

CITY OF ALBUQUERQUE



November 30, 2015

Levi Valdez, PE
Levi J. Valdez & George Rodriguez Development Consultant
12800 San Juan, N.E.
Albuquerque, NM 87123

Richard J. Berry, Mayor

RE: 413 Harvard Drive SE (File: K16D083)
Grading and Drainage Plan
Engineer's Stamp Date – 10/19/15

Dear Mr. Valdez:

Based upon the information provided in your submittal received 10-19-15, the above referenced Grading Plan cannot be approved for Building Permit until the following comments are addressed.

- Provide offsite discharge flows to the alley west of the property and to Harvard Dr. east of the property. Drainage patterns for both the alley and Harvard Dr. appear to flow south. Ensure that offsite flows can be captured by downstream inlets and that no properties are adversely affected by discharged flows.
- Provide documentation allowing flows to enter alley west of the property.
- Provide adequate detailed information on the Grading Plan to ensuring no flows enter adjacent properties to the north and south.
- Show limits of concrete removal at the northeast property corner to accommodate First Flush Pond 1.
- Clearly identify and define property lines.

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

Sincerely,

Rudy Archuleta, P.E.
Senior Engineer, Planning Dept.
Development Review Services

Orig: Drainage file
c.pdf Addressee via Email



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

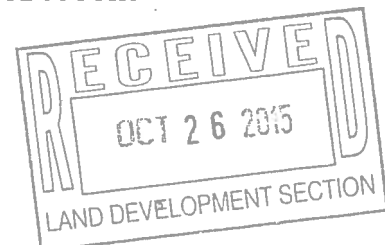
Project Title: 413 HARVARD DRIVE S.E. City Drainage #: K16D083
DRB#: _____ EPC#: _____ Work Order#: _____
Legal Description: LOT 18, BLOCK 4, UNIVERSITY HEIGHTS ADDITION
City Address: 413 HARVARD DRIVE S.E., ALBUQUERQUE, NEW MEXICO 87108
Engineering Firm: LEVI J. VALDEZ, P.E. GEORGE T. RODRIGUEZ - DEVELOPMENT CONSULT. Contact: LEVI VALDEZ GEORGE RODRIGUEZ
Address: 12800 SAN JUAN N.E., ALBUQUERQUE, NEW MEXICO 87123
Phone#: 505-610-0593 Fax#: _____ E-mail: prwrod@hotmail.com
Owner: FIRST CHOICE EQUITY BUILDERS, INC. Contact: FRED RIVERA
Address: 1020 LOMAS BLVD. N.W., ALBUQUERQUE, NEW MEXICO 87102
Phone#: 505-244-3800 Fax#: _____ E-mail: _____
Architect: J&F CONCEPTS, JAMES FENTON-DESIGNER Contact: JAMES FENTON
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____
Surveyor: CHRISTOPHER J. DEHLER, P.L.S. Contact: _____
Address: 3827 PALACIO DEL RIO GRANDE N.W., ALBUQUERQUE, NEW MEXICO 87107
Phone#: 505-414-8223 Fax#: _____ E-mail: _____
Contractor: FIRST CHOICE EQUITY BUILDERS, INC. Contact: FRED RIVERA
Address: 1020 LOMAS BLVD. N.W., ALBUQUERQUE, NEW MEXICO 87102
Phone#: 505-244-3800 Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☒ DRAINAGE PLAN 1st SUBMITTAL
☐ 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
☒ BUILDING PERMIT APPROVAL
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ GRADING CERTIFICATION
☐ SO-19 APPROVAL
☐ ESC PERMIT APPROVAL
☐ ESC CERT. ACCEPTANCE
☐ OTHER (SPECIFY) _____



