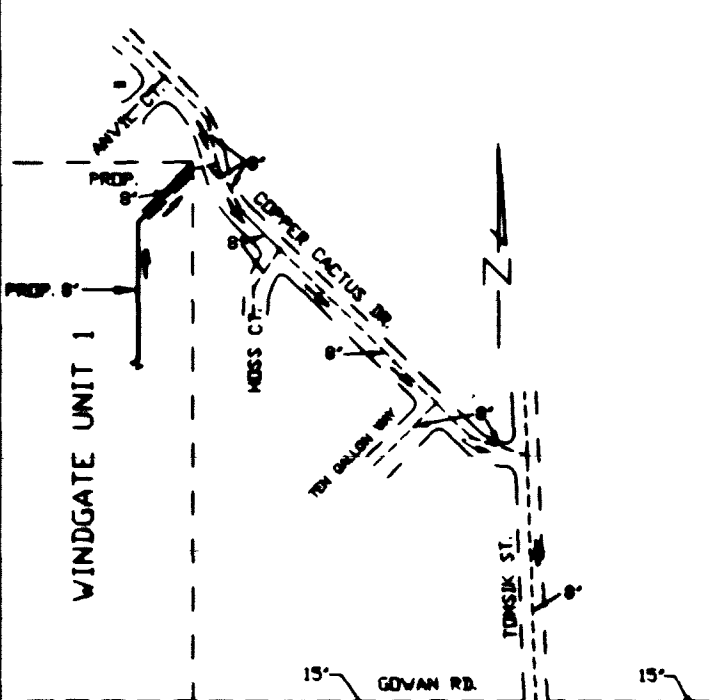


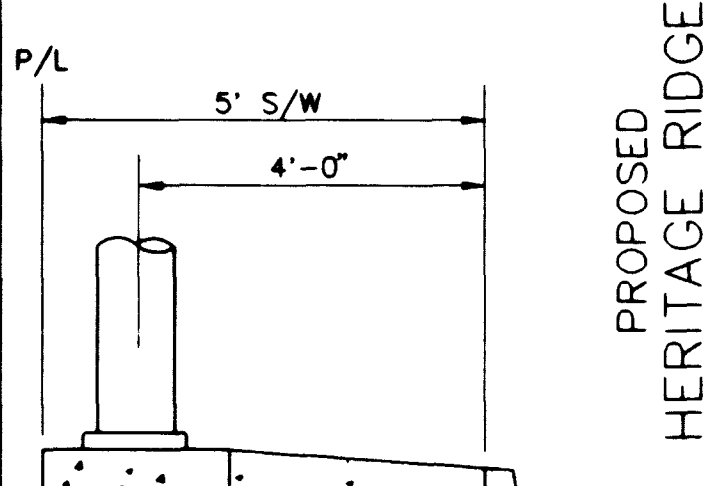
LEGEND

- MH#1 PROPOSED MANHOLE
- EXISTING MANHOLE
- 4" SEWER HOUSE CONNECTION
- FUTURE 4" SEWER HOUSE CONN.
- WATER VALVE
- FUTURE WATER VALVE
- FIRE HYDRANT
- FUTURE FIRE HYDRANT
- PROPOSED STREET LIGHT, 100W
- PROPOSED STREET LIGHT, 200W
- FUTURE PROPOSED STREET LIGHT, 100W
- EXISTING STREET LIGHT, 250W

- UNIT BOUNDARY LINE
- STREETLIGHT CONDUIT, 1-1/4"



