ADVANCED ENGINEERING and CONSULTING, LLC

Consulting
Design
Development
Management
Inspection

May 26, 2000

Ms. Susan Calongne, P.E.
City/County Floodplain Administrator
600 Second Street NW
Albuquerque, New Mexico 87102

RE: REVISED GRADING/DRAINAGE PLAN FOR PHASE II OF PARCEL 2A, SUNPORT PARK (M15/D23F)

Dear Ms. Calongne:

This letter is in response to your comments sent on April 10, 2000 for the above referenced site:

1. The owners have confirmed that the storm sewer has been completed, but it is still in the process of being accepted by the City. The depth of the storm sewer, based on the proposed grades, varies from 6.50' to 17.00' deep.

2. One 48" stub has been provided for the drainage purposes of this site. Since the pipe is controlled by inlet conditions, the runoff backups into the parking lot. We have used the following treatments: B=10%, C=10%, D=80% for routing calculations for Offsite Basin B. Therefore, they will not have to pond in the future. See the drainage report for the revisions.

3. The following table is treatments used under the existing and proposed conditions:

EXISTING CONDITIONS

BASIN	A	B	C	D
ON-SITE A	26%	7%	0%	67%
ON-SITE B	100%	0%	0%	0%
OFFSITE A	0%	100%	0%	0%
OFFSITE B	100%	0%	0%	0%

PROPOSED CONDITIONS

BASIN	A	B	C	D
ON-SITE A	0%	10%	0%	90%
ON-SITE B	0%	5%	0%	95%
OFFSITE A	0%	100%	0%	0%
OFFSITE B	0%	10%	10%	80%

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4. The desilting pond has been relocated to the Sunport Park site and no grading will be done within Tract A-3.

5. The spillway is design for full discharge of the runoff from Tract A-3. The desilting pond itself is not designed to any specific volume, and it is merely designed to slow down the water for desilting purposes. See Sheet 1 of 5 for the spillway calculations and typical desilting pond section.

6. The correct property line is shown on the revised grading plan. No retaining wall are being proposed with this revised grading plan. More spot elevations are added along the southern boundary line. Plans are plotted at a smaller so the grades would be more visisble.

7. Attached is a letter from Director of the Aviation to Ricardo Chavez (owner of the Sunport Park) mentioning that the City had told them that aviation department is responsible for the removal of the flood plain (LOMR).

We had the wrong information regarding the owner of the Sunport Park on the first time submittal drainage sheet. Please revise your file with the corrected owner's name for the Sunport Park., and Please contact me if there are any questions or concerns regarding this submittal.

Sincerely yours,

Shahab Biazar, P.E.

CITY OF ALBUQUERQUE
JIM BACA, MAYOR LAWRENCE RAEL CAO JAY J. CZAR, DIRECTOR OF AVIATION

BPL 91-11

RECEIVED
DEC 22 1999
MOLZEN-CORBIN & ASSOCIATES

December 20, 1999

Copy Sent To
Main File

Ricardo Chaves
Airport Parking
1501 Aircraft Avenue
Albuquerque, NM 87106

Re: Rental Car Facility

Dear Mr. Chaves:

The City of Albuquerque Public Works Department, Hydrology Division, has informed the Aviation Department that it is responsible for the submission of the Letter of Map Revision to FEMA to remove the flood plain from your property located between University and I-25, adjacent to Sunport Blvd. This is due to the fact that the Aviation Department was the party responsible for putting in the new storm drain which diverts flows out of the arroyo which had caused the flood plain.

This process involves preparing an application on forms provided by FEMA with the necessary hydrologic and hydraulic analysis data showing that the flows are no longer causing the flood plain. This application will be submitted to FEMA for their review.

With regard to your obtaining a Certificate of Occupancy, the Aviation Department will not be responsible for that application. The engineer or architect preparing your development plans will need to request this approval. The Aviation Department is not responsible for the issuance of these documents

If you have any questions regarding this matter, please feel free to call.

Sincerely,

Jay J. Czar
Director of Aviation

Enclosures

Cc: Kent S. Preier, PE
Vice President, Project Engineer

Jim Hinde, Facilities Engineering/Aviation

the natural arroyo between University and I-25. The 48-inch storm sewer will be designed for peak discharge of 225 cfs from the new detention facility, which is reduced from a peak discharge of 250 cfs under existing conditions. The new 48-inch storm sewer will route runoff to an existing 8-foot x 6-foot CBC crossing under I-25, which has an estimated capacity of 511 cfs. This is ample capacity for the reduced flows from the University out-fall and the future fully developed paved parking lot in Phase II of the Sunport Park Development. A new inlet works will be constructed at the inlet of the 8-foot x 6-foot CBC to ensure that the energy in the runoff is dissipated and can easily enter the culvert entrance. Runoff from I-25 to the South Diversion Channel will be carried in a 10-foot x 6-foot CBC, which has been modeled along with the upstream confluence by Dr. Heggen at UNM, and appears to have ample capacity for the peak discharged released from the University Outfall.

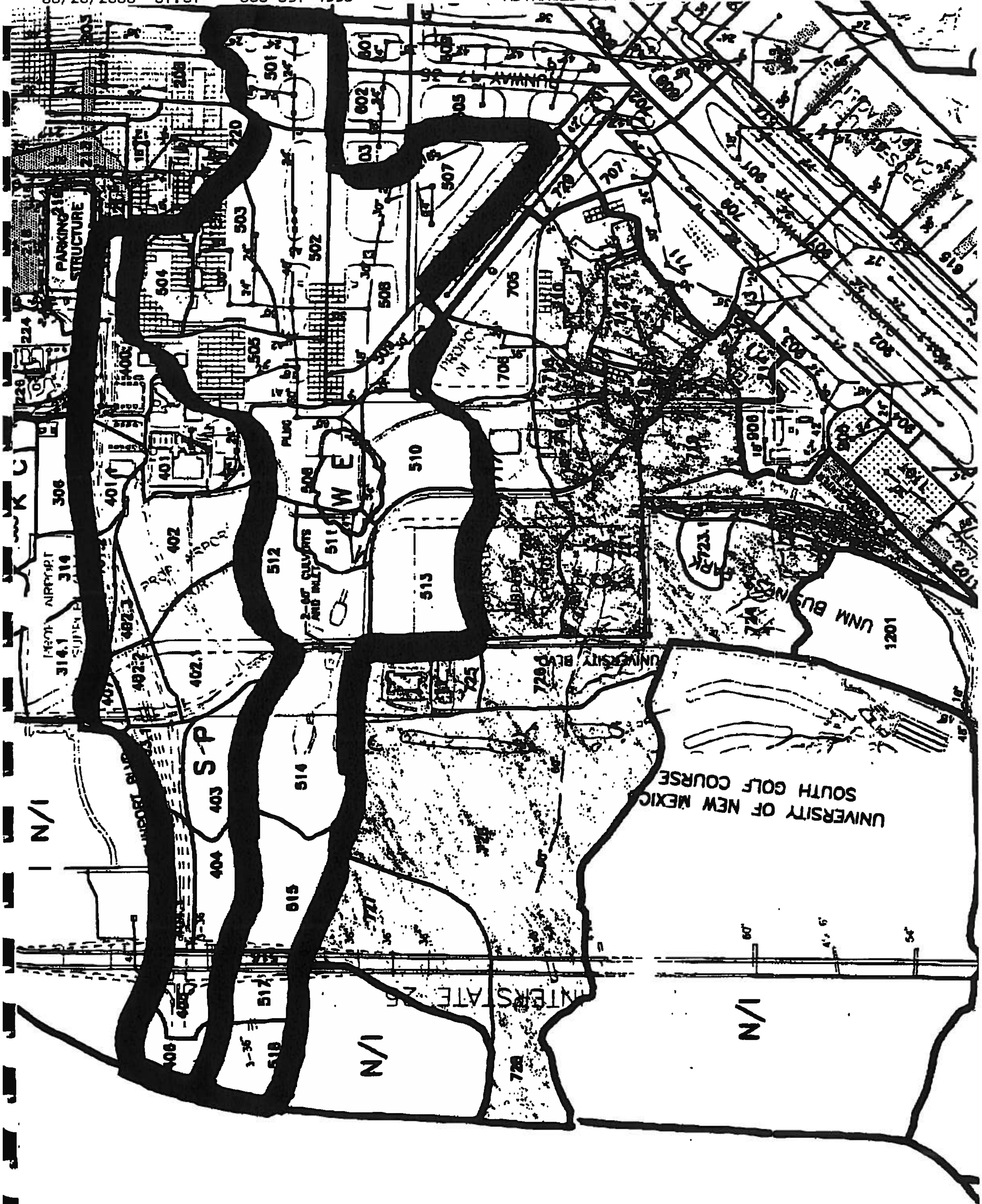
A. Interim Drainage Analysis for the North Outfall

As stated, the northernmost outfall for the RAC facility will be comprised of a storm drain pipe conveying flows from the newly enlarged detention pond just east of University to I-25. Currently, the flows are conveyed through a natural arroyo through private property. The 100 year flood plain in this area is in a dedicated easement. The new storm drain will be located south of the arroyo in a 100-foot wide drainage easement.

The preliminary plans for this new storm sewer called for a 48-inch storm drain from University to I-25. A hydraulic grade line analysis was performed for this storm sewer at the specified limit of 256 cfs. The pipe size was adjusted somewhat in order to maintain a hydraulic grade line within 1 to 4 feet above the top of pipe. The attached spreadsheet illustrates the results of this analysis, along with the chart which plots the profiles.

The proposed hydraulic grade line falls approximately 3-feet above the top of pipe at the University crossing. This indicates that the pipe has limited the capacity of 256 cfs. In addition, the inlet structure, accepting flows from the detention pond and conveying them into this storm drain system, was checked for capacity limitations. In particular, the crossing structure is proposed to be a 60-inch diameter pipe which ties into the pond with a side-sloped mitered pipe entrance. Under inlet control conditions, the inlet would accept up to 255 cfs at the maximum ponding depth. Therefore, no more than 255 cfs will get into this downstream system.

The hydraulic grade line for the outfall pipe was analyzed to check at which point the HGL breaks seal and becomes open pipe. This occurs at 250 cfs. This means that all flows of 250 cfs and less will cause the "culvert" entrance to operate at inlet controlled conditions. Once flow increases to above this point, the pipe surcharges and the entrance works operate under outlet controlled conditions. Outlet control has less capacity than inlet control. As a result, the entire system


PARKING STRUCTURE
UNIVERSITY OF NEW MEXICO
SOUTH GOLF COURSE
UNIVERSITY BLVD
INTERSTATE 25
2-60" CULVERTS AND INLET
N/I
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and CONSULTING, LLC

FACSIMILE TRANSMITTAL

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To:	Susan Calongne, P.E.	FAX: ~~924-3982~~
		TOTAL OF (3) PAGE(S)
From:	Shahab Biazar	
Subject:	Sunport Park	
Date:	June 19, 2000	

Attached please find the information you requested from the Molzen-Corbin Drainage Report.

Should you have any questions regarding this transmittal or any other items pertaining to this project, please do not hesitate to contact our office.

IF YOU DO NOT RECEIVE ALL PAGES OF THIS TRANSMITTAL, OR IF MATERIAL IS NOT LEGIBLE, PLEASE CONTACT OUR OFFICE AT THE ABOVE NUMBER. THANK YOU.