

ADDENDUM #1 TO THE TECHNICAL DRAINAGE STUDY FOR MOCCASIN HOMESTEAD WEST

PREPARED FOR:



CENTURY
COMMUNITIES

PREPARED BY:

STRIVE
ENGINEERING

**Primary Contact
& Engineer:**

Joanna Opeña, P.E.
Vice President
8912 Spanish Ridge Ave
Suite 200
Las Vegas, NV 89148
1.702.718.1788 ext. 102

**Developer
Contact:**

Paulo Chavez
Land Development
Project Manager
6345 S. Jones Blvd
Suite 400
Las Vegas, NV 89118
1.702.936.3345

March 15, 2022

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: Moccasin Homestead West Date: 3/15/2022
Location of Development: a) Descriptive (Cross Streets) North/South: Homestead Road
East/West: Moccasin Road
b) Section: 5 Township: 19 South Range: 60 East
c) APN : 125-05-502-014

Name of Owner: Century Communities Nevada LLC
Telephone No.: (702) 936-3345 Fax No.: _____ E-Mail Address: paulo.chavez@centurycommunities.com
Address: 6345 S. Jones Boulevard, Suite 400, Las Vegas, NV 89118

Contact Person-Name: Joanna Opeña, P.E. Telephone No.: (702)-718-1788 ext.102
* E-Mail Address: joanna.opena@strivenv.com Fax No.: _____
Firm: Strive Engineering
Address: 8912 Spanish Ridge Avenue, Suite #200, Las Vegas, NV 89148

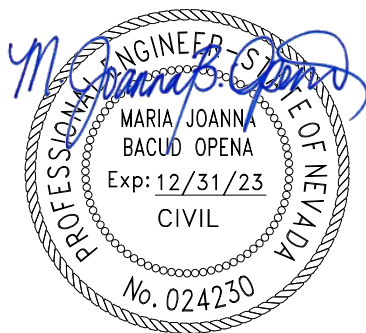
Type of Land Development/Land Disturbance Process:

☐	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: ± 5.3 acres Being Developed/Disturbed: ± 5.3 acres
2. Is a portion or all of the subject property located in a designated 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
LVMO 0000 & 0001
4. Proposed type of development (Residential, Commercial, Etc.): Residential
5. Approximate upstream land area which drains to the subject site: 0.53 square miles
6. Has the site drainage been evaluated in the past? ☒ YES ☐ NO If yes, please identify documentation: 100% Design Report Moccasin Road CCRFCD Flood Control Facility & Updates
7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: Site drains surface drains into adjacent right-of-ways; Moccasin Road, Homestead Road, and Trails End Avenue
8. Briefly describe your proposed schedule for the subject project: A.S.A.P.

STRIVE
ENGINEERING

Joanna Opena
email = joanna.opena@strivenv.com
2022.03.15 15:03:44-07'00'



Engineer's Seal

3/15/2022

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.

***New 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

March 14, 2022

Mr. Albert Sung, P.E.
Flood Control Project Engineer
Department of Public Works
495 South Main Street
Las Vegas, NV 89101

Subject: **Moccasin Homestead West – Addendum #1 to the Technical Drainage Study (DS#5528A)**

Dear Mr. Sung,

Strive Engineering is in receipt of the Drainage Study Comment Letter for the subject technical drainage study, dated December 27, 2021, from the City of Las Vegas. A copy of the comment letter is included in **Appendix A**. The responses to the provided comments are as follows:

General Comment: The City’s policy is to minimize public drainage easements. Every attempt should be made by the developer/engineer to eliminate the use of public drainage easement which will cause perpetual maintenance issue. It appears that the proposed grading design can be revised to provide Type-A drainage pattern instead of the proposed Type-B drainage.

It is advised for the engineer to have a web meeting with City staff to resolve the onsite grading design prior to the submittal of the next addendum.

Response: A meeting between city staff and Strive Engineering occurred on January 13, 2022, to discuss opportunities to revise the grading to minimize the use public drainage easements as much as possible. As a result, the Client has opted to obtain permission to grade from the adjacent west parcels with the intent to provide a swale on their property to route flows originating west of the project site to the adjacent north and south rights-of-way, which is Moccasin Road and Trails End Avenue, respectively.

A copy of the permission to grade letter has been included in **Appendix A** for your reference. The executed and notarized letters will be provided prior to civil improvement plan permit issuance.

Additionally, the grading for lots 6 and 7 have been revised to eliminate the 5’ drainage easement along the rear of lot 6. Instead, individual area drains will be provided at the corners of these lots, where a pipe through the retaining wall will outlet their runoff into the adjacent right-of-way, Homestead Road, thereby mimicking existing drainage conditions. Please see the revised civil improvement plans in **Appendix D** for reference.

Comment 1: Sites with a grade difference of 2 feet above or below existing are required to have approval from the City Planning and Development Department. The engineer must submit copies of the grading plans and detail sheet with a

letter justifying the grade difference to the City Planning Department (229-6301). The engineer must provide City Planning approval with the next submittal.

Response: A copy of the approval letter is included in **Appendix A**.

Comment 2: 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>

Response: This comment is acknowledged and CCRFCD concurrence will be obtained.

Comment 3: The site is also adjacent to the jurisdiction of Clark County to the west. The engineer must coordinate with Clark County Public Works Department (CCPW) and incorporate any concerns for boundary conditions along the south and west borders. CCPW concurrence is required prior to the final approval of the study.

Response: This comment is acknowledged and CCPW concurrence will be obtained.

Comment 4: The HEC-1 model intensity used was 1.58 which is the intensity for 10-year not 100-year. The presented HEC-1 model flows are 10-year and 0.57 of 10 year. Rather than 100 and 10 year.

Response: The HEC-1 model has been revised to use 2.77 for the intensity, which is the correct value for the 100-year storm event. As a result, the Q10/Q100 have slightly increased from the previous submittal and below is the revised flow rate summary table and the revised hydraulic summary table. The revised HEC-1 model output for the proposed conditions is included in **Appendix B**. The revised FlowMaster sections are included in **Appendix C**.

PROPOSED CONDITION FLOW RATE SUMMARY				
BASIN ID	NOTES	AREA (ac)	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)
CPA	*CP2 + #EMR1- ANW130W(A) = Q100 = 28+2-3 = 27 Q10 = 3+0-0 = 0 REFERENCED FROM DS5438 "MOCCASIN HOMESTEAD"	-	27	3
MOC		0.38	1	1
HOM-N		0.80	1	1
ON-1		2.08	1	<1
CPC	CPA + MOC + HOM-N + ON-1	-	30	4

CPB	*CP4 - BNW130W(A) = Q100 = 124-0 = 124 Q10 = 28-0 = 28 REFERENCED FROM DS5438 "MOCCASIN HOMESTEAD"	-	124	28
TRE		0.23	1	1
HOM-S		0.15	<1	<1
ON-2		3.22	2	<1
CPD	CPB + TRE + HOM-S + ON-2	-	127	29

The red text indicates that the flowrate has changed from the previous submittal.

PROPOSED CONDITION STREET FLOW HYDRAULIC SUMMARY								
CONDITION	SECTION ID	NOTES	SLOPE (%)	Q (cfs)	DEPTH (ft)	VELOCITY (fps)	DxV	DRY LANE (ft)
PROPOSED, 10-YEAR	A	MOCCASIN HALF STREET: CPA + MOC	2.00	4	0.32	3.16	1.01	25
	B	HOMESTEAD HALF STREET: ON-1(B) + HOM-N	0.40	1	0.15	0.91	0.14	N/A
	C	TRAILS-END: CPB + TRE + ON-2	2.05	29	0.51	4.04	2.06	N/A
	D	PRIVATE STREET FULL-STREET ENTRY: ON-1(A)	2.50	1	0.17	2.28	0.39	N/A
	E	PRIVATE STREET FULL-STREET: ON-2	1.18	1	0.19	1.64	0.31	N/A
PROPOSED, 100-YEAR	A	MOCCASIN HALF STREET: CPA + MOC	2.00	28	0.6	4.27	2.56	N/A
	B	HOMESTEAD HALF STREET: ON-1(B) + HOM-N	0.40	1	0.15	0.91	0.14	N/A
	C	TRAILS-END: CPB + TRE + ON-2	2.05	127	0.92	5.77	5.31	N/A
	D	PRIVATE STREET FULL-STREET ENTRY: ON-1(A)	2.50	1	0.17	2.28	0.39	N/A
	E	PRIVATE STREET FULL-STREET: ON-2	1.18	2	0.23	1.87	0.43	N/A

PROPOSED CONDITION DRAINAGE EASEMENT HYDRAULIC SUMMARY						
CONDITION	SECTION ID	NOTES	SLOPE (%)	Q (cfs)	DEPTH (ft)	VELOCITY (fps)
PROPOSED, 100-YEAR	G	16"X48" WALL OPENING W/ 50% CLOGGING :	0.65	2	0.18	2.78
	H	5-FT WIDE DRAINAGE EASEMENT W/ 3-FT WIDE VALLEY GUTTER	0.65	2	0.34	2.10
	J	GRADED SWALE	1.81	4	0.61	3.51
	K	GRADED SWALE	0.48	23	1.52	3.31

The red text indicates that the flowrate has changed from the previous submittal.

Please note that the velocity at hydraulic section C is slightly erosive at 5.77 fps, however this is an interim condition. In the ultimate fully build out drainage conditions, the 127 CFS is significantly reduced to 14 CFS in the 100-year storm event and therefore, no additional mitigation is needed. Also, the 16"x48" block wall opening continues to pass the Q100 (2 CFS) generated by onsite basin ON2 safely with a 50% clogging factor accounted for.

- Comment 5:** **Proposed Condition Drainage Map PR-01: Tables should state the studies that flows are referenced from.**
- Response: The reference studies have been added to the summary tables for clarity and a revised proposed condition basin map is included in **Appendix D**.
- Comment 6:** **Proposed Condition Drainage Map PR-01: Per the reference material, the CP-A should be 3/28. However, the basin map says 3/27. Clarify discrepancies.**
- Response: As discussed in the previous submittal, concentration point CPA is derived from adding reference basins, CP2 and EMR1, and then subtracting prorated basin ANW130-W(A) from the sum. This results in 3/27 CFS instead of 3/28 CFS. The annotated reference basin map, **Figure EX-01 "Existing Condition Offsite Drainage Basin Map"** has been included again in **Appendix A** for your reference.
- Comment 7:** **Proposed Condition Drainage Map PR-01: Basin map proposed condition summary map is inconsistent with HEC-1. For example, basin MOC flows on summary table are 1/1 and in the HEC-1 they are calculated at 1/<1. For HOM-N the summary tables list <1/<1 and in the HEC-1 they are calculated at 1/<1.**
- Response: The flow rate summary table has been revised to match the HEC-1 model output.
- Comment 8:** **Cross section C – Q100 Trails End Full-Street Proposed cross section flowmaster was analyzed at 122 cfs. Per CP-D and the summary table, it should be analyzed at 124 cfs which is also inconsistent with the Proposed Condition Flow Rate Summary Table on the exhibit.**
- Response: Cross section C has been revised to model the corrected Q100 flowrate of 127 cfs. The increase of 3 cfs is due revising the HEC-1 model with the correct intensity of 2.77 inches for the 100-year storm event. Please note that cross section C was not analyzed using concentration point, CP-D, because runoff from street basin HOM-S does not flow through cross section C.
- Comment 9:** **GR-01: Properly fill out the Flood Zone Information.**
- Response: The flood zone information has been fully populated on the revised plans, which are included in **Appendix D**.
- Comment 10:** **GR-01: Detail Section A/DT-01 shows a 5'-landscape easement behind the 10'-wide Multi-Use Trail, however, the plan view does not reflect such a landscape area. Review and revise accordingly.**
- Response: A dimension call out has been provided on the grading plans to denote the 5' landscape easement for clarity.
- Comment 11:** **GR-01: Provide construction note for the proposed drop inlet in Moccasin Road. Provide plan & profile for the street and inlet.**

Response: Constructions notes for the proposed drop inlet and storm drain system has been added to the grading plans and separate plan and profile sheet have been cut for the storm drain laterals.

Comment 12: GR-02: The City Council of the City of Las Vegas adopted an amendment to Title 20 of the Municipal Code in which Section 20.10.030 requires all public drainage easements to be concrete lined.

Revise all proposed drainage easements and the pertinent detail sections to be fully concrete-lined in the next submittal.

Response: All proposed drainage easements have been revised to be concrete lined.

Comment 13: GR-02: Show gutter slopes around the cul-de-sac.

Response: Gutter slopes have been provided in the cul-de-sac for clarity.

Comment 14: The grading plans present L-curb and no depressed curb proposed for driveways. Review and revise accordingly.

Response: The driveways will be constructed per CCAUSD #223 or a modified version as shown on detail 6 on sheet DT-02, which shows a transition from L-curb to R-type curb and allows vehicles access to the driveway without hinderance in lieu of depressed curb.

Comment 15: DT-01: Detail Sections B2, B3, E, and H, should call out that the proposed block wall will be 3 course solid grouted.

Response: The bottom 3 courses of the proposed wall measured above the highest adjacent grade for detail section H will be solid grouted. Please note that due to the revised grading, solid grouting for detail sections B2, B3, and E is no longer needed as there is no proposed drainage easements at these locations.

Comment 16: DT-01: Detail Section E refers to a 5.0' WIDE VALLEY GUTTER DETAIL ON SHEET DT-02. This detail does not exist.

Response: This comment is no longer applicable due to the revised grading which has eliminated the need for providing a 5' wide valley gutter.

Comment 17: Cross Section J/DT-01 shown along the north of Lot 7 does not match the Detail J provided on Sheet DT-01.

Response: Cross section J has been revised to reflect the current grading, please see **Appendix D** for the revised plans.

Comment 18: Detail J/DT-01: The proposed U-channel can go as deep as 2' and it is at the boundary with adjacent property which can cause tripping hazard. Provide wrought iron fencing along the U-channel for safety issue.

Response: This comment is no longer applicable due to the revised grading design which is seeking permission to grade from the adjacent west parcels in lieu of proposing a concrete u-channel.

Comment 19: Grading Construction Note #3 “CONSTRUCT 3’ WIDE VALLEY GUTTER PER DETAIL B ON SHEET DT-02”, this detail does not exist.

Response: The 3’ wide valley gutter has been added to the plans and is denoted as detail 2 on sheet DT-02.

Comment 20: Block wall openings must be 16” x 48”. The detail on DT-02 BLOCK WALL OPENING needs to designate this size.

Response: The dimension callout of 16”x48” has been added to the block wall opening detail.

Comment 21: Private streets must be public drainage easements. Provide a note on the grading plans: “Note: All private streets are P.U.E., Public Sewer Easements and Public Drainage Easements to be privately maintained by the HOA

Response: This easement note has been provided on the revised plans.

Comment 22: All drainage easements must be PUBLIC drainage easements to be privately maintained and common lots to be labeled on the grading plans and to be dedicated as such in the final map.

Response: This comment is acknowledged, and the plans have been revised to match this verbiage.

Comment 23: The engineer must provide a table on the grading plans that shows a quantity estimate of all drainage improvements within Public Drainage Easements. All drainage improvements within Public Drainage Easements must be bonded and inspected.

Response: A table showing the quantity estimate of all drainage improvements located within a public drainage easement has been provided on the grading plans.

Comment 24: Provide preliminary plan and profile sheets for all proposed perimeter streets. Plan and profile sheets must show existing and proposed grade at centerline, but may be preliminary in all other respects. These plans are necessary to determine the effect of the proposed development on the adjacent properties.

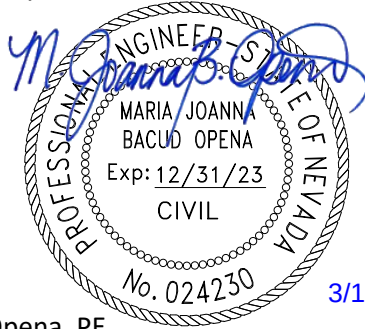
Response: Plan and profile sheets have been provided with this resubmittal.

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.

Response: This note is acknowledged.

We hope that this documentation satisfies the requirements for drainage concerning this project. Should you have any questions or need further information, please do not hesitate to contact us at (702) 718-1788 ext. 102 or joanna.opena@strivenv.com.

Respectfully,



3/15/2022

Joanna Opena, PE
Vice President/COO

Jason Shon, EI
Assistant Project Manager

CC: Paulo Chavez (Century Communities)

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM			DATE: December 27, 2021
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:
Moccasin Homestead West			Strive Engineering
Cross Streets:	SWC of Moccasin Road & Homestead Road		Century Communities Nevada LLC
File Number:	F:\Depot\DSMemos\DS5528A.doc		Bart Anderson, P.E., DevCo
Parcel Number:	125-05-502-014		CCRFCFCD
Zoning Action:	21-0528-TMP1; 21-0528-VAR1 to -VAR8 & 21-0528-DVN1; -DVN2		CCPW
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	12/9/2021	12/23/2021	See Comments Below	\$400.00	4568853: \$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.

The City's policy is to minimize public drainage easements. Every attempt should be made by the developer/engineer to eliminate the use of public drainage easement which will cause perpetual maintenance issue. It appears that the proposed grading design can be revised to provide Type-A drainage pattern instead of the proposed Type-B drainage.

It is advised for the engineer to have a web meeting with City staff to resolve the onsite grading design prior to the submittal of the next addendum

1. Sites with a grade difference of 2 feet above or below existing are required to have approval from the *City Planning and Development Department*. The engineer must submit copies of the grading plans and detail sheet with a letter justifying the grade difference to the *City Planning Department* (229-6301). The engineer must provide *City Planning* approval with the next submittal.
2. The site is adjacent to or crosses an existing or proposed *Clark County Regional Flood Control District* (CCRFCFCD) master planned facility. Therefore, CCRFCFCD concurrence is required prior to final approval of the drainage study.

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

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

3. The site is also adjacent to the jurisdiction of *Clark County* to the west. The engineer must coordinate with *Clark County Public Works Department (CCPW)* and incorporate any concerns for boundary conditions along the south and west borders. CCPW concurrence is required prior to the final approval of the study.
4. The HEC-1 model intensity used was 1.58 which is the intensity for 10-year not 100-year. The presented HEC-1 model flows are 10-year and 0.57 of 10 year. Rather than 100 and 10 year.
5. **Proposed Condition Drainage Map PR-01:** Tables should state the studies that flows are referenced from.
6. **Proposed Condition Drainage Map PR-01:** Per the reference material, the CP-A should be 3/28. However, the basin map says 3/27. Clarify discrepancies.
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8. Cross section C – Q100 Trails End Full-Street Proposed cross section flowmaster was analyzed at 122 cfs. Per CP-D and the summary table, it should be analyzed at 124 cfs which is also inconsistent with the Proposed Condition Flow Rate Summary Table on the exhibit.
9. **GR-01:** Properly fill out the Flood Zone Information.
10. **GR-01:** *Detail Section A/DT-01* shows a 5'-landscape easement behind the 10'-wide *Multi-Use Trail*, however, the plan view does not reflect such a landscape area. Review and revise accordingly.
11. **GR-01:** Provide construction note for the proposed drop inlet in *Moccasin Road*. Provide plan & profile for the street and inlet.
12. **GR-02:** The *City Council* of the *City of Las Vegas* adopted an amendment to Title 20 of the Municipal Code in which Section 20.10.030 requires all public drainage easements to be concrete lined.

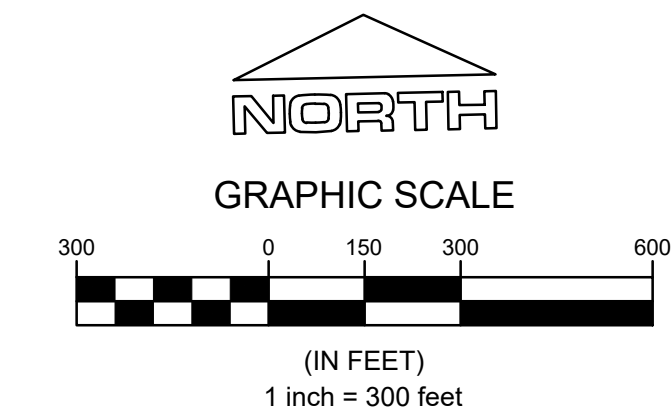
Revise all proposed drainage easements and the pertinent detail sections to be fully concrete-lined in the next submittal.
13. **GR-02:** Show gutter slopes around the cul-de-sac.
14. The grading plans present L-curb and no depressed curb proposed for driveways. Review and revise accordingly.
15. **DT-01:** *Detail Sections B2, B3, E, and H*, should call out that the proposed block wall will be 3 course solid grouted.
16. **DT-01:** *Detail Section E* refers to a 5.0' WIDE VALLEY GUTTER DETAIL ON SHEET DT-02. This detail does not exist.
17. *Cross Section J/DT-01* shown along the north of Lot 7 does not match the *Detail J* provided on Sheet DT-01.
18. *Detail J/DT-01:* The proposed U-channel can go as deep as 2' and it is at the boundary with adjacent property which can cause tripping hazard. Provide wrought iron fencing along the U-channel for safety issue.
19. *Grading Construction Note #3* "CONSTRUCT 3' WIDE VALLEY GUTTER PER DETAIL B ON SHEET DT-02", this detail does not exist.
20. Block wall openings must be 16" x 48". The detail on DT-02 BLOCK WALL OPENING needs to designate this size.

21. Private streets must be public drainage easements. Provide a note on the grading plans: "Note: All private streets are P.U.E., Public Sewer Easements and Public Drainage Easements to be privately maintained by the HOA".
22. All drainage easements must be **PUBLIC** drainage easements to be privately maintained and common lots to be labeled on the grading plans and to be dedicated as such in the final map.
23. The engineer must provide a table on the grading plans that shows a quantity estimate of all drainage improvements within Public Drainage Easements. All drainage improvements within Public Drainage Easements must be bonded and inspected.
24. Provide preliminary plan and profile sheets for all proposed perimeter streets. Plan and profile sheets must show existing and proposed grade at centerline, but may be preliminary in all other respects. These plans are necessary to determine the effect of the proposed development on the adjacent properties.

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/AYS

T/R/S: T19S/R60E/05
AREA G-05



PRORATED CALCULATIONS
 $Q_{10} = (1 \times 1.46) / 15.2 = <1 \text{ CFS}$
 $Q_{100} = (9 \times 1.46) / 15.2 = <1 \text{ CFS}$

CP-B = *CP-4 - BNW130-W(A)
Q10 = 28 CFS
Q100 = 121 CFS

* REFERENCE FROM PROPOSED ONSITE BASIN
MAP PR-01 FROM MOCCASIN DS-5438

PREPARED FOR CENTURY COMMUNITIES	PROJECT:	20.12.0050	SCALE: PER SHEET
	DATE:	04/04/21	DESIGNED BY: JKS
	SUBMITTAL STAGE:	TDS	DRAWN BY: JKS
			CHECKED BY: JBO

TITLE	MOCCASIN HOMESTEAD
SHEET	EXISTING CONDITION OFFSITE DRAINAGE BASIN MAP

FOR REVIEW ONLY

04/04/21

SHEET

EX-01

1 OF **1**

DRAWING NO.
TBD

EXISTING CONDITION - BASIN FLOWRATION CALCULATION					
BASIN ID	AREA (ac)	Q ₁₀₀ (cfs)	Q ₁₀₀ UNIT FLOW(cfs/ac)	Q ₁₀ (cfs)	Q ₁₀ UNIT FLOW(cfs/ac)
*MG1	97.8	126	1.29	37	0.38
SUBBASIN ID	AREA (ac)	Q ₁₀₀ (cfs)	Q ₁₀₀ UNIT FLOW(cfs/ac)	Q ₁₀ (cfs)	Q ₁₀ UNIT FLOW(cfs/ac)
*MG1(A)	64.1	83	-	24	-
*MG1(B)	33.7	43	-	13	-
TOTAL	97.8	126	-	37	-

- * EXISTING CONDITION FLOW RATES REFERENCED FROM
TECHNICAL DRAINAGE STUDY & ADDENDA FOR SUNSTONE
MASS GRADE BY WESTWOOD. DS# 5282

 SUBBASIN ID & ACREAGE

REFERENCE

March 14, 2022

City of Las Vegas
Planning and Zoning
495 S. Main Street
Las Vegas, NV 89101

Subject: Moccasin Homestead West – Request for Grade Differential Over 2 Feet Above and Below Existing Grade

To Whom It May Concern:

On behalf of our client, Century Communities, we are respectfully requesting an allowance for *Moccasin Homestead West*, a proposed 7-lot detached single-family residential development, to be developed with a grade differential over 2 feet above and below the existing grade.

The subject site in existing condition exhibits relatively steep slopes approximately 2% to 6%. Because of these slopes, the project site is in need of perimeter and onsite retaining walls between 2-6 feet tall. The proposed site grading will also require cut and fill in excess of the allowable 2-foot differential.

We appreciate your consideration in reviewing and approving this request. If there are any additional questions regarding this request, please do not hesitate to contact me at (702) 718-1788 ext 102.

Kind regards,



Joanna Opena, PE
Vice President/COO

APPROVED
DEPARTMENT OF PLANNING
CITY OF LAS VEGAS, NEVADA
2-Foot Grade Difference Only
rgumarang
Mar 15 2022

March 15, 2022

CARSON-ESCARZAGA FRANCES JEAN REVOCABLE TRUST 2019
CARSON-ESCARZAGA FRANCES JEAN TRS
Address
City, State ZIP

Subject: Permission to Grade
APN: 125-05-502-009

To Property Owners of the above referenced parcel:

Century Communities of Nevada, LLC respectfully requests authorization to grade a swale along the eastern perimeter of the shared boundary line of above reference parcel located within the City of Las Vegas. See attached Exhibit A for the subject area.

This letter shall serve as verification and permission for Century Communities of Nevada, LLC and its assignees to encroach APN #125-05-502-009 and perform the construction associated with drainage improvements. Permission is granted by the owner(s) and their assignees with the notarized signature(s) on the attached Permission to Grade document.

Please provide an original signed copy of the attached document to:

Attn: Joe Genovese
Century Communities of Nevada, LLC
6345 Jones Boulevard
Ste 400
Las Vegas, NV 89118

Please contact me at (702) 330-4694 with any questions.

Sincerely,

Joe Genovese

GRANT OF PERMISSION

(I, We) _____, (owner(s) of Assessor's Parcel Number 125-05-502-009) hereby grant Century Communities of Nevada, LLC its successors and assigns permission to encroach onto the easterly portion of parcel 125-05-502-009 as indicated on the attached Exhibit A for purposes of grading and drainage construction.

