



Richard J. Berry, Mayor

June 30, 2017

Fred C. Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. N.E
Albuquerque, NM, 87108

**RE: Tract 3, Paradise Plaza
Grading Plan
Stamp Date: 6/23/17
Hydrology File: A11D012A**

Dear Mr. Arfman:

PO Box 1293

Based upon the information provided in your submittal received 6/23/2017, the Grading Plan **is not** approved for Building Permit. The following comments need to be addressed for approval of the above referenced project:

Albuquerque

1. On Sheet CG-101. Please provide the water block on the existing drive near the existing retention/detention pond.

New Mexico 87103

2. On Sheet CG-101 under the Drainage Plan Concept. Please state that this tract follows the Drainage Master Plan titled, Supplemental Drainage Information for Paradise Plaza (Tracts 1, 2, & 3) by Isaacson & Arfman dated 8/14/08.

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3. On Sheet CG-101 under the First Flush Requirement. It mentions "see supplemental Information Packet". This was not submitted. If this is not going to be, then please remove the note. If this refers to the information noted in the above comment, then just change this note to read, " See Supplemental Drainage Information for Paradise Plaza (Tracts 1, 2, & 3) by Isaacson & Arfman dated 8/14/08".

4. On Sheet CG-501. For Tract 3, the calculated Q for the 100 Year - 6 hour is 3.5 cfs. According to the Supplemental Drainage Information for Advance Auto (Tracts 1) by Isaacson & Arfman dated 4/26/16, the existing detention pond has the capacity to only handle 3.2 cfs from Tract 3. Please provide the calculations that will support the additional runoff from Tract 3 in the existing detention pond.

CITY OF ALBUQUERQUE



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5. On Sheet CG-501. Please provide the weir calculations for both of the curb cuts for the first flush basin.
6. On Sheet CG-501. Please expand the viewport to include the existing retention/detention pond.
7. On Sheet CG-501. Please show the detention volumes provided for Tracts 1, 2, & 3 and then provide the total volume of the pond. This information should be in a table which points to the existing pond.
8. On Sheet CG-501. Please make a note that the first flush volume for Basin B will be handled within the existing retention/detention pond.
9. On Sheet CG-50 on the Rock Erosion Protection Detail. Please provide the Rock type and size in the detail.

