

GENERAL NOTES

- 1. NO PERSON SHALL PERFORM ANY CONSTRUCTION ACTIVITY NOR INSTALL ANY OBJECTS WITHIN THE PUBLIC RIGHT-OF-WAY OR EASEMENTS OF THE COUNTY OF RIVERSIDE WITHOUT A VALID CONSTRUCTION PERMIT, A STREET OPENING PERMIT OR AN ENCROACHMENT PERMIT ISSUED BY THE COUNTY'S PUBLIC WORKS DEPARTMENT.

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA SEWER IMPROVEMENT PLANS TRACT NO. 29741

WORK TO BE DONE

IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PLANS, THE CURRENT RIVERSIDE COUNTY DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS AND THE CURRENT AMERICAN PUBLIC WORKS ASSOCIATION (APWA) "GREEN BOOK" STANDARDS AND SPECIFICATIONS.

CONSTRUCTION NOTES AND QUANTITY TABLE

Table with 4 columns: ITEM, DESCRIPTION, AMOUNT, UNIT. Includes items like 'INSTALL 8" SDR 35 PVC SEWER MAIN', 'CONSTRUCT SANITARY SEWER MANHOLE', etc.

ABBREVIATIONS

- AB - ANCHOR BLOCK
EOP - EDGE OF PAVEMENT
FLG - FLANGED
GV - GATE VALVE
T.B. - THRUST BLOCK
W.L. - WATERLINE
D.I. - DUCTILE IRON
T.P. - TOP OF PIPE
B.P. - BOTTOM OF PIPE
T.O.R. - TOP OF RIM
PE - PAD ELEVATION
PC - POINT OF CURVE
PT - POINT OF TANGENT
PCC - POINT OF COMPOUND CURVE

LEGEND

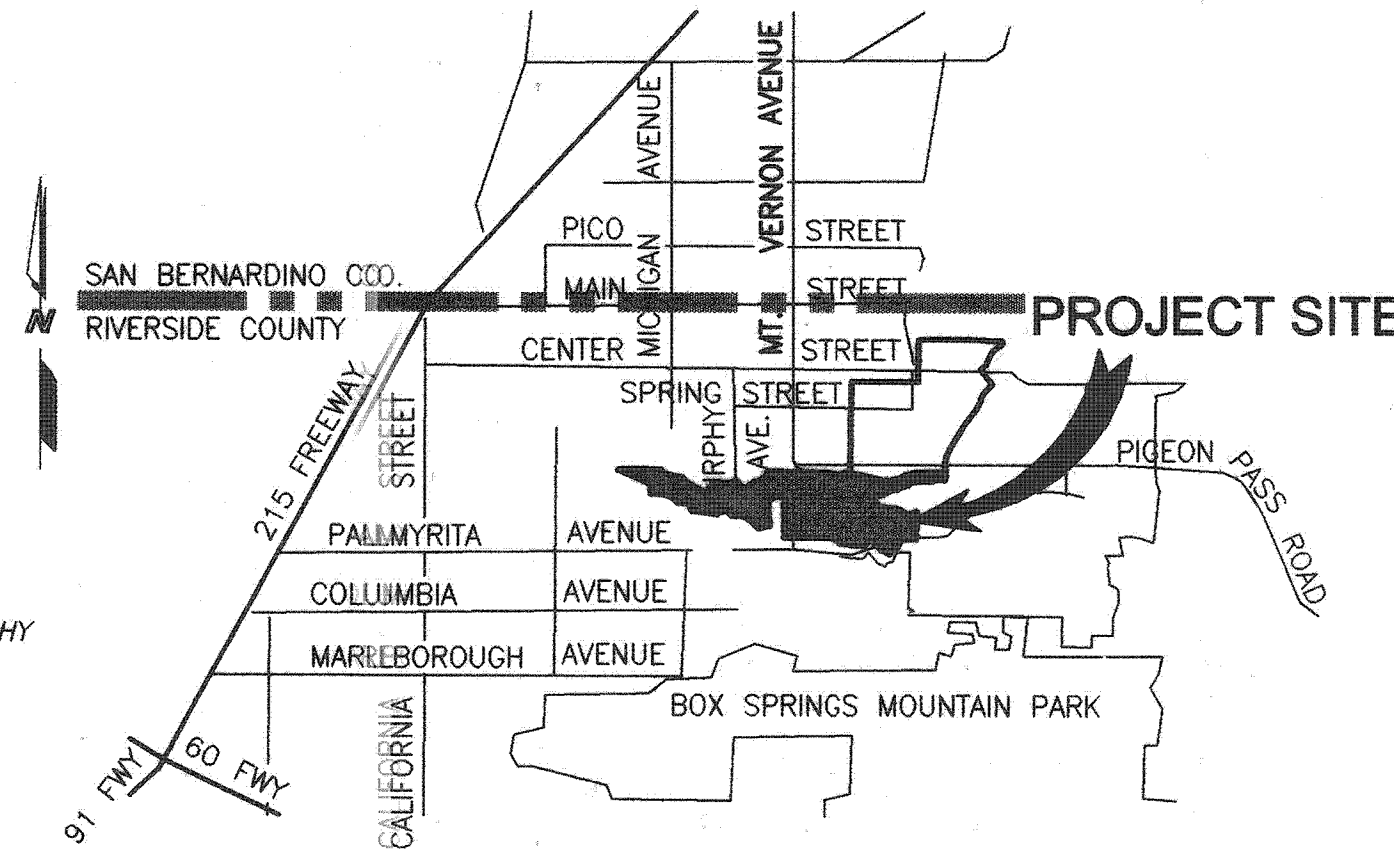
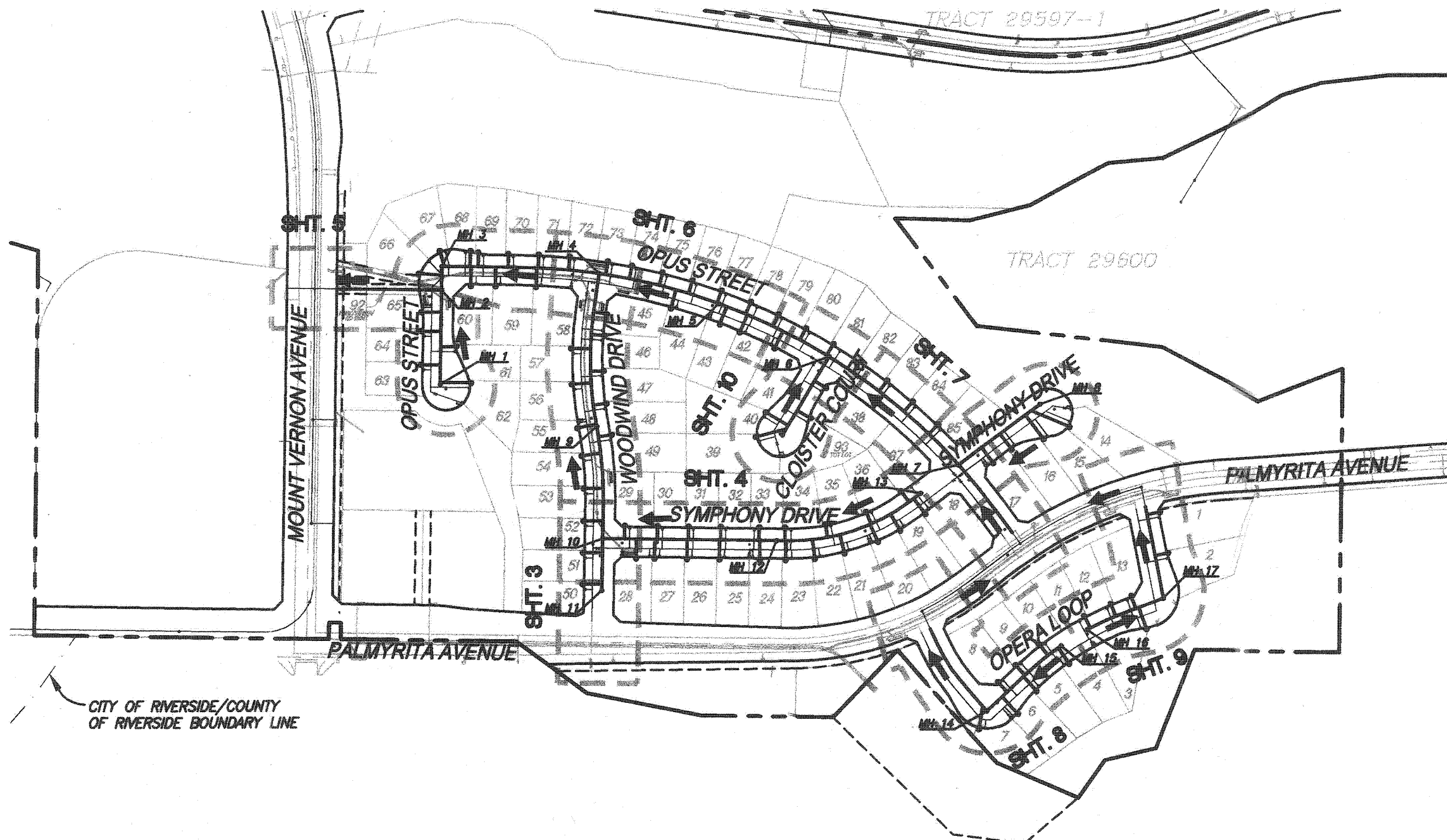
- SEWER LATERAL WITH CLEANOUT
WATER LATERAL
FIRE HYDRANT
EXISTING SS LINE
EXISTING SS MANHOLE
PROPOSED SS LINE
PROPOSED SS MANHOLE
TRACT BOUNDARY

OWNER / PERMITTEE

SMAR VENTURES
2710 LOKER AVENUE WEST, SUITE 350
CARLSBAD, CA 92008
(760) 918-6797

BY:

ROBERT J. TURI
VICE PRESIDENT
DATE



SOURCE OF TOPOGRAPHY

TOPOGRAPHY SHOWN ON THESE PLANS WAS GENERATED BY PHOTOGRAMMETRIC METHODS FROM INFORMATION GATHERED IN JANUARY OF 2006, BY INLAND AERIAL SURVEYS, INC. TOPOGRAPHY SHOWN HEREON CONFORMS TO NATIONAL MAP ACCURACY STANDARDS.

LEGAL DESCRIPTION

BEING A DIVISION OF PORTIONS OF SECTIONS 8, 9, AND 10, TOWNSHIP 2S, RANGE 4W, SAN BERNARDINO MERIDIAN.

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONAL CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS. IN ASSUMING RESPONSIBLE CHARGE I ACCEPT FULL RESPONSIBILITY FOR THE ENTIRE DESIGN OF THIS PROJECT AS SHOWN ON THESE PLANS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE COUNTY OF RIVERSIDE, CITY OF RIVERSIDE, OR THEIR AGENTS IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR THE PROJECT DESIGN.

THE KEITH COMPANIES
277 RANCHEROS DRIVE, SUITE 300
SAN MARCOS, CA 92069
P: (760) 891-3200
F: (760) 891-3201

KENT J. STEPAN R.C.E. 66133 DATE
EXPIRATION DATE: 06-30-08



Thomas Guide (2004); page. 646, E-7

VICINITY MAP

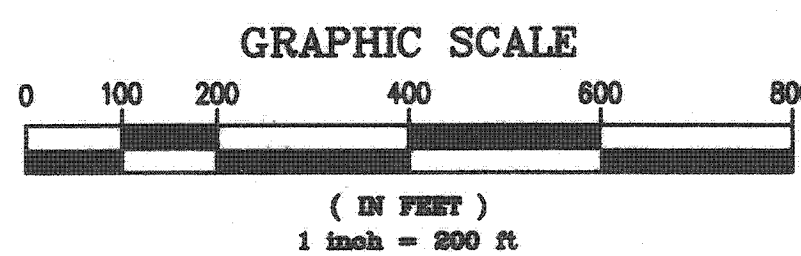
NOT TO SCALE
SECTION: 9, 10, 15, AND 16
TOWNSHIP: 2 SOUTH, RANGE: 4 WEST
SBM

SHEET INDEX

- TITLE AND INDEX MAP SHEET --- 1
CONSTRUCTION NOTES AND DETAILS --- 2
WOODWIND DRIVE --- 3
SYMPHONY DRIVE --- 4
OPUS STREET --- 5-7
OPERA LOOP --- 8-9
CLOISTER COURT --- 10

NOTE

CSA 152C SANITARY SERVICE IN THE HIGHGROVE COMMUNITY FOR SPRING MOUNTAIN RANCH PROJECT PROVIDED PER THE WASTEWATER TREATMENT AGREEMENT, OPERATION AND MAINTENANCE AGREEMENT AND PRETREATMENT PROGRAM AGREEMENT BETWEEN THE COUNTY OF RIVERSIDE AND THE CITY OF RIVERSIDE. REFERENCE AGENDA ITEM NO. 3.47 OF THE COUNTY OF RIVERSIDE ECONOMIC DEVELOPMENT AGENCY, DATED MAY 4, 2004.



SCHOOL DISTRICT

RIVERSIDE UNIFIED SCHOOL DISTRICT
909-788-7134

UTILITY CONTACTS

- WATER: RIVERSIDE HIGHLAND WATER COMPANY (909) 825-4128
SEWER: CITY OF RIVERSIDE (951) 826-5341
ELECTRIC: SOUTHERN CALIFORNIA EDISON COMPANY, BOB SIEGAL (909) 307-6770
GAS: SOUTHERN CALIFORNIA GAS COMPANY, HECTOR MARTINEZ (909) 335-7674
CABLE TV: ADELPHI COMMUNICATIONS, MIKE McMILLAN (909) 975-3402

ASSESSOR'S PARCEL NO.

- 255-200-009, 255-200-010, 257-100-012, 255-230-011, 255-210-012, 257-170-007, 257-180-008, 255-200-002, 255-200-028, 255-140-019, 255-200-014, 255-200-026, 255-200-029, 255-200-032, 257-100-011, 255-140-019, 255-120-011, 255-210-010, 257-180-009, 257-120-003, 255-200-017, 255-210-011, 255-200-013, 255-200-027

NOTICE TO CONTRACTOR

ACCORDING TO THE INFORMATION PROVIDED BY UNDERGROUND SERVICE ALERT (U.S.A.) DATED FEBRUARY 18, 1999, THE FOLLOWING ORGANIZATIONS ARE U.S.A. MEMBERS WITHIN THE PROJECT AREA:

- ADELPHI
PACIFIC BELL
RIVERSIDE HIGHLAND WATER COMPANY
D.W.R.
THE GAS COMPANY
SOUTHERN CALIFORNIA EDISON

THE EXISTENCE AND LOCATIONS OF ALL UNDERGROUND UTILITIES (UTILITY PIPES, STRUCTURES, ETC.) SHOWN ON THESE PLANS (MAIN LINES ONLY - NO SERVICE LATERALS) WERE ASCERTAINED BY A REVIEW OF RECORDS PROVIDED BY THESE MEMBERS AGENCIES AND ARE APPROXIMATE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN.

THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ALL UTILITIES SHOWN ON THESE PLANS AND/OR ANY OTHER UNDERGROUND UTILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

UNAUTHORIZED CHANGES & USES

CAUTION: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

UNDERGROUND STRUCTURES

ALL UNDERGROUND UTILITIES OR STRUCTURES REPORTED BY THE OWNER OR OTHERS AND THOSE SHOWN ON THE RECORD EXAMINED ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. THE OWNER BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO AGREES TO ASSUME LIABILITY AND TO HOLD UNDERSIGNED HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED; NOT INDICATED ON THE PUBLIC RECORDS EXAMINED, LOCATED AT VARIANCE WITH THAT REPORTED OR SHOWN ON RECORDS EXAMINED. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES SHOWN AND ANY OTHER UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK.

