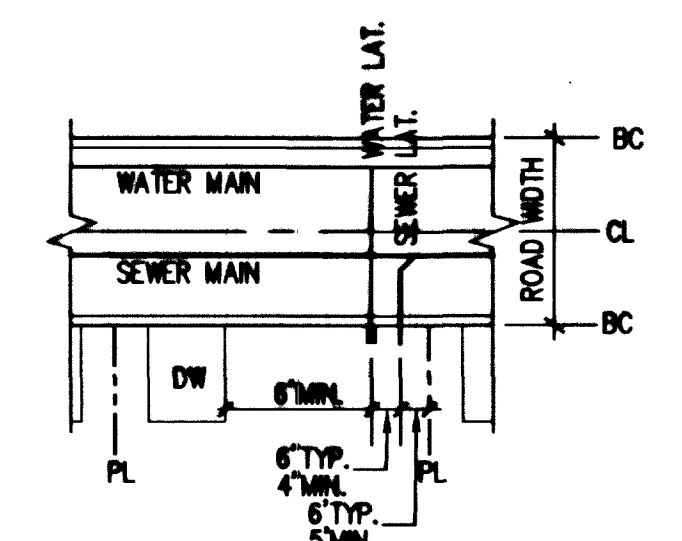
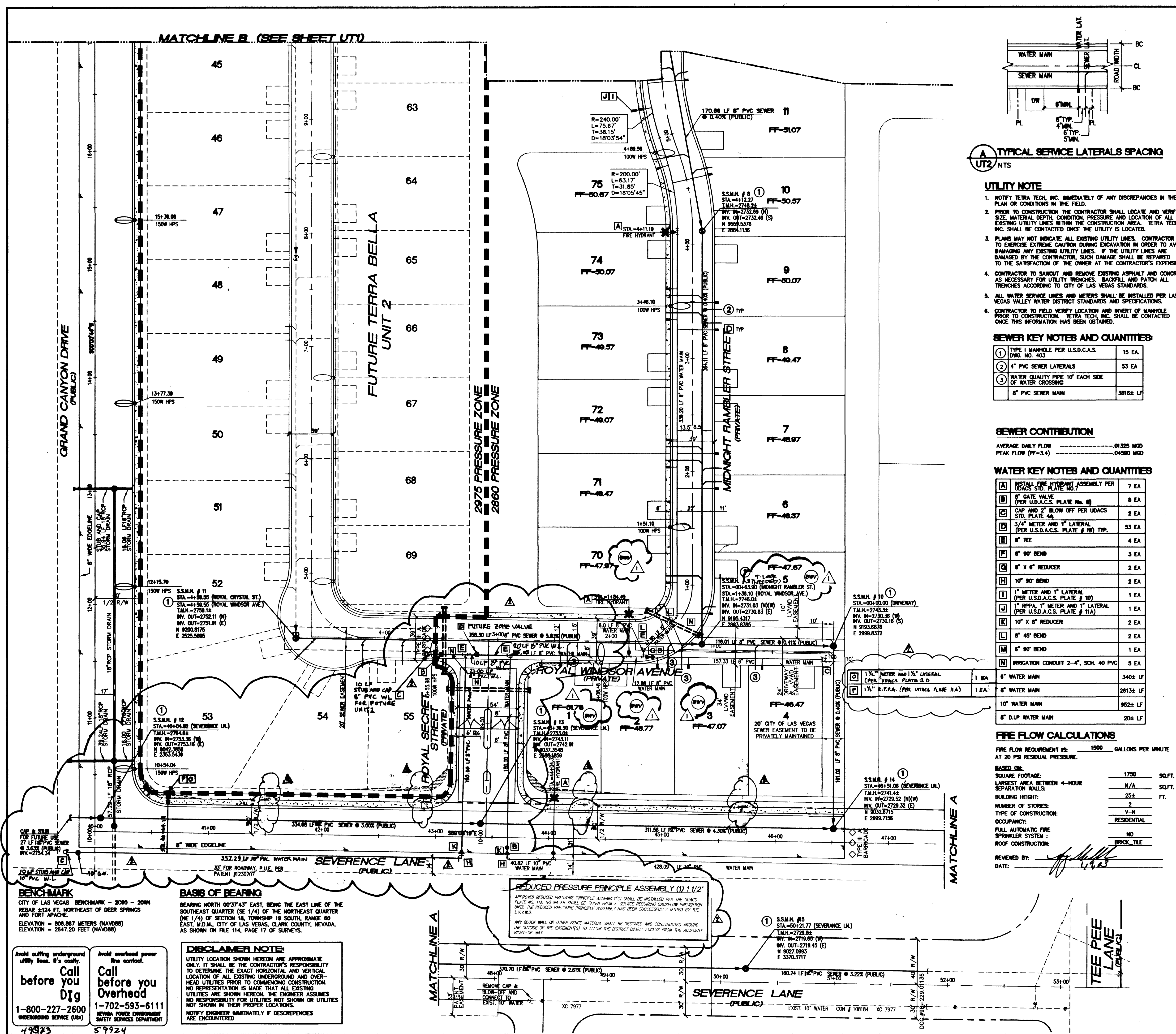




