

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

December 31, 2019

Verlyn Miller, P.E.
Miller Engineering Consultants, Inc
3500 Comanche NE Bldg. F
Albuquerque, NM 87107

**RE: Evangel Christian Center
4501 Montgomery NE
Grading and Drainage Plan
Engineer's Stamp Date: 12/13/19
Hydrology File: F17D007**

Dear Mr. Miller:

Based upon the information provided in your submittal received 12/19/2019, the Grading & Drainage Plan is approved for Building Permit and Grading Permit.

PO Box 1293

Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter. Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

Albuquerque

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Dough Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

NM 87103

www.cabq.gov

Also as a reminder, please provide a Drainage Covenant for the proposed stormwater quality pond per Chapter 17 of the DPM prior to Permanent Release of Occupancy. Please submit this on the 4th floor of Plaza de Sol. A \$25 fee will be required.

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

Sincerely,

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department



LETTER OF TRANSMITTAL

TO COA
Planning Department
Development & Building Services
Division – Design Review
600 2nd Street NW
Albuquerque, NM 87102

DATE 12/19/19	Project No.
ATTENTION: Hydrology Dept.	
RE: Evangel Church Parking	

Transmitted herein are the attached documents (noted below):

COPIES	DATE	NO.	DESCRIPTION
1			COA Application for Building Permit
2			Grading & Drainage Plans Set
1			Email of COA electronic copy
1			PDF electronic copy sent to COA
1			Transmittal Letter

THESE ARE TRANSMITTED as checked below:

☒ For Approval ☐ For Your Use ☐ As Requested ☐ For Review & Comment

☐ Other:

REMARKS: Project Engineer: Verlyn Miller

Copy Sent To: VA
MEC File

SIGNED: _____



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: Evangel Christian Academy Parking **Building Permit #:** _____ **Hydrology File #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: TR N REDIVISION OF A PORT OF TR 100A MONTGOMERY HEIGHTS ADDN EXC S WLY PORTION OUT TO R/W CONT
City Address: 3.9651 AC
4501 Montgomery NE, Albuquerque, New Mexico 87109

Applicant: Evangel Christian Center **Contact:** _____
Address: 4501 Montgomery NE, Albuquerque, New Mexico 87109
Phone#: 505-883-1300 **Fax#:** 505-883-1229 **E-mail:** _____

Other Contact: Miller Engineering Consultants, Inc. **Contact:** Verlyn Miller
Address: 3500 Comanche NE, Bldg. F, Albuquerque, NM 87107
Phone#: 505-888-7500 **Fax#:** 505-888-3800 **E-mail:** vmiller@mecnmc.com

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE _____ DRB SITE ☒ ADMIN SITE

IS THIS A RESUBMITTAL? _____ Yes ☒ No

DEPARTMENT _____ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ARCHITECT CERTIFICATION
- ☐ PAD CERTIFICATION
- ☐ CONCEPTUAL G & D PLAN
- ☒ GRADING PLAN
- ☐ DRAINAGE REPORT
- ☐ DRAINAGE MASTER PLAN
- ☐ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- ☐ ELEVATION CERTIFICATE
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ TRAFFIC IMPACT STUDY (TIS)
- ☐ STREET LIGHT LAYOUT
- ☐ OTHER (SPECIFY) _____
- ☐ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

