CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services Section

September 25, 2013

Dennis Lorenz, P.E.
Lorenz Design & Consulting, LLC
2501 Rio Grande Blvd. NW, Ste. A
Albuquerque, NM 87104

Re: Certification Submittal for Certificate of Occupancy (C.O.) for
Horizon Academy, [G-10/D029B]
3021 Todos Santos St NW
Engineer's Stamp Dated 09/20/13

Dear Mr. Lorenz,

Based upon the information provided in your submittal received 09-23-13, 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 me at (505)924-3630.

Sincerely,

Nilo E. Salgado-Fernandez, P.E.
Senior Traffic Engineer
Development and Building Services
Planning Department

C: Engineer, Hydrology and CO Clerk

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

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 04/2009)

PROJECT TITLE: HORIZON ACADEMY WEST ZONE MAP: G-10/D029B
DRB#: 12 DRB 70260 EPC#: 12EPC40025 WORK ORDER#:

LEGAL DESCRIPTION: TRACT 12-A-1, VOLCANO BUSINESS PARK PHASE I
CITY ADDRESS: 3021 TODOS SANTOS STREET NW

ENGINEERING FIRM: LORENZ DESIGN & CONSULTING, LLC CONTACT: DENNIS LORENZ
ADDRESS: 2501 RIO GRANDE BLVD NW, SUITE A PHONE: 888-6088
CITY, STATE: ALBUQUERQUE, NEW MEXICO ZIP CODE: 87104

OWNER: HORIZON WEST FOUNDATION CONTACT: AMIE DURAN
ADDRESS: 1900 ATRISCO NW PHONE: 998-0459
CITY, STATE: ALBUQUERQUE, NM ZIP CODE: 87120

ARCHITECT: KEN TRAUERNICHT CONTACT: K. TRAUERNICHT
ADDRESS: PHONE: 323-2227
CITY, STATE: ZIP CODE:

SURVEYOR: CARTESIAN SURVEYS, INC CONTACT: B. MARTINEZ
ADDRESS: PO BOX 44414 PHONE: 896-3050
CITY, STATE: RIO RANCHO, NEW MEXICO ZIP CODE: 87174

CONTRACTOR: ACCELERATED CONSTRUCTION TECH CONTACT: D. HENSLEY
ADDRESS: 22425 NORTH 16TH STREET PHONE: 602-272-2000
CITY, STATE: PHOENIX, AZ ZIP CODE: 85024

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER'S CERT (TCL)
__X__ ENGINEER'S CERT (DRB SITE PLAN)
_____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL 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
_____ FOUNDATION PERMIT APPROVAL
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__X__ CERTIFICATE OF OCCUPANCY (PERM)
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_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ GRADING CERTIFICATION
_____ OTHER (SPECIFY) SO-19

WAS A PRE-DESIGN CONFERENCE ATTENDED:
_____ YES
_____ NO
_____ COPY PROVIDED

DATE SUBMITTED: 9.23.13 BY: DENNIS A. LORENZ, PE

RECEIVED
SEP 23 2013
LAND DEVELOPMENT SECTION

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

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more.

LORENZ
DESIGN & CONSULTING, LLC
Civil Engineering I Construction Management

September 20, 2013

Nilo E. Salgado-Fernandez, PE
Senior Traffic Engineer
Development and Building Services
City of Albuquerque
Plaza Del Sol
Albuquerque, New Mexico 87102

SUBJECT: Horizon Academy West G10/D029B
3021 Todos Santos Street NW
Request for Permanent Certificate of Occupancy

Dear Nilo:

Submitted herewith is one copy of the Traffic Circulation Certification for Permanent Certificate of Occupancy. The punch list items on my Certification for Temporary CO have been cleared. The contractor has also addressed the items listed in your August 2, 2013 letter.

If you have any questions regarding this request, please call me.

Sincerely,

LORENZ DESIGN & CONSULTING, LLC

Dennis A. Lorenz, PE

P\13-008\ns091713

RECEIVED
SEP 23 2013
LAND DEVELOPMENT SECTION

CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services Section

August 2, 2013

Dennis Lorenz, P.E.
Lorenz Design & Consulting, LLC
2501 Rio Grande Blvd. NW, Ste. A
Albuquerque, NM 87104

Horizon Academy West

Re: Certification Submittal for Certificate of Occupancy (C.O.) for
[redacted]th, [G-10/D029B]
3021 Todos Santos St NW
Engineer's Stamp Dated 08/01/13

Dear Mr. Lorenz,

The following items need to be addressed and completed prior to an issuance of a Permanent C.O.:

- All sidewalk connection from Todos Santos Street will need to be flush with the drive aisle pavement. It appears that that the connection is not level and will need to be level with the asphalt pavement.
- The accessible route from the street has been changed from approved Site Plan. Please redline changes on approved Site Plan.
- Please remove the truncated domes from the southern most entrance onto school site.
- The sidewalk transition at the southern end of property needs to be provided as shown on approved Site Plan.
- Please complete all striping/pavement markings, signs, fence construction and remove all equipment for final inspection.

The issuance of a **30-day Temporary Certificate of Occupancy** has been provided until the above item has been addressed. This letter serves as a "green tag" from Transportation Development for a **30-day Temporary Certificate of Occupancy** to be issued by the Building and Safety Division

Once the above item has been addressed and completed, please resubmit acceptable package along with fully completed Drainage Information Sheet to front counter personnel for log in and evaluation by Transportation.

Sincerely,

Nilo E. Salgado-Fernandez, P.E.
Senior Traffic Engineer
Development and Building Services
Planning Department

C: Engineer, Hydrology and CO Clerk

RECEIVED
SEP 23 2013
LAND DEVELOPMENT SECTION

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

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services

Richard J. Berry, Mayor

September 24, 2013

Dennis Lorenz, P.E.
Lorenz Design & Consulting, LLC
2501 Rio Grande Blvd. NW, Suite A
Albuquerque, New Mexico 87104

Re: Horizon Academy West, 3201 Todos Santos St SW **G10/D029B**
Request for Permanent C.O. – **Accepted**
Engineer's Stamp dated: 1-31-13
Certification dated: 09-20-13

Dear Mr. Lorenz,

Based upon the information provided in your Certification received 09-23-2013, the above referenced Certification is acceptable for a release of a Permanent Certificate of Occupancy by Hydrology.

Hydrology is asking for an electronic copy (.pdf format) of this certification for our records. This certification can be e-mailed to me at: GROlson@cabq.gov .

If you have questions, please email me at grolson@cabq.gov or phone 505-924-3994.

Sincerely,

Gregory R. Olson, P.E.
Senior Engineer
Development and Building Services

Orig: Drainage file **G10 / D029B**
c.pdf Addressee via Email GennyD@IAcivil.com
eC: Katrina Sigala, Planning - CO Clerk
Francis Connor, Building Services

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

G10D029B_PERM_CO_HorizonAcademyWest_2013SEP20

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 04/2009)

PROJECT TITLE: HORIZON ACADEMY WEST ZONE MAP: G-10/D029B
DRB#: 12 DRB 70260 EPC#: 12EPC40025 WORK ORDER#: _____

LEGAL DESCRIPTION: TRACT 12-A-1, VOLCANO BUSINESS PARK PHASE I
CITY ADDRESS: 3021 TODOS SANTOS STREET NW

ENGINEERING FIRM: LORENZ DESIGN & CONSULTING, LLC CONTACT: DENNIS LORENZ
ADDRESS: 2501 RIO GRANDE BLVD NW, SUITE A PHONE: 888-6088
CITY, STATE: ALBUQUERQUE, NEW MEXICO ZIP CODE: 87104

OWNER: HORIZON WEST FOUNDATION CONTACT: AMIE DURAN
ADDRESS: 1900 ATRISCO NW PHONE: 998-0459
CITY, STATE: ALBUQUERQUE, NM ZIP CODE: 87120

ARCHITECT: KEN TRAUERNICHT CONTACT: K. TRAUERNICHT
ADDRESS: _____ PHONE: 323-2227
CITY, STATE: _____ ZIP CODE: _____

SURVEYOR: CARTESIAN SURVEYS, INC CONTACT: B. MARTINEZ
ADDRESS: PO BOX 44414 PHONE: 896-3050
CITY, STATE: RIO RANCHO, NEW MEXICO ZIP CODE: 87174

CONTRACTOR: ACCELERATED CONSTRUCTION TECH CONTACT: D. HENSLEY
ADDRESS: 22425 NORTH 16TH STREET PHONE: 602-272-2000
CITY, STATE: PHOENIX, AZ ZIP CODE: 85024

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_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN
_____ EROSION CONTROL PLAN
X ENGINEER'S CERT (HYDROLOGY)
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X CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
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_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ GRADING CERTIFICATION
_____ OTHER (SPECIFY) SO-19

9/24/13

RECEIVED
SEP 23 2013
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED:
_____ YES
_____ NO
_____ COPY PROVIDED

DATE SUBMITTED: 9.23.13 BY: DENNIS A. LORENZ, PE

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

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3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more.

LORENZ
DESIGN & CONSULTING, LLC
Civil Engineering I Construction Management

September 20, 2013

Curtis A. Cherne, PE
Principle Engineer - Hydrology Section
Development and Building Services
City of Albuquerque
Plaza Del Sol
Albuquerque, New Mexico 87102

SUBJECT: Horizon Academy West G10/D029B
3021 Todos Santos Street NW
Request for Permanent Certificate of Occupancy

Dear Curtis:

Submitted herewith is one copy of the Grading and Drainage Certification for Permanent Certificate of Occupancy. The punch list items on my Certification for Temporary CO have been cleared.

If you have any questions regarding this request, please call me.

Sincerely,

LORENZ DESIGN & CONSULTING, LLC

Dennis A. Lorenz, PE

P\13-008\cc092013

RECEIVED
SEP 23 2013
LAND DEVELOPMENT SECTION

2501 Rio Grande Boulevard NW, Suite A | Albuquerque, New Mexico 87104 | [505] 888-6088 P | [505] 242-6655 F

CITY OF ALBUQUERQUE

August 8, 2013

Dennis Lorenz, P.E. dennisl@lorenznm.com
Lorenz Design & Consulting, LLC
2501 Rio Grande blvd NW, Suite A
Albuquerque, NM 87104

Re: Horizon Academy West, 3201 Todos Santos St SW,
Request for Temporary C.O. –Accepted 30 days
Engineer's Stamp dated: 1-31-13, (G10/D029B)
Certification dated: 8-01-13

Dear Mr. Lorenz,

Based upon the information provided in the Certification received 8-2-13, the above referenced Certification is acceptable for a release of a 30 day Temporary Certificate of Occupancy by Hydrology.

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

Sincerely,

Curtis A. Cherne, P.E.
Principal Engineer—Hydrology Section
Development and Building Services

C: CO Clerk—Katrina Sigala
File

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

RECEIVED
AUG 23 2013
LAND DEVELOPMENT SECTION

CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services Section

September 4, 2013

Dennis Lorenz, P.E.
Lorenz Design & Consulting, LLC
2501 Rio Grande Blvd. NW, Ste. A
Albuquerque, NM 87104

Re: Certification Submittal for Certificate of Occupancy (C.O.) for
Horizon Academy, [G-10/D029B]
3021 Todos Santos St NW
Engineer's Stamp Dated 08/01/13

Dear Mr. Lorenz,

The extension of a **30-day Temporary Certificate of Occupancy** has been provided until work has been completed. This letter serves as a "green tag" from Transportation Development for a **30-day Temporary Certificate of Occupancy** to be issued by the Building and Safety Division

Once all work has been addressed and completed, please resubmit acceptable package along with fully completed Drainage Information Sheet to front counter personnel for log in and evaluation by Transportation for a Permanent CO.

Sincerely,

Nilo E. Salgado-Fernandez, P.E.
Senior Traffic Engineer
Development and Building Services
Planning Department

C: Engineer, Hydrology and CO Clerk

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

Cherne, Curtis

From: Cherne, Curtis

Sent: Tuesday, September 03, 2013 11:14 AM

To: Sigala, Katrina M.; Connor, Francis

Cc: 'r.moore@act-az.com'

Subject: 30 day extension of Temp CO 3021 Todos Santos NW

Good Morning,
Hydrology is OK with extending the Temp CO 30 days for the Horizon Academy at 3021 Todos Santos NW.

Curtis

CITY OF ALBUQUERQUE

August 8, 2013

Dennis Lorenz, P.E. dennisl@lorenznm.com
Lorenz Design & Consulting, LLC
2501 Rio Grande blvd NW, Suite A
Albuquerque, NM 87104

Re: Horizon Academy West, 3201 Todos Santos St SW,
Request for Temporary C.O. –Accepted 30 days
Engineer's Stamp dated: 1-31-13, (G10/D029B)
Certification dated: 8-01-13

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Sincerely,

Curtis A. Cherne, P.E.
Principal Engineer—Hydrology Section
Development and Building Services

C: CO Clerk—Katrina Sigala
File

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

WKD Insp.?

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 04/2009)

PROJECT TITLE: HORIZON ACADEMY WEST ZONE MAP: G-10/D029B
DRB#: 12 DRB 70260 EPC#: 12EPC40025 WORK ORDER#: _____

LEGAL DESCRIPTION: TRACT 12-A-1, VOLCANO BUSINESS PARK PHASE I
CITY ADDRESS: 3021 TODOS SANTOS STREET NW

DENNIS1@LORENZNM.COM

ENGINEERING FIRM: LORENZ DESIGN & CONSULTING, LLC CONTACT: DENNIS LORENZ
ADDRESS: 2501 RIO GRANDE BLVD NW, SUITE A PHONE: 888-6088
CITY, STATE: ALBUQUERQUE, NEW MEXICO ZIP CODE: 87104

OWNER: HORIZON WEST FOUNDATION CONTACT: AMIE DURAN
ADDRESS: 1900 ATRISCO NW PHONE: 998-0459
CITY, STATE: ALBUQUERQUE, NM ZIP CODE: 87120

ARCHITECT: KEN TRAUERNICHT CONTACT: K. TRAUERNICHT
ADDRESS: _____ PHONE: 323-2227
CITY, STATE: _____ ZIP CODE: _____

SURVEYOR: CARTESIAN SURVEYS, INC CONTACT: B. MARTINEZ
ADDRESS: PO BOX 44414 PHONE: 896-3050
CITY, STATE: RIO RANCHO, NEW MEXICO ZIP CODE: 87174

CONTRACTOR: ACCELERATED CONSTRUCTION TECH CONTACT: D. HENSLEY
ADDRESS: 22425 NORTH 16TH STREET PHONE: 602-272-2000
CITY, STATE: PHOENIX, AZ ZIP CODE: 85024

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
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CHECK TYPE OF APPROVAL SOUGHT:
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__X__ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
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_____ OTHER (SPECIFY) SO-19

RECEIVED
AUG - 2 2013
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED:
_____ YES
_____ NO
_____ COPY PROVIDED

DATE SUBMITTED: 8.2.13 BY: DENNIS A. LORENZ, PE

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

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CITY OF ALBUQUERQUE

March 5, 2013

Dennis Lorenz, P.E.
Brasher and Lorenz, Inc
2207 San Pedro NE Bldg 1, Suite 1200
Albuquerque, NM 87110

Re: Horizon Academy West
Grading and Drainage Plan
Engineer's Stamp dated: 1-31-13, (G10/D029B)

Dear Mr. Lorenz,

Based upon the information provided in your submittal received 1/31/13, the above referenced plan is approved for Building Permit. Hydrology is requesting that proposed landscape areas be depressed to retain/infiltrate the rain that falls on them.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit for storm water discharge and a Topsoil Disturbance Permit since it is disturbing ¾ of an acre or more. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required. Also, on the 6" line leaving pond A, show spot elevations at the 90 degree turn and at the invert in the channel.

