



TECHINCAL DRAINAGE STUDY UPDATE

Skye Canyon Parcel 5.06

Phase 2

MAY 2023

PREPARED FOR:

Century Communities of Nevada, LLC.

City of Las Vegas, NV

PREPARED BY:

Westwood

Skye Canyon Parcel 5.06 Phase 2

Technical Drainage Study Update

City of Las Vegas, NV

Prepared For:

Century Communities of Nevada, LLC.
6345 South Jones Boulevard, Suite 400
Las Vegas, NV 89118
Phone: 702-873-5338

Prepared By:

Westwood Professional Services
5725 W. Badura Avenue, Suite 100
Las Vegas, NV 89118
Phone: (702) 284-5300



5/18/23

Project Number: CEN2104.000
Date: May 2023

Stanley Okey Amadi, P.E. CFM
NV Professional Engineer No. 21724

Assisted by: Jonathan S. Rocha, E.I.

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: Skye Canyon Parcel 5.06 Phase 2 (Update) Date: May 2023
Location of Development: a) Descriptive (Cross Streets): North/South: Sheep Mountain Parkway
East/West: Iron Mountain Road
b) Section: 12 Township: 19 South Range: 59 East
c) APN: 126-12-101-004

Name of Owner: Century Communities of Nevada, LLC
Telephone No.: 702-873-5338 Fax No.: _____ E-mail Address: Paulo.Chavez@CenturyCommunities.com
Address: 6345 South Jones Boulevard, Suite 400 Las Vegas NV 89118

Contact Person – Name: Stanley Okey Amadi, P.E., CFM Telephone No.: (702) 284-5300
*E-mail Address: Stanley.Amadi@westwoodps.com Fax No.: (702) 284-5399
Firm: Westwood Professional Services
Address: 5725 W. Badura Ave, #100 Las Vegas NV 89118

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: +/- 59.2 ac Being Developed/Disturbed: +/- 25.8 ac

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.): Residential

5. Approximate upstream land area which drains to the subject site: 0 ac. existing detention basin cuts offsite watershed

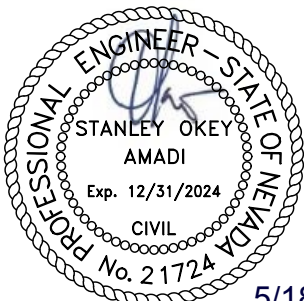
6. Has the site drainage been evaluated in the past? ☒ Yes** ☐ No If yes, please identify documentation: _____

Technical Drainage Study for Skye Canyon Parcel 5.06 Phase 1 (DS 5623)

Master Drainage Study Update #7 for Skye Canyon (DS 4420), Technical Drainage Study for Sheep Mountain Parkway at Skye Canyon (DS 4952)

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: North as storm drain in Iron Mountain, and
East as storm drain crossing Sheep Mountain Parkway

8. Briefly describe your proposed schedule for the subject project: Completed in Phases 1 thru 4. This study proposes the Phase 2
improvements.



Engineer's Seal

5/18/23

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**

Local Entity File No.	Revision	Date

REFERENCE:

STANDARD FORM 1

Updated 05/01/2008

CEN2104.000

May 18, 2023

Peter Jackson, P.E., CFM
City of Las Vegas
495 S. Main Street
Las Vegas, NV 89101

**Subject: Technical Drainage Study Update for Skye Canyon Parcel 5.06
Phase 2 (DS 5649)**

Dear Mr. Jackson

This letter certifies that all items provided on the electronic submittal CD matches the project study for the bound paper version.

Please contact me if you have any questions.

Respectfully Submitted,

WESTWOOD PROFESSIONAL SERVICES



Jonathan S. Rocha, E.I.
Graduate Engineer– Water Resources Department

CEN2104.002

May 18, 2023

City of Las Vegas
495 S. Main Street
1st Floor
Las Vegas, Nevada 89101

**Subject: Technical Drainage Study Update for
Skye Canyon Parcel 5.06 Phase 2 (DS 5649)**

Submitted for your review is this Technical Drainage Study Update for *Skye Canyon Parcel 5.06 Phase 2* (hereinafter referred to as the Phase 2 Update Study). The site is located south of Iron Mountain Road and west of unimproved Sheep Mountain Parkway within the City of Las Vegas, Nevada. The original Technical Drainage Study and applicable addenda was conditionally approved by the City of Las Vegas on April 15, 2023. Refer to Appendix A for the approval letter.

Purpose: This Update has been prepared to support minor layout change by widening Lots 243 thru 363 from 35-ft to 45-ft which consequently shifted the lot lines and resulted to the adjustment of lot numbers. The estimated peak flow rates, street alignments and drainage patterns will remain the same as prior approved. Only Phase 2A changes are proposed in this Update Study and no changes are proposed for the Phase 2B or 2C areas. Relevant reference hydrologic and hydraulic computations from the approved Original Study have been included in Appendix A.

Hydrology: No hydrologic changes are being presented with this update. As such, no revised hydrologic computations are required nor provided. Note that hydrology presented by Original Study remain valid for continued use and have been referenced.

Lot layout has shifted prorated boundaries within Basin ON3 at Banyan Springs Street, specifically at Lots 256, 257, and 284. The minor boundary shift is negligible to flowrates and does not change the design of the proposed finished floors. Note that prorated subbasin areas and flowrates have not been changed on the exhibit summary tables nor hydraulic computations for street section computations for the insignificant area.

Street Hydraulics & Updated Finished Floors: As a result of the widening and shifting of the lot lines, the top-of-curb elevations at the lot lines, street grades as well as the finished floor elevations have been revised. Section 3-3 has been revised with minimum street slope of 1.26% thru Banyan Springs Street. The remaining sections remain valid to reference from the Phase 2 TDS submittal. Finished floors have been analyzed for all Phase 2A lots due to the renumbered lots. All finished floors remain meeting criteria as from the previously approved Phase 2 Study.

Although, no revisions to the approved drainage patterns or hydraulic calculations are proposed with this update, the Phase 2 Interim Condition Drainage Map (Exhibit E) and the Ultimate Condition Drainage Map (Exhibit F) have been updated to reflect the revised lot lines. Refer to Appendix B for the revised drainage exhibits.

Conclusions: The finished floor elevations of the revised lots have been shown to still satisfy the design criteria of being elevated at least twice above the 100-year flow depth and at least 6" above the top-of-curb elevation measured at the high side of the lot per the HCDDM. The revision to the lot lines will not cause any change in drainage pattern or adverse impacts to the adjacent properties no impact the overall design. The revised improvement plans included in the last appendix supports the conclusions and recommendations detailed in this Update Study.

If you have any questions or require additional information, please do not hesitate to contact us at (702) 284-5300.

Respectfully Submitted,
WESTWOOD PROFESSIONAL SERVICES



Jonathan S. Rocha, E.I.
Graduate Engineer – Water Resources Services

CC: Stanley Okey Amadi, P.E., CFM, WPS
Kellin Collins, P.E., WPS
Emily Hoy, P.E., WPS

List of Appendices

- Appendix A Reference Material**
Technical Drainage Study for Skye Canyon Parcel 5.06 Phase 2 (DS 5649)
- Approval Letters
 - Referenced Drainage Exhibits
 - Referenced Improvement Plans (with clouded revisions)
- Appendix B Drainage Exhibits**
- Exhibit E – Phase 2 Interim Condition Drainage Map
 - Exhibit F – Ultimate Condition Drainage Map
- Appendix C Street & Hydraulic Sections**
- Appendix D Finished Floor Analyses**
- Appendix E CD of Electronic Files & Revised Improvement Plan Sheets**

APPENDIX A

Reference Material

Technical Drainage Study for Skye Canyon Parcel 5.06 Phase 2
(DS 5649)

Approval Letters

CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		April 15, 2023
TO: Land Development Services Department of Community Development - Building & Safety Division		FROM: Peter Jackson, CFM Senior Engineering Associate City Engineering Division, Department of Public Works
SUBJECT:	Drainage Study for:	COPIES TO:
Skye Canyon Parcel 5.06 Phase 2		Westwood Professional Services
Cross Streets:	Sheep Mountain Pkwy & Iron Mountain Rd	Century Communities of Nevada, LLC.
File Number:	F:\Depot\DSMemos\DS05649B.doc	Bart Anderson, P.E.; DevCo
Parcel Number:	126-12-101-004	
Zoning Action:	22-0412-VAC1, 22-0412-TMP1	
FEMA Flood Zone	YES NO X	
Proposed Storm Drain	YES X NO	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	1/26/2023	2/22/2023 & 3/3/2023	Not Approved	\$400	5116027: \$400
2 nd Submittal	3/29/2023	4/15/2023	See Comments Below	\$400	5204253: \$400
TOTAL FEES (LDDRS):				\$800	----

REMARKS: 1st Submittal shows that Phase 2 is divided into 3 sub-phases. Each sub-phase needs the improvements to stand alone regardless of the proposed construction sequence.

Per 22-0412-TMP1: No permits shall be issued for this site and no Final Maps for this site shall record until all remaining Master Developer Infrastructure identified in the Skye Canyon Development Agreement is constructed or guaranteed to the satisfaction of the Director of Public Works.

No Mass Grading Permit is allowed on this site. Permit Hold is requested.

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

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

1. No permits shall be issued for this site and no Final Maps for this site shall record until all remaining Master Developer infrastructure identified in the Skye Canyon Development Agreement is constructed or guaranteed to the satisfaction of the Director of Public Works.
2. Update #5 to DS4813 (Skye Canyon Detention Basin #2) sets the parameters for the required Buffer between the Existing Detention Basins (DB #1 & DB #2) and Parcel 5.06. The Buffer is required to be constructed with any development of Parcel 5.06. The Grading and Improvement Plans for Parcel 5.06, Phase 1 shows the included construction of the 25-foot Buffer adjacent to both Detention Basins. Include the TY-1 Section as part of the Detail Sheets. Grading and

Improvement Plans for Parcel 5.06, Phase 2 and other future Phases within Parcel 5.06 need to include the construction of the Buffer area improvements and show these improvements as existing.

3. This drainage study states that the 5.06 - Phase 2 project will be constructed in multiple Sub-Phases (2A, 2B, and 2C). The Plans submitted with the drainage study show multiple improvement plans to break the project into separate sub-phases. A drainage study update will be required for each sub-phase that addresses the interim condition based upon the sub-phase construction sequence. Any required improvements necessary for the construction of sub-phase 2A, 2B and 2C from an adjacent sub-phase needs to be addressed as part of the interim conditions as each sub-phase must stand alone.
4. **No Mass Grading Permits are Approved until Condition #1 is satisfied.** Coordinate the mass grading requirements with Land Development and identify any required BMP's for the site. Update the overall phasing plan (**Exhibit A2**) for the development of Parcel 5.06 to show that the required Buffer bench improvements are required with the Phase 1 Plans. Update the Phasing Exhibit A2 to show the sequence of Phase 2 sub-phases, 2A, 2b, and 2C. The Phase 1 Plans shall complete the permanent fencing adjacent to the detention basins prior to approval of Improvement Plans for the overall Phase 2 improvements and any other Future Phases.
5. The provided **Exhibit F** does not match the **Exhibit F** in the Phase 1 study (DS5623). Revise Phase 1 study to match **Exhibit F** from Phase 2. Review and revise accordingly.
6. The existing 40-foot Drainage Easement that encumbers Parcel 5.06 adjacent to the Detention Basins is not eligible for Vacation until the required Buffer area modifications and the Detention Basin boundary improvements are complete.
7. The site is adjacent to or crosses an existing or proposed Clark County Regional Flood Control District (CCRFCD) master planned facility. Therefore, CCRFCD concurrence is required prior to final approval of the drainage study.

Please note that effective March 15, 2019, the CCRFCD adopted new requirements for drainage study concurrence submittal. Follow the link below for specific guidance.

<http://gustfront.ccrfcd.org/LandDev/LandDev.aspx>

Please note that effective April 6, 2020, only electronic submittals to the CCRFCD will be accepted for regional concurrence. Contact cwang@regionalflood.org for direction.

8. This study addresses the development of Phase 2 and shows Mass Grading. A separate study is required to address the full development of future phases.
9. The study assumes the storm drain infrastructure proposed by the Technical Drainage Study for Iron Mountain is in place. Substantial completion of the Iron Mountain infrastructure facilities is required prior to approval of the improvement plans for this study.
10. The study assumes the storm drain infrastructure proposed by the Technical Drainage Studies for Skye Canyon Parcel 5.06 Phase 1 are in place and functioning. Substantial completion of the Skye Canyon Parcel 5.06 Phase 1 Infrastructure facilities is required prior to residential occupancy permits.
11. Conditional approval of this drainage study is not applicable until Parcel 5.06 Phase 1 receives conditional approval from the City of Las Vegas. Any comments listed in the Phase 1 drainage study comment letter must also be applied to the Phase 2 development. An update is required to address the full development of Parcel 5.06 and future phases.
12. Provide additional detail clarification on the cross lot detail (Phase 2B, Sheet D-2, Lot Grading) on how flow is conveyed lot to lot. Provide a cross-section between the lots showing no fence or block wall.
13. All Drainage Easement must be concrete lined. The minimum facility is 3-ft wide concrete valley gutter. Add concrete valley gutter to all drainage easement/common lots including lot to lot drainage easements. Also, reflect change to Phase I.

14. The following comments refer to the improvement plans in their entirety:

- a. Label the width of curb opening in the grading plan or construction note.

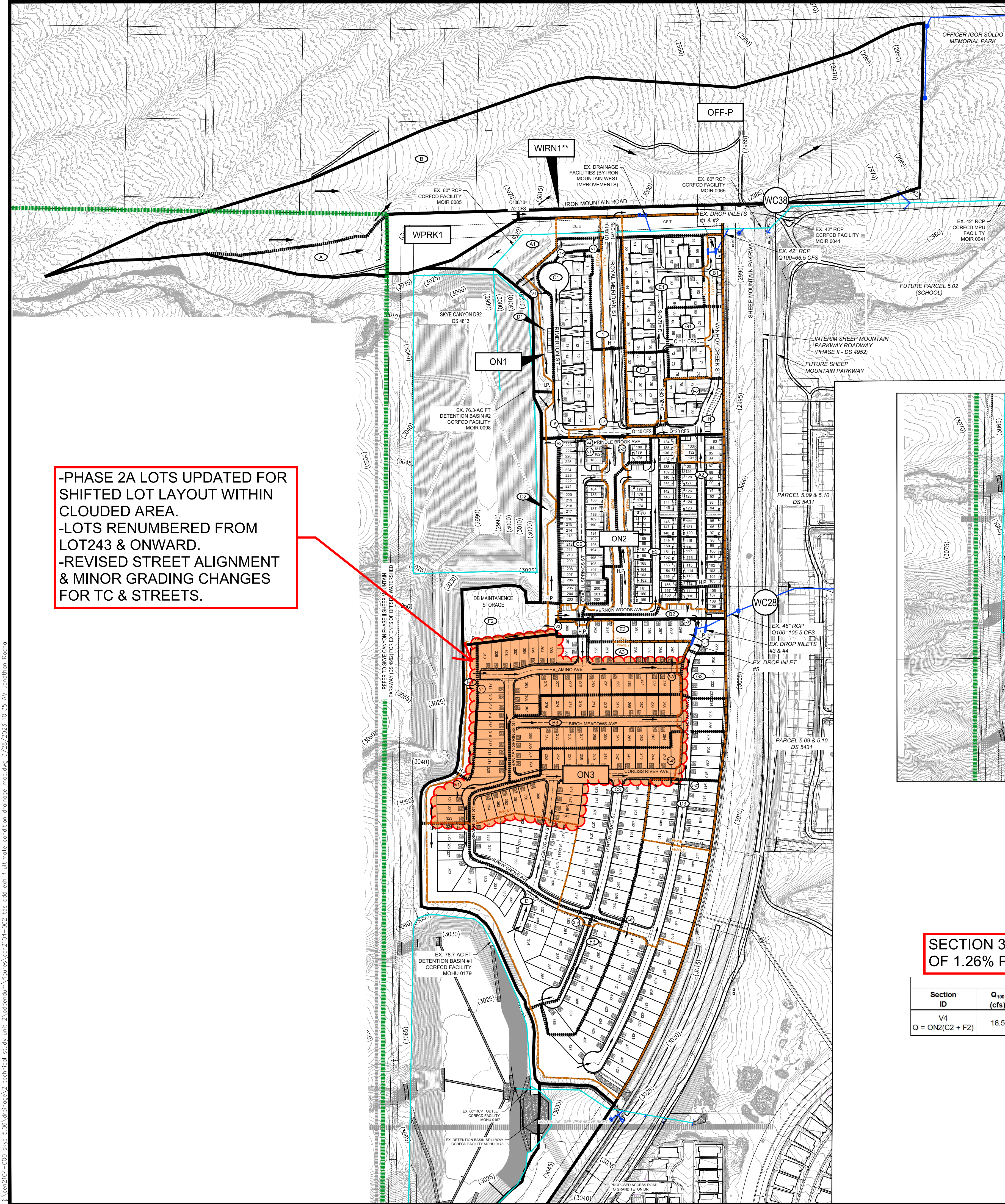
NOTE: Please be advised that all land surface area disturbances over 1 acre or any area adjacent to a water way must submit to the *Nevada Division of Environmental Protection* a "Notice of Intent" to discharge that certifies a stormwater pollution prevention plan has been developed and is maintained 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
HDR/CAA/PBJ

T/R/S: T19S/R59E/S12
AREA F-12

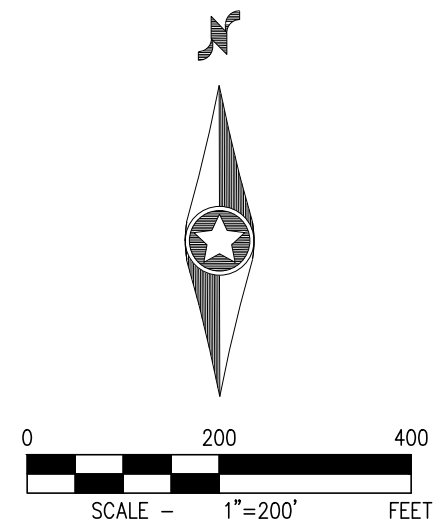
Referenced Drainage Exhibits

\\c:\p2104-000\skye\5.06\workspace\2 technical study\unit 2\update\map\figs\var2104-002_tds_sdd_ext_1\ultimate condition drainage map.dwg 3/28/2023 10:35 AM Jonathan Roberts



NOTES:

- * REFERENCED FROM SKYE CANYON PARCEL 5.06 UNIT 1 & MASS GRADE (DS 5623)
- **REFERENCED FROM SKYE CANYON MDS UPDATE #7 (DS 4220)
- *** REFERENCED FROM SHEEP MOUNTAIN PARKWAY STUDY (DS 4952)
- OFF-P(A) IS COMPUTED FROM UNIT FLOWRATE OF BASIN OFF-P REFERENCED FROM SOLDI PARK STUDY. SEE REFERENCE MATERIAL FOR FULL EXTENTS OF BASIN OFF-P.