Century Communities of Nevada, LLC its successors and assigns, agrees to indemnify, pay, defend, and hold harmless Owner for, from, and against any and all claims, actions, causes of action, damages, and liabilities, death, personal injury or physical property damage, or mechanic's or materialman's liens, including attorney's fees and court costs, which result from or are in any way related to any entry upon inspections, grading, tests, or any other investigations, in order to perform the work permitted herein, undertaken by Century Communities of Nevada, LLC, its agents, or designees in connection with the property.

In witness whereof, the owner has executed this permission on the ___ day of _____, 2022.

Authorized Signature -

Printed Name

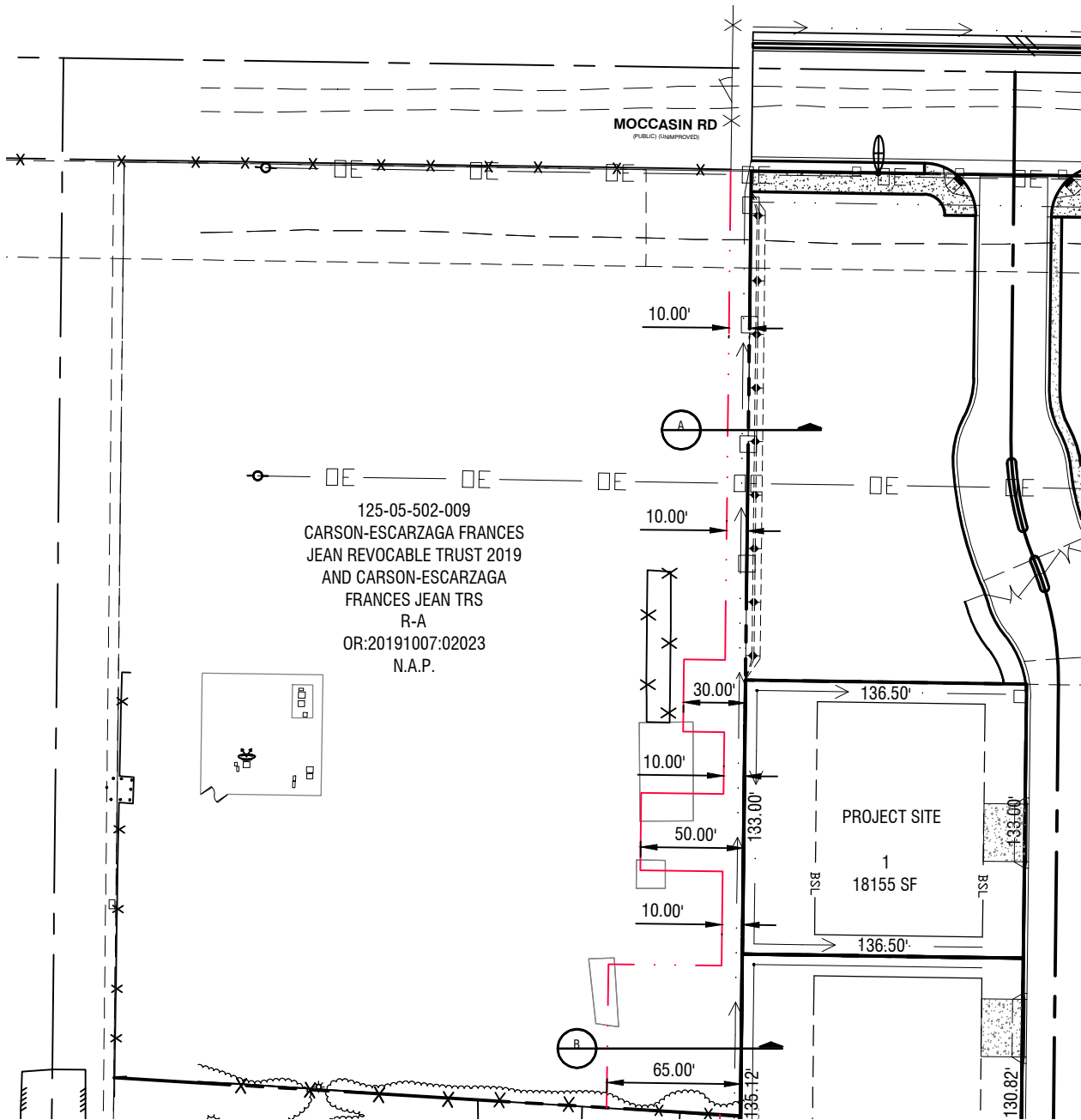
State of _____

County of _____

On this ____ day of _____, 2022, subscribed and acknowledged before me,
_____ a Notary Public in and for said County and State.

Notary Public in and for said County and State

My commission expires on _____.



125-05-502-009
CARSON-ESCARZAGA FRANCES
JEAN REVOCABLE TRUST 2019
AND CARSON-ESCARZAGA
FRANCES JEAN TRS
R-A
OR:20191007:02023
N.A.P.



STRIVE
ENGINEERING

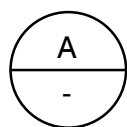
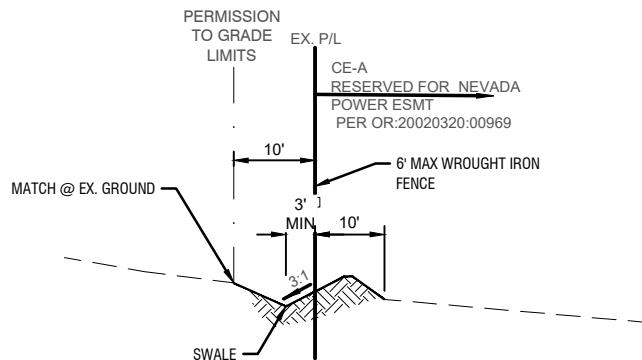
8912 SPANISH RIDGE AVENUE
SUITE 200
LAS VEGAS, NV 89148

DATE: 3/15/2022 DRAWN BY: JBO

SHEET: 1 OF 2

APN: 125-05-502-009

PERMISSION TO GRADE EXHIBIT
SCALE: 1" = 80'

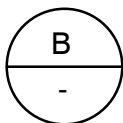
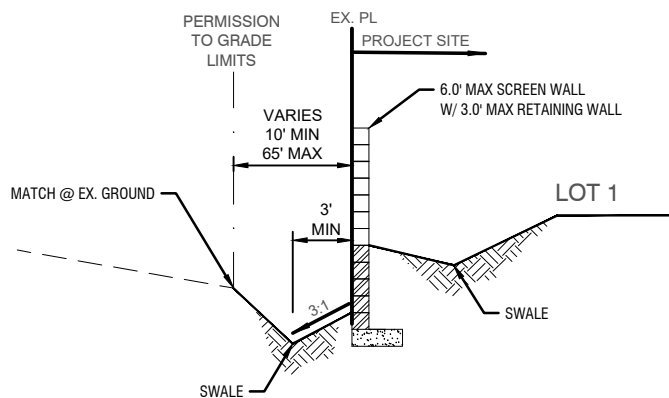


WEST PROPERTY LINE W/ BERM

ADJACENT TO

NOT TO SCALE

APN 125-05-502-009



LOTS 1 REAR WALL

WEST PROPERTY LINE ADJACENT TO

NOT TO SCALE

APN 125-05-502-009

March 15, 2022

ESCARZAGA CRAIG C
JOHNSON FRANCES J
Address
City, State ZIP

Subject: Permission to Grade
APN: 125-05-502-010

To Property Owners of the above referenced parcel:

Century Communities of Nevada, LLC respectfully requests authorization to grade a swale along the eastern perimeter of the shared boundary line of above reference parcel located within the City of Las Vegas. See attached Exhibit A for the subject area.

This letter shall serve as verification and permission for Century Communities of Nevada, LLC and its assignees to encroach APN #125-05-502-010 and perform the construction associated with drainage improvements. Permission is granted by the owner(s) and their assignees with the notarized signature(s) on the attached Permission to Grade document.

Please provide an original signed copy of the attached document to:

Attn: Joe Genovese
Century Communities of Nevada, LLC
6345 Jones Boulevard
Ste 400
Las Vegas, NV 89118

Please contact me at (702) 330-4694 with any questions.

Sincerely,

Joe Genovese

GRANT OF PERMISSION

(I, We) _____, (owner(s) of Assessor's Parcel Number 125-05-502-010) hereby grant Century Communities of Nevada, LLC its successors and assigns permission to encroach onto the easterly portion of parcel 125-05-502-010 as indicated on the attached Exhibit A for purposes of grading and drainage construction.

Century Communities of Nevada, LLC its successors and assigns, agrees to indemnify, pay, defend, and hold harmless Owner for, from, and against any and all claims, actions, causes of action, damages, and liabilities, death, personal injury or physical property damage, or mechanic's or materialman's liens, including attorney's fees and court costs, which result from or are in any way related to any entry upon inspections, grading, tests, or any other investigations, in order to perform the work permitted herein, undertaken by Century Communities of Nevada, LLC, its agents, or designees in connection with the property.

In witness whereof, the owner has executed this permission on the ___ day of _____, 2022.

Authorized Signature -

Printed Name

State of _____

County of _____

On this ____ day of _____, 2022, subscribed and acknowledged before me,
_____ a Notary Public in and for said County and State.

Notary Public in and for said County and State

My commission expires on _____.

STRIVE
ENGINEERING

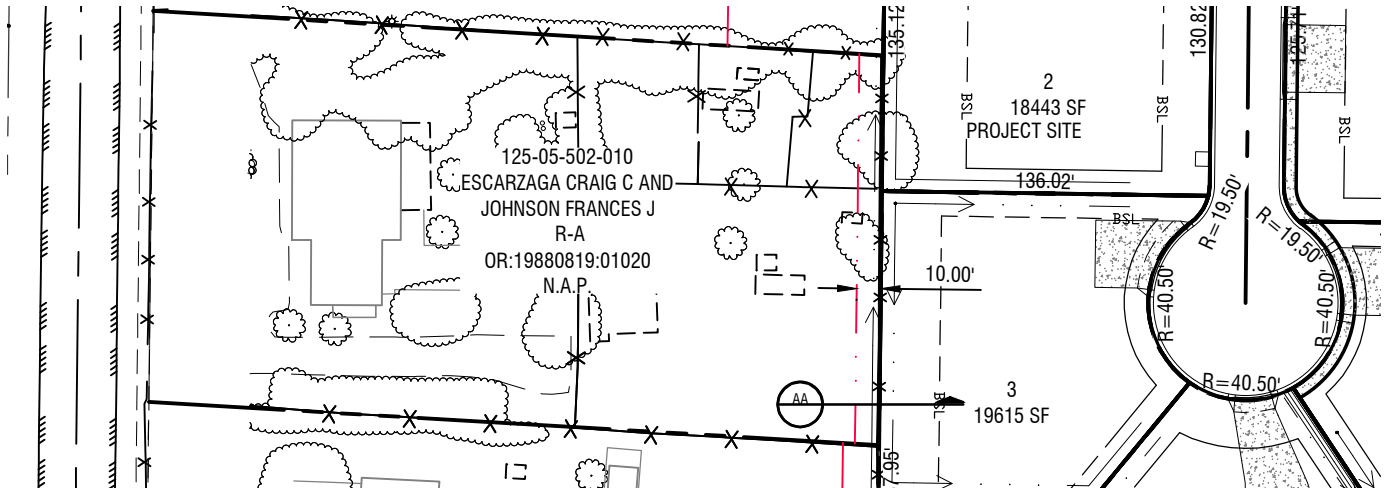
8912 SPANISH RIDGE AVENUE
SUITE 200
LAS VEGAS, NV 89148

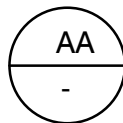
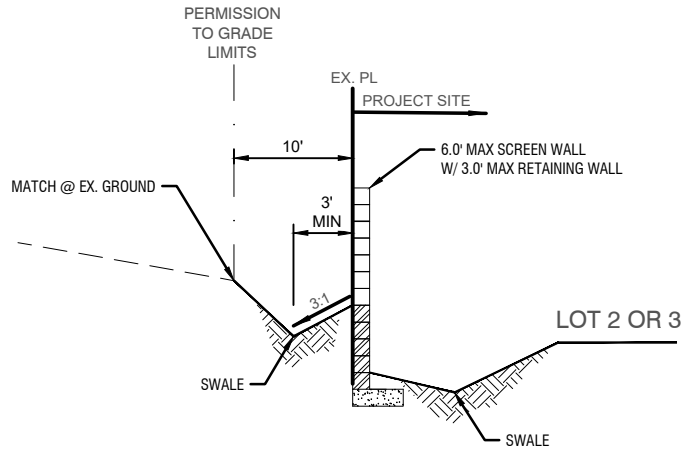
DATE: 3/15/2022 DRAWN BY: JBO

SHEET: 1 OF 2

APN: 125-05-502-010

**PERMISSION TO GRADE EXHIBIT
SCALE: 1" = 80'**





LOTS 2 & 3 REAR WALL
WEST PROPERTY LINE ADJACENT TO
APN 125-05-502-010

NOT TO SCALE

March 15, 2022

ACK LIVING TRUST
KIST ALAN DALE & CAROLINE TRS
Address
City, State ZIP

Subject: Permission to Grade
APN: 125-05-502-011

To Property Owners of the above referenced parcel:

Century Communities of Nevada, LLC respectfully requests authorization to grade a swale along the eastern perimeter of the shared boundary line of above reference parcel located within the City of Las Vegas. See attached Exhibit A for the subject area.

This letter shall serve as verification and permission for Century Communities of Nevada, LLC and its assignees to encroach APN #125-05-502-011 and perform the construction associated with drainage improvements. Permission is granted by the owner(s) and their assignees with the notarized signature(s) on the attached Permission to Grade document.

Please provide an original signed copy of the attached document to:

Attn: Joe Genovese
Century Communities of Nevada, LLC
6345 Jones Boulevard
Ste 400
Las Vegas, NV 89118

Please contact me at (702) 330-4694 with any questions.

Sincerely,

Joe Genovese

GRANT OF PERMISSION

(I, We) _____, (owner(s) of Assessor's Parcel Number 125-05-502-011) hereby grant Century Communities of Nevada, LLC its successors and assigns permission to encroach onto the easterly portion of parcel 125-05-502-011 as indicated on the attached Exhibit A for purposes of grading and drainage construction.

Century Communities of Nevada, LLC its successors and assigns, agrees to indemnify, pay, defend, and hold harmless Owner for, from, and against any and all claims, actions, causes of action, damages, and liabilities, death, personal injury or physical property damage, or mechanic's or materialman's liens, including attorney's fees and court costs, which result from or are in any way related to any entry upon inspections, grading, tests, or any other investigations, in order to perform the work permitted herein, undertaken by Century Communities of Nevada, LLC, its agents, or designees in connection with the property.

In witness whereof, the owner has executed this permission on the ___ day of _____, 2022.

Authorized Signature -

Printed Name

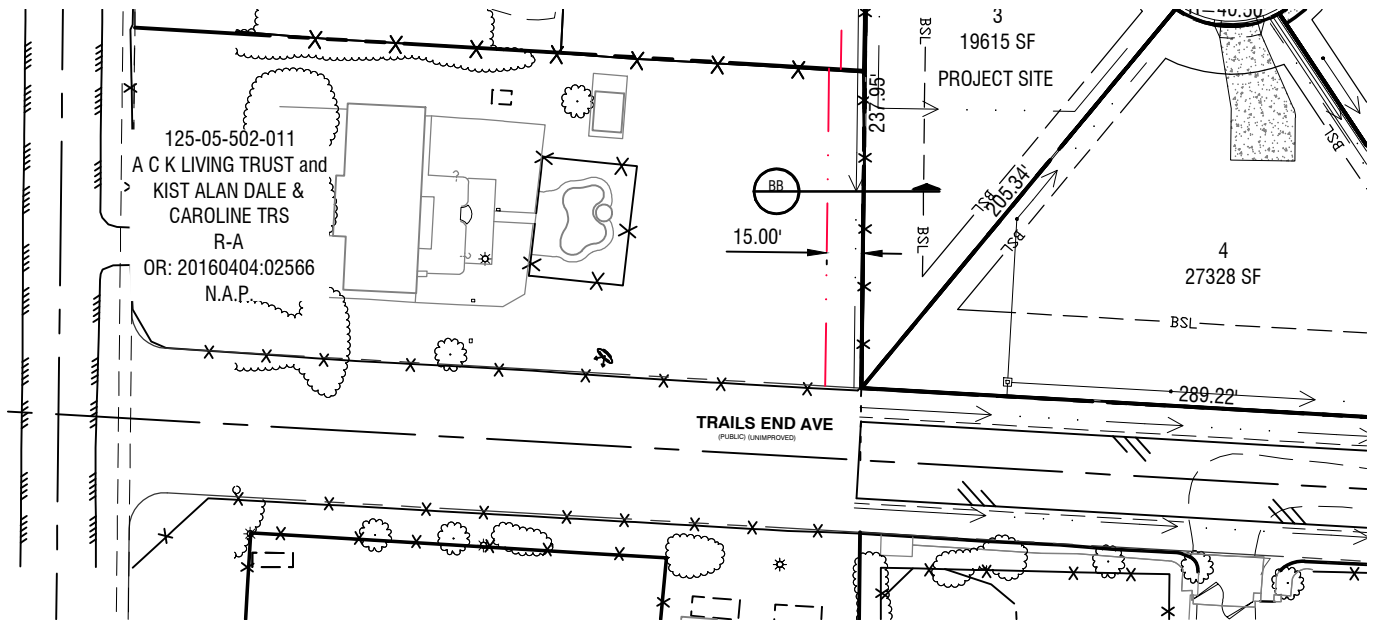
State of _____

County of _____

On this ____ day of _____, 2022, subscribed and acknowledged before me,
_____ a Notary Public in and for said County and State.

Notary Public in and for said County and State

My commission expires on _____.



8912 SPANISH RIDGE AVENUE
SUITE 200
LAS VEGAS, NV 89148

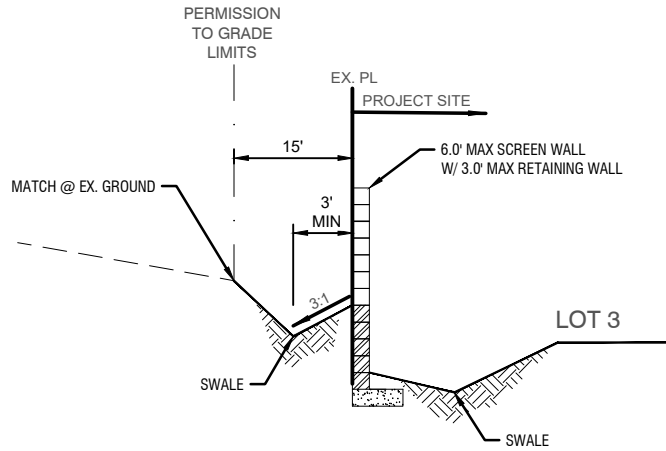
DATE: 3/15/2022 DRAWN BY: JBO

SHEET: 1 OF 2

APN: 125-05-502-011

PERMISSION TO GRADE EXHIBIT
SCALE: 1" = 80'

STRIVE
ENGINEERING



BB
-
LOTS 3 REAR WALL
WEST PROPERTY LINE ADJACENT TO
APN 125-05-502-011
NOT TO SCALE

G:\SHARED DRIVES\PROJECTS\21.06.0072_CTC_MOCCASIN HOMESTEAD WEST\05_CADD\04_EXHIBITS\PERMISSION TO GRADE\MOCCASIN HOMESTEAD WEST-PTG EXHIBITS.DWG

3/15/22 JOANNA OPENA

STRIVE
ENGINEERING

8912 SPANISH RIDGE AVENUE
SUITE 200
LAS VEGAS, NV 89148

DATE: 3/15/2022 DRAWN BY: JBO

SHEET: 2 OF 2

APN: 125-05-502-011

CROSS SECTIONS


```

1*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
* JUN 1998
* VERSION 4.1
*
* RUN DATE 14MAR22 TIME 11:01:57
*
*****

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*****
*
* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET
* DAVIS, CALIFORNIA 95616
* (916) 756-1104
*
*****

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```

      X   X  XXXXXX  XXXXX      X
      X   X  X      X   X      XX
      X   X  X      X           X
      XXXXXX XXXX  X           XXXX  X
      X   X  X      X           X
      X   X  X      X   X      X
      X   X  XXXXXX  XXXXX      XXX

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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE. THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
 NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
 DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
 KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1

HEC-1 INPUT

PAGE 1

```

LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1         ID
2         ID *****
3         ID *      HYDROLOGIC ANALYSIS      *
4         ID *      FOR                      *
5         ID *      MOCCASIN HOMESTEAD WEST  *
6         ID *      PROPOSED CONDITION      *
7         ID *****
8         ID
9         ID *****
10        ID *      10 & 100 YEAR            *
11        ID *      STORM EVENT              *
12        ID *****
13        ID
14        ID *DIAGRAM
15        IT      5      0      0      300
16        IO      5      0      0
17        IN      5      0      0
18        JR      PREC  1.00  0.57
19        *
20        KK      MOC
21        KM      PROPOSED MOCCASIN RD OFFSITE BASIN
22        BA      .0006
23        PB      2.77
24        PC      .000  .020  .057  .070  .087  .108  .124  .130  .130  .130
25        PC      .130  .130  .130  .133  .140  .142  .148  .158  .172  .181
26        PC      .190  .197  .199  .200  .201  .204  .214  .229  .241  .249
27        PC      .251  .256  .270  .278  .281  .283  .295  .322  .352  .409
28        PC      .499  .590  .710  .744  .781  .812  .819  .835  .851  .856
29        PC      .860  .868  .876  .888  .910  .926  .937  .950  .970  .976
30        PC      .982  .985  .987  .989  .990  .993  .993  .994  .995  .998
31        PC      .998  .999  1.00
32        LS      0      98.0
33        UD      .050
34        *
35        KK      HOM-N
36        KM      PROPOSED NORTH HOMESTEAD RD OFFSITE BASIN
37        BA      .0006
38        LS      0      98.0
39        UD      .085
40        *
41        KK      ON-1
42        KM      PROPOSED ONSITE BASIN 1 LOW DENSITY RESIDENTIAL
43        BA      .0033
44        LS      0      65.0
45        UD      .123
46        *

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1

HEC-1 INPUT

PAGE 2

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LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

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42	KK	CP-C	
43	KM	COMBINATION POINT OF CP-A, MOC, HOM-N, ON-1	
44	HC	3	
	*		
45	KK	TRE	
46	KM	PROPOSED TRAILS END AVENUE BASIN	
47	BA	.0004	
48	LS	0	98.0
49	UD	.050	
	*		
50	KK	HOM-S	
51	KM	REPRESENTS SOUTH HOMESTEAD OFFSITE BASIN	
52	BA	.0002	
53	LS	0	98.0
54	UD	.050	
	*		
55	KK	ON-2	
56	KM	REPRESENTS PROPSD ONSITE BASIN 2 OM DENSITY RESIDENTIAL	
57	BA	.0050	
58	LS	0	65.0
59	UD	.071	
	*		
60	KK	CP-D	
61	KM	COMBINATION POINT TRE, HOM-S, ON-2	
62	HC	3	
	*		
63	ZZ		

1

SCHEMATIC DIAGRAM OF STREAM NETWORK

INPUT LINE	(V) ROUTING	(--->) DIVERSION OR PUMP FLOW
NO.	(.) CONNECTOR	(<---) RETURN OF DIVERTED OR PUMPED FLOW
18	MOC	
	.	
32	.	HOM-N
	.	
37	.	ON-1
	.	
42	CP-C.....	
	.	
45	.	TRE
	.	
50	.	HOM-S
	.	
55	.	ON-2
	.	
60	.	CP-D.....