Please attach a copy of this approved plan to the construction sets when submitting for a building permit. If the approved plan is not attached to the construction set, Hydrology will reject the construction set for building permit.

If you have any questions, you can contact me at 924-3986 or Rudy Rael at 924-3977.

Sincerely,

Curtis Cherne, P.E.
Principal Engineer, Hydrology
Development and Building Services

RR/CC
C: Kathy Verhage
E-mail

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services Section

August 2, 2013

Dennis Lorenz, P.E.
Lorenz Design & Consulting, LLC
2501 Rio Grande Blvd. NW, Ste. A
Albuquerque, NM 87104

Horizon Academy West

Re: Certification Submittal for Certificate of Occupancy (C.O.) for
[redacted]th, [G-10/D029B]
3021 Todos Santos St NW
Engineer's Stamp Dated 08/01/13

Dear Mr. Lorenz,

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Sincerely,

Nilo E. Salgado-Fernandez, P.E.
Senior Traffic Engineer
Development and Building Services
Planning Department

C: Engineer, Hydrology and CO Clerk

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

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 04/2009)

PROJECT TITLE: HORIZON ACADEMY WEST ZONE MAP: G-10/D029B
DRB#: 12 DRB 70260 EPC#: 12EPC40025 WORK ORDER#:

LEGAL DESCRIPTION: TRACT 12-A-1, VOLCANO BUSINESS PARK PHASE I
CITY ADDRESS: 3021 TODOS SANTOS STREET NW

ENGINEERING FIRM: LORENZ DESIGN & CONSULTING, LLC CONTACT: DENNIS LORENZ
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ADDRESS: PHONE: 323-2227
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RECEIVED
AUG - 2 2013
LAND DEVELOPMENT SECTION

DATE SUBMITTED: 8.2.13 BY: DENNIS A. LORENZ, PE

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Petroglyph Plumbing and Heating Inc.

8248 Meadowbrook Avenue N.W.
Albuquerque, New Mexico 87120
Bus: 1-505-352-1169
Fax: 1-505-352-7215
Cell: 1-505-220-0598
E-mail: cdwitham@msn.com

January 31, 2013

The City of Albuquerque
600 Second Street NW
Albuquerque, New Mexico 87102

Re: Horizon Academy West
Authorization Letter for Temporary Off-Site Work

City Staff:

Please accept this letter as my authorization as property owner to allow the for temporary detention facilities to be constructed on Tract 5A2-A1-4 in the Volcano Business Park Phase II as related to the adjacent development for Horizon Academy West (Lot 21-A-1 in Volcano Business Park Phase I). This detention facility shall be constructed as per the Grading and Drainage Plan prepared by Brasher & Lorenz and approved by the City of Albuquerque. I further understand that Accelerated Construction Technologies will be the general contractor for the project and I have been in communication with them regarding scope and schedule.

Please feel free to contact me at (505) 352-1169 or via e-mail at cdwitham@msn.com should you have any questions or concerns. Thanks.

Sincerely,

Petroglyph Plumbing and Heating, Inc.

Curtis D. Witham, Owner
8248 Meadowbrook Avenue NW
Albuquerque, New Mexico 87120
Board of Directors, President

RECEIVED
JAN 31 2013

BRASHER & LORENZ, INC.
CONSULTING ENGINEERS
2201 San Pedro NE Bldg 1 Suite 1200 • Albuquerque, NM 87110 • Phone (505) 888-6088 • Fax (505) 888-6188 • www.brasherlorenz.com

January 31, 2013

Curtis Cherne, PE
Principal Engineer, Hydrology
Development and Building Services
City of Albuquerque
Plaza Del Sol
Albuquerque, New Mexico 87102

SUBJECT: HORIZON ACADEMY WEST
Updated Grading and Drainage Plan
G10/D029B

Dear Curtis:

Submitted herewith is one copy of the updated Grading and Drainage Plan for the subject project. The plan is updated is be consistent with the pending Administrate Amendment to the approved Site Development Plan for Building Permit. The changes are all very minor and do not affect the grading or drainage aspects of the project. The written Drainage Report and calculations remain unchanged, therefore, I am submitting only the grading and drainage plan sheets and details to update your file. This update is submitted in support of the Administrative Amendment and building permit application. I've included a copy of the amended site plan for reference.

Also enclosed is a copy of the letter from the owner of Tract 5A2-A1-4, Volcano Business Park Phase II, authorizing Horizon Academy West to construct the temporary erosion control improvements recommended by the grading and drainage plan.

Thank you for your assistance. If you have any questions, or if I can be of any assistance, please feel free to call.

Sincerely,

BRASHER & LORENZ, INC.

Dennis A. Lorenz, PE
Principal

/dl/12514
Encl

RECEIVED
JAN 31 2013

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 04/2009)

PROJECT TITLE: HORIZON ACADEMY WEST ZONE MAP: G-10/D029B
DRB#: 12 DRB 70260 EPC#: 12EPC40025 WORK ORDER#:

LEGAL DESCRIPTION: TRACT 12-A-1, VOLCANO BUSINESS PARK PHASE I
CITY ADDRESS: 3021 TODOS SANTOS STREET NW

ENGINEERING FIRM: BRASHER & LORENZ, INC. CONTACT: DENNIS LORENZ
ADDRESS: 2207 SAN PEDRO NE, BUILDING 1, SUITE 1200 PHONE: 888-6088
CITY, STATE: ALBUQUERQUE, NEW MEXICO ZIP CODE: 87110

OWNER: HORIZON WEST FOUNDATION CONTACT: AMIE DURAN
ADDRESS: 1900 ATRISCO NW PHONE: 998-0459
CITY, STATE: ALBUQUERQUE, NM ZIP CODE: 87120

ARCHITECT: KEN TRAUERNICHT CONTACT: K. TRAUERNICHT
ADDRESS: PHONE: 323-2227
CITY, STATE: ZIP CODE:

SURVEYOR: BRASHER & LORENZ, INC CONTACT: L. ARMIJO
ADDRESS: 2207 SAN PEDRO NE, BUILDING 1, SUITE 1200 PHONE: 888-6088
CITY, STATE: ALBUQUERQUE, NEW MEXICO ZIP CODE: 87110

CONTRACTOR: ACCELERATED CONSTRUCTION TECH CONTACT: B. GAMMIE
ADDRESS: 22425 NORTH 16TH STREET PHONE: 602-272-2000
CITY, STATE: PHOENIX, AZ ZIP CODE: 85024

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
__X__ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER'S CERT (TCL)
_____ ENGINEER'S CERT (DRB SITE PLAN)
_____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL SOUGHT:
_____ SIA/FINANCIAL GUARANTEE RELEASE
_____ PRELIMINARY PLAT APPROVAL
_____ S. DEV. PLAN FOR SUB'D APPROVAL
__X__ S. DEV. FOR BLDG. PERMIT APPROVAL (AA)
_____ SECTOR PLAN APPROVAL
_____ FINAL PLAT APPROVAL
_____ FOUNDATION PERMIT APPROVAL
__X__ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ GRADING CERTIFICATION
_____ OTHER (SPECIFY) SO-19

WAS A PRE-DESIGN CONFERENCE ATTENDED:
_____ YES
__X__ NO
_____ COPY PROVIDED

RECEIVED
JAN 31 2013

DATE SUBMITTED: 1.31.13 BY: DENNIS A. LORENZ, PE

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

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more.

CITY OF ALBUQUERQUE

March 5, 2013

Dennis Lorenz, P.E.
Brasher and Lorenz, Inc
2207 San Pedro NE Bldg 1, Suite 1200
Albuquerque, NM 87110

Re: Horizon Academy West
Grading and Drainage Plan
Engineer's Stamp dated: 1-31-13, (G10/D029B)

Dear Mr. Lorenz,

Based upon the information provided in your submittal received 1/31/13, the above referenced plan is approved for Building Permit. Hydrology is requesting that proposed landscape areas be depressed to retain/infiltrate the rain that falls on them.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit for storm water discharge and a Topsoil Disturbance Permit since it is disturbing ¾ of an acre or more. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required. Also, on the 6" line leaving pond A, show spot elevations at the 90 degree turn and at the invert in the channel.

Please attach a copy of this approved plan to the construction sets when submitting for a building permit. If the approved plan is not attached to the construction set, Hydrology will reject the construction set for building permit.

If you have any questions, you can contact me at 924-3986 or Rudy Rael at 924-3977.

Sincerely,

Curtis Cherne, P.E.
Principal Engineer, Hydrology
Development and Building Services

RR/CC
C: Kathy Verhage
E-mail

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

CITY OF ALBUQUERQUE

December 4, 2012

Dennis Lorenz, P.E.
Brasher and Lorenz, Inc
2207 San Pedro NE Bldg 1, Suite 1200
Albuquerque, NM 87110

Re: Horizon Academy West Drainage Report
Engineer's Stamp dated: 11-19-12, (G10/D029B)

Dear Mr. Lorenz,

Based upon the information provided in your submittal received 11-19-12, the above referenced report is approved for Site Plan for Building Permit and platting action by the DRB.

The grading plan was not reviewed for Building Permit approval; however, written approval from the owner of Tract 5A2-A1-4 will be required for Building Permit approval, because grading is proposed on that Tract.

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

Sincerely,

Curtis Cherne, P.E.
Principal Engineer, Hydrology
Development and Building Services

C: E-mail

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Cherne, Curtis

From: Cherne, Curtis
Sent: Tuesday, December 04, 2012 2:39 PM
To: 'Dennis Lorenz'
Subject: RE: Horizon Academy West

Dennis,
I agree with your analysis of the channel.

Curtis

From: Dennis Lorenz [mailto:dennisl@brasherlorenz.com]
Sent: Tuesday, December 04, 2012 2:34 PM
To: Cherne, Curtis
Subject: Horizon Academy West

Curtis:

In response to your questions regarding why the existing concrete drainage channel is not being extended westward to the west property line, I offer the following:

The existing 10' wide concrete channel located within a 20' private drainage easement, was constructed as recommended by the Drainage Plan for Volcano Business Park, Easterling & Associates, Inc, February 1985. Per that plan the developed 100 year flowrate was calculated at 48.8 cfs. Subsequently, the Drainage Master Plan for Volcano Business Park, Brasher & Lorenz, Inc, 11-2-98, recommended that all offsite flow be contained within Painted Rock Drive, reducing the developed flowrate at the channel to 0.5 cfs/acre of the remaining acreage. The resulting developed flowrate from constructed and future detention ponds is approximately 1.15 cfs. The Grading and Drainage Plan for Horizon Academy West recommends an earthen channel section designed to carry flow from the existing detention ponds and undeveloped acreage, to the concrete channel, which is estimated at 3.23 cfs under interim conditions. As shown by the calculations, page 3, the proposed earthen channel will adequately convey the runoff to the concrete channel at a non-erosive velocity of 2.2 fps.

Dennis A. Lorenz, PE
Brasher & Lorenz, Inc.
Engineers & Surveyors
505-888-6088 Office
505-220-0869 Mobile

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 04/2009)

PROJECT TITLE: HORIZON ACADEMY WEST ZONE MAP: G-10/D29B
DRB#: 12 DRB 70260 EPC#: 12EPC40025 WORK ORDER#:

LEGAL DESCRIPTION: TRACT 12-A, VOLCANO BUSINESS PARK PHASE I
CITY ADDRESS: 3021 TODOS SANTOS STREET NW

ENGINEERING FIRM: BRASHER & LORENZ, INC. CONTACT: DENNIS LORENZ
ADDRESS: 2207 SAN PEDRO NE, BUILDING 1, SUITE 1200 PHONE: 888-6088
CITY, STATE: ALBUQUERQUE, NEW MEXICO ZIP CODE: 87110

OWNER: HORIZON WEST FOUNDATION CONTACT: AMIE DURAN
ADDRESS: 1900 ATRISCO NW PHONE: 998-0459
CITY, STATE: ALBUQUERQUE, NM ZIP CODE: 87120

ARCHITECT: KEN TRAUERNICHT CONTACT: K. TRAUERNICHT
ADDRESS: PHONE: 323-2227
CITY, STATE: ZIP CODE:

SURVEYOR: BRASHER & LORENZ, INC CONTACT: L. ARMIJO
ADDRESS: 2207 SAN PEDRO NE, BUILDING 1, SUITE 1200 PHONE: 888-6088
CITY, STATE: ALBUQUERQUE, NEW MEXICO ZIP CODE: 87110

CONTRACTOR: ACCELERATED CONSTRUCTION TECH CONTACT: B. GAMMIE
ADDRESS: 22425 NORTH 16TH STREET PHONE: 602-272-2000
CITY, STATE: PHOENIX, AZ ZIP CODE: 85024

TYPE OF SUBMITTAL:
- X DRAINAGE REPORT
- _____ DRAINAGE PLAN 1st SUBMITTAL
- _____ DRAINAGE PLAN RESUBMITTAL
- _____ CONCEPTUAL G & D PLAN
- _____ GRADING PLAN
- _____ EROSION CONTROL PLAN
- _____ ENGINEER'S CERT (HYDROLOGY)
- _____ CLOMR/LOMR
- _____ TRAFFIC CIRCULATION LAYOUT
- _____ ENGINEER'S CERT (TCL)
- _____ ENGINEER'S CERT (DRB SITE PLAN)
- _____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL SOUGHT:
- _____ SIA/FINANCIAL GUARANTEE RELEASE
- X PRELIMINARY PLAT APPROVAL
- _____ S. DEV. PLAN FOR SUB'D APPROVAL
- X S. DEV. FOR BLDG. PERMIT APPROVAL
- _____ SECTOR PLAN APPROVAL
- X FINAL PLAT APPROVAL
- _____ FOUNDATION PERMIT APPROVAL
- _____ BUILDING PERMIT APPROVAL
- _____ CERTIFICATE OF OCCUPANCY (PERM)
- _____ CERTIFICATE OF OCCUPANCY (TEMP)
- _____ GRADING PERMIT APPROVAL
- _____ PAVING PERMIT APPROVAL
- _____ WORK ORDER APPROVAL
- _____ GRADING CERTIFICATION
- _____ OTHER (SPECIFY) SO-19

RECEIVED
NOV 19 2012
AND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED:
- _____ YES
- X NO
- _____ COPY PROVIDED

$ 60.00

DATE SUBMITTED: 11.20.12 BY: DENNIS A. LORENZ, PE

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

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more.