TYPICAL SERVICE LATERALS SPACING

- # UTILITY NOTE
1. NOTIFY TETRA TECH, INC. IMMEDIATELY OF ANY DISCREPANCIES IN THE PLAN OR CONDITIONS IN THE FIELD.
 2. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL LOCATE AND VERIFY SHOWN MATERIAL DEPTH, CONDITION, PRESSURE AND LOCATION OF ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA. TETRA TECH, INC. SHALL BE CONTACTED ONCE THE UTILITY IS LOCATED.
 3. PLANS MAY NOT INDICATE ALL EXISTING UTILITY LINES. CONTRACTOR IS TO EXERCISE EXTREME CAUTION DURING EXCAVATION IN ORDER TO AVOID DAMAGING ANY EXISTING UTILITY LINES. IF THE UTILITY LINES ARE DAMAGED BY THE CONTRACTOR, SUCH DAMAGE SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.
 4. CONTRACTOR TO SAWCUT AND REMOVE EXISTING ASPHALT AND CONCRETE AS NECESSARY FOR UTILITY TRENCHES. BACKFILL AND PATCH ALL TRENCHES ACCORDING TO CITY LAS VEGAS STANDARDS.
 5. ALL NEW SERVICE LINES AND METERS SHALL BE INSTALLED PER LAS VEGAS VALLEY WATER DISTRICT STANDARDS AND SPECIFICATIONS.
 6. CONTRACTOR TO FIELD VERIFY LOCATION AND INVERT OF MANHOLE PRIOR TO CONSTRUCTION. TETRA TECH, INC. SHALL BE CONTACTED ONCE THIS INFORMATION HAS BEEN OBTAINED.

SEWER KEY NOTES AND QUANTITIES:		
①	TYPE I MANHOLE PER U.S.D.C.A.S. DWG. NO. 403	15 EA.
②	4" PVC SEWER LATERALS	53 EA
③	WATER QUALITY PIPE 10' EACH SIDE OF WATER CROSSING	
	8" PVC SEWER MAIN	3816± LF