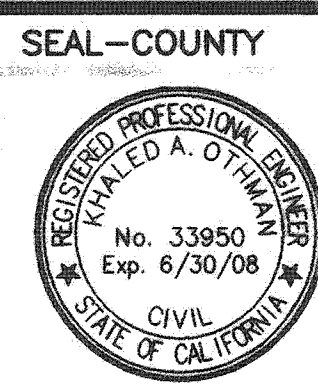


COUNTY OF RIVERSIDE
DEPARTMENT OF HEALTH
APPROVED BY:
DATE:

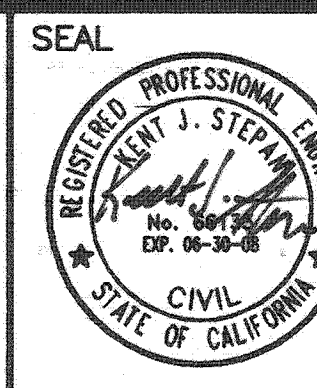
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Table with columns: DATE, BY, MARK, REVISIONS, APPR., DATE. Includes a 'SEAL-COUNTY' section.



COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY:
KHALED A. OTHMAN
DATE:



STANTEC CONSULTING INC.
277 RANCHEROS DRIVE
SUITE 300
SAN MARCOS, CA 92069
760.891.3200
PREPARED BY:
R.C.E. NO. 66133
DATE: 7/24/06

CITY OF RIVERSIDE
RECOMMENDS APPROVAL
CITY ENGINEER:
DATE: 10/23/06
BENCHMARK DATUM - NAVD 88
PROJECT BENCHMARK
CITY OF RIVERSIDE B.M. JB-D3
ELEVATION: 918.908 (NGVD29) PUBLISHED/921.398 ADJUSTED TO NAVD88 (ADD 2.49' PER NGS VERTCON PROGRAM-921.398)
DESCRIPTION: LEAD & TACK IN TOP OF CURB 3.5' N/O BEER OF NW CURB RETURN AT PALMYRITA AVE. & IOWA AVE.
BASIS OF BEARINGS
BEARINGS SHOWN HEREON ARE GRID BEARINGS PER THE CALIFORNIA COORDINATE SYSTEM 6.

CITY OF RIVERSIDE DRAWING NO. S-1897

WDID No. 833C327881 PW05-0221

TRACT NO. 29741 IP NO. 050029 SHEET NO.

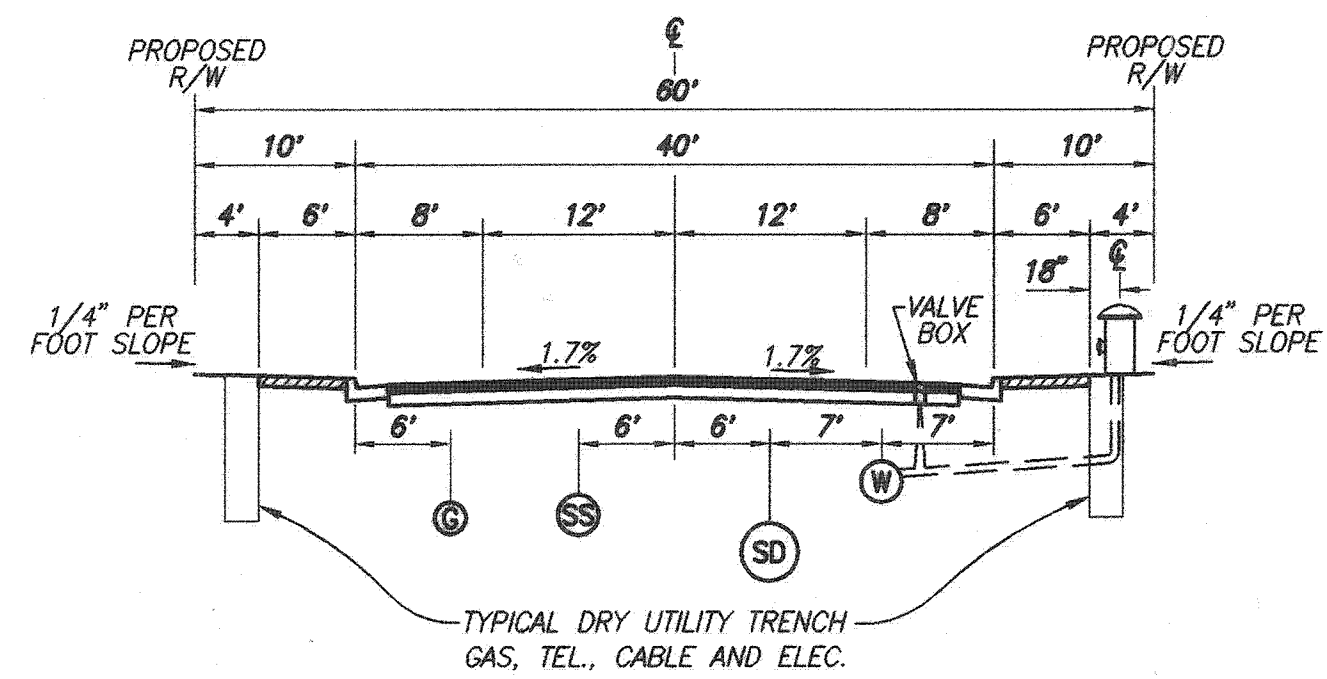
COUNTY OF RIVERSIDE
SEWER IMPROVEMENT PLANS
SPRING MOUNTAIN RANCH

TITLE AND INDEX
MAP SHEET
OF 10 SHTS.

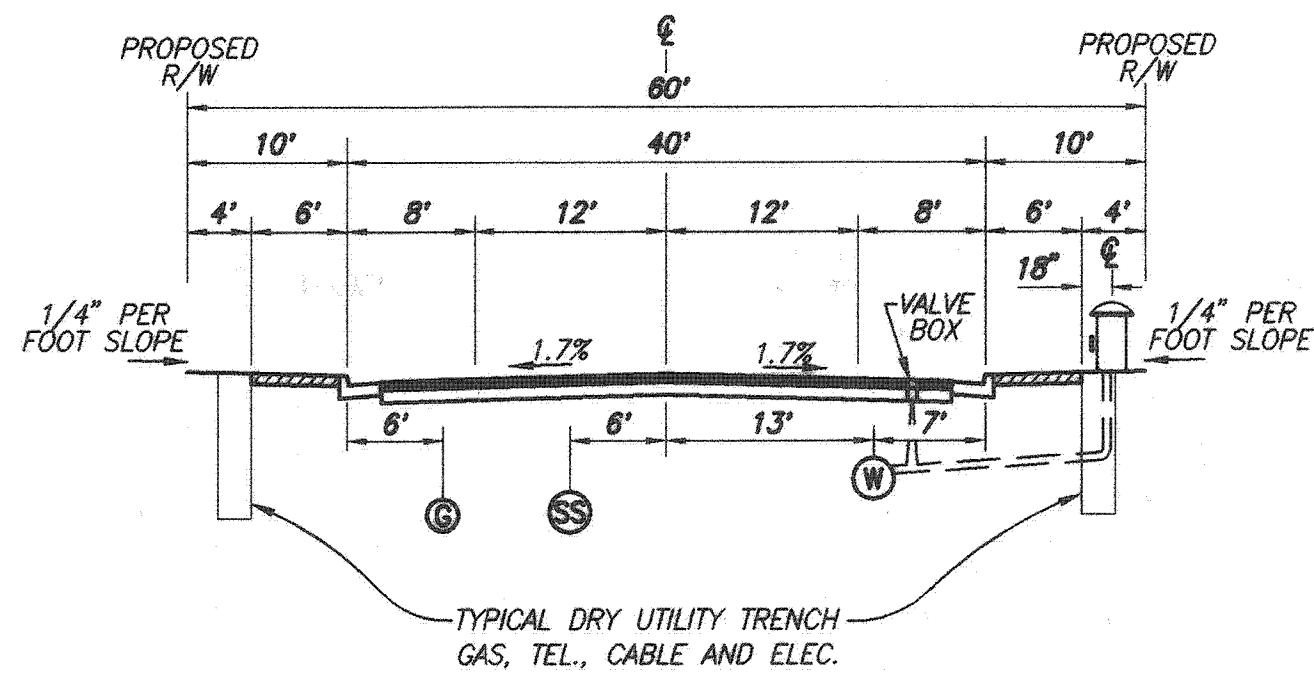
FOR: W.O. COUNTY FILE NO.

S+I 1/2/16 2025 INDEXED 5-02-07 LHI

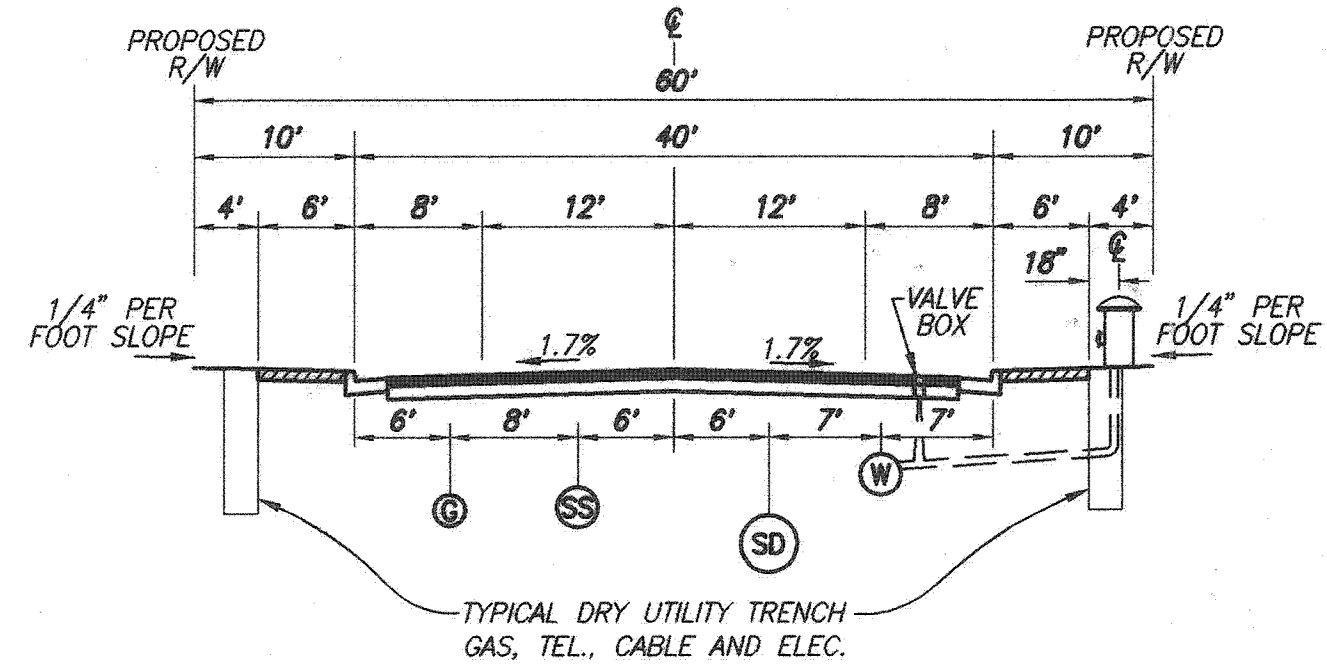




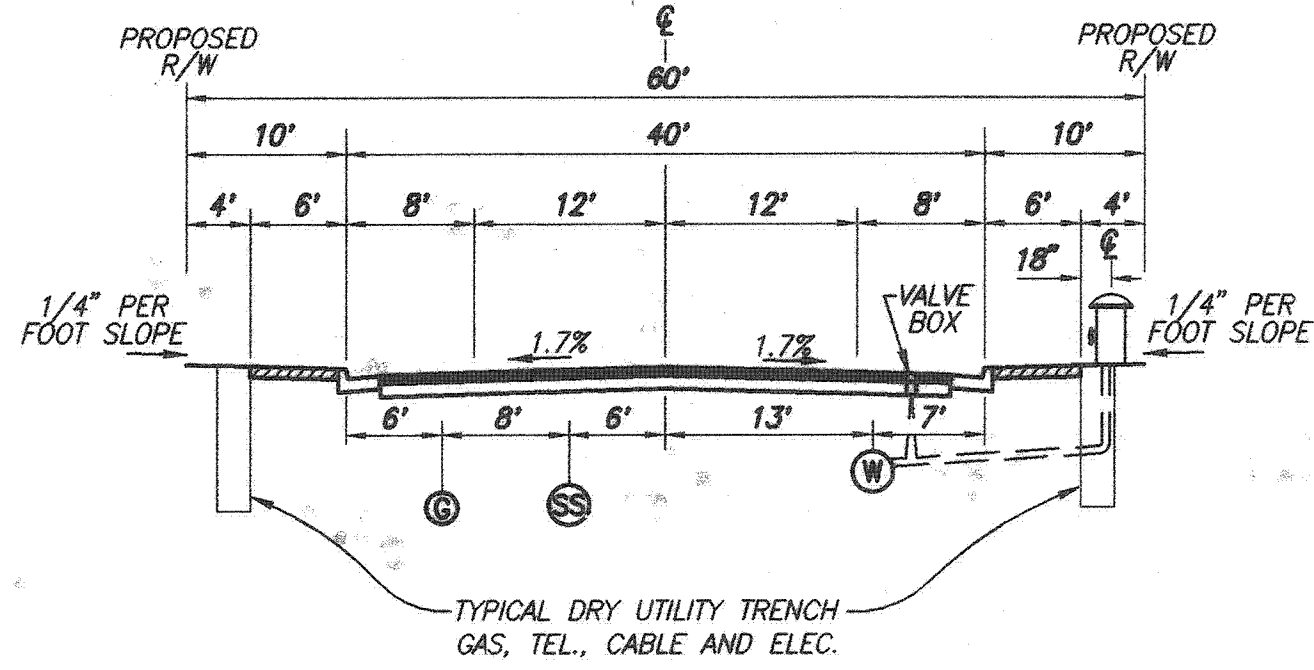
**TYPICAL SECTION**  
 OPUS STREET STA: 11+73.29 TO STA: 12+00.90  
 SYMPHONY DRIVE STA: 10+00.00 TO STA: 10+52.00  
 WOODWIND DRIVE STA: 12+13.48 TO STA: 17+33.21  
 NTS