PO Box 1293

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

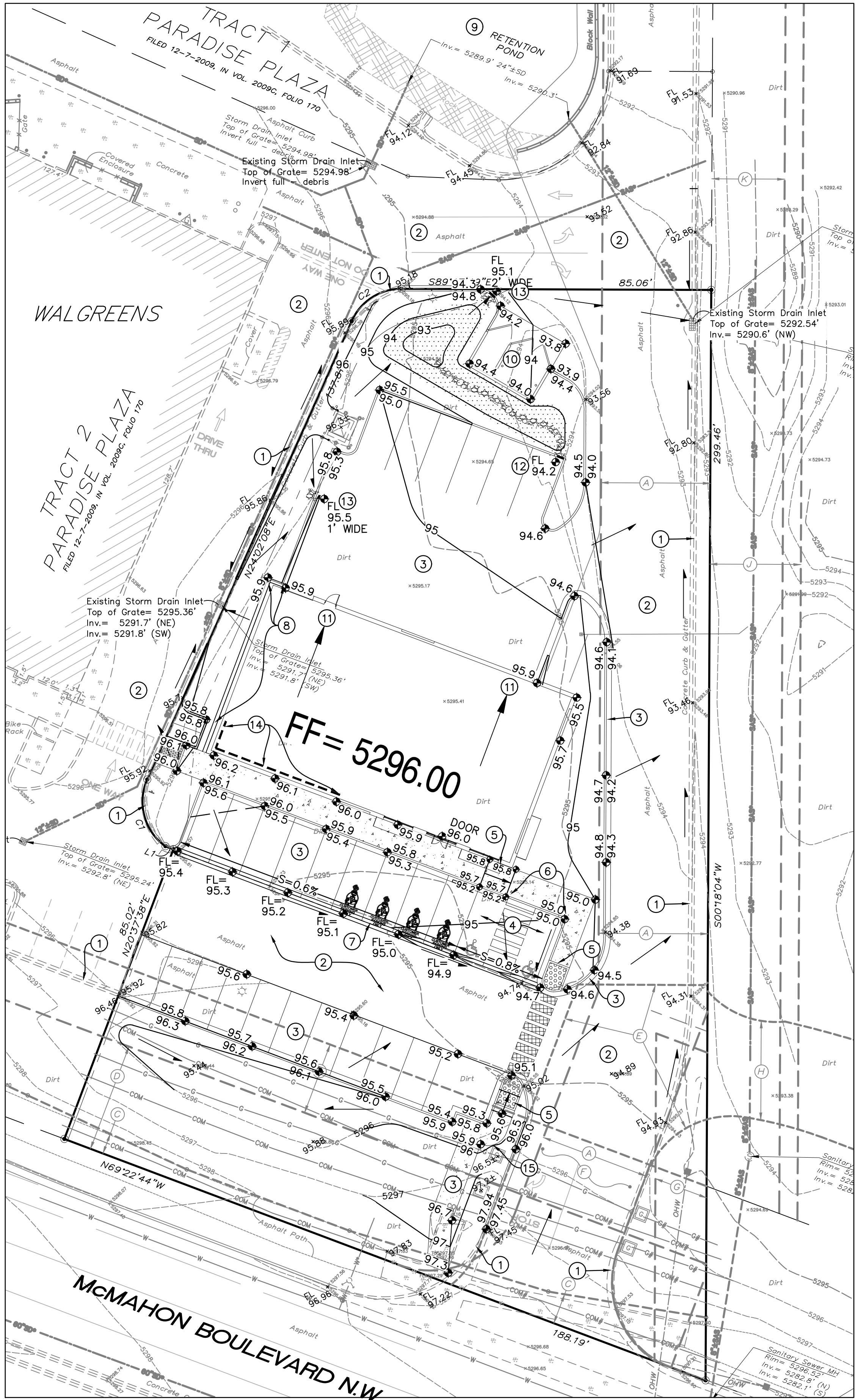
Albuquerque

Reneé C. Brissette

New Mexico 87103

Reneé C. Brissette, P.E.
Senior Engineer, Hydrology
Planning Department

www.cabq.gov



KEYED NOTES

1. EXISTING CONCRETE CURB & GUTTER TO REMAIN.
2. EXISTING ASPHALT PAVEMENT THIS AREA TO REMAIN.
3. CONSTRUCT NEW ASPHALT PAVEMENT, ADA COMPLAINT WALKS (MAX. 5% SLOPE, MAX. 2% CROSS-SLOPE), CURB AND GUTTER AT ELEVATIONS SHOWN. SEE PAVING PLAN FOR PAVEMENT MATERIAL, SECTIONS, PARKING LAYOUT, DIMENSIONS, STRIPING, ETC.
4. CONSTRUCT ADA COMPLIANT HC PARKING AREA. MAX. 2% SLOPE IN ANY DIRECTION.
5. CONSTRUCT ADA COMPLIANT RAMP. MAX. 12:1 SLOPE, MAX. 2% CROSS-SLOPE.
6. TOP OF ASPHALT TO BE FLUSH WITH TOP OF CONCRETE WALK THIS AREA. INSTALL CONCRETE PARKING BUMPERS (THREE TOTAL) IN BOTH HC PARKING SPACES AND THE ADJACENT SPACE TO THE EAST.
7. CONSTRUCT 24" WIDE CONCRETE ALLEY GUTTER PER C.O.A. STD. DWG. 2415B. CONSTRUCT TO ELEVATIONS SHOWN TO ENSURE ADA COMPLIANCE AND POSITIVE DRAINAGE (SLOPE VARIES @ <1%).
8. CONSTRUCT 12" WIDE BUILDING APRON THIS AREA. TOP OF APRON = 0.1' BELOW F.F. SLOPE AWAY FROM BUILDING AT 2%.
9. EXISTING FIRST FLUSH RETENTION / DETENTION POND CONSTRUCTED AS PART OF THE DRAINAGE MASTER PLAN.
10. CONSTRUCT NEW CONCRETE DUMPSTER PAD AND ENCLOSURE AT ELEVATIONS SHOWN.
11. ALL ROOF DISCHARGE TO BE RELEASED TO NORTH PAVEMENT.
12. CONSTRUCT 2' WIDE CURB OPENING TO PASS FLOW TO POND. INSTALL EROSION PROTECTION FROM CURB OPENING (FLUSH WITH FLOWLINE) TO POND BOTTOM. SEE SHEET CG-501 FOR DETAILS.
13. CONSTRUCT 1' OR 2' WIDE CURB OPENING (SEE PLAN FOR WIDTH) TO PASS EXCESS FLOW TO PAVEMENT. INSTALL EROSION PROTECTION (4' WIDE X 3' LONG X 6" DEEP) FLUSH WITH FLOWLINE AT OUTLET.
14. RETAINING STEM WALL (MAX. 6") THIS AREA TO ACCOMMODATE GRADES. SEE ARCHITECTURAL.
15. ELEVATION DIFFERENCE BETWEEN TOP OF NEW WALK AND TOP OF EXISTING GAS BOX IS 1.0±. FIELD TRANSITION WITH CONCRETE HEADER CURB OR LANDSCAPE MATERIAL (OWNER'S OPTION).

