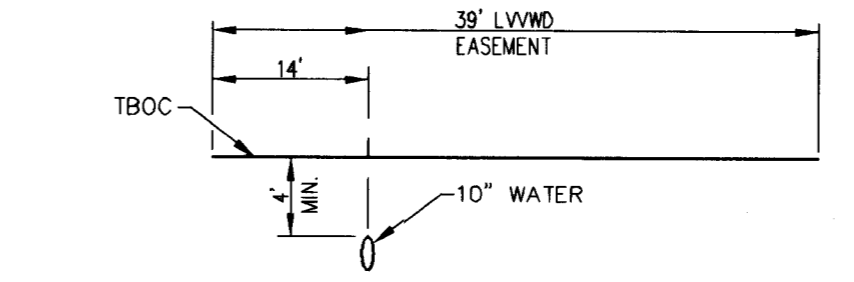


SSMH#2 (48" TYPE I) STA 14+33.48 18.00' LT RM = 2391.92 INV IN = 2383.42 PIPE INV OUT = 2371.30 PIPE	SSMH #1 (48" TYPE I) STA 15+81.02 17.00' LT RM = 2418.85 INV IN = 2407.03 PIPE INV OUT = 2408.20 PIPE
SSMH #3 (48" TYPE I) STA 16+63.18 18.00' LT RM = 2393.92 INV IN = 2386.45 PIPE INV OUT = 2385.42 PIPE	SSMH #4 (48" TYPE I) STA 15+81.02 8.00' RT RM = 2418.85 INV IN = 2409.32 PIPE INV OUT = 2409.12 PIPE
SSMH #4 (48" TYPE I) STA 15+30.76 18.00' LT RM = 2399.40 PIPE INV IN = 2386.45 PIPE INV OUT = 2385.42 PIPE	SSMH #10 (48" TYPE I) STA 17+76.88 8.00' RT RM = 2421.19 INV IN = 2411.81 PIPE INV OUT = 2411.41 PIPE
SSMH #5 (48" TYPE I) STA 17+36.88 17.00' LT RM = 2401.40 INV IN = 2394.42 PIPE INV OUT = 2394.02 PIPE	SSMH #11 (48" TYPE I) STA 17+84.72 1.00' RT RM = 2409.52 INV IN = 2418.75 PIPE INV OUT = 2418.75 PIPE
SSMH #6 (48" TYPE I) STA 16+63.18 17.00' LT RM = 2405.96 INV IN = 2396.78 PIPE INV OUT = 2396.58 PIPE	SSMH #12 (48" TYPE I) STA 17+84.72 8.00' RT RM = 2417.88 INV IN = 2413.38 PIPE INV OUT = 2413.38 PIPE

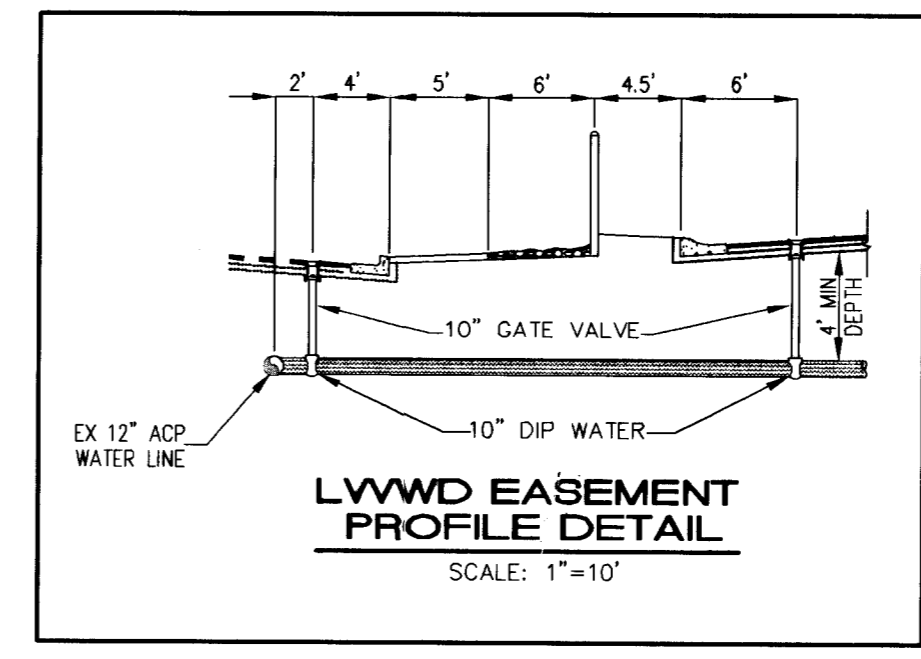
FIRE FLOW REQUIREMENT IS 1500 GALLONS PER MINUTE AT 20 POUNDS SQUARE INCH RESIDUAL PRESSURE.
BASED ON:
LARGEST SQUARE FOOTAGE: 3600 - SQ.FT.
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS: 3600 - SQ.FT.
BUILDING HEIGHT: 35 FEET
NUMBER OF STORES: 2 FLOORS
TYPE OF CONSTRUCTION: (VA)
OCCUPANCY: SINGLE FAMILY
FULL AUTOMATIC FIRE SPRINKLER SYSTEM: NO
REVIEWED BY: _____
DATE: _____