SEWER CONTRIBUTION

AVERAGE DAILY FLOW ----- .01325 MGD
PEAK FLOW (PF=3.4) ----- .04500 MGD

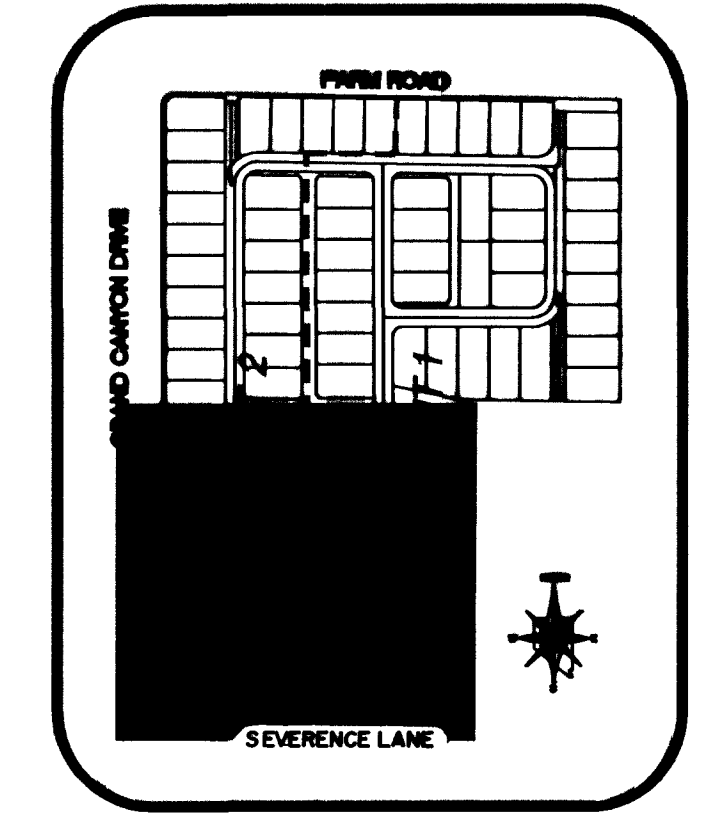
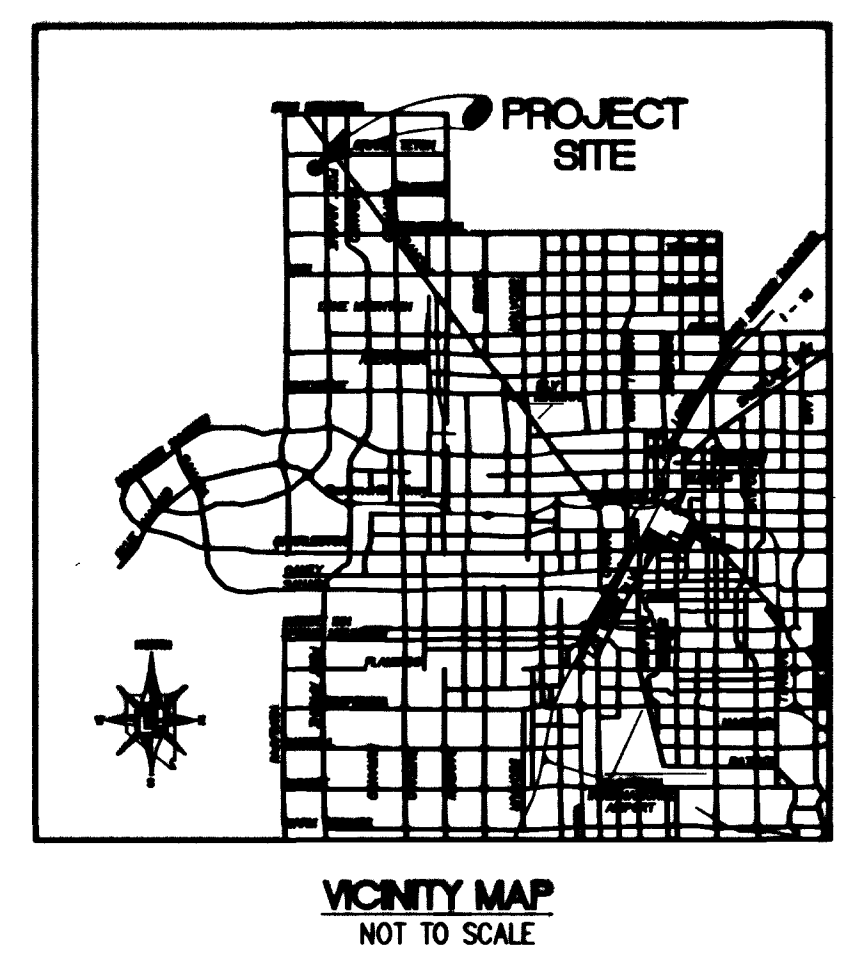
WATER KEY NOTES AND QUANTITIES

