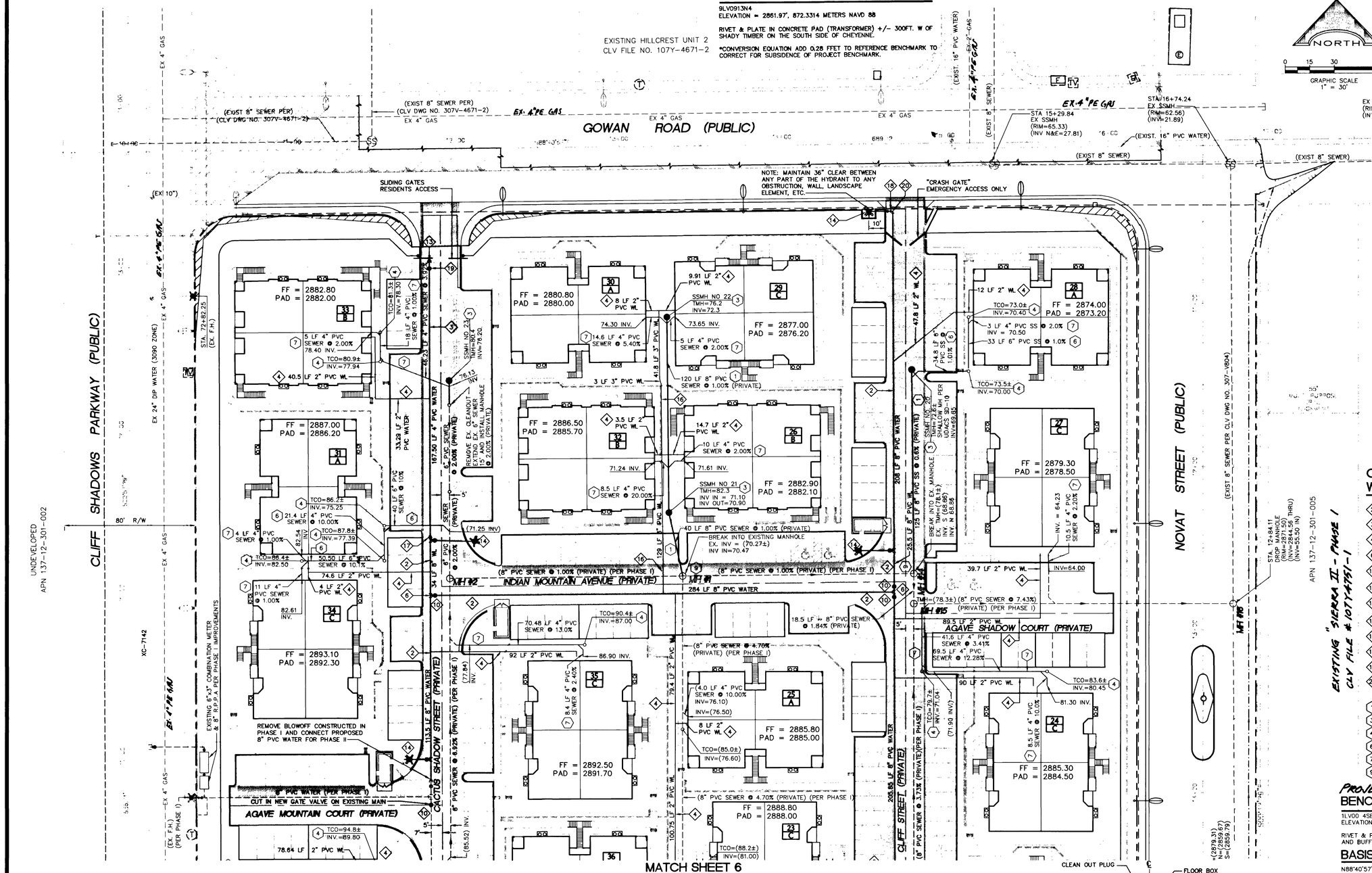
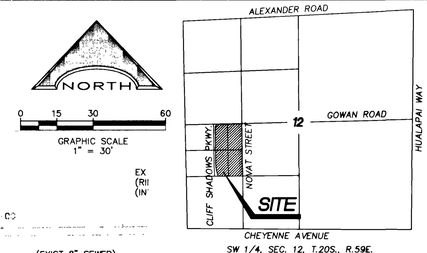
REFERENCE BENCHMARK

9LV0913N4
ELEVATION = 2861.97', 872.3314 METERS NAVD 88

RIVET & PLATE IN CONCRETE PAD (TRANSFORMER) +/- 300FT. W OF SHADY TIMBER ON THE SOUTH SIDE OF CHEYENNE.

