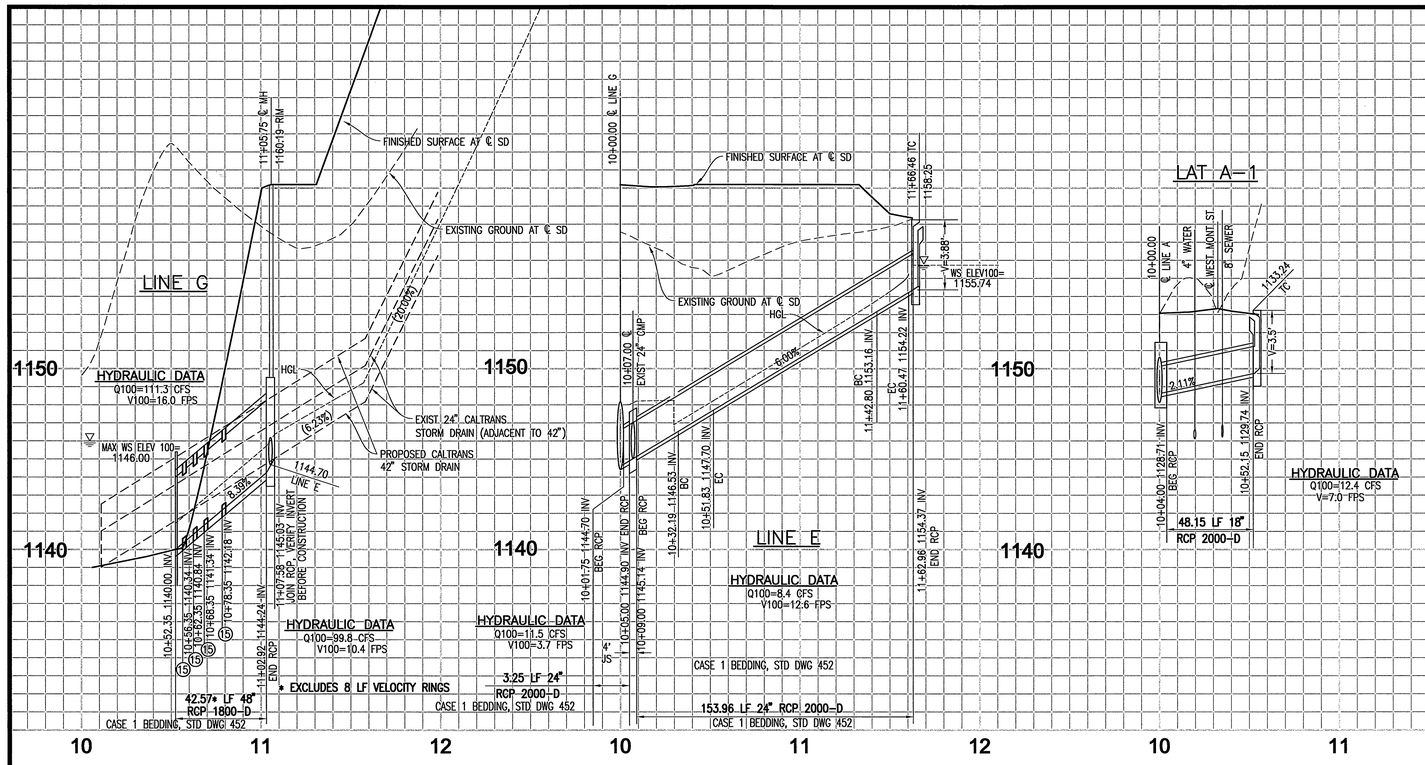
APPROVED BY: Glen Boyd
CITY ENGINEER
DATE 6/22/06

STORM DRAIN PLANS
TRACT 32820
PLAN AND PROFILE
LINES A, B D, E, F,G
HORIZONTAL SCALE: 1"=40' VERTICAL SCALE: 1"=4'

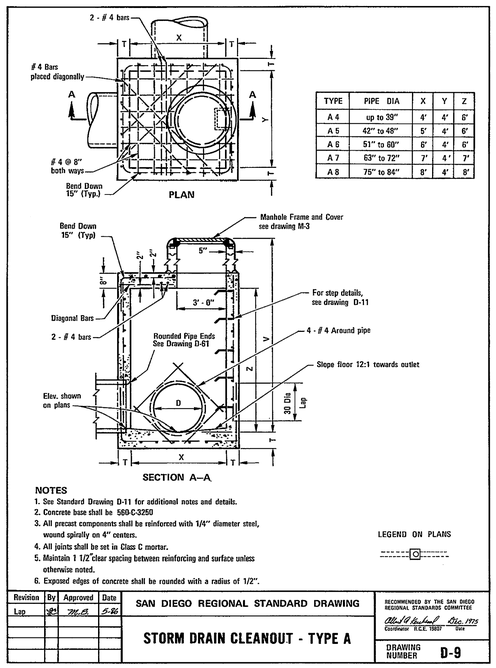
ACCOUNT NO D-793
SHEET 3 OF 4

RVZ

INDEXED 6-26-06 JH



DETAIL D-9



TYPE	PIPE DIA	X	Y	Z
A 4	up to 39"	4'	4'	6'
A 5	42" to 48"	5'	4'	6'
A 6	51" to 60"	6'	4'	6'
A 7	63" to 72"	7'	4'	7'
A 8	75" to 84"	8'	4'	8'

