

Memorandum

Department of Public Works
City Engineer Division
Survey Section
333 North Rancho Dr., 8th Floor
Las Vegas, Nevada 89106
Phone (702) 229-6217
Fax (702) 804-8582

To: Michael Cunningham, Manager
Building and Safety Department

From: Alan R. Riecki, PLS
City Surveyor

C: Gregory Spinkelink, PLS
Tri-Core Surveying

Tim Parks, P.E., Engineering Project Manager
Sanitary Sewers Section, Engineering Planning

Date: November 21, 2018

Re: Sanitary Sewer Final Location Map
ELKHORN AND GRAND CANYON
(Drawing No. 107Y5071, L-Civil No. L17-00900)

The Survey Section has reviewed the Final Location Map and as far as our jurisdiction of this project is concerned, we find that the map is:

Acceptable: November 21, 2018



Signature

FOR: City Surveyor

Title

Public Works/Survey
Department/Division

CITY OF LAS VEGAS
BUILDING AND SAFETY DEPARTMENT

OFFSITE INSPECTION & TESTING
333 NORTH RANCHO DRIVE
LAS VEGAS, NV 89106
PHONE: (702) 229-6337
FAX: (702) 631-3000

DEVELOPER'S SUBMITTAL OF LOCATION COORDINATES

Sewer Storm Drain

- Electronic Comma Delineated File
- Final Location Map (2 copies each for either sewer OR storm drain)

NOTE: THE TOP PART OF THIS FORM MUST BE FILLED OUT IN ITS ENTIRETY

PROJECT NAME: Elkhorn & Grand Canyon UNIT: PHASE:
PROJECT LOCATION: Elkhorn & Grand Canyon in Las Vegas, NV
CLV PLAN #: L17-00900 CLV PROJECT # 125847 SHEET NO. (S): 8-11 of 13
OF MANHOLES 4 PUB. SEWER/STORM DRAIN LIN. FT. 814 # OF PRIVATE LATERALS 12
DEVELOPER: Touchstone Living PHONE: 702-929-3131 FAX: 702-
SURVEY CO.: Tri-Core Surveying PHONE: 702-821-1554 FAX: 702-870-4378
CONTRACTOR: Western States Contracting PHONE: 702-644-1117 FAX: 702-851-6633
CONTRACTOR'S SUPERVISOR NAME: Jared Adams MOBILE: 702-204-9825
DATE OF REQUEST: October 24, 2018

**SUBMIT DIRECTLY TO THE OFFICE OF THE CITY
SURVEYOR LOCATED ON THE 8th FLOOR OF THE
DSC / 333 N Rancho, 89106**

Please get a stamped copy of this form for your records.

CITY USE ONLY

DATE AND INITIALS / RECEIVED BY THE CITY SURVEYOR _____

ACCEPTABLE BY CITY SURVEYOR DATE: 11/21/18 NOT ACCEPTABLE BY CITY SURVEYOR DATE _____

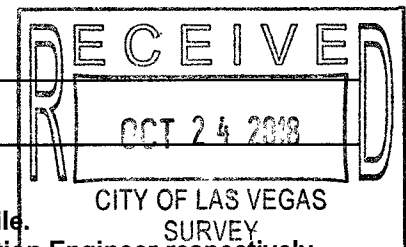
FOR: CLV SURVEYOR'S SIGNATURE: Randy W. Mil. DATE: 11/21/18

THE CITY OF LAS VEGAS RECOMMENDS THAT ALL DEFICIENCIES NOTED ON THE ATTACHED SURVEY REPORT BE CORRECTED PRIOR TO THE FINAL ACCEPTANCE.

Notes: _____

ROUTING:

- > Once "ACCEPTABLE"; SURVEY to forward a copy of this form to O.I.T. for the file.
- > Final Location Maps to be forwarded to and retained by Flood Control or Sanitation Engineer respectively.





