

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services



Richard J. Berry, Mayor

September 7, 2016

Kelly Klein
Mark Goodwin & Associates, P.A.
P.O. Box 90606
Albuquerque, NM 87199

RE: **MCT Frontage Road Property
Grading and Drainage Plan
Engineer's Stamp Date 7-21-16 (File:E17D060)**

Dear Ms. Klein:

Based upon the information provided in your submittal received 8-1-2016, the above referenced submittal is approved for ESC Grading Permit. The Contractor will need an approved ESC Grading Permit prior to any grading on the site.

PO Box 1293

The approval does not extend to the elements within NMDOT Right of Way.

If you have any questions you can contact me at 924-3986.

Albuquerque

Sincerely,

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

New Mexico 87103

www.cabq.gov

Orig: Drainage file



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: _____ **Building Permit #:** _____ **City Drainage #:** _____

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

Legal Description: _____

City Address: _____

Engineering Firm: _____ **Contact:** _____

Address: _____

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

Owner: _____ **Contact:** _____

Address: _____

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

Architect: _____ **Contact:** _____

Address: _____

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

Other Contact: _____ **Contact:** _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

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

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) _____

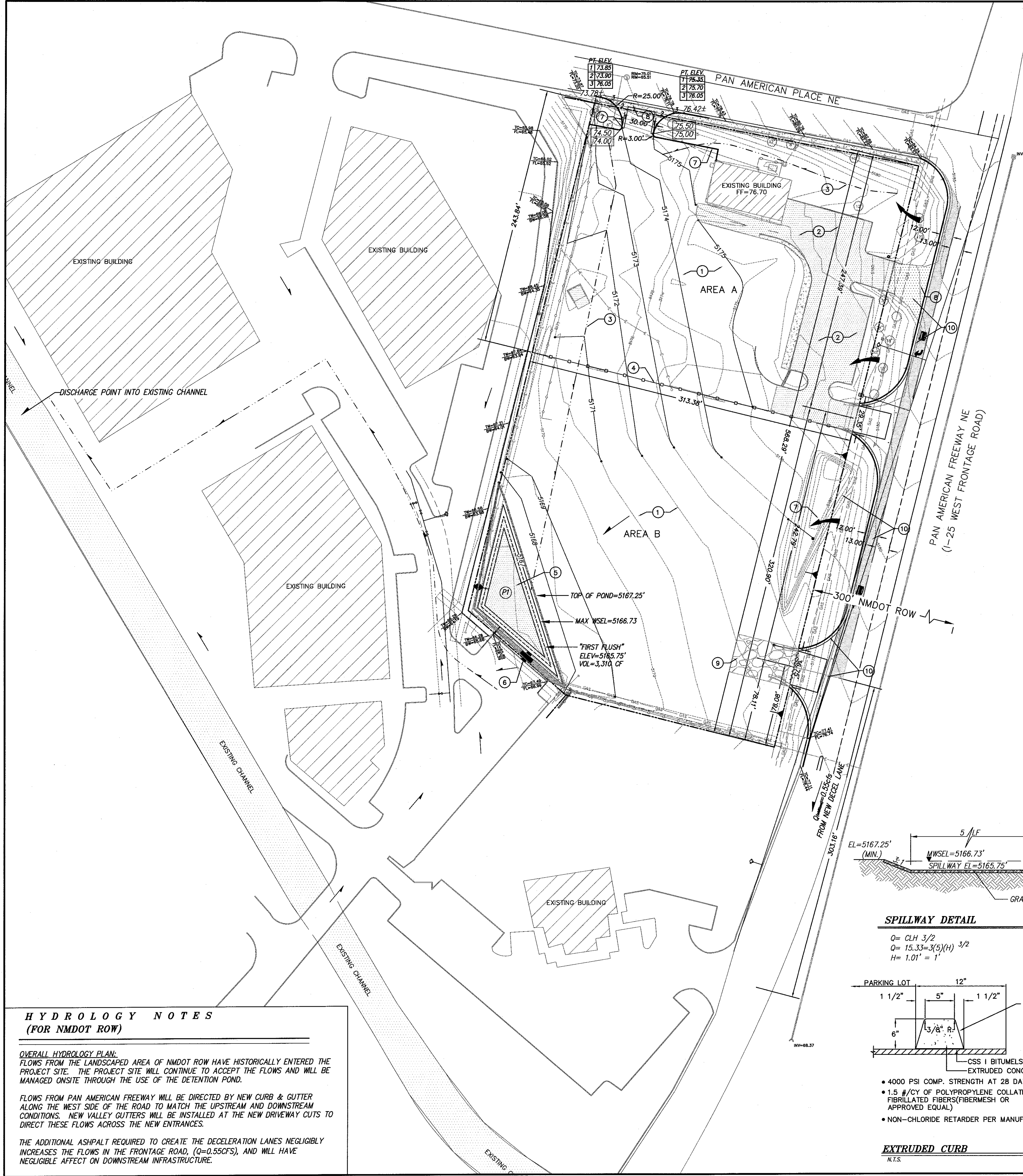
CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY
- ☐ 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: _____ **By:** _____