*CONVERSION EQUATION ADD 0.28 FFET TO REFERENCE BENCHMARK TO CORRECT FOR SUBSIDENCE OF PROJECT BENCHMARK.





VICINITY MAP

NOT TO SCALE

LEGEND AND ABBREVIATIONS

S.D.	STORM DRAIN
	BLOCK WALL
	EDGE OF PROPOSED PAVEMENT
	EXISTING CHAIN LINK FENCE
	EXIST RIGHT-OF-WAY
	RIGHT-OF-WAY
	CENTERLINE
	PROPERY LINE
	LOTLINE
	EXISTING WATER MAIN
	EXISTING SEWER MAIN
	PROPOSED WATER LINE
	PROPOSED SANITARY SEWER W/ MANHOLE
	EXISTING SANITARY SEWER W/ MANHOLE
	RED PAINTED CURB "NO PARKING"
	24' WIDE FIRE ACCESS
	PROPOSED WATER VALVE
	EXISTING WATER VALVE
	PROPOSED FIRE HYDRANT
	EXISTING FIRE HYDRANT
2	CONSTRUCTION NOTE - WATER
2	CONSTRUCTION NOTE - SEWER

CONSTRUCTION NOTES AND WATER AND SEWER QUANTITIES

	WATER QUANTITIES		
2	8" PVC WATER LINE	845	L.F.
3	4" PVC WATER LINE	167.5	L.F.
4	2" PVC WATER LATERAL	1283	L.F.
6	8" TEE	2	EA.
10	8" GATE VALVE	4	EA.
13	STUB AND CAP W/2" BLOWOFF	1	EA.
14	FIRE HYDRANT ASSEMBLY	4	EA.
16	3" PVC WL	174	L.F.
17	8" x 4" REDUCER	1	EA.
18	NOT USED	1	EA.
19	4" GATE VALVE	1	EA.
20	8" 90° ELL	1	EA.
	SEWER QUANTITIES		
1	8" PVC SEWER	300	L.F.
3	48" TYPE I MANHOLE	4	EA.
4	4" SEWER CLEANOUT	18	EA.
6	6" SEWER LATERAL	172	L.F.
7	4" SEWER LATERAL	837	L.F.
9	RECONSTRUCT EXISTING MANHOLE	2	EA.

PROJECT BENCHMARK

1LV00 4SES
ELEVATION = 2342.02, 713.8497 METERS

RIVET & PLATE IN TOP OF CURB, NW RETURN OF ALEXANDER ROAD AND BUFFALO DRIVE.

BASIS OF BEARING

N88°40'57"E BEING THE NORTH LINE OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 12, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CLARK COUNTY, NEVADA AS SHOWN ON A SURVEY, FILE 88, PAGE 8, CLARK COUNTY NEVADA.

MANHOLE SCHEDULE

M.H.#	TYPE	N. INV. EL.	S. INV. EL.	E. INV. EL.	W. INV. EL.	TOP M.H.	NORTHING	EASTING	COMMENTS
SSMH 1	TYPE I		70.47	70.27	70.47	81.5±			48" DIA. M.H. (PRIVATE)
SSMH 2	TYPE I	71.90	71.90	71.70		86.2±			48" DIA. M.H. (PRIVATE)
SSMH 3	TYPE I	85.82	86.02			92.9±			48" DIA. M.H. (PRIVATE)
SSMH 4	TYPE I	95.28	95.48			02.4±			48" DIA. M.H. (PRIVATE)
SSMH 5	TYPE I			93.90		01.0±			48" DIA. M.H. (PRIVATE)
SSMH 6	TYPE I	98.82	99.02			06.1±			48" DIA. M.H. (PRIVATE)
SSMH 7	TYPE I	100.10				06.3±			48" DIA. M.H. (PRIVATE)
SSMH 10	TYPE I		88.68	88.48	88.68	95.9±			48" DIA. M.H. (PRIVATE)
SSMH 11	TYPE I	87.05			87.25	94.5±			48" DIA. M.H. (PRIVATE)
SSMH 12	TYPE I		82.94		82.74	90.0±			48" DIA. M.H. (PRIVATE)
SSMH 13	TYPE I	80.89		81.09		88.3±			48" DIA. M.H. (PRIVATE)
SSMH 14	TYPE I		68.66		68.86	78.1±			48" DIA. M.H. (PRIVATE)
SSMH 15	TYPE I	68.48	68.48	66.28		78.3±			48" DIA. M.H. (PRIVATE)
SSMH 16	DROP MANHOLE	44.56 THRU	44.56 THRU		55.50	71.50±			60" DIA. M.H. (PUBLIC)
SSMH 17	TYPE I	96.45 THRU	96.45 THRU			03.0±			48" DIA. M.H. (PRIVATE)
SSMH 18	TYPE I	97.58 THRU	97.58 THRU			04.2±			48" DIA. M.H. (PRIVATE)
SSMH 19	TYPE I	91.40 THRU	91.40 THRU			96.7±			48" DIA. M.H. (PRIVATE)

