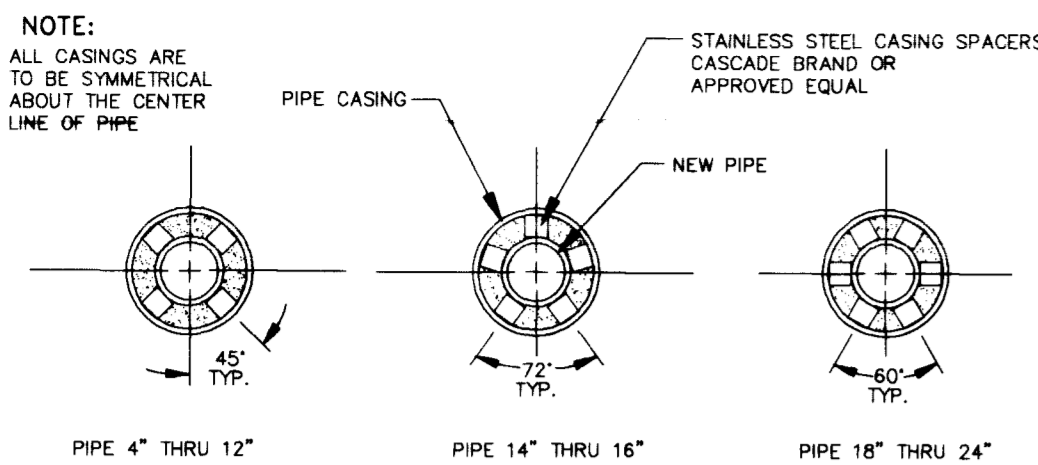


TYPICAL CASING DETAIL



- 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 ROUNDED TO A SMOOTH FINISH. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH ANNA C201. ANNA STANDARD FOR FABRICATED ELECTRICALLY WELDED STEEL WATER PIPE. COATINGS FOR STEEL CASING ARE NOT REQUIRED.
- PIPE CASING 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 SPACERS. AFTER INSTALLATION OF THE PIPE, THE CASING SHALL BE SEALED AT BOTH ENDS WITH CASING END SEALS.

**C.L.V. VEGAS SEWER NOTES
SEE COVER SHEET**

**C.L.V. VEGAS FIRE NOTES
SEE COVER SHEET**

APPROVALS:

[Signature] 5.31.96 DATE
CITY OF LAS VEGAS FIRE MARSHALL
[Signature] 5/31/96 DATE
LAS VEGAS VALLEY WATER DISTRICT
[Signature] 6/3/96 DATE
NEVADA POWER COMPANY
THIS APPROVAL IS ONLY FOR THE PLACEMENT AND CLEARANCE OF STREET LIGHT AND SIGNAL LIGHT INSTALLATIONS.

WATER QUANTITIES (PRIVATE)

2 1/2" WATER	661 L.F.
8" WATER	2690 L.F.
8" GATE VALVE	2 EA.
8" 11.25'	4 EA.
8" 22.5'	3 EA.
8" 45'	5 EA.
8" 90'	7 EA.
STANDARD F.H. ASSEMBLY	7 EA.
6"X2" METER W/6" DCVA	2 EA.

L.V.V.W.D. NOTES:

- NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN RELEASED FOR CONSTRUCTION BY THE L.V.V.W.D. (258-7171) PRIOR TO THE START OF CONSTRUCTION. NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO A L.V.V.W.D. INSPECTION.
- ALL WORK SHALL CONFORM TO THE L.V.V.W.D.'S STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS AND THE UNIFORM SEWON 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 EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
- A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE L.V.V.W.D.
- ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE COPPER TUBING WITH L.V.V.W.D. 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 CUTTERS.
- THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT A WATER LINE AND SANITARY OR STORM SEWER LINE CROSS:
 - A MINIMUM 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.
 - ENCASMENT WITH FOUR (4) INCH CONCRETE (MINIMUM) 3" SLEEVING WITH POTABLE WATER SUPPLY QUALITY PIPE.

SEWER QUANTITIES (PRIVATE)

6" SEWER	1167 L.F.
8" SEWER	1993 L.F.
6" CLEANOUT	10 L.F.
48" MANHOLE	11 EA.