\$ 50.00

WAS A PRE-DESIGN CONFERENCE ATTENDED: _____

Yes ☒ No ☐

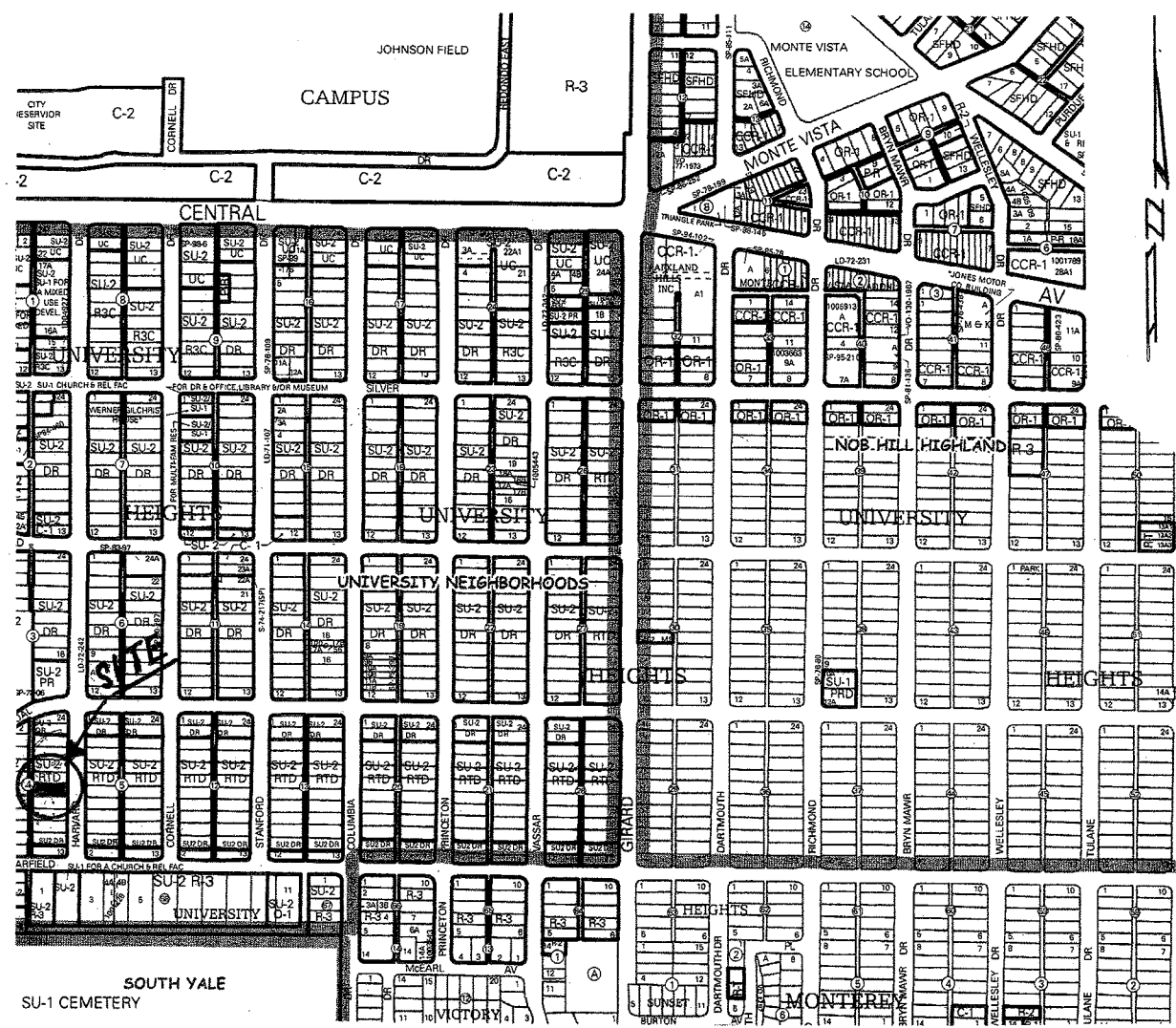
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DATE SUBMITTED: 10-21-15