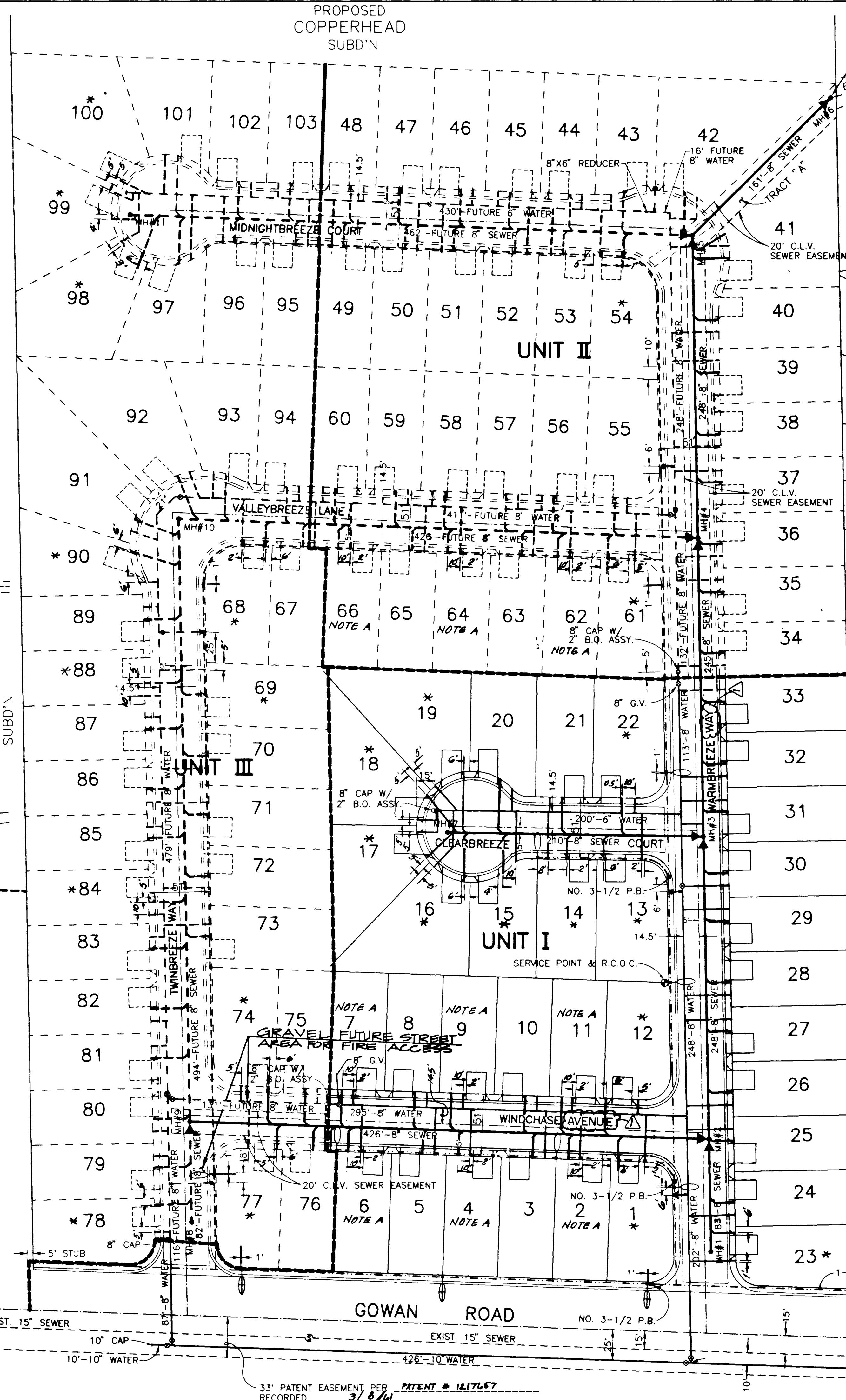
EXISTING CONNECTING SEWERS
N.T.S.



STREET LIGHT DETAIL
N.T.S.

STREET LIGHT NOTE
ALL STREET LIGHTS SHALL BE INSTALLED EXCEPT AS NOTED ON THE STREET LIGHTING PLANS SHALL CONFORM TO THE IMPROVEMENT STANDARDS DEPARTMENT OF PUBLIC WORKS, CLARK COUNTY, NEVADA AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA.

DURANGO DRIVE
UNDEVELOPED
APN 138-09-201-022



POINT OF CONNECTION, SEWER

ESTIMATE OF QUANTITIES

WATER	
10" X 10" X 8" TEE	2 EA.
8" TEE	2 EA.
8" X 8" X 6" TEE	1 EA.
10" GATE VALVE	1 EA.
8" GATE VALVE	4 EA.
STD. 6" FIRE HYDRANT ASSY.	2 EA.
2" BLOWOFF ASSY.	3 EA.
10" WATER MAIN	1227 LF
8" WATER MAIN	858 LF
6" WATER MAIN	200 LF
3/4" WATER SERVICE W/ 5/8" METER	33 EA.

