

Technical Drainage Study Update Addendum
EOS Fitness at Craig & Rancho
(Update to Craig & Rancho Master Drainage Study)

City of Las Vegas, Nevada

Job No.: 144103
Date: November 2022

Prepared For:
Barclay Group
2390 E. Camelback Road, Suite 200
Phoenix, AZ 85016
(408) 596-9399

Prepared By:
Momeni Engineers, LLC
3110 South Durango Drive, Suite 205
Las Vegas, Nevada 89117
Phone: 702-902-2444
Fax: 702-248-8495

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: _____ Date: _____
 Location of Development: a) Descriptive (Cross Streets): _____ North/South: _____
 East/West: _____
 b) Section: _____ Township: _____ Range: _____
 c) APN: _____

Name of Owner: _____
 Telephone No.: _____ Fax No.: _____ E-mail Address: _____
 Address: _____

Contact Person – Name: _____ Telephone No.: _____
 *E-mail Address: _____ Fax No.: _____
 Firm: _____
 Address: _____

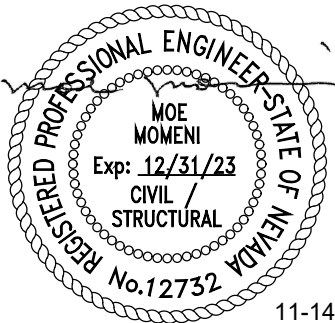
Type of Land Development/Land Disturbance Process:

☐ Rezoning	☐ Subdivision Map	☐ Clearing and grading Only
☐ Parcel Map	☐ Planned Unit Development	☐ Other (Please specify below)
☐ Large Parcel Map	☐ Building Permit	

1. Total Owned Land Area: At Site: _____ Being Developed/Disturbed: _____
2. Is a portion or all of the subject property located in a FEMA Flood Hazard Area? ☐ Yes** ☐ No
3. Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control District Master Planned Facility? ☐ Yes** ☐ No
4. Proposed type of development (Residential, Commercial, Etc.): _____
5. Approximate upstream land area which drains to the subject site: _____
6. Has the site drainage been evaluated in the past? ☐ Yes** ☐ No If yes, please identify documentation: _____

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: _____

8. Briefly describe your proposed schedule for the subject project: _____



11-14-2022

Engineer's Seal

Submit this form as part of the required drainage study to the local entity which has jurisdiction over The subject property. This form may provide sufficient information to serve as the Conceptual Drainage Study.

***Newly Required Field**

****Review and concurrence of the Clark County Regional Flood Control District is required**

	Revision	Date
_____	Local Entity File No.	

REFERENCE:

STANDARD FORM 1

Updated 05/01/2008

November 14, 2022

Albert Sung, P.E.
Flood Control Project Engineer
City of Las Vegas Department of Public Works
459 Water Street
Henderson, Nevada 89015

RE: Addendum to the Technical Drainage Study Update for EOS Fitness at Craig
& Ranch
Location: SEC of Rancho Road and Craig Road
Application #: DS5620A

CLV – Review Comments:

1. Provide a copy of the zoning/planning conditions associated with this site with the next submittal to verify compliance with conditions. Flood Control will not issue conditional approval of the drainage study without the associated zoning/planning conditions (issued by the City Council). Any associated conditions of approval that revise the site drainage parameters will require that the drainage study be revised and resubmitted.

Response:

Noted. Please refer to Appendix A for a copy of the NOFA.

2. The project proposes to construct facilities and/or increase flows within Nevada Department of Transportation (NDOT) right-of-way (Craig Road). The engineer must contact NDOT for encroachment permit for the proposed project.

Response:

The project does not propose to construct any facilities nor discharge any flows directly to NDOT right-of-way (ROW). Onsite flows will discharge east into the adjacent parcel prior to entering Craig Road thru the existing driveway returns. However, a concrete sidewalk and a paved access for the driveway will be constructed as a part of this project, both of which terminate at the property line (ROW) of Craig Road. Note that the approved Craig & Rancho Master Drainage Study estimated basin ND3-1 ($Q_{100}=17$ cfs, see referenced basin map Sheet DR2 in Appendix C) to discharge into Craig Road thru the same driveway. The subject study estimates approximately 9 cfs (CP2) excluding the area for the future Pad G. Therefore, flows to NDOT will not be increased by this study. It is acknowledged that pavement striping within the turn pocket access to the site from Craig Road will be provided. Thus, NDOT will be contacted for any required encroachment permit.

3. Standard Form 1: Revise the APN number from 138-02-715-008 to the updated number of 138-02-715-014.

Response:

The Standard Form 1 has been revised as noted.

4. Per Detail Section D/D-2: Offsite grading was proposed at the east parcel limit. Provide a notarized letter of permission for grading from the adjacent parcel owner to the east prior to the final approval of the subject drainage study.

Response:

It should be noted that all the undeveloped parcels including the subject site are currently under the same owner, PRE Rancho Craig, LLC per Clark County records. However, a notarized permission letter will be provided prior final approval of the study, since ownership will likely change in the future.

5. Per the sub-chapter "Parking Lot LID Measures" in the Study, only 40% of the overall parking area will be treated by the proposed BMP along the southern boundary. However, per Section 1500 of the CCRFCD Hydrologic and Hydraulic Design Manual, a minimum of 75% of the parking area must be treated for BMP. Address and revise accordingly in the next submittal.

Response:

Acknowledged. Additional BMP swale has been provided for the north parking area. The BMP calculation has been updated accordingly. Please refer to Appendix B for the additional BMP hydraulic Section N. The summary tables for the BMP computations have also been updated on Drainage Map (Sheet DR1) provided in Appendix C.

6. Show and identify an existing storm drain system in Craig Road with City of Las Vegas recorded drawing number on the grading plan.

Response:

Acknowledged. Please refer to the revised grading plan provided with this submittal.

We believe the responses to the above comments and the revisions on the plans have sufficiently addressed your concerns in the subject review memorandum. If you have any questions or require additional information, please do not hesitate to contact our office at (702) 902-2444.

Sincerely,
MOMENI ENGINEERS, LLC



Moe Momeni, P.E., S.E.
President

APPENDIX

Appendix A – CLV Comment Letter & NOFA

Appendix B – Updated BMP Computations

Appendix C – Referenced & Updated Drainage Exhibit

Appendix D – Revised Improvement Plans

November 14, 2022

Albert Sung, P.E.
Flood Control Project Associate
City of Las Vegas Department of Public Works
495 S. Main Street
Las Vegas, Nevada 89101

**RE: Technical Drainage Study Update Addendum for EOS Fitness at Craig & Ranch
DS5620A**

Mr. Sung:

Submitted for your review is the Technical Drainage Study Update Addendum for EOS Fitness at Craig & Rancho. This letter confirms that all items provided electronically on submittal CD matches the hard copy paper version of the study.

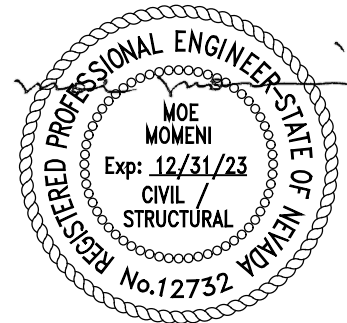
If you have any questions or require additional information, please do not hesitate to contact our office at (702) 902-2444.

Sincerely,

Momeni Engineers, LLC.



Moe Momeni, P.E., S.E.
President



11-14-2022

APPENDIX A
CLV Comment Letter & NOFA

CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		November 2, 2022
TO: Land Development Services Department of Building & Safety		FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:	Drainage Study for:	COPIES TO:
	EOS Fitness at Craig and Rancho	Lochsa Engineering
Cross Streets:	SEC of Craig Road & Rancho Drive	Pre Rancho Craig LLC
File Number:	F:\Depot\DSMemos\DS5620A.doc	Bart Anderson, P.E., DevCo
Parcel Number:	138-02-715-014	NDOT
Zoning Action:	SDR	
FEMA Flood Zone	YES NO X	
Proposed Storm Drain	YES NO X	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	10/27/2022	11/2/2022	See Comments Below	\$400.00	5025533 : \$400
			TOTAL FEES (LDDRS):	\$400.00	----

REMARKS:

The Drainage Study for the subject project has been reviewed and:

	is approved subject to conformance to all City standards and the following conditions:
X	must be resubmitted or supplemented including the following:
	is conditionally approved subject to Clark County Regional Flood Control District concurrence.
	is conditionally approved subject to Clark County Public Works Department concurrence.

1. Provide a copy of the zoning/planning conditions associated with this site with the next submittal to verify compliance with conditions. *Flood Control* will not issue conditional approval of the drainage study without the associated zoning/planning conditions (issued by the *City Council*). Any associated conditions of approval that revise the site drainage parameters will require that the drainage study be revised and resubmitted.
2. The project proposes to construct facilities and/or increase flows within *Nevada Department of Transportation* (NDOT) right-of-way (**Craig Road**). The engineer must contact NDOT for encroachment permit for the proposed project.
3. **Standard Form 1:** Revise the APN number from 138-02-715-008 to the updated number of **138-02-715-014**.
4. Per **Detail Section D/D-2:** Offsite grading was proposed at the east parcel limit. Provide a notarized letter of permission for grading from the adjacent parcel owner to the east prior to the final approval of the subject drainage study.

5. Per the sub-chapter "*Parking Lot LID Measures*" in the **Study**, only 40% of the overall parking area will be treated by the proposed BMP along the southern boundary. However, per **Section 1500** of the *CCRFCD Hydrologic and Hydraulic Design Manual*, a minimum of 75% of the parking area must be treated for BMP. Address and revise accordingly in the next submittal.
6. Show and identify an existing storm drain system in *Craig Road* with *City of Las Vegas* recorded drawing number on the grading plan.

NOTE: Please be advised that all land surface area disturbances over 1 acre or any area adjacent to a water way must submit to the *Nevada Division of Environmental Protection* a "Notice of Intent" to discharge that certifies a stormwater pollution prevention plan has been developed and is maintained on site; for inclusion in the Stormwater General Permit No. NVR100000. A phased construction unit in a contiguous subdivision is considered under construction until all stripped or disturbed surface areas have been covered by paving, building construction or planting. For more information, including forms and applications see <http://ndep.nv.gov/bwpc/storm01.htm> or call (775) 687-9429.

END OF REMARKS
AYS

T/R/S: T20S/R60E/02
AREA L-02



**LAS VEGAS
CITY COUNCIL**

CAROLYN G. GOODMAN
Mayor

STAVROS S. ANTHONY
Mayor Pro Tem

MICHELE FIORE
CEDRIC CREAR
BRIAN KNUDSEN
VICTORIA SEAMAN
OLIVIA DIAZ

JORGE CERVANTES
City Manager

DEPARTMENT OF PLANNING

SETH T. FLOYD

DIRECTOR OF
COMMUNITY DEVELOPMENT

CITY HALL

495 S. MAIN ST.
3RD FLOOR
LAS VEGAS, NV 89101
702.229.6301 | VOICE
702.464.2545 | FAX
711 | TTY



cityoflasvegas
lasvegasnevada.gov

October 19, 2022

Daniel Sullivan
PRE Rancho Craig LLC
One Marina Park Drive Suite 1500
Boston, Massachusetts 02210

**RE: 22-0174 [VAR1 AND SDR1]
CITY COUNCIL MEETING OF OCTOBER 19, 2022**

Dear Applicant:

The City Council at a regular meeting held on *October 19, 2022* voted to **APPROVE** the following Land Use Entitlement project requests on 20.76 acres on the South Side of Craig Road, approximately 470 feet east of Rancho Drive (APN 138-02-715-008), C-2 (General Commercial) Zone, Ward 5 (Crear)

22-0174-VAR1 - VARIANCE - TO ALLOW A 95-FOOT RESIDENTIAL ADJACENCY SETBACK WHERE 97 FEET IS REQUIRED

22-0174-SDR1 - SITE DEVELOPMENT PLAN REVIEW - FOR A PROPOSED 41,103 SQUARE-FOOT HEALTH CLUB

This approval is subject to the following conditions:

22-0174-VAR1 Conditions:

Planning

1. Approval of and conformance to the approved conditions of approval for Site Development Plan Review (22-0174-SDR1) shall be required, if approved.
2. This approval shall be void two years from the date of final approval, unless exercised pursuant to the provisions of LVMC Title 19.16. An Extension of Time may be filed for consideration by the City of Las Vegas.
3. All necessary building permits shall be obtained and final inspections shall be completed in compliance with Title 19 and all codes as required by the Department of Building and Safety.
4. These Conditions of Approval shall be affixed to the cover sheet of any plan set submitted for building permit.
5. All City Code requirements and design standards of all City departments must be satisfied, except as modified herein.

22-0174-SDR1 Conditions:

Planning

1. 36-inch box shade trees shall be planted within the perimeter landscape buffers.
2. Approval of and conformance to the Conditions of Approval for Variance (22-0174-VAR1) shall be required, if approved.
3. This approval shall be void two years from the date of final approval, unless exercised pursuant to the provisions of LVMC Title 19.16. An Extension of Time may be filed for consideration by the City of Las Vegas.
4. All development shall be in conformance with the site plan date stamped 07/26/22; landscape plan date stamped 09/07/22; and building elevations, date stamped 06/14/2022,
5. All necessary building permits shall be obtained and final inspections shall be completed in compliance with Title 19 and all codes as required by the Department of Building and Safety.
6. These Conditions of Approval shall be affixed to the cover sheet of any plan set submitted for building permit.
7. Pursuant to LVMC Title 19.08.040.G for commercial and industrial properties, a perimeter wall shall be constructed adjacent to any residential zoning district or property used solely for residential purposes. The wall or fence is intended to screen the commercial or industrial activity from the residential property, and shall be of a solid decorative material that is a minimum of six feet in height measured from the side of the commercial or industrial property. In no case shall the wall or fence exceed the overall height limitation applicable to the adjacent zoning district or property unless approved through a Variance or other applicable means. The overall height of a wall or fence shall be measured from the side with the greatest vertical exposure above finished grade.
8. A technical landscape plan, signed and sealed by a Registered Architect, Landscape Architect, Residential Designer or Civil Engineer, must be submitted prior to or at the same time application is made for a building permit. A permanent underground sprinkler system is required, which shall be permanently maintained in a satisfactory manner; the landscape plan shall include irrigation specifications. Installed landscaping shall not impede visibility of any traffic control device.
9. A fully operational fire protection system, including fire apparatus roads, fire hydrants and water supply, shall be installed and shall be functioning prior to construction of any combustible structures.
10. Prior to or at the time of submittal for any building permit, the applicant shall provide written verification by the FAA and/or the Clark County Department of Aviation of the following:

- a. Applicant is required to file a valid FAA Form 7460-1, "Notice of Proposed Construction or Alteration" with the FAA, in accordance with 14 CFR Part 77, or submit to the Clark County Director of Aviation a "Property Owner's Shielding Determination Statement" and request written concurrence from the Clark County Department of Aviation;
 - b. No Building Permit or other construction permit shall be issued for any structure greater than 35 feet above the surface of land that, based upon the FAA's 7460 airspace determination (the outcome of filing the FAA Form 7460-1) would (a) constitute a hazard to air navigation, (b) would result in an increase to minimum flight altitudes during any phase of flight (unless approved by the Department of Aviation), or (c) would otherwise be determined to pose a significant adverse impact on airport or aircraft operations.
 - c. Applicant is advised that FAA's airspace determinations are dependent on petitions by any interested party and the height that will not present a hazard as determined by the FAA may change based on these comments.
 - d. Applicant is advised that the FAA's airspace determinations include expiration dates and that the separate airspace determinations will be needed for construction cranes or other temporary equipment.
11. All development shall be in conformance with the site plan, landscape plan, and building elevations, date stamped 06/14/2022, except as amended by conditions herein.
 12. All City Code requirements and design standards of all City Departments must be satisfied, except as modified herein.

Public Works

13. Per the intent of a commercial subdivision, this site may connect to the on-site private sewer system. Alternatively, this site may connect to public sewer in Craig Road.
14. A Traffic Impact Analysis must be submitted to and approved by the Department of Public Works prior to the issuance of any building or grading permits, submittal of any construction drawings or the recordation of a Map subdividing this site, whichever may occur first. The Traffic Impact Analysis shall also include a pedestrian circulation/access plan to identify nearby pedestrian attractors and recommend measures to accommodate pedestrians, such as but not limited to pedestrian access, crosswalk, pedestrian activated flashers and temporary sidewalks. Comply with the recommendations of the approved Traffic Impact Analysis prior to occupancy of the site. Phased compliance will be allowed if recommended by the approved Traffic Impact Analysis. No recommendation of the approved Traffic Impact Analysis, nor compliance therewith, shall be deemed to modify or eliminate any condition of approval imposed by the Planning Commission or the City Council on the development of this site. A Master Traffic Impact analysis for the entire commercial subdivision may be used to address this condition.
15. A Drainage Plan and Technical Drainage Study must be submitted to and approved by the Department of Public Works prior to the issuance of any building or grading permits or submittal of any construction drawings, whichever may occur first. Provide and improve all drainageways recommended in the approved drainage plan/study. The developer of this site

shall be responsible to construct such neighborhood or local drainage facility improvements as are recommended by the City of Las Vegas Neighborhood Drainage Studies and approved Drainage Plan/Study concurrent with development of this site.

The Notice of Final Action was filed with the Las Vegas City Clerk on October 19, 2022.

