CITY OF ALBUQUERQUE

Richard J. Berry, Mayor

January 25, 2017

Diane Hoelzer, P.E.
Mark Goodwin and Associates
8916 Adams St NE
Albuquerque, NM, 87113

RE: **AIS Circulation and Building B**
Grading Plan
Engineer's Stamp Date 1/5/2017 (File: H13D106)

Dear Ms. Hoelzer:

Based upon the information provided in your submittal received 1/9/2017, the above referenced plan is approved for Building Permit and Site Plan for Building Permit.

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

Orig: Drainage file

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: AIS CIRCULATION and BUILDING B Building Permit #. 201591950 City Drainage #: H13D106

DRB#: 1000649 EPC# Work Order#:

Legal Description: TR 84E MRGCD MAP 35

City Address: 2400 12TH Street

Engineering Firm: Mark Goodwin and Assoc, PA Contact: Diane Hoelzer, PE

Address: 8916 Adams NE, ABQ, NM 87113

Phone# 505-828-2200 Fax#. E-mail: diane@goodwinengineers com

Owner: IPCC Contact: Dwayne Virgint

Address: 2401 12th Street NW, ABQ, NM 87104

Phone#: 505-724-3518 Fax# E-mail: dvirgint@indianpueblo com

Architect: Studio Southwest Architects, Inc. Contact: Danny Solares Jr

Address: 2101 Mountain Road NW, ABQ, NM 87104

Phone#: 505-843-9683 Fax# E-mail: dsolares@studioswarch com

Other Contact: n/a Contact:

Address:

Phone#. Fax# E-mail:

Check all that Apply

DEPARTMENT:

x HYDROLOGY/ DRAINAGE
____ TRAFFIC/ TRANSPORTATION
____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

____ ENGINEER/ ARCHITECT CERTIFICATION

____ CONCEPTUAL G & D PLAN
x GRADING PLAN
____ DRAINAGE MASTER PLAN
____ DRAINAGE REPORT
____ CLOMR/LOMR

____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)
____ EROSION & SEDIMENT CONTROL PLAN (ESC)

____ OTHER (SPECIFY) ____

Received 1-9-17 AO

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

x BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY

____ PRELIMINARY PLAT APPROVAL
____ SITE PLAN FOR SUB'D APPROVAL
x 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? x Yes ____ No

DATE SUBMITTED: January 6, 2017 By: Diane Hoelzer, PE

COA STAFF ELECTRONIC SUBMITTAL RECEIVED ___

D. Mark Goodwin & Associates, P.A.
Consulting Engineers
P.O. BOX 90606, ALBUQUERQUE,NM 87199
(505) 828-2200 FAX 797-9539

January 6, 2017

Hydrology Division, Planning Dept.
Development and Building Services
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: AIS Retail Building B Grading Plan
Engineers stamp date 1-5-17 (H13D106)

Hydrology Reviewer:

This portion of the IPCC AIS Retail was previously approved, built and certified as indicated on the attachments: 1) Hydrology approval letter dated July 24, 2015, and 2) Engineers certification dated 12/1/15.

There is also an approved ESC plan that is also being submitted as an attachment.

This submittal is a follow up now for approval of Building B, Phase II. The pavement parking area is constructed, we are now seeking Site Plan for Building permit approval of Building B and the adjacent building area.

Please call me if you have any questions.

Sincerely,

MARK GOODWIN & ASSOCIATES, P.A.

Diane Hoelzer, PE
Senior Engineer

DLH/dlh
f:\\15042 \AIS RETAIL/ hydro_ltr_Building B.docx

CITY OF ALBUQUERQUE

July 24, 2015

Mark Goodwin, P.E.
Mark Goodwin and Associates
P.O. Box 90606
Albuquerque, NM 87199

Re: A.I.S. Retail
Grading and Drainage Plan (H13D106)
Engineer's Stamp Date, 7-18-15 (Sheets C1, C2, C3 & C4)

Dear Mr. Goodwin,

Based upon the information provided in your submittal received 7-20-15, the above referenced plan is approved for grading and building permit with following recommendation:

- Please consider changing the grades in the parking lot to lessen the 22" of water depth at the bottom/center of the pond. This might be achieved by raising the bottom of the pond and provide a flatter slopes in the parking lot to increase top of water surface elevation to the south, to the north and to the east.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. Prior to Certificate of Occupancy release the following items will be required: a) Engineer Certification per the DPM checklist & b) An executed License Agreement or recorded public easement for the construction of the improvements along 12th Street N.W.

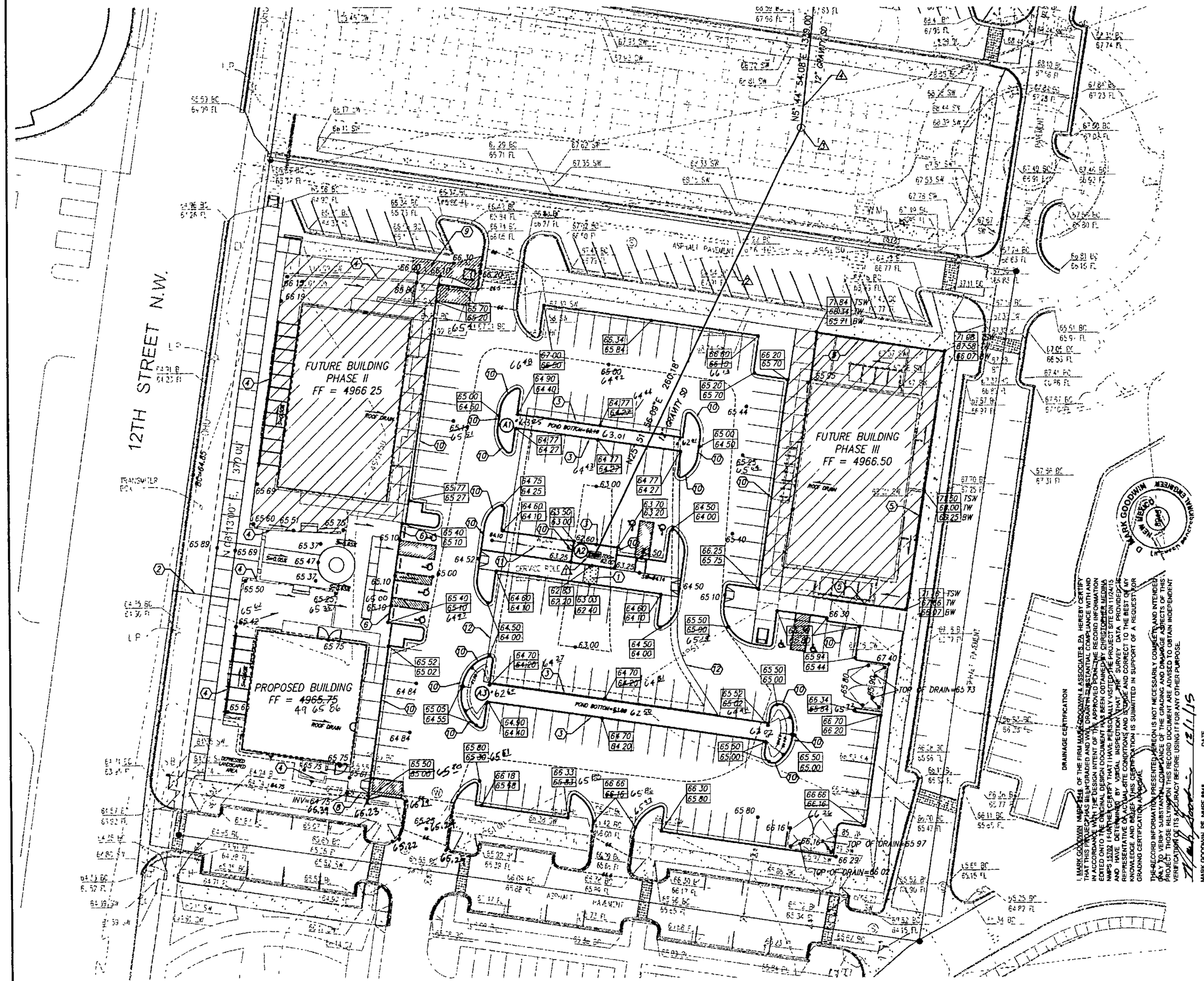
If you have any questions, you can contact me at 924-3999.

Sincerely,

Shahab Biazar, P.E.
City Engineer, Planning
Development and Building Services

C: email

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov



GENERAL NOTES

1 SEE ARCHITECTURAL SITE PLAN FOR TRUE DIMENSIONS.
2 CITY OF ALBUQUERQUE STANDARD DETAILS SHALL BE USED WHEN APPLICABLE.
3 USE EXTRUDED CURB PER DETAIL EXCEPT WHERE NOTED
4. EXISTING CONTOURS ARE PROVIDED FOR REFERENCE ONLY SITE HAS BEEN REGRADED SINCE TOPOGRAPHY WAS COMPLETE

KEYED NOTES

1 6' SIDEWALK CULVERT PER COA STANDARD DRAWING 2236
2 FUTURE SIDEWALK IMPROVEMENTS BY CITY OF ALBUQUERQUE PROJECT SEE ARCHITECTURAL SITE PLAN
3 ~~CURB CUTS PER DETAIL ALONG LENGTH OF CURB~~ → DRAIN PARKING
4 GARDEN / RETAINING WALL DESIGN BY OTHERS. BUMPER PER SHEET C1&C4
5 GARDEN / RETAINING WALL DESIGN BY OTHERS. IF WALL IS NOT TO BE CONSTRUCTED UNTIL FUTURE BUILDING IS BUILT, GRADE SLOPES AT 3:1 MAX FROM EXISTING SIDEWALK TO FUTURE PAD ELEVATION
6 TRANSITION CURB FROM 6" TO NO CURB INSTALL CURB STOPS IN PARKING SPACES.
7 TURNED DOWN SIDEWALK PER DETAIL THIS SHEET
8. 3' WIDE SIDEWALK CULVERT PER COA STANDARD DRAWING 2236 USED AS EMERGENCY SPILLWAY.
9 REMOVE AND REPLACE SIDEWALK TO MATCH NEW GRADES
10 SINGLE CURB CUT PER DETAIL
11 CREATE DRAINAGE SWALE
12 MWSEL = 4964.11

FIRST FLUSH

THE "FIRST FLUSH" IS BEING ACCOMPLISHED THROUGH DEPRESSED AREAS WITHIN THE MEDIANS IN THE PARKING LOT

REQUIRED VOLUME = 0.34" X IMPERVIOUS AREA
= 0.34"/12 X (132,631 SF)
= 3,757 CF

VOLUME PROVIDED = 3,920 CF

(A1) DEPTH = 14" (SEE DETAIL) POND BOTTOM = ~~63.00~~ 63.10
AREA = 1161 SF
VOLUME = 1355 CF

(A2) DEPTH = 3" (SEE DETAIL) POND BOTTOM = 61.75
AREA = 258 SF
VOLUME = 65 CF

(A3) DEPTH = 14" (SEE DETAIL) POND BOTTOM = 63.00
AREA = 2228 SF
VOLUME = 2500 CF

STORM DRAIN NOTES

1 NEW TYPE DOUBLE "D" SD INLET PER COA DETAIL 2206 IN SUMP CONDITION
GRATE = ~~4962.00~~ 4962.64
INVERT = ~~4959.00~~ 4959.64

2 NEW 12" GRAVITY MAIN SDR PVC 35
LENGTH = 259'
SLOPE = 1.00%

3 NEW 4' DIA SD MH
RIM = 4968.50
INV(S) = 4956.40
INV(N) = 4956.30

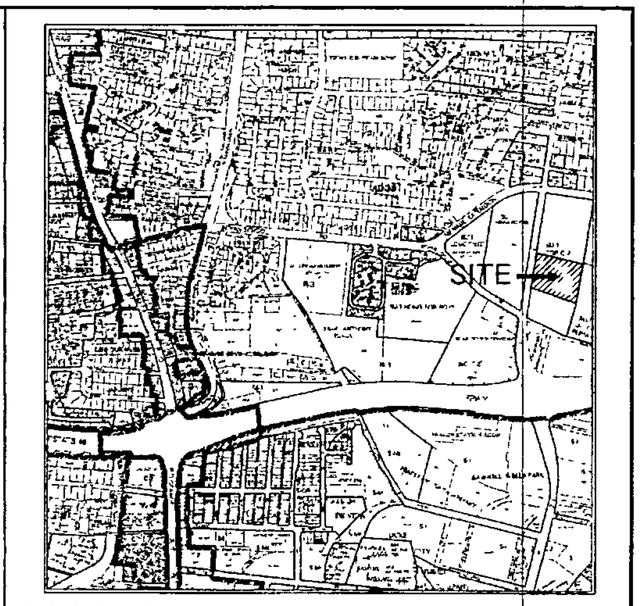
4 NEW 12" GRAVITY MAIN SDR PVC 35
LENGTH = 339.00'
SLOPE = 0.9%
END INVERT = 4953.30'

DRAINAGE CERTIFICATION

I, MARK GOODWIN NMPE 9348 OF THE FIRM MARK GOODWIN & ASSOCIATES, P.A. HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND CONFORMS TO THE INTENT OF THE GRADING AND DRAINAGE PLAN WHICH WAS ENTERED ONTO THE ORIGINAL DESIGN DOCUMENT AND HAS BEEN OBTAINED FROM THE CITY OF ALBUQUERQUE HYDROLOGY SECTION FILES. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 11/24/15 AND THAT THIS DOCUMENT IS A TRUE AND CORRECT AS-BUILT REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR CERTIFICATE OF OCCUPANCY APPROVAL.

MARK GOODWIN PE NMPE 9348 DATE

THIS DRAWING AND SPECIFICATION, AS AN INSTRUMENT OF SERVICE IS NOT MADE AVAILABLE FOR USE BY ANY PERSON OR ENTITY FOR ANY PURPOSE OTHER THAN THE SPECIFIC PROJECT FOR WHICH IT WAS PREPARED AND PUBLISHED. ANY USE OF THIS DRAWING AND SPECIFICATION FOR ANY OTHER PURPOSE OR BY ANY OTHER PERSON OR ENTITY IS UNDERTAKEN AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO MARK GOODWIN & ASSOCIATES, P.A. (MGA). TO VERIFY SUBSTITUTE MATERIALS AND/OR METHODS, THE USER SHALL CONSULT WITH MGA. THE USER SHALL ASSUME ALL RISK AND LIABILITY ARISING FROM SUCH USE AND AGREES TO INDEMNIFY AND HOLD HARMLESS MGA FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES INCLUDING ATTORNEY'S FEES ARISING OUT OF OR RESULTING THEREFROM. ANY REVISIONS TO THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.



VICINITY MAP ZONE ATLAS H-13-Z

TRACT A
RETAIL SITE
PROJECTED SECTIONS 7 & 8, T10 N, R 3 E, N.M.P.M.
TOWN ON ALBUQUERQUE GRANT
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO

BENCHMARK

SEE PLAT FOR BASIS OF BEARINGS AND SITE BENCHMARKS

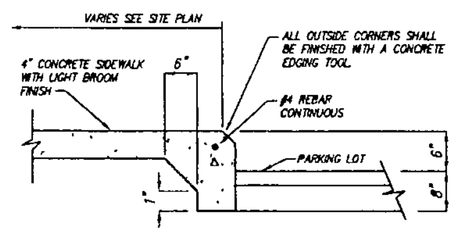
LEGAL DESCRIPTION

TRACT "A" OF THE PLAT FOR THE UNITED STATES BUREAU OF LAND MANAGEMENT SURVEY OF TOWN OF ALBUQUERQUE GRANT, PROJECTED SECTIONS 7 AND 8 TOWNSHIP 10 NORTH, RANGE 3 EAST NEW MEXICO PRINCIPAL MERIDIAN, DATED AUGUST 12, 2011,

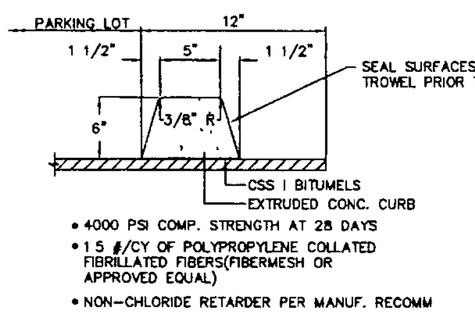
SHEET INDEX

LEGEND

PROPERTY LINE
50 EXISTING CONTOUR
+ 2.50 EXISTING SPOT ELEVATION
00.00 BC / 00.00 FL EXISTING SPOT ELEVATION
00.00 / 00.00 PROPOSED TOP OF CURB ELEVATION / PROPOSED FLOW LINE ELEVATION
00.00 TSW / 00.00 TW / 00.00 BW PROPOSED TOP OF SCREEN WALL / PROPOSED TOP OF WALL / PROPOSED BOTTOM OF WALL
00.00 / + 00.00 AS-BUILT PROPOSED SPOT ELEVATION
DIRECTION OF FLOW
PROPOSED SWALE
POND ELEVATIONS
PROPOSED 3:1 SLOPE
GARDEN/RETAINING WALL

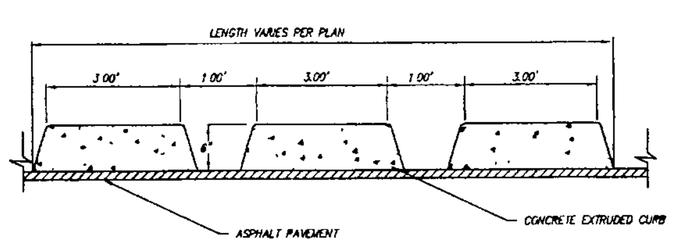


TURNED DOWN SIDEWALK DETAIL
N.T.S.

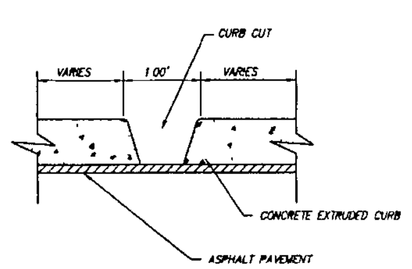


- 4000 PSI COMP. STRENGTH AT 28 DAYS
- 1.5 #/CY OF POLYPROPYLENE COLLATED FIBRILLATED FIBERS(FIBERMESH OR APPROVED EQUAL)
- NON-CHLORIDE RETARDER PER MANUF. RECOMM

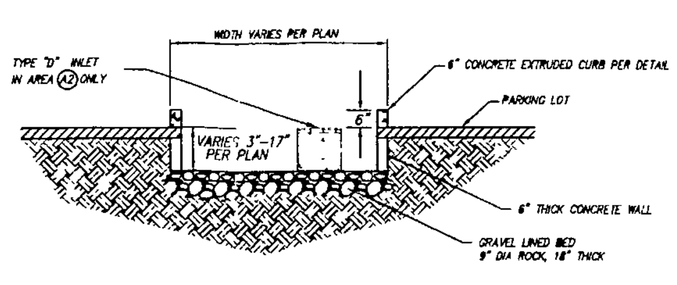
EXTRUDED CURB
N.T.S.



CURB CUT DETAIL ALONG LENGTH OF CURB
N.T.S.



SINGLE CURB CUT
N.T.S.



TYPICAL CROSS SECTION FOR FIRST FLUSH PONDING IN PARKING LOT MEDIANS
N.T.S.

D MARK GOODWIN NEW MEXICO 9348 REGISTERED PROFESSIONAL ENGINEER 11/18/15

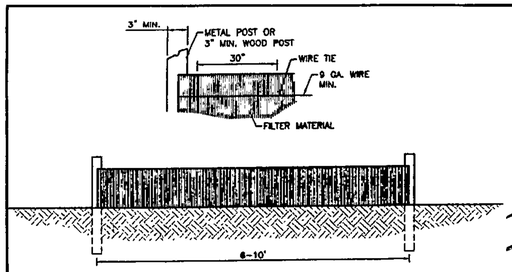
30' 15' 0 30' 60'
SCALE 1" = 30'

A.I.S. RETAIL

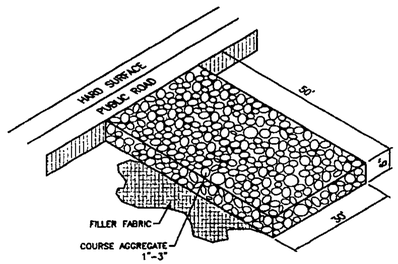
SITE GRADING & DRAINAGE

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

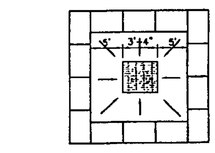
Designed KMK	Drawn KMK	Checked DMG	Sheet C1 of 4
Scale SEE SCALE	Date 11/30/14	Job. A12041	

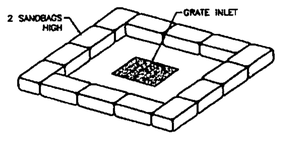


SILTATION FENCE FOR SEDIMENT CONTROL
N.T.S.



STABILIZED CONSTRUCTION ENTRANCE
N.T.S.

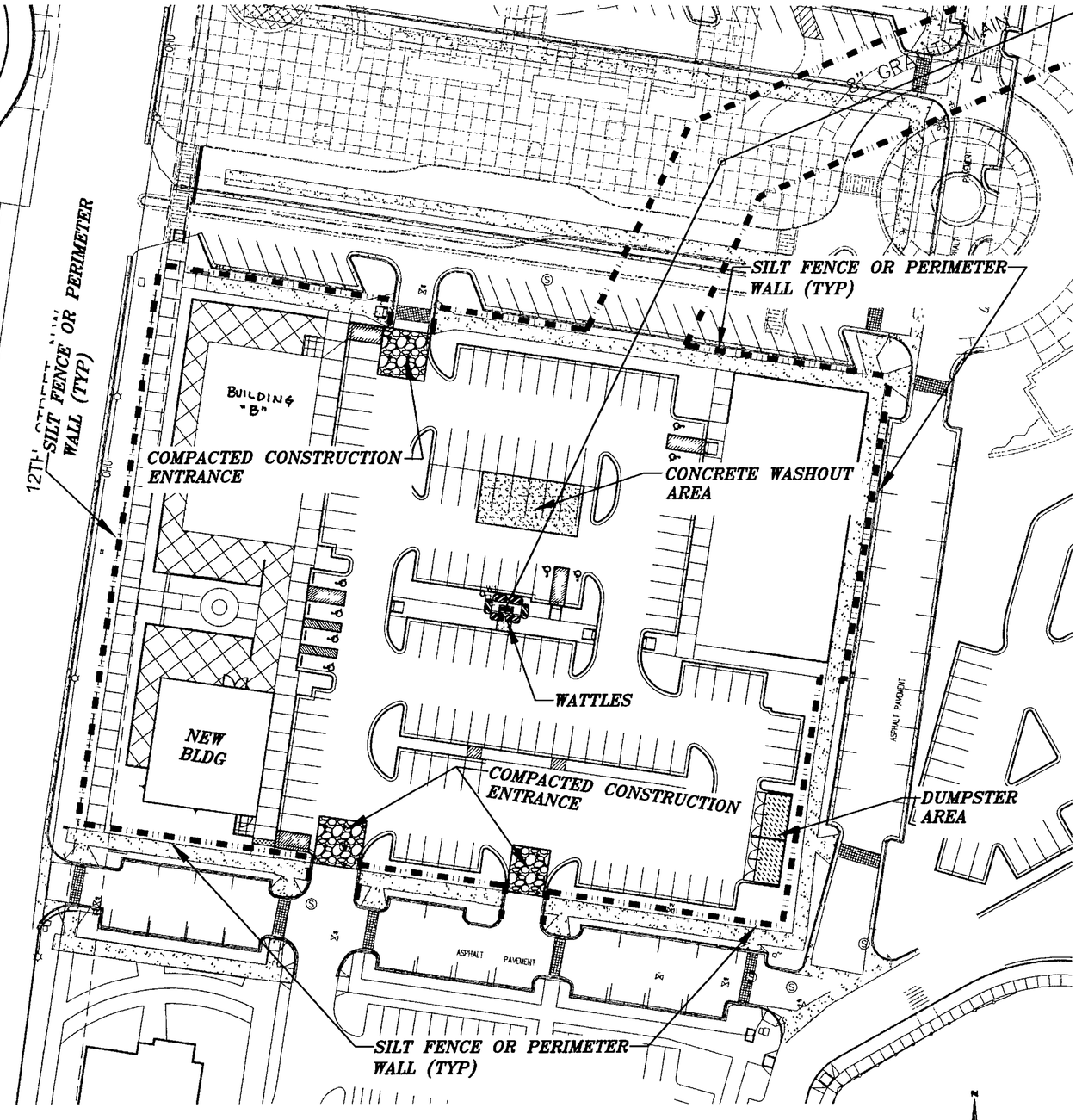




SANDBAG OR WATTLE DETAIL
N.T.S.

LEGEND

- PERIMETER WALL OR SILT FENCE (TYPICAL)
- CONCRETE WASHOUT AREA
- COMPACTED ENTRANCE
- DUMPSTER AREA
- WATTLES (AROUND SD INLETS TYPICAL)



VICINITY MAP ZONE ATLAS H-13-Z

TRACT A
RETAIL SITE
PROJECTED SECTIONS 7 & 8, T.10 N., R. 3 E., N.M.P.M
TOWN OF ALBUQUERQUE GRANT
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO

BENCHMARK

SEE PLAT FOR BASIS OF BEARINGS AND SITE BENCHMARKS

LEGAL DESCRIPTION

TRACT "A" OF THE PLAT FOR THE UNITED STATES BUREAU OF LAD MANAGEMENT SURVEY OF TOWN OF ALBUQUERQUE GRANT, PROJECTED SECTIONS 7 AND 8 TOWNSHIP 10 NORTH, RANGE 3 EAST NEW MEXICO PRINCIPAL MERIDIAN, DATED AUGUST 12, 2011,

D. MARK GOODWIN NEW MEXICO 9648 REGISTERED PROFESSIONAL ENGINEER
4/6/15

A.I.S. RETAIL

EROSION & SEDIMENT CONTROL

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

Designed: KWK	Drawn: DER	Checked: DMG	Sheet 1 of 2
Scale: 1"= 30'	Date: 04/07/15	Job: A12041	

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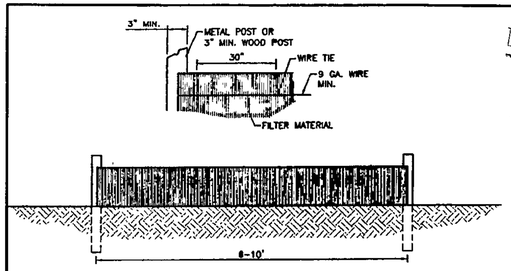
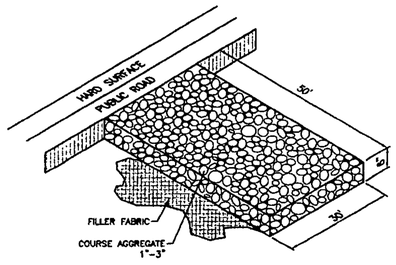
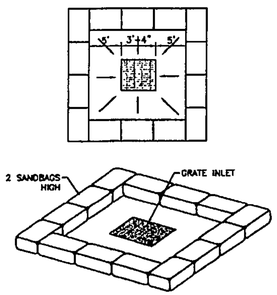


SILTATION FENCE FOR SEDIMENT CONTROL
N.T.S.



