

CITY OF LAS VEGAS FIRE DEPT. NOTES

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATIONS", "HYDRANT INSTALLATION SPECIFICATIONS" AND ORDINANCE #3677.
- AUTORIZED HYDRANTS FOR THIS PROJECT ARE:
 - KENNEDY GUARDIAN
 - MUELLER A-423 CENTURIAN
 - CLOW MODEL 2546 MEDALLION
- ON ANY NEW HOME OR BUILDING INSTALLATION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMBUSTIBLE CONSTRUCTION COMMENCES AND SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER WITH AN ADEQUATE WATER SUPPLY.
- CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT CENTERLINE OF STREET ADJACENT TO FIRE HYDRANT AS REQUIRED IN ORDINANCE #3677 TO IDENTIFY FIRE HYDRANT LOCATIONS.
- CALL THE LAS VEGAS BUILDING DEPARTMENT AT 229-2071 FOR UNDERGROUND INSPECTION, PRESSURE AND FLUSH VERIFICATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE COVERING.
- PAINTING OF THE CURBS AND HYDRANT AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE PER ORDINANCE #3677 SHALL BE COMPLETED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
- A PERMIT IS REQUIRED FROM THE FIRE DEPARTMENT FOR ON-SITE WATER LINE AND FIRE HYDRANT. THE PERMIT AND CONTRACTORS MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER PRIOR TO ANY WORK BEGINNING.
- A FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT PRIOR TO OCCUPANCY FOR VERIFICATION OF REQUIRED ON-SITE WATER SUPPLY.
- ALL ON-SITE FIRE MAIN MATERIALS MUST BE U.L. LISTED AND A.W.W.A. APPROVED.
- FIRE HYDRANT SPACING.

RESIDENTIAL - 500 FEET UNSPRINKLERED, 600 FEET SPRINKLERED
COMMERCIAL, INCLUDING MULTI-FAMILY - 300 FEET UNSPRINKLERED
400 FEET SPRINKLERED.
- NO FIRE HYDRANT SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF CUL-DE-SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
- NO FIRE HYDRANT SHALL BE LOCATED WITHIN 6 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.
- NOT MORE THAN 2 HYDRANTS CAN BE OUT OF SERVICE DUE TO A SINGLE MAIN BREAK.
- THE TURNING RADIUS FOR ANY FIRE APPARATUS ACCESS ROAD AND/OR FIRE LANE, PUBLIC OR PRIVATE SHALL BE NOT LESS THAN 45 FEET OUTSIDE RADIUS AND 22 FEET INSIDE RADIUS.
- A FIRE APPARATUS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FEET FROM A FIRE DEPARTMENT VEHICLE ACCESS. (SEE EXCEPTIONS UFC 91, SECTION 10.203).
- ALL DEAD END FIRE HYDRANTS APPARATUS ACCESS ROADS AND/OR FIRE LANES PUBLIC OR PRIVATE IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURNAROUND AREA. SEE ORDINANCE #3677.
- ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF LAS VEGAS GUIDELINES FOR AUTOMATIC EMERGENCY VEHICLE ACCESS GATES.

CITY OF LAS VEGAS STREET LIGHT NOTES

- ALL STREET LIGHTING INSTALLATIONS SHALL CONFORM TO THE LATEST ISSUE OF THE STANDARD DETAILS AND SPECIFICATIONS OF THE CITY OF LAS VEGAS AND SHALL ALSO CONFORM TO THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, 1986 UNLESS OTHERWISE NOTED.
- SEE UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION CITY OF LAS VEGAS DRAWINGS #306 AND #307.