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```

1*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1) *
* JUN 1998 *
* VERSION 4.1 *
* RUN DATE 14MAR22 TIME 11:01:57 *
*
*****

```

```

*****
*
* U.S. ARMY CORPS OF ENGINEERS *
* HYDROLOGIC ENGINEERING CENTER *
* 609 SECOND STREET *
* DAVIS, CALIFORNIA 95616 *
* (916) 756-1104 *
*
*****

```

```

*****
* HYDROLOGIC ANALYSIS *
* FOR *
* MOCCASIN HOMESTEAD WEST *
* PROPOSED CONDITION *
*****

```

```

*****
* 10 & 100 YEAR *
* STORM EVENT *
*****

```

```

15 IO      OUTPUT CONTROL VARIABLES
           IPRNT      5  PRINT CONTROL
           IPLOT      0  PLOT CONTROL
           QSCAL     0.  HYDROGRAPH PLOT SCALE

IT         HYDROGRAPH TIME DATA
           NMIN       5  MINUTES IN COMPUTATION INTERVAL
           IDATE      1  0  STARTING DATE
           ITIME     0000 STARTING TIME
           NQ        300 NUMBER OF HYDROGRAPH ORDINATES
           NDDATE     2  0  ENDING DATE
           NDTIME     0055 ENDING TIME
           ICENT      19  CENTURY MARK

           COMPUTATION INTERVAL .08 HOURS
           TOTAL TIME BASE 24.92 HOURS

```

```

ENGLISH UNITS
DRAINAGE AREA      SQUARE MILES
PRECIPITATION DEPTH INCHES
LENGTH, ELEVATION  FEET
FLOW               CUBIC FEET PER SECOND
STORAGE VOLUME     ACRE-FEET
SURFACE AREA       ACRES
TEMPERATURE        DEGREES FAHRENHEIT

```

```

JP         MULTI-PLAN OPTION
           NPLAN      1  NUMBER OF PLANS

```

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JR         MULTI-RATIO OPTION
           RATIOS OF PRECIPITATION
           1.00      .57

```

1

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PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
      FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
      TIME TO PEAK IN HOURS

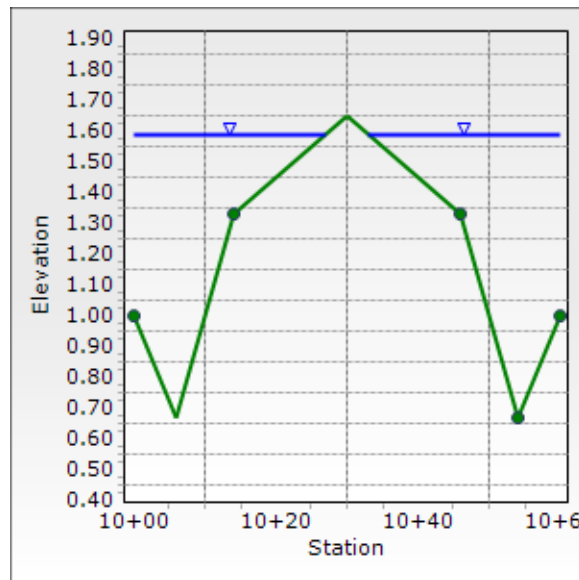
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OPERATION	STATION	AREA	PLAN	RATIOS APPLIED TO PRECIPITATION		
				RATIO 1 1.00	RATIO 2 .57	
HYDROGRAPH AT +	MOC	.00	1 FLOW TIME	1. 3.50	1. 3.50	
HYDROGRAPH AT +	HOM-N	.00	1 FLOW TIME	1. 3.50	1. 3.50	
HYDROGRAPH AT +	ON-1	.00	1 FLOW TIME	1. 3.58	0. 4.92	
3 COMBINED AT +	CP-C	.00	1 FLOW TIME	3. 3.50	1. 3.50	+ CPA (27/3) = 30/4 CFS
HYDROGRAPH AT +	TRE	.00	1 FLOW TIME	1. 3.50	1. 3.50	
HYDROGRAPH AT +	HOM-S	.00	1 FLOW TIME	0. 3.50	0. 3.50	
HYDROGRAPH AT +	ON-2	.00	1 FLOW TIME	2. 3.50	0. 4.83	
3 COMBINED AT +	CP-D	.01	1 FLOW TIME	3. 3.50	1. 3.50	+ CPB (124/28) = 127/29 CFS

*** NORMAL END OF HEC-1 ***

Cross Section for SECTION C - Q100 TRAILS END FULL-STREET PROPOSED

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	2.05 %
Normal Depth	0.92 ft
Discharge	127.00 cfs CPB + TRE+ ON2



**DXV = 0.92 X 5.77 = 5.31 < 8;
THEREFORE MEETS CRITERIA**

Worksheet for SECTION C - Q100 TRAILS END FULL-STREET PROPOSED

Project Description	
Friction Method	Manning
Solve For	Formula
	Normal Depth
Input Data	
Channel Slope	2.05 %
Discharge	127.00 cfs

Section Definitions

Station (ft)	Elevation (ft)
10+00.000	1
10+06.000	0.67
10+14.000	1.33
10+30.000	1.65
10+46.000	1.33
10+54.000	0.67
10+60.000	1

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(10+00.000, 1)	(10+14.000, 1.33)	0.025
(10+14.000, 1.33)	(10+46.000, 1.33)	0.016
(10+46.000, 1.33)	(10+54.000, 0.67)	0.016
(10+54.000, 0.67)	(10+60.000, 1)	0.025

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

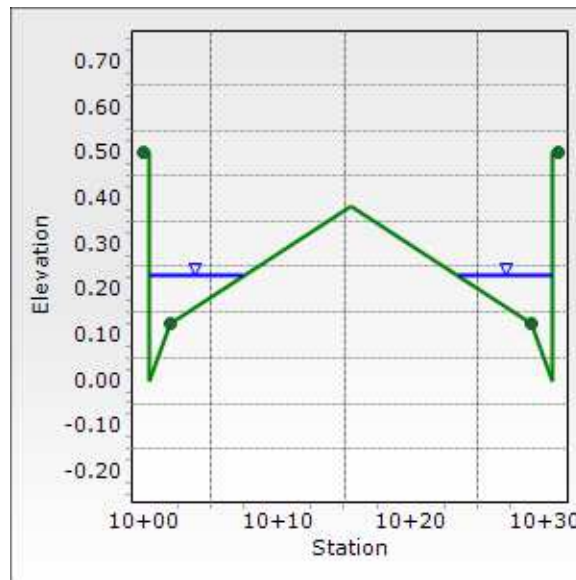
Results	
Normal Depth	0.92 ft
Roughness Coefficient	0.020
Elevation	1.59 ft
Elevation Range	0.670 to 1.650 ft
Flow Area	22.0 ft ²
Wetted Perimeter	55.527 ft
Hydraulic Radius	0.40 ft
Top Width	54.26 ft
Normal Depth	0.92 ft
Critical Depth	1.08 ft

Worksheet for SECTION C - Q100 TRAILS END FULL-STREET PROPOSED

Results	
Critical Slope	0.75 %
Velocity	5.77 ft/s
Velocity Head	0.517 ft
Specific Energy	1.44 ft
Froude Number	1.596
Flow Type	Supercritical
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	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	0.92 ft
Critical Depth	1.08 ft
Channel Slope	2.05 %
Critical Slope	0.75 %

Cross Section for SECTION E - Q100 PRIVATE STREET FULL-STREET PROPOSED

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	1.18 %
Normal Depth	0.23 ft
Discharge	2.00 cfs ON2



DXV = 0.023 X 1.87 = 0.43 < 8;
THEREFORE MEETS CRITERIA

Worksheet for SECTION E - Q100 PRIVATE STREET FULL-STREET PROPOSED

Project Description	
Friction Method	Manning
Solve For	Formula
	Normal Depth
Input Data	
Channel Slope	1.18 %
Discharge	2.00 cfs

Section Definitions

Station (ft)	Elevation (ft)
10+00.000	0.5
10+00.500	0.5
10+00.500	0
10+02.000	0.125
10+15.500	0.385
10+29.000	0.125
10+30.500	0
10+30.500	0.5
10+31.000	0.5

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(10+00.000, 0.5)	(10+02.000, 0.125)	0.013
(10+02.000, 0.125)	(10+29.000, 0.125)	0.016
(10+29.000, 0.125)	(10+31.000, 0.5)	0.013

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

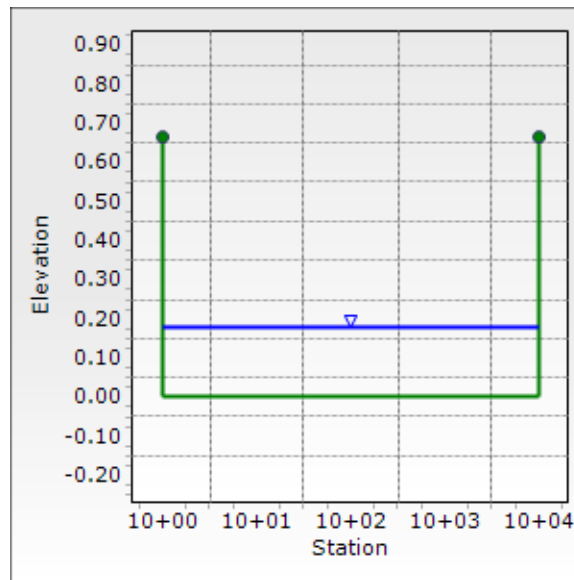
Results	
Normal Depth	0.23 ft
Roughness Coefficient	0.015
Elevation	0.23 ft
Elevation Range	0.000 to 0.500 ft
Flow Area	1.1 ft ²
Wetted Perimeter	14.325 ft
Hydraulic Radius	0.07 ft
Top Width	13.85 ft
Normal Depth	0.23 ft

Worksheet for SECTION E - Q100 PRIVATE STREET FULL-STREET PROPOSED

Results	
Critical Depth	0.24 ft
Critical Slope	0.82 %
Velocity	1.87 ft/s
Velocity Head	0.0545 ft
Specific Energy	0.28 ft
Froude Number	1.189
Flow Type	Supercritical
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	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	0.23 ft
Critical Depth	0.24 ft
Channel Slope	1.18 %
Critical Slope	0.82 %

Cross Section for SECTION G - Q100 16"X48" WALL OPENING 50% CLOG

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.65 %
Normal Depth	0.18 ft
Discharge	2.00 cfs ON2



SECTION SHOWN IS WALL
OPENING AT THE SEC OF LOT 4

Worksheet for SECTION G - Q100 16"X48" WALL OPENING 50% CLOG

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.65 %
Discharge	2.00 cfs

Section Definitions

Station (ft)	Elevation (ft)
10+00.000	0.667
10+00.000	0
10+04.000	0
10+04.000	0.667

ASSUMED
WALL
OPENING
IS 50%
CLOGGED

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(10+00.000, 0.667)	(10+04.000, 0.667)	0.013

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	0.18 ft
Roughness Coefficient	0.013
Elevation	0.18 ft
Elevation Range	0.0 to 0.7 ft
Flow Area	0.7 ft ²
Wetted Perimeter	4.360 ft
Hydraulic Radius	0.17 ft
Top Width	4.00 ft
Normal Depth	0.18 ft
Critical Depth	0.20 ft
Critical Slope	0.48 %
Velocity	2.78 ft/s
Velocity Head	0.12 ft
Specific Energy	0.30 ft
Froude Number	1.153
Flow Type	Supercritical

GVF Input Data

Worksheet for SECTION G - Q100 16"X48" WALL OPENING 50% CLOG

GVF Input Data

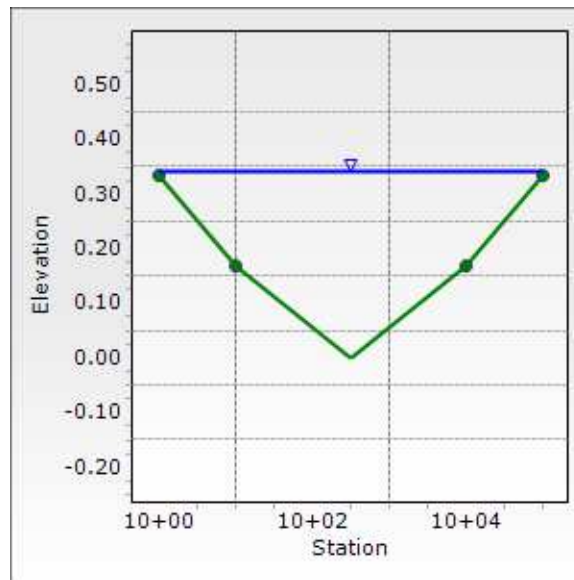
Downstream Depth	0.00 ft
Length	0.000 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.00 ft
Profile Description	N/A
Profile Headloss	0.00 ft
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	0.18 ft
Critical Depth	0.20 ft
Channel Slope	0.65 %
Critical Slope	0.48 %

Cross Section for SECTION H - Q100 LOT 4 & 5 CONCRETE-LINED GUTTER

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.65 %
Normal Depth	0.34 ft
Discharge	2.00 cfs ON2



Worksheet for SECTION H - Q100 LOT 4 & 5 CONCRETE-LINED GUTTER

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.65 %
Discharge	2.00 cfs

Section Definitions

Station (ft)	Elevation (ft)
10+00.000	0.333
10+01.000	0.167
10+02.500	0
10+04.000	0.167
10+05.000	0.333

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(10+00.000, 0.333)	(10+01.000, 0.167)	0.025
(10+01.000, 0.167)	(10+04.000, 0.167)	0.013
(10+04.000, 0.167)	(10+05.000, 0.333)	0.025

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	0.34 ft
Roughness Coefficient	0.019
Elevation	0.341 ft
Elevation Range	0.000 to 0.333 ft
Flow Area	1.0 ft ²
Wetted Perimeter	5.062 ft
Hydraulic Radius	0.19 ft
Top Width	5.00 ft
Normal Depth	0.34 ft
Critical Depth	0.32 ft
Critical Slope	0.93 %
Velocity	2.10 ft/s
Velocity Head	0.0683 ft
Specific Energy	0.41 ft

Worksheet for SECTION H - Q100 LOT 4 & 5 CONCRETE-LINED GUTTER

Results

Froude Number	0.846
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	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	0.34 ft
Critical Depth	0.32 ft
Channel Slope	0.65 %
Critical Slope	0.93 %

Worksheet for SECTION H - Q100 LOT 4 & 5 CONCRETE-LINED GUTTER

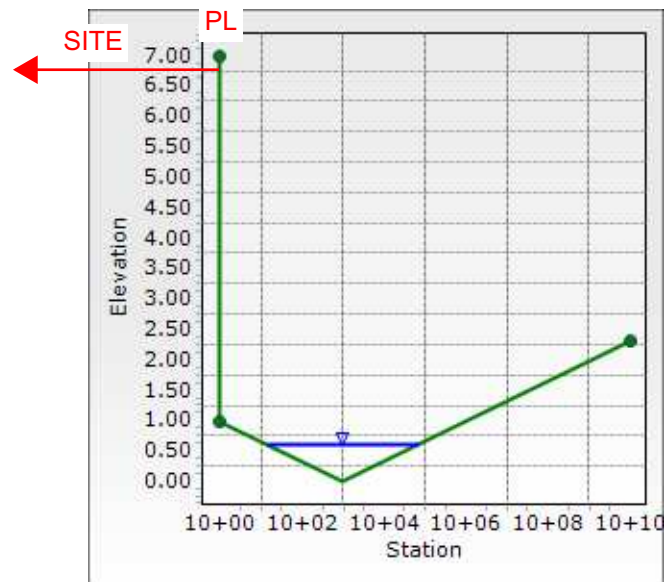
Messages:

Water Surface Elevation exceeds lowest end station by 0.00791277475673763ft.

Cross Section for SECTION J - Q100 SOUTHWEST BNDY GRADED SWALE

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	1.81 %
Normal Depth	0.61 ft
Discharge	4.00 cfs

15% OF CPA = 0.15 X 27



FLOW ALONG WESTERN
BOUNDARY Q100 = 27 CFS

APPROXIMATELY 15% OF THIS
FLOW DRAINS TO TO CROSS
SECTION J, THE REMAINING
85% DRAINS TO SECTION K

Worksheet for SECTION J - Q100 SOUTHWEST BNDY GRADED SWALE

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	1.81 %
Discharge	4.00 cfs

Section Definitions

Station (ft)	Elevation (ft)
10+00.000	6.99
10+00.000	0.99
10+03.000	0
10+10.000	2.31

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(10+00.000, 6.99)	(10+00.000, 0.99)	0.013
(10+00.000, 0.99)	(10+10.000, 2.31)	0.025

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	0.61 ft
Roughness Coefficient	0.025
Elevation	0.613 ft
Elevation Range	0.000 to 6.990 ft
Flow Area	1.1 ft ²
Wetted Perimeter	3.911 ft
Hydraulic Radius	0.29 ft
Top Width	3.71 ft
Normal Depth	0.61 ft
Critical Depth	0.64 ft
Critical Slope	1.43 %
Velocity	3.51 ft/s
Velocity Head	0.192 ft
Specific Energy	0.80 ft
Froude Number	1.119
Flow Type	Supercritical

Worksheet for SECTION J - Q100 SOUTHWEST BNDY GRADED SWALE

GVF Input Data

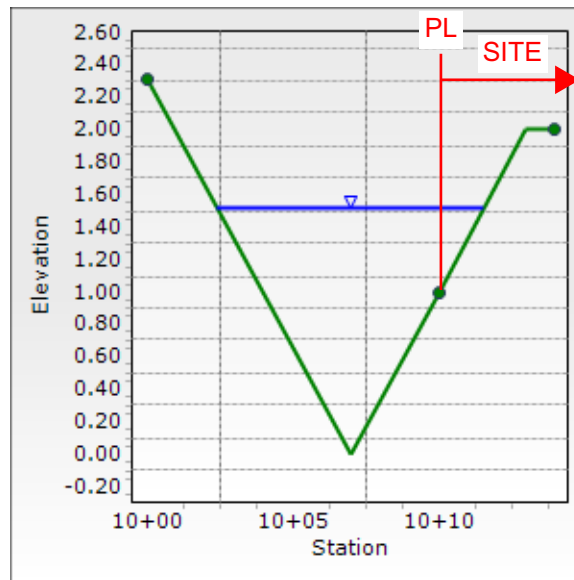
Downstream Depth	0.00 ft
Length	0.000 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.00 ft
Profile Description	N/A
Profile Headloss	0.00 ft
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	0.61 ft
Critical Depth	0.64 ft
Channel Slope	1.81 %
Critical Slope	1.43 %

Cross Section for SECTION K - Q100 NORTHWEST BNDY GRADED SWALE

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.48 %
Normal Depth	1.52 ft
Discharge	23.00 cfs 85% OF CPA = 0.85 X 27



FLOW ALONG WESTERN
BOUNDARY Q100 = 27 CFS

APPROXIMATELY 85% OF THIS
FLOW DRAINS TO TO CROSS
SECTION K, THE REMAINING
15% DRAINS TO SECTION J

Worksheet for SECTION K - Q100 NORTHWEST BNDY GRADED SWALE

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.48 %
Discharge	23.00 cfs

Section Definitions

Station (ft)	Elevation (ft)
10+00.000	2.31
10+07.000	0
10+10.000	1
10+13.000	2
10+14.000	2

Roughness Segment Definitions

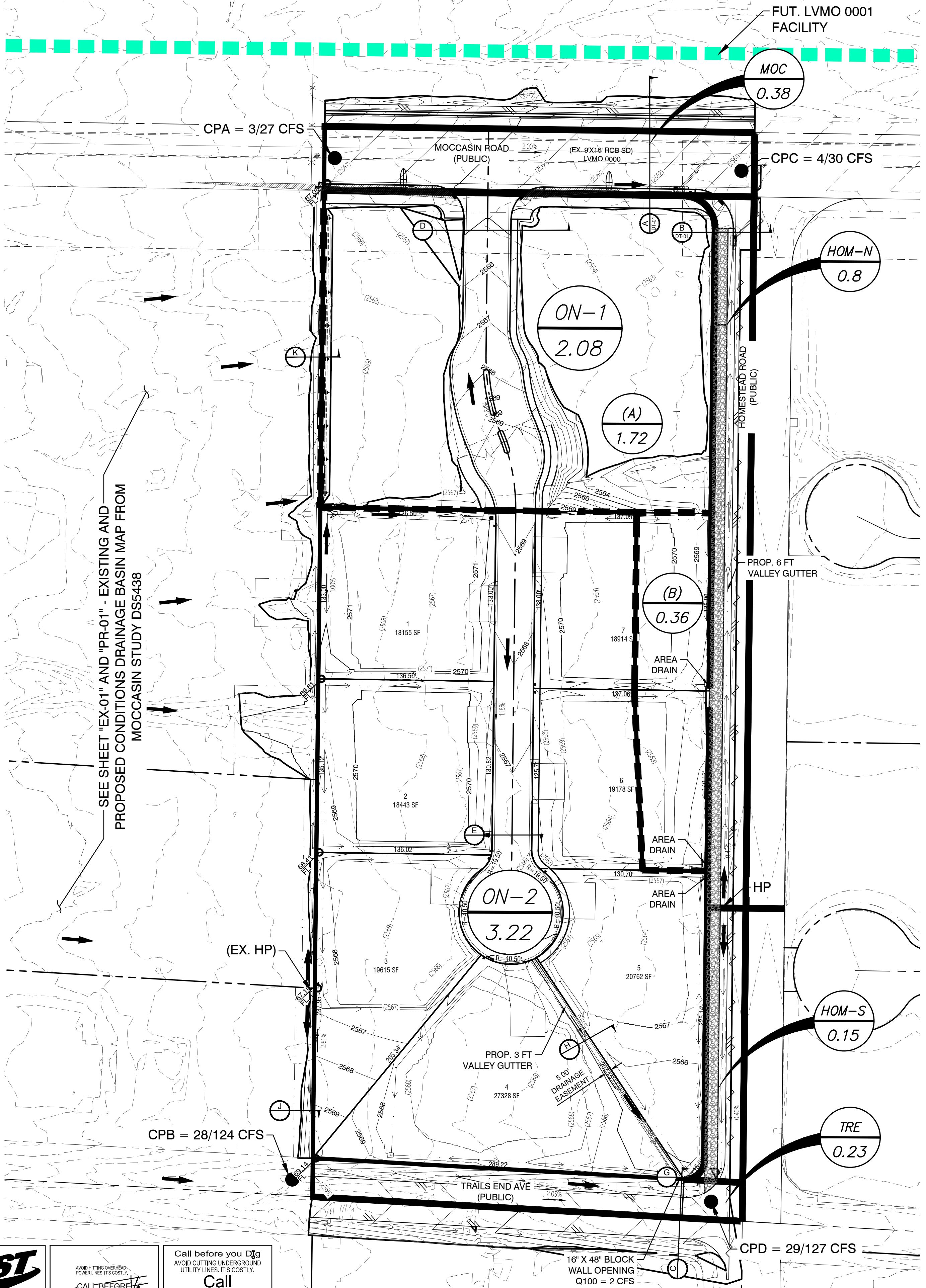
Start Station	Ending Station	Roughness Coefficient
(10+00.000, 2.31)	(10+10.000, 1)	0.025
(10+10.000, 1)	(10+14.000, 2)	0.025

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	1.52 ft
Roughness Coefficient	0.025
Elevation	1.52 ft
Elevation Range	0.000 to 2.310 ft
Flow Area	7.0 ft ²
Wetted Perimeter	9.647 ft
Hydraulic Radius	0.72 ft
Top Width	9.16 ft
Normal Depth	1.52 ft
Critical Depth	1.29 ft
Critical Slope	1.13 %
Velocity	3.31 ft/s
Velocity Head	0.17 ft
Specific Energy	1.69 ft
Froude Number	0.669

Worksheet for SECTION K - Q100 NORTHWEST BNDY GRADED SWALE

Results	
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	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	1.52 ft
Critical Depth	1.29 ft
Channel Slope	0.48 %
Critical Slope	1.13 %



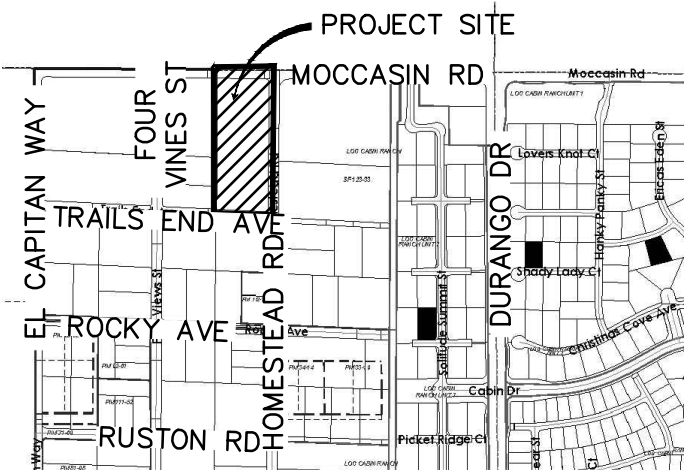
PROPOSED CONDITION FLOW RATE SUMMARY				
BASIN ID	NOTES	AREA (ac)	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)
CPA	*CP2 + #EMR1- ANW130W(A) = Q ₁₀₀ = 28+2-3 = 27 Q ₁₀ = 3+0-0 = 0 REFERENCED FROM DS5438 "MOCCASIN HOMESTEAD"	-	27	3
MOC		0.38	1	1
HOM-N		0.80	1	1
ON-1		2.08	1	<1
CPC	CPA + MOC + HOM-N + ON-1	-	30	4
CPB	*CP4 - BNW130W(A) = Q ₁₀₀ = 124-0 = 124 Q ₁₀ = 28-0 = 28 REFERENCED FROM DS5438 "MOCCASIN HOMESTEAD"	-	124	28
TRE		0.23	1	1
HOM-S		0.15	<1	<1
ON-2		3.22	2	<1
CPD	CPB + TRE + HOM-S + ON-2	-	127	29

PROPOSED CONDITION - BASIN PRORATION CALCULATIONS					
BASIN ID	AREA (ac)	Q ₁₀₀ (cfs)	Q ₁₀₀ UNIT FLOW(cfs/ac)	Q ₁₀ (cfs)	Q ₁₀ UNIT FLOW(cfs/ac)
ON-1	2.08	1	0.48	<1	-
SUBBASIN ID	AREA (ac)	Q ₁₀₀ (cfs)	Q ₁₀₀ UNIT FLOW(cfs/ac)	Q ₁₀ (cfs)	Q ₁₀ UNIT FLOW(cfs/ac)
ON-1 (A)	1.72	-	0.83	<1	-
ON-1 (B)	0.36	-	0.17	<1	-
TOTAL	2.08	1	-	0	-

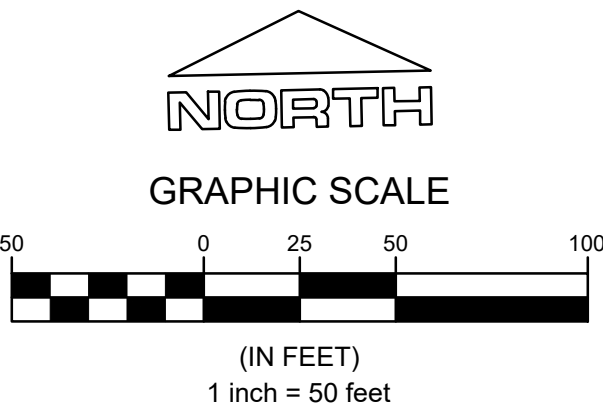
HEC-1 FLOW IS <1 FOR Q100 BUT FOR FLOW IS CONSERVATIVELY ASSUMED AS 1 CFS FOR HYDRAULICS

PROPOSED CONDITION STREET FLOW HYDRAULIC SUMMARY								
CONDITION	SECTION ID	NOTES	SLOPE (%)	Q (cfs)	DEPTH (ft)	VELOCITY (fps)	DxV	DRY LANE (ft)
PROPOSED, 10-YEAR	A	MOCCASIN HALF STREET:CPA + MOC	2.00	4	0.32	3.16	1.01	25
	B	HOMESTEAD HALF STREET: ON-1(B) + HOM-N	0.40	1	0.15	0.91	0.14	N/A
	C	TRAILS-END: CPB + TRE + ON-2	2.05	29	0.51	4.04	2.06	N/A
	D	PRIVATE STREET FULL-STREET ENTRY: ON-1(A)	2.50	1	0.17	2.28	0.39	N/A
	E	PRIVATE STREET FULL-STREET: ON-2	1.18	1	0.19	1.64	0.31	N/A
PROPOSED, 100-YEAR	A	MOCCASIN HALF STREET:CPA + MOC	2.00	28	0.6	4.27	2.56	N/A
	B	HOMESTEAD HALF STREET: ON-1(B) + HOM-N	0.40	1	0.15	0.91	0.14	N/A
	C	TRAILS-END: CPB + TRE + ON-2	2.05	127	0.92	5.77	5.31	N/A
	D	PRIVATE STREET FULL-STREET ENTRY: ON-1(A)	2.50	1	0.17	2.28	0.39	N/A
	E	PRIVATE STREET FULL-STREET: ON-2	1.18	2	0.23	1.87	0.43	N/A

PROPOSED CONDITION DRAINAGE EASEMENT HYDRAULIC SUMMARY						
CONDITION	SECTION ID	NOTES	SLOPE (%)	Q (cfs)	DEPTH (ft)	VELOCITY (fps)
PROPOSED, 100-YEAR	G	16"X48" WALL OPENING W/ 50% CLOGGING :	0.65	2	0.18	2.78
	H	5-FT WIDE DRAINAGE EASEMENT W/ 3-FT WIDE VALLEY GUTTER	0.65	2	0.34	2.10
	J	GRADED SWALE	1.81	4	0.61	3.51
	K	GRADED SWALE	0.48	23	1.52	3.31



VICINITY MAP



PROPOSED CONDITION ASSUMPTIONS

- ALL OFFSITE BASINS ARE CONSIDERED IN THEIR EXISTING CONDITION.
- ONSITE BASINS ARE DEVELOPED.