SEWER	
STD. 4" DIA. MANHOLE	8 EA.
4" WYE	45 EA.
8" SEWER MAIN	1621 LF

STREET LIGHTS	
100 WATT	6 EA.
200 WATT	3 EA.
#3-1/2 PULL BOX	3 EA.
1-1/4" CONDUIT	1570 LF

BENCHMARK

RIVET ANMD SQUARE ALUMINUM PLATE IN A CONCRETE MONUMENT, 25 FT. NORTH AND 45 FT. WEST OF DURANGO AND GILMORE
ELEV: 2414.58

NOTE:
CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL ALIGNMENT OF EXISTING UTILITIES AND TO NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

WATER CROSSING NOTE

THE FOLLOWING ARE THE REQUIREMENTS THAT MUST BE MET WHEN THERE IS A WATER-SEWER CROSSING:
WHEN PROTECTION OF THE WATERLINE IS CONSIDERED, THE MINIMUM VERTICAL CLEARANCE OF 18 INCHES MUST BE MAINTAINED WHEN THE WATER LINE IS INSTALLED OVER THE SEWER/STORM LINE. IF THIS CLEARANCE CANNOT BE MAINTAINED BECAUSE OF PHYSICAL CONSTRAINTS, THE WATERLINE MUST BE PLACED UNDER THE SEWER/STORM LINE. THE SEWER/STORM LINE MUST BE CONSTRUCTED WITH ANY ONE OF THE FOLLOWING:
A. EXTRA HEAVY CAST IRON OR DUCTILE IRON PIPE
B. WATER SUPPLY QUALITY MATERIAL
C. ENCASING WITH A MINIMUM OF 6 INCHES MINIMUM OF CONCRETE OR SLEEVING WITH WATER QUALITY PIPE
EACH OF THESE PROVISIONS MUST BE EXTENDED FOR 10 FEET ON EITHER SIDE OF THE WATERLINE, AT 90 DEGREES TO THE CROSSING.

LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES

- NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVWD.
- 6" WATER MAIN SHALL BE GIVEN TO THE LVWD COMMUNICATIONS SUPPORT CENTER (258-7121) PRIOR TO THE START OF CONSTRUCTION. NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO ANY WORK BEING PERFORMED.
- ALL WORK SHALL CONFORM TO LVWD STANDARD PLANS, DRAWINGS, AND SPECIFICATIONS, 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 OFF-SITE IMPROVEMENTS, 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 BODIES SHALL BE LOCATED OUTSIDE OF DRAINWAY AREAS.
- ALL MANS SHALL BE LOCATED OUTSIDE OF DRAINWAYS, VALLEYS AND CURB OUTTERS.
- THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT OF A WATERLINE 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, 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:
1. POTABLE WATER SUPPLY QUALITY MATERIAL
2. ENCASING WITH FOUR (4) INCH CONCRETE (MINIMUM)
3. SLEEVING WITH POTABLE WATER SUPPLY QUALITY PIPE
EACH PROVISION MUST EXTEND ALONG THE SANITARY OR STORM SEWER, ON EITHER SIDE OF THE MANHOLE, A MINIMUM 10 FOOT DISTANCE PERPENDICULAR TO THE WATER MAIN EXTERIOR.
B. WARNING TAPE SHALL BE REQUIRED OVER ALL MANS, ALL SIX (6) INCH DIAMETER AND LARGER SERVICE LATERALS, AND ANY SERVICE LATERAL NOT INSTALLED PERPENDICULAR TO THE MAN IN ACCORDANCE WITH STANDARD PLAN NO. 27.
10. ALL WATER FACILITIES SHALL BE FULLED, DISINFECTED, PRESSURE TESTED, FULLED AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVWD'S DISTRIBUTION SYSTEM.
11. THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM THE LVWD CENTRAL STORES. TELEPHONE: 258-3152. FORTY-EIGHT (48) HOURS PRIOR TO PICKUP.
12. CONSTRUCTION MAY INTERRUPT SERVICE WITH LVWD APPROVAL AND PROPER NOTIFICATION, BETWEEN THE HOURS OF 10 P.M. AND 8 A.M. SUNDAY THROUGH THURSDAY. CIRCUMSTANCES MAY REQUIRE TEMPORARY SERVICE FEES TO BE INSTALLED, WITHOUT LVWD REIMBURSEMENT. ANY TEMPORARY SERVICE FEES MUST HAVE PRIOR LVWD APPROVAL.
13. ALL WATER FACILITY CONSTRUCTION MATERIALS MUST BE AS LISTED ON THE LVWD'S PRE-APPROVED MATERIALS AND MANUFACTURERS LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.

