# CITY OF ALBUQUERQUE

*Planning Department*
Suzan Lubar, Director

*Mayor Richard J. Berry*

October 15, 2015

Diane Hoelzer, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, New Mexico 87199

RE: **Sawmill Crossing Unit 2**
**Grading and Drainage Plan**
**Engineers Stamp Date 12/5/14 (H13D057)**
**Certification Date 10/7/15**

Dear Ms. Hoelzer,

Based upon the information provided in your submittal received 10/8/2015, the above referenced Certification for the concrete channel's in Sawmill Crossing Unit 2 is acceptable.

If you have any questions, please contact me at 924-3999 or Rudy Rael at 924-3977.

Sincerely,

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

RR/RH
C: 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:** Sawmill Crossing Unit 2 Building Permit # _____ City Drainage #. H13 / D057

DRB# 1009046 EPC# _____ Work Order#: 617588

Legal Description: Sawmill Crossing Unit 2

City Address: Aspen Avenue N W

**Engineering Firm:** MARK GOODWIN AND ASSOCIATES, PA Contact: Diane Hoelzer, PE

Address: PO BOX 90606, ABQ, NM 87199

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

**Owner:** Sawmill Crossing LLC Contact: Keith Cheshire, Jr

Address: 7400 Hancock Court NE

Phone#. 797-1134 Fax# _____ E-mail: _____

**Architect:** _____ Contact: _____

Address: _____

Phone# _____ Fax# _____ E-mail: _____

**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

X GRADING PLAN

_____ DRAINAGE MASTER PLAN

_____ DRAINAGE REPORT

_____ CLOMR/LOMR

_____ TRAFFIC CIRCULATION LAYOUT (TCL)

_____ TRAFFIC IMPACT STUDY (TIS)

_____ EROSION & SEDIMENT CONTROL PLAN (ESC)

X OTHER (SPECIFY) Channel Construction Certification

IS THIS A RESUBMITTAL?. _____ Yes _____ No

**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
OCT 0 8 2015
LAND DEVELOPMENT SECTION

DATE SUBMITTED: October 8, 2015 By: Diane Hoelzer, PE

---

COA STAFF ELECTRONIC SUBMITTAL RECEIVED ___

# CITY OF ALBUQUERQUE

*Planning Department*
Suzan Lubar, Director

*Mayor Richard J. Berry*

October 15, 2015

Diane Hoelzer, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, New Mexico 87199

RE: **Sawmill Crossing Unit 2**
**Grading and Drainage Plan**
**Engineers Stamp Date 12/5/14 (H13D057)**
**Certification Date 10/7/15**

Dear Ms. Hoelzer,

Based upon the information provided in your submittal received 9/10/2015, the above referenced Certification for Sawmill Crossing Unit 2 is acceptable for Release of Financial Guarantee.

If you have any questions, please contact me at 924-3999 or Rudy Rael at 924-3977.

Sincerely,

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

RR/RH
C: File

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

**DRAINAGE AND TRANSPORTATION INFORMATION SHEET**
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing Unit 2 ZONE MAP/DRG. FILE: **H13 / D057**
DRB#: 1009046 EPC#: WORK ORDER#: 617588

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS: south of Aspen Avenue, east of 12th street

ENGINEERING FIRM: MARK GOODWIN & ASSOCIATES, PA CONTACT: Diane Hoelzer
ADDRESS: PO Box 90606 PHONE: 828-2200
CITY, STATE: Albuquerque, NM ZIP CODE: 87199

OWNER: Sawmill Crossing LLC CONTACT: Keith Cheshire, Jr
ADDRESS: 7400 Hancock Court, NE PHONE: 797-1134
CITY, STATE: ZIP CODE: 87109

ARCHITECT: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

SURVEYOR: Aldrich Land Surveying CONTACT: Tim Aldrich
ADDRESS: PHONE: 328-3988
CITY, STATE: ZIP CODE:

CONTRACTOR: CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

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

CHECK TYPE OF APPROVAL SOUGHT:
X 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
_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ OTHER (SPECIFY)

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

RECEIVED
SEP 10 2015
LAND DEVELOPMENT SECTION

SUBMITTED BY: Diane Hoelzer, PE DATE: September 10, 2015

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 define 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

August 26, 2015

Diane Hoelzer, PE
Mark Goodwin & Associates, PA.
PO Box 90606
Albuquerque, NM 87199

**Re: Sawmill Crossing Unit 2**
**Pad Certification for entire subdivision**
**Engineer's Stamp Date 12/5/14 (H13D057)**
**Certification Date 8/21/15**

Dear Ms. Hoelzer,

Based upon the information provided in your submittal received 8/21/2015, the above referenced Certification is acceptable for building permit.

If you have any questions, you can contact me at 924-3695 or Totten Elliott at 924-3982.

Sincerely,

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

TE/RH
C: email

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

**DRAINAGE AND TRANSPORTATION INFORMATION SHEET**
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing Unit 2 ZONE MAP/DRG. FILE: **H13 / D057**
DRB#: 1009046 EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS: south of Aspen Avenue, east of 12th street

ENGINEERING FIRM: MARK GOODWIN & ASSOCIATES, PA CONTACT: Diane Hoelzer
ADDRESS: PO Box 90606 PHONE: 828-2200
CITY, STATE: Albuquerque, NM ZIP CODE: 87199

OWNER: Sawmill Crossing LLC CONTACT: Keith Cheshire, Jr
ADDRESS: 7400 Hancock Court, NE PHONE: 797-1134
CITY, STATE: _____ ZIP CODE: 87109

ARCHITECT: N/A CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

SURVEYOR: Aldrich Land Surveying CONTACT: Tim Aldrich
ADDRESS: _____ PHONE: 328-3988
CITY, STATE: _____ ZIP CODE: _____

CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

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

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
_____ BUILDING PERMIT APPROVAL
X_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ OTHER (SPECIFY)

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

RECEIVED
AUG 21 2015
LAND DEVELOPMENT SECTION

SUBMITTED BY: Diane Hoelzer, PE DATE: August 21, 2015

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 define 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

April 21, 2015

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

**Re: Sawmill Crossing Unit 2, Grading Certification-Lots 19-22, 59-63**
**Engineer's Stamp dated: 12-5-14, (H13D057)**
**Certification dated: 4-9-15**

Dear Ms. Hoelzer,

Based upon the information provided in the Certification received 4-9-15, and a meeting with Keith Cheshire on 4-21-15, the above referenced certification is acceptable to allow for Building Permits on the above noted lots.

However prior to Certificates of Occupancy, the Close-Out Package must be submitted and accepted.

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

Sincerely,

Rita T. Harmon, P.E.
Senior Engineer, Hydrology
Development and Building Services

C: e-mail

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

# CITY OF ALBUQUERQUE

April 17, 2015

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

**Re: Sawmill Crossing Unit 2, Grading Certification-Final**
**Engineer's Stamp dated: 12-5-14, (H13D057)**
**Certification dated: 4-9-15**

Dear Ms. Hoelżer,

After a site visit and based upon the information provided in the Certification received 4-9-15, the above referenced certification is not acceptable to allow final building inspections/~~Certificates of Occupancy~~ Pad Cuts on lots in Unit 2. The curb and gutter has not been installed, nor the streets and there are no pads for lots 61-63,

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

Sincerely,

Rita T. Harmon, P.E.
Senior Engineer, Hydrology
Development and Building Services

No Special note added
Temporary swales were rough graded in where channels will be constructed during building permit.

C: e-mail

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

**DRAINAGE AND TRANSPORTATION INFORMATION SHEET**
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing Unit 2 ZONE MAP/DRG. FILE: **H13 / D057**
DRB#: 1009046 EPC#: WORK ORDER#:

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS: south of Aspen Avenue, east of 12th street

ENGINEERING FIRM: MARK GOODWIN & ASSOCIATES, PA
ADDRESS: PO Box 90606
CITY, STATE: Albuquerque, NM
CONTACT: Diane Hoelzer
PHONE: 828-2200
ZIP CODE: 87199

OWNER: Sawmill Crossing LLC
ADDRESS: 7400 Hancock Court, NE
CITY, STATE:
CONTACT: Keith Cheshire, Jr
PHONE: 797-1134
ZIP CODE: 87109

ARCHITECT: N/A
ADDRESS:
CITY, STATE:
CONTACT:
PHONE:
ZIP CODE:

SURVEYOR:
ADDRESS:
CITY, STATE:
CONTACT:
PHONE:
ZIP CODE:

CONTRACTOR:
ADDRESS:
CITY, STATE:
CONTACT:
PHONE:
ZIP CODE:

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
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X_____ ENGINEER'S CERT (HYDROLOGY)
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_____ ENGINEER/ARCHITECT (DRB SITE PLAN)
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_____ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ OTHER (SPECIFY)

As Varified

RECEIVED
APR 09 2015
LAND DEVELOPMENT SECTION

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

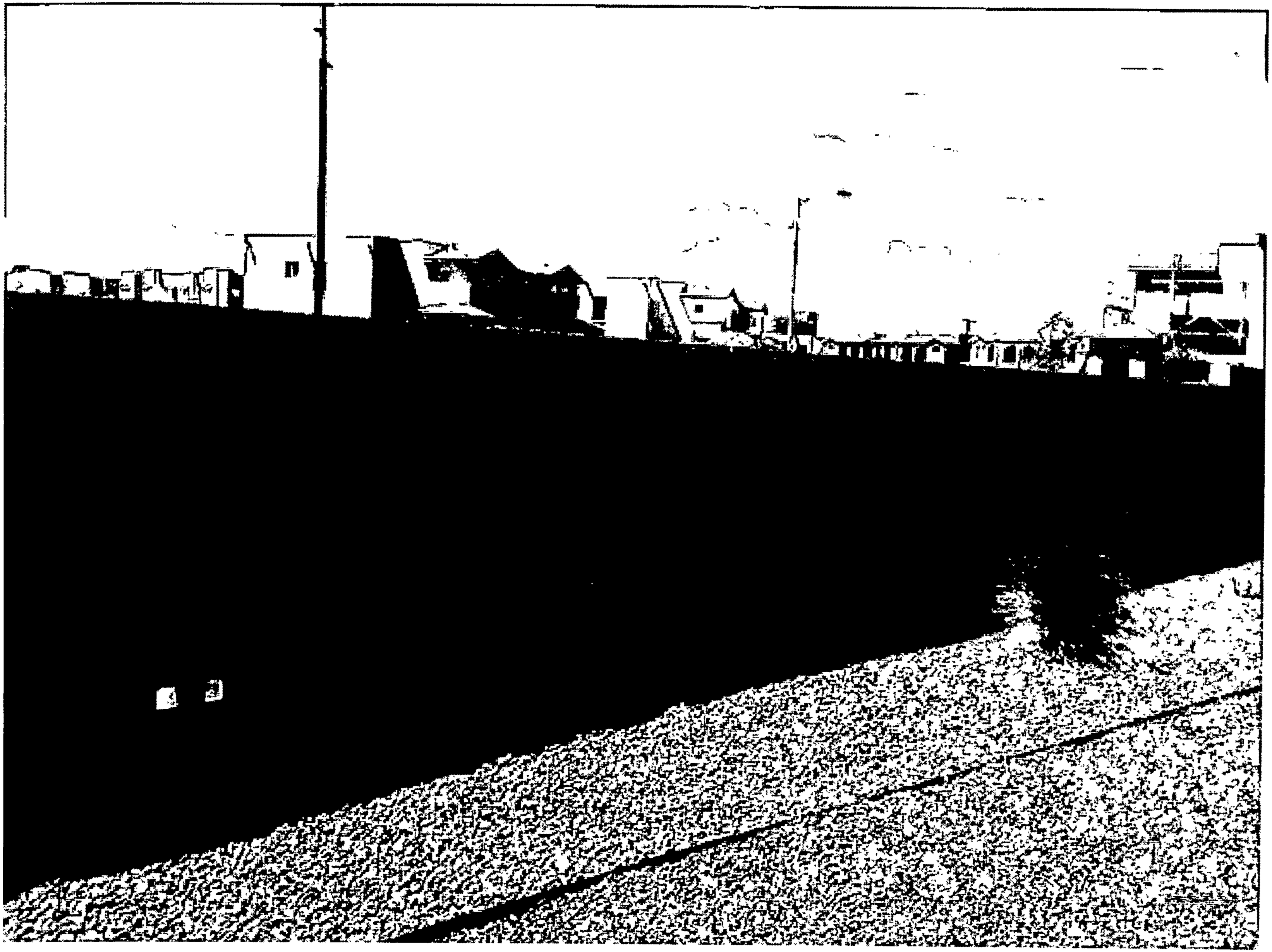
SUBMITTED BY: Diane Hoelzer, PE DATE: April 9, 2015

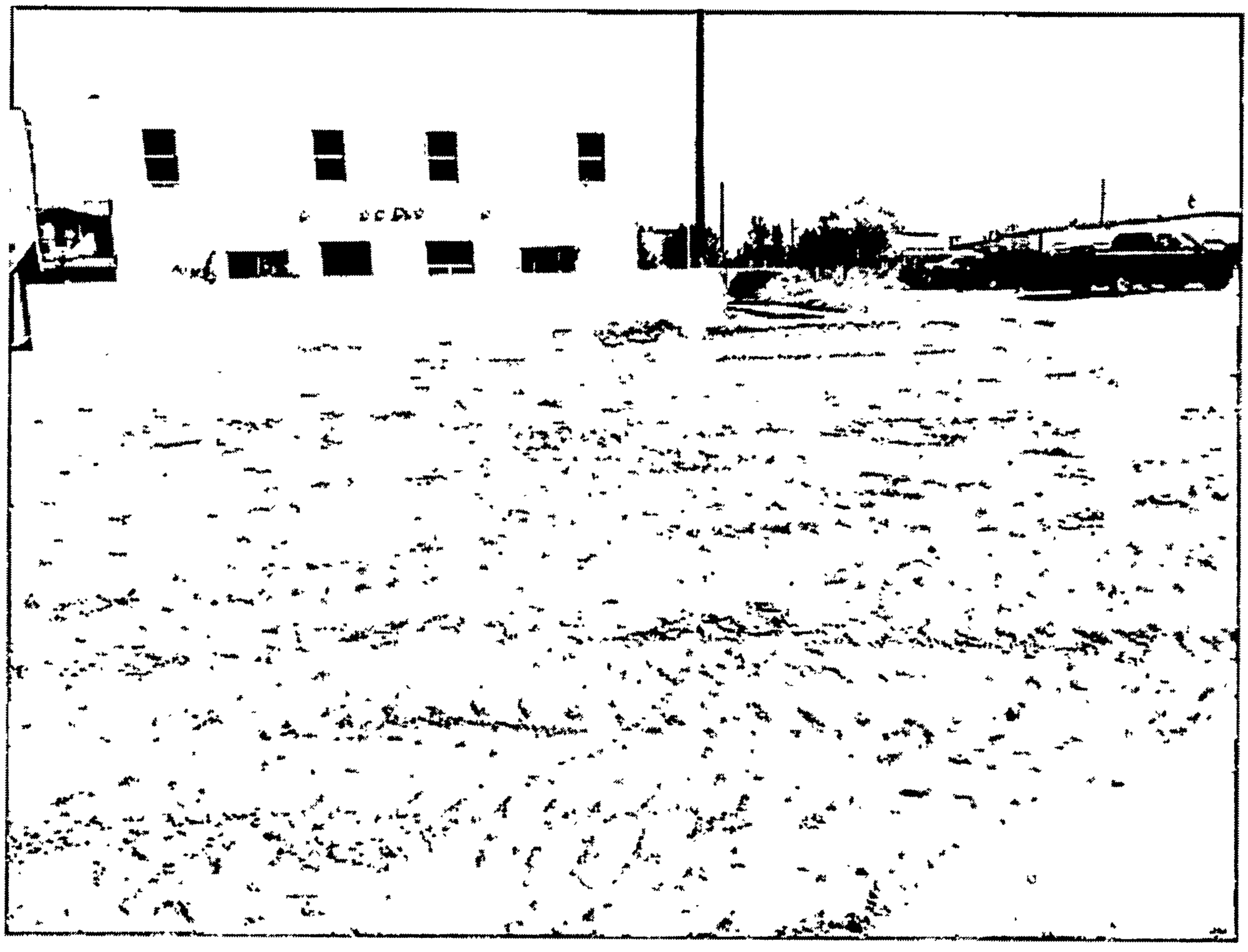
Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope to the proposed development define the degree of drainage detail. One or more of the following levels of submittal may be required based on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

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.

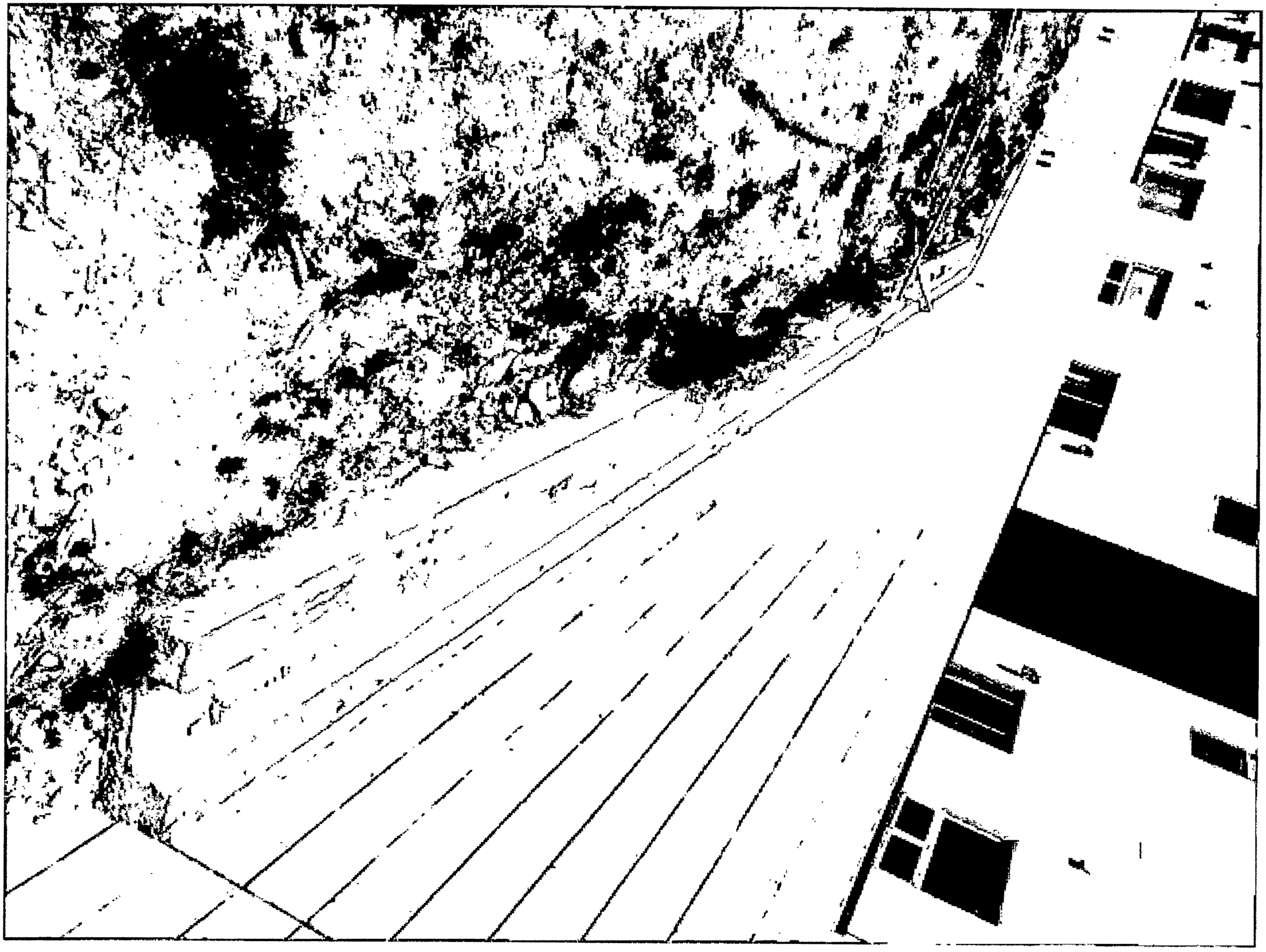
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.