Sincerely,

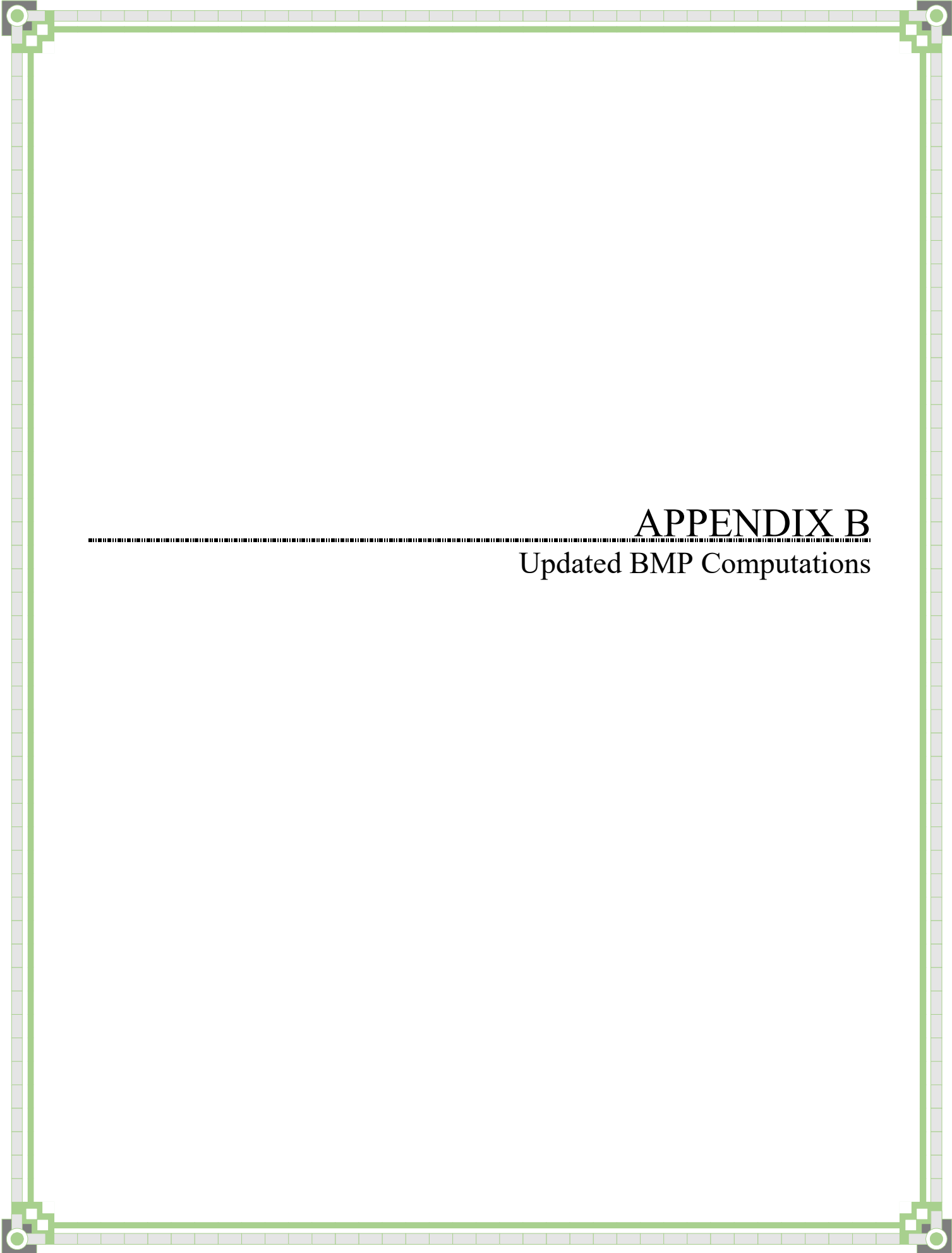
A handwritten signature in black ink, appearing to read 'S. Floyd', with a stylized flourish at the end.

Seth T. Floyd
Director of Community Development
Department of Planning

STF:PL:ew

cc:

Rele Rolin and Moe Momeni
Momeni Engineering
3120 South Decatur Drive Suite 205
Las Vegas, Nevada 89117



APPENDIX B

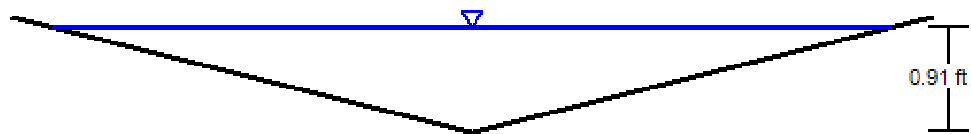
Updated BMP Computations

Worksheet for BMP Section N

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.030
Channel Slope	0.900 %
Left Side Slope	4.000 H:V
Right Side Slope	4.000 H:V
Discharge	9.00 cfs
Results	
Normal Depth	0.91 ft
Flow Area	3.3 ft ²
Wetted Perimeter	7.498 ft
Hydraulic Radius	0.44 ft
Top Width	7.27 ft
Critical Depth	0.79 ft
Critical Slope	1.858 %
Velocity	2.72 ft/s
Velocity Head	0.12 ft
Specific Energy	1.02 ft
Froude Number	0.712
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.00 ft
Length	0.000 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.00 ft
Profile Description	N/A
Profile Headloss	0.00 ft
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	0.91 ft
Critical Depth	0.79 ft
Channel Slope	0.900 %
Critical Slope	1.858 %

Cross Section for BMP Section N

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.030
Channel Slope	0.900 %
Normal Depth	0.91 ft
Left Side Slope	4.000 H:V
Right Side Slope	4.000 H:V
Discharge	9.00 cfs



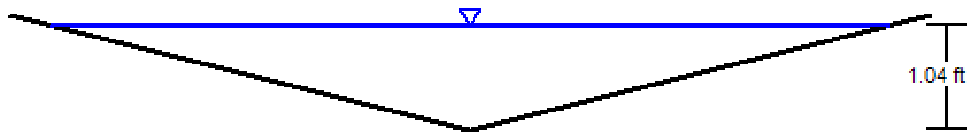
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Worksheet for BMP Section S

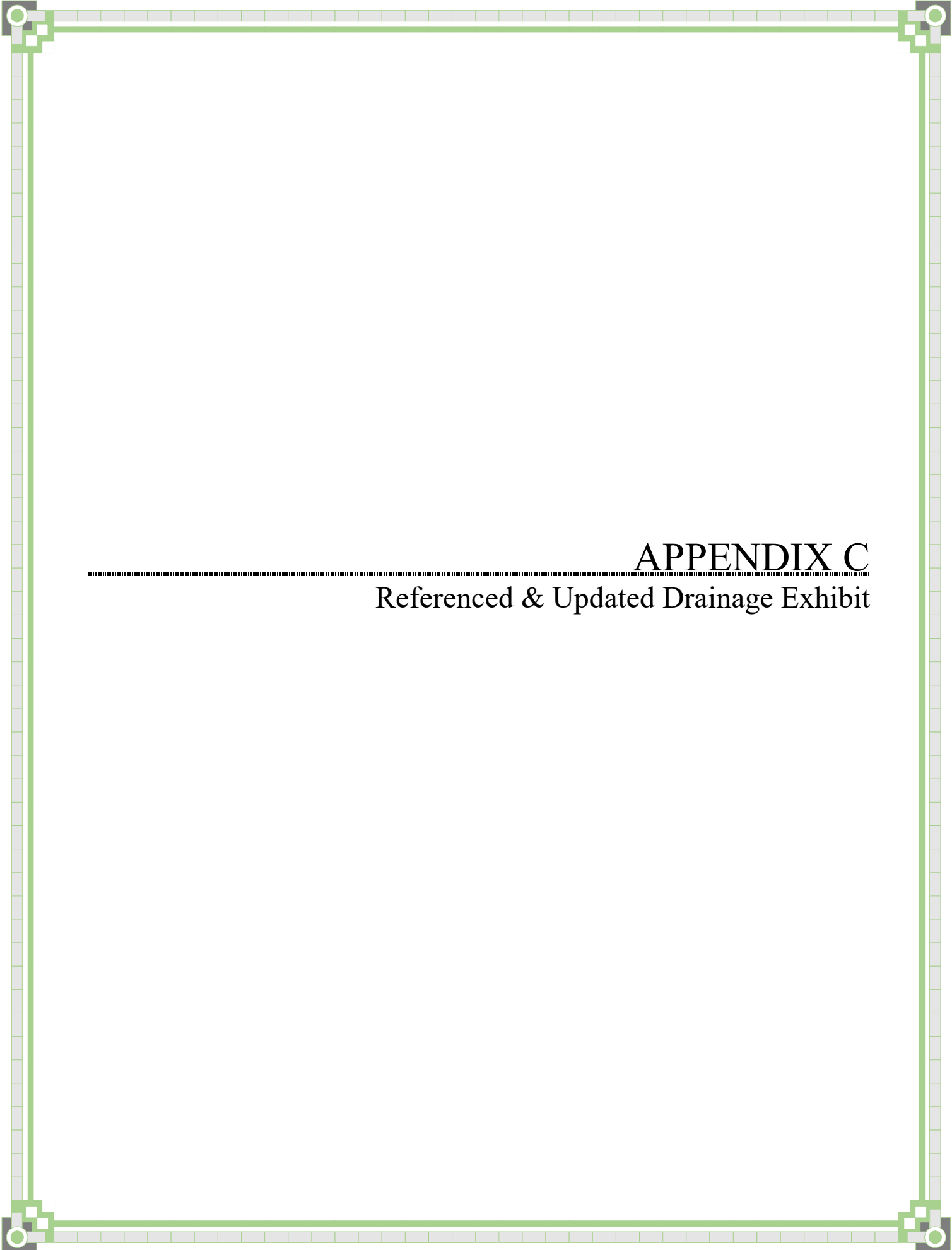
Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.030
Channel Slope	0.900 %
Left Side Slope	4.000 H:V
Right Side Slope	4.000 H:V
Discharge	12.80 cfs
Results	
Normal Depth	1.04 ft
Flow Area	4.3 ft ²
Wetted Perimeter	8.555 ft
Hydraulic Radius	0.50 ft
Top Width	8.30 ft
Critical Depth	0.91 ft
Critical Slope	1.773 %
Velocity	2.97 ft/s
Velocity Head	0.14 ft
Specific Energy	1.17 ft
Froude Number	0.728
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.00 ft
Length	0.000 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.00 ft
Profile Description	N/A
Profile Headloss	0.00 ft
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	1.04 ft
Critical Depth	0.91 ft
Channel Slope	0.900 %
Critical Slope	1.773 %

Cross Section for BMP Section S

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.030
Channel Slope	0.900 %
Normal Depth	1.04 ft
Left Side Slope	4.000 H:V
Right Side Slope	4.000 H:V
Discharge	12.80 cfs



V: 1
H: 1



APPENDIX C

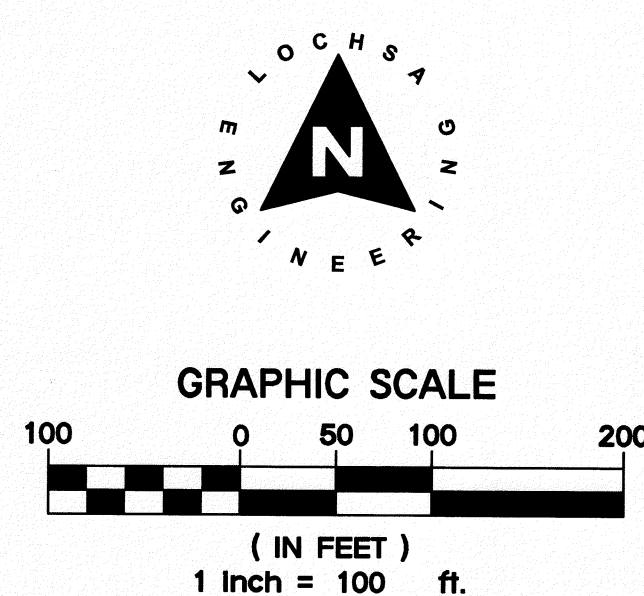
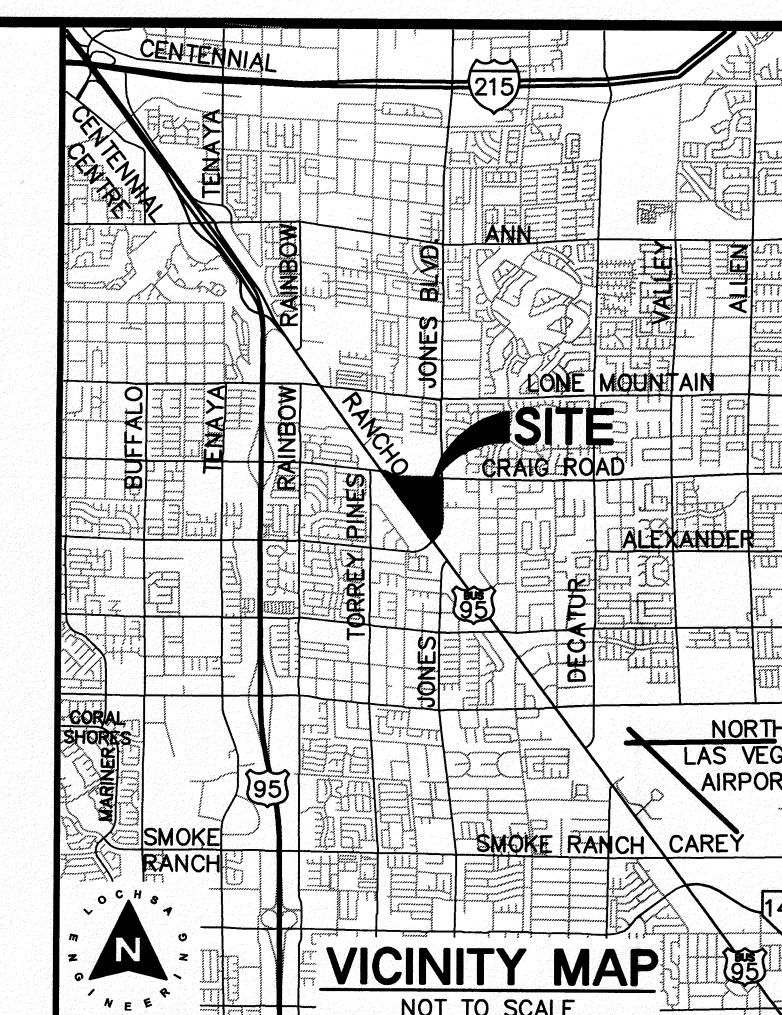
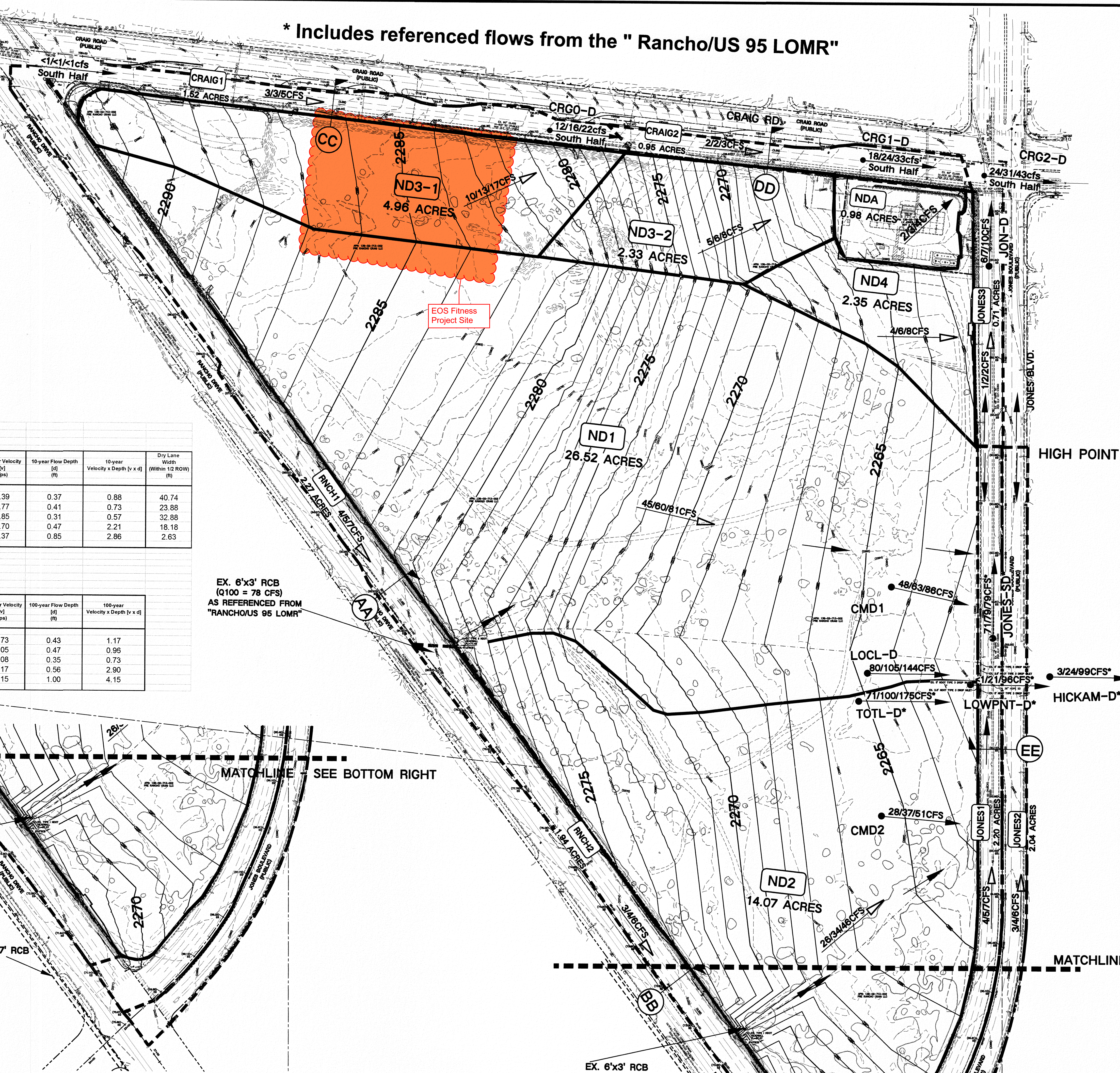
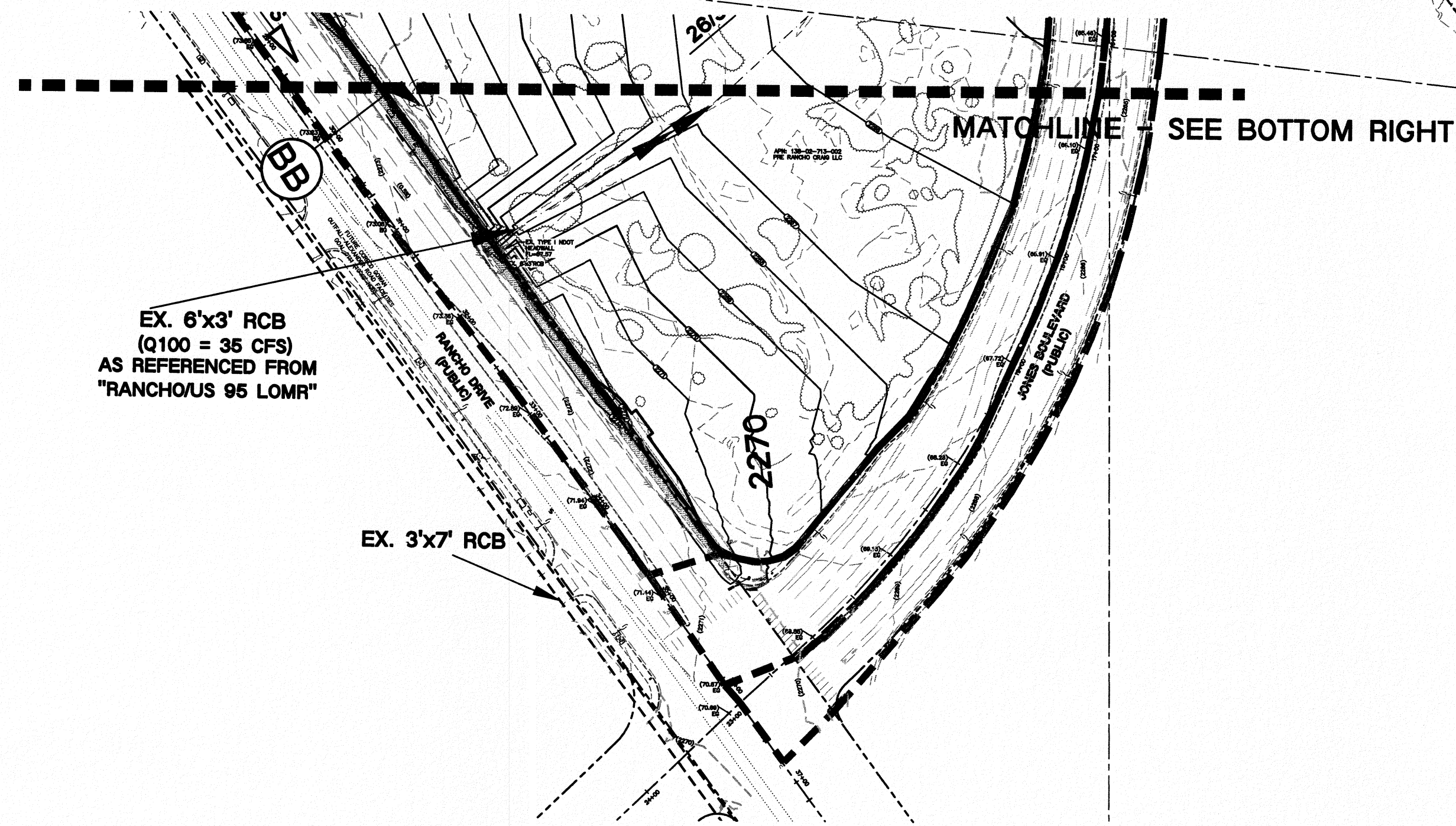
Referenced & Updated Drainage Exhibit