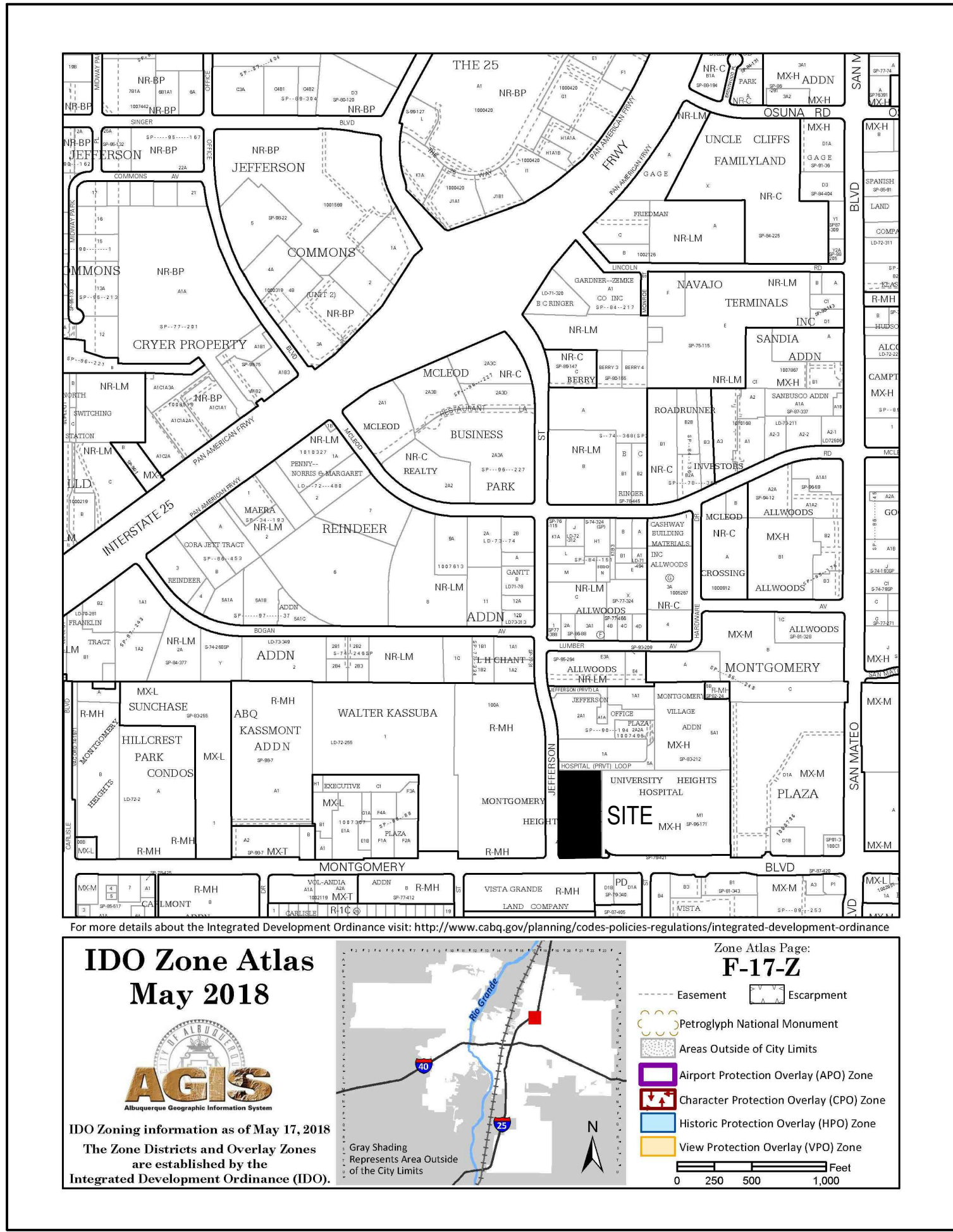
- ☒ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ SITE PLAN FOR SUB'D APPROVAL
- ☐ SITE PLAN FOR BLDG. PERMIT APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ SIA/ RELEASE OF FINANCIAL GUARANTEE
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ GRADING PERMIT APPROVAL
- ☐ SO-19 APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ GRADING/ PAD CERTIFICATION
- ☐ WORK ORDER APPROVAL
- ☐ CLOMR/LOMR
- ☐ FLOODPLAIN DEVELOPMENT PERMIT
- ☐ OTHER (SPECIFY) _____

DATE SUBMITTED: 12-19-19 **By:** [Signature]