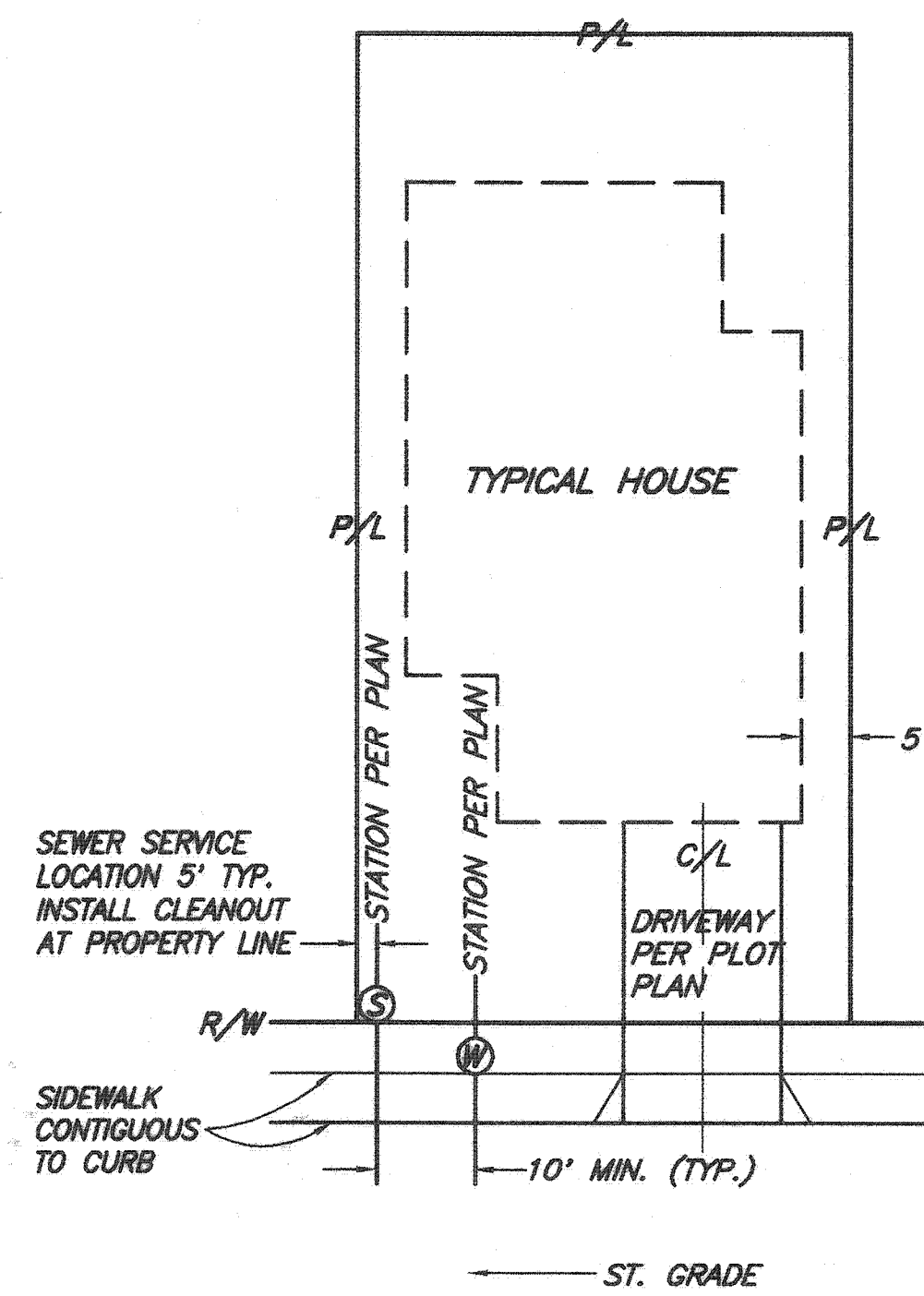
**TYPICAL SECTION**  
 CLOISTER COURT STA: 9+81.06 TO STA: 9+99.85  
 OPERA LOOP STA: 10+32.87 TO STA: 18+12.58  
 OPUS STREET STA: 9+94.45 TO STA: 11+73.29  
 SYMPHONY DRIVE STA: 10+52.00 TO STA: 19+89.33  
 WOODWIND DRIVE STA: 10+42.09 TO STA: 12+13.48  
 NTS



**TYPICAL SECTION**  
 OPUS STREET STA: 12+00.90 TO STA: 15+90.21  
 NTS



**TYPICAL SECTION**  
 CLOISTER STREET STA: 9+99.85 TO 11+88.01  
 OPUS STREET STA: 15+90.21 TO STA: 25+40.33  
 NTS



**TYPICAL LATERAL LOCATION DETAIL "C"**  
 NOT TO SCALE

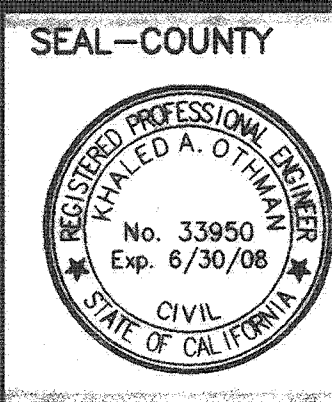
- NOTES:**
1. FINAL DRIVEWAY LOCATIONS AND CONSTRUCTION THEREOF SHALL BE PER SEPARATE PLAN. DRIVEWAY SHALL NOT BE CONSTRUCTED OVER WATER OR SEWER LATERALS LOCATION.
  2. SEWER AND WATER LATERAL LOCATIONS ARE STATIONED IN PLAN VIEW, AND ARE LOCATED, IN MOST CASES, PER THE TYPICAL DETAIL. IF ANY CONFLICTS ARISE DURING CONSTRUCTION, LATERALS ARE TO BE FIELD ADJUSTED, EITHER VERTICALLY AND/OR HORIZONTALLY.
  3. SEWER LATERALS ARE STATIONED FROM THE SEWER MAIN LINE STATIONING. WATER LATERALS ARE STATIONED FROM THE STREET CENTERLINE STATIONING.



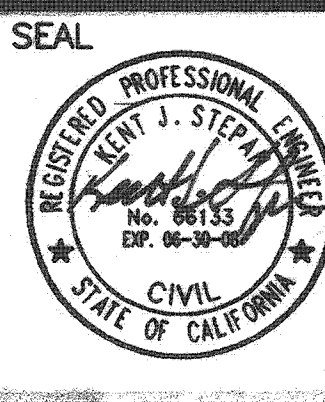
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DATE	BY	MARK	REVISIONS	APPR.	DATE
	ENGINEER				COUNTY



SEAL-COUNTY  
 COUNTY OF RIVERSIDE  
 TRANSPORTATION DEPARTMENT  
 APPROVED BY:  
 KHALED A. OTHMAN DATE: \_\_\_\_\_  
 RECOMMENDED DATE: \_\_\_\_\_



STANTEC CONSULTING INC.  
 277 RANCHEROS DRIVE  
 SUITE 300  
 SAN MARCOS, CA 92069  
 760.891.3200  
 PREPARED BY: KENT J. STEPAN DATE: 9/22/06  
 R.C.E. NO. 88133

CITY OF RIVERSIDE  
 RECOMMENDS APPROVAL  
 [Signature] DATE: 10/23/06  
 CITY ENGINEER

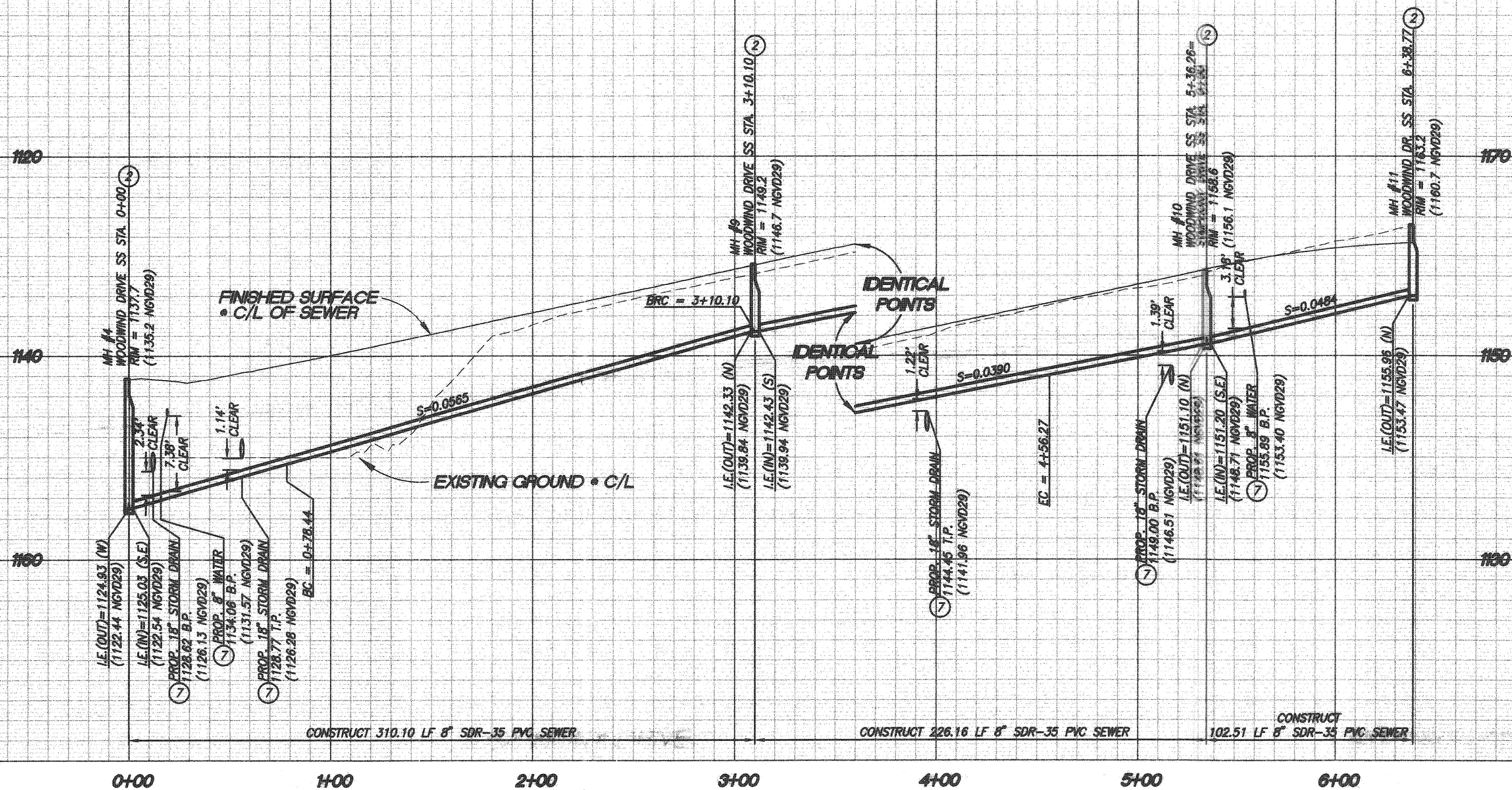
CITY OF RIVERSIDE DRAWING NO. S-1897  
 WDID No. 833C327881 PW05-0221

TRACT NO. 29741 IP NO. 050029  
 COUNTY OF RIVERSIDE  
 SEWER IMPROVEMENT PLANS  
 SPRING MOUNTAIN RANCH

CONSTRUCTION NOTES AND DETAILS  
 SHEET NO. 2 OF 10 SHTS.

S+I 1/12/16 INDEXED 5-02-07 LPH



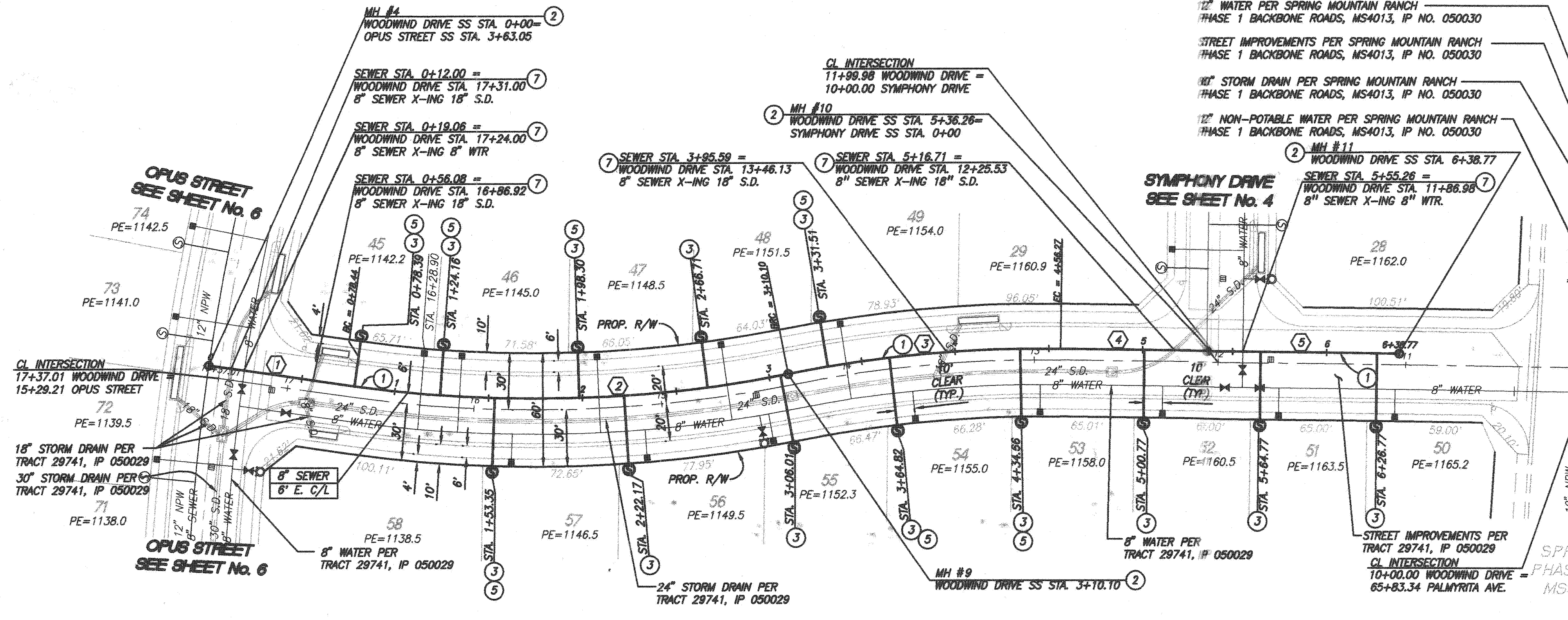
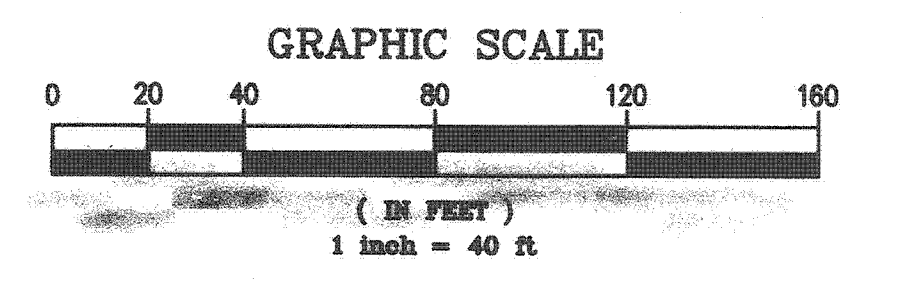


PROFILE SCALE:  
HORIZ: 1"=40'  
VERT: 1"=8'

**CONSTRUCTION NOTES**

1. INSTALL 8" SDR 335 PVC SEWER MAIN. BEDDING PER CITY OF RIVERSIDE STD. DWG. NO. 452
2. CONSTRUCT SANITARY SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. NO. 500
3. INSTALL 4" PVC ((SDR 35) SEWER LATERAL W/ CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A, 560
4. BACKWATER VALVE
5. CAUTION! UTILITY CROSSING, SEE PROFILE FOR ELEVATIONS

- NOTE:**
1. ALL LDATA TABLE LENGTHS ARE MEASURED TO CENTER OF MANHOLE.
  2. ALL PIPE SLOPES ARE CALCULATED FROM INSIDE MANHOLE WALL TO INSIDE MANHOLE WALL.
  3. CONTRACTOR TO VERIFY EXACT LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
  4. PRIOR TO THE INSTALLATION OF WATER MAINS AND FACILITIES, SEWERS AND STORM DRAINS, INCLUDING LATERALS SHALL BE INSTALLED.