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



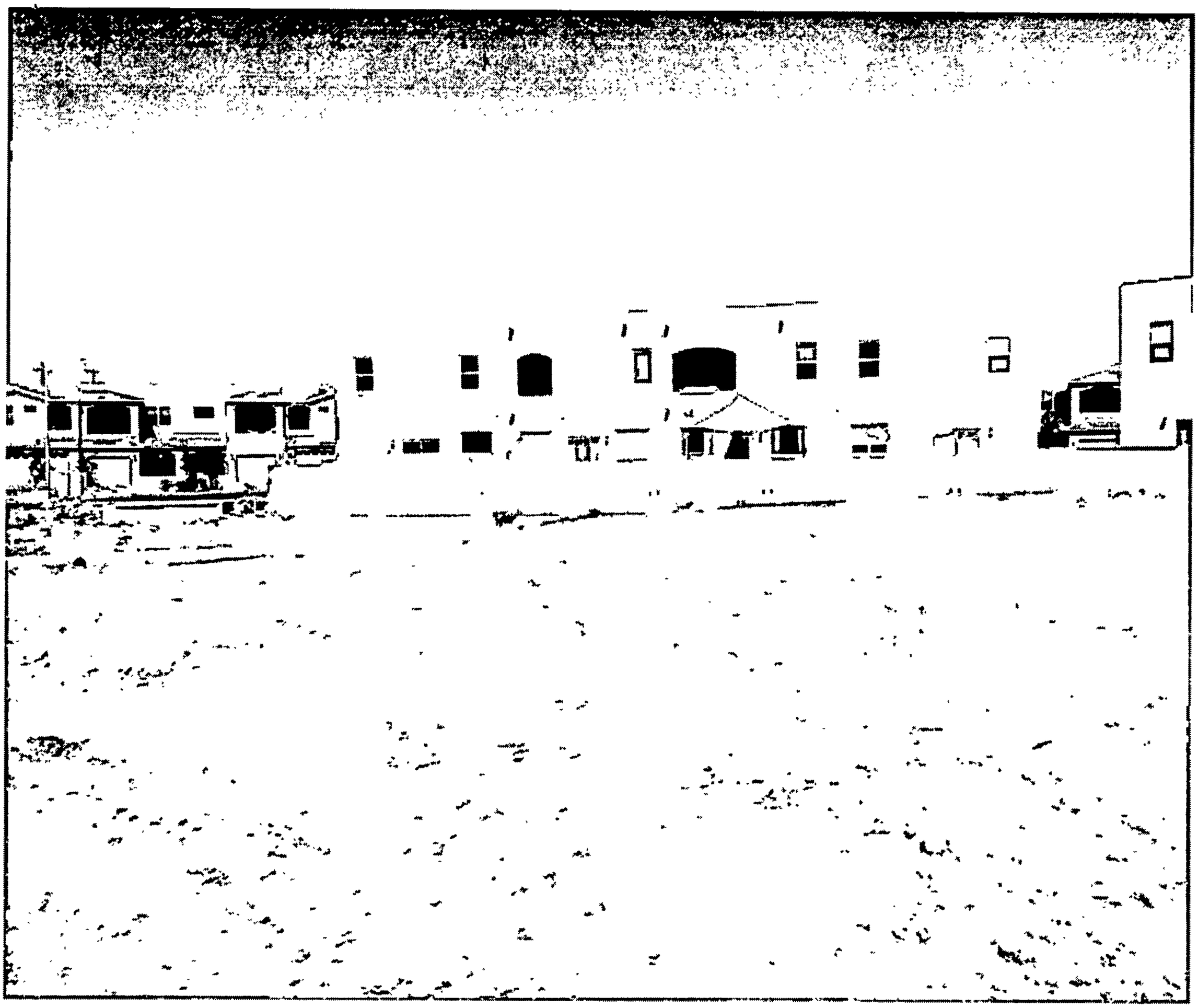








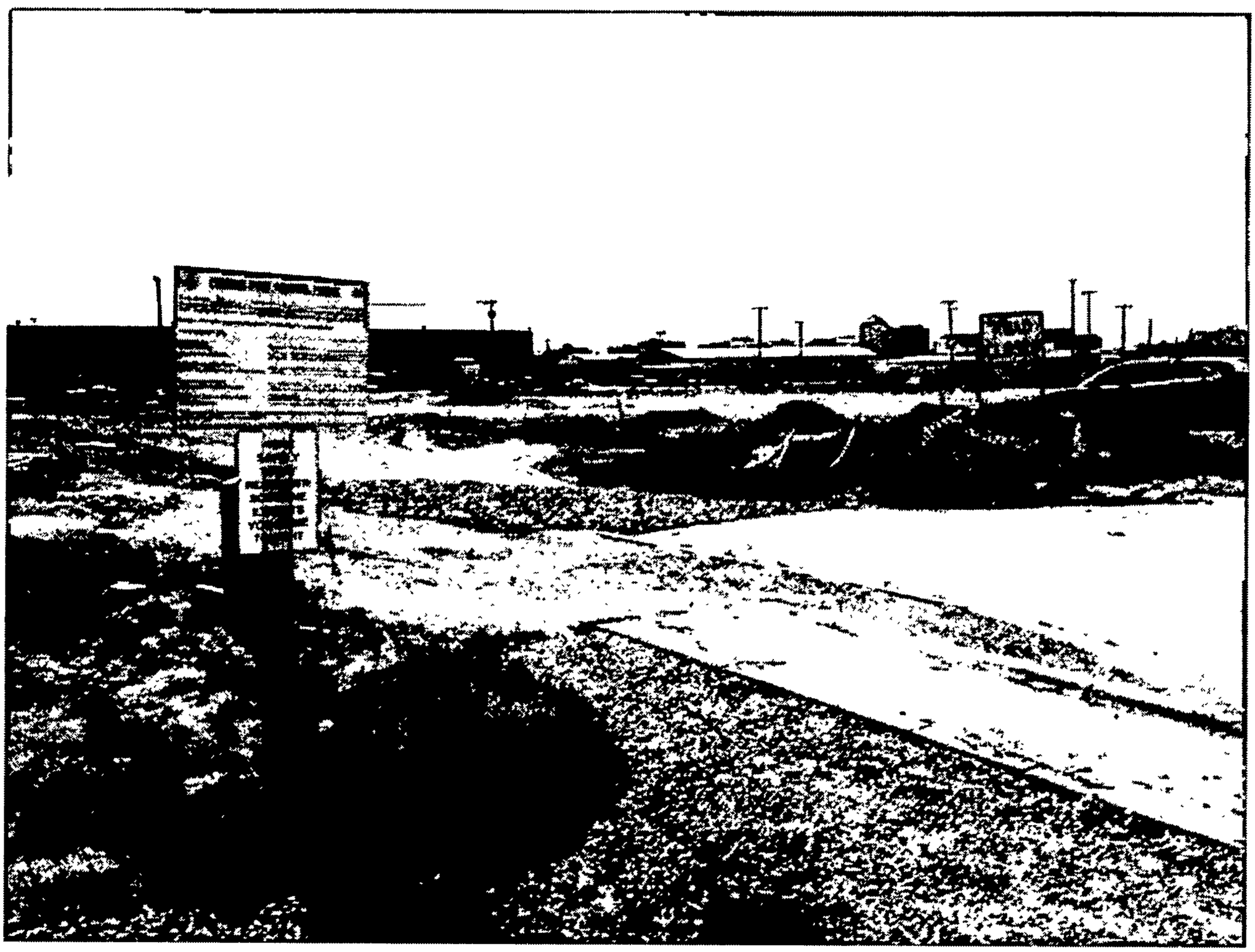
63



**Keith Cheshire**

**From:** 5053062999@pm.sprint.com
**Sent:** Tuesday, April 21, 2015 10:36 AM
**To:** keith@cheshire.comcastbiz.net

Sent from my mobile.



**RECORD DRAWING**

TYPICAL PLAN VIEW (RELATIVE HEIGHTS)
SCALE 1"=20

TYPICAL 5'x5' LANDSCAPE AREA
(WATER HARVEST FEATURE) SCALE 1"=20'

TYPICAL CONCRETE CHANNEL SECTION VIEW
* USE STEEL PLATE OVER TOP SCALE 1"=5'

NOTE:
PROVIDE ONE BLOCK TURNED SIDEWALKS IN EACH REAR YARD FOR DRAINAGE TO PASS INTO STREET

ASPEN AVENUE

BAND SAW PLACE N.W.

RETENTION POND
DESIGN PARAMETERS
VOLUME REQUIRED (100 YR-6 HR) = 41,861 CF
VOLUME DESIGN = 45,272 CF
TOP POND = 4960.0
SPILLWAY ELEV. = 4958.5
MAX WSEL (100 YR-6 HR) = 4959.25

ROUGH GRADE TOWARDS POND

SEE DETAIL THIS SHEET

See Sht 11A for As-Builts this area.

INSTALL NEW CONCRETE CHANNEL WITH 2 SIDEWALLS PER C.O.A. STD DWG #2430

NEW 6'x4' RIP-RAP PAD WITH 9" ø LANDSCAPE ROCK

INSTALL 57 LF OF 18" ø NYLOPLAST HDPE WITH PREFAB END SECTIONS OR APPROVED EQUAL (MIN. 1.0% SLOPE)

NEW 24" CONCRETE ALLEY GUTTER PER C.O.A. STD. DWG #2415A

SOUTH PROPERTYLINE/S CONSTRUCTION BASELINE

BEGIN CONCRETE CHANNEL FL=60.00

END CONCRETE CHANNEL

SCALE 1"=20' HORIZONTAL
SCALE 1"=4 VERTICAL

I, Mark Goodwin, NMPE 6848 of the firm Mark Goodwin & Associates, P.A. a Registered Professional Engineer in the State of New Mexico, do hereby certify to the best of my knowledge and belief that the infrastructure revised as part of this project has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plans and specifications approved by the City Engineer and that the original design intent of the approved plans has been met except as noted below on the as-built construction drawings. This Certification is based on site inspections by me or personnel under my supervision and other information provided by Jason Smith NMPS number 17132.

5/31/14

VICINITY MAP M-13-Z

LEGAL DESCRIPTION
LOT B-1-A-2, DURE CITY LUMBER COMPANY ADDITION

LEGEND
- EXIST TOP CURB/FLOWLINE
- EXIST CONCRETE/SIDEWALK
- x 00.00 EXIST SPOT ELEVATION
- EXIST FIRE HYDRANT
- EXIST GUY WIRE
- EXIST OVERHEAD ELECTRIC
- EXIST POWER POLE
- EXIST SANITARY SEWER MANHOLE
- EXIST WATER VALVE
- EXIST RAILROAD TRACKS
- EXIST SIGN
- EXIST DROP INLET
- EXIST TELEPHONE PEDESTAL
- EXIST WATER METER
- EXIST STORM DRAIN MANHOLE
- NEW PROPERTY LINE
- NEW LOT LINES
- NEW RIGHT-OF-WAY
- NEW CENTER LINE
- NEW MOUNTABLE CURB & GUTTER
- NEW STANDARD CURB & GUTTER
- NEW SPOT ELEVATION
- NEW SWALE
- NEW FINISH PAD ELEVATION
- NEW RUNOFF DIRECTION
- NEW WATER BLOCK
- NEW RETAINING WALL
- NEW GARDEN WALL
- NEW SIDEWALK GRATE
- NEW STORM DRAIN INLET
- NEW SLOPE
- NEW STORM DRAIN LINE
- 4957 CONTOUR NEW CONTOUR
- NEW TOWNHOME ROOF RUNOFF TO FRONT YARD
- NEW 6' CRUSHER FINE TRAIL
- NEW 1' WIDE DRAINAGE CHANNEL
- NEW EXIST RAILROAD TRACK NO CONSTRUCTION ZONE
- NEW LANDSCAPE AREA
- NEW OPENING IN WALL TO ALLOW RUNOFF TO PASS
- NEW SIDEWALK
- NEW DRIVE PADS
- NEW PHASE LINE
- NEW OFFSITE PAVEMENT

SCALE: 1" = 30'

dmg MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90608
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE
SAWMILL CROSSING - UNIT 1
GRADING & DRAINAGE PLAN

DESIGN REVIEW COMM TTEE | CITY ENGINEER APPROVAL
Not For Construction

| CITY PROJECT NO | ZONE MAP NO | SHEET | OF |
|---|---|---|---|
| 617586 | H-13-Z | 3R | 11 |

LAST DESIGN UPDATE: MO /DAY/YR

AS BUILT INFORMATION
CONTRACTOR Frontier Corp. DATE 5/15
STAKED BY Craig Smith DATE 5/15
INSPECTED BY Craig Smith DATE 1/14
FIELD REVIEW BY Craig Smith DATE 1/14
AS-BUILTED BY MMD DATE 1/14
CORRECTED BY MMD
MICRO-FILM INFORMATION
RECORDED BY
DATE
NO

BENCH MARKS
ACS Brass Cap stamped "5-A34" From the intersection of I-40 and Rio Grande Boulevard, travel south on Rio Grande 0.4 miles to Mountain Road. Turn left onto Mountain Road and travel west 0.2 miles to 10th Street and the station on the left.
Geographic Position (NAD83, in feet)
N.M. State Plane Coordinates (Central Zone)
N=1481318.377, E=1515611.337
Elevation=4960.489 (NGVD88, in feet)

SURVEY INFORMATION
FIELD NOTES
| NO | BY | DATE |
|---|---|---|

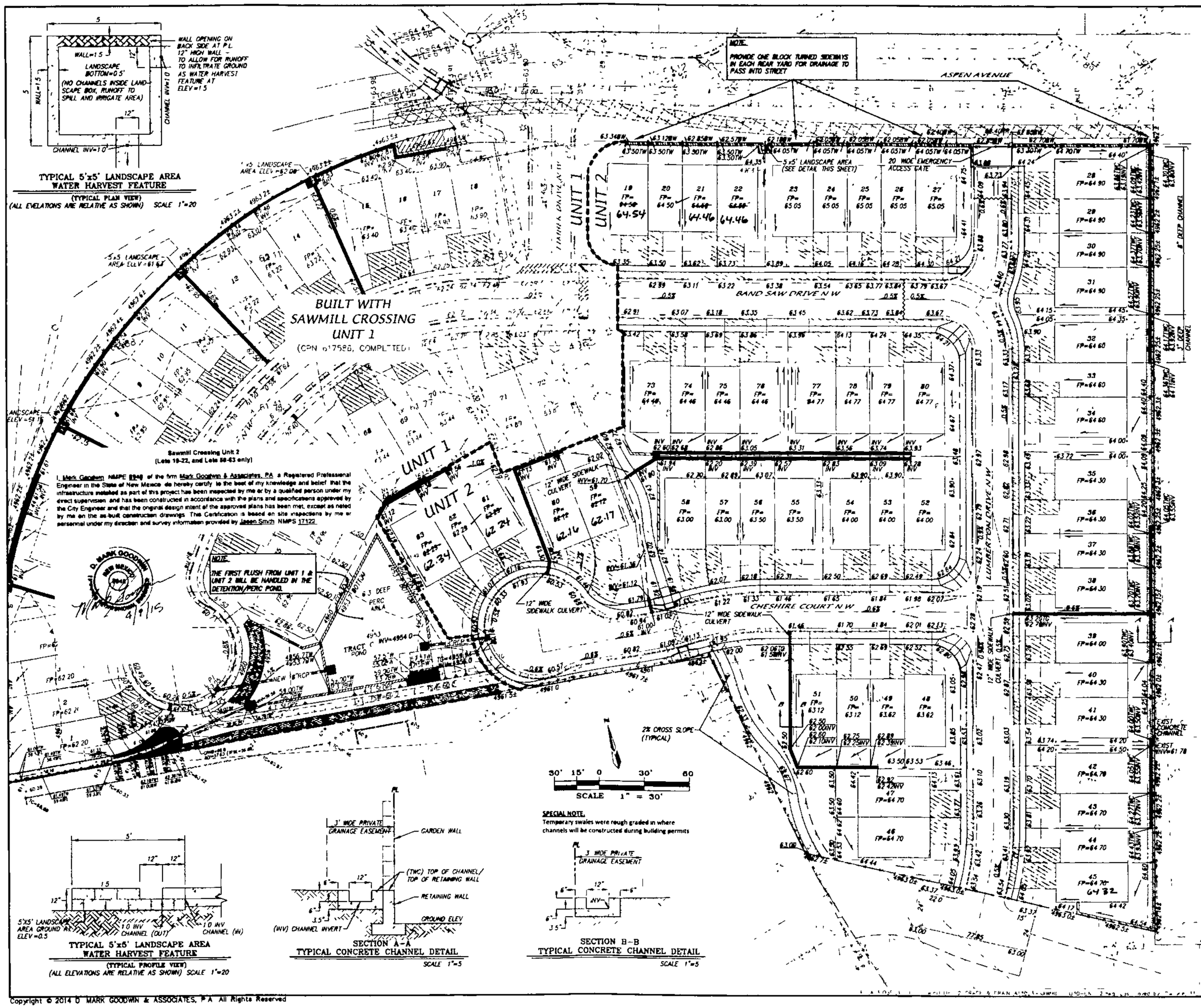
ENGINEER'S SEAL
NEW MEXICO 11818 REGISTERED PROFESSIONAL ENGINEER
11-06-13

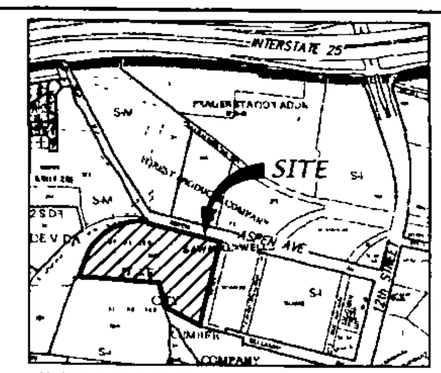
| NO | DATE | REMARKS | BY |
|---|---|---|---|
| 1 | 11/26/13 | Revised Sheet 3 | |

| | DESIGN | DRAWN | CHECKED |
|---|---|---|---|
| BY | DLH | ACN | DMG |
| DATE | 03/12 | 03/12 | 03/12 |

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For Information Only




LEGAL DESCRIPTION

LOT B-1-A-2 DUKE CITY LUMBER COMPANY ADDITION

LEGEND

- EXIST TOP CURB/FLOWLINE
- EXIST CONCRETE/SIDEWALK
- EXIST SPOT ELEVATION
- EXIST FIRE HYDRANT
- EXIST GUY WIRE
- EXIST OVERHEAD ELECTRIC
- EXIST POWER POLE
- EXIST SANITARY SEWER MANHOLE
- EXIST WATER VALVE
- EXIST SIGN
- EXIST DROP INLET
- EXIST TELEPHONE PEDESTAL
- EXIST WATER METER
- EXIST STORM DRAIN MANHOLE
- EXISTING STORM DRAIN LINE
- NEW LOT LINES
- NEW PROPERTY LINE
- NEW RIGHT-OF-WAY
- NEW CENTER LINE
- NEW MOUNTABLE CURB & GUTTER
- NEW STANDARD CURB & GUTTER
- 99.60 NEW SPOT ELEVATION
- NEW SWALE
- FF= 99.70 NEW FINISHED PAD ELEVATION
- 63.00TW NEW TOP WALL ELEVATION
- 64.10TWC NEW TOP OF CHANNEL/TOP OF RETAINING WALL
- 63.00BW NEW BOTTOM WALL ELEVATION
- 62.50INV NEW INVERT ELEVATION
- NEW RUNOFF DIRECTION
- NEW WATER BLOCK
- NEW RETAINING WALL
- NEW GARDEN WALL
- NEW SIDEWALK CULVERT
- NEW STORM DRAIN INLET
- NEW TOWNHOME ROOF RUNOFF TO FRONT YARD
- NEW 1' WIDE DRAINAGE CHANNEL
- NEW EXIST RAILROAD TRACK NO CONSTRUCTION ZONE
- NEW SIDEWALK (THIS PROJECT)
- NEW SIDEWALK (DEFERRED)
- NEW DRIVEWAYS
- NEW PHASE LINE
- FUTURE LANDSCAPE OR RIP RAP PROTECTION AREA

AS-BUILT INFORMATION

CON ACTOR
SURVEYED BY
BENCH MARKS
ALL ELEVATIONS ARE BASED ON NAVD 88
MICRO FILM INFORMATION
RECORDED BY
DATE
NO

SURVEY INFORMATION

| NO | BY | DATE |
|---|---|---|
| | | |

FIELD NOTES

ENGINEER'S SEAL
D. MARK GOODWIN NEW MEXICO 9348 REGISTERED PROFESSIONAL ENGINEER
4/9/15

| NO | BY | REMARKS | DATE |
|---|---|---|---|
| 1 | DMG | REVISIONS | 09/14 |
| | | DESIGN | DATE |
| DESIGNED BY | DMH | | 09/14 |
| DRAWN BY | DEK | | DATE |
| CHECKED BY | DMG | | 09/14 |

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

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE

SAWMILL CROSSING - UNIT 2
REVISED GRADING & DRAINAGE PLAN

| DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL | MO/DAY/YR | MO/DAY/YR |
|---|---|---|---|
| | | | |

| CITY PROJECT NO | ZONE MAP NO | SHEET | OF |
|---|---|---|---|
| 617588 | H-13-Z | 1 | 1 |

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P:\A1JOBS\Mrk\2003 Sawmill Unit 2\GRADING & DRAINAGE\2003-SAWMILL-GRADING-UNIT 2.dwg 12/5/2014 10:11:42 AM

# CITY OF ALBUQUERQUE

January 26, 2015

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

**Re: Sawmill Crossing Unit 1, Grading Certification-Final**
**Engineer's Stamp dated: 3-7-14, (H13D057)**
**Certification dated: 1-20-15**

Dear Ms. Hoelzer,

Based upon the information provided in the Certification received 1-20-15, the above referenced certification is acceptable to allow final building inspections/Certificates of Occupancy on all lots in Unit 1.

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

Sincerely,

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

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

C: e-mail

**DRAINAGE AND TRANSPORTATION INFORMATION SHEET**
**(Rev. 12/05)**

CAC

PROJECT TITLE: Sawmill Crossing Unit 1 ZONE MAP/DRG. FILE: **H13 / D057**
DRB#: 1009046 EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS: south of Aspen Avenue, east of 12th street

ENGINEERING FIRM: MARK GOODWIN & ASSOCIATES, PA
ADDRESS: PO Box 90606
CITY, STATE: Albuquerque, NM
CONTACT: Diane Hoelzer
PHONE: 828-2200
ZIP CODE: 87199

OWNER: Sawmill Crossing LLC
ADDRESS: 7400 Hancock Court, NE
CITY, STATE: _____
CONTACT: Keith Cheshire, Jr
PHONE: 797-1134
ZIP CODE: 87109

ARCHITECT: N/A
ADDRESS: _____
CITY, STATE: _____
CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: Aldrich Land Surveying
ADDRESS: _____
CITY, STATE: _____
CONTACT: Tim Aldrich
PHONE: 328-3988
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____
CONTACT: _____
PHONE: _____
ZIP CODE: _____

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

CHECK TYPE OF APPROVAL SOUGHT:
X_____ 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
_____ BUILDING PERMIT APPROVAL
X_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ OTHER (SPECIFY)

RECEIVED
JAN 20 2015
LAND DEVELOPMENT SECTION

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

SUBMITTED BY: Diane Hoelzer, PE DATE: January 20, 2015

RECEIVED
JAN 20 2015
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 define 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

July 24, 2014

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

**Re: Sawmill Crossing Unit 1, Revised Grading Plan Certification**
**Engineer's Stamp dated: 3-7-14, (H13D057)**
**Certification dated: 7-21-14**

Dear Ms. Hoelzer,

Based upon the information provided in the certification received 7-22-14, the above referenced certification is acceptable for Hydrology to approve Building Permits in Sawmill Crossing Unit 1.

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

Sincerely,

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

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

C: e-mail

# CITY OF ALBUQUERQUE

December 23, 2014

Diane Hoelzer, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM 87199

**Re: Sawmill Crossing Unit 2, Revised Grading and Drainage Plan**
**Engineer's Stamp dated 12-5-14 (H13/D057)**

Dear Ms. Hoelzer,

Based upon the information provided in your submittal received 12-8-14, the above referenced plan is approved for Grading Permit for Unit 2, once the Erosion and Sediment Control plan is approved.

Hydrology understands that the developer/builder wishes to construct the rear and side yard channels with the Building Permit. Therefore, Building Permits will be approved as a cluster or the downstream lot will be approved prior to upstream lots in one cluster.

This is the plan to certify for Building Permit approval, Release of Financial Guarantee and Certificate of Occupancy for the lots that drain to a rear and side yard channel.