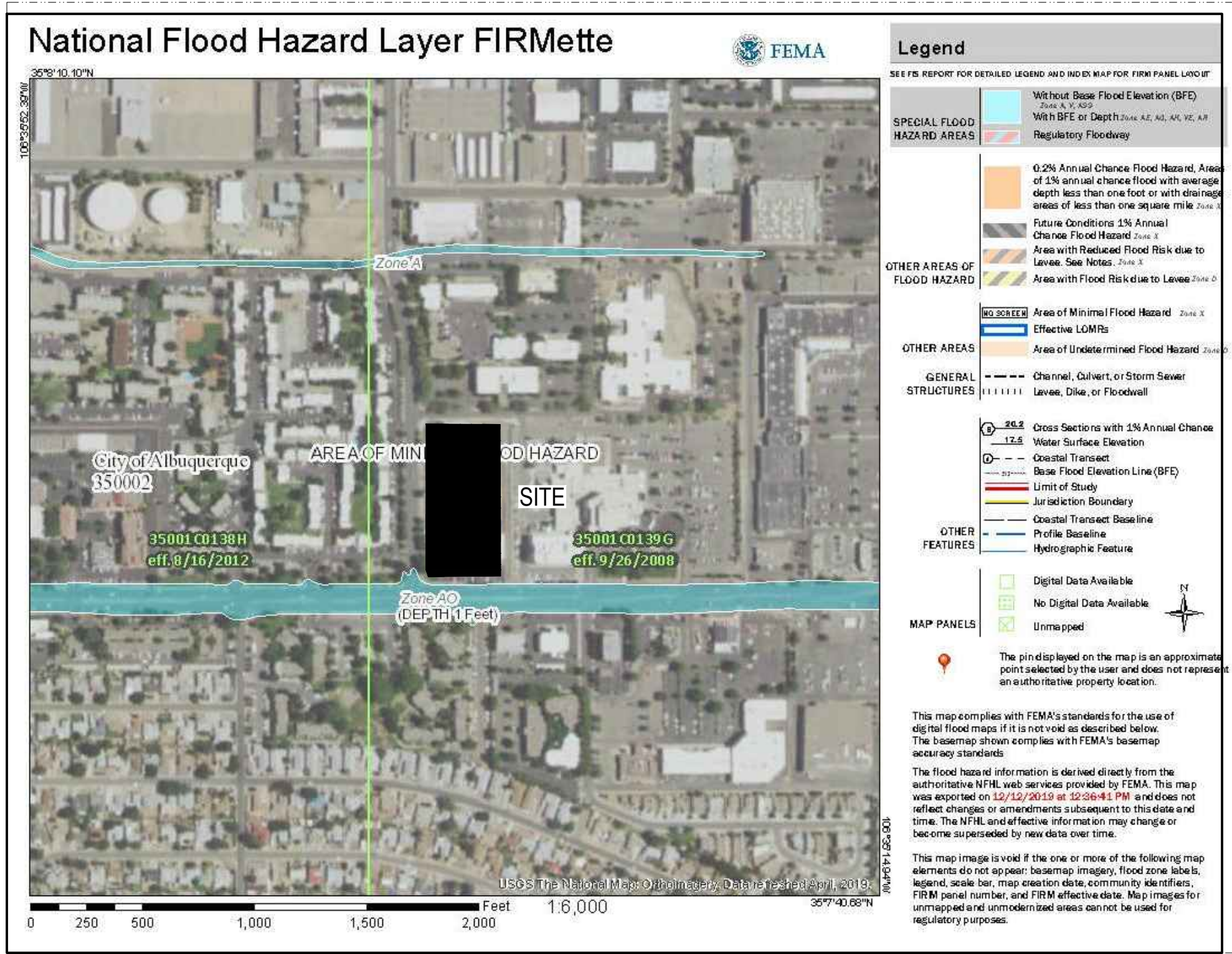
COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



C1 VICINITY MAP
ZONE ATLAS MAP F-17-Z



A1 FLOOD ZONE MAP
FLOOD ZONE MAP: 35001C0139G

SITE LOCATION

The site is located on Hospital Loop NW and can be accessed from Montgomery going east on Jefferson to Hospital Loop (see vicinity map).

EXISTING CONDITIONS

The current site is estimated at 0.40 acres and is partially developed with an existing dirt area and concrete basketball court. The terrain is flat and slopes mildly from east to west. There is an existing parking lot located east of the site and an existing building located west of the site.

PROPOSED CONDITIONS

The proposed project would consist of a new asphalt-paved parking lot. The parking lot will have two rows of parking and one two-way drive lane. A drainage swale will be placed along the centerline of the drive lane to promote positive drainage north to Hospital Loop Road. Runoff from the parking lot will enter a proposed first flush pond as required by ordinance. Overflow from the first flush pond will drain through a proposed private sidewalk culvert located on Hospital Loop.

CONCLUSIONS

When developed as indicated on the grading and drainage plan, the increased runoff from the site is estimated at 0.54 cfs, and 1350 cf during the 100-year event. The first flush pond volume required for the project estimated at 493 cf. The proposed first flush pond is designed to accommodate 543 cf, which is well above the anticipated first flush volume for the proposed project. Overflow from the first flush pond will drain through a single 24" wide sidewalk culvert located on Hospital Loop.