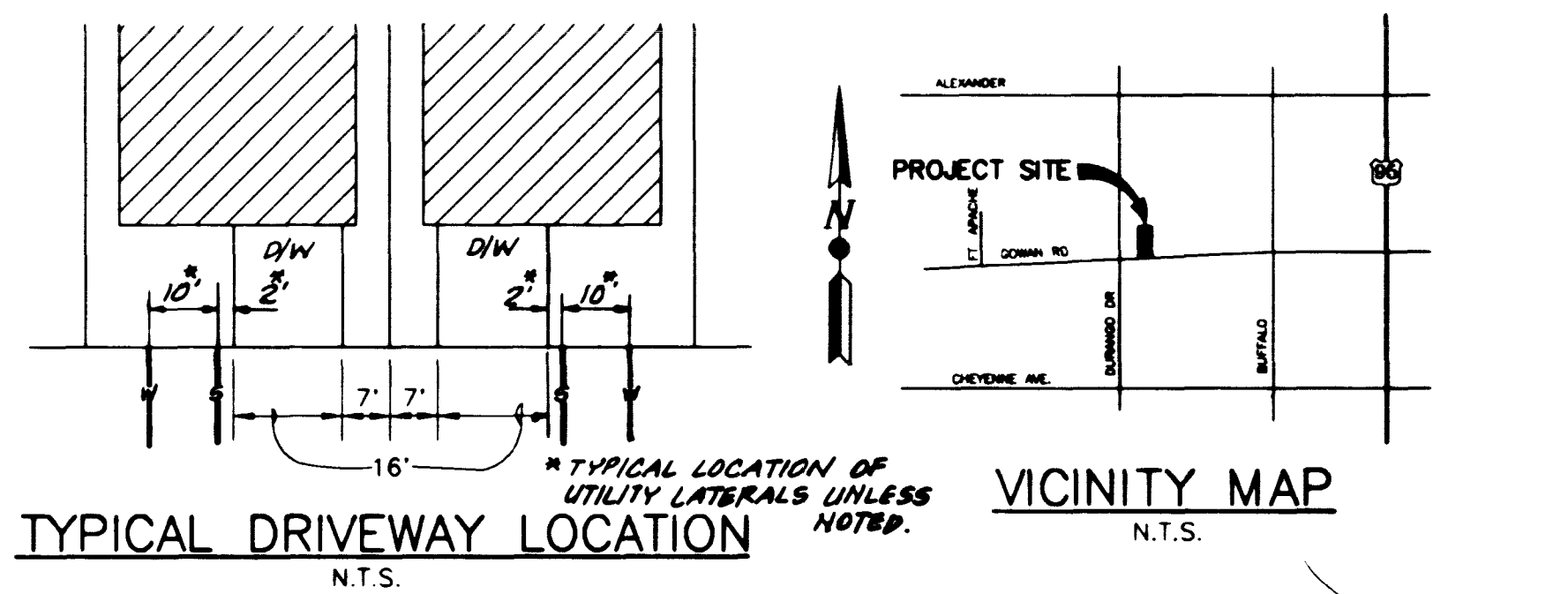
SEWER CONTRIBUTION (ESTIMATED)

UNIT I:
AVERAGE=8,250 GAL/DAY
PEAK =13,200 GAL/DAY

PROJECT NAME: Windgate
Unit No. 1, P. 2, 7
THIS PROJECT WATER PLAN COMPLIES WITH THE Las Vegas Valley Water District's technical requirements. However, this water plan is NOT A FINAL PLAN. CONSTRUCTION AT THIS TIME AND THIS AGREEMENT DOES NOT GUARANTEE OR IMPLY A WATER CONNECTION.