CITY OF LAS VEGAS SEWER NOTES

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN & CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IN ALL CASES, THESE STANDARDS SHALL SUPERSEDE THE UNIFORM STANDARD SPECIFICATIONS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATION BOOKS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLAN, ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CONTROLLING AGENCY.
- CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER CURB.
- POLYETHYLENE (PE) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, AND INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II GRAVEL.
- ALL MANHOLES IN PAVED STREETS 80 FT. R/W AND LARGER, SHALL HAVE CONCRETE COLLARS.
- TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO 12 IN. DIA. SIZE. CONNECTIONS TO 15 IN. OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES.
- A SEWER MAIN CROSSING OVER A WATER MAIN OR LESS THAN 18 IN. UNDER A WATER MAIN MUST BE REINFORCED CONCRETE ENCASED PIPE FOR A DISTANCE OF NOT LESS THAN TEN FEET (10') ON EACH SIDE OF THE CENTERLINE OF THE WATER MAIN.
- ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CONTROLLING AGENCY MUST BE CLASS "A" CONTRACTORS.
- THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED AND REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY.

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LAS VEGAS VALLEY WATER DISTRICT NOTES

- NO WORK SHALL BEGIN ON WATER PLANS UNTIL THEY HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVWD. FOLLOWING WATER PLAN APPROVAL, 48 HOUR NOTICE SHALL BE GIVEN TO THE LVWD COMMUNICATIONS SUPERVISOR (258-7171) PRIOR TO THE START OF CONSTRUCTION. NOTICE MUST BE GIVEN BY 2:00 PM THE BUSINESS DAY PRIOR TO A LVWD INSPECTION.
- ALL WORK SHALL CONFORM TO LVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS AND THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDACS), LATEST EDITION.
- ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENT, CLARK COUNTY AREA.
- A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVWD.
- ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE COPPER TUBING WITH LVWD APPROVED SERVICE SADDLES.
- ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
- ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
- THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT A WATER LINE AND SANITARY OR STORM SEWER LINE CROSS:
 - A MINIMUM OF EIGHTEEN (18) INCH VERTICAL SEPARATION (OUTSIDE TO OUTSIDE) MUST BE MAINTAINED WHEN THE WATER LINE IS INSTALLED OVER THE SANITARY OR STORM SEWER LINE. IF THE VERTICAL SEPARATION CANNOT BE MAINTAINED OR THE WATER LINE MUST BE PLACED UNDER THE SANITARY OR STORM SEWER LINE, THE SANITARY OR STORM SEWER LINE MUST BE CONSTRUCTED WITH ONE OF THE FOLLOWING OR, AS SHOWN ON THESE PLANS:
 - POTABLE WATER SUPPLY QUALITY MATERIAL.
 - ENCASEMENT, WITH FOUR (4) INCH CONCRETE (MINIMUM).
 - SLEEVING WITH POTABLE WATER SUPPLY QUALITY PIPE.
 - EACH PROVISION MUST EXTEND ALONG THE SANITARY OR STORM SEWER, ON EITHER SIDE OF THE MAIN, A MINIMUM 10 FOOT DISTANCE PERPENDICULAR TO THE WATER MAIN EXTERIOR.
- WARNING TAPE SHALL BE REQUIRED OVER ALL MAINS, ALL SIX (6) INCH DIAMETER AND LARGER SERVICE LATERALS, AND ANY SERVICE LATERAL NOT INSTALLED PERPENDICULAR TO THE MAIN IN ACCORDANCE WITH STANDARD PLATE NO. 27.
- ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVWD DISTRIBUTION SYSTEM.
- THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVWD CENTRAL STORES. TEL. 258-3152 FORTY-EIGHT (48) HOURS PRIOR TO PICK-UP.
- CONSTRUCTION MAY INTERRUPT SERVICE, WITH LVWD APPROVAL AND PROPER NOTIFICATION, BETWEEN THE HOURS OF 10PM AND 6AM, SUNDAY THROUGH THURSDAY. CIRCUMSTANCES MAY REQUIRE TEMPORARY SERVICE FEEDS BE INSTALLED, WITHOUT LVWD REIMBURSEMENT. ANY TEMPORARY SERVICE FEED MUST HAVE PRIOR LVWD APPROVAL.
- ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE LISTED ON THE LVWD APPROVED MATERIALS AND MANUFACTURES LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.