STABILIZED CONSTRUCTION ENTRANCE
N.T.S.



SANDBAG OR WATTLE DETAIL
N.T.S.

LEGEND

- PERIMETER WALL OR SILT FENCE (TYPICAL)
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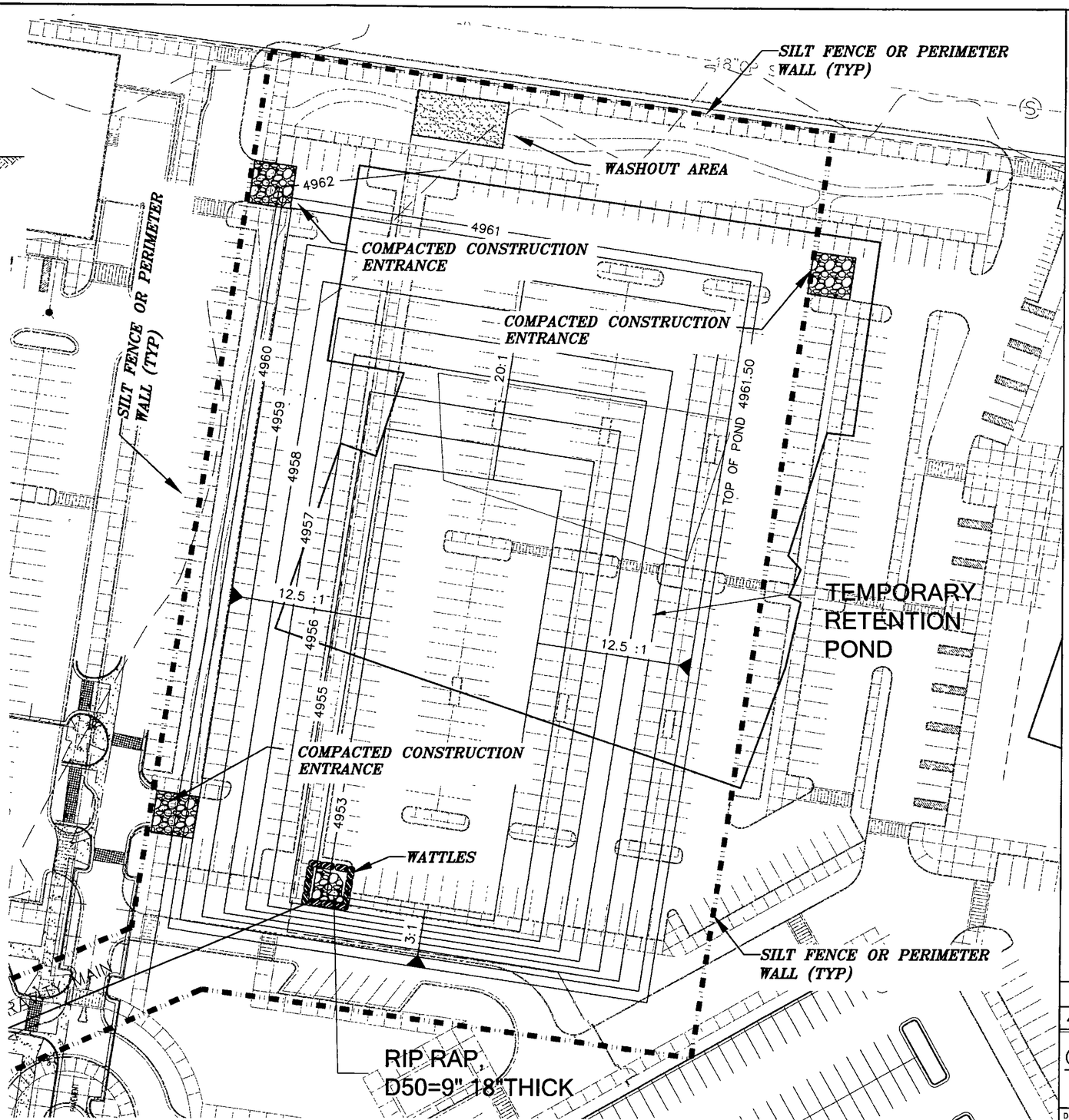

D. MARK GOODWIN NEW MEXICO 9040 REGISTERED PROFESSIONAL ENGINEER
5/12/15

N

30' 15' 0 30' 60'
SCALE: 1" = 30'

A.I.S. RETAIL

EROSION & SEDIMENT CONTROL

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

Designed: KWK	Drawn: DER	Checked: DMG	Sheet 2 of 2
Scale: 1"= 30'	Date: 04/07/15	Job: A12041	

F:\A12JOBS\A12041 I P F D C RETAIL\2014 PLANS\SWPP\Albuquerque Indian School Erosion Control Plan dwg, Last saved by: Kelly, 4/7/2015

F:\A12JOBS\A12041 I P F D C RETAIL\2014 PLANS\SWPP\Albuquerque Indian School Erosion Control Plan dwg, 5/7/2015 2:38:37 PM, hiram, KP 7100 4in.tif

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: AIS CIRCULATION - OVERALL GRADING PLAN FOR ROADS Building Permit #: _____ City Drainage #: H13D106

DRB#: 1000649 EPC#: _____ Work Order#: _____

Legal Description: TR 84E MRGCD MAP 35

City Address: 2400 12TH Street

Engineering Firm: Mark Goodwin and Assoc, PA Contact: Diane Hoelzer, PE

Address: 8916 Adams NE, ABQ, NM 87113

Phone#: 505-828-2200 Fax#: _____ E-mail: diane@goodwinengineers com

Owner: IPCC Contact: Dwayne Virgint

Address: 2401 12th Street NW, ABQ, NM 87104

Phone#: 505-724-3518 Fax#: _____ E-mail: dvirgint@indianpueblo.com

Architect: Studio Southwest Architects, Inc Contact: Danny Solares Jr

Address: 2101 Mountain Road NW, ABQ, NM 87104

Phone#: 505-843-9683 Fax#: _____ E-mail: dsolares@studioswarch com

Other Contact: n/a Contact: _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

x HYDROLOGY/ DRAINAGE
_____ TRAFFIC/ TRANSPORTATION
_____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

_____ ENGINEER/ ARCHITECT CERTIFICATION

_____ CONCEPTUAL G & D PLAN
x 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
X GRADING PERMIT APPROVAL
_____ SO-19 APPROVAL
X PAVING PERMIT APPROVAL
_____ GRADING/ PAD CERTIFICATION
_____ WORK ORDER APPROVAL
_____ CLOMR/LOMR

_____ PRE-DESIGN MEETING
_____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL? x Yes _____ No

DATE SUBMITTED: January 6, 2017 By: Diane Hoelzer, PE

COA STAFF ELECTRONIC SUBMITTAL RECEIVED ___

RECEIVED
1-6-17

CITY OF ALBUQUERQUE

Richard J. Berry, Mayor

January 25, 2017

Diane Hoelzer, P.E.
Mark Goodwin and Associates
8916 Adams St NE
Albuquerque, NM, 87113

RE: **AIS Circulation- Overall Grading Plan for Roads Grading Plan**
Engineer's Stamp Date 1/6/2017 (File: H13D106)

Dear Ms. Hoelzer:

Based upon the information provided in your submittal received 1/6/2017, the above referenced plan is approved for Grading Permit and Paving Permit. The following recommendation is made:

1. Valley gutter is recommended across Eagle Way Drive (private) at the roundabout to convey concentrated flows from the Turquoise Street (private) curb and gutter.

It is Hydrology's understanding that flows will be conveyed along private roads and into a temporary detention pond. At a later phase, this temporary pond will be replaced with a new lift station, connecting to the existing force main. This future design will require analysis of capacity in the receiving City storm drain and first flush ponding requirements.

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

Orig: Drainage file

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

January 6, 2017

RE: AIS Circulation Grading Plan (H13_D106)
Response to Hydrology Email Comments

From: Carrillo, Abiel X. [mailto:acarrillo@cabq.gov]
Sent: Tuesday, December 27, 2016 3:28 PM
To: Diane Hoelzer <diane@goodwinengineers.com>
Subject: H13D106 - AIS Circulation - Stamp 11-15-2016

Diane,

This email is being sent in lieu of a letter attached. A response to this email does not replace a resubmittal.

Based on information provided in your submittal received 11-23-2016, the above-referenced Grading and Drainage Plan cannot be approved for Building Permit/Grading Permit and Paving Permit until the following comments are addressed:

1. Provide cross sections for the roadways (preferable), or otherwise make it clear which legs are crowned, and provide elevations for median and sidewalk segments that are not labeled. This is a general rough grading plan that is part of a construction plan set that includes paving plan and profiles. The master paving plan is part of this resubmittal as it show the typical road cross sections and sidewalks which are place above the curb at a typical 2% cross slope.

2. Clarify the rip rap and low spot for the pond rundown, the sidewalk should not dip down into a rip rap pad. The rip rap will only be placed on the side slope extending into the pond. The rundown has been modified to include (2) standard 24" wide sidewalk culverts with the standard grate plate.

3. It appears that the northern leg of Eagle Way transitions from crowned section to flat grading near the force main line; the running slope to the roundabout is only about 0.6%, which is difficult to achieve in the pavement. Consider transitioning out of the crown closer to the roundabout. On the north leg of Eagle Way Drive, at the crown transition, there is a 0.3'drop across 38' which translates to a 0.78 % cross slope. I have shifted the crown transition 50' south to the location where the cross slope is 1.0%.

4. Provide a detail for the rundown, including any ramping from the sidewalk and/or sidewalk culverts intended. The rundown has been modified to include (2) 24" wide sidewalk culverts.

5. On the southern leg of Eagle Way Drive, provide better direction to the Contractor on how to set the elevation of the sidewalk so as to prevent a slope steeper than 3:1. If possible, provide a flatter slope to prevent such a steep drop off from the edge of the sidewalk to the back of the curb. The typical roadway sections show the sidewalk is to be constructed in the standard location offset from the top of curb at a consistent 2% cross slope, so there is no area where the landscape area between the sidewalk and back of curb is 3:1. Also, we are lowering the grades in this area, so there is not a 3:1 slope. The plan notation has been revised accordingly.

a. If 3:1 slopes are found to be necessary, provide designed erosion control (vs only noting that gravel mulch is needed). They are not necessary.

6. The median islands should be planned with standard or median curb to better protect pedestrians between lanes at the roundabout. Its all median curb and gutter per COA DTL. 2415B.

7. Transition to depressed curb where the flow is conveyed across the pavement, such as around the curve from Eagle Way to Turquoise Street. I don't understand why this is necessary. Please explain. These roads are private and not part of a work order plan set. However, I am changing the roundabout median curb and gutter to "median depressed curb and gutter.

8. Some of these comments can be addressed with a work order Set if Turquoise and Eagle Way will be public streets. These are all private roads and it is my understanding they are not subject to a city work order.

9. If not done so already, an approved ESC Plan will be required prior to Hydrology's approval. OK.

Any question just let me know.

Abiel Carrillo, PE, CFM
Principal Engineer - Hydrology
Planning Department
Development Review Services Division
City of Albuquerque
505-924-3986
acarrillo@cabq.gov
600 2nd Street NW
Albuquerque, NM 87102

DIANE HOELZER NEW MEXICO 11967 LICENSED PROFESSIONAL ENGINEER

1-6-17

Red responses by Diane Hoelzer, PE, Mark Goodwin & Associates, PA, (505) 828-2200

Carrillo, Abiel X.

From: Carrillo, Abiel X.
Sent: Tuesday, December 27, 2016 3:28 PM
To: 'Diane Hoelzer'
Subject: H13D106 - AIS Circulation - Stamp 11-15-2016

Diane,

This email is being sent in lieu of a letter attached. A response to this email does not replace a resubmittal.

Based on information provided in your submittal received 11-23-2016, the above-referenced Grading and Drainage Plan cannot be approved for Building Permit/Grading Permit and Paving Permit until the following comments are addressed:

1. Provide cross sections for the roadways (preferable), or otherwise make it clear which legs are crowned, and provide elevations for median and sidewalk segments that are not labeled.

2. Clarify the rip rap and low spot for the pond rundown, the sidewalk should not dip down into a rip rap pad.

3. It appears that the northern leg of Eagle Way transitions from crowned section to flat grading near the force main line; the running slope to the roundabout is only about 0.6%, which is difficult to achieve in the pavement. Consider transitioning out of the crown closer to the roundabout.

4. Provide a detail for the rundown, including any ramping from the sidewalk and/or sidewalk culverts intended.

5. On the southern leg of Eagle Way Drive, provide better direction to the Contractor on how to set the elevation of the sidewalk so as to prevent a slope steeper than 3:1. If possible, provide a flatter slope to prevent such a steep drop off from the edge of the sidewalk to the back of the curb.

    a. If 3:1 slopes are found to be necessary, provide designed erosion control (vs only noting that gravel mulch is needed).

6. The median islands should be planned with standard or median curb to better protect pedestrians between lanes at the roundabout.

7. Transition to depressed curb where the flow is conveyed across the pavement, such as around the curve from Eagle Way to Turquoise Street.

8. Some of these comments can be addressed with a work order Set if Turquoise and Eagle Way will be public streets.

9. If not done so already, an approved ESC Plan will be required prior to Hydrology's approval.

Any question just let me know.

Abiel Carrillo, PE, CFM

Principal Engineer - Hydrology
Planning Department
Development Review Services Division
City of Albuquerque

505-924-3986
acarrillo@cabq.gov
600 2nd Street NW
Albuquerque, NM 87102

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

H13D106

Project Title: AIS CIRCULATION and BUILDING B Building Permit # 20159150 City Drainage #: H-14/

DRB#: 1000649 EPC# Work Order#:

Legal Description: TR 84E MRGCD MAP 35 & ADJ VAC PORT OF 9TH ST

City Address:

Engineering Firm: Mark Goodwin and Assoc, PA Contact: Diane Hoelzer, PE

Address: 8916 Adams NE, ABQ, NM 87113

Phone#. 505-828-2200 Fax# E-mail: diane@goodwinengineers com

Owner: IPCC Contact: Dwayne Virgint

Address: 2401 12th Street NW, ABQ, NM 87104

Phone#· 505-724-3518 Fax#· E-mail: dvirgint@indianpueblo com

Architect: Studio Southwest Architects, Inc Contact: Danny Solares Jr

Address: 2101 Mountain Road NW, ABQ, NM 87104

Phone# 505-843-9683 Fax#· E-mail: dsolares@studioswarch com

Other Contact: n/a Contact:

Address:

Phone#· Fax#. E-mail:

Check all that Apply

DEPARTMENT:

x HYDROLOGY/ DRAINAGE
x TRAFFIC/ TRANSPORTATION
_____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

_____ ENGINEER/ ARCHITECT CERTIFICATION

_____ CONCEPTUAL G & D PLAN
x GRADING PLAN
x DRAINAGE MASTER PLAN
_____ DRAINAGE REPORT
_____ CLOMR/LOMR

_____ TRAFFIC CIRCULATION LAYOUT (TCL)
_____ TRAFFIC IMPACT STUDY (TIS)
_____ EROSION & SEDIMENT CONTROL PLAN (ESC)

_____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?· _____ Yes x No

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

x 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
x GRADING PERMIT APPROVAL
_____ SO-19 APPROVAL
x PAVING PERMIT APPROVAL
_____ GRADING/ PAD CERTIFICATION
_____ WORK ORDER APPROVAL
_____ CLOMR/LOMR

_____ PRE-DESIGN MEETING
_____ OTHER (SPECIFY) _____

DATE SUBMITTED: November 22, 2016 By: Diane Hoelzer, PE

RECEIVED
NOV 23 2016
LAND DEVELOPMENT SECTION

COA STAFF ELECTRONIC SUBMITTAL RECEIVED ___

Waiting for Elec. Sub to log into Cavern track per. Shahab

CITY OF ALBUQUERQUE

December 30, 2015

Kelly Klein, PE
Mark Goodwin & Associates, PA.
PO Box 90606
Albuquerque, NM 87110

Re: AIS Retail
12th St & Indian School/Menaul
Request Permanent C.O. - Accepted
Engineer's Stamp dated: 7-8-15 (H13D106)
Certification dated: 12-1-15

Dear Ms. Klein,

Based on the Certification received 12/29/2015, the AIS Retail is acceptable for permanent release of Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3999 or Totten Elliott at 924-3982.

Sincerely,

Shahab Biazar, P.E.
City Engineer, Planning Dept.
Development Review Services

TE/SB
C: email: Connor, Francis; Cordova, Camille C.; Miranda, Rachel; Sandoval, Darlene M.

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: AIS Retail Building Permit #: _____ City Drainage #: H13D106

DRB#: 1000649 EPC#. _____ Work Order#: _____

Legal Description. Tract A of the Plat US BLM Survey of Town of Albuquerque Sec 7&8 T10N R3E

City Address: 12th Street and Indian School and Menual

Engineering Firm: Mark Goodwin and Associates Contact: Kelly Klein

Address: PO Box 90606 Albuquerque NM 87119

Phone#: 505-828-2200 Fax#· _____ E-mail: kelly@goodwinengineers.com

Owner: IPMI 6, L.L.C Contact: _____

Address· 2401 12 th NW

Phone#: 505-724-3518 Fax#: _____ E-mail: _____

Architect: Studio Southwest Architects, Inc Contact: Danny Solares

Address· 2101 Mountain Road NW

Phone#· 505-843-9639 Fax#: _____ E-mail: dsolares@studiowarch.com

Other Contact: _____ Contact: _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

X HYDROLOGY/ DRAINAGE

____ TRAFFIC/ TRANSPORTATION

____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

X ENGINEER/ ARCHITECT CERTIFICATION

____ CONCEPTUAL G & D PLAN

____ GRADING PLAN

____ DRAINAGE MASTER PLAN

____ DRAINAGE REPORT

____ CLOMR/LOMR

RECEIVED
DEC 29 2015
LAND DEVELOPMENT SECTION

____ TRAFFIC CIRCULATION LAYOUT (TCL)

____ TRAFFIC IMPACT STUDY (TIS)

____ EROSION & SEDIMENT CONTROL PLAN (ESC)

____ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ BUILDING PERMIT APPROVAL

X 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?: X Yes ____ No

DATE SUBMITTED: Dec 29, 2015 By: Kelly Klein

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED· ___

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 ~

Dec 29, 2015

Mr. Abiel Carrillo, P.E.
Principal Engineer, Planning Department
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: AIS RETAIL
12th and Indian School/Menaul
Engineer's Stamp dated 7-8-15 (H13D106)
Request for CO

Dear Mr. Carrillo;

We are seeking a permanent CO for the above referenced project. Attached, please find the required attachments and responses as required by your letter dated 12/14/2015. Our response and/or changes are as follows:

1. ***"As-built elevations/ spot must be provided.*** *Completed, please see attached Grading and Drainage Plan (Engineer's stamp date 7-8-15) with as-built information added. Specifically, Totten Elliott requested verification of the elevations around the concrete apron at the drop inlet. This concrete apron was not part of the approved design and has been removed so that first flush pond will fill up before the runoff enters the drop inlet. The as-built TOG is 62.04'.*

2. ***"Keyed Note 8 calls for a 3' wide sidewalk culvert. The inside dimension is 2'2-1/2"...indicate this will suffice".*** *Based on Manning's equation, the flow through the as-built culvert is 7.66cfs. The area draining to the culvert generates less than 1 cfs so therefore the culvert size is adequate. The overflow for the pond (aka parking lot) is at the southwestern entrance with the highest elevation at 65.24. The finished floor for Starbucks is at 65.86, which is higher than the spillway elevation. Any overflow from a larger storm event would overflow into the southern road.*

3. *"**Please provide electronic and paper copy of Sheet C1B of 4 with new submittal.*** *Attached with submittal.*

Sincerely,
MARK GOODWIN & ASSOCIATES, PA

Kelly Klein, EIT

RECEIVED
DEC 29 2015
LAND DEVELOPMENT SECTION

CITY OF ALBUQUERQUE

December 4, 2015

Kelly Klein, PE
Mark Goodwin & Associates, PA.
PO Box 90606
Albuquerque, NM 87110

Re: AIS Retail
12th St & Indian School/Menaul
Request for 30 Temporary C.O. - Accepted
Engineer's Stamp dated: 7-8-15 (H13D106)
Certification dated: 12-1-15

Dear Ms. Klein,

Based on the certification provided in your submittal received 12/1/2015, the above referenced is approved for a 30-day Temporary Release of Occupancy by Hydrology. However, before a permanent CO can be accepted the following comments must be addressed.

- As-built elevations/spot must be provided.
- Keyed Note #8 calls for a 3" wide sidewalk culvert. The inside dimension is 2'-2 ½". Please provide revised calculations indicating this will suffice.
- Please provide electronic and paper copy of sheet C1B of 4 with new submittal.

An inspection by our office will need to take place after plan is provided.

If you have any questions, you can contact me at 924-3686 or Totten Elliott at 924-3986.

Sincerely,

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

TE/AC
C: email

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: AIS Retail Building Permit #: _____ City Drainage #: H13D106

DRB#. 1000649 EPC#: _____ Work Order#: _____

Legal Description. Tract A of the Plat US BLM Survey of Town of Albuquerque Sec 7&8 T10N R3E

City Address: 12th Street and Indian School and Menual

Engineering Firm: Mark Goodwin and Associates Contact: Kelly Klein

Address PO Box 90606 Albuquerque NM 87119

Phone# 505-828-2200 Fax#: _____ E-mail: kelly@goodwinengineers com

Owner: IPMI 6, L.L.C Contact: _____

Address. 2401 12 th NW

Phone#: 505-724-3518 Fax#: _____ E-mail: _____

Architect: Studio Southwest Architects, Inc Contact: Danny Solares

Address. 2101 Mountain Road NW

Phone#: 505-843-9639 Fax#: _____ E-mail: dsolares@studiowarch.com

Other Contact: _____ Contact: _____

Address: _____

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

Check all that Apply.

DEPARTMENT:

X HYDROLOGY/ DRAINAGE

_____ TRAFFIC/ TRANSPORTATION

_____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

X 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

X 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) _____

RECEIVED
DEC 01 2015
LAND DEVELOPMENT SECTION

IS THIS A RESUBMITTAL?. _____ Yes X No

DATE SUBMITTED: Dec 1, 2015 By: Kelly Klein

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ___

CITY OF ALBUQUERQUE

July 24, 2015

Mark Goodwin, P.E.
Mark Goodwin and Associates
P.O. Box 90606
Albuquerque, NM 87199

Re: A.I.S. Retail
Grading and Drainage Plan (H13D106)
Engineer's Stamp Date, 7-18-15 (Sheets C1, C2, C3 & C4)

Dear Mr. Goodwin,

Based upon the information provided in your submittal received 7-20-15, the above referenced plan is approved for grading and building permit with following recommendation:

- Please consider changing the grades in the parking lot to lessen the 22" of water depth at the bottom/center of the pond. This might be achieved by raising the bottom of the pond and provide a flatter slopes in the parking lot to increase top of water surface elevation to the south, to the north and to the east.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. Prior to Certificate of Occupancy release the following items will be required: a) Engineer Certification per the DPM checklist & b) An executed License Agreement or recorded public easement for the construction of the improvements along 12th Street N.W.

If you have any questions, you can contact me at 924-3999.