LEGEND	
	BASIN BOUNDARY
	PRORATED SUBBASIN BOUNDARY
	PHASE BOUNDARY
	ULTIMATE DEVELOPMENT BOUNDARY
	EXISTING RFCD DRAINAGE FACILITY
	EXISTING LOCAL DRAINAGE FACILITY
	BASIN ID
	PRORATED SUBBASIN ID
	CONCENTRATION POINT ID
	FLOW DIRECTION
	FLOWMASTER SECTION

Ultimate Condition Flow Rate Summary				
Basin/Concentration Point ID	Area (ac)	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	
ON1*	14.8	44	21	
ON2*	11.9	39	19	
ON3*	35.1	103	50	
OF4*	4.3	13	6	
WPRK1*	1.8	4	1	
WRN1*	0.6	2	1	
OFF-P*	28.8	67	26	
WC28	N/A	130	63	
WC38	N/A	134	85	

Subbasin Prorated Flow Rate Summary					
Basin ID	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	Area (acres)	100-yr Unit Flow (cfs/acre)	10-yr Unit Flow (cfs/acre)
ON1	44	21	14.8	3.0	1.4
ON2	39	19	11.9	3.3	1.6
ON3	103	50	35.1	2.9	1.4
OFF-P	67	26	28.8	2.3	0.9
Subbasin ID					
ON1(A1)	7.5	4	2.5	3.0	1.4
ON1(B1)	1.5	0.5	0.5	3.0	1.4
ON1(C1)	11	5	3.8	3.0	1.4
ON1(D1)	3	1.5	1.0	3.0	1.4
ON1(E1)	7	3	2.4	3.0	1.4
ON1(F1)	3	2	1.1	3.0	1.4
ON1(G1)	4	2	1.3	3.0	1.4
ON1(H1)	3.5	1.5	1.1	3.0	1.4
ON1(I1)	3.5	1.5	1.1	3.0	1.4
TOTAL	44	21	14.8		
ON2(A2)	7.5	3.5	2.3	3.3	1.6
ON2(B2)	2.5	1	0.7	3.3	1.6
ON2(C2)	11.5	5.5	3.5	3.3	1.6
ON2(D2)	3	2.0	1.0	3.3	1.6
ON2(E2)	9.5	4.5	2.9	3.3	1.6
ON2(F2)	5.0	2.5	1.5	3.3	1.6
TOTAL	39	19	11.9		
ON3(A3)	17	8	5.7	2.9	1.4
ON3(B3)	10.5	5	3.6	2.9	1.4
ON3(C3)	25.5	12.5	8.7	2.9	1.4
ON3(D3)	23.5	11.5	8.0	2.9	1.4
ON3(E3)	4	2	1.3	2.9	1.4
ON3(F3)	5	2.5	1.9	2.9	1.4
ON3(G3)	2	1	0.7	2.9	1.4
ON3(H3)	2	1	0.6	2.9	1.4
ON3(I3)	14	6.5	4.6	2.9	1.4
TOTAL	103	50	35.1		
OFF-P(A)	3	1	1.5	2.3	0.9
OFF-P(B)	64	25	27.4	2.3	0.9
TOTAL	67	26	28.8		

Ultimate Condition 100-Year Street Flow Summary					
Section ID	Q ₁₀₀ (cfs)	Slope (%)	Depth (ft)	Velocity (fps)	DxV
1-3" (Half Street) Q = ON1(C1)	11	1.15	0.51	3.18	1.6
1-5" Q = ON1(C1)	11	0.60	0.44	2.18	1.0
1-6" Q = 1 CFS	1	0.60	0.24	1.24	0.3
2-1 Q = ON2(C2 + F2)	16.5	1.56	0.22	1.88	0.4
2-2" (Half Street) Q = ON2(C2 + F2)	16.5	0.60	0.49	2.56	1.3
2-3" Q = ON2(B2) + ON3(E3)	6.5	1.87	0.53	4.23	2.2
3-1" Q = DI#5 Bypass + ON2(B2) + ON3(E3)	76	2.43	0.51	4.65	2.4
3-2" Q = ON3(D3 + F3 + I3)	42.5	2.48	0.30	3.95	1.2
3-3" Q = ON3(A3)	18.5	2.45	0.61	6.28	3.8
3-4" Q = ON3(C3)	25.5	0.82	0.61	3.60	2.2
3-6" Q = ON3(F3 + I3)	19	1.74	0.96	4.62	2.3
3-9 Q = ON3(I3)	14	1.50	0.46	3.22	1.5
		3.81	0.41	4.68	1.9
		1.16	0.51	3.23	1.6
		3.40	0.45	4.77	2.1
		1.50	0.46	3.23	1.5
		2.53	0.43	3.99	1.7
		2.53	0.47	4.55	2.1

Section 3-3 utilizes a higher flowrate from prorated ON3(A3) from Phase 1 Study. Subbasin ON3(A3) has been reduced in prorated area in Phase 2 Study.

Ultimate Condition Onsite Hydraulic Section Summary					
Section ID	Q ₁₀₀ (cfs)	Section Description	Slope (%)	Depth (ft)	Velocity (fps)
Section V1 Q = ON1(D1)	3	V-Ditch Swale, 3:1 SS, Earthen Lined	0.50	0.70	2.02
Section V1-1 Q = ON1(D1)	3	Trap channel, 6" BW, 3:1 SS, Earthen Lined	4.98	0.46	4.79
Section V2 Q = ON2(D2)	3	V-Ditch Swale, 3:1 SS, Earthen Lined	14.24	0.10	4.71
Section V3 Q = ON2(F2)	5	V-Ditch Swale, 3:1 SS, Earthen Lined	0.75	0.65	2.35
			1.65	0.56	3.16
			3.83	0.58	4.93

SECTION 3-3 REVISED FOR NEW MINIMUM SLOPE OF 1.26% PER UPDATED GRADING PLANS.

Ultimate Condition Onsite Hydraulic Summary					
Section ID	Q ₁₀₀ (cfs)	Description	Slope (%)	Depth (ft)	Velocity (fps)
V4 Q = ON2(C2 + F2)	16.5	Concrete lined valley gutter, 2% SS, 40" Width w/ 5" Width Curb Depression	16.29	Normal Depth	0.19
				Weir	1.05
					9.50
					-

Recommended Flood Control Facility (Inlets & Laterals) Summary						
Facility ID	Facility Description	Source of Flows	Approaching Flow (cfs) Q ₁₀₀	Facility Flow (cfs) Q ₁₀₀	Surface/Bypass Flow (cfs) Q ₁₀₀	Notes
DI#1 & DI#2	Ex. (2) 20.0-ft CM2	ON1 + ON2 - ON1(A1+D1-I1) - ON2(B2)	66.5	66.5	0	In Sump
DI#3 & DI#4	Ex. (2) 20.0-ft CM2	SDDI#5 Bypass + ON2(B2) + ON3(E3)	76	76	0	In Sump
DI#5	Ex. 20.0-ft CM2 & 36" RCP Lateral	ON3 - ON3(E3)	99	29.5	69.5	

Westwood
5725 W. Badura Ave.
Suite 100
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Phone (702) 284-5300
Fax (702) 284-5399
westwoodps.com
Westwood Professional Services, Inc.

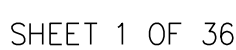
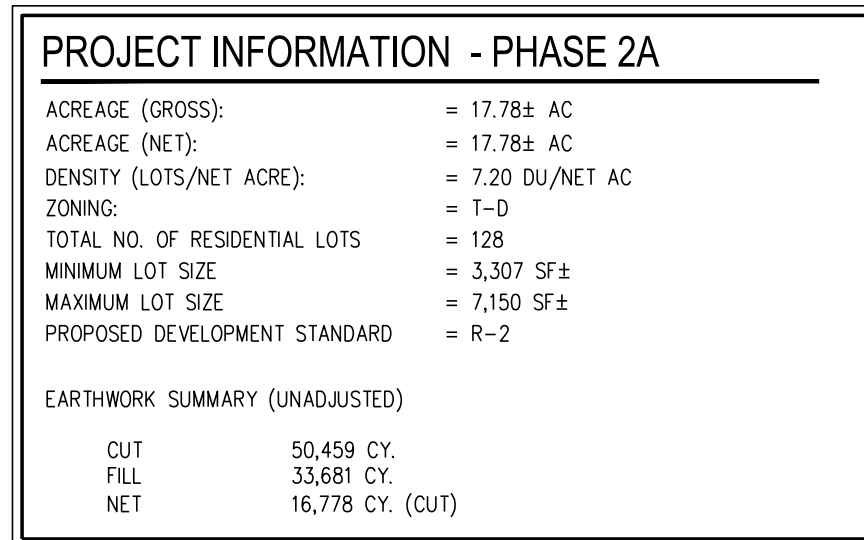
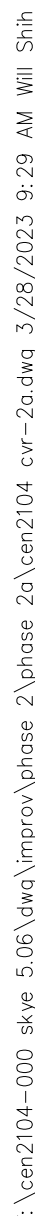
DATE: MAR 2023
DRAFTER: JSR
DESIGNER: JSR
CHECKED: SOA
PROJECT NO. CEN2104.000

CITY OF LAS VEGAS, NV
CENTURY COMMUNITIES OF NEVADA, LLC.
SKYE CANYON PARCEL 5.06 PHASE 2
ULTIMATE CONDITION DRAINAGE MAP

912
R 338

EXHIBIT F
SHEET 1 OF 1

Referenced Improvement Plans (with clouded revisions)





U.S. DEPARTMENT OF AGRICULTURE BRASS DISC AT THE SOUTHWEST CORNER OF U.S. 95
AND KYLE CANYON ROAD.
ELEVATION = 2817.61 FEET, 858.81 METERS
N.A.V.D. 88 DATUM
PER THE CITY OF LAS VEGAS VERTICAL CONTROL WEBSITE

SOUTH 00°33'09" EAST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 12, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 160, PAGE 7 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.

EARTHWORK QUANTITIES (RAW):
CUT= 50,459 CU YDS
FILL= 33,681 CU YDS

EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED
LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED
AND ACTIVE GRADING PERMIT.

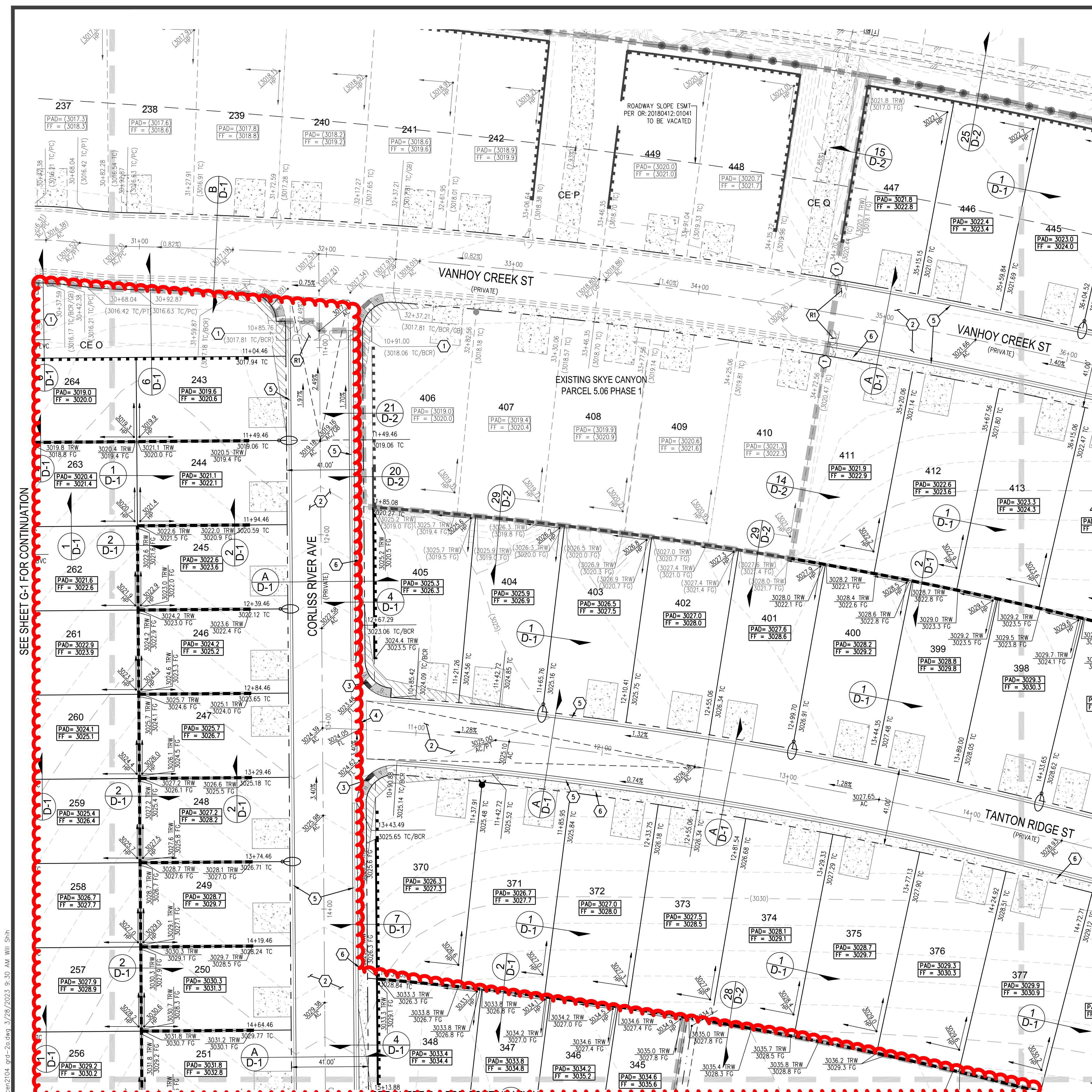
THE EXISTING CHAIN LINK FENCE ALONG THE PROJECT BOUNDARY IS TO BE PRIVATELY MAINTAINED BY HOA.

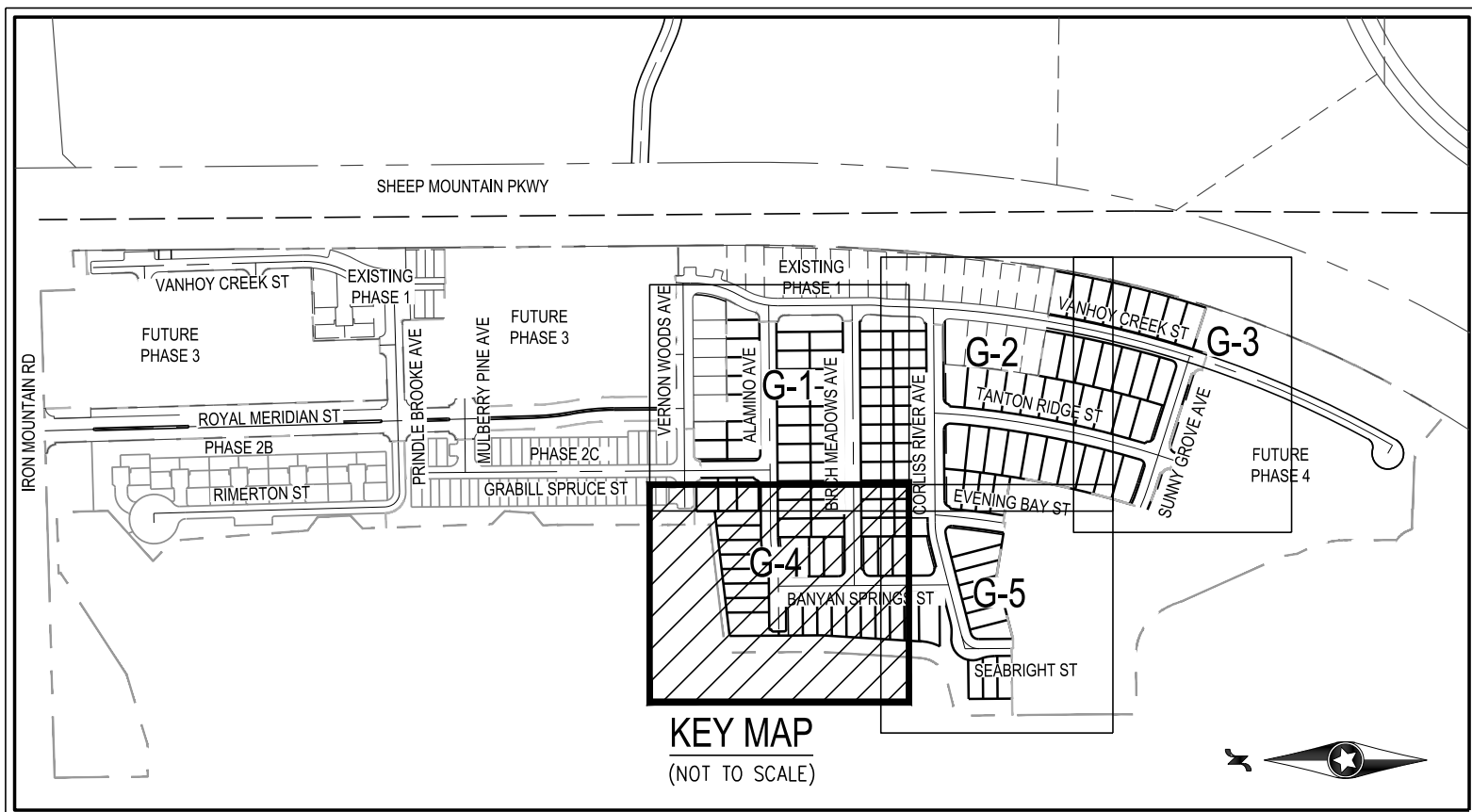
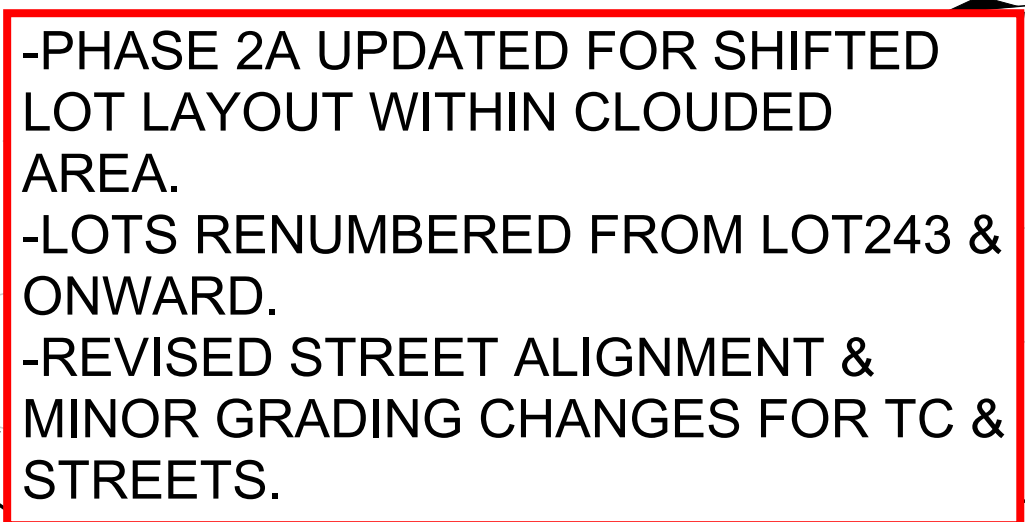
OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBSCURED DURING CONSTRUCTION.



