



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 10/2015)

Project Title: Entertainment Facility **Building Permit #:** _____ **Hydrology File #:** _____

DRB#: _____ **EPC#:** _____ **Work Order#:** _____

Legal Description: _____

City Address: 3930 Pan American FWY NE Albuquerque, NM

Applicant: Tierra West, LLC **Contact:** Jonathan Niski

Address: 5571 Midway Park Place NE Albuquerque, NM 87109

Phone#: 505-858-3100 **Fax#:** 505-858-1118 **E-mail:** jniski@tierrawestllc.com

Other Contact: ABC Comanche Retail, LLC **Contact:** Brendon Hollier

Address: 8350 N. Central Expy., Suite 1313 Dallas, TX 75206

Phone#: 214-561-6515 **Fax#:** _____ **E-mail:** hollier@paliopartners.com

Check all that Apply:

DEPARTMENT:

- ☒ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION
☐ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ARCHITECT CERTIFICATION

☐ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
☐ DRAINAGE MASTER PLAN
☐ DRAINAGE REPORT
☐ CLOMR/LOMR

☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)

☐ OTHER (SPECIFY) _____

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☒ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY

☐ PRELIMINARY PLAT APPROVAL
☐ SITE PLAN FOR SUB'D APPROVAL
☐ SITE PLAN FOR BLDG. PERMIT APPROVAL
☐ FINAL PLAT APPROVAL

☐ SIA/ RELEASE OF FINANCIAL GUARANTEE
☐ FOUNDATION PERMIT APPROVAL
☐ GRADING PERMIT APPROVAL
☐ SO-19 APPROVAL
☐ PAVING PERMIT APPROVAL
☐ GRADING/ PAD CERTIFICATION
☐ WORK ORDER APPROVAL
☐ CLOMR/LOMR

PRE-DESIGN MEETING?

☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ☒ Yes ☐ No

DATE SUBMITTED: 3/9/2018 **By:** Jonathan Niski

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____



TIERRA WEST, LLC

February 28, 2018

Mr. Dana Peterson
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

**RE: ENTERTAINMENT FACILITY
3930 PAN-AMERICAN NE
GRADING AND DRAINAGE PLAN
ENGINEERS STAMP DATE: 2/16/18
HYDROLOGY FILE: G16D145A**

Dear Mr. Peterson:

Please find the following responses addressing your comments listed below:

1. The first flush pond(s) need to be sized for the areas draining to them. Calculate the first flush requirement for each sub basin within the project site, including the western edge of this project site that is not delineated. Show how the first flush runoff will be retained on-site from each sub-basin.
The western area is now shown as its own Basin and a first flush calculation was provided for this area.
2. If unable to retain on-site, the runoff that bypasses the first flush ponds will need to be quantified and stated on plans.
The first flush bypass is from Basins 1 and 4 and totals 717 cubic feet. However, this amount can be compensated for by capturing that amount from Basin 2. This project is part of an Approved Overall Drainage Master Plan that was set up prior to the first flush requirement. Infrastructure is already constructed to conform to that Master Plan. The drainage from this area ends up in the Griegos Regional Pond and is effectively cut off from directly draining to the Rio Grande. We have made a good faith effort to meet the first flush requirement where it is practical for a site that is already approved to drain without that restriction.
3. Payment of FEE-in-Lieu will be required for the bypass the volume at a rate of \$8/CF. this appears to be all of Basin 1 and the non-delineated western edge.
We do not feel this fee is justified as this project is conforming to a previously Approved Master Drainage Plan. A good faith effort was made to meet the first flush criteria, however this site was not set up for such a drainage scheme and drainage infrastructure is already in place per the Approved Master Drainage Plan. Furthermore, these flows end up in the Griegos Regional Pond and are effectively cut off from directly draining into the Rio Grande, thus meeting the intent of the first flush requirement.
4. The southern drainage easement is currently being used for surface drainage. The construction plans for the drainage easement (SAD216 CPN:3960) show an earthen drainage channel with cement treated base (CTB) dikes, a flow depth of 0.33', and a 48" storm drain beneath. The current proposal to use it as a first flush facility is

unacceptable until it can be demonstrated that the new pond will not interfere with the function of this channel.