City of Las Vegas
Department of Public Works
Survey Section

REVIEW CHECKLIST
SANITARY SEWER
FINAL LOCATION MAP

JOB NUMBER L17-00900 SS1
 PROJECT NAME Elkhorn and Grand Canyon
 WORK AUTH. NO. P28000
 SUBMITTED BY TRI-CORE SURVEYING (GREGORY D SPINKELINK)
 PROJECT TYPE CIP Land Dev Street Rehab
 DATE 11/20/18
 REVIEWED BY O. SANDAIA

REVIEW DETERMINATION

- Approved
- Not Acceptable

TO BE RE-SUBMITTED

- Two bond copies (no mylar)
- Electronic media with comma-separated coordinate file

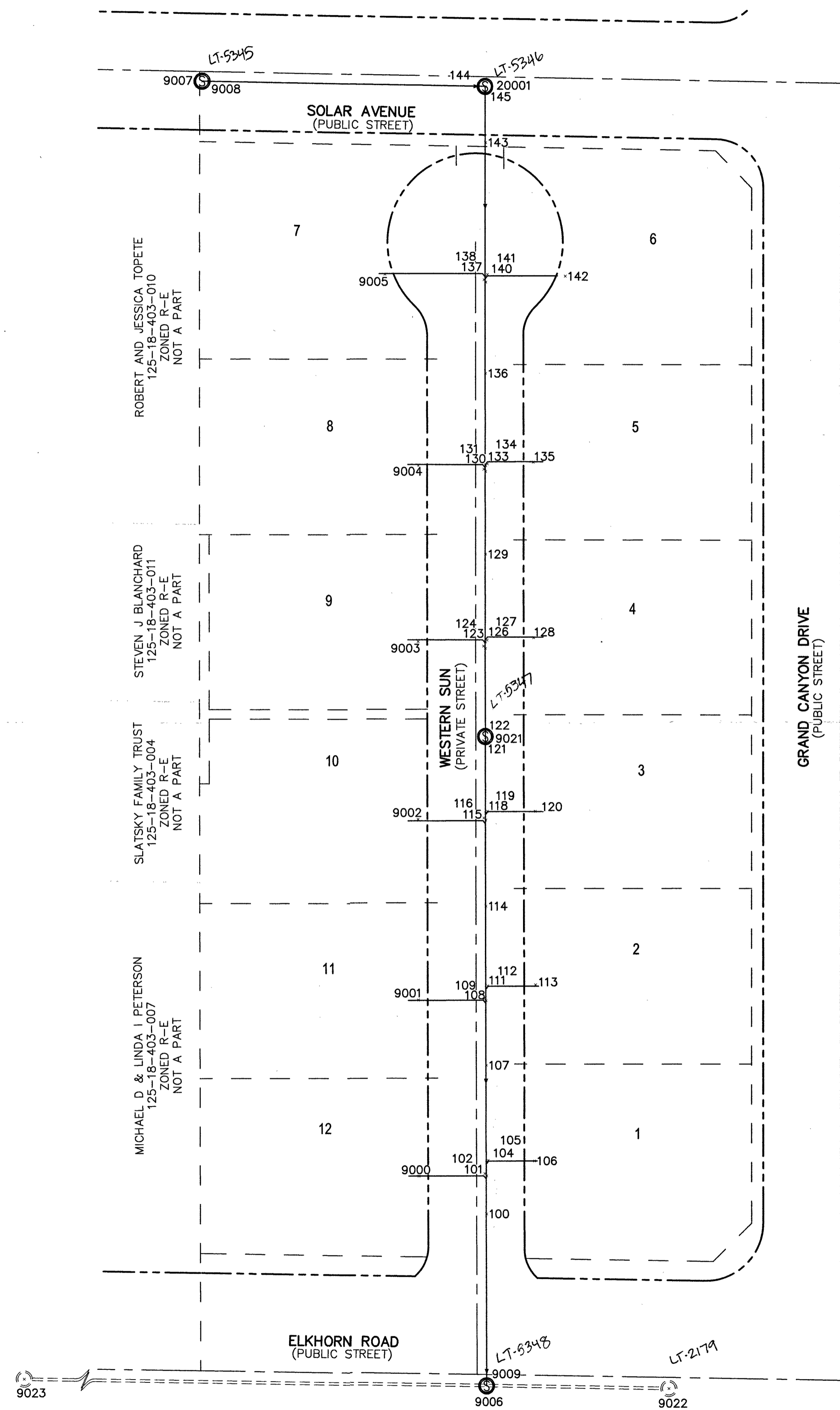
REVIEW ITEM	OK	SEE R/L	N/A	COMMENTS
Submittal Contents				
Two bond copies (no mylar)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Electronic media containing comma-separated coordinate file	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
General Map Contents				
Sheet size 24" x 36"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sheet number and number of sheets	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
North arrow (pointing up, left or right)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Scale (written & graphic, correctly shown, appropriate scale used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Lettering legibility (minimum text size 0.08")	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Map title shown ("Sanitary Sewer Final Location Map")	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CLV project name shown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CLV Hansen No. shown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CLV Drawing No. shown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Preparer's company name and contact information shown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Legend (all linetypes and symbols defined)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Non-standard abbreviations defined	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Distances, coordinates and elevations labeled using decimal feet	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Approximate limits of streets shown (improvements or right-of-way)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Street names labeled (identified as public or private)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