VICINITY MAP



PROJECT DATA

PROPERTY: THE SITE IS A PARTIALLY DEVELOPED COMMERCIAL PROPERTY WITHIN C.O.A. VICINITY MAP A-11. THE SITE IS BOUND TO THE NORTH BY A PERMANENT DETENTION POND SIZED FOR THE FULLY DEVELOPED CONDITION FOR TRACTS 1, 2 AND 3, PARADISE PLAZA, TO THE WEST BY A WALGREENS, TO THE SOUTH BY MCMAHON BLVD. NW AND TO THE EAST BY UNDEVELOPED COMMERCIAL PROPERTY.

SITE AREA: 0.88 ACRES

PROPOSED IMPROVEMENTS: TO INCLUDE A 4,500 SF COMMERCIAL BUILDING WITH ASSOCIATED PAVED PARKING, WALKS, DRAINAGE IMPROVEMENTS, AND LANDSCAPING.

LEGAL: TRACT 3, PARADISE PLAZA, CITY OF ALBUQUERQUE, NEW MEXICO.

BENCHMARK: ACS MONUMENT "5-A11" ELEV. 5333.08 NAVD 1988

OFF-SITE: CROSS-LOT DRAINAGE EASEMENT BETWEEN TRACTS 1, 2 AND 3 IS PROVIDED BY PLAT. DRAINAGE COVENANTS FOR MAINTENANCE OF THE PRIVATE STORM DRAIN SYSTEM AND PONDS HAS BEEN ADDRESSED BY SEPARATE DOCUMENTS. EXISTING DETENTION POND WAS CONSTRUCTED AS PART OF THE TRACT 2 CONSTRUCTION.

FLOOD HAZARD: PROPERTY IS LOCATED WITHIN ZONE X, DESIGNATING AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLAIN ACCORDING TO THE FLOOD INSURANCE RATE MAP, BERNALILLO COUNTY, NEW MEXICO AND INCORPORATED AREAS PER MAP NO. 35001C0104H, EFFECTIVE DATE AUGUST 16, 2012.

DRAINAGE PLAN CONCEPT: THIS SITE WILL DISCHARGE ALL DEVELOPED FLOW TO THE EXISTING DETENTION POND CONSTRUCTED AS PART OF TRACT 2 DEVELOPMENT. THE DETENTION POND IS SIZED TO RELEASE THE FULLY DEVELOPED PARADISE PLAZA TRACTS (1, 2 AND 3) AT THE APPROVED RATE.

FIRST FLUSH REQUIREMENT: STORMWATER CONTROL MEASURES ARE REQUIRED TO PROVIDE MANAGEMENT OF "FIRST FLUSH" DEFINED AS THE 90TH PERCENTILE STORM EVENT OR 0.34" [0.44" LESS 0.1" FOR INITIAL ABSTRACTION] OF STORMWATER WHICH DISCHARGES DIRECTLY TO A PUBLIC STORM DRAINAGE SYSTEM BASED ON 0.44 ACRE IMPERVIOUS, THE REQUIRED FIRST FLUSH VOLUME FOR TRACT 3 WILL BE 1088 CF.

A FIRST FLUSH RETENTION POND WILL BE CONSTRUCTED WITHIN THE LANDSCAPING ON THE NORTH SIDE OF THE LOT. THE REMAINDER WILL BE RETAINED WITHIN THE EXISTING MAIN POND (SEE SUPPLEMENTAL INFORMATION PACKET).

