

QUANTITY ESTIMATE

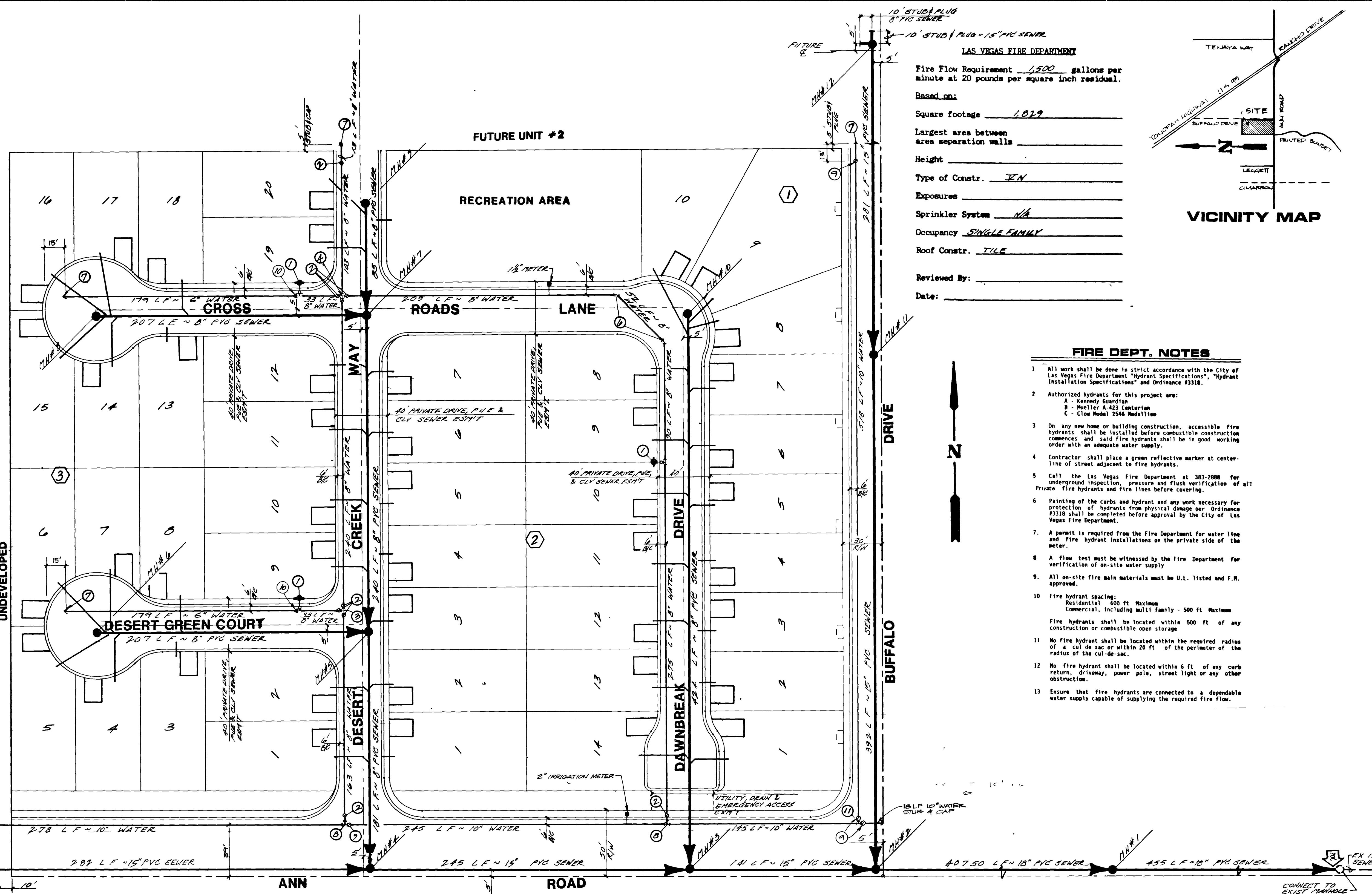
WATER

- ① FIRE HYDRANT & ASSY. 3 EA
- ② 8" GATE VALVE 7 EA
- ③ 8"x8"x8" TEE 1 EA
- ④ 8" CROSS 1 EA
- ⑤ 8" 45° BEND 2 EA
- ⑥ 2" B.O. 4 EA
- ⑦ 10"x8" TEE 2 EA
- ⑧ 10" GATE VALVE 4 EA
- ⑨ 8"x6" REDUCER 2 EA
- ⑩ 10" TEE 1 EA