EMILY HOY, P.E. 24680 DATE

SHEET 4 OF 36





- 1 FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER AND/OR SIDEWALK
- 2 CONSTRUCT AC PAVEMENT PER STREET SECTIONS, SHEET D-1
- 3 CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235 CASE 1, AND 235.1
- 4 CONSTRUCT 8" WIDE CROSS GUTTER PER CCAUSD NO. 228
- 5 CONSTRUCT 30" MODIFIED ROLL CURB AND GUTTER PER CCAUSD NO. 217.1
- 6 CONSTRUCT 5" WIDE CONCRETE SIDEWALK (5" THICK WITH 5" TYPE II AGGREGATE BASE) PER CCAUSD NO. 234
- 7 INSTALL RIP RAP W/6" TYPE II GRANULAR BEDDING WITH FILTER FABRIC D50=6", T=12" PER DETAIL 33, SHEET D-2
- 8 CONSTRUCT DEPRESSIONED CURB PER DETAIL 32, SHEET D-2
- RI REMOVE EXISTING RIP RAP
- E1 EXISTING RIP RAP TO REMAIN

ALL DRAINAGE EASEMENTS AND COMMON LOTS ARE PUBLIC DRAINAGE EASEMENTS
TO BE PRIVATELY MAINTAINED BY THE HOA.

ALL PRIVATE STREETS ARE PUBLIC UTILITY EASEMENTS, PUBLIC SEWER EASEMENTS, AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED
TECHNICAL DRAINAGE STUDY DS 05649 ON FILE AT CITY OF LAS VEGAS FOR THE
SUBJECT PROJECT.

FLOOD ZONE

THE PROJECT SITE IS NOTE LOCATED WITHIN A FEMA DESIGNATED ZONE 'X' (UNSHADED), PER THE FEMA FIRM PANELS 32003C1750E DATED SEPTEMBER 27, 2002. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE OF FLOOD PLAN.

OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBSCURED DURING CONSTRUCTION.

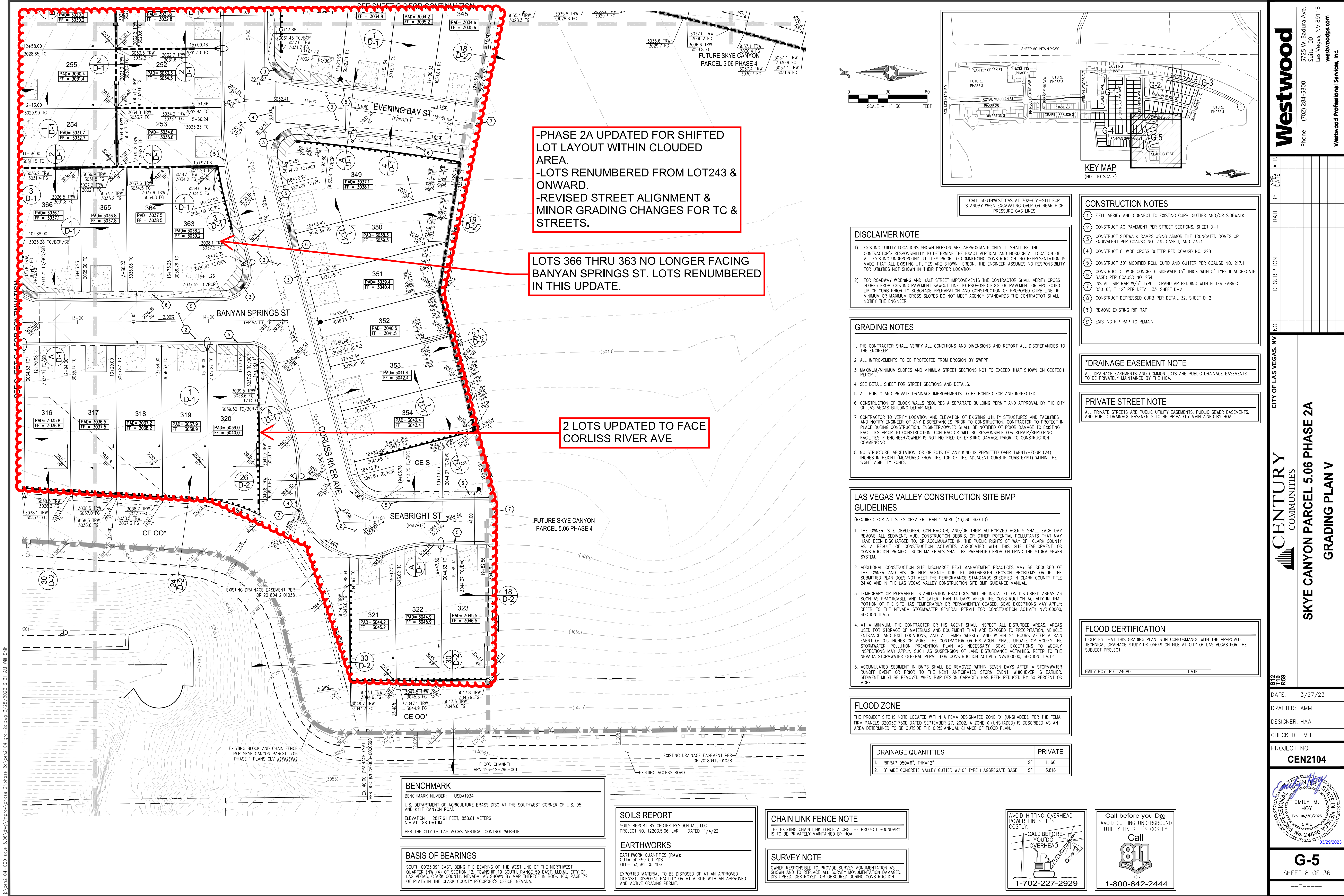


BASIS OF BEARINGS

SOUTH 00°33'09" EAST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 12, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 160, PAGE 72 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.

512 5119 R69	
DATE:	3/27/23
DRAFTER:	AMM
DESIGNER:	HAA
CHECKED:	EMH
PROJECT NO.	CEN2104
03/29/2023	
G-4 SHEET 7 OF 36	

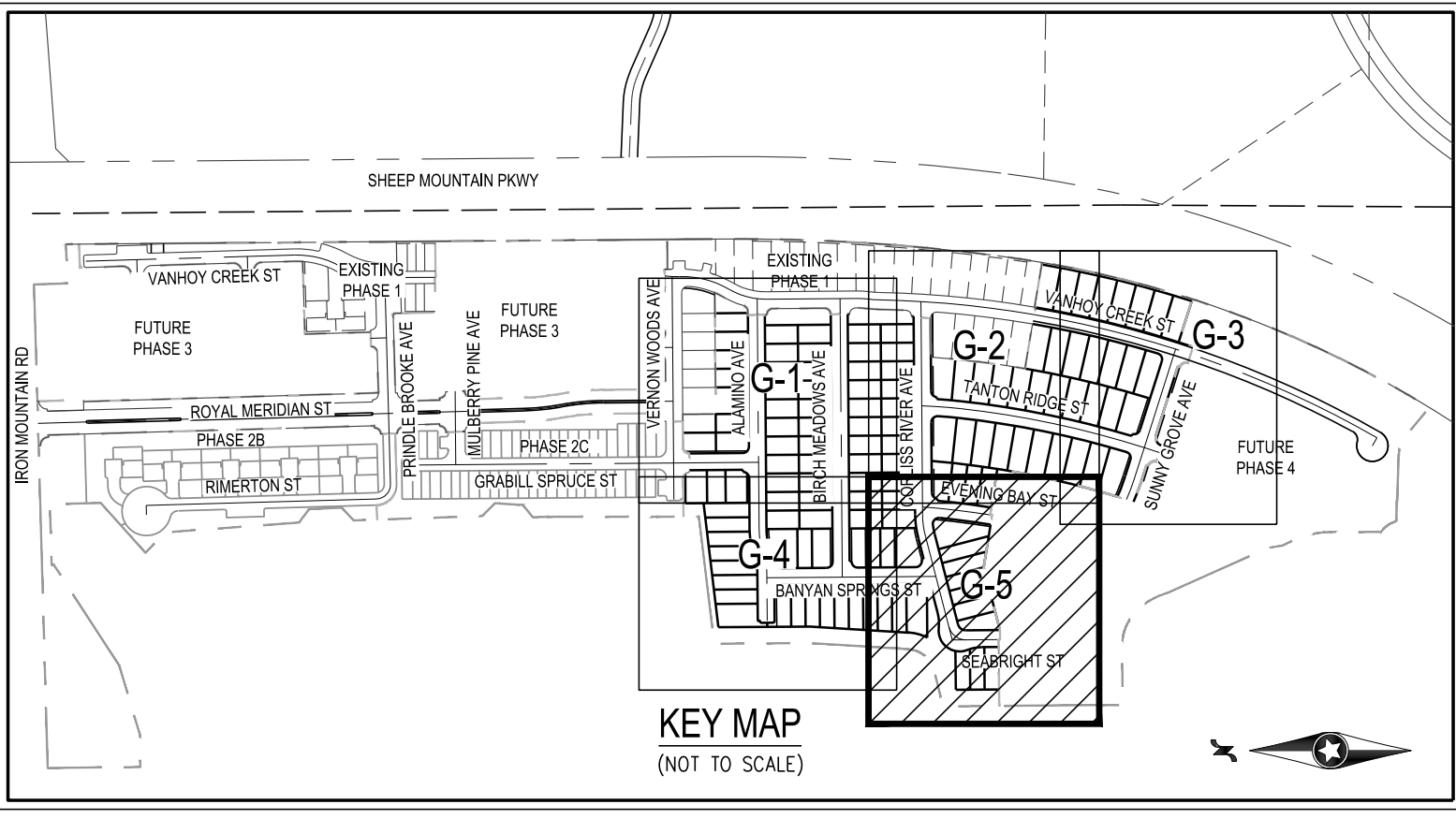
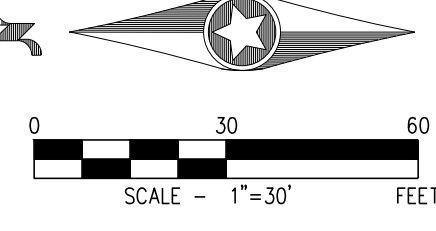
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-PHASE 2A UPDATED FOR SHIFTED LOT LAYOUT WITHIN CLOUDED AREA.
-LOTS RENUMBERED FROM LOT243 & ONWARD.
-REVISED STREET ALIGNMENT & MINOR GRADING CHANGES FOR TC & STREETS.

LOTS 366 THRU 363 NO LONGER FACING BANYAN SPRINGS ST. LOTS RENUMBERED IN THIS UPDATE.

2 LOTS UPDATED TO FACE CORLISS RIVER AVE



DISCLAIMER NOTE

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

2) FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWJIT LINE TO PROPOSED EDGE OF PAVEMENT OR PROPOSED LINE OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

GRADING NOTES

1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.

2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SMPP.

3. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.

4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.

5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.

6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.

7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLACING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.

8. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES
(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

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 TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS 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 IN 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 NVR100000, SECTION III.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 LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER A 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 DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.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.

FLOOD ZONE

THE PROJECT SITE IS NOTE LOCATED WITHIN A FEMA DESIGNATED ZONE 'X' (UNSHADED), PER THE FEMA FIRM PANELS 32003C1750E DATED SEPTEMBER 27, 2002. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE OF FLOOD PLAN.

DRAINAGE QUANTITIES		PRIVATE
1. RIPRAP D50=6", THK=12"	SF	1,166
2. 8" WIDE CONCRETE VALLEY GUTTER W/10' TYPE I AGGREGATE BASE	SF	3,818

CONSTRUCTION NOTES

1) FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER AND/OR SIDEWALK

2) CONSTRUCT AC PAVEMENT PER STREET SECTIONS, SHEET D-1

3) CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235 CASE I, AND 235.1

4) CONSTRUCT 8" WIDE CROSS GUTTER PER CCAUSD NO. 228

5) CONSTRUCT 30" MODIFIED ROLL CURB AND GUTTER PER CCAUSD NO. 217.1

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7) INSTALL RIP RAP W/6" TYPE II GRANULAR BEDDING WITH FILTER FABRIC D50=6", T=12" PER DETAIL 33, SHEET D-2

8) CONSTRUCT DEPRESSED CURB PER DETAIL 32, SHEET D-2

(R) REMOVE EXISTING RIP RAP

(E) EXISTING RIP RAP TO REMAIN

***DRAINAGE EASEMENT NOTE**

ALL DRAINAGE EASEMENTS AND COMMON LOTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.

PRIVATE STREET NOTE

ALL PRIVATE STREETS ARE PUBLIC UTILITY EASEMENTS, PUBLIC SEWER EASEMENTS, AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY DS 05649 ON FILE AT CITY OF LAS VEGAS FOR THE SUBJECT PROJECT.

EMILY HOY, P.E. 24680 DATE

BENCHMARK

BENCHMARK NUMBER: USDA1934

U.S. DEPARTMENT OF AGRICULTURE BRASS DISC AT THE SOUTHWEST CORNER OF U.S. 95 AND KYLE CANYON ROAD.

ELEVATION = 2817.61 FEET, 858.81 METERS

N.A.S.D. 88 DATUM

PER THE CITY OF LAS VEGAS VERTICAL CONTROL WEBSITE

BASIS OF BEARINGS

SOUTH 00°33'09" EAST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 12, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 160, PAGE 72 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.

SOILS REPORT

SOILS REPORT BY GEOTEK RESIDENTIAL, LLC

PROJECT NO. 12203.5.06-LVR DATED 11/4/22

EARTHWORKS

EARTHWORK QUANTITIES (RAW):

CUT= 50,459 CU YDS

FILL= 33,681 CU YDS

EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.

CHAIN LINK FENCE NOTE

THE EXISTING CHAIN LINK FENCE ALONG THE PROJECT BOUNDARY IS TO BE PRIVATELY MAINTAINED BY HOA.

SURVEY NOTE

OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBSCURED DURING CONSTRUCTION.



Westwood
Phone (702) 284-5300
5725 W. Badura Ave.
Suite 100
Las Vegas, NV 89118
westwoodps.com
Westwood Professional Services, Inc.