By: GEORGE T. RODRIGUEZ

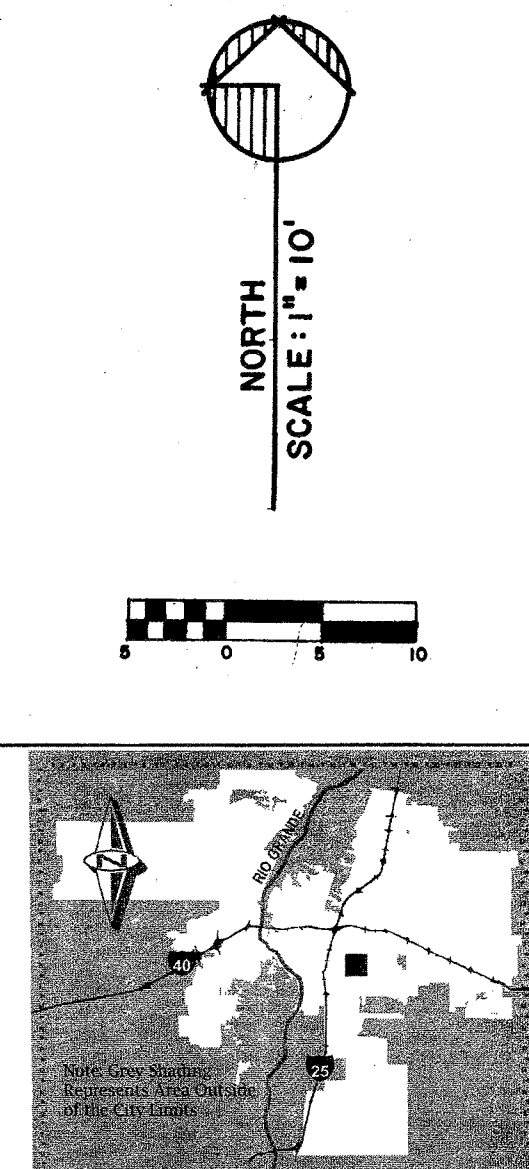
Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based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

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



VICINITY MAP

Zone Atlas Page:
K-16-Z



LEGAL DESCRIPTION: LOT EIGHTEEN (18), BLOCK FOUR (4), UNIVERSITY HEIGHTS ADDITION, ALBUQUERQUE, NEW MEXICO.

BENCH MARK REFERENCE: CITY OF ALBUQUERQUE STATION DATUM, ELEVATIONS SHOWN ARE REFERENCED TO NAVD 1988 VALUES; PROJECT T.B.M. AS SHOWN ON THE PLAN HEREON.

DRAINAGE COMMENTS:

AS SHOWN ON THE VICINITY MAP HEREON, THE SUBJECT SITE IS LOCATED ON THE WEST SIDE OF HARVARD DRIVE S.E. BETWEEN COAL AVENUE S.E. AND GARFIELD AVENUE S.E., ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO.

THE SUBJECT SITE IS PRESENTLY A VACANT PROPERTY; THE PROPOSED PLAN AS SHOWN HEREON IS TO CONSTRUCT NEW RESIDENTIAL UNITS AND ASSOCIATED IMPROVEMENTS THEREON.

THE SUBJECT SITE, 1.) DOES NOT LIE WITHIN A DESIGNATED FLOODPLAIN, (RE: F.E.M.A. FIRM PANEL 35001C0353H, EFFECTIVE AUGUST 16, 2012), 2.) DOES NOT ACCEPT OFFSITE FLOWS FROM ADJACENT PROPERTIES, 3.) DOES NOT CONTRIBUTE OFFSITE FLOWS TO ADJACENT PROPERTIES, 4.) WILL PROVIDE A RETENTION POND FOR THE "FIRST FLUSH" STORM VOLUME.

DRAINAGE CALCULATIONS ARE PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA FOR THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO.

NOTE: "1" FLUSH RETENTION POND VOLUME: (TOTAL REQUIRED)
0.34" (0.03") x 4,833.0 SQ. FT. = 145.0 CU. FT.

RETENTION PONDS PROVIDED:

POND # 1: (MEAN) 11.0' x 19.0' = 209.0 SQ. FT. x 0.50' DEPTH = 104.5 CU. FT.

POND # 2: (MEAN) 12.0' x 13.5' = 162.0 SQ. FT. x 0.50' DEPTH = 81.0 CU. FT.

TOTAL VOLUME = 185.5 CU. FT.

A.1 PRECIPITATION ZONES

Bernalillo County's four precipitation zones are indicated in TABLE A-1 and on FIGURE A-1.