- 6" WATER MAIN 358 L.F.
- 10" WATER MAIN 1184 L.F.
- 8" WATER MAIN 1198 L.F.
- 2" SERVICE METER 1 EA
- 1 1/2" SERVICE METER 1 EA
- 3/4" SERVICE 44 EA
- 5/8" METER 44 EA

SEWER

- STANDARD MANHOLE 12 EA
- WYES 45 EA
- 8" SEWER MAIN 1,344 L.F.
- 4" SERVICE LATERAL 820 L.F.
- 15" SEWER MAIN 1,341 L.F.
- 18" SEWER MAIN 862 L.F.



LAS VEGAS FIRE DEPARTMENT

Fire Flow Requirement 1,500 gallons per minute at 20 pounds per square inch residual.

Based on:

Square footage 1,029

Largest area between area separation walls _____

Height _____

Type of Constr. GEN

Exposures _____

Sprinkler System NA

Occupancy SINGLE FAMILY

Roof Constr. TILE

Reviewed By: _____

Date: _____

FIRE DEPT. NOTES

1. All work shall be done in strict accordance with the City of Las Vegas Fire Department "Hydrant Specifications", "Hydrant Installation Specifications" and Ordinance #3318.
2. Authorized hydrants for this project are:
 - A - Kennedy Guardian
 - B - Mueller A-423 Contour
 - C - Clow Model 224 Model 110
3. On any new home or building construction, accessible fire hydrants shall be installed before combustible construction commences and said fire hydrants shall be in good working order with an adequate water supply.
4. Contractor shall place a green reflective marker at centerline of street adjacent to fire hydrants.
5. Call the Las Vegas Fire Department at 383-2888 for underground inspection, pressure and flush verification of all Private Fire hydrants and fire lines before covering.
6. Painting of the curbs and hydrant and any work necessary for protection of hydrants from physical damage per Ordinance #3318 shall be completed before approval by the City of Las Vegas Fire Department.
7. A permit is required from the Fire Department for water line and fire hydrant installations on the private side of the meter.
8. A flow test must be witnessed by the Fire Department for verification of on-site water supply.
9. All on-site fire main materials must be U.L. listed and F.M. approved.
10. Fire hydrant spacing:
 - Residential 600 ft. Maximum
 - Commercial, including multi-family 500 ft. Maximum
 Fire hydrants shall be located within 500 ft. of any construction or combustible open storage.
11. No fire hydrant shall be located within the required radius of a cul-de-sac or within 20 ft. of the perimeter of the radius of the cul-de-sac.
12. No fire hydrant shall be located within 6 ft. of any curb return, driveway, power pole, street light or any other obstruction.
13. Ensure that fire hydrants are connected to a dependable water supply capable of supplying the required fire flow.

LVVWD NOTES

1. ALL WORK TO CONFORM TO LAS VEGAS VALLEY WATER DISTRICT LATEST STANDARD PLATES AND SPECIFICATIONS.
2. ALL WORK, EXCEPT AS MODIFIED HEREON OR BY NOTE NO. 1, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR EDITION OF UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS CLARK COUNTY AREA.
3. NOTICE TO BE GIVEN ENGINEERING DEPARTMENT OF THE LAS VEGAS VALLEY WATER DISTRICT 48 HOURS PRIOR TO ACTUAL CONSTRUCTION.
4. 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.
5. ALL LINES TO BE PRESSURE TESTED TO 200 PSI.
6. DEFLECTION ANGLE SHALL NOT EXCEED 2 1/2 DEGREES PER 13 FOOT SECTION OF PIPE FOR PIPE SIZES SMALLER THAN 14 INCHES, AND SHALL NOT EXCEED 2 DEGREES FOR PIPE SIZES BETWEEN 14" AND 18".
7. ALL METERS SHALL BE LOCATED OUTSIDE OF DRIVEWAYS.
8. DETECTOR TAPE REQUIRED IN ACCORDANCE WITH STANDARD PLATE NO. 27 WHERE INDICATED AND AS FOLLOWS:
 - A. OVER ALL MAINS NOT INSTALLED AT 6 FEET FROM BACK OF CURB.
 - B. OVER ALL SERVICE LATERALS NOT INSTALLED AT RIGHT ANGLES TO MAINS.
9. CALL BEFORE YOU DIG - 1-800-227-2600.
10. SERVICE LATERALS FOR LOTS WILL BE TAPPED ON EXISTING MAIN BY OWNER'S CONTRACTOR UNDER DIRECTION OF THE LAS VEGAS VALLEY WATER DISTRICT.

