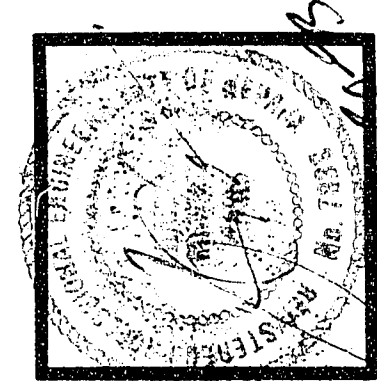
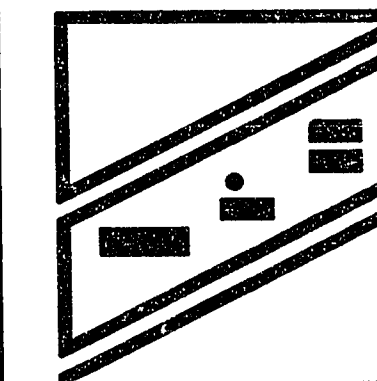


13-2-139



DESIGNED BY:	LR	DRAWN BY:	FE	CHKD BY:	
JOB NUMBER:	408-003-922	DATE:	8-18-93		
NO.		REVISION			
1		REVISED WATER CONNECTION	10/10/93		
2		REVISED EGRESS ROAD & FIRE LANE	10/10/93		
3		ADDED NOTE			

LR NELSON
CONSULTING ENGINEERS
6075 SOUTH EASTERN AVENUE
LAS VEGAS, NEVADA 89119
(702) 798-7978



WATER PLAN
ANGEL COURT CONDOMINIUMS
SUNGATE DEVELOPMENT COMPANY
CITY OF LAS VEGAS, NEVADA

SHEET NUMBER
2
OF 6 SHEETS

DISCLAIMER NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

Avoid cutting underground utility lines. Call before you dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

UTILITY LEGEND

- W — PROPOSED WATER
- S — PROPOSED SEWER & MANHOLE
- S — EXISTING SEWER
- W — EXISTING WATER
- S — EX SEWER MANHOLE
- S — PRPOSED FIRE HYDRANT
- S — BUILDING NUMBERS
- W — PROPOSED WATER VALVE