Call before you dig. It's a Law.
1-800-227-2600

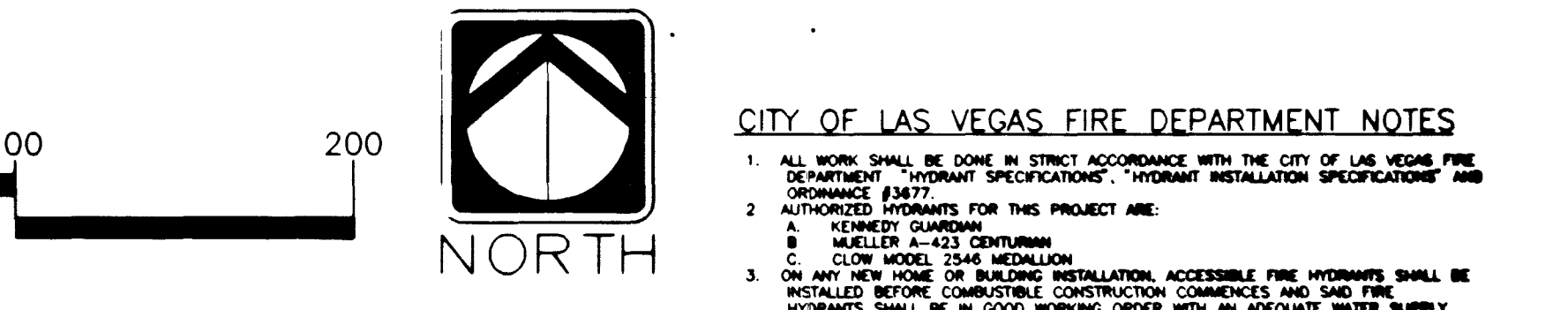
DATE: 7/17/94
791'-10" WATER
793'-



NOTES:
1. NO HYDRANT SHALL BE LOCATED WITHIN 15' OF ANY DRIVEWAY, 6' OF POWER POLE, LIGHT STANDARD, OR ANY OTHER OBSTRUCTION.
2. THE FIRE HYDRANT SHALL BE PLACED BEHIND THE SIDEWALK.

NOTE A:
WATER AND SEWER LATERALS ARE REVERSED ON THESE LOTS.

