

DS #:

5033

APN:

125-35-401-001

PROJECT:

Rainbow and Rancho Residential

SUBMITTAL:

2nd Supplement

SCANNED BY/DATE:

CHECKED BY/DATE:



|                                                                            |                                                           |                                                                                                   |
|----------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>CITY OF LAS VEGAS</b>                                                   |                                                           | <b>DATE:</b>                                                                                      |
| <b>INTER-OFFICE MEMORANDUM</b>                                             |                                                           | October 18, 2018                                                                                  |
| <b>TO:</b><br>Land Development Services<br>Department of Building & Safety |                                                           | <b>FROM:</b><br>Albert Subg, P.E.<br>Flood Control Project Engineer<br>Department of Public Works |
| <b>SUBJECT:</b>                                                            | Drainage Study for:                                       |                                                                                                   |
|                                                                            | Rainbow and Rancho Residential                            |                                                                                                   |
| <b>Cross Streets:</b>                                                      | N. Rainbow Boulevard and N. Rancho Drive                  | <b>COPIES TO:</b>                                                                                 |
| <b>File Number:</b>                                                        | F:\Depot\DSMemos\DS5033B.doc                              | Slater Hanifan Group                                                                              |
| <b>Parcel Number:</b>                                                      | 125-35-401-001                                            | KB Homes                                                                                          |
| <b>Zoning Action:</b>                                                      | TMP-73571; WVR-73569; VAR-73568;<br>ZON-73567 & GPA-73566 | Bart Anderson, P.E., DevCo                                                                        |
| <b>FEMA Flood Zone</b>                                                     | YES                                                       | NO <b>X</b>                                                                                       |
| <b>Proposed Storm Drain</b>                                                | YES                                                       | NO <b>X</b>                                                                                       |

| HISTORY                                   | DATE RECEIVED             | DATE REVIEWED | COMMENTS                   | REVIEW FEES     | FEES PAID<br>Payment Trn # |
|-------------------------------------------|---------------------------|---------------|----------------------------|-----------------|----------------------------|
| 1 <sup>st</sup> Submittal                 | 8/28/2018 &<br>9/10/2018  | 9/19/2018     | Not Approved               | \$400.00        | 498278: \$400              |
| 2 <sup>nd</sup> Submittal<br>& Supplement | 9/27/2018 &<br>10/15/2018 | 10/18/2018    | See Comments Below         | \$400.00        | 499483: \$400              |
|                                           |                           |               | <b>TOTAL FEES (LDDRS):</b> | <b>\$800.00</b> | ----                       |

#### REMARKS:

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

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

1. 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.

**NOTE:** Any future changes to the proposed design (or design assumptions) as outlined in the approved drainage study and attached preliminary grading plan which affect drainage must be addressed in a Drainage Study Update and accepted by the *City of Las Vegas Flood Control Section*. Additionally, conditional acceptance of a drainage study is valid for a period of one (1) year. If the proposed construction has not been completed in that time period, the *City of Las Vegas* reserves the right to require additional conditions and/or submission and acceptance of a complete drainage study update prior to further construction of a project.

**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**  
WSP/AYS

T/R/S: T19S/R60E/35  
AREA G-35



SLATER  
HANIFAN  
GROUP

THE BENCHMARK OF OUR PROFESSION

KBH1802

September 24, 2018

City of Las Vegas  
Planning and Development  
333 S. Rancho Drive  
Las Vegas, NV 89101

**RE: Justification Letter for Grade Difference over 2' for KB Home Rainbow and Rancho  
APN: 125-35-401-001**

Slater Hanifan Group, on behalf of the applicant, KB Home, respectfully submits this justification letter in support of a grade difference over 2 feet higher than existing grade for the subject site. This information is provided as requested in Comment #1 of the review of the Technical Drainage Study for this site completed by Albert Sung on September 19, 2018.

The subject site is located east of the intersection of Rainbow Blvd and Rancho Drive. The Assessor's Parcel Number is 125-35-401-001. The parcel acreage is approximately 10.52 gross acres. The proposed development will consist of 88 single family residential lots resulting in a density of 8.4 du/ac.

The subject project Tentative Map was approved by the City of Las Vegas Planning Commission on August 14, 2018, with 89 single family residences. As the parcel is natural existing ground, there are minor washes and low points throughout the site. These low areas will be filled in as necessary to obtain a graded site. The natural slope of the site directs drainage to the east side of the parcel. We are proposing to direct these flows into an existing drainage easement along that east boundary. The proposed site grading is such that the amount of fill and grade difference around the perimeter were kept as minimal as possible while maintaining positive drainage to the existing easement. The only property boundary that is being filled to over 2 feet above existing grade is on the west boundary along the Rainbow Boulevard right of way. There will be a 6' landscape buffer between the existing right of way and the proposed 3' maximum height wall.

Thank you for considering these application requests. Please contact us at (702) 284-5300 if you have any questions regarding these applications.

Sincerely,  
**Slater Hanifan Group, Inc.**

Dan Poll  
Assistant Project Manager

CC:  
Mark Bangan, KB Home  
Roxanne Leigh, Slater Hanifan Group

PLANS APPROVED  
PLANNING  
Dept. of Planning  
City of Las Vegas, Nevada  
2' Grade Difference only  
LHM SEP 26 2018

Conforms to the minimum requirement of  
LVMC Title 18; applicable Master Plan  
Development standards and/or Conditions of  
Approval. Make No Change Without Approval.  
Plan is Not a Permit to Violate Any Ordinance.

## TRANSMITTAL

**To:** Albert Sung, P.E.

**Date:** September 27, 2018

City of Las Vegas

**Project No.:** KBH1802-000

333 N. Rancho Drive

Las Vegas, NV 89106

**From:** Andrew Howard, P.E.

**Subject:** Addendum to the Technical Drainage Study for Rainbow and Rancho

**CC:** Dan Poll, SHG

**CC:** Mark Failla, SHG

**CC:** Tim Mulrooney, SHG

**CC:** Chelsea Jensen, SHG

**CC:** \_\_\_\_\_

**CC:** \_\_\_\_\_

**Transmitting Via:**

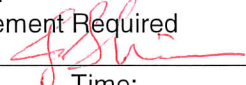
- ☐ Mail  
☒ Messenger / MDS  
☐ Federal Express  
☐ Pickup

**For:**

- ☒ Review & Comment  
☐ Per your Request  
☐ Information/File

**Acknowledgement of Receipt:**

- ☐ Not Required  
☒ Acknowledgement Required

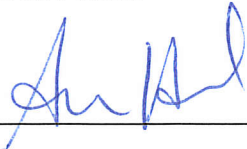
Received By: 

Date: \_\_\_\_\_ Time: \_\_\_\_\_

| <u>Copies</u> | <u>Description</u>                                                     |
|---------------|------------------------------------------------------------------------|
| <u>1</u>      | <u>Addendum to the Technical Drainage Study for Rainbow and Rancho</u> |
| <u>1</u>      | <u>Improvement Plans</u>                                               |
| <u>1</u>      | <u>Review Fee Check - \$400</u>                                        |
| <u>1</u>      | <u>CD with PDF of Study</u>                                            |
|               |                                                                        |
|               |                                                                        |

**Comments:**

Please contact us if there are any questions at 702-284-5300.

Signed: 

Andrew Howard, P.E.  
Flood Control Division

## TRANSMITTAL

**To:** Albert Sung, P.E. **Date:** October 15, 2018  
City of Las Vegas **Project No.:** KBH1802-000  
333 N. Rancho Drive  
Las Vegas, NV 89106  
**From:** Andrew Howard, P.E.  
**Subject:** Addendum to the Technical Drainage Study for Rainbow and Rancho

**CC:** Dan Poll, SHG **CC:** Mark Failla, SHG  
**CC:** Tim Mulrooney, SHG **CC:** Chelsea Jensen, SHG  
**CC:**  **CC:**

**Transmitting Via:**

- ☐ Mail  
☒ Messenger / MDS  
☐ Federal Express  
☐ Pickup

**For:**

- ☒ Review & Comment  
☐ Per your Request  
☐ Information/File

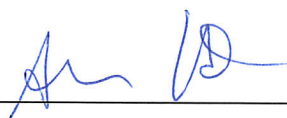
**Acknowledgement of Receipt:**

- ☐ Not Required  
☒ Acknowledgement Required  
Received By: \_\_\_\_\_  
Date: \_\_\_\_\_ Time: \_\_\_\_\_

| Copies | Description                    |
|--------|--------------------------------|
| 1      | Revised Grading Sheets G1 & G3 |
|        |                                |
|        |                                |
|        |                                |

**Comments:**

Please contact us if there are any questions at 702-284-5300.

Signed: 

Andrew Howard, P.E.  
Flood Control Division

# TECHNICAL DRAINAGE STUDY ADDENDUM

## **Rainbow and Rancho**

City of Las Vegas, Nevada

Job No.: KBH1802-000

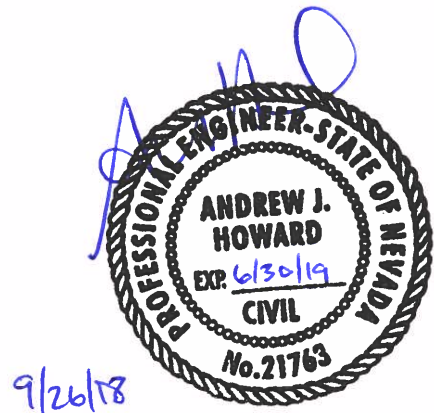
Date: September 2018

### **Prepared By:**

Slater Hanifan Group, Inc.  
5740 S. Arville Street, Suite 216  
Las Vegas, Nevada 89118  
Phone: 702-284-5300 • Fax: 702-284-5399

### **Prepared For:**

KB Home  
5795 Badura Ave Ste 180  
Las Vegas, NV 89118  
Phone: 702-266-8400 • Fax: 702-266-8623



---

Andrew Howard, P.E.  
NV Professional Engineer No. 21763

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL  
**DRAINAGE STUDY INFORMATION FORM**

Name of Development: Rainbow Rancho (Addendum) Date: September 2018  
Location of Development: a) Descriptive (Cross Streets): North/South: N Rainbow Blvd  
East/West: N Rancho Dr  
b) Section: 35 Township: 19 S Range: 60 E  
c) APN: 125-35-401-001

Name of Owner: KB Home  
Telephone No.: 702-266-8400 Fax No.: 702-266-8623 E-mail Address: PChao@KBHome.com  
Address: 5795 Badura Ave. Suite 180 Las Vegas NV 89118

Contact Person – Name: Andrew Howard, P.E. Telephone No.: (702) 284-5300  
\*E-mail Address: ahoward@shg-inc.com Fax No.: (702) 284-5399  
Firm: Slater Hanifan Group  
Address: 5740 S. Arville #216 Las Vegas NV 89118

Type of Land Development/Land Disturbance Process:

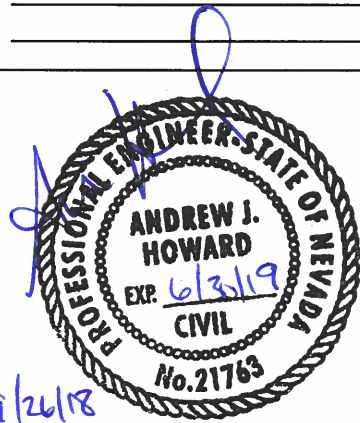
|                                           |                                                              |                                                       |
|-------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Rezoning         | <input type="checkbox"/> Subdivision Map                     | <input type="checkbox"/> Clearing and grading Only    |
| <input type="checkbox"/> Parcel Map       | <input checked="" type="checkbox"/> Planned Unit Development | <input type="checkbox"/> Other (Please specify below) |
| <input type="checkbox"/> Large Parcel Map | <input type="checkbox"/> Building Permit                     | <input type="checkbox"/>                              |

1. Total Owned Land Area: At Site: 10.56 Being Developed/Disturbed: 10.56
2. Is a portion or all of the subject property located in a FEMA Flood Hazard Area? ☐ Yes\*\* ☒ No
3. Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control District Master Planned Facility? ☐ Yes\*\* ☒ No
4. Proposed type of development (Residential, Commercial, Etc.): single family residential
5. Approximate upstream land area which drains to the subject site: 0-ac
6. Has the site drainage been evaluated in the past? ☒ Yes\*\* ☐ No If yes, please identify documentation: \_\_\_\_\_

Technical Drainage Study for Northstar Estates (DS 673)

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: Through 10' drainage easement at northeast...corner of project site into Northstar Estates Unit 2.

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



Engineer's Seal

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

**\*Newly Required Field**

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

| Local Entity File No. | Revision | Date |
|-----------------------|----------|------|
|                       |          |      |
|                       |          |      |
|                       |          |      |

REFERENCE:

STANDARD FORM 1

Updated 05/01/2008



KBH1802.000

September 26, 2018

Albert Sung, P.E.  
Flood Control Project Engineer  
City of Las Vegas Department of Public Works  
333 N. Rancho Drive  
Las Vegas, Nevada 89106

**Subject: Addendum to the Technical Drainage Study for Rainbow and Rancho  
(CLV DS #5033)**

Dear Mr. Sung:

The following are responses to comments contained in the September 19, 2018 review memorandum, regarding the above referenced project. A copy of the City of Las Vegas (CLV) comment letter has been provided in Appendix A of this submittal. The comments have been individually addressed as follows:

1. **Comment:** *Sites with a grade difference of 2 feet above or below existing grades are required to have approval from the City of Las Vegas 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:** Acknowledged. The approved grading justification has been provided in Appendix A.

2. **Comment:** *Dry lane criteria is required to be met in Rainbow Boulevard. Provide a spread/dry lane calculation at the entrance at Rainbow Boulevard.*

**Response:** Please note that FlowMaster Section OF2 included notes that discussed 10-year dry lane criteria. Since the flow depth is 0.51-ft from the gutter flow line, and since the crown is 0.9-ft from the gutter flow line, a dry lane width of  $(0.9\text{-ft} - 0.51\text{-ft}) / 2\% = 19.5\text{-ft}$  is available with 100-year flows; therefore, 10-year flows meet dry lane criteria by inspection.

3. **Comment:** *On the Finished Floor Analysis Table, the finished floors for basin ON1 were compared to the flows for basin ON2 and the finished floors for basin ON2 were compared to the flows for basin ON1. Review and correct in the next submittal.*

**Response:** Acknowledged. The finished floor computations have been corrected and re-included in Appendix B of this addendum. It should be noted that all finished floors still meet minimum flood protection criteria.

4. **Comment:** *In case the existing drop inlet in Rainbow Boulevard is completely clogged, an overflow path appears to provide emergency outfall through the triangular piece at the corner of Rancho and Rainbow. Show more existing grades or flowlines to verify such overflow path exists in the next submittal.*

**Response:** Acknowledged. If the existing sump inlet in Rainbow Boulevard (grate elevation = 2318.47-ft) gets clogged, the runoff will pond over the curb toward an existing NDOT Type II sump inlet (grate elevation = 2317.28-ft) located near the southwest corner of the site. If the NDOT Type II inlet becomes clogged, flows will be conveyed east within the riprap lined swale along the south edge of the project site at a maximum flow-line elevation of 2320-ft. The minimum finished floor elevation near the overflow path is 2323.1-ft which is above the elevation at which flows will pond in an overflow condition. The improvement plans have been provided with more detail and proposed grading within the CLV right-of-way in order to ensure positive drainage adjacent to the proposed site. No grading is proposed within the NDOT right-of-way.

5. **Comment:** *Label the final map or document number for the existing drainage easement in the adjacent community as shown on sheet G-3.*

**Response:** Acknowledged. The CLV final map information for the adjacent development has been added to Sheet G-3 for the existing 10-ft offsite drainage easement.

6. **Comment:** *The proposed drainage easement should have walls on either side of the drainage easement, there is currently only a wall on one side of the easement. Review and revise the grading plan and the pertinent Section Detail 9/D-1 accordingly.*

**Response:** Acknowledged. A second wall has been added to the onsite drainage easement to fully contain runoff as it's routed into the existing 10-ft offsite drainage easement.

7. **Comment:** *Label clearly the proposed public drainage easement (privately maintained) on the grading plan.*

**Response:** Please note that the proposed 20-ft wide drainage easement was labeled on Grading Sheet G-3; however, the existing 10-ft (offsite) drainage easement was inadvertently omitted from the same sheet. Both easements are clearly labeled on Sheet G-3 of the revised plans.

8. **Comment:** *Section Details 13/D-1 and 15/D-1: Show the existing feature of a riprap swale in the adjacent Carmax property in the next submittal.*

**Response:** Acknowledged. The existing offsite riprap swale has been identified on Section Details 13/D-1 and 15/D-1.

9. **Comment:** *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 HOA".*

**Response:** Please note that all grading sheets already include a note stating: "Private Street Note: All private streets are public utility, public sewer easements, and public drainage easements to be privately maintained by the HOA". However, for further clarity, the easement note has been added to Section Details A-D/D-1 of the revised plans.

10. **Comment:** *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:** Acknowledged. All drainage improvements within public easements have been quantified on the revised grading sheets.

11. **Comment:** *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:** Noted.

We believe that the above responses and associated improvement plan revisions on the plans have satisfied your concerns as stipulated in the review memorandum. The revised grading, plan, profile, and detail sheets adopting the revisions addressed in this letter have been included in Appendix C of this addendum. If you have any questions or require additional information, please do not hesitate to contact us at (702) 284-5300.

