

CITY OF ALBUQUERQUE

Hydrology Section Planning Department
David S. Campbell, Director



Timothy M. Keller, Mayor

December 17, 2018

Scott M. McGee, P.E.
SMMPE, LLC
9700 Tanoan Dr. NE
Albuquerque, NM 87111

**RE: 13200 Wenonah Ave SE
Singing Arrow Community Center
Conceptual Grading Plan Engineer's Stamp Date: 12/13/2018
Hydrology File: L22D055**

Based upon the information provided in your submittal received 11/20/2018, the Conceptual Grading and Drainage Plan cannot be approved for Site Plan for Building Permit, SO-19, Building Permit, and Grading Permit. Please be sure to include a copy of the approved G&D Plan in the approved Site Plan for Planning and in the plan sets for Building Permit.

1. The required sheet size is 24" x 36".
2. The drainage management plan for this site should include detention for the new impervious on Tract A and free discharge on Tract F-1. Runoff from both tracts drains through the undeveloped portion of Tract-A to Singing Arrow Rd. then to Tomlinson Dr. where the drainage capacity of the street is exceeded and some of the existing houses are too low to prevent flooding. The existing parking lot on Tract F-1 is allowed free discharge since it was paved before the street capacity of Thomlinson became an issue.
3. All redeveloped impervious surfaces must drain to a properly sized BMP onsite. The parking lot appears to have large areas that doesn't drain to BMPs. Additional swales are needed to get drainage into the south BMP or the BMP may need to be reshaped/relocated. BMP Infiltrations Trenches are recommended as a means of increasing the are of new impervious served.
4. BMPs must be sized for the Storm Water Quality Volume (SWQV) for redevelopment (0.26") times the new impervious area that drains into each BMP. The drainage basins draining to each BMP must be identified on the plan and both the required SWQV and the volume provided must be shown on the plan.
5. Cross lot drainage will not be allowed into Hunter's Ridge Apartments west of the onsite parking lot. Provide hydrology and hydraulic calculation along with typical sections of a lined conveyance system to convey the 100 year peak flow rate south along the west property line. Include horizontal and vertical dimensions to the existing grade at the property line.

PO Box 1293

Albuquerque

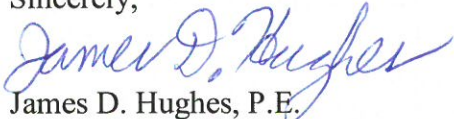
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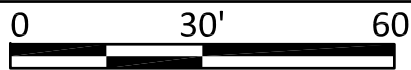
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6. Consider using infiltration trenches in the low corner of the parking lot and moving the pond for Tract A to the undeveloped low side near Singing Arrow Rd.
7. An Engineer's Certification must be submitted to hydrology for approval prior to Certificate of Occupancy.

If you have any questions, please contact me at 924-3986 or e-mail jhughes@cabq.gov.

Sincerely,


James D. Hughes, P.E.
Principal Engineer, Planning Dept.
Development and Review Services

$$1'' = 30$$


VICINITY MAP

NOT TO SCALE

L-22



LEGEND

-----	EXISTING CONTOUR LINE
_____	NEW CONTOUR LINE
TW #	TOP OF WALL & BOTTOM OF WALL
BW #	AT NEW RETAINING WALL
FF = 5634.00	FINISH FLOOR ELEVATION
⊕ 18.9	NEW SPOT ELEVATION
TC 19.0	TOP OF CURB
FL 18.5	FLOW LINE
← RD	ROOF DRAIN

DRAINAGE ANALYSIS

LEGAL: TRACT A SINGING ARROW PARK and a portion of TRACT F-1 FOUR HILLS
VILLAGE SHOPPING CENTER AND APARTMENT COMPLEX

AREA: Tract F-1 is 1.385 acres and portion of park area is 1.045 acres for a total project area of 2.43 acres.

SURVEYOR: High Mesa Consulting Group NMPLS # 15075, dated December 2016. All elevations based on COA BM '2_L22 ACS', a brass disk in concrete curb on the center median curb west of the intersection of Central Avenue and Tramway Blvd NE. ELEV=5662.682 (NAVD88).

TEMPORARY BENCHMARK (TBM): A mag nail in the asphalt near the south end of the parking lot as shown. ELEVATION = 5636.62 (NAVD 1988)

FLOOD HAZARD: From FEMA Map 35001C 0378G (9/26/2008), the park site is within Zone 'X' which is determined to be outside the 1% annual chance floodplain.

EXISTING CONDITIONS: Both the existing parking lot and the developed park site slope down from northeast to southwest. Existing slopes vary from 3 - 4%. The existing parking lot along the north side of the site drains southwest to the park site. The park site also drains by sheet flow to the southwest.

PROPOSED IMPROVEMENTS: The proposed improvements include a 14,600 SF community building. The existing parking lot is proposed to be re-built in the same location. Water harvesting will be used to direct runoff to depressed landscape areas to retain runoff onsite.

OFFSITE DRAINAGE: No offsite flow is accepted by this site. Wenonah Avenue runs along the north side of the site and Rachel Road SE abuts the east side of the site. Both existing streets carry runoff around the park.

DRAINAGE APPROACH: The proposed drainage plan follows historic drainage patterns. The existing parking lot will continue to discharge to the Singing Arrow Park and this portion of the park site discharges runoff to the southwest. Roof runoff is routed to depressed landscaped areas on the south side of the building. Any excess runoff then discharges overland to the park surface.

LAND TREATMENT--Per the DPM, this site is Precipitation Zone 3 and the land treatment based on slopes ranging between 3-4% slope is as follows:

Existing and Developed condition land treatments for the project area are
EXISTING: 39% B, 10% C, and 51% D $Q = (3.92)(2.43) = 9.5 \text{ CFS}$

DEVELOPED: 22% B, 14% C, and 64% D $Q = (4.27)(2.43) = 10.4 \text{ CFS}$
 $1^{\text{st}} \text{ Flush } V = (1.56)(43560)(0.34/12) = 1,920 \text{ CF}$ [2,050 CF provided--OK]
 The project area runoff will increase by 0.9 CFS which is a minor impact. The runoff rate increase will be mitigated through retaining the 1^{st} flush volume within the park.

NO.	DATE	REVISIONS/REMARKS	BY	SURVEY INFORMATION		BENCH MARK	AS BUILT INFORMATION
				NO.	BY		
				CONTRACTOR _____ DATE: _____ WORK STAKED BY _____ DATE: _____ INSPECTOR'S APPROVAL _____ DATE: _____ FIELD VERIFICATION BY _____ DATE: _____ DRAWING CORRECTED BY _____ DATE: _____ MICRO-FILM INFORMATION _____ RECORDED BY _____ DATE: _____ NO. _____			
DESIGNED BY: —							
DRAWN BY: —							
DATE: —							
CHECKED BY: —							
DATE: —							

CITY OF ALBUQUERQUE SINGING ARROW COMMUNITY CENTER
CITY OF ALBUQUERQUE

TITLE: CONCEPTUAL GRADING & DRAINAGE PLAN

Design Review Committee	City Engineer Approval	Last Design Update	NO. 7/25/78	NO. 7/25/78

City Project No. **5441.94**

Zone Map No. **L-22-Z**

Sheet **C101**

Of