CLV SEWER NOTES

1. ALL SANITARY SEWER INSTALLATIONS SHALL CONFORM TO THE STANDARD DETAILS AND SPECIFICATIONS OF THE CITY OF LAS VEGAS, AND SHALL ALSO CONFORM TO THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OF OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, LATEST EDITION, UNLESS OTHERWISE NOTED.
2. CHISEL "S" OR "C" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
3. POLYVINYL CHLORIDE (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, AND INSTALLED WITH SAND BEDDING AND SACKFILL OR TYPE II GRAVEL.
4. ALL MANHOLES IN PAVED STREETS 30" R/W AND LARGER, SHALL HAVE CONCRETE COLLARS.
5. TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO 12" DIA. SIZE. CONNECTIONS TO 18" OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES.
6. A SEWER MAIN CROSSING OVER A WATER MAIN OR LESS THAN 10 FEET FROM A WATER MAIN OR EXISTING UNDERGROUND UTILITY PIPE SHALL BE INSTALLED NOT LESS THAN 10 FEET FROM THE CENTERLINE OF THE WATER MAIN.

APPROVALS

[Signature] 11-9-89
 LAS VEGAS VALLEY WATER DISTRICT DATE

[Signature] 11/8/89
 CLV FIRE MARSHALL DATE



REVISION

REV	DATE	BY	REVISION

HONEST CORP. LAS VEGAS, NEVADA

PLANNERS - CONSULTING ENGINEERS

2300 PASEO DEL PRADO BUILDING A SUITE 100 LAS VEGAS, NEVADA 89102 PHONE (702) 879-7550

vtm nevada

MASTER SEWER & WATER PLAN

DESERT CREEK - UNIT 1

NO. 3803-1

BY RLM

DATE AUG. 89

SCALE 1"=40'