PO Box 1293

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

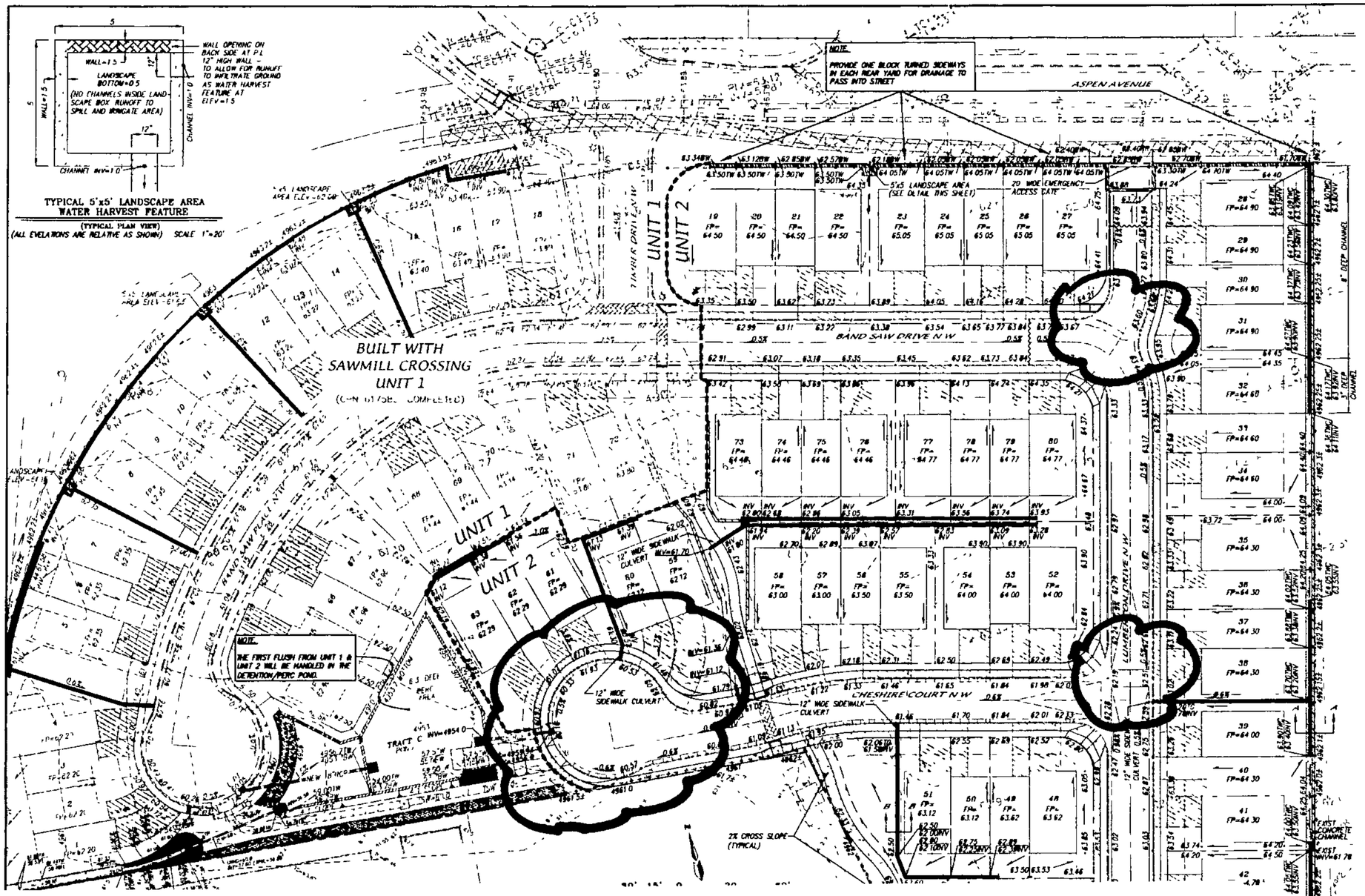
Albuquerque

Sincerely,

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

New Mexico 87103

www.cabq.gov




LEGAL DESCRIPTION

LOT B-1-A-2 DUKE CITY LUMBER COMPANY ADDITION

LEGEND

- EXIST TOP CURB/FLOWLINE
- EXIST CONCRETE/SIDEWALK
- EXIST SPOT ELEVATION
- EXIST FIRE HYDRANT
- EXIST GUY WIRE
- EXIST OVERHEAD ELECTRIC
- EXIST POWER POLE
- EXIST SANITARY SEWER MANHOLE
- EXIST WATER VALVE
- EXIST SIGN
- EXIST DROP INLET
- EXIST TELEPHONE PEDESTAL
- EXIST WATER METER
- EXIST STORM DRAIN MANHOLE
- EXISTING STORM DRAIN LINE
- NEW LOT LINES
- NEW PROPERTY LINE
- NEW RIGHT-OF-WAY
- NEW CENTER LINE
- NEW MOUNTABLE CURB & GUTTER
- NEW STANDARD CURB & GUTTER
- 99.60 NEW SPOT ELEVATION
- NEW SWALE
- FP= 99.70 NEW FINISHED PAD ELEVATION
- 63.00TW NEW TOP WALL ELEVATION
- 64.10TWC NEW TOP OF CHANNEL/TOP OF RETAINING WALL
- 63.00BW NEW BOTTOM WALL ELEVATION
- 62.50INV NEW INVERT ELEVATION
- NEW RUNOFF DIRECTION
- NEW WATER BLOCK
- NEW RETAINING WALL
- NEW GARDEN WALL
- NEW SIDEWALK CULVERT
- NEW STORM DRAIN INLET
- NEW TOWNHOME ROOF RUNOFF TO FRONT YARD
- NEW 1' WIDE DRAINAGE CHANNEL
- NEW EXIST. RAILROAD TRACK NO CONSTRUCTION ZONE
- NEW SIDEWALK (THIS PROJECT)
- NEW SIDEWALK (DEFERRED)
- NEW DRIVEWAYS
- NEW PHASE LINE
- FUTURE LANDSCAPE OR RIP RAP PROTECTION AREA

SURVEY INFORMATION
FIELD NOTES BY: N.C. DATE: 3Y

BENCH MARK
AGS Brass Cap stamped "5-A3A" DATE
From the intersection of I-40 and the Grande Boulevard, travel south on Rio Grande 0.4 miles to Mountain Road. Turn left onto Mountain Road and travel east 0.2 miles to 18th Street and the station on the left.
Geographic Position (NAD83, in feet)
N.M. State Plane Coordinates (Central Zone)
N=1491318.377, E=1515433.327
Elevation=4961.499 (NAVD88, in feet)

AS BUILT INFORMATION
CONTRACTOR
PCN
START DATE
COMPLETION DATE
DRAWINGS RECEIVED BY
DATE
INCPO-FLV INFORMATION
RECEIVED BY
DATE

| NO. | DATE | REMARKS / REVISIONS | DESIGNED BY | DATE |
|---|---|---|---|---|
| | | DESIGN | DLH | 09/14 |
| | | DRAWN BY | DLH | 09/14 |
| | | CHECKED BY | DMG | 09/14 |

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

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE: SAWMILL CROSSING - UNIT 2
REVISED GRADING & DRAINAGE PLAN

DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL | AS BUILT PLANS | MO/DAY/YR | MO/DAY/YR

CITY PROJECT NO 617588 | ZONE MAP NO H13Z | SHEET NO 1 OF 1

SAWMILL UNIT 2 REVISIONS ( 12-5-14): In order for the driveways in the Cheshire Court to interface with the required sidewalk 2% cross slope with standard curb and gutter, a landscape area and offset is required between the standard C&G and the sidewalk. Also the 4' alley gutter at the end of the Lumberton Drive stub road was revised, and the valley gutter in Lumberton was corrected to the proper 10" wide width.

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**DRAINAGE AND TRANSPORTATION INFORMATION SHEET**
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing Unit 2 ZONE MAP/DRG. FILE: **H13 / D057**
DRB#: 1009046 EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS: south of Aspen Avenue, east of 12th street

ENGINEERING FIRM: MARK GOODWIN & ASSOCIATES, PA
ADDRESS: PO Box 90606
CITY, STATE: Albuquerque, NM
CONTACT: Diane Hoelzer, PE
PHONE: 828-2200
ZIP CODE: 87199

OWNER: Sawmill Crossing LLC
ADDRESS: 7400 Hancock Court, NE
CITY, STATE: _____
CONTACT: Keith Cheshire, Jr
PHONE: 797-1134
ZIP CODE: 87109

ARCHITECT: N/A
ADDRESS: _____
CITY, STATE: _____
CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: _____
ADDRESS: _____
CITY, STATE: _____
CONTACT: _____
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____
CONTACT: _____
PHONE: _____
ZIP CODE: _____

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
X_____ GRADING PLAN **(dated 12-5-14)**
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER/ARCHITECT CERT (TCL)
_____ ENGINEER/ARCHITECT (DRB SITE PLAN)
_____ OTHER

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
_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
X_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
WORK ORDER APPROVAL
_____ OTHER (SPECIFY)

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

RECEIVED
DEC - 8 2014
LAND DEVELOPMENT SECTION

SUBMITTED BY: Diane Hoelzer, PE DATE: December 5, 2014

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 define 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.

**Diane Hoelzer**

---

**From:** Diane Hoelzer
**Sent:** Friday, December 05, 2014 11:29 AM
**To:** Curtis Cherne (ccherne@cabq.gov)
**Cc:** 'Harmon Rita T.'
**Subject:** Sawmill Unit 2 Revised G&D Plan SUBMITTAL
**Attachments:** Sawmill Unit 2 H13 D057.PDF

*I will be making a revised grading plan submittal on Monday.*
*Attached is the pdf file.*

**Diane Hoelzer, PE**
**MARK GOODWIN & ASSOCIATES, PA**
**(505) 828-2200**

# CITY OF ALBUQUERQUE

September 29, 2014

Diane Hoelzer, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM 87199

**Re: Sawmill Crossing Unit 2, Revised Grading and Drainage Plan**
**Engineer's Stamp dated 9-25-14 (H13/D057)**

Dear Ms. Hoelzer,

Based upon the information provided in your submittal received 5-22-14, the above referenced plan is approved for Preliminary Plat action by the DRB for Unit 2. Once the board approves the plan, the site will be approved for Grading Permit once the Erosion and Sediment Control plan is approved.

Hydrology understands that the developer/builder wishes to construct the rear and side yard channels with the Building Permit. Therefore, Building Permits will be approved as a cluster or the downstream lot will be approved prior to upstream lots in one cluster.

This is the plan to certify for Building Permit approval, Release of Financial Guarantee and Certificate of Occupancy for the lots that drain to a rear and side yard channel.

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

Sincerely,

Curtis Cherne, P.E.
Principal Engineer, Hydrology
Planning Department

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

**DRAINAGE AND TRANSPORTATION INFORMATION SHEET**
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing Unit 2 ZONE MAP/DRG. FILE: **H13 / D057**
DRB#: 1009046 EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS: south of Aspen Avenue, east of 12th street

ENGINEERING FIRM: MARK GOODWIN & ASSOCIATES, PA CONTACT: Diane Hoelzer
ADDRESS: PO Box 90606 PHONE: 828-2200
CITY, STATE: Albuquerque, NM ZIP CODE: 87199

OWNER: Sawmill Crossing LLC CONTACT: Keith Cheshire, Jr
ADDRESS: 7400 Hancock Court, NE PHONE: 797-1134
CITY, STATE: _____ ZIP CODE: 87109

ARCHITECT: N/A CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

SURVEYOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
X_____ GRADING PLAN **(dated 9-25-14)**
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER/ARCHITECT CERT (TCL)
_____ ENGINEER/ARCHITECT (DRB SITE PLAN)
_____ OTHER

CHECK TYPE OF APPROVAL SOUGHT:
_____ SIA/FINANCIAL GUARANTEE RELEASE
X_____ 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
_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
X_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ OTHER (SPECIFY)

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

RECEIVED
SEP 25 2014
LAND DEVELOPMENT SECTION

SUBMITTED BY: Diane Hoelzer, PE DATE: September 26, 2014

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 define 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 AND TRANSPORTATION INFORMATION SHEET
**(Rev. 12/05)**

Work in NM 7-22

PROJECT TITLE: Sawmill Crossing Unit 2 ZONE MAP/DRG. FILE: **H13 / D057**
DRB#: 1009046 EPC#: WORK ORDER#:

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS: south of Aspen Avenue, east of 12th street

ENGINEERING FIRM: MARK GOODWIN & ASSOCIATES, PA — CONTACT: Diane Hoelzer
ADDRESS: PO Box 90606 — PHONE: 828-2200
CITY, STATE: Albuquerque, NM — ZIP CODE: 87199

OWNER: Sawmill Crossing LLC — CONTACT: Keith Cheshire, Jr
ADDRESS: 7400 Hancock Court, NE — PHONE: 797-1134
CITY, STATE: — ZIP CODE: 87109

ARCHITECT: N/A — CONTACT:
ADDRESS: — PHONE:
CITY, STATE: — ZIP CODE:

SURVEYOR: — CONTACT:
ADDRESS: — PHONE:
CITY, STATE: — ZIP CODE:

CONTRACTOR: — CONTACT:
ADDRESS: — PHONE:
CITY, STATE: — ZIP CODE:

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

CHECK TYPE OF APPROVAL SOUGHT:
_____ SIA/FINANCIAL GUARANTEE RELEASE
X_____ 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
_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
X_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ OTHER (SPECIFY)

RECEIVED
SEP 16 2014
LAND DEVELOPMENT SECTION

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

SUBMITTED BY: Diane Hoelzer, PE DATE: September 16, 2014

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 define 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.

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

*September 16, 2014*

*Mr. Curtis Cherne, PE*
*Hydrology Division, Planning Dept.*
*Development and Building Services*
*City of Albuquerque*
*PO Box 1293*
*Albuquerque, NM 87103*

***Re: Sawmill Crossing Unit 2 Grading and Drainage Plan***
***Engineers Revised Stamp Date 9-16-14 (H13 / D057)***

*Dear Mr. Cherne;*

*In response to your comment letter dated 9-4-14, your comments are addressed below:*

1. *Ok, done.*
2. *The grading plan has been updated to reflect the latest design.*
3. *The grades and top of wall has been checked. This wall has already been constructed at the project site.*
4. *Existing perimeter elevations are shown on the grading plan.*
5. *The channel invert and grading near Lot 58 has been revised.* — Nope - call?
6. *My understanding is that the construction of these private channels is tied to a financial guaranty and to the permanent C.O.*
7. *The first flush will be retained within the onsite retention pond.*
8. *A duplicate copy of the original drainage report and supplemental report has been submitted with the Sawmill Crossing Unit 2 grading and drainage plan.*

*Please call me if you have any questions.*

*Sincerely,*

*MARK GOODWIN & ASSOCIATES, P.A.*

*Diane Hoelzer, PE*
*Senior Engineer*

*DLH/dlh*
*f:\\13003 \ Sawmill Unit2\ hydro_ltr_13003.docx*

RECEIVED
SEP 16 2014
LAND DEVELOPMENT SECTION

## Cherne, Curtis

**From:** Cloud, Jack W.
**Sent:** Thursday, September 04, 2014 1:58 PM
**To:** 'Diane Hoelzer'; Metro, Kristal D.; Cherne, Curtis
**Subject:** RE: Sawmill Unit 2 (DRB 1009046) Comments

Sorry, I have been using "Charter School' as a common name – I am referring to the plat, "Tracts A Thru D Sawmill Industrial" project No. 1002981. It is the plat (not just the Charter School) that has the easement abutting your property and the Infrastructure List with the connection to Sawmill Village.
Again, your plat (and the grading plan) need to eliminate the cul-de-sac and extend south to that connection to Sawmill Village. If the adjacent *subdivider* is not ready to coordinate construction then you can use the easement for a temporary hammerhead.

---

**From:** Diane Hoelzer [mailto:Diane@goodwinengineers.com]
**Sent:** Thursday, September 04, 2014 1:39 PM
**To:** Cloud, Jack W.; Metro, Kristal D.; Cherne, Curtis
**Subject:** RE: Sawmill Unit 2 (DRB 1009046) Comments

*Jack,*

*I have already met with Kristal and Jane Rael earlier today about this. Together, we have reviewed the Ace Charter School plans and there is no connection to the south adjacent to our project's south property line. The SIA that is in place does not cover this area either. There is a missing link between our property and what they are developing.*

*After discussion with Kristal and Jane, Kristal indicated that I should leave culdesac in place. Kristal could probably fill you in on the more of the details. So for now, I will leave culdesac as is unless I hear back from her again telling me to change it.*

**Diane Hoelzer, PE**
**MARK GOODWIN & ASSOCIATES, PA**
**(505) 828-2200**

---

**From:** Cloud, Jack W. [mailto:jcloud@cabq.gov]
**Sent:** Thursday, September 04, 2014 1:29 PM
**To:** Diane Hoelzer; Metro, Kristal D.; Cherne, Curtis
**Subject:** RE: Sawmill Unit 2 (DRB 1009046) Comments

Your plat (and the grading plan) need to eliminate the cul-de-sac and extend south, to the connection to the south(west) to Sawmill Village. That connection is in an SIA but don't know the status of design – if the Charter School is not ready to coordinate construction then you can use the easement for a temporary hammerhead.

---

**From:** Diane Hoelzer [mailto:Diane@goodwinengineers.com]
**Sent:** Wednesday, September 03, 2014 11:35 AM
**To:** Cloud, Jack W.; Metro, Kristal D.; Cherne, Curtis
**Subject:** Sawmill Unit 2 (DRB 1009046) Comments

*Good morning,*

*I have just gotten back into town and have reviewed the comments received on the above referenced project. I understand that Lumberton Drive is to be extended south past our south boundary line and connect to a road offsite. Does the DRB want me to revise the grading plan and prel. plat and Sawmill Unit 2 construction plans to eliminate this culdesac now and show the connection to the south ?*

*I understand that there is an SIA and design in place on the connection to the south. Is that correct ?*

**Diane Hoelzer, PE**
**MARK GOODWIN & ASSOCIATES, PA**
**(505) 828-2200**

# CITY OF ALBUQUERQUE

September 4, 2014

Diane Hoelzer, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM 87199

**Re: Sawmill Crossing, Grading and Drainage Plan**
**Engineer's Stamp dated 5-23-12 (H13/D057)**

Dear Ms. Hoelzer,

Based upon the information provided in your submittal received 5-24-12, the above referenced plan cannot be approved for Preliminary Plat action by the DRB for Unit 2 until the following comments are addressed:

1. If the connection to the south is to be built it should be shown on the plan and how this site will tie to it.
2. Adjust grades at the west end of Cheshire Ct to reflect changes made at Unit 1 and change the plan so it does not show what was proposed but not built in Unit 1.
3. Hydrology approved a grading plan for a retaining wall along lots 19-28, stamp date 9-10-13 Mark Goodwin and Associates. TW grades are different than the spot elevations in this plan. Pleas review this plan and confirm the rear yard grades.
4. Provide existing grade spot elevations along around the perimeter of the site on the adjacent land.
5. The invert of the channel near Lot 58 is 61.7 upstream of the sidewalk and there is a 62.31 grade downstream of the sidewalk. This will not drain as intended. How is the water getting under the sidewalk?
6. In Unit 1, the one foot channels are to be built with the Building Permit. It is not clear how invert elevations are controlled by this process and Hydrology must put a "HOLD" on these properties for an inspection prior to Release of Certificate of Occupancy. This is a cumbersome process.
   a. The 1 foot channels in the rear yards should be built and certified prior to Building Permit approval. The side yard channels could be built with the Building Permit since the invert of the backyard channel and the sidewalk culvert at the street would have been constructed, positive drainage would have been established.
7. State how the site will manage the first flush. It drains to the pond.
8. Hydrology is having difficulty locating the drainage report submitted with Unit 1. Please provide a copy of the report with any changes as necessary.

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

Sincerely,

Curtis Cherne, P.E.
Principal Engineer, Hydrology
Planning Department

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

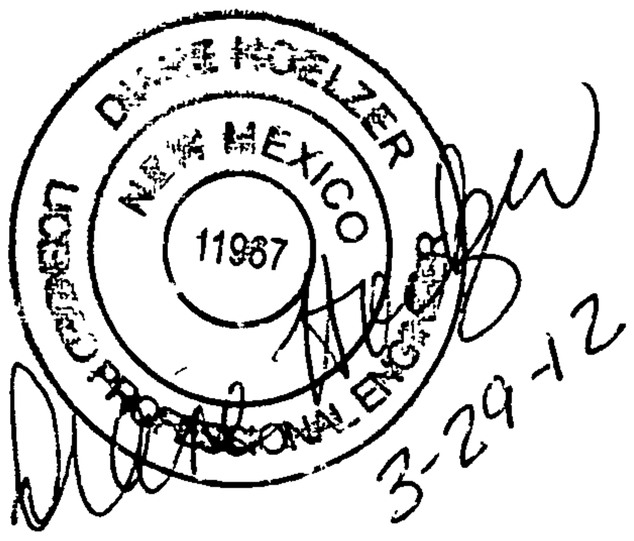
# *DRAINAGE MANAGEMENT PLAN*

*For*

# *SAWMILL CROSSING SUBDIVISION*

*(A Townhome Community)*

*Prepared for:*
*City of Albuquerque*




*Prepared by*
*Mark Goodwin & Associates, P.A.*

***March 2012***

# DRAINAGE AND TRANSPORTATION INFORMATION SHEET
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing Subdivision ZONE MAP/DRG. FILE H13/D057
DRB#: 1009046 EPC#: WORK ORDER#:

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS:

ENGINEERING FIRM: Mark Goodwin & Associates, PA — CONTACT: Diane Hoelzer, PE
ADDRESS: PO Box 90606 — PHONE: 828-2200
CITY, STATE: Albuquerque, NM — ZIP CODE: 87199

OWNER: Sawmill Crossing LLC — CONTACT: Keith Cheshire
ADDRESS: 7400 Hancock Court, NE — PHONE: 797-1134
CITY, STATE: Albuquerque, NM — ZIP CODE: 87109

ARCHITECT: N/A — CONTACT:
ADDRESS: — PHONE:
CITY, STATE: — ZIP CODE:

SURVEYOR: Aldrich Land Surveying — CONTACT: Tim Aldrich
ADDRESS: PO Box 30701 — PHONE: 884-1990
CITY, STATE: Albuquerque,NM — ZIP CODE: 87190

CONTRACTOR: N/A — CONTACT:
ADDRESS: — PHONE:
CITY, STATE: — ZIP CODE:

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

CHECK TYPE OF APPROVAL SOUGHT:
____ SIA/FINANCIAL GUARANTEE RELEASE
x 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
____ BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY (PERM)
____ CERTIFICATE OF OCCUPANCY (TEMP)
x GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ OTHER (SPECIFY)

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

SUBMITTED BY: Diane Hoelzer, PE DATE: March 29, 2012

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 define 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.

# *Sawmill Crossing*

## *Table of Contents*


*I.* *PROJECT DESCRIPTION*

*II* *DESIGN CRITERIA AND PREVIOUS REPORTS*

*III.* *EXISTING DRAINAGE CONDITIONS*

*IV.* *DEVELOPED DRAINAGE CONDITIONS*

*V.* *PHASE I*

*FIGURE 1* *Vicinity Map*

*FIGURE 2* *Current FEMA Floodplain Map*

*FIGURE 3* *COA Hydrology Correspondence*

*FIGURE 4* *Infrastructure List*

*FIGURE 5* *Grading and Drainage Plan- (11"x17" copy)*

*FIGURE 6* *Preliminary Plat- (11"x17" copy)*

*APPENDIX A* *HYDROLOGY – AHYMO and Summary Table*

*APPENDIX B* *HYDRAULICS – Street Capacity Calcs.*

*POCKET 1* *GRADING AND DRAINAGE PLAN*

*POCKET 2* *PRELIMINARY PLAT*

## I. PROJECT DESCRIPTION

*The Sawmill Crossing project, encompassing an area of 6.9 acres is proposed to be developed into a 78 townhome community. The site plan was recently approved at EPC. The project entails two pocket park/picnic areas, landscape buffer zones, a retention pond for drainage and internal sidewalks within tracts to be owned and maintained by a HOA. The site is to be developed in two phases as indicated on the plat and grading and drainage plan.*

## II. DESIGN CRITERIA AND PREVIOUS REPORTS

*The design criteria used in this report was in accordance with Section 22.2 Hydrology of the Development Process Manual, Volume 2, Design Criteria, January 1993 edition. The 100-year 6-hour storm event was analyzed to determine street capacities using P(1 hr)=1.90", P(6 hr)=2.25". Through previous discussions with City hydrology, it was agreed upon that the retention pond would be design for the 100 year 6 hour storm and that any additional runoff above this amount would be allowed to spill at the southwest corner of the project site. This was agreed upon as a compromise solution since the recent development to the south did not account for or accommodate the existing flows that enter their site from this site.*

*The onsite Land Treatment values used were based on Table A-5 Percent Treatment D" in the DPM for "multiple unit residential attached" where D=70. The AHYMO summary is provided in Appendix A. Street Capacity exhibit and calcs. Are in Appendix B.*

## III. EXISTING DRAINAGE CONDITIONS

*The project site terrain is very flat. There is a mild high area in the center of the site. In general, there is some indication that runoff tends to flow towards the east and south to offsite areas. There is an existing offsite drainage channel at the east property boundary that indicates its use is to intercept and direct offsite flows from our project site through their site. The recently developed area to the south of our project site apparently did not account for or accommodate any of the runoff from this project site.*

*The project site is bounded to the north by Aspen Avenue and two railroad tracks. The railroad tracks appear to create a localized low lying area. The existing north half of Aspen Avenue is crowned and drains towards the north and east. The road is very flat. The property to the west is vacant land and appears to be very flat and likely drains to the south as well.*