The channel bottom is being lowered to provide for the required first flush volume. The only surface water entering this part of the channel is from this project area. Curb and gutter on Valencia Rd. prevent any other surface drainage from entering this portion of the channel. After reviewing the information you sent, this part of the channel acts more as a pond than a channel. The bottom elevation of the channel is 5062.70, the top of the berm on the downstream side is 5064.00 and the grate elevation of the inlet in the channel is 5063.84. Therefore the channel is already acting as a first flush pond.

5. Please provide the ALTA survey and copies of easements of record for the southern drainage easement. The DRB approved Site Plan for Carpenter's Union alternately refers to this area as "Storm Drain Easement, Variable Width Drainage Easement, and Easement for Flood Control Channel."

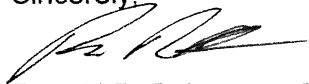
The County is unable to locate the easement document that created the original drainage easement. We do not have a copy of that easement at this time.

6. Additional detail will be needed for the pond(s), including top of pond elevations, actual and required volume and water surface elevations with respect to walls and property lines.

A cross-section of the channel was added to Sheet 3.

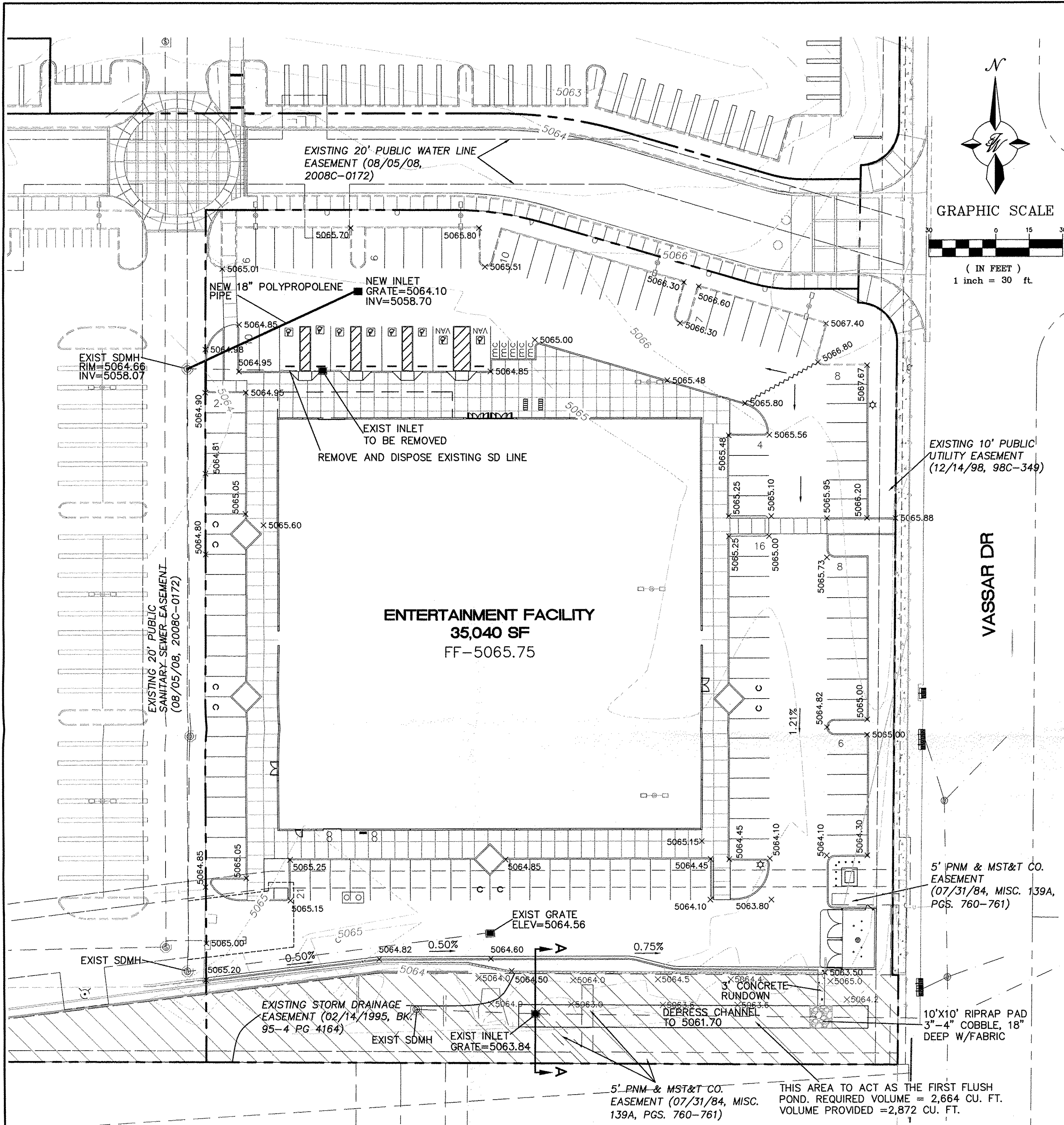
If you have any questions or need additional information regarding this matter, please do not hesitate to contact me.