NOTE: ALL ONSITE SEWERS ARE PRIVATELY OWNED AND MAINTAINED

C.L.V. FIRE FLOW DATA:

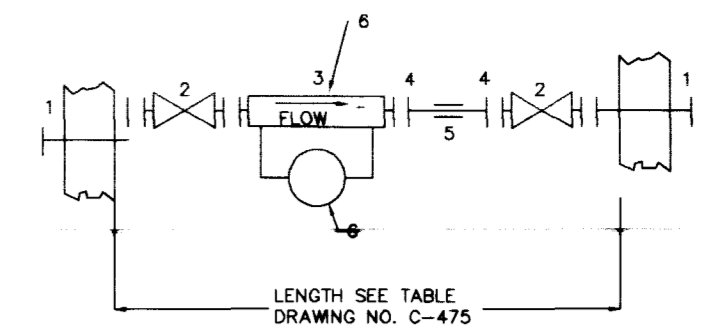
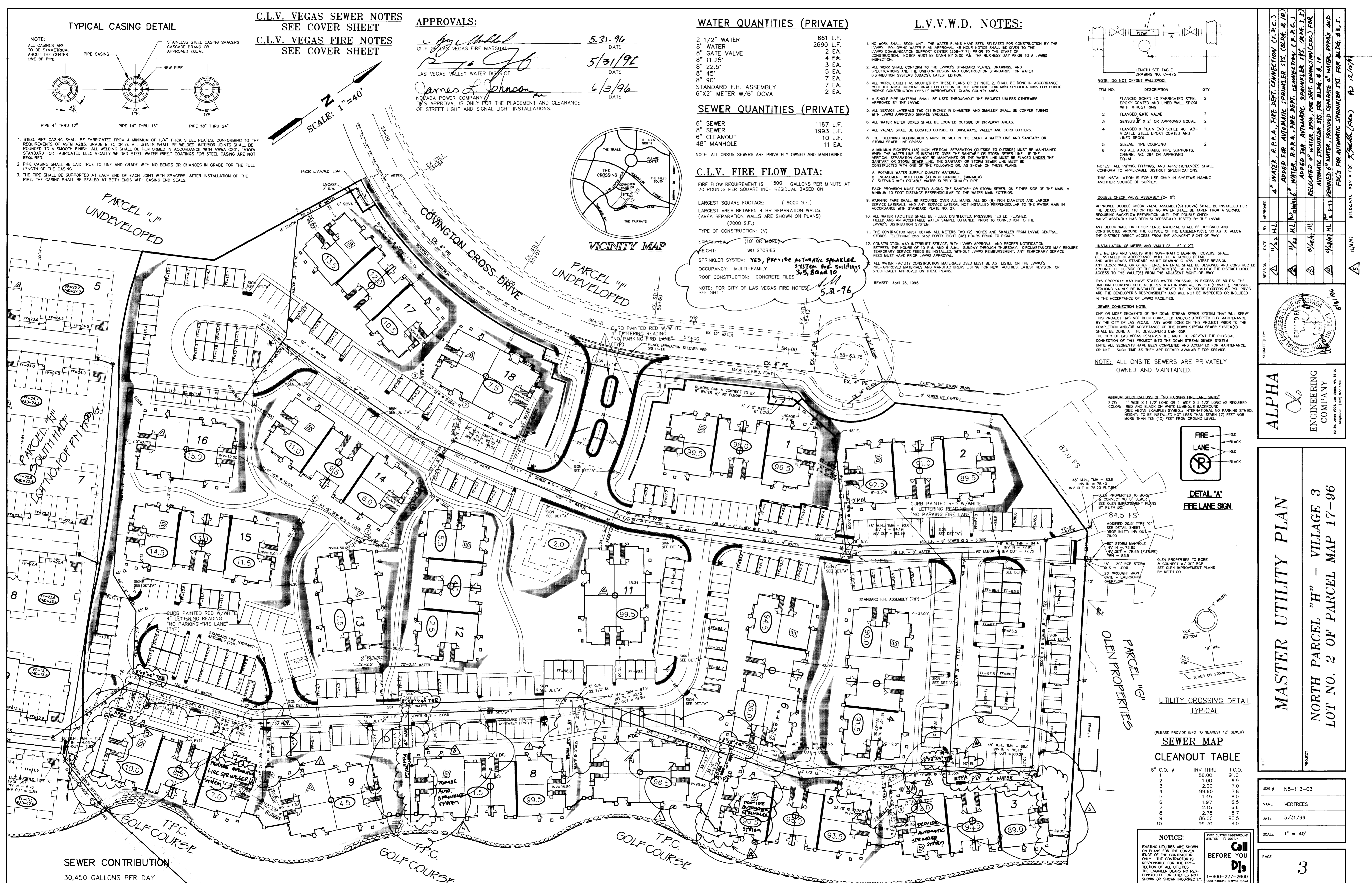
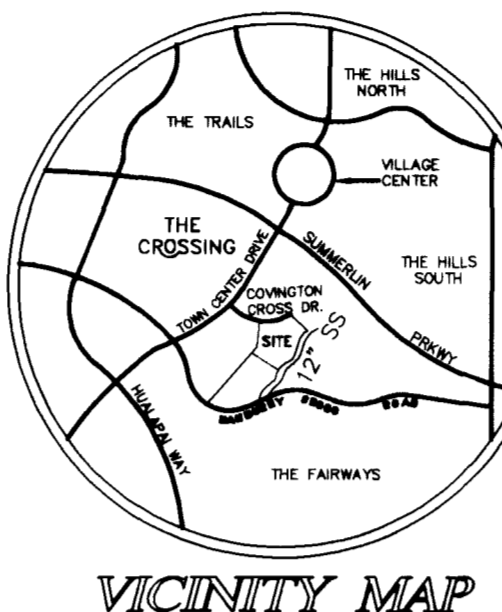
FIRE FLOW REQUIREMENT IS 1500 GALLONS PER MINUTE AT 20 POUNDS PER SQUARE INCH RESIDUAL BASED ON:

