



April 13, 2015

David Thompson, P.E.
Thompson Engineering Consultants, Inc.
PO Box 65760
Albuquerque, NM 87193

**RE: Lot 24, Block 18, University Heights, 201 Princeton Drive SE
Grading and Drainage Plan
Engineer's Stamp Date 3-24-2015 (File: K16-D082)**

Dear Mr. Thompson:

Based upon the information provided in your submittal received 3-24-15, the above referenced plan cannot be approved for a Building Permit until the following comments are addressed:

- 1) Label the area of the new building addition on the plan view, and label the existing building. Show property lines and actual basin boundary line on the plan view. Label the public alleyway.
- 2) As a result of the added impervious area, address first flush management as required per the COA Drainage Ordinance which is defined as 0.34" times the impervious area. Also, show all roof drains for the new building. It looks like there is opportunity to retain first flush volumes either immediately north of the new building or south of the building within the proposed swale. Show first flush computations.
- 3) For the 100-year hydrologic calculations, label "Existing Total Runoff" and "Proposed Total Runoff". Also, within the legend, show legend for new concrete, existing building, new building, and existing spot elevations.
- 4) In the discussion for Developed Drainage Conditions, address the site's ultimate discharge into the storm drain in Silver Avenue.
- 5) Provide a detail for the swale along the south side of the new building and its connection to the public alleyway and/or Princeton Drive, and provide more spot elevations for this swale. Show all existing curb as applicable in these areas. In the discussion for developed drainage conditions, address any impact of on-site drainage to the property south of the new development. If some of the on-site drainage is discharged to Princeton Drive, address this in the write-up.

PO Box 1293

Albuquerque

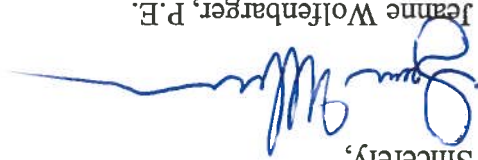
New Mexico 87103

www.cabq.gov

- 6) Provide width of public alleyway on the plan. Include more detail for the proposed driveway, including calling out a width and applicable COA standard drawing details. Showing a top of curb elevation for the new driveway seems to conflict with the driveway location unless this top of curb also represents the flowline. Label the location where new curb ties to existing curb.

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
Addressee via Email

DRAINAGE INFORMATION SHEET
(REV. 1/28/2003rd)

PROJECT TITLE: 201 PRINCETON SE ZONE MAP/DRG. FILE #: K-16
DRB #: _____ EPC #: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: LOT 24, BLOCK 18, UNIVERSITY HEIGHTS
CITY ADDRESS: _____

ENGINEERING FIRM: Thompson Engineering Consultants, Inc.
ADDRESS: P.O. Box 65760
CITY, STATE: Albuquerque, NM

CONTACT: David Thompson
PHONE: 271-2199
ZIP CODE: 87193

OWNER: Ron & Virginia Uilke
ADDRESS: 2612 Rio Orilla NW
CITY, STATE: Albuquerque, NM

CONTACT: Virginia Uilke
PHONE: 363-2197
ZIP CODE: 87120

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: Harris Surveying, Inc.
ADDRESS: 2412 Monroe NE, Suite D
CITY, STATE: Albuquerque, NM

CONTACT: Tony Harris
PHONE: 889-8056
ZIP CODE: 87110

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL, REQUIRES TCL or equal
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ ENGINEER'S CERTIFICATION(TCL)
☐ ENGINEER'S CERTIFICATION (DRB APPR. SITE PLAN)
☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D. APPROVAL
☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☒ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY (PERM.)
☐ CERTIFICATE OF OCCUPANCY (TEMP.)
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
☒ NO
☐ COPY PROVIDED