DRAINAGE REPORT
FOR
HORIZON ACADEMY WEST

ALBUQUERQUE, NEW MEXICO

Prepared For:

Accelerated Construction Technologies
22425 North 16th Street
Phoenix, Arizona 85024

RECEIVED
NOV 19 2012
LAND DEVELOPMENT SECTION

Prepared by:

BRASHER AND LORENZ, INC.
Engineers ▪ Surveyors
2201 San Pedro NE, Building 1, Suite 1200
Albuquerque, New Mexico 87110

November 2012

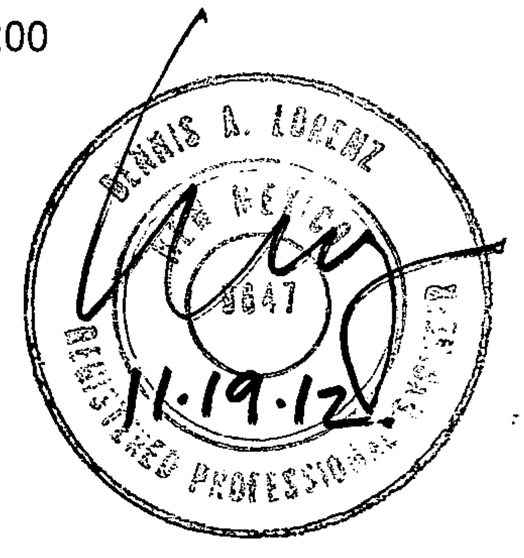


TABLE OF CONTENTS

TITLE	PAGE NO.
PURPOSE AND SCOPE	1
SITE DESCRIPTION	1
EXISTING DRAINAGE CONDITIONS	1
PROPOSED DRAINAGE CONDITIONS	2
TEMPORARY EROSION CONTROL	3
CALCULATIONS	3

APPENDIX

MAPS

PROJECT LOCATION - FIGURE 1
FLOOD INSURANCE RATE MAP – FIGURE 2
EXISTING DRAINAGE BASINS – FIGURE 3
PROPOSED DRAINAGE BASINS – FIGURE 4

CALCULATIONS

PROJECT HYDROLOGY
INFRASTRUCTURE CAPACITIES
AHYMO OUTPUT FILES

EXHIBITS

GRADING & DRAINAGE PLAN – SHEET C-1
SITE DETAILS – SHEETS C-2 AND C-3
GRADING AND DRAINAGE PLAN FOR LOT 12, VOLCANO BUSINESS PARK
DRAINAGE MASTERPLAN FOR VOLCANO BUSINESS PARK, PHASE II

PURPOSE AND SCOPE

Pursuant to the established Drainage Ordinance for the City of Albuquerque and the Development Process Manual, this Drainage Report outlines the drainage management criteria for controlling developed runoff from the project site. The project consists of the re-development of the property for Horizon Academy West Charter School. A 19,500 square foot building addition is planning with paving, landscaping, utility, grading, and drainage improvements to support the project. The purpose of this report is to support Site Plan for Building Permit approval and Building Permit application. The scope of this plan is to provide grading and drainage criteria for the safe management of excess runoff impacting the site from upstream drainage basins, and controlling excess runoff from the project site in a well-managed, non-erosive manner.

SITE DESCRIPTION

The project site is approximately 3.59 acres in size and is located at 3021 Todos Santos Street NW, just south of Ouray Road NW (See Figure 1). The site is presently developed. Site improvements consist of an existing 21,600 square foot light industrial building, and related site improvements. The site is presently described as a Tract 12-A, Volcano Business Park, Phase I. The site is bounded on the east and south by Todos Santo Street NW, and on the west by developed and undeveloped light industrial use properties.

As shown by the attached FIRM Panel (Figure 2) this site does not lie within a designated flood hazard zone.

EXISTING DRAINAGE MASTER PLANS

Grading and Drainage Plan for Lot 12, Volcano Business Park, prepared by Tom Mann & Associates, Inc, 2-04-1987. Per the Plan, the site is limited a maximum discharge rate of 4.9 cfs. This Plan supported construction of the existing building and site improvements. The existing detention pond and outlet works were constructed as recommended by this plan.

Drainage Masterplan for Volcano Business Park, Phase II (G-10/D29), prepared by Brasher & Lorenz, Inc., 1-20-1998. Per the Plan, the site is required to implement on-site detention ponding. Per the DMP, the site is limited a maximum discharge rate of 4.9 cfs.

EXISTING DRAINAGE CONDITIONS

The existing drainage basins are described as follows:

1. The project site drains to the existing detention pond located at the northeast corner of the property. The pond drains at a controlled rate of 4.9 cfs to the existing concrete channel that discharges to the Ouray storm drain system.

2. Basins OS-1 is undeveloped and drains east as sheet flow onto the project site.

3. Basin OS-2 is fully developed. The site is routed through a detention pond which outlets to an earthen channel within a 20' private drainage easement. The earthen channel drains east to a concrete channel the discharges to the Ouray storm drain system.

4. Basin OS-3 is undeveloped and drains southeast to an earthen channel within a 20' private drainage easement. The earthen channel drains east to a concrete channel the discharges to the Ouray storm drain system.

5. Basin OS-4 is fully developed. The site is routed through a detention pond which outlets to Todos Santos Street NW, which drains to the Ouray storm drain system.

PROPOSED CONDITIONS

As shown by the Plan, the project consists of the re-development of the site for Horizon Academy West Charter School. Paving, landscaping, utility, grading, and drainage improvements will be provided to support the project.

In accordance with the approved Masterplans, the site will drain to on-site detention ponds. The ponds will rout all excess runoff to the Ouray storm drain system at a controlled rate of 4.9 cfs, established by the DMP, as follows:

1. Basin "1" drains by surface swales and private storm drains to detention Pond "A". Pond "A" drains by a 6-inch storm drain to the existing concrete channel near the northeast corner of the site.

2. Basin "2" drains overland by surface swales to detention Pond "B". Pond "B" drains through the existing 6-inch pipes to the existing concrete channel at the northeast corner of the site.

3. Basin "OS-1" will implement interim erosion control measures by constructing an earthen erosion control berm along the north and east property lines, and a 2,000 cf sedimentation pond sized to contain the 2-year, 6 hour rainfall event. Upon future development, this property will be required to rout all excess runoff through a detention pond designed to limit the peak discharge to 0.5 cfs/acre, in accordance with the approved Drainage Master Plan. The site will discharge all runoff to the existing downstream private drainage easements and drainage improvements.

4. Basin OS-2 is fully developed. The site is routed through a detention pond which outlets to an earthen channel within a 20' private drainage easement. The earthen channel drains east to a concrete channel the discharges to the Ouray

storm drain system.

5. Basin OS-3 is undeveloped and drains southeast to an earthen channel within a 20' private drainage easement. The earthen channel drains east to a concrete channel the discharges to the Ouray storm drain system. Upon future development, this property will be required to rout all excess runoff through a detention pond designed to limit the peak discharge to 0.5 cfs/acre, in accordance with the approved Drainage Master Plan. The site will discharge all runoff to the existing downstream private drainage easements and drainage improvements.

6. Basin OS-4 is fully developed. The site is routed through a detention pond which outlets to Todos Santos Street NW, which drains to the Ouray storm drain system.

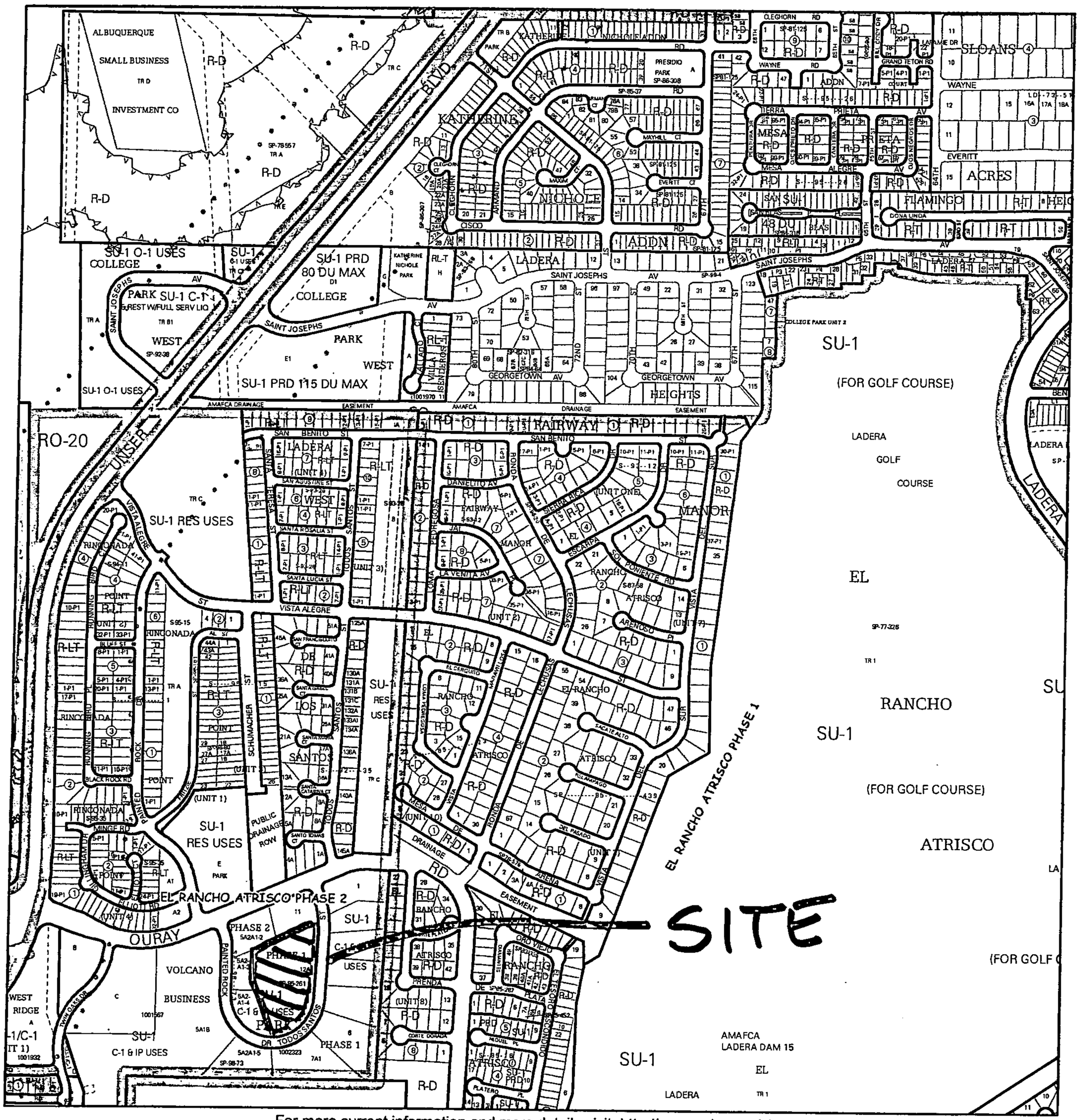
TEMPORARY EROSION CONTROL

The Contractor shall have onsite at all times a Storm Water Pollution Prevention Plan (SWPPP), and obtain a Fugitive Dust Permit from Environmental Health prior to performing any earthwork related operations. It is the contractor and/or site operator's responsibility to comply with all terms and conditions of the SWPPP and Fugitive Dust Permit.

CALCULATIONS

The calculations contained herein define the 100-year/6-hour rainfall event falling within the project site and contributing off-site areas under existing and developed conditions. The hydrology is per the City of Albuquerque, Development Process Manual, Chapter 22, Volume 2, 1997 Revision. The AHYMO 97 model is used to determine peak runoff. The calculations are presented to demonstrate the capacity and function of all proposed storm drainage improvements.