SHEET 5 OF 10 SHEETS

3074-4044-1

6405

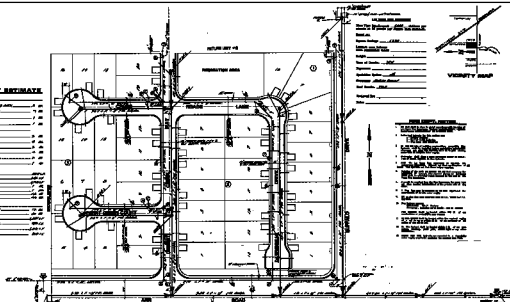
QUANTITY ESTIMATE

WATER

1" pipe	1.00
2" pipe	1.00
3" pipe	1.00
4" pipe	1.00
6" pipe	1.00
8" pipe	1.00
10" pipe	1.00
12" pipe	1.00
15" pipe	1.00
18" pipe	1.00
24" pipe	1.00
30" pipe	1.00
36" pipe	1.00
42" pipe	1.00
48" pipe	1.00
54" pipe	1.00
60" pipe	1.00
66" pipe	1.00
72" pipe	1.00
78" pipe	1.00
84" pipe	1.00
90" pipe	1.00
96" pipe	1.00
102" pipe	1.00
108" pipe	1.00
114" pipe	1.00
120" pipe	1.00
126" pipe	1.00
132" pipe	1.00
138" pipe	1.00
144" pipe	1.00
150" pipe	1.00
156" pipe	1.00
162" pipe	1.00
168" pipe	1.00
174" pipe	1.00
180" pipe	1.00
186" pipe	1.00
192" pipe	1.00
198" pipe	1.00
204" pipe	1.00
210" pipe	1.00
216" pipe	1.00
222" pipe	1.00
228" pipe	1.00
234" pipe	1.00
240" pipe	1.00
246" pipe	1.00
252" pipe	1.00
258" pipe	1.00
264" pipe	1.00
270" pipe	1.00
276" pipe	1.00
282" pipe	1.00
288" pipe	1.00
294" pipe	1.00
300" pipe	1.00
306" pipe	1.00
312" pipe	1.00
318" pipe	1.00
324" pipe	1.00
330" pipe	1.00
336" pipe	1.00
342" pipe	1.00
348" pipe	1.00
354" pipe	1.00
360" pipe	1.00
366" pipe	1.00
372" pipe	1.00
378" pipe	1.00
384" pipe	1.00
390" pipe	1.00
396" pipe	1.00
402" pipe	1.00
408" pipe	1.00
414" pipe	1.00
420" pipe	1.00
426" pipe	1.00
432" pipe	1.00
438" pipe	1.00
444" pipe	1.00
450" pipe	1.00
456" pipe	1.00
462" pipe	1.00
468" pipe	1.00
474" pipe	1.00
480" pipe	1.00
486" pipe	1.00
492" pipe	1.00
498" pipe	1.00
504" pipe	1.00
510" pipe	1.00
516" pipe	1.00
522" pipe	1.00
528" pipe	1.00
534" pipe	1.00
540" pipe	1.00
546" pipe	1.00
552" pipe	1.00
558" pipe	1.00
564" pipe	1.00
570" pipe	1.00
576" pipe	1.00
582" pipe	1.00
588" pipe	1.00
594" pipe	1.00
600" pipe	1.00
606" pipe	1.00
612" pipe	1.00
618" pipe	1.00
624" pipe	1.00
630" pipe	1.00
636" pipe	1.00
642" pipe	1.00
648" pipe	1.00
654" pipe	1.00
660" pipe	1.00
666" pipe	1.00
672" pipe	1.00
678" pipe	1.00
684" pipe	1.00
690" pipe	1.00
696" pipe	1.00
702" pipe	1.00
708" pipe	1.00
714" pipe	1.00
720" pipe	1.00
726" pipe	1.00
732" pipe	1.00
738" pipe	1.00
744" pipe	1.00
750" pipe	1.00
756" pipe	1.00
762" pipe	1.00
768" pipe	1.00
774" pipe	1.00
780" pipe	1.00
786" pipe	1.00
792" pipe	1.00
798" pipe	1.00
804" pipe	1.00
810" pipe	1.00
816" pipe	1.00
822" pipe	1.00
828" pipe	1.00
834" pipe	1.00
840" pipe	1.00
846" pipe	1.00
852" pipe	1.00
858" pipe	1.00
864" pipe	1.00
870" pipe	1.00
876" pipe	1.00
882" pipe	1.00
888" pipe	1.00
894" pipe	1.00
900" pipe	1.00
906" pipe	1.00
912" pipe	1.00
918" pipe	1.00
924" pipe	1.00
930" pipe	1.00
936" pipe	1.00
942" pipe	1.00
948" pipe	1.00
954" pipe	1.00
960" pipe	1.00
966" pipe	1.00
972" pipe	1.00
978" pipe	1.00
984" pipe	1.00
990" pipe	1.00
996" pipe	1.00
1002" pipe	1.00