Sincerely,



Ronald R. Bohannon, PE

JN: 2017042
JN/kw



EROSION CONTROL NOTES:

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
 - CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
 - CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
 - REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
 - ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.
- NOTICE TO CONTRACTORS**
- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
 - ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HERON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
 - TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
 - PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
 - BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
 - MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
 - WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

EXISTING SITE DRAINAGE:

THE 2.60 ACRE SITE IS LOCATED AT THE SOUTHEAST CORNER OF PAN AMERICAN FREEWAY AND VASSAR DRIVE NE. THE SITE IS BOUNDED ON THE NORTH AND WEST BY COMMERCIAL DEVELOPMENT, ON THE EAST BY VASSAR DRIVE NE AND ON THE SOUTH BY AN INDUSTRIAL/MANUFACTURING DEVELOPMENT.

THE SITE IS CURRENTLY VACANT DRAINS TO TWO EXISTING STORM SEWER INLETS WHERE THE WATER IS THEN CONVEYED BY STORM SEWER AND OPEN CHANNEL TO THE GRIEGOS POND THAT WAS CONSTRUCTED WITH SAD 216.

THERE ARE OFF-SITE FLOWS ENTERING A DRAINAGE EASEMENT ALONG THE SOUTH PROPERTY LINE WHERE A STORM SEWER AND OVERFLOW CHANNEL ARE LOCATED. THIS SITE IS LOCATED IN ZONE "X" AS SHOWN ON FIRM MAP #35001C0138H.

BASED ON THE APPROVED DRAINAGE REPORT FOR THE CARPENTERS TRAINING CENTER (G16/D145) THIS PROJECT MAY DISCHARGE A TOTAL OF 9.89 CFS. THE INFORMATION PERTAINING TO THE AMOUNT OF DISCHARGE ALLOWED FROM THIS PARCEL IS DETAILED ON PAGE 12 OF THE CARPENTERS TRAINING CENTER REPORT. ALL OF THE FLOWS PASS THROUGH AN EXISTING 48" RCP UNDER INTERSTATE 25 WHICH HAS A CAPACITY FOR 161 CFS. THIS PIPE DAYLIGHTS INTO A PONDING AREA WEST OF THE INTERSTATE AND EVENTUALLY DRAINS INTO THE GRIEGOS POND.