*** Includes referenced flows from the " Rancho/US 95 LOMR"**

Peak Flow Summary				
Future Condition				
HEC-1 I.D.	Area (acres)	100-year Flow (cfs)	25-year Flow (cfs)	10-year Flow (cfs)
2C2B3	-	199	36	20
RC2B3	-	197	35	20
5SREMAIN	-	84	0	0
D5RCHO	-	113	35	20
RNCH1	2.27	7	5	4
RRNCH1	-	7	5	4
ND1	26.52	81	60	45
CMD1	-	86	63	48
RNCH2	1.94	6	4	3
RRNCH2	-	5	4	3
ND2	14.07	46	34	26
CMD2	-	51	37	28
JONES1	2.2	7	5	4
LOGL-D	-	144	105	80
TOTL-D	-	175	100	71
JONES-SD	-	79	79	71
LOWPNT-D	-	96	21	0
JONES2	2.04	6	4	3
HICKAM-D	-	99	24	3
CRAIG1	1.52	5	3	3
ND3-1	4.96	17	13	10
CRG0-D	-	22	16	12
RCRG0-D	-	21	15	11
CRAIG2	0.95	3	2	2
ND3-2	2.33	8	6	5
CRG1-D	-	33	24	18
ND4	2.35	8	6	4
JONES3	0.71	2	2	1
JON-D	-	10	7	6
CRG2-D	-	43	31	24
ND4^	0.98	4	3	2

Street Flow Summary (Future Condition)							
10-year, 6-hour Storm							
Street	Right of Way Width (ft)	Hydraulic Cross-Section Identifier	10-Year Flow [Q10] (cfs)	10-year Velocity [v] (fps)	10-year Flow Depth [d] (ft)	10-year Velocity x Depth [v x d]	Dry Lane Width (Within 1/2 ROW) (ft)
Rancho Drive	120	AA	4	2.39	0.37	0.88	40.74
Rancho Drive	120	BB	7	1.77	0.41	0.73	23.88
Craig Road	100	CC	1.5	1.85	0.31	0.57	32.88
Craig Road	100	DD	18	4.70	0.47	2.21	18.18
Jones Boulevard	100	EE	47	3.37	0.85	2.86	2.63

Street Flow Summary (Future Condition)						
100-year, 6-hour Storm						
Street	Right of Way Width (ft)	Hydraulic Cross-Section Identifier	100-Year Flow [Q10] (cfs)	100-year Velocity [v] (fps)	100-year Flow Depth [d] (ft)	100-year Velocity x Depth [v x d]
Rancho Drive	120	AA	7	2.73	0.43	1.17
Rancho Drive	120	BB	13	2.05	0.47	0.96
Craig Road	100	CC	2.5	2.08	0.35	0.73
Craig Road	100	DD	33	5.17	0.56	2.90
Jones Boulevard	100	EE	85	4.15	1.00	4.15



DRAINAGE LEGEND	
	DRAINAGE BASIN LABEL CONCENTRATION POINT COMBINATION POINT BASIN BOUNDARY LINE
	OFFSITE BASIN BOUNDARY
	Q10/Q25/Q100 FLOW IN CFS
	Q10 (V10)(D10) Q100 (V100)(D100)
	BASIN FLOW DIRECTION
	COMBINED FLOW DIRECTION
	HYDRAULIC CROSS-SECTION
	[Q10]N [Q100]N STORM DRAIN FLOWS IN CFS

**ONSITE BASIN MAP
(FUTURE CONDIITON)**

CRAIG & RANCHO
MASTER DRAINAGE STUDY

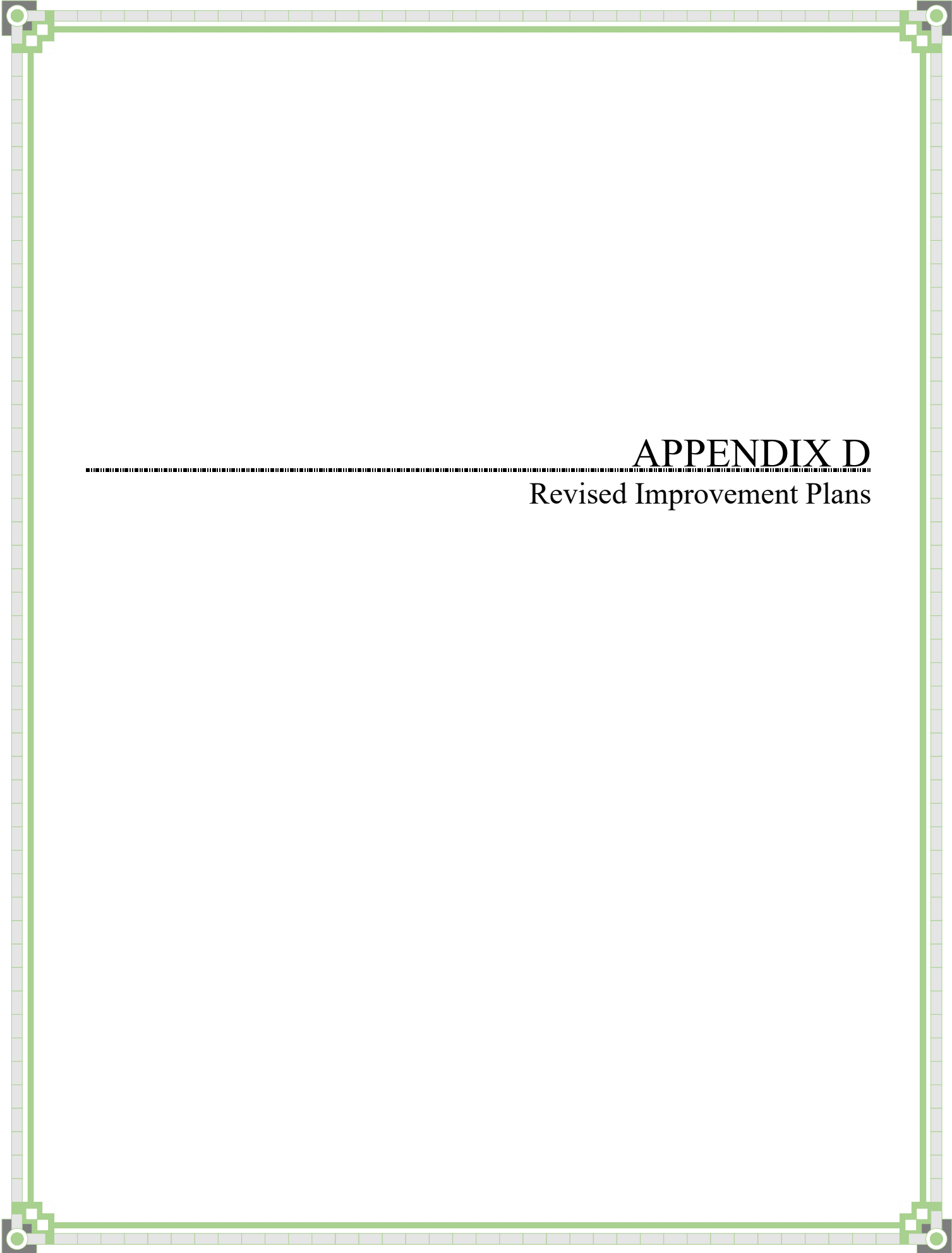
Lochsa
engineering
6345 South Jones Blvd.
Suite 100
Las Vegas, NV 89118
Phone (702) 365-9312
Fax (702) 365-9317
www.lochsa.com

REV.:	DATE:	BY:	DESCRIPTION:
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SHEET No.
DR2
SHEET **2**

CLV No.

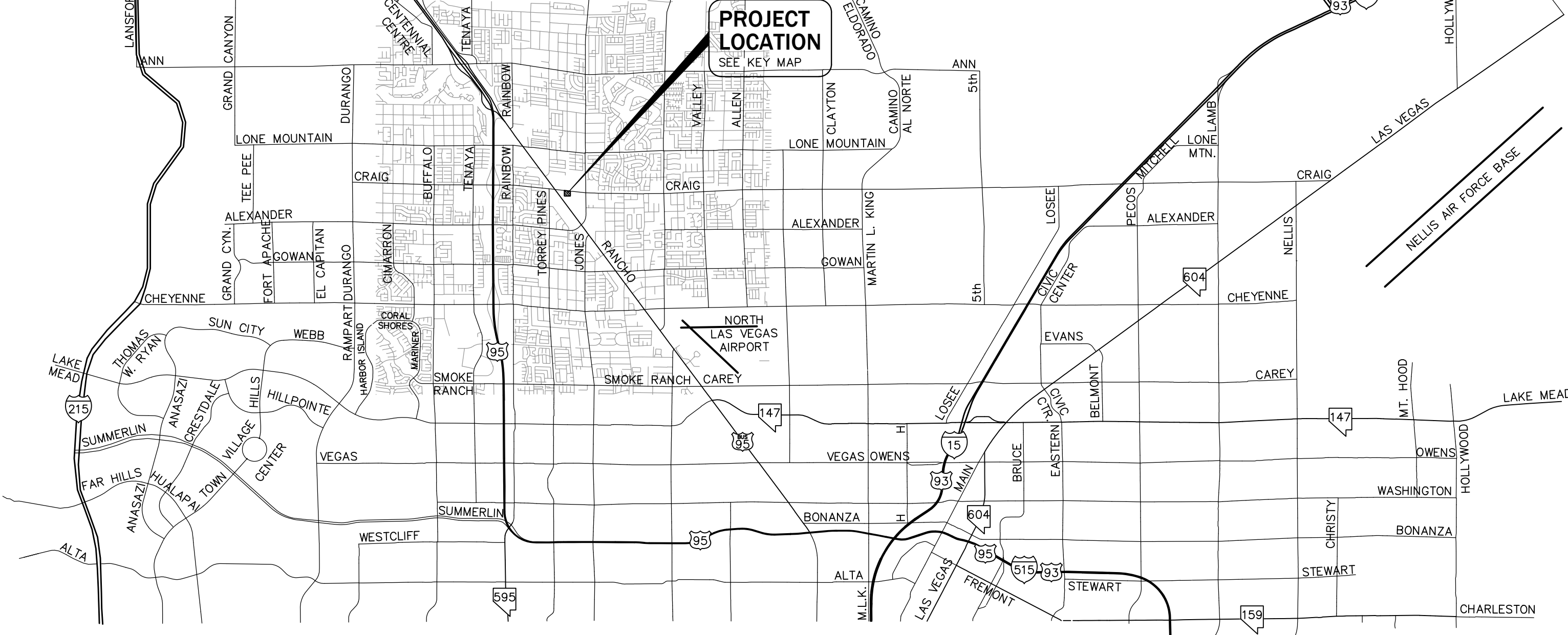
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APPENDIX D

Revised Improvement Plans

APN: 138-02-715-014
ACREAGE: 4.336



ABAN	ABANDON	IDS	HIGH PRESSURE SODIUM
AC	ASPHALTIC CONCRETE	ID	INSIDE DIAMETER
ACP	ASBESTOS CEMENT PIPE	INT	INTERSECTION
AGO	AGGREGATE	INV	INVERT
AIP	ABANDON IN PLACE	IRR	IRRIGATION
ALT	ALTERNATE	L	LONG/LENGTH
BC	BACK OF CURB	LAT	LATERAL
BCCR	BEGINNING OF CURB RETURN	LF	LINEAL FEET
BEG	BEGIN	LP	LOW POINT
BEF	BASE FLOOD ELEVATION	LP	LANDSCAPE
BM	BENCHMARK	LT	LEFT
BSW	BACK OF SIDEWALK	LVWVD	LAS VEGAS VALLEY WATER DISTRICT
BVC	BEGINNING OF VERTICAL CURVE	MH	MANHOLE
CATV	CABLE TV	MTR	METER
C&G	CURB AND GUTTER	NAP	NOT A PART
CAUSAD	CLARK COUNTY AREA UNIFORM STANDARD DRAWING	NPS	NOT TO SCALE
CCRFCD	CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT	OC	ON CENTER
CCWFO	CLARK COUNTY WATER RECLAMATION DISTRICT	OD	OUTSIDE DIAMETER
	CAST IN PLACE	OFF	OFFSET
CL	CENTERLINE	OHP	OVERHEAD POWER LINE
CLV	CITY OF LAS VEGAS	PB	PULL BOX
OMP	CORRUGATED METAL PIPE	PC	POINT OF CURVATURE
CMU	CONCRETE MASONRY UNIT	PC	POINT OF COMPOUND CURVE
CNVL	CITY OF NORTH LAS VEGAS	PI	POINT OF INTERSECTION
CO	CLEAN OUT	PIV	POST INDICATOR VALVE
COH	CITY OF HENDERSON	PL	PROPERTY LINE
COM	COMMUNICATIONS	PP	POWER POLE
CONC	CONCRETE	PRC	POINT OF REVERSE CURVE
COND	CONDUIT	PROP	PROPOSED
CONST	CONSTRUCT OR CONSTRUCTION	PT	POINT OF TANGENT
CU	CULVERT	PVC	POLY VINYL CHLORIDE PIPE
DC	DEPRESSED CURB	PVI	POINT OF VERTICAL INTERSECTION
DCWSCVS	DESIGN & CONSTRUCTION STD'S FOR WASTE WATER COLLECTION SYSTEMS.	PWMT	PAVEMENT
D	DEEP/DEPTH	R	RATE OF FLOW
DI	DROP INLET	R or RAD	RADIUS
DIA	DIAMETER	RCB	REINFORCED CONCRETE BOX
DIP	DUCTILE IRON PIPE	RCP	REINFORCED CONCRETE PIPE
DOM	DOMESTIC	RR	RAILROAD
DRNG	DRAINAGE	RT	RIGHT
DWY	DRIVEWAY	R/W	RIGHT-OF-WAY
E or ELEC	ELECTRIC	SS	SANITARY SEWER
EDGE	EDGE OF AC	SD	STORM DRAIN
EC	END OF CURVE	SHT	SHEET
ECR	END OF CURB RETURN	SONL	SIGNAL
EG	EXISTING GRADE	SNOB	SOUTHERN NEVADA BUILDING OFFICIAL
EL or ELEV	ELEVATION	SNWA	SOUTHERN NEVADA WATER AUTHORITY
EL or EOP	EDGE OF PAVEMENT	STA	STATION
EVC	END OF VERTICAL CURVE	SL or SLT	STREET LIGHT
EW	EACH	STD	STANDARD
EX or EXIST	EXISTING	SVZ	SIGHT VISIBILITY ZONE
FAST	FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION	SW or SDWK	SIDEWALK
FF	FACE OF CURB	T or TEL	TELEPHONE
FFC	FIRE DEPARTMENT CONNECTION	TB	TOP OF BERM
FF or FFE	FINISH FLOOR ELEVATION	TC	TOP OF CURB
FG	FINISH GRADE	TCO	TRAFFIC CONTROL DEVICE
FH	FIRE HYDRANT	TF	TOP OF FOOTING
FI	FLOW LINE	TMH	TOP OF MANHOLE
FO	FIBER OPTICS	TRANS	TRANSITION
FS	FINISHED SURFACE	TS	TRAFFIC SIGNAL
FTG	FOOTING	TW	TOP OF WALL
G	GAS	TYP	TYPICAL
GB	GALVANIZED	UG or U/G	UNDER GROUND
GB	GRADE BREAK	VC	VERTICAL CURVE
GRE	GREASE	VCP	VERTIFIED CLAY PIPE
H	HIGH OR HEIGHT	VERT	VERTICAL
HOPE	HIGH DENSITY POLYETHYLENE	VG	VALLEY GUTTER
HDWL	HEADWALL	w or WL	WATER LINE
HGL	HYDRAULIC GRADE LINE	w/	WITH
HOR	HORIZONTAL	w/O	WITHOUT
		w	WIDE OR WIDTH

1.	COVER AND APPROVALS SHEET	C-1
2.	NOTE SHEET	C-2
3.	GRADING PLAN	G-1
4.	DETAIL SHEET (1 OF 2)	D-1
5.	DETAIL SHEET (2 OF 2)	D-2

BASIS OF BEARINGS:
SOUTH 83°42'46", BEING THE NORTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 02, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., AS SHOWN IN BOOK 159, PAGE 61 OF PLATS, CLARK COUNTY RECORDS, NEVADA.

BENCHMARK:
CITY OF LAS VEGAS BENCHMARK 7C002E6 – RIVET & PLATE IN TOP OF CURB AT NORTHWEST CORNER OF CRAG RD & ENTRANCE TO SMITH'S SHOPPING CENTER, (NORTH SIDE OF CRAG RD, APPROXIMATELY 800 FEET EAST OF RANCHO DR)
ELEVATION: 1745.17 (FEET) 531.929 (METERS) (NAVD 1988)

LEGAL DESCRIPTION:
A PORTION OF LOT 1 OF THAT FINAL MAP "RANCHO & JONES" (A COMMERCIAL SUBDIVISION) RECORDED IN BOOK 159 OF PLATS, PAGE 61, IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE, BEING 1 YAC.