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____



GENERAL NOTES

1. CITY OF ALBUQUERQUE DETAILS SHALL BE USED WHEN APPLICABLE.

KEYED NOTES

1. NEW CRUSHER FINE SURFACE. GRADE PER PLAN.
2. EXISTING ASPHALT TO REMAIN.
3. CREATE NEW DRAINAGE SWALE. SLOPE = 1.0% MIN
4. NEW FENCE MUST ALLOW CROSS LOT DRAINAGE
5. NEW DETENTION POND WITH "FIRST FLUSH" VOLUME
6. SAW CUT EXISTING CURB, CONSTRUCT NEW SPILLWAY PER DETAIL.
7. NEW 6" EXTRUDED CURB PER DETAIL
8. NEW 6" WIDE VALLEY GUTTER PER COA DWG 2420.
9. NEW GRAVEL ENTRANCE SLOPE=5% MAX TO MATCH GRADES.
10. GRADING AND INSTALLATION OF DECELERATION LANE, DRIVEWAY CUTS VALLEY CUTTERS, AND CURB & GUTTER TO BE INSTALLED WITH NMDOT PROJECT. CONTRACTOR TO MATCH GRADES ALONG PROPERTY LINE.

HYDROLOGY NOTES

OVERALL HYDROLOGY PLAN:
THIS SITE IS ADJACENT TO THE CONEJOS BUSINESS PARK AND IS LOCATED ON THE CORNER OF PAN AMERICAN FREEWAY AND PAN AMERICAN PLACE NE. AREA A IS A COMMERCIAL SITE FOR THE SALE OF TRAILERS TO THE PUBLIC. THE EXISTING BUILDING AND EXISTING ASPHALT PARKING LOT WILL REMAIN AND THE REMAINDER OF THE LOT WILL BE CRUSHER FINES. AREA B WILL BE SURFACED WITH CRUSHER FINES AND WILL STORE MINI SELF STORAGE UNITS. THE PROJECT PROPOSES TO USE HISTORIC AND EXISTING DRAINAGE PATTERNS THAT WILL DIRECT THE PROJECT'S FLOWS TO THE CHANNEL SOUTH OF THE PROJECT SITE. THIS DRAINAGE PLAN WILL ALSO ADDRESS THE STORM WATER QUALITY FOR THE RUNOFF GENERATED BY THE DISTURBED AREA.

THE INTENT OF THIS PLAN IS TO MAINTAIN THE SAME DRAINAGE PATHS FOR THE PROJECT SITE AS DETERMINED FROM HISTORIC CONDITIONS AND EXISTING TOPOGRAPHY. THE SITE WILL BE GRADED TO DIRECT FLOWS TO THE POND IN THE NW CORNER OF THE SITE. THE POND WILL SERVE AS A DETENTION POND AND WILL RELEASE THE DEVELOPED FLOWS AT THE HISTORIC RATE. THE RUNOFF WILL THEN DISCHARGE INTO THE EXISTING PARKING LOT OF THE CONEJOS BUSINESS PARK AND FLOW IN THE EXISTING VALLEY GUTTERS TO THE CHANNEL (SEE THE FLOW DIRECTION ARROWS ON THE PLAN). THE SAME POND WILL HAVE ENOUGH VOLUME TO RETAIN THE "FIRST FLUSH".

THE HISTORIC RATE WAS DETERMINED FROM AERIAL PHOTOGRAPHS FROM 1996-PRESENT USING RGIS ORTHOPHOTOGRAPHY AND GOOGLE EARTH OBSERVATIONS. THESE PHOTOGRAPHS SHOW DEVELOPMENT AND DRAINAGE PATHS THAT DISCHARGE RUNOFF TO THE SW CORNER OF THE SITE AND INTO THE ADJACENT PARKING LOT.

THERE ARE OFFSITE FLOWS ENTERING THE SITE AND IS SEEN ON THE HISTORICAL AND EXISTING CONDITIONS. THE FLOW COMES FROM THE ADJACENT NMDOT ROW FROM THE PAN AMERICAN FREEWAY ON THE EASTERN BORDER OF THE SITE. THESE FLOWS HAVE BEEN ADDED INTO THE POND CALCULATIONS.

THE SITE IS RATED "ZONE X" PER FEMA MAP 35001C03137H AND 35001C03139G. THE SITE IS NOT IN A FLOOD PLAIN.

THE HYDROLOGY FOR THE PROJECT SITE WAS CALCULATED USING AHYMO FOR THE 100 YEAR 24 HOUR STORM EVENT FOR ZONE 2. THE RESULTS ARE SUMMARIZED BELOW:

OFFSITE FLOWS:
AREA = 0.42 ACRES
LAND TREATMENTS: A=0%, B=0%, C=100%, D=0%
TOTAL PROJECT SITE: Q=1.49cfs V=0.043 AC-FT

HISTORICAL CONDITIONS:
SITE AREA = 3.96 ACRES
LAND TREATMENTS: A=31.4%, B=0%, C=34.3%, D=34.3%
TOTAL PROJECT SITE: Q=13.84cfs V=0.49 AC-FT

EXISTING CONDITIONS:
SITE AREA = 3.96 ACRES
LAND TREATMENTS: A=0%, B=0%, C=88%, D=12%
TOTAL PROJECT SITE: Q=14.47cfs V=0.45 AC-FT

DEVELOPED CONDITIONS:
SITE AREA = 3.96 ACRES
LAND TREATMENTS: A=0%, B=6.5%, C=38.5%, D=55%
TOTAL PROJECT SITE: Q=16.67cfs V=0.627 AC-FT

DETENTION POND AND FIRST FLUSH

(P1) DETENTION POND
Design Pond Volume = 10,400 Cu.Ft.
Maximum Storage Volume = 7,780 Cu.Ft.
Maximum Allowable Outfall Q=15.33 cfs
Design Outfall Q=14.157 cfs
Pond Bottom Elevation = 5164.50'
Pond Top Elevation = 5167.25'
Pond Spillway Elevation = 5165.75'
Side Slopes = 3:1
MAX. WSEL = 5166.73'

THE "FIRST FLUSH" IS BEING ACCOMPLISHED THROUGH THE DETENTION POND AS SHOWN ON THE PLAN.

REQUIRED VOLUME = $0.34' \times$ IMPERVIOUS AREA
= $0.34' / 12' \times (95,284 \text{ SF})$
= 2,700 CF

VOLUME PROVIDED = 3,310 CF

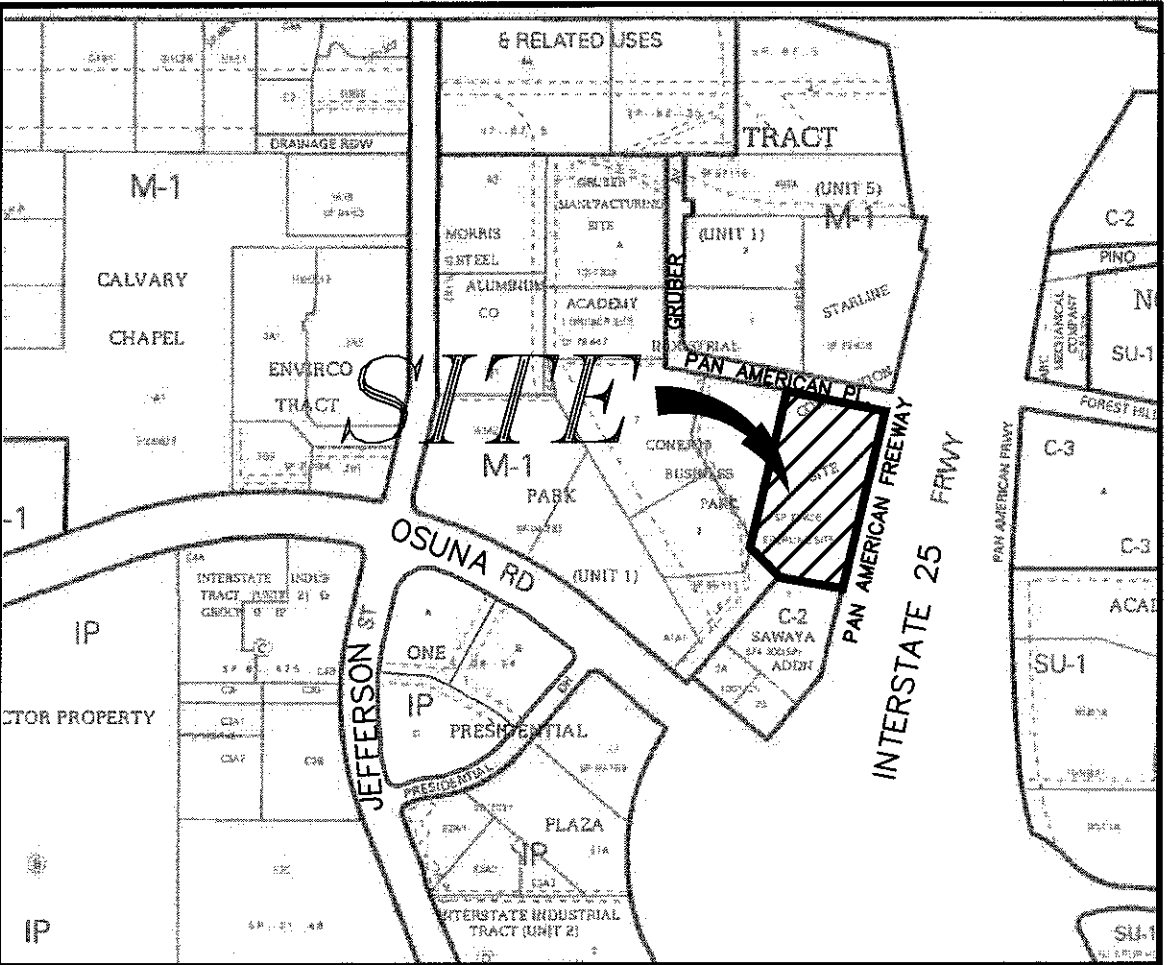
(P1) FIRST FLUSH PORTION:
POND BOTTOM = 5164.50'
ELEVATION TO RETAIN FIRST FLUSH VOLUME = 5165.75'
DEPTH = 1.25'
BOTTOM AREA = 2,134 SF
3:1 SIDE SLOPES
VOLUME = 3,310 CF

HYDROLOGY NOTES (FOR NMDOT ROW)

OVERALL HYDROLOGY PLAN:
FLOWS FROM THE LANDSCAPED AREA OF NMDOT ROW HAVE HISTORICALLY ENTERED THE PROJECT SITE. THE PROJECT SITE WILL CONTINUE TO ACCEPT THE FLOWS AND WILL BE MANAGED ONSITE THROUGH THE USE OF THE DETENTION POND.

FLOWS FROM PAN AMERICAN FREEWAY WILL BE DIRECTED BY NEW CURB & GUTTER ALONG THE WEST SIDE OF THE ROAD TO MATCH THE UPSTREAM AND DOWNSTREAM CONDITIONS. NEW VALLEY GUTTERS WILL BE INSTALLED AT THE NEW DRIVEWAY CUTS TO DIRECT THESE FLOWS ACROSS THE NEW ENTRANCES.

THE ADDITIONAL ASPHALT REQUIRED TO CREATE THE DECELERATION LANES NEGLIGIBLY INCREASES THE FLOWS IN THE FRONTAGE ROAD, (Q=0.55CFS), AND WILL HAVE NEGLIGIBLE AFFECT ON DOWNSTREAM INFRASTRUCTURE.



VICINITY MAP ZONE MAP: E-17-Z

ACS BENCHMARK

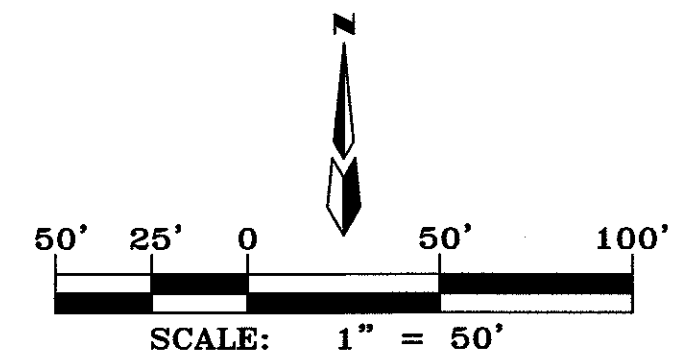
AGRS Aluminum Cap stamped "14-E17"
At the intersection of Osuna Road NE and I-25 West Frontage Road.
The monument is on the top of a drop inlet in the northeast quadrant
Geographic Position (NAD83), in feet
N.M. State Plane Coordinates (Central Zone)
"no coordinates"
Elevation (NAVD88), in feet = 5171.914

LEGAL DESCRIPTION

PORTION OF EBERLINE SITE, ACADEMY INDUSTRIAL PARK, UNIT #1
WITHIN THE
ELENA GALLEGOS GRANT, PROJECTED SECTION 26
TOWNSHIP 11 NORTH, RANGE 3E, NMPM
CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NM

LEGEND

- PROPERTY LINE
- - - - - EXISTING CONTOUR
- + 2050 EXISTING SPOT ELEVATION
- - - - - EXISTING STORM DRAIN
- CB EXISTING STORM DRAIN INLET
- 00.00. PROPOSED SPOT ELEVATION
- - - - - DIRECTION OF FLOW
- - - - - PROPOSED SWALE
- AREA OF POND
- EXISTING FIRE HYDRANT
- PROPOSED 3:1 SLOPE
- WATER BLOCK
- NEW CONCRETE WALKWAYS/PATIOS
- OFFSITE FLOW DIRECTION



MCT - FRONTAGE ROAD

GRADING & DRAINAGE PLAN

MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505)828-2200, FAX (505)797-9539

Designed: KMK	Drawn: KMK	Checked: DMG	Sheet I of I
Scale:	Date: 07-2016	Job: A16039	



D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539

~ 2012 ACEC/NM Award Winner for Engineering Excellence, Small Firm ~

~ 2008 ACEC/NM Award Winner for Engineering Excellence, Small Firm ~

July 29, 2016

Mr. Abiel Carrillo, PE, CFM
Planning Department
City of Albuquerque
600 2nd Street NW
Albuquerque, NM 87102

Re: MCT Frontage Road Property
Revised Engineers stamp date 7-26-2016- (EI7D060)

Dear Mr. Carrillo;

Attached, please find a revised Grading & Drainage Plan and updated plat as required by your email dated 7/22/2016. Our response and/or changes are as follows:

1. **The plan proposes to discharge into the adjacent property to the southwest....."**
In absence of a full drainage report for the adjacent property, we looked at existing and historical conditions. I attached aerial photographs to this letter to show the property from 1996 and 1999. These photographs were taken from Google Earth and the RGIS ortho photography. From these photographs, it is determined that the drainage paths for the area are consistent with the assumptions on the projects site's drainage plan. In addition, there are "offsite" flows from the NMDOT ROW on the east boundary that enter the site. To calculate the historic flows, I inserted the pictures into AutoCAD to get area calculations for the different land treatment types and used AHYMO to determine the flows. The historic flows are summarized on the revised plan and include the offsite flows from the NMDOT ROW.
 - a. **"Check the assumptions for the Proposed Conditions..."** The higher assumed impervious area for the proposed conditions is reflective of the use for Area "B". This area will store mini storage sheds on the property that will be for sale to the public. It is assumed that at the highest inventory level, Area B will be 80% impervious.
2. **"...Make sure you have an approved ESC Plan."** The ESC Plan has been submitted for review.
3. **"A approval will need concurrence from NMDOT for improvements on the frontage road."** Construction Plans are being submitted to NMDOT for approval.
4. **"...Lot A and Lot B..."** These areas have been renamed to Area A and Area B for clarification. The site is one (1) property and will not require a cross-lot drainage easement.

Sincerely,

A handwritten signature in black ink, appearing to read "Kelly M. Klein". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kelly Klein, EIT

MARK GOODWIN & ASSOCIATES, PA



1996