REVIEW CHECKLIST – SANITARY SEWER FINAL LOCATION MAP

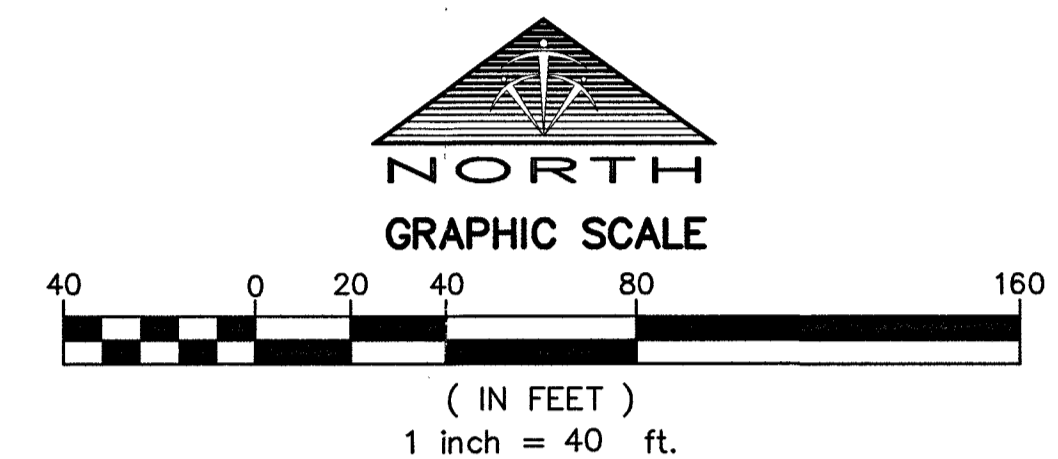
REVIEW ITEM	OK	SEE R/L	N/A	COMMENTS
Sanitary Sewer Improvements Data				
*NOTE As of December 1, 2015 manhole cover locations are no longer required.				
Manhole Barrel/Base: (measured horizontally at centerline of structure barrel/base, vertical location does not apply)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Vaults and Junction Structures: (measured horizontally at all outer extents of structure, vertically at top of structure)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Lateral/Main/Interceptor Pipes: locate at all connections to other pipes and structures, all horizontal and vertical deflections, points of termination (stubs), point at which pipe exits the public right-of-way or easement (measured horizontally at centerline of pipe, vertically at top of pipe)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*NOTE All pipe connections to manholes and other structures should be located at outside face of structure before backfilling due to accuracy limitations of pipe measurements from the structure's surface access point.				
Coordinate Information				
Data acquisition completion date indicated	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Coordinate system indicated (only CLV approved coordinate systems are to be used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Horizontal datum, datum adjustment, and epoch date indicated (only CLV approved datums are to be used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Benchmark ID, description, elevation indicated	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Statement of positional accuracy per the tolerances indicated below	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*NOTE For all projects with improvement plans approved prior to March 1, 2015 coordinates provided must be accurate to within ±0.5 feet horizontally and vertically. For all projects with improvement plans approved after March 1, 2015 coordinates provided must be accurate to within ±0.3 feet horizontally and vertically.				
Coordinate accuracy QA/QC (when available)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