[A]	INSTALL FINE HYDRANT ASSEMBLY PER UDACS STD. PLATE NO.7	7 EA
[B]	6" CAP VALVE PER U.D.A.C.S. PLATE No. 8)	8 EA
[C]	2" GATE AND 2" BLOW OFF PER UDACS STD. PLATE 4A	2 EA
[D]	3/4" METER AND 1" LATERAL (PER U.S.D.A.C.S. PLATE # 1B) TYP.	53 EA
[E]	6" TEE	4 EA
[F]	6" 90° BEND	3 EA
[G]	6" X 6" REDUCER	2 EA
[H]	10" 90° BEND	2 EA
[I]	1" METER AND 1" LATERAL (PER U.S.D.A.C.S. PLATE # 1D)	1 EA
[J]	1" RPPA, 1" METER AND 1" LATERAL (PER U.S.D.A.C.S. PLATE # 11A)	1 EA
[K]	10" X 6" REDUCER	2 EA
[L]	6" 45° BEND	2 EA
[M]	6" 90° BEND	1 EA
[N]	IRRIGATION CONDUIT 2"-4", SCH. 40 PVC	5 EA
EA	6" WATER MAIN	3402 LF
A:	8" WATER MAIN	28132 LF
→	10" WATER MAIN	8522 LF
	6" D.I.P. WATER MAIN	202 LF

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS: 1500 GALLONS PER MINUTE
AT 20 PSI RESIDUAL PRESSURE.

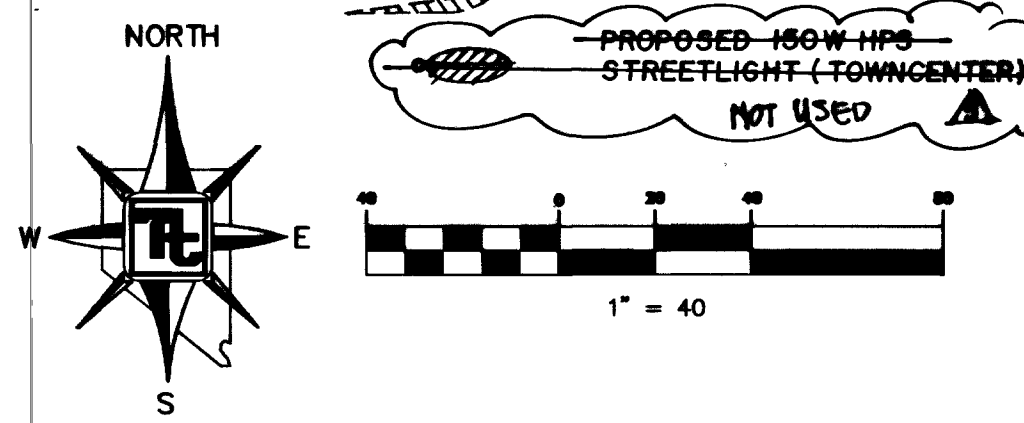
SQUARE FOOTAGE:	1750	SQ.FT.
LARGEST AREA BETWEEN 4-HOUR SEPARATION WALLS:	N/A	SQ.FT.
BUILDING HEIGHT:	2 1/2	FT.
NUMBER OF STORIES:	2	
TYPE OF CONSTRUCTION:	V-N	
OCCUPANCY:	RESIDENTIAL	
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	NO	
ROOF CONSTRUCTION:	BROCK TILE	
REVIEWED BY:		
DATE:	4.9.05	



KEYMAP
NOT TO SCALE

LEGEND:

- | | |
|---|--------------------------------|
|  | PHASELINE |
|  | SEWER MAIN |
|  | WATER MAIN |
|  | FIRE HYDRANT ASSEMBLY |
|  | EXIST. WATER MAIN |
|  | EXIST. FIRE HYDRANT ASSEMBLY |
|  | SEWER SERVICE LATERAL |
|  | WATER SERVICE LATERAL |
|  | WATER SERVICE LATERAL W/ METER |
|  | ELBOW CONNECTION |
|  | TEE CONNECTION |
|  | GATE VALVE |
|  | BLOW-OFF ASSEMBLY |
|  | REDUCER |
|  | 1000 STREETLIGHT |
|  | 1500 STREETLIGHT |
|  | 4000 STREETLIGHT |
|  | SIGHT VISIBILITY RESTRICTION |



APPROVALS

LAS VEGAS VALLEY WATER DISTRICT TECHNICAL APPROVAL

PROJECT NAME: _____

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.

LAS VEGAS VALLEY WATER DISTRICT DATE

[Signature] 2/6/03
LAS VEGAS VALLEY WATER DISTRICT DATE

CITY OF LAS VEGAS FIRE DEPARTMENT 1,903
DATE

[illegible]