ENGINEER: FRED C. ARFMAN, NMPE 7322
ISAACSON & ARFMAN, PA
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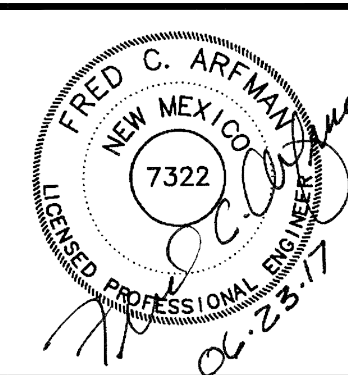
LEGEND

- EXISTING SPOT ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR (1' INCREMENT)
- PROPOSED SPOT ELEVATION
- FLOW ARROW
- FINISH FLOOR ELEVATION
- PROPOSED FIRST FLUSH RETENTION PONDING AREA WITH PERCOLATION PIT
- PROPOSED EROSION CONTROL

revision	
by	
date	
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Mullen Heller
Architecture P.C.

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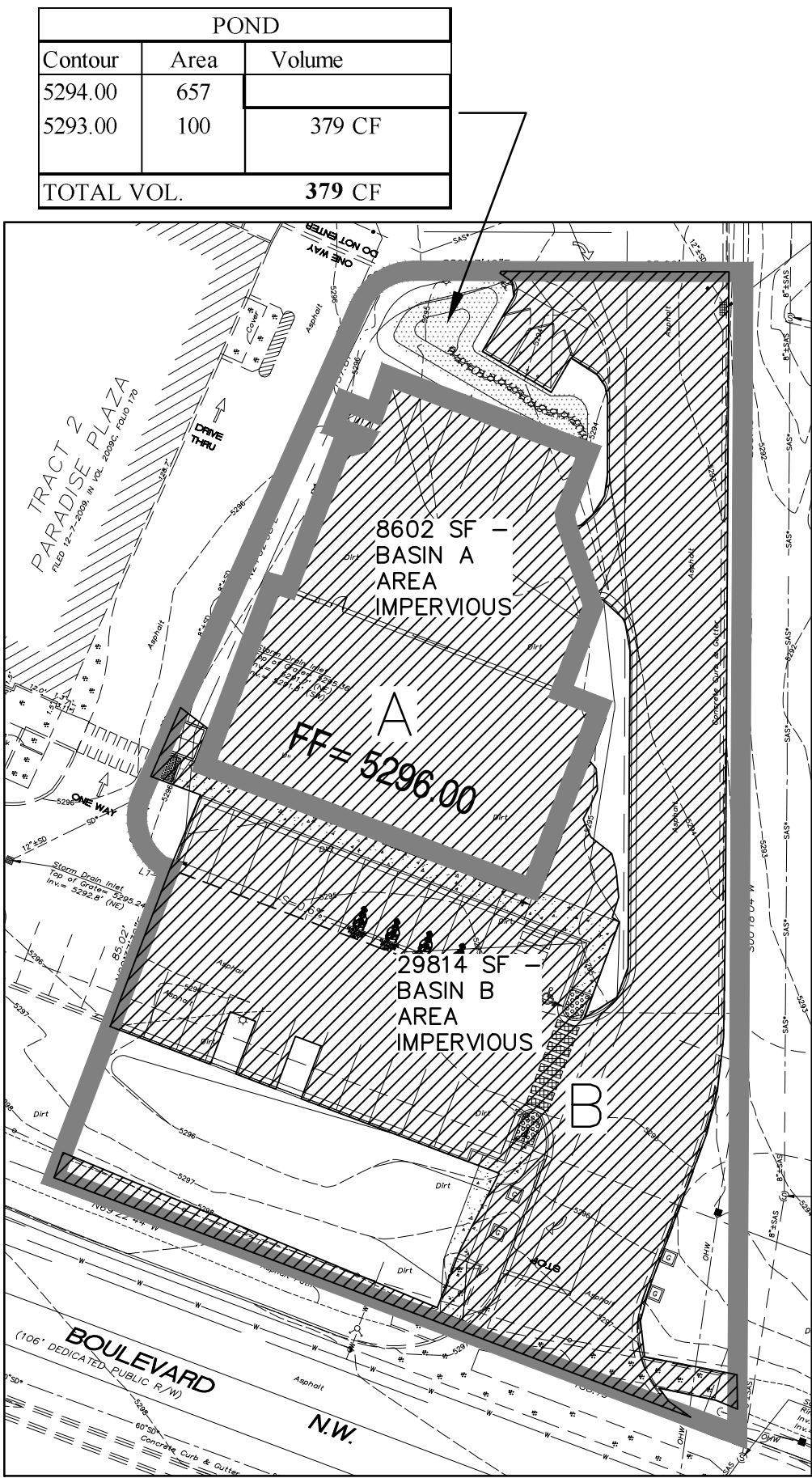
2213	BUB	ICA	06/14/17
job number	drawn by	project manager	date