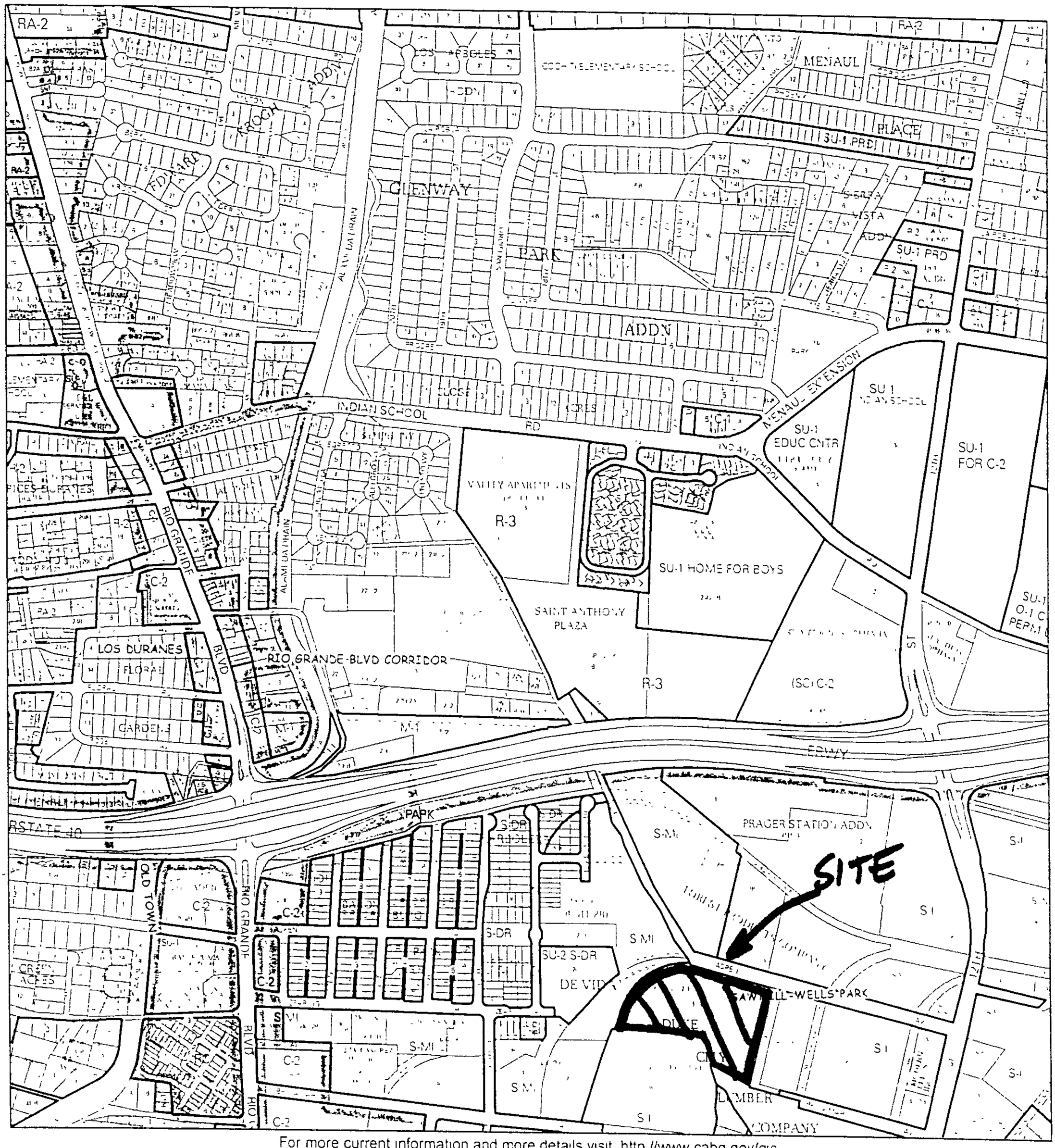
## *IV. DEVELOPED DRAINAGE CONDITIONS*

*Under developed drainage conditions, runoff will be conveyed as surface drainage along the streets to the retention pond located at the southwest area of the site. The retention pond is designed to retain the 100 year 6 hour storm event as previously agreed upon by the City Hydrology Engineer. All the town home roofs are to drain towards the front yard.*

*Drainage from the backyards will be handled in several different ways. Runoff from the back yards adjacent to Aspen Avenue will flow into the landscape area in Aspen. This area is to be maintained by the HOA. Backyard runoff from the townhomes along the east will be conveyed to the front street through cross lot drainage channels. Backyard runoff from homes along the northwest boundary will be conveyed in cross lot channels that discharge into the 5'x5' landscape area. Spillway from this landscape area will be conveyed to the front street in channels. Runoff from the internal townhomes will be conveyed through cross lot channels, into swales in the open space tracts and or discharge directly into the retention pond for those homes that are directly adjacent to the pond. Details are shown on the grading and drainage plan.*

## *V. INTERIM - PHASE I*

*Phase I entails Timber Drive and the west half of Bandsaw Place. The entire site is to be graded, including the pond, and will be stabilized. But only the 27 lots along Bandsaw Place are to be developed in this phase.*




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

Albuquerque Geographic Information System

Map amended through 2/1/2010

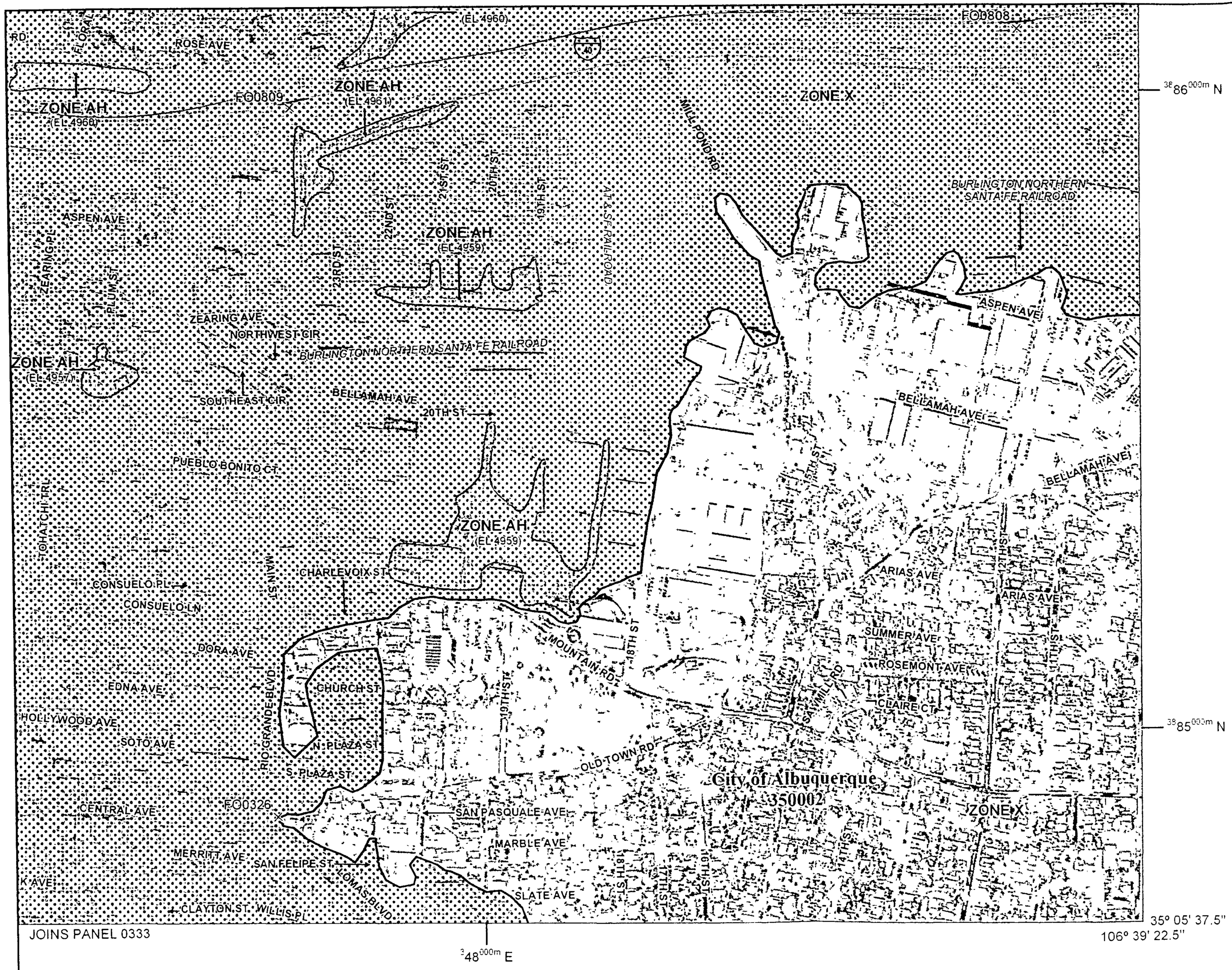
Zone Atlas Page

# H-13-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

Note: Grey Shading Represents Area Outside of the City Limits




MAP SCALE 1" = 500'

0 500 1000 FEET

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0331G

# FIRM

FLOOD INSURANCE RATE MAP

BERNALILLO COUNTY, NEW MEXICO AND INCORPORATED AREAS

PANEL 331 OF 825

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY | NUMBER | PANEL | SUFFIX |
|---|---|---|---|
| ALBUQUERQUE, CITY OF | 350002 | 0331 | G |
| BERNALILLO COUNTY | 350001 | 0331 | G |
| UNINCORPORATED AREAS | | | |

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

MAP NUMBER
35001C0331G

MAP REVISED
SEPTEMBER 26, 2008

Federal Emergency Management Agency

*FIGURE 2 Current FEMA Floodplain Map*

# CITY OF ALBUQUERQUE
# PLANNING DEPARTMENT
# DEVELOPMENT SERVICE / HYDROLOGY SECTION

DATE: 10-5-11

**CONFERENCE RECAP**

ZONE ATLAS PAGE NO: H13
DRAINAGE FILE: H13D057 H13D025A
ZONING:
DRB:
SUBJECT: _____
STREET ADDRESS (IF KNOWN): _____
SUBDIVISION NAME: Sawmill Village

APPROVAL REQUESTED:

ATTENDANCE: Doug Hughes, Bruce Stidworthy, Mike Balaskevitz, Curtis Cheme

FINDINGS:

Sawmill Village will accept 1 or 2 cfs for storms greater than the 100 yr - 6 hr storm along the north edge and the northeast corner of Sawmill village (1 cfs at each pt)

Engineers Certification of Sawmill Village to include acceptance of offsite flows mentioned above.

THE UNDERSIGNED AGREES THAT THE ABOVE FINDINGS ARE SUMMARIZED ACCURATELY AND ARE SUBJECT TO CHANGE IF FURTHER INVESTIGATION REVEALS THAT THEY ARE NOT REASONABLE OR THAT THEY ARE BASED ON INACCURATE INFORMATION

**SIGNED**: Curtis A. Cheme
**NAME (PRINT)**: Curtis A. Cheme

Doug Hughes
**SIGNED**:
**NAME (PRINT)**:

**NOTE** PLEASE PROVIDE A COPY OF THIS RECAP WITH YOUR DRAINAGE SUBMITTAL.

# CITY OF ALBUQUERQUE

December 1, 2011

James D. Hughes, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM 87199

**Re: Sawmill Crossing, Conceptual Grading Plan**
**Engineer's Stamp dated 11-10-11 (H13/D057)**

Dear Mr. Hughes,

Based upon the information provided in your submittal received 11-10-11, the above referenced plan cannot be approved for Site Plan for Subdivision action by the DRB until the following comments that were presented at the 11-16-11 DRB meeting are addressed:

- Meeting the ponding requirement will be more difficult with the proposed zoning. Hydrology would prefer to keep the existing zoning.
- Residential zoning may be possible with a neighborhood pond.
- Proposing public streets with this design will cause a mixture of Public and Private stormwater. That is undesirable.
- The Conceptual Grading Plan states to use 70% impervious, whereas the DPM has a max of 45% for the flat grading scheme. The proposed development is too dense to accommodate the ponding required.
- Homeowners are regularly filling in ponds on their lots. Hydrology would prefer to see a more centralized neighborhood private pond. The pond could double as a park.
- Why does the plan propose to fill so much at the south west corner? This is a historic outfall location.

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

Sincerely,

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

Copy: e-mail

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

Current DRC
Project Number _____

FIGURE 12

INFRASTRUCTURE LIST

EXHIBIT "A"
TO SUBDIVISION IMPROVEMENTS AGREEMENT
DEVELOPMENT REVIEW BOARD (D R B ) REQUIRED INFRASTRUCTURE LIST

**Sawmill Crossing**
PROPOSED NAME OF PLAT AND/OR SITE DEVELOPMENT PLAN

**Tract B-1-A-2, Duke City Lumber Company**
EXISTING LEGAL DESCRIPTION PRIOR TO PLATTING ACTION

Date Submitted 03/30/12
Date Site Plan Approved _____
Date Preliminary Plat Approved _____
Date Preliminary Plat Expires _____
DRB Project No 1009046
DRB Application No _____

Following is a summary of PUBLIC/PRIVATE Infrastructure required to be constructed or financially guaranteed for the above development This Listing is not necessarily a complete listing During the SIA process and/or in the review of the construction drawings, if the DRC Chair determines that appurtenant items and/or unforeseen items have not been included in the infrastructure listing, the DRC Chair may include those items in the listing and related financial guarantee Likewise, if the DRC Chair determines that appurtenant or non-essential items can be deleted from the listing, those items may be deleted as well as the related portions of the financial guarantees All such revisions require approval by the DRC Chair, the User Department and agent/owner If such approvals are obtained, these revisions to the listing will be incorporated administratively In addition, any unforeseen items which arise during construction which are necessary to complete the project and which normally are the Subdivider's responsibility will be required as a condition of project acceptance and close out by the City

| SIA Sequence # | COA DRC Project # | Size | Type of Improvement | Location | From | To | Private Inspector | City Inspector | City Cnst Engineer |
|---|---|---|---|---|---|---|---|---|---|
| | | | **PAVING** | | | | | | |
| | | 12'-16' F-E | Perm Pvmt (South Side) | Aspen Ave | Aspen W Terminus | West Place of Tract B | / | / | / |
| | | | C&G (South Side) | | | | | | |
| | | 4' | Sidewalk (South Side) | | | | | | |
| | | 26' FF | Res Pvmt | Bandsaw Dr | Timber Dr | West Terminus | / | / | / |
| | | | C&G (both sides) | | | | | | |
| | | 4' | Sidewalk (both sides) | | | | | | |
| | | 30' FF | Res Pvmt | Timber Dr | Aspen Ave | Bandsaw Pl | / | / | / |
| | | | C&G (both sides) | | | | | | |
| | | 4' | Sidewalk (both sides) | | | | | | |
| | | | **WATER** | | | | | | |
| | | 12" | Waterline | Timber Dr | Aspen Ave | Bandsaw Place | / | / | / |
| | | 6" | Waterline | Bandsaw Pl | Timber Dr | West Terminus | / | / | / |
| | | 6" | Waterline | S Side of Tract C | Bandsaw Pl | 250 E of Bandsaw Terminus Terminus | / | / | / |
| | | | **SANITARY SEWER** | | | | | | |
| | | 8" | Sanitary Sewer | Lot 5 Easement | 60" Off-Site Intercepter | Bandsaw Place | / | / | / |
| | | 8" | Sanitary Sewer | Bandsaw Pl | Lot 5 Easement | Timber Dr | / | / | / |
| | | | **STORM DRAIN** | | | | | | |
| | | 24" | Storm Drain | Bandsaw Pl | Bandsaw W Terminus | Tract B Pond | / | / | / |
| | | | | | | | / | / | / |

The items listed below are on the CCIP and approved for Impact Fee credits Signatures from the Impact Fee Administrator and the City User Department is required prior to DRB approval of this listing The Items listed below are subject to the standard SIA requirements

| Financially Guaranteed DRC # | Constructed Under DRC # | Size | Type of Improvement | Location | From | To |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |

Construction Certification

| Private Inspector | City Inspector | City Cnst Engineer |
|---|---|---|
| / | / | / |

Approval of Creditable Items

Impact Fee Admistrator Signature Date

Approval of Creditable Items

City User Dept Signature Date

Project name: Sawmill Crossing

1 Sidewalks to be deferred

2 Water Infrastructure to include valves, fittings, and firehydrants

3 SAS Infrastructure to include manholes and service connections

4 Storm Drain Infrastructure includes manholes and inlets

5 Grading and Drainage Certification and perimeter wall construction required prior to release of SIA and Financial Guaranty (Financial Guaranty not required for Grading and Drainage Plan )

6

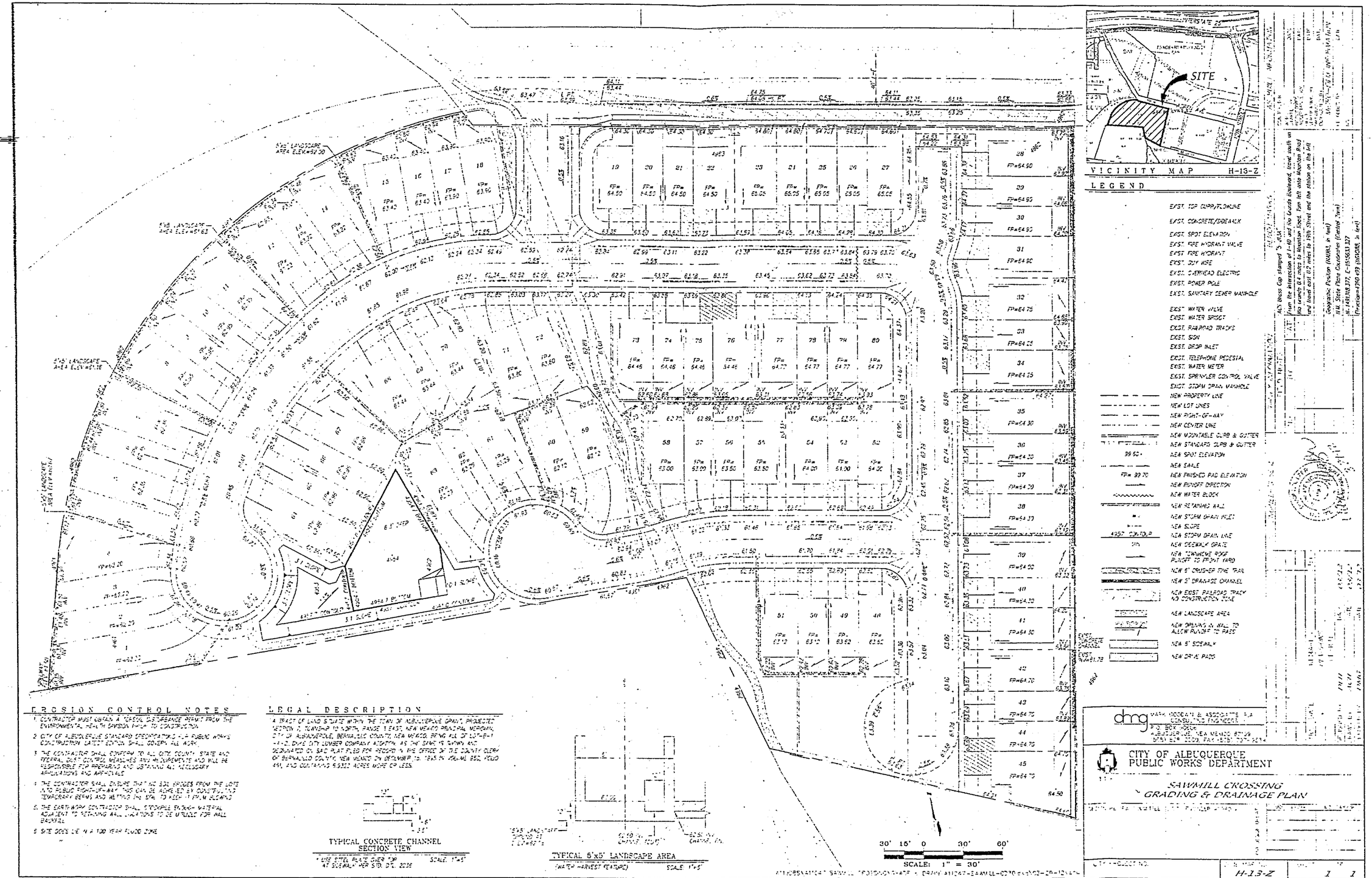
7

8

| AGENT / OWNER | DEVELOPMENT REVIEW BOARD MEMBER APPROVALS | |
|---|---|---|
| John M. MacKenzie, P.E.<br>NAME (print) | DRB CHAIR - date | PARKS & GENERAL RECREATION - date |
| Mark Goodwin & Associates<br>FIRM | TRANSPORTATION DEVELOPMENT - date | AMAFCA - date |
| SIGNATURE - date | UTILITY DEVELOPMENT - date | _____ - date |
| | CITY ENGINEER - date | _____ - date |

DESIGN REVIEW COMMITTEE REVISIONS

| REVISION | DATE | DRC CHAIR | USER DEPARTMENT | AGENT /OWNER |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |

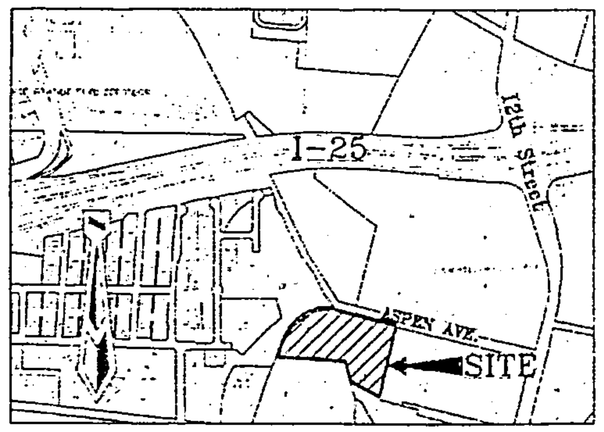



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FIGURE 5

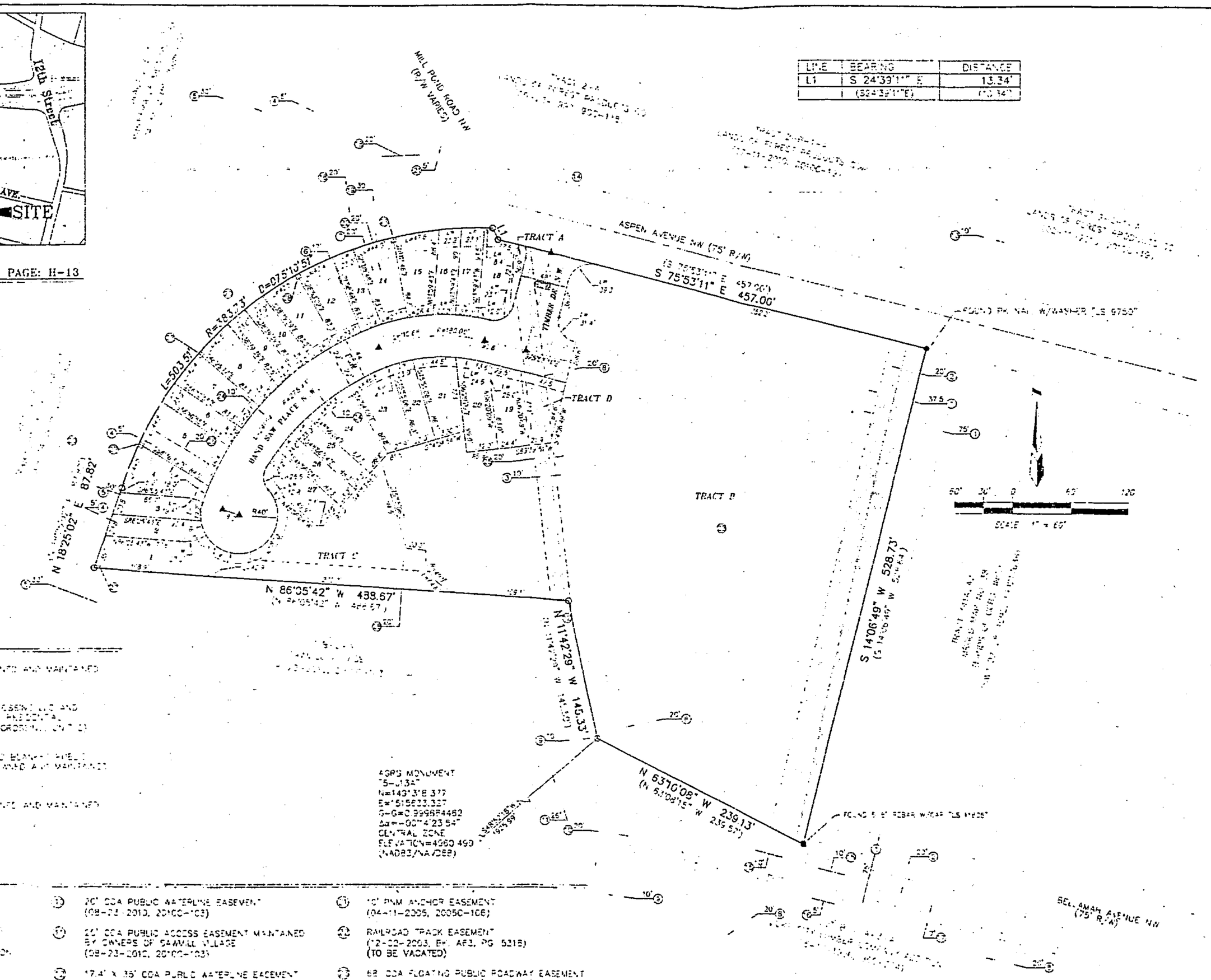
# PRELIMINARY PLAT FOR
# SAWMILL CROSSING
# UNIT 1