FIRST FLUSH CALCULATIONS

$$\begin{aligned} VFF &= (0.34 \text{ in} \times 17,424 \text{ SF}) / 12 \\ VFF &= 493 \text{ CF} \\ \text{VOLUME PROVIDED} &= 543 \text{ CF} \end{aligned}$$

GENERAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES DURING THE CONSTRUCTION PHASE.
2. CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF ALBUQUERQUE, PRIOR TO ANY GRADING OR CONSTRUCTION.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
4. ALL EMBANKMENTS SHALL BE PLACED AND COMPACTED IN LIFTS OF MAXIMUM OF 8". THE EMBANKMENTS SHALL BE WETTED AND COMPACTED TO 95% OPTIMUM DENSITY PER ASTM D1557 AND 95% UNDER ALL STRUCTURES INCLUDING DRIVEWAYS AND PARKING LOTS.
5. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER(S) OF THE PROPERTY SERVED.
6. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
7. THE PROPERTY IS LOCATED IN ZONE X (500 YEAR) DESIGNATING AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLANE ACCORDING TO THE FLOOD INSURANCE RATE MAP, ALBUQUERQUE, NEW MEXICO AND UNINCORPORATED AREAS PER MAP NO 35001C 03271.
8. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE STORM DRAINAGE REGULATIONS. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE "GRADING AND DRAINAGE DESIGN REQUIREMENTS AND POLICIES FOR LAND DEVELOPMENT."
9. THE OWNER, CONTRACTOR AND/OR BUILDER SHALL COMPLY WITH ALL APPROPRIATE LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS.
10. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE AND REASONABLE MEASURES TO PREVENT SEDIMENT OR POLLUTANT LADEN STORM WATER FROM EXITING THE SITE DURING CONSTRUCTION. STORM WATER MAY BE DISCHARGED IN A MANNER, WHICH COMPLIES WITH THE APPROVED GRADING AND DRAINAGE PLAN.

11. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE MEASURES TO PREVENT THE MOVEMENT OF CONSTRUCTION RELATED SEDIMENT, DUST, MUD, POLLUTANTS, DEBRIS, WASTE, ETC FROM THE SITE BY WIND, STORM FLOW OR ANY OTHER METHOD EXCLUDING THE INTENTIONAL, LEGAL TRANSPORTATION OF SAME IN A MANNER ACCEPTABLE BY THE CITY.
12. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN ON THE GRADING AND DRAINAGE PLAN.
13. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.
14. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DOES NOT MEET ADA ACCESSIBILITY REQUIREMENTS. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%, ALL SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5.0%, AND ALL RAMPS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 15:1.
15. ALL SIDEWALKS AND CONCRETE FLATWORK SHALL HAVE A MINIMUM OF 0.5% SLOPE. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DO NOT MEET THIS REQUIREMENT.
16. THE CONTRACTOR SHALL SUBMIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION.
17. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS (UPDATE 8, AMENDMENT 1)
18. ALL EXISTING MANHOLES, VALVES AND METERS SHALL BE ADJUSTED TO NEW FINISH GRADE.

Worksheet for Broad Crested Weir - 1

Project Description	
Flow Element:	Broad Crested Weir
Solve For:	Discharge
Input Data	
Headwater Elevation:	69.85 ft
Crest Elevation:	69.35 ft
Tailwater Elevation:	69.50 ft
Crest Surface Type:	Paved
Crest Breadth:	5.00 ft
Crest Length:	2.00 ft
Results	
Discharge:	2.13 > 2 cfs :: O.K. ft ³ /s
Headwater Height Above Crest:	0.50 ft
Tailwater Height Above Crest:	0.15 ft
Weir Coefficient:	3.01 US
Submergence Factor:	1.00
Adjusted Weir Coefficient:	3.01 US
Flow Area:	1.00 ft ²
Velocity:	2.13 ft/s
Wetted Perimeter:	3.00 ft
Top Width:	2.00 ft

