

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM		DATE: August 04, 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: Oso Blanca Infrastructure	COPIES TO: Westwood Professional Service
Cross Streets:	SWC Kyle Canyon Road & Oso Blanca Road	Century Communities
File Number:	F:\Depot\DSMemos\DS05590A.doc	Bart Anderson, P.E., DevCo
Parcel Number:	126-01-799-008	CCRFCD
Zoning Action:		NDOT
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	7/11/22	08/04/22	See Comments Below	\$400	\$400
TOTAL FEES (LDDRS):					\$400

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.

With the proposed infrastructure for Oso Blanca, flows west of US-95 will no longer cross US-95. The construction of these facilities will make US-95 a 100-YR cutoff south of the Moccasin Master Plan Regional Facility crossing, thereby meeting the full intent of the CCRFCD Master Plan. The Oso Blanca improvements connect the existing local facilities (culvert) and the existing MPU facility, located between the existing Frontage Road (Oso Blanco) and the Southbound US-95 lanes. Extending the Oso Blanca facility allows the interception of storm flows before the flow crosses US-95. This local facility is an extension of the existing MPU facility and complies with the adopted 2018 MPU that shows US-95 as a flow boundary and that future flows will no longer cross US-95.

1. The proposed infrastructure improvements for Oso Blanca shall include the required MPU facility identified in the Master Drainage Study for Skye Canyon (DS4420). Include a detailed hydraulic analysis of the MPU facility. Provide a junction structure for the existing interim facility that drains the "Catchers Mitt" and the MPU stub past the limits of the proposed roadway infrastructure improvements to meet the intent of the MPU. Provide Plan and Profile sheets of the MPU facility. Reference CLV Drawing No. L19- 00791 for the existing system.
2. The Oso Blanca plans need to identify the required storm drain improvements necessary to connect the proposed improvements into the existing storm drain constructed with the Sunstone US-95 Drainage Facility (CLV Plan No. L20-00387) Include plan and profile of these storm drain extensions.

3. The proposed infrastructure improvements for Oso Blanca shall also include the required MPU facility. Provide a junction structure for the connection to the existing interim facility that drains the "Catchers Mitt". Reference CLV drawing No. L19- 00791.
4. 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. When it's applicable, structural calculations of facilities must be approved by the City prior to submittal to the Clark County Regional Flood Control District for their review and concurrence.
5. The project proposes to construct facilities and/or increase flows within *Nevada Department of Transportation* (NDOT) right-of-way. NDOT concurrence is required for the drainage study. The engineer must contact NDOT for encroachment permit for the proposed project.
6. **Exhibit E:** Label the extent and placement of the ditches, proposed and existing.
7. **Exhibit E:** Revise to include a summary table of the storm drain facilities (sizes and flow collected or contained).
8. The drainage study needs to address the Ultimate Condition and compliance with the Master Drainage Study for Skye Canyon. Provide an Ultimate Condition Exhibit and computations to establish whether the street meets the criteria provided.
9. Oso Blanca is an NDOT Right-of-Way. Flood Control requests that you include the 25-year storm analysis and verify that the proposed improvements meet NDOT flow criteria. Coordinate the required storm flow analysis with NDOT Hydraulics.
10. With the extension of the storm drain system in Oso Blanca, parallel to US-95, provide storm drain laterals at the manholes to accommodate local NDOT inlets along US-95. Coordinate lateral and inlet locations with NDOT Hydraulics.
11. Basin OSO1 in the curve number calculation and Standard Form 4 has an area listed as 0.0033 sq. mi. however in the HEC-1 the area is 0.0042 sq. mi. Revise and review accordingly.
12. Extend the accuracy of the section stations to the hundredth or tenth so we may check the accuracy of your section.
13. Correct the HY-8 model "Crossing near Drake". The water level does not seem to be in the pipe.
14. **Sheet R-4:** Grading indicates there is a culvert at station 42+50. Show the existing storm drain.
15. **Sheet R-6:** Show and label the access road.
16. **Sheet SD-2:** Change the upstream inlet of "Culvert 1" to an area inlet, not a headwall.
17. **Sheet SD-2, SD-3, SD-4:** Label the pipe inverts where the pipe penetrates the box culverts.
18. **Sheet DT-1:** Provide a section to define the parameters of the proposed or existing ditch adjacent to the street.
19. **Sheet SD-4:** Address the utility conflict with the fiber and storm drain drop inlet #3
20. Coordinate with the Apartment development on what is being constructed and its impact on the Apartment development.
21. Current design does not show the proposed ditch that conveys 90 CFS to existing 10'x4' RCB. Show all proposed ditch on grading plans.
22. **The following applies to the improvement plan sheets in their entirety:**
 - a. Label NDOT right-of-way.
 - b. Label existing storm drain and referenced storm drain drawing numbers
 - c. Show utility crossings

- d. Label whether each facility shown is existing, proposed, future, abandoned in-place, etc
- e. Add a construction note and add the following details:
 - i. Show connection detail from proposed to existing RCB
 - ii. Detail RCB Plug from a removed RCP
 - iii. Detail a new lateral RCB connection
 - iv. Junction structure

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/R59E/S01
AREA F01