WITHIN THE
TOWN OF ALBUQUERQUE GRANT
PROJECTED SECTION 7
TOWNSHIP 10 NORTH, RANGE 3 EAST, N.M.P.M.
CITY OF ALBUQUERQUE BERNALILLO COUNTY, NEW MEXICO
MARCH, 2012




VICINITY MAP
SCALE: 1"=750' ZONE ATLAS PAGE: H-13

| LINE | BEARING | DISTANCE |
|---|---|---|
| L1 | S 24°39'11" E | 13.34' |
| | (S24°39'11"E) | (13.34') |




## NOTES

1. PERIMETER AREA OWNED AND MAINTAINED BY TRACT B-1-A-2
2. TRACT B OWNED BY SAWMILL CROSSING, LLC AND ULTIMATELY CONVEYED TO A HOMEOWNERS ASSOCIATION (SAWMILL CROSSING UNIT 2)
3. TRACT D OPEN SPACE AREA AND BLANKET PRIVATE DRAINAGE EASEMENT OWNED AND MAINTAINED BY THE HOA.
4. TRACT C PUBLIC PARK AREA OWNED AND MAINTAINED BY THE COA

## EASEMENTS

1. 75' RESERVED FOR PUBLIC UTILITIES BY VACATION ORDINANCE NO. 2415 (03-16-1965, BK. M&C 50, PG. 848-854). (HATCHED PORTION TO BE VACATED)
2. 20' SANITARY SEWER EASEMENT BY VACATION ORDINANCE NO. 2415 (03-16-1965, BK. M&C 50, PG. 848-854)
3. 10' PNM EASEMENT (05-25-1968, BK. M&C 107, PG. 297-30) 10 PNM EASEMENT BY JUDGEMENT (05-25-1965 BK. M&C 107, PG. 301-324) (HATCHED PORTION TO BE VACATED)
4. 5' PNM EASEMENT (03-18-1950, BK. D135, PG. 547-549)
5. 35' COA PERMANENT UTILITY EASEMENT BY JUDGEMENT (04-09-1968, BK. M&C 99, PG. 776-787)
6. 17' RAILROAD EASEMENT (10-24-2003, BK. A67, PG. 4651, (HATCHED PORTION TO BE VACATED)
7. 20' NON-EXCLUSIVE RAILWAY EASEMENT (01-24-1940, BK. D118, PG. 278-280) (HATCHED PORTION TO BE VACATED)
8. 20' COA PUBLIC WATERLINE UTILITY EASEMENT LOCATION IS APPROXIMATE (08-17-1990, 90C-222) (HATCHED PORTION TO BE VACATED)
9. 10' QWEST EASEMENT (08-18-2003, BK. A81, PG. 8489)
10. 20' COA PUBLIC WATERLINE EASEMENT (08-23-2010, 2010C-103)
11. 20' COA PUBLIC ACCESS EASEMENT MAINTAINED BY OWNERS OF SAWMILL VILLAGE (08-23-2010, 2010C-103)
12. 17.41' X 35' COA PUBLIC WATERLINE EASEMENT (08-23-2010, 2010C-103)
13. 10' PNM EASEMENT (01-07-1953, BK. D279, PG. 93-96)
14. COA PUBLIC TEMPORARY TURN-AROUND EASEMENT (08-25-1930, 90C-135)
15. 10' PUE (06-17-1996, 96C-234)
16. 5' PNM ANCHOR EASEMENT (06-17-1996, 96C-234)
17. 7' UTILITY EASEMENT (04-24-1978, D8-152)
18. 20' COA PUBLIC EMERGENCY ACCESS EASEMENT (10-06-2005, 2005C-325)
19. 30' BN & SF RAILWAY COMPANY EASEMENT (04-11-2005, 2005C-106)
20. COA PUBLIC DRAINAGE EASEMENT (04-11-2005, 2005C-106)
21. 10' PNM ANCHOR EASEMENT (04-11-2005, 2005C-106)
22. RAILROAD TRACK EASEMENT (12-22-2003, BK. A83, PG. 5218) (TO BE VACATED)
23. 66' COA FLOATING PUBLIC ROADWAY EASEMENT (12-15-1965, 95C-451) (TO BE VACATED)
24. NEW 10' PUBLIC UTILITY EASEMENT GRANTED WITH THIS PLAT.
25. NEW 20' PNM EASEMENT GRANTED WITH THIS PLAT.
26. NEW 20 FOOT PUBLIC SANITARY SEWER EASEMENT GRANTED WITH THIS PLAT
27. NEW 5x5 FOOT WIDE LANDSCAPE EASEMENT GRANTED TO AND TO BE MAINTAINED BY ADJACENT PROPERTY OWNERS
28. NEW 20 FOOT PUBLIC WATER LINE EASEMENT GRANTED BY THIS PLAT.

| Lot Area Table | |
|---|---|
| LOT# | Area |
| 1 | 0.1005 Ac. |
| 2 | 0.0495 Ac. |
| 3 | 0.0455 Ac. |
| 4 | 0.0455 Ac. |
| 5 | 0.0910 Ac. |
| 6 | 0.0440 Ac. |
| 7 | 0.0464 Ac. |
| 8 | 0.0476 Ac. |
| 9 | 0.0440 Ac. |
| 10 | 0.0440 Ac. |
| 11 | 0.0476 Ac. |
| 12 | 0.0464 Ac. |
| 13 | 0.0440 Ac. |
| 14 | 0.0492 Ac. |

| Lot Area Table | |
|---|---|
| LOT# | Area |
| 15 | 0.0727 Ac. |
| 16 | 0.0471 Ac. |
| 17 | 0.0455 Ac. |
| 18 | 0.0829 Ac. |
| 19 | 0.0822 Ac. |
| 20 | 0.0725 Ac. |
| 21 | 0.0729 Ac. |
| 22 | 0.0457 Ac. |
| 23 | 0.0747 Ac. |
| 24 | 0.0764 Ac. |
| 25 | 0.0455 Ac. |
| 26 | 0.0455 Ac. |
| 27 | 0.0651 Ac. |

| Tract Area Table | |
|---|---|
| Name | Area |
| Tract A | 0.0127 Ac. |
| Tract B | 4.2472 Ac. |
| Tract C | 0.3320 Ac. |
| Tract D | 0.2247 Ac. |
| ASW | 0.6196 Ac. |

## SUBDIVISION DATA

| | |
|---|---|
| GROSS ACREAGE | 6.9323 AC |
| ZONE ATLAS NO. | H-13-Z |
| NO. OF LOTS EXISTING | 1 LOTS |
| NO. OF LOTS/TRACTS CREATED | 27 LOTS/4 TRACTS |
| DATE OF SURVEY | JANUARY, 2012 |

## DESCRIPTION

A tract of land situate within the Town of Albuquerque Grant, projected Section 7, Township 10 North, Range 3 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, being all of LOT B-1-A-2, DUKE CITY LUMBER COMPANY ADDITION, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico on December 15, 1995 in Volume 95C, Folio 451, and containing 6.9323 acres more or less.

## PURPOSE OF PLAT

1. SUBDIVIDE LOT B-1-A-2, DUKE CITY LUMBER COMPANY ADDITION INTO 27 RESIDENTIAL LOTS, AND 4 TRACTS.
2. GRANT NEW EASEMENTS AS SHOWN.
3. VACATE EASEMENTS AS SHOWN.

## NOTES

1. BEARINGS ARE NEW MEXICO STATE PLANE GRID BEARINGS (CENTRAL ZONE).
2. DISTANCES ARE GROUND DISTANCES.
3. BEARINGS AND DISTANCES IN PARENTHESIS ARE RECORD.
4. BASIS OF BOUNDARY IS FROM THE PLAT OF RECORD ENTITLED:

   "DUKE CITY LUMBER COMPANY ADDITION", (12-15-1995, 95C-451)
   "DUKE CITY LUMBER COMPANY ADDITION", (05-17-1996, 96C-234)
   "DUKE CITY LUMBER COMPANY ADDITION", (08-17-1990, 90C-222)
   "DUKE CITY LUMBER COMPANY ADDITION", (04-04-1978, D8-152)
   "DUKE CITY LUMBER COMPANY ADDITION", (12-22-1971, D4-177)
   "SAWMILL VILLAGE", (08-23-2010, 2010C-103)
   "LANDS OF FOREST PRODUCTS CO.", (05-25-1990, 90C-135)
   "LANDS OF FOREST PRODUCTS CO.", (08-11-2010, 2010C-13)
   "ARBELERA DE VIA UNIT 2B", (04-14-2005, 2005C-79)
   "SPECIAL WARRANTY DEED", (02-25-1992, 1992017635)
   "LANDS OF OTTO SCHEER", (Dated 09-02-1943)
   "INDUSTRIAL PROPERTY & LEAD TRACK", (Dated 04-28-1947)

   ALL BEING RECORDS OF BERNALILLO COUNTY, NEW MEXICO

5. FIELD SURVEY PERFORMED IN JANUARY, 2012
6. CITY OF ALBUQUERQUE, NEW MEXICO ZONE: S-1
7. 100 YEAR FLOOD ZONE DESIGNATION: ZONE X AND ZONE X (AREAS PROTECTED BY DIKES AND LEVEES), AS SHOWN ON PANEL 33 OF 825, FLOOD INSURANCE RATE MAP, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, DATED SEPTEMBER 26, 2008.

## LEGEND

- LIMITS OF VACATION
- RIGHT OF WAY VACATION
- ▲ CENTER LINE MONUMENT OF PUBLIC ROADWAY
- O SET 5/8 REBAR WITH CAP "LS 7719".


**SURVEYOR**
ALDRICH LAND SURVEYING
P.O. BOX 30701
ALBUQUERQUE, NM 87190
(505) 884-1990

**OWNERS**
SAWMILL CROSSING, LLC
7400 HANCOCK CT. NE
ALBUQUERQUE, NM 87109
PH: (505) 797-1134
FAX: (505) 797-2589

**ENGINEERS**
D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90828
ALBUQUERQUE, NM 87199
(505) 828-2200


## APPROVED

CITY SURVEYOR, CITY OF ALBUQUERQUE, N.M. DATE

SAWMILL CROSSING LLC.
OWNER OF TRACT B-1-A-2
KEITH CHEESHIRE, MANAGER 3/29/12 DATE

F:\A11JOBS\A11947 Sawmill Crossing\PLATS\PRELIMINARY PLAT'S\A11947 PP COVER 01.dwg

SHEET 1 OF 1

FIGURE 6

# *APPENDIX A - HYDROLOGY*

*Summary Table*

*AHYMO Printouts*

SAWMILL SUBDIVISION
SUMMARY OF HYDROLOGY

| SUB BASIN | AREA | AREA | Q(100) |
|---|---|---|---|
| | SF | ACRES | cfs |
| 1 | 52,678 | 1.2093 | 4.67 |
| 2 | 42,604 | 0.9780 | 3.78 |
| 3 | 4,213 | 0.0967 | 0.37 |
| 4 | 43,181 | 0.9913 | 3.83 |
| 5 | 22,766 | 0.5226 | 2.02 |
| 6 | 4,500 | 0.1033 | 0.40 |
| 7 | 4,905 | 0.1126 | 0.43 |
| 8 | 34,023 | 0.7811 | 3.02 |
| 9 | 31,968 | 0.7339 | 2.83 |
| 10 | 14,037 | 0.3222 | 1.24 |
| 11 | 33,075 | 0.7593 | 2.93 |
| 12 | 14,321 | 0.3288 | 1.27 |
| | | | |
| **TOTAL** | **302,271** | **6.9392** | **26.79** |

□(s16.67h8.5v0T□&18D

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) - - VERSION: 1997.02d RUN DATE (MON/DAY/YR) =03/26/2012
INPUT FILE = sawmill.dat USER NO.= AHYMO-I-9702dGoodwinM-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 | NOTATION |
|---|---|---|---|---|---|---|---|---|---|---|

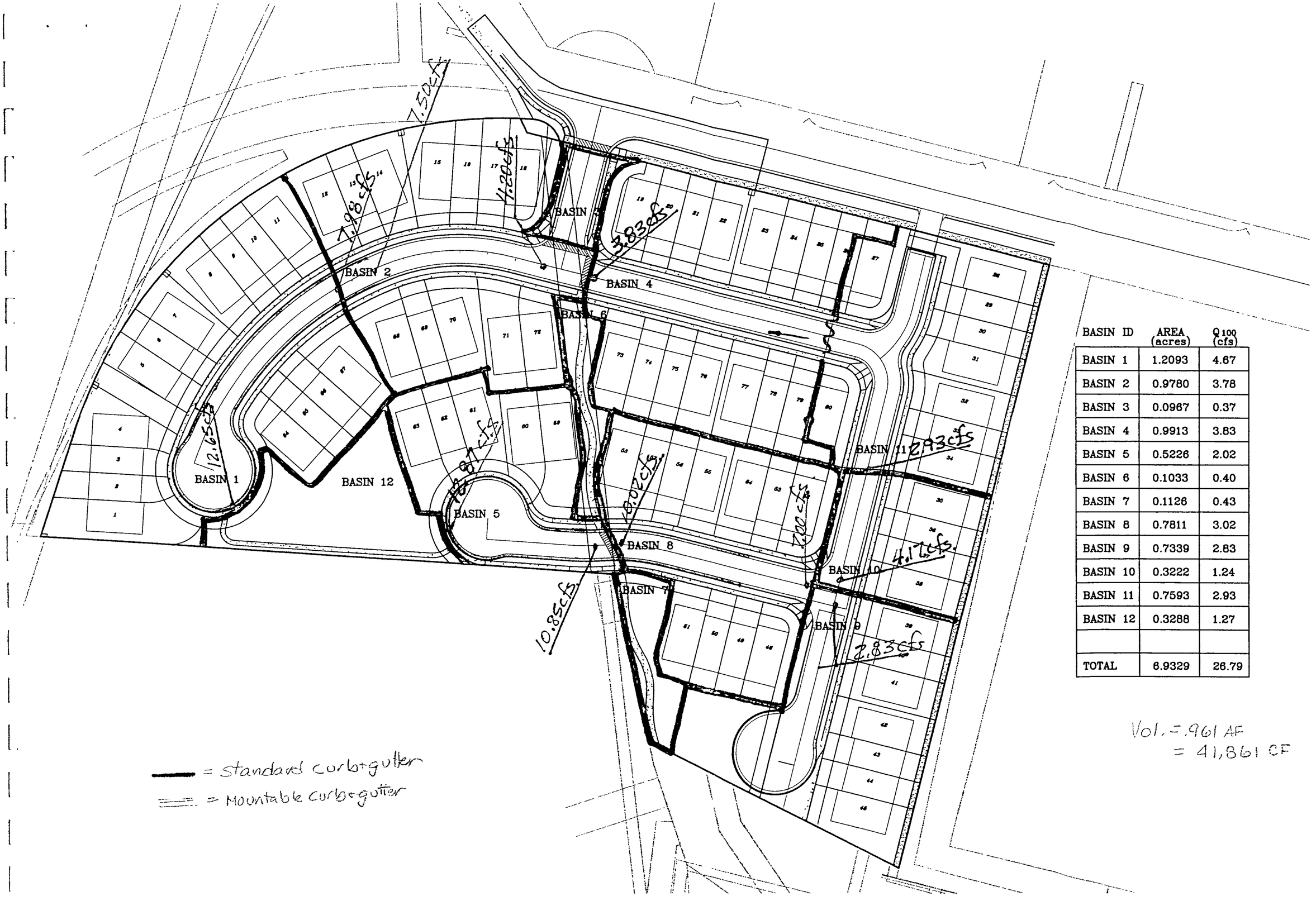


```
*S**********************************************************
*S
*S                    Sawmill Subdivision -
*S                    100 YEAR 6 HOUR STORM EVENT
*S
*S                    FILE: SAWMILL.DAT
*S                    LAST REVISED: 3-12-12
*S                    NOAA ATLAS 2, VOL IV ZONE=H 13
START                                                                    TIME=       .00
LOCATION                        NEW MEXICO
RAINFALL  TYPE= 1                                                        RAIN6=    2.250
*S**********************************************************
*S  ONSITE SUB BASINS
COMPUTE NM HYD        100.00    -      1        .01083        26.79        .961      1.66423    1.499     3.865 PER IMP=  70.00
FINISH
*S**********************************************************
*S
*S                    Sawmill Subdivision -
*S                    100 YEAR 6 HOUR STORM EVENT
*S
*S                    FILE: SAWMILL.DAT
*S                    LAST REVISED: 3-12-12
*S                    NOAA ATLAS 2, VOL IV ZONE=H 13
START                 TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-6
LOCATION              NEW MEXICO
RAINFALL              TYPE=1 RAIN QUARTER=0.0
                      RAIN ONE=1.90 IN RAIN SIX=2.25 IN
                      RAIN DAY=2.70 IN DT=0.0333 HRS
*S**********************************************************
*** ******************
*S  ONSITE SUB BASINS
*** ******************
*** SUB BASIN 100
*** RESIDENTIAL
*** AREA 6.932 ACRES
*** ******************
COMPUTE NM HYD        ID=1  HYD NO=100 AREA= 0.0108316 SQ MI
                      PER A=0  PER B=15  PER C=15  PER D=70
                      TP=-.1333 HR  MASS RAIN=-1
PRINT HYD             ID=1 CODE=1
FINISH
```

# *APPENDIX B - HYDRAULICS*

*Street Capacity Exhibit*

*HEC-2 printout*




| BASIN ID | AREA (acres) | $Q_{100}$ (cfs) |
|---|---|---|
| BASIN 1 | 1.2093 | 4.67 |
| BASIN 2 | 0.9780 | 3.78 |
| BASIN 3 | 0.0967 | 0.37 |
| BASIN 4 | 0.9913 | 3.83 |
| BASIN 5 | 0.5226 | 2.02 |
| BASIN 6 | 0.1033 | 0.40 |
| BASIN 7 | 0.1126 | 0.43 |
| BASIN 8 | 0.7811 | 3.02 |
| BASIN 9 | 0.7339 | 2.83 |
| BASIN 10 | 0.3222 | 1.24 |
| BASIN 11 | 0.7593 | 2.93 |
| BASIN 12 | 0.3288 | 1.27 |
| | | |
| TOTAL | 6.9329 | 26.79 |

Vol. = .961 AF
= 41,861 CF

= Standard curb+gutter

= Mountable curb+gutter

```
1*****************************************
 *  HEC-2 WATER SURFACE PROFILES           *
 *                                         *
 *  Version   4.6.2;  May 1991             *
 *                                         *
 *  RUN DATE    21MAR12    TIME   14:27:59  *
 *****************************************
```

```
*************************************
*  U.S. ARMY CORPS OF ENGINEERS     *
*  HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D       *
*  DAVIS, CALIFORNIA 95616-4687     *
*          (916) 756-1104           *
*************************************
```

```
X     X  XXXXXXX   XXXXX             XXXXX
X     X  X        X     X           X     X
X     X  X        X                       X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX             XXXXXXX
```



```
 HEC-2 WATER SURFACE PROFILES
 Version   4.6.2;  May 1991
*************************************

T1          SAWMILL SUBDIVISION --- STREET CAPACITY
T2          26'FF MTB CURB
T3

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0         2         0         0      .005         0         0         0         0         0

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     38        43         1         2        26         4        68         3

NC     .017      .017      .017        .1        .3
QT        2       7.5       8.0
X1        1         9         0        48         0         0         0         0         0         0
GR      .51         0       .33         9         0      10.6     .0625     11.63     .3099        22
GR    .0625     32.37         0      33.4       .33        35       .51        44

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*PROF 1

CCHV=     .100 CEHV=     .300
*SECNO 1.000
2096 WSEL NOT GIVEN, AVG OF MAX, MIN USED
     1.000      .33       .33       .00       .00       .38       .05       .00       .00       .51
```

```
       7.5        .0       7.5        .0        .0       4.1        .0        .0        .0        .51
       .00        .00      1.82       .00       .000     .017       .000      .000      .00       9.00
   .005080         0.        0.        0.         0         0          6       .00     26.00      35.00

T1
T2
T3

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0         3         0         0       .006

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      2         0        -1         0         0         0         0         0         0         0

    SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
    TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*PROF 2
CCHV=     .100 CEHV=     .300
*SECNO 1.000
2096 WSEL NOT GIVEN, AVG OF MAX, MIN USED
     1.000       .33       .33       .00       .00       .39       .06       .00       .00       .51
       8.0        .0       8.0        .0        .0       4.1        .0        .0        .0       .51
       .00       .00      1.96       .00       .000      .017      .000      .000      .00      9.01
   .005973         0.        0.        0.         0         0         7       .00     25.98     34.99

 THIS RUN EXECUTED 21MAR12    14:27:59
************************************
 HEC-2 WATER SURFACE PROFILES
 Version   4.6.2;  May 1991
************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SUMMARY PRINTOUT

      SECNO        Q        CWSEL      CRIWS       VCH       TOPWID      FRCH        EG

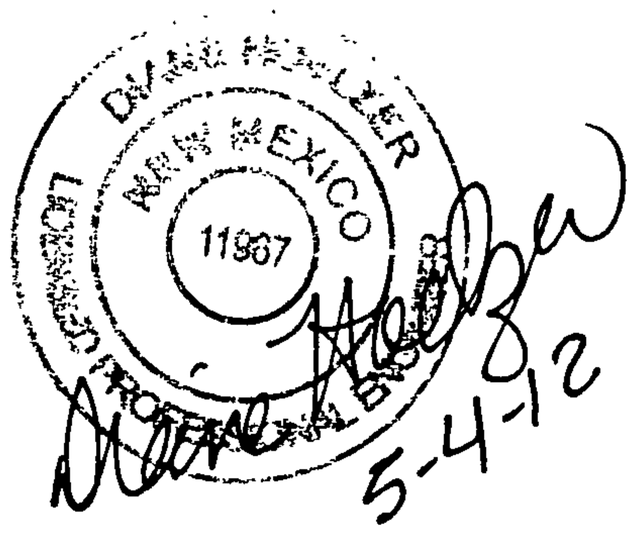
      1.000       7.50        .33        .00       1.82       26.00        .81        .38
      1.000       8.00        .33        .00       1.96       25.98        .87        .39

 SUMMARY OF ERRORS AND SPECIAL NOTES
```

# *SUPPLEMENTAL INFORMATION*

## *DRAINAGE MANAGEMENT PLAN*
## *For*
## *SAWMILL CROSSING SUBDIVISION*
## *(A Townhome Community)*

*Prepared for:*
*City of Albuquerque*




*Prepared by*
*Mark Goodwin & Associates, P.A.*

***May 2012***

*Sawmill Crossing*

1. *Response Letter dated 5-4-12*
2. *City Comment Letter dated 4-19-12*
3. *Pond Volume design calculations*
4. *Ahymo output with retention pond routing*
5. *Vicinity map showing monitor well boring location*
6. *URS boring results (2 pages)*
7. *POCKET 1 Grading and Drainage Plan Unit 1 and 2*
8. *POCKET 2 Grading and Drainage Plan Unit 1*

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

*May 3, 2012*

*Mr. Curtis Cherne, PE*
*Principal Engineer, Planning Dept.*
*Development and Building Services*
*City of Albuquerque*
*PO Box 1293*
*Albuquerque, NM 87103*

***Re: Sawmill Crossing Grading and Drainage Plan***
***Engineers Revised Stamp Date 3-29-12 (H-13/D057)***

*Dear Mr. Cherne;*

*In response to your comment letter dated 4-19-12, your comments are addressed below:*

1. *OK.*
2. *There is a 20 ft. thick medium sand layer under a 10 ft. clay sand layer. At the time of grading, contractor will verify that the bottom of the pond is in the sand latey. The water monitoring bore log is provided with this resubmittal and along with percolation calcs.*
3. *At this time only Unit 1 will be rough graded to finished pads, Unit 2 will be rough graded to allow for runoff to be directed to pond area only. I have submitted both an overall Unit 1 and 2 grading plan and a Unit 1 'only' grading plan.*
4. *Refer to #3 answer.*
5. *OK.*
6. *The spillway will be the concrete sidewalk.*
7. *The retaining walls in the pond will be designed and built by others. A continuous pored concrete wall can be done.*
8. *Yes, there are inlets and storm pipe connecting into the pond. These features have been added to the G&D plan.*
9. *Yes, existing survey indicates flow in the existing channel drains towards the east and is more clearly shown on the revised plan. Additional existing spot elevations have been shown on the east, west and south side of the property.*
10. *Lots 42-44 drain to a backyard channel and then eastward through the existing offsite channel. A note to this affect has been added to the G&D plan.*
11. *OK.*
12. *No, the wall on the back side will be at an elevation 6" above the channel inverts going into and out of the landscape box area. This design information will be provided to the wall builder.*

13. OK.
14. After receiving additional railroad tie spot elevations, the railroad will create a high spot immediately in front of the entrance road.
15. The existing railroad dictates what happens at the entrance road.
16. I did provide invert elevations for all the backyard channels. The minimum slope used for the channels in 0.5%. Back yard channels will be designed at the time of DRC to make sure they work with design flowline grades in the roads.
17. The 62.31 is the top of sidewalk, not an invert grade. All invert grades should be indicated with "INV" after the elevation. There is a swale indicated in this area at a slope of +-0.6%. Clarification has been added to the plan.
18. The driveway widths are in compliance with the builder's home design.
19. These are not retaining walls. These were walls as shown on the site plan that were also shown in the G&D plan. The revised plan has clarified the distinction between perimeter walls versus retaining walls.
20. Street names have been added to the grading plan.
21. OK.
22. OK. There will not be curb and gutter nor sidewalk within the boundary of the railroad tracks.
23. OK.