Sincerely,

Shahab Biazar, P.E.
City Engineer, Planning
Development and Building Services

C: email

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: AIS Retail Building Permit #: _____ City Drainage #: H13D106

DRB#: 1000649 EPC#: _____ Work Order#: _____

Legal Description: Tract A of the Plat US BLM Survey of Town of Albuquerque Sec 7&8 T10N R3E

City Address: 12th Street and Indian School and Menual

Engineering Firm: Mark Goodwin and Associates Contact: Kelly Klein

Address: PO Box 90606 Albuquerque NM 87119

Phone#: 505-828-2200 Fax#: _____ E-mail: kelly@goodwinengineers.c

Owner: IPMI 6, L.L.C Contact: Dwayne Virgint

Address: 2401 12 th NW

Phone#: 505-724-3518 Fax#: _____ E-mail: _____

Architect: Studio Southwest Architects, Inc Contact: Danny Solares

Address: 2101 Mountain Road NW

Phone#: 505-843-9639 Fax#: _____ E-mail: dsolares@studiowarch.com

Surveyor: _____ Contact: _____

Address: _____

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

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
X 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
X 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)

As varified

RECEIVED
JUL 20 2015
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes ____ No ____ Copy Provided

DATE SUBMITTED: 7-20-2015 By: Kelly Klein

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, anc 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 followin

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

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: AIS Retail Building Permit #: _____ City Drainage #: _____

DRB#: 1000649 EPC#: _____ Work Order#: _____

Legal Description: Tract A of the Plat US BLM Survey of Town of Albuquerque Sec 7&8 T10N R3E

City Address: 12th Street and Indian School and Menual

Engineering Firm: Mark Goodwin and Associates Contact: Kelly Klein

Address: PO Box 90606 Albuquerque NM 87119

Phone#: 505-828-2200 Fax#: _____ E-mail: kelly@goodwinengineers.cc

Owner: IPMI 6, L.L.C Contact: Dwayne Virgint

Address: 2401 12 th NW

Phone#: 505-724-3518 Fax#: _____ E-mail: _____

Architect: Studio Southwest Architects, Inc Contact: Danny Solares

Address: 2101 Mountain Road NW

Phone#: 505-843-9639 Fax#: _____ E-mail: dsolares@studiowarch.com

Surveyor: _____ Contact: _____

Address: _____

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

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT
___ DRAINAGE PLAN 1st SUBMITTAL
X 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
X 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)

RECEIVED
JUL 20 2015
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ___ Yes ___ No ___ Copy Provided

DATE SUBMITTED: 7-20-2015 By: Kelly Klein

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal The particular nature, location, anc 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 followin

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

MARK GOODWIN & ASSOCIATES, PA

LETTER OF TRANSMITTAL

To:	Shahab Biazar		**DATE:**	July 24, 2015
	City of Albuquerque			
	Hydrology Department		**RE:**	**A.I.S Retail**
				#1000649

ITEMS BEING TRANSMITTED

1	CD – Building Permit Approval Resubmittals
1	Site Utility Plan

- ☐ FOR YOUR USE
- ☐ AS REQUESTED
- ☐ FOR YOUR RECORDS
- ☐ FOR YOUR COMMENTS

Notes

RECEIVED
JUL 24 2015
LAND DEVELOPMENT SECTION

Submitted by:
KMK/kb

Received By:

_____
(Please Print)

_____
Date

P.O. Box 90606 ♦ Albuquerque, NM 87199 ♦ (505) 828-2200 ♦ (505) 797-9539 fax
www.goodwinengineers.com

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 20, 2015

Mr. Shahab Biazar, P.E.
City Engineer, Planning
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: AIS Retail; 12 St & Indian School/Menaul; Grading and Drainage Plan (H13D106)

Dear Mr. Biazar:

Attached, please find a revised Grading & Drainage Plan as required by your letter dated 7/14/2015. Our response and/or changes are as follows:

- ***"Show roof flow directions..."*** *The roof flow directions have been added to Sheet C1. The roof runoff does NOT drain to the west of the building. The roof runoff drains towards the east of the building into the parking lot.*

- ***"There appears to be ponding between the two buildings along 12th Street."*** *Please see changes on Sheet C1. Grade point elevations were changed and flow arrows were added to ensure the runoff drains towards the parking lot.*

- *"**Provide additional spot elevations to assure that the runoff will be able to get around the back of the building and into the parking lot."*** *Please see changes on Sheet C1.*

- ***"Provide elevations for the trash enclosure floor drains."*** *Please see changes on Sheet C1.*

- ***"Show the 100 year water surface elevation on the plans...water depth appears to be more than 24"...where is the emergency overflow?"*** *The MWSEL has been added to Sheet C1. The MWSEL is 4964.11. Since the majority of the spaces in the parking lot are at elevations greater than 4963.00, the water depth is 13". Six parking spaces near the center of the pond will have a maximum depth of 22". The emergency overflow is located in the southwestern corner of the parking lot as shown on note 8 on Sheet C1.*

- *"**Please provide the bottom of the pond elevations where the first flush ponding is proposed..."*** *Please see pond elevations on Sheet C1.*

- ***"Is the grate elevation for the double "D" inlet at the bottom of the pond? How does the sidewalk culvert tie into the inlet?"*** *Please see changes on Sheet C1. The inlet has been relocated to the middle of the first flush pond A2 and will be in a sump condition. The*

top of the grate is at elevation 62.00'. The sidewalk culvert will discharge into pond A2 (outfall invert of the sidewalk culvert is 62.20'). The gravel lined bed shown on the "Typical Cross Section for First Flush Ponding in Parking Lot Medians" will help prevent erosion.

- ***"There is a proposed sidewalk culvert north side of the southerly building along 12th Street. The culvert encroaches into the handicapped ramp."*** *The culvert has been relocated. The area in question will serve as a loading ramp for truck deliveries and not designed as an ADA ramp.* ***Is the runoff draining to the depressed landscaping area to the southwest corner of the building?*** *This drainage path is intended as the emergency spillway. The only runoff draining toward the depressed landscaping area is what falls on this area during the storm.*

- ***"Please correct the force main line size on Sheet C3"*** *Please see changes on Sheet C3.*

- ***"Show existing contours. Provides contour elevations on sheet C2"*** *Please see changes on Sheet C2. Please note that the site has been regraded since the topography of these existing contours was complete. The existing spot elevations show the grades after the site was regraded.*

- ***"Who will be maintaining the storm drain system?"*** *IPMI 6 L.L.C will be maintaining the system. Their address is 2401 12th Street NW.*

Sincerely,

Kelly Klein, EIT
MARK GOODWIN & ASSOCIATES, PA

Apr 17, 2015
(Same as Jan16 but Includes Temp Pond)

```
                    AIS-AHYMO-2-pump-out-at-2.0cfs-and-Temp-Pond-FINAL--INPUT
START               0.0 HRS  PUNCH CODE=0  PRINT LINES=-6
*S*****************************************************************************
*S                  ABQ INDIAN SCHOOL  100-YR, 24-HR DEVELOPED CONDITIONS
*S*****************************************************************************
LOCATION            ALBUQUERQUE
RAINFALL            TYPE=2  RAIN QUARTER=0.0  RAIN ONE=1.78
                    RAIN SIX=2.23      RAIN DAY=2.60      DT=.05
*****************************************************************************
*S                  ONSITE-ENTIRE BASIN A - DEVELOPED CONDITIONS
*S                  ----------------------------------------
*****************************************************************************
COMPUTE NM HYD      ID=1 HYD=100 DA=0.00541 SQ MI
                    PER A=0 B=0 C=12 D=88
                    TP=0.133333 HRS RAIN=-1
PRINT HYD           ID=1 CODE=1
*S
*****************************************************************************
*S                  ONSITE-SUBBASINS IN BASIN A
*S                  ----------------------------------------
*****************************************************************************
*S
*s                  BASIN 100.1
COMPUTE NM HYD      ID=2 HYD=100.1 DA=0.000191 SQ MI
                    PER A=0 B=0 C=0 D=100
                    TP=0.133333 HRS RAIN=-1
PRINT HYD           ID=2 CODE=1
*
*s                  BASIN 100.2
COMPUTE NM HYD      ID=3 HYD=100.2 DA=0.000395 SQ MI
                    PER A=0 B=0 C=14 D=86
                    TP=0.133333 HRS RAIN=-1
PRINT HYD           ID=3 CODE=1
*
*s                  BASIN 100.3
COMPUTE NM HYD      ID=4 HYD=100.3 DA=0.00033 SQ MI
                    PER A=0 B=0 C=12 D=88
                    TP=0.133333 HRS RAIN=-1
PRINT HYD           ID=4 CODE=1
*
*s                  BASIN 100.4
COMPUTE NM HYD      ID=5 HYD=100.4 DA=0.00045 SQ MI
                    PER A=0 B=0 C=12 D=88
                    TP=0.133333 HRS RAIN=-1
PRINT HYD           ID=5 CODE=1
*
*s                  BASIN 100.5
COMPUTE NM HYD      ID=6 HYD=100.5 DA=0.00404 SQ MI
                    PER A=0 B=0 C=10 D=90
                    TP=0.133333 HRS RAIN=-1
PRINT HYD           ID=6 CODE=1
*S
*****************************************************************************
*S                  OFFSITE-ENTIRE BASIN B - DEVELOPED CONDITIONS
*S                  ----------------------------------------
*****************************************************************************
COMPUTE NM HYD      ID=8 HYD=200 DA=0.011 SQ MI
                    PER A=0 B=0 C=12 D=88
                    TP=0.133333 HRS RAIN=-1
PRINT HYD           ID=8 CODE=1
*S
*****************************************************************************
*S                  FULLY DEVELOPED CONDITIONS ADD BASINS TO GO TO PUMP
*S                  ----------------------------------------------
*****************************************************************************
ADD HYD             ID=9 HYD=300 ID=6 AND 8
*
ROUTE RESERVOIR     ID=10 HYD=300.1 INFLOW ID=9  CODE=10
                    OUTFLOW (CFS)          STORAGE (AC FT)    ELEV
                    0                      0.00               4950
                    0.01                   0.001803           4951
                    0.02                   0.003606           4952
                    0.03                   0.005409           4953
                    0.04                   0.007212           4954
                    0.991                  0.009015           4955
                    0.992                  0.010818           4956
                    0.993                  0.012621           4957
                    0.994                  0.014424           4958
                    1.993                  0.016227           4959
                    1.994                  0.019042           4960
                    1.995                  0.021859           4961
                    1.996                  0.030000           4962
                    1.997                  0.021200           4963
                    1.998                  0.982000           4964
                    1.999                  2.590000           4965
```

Q = 14.23cfs
Vol = 0.6322 Ac-FT

Q = 0.53cfs

Q = 1.05cfs

Q = 0.99cfs

Q = 1.20cfs

Q = 10.69cfs
Vol = 0.478Ac ft

Q = 29.11cfs
Vol = 1.235Ac ft

Q = 39.61cfs Vol = 1.763 Ac-FT

Q_p = 1.799cfs
@ 2.35 hours

HWSEL = 4964.11
MaxStorage = 1.161Ac-FT

```
                    AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond FINAL_ INPUT
*
PRINT HYD             ID=10 CODE=1
*S
*S*************************************************************************
**************************************************************************
*S                     OFFSITE-ENTIRE BASIN B - UNDEVELOPED CONDITIONS
*S                     ----------------------------------------------
**************************************************************************
COMPUTE NM HYD        ID=13 HYD=200 DA=0.011 SQ MI
                      PER A=0 B=0 C=90 D=10
                      TP=0.133333 HRS RAIN=-1
PRINT HYD             ID=13 CODE=1
*
**************************************************************************
*S                     PARTIALLY DEVELOPED CONDITIONS ADD BASINS TO GO TO PUMP
*S                     (BASIN A: FULLY DEVELOPED... BASIN B: UNDEVELOPED)
*S                     ---------------------------------------------------
**************************************************************************
ADD HYD               ID=14 HYD=301 ID=6 AND 13
PRINT HYD             ID=14 CODE=1
*
ROUTE RESERVOIR       ID=15 HYD=30.1 INFLOW ID=14  CODE=10
                      OUTFLOW (CFS)          STORAGE (AC FT)    ELEV
                       0                      0.00               4950
                      0.01                   0.001803           4951
                      0.02                   0.003606           4952
                      0.03                   0.005409           4953
                      0.04                   0.007212           4954
                      0.991                  0.009015           4955
                      0.992                  0.010818           4956
                      0.993                  0.012621           4957
                      0.994                  0.014424           4958
                      1.993                  0.016227           4959
                      1.994                  0.019042           4960
                      1.995                  0.021859           4961
                      1.996                  0.030000           4962
                      1.997                  0.021200           4963
                      1.998                  0.982000           4964
                      1.999                  2.590000           4965
*
PRINT HYD             ID=15 CODE=1
*
*S
*S*************************************************************************
**************************************************************************
*S                     ONSITE-ENTIRE BASIN A - DEVELOPED CONDITIONS
*S                     SIZING OUTLET PIPE TO PUMP  Outflow using 8" pipe
*            (Size of pipe determined by maintaing elevation of pumped conditions)
*S                     ----------------------------------------------------------
**************************************************************************
*
ROUTE RESERVOIR       ID=20 HYD=408 INFLOW ID=6  CODE=10
                    OUTFLOW (CFS)        STORAGE (AC FT)      ELEV
                       0                     0.00              4959
                     1.370                 0.00034           4960
                     1.566                 0.00135           4961
                     1.567                 0.00236           4962
                     1.568                 0.01965           4963
                     1.569                 0.18197           4964
                     1.570+                0.73497*          4965*
*
PRINT HYD             ID=20 CODE=1
*
*S
*S*************************************************************************
**************************************************************************
*S                     ONSITE-ENTIRE BASIN A - DEVELOPED CONDITIONS
*S                     SIZING OUTLET PIPE TO PUMP  Outflow using 12" pipe
*            (Size of pipe determined by maintaing elevation of pumped conditions)
*S                     -----------------------------------------------------------
**************************************************************************
*
ROUTE RESERVOIR       ID=21 HYD=412 INFLOW ID=6  CODE=10
                    OUTFLOW (CFS)        STORAGE (AC FT)      ELEV
                       0                     0.00              4959
                     2.670                 0.00034           4960
                     4.626                 0.00135           4961
                     4.627                 0.00236           4962
                     4.628                 0.01965           4963
                     4.629                 0.18197           4964
                     4.630+                0.73497*          4965*
*
PRINT HYD             ID=21 CODE=1
*
```

Q = 21.89 CFS
VOL = 0.6785 AC-FT

Q = 32.57 CFS VOL = 1.156 AC-FT

Qp = 1.999 CFS
@ 2.15 hrs

MWSEL = 4963.83
Max Storage = 0.9146 AC-FT

Qp = 1.57 CFS
MWSEL = 4964.10
8" pipe flowing full at S=1.0%

12" pipe flowing full
S = 1.0%

```
                    AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond FINAL_ INPUT
*S
*
**********************************************************************************
*S                    FULLY DEVELOPED CONDITIONS ADD BASINS PUMP NOT WORKING
*S                    ---------------------------------------------------
**********************************************************************************
*
ROUTE RESERVOIR      ID=22 HYD=500 INFLOW ID=9  CODE=10
                     OUTFLOW (CFS)          STORAGE (AC FT)    ELEV
                     0                      0.00               4950
                     0.010                  0.001803           4951
                     0.015                  0.003606           4952
                     0.020                  0.005409           4953
                     0.025                  0.007212           4954
                     0.030                  0.009015           4955
                     0.035                  0.010818           4956
                     0.040                  0.012621           4957
                     0.045                  0.014424           4958
                     0.050                  0.016227           4959
                     0.055                  0.019042           4960
                     0.060                  0.021859           4961
                     0.065                  0.030000           4962
                     0.070                  0.021200           4963
                     0.075                  0.982000           4964
                     0.100                  2.590000           4965
*
PRINT HYD            ID=22 CODE=1
*
*S
**********************************************************************************
*S                    FULLY DEVELOPED CONDITIONS TO GO TO PUMP
*s             (Adding AREAS of each basin going into pump instead of
*S                  adding the individual BASIN'S HYDROGRAPHS)
*S                  ----------------------------------------
**********************************************************************************
COMPUTE NM HYD       ID=25 HYD=600 DA=0.01504 SQ MI
                     PER A=0 B=0 C=10 D=90
                     TP=0.133333 HRS RAIN=-1
PRINT HYD            ID=25 CODE=1
*
ROUTE RESERVOIR      ID=26 HYD=600.1 INFLOW ID=25  CODE=10
                     OUTFLOW (CFS)          STORAGE (AC FT)    ELEV
                      0                      0.00               4950
                     0.01                   0.001803           4951
                     0.02                   0.003606           4952
                     0.03                   0.005409           4953
                     0.04                   0.007212           4954
                     0.991                  0.009015           4955
                     0.992                  0.010818           4956
                     0.993                  0.012621           4957
                     0.994                  0.014424           4958
                     1.993                  0.016227           4959
                     1.994                  0.019042           4960
                     1.995                  0.021859           4961
                     1.996                  0.030000           4962
                     1.997                  0.021200           4963
                     1.998                  0.982000           4964
                     1.999                  2.590000           4965
*
PRINT HYD            ID=26 CODE=1
*S
**********************************************************************************
*****************************
**********************************************************************************
*S                    DESIGNING TEMPorary POND IN BASIN B
*S                    PARTIALLY DEVELOPED CONDITIONS ADD BASINS TO GO TO PUMP
*S                    (BASIN A: FULLY DEVELOPED... BASIN B: UNDEVELOPED)
*S                    ---------------------------------------------------
**********************************************************************************
*ADD HYD               ID=14 HYD=301 ID=6 AND 13
*PRINT HYD             ID=14 CODE=1
ADD HYD              ID=40 HYD=301 ID=20 AND 13
PRINT HYD            ID=40 CODE=1
*
ROUTE RESERVOIR      ID=50 HYD=50.1 INFLOW ID=40  CODE=10
                     OUTFLOW (CFS)          STORAGE (AC FT)    ELEV
                     0.00                   0.00               4955
                     0.010                  0.70               4956
                     0.015                  1.62               4957
                     0.025                  2.81               4958
                     0.030                  4.29               4959
                     0.035                  6.07               4960
                     0.040                  8.20               4961
                     0.045                  10.69              4962
```

(This is a check)

Design will allow for runoff to flow into streets so as not to flood the parking lot.

MWSEL = 4964.4

Max storage = 1.61 ac-ft

Q_p = 1,993 cfs @ 2.35 hours

MWSEL = 4964.12

Max Storage = 1.17 AC-FT

*NO FLOW OUT

Q_p = 0.012 cfs*

MWSEL = 4956.47

Max Storage = 1.135 AC-FT

```
                    AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond FINAL_ INPUT
                     0.050                    13.59                    4963
*
PRINT HYD            ID=50      CODE=1
FINISH
```

←(s16.67h8.5v0T←&l8D

```
        AHYMO PROGRAM (AHYMO-S4)                    - Version: S4.01a - Rel: 01a
             RUN DATE (MON/DAY/YR) = 04/17/2015
             START TIME (HR:MIN:SEC) = 13:25:31     USER NO.= M-GoodwinNMSiteA90075759
             INPUT FILE = ers\Kelly\Desktop\AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond FINAL_
INPUT.txt

    START                 0.0 HRS   PUNCH CODE=0   PRINT LINES=-6
♀
    *S*************************************************************************
    *S                    ABQ INDIAN SCHOOL  100-YR, 24-HR DEVELOPED CONDITIONS
♀
    *S*************************************************************************
    LOCATION              ALBUQUERQUE
         City of Albuquerque soil infiltration values (LAND FACTORS) used for computations.
         Land Treatment     Initial Abstr.(in)    Unif. Infilt.(in/hour)
               A            0.65                  1.67
               B            0.50                  1.25
               C            0.35                  0.83
               D            0.10                  0.04

    RAINFALL              TYPE=2  RAIN QUARTER=0.0  RAIN ONE=1.78
         RAIN SIX=2.23      RAIN DAY=2.60      DT=.05

    24-HOUR RAINFALL DIST. - BASED ON NOAA ATLAS 14 FOR CONVECTIVE AREAS (NM & AZ) - D1
    DT =   0.050000 HOURS       END TIME =    24.000002 HOURS
      0.0000  0.0030  0.0061  0.0094  0.0130  0.0167  0.0209
      0.0268  0.0360  0.0460  0.0564  0.0677  0.0791  0.0909
      0.1031  0.1154  0.1292  0.1435  0.1591  0.1814  0.2071
      0.2416  0.2807  0.3290  0.3934  0.4659  0.5910  0.7854
      1.1187  1.3529  1.5377  1.6305  1.7119  1.7703  1.8168
      1.8574  1.8870  1.9143  1.9368  1.9540  1.9686  1.9816
      1.9939  2.0047  2.0149  2.0249  2.0345  2.0424  2.0469
      2.0513  2.0556  2.0597  2.0637  2.0677  2.0715  2.0754
      2.0790  2.0825  2.0860  2.0894  2.0928  2.0961  2.0993
      2.1024  2.1055  2.1086  2.1115  2.1144  2.1173  2.1201
      2.1229  2.1256  2.1284  2.1310  2.1337  2.1363  2.1389
      2.1415  2.1440  2.1465  2.1489  2.1514  2.1538  2.1562
      2.1585  2.1609  2.1632  2.1655  2.1677  2.1700  2.1722
      2.1744  2.1765  2.1787  2.1808  2.1829  2.1850  2.1871
      2.1891  2.1912  2.1932  2.1952  2.1971  2.1991  2.2010
      2.2030  2.2049  2.2068  2.2086  2.2105  2.2124  2.2142
      2.2160  2.2178  2.2196  2.2214  2.2231  2.2248  2.2266
      2.2283  2.2300  2.2317  2.2334  2.2351  2.2368  2.2385
      2.2402  2.2419  2.2435  2.2452  2.2469  2.2485  2.2502
      2.2519  2.2535  2.2552  2.2568  2.2585  2.2601  2.2617
      2.2634  2.2650  2.2666  2.2683  2.2699  2.2715  2.2731
      2.2747  2.2763  2.2779  2.2795  2.2811  2.2827  2.2843
      2.2859  2.2875  2.2890  2.2906  2.2922  2.2937  2.2953
      2.2969  2.2984  2.3000  2.3015  2.3030  2.3046  2.3061
      2.3076  2.3092  2.3107  2.3122  2.3137  2.3152  2.3167
      2.3183  2.3198  2.3213  2.3227  2.3242  2.3257  2.3272
      2.3287  2.3302  2.3316  2.3331  2.3346  2.3360  2.3375
      2.3389  2.3404  2.3418  2.3433  2.3447  2.3461  2.3476
      2.3490  2.3504  2.3518  2.3532  2.3546  2.3560  2.3575
      2.3589  2.3602  2.3616  2.3630  2.3644  2.3658  2.3672
      2.3685  2.3699  2.3713  2.3726  2.3740  2.3754  2.3767
      2.3780  2.3794  2.3807  2.3821  2.3834  2.3847  2.3860
      2.3874  2.3887  2.3900  2.3913  2.3926  2.3939  2.3952
      2.3965  2.3978  2.3991  2.4004  2.4016  2.4029  2.4042
      2.4054  2.4067  2.4080  2.4092  2.4105  2.4117  2.4130
      2.4142  2.4154  2.4167  2.4179  2.4191  2.4204  2.4216
      2.4228  2.4240  2.4252  2.4264  2.4276  2.4288  2.4300
      2.4312  2.4324  2.4335  2.4347  2.4359  2.4371  2.4382
      2.4394  2.4405  2.4417  2.4428  2.4440  2.4451  2.4463
      2.4474  2.4485  2.4497  2.4508  2.4519  2.4530  2.4541
      2.4552  2.4563  2.4574  2.4585  2.4596  2.4607  2.4618
      2.4629  2.4640  2.4650  2.4661  2.4672  2.4682  2.4693
      2.4704  2.4714  2.4724  2.4735  2.4745  2.4756  2.4766
      2.4776  2.4787  2.4797  2.4807  2.4817  2.4827  2.4837
      2.4847  2.4857  2.4867  2.4877  2.4887  2.4897  2.4906
      2.4916  2.4926  2.4936  2.4945  2.4955  2.4964  2.4974
      2.4983  2.4993  2.5002  2.5012  2.5021  2.5030  2.5039
      2.5049  2.5058  2.5067  2.5076  2.5085  2.5094  2.5103
      2.5112  2.5121  2.5130  2.5139  2.5147  2.5156  2.5165
      2.5174  2.5182  2.5191  2.5199  2.5208  2.5216  2.5225
      2.5233  2.5242  2.5250  2.5258  2.5266  2.5275  2.5283
```

```
AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond in Basin B FINAL_ OUT
  2.5291  2.5299  2.5307  2.5315  2.5323  2.5331  2.5339
  2.5347  2.5355  2.5363  2.5370  2.5378  2.5386  2.5393
  2.5401  2.5409  2.5416  2.5424  2.5431  2.5438  2.5446
  2.5453  2.5460  2.5468  2.5475  2.5482  2.5489  2.5496
  2.5503  2.5510  2.5517  2.5524  2.5531  2.5538  2.5545
  2.5552  2.5559  2.5565  2.5572  2.5579  2.5585  2.5592
  2.5598  2.5605  2.5611  2.5618  2.5624  2.5630  2.5637
  2.5643  2.5649  2.5655  2.5662  2.5668  2.5674  2.5680
  2.5686  2.5692  2.5698  2.5704  2.5709  2.5715  2.5721
  2.5727  2.5732  2.5738  2.5744  2.5749  2.5755  2.5760
  2.5766  2.5771  2.5776  2.5782  2.5787  2.5792  2.5798
  2.5803  2.5808  2.5813  2.5818  2.5823  2.5828  2.5833
  2.5838  2.5843  2.5848  2.5853  2.5857  2.5862  2.5867
  2.5871  2.5876  2.5881  2.5885  2.5890  2.5894  2.5899
  2.5903  2.5907  2.5912  2.5916  2.5920  2.5924  2.5928
  2.5933  2.5937  2.5941  2.5945  2.5949  2.5953  2.5956
  2.5960  2.5964  2.5968  2.5972  2.5975  2.5979  2.5982
  2.5986  2.5990  2.5993  2.5997  2.6000

♀
*****************************************************************************
*S                    ONSITE-ENTIRE BASIN A - DEVELOPED CONDITIONS
*S                    ----------------------------------------
♀
*****************************************************************************
COMPUTE NM HYD       ID=1 HYD=100 DA=0.00541 SQ MI
                     PER A=0 B=0 C=12 D=88
                     TP=0.133333 HRS RAIN=-1

     K =  0.072666HR    TP =  0.133333HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
     UNIT PEAK =   18.791    CFS   UNIT VOLUME =   0.9986       B =   526.28      P60 = 1.7800
     AREA =     0.004761 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000


     K =  0.104878HR    TP =  0.133333HR    K/TP RATIO =  0.786584     SHAPE CONSTANT, N =  4.563783
     UNIT PEAK =   1.9045    CFS   UNIT VOLUME =   0.9954       B =   391.16      P60 = 1.7800
     AREA =     0.000649 SQ MI    IA =   0.35000 INCHES    INF =   0.83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

PRINT HYD            ID=1 CODE=1

                                  PARTIAL HYDROGRAPH   100.00


    RUNOFF VOLUME =     2.19097 INCHES     =       0.6322 ACRE-FEET
    PEAK DISCHARGE RATE =      14.23 CFS  AT   1.500 HOURS   BASIN AREA =  0.0054 SQ. MI.



    *S
♀
*****************************************************************************
*S                    ONSITE-SUBBASINS IN BASIN A
*S                    ---------------------------
♀
*****************************************************************************
*S
*s                    BASIN 100.1
COMPUTE NM HYD       ID=2 HYD=100.1 DA=0.000191 SQ MI
                     PER A=0 B=0 C=0 D=100
                     TP=0.133333 HRS RAIN=-1

     K =  0.072666HR    TP =  0.133333HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
     UNIT PEAK =  0.75389    CFS   UNIT VOLUME =   0.9864       B =   526.28      P60 = 1.7800
     AREA =     0.000191 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

PRINT HYD            ID=2 CODE=1

                                  PARTIAL HYDROGRAPH   100.10


    RUNOFF VOLUME =     2.35013 INCHES     =       0.0239 ACRE-FEET
    PEAK DISCHARGE RATE =       0.53 CFS  AT   1.500 HOURS   BASIN AREA =  0.0002 SQ. MI.



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                AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond in Basin B FINAL_ OUT
*s                    BASIN 100.2
COMPUTE NM HYD        ID=3 HYD=100.2 DA=0.000395 SQ MI
                      PER A=0 B=0 C=14 D=86
                      TP=0.133333 HRS RAIN=-1

     K =  0.072666HR    TP =  0.133333HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
     UNIT PEAK =   1.3408    CFS   UNIT VOLUME =   0.9911       B =   526.28      P60 = 1.7800
     AREA =     0.000340 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000


     K =  0.104878HR    TP =  0.133333HR    K/TP RATIO =  0.786584     SHAPE CONSTANT, N =  4.563784
     UNIT PEAK =  0.16223    CFS   UNIT VOLUME =   0.9219       B =   391.16      P60 = 1.7800
     AREA =     0.000055 SQ MI    IA =   0.35000 INCHES    INF =   0.83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

PRINT HYD             ID=3 CODE=1

                                   PARTIAL HYDROGRAPH   100.20


    RUNOFF VOLUME =     2.16445 INCHES     =       0.0456 ACRE-FEET
    PEAK DISCHARGE RATE =       1.05 CFS  AT   1.500 HOURS   BASIN AREA =  0.0004 SQ. MI.

*
*s                    BASIN 100.3
COMPUTE NM HYD        ID=4 HYD=100.3 DA=0.00033 SQ MI
                      PER A=0 B=0 C=12 D=88
                      TP=0.133333 HRS RAIN=-1

     K =  0.072666HR    TP =  0.133333HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
     UNIT PEAK =   1.1462    CFS   UNIT VOLUME =   0.9890       B =   526.28      P60 = 1.7800
     AREA =     0.000290 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000


     K =  0.104878HR    TP =  0.133333HR    K/TP RATIO =  0.786584     SHAPE CONSTANT, N =  4.563783
     UNIT PEAK =  0.11617    CFS   UNIT VOLUME =   0.8920       B =   391.16      P60 = 1.7800
     AREA =     0.000040 SQ MI    IA =   0.35000 INCHES    INF =   0.83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

PRINT HYD             ID=4 CODE=1

                                   PARTIAL HYDROGRAPH   100.30


    RUNOFF VOLUME =     2.19097 INCHES     =       0.0386 ACRE-FEET
    PEAK DISCHARGE RATE =       0.88 CFS  AT   1.500 HOURS   BASIN AREA =  0.0003 SQ. MI.


*
*s                    BASIN 100.4
COMPUTE NM HYD        ID=5 HYD=100.4 DA=0.00045 SQ MI
                      PER A=0 B=0 C=12 D=88
                      TP=0.133333 HRS RAIN=-1

     K =  0.072666HR    TP =  0.133333HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
     UNIT PEAK =   1.5630    CFS   UNIT VOLUME =   0.9927       B =   526.28      P60 = 1.7800
     AREA =     0.000396 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000


     K =  0.104878HR    TP =  0.133333HR    K/TP RATIO =  0.786584     SHAPE CONSTANT, N =  4.563783
     UNIT PEAK =  0.15842    CFS   UNIT VOLUME =   0.9219       B =   391.16      P60 = 1.7800
     AREA =     0.000054 SQ MI    IA =   0.35000 INCHES    INF =   0.83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

PRINT HYD             ID=5 CODE=1

                                   PARTIAL HYDROGRAPH   100.40


    RUNOFF VOLUME =     2.19097 INCHES     =       0.0526 ACRE-FEET
    PEAK DISCHARGE RATE =       1.20 CFS  AT   1.500 HOURS   BASIN AREA =  0.0005 SQ. MI.
```

```
*
*S                      BASIN 100.5
COMPUTE NM HYD          ID=6 HYD=100.5 DA=0.00404 SQ MI
                        PER A=0 B=0 C=10 D=90
                        TP=0.133333 HRS RAIN=-1

     K =  0.072666HR    TP =  0.133333HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
     UNIT PEAK =   14.352    CFS   UNIT VOLUME =   0.9983       B =   526.28      P60 = 1.7800
     AREA =     0.003636 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000


     K =  0.104878HR    TP =  0.133333HR    K/TP RATIO =  0.786584     SHAPE CONSTANT, N =  4.563784
     UNIT PEAK =   1.1852    CFS   UNIT VOLUME =   0.9915       B =   391.16      P60 = 1.7800
     AREA =     0.000404 SQ MI    IA =   0.35000 INCHES    INF =   0.83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

PRINT HYD               ID=6 CODE=1

                                  PARTIAL HYDROGRAPH   100.50


    RUNOFF VOLUME =      2.21750 INCHES      =        0.4778 ACRE-FEET
    PEAK DISCHARGE RATE =      10.69 CFS  AT   1.500 HOURS   BASIN AREA =  0.0040 SQ. MI.


    *S
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    ********************************************************************************
    *S                      OFFSITE-ENTIRE BASIN B - DEVELOPED CONDITIONS
    *S                      ---------------------------------------------
♀
    ********************************************************************************
    COMPUTE NM HYD          ID=8 HYD=200 DA=0.011 SQ MI
                            PER A=0 B=0 C=12 D=88
                            TP=0.133333 HRS RAIN=-1

     K =  0.072666HR    TP =  0.133333HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
     UNIT PEAK =   38.208    CFS   UNIT VOLUME =   0.9989       B =   526.28      P60 = 1.7800
     AREA =     0.009680 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000


     K =  0.104878HR    TP =  0.133333HR    K/TP RATIO =  0.786584     SHAPE CONSTANT, N =  4.563783
     UNIT PEAK =   3.8725    CFS   UNIT VOLUME =   0.9983       B =   391.16      P60 = 1.7800
     AREA =     0.001320 SQ MI    IA =   0.35000 INCHES    INF =   0.83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

    PRINT HYD               ID=8 CODE=1

                                      PARTIAL HYDROGRAPH   200.00


    RUNOFF VOLUME =      2.19097 INCHES      =        1.2854 ACRE-FEET
    PEAK DISCHARGE RATE =      28.91 CFS  AT   1.500 HOURS   BASIN AREA =  0.0110 SQ. MI.


    *S
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    ********************************************************************************
    *S                      FULLY DEVELOPED CONDITIONS ADD BASINS TO GO TO PUMP
    *S                      -----------------------------------------------
♀
    ********************************************************************************
    ADD HYD                 ID=9 HYD=300 ID=6 AND 8
    *
    ROUTE RESERVOIR         ID=10 HYD=300.1 INFLOW ID=9  CODE=10
                            OUTFLOW (CFS)          STORAGE (AC FT)    ELEV
                            0                      0.00               4950
                            0.01                   0.001803           4951
                            0.02                   0.003606           4952
                            0.03                   0.005409           4953
                            0.04                   0.007212           4954
                            0.991                  0.009015           4955
                            0.992                  0.010818           4956
                            0.993                  0.012621           4957
```

AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond in Basin B FINAL_ OUT

0.994	0.014424	4958
1.993	0.016227	4959
1.994	0.019042	4960
1.995	0.021859	4961
1.996	0.030000	4962
1.997	0.021200	4963
1.998	0.982000	4964
1.999	2.590000	4965

* * * * * * * * * * * * * * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	4950.00	0.000	0.00
0.50	0.00	4950.00	0.000	0.00
1.00	2.31	4958.52	0.015	1.51
1.50	39.61	4963.44	0.447	2.00
2.00	5.67	4964.09	1.122	2.00
2.50	1.11	4964.11	1.157	2.00
3.00	0.32	4964.07	1.098	2.00
3.50	0.21	4964.03	1.026	2.00
4.00	0.20	4963.97	0.952	2.00
4.50	0.21	4963.89	0.878	2.00
5.00	0.23	4963.81	0.804	2.00
5.50	0.25	4963.74	0.732	2.00
6.00	0.29	4963.67	0.660	2.00
6.50	0.29	4963.59	0.590	2.00
7.00	0.28	4963.52	0.519	2.00
7.50	0.28	4963.44	0.448	2.00
8.00	0.27	4963.37	0.377	2.00
8.50	0.26	4963.30	0.305	2.00
9.00	0.25	4963.22	0.233	2.00
9.50	0.25	4963.15	0.161	2.00
10.00	0.24	4963.07	0.089	2.00
10.50	0.24	4959.12	0.017	1.99
11.00	0.23	4954.20	0.008	0.23
11.50	0.22	4954.19	0.008	0.22
12.00	0.22	4954.19	0.008	0.22
12.50	0.21	4954.18	0.008	0.21
13.00	0.21	4954.18	0.008	0.21
13.50	0.20	4954.17	0.008	0.20
14.00	0.19	4954.16	0.007	0.19
14.50	0.18	4954.15	0.007	0.19
15.00	0.18	4954.15	0.007	0.18
15.50	0.17	4954.14	0.007	0.17
16.00	0.17	4954.13	0.007	0.17
16.50	0.16	4954.13	0.007	0.16
17.00	0.15	4954.12	0.007	0.15
17.50	0.15	4954.11	0.007	0.15
18.00	0.14	4954.10	0.007	0.14
18.50	0.13	4954.10	0.007	0.13
19.00	0.13	4954.09	0.007	0.13
19.50	0.12	4954.08	0.007	0.12
20.00	0.11	4954.08	0.007	0.11
20.50	0.11	4954.07	0.007	0.11
21.00	0.10	4954.06	0.007	0.10
21.50	0.09	4954.06	0.007	0.09
22.00	0.09	4954.05	0.007	0.09
22.50	0.08	4954.04	0.007	0.08
23.00	0.07	4954.04	0.007	0.07
23.50	0.06	4954.03	0.007	0.06
24.00	0.06	4954.02	0.007	0.06
24.50	0.00	4953.52	0.006	0.04
25.00	0.00	4952.81	0.005	0.03
25.50	0.00	4952.23	0.004	0.02
26.00	0.00	4951.78	0.003	0.02
26.50	0.00	4951.41	0.003	0.01
27.00	0.00	4951.12	0.002	0.01
27.50	0.00	4950.89	0.002	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
28.00	0.00	4950.71	0.001	0.01
28.50	0.00	4950.56	0.001	0.01
29.00	0.00	4950.45	0.001	0.00

PEAK DISCHARGE = 1.998 CFS - PEAK OCCURS AT HOUR 2.35
MAXIMUM WATER SURFACE ELEVATION = 4964.112

```
 MAXIMUM STORAGE =        1.1618 AC-FT      INCREMENTAL TIME=    0.050000HRS

*
PRINT HYD             ID=10 CODE=1

                                        HYDROGRAPH FROM AREA   300.10


    RUNOFF VOLUME =     2.19806 INCHES     =       1.7631 ACRE-FEET
    PEAK DISCHARGE RATE =       2.00 CFS  AT   2.350 HOURS   BASIN AREA =  0.0150 SQ. MI.


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*S**************************************************************************
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*S                     OFFSITE-ENTIRE BASIN B - UNDEVELOPED CONDITIONS
*S                     ----------------------------------------------
♀
**************************************************************************
COMPUTE NM HYD        ID=13 HYD=200 DA=0.011 SQ MI
                      PER A=0 B=0 C=90 D=10
                      TP=0.133333 HRS RAIN=-1

      K =  0.072666HR    TP =  0.133333HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
      UNIT PEAK =   4.3418    CFS   UNIT VOLUME =   0.9966       B =   526.28      P60 = 1.7800
      AREA =     0.001100 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000


      K =  0.104878HR    TP =  0.133333HR    K/TP RATIO =  0.786584     SHAPE CONSTANT, N =  4.563784
      UNIT PEAK =   29.044    CFS   UNIT VOLUME =    1.001       B =   391.16      P60 = 1.7800
      AREA =     0.009900 SQ MI    IA =   0.35000 INCHES    INF =   0.83000 INCHES PER HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

PRINT HYD             ID=13 CODE=1

                                      PARTIAL HYDROGRAPH   200.00


    RUNOFF VOLUME =     1.15646 INCHES     =       0.6785 ACRE-FEET
    PEAK DISCHARGE RATE =      21.88 CFS  AT   1.500 HOURS   BASIN AREA =  0.0110 SQ. MI.


*
♀
**************************************************************************
*S                     PARTIALLY DEVELOPED CONDITIONS ADD BASINS TO GO TO PUMP
*S                     (BASIN A: FULLY DEVELOPED... BASIN B: UNDEVELOPED)
*S                     ---------------------------------------------------
♀
**************************************************************************
ADD HYD               ID=14 HYD=301 ID=6 AND 13
PRINT HYD             ID=14 CODE=1

                                        HYDROGRAPH FROM AREA   301.00


    RUNOFF VOLUME =     1.44144 INCHES     =       1.1562 ACRE-FEET
    PEAK DISCHARGE RATE =      32.57 CFS  AT   1.500 HOURS   BASIN AREA =  0.0150 SQ. MI.


*
ROUTE RESERVOIR       ID=15 HYD=30.1 INFLOW ID=14  CODE=10
                      OUTFLOW (CFS)         STORAGE (AC FT)   ELEV
                       0                     0.00              4950
                      0.01                  0.001803          4951
                      0.02                  0.003606          4952
                      0.03                  0.005409          4953
                      0.04                  0.007212          4954
                      0.991                 0.009015          4955
                      0.992                 0.010818          4956
                      0.993                 0.012621          4957
                      0.994                 0.014424          4958
                      1.993                 0.016227          4959
```

AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond in Basin B FINAL_ OUT

1.994	0.019042	4960
1.995	0.021859	4961
1.996	0.030000	4962
1.997	0.021200	4963
1.998	0.982000	4964
1.999	2.590000	4965

* * * * * * * * * * * * * * * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	4950.00	0.000	0.00
0.50	0.00	4950.00	0.000	0.00
1.00	0.82	4954.52	0.008	0.54
1.50	32.57	4963.29	0.295	2.00
2.00	3.45	4963.82	0.806	2.00
2.50	0.68	4963.81	0.795	2.00
3.00	0.17	4963.73	0.726	2.00
3.50	0.09	4963.65	0.649	2.00
4.00	0.07	4963.57	0.569	2.00
4.50	0.07	4963.49	0.490	2.00
5.00	0.08	4963.40	0.410	2.00
5.50	0.09	4963.32	0.331	2.00
6.00	0.10	4963.24	0.253	2.00
6.50	0.10	4963.16	0.174	2.00
7.00	0.10	4963.08	0.096	2.00
7.50	0.10	4959.54	0.018	1.99
8.00	0.10	4954.06	0.007	0.10
8.50	0.09	4954.06	0.007	0.09
9.00	0.09	4954.05	0.007	0.09
9.50	0.09	4954.05	0.007	0.09
10.00	0.09	4954.05	0.007	0.09
10.50	0.09	4954.05	0.007	0.09
11.00	0.08	4954.04	0.007	0.08
11.50	0.08	4954.04	0.007	0.08
12.00	0.08	4954.04	0.007	0.08
12.50	0.08	4954.04	0.007	0.08
13.00	0.07	4954.04	0.007	0.07
13.50	0.07	4954.03	0.007	0.07
14.00	0.07	4954.03	0.007	0.07
14.50	0.07	4954.03	0.007	0.07
15.00	0.06	4954.03	0.007	0.06
15.50	0.06	4954.02	0.007	0.06
16.00	0.06	4954.02	0.007	0.06
16.50	0.06	4954.02	0.007	0.06
17.00	0.05	4954.02	0.007	0.05
17.50	0.05	4954.01	0.007	0.05
18.00	0.05	4954.01	0.007	0.05
18.50	0.05	4954.01	0.007	0.05
19.00	0.04	4954.01	0.007	0.04
19.50	0.04	4954.00	0.007	0.04
20.00	0.04	4954.00	0.007	0.04
20.50	0.04	4953.98	0.007	0.04
21.00	0.04	4953.92	0.007	0.04
21.50	0.03	4953.82	0.007	0.04
22.00	0.03	4953.70	0.007	0.04
22.50	0.03	4953.55	0.006	0.04
23.00	0.03	4953.39	0.006	0.03
23.50	0.02	4953.21	0.006	0.03
24.00	0.02	4953.01	0.005	0.03
24.50	0.00	4952.53	0.005	0.03
25.00	0.00	4952.01	0.004	0.02
25.50	0.00	4951.60	0.003	0.02
26.00	0.00	4951.27	0.002	0.01
26.50	0.00	4951.01	0.002	0.01
27.00	0.00	4950.80	0.001	0.01
27.50	0.00	4950.64	0.001	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
28.00	0.00	4950.51	0.001	0.01
28.50	0.00	4950.40	0.001	0.00

PEAK DISCHARGE = 1.998 CFS - PEAK OCCURS AT HOUR 2.15
MAXIMUM WATER SURFACE ELEVATION = 4963.826
MAXIMUM STORAGE = 0.8146 AC-FT INCREMENTAL TIME= 0.050000HRS

*

AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond in Basin B FINAL_ OUT

PRINT HYD ID=15 CODE=1

OUTFLOW HYDROGRAPH REACH 30.10

RUNOFF VOLUME = 1.44144 INCHES = 1.1562 ACRE-FEET
PEAK DISCHARGE RATE = 2.00 CFS AT 2.150 HOURS BASIN AREA = 0.0150 SQ. MI.