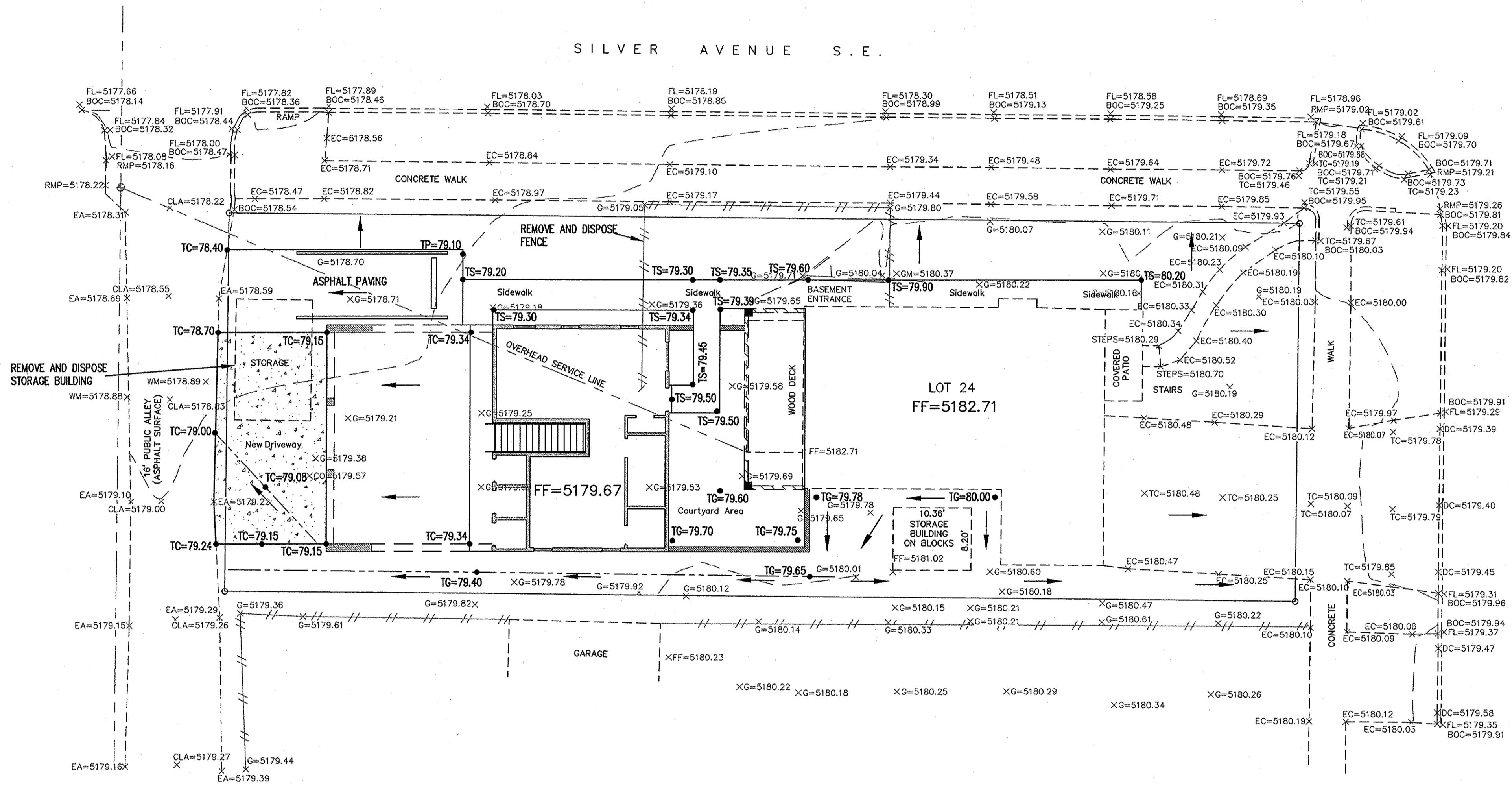
DATE SUBMITTED: March 24, 2015

BY: _____

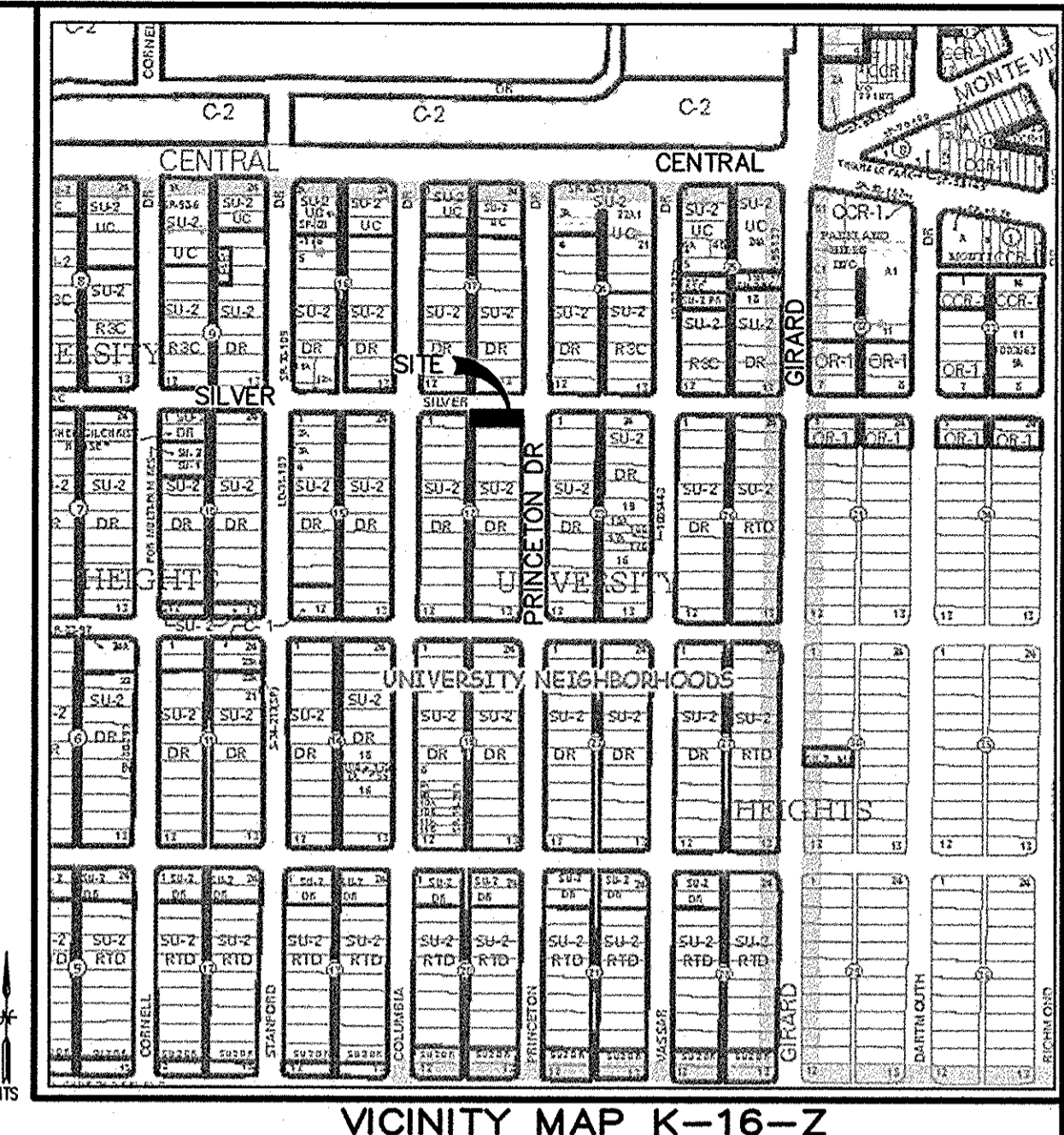


Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on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