ADDITIONAL COMMENTS

P:\3107.0001_Elkhorn_Grand Canyon_Construction\as-built\SEWER AS BUILT\ELKHORN&GRAND SWR ASB.dwg oosoco Tue, 23 Oct 2018 - 2:37pm



POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	26808103.01	737747.02	2759.52	TOP 8" PVC MAIN
101	26808122.59	737747.00	2759.66	TOP 8" PVC MAIN
102	26808123.70	737745.98	2759.73	TOP 4" PVC LATERAL
104	26808129.55	737746.95	2759.71	TOP 8" PVC MAIN
105	26808130.49	737747.81	2759.91	TOP 4" PVC LATERAL
106	26808130.32	737771.99	2760.42	TOP 4" PVC LATERAL
107	26808179.55	737746.82	2759.85	TOP 8" PVC MAIN
108	26808212.70	737746.62	2759.98	TOP 8" PVC MAIN
109	26808213.78	737745.59	2760.16	TOP 4" PVC LATERAL
111	26808219.40	737746.61	2760.01	TOP 8" PVC MAIN
112	26808220.35	737747.49	2760.26	TOP 4" PVC LATERAL
113	26808221.01	737772.26	2760.76	TOP 4" PVC LATERAL
114	26808261.19	737746.51	2760.16	TOP 8" PVC MAIN
115	26808305.78	737746.32	2760.36	TOP 8" PVC MAIN
116	26808306.94	737745.33	2760.53	TOP 4" PVC LATERAL
118	26808309.37	737746.24	2760.38	TOP 8" PVC MAIN
119	26808310.31	737747.16	2760.46	TOP 4" PVC LATERAL
120	26808310.33	737771.96	2760.99	TOP 4" PVC LATERAL
121	26808345.53	737746.12	2760.43	TOP 8" PVC MAIN OUT
122	26808351.70	737746.13	2760.49	TOP 8" PVC MAIN IN
123	26808394.23	737746.02	2760.65	TOP 8" PVC MAIN
124	26808395.40	737745.06	2760.90	TOP 4" PVC LATERAL
126	26808397.60	737745.96	2760.68	TOP 8" PVC MAIN
127	26808398.50	737746.83	2760.89	TOP 4" PVC LATERAL
128	26808399.92	737770.97	2761.42	TOP 4" PVC LATERAL
129	26808442.80	737745.92	2760.87	TOP 8" PVC MAIN
130	26808485.07	737745.84	2761.05	TOP 8" PVC MAIN
131	26808486.25	737744.91	2761.27	TOP 4" PVC LATERAL
133	26808488.12	737745.81	2761.07	TOP 8" PVC MAIN
134	26808489.08	737746.68	2761.28	TOP 4" PVC LATERAL
135	26808490.05	737770.52	2761.84	TOP 4" PVC LATERAL
136	26808535.51	737745.68	2761.31	TOP 8" PVC MAIN
137	26808582.50	737745.64	2761.49	TOP 8" PVC MAIN
138	26808583.67	737744.69	2761.68	TOP 4" PVC LATERAL
140	26808585.57	737745.64	2761.51	TOP 8" PVC MAIN
141	26808586.49	737746.48	2761.68	TOP 4" PVC LATERAL
142	26808585.70	737786.93	2762.62	TOP 4" PVC LATERAL
143	26808654.09	737745.29	2761.82	TOP 8" PVC MAIN
144	26808683.14	737741.44	2762.23	TOP 8" PVC MAIN IN
145	26808679.67	737745.07	2761.91	TOP 8" PVC MAIN OUT
9000	26808122.35	737712.02	2760.76	TOP 4" PVC LATERAL
9001	26808213.00	737711.68	2761.12	TOP 4" PVC LATERAL
9002	26808306.11	737711.35	2761.42	TOP 4" PVC LATERAL
9003	26808397.57	737711.18	2761.85	TOP 4" PVC LATERAL
9004	26808487.85	737710.95	2762.17	TOP 4" PVC LATERAL
9005	26808586.42	737693.44	2763.05	TOP 4" PVC LATERAL
9006	26808015.02	737746.52	2758.12	INV SSMH @ CL BARREL
9007	26808684.96	737599.22	2765.65	INV SSMH @ CL BARREL
9008	26808684.93	737602.22	2766.45	TOP 8" PVC MAIN OUT
9009	26808017.96	737746.51	2759.13	TOP 8" MAIN IN
9021	26808348.28	737746.03	2759.69	SSMH CL BARREL
9022	26808013.39	737841.50	2755.96	INV SSMH @ CL BARREL
9023	26808020.30	737346.26	2769.71	INV SSMH @ CL BARREL
20001	26808682.86	737745.16	2761.44	INV SSMH @ CL BARREL