COMMENCING AT THE NORTHEAST CORNER OF SAID LOT 1, ALSO BEING A
POINT ON THE SOUTHERLY RIGHT-OF-WAY OF CRAIG ROAD (60 FEET WIDE);
THENCE ALONG THE NORTH BOUNDARY OF SAID LOT 1 AND SAID
NORTHERLY RIGHT-OF-WAY, NORTH 83°42'46" WEST, 515.05 FEET; THENCE

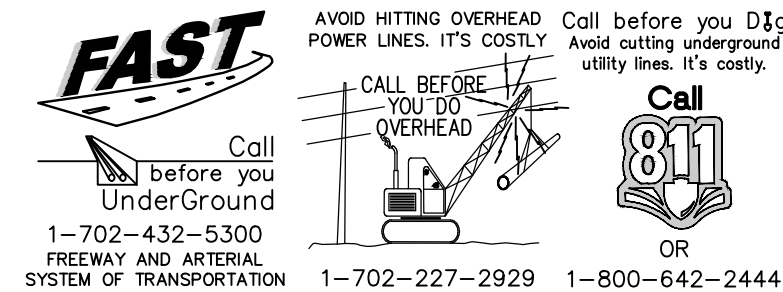
SECTOR: 06
SOUTH E D M O N S T
LAS VEGAS, NV 89118
PROJECT NO.: 11545-1, DATED: 4/05/22

RANGE: 17N, ZONE: 12E
TOWNSHIP: 17 NORTH
RANGE: 12 EAST
SECTION: 18 OF 36 PLATS;
THENCE PARTIALLY ALONG SAID NORTH BOUNDARY, N83°42'40" WEST, 432.91 FEET; THENCE SOUTH 06°17'14" EAST, 117.49 FEET; THENCE NORTH 36°18'16" WEST, 51.44 FEET; THENCE NORTH 06°26'05" EAST, 266.31 FEET TO SAID NORTH BOUNDARY AND SOUTHERLY RIGHT-OF-WAY; THENCE ALONG SAID BOUNDARY AND RIGHT-OF-WAY, SOUTH 83°42'40" EAST, 375.60 FEET; THENCE DEPARTING SAID BOUNDARY AND RIGHT-OF-WAY, SOUTH 06°17'14" WEST, 169.00 FEET; THENCE SOUTH 83°42'40" EAST, 181.34 FEET; THENCE NORTH 06°17'14" EAST, 189.00 FEET TO SAID NORTH BOUNDARY AND SOUTHERLY RIGHT-OF-WAY; THENCE ALONG SAID BOUNDARY AND RIGHT-OF-WAY, SOUTH 83°42'40" EAST, 40.00 FEET TO THE POINT OF BEGINNING.

CONTAINING: 188.920 SQUARE FEET OR A 3/36 ACRES, MORE OR LESS

CL / SECTION LINE		
PROPERTY LINE		
RIGHT OF WAY LINE		
EASEMENT LINE		
SAWCUT LINE		
AC PAVEMENT		
CONCRETE		
	EXISTING	PROPOSED
EDGE OF PAVEMENT		
A-TYPE CURB		
L-TYPE CURB		
WALLS		
CHAIN LINK FENCE		
CONTOUR		
SPOT ELEVATION		
SIGN		
100W EQUIVALENT LED STLT		
150W EQUIVALENT LED STLT		
200W EQUIVALENT LED STLT		
250W EQUIVALENT LED STLT		
400W EQUIVALENT LED STLT		
FIRE HYDRANT		
GATE VALVE		
REDUCER		
CLEAN OUT		
UTILITY BOX/VAULT		
MANHOLE - SEE DESCRIPTION BELOW		

S=SANITARY SEWER, D=STORM DRAIN, E=ELECTRICAL, T=TELEPHONE, W=WATER



CLV FIRE AND RESCUE	DATE
---------------------	------

CLV FIRE AND RESCUE

CLV DEPARTMENT OF PLANNING

THIS PLAN MEETS THE APPLICABLE STANDARDS OF THE
PLANNING DEPARTMENT

CLV CITY ENGINEER

APPROVAL OF THESE PLANS IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED RIGHT-OF-WAY AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE THE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS, EXCEPT THOSE SPECIFICALLY LISTED UNDER DEVIATIONS FROM STANDARD. THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN DEVIATIONS FROM STANDARDS IN FAVOR OF THE UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS CLARK COUNTY AREA NEVADA.

LAS VEGAS VALLEY WATER DISTRICT PLANNING
AND ENGINEERING SERVICES
PROJECT NO. _____ FIRST APPROVAL DATE: _____
LWWD APPROVED FIRE FLOW: TOTAL 1,750 GPM/ON-SITE 1,750 GPM
SHEETS: C-1, C-2, U-1, U-2

LAS VEGAS VALLEY WATER DISTRICT PLANNING
AND ENGINEERING SERVICES
PROJECT NO. _____ FIRST APPROVAL DATE:
LVVWD APPROVED FIRE FLOW: TOTAL 1,750 GPM/ON-S
SHEETS: C-1, C-2, U-1, U-2

SOUTHWEST GAS CORPORATION

NV ENERGY

NV ENERGY COMPANY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NV ENERGY COMPANY RESERVES THE RIGHT TO ADDRESS ANY EXISTING OR FUTURE CONFLICTS ONCE THE FINAL DESIGN IS COMPLETED. THE NEW SERVICE AND THE RESOLUTION OF ANY CONFLICTS WILL BE ACCOMPLISHED PURSUANT TO THE NEVADA PUBLIC UTILITY COMMISSION'S RULES AND REGULATIONS.

COX COMMUNICATIONS LAS VEGAS, INC.

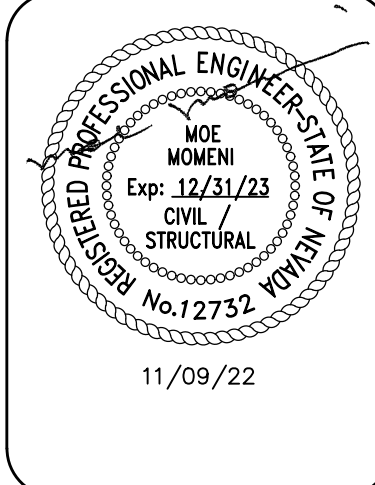
CENTRAL TELEPHONE COMPANY, d/b/a CENTURYLINK

THE AFFIXED CENTURYLINK APPROVAL DOES NOT ASSUME OR GUARANTEE LIABILITY FOR KNOWN OR UNKNOWN CONFLICTS WITH EXISTING OR PROPOSED IMPROVEMENTS. RESOLUTION OF ANY CONFLICT WILL BE ACCOMPLISHED PURSUANT TO LOCAL ORDINANCES, NEVADA REVISED STATUTES AND/OR PUBLIC UTILITY COMMISSION RULES AND REGULATIONS.

[illegible]**momen** ENGINEERS, LLC.

CIVIL & STRUCTURAL ENGINEERING
3110 S. DURANGO DRIVE, SUITE 205
LAS VEGAS, NEVADA 89117

TEL: (702) 902-2444 | FAX: (702) 248-8495 | MOE@MHMENGINEERS.COM



11/09/22
DATE
144103
PROJECT NUM
LB
DRAWN BY
MM
CHECKED B

EOS FITNESS
CRAIG RD / RANCHO DR
CITY OF LAS VEGAS, NV

COVER AND APPROVALS SHEET

SHEET:

C-1

1 OF 5

LVVWD PROJECT# _____
(Revised 01/27/2021)

15. NO LEAD COMPLIANCE NOTE:
TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, ALL WATER WORKS BRASS PRODUCTS PROPOSED TO BE RELOCATION, OR INSTALLED AS NEW MUST BE INSTALLED THE THE LEAD FREE APPROVED PRODUCT. THE OLD LEADED PRODUCT MAY NOT BE REUSED.

ESN.032

REvised 01/27/2021

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

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 CONDITIONS SPECIFICATIONS FOR SEWER CONTRACTS. THE CONTRACTOR SHALL BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER ANY ADDITIONS, CHANGES OR AMENDMENTS SHALL FIRST MEET WITH THE APPROVAL OF THE CITY ENGINEER.
3. CHISEL "S" OR "C" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
4. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SD 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE I AGGREGATE BASE.
5. ALL MANHOLES PAVED IN STREETS (800) FT R/W OR LARGER SHALL HAVE CONCRETE COLLARS. COLLARS SHALL BE AT LEAST 24" (2') FT R/W. R/W REQUIRE RETROFIT IF PAVING DOES NOT CONFORM TO CITY STANDARDS AT THE MANHOLE.
6. TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO TWELVE INCH (12") DIAMETER. CONNECTIONS TO FIFTEEN INCH (15") OR LARGER MAINS SHALL REQUIRE SPECIAL CONSTRUCTION PROCEDURES IN LINE. SADDLES SHALL BE USED ON LINE TWELVE INCH (12") AND ABOVE.
7. ANY MANHOLE TO BE PROTECTED IN AVOIDED AREAS SHALL BE LOCATED WITHIN A SEWER MAIN CROSS-SECTION OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CITY OF LAS VEGAS MUST BE STATE OF NEVADA CLASS "A" CONTRACTORS.
8. ANY SEWER MAINS TO BE INSTALLED UNDER A WATER MAIN WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS AT ANY LOCATION, SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED OR REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
9. IN THE EVENT OF CURVED SEWER REQUIRES THE USE OF C-900 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED OR ACCIDENTALLY RELEASED INTO ANY ADJACENT WATER. CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE SITE DEVELOPMENT OR CONSTRUCTION PROJECT, SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NV000000, SECTION II.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOTS, AND ALL BMPs AT LEAST ONCE EVERY 24 HOURS AFTER ANY RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND CONSTRUCTION ACTIVITY DUE TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NV000000, SECTION II.A.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

- A) ALL WORK PERFORMED ON ANY TRAFFIC SIGNAL COMPONENT MUST BE UNDER THE DIRECT ON-SITE SUPERVISION OF AN IMSA CERTIFIED TECHNICIAN. THE LEVEL OF CERTIFICATION REQUIRED SHALL BE LEVEL 2.
- B) ALL TRAFFIC SIGNALS TO BE INSTALLED OR REPAIRED SHALL CONFORM TO THE EXISTING AND/OR UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES TO VERIFY IN THE FIELD THE LOCATIONS OF THEIR INSTALLATIONS 72 HOURS PRIOR TO CONSTRUCTION.
- | | |
|--------------------------|----------------|
| CALL-BEFORE-YOU-OVERHEAD | 1-702-227-9299 |
| CALL-BEFORE-YOU-DIG | 1-800-627-2921 |
| TREELIGHTS | 1-702-227-9299 |
| FAST | 1-702-432-5300 |
3. ALL TRAFFIC SIGNAL INSTALLATIONS SHALL CONFORM TO THE UNIFORM STANDARD DRAWINGS SPECIFICATIONS AND SPECIAL PROVISIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, PAGES VOLUMES I AND II, ADOPTED BY THE REGIONAL TRANSPORTATION COMMISSION ORCS 1, 189Z WITH ALL SUBSEQUENT REVISONS. BRACKET MOUNTED (SIDE-MOUNTED) VEHICLE SIGNAL ASSEMBLIES WITH 2 OR MORE SIGNAL HEADS, SHALL HAVE AN ADDITIONAL ELBOW AS SHOWN IN UNIFORM STANDARD DRAWING NUMBER 300.53. EACH LUMINAIRE SHALL INCLUDE AN INDIVIDUAL 100W WATT EPOXY CORE LUMINAIRE THAT SHALL BE GENERALRAC SUPPORT AS SHOWN IN UNIFORM STANDARD DRAWING NUMBER 863 IF ONE OF THE SIGNAL HEADS CONTAINS 4 OR MORE SIGNAL MODULES.
4. SERVICE SHALL HAVE 1-60 AMP SINGLE POLE BREAKER FOR SIGNAL, AND 10 AMP SINGLE POLE BREAKER FOR CAMERA SERVICE CIRCUIT. SERVICE SHALL BE 100 AMP PADMOUNT.
5. LINE SIDE OF METER TO BE WIRED WITH THREE #3/0 AWG THIN LOAD SIDE SHALL BE WIRED WITH FOUR #4 AWG THIN (2 BLACK, 2 WHITE) AND ONE #8 AWG THIN (GREEN).
6. LUMINAIRES ON ALL SIGNAL POLES SHALL BE LED'S AS APPROVED BY THE CITY OF LAS VEGAS (CLV). DESIGN PHOTOS, VOLUMES I AND II, ADOPTED BY THE REGIONAL TRANSPORTATION COMMISSION ORCS 1, 189Z WITH ALL SUBSEQUENT REVISONS. CONTRACTOR SHALL FOLLOW LED FIXTURE SPECIFICATIONS AND APPROVED FIXTURES PER CLV WEBSITE, UNDER BUILDING AND SAFETY FORMS, PRIOR TO ORDERING MATERIALS. INTERIOR LIGHTING SHALL MEET THE REQUIREMENTS OF UNIFORM STANDARD DRAWING NUMBER 300.53.
7. NACH LUMINAIR SHAFT SHALL HAVE AN INDIVIDUAL 100W WATT EPOXY CORE LUMINAIRE THAT SHALL BE GENERALRAC SUPPORT AS SHOWN IN UNIFORM STANDARD DRAWING NUMBER 863 IF TWO(2)-#4 AWG THIN CONDUCTORS FROM THE SERVICE TO THE CABINET, IN THE CABINET, THE #4 AWG THIN CONDUCTORS SHALL BRANCH OFF INTO #10 AWG THIN CONDUCTORS INDIVIDUALLY FED WITH 10 AMP FUSES. THERE SHALL BE NO SPLICES BETWEEN THE CABINET AND LUMINAIRE FIXTURES.
8. THE MAIN LUMINAIR PHOTO CELL SHALL BE MOUNTED ON THE UNILLUMINATED STREET SIDE SIGNAL SHAFT WITH LEAD EMITTING DIODE (LED) LAMP PER SECTION 623 T.02.16 OF THE SPECIAL PROVISIONS. CHECK CONDUIT AND CABLE SCHEDULE FOR CONDUIT, CABLE, AND WIRE SIZE. VERIFY ALL EXISTING CONDUITS RUN.
9. "PULLBOARDS SHALL BE IN ACCORDANCE WITH UNIFORM STANDARD DRAWINGS NO. 705, NO. 706, AND NO. 707."
10. TRAFFIC SIGNAL CABLE SHALL BE 15 OR 25 CONDUCTOR "#14 AWG SOLID (TYPICAL) CABLE AND SHEATH.
11. PEDESTRIAN PUSH BUTTON SHALL BE AUDIBLE TACTILE "POLAR NAVIGATOR" TYPE [2-WIRE PEDESTRIAN PUSHBUTTON SYSTEM WITH IN2 PUSH BUTTON STATIONS AND SELF-MOUNT BUJ CONTROL UNIT WITH SOLIC CABLE] OR CAMPBELL COMPANY WAPPS WRLESS PEDESTRIAN PUSHBUTTON SYSTEM WITH APC IN2. PEDESTRIAN PUSH BUTTONS SHALL BE RIT-36 PER MTCO, 2009 EDITION, WITH FULL MOUNTING BRACKETS, AS MODIFIED BY THE MANUFACTURER TO FIT ON A 9"x12" SIGN, AND SHALL BE PORCELAIN-ENAMELED METAL. ALL PUSH BUTTONS TO BE MOUNTED 42" ABOVE SIDEWALK. THE MAXIMUM HORIZONTAL REACH DISTANCE IS TO BE 10 FEET. THE MINIMUM HORIZONTAL REACH DISTANCE IS TO BE 6 FEET. THE CONTRACTOR SHALL VERIFY NEW PEDESTRIAN PUSH BUTTONS OR CABINET EQUIPMENT MATCHES THE MANUFACTURE AND MODEL OF ANY EXISTING EQUIPMENT PROVIDED. PROVIDE A FULLY OPERATIONAL TEST KIT. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL CABINET EQUIPMENT, INCLUDING THE PEDESTRIAN PUSH BUTTON CONTROL UNIT, INTERFACE PANEL, AND ANY REQUIRED HARNESSSES, TO COMPLETE A FULLY FUNCTIONING SYSTEM.
12. THE ROUTING AND TERMINATING OF CONDUITS AND PLACING OF POLES AND CABINETS SHALL BE AS SHOWN ON THE PLANS. IF CHANGES ARE NECESSARY, THEY WILL BE APPROVED BY THE ENGINEER.
13. THE EAST ARROW LEFT-TURN SIGNS TO BE ADJACENT (NO GAP) TO THE W-5 SIGNAL HEAD, WHERE FLASHING YELLOW ARROW LEFT TURN SIGNALS ARE USED, A MAXIMUM ARROW LEFT-TURN YIELD UPON FLASHING YELLOW ARROW LEFT TURN SIGNAL SHALL BE MOUNTED ADJACENT TO THE SIGNAL HEAD.
14. THE TRAFFIC SIGNAL CABINET SHALL BE IDENTICAL TO THE TYPES OTHERWISE SPECIFIED IN THE PLANS. THIS IS COMMONLY REFERRED TO AS AN "R" CABINET. THE CABINET SHALL CONFORM TO THE CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS AND THE CITY OF LAS VEGAS SPECIAL PROVISIONS.
15. THE NEW AND REPAIR NEED DETECTOR CHANNELS SHALL BE SUPPLIED BY THE CONTRACTOR. THE DETECTOR CHANNEL SHALL BE EQUIPPED WITH 16 LOAD PAW POSITIONS/SIGNALS BE A 48 DETECTOR CHANNEL R CABINET AND SHALL INCLUDE TWO (2) RACK-MOUNTED, 12 SLOT, LOOP DETECTION TRACKS, WITH 2 DETECTOR LOOP CHANNELS PER SLOT FULLY WIRED SO THAT ALL CHANNELS ARE USABLE AND 4 CHANNEL, SLOTS THAT CAN BE USED FOR OTHER DEVICES WHEN NOT USED FOR DETECTORS. THE CHANNELS SHALL BE WIREDEDED IN A 760 RACK, WITH A 768 AUXILIARY INTERFACE PANEL MOUNTED IN THE CABINET AND FULLY WIRED FOR GREEN SENSE CAPABILITIES.
16. THE CONTRACTOR SHALL SUPPLY A MAINTENANCE MANAGEMENT UNIT (MMU) AND TRAFFIC SIGNAL CONTROLLER TO THE CITY OF LAS VEGAS TRAFFIC SIGNAL REPAIR SHOP A MINIMUM OF FOURTEEN DAYS PRIOR TO SIGNAL TURN-ON OR PRIOR TO CONVERTING TO A NEW PHASING SCHEME, FOR TESTING AND PROGRAMMING.

15. THE CONTRACTOR SHALL SUPPLY A MALFUNCTION MANAGEMENT UNIT (MMU) AND TRAFFIC SIGNAL CONTROLLER TO THE CITY OF LAS VEGAS TRAFFIC SIGNAL REPAIR SHOP A MINIMUM OF FOURTEEN DAYS PRIOR TO SIGNAL TURN-ON OR PRIOR TO CONVERTING TO A NEW PHASING SCHEME, FOR TESTING AND PROGRAMMING PURPOSES. THE CONTROLLER SHALL BE A MAXTEL 980 ATC T52 TYPE 2 OR AN EQUIV. COMPLIANT SIGNAL CONTROLLER WITH INSTALLED AND LICENSED LOGIC, CONTROLLER SOFTWARE, LATEST VERSION, AND THE MMU SHALL BE A MODEL MMU-1600GE AS MANUFACTURED BY RENO AKE, OR APPROVED EQUAL. THE CONTRACTOR SHALL DELIVER THE CONTROLLER AND MMU TO, AND PICKUP THE CONTROLLER AT 2985 RENOUEVS DRIVE, CONTRACTOR SHALL NOTIFY THE TRAFFIC SIGNAL REPAIR SHOP (729-6076) SEVEN DAYS PRIOR TO DELIVERY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DELIVERY OF THE MMU OR CONTROLLER FOR INITIAL TURN-ON, IN WHICH CASE CITY PERSONNEL WILL SWAP THE CONTROLLER OR MMU AFTER THE PROJECT IS ACCEPTED.
16. CONTRACTOR SHALL POLOHE SIGNAL POLE LOCATIONS PRIOR TO ORDERING OF POLES.
17. ALL HOT-OR-GALVANIZED BY THE MANUFACTURER. THE MAXT AKE IS TO BE FABRICATED WITH END TENON ONLY. THE END TENON SHALL BE FACTORY INSTALLED AND THE REMAINING TENONS SHALL BE FABRICATED IN THE FIELD AT THE LOCATION SHOWN ON THE PLANS OR AS DIRECTED BY THE TRAFFIC ENGINEER AND/OR HIS AUTHORIZED REPRESENTATIVE. FOR TENON FABRICATION DETAILS SEE CLARK COUNTY AREA U.S.D. NO. 808 SHEET 2. ALL WELDING SHALL CONFORM TO AWS D 2.0, SPECIFICATIONS FOR WELDED STRUCTURAL STEEL FABRICATION. ALL WELDS SHALL BE FULL PENETRATION WELDS. ALL WELDS SHALL BE TO THE SPECIFICATIONS, ALL EXPOSED WELDS, SHALL BE PAINTED TO PROVIDE FOR PREPARING DAMAGED GALVANIZED SURFACES.