Respectfully Submitted,

SLATER HANIFAN GROUP



Andrew Howard, P.E.

cc: Mark Failla, P.E., CFM – SHG  
Dan Poll – SHG  
Tim Mulrooney, P.E. – SHG

## **APPENDIX**

**Appendix A:** CLV Comment Letter & CLV Planning Approval Letter

**Appendix B:** Revised Finished Floor Computations

**Appendix C:** CD with Electronic Files of Submittal and  
Revised Grading Plan, Profile, and Detail Sheets

## **APPENDIX A**

### **CLV Comment Letter & CLV Planning Approval Letter**

|                                                                            |                                                           |                                                                                                   |
|----------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>CITY OF LAS VEGAS</b>                                                   |                                                           | <b>DATE:</b>                                                                                      |
| <b>INTER-OFFICE MEMORANDUM</b>                                             |                                                           | <b>September 19, 2018</b>                                                                         |
| <b>TO:</b><br>Land Development Services<br>Department of Building & Safety |                                                           | <b>FROM:</b><br>Albert Sung, P.E.<br>Flood Control Project Engineer<br>Department of Public Works |
| <b>SUBJECT:</b>                                                            | Drainage Study for:                                       |                                                                                                   |
|                                                                            | <b>Rainbow and Rancho Residential</b>                     |                                                                                                   |
| <b>Cross Streets:</b>                                                      | N. Rainbow Boulevard and N. Rancho Drive                  | <b>COPIES TO:</b><br>Slater Hanifan Group                                                         |
| <b>File Number:</b>                                                        | F:\Depot\DSMemos\DS5033A.doc                              | KB Homes                                                                                          |
| <b>Parcel Number:</b>                                                      | 125-35-401-001                                            | Bart Anderson, P.E., DevCo                                                                        |
| <b>Zoning Action:</b>                                                      | TMP-73571; WVR-73569; VAR-73568;<br>ZON-73567 & GPA-73566 |                                                                                                   |
| <b>FEMA Flood Zone</b>                                                     | YES                                                       | NO <b>X</b>                                                                                       |
| <b>Proposed Storm Drain</b>                                                | YES                                                       | NO <b>X</b>                                                                                       |

| HISTORY                    | DATE RECEIVED            | DATE REVIEWED | COMMENTS           | REVIEW FEES     | FEES PAID<br>Payment Trn # |
|----------------------------|--------------------------|---------------|--------------------|-----------------|----------------------------|
| 1 <sup>st</sup> Submittal  | 8/28/2018 &<br>9/10/2018 | 9/19/2018     | See Comments Below | \$400.00        | 498278: \$400              |
| <b>TOTAL FEES (LDDRS):</b> |                          |               |                    | <b>\$400.00</b> | <b>----</b>                |

#### 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:         |
| <b>X</b> | must be resubmitted or supplemented including the following:                                   |
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|          | is conditionally approved subject to Clark County Public Works Department concurrence.         |

1. Sites with a grade difference of 2 feet above or below existing grades are required to have approval from the *City of Las Vegas 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. Dry lane criteria is required to be met in *Rainbow Boulevard*. Provide a spread/dry lane calculation at the entrance at *Rainbow Boulevard*.
3. On the *Finished Floor Analysis Table*, the finished floors for basin ON1 were compared to the flows for basin ON2 and the finished floors for basin ON2 were compared to the flows for basin ON1. Review and correct in the next submittal.
4. In case the existing drop inlet in *Rainbow Boulevard* is completely clogged, an overflow path appears to provide emergency outfall through the triangular piece at the corner of *Rancho* and *Rainbow*. Show more existing grades or flowlines to verify such overflow path exists in the next submittal.
5. Label the final map or document number for the existing drainage easement in the adjacent community as shown on sheet G-3.

6. The proposed drainage easement should have walls on either side of the drainage easement, there is currently only a wall on one side of the easement. Review and revise the grading plan and the pertinent *Section Detail 9/D-1* accordingly.
7. Label clearly the proposed public drainage easement (privately maintained) on the grading plan.
8. *Section Details 13/D-1* and *15/D-1*: Show the existing feature of a riprap swale in the adjacent Carmax property in the next submittal.
9. 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 HOA".
10. 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.
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**END OF REMARKS**  
WSP/AYS

T/R/S: T19S/R60E/35  
AREA G-35



KBH1802

September 24, 2018

City of Las Vegas  
Planning and Development  
333 S. Rancho Drive  
Las Vegas, NV 89101

**RE: Justification Letter for Grade Difference over 2' for KB Home Rainbow and Rancho  
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Thank you for considering these application requests. Please contact us at (702) 284-5300 if you have any questions regarding these applications.

Sincerely,  
Slater Hanifan Group, Inc.

Dan Poll  
Assistant Project Manager

CC:  
Mark Bangan, KB Home  
Roxanne Leigh, Slater Hanifan Group

PLANS APPROVED  
PLANNING  
Dept. of Planning  
City of Las Vegas, Nevada  
*2' Grade Difference only*  
LHM SEP 26 2018

Conforms to the minimum requirement of  
LVMC Title 18: applicable Master Plan  
Development standards and/or Conditions of  
Approval. Make No Change Without Approval.  
Plan is Not a Permit to Violate Any Ordinance.

## **APPENDIX B**

### **Revised Finished Floor Computations**

| RAINBOW & RANCHO                              |                            |                       |                       |                       |                                                |                                                |                             |                |                |                              |  |
|-----------------------------------------------|----------------------------|-----------------------|-----------------------|-----------------------|------------------------------------------------|------------------------------------------------|-----------------------------|----------------|----------------|------------------------------|--|
| FINISH FLOOR - CITY OF LAS VEGAS JURISDICTION |                            |                       |                       |                       |                                                |                                                |                             |                |                |                              |  |
| INPUT INFORMATION                             |                            |                       |                       | FINISHED FLOORS       |                                                |                                                |                             |                |                |                              |  |
| Lot Number                                    | Hydraulic Section Utilized | T/C <sup>1</sup> (ft) | F/L <sup>2</sup> (ft) | D <sub>100</sub> (ft) | Flowline F.F. <sub>min</sub> <sup>3</sup> (ft) | T/C + 6" F.F. <sub>min</sub> <sup>4</sup> (ft) | F.F. <sub>Design</sub> (ft) | Flowline Check | T/C + 6" Check | NOTES                        |  |
| 1                                             | ON2                        | 3321.06               | 3320.68               | 0.33                  | 3321.34                                        | 3321.56                                        | 3323.1                      | OK             | OK             | See References on Last Sheet |  |
| 2                                             | ON2                        | 3321.35               | 3320.97               | 0.33                  | 3321.63                                        | 3321.85                                        | 3323.4                      | OK             | OK             |                              |  |
| 3                                             | ON2                        | 3321.64               | 3321.26               | 0.33                  | 3321.92                                        | 3322.14                                        | 3323.7                      | OK             | OK             |                              |  |
| 4                                             | ON2                        | 3321.93               | 3321.55               | 0.33                  | 3322.21                                        | 3322.43                                        | 3323.9                      | OK             | OK             |                              |  |
| 5                                             | ON2                        | 3322.22               | 3321.84               | 0.33                  | 3322.50                                        | 3322.72                                        | 3324.3                      | OK             | OK             |                              |  |
| 6                                             | ON2                        | 3322.50               | 3322.12               | 0.33                  | 3322.78                                        | 3323.00                                        | 3324.5                      | OK             | OK             |                              |  |
| 7                                             | ON2                        | 3322.50               | 3322.12               | 0.33                  | 3322.78                                        | 3323.00                                        | 3324.8                      | OK             | OK             |                              |  |
| 8                                             | ON2                        | 3322.47               | 3322.09               | 0.33                  | 3322.75                                        | 3322.97                                        | 3324.9                      | OK             | OK             |                              |  |
| 9                                             | ON2                        | 3322.55               | 3322.17               | 0.33                  | 3322.83                                        | 3323.05                                        | 3324.8                      | OK             | OK             |                              |  |
| 10                                            | ON2                        | 3322.46               | 3322.08               | 0.33                  | 3322.74                                        | 3322.96                                        | 3324.5                      | OK             | OK             |                              |  |
| 11                                            | ON2                        | 3322.18               | 3321.80               | 0.33                  | 3322.46                                        | 3322.68                                        | 3324.2                      | OK             | OK             |                              |  |
| 12                                            | ON1                        | 3321.66               | 3321.28               | 0.53                  | 3322.34                                        | 3322.16                                        | 3323.6                      | OK             | OK             |                              |  |
| 13                                            | ON1                        | 3321.31               | 3320.93               | 0.53                  | 3321.99                                        | 3321.81                                        | 3323.3                      | OK             | OK             |                              |  |
| 14                                            | ON1                        | 3320.97               | 3320.59               | 0.53                  | 3321.65                                        | 3321.47                                        | 3322.9                      | OK             | OK             |                              |  |
| 15                                            | ON1                        | 3320.98               | 3320.60               | 0.53                  | 3321.66                                        | 3321.48                                        | 3322.9                      | OK             | OK             |                              |  |
| 16                                            | ON1                        | 3321.31               | 3320.93               | 0.53                  | 3321.99                                        | 3321.81                                        | 3323.3                      | OK             | OK             |                              |  |
| 17                                            | ON1                        | 3321.75               | 3321.37               | 0.53                  | 3322.43                                        | 3322.25                                        | 3323.9                      | OK             | OK             |                              |  |
| 18                                            | ON1                        | 3320.06               | 3319.68               | 0.53                  | 3320.74                                        | 3320.56                                        | 3322.3                      | OK             | OK             |                              |  |
| 19                                            | ON1                        | 3319.91               | 3319.53               | 0.53                  | 3320.59                                        | 3320.41                                        | 3322.0                      | OK             | OK             |                              |  |
| 20                                            | ON1                        | 3319.69               | 3319.31               | 0.53                  | 3320.37                                        | 3320.19                                        | 3321.8                      | OK             | OK             |                              |  |
| 21                                            | ON1                        | 3319.47               | 3319.09               | 0.53                  | 3320.15                                        | 3319.97                                        | 3321.6                      | OK             | OK             |                              |  |
| 22                                            | ON1                        | 3319.25               | 3318.87               | 0.53                  | 3319.93                                        | 3319.75                                        | 3321.3                      | OK             | OK             |                              |  |
| 23                                            | ON1                        | 3319.03               | 3318.65               | 0.53                  | 3319.71                                        | 3319.53                                        | 3321.1                      | OK             | OK             |                              |  |
| 24                                            | ON1                        | 3318.81               | 3318.43               | 0.53                  | 3319.49                                        | 3319.31                                        | 3320.9                      | OK             | OK             |                              |  |
| 25                                            | ON1                        | 3318.59               | 3318.21               | 0.53                  | 3319.27                                        | 3319.09                                        | 3320.7                      | OK             | OK             |                              |  |
| 26                                            | ON1                        | 3318.37               | 3317.99               | 0.53                  | 3319.05                                        | 3318.87                                        | 3320.5                      | OK             | OK             |                              |  |
| 27                                            | ON1                        | 3318.15               | 3317.77               | 0.53                  | 3318.83                                        | 3318.65                                        | 3320.2                      | OK             | OK             |                              |  |
| 28                                            | ON1                        | 3317.93               | 3317.55               | 0.53                  | 3318.61                                        | 3318.43                                        | 3320.0                      | OK             | OK             |                              |  |
| 29                                            | ON1                        | 3317.71               | 3317.33               | 0.53                  | 3318.39                                        | 3318.21                                        | 3319.8                      | OK             | OK             |                              |  |
| 30                                            | ON1                        | 3317.49               | 3317.11               | 0.53                  | 3318.17                                        | 3317.99                                        | 3319.6                      | OK             | OK             |                              |  |
| 31                                            | ON1                        | 3317.27               | 3316.89               | 0.53                  | 3317.95                                        | 3317.77                                        | 3319.4                      | OK             | OK             |                              |  |
| 32                                            | ON1                        | 3317.05               | 3316.67               | 0.53                  | 3317.73                                        | 3317.55                                        | 3319.1                      | OK             | OK             |                              |  |
| 33                                            | ON1                        | 3316.83               | 3316.45               | 0.53                  | 3317.51                                        | 3317.33                                        | 3318.9                      | OK             | OK             |                              |  |

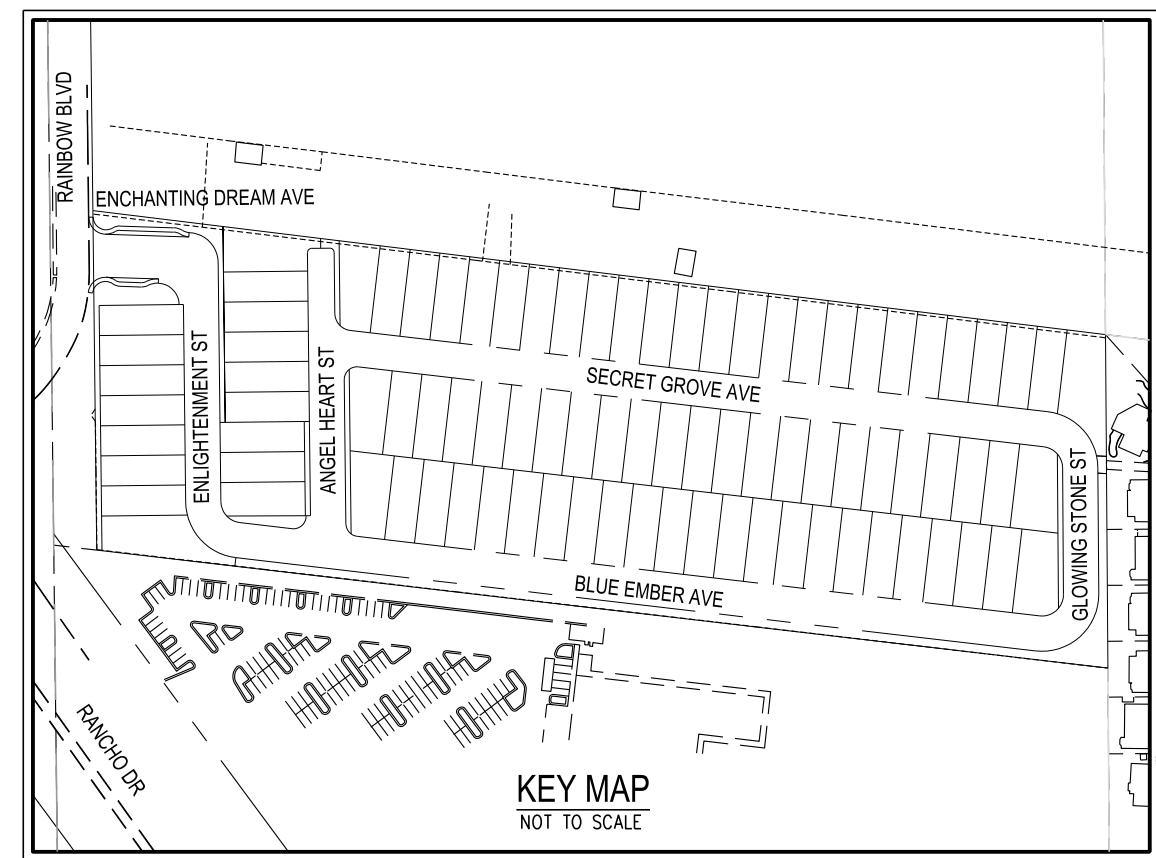
| RAINBOW & RANCHO                              |                            |                       |                       |                       |                                                |                                                |                             |                |                |                              |  |
|-----------------------------------------------|----------------------------|-----------------------|-----------------------|-----------------------|------------------------------------------------|------------------------------------------------|-----------------------------|----------------|----------------|------------------------------|--|
| FINISH FLOOR - CITY OF LAS VEGAS JURISDICTION |                            |                       |                       |                       |                                                |                                                |                             |                |                |                              |  |
| INPUT INFORMATION                             |                            |                       |                       | FINISHED FLOORS       |                                                |                                                |                             |                |                |                              |  |
| Lot Number                                    | Hydraulic Section Utilized | T/C <sup>1</sup> (ft) | F/L <sup>2</sup> (ft) | D <sub>100</sub> (ft) | Flowline F.F. <sub>min</sub> <sup>3</sup> (ft) | T/C + 6" F.F. <sub>min</sub> <sup>4</sup> (ft) | F.F. <sub>Design</sub> (ft) | Flowline Check | T/C + 6" Check | NOTES                        |  |
| 34                                            | ON1                        | 3316.61               | 3316.23               | 0.53                  | 3317.29                                        | 3317.11                                        | 3318.7                      | OK             | OK             | See References on Last Sheet |  |
| 35                                            | ON1                        | 3316.39               | 3316.01               | 0.53                  | 3317.07                                        | 3316.89                                        | 3318.5                      | OK             | OK             |                              |  |
| 36                                            | ON1                        | 3316.17               | 3315.79               | 0.53                  | 3316.85                                        | 3316.67                                        | 3318.3                      | OK             | OK             |                              |  |
| 37                                            | ON1                        | 3315.95               | 3315.57               | 0.53                  | 3316.63                                        | 3316.45                                        | 3318.0                      | OK             | OK             |                              |  |
| 38                                            | ON1                        | 3315.73               | 3315.35               | 0.53                  | 3316.41                                        | 3316.23                                        | 3317.8                      | OK             | OK             |                              |  |
| 39                                            | ON1                        | 3315.51               | 3315.13               | 0.53                  | 3316.19                                        | 3316.01                                        | 3317.6                      | OK             | OK             |                              |  |
| 40                                            | ON1                        | 3315.29               | 3314.91               | 0.53                  | 3315.97                                        | 3315.79                                        | 3317.4                      | OK             | OK             |                              |  |
| 41                                            | ON1                        | 3315.07               | 3314.69               | 0.53                  | 3315.75                                        | 3315.57                                        | 3317.1                      | OK             | OK             |                              |  |
| 42                                            | ON1                        | 3314.84               | 3314.46               | 0.53                  | 3315.52                                        | 3315.34                                        | 3317.4                      | OK             | OK             |                              |  |
| 43                                            | ON1                        | 3316.37               | 3315.99               | 0.53                  | 3317.05                                        | 3316.87                                        | 3318.8                      | OK             | OK             |                              |  |
| 44                                            | ON1                        | 3316.59               | 3316.21               | 0.53                  | 3317.27                                        | 3317.09                                        | 3318.8                      | OK             | OK             |                              |  |
| 45                                            | ON1                        | 3316.81               | 3316.43               | 0.53                  | 3317.49                                        | 3317.31                                        | 3319.0                      | OK             | OK             |                              |  |
| 46                                            | ON1                        | 3317.03               | 3316.65               | 0.53                  | 3317.71                                        | 3317.53                                        | 3319.2                      | OK             | OK             |                              |  |
| 47                                            | ON1                        | 3317.25               | 3316.87               | 0.53                  | 3317.93                                        | 3317.75                                        | 3319.4                      | OK             | OK             |                              |  |
| 48                                            | ON1                        | 3317.47               | 3317.09               | 0.53                  | 3318.15                                        | 3317.97                                        | 3319.7                      | OK             | OK             |                              |  |
| 49                                            | ON1                        | 3317.69               | 3317.31               | 0.53                  | 3318.37                                        | 3318.19                                        | 3319.9                      | OK             | OK             |                              |  |
| 50                                            | ON1                        | 3317.91               | 3317.53               | 0.53                  | 3318.59                                        | 3318.41                                        | 3320.1                      | OK             | OK             |                              |  |
| 51                                            | ON1                        | 3318.13               | 3317.75               | 0.53                  | 3318.81                                        | 3318.63                                        | 3320.3                      | OK             | OK             |                              |  |
| 52                                            | ON1                        | 3318.35               | 3317.97               | 0.53                  | 3319.03                                        | 3318.85                                        | 3320.5                      | OK             | OK             |                              |  |
| 53                                            | ON1                        | 3318.57               | 3318.19               | 0.53                  | 3319.25                                        | 3319.07                                        | 3320.8                      | OK             | OK             |                              |  |
| 54                                            | ON1                        | 3318.79               | 3318.41               | 0.53                  | 3319.47                                        | 3319.29                                        | 3321.0                      | OK             | OK             |                              |  |
| 55                                            | ON1                        | 3319.01               | 3318.63               | 0.53                  | 3319.69                                        | 3319.51                                        | 3321.2                      | OK             | OK             |                              |  |
| 56                                            | ON1                        | 3319.23               | 3318.85               | 0.53                  | 3319.91                                        | 3319.73                                        | 3321.4                      | OK             | OK             |                              |  |
| 57                                            | ON1                        | 3319.45               | 3319.07               | 0.53                  | 3320.13                                        | 3319.95                                        | 3321.6                      | OK             | OK             |                              |  |
| 58                                            | ON1                        | 3319.67               | 3319.29               | 0.53                  | 3320.35                                        | 3320.17                                        | 3321.9                      | OK             | OK             |                              |  |
| 59                                            | ON1                        | 3319.89               | 3319.51               | 0.53                  | 3320.57                                        | 3320.39                                        | 3322.1                      | OK             | OK             |                              |  |
| 60                                            | ON1                        | 3320.11               | 3319.73               | 0.53                  | 3320.79                                        | 3320.61                                        | 3322.3                      | OK             | OK             |                              |  |
| 61                                            | ON1                        | 3320.33               | 3319.95               | 0.53                  | 3321.01                                        | 3320.83                                        | 3322.5                      | OK             | OK             |                              |  |
| 62                                            | ON1                        | 3320.55               | 3320.17               | 0.53                  | 3321.23                                        | 3321.05                                        | 3322.7                      | OK             | OK             |                              |  |
| 63                                            | ON1                        | 3320.77               | 3320.39               | 0.53                  | 3321.45                                        | 3321.27                                        | 3323.0                      | OK             | OK             |                              |  |
| 64                                            | ON1                        | 3320.99               | 3320.61               | 0.53                  | 3321.67                                        | 3321.49                                        | 3323.2                      | OK             | OK             |                              |  |
| 65                                            | ON1                        | 3321.19               | 3320.81               | 0.53                  | 3321.87                                        | 3321.69                                        | 3323.4                      | OK             | OK             |                              |  |
| 66                                            | ON1                        | 3320.02               | 3319.64               | 0.53                  | 3320.70                                        | 3320.52                                        | 3322.2                      | OK             | OK             |                              |  |