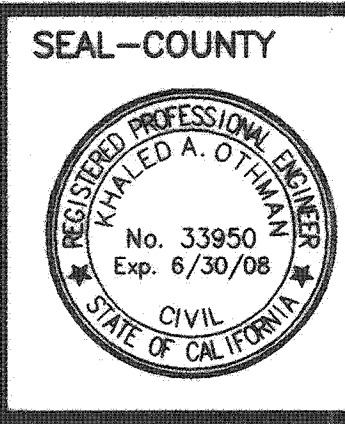
- 12" WATER PER SPRING MOUNTAIN RANCH PHASE 1 BACKBONE ROADS, MS4013, IP NO. 050030
- STREET IMPROVEMENTS PER SPRING MOUNTAIN RANCH PHASE 1 BACKBONE ROADS, MS4013, IP NO. 050030
- 18" STORM DRAIN PER SPRING MOUNTAIN RANCH PHASE 1 BACKBONE ROADS, MS4013, IP NO. 050030
- 12" NON-POTABLE WATER PER SPRING MOUNTAIN RANCH PHASE 1 BACKBONE ROADS, MS4013, IP NO. 050030

SANITARY SEWER DATA TABLE					
NO.	BEARING/Delta	RADIUS	LENGTH	TANGENT	REMARKS
1	S08°00'38"W	-	78.44'	-	8" PVC
2	19°07'32"	694.00'	231.66'	116.92'	8" PVC
3	11°51'45"	706.00'	146.18'	73.35'	8" PVC
4	S00°44'52"W	-	79.98'	-	8" PVC
5	S00°44'52"W	-	102.51'	-	8" PVC

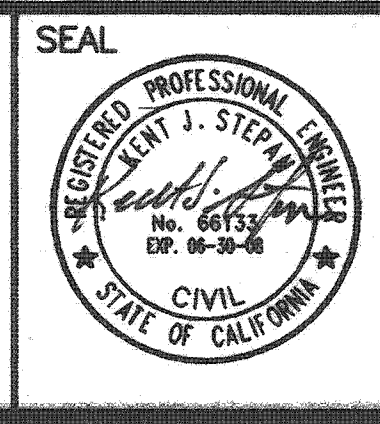


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DATE	BY	MARK	REVISIONS	APPR. DATE	COUNTY



SEAL-COUNTY  
COUNTY OF RIVERSIDE  
TRANSPORTATION DEPARTMENT  
APPROVED BY:  
KHALED A. OTHMAN  
DATE: \_\_\_\_\_



SEAL  
STANTEC CONSULTING INC.  
277 RANCHEROS DRIVE  
SUITE 300  
SAN MARCOS, CA 92069  
760.891.3200  
PREPARED BY: Kent J. Stepan  
R.C.E. NO. 88133  
DATE: 7/2/06

CITY OF RIVERSIDE  
RECOMMENDS APPROVAL  
CITY ENGINEER: [Signature]  
DATE: 10/21/06

CITY OF RIVERSIDE DRAWING NO. S-1897  
WDID No. 833C327881 PW05-0221

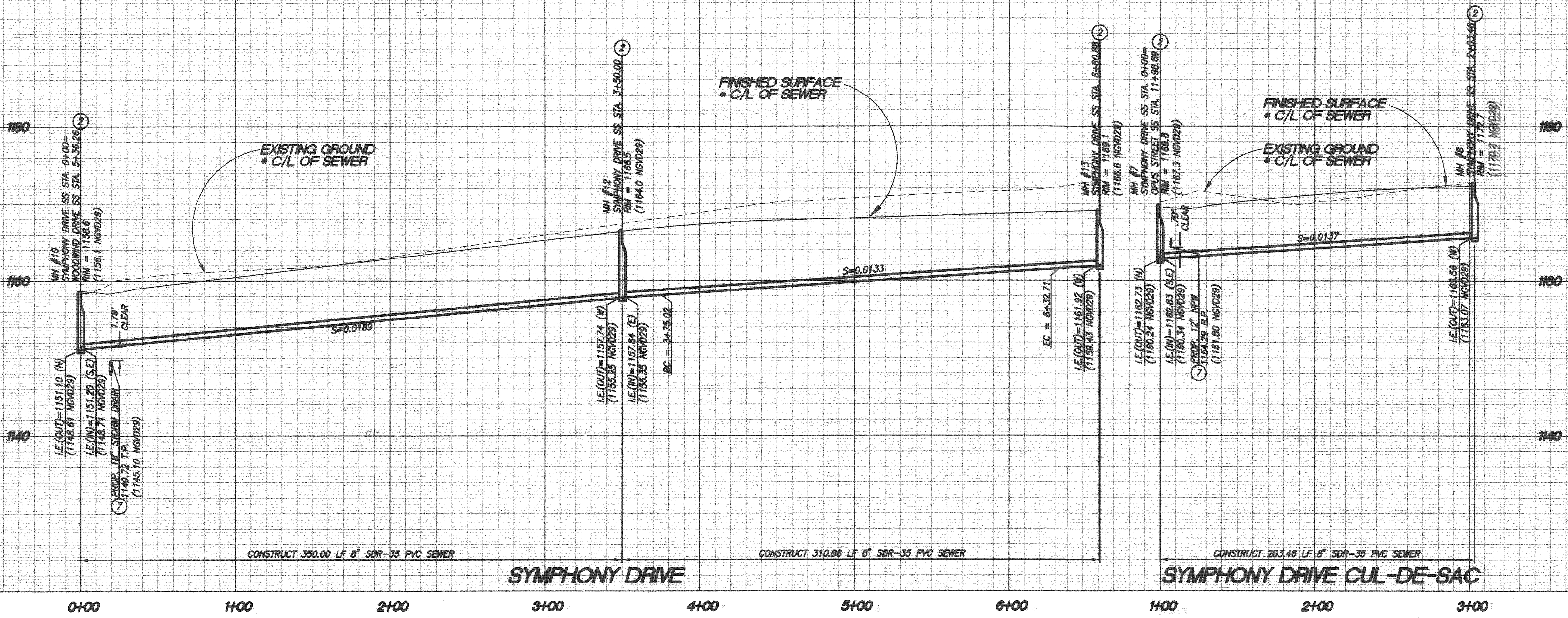
TRACT NO. 29741 IP NO. 050029  
COUNTY OF RIVERSIDE  
SEWER IMPROVEMENT PLANS  
SPRING MOUNTAIN RANCH  
**WOODWIND DRIVE**  
SHEET NO. 3  
OF 10 SHEETS

SCALE: HOR: AS SHOWN VERT: AS SHOWN  
FOR: W.O. COUNTY FILE NO.

S+I 1/12/16 [Signature] INDEXED B-02-07 [Signature]

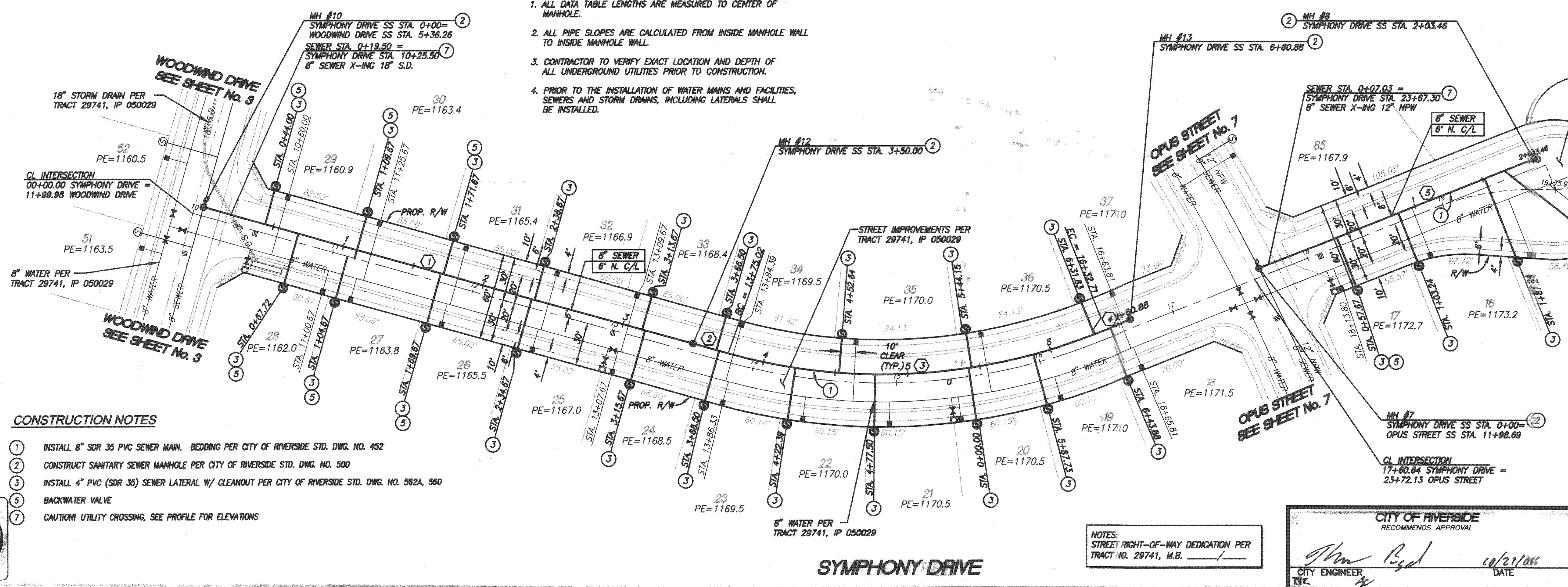
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PROFILE SCALE:  
HORIZ: 1"=40'  
VERT: 1"=8'

- NOTE:
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  4. PRIOR TO THE INSTALLATION OF WATER MAINS AND FACILITIES, SEWERS AND STORM DRAINS, INCLUDING LATERALS SHALL BE INSTALLED.



- CONSTRUCTION NOTES**
1. INSTALL 8" SDR 35 PVC SEWER MAIN. BEDDING PER CITY OF RIVERSIDE STD. DWG. NO. 452
  2. CONSTRUCT SANITARY SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. NO. 500
  3. INSTALL 4" PVC (SDR 35) SEWER LATERAL W/ CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 582A, 580
  5. BACKWATER VALVE
  7. CAUTION UTILITY CROSSING. SEE PROFILE FOR ELEVATIONS

**SANITARY SEWER DATA TABLE**

NO.	BEARING/Delta	RADIUS	LENGTH	TANGENT	REMARKS
1	S89°15'08"E	-	350.00'	-	8" PVC
2	S89°15'08"E	-	25.02'	-	8" PVC
3	S7°28'25"	394.00'	257.89'	133.64'	8" PVC
4	N53°16'27"E	-	26.17'	-	8" PVC
5	N53°16'27"E	-	203.46'	-	8" PVC

CITY OF RIVERSIDE  
RECOMMENDS APPROVAL

*John R. ...* 10/22/08  
CITY ENGINEER DATE

CITY OF RIVERSIDE DRAWING NO. S-1897  
WDID No. 833C327881 PW05-0221

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DATE	BY	MARK	REVISIONS	APPR.	DATE

SEAL-COUNTY

COUNTY OF RIVERSIDE  
TRANSPORTATION DEPARTMENT  
APPROVED BY:

KHALED A. OTHMAN DATE: \_\_\_\_\_

SEAL

REGISTERED PROFESSIONAL ENGINEER  
KHALED A. OTHMAN  
No. 33950  
Exp. 6/30/08  
CIVIL  
STATE OF CALIFORNIA

STANTEC CONSULTING INC.  
277 RANCHEROS DRIVE  
SUITE 300  
SAN MARCOS, CA 92069  
760.891.3200

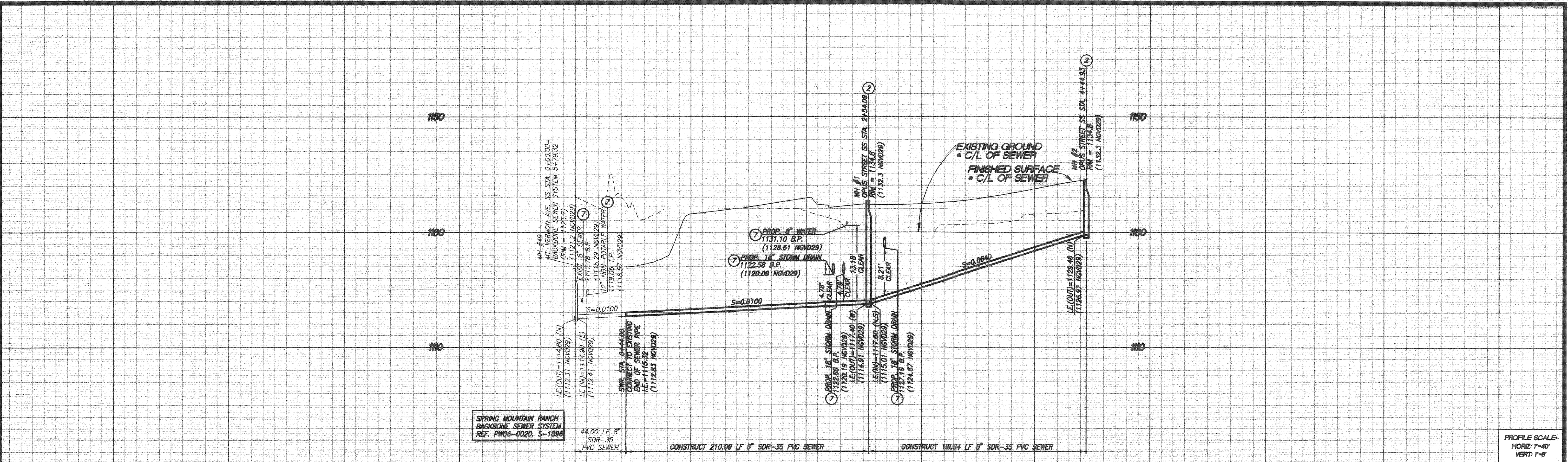
PREPARED BY: *Kent J. Stepien*  
R.C.E. NO. 66133  
DATE: *10/22/08*