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA" LATEST EDITION, STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC WORKS, CLARK COUNTY AREA NEVADA, LATEST REVISED EDITION, THE "SUMMERLIN IMPROVEMENT STANDARDS" FOR WORK IN THE SUMMERLIN AREA, AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY, THE UNIFORM BUILDING CODE, LOCAL ORDINANCES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS DEVIATIONS FROM STANDARDS"
2. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHALL BE SHOWN ON PLANS. THE LOCATION OF ALL EXISTING UTILITY LINES SHALL BE SHOWN AS LOCATED FROM CLV PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE SHOWN ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL EXISTING UTILITIES AND SHOW THE LOCATION OF ALL EXISTING UTILITY LINES ON THE PLANS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT FROM OVERHEAD UTILITY LINES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITY LINES, STRUCTURES AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE, AND ALL EXISTING UTILITIES AND STRUCTURES SHALL BE PROTECTED TO REMAIN IN PLACE. THE CONTRACTOR SHALL BE REPLACED SATISFACTORY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR
3. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER
4. TYPE V CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK. CONCRETE TO BE 3000 P.S.I. MINIMUM @ 28 DAYS, MIX DESIGNS TO BE APPROVED BY THE CITY, PRIOR TO THE USE ON THE PROJECT
5. PERMITS FOR ALL UTILITY WORK IN THE CITY OF LAS VEGAS SHALL BE OBTAINED BY THE CONTRACTOR. SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION
6. EXISTENCE UTILITIES REQUIRED, MAXIMUM EVERY 300' IN EXPOSED-TYPE CURB
7. ALL EXISTING UTILITY LINES SHALL BE LOCATED AND MARKED BY THE CONTRACTOR. THE CONTRACTOR SHALL LOCATE ALL UTILITY LINES (8") ABOVE UP OF ALL GUTTERS AFTER COMPACTION EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS
8. CURB AND GUTTER TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216
9. ALL EXISTING UTILITY LINES SHALL BE LOCATED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235, EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR
11. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW EXISTING UTILITY LINES AND EXISTING SURFACES. ALL TRANSITIONS SHALL BE GRADUALLY AND PROGRESS AND EGRESS TO NEW CONSTRUCTION, THE EXTENT OF THE TRANSITIONS TO BE AS SHOWN ON PLANS
12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY (ENGINEERING - PROJ. NO. 11542-15-005/22) APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS
13. EXISTENCE LOCATION OF ALL UTILITIES MAY BE ADJUSTED TO THE LOCATION OF PUBLIC UTILITIES BY THE CITY OF LAS VEGAS ENGINEER IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS
14. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS, ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.E.S. STATUTE NO. 626.380 & CITY OF LAS VEGAS TITLE 16, APPENDIX D
15. THE CITY ENGINEER SHALL BE NOTIFIED OF ANY INTERFERENCE WITH THE LOCATION OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER SHALL NOTES
16. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS ON CIVIL PLANS FOR THE PURPOSE OF REVIEWING GRADING RELATIONSHIPS; FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE BUILDING DEPARTMENT
17. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ANY ASPHALT WITHIN CITY RIGHT-OF-WAY
18. CONTRACTOR SHALL ADJUST ALL NEW EXISTING INLET, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEAN OUTS, TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THEY ARE SHOWN ON THE PLANS
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITY LINES AND STRUCTURES WITH APPLICABLE SECTIONS OF MDOT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON
20. THE CONTRACTOR SHALL LOCATE ALL FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BAILS, LOCATING RIBBON, ETC., THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO OFFSITE INSPECTION AND TESTING CERTIFYING THAT ALL DEVICES HAVE BEEN PLACED AND VERIFIED TO BE IN GOOD WORKING CONDITION PRIOR TO THE CONSTRUCTION OF ANY ROAD BASE.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITY LINES AND STRUCTURES. THE CONTRACTOR IS REQUIRED TO SCHEDULE CLV OPEN-TRENCH UTILITY SURVEY INSPECTION FOR DETERMINATION OF FINAL LOCATION COORDINATES. FACILITIES TO BE LOCATED BY CLV SHALL INCLUDE AT MINIMUM: ALL EXISTING AND NEW UTILITY LINES, ALL EXISTING AND NEW UTILITY STRUCTURES, ALL EXISTING MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE STORM DRAIN MAIN, AND THE LOCATION OF ALL UTILITY LINES AND STRUCTURES TO BE EXPOSED TO THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS.
22. CCTV VIDEO INSPECTION IS REQUIRED FOR ALL SEWER AND STORM THE CCTV VIDEO INSPECTIONS NEED TO BE PERFORMED PER THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST EDITION
23. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION MATERIALS AND METHODS," CLARK COUNTY AREA, TEXADA, DIVISION (USS), AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION," OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA) (U.S.), LATEST REVISION.
2. DESIGN PROFESSIONAL AND CONTRACTOR SHALL VERIFY CITY'S LATEST LED FIXTURE SPECIFICATIONS AND APPROVED FIXTURES PER CLV WEBSITE, UNDER BUILDING AND SAFETY DEPARTMENT.
3. NO DEVATION OF STREET LIGHT, PULL BOX, CONDUITS, ETC., LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC AND CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623 OF THE U.S.
4. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 623 G-03.01 OF THE U.S.
5. ALL EXISTING CONDUIT SHALL HAVE A MINIMUM OF 1/2" BORE. No. #8 AWG WIRE INSTALLED AS TRACER WIRE IN ACCORDANCE WITH SECTION 623 G-02.01 OF THE USS PRIOR TO BACKFILLING AND FINAL INSPECTION.
6. ALL EXISTING POLES SHALL LOOK OVERALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC. SHALL LEAVE A MINIMUM CLEARANCE IN COMPLIANCE WITH U.S. 320A WHEN POLE IS INSTALLED BETWEEN SIDEWALK, AND SHALL AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHTING FE.
7. ALL DRAWINGS SHALL BE SUPPLIED TO THE TRAFFIC ENGINEERING DIVISION PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
8. ALL CIRCuits SHALL BE COORDINATED WITH NV ENERGY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICEPOINTS SHALL BE SHOWN ON THE PLANS.
9. WHETHER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREETLIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED BEFORE STREETLIGHT BASES ARE INSTALLED, AT NO EXPENSE TO THE CITY OF LAS VEGAS.
10. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR, FROM SERVICE TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON THE PLANS.

1. IN THE EVENT THAT ANY UNFORESEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED GRADING CONDITIONS FOR THE PROPOSED CONSTRUCTION.
3. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION, EQUIPMENT, SHORING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR STRUCTURES.
4. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS SPECIFICATION. EXCESSIVE EARTHWORK OR EXCESSIVE EARTHWORK REMOVAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.
5. THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE PROTECTION OF EXISTING UTILITIES AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK.
6. CONTRACTOR SHALL GRADE TO THE LINES AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION, IN THE AREAS INDICATED:
HORIZONTAL: VERTICAL: COMPACTION:
7. A. PAYMENT AREA SURFACE: $+0.0'$ TO $-0.1'$ SEE SOILS REPORT
B. ENGINEERED FILL: $+0.5'$ TO $-0.1'$ SEE SOILS REPORT
8. COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE.
9. ALL EXCAVATION SHALL BE PROTECTED BY AN EROSION EROSION CONTROL HAS BEEN ESTABLISHED.
7. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER.
8. CONSTRUCTION OF SIDEWALKS, DRIVEWAYS, AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAR, FIRM AND USABLE CONDITION. ALL SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL MAINTAIN ALL PUBLIC AREAS IN A CLEAR, FIRM AND USABLE CONDITION.
9. IN THE EVENT OF TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DISCRETION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE #6631 FOR HYDRANT SPECIFICATIONS AND THE LAS VEGAS FIRE AND RESCUE ADOPTED HYDRANT IDENTIFICATION SPECIFICATIONS. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICTS' APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
2. FIRE HYDRANTS SHALL BE IDENTIFIED AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE DEPARTMENT. THE CONTRACTOR SHALL OBTAIN A FIRE HYDRANT IDENTIFICATION FORM FROM AN ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS SHALL BE MAINTAINED BEFORE COMMENCEMENT OF ANY COMBUSTIBLE CONSTRUCTION. ALL FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER AND THE FIRE DEPARTMENT SHALL BE NOTIFIED BY THE CONTRACTOR. THE FIRE DEPARTMENT SHALL IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF THE STREET ADJACENT TO THE FIRE HYDRANT. IFC § 106.3.3
3. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED BEFORE COVERING THE LINES. CENTER LINE SHALL BE ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. IFC § 106.3.1
4. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, A.W.W.A APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. IFC § 106.3.2
5. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. IFC § 507
6. PRIVATE HYDRANTS SHALL BE PAINTED RED. IFC § 507.5.7.1
7. PRIOR TO THE FINAL OCCUPANCY, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. IFC § 507

1. FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: IFC § C102
2. 1. ALL HYDRANTS SHALL BE 150 FT UNSPRINKLERED; 400 FT SPRINKLERED; 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.
3. 2. WHERE THE WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE
4. 3. LAYED, FIRE HYDRANTS SHALL BE LOCATED AT THE INTERSECTION OF THE STRUCTURES
5. 4. FIRE HYDRANTS SHALL BE INSTALLED AT A MAXIMUM OF 1000 FT SPACING, TO PROVIDE
6. 5. FOR TRANSPORTATION HAZARDS, WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR
7. 6. HAVE FOUR (4) OR MORE TRAFFIC LANES
8. 7. AND TRAFFIC VOLUMES EXCEED 30,000 PER DAY, HYDRANTS ARE REQUIRED
9. 8. ON EACH SIDE OF THE STREET SPACED AT 500 FT ON AN ALTERNATING BASIS. IFC §
10. 9. C102.8
11. 10. ALL HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN
12. 11. 20 FT OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC
13. 12. 1. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY,
14. 13. DRIVEWHEEL OR ANY OTHER CURB OR SIDEWALK
15. 14. 2. A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL
16. 15. NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. IFC § C102.4.
17. 16. 3. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION
18. 17. SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. IFC § C102.7
19. 18. 4. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
20. 19. NOT EXCEED 200 FT. IFC § C102.6
21. 20. 5. TWO (2) SOURCES OF SUPPLY ARE INSTALLED WHENEVER THERE IS 4 OR MORE FIRE
22. 21. HYDRANTS OR WHEN INSTALLED ON A SINGLE STREET, FOR SYSTEMS
23. 22. REQUIRED TO HAVE TWO (2) SOURCES OF WATER SUPPLY, SECTIONAL CONTROL VALVES
24. 23. SHALL BE INSTALLED SO THAT NO MORE THAN TWO FIRE HYDRANTS AND/OR FIRE SPRINKLER
25. 24. LEAD-INS CAN BE OUT OF SERVICE DUE TO A SERVICE INTERRUPTION, FOR SYSTEMS
26. 25. 6. NO HYDRANT OR SECTIONAL VALVE WATER SUPPLY OR SECTIONAL CONTROL VALVES SHALL
27. 26. BE INSTALLED SO THAT NO MORE THAN THREE FIRE HYDRANTS AND/OR FIRE SPRINKLER
28. 27. LEAD-INS CAN BE OUT OF SERVICE DUE TO A SERVICE INTERRUPTION. IFC § C104
29. 28. 7. ALL FIRE APPARATUS ACCESS ROADS SHALL BE PAVED TO PROVIDE ALL-WEATHER DRIVING
30. 29. SURF AND BE MAINTAINED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF
31. 30. THE FIRE APPARATUS. IFC § 503.2.3
32. 31. 8. THE GRADIENT FOR THE FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12% ANGLES
33. 32. OF 12% OR MORE, AND THE GRADIENT SHALL BE MAINTAINED TO SUPPORT THE IMPOSED
34. 33. LOADS OF THE FIRE APPARATUS. IFC § 503.2.3
35. 34. 9. OR, AFTER THE GRADE CHANGE, ADJUSTED TO THE STRUCTURES GRADIENT SHALL NOT
36. 35. EXCEED 6%. IFC § 503.2.7, § 503.2.8
37. 36. 10. THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN
38. 37. 12 FT. IFC § 503.2.3
39. 38. 11. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL BE NOT LESS THAN
40. 39. 13 FT 6 INS. IFC § 503.2.3
41. 40. 12. FIRE DEPARTMENT ACCESS ROADS:
42. 41. a. MINIMUM TURNING RADIUS SHALL BE A MINIMUM UNOBSTRUCTED WIDTH OF NOT
43. 42. LESS THAN 24 FT MEASURED ON BOTH SIDES MEASURED TO FACE OF CURB; OR NOT
44. 43. LESS THAN 28 FT WIDE WITH PARKING RESTRICTED TO ONE SIDE MEASURED TO FACE OF CURB.
45. 44. b. NOT LESS THAN 24 FT WIDE WITH NO PARKING ON EITHER SIDE MEASURED TO FACE OF
46. 45. CURB.
47. 46. c. PARKING LOTS SHALL BE NOT LESS THAN 24 FT. IFC § 503.2.1.1
48. 47. 13. A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN
49. 48. EXISTING ROAD OR STREET IS LESS THAN 150 FT FROM A FIRE DEPARTMENT VEHICLE ACCESS. IFC § 503.1.1
50. 49. 14. APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 200 OR MORE
51. 50. DWELLING UNITS, ROAD(S) WITH DEADENDS OR A SINGLE POINT OF ACCESS IN EXCESS OF
52. 51. 150 FT FROM A ROAD OR STREET.
53. 52. 15. ALL DEAD-END FIRE APPARATUS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN
54. 53. EXCESS OF 150 FT IN LENGTH SHALL BE
55. 54. PROVIDED WITH AN APPROVED TURN AROUND HAVING A MINIMUM DIAMETER OF 81 FT. CLV
56. 55. REGULATION
57. 56. 16. ALL FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT
58. 57. 100 FT INTERVALS ALONG THE DESIGNATED FIRE LINES. SIGNS TO BE
59. 58. PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NECESSARY TO PREVENT PARKING ON
60. 59. EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 FT OR LESS THAN 6 FT FROM
61. 60. THE TOP OF THE LETTER HEIGHT OF THE SIGN ON THE PAVEMENT OR CURB (IF NO CURB
62. 61. IS PROVIDED) SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO
63. 62. THE SIGNS. IFC § 503.3
64. 63. 17. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED
65. 64. SIGNALING SYSTEM (FLASHER/RECEIVER) SYSTEM. IFC § 503.3
66. 65. 18. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS, OR HAVING FOUR OR MORE TRAVEL
67. 66. LANES AND A TRAFFIC COUNT OF MORE THAN 30,000 VEHICLES PER DAY, ALL HYDRANTS
68. 67. SHOULD BE LOCATED ON BOTH SIDES OF THE STREET. IFC § 503.3
69. 68. 19. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
70. 69. NOT EXCEED 200 FT. IFC § 503.2.6
71. 70. 20. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
72. 71. NOT EXCEED 200 FT. IFC § 503.2.6
73. 72. 21. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
74. 73. NOT EXCEED 200 FT. IFC § 503.2.6
75. 74. 22. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
76. 75. NOT EXCEED 200 FT. IFC § 503.2.6
77. 76. 23. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
78. 77. NOT EXCEED 200 FT. IFC § 503.2.6
79. 78. 24. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
80. 79. NOT EXCEED 200 FT. IFC § 503.2.6
81. 80. 25. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
82. 81. NOT EXCEED 200 FT. IFC § 503.2.6
83. 82. 26. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
84. 83. NOT EXCEED 200 FT. IFC § 503.2.6
85. 84. 27. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
86. 85. NOT EXCEED 200 FT. IFC § 503.2.6
87. 86. 28. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
88. 87. NOT EXCEED 200 FT. IFC § 503.2.6
89. 88. 29. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
90. 89. NOT EXCEED 200 FT. IFC § 503.2.6
91. 90. 30. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
92. 91. NOT EXCEED 200 FT. IFC § 503.2.6
93. 92. 31. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
94. 93. NOT EXCEED 200 FT. IFC § 503.2.6
95. 94. 32. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
96. 95. NOT EXCEED 200 FT. IFC § 503.2.6
97. 96. 33. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
98. 97. NOT EXCEED 200 FT. IFC § 503.2.6
99. 98. 34. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
100. 99. NOT EXCEED 200 FT. IFC § 503.2.6
101. 100. 35. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
102. 101. NOT EXCEED 200 FT. IFC § 503.2.6
103. 102. 36. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
104. 103. NOT EXCEED 200 FT. IFC § 503.2.6
105. 104. 37. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
106. 105. NOT EXCEED 200 FT. IFC § 503.2.6
107. 106. 38. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
108. 107. NOT EXCEED 200 FT. IFC § 503.2.6
109. 108. 39. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
110. 109. NOT EXCEED 200 FT. IFC § 503.2.6
111. 110. 40. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
112. 111. NOT EXCEED 200 FT. IFC § 503.2.6
113. 112. 41. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
114. 113. NOT EXCEED 200 FT. IFC § 503.2.6
115. 114. 42. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
116. 115. NOT EXCEED 200 FT. IFC § 503.2.6
117. 116. 43. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
118. 117. NOT EXCEED 200 FT. IFC § 503.2.6
119. 118. 44. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
120. 119. NOT EXCEED 200 FT. IFC § 503.2.6
121. 120. 45. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL
122. 121. NOT EXCEED 200 FT. IFC § 503.2.6

1. IN THE EVENT OF NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020
2. MINIMUM HORIZONTAL AND VERTICAL CLEARANCES BETWEEN NATURAL GAS FACILITIES AND ANY UNDERGROUND UTILITIES AND/OR STRUCTURES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, STORM DRAIN, COMMUNICATIONS, AND ELECTRIC SHALL BE AT LEAST 12-INCHES OR GREATER AS DICTATED BY LOCAL CODES AND STANDARDS
 - c) ANY DEVIATION FROM SPECIFIED MINIMUM CLEARANCES MUST BE APPROVED BY ALL AFFECTED UTILITIES AND/OR MUNICIPALITIES
3. FOR VALVE ADJUSTMENT CONTACT 702-528-7881 14 DAYS PRIOR TO CONSTRUCTION
4. IN THE EVENT OF A NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND STRUCTURES CONTACT 702-365-2099
5. FOR STANDBY WHEN EXCAVATING (INCLUDING SAW CUTTING AND PAVEMENT REMOVAL) OVER OR NEAR HIGH PRESSURE GAS LINES CONTACT 702-278-8451 48 HOURS PRIOR TO CONSTRUCTION