project title
Paradise Plaza
Northeast Corner of Unser Blvd. NW and McMahon Blvd. NW
Albuquerque, New Mexico

sheet title
Grading and Drainage Plan

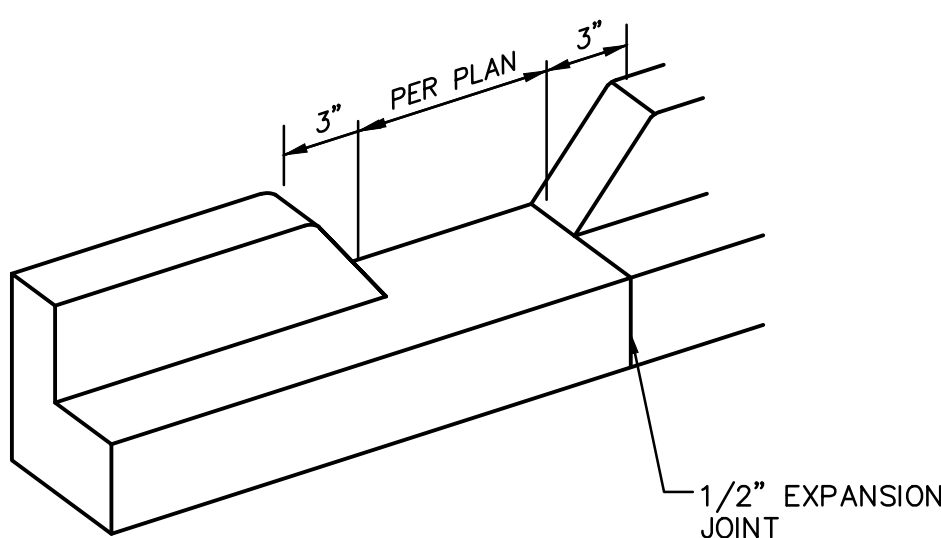
sheet
CG-101





BASIN NO.	A	DESCRIPTION	IMPERVIOUS AREA TO NORTH FIRST FLUSH POND
Area of basin flows =	8602	SF	= 0.2 Ac.
The following calculations are based on Treatment areas as shown in table to the right			
		LAND TREATMENT	
Sub-basin Weighted Excess Precipitation (see formula above)		A =	0%
Weighted E =		B =	0%
Sub-basin Volume of Runoff (see formula above)		C =	0%
V ₅₀₀ =		D =	100%
Sub-basin Peak Discharge Rate: (see formula above)		FIRST FLUSH VOL.	
Q _p =		0.9	cfs
		244 CF	

BASIN NO.	B	DESCRIPTION	IMPERVIOUS AREA TO MAIN FIRST FLUSH POND
Area of basin flows =	29814	SF	= 0.7 Ac.
The following calculations are based on Treatment areas as shown in table to the right			
		LAND TREATMENT	
Sub-basin Weighted Excess Precipitation (see formula above)		A =	0%
Weighted E =		B =	0%
Sub-basin Volume of Runoff (see formula above)		C =	0%
V ₅₀₀ =		D =	100%
Sub-basin Peak Discharge Rate: (see formula above)		FIRST FLUSH VOL.	
Q _p =		3.0	cfs
		845 CF	



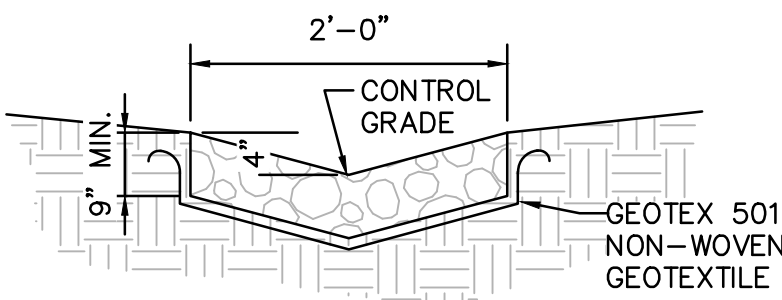
GENERAL NOTES

- EDGES NOT SPECIFICALLY DIMENSIONED SHALL BE SHAPED WITH A 3/8" EDGING TOOL.