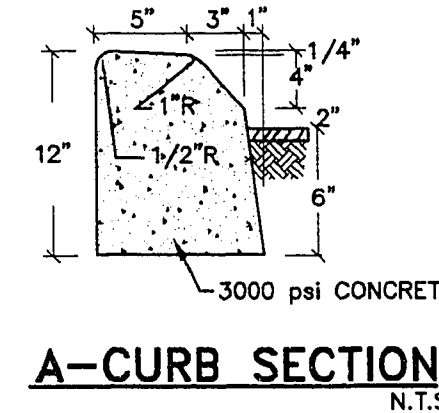
REVISED: APRIL 25, 1995

LINE DATA TABLE

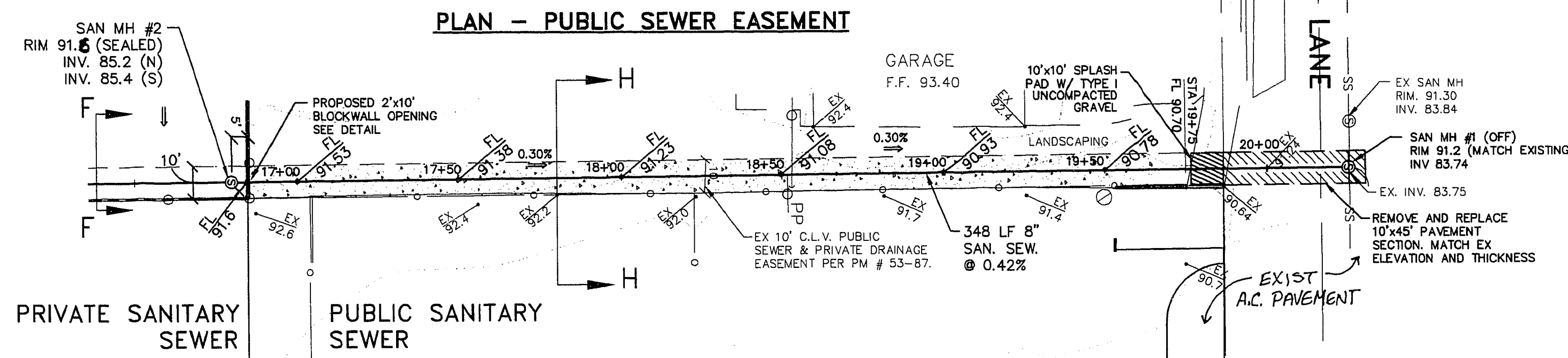
LINE	DIRECTION	DISTANCE
L1	S 89°59'52" E	11.04'
L2	S 00°00'00" W	11.24'
L3	S 89°59'52" E	172.00'
L4	S 00°00'00" W	10.79'
L5	N 89°59'52" W	126.30'
L6	S 00°00'00" W	14.34'
L7	N 00°00'00" E	19.00'
L8	N 89°59'52" W	15.55'
L9	S 89°59'52" E	13.45'
L10	N 00°00'00" E	19.00'
L11	S 00°00'00" W	261.39'
L12	S 89°59'52" E	13.45'
L13	N 00°00'00" E	16.61'
L14	N 89°59'52" W	13.39'
L15	S 00°00'00" W	15.56'
L16	N 89°59'52" W	402.00'
L17	N 00°00'00" E	14.34'
L18	N 89°59'52" W	127.00'
L19	N 00°00'00" E	14.34'
L20	S 89°59'52" E	13.45'
L21	S 89°59'52" W	30.51'
L22	S 89°59'52" W	30.51'
L23	S 89°59'52" W	30.51'
L24	S 89°59'52" W	30.51'
L25	N 00°00'00" E	15.67'
L26	S 89°59'52" E	16.50'
L27	N 00°00'00" E	137.00'
L28	N 89°59'52" W	0.84'
L29	N 00°00'00" E	16.50'
L30	N 00°00'00" E	16.50'
L31	N 89°59'52" W	137.00'
L32	N 00°00'00" E	17.00'
L33	S 89°59'52" W	13.45'
L34	S 00°00'00" W	77.00'
L35	N 89°59'52" W	19.50'
L36	N 00°00'00" E	16.00'
L37	N 00°00'00" E	29.00'
L38	N 00°00'00" E	12.04'
L39	N 00°00'00" E	14.55'
L40	S 89°59'52" E	288.00'
L41	N 00°00'00" E	29.39'
L42	N 89°59'52" E	15.50'
L43	S 89°59'52" E	30.50'
L44	S 89°59'52" E	30.51'
L45	N 00°00'00" E	13.45'
L46	N 89°59'52" E	30.50'
L47	N 89°59'52" E	30.51'
L48	N 00°00'00" E	185.29'
L49	S 44°42'35" E	13.08'
L50	S 44°42'35" E	17.08'
L51	S 89°59'52" E	9.93'
L52	N 89°59'52" E	14.30'
L53	S 00°00'00" W	88.00'
L54	S 89°59'52" E	14.67'
L55	N 00°00'00" W	14.67'
L56	N 00°00'00" E	14.67'
L57	N 89°59'52" E	14.68'
L58	S 00°00'00" W	100.00'
L59	S 89°59'52" E	15.22'
L60	S 00°00'00" W	33.57'
L61	N 00°00'00" E	7.90'
L62	N 00°00'00" E	22.00'
L63	N 00°00'00" E	22.00'
L64	S 89°59'52" E	16.80'
L65	N 00°00'00" E	196.38'
L66	N 00°00'00" E	23.37'