CITY OF LAS VEGAS, NV

CENTURY COMMUNITIES

SKYE CANYON PARCEL 5.06 PHASE 2A
GRADING PLAN V

DATE: 3/27/23

DRAFTER: AMM

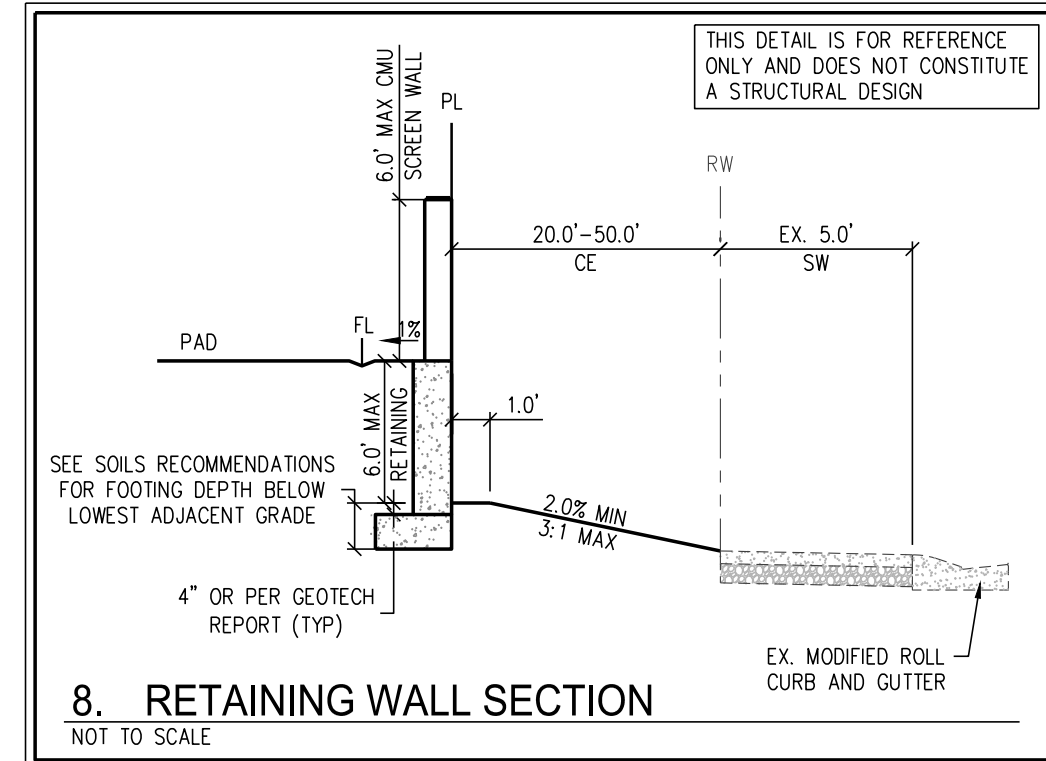
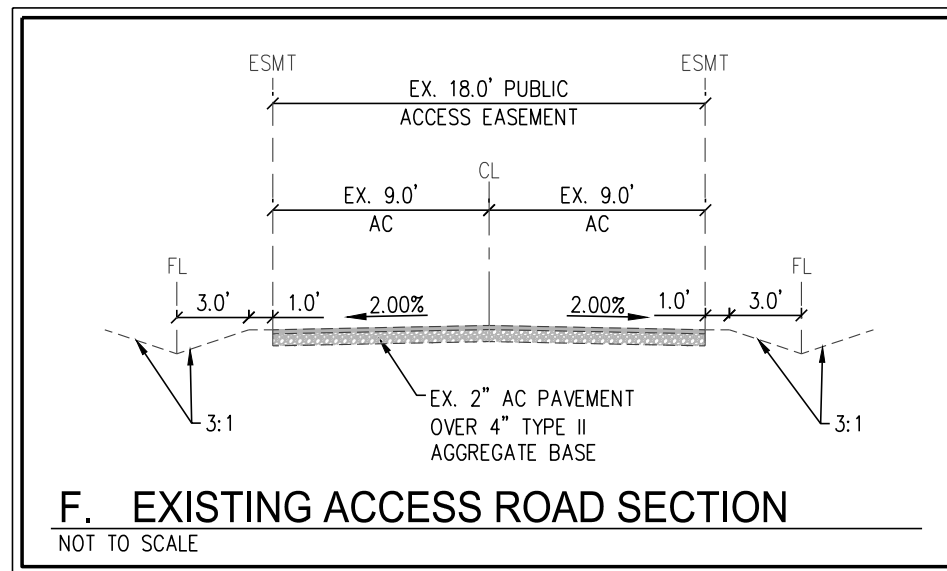
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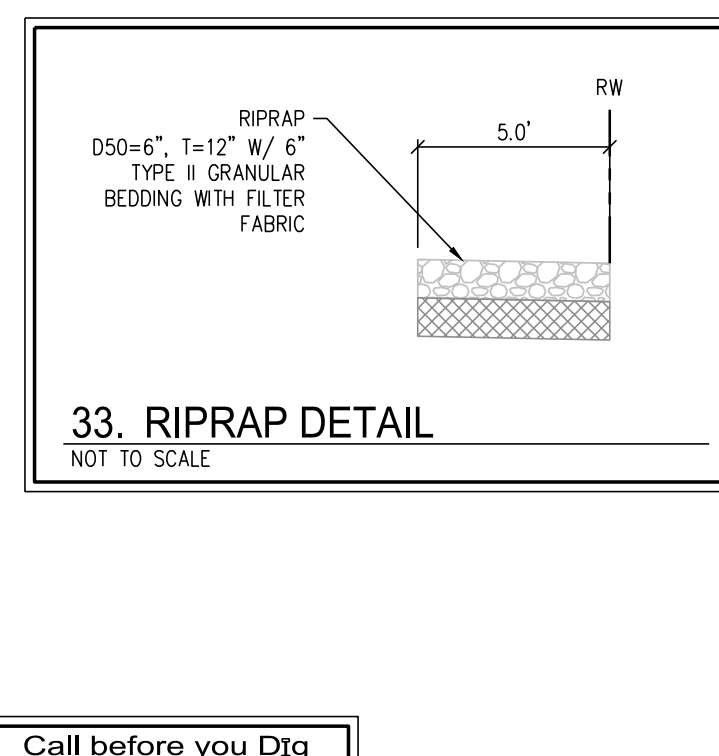
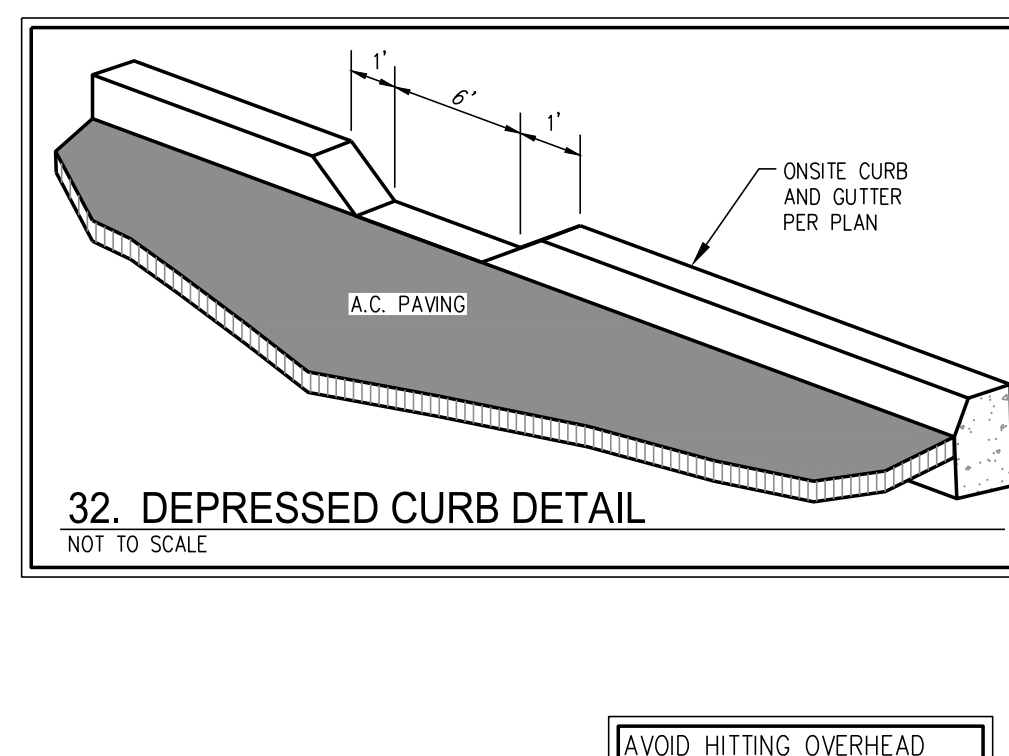
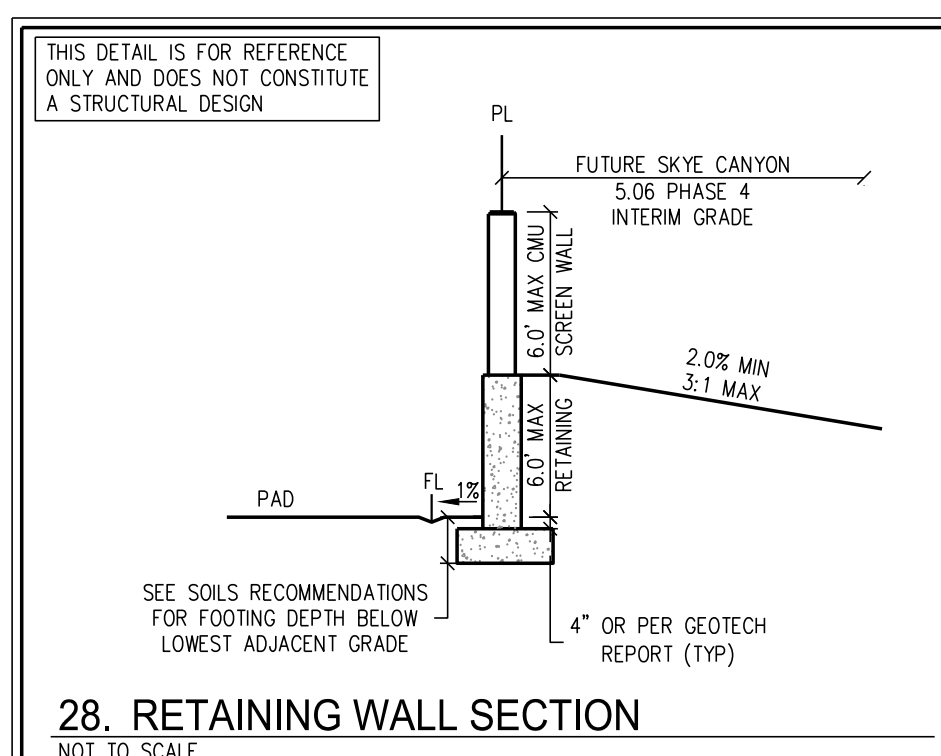
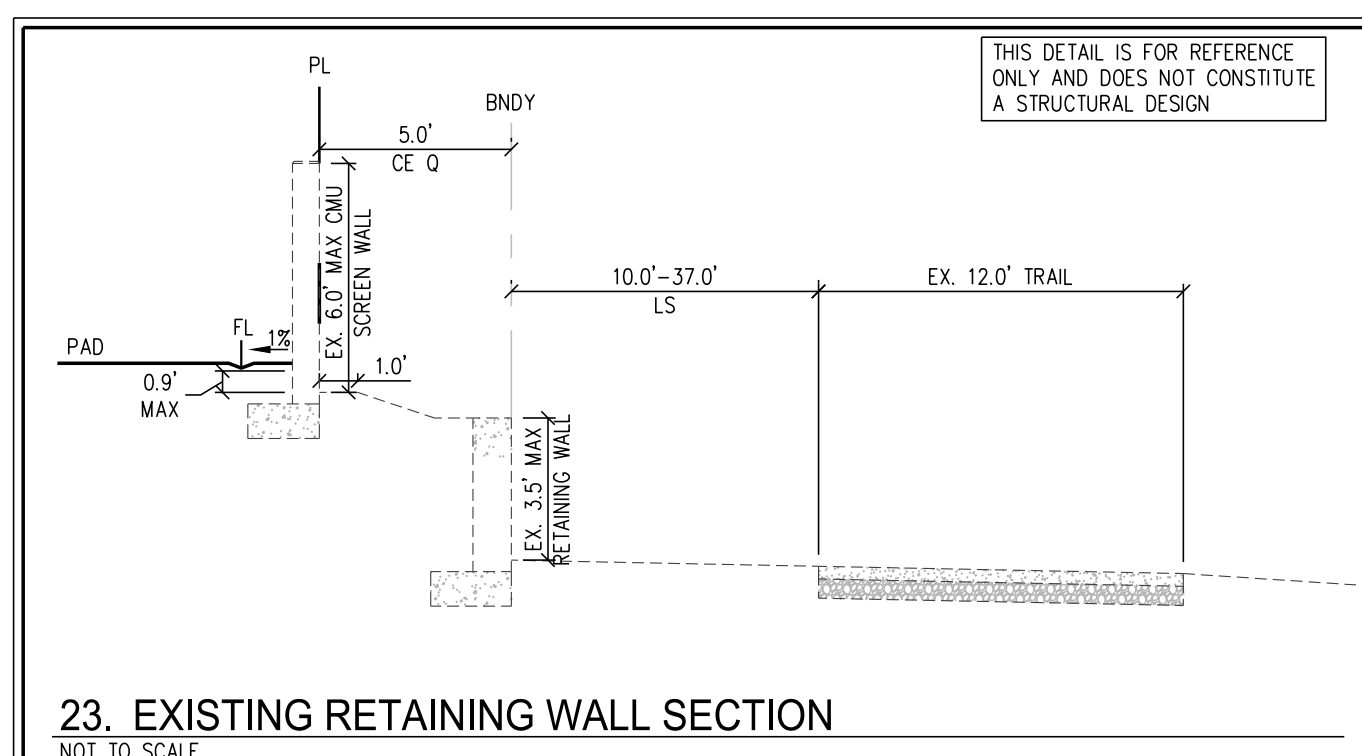