SEWER FLOW CONTRIBUTIONS
AVERAGE DAILY FLOW = 250 GPD x 23 = 5,750 GPD
PEAK DAILY FLOW = 3.1 (250 GPD) x 23 = 17,825 GPD

NOTE: WHEN MINIMUM 18 INCH CLEARANCE BETWEEN WATER AND SEWER LINES CANNOT BE MAINTAINED USE C900 WATER QUALITY PIPE FOR SEWER LINE PER UDACS 2.19.02.83A



LWWD EASEMENT SECTION DETAIL
SCALE: NTS

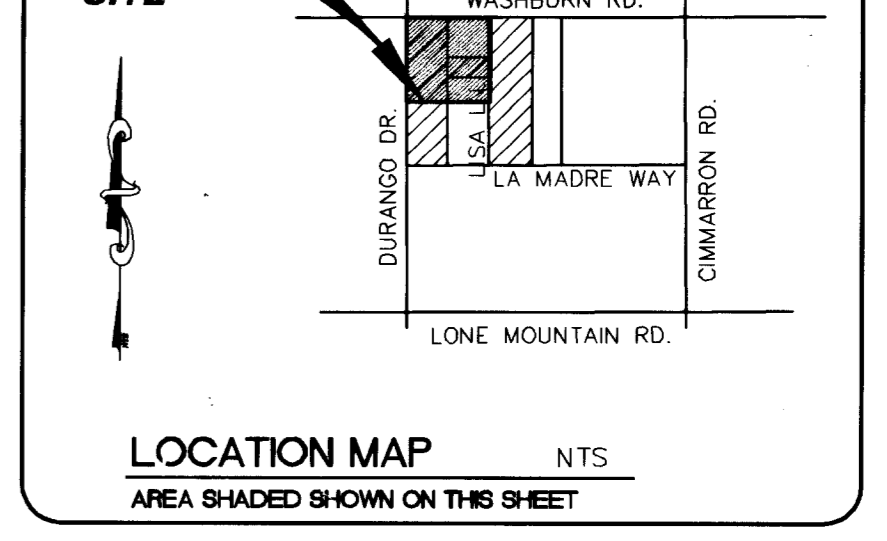


LWWD EASEMENT PROFILE DETAIL
SCALE: 1"=10'

SEWER MANHOLE NOTE
ALL ON-SITE SEWER MANHOLE TO BE CONSTRUCTED AS 48" SEWER MANHOLE PER DISCS STANDARD DRAWING NO 30-1 UNLESS OTHERWISE NOTED ON PLANS.

PRV'S & SEWER BACKWATER VALVES
INDIVIDUAL PRESSURE REDUCED VALVES (PRV) ARE REQUIRED FOR ALL BUILDINGS WHICH EXCEEDS STATIC PRESSURE OF 80 PSI.
SEWER BACK WATER VALVES ARE REQUIRED FOR BUILDINGS SHOWN ON THIS SHEET.

PRIVATE DRIVE NOTE
ALL STREETS AND DRIVES SHOWN ARE PRIVATE UNLESS OTHERWISE NOTED.



LEGEND

	EXISTING STREET LIGHTS
	NEW STREET LIGHT (UNLESS NOTED AS EXISTING)
	PHOTO EYE
	ELECTRICAL PEDISTAL
	PULL BOX AS SHOWN
	GATE VALVE
	EX GATE VALVE
	EXISTING FIRE HYDRANT
	NEW FIRE HYDRANT (UNLESS NOTED AS EXISTING)
	BACKWATER VALVE
	SEWER MANHOLE
	EXISTING SEWER MANHOLE
	STORM DRAIN MANHOLE
	SEWER AND WATER SERVICE WITH PRESSURE REDUCING VALVE
	STREET NAME SIGN
	STREET SIGN (SPEED LIMIT 25) (R2-1)
	STOP SIGN (R1-1)
	FUTURE IMPROVEMENTS
	EX. IMPROVEMENTS
	STREET LIGHT CONDUIT
	UNIT LINE