BACK OF CURB CURVE DATA TABLE

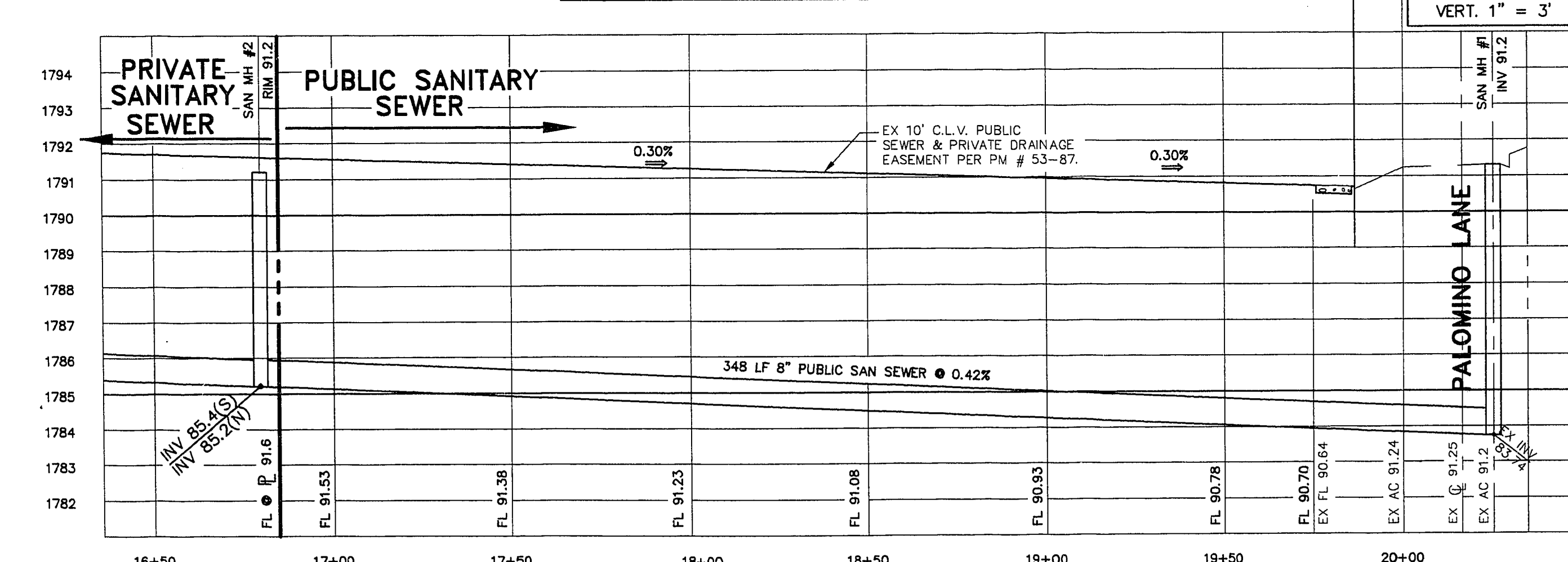
CURVE	RADIUS	LENGTH	DELTA
C1	4.50'	8.21'	104°28'39"
C2	24.50'	26.10'	61°02'42"
C3	4.50'	8.21'	104°28'39"
C4	24.50'	33.68'	78°45'54"
C5	4.50'	7.63'	97°10'51"
C6	4.50'	7.63'	97°10'51"
C7	24.50'	33.68'	78°45'54"
C8	4.50'	7.39'	94°03'15"
C9	4.50'	7.39'	94°03'15"
C10	24.50'	33.68'	78°45'54"
C11	4.50'	7.63'	97°10'51"
C12	4.50'	7.63'	97°10'51"
C13	24.50'	33.68'	78°45'54"
C14	4.50'	7.39'	94°03'15"
C15	2.28'	7.04'	175°57'42"
C16	2.28'	7.04'	175°57'42"
C17	2.28'	7.04'	175°57'42"
C18	2.28'	7.04'	175°57'42"
C19	4.50'	7.07'	90°00'00"
C20	2.00'	3.14'	90°00'00"
C21	4.50'	7.07'	90°00'00"
C22	4.50'	7.07'	90°00'00"
C23	2.96'	9.30'	175°59'45"
C24	2.96'	9.30'	175°59'45"
C25	18.00'	49.30'	156°53'34"
C26	3.00'	5.32'	101°32'13"
C27	2.28'	7.04'	175°57'42"
C28	2.28'	7.04'	175°57'42"
C29	2.28'	7.04'	175°57'42"
C30	2.28'	7.04'	175°57'42"
C31	4.50'	7.48'	85°14'01"
C32	24.50'	32.80'	76°42'53"
C33	4.50'	7.70'	98°03'21"