CURB OPENING

SCALE: N.T.S.

- VARY ANGULAR FACE ROCK SIZE BETWEEN 4" AND 8" DIA. (AVG.=6")
- PLACE GEOTEX 501 NON-WOVEN GEOTEXTILE (O.E.) BENEATH ALL EROSION PROTECTION
- CONSTRUCT ALL EROSION PROTECTION INSET INTO (NOT ON TOP OF) GRADE TO ENSURE RUNOFF CAN BE CAPTURED AND CONVEYED PROPERLY



ROCK EROSION PROTECTION

SCALE: N.T.S.

CIVIL GENERAL NOTES

- THE CONTRACTOR SHALL ABIDE BY ALL STATE, LOCAL, AND FEDERAL LAWS, CODES, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA AND ADA REQUIREMENTS.
- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED ON OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION OF THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS (COA SPEC.).
- NO WORK SHALL BE PERFORMED WITHOUT THE APPROPRIATE PERMITS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FOR THE PROJECT PRIOR TO COMMENCING CONSTRUCTION, OR PRIOR TO OCCUPANCY, AS APPROPRIATE. IF PERMITS ARE DELAYED OR ISSUED WITH CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ARCHITECT IMMEDIATELY.
- COORDINATE WORK WITH SITE PLAN, UTILITY PLAN, DEMOLITION PLAN, AND LANDSCAPE PLAN.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING OBSTRUCTIONS, AND CONDITION OF ALL EXISTING INFRASTRUCTURE PRIOR TO CONSTRUCTION. REPORT ALL DISCREPANCIES TO THE ENGINEER AND VERIFY THE ENGINEER'S INTENT BEFORE PROCEEDING.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SAFETY.
- THE CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS ON SITE AT ALL TIMES.
- CONTRACTOR SHALL OBTAIN ALL REQUIRED INSPECTIONS OF THE WORK. CONTRACTOR SHALL REGULARLY UPDATE OWNER AND ARCHITECT REGARDING THE STATUS OF THE INSPECTIONS.
- CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT STRUCTURES RESULTING FROM THE CONSTRUCTION PROCESS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS. EQUIPMENT SHALL ONLY OBSTRUCT DESIGNATED TRAFFIC LANES IF APPROPRIATE BARRICADING PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL IN THE RIGHT-OF-WAY.
- THE CONTRACTOR SHALL PROVIDE A CONSTRUCTION TRAFFIC CONTROL AND SIGNING PLAN THAT CONFORMS TO THE LATEST EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL OBTAIN BARRICADING PERMITS FROM THE APPROPRIATE AUTHORITIES PRIOR TO ANY CONSTRUCTION WORK ON OR ADJACENT TO EXISTING STREETS.
- THE CONTRACTOR SHALL MAINTAIN ALL BARRICADING AND CONSTRUCTION SIGNING AT ALL TIMES. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADING AT THE END AND BEGINNING OF EACH DAY.
- EXISTING UTILITY LINES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND MAY BE INCOMPLETE OR OBSOLETE. SUCH LINES MAY OR MAY NOT EXIST WHERE SHOWN OR NOT SHOWN. CONTRACTOR SHALL CONTACT NM-811 FOR UTILITY LINE SPOTS FIVE WORKING DAYS PRIOR TO CONDUCTING SITE FIELD WORK. CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF NECESSARY DRY UTILITY ADJUSTMENTS.
- FIVE WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NM811 (811) FOR LOCATION OF EXISTING UTILITIES.
- ALL SITE PREPARATION, GRADING OPERATIONS, FOUNDATION CONSTRUCTION, AND PAVEMENT INSTALLATION WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, WHICH WILL BE PROVIDED BY THE OWNER OR ARCHITECT. ALL OTHER WORK SHALL, UNLESS OTHERWISE NOTED IN THE PLANS, BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATION (FIRST PRIORITY), AND/OR NMDOT STANDARD SPECIFICATIONS FOR PUBLIC WORK (SECOND PRIORITY.)
- ALL TRASH, DEBRIS, & SURFACE VEGETATION SHALL BE CLEARED AND LEGALLY DISPOSED OF OFFSITE.
- VIBRATORY COMPACTION SHALL NOT BE USED OVER IN-PLACE UTILITIES.
- SOIL TESTING AND INSPECTION SERVICES DURING SITE OPERATIONS ARE REQUIRED. CONTRACTOR SHALL PROVIDE SOIL TESTING AND INSPECTION SERVICES. ALLOW TESTING LABS TO INSPECT AND APPROVE COMPACTED SUBGRADES, BACKFILL, AND FILL LAYERS BEFORE FURTHER CONSTRUCTION WORK IS DONE. SHOULD COMPACTION TESTS INDICATE INADEQUATE DENSITY, CONTRACTOR SHALL PROVIDE ADDITIONAL COMPACTION AND TESTING AT THE CONTRACTOR'S SOLE EXPENSE.
- CONTRACTOR SHALL PROVIDE CONSTRUCTION STAKING. CONTRACTOR SHALL LOCATE AND PRESERVE ALL BOUNDARY CORNERS AND REPLACE ANY LOST OR DISTURBED CORNERS AT CONTRACTOR'S SOLE EXPENSE. PROPERTY CORNERS SHALL ONLY BE RESET BY A REGISTERED LAND SURVEYOR.
- ADJUST ANY RIMS OF EXISTING UTILITY FEATURES AS NECESSARY TO MATCH NEW GRADES. UTILITIES IN PAVED AREAS SHALL BE HS-25 TRAFFIC RATED.
- CONTRACTOR SHALL COMPLY WITH LOCAL REGULATIONS FOR RESEEDING OF DISTURBED AREAS.