PROPOSED SITE DRAINAGE:

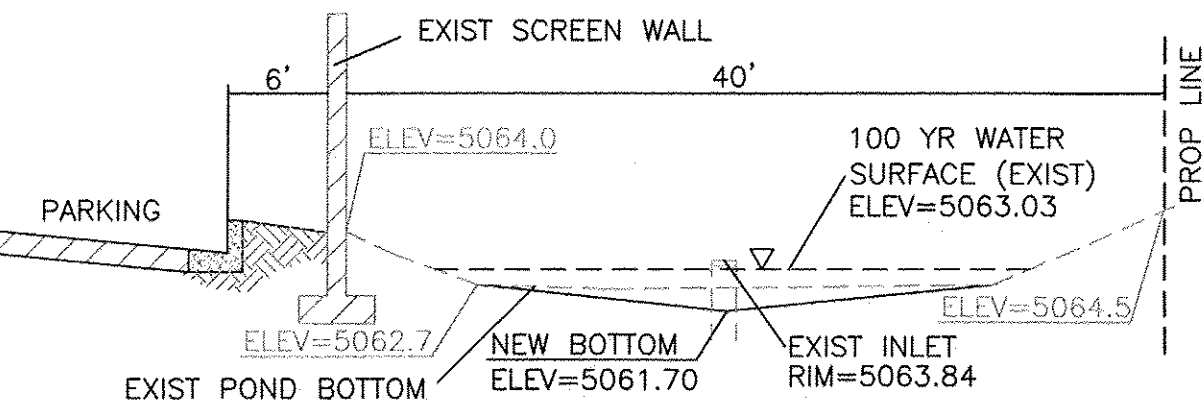
THIS SITE WILL BE DEVELOPED WITH A ENTERTAINMENT BUILDING ON THE PAD ALONG VASSAR DRIVE. THE SITE WILL UTILIZE LOW IMPACT DEVELOPMENT (LID) WHERE POSSIBLE ALLOWING SURFACE STORM WATER TO FLOW THROUGH LANDSCAPED AREAS PRIOR TO DISCHARGING TO THE STORM SEWER. THERE ARE THREE PROPOSED BASINS AS SHOWN ON THE PROPOSED BASIN MAP ON THIS SHEET.

BASIN 1 CONSISTS OF THE FRONT PARKING LOT AND DRAINS TO AN EXISTING DROP INLET. THE CARPENTER'S DRAINAGE PLAN WAS DEVELOPED BEFORE THE FIRST FLUSH REQUIREMENT SO THIS BASIN WAS MINIMIZED AS MUCH AS POSSIBLE SO THE FLOWS COULD BE REDIRECTED TO A FIRST FLUSH POND. THE FLOWS THAT ENTER THE EXISTING INLET EVENTUALLY DRAIN TO THE GRIEGOS POND SO ARE ESSENTIALLY DISCONNECTED FROM THE RIO GRADE.

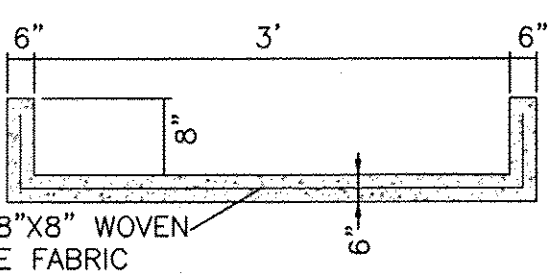
BASIN 2 CONSISTS OF THE BUILDING AND THE SOUTH AND WEST PARKING LOTS AND WILL SURFACE DRAIN TO THE EXISTING DRAINAGE CHANNEL ALONG THE SOUTH PROPERTY LINE. THE CHANNEL IS AN OVERFLOW AREA FOR AN EXISTING STORM SEWER. THE CHANNEL BOTTOM WILL BE DEPRESSED ONE FOOT TO ACCOMMODATE THE FIRST FLUSH VOLUME OF 0.057 AC-FT. EXCESS FLOW CAN BLEED OFF INTO AN EXISTING INLET LOCATED AT THE WEST END OF THE CHANNEL AS IF THE STORM SEWER OVERFLOWED. THE EXISTING DROP INLET IN THE DRIVE AISLE WILL ONLY ACT AS AN OVERFLOW SHOULD THERE BE A LARGE AMOUNT OF WATER THAT FALLS ON THE PARKING LOT.