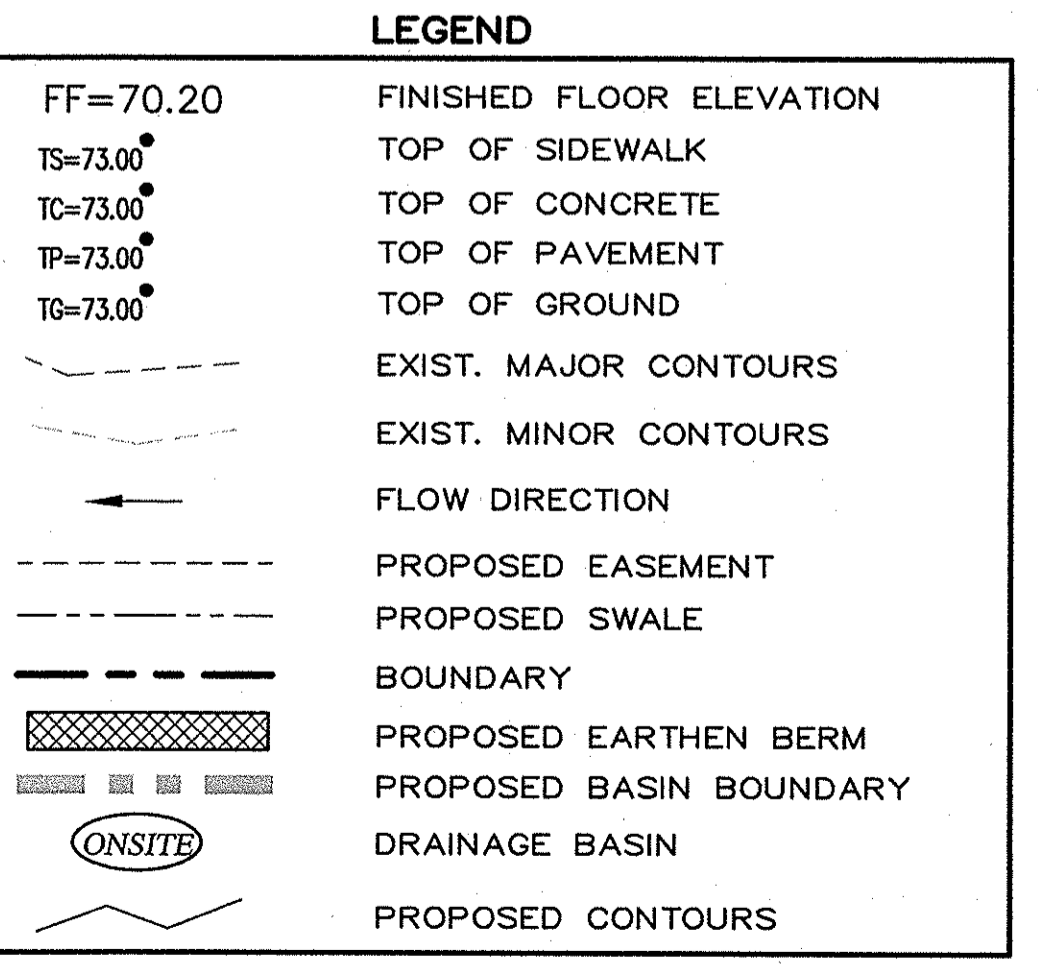
1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five acres
2. **Drainage Plans:** Required for building permits, grading permits, paving permits, and site plans less than five (5)
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or



100-YEAR HYDROLOGIC CALCULATIONS										
BASIN #	AREA (acre)	LAND TREATMENT				WEIGHTED E (in)	100-YEAR PRECIPITATION			
		A (%)	B (%)	C (%)	D (%)		V (6-hr) (acre-ft)	V (24-hr) (acre-ft)	V (24-hr) (cu-ft)	Q (cfs)
EXISTING CONDITIONS										
LOT	0.1636	0.00	27.30	27.40	45.30	1.48	0.02	881	0.02	988
TOTAL RUNOFF	0.16						0.02	881	0.02	988
1.1681										
LOT	0.1636	0.00	18.70	18.70	62.60	1.68	0.02	1,000	0.03	1,149
TOTAL RUNOFF	0.16						0.02	1000	0.03	1149
EXCESS PRECIP.		0.53	0.78	1.13	2.12	E _i (in)				
PEAK DISCHARGE		1.56	2.28	3.14	4.7	Q _h (cfs)				
							ZONE = 2			
WEIGHTED E (in) = (E _A)(%A) + (E _A)(%B) + (E _C)(%C) + (E _D)(%D)							P _{6-hr} (in.) = 2.35			
V _{6-hr} (acre-ft) = (WEIGHTED E)(AREA)/12							P _{24-hr} (in.) = 2.75			
V _{24-hr} (acre-ft) = V _{6-hr} + (A ₀)(P _{24-hr} - P _{6-hr})/12							P _{24-hr} (in.) = 3.95			
Q (cfs) = (Q _h)(A ₀) + (Q _h)(A ₀) + (Q _h)(A ₀) + (Q _h)(A ₀)										