GRADING GENERAL NOTES

- GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.
- PROPOSED SPOT AND CONTOUR ELEVATIONS SHOWN REPRESENT TOP OF FINISH MATERIAL (I.E. TOP OF CONCRETE, TOP OF CONCRETE BUILDING PAD, TOP OF PAVEMENT MATERIAL, TOP OF LANDSCAPING MATERIAL, ETC.). CONTRACTOR SHALL GRADE, COMPACT SUBGRADE AND DETERMINE EARTHWORK ESTIMATES BASED ON ELEVATIONS SHOWN MINUS FINISH MATERIAL THICKNESSES.
- IF FIELD GRADE ADJUSTMENTS ARE REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR FURTHER INSTRUCTIONS.
- THE ENVIRONMENTAL PROTECTION AGENCY (EPA) AND THE CITY OF ALBUQUERQUE REQUIRE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), AN NDPES PERMIT, AND AN EROSION AND SEDIMENT CONTROL (ESC) PERMIT FOR PROJECTS WHERE CONSTRUCTION ACTIVITIES MEET THE EPA THRESHOLD. (SWPPP, NDPES PERMIT, AND ESC PLAN BY OTHERS.) A CURRENT CITY-APPROVED ESC PERMIT MUST BE INCLUDED WITH THE CONTRACTOR'S SUBMITTAL FOR A ROUGH GRADING, GRADING, PAVING, BUILDING, OR WORK ORDER PERMIT. CONTRACTOR SHALL COORDINATE WITH OWNER TO DETERMINE WHO WILL PREPARE SWPPP AND INSPECT REQUIRED ELEMENTS.
- IF THE SITE IS SMALL ENOUGH NOT TO REQUIRE A SWPPP/NDPES PERMIT (LESS THAN ONE ACRE), THE CONTRACTOR SHALL STILL BE RESPONSIBLE FOR USING EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMP'S) TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PUBLIC RIGHT-OF-WAY.
- MEASURES REQUIRED FOR EROSION AND SEDIMENT CONTROL SHALL BE INCIDENTAL TO THE PROJECT COST.
- ALL NEW PAVEMENT SURFACES SHALL BE CONSTRUCTED WITH POSITIVE SLOPE AWAY FROM BUILDINGS AND POSITIVE SLOPE TOWARD EXISTING AND/OR PROPOSED DRAINAGE PATHS. PAVING AND ROADWAY GRADES SHALL BE ±0.1' FROM PLAN ELEVATIONS. BUILDING PAD ELEVATION SHALL BE ±0.05' FROM PLAN ELEVATION.
- WHERE GRADES BETWEEN NEW AND EXISTING ARE SHOWN AS 'MATCH' OR '±', TRANSITIONS TO EXISTING SHALL BE SMOOTH.
- PAVEMENT GRADES IN MARKED HANDICAPPED PARKING AREAS SHALL NOT EXCEED 2.0% IN ANY DIRECTION. FOR ALL ACCESSIBLE ROUTES, MAXIMUM ALLOWABLE CROSS SLOPE IS 2.0% AND MAXIMUM LONGITUDINAL SLOPE WITHOUT RAMP IS 5.0%. FOLLOW ALL ADA ACCESSIBILITY GUIDELINES OR CITY CODES, WHICHEVER IS MORE STRINGENT.
- ALL EROSION PROTECTION TO BE INSTALLED AS 6" AVG. DIA. ANGULAR FACED ROCK (F.F. ROCK) PLACED OVER GEOTEX 501 NON-WOVEN GEOTEXTILE (O.E.).
- SIDESLOPES STEEPER THAN 5:1 MUST HAVE PERMANENT EROSION PROTECTION INSTALLED, TYPICAL. NO SLOPE SHALL BE STEEPER THAN 1.5:1.
- STORMWATER CONTROL MEASURES SHOWN ON THIS PLAN ARE TO BE STRICTLY ADHERED TO FOR CERTIFICATION PURPOSES.
- POST-CONSTRUCTION MAINTENANCE FOR PRIVATE STORMWATER FACILITIES WILL BE THE RESPONSIBILITY OF THE FACILITIES OWNER. PERIODIC INSPECTION AND CERTIFICATIONS OF THE FACILITIES MAY BE REQUIRED BY THE CITY ENGINEER. ENGINEER RECOMMENDS THAT OWNER INSPECT SITE YEARLY AND AFTER EACH RAINFALL TO IDENTIFY NEW AREAS OF EROSION AND INSTALL ADDITIONAL EROSION PROTECTION AS NEEDED BASED ON ACTUAL OCCURRENCES.
- FOR ENGINEER'S CERTIFICATION OF SUBSTANTIAL COMPLIANCE (FOR CERTIFICATE OF OCCUPANCY) CONTRACTOR SHALL PROVIDE AN AUTOCAD FORMAT AS-BUILT SURVEY PREPARED BY A LICENSED SURVEYOR WHICH INCLUDES:
 - AS-BUILT SPOT ELEVATIONS AT EACH DESIGN SPOT ELEVATION SHOWN ON THE APPROVED PLAN;
 - ALL CONSTRUCTION, INCLUDING DRAIN INLETS, PIPES AND PONDS SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLAN IN ORDER TO RECEIVE ENGINEER'S CERTIFICATION.
- GRADING OF FIRST FLUSH BASINS WILL BE INSPECTED AS PART OF ENGINEER'S CERTIFICATION FOR CERTIFICATE OF OCCUPANCY. DURING LANDSCAPING, FIRST FLUSH BASINS WILL BE SMOOTHLY INTEGRATED INTO LANDSCAPING WHILE MAINTAINING REQUIRED TOP AND BOTTOM ELEVATION, VOLUME AND INLET / OVERFLOW ELEVATIONS.