39449 61790

THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

ESN.041

SEWER CONTRIBUTION

340 UNITS @ 0.8 X 250 GPD = 0.068 MGD AVERAGE
3.3 X 0.068 = 0.224 MGD PEAK
GPD = GALLONS PER DAY

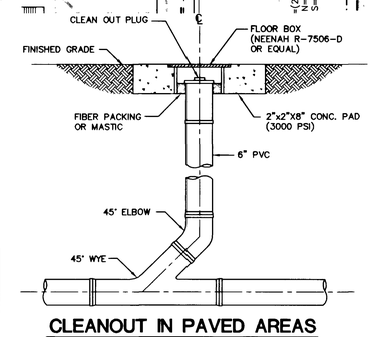
FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS: 1,750 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.
BASED ON: (LARGEST STRUCTURE BUILDING TYPE "C")
SQUARE FOOTAGE: 9,925 S.F.
LARGEST AREA BETWEEN 4-HR RATED SEPARATION WALLS: NA
BUILDING HEIGHT: 31'-6"
NUMBER OF STORIES: NA
TYPE OF CONSTRUCTION: TYPE V- 1 HR.
OCCUPANCY: APARTMENTS
FULL AUTOMATIC FIRE SPRINKLER SYSTEM: ☐ YES ■ NO

REVIEWED BY:_____ DATE: _____
LAS VEGAS FIRE DEPARTMENT

MANHOLE SCHEDULE (PROPOSED PER PHASE II)

M.H.#	TYPE	N. INV. EL.	S. INV. EL.	E. INV. EL.	W. INV. EL.	TOP M.H.	NORTHING	EASTING	COMMENTS
SSMH 20	TYPE I		69.65			76.6±	12413.8021	11120.9138	SHALLOW MANHOLE PER UDACS SD-10
SSMH 21	TYPE I	71.10	70.90			82.3±	12324.2897	10973.3499	48" DIA. M.H. (PRIVATE)
SSMH 22	TYPE I		72.30			76.2±	12444.258	10970.5908	48" DIA. M.H. (PRIVATE)
SSMH 23	TYPE I		76.20			80.4±	10837.6278	12403.5156	48" DIA. M.H. (PRIVATE)



CLEANOUT IN PAVED AREAS
NOT TO SCALE

APPROVALS

LAS VEGAS VALLEY WATER DISTRICT — DATE 10/20/03

CITY FIRE MARSHAL — DATE 8/12/03

DISCLAIMER NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

Avoid cutting underground utility lines. It's costly. Call before you Dig 1-800-227-2600 UNDERGROUND SERVICE (USA)

Avoid overhead power line contact Call before you OVERHEAD 1-702-593-6111 NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

REV	DATE	BY	REVISION

CLIFF SHADOWS CONDOMINIUMS, LLC
8375 W. FLAMINGO RD. #200
LAS VEGAS, NEVADA 89117
(702) 366-3826

L. R. NELSON CONSULTING ENGINEERS, INC.
• STRUCTURAL • CIVIL • SURVEY
3035 East Patrick Lane Suite 9
Las Vegas, Nevada 89120
(702) 798-7978
(702) 451-2296 FAX

SHEET: UTILITY PLAN 1

TITLE: GOWAN/CLIFF SHADOWS CONDOMINIUMS (PHASE II)

DRAWN BY: RCP
DESIGNED BY: RCP
CHECKED BY: K.E.A.
SCALE: HORZ. 1"=30'
PROJECT NO: 121-055-012

SEAL: REGISTERED PROFESSIONAL ENGINEER GREGORY G. RADIG EXP 12/31/03 CIVIL No. 7474 STATE OF NEVADA 3-2-03

SHEET C5 5 OF 13 SHEETS

DRAWING NO. 107Y4751-2