C34	4.50'	7.39'	94°03'15"
C35	18.92'	29.69'	89°53'40"
C36	14.50'	22.78'	90°00'12"
C37	2.50'	7.85'	180°00'00"
C38	100.00'	20.91'	115°58'50"
C39	43.74'	37.12'	48°37'48"
C40	1.50'	3.63'	138°37'48"
C41	2.50'	7.85'	180°00'00"
C42	2.00'	3.14'	90°00'00"
C43	4.32'	13.58'	180°00'00"
C44	4.32'	13.58'	180°00'00"



PLAN - PUBLIC SEWER EASEMENT



PROFILE - PUBLIC SEWER EASEMENT



APPROVED FOR CONSTRUCTION

1-30-96
DATE

SHA
ENGINEERS
STAN HANSEN & ASSOCIATES
908 S VALLEY HWY. SUITE 200
LAS VEGAS, NEVADA 89108
(702) 947-9008
FAX (702) 947-9110

WESTBAY AT CHARLESTON
BRING A PORTION OF THE SOUTH HALF (S1/2) OF THE
SOUTHWEST QUARTER (SW1/4) OF SECTION 32,
TOWNSHIP 20 SOUTH, RANGE 61 EAST, M.D.M.,
CITY OF LAS VEGAS, NEVADA.

NOTES AND DETAIL SHEET

PROJECT TITLE	WESTBAY AT CHARLESTON
APPL.	
REVISION	
DATE	
NO.	

SEAL
22 JAN 1996

BRIAN P. TOMPSETT
CIVIL
No. 9521

DATE:	12 JAN. 1996
JOB NO.:	94419
SCALE:	1" = 30'
DRAWN:	L.R.W.
DESIGNED:	DPW
CHKD BY:	BPT
DWG NAME:	419_C10
sheet:	C10 OF 10

107-V2459