NOTE

- # PROPOSED CONDITION FLOW RATES REFERENCED FROM EXISTING BASIN MAP EX-01 FROM MOCCASIN HOMESTEAD TECHNICAL DRAINAGE STUDY DS #5438
- * PROPOSED CONDITION FLOW RATES REFERENCED FROM PROPOSED ONSITE BASIN MAP PR-01 FROM MOCCASIN HOMESTEAD TECHNICAL DRAINAGE STUDY DS #5438

LEGEND

- BASIN BOUNDARY
- SUB-BASIN BOUNDARY
- FUTURE CCRFCD FACILITY
- SOIL BOUNDARY
- SOIL TYPE
- FLOW ARROW
- CONCENTRATION POINT (CP#)
Q₁₀/Q₁₀₀ CFS
- BASIN ID & ACREAGE
- SUBBASIN ID & ACREAGE
- HYDRAULIC CROSS-SECTION

REVISIONS

STRIVE
ENGINEERING

PREPARED FOR

MOCCASIN HOMESTEAD WEST

TITLE

PROPOSED CONDITION ONSITE
DRAINAGE BASIN MAP

SHEET

03/14/22
PR-01
1 OF 1
DRAWING NO.
TBD

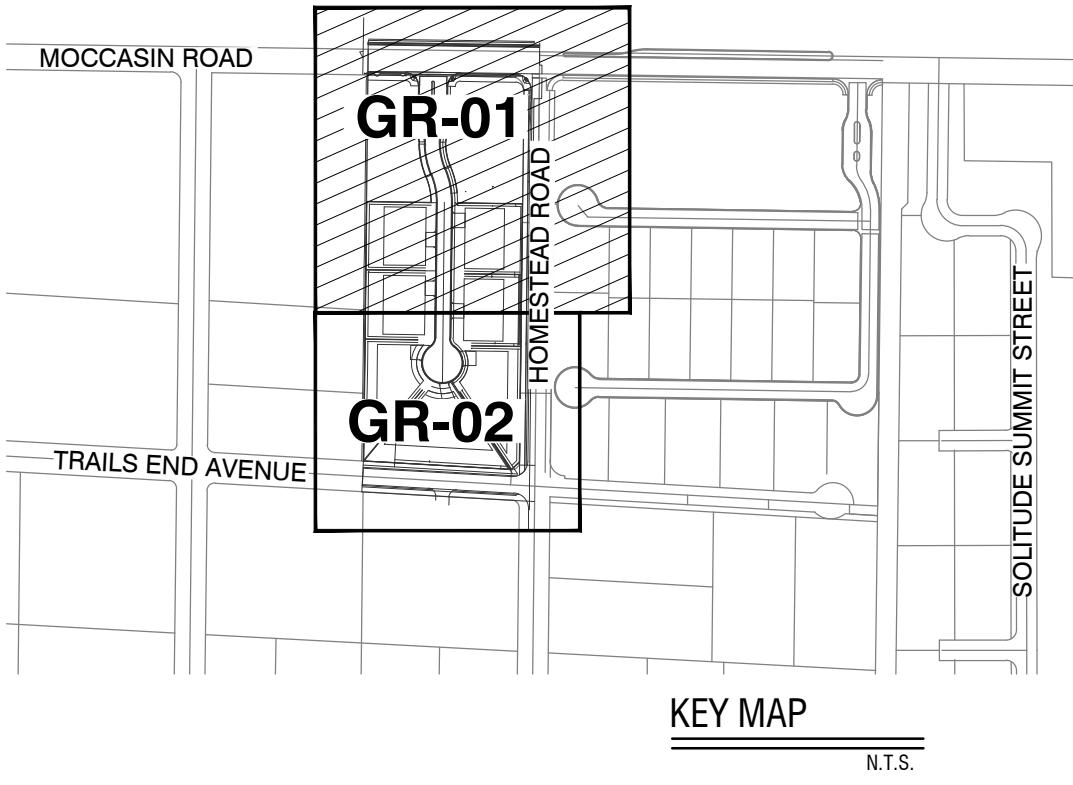
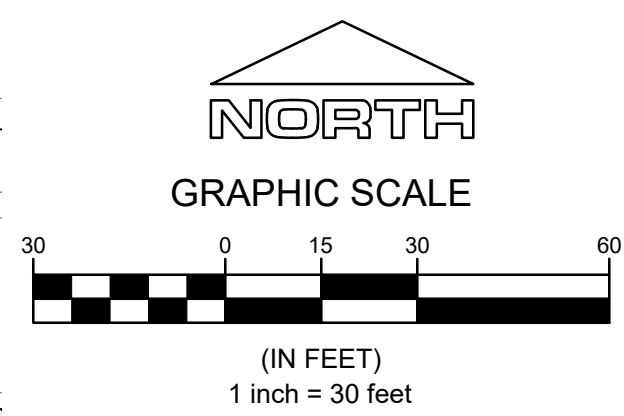
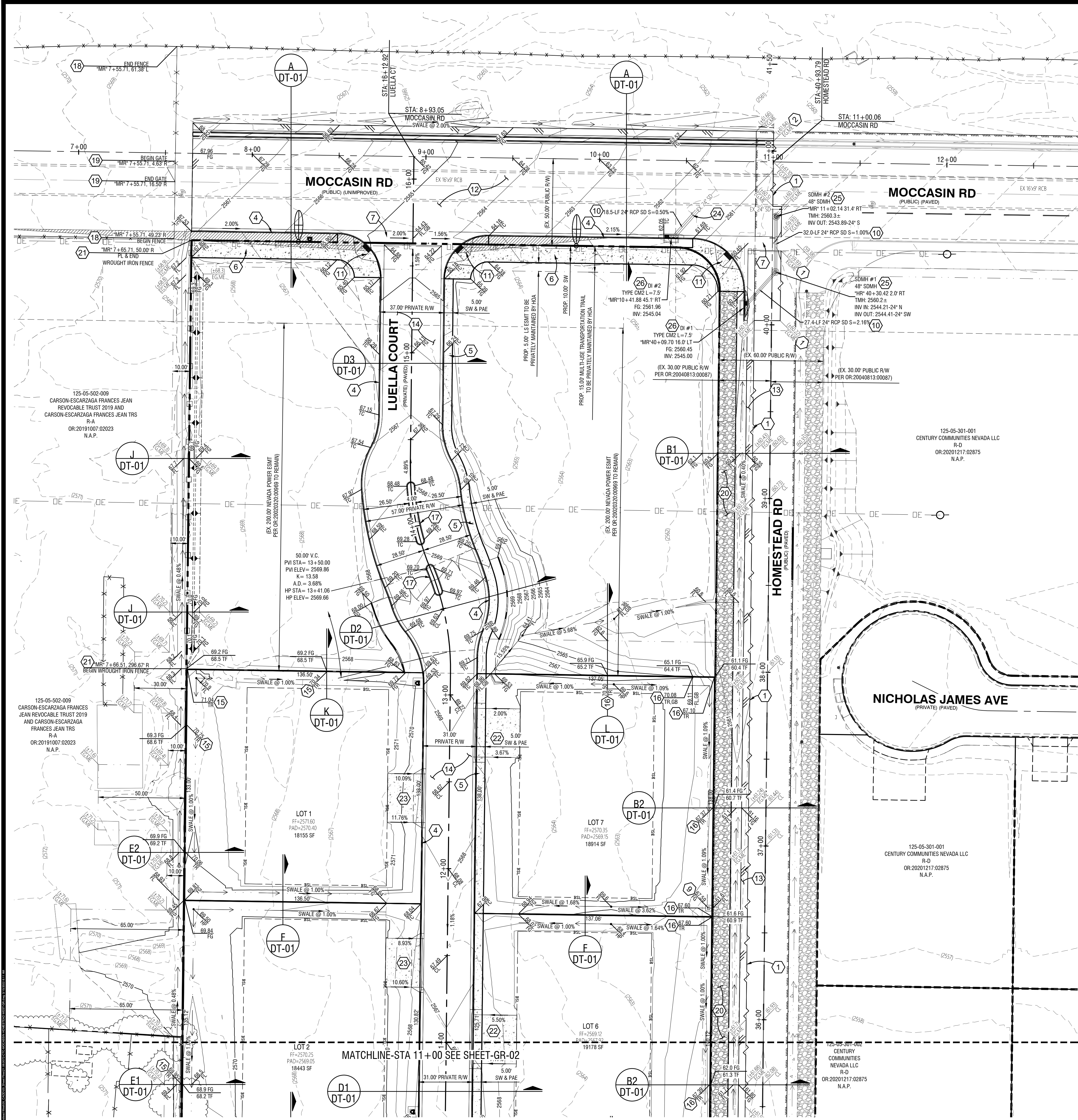
NO. DATE

REVISIONS

DATE INITIALS

APPROVAL





GRADING NOTES

ADD 2500 FEET TO ALL GRADE TAGS EXCEPT FINISHED FLOOR ELEVATIONS, PAD ELEVATIONS, GARAGE ELEVATIONS, AND CONTOURS TO GET ACTUAL ELEVATION.

THE ELEVATION DIFFERENCE BETWEEN THE PAD AND FINISHED FLOOR IS DETERMINED FROM THE MINIMUM THICKNESS REQUIRED BY THE GEOTECHNICAL REPORT. FINISHED FLOORS MAY INCREASE DEPENDING ON THE TYPE OF SOIL AND FOUNDATION PLAN USED. NOTE THAT THE STRUCTURAL PLANS & GEOTECHNICAL REPORT SHALL SUPERSEDE THE CIVIL IMPROVEMENT PLANS.

ALL PRIVATE STREETS ARE P.U.E. PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOME OWNERS ASSOCIATION (HOA).

ALL ONSITE COMMON ELEMENTS ARE TO BE PRIVATELY MAINTAINED BY THE HOA.

CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF DISCREPANCIES PRIOR TO CONSTRUCTION.

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

ALL WORK TO BE PERFORMED OUTSIDE OF THE PROJECT BOUNDARY AND ON PRIVATE PROPERTY SHALL NOT BE PERFORMED UNTIL WRITTEN PERMISSION AND EASEMENTS HAVE BEEN OBTAINED FROM THE OFFSITE OWNER AND GIVEN TO THE GOVERNING ENTITY.

REFER TO THE COVER SHEET "CV-01" FOR THE LEGAL DESCRIPTION, BASIS OF BEARINGS, AND BENCHMARK INFORMATION.

REFER TO THE GENERAL NOTES SHEET "GN-01" FOR THE STORMWATER RUNOFF MANAGEMENT NOTES.

SIGHT VISIBILITY ZONE (SVZ)

NO WALLS, FENCES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES, FIRE HYDRANTS, TREES, AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT GRAVEL OR PAVEMENT STREET SURFACE. THIS RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY ZONE THROUGH LANDSCAPED MEDIANS. (CCAUSS# 201)

UTILITY DISCLAIMER

EXISTING UTILITY LOCATION SHOWN HEREIN 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 OR UTILITIES NOT SHOWN IN THEIR EXISTING LOCATIONS.

GEOTECHNICAL

GEOTEK RESIDENTIAL, LLC
6835 SOUTH ESCONDIDO STREET
SUITE B
LAS VEGAS, NV 89119
REPORT NO: 15901-LVR
DATED: DECEMBER 3, 2020

GRADING CONSTRUCTION NOTES

- SAWCUT NEAT & MATCH EXISTING
- FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER, AND/OR SIDEWALK
- CONSTRUCT 3" WIDE VALLEY GUTTER PER DETAIL 2 ON SHEET DT-02
- CONSTRUCT 1" TYPE CURB AND GUTTER PER CCAUSS #216
- CONSTRUCT 5" WIDE SIDEWALK PER CCAUSS #234
- CONSTRUCT 10" WIDE SIDEWALK PER CCAUSS #234
- CONSTRUCT 8" WIDE CROSS GUTTER PER CCAUSS #228
- CONSTRUCT 16"x48" TYPICAL WALL OPENING PER DETAIL 1 ON SHEET DT-02
- INSTALL AREA DRAIN PER DETAIL 3 ON SHEET DT-02
- INSTALL 24" RCP STORM DRAIN CLASS III
- CONSTRUCT SIDEWALK RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSS #235, CASE 2
- CONSTRUCT 5.5" AC PAVEMENT OVER 4" TYPE II AGGREGATE BASE PER SOILS REPORT BY GEOTEK RESIDENTIAL (ARTERIAL - MOCCASIN)
- CONSTRUCT 3" AC PAVEMENT OVER 4" TYPE II AGGREGATE BASE PER SOILS REPORT BY GEOTEK RESIDENTIAL (MINOR COLLECTOR - HOMESTEAD & TRAILS END)
- CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGGREGATE BASE PER SOILS REPORT BY GEOTEK RESIDENTIAL (RESIDENTIAL - INTERIOR STREET)
- CONSTRUCT 6" HIGH DECORATIVE BLOCK WALL WITH 3' MAX RETAINING WALL. DESIGN AND PERMIT BY OTHERS.
- CONSTRUCT 6" HIGH DECORATIVE BLOCK WALL WITH 6' MAX RETAINING WALL. DESIGN AND PERMIT BY OTHERS.
- CONSTRUCT "A" TYPE CURB AND GUTTER PER CCAUSS #219
- REMOVE EXISTING HOGWIRE FENCE/GATE AND INSTALL 42" HOGWIRE FENCE PER DETAIL 5 ON SHEET DT-02
- INSTALL 12" WIDE LOCKING GATE PER CCAUSS #253
- PROVIDE 10" WIDE 6" THICK CRUSHED DECOMPOSED GRANITE PATH FOR EQUESTRIAN TRAIL
- INSTALL 6" MAX WROUGHT IRON FENCE. DESIGN AND PERMIT BY OTHERS.
- CONSTRUCT RESIDENTIAL DRIVEWAY PER CCAUSS #223
- CONSTRUCT RESIDENTIAL DRIVEWAY PER DETAIL 6 ON SHEET DT-02
- REMOVE STORM DRAIN PLUG AND CONNECT TO EXISTING 24" RCP WITH CONCRETE COLLAR PER DETAIL 4 ON SHEET DT-02
- INSTALL 48" TYPE I STORM DRAIN MAN-HOLE PER CCAUSS #405.1
- INSTALL MODIFIED TYPE "CM2" STORM DRAIN DROP INLET, L=7.5' PER CCAUSS #412.1 & 421

EARTHWORK

NOTE: THESE QUANTITIES ARE APPROXIMATE AND ARE RAW VOLUMES ONLY. OVEREXCAVATION SUBSIDENCE, SHRINKAGE & BULKING FACTORS ARE NOT TAKEN INTO ACCOUNT.

CUT: 2,531 CY
FILL: 16,212 CY
NET: 13,681 (FILL)
TOTAL ACREAGE IN PARCEL: ±5.3 AC
NUMBER OF ON-SITE ACRES WITHIN PARCEL TO BE DISTURBED: X.X AC
NUMBER OF OFF-SITE ACRES WITHIN PARCEL TO BE DISTURBED: X.X AC

FLOOD ZONE

FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY PANEL, 32003C1735 E, DATED SEPTEMBER 27, 2002, INDICATES THAT THE SUBJECT PROPERTY LIES IN UNSHADED ZONE "X", AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

EASEMENT NOTE

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

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE WITH THE CITY OF LAS VEGAS. DS# _____ DS5526A
DATE 3/15/2022
MARIA JOANNA B. OPENA P.E. NO. 024230

STRIVE ENGINEERING
Joanna Opena
email: j.opena@striveeng.com
2022.03.15 15:03:24-0700

APPROVAL

REVISIONS

STRIVE ENGINEERING

PREPARED FOR
CENTURY COMMUNITIES OF NEVADA

PROJECT:
CENTURY COMMUNITIES OF NEVADA

DATE: 3/15/2022

SUBMITTAL STAGE:
ADD1

TITLE
MOCCASIN HOMESTEAD

SHEET
GRADING PLAN 1

DATE
3/15/2022

NO. DATE SHEET
1 3/15/2022 1

DESIGNED BY: MJS
DRAWN BY: MJS
CHECKED BY: JBO

SCALE: PER SHEET

DATE: 3/15/2022

SUBMITTAL STAGE:
ADD1

TITLE
MOCCASIN HOMESTEAD

SHEET
GRADING PLAN 1

DATE
3/15/2022

NO. DATE SHEET
1 3/15/2022 1

DESIGNED BY: MJS
DRAWN BY: MJS
CHECKED BY: JBO

SCALE: PER SHEET

DATE: 3/15/2022

SUBMITTAL STAGE:
ADD1

TITLE
MOCCASIN HOMESTEAD

SHEET
GRADING PLAN 1

DATE
3/15/2022

NO. DATE SHEET
1 3/15/2022 1

DESIGNED BY: MJS
DRAWN BY: MJS
CHECKED BY: JBO

SCALE: PER SHEET

DATE: 3/15/2022

SUBMITTAL STAGE:
ADD1

TITLE
MOCCASIN HOMESTEAD

SHEET
GRADING PLAN 1

DATE
3/15/2022

NO. DATE SHEET
1 3/15/2022 1

DESIGNED BY: MJS
DRAWN BY: MJS
CHECKED BY: JBO

SCALE: PER SHEET

DATE: 3/15/2022

SUBMITTAL STAGE:
ADD1

TITLE
MOCCASIN HOMESTEAD

SHEET
GRADING PLAN 1

DATE
3/15/2022

NO. DATE SHEET
1 3/15/2022 1

DESIGNED BY: MJS
DRAWN BY: MJS
CHECKED BY: JBO

SCALE: PER SHEET

DATE: 3/15/2022

SUBMITTAL STAGE:
ADD1

TITLE
MOCCASIN HOMESTEAD

SHEET
GRADING PLAN 1

DATE
3/15/2022

NO. DATE SHEET
1 3/15/2022 1

DESIGNED BY: MJS
DRAWN BY: MJS
CHECKED BY: JBO

SCALE: PER SHEET

DATE: 3/15/2022

SUBMITTAL STAGE:
ADD1

TITLE
MOCCASIN HOMESTEAD

SHEET
GRADING PLAN 1

DATE
3/15/2022

NO. DATE SHEET
1 3/15/2022 1

DESIGNED BY: MJS
DRAWN BY: MJS
CHECKED BY: JBO

SCALE: PER SHEET

DATE: 3/15/2022

SUBMITTAL STAGE:
ADD1

TITLE
MOCCASIN HOMESTEAD

SHEET
GRADING PLAN 1

DATE
3/15/2022

NO. DATE SHEET
1 3/15/2022 1

DESIGNED BY: MJS
DRAWN BY: MJS
CHECKED BY: JBO

SCALE: PER SHEET

DATE: 3/15/2022

SUBMITTAL STAGE:
ADD1

TITLE
MOCCASIN HOMESTEAD

SHEET
GRADING PLAN 1

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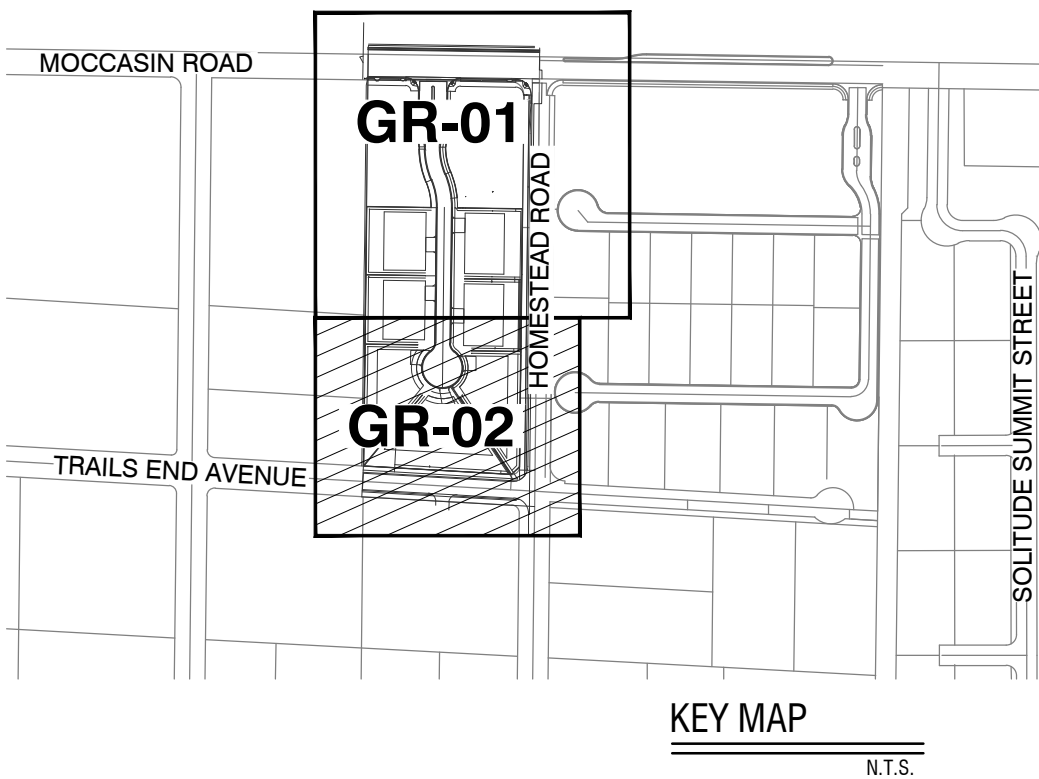
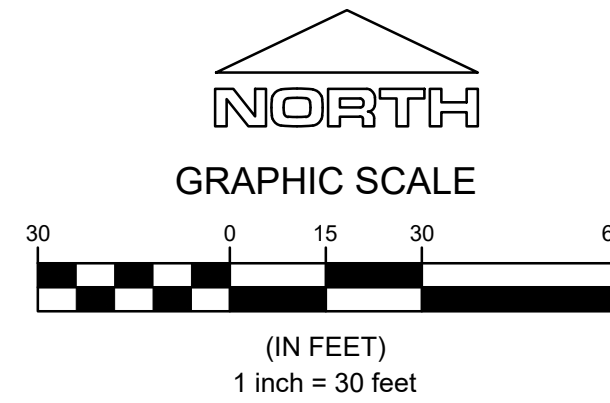
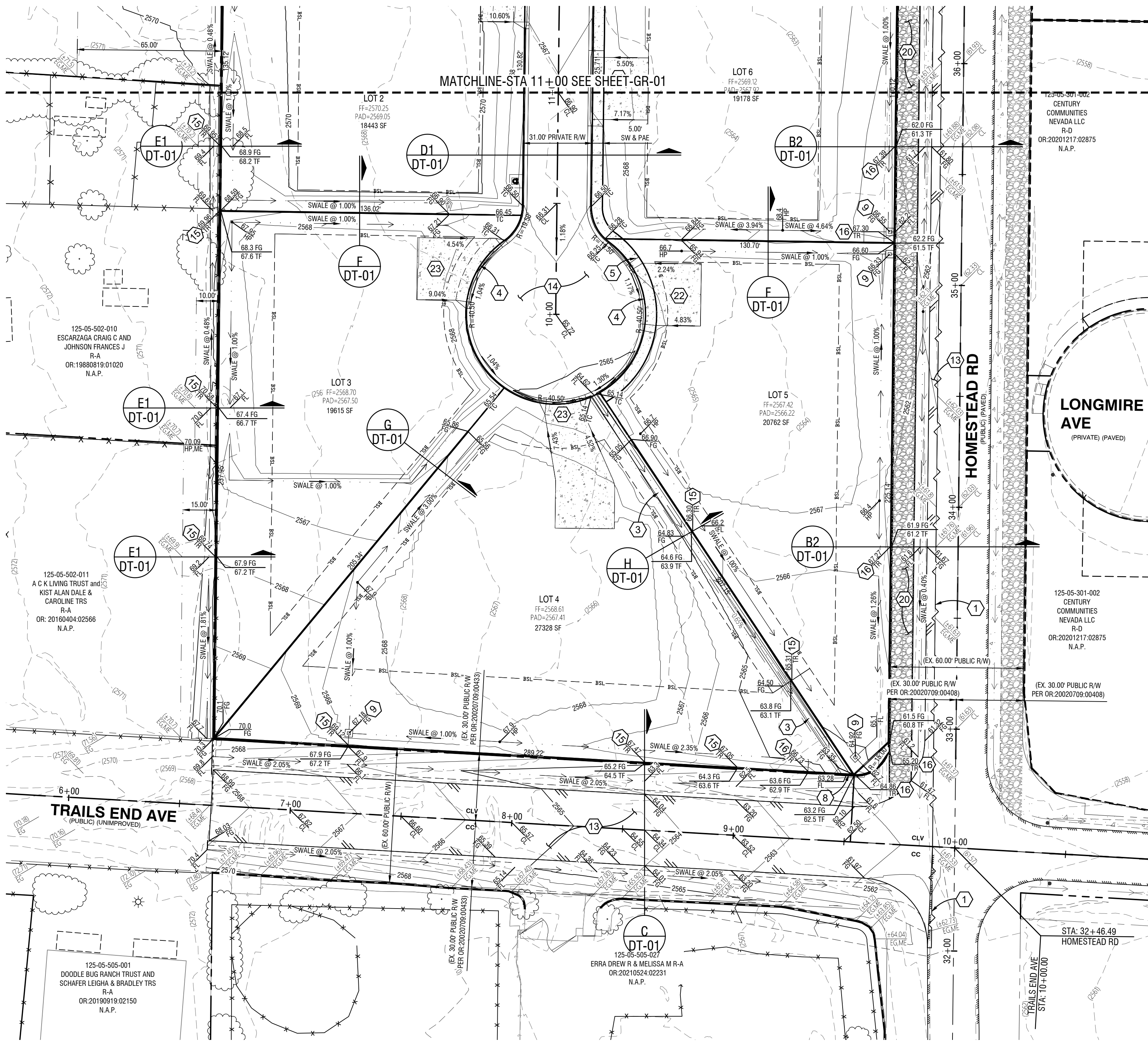
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GRADING NOTES

ADD 2500 FEET TO ALL GRADE TAGS EXCEPT FINISHED FLOOR ELEVATIONS, PAD ELEVATIONS, GARAGE ELEVATIONS, AND CONTOURS TO GET ACTUAL ELEVATION.

