

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services



September 26, 2016

Gilbert Aldaz, P.E.
Applied Engineering & Surveying Inc.
1605 Blair Drive NE
Albuquerque, NM 87112

Richard J. Berry, Mayor

RE: 3901 Masthead St. NE
Grading & Drainage Plan
Engineer's Stamp Date 9-26-2016 (File: D17D095)

Dear Mr. Aldaz:

Based upon the information provided in your submittal received 9-26-16, the above referenced plan is approved for Building Permit with the following conditions:

- Keyed Note 5 states that pond side slopes are at 2:1. It infers that all sides are at 2:1, but rip-rap is only shown on 2 sides. All slopes steeper than 3:1 require rip-rap per DPM. Prior to C.O. rip-rap should be on all sides of pond.
- Edit the leader of Keyed Note 3. It is not pointing to the location of the weir, which is on west side of pond.
- Edit Keyed Note 15 to ensure the ESC BMP is implemented before /during construction, but not required once it is built. Please ensure contractor implements the BMP.

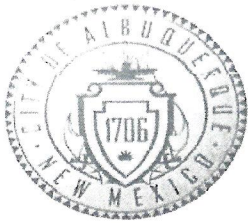
Please attach a copy of this approved plan in the construction sets when submitting for a building permit. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

If you have any questions, you can contact me at 924-3695.

Sincerely,

Rita Harmon, 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 09/2015)

Project Title: 3901 Masthead Street NE Building Permit #: _____ City Drainage #: D17
DRB#: _____ EPC#: _____ Work Order#: _____
Legal Description: Lot 2-B, JOURNAL CENTER PHASE 2, UNIT 1
City Address: 3901 Masthead Street NE
Engineering Firm: APPLIED ENGINEERING & SURV INC Contact: GILBERT ALDAZ
Address: 1605 BLAIR DRIVE NE
Phone#: 480-8125 Fax#: _____ E-mail: galda247@yahoo.com
Owner: D. Mc CALL Contact: D. Mc CALL
Address: 703 OSUNA ROAD NE, SUITE 6
Phone#: 345-4444 Fax#: _____ E-mail: midwayleasing@comcast.net
Architect: TATE FISHBURN ARCH Contact: Tate
Address: P.O. BOX 2941, CORRALES, NM 87048
Phone#: 899-9338 Fax#: _____ E-mail: tatefishburn@msn.com
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) _____