Please call me if you have any questions.

Sincerely,

MARK GOODWIN & ASSOCIATES, P.A.

Diane Hoelzer, PE
Senior Engineer

DLH/dlh
f:\\11047\sawmill crossing\hydr_ltr.docx

# CITY OF ALBUQUERQUE

April 19, 2012

Diane Hoelzer, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM 87199

**Re: Sawmill Crossing, Grading and Drainage Plan**
**Engineer's Stamp dated 3-29-12 (H13/D057)**

Dear Ms. Hoelzer,

Based upon the information provided in your submittal received 3-29-12, the above referenced plan cannot be approved for Preliminary Plat action by the DRB until the following comments are addressed:

- Due to the flatness of the site and the unique drainage scheme, Hydrology initially thought the amount of imperviousness should be 50% or less. However, a centralized pond as shown on the plan could work if the water in the pond can infiltrate into the ground. It would be preferable for the water in the pond to infiltrate in 24 hours, so that it will be nearly dry before the next rainfall event.
- It is my understanding that in this location, there is a layer of soil with acceptable percolation rates at 5 or 6 feet below the ground surface. The proposed pond is 6.3 feet deep and therefore the pond bottom may be in this soil with acceptable percolation rates. Provide a bore log in the location of the proposed pond and percolation calculations to aid in the determination of the time it will take for water in the pond to infiltrate.
- Since this site will be developed in phases, provide a grading plan that shows the lots to be developed as well as grades on the undeveloped areas. If you prefer, comments on the grading plan for future phases can be addressed when those phases are developed.
- Do you intend the grade the entire site creating pads for Unit 1 and rough grading for the other areas or creating pads and street grades on the entire site?
- Provide the Volume Required, Volume Provided and WSE for the proposed pond on the grading plan.
- Provide a spillway for the pond and show the inlet on the site to the south that will receive the runoff. The spillway can be rock, but not small rock.
- The pond walls should be constructed of continuously poured concrete not CMU blocks. Details to be determined at DRC.
- Is there supposed to be an inlet in each cul-de-sac? Show the storm drain.
- Provide existing elevation data on the east and west sides of the site. Additional survey data should be provided to determine if the existing concrete rundown between lots 42 and 41 drains to the east. During a site visit, it appeared that flows don't drain to the east as witnessed by an area of fines on this site.
- The drainage report should states that lots 41 through 44 will drain to the east via the existing concrete channel, if it does drain east.

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

# CITY OF ALBUQUERQUE

- Show the built environment on the Sawmill site to the south in the area of the proposed pond.
- It appears the 5'x5' landscape areas may drain out the back rather than out to the front per the drainage report.
- DMD has asked Hydrology to minimize the use of sidewalk culverts, because the plates are being stolen. To assist DMD with their request, Hydrology would prefer water harvesting areas that drain thru 4" (multiple?) pipes thru the curb rather than sidewalk culverts. The property owners will be responsible for maintenance of the pipes. Please add a note to the plat.
- Aspen Ave currently drains west to east across the frontage of this site. You are proposing to introduce a high point in Aspen Ave near lot 23 that will interrupt the existing flow pattern.
- Provide a water block at the entrance to this site.
- Provide slopes and flows for all channels.
- The channel that daylights near lot 58 has in invert of 61.70. The downstream (?) grade on the other side of the sidewalk is proposed to be 62.31. Should the sidewalk culvert extend across the sidewalk?
- To help minimize the amount of imperviousness, single car width or narrower driveways should be considered.
- Retaining walls are shown near lots 73, 58 and 51. They appear to be unnecessary due to the flatness of this site.
- Please provide street names on the grading plan.
- Provide flow arrows in the back yards of Lots 1 through 7.
- The plan proposes curb and gutter and sidewalk across the railroad tracks. How will this be built? Provide spot elevation data at regular intervals in the location of the railroad tracks.
- Hydrology appreciates including the infrastructure list and plat in the drainage report.

If you have any questions or would like to set a meeting, please contact me at 924-3986.

Sincerely,

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

Copy: e-mail

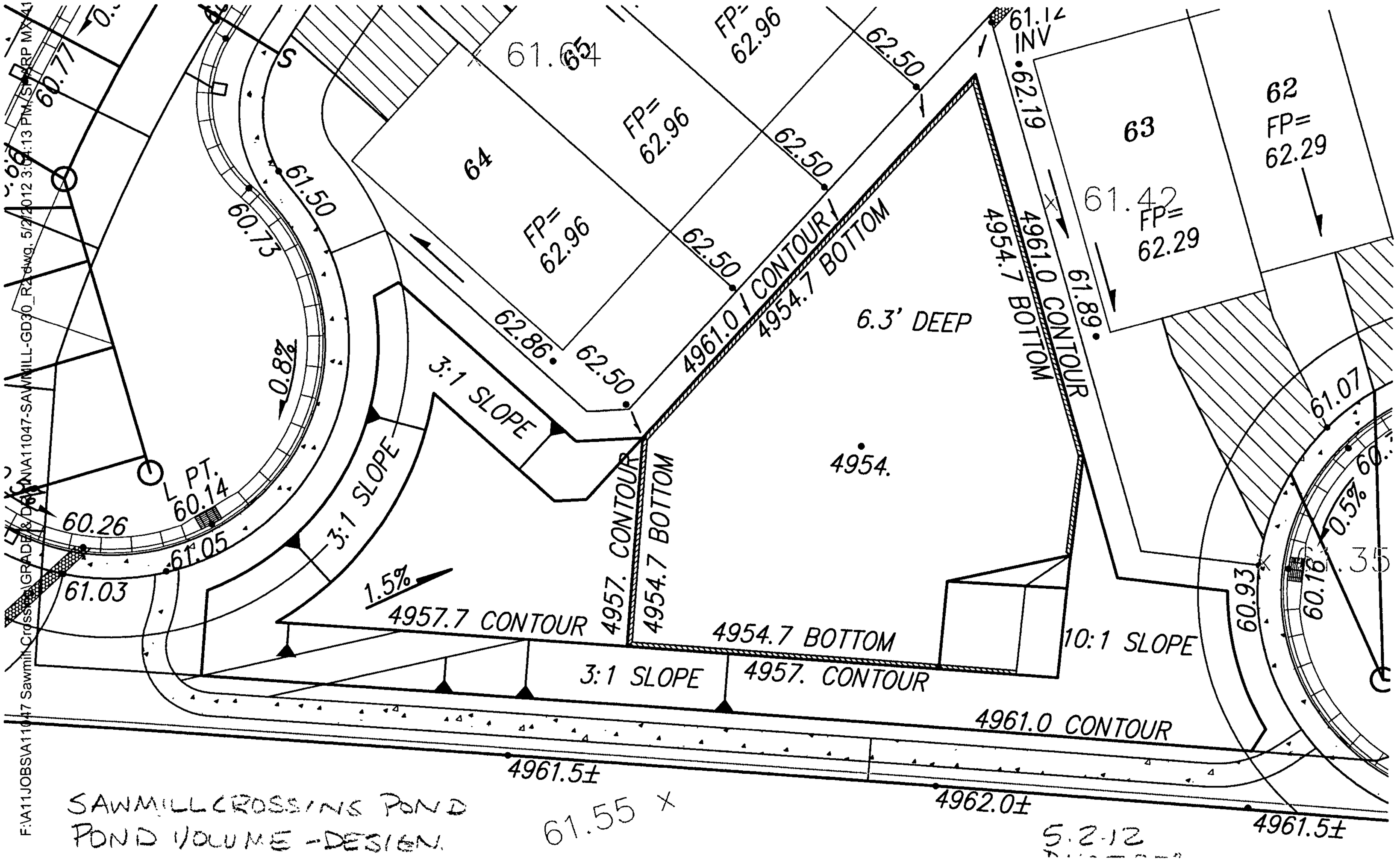
PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