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
2. SIGN CONSTRUCTION SHALL BE COMPLETED AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL CONDUCT A PRELIMINARY SURVEY OF THE PROJECT AREA TO IDENTIFY ALL CITY STREETS WERE NARRING IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SADD SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
4. WHEN A DESIGNATED "SUGGESTED ROUTE TO SCHOOL" IS ENCRACOACHED UPON BY A CONSTRUCTION ZONE, THE CONTRACTOR SHALL PROVIDE IDENTIFICATION TOP STUDENTS TO BE ASSISTED IN THE SAFE CROSSING THROUGH THAT WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT IN THE CROSSING. THE GUARD SHALL BE IDENTIFIED BY A SIGN, A BATTING COCKNET TO BE USED FOR THE TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING. SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE EXISTING CONDITION AFTER THE CONSTRUCTION IS COMPLETED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL UTILIZE TYPE XI RETROREFLECTIVE SHEETING IN ACCORDANCE WITH CALTRANS 627 AND 716 AND SHALL HAVE A WHITE OR YELLOW DIFFERENTIAL OVERLAY PLACED TO BE A MATCHING COORDINATE TO AND OF THE SAME MANUFACTURER AS THE RETROREFLECTIVE SHEETING TO WHICH IT IS APPLIED. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHOWN ON THE PLANS SHALL BE IDENTIFIED AND SHOWN ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.
6. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5') FEET OF ANY SIGN, THE SIGN SHALL BE REMOVED. WHEN A SIGN IS NEARER TO A STREET LIGHT SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE PROJECT AREA BEING CONSTRUCTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
7. STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.
8. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO INSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED ATSSA TRAFFIC CONTROL TECHNICIAN OR ISMA WORK ZONE SAFETY SPECIALIST ON THE JOB AT ALL TIMES TO MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES AS REQUIRED BY THE CITY OF LAS VEGAS.
9. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (C.A.T.) IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF SERVICE.
11. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE # 828-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET BY METRO AND PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.
12. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECT'S OFFSITE INSPECTOR PRIOR TO INITIATING PAVING TO RECEIVE DIRECTION FOR ANY PERMANENT OR TEMPORARY MODIFICATIONS TO THE APPROVED DRAWINGS REGARDING FINAL PAVEMENT TRANSITIONS, MARKINGS AND SIGNING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECT'S OFFSITE INSPECTOR PRIOR TO INITIATING PAVING TO RECEIVE DIRECTION FOR APPROVAL BY THE TRAFFIC ENGINEERING DIVISION DEPICTING ANY ADJUSTMENTS TO THE FINAL PAVEMENT MARKINGS AND SIGNAGE, WHICH MAY INCLUDE OMITTING, ADDING OR MODIFYING PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SUCH AS STRIPES, ARROWS, AND OTHER TRAFFIC CONTROL SIGNS. ALL TRAFFIC CONTROL SIGNS SUCH AS SEGMENTS ARE CONSTRUCTED.

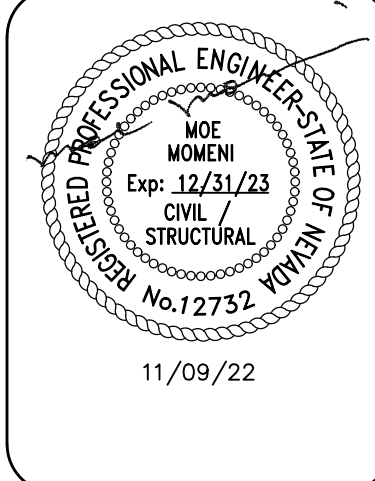
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momen ENGINEERS, LLC.

CIVIL & STRUCTURAL ENGINEERING

3110 S. DURANGO DRIVE, SUITE 205
LAS VEGAS, NEVADA 89117

TEL: (702) 902-2444 FAX: (702) 248-2495 LMOE@MHWENGINEERS.COM



11/09/22
DATE
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PROJECT NUMBER
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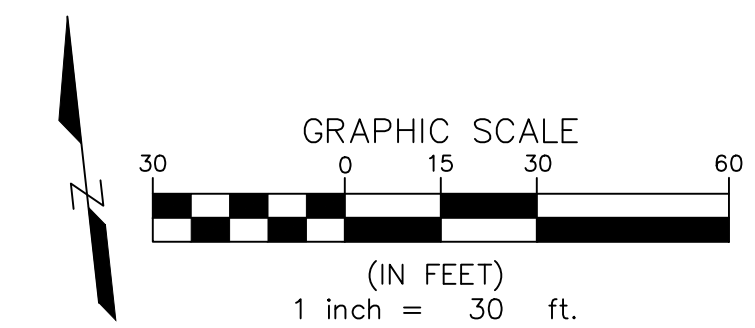
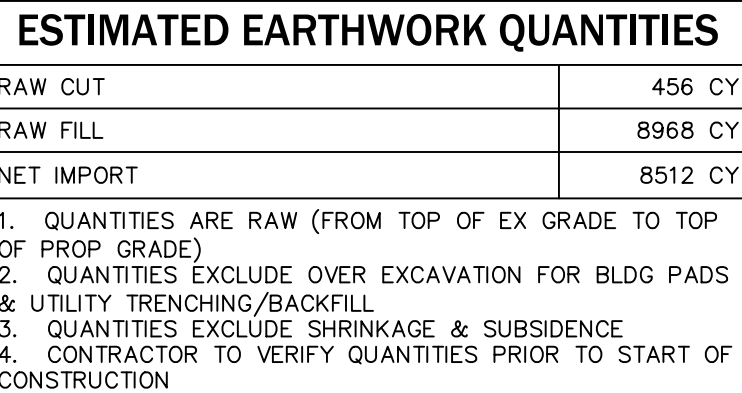
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CRAIG RD / RANCHO DR
CITY OF LAS VEGAS, NV

NOTE
SHEET

SHEET

C-2

2 OF 5



- 1 CONSTRUCT L-TYPE CURB PER CAAUSD #216
- 2 CONSTRUCT 4" THICK CONC SIDEWALK PER CAAUSD #234
- 3 INSTALL TRUNCATED DOWNS WHERE SIDEWALK MEETS DRIVE R/W PER CAAUSD #235
- 4 SAWCUT & MATCH EX GRADE
- 5 CONSTRUCT ON-SITE ASP PMVT PER DETAIL 1 ON D-1
- 6 CONSTRUCT ON-SITE CONC PMVT PER DETAIL 2 ON D-1
- 7 CONSTRUCT ON-SITE A-TYPE CURB PER DETAIL 3 ON D-1
- 8 CONSTRUCT CONC VALLEY GUTTER PER DETAIL 4 ON D-1
- 9 CONSTRUCT CURB OPENING PER DETAIL 5 ON D-1
- 10 CONSTRUCT ON-SITE WATER QUALITY SWALE PER DETAIL 6 ON D-1
- 11 TRANSIT CURB FACE HEIGHT FROM 6" TO FLUSH
- 12 ADJUST EX UTILITY TO PROPOSED GRADE. SEE UTILITY PLANS FOR SPECIFICS
- 13 TRASH ENCLOSURE. REFER TO ARCH PLANS FOR DETAILS
- 14 LANDSCAPING. REFER TO LANDSCAPE ARCH PLANS FOR DETAILS & SPECIFICATIONS
- 15 DECORATIVE RAILING/FENCING. REFER TO ARCH PLANS FOR DETAILS & SPECIFICATIONS

- 1 ROOF DRAIN LOCATION. REFER TO PLUMBING PLANS FOR SPECIFICS AND OVERFLOW TERMINATION AT BLDG FACE
- 2 INSTALL 3"x12" RECTANGULAR PIPE, FITTINGS, & PIPE ADAPTER TO EXTEND ROOF DRAIN THROUGH CURB FACE AS SHOWN

GEOTECHNICAL REPORT PREPARED BY: ANGLE ENGINEERING
5995 S EDMOND ST
LAS VEGAS, NV 89118
PROJECT NO.: 11545-1, DATED: 4/05/22

ELEVATION NOTE:
ADD 2200 FEET TO SPOT ELEVATION TAGS SHOWN.

ADD 2200 FEET TO SPOT ELEVATION TAGS SHOWN.

FLOODZONE NOTE:

FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP, COMMUNITY PANEL 320032155F, EFFECTIVE DATE NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 4, 2019. REVIEW INDICATES THAT THE SUBJECT SITE LIES WITHIN ZONE "X" (UNSHADED); DESCRIBED BY FEMA AS "AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN."

MOE MOMENI, PE #12732 DATE _____

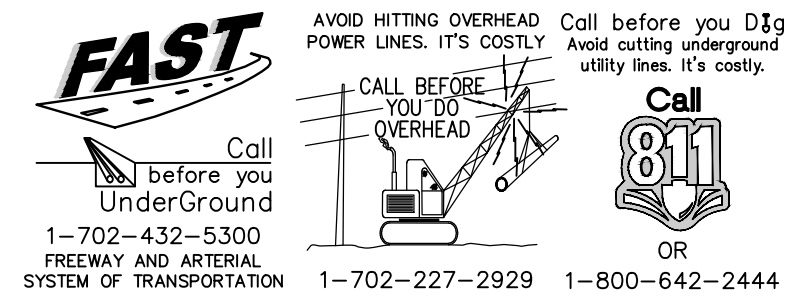
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE
WITH THE APPROVED DRAINAGE STUDY # DS5620A ON FILE
AT CITY OF LAS VEGAS FOR THE SUBJECT PROJECT

APN:
138-02-715-014

BASIS OF BEARINGS:
SOUTH 83°42'46" BEING THE NORTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 02, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., AS SHOWN IN BOOK 159, PAGE 61 OF PLATS, CLARK COUNTY RECORDS, NEVADA.

BENCHMARK:
CITY OF LAS VEGAS BENCHMARK 7C00266 – RIVET & PLATE IN TOP OF CURB AT NORTHWEST CORNER OF CRIAG RD & ENTRANCE TO SMITH'S SHOPPING CENTER. (NORTH SIDE OF CRIAG RD, APPROXIMATELY 800 FEET EAST OF RANCHO DR)

ELEVATION: 1745.177 (FEET) 531.929 (METERS) (NAVD 1988)