| RAINBOW & RANCHO                                                                                                                                                                                     |                            |                       |                       |                       |                                                 |                                                 |                             |                |                |                              |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------|-----------------------|-----------------------|-------------------------------------------------|-------------------------------------------------|-----------------------------|----------------|----------------|------------------------------|--|
| FINISH FLOOR - CITY OF LAS VEGAS JURISDICTION                                                                                                                                                        |                            |                       |                       |                       |                                                 |                                                 |                             |                |                |                              |  |
| INPUT INFORMATION                                                                                                                                                                                    |                            |                       |                       |                       | FINISHED FLOORS                                 |                                                 |                             |                |                | NOTES                        |  |
| Lot Number                                                                                                                                                                                           | Hydraulic Section Utilized | T/C <sup>1</sup> (ft) | F/L <sup>2</sup> (ft) | D <sub>100</sub> (ft) | Flowline F.F. <sub>-min</sub> <sup>3</sup> (ft) | T/C + 6" F.F. <sub>-min</sub> <sup>4</sup> (ft) | F.F. <sub>Design</sub> (ft) | Flowline Check | T/C + 6" Check | See References on Last Sheet |  |
| 67                                                                                                                                                                                                   | ON1                        | 3319.72               | 3319.34               | 0.53                  | 3320.40                                         | 3320.22                                         | 3321.9                      | OK             | OK             |                              |  |
| 68                                                                                                                                                                                                   | ON1                        | 3319.50               | 3319.12               | 0.53                  | 3320.18                                         | 3320.00                                         | 3321.7                      | OK             | OK             |                              |  |
| 69                                                                                                                                                                                                   | ON1                        | 3319.28               | 3318.90               | 0.53                  | 3319.96                                         | 3319.78                                         | 3321.5                      | OK             | OK             |                              |  |
| 70                                                                                                                                                                                                   | ON1                        | 3319.06               | 3318.68               | 0.53                  | 3319.74                                         | 3319.56                                         | 3321.2                      | OK             | OK             |                              |  |
| 71                                                                                                                                                                                                   | ON1                        | 3318.84               | 3318.46               | 0.53                  | 3319.52                                         | 3319.34                                         | 3321.0                      | OK             | OK             |                              |  |
| 72                                                                                                                                                                                                   | ON1                        | 3318.62               | 3318.24               | 0.53                  | 3319.30                                         | 3319.12                                         | 3320.8                      | OK             | OK             |                              |  |
| 73                                                                                                                                                                                                   | ON1                        | 3318.40               | 3318.02               | 0.53                  | 3319.08                                         | 3318.90                                         | 3320.6                      | OK             | OK             |                              |  |
| 74                                                                                                                                                                                                   | ON1                        | 3318.18               | 3317.80               | 0.53                  | 3318.86                                         | 3318.68                                         | 3320.4                      | OK             | OK             |                              |  |
| 75                                                                                                                                                                                                   | ON1                        | 3317.96               | 3317.58               | 0.53                  | 3318.64                                         | 3318.46                                         | 3320.1                      | OK             | OK             |                              |  |
| 76                                                                                                                                                                                                   | ON1                        | 3317.74               | 3317.36               | 0.53                  | 3318.42                                         | 3318.24                                         | 3319.9                      | OK             | OK             |                              |  |
| 77                                                                                                                                                                                                   | ON1                        | 3317.52               | 3317.14               | 0.53                  | 3318.20                                         | 3318.02                                         | 3319.7                      | OK             | OK             |                              |  |
| 78                                                                                                                                                                                                   | ON1                        | 3317.30               | 3316.92               | 0.53                  | 3317.98                                         | 3317.80                                         | 3319.5                      | OK             | OK             |                              |  |
| 79                                                                                                                                                                                                   | ON1                        | 3317.08               | 3316.70               | 0.53                  | 3317.76                                         | 3317.58                                         | 3319.3                      | OK             | OK             |                              |  |
| 80                                                                                                                                                                                                   | ON1                        | 3316.86               | 3316.48               | 0.53                  | 3317.54                                         | 3317.36                                         | 3319.0                      | OK             | OK             |                              |  |
| 81                                                                                                                                                                                                   | ON1                        | 3316.64               | 3316.26               | 0.53                  | 3317.32                                         | 3317.14                                         | 3318.8                      | OK             | OK             |                              |  |
| 82                                                                                                                                                                                                   | ON1                        | 3316.42               | 3316.04               | 0.53                  | 3317.10                                         | 3316.92                                         | 3318.6                      | OK             | OK             |                              |  |
| 83                                                                                                                                                                                                   | ON1                        | 3316.20               | 3315.82               | 0.53                  | 3316.88                                         | 3316.70                                         | 3318.4                      | OK             | OK             |                              |  |
| 84                                                                                                                                                                                                   | ON1                        | 3315.98               | 3315.60               | 0.53                  | 3316.66                                         | 3316.48                                         | 3318.2                      | OK             | OK             |                              |  |
| 85                                                                                                                                                                                                   | ON1                        | 3315.76               | 3315.38               | 0.53                  | 3316.44                                         | 3316.26                                         | 3317.9                      | OK             | OK             |                              |  |
| 86                                                                                                                                                                                                   | ON1                        | 3315.54               | 3315.16               | 0.53                  | 3316.22                                         | 3316.04                                         | 3317.7                      | OK             | OK             |                              |  |
| 87                                                                                                                                                                                                   | ON1                        | 3315.32               | 3314.94               | 0.53                  | 3316.00                                         | 3315.82                                         | 3317.5                      | OK             | OK             |                              |  |
| 88                                                                                                                                                                                                   | ON1                        | 3315.10               | 3314.72               | 0.53                  | 3315.78                                         | 3315.60                                         | 3317.3                      | OK             | OK             |                              |  |
| Where:                                                                                                                                                                                               |                            |                       |                       |                       |                                                 |                                                 |                             |                |                |                              |  |
| 1: Top of Curb at High Side of Lot                                                                                                                                                                   |                            |                       |                       |                       |                                                 |                                                 |                             |                |                |                              |  |
| 2: TC-0.38 ( For Roll Curb), TC-0.5 (For L Curb)                                                                                                                                                     |                            |                       |                       |                       |                                                 |                                                 |                             |                |                |                              |  |
| 3: Minimum Allowable Finished Floor Elevation above flowline elevation @ high side of lot = ( 2 x D <sub>100</sub> ) + F/L                                                                           |                            |                       |                       |                       |                                                 |                                                 |                             |                |                |                              |  |
| 4: City of Las Vegas minimum allowable finished floor elevation = T.C. @ high side of lot + 6-inches                                                                                                 |                            |                       |                       |                       |                                                 |                                                 |                             |                |                |                              |  |
| 5: These lots have an adjacent solid grouted wall that protects the FF.                                                                                                                              |                            |                       |                       |                       |                                                 |                                                 |                             |                |                |                              |  |
| City of Las Vegas Finished Floor Criteria:                                                                                                                                                           |                            |                       |                       |                       |                                                 |                                                 |                             |                |                |                              |  |
| -The finished floor shall be set a vertical distance above the gutter flowline of at least twice the depth of flow in the gutter flowline up to a maximum of 18 inches above the WSEL in the street. |                            |                       |                       |                       |                                                 |                                                 |                             |                |                |                              |  |
| -The finished floor shall be set a vertical distance of at least 6-inches above the highest adjacent top of curb.                                                                                    |                            |                       |                       |                       |                                                 |                                                 |                             |                |                |                              |  |

## **APPENDIX C**

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**CD with Electronic Files of Submittal and  
Revised Grading Plan, Profile, and Detail Sheets**



CITY OF LAS VEGAS, NEVADA  
RESIDENTIAL SUBDIVISION  
APN: 125-35-401-001



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| <h1>APPROVALS</h1>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |
| CITY ENGINEER-ALLEN PAVELKA PE, #9029                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DATE |
| <p>APPROVAL OF THESE PLANS BY THE CITY ENGINEER IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED OF RIGHT-OF-WAY, AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS EXCEPT THOSE SPECIALLY LISTED UNDER DEVIATIONS FORM STANDARDS. THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN DEVIATIONS FROM STANDARDS IN FAVOR OF THE UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS, CLARK COUNTY AREA, NEVADA.</p> |      |
| LAS VEGAS FIRE AND RESCUE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | DATE |
| <p>CITY OF LAS VEGAS<br/>PLANNING DEPARTMENT</p> <p>THIS PLAN MEETS THE APPLICABLE STANDARDS OF THE PLANNING DEPARTMENT.</p>                                                                                                                                                                                                                                                                                                                                                                                                                     |      |
| CENTRAL TELEPHONE CO. DBA CENTURYLINK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DATE |
| <p>THE AFFIXED CENTURYLINK APPROVAL DOES NOT ASSUME OR GUARANTEE LIABILITY FOR KNOWN OR UNKNOWN CONFLICTS WITH EXISTING OR PROPOSED IMPROVEMENTS. RESOLUTION OF ANY CONFLICT WILL BE ACCOMPLISHED PURSUANT TO LOCAL ORDINANCES, NEVADA REVISED STATUTES AND / OR PUBLIC UTILITY COMMISSION RULES AND REGULATIONS.</p>                                                                                                                                                                                                                            |      |
| APPROVED FOR CONSTRUCTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |
| <p>LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES<br/>PROJECT NO. _____ FIRST APPROVED DATE: _____</p> <p>LIVNWD AVAILABLE FIRE FLOW: TOTAL _____ 1,500 _____ GPM AT 20 PSI RESIDUAL<br/>MAXIMUM AVAILABLE FIRE SPRINKLER FLOW _____ 30 _____ GPM<br/>SHEETS: C-1 THRU C-3, D-1, D-2-1 THRU D-9, M-1, U-1 THRU U-3</p> <p>APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM LAS VEGAS VALLEY WATER DISTRICT.</p>                                                                      |      |
| NV ENERGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | DATE |
| <p>NV ENERGY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NV ENERGY RESERVES THE RIGHT TO ADDRESS ANY EXISTING OR FUTURE CONFLICTS ONCE THE FINAL DESIGN IS COMPLETED. THE NEW SERVICE AND THE RESOLUTION OF ANY CONFLICTS WILL BE ACCOMPLISHED PURSUANT TO THE NEVADA PUBLIC UTILITY COMMISSION'S RULES AND REGULATIONS.</p>                                                                                                                                    |      |
| SOUTHWEST GAS CORPORATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | DATE |
| COX COMMUNICATIONS LAS VEGAS, INC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DATE |

| OWNER                                                                                                   | DEVELOPER                                                                                                                                     | ENGINEER                                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>RANCHO DRIVE LLC<br/>1639 N. VALLEY DR.<br/>LAS VEGAS, NV 89108<br/>CONTACT: AMANDA OR<br/>TYLER</p> | <p>KB HOME<br/>5795 BADURA AVE., SUITE 180<br/>LAS VEGAS, NV 89118<br/>PH: (702) 266-8400<br/>FX: (702) 266-8623<br/>CONTACT: MARK BANGAN</p> | <p>SLATER HANIFAN GROUP, INC.<br/>5740 S. ARVILLE STREET, SUITE 216<br/>LAS VEGAS, NV 89118<br/>PH: (702) 284-5310<br/>FX: (702) 284-5399<br/>CONTACT: TIMOTHY M. MULROONEY</p> |

THE NORTH HALF (N 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE  
SOUTHWEST QUARTER (SW 1/4) OF SECTION 35, TOWNSHIP 19 SOUTH, RANGE 60 EAST,  
M.D.M., CLARK COUNTY, NEVADA;  
EXCEPTING THEREFROM THE SOUTHERLY 300.00 FEET THEREOF;

FURTHER EXCEPTING THEREFROM ANY PORTION LYING WITH U.S. HIGHWAY 95 AS CONVEYED TO THE STATE OF NEVADA MAY 25, 1934 IN BOOK 21 OF DEEDS, PAGE 258, AS DOCUMENT No. 52570;

FURTHER EXCEPTING THEREFROM THE WESTERLY 50.00 FEET AS CONVEYED TO CLARK COUNTY FOR ROAD PURPOSES JANUARY 07, 1964 AS DOCUMENT No. 405976 OF OFFICIAL RECORDS.

CITY OF LAS VEGAS BENCHMARK STATION 8LV90 34SEE6  
RIVET AND PLATE IN TOP OF CURB AT NW CORNER OF RANCHO & SANTA FE  
ELEVATION=709.072 METERS (NAVD'88 V.2003)  
ELEVATION=2323.07 US SURVEY FEET (NAVD'88 V. 2003)

NORTH 83°40'42" WEST, BEING BEARING OF SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 35, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 121, PAGE 71 OF PARCEL MAPS.

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C1765F, DATED NOVEMBER 16, 2011. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

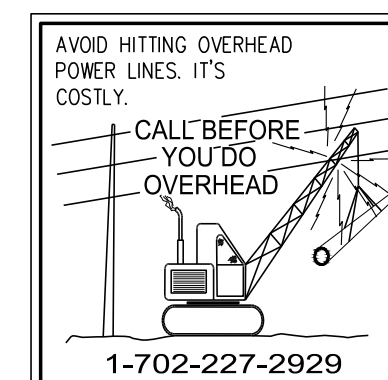
1. STREET AT 36' BACK OF CURB TO BACK OF CURB (33' FACE OF CURB TO FACE OF CURB) WITH SIDEWALK ON ONE SIDE.
2. ALLOW 20' BACK OF CURB RADIUS FOR CURB RETURNS AT RAINBOW BLVD. AND ROYAL AVE.
3. STUB STREET AT 31' BACK OF CURB TO BACK OF CURB (28' FACE OF CURB TO FACE OF CURB) WITH NO SIDEWALK.
4. 6' LANDSCAPING ADJACENT TO RAINBOW BLVD RIGHT OF WAY.

|                                |                  |
|--------------------------------|------------------|
| ACREAGE (GROSS):               | = 10.56 AC       |
| ACREAGE (NET):                 | = 10.56 AC       |
| ACREAGE (NET-NET):             | = 6.49 AC        |
| DENSITY (LOTS/NET ACRE):       | = 8.33 DU/NET AC |
| ZONING:                        | = R-CL           |
| TOTAL NO. OF RESIDENTIAL LOTS  | = 88             |
| TOTAL NO. OF COMMON ELEMENTS * | = 7              |
| MINIMUM LOT SIZE               | = 3408 SF±       |
| MAXIMUM LOT SIZE               | = 6077 SF±       |
| PROVIDED OPEN SPACE            | = 27,219 SF±     |

|      |                    |
|------|--------------------|
| CUT  | 3,433 CY.          |
| FILL | 29,074 CY.         |
| NET  | 25,641 CY.(IMPORT) |

PREPARED BY: SOUTHWEST GEOTECHNICAL  
ADDRESS: 5275 ARVILLE STREET SUITE 108  
PHONE: 702-323-6000  
PROJECT No. 182243  
DATED: JUNE 22, 2018

NOTE: ALL LAND SURFACE AREA DISTURBANCES OVER 1 ACRE REQUIRE A STORMWATER DISCHARGE PERMIT ISSUED BY THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION (NDEP). A PHASED CONSTRUCTION UNIT IN A CONTIGUOUS SUBDIVISION IS COVERED UNDER CONSTRUCTION UNTIL ALL STRIPPED SURFACE AREAS HAVE BEEN COVERED BY PAVING, BUILDING CONSTRUCTION OR PLANTING. A STORMWATER DISCHARGE PERMIT MAY BE OBTAINED AND ASSOCIATED INFORMATION MAY BE DOWNLOADED FROM THE WEB SITE: <http://www.state.nv.us/bwpc/storm10.htm>. PROJECTS THAT DISTURB MORE THAN ONE ACRE OF LAND MUST SUBMIT TO HELP A "NOTICE OF INTENT" FOR INCLUSION UNDER STORMWATER PERMIT NO. NVR100000 ALONG WITH THE APPROPRIATE FILING FEE.