LEGEND	
---	LOT LINE / ASSESSOR'S PARCEL LINE
- - - -	RIGHT-OF-WAY LINE
---	DESIGN SEWER LINE
---	EXISTING SEWER LINE
⊙	DESIGN SEWER MANHOLE
⊙	EXISTING SEWER MANHOLE
5100	AS-BUILT POINT NUMBER
APN	ASSESSOR'S PARCEL NUMBER
OR:	OFFICIAL RECORDS, CLARK COUNTY

HORIZONTAL DATUM

HORIZONTAL DATUM SHOWN HEREON IS BASED UPON NORTH AMERICAN DATUM OF 1983 (NAD 83 (2011) EPOCH 2010.00 REALIZATION), NEVADA STATE PLANE COORDINATE SYSTEM EAST ZONE (2701).

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: 6LV90 1854
RIVET AND PLATE IN THE TOP OF CURB, NORTHEAST CORNER OF GRAND CANYON DRIVE AND ELKHORN ROAD.

ELEVATION: 2756.91 (U.S. SURVEY FEET)
840.308 (METERS)

BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88), CITY OF LAS VEGAS 2008 ADJUSTMENT

NOTES

THE PURPOSE OF THIS SURVEY IS TO PROVIDE AS-BUILT INFORMATION FOR THE SANITARY SEWER FACILITIES IN THE IMPROVEMENT PLANS FOR "ELKHORN AND GRAND CANYON" AS SHOWN IN BOOK 155, PAGE 37 OF PLATS, SITUATE IN THE EAST HALF (E 1/2) OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AND THE SURVEY WAS COMPLETED ON JULY 5, 2018.

THE POSITIONAL CERTAINTY OF THE AS-BUILT INFORMATION SHOWN HEREON IS WITHIN +/- 0.3' HORIZONTALLY AND VERTICALLY. TRI-CORE SURVEYING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITIES SHOWN OR NOT SHOWN. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FOR THE CONVENIENCE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY BOTH THE HORIZONTAL AND VERTICAL LOCATION OF ALL RELEVANT UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF A CONFLICT OR DISCREPANCY IS DISCOVERED, THE CONTRACTOR SHALL NOTIFY TRI-CORE SURVEYING IN WRITING IMMEDIATELY.

DATE	NO.	DESCRIPTION	DATE	APP'D
10/23/2018	GS			
	AA			

DATE: 10/23/2018
 DRAWN BY: AA
 DESIGNED BY:
 CHECKED BY:
 ADA CHECKED:
 JOB NO.: 31018.0001
 SCALE: 1" = 40'

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TRI-CORE SURVEYING, LLC
 LAND SURVEYING • CONSTRUCTION STAKING
 MAPPING & LAND DEVELOPMENT SERVICES
 BOUNDARY & TOPOGRAPHIC SURVEYS
 6761 WEST CHARLESTON BLVD.
 LAS VEGAS, NEVADA 89146
 TEL (702) 821-1554 FAX (702) 870-4378

TOUCHSTONE LIVING
 ELKHORN & GRAND CANYON
 SANITARY SEWER FINAL LOCATION MAP

PROFESSIONAL LAND SURVEYOR
 GREGORY D. SPINKELINK
 No. 144419
 10-24-18