CALCULATIONS: 2213 - Sherwin Williams : June 15, 2017			
Based on Drainage Design Criteria for City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan., 1993			
ON-SITE			
AREA OF SITE:	38416	SF	= 0.88
100-year, 6-hour			
DEVELOPED FLOWS:		EXCESS PRECIP:	
	Treatment SF	%	Precip. Zone
Area A =	0	0%	E _A = 0.44
Area B =	3842	10%	E _B = 0.67
Area C =	3842	10%	E _C = 0.99
Area D =	30733	80%	E _D = 1.97
Total Area =	38415.8158	100%	

Weighted Excess Precipitation (100-Year, 6-Hour Storm)

Weighted E = $\frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$

Developed E = 1.74 in.

Volume of Runoff: V₃₆₀ = $\frac{E \cdot A}{12}$

Developed V₃₆₀ = 5577 CF

Peak Discharge Rate: Q_p = Q_{5A}A_A+Q_{5B}A_B+Q_{5C}A_C+Q_{5D}A_D / 43.560

For Precipitation Zone 1

Q_{5A} = 1.29

Q_{5B} = 2.03

Q_{5C} = 2.87

Q_{5D} = 4.37

Developed Q_p = 3.5 CFS



project title

Paradise Plaza

Northeast Corner of Unser Blvd. NW and McMahon Blvd. NW

Albuquerque, New Mexico

sheet title

Civil Notes and Details

revision

by

date

rev

2213

BJB

ICA

06/14/17

job number

drawn by

project manager

date

sheet

CG-501