FIRE HYDRANT LOCATION CLV DWG. NO. 516



CITY OF LAS VEGAS FIRE DEPARTMENT NOTES
1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT INSTALLATION SPECIFICATIONS" AND ORDINANCE #2477 FOR THIS PROJECT ARE:
A. HYDRANT QUANTITY
B. HYDRANT LOCATION
C. CLOW MODEL 7548 MEDALLION
D. ON ANY NEW HOME OR BUILDING INSTALLATION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMPLETION OF 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 HYDRANT AS REQUIRED IN ORDINANCE #2477 TO INDICATE FIRE HYDRANT LOCATIONS.
E. THE LAS VEGAS FIRE DEPARTMENT AND CITY ENGINEER SHALL BE NOTIFIED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
F. HYDRANTS FROM PHYSICAL DAMAGE PER ORDINANCE #2477 SHALL BE COMPLETED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
G. A HYDRANT IS REQUIRED FROM THE FIRE DEPARTMENT FOR ON-SITE WATER LINE AND FIRE HYDRANT. THE HYDRANT AND CONSTRUCTION MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER PRIOR TO ANY WORK BEING PERFORMED.
H. A FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT PRIOR TO OCCUPANCY FOR VERIFICATION OF REQUIRED ON-SITE WATER SUPPLY.
I. ALL ON-SITE FIRE MAIN MATERIALS MUST BE U.L. LISTED AND A.I.A. APPROVED.
10. FIRE HYDRANT APPROVAL:
RESIDENTIAL - 500 FEET UNSPRINKLED, 400 FEET SPRINKLED; COMMERCIAL - FOLLOWING MULTI-FAMILY: 300 FEET UNSPRINKLED, 400 FEET SPRINKLED; CONDO/CO-OP: 200 FEET UNSPRINKLED, 300 FEET SPRINKLED.
11. NO FIRE HYDRANT SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CUL-DE-SAC OR WITHIN 20 FEET OF THE TERMINUS OF THE RADIUS OF THE CUL-DE-SAC.
12. NO FIRE HYDRANT SHALL BE LOCATED WITHIN 8 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.
13. NO WORK SHALL BE PERFORMED ON A FIRE HYDRANT UNLESS A SINGLE MAN HOSE, PUBLIC OR PRIVATE SHALL BE NOT LESS THAN 45 FEET OUTSIDE RADIUS & 2 FEET ABOVE RADIUS.
14. THE TURNING RADIUS FOR ANY FIRE APPARATUS ACCESS ROAD AND/OR FIRE LINE, PUBLIC OR PRIVATE SHALL BE NOT LESS THAN 45 FEET OUTSIDE RADIUS & 2 FEET ABOVE RADIUS.
15. 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 ORDINANCE #2477 FOR MORE INFORMATION).
16. ALL DEAD END FIRE APPARATUS ACCESS ROADS AND/OR FIRE LINES PUBLIC OR PRIVATE IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND AREA. (SEE ORDINANCE #2477 FOR MORE INFORMATION).
17. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/REVERSE 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 SEWER NOTES
1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND 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.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN CONSTRUCTION AND PERMITS FROM THE CITY OF LAS VEGAS. ANY ADDITIONAL QUESTIONS OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CONTROLLING AGENCY.
3. CONELED 2" OR 4" CURB, SEWER, SEWER OR GAS LATERALS PASS UNDER THE CURB. POLYMER (PVC) SEWER PIPE SHALL MEET ASTM D-3034, SIZE 30" SPECIFICATION, INSTALLED WITH SAND BEDDING AND PROTECTED BY TYPE B CONCRETE COLLARS.
4. COLLARS SHALL BE INSTALLED IN PAVED STREETS 8" R/W AND LANDER. SHALL HAVE CONCRETE COLLARS.
5. COLLARS SHALL BE INSTALLED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO 12" DIA. SIZE. CONNECTIONS TO 15" OR LARGER MAINS SHALL REQUIRE SPECIAL COLLARS.
6. A SEWER MAIN CROSSING OVER A WATER MAIN OR LESS THAN 18" UNDER A WATER MAIN SHALL BE REINFORCED CONCRETE ENCASED FOR A MINIMUM OF 18" UNDER A WATER MAIN AND 12" OVER A WATER MAIN. ALL CONTRACTORS SHALL BE NOTIFIED BY ANY MAINS WHICH THEY ARE TO CROSS. JURISDICTION OF THE CONTROLLING AGENCY MUST BE CLASSIFIED BY CONTRACTORS. THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY MAINS THAT WILL EXCEED THE TOLERANCE 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.

APPROVALS
LAS VEGAS VALLEY WATER DISTRICT DATE: 9/2/94
CITY OF LAS VEGAS FIRE DEPARTMENT DATE: 8/2/94
NEVADA POWER COMPANY DATE: 8/1/94
NEVADA POWER COMPANY APPROVAL IS ONLY FOR THE PLACEMENT AND CLEARANCE OF STREET LIGHT AND SIGNAL LIGHT INSTALLATION.

REVISED STREET SUPPLIES

Standage & Pruitt Engineering Ltd.
CIVIL ENGINEERING AND SURVEYING
6855 V. CHARLESTON BLVD.
LAS VEGAS, NEVADA 89117
PHONE (702) 835-8356

NEVADA
REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. CREHAN
LICENSE NO. 10684 EXPIRES 9/9/94

CONTENT: UTILITY PLAN - PHASE I
PROJECT: WINDGATE UNIT I
LAS VEGAS

DATE: MAY 1994
JOB NO. 94042003
DRAWN BY: AEG

SHEET NO. 2 OF 7
307Y-4343-1

