

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM		DATE: March 7, 2023
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:
WOW Car Wash @ Sahara & Eastern		McCay Engineering
Cross Streets:	NEC of Sahara Avenue & Eastern Avenue	WOW Build CO.One LLC
File Number:	F:\Depot\DSMemos\DS5655A.doc	Bart Anderson, P.E., DevCo
Parcel Number:	162-01-401-004	CCRFCFCD
Zoning Action:	22-0591-SDR1 & 22-0591-SUP1	CCPW
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	2/16/2023	3/7/2023	See Comments Below	\$400.00	5147349: \$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.

1. Provide a copy of the zoning/planning conditions associated with this site (**22-0591-SDR1 and 22-0591-SUP1**) 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. The site is adjacent to or crosses an existing or proposed *Clark County Regional Flood Control District* (CCRFCFCD) master planned facility. Therefore, CCRFCFCD concurrence is required prior to final approval of the drainage study.

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

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

3. The site is also adjacent to the jurisdiction of *Clark County* to the south of *Sahara Avenue*. The engineer must coordinate with *Clark County Public Works Department* (CCPW) and incorporate any concerns for boundary conditions along the south border. CCPW concurrence is required prior to the final approval of the drainage study.

4. Note that the portion of *Sahara Avenue* fronting the subject development is no longer an NDOT right-of-way. The roadway ownership and the maintenance responsibility has been transferred to the *City of Las Vegas* for some time.
5. A copy of Parcel Map “**100187-PMP**” was included in the last submittal to prove that Basin FX2 has been parceled out from the original parcel “**162-01-401-004**”. However, the Parcel Map has not been recorded yet. Provide a timeline of when the new parcel map will be recorded.
6. **Lot 1** in the new Parcel Map “**100187-PMP**” drains to **Lot 2** (the subject site) per the drainage condition maps and the grading plan. However, there is no “Inter-lot Drainage Right” note found in **100187-PMP**. Either amend **100187-PMP** to add the drainage right note or dedicate public drainage easement (privately maintained) in the subject development for legal passage of flows from the adjacent **Lot 1**. This must be satisfied prior to the final approval of the drainage study.
7. **DR1 (Existing Drainage Map)** shows 1/2/3 cfs at concentration point CPX1 towards the adjacent property to the east. **DR2 (Developed Drainage Map)** shows an increase of discharge to 3/5/7 cfs at CPD1 which is not acceptable. Note that no increase of flows from existing condition is allowed to impact the downstream properties.

In fact, per the grading plan, the developed site has enough elevation to drain from the north all the way to the south and discharge to *Sahara Avenue* without impacting the adjacent neighbor to the east. It will actually eradicate the existing impact to the neighbor which indeed is the best engineering practice. Address and resolve in the next submittal.

8. Existing Condition Basin NX1 shows a large portion of the basin conveying to the *Sonic* parking lot to the east. The flow that is conveyed into this parking lot will be directly conveyed to *Sahara Avenue* and will not combine with CPX1. Additionally, there is an existing berm that prevents flow from conveying to the location of CPX1. Update the basin delineation to represent the existing flow accurately. This may affect basin FX1 and the flow that is conveying to that portion of NX1.
9. CPD1 in the Proposed HEC-1 is a Combination Point of Basins ND2, ND1, and FX2. However, Basin ND2 drains directly into the *Sonic* parking lot and ultimately out to *Sahara Avenue* per the *Developed Drainage Map* and the *Grading Plans*. Update the flow routing and do hydraulic analysis to make sure the Finished Floor for the *Sonic* Building is not affected.
10. Provide existing grades on the existing entrance roadway that connects to *Eastern Avenue* to verify the roadway does slope west and flow from this area is not contributing to the site.
11. An existing drop inlet in *Sahara Avenue* is to be replaced with a Type 2 grate inlet because of the new driveway and curb cut. However, a grate type inlet in the middle of a driveway will be broken easily and difficult to repair or maintain because of non-stop traffic.

Replace the existing inlet to a new location with the same type curb inlet. Provide a plan & profile for the new lateral.

12. The subject commercial development features a carwash facility. Contact *Sherri McMahon*, Environmental Officer of the *City of Las Vegas Public Works Department* at (702) 229-2338 or email her at smcmahon@lasvegasnevada.gov for guidance of storm water quality treatment requirements. Revise the grading plan accordingly in the next submittal.
13. Provide more information on the trench drain that collects the carwash water. The discharge from the trench drain must be treated and tie to sanitary sewer system only.
14. Grading Plans: Riprap D₅₀ do not match in Details C, B and 8.

15. The two BMP swales are stated to treat most of the onsite impervious area however per the drainage basins and the grading plans most of the flow is not directed toward these swales. Provide additional analysis and delineation of the amount of flow treated by the 2 BMP swales.
16. On the grading plan, it appears that the whole east boundary is overlaid with riprap which is indistinguishable from the proposed BMP swales. *City Planning Department* has requirement for what type of plants should be installed around the site perimeters. Reduce the riprap along the east boundary in the next submittal.
17. Show and identify an existing storm drain system in *Sahara Avenue* with all laterals, manholes and drop inlets. Label with size information and *City of Las Vegas* recorded drawing number on the grading plan.
18. Provide *City of Las Vegas Stormwater Management Notes* with other general notes on the grading plans.
19. Provide a note on all grading plans (*Stormwater Management Standard Note No. 6*): Post-Construction BMPs (PCBMPs) / Control Measures noted on the Grading Plans are mandatory permanent regulatory stormwater pollution controls. These PCBMPs must be installed per the approved plans and must be permanently maintained.

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: T21S/R61E/01
AREA R-01