THE ELEVATION DIFFERENCE BETWEEN THE PAD AND FINISHED FLOOR IS DETERMINED FROM THE MINIMUM THICKNESS REQUIRED BY THE GEOTECHNICAL REPORT. FINISHED FLOORS MAY INCREASE DEPENDING ON THE TYPE OF SOIL AND FOUNDATION PLAN USED. NOTE THAT THE STRUCTURAL PLANS & GEOTECHNICAL REPORT SHALL SUPERSEDE THE CIVIL IMPROVEMENT PLANS.

ALL PRIVATE STREETS ARE P.U.E. PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOME OWNERS ASSOCIATION (HOA).

ALL ONSITE COMMON ELEMENTS ARE TO BE PRIVATELY MAINTAINED BY THE HOA.

CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF DISCREPANCIES PRIOR TO CONSTRUCTION.

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

ALL WORK TO BE PERFORMED OUTSIDE OF THE PROJECT BOUNDARY AND ON PRIVATE PROPERTY SHALL NOT BE PERFORMED UNTIL WRITTEN PERMISSION AND EASEMENTS HAVE BEEN OBTAINED FROM THE OFFSITE OWNER AND GIVEN TO THE GOVERNING ENTITY.

REFER TO THE COVER SHEET "CV-01" FOR THE LEGAL DESCRIPTION, BASIS OF BEARINGS, AND BENCHMARK INFORMATION.

REFER TO THE GENERAL NOTES SHEET "GN-01" FOR THE STORMWATER RUNOFF MANAGEMENT NOTES.

SIGHT VISIBILITY ZONE (SVZ)

NO WALLS, FENCES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES, FIRE HYDRANTS, TREES, AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT GRAVEL OR PAVEMENT STREET SURFACE. THIS RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY ZONE THROUGH LANDSCAPED MEDIANS. (CCAUDS# 201)

UTILITY DISCLAIMER

EXISTING UTILITY LOCATION SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS 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 OR UTILITIES NOT SHOWN IN THEIR EXISTING LOCATIONS.

GEOTECHNICAL

GEOTEK RESIDENTIAL, LLC
6835 SOUTH ESCONDIDO STREET
SUITE B
LAS VEGAS, NV 89119

REPORT NO: 15901-LVR
DATED: DECEMBER 3, 2020

GRADING CONSTRUCTION NOTES

- 1) SAWCUT NEAT & MATCH EXISTING
- 2) FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER, AND/OR SIDEWALK
- 3) CONSTRUCT 3" WIDE VALLEY GUTTER PER DETAIL 2 ON SHEET DT-02
- 4) CONSTRUCT 1" TYPE CURB AND GUTTER PER CCAUSD #216
- 5) CONSTRUCT 5" WIDE SIDEWALK PER CCAUSD #234
- 6) CONSTRUCT 10" WIDE SIDEWALK PER CCAUSD #234
- 7) CONSTRUCT 8" WIDE CROSS GUTTER PER CCAUSD #228
- 8) CONSTRUCT 16"x48" TYPICAL WALL OPENING PER DETAIL 1 ON SHEET DT-02
- 9) INSTALL AREA DRAIN PER DETAIL 3 ON SHEET DT-02
- 10) INSTALL 24" RCP STORM DRAIN CLASS III
- 11) CONSTRUCT SIDEWALK RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD #235, CASE 2
- 12) CONSTRUCT 5.5' AC PAVEMENT OVER 4" TYPE II AGGREGATE BASE PER SOILS REPORT BY GEOTEK RESIDENTIAL (ARTERIAL - MOCCASIN)
- 13) CONSTRUCT 3" AC PAVEMENT OVER 4" TYPE II AGGREGATE BASE PER SOILS REPORT BY GEOTEK RESIDENTIAL (MINOR COLLECTOR - HOMESTEAD & TRAILS END)
- 14) CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGGREGATE BASE PER SOILS REPORT BY GEOTEK RESIDENTIAL (RESIDENTIAL - INTERIOR STREET)
- 15) CONSTRUCT 6" HIGH DECORATIVE BLOCK WALL WITH 3' MAX RETAINING WALL. DESIGN AND PERMIT BY OTHERS.
- 16) CONSTRUCT 6" HIGH DECORATIVE BLOCK WALL WITH 6' MAX RETAINING WALL. DESIGN AND PERMIT BY OTHERS.
- 17) CONSTRUCT "A" TYPE CURB AND GUTTER PER CCAUSD #219
- 18) REMOVE EXISTING HOGWIRE FENCE/GATE AND INSTALL 42" HOGWIRE FENCE PER DETAIL 5 ON SHEET DT-02
- 19) INSTALL 12" WIDE LOCKING GATE PER CCAUSD #253
- 20) PROVIDE 10" WIDE 6" THICK CRUSHED DECOMPOSED GRANITE PATH FOR EQUESTRIAN TRAIL
- 21) INSTALL 6" MAX WROUGHT IRON FENCE. DESIGN AND PERMIT BY OTHERS.
- 22) CONSTRUCT RESIDENTIAL DRIVEWAY PER CCAUSD #223
- 23) CONSTRUCT RESIDENTIAL DRIVEWAY PER DETAIL 6 ON SHEET DT-02
- 24) REMOVE STORM DRAIN PLUG AND CONNECT TO EXISTING 24" RCP WITH CONCRETE COLLAR PER DETAIL 4 ON SHEET DT-02
- 25) INSTALL 48" TYPE II STORM DRAIN MAN-HOLE PER CCAUSD #405.1
- 26) INSTALL MODIFIED TYPE "CM2" STORM DRAIN DROP INLET, L=7.5' PER CCAUSD #412.1 & 421

EARTHWORK

NOTE: THESE QUANTITIES ARE APPROXIMATE AND ARE RAW VOLUMES ONLY. OVEREXCAVATION SUBSIDENCE, SHRINKAGE & BULKING FACTORS ARE NOT TAKEN INTO ACCOUNT.

CUT: 2,531 CY
FILL: 16,212 CY
NET: 13,681 (FILL)

TOTAL ACREAGE IN PARCEL: ±5.3 AC

NUMBER OF ON-SITE ACRES WITHIN PARCEL TO BE DISTURBED: X.X AC

NUMBER OF OFF-SITE ACRES WITHIN PARCEL TO BE DISTURBED: X.X AC

FLOOD ZONE

FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY PANEL, 3209C1735 E, DATED SEPTEMBER 27, 2002, INDICATES THAT THE SUBJECT PROPERTY LIES IN UNSHADED ZONE "X", AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

EASEMENT NOTE

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

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE WITH THE CITY OF LAS VEGAS. DS# _____ DS5526A

MARIA JOHANNA B. OPENA P.E. NO. 084230

3/15/2022
DATE

CLARK COUNTY DEPARTMENT OF PUBLIC WORKS DEVELOPMENT REVIEW

ACCEPTANCE OF PLANS FOR FILING BY:

DATE

ACCEPTANCE OF THESE PLANS FOR FILING SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS AND/OR SPECIFICATIONS. CLARK COUNTY SHALL BE HELD FREE FROM DAMAGES WHICH MAY RESULT FROM THE CONSTRUCTION OF THE IMPROVEMENTS FROM THE ENGINEERING DESIGN DEPICTED HEREIN.

NOTE: POWER POLES AND/OR OTHER EXISTING FACILITIES NOT IN PROPER LOCATION, BASED ON PROPOSED IMPROVEMENTS SHOWN HEREON, WILL BE RELOCATED AT NO EXPENSE TO CLARK COUNTY.

REVISIONS

APPROVAL

DATE

INITIALS

REVISIONS

NO.

DATE

SHEET

STRIVE ENGINEERING

8815 SPANISH ROCK AVE, SUITE 200 - LAS VEGAS, NV 89148
(702) 781-7788

PREPARED FOR

CENTURY COMMUNITIES OF NEVADA

PROJECT:

SCALE: PER SHEET

DESIGNED BY: MJS

DRAWN BY: MJS

CHECKED BY: JB0

DATE: 3/13/2022

SUBMITTAL STAGE:

ADD1

MOCCASIN HOMESTEAD

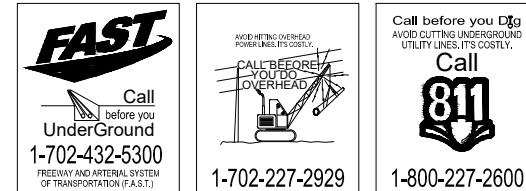
GRADING PLAN 2

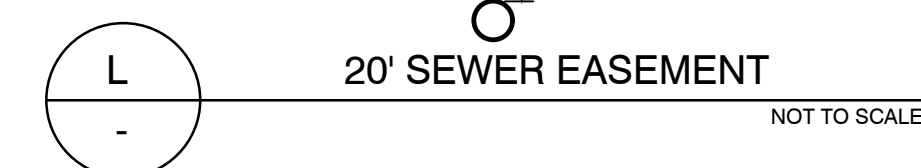
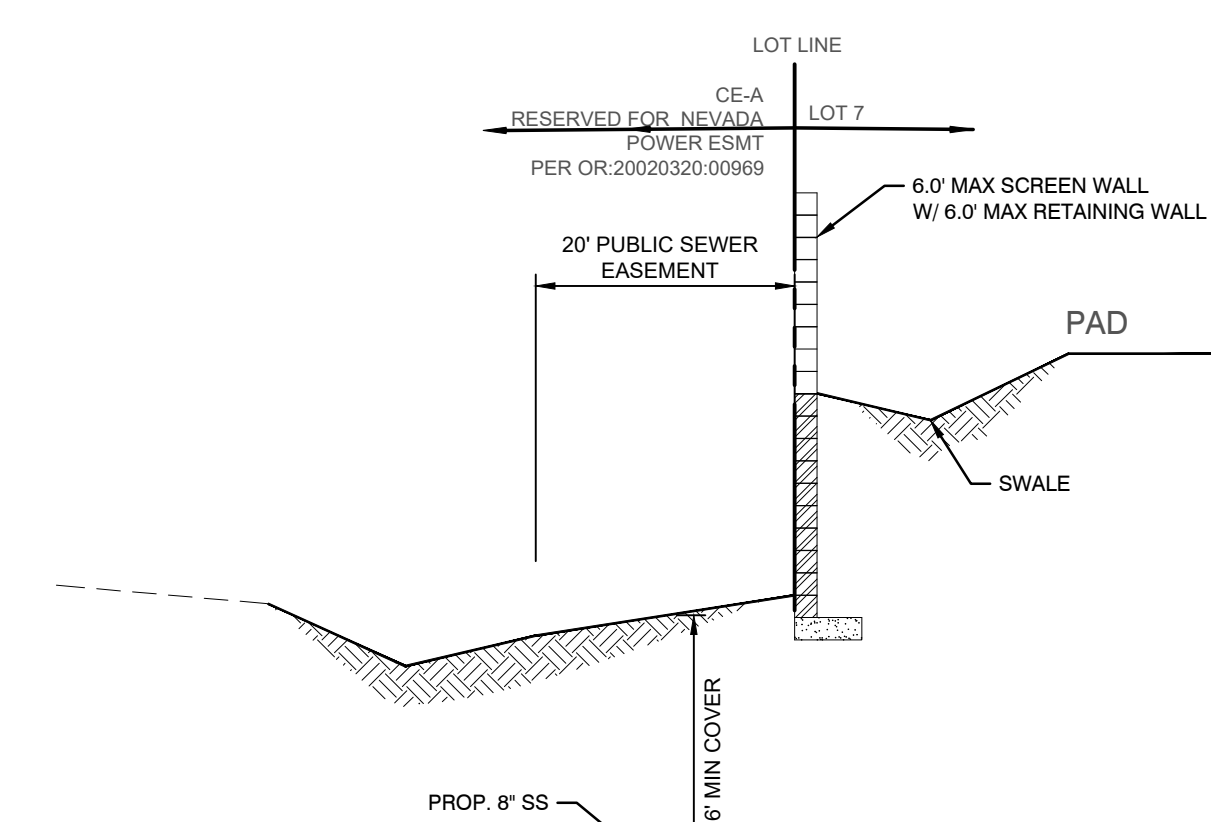
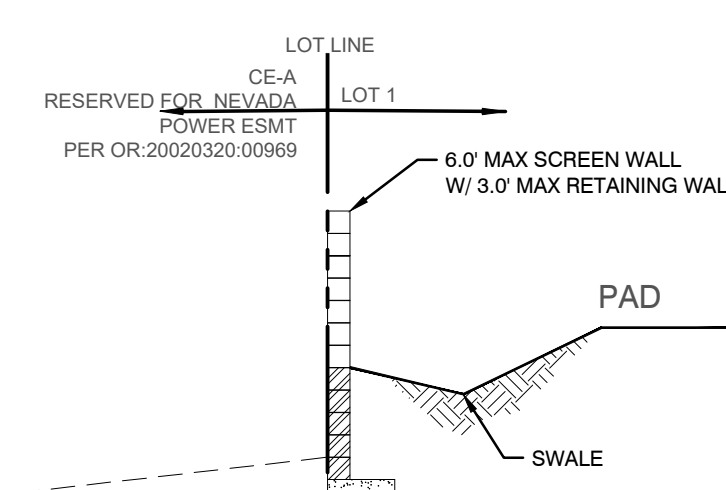
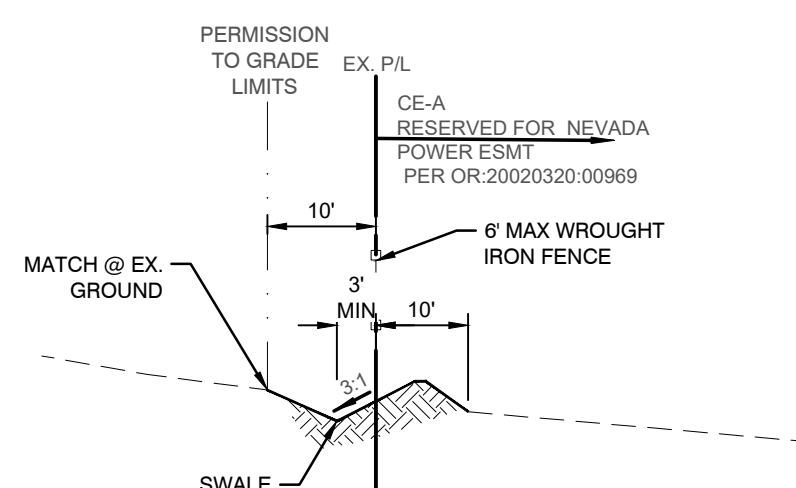
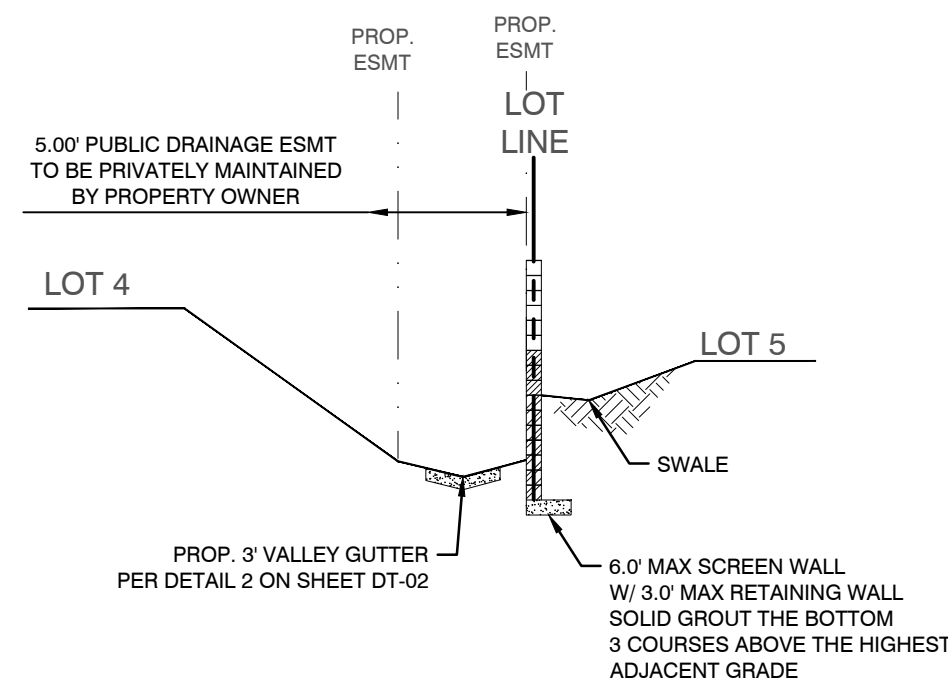
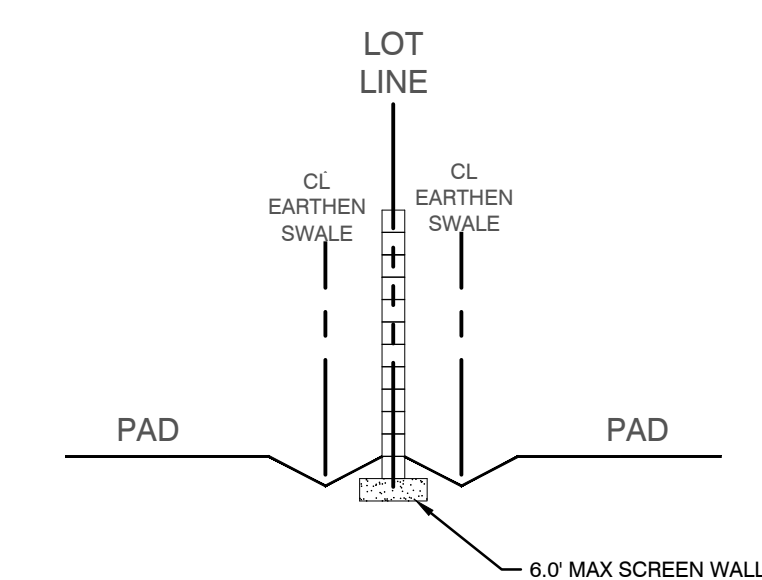
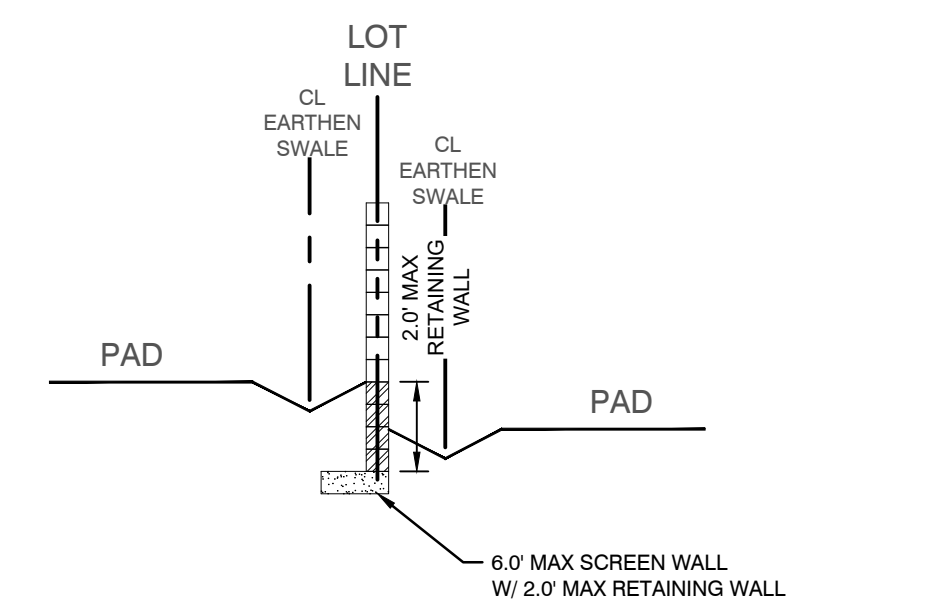
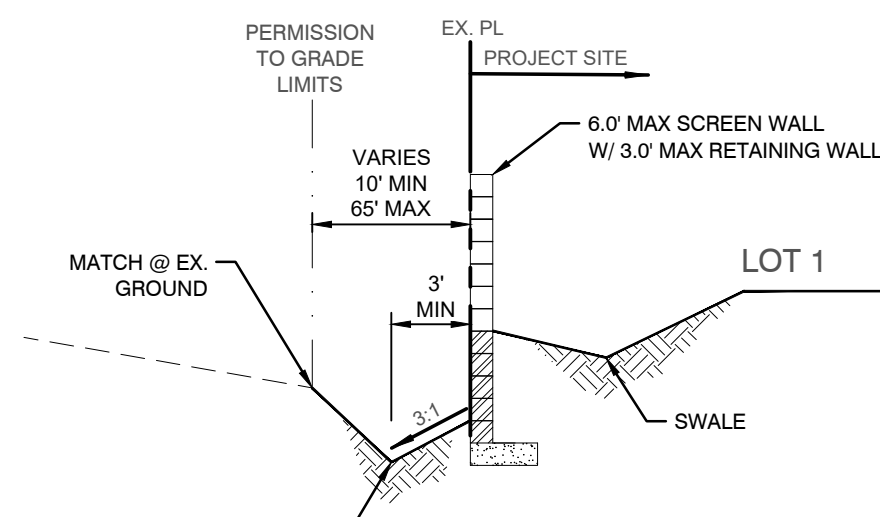
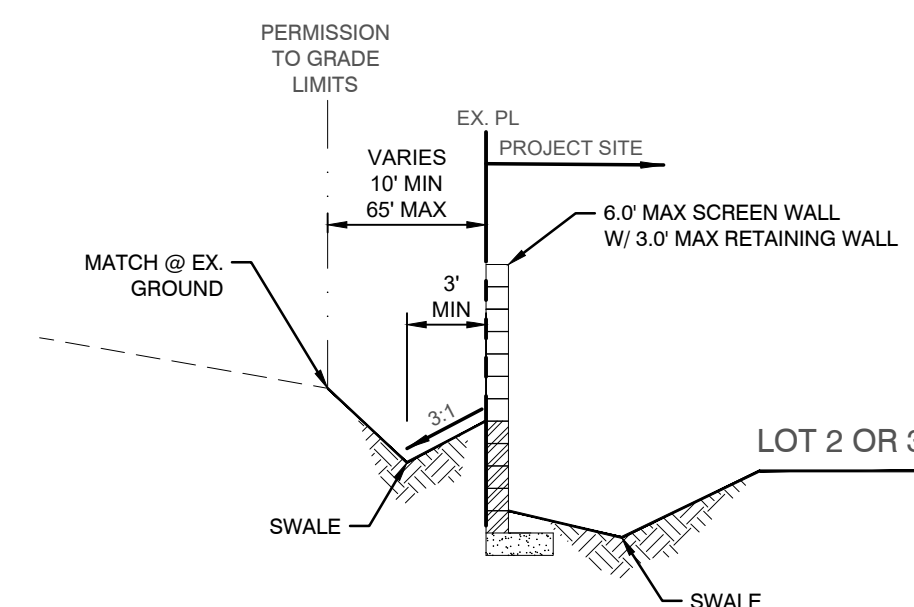
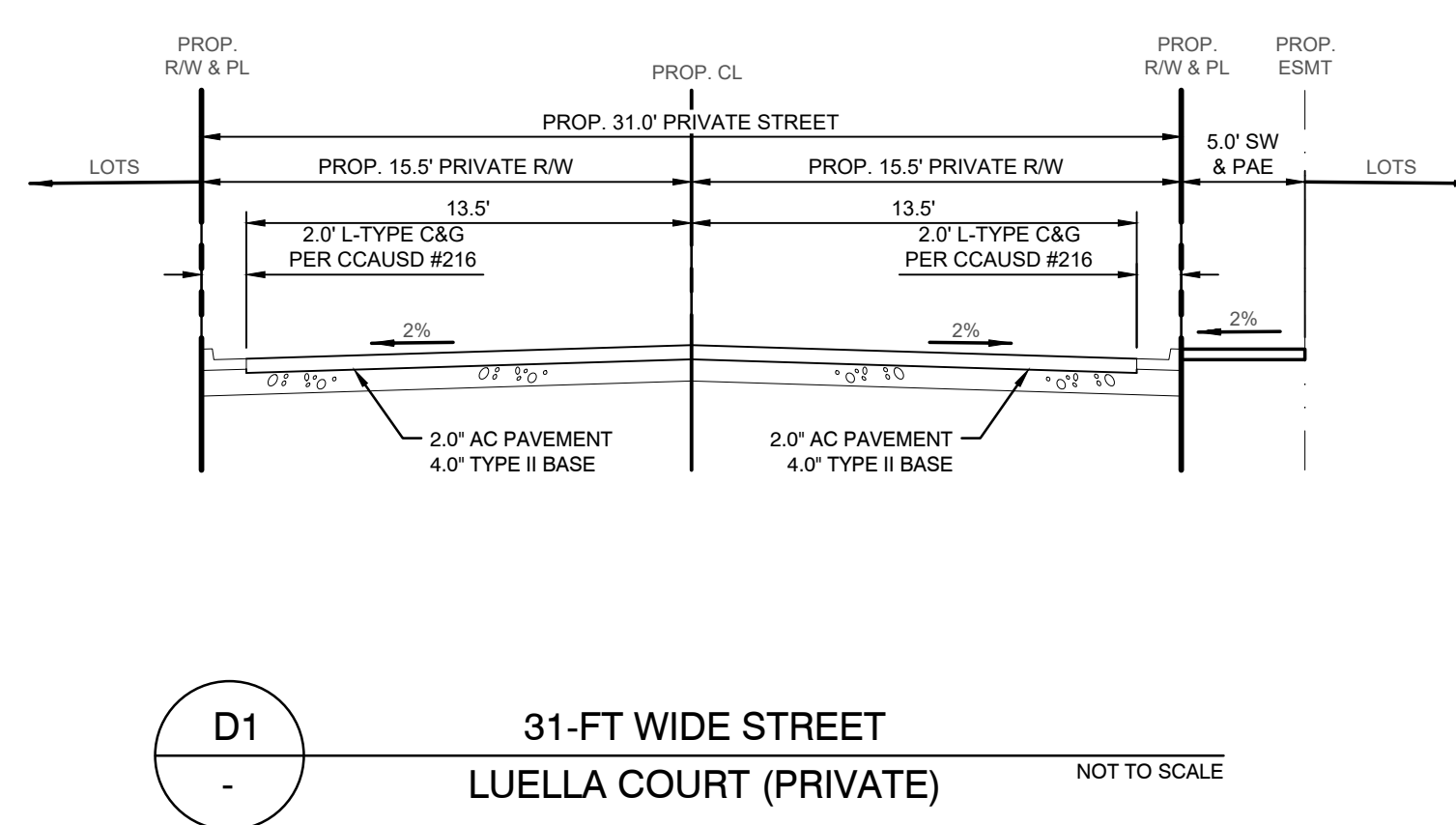
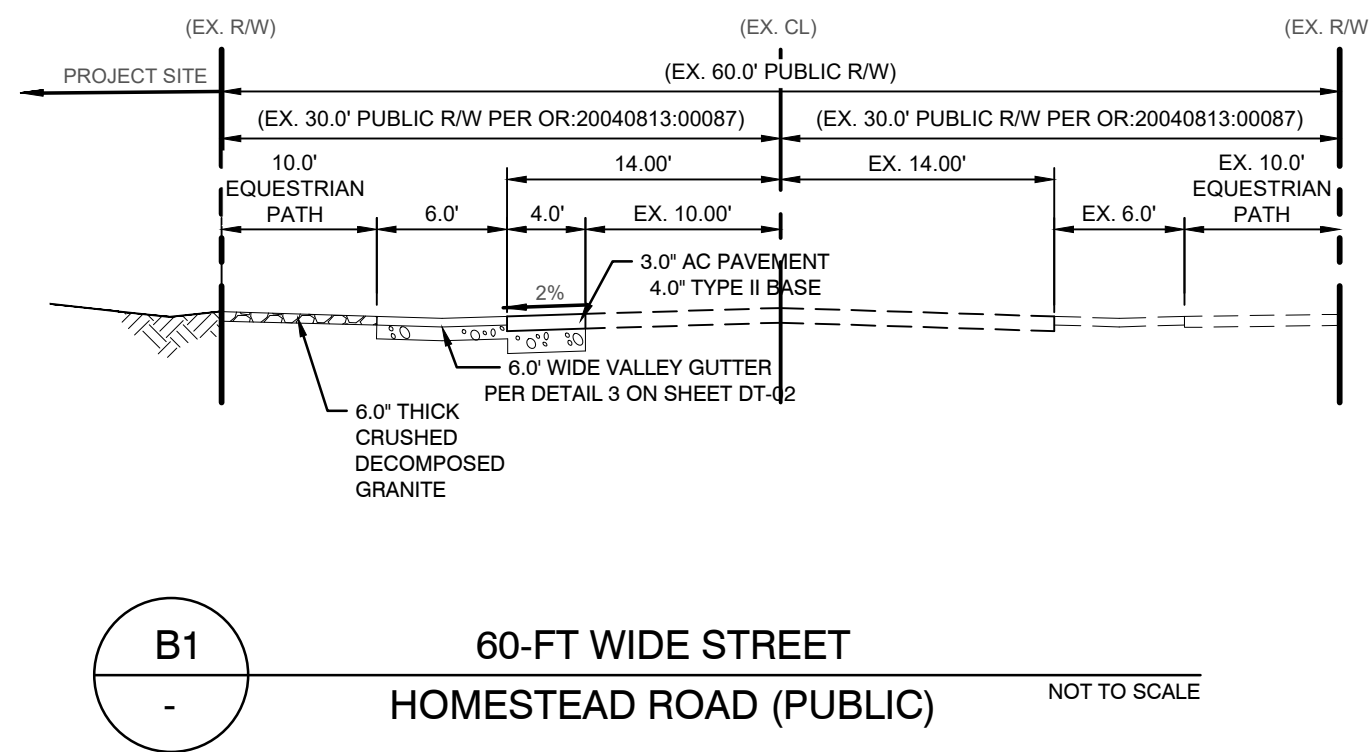
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GR-02

