



# Department of Public Works

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Denis Cederburg, P.E., Director • E-Mail: dlc@ClarkCountyNV.gov



## Drainage Study Comment Letter

**Date:** September 17, 2024  
**Firm:** Moreno PEC  
**Engineer:** Timoteo S Moreno, P.E.  
**Address:** 12273 Terrace Verde Avenue, Las Vegas, NV 89138  
**Phone:** (702) 682-7041  
**E-mail:** tim@morenopec.com

**Subject:** Technical Drainage Study for Michelli and Bright Angel  
**Location:** NEC or Michelli Crest Way and Bright Angel Way  
**APN:** 126-25-601-002  
**Sec, Township, Range:** S25, T19S, R59E  
**Flood Zone & Panel:** Zone X, panel 1750E, dated September 27, 2002  
**Application Number:** PW24-12544

| Submittals | Date Received | Date Returned | Reviewer | Miscellaneous |
|------------|---------------|---------------|----------|---------------|
| Technical  | 04/01/2024    | 04/15/2024    | RV       |               |
| Addendum 1 | 09/4/2024     | 09/17/2024    | RV       |               |
|            |               |               |          |               |
|            |               |               |          |               |
|            |               |               |          |               |
|            |               |               |          |               |

| Concurrence Required:<br>(Must be obtained prior to permit issuance) |                                              | Reason Concurrence is Required                                                 |
|----------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------|
|                                                                      | Boulder City                                 | Adjacent to or Impacts Jurisdiction                                            |
|                                                                      | City of Mesquite                             | Adjacent to or Impacts Jurisdiction                                            |
|                                                                      | City of Henderson                            | Adjacent to or Impacts Jurisdiction                                            |
| x                                                                    | City of Las Vegas                            | Adjacent to or Impacts Jurisdiction                                            |
|                                                                      | City of North Las Vegas                      | Adjacent to or Impacts Jurisdiction                                            |
|                                                                      | Nevada Department of Transportation          | Adjacent to or Impacts NDOT Facility                                           |
|                                                                      | Union Pacific Rail Road                      | Adjacent to or Impacts a UPRR Facility                                         |
|                                                                      | US Army Corps of Engineers                   | Impacts a USACE Facility                                                       |
|                                                                      | Clark County Regional Flood Control District | Regional Significance, Adjacent to or Impacts CCRFCD MPU Facility or in a SFHA |

Responses to the following comments must be addressed and provided with the next submittal. Incomplete responses may result in further review and time delays to the drainage study approval. CCPW Development Review will not be held responsible for project delays due to incomplete responses.

**CCPW – Development Review Comments:**

1. This project requires a Minor Sub-division Map (MSM) to subdivide the parcel. It is unclear if this study is meant to address this issue. If the study is meant to satisfy the MSM requirements, then the MSM number must be included in the drainage study and grading plan titles along with a parcel map figure showing the proposed parcel limits and necessary drainage easements.
2. Provide a stamped, signed, and dated Standard Form 1 with every submittal. The study did not include a Standard Form 1.
3. Provide a Standard Form 4 with the revised hydrology to verify lag times. The study did not include a Standard Form 4.
4. It is unclear why curve numbers are higher in the existing conditions and much lower in the developed conditions. Development typically increases the curve number due to higher impervious percentage. Review note 2 on Table 602 A. The overall impervious percentage of the development do not appear to match the values in the table. It is recommended to use a curve number of 73 (for 8,000 sq. ft). Additionally, utilize a curve number of 98 should be used for roadways. Please review and adjust curve numbers accordingly and revise the HEC-1 analysis.
5. Verify slope used for hydraulic section C.
6. Provide existing cross sections summary table on existing drainage figure.
7. Provide a revised hydraulic section D that matches the geometry and slope in the easement.
8. Ensure all affected flow values, tables, calculations, models and figures are revised and updated accordingly and provided with the study.
9. The grading plans have been red-lined. Provide highlighter marks and responses on plans to show the issues are addressed. Do not use post-it notes to reply.

The drainage/grading plans have been red-lined and require modifications prior to the next submittal. Failure to resubmit the red-lined grading plan will require an additional \$400 review fee.

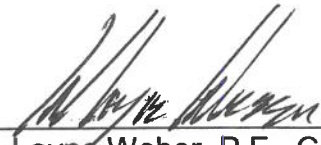
The County's review is solely based on the information submitted by the Engineer of Record. The County's review is strictly limited to compliance with minimum County Codes and Standards. The Engineer of Record is responsible for researching and addressing situations that may require designs above and beyond the minimum codes for issues of public safety and impacts to upstream, downstream and adjacent properties. The County assumes no liability for information, data, designs or conclusions of the Engineer of Record.

If you have any questions about the provided comments, please contact the reviewer\* below.



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\*Ruth Villatoro  
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Development Review  
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W. Layne Weber, P.E., CFM  
Principal Engineer  
Development Review  
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