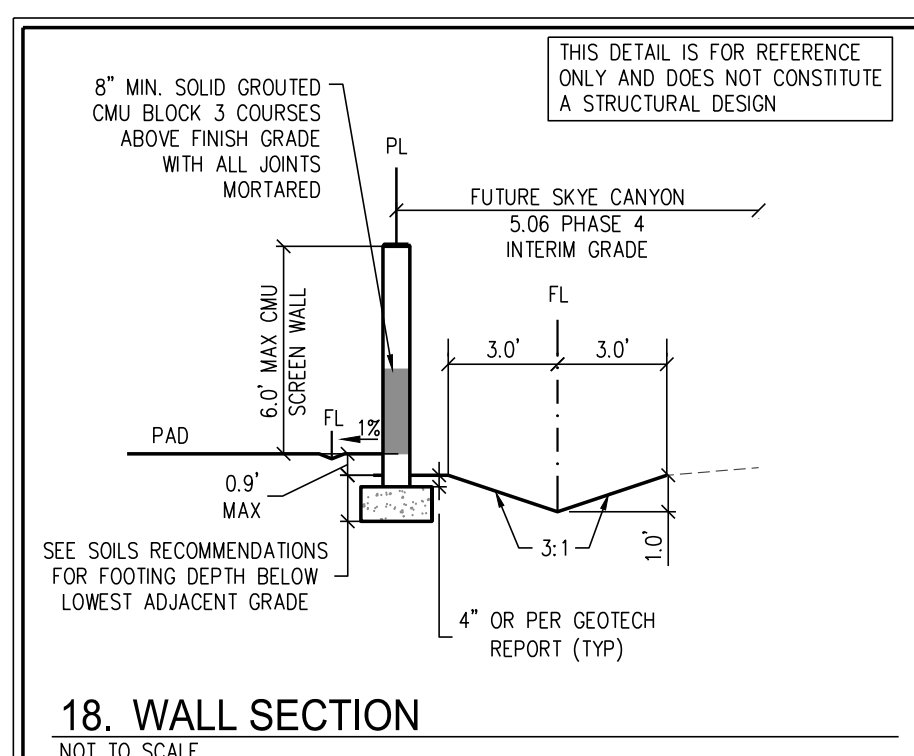
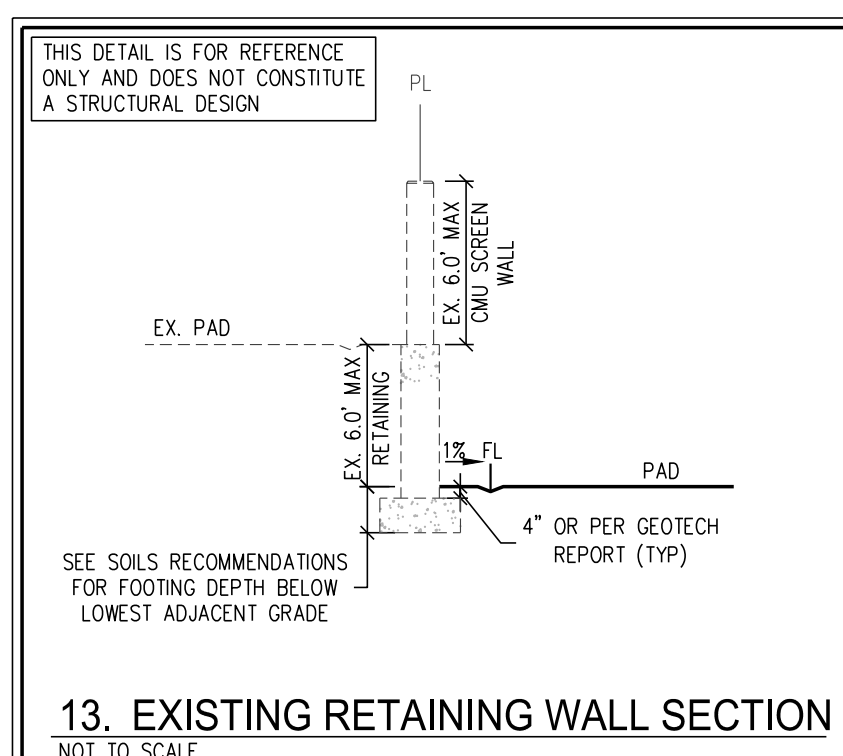
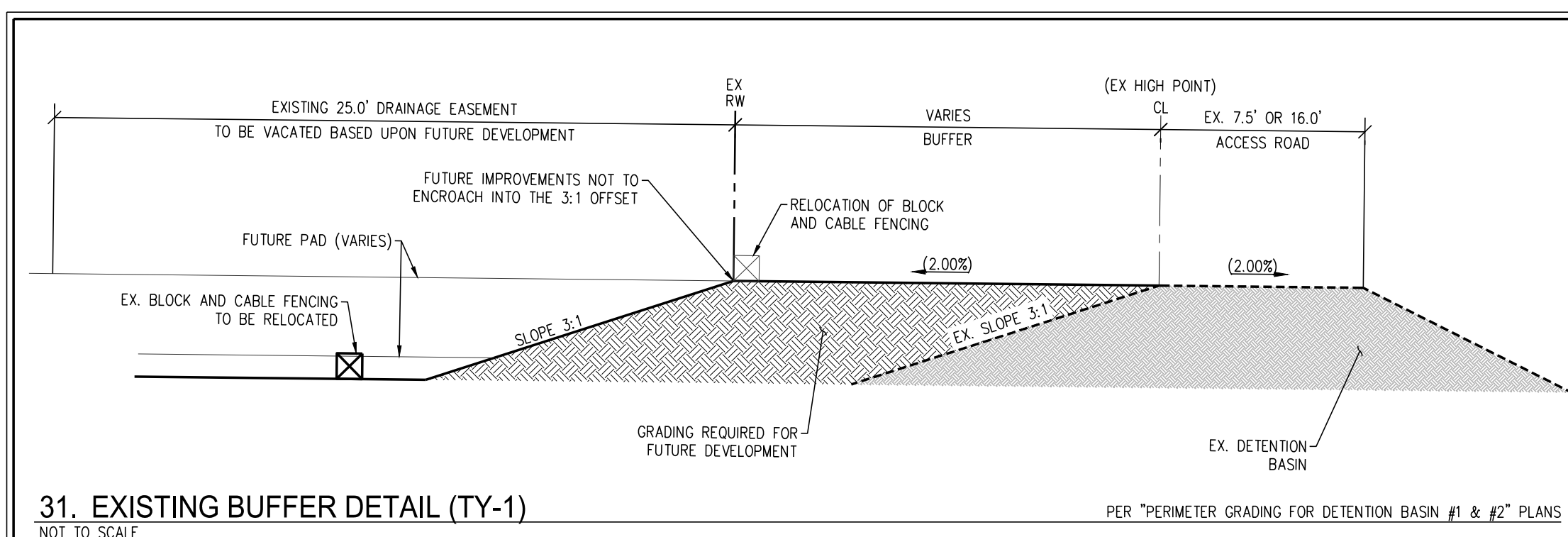
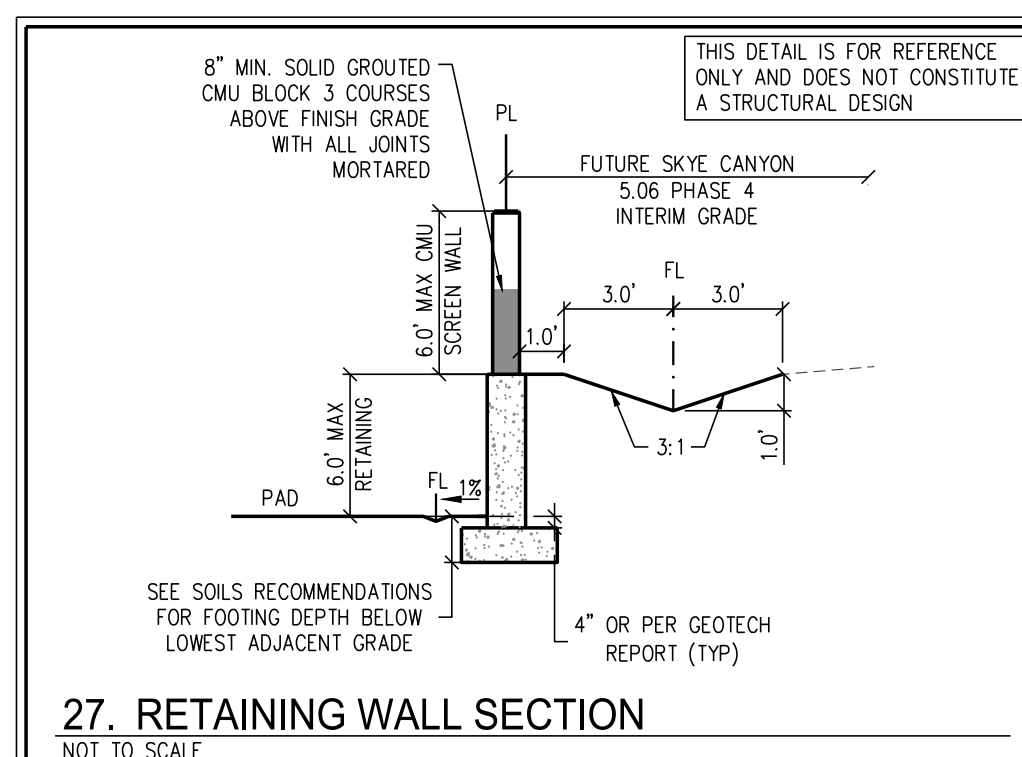
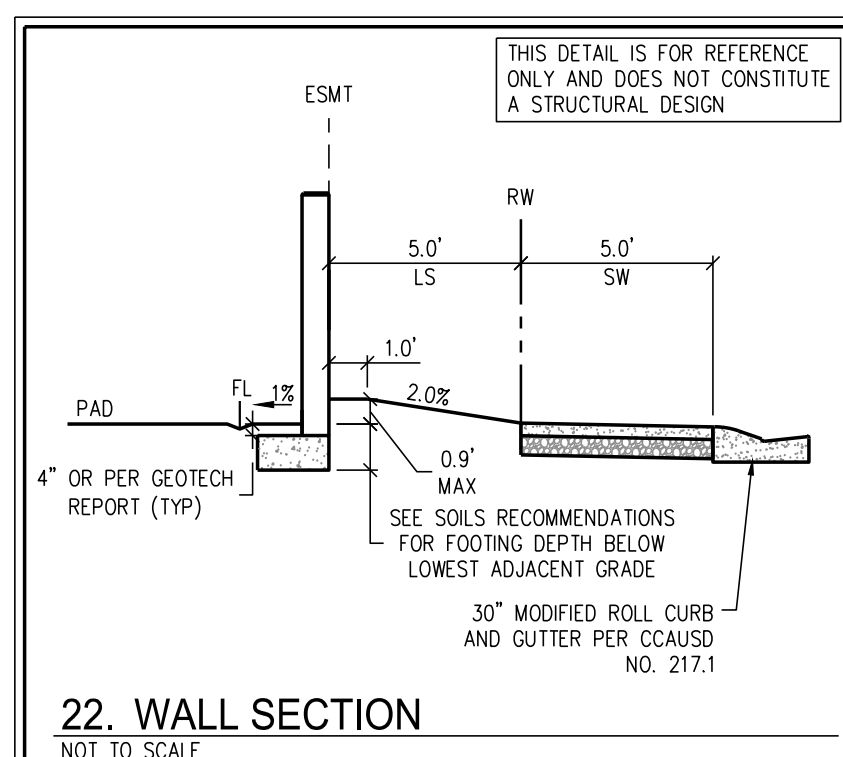
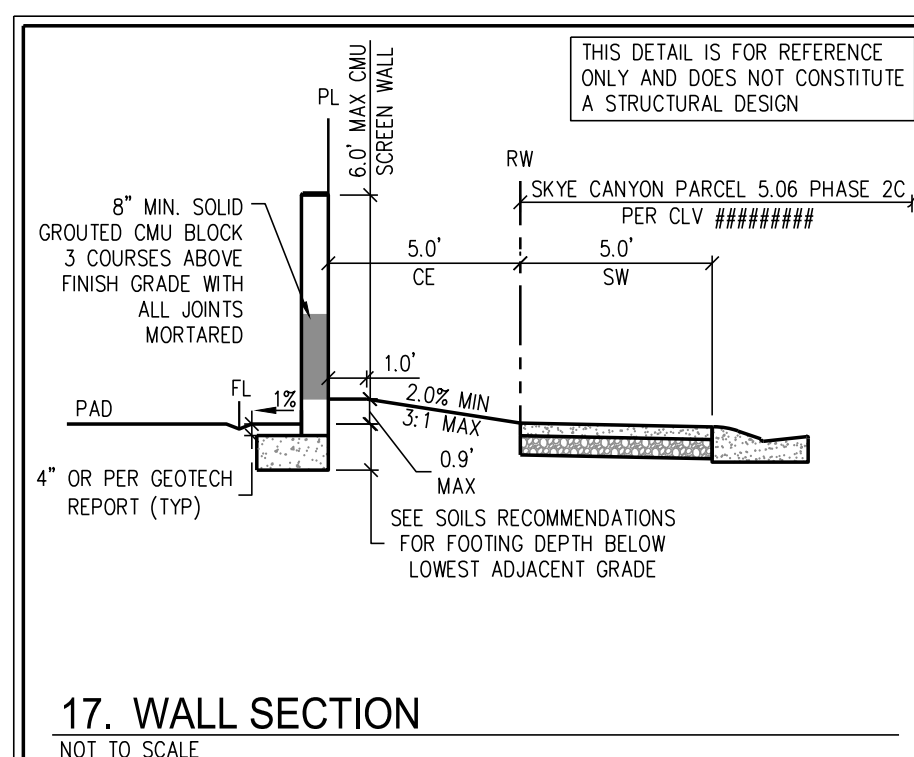
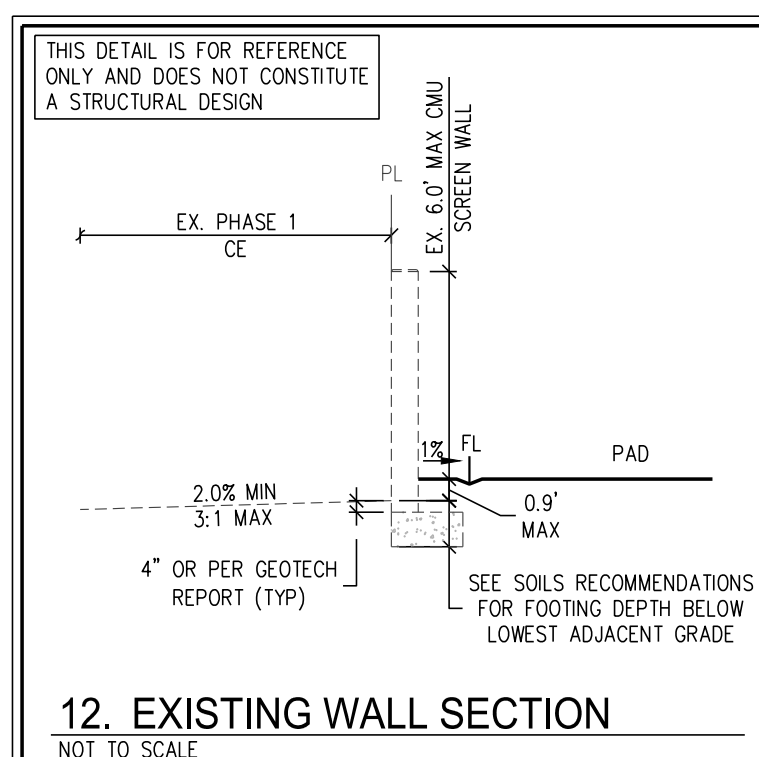
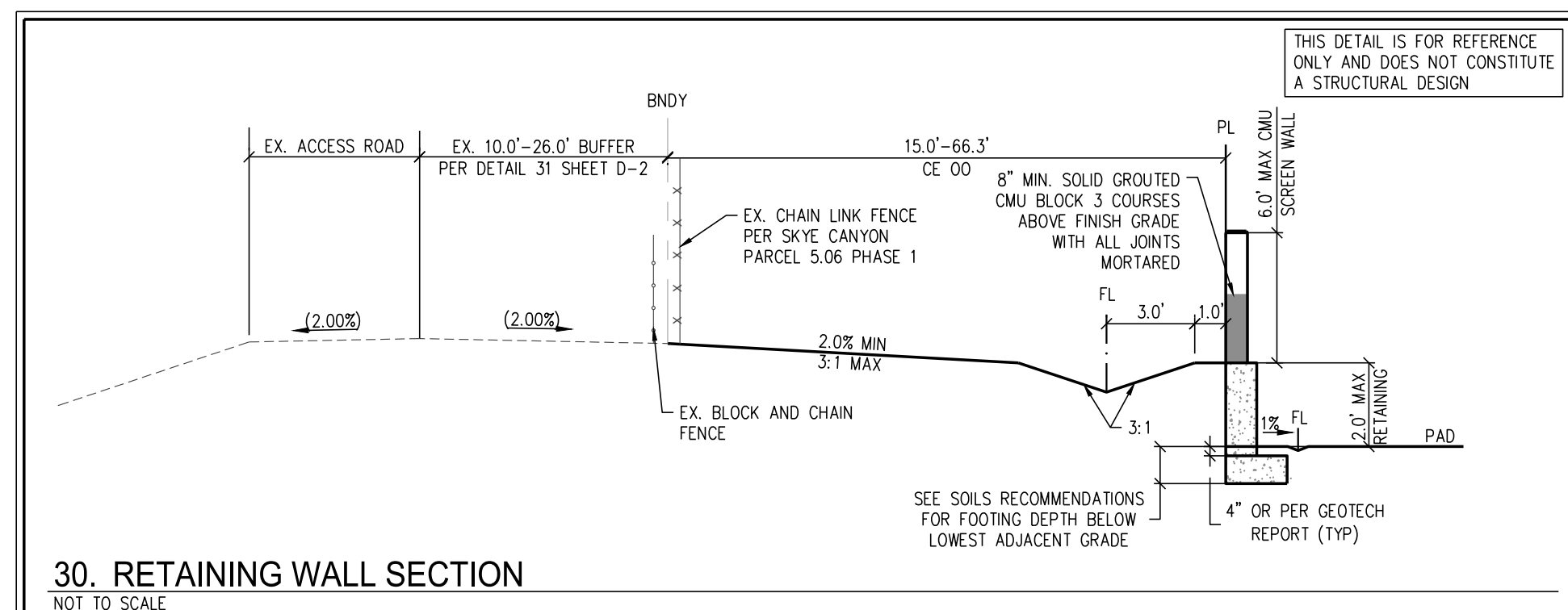
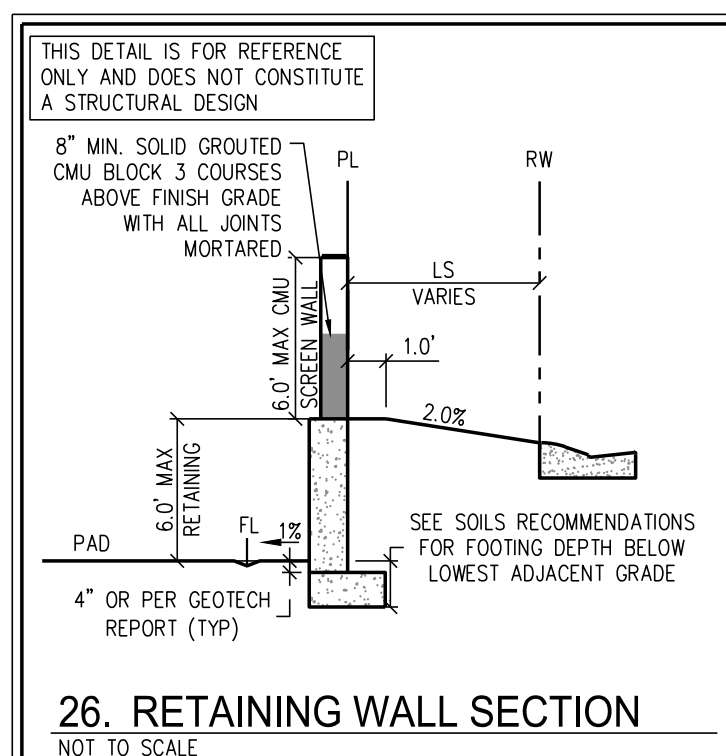
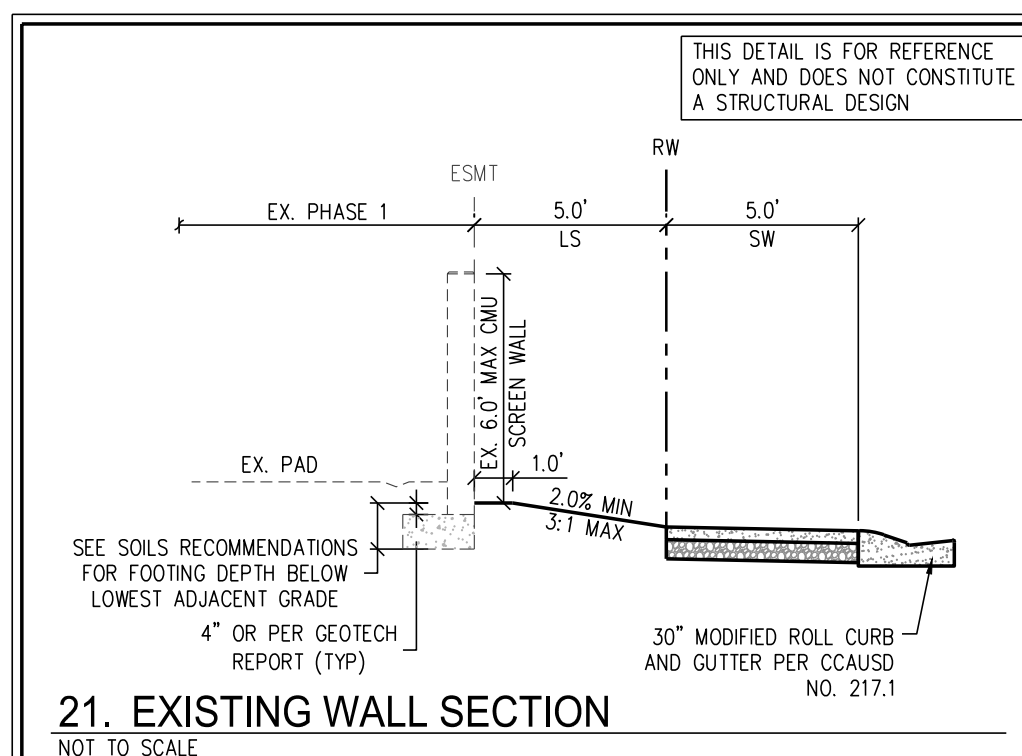
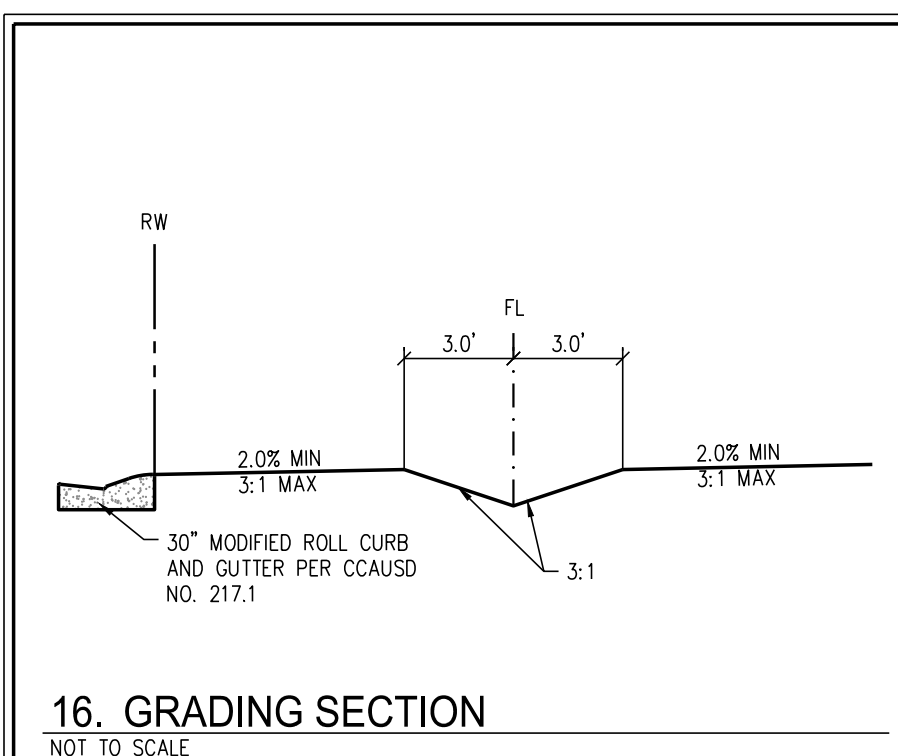