4 OF 17

DRAWING NO. TBD





REVISIONS				APPROVAL	
NO.	DATE	SHEET	REVISIONS	DATE	INITIALS

STRIVE
ENGINEERING

8912 SPANISH ROCK AVE, SUITE 200 • LOS YEGOS, NY 09596
(516) 718-7188

PREPARED FOR CENTURY COMMUNITIES OF NEVADA		SCALE: PER SHEET
PROJECT:	DATE: 3/13/2022	DESIGNED BY: JMS
SUBMITTAL STAGE:	ADD1	DRAWN BY: JMS
		CHECKED BY: JBO

MOCCASIN HOMESTEAD

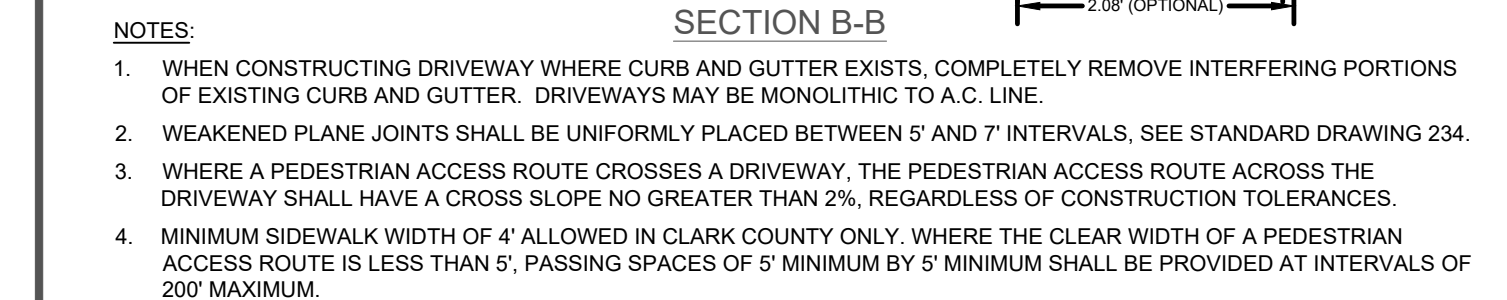
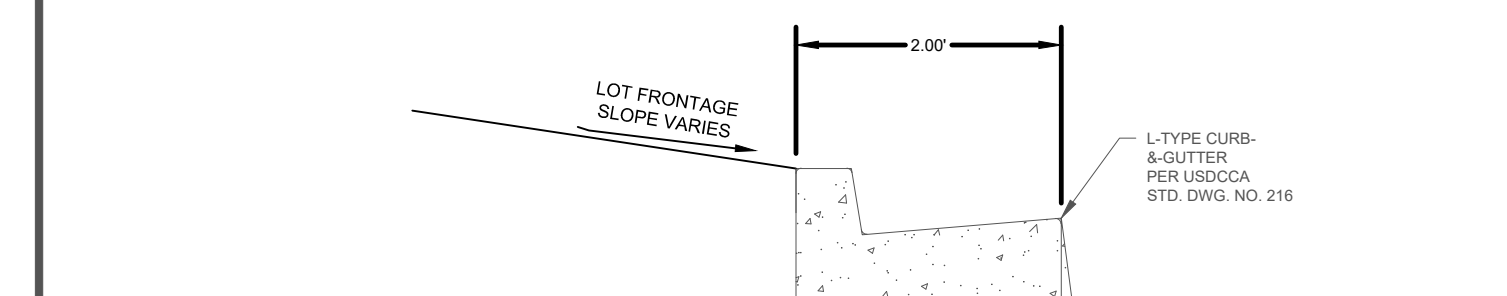
DETAIL SHEET 1

TITLE	SHEET
SHEET	DT-01 5 OF 17 DRAWING NO. TBD

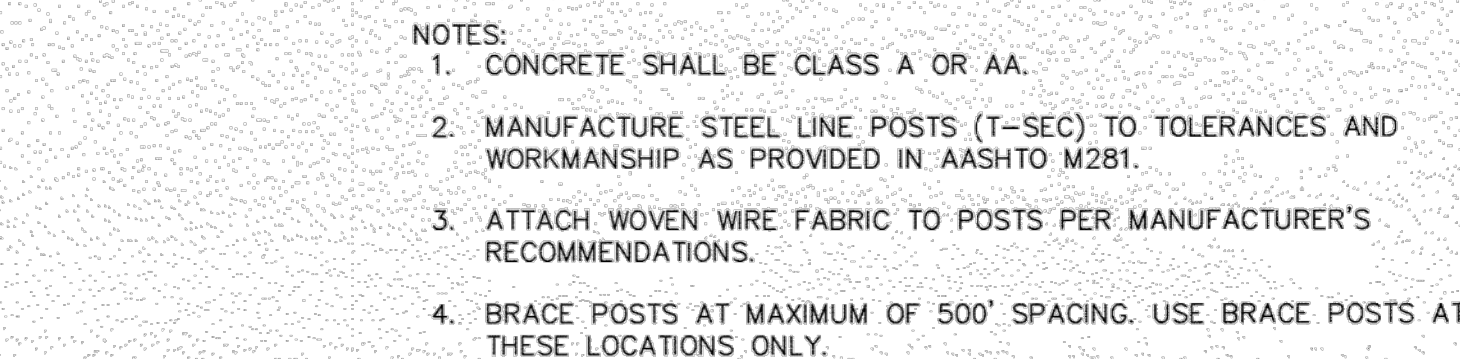


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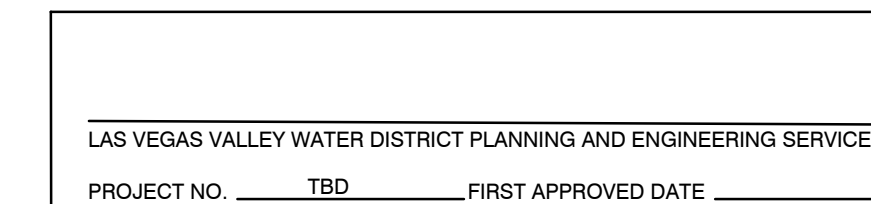
1. WHERE THE SLOPE OF THE UPSTREAM PIPE IS GREATER THAN THE SLOPE OF THE DOWNSTREAM PIPE, JOIN SOFFITS. WHERE THE SLOPE OF THE UPSTREAM PIPE IS LESS THAN THE SLOPE OF THE DOWNSTREAM PIPE, JOIN INVERTS.
2. WHERE THE SPACE BETWEEN THE PIPE EXTREMITIES EXCEEDS 2 1/2 INCHES, THE NUMBER OF CIRCULAR TIES SHALL BE INCREASED TO MAINTAIN A MAXIMUM SPACING OF 6 INCHES CENTER TO CENTER. CIRCULAR TIES SHALL HAVE A DIAMETER 5 INCHES GREATER THAN THE OUTSIDE DIAMETER OF THE LARGER PIPE.

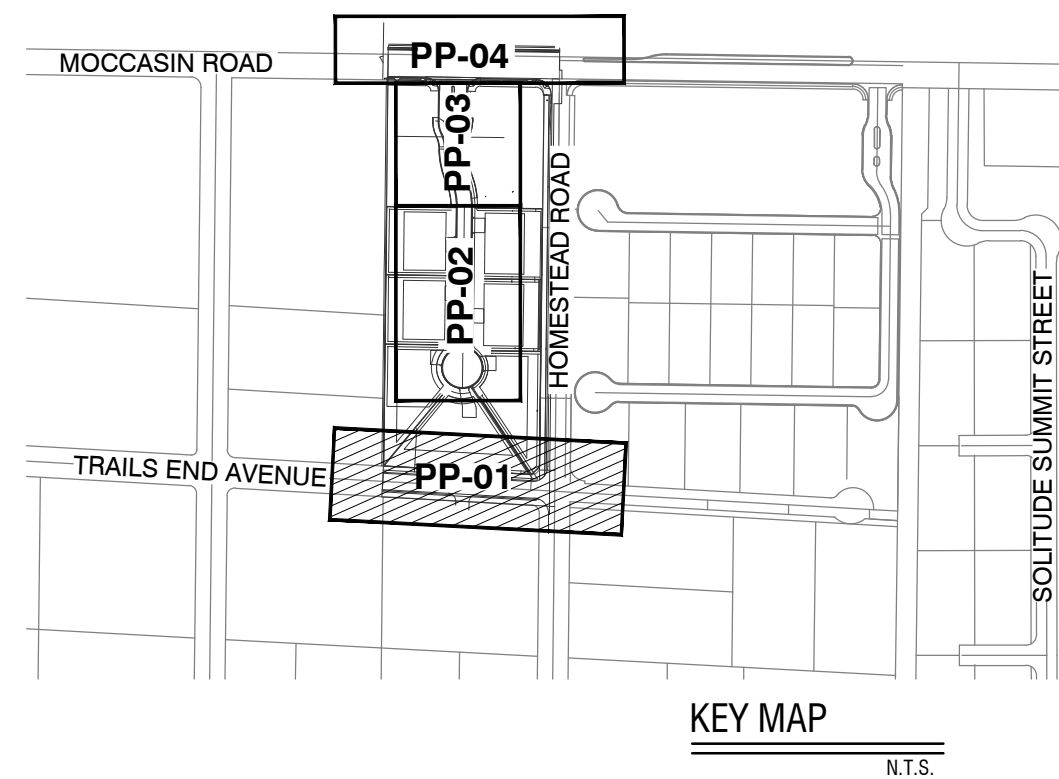


6 MODIFIED 223 RESIDENTIAL DRIVEWAY WITH NO SIDEWALK



5 HOGWIRE FENCE DETAIL





- | | |
|---|---|
| 1 | POC - FIELD VERIFY LOCATION AND INVERT ELEVATION, REMOVE CAP AND CONNECT TO EXISTING STUB PER DCSWCS 2.3.8. |
| 2 | INSTALL 8" SDR-35 PVC SANITARY SEWER PIPE (PUBLIC) PER DCSWCS SD-15 & SD-17 |
| 3 | INSTALL 48" STANDARD MANHOLE WITH WATERTIGHT JOINTS (PER DCSWCS SD-1, SD-3, SD-4, AND SD-5) WITH SINGLE 24" LID |
| 4 | INSTALL 4" SDR-35 PVC (PRIVATE) SANITARY LATERAL PER DCSWCS SD-17, SD-20, SD-21, AND SD-23 |

- 1 SAWCUT NEAT & MATCH EXISTING
- 2 FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER, AND/OR SIDEWALK
- 3 CONSTRUCT 3' WIDE VALLEY GUTTER PER DETAIL 2 ON SHEET DT-02
- 4 CONSTRUCT 'L' TYPE CURB AND GUTTER PER CCAUSD #216
- 5 CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD #234
- 6 CONSTRUCT 10' WIDE SIDEWALK PER CCAUSD #234
- 7 CONSTRUCT 8' WIDE CROSS GUTTER PER CCAUSD #228
- 8 CONSTRUCT 16"x48" TYPICAL WALL OPENING PER DETAIL 1 ON SHEET DT-02
- 9 INSTALL AREA DRAIN PER DETAIL, 3 ON SHEET DT-02
- 10 INSTALL 24" RCP STORM DRAIN CLASS III
- 11 CONSTRUCT SIDEWALK RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD #235, CASE 2
- 12 CONSTRUCT 5.5' AC PAVEMENT OVER 4" TYPE II AGGREGATE BASE PER SOILS REPORT BY GEOTEK RESIDENTIAL (ARTERIAL - MOCCASIN)
- 13 CONSTRUCT 3' AC PAVEMENT OVER 4" TYPE II AGGREGATE BASE PER SOILS REPORT BY GEOTEK RESIDENTIAL (MINOR COLLECTOR - HOMESTEAD & TRAILS END)
- 14 CONSTRUCT 2' AC PAVEMENT OVER 4" TYPE II AGGREGATE BASE PER SOILS REPORT BY GEOTEK RESIDENTIAL (RESIDENTIAL - INTERIOR STREET)
- 15 CONSTRUCT 6" HIGH DECORATIVE BLOCK WALL WITH 3' MAX RETAINING WALL. DESIGN AND PERMIT BY OTHERS.
- 16 CONSTRUCT 6" HIGH DECORATIVE BLOCK WALL WITH 3' MAX RETAINING WALL. DESIGN AND PERMIT BY OTHERS.
- 17 CONSTRUCT 'A' TYPE CURB AND GUTTER PER CCAUSD #219
- 18 REMOVE EXISTING HOGWIRE FENCE/GATE AND INSTALL 42" HOGWIRE FENCE PER DETAIL 5 ON SHEET DT-02
- 19 INSTALL 12' WIDE LOCKING GATE PER CCAUSD #253
- 20 PROVIDE 10' WIDE 6" THICK CRUSHED DECOMPOSED GRANITE PATH FOR EQUESTRIAN TRAIL.
- 21 INSTALL 6" MAX WROUGHT IRON FENCE. DESIGN AND PERMIT BY OTHERS.
- 22 CONSTRUCT RESIDENTIAL DRIVEWAY PER CCAUSD #223
- 23 CONSTRUCT RESIDENTIAL DRIVEWAY PER DETAIL 6 ON SHEET DT-02
- 24 REMOVE STORM DRAIN PLUG AND CONNECT TO EXISTING 24" RCP WITH CONCRETE COLLAR PER DETAIL 4 ON SHEET DT-02
- 25 INSTALL 48" TYPE II STORM DRAIN MANHOLE PER CCAUSD #405.1
- 26 INSTALL MODIFIED TYPE 'CM2' STORM DRAIN DROP INLET, L=7.5' PER CCAUSD #412.1 & 421

NO WALLS, FENCES, SHUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES, FIRE HYDRANTS, TREES, AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE. THIS RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY ZONE THROUGH LANDSCAPED MEDIANS. (CCAUSD# 201)

EXISTING UTILITY LOCATION SHOWN HEREIN 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 OR UTILITIES NOT SHOWN IN THEIR EXISTING LOCATIONS.

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES DATE

PROJECT NO. TBD FIRST APPROVED DATE _____

LWVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

MAX AVAILABLE FIRE SPRINKLER FLOW 30 GPM



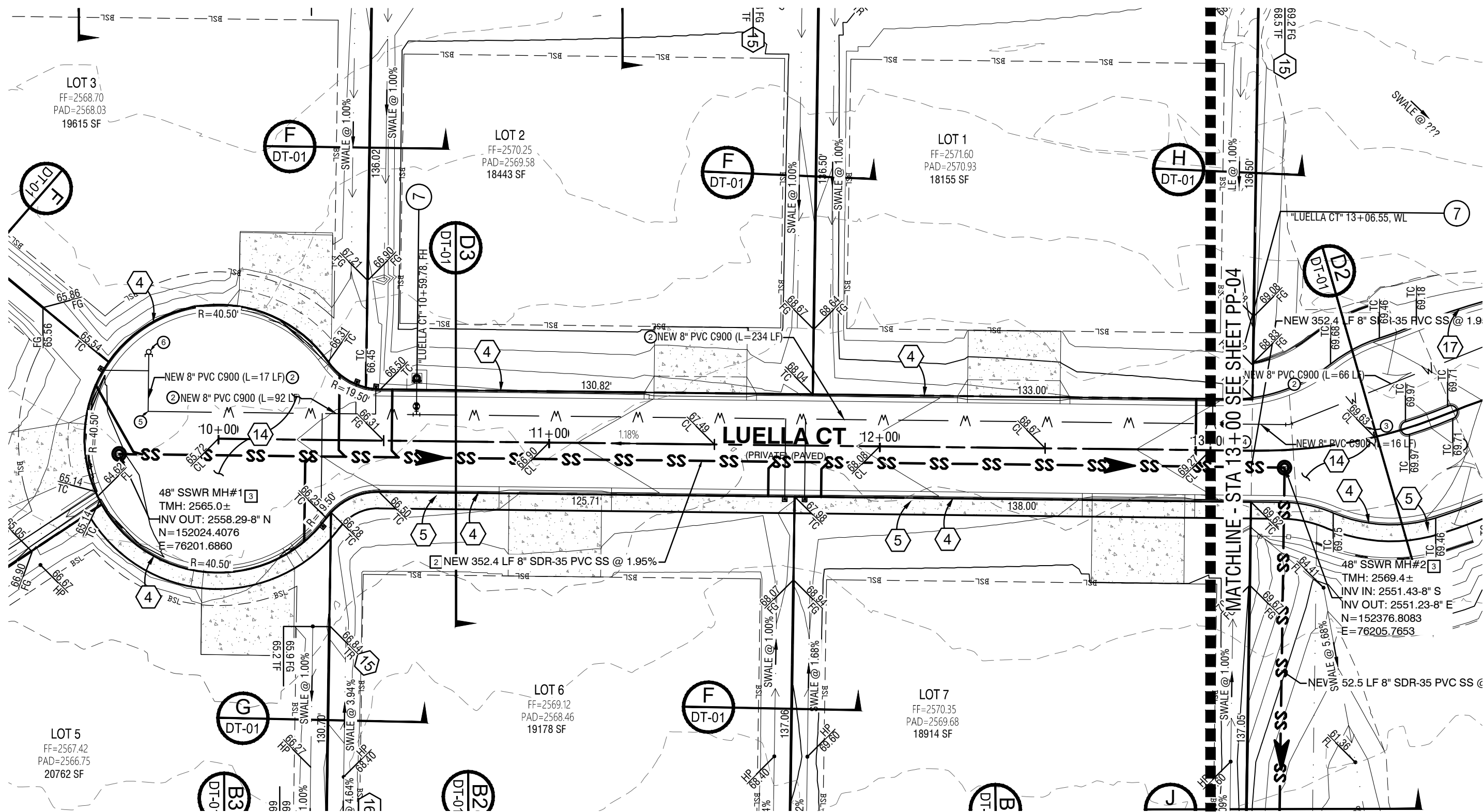
3/13/2022

SHEET

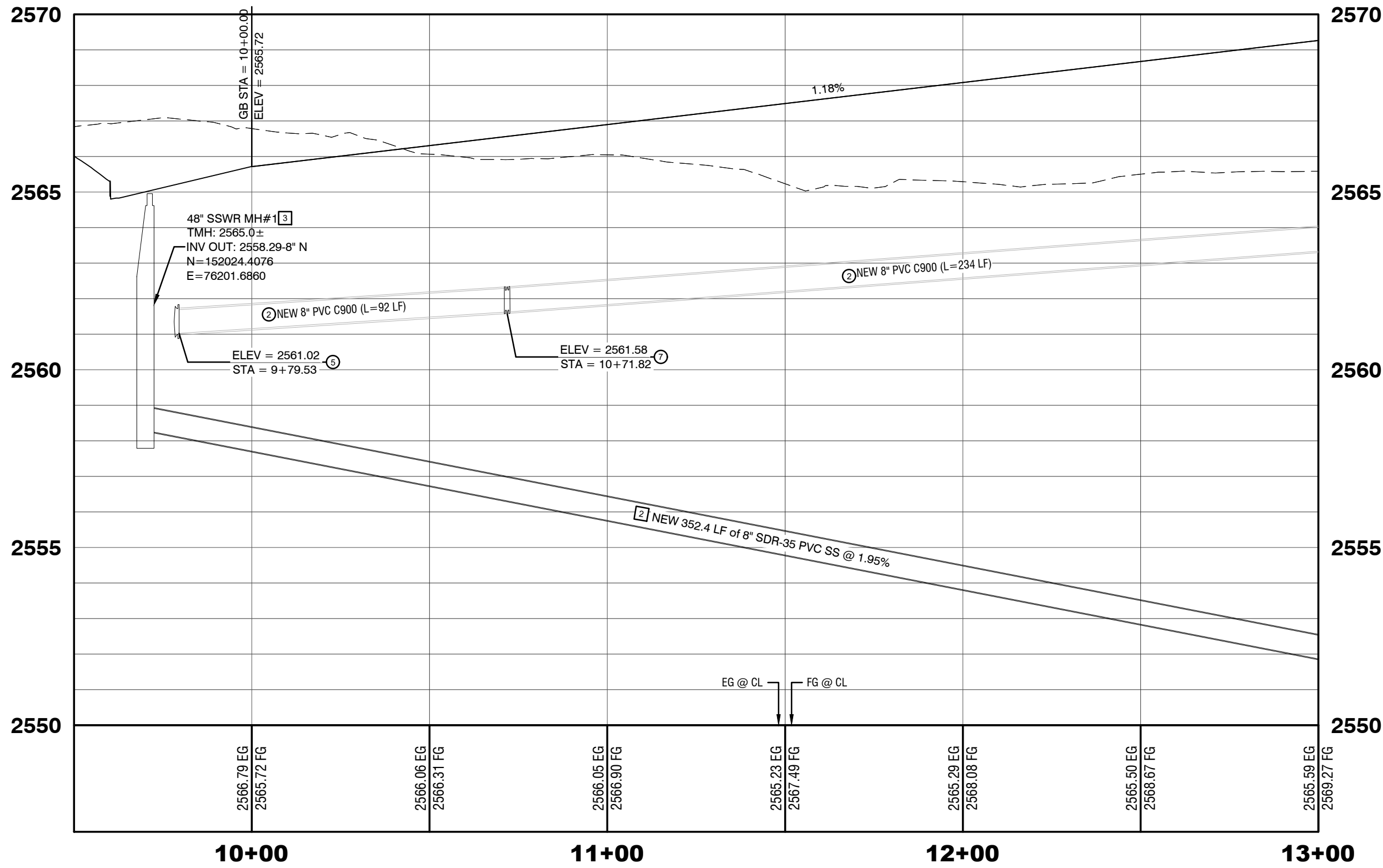
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7 OF **17**