Volume calc. - design

9884 SF - 61.0
6472 SF - 57.0 } $\frac{1}{3}(4)(9884+6472+\sqrt{\ })$ = 32,472 CF

6472 SF - 57.0
4705 SF - 54.7 } $\frac{1}{3}(2.3)(6472+4705+\sqrt{\ })$ = 12,799 CF

45,272 CF




SAWMILL CROSSING POND
POND VOLUME - DESIGN

5.2.12

F:\A11JOBS\A11047 Sawmill Crossing\GRADE\&DRAINA11047-SAWMILL-GD30_R2.dwg, 5/2/2012 3:04:13 PM, STARRP MX 4101N PCL6

```
    AHYMO PROGRAM (AHYMO_97) -                          - Version:  1997.02d
         RUN DATE (MON/DAY/YR) = 05/04/2012
         START TIME (HR:MIN:SEC) = 12:29:13      USER NO.= AHYMO-I-9702dGoodwinM-AH
         INPUT FILE = SAWMILL.DAT

*S**************************************************************
*S
*S                   Sawmill Subdivision -
*S                   100 YEAR 6 HOUR STORM EVENT
*S
*S                   FILE: SAWMILL.DAT
*S                   LAST REVISED: 3-12-12
*S                   NOAA ATLAS 2, VOL 1V ZONE=H 13
START               TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-6
LOCATION            NEW MEXICO
     State of New Mexico 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=1 RAIN QUARTER=0.0
                    RAIN ONE=1.90 IN RAIN SIX=2.25 IN
                    RAIN DAY=2.70 IN DT=0.0333 HRS

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT =     .033300 HOURS        END TIME =     5.994000 HOURS
   .0000   .0018   .0036   .0055   .0074   .0094   .0114
   .0134   .0155   .0177   .0199   .0221   .0245   .0268
   .0293   .0318   .0344   .0371   .0399   .0428   .0457
   .0488   .0520   .0553   .0588   .0624   .0662   .0702
   .0744   .0788   .0834   .0887   .0943   .1003   .1126
   .1410   .1848   .2477   .3338   .4470   .5915   .7714
   .9912  1.2021  1.2887  1.3615  1.4262  1.4850  1.5392
  1.5894  1.6364  1.6804  1.7218  1.7609  1.7978  1.8327
  1.8658  1.8971  1.9269  1.9552  1.9820  1.9895  1.9955
  2.0011  2.0065  2.0117  2.0166  2.0214  2.0259  2.0304
  2.0346  2.0387  2.0427  2.0466  2.0504  2.0541  2.0576
  2.0611  2.0645  2.0678  2.0711  2.0743  2.0774  2.0804
  2.0834  2.0863  2.0891  2.0920  2.0947  2.0974  2.1001
  2.1027  2.1053  2.1078  2.1103  2.1127  2.1151  2.1175
  2.1199  2.1222  2.1245  2.1267  2.1289  2.1311  2.1333
  2.1354  2.1375  2.1396  2.1416  2.1437  2.1457  2.1476
  2.1496  2.1515  2.1535  2.1554  2.1572  2.1591  2.1609
  2.1627  2.1645  2.1663  2.1681  2.1698  2.1716  2.1733
  2.1750  2.1767  2.1783  2.1800  2.1816  2.1832  2.1849
  2.1865  2.1880  2.1896  2.1912  2.1927  2.1942  2.1958
  2.1973  2.1988  2.2002  2.2017  2.2032  2.2046  2.2061
  2.2075  2.2089  2.2103  2.2117  2.2131  2.2145  2.2159
```

```
                2.2172  2.2186  2.2199  2.2213  2.2226  2.2239  2.2252
                2.2265  2.2278  2.2291  2.2304  2.2316  2.2329  2.2342
                2.2354  2.2366  2.2379  2.2391  2.2403  2.2415  2.2427
                2.2439  2.2451  2.2463  2.2475  2.2486  2.2498

*S************************************************************
*** ******************
*S  ONSITE SUB BASINS
*** ******************
*** SUB BASIN 100
*** RESIDENTIAL
*** AREA 6.932 ACRES
*** ******************
COMPUTE NM HYD       ID=1  HYD NO=100 AREA= 0.0108316 SQ MI
                     PER A=0  PER B=15  PER C=15  PER D=70
                     TP=-.1333 HR  MASS RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   29.935    CFS   UNIT VOLUME =    .9990       B =   526.28       P60 = 1.9000
     AREA =       .007582 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300


     K =   .118483HR    TP =   .133300HR    K/TP RATIO =   .888844     SHAPE CONSTANT, N =  3.990548
     UNIT PEAK =   8.6427    CFS   UNIT VOLUME =    .9989       B =   354.54       P60 = 1.9000
     AREA =       .003249 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD            ID=1 CODE=1

                                PARTIAL HYDROGRAPH   100.00

    RUNOFF VOLUME =      1.66423 INCHES      =         .9614 ACRE-FEET
    PEAK DISCHARGE RATE =       26.79 CFS  AT    1.499 HOURS    BASIN AREA =    .0108 SQ. MI.


*S************************************************************
*S
*S              ***** ROUTE TO RETENTION POND
*S
*S************************************************************
ROUTE RESERVOIR      ID=5 HYD=POND.301 INFLOW=1 CODE=25
                     OUTFLOW(CFS)  STORAGE(AF)   ELEV(FT)
                        0             0          4954.
                        0.1           0.29383    4957.
                        0.2           1.03930    4961.

  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

| TIME (HRS) | INFLOW (CFS) | ELEV (FEET) | VOLUME (AC-FT) | OUTFLOW (CFS) |
|---|---|---|---|---|
| .00 | .00 | 4954.00 | .000 | .00 |
| .80 | .00 | 4954.00 | .000 | .00 |
| 1.60 | 18.93 | 4957.91 | .463 | .12 |
| 2.40 | 1.09 | 4960.14 | .880 | .18 |
| 3.20 | .22 | 4960.25 | .900 | .18 |
| 4.00 | .14 | 4960.25 | .899 | .18 |
| 4.80 | .13 | 4960.23 | .896 | .18 |
| 5.59 | .15 | 4960.22 | .894 | .18 |
| 6.39 | .01 | 4960.19 | .889 | .18 |
| 7.19 | .00 | 4960.13 | .878 | .18 |
| 7.99 | .00 | 4960.07 | .866 | .18 |
| 8.79 | .00 | 4960.01 | .854 | .18 |
| 9.59 | .00 | 4959.95 | .843 | .17 |
| 10.39 | .00 | 4959.88 | .831 | .17 |
| 11.19 | .00 | 4959.82 | .820 | .17 |
| 11.99 | .00 | 4959.76 | .809 | .17 |
| 12.79 | .00 | 4959.70 | .798 | .17 |
| 13.59 | .00 | 4959.64 | .787 | .17 |
| 14.39 | .00 | 4959.59 | .776 | .16 |
| 15.18 | .00 | 4959.53 | .765 | .16 |
| 15.98 | .00 | 4959.47 | .754 | .16 |
| 16.78 | .00 | 4959.41 | .744 | .16 |
| 17.58 | .00 | 4959.36 | .733 | .16 |
| 18.38 | .00 | 4959.30 | .723 | .16 |
| 19.18 | .00 | 4959.25 | .712 | .16 |

PEAK DISCHARGE = .181 CFS - PEAK OCCURS AT HOUR 3.40
MAXIMUM WATER SURFACE ELEVATION = 4960.256
MAXIMUM STORAGE = .9006 AC-FT INCREMENTAL TIME= .033300HRS

PRINT HYD ID=5 CODE=20

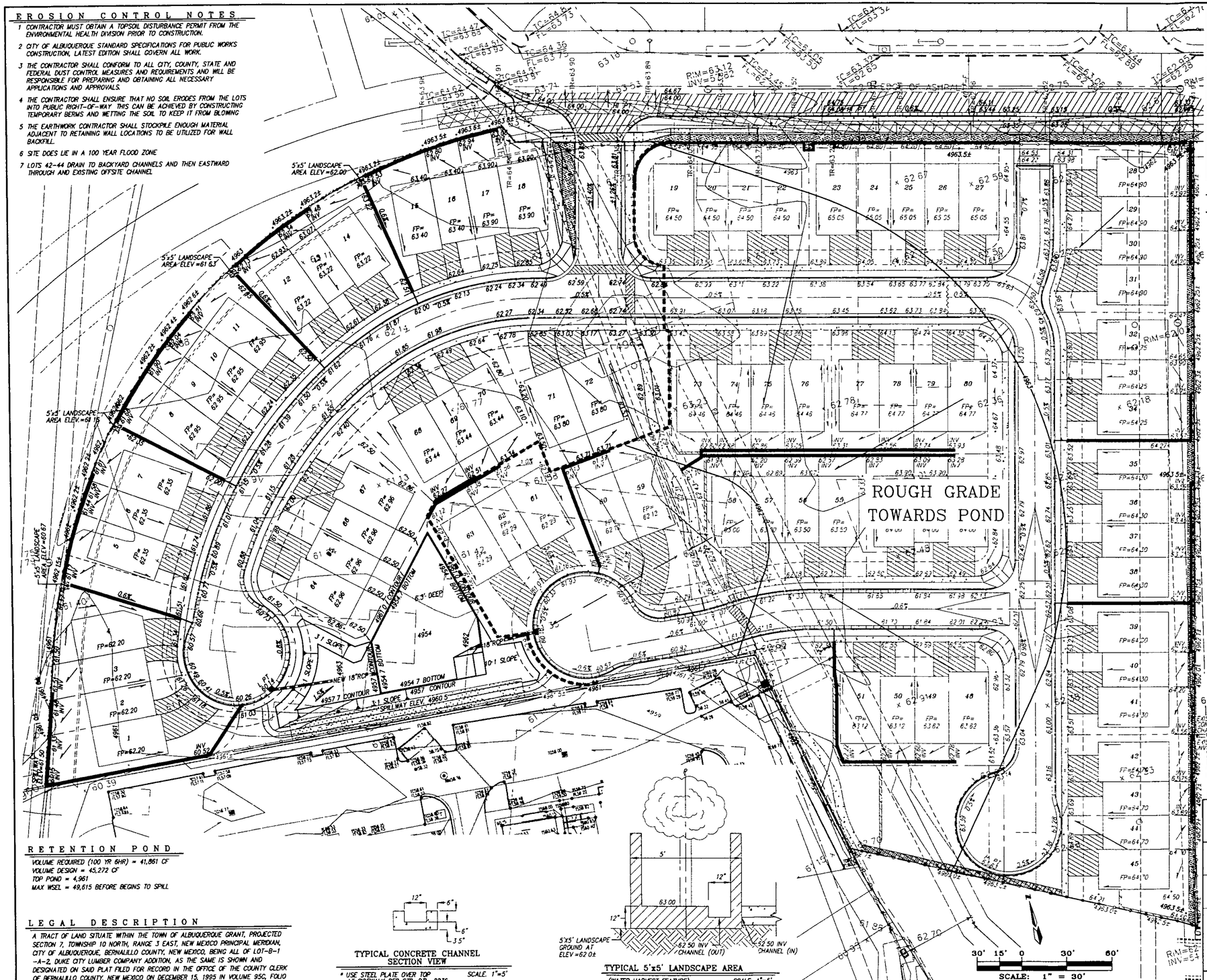
HYDROGRAPH FROM AREA POND.301

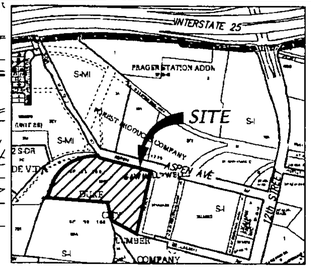
| TIME HRS | FLOW CFS | TIME HRS | FLOW CFS | TIME HRS | FLOW CFS | TIME HRS | FLOW CFS | TIME HRS | FLOW CFS |
|---|---|---|---|---|---|---|---|---|---|
| .000 | .0 | 3.996 | .2 | 7.992 | .2 | 11.988 | .2 | 15.984 | .2 |
| .666 | .0 | 4.662 | .2 | 8.658 | .2 | 12.654 | .2 | 16.650 | .2 |
| 1.332 | .0 | 5.328 | .2 | 9.324 | .2 | 13.320 | .2 | 17.316 | .2 |
| 1.998 | .2 | 5.994 | .2 | 9.990 | .2 | 13.986 | .2 | 17.982 | .2 |
| 2.664 | .2 | 6.660 | .2 | 10.656 | .2 | 14.652 | .2 | 18.648 | .2 |
| 3.330 | .2 | 7.326 | .2 | 11.322 | .2 | 15.318 | .2 | 19.314 | .2 |

RUNOFF VOLUME = .44875 INCHES = .2592 ACRE-FEET
PEAK DISCHARGE RATE = .18 CFS AT 3.397 HOURS BASIN AREA = .0108 SQ. MI.

## EROSION CONTROL NOTES

1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
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5. THE EARTHWORK CONTRACTOR SHALL STOCKPILE ENOUGH MATERIAL ADJACENT TO RETAINING WALL LOCATIONS TO BE UTILIZED FOR WALL BACKFILL.
6. SITE DOES LIE IN A 100 YEAR FLOOD ZONE
7. LOTS 42-44 DRAIN TO BACKYARD CHANNELS AND THEN EASTWARD THROUGH AND EXISTING OFFSITE CHANNEL




VICINITY MAP H-13-Z

## LEGEND

- EXIST TOP CURB/FLOWLINE
- EXIST CONCRETE/SIDEWALK
- EXIST SPOT ELEVATION
- EXIST FIRE HYDRANT VALVE
- EXIST FIRE HYDRANT
- EXIST GUY WIRE
- EXIST OVERHEAD ELECTRIC
- EXIST. POWER POLE
- EXIST SANITARY SEWER MANHOLE
- EXIST WATER VALVE
- EXIST. WATER SPIGOT
- EXIST RAILROAD TRACKS
- EXIST. SIGN
- EXIST DROP INLET
- EXIST TELEPHONE PEDESTAL
- EXIST WATER METER
- EXIST SPRINKLER CONTROL VALVE
- EXIST STORM DRAIN MANHOLE
- NEW PROPERTY LINE
- NEW LOT LINES
- NEW RIGHT-OF-WAY
- NEW CENTER LINE
- NEW MOUNTABLE CURB & GUTTER
- NEW STANDARD CURB & GUTTER
- 99 60 • NEW SPOT ELEVATION
- NEW SWALE
- FP= 99 70 NEW FINISHED PAD ELEVATION
- NEW RUNOFF DIRECTION
- NEW WATER BLOCK
- NEW RETAINING WALL
- NEW GARDEN WALL
- NEW 4" PVC PIPE
- NEW STORM DRAIN INLET
- NEW SLOPE
- NEW STORM DRAIN LINE
- 4957 CONTOUR NEW CONTOUR
- NEW TOWNHOME ROOF RUNOFF TO FRONT YARD
- NEW 6' CRUSHER FINE TRAIL
- NEW 2' DRAINAGE CHANNEL
- NEW EXIST RAILROAD TRACK NO CONSTRUCTION ZONE
- NEW LANDSCAPE AREA
- NEW OPENING IN WALL TO ALLOW RUNOFF TO PASS
- NEW 6' SIDEWALK
- NEW DRIVE PADS
- NEW PHASE LINE

## RETENTION POND

VOLUME REQUIRED (100 YR 6HR) = 41,861 CF
VOLUME DESIGN = 45,272 CF
TOP POND = 4,961
MAX WSEL = 49,615 BEFORE BEGINS TO SPILL

## LEGAL DESCRIPTION

A TRACT OF LAND SITUATE WITHIN THE TOWN OF ALBUQUERQUE GRANT, PROJECTED SECTION 7, TOWNSHIP 10 NORTH, RANGE 3 EAST, NEW MEXICO PRINCIPAL MERIDIAN, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, BEING ALL OF LOT-B-1 -A-2, DUKE CITY LUMBER COMPANY ADDITION, AS THE SAME IS SHOWN AND DESIGNATED ON SAID PLAT FILED FOR RECORD IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON DECEMBER 15, 1995 IN VOLUME 95C, FOLIO 451, AND CONTAINING 6.9323 ACRES MORE OR LESS.




TYPICAL CONCRETE CHANNEL SECTION VIEW

* USE STEEL PLATE OVER TOP AT SIDEWALK PER STD DTL 2236

SCALE: 1"=5'




TYPICAL 5'x5' LANDSCAPE AREA
(WATER HARVEST FEATURE)
SCALE: 1"=5'

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F:\A11JOBS\A11047 Sawmill Crossing\GRADE & DRAIN\UNIT 1\A11047-SAWMILL-GD30 UNIT 1.dwg, 5/4/2012 1:14:22 PM, KIP 7100 Series (Copy 1), CHRIS

AS BUILT INFORMATION

| | DATE |
|---|---|
| CONTRACTOR | |
| STAKED BY | DATE |
| INSPECTOR'S | |
| FINAL INSPECTION BY | DATE |
| FIELD | |
| DOCUMENTATION BY | DATE |
| FIELD | |
| CORRECTED BY | DATE |

MICRO-FILM INFORMATION

RECORDED BY
NO

BENCH MARKS

ACS Brass Cap stamped "5-J13A" From the intersection of I-40 and Rio Grande Boulevard, travel south on Rio Grande 0.4 miles to Mountain Road. Turn left onto Mountain Road and travel west 0.2 miles to 19th Street and the station on the left

Geographic Position (NAD83, in feet)
N.M. State Plane Coordinates (Central Zone)
N=1491318.377, E=1515633.327
Elevation=4960.499 (NGVD88, in feet)

SURVEY INFORMATION

FIELD NOTES

| NO | BY | DATE |
|---|---|---|

ENGINEER'S SEAL

DAVID K. WELLER — 14 — NEW MEXICO — 15081 — REGISTERED PROFESSIONAL ENGINEER — LICENSED IN NEW MEXICO

5-4-12

| NO | DATE | REMARKS | BY |
|---|---|---|---|
| | | REVISIONS | |
| | | DESIGN | DATE 03/12 |
| | | DESIGNED BY DLH | DATE 03/12 |
| | | DRAWN BY ACH | DATE 03/12 |
| | | CHECKED BY DMG | |

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

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE

# SAWMILL CROSSING - UNIT 1
## GRADING & DRAINAGE PLAN

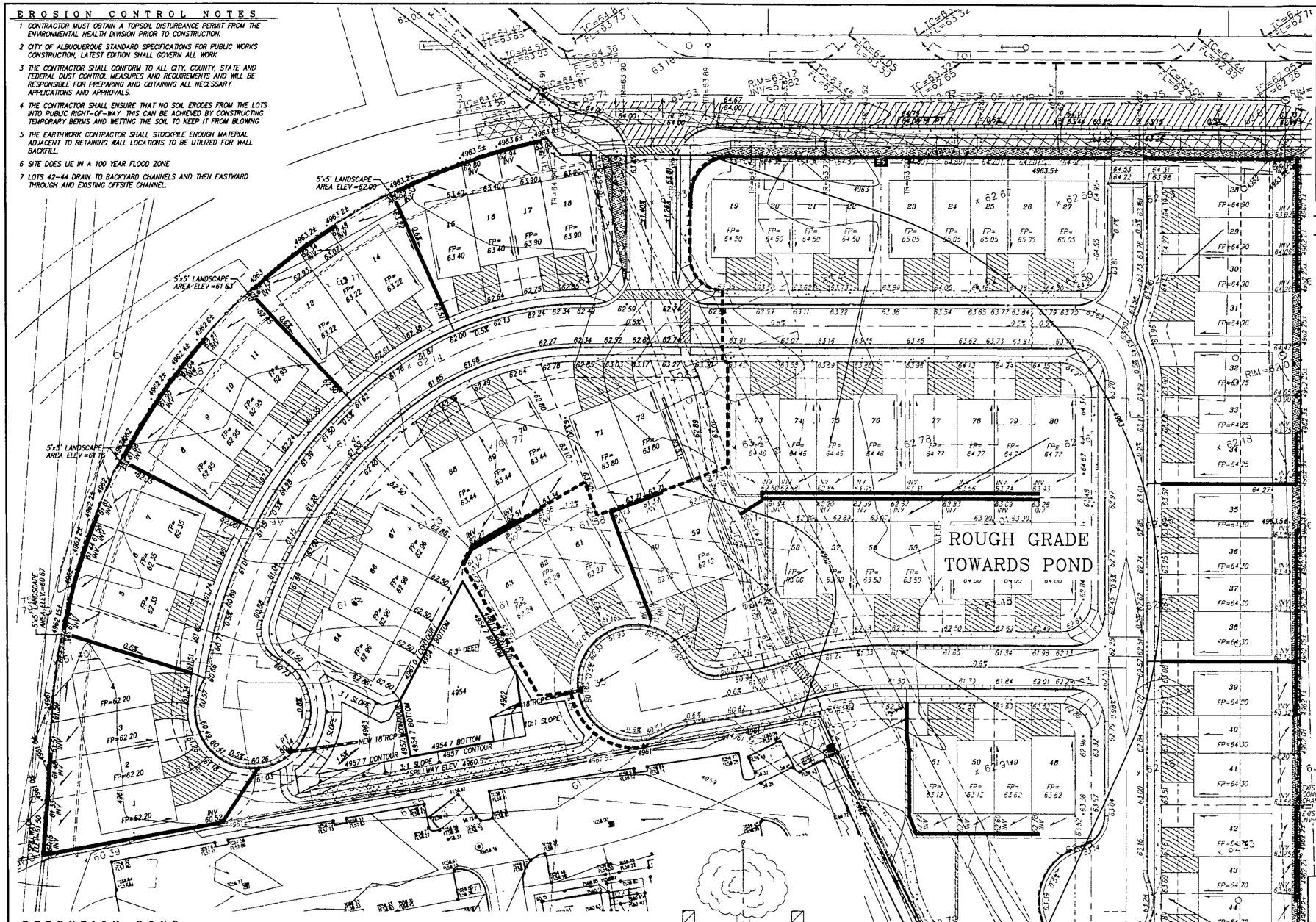
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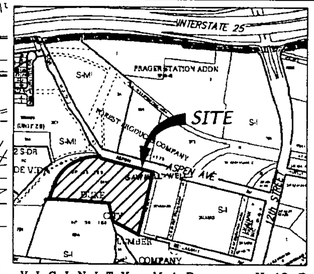
| CITY PROJECT NO | ZONE MAP NO | SHEET | OF |
|---|---|---|---|
| | H-13-Z | 1 | 1 |

A11JOBS\A11047 SAWMILL CROSSING\GRADE & DRAIN\A11047-SAWMILL-GD30.dwg\03-29-12\ACH

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1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
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VICINITY MAP H-13-Z

## LEGEND

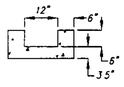
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- EXIST. CONCRETE/SIDEWALK
- EXIST SPOT ELEVATION
- EXIST FIRE HYDRANT VALVE
- EXIST FIRE HYDRANT
- EXIST GUY WIRE
- EXIST. OVERHEAD ELECTRIC
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- EXIST WATER VALVE
- EXIST WATER SPIGOT
- EXIST. RAILROAD TRACKS
- EXIST. SIGN
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- EXIST. SPRINKLER CONTROL VALVE
- EXIST. STORM DRAIN MANHOLE
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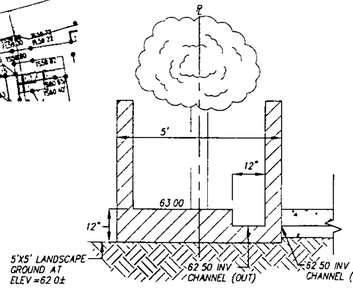
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TYPICAL CONCRETE CHANNEL SECTION VIEW

* USE STEEL PLATE OVER TOP AT SIDEWALK PER STD DTL 2236 SCALE: 1"=5'




TYPICAL 5'x5' LANDSCAPE AREA
(WATER HARVEST FEATURE) SCALE: 1"=5'

BENCH MARKS
AS BUILT INFORMATION
ACS Brass Cap stamped "5-1_24" From the intersection of I-40 and Rio Grande Boulevard, travel south on Rio Grande 0.4 miles to Mountain Road. Turn left onto Mountain Road and travel east 0.2 miles to 19th Street and the station on the left
Geographic Position (NAD83, in feet) N.M. State Plane Coordinates (Central Zone) N=1491,318.377, E=1515633.327 Elevation=4960.459 (NGVD88, in feet)
CONTRACTOR
STAKED BY DATE
INSPECTIONS BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE
MICRO-FILM INFORMATION
RECORDED BY DATE
NO

SURVEY INFORMATION
NO | DATE | FIELD NOTES BY | DATE

ENGINEER'S SEAL
DAVID G. MILLER 11967 REGISTERED PROFESSIONAL ENGINEER
5-4-12

REMARKS
REVISIONS
NO | DATE | DESIGNED BY | DRAWN BY | CHECKED BY
DESIGN 03/12 DLH ACH DMG
DRAWN 03/12
CHECKED 03/12


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


CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE
# SAWMILL CROSSING - UNIT 1
## GRADING & DRAINAGE PLAN

| DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL | LAST REVISION UPDATE | MO./DAY/YR | MO./DAY/YR |
|---|---|---|---|---|
| | | | | |

CITY PROJECT NO | ZONE MAP NO H-13-Z | SHEET OF 1 1

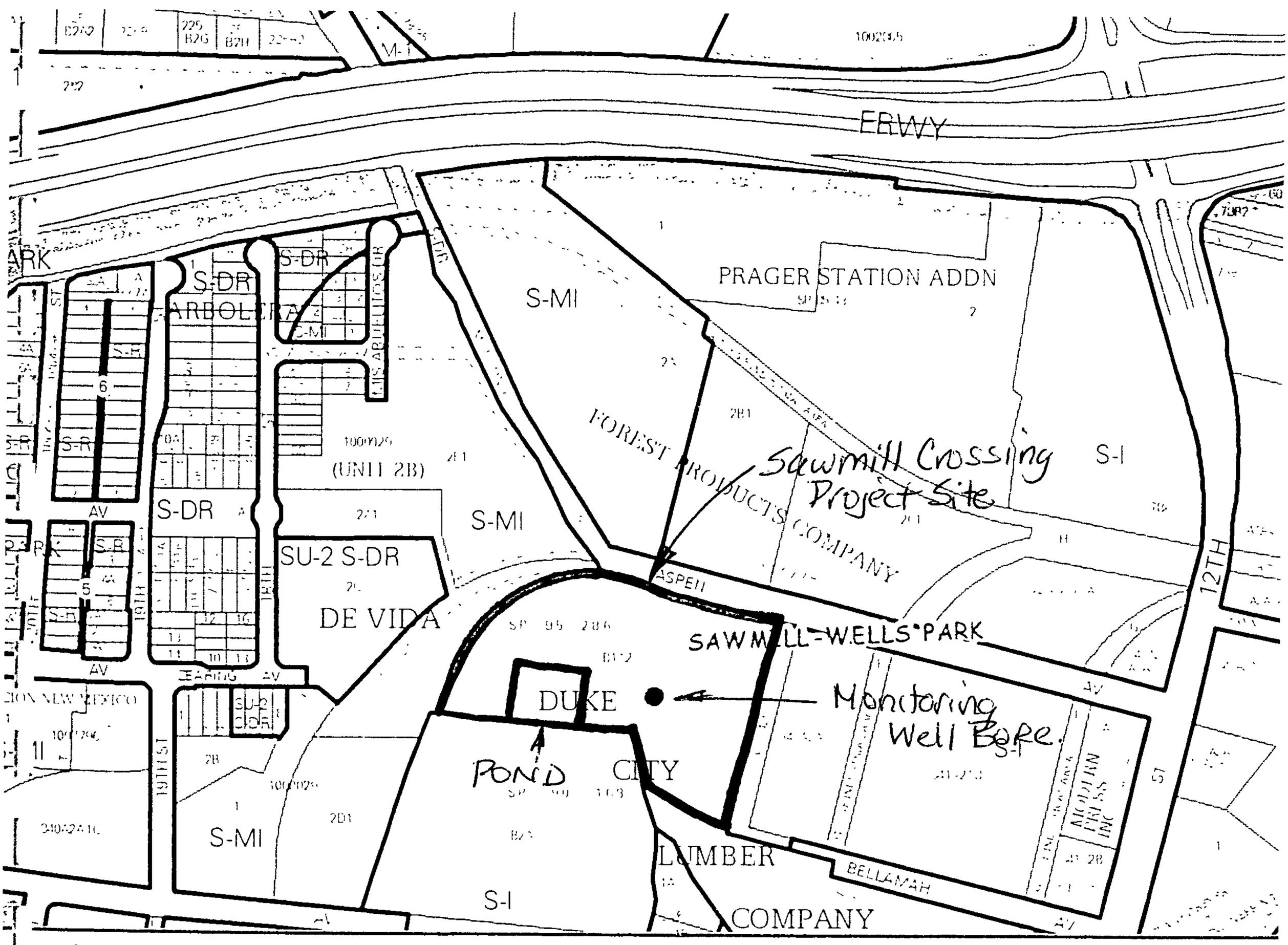
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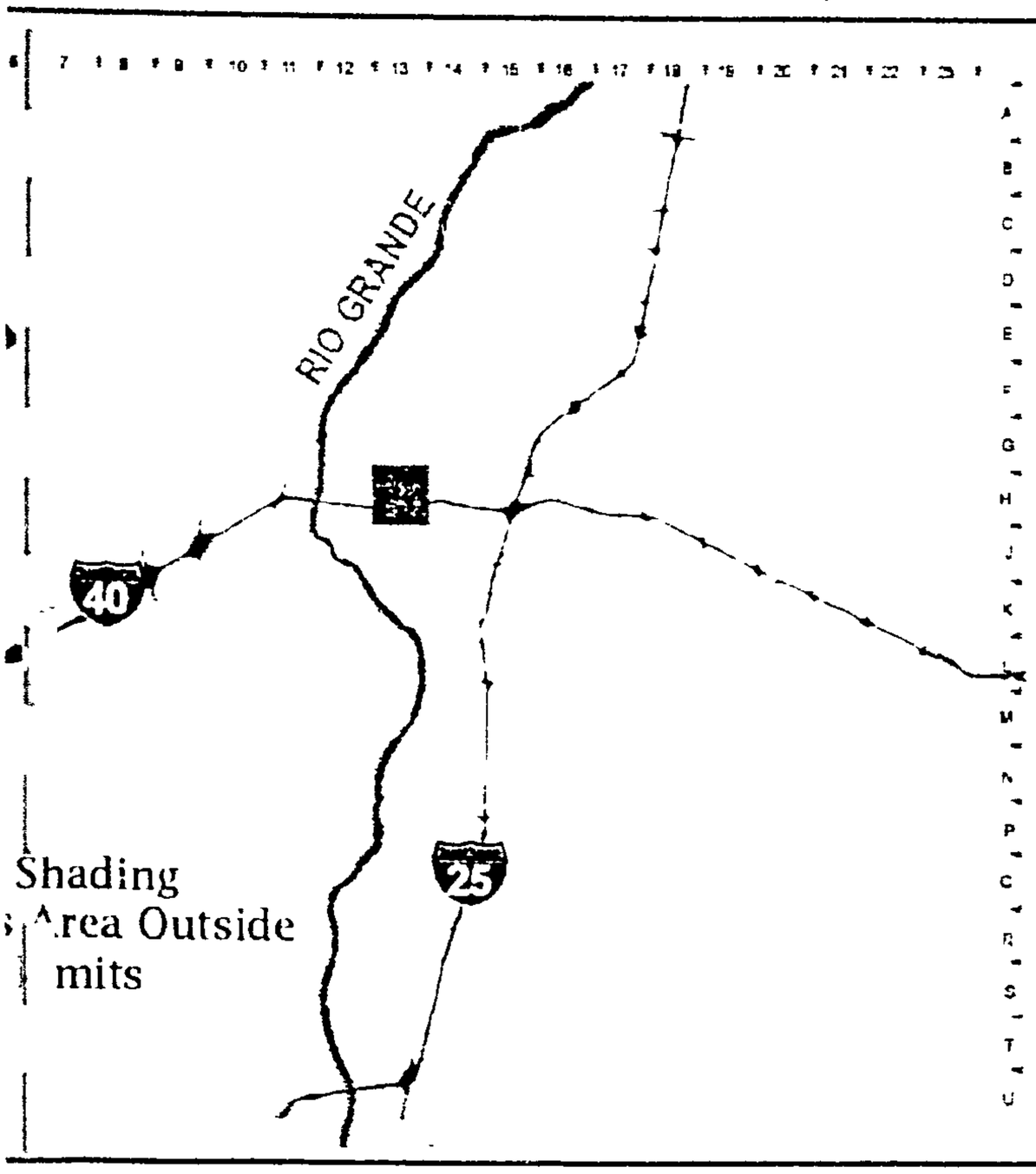

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FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 12:29:13




ormation and more details visit: http://www.cabq.gov/gis



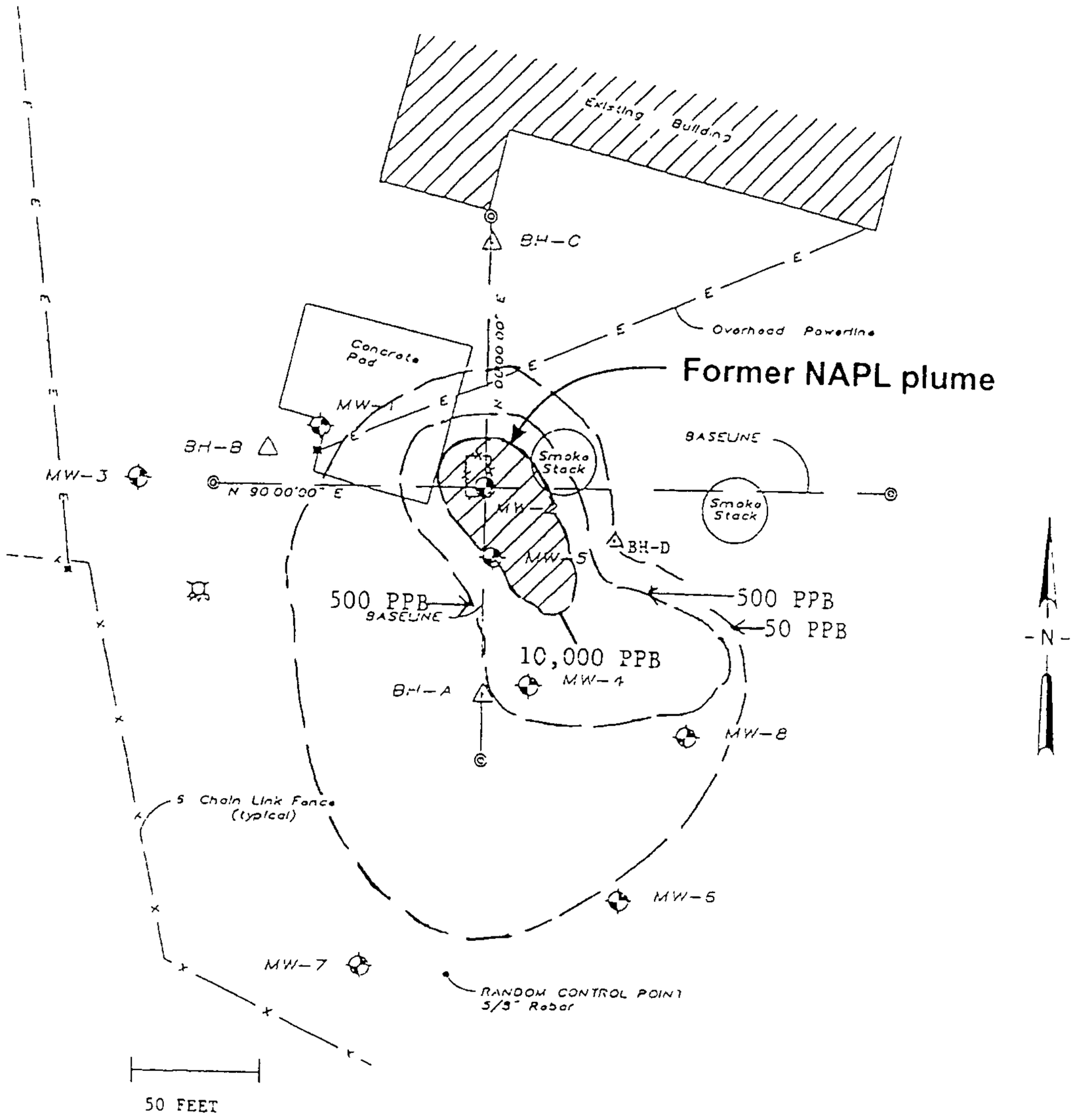

Zone Atlas Page:

# H-13-Z

## Selected Symbols

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

0 750 1.5




MONITORING WELL LOCATIONS
50 BTEX CONTOURS (PPB)
SAMPLES RECORDED ON DECEMBER 27, 1990
CROSS-HATCHED AREA REPRESENTS FREE PRODUCT, MW-2= 6''; MW-5= SHEEN

Map from Western Technologies
January 1991

Approximately 20 gallons NAPL removed between December 27, 1990 and January 1991, thickness reduced to 1 inch by January 1991

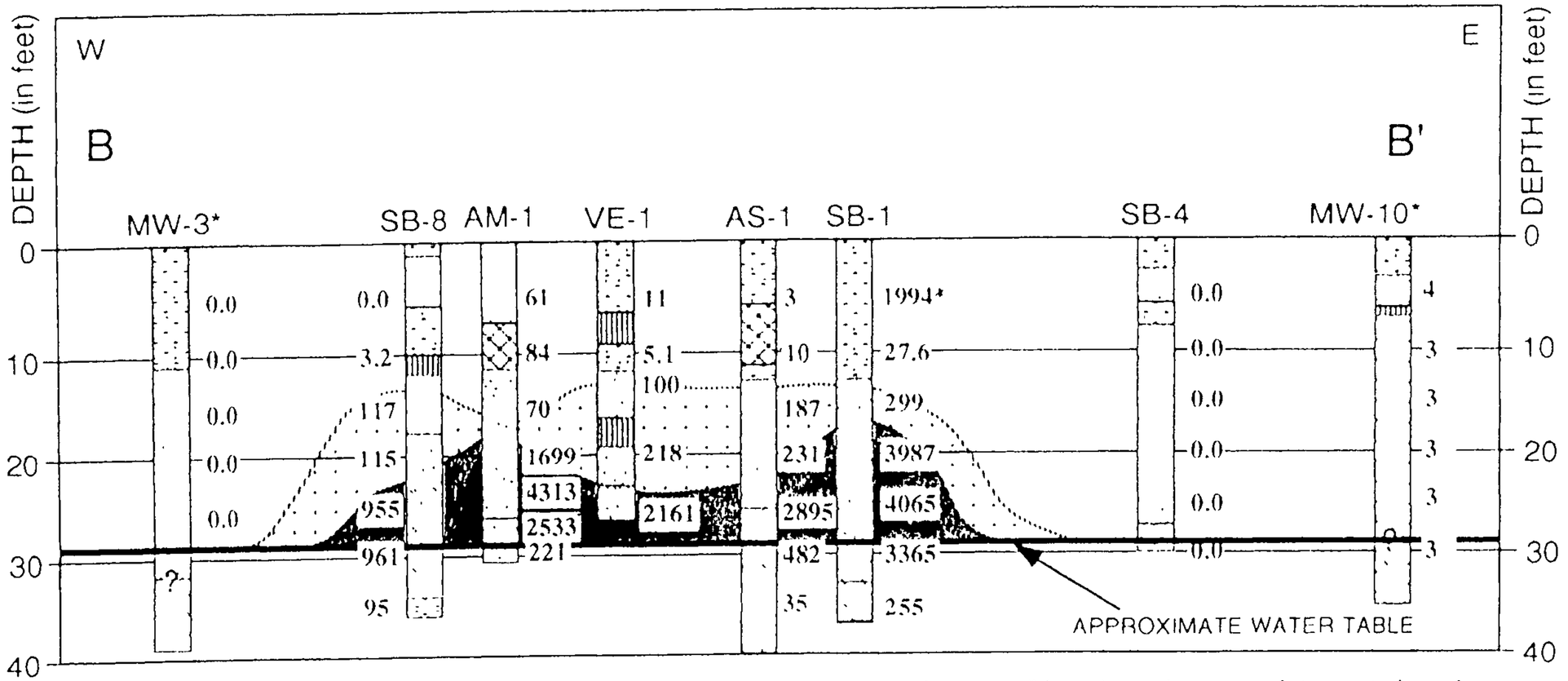
*Only sheens detected during Dames & Moore activities between Oct. 95 and Nov. 2000

**Figure 3.--NAPL Thickness**
**December 27, 1990**

URS

Created by LCK, 5-8-01

# FIELD HEADSPACE CONCENTRATIONS
# CROSS SECTION B-B' - DUKE CITY LUMBER SITE
# ALBUQUERQUE, NEW MEXICO




Note: This generalized cross-section represents an evaluation of subsurface conditions based upon an interpretation of available data Some variations from these conditions may be expected. Isoconcentrations boundaries are approximate

## EXPLANATION

- GRAVEL
- SANDY GRAVEL
- MED-COARSE SAND
- FINE-MEDIUM SAND
- SILTY/CLAYEY SAND
- SILT
- CLAY
- FILL MATERIAL

0 25 50 75
HORIZONTAL SCALE (In Feet)

TIVC HEADSPACE CONCENTRATIONS
- >1000 PPM
- >500 PPM
- >100 PPM

*= Data taken from previous WTE Investigation

*Section from Dames & Moore Reclamation Proposal, June 1993*

URS

Figure 8.--Soil vapor contaminant cross section B-B'.

# CITY OF ALBUQUERQUE

March 3, 2014

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

**Re: Sawmill Crossing Unit 1, Grading Certification**
**Engineer's Stamp dated: 11-8-13, (H13D057)**
**Certification dated: 2-28-14**

Dear Mr. Goodwin,

Based upon the information provided in the Certification received 3-3-14, the above referenced certification is acceptable for the grading portion for the Release of Financial Guarantee and for Final Plat.

However, per our verbal agreement at the site on 2-26-14, a plan is to be approved to mitigate the list of deficiencies prior to Building Permit approval. The list of deficiencies was provided in the letter written 2-14-14.

In short, mitigation included construction of a retaining wall(s), shotcrete or similar on slopes and a handrail at the pond. If you have any questions concerning all items to be constructed, please contact me. I created a list during the site visit.

Upon approval of the grading plan to mitigate deficiencies, Hydrology will approve the eight requested Building Permits on Lots 1 through 4 and 64 through 67. Once the mitigation plan has been certified and accepted, Hydrology will approve the remaining Building Permits in Unit 1.

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

Sincerely,

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

C: e-mail, B. Wolfe

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

# CITY OF ALBUQUERQUE

February 14, 2014

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

**Re: Sawmill Crossing Unit 1, Grading Certification**
**Engineer's Stamp dated: 11-8-13, (H13D057)**
**Certification dated: 1-31-14**

Dear Ms. Goodwin,

Based upon the information provided in the Certification received 1-31-14, the above referenced certification is not acceptable for Final Plat or Building Permit approval for the following reasons:

1. The location of the Comcast box on Lots 14/15 will not allow the construction of the channel. Hydrology recommends relocating the Comcast box.
2. The 5 foot square landscape areas are completely wall-in. It is not clear that the home builder will be able to construct the channels per the approved plan. The block(s) should be removed at the approved invert and this grade surveyed and certified.
3. Grading in the area of the rear and side yard channels is not complete. How will the builder be able to build the channels at the proper elevations?
4. The infrastructure list states that all perimeter walls will be constructed. There is a 10 foot section missing along the back of Lot 5.
5. The earth should be stabilized from the east end of the concrete channel to the top of the slope at the pipe entrance. In addition, the header curbs should be supported. Hydrology staff met with Ms. Hoelzer and recommended that the side slopes could be concrete and tied into the header wall and alley gutter. Ms. Hoelzer was to propose a solution.