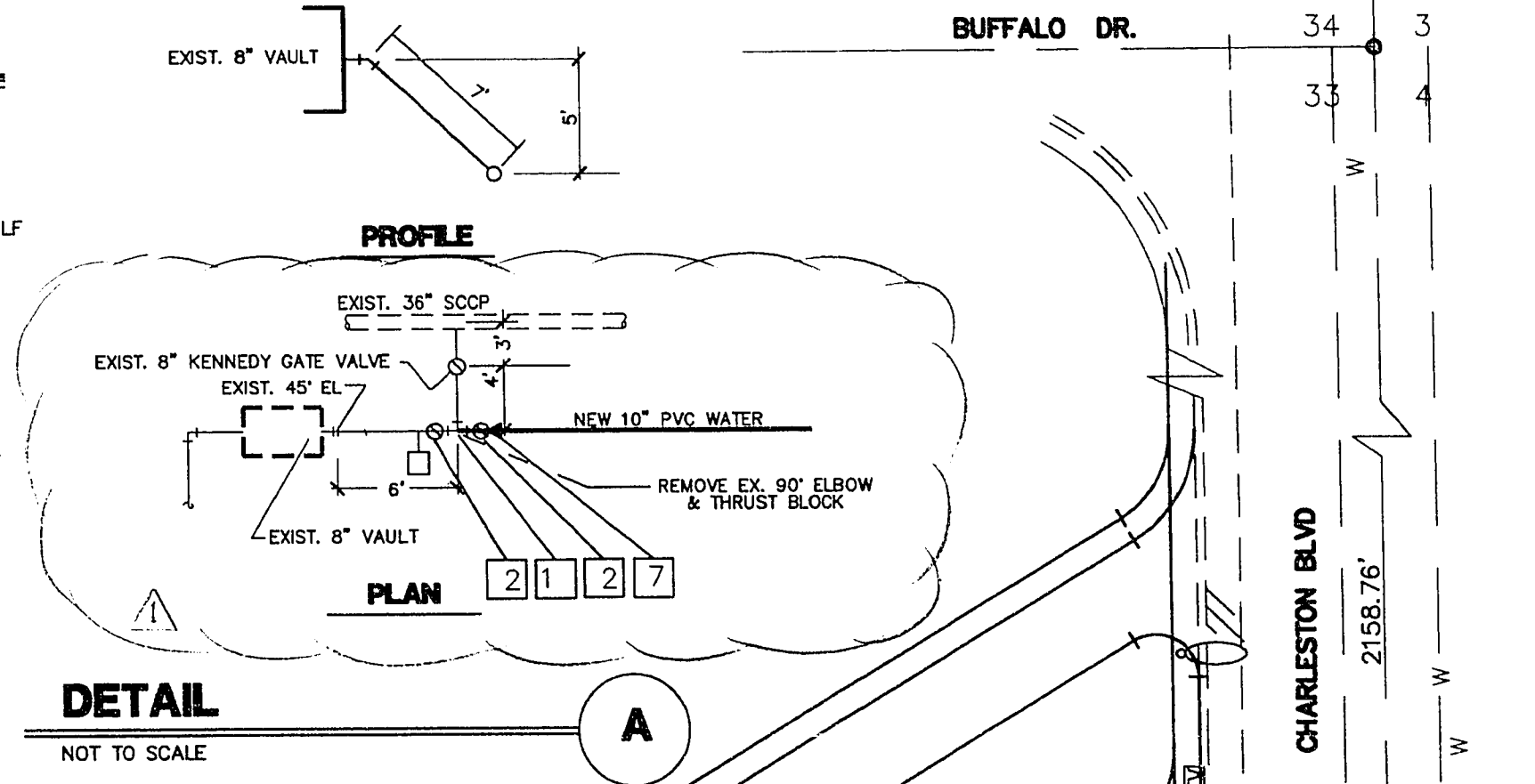
FIRE DATA

8600 SQUARE FEET BETWEEN SEPERATION WALLS
SEPERATION WALLS NO
TYPE OF CONSTRUCTION = TYPE VN
NO SPRINKLERS NO
FIRE FLOW REQUIRED = 2750 GPM @ 20 P.S.I. RESIDUAL