SCALE:  
HOR: AS SHOWN VERT: AS SHOWN

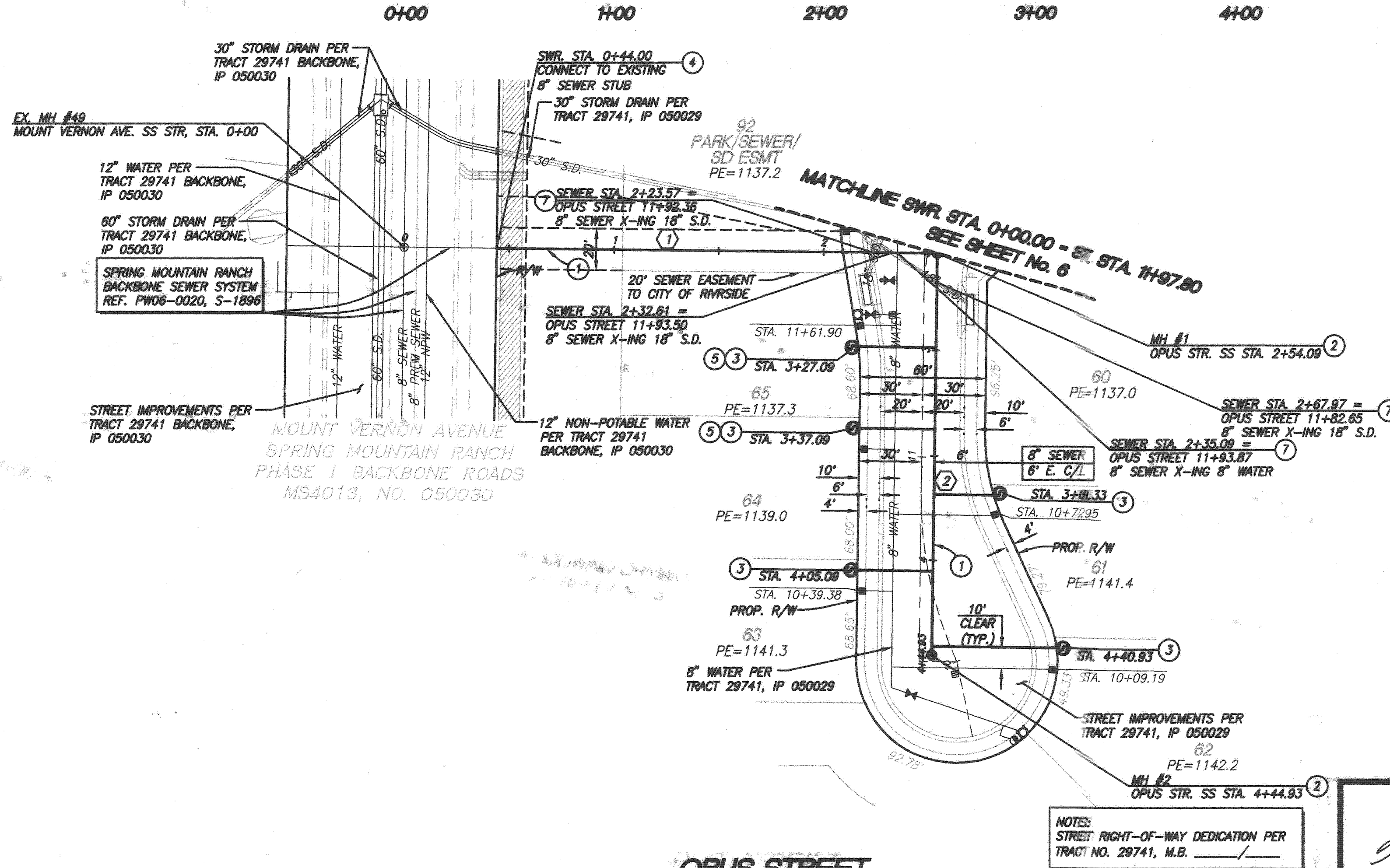
TRACT NO. 29741 IP NO. 050029 SHEET NO. 4  
COUNTY OF RIVERSIDE  
SEWER IMPROVEMENT PLANS  
SPRING MOUNTAIN RANCH  
SYMPHONY DRIVE  
OF 10 SHTS.

SJI 1/10/16 INDEXED S-02-07 Lft





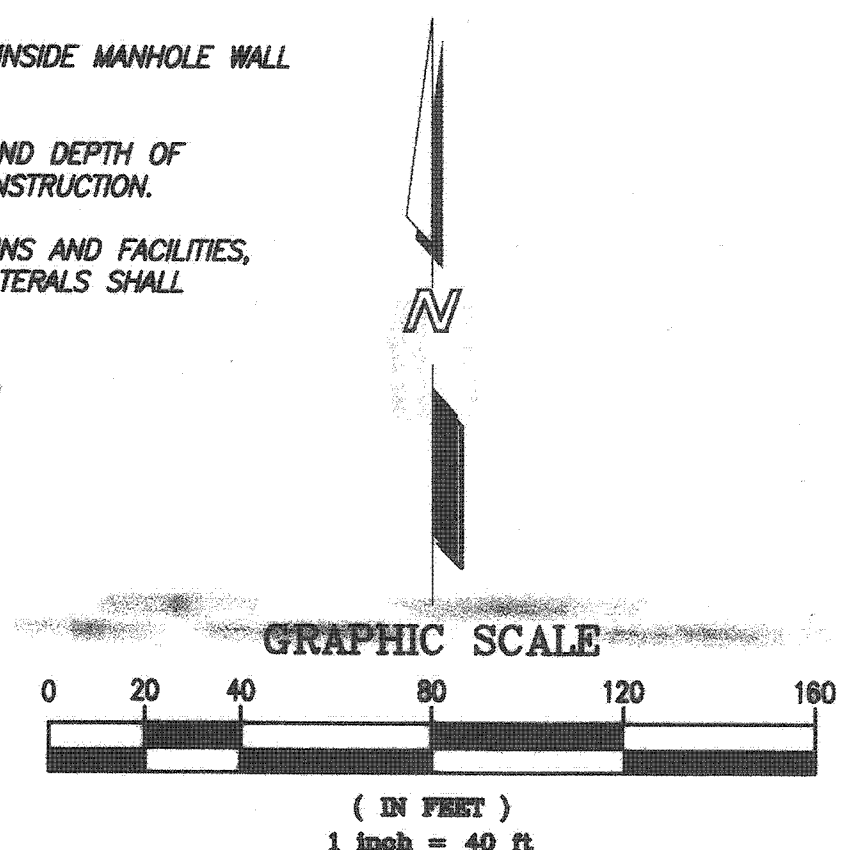
PROFILE SCALE:  
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**CONSTRUCTION NOTES**

1. INSTALL 8" SDR 35 PVC SEWER MAIN. BEDDING PER CITY OF RIVERSIDE STD. DWG. NO. 452
2. CONSTRUCT SANITARY SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. NO. 500
3. INSTALL 4" PVC (SDR 35) SEWER LATERAL W/ CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A, 560
4. REMOVE 8" PLUG
5. BACKWATER VALVE
7. CAUTION! UTILITY CROSSING, SEE PROFILE FOR ELEVATIONS

- NOTE:**
1. ALL DATA TABLE LENGTHS ARE MEASURED TO CENTER OF MANHOLE.
  2. ALL PIPE SLOPES ARE CALCULATED FROM INSIDE MANHOLE WALL TO INSIDE MANHOLE WALL.
  3. CONTRACTOR TO VERIFY EXACT LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
  4. PRIOR TO THE INSTALLATION OF WATER MAINS AND FACILITIES, SEWERS AND STORM DRAINS, INCLUDING LATERALS SHALL BE INSTALLED.



SANITARY SEWER DATA TABLE					
NO.	BEARING/Delta	RADIUS	LENGTH	TANGENT	REMARKS
1	S85°15'08"E	-	210.09'	-	8" PVC
2	S00°44'52"W	-	190.84'	-	8" PVC

CITY OF RIVERSIDE DRAWING NO. S-1897  
WDID No. 833C327861 PW05-0221

TRACT NO. 29741 IP NO. 050029  
COUNTY OF RIVERSIDE  
SEWER IMPROVEMENT PLANS  
SPRING MOUNTAIN RANCH  
**OPUS STREET**  
SHEET NO. 5 OF 10 SHEETS

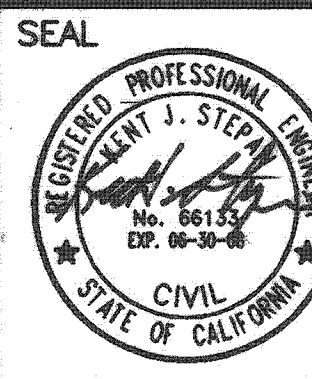
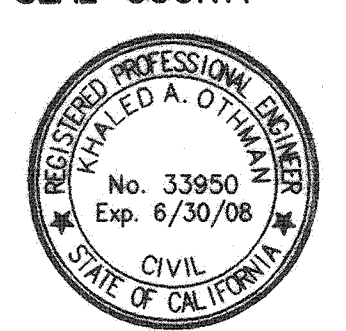
CITY OF RIVERSIDE  
RECOMMENDS APPROVAL  
*Tom Bzd* 10/2/10  
CITY ENGINEER DATE

NOTES:  
STREET RIGHT-OF-WAY DEDICATION PER TRACT NO. 29741, M.B. \_\_\_\_\_

STANTEC CONSULTING INC.  
277 RANCHEROS DRIVE  
SUITE 300  
SAN MARCOS, CA 92069  
760.891.3200

PREPARED BY: *Kent J. Stearn* R.C.E. NO. 86133  
DATE: 9/22/10

SEAL-COUNTY  
COUNTY OF RIVERSIDE  
TRANSPORTATION DEPARTMENT  
APPROVED BY:  
KHALED A. OTHMAN DATE: \_\_\_\_\_  
RECOMMENDED: \_\_\_\_\_ DATE: \_\_\_\_\_



NOTE: WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT AND/OR GRADING PERMIT HAS BEEN ISSUED.

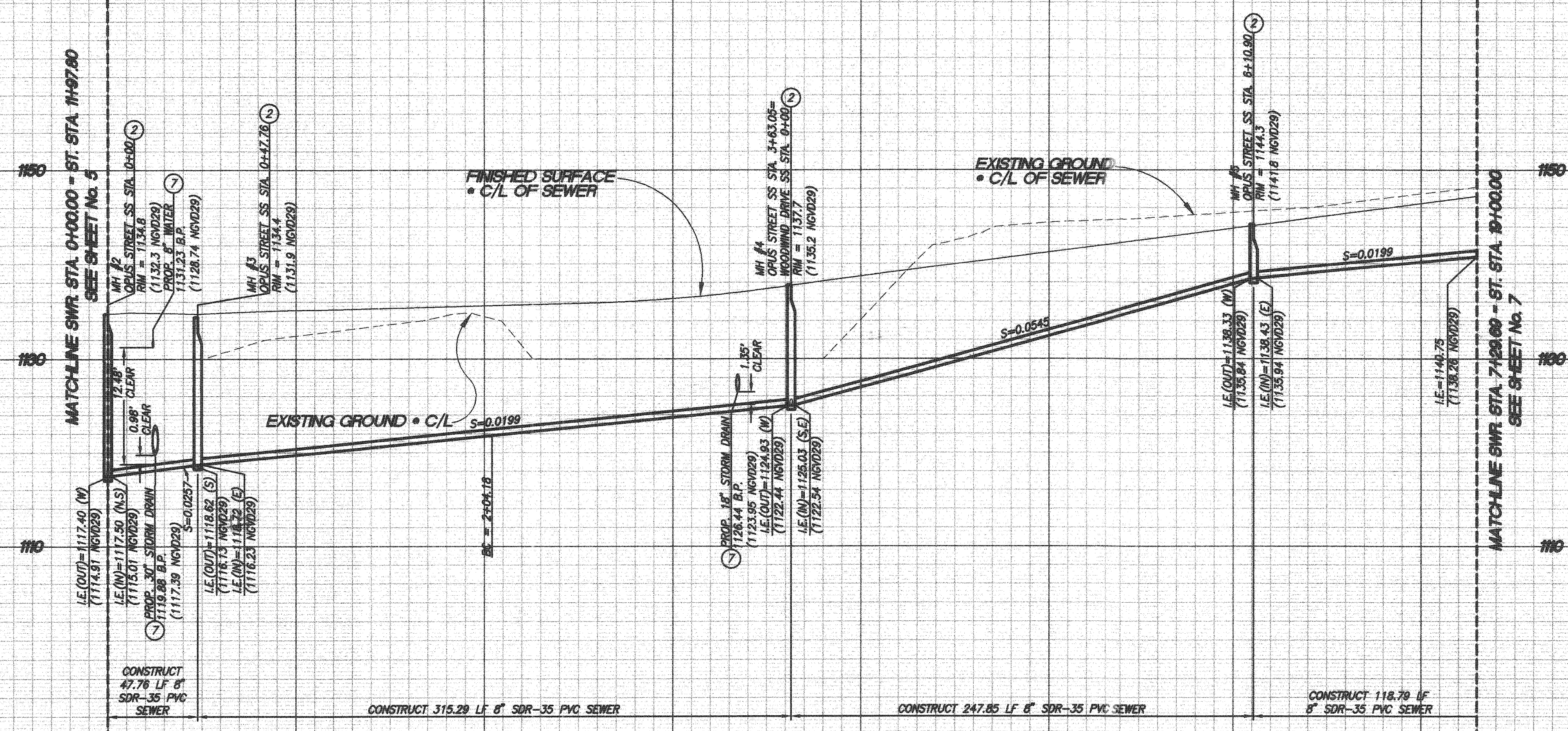
THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES AFTER COUNTY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE COUNTY.

DATE	BY	MARK	REVISIONS	APPR.	DATE

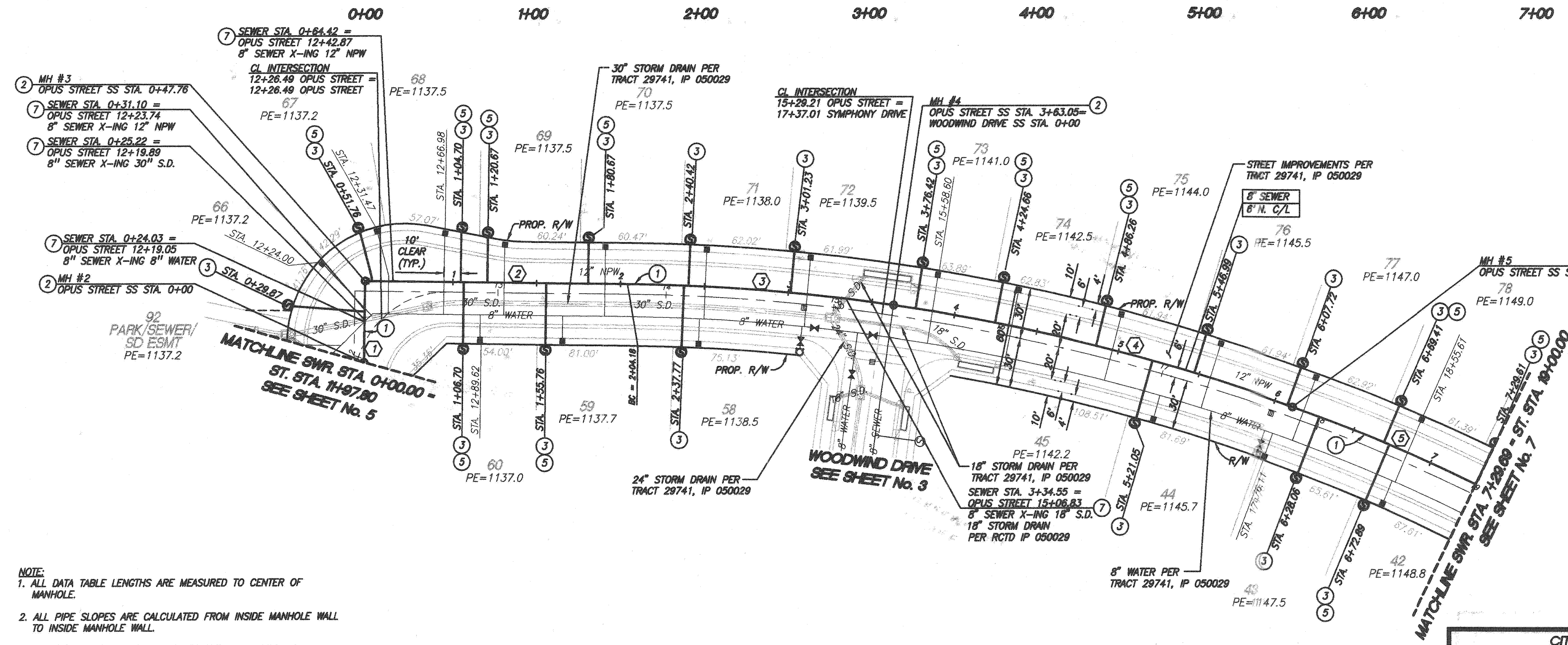
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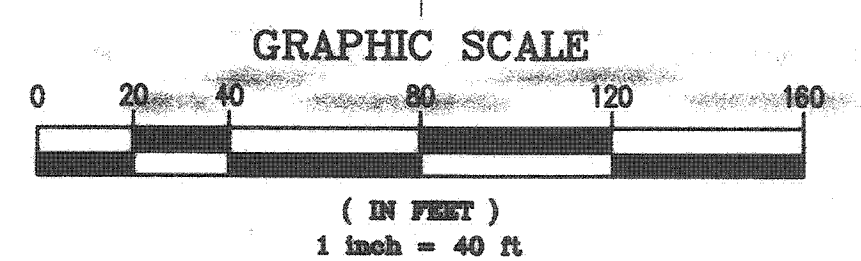
PROFILE SCALE:  
HORIZ: 1"=40'  
VERT: 1"=8'