6. Where the 12" pipe daylights in the pond there is an earthen slope approximately 4 feet high at a 1:1. Should a retaining wall be built?
7. East of the retaining wall on the south side of the pond there is an approximate 5 foot high slope at a 1:1. A retaining wall should be constructed to the point where the slope is at a 3:1 maximum.
8. If the side and rear yard channels are not to be constructed until Building Permit, add a note to the certification that states that the channels are "not built" and they are to be constructed with the Building Permit.
    a. The rear and side yard channels are to be constructed with the first building in each pod (e.g Lot 5, 6 and 7).

PO Box 1293

Albuquerque

New Mexico 87103

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# CITY OF ALBUQUERQUE

b. A copy of this plan shall be included in the Building Permit set.
c. This grading plan is to be certified for release of Certificate of Occupancy.
d. A swale was graded in the proximity of the concrete channels. This should be added to the certification.

If you have any questions or would like to meet, you can contact me at 924-3986.

Sincerely,

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

PO Box 1293

Albuquerque

New Mexico 87103

C: e-mail, B. Wolfe

**DRAINAGE AND TRANSPORTATION INFORMATION SHEET**
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing Subdivision, Unit 1 ZAP/DRG. FILE H13/D057
DRB#: 1009046 EPC#: 1009046 WORK ORDER#: 617586

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS:

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: Mark Goodwin, PE
ADDRESS: PO Box 90606 PHONE: 828-2200
CITY, STATE: Albuquerque, NM ZIP CODE: 87199

OWNER: Sawmill Crossing LLC CONTACT: Keith Cheshire
ADDRESS: 7400 Hancock Court, NE PHONE: 797-1134
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

ARCHITECT: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

SURVEYOR: Aldrich Land Surveying CONTACT: Tim Aldrich
ADDRESS: PO Box 30701 PHONE: 884-1990
CITY, STATE: Albuquerque,NM ZIP CODE: 87190

CONTRACTOR: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN (Eng. stamp 5-23-12)
_____ EROSION CONTROL PLAN
X_____ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER/ARCHITECT CERT (TCL)
_____ ENGINEER/ARCHITECT (DRB SITE PLAN)
_____ OTHER (Percolation Testing

CHECK TYPE OF APPROVAL SOUGHT:
X_____ 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
_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ OTHER (Construction Plans Approval)

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

RECEIVED
JAN 31 2014
LAND DEVELOPMENT SECTION

SUBMITTED BY: Mark Goodwin, PE DATE: January 29, 2014

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 define 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.

Current DRC
Project Number 617586

FIGURE 12

INFRASTRUCTURE LIST

EXHIBIT "A"
TO SUBDIVISION IMPROVEMENTS AGREEMENT
DEVELOPMENT REVIEW BOARD (D.R.B.) REQUIRED INFRASTRUCTURE LIST

Date Submitted: 01/07/13
Date Site Plan Approved: 08/22/12
Date Preliminary Plat Approved 06/13/12
Date Preliminary Plat Expires: 06/13/13
DRB Project No 1009046
DRB Application No

**Sawmill Crossing, Unit I**
PROPOSED NAME OF PLAT AND/OR SITE DEVELOPMENT PLAN

**Tract B-1-A-2, Duke City Lumber Company**
EXISTING LEGAL DESCRIPTION PRIOR TO PLATTING ACTION

Following is a summary of PUBLIC/PRIVATE infrastructure required to be constructed or financially guaranteed for the above development. This Listing is not necessarily a complete listing During the SIA process and/or in the review of the construction drawings, if the DRC Chair determines that appurtenant items and/or unforeseen items have not been included in the infrastructure listing, the DRC Chair may include those items in the listing and related financial guarantee Likewise, if the DRC Chair determines that appurtenant or non-essential items can be deleted from the listing, those items may be deleted as well as the related portions of the financial guarantees. All such revisions require approval by the DRC Chair, the User Department and agent/owner. If such approvals are obtained, these revisions to the listing will be incorporated administratively In addition, any unforeseen items which arise during construction which are necessary to complete the project and which normally are the Subdivider's responsibility will be required as a condition of project acceptance and close out by the City

| SIA Sequence # | COA DRC Project # | Size | Type of Improvement | Location | From | To | Private Inspector | City Inspector | City Cnst Engineer |
|---|---|---|---|---|---|---|---|---|---|
| | | | **PAVING** | | | | | | |
| | | 0'-12' F-E | Perm Pvmt (South Side)<br>C&G (South Side) | Aspen Ave | W Terminus of Aspen | NE corner Tract B | / | / | / |
| | | 6' | Sidewalk (S Side) | Aspen Ave | Mill Pond | RR | / | / | / |
| | | 6' | Sidewalk (N Side) | Aspen Ave | W. Terminus of Aspen | SE Corner Tract 2-A, Land of Forest Products | / | / | / |
| | | | C&G (N Side) | Aspen Ave | Tract 2-A Driveway (E Side) | SE Corner Tract 2A, Land of Forest Products | / | / | / |
| | | 28' FF | Res Pvmt<br>C&G (both sides)<br>4' Sidewalk (both sides Deferred) (1) | Band Saw Dr | W. Terminus Band Saw | Timber Dr. | / | / | / |
| | | 30' FF | Res Pvmt<br>C&G (both sides)<br>6' Sidewalk (west side only) | Timber Dr. | Aspen Ave | Band Saw Pl | / | / | / |
| | | 4' | Sidewalk | South Side of Tract C | Bandsaw Pl. Terminus | Tract B | / | / | / |
| | | 4' | Sidewalk | Band Saw Pl | Lot 1 | Lot 64 | / | / | / |
| | | 4' | Sidewalk | Band Saw Pl | Lot 72 | Tract B | / | / | / |
| | | 6' | Sidewalk | Tract D | Bandsaw Pl | Tract B | / | / | / |
| | | | RR Crossing per NMDOT Stds<br>A tri-party agreement (Developer, City of Albuquerque, and DOT) is required for RR crossing | Aspen Ave. @ Timber Drive | | | / | / | / |
| | | | **WATER** | | | | | | |
| | | 12" | Waterline | Timber Dr. | Aspen Ave | Band Saw Pl. | / | / | / |
| | | 6" | Waterline | Band Saw Pl | W. Terminus Band Saw | Timber Dr. | / | / | / |
| | | 6" | Waterline | S. Side of Tract C | Band Saw Pl Terminus | Tract B | / | / | / |
| | | | **SANITARY SEWER** | | | | | | |
| | | 8" | Sanitary Sewer | Lot 5 SAS Easement | 60" Off-Site Intercepter | Band Saw Pl. | / | / | / |
| | | 8" | Sanitary Sewer | Band Saw Pl | Lot 5 SAS Easement | Lumberton Dr | / | / | / |
| | | 8" | Sanitary Sewer | Lumberton Dr. | Band Saw Pl | Aspen Ave | / | / | / |
| | | 8" | Remove Existing SAS | Aspen Ave. | Lumberton Dr | NE Corner of Site | / | / | / |

| SIA Sequence # | COA DRC Project # | Size | Type of Improvement | Location | From | To | Private Inspector | City Inspector | City Civil Engineer |
|---|---|---|---|---|---|---|---|---|---|
| | | | **STORM DRAINAGE** | | | | | | |
| | | 18" | RCP III | Band Saw Pl | W Terminus Band Saw | Tract C Pond | / | / | / |
| | | 18" | RCP III | E. Part Tract C | W Boundary Tract B | Tract C Pond | / | / | / |
| | | 1.04 AF | Pond Tract C | Tract C | | | / | / | / |
| | | | Pond Flood Wall (Continuously poured concrete) | | Tract C (Internal Perimeter) | | / | / | / |
| | | | Pond Percolation (Not to be Financially Guaranteed) | | | | / | / | / |
| | | 12" | Sidewalk Culverts (6) | Per locations on Grading Plan | | | / | / | / |
| | | 12" | Rear Yard Channel | Lots 1-3 | Lot 1 | Lot 3 | / | / | / |
| | | 12" | Rear Yard Channel | Lots 5-7 | Lot 5 | Lot 7 | / | / | / |
| | | 12" | Rear Yard Channel | Lots 9-11 | Lot 9 | Lot 11 | / | / | / |
| | | 12" | Rear Yard Channel | Lots 12-14 | Lot 12 | Lot 14 | / | / | / |
| | | 12" | Rear Yard Channel | Lots 15-18 | Lot 15 | Lot 18 | / | / | / |
| | | 12" | Rear Yard Channel | Lots 68-69 & Tract B | Tract C | Lot 70 | / | / | / |
| | | 12" | Side Yard Channel | Lot 1 | Rear Lot 1 Boundary | Band Saw Pl | / | / | / |
| | | 12" | Side Yard Channel | Lot 5 | Rear Lot 5 Boundary | Band Saw Pl | / | / | / |
| | | 12" | Side Yard Channel | Lot 9 | Rear Lot 9 Boundary | Band Saw Pl | / | / | / |
| | | 12" | Side Yard Channel | Lot 12 | Rear Lot 12 Boundary | Band Saw Pl | / | / | / |
| | | 12" | Side Yard Channel | Lot 15 | Rear Lot 15 Boundary | Band Saw Pl | / | / | / |

The items listed below are on the CCIP and approved for Impact Fee credits. Signatures from the Impact Fee Administrator and the City User Department is required prior to DRB approval of this listing. The items listed below are subject to the standard SIA requirements.

| Financially Guaranteed DRC # | Constructed Under DRC # | Size | Type of Improvement | Location | From | To |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |

Construction Certification

| Private Inspector | City Inspector | City Cnst Engineer |
|---|---|---|
| / | / | / |

Approval of Creditable Items:

Impact Fee Administrator Signature Date

Approval of Creditable Items:

City User Dept. Signature Date

Project name: Sawmill Crossing

1 Sidewalks to be deferred per sidewalk exhibit.
2 Water infrastructure to include valves, fittings, and firehydrants
3 SAS infrastructure to include manholes and service connections.
4 Storm Drain infrastructure includes manholes and inlets
5 Grading and Drainage Certification and perimeter wall construction required prior to release of SIA and Financial Guaranty. (Financial Guaranty not required for Grading and Drainage Plan.)
6 Pond Agreement and Covenant required for Tract C
7
8

| AGENT / OWNER | DEVELOPMENT REVIEW BOARD MEMBER APPROVALS | |
|---|---|---|
| John M. MacKenzie, P.E.<br>NAME (print) | DRB CHAIR - date | PARKS & GENERAL RECREATION - date |
| Mark Goodwin & Associates<br>FIRM | TRANSPORTATION DEVELOPMENT - date | AMAFCA - date |
| SIGNATURE - date<br>01-14-13 | UTILITY DEVELOPMENT - date | _____ - date |
| | CITY ENGINEER - date | _____ - date |

DESIGN REVIEW COMMITTEE REVISIONS

| REVISION | DATE | DRC CHAIR | USER DEPARTMENT | AGENT /OWNER |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |

# CITY OF ALBUQUERQUE

March 10, 2014

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

**Re: Sawmill Crossing Unit 1, Mitigation Grading Plan**
**Engineer's Stamp dated: 3-7-14, (H13D057)**

Dear Ms. Hoelzer,

Based upon the information provided in the submittal received 3-7-14, the above referenced plan is approved for Grading Permit and is acceptable for Final Plat approval and Building Permit approval on Lots 1 through 4 and 64 through 67.

Once the work has been completed and the mitigation plan has been certified and accepted, Hydrology will approve the remaining Building Permits in Unit 1.

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

Sincerely,

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

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

C: e-mail,

**DRAINAGE AND TRANSPORTATION INFORMATION SHEET**
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing Subdivision, Unit 1 ZAP/DRG. FILE H13/D057
DRB#: 1009046 EPC#: 1009046 WORK ORDER#: 617586

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS:

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: Mark Goodwin, PE
ADDRESS: PO Box 90606 PHONE: 828-2200
CITY, STATE: Albuquerque, NM ZIP CODE: 87199

OWNER: Sawmill Crossing LLC CONTACT: Keith Cheshire
ADDRESS: 7400 Hancock Court, NE PHONE: 797-1134
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

ARCHITECT: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

SURVEYOR: Aldrich Land Surveying CONTACT: Tim Aldrich
ADDRESS: PO Box 30701 PHONE: 884-1990
CITY, STATE: Albuquerque,NM ZIP CODE: 87190

CONTRACTOR: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
X_____ GRADING PLAN (Eng. stamp 3-7-14)
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER/ARCHITECT CERT (TCL)
_____ ENGINEER/ARCHITECT (DRB SITE PLAN)
_____ OTHER (Percolation Testing

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
X_____ 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
_____ OTHER (Construction Plans Approval)

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

RECEIVED
MAR 07 2014
LAND DEVELOPMENT SECTION

SUBMITTED BY: Diane Hoelzer, PE DATE: March 7, 2014

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 define 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.

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

*March 7, 2014*

*Mr. Curtis Cherne, PE*
*Hydrology Division, Development and Building Services*
*City of Albuquerque*
*PO Box 1293*
*Albuquerque, NM 87103*

***Re: Sawmill Crossing Revised Grading and Drainage Plan***
***Engineers Revised Stamp Date 3-7-14 (H-13/D057)***

*Dear Mr. Cherne:*

*In response to your email comments dated 3-5-14, all 7 of your concerns have been addressed on this resubmittal plan.*

*Please call me if you have any questions.*

*Sincerely,*

*MARK GOODWIN & ASSOCIATES, P.A.*

*Diane Hoelzer, PE*
*Senior Engineer*

*DLD/dlh*

*f:\\11047\sawmill crossing\hydro ltr 3-7-14.doc*

RECEIVED
MAR 07 2014
LAND DEVELOPMENT SECTION

## Diane Hoelzer

**From:** Cherne, Curtis <CCherne@cabq.gov>
**Sent:** Wednesday, March 05, 2014 3:59 PM
**To:** Diane Hoelzer
**Subject:** 65% review comments sawmill trust

Diane,
I had a look at the mylar you dropped off.

1. I agree that a detail should be provided similar to what John did so it is easier to see.
2. The ground elevation over the 12" pip should not be higher than 60 so the pond can spill over it.
3. In the filed we had discussed shotcreting the slope near the upstream invert of the 12" pipe. I see you are proposing a wall, but I would like to see some rock on the dirt that is remaining.
4. Update the BW grades based on the as-built elevation of the 12" pipe inverts.
5. Show limits of fence/handrail. Kristal wants to see what the ends will look like. It told her it will look like what Keith showed me. Send her an e-mail with the picture Keith sent me and annotate something for the ends. She is aware that it is a fence and not a handrail.
6. Add a build note for the walls (2 courses or so) on the backside of the 5x5 planters.
7. The spillway elevation appears to be at 60 not 59.5 as shown on the plan.

I talked to Kristal about the fence detail and the plat.

Curtis

RECEIVED
MAR 07 2014
LAND DEVELOPMENT SECTION

# CITY OF ALBUQUERQUE

October 4, 2013

John Mackenzie, P.E.
Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque, NM 87199

**Re: Sawmill Crossing Retaining Walls along Aspen Rd.**
**Grading and Drainage Plan**
**Engineer's Stamp Date 9-10-13 (H13D057)**

Dear Mr. Mackenzie,

Based upon the information provided in your submittal received 9-11-13, the above referenced plan is approved for Retaining Wall Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

This plan can be certified or the grades shown on this plan can be certified with the Unit 1 grading and drainage plan.

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

Sincerely,

Curtis Cherne, P.E.
Principal Engineer, Planning Dept.
Development Review Services

C: e-mail

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

# CITY OF ALBUQUERQUE

May 31, 2012

Diane Hoelzer, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM 87199

not unit 2

**Re: Sawmill Crossing and Sawmill Crossing Unit 1 Grading and Drainage Plan**
**Engineer's Stamp dated 5-23-12 (H13/D057)**

Dear Ms. Hoelzer,

Based upon the information provided in your submittal received 5-24-12, the above referenced plans are approved for Preliminary Plat action by the DRB. Once that board approves the Grading Plan, Hydrology will issue a letter approving Grading Permit.

Please review the grades at the asphalt trail south of lots 48 through 51. They may be able to be lowered. This would still provide positive drainage and reduce the grade change across the property line.

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

Sincerely,

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

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

Copy: e-mail

**DRAINAGE AND TRANSPORTATION INFORMATION SHEET**
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing Subdivision, Unit 1 ZAP/DRG. FILE H13/D057
DRB#: 1009046 EPC#: 1009046 WORK ORDER#: 617586

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS:

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: Mark Goodwin, PE
ADDRESS: PO Box 90606 PHONE: 828-2200
CITY, STATE: Albuquerque, NM ZIP CODE: 87199

OWNER: Sawmill Crossing LLC CONTACT: Keith Cheshire
ADDRESS: 7400 Hancock Court, NE PHONE: 797-1134
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

ARCHITECT: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

SURVEYOR: Aldrich Land Surveying CONTACT: Tim Aldrich
ADDRESS: PO Box 30701 PHONE: 884-1990
CITY, STATE: Albuquerque,NM ZIP CODE: 87190

CONTRACTOR: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN (Eng. stamp 5-23-12)
_____ EROSION CONTROL PLAN
X_____ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER/ARCHITECT CERT (TCL)
_____ ENGINEER/ARCHITECT (DRB SITE PLAN)
_____ OTHER (Percolation Testing

CHECK TYPE OF APPROVAL SOUGHT:
X_____ 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
_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
WORK ORDER APPROVAL
_____ OTHER (Construction Plans Approval)

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

RECEIVED
MAR 03 2014
LAND DEVELOPMENT SECTION

SUBMITTED BY: Mark Goodwin, PE DATE: February 28, 2014

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 define 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

November 8, 2012

John MacKenzie, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM 87199

**Re: Sawmill Crossing and