QUANTITY ESTIMATE

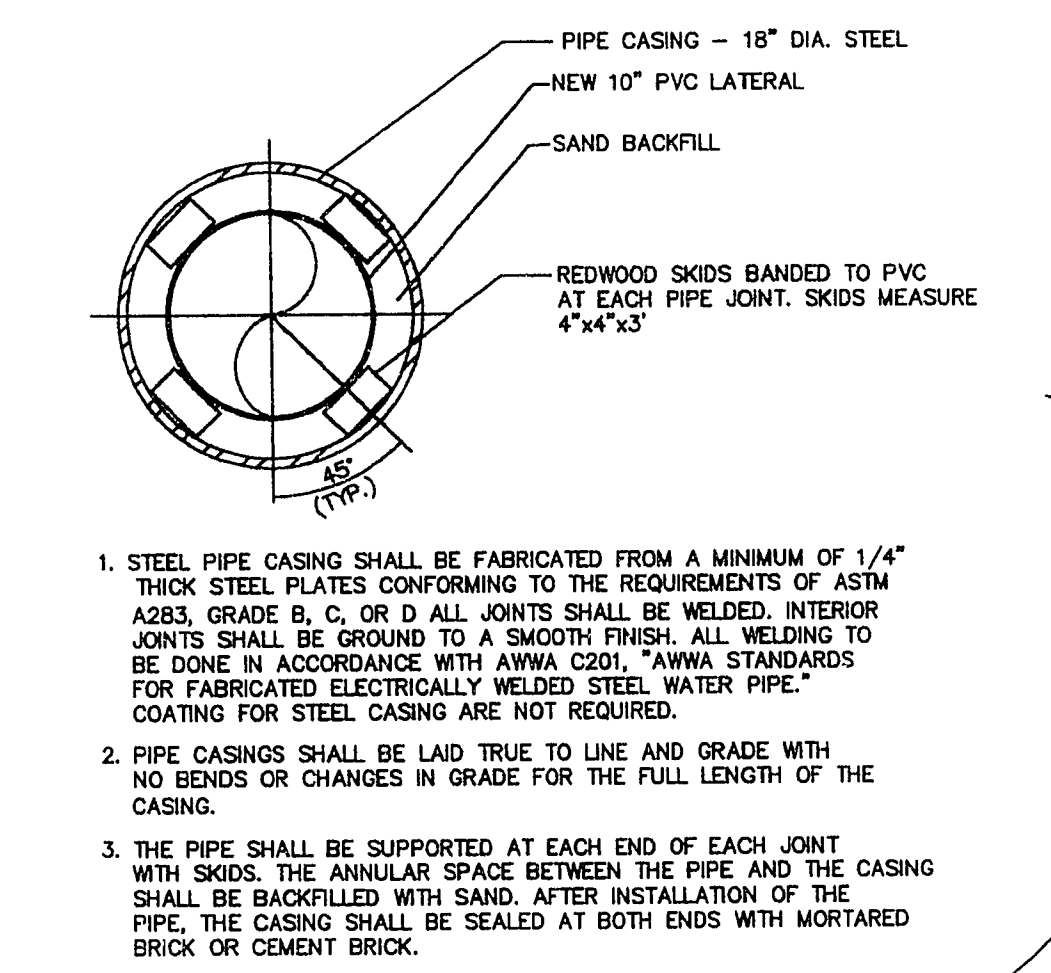
OFF-SITE:	ON-SITE:
1 8" X 8" X 8" TEE W/ THRUST BLOCK 1 EA.	7 10" X 2" F.M.C.T. (BY CONTRACTOR) 1 EA.
2 8" GATE VALVE 2 EA.	8 8" PVC WATER 1077± LF
4 CONST. CONC. ENCASUREMENT PER DETAIL THIS SHEET	9 STD. FIRE HYDRANT ASSEMBLY 4 EA.
5 10" PVC WATER 83± LF	11 8" 45° BEND 8 EA.
6 10" 45° PVC BEND 1 EA.	12 8" GATE VALVE 4 EA.
7 10" X 8" REDUCER 1 EA.	13 8" X 8" X 10" TEE 1 EA.
8 18" STEEL CASING 3 LF	14 1 1/2" SERVICE LATERAL 200 LF
	15 3/4" SERVICE LATERAL 56 LF
	16 10" PVC WATER 36 LF
	17 10" 45° BEND 2 EA.
	18 18" STEEL CASING 4 LF