TABLE A-1. PRECIPITATION ZONES

ZONE	LOCATION
1	West of the Rio Grande
2	Between the Rio Grande and San Mateo
3	Between San Mateo and Eastbank, North of Interstate 40; and between San Mateo and the East boundary of Range 4 East; South of Interstate 40
4	East of Eastbank, North of Interstate 40; and East of the East boundary of Range 4 East, South of Interstate 40

TABLE A-1A. PEAK INTENSITY (INCH at 1-2.2 hours)

Zone	Intensity 100-YR (2-YR, 10-YR)
1	4.70 (1.94, 3.14)
2	5.03 (2.04, 3.41)
3	5.38 (2.21, 3.65)
4	5.61 (2.34, 3.83)

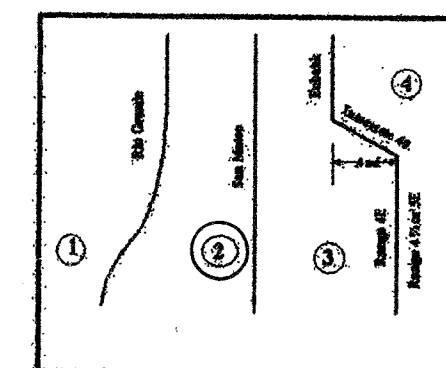


TABLE A-4. LAND TREATMENTS	
Treatment	Land Condition
A	Soil uncompacted by human activity with 0 to 10 percent slopes. Native grasses, weeds and shrubs in typical densities with minimal disturbance to grading, groundcover and infiltration capacity. Croplands. Unflooded Arroyos.
B	Irrigated lawns, parks and golf courses with 0 to 10 percent slopes. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes greater than 10 percent and less than 20 percent.
C	Soil uncompacted by human activity. Minimal vegetation. Unpaved parking, roads, trails. Most vacant lots. Gravel or rock-on plastic (desert landscaping). Irrigated lawns and parks with slopes greater than 10 percent. Native grasses, weeds, and shrubs, and soil uncompacted by human activity with slopes at 20 percent or greater. Native grass, weed and shrub areas with clay or clay loam soils and other soils of very low permeability as classified by SCS Hydrologic Soil Group D.
D	Impervious areas, pavement and roofs.

TABLE A-9. PEAK DISCHARGE (cfs/acre)				
Zone	Treatment			
	A	B	C	D
1	1.29 (0.00, 0.24)	2.03 (0.33, 0.76)	2.87 (0.47, 1.49)	4.37 (1.69, 2.89)
2	1.56 (0.00, 0.38)	2.28 (0.08, 0.95)	3.14 (0.60, 1.71)	4.70 (1.86, 3.14)
3	1.87 (0.00, 0.58)	2.60 (0.21, 1.19)	3.45 (0.78, 2.09)	5.02 (2.04, 3.39)
4	2.20 (0.05, 0.87)	2.92 (0.38, 1.45)	3.75 (1.00, 2.26)	5.25 (2.17, 3.57)

EROSION CONTROL MEASURES:

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT OF STORM RUNOFF DURING CONSTRUCTION; HE SHALL ENSURE THAT THE FOLLOWING MEASURES ARE TAKEN:

- ADJACENT PROPERTY SHALL BE PROTECTED AT ALL TIMES BY CONSTRUCTION OF BERMS, DIKES, SWALES, PONDS, AND OTHER TEMPORARY GRADING AS REQUIRED TO PREVENT STORM RUNOFF FROM LEAVING THE SUBJECT SITE AND ENTERING ADJACENT PROPERTIES.
- ADJACENT PUBLIC RIGHT-OF-WAYS SHALL BE PROTECTED AT ALL TIMES FROM STORM WATER RUNOFF FROM THE SUBJECT SITE. NO SEDIMENT BEARING WATER SHALL BE PERMITTED TO ENTER PUBLIC STREET RIGHT-OF-WAYS.
- THE CONTRACTOR SHALL IMMEDIATELY AND THOROUGHLY REMOVE ANY AND ALL SEDIMENT FROM PUBLIC STREETS THAT HAS BEEN ERODED FROM THE SUBJECT SITE AND DEPOSITED THEREON.