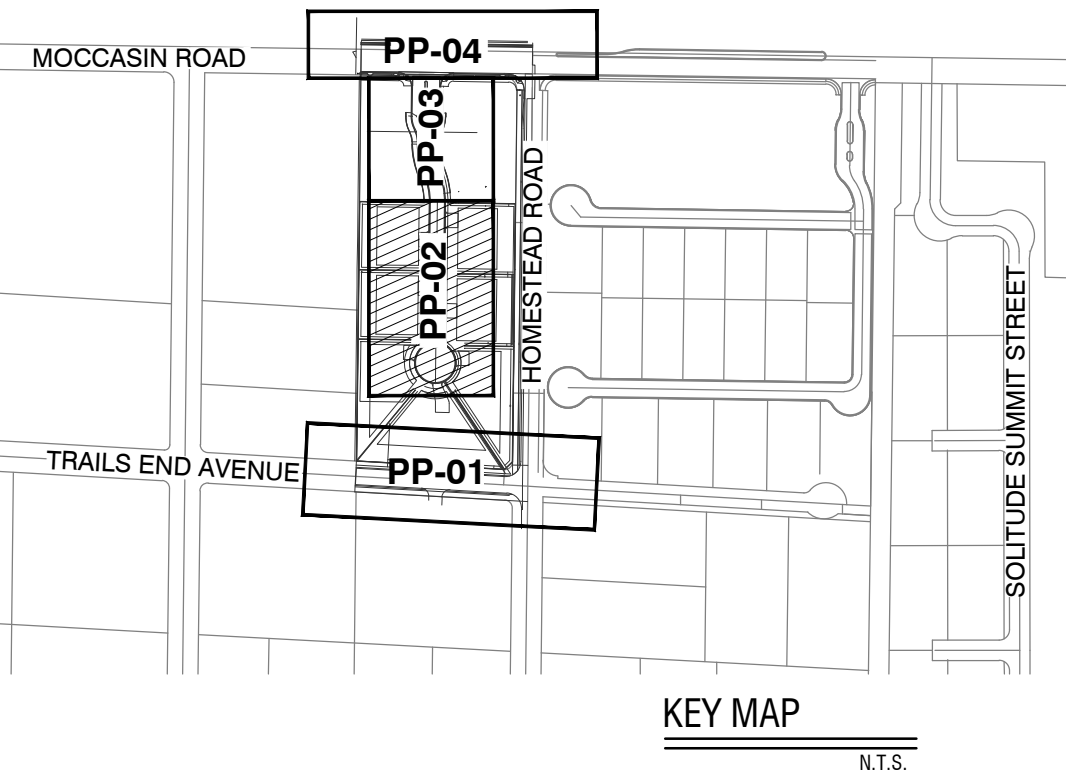
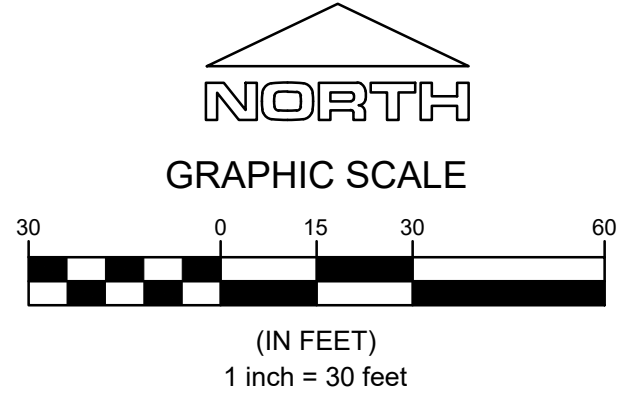
DRAWING NO.
TBD



LUELLA COURT (PRIVATE)
PLAN VIEW
HORIZ. 1"=30'



LUELLA COURT (PRIVATE)
PROFILE VIEW
SCALE: HORIZ. 1"=30'
VERT. 1"=3'



WATER NOTES

- POC (2745 P2) - FIELD VERIFY LOCATION, REMOVE EXISTING CAP AND EXTEND 8" PVC WATER PIPE PER UDACS PLATE NO. 17
- INSTALL 8" PVC WATER PIPE (2745 P2) PER UDACS PLATE NO. 17
- INSTALL 22.5" BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31
- INSTALL GATE VALVE (MATCH PIPE SIZE) WITH THRUST BLOCK PER UDACS PLATE NO. 30 & 39
- INSTALL 90" BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31
- INSTALL 2" BLOW OFF ASSEMBLY WITH CAP (MATCH PIPE SIZE) PER UDACS PLATE NO. 36
- INSTALL FIRE HYDRANT ASSEMBLY WITH 8" GATE VALVE, 8"x6" TEE, AND 6" PVC SERVICE LINE PER UDACS PLATE NO. 30, 39, & 40 CONDITION G
- INSTALL BLUE REFLECTIVE PAVEMENT MARKER PER 2009 IFC APPENDIX C, SECTION C107.1
- INSTALL 1" COPPER WATER SERVICE LATERAL W/ 3/4" METER PER UDACS PLATE NO. 3
- INSTALL 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8 AND DETAIL 7 ON SHEET DT-02

- ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDACS), LATEST EDITION."
- ALL SEWER/ STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.
- INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15.
- 3' MIN HORIZONTAL CLEARANCE REQUIRED BETWEEN WATER MAINS AND DRY UTILITIES, PER UDACS SECTIONS 2.04.02.
- 12' MIN VERTICAL CLEARANCE REQUIRED BETWEEN WATER MAINS AND DRY UTILITIES AND 6' MIN BETWEEN WATER LATERALS AND DRY UTILITIES, PER UDACS SECTION 2.04.06.
- WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.
- FIRE SPRINKLER SYSTEM SHALL BE PLUMBED TO THE MASTER TOILET. **NO EXCEPTIONS ALLOWED.**
- FOR TRENCHES SIX (6) FEET WIDE AND GREATER - DISTRIBUTION: CONTRACTOR MUST SUBMIT PIPE SUPPORT DETAILS PREPARED BY NEVADA LICENSED ENGINEER, TO LVVWD ENGINEERING SERVICES BEFORE CONSTRUCTION TO SHOW HOW WATERLINE(S) WILL BE SUPPORTED DURING EXCAVATION AND BACKFILL. IF THE PIPE MATERIAL IS ACP, THE EXPOSED PIPE MUST BE REPLACED WITH DUCTILE IRON PIPE. SUPPORTED PIPE MAY BE EXPOSED FOR **NO** LONGER THAN 14 DAYS MAXIMUM.
- PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
- REFER TO THE COVER SHEET 'CV-01' FOR THE LEGAL DESCRIPTION, BASIS OF BEARINGS, BENCH-MARK INFORMATION, AND ABBREVIATIONS.
- REFER TO THE GENERAL NOTES SHEET "GN-01" FOR QUANTITIES.

SEWER NOTES

- POC - FIELD VERIFY LOCATION AND INVERT ELEVATION, REMOVE CAP AND CONNECT TO EXISTING STUB PER DCSWCS 2.3.8.
- INSTALL 8" SDR-35 PVC SANITARY SEWER PIPE (PUBLIC) PER DCSWCS SD-15 & SD-17
- INSTALL 48" STANDARD MANHOLE WITH WATERTIGHT JOINTS (PER DCSWCS SD-1, SD-3, SD-4, AND SD-5) WITH SINGLE 24" LID
- INSTALL 4" SDR-35 PVC (PRIVATE) SANITARY LATERAL PER DCSWCS SD-17, SD-20, SD-21, AND SD-23

GRADING CONSTRUCTION NOTES

- SAWCUT NEAT & MATCH EXISTING
- FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER, AND/OR SIDEWALK
- CONSTRUCT 3' WIDE VALLEY GUTTER PER DETAIL 2 ON SHEET DT-02
- CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD #216
- CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD #234
- CONSTRUCT 10' WIDE SIDEWALK PER CCAUSD #234
- CONSTRUCT 8' WIDE CROSS GUTTER PER CCAUSD #228
- CONSTRUCT 16"x48" TYPICAL WALL OPENING PER DETAIL 1 ON SHEET DT-02
- INSTALL AREA DRAIN PER DETAIL 3 ON SHEET DT-02
- INSTALL 24" RCP STORM DRAIN CLASS III
- CONSTRUCT SIDEWALK RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD #235, CASE 2
- CONSTRUCT 5.5' AC PAVEMENT OVER 4" TYPE II AGGREGATE BASE PER SOILS REPORT BY GEOTEK RESIDENTIAL (ARTERIAL - MOCCASIN)
- CONSTRUCT 3' AC PAVEMENT OVER 4" TYPE II AGGREGATE BASE PER SOILS REPORT BY GEOTEK RESIDENTIAL (MINOR COLLECTOR - HOMESTEAD & TRAILS END)
- CONSTRUCT 2' AC PAVEMENT OVER 4" TYPE II AGGREGATE BASE PER SOILS REPORT BY GEOTEK RESIDENTIAL (RESIDENTIAL - INTERIOR STREET)
- CONSTRUCT 6' HIGH DECORATIVE BLOCK WALL WITH 3' MAX RETAINING WALL. DESIGN AND PERMIT BY OTHERS.
- CONSTRUCT 6' HIGH DECORATIVE BLOCK WALL WITH 6' MAX RETAINING WALL. DESIGN AND PERMIT BY OTHERS.
- CONSTRUCT "A" TYPE CURB AND GUTTER PER CCAUSD #219
- REMOVE EXISTING HOGWIRE FENCE/GATE AND INSTALL 42" HOGWIRE FENCE PER DETAIL 5 ON SHEET DT-02
- INSTALL 12' WIDE LOCKING GATE PER CCAUSD #253
- PROVIDE 10' WIDE 6" THICK CRUSHED DECOMPOSED GRANITE PATH FOR EQUESTRIAN TRAIL
- INSTALL 6' MAX WROUGHT IRON FENCE. DESIGN AND PERMIT BY OTHERS.
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- CONSTRUCT RESIDENTIAL DRIVEWAY PER DETAIL 6 ON SHEET DT-02
- REMOVE STORM DRAIN PLUG AND CONNECT TO EXISTING 24" RCP WITH CONCRETE COLLAR PER DETAIL 4 ON SHEET DT-02
- INSTALL 48" TYPE II STORM DRAIN MANHOLE PER CCAUSD #405.1
- INSTALL MODIFIED TYPE "CM2" STORM DRAIN DROP INLET, L=7.5' PER CCAUSD #412.1 & 421

SIGHT VISIBILITY ZONE (SVZ)

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UTILITY DISCLAIMER

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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES DATE _____
PROJECT NO. TBD FIRST APPROVED DATE _____
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAX AVAILABLE FIRE SPRINKLER FLOW 30 GPM

REVISIONS

NO.	DATE	SHEET	REVISIONS

STRIVE
ENGINEERING

PREPARED FOR
CENTURY COMMUNITIES OF NEVADA

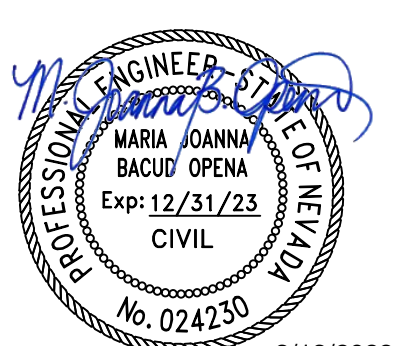
SCALE: PER SHEET	DESIGNED BY: MJS	DRAWN BY: MJS	CHECKED BY: J80
PROJECT:	DATE: 3/13/2022	SUBMITTAL STAGE:	ADD1

MOCCASIN HOMESTEAD

PLAN AND PROFILE LUELLA CT
BEGIN TO STA 13+00

TITLE

SHEET

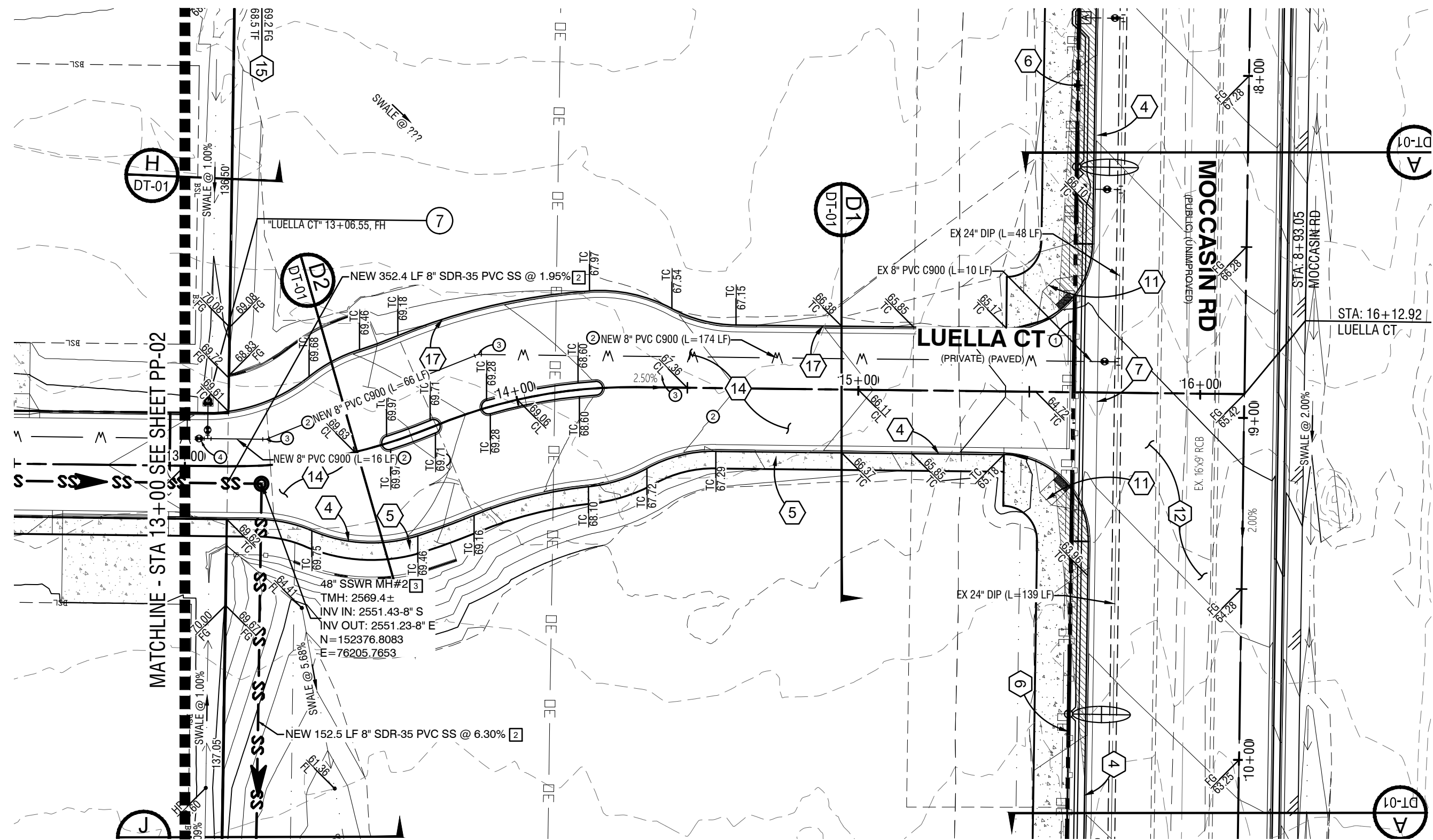


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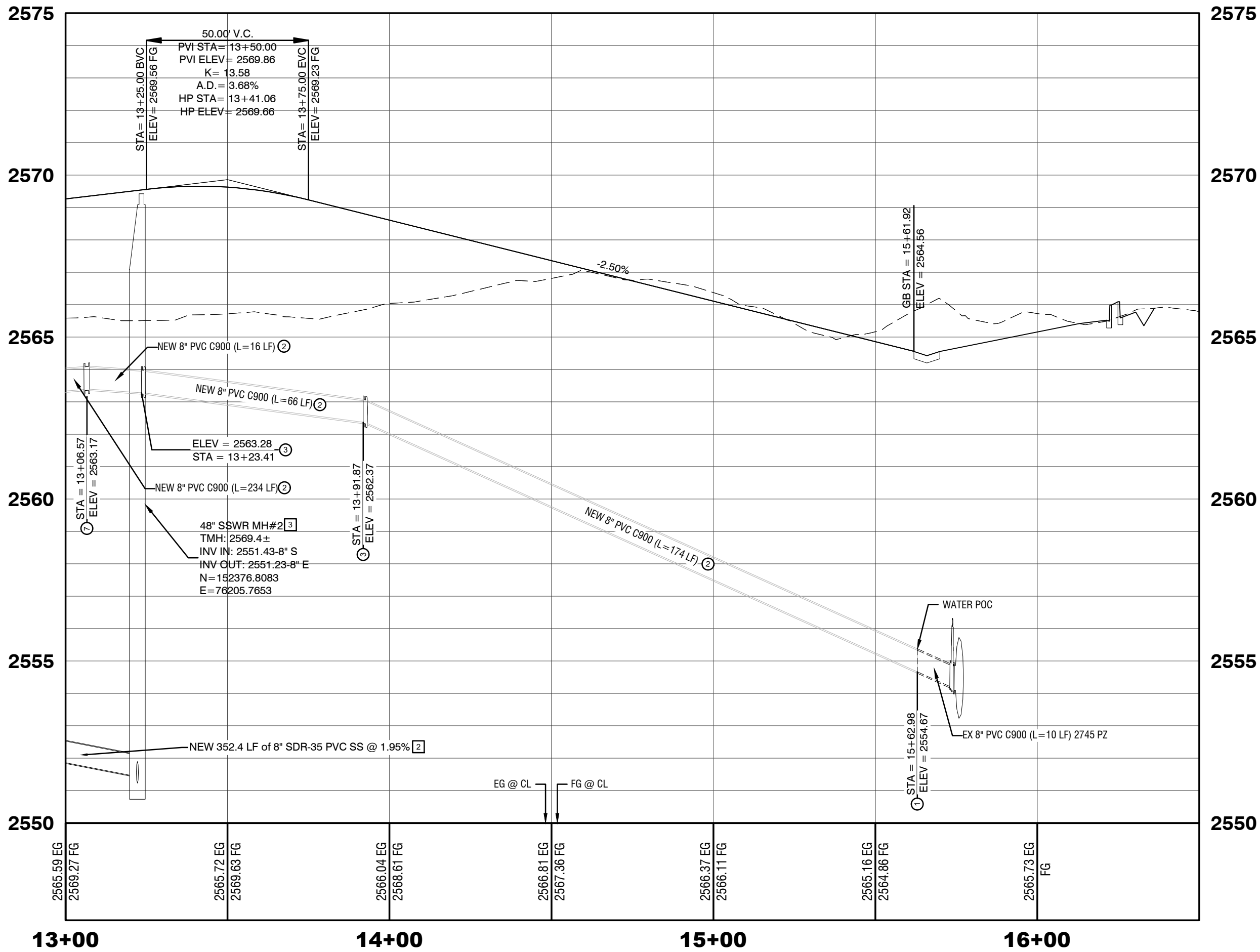
PP-02
8 OF 17

DRAWING NO.
TBD

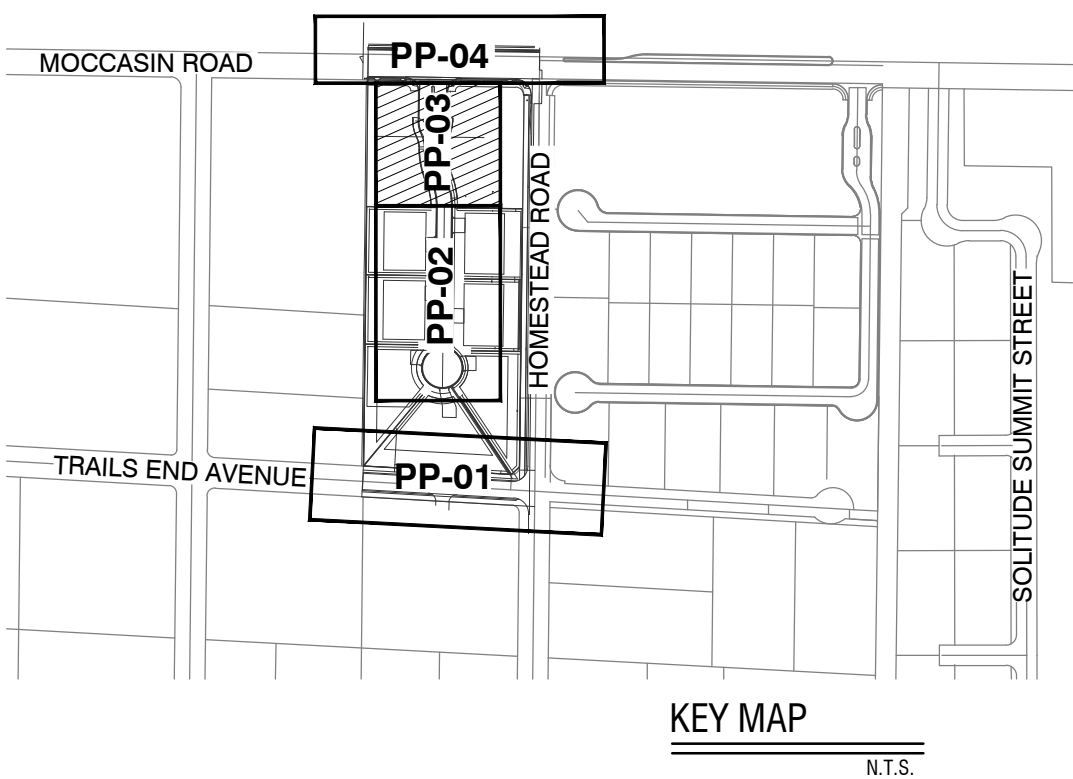
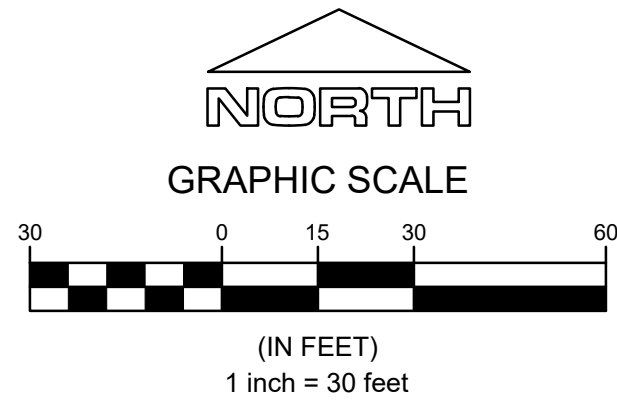
3/13/2022



LUELLA COURT (PRIVATE)
PLAN VIEW
HORIZ. 1"=30'



LUELLA COURT (PRIVATE)
PROFILE VIEW
SCALE: HORIZ. 1"=30'
VERT. 1"=3'



WATER NOTES

- POC (2745 P2) - FIELD VERIFY LOCATION, REMOVE EXISTING CAP AND EXTEND 8" PVC WATER PIPE PER UDACS PLATE NO. 17
- INSTALL 8" PVC WATER PIPE (2745 P2) PER UDACS PLATE NO. 17
- INSTALL 22.5" BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31
- INSTALL GATE VALVE (MATCH PIPE SIZE) WITH THRUST BLOCK PER UDACS PLATE NO. 30 & 39
- INSTALL 90" BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31
- INSTALL 2" BLOW OFF ASSEMBLY WITH CAP (MATCH PIPE SIZE) PER UDACS PLATE NO. 36
- INSTALL FIRE HYDRANT ASSEMBLY WITH 8" GATE VALVE, 8"x6" TEE, AND 8" PVC SERVICE LINE PER UDACS PLATE NO. 30, 39, & 40 CONDITION G
- INSTALL BLUE REFLECTIVE PAVEMENT MARKER PER 2009 IFC APPENDIX C, SECTION C107.1
- INSTALL 1" COPPER WATER SERVICE LATERAL W/ 3/4" METER PER UDACS PLATE NO. 3
- INSTALL 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8 AND DETAIL 7 ON SHEET DT-02

- ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDACS), LATEST EDITION."
- ALL SEWER/ STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.
- INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15.
- 3' MIN HORIZONTAL CLEARANCE REQUIRED BETWEEN WATER MAINS AND DRY UTILITIES, PER UDACS SECTIONS 2.04.02.
- 12' MIN VERTICAL CLEARANCE REQUIRED BETWEEN WATER MAINS AND DRY UTILITIES AND 6' MIN BETWEEN WATER LATERALS AND DRY UTILITIES, PER UDACS SECTION 2.04.06.
- WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.
- FIRE SPRINKLER SYSTEM SHALL BE PLUMBED TO THE MASTER TOILET. **NO EXCEPTIONS ALLOWED.**
- FOR TRENCHES SIX (6) FEET WIDE AND GREATER - DISTRIBUTION: CONTRACTOR MUST SUBMIT PIPE SUPPORT DETAILS PREPARED BY NEVADA LICENSED ENGINEER, TO LVVWD ENGINEERING SERVICES BEFORE CONSTRUCTION TO SHOW HOW WATERLINE(S) WILL BE SUPPORTED DURING EXCAVATION AND BACKFILL. IF THE PIPE MATERIAL IS ACP, THE EXPOSED PIPE MUST BE REPLACED WITH DUCTILE IRON PIPE. SUPPORTED PIPE MAY BE EXPOSED FOR **NO** LONGER THAN 14 DAYS MAXIMUM.
- PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
- REFER TO THE COVER SHEET "CV-01" FOR THE LEGAL DESCRIPTION, BASIS OF BEARINGS, BENCHMARK INFORMATION, AND ABBREVIATIONS.
- REFER TO THE GENERAL NOTES SHEET "GN-01" FOR QUANTITIES.

SEWER NOTES

- POC - FIELD VERIFY LOCATION AND INVERT ELEVATION, REMOVE CAP AND CONNECT TO EXISTING STUB PER DCSWCS 2.3.8.
- INSTALL 8" SDR-35 PVC SANITARY SEWER PIPE (PUBLIC) PER DCSWCS SD-15 & SD-17
- INSTALL 48" STANDARD MANHOLE WITH WATERTIGHT JOINTS (PER DCSWCS SD-1, SD-3, SD-4, AND SD-5) WITH SINGLE 24" LID
- INSTALL 4" SDR-35 PVC (PRIVATE) SANITARY LATERAL PER DCSWCS SD-17, SD-20, SD-21, AND SD-23

GRADING CONSTRUCTION NOTES

- SAWCUT NEAT & MATCH EXISTING
- FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER, AND/OR SIDEWALK
- CONSTRUCT 3' WIDE VALLEY GUTTER PER DETAIL 2 ON SHEET DT-02
- CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD #216
- CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD #234
- CONSTRUCT 10' WIDE SIDEWALK PER CCAUSD #234
- CONSTRUCT 8' WIDE CROSS GUTTER PER CCAUSD #228
- CONSTRUCT 16"x48" TYPICAL WALL OPENING PER DETAIL 1 ON SHEET DT-02
- INSTALL AREA DRAIN PER DETAIL 3 ON SHEET DT-02
- INSTALL 24" RCP STORM DRAIN CLASS III
- CONSTRUCT SIDEWALK RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD #235, CASE 2
- CONSTRUCT 5.5' AC PAVEMENT OVER 4" TYPE II AGGREGATE BASE PER SOILS REPORT BY GEOTEK RESIDENTIAL (ARTERIAL - MOCCASIN)
- CONSTRUCT 3' AC PAVEMENT OVER 4" TYPE II AGGREGATE BASE PER SOILS REPORT BY GEOTEK RESIDENTIAL (MINOR COLLECTOR - HOMESTEAD & TRAILS END)
- CONSTRUCT 2' AC PAVEMENT OVER 4" TYPE II AGGREGATE BASE PER SOILS REPORT BY GEOTEK RESIDENTIAL (RESIDENTIAL - INTERIOR STREET)
- CONSTRUCT 6' HIGH DECORATIVE BLOCK WALL WITH 3' MAX RETAINING WALL. DESIGN AND PERMIT BY OTHERS.
- CONSTRUCT 6' HIGH DECORATIVE BLOCK WALL WITH 6' MAX RETAINING WALL. DESIGN AND PERMIT BY OTHERS.
- CONSTRUCT "A" TYPE CURB AND GUTTER PER CCAUSD #219
- REMOVE EXISTING HOGWIRE FENCE/GATE AND INSTALL 42" HOGWIRE FENCE PER DETAIL 5 ON SHEET DT-02
- INSTALL 12' WIDE LOCKING GATE PER CCAUSD #253
- PROVIDE 10' WIDE 6" THICK CRUSHED DECOMPOSED GRANITE PATH FOR EQUESTRIAN TRAIL
- INSTALL 6' MAX WROUGHT IRON FENCE. DESIGN AND PERMIT BY OTHERS.
- CONSTRUCT RESIDENTIAL DRIVEWAY PER CCAUSD #223
- CONSTRUCT RESIDENTIAL DRIVEWAY PER DETAIL 6 ON SHEET DT-02
- REMOVE STORM DRAIN PLUG AND CONNECT TO EXISTING 24" RCP WITH CONCRETE COLLAR PER DETAIL 4 ON SHEET DT-02
- INSTALL 48" TYPE II STORM DRAIN MANHOLE PER CCAUSD #405.1
- INSTALL MODIFIED TYPE "CM2" STORM DRAIN DROP INLET, L=7.5' PER CCAUSD #412.1 & 421

SIGHT VISIBILITY ZONE (SVZ)

NO WALLS, FENCES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES, FIRE HYDRANTS, TREES, AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE. THIS RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY ZONE THROUGH LANDSCAPED MEDIANS. (CCAUSD# 201)

UTILITY DISCLAIMER

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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES DATE _____
PROJECT NO. TBD FIRST APPROVED DATE _____
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAX AVAILABLE FIRE SPRINKLER FLOW 30 GPM

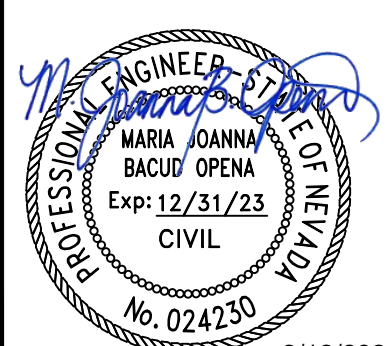
REVISIONS

STRIVE
ENGINEERING

PREPARED FOR
CENTURY COMMUNITIES OF NEVADA

MOCCASIN HOMESTEAD

TITLE



SHEET

PP-03
9 OF 17
DRAWING NO.
TBD

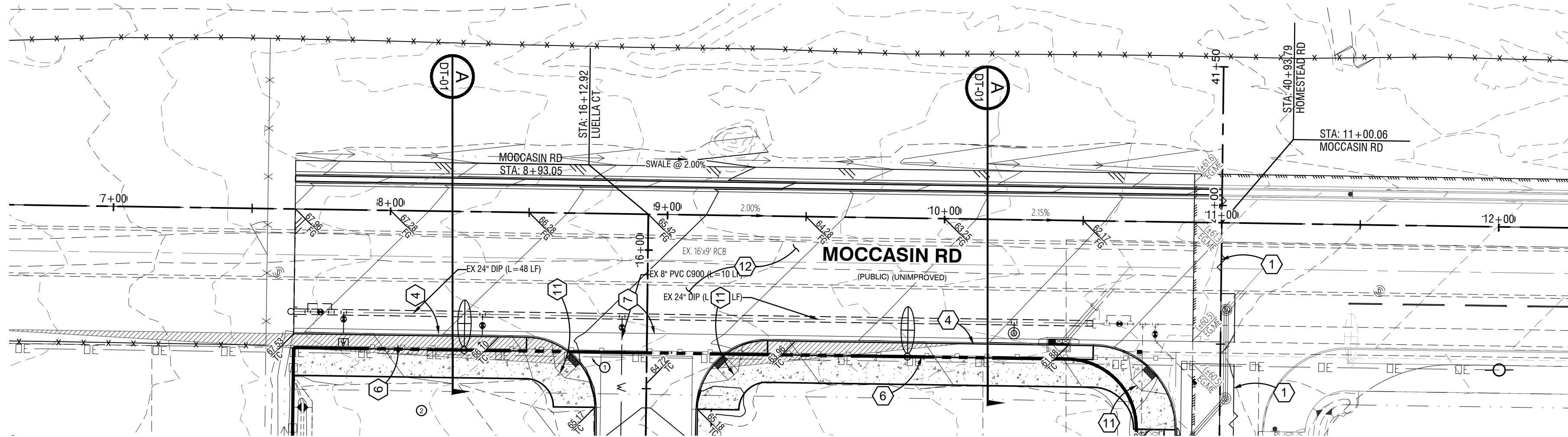
3/13/2022

APPROVAL

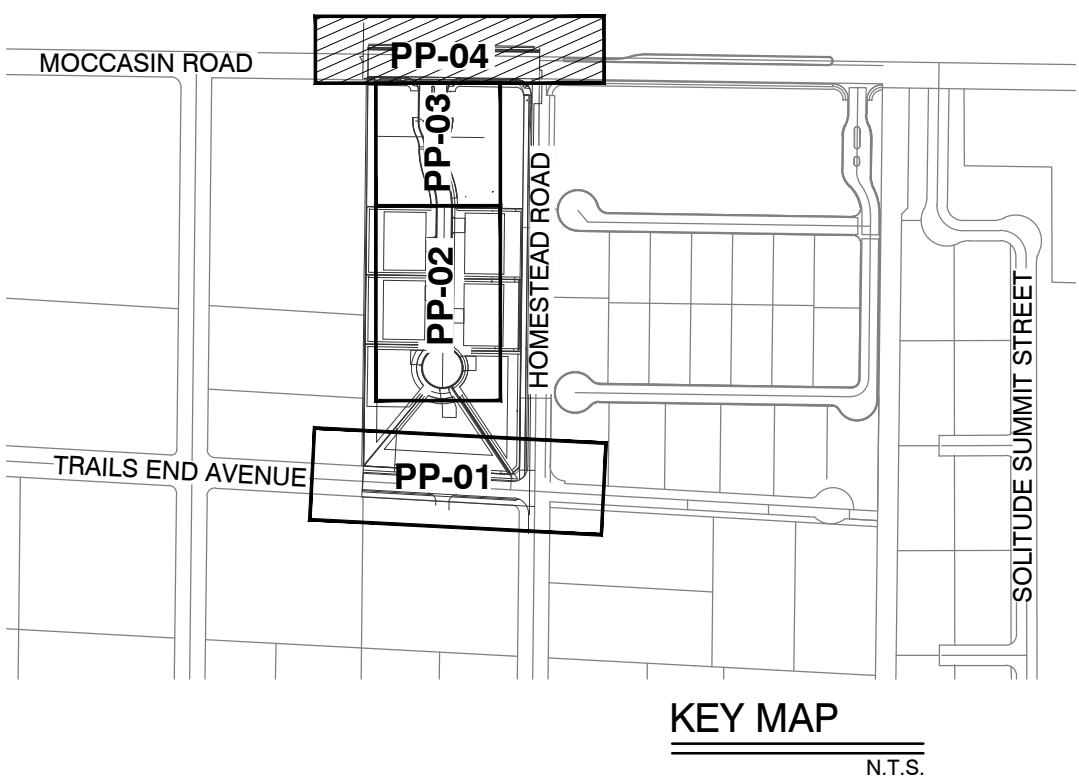
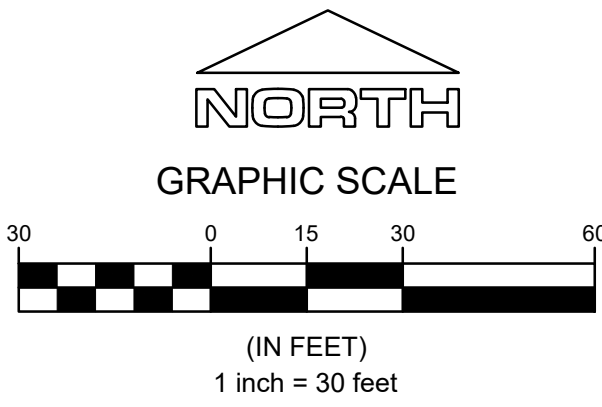
REVISIONS

SCALE: PER SHEET
DESIGNED BY: MJS
DRAWN BY: MJS
CHECKED BY: JBO
SUBMITTAL STAGE:
ADD1

**PLAN AND PROFILE LUELLA CT
STA 13+00 TO END**



MOCCASIN ROAD (PUBLIC)
PLAN VIEW
HORIZ. 1"=30'



WATER NOTES

- POC (2745 P2) - FIELD VERIFY LOCATION, REMOVE EXISTING CAP AND EXTEND 8" PVC WATER PIPE PER UDACS PLATE NO. 17
- INSTALL 8" PVC WATER PIPE (2745 P2) PER UDACS PLATE NO. 17
- INSTALL 22.5" BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31
- INSTALL GATE VALVE (MATCH PIPE SIZE) WITH THRUST BLOCK PER UDACS PLATE NO. 30 & 39
- INSTALL 90" BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31
- INSTALL 2" BLOW OFF ASSEMBLY WITH CAP (MATCH PIPE SIZE) PER UDACS PLATE NO. 36
- INSTALL FIRE HYDRANT ASSEMBLY WITH 8" GATE VALVE, 8"x6" TEE, AND 8" PVC SERVICE LINE PER UDACS PLATE NO. 30, 39, & 40 CONDITION G
- INSTALL BLUE REFLECTIVE PAVEMENT MARKER PER 2009 IFC APPENDIX C, SECTION C107.1
- INSTALL 1" COPPER WATER SERVICE LATERAL W/ 3/4" METER PER UDACS PLATE NO. 3
- INSTALL 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8 AND DETAIL 7 ON SHEET DT-02

- ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDACS), LATEST EDITION."
- ALL SEWER/ STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.
- INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15.
- 3' MIN HORIZONTAL CLEARANCE REQUIRED BETWEEN WATER MAINS AND DRY UTILITIES, PER UDACS SECTIONS 2.04.02.
- 12' MIN VERTICAL CLEARANCE REQUIRED BETWEEN WATER MAINS AND DRY UTILITIES AND 6' MIN BETWEEN WATER LATERALS AND DRY UTILITIES, PER UDACS SECTION 2.04.06.
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- CONSTRUCT "A" TYPE CURB AND GUTTER PER CCAUSD #219
- REMOVE EXISTING HOGWIRE FENCE/GATE AND INSTALL 42" HOGWIRE FENCE PER DETAIL 5 ON SHEET DT-02
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- PROVIDE 10' WIDE 6" THICK CRUSHED DECOMPOSED GRANITE PATH FOR EQUESTRIAN TRAIL
- INSTALL 6' MAX WROUGHT IRON FENCE. DESIGN AND PERMIT BY OTHERS.
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SIGHT VISIBILITY ZONE (SVZ)

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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES DATE _____
PROJECT NO. TBD FIRST APPROVED DATE _____
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAX AVAILABLE FIRE SPRINKLER FLOW 30 GPM

REVISIONS

STRIVE
ENGINEERING

PREPARED FOR
CENTURY COMMUNITIES OF NEVADA

PROJECT: SCALE: PER SHEET

DESIGNED BY: MJS
DRAWN BY: MJS
CHECKED BY: JBO

DATE: 3/13/2022
SUBMITTAL STAGE:
ADD1

MOCCASIN HOMESTEAD

PLAN & PROFILE
MOCCASIN ROAD

TITLE

SHEET

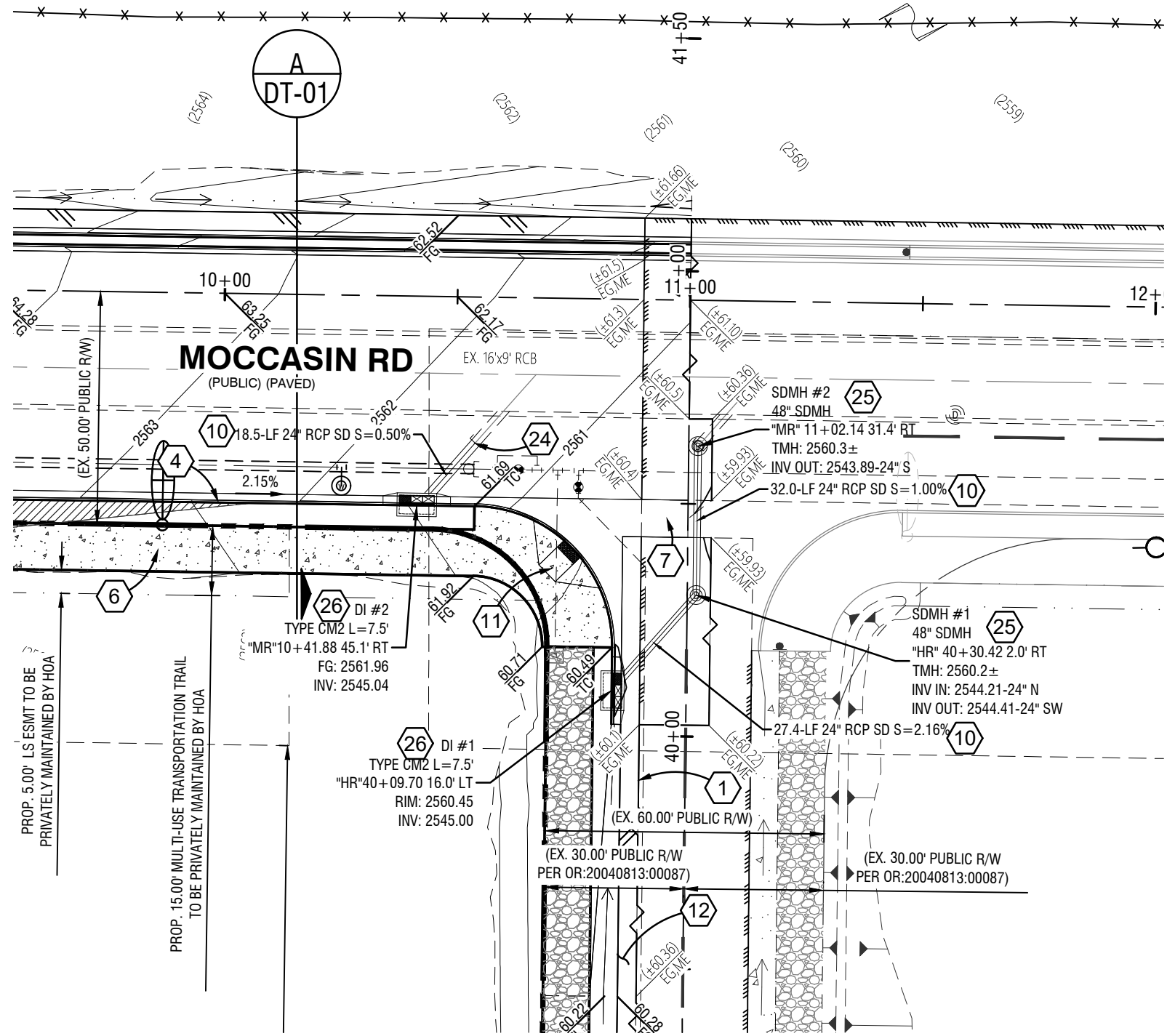


SHEET

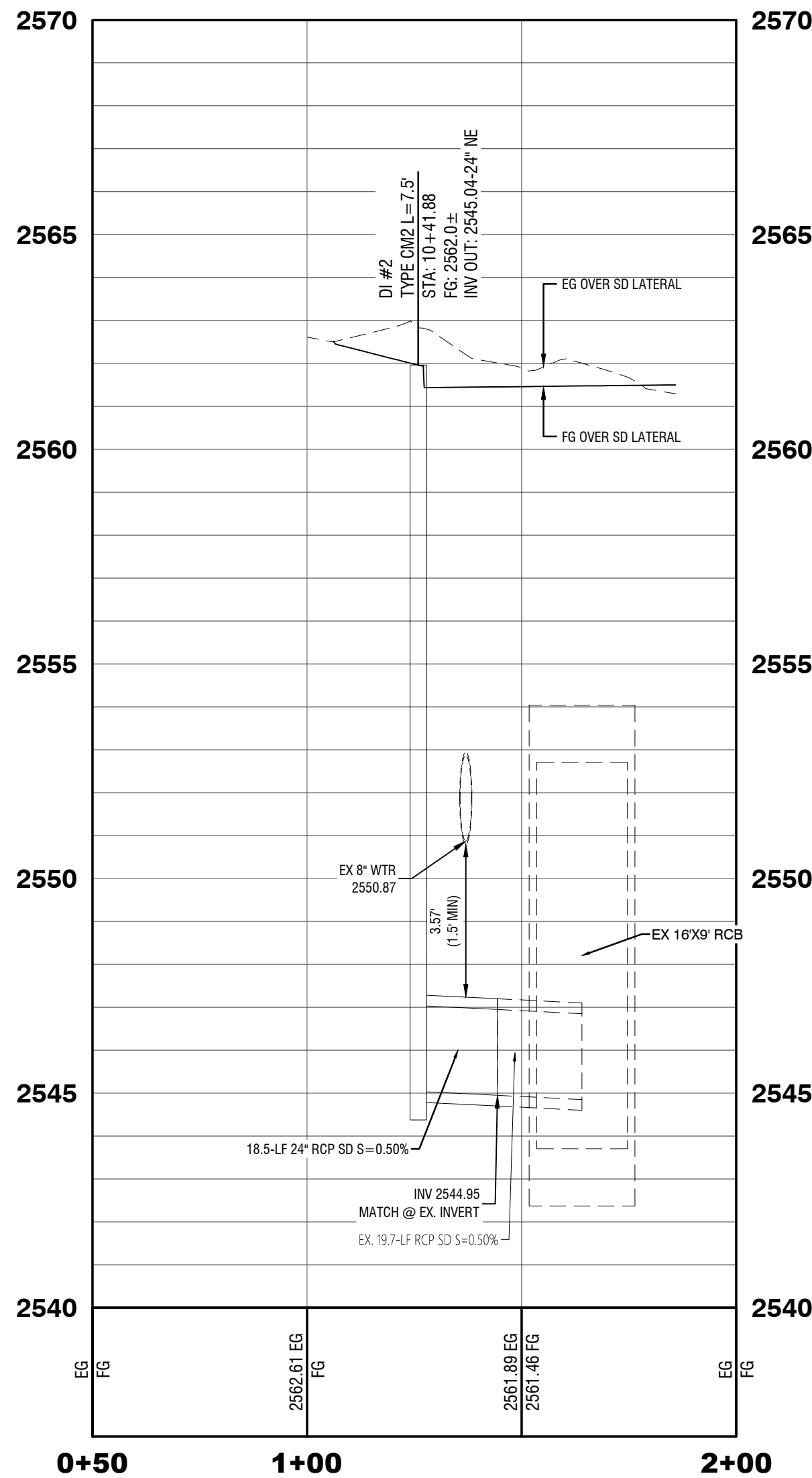
3/13/2022

PP-04
10 OF 17

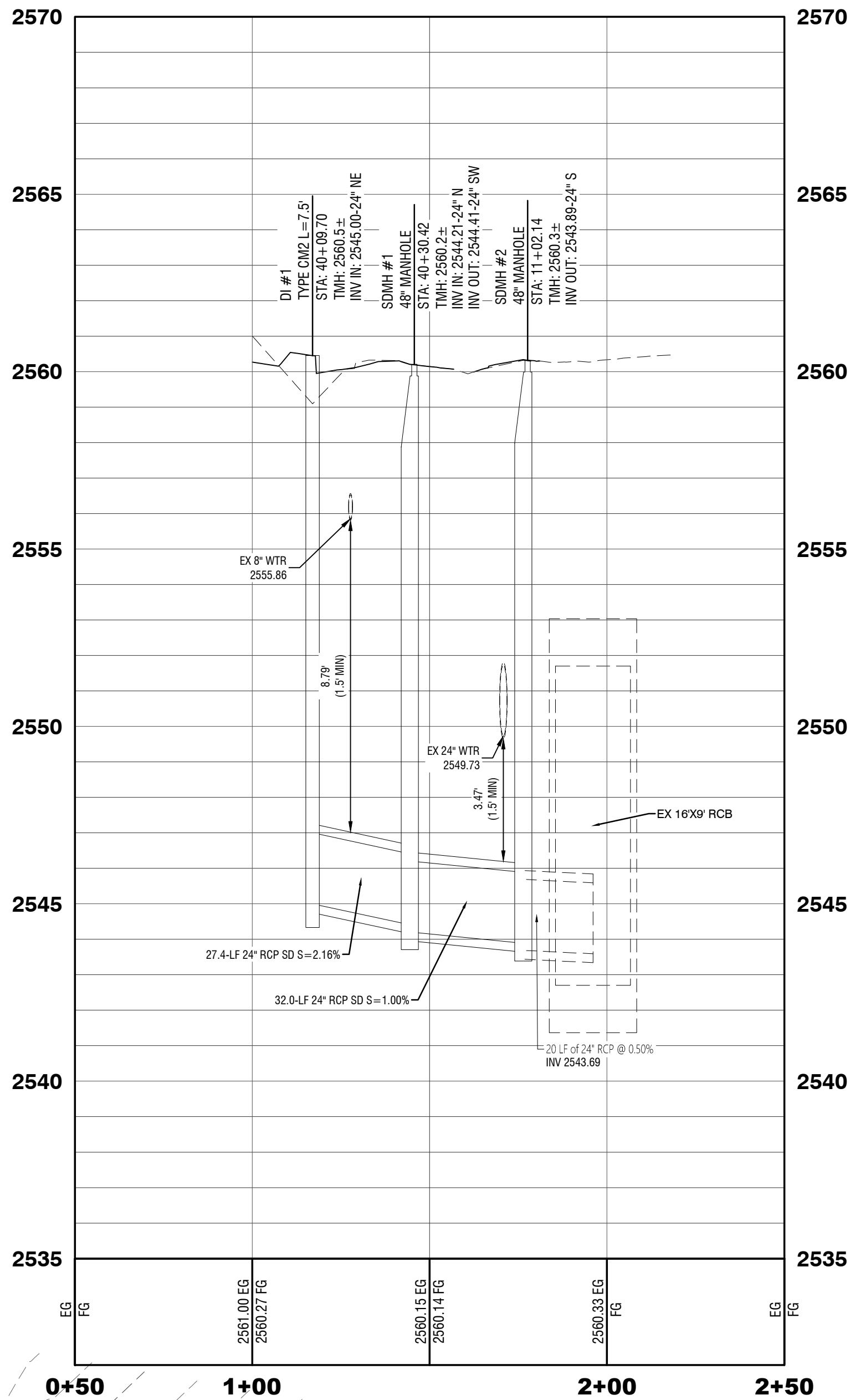
TBD



STORM DRAIN LATERALS
PLAN VIEW
HORIZ. 1"=30'



DI#2 & STORM DRAIN LATERAL
PROFILE VIEW
SCALE: HORIZ. 1"=30'
VERT. 1"=3'



DI#1 & STORM DRAIN LATERAL
PROFILE VIEW
SCALE: HORIZ. 1"=30'
VERT. 1"=3'

GRADING NOTES

ADD 2500 FEET TO ALL GRADE TAGS EXCEPT FINISHED FLOOR ELEVATIONS, PAD ELEVATIONS, GARAGE ELEVATIONS, AND CONTOURS TO GET ACTUAL ELEVATION.

THE ELEVATION DIFFERENCE BETWEEN THE PAD AND FINISHED FLOOR IS DETERMINED FROM THE MINIMUM THICKNESS REQUIRED BY THE GEOTECHNICAL REPORT. FINISHED FLOORS MAY INCREASE DEPENDING ON THE TYPE OF SOIL AND FOUNDATION PLAN USED. NOTE THAT THE STRUCTURAL PLANS & GEOTECHNICAL REPORT SHALL SUPERSEDE THE CIVIL IMPROVEMENT PLANS.

ALL PRIVATE STREETS ARE P.U.E. PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOME OWNERS ASSOCIATION (HOA).

ALL ONSITE COMMON ELEMENTS ARE TO BE PRIVATELY MAINTAINED BY THE HOA.

CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF DISCREPANCIES PRIOR TO CONSTRUCTION.

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

ALL WORK TO BE PERFORMED OUTSIDE OF THE PROJECT BOUNDARY AND ON PRIVATE PROPERTY SHALL NOT BE PERFORMED UNTIL WRITTEN PERMISSION AND EASEMENTS HAVE BEEN OBTAINED FROM THE OFFSITE OWNER AND GIVEN TO THE GOVERNING ENTITY.

REFER TO THE COVER SHEET "CV-01" FOR THE LEGAL DESCRIPTION, BASIS OF BEARINGS, AND BENCHMARK INFORMATION.

REFER TO THE GENERAL NOTES SHEET "GN-01" FOR THE STORMWATER RUNOFF MANAGEMENT NOTES.

SIGHT VISIBILITY ZONE (SVZ)

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GEOTECHNICAL

GEOTEK RESIDENTIAL, LLC
6835 SOUTH ESCONDIDO STREET
SUITE B
LAS VEGAS, NV 89119
REPORT NO: 15901-LVR
DATED: DECEMBER 3, 2020

GRADING CONSTRUCTION NOTES

- SAWCUT NEAT & MATCH EXISTING
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EARTHWORK

NOTE: THESE QUANTITIES ARE APPROXIMATE AND ARE RAW VOLUMES ONLY. OVEREXCAVATION SUBSIDENCE, SHRINKAGE & BULKING FACTORS ARE NOT TAKEN INTO ACCOUNT.

CUT: 2,531 CY
FILL: 16,212 CY
NET: 13,681 (FILL)

TOTAL ACREAGE IN PARCEL: ±5.3 AC
NUMBER OF ON-SITE ACRES WITHIN PARCEL TO BE DISTURBED: X.X AC
NUMBER OF OFF-SITE ACRES WITHIN PARCEL TO BE DISTURBED: X.X AC

FLOOD ZONE

FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY PANEL, 32003C1735 E, DATED SEPTEMBER 27, 2002, INDICATES THAT THE SUBJECT PROPERTY LIES IN UNSHADED ZONE "X", AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

EASEMENT NOTE

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REVISIONS

STRIVE
ENGINEERING

PREPARED FOR
CENTURY COMMUNITIES OF NEVADA

PROJECT:
DATE: 3/13/2022
SUBMITTAL STAGE:
ADD1

SCALE: PER SHEET
DESIGNED BY: ###
DRAWN BY: ###
CHECKED BY: ###

TITLE

MOCCASIN HOMESTEAD

SHEET

SD-01

15 OF 17

DRAWING NO.
TBD

DATE INITIALS

REVISIONS

NO. DATE SHEET

REVISIONS