Worksheet for Broad Crested Weir - 1

Project Description	
Flow Element:	Broad Crested Weir
Solve For:	Discharge
Input Data	
Headwater Elevation:	70.00 ft
Crest Elevation:	69.50 ft
Tailwater Elevation:	69.50 ft
Crest Surface Type:	Paved
Crest Breadth:	5.00 ft
Crest Length:	3.00 ft
Results	
Discharge:	3.19 > 2 cfs :: O.K. ft ³ /s
Headwater Height Above Crest:	0.50 ft
Tailwater Height Above Crest:	0.00 ft
Weir Coefficient:	3.01 US
Submergence Factor:	1.00
Adjusted Weir Coefficient:	3.01 US
Flow Area:	1.50 ft ²
Velocity:	2.13 ft/s
Wetted Perimeter:	4.00 ft
Top Width:	3.00 ft

DRAINAGE DATA

HYDROLOGY											
Precipitation Zone 3 - 100-year Storm				P(360) =		2.6 in		P(1440) =		3.1 in	
Basin	Basin Area (Ac)	Land Treatment Factors				Ew (in)	V(100-6) (af)	V(100-24) (af)	Q(100) (cfs)		
		A	B	C	D						
										(Acres)	
Existing Conditions											
Site	0.40	0.00	0.00	0.34	0.06	1.45	0.048	0.051	1.47		
Total	0.40								1.47		
Proposed Conditions											
Site	0.40	0.00	0.00	0.00	0.40	2.36	0.079	0.095	2.01		
Total	0.40								2.01		

Pond Rating Table			
Pond #1			
Pond Rating Table		Spillway Crest = 69.35	
Side Slope	2:1	Volume	Cum Volume
Depth (ft)	Area (sq ft)	(cubic feet)	(cubic feet)
67.25	196	0	0
68.25	256	226	226
69.35	320	317	543
Pond Invert		67.25	
Spillway Crest		69.35	
WSE (First Flush)		69.20	
WSE (100-year)		69.35	