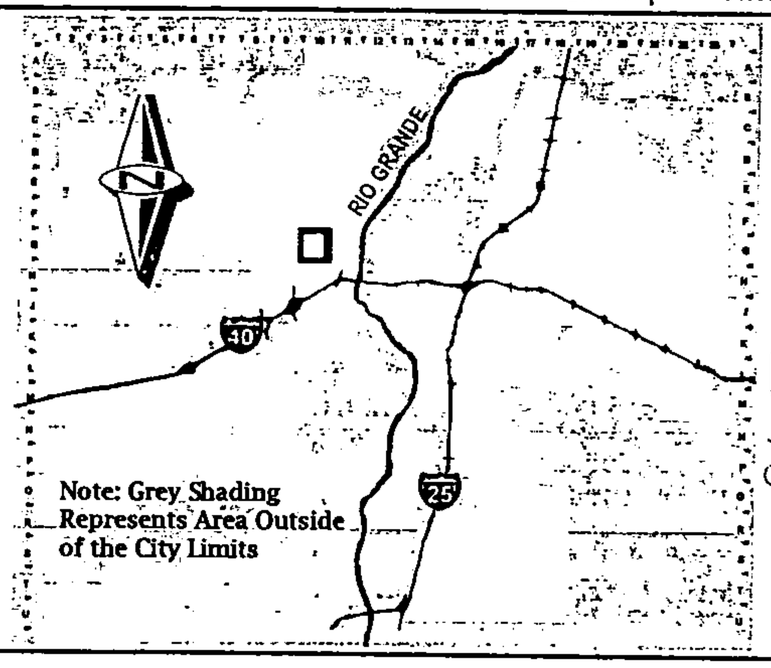
MAPS



For more current information and more details visit: http://www.cabq.gov/gis

CITY OF ALBUQUERQUE
AGIS
Albuquerque Geographic Information System

Map amended through: 1/24/2011



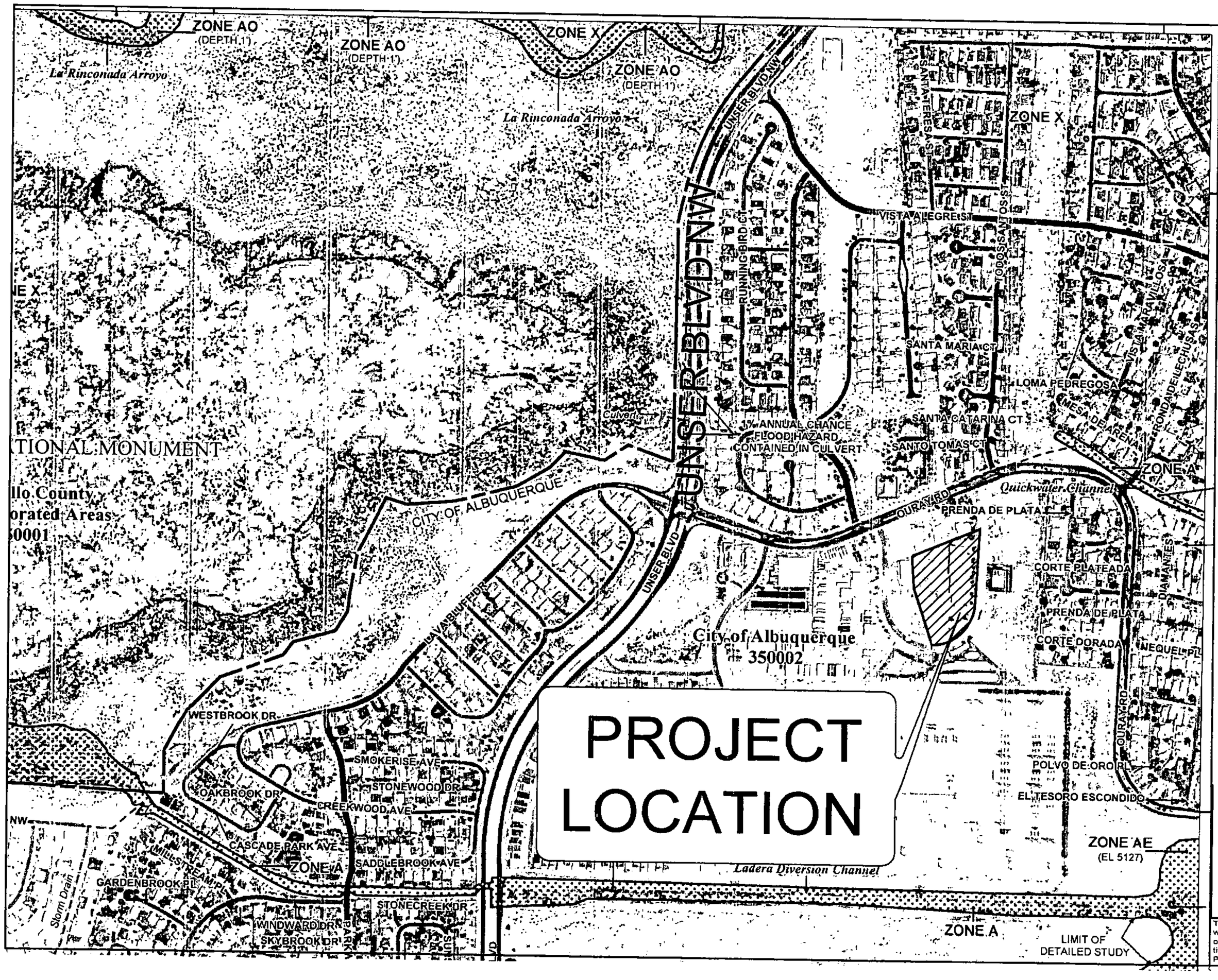
Zone Atlas Page:

G-10-Z

Selected Symbols

- SECTOR PLANS
- Design Overlay Zones
- City Historic Zones
- H-1 Buffer Zone
- Petroglyph Mon.
- Escarpment
- 2 Mile Airport Zone
- Airport Noise Contours
- Wall Overlay Zone

0 — 750 — 1,500 Feet



MAP SCALE 1" = 500'

0 0 500 1000 FEET

PANEL 0326H

FIRM

FLOOD INSURANCE RATE MAP

BERNALILLO COUNTY, NEW MEXICO AND INCORPORATED AREAS

PANEL 326 OF 825

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ALBUQUERQUE, CITY OF	350002	0326	H
BERNALILLO COUNTY UNINCORPORATED AREAS	350001	0326	H

Notice to User: The Map Number shown below should be used when placing map order; the Community Number shown above should be used on insurance applications for the subject communities.

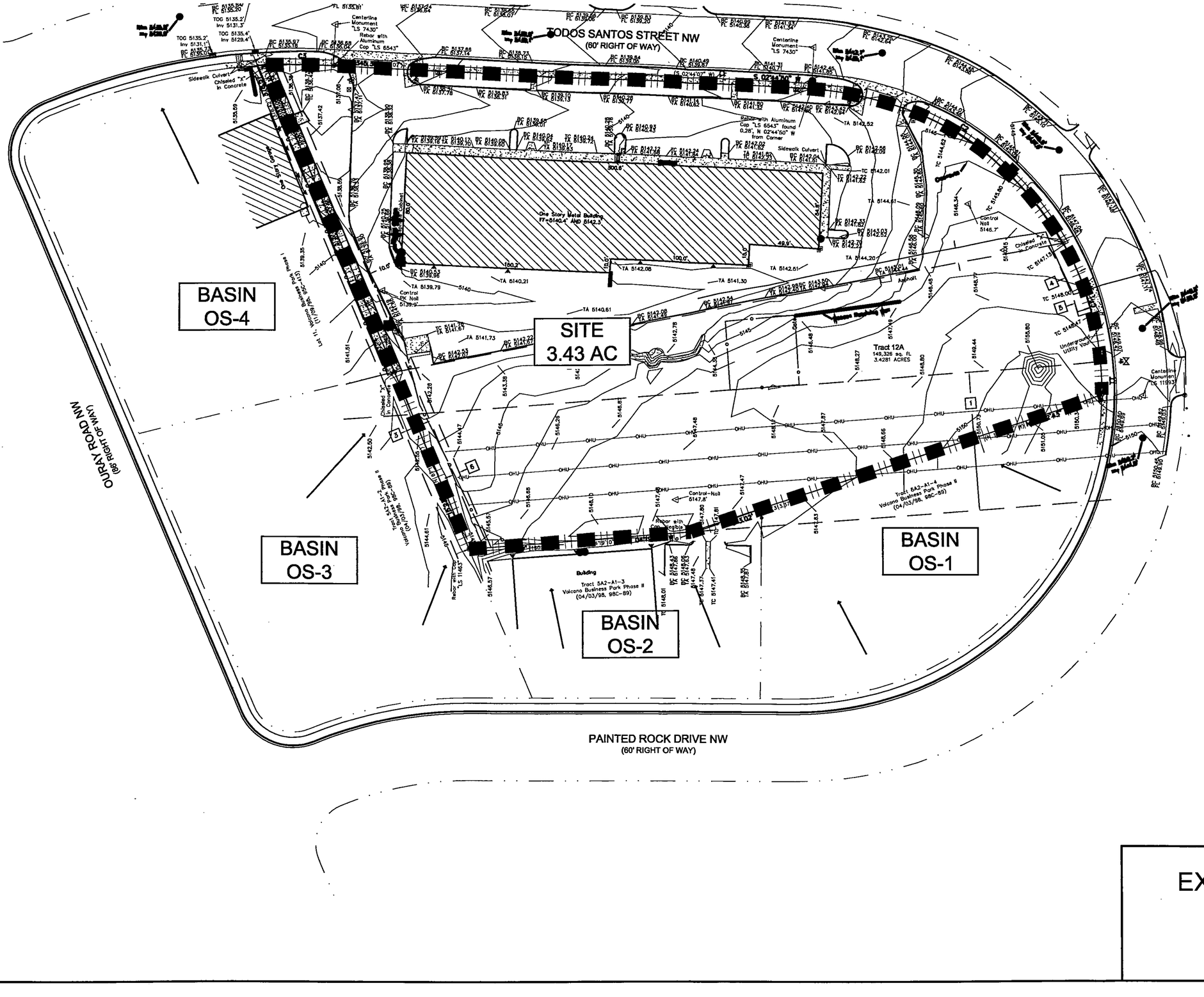
MAP NUMBER
35001C0326H

MAP REVISED
AUGUST 16, 2012

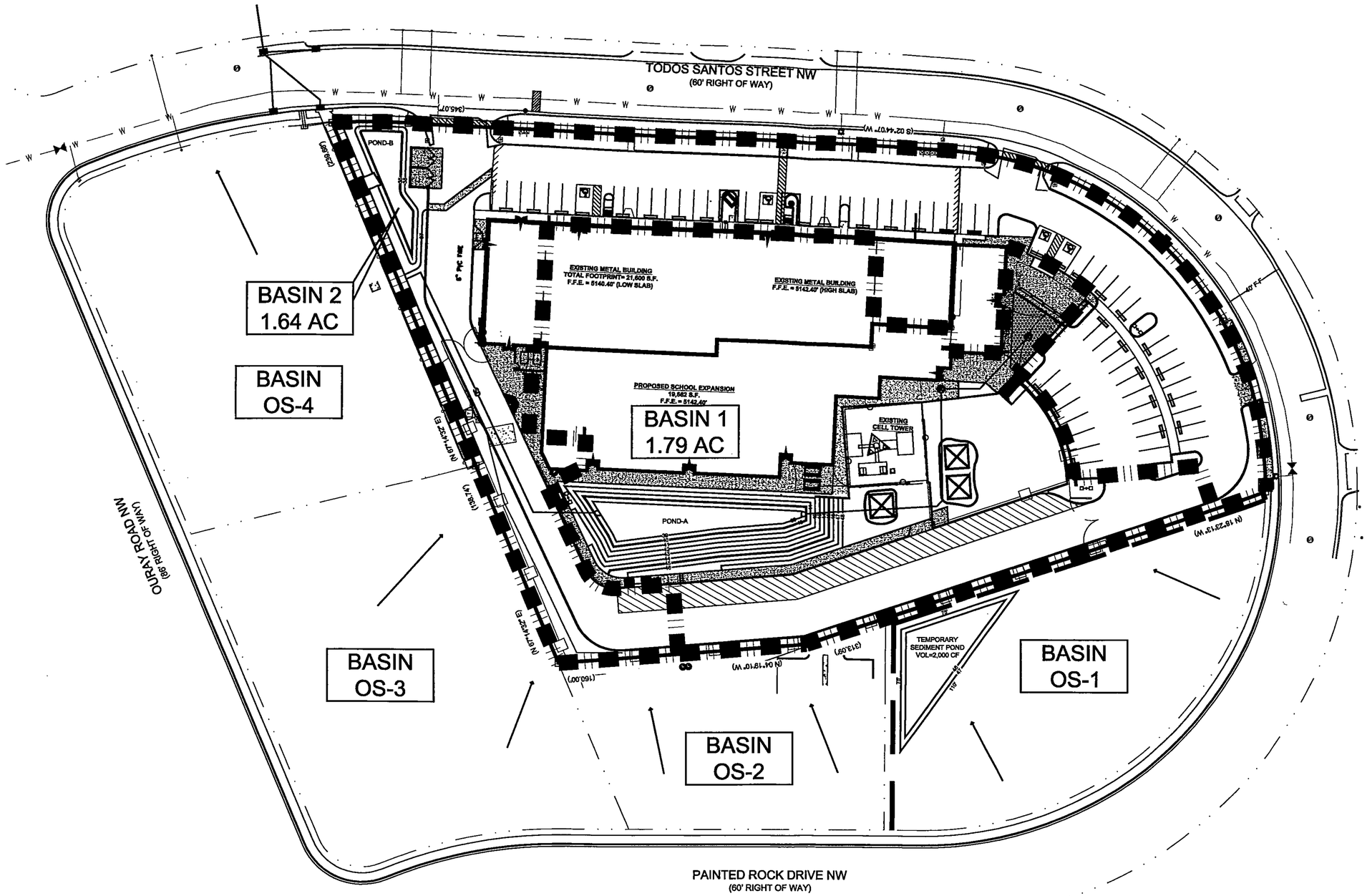
Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



EXISTING DRAINAGE
BASINS
FIGURE 3



PROPOSED DRAINAGE
BASINS
FIGURE 4

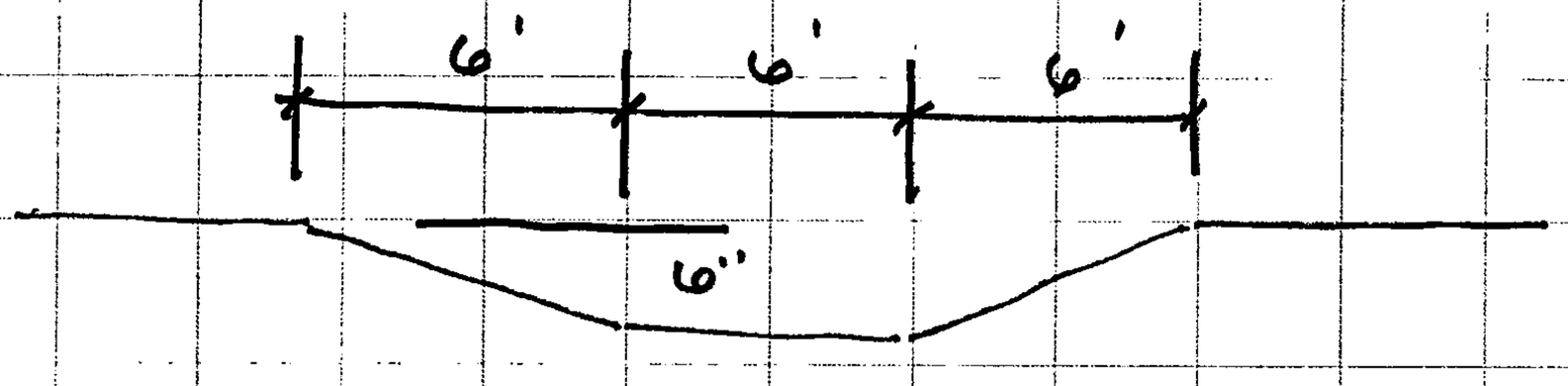
CALCULATIONS

INFRASTRUCTURE CAPACITIES

HORIZON WEST

① CHECK POND OVERFLOW SPILLWAYS.

(A) POND A:

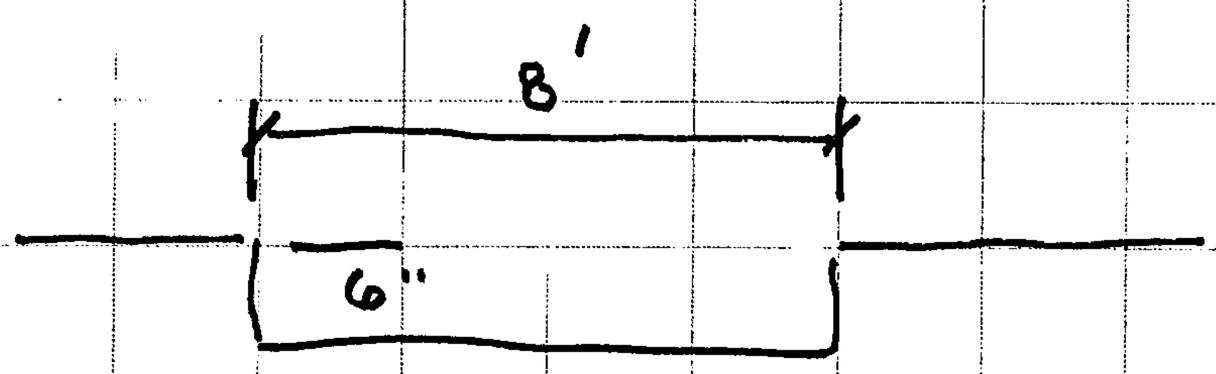


$Q = CLH^{3/2}$ · WEIR.