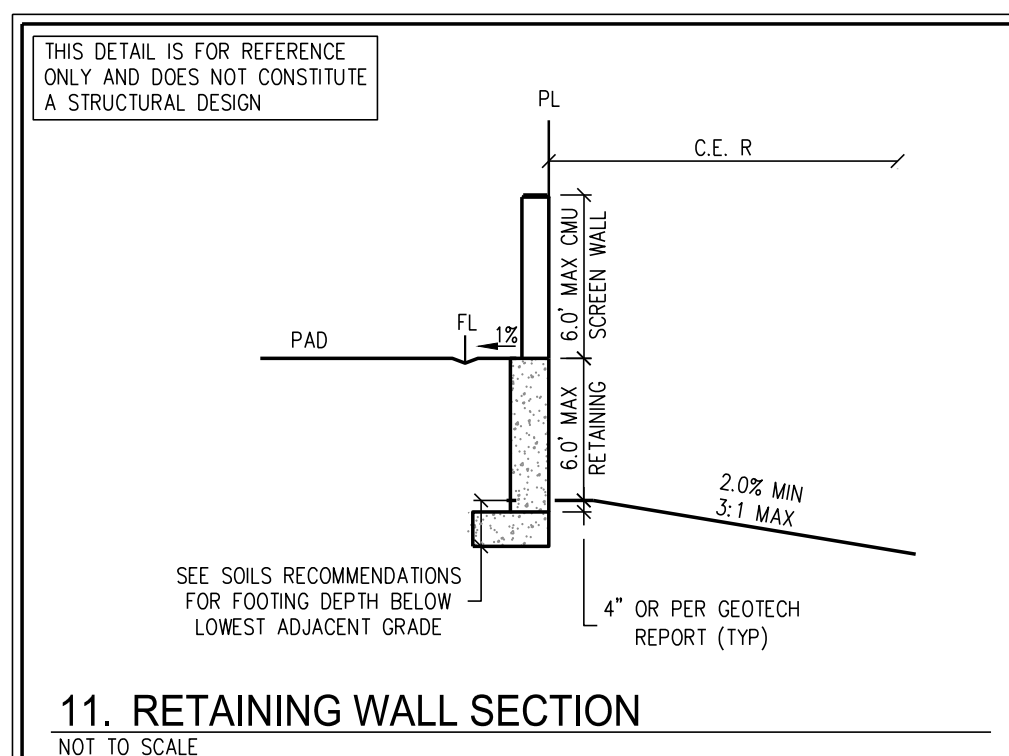
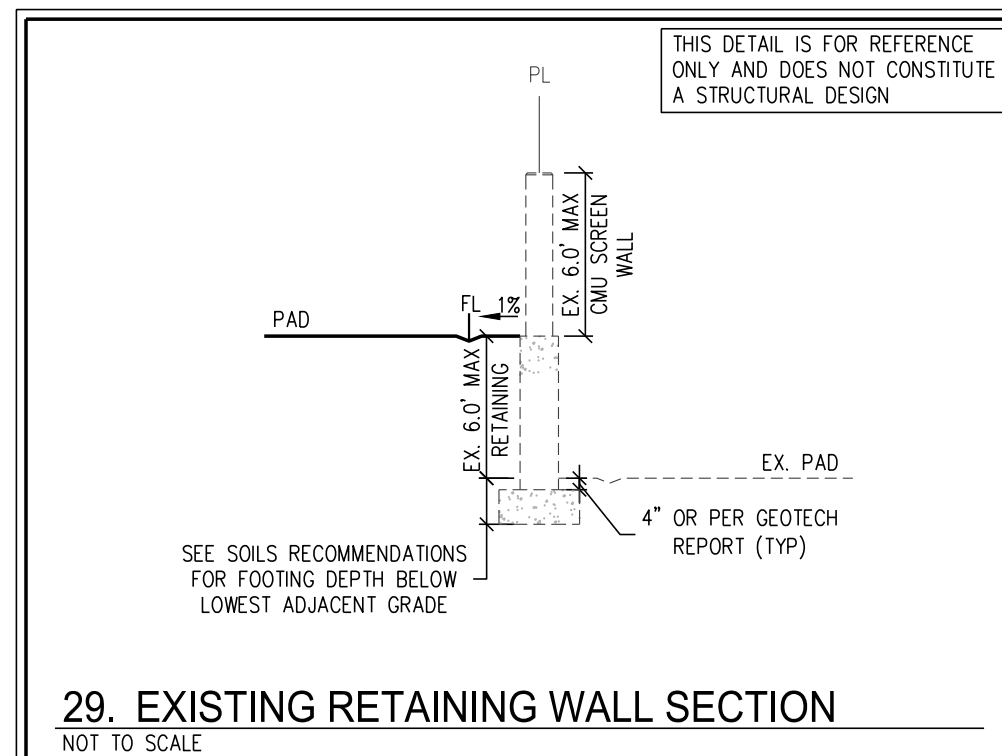
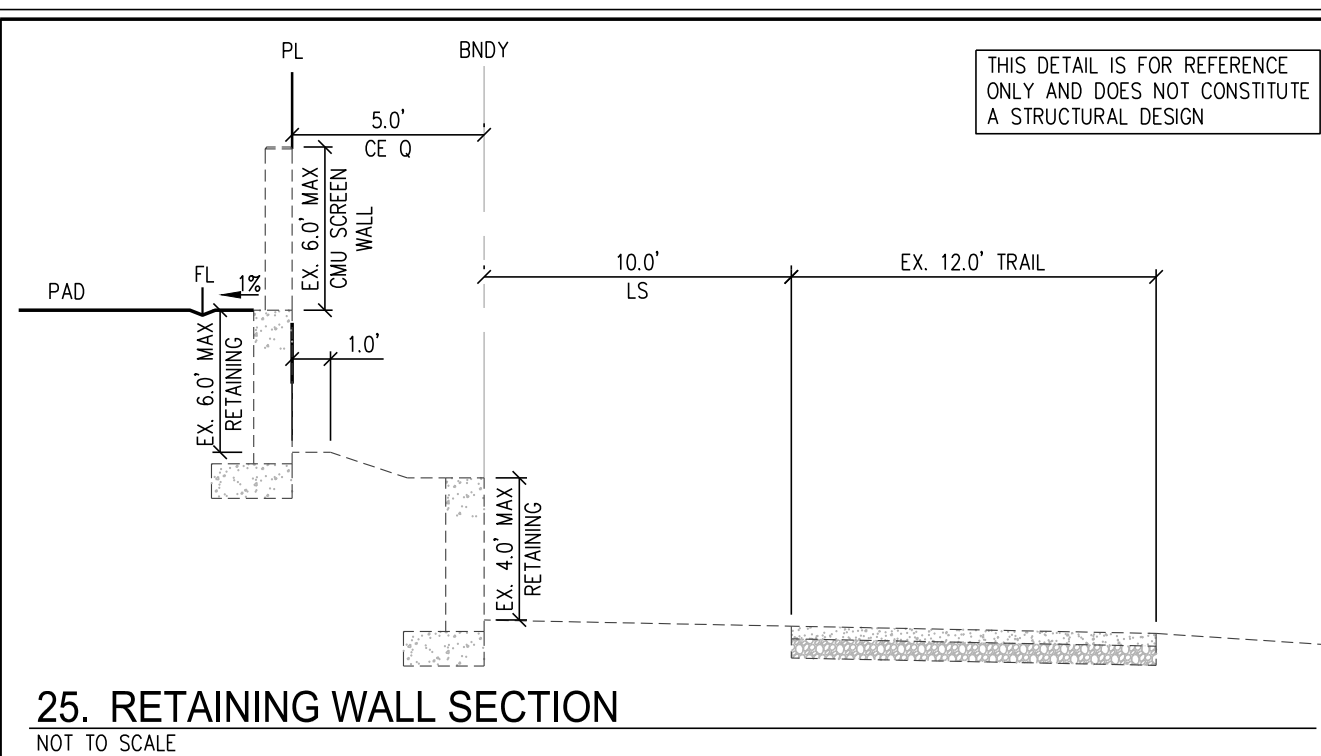
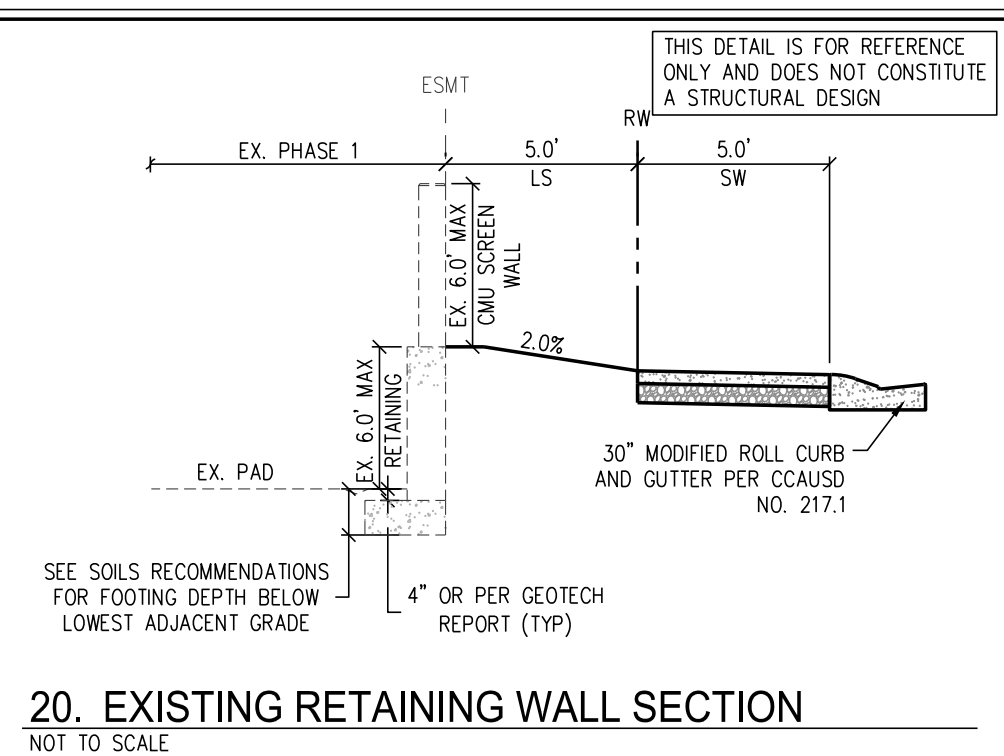
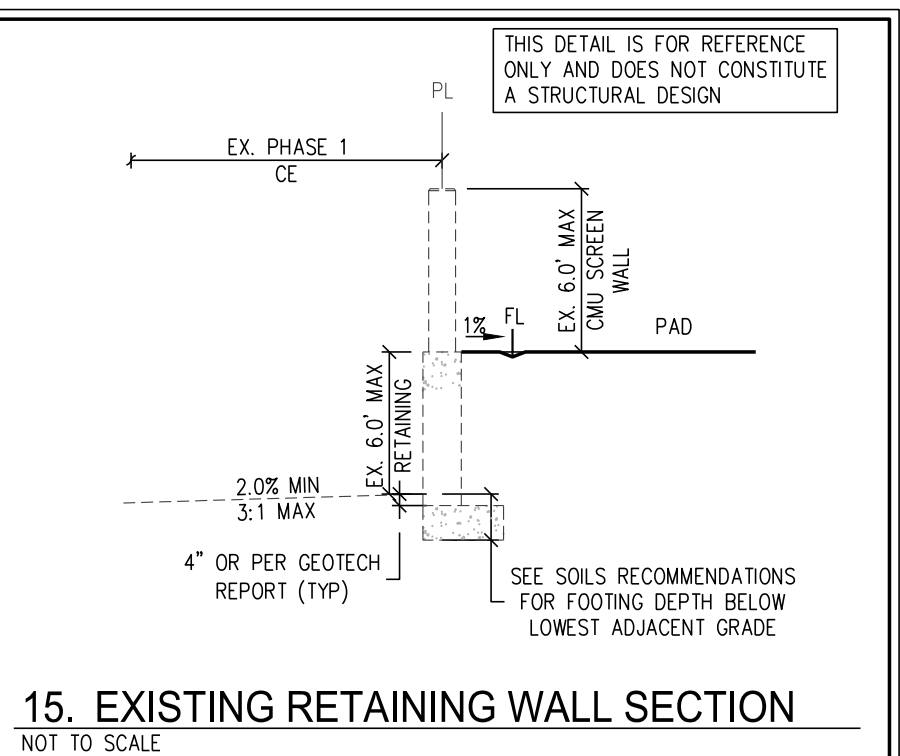
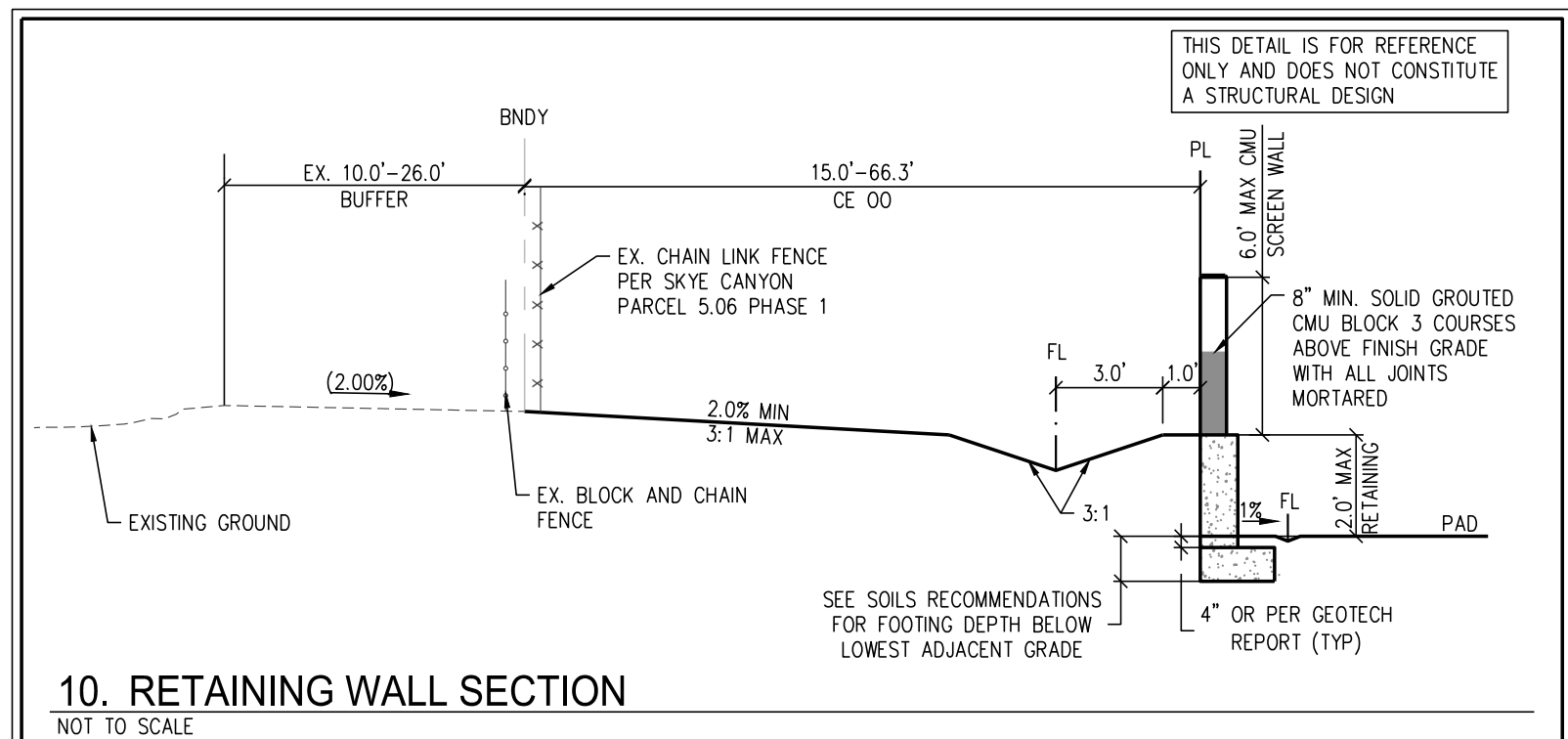
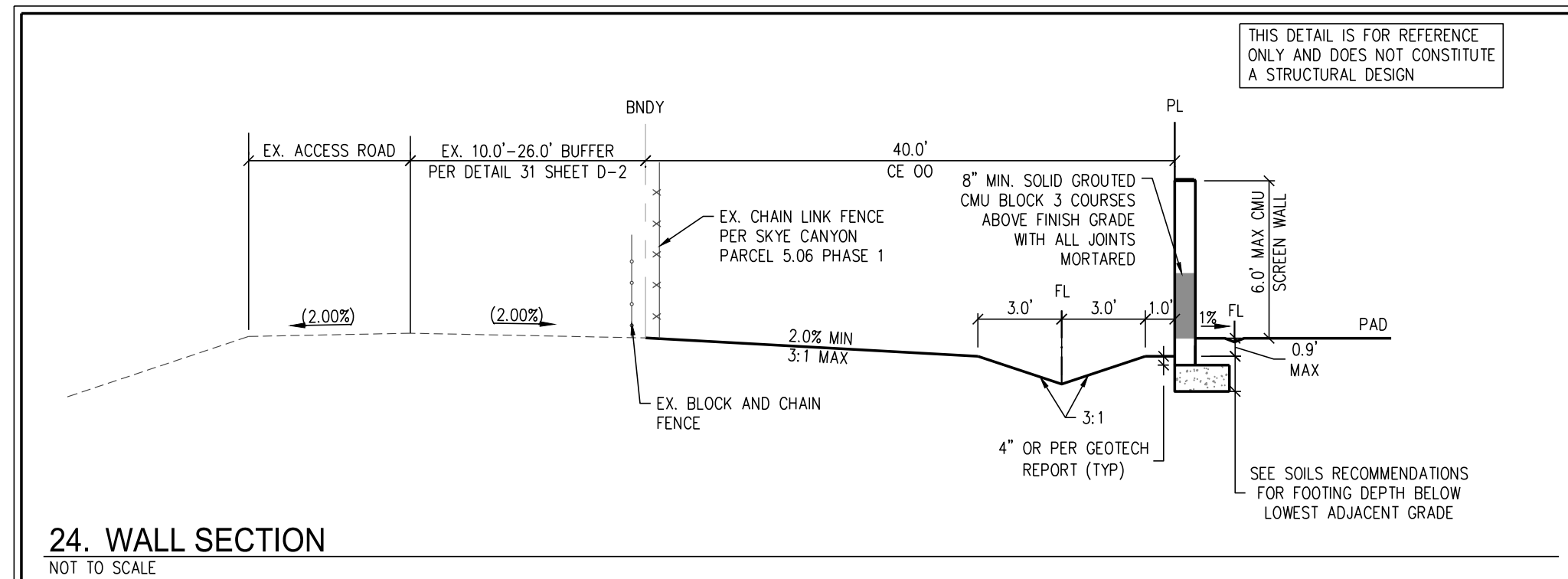
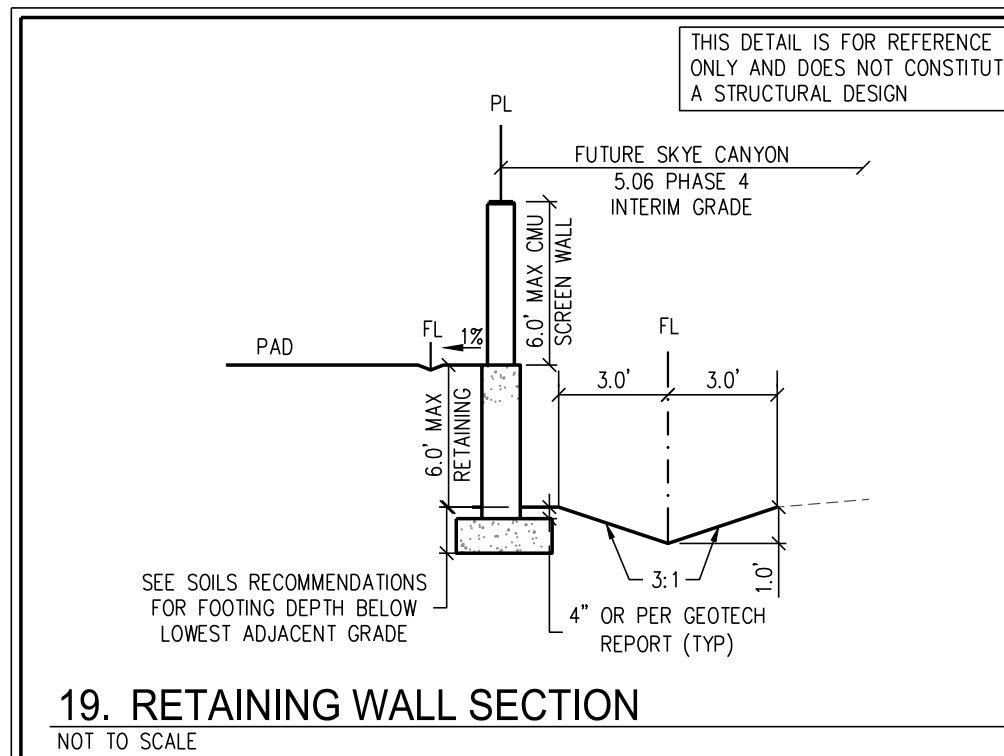
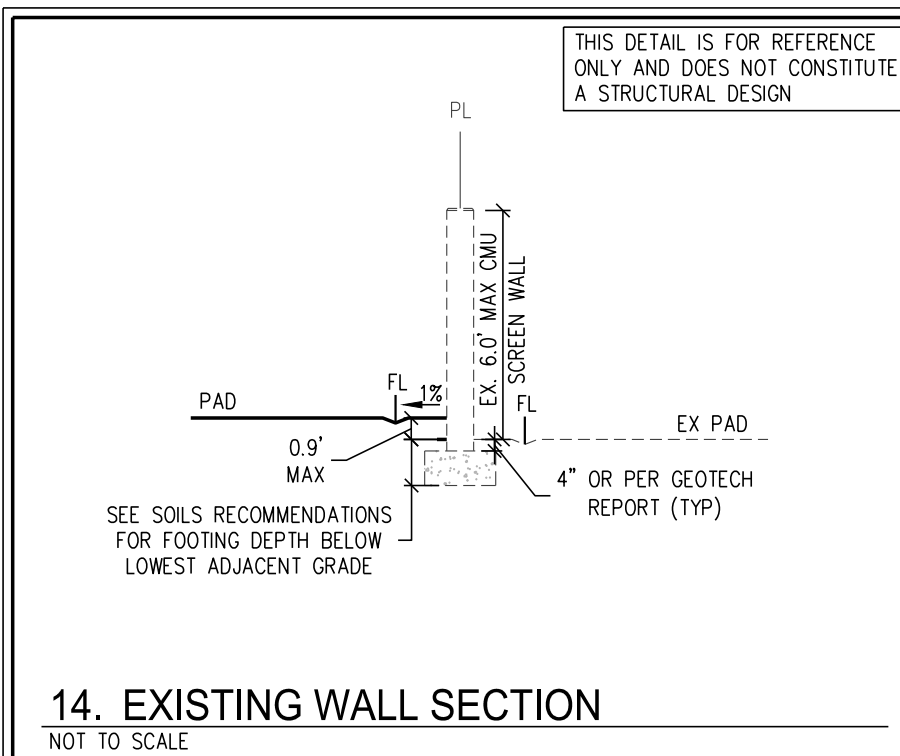
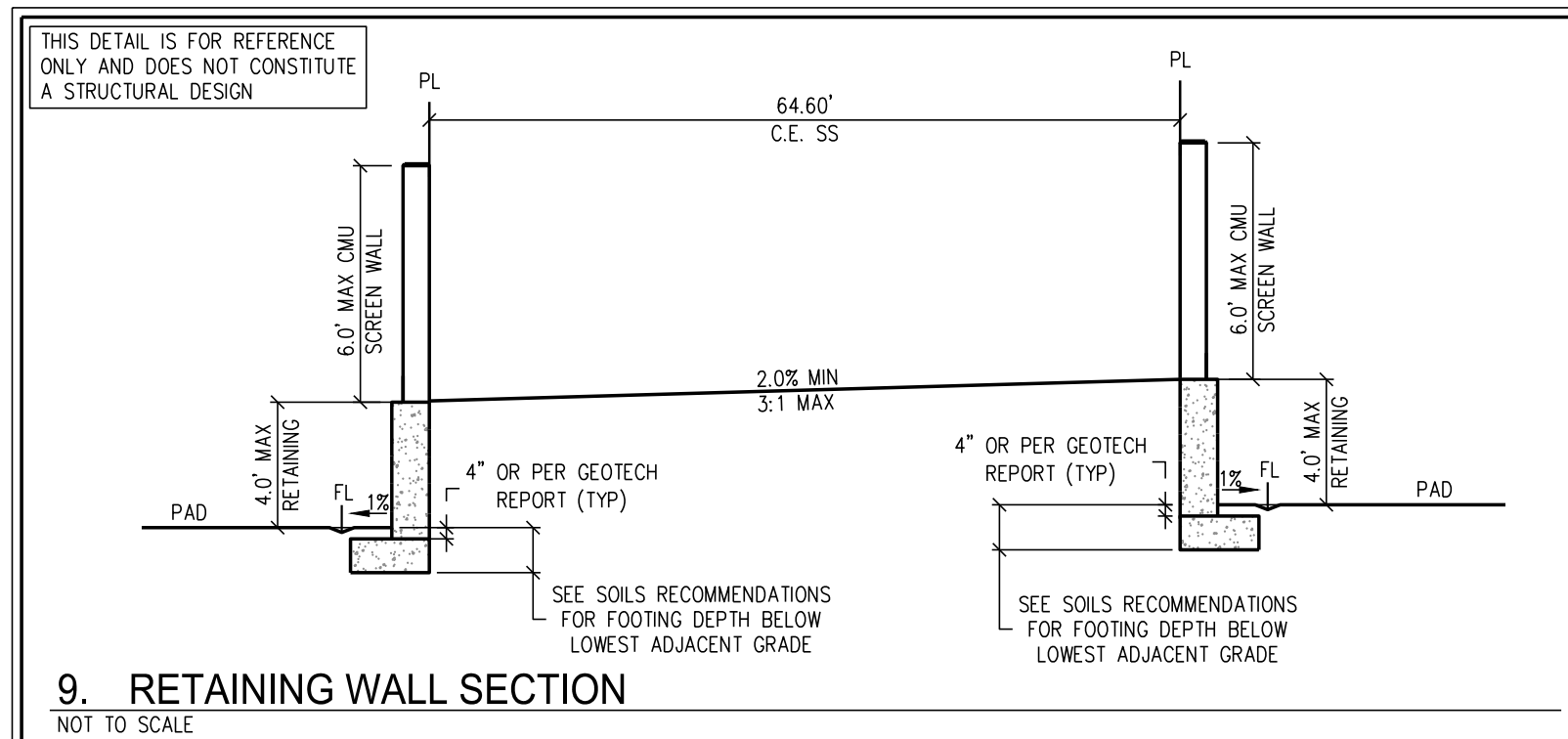
CHECKED: EMH