MILLER ENGINEERING CONSULTANTS
Engineers • Planners

JOB # E-19-055
MEC
DESIGNED

FILE
MEC
DRAWN

DATE 12-12-19
VAM
CHECKED

ENGINEERS STAMP

NEW MEXICO
COUNTY
BERNALILLO

EVANGEL CHRISTIAN ACADEMY
ALBUQUERQUE, NEW MEXICO

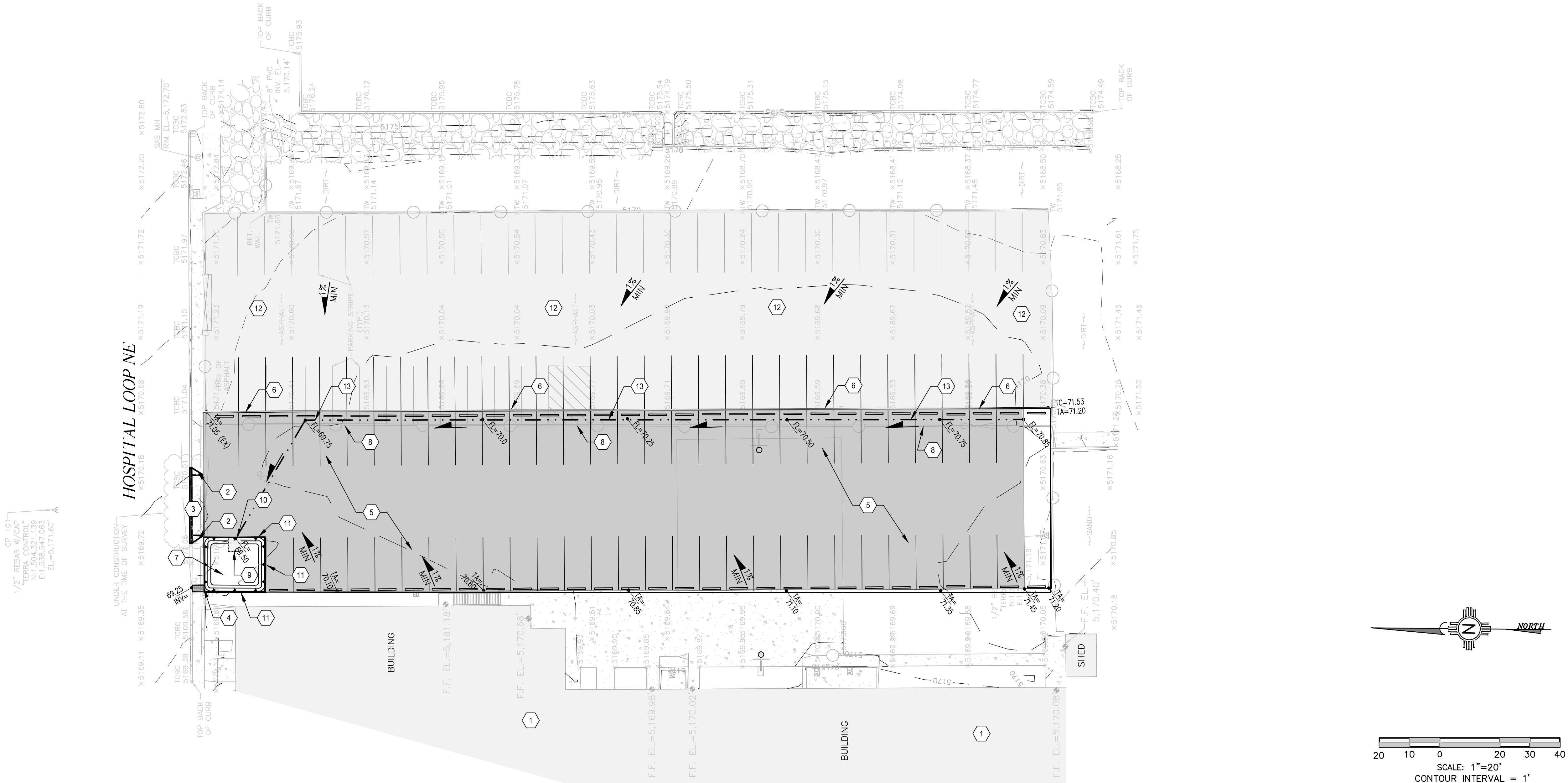
HYDROLOGY
RTC. LLC

REVISION DESCRIPTION

DATE

MARK

SHEET C-100

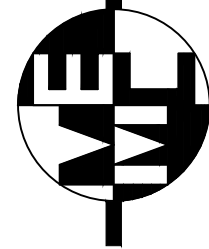


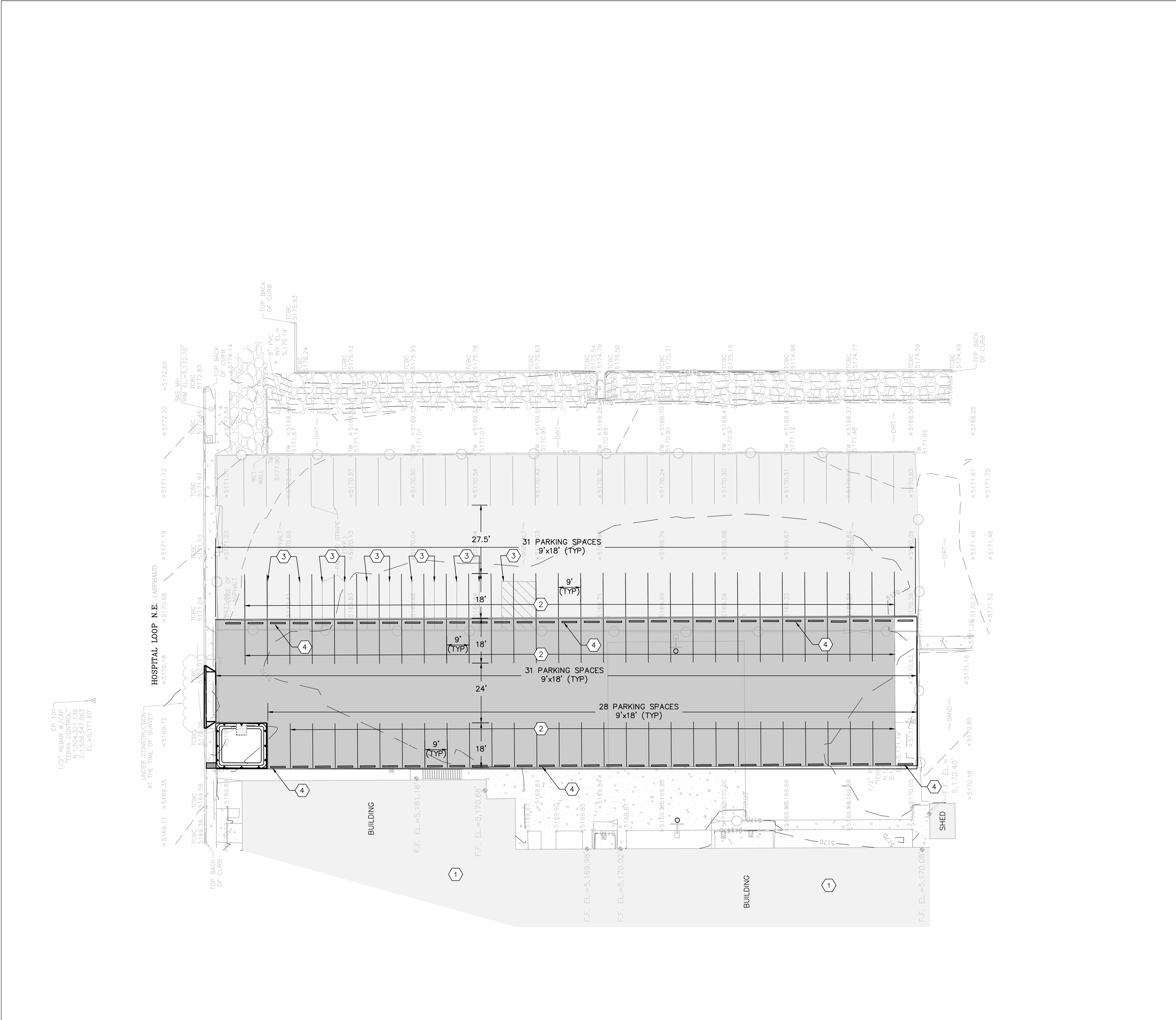
KEYED NOTES:

- EXISTING BUILDING.
- CONTRACTOR SHALL SAWCUT EXISTING SIDEWALK AND CURB AND GUTTER TO A CLEAN STRAIGHT EDGE. REMOVE AND DISPOSE OF EXISTING CONCRETE. MATCH EXISTING TOP OF CONCRETE PAVING WITH CONCRETE SIDEWALK AND CURB AND GUTTER.
- NEW CONCRETE DRIVE PAD, SEE DETAIL SHEET C-501.
- NEW 24" SINGLE SIDEWALK CULVERT.
INV = 69.25 (OUT)(FIELD VERIFY)
INV = 69.35 (IN), SEE SHEET C-501 FOR DETAILS.
- NEW HOT MIX ASPHALT PAVING. SEE SHEET C-501 FOR PAVING SECTION.
- CONTRACTOR SHALL SAWCUT EXISTING ASPHALT TO A CLEAN STRAIGHT EDGE AND PLACE NEW CONCRETE HEADER CURB. SEE DETAIL SHEET C-501.
- WATER HARVEST AREA. SEE DETAIL SHEET C-501.
VOLUME = 543
INV = 67.25
- REMOVE AND DISPOSE EXISTING FENCE.
- NEW RIP-RAP RUNDOWN, SEE DETAIL SHEET C-501.
- NEW 3' CURB CUT.
- NEW HEADER CURB, SEE DETAIL SHEET C-501.
- EXISTING PARKING LOT TO BE RECONSTRUCTED AND OVERLAYED AS NECESSARY TO PROVIDE POSITIVE DRAINAGE (1% MIN. SLOPE) TO NEW ASPHALT SWALE ELEVATIONS.
- NEW ASPHALT SWALE, S=0.5% MINIMUM.

LEGEND:

- | | | | |
|------------------|---|---------------|------------------------|
| 38.00
FG | PROPOSED SPOT ELEVATIONS (FINISHED GRADE) | ===== | GRADE BREAK-HIGH POINT |
| MATCH
(95.19) | MATCH EXISTING ELEVATIONS | --- · · · --- | SWALE |
| TCON | TOP OF CONCRETE | SD | STORM DRAIN LINE |
| FL | FLOW LINE, CURB | 5895 | PROPOSED MAJOR CONTOUR |
| INV | INVERT | 5895 | PROPOSED MINOR CONTOUR |
| FG | FINISH GRADE | 5895 | EXISTING MAJOR CONTOUR |
| TBC | TOP OF BASE COURSE | 5895 | EXISTING MINOR CONTOUR |
| TC | TOP OF CURB | 5895 | FLOOD ZONE X |
| TG | TOP OF GRATE | 5895 | FLOOD ZONE A |
| TA | TOP OF ASPHALT | 5895 | |
| → | FLOW ARROW | | |