$C = 2.5$
$L = 12'$
$H = 0.5'$

$\Rightarrow$ $Q = 10.6$ CFS
$Q_{100} = 7.1$ CFS ✓

(B) EXIST POND B:



$Q = CLH^{3/2}$ WEIR

$C = 2.5$
$L = 8'$
$H = 0.5'$

$\Rightarrow$ $Q = 7.1$ CFS
$Q_{100} = 6.4$ CFS ✓

HORIZON WEST

(2) PRIVATE STORM DRAIN

TING METAL BUILDING
= 5142.40' (HIGH SLAB)

EXISTING
CELL TOWER

41.70 TG
INV.=40.20

41.70 TG
INV.=40.80

41.51 41.80 42.20 42.85 45.25 42.25 42.40 42.95 44.10 44.50 42.10 45.30 46.10 46.00 42.10 46.40 42.40 42.10 41.80 41.75 41.85 48.50 42.30 42.15 49.00 49.30 49.8 48.70 49.10 49.50 50.00 41.70 49.80

BASIN AREA = 0.30 AC C = 0.45 AC D = 0.15 AC

⇒ Q100 = 1.1 CFS

BY MANNINGS: n = 0.013 PVC ϕ = 12"

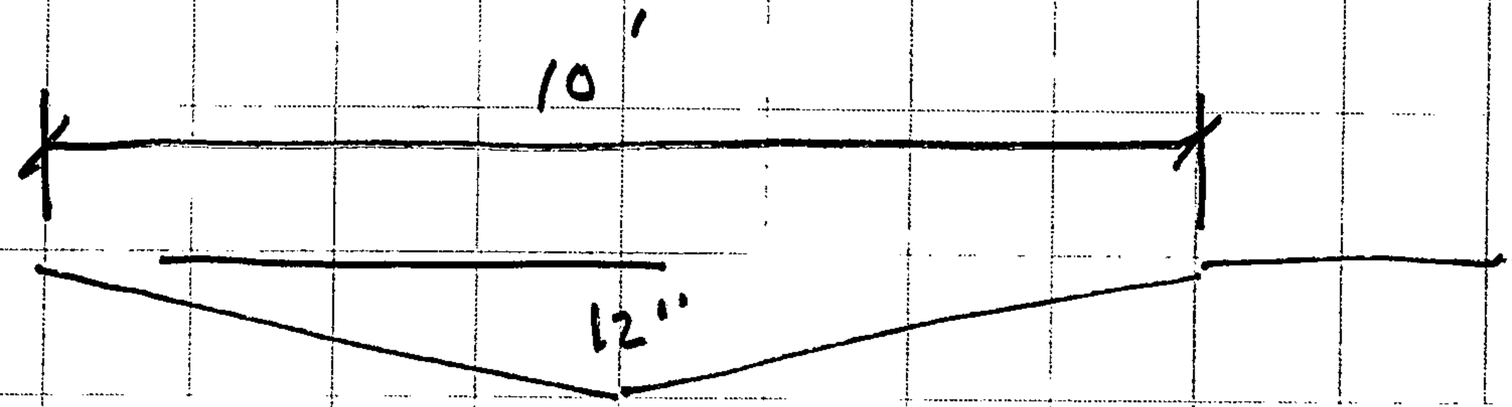
S = 0.5%

⇒ QPIPE = 2.5 CFS
Q100 = 1.1 CFS ✓

FS = 2.3

HORIZON WEST

(3) EIGHTEEN CHANNEL W/IN 20' ESMT



Q_{100} = $Q_{INTERIM\ CONDITIONS}$ = BASINS OS-2 + OS-3

Q_{100} = 0.26 + 2.97 CFS

= 3.23 CFS

$Q_{100\ FUTURE}$ = BASINS OS-1, OS-2 + OS-3

= 1.15 CFS (0.5 CFS/AC)

⇒ BY MANNINGS CHECK FOR Y_o:

n = 0.025

S = 1.3%

Q = 3.23 CFS

⇒ Y_o = 0.38'

V = 2.2 FPS ✓

PROJECT HYDROLOGY

HORIZON CHARTER SCHOOL
HYDROLOGY SUMMARY

BASIN	AREA	AREA	LAND TREATMENT AREAS %				Q 100	Q pond Out	VOL 100	VOL pond
	acres	sq. mi.	A	B	C	D	cfs	cfs	ac-ft	ac-ft
EX.SITE	3.43	0.00536	0	0	44	56	12.25	4.90	0.440	0.029
OS-1	0.77	0.00120	0	0	100	0	2.22	0.00	0.064	2787 ft³
OS-2	0.51	0.00080	0	0	15	85	2.13	0.26**	0.077	-
OS-3	1.03	0.00161	0	0	100	0	2.97	0.00	0.085	-
OS-4	1.04	0.00163	0	0	15	85	4.33	0.52**	0.158	-
DEV.SITE	3.43	0.00536	0	0	29	71	13.50	4.78	0.481	0.208
1	1.79	0.00280	0	0	27	73	7.10	1.64	0.254	0.137
2	1.64	0.00256	0	0	31	69	6.40	3.22	0.228	0.071
OS-1	0.77	0.00120	0	0	15	85	3.21	0.38**	0.12	-
OS-2	0.51	0.00080	0	0	15	85	2.13	0.26**	0.08	-
OS-3	1.03	0.00161	0	0	15	85	4.28	0.51**	0.16	-
OS-4	1.04	0.00163	0	0	15	85	4.33	0.52**	0.16	-

** 0.5 CFS/AC PER DMP

existing flow for tank pond

AHYMO OUTPUT FILES

```
**********************************************************************
*                              HORIZON ACADEMY
*                             PROJECT HYDROLOGY
**********************************************************************
START                TIME=0.0  PUNCH CODE=0
RAINFALL             TYPE=1  RAIN QUARTER=0.0  RAIN ONE=1.87
                     RAIN SIX=2.20  RAIN DAY=2.66  DT=0.03333 HRS
* EXISTING SITE -  3.43 ACRES
COMPUTE NM HYD       ID=1  HYD NO=EX.SITE  DA=0.005359 SQ MI
                     PER A=0  PER B=0  PER C=44  PER D=56
                     TP=0.1333 HR  MASS RAIN=-1
PRINT HYD            ID=1  CODE=20
* DEVELOPED SITE -  3.43 ACRES
COMPUTE NM HYD       ID=2  HYD NO=DEV.SITE  DA=0.005359 SQ MI
                     PER A=0  PER B=0  PER C=29  PER D=71
                     TP=0.1333 HR  MASS RAIN=-1
PRINT HYD            ID=2  CODE=20
* DEVELOPED BASIN 1 - 1.79 ACRES
COMPUTE NM HYD       ID=3  HYD NO=BASIN-1  DA=0.002797 SQ MI
                     PER A=0 PER B=0 PER C=27 PER D=73
                     TP=0.1333 HR  MASS RAIN=-1
PRINT HYD            ID=3  CODE=20
* DEVELOPED BASIN 2 - 1.64 ACRES
COMPUTE NM HYD       ID=4  HYD NO=BASIN-2  DA=0.002563 SQ MI
                     PER A=0 PER B=0 PER C=31 PER D=69
                     TP=0.1333 HR  MASS RAIN=-1
PRINT HYD            ID=4  CODE=20
**********************************************************************
* ROUTE DEVELOPED BASIN 1 THROUGH DETENTION POND A TO CHANNEL
* ROUTE THRU (6" PIPE)
**********************************************************************
ROUTE RESERVOIR      ID=5 HYD NO=POND-A-OUT  INFLOW ID=3  CODE=10
                     OUT (CFS)    STORAGE (AC-FT)     ELEV (FT)
                     0            0                     38.0
                     0.945        0.0363                39.0
                     1.337        0.0595                40.0
                     1.638        0.1375                41.0
                     1.743        0.2391                42.0
PRINT HYD            ID=5 CODE=20
**********************************************************************
* ROUTE POND B TO CHANNEL
* ROUTE THRU 3-6" PIPE
**********************************************************************
ROUTE RESERVOIR      ID=6 HYD NO=POND-B-OUT  INFLOW ID=4  CODE=10
                     OUT (CFS)    STORAGE (AC-FT)     ELEV (FT)
                     0            0                     35.0
                     2.01         0.0312                36.0
                     2.84         0.0582                36.4
                     4.01         0.0989                37.0
PRINT HYD            ID=6 CODE=20
**********************************************************************
* ADD POND A TO POND B FOR TOTAL SITE DISCHARGE
**********************************************************************
ADD HYD              ID=7  HYD NO=SITE-OUT ID I=5 ID II=6
```

```
PRINT HYD             ID=7 CODE=20
**************************************************************************
* OFF SITE BASINS
**************************************************************************
* EXISTING BASIN OS-1 -  0.77 ACRES
COMPUTE NM HYD        ID=8  HYD NO=EX.OS1  DA=0.001203 SQ MI
                      PER A=0  PER B=0  PER C=100  PER D=0
                      TP=0.1333 HR  MASS RAIN=-1
PRINT HYD             ID=8  CODE=20
* EXISTING BASIN OS-2 -  0.51 ACRES
COMPUTE NM HYD        ID=9  HYD NO=EX.OS2  DA=0.000797 SQ MI
                      PER A=0  PER B=0  PER C=15  PER D=85
                      TP=0.1333 HR  MASS RAIN=-1
PRINT HYD             ID=9  CODE=20
* EXISTING BASIN OS-3 -  1.03 ACRES
COMPUTE NM HYD        ID=10  HYD NO=EX.OS3  DA=0.001609 SQ MI
                      PER A=0  PER B=0  PER C=100  PER D=0
                      TP=0.1333 HR  MASS RAIN=-1
PRINT HYD             ID=10  CODE=20
* EXISTING BASIN OS-4 -  1.04 ACRES
COMPUTE NM HYD        ID=11  HYD NO=EX.OS4  DA=0.001625 SQ MI
                      PER A=0  PER B=0  PER C=15  PER D=85
                      TP=0.1333 HR  MASS RAIN=-1
PRINT HYD             ID=11  CODE=20
* DEVELOPED BASIN OS-1 -  0.77 ACRES
COMPUTE NM HYD        ID=12  HYD NO=DEV.OS1  DA=0.001203 SQ MI
                      PER A=0  PER B=0  PER C=15  PER D=85
                      TP=0.1333 HR  MASS RAIN=-1
PRINT HYD             ID=12  CODE=20
* DEVELOPED BASIN OS-2 -  0.51 ACRES
COMPUTE NM HYD        ID=13  HYD NO=DEV.OS2  DA=0.000797 SQ MI
                      PER A=0  PER B=0  PER C=15  PER D=85
                      TP=0.1333 HR  MASS RAIN=-1
PRINT HYD             ID=13  CODE=20
* DEVELOPED BASIN OS-3 -  1.03 ACRES
COMPUTE NM HYD        ID=14  HYD NO=DEV.OS3  DA=0.001609 SQ MI
                      PER A=0  PER B=0  PER C=15  PER D=85
                      TP=0.1333 HR  MASS RAIN=-1
PRINT HYD             ID=14  CODE=20
* DEVELOPED BASIN OS-4 -  1.04 ACRES
COMPUTE NM HYD        ID=15  HYD NO=DEV.OS4  DA=0.001625 SQ MI
                      PER A=0  PER B=0  PER C=15  PER D=85
                      TP=0.1333 HR  MASS RAIN=-1
PRINT HYD             ID=15  CODE=20
FINISH
```

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) - - VERSION: 1997.02d RUN DATE (MON/DAY/YR) =11/19/2012
INPUT FILE = G:\12514.txt USER NO.= AHYMO-I-9702c01000T35-AH

