

CITY OF ALBUQUERQUE



June 6, 2016

Richard J. Berry, Mayor

J. Graeme Means, P.E.
High Mesa Consulting Group
4715 Moon St NE
Albuquerque, NM, 87111

**RE: APD SE Area Command Center
Modular Building Addition (Temp Structure)
Grading and Drainage Plan
Engineer's Stamp Date 4-27-2016 (File:L19D043)**

Dear Mr. Means:

Based upon the information provided in your submittal received 4-26-2016, the above referenced Grading and Drainage Plan is approved for Building Permit

Please attach a copy of this approved plan in the construction sets when submitting for the building permit. 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 924-3986.

Albuquerque

New Mexico 87103

www.cabq.gov

Sincerely,

Abiel Carrillo, P.E.
Principal Engineer, Planning Department
Development Review Services

Orig: Drainage file



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: APD SE Area Command Modular Building Addition Building Permit #: _____ City Drainage #: L19 D043
 DRB#: 1003450 EPC#: _____ Work Order#: 6213
 Legal Description: Parcel 2-A, Van Buren Middle School, Lands of Board of Education
 City Address: 800 Louisiana Blvd SE 87108

Engineering Firm: High Mesa Consulting Group Contact: J. Graeme Means
 Address: 6010-B Midway Park Blvd NE, Albuquerque, NM 87109
 Phone#: 505-345-4250 Fax#: 505-345-4254 E-mail: Gmeans@highmesacg.com

Owner: City of Albuquerque (C/O DMD) Contact: Stacy Herrera
 Address: _____
 Phone#: _____ Fax#: _____ E-mail: stacyherrera@cabq.gov

Architect: Cherry See Reames Contact: Steve Mora
 Address: 220 Gold Ave SW, Albuquerque, NM 87102
 Phone#: 842-1278 Fax#: _____ E-mail: smora@cherryseereames.com

Other Contact: _____ Contact: _____
 Address: _____
 Phone#: _____ Fax#: _____ E-mail: _____

Check all that Apply:

DEPARTMENT:

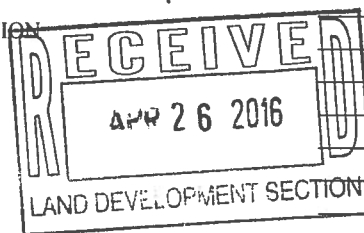
- ☒ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION
☐ MS4/ EROSION & SEDIMENT CONTROL

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☒ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ ARCHITECT CERTIFICATION
☐ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
☐ DRAINAGE MASTER PLAN
☐ DRAINAGE REPORT
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
☐ OTHER (SPECIFY) _____



- ☐ 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

- ☐ PRE-DESIGN MEETING
☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ☐ Yes ☒ No

DATE SUBMITTED: 4-25-16 By: Graeme Means

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____

I. INTRODUCTION AND EXECUTIVE SUMMARY

THIS SUBMITTAL IS MADE IN SUPPORT OF BUILDING PERMIT TO BE ISSUED BY THE CITY OF ALBUQUERQUE.

II. PROJECT DESCRIPTION

4. GRADING AND DRAINAGE PLAN FOR SOUTHEAST AREA SUBSTATION PREPARED BY HIGH MESA CONSULTING GROUP (FORMERLY TOM MANN & ASSOCIATES, INC.) DATED 04-29-88, NMPE 8547. THE 1988 PLAN ESTABLISHED THE PRECEDENT FOR FREE DISCHARGE FROM THE SITE TO LOUISIANA BLVD. SE, A PUBLIC CITY STREET. THE 1988 PLAN ESTABLISHED SURFACE DRAINAGE ACROSS AND THROUGH THE PAVED PARKING LOT AS THE PRIMARY ROUTE BY WHICH DEVELOPED RUNOFF IS DISCHARGED FROM THE SITE.

5. TOPOGRAPHIC SURVEY PREPARED BY WILSON AND COMPANY (UNDER CONTRACT WITH THE OWNER), NMPS 21081, DATED 6-12-15. THE SUBJECT SURVEY PROVIDES THE BASIS FOR THE EXISTING CONDITIONS OF THE SITE AS DEPICTED BY THIS SUBMITTAL.

IV. EXISTING CONDITIONS

THERE ARE NO APPARENT OFFSITE FLOWS IMPACTING THE PROJECT SITE AS ESTABLISHED BY PRIOR SUBMITTAL REFERENCED ABOVE. VISUAL SITE INSPECTION BY THE ENGINEER HAS CONFIRMED THAT CONDITIONS HAVE NOT CHANGED SIGNIFICANTLY SINCE 1988 WITH RESPECT TO OFFSITE FLOWS.

V. DEVELOPED CONDITIONS

AS IN THE EXISTING CONDITION, THERE ARE NO OFFSITE FLOWS IMPACTING THE PROJECT SITE.

VI. GRADING PLAN

VII. SEDIMENT AND EROSION CONTROL PLAN

VIII. CALCULATIONS

IX. CONCLUSIONS

THE FOLLOWING CONCLUSIONS HAVE BEEN ESTABLISHED AS A RESULT OF THE EVALUATIONS CONTAINED HEREIN:

1. THE PROPOSED IMPROVEMENTS WILL MAINTAIN AND NOT ALTER THE EXISTING DRAINAGE PATTERNS OF THE SITE
2. THE PROPOSED IMPROVEMENTS WILL NOT RESULT IN AN INCREASE IN THE DEVELOPED RUNOFF VOLUME GENERATED BY THE SITE
3. EROSION AND SEDIMENT CONTROL MEASURES ARE PROPOSED DURING CONSTRUCTION; BMP SELECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE CONSTRUCTION RELATED SEDIMENT DOES TO DISCHARGE FROM THE SITE TO PUBLIC RIGHT-OF-WAY.
4. THE PROPOSED IMPROVEMENTS WILL NOT ADVERSELY IMPACT DOWNSTREAM PROPERTIES OR DOWNSTREAM DRAINAGE CONDITIONS
5. THIS PROJECT IS NOT SUBJECT TO AN EPA NPDES PERMIT
6. THIS PROJECT REPRESENTS A MODIFICATION TO AN EXISTING SITE WITHIN AN INFILL AREA
7. A VARIANCE TO THE REQUIREMENT TO CAPTURE AND TREAT THE FIRST FLUSH OF RUNOFF FROM THE NEW IMPERVIOUS AREA CREATED BY THIS PLAN IS REQUESTED BASED UPON THE BUILDING BEING TEMPORARY.

1. SITE CHARACTERISTICS

D. LAND TREATMENTS

- | | | |
|----------------------------|---------------|----|
| 1. EXISTING LAND TREATMENT | | |
| TREATMENT | AREA (SF/AC) | % |
| A | 0 / 0 | 0 |
| B | 8,500 / 0.20 | 11 |
| C | 8,500 / 0.20 | 11 |
| D | 58,000 / 1.32 | 78 |

- | 2. DEVELOPED LAND TREATMENT | | |
|-----------------------------|---------------|----|
| TREATMENT | AREA (SF/AC) | % |
| A | 0 / 0 | 0 |
| B | 8,500 / 0.20 | 11 |
| C | 8,300 / 0.19 | 11 |
| D | 58,200 / 1.33 | 78 |

II. HYDROLOGY

A. EXISTING CONDITION

1. VOLUME
 $E_W = (E_A \alpha_A + E_B \alpha_B + E_C \alpha_C + E_D \alpha_D) \Delta T$
 $E_W = (0.66 \times 0.00) + (0.92 \times 0.20) + (1.29 \times 0.20) + (2.36 \times 1.32) 1.72 = 2.07 \text{ IN}$
 $V_{100.8 \text{ HR}} = (E_W / 12) \Delta T = (2.07 / 12) 1.72 = 0.2967 \text{ AC-FT} = 12.920 \text{ CF}$
2. PEAK DISCHARGE
 $Q_P = Q_{PA} \alpha_A + Q_{PB} \alpha_B + Q_{PC} \alpha_C + Q_{PD} \alpha_D$
 $Q_P = Q_{100} = (1.87 \times 0.00) + (2.60 \times 0.20) + (3.45 \times 0.20) + (5.02 \times 1.32) = 7.8 \text{ CF}$

B. DEVELOPED CONDITION

1. VOLUME
 $E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) A_T$
 $E_W = (0.66 \times 0.00) + (0.92 \times 0.20) + (1.29 \times 0.19) + (2.36 \times 1.33) 1.72 = 2.07 \text{ IN}$
 $V_{100, 6 \text{ HR}} = (E_W/12) A_T = (2.07/12) 1.72 = 0.2967 \text{ AC-FT} = 12.920 \text{ CF}$
2. PEAK DISCHARGE
 $Q_p = Q_{pA} A_A + Q_{pB} A_B + Q_{pC} A_C + Q_{pD} A_D$
 $Q_p = Q_{100} = (1.87 \times 0.00) + (2.60 \times 0.20) + (3.45 \times 0.19) + (5.02 \times 1.33) = 7.8 \text{ CF}$

C. COMPARISON

1. VOLUME
 $\Delta V_{100, 6 \text{ HR}} = 12,920 - 12,920 =$ 0 CF (NO CHANGE)
2. PEAK DISCHARGE
 $\Delta Q_{100} = 7.8 - 7.8 =$ 0 CFS (NO CHANGE)

	UTILITY, SANITARY SEWER MANHOLE
	UTILITY, POWERPOLE
	UTILITY, LIGHT POLE
	UTILITY, YARD LIGHT
	UTILITY, ELECTRICAL BOX
	UTILITY, TRANSFORMER
	UTILITY, JUNCTION SIGNAL BOX
	UTILITY, GUYWIRE
	UTILITY, FIRE HYDRANT
	UTILITY, WATER VALVE
	UTILITY, WATER METER
	UTILITY, GAS METER
	UTILITY, SPRINKLER HEAD
	UTILITY, WATER VAULT
	UTILITY, FIBER OPTIC VAULT
	UTILITY, CABLE TELEVISION VAULT
	UTILITY, UNKNOWN VAULT
	UTILITY, ELECTRICAL PULLBOX
	UTILITY, CLEANOUT
	UTILITY, TRAFFIC LIGHT
	UTILITY, SPRINKLER CONTROL BOX
	SITE, FLAG POLE
	SITE, BOLLARD
	SITE, GATE
	SITE, SIGN
	SITE, SIGN-BILLBOARD
	SITE, TRASH BIN
	SITE, ROOF DRAIN
	SITE, BUILDING COLUMN (CONCRETE)
	SITE, DECIDUOUS TREE
	SITE, BUSH
	SITE, HANDICAPPED PARKING
	SITE, CONTROL POINT
	SITE, SPOT ELEVATION
	PROPOSED SPOT ELEVATION
	EXISTING FLOWLINE ELEVATION
	PROPOSED CONTOUR
	EXISTING CONTOUR
	PROPOSED FLOWLINE
	EXISTING FLOWLINE
	ROOF DRAINAGE
	EXISTING ROOF DRAINAGE
	PUBLIC EASEMENT LINE
	PROPOSED CONCRETE
	PROPOSED ASPHALT PAVEMENT

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 811, FOR DESIGNATION (LINE-SPOTTING) OF EXISTING UTILITIES.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE DEPTH AND LOCATION OF ALL EXISTING UTILITIES. IF POTENTIAL OBSTRUCTIONS, SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MISINTERPRETATIONS AND MISTAKES WITHOUT FIRST CONTACTING THE ENGINEER AS REQUIRED ABOVE.
3. 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.
4. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.
5. IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NOT SHOWN OR MAY NOT EXIST. THE LOCATION OF ANY UTILITY OR THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS CONDUCTED ONLY PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE COMPLETE, THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO LIABILITY FOR ANY DAMAGE TO ANY UTILITY OR UNDERGROUND LINES. SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL ORDINANCES, AND FEDERAL LAWS AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
6. THE DESIGN OF PLANTERS AND LANDSCAPED AREAS IS NOT PART OF THIS PLAN. ALL PLANTERS AND LANDSCAPED AREAS ADJACENT TO THE BUILDING(S) SHALL BE PROVIDED WITH POSITIVE DRAINAGE TO THE STREET OR PUBLIC RIGHT-OF-WAY. FOR MORE INFORMATION FOR CONSTRUCTION DETAILS, REFER TO LANDSCAPING PLAN.

EROSION CONTROL NOTES:

1. THIS PLAN ADDRESSES GENERAL AND SPECIFIC MEASURES FOR CONSTRUCTION PHASE EROSION AND DUST CONTROL. REFER TO THE GRADING AND DRAINAGE PLAN PREPARED BY HIGH MEA CONSULTING GROUP,, FOR GRADING NOTES AND INFORMATION.
2. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY.
3. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.



LEGAL DESCRIPTION:

PARCEL 2-A, VAN BUREN MIDDLE SCHOOL
LANDS OF BOARD OF EDUCATION

TBM's

CONTROL POINT CP 102 ELEV: 5339.436 DESCRIPTION: REBAR w/CAP	CONTROL POINT CP 103 ELEV: 5338.997 DESCRIPTION: PK NAIL
CONTROL POINT CP 104 ELEV: 5338.072 DESCRIPTION: PK NAIL	CONTROL POINT CP 105 ELEV: 5339.166 DESCRIPTION: PK NAIL
CONTROL POINT CP 106 ELEV: 5338.568 DESCRIPTION: PK NAIL	CONTROL POINT CP 107 ELEV: 5339.273 DESCRIPTION: PK NAIL

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CITY OF ALBUQUERQUE					
ALBUQUERQUE POLICE DEPARTMENT SE AREA COMMAND MODULAR BUILDING RELOCATION					
TITLE: DRAINAGE PLAN & CALCULATIONS					
Design Review Committee		City Engineer Approval		Last Design Update	MM/YY/ZZ
					MM/YY/ZZ
City Project No. 6213		Zone Map No. L-19-Z		Sheet CG-100	Of