NOTES
1. See Standard Drawing D-11 for additional notes and details.
2. Concrete base shall be 560-C-3250
3. All precast components shall be reinforced with 1/4" diameter steel, wound spirally on 4" centers.
4. All joints shall be set in Class C mortar.
5. Maintain 1 1/2" clear spacing between reinforcing and surface unless otherwise noted.
6. Exposed edges of concrete shall be rounded with a radius of 1/2".

LEGEND ON PLANS

Revision	By	Approved	Date
Lap	JT	[illegible]	5-96

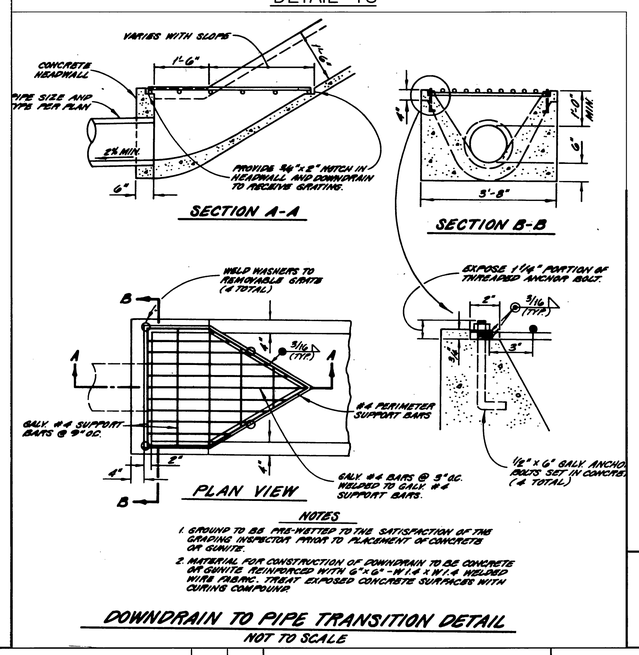
SAN DIEGO REGIONAL STANDARD DRAWING

STORM DRAIN CLEANOUT - TYPE A

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE
Chairman R.C.E. 19807 Date 1775

DRAWING NUMBER D-9

DETAIL 18



NOTES
1. GROUND TO BE PRE-WETTED TO THE SATISFACTION OF THE GRADING INSPECTOR PRIOR TO PLACEMENT OF CONCRETE OR GUNITE.
2. MATERIAL FOR CONSTRUCTION OF DOWNDRAIN TO BE CONCRETE OR GUNITE REINFORCED WITH 6"x 6" - W 1.4 x W1.4 WELDED WIRE FABRIC. TREAT EXPOSED CONCRETE SURFACES WITH CURING COMPOUND.

DOWNDRAIN TO PIPE TRANSITION DETAIL
NOT TO SCALE

CONSTRUCTION NOTES

(15) INSTALL VELOCITY RINGS PER APWA STD PLAN 383-1, H=3"

CITY OF RIVERSIDE PUBLIC UTIL. DEPT. ELECTRIC, OVERHEAD & UNDERGROUND
APPROVED BY: [signature] DATE 6.7.06

CITY OF RIVERSIDE WATER
REVIEWED BY: MW McLeod DATE 6/7/06

PW05-1069

THIELMANN ENGINEERS
221 S GLASSELL ST ORANGE, CA 92866
(714) 744-9700 FAX (714) 744-9312

DATE	BY	MARK	REVISIONS	APPR.	DATE

DESIGNED BY JT DRAWN BY GT CHECKED BY JT

REGISTERED PROFESSIONAL ENGINEER JENS THIELMANN No. 25742 Exp. 12-31-07 CIVIL STATE OF CALIFORNIA

PREPARED BY [signature] DATE 6-6-06
JENS THIELMANN
R.C.E. No. 25742 EXP. DATE 12/31/07

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

APPROVED BY	DATE	BY
PRINCIPAL ENGINEER	6/16/06	DH

APPROVED BY [signature] CITY ENGINEER
DATE 6/22/06

STORM DRAIN PLANS
TRACT 32820
PLAN AND PROFILE
PROFILES AND DETAILS
HORIZONTAL SCALE: 1"=40' VERTICAL SCALE: 1"=4'

ACCOUNT NO D-793

SHEET 4 OF 4

RVZ

INDEXED 6-26-06 JH