SEWER

1" pipe	1.00
2" pipe	1.00
3" pipe	1.00
4" pipe	1.00
6" pipe	1.00
8" pipe	1.00
10" pipe	1.00
12" pipe	1.00
15" pipe	1.00
18" pipe	1.00
24" pipe	1.00
30" pipe	1.00
36" pipe	1.00
42" pipe	1.00
48" pipe	1.00
54" pipe	1.00
60" pipe	1.00
66" pipe	1.00
72" pipe	1.00
78" pipe	1.00
84" pipe	1.00
90" pipe	1.00
96" pipe	1.00
102" pipe	1.00
108" pipe	1.00
114" pipe	1.00
120" pipe	1.00
126" pipe	1.00
132" pipe	1.00
138" pipe	1.00
144" pipe	1.00
150" pipe	1.00
156" pipe	1.00
162" pipe	1.00
168" pipe	1.00
174" pipe	1.00
180" pipe	1.00
186" pipe	1.00
192" pipe	1.00
198" pipe	1.00
204" pipe	1.00
210" pipe	1.00
216" pipe	1.00
222" pipe	1.00
228" pipe	1.00
234" pipe	1.00
240" pipe	1.00
246" pipe	1.00
252" pipe	1.00
258" pipe	1.00
264" pipe	1.00
270" pipe	1.00
276" pipe	1.00
282" pipe	1.00
288" pipe	1.00
294" pipe	1.00
300" pipe	1.00
306" pipe	1.00
312" pipe	1.00
318" pipe	1.00
324" pipe	1.00
330" pipe	1.00
336" pipe	1.00
342" pipe	1.00
348" pipe	1.00
354" pipe	1.00
360" pipe	1.00
366" pipe	1.00
372" pipe	1.00
378" pipe	1.00
384" pipe	1.00
390" pipe	1.00
396" pipe	1.00
402" pipe	1.00
408" pipe	1.00
414" pipe	1.00
420" pipe	1.00
426" pipe	1.00
432" pipe	1.00
438" pipe	1.00
444" pipe	1.00
450" pipe	1.00
456" pipe	1.00
462" pipe	1.00
468" pipe	1.00
474" pipe	1.00
480" pipe	1.00
486" pipe	1.00
492" pipe	1.00
498" pipe	1.00
504" pipe	1.00
510" pipe	1.00
516" pipe	1.00
522" pipe	1.00
528" pipe	1.00
534" pipe	1.00
540" pipe	1.00
546" pipe	1.00
552" pipe	1.00
558" pipe	1.00
564" pipe	1.00
570" pipe	1.00
576" pipe	1.00
582" pipe	1.00
588" pipe	1.00
594" pipe	1.00
600" pipe	1.00
606" pipe	1.00
612" pipe	1.00
618" pipe	1.00
624" pipe	1.00
630" pipe	1.00
636" pipe	1.00
642" pipe	1.00
648" pipe	1.00
654" pipe	1.00
660" pipe	1.00
666" pipe	1.00
672" pipe	1.00
678" pipe	1.00
684" pipe	1.00
690" pipe	1.00
696" pipe	1.00
702" pipe	1.00
708" pipe	1.00
714" pipe	1.00
720" pipe	1.00
726" pipe	1.00
732" pipe	1.00
738" pipe	1.00
744" pipe	1.00
750" pipe	1.00
756" pipe	1.00
762" pipe	1.00
768" pipe	1.00
774" pipe	1.00
780" pipe	1.00
786" pipe	1.00
792" pipe	1.00
798" pipe	1.00
804" pipe	1.00
810" pipe	1.00
816" pipe	1.00
822" pipe	1.00
828" pipe	1.00
834" pipe	1.00
840" pipe	1.00
846" pipe	1.00
852" pipe	1.00
858" pipe	1.00
864" pipe	1.00
870" pipe	1.00
876" pipe	1.00
882" pipe	1.00
888" pipe	1.00
894" pipe	1.00
900" pipe	1.00
906" pipe	1.00
912" pipe	1.00
918" pipe	1.00
924" pipe	1.00
930" pipe	1.00
936" pipe	1.00
942" pipe	1.00
948" pipe	1.00
954" pipe	1.00
960" pipe	1.00
966" pipe	1.00
972" pipe	1.00
978" pipe	1.00
984" pipe	1.00
990" pipe	1.00
996" pipe	1.00
1002" pipe	1.00



PROJECT INFORMATION

Project Name: DESERT CREEK UNIT 1

Client: DESERT CREEK UNIT 1

Address: 10000 N. 100th Ave., Suite 100, Denver, CO 80231

City: DENVER

State: CO

Project No.: 10000

Scale: AS SHOWN

Drawn By: [Signature]