**CONSTRUCTION NOTES**

- 1 INSTALL 8" SDR 35 PVC SEWER MAIN. BEDDING PER CITY OF RIVERSIDE STD. DWG. NO. 452
- 2 CONSTRUCT SANITARY SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. NO. 500
- 3 INSTALL 4" PVC (SSDR 35) SEWER LATERAL W/ CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A, 560
- 5 BACKWATER VALVE
- 7 CAUTION! UTILITY CROSSING, SEE PROFILE FOR ELEVATIONS

- NOTE:
1. ALL DATA TABLE LENGTHS ARE MEASURED TO CENTER OF MANHOLE.
  2. ALL PIPE SLOPES ARE CALCULATED FROM INSIDE MANHOLE WALL TO INSIDE MANHOLE WALL.
  3. CONTRACTOR TO VERIFY EXACT LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
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SANITARY SEWER DATA TABLE				
NO.	BEARING/DELTA	RADIUS	LENGTH	TANGENT REMARKS
1	N07°44'52"E	-	47.76'	- 8" PVC
2	S89°15'08"E	-	156.42'	- 8" PVC
3	07°32'53"	1206.00'	158.87'	79.55' 8" PVC
4	11°46'31"	1206.00'	247.85'	124.36' 8" PVC
5	05°38'37"	1206.00'	118.79'	59.44' 8" PVC

CITY OF RIVERSIDE DRAWING NO. S-1897

WDID No. 833C327881 PW05-0221

TRACT NO. 29741 IP NO. 050029 SHEET NO.

COUNTY OF RIVERSIDE

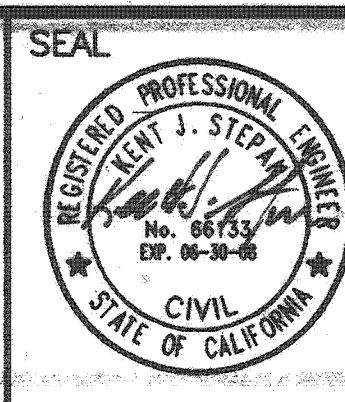
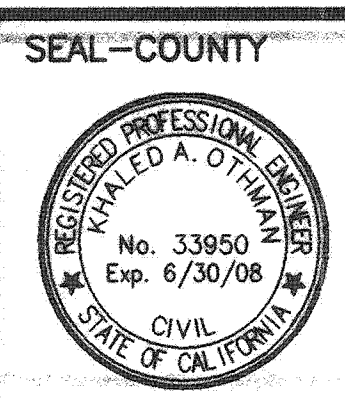
SEWER IMPROVEMENT PLANS

SPRING MOUNTAIN RANCH

OPUS STREET

OF 10 SHTS.

FOR: W.O. COUNTY FILE NO.



STANTEC CONSULTING INC.  
277 RANCHEROS DRIVE  
SUITE 300  
SAN MARCOS, CA 92069  
760.891.3200

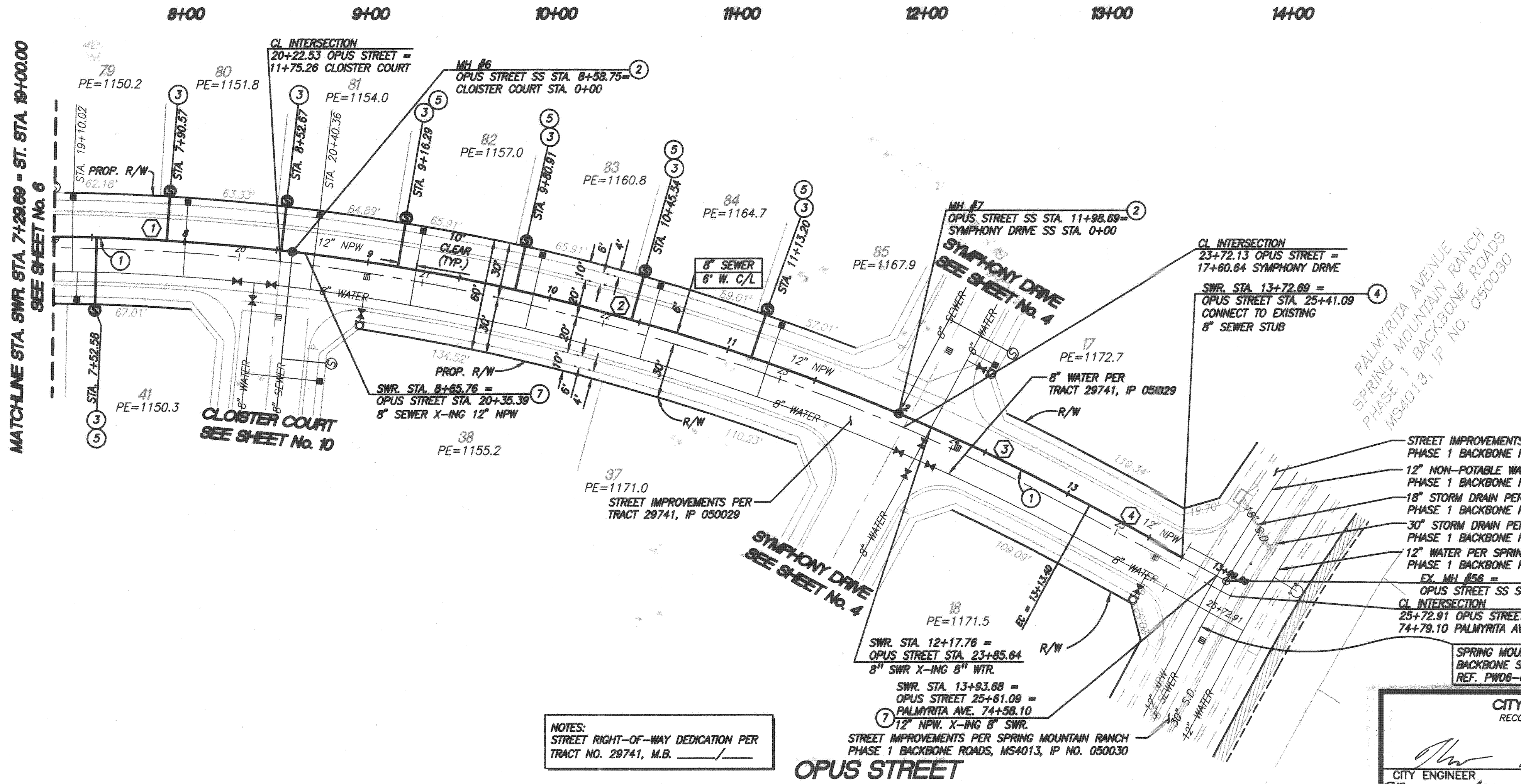
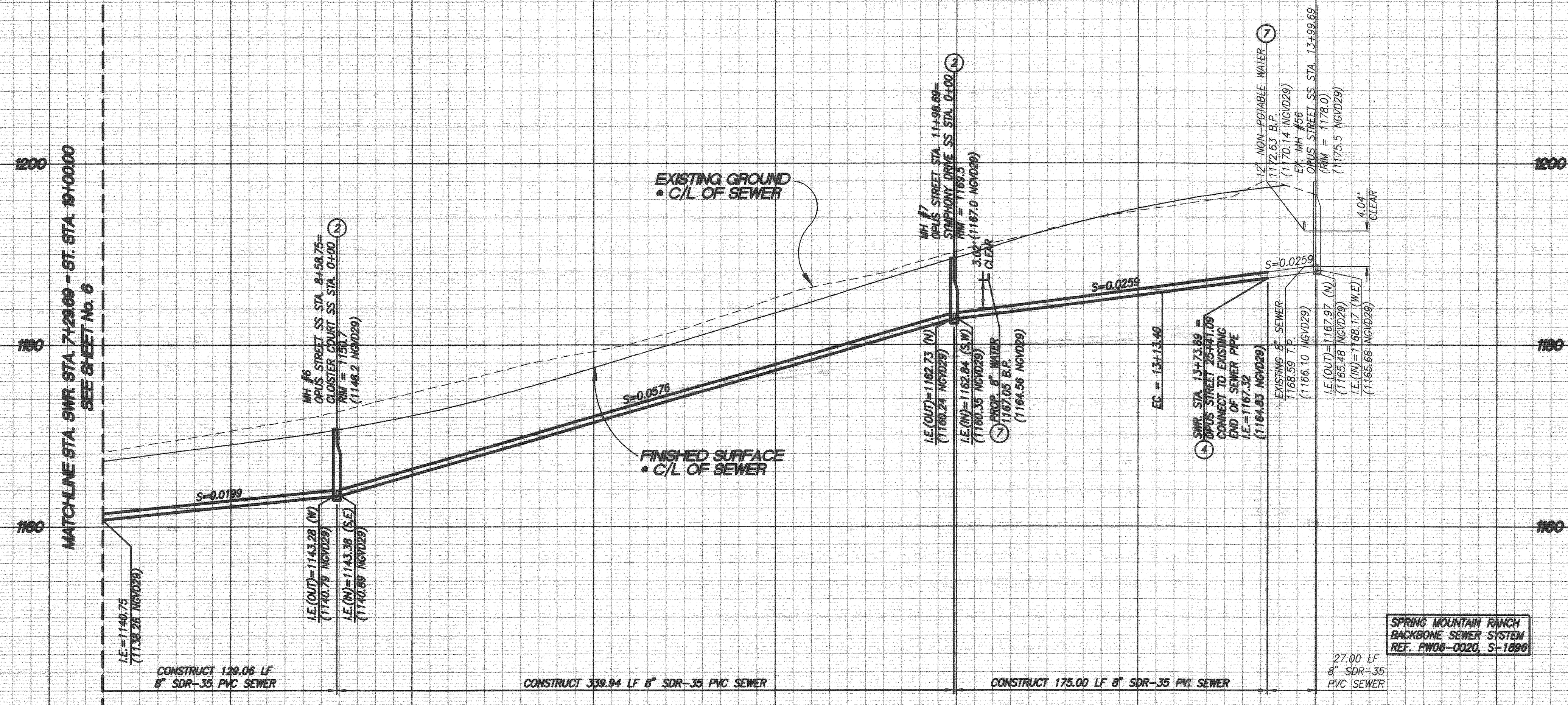
PREPARED BY: *[Signature]* R.C.E. NO. 86133  
KENT J. STEPAN DATE: 7/2/06

CITY OF RIVERSIDE  
RECOMMENDS APPROVAL  
*[Signature]* 10/22/06  
DATE

BENCHMARK  
SEE BENCHMARK NOTE ON SHEET 1  
SCALE:  
HOR: AS SHOWN VERT: AS SHOWN

S&I 1/12/06 S&I INDEXED 5-02-07 LHM

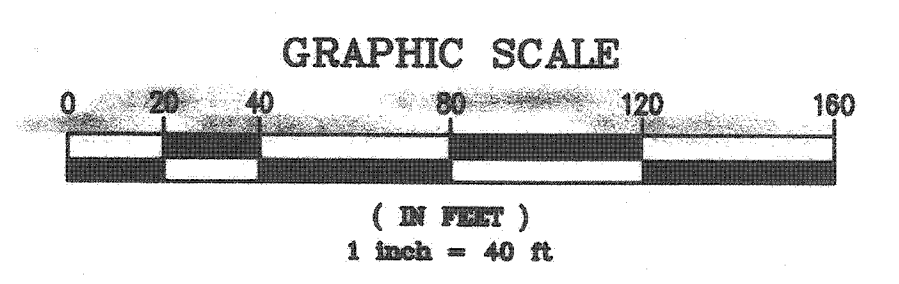




**CONSTRUCTION NOTES**

1. INSTALL 8" SDR-35 PVC SEWER MAIN. BEDDING PER CITY OF RIVERSIDE STD. DWG. NO. 452
2. CONSTRUCT SANITARY SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. NO. 500
3. INSTALL 4" PVC (SDR 35) SEWER LATERAL W/ CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A, 560
4. REMOVE 8" PLUGS
5. BACKWATER VALVE
6. CAUTION! UTILITY CROSSING, SEE PROFILE FOR ELEVATIONS

- NOTE:**
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SANITARY SEWER DATA TABLE					
NO.	BEARING/Delta	RADIUS	LENGTH	TANGENT	REMARKS
1	06°07'54"	1206.00'	129.06'	64.59'	8" PVC
2	16°09'00"	1206.00'	339.93'	171.10'	8" PVC
3	05°27'00"	1206.00'	114.72'	57.40'	8" PVC
4	S36°33'14"E	-	59.27'	-	8" PVC

**CITY OF RIVERSIDE**  
RECOMMENDS APPROVAL

*Alan Bed* 10/22/06  
CITY ENGINEER DATE

**CITY OF RIVERSIDE DRAWING NO. S-1897**

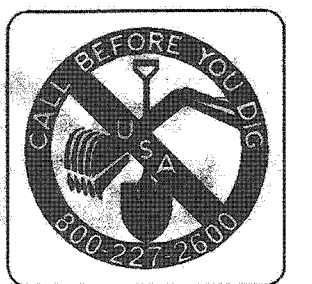
**WDID No. 833C327881 PW05-0221**

TRACT NO. 29741 IP NO. 050029 SHEET NO.

**COUNTY OF RIVERSIDE**  
SEWER IMPROVEMENT PLANS  
SPRING MOUNTAIN RANCH

**OPUS STREET** OF 10 SHTS.

FOR: W.O. COUNTY FILE NO.



