CITY OF ALBUQUERQUE

April 16, 2015

Richard Dourte, PE
RHD Engineering, LLC
10101 Montgomery Blvd., NE
Albuquerque, NM 87120

RE: **First Christian Church, 10101 Montgomery Blvd.**
Grading an Drainage Plan
Engineer's Stamp Date 4-01-2015 (File: F21-D080)

Dear Mr. Dourte:

Based upon the information provided in your submittal received 4-01-15, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan in the construction sets when submitting for a building permit.

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

If you have any questions, you can contact me at 924-3924.

Sincerely,

Jeanne Wolfenbarger, P.E.
Senior Engineer, Planning Dept.
Development Review Services

Orig: Drainage file
c.pdf via Email: Recipient, Monica Ortiz

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

F21-D080_BP_GR_Appr

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: First Christian Church Building Permit #: _____ City Drainage #: _____

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

Legal Description: Tract A-1 First Church Addition

City Address: 10101 Montgomery blvd NE, Alb. NM

Engineering Firm: RHD Engineering, LLC Contact: Richard Dourte

Address: 4305 Purple Sage Ave. NW, Albuquerque, NM, 87120

Phone#: 505-288-1621 Fax#: _____ E-mail: rhdengineering@outlook.com

Owner: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Architect: Simons Architecture PC Contact: Joe Simons

Address: PO box 67408, Alb., NM 87193

Phone#: 505-480-4796 Fax#: _____ E-mail: joe@simonsarchitecture.com

Surveyor: Construction Surveys Technologies, Inc Contact: John Gallegos

Address: _____

Phone#: 505-917-8921 Fax#: _____ E-mail: nmsurveyor@gmail.com

Contractor: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL:

- ___ DRAINAGE REPORT
- ___ DRAINAGE PLAN 1st SUBMITTAL
- X DRAINAGE PLAN RESUBMITTAL
- ___ CONCEPTUAL G & D PLAN
- ___ GRADING PLAN
- ___ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ___ ENGINEER'S CERT (HYDROLOGY)
- ___ CLOMR/LOMR
- ___ TRAFFIC CIRCULATION LAYOUT (TCL)
- ___ ENGINEER'S CERT (TCL)
- ___ ENGINEER'S CERT (DRB SITE PLAN)
- ___ ENGINEER'S CERT (ESC)
- ___ SO-19
- ___ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ___ SIA/FINANCIAL GUARANTEE RELEASE
- ___ PRELIMINARY PLAT APPROVAL
- ___ S. DEV. PLAN FOR SUB'D APPROVAL
- ___ S. DEV. FOR BLDG. PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ CERTIFICATE OF OCCUPANCY (PERM)
- ___ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- ___ FOUNDATION PERMIT APPROVAL
- X BUILDING PERMIT APPROVAL
- ___ GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ WORK ORDER APPROVAL
- ___ GRADING CERTIFICATION
- X SO-19 APPROVAL
- ___ ESC PERMIT APPROVAL
- ___ ESC CERT. ACCEPTANCE
- ___ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED: X Yes ___ No ___ Copy Provided

DATE SUBMITTED: 4-01-15 By: _____

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

RHD Engineering, LLC

Richard H. Dourte
4305 Purple Sage Ave. NW
Albuquerque, NM 87120
(505)288-1621
rhdengineering@outlook.com

March 30, 2015

Ms. Jeanne Wolfenbarger,
Senior Engineer, Planning Department
Development Review Services
600 Second Street
City of Albuquerque, NM 87102

RE: First Christian Church, 10101 Montgomery Boulevard NE
Grading and Drainage Plan (F21-D080)

Dear Ms. Wolfenbarger,

Thank you for your letter dated March 27, 2015 (enclosed) regarding the above referenced project. The following is in response to your items:

1. The new improvement area that are contributing to the 0.13 ac area you referenced are included on the attached document. Elevation information is included on the grading plan.

2. The information requested in included on the attached document or on the grading plan.

3. The elevations have been corrected on the grading plan.

4. The sidewalk has been labeled, std dwg drawing has been called out and the detail for the pipe outlet and culvert have been added to the grading plan.

Thank you..

Sincerely,

Richard Dourte, PE
RHD Engineering, LLC

Areas Contributing to the 0.13ac area increase of impervious area.