PROJECT NO.
CEN2104

EMILY M. HOY
Exp. 06/30/2023
CIVIL
3/29/2023

G-5
SHEET 8 OF 36

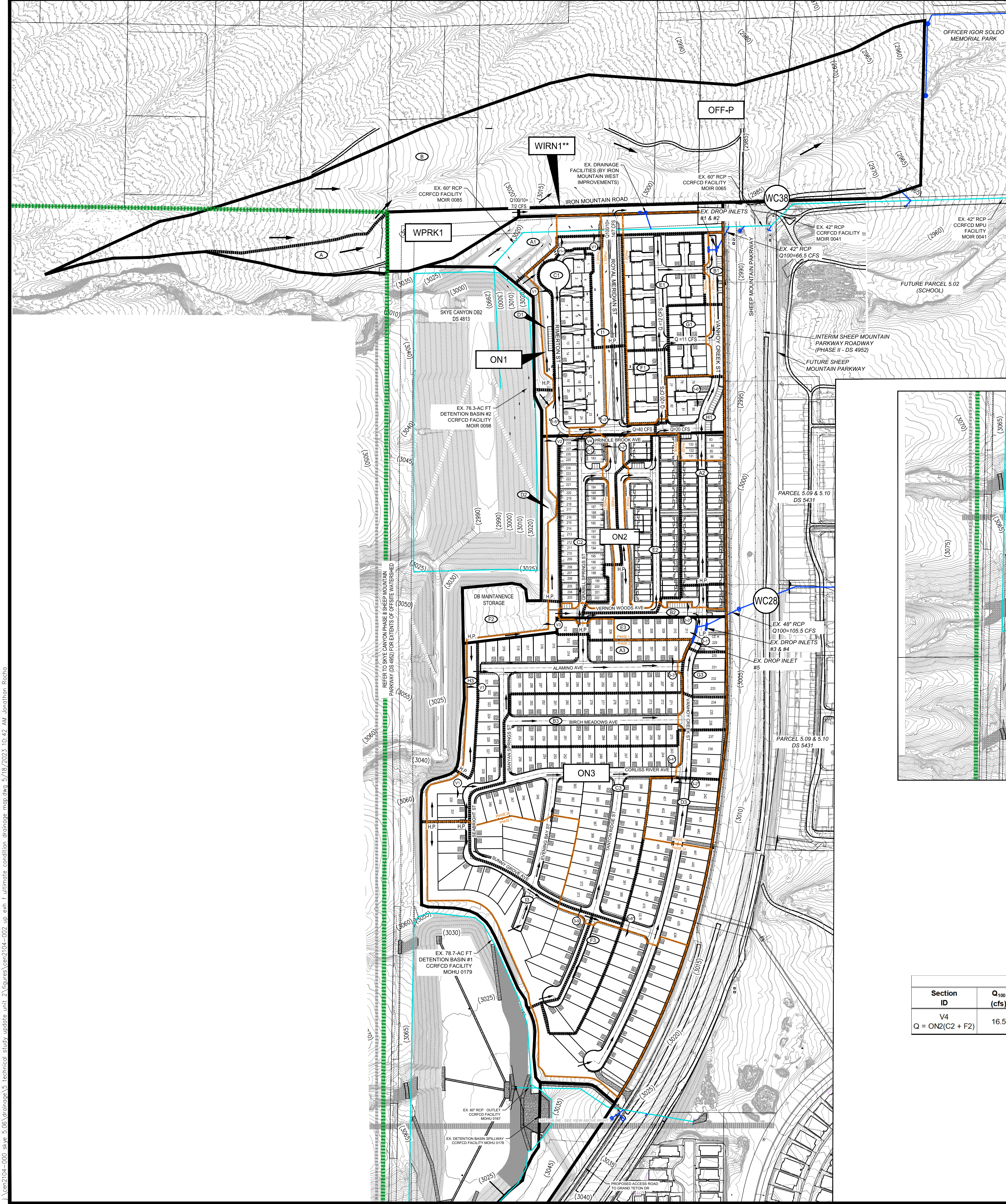




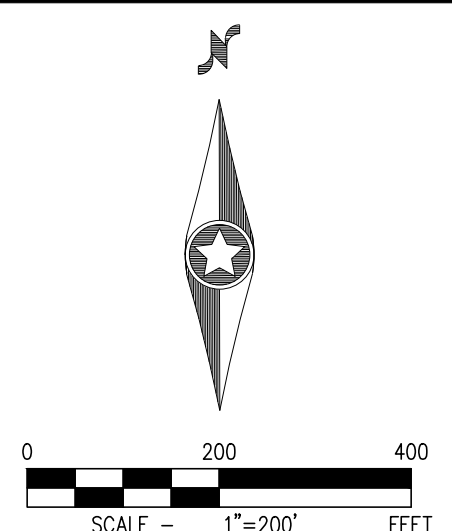
APPENDIX B

Drainage Exhibits

I:\Cen2104-000\skye 5.06\drainage\13 technical study update\13 figures\cen2104-000 up app 1 ultimate condition drainage map.dwg 5/18/2023 10:42 AM Jonathan Rocha



NOTES:
* REFERENCED FROM SKYE CANYON PARCEL 5.06 UNIT 1 & MASS GRADE (DS 5623)
**REFERENCED FROM SKYE CANYON MDS UPDATE #7 (DS 4220)
*** REFERENCED FROM SHEEP MOUNTAIN PARKWAY STUDY (DS 4952)
-OFF-P(A) IS COMPUTED FROM UNIT FLOWRATE OF BASIN OFF-P REFERENCED FROM SOLDI PARK STUDY. SEE REFERENCE MATERIAL FOR FULL EXTENTS OF BASIN OFF-P.



LEGEND

- BASIN BOUNDARY
- PRORATED SUBBASIN BOUNDARY
- PHASE BOUNDARY
- ULTIMATE DEVELOPMENT BOUNDARY
- EXISTING RFCD DRAINAGE FACILITY
- EXISTING LOCAL DRAINAGE FACILITY

ID BASIN ID
ID PRORATED SUBBASIN ID
ID CONCENTRATION POINT ID
ID FLOW DIRECTION
ID FLOWMASTER SECTION

Ultimate Condition Flow Rate Summary				
Basin/Concentration Point ID	Area (ac)	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	Q ₁ (cfs)
ON1*	14.8	44	21	21
ON2*	11.9	39	19	19
ON3*	35.1	103	50	26
OF4*	4.3	13	6	6
WPRK1*	1.8	4	1	1
WRN1*	0.6	2	1	1
OFF-P*	28.8	67	26	26
WC28	N/A	130	63	
Q = REF*				
WC38	N/A	134	85	
Q = REF*				

Subbasin Prorated Flow Rate Summary					
Basin ID	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	Area (acres)	100-yr Unit Flow (cfs/acre)	10-yr Unit Flow (cfs/acre)
ON1	44	21	14.8	3.0	1.4
ON2	39	19	11.9	3.3	1.6
ON3	103	50	35.1	2.9	1.4
OFF-P	67	26	28.8	2.3	0.9
Subbasin ID					
ON1(A1)	7.5	4	2.5	3.0	1.4
ON1(B1)	1.5	0.5	0.5	3.0	1.4
ON1(C1)	11	5	3.8	3.0	1.4
ON1(D1)	3	1.5	1.0	3.0	1.4
ON1(E1)	7	3	2.4	3.0	1.4
ON1(F1)	3	2	1.1	3.0	1.4
ON1(G1)	4	2	1.3	3.0	1.4
ON1(H1)	3.5	1.5	1.1	3.0	1.4
ON1(I1)	3.5	1.5	1.1	3.0	1.4
TOTAL	44	21	14.8		
ON2(A2)	7.5	3.5	2.3	3.3	1.6
ON2(B2)	2.5	1	0.7	3.3	1.6
ON2(C2)	11.5	5.5	3.5	3.3	1.6
ON2(D2)	3	2.0	1.0	3.3	1.6
ON2(E2)	9.5	4.5	2.9	3.3	1.6
ON2(F2)	5.0	2.5	1.5	3.3	1.6
TOTAL	39	19	11.9		
ON3(A3)	17	8	5.7	2.9	1.4
ON3(B3)	10.5	5	3.6	2.9	1.4
ON3(C3)	25.5	12.5	8.7	2.9	1.4
ON3(D3)	23.5	11.5	8.0	2.9	1.4
ON3(E3)	4	2	1.3	2.9	1.4
ON3(F3)	5	2.5	1.9	2.9	1.4
ON3(G3)	2	1	0.7	2.9	1.4
ON3(H3)	2	1	0.6	2.9	1.4
ON3(I3)	14	6.5	4.6	2.9	1.4
TOTAL	103	50	35.1		
OFF-P(A)	3	1	1.5	2.3	0.9
OFF-P(B)	64	25	27.4	2.3	0.9
TOTAL	67	26	28.8		

Ultimate Condition 100-Year Street Flow Summary					
Section ID	Q ₁₀₀ (cfs)	Slope (%)	Depth (ft)	Velocity (fps)	DxV
1-3" (Half Street) Q = ON1(C1)	11	1.15	0.51	3.18	1.6
1-5" Q = ON1(C1)	11	0.60	0.44	2.18	1.0
1-6" Q = 1 CFS	1	0.60	0.24	1.24	0.3
2-1" Q = ON2(C2)	16	1.56	0.22	1.88	0.4
2-2" (Half Street) Q = ON2(C2)	16.5	0.60	0.49	2.52	1.2
2-3" Q = ON2(B2) + ON3(E3)	6.5	1.87	0.53	4.23	2.2
3-1" Q = ON2(C2)	16.5	2.43	0.51	4.65	2.4
3-1" Q = ON2(B2) + ON3(E3)	6.5	4.28	0.30	3.95	1.2
3-1" Q = D1#5 Bypass + ON2(B2) + ON3(E3)	76	0.61	0.61	6.28	3.8
3-2" Q = ON3(D3 + F3)	42.5	0.82	0.61	3.60	2.2
3-3 Q = ON3(A3 + H3)	18.5	1.74	0.56	4.52	2.5
3-4" Q = ON3(C3)	25.5	1.26	0.47	3.01	1.4
3-4" Q = ON3(F3 + I3)	19	3.81	0.41	4.68	1.9
3-9 Q = ON3(I3)	14.0	1.10	0.51	3.23	1.6
3-9 Q = ON3(I3)	14.0	3.40	0.45	4.77	2.1
3-9 Q = ON3(I3)	19	1.50	0.46	3.23	1.5
3-9 Q = ON3(I3)	14.0	2.53	0.43	3.99	1.7

Ultimate Condition Onsite Hydraulic Section Summary					
Section ID	Q ₁₀₀ (cfs)	Section Description	Slope (%)	Depth (ft)	Velocity (fps)
Section V1 Q = ON1(D1)	3	V-Ditch Swale, 3:1 SS, Earthen Lined	0.50	0.70	2.02
Section V1-1 Q = ON1(D1)	3	Trap channel, 6" BW, 3:1 SS, Earthen Lined	4.98	0.46	4.79
Section V2 Q = ON2(D2)	3	V-Ditch Swale, 3:1 SS, Earthen Lined	14.24	0.10	4.71
Section V3 Q = ON2(F2)	5	V-Ditch Swale, 3:1 SS, Earthen Lined	0.75	0.65	2.35
Section V4 Q = ON2(C2 + F2)	16.5	V-Ditch Swale, 3:1 SS, Earthen Lined	1.65	0.56	3.16
Section V5 Q = ON2(F2)	5	V-Ditch Swale, 3:1 SS, Earthen Lined	3.83	0.58	4.93

Ultimate Condition Onsite Hydraulic Summary					
Section ID	Q ₁₀₀ (cfs)	Description	Slope (%)	Type of Analysis	Depth (ft)
V4 Q = ON2(C2 + F2)	16.5	Concrete lined valley gutter, 2% SS, 40" Width w/ 5" Width Curb Depression	16.29	Normal Depth	0.19
				Weir	1.05
					9.50
					-

Recommended Flood Control Facility (Inlets & Laterals) Summary						
Facility ID	Facility Description	Source of Flows	Approaching Flow (cfs) Q ₁₀₀	Facility Flow (cfs) Q ₁₀₀	Surface/Bypass Flow (cfs) Q ₁₀₀	Notes
D1#1 & D1#2	Ex. (2) 20.0-ft CM2	ON1 + ON2 - ON1(A1+D1-1) - ON2(B2)	66.5	66.5	0	In Sump
D1#3 & D1#4	Ex. (2) 20.0-ft CM2	SDD1#5 Bypass + ON2(B2) + ON3(E3)	76	76	0	In Sump
D1#5	Ex. 20.0-ft CM2 & 36" RCP Lateral	ON3 - ON3(E3)	99	29.5	69.5	

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Westwood Professional Services, Inc.

CITY OF LAS VEGAS, NV

CENTURY COMMUNITIES OF NEVADA, LLC.

SKYE CANYON PARCEL 5.06 PHASE 2

ULTIMATE CONDITION DRAINAGE MAP

DATE: MAY 2023

DRAFTER: JSR

DESIGNER: JSR

CHECKED: SOA

PROJECT NO. CEN2104.000

EXHIBIT F

SHEET 1 OF 1

APPENDIX C

Street & Hydraulic Sections

Worksheet for 3-3 41' ROW Min%

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Channel Slope	1.26 %
Discharge	18.50 cfs

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	0.38
0+00.36	0.38
0+01.33	0.06
0+01.33	0.00
0+02.50	0.13
0+02.50	0.17
0+18.00	0.48
0+33.50	0.17
0+33.50	0.13
0+34.67	0.00
0+34.67	0.06
0+35.64	0.38
0+36.00	0.38
0+36.00	0.38
0+41.00	0.48

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 0.38)	(0+41.00, 0.48)	0.016

Options

Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	0.47 ft
Roughness Coefficient	0.016
Elevation	0.47 ft
Elevation Range	0.00 to 0.48 ft
Flow Area	6.2 ft ²
Wetted Perimeter	39.72 ft

Worksheet for 3-3 41' ROW Min%

Results

Hydraulic Radius	0.15 ft
Top Width	39.31 ft
Normal Depth	0.47 ft
Critical Depth	0.50 ft
Critical Slope	0.66 %
Velocity	3.01 ft/s
Velocity Head	0.14 ft
Specific Energy	0.61 ft
Froude Number	1.341
Flow Type	Supercritical

GVF Input Data

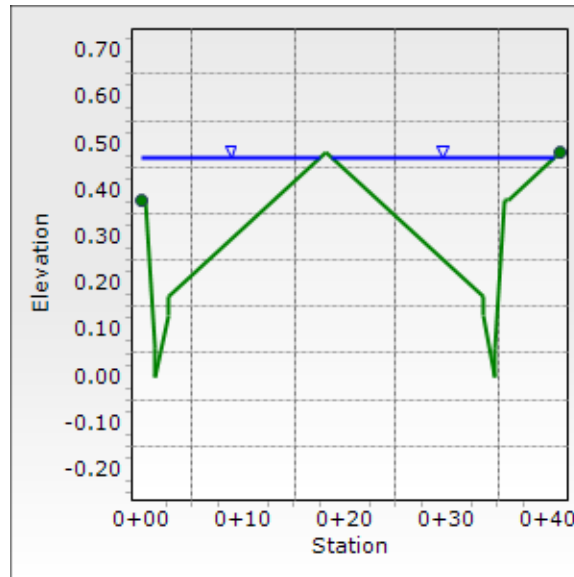
Downstream Depth	0.00 ft
Length	0.00 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.00 ft
Profile Description	N/A
Profile Headloss	0.00 ft
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	0.47 ft
Critical Depth	0.50 ft
Channel Slope	1.26 %
Critical Slope	0.66 %

Cross Section for 3-3 41' ROW Min%

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	1.26 %
Normal Depth	0.47 ft
Discharge	18.50 cfs