UNDEVELOPED



DETAIL
NOT TO SCALE

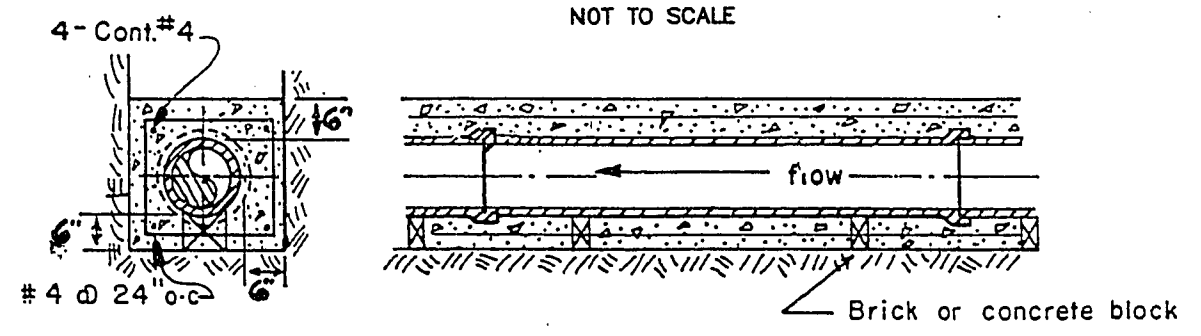
TYPICAL CASING SECTION



- STEEL PIPE CASING SHALL BE FABRICATED FROM A MINIMUM OF 1/4" THICK STEEL PLATES CONFORMING TO THE REQUIREMENTS OF ASTM A283, GRADE B, C, OR D. ALL JOINTS SHALL BE WELDED. INTERIOR JOINTS SHALL BE GROUND TO A SMOOTH FINISH. ALL WELDING TO BE DONE IN ACCORDANCE WITH AWWA C201. AWWA STANDARDS FOR FABRICATED ELECTRICALLY WELDED STEEL WATER PIPE. COATING FOR STEEL CASING ARE NOT REQUIRED.
- PIPE CASINGS SHALL BE LAID TRUE TO LINE AND GRADE WITH NO BENDS OR CHANGES IN GRADE FOR THE FULL LENGTH OF THE CASING.
- THE PIPE SHALL BE SUPPORTED AT EACH END OF EACH JOINT WITH SKIDS. THE ANNUAL SPACE BETWEEN THE PIPE AND THE CASING SHALL BE BACKFILLED WITH SAND. AFTER INSTALLATION OF THE PIPE, THE CASING SHALL BE SEALED AT BOTH ENDS WITH MORTARED BRICK OR CEMENT BRICK.

SECTION

NOT TO SCALE



REINFORCED CONCRETE ENCASUREMENT

APPROVALS

David Freeman 9/1/93
C.L.V. FIRE DEPT. DATE
LAS VEGAS VALLEY WATER DISTRICT
1-15-94
Date

PROJECT NAME: ANGEL COURT CONDOMINIUMS
This project water plan complies with the Las Vegas Valley Water District's technical requirements. However, this water plan is NOT APPROVED FOR CONSTRUCTION at this time and this signature does not provide or imply a water commitment.
M. Braybrooke 9-2-93
LVWD Date

408-003-922

107-1/2151

WATER DISTRICT NOTES

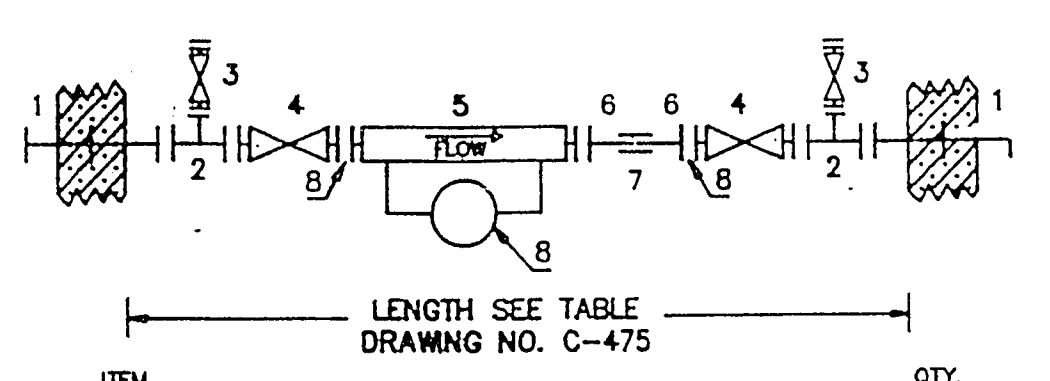
- NO WORK SHALL BEGIN ON THE WATER PLANS UNTIL THEY HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVWD. FOLLOWING APPROVAL OF THE PLANS, NOTICE MUST BE GIVEN TO THE LVWD CUSTOMER SERVICE DEPARTMENT (870-4194), 48 HOURS PRIOR TO ACTUAL CONSTRUCTION AND 24 HOURS PRIOR TO INSPECTION.
- CALL BEFORE YOU DIG 1-800-227-2600.
- ALL WORK SHALL CONFORM TO LVWD LATEST STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS.
- ALL WORK, EXCEPT AS MODIFIED HEREON OR BY NOTE 3, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR ADDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENTS, CLARK COUNTY AREA.
- DISTRICT APPROVED SERVICE SADDLES OR TAPPED COLLARS WILL BE REQUIRED ON ALL 3/4" AND 1" SERVICE LATERALS. SERVICE SADDLES ONLY WILL BE PERMITTED ON 1-1/2" AND 2" SERVICE LATERALS. DOUBLE TAPPED COLLARS ARE NOT PERMITTED.
- COPPER SERVICE LATERALS: ALL 3/4" TO 2" SERVICE LATERALS WILL BE OF COPPER TUBING IN ACCORDANCE WITH THE DISTRICTS SPECIFICATIONS AND STANDARD PLATES.
- THE MAXIMUM ALLOWABLE JOINT DEFLECTION FOR ACP AND DUCTILE IRON PIPE SHALL BE AS FOLLOWS:

PIPE SIZES	ACP	DUCTILE IRON	DUCTILE IRON
6 INCH	2.5 DEGREES	2.5 DEGREES	3.5 DEGREES
8-12 INCH	2.5 DEGREES	2.5 DEGREES	2.5 DEGREES
14-16 INCH	2 DEGREES	1.5 DEGREES	1.5 DEGREES
18-24 INCH	N/A	1.5 DEGREES	1.5 DEGREES

ON PVC PIPE, THE MAXIMUM OFFSET FOR A 20' LENGTH OF FACTORY BELLED PIPE SHALL BE 17 INCHES FOR 6" PIPE, 12 INCHES FOR 8" PIPE, 11 INCHES FOR 10" PIPE, AND 9 INCHES FOR 12" PIPE.
- ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
- ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS AND VALLEY GUTTERS.
- DETECTOR TAPE IS REQUIRED IN ACCORDANCE WITH STANDARD PLATE NO. 27 WHERE INDICATED, AND AS FOLLOWS:
 - OVER ALL MAINS NOT INSTALLED 6 FEET FROM BACK OF CURB.
 - OVER ALL SERVICE LATERALS NOT INSTALLED AT RIGHT ANGLES TO MAIN.
- ALL WATER MAINS ARE TO BE PRESSURE TESTED AT 200 PSI FOR A CONTINUOUS TWO HOUR PERIOD.
- ALL WATER MAINS AND LATERALS SHALL BE DISINFECTED AND FLUSHED, AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO ACCEPTANCE BY THE DISTRICT.
- THE CONTRACTOR IS TO OBTAIN ALL METERS 2" AND SMALLER FROM LVWD CENTRAL STORES. TELEPHONE 258-3152 FORTY-EIGHT (48) HOURS PRIOR TO PICK-UP.

NOTE

THE METER(S) AND VAULT(S) WITH NON-TRAFFIC BEARING COVER(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE ATTACHED DETAIL AND WITH STANDARD VAULT DRAWING C-475, LATEST REVISION.
ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S), SO AS TO ALLOW THE DISTRICT DIRECT ACCESS TO THE VAULT(S) FROM THE ADJACENT RIGHT-OF-WAY.



ITEM NO.	DESCRIPTION	QTY.
1.	FLANGED SCHED 40 FABRICATED STEEL, APOXY COATED AND LINED WALL SPOOL WITH THRUST RING.	2
2.	FLANGED GATE VALVE.	2
3.	HERSEY MODEL MFN II/MCT II METER OR APPROVED EQUAL.	1
4.	FLANGED X PLAN END SCHED 40 FABRICATED STEEL APOXY COATED AND LINED SPOOL.	2
5.	SLEEVE TYPE COUPLING.	1
6.	INSTALL ADJUSTABLE PIPE SUPPORTS, GRINNELL NO. 264 OR APPROVED EQUAL.	2

SERVICE SIZE: 10" BY PASS VALVE: 6" FLANGED G.V.
NOTES: ALL PIPING, FITTINGS, AND APPURTENANCES SHALL CONFORM TO APPLICABLE DISTRICT SPECIFICATIONS.
THIS INSTALLATION IS FOR USE ONLY IN SYSTEMS HAVING ANOTHER SOURCE OF SUPPLY.