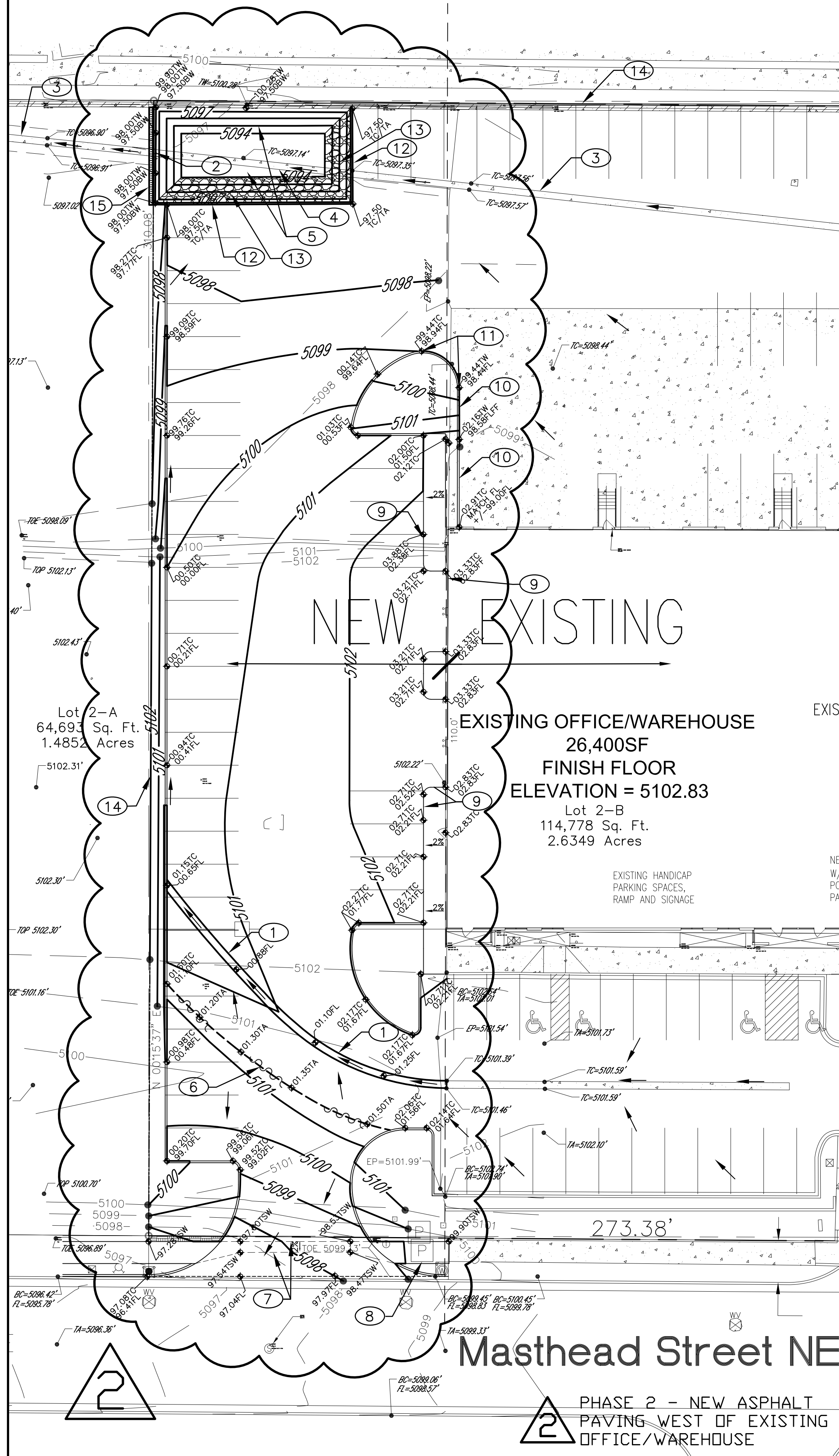
IS THIS A RESUBMITTAL? ☒ Yes ☐ No

DATE SUBMITTED: 09-26-16

By: Gilbert Aldez

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____

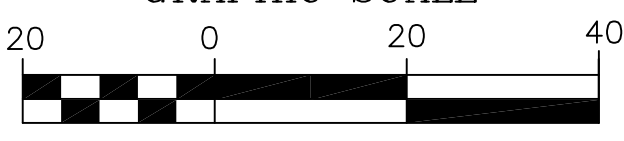
AMAFCA Drainage R/W



GRADING PLAN - WEST DRIVEWAY

SCALE: 1" = 20'

GRAPHIC SCALE



(IN FEET)
1 inch = 10ft.

BASIN "D-2"

DRAINAGE CALCULATIONS

DRAINAGE PLAN

THE FOLLOWING ITEMS CONCERNING THE NEW STAR OFFICE/WAREHOUSE BUILDING AT 3901 MASTHEAD STREET NE, ALBUQUERQUE, NEW MEXICO, GRADING AND DRAINAGE PLAN ARE CONTAINED HEREON:

1. GRADING PLAN
2. VICINITY MAP (D-17)

EXISTING CONDITIONS

AS SHOWN BY THE VICINITY MAP, THE SITE IS LOCATED ON THE NORTH SIDE OF MASHEAD STREET AND TO THE EAST OF BARTLETT STREET NE AT 3901 MASHEAD STREET NE. (SEE ATTACHED VICINITY MAP (D-17)). THE PARCEL'S LEGAL DESCRIPTION IS LOT 2-B, JOURNAL CENTER PHASE 2, UNIT 1. THE PROPERTY IS BOUNDED ON THE NORTH BY THE NORTH PINO ARROYO, TO THE EAST BY LOT 1, TO THE WEST BY LOT 2-A AND TO THE SOUTH BY MASHEAD STREET NE. THIS LOT CONTAINS APPROXIMATELY 2.63 ACRES AND THE EASTERN 3/4 IS CURRENTLY DEVELOPED WITH AN EXISTING OFFICE/WAREHOUSE AND PAVING IMPROVEMENTS.