CONSTRUCTION NOTES:

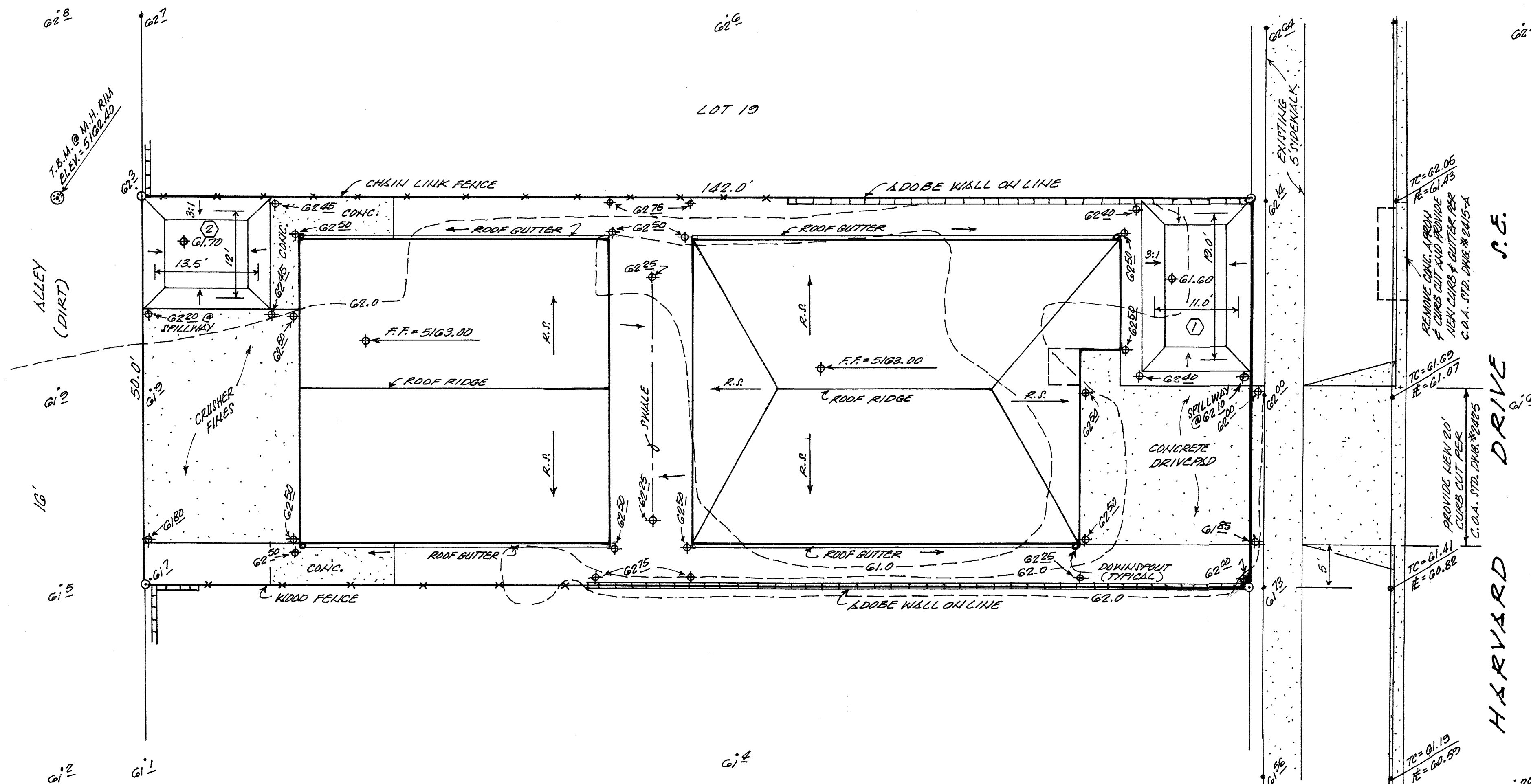
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT 280-1590 FOR THE ACTUAL FIELD LOCATION OF THE EXISTING SURFACE OF SUB-SURFACE UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION(S) OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM OF DELAY.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- ALL CONSTRUCTION WITHIN PUBLIC STREET RIGHT-OF-WAY(S) SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE/BERNALILLO COUNTY STANDARDS AND PROCEDURES.