LARGEST SQUARE FOOTAGE: (9000 S.F.)
LARGEST AREA BETWEEN 4 HR SEPARATION WALLS: (AREA SEPARATION WALLS ARE SHOWN ON PLANS) (2000 S.F.)

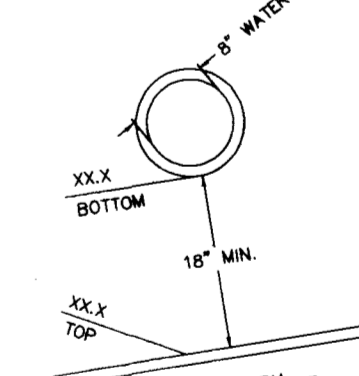
TYPE OF CONSTRUCTION: (V)

EXPOSURES: (10' OR MORE)
HEIGHT: TWO STORIES
SPRINKLER SYSTEM: YES, PROVIDE AUTOMATIC SPRINKLER SYSTEM FOR BUILDINGS 3.5, 8 AND 10
OCCUPANCY: MULTI-FAMILY
ROOF CONSTRUCTION: CONCRETE TILES

NOTE: FOR CITY OF LAS VEGAS FIRE NOTES SEE SHT 1



DETAIL 'A' FIRE LANE SIGN



UTILITY CROSSING DETAIL TYPICAL

SEWER MAP CLEANOUT TABLE

6" C.O. #	INV THRU	I.C.O.
1	86.00	91.0
2	1.00	6.9
3	2.00	7.0
4	99.60	7.8
5	1.45	8.0
6	1.97	6.5
7	2.15	6.6
8	2.78	8.7
9	86.00	90.5
10	99.70	4.0

NOTICE!
EXISTING UTILITIES ARE SHOWN ON PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. ENGINEER BEARS NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR SHOWN INCORRECTLY.

Call BEFORE YOU Dig
1-800-227-2600
UNDERGROUND UTILITY LOCATING SERVICE (ULS)

DATE	BY	REVISION
1/25/94	HL	1
1/25/94	HL	2
1/25/94	HL	3
1/25/94	HL	4
1/25/94	HL	5
1/25/94	HL	6
1/25/94	HL	7
1/25/94	HL	8
1/25/94	HL	9
1/25/94	HL	10

ALPHA ENGINEERING COMPANY

MASTER UTILITY PLAN

NORTH PARCEL "H" - VILLAGE 3

LOT NO. 2 OF PARCEL MAP 17-96

Job # N5-113-03
NAME VERTREES
DATE 5/31/96
SCALE 1" = 40'
PAGE 3