APPENDIX D

Finished Floor Analyses

Skye Canyon Parcel 5.06 Phase 2 TDS Update FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline F.F. _{min} ³ (ft)	T/C + 6" F.F. _{min} ⁴ (ft)	F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
243	3-4	3018.59	3018.21	0.51	3019.23	3019.09	3020.1	OK	OK	
244	3-4	3019.78	3019.40	0.51	3020.42	3020.28	3021.3	OK	OK	
245	3-4	3021.31	3020.93	0.51	3021.95	3021.81	3022.8	OK	OK	
246	3-4	3022.84	3022.46	0.51	3023.48	3023.34	3024.3	OK	OK	
247	3-4	3024.37	3023.99	0.51	3025.01	3024.87	3025.9	OK	OK	
248	3-4	3025.90	3025.52	0.51	3026.54	3026.40	3027.4	OK	OK	
249	3-4	3027.43	3027.05	0.51	3028.07	3027.93	3028.9	OK	OK	
250	3-4	3028.96	3028.58	0.51	3029.60	3029.46	3030.5	OK	OK	
251	3-4	3030.49	3030.11	0.51	3031.13	3030.99	3032.0	OK	OK	
252	3-4	3032.02	3031.64	0.51	3032.66	3032.52	3033.5	OK	OK	
253	3-4	3033.53	3033.15	0.51	3034.17	3034.03	3035.0	OK	OK	
254	3-4	3034.96	3034.58	0.51	3035.60	3035.46	3036.5	OK	OK	
255	3-4	3036.52	3036.14	0.51	3037.16	3037.02	3038.2	OK	OK	
256	3-4	3037.58	3037.20	0.51	3038.22	3038.08	3039.3	OK	OK	
257	3-3	3033.96	3033.58	0.47	3034.52	3034.46	3035.5	OK	OK	
258	3-3	3032.99	3032.61	0.47	3033.55	3033.49	3034.5	OK	OK	
259	3-3	3031.73	3031.35	0.47	3032.29	3032.23	3033.2	OK	OK	
260	3-3	3030.48	3030.10	0.47	3031.04	3030.98	3032.0	OK	OK	
261	3-3	3029.23	3028.85	0.47	3029.79	3029.73	3030.7	OK	OK	
262	3-3	3027.98	3027.60	0.47	3028.54	3028.48	3029.5	OK	OK	
263	3-3	3026.73	3026.35	0.47	3027.29	3027.23	3028.2	OK	OK	
264	3-3	3025.48	3025.10	0.47	3026.04	3025.98	3027.0	OK	OK	
265	3-3	3024.23	3023.85	0.47	3024.79	3024.73	3025.7	OK	OK	
266	3-3	3022.98	3022.60	0.47	3023.54	3023.48	3024.5	OK	OK	
267	3-3	3021.73	3021.35	0.47	3022.29	3022.23	3023.2	OK	OK	
268	3-3	3020.48	3020.10	0.47	3021.04	3020.98	3022.0	OK	OK	
269	3-3	3019.18	3018.80	0.47	3019.74	3019.68	3020.7	OK	OK	
270	3-3	3017.65	3017.27	0.47	3018.21	3018.15	3019.2	OK	OK	
271	3-3	3017.65	3017.27	0.47	3018.21	3018.15	3019.3	OK	OK	
272	3-3	3019.18	3018.80	0.47	3019.74	3019.68	3020.8	OK	OK	
273	3-3	3020.48	3020.10	0.47	3021.04	3020.98	3022.1	OK	OK	
274	3-3	3021.73	3021.35	0.47	3022.29	3022.23	3023.3	OK	OK	
275	3-3	3022.98	3022.60	0.47	3023.54	3023.48	3024.6	OK	OK	
276	3-3	3024.23	3023.85	0.47	3024.79	3024.73	3025.8	OK	OK	
277	3-3	3025.48	3025.10	0.47	3026.04	3025.98	3027.1	OK	OK	
278	3-3	3026.73	3026.35	0.47	3027.29	3027.23	3028.3	OK	OK	
279	3-3	3027.98	3027.60	0.47	3028.54	3028.48	3029.6	OK	OK	
280	3-3	3029.23	3028.85	0.47	3029.79	3029.73	3030.8	OK	OK	
281	3-3	3030.48	3030.10	0.47	3031.04	3030.98	3032.1	OK	OK	

Skye Canyon Parcel 5.06 Phase 2 TDS Update FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline F.F. _{min} ³ (ft)	T/C + 6" F.F. _{min} ⁴ (ft)	F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
282	3-3	3031.73	3031.35	0.47	3032.29	3032.23	3033.3	OK	OK	
283	3-3	3032.99	3032.61	0.47	3033.55	3033.49	3034.6	OK	OK	
284	3-3	3033.96	3033.58	0.47	3034.52	3034.46	3035.6	OK	OK	
285	3-3	3031.34	3030.96	0.47	3031.90	3031.84	3032.8	OK	OK	
286	3-3	3030.00	3029.62	0.47	3030.56	3030.50	3031.5	OK	OK	
287	3-3	3028.29	3027.91	0.47	3028.85	3028.79	3029.8	OK	OK	
288	3-3	3026.57	3026.19	0.47	3027.13	3027.07	3028.1	OK	OK	
289	3-3	3024.86	3024.48	0.47	3025.42	3025.36	3026.4	OK	OK	
290	3-3	3023.14	3022.76	0.47	3023.70	3023.64	3024.6	OK	OK	
291	3-3	3021.43	3021.05	0.47	3021.99	3021.93	3022.9	OK	OK	
292	3-3	3019.71	3019.33	0.47	3020.27	3020.21	3021.2	OK	OK	
293	3-3	3018.19	3017.81	0.47	3018.75	3018.69	3019.7	OK	OK	
294	3-3	3016.99	3016.61	0.47	3017.55	3017.49	3018.5	OK	OK	
295	3-3	3015.99	3015.61	0.47	3016.55	3016.49	3017.5	OK	OK	
296	3-3	3015.00	3014.62	0.47	3015.56	3015.50	3016.5	OK	OK	
297	3-3	3014.01	3013.63	0.47	3014.57	3014.51	3015.5	OK	OK	
298	3-3	3013.34	3012.96	0.47	3013.90	3013.84	3014.8	OK	OK	
299	3-3	3013.05	3012.67	0.47	3013.61	3013.55	3014.7	OK	OK	
300	3-3	3013.88	3013.50	0.47	3014.44	3014.38	3015.5	OK	OK	
301	3-3	3014.87	3014.49	0.47	3015.43	3015.37	3016.5	OK	OK	
302	3-3	3015.86	3015.48	0.47	3016.42	3016.36	3017.5	OK	OK	
303	3-3	3018.61	3018.23	0.47	3019.17	3019.11	3020.2	OK	OK	
304	3-3	3019.85	3019.47	0.47	3020.41	3020.35	3021.5	OK	OK	
305	2-3	3021.25	3020.87	0.3	3021.47	3021.75	3023.1	OK	OK	
306	2-3	3020.88	3020.50	0.3	3021.10	3021.38	3022.5	OK	OK	
312	3-3	3022.63	3022.25	0.47	3023.19	3023.13	3024.1	OK	OK	
313	3-3	3022.63	3022.25	0.47	3023.19	3023.13	3024.4	OK	OK	
314	3-3	3022.49	3022.11	0.47	3023.05	3022.99	3024.1	OK	OK	
315	3-3	3026.74	3026.36	0.47	3027.30	3027.24	3028.3	OK	OK	
316	3-3	3028.46	3028.08	0.47	3029.02	3028.96	3030.1	OK	OK	
317	3-3	3030.17	3029.79	0.47	3030.73	3030.67	3031.8	OK	OK	
318	3-3	3031.89	3031.51	0.47	3032.45	3032.39	3033.5	OK	OK	
319	3-3	3033.60	3033.22	0.47	3034.16	3034.10	3035.2	OK	OK	
320	3-3	3035.05	3034.67	0.47	3035.61	3035.55	3036.7	OK	OK	
321	3-3	3033.82	3033.44	0.47	3034.38	3034.32	3035.5	OK	OK	
322	3-3	3034.09	3033.71	0.47	3034.65	3034.59	3035.7	OK	OK	
323	3-3	3034.36	3033.98	0.47	3034.92	3034.86	3036.0	OK	OK	
324	3-3	3034.75	3034.37	0.47	3035.31	3035.25	3036.3	OK	OK	
325	3-3	3035.20	3034.82	0.47	3035.76	3035.70	3036.9	OK	OK	

Skye Canyon Parcel 5.06 Phase 2 TDS Update FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline F.F. _{min} ³ (ft)	T/C + 6" F.F. _{min} ⁴ (ft)	F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
326	3-3	3036.32	3035.94	0.47	3036.88	3036.82	3037.8	OK	OK	
327	3-3	3037.25	3036.87	0.47	3037.81	3037.75	3038.8	OK	OK	
328	3-3	3041.11	3040.73	0.47	3041.67	3041.61	3042.6	OK	OK	
329	3-3	3041.94	3041.56	0.47	3042.50	3042.44	3043.4	OK	OK	
330	3-3	3043.94	3043.56	0.47	3044.50	3044.44	3045.6	OK	OK	
331	3-3	3044.81	3044.43	0.47	3045.37	3045.31	3046.5	OK	OK	
345	3-4	3036.58	3036.20	0.51	3037.22	3037.08	3038.4	OK	OK	
346	3-4	3038.11	3037.73	0.51	3038.75	3038.61	3039.9	OK	OK	
347	3-4	3039.64	3039.26	0.51	3040.28	3040.14	3041.4	OK	OK	
348	3-4	3040.91	3040.53	0.51	3041.55	3041.41	3042.7	OK	OK	
349	3-4	3042.16	3041.78	0.51	3042.80	3042.66	3044.0	OK	OK	
361	3-4	3034.07	3033.69	0.51	3034.71	3034.57	3035.8	OK	OK	
362	3-4	3033.55	3033.17	0.51	3034.19	3034.05	3035.3	OK	OK	
363	3-4	3033.02	3032.64	0.51	3033.66	3033.52	3034.7	OK	OK	
364	3-4	3025.48	3025.10	0.51	3026.12	3025.98	3027.3	OK	OK	
365	3-4	3025.84	3025.46	0.51	3026.48	3026.34	3027.7	OK	OK	
366	3-4	3026.18	3025.80	0.51	3026.82	3026.68	3028.0	OK	OK	
367	3-4	3026.68	3026.30	0.51	3027.32	3027.18	3028.5	OK	OK	
368	3-4	3027.29	3026.91	0.51	3027.93	3027.79	3029.1	OK	OK	
369	3-4	3027.90	3027.52	0.51	3028.54	3028.40	3029.7	OK	OK	
370	3-4	3028.51	3028.13	0.51	3029.15	3029.01	3030.3	OK	OK	
371	3-4	3029.12	3028.74	0.51	3029.76	3029.62	3030.9	OK	OK	
372	3-4	3029.73	3029.35	0.51	3030.37	3030.23	3031.5	OK	OK	
373	3-4	3030.26	3029.88	0.51	3030.90	3030.76	3032.6	OK	OK	
389	3-4	3030.28	3029.90	0.51	3030.92	3030.78	3031.9	OK	OK	
390	3-4	3029.76	3029.38	0.51	3030.40	3030.26	3031.5	OK	OK	
391	3-4	3029.19	3028.81	0.51	3029.83	3029.69	3030.9	OK	OK	
392	3-4	3028.62	3028.24	0.51	3029.26	3029.12	3030.3	OK	OK	
393	3-4	3028.05	3027.67	0.51	3028.69	3028.55	3029.8	OK	OK	
394	3-4	3027.48	3027.10	0.51	3028.12	3027.98	3029.2	OK	OK	
395	3-4	3026.91	3026.53	0.51	3027.55	3027.41	3028.6	OK	OK	
396	3-4	3026.34	3025.96	0.51	3026.98	3026.84	3028.0	OK	OK	
397	3-4	3025.75	3025.37	0.51	3026.39	3026.25	3027.5	OK	OK	
398	3-4	3025.16	3024.78	0.51	3025.80	3025.66	3026.9	OK	OK	
399	3-4	3024.56	3024.18	0.51	3025.20	3025.06	3026.3	OK	OK	
405	3-2*	3021.14	3020.76	0.61	3021.98	3021.64	3022.9	OK	OK	
406	3-2*	3021.80	3021.42	0.61	3022.64	3022.30	3023.6	OK	OK	
407	3-2*	3022.47	3022.09	0.61	3023.31	3022.97	3024.3	OK	OK	
408	3-2*	3023.13	3022.75	0.61	3023.97	3023.63	3024.9	OK	OK	

Skye Canyon Parcel 5.06 Phase 2 TDS Update FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline F.F. _{min} ³ (ft)	T/C + 6" F.F. _{min} ⁴ (ft)	F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
409	3-2*	3023.80	3023.42	0.61	3024.64	3024.30	3025.6	OK	OK	
410	3-2*	3024.46	3024.08	0.61	3025.30	3024.96	3026.3	OK	OK	
434	3-2*	3025.45	3025.07	0.61	3026.29	3025.95	3027.2	OK	OK	
435	3-2*	3024.82	3024.44	0.61	3025.66	3025.32	3026.5	OK	OK	
436	3-2*	3024.20	3023.82	0.61	3025.04	3024.70	3025.9	OK	OK	
437	3-2*	3023.57	3023.19	0.61	3024.41	3024.07	3025.3	OK	OK	
438	3-2*	3022.94	3022.56	0.61	3023.78	3023.44	3024.6	OK	OK	
439	3-2*	3022.32	3021.94	0.61	3023.16	3022.82	3024.0	OK	OK	
440	3-2*	3021.69	3021.31	0.61	3022.53	3022.19	3023.4	OK	OK	
441	3-2*	3021.07	3020.69	0.61	3021.91	3021.57	3022.8	OK	OK	
Where: 1: Top of Curb at High Side of Lot 2: TC-0.38 (For Roll Curb), TC-0.5 (For L Curb) 3: Minimum Allowable Finished Floor Elevation above flowline elevation @ high side of lot = (2 x D ₁₀₀) + F/L 4: City of Las Vegas minimum allowable finished floor elevation = T.C. @ high side of lot + 6-inches 5: These lots have an adjacent solid grouted wall that protects the FF.										
City of Las Vegas Finished Floor Criteria: <i>-The finished floor shall be set a vertical distance above the gutter flowline of at least twice the depth of flow in the gutter flowline up to a maximum of 18 inches above the WSEL in the street. Per HCDDM, Section 304.4.</i> <i>-The finished floor shall be set a vertical distance of at least 6-inches above the highest adjacent top of curb. Per HCDDM, Section 1602.</i>										

Supplemental Finish Floor Checks

Onsite Swale Check							
Lot Number	High TC/FL ¹	Section	Flow Depth ²	Min FF ³	Design FF	Check	Solid Grout
312	3026.90	V3	0.58	3027.48	3024.10	CHECK	Yes
315	3028.10	V3	0.58	3028.68	3028.30	CHECK	Yes
316	3030.80	V3	0.58	3031.38	3030.10	CHECK	Yes
317	3032.20	V3	0.58	3032.78	3031.80	CHECK	Yes
318	3033.50	V3	0.58	3034.08	3033.50	CHECK	Yes
319	3034.80	V3	0.58	3035.38	3035.20	CHECK	Yes
320	3037.29	V3	0.58	3037.87	3036.70	CHECK	Yes
321	3036.45	V1	0.70	3037.15	3035.50	CHECK	Yes
322	3036.72	V1	0.70	3037.42	3035.70	CHECK	Yes
323	3036.99	V1	0.70	3037.69	3036.00	CHECK	Yes
324	3037.26	V1	0.70	3037.96	3036.30	CHECK	Yes
325	3037.53	V1	0.70	3038.23	3036.90	CHECK	Yes
326	3037.80	V1	0.70	3038.50	3037.80	CHECK	Yes
327	3038.07	V1	0.70	3038.77	3038.80	OK	No
329	3038.49	V1	0.70	3039.19	3043.40	OK	No
330	3046.10	V1	0.70	3046.80	3045.60	CHECK	Yes
331	3046.70	V1	0.70	3047.40	3046.50	CHECK	Yes

1: High TC/FL is at the high side of the drainage easement flowline or the highest TC adjacent to the easement if flow is weiring over the curb.

2: Flow depth is either normal depth or weir depth (whichever is higher) of the emergency overflow.

3: Min FF is the High TC/FL plus the emergency overflow depth.

Supplemental Finish Floor Checks

Adjacent/Perimeter Street Check										
Lot Number	Street	High TC ¹	High FL ²	Section	Flow Depth ³	Min FF ⁴	Design FF	Check	Solid Grout	Notes
243	VANHOY CREEK	3017.81	3017.43	3-1*	0.61	3018.65	3020.1	OK	No	
256	BANYAN SPRINGS	3038.22	3037.84	3-3	0.47	3038.78	3039.3	OK	No	
257	BANYAN SPRINGS	3036.44	3036.06	3-3	0.47	3037.00	3035.5	CHECK	Yes	
270	VANHOY CREEK	3016.63	3016.25	3-1	0.00	3016.25	3019.2	OK	No	
271	VANHOY CREEK	3015.03	3014.65	3-1	0.00	3014.65	3019.3	OK	No	
284	BANYAN SPRINGS	3034.24	3033.86	3-3	0.47	3034.80	3035.6	OK	No	
285	BANYAN SPRINGS	3033.42	3033.04	3-3	0.47	3033.98	3032.8	CHECK	Yes	
298	VANHOY CREEK	3015.03	3014.65	3-1	0.00	3014.65	3014.8	OK	No	
299	VANHOY CREEK	3011.54	3011.16	3-1	0.00	3011.16	3014.7	OK	No	
304	GRABILL SPRINGS	3022.49	3022.11	3-3	0.47	3023.05	3021.5	CHECK	Yes	
305	GRABILL SPRINGS	3022.49	3022.11	3-3	0.47	3023.05	3023.1	OK	No	
314	GRABILL SPRINGS	3025.03	3024.65	3-3	0.47	3025.59	3024.1	CHECK	Yes	
321	ALAMINO	3035.90	3035.52	3-3	0.47	3036.46	3035.5	CHECK	Yes	
328	BANYAN SPRINGS	3038.61	3038.23	3-3	0.47	3039.17	3042.6	OK	No	
345	EVENING BAY	3034.67	3034.29	3-4	0.51	3035.31	3038.4	OK	No	
349	SEABRIGHT	3044.38	3044.00	3-4	0.51	3045.02	3044.0	CHECK	Yes	
363	CORLISS RIVER	3031.62	3031.24	3-4	0.51	3032.26	3034.7	OK	No	
364	CORLISS RIVER	3028.84	3028.46	3-4	0.51	3029.48	3027.3	CHECK	Yes	
373	SUNNY GROVE	3034.31	3033.93	3-6	0.46	3034.85	3032.6	CHECK	Yes	
389	SUNNY GROVE	3030.16	3029.78	3-6	0.46	3030.70	3031.9	OK	No	
399	CORLISS RIVER	3023.06	3022.68	3-4	0.51	3023.70	3026.3	OK	No	

1: High TC is the elevation at the high side of the adjacent perimeter street

2: 0.38-ft is subtracted from the High TC to obtain the High FL elevation

3: Flow depth is the normal depth in adjacent perimeter street

4: Min FF is the High FL plus twice the depth of flow.

5: FG = finished grade elevation at top of scarp in landscape/common element.

6: Assumed 8" tall courses.

NOTES:

* Lot is located adjacent to a high point, therefore flow in adjacent street is minimal and flow depth is negligible.

Supplemental Finish Floor Checks

Specific Energy Check for Fronting Lots							
Lot Number	High TC ¹	High FL ²	Section	Specific Energy ³	Min FF ⁴	Design FF	Check
247	3024.37	3023.99	3-4	0.80	3024.79	3025.90	OK
248	3024.37	3023.99	3-4	0.80	3024.79	3027.40	OK
252	3032.02	3031.64	3-4	0.80	3032.44	3033.50	OK
253	3033.53	3033.15	3-4	0.80	3033.95	3035.00	OK
254	3033.53	3033.15	3-4	0.80	3033.95	3036.50	OK
290	3021.43	3021.05	3-3	0.75	3021.80	3024.60	OK
291	3021.43	3021.05	3-3	0.75	3021.80	3022.90	OK
319	3033.60	3033.22	3-3	0.75	3033.97	3035.20	OK
434	3025.45	3025.07	3-6	0.68	3025.75	3027.20	OK

1: High TC is the elevation at the high side of the adjacent perimeter street

2: 0.38-ft is subtracted from the High TC to obtain the High FL elevation

3: Specific energy depth is taken from FlowMaster calculation for street directing flow toward lot.

4: Min FF is the High FL plus the specific energy depth.

APPENDIX E

CD of Electronic Files & Revised Improvement Plan Sheets