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1 NOTATION	
START										TIME=	.00
RAINFALL TYPE= 1										RAIN6=	2.200
COMPUTE NM HYD	EX.SITE	-	1	.00536	12.75	.440	1.53821	1.500	3.716	PER IMP=	56.00
COMPUTE NM HYD	DEV.SITE	-	2	.00536	13.51	.481	1.68387	1.500	3.940	PER IMP=	71.00
COMPUTE NM HYD	BASIN-1	-	3	.00280	7.11	.254	1.70329	1.500	3.974	PER IMP=	73.00
COMPUTE NM HYD	BASIN-2	-	4	.00256	6.42	.228	1.66445	1.500	3.916	PER IMP=	69.00
ROUTE RESERVOIR	POND-A-OUT	3	5	.00280	1.64	.254	1.70319	2.000	.913	AC-FT=	.137
ROUTE RESERVOIR	POND-B-OUT	4	6	.00256	3.22	.228	1.66433	1.667	1.961	AC-FT=	.071
ADD HYD	SITE-OUT	5& 6	7	.00536	4.78	.482	1.68441	1.700	1.394		
COMPUTE NM HYD	EX.OS1	-	8	.00120	2.22	.064	.99441	1.500	2.885	PER IMP=	.00
COMPUTE NM HYD	EX.OS2	-	9	.00080	2.13	.077	1.81982	1.500	4.179	PER IMP=	85.00
COMPUTE NM HYD	EX.OS3	-	10	.00161	2.97	.085	.99441	1.500	2.882	PER IMP=	.00
COMPUTE NM HYD	EX.OS4	-	11	.00163	4.33	.158	1.81982	1.500	4.161	PER IMP=	85.00
COMPUTE NM HYD	DEV.OS1	-	12	.00120	3.21	.117	1.81982	1.500	4.167	PER IMP=	85.00
COMPUTE NM HYD	DEV.OS2	-	13	.00080	2.13	.077	1.81982	1.500	4.179	PER IMP=	85.00
COMPUTE NM HYD	DEV.OS3	-	14	.00161	4.28	.156	1.81982	1.500	4.161	PER IMP=	85.00
COMPUTE NM HYD	DEV.OS4	-	15	.00163	4.33	.158	1.81982	1.500	4.161	PER IMP=	85.00
FINISH											

```
      AHYMO PROGRAM (AHYMO_97) -                          - Version:  1997.02d
        RUN DATE (MON/DAY/YR) = 11/19/2012
        START TIME (HR:MIN:SEC) = 16:28:36     USER NO.= AHYMO-I-9702c01000T35-AH
        INPUT FILE = G:\12514.txt

**********************************************************************
*                          HORIZON ACADEMY
*                         PROJECT HYDROLOGY
**********************************************************************
START              TIME=0.0  PUNCH CODE=0
RAINFALL           TYPE=1  RAIN QUARTER=0.0  RAIN ONE=1.87
                   RAIN SIX=2.20  RAIN DAY=2.66  DT=0.03333 HRS

               COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
               DT =     .033330 HOURS       END TIME =     5.999400 HOURS
                  .0000   .0016   .0033   .0050   .0067   .0085   .0103
                  .0122   .0141   .0160   .0180   .0201   .0222   .0243
                  .0266   .0289   .0312   .0337   .0362   .0388   .0415
                  .0443   .0472   .0502   .0534   .0567   .0601   .0637
                  .0675   .0715   .0758   .0809   .0865   .0924   .1050
                  .1334   .1771   .2398   .3254   .4379   .5814   .7600
                  .9780  1.1804  1.2649  1.3363  1.3997  1.4575  1.5106
                 1.5600  1.6061  1.6493  1.6900  1.7284  1.7646  1.7989
                 1.8314  1.8623  1.8915  1.9193  1.9456  1.9518  1.9576
                 1.9630  1.9682  1.9732  1.9780  1.9825  1.9869  1.9912
                 1.9953  1.9993  2.0031  2.0068  2.0104  2.0140  2.0174
                 2.0207  2.0240  2.0272  2.0303  2.0333  2.0363  2.0392
                 2.0420  2.0448  2.0475  2.0502  2.0528  2.0554  2.0580
                 2.0605  2.0629  2.0653  2.0677  2.0700  2.0723  2.0746
                 2.0768  2.0790  2.0812  2.0833  2.0855  2.0875  2.0896
                 2.0916  2.0936  2.0956  2.0976  2.0995  2.1014  2.1033
                 2.1051  2.1070  2.1088  2.1106  2.1124  2.1141  2.1159
                 2.1176  2.1193  2.1210  2.1227  2.1244  2.1260  2.1276
                 2.1292  2.1308  2.1324  2.1340  2.1355  2.1371  2.1386
                 2.1401  2.1416  2.1431  2.1446  2.1460  2.1475  2.1489
                 2.1504  2.1518  2.1532  2.1546  2.1560  2.1573  2.1587
                 2.1600  2.1614  2.1627  2.1640  2.1654  2.1667  2.1680
                 2.1692  2.1705  2.1718  2.1731  2.1743  2.1756  2.1768
                 2.1780  2.1792  2.1804  2.1817  2.1829  2.1840  2.1852
                 2.1864  2.1876  2.1887  2.1899  2.1910  2.1922  2.1933
                 2.1944  2.1956  2.1967  2.1978  2.1989  2.2000

* EXISTING SITE -  3.43 ACRES
COMPUTE NM HYD      ID=1  HYD NO=EX.SITE  DA=0.005359 SQ MI
                    PER A=0  PER B=0  PER C=44  PER D=56
                    TP=0.1333 HR  MASS RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   11.848    CFS   UNIT VOLUME =    .9984       B =   526.28      P60 = 1.8700
```

AREA = .003001 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .105867HR TP = .133300HR K/TP RATIO = .794199 SHAPE CONSTANT, N = 4.514851
UNIT PEAK = 6.8659 CFS UNIT VOLUME = .9986 B = 388.14 P60 = 1.8700
AREA = .002358 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=1 CODE=20

HYDROGRAPH FROM AREA EX.SITE

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	2.000	2.6	4.000	.0	5.999	.1		
.667	.0	2.666	.2	4.666	.0	6.666	.0		
1.333	2.9	3.333	.1	5.333	.1				

RUNOFF VOLUME = 1.53821 INCHES = .4396 ACRE-FEET
PEAK DISCHARGE RATE = 12.75 CFS AT 1.500 HOURS BASIN AREA = .0054 SQ. MI.

* DEVELOPED SITE - 3.43 ACRES

COMPUTE NM HYD ID=2 HYD NO=DEV.SITE DA=0.005359 SQ MI
PER A=0 PER B=0 PER C=29 PER D=71
TP=0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 15.022 CFS UNIT VOLUME = .9987 B = 526.28 P60 = 1.8700
AREA = .003805 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .105867HR TP = .133300HR K/TP RATIO = .794199 SHAPE CONSTANT, N = 4.514851
UNIT PEAK = 4.5252 CFS UNIT VOLUME = .9977 B = 388.14 P60 = 1.8700
AREA = .001554 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=2 CODE=20

HYDROGRAPH FROM AREA DEV.SITE

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	2.000	3.0	4.000	.1	5.999	.1		
.667	.0	2.666	.3	4.666	.1	6.666	.0		
1.333	3.5	3.333	.1	5.333	.1				

RUNOFF VOLUME = 1.68387 INCHES = .4813 ACRE-FEET
PEAK DISCHARGE RATE = 13.51 CFS AT 1.500 HOURS BASIN AREA = .0054 SQ. MI.

* DEVELOPED BASIN 1 - 1.79 ACRES
COMPUTE NM HYD ID=3 HYD NO=BASIN-1 DA=0.002797 SQ MI
PER A=0 PER B=0 PER C=27 PER D=73
TP=0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 8.0612 CFS UNIT VOLUME = .9981 B = 526.28 P60 = 1.8700
AREA = .002042 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .105867HR TP = .133300HR K/TP RATIO = .794199 SHAPE CONSTANT, N = 4.514851
UNIT PEAK = 2.1990 CFS UNIT VOLUME = .9947 B = 388.14 P60 = 1.8700
AREA = .000755 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=3 CODE=20

HYDROGRAPH FROM AREA BASIN-1

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.333	1.9	2.666	.1	4.000	.0	5.333	.0
.667	.0	2.000	1.6	3.333	.0	4.666	.0	5.999	.0

RUNOFF VOLUME = 1.70329 INCHES = .2541 ACRE-FEET
PEAK DISCHARGE RATE = 7.11 CFS AT 1.500 HOURS BASIN AREA = .0028 SQ. MI.

* DEVELOPED BASIN 2 - 1.64 ACRES
COMPUTE NM HYD ID=4 HYD NO=BASIN-2 DA=0.002563 SQ MI
PER A=0 PER B=0 PER C=31 PER D=69
TP=0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 6.9820 CFS UNIT VOLUME = .9978 B = 526.28 P60 = 1.8700
AREA = .001768 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .105867HR TP = .133300HR K/TP RATIO = .794199 SHAPE CONSTANT, N = 4.514851
UNIT PEAK = 2.3135 CFS UNIT VOLUME = .9947 B = 388.14 P60 = 1.8700
AREA = .000795 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=4 CODE=20

HYDROGRAPH FROM AREA BASIN-2

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.333	1.6	2.666	.1	4.000	.0	5.333	.0
.667	.0	2.000	1.4	3.333	.0	4.666	.0	5.999	.0

RUNOFF VOLUME = 1.66445 INCHES = .2275 ACRE-FEET
PEAK DISCHARGE RATE = 6.42 CFS AT 1.500 HOURS BASIN AREA = .0026 SQ. MI.

```
**********************************************************************
* ROUTE DEVELOPED BASIN 1 THROUGH DETENTION POND A TO CHANNEL
* ROUTE THRU (6" PIPE)
**********************************************************************
ROUTE RESERVOIR     ID=5 HYD NO=POND-A-OUT  INFLOW ID=3  CODE=10
                    OUT (CFS)   STORAGE (AC-FT)    ELEV (FT)
                    0           0                    38.0
                    0.945       0.0363               39.0
                    1.337       0.0595               40.0
                    1.638       0.1375               41.0
                    1.743       0.2391               42.0
```

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	38.00	.000	.00
.33	.00	38.00	.000	.00
.67	.00	38.00	.000	.00
1.00	.00	38.00	.000	.00
1.33	1.86	38.22	.008	.21
1.67	3.62	40.72	.116	1.55
2.00	1.60	40.99	.137	1.64
2.33	.34	40.72	.116	1.55
2.67	.14	40.27	.081	1.42
3.00	.06	39.47	.047	1.13
3.33	.04	38.67	.024	.63
3.67	.04	38.35	.013	.33
4.00	.03	38.19	.007	.18
4.33	.03	38.11	.004	.10
4.67	.03	38.07	.003	.07
5.00	.03	38.05	.002	.05
5.33	.04	38.04	.002	.04
5.67	.04	38.04	.002	.04

6.00	.04	38.04	.002	.04
6.33	.00	38.03	.001	.03
6.67	.00	38.02	.001	.02
7.00	.00	38.01	.000	.01
7.33	.00	38.00	.000	.00

PEAK DISCHARGE = 1.635 CFS - PEAK OCCURS AT HOUR 2.00
MAXIMUM WATER SURFACE ELEVATION = 40.990
MAXIMUM STORAGE = .1367 AC-FT INCREMENTAL TIME= .033330HRS

PRINT HYD ID=5 CODE=20

HYDROGRAPH FROM AREA POND-A-OUT

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	2.000	1.6	4.000	.2	5.999	.0		
.667	.0	2.666	1.4	4.666	.1	6.666	.0		
1.333	.2	3.333	.6	5.333	.0	7.333	.0		

RUNOFF VOLUME = 1.70319 INCHES = .2541 ACRE-FEET
PEAK DISCHARGE RATE = 1.64 CFS AT 2.000 HOURS BASIN AREA = .0028 SQ. MI.

****
* ROUTE POND B TO CHANNEL
* ROUTE THRU 3-6" PIPE
****

ROUTE RESERVOIR ID=6 HYD NO=POND-B-OUT INFLOW ID=4 CODE=10

OUT (CFS)	STORAGE (AC-FT)	ELEV (FT)
0	0	35.0
2.01	0.0312	36.0
2.84	0.0582	36.4
4.01	0.0989	37.0

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	35.00	.000	.00
.33	.00	35.00	.000	.00
.67	.00	35.00	.000	.00
1.00	.00	35.00	.000	.00
1.33	1.63	35.20	.006	.40
1.67	3.27	36.59	.071	3.22
2.00	1.41	36.26	.048	2.54
2.33	.31	35.54	.017	1.08
2.67	.12	35.16	.005	.32
3.00	.06	35.06	.002	.11

3.33	.04	35.03	.001	.05
3.67	.03	35.02	.001	.04
4.00	.03	35.02	.000	.03
4.33	.03	35.01	.000	.03
4.67	.03	35.01	.000	.03
5.00	.03	35.01	.000	.03
5.33	.03	35.02	.000	.03
5.67	.03	35.02	.000	.03
6.00	.04	35.02	.001	.03
6.33	.00	35.01	.000	.02
6.67	.00	35.00	.000	.00

PEAK DISCHARGE = 3.216 CFS - PEAK OCCURS AT HOUR 1.67
MAXIMUM WATER SURFACE ELEVATION = 36.593
MAXIMUM STORAGE = .0713 AC-FT INCREMENTAL TIME= .033330HRS

PRINT HYD ID=6 CODE=20

HYDROGRAPH FROM AREA POND-B-OUT

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	2.000	2.5	4.000	.0	5.999	.0		
.667	.0	2.666	.3	4.666	.0	6.666	.0		
1.333	.4	3.333	.1	5.333	.0				

RUNOFF VOLUME = 1.66433 INCHES = .2275 ACRE-FEET
PEAK DISCHARGE RATE = 3.22 CFS AT 1.667 HOURS BASIN AREA = .0026 SQ. MI.

****
* ADD POND A TO POND B FOR TOTAL SITE DISCHARGE
****
ADD HYD ID=7 HYD NO=SITE-OUT ID I=5 ID II=6
PRINT HYD ID=7 CODE=20

HYDROGRAPH FROM AREA SITE-OUT

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	2.000	4.2	4.000	.2	5.999	.1		
.667	.0	2.666	1.7	4.666	.1	6.666	.0		
1.333	.6	3.333	.7	5.333	.1	7.333	.0		

RUNOFF VOLUME = 1.68441 INCHES = .4815 ACRE-FEET
PEAK DISCHARGE RATE = 4.78 CFS AT 1.700 HOURS BASIN AREA = .0054 SQ. MI.

```
**********************************************************************
* OFF SITE BASINS
**********************************************************************
* EXISTING BASIN OS-1 -  0.77 ACRES
COMPUTE NM HYD       ID=8  HYD NO=EX.OS1  DA=0.001203 SQ MI
                     PER A=0  PER B=0  PER C=100  PER D=0
                     TP=0.1333 HR  MASS RAIN=-1

     K =   .105867HR    TP =   .133300HR    K/TP RATIO =   .794199     SHAPE CONSTANT, N =  4.514851
     UNIT PEAK =   3.5029    CFS   UNIT VOLUME =    .9967       B =   388.14      P60 = 1.8700
     AREA =      .001203 SQ MI    IA =    .35000 INCHES    INF =    .83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330

PRINT HYD            ID=8  CODE=20

                                   HYDROGRAPH FROM AREA EX.OS1

     TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
      HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
      .000       .0           .667       .0          1.333       .2          2.000       .3          2.666       .0

    RUNOFF VOLUME =      .99441 INCHES     =        .0638 ACRE-FEET
    PEAK DISCHARGE RATE =       2.22 CFS  AT   1.500 HOURS   BASIN AREA =   .0012 SQ. MI.
```

```
* EXISTING BASIN OS-2 -  0.51 ACRES
COMPUTE NM HYD       ID=9  HYD NO=EX.OS2  DA=0.000797 SQ MI
                     PER A=0  PER B=0  PER C=15  PER D=85
                     TP=0.1333 HR  MASS RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   2.6746    CFS   UNIT VOLUME =    .9949       B =   526.28      P60 = 1.8700
     AREA =      .000677 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330


     K =   .105867HR    TP =   .133300HR    K/TP RATIO =   .794199     SHAPE CONSTANT, N =  4.514851
     UNIT PEAK =   .34811    CFS   UNIT VOLUME =    .9626       B =   388.14      P60 = 1.8700
     AREA =      .000120 SQ MI    IA =    .35000 INCHES    INF =    .83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330

PRINT HYD            ID=9  CODE=20

                                   HYDROGRAPH FROM AREA EX.OS2

     TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
      HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
      .000       .0          1.333       .6          2.666       .0          4.000       .0          5.333       .0
      .667       .0          2.000       .5          3.333       .0          4.666       .0          5.999       .0
```

```
    RUNOFF VOLUME =      1.81982 INCHES      =         .0774 ACRE-FEET
    PEAK DISCHARGE RATE =       2.13 CFS  AT    1.500 HOURS    BASIN AREA =    .0008 SQ. MI.


* EXISTING BASIN OS-3 -  1.03 ACRES
COMPUTE NM HYD       ID=10  HYD NO=EX.OS3  DA=0.001609 SQ MI
                     PER A=0  PER B=0  PER C=100  PER D=0
                     TP=0.1333 HR  MASS RAIN=-1

     K =    .105867HR     TP =    .133300HR     K/TP RATIO =    .794199      SHAPE CONSTANT, N =  4.514851
     UNIT PEAK =    4.6851     CFS    UNIT VOLUME =     .9977        B =    388.14       P60 = 1.8700
     AREA =       .001609 SQ MI     IA =     .35000 INCHES     INF =     .83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033330

PRINT HYD            ID=10  CODE=20

                                   HYDROGRAPH FROM AREA EX.OS3

     TIME       FLOW           TIME       FLOW           TIME       FLOW           TIME       FLOW           TIME       FLOW
      HRS        CFS            HRS        CFS            HRS        CFS            HRS        CFS            HRS        CFS
     .000         .0           .667         .0          1.333         .2          2.000         .4          2.666         .0

    RUNOFF VOLUME =       .99441 INCHES      =         .0853 ACRE-FEET
    PEAK DISCHARGE RATE =       2.97 CFS  AT    1.500 HOURS    BASIN AREA =    .0016 SQ. MI.


* EXISTING BASIN OS-4 -  1.04 ACRES
COMPUTE NM HYD       ID=11  HYD NO=EX.OS4  DA=0.001625 SQ MI
                     PER A=0  PER B=0  PER C=15  PER D=85
                     TP=0.1333 HR  MASS RAIN=-1

     K =    .072649HR     TP =    .133300HR     K/TP RATIO =    .545000      SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =    5.4532     CFS    UNIT VOLUME =     .9973        B =    526.28       P60 = 1.8700
     AREA =       .001381 SQ MI     IA =     .10000 INCHES     INF =     .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033330


     K =    .105867HR     TP =    .133300HR     K/TP RATIO =    .794199      SHAPE CONSTANT, N =  4.514851
     UNIT PEAK =     .70975     CFS    UNIT VOLUME =     .9823        B =    388.14       P60 = 1.8700
     AREA =       .000244 SQ MI     IA =     .35000 INCHES     INF =     .83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033330

PRINT HYD            ID=11  CODE=20

                                   HYDROGRAPH FROM AREA EX.OS4

     TIME       FLOW           TIME       FLOW           TIME       FLOW           TIME       FLOW           TIME       FLOW
```

HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
.000	.0	1.333	1.2	2.666	.1	4.000	.0	5.333	.0
.667	.0	2.000	1.0	3.333	.0	4.666	.0	5.999	.0

RUNOFF VOLUME = 1.81982 INCHES = .1577 ACRE-FEET
PEAK DISCHARGE RATE = 4.33 CFS AT 1.500 HOURS BASIN AREA = .0016 SQ. MI.

```
* DEVELOPED BASIN OS-1 -  0.77 ACRES
COMPUTE NM HYD      ID=12  HYD NO=DEV.OS1  DA=0.001203 SQ MI
                    PER A=0  PER B=0  PER C=15  PER D=85
                    TP=0.1333 HR  MASS RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   4.0371    CFS   UNIT VOLUME =    .9965       B =   526.28      P60 = 1.8700
     AREA =      .001023 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330


     K =   .105867HR    TP =   .133300HR    K/TP RATIO =   .794199     SHAPE CONSTANT, N =  4.514851
     UNIT PEAK =   .52543    CFS   UNIT VOLUME =    .9756       B =   388.14      P60 = 1.8700
     AREA =      .000180 SQ MI    IA =    .35000 INCHES    INF =    .83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330

PRINT HYD           ID=12  CODE=20
```

HYDROGRAPH FROM AREA DEV.OS1

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.333	.9	2.666	.1	4.000	.0	5.333	.0
.667	.0	2.000	.8	3.333	.0	4.666	.0	5.999	.0

RUNOFF VOLUME = 1.81982 INCHES = .1168 ACRE-FEET
PEAK DISCHARGE RATE = 3.21 CFS AT 1.500 HOURS BASIN AREA = .0012 SQ. MI.

```
* DEVELOPED BASIN OS-2 -  0.51 ACRES
COMPUTE NM HYD      ID=13  HYD NO=DEV.OS2  DA=0.000797 SQ MI
                    PER A=0  PER B=0  PER C=15  PER D=85
                    TP=0.1333 HR  MASS RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   2.6746    CFS   UNIT VOLUME =    .9949       B =   526.28      P60 = 1.8700
     AREA =      .000677 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330
```

K = .105867HR TP = .133300HR K/TP RATIO = .794199 SHAPE CONSTANT, N = 4.514851
UNIT PEAK = .34811 CFS UNIT VOLUME = .9626 B = 388.14 P60 = 1.8700
AREA = .000120 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=13 CODE=20

HYDROGRAPH FROM AREA DEV.OS2

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.333	.6	2.666	.0	4.000	.0	5.333	.0
.667	.0	2.000	.5	3.333	.0	4.666	.0	5.999	.0

RUNOFF VOLUME = 1.81982 INCHES = .0774 ACRE-FEET
PEAK DISCHARGE RATE = 2.13 CFS AT 1.500 HOURS BASIN AREA = .0008 SQ. MI.

* DEVELOPED BASIN OS-3 - 1.03 ACRES
COMPUTE NM HYD ID=14 HYD NO=DEV.OS3 DA=0.001609 SQ MI
PER A=0 PER B=0 PER C=15 PER D=85
TP=0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 5.3996 CFS UNIT VOLUME = .9973 B = 526.28 P60 = 1.8700
AREA = .001368 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .105867HR TP = .133300HR K/TP RATIO = .794199 SHAPE CONSTANT, N = 4.514851
UNIT PEAK = .70276 CFS UNIT VOLUME = .9823 B = 388.14 P60 = 1.8700
AREA = .000241 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=14 CODE=20

HYDROGRAPH FROM AREA DEV.OS3

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.333	1.2	2.666	.1	4.000	.0	5.333	.0
.667	.0	2.000	1.0	3.333	.0	4.666	.0	5.999	.0

RUNOFF VOLUME = 1.81982 INCHES = .1562 ACRE-FEET
PEAK DISCHARGE RATE = 4.28 CFS AT 1.500 HOURS BASIN AREA = .0016 SQ. MI.

* DEVELOPED BASIN OS-4 - 1.04 ACRES

```
COMPUTE NM HYD       ID=15  HYD NO=DEV.OS4  DA=0.001625 SQ MI
                     PER A=0  PER B=0  PER C=15  PER D=85
                     TP=0.1333 HR  MASS RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   5.4532    CFS   UNIT VOLUME =    .9973       B =   526.28      P60 = 1.8700
     AREA =      .001381 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330


     K =   .105867HR    TP =   .133300HR    K/TP RATIO =   .794199     SHAPE CONSTANT, N =  4.514851
     UNIT PEAK =   .70975    CFS   UNIT VOLUME =    .9823       B =   388.14      P60 = 1.8700
     AREA =      .000244 SQ MI    IA =    .35000 INCHES    INF =    .83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330

PRINT HYD            ID=15  CODE=20

                                  HYDROGRAPH FROM AREA DEV.OS4

     TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
      HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
      .000       .0          1.333       1.2         2.666        .1         4.000        .0         5.333        .0
      .667       .0          2.000       1.0         3.333        .0         4.666        .0         5.999        .0

    RUNOFF VOLUME =      1.81982 INCHES      =         .1577 ACRE-FEET
     PEAK DISCHARGE RATE =       4.33 CFS  AT   1.500 HOURS   BASIN AREA =    .0016 SQ. MI.

FINISH

     NORMAL PROGRAM FINISH          END TIME (HR:MIN:SEC) = 16:28:36
```

G-10/D29B

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Planning Department
Transportation Development Services Section

January 14, 2004

A. Miguel Trujillo, Registered Architect
8504 Spain Road NE
Albuquerque, NM 87111

Re: Certification Submittal for Final Building Certificate of Occupancy for Office/Warehouse Project, [G-10 / D29B]
3021 Todos Santos St NW
Architect's Stamp Dated 01/12/04

Dear Mr. Trujillo:

The TCL / Letter of Certification submitted on January 14, 2004 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

Sincerely,

Nilo E. Salgado-Fernandez, P.E.
Senior Traffic Engineer
Development and Building Services
Planning Department

c: Engineer
Hydrology file
CO Clerk

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

MIGUEL TRUJILLO & ASSOCIATES

Architecture
8504 Spain Road NE

Planning
Albuquerque, NM 87111

Construction Management
Tele.& Fax. #s 797-7663
Cellular # 410-4776

1-16 | D29B

January 13, 2004

City of Albuquerque
Planning Department
600 2nd Street N.W.
Albuquerque, New Mexico 87102

Transportation Devlopment

Subject: Certification of Site Development

Re: Offices/ Warehouse Project
3021 Todos Santos Street NW

RECEIVED
JAN 14 2004
HYDROLOGY SECTION

Att: Mr. Wilfred Gallegos

Mr. Gallegos:

Attached please find a current Site Plan of the above captioned project as certified by my office prior to the end of year 2003, but unable to submit until now.

I personally conducted the on-site review and physical measurements of all the site improvements affected by the construction of said project. The project was on-going but not completed until late 2003.

I am herein providing your office a copy with all graphic changes implemented on the original drawing to the best of my ability based on what measurements and on the reproduction of same.

I will forward a copy on to the property owner or owners for their files and con-currance with the on-site improvements.

Respectfully,

A. Miguel Trujillo, Architect

XC: Larry Koleck, Allstate Mechanical

5-10-12
cc

Hydrology Comments for EPC Hearing 6/14/12

1004776

Amended Site Plan for Building Permit

Please expand the discussion on the ponding requirements, including calculations, for this site with the DRB submittal

CITY OF
Albuquerque

November 13, 1996

Martin J. Chávez, Mayor

Jeff Mortensen
Jeff Mortensen & Assoc.
6010-B Midway Park Blvd. NE
Albuquerque, NM 87109

RE: WESTSIDE BAPTIST CHURCH (G10-D29B). UPDATED GRADING AND DRAINAGE PLAN FOR GRADING PERMIT APPROVAL. ENGINEER'S STAMP DATED NOVEMBER 6, 1996.

Dear Mr. Mortensen:

Based on the information provided on your November 7, 1996 submittal, the above referenced project is approved for Grading Permit.

Please povide this office an Engineer's Certification upon project completion.

If I can be of further assistance, please feel free to contact me at 768-3622.

Sincerely,

Lisa Ann Manwill
Engineering Assoc./Hyd.

c: Andrew Garcia
File

C01586

DRAINAGE INFORMATION SHEET

PROJECT TITLE: WESTSIDE BAPTIST CHURCH ZONE ATLAS/DRNG. FILE #: G10/029B

DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: LOT 12, VOLCANO BUSINESS CENTER

CITY ADDRESS: 3021 TODOS SANTOS NW

ENGINEERING FIRM: JEFF MORTENSEN & ASSOC. CONTACT: JEFF MORTENSEN

ADDRESS: 6010-B MIDWAY PARK BLVD NE PHONE: 345-4250

OWNER: WESTSIDE BAPTIST CHURCH CONTACT: LARRY KOLICK

ADDRESS: 3021 TODOS SANTOS NW PHONE: 839-4444

ARCHITECT: MIGUEL TRUJILLO CONTACT: SAME

ADDRESS: 8504 SPAIN RD NE PHONE: 292-9654

SURVEYOR: JEFF MORTENSEN & ASSOC CONTACT: JEFF MORTENSEN

ADDRESS: 6010-B MIDWAY PARK BLVD NE PHONE: 345-4250

CONTRACTOR: NOT KNOWN CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT
X DRAINAGE PLAN
___ CONCEPTUAL GRADING & DRAINAGE PLAN
X GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERTIFICATION
X OTHER UPDATE

PRE-DESIGN MEETING:

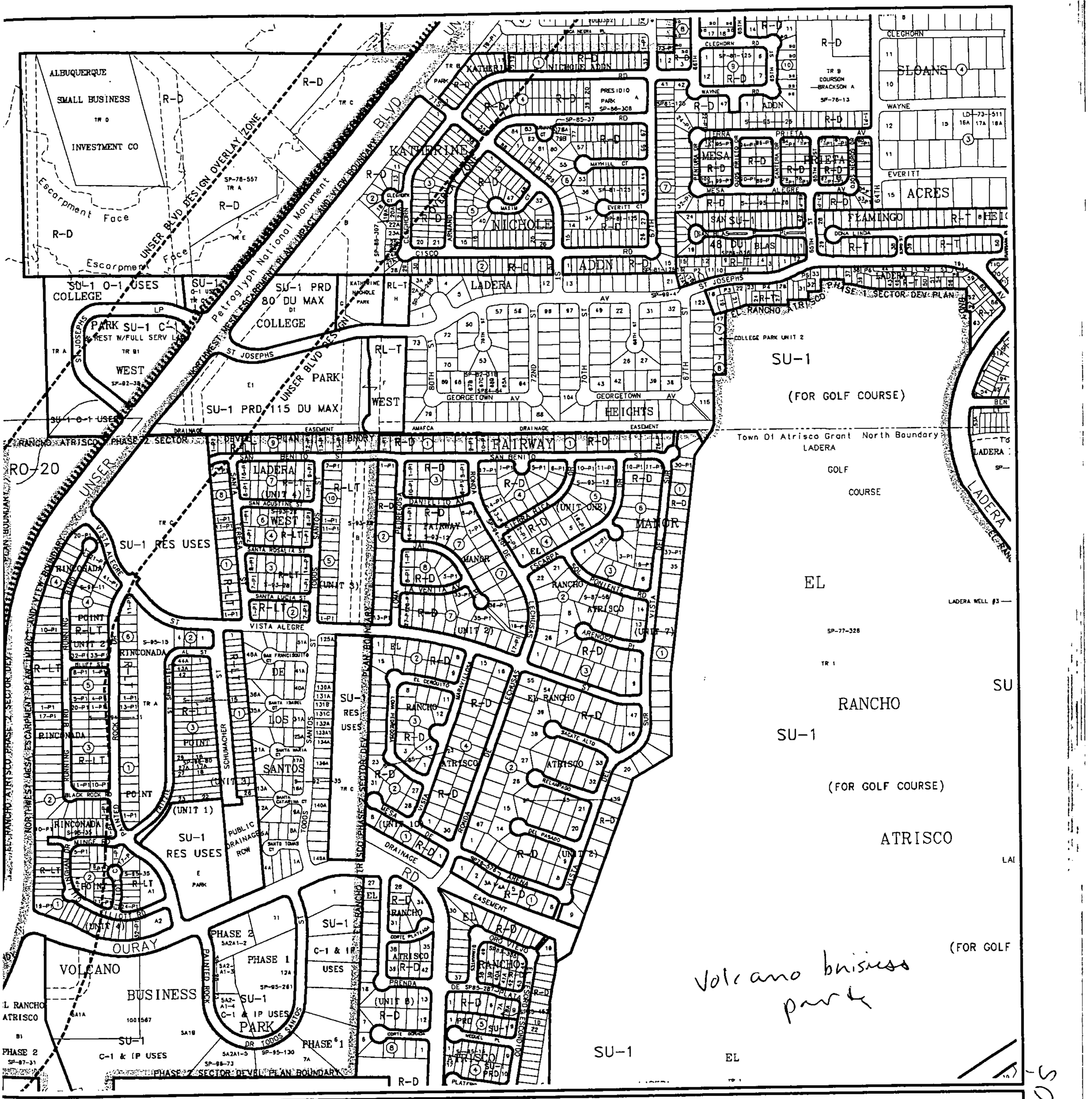
X YES (BERNIE MONTOYA)
___ NO
___ COPY PROVIDED