Areas		Flow rate	Flow (100yr 6hr)
Roof area = 7275sf	= 0.17ac	5.25cfs/ac	0.9cfs
Patio and stage	= 0.13ac	5.25cfs/ac	0.7cfs
Landscaping area	= 0.09ac	3.73cfs/ac	0.3cfs
Total			**1.9cfs**

This area has two inlets, thus 1cfs per inlet, the depth of water on those inlets would be 0.25ft, see attached chart…

The pipe capacity for a 12 in HDPE pipe at 1% grade is:

Q=(1.49/n)(A)(R)^2/3(S)^1/2
= (1.49/0.01)(0.785)(.25)^2/3(.01)^1/2
= 4.6cfs

The pipe capacity for a 12 in HDPE outlet pipe at 2% grade is:

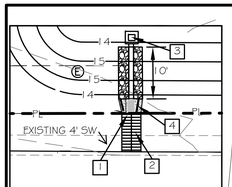
Q=(1.49/n)(A)(R)^2/3(S)^1/2
= (1.49/0.01)(0.785)(.25)^2/3(.02)^1/2
= 6.5 cfs

The grate capacity at the outlet for the first flush pond is 2cfs, please see the attached chart.

The sidewalk culvert capacity (per single 2ft culvert) is:

Q=(1.49/n)(A)(R)^2/3(S)^1/2
= (1.49/.013)(1.0)(.333)^2/3(.01)^1/2
= 5cfs (each)

Thus the max flow from the outlet pipe is 2cfs that flows into the sidewalk culverts that have a capacity of 6.5cfs each.



SIDEWALK CULVERT DETAIL
NTS

EROSION CONTROL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.

2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.

3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.

4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.

5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.

CAUTION:

EXISTING UTILITIES ARE NOT SHOWN. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATION TO DETERMINE THE ACTUAL LOCATION OF UTILITIES & OTHER IMPROVEMENTS.

NOTICE TO CONTRACTORS 50-19 NOTES:

AN EXCAVATION 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 HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBIC WORKS CONSTRUCTION, 1985.

TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.

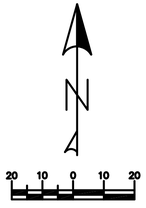
PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.

BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.

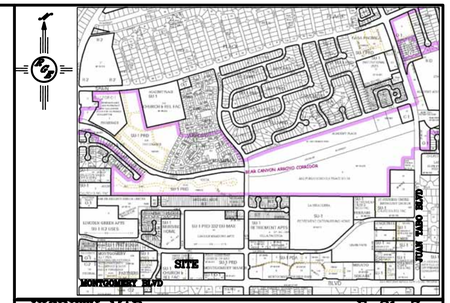
MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.

WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

APPROVAL	NAME:	DATE:
INSPECTOR		



SCALE: 1"=20'



VICINITY MAP: F-21-Z

FIRM MAP: 35001C0144G

LEGAL DESCRIPTION:

TRACT A-1, FIRST CHURCH ADDITION
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO

NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.

LEGEND

- XXXX ● PROPOSED SPOT ELEVATION
- 5601 EXISTING CONTOUR
- 5600 EXISTING INDEX CONTOUR
- 5601 PROPOSED CONTOUR
- 5600 PROPOSED INDEX CONTOUR
- LOT LINE
- CENTERLINE
- RIGHT-OF-WAY
- EXTENDED STEM WALL SEE ARCH PLANS FOR DETAILS
- PROPOSED ROCK FACE WALL
- EXISTING CURB AND GUTTER
- PROPOSED EDGE OF CONCRETE
- PROPOSED FLOWLINE
- EXISITNG WALL
- PROPOSED BASIN BOUNDARY
- (BASIN A) PROPOSED BASIN ID

ENGINEER'S SEAL

RICHARD H. DOURTE NEW MEXICO 10854 LICENSED PROFESSIONAL ENGINEER 4-01-15

RICHARD H. DOURTE P.E. # 10854

FIRST CHRISTAIN CHURCH

GRADING & DRAINAGE PLAN CITY OF ALBUQUERQUE

DRAWN BY: DEM
DATE: 3-2015
FIRST CHURCH_GNDLDWG
SHEET #: 4 of 6
JOB #: XXXXX