

<b>CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM</b>		<b>DATE:</b> March 21, 2023
<b>TO:</b> Land Development Services Department of Building & Safety		<b>FROM:</b> Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
<b>SUBJECT:</b>	Drainage Study for:	<b>COPIES TO:</b>
Arcadia – Summerlin Village 25 – Parcel N		RCI Engineering
<b>Cross Streets:</b>	NWC of Sky Vista Drive & Fox Hill Drive	Woodside Homes of Nevada
<b>File Number:</b>	F:\Depot\DSMemos\DS5661A.doc	Bart Anderson, P.E., DevCo.
<b>Parcel Number:</b>	137-22-816-001	CCRFCD
<b>Zoning Action:</b>	22-0728-TMP1	
<b>FEMA Flood Zone</b>	YES NO <b>X</b>	
<b>Proposed Storm Drain</b>	YES <b>X</b> NO	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1st Submittal	3/1/2023	3/21/2023	See Comments Below	\$400.00	5164819: \$400
<b>TOTAL FEES (LDDRS):</b>				<b>\$400.00</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:
	is conditionally approved subject to Clark County Regional Flood Control District concurrence.
	is conditionally approved subject to Clark County Public Works Department concurrence.

1. Provide a copy of the zoning/planning conditions associated with this site (**22-0728-TMP1**) with the next submittal to verify compliance with conditions. *Flood Control* will not issue conditional approval of the drainage study without the associated zoning/planning conditions (issued by the *City Council*). Any associated conditions of approval that revise the site drainage parameters will require that the drainage study be revised and resubmitted.
2. A site visit revealed that *Fox Hill Drive* portion fronting the subject site is the only roadway not yet been improved. Provide proof of the pertinent improvement bond posted for *Fox Hill Drive* with the *City of Las Vegas to Flood Control Section* prior to the final approval of the subject drainage study.
3. The site is adjacent to or crosses an existing or proposed *Clark County Regional Flood Control District (CCRFCD)* master planned facility. Therefore, CCRFCD concurrence is required prior to final approval of the drainage study.

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

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

4. **Existing Condition Standard Form 4/ HEC-1:** The basin area names on the Standard Form 4 and the HEC-1 do not match. (XOF1 vs XON1).
5. **Existing Condition Standard Form 4/ HEC-1:**  $T_{lag}$  minimum is noted to be 10-minutes (0.100) in the Standard Form 4, but the  $T_{lag}$  used in the HEC-1 is 0.01 not 0.100.
6. **Figure 6:** The slope shown on Figure 6 for SECTION 6B is 3.83% for the 100-year flows, but the Flowmaster calculations provided information are for a slope of 0.381%.
7. **Figure 6:** *Section FP1\*\** references the D\*V value not the velocity, the referenced velocity from the *Fox Point Drive* study is 4.4, not 0.9 as shown on the figure.
8. **Figure 6:** *Sections FH1\*\*\*\*, FH2\*\*\*\* and FH3\*\*\*\** reference the D\*V value not the velocity, the referenced velocities are 4.47, 3.29, and 3.89 respectively, not 1.52, 1.48 and 2.12 as shown on the figure.
9. **Figure 6:** Provide an explanation as to why *Section PB1\*\*\*\*\** accounts for only 17.3% of the *Park Bluff Lane Street* flow. 10.DI# 2 shows C900 pipe, but has a clearance of 3.17' below water, this is required for clearance greater than 18" below sewer.
11. **Sheet G-4:** Clearly indicate that the proposed 43'-public drainage easement is to be **PRIVATELY MAINTAINED** by HOA.
12. The inlet calculations shall utilize 50% clogging factor to size the inlets. Review and revise all pertinent calculations and callouts in the construction notes accordingly.
13. Per the calculation an elevation of 3506.14 behind DI #1 will be required to capture all flow in the sump inlet for the 100-year flow. Provide a hump at the drainage easement at 3506.14 to capture the 100-year flow.
14. DI #1 is more than 10'-deep and will require a special structural detail and calculations. Submit structural design and calculations to *City Building & Safety Department* for review and approval prior to the final approval of the drainage study.
15. **Sheet P-5:** Revise the "PUBLIC" label of the storm drain laterals to "PRIVATE". Double check all the pertinent plans to reflect "PRIVATE" storm drains instead of public.
16. 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.
17. 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:** Please be advised that all land surface area disturbances over 1 acre or any area adjacent to a water way must submit to the Nevada Division of Environmental Protection a "Notice of Intent" to discharge that certifies a stormwater pollution prevention plan has been developed and is maintained on site; for inclusion in the Stormwater General Permit No. NVR100000. A phased construction unit in a contiguous subdivision is considered under construction until all stripped or disturbed surface areas have been covered by paving, building construction or planting. For more information, including forms and applications see <http://ndep.nv.gov/bwpc/storm01.htm> or call (775) 687-9429.

**END OF REMARKS**  
HDR/AYS

T/R/S: T20S/R59E/22  
AREA K-22