THERE IS CURRENTLY AN APPROVED MASTER GRADING AND DRAINAGE PLAN APPROVED BY THE CITY HYDROLOGY DEPARTMENT FOR LOT 2 WHICH IS NOW CONSIDERED LOT 2-A AND LOT 2-B DUE TO A RECENT REPLAT.

PROPOSED CONDITIONS

AS SHOWN BY THIS GRADING PLAN PREPARED FOR THIS SITE, THE INTENT IS TO SHOW THE PROPOSED GRADING FOR THE NEW ENTRY/PARKING LOT ALONG THE WESTERN 1/4 OF LOT 2-B COMPLYS WITH THE ORIGINAL LOT 2 APPROVED MASTER DRAINAGE PLAN, WHERE ALL FLOW FROM THESE IMPROVEMENTS WILL DISCHARGE TO THE NORTHWEST CORNER OF LOT 2-B AND DISCHARGE INTO AN EXISTING 2' WIDE CONCRETE SWALE THAT RUNS ALONG THE ENTIRE NORTH BOUNDARY OF LOT 2-A AND ULTIMATELY OUTFALLS INTO AN EXISTING RUNDOWN AT THE NORTHWEST CORNER OF LOT 2-A, WHICH DISCHARGES INTO THE AMAFCA MAINTAINED NORTH PINO.

DRAINAGE CALCULATIONS

1. PRECIPITATION ZONE = 2
2. DESIGN STORM = DEPTH (INCHES) AT 100-YEAR STORM
6-HOUR = 2.35 INCHES
24-HOUR = 2.75 INCHES
10 DAY = 3.95 INCHES
3. PEAK DISCHARGE (CFS/ACRE) FIR 100-YEAR, ZONE 2, TABLE A-2:
Q = 1.56 CFS/ACRE SOIL UNCOMPACTED "A"
Q = 2.28 CFS/ACRE LANDSCAPED "B"
Q = 3.14 CFS/ACRE COMPACTED SOIL "C"
Q = 4.70 CFS/ACRE IMPERVIOUS AREA "D"
FOR WATERSHEDS LESS THAN OR EQUAL TO 40 ACRES
4. EXCESS PRECIPITATION, E (INCHES), 6 HOUR STORM, ZONE 2, TABLE A-8:
E = 0.53 INCHES SOIL UNCOMPACTED "A"
E = 0.78 INCHES LANDSCAPED "B"
E = 1.13 INCHES COMPACTED SOIL "C"
E = 2.12 INCHES IMPERVIOUS AREA "D"

PROPOSED CONDITIONS ONSITE:

TOTAL AREA = 114,778SF = 2.63ACRES
BASIN D-1:
IMPERVIOUS AREA EXISTING:
EXISTING BUILDING ROOF AREA = 26,400SF = 0.61AC
EXISTING EMPLOYEE PARKING LOT AREA, LOADING DOCK AREA AND SIDEWALK AREA = 55,750SF = 1.26AC
EXISTING LANDSCAPED AREA = 7,650SF = 0.18AC

IMPERVIOUS AREA PROPOSED:
NEW PROPOSED PAVING AREA = 19,050SF = 0.44AC
NEW LANDSCAPED AREA PROPOSED = 2,775SF = 0.06AC
 $Q(PROPOSED-6HR) = (2.28 \times 0.24) + (4.70 \times 2.32) = 11.45CF$
= 11.45CF PROPOSED ONSITE FLOW INTO NORTHWEST CORNER LOT 2-A
 $V(PROPOSED-6HR) = [(0.78 \times 0.24) + (2.12 \times 2.32)] / 12 \times 43.560 = 18.543CF = 0.43AC\text{-FT PROPOSED VOLUME INTO NORTHWEST CORNER LOT 2-A}$

BASIN D-2:
IMPERVIOUS AREA PROPOSED:
NEW PROPOSED PAVING AREA = 2,125SF = 0.05AC
NEW LANDSCAPED AREA PROPOSED = 1,400SF = 0.03AC

$Q(PROPOSED-6HR) = (2.28 \times 0.03) + (4.70 \times 0.05) = 0.37CF$
= 0.37CF PROPOSED ONSITE FLOW INTO MASTHEAD STREET NE
 $V(PROPOSED-6HR) = [(0.78 \times 0.03) + (2.12 \times 0.05)] / 12 \times 43.560 = 470CF = 0.01AC\text{-FT PROPOSED VOLUME INTO MASTHEAD STREET NE}$

7. SIZE RUNDOWN CURB OPENING AT NORTHWEST CORNER:
 $Q(PROPOSED-6HR) = 11.45CF$
CHECK WEIR CAPACITY:
 $Q(CAPACITY) = C \times L \times H^{3/2}$
 $L = Q / C \times H^{3/2}$
 $Q = 11.45CF$, $H = 0.5FEET$, $C = 3$
 $L = 11.45 / (3 \times 0.5^{3/2}) = 10.79FEET$
USE 11 FEET WIDTH > 10.79 FEET - OK

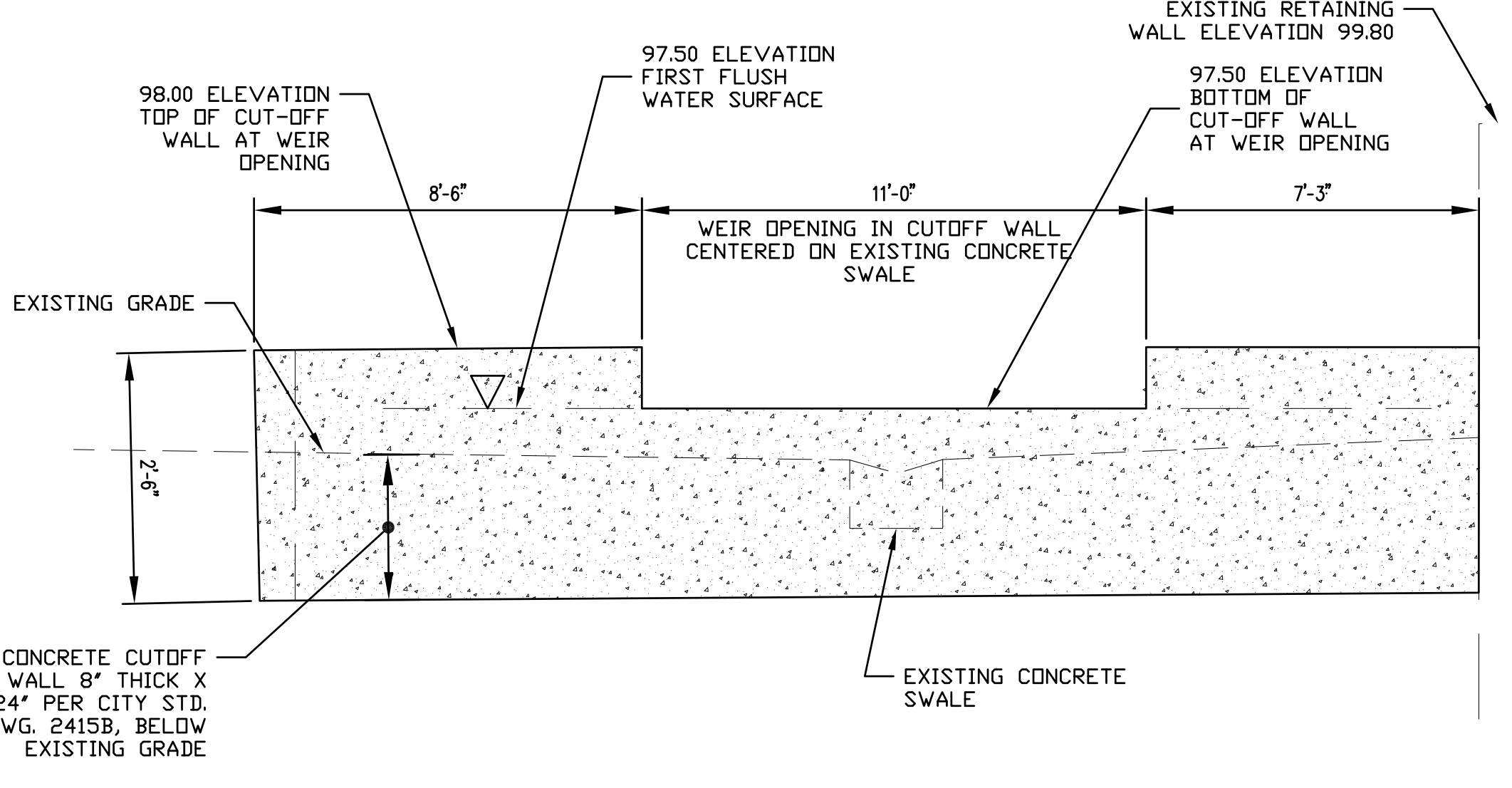
8. FIRST FLUSH STORM WATER CONTROL MEASURES PER ORDINANCE Q-2013016
FOR THE PURPOSE OF THE ORDINANCE THE 90TH PERCENTILE STORM EVENT IS 0.44INCHES FROM IMPERVIOUS AREAS - 0.1" EVAPORATION = 0.34".
 $V(FIRST FLUSH) = 0.34" \times TREATMENT "D" = (0.34" / 12") \times 101,200SF = 2.867CF$
REQUIRED TO BE DETAILED FOR FIRST FLUSH
 $V(PROVIDED AT NORTHWEST CORNER) = ((1.3775SF) \text{ AT EL. 97.5} + (4675SF) \text{ AT EL. 94.0}) / 2 \times 3.5 FEET DEPTH = 3.227CF$
VOLUME PROVIDE = 3.227CF > 2.867CF REQUIRED - OK

LEGEND

- 5098 PROPOSED ELEVATION GRADE
- 5100 EXISTING ELEVATION GRADE
- DRAINAGE FLOW DIRECTION
- NEW TOP OF CURB ELEVATION
- NEW FLOWLINE OF CURB ELEVATION
- NEW TOP OF ASPHALT ELEVATION
- NEW TOP OF SIDEWALK ELEVATION
- EXISTING ELEVATION

CONSTRUCTION NOTES:

1. CONSTRUCT 2' WIDE CONCRETE SWALE.
2. 11' WIDE WEIR OPENING IN CUTOFF WALL CENTERED OVER EXISTING CONCRETE SWALE ALLOW FLOWS TO DISCHARGE FROM THIS SITE TO ADJACENT LOT, DO NOT BLOCK FLOWS WITH WALL, SEE DETAIL THIS SHEET.
3. EXISTING 2' WIDE CONCRETE SWALE
4. SAWCUT AND REMOVE EXISTING 2' WIDE CONCRETE SWALE WITHIN POND LIMITS
5. CONSTRUCT NEW RETENTION POND PER GRADES SHOWN AT 2:1 SIDESLOPES WITH TOP OF POND ELEVATION = 97.50 FOR RETAINING FIRST FLUS VOLUME.
6. HIGH POINT/WATER BLOCK.
7. 3' WIDE ADA RAMP AT 2% MAXIMUM CROSS SLOPE ALONG DRIVEWAY.
8. ADJUST MANHOLE RIM ELEVATION TO MATCH NEW SIDEWALK GRADE PER CITY STDS.
9. TRANSITION FROM 0" TO 6" CURB HEIGHT.
10. CONSTRUCT RETAINING WALL TO NEW GRADES SHOW, DESIGNED BY OTHERS.
11. TRANSITION FROM RETAINING WALL TO 6" CURB
12. CONSTRUCT 8" WIDE X 24" DEEP CUTOFF WALL PER CITY STD. DWG. 2415B AT SOUTH AND EAST SIDE OF NEW RETENTION POND.
13. PLACE 8" THICKNESS OF 3"-4" FRACTURED STONE WITH FILTER BLANKET UNDERNEATH STONE PER LIMITS SHOWN.
14. EXISTING PROPERTY LINE.
15. PLACE AND STAKE A 28' LONG WADDLE SOCK AT THE WEST END OF THE NEW CONCRETE CUTOFF WALL

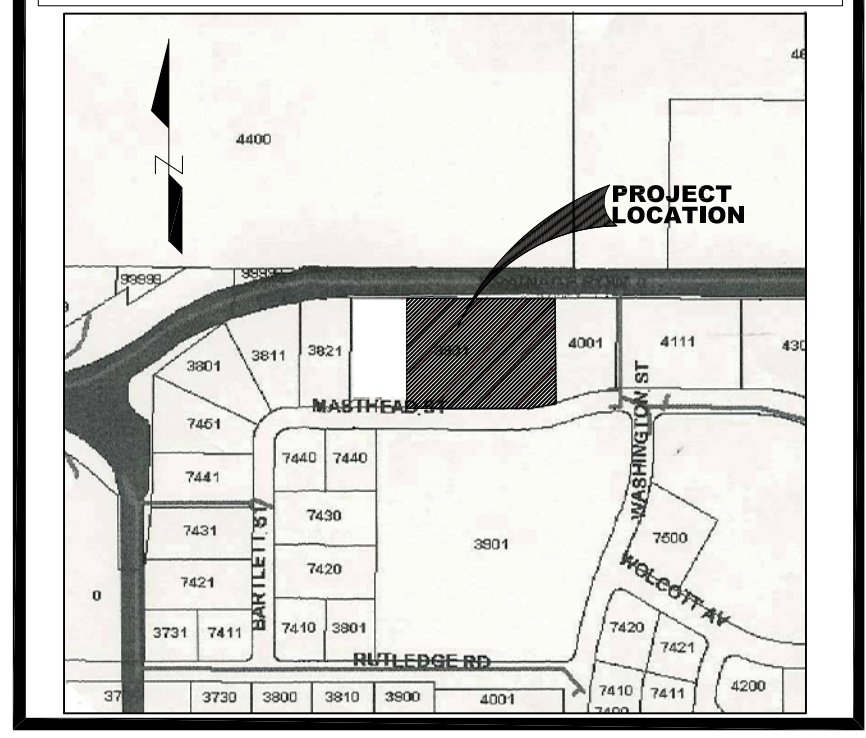


WEIR OPENING AT NW CORNER - LOOKING WEST

SCALE: N.T.S.

FILE:	DATE/REVISIONS: 09/26/16 - City Comments
	SHEET NUMBER: 1 OF 1
APPLIED ENGINEERING AND SURVEYING, INC. ENGINEERS AND PLANNERS 1605 Blvd. Drive NE Albuquerque, New Mexico 87112 Office: (505) 480-8125 gabriel@applied.com	

VICINITY MAP D-17



CAUTION:
NOTE THAT ALL EXISTING UTILITIES MAY NOT BE SHOWN. ALL EXISTING SERVICE CONNECTIONS ARE NOT SHOWN. ANY EXISTING UTILITIES THAT ARE SHOWN ARE APPROXIMATE LOCATION ONLY. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL THE UTILITY OWNERS AND TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATIONS TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES, ETC.