GENERAL NOTES:

- NO PERIMETER BOUNDARY CORNERS HAVE BEEN FIELD ESTABLISHED PER THIS SURVEY OF THE SUBJECT PROPERTY.
- NO SEARCH HAS BEEN MADE FOR EASEMENTS OF RECORD OTHER THAN SHOWN HEREON.

LEGEND:

TOP OF CURB ELEVATION = TC = G1.01
CURB FLOWLINE ELEVATION = FE = G0.92
EXISTING SPOT ELEVATION = ** G1.5
EXISTING CONTOUR ELEVATION = --- G2.0
PROPOSED SPOT ELEVATION = * G2.50
PROPOSED CONTOUR ELEVATION = --- G2.5
PROPOSED OR EXISTING CONCRETE SURFACE = ---
EXISTING FENCE LINE = ---



SITE AREA = 0.16 ACRE ZONE: TWO (2)
PRECIPITATION: 360 = 2.35 in.
1440 = 2.75 in.
10day = 3.95 in.

EXCESS PRECIPITATION: PEAK DISCHARGE:

TREATMENT A	0.53 in.	1.56 cfs/ac.
TREATMENT B	0.78 in.	2.28 cfs/ac.
TREATMENT C	1.13 in.	3.14 cfs/ac.
TREATMENT D	2.12 in.	4.70 cfs/ac.

EXISTING CONDITIONS: PROPOSED CONDITIONS:

TREATMENT	AREA	AREA
TREATMENT A	0.00 ac.	0.00 ac.
TREATMENT B	0.00 ac.	0.00 ac.
TREATMENT C	0.16 ac.	0.05 ac.
TREATMENT D	0.00 ac.	0.11 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.53)x(0.00)+(0.78)x(0.00)+(1.13)x(0.16)+(2.12)x(0.00)/0.16
= 1.13 in.
V100-360 = (1.13)x(0.16)/12 = 0.01507 ac-ft = 656.4 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.56)x(0.00)+(2.28)x(0.00)+(3.14)x(0.16)+(4.70)x(0.00) = 0.50 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.53)x(0.00)+(0.78)x(0.00)+(1.13)x(0.05)+(2.12)x(0.11)/0.16
= 1.81 in
V100-360 = (1.81)x(0.16)/12.0 = 0.02413 ac-ft = 1,051.2 cf

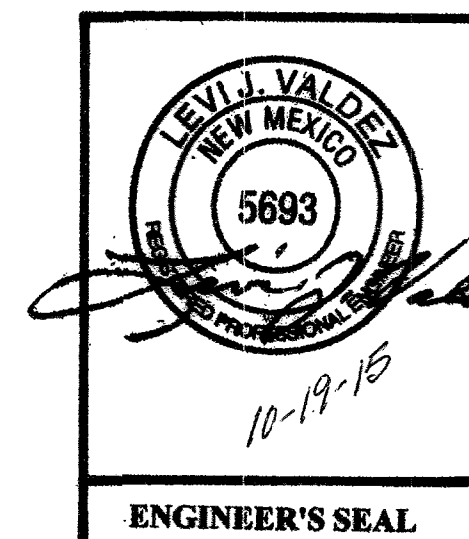
V100-1440 = (0.02)+(0.11)x(2.75 - 2.35)/12 = 0.023667 ac-ft = 1,030.9 cf

V100-10day = (0.02)+(0.11)x(3.95 - 2.35)/12 = 0.034667 ac-ft = 1,510.1 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.56)x(0.00)+(2.28)x(0.00)+(3.14)x(0.05)+(4.70)x(0.11) = 0.67 cfs

INCREASE: Q100 = 0.17 CFS V100-360 = 394.8 CU. FT.



A PROPOSED
GRADING AND DRAINAGE PLAN
FOR RESIDENTIAL UNITS AT
413 HARVARD DRIVE S.E.
ALBUQUERQUE, NEW MEXICO
OCTOBER, 2015