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DATE	BY	MARK	REVISIONS	APPR. DATE	COUNTY



**COUNTY OF RIVERSIDE**  
TRANSPORTATION DEPARTMENT  
APPROVED BY:

KHALED A. OTHMAN DATE: \_\_\_\_\_



**STANTEC CONSULTING INC.**  
277 BANCHEROS DRIVE  
SUITE 300  
SAN MARCOS, CA 92069  
760.891.3200

PREPARED BY: *Kent J. Stearn* R.C.E. NO. 86133  
DATE: 9/22/06

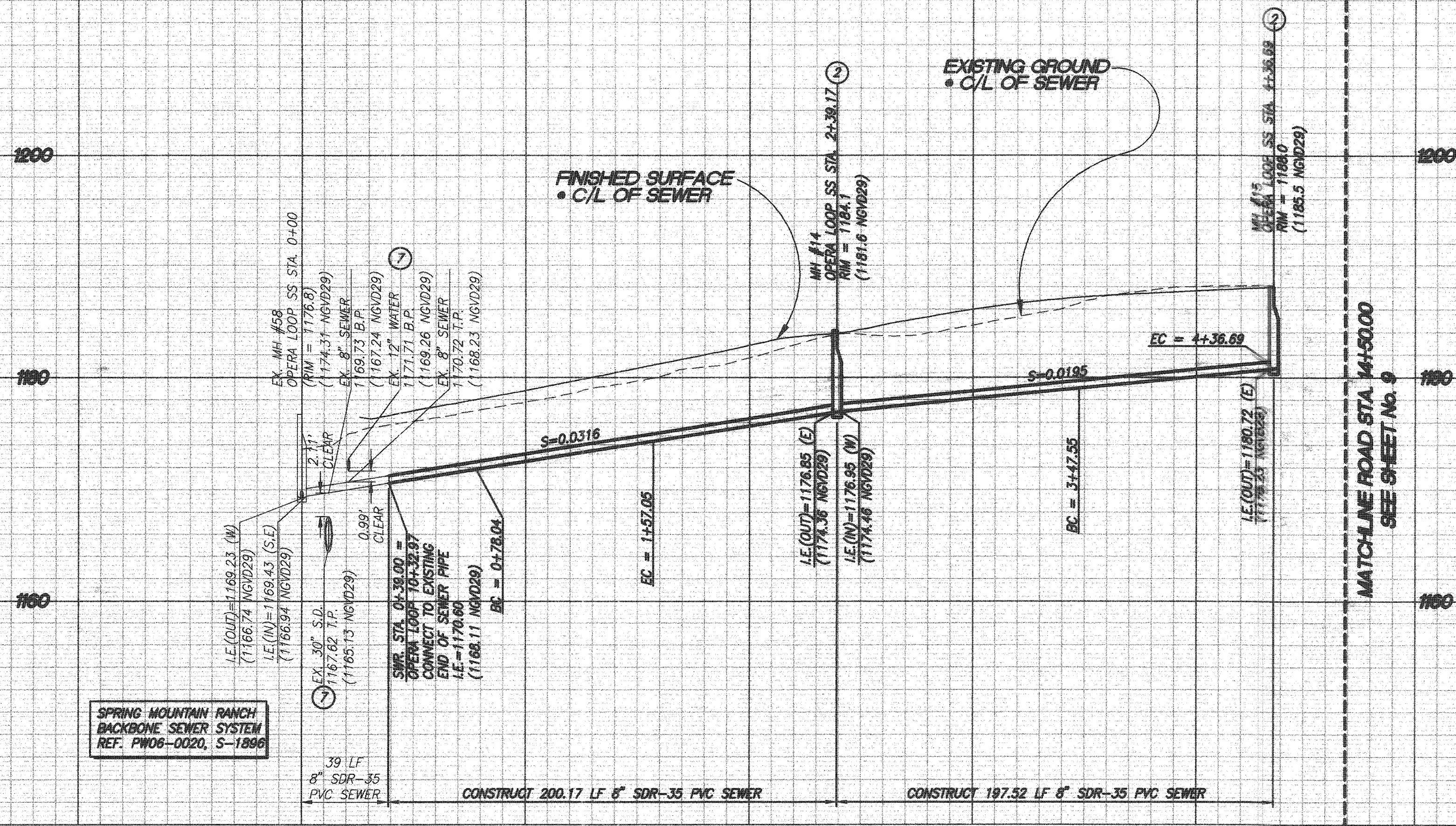
BENCHMARK  
SEE BENCHMARK NOTE ON SHEET 1

SCALE: HOR: AS SHOWN VERT: AS SHOWN

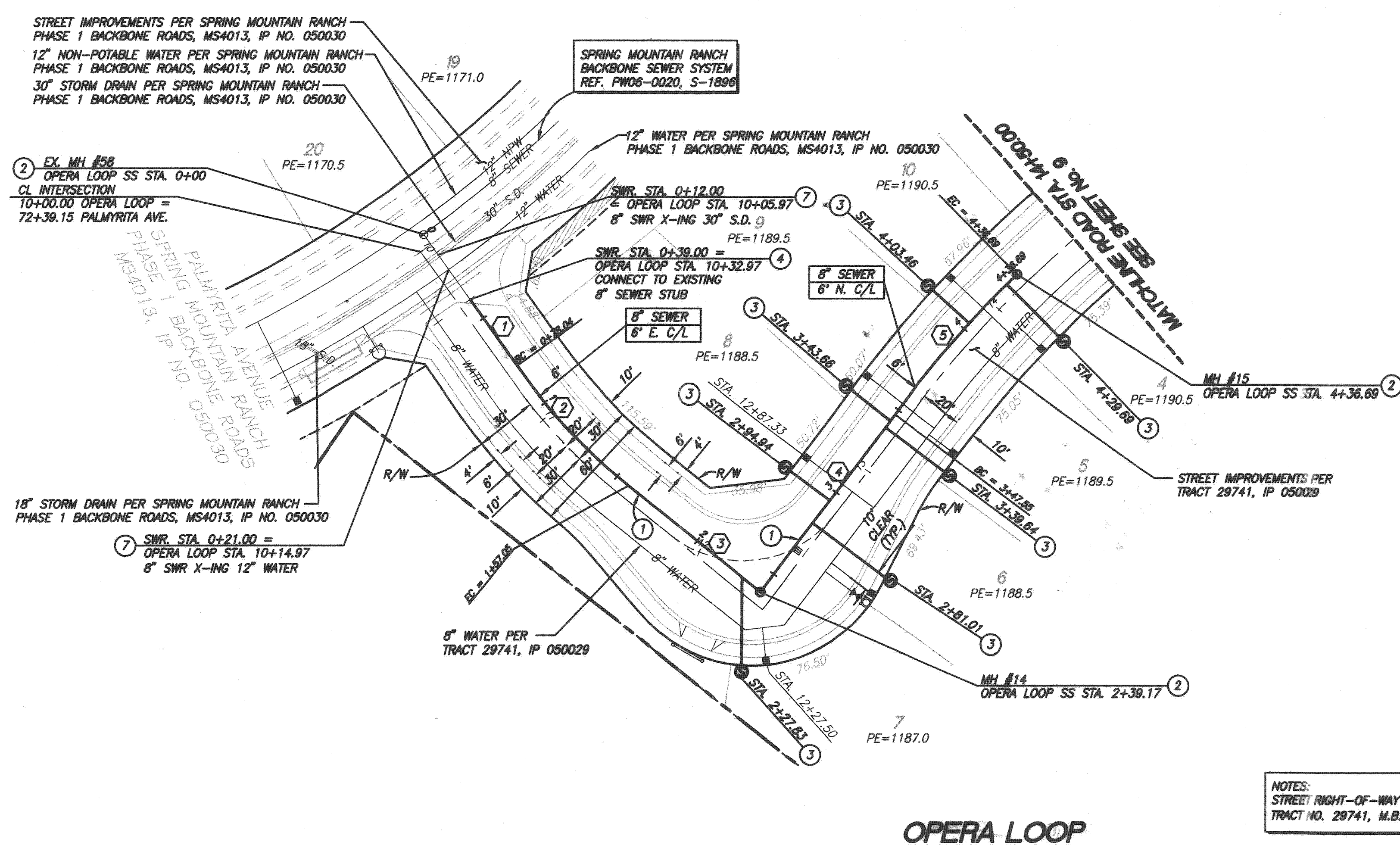
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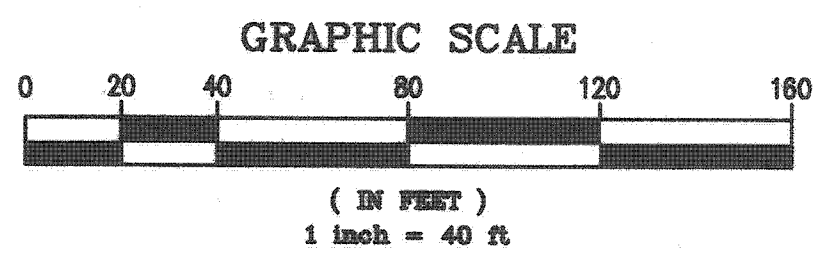
PROFILE SCALE  
HORIZ: 1"=40'  
VERT: 1"=8'



**CONSTRUCTION NOTES**

1. INSTALL 8" SDR-35 PVC SEWER MAIN. BEDDING PER CITY OF RIVERSIDE STD. DWG. NO. 452
2. CONSTRUCT SANITARY SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. NO. 500
3. INSTALL 4" PVC (SDR 35) SEWER LATERAL W/ CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A, 560
4. REMOVE 8" PLUGS
5. CAUTION! UTILITY CROSSING, SEE PROFILE FOR ELEVATIONS

NOTE:  
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SANITARY SEWER DATA TABLE					
NO.	BEARING/DELTA	RADIUS	LENGTH	TANGENT	REMARKS
1	S25°28'35"E	-	39.03'	-	8" PVC
2	S5°23'56"	294.00'	79.02'	39.75'	" "
3	S40°53'31"E	-	82.12'	-	" "
4	N47°04'02"E	-	108.38'	-	" "
5	08°38'01"	591.60'	89.14'	44.66'	" "

NOTES:  
STREET RIGHT-OF-WAY DEDICATION PER TRACT NO. 29741, M.B. \_\_\_\_\_

CITY OF RIVERSIDE  
RECOMMENDS APPROVAL  
*[Signature]* 10/22/08  
CITY ENGINEER DATE

CITY OF RIVERSIDE DRAWING NO. S-1897  
WDID No. 833C327881 PW05-0221

TRACT NO. 29741 IP NO. 050029 SHEET NO. 8  
COUNTY OF RIVERSIDE  
SEWER IMPROVEMENT PLANS  
SPRING MOUNTAIN RANCH  
**OPERA LOOP**  
OF 10 SHTS.

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DATE	BY	MARK	REVISIONS	APPR.	DATE

SEAL-COUNTY  
REGISTERED PROFESSIONAL ENGINEER  
KHALED A. OTHMAN  
No. 33950  
Exp. 6/30/08  
CIVIL  
STATE OF CALIFORNIA

COUNTY OF RIVERSIDE  
TRANSPORTATION DEPARTMENT  
APPROVED BY:  
KHALED A. OTHMAN DATE: \_\_\_\_\_  
RECOMMENDED DATE: \_\_\_\_\_

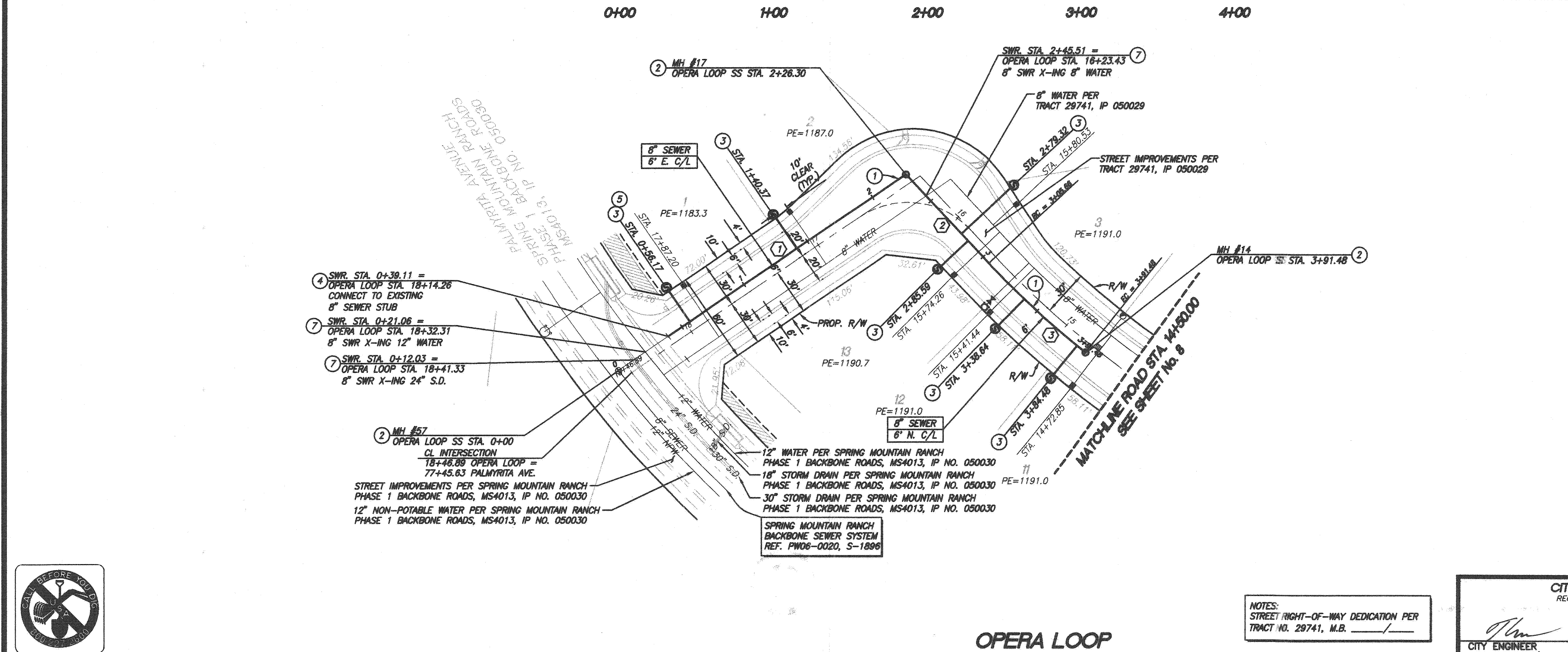
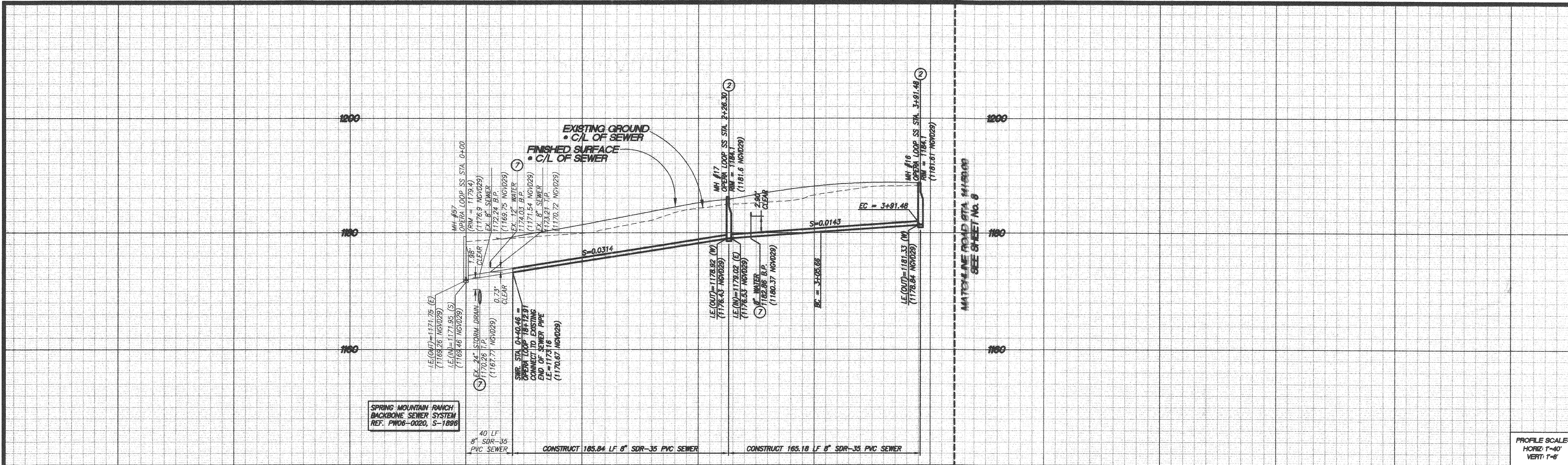
SEAL  
REGISTERED PROFESSIONAL ENGINEER  
KENT J. STERAN  
No. 66534  
Exp. 10-10-08  
CIVIL  
STATE OF CALIFORNIA