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*
*S
*S**************************************************************************
**************************************************************************
*S                    ONSITE-ENTIRE BASIN A - DEVELOPED CONDITIONS
*S                    SIZING OUTLET PIPE TO PUMP  Outflow using 8" pipe
*           (Size of pipe determined by maintaing elevation of pumped conditions
*S                    ----------------------------------------
**************************************************************************
*
ROUTE RESERVOIR       ID=20 HYD=408 INFLOW ID=6  CODE=10
```

OUTFLOW (CFS)	STORAGE (AC FT)	ELEV
0	0.00	4959
1.370	0.00034	4960
1.566	0.00135	4961
1.567	0.00236	4962
1.568	0.01965	4963
1.569	0.18197	4964
1.570	0.73497	4965

* * * * * * * * * * * * * * * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	4959.00	0.000	0.00
0.50	0.00	4959.00	0.000	0.00
1.00	0.63	4959.45	0.000	0.62
1.50	10.69	4963.39	0.084	1.57
2.00	1.54	4964.08	0.224	1.57
2.50	0.30	4964.02	0.191	1.57
3.00	0.08	4963.69	0.132	1.57
3.50	0.06	4963.31	0.070	1.57
4.00	0.05	4962.30	0.008	1.57
4.50	0.06	4959.04	0.000	0.05
5.00	0.06	4959.05	0.000	0.06
5.50	0.07	4959.05	0.000	0.07
6.00	0.08	4959.06	0.000	0.08
6.50	0.08	4959.06	0.000	0.08
7.00	0.08	4959.06	0.000	0.08
7.50	0.08	4959.06	0.000	0.08
8.00	0.07	4959.05	0.000	0.07
8.50	0.07	4959.05	0.000	0.07
9.00	0.07	4959.05	0.000	0.07
9.50	0.07	4959.05	0.000	0.07
10.00	0.07	4959.05	0.000	0.07
10.50	0.07	4959.05	0.000	0.07
11.00	0.06	4959.05	0.000	0.06
11.50	0.06	4959.04	0.000	0.06
12.00	0.06	4959.04	0.000	0.06
12.50	0.06	4959.04	0.000	0.06
13.00	0.06	4959.04	0.000	0.06
13.50	0.05	4959.04	0.000	0.05
14.00	0.05	4959.04	0.000	0.05
14.50	0.05	4959.04	0.000	0.05
15.00	0.05	4959.04	0.000	0.05
15.50	0.05	4959.03	0.000	0.05
16.00	0.05	4959.03	0.000	0.05
16.50	0.04	4959.03	0.000	0.04
17.00	0.04	4959.03	0.000	0.04
17.50	0.04	4959.03	0.000	0.04
18.00	0.04	4959.03	0.000	0.04
18.50	0.04	4959.03	0.000	0.04
19.00	0.03	4959.02	0.000	0.03
19.50	0.03	4959.02	0.000	0.03
20.00	0.03	4959.02	0.000	0.03

AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond in Basin B FINAL_ OUT

20.50	0.03	4959.02	0.000	0.03
21.00	0.03	4959.02	0.000	0.03
21.50	0.02	4959.02	0.000	0.03
22.00	0.02	4959.02	0.000	0.02
22.50	0.02	4959.02	0.000	0.02
23.00	0.02	4959.01	0.000	0.02
23.50	0.02	4959.01	0.000	0.02
24.00	0.02	4959.01	0.000	0.02

PEAK DISCHARGE = 1.569 CFS - PEAK OCCURS AT HOUR 2.00
MAXIMUM WATER SURFACE ELEVATION = 4964.075
MAXIMUM STORAGE = 0.2236 AC-FT INCREMENTAL TIME= 0.050000HRS

*
PRINT HYD ID=20 CODE=1

HYDROGRAPH FROM AREA 408.00

RUNOFF VOLUME = 2.22528 INCHES = 0.4795 ACRE-FEET
PEAK DISCHARGE RATE = 1.57 CFS AT 2.000 HOURS BASIN AREA = 0.0040 SQ. MI.

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*S ONSITE-ENTIRE BASIN A - DEVELOPED CONDITIONS
*S SIZING OUTLET PIPE TO PUMP Outflow using 12" pipe
* (Size of pipe determined by maintaing elevation of pumped conditions
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ROUTE RESERVOIR ID=21 HYD=412 INFLOW ID=6 CODE=10

OUTFLOW (CFS)	STORAGE (AC FT)	ELEV
0	0.00	4959
2.670	0.00034	4960
4.626	0.00135	4961
4.627	0.00236	4962
4.628	0.01965	4963
4.629	0.18197	4964
4.630	0.73497	4965

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	4959.00	0.000	0.00
0.50	0.00	4959.00	0.000	0.00
1.00	0.63	4959.23	0.000	0.62
1.50	10.69	4963.11	0.037	4.63
2.00	1.54	4963.19	0.050	4.63
2.50	0.30	4959.12	0.000	0.33
3.00	0.08	4959.03	0.000	0.09
3.50	0.06	4959.02	0.000	0.06
4.00	0.05	4959.02	0.000	0.06
4.50	0.06	4959.02	0.000	0.06
5.00	0.06	4959.02	0.000	0.06
5.50	0.07	4959.03	0.000	0.07
6.00	0.08	4959.03	0.000	0.08
6.50	0.08	4959.03	0.000	0.08
7.00	0.08	4959.03	0.000	0.08
7.50	0.08	4959.03	0.000	0.08
8.00	0.07	4959.03	0.000	0.07
8.50	0.07	4959.03	0.000	0.07
9.00	0.07	4959.03	0.000	0.07
9.50	0.07	4959.03	0.000	0.07
10.00	0.07	4959.02	0.000	0.07
10.50	0.07	4959.02	0.000	0.07
11.00	0.06	4959.02	0.000	0.06
11.50	0.06	4959.02	0.000	0.06
12.00	0.06	4959.02	0.000	0.06
12.50	0.06	4959.02	0.000	0.06
13.00	0.06	4959.02	0.000	0.06
13.50	0.05	4959.02	0.000	0.05

14.00	0.05	4959.02	0.000	0.05
14.50	0.05	4959.02	0.000	0.05
15.00	0.05	4959.02	0.000	0.05
15.50	0.05	4959.02	0.000	0.05
16.00	0.05	4959.02	0.000	0.05
16.50	0.04	4959.02	0.000	0.04
17.00	0.04	4959.02	0.000	0.04
17.50	0.04	4959.02	0.000	0.04
18.00	0.04	4959.01	0.000	0.04
18.50	0.04	4959.01	0.000	0.04
19.00	0.03	4959.01	0.000	0.03
19.50	0.03	4959.01	0.000	0.03
20.00	0.03	4959.01	0.000	0.03
20.50	0.03	4959.01	0.000	0.03
21.00	0.03	4959.01	0.000	0.03
21.50	0.02	4959.01	0.000	0.02
22.00	0.02	4959.01	0.000	0.02
22.50	0.02	4959.01	0.000	0.02
23.00	0.02	4959.01	0.000	0.02
23.50	0.02	4959.01	0.000	0.02
24.00	0.02	4959.01	0.000	0.02

PEAK DISCHARGE = 4.628 CFS - PEAK OCCURS AT HOUR 1.70
MAXIMUM WATER SURFACE ELEVATION = 4963.465
MAXIMUM STORAGE = 0.0952 AC-FT INCREMENTAL TIME= 0.050000HRS

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PRINT HYD             ID=21 CODE=1
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HYDROGRAPH FROM AREA 412.00

RUNOFF VOLUME = 2.21743 INCHES = 0.4778 ACRE-FEET
PEAK DISCHARGE RATE = 4.63 CFS AT 1.700 HOURS BASIN AREA = 0.0040 SQ. MI.

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*S                     FULLY DEVELOPED CONDITIONS ADD BASINS PUMP NOT WORKING
*S                     ------------------------------------------------
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ROUTE RESERVOIR       ID=22 HYD=500 INFLOW ID=9  CODE=10
                      OUTFLOW (CFS)          STORAGE (AC FT)   ELEV
                      0                      0.00              4950
                      0.010                  0.001803          4951
                      0.015                  0.003606          4952
                      0.020                  0.005409          4953
                      0.025                  0.007212          4954
                      0.030                  0.009015          4955
                      0.035                  0.010818          4956
                      0.040                  0.012621          4957
                      0.045                  0.014424          4958
                      0.050                  0.016227          4959
                      0.055                  0.019042          4960
                      0.060                  0.021859          4961
                      0.065                  0.030000          4962
                      0.070                  0.021200          4963
                      0.075                  0.982000          4964
                      0.100                  2.590000          4965

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	4950.00	0.000	0.00
0.50	0.00	4950.00	0.000	0.00
1.00	2.31	4961.54	0.026	0.06
1.50	39.61	4963.54	0.537	0.07
2.00	5.67	4964.19	1.291	0.08
2.50	1.11	4964.26	1.405	0.08
3.00	0.32	4964.28	1.426	0.08
3.50	0.21	4964.28	1.432	0.08
4.00	0.20	4964.28	1.437	0.08

4.50	0.21	4964.29	1.442	0.08
5.00	0.23	4964.29	1.448	0.08
5.50	0.25	4964.29	1.455	0.08
6.00	0.29	4964.30	1.463	0.08
6.50	0.29	4964.30	1.471	0.08
7.00	0.28	4964.31	1.479	0.08
7.50	0.28	4964.31	1.488	0.08
8.00	0.27	4964.32	1.495	0.08
8.50	0.26	4964.32	1.503	0.08
9.00	0.25	4964.33	1.510	0.08
9.50	0.25	4964.33	1.517	0.08
10.00	0.24	4964.34	1.524	0.08
10.50	0.24	4964.34	1.531	0.08
11.00	0.23	4964.35	1.537	0.08
11.50	0.22	4964.35	1.543	0.08
12.00	0.22	4964.35	1.549	0.08
12.50	0.21	4964.36	1.554	0.08
13.00	0.21	4964.36	1.559	0.08
13.50	0.20	4964.36	1.564	0.08
14.00	0.19	4964.36	1.569	0.08
14.50	0.18	4964.37	1.573	0.08
15.00	0.18	4964.37	1.577	0.08
15.50	0.17	4964.37	1.581	0.08
16.00	0.17	4964.37	1.584	0.08
16.50	0.16	4964.38	1.588	0.08
17.00	0.15	4964.38	1.591	0.08
17.50	0.15	4964.38	1.593	0.08
18.00	0.14	4964.38	1.596	0.08
18.50	0.13	4964.38	1.598	0.08
19.00	0.13	4964.38	1.600	0.08
19.50	0.12	4964.39	1.601	0.08
20.00	0.11	4964.39	1.603	0.08
20.50	0.11	4964.39	1.604	0.08
21.00	0.10	4964.39	1.604	0.08
21.50	0.09	4964.39	1.605	0.08
22.00	0.09	4964.39	1.605	0.08
22.50	0.08	4964.39	1.605	0.08
23.00	0.07	4964.39	1.605	0.08
23.50	0.06	4964.39	1.604	0.08
24.00	0.06	4964.39	1.603	0.08
24.50	0.00	4964.38	1.601	0.08
25.00	0.00	4964.38	1.597	0.08
25.50	0.00	4964.38	1.594	0.08
26.00	0.00	4964.38	1.590	0.08
26.50	0.00	4964.38	1.587	0.08
27.00	0.00	4964.37	1.583	0.08
27.50	0.00	4964.37	1.580	0.08

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
28.00	0.00	4964.37	1.576	0.08
28.50	0.00	4964.37	1.573	0.08
29.00	0.00	4964.37	1.569	0.08
29.50	0.00	4964.36	1.566	0.08
30.00	0.00	4964.36	1.563	0.08
30.50	0.00	4964.36	1.559	0.08
31.00	0.00	4964.36	1.556	0.08
31.50	0.00	4964.35	1.552	0.08
32.00	0.00	4964.35	1.549	0.08
32.50	0.00	4964.35	1.545	0.08
33.00	0.00	4964.35	1.542	0.08
33.50	0.00	4964.35	1.538	0.08
34.00	0.00	4964.34	1.535	0.08
34.50	0.00	4964.34	1.531	0.08
35.00	0.00	4964.34	1.528	0.08
35.50	0.00	4964.34	1.524	0.08
36.00	0.00	4964.33	1.521	0.08
36.50	0.00	4964.33	1.518	0.08
37.00	0.00	4964.33	1.514	0.08
37.50	0.00	4964.33	1.511	0.08
38.00	0.00	4964.33	1.507	0.08
38.50	0.00	4964.32	1.504	0.08
39.00	0.00	4964.32	1.500	0.08
39.50	0.00	4964.32	1.497	0.08
40.00	0.00	4964.32	1.494	0.08
40.50	0.00	4964.32	1.490	0.08
41.00	0.00	4964.31	1.487	0.08
41.50	0.00	4964.31	1.483	0.08

AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond in Basin B FINAL_ OUT

42.00	0.00	4964.31	1.480	0.08
42.50	0.00	4964.31	1.476	0.08
43.00	0.00	4964.31	1.473	0.08
43.50	0.00	4964.30	1.470	0.08
44.00	0.00	4964.30	1.466	0.08
44.50	0.00	4964.30	1.463	0.08
45.00	0.00	4964.30	1.459	0.08
45.50	0.00	4964.29	1.456	0.08
46.00	0.00	4964.29	1.453	0.08
46.50	0.00	4964.29	1.449	0.08
47.00	0.00	4964.29	1.446	0.08
47.50	0.00	4964.29	1.442	0.08
48.00	0.00	4964.28	1.439	0.08
48.50	0.00	4964.28	1.436	0.08
49.00	0.00	4964.28	1.432	0.08
49.50	0.00	4964.28	1.429	0.08
50.00	0.00	4964.28	1.425	0.08
50.50	0.00	4964.27	1.422	0.08
51.00	0.00	4964.27	1.419	0.08
51.50	0.00	4964.27	1.415	0.08
52.00	0.00	4964.27	1.412	0.08
52.50	0.00	4964.27	1.409	0.08
53.00	0.00	4964.26	1.405	0.08
53.50	0.00	4964.26	1.402	0.08
54.00	0.00	4964.26	1.398	0.08
54.50	0.00	4964.26	1.395	0.08
55.00	0.00	4964.25	1.392	0.08
55.50	0.00	4964.25	1.388	0.08

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
56.00	0.00	4964.25	1.385	0.08
56.50	0.00	4964.25	1.382	0.08
57.00	0.00	4964.25	1.378	0.08
57.50	0.00	4964.24	1.375	0.08
58.00	0.00	4964.24	1.372	0.08
58.50	0.00	4964.24	1.368	0.08
59.00	0.00	4964.24	1.365	0.08
59.50	0.00	4964.24	1.361	0.08
60.00	0.00	4964.23	1.358	0.08
60.50	0.00	4964.23	1.355	0.08
61.00	0.00	4964.23	1.351	0.08
61.50	0.00	4964.23	1.348	0.08
62.00	0.00	4964.23	1.345	0.08
62.50	0.00	4964.22	1.341	0.08
63.00	0.00	4964.22	1.338	0.08
63.50	0.00	4964.22	1.335	0.08
64.00	0.00	4964.22	1.331	0.08
64.50	0.00	4964.22	1.328	0.08
65.00	0.00	4964.21	1.325	0.08
65.50	0.00	4964.21	1.322	0.08
66.00	0.00	4964.21	1.318	0.08
66.50	0.00	4964.21	1.315	0.08
67.00	0.00	4964.21	1.312	0.08
67.50	0.00	4964.20	1.308	0.08
68.00	0.00	4964.20	1.305	0.08
68.50	0.00	4964.20	1.302	0.08
69.00	0.00	4964.20	1.298	0.08
69.50	0.00	4964.19	1.295	0.08
70.00	0.00	4964.19	1.292	0.08
70.50	0.00	4964.19	1.288	0.08
71.00	0.00	4964.19	1.285	0.08
71.50	0.00	4964.19	1.282	0.08
72.00	0.00	4964.18	1.279	0.08
72.50	0.00	4964.18	1.275	0.08
73.00	0.00	4964.18	1.272	0.08
73.50	0.00	4964.18	1.269	0.08
74.00	0.00	4964.18	1.265	0.08
74.50	0.00	4964.17	1.262	0.08
75.00	0.00	4964.17	1.259	0.08
75.50	0.00	4964.17	1.256	0.08
76.00	0.00	4964.17	1.252	0.08
76.50	0.00	4964.17	1.249	0.08
77.00	0.00	4964.16	1.246	0.08
77.50	0.00	4964.16	1.243	0.08
78.00	0.00	4964.16	1.239	0.08
78.50	0.00	4964.16	1.236	0.08
79.00	0.00	4964.16	1.233	0.08

79.50	0.00	4964.15	1.229	0.08
80.00	0.00	4964.15	1.226	0.08
80.50	0.00	4964.15	1.223	0.08
81.00	0.00	4964.15	1.220	0.08
81.50	0.00	4964.15	1.216	0.08
82.00	0.00	4964.14	1.213	0.08
82.50	0.00	4964.14	1.210	0.08
83.00	0.00	4964.14	1.207	0.08
83.50	0.00	4964.14	1.203	0.08

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
84.00	0.00	4964.14	1.200	0.08
84.50	0.00	4964.13	1.197	0.08
85.00	0.00	4964.13	1.194	0.08
85.50	0.00	4964.13	1.191	0.08
86.00	0.00	4964.13	1.187	0.08
86.50	0.00	4964.13	1.184	0.08
87.00	0.00	4964.12	1.181	0.08
87.50	0.00	4964.12	1.178	0.08
88.00	0.00	4964.12	1.174	0.08
88.50	0.00	4964.12	1.171	0.08
89.00	0.00	4964.12	1.168	0.08
89.50	0.00	4964.11	1.165	0.08
90.00	0.00	4964.11	1.162	0.08
90.50	0.00	4964.11	1.158	0.08
91.00	0.00	4964.11	1.155	0.08
91.50	0.00	4964.11	1.152	0.08
92.00	0.00	4964.10	1.149	0.08
92.50	0.00	4964.10	1.145	0.08
93.00	0.00	4964.10	1.142	0.08
93.50	0.00	4964.10	1.139	0.08
94.00	0.00	4964.10	1.136	0.08
94.50	0.00	4964.09	1.133	0.08
95.00	0.00	4964.09	1.129	0.08
95.50	0.00	4964.09	1.126	0.08
96.00	0.00	4964.09	1.123	0.08
96.50	0.00	4964.09	1.120	0.08
97.00	0.00	4964.08	1.117	0.08
97.50	0.00	4964.08	1.114	0.08
98.00	0.00	4964.08	1.110	0.08
98.50	0.00	4964.08	1.107	0.08
99.00	0.00	4964.08	1.104	0.08
99.50	0.00	4964.07	1.101	0.08
100.00	0.00	4964.07	1.098	0.08
100.50	0.00	4964.07	1.094	0.08
101.00	0.00	4964.07	1.091	0.08
101.50	0.00	4964.07	1.088	0.08
102.00	0.00	4964.06	1.085	0.08
102.50	0.00	4964.06	1.082	0.08
103.00	0.00	4964.06	1.079	0.08
103.50	0.00	4964.06	1.075	0.08
104.00	0.00	4964.06	1.072	0.08
104.50	0.00	4964.05	1.069	0.08
105.00	0.00	4964.05	1.066	0.08
105.50	0.00	4964.05	1.063	0.08
106.00	0.00	4964.05	1.060	0.08
106.50	0.00	4964.05	1.057	0.08
107.00	0.00	4964.04	1.053	0.08
107.50	0.00	4964.04	1.050	0.08
108.00	0.00	4964.04	1.047	0.08
108.50	0.00	4964.04	1.044	0.08
109.00	0.00	4964.04	1.041	0.08
109.50	0.00	4964.03	1.038	0.08
110.00	0.00	4964.03	1.035	0.08
110.50	0.00	4964.03	1.031	0.08
111.00	0.00	4964.03	1.028	0.08
111.50	0.00	4964.03	1.025	0.08

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
112.00	0.00	4964.02	1.022	0.08
112.50	0.00	4964.02	1.019	0.08
113.00	0.00	4964.02	1.016	0.08
113.50	0.00	4964.02	1.013	0.08
114.00	0.00	4964.02	1.010	0.08
114.50	0.00	4964.02	1.006	0.08

AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond in Basin B FINAL_ OUT

115.00	0.00	4964.01	1.003	0.08
115.50	0.00	4964.01	1.000	0.08
116.00	0.00	4964.01	0.997	0.08
116.50	0.00	4964.01	0.994	0.08
117.00	0.00	4964.01	0.991	0.08
117.50	0.00	4964.00	0.988	0.08
118.00	0.00	4964.00	0.985	0.08
118.50	0.00	4964.00	0.982	0.07
119.00	0.00	4964.00	0.979	0.07
119.50	0.00	4963.99	0.975	0.07
120.00	0.00	4963.99	0.972	0.07
120.50	0.00	4963.99	0.969	0.07
121.00	0.00	4963.98	0.966	0.07
121.50	0.00	4963.98	0.963	0.07
122.00	0.00	4963.98	0.960	0.07
122.50	0.00	4963.97	0.957	0.07
123.00	0.00	4963.97	0.954	0.07
123.50	0.00	4963.97	0.951	0.07
124.00	0.00	4963.96	0.948	0.07
124.50	0.00	4963.96	0.944	0.07
125.00	0.00	4963.96	0.941	0.07
125.50	0.00	4963.95	0.938	0.07
126.00	0.00	4963.95	0.935	0.07
126.50	0.00	4963.95	0.932	0.07
127.00	0.00	4963.94	0.929	0.07
127.50	0.00	4963.94	0.926	0.07
128.00	0.00	4963.94	0.923	0.07
128.50	0.00	4963.94	0.920	0.07
129.00	0.00	4963.93	0.917	0.07
129.50	0.00	4963.93	0.914	0.07
130.00	0.00	4963.93	0.910	0.07
130.50	0.00	4963.92	0.907	0.07
131.00	0.00	4963.92	0.904	0.07
131.50	0.00	4963.92	0.901	0.07
132.00	0.00	4963.91	0.898	0.07
132.50	0.00	4963.91	0.895	0.07
133.00	0.00	4963.91	0.892	0.07
133.50	0.00	4963.90	0.889	0.07
134.00	0.00	4963.90	0.886	0.07
134.50	0.00	4963.90	0.883	0.07
135.00	0.00	4963.89	0.880	0.07
135.50	0.00	4963.89	0.877	0.07
136.00	0.00	4963.89	0.874	0.07
136.50	0.00	4963.88	0.870	0.07
137.00	0.00	4963.88	0.867	0.07
137.50	0.00	4963.88	0.864	0.07
138.00	0.00	4963.87	0.861	0.07
138.50	0.00	4963.87	0.858	0.07
139.00	0.00	4963.87	0.855	0.07
139.50	0.00	4963.86	0.852	0.07

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
140.00	0.00	4963.86	0.849	0.07
140.50	0.00	4963.86	0.846	0.07
141.00	0.00	4963.85	0.843	0.07
141.50	0.00	4963.85	0.840	0.07
142.00	0.00	4963.85	0.837	0.07
142.50	0.00	4963.85	0.834	0.07
143.00	0.00	4963.84	0.831	0.07
143.50	0.00	4963.84	0.827	0.07
144.00	0.00	4963.84	0.824	0.07
144.50	0.00	4963.83	0.821	0.07
145.00	0.00	4963.83	0.818	0.07
145.50	0.00	4963.83	0.815	0.07
146.00	0.00	4963.82	0.812	0.07
146.50	0.00	4963.82	0.809	0.07
147.00	0.00	4963.82	0.806	0.07
147.50	0.00	4963.81	0.803	0.07
148.00	0.00	4963.81	0.800	0.07
148.50	0.00	4963.81	0.797	0.07
149.00	0.00	4963.80	0.794	0.07
149.50	0.00	4963.80	0.791	0.07
150.00	0.00	4963.80	0.788	0.07
150.50	0.00	4963.79	0.785	0.07
151.00	0.00	4963.79	0.782	0.07
151.50	0.00	4963.79	0.779	0.07
152.00	0.00	4963.79	0.775	0.07

AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond in Basin B FINAL_ OUT

152.50	0.00	4963.78	0.772	0.07
153.00	0.00	4963.78	0.769	0.07
153.50	0.00	4963.78	0.766	0.07
154.00	0.00	4963.77	0.763	0.07
154.50	0.00	4963.77	0.760	0.07
155.00	0.00	4963.77	0.757	0.07
155.50	0.00	4963.76	0.754	0.07
156.00	0.00	4963.76	0.751	0.07
156.50	0.00	4963.76	0.748	0.07
157.00	0.00	4963.75	0.745	0.07
157.50	0.00	4963.75	0.742	0.07
158.00	0.00	4963.75	0.739	0.07
158.50	0.00	4963.74	0.736	0.07
159.00	0.00	4963.74	0.733	0.07
159.50	0.00	4963.74	0.730	0.07
160.00	0.00	4963.73	0.727	0.07
160.50	0.00	4963.73	0.724	0.07
161.00	0.00	4963.73	0.721	0.07
161.50	0.00	4963.72	0.718	0.07
162.00	0.00	4963.72	0.714	0.07
162.50	0.00	4963.72	0.711	0.07
163.00	0.00	4963.72	0.708	0.07
163.50	0.00	4963.71	0.705	0.07
164.00	0.00	4963.71	0.702	0.07
164.50	0.00	4963.71	0.699	0.07
165.00	0.00	4963.70	0.696	0.07
165.50	0.00	4963.70	0.693	0.07
166.00	0.00	4963.70	0.690	0.07
166.50	0.00	4963.69	0.687	0.07
167.00	0.00	4963.69	0.684	0.07
167.50	0.00	4963.69	0.681	0.07

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
168.00	0.00	4963.68	0.678	0.07
168.50	0.00	4963.68	0.675	0.07
169.00	0.00	4963.68	0.672	0.07
169.50	0.00	4963.67	0.669	0.07
170.00	0.00	4963.67	0.666	0.07
170.50	0.00	4963.67	0.663	0.07
171.00	0.00	4963.66	0.660	0.07
171.50	0.00	4963.66	0.657	0.07
172.00	0.00	4963.66	0.654	0.07
172.50	0.00	4963.66	0.651	0.07
173.00	0.00	4963.65	0.648	0.07
173.50	0.00	4963.65	0.645	0.07
174.00	0.00	4963.65	0.642	0.07
174.50	0.00	4963.64	0.639	0.07
175.00	0.00	4963.64	0.636	0.07
175.50	0.00	4963.64	0.633	0.07
176.00	0.00	4963.63	0.630	0.07
176.50	0.00	4963.63	0.627	0.07
177.00	0.00	4963.63	0.624	0.07
177.50	0.00	4963.62	0.621	0.07
178.00	0.00	4963.62	0.617	0.07
178.50	0.00	4963.62	0.614	0.07
179.00	0.00	4963.61	0.611	0.07
179.50	0.00	4963.61	0.608	0.07
180.00	0.00	4963.61	0.605	0.07
180.50	0.00	4963.60	0.602	0.07
181.00	0.00	4963.60	0.599	0.07
181.50	0.00	4963.60	0.596	0.07
182.00	0.00	4963.60	0.593	0.07
182.50	0.00	4963.59	0.590	0.07
183.00	0.00	4963.59	0.587	0.07
183.50	0.00	4963.59	0.584	0.07
184.00	0.00	4963.58	0.581	0.07
184.50	0.00	4963.58	0.578	0.07
185.00	0.00	4963.58	0.575	0.07
185.50	0.00	4963.57	0.572	0.07
186.00	0.00	4963.57	0.569	0.07
186.50	0.00	4963.57	0.566	0.07
187.00	0.00	4963.56	0.563	0.07
187.50	0.00	4963.56	0.560	0.07
188.00	0.00	4963.56	0.557	0.07
188.50	0.00	4963.55	0.554	0.07
189.00	0.00	4963.55	0.551	0.07
189.50	0.00	4963.55	0.548	0.07

AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond in Basin B FINAL_ OUT

190.00	0.00	4963.55	0.545	0.07
190.50	0.00	4963.54	0.542	0.07
191.00	0.00	4963.54	0.539	0.07
191.50	0.00	4963.54	0.536	0.07
192.00	0.00	4963.53	0.533	0.07
192.50	0.00	4963.53	0.530	0.07
193.00	0.00	4963.53	0.527	0.07
193.50	0.00	4963.52	0.524	0.07
194.00	0.00	4963.52	0.521	0.07
194.50	0.00	4963.52	0.518	0.07
195.00	0.00	4963.51	0.515	0.07
195.50	0.00	4963.51	0.512	0.07

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
196.00	0.00	4963.51	0.509	0.07
196.50	0.00	4963.50	0.506	0.07
197.00	0.00	4963.50	0.503	0.07
197.50	0.00	4963.50	0.500	0.07
198.00	0.00	4963.50	0.497	0.07
198.50	0.00	4963.49	0.494	0.07
199.00	0.00	4963.49	0.491	0.07
199.50	0.00	4963.49	0.488	0.07

PEAK DISCHARGE = 0.085 CFS - PEAK OCCURS AT HOUR 22.25
MAXIMUM WATER SURFACE ELEVATION = 4964.388
MAXIMUM STORAGE = 1.6053 AC-FT INCREMENTAL TIME= 0.050000HRS

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*
PRINT HYD             ID=22 CODE=1
```

OUTFLOW HYDROGRAPH RESERVOIR 500.00

RUNOFF VOLUME = 1.59299 INCHES = 1.2778 ACRE-FEET
PEAK DISCHARGE RATE = 0.08 CFS AT 22.250 HOURS BASIN AREA = 0.0150 SQ. MI.

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**********************************************************************
*S                    FULLY DEVELOPED CONDITIONS TO GO TO PUMP
*s             (Adding AREAS of each basin going into pump instead of
*S                  adding the individual BASIN'S HYDROGRAPHS)
*S                  ----------------------------------------
♀
**********************************************************************
COMPUTE NM HYD        ID=25 HYD=600 DA=0.01504 SQ MI
                      PER A=0 B=0 C=10 D=90
                      TP=0.133333 HRS RAIN=-1
```

K = 0.072666HR TP = 0.133333HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 53.428 CFS UNIT VOLUME = 0.9989 B = 526.28 P60 = 1.7800
AREA = 0.013536 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.104878HR TP = 0.133333HR K/TP RATIO = 0.786584 SHAPE CONSTANT, N = 4.563784
UNIT PEAK = 4.4123 CFS UNIT VOLUME = 0.9988 B = 391.16 P60 = 1.7800
AREA = 0.001504 SQ MI IA = 0.35000 INCHES INF = 0.83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

```
PRINT HYD             ID=25 CODE=1
```

HYDROGRAPH FROM AREA 600.00

RUNOFF VOLUME = 2.21750 INCHES = 1.7787 ACRE-FEET
PEAK DISCHARGE RATE = 39.77 CFS AT 1.500 HOURS BASIN AREA = 0.0150 SQ. MI.

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*
ROUTE RESERVOIR       ID=26 HYD=600.1 INFLOW ID=25  CODE=10
                      OUTFLOW (CFS)         STORAGE (AC FT)   ELEV
                       0                     0.00              4950
                      0.01                  0.001803          4951
```

AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond in Basin B FINAL_ OUT

0.02	0.003606	4952
0.03	0.005409	4953
0.04	0.007212	4954
0.991	0.009015	4955
0.992	0.010818	4956
0.993	0.012621	4957
0.994	0.014424	4958
1.993	0.016227	4959
1.994	0.019042	4960
1.995	0.021859	4961
1.996	0.030000	4962
1.997	0.021200	4963
1.998	0.982000	4964
1.999	2.590000	4965

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	4950.00	0.000	0.00
0.50	0.00	4950.00	0.000	0.00
1.00	2.34	4958.63	0.016	1.62
1.50	39.77	4963.45	0.451	2.00
2.00	5.72	4964.09	1.130	2.00
2.50	1.13	4964.11	1.166	2.00
3.00	0.33	4964.08	1.108	2.00
3.50	0.21	4964.03	1.036	2.00
4.00	0.20	4963.98	0.962	2.00
4.50	0.21	4963.90	0.888	2.00
5.00	0.23	4963.83	0.814	2.00
5.50	0.26	4963.75	0.742	2.00
6.00	0.29	4963.68	0.671	2.00
6.50	0.29	4963.60	0.601	2.00
7.00	0.29	4963.53	0.530	2.00
7.50	0.28	4963.46	0.459	2.00
8.00	0.27	4963.38	0.388	2.00
8.50	0.27	4963.31	0.317	2.00
9.00	0.26	4963.23	0.245	2.00
9.50	0.25	4963.16	0.173	2.00
10.00	0.25	4963.08	0.101	2.00
10.50	0.24	4961.86	0.029	2.00
11.00	0.24	4954.21	0.008	0.24
11.50	0.23	4954.20	0.008	0.23
12.00	0.22	4954.19	0.008	0.22
12.50	0.21	4954.18	0.008	0.22
13.00	0.21	4954.18	0.008	0.21
13.50	0.20	4954.17	0.008	0.20
14.00	0.19	4954.16	0.008	0.19
14.50	0.19	4954.16	0.007	0.19
15.00	0.18	4954.15	0.007	0.18
15.50	0.18	4954.14	0.007	0.18
16.00	0.17	4954.14	0.007	0.17
16.50	0.16	4954.13	0.007	0.16
17.00	0.16	4954.12	0.007	0.16
17.50	0.15	4954.11	0.007	0.15
18.00	0.14	4954.11	0.007	0.14
18.50	0.14	4954.10	0.007	0.14
19.00	0.13	4954.09	0.007	0.13
19.50	0.12	4954.09	0.007	0.12
20.00	0.11	4954.08	0.007	0.12
20.50	0.11	4954.07	0.007	0.11
21.00	0.10	4954.06	0.007	0.10
21.50	0.09	4954.06	0.007	0.09
22.00	0.09	4954.05	0.007	0.09
22.50	0.08	4954.04	0.007	0.08
23.00	0.07	4954.04	0.007	0.08
23.50	0.07	4954.03	0.007	0.07
24.00	0.06	4954.02	0.007	0.06
24.50	0.00	4953.52	0.006	0.04
25.00	0.00	4952.82	0.005	0.03
25.50	0.00	4952.24	0.004	0.02
26.00	0.00	4951.78	0.003	0.02
26.50	0.00	4951.42	0.003	0.01
27.00	0.00	4951.13	0.002	0.01
27.50	0.00	4950.90	0.002	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)

```
   28.00       0.00   4950.71      0.001      0.01
   28.50       0.00   4950.57      0.001      0.01
   29.00       0.00   4950.45      0.001      0.00
 PEAK DISCHARGE =        1.998 CFS - PEAK OCCURS AT HOUR    2.35
 MAXIMUM WATER SURFACE ELEVATION =     4964.117
 MAXIMUM STORAGE =         1.1706 AC-FT      INCREMENTAL TIME=    0.050000HRS

*
PRINT HYD             ID=26 CODE=1

                                        HYDROGRAPH FROM AREA   600.10


    RUNOFF VOLUME =     2.21748 INCHES     =       1.7787 ACRE-FEET
    PEAK DISCHARGE RATE =       2.00 CFS  AT   2.350 HOURS   BASIN AREA =  0.0150 SQ. MI.


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    *S                          DESIGNING TEMPorary POND IN BASIN B
    *S                   PARTIALLY DEVELOPED CONDITIONS ADD BASINS TO GO TO PUMP
    *S                   (BASIN A: FULLY DEVELOPED... BASIN B: UNDEVELOPED)
    *S                   ---------------------------------------------------
♀
    ********************************************************************************
    *ADD HYD               ID=14 HYD=301 ID=6 AND 13
    *PRINT HYD             ID=14 CODE=1
    ADD HYD               ID=40 HYD=301 ID=20 AND 13
    PRINT HYD             ID=40 CODE=1

                                        HYDROGRAPH FROM AREA   301.00


    RUNOFF VOLUME =     1.44355 INCHES     =       1.1579 ACRE-FEET
    PEAK DISCHARGE RATE =      23.45 CFS  AT   1.500 HOURS   BASIN AREA =  0.0150 SQ. MI.


    *
    ROUTE RESERVOIR       ID=50 HYD=50.1 INFLOW ID=40  CODE=10
                          OUTFLOW (CFS)         STORAGE (AC FT)          ELEV
                          0.00                  0.00              4955
                          0.010                 0.70                        4956
                          0.015                 1.62              4957
                          0.025                 2.81              4958
                          0.030                 4.29                        4959
                          0.035                 6.07              4960
                          0.040                 8.20              4961
                          0.045                 10.69             4962
                          0.050                 13.59             4963

      *   *   *   *   *   *   *   *   *   *   *   *   *   *   *   *   *

    TIME        INFLOW      ELEV        VOLUME      OUTFLOW
    (HRS)       (CFS)       (FEET)      (AC-FT)     (CFS)

     0.00         0.00    4955.00         0.000       0.00
     0.50         0.00    4955.00         0.000       0.00
     1.00         0.81    4955.01         0.009       0.00
     1.50        23.45    4955.40         0.277       0.00
     2.00         3.49    4956.03         0.730       0.01
     2.50         1.95    4956.15         0.834       0.01
     3.00         1.65    4956.22         0.906       0.01
     3.50         1.60    4956.30         0.973       0.01
     4.00         1.58    4956.37         1.038       0.01
     4.50         0.07    4956.38         1.050       0.01
     5.00         0.08    4956.38         1.052       0.01
     5.50         0.09    4956.39         1.055       0.01
     6.00         0.10    4956.39         1.059       0.01
     6.50         0.10    4956.39         1.063       0.01
     7.00         0.10    4956.40         1.066       0.01
     7.50         0.10    4956.40         1.070       0.01
     8.00         0.10    4956.41         1.073       0.01
     8.50         0.09    4956.41         1.077       0.01
```

AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond in Basin B FINAL_ OUT

9.00	0.09	4956.41	1.080	0.01
9.50	0.09	4956.42	1.083	0.01
10.00	0.09	4956.42	1.087	0.01
10.50	0.09	4956.42	1.090	0.01
11.00	0.08	4956.43	1.093	0.01
11.50	0.08	4956.43	1.095	0.01
12.00	0.08	4956.43	1.098	0.01
12.50	0.08	4956.44	1.101	0.01
13.00	0.07	4956.44	1.103	0.01
13.50	0.07	4956.44	1.106	0.01
14.00	0.07	4956.44	1.108	0.01
14.50	0.07	4956.45	1.110	0.01
15.00	0.06	4956.45	1.113	0.01
15.50	0.06	4956.45	1.115	0.01
16.00	0.06	4956.45	1.117	0.01
16.50	0.06	4956.46	1.119	0.01
17.00	0.05	4956.46	1.120	0.01
17.50	0.05	4956.46	1.122	0.01
18.00	0.05	4956.46	1.124	0.01
18.50	0.05	4956.46	1.125	0.01
19.00	0.04	4956.46	1.127	0.01
19.50	0.04	4956.47	1.128	0.01
20.00	0.04	4956.47	1.129	0.01
20.50	0.04	4956.47	1.130	0.01
21.00	0.04	4956.47	1.131	0.01
21.50	0.03	4956.47	1.132	0.01
22.00	0.03	4956.47	1.133	0.01
22.50	0.03	4956.47	1.134	0.01
23.00	0.03	4956.47	1.134	0.01
23.50	0.02	4956.47	1.135	0.01
24.00	0.02	4956.47	1.135	0.01
24.50	0.00	4956.47	1.135	0.01
25.00	0.00	4956.47	1.135	0.01
25.50	0.00	4956.47	1.134	0.01
26.00	0.00	4956.47	1.134	0.01
26.50	0.00	4956.47	1.133	0.01
27.00	0.00	4956.47	1.132	0.01
27.50	0.00	4956.47	1.132	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
28.00	0.00	4956.47	1.131	0.01
28.50	0.00	4956.47	1.131	0.01
29.00	0.00	4956.47	1.130	0.01
29.50	0.00	4956.47	1.130	0.01
30.00	0.00	4956.47	1.129	0.01
30.50	0.00	4956.47	1.129	0.01
31.00	0.00	4956.47	1.128	0.01
31.50	0.00	4956.47	1.128	0.01
32.00	0.00	4956.46	1.127	0.01
32.50	0.00	4956.46	1.127	0.01
33.00	0.00	4956.46	1.126	0.01
33.50	0.00	4956.46	1.126	0.01
34.00	0.00	4956.46	1.125	0.01
34.50	0.00	4956.46	1.125	0.01
35.00	0.00	4956.46	1.124	0.01
35.50	0.00	4956.46	1.124	0.01
36.00	0.00	4956.46	1.123	0.01
36.50	0.00	4956.46	1.123	0.01
37.00	0.00	4956.46	1.122	0.01
37.50	0.00	4956.46	1.122	0.01
38.00	0.00	4956.46	1.121	0.01
38.50	0.00	4956.46	1.121	0.01
39.00	0.00	4956.46	1.120	0.01
39.50	0.00	4956.46	1.120	0.01
40.00	0.00	4956.46	1.119	0.01
40.50	0.00	4956.46	1.119	0.01
41.00	0.00	4956.45	1.118	0.01
41.50	0.00	4956.45	1.118	0.01
42.00	0.00	4956.45	1.117	0.01
42.50	0.00	4956.45	1.117	0.01
43.00	0.00	4956.45	1.116	0.01
43.50	0.00	4956.45	1.116	0.01
44.00	0.00	4956.45	1.115	0.01
44.50	0.00	4956.45	1.115	0.01
45.00	0.00	4956.45	1.114	0.01
45.50	0.00	4956.45	1.114	0.01
46.00	0.00	4956.45	1.113	0.01

46.50	0.00	4956.45	1.113	0.01
47.00	0.00	4956.45	1.112	0.01
47.50	0.00	4956.45	1.112	0.01
48.00	0.00	4956.45	1.111	0.01
48.50	0.00	4956.45	1.111	0.01
49.00	0.00	4956.45	1.110	0.01
49.50	0.00	4956.45	1.110	0.01
50.00	0.00	4956.44	1.109	0.01
50.50	0.00	4956.44	1.109	0.01
51.00	0.00	4956.44	1.108	0.01
51.50	0.00	4956.44	1.108	0.01
52.00	0.00	4956.44	1.107	0.01
52.50	0.00	4956.44	1.107	0.01
53.00	0.00	4956.44	1.106	0.01
53.50	0.00	4956.44	1.106	0.01
54.00	0.00	4956.44	1.105	0.01
54.50	0.00	4956.44	1.105	0.01
55.00	0.00	4956.44	1.104	0.01
55.50	0.00	4956.44	1.104	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
56.00	0.00	4956.44	1.103	0.01
56.50	0.00	4956.44	1.103	0.01
57.00	0.00	4956.44	1.102	0.01
57.50	0.00	4956.44	1.102	0.01
58.00	0.00	4956.44	1.101	0.01
58.50	0.00	4956.44	1.101	0.01
59.00	0.00	4956.44	1.100	0.01
59.50	0.00	4956.43	1.100	0.01
60.00	0.00	4956.43	1.099	0.01
60.50	0.00	4956.43	1.099	0.01
61.00	0.00	4956.43	1.098	0.01
61.50	0.00	4956.43	1.098	0.01
62.00	0.00	4956.43	1.097	0.01
62.50	0.00	4956.43	1.097	0.01
63.00	0.00	4956.43	1.096	0.01
63.50	0.00	4956.43	1.096	0.01
64.00	0.00	4956.43	1.095	0.01
64.50	0.00	4956.43	1.095	0.01
65.00	0.00	4956.43	1.094	0.01
65.50	0.00	4956.43	1.094	0.01
66.00	0.00	4956.43	1.093	0.01
66.50	0.00	4956.43	1.093	0.01
67.00	0.00	4956.43	1.092	0.01
67.50	0.00	4956.43	1.092	0.01
68.00	0.00	4956.42	1.091	0.01
68.50	0.00	4956.42	1.091	0.01
69.00	0.00	4956.42	1.090	0.01
69.50	0.00	4956.42	1.090	0.01
70.00	0.00	4956.42	1.089	0.01
70.50	0.00	4956.42	1.089	0.01
71.00	0.00	4956.42	1.088	0.01
71.50	0.00	4956.42	1.088	0.01
72.00	0.00	4956.42	1.087	0.01
72.50	0.00	4956.42	1.087	0.01
73.00	0.00	4956.42	1.086	0.01
73.50	0.00	4956.42	1.086	0.01
74.00	0.00	4956.42	1.085	0.01
74.50	0.00	4956.42	1.085	0.01
75.00	0.00	4956.42	1.084	0.01
75.50	0.00	4956.42	1.084	0.01
76.00	0.00	4956.42	1.083	0.01
76.50	0.00	4956.42	1.083	0.01
77.00	0.00	4956.42	1.082	0.01
77.50	0.00	4956.41	1.082	0.01
78.00	0.00	4956.41	1.081	0.01
78.50	0.00	4956.41	1.081	0.01
79.00	0.00	4956.41	1.080	0.01
79.50	0.00	4956.41	1.080	0.01
80.00	0.00	4956.41	1.079	0.01
80.50	0.00	4956.41	1.079	0.01
81.00	0.00	4956.41	1.078	0.01
81.50	0.00	4956.41	1.078	0.01
82.00	0.00	4956.41	1.077	0.01
82.50	0.00	4956.41	1.077	0.01
83.00	0.00	4956.41	1.076	0.01
83.50	0.00	4956.41	1.076	0.01

AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond in Basin B FINAL_ OUT

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
84.00	0.00	4956.41	1.075	0.01
84.50	0.00	4956.41	1.075	0.01
85.00	0.00	4956.41	1.074	0.01
85.50	0.00	4956.41	1.074	0.01
86.00	0.00	4956.41	1.073	0.01
86.50	0.00	4956.40	1.073	0.01
87.00	0.00	4956.40	1.072	0.01
87.50	0.00	4956.40	1.072	0.01
88.00	0.00	4956.40	1.071	0.01
88.50	0.00	4956.40	1.071	0.01
89.00	0.00	4956.40	1.070	0.01
89.50	0.00	4956.40	1.070	0.01
90.00	0.00	4956.40	1.069	0.01
90.50	0.00	4956.40	1.069	0.01
91.00	0.00	4956.40	1.068	0.01
91.50	0.00	4956.40	1.068	0.01
92.00	0.00	4956.40	1.067	0.01
92.50	0.00	4956.40	1.067	0.01
93.00	0.00	4956.40	1.066	0.01
93.50	0.00	4956.40	1.066	0.01
94.00	0.00	4956.40	1.065	0.01
94.50	0.00	4956.40	1.065	0.01
95.00	0.00	4956.40	1.064	0.01
95.50	0.00	4956.40	1.064	0.01
96.00	0.00	4956.39	1.063	0.01
96.50	0.00	4956.39	1.063	0.01
97.00	0.00	4956.39	1.062	0.01
97.50	0.00	4956.39	1.062	0.01
98.00	0.00	4956.39	1.061	0.01
98.50	0.00	4956.39	1.061	0.01
99.00	0.00	4956.39	1.060	0.01
99.50	0.00	4956.39	1.060	0.01
100.00	0.00	4956.39	1.059	0.01
100.50	0.00	4956.39	1.059	0.01
101.00	0.00	4956.39	1.058	0.01
101.50	0.00	4956.39	1.058	0.01
102.00	0.00	4956.39	1.057	0.01
102.50	0.00	4956.39	1.057	0.01
103.00	0.00	4956.39	1.056	0.01
103.50	0.00	4956.39	1.056	0.01
104.00	0.00	4956.39	1.055	0.01
104.50	0.00	4956.39	1.055	0.01
105.00	0.00	4956.39	1.054	0.01
105.50	0.00	4956.38	1.054	0.01
106.00	0.00	4956.38	1.053	0.01
106.50	0.00	4956.38	1.053	0.01
107.00	0.00	4956.38	1.052	0.01
107.50	0.00	4956.38	1.052	0.01
108.00	0.00	4956.38	1.051	0.01
108.50	0.00	4956.38	1.051	0.01
109.00	0.00	4956.38	1.050	0.01
109.50	0.00	4956.38	1.050	0.01
110.00	0.00	4956.38	1.049	0.01
110.50	0.00	4956.38	1.049	0.01
111.00	0.00	4956.38	1.048	0.01
111.50	0.00	4956.38	1.048	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
112.00	0.00	4956.38	1.047	0.01
112.50	0.00	4956.38	1.047	0.01
113.00	0.00	4956.38	1.046	0.01
113.50	0.00	4956.38	1.046	0.01
114.00	0.00	4956.38	1.045	0.01
114.50	0.00	4956.38	1.045	0.01
115.00	0.00	4956.37	1.044	0.01
115.50	0.00	4956.37	1.044	0.01
116.00	0.00	4956.37	1.043	0.01
116.50	0.00	4956.37	1.043	0.01
117.00	0.00	4956.37	1.042	0.01
117.50	0.00	4956.37	1.042	0.01
118.00	0.00	4956.37	1.041	0.01
118.50	0.00	4956.37	1.041	0.01
119.00	0.00	4956.37	1.041	0.01

119.50	0.00	4956.37	1.040	0.01
120.00	0.00	4956.37	1.040	0.01
120.50	0.00	4956.37	1.039	0.01
121.00	0.00	4956.37	1.039	0.01
121.50	0.00	4956.37	1.038	0.01
122.00	0.00	4956.37	1.038	0.01
122.50	0.00	4956.37	1.037	0.01
123.00	0.00	4956.37	1.037	0.01
123.50	0.00	4956.37	1.036	0.01
124.00	0.00	4956.36	1.036	0.01
124.50	0.00	4956.36	1.035	0.01
125.00	0.00	4956.36	1.035	0.01
125.50	0.00	4956.36	1.034	0.01
126.00	0.00	4956.36	1.034	0.01
126.50	0.00	4956.36	1.033	0.01
127.00	0.00	4956.36	1.033	0.01
127.50	0.00	4956.36	1.032	0.01
128.00	0.00	4956.36	1.032	0.01
128.50	0.00	4956.36	1.031	0.01
129.00	0.00	4956.36	1.031	0.01
129.50	0.00	4956.36	1.030	0.01
130.00	0.00	4956.36	1.030	0.01
130.50	0.00	4956.36	1.029	0.01
131.00	0.00	4956.36	1.029	0.01
131.50	0.00	4956.36	1.028	0.01
132.00	0.00	4956.36	1.028	0.01
132.50	0.00	4956.36	1.027	0.01
133.00	0.00	4956.36	1.027	0.01
133.50	0.00	4956.35	1.026	0.01
134.00	0.00	4956.35	1.026	0.01
134.50	0.00	4956.35	1.025	0.01
135.00	0.00	4956.35	1.025	0.01
135.50	0.00	4956.35	1.024	0.01
136.00	0.00	4956.35	1.024	0.01
136.50	0.00	4956.35	1.023	0.01
137.00	0.00	4956.35	1.023	0.01
137.50	0.00	4956.35	1.022	0.01
138.00	0.00	4956.35	1.022	0.01
138.50	0.00	4956.35	1.021	0.01
139.00	0.00	4956.35	1.021	0.01
139.50	0.00	4956.35	1.021	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
140.00	0.00	4956.35	1.020	0.01
140.50	0.00	4956.35	1.020	0.01
141.00	0.00	4956.35	1.019	0.01
141.50	0.00	4956.35	1.019	0.01
142.00	0.00	4956.35	1.018	0.01
142.50	0.00	4956.35	1.018	0.01
143.00	0.00	4956.34	1.017	0.01
143.50	0.00	4956.34	1.017	0.01
144.00	0.00	4956.34	1.016	0.01
144.50	0.00	4956.34	1.016	0.01
145.00	0.00	4956.34	1.015	0.01
145.50	0.00	4956.34	1.015	0.01
146.00	0.00	4956.34	1.014	0.01
146.50	0.00	4956.34	1.014	0.01
147.00	0.00	4956.34	1.013	0.01
147.50	0.00	4956.34	1.013	0.01
148.00	0.00	4956.34	1.012	0.01
148.50	0.00	4956.34	1.012	0.01
149.00	0.00	4956.34	1.011	0.01
149.50	0.00	4956.34	1.011	0.01
150.00	0.00	4956.34	1.010	0.01
150.50	0.00	4956.34	1.010	0.01
151.00	0.00	4956.34	1.009	0.01
151.50	0.00	4956.34	1.009	0.01
152.00	0.00	4956.34	1.008	0.01
152.50	0.00	4956.33	1.008	0.01
153.00	0.00	4956.33	1.007	0.01
153.50	0.00	4956.33	1.007	0.01
154.00	0.00	4956.33	1.006	0.01
154.50	0.00	4956.33	1.006	0.01
155.00	0.00	4956.33	1.006	0.01
155.50	0.00	4956.33	1.005	0.01
156.00	0.00	4956.33	1.005	0.01
156.50	0.00	4956.33	1.004	0.01

AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond in Basin B FINAL_ OUT

157.00	0.00	4956.33	1.004	0.01
157.50	0.00	4956.33	1.003	0.01
158.00	0.00	4956.33	1.003	0.01
158.50	0.00	4956.33	1.002	0.01
159.00	0.00	4956.33	1.002	0.01
159.50	0.00	4956.33	1.001	0.01
160.00	0.00	4956.33	1.001	0.01
160.50	0.00	4956.33	1.000	0.01
161.00	0.00	4956.33	1.000	0.01
161.50	0.00	4956.33	0.999	0.01
162.00	0.00	4956.32	0.999	0.01
162.50	0.00	4956.32	0.998	0.01
163.00	0.00	4956.32	0.998	0.01
163.50	0.00	4956.32	0.997	0.01
164.00	0.00	4956.32	0.997	0.01
164.50	0.00	4956.32	0.996	0.01
165.00	0.00	4956.32	0.996	0.01
165.50	0.00	4956.32	0.995	0.01
166.00	0.00	4956.32	0.995	0.01
166.50	0.00	4956.32	0.994	0.01
167.00	0.00	4956.32	0.994	0.01
167.50	0.00	4956.32	0.994	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
168.00	0.00	4956.32	0.993	0.01
168.50	0.00	4956.32	0.993	0.01
169.00	0.00	4956.32	0.992	0.01
169.50	0.00	4956.32	0.992	0.01
170.00	0.00	4956.32	0.991	0.01
170.50	0.00	4956.32	0.991	0.01
171.00	0.00	4956.32	0.990	0.01
171.50	0.00	4956.31	0.990	0.01
172.00	0.00	4956.31	0.989	0.01
172.50	0.00	4956.31	0.989	0.01
173.00	0.00	4956.31	0.988	0.01
173.50	0.00	4956.31	0.988	0.01
174.00	0.00	4956.31	0.987	0.01
174.50	0.00	4956.31	0.987	0.01
175.00	0.00	4956.31	0.986	0.01
175.50	0.00	4956.31	0.986	0.01
176.00	0.00	4956.31	0.985	0.01
176.50	0.00	4956.31	0.985	0.01
177.00	0.00	4956.31	0.984	0.01
177.50	0.00	4956.31	0.984	0.01
178.00	0.00	4956.31	0.983	0.01
178.50	0.00	4956.31	0.983	0.01
179.00	0.00	4956.31	0.983	0.01
179.50	0.00	4956.31	0.982	0.01
180.00	0.00	4956.31	0.982	0.01
180.50	0.00	4956.31	0.981	0.01
181.00	0.00	4956.31	0.981	0.01
181.50	0.00	4956.30	0.980	0.01
182.00	0.00	4956.30	0.980	0.01
182.50	0.00	4956.30	0.979	0.01
183.00	0.00	4956.30	0.979	0.01
183.50	0.00	4956.30	0.978	0.01
184.00	0.00	4956.30	0.978	0.01
184.50	0.00	4956.30	0.977	0.01
185.00	0.00	4956.30	0.977	0.01
185.50	0.00	4956.30	0.976	0.01
186.00	0.00	4956.30	0.976	0.01
186.50	0.00	4956.30	0.975	0.01
187.00	0.00	4956.30	0.975	0.01
187.50	0.00	4956.30	0.974	0.01
188.00	0.00	4956.30	0.974	0.01
188.50	0.00	4956.30	0.973	0.01
189.00	0.00	4956.30	0.973	0.01
189.50	0.00	4956.30	0.973	0.01
190.00	0.00	4956.30	0.972	0.01
190.50	0.00	4956.30	0.972	0.01
191.00	0.00	4956.29	0.971	0.01
191.50	0.00	4956.29	0.971	0.01
192.00	0.00	4956.29	0.970	0.01
192.50	0.00	4956.29	0.970	0.01
193.00	0.00	4956.29	0.969	0.01
193.50	0.00	4956.29	0.969	0.01
194.00	0.00	4956.29	0.968	0.01

AIS_ AHYMO_2 pump out at 2.0cfs and Temp Pond in Basin B FINAL_ OUT

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
194.50	0.00	4956.29	0.968	0.01
195.00	0.00	4956.29	0.967	0.01
195.50	0.00	4956.29	0.967	0.01
196.00	0.00	4956.29	0.966	0.01
196.50	0.00	4956.29	0.966	0.01
197.00	0.00	4956.29	0.965	0.01
197.50	0.00	4956.29	0.965	0.01
198.00	0.00	4956.29	0.964	0.01
198.50	0.00	4956.29	0.964	0.01
199.00	0.00	4956.29	0.964	0.01
199.50	0.00	4956.29	0.963	0.01

PEAK DISCHARGE = 0.012 CFS - PEAK OCCURS AT HOUR 24.10
MAXIMUM WATER SURFACE ELEVATION = 4956.473
MAXIMUM STORAGE = 1.1353 AC-FT INCREMENTAL TIME= 0.050000HRS

*
PRINT HYD ID=50 CODE=1

OUTFLOW HYDROGRAPH REACH 50.10

RUNOFF VOLUME = 0.24347 INCHES = 0.1953 ACRE-FEET
PEAK DISCHARGE RATE = 0.01 CFS AT 24.100 HOURS BASIN AREA = 0.0150 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 13:25:32
←(s0p10h4099T←&l6D

Kay Brashear

From: Kelly Klein
Sent: Monday, July 20, 2015 9:07 AM
To: plndrs@cabq.gov; Shahab Biazar (sbiazar@cabq.gov)
Cc: Kay Brashear; Michael Silbert
Subject: AIS Retail - DRB #1000649 Case Number 15DRB-70199 Hydrology Resubmittal
Attachments: AIS - Building Permit Approval Resubmittal 7-20-2015.zip

Good Morning!

Attached is the electronic copy of the Grading and Drainage Plan set for the above referenced project for Hydrology's approval for a Building Permit. This is a re-submittal addressing the comments from 7/14/15. We will be submitting the hard copy later today. Thank you!

Kelly Klein, EI
D. Mark Goodwin & Associates, P.A.
P: 505-828-2200 *ext* 104
F: 505-797-9539

CITY OF ALBUQUERQUE

July 14, 2015

Mark Goodwin, P.E.
Mark Goodwin and Associates
P.O. Box 90606
Albuquerque, NM 87199

Re: A.I.S. Retail
Grading and Drainage Plan (H13D106)
Engineer's Stamp Date, 7-9-15, 7-7-15 & 6-25-15 (Sheet C1, C2 & C3)

Dear Mr. Goodwin,

Based upon the information provided in your submittal received 6-26-15 and 7-9-15 the above referenced plan is approved for Site Plan For Building Permit. The following comments must be addressed prior to grading and building permit approval:

- Show roof flow directions. Runoff west of the building along 12th street cannot drain over the sidewalk to the west.
- There appear to be some ponding between the two buildings along 12th street.
- Provide additional spot elevation to assure that the runoff will be able to get around the back of the building and into the parking lot.
- Provide elevations for the trash enclosure floor drains.
- Show the 100-year water surface elevation on the plans. The water depth appears to be more than 24" in the parking lot. Provide your routing calculations for the parking ponding. Where is the emergency overflow?
- Please provide the bottom of the pond elevations where first flush ponding is proposed. Some areas along the parking lots may have more than 18" of vertical drop. Therefore, handrail will be required. A retaining wall should be used for these areas.
- Is the grate elevation for the double "D" inlet at the bottom of the pond? How does the sidewalk culvert tie into the double "D" inlet?
- There is a proposed sidewalk culvert north side of the southerly building along 12th Street. The culvert encroaches into the handicap ramp. Is the runoff draining to the depressed landscaping area to the southwest corner of the building? Can the runoff be routed to the parking lot? How much runoff is being routed to this area?
- Please correct the force main line size on sheet C3 of 3.
- Show existing contours. Provide contour elevations on sheet C2 of 3.
- Who will be maintaining the storm drain system?

If you have any questions, you can contact me at 924-3999.

Sincerely,

Shahab Biazar, P.E.
City Engineer, Planning
Development and Building Services

C: email

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: AIS Retail Building Permit #: _____ City Drainage #: H13D106

DRB#: 1000649 EPC#: _____ Work Order#: _____

Legal Description: Tract A of the Plat US BLM Survey of Town of Albuquerque Sec 7&8 T10N R3E

City Address: 12th Street and Indian School and Menual

Engineering Firm: Mark Goodwin and Associates Contact: Kelly Klein

Address: PO Box 90606 Albuquerque NM 87119

Phone#: 505-828-2200 Fax#: _____ E-mail: kelly@goodwinengineers.cc

Owner: IPMIC6 Contact: Dwayne Virgnt

Address: 2401 12 th NW

Phone#: 505-724-3518 Fax#: _____ E-mail: _____

Architect: Studio Southwest Architects, Inc Contact: Danny Solares

Address: 2101 Mountain Road NW

Phone#: 505-843-9639 Fax#: _____ E-mail: dsolares@studiowarch.com

Surveyor: _____ Contact: _____

Address: _____

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

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
X 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
X 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)

RECEIVED
JUL 09 2015
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes ____ No ____ Copy Provided

DATE SUBMITTED: 7-9-2015 By: Kelly Klein

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, anc 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 followin

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

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 9, 2015

Ms. Rita Harmon, P.E.
Hydrology Department
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: AIS Retail; 12 St & Indian School/Menaul; Grading and Drainage Plan (H13D106)

Dear Ms. Harmon:

Attached, please find a revised Grading & Drainage Plan as required by DRB Meeting 7/8/2015. Our response and/or changes are as follows:

- ***"A cursory review shows that the management of the "first flush" is not being adequately handled..."*** *Within the project site (aka Basin A), the "First Flush" is being accomplished through the depressed areas within the parking medians as shown on the attached plan Sheet C1 of 3. Calculations for the first flush are also detailed on the same sheet. Within the future site (aka Basin B), there is currently no impervious area, but when development occurs, the first flush will be re-addressed for that area and have a permanent solution.*

Sincerely,

Kelly Klein, EIT
MARK GOODWIN & ASSOCIATES, PA

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: AIS Retail Building Permit #: _____ City Drainage #: H13D106

DRB#: 1000649 EPC#: _____ Work Order#: _____

Legal Description: Tract A of the Plat US BLM Survey of Town of Albuquerque Sec 7&8 T10N R3E

City Address: 12th Street and Indian School and Menual

Engineering Firm: Mark Goodwin and Associates Contact: Kelly Klein

Address: PO Box 90606 Albuquerque NM 87119

Phone#: 505-828-2200 Fax#: _____ E-mail: kelly@goodwinengineers.cc

Owner: IPMIC6 Contact: Dwayne Virgnt

Address: 2401 12 th NW

Phone#: 505-724-3518 Fax#: _____ E-mail: _____

Architect: Studio Southwest Architects, Inc Contact: Danny Solares

Address: 2101 Mountain Road NW

Phone#: 505-843-9639 Fax#: _____ E-mail: dsolares@studiowarch.com

Surveyor: _____ Contact: _____

Address: _____

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

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN 1st SUBMITTAL
- X DRAINAGE PLAN RESUBMITTAL
- ____ CONCEPTUAL G & D PLAN
- ____ GRADING PLAN
- X 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
- X BUILDING PERMIT APPROVAL
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ GRADING CERTIFICATION
- ____ SO-19 APPROVAL
- X ESC PERMIT APPROVAL
- ____ ESC CERT. ACCEPTANCE
- ____ OTHER (SPECIFY)

RECEIVED
JUN 26 2015
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes ____ No ____ Copy Provided

DATE SUBMITTED: 6-25-2015 By: Kelly Klein

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 followin

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

see DRB comment

First flush not adequate

No PDF

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 ~

June 26, 2015

Ms. Rita Harmon, P.E.
Hydrology Department
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: AIS Retail; 12 St & Indian School/Menaul; Grading and Drainage Plan (H13D106)

Dear Ms. Harmon:

Attached, please find a revised Grading & Drainage Plan as required by your letter of 6/18/15. Our response and/or changes are as follows:

- ***"The does not state how the first flush is being accomplished...."*** *The "First Flush" is being accomplished through the length of time it takes for the runoff from the detention pond (which is the site's parking lot) to enter the into the storm drain system. The time it takes for the runoff to reach the grates is 10.25 hours. This time is adequate to allow pollutants to "settle out" before entering the storm drain system. Please see notes on C1 of 3 and calculations on C2 of 3.*

- ***"Provide how this site will be phased."*** *Phase lines were added to the drawing set and can be found on page C2 of 3.*

- *"**An ESC plan must be submitted and approved before the approval of the building permit**." Attached is the revised ESC plan.*

- ***"The plans provided are not signed and dated."*** *All sheets have been signed and dated on 6/25/15.*

Sincerely,

Kelly Klein, EIT
MARK GOODWIN & ASSOCIATES, PA

CITY OF ALBUQUERQUE

June 18, 2015

Mark Goodwin, PE
Mark Goodwin & Associates, PA.
PO Box 90606
Albuquerque, NM 87110

Re: AIS Retail
12th St & Indian School/Menaul
Grading and Drainage Plan
Engineer's Stamp dated: NONE (H13D106)

Dear Mr. Goodwin,

Based on the information provided in your submittal received 6/5/2015, the above referenced Grading and Drainage Plan cannot be approved for Grading Permit or Building Permit until the following comments are addressed.

- The plan does not state how the first flush is being accomplished. The first .34" times the impervious area must flow through a pond or some type of landscaping before entering the public storm sewer system.
- Provide how this site will be phased.
- An ESC plan must be submitted and approved before approval of the building permit.
- The plans provided are not signed or dated.

If you have any questions, you can contact me at 924-3695 or Rudy Rael at 924-3977.

Sincerely,

Rita Harmon, P.E.
Senior Engineer, Hydrology
Planning Department

RR/RH
C: email

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

CITY OF ALBUQUERQUE

June 18, 2015

Mark Goodwin, PE
Mark Goodwin & Associates, PA.
PO Box 90606
Albuquerque, NM 87110

Re: AIS Retail
12th St & Indian School/Menaul
Grading and Drainage Plan
Engineer's Stamp dated: NONE (H13D106)

Dear Mr. Goodwin,

Based on the information provided in your submittal received 6/5/2015, the above referenced Grading and Drainage Plan cannot be approved for Grading Permit or Building Permit until the following comments are addressed.

- The plan does not state how the first flush is being accomplished. The first .34" times the impervious area must flow through a pond or some type of landscaping before entering the public storm sewer system.
- Provide how this site will be phased.
- An ESC plan must be submitted and approved before approval of the building permit.
- The plans provided are not signed or dated.

If you have any questions, you can contact me at 924-3695 or Rudy Rael at 924-3977.

Sincerely,

Rita Harmon, P.E.
Senior Engineer, Hydrology
Planning Department

RR/RH
C: email

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: AIS Retail Building Permit #: _____ City Drainage #: H13D106

DRB#: 1000649 EPC#: _____ Work Order#: _____

Legal Description: Tract A of the Plat US BLM Survey of Town of Albuquerque Sec 7&8 T10N R3E

City Address: 12th Street and Indian School and Menual

Engineering Firm: Mark Goodwin and Associates Contact: Kelly Klein

Address: PO Box 90606 Albuquerque NM 87119

Phone#: 505-828-2200 Fax#: _____ E-mail: kelly@goodwinengineers.cc

Owner: IPMIC6 Contact: Dwayne Virgnt

Address: 2401 12 th NW

Phone#: 505-724-3518 Fax#: _____ E-mail: _____

Architect: Studio Southwest Architects, Inc Contact: Danny Solares

Address: 2101 Mountain Road NW

Phone#: 505-843-9639 Fax#: _____ E-mail: dsolares@studiowarch.com

Surveyor: _____ Contact: _____

Address: _____

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

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
____ DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL G & D PLAN
X 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 (TAU TEMP)
____ FOUNDATION PERMIT APPROVAL
____ BUILDING PERMIT APPROVAL
X GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ GRADING CERTIFICATION

____ SO-19 APPROVAL
____ ESC PERMIT APPROVAL
____ ESC CERT. ACCEPTANCE
____ OTHER (SPECIFY)

RECEIVED
JUN 05 2015
LAND DEVELOPMENT SECTION
AO Varified

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes ____ No ____ Copy Provided

DATE SUBMITTED: 6-5-2015 By: Kelly Klein

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, anc 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 followin

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

CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services

December 23, 2015

Danny Solares
Studio Southwest Architects, Inc.
2101 Mountain Rd. NW
Albuquerque, NM

Re: AIS Retail
12th St., Indian School Rd. and Menaul
15-Day Temporary Certificate of Occupancy- Transportation Development
Engineer's/Architect's Stamp dated 8-24-15 (H13-D106)
Certification dated 12-18-15

Dear Mr. Solares,

Based upon the information provided in your submittal received 12-23-15, Transportation Development has no objection to the issuance of a Permanent Certificate of Occupancy. This letter serves as a "green tag" from Transportation Development for a Permanent Certificate of Occupancy to be issued by the Building and Safety Division.

If you have any questions, please contact Gary Sandoval at (505) 924-3675 or me at (505)924-3991.

Sincerely,

Racquel M. Michel, P.E.
Traffic Engineer, Planning Dept.
Development Review Services

\gs via: email
C: CO Clerk, File

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: AIS Retail Building Permit #: _____ City Drainage #: H13D106

DRB#: 1000649 EPC#: _____ Work Order#: _____

Legal Description: Tract A of the Plat US BLM Survey of Town of Albuquerque Sec 7&8 T10N R3E

City Address: 12th Street and Indian School and Menual

Engineering Firm: Mark Goodwin and Associates Contact: Kelly Klein

Address: PO Box 90606 Albuquerque NM 87119

Phone#: 505-828-2200 Fax#: _____ E-mail: kelly@goodwinengineers.com

Owner: IPMI 6, L.L.C Contact: _____

Address: 2401 12 th NW

Phone#: 505-724-3518 Fax#: _____ E-mail: _____

Architect: Studio Southwest Architects, Inc Contact: Danny Solares

Address: 2101 Mountain Road NW

Phone#: 505-843-9639 Fax#: _____ E-mail: dsolares@studiowarch.com

Other Contact: _____ Contact: _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

____ HYDROLOGY/ DRAINAGE
X TRAFFIC/ TRANSPORTATION
____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

X ENGINEER/ ARCHITECT CERTIFICATION

____ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ DRAINAGE MASTER PLAN
____ DRAINAGE REPORT
____ CLOMR/LOMR

X TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)
____ EROSION & SEDIMENT CONTROL PLAN (ESC)

____ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ BUILDING PERMIT APPROVAL
X 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

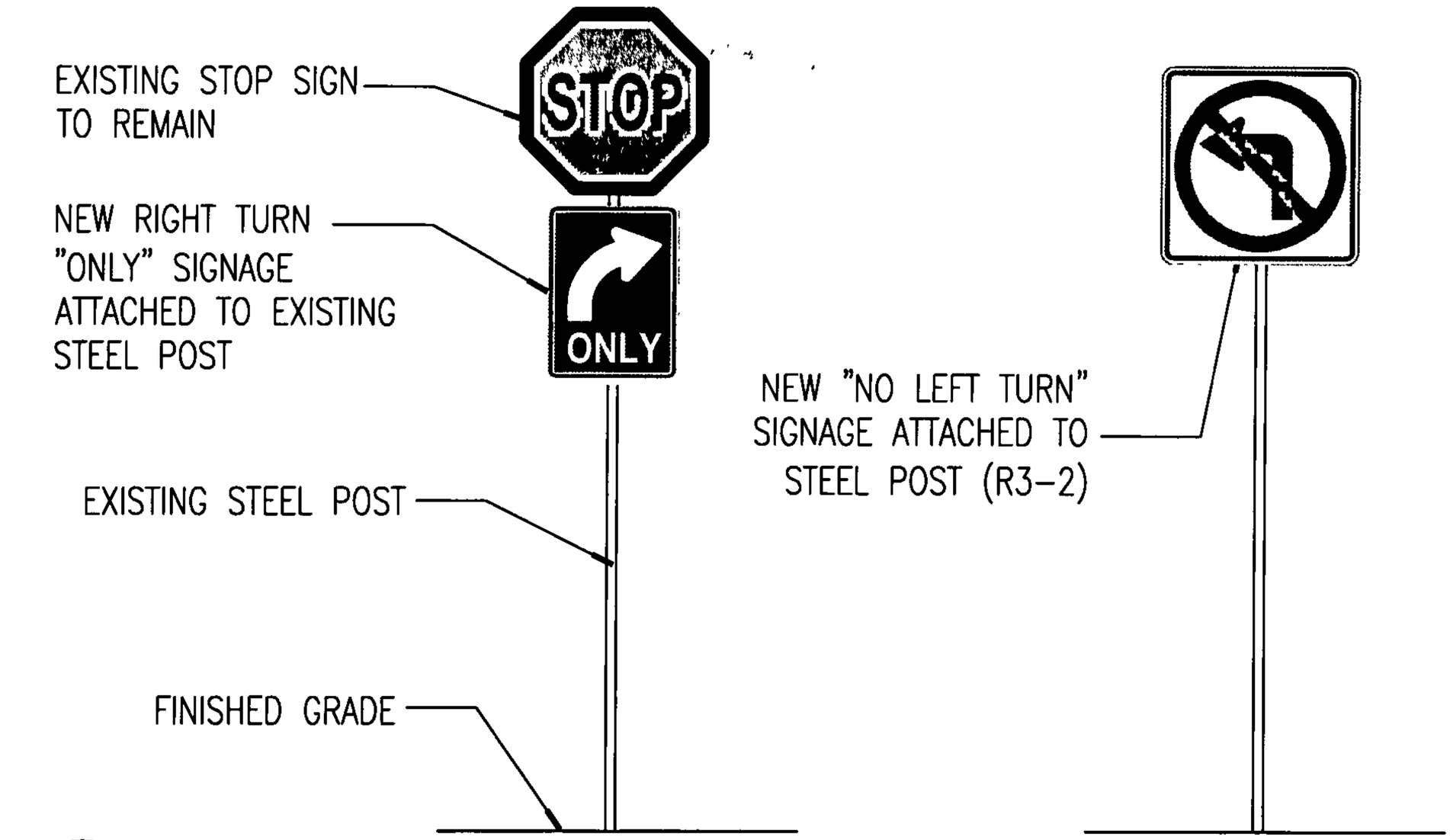
____ PRE-DESIGN MEETING
____ OTHER (SPECIFY) _____

Rec'd 12/23/15 by transportation

IS THIS A RESUBMITTAL?: ____ Yes X No

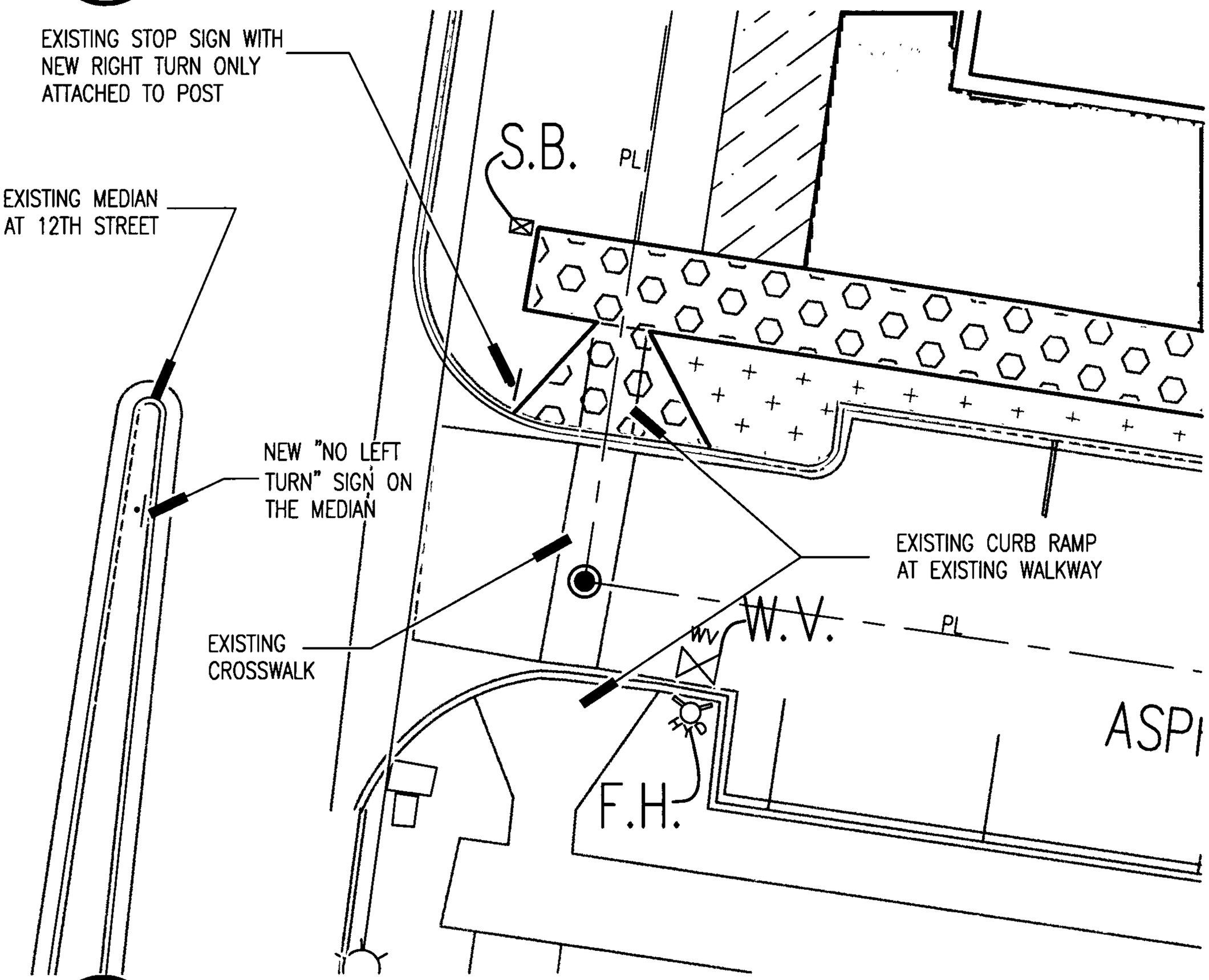
DATE SUBMITTED: Dec 17, 2015 By: Danny Solares

COA STAFF. ELECTRONIC SUBMITTAL RECEIVED: ____



C1 NEW SIGNAGE AT CORNER

SCALE: 1/2" = 1' - 0"



A1 ENLARGED SITE PLAN – SW CORNER

SCALE: 1/2" = 1' - 0"

STUDIO SW ARCHITECTS
p 505.843.9639
f 505.843.9683

AIS PAD 1 - BUILDING A SHELL CONSTRUCTION
DATE: 12/16/15
PROJECT NUMBER: 1513

SITE PLAN - TRAFFIC SIGNAGE CLARIFICATION

AS-101

STUDIO SW ARCHITECTS

December 18, 2015

Re: DRB PROJECT # 1000649

To whom it may concern,

Studio Southwest Architects Inc.

I, Robert Gerald Heiser, NMRA #2370, of the firm Studio Southwest Architects, hereby certify that this project is in substantial compliance with and in accordance with the design intent of the DRB approved plan dated 8/24/15 by Jack W. Cloud. The record information edited onto the original design document has been obtained by Kelly Klein, EI of the firm D. Mark Goodwin & Associates, P.A.. I further certify that I have personally visited the project site on December 18, 2015 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Certificate of Occupancy.

The record information presented heron is not necessarily complete and intended only to verify substantial compliance of the traffic aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

STATE OF NEW MEXICO
ROBERT GERARD HEISER
No. 2370
REGISTERED ARCHITECT

Digitally signed by Robert Gerard Heiser
DN: cn=Robert Gerard Heiser, o=Studio Southwest Architects, ou, email=rheiser@studioswarch.com, c=US

Albuquerque
2101 Mountain Road NW
Albuquerque, NM 87104
T 505.843.9639
F 505.843.9683
mail@studioswarch.com

Santa Fe
P.O. Box 9308
Santa Fe, NM 87504
T 505.982.7191
F 505.992.0585
mail@studioswarch.com

www.studioswarch.com

CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services

December 16, 2015

Danny Solares
Studio Southwest Architects, Inc.
2101 Mountain Rd. NW
Albuquerque, NM

Re: AIS Retail
12th St., Indian School Rd. and Menaul
15-Day Temporary Certificate of Occupancy- Transportation Development
Engineer's/Architect's Stamp dated 8-24-15 (H13-D106)
Certification dated 12-03-15

Dear Mr. Solares,

Based upon the information provided in your submittal received 12-16-15, Transportation Development has no objection to the issuance of a 15-day Temporary Certificate of Occupancy. This letter serves as a "green tag" from Transportation Development for a 15-day Temporary Certificate of Occupancy to be issued by the Building and Safety Division.

Prior to the issuance of a permanent Certificate of Occupancy, the following items must be addressed:

- Please provide proof of approved additional signage to restrict access prior to the release of permanent CO.

Once corrections are complete resubmit acceptable package along with fully completed Drainage Transportation Information Sheet to front counter personnel for log in and evaluation by Transportation. For digital submittal and minor comments and/or repairs, please submit photos to PLNDRS@cabq.gov prior to submittal. If you have any questions, please contact me at (505) 924-3991.

Sincerely,

Racquel M. Michel, P.E.
Traffic Engineer, Planning Dept.
Development Review Services

\gs via: email
C: CO Clerk, File

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: AIS Retail Building Permit # _____ City Drainage #: _____

DRB# 1000649 EPC#: _____ Work Order#: _____

Legal Description: Tract A of the Plat US BLM Survey of Town of Albuquerque Sec 7&8 T10N R3E

City Address: 12th Street and Indian School and Menual, 2300 12th St. NW

Engineering Firm: Mark Goodwin and Associates Contact: Kelly Klein

Address: PO Box 90606 Albuquerque NM 87119

Phone#: 505-828-2200 Fax#: _____ E-mail: kelly@goodwinengineers com

Owner: IPMI 6, L L C Contact: _____

Address: 2401 12 th NW

Phone#. 505-724-3518 Fax#: _____ E-mail: _____

Architect: Studio Southwest Architects, Inc Contact: Danny Solares

Address: 2101 Mountain Road NW

Phone#. 505-843-9639 Fax#: _____ E-mail: dsolares@studiowarch.com

Other Contact: _____ Contact: _____

Address: _____

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

Check all that Apply.

DEPARTMENT:

_____ HYDROLOGY/ DRAINAGE
X TRAFFIC/ TRANSPORTATION
_____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

X ENGINEER/ ARCHITECT CERTIFICATION

_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN
_____ DRAINAGE MASTER PLAN
_____ DRAINAGE REPORT
_____ CLOMR/LOMR

X TRAFFIC CIRCULATION LAYOUT (TCL)
_____ TRAFFIC IMPACT STUDY (TIS)
_____ EROSION & SEDIMENT CONTROL PLAN (ESC)

_____ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

_____ BUILDING PERMIT APPROVAL
X 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 X No

DATE SUBMITTED: Dec 16, 2015 By: Danny Solares

COA STAFF ELECTRONIC SUBMITTAL RECEIVED ___

CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services

Friday, December 04, 2015

Danny Solares
Studio Southwest Architects, Inc.
2101 Mountain Rd. NW
Albuquerque, NM

Re: AIS Retail
12th St., Indian School Rd. and Menaul
15-Day Temporary Certificate of Occupancy- Transportation Development
Engineer's/Architect's Stamp dated 8-24-15 (H13-D106)
Certification dated 12-03-15

Dear Mr. Solares,

Based upon the information provided in your submittal received 12-03-15, Transportation Development has no objection to the issuance of a 15-day Temporary Certificate of Occupancy. This letter serves as a "green tag" from Transportation Development for a 15-day Temporary Certificate of Occupancy to be issued by the Building and Safety Division.

Prior to the issuance of a permanent Certificate of Occupancy, the following items must be addressed:

- Existing Medians in 12th St. were not shown correctly on the approved plan. Please provide a plan to adjust the median or add signage to restrict access prior to the release of permenant CO.

Once corrections are complete resubmit acceptable package along with fully completed Drainage Transportation Information Sheet to front counter personnel for log in and evaluation by Transportation. For digital submittal and minor comments and/or repairs, please submit photos to PLNDRS@cabq.gov prior to submittal. If you have any questions, please contact me at (505) 924-3991.

Sincerely,

Racquel M. Michel, P.E.
Traffic Engineer, Planning Dept.
Development Review Services

\gs via: email
C: CO Clerk, File

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: AIS Retail Building Permit #: _____ City Drainage #: H13D106

DRB#: 1000649 EPC#: _____ Work Order#: _____

Legal Description: Tract A of the Plat US BLM Survey of Town of Albuquerque Sec 7&8 T10N R3E

City Address: 12th Street and Indian School and Menual

Engineering Firm: Mark Goodwin and Associates Contact: Kelly Klein

Address: PO Box 90606 Albuquerque NM 87119

Phone#: 505-828-2200 Fax#: _____ E-mail: kelly@goodwinengineers.com

Owner: IPMI 6, L.L.C Contact: _____

Address: 2401 12 th NW

Phone#: 505-724-3518 Fax#: _____ E-mail: _____

Architect: Studio Southwest Architects, Inc Contact: Danny Solares

Address: 2101 Mountain Road NW

Phone#: 505-843-9639 Fax#: _____ E-mail: dsolares@studiowarch.com

swarch.com

Other Contact: _____ Contact: _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

____ HYDROLOGY/ DRAINAGE
X TRAFFIC/ TRANSPORTATION
____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

X ENGINEER/ ARCHITECT CERTIFICATION

____ CONCEPTUAL G & D PLAN
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____ DRAINAGE MASTER PLAN
____ DRAINAGE REPORT
____ CLOMR/LOMR

X TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)
____ EROSION & SEDIMENT CONTROL PLAN (ESC)

____ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ BUILDING PERMIT APPROVAL
X CERTIFICATE OF OCCUPANCY

____ PRELIMINARY PLAT APPROVAL
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____ SITE PLAN FOR BLDG. PERMIT APPROVAL
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____ 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 X No

DATE SUBMITTED: Dec 4, 2015 By: Danny Solares

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: RM

RECEIVED
DEC 03 2015
LAND DEVELOPMENT SECTION

October 22, 2015

LICENSE AND USE AGREEMENT FOR TRANSPORTATION RELATED IMPROVEMENTS

This License and Use Agreement for Transportation Related Improvements ("License") is hereby granted by Indian Pueblos Marketing, Inc. ("IPMI"), a federally chartered corporation wholly owned by the 19 Pueblos of New Mexico ("19 Pueblos"), to the City of Albuquerque ("Licensee"), a New Mexico municipal corporation, on the terms and conditions stated herein.