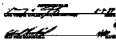
Date: 10/1/00



- NOTES**
- SEE PLAN FOR EXISTING AND PROPOSED PIPING.
 - SEE PLAN FOR EXISTING AND PROPOSED MANHOLES.
 - SEE PLAN FOR EXISTING AND PROPOSED TRUNK AND BRANCH PIPING.
 - SEE PLAN FOR EXISTING AND PROPOSED LAMP PIPING.
 - SEE PLAN FOR EXISTING AND PROPOSED FRONT, REAR, SIDE AND CORNER PIPING.
 - SEE PLAN FOR EXISTING AND PROPOSED SEWER MAIN PIPING.
 - SEE PLAN FOR EXISTING AND PROPOSED WATER MAIN PIPING.
 - SEE PLAN FOR EXISTING AND PROPOSED TRUNK AND BRANCH PIPING.
 - SEE PLAN FOR EXISTING AND PROPOSED LAMP PIPING.
 - SEE PLAN FOR EXISTING AND PROPOSED FRONT, REAR, SIDE AND CORNER PIPING.
 - SEE PLAN FOR EXISTING AND PROPOSED SEWER MAIN PIPING.
 - SEE PLAN FOR EXISTING AND PROPOSED WATER MAIN PIPING.
 - SEE PLAN FOR EXISTING AND PROPOSED TRUNK AND BRANCH PIPING.
 - SEE PLAN FOR EXISTING AND PROPOSED LAMP PIPING.
 - SEE PLAN FOR EXISTING AND PROPOSED FRONT, REAR, SIDE AND CORNER PIPING.

- LEGEND**
- EXISTING PIPING
 - PROPOSED PIPING
 - EXISTING MANHOLE
 - PROPOSED MANHOLE
 - EXISTING TRUNK AND BRANCH PIPING
 - PROPOSED TRUNK AND BRANCH PIPING
 - EXISTING LAMP PIPING
 - PROPOSED LAMP PIPING
 - EXISTING FRONT, REAR, SIDE AND CORNER PIPING
 - PROPOSED FRONT, REAR, SIDE AND CORNER PIPING
 - EXISTING SEWER MAIN PIPING
 - PROPOSED SEWER MAIN PIPING
 - EXISTING WATER MAIN PIPING
 - PROPOSED WATER MAIN PIPING
 - EXISTING TRUNK AND BRANCH PIPING
 - PROPOSED TRUNK AND BRANCH PIPING
 - EXISTING LAMP PIPING
 - PROPOSED LAMP PIPING
 - EXISTING FRONT, REAR, SIDE AND CORNER PIPING
 - PROPOSED FRONT, REAR, SIDE AND CORNER PIPING

- KEY SYMBOLS**
- EXISTING PIPING
 - PROPOSED PIPING
 - EXISTING MANHOLE
 - PROPOSED MANHOLE
 - EXISTING TRUNK AND BRANCH PIPING
 - PROPOSED TRUNK AND BRANCH PIPING
 - EXISTING LAMP PIPING
 - PROPOSED LAMP PIPING
 - EXISTING FRONT, REAR, SIDE AND CORNER PIPING
 - PROPOSED FRONT, REAR, SIDE AND CORNER PIPING
 - EXISTING SEWER MAIN PIPING
 - PROPOSED SEWER MAIN PIPING
 - EXISTING WATER MAIN PIPING
 - PROPOSED WATER MAIN PIPING
 - EXISTING TRUNK AND BRANCH PIPING
 - PROPOSED TRUNK AND BRANCH PIPING
 - EXISTING LAMP PIPING
 - PROPOSED LAMP PIPING
 - EXISTING FRONT, REAR, SIDE AND CORNER PIPING
 - PROPOSED FRONT, REAR, SIDE AND CORNER PIPING



DESIGNER

CLIENT

DATE

SCALE

PROJECT NO.

PROJECT NAME

ADDRESS

CITY

STATE

ZIP

PHONE

FAX

EMAIL

WEBSITE

DESERT CREEK UNIT 1

SEWER & WATER PLAN

DATE

SCALE

PROJECT NO.

PROJECT NAME

ADDRESS

CITY

STATE

ZIP

PHONE

FAX

EMAIL

WEBSITE

DESIGNER

CLIENT

DATE

SCALE

PROJECT NO.

PROJECT NAME

ADDRESS

CITY

STATE

ZIP

PHONE

FAX

EMAIL

WEBSITE