[illegible]

|                   |  |
|-------------------|--|
| CITY OF LAS VEGAS |  |
|-------------------|--|

**KB HOME**  
**RAINBOW AND RANCHO**  
**COVER SHEET**

|                   |         |
|-------------------|---------|
| S35<br>T19<br>R60 |         |
| DATE:             | 9/26/18 |

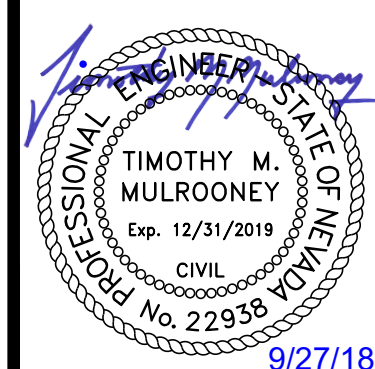
DRAFTER: TGH

DESIGNER: TGH

CHECKED: DSP

PROJECT NO.

KBH1802-000



**C-1**  
SHEET 1 OF 7  
H# \_\_\_\_\_  
CLV# \_\_\_\_\_

## STORMWATER RUNOFF MANAGEMENT

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

1. THE OWNER, SITE DEVELOPER, CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAYS OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BEST MANAGEMENT PRACTICES MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVRI00000, SECTION II.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER ANY ACTUAL RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVRI00000, SECTION II.A.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

## SOUTHERN NEVADA - SOUTHWEST GAS CORPORATION GENERAL NOTES

1. IN THE EVENT OF NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020
2. THERE SHALL BE A MINIMUM HORIZONTAL AND VERTICAL CLEARANCE OF 12-INCHES BETWEEN NATURAL GAS FACILITIES AND UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, STORM DRAIN, COMMUNICATIONS, AND ELECTRIC
3. FOR VALVE ADJUSTMENT CONTACT 702-668-6107 48 HOURS PRIOR TO CONSTRUCTION.
4. IN THE EVENT OF NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND/OR STRUCTURES CONTACT 702-365-2099

CAUTION: HIGH PRESSURE GAS

CALL SOUTHWEST GAS AT 702-400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES 48 HOURS PRIOR TO CONSTRUCTION

## LEGAL DESCRIPTION

THE NORTH HALF (N 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 35, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA.

EXCEPTING THEREFROM THE SOUTHERLY 300.00 FEET THEREOF;

FURTHER EXCEPTING THEREFROM ANY PORTION LYING WITH U.S. HIGHWAY 95 AS CONVEYED TO THE STATE OF NEVADA MAY 25, 1934 IN BOOK 21 OF DEEDS, PAGE 258, AS DOCUMENT NO. 52570;

FURTHER EXCEPTING THEREFROM THE WESTERLY 50.00 FEET AS CONVEYED TO CLARK COUNTY FOR ROAD PURPOSES JANUARY 07, 1964 AS DOCUMENT NO. 405976 OF OFFICIAL RECORDS.

## BENCHMARK

CITY OF LAS VEGAS BENCHMARK STATION BLV90 34566

RIVET AND PLATE IN TOP OF CURB AT NW CORNER OF RANCHO & SANTA FE.

ELEVATION=709.072 METERS (NAV88 V.2003)

ELEVATION=723.072 US SURVEY FEET (NAV89 V. 2003)

## BASIS OF BEARINGS

NORTH 87°40'42" WEST, BEING BEARING OF SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 35, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 121, PAGE 71 OF PARCEL MAPS.

## LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVRI00000, SECTION II.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVRI00000, SECTION II.A.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

## 2.2 CITY OF LAS VEGAS SEWER NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS, ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CITY ENGINEER.
3. CHISEL "S" OR "C" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
4. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
5. ALL MANHOLES PAVED IN STREETS EIGHTY (80') FOOT R/W AND LARGER SHALL HAVE CONCRETE COLLARS. STREETS LESS THAN EIGHTY (80') FOOT R/W WILL REQUIRE RETROFIT IF PAVING DOES NOT CONFORM TO CITY STANDARDS AT THE MANHOLE.
6. TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO TWELVE INCH (12") DIAMETER. CONNECTIONS TO FIFTEEN INCH (15") OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES. IN LINE "Y" 'S SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.
7. WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.
8. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CITY OF LAS VEGAS MUST BE STATE OF NEVADA CLASS "A" CONTRACTORS.
9. THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS AT ANY LOCATION. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED OR REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
10. INSTALLATION OF CURVED SEWER REQUIRES THE USE OF C-900 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

## LAS VEGAS VALLEY WATER DISTRICT (LVVWD) STANDARD NOTES

LVVWD PROJECT #\_ADD FIELD\_ (REVISED 08/01/2017)

1. NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATION SUPPORT CENTER (258-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION, FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT IDENTIFIED ABOVE.
2. ALL WORK SHALL CONFORM TO LVVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2010 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS). THE LATEST EDITION OF UDACS SHALL SUPERSEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.
3. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
4. A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
5. ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
6. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
7. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
8. ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.22 OF THE 2010 EDITION OF THE UDACS.
9. ALL WATER FACILITIES AND APPURTENANCES SHALL BE DISINFECTED, PRESSURE TESTED, AND HAVE AN ACCEPTABLE PASSING HEALTH WATER SAMPLE OBTAINED, PRIOR TO OPERATION AND USE.
10. THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
11. ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.14.01, AND APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
12. ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD APPROVED PRODUCT'S LIST FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS BY SUBMITTING SHOP DRAWINGS.
13. TELEPHONE "CALL BEFORE YOU DIG" AT "811" OR 1-800-227-2600.
14. THE INSTALLATION OF LVVWD MUNICIPAL WATER FACILITIES WITHIN ALL STREETS IS ASSUMED TO BE IN COMPLIANCE WITH THE UNIFORM STANDARDS, INCLUDING THE PLACEMENT OF ASPHALT PAVING STREET SURFACES. ANY REPAIR WORK DONE BY THE LVVWD TO THE MUNICIPAL WATER FACILITIES WILL INCLUDE THE PLACEMENT OF AN APPROPRIATELY SIZED ASPHALT REPAIR PATCH ON THE STREET SURFACE.
- ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNER'S ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNER'S ASSOCIATION IS IN EXISTENCE, OR THE AGENCY HAVING JURISDICTION. DECORATIVE SURFACE MATERIALS PLACED WITHIN THE TEN FOOT EASEMENT ADJUTING A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVVWD DURING THE REPAIR OR OPERATION OF ITS FACILITIES, WILL BE REPLACED BY LVVWD WITH AN APPROPRIATELY SIZED PLAIN FINISH CONCRETE PATCH. THE LVVWD WILL NOT RESTORE, AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION OF, ANY DECORATIVE PAVING SURFACE WITHIN THE STREET. THE LVVWD WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.

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

## GRADING NOTES

1. INDICATED GRADES OTHER THAN T.C., F.G. & GUTTER F.L. ARE ROUGH GRADES.
2. THE ROUGH GRADING PLANS SHALL BE ON THE JOB SITE AT ALL TIMES. THE ROUGH GRADING SHALL BE FINISHED IN CONFORMANCE WITH THE LINES AND GRADES SHOWN ON THE PLANS. THE GRADING QUANTITIES ARE BASED ON THE ELEVATION AND DETAILS SHOWN ON THE PLANS. ANY DEVIATIONS FROM THE PLANS WILL RESULT IN QUANTITY CHANGES.
3. CARE SHALL BE EXERCISED IN GRADING CORNER LOTS.
4. ROUGH PAD ELEVATIONS SHALL BE GRADED TO WITHIN 0.1' OF THE PAD ELEVATIONS SHOWN ON THE PLANS. WHEN GRADING IS COMPLETE PER THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE LOTS CAN BE COMPLETED. AT THAT TIME THE ENGINEER SHALL ALSO DECIDE IF ANY ADDITIONAL DITCHES OR BERMS ARE REQUIRED. THE CONTRACTOR IS REQUESTED NOT TO REMOVE ANY OF HIS ROUGH GRADING EQUIPMENT UNTIL HE RECEIVES GRADING APPROVAL FROM THE ENGINEER.
5. SOILS REPORT PREPARED BY SOUTHWEST GEOTECHNICAL, PROJECT NO. 182243, DATED JUNE 22, 2018.

6. EARTHWORK QUANTITIES (RAW):  
-CUT = 3,433 CUBIC YARDS  
-FILL = 29,074 CUBIC YARDS

- A) THE ABOVE QUANTITIES DO NOT REFLECT LOSSES DUE TO SUBSIDENCE OR SHRINKAGE.
- B) THE ABOVE QUANTITIES DO REFLECT USING NATIVE MATERIAL IN LIEU OF TYPE I GRAVEL BASE MATERIAL FOR STREET SECTIONS.
- C) THE ABOVE QUANTITIES DO NOT REFLECT ANY EARTHWORK WHICH MAY BE REQUIRED BY THE ENGINEER TO CONSTRUCT ADDITIONAL PROTECTIVE DITCHES OR BERMS NOT SHOWN ON THESE DRAWINGS.

## CITY OF LAS VEGAS FIRE AND RESCUE GENERAL NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE # 6325, FOR HYDRANT SPECIFICATIONS, AND HYDRANT INSTALLATION SPECIFICATIONS.
2. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICT'S - APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR ALL INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK [FC 105.7.12]
4. ON ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS SHALL BE MAINTAINED BEFORE COMMENCEMENT OF ANY COMBUSTIBLE CONSTRUCTION. ALL FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW. [FC 3310, 3312]
5. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS. [FC 507.5.3.1]
6. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED BEFORE COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. [FC 106.3]
7. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, A.W.W.A APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. [FC 507.2.1, NFPA 24]
8. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. [FC 507]
9. PRIVATE HYDRANTS SHALL BE PAINTED RED. [FC 507.5.7.1]
10. PRIOR TO THE FINAL OCCUPANCY, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. [FC 507]
11. FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: [FC C102]
  - RESIDENTIAL- 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
  - COMMERCIAL- 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.
12. WHERE NEW WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT A MAXIMUM OF 1,000 FT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET ADJACENT AT 500 FT ON AN ALTERNATING BASIS. [FC C102.6]
13. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
14. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. [FC C102.12]
15. A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. [FC C102.4]
16. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. [FC C102.7]
17. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [FC C102.6]
18. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE ARE 4 OR MORE FIRE HYDRANTS/SPRINKLER LEADS ARE INSTALLED ON A SINGLE SYSTEM. SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 2 FIRE HYDRANTS CAN BE OUT OF SERVICE DUE TO A BREAK IN A WATER MAIN. [FC C104]
19. ALL FIRE APPARATUS ACCESS ROADS SHALL BE PAVED TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES, AND SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF THE FIRE APPARATUS. [FC 503.2.3]
20. THE GRADIENT FOR THE FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12% ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FEET PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. [FC 503.2.7, 503.2.8]
21. THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FEET OUTSIDE AND 28 FEET INSIDE TURNING RADIUS. [FC 503.2.4]
22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13 FT 6 INS. [FC 503.2.1]
23. FIRE DEPARTMENT ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 40 FT, FLOW LINE TO FLOW LINE WITH PARALLEL PARKING PERMITTED ON BOTH SIDES, NOT LESS THAN 32 FT WIDE, FLOW LINE TO FLOW LINE, WHERE PARKING IS PERMITTED ONLY ON ONE SIDE OF THE FIRE APPARATUS ACCESS ROAD, NOT LESS THAN 30 FEET WIDE. CURB ALONG OR ON THE PAVEMENT OR CEMENT (IF NO CURB IS PROVIDED) SIDE. FIRE LANES THROUGH PARKING LOTS SHALL BE NOT LESS THAN 24 FT. [FC 503.2.1.1]
24. A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FT FROM A FIRE DEPARTMENT VEHICLE ACCESS. THE DISTANCE COULD BE INCREASED TO 250 FT IF THE BUILDING IS SPRINKLERED. [FC 503.1.1]
25. APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 100 OR MORE DWELLING UNITS, (ROADS) WITH DEAD-ENDS OR WITH A SINGLE POINT OF ACCESS IN EXCESS OF 600 FT. COMMERCIAL AND INDUSTRIAL DEVELOPMENTS WHERE BUILDINGS EXCEED 2 STORIES OR 30 FEET IN HEIGHT, OR EXCEEDING 62,000 SQUARE FEET IN AREA. [FC 503.1.2]
26. ALL DEAD-END FIRE APPARATUS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FT IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND HAVING A MINIMUM DIAMETER OF 81 FT. [FC 503.2.5]
27. ALL FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT THE START OF THE DESIGNATED FIRE LANE. ONE SIGN AT THE END OF THE FIRE LANE AND WITH SIGNS AT INTERSECTIONS OF 100 FEET ALONG THE DESIGNATED FIRE LANES. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 FT OR LESS THAN 6 FT FROM THE ROADWAY LEVEL. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT (IF NO CURB IS PROVIDED) SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS. [FC 503.3]
28. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH FC 503.6 AND FC APPENDIX M.

## 2.5 CITY OF LAS VEGAS GRADING NOTES

1. IN THE EVENT THAT ANY UNFORESEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADES AND SLOPES SHOWN.
3. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION. ADEQUATE SHORING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE EXCAVATION.
4. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.
5. THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED PERMIT.
6. CONTRACTOR SHALL GRADE TO THE LINES AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION, IN THE AREAS INDICATED:

|                           | HORIZONTAL | VERTICAL COMPACTION |                  |
|---------------------------|------------|---------------------|------------------|
| A. PAVEMENT AREA SUBGRADE | 0.1"       | +0.07'0" -0.1"      | SEE SOILS REPORT |
| B. ENGINEERED FILL        | 0.5"       | +0.17'0" -0.1"      | SEE SOILS REPORT |

COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE.
7. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.
8. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSTRUCTION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER.
9. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
10. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

## UTILITY LOCATION NOTE TO CONTRACTOR

EXISTING UTILITY LOCATIONS 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 PROPER LOCATIONS. CALL BEFORE YOU DIG: 1 (800) 227-2600; SOUTHWEST GAS CORPORATION: 702-400-1789 (STANDBY CONTACT NUMBER)

## 2.1 CITY OF LAS VEGAS GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST REVISED EDITION; THE "SUMMERLIN APPLICABLE STANDARDS" FOR WORK IN THE SUMMERLIN AREA; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS"
2. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS SHOULD BE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES AS SHOWN FROM CLV PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCES WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.
3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE, AND ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED SATISFACTORILY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.
4. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.
5. TYPE V CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK. CONCRETE TO BE 3000 P.S.I. MINIMUM @ 28 DAYS. MIX DESIGNS TO BE APPROVED BY THE CITY, PRIOR TO THE USE ON THE PROJECT.
6. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
7. EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED-2" CURB.
8. AC PAVEMENT TO BE ONE-HALF INCH (1/2") ABOVE UP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
9. CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216.
10. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.
11. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF THE TRANSITIONS TO BE AS SHOWN ON PLANS.
12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY SOUTHWEST GEOTECHNICAL, PROJECT #182243, JUNE 22, 2018 APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
13. EXACT LOCATION OF ALL SANCTU LINES MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS ENGINEER IF NECESSARY. IT IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.
14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.E.S. STATUTE NO. 625.380 & CITY OF LAS VEGAS TITLE 18, APPENDIX D.
15. UTILITY COMPANY METER BOXES, MANHOLE UDS, VALVE COVERS, ETC. SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS. UNLESS WRITTEN APPROVAL IS OBTAINED BY THE UTILITY COMPANY AND THE CITY ENGINEER.

WALL NOTES:

16. ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN ON CIVIL PLANS FOR THE PURPOSE OF REVIEWING GRADING RELATIONSHIPS; FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE BUILDING DEPARTMENT.
17. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY.
18. CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING INLETS, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEAN OUTS, ETC. TO FINISH GRADE AS APPLICABLE. WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.
19. MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF MDOT AND OF THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.
20. WHEN INSTALLING UNDERGROUND FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BALLS, LOCATING RIBBON, ETC. THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO OFFSITE INSPECTION AND TESTING CERTIFYING THAT ALL DEVICES HAVE BEEN PLACED AND VERIFIED TO BE IN GOOD WORKING CONDITION PRIOR TO THE CONSTRUCTION OF ANY ROAD BASE.
21. AFTER HAUNCHING AND PRIOR TO BACKFILL OPERATIONS WHICH WOULD COVER SANITARY SEWER AND STORM DRAIN FACILITIES, CONTRACTOR IS REQUIRED TO SCHEDULE CLV OPEN-TRENCH UTILITY SURVEY INSPECTION FOR DETERMINATION OF FINAL LOCATION COORDINATES. FACILITIES TO BE LOCATED BY CLV SHALL INCLUDE AT A MINIMUM THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS. THE LOCATION SHALL BE DESCRIBED BY COORDINATES WHICH SHALL BE BASED ON THE OFFICIAL HORIZONTAL AND VERTICAL CONTROL NETWORKS OF THE CITY OF LAS VEGAS. FINAL LOCATION MAP(S) MUST BE SEALED AND CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR OR LICENSED SURVEYOR CERTIFICATE OF ± 0.00 METERS (± 0.03 FEET) HORIZONTALLY AND VERTICALLY. A SEPARATION ELECTRONIC COMMA DELIMITED FILE FOR THE SANITARY SEWER AND STORM DRAIN COORDINATES SHALL ALSO ACCOMPANY THE SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S).
22. CCTV VIDEO INSPECTION IS REQUIRED FOR ALL SEWER AND STORM DRAINS. THE CCTV VIDEO INSPECTIONS NEED TO BE PERFORMED PER THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST ADDITION.
23. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

OR  
(MAY BE USED ONLY ON PROJECTS ASSOCIATED WITH A TENTATIVE MAP CONTAINING 5 LOTS OR MORE)

SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S) SHALL BE PROVIDED TO THE CITY AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VIDEO INSPECTION. THE MAP(S) SHALL INCLUDE THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF THE PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS. THE LOCATION SHALL BE DESCRIBED BY COORDINATES WHICH SHALL BE BASED ON THE OFFICIAL HORIZONTAL AND VERTICAL CONTROL NETWORKS OF THE CITY OF LAS VEGAS. FINAL LOCATION MAP(S) MUST BE SEALED AND CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR OR LICENSED SURVEYOR CERTIFICATE OF ± 0.00 METERS (± 0.03 FEET) HORIZONTALLY AND VERTICALLY. A SEPARATION ELECTRONIC COMMA DELIMITED FILE FOR THE SANITARY SEWER AND STORM DRAIN COORDINATES SHALL ALSO ACCOMPANY THE SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S).

23. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

## 2.3 CITY OF LAS VEGAS TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICAADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
4. WHEN A DESIGNATED "SAFE ROUTE TO SCHOOL" IS ENCLOSED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ASSIGNED IN THE SAFE CROSSING THROUGH THAT WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD" TO MAINTAIN THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT.
5. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LINE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL BE FABRICATED WITH DIAMOND GRADE VIP CLASS 3 REFLECTIVE SHEETING OR APPROVED EQUIVALENT. ALL NEW TRAFFIC SIGNS, EXCEPT STREET NAME AND SCHOOL SPEED LIMIT SIGNS, SHALL HAVE 3M SERIES 1150 OR APPROVED EQUIVALENT ANTI-GRAFFITI PROTECTIVE OVERLAY FILM; SCHOOL ZONE SIGNS SHALL HAVE 3M SERIES 1150 ANTI-GRAFFITI PROTECTIVE OVERLAY FILM. SCHOOL ZONE SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.
7. WHEN A PROPOSED STREET LIGHT STATION IS LOCATED WITHIN FIVE (5') FEET OF ANY PROPOSED SIGN SHOWN ON THESE PLANS, THE SIGN SHALL BE MOUNTED ON A SIGNPOST. THE SIGN SHALL BE MOUNTED TO THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.
8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HEREUNDER. THE STATUS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
9. STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.
10. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO INSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED TRAFFIC CONTROL TECHNICIAN OR WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.
11. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (C.A.T.) IF THE CONSTRUCTION INTERFERES OR LOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.
13. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE # 828-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.
14. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS OTHERWISE DIRECTED BY THE CITY

**SPECIAL NOTE**

IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED WHICH IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CLARK COUNTY DEPT. OF PUBLIC WORKS. TEMPORARY CONSTRUCTION ITEMS INCLUDE: PAVEMENT TRANSITIONS, PROTECTIVE DITCHES AND BERMS, ROAD SIGNS AND BARRICADES, ETC.

**NOTICE TO CONTRACTOR**

-QUANTITIES SHOWN ARE ESTIMATES ONLY AND ARE INTENDED TO ILLUSTRATE SCOPE OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE QUANTITIES INVOLVED.

-EXISTING UTILITY LOCATIONS 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 PROPER LOCATIONS. CALL BEFORE YOU DIG. (800) 227-2600

AVOID HITTING OVERHEAD  
POWER LINES. IT'S  
COSTLY.

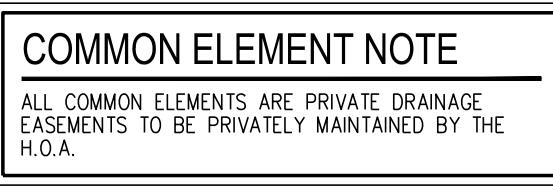
CALL BEFORE  
YOU DO  
OVERHEAD

1-702-227-2929

**FAST**

Call before you  
UnderGround  
1-702-432-5300  
FREEWAY & ARTERIAL SYSTEM  
OF TRANSPORTATION (F.A.S.T.)

Call before you Dig  
AVOID CUTTING UNDERGROUND  
UTILITY LINES. IT'S COSTLY.  
Call  
**811**  
OR  
1-800-227-2600



## SURVEY NOTE

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

**DRAINAGE EASEMENT NOTE**

ALL DRAINAGE EASEMENTS AND COMMON LOTS ARE PUBLIC DRAINAGE EASEMENTS PRIVATELY MAINTAINED BY THE H.O.A.

## DISCLAIMER NOTE

1) EXISTING UTILITY LOCATIONS 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 HEREIN. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

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

**BENCHMARK**  
CITY OF LAS VEGAS BENCHMARK STATION 8LV90 345EE6  
RIVET AND PLATE IN TOP OF CURB AT NW CORNER OF RANCHO & SANTA FE.  
ELEVATION=709.072 METERS (NAVD'88 V.2003)  
ELEVATION=2323.07 US SURVEY FEET (NAVD'88 V. 2003)

**BASIS OF BEARINGS**

NORTH 83°40'42" WEST, BEING BEARING OF SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 35, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 121, PAGE 71 OF PARCEL MAPS.

## GRADING NOTES

|    |                                                                         |
|----|-------------------------------------------------------------------------|
| 1  | FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER AND/OR SIDEWALK       |
| 2  | CONSTRUCT 30" MODIFIED ROLL CURB AND GUTTER PER CCAUSD NO. 217.1. CURB  |
| 3  | FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT   |
| 4  | DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST TO THE CITY      |
| 5  | CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 216                   |
| 6  | CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234                           |
| 7  | CONSTRUCT 8' WIDE CROSS CURB PER CCAUSD NO. 234 ON SHEET D-1            |
| 8  | INSTALL 2.5" ASPHALT PAVEMENT OVER 9" TYPE II AGGREGATE BASE            |
| 9  | CONSTRUCT SIDEWALK RAMP USING ARMOIR TILE TRUNCATED DOMES OR EQUIVALENT |
| 10 | PER CCAUSD NO. 235, CASE I & 235.1                                      |
| 11 | CONSTRUCT TRANSITION FROM "L" CURB TO MODIFIED ROLL CURB PER DETAIL     |
| 12 | ON SHEET D-1                                                            |
| 13 | CONSTRUCT "A" CURB PER CCAUSD NO. 219                                   |
| 14 | EXISTING FENCE TO BE REMOVED                                            |
| 15 | CONSTRUCT DEPRESSIONED CURB OPENING PER DETAIL ON SHEET D-1             |
| 16 | EXISTING GUARDRAIL TO REMAIN                                            |
| 17 | EXISTING WROUGHT IRON FENCE TO REMAIN                                   |
| 18 | CONSTRUCT 8" CROSS CURB PER CCAUSD NO. 228                              |
| 19 | INSTALL 4" CONCRETE OVER 6" TYPE II AGGREGATE BASE                      |
| 20 | SAW CUT AND MATCH EXISTING IMPROVEMENTS PER CCAUSD NO. 500.4, 500.5,    |
| 21 | AND 503                                                                 |
| 22 | INSTALL 3.5" ASPHALT PAVEMENT OVER 10.5" TYPE II AGGREGATE BASE         |

SEE SHEET C-3 FOR ABBREVIATIONS, LEGEND, AND QUANTITIES

# GENERAL NOTES

1. FINAL GRADES ADJUSTED TO STRUCTURES SHALL BE IN CONFORMANCE WITH IBC 2012, SECTION 2304.11.2.2.
2. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
3. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
4. MAXIMUM MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
5. SEE DETAIL SHEETS FOR STREET SECTIONS AND GRADING DETAILS.
6. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
7. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL.
8. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE AWARE OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLACING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION. OTHERWISE.
9. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB OR CURB EXIST) WITHIN THE SIGHT VISIBILITY ZONES.

**SOILS REPORT**

SOILS REPORT BY SOUTHWEST GEOTECHNICAL  
PROJECT NO. 182243 DATED JUNE 22, 2018

**EARTHWORKS**

EARTHWORK QUANTITIES (RAW):  
CUT= 3,433 CU YDS  
FILL= 29,074 CU YDS

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

### WALLS ADJACENT TO COMMON LOTS

SCREEN WALLS ADJACENT TO COMMON LOTS SHALL END NO CLOSER THAN 20' TO BACK OF CURB. RETAINING WALLS SHALL END NO CLOSER THAN 5' TO BACK OF CURB.

**FLOOD ZONE**

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C1765F, DATED NOVEMBER 16, 2011. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

**PRIVATE STREET NOTE**

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

**FLOOD CERTIFICATION**

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED  
TECHNICAL DRAINAGE STUDY #DSS033 ON FILE AT CITY OF LAS VEGAS FOR THE  
SUBJECT PROJECT.

*Timothy M. Mulrooney* 9/27/18  
TIMOTHY M. MULROONEY, P.E. 22938 DATE

**FAST**  
Call before you  
UnderGround  
1-702-432-5300  
FREEWAY & ARTERIAL SYSTEM  
OF TRANSPORTATION (F.A.S.T.)

Call before you Dig  
AVOID CUTTING UNDERGROUND  
UTILITY LINES. IT'S COSTLY.  
Call  
  
OR  
1-800-227-2600

**SLATER**  
**HANIFAN**  
**GROUP**

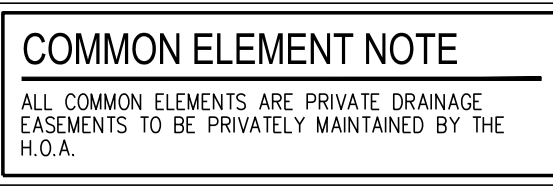
a **Westwood** team

5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118  
PHONE (702) 284-5300  
FAX (702) 284-5398

[illegible]

**KB HOME**  
**RAINBOW AND RANCHO**  
**GRADING PLAN I**

|              |             |
|--------------|-------------|
| DATE:        | 9/26/18     |
| DRAFTER:     | TGH         |
| DESIGNER:    | TGH         |
| CHECKED:     | DSP         |
| PROJECT NO.  | KBH1802-000 |
|              |             |
| 9/27/18      |             |
| <h1>G-1</h1> |             |
| SHEET 4 OF 7 |             |
| H#           | -----       |
| CLV#         | -----       |



## SURVEY NOTE

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

**DRAINAGE EASEMENT NOTE**

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## DISCLAIMER NOTE

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

# GENERAL NOTES

1. FINAL GRADES ADJUSTED TO STRUCTURES SHALL BE IN CONFORMANCE WITH IBC 2012, SECTION 2304.11.2.2.
2. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
3. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
4. MAXIMUM MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
5. SEE DETAIL SHEETS FOR STREET SECTIONS AND GRADING DETAILS.
6. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
7. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL.
8. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION.
9. ENGINEER/OWNER SHALL BE AWARE OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLACING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION. OTHERWISE.
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**SOILS REPORT**

---

SOILS REPORT BY SOUTHWEST GEOTECHNICAL  
PROJECT NO. 182243 DATED JUNE 22, 2018

**EARTHWORKS**

---

EARTHWORK QUANTITIES (RAW):  
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FILL= 29,074 CU YDS

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

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## FLOOD ZONE

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**FLOOD CERTIFICATION**

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED  
TECHNICAL DRAINAGE STUDY #DSS033 ON FILE AT CITY OF LAS VEGAS FOR THE  
SUBJECT PROJECT.

*Timothy M. Mulrooney* 9/27/18  
TIMOTHY M. MULROONEY, P.E. 22938 DATE

**BENCHMARK**  
CITY OF LAS VEGAS BENCHMARK STATION 8LV90 345EE6  
RIVET AND PLATE IN TOP OF CURB AT NW CORNER OF RANCHO & SANTA FE.  
ELEVATION=709.072 METERS (NAVD'88 V.2003)  
ELEVATION=2323.07 US SURVEY FEET (NAVD'88 V. 2003)

**BASIS OF BEARINGS**

NORTH 83°40'42" WEST, BEING BEARING OF SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 35, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 121, PAGE 71 OF PARCEL MAPS.

## GRADING NOTES

|    |                                                                         |
|----|-------------------------------------------------------------------------|
| 1  | FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER AND/OR SIDEWALK       |
| 2  | CONSTRUCT 30" MODIFIED ROLL CURB AND GUTTER PER CCAUSD NO. 217.1. CURB  |
| 3  | FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT   |
| 4  | DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST TO THE CITY      |
| 5  | CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 216                   |
| 6  | CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234                           |
| 7  | CONSTRUCT 8' WIDE CROSS CURB PER CCAUSD NO. 234 ON SHEET D-1            |
| 8  | INSTALL 2.5" ASPHALT PAVEMENT OVER 9" TYPE II AGGREGATE BASE            |
| 9  | CONSTRUCT SIDEWALK RAMP USING ARMOIR TILE TRUNCATED DOMES OR EQUIVALENT |
| 10 | PER CCAUSD NO. 235, CASE I & 235.1                                      |
| 11 | CONSTRUCT TRANSITION FROM "L" CURB TO MODIFIED ROLL CURB PER DETAIL     |
| 12 | ON SHEET D-1                                                            |
| 13 | CONSTRUCT "A" CURB PER CCAUSD NO. 219                                   |
| 14 | EXISTING FENCE TO BE REMOVED                                            |
| 15 | CONSTRUCT DEPRESSIONED CURB OPENING PER DETAIL ON SHEET D-1             |
| 16 | EXISTING GUARDRAIL TO REMAIN                                            |
| 17 | EXISTING WROUGHT IRON FENCE TO REMAIN                                   |
| 18 | CONSTRUCT 8" CROSS CURB PER CCAUSD NO. 228                              |
| 19 | INSTALL 4" CONCRETE OVER 6" TYPE II AGGREGATE BASE                      |
| 20 | SAW CUT AND MATCH EXISTING IMPROVEMENTS PER CCAUSD NO. 500.4, 500.5,    |
| 21 | AND 503                                                                 |
| 22 | INSTALL 3.5" ASPHALT PAVEMENT OVER 10.5" TYPE II AGGREGATE BASE         |

SEE SHEET C-3 FOR ABBREVIATIONS, LEGEND, AND QUANTITIES

**FAST**  
Call before you  
Underground  
1-702-432-5300  
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OF TRANSPORTATION (F.A.S.)

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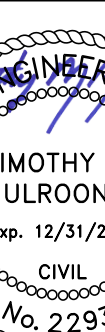
**SLATER**  
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5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118  
PHONE (702) 284-5300  
FAX (702) 284-5399

[illegible]

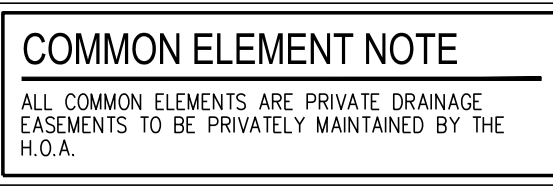
**KBHOME**  
**RAINBOW AND RANCHO**  
**GRADING PLAN II**

DATE: 9/26/18  
DRAFTER: TGH  
DESIGNER: TGH  
CHECKED: DSP  
PROJECT NO.  
**KBH1802-000**

  
9/27/18

**G-2**  
SHEET 5 OF 7  
H#-----  
CLV#-----

\\kbh1802-000\_rainbow\_rancho\dwg\improv\kbh\_1802-000\_grd.dwg 9/27/2018 11:50 AM Tesfu Hailemariam



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**SOILS REPORT**

SOILS REPORT BY SOUTHWEST GEOTECHNICAL  
PROJECT NO. 182243 DATED JUNE 22, 2018

**EARTHWORKS**

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FILL= 29,074 CU YDS

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**FLOOD CERTIFICATION**

---

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED  
 TECHNICAL DRAINAGE STUDY #D55033 ON FILE AT CITY OF LAS VEGAS FOR THE  
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*Timothy M. Mulroney* 9/27/18  
 TIMOTHY M. MULRONEY, P.E. 22938 DATE

**FAST**  
Call before you  
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PHONE (702) 284-5300  
FAX (702) 284-5398

[illegible]

CITY OF LAS VEGAS

**KB HOME**  
**RAINBOW AND RANCHO**  
**GRADING PLAN III**

|       |         |
|-------|---------|
| DATE: | 9/26/18 |
|-------|---------|

|               |
|---------------|
| DRAFTER: TGH  |
| DESIGNER: TGH |
| CHECKED: DSP  |

PROJECT NO.  
**KBH1802-000**

9/27/18

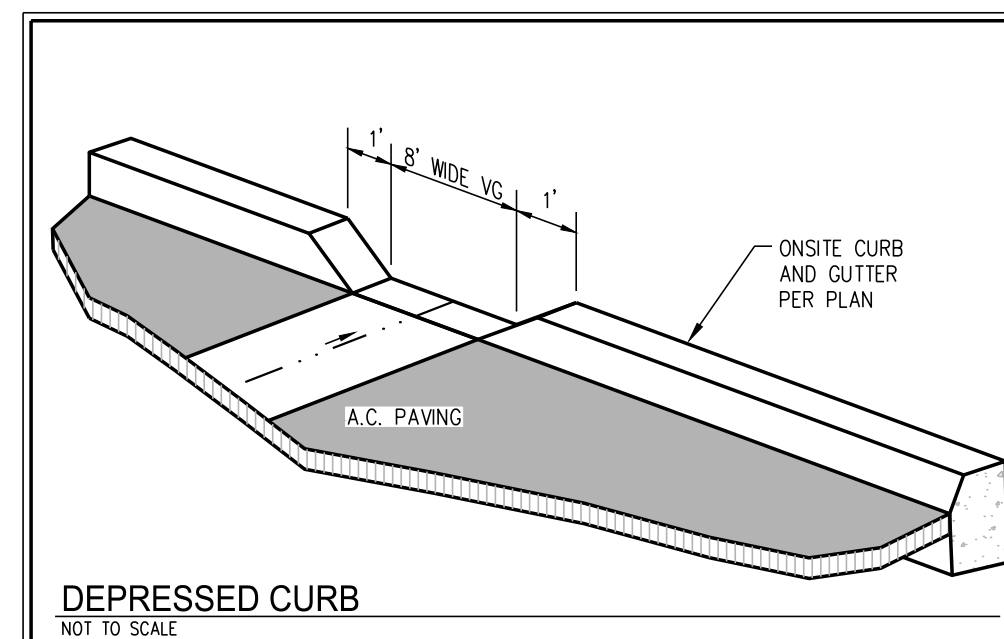
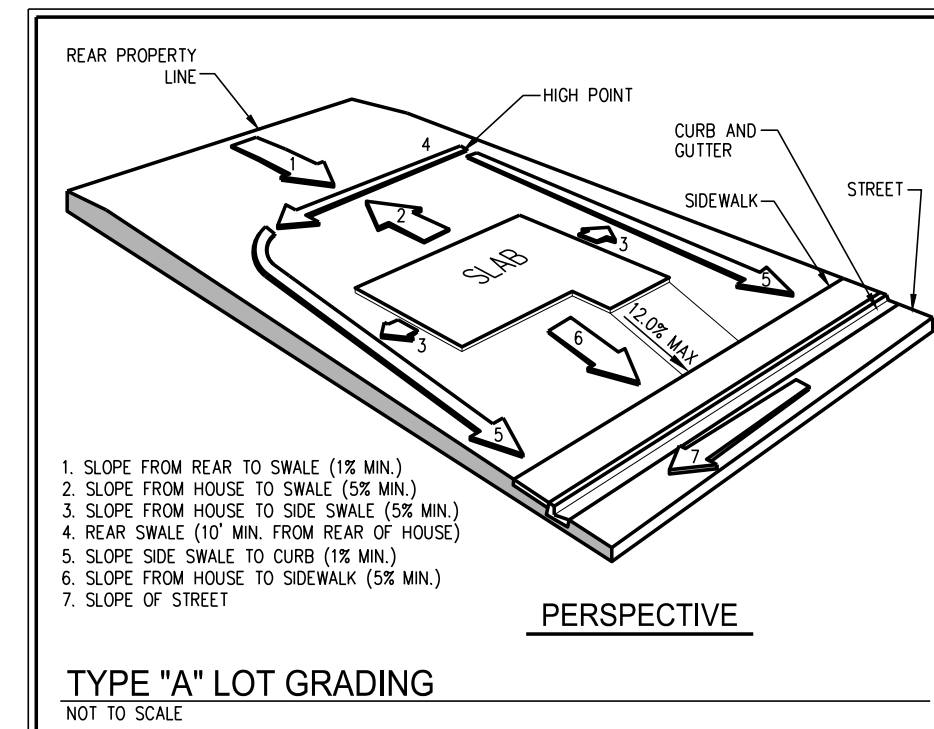
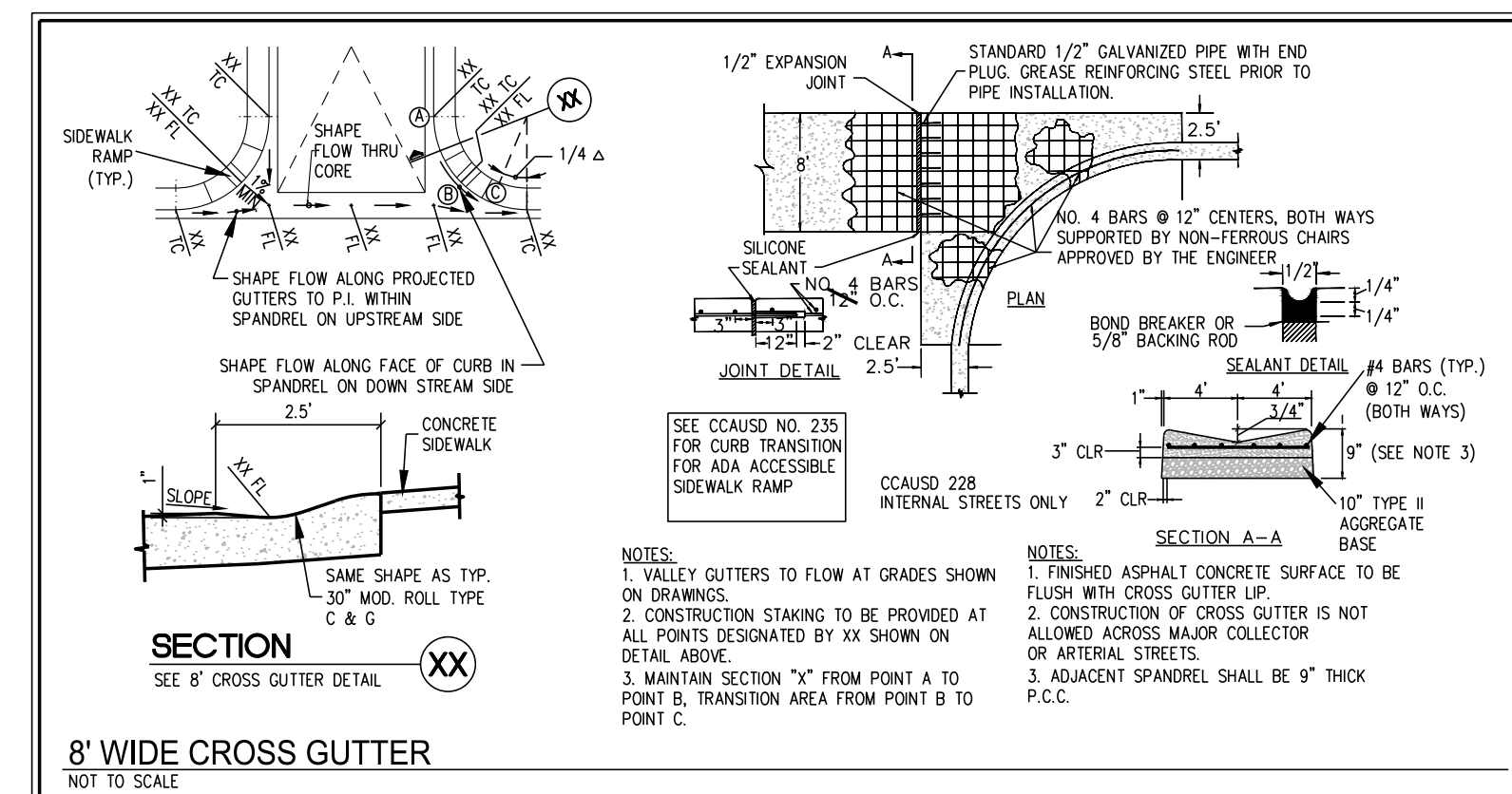
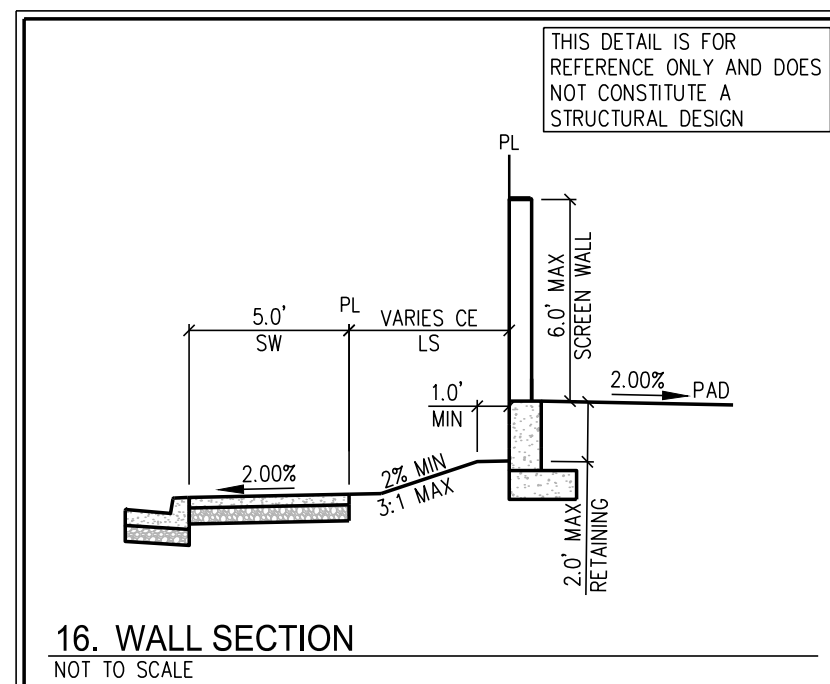
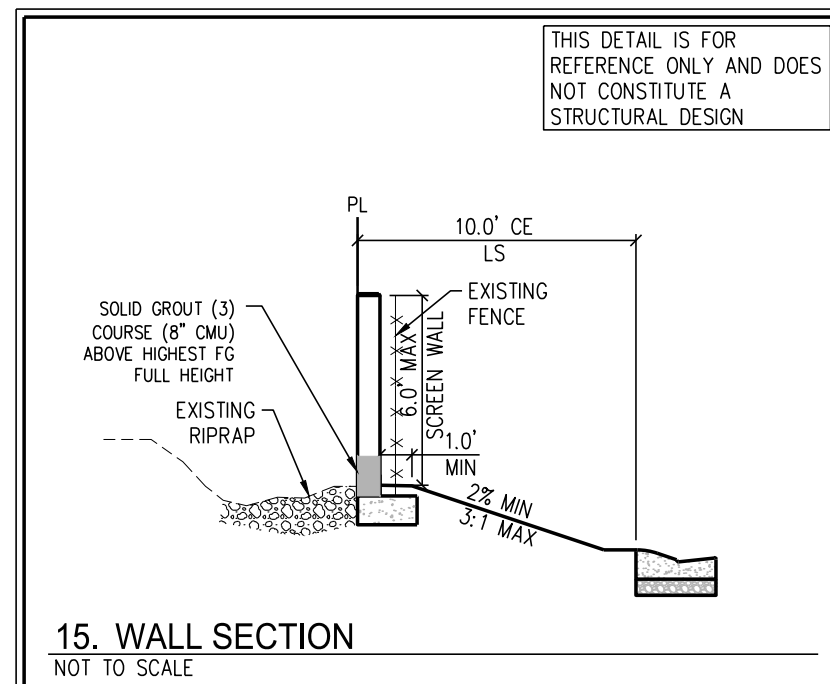
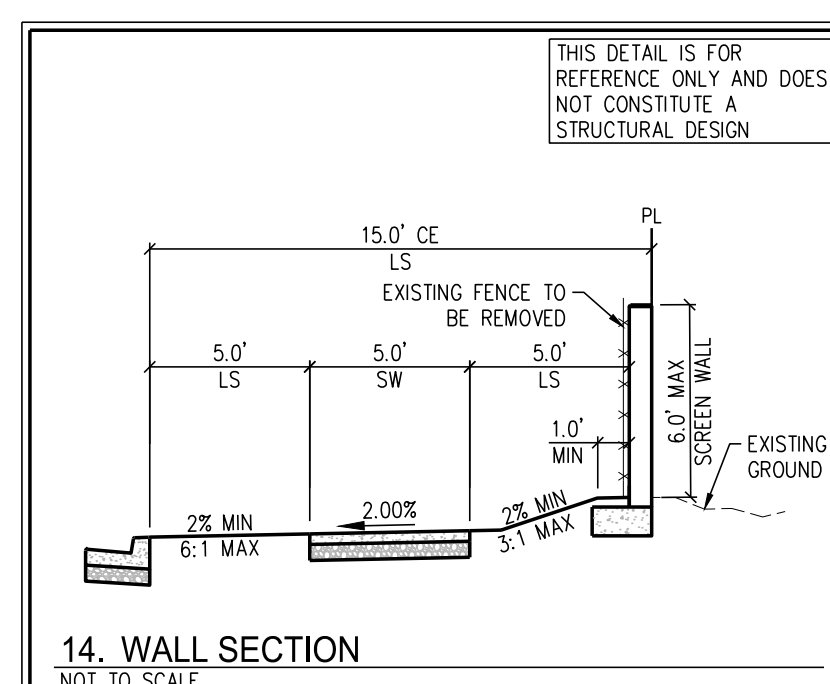
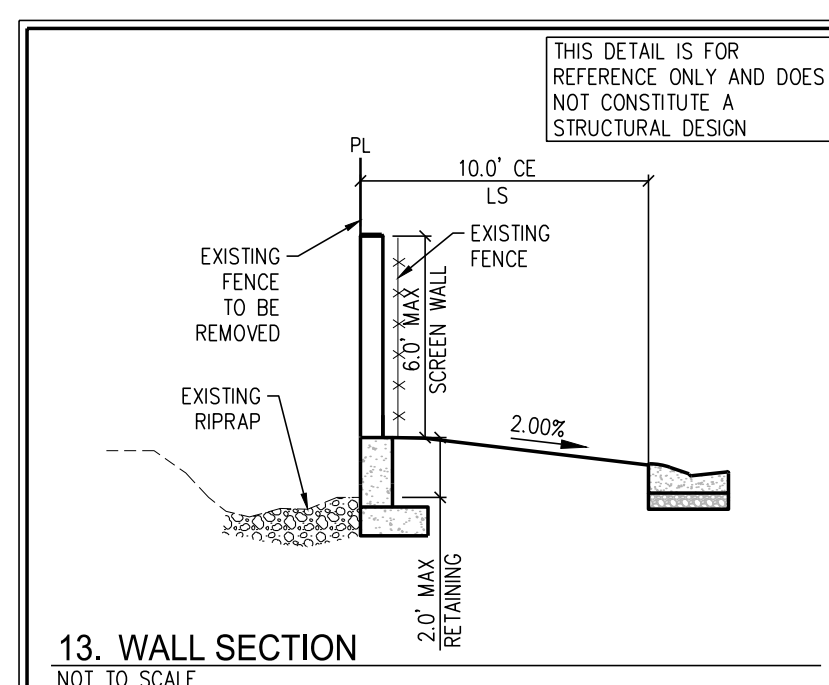
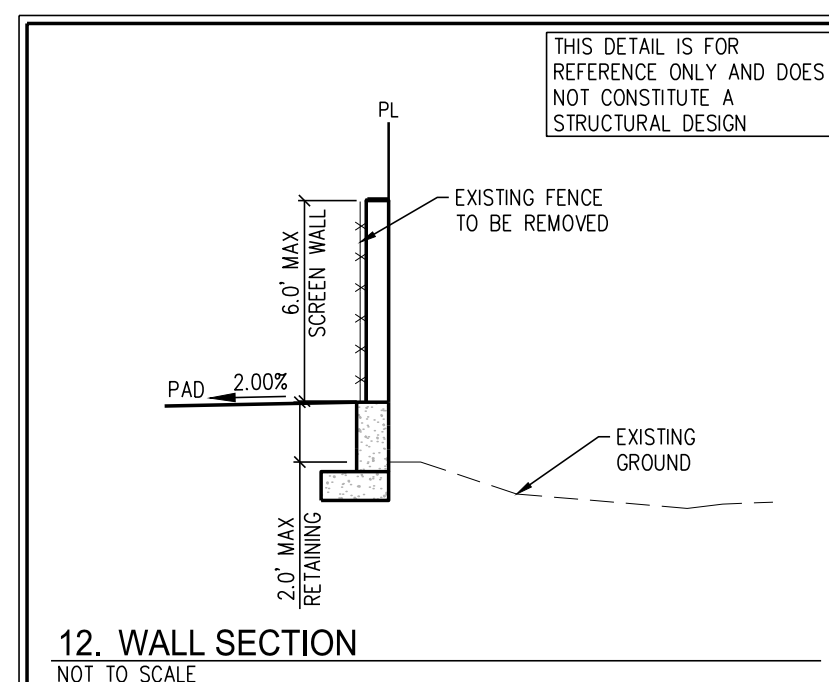
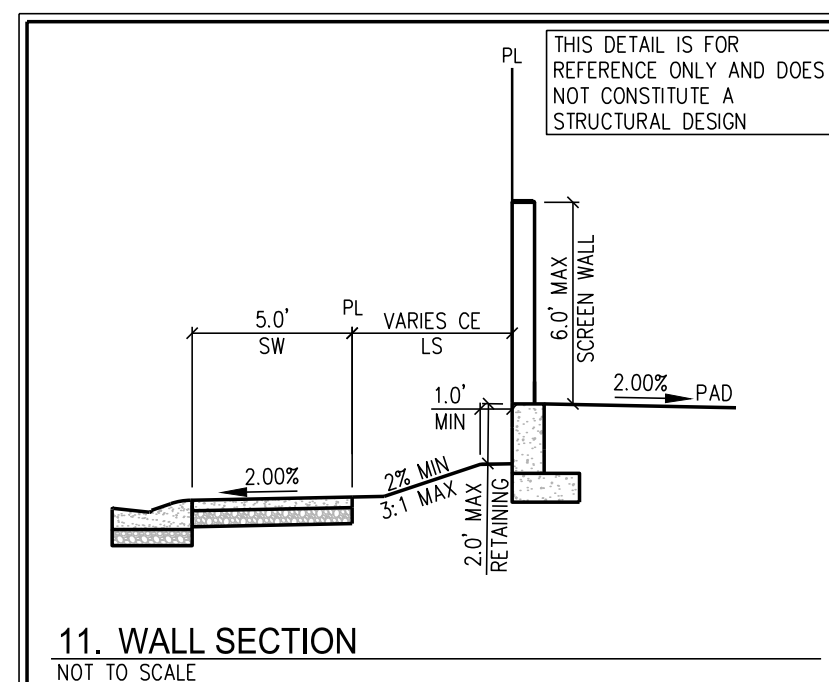
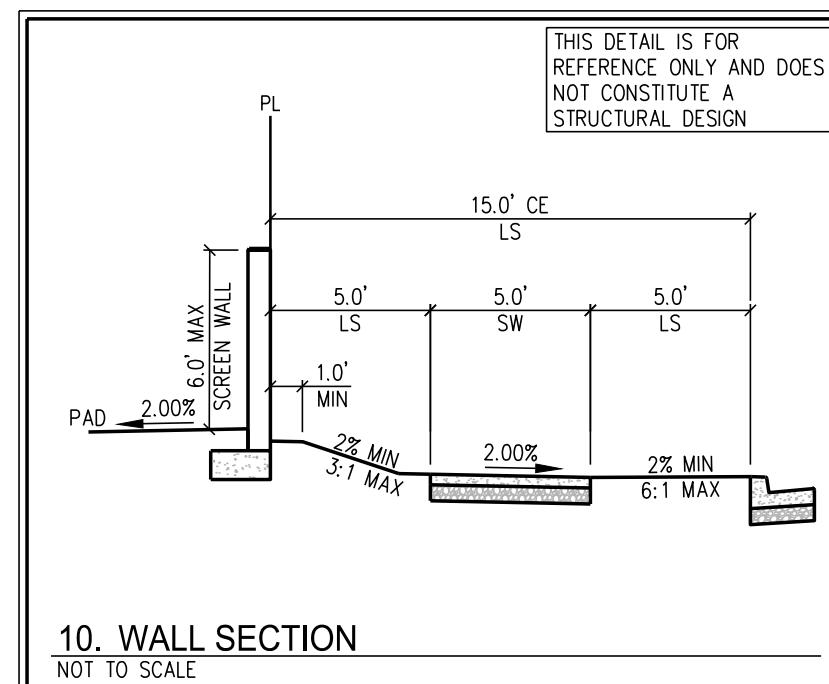
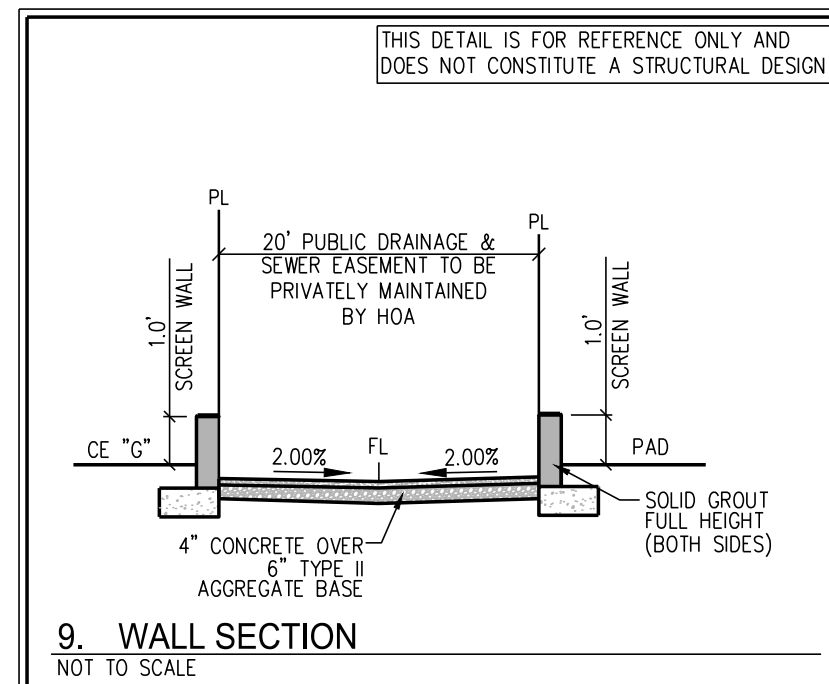
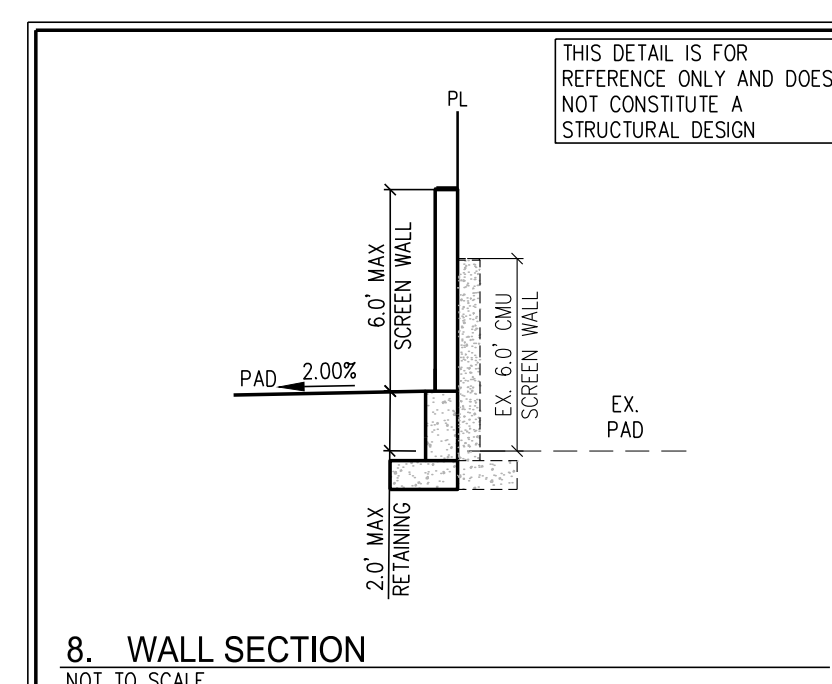
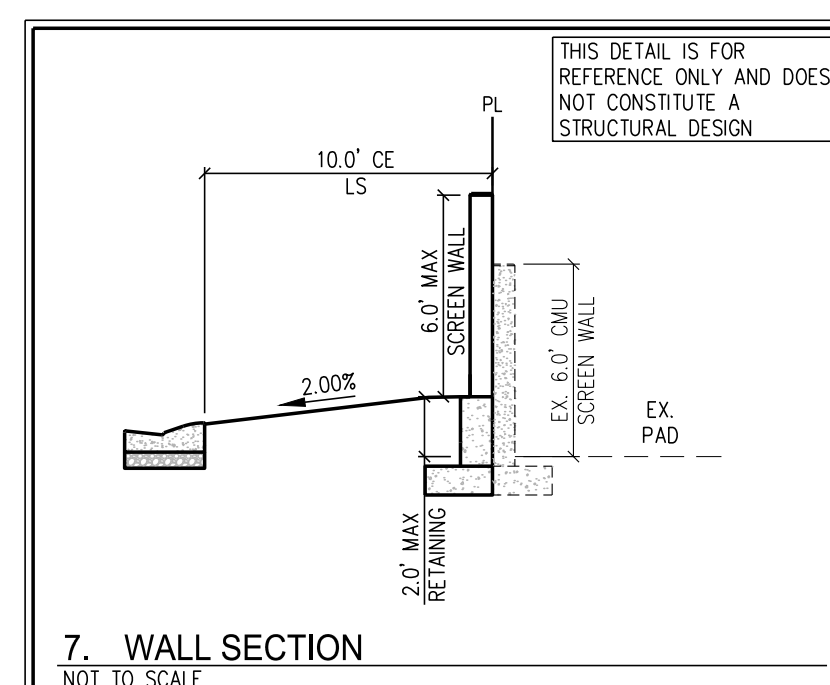
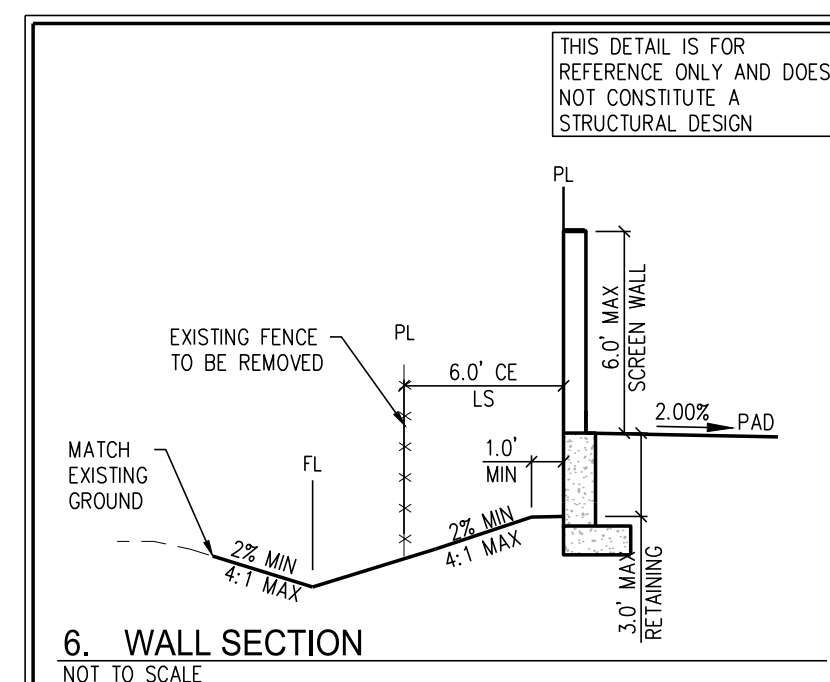
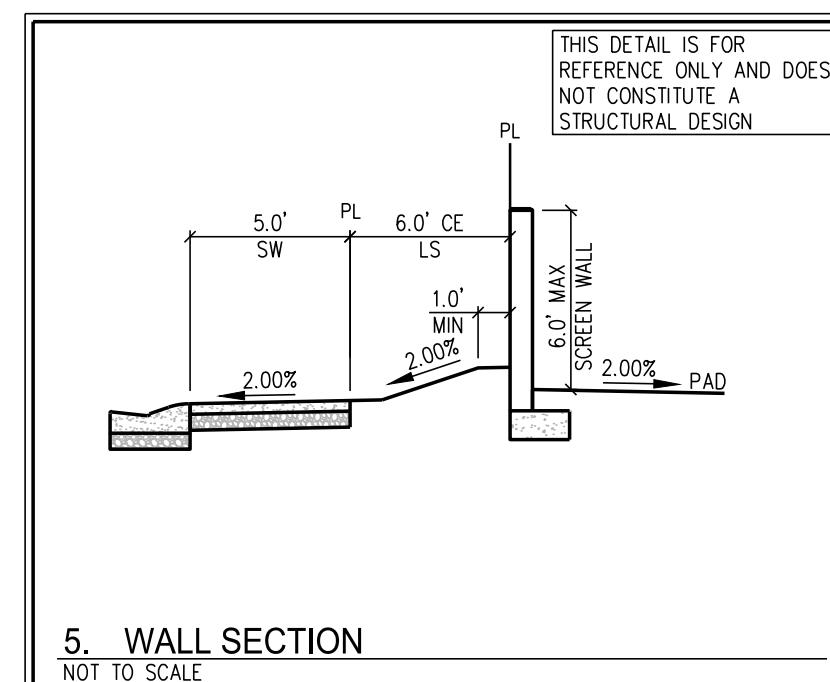
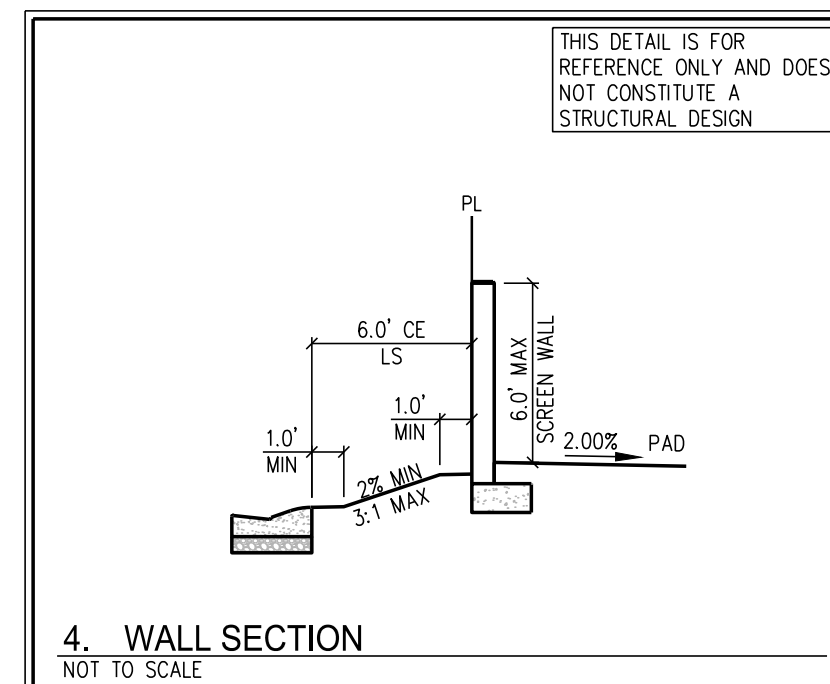
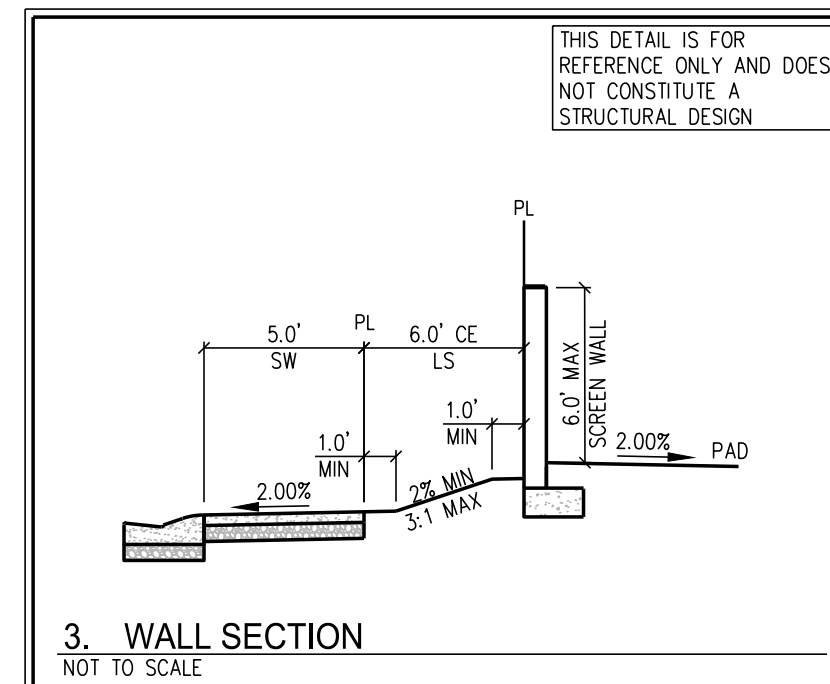
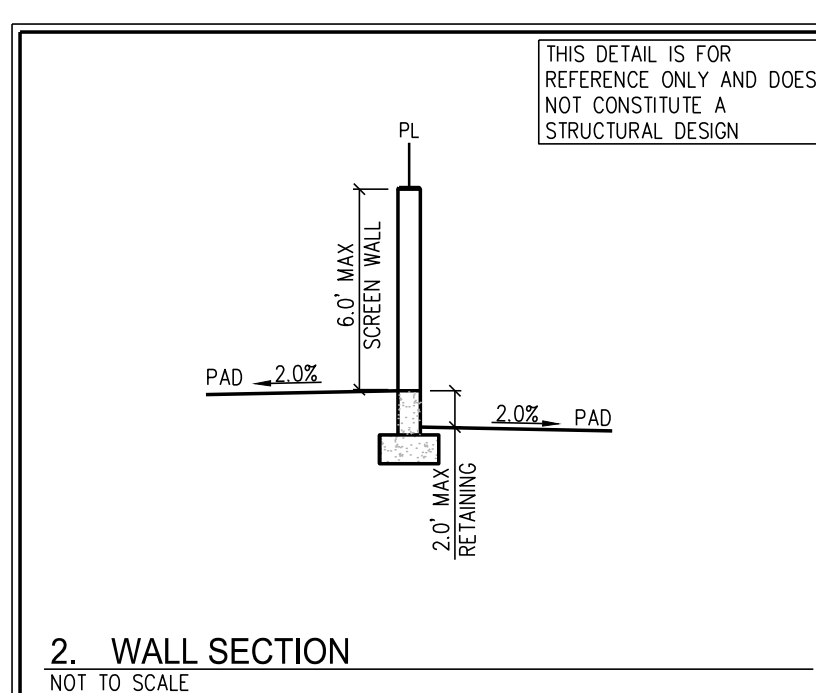
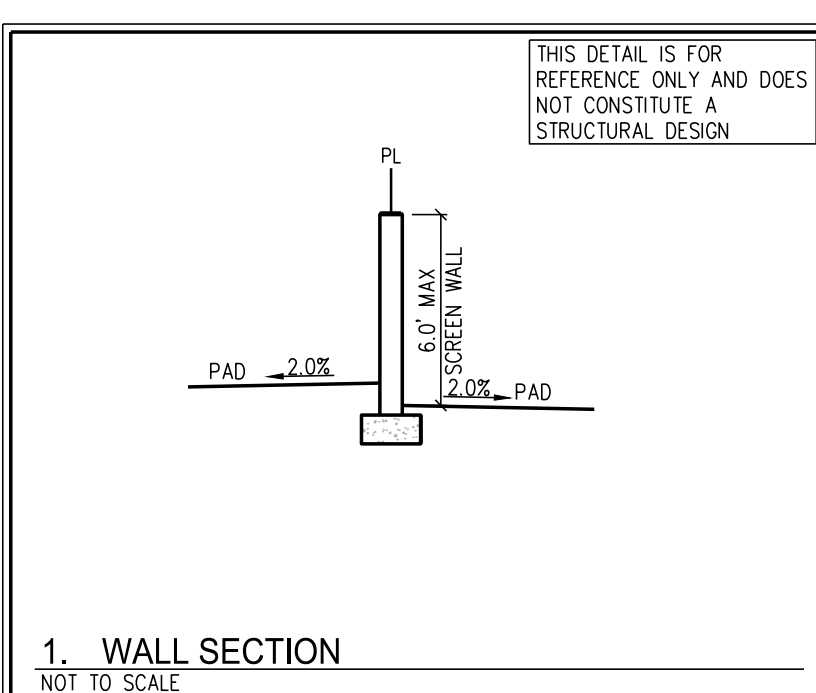
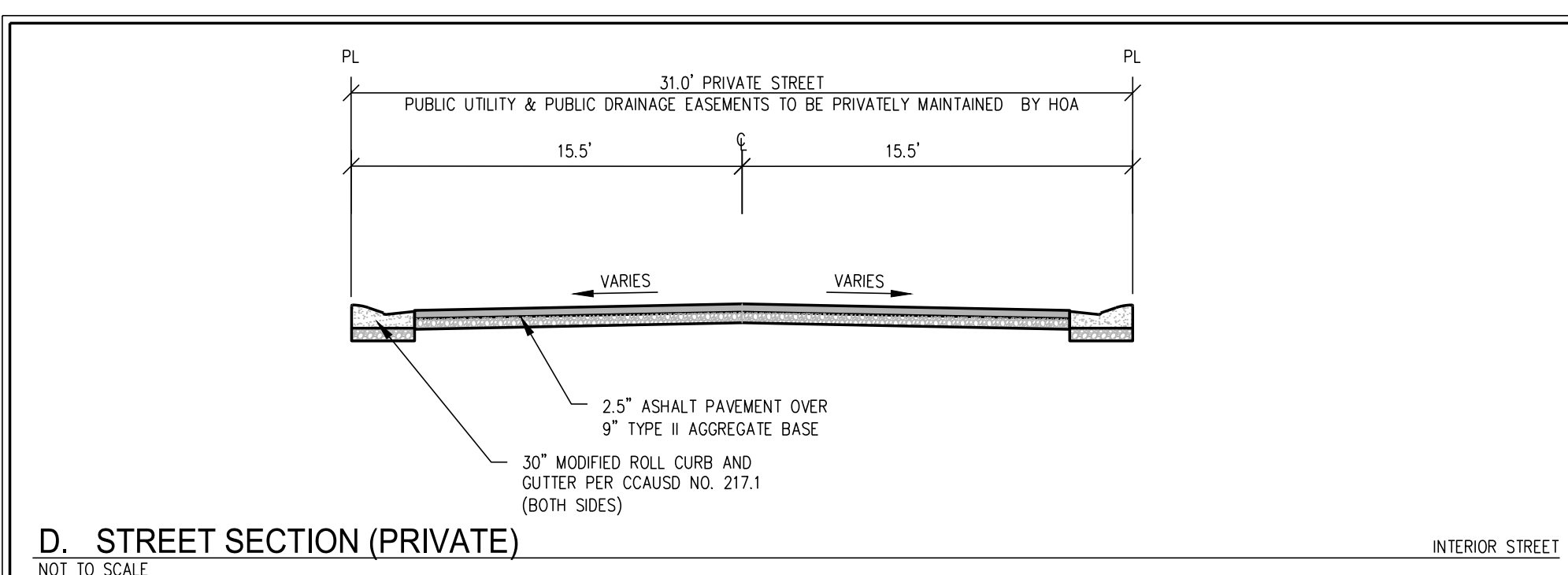
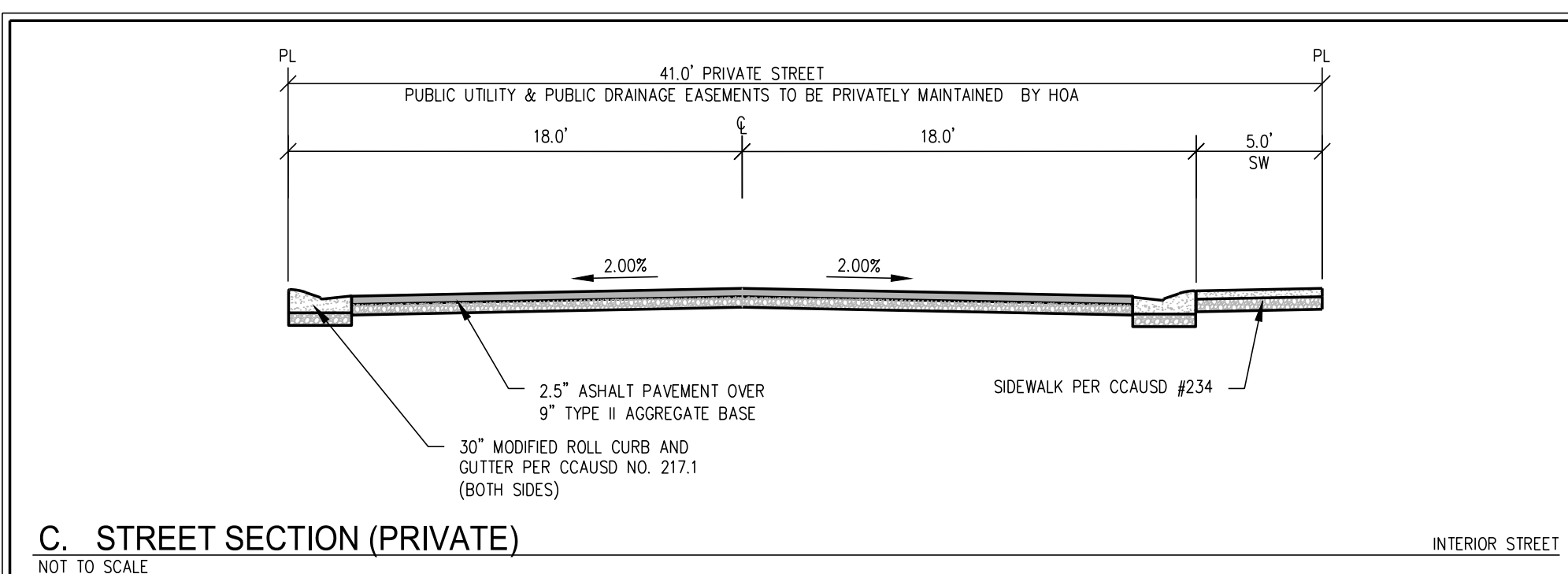
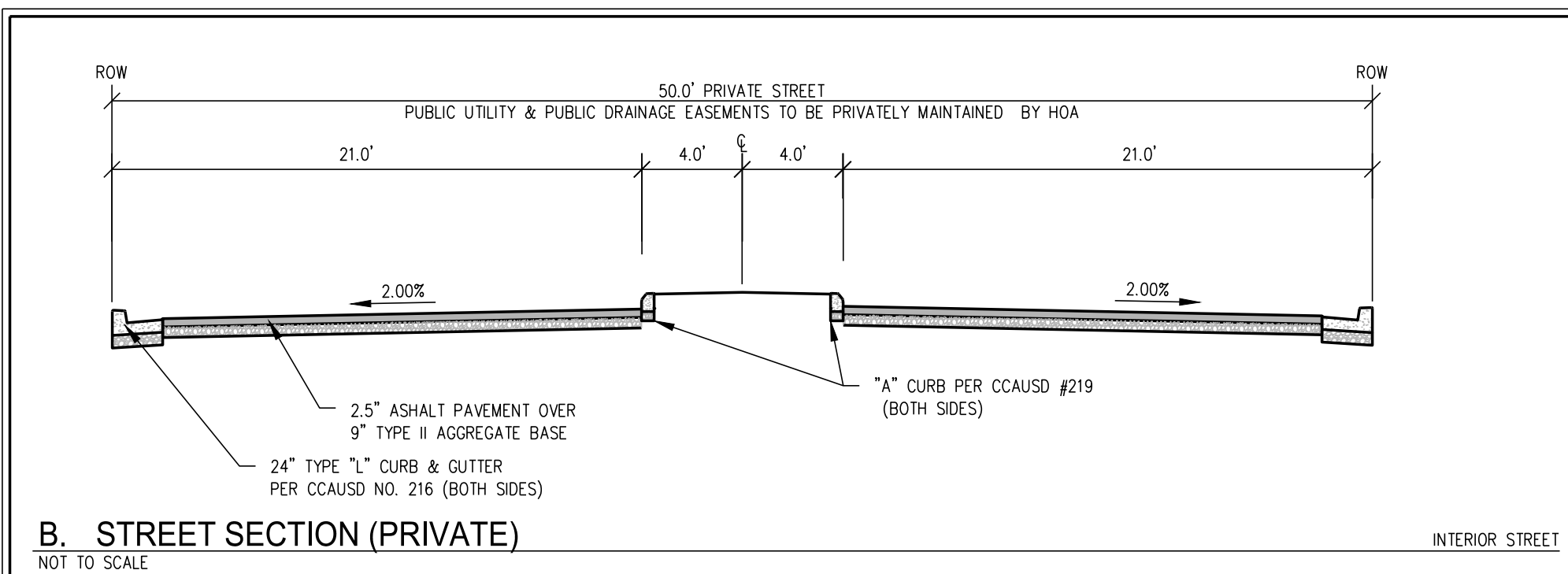
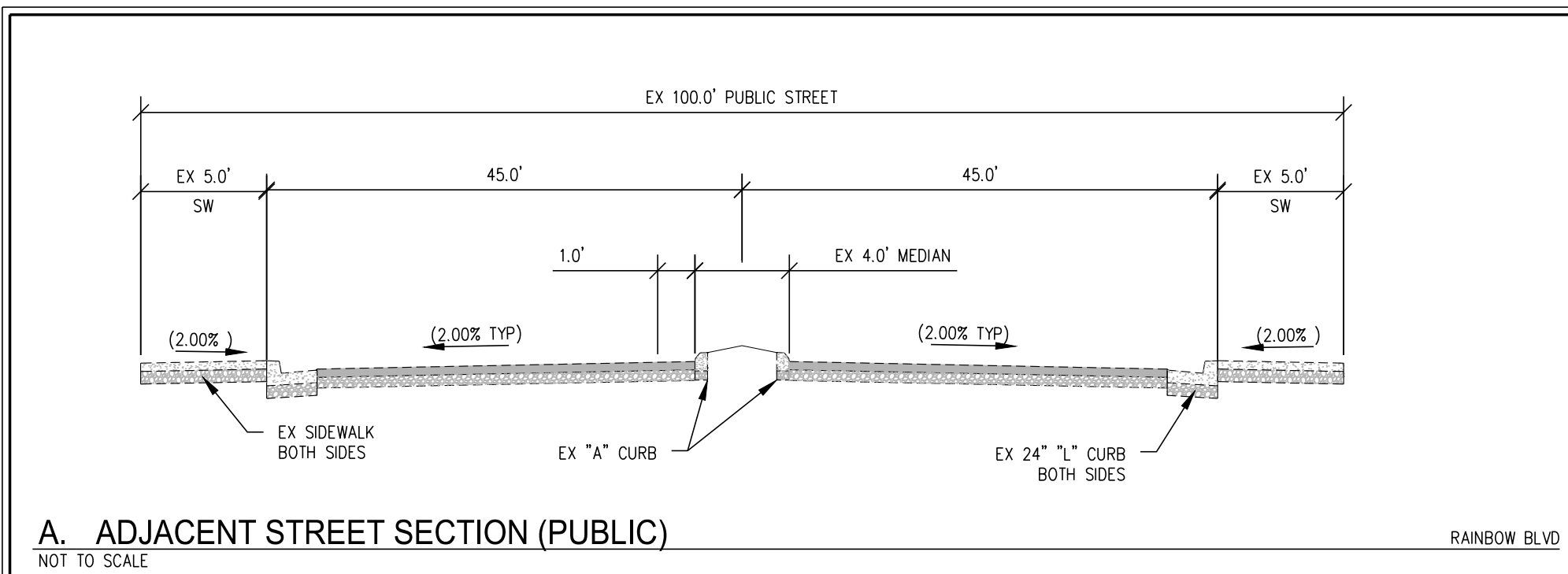
**G-3**

SHEET 6 OF 7

H# \_\_\_\_\_

CLV# \_\_\_\_\_

\\kbh1802-000\_rainbow\_rancho\dwg\improv\kbh\_1802-000\_grd.dwg 9/27/2018 11:50 AM Tesfu Hailemariam



**SLATER  
HANIFAN  
GROUP**  
a **Westwood** team

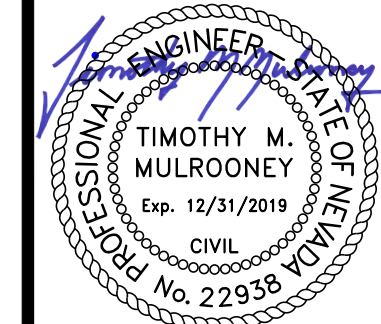
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118  
PHONE (702) 284-5300  
FAX (702) 284-5399

[illegible]

|                   |  |
|-------------------|--|
| CITY OF LAS VEGAS |  |
|-------------------|--|

**KB HOME**  
**RAINBOW AND RANCHO**  
**DETAIL SHEET I**

|                   |                    |
|-------------------|--------------------|
| S35<br>T19<br>R60 |                    |
| DATE:             | 9/27/18            |
| DRAFTER:          | TGH                |
| DESIGNER:         | TGH                |
| CHECKED:          | DSP                |
| PROJECT NO.       | <b>KBH1802-000</b> |



**D-1**  
SHEET 7 OF 7  
H# \_\_\_\_\_  
CLV# \_\_\_\_\_

i:\kbh1802-000 rainbow rancho\dwg\improv\kbh 1802-000 dtl.dwg 9/27/2018 11:50 AM Tesfu Hailemariam



**DRAINAGE EASEMENT NOTE**

ALL DRAINAGE EASEMENTS AND COMMON LOTS ARE PUBLIC DRAINAGE EASEMENTS PRIVATELY MAINTAINED BY THE H.O.A.

## DISCLAIMER NOTE

- 1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
- 2) FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT AND BUILD UP OF CURBS PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

**BASIS OF BEARINGS**

NORTH 83°40'42" WEST, BEING BEARING OF SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 35, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 121, PAGE 71 OF PARCEL MAPS.

## GRADING NOTES

|    |                                                                         |
|----|-------------------------------------------------------------------------|
| 1  | FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER AND/OR SIDEWALK       |
| 2  | CONSTRUCT 30" MODIFIED ROLL CURB AND GUTTER PER CCAUSD NO. 217.1. CURB  |
| 3  | FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT   |
| 4  | DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST TO THE CITY      |
| 5  | CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 216                   |
| 6  | CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234                           |
| 7  | CONSTRUCT 8' WIDE CROSS CURB PER CCAUSD NO. 234 ON SHEET D-1            |
| 8  | INSTALL 2.5" ASPHALT PAVEMENT OVER 9" TYPE II AGGREGATE BASE            |
| 9  | CONSTRUCT SIDEWALK RAMP USING ARMOIR TILE TRUNCATED DOMES OR EQUIVALENT |
| 10 | PER CCAUSD NO. 235, CASE I & 235.1                                      |
| 11 | CONSTRUCT TRANSITION FROM "L" CURB TO MODIFIED ROLL CURB PER DETAIL     |
| 12 | ON SHEET D-1                                                            |
| 13 | CONSTRUCT "A" CURB PER CCAUSD NO. 219                                   |
| 14 | EXISTING FENCE TO BE REMOVED                                            |
| 15 | CONSTRUCT DEPRESSIONED CURB OPENING PER DETAIL ON SHEET D-1             |
| 16 | EXISTING GUARDRAIL TO REMAIN                                            |
| 17 | EXISTING WROUGHT IRON FENCE TO REMAIN                                   |
| 18 | CONSTRUCT 8" CROSS CURB PER CCAUSD NO. 228                              |
| 19 | INSTALL 4" CONCRETE OVER 6" TYPE II AGGREGATE BASE                      |
| 20 | SAW CUT AND MATCH EXISTING IMPROVEMENTS PER CCAUSD NO. 500.4, 500.5,    |
| 21 | AND 503                                                                 |
| 22 | INSTALL 3.5" ASPHALT PAVEMENT OVER 10.5" TYPE II AGGREGATE BASE         |

SEE SHEET C-3 FOR ABBREVIATIONS, LEGEND, AND QUANTITIES

# GENERAL NOTES

1. FINAL GRADES ADJUSTED TO STRUCTURES SHALL BE IN CONFORMANCE WITH IBC 2012, SECTION 2304.11.2.2.
2. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
3. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
4. MAXIMUM MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
5. SEE DETAIL SHEETS FOR STREET SECTIONS AND GRADING DETAILS.
6. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
7. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL.
8. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLACING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF ANY KINDING DAMAGE PRIOR TO CONSTRUCTION.
9. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB) EXIST WITHIN THE SIGHT VISIBILITY ZONES.

# SOILS REPORT

---

SOILS REPORT BY SOUTHWEST GEOTECHNICAL  
PROJECT NO. 182243 DATED JUNE 22, 2018

## EARTHWORKS

---

EARTHWORK QUANTITIES (RAW):  
CU= 3,433 CU YDS  
FILL= 29,074 CU YDS

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

### WALLS ADJACENT TO COMMON LOTS

SCREEN WALLS ADJACENT TO COMMON LOTS SHALL END NO CLOSER THAN 20' TO BACK OF CURB. RETAINING WALLS SHALL END NO CLOSER THAN 5' TO BACK OF CURB.

**FLOOD ZONE**

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C1765F, DATED NOVEMBER 16, 2011. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

### PRIVATE STREET NOTE

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

**FLOOD CERTIFICATION**

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED  
TECHNICAL DRAINAGE STUDY #D55033 ON FILE AT CITY OF LAS VEGAS FOR THE  
SUBJECT PROJECT.

*Timothy M. Mulroney* 10/14/18  
TIMOTHY M. MULRONEY, P.E. 22938 DATE

**SLATER**  
**HANIFAN**  
**GROUP**  
a **Westwood** team

5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118  
PHONE (702) 284-5300  
FAX (702) 284-5399

[illegible]

**KBHOME**  
RAINBOW AND RANCHO  
GRADING PLAN I

DATE: 9/26/18  
DRAFTER: TGH  
DESIGNER: TGH  
CHECKED: DSP  
PROJECT NO.  
**KBH1802-000**



10/14/18

**G-1**  
SHEET 4 OF 23  
H#-----  
CLV#-----

\\kbh1802-000 rainbow rancho\dwg\improv\kbh 1802-000 ard.dwg 10/11/2018 4:50 PM Tesfu Hailemariam



**DRAINAGE EASEMENT NOTE**

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**BENCHMARK**

---

CITY OF LAS VEGAS BENCHMARK STATION 8LV90 345EE6

RIVET AND PLATE IN TOP OF CURB AT NW CORNER OF RANCHO & SANTA FE.

ELEVATION=709.072 METERS (NAVD'88 V.2003)  
ELEVATION=2323.07 US SURVEY FEET (NAVD'88 V. 2003)

**BASIS OF BEARINGS**

NORTH 83°40'42" WEST, BEING BEARING OF SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 35, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 121, PAGE 71 OF PARCEL MAPS.

## GRADING NOTES

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| 10 | PER CCAUSD NO. 235, CASE I & 235.1                                      |
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**SOILS REPORT**

SOILS REPORT BY SOUTHWEST GEOTECHNICAL  
PROJECT NO. 182243 DATED JUNE 22, 2018

**EARTHWORKS**

EARTHWORK QUANTITIES (RAW):  
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FILL= 29,074 CU YDS

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

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**FLOOD CERTIFICATION**

---

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED  
TECHNICAL DRAINAGE STUDY #DS5033 ON FILE AT CITY OF LAS VEGAS FOR THE  
SUBJECT PROJECT.

*Timothy M. Mulrooney* 10/14/18  
TIMOTHY M. MULROONEY, P.E. 22938 DATE

**FAST**  
Call  before you  
**UnderGround**  
**1-702-432-5300**  
**FREEWAY & ARTERIAL SYSTEM**  
**OF TRANSPORTATION (F.A.S.T.)**

**AVOID HITTING OVERHEAD  
POWER LINES. IT'S  
COSTLY.**

**CALL BEFORE  
YOU DO  
OVERHEAD**



1-702-227-2929

**Call before you Dig**  
AVOID CUTTING UNDERGROUND  
UTILITY LINES. IT'S COSTLY.

**Call**  
**811**  
OR  
**1-800-227-2600**

**SLATER**  
**HANIFAN**  
**GROUP**

a **Westwood** team

5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118  
PHONE (702) 284-5300  
FAX (702) 284-5398

[illegible]

**KB HOME**  
**RAINBOW AND RANCHO**  
**GRADING PLAN III**

|               |             |
|---------------|-------------|
| DATE:         | 9/26/18     |
| DRAFTER:      | TGH         |
| DESIGNER:     | TGH         |
| CHECKED:      | DSP         |
| PROJECT NO.   | KBH1802-000 |
|               |             |
| 10/14/18      |             |
| <h1>G-3</h1>  |             |
| SHEET 6 OF 23 |             |
| H#            | -----       |
| CLV#          | -----       |