STANTEC CONSULTING INC.  
277 RANCHEROS DRIVE  
SUITE 300  
SAN MARCOS, CA 92069  
760.891.3200  
PREPARED BY: *[Signature]* R.C.E. No. 66133  
KENT J. STERAN DATE: 9/22/08

BENCHMARK  
SEE BENCHMARK NOTE ON SHEET 1  
SCALE:  
HOR: AS SHOWN VERT: AS SHOWN

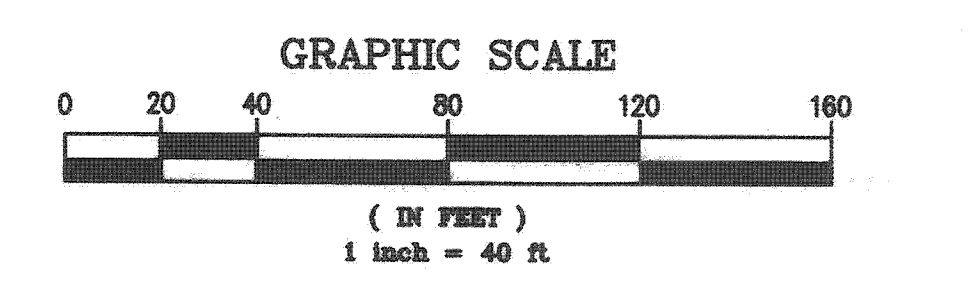
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- CONSTRUCTION NOTES**
- INSTALL 8" SDR 35 PVC SEWER MAIN. BEDDING PER CITY OF RIVERSIDE STD. DWG. NO. 452
  - CONSTRUCT SANITARY SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. NO. 500
  - INSTALL 4" PVC (SSDR 35) SEWER LATERAL W/ CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A, 560
  - REMOVE 8" PLUG
  - BACKWATER VALVE
  - CAUTION! UTILITY CROSSING, SEE PROFILE FOR ELEVATIONS

**NOTE:**  
 1. ALL DATA TABLE LENGTHS ARE MEASURED TO CENTER OF MANHOLE.  
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SANITARY SEWER DATA TABLE					
NO.	BEARING/DELTA	RADIUS	LENGTH	TANGENT	REMARKS
1	S11°24'01"E	-	187.19'	-	8" PVC
2	S70°00'41"W	-	79.36'	-	"
3	08°18'10"	591.64'	85.82'	42.99'	"

CITY OF RIVERSIDE DRAWING NO. S-1897

WDID No. 833C327881 PW05-0221

TRACT NO. 29741 IP NO. 050029  
 COUNTY OF RIVERSIDE  
 SEWER IMPROVEMENT PLANS  
 SPRING MOUNTAIN RANCH  
**OPERA LOOP**  
 SHEET NO. 9 OF 10 SHTS.

NOTE: WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT AND/OR GRADING PERMIT HAS BEEN ISSUED.

DATE	BY	MARK	REVISIONS	APPR.	DATE

SEAL-COUNTY  
 COUNTY OF RIVERSIDE  
 TRANSPORTATION DEPARTMENT  
 APPROVED BY:  
 KHALED A. OTHMAN  
 DATE: \_\_\_\_\_

SEAL  
 REGISTERED PROFESSIONAL ENGINEER  
 KENT J. STEPAN  
 No. 66133  
 Exp. 6/30/08  
 CIVIL  
 STATE OF CALIFORNIA

CITY OF RIVERSIDE  
 RECOMMENDS APPROVAL  
 CITY ENGINEER: \_\_\_\_\_ DATE: \_\_\_\_\_  
 BENCHMARK: SEE BENCHMARK NOTE ON SHEET 1

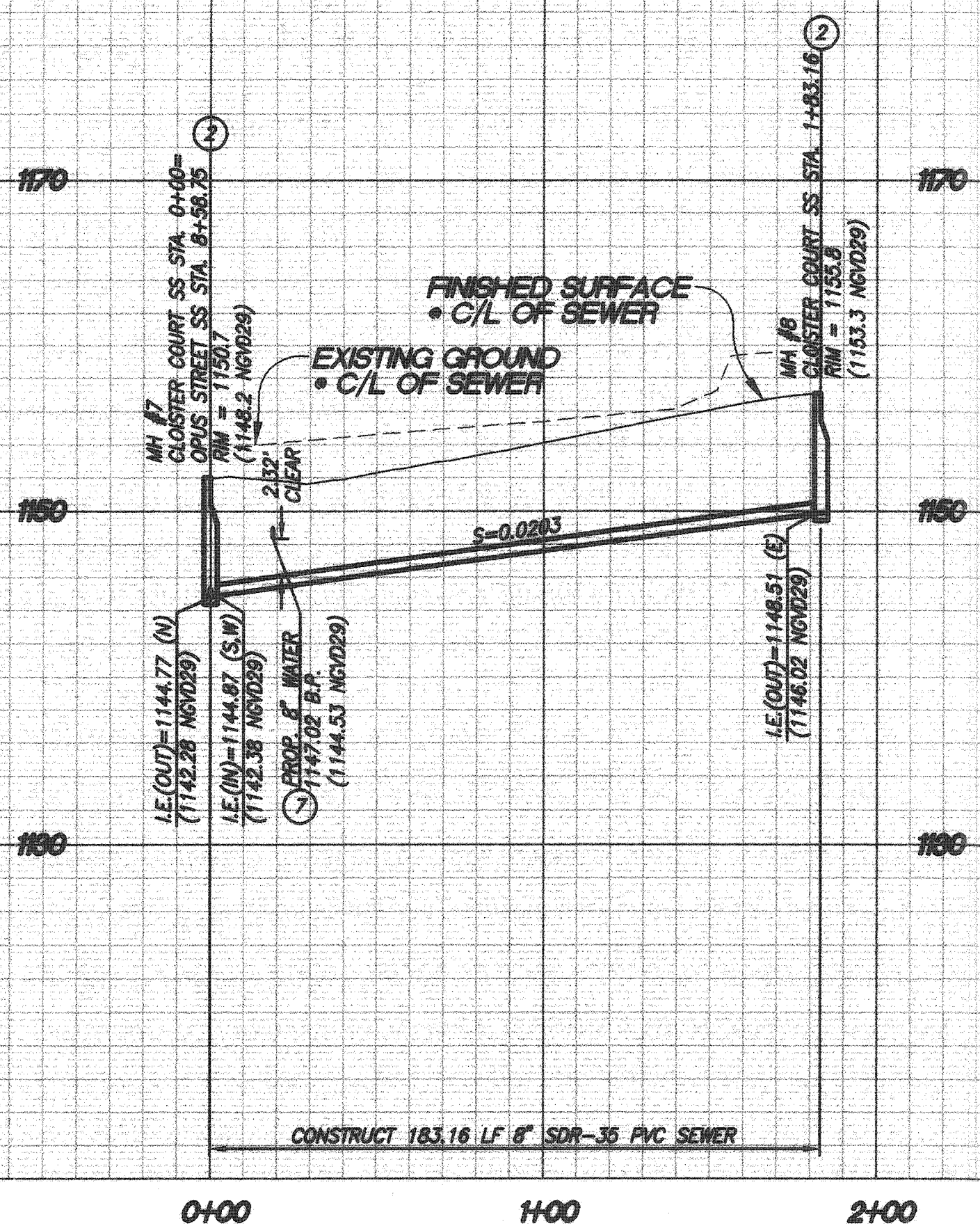
STANTEC CONSULTING INC.  
 277 RANCHEROS DRIVE  
 SUITE 300  
 SAN MARCOS, CA 92069  
 760.891.3200  
 PREPARED BY: \_\_\_\_\_ R.C.E. NO. 86133  
 DATE: 9/26/10

SCALE: HOR: AS SHOWN VERT: AS SHOWN  
 FOR: \_\_\_\_\_ W.O. \_\_\_\_\_ COUNTY FILE NO. \_\_\_\_\_

SEE 1/12/10 5-02-07 LFT

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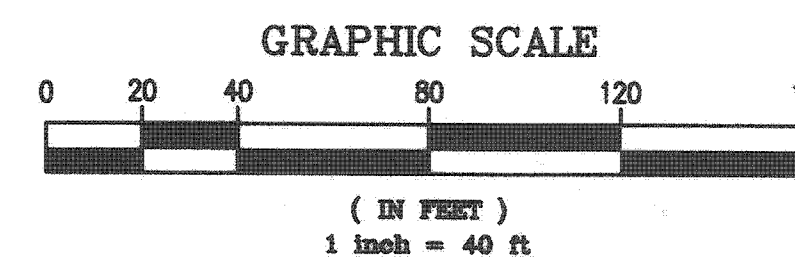
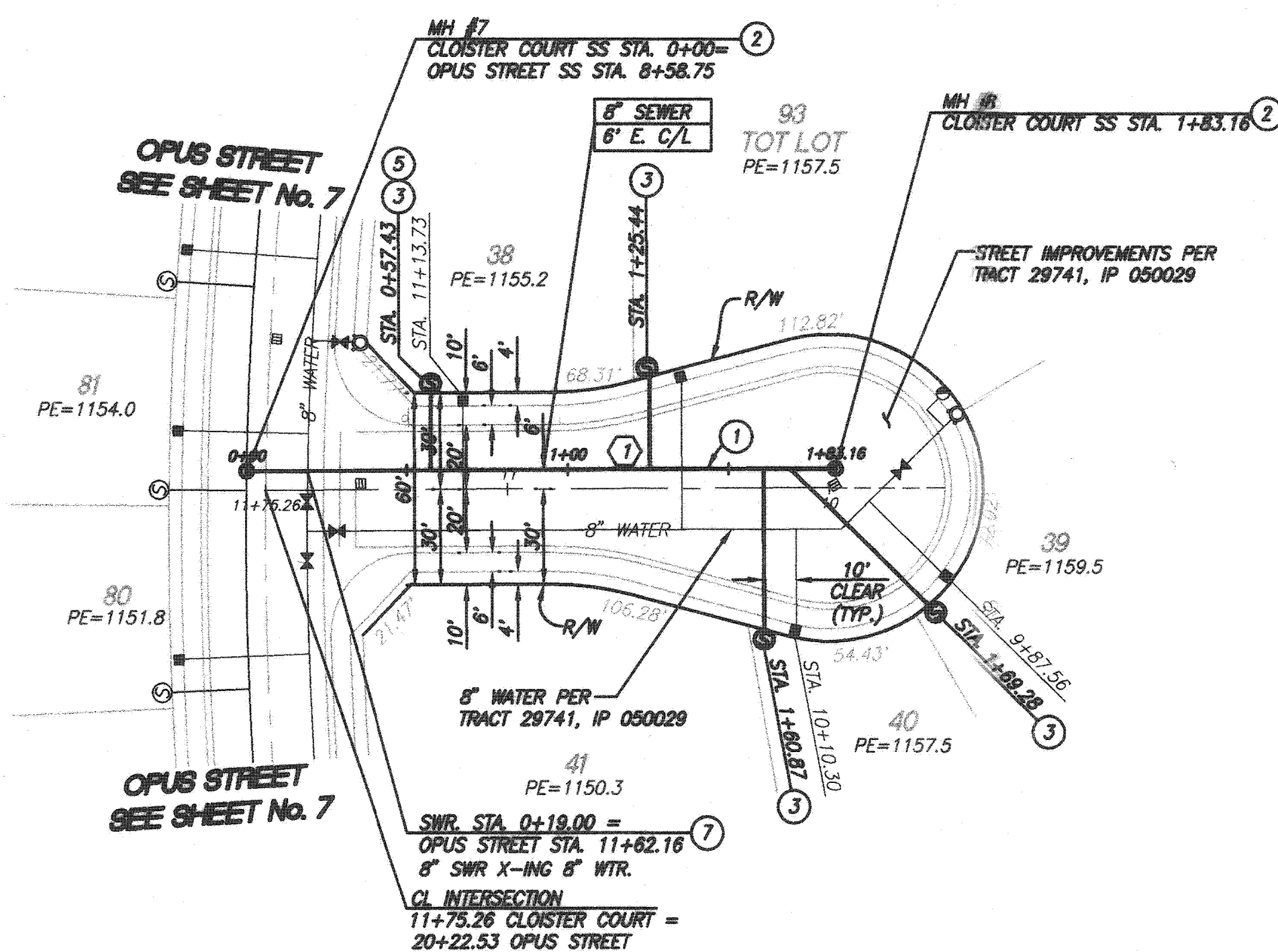
PROFILE SCALE:  
HORIZ: 1"=40'  
VERT: 1"=8'

**CONSTRUCTION NOTES**

- ① INSTALL 8" SDR 35 PVC SEWER MAIN. BEDDING PER CITY OF RIVERSIDE STD. DWG. NO. 452
- ② CONSTRUCT SANITARY SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. NO. 500
- ③ INSTALL 4" PVC (SDR 35) SEWER LATERAL W/ CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A, 560
- ④ BACKWATER VALVE
- ⑤ CAUTION! UTILITY CROSSING, SEE PROFILE FOR ELEVATIONS

**NOTE:**

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SANITARY SEWER DATA TABLE					
NO.	BEARING/DELTA	RADIUS	LENGTH	TANGENT	REMARKS
1	S30°46'32"W	-	183.16'	-	8" PVC

CITY OF RIVERSIDE DRAWING NO. S-1897

WDID No. 833C327881 PW05-0221

TRACT NO. 29741 IP NO. 050029 SHEET NO.

COUNTY OF RIVERSIDE SEWER IMPROVEMENT PLANS SPRING MOUNTAIN RANCH

CLOISTER COURT OF 10 SHTS.

FOR: W.O. COUNTY FILE NO.

NOTES:  
STREET RIGHT-OF-WAY DEDICATION PER TRACT NO. 29741, M.B. \_\_\_\_\_

CITY OF RIVERSIDE  
RECOMMENDS APPROVAL  
*Alan Byrd* 10/27/06  
CITY ENGINEER DATE

BENCHMARK  
SEE BENCHMARK NOTE ON SHEET 1  
PREPARED BY: *Kent J. Stepan* R.C.E. NO. 66133  
DATE: 7/24/06

STANTEC CONSULTING INC.  
277 RANCHEROS DRIVE  
SUITE 300  
SAN MARCOS, CA 92069  
760.891.3200

SEAL  
REGISTERED PROFESSIONAL ENGINEER  
KHALED A. OTHMAN  
CIVIL  
STATE OF CALIFORNIA

COUNTY OF RIVERSIDE  
TRANSPORTATION DEPARTMENT  
APPROVED BY:  
KHALED A. OTHMAN DATE: \_\_\_\_\_  
RECOMMENDED DATE: \_\_\_\_\_

SEAL-COUNTY  
REGISTERED PROFESSIONAL ENGINEER  
KHALED A. OTHMAN  
No. 33950  
Exp. 6/30/08  
CIVIL  
STATE OF CALIFORNIA

DATE	BY	MARK	REVISIONS	APPR.	DATE
	ENGINEER				COUNTY

NOTE: WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT AND/OR GRADING PERMIT HAS BEEN ISSUED.

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SPT 1/12/16 2008 INDEXED 6-02-07 LFT