BASIN 3 CONSISTS OF THE EXISTING CHANNEL ITSELF AS WELL AS THE FIRST FLUSH POND. ALL OF THE FLOWS FROM THIS PROJECT ARE THE SAME AS APPROVED IN THE CARPENTER'S TRAINING CENTER REPORT OF 9.90 CFS AND ARE EVENTUALLY STORED IN THE GRIEGOS POND.

THE PARKING AREA WEST OF THE BUILDING IS LOCATED IN A DRAINAGE BASIN THAT WAS INCLUDED AS PART OF THE ORIGINAL CARPENTER'S DRAINAGE PLAN AND DRAINS TO AN EXISTING DROP INLET IN THE CARPENTER'S PARKING LOT.



SECTION A-A



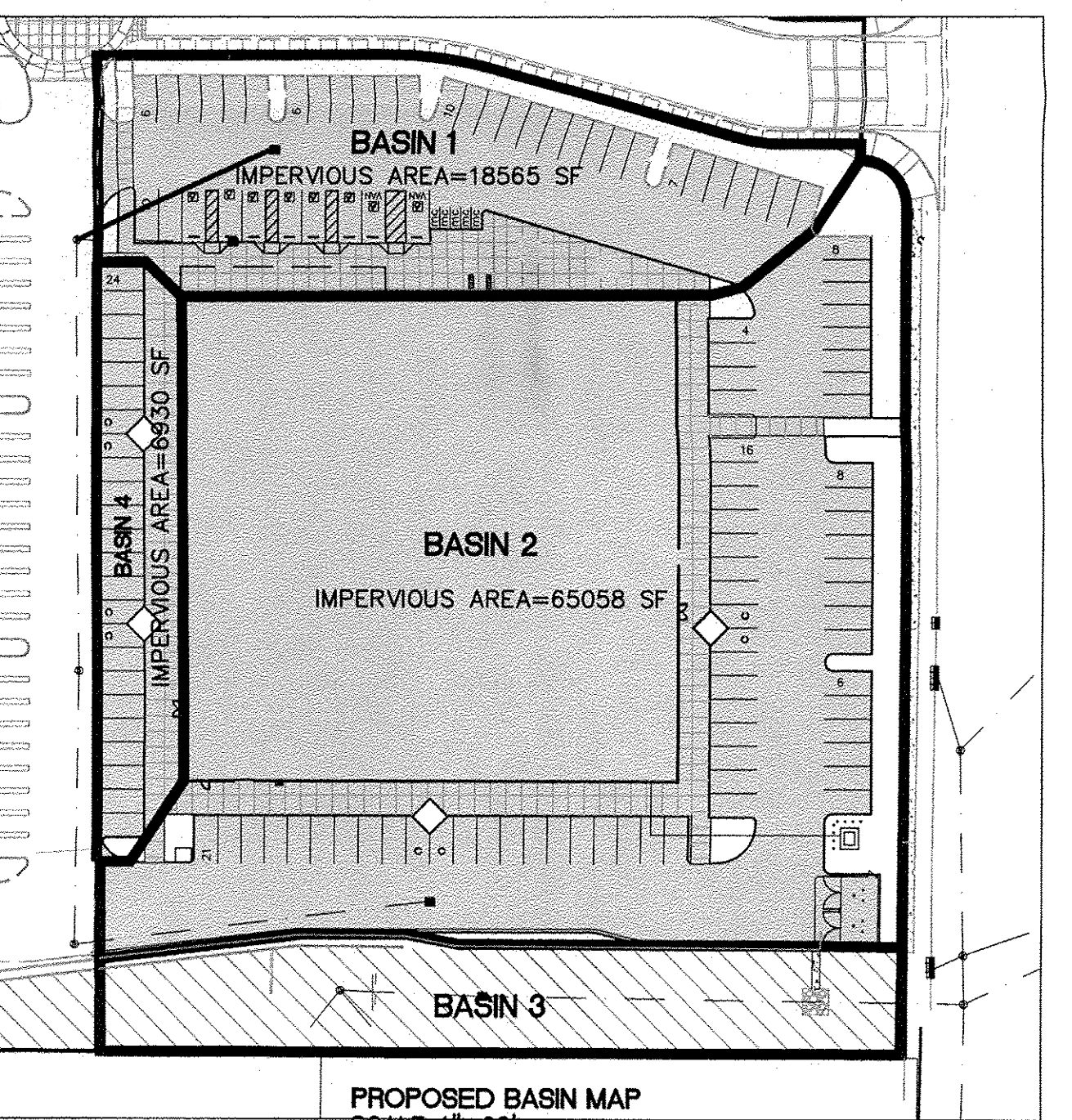
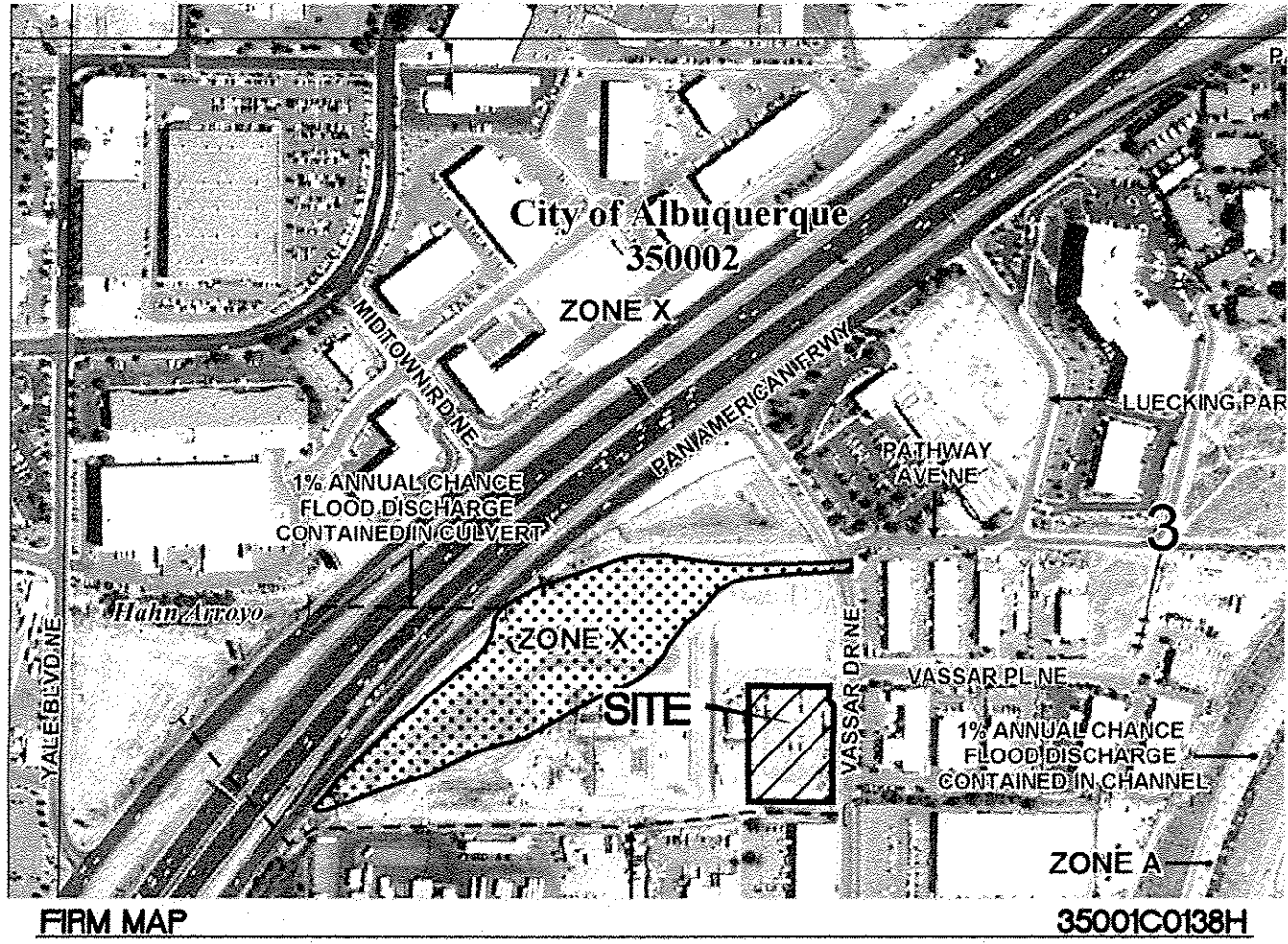
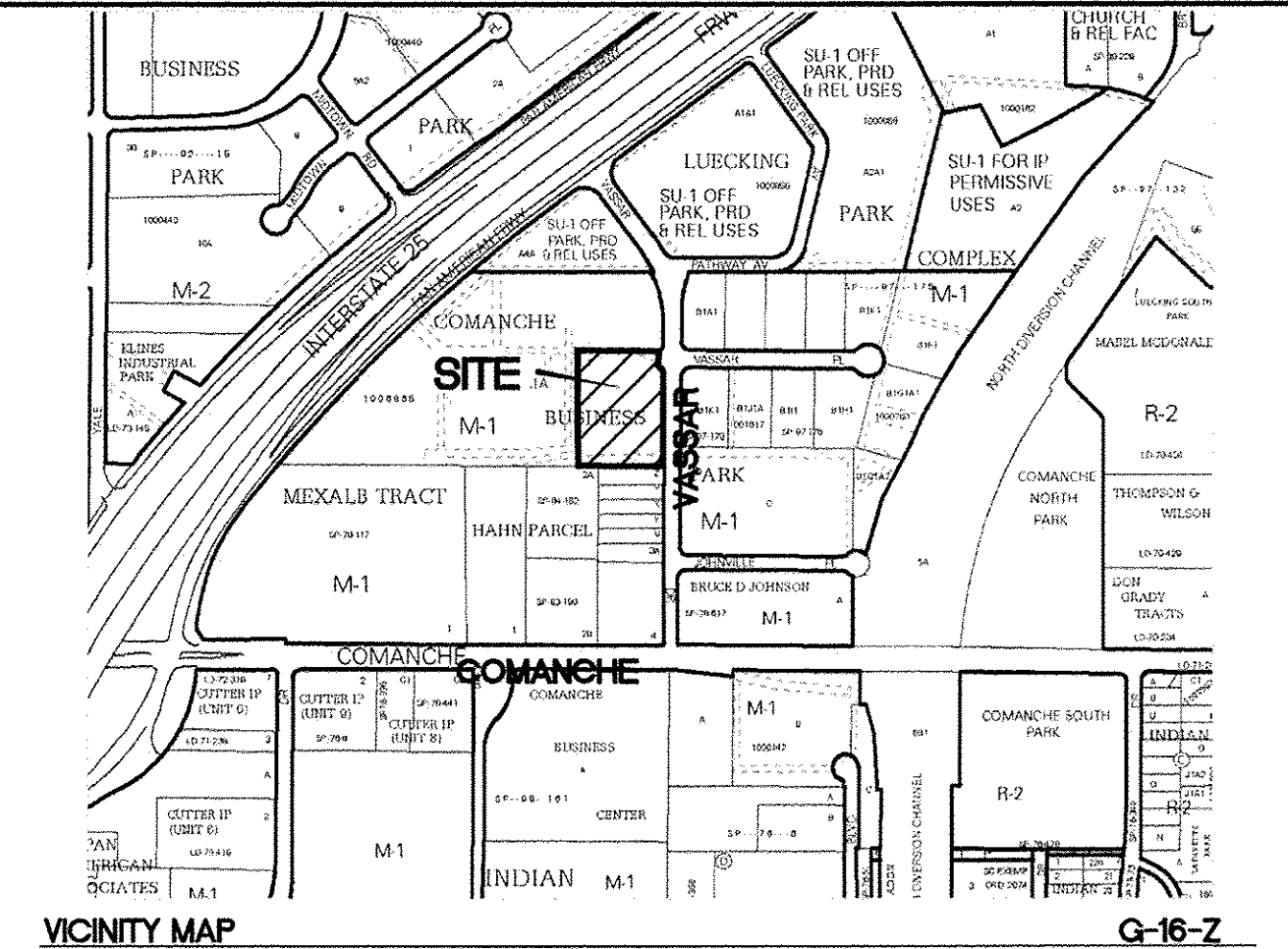
CONCRETE RUNDOWN DETAIL