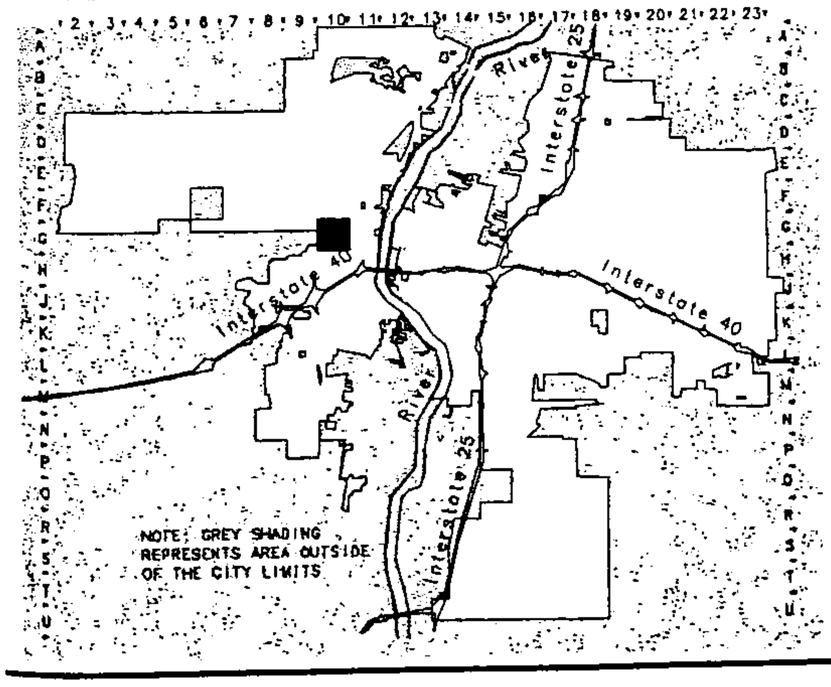
CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL
___ PRELIMINARY PLAT APPROVAL
___ S. DEV. PLAN FOR SUB'D. APPROVAL
___ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
___ SECTOR PLAN APPROVAL
___ FINAL PLAT APPROVAL
___ FOUNDATION PERMIT APPROVAL
___ BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
✓ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ S.A.D. DRAINAGE REPORT
___ DRAINAGE REQUIREMENTS
___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 11-07-96

BY: JEFFREY G. MORTENSEN





CITY OF
Albuquerque

Albuquerque Geographic Information System
PLANNING DEPARTMENT

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GRAPHIC SCALE IN FEET
250 0 750 1000

Zone Atlas Page

G-10-Z

Map Amended through April 03, 2002

Volcano business park

updated in the 2000's

Mortenson 90's

'ILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Ken Schultz
Mayor

UTILITY DEVELOPMENT DIVISION
HYDROLOGY SECTION
(505) 768-2650

February 13, 1987

Jeff Mortensen
Tom Mann & Associates, Inc.
811 Dallas, NE
Albuquerque, New Mexico 87110

RE: REVISED DRAINAGE PLAN FOR LOT 12, VOLCANO BUSINESS PARK
(G-10/D29E) ENGINEER'S STAMP DATED FEBRUARY 4, 1987

Dear Jeff:

Based on the information provided on your resubmittal of February 12, 1987, revisions as shown are acceptable.

Please make sure that the contractor is provided with the revised plan, if the building permit has already been issued. If the building permit has not yet been issued, please attach a copy of this revised plan to the construction sets prior to sign-off by Hydrology.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Roger A Green
For Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj

PROJECT TITLE: Lot 12 Volcano Bus. Park ZONE ATLAS/DRNG. FILE #: G-10/D

LEGAL DESCRIPTION: Lot. 12 · Volcano Bus. Park

CITY ADDRESS: 2909 Todos. Santos NW

ENGINEERING FIRM: Tom Mann & Assoc CONTACT: Steve Schroll

ADDRESS: 814 Dallas NE PHONE: 265-5611

OWNER: Westland Dev. Corp. CONTACT: Phillip Clark.

ADDRESS: 401 Coors Blvd NW PHONE: 831 9600

ARCHITECT: Contact Westland Dev. CONTACT:

ADDRESS: PHONE:

SURVEYOR: Not available CONTACT:

ADDRESS: PHONE:

CONTRACTOR: Not available CONTACT:

ADDRESS: PHONE:

PRE-DESIGN MEETING:

____ YES

_X_ NO *

____ COPY OF CONFERENCE RECAP SHEET PROVIDED

RECEIVED
FEB 05 1987
HYDROLOGY SECTION

DRB NO. _____

EPC NO. _____

PROJ. NO. _____

* Drainage Plan in accordance with approved Master Drainage Study.

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT

_X_ DRAINAGE PLAN

____ CONCEPTUAL GRADING & DRAINAGE PLAN

_X_ GRADING PLAN

____ EROSION CONTROL PLAN

____ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APPROVAL

____ PRELIMINARY PLAT APPROVAL

____ SITE DEVELOPMENT PLAN APPROVAL

____ FINAL PLAT APPROVAL

_X_ BUILDING PERMIT APPROVAL

____ FOUNDATION PERMIT APPROVAL

____ CERTIFICATE OF OCCUPANCY APPROVAL

____ ROUGH GRADING PERMIT APPROVAL

____ GRADING/PAVING PERMIT APPROVAL

_X_ OTHER *revision (SPECIFY)

* Note additional fill material placed at south end.

DATE SUBMITTED: 12/9/86 2/4/86

BY: Steven L. Schroll

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 15, 1987

Jeff Mortensen
Tom Mann & Associates, Inc.
811 Dallas, NE
Albuquerque, New Mexico 87110

RE: REVISED DRAINAGE PLAN FOR LOT 12, VOLCANO BUSINESS PARK
(G-10/D29B) ENGINEER'S STAMP DATED DECEMBER 31, 1986

Dear Jeff:

Based on the information provided on your resubmittal of January 2, 1987, revisions as indicated are acceptable. If the building permit has already been issued, make sure that the contractor is provided with the revised plan.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Bernie J. Montoya

Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj

01581

PROJECT TITLE: Lot 12 Volcano Bus. Park ZONE ATLAS/DRNG. FILE #: G-10-D29B

LEGAL DESCRIPTION: Lot. 12 · Volcano Bus. Park

CITY ADDRESS: 2909 Todos. Santos NW

ENGINEERING FIRM: Tom Mann & Assoc CONTACT: Steve Schroll

ADDRESS: 814 Dallas NE PHONE: 265-5611

OWNER: Westland Dev. Corp. CONTACT: Phillip Clark.

ADDRESS: 401 Coors Blvd NW PHONE: 831 9600

ARCHITECT: Contact . Westland Dev. CONTACT:

ADDRESS: PHONE:

SURVEYOR: Not available CONTACT:

ADDRESS: PHONE:

CONTRACTOR: Not available CONTACT:

ADDRESS: PHONE:

RECEIVED
JAN 2 1987
HYDROLOGY SECTION

PRE-DESIGN MEETING:

___ YES
_X_ NO *
___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO.
EPC NO.
PROJ. NO.

* Drainage Plan in accordance with approved Master Drainage Study.

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT
_X_ DRAINAGE PLAN
___ CONCEPTUAL GRADING & DRAINAGE PLAN
_X_ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERTIFICATION

* Revised 12/30/86

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL
___ PRELIMINARY PLAT APPROVAL
___ SITE DEVELOPMENT PLAN APPROVAL
___ FINAL PLAT APPROVAL
_X_ BUILDING PERMIT APPROVAL
___ FOUNDATION PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ ROUGH GRADING PERMIT APPROVAL
___ GRADING/PAVING PERMIT APPROVAL
_X_ OTHER Revision (SPECIFY)

DATE SUBMITTED: 12/9/86

BY: Steven L. Schroll

WESTLAND DEVELOPMENT CO., INC.
401 Coors Blvd. N.W., Albuquerque, New Mexico 87105
Phone (505) 831-9600

December 24, 1986

Mr. Bernie Montoya
Public Works Department
Utility Development - Hydrology Section
PO Box 1293
Albuquerque, NM 87103

SUBJECT: Volcano Business Park - Lot 12
Offsite Grading; G10

Dear Mr. Montoya:

Tom Mann & Associates has informed Westland that you have requested concurrence of minimal over lot grading on Lots 14, 15 & 16. Westland is the owner of the entire subject park and may it stand for the record that minimal grading in the future is permissable on any lot within Volcano Business Park.

If you have any further questions, please feel free to call me at the above number.

Sincerely,

Philip W. Clark,
Project Engineer

PWC:ml

cc: file

RECEIVED
DEC 29 1986
HYDROLOGY SECTION

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

December 24, 1986

Jeff Mortensen
Tom Mann & Associates, Inc.
811 Dallas, NE
Albuquerque, New MExico 87110

RE: DRAINAGE PLAN FOR LOT 12 VOLCANO BUSINESS PARK (G-10/D29B)
ENGINEER'S STAMP DATED DECEMBER 6, 1986

Dear Jeff:

Based on the information provided on your submittal of December 9, 1986, the above referenced drainage plan is approved for Building Permit.

Please be advised that I will need a letter from Westland Development Company for the grading outside of the property limits.

Please attach a copy of this approved plan to the construction sets prior to Hydrology sign-off. Also, please advise your client that they will need a separate permit for the construction within public right-of-way.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Roger A Green

For Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj

CITY OF ALBUQUERQUE

ALBUQUERQUE, NEW MEXICO

INTER-OFFICE CORRESPONDENCE REF. NO._____

December 24, 1986

TO: Tom Aragon, Transportation System Division

FROM: Fred J. Aguirre, Hydrologist; Engineering Division/PWD Roger Green for.

SUBJECT: PRIVATE DRAINAGE FACILITIES WITHIN PUBLIC RIGHTS-OF-WAY/EASEMENT
VOLCANO BUSINESS PARK LOT 12(G-10/D29B)

Transmitted herewith, is a copy of the approved drainage plan for the referenced projects incorporating the S.O. 19 design.

In accordance with the new process, this plan is being submitted to you for permitting and inspection. Please provide this section with a signed-off copy per the signature block upon construction and acceptance by your office.

As you are aware, the signed-off S.O. 19 is required by this office for Certificate of Occupancy release; hence your expeditious processing of this plan would be greatly appreciated and would avoid any unnecessary delay in the release of the Certificate of Occupancy.

Thank you for your cooperation, and if you should have any questions and/or comments regarding the process, please feel free to call me at 768-2650.

FJA/bsj

Enclosures

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Lot 12, Volcano Bus. Park ZONE ATLAS/DRNG. FILE #: G-10/D29B

LEGAL DESCRIPTION: Lot 12 Volcano Bus. Park

CITY ADDRESS: 2909 Todos Santos NW

ENGINEERING FIRM: Tom Mann & Assoc CONTACT: Steve Schroll

ADDRESS: 814 Dallas NE PHONE: 265-5611

OWNER: Westland Dev. Corp. CONTACT: Phillip Clark

ADDRESS: 401 Coors Blvd NW PHONE: 831 9600

ARCHITECT: contact Westland Dev. CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: Not available CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: Not available CONTACT: _____

ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING:

____ YES

X NO *

____ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. 85-319-2 7/9/85

EPC NO. _____

PROJ. NO. _____

* Drainage Plan in accordance with approved Master Drainage Study.

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT

X DRAINAGE PLAN

____ CONCEPTUAL GRADING & DRAINAGE PLAN

X GRADING PLAN

____ EROSION CONTROL PLAN

____ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APPROVAL

____ PRELIMINARY PLAT APPROVAL

____ SITE DEVELOPMENT PLAN APPROVAL

____ FINAL PLAT APPROVAL

X BUILDING PERMIT APPROVAL

____ FOUNDATION PERMIT APPROVAL

____ CERTIFICATE OF OCCUPANCY APPROVAL

____ ROUGH GRADING PERMIT APPROVAL

____ GRADING/PAVING PERMIT APPROVAL

____ OTHER _____ (SPECIFY)

DATE SUBMITTED: 12/9/86

BY: Steven L. Schroll

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Ken Schultz
Mayor

UTILITY DEVELOPMENT DIVISION
HYDROLOGY SECTION
(505) 768-2650

February 13, 1987

Jeff Mortensen
Tom Mann & Associates, Inc.
811 Dallas, NE
Albuquerque, New Mexico 87110

RE: REVISED DRAINAGE PLAN FOR LOT 12, VOLCANO BUSINESS PARK
(G-10/D29E) ENGINEER'S STAMP DATED FEBRUARY 4, 1987

Dear Jeff:

Based on the information provided on your resubmittal of February 12, 1987, revisions as shown are acceptable.

Please make sure that the contractor is provided with the revised plan, if the building permit has already been issued. If the building permit has not yet been issued, please attach a copy of this revised plan to the construction sets prior to sign-off by Hydrology.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Roger A Green
For Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 15, 1987

Jeff Mortensen
Tom Mann & Associates, Inc.
811 Dallas, NE
Albuquerque, New Mexico 87110

RE: REVISED DRAINAGE PLAN FOR LOT 12, VOLCANO BUSINESS PARK
(G-10/D29B) ENGINEER'S STAMP DATED DECEMBER 31, 1986

Dear Jeff:

Based on the information provided on your resubmittal of January 2, 1987, revisions as indicated are acceptable. If the building permit has already been issued, make sure that the contractor is provided with the revised plan.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Bernie J. Montoya

Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

December 24, 1986

Jeff Mortensen
Tom Mann & Associates, Inc.
811 Dallas, NE
Albuquerque, New MExico 87110

RE: DRAINAGE PLAN FOR LOT 12 VOLCANO BUSINESS PARK (G-10/D29B)
ENGINEER'S STAMP DATED DECEMBER 6, 1986

Dear Jeff:

Based on the information provided on your submittal of December 9, 1986, the above referenced drainage plan is approved for Building Permit.

Please be advised that I will need a letter from Westland Development Company for the grading outside of the property limits.

Please attach a copy of this approved plan to the construction sets prior to Hydrology sign-off. Also, please advise your client that they will need a separate permit for the construction within public right-of-way.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Roger A Green

For Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj