

CITY OF ALBUQUERQUE



October 29, 2014

Mr. Scott McGee, PE
9700 Tanoan Drive NE
Albuquerque, NM 87113

**Re: Santuario De San Martin De Porres Church
Scott McGee's Engineer's Stamp 10-29-14 (M10D002)**

Dear Mr. McGee,

Based upon the information provided in your submittal received October 29, 2014, the above referenced plan is approved for SO-19 and Building Permit. Based on discussions with the Hydrology and you, the discharge will be for a 4 inch outlet instead of 3inch to reduce clogging issues.

The SO-19 Permit is required for construction within the City Right of Way. A copy of this approval letter must be on hand when applying for the Excavation Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

PO Box 1293

If you have any questions, you can contact me at 924-3994.

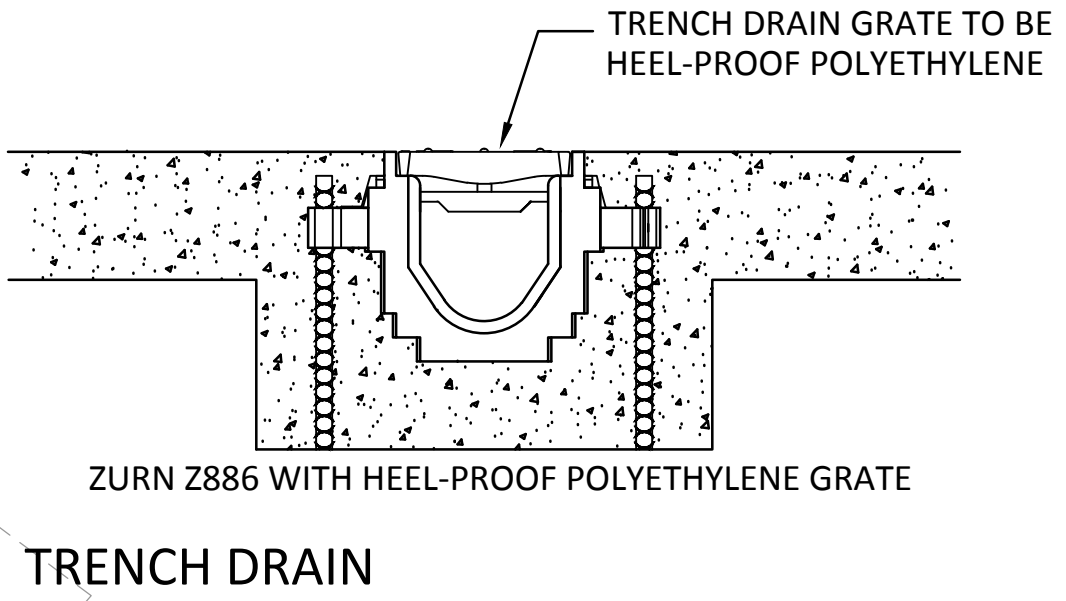
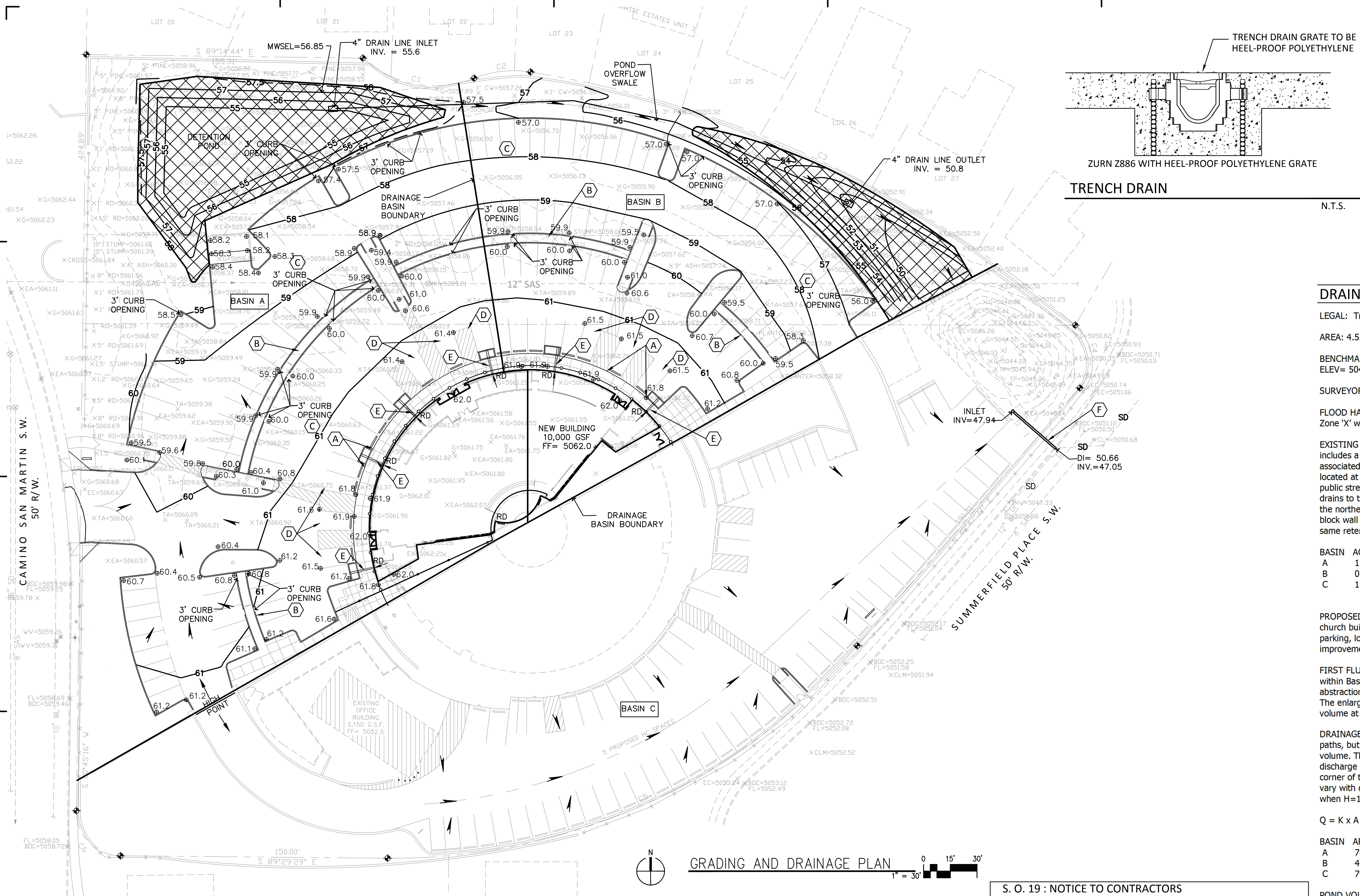
Albuquerque

New Mexico 87103

www.cabq.gov

Sincerely,

Amy L. D. Niese, PE
Senior Engineer, Hydrology
Planning Department



N.T.S.

DRAINAGE

LEGAL: Tract A, Westgate Heights

AREA: 4.555 acres (198,410 SF) PRECIPITATION ZONE: 1

BENCHMARK: City of Albuquerque Station '5-M10' being a brass cap
ELEV= 5042.77 (NAVD 1988)

SURVEYOR: Harris Surveying, Inc. dated December 2009

FLOOD HAZARD: From FEMA Panel 336, this site is identified as being within Zone 'X' which is located outside the 100-year floodplain

EXISTING CONDITIONS: The existing church site was developed in 1981 and includes a 9,500 SF sanctuary building along with two other smaller buildings, associated paved parking, and landscaping. Two existing retention ponds are located at the northwest corner and eastern end of the site. The two abutting public streets are both higher than the retention pond areas. Runoff in Basin A drains to the pond shown in the northwest corner of the site. Basin B drains to the northeast and runoff passes through a group of 3" square weep holes in a block wall on its way to the eastern retention pond. Basin C surface flows to the same retention pond. No runoff discharges from the site located in Zone 1.

BASIN	ACRES	'A'	'B'	'C'	'D'	Q(EXISTING)
A	1.791	0	32	44	24	1.791 x 2.96= 5.3
B	0.937	0	9	73	18	0.937 x 3.07= 2.9
C	1.827	0	5	5	90	1.827 x 4.18= 7.6
						Total Q = 15.8 CFS

PROPOSED IMPROVEMENTS: The proposed improvements include a 10,000 SF church building along with additional paved parking. The proposed additional parking, located in the NW half of the site, is within Basins A & B with no improvements proposed in Basin C.

FIRST FLUSH: The first flush volume is calculated using the impervious areas within Basins A & B only. It is based on 0.44" rainfall less the 0.1" initial abstraction giving $V = [(1.791)(.74) + (0.937)(.85)][(43560)(0.34/12)] = 2,618$ CF. The enlarged pond at the NW corner of the site provides 2,800 CF storage volume at 0.6' depth.

DRAINAGE APPROACH: The site drainage will continue to follow historic flow paths, but increased impervious area will require additional onsite storage volume. The pond design is based on the 100-year 6-hour volume as site discharge is allowed at 0.1 CFS/Acre. The storm water pond in the northwest corner of the site will discharge to the east via a 4" drain line. The flow rate will vary with depth as determined by the Orifice equation. The maximum flow rate when $H=1.1'$ as follows:

$$Q = K \times A \times (2gH)^{1/2} = (0.6)(0.0873)(8.42) = 0.44 \text{ CFS} \quad [<0.45 \text{ CFS}]$$

BASIN	AREA (SF)	'A'	'B'	'C'	'D'	V(DEVELOPED)
A	78,005	0	12	14	74	$(78005)(0.1398) = 10,905$ CF
B	40,804	0	9	6	85	$(40804)(0.1496) = 6,104$ CF
C	79,584	0	5	5	90	$(79584)(0.1547) = 12,310$ CF

POND VOLUMES ARE AS FOLLOWS:

NW	ELEV	AREA	VOL(CF)
55	4,137		0
56	5,900		5,018
57	7,670		11,800 [$>10,905$ CF]

EAST – EXISTING	ELEV	AREA	VOL(CF)
45	300		0
46	560		430
47	880		1150
48	1400		2290
49	1930		3955
50	3790		6815
51	5810		11615
52	8040		18540 [$>18,414$ CF]

A 4" drain line is proposed to discharge storm water to Summerfield Place SW into the back of an existing storm drain inlet. A 4" discharge pipe will be used to control discharge to the allowable 0.1CFS/Acre based on a maximum water depth of 52-48.1= 3.9'

$$Q = K \times A \times (2gH)^{1/2} = (0.6)(0.049)(15.8) = 0.46 \text{ CFS}$$

Developed runoff will surface flow to the storm water basins at the NW and NE corners of the site per historic conditions. The proposed improvements will increase site runoff, but by enlarging the onsite detention pond, the impact to downstream drainage facilities will be minimized.

REV 10/29/14: 4" DISCHARGE USED

LEGEND

- RD = ROOF DRAIN
FF= 5062.0 = FINISH FLOOR ELEVATION
INV = INVERT
— EXISTING CONTOUR
— PROPOSED CONTOUR
→ FLOW ARROW
BASIN A DRAINAGE BASIN ID
— DRAINAGE BASIN BOUNDARY
⊕ SPOT ELEVATION

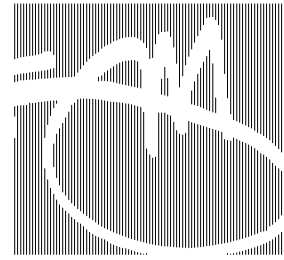
KEYED NOTES

- A. NEW ASPHALT PAVING TO BE FLUSH WITH SIDEWALK ELEVATION AROUND BUILDING PERIMETER.
B. NEW LANDSCAPE MEDIAN AREAS WITH FINISH GRADE DEPRESSED 2-4" BELOW ADJACENT ASPHALT ELEVATION.
C. NEW CURB OPENINGS TO ALLOW RUNOFF TO ENTER/EXIT MEDIANS.
D. NEW ACCESSIBLE PARKING SPACE AND ACCESSWAY TO NOT EXCEED 2% SLOPE IN ANY DIRECTION.
E. NEW TRENCH DRAIN (6) LOCATED AT ROOF DRAIN OUTLETS TO DISCHARGE TO PLANTER. PROVIDE 8" WIDE BY 6" HIGH CURB OPENING ON OPPOSITE SIDE OF PLANTER FOR OVERFLOW.
F. BUILD NEW 32 LF 4" PVC DRAIN LINE TO CONNECT TO EXISTING CATCH BASIN ON SUMMERFIELD PLACE PER COA STD DWG NO 2237. INVERT AT CATCH BASIN = 47.30 AND INLET INV = 47.94.

S. O. 19 : NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R/W.
2. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT THE LINE LOCATING SERVICE, NEW MEXICO ONE CALL 260-1990, (NM ONE CALL "811") FOR THE LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

APPROVAL	NAME	DATE
INSPECTOR		



J M Z arquitectos
architecture | urbanism

Jose M. Zelaya, AIA

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www.JMZarchitecture.com

Stamp



Consultant

Client

Archdiocese of Santa Fe
4000 St. Joseph Pl. N.W.
Albuquerque, NM 87120

Revisions

No.	Date	Description

Issue Date: SEPTEMBER 4, 2014

Project No. JMZ 020213

Doc. Phase: 100% CDS

FOR PERMIT
AND FOR CONSTRUCTION

Drawn By: CB

Checked By: SMM

Principal: SMM

Signed:

Date:

License No.

Project Name

Santuario
San Martin De Porres
8301 Camino San Martin SW
Westgate Heights
Albuquerque, NM 87121

Sheet Title

GRADING AND DRAINAGE PLAN

Sheet Number

C-101

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