CAUTION:

ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS. PRIOR TO STARTING THE WORK, ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

LEGEND

- CURB & GUTTER
- BOUNDARY LINE
- EASEMENT
- CENTERLINE
- RIGHT-OF-WAY
- BUILDING
- SIDEWALK
- RETAINING WALL
- 5010 CONTOUR MAJOR
- 5011 CONTOUR MINOR
- x 5048.25 SPOT ELEVATION
- FLOW ARROW
- EXISTING CURB & GUTTER
- EXISTING BOUNDARY LINE
- EXISTING CONTOUR MAJOR
- EXISTING CONTOUR MINOR
- EXISTING SPOT ELEVATION



FIRST FLUSH CALCULATION
BASIN 1: 18385 SF X 0.34"/12"=521 CF=0.012 AC-FT
BASIN 2: 65058 SF X 0.34"/12"=1843 CF=0.042 AC-FT
BASIN 4: 6930 sf X 0.34"/12"=196 CF = 0.0045 AC-FT

Weighted E Method

On-Site Basins

Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		100-Year			10-Year		
			%	(acres)	%	(acres)	%	(acres)	%	(acres)	Weighted E (in)	Volume (ac-ft)	Flow cfs	Weighted E (in)	Volume (ac-ft)	Flow cfs
1	22,168	0.51	0%	0	17%	0.09	0%	0.00	83%	0.42	1.892	0.080	2.18	1.160	0.049	1.41
2	71,405	1.64	0%	0	9%	0.15	0%	0.00	91%	1.49	1.999	0.273	7.35	1.245	0.170	4.82
3	12,748	0.29	0%	0	100%	0.29	0%	0.00	0%	0.00	0.780	0.019	0.67	0.280	0.007	0.28
4	6,930	0.16	0%	0	0%	0.00	0%	0.00	100%	0.16	2.120	0.028	0.75	1.340	0.018	0.50
		2.44								1.91		0.372	10.20			

Equations:

Weighted E = $E_a \cdot A_a + E_b \cdot A_b + E_c \cdot A_c + E_d \cdot A_d$ / (Total Area)

Volume = Weighted D * Total Area

Flow = $Q_a \cdot A_a + Q_b \cdot A_b + Q_c \cdot A_c + Q_d \cdot A_d$

Excess Precipitation, E (inches)			
Zone 2	100-Year	10-Year	
E _a	0.53	0.13	
E _b	0.78	0.28	
E _c	1.13	0.52	
E _d	2.12	1.34	

Peak Discharge (cfs/acre)			
Zone 2	100-Year	10-Year	
Q _a	1.56	0.38	
Q _b	2.28	0.95	
Q _c	3.14	1.71	
Q _d	4.70	3.14	

ENGINEER'S SEAL

RONALD R. BOHANNAN
P.E. #7868

ENTERTAINMENT FACILITY
3930 PAN AMERICAN FRWY

GRADING PLAN

TERRA WEST, LLC
5571 MIDWAY PARK PL NE
ALBUQUERQUE, NEW MEXICO 87109
(505) 858-3100
www.tierwestllc.com

DRAWN BY
pm

DATE
3-6-18

DRAWING

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