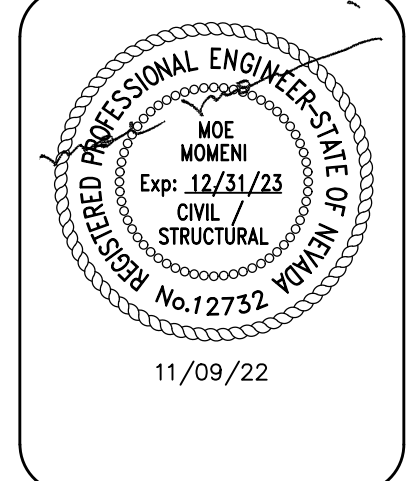
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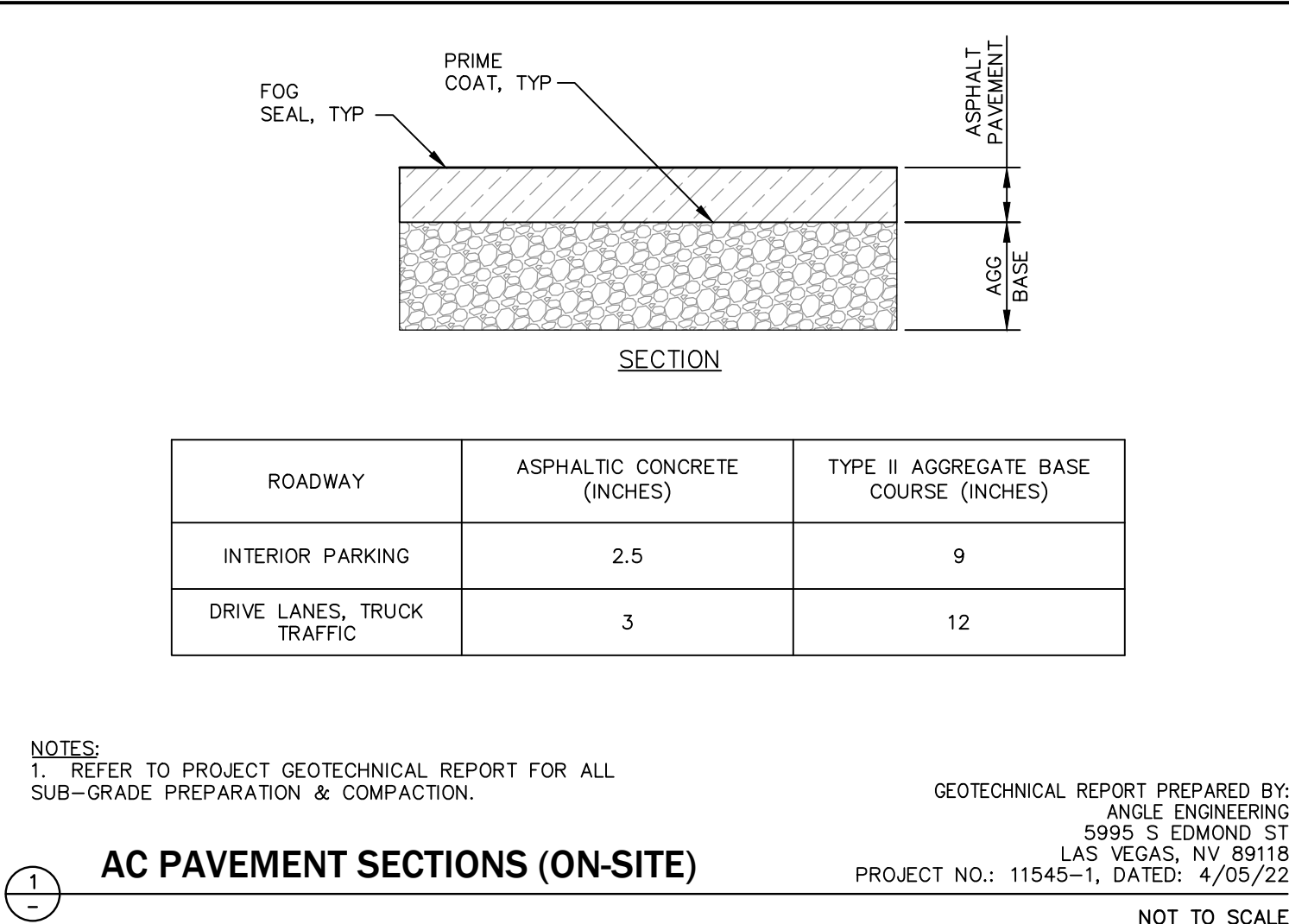
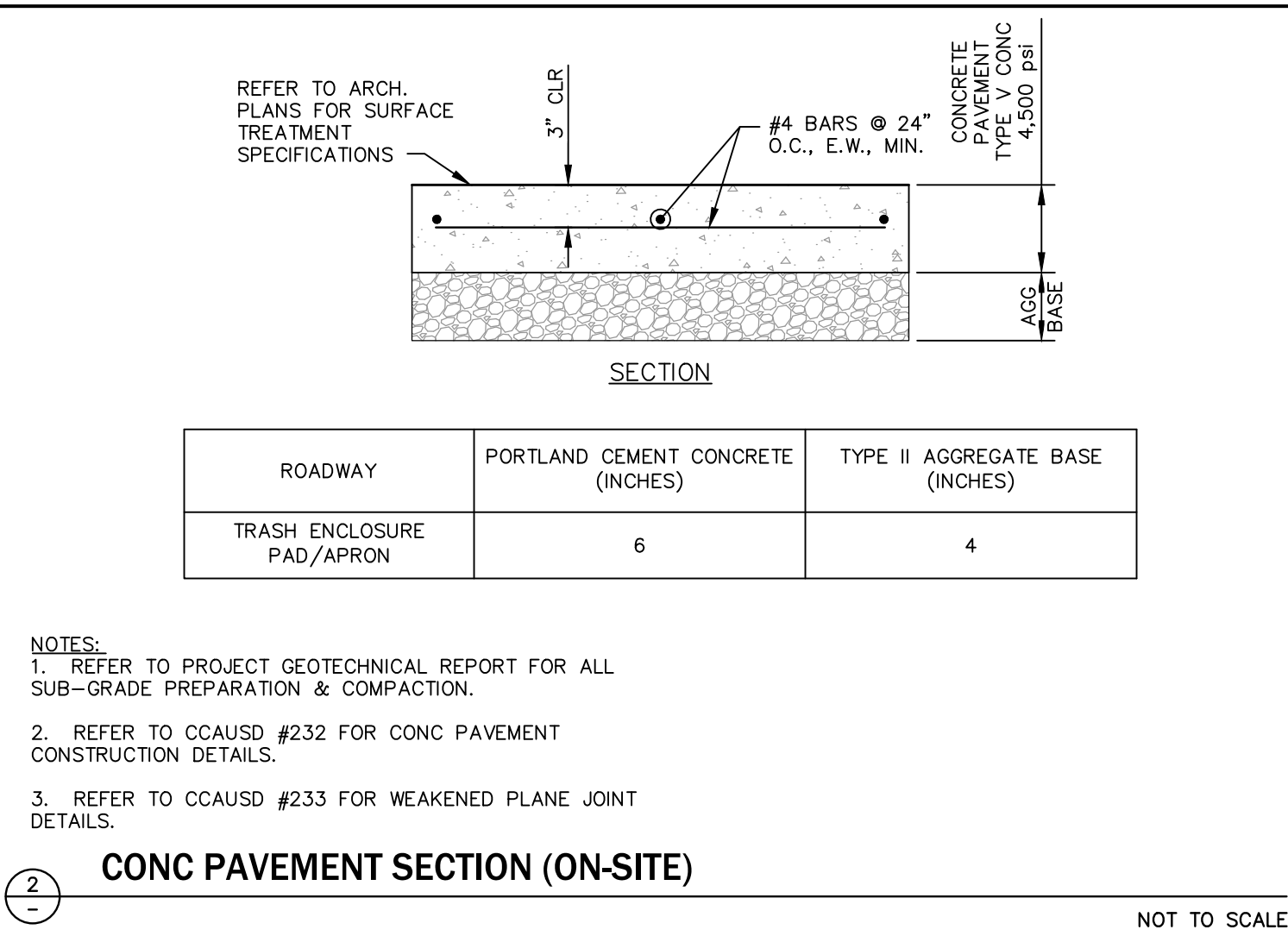
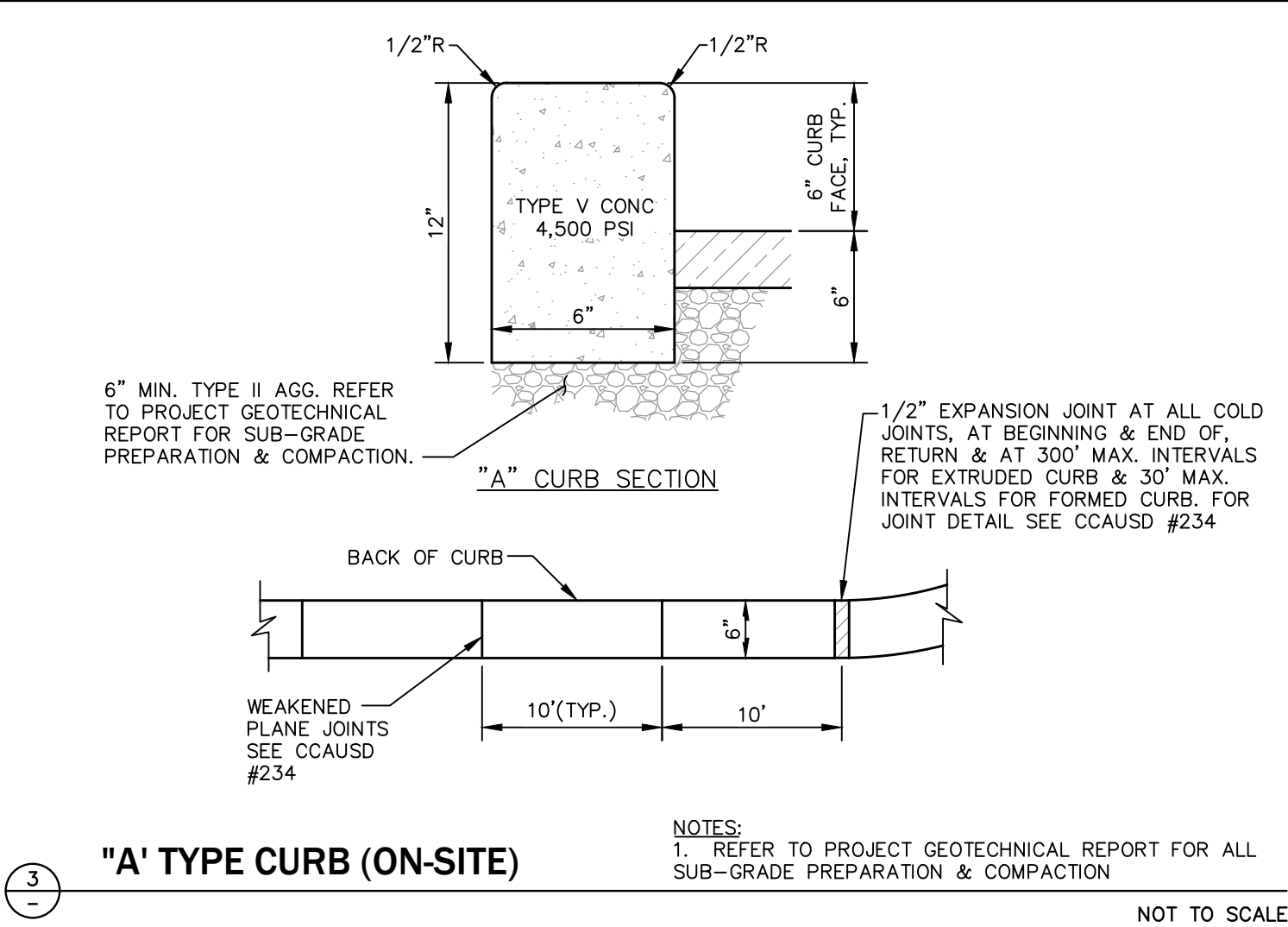
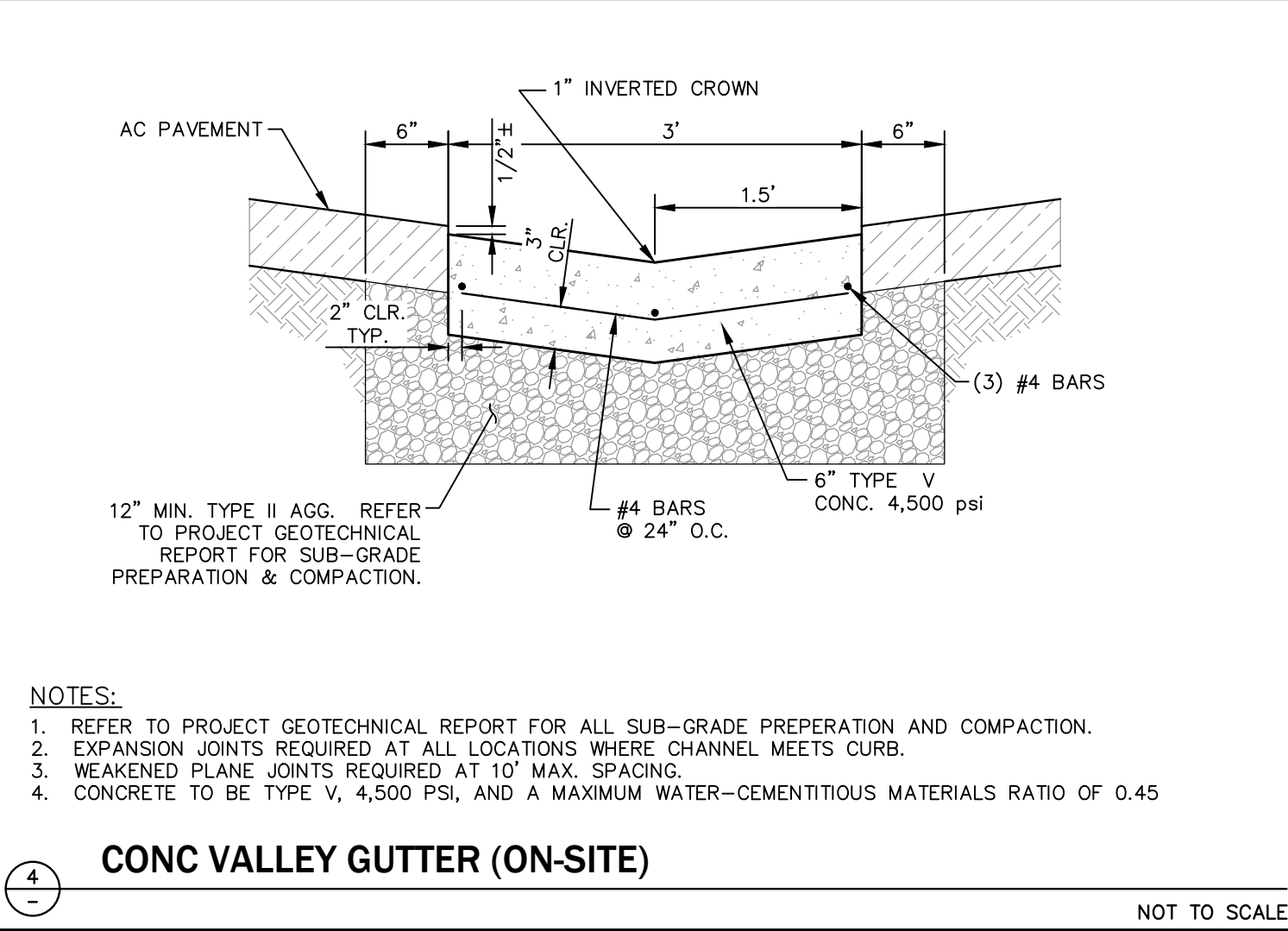
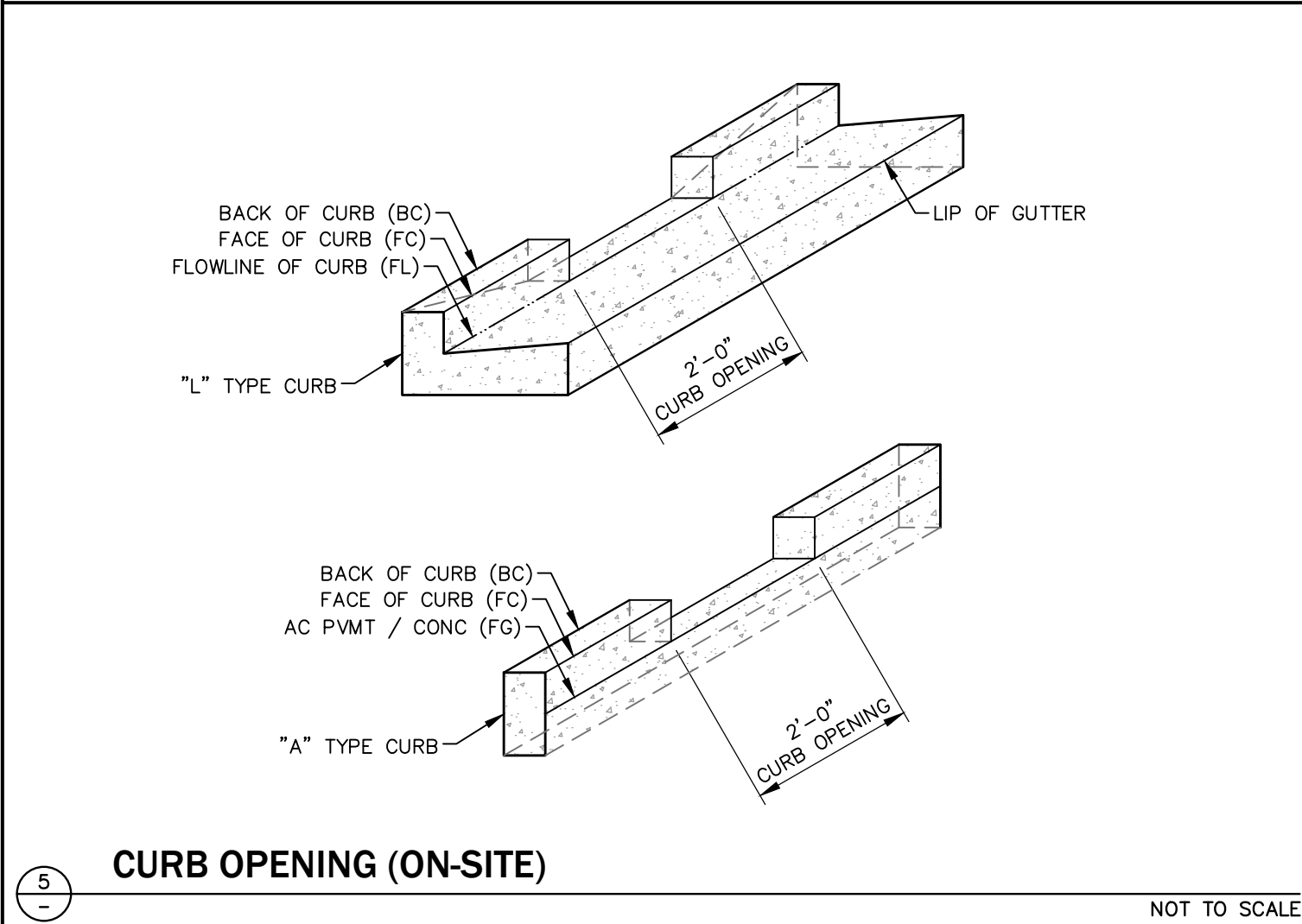
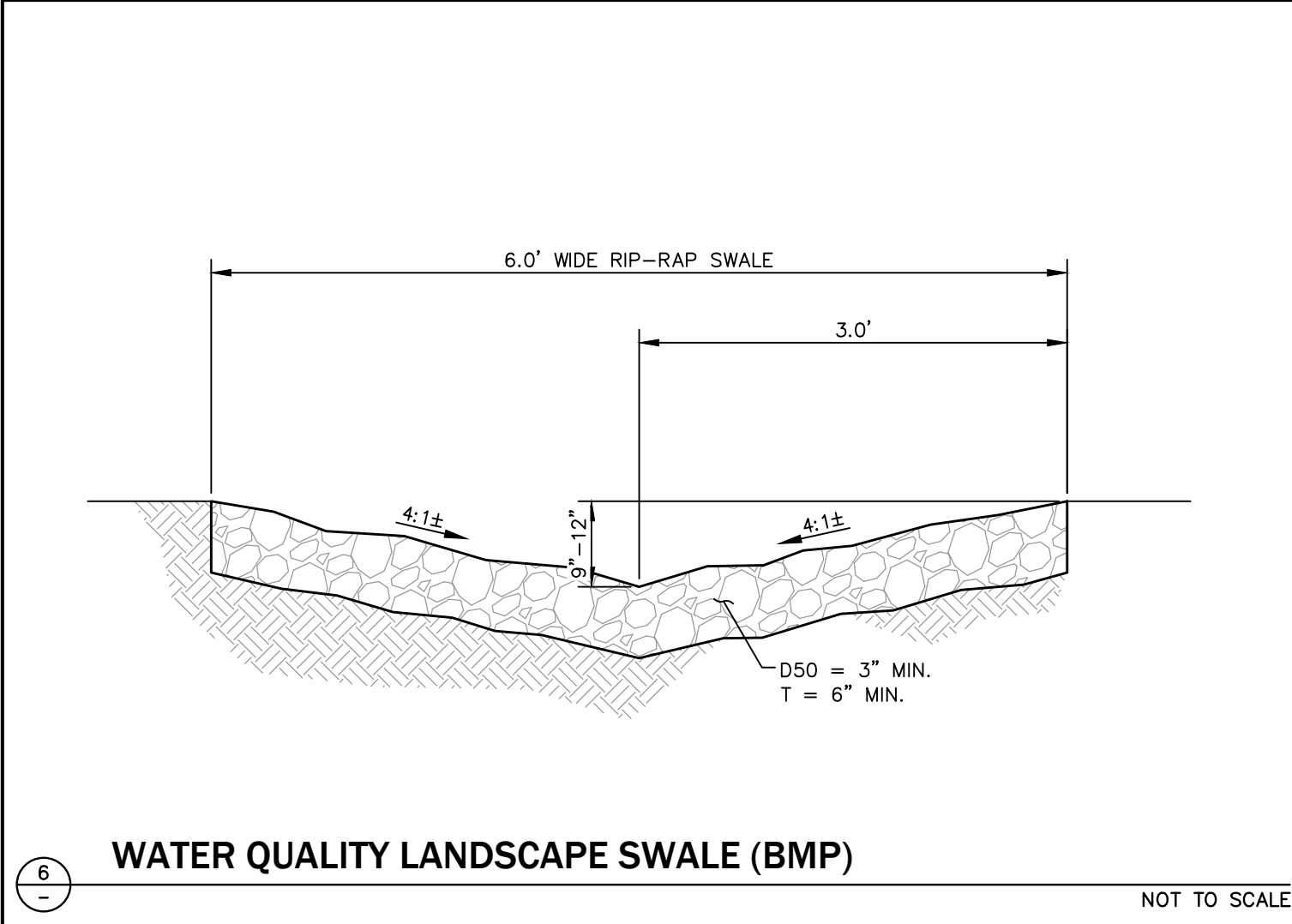


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GRADING PLAN

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G-1
3 OF 5



#	DATE	BY	DESCRIPTION	APPROVAL

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REGISTERED PROFESSIONAL ENGINEER
STATE OF NEVADA
MOE MOMENI
Exp: 12/31/23
CIVIL / STRUCTURAL
No. 12752
MOE MOMENI

