



Southwest Hydrology & Hydraulics, LLC

Experience in Water Resources

SUPPLEMENT NO. 2

CONCEPTUAL MASTER DRAINAGE STUDY

FOR

NORTH HAVEN

**CITY OF NORTH LAS VEGAS, NEVADA
NOVEMBER 2023**

Prepared For: TRU Development Company
9555 Hillwood Drive Suite 110
Las Vegas, Nevada 89134

Prepared By: Southwest Hydrology & Hydraulics, LLC
PO Box 62233
Boulder City, NV 89005
702-370-9852

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: CONCEPTUAL MASTER DRAINAGE STUDY FOR NORTH HAVEN Date: NOVEMBER 2023

Location of Development: a) Descriptive (Cross Streets) North/South: MARTIN LUTHER KING

East/West: CAREY

b) Section: 16 Township: 20S Range: 61E

c) APN : 139-16-410-245 THROUGH 302

Name of Owner: SARGEM MANAGEMENT COMPANY c/o Garnett Meador

Telephone No.: 702-604-8395 Fax No.: _____ E-Mail Address: pf@trudevco.dom

Address: 6967 Gates Road, #888, Cleveland, Ohio 44040

Contact Person-Name: Paul Fritz Telephone No.: 702-545-0355

* E-Mail Address: pf@trudevco.com Fax No.: _____

Firm: Tru Development Company

Address: 9555 Hillwood Drive Suite 110, Las Vegas, NV 89134

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 type="checkbox"/> Planned Unit Development	<input checked="" type="checkbox"/> Other (Please specify below)
<input type="checkbox"/> Large Parcel Map	<input type="checkbox"/> Building Permit	Conceptual Master Plan

1. Total Owned Land Area: At Site: 19 acres Being Developed/Disturbed: 19 acres

2. Is a portion or all of the subject property located in a designated FEMA Flood Hazard Area? Yes** No

3. Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control District Master Planned Facility? Yes** No

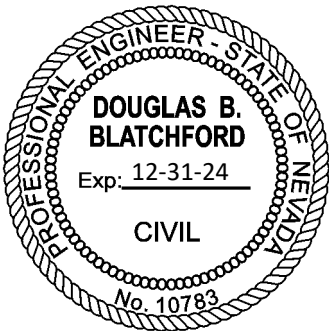
4. Proposed type of development (Residential, Commercial, Etc.): Master Plan

5. Approximate upstream land area which drains to the subject site: 715 acres

6. Has the site drainage been evaluated in the past? YES NO If yes, please identify documentation: CNLV 33939, CNLV 34908, CNLV 33391, CNLV 17585, CNLV 9581

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

8. Briefly describe your proposed schedule for the subject project: AS SOON AS PRACTICAL



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

***New Required Field**

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

	Revision	Date
Local Entity File No. _____		

REFERENCE: STANDARD FORM 1



Southwest Hydrology & Hydraulics, LLC

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November 21, 2023

City of Las Vegas
495 South Main Street,
Las Vegas, NV 89101

RE: CNLV No. 174-2022
Supplement No. 2 – North Haven
Concurrence: City of Las Vegas

Attn: Neil Wacaser, P.E.
Senior Engineering Associate

Dear Mr. Wacaser,

Southwest Hydrology & Hydraulics, LLC, is in receipt of your telephonic communication and email dated November 20, 2023, regarding an explanation why the flowrates changed in Carey Avenue from the 1st submittal (May 17, 2022) to Addendum No. 1 (October 30, 2022).

Carey Avenue storm flow is conveyed on both the surface street and in an existing storm drain system. The existing storm drain system is CCRFCD LVSR 0148, a 54-inch rcp with a capacity of 150 cfs, which will be replaced by LVSR 0149, a 11'w x 6'h rcbc with a capacity of 823 cfs. Until LVSR 0149 is built, Carey Avenue street capacity will not meet 10-yr hydraulic criteria for a 12 -ft dry travel lane, and barely meets the 10-yr and 100-yr DxV criteria of 6 and 8.

When North Haven (CNLV 174-2022) was first submitted in May 2022, an updated, offsite watershed analysis was conducted based on updated developed conditions and updated topography, which was necessary to determine worst-case flowrates in Carey Avenue. This interim, worst-case analysis established a developed condition flowrate of 249/574 cfs at the intersection of Carey and Clayton, assuming LVSR 0149 was not yet built. This interim analysis also assumed a worst-case condition assuming LVSR 0148 was at capacity, as LVSR 0148 operates as a primary outfall to the Carey-Lake Mead Detention Basin (LVLM 0228), assuming a simultaneous local and regional storm. As such the initial analysis demonstrated that the flowrate in the street at Carey was 249/574 cfs with no flow into the existing LVSR 0148, 54-inch storm drain system.

Windsor Commerce Park was a new development processing concurrently with North Haven, generally located at the NWC of Clayton and Carey, extending north to Evans and west to Simmons. The CNLV conditioned North Haven to coordinate work with Windsor Commerce Park in the study addendum. As street flow in Carey Avenue was considered at capacity the CNLV conditioned Windsor Commerce Park to construct an onsite detention facility at the NWC of Carey and Clayton. Windsor Commerce Park established a lower developed condition flowrate at Carey and Clayton at 174/379 cfs. Further, Windsor Commerce Park assumed a regional storm and local storm did not occur simultaneously, such that the existing LVSR 0148 54-inch storm drain still had capacity to take street flows.

Southwest Hydrology & Hydraulics, LLC

702-370-9852

For these reasons the flowrate in Carey changed from the initial study to the first addendum. If I can be of further assistance, or if there are questions or concerns, please do not hesitate to contact me at 702-370-9852 or Clayton Neilsen at 702-798-7978.

Very truly yours,

Douglas B. Blatchford, PE, PH, CFM
President