DRAINAGE PLAN:
LEGAL DESCRIPTION: LOT 24, BLOCK 18, UNIVERSITY HEIGHTS
SITE AREA: 0.1636 ACRES
FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED AUGUST 16, 2012 (PANEL NO. 35001C0353H) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA PROTECTED BY LEVEES FROM THE 1% ANNUAL CHANCE FLOOD.
EXISTING DRAINAGE CONDITIONS:
CURRENTLY THE LOT HAS A HOME AND TWO STORAGE BUILDINGS. THE LOT DRAINS TO PRINCETON DRIVE, SILVER AVENUE, AND THE ALLEY IN THE BACK. THE LOT CURRENTLY HAS FREE DISCHARGE TO THE SURROUNDING STREETS. THE EXISTING PEAK RUNOFF TO THE SURROUNDING STREETS IS 0.59 CFS.
THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH SETION 22 OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM), ENTITLED "DRAINAGE, FLOOD CONTROL, AND EROSION CONTROL." THE DESIGN STORM USED FOR BOTH UNDEVELOPED AND DEVELOPED CONDITIONS IS THE 100-YEAR, 6-HOUR STORM EVENT FOR RUNOFF. THE SITE IS LOCATED IN ZONE 2 SO THE 100-YEAR, 6-HOUR STORM EVENT IS 2.35 INCHES. UNDER EXISTING CONDITIONS THE LOTS INCLUDE LAND TREATMENTS A, B, AND C.
DEVELOPED DRAINAGE CONDITIONS:
THIS PROJECT INVOLVES THE ADDITION OF A TWO STORY BUILDING TO THE BACK OF THE LOT. THE BUILDING INCLUDES A CARPORT AND THREE ONE-BEDROOM APARTMENTS. THERE IS A SMALL COURTYARD AREA BETWEEN THE EXISTING BUILDING AND THE NEW BUILDING. THE ADDITIONAL IMPERVIOUS IMPROVEMENTS WILL DRAIN TO THE SURROUNDING STREETS SIMILAR TO HOW THE LOT DRAINS UNDER EXISTING CONDITIONS. A SWALE WILL BE DUG ALONG THE SOUTH SIDE OF THE NEW ADDITION TO ENSURE THAT RUNOFF IS DIRECTED TO THE PUBLIC ALLEY ON THE WEST SIDE OF THE LOT. THE REMAINDER OF THE NEW ASSITION WILL DRAIN NORTH TO SILVER AVENUE OR WEST TO THE PUBLIC ALLEY. THE 100-YEAR, 6-HOUR RUNOFF UNDER DEVELOPED CONDITIONS IS 0.65 CFS, WHICH IS ONLY 0.06 CFS HIGHER THAN THE PEAK RUNOFF DURING EXISTING CONDITIONS.



Thompson Engineering Consultants, Inc.
P.O. BOX 65760
ALBUQUERQUE, NM 87193
PHONE: (505) 271-2199
FAX: (505) 830-9246

DATE: _____

NO. _____

REVISION BY: _____

DATE: _____

PROJECT: _____

DRAWN BY: DEM

CHECKED BY: _____

APPROVED BY: _____

FILE: _____

LOT 24, BLOCK 18
UNIVERSITY HEIGHTS
201 PRINCETON DR. S.E.

GRADING AND DRAINAGE PLAN

CITY/COUNTY REVIEW

DEPARTMENT: _____

WASTEWATER MGMT. DIV: _____

WATER SERVICES: _____

SUBDIVISION ENG: _____

STREETS: _____

TRAFFIC: _____

DATE: _____

SIGN-OFF: _____

FOR CITY/COUNTY USE ONLY

SHEET No. 1 of 1