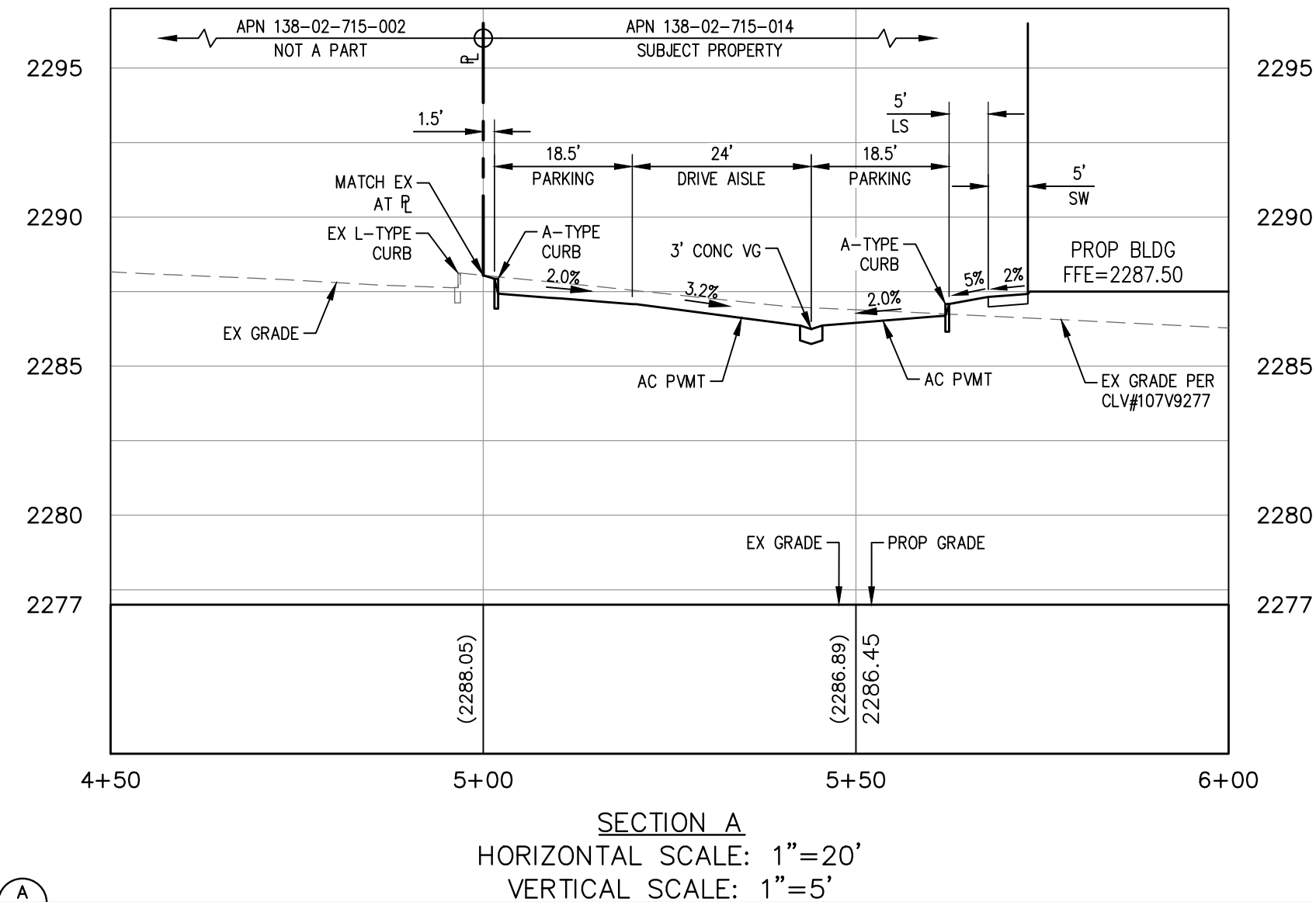
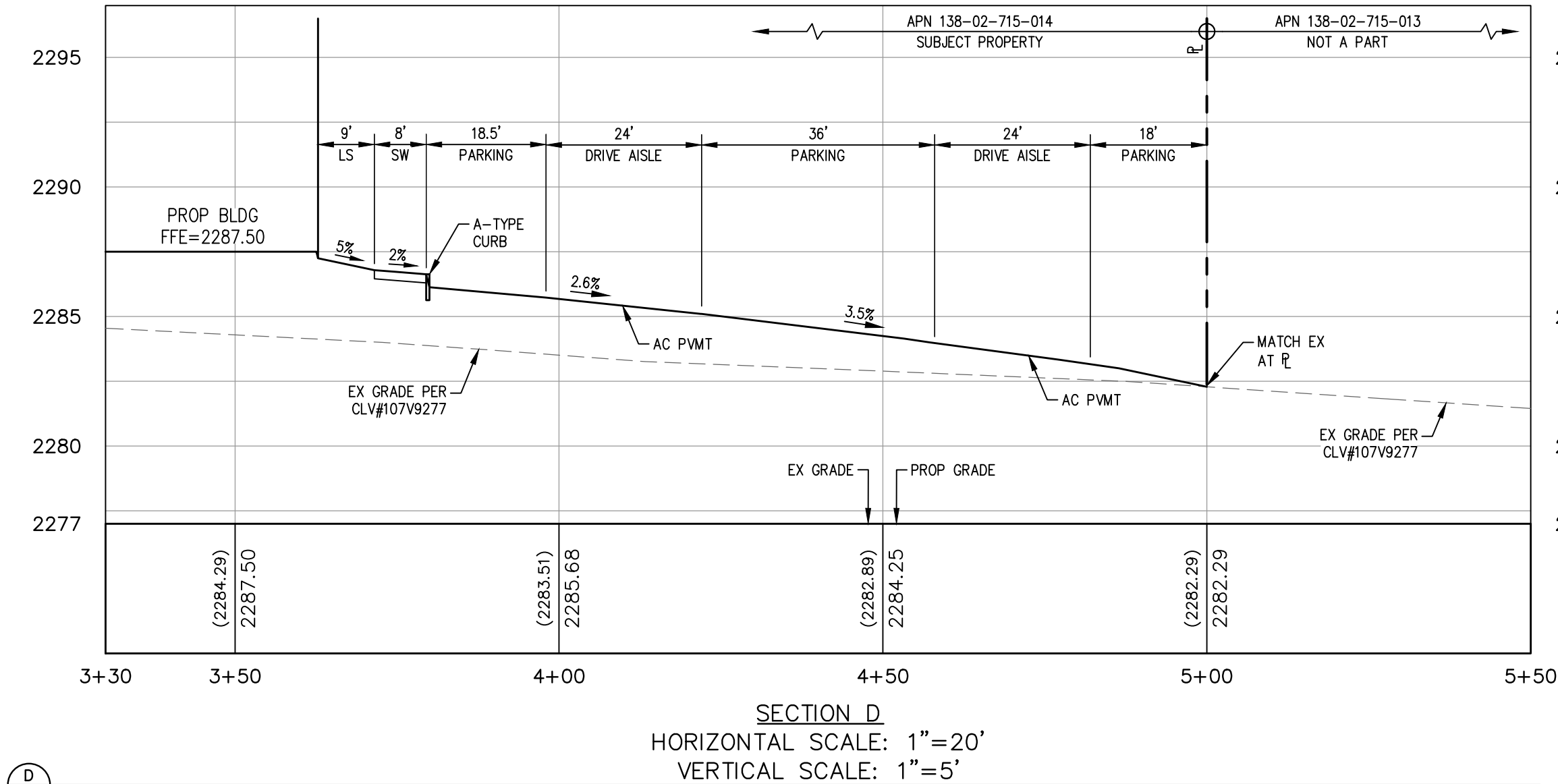
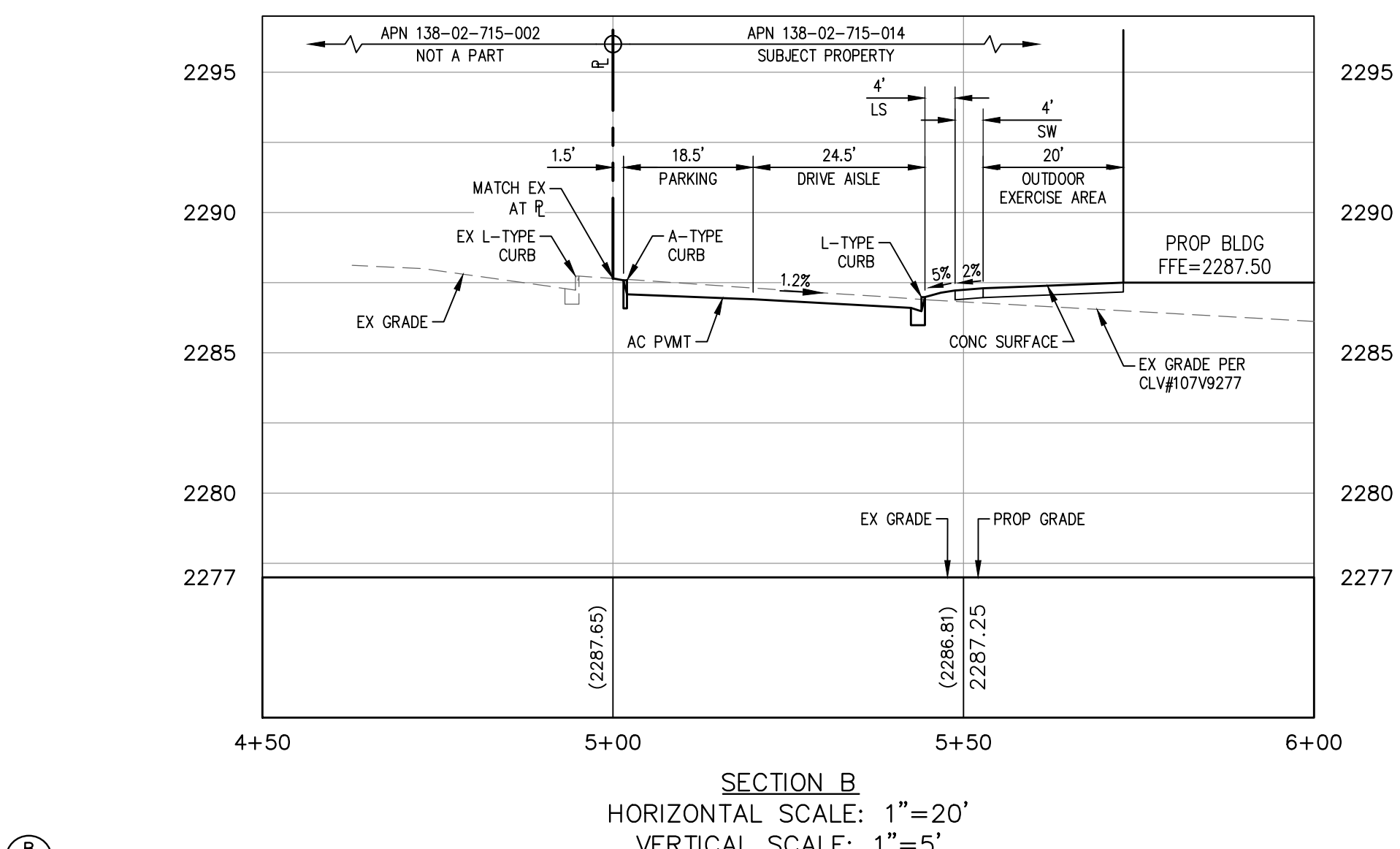
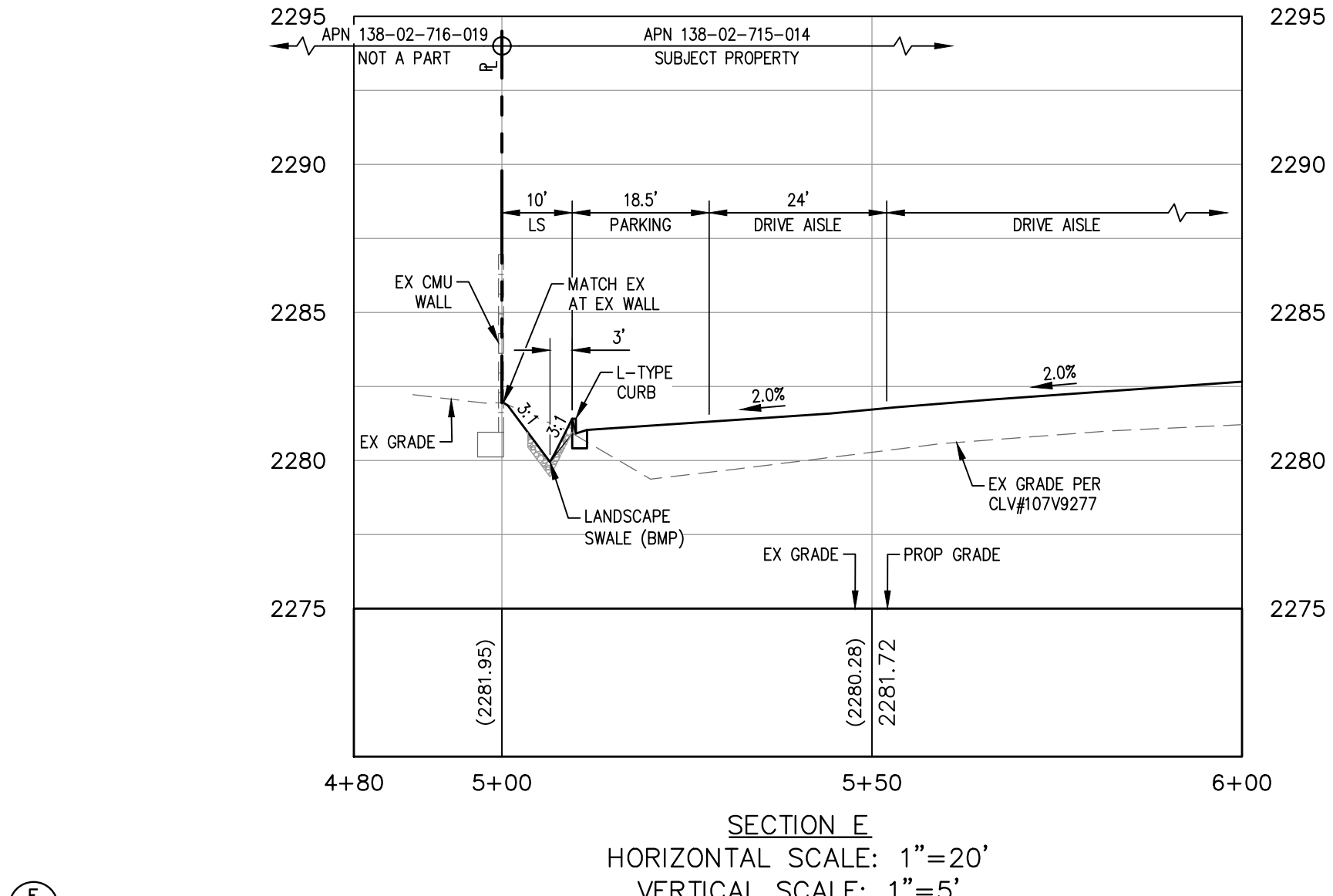
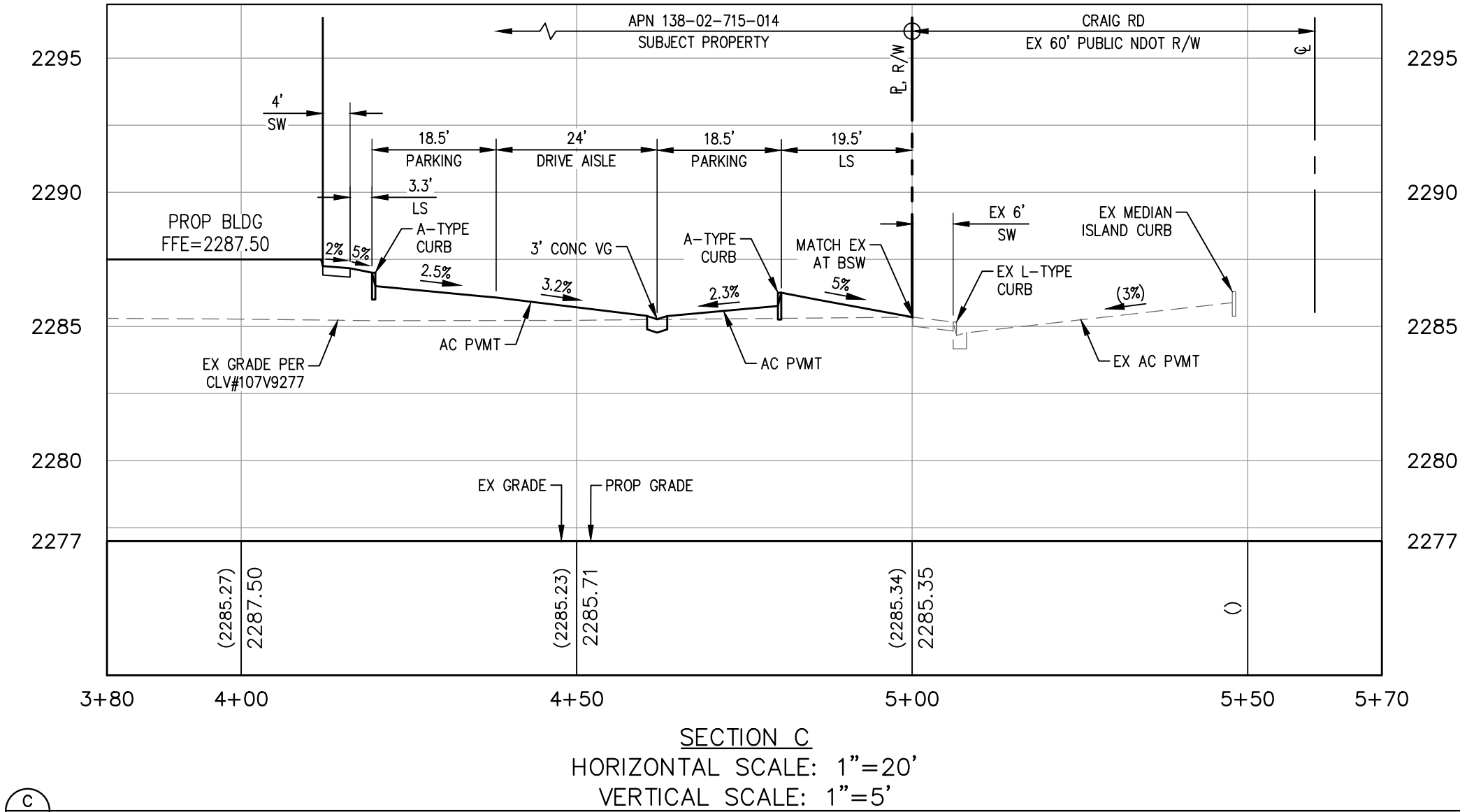
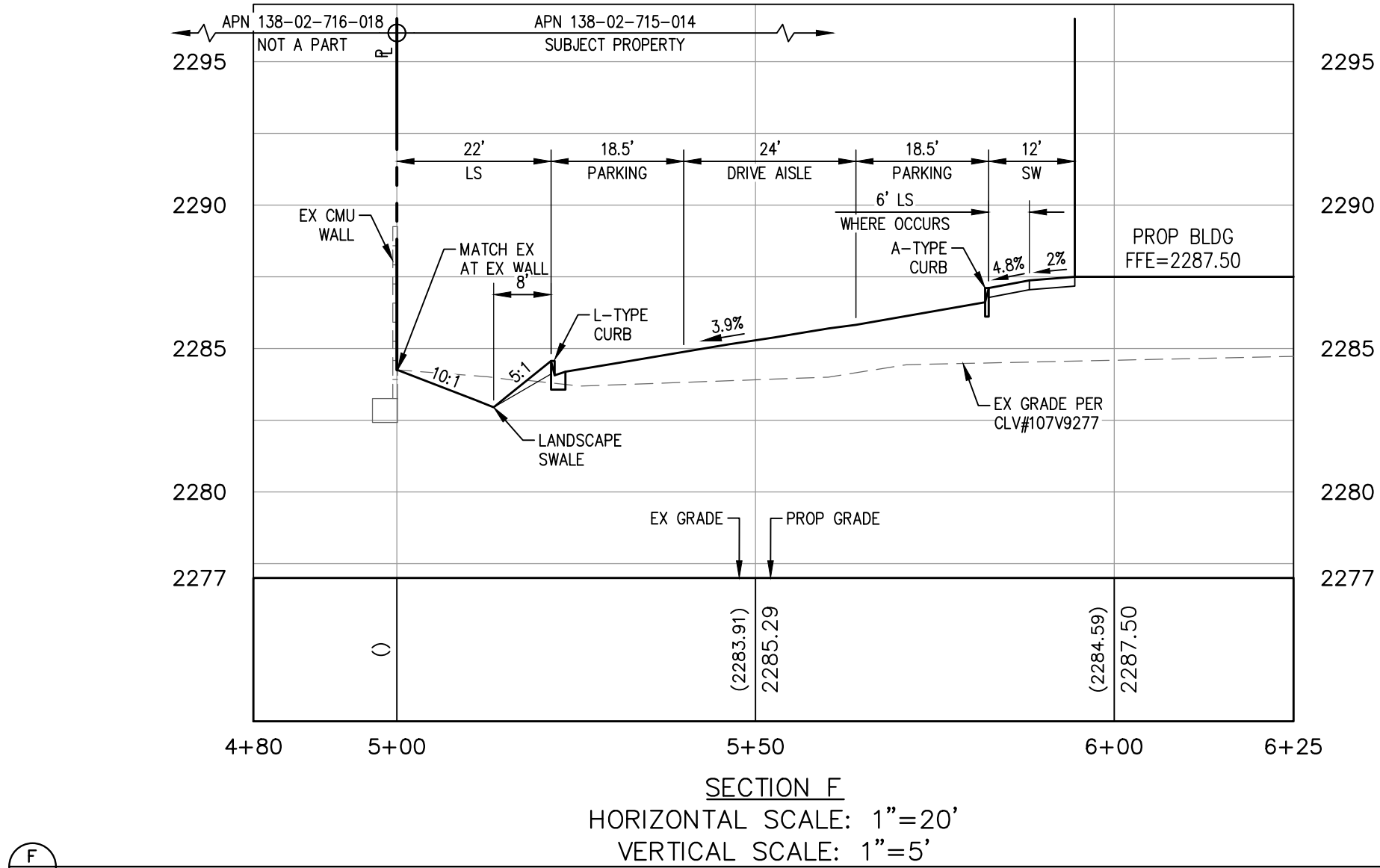
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DETAIL SHEET
(1 OF 2)

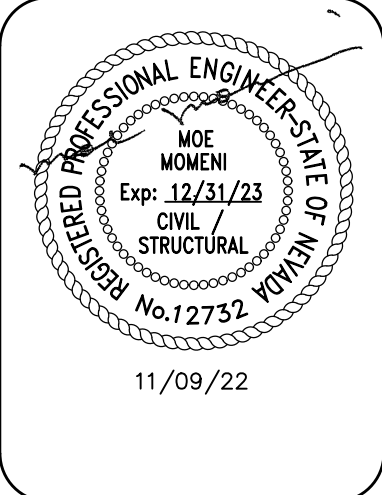
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4 OF 5



#	DATE	BY	DESCRIPTION	APPROVAL

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DETAIL SHEET
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