

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM		DATE: August 25, 2022
TO: Land Development Services Department of Building & Safety		FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:	Drainage Study for:	COPIES TO:
	Lyra at Sunstone Unit 1	RCI Engineering
Cross Streets:	NWC of Iron Mountain Rd & Erik Lloyd St	Woodside Homes of Nevada LLC
File Number:	F:\Depot\DSMemos\DS05597A.doc	Bart Anderson, P.E., DevCo
Parcel Number:	125-06-610-001	
Zoning Action:	22-0193-TMP1	
FEMA Flood Zone	YES	NO X
Proposed Storm Drain	YES X	NO

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	7/25/2022	8/25/2022	See Comments Below	\$400.00	4878356: \$400
			TOTAL FEES (LDDRS):	\$400.00	----

REMARKS:

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

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

- 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.
- The study assumes the storm drain infrastructure proposed by the Technical Drainage Studies for Sunstone Phase 1 Infrastructure and Sunstone Phase 1A Infrastructure (Iron Mountain Road & Tee Pee Lane) are in place and functioning. Substantial completion of both the Sunstone Infrastructure facilities is required prior to residential occupancy permits.
- The grading plan indicates offsite grading to the west of the property. Secure a notarized letter of permission from the adjacent property owner allowing the grading. This letter is required prior to final acceptance of the drainage study.
- 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. The minimum width for a public drainage easement is 10' if the 100-year flow is less than 20 CFS. The depth of flow entering the easement must be checked using the submerged weir calculation and the entirety of the easement must be concrete lined.
- Figure 6:** Provide a phase line where Unit 1 improvements end and Unit 2 improvements begin.
- Hydraulic Section 3 shows that the flow is overtopping the crown and the 29 CFS conveyed on the south half of the street is not being contained. The drop inlet computation shows the 29 CFS as

contained in the southern half and approaching to DI #3. The approaching flow for DI #4 is 17 CFS. Explain why the approaching flow, 36 CFS, is not approaching both drop inlets.

7. Provide a half section at the intersection of Siren Call Avenue and Ring Nebula Court to prove that the entirety of the flow is being contained in the west half of the street.
8. Storm drain is meant to connect at the soffit of each pipe, unless under extenuating circumstances. Provide explanation or modify the pipes so that they match the soffit.
9. In the provided WSPGW model, the System Head (SH) invert is at 2699.44' when it is supposed to be at 2700.34' per the improvement plans (DI #3). Review and revise accordingly.
10. DI #4 in the improvement plans does not match the provided SF6. Review and revise accordingly.
11. **Sheet G-2:** Per the grading design, it appears that drainage on the north side of Observatory Street will each make each side of the street turn 90-degrees to the proposed DI #1 on the north side of the street. This will create turbulence and inefficient capture of surface flows at the cul-de-sac. Provide an inlet on the eastside and westside of Observatory Street or provide drop inlets before the intersection of Deep Sky Avenue and Observatory Street to lower the flow approaching the intersection sump to improve the flow condition.
12. **Sheet G-6, Detail 23:** The construction note and the detail states that this is a 2-FT wide concrete channel. However, Section 1 details the channel as 4-FT wide. Review and revise accordingly.
13. **Sheet P-3, EX NDOT Inlet SDDI#5:** Either place a concrete collar on the juncture of the proposed pipe and existing pipe to properly join the two systems or remove and replace downstream pipe until reaching a joint.

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
AYS/CAA

T/R/S: T19S/R60E/S06
AREA G-06