 MILLER ENGINEERING CONSULTANTS Engineers • Planners	NEW MEXICO			ENGINEERS' STAMP
	BERNALILLO COUNTY			
	EVANGELINE CHRISTIAN ACADEMY			
	ALBUQUERQUE, NEW MEXICO			
	GRADING AND DRAINAGE PLAN			
	RTC, LLC			
SHEET	MARK	DATE	REVISION DESCRIPTION	



- GENERAL NOTES:**
- MEC DID NOT EVALUATE THE PARKING LOT STRIPING PLAN PER COA ZONING REGULATIONS.
 - COMPACT PARKING SPACES SHALL BE LABELED IN ACCORDANCE WITH LATEST MUTCD.
 - AT AREAS OF CUTTING AND TRENCHING AT EXISTING ASPHALT SURFACES FOR NEW WORK, THE CONTRACTOR SHALL PATCH AND REPAIR DAMAGED ASPHALT TO MATCH EXISTING ADJACENT SURFACES.
 - THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY CONFLICT W/ SITE UTILITIES OR FEATURES AND OBTAIN RESOLUTION PRIOR TO PROCEEDING WITH THE WORK.
 - CONTRACTOR SHALL COORDINATE SITE ACCESS AND STAGING AREA WITH OWNER/ENGINEER.
 - CONTRACTOR SHALL TAKE PRECAUTIONS AS NECESSARY TO PROTECT FROM DAMAGING EXISTING UTILITY LINES, WALKS, LANDSCAPING, ETC. WHICH WILL REMAIN AS PART OF THE FINAL SYSTEM. EXTRA CARE MUST BE GIVEN TO PRESERVING EXISTING IRRIGATION LINES AND LANDSCAPING. CONTRACTOR SHALL REPAIR AND/OR RESTORE THESE ITEMS AS REQUIRED TO PRE-CONSTRUCTION CONDITION AT THEIR OWN EXPENSE.
 - THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN AND PHASING PLAN AND SUBMIT IT TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. THE INTENT OF THESE PLANS SHALL BE TO MAINTAIN ACCESS TO THE PARKING LOT AND MAINTAIN SOME PARKING SPACES AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL ACCOMMODATE THE VEHICULAR TRAFFIC ASSOCIATED WITH THE FACILITY AT ALL TIMES AND SHALL COORDINATE WITH THE OWNER OF THE FACILITY AND THE ENGINEER AT ALL TIMES DURING CONSTRUCTION TO ENSURE MINIMAL DISTURBANCE TO THEIR DAILY OPERATIONS.
 - SLOPE PAVEMENT MINIMUM 1%.
 - ALL ASPHALT REMOVAL AND REPLACEMENT SHALL BE SAWCUT TO A CLEAN, STRAIGHT EDGE. ALL SAWCUT EDGES SHALL BE PREPARED TO APPLY A TACKCOAT. APPLY TACKCOAT TO ALL SAWCUT PAVEMENT EDGES PRIOR TO ASPHALT REPLACEMENT.
 - ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION).

- KEYED NOTES**
- EXISTING BUILDING TO REMAIN.
 - NEW 4" YELLOW REFLECTIVE STRIPE IN ACCORDANCE WITH LATEST MUTCD.
 - REMOVE EXISTING STRIPING.
 - NEW CONCRETE WHEEL STOP

MILLER ENGINEERING CONSULTANTS <i>Engineers • Planners</i>		3500 COMANCHE NE BLDG. F ALBUQUERQUE, NM 87107 (505)888-7500 (505)888-3800 (FAX)	
DESIGNED MEC	JOB # E-19-055	DRAWN MEC	FILE
CHECKED VAM	DATE 12-12-19		
		ENGINEER'S STAMP	
NEW MEXICO			
BERNALILLO COUNTY			
EVANGLE CHRISTIAN ACADEMY ALBUQUERQUE, NEW MEXICO			
STRIPING PLAN RTC, LLC			
		REVISION	DESCRIPTION
		DATE	
		MARK	
SHEET		C-102	