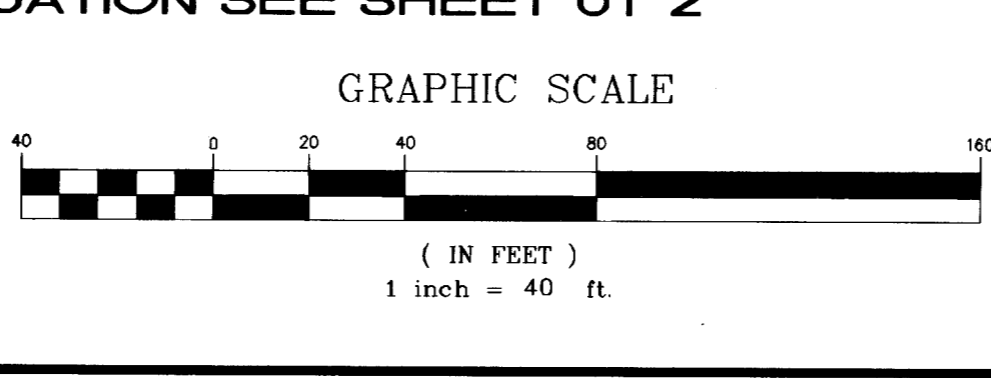
UTILITY CONSTRUCTION NOTES UNIT 1

- INSTALL 10" PVC (PUBLIC) WATERLINE 1,675 LF
- INSTALL FIRE HYDRANT ASSEMBLY PER UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDS) PLATE No. 7, AND THE LOCATION SHALL BE DETERMINED BY USD 516 4 EA
- INSTALL 10" TEE 1 EA
- INSTALL 10" - 45° BEND 2 EA
- INSTALL 10" - "SPECIFIED FITTINGS" 5" BEND W/ RESTRAINED JOINTS 2 EA
- INSTALL 10" - 11.25" BEND 1 EA
- INSTALL 10" CAP & 2" BLOWOFF ASSEMBLY PER UDACS PLATE No. 4 A... 1 EA
- INSTALL 10" GATE VALVE. VALVES SHALL NOT BE LOCATED IN STREET VALLEY GUTTERS 7 EA
- 8" PVC SANITARY SEWER LINE 1713 LF
- 4" PVC SANITARY SEWER LATERAL 687 LF
- CONNECT TO EXISTING W/ 12"x10" M/J TAPPING TEE W/10 TAPPING VALVE ... 1 EA
- INSTALL 1" METER W/1" COPPER SERVICE CONNECTION 25 EA
- PER UDACS PLATE No.10
- INSTALL 48" DIAMETER MANHOLE 12 EA (SEE PLAN & PROFILE FOR VERTICAL INFO.)
- USE AWWA C900 PVC WATER QUALITY PIPE FOR SEWER LATERAL.
- INSTALL 6" CAP & 2" BLOWOFF ASSEMBLY PER UDACS PLATE No. 4 A... 1 EA

APPROVED FOR CONSTRUCTION
CITY OF LAS VEGAS
LAS VEGAS VALLEY WATER DISTRICT
DATE: 11/25/03
DATE: 12/11/03

BASIS OF BEARING
NORTH 88°58'14" WEST BEING THE EAST-WEST LINE CENTER OF SECTION LINE BETWEEN THE WEST QUARTER (1/4) CORNER AND THE WEST SIXTEENTH (1/16) CORNER OF SECTION 33, TOWNSHIP 19 SOUTH, RANGE 60 EAST M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP IN THE OFFICE OF THE CLARK COUNTY, NEVADA RECORDER IN FILE 82 OF PARCEL MAPS PAGE 75.
6193522 64534

BENCH MARK
CITY OF LAS VEGAS VERTICAL CONTROL RIVET AND PLATE IN TOP OF CURB, NE RETURN OF DURANGO DRIVE & WASHBURN RD. STATION 11V90 33W4
ELEVATION = 740.8191 METERS 2430.50 FEET (NAVD88) OLD 740.7932 METERS 2430.42 FEET NEW OLD - 0.02' = NEW



FUTURE SERVICE LATERALS AND METERS
INSTALLATION OF SERVICE LATERALS (1" TO 2") FOR FUTURE LOTS SHALL BE INSTALLED PER THE UDACS PLATE 1D. IF ANY OF THE SERVICE LATERAL TO BE INSTALLED FOR FUTURE LOTS ARE INCORRECTLY LOCATED OR ARE NOT USED FOR ANY REASON WHEN THE LOTS ARE DEVELOPED, THE DEVELOPER SHALL ABANDON THE LATERALS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH THE DISTRICT'S STANDARDS AND AT THE DEVELOPER'S EXPENSE.

TOLL BROTHERS
1635 VILLAGE CENTER CIRCLE, SUITE 100
(702) 243-9800 FAX: (702) 243-9810

ALPHA & COMPANY
ENGINEERING
50 So. Jones #202, Las Vegas, NV, 89107
Telephone: (702) 877-1300

WASHBURN & DURANGO UNIT 1
(AKA - NORTH CANYON ESTATES)

UTILITY PLAN 1 OF 2

DRAWN BY: RCY 05/13/03
DESIGNED BY: RCY 05/13/03
CHECKED BY: SWS 05/13/03
PROJECT NO: 316710
SCALE: 1"=40'

SHEET UT1
6 OF 17 SHEETS
DRAWING NO: 1074789