RECITALS

IPMI has been assigned the perpetual lease to a tract of land that was formerly used for the Albuquerque Indian School and includes the land in the East Half of Section 7 and the West Half of Section 8,T. 10N., R. 3 E., New Mexico Principal Meridian, in Bernalillo County, State of New Mexico which land is held by the United States in trust for the 19 Pueblos of New Mexico pursuant to a 1993 Trust Deed and lands taken into trust under Public Law 110-453 (the "Leased Land").

Under the Lease, IPMI has the authority to develop, manage and use the lands including leasing the lands without further approval of the Secretary of Interior or the 19 Pueblos.

Because the Leased Land is held in trust, it cannot be condemned, nor utilized by any person or entity other than IPMI without the agreement of IPMI.

The Leased Land borders the following City of Albuquerque roads, 12th Street NW, Indian School Road NW (under a right of way granted by the United States), and Menaul Boulevard NW ("City Roads").

Licensee wishes to make improvements to these City Roads which would utilize portions of the Licensed Premises for ancillary transportation improvements (e.g. landscaped carriage lanes, sidewalks and curb cuts), but not for roadways.

IPMI is willing to grant Licensee a right to utilize portions of the Leased Land for the transportation improvements on the conditions set forth in this License.

NOW, THEREFORE, IPMI hereby issues and Licensee hereby accepts this License on the terms stated below:

1. LICENSED PREMISES.

Subject to the terms and conditions of this License, IPMI hereby grants to Licensee a non-transferable, revocable license to use the lands described in Attachment A ["Licensed Premises"] for the Uses described in Section 2 and the License Periods described in Section 3. Attachment A shows the location of the Licensed Premises and the specific placement of improvements and uses for the premises.

2. USES.

A. Licensee shall have the right to construct infrastructure improvements on the Licensed Premises that will facilitate vehicular and pedestrian traffic in a safe and aesthetically appropriate manner which may include curb cuts, traffic signals and equipment, storm drainage pipes and inlets, header walls, curb returns, traffic signs, sidewalks, landscaping, bus stops and associated amenities, underground communication utilities, and appropriate lighting, including fixtures and furniture owned by Licensee and used to facilitate the uses. The Licensed Premises may not be used for roads but may include temporary construction detours, subject to Licensee obtaining written permission from IPMI. The Licensed Premises will be open to and used by the public similar to all other public sidewalks and pathways owned and maintained by Licensee, with the exception that sidewalk or mobile vending on or adjacent to the Licensed Premises, which would require use of the Licensed Premises to access a vendor, shall not be authorized except as agreed upon by IPMI. The specific improvements and use of the Licensed Premises shall be agreed upon by IPMI consistent with this License. Such use shall include reasonable routine and emergency maintenance of the Licensed Premises and the fixtures and furniture placed thereon. Construction Documents ("CDs") when prepared shall be submitted to IPMI for its review and approval prior to commencement of any work.

B. Any amendment to the approved CDs shall be in writing and agreed to by IPMI. If Licensee uses the Licensed Premises for any purpose not set forth in this agreement and the approved CDs without the prior written consent of IPMI, such use shall constitute an Event of Default under Section 12 and the License may be terminated. IPMI shall have no obligation to consent to any proposed use of the Licensed Premises for any purpose not set forth in this Section.

Reserved Uses by IPMI. IPMI reserves the right to utilize the Licensed Premises for occasional festivals and sidewalk vending and to grant permits for such sidewalk vending or festival use directly without regard to Licensee's permitting process for similar activities. IPMI shall provide two weeks advance notice to Licensee of such intended use.

3. LICENSE PERIODS.

A. The period of this License shall be 25 years, with the right to renew the License period for a second 25 year period. The first License period shall begin to run on

October 1, 2015 and end on September 30, 2040, subject to earlier termination as provided in Sections 13 or 14 (whichever occurs first, the "Termination Date.").

B. The License may be renewed by Licensee by providing a Notice of Intent to Renew License no later than six (6) months prior to the License period expiration. IPMI shall have 60 days to review the Notice of Intent to Renew.

C. If IPMI determines that Licensee is in breach of any term of the License, it shall so notify Licensee and grant Licensee 30 days to come into compliance. If Licensee comes into compliance within the 30 days, IPMI shall provide notice that the License will renew upon the expiration of the first term for a second period.

D. If IPMI determines that Licensee is in compliance with all terms of the License, then IPMI shall so notify Licensee and the License shall renew for the second license period.

E. IPMI and Licensee agree to commence good faith negotiations no later than July 1, 2065 concerning a new License beyond the initial two terms (assuming for purposes of this provision that the License shall have been renewed for a second 25 year period), provided that the failure to initiate or participate in such negotiations shall not constitute an Event of Default.

4. ACCESS TO LICENSED PREMISES.

During the term of this License, Licensee shall have access for reasonable ingress to and egress from the Licensed Premises only through the use of City Roads contiguous to Licensed Premises. For purposes of planned maintenance, when Licensee requires access in addition to access via the City Roads then Licensee shall coordinate with IPMI concerning the scope, schedule and access routes. For emergency maintenance or repairs, Licensee shall notify IPMI as soon as practicable prior to commencement of the maintenance or repair.

5. INSURANCE, PERFORMANCE AND SURETY BONDS.

Licensee (a self-insured entity) shall ensure that contractors carry sufficient performance, and material and labor payment, bonds, as well as liability insurance for the project and include IPMI as an additional insured in all bonds and insurance contracts taken out by contractors performing the work.

6. RESERVATION OF SOVEREIGN POWERS.

A. Nothing in this License shall be construed to affect or diminish in any respect the civil or criminal jurisdiction of the 19 Pueblos as sovereign governments acting through the Albuquerque Indian School District ("AISD") or its successor (including without limitation its taxation power) or their authority to exercise

dominion and control over the Licensed Premises or over the conduct or property of any person, whether a member or non-member of the Pueblo, occurring within or located on the Licensed Premises; and the 19 Pueblos expressly reserve all such jurisdiction and authority.

B. This License authorizes Licensee, its employees, agents, contractors, and subcontractors, to use the Licensed Premises exclusively for the purposes stated in Section 2. Nothing in this License shall be construed to grant any right of access to any other Leased Lands for any other purpose, or to the general public for any purpose that is not consistent with the Uses as set forth in Section 2.

7. OWNERSHIP OF IMPROVEMENTS.

A. All permanent improvements, structures, furniture, fencing, removable personal property, and trade fixtures (collectively the "Improvements") placed on the Licensed Premises by Licensee shall be the property of Licensee during the term of this License and following expiration or termination of this License shall become the property of IPMI, with the exception of traffic signals, communication utility infrastructure, street lights, and traffic control devices.

B. Licensee hereby agrees that at the expiration or termination of this License or any renewal or modification of this License, by normal expiration or otherwise, if a renewal or extension of this License cannot be mutually agreed upon by the parties, Licensee will peaceably and without legal process, deliver up the possession of the Licensed Premises. Licensee agrees that, if this License is not renewed or extended for an additional term, it will ensure that all transportation improvements are in good condition and repair prior to the Termination Date. Licensee shall make any such repairs as are necessary within 60 days of receiving notice from IPMI. If Licensee fails to make the necessary repairs before the expiration of the license, IPMI may exercise any remedies allowed by Sections 12 and/or 13 herein.

8. CONSTRUCTION, MAINTENANCE AND REPAIRS.

A. Licensee shall begin construction of the improvements within 52 weeks of the issuance of this License and complete construction within 60 months consistent with a construction schedule. The construction schedule shall minimize disruption to IPMI, its customers, tenants and guests and will be agreed upon in writing by Licensee and IPMI. Any changes to the construction schedule must be set out in writing and agreed to by Licensee and IPMI. The fact that improvements permitted pursuant to this License have not been constructed or completed by Licensee shall not be a basis for the City to deny a building permit, occupancy permit or any other approval required for improvements on IPMI property.

B. Licensee shall be responsible for acquiring and maintaining all governmental approvals, permits, and licenses required for the improvements and activities on the Licensed Premises. The improvements to the Licensed Premises shall be constructed in a good workmanlike manner, maintained and operated in accordance with the practices, methods and acts which are in compliance with applicable laws, building codes and regulatory requirements. The Licensee shall, at all times during the term of this License and at no cost to IPMI, cause the Licensed Premises and all Improvements thereon to be properly maintained and perform all necessary repairs so that all equipment functions properly and there is no deferred maintenance, subject to subsection 8.C. below.

C. Licensee has agreed to construct landscaping and irrigation infrastructure, including water and electrical services, within carriage strips along 12th Street and Menaul Boulevard. All carriage strip landscaping adjacent to IPMI property will be constructed with a two-year maintenance warranty. Upon completion of the two-year term, IPMI will assume all maintenance responsibilities regarding the landscape and will be held to the same maintenance standard described in subsection 8.B above.

D. Licensee has agreed to construct sidewalk, storm drain pipes and inlets, bus stops, street lights, traffic signal equipment, and pedestrian and bicycle access amenities along 12th Street and Menaul Boulevard. Underground communication utilities will be relocated within the Licensed Premises. Infrastructure and underground communication utilities located outside of public right of way and within the Licensed Premises will be maintained as described in subsection 8.B above.

E. Licensee has agreed to remove and dispose of, or deliver existing fencing posts and pilasters along 12th Street and Menaul Boulevard. Licensee has agreed to remove and salvage wrought iron fencing sections along Menaul Boulevard with iron materials being delivered to IPMI in good condition for storage and future use.

F. Licensee has agreed to remove, reconstruct, and/or replace existing access points on 12th Street and Menaul Boulevard. Licensee and IPMI will coordinate and cooperate to facilitate with the sequencing of construction for appropriate and timely implementation of driveways and curb returns within the Licensed Premises.

G. Licensee has agreed to remove and box up for future use or replanting on IPMI property, up to eight existing trees along 12th Street in a workmanlike manner for storage on IPMI property. Licensee does not guarantee survival of the trees. Licensee has also agreed to attempt to preserve large cottonwood trees adjacent to Harvest Café patio, if possible.

H. Licensee shall clear and keep clear the Licensed Premises to the extent compatible with the purpose of this License. General maintenance such as snow removal and minor litter clean up shall be scheduled consistent with Licensee's general treatment of City of Albuquerque sidewalks. Defacement of the Licensed Premises, including graffiti or large pick-up items, is the responsibility of the Licensee.

If Licensee fails to maintain the Licensed Premises or keep the Licensed Premises clear of large trash material, and defacement, and Licensee fails to correct this condition within thirty (30) days of the date of written notice, then IPMI may perform the necessary maintenance or contact the Engineering Division, Department of Municipal Development, to schedule the requested repairs and maintenance needs.

9. LIENS AND TAXES.

A. Mechanic's and Materialmen's Liens. Licensee shall not permit to be enforced against the Licensed Premises any liens arising from any work performed, materials furnished or obligations incurred by Licensee.

B. Taxes and Fees. During the term of this License, although the parties do not anticipate that Licensee (as a governmental entity within the State of NM) will properly be the subject of any taxes, Licensee shall pay, when and as the same become due and payable, all applicable taxes, assessments, licenses, fees and other like charges levied or imposed by any governmental entity, including AISD, upon or against the Licensed Premises and all interests therein and property thereon for which Licensee may become liable, provided that Licensee shall be entitled to challenge any such taxes in accordance with Licensee's status as a governmental entity.

C. Gross Receipts Taxes. Licensee acknowledges that AISD has entered into a cooperative agreement with the New Mexico Department of Taxation and Revenue pursuant to NMSA 1978, § 9-11-12.1 relating to gross receipts taxes of the 19 Pueblos and the State and providing for administration of the reciprocal gross receipts tax credits described in NMSA 1978, § 7-9-88.1. For so long as that cooperative agreement is in effect, Licensee shall include in all contracts entered into after the effective date of this License with any entity that sells goods or services to Licensee within the Licensed Premises (hereinafter referred to as a "Vendor") the requirement that the Vendor will comply with applicable state and tribal laws governing the reporting and payment of gross receipts taxes. Vendors must report their gross receipts tax using the CRS Location Code for the "AISD Property/Nineteen Pueblos of NM" (currently 02-901 or 02-906)

10. LIABILITY.

A. Liability. Licensee shall be responsible, for any liability for acts or omissions, only in accordance with any applicable tort claims acts or other governmental immunity laws. Nothing herein shall be construed to waive or limit any legal defense, immunity or other legal protection conferred upon Licensee by virtue of common law or any applicable tort claims act or other applicable governmental immunity laws, whether arising from federal or state law. Nothing in this License shall be deemed to make IPMI or the 19 Pueblos subject to suit for any loss of life, personal injury or property damage claimed by Licensee or any other person, caused by the construction, maintenance, occupancy or use of the Licensed Premises by Licensee, its employees, contractors and their employees, or subcontractors or their employees. The parties agree to cooperate in good faith in the defense of any lawsuit as applicable.

B. Licensee's Duty Regarding Hazardous Materials. Licensee shall not permit any Hazardous Materials (to include asbestos, fuel, batteries or any hazardous substance, waste or materials as defined in any federal, state or tribal environmental or safety law) to be brought onto, stored in, used in, or disposed of in, on, under or about the Licensed Premises except in such quantities as are found in materials used in connection with the operation of Licensee's permitted use of the Licensed Premises and which comply with and are handled, used and disposed of in compliance with all applicable federal, state and tribal laws, statutes, regulations, rules and ordinances, as amended from time to time including but not limited to all applicable environmental, health and safety, cultural preservation and natural resource management laws, statutes, regulations, rules and ordinances, as amended from time to time ("Applicable Environmental Laws").

11. ASSIGNMENTS.

Licensee shall not assign this License in whole or in part, without the prior written consent of IPMI.

12. EVENTS OF DEFAULT; CURE.

A. Events of Default. Any one or more of the following events shall constitute an Event of Default under this License:

i. If Licensee fails to perform or observe any material term or condition of this License;

ii. If any execution, levy or attachment shall occur upon the Licensed Premises;

iii. If Licensee uses the Licensed Premises for any purpose not authorized by this License without the prior written consent of IPMI; or

iv. If Licensee abandons the Licensed Premises.

B. Opportunity to Cure Default. If an Event of Default by Licensee occurs, IPMI shall send written notice of the Event of Default to Licensee, and Licensee shall have the opportunity to cure the Event of Default as described in the next Section.

13. DEFAULT; REMEDIES.

In the event Licensee fails to comply with any condition of this Licensee, IPMI shall provide written notice of such default to Licensee. Licensee shall have 30 days to cure the default. IPMI may, at its discretion, extend the time within which Licensee has to cure the default if Licensee provides IPMI with a plan, acceptable to IPMI to cure the default. If Licensee does not cure the default within 30 days (or any applicable extension), IPMI may terminate this License. Licensee's obligations to pay for any required repairs shall not terminate.

14. REVOCATION.

Either party may terminate this License with one year advance written notice. Termination shall be effective three hundred sixty five days (365 days) from the date of written notice.

15. NOTICE.

A. All notices or other communications required or permitted by this License shall be in writing and personally delivered, delivered by reputable overnight courier, or sent by registered or certified mail, return receipt requested, and postage prepaid, addressed to the parties at the addresses set forth below (or any other address that the party to be notified may have designated to the sender by like notice). Notices personally delivered shall be deemed given the day so delivered. Notices given by overnight courier shall be deemed given on the first business day following the mailing date. Notices mailed as provided herein shall be deemed given on the third business day following the mailing date. Notice of change of address shall be given by written notice in the manner detailed in this Section.

If to IPMI, to:

Chief Executive Officer (Mike Canfield) and
Chief Operating Officer (Dwayne Virgint)
2401 12th Street, NW
Albuquerque, NM 87104
Telephone: (505) 724-3518

With a copy to:

Leger Law & Strategy, LLC
Attention: Teresa Leger de Fernandez
414 Old Taos Highway
Santa Fe, NM 87501
Telephone: (505) 982-3622

If to Licensee, to:

Deputy Director (Melissa Lozoya)
Department of Municipal Development
PO Box 1293
Albuquerque, NM 87103

With a copy to:

City Attorney
P.O. Box 2248
Albuquerque, NM 87103

Nothing herein shall be construed to prevent routine communication by electronic mail.

16. INSPECTION.

IPMI, or their authorized representatives, shall have the right, at any reasonable time during the term of this License, to enter upon the Licensed Premises to inspect the same and all structures and other Improvements during construction or after improvements have been constructed, or placed upon the Licensed Premises.

17. DISPUTE RESOLUTION.

A. No State Jurisdiction. IPMI and Licensee acknowledge, stipulate, and agree that, the State of New Mexico has no jurisdiction over IPMI, this License, or the Licensed Premises, except where such jurisdiction is required by federal law.

B. Mediation. In the event that any dispute arises under this License between IPMI and Licensee which cannot be resolved by and between them, then the party making the claim of non-compliance shall submit the dispute to mediation. IPMI and Licensee shall make a good-faith effort to resolve the dispute through mediation.

C. If a dispute cannot be resolved through mediation, and the dispute is such that would warrant a revocation of the License, IPMI shall provide Licensee with 60 days advance notice of the date of revocation.

18. NO WAIVER OF SOVEREIGN IMMUNITY.

Nothing in this License shall be construed as waiving IPMI's sovereign immunity from suit or as subjecting IPMI to the jurisdiction of any court.

19. MISCELLANEOUS

A. Unlawful Conduct. Licensee agrees that it shall not use or cause to be used any part of the Licensed Premises for any unlawful or illegal conduct or purpose, create any nuisance, or cause any negligent use or waste of the Licensed Premises.

B. Compliance with Laws. Licensee agrees to comply with all applicable 19 Pueblo's, federal, or state laws, ordinances, rules, regulations and other legal requirements. Licensee agrees to obtain and maintain any permits and licenses required to operate its businesses.

C. Costs and Attorneys' Fees. If any action is brought to enforce performance of, or for damages for breach of, any of the terms and conditions of this License, each party shall bear its own costs and attorneys' fees.

D. Governing Law. This License shall be construed in accordance with the applicable federal laws and laws of the 19 Pueblos, acting through AISD, and where applicable, the laws of the State of New Mexico, provided that, nothing stated herein, shall subject IPMI, AISD or the 19 Pueblos to the jurisdiction of the state courts of New Mexico or to the taxing or regulatory jurisdiction of the State of New Mexico, except where such jurisdiction is required by federal law.

E. Third Party Agreements. The Parties recognize and agree that nothing in this License shall prevent Licensee from agreeing with third party contractors, subcontractors, and service providers to the application of New Mexico law, and the jurisdiction and/or venue of New Mexico courts, to agreements and conduct relating to services on the Licensed Premises.

F. Severability. If any term of this License is found be void or invalid, such invalidity shall not affect the remaining terms of this License, which shall continue in full force and effect.

G. No Third Party Beneficiaries. Nothing contained in this License shall entitle any person or entity other than the parties hereto or their successors and assigns to any claim, cause of action, remedy, right, benefit or immunity of any kind whatsoever. Without limiting the generality of the foregoing sentence, the parties hereto agree that no person or entity, including any department or agency of the City of Albuquerque, shall have the right to claim that this License has diminished in any respect the sovereign powers of the 19 Pueblos over any person within the Licensed Premises, including non-members of the 19 Pueblos.

H. No Interest in Land. Licensee acknowledges that this License does not convey to Licensee any interest in any leasehold interest held by IPMI, other than a license and privilege to use the Licensed Premises for the purposes specified in this License.

I. DISCLAIMER OF WARRANTY. IPMI GRANTS THIS LICENSE TO LICENSEE WITHOUT ANY EXPRESS, STATUTORY OR IMPLIED WARRANTY OR REPRESENTATION OF ANY KIND, INCLUDING WARRANTIES RELATING TO (i) THE CONDITION OR MERCHANTABILITY OF THE PROPERTY, (ii) THE FITNESS OF THE PROPERTY FOR A PARTICULAR PURPOSE, OR (iii) CONFORMITY TO MODELS OR SAMPLES OF MATERIALS. LICENSEE HAS INSPECTED THE LICENSED PREMISES AND IS SATISFIED AS TO THE PHYSICAL, OPERATING, REGULATORY COMPLIANCE, SAFETY, AND ENVIRONMENTAL CONDITION OF THE LICENSED PREMISES AND ACCEPTS THEM "AS IS," "WHERE IS," AND "WITH ALL FAULTS" AND IN THEIR PRESENT CONDITION AND STATE OF REPAIR.

IN WITNESS WHEREOF, the parties hereto have set their hands and affixed their respective seals on the dates indicated below.

INDIAN PUEBLOS MARKETING, INC.

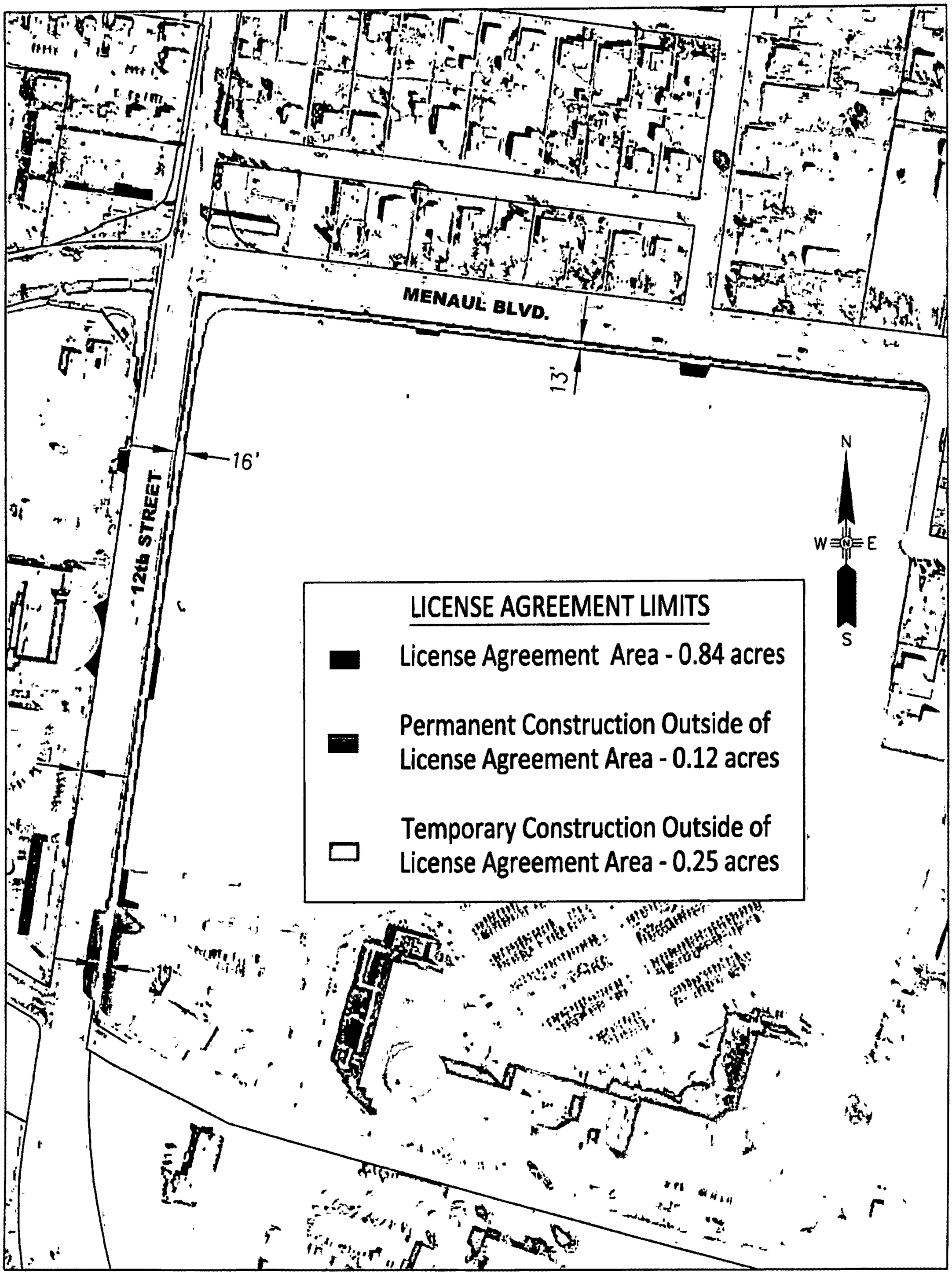
Date: 11/30/15

CITY OF ALBUQUERQUE

Date: 11/24/15 for CAO

KS
JMH

. Attachment A



DEVELOPMENT REVIEW BOARD SUPPLEMENTAL SUBMITTAL

PROJECT NO. 1000649

TO: **Application No.** _____

___ALL MEMBERS

___Jack Cloud, DRB Chairman, Planning Department

___Rita Harmon, P.E., Hydrology
X Racquel Michel, P.E. , Transportation Development
___Kris Cadena, P.E., Albuquerque/ Bernalillo Co.WUA
___Carol Dumont, Parks/Municipal Development

NEXT HEARING DATE: _____

NOTE: REQUESTS FOR DEFERRAL OF CASES WILL BE DISCUSSED BY THE BOARD AND THE APPLICANT AND/OR AGENT AT THE BEGINNING OF THE AGENDA. BOTH PARTIES MUST AGREE UPON THE DATE OF DEFERRAL. IF THE APPLICANT/AGENT IS NOT PRESENT, THE ADMINISTRATIVE ASSISTANT MUST RECEIVE A LETTER, PRIOR TO THE HEARING DATE, REQUESTING A SPECIFIC DEFERRAL DATE. THE BOARD WILL DISCUSS AND MAKE A DECISION AT THE HEARING. THE APPLICANT/AGENT WILL THEN BE INFORMED OF THE DEFERRAL DATE AND REASON. IF THE APPLICANT IS NOT PRESENT WHEN THEIR REQUEST IS CALLED, THEN THE REQUEST MAY BE INDEFIINITELY DEFERRED ON A NO SHOW.

SUBMITTAL DESCRIPTION: AS-BUILT DRAWING AS REQUESTED

CONTACT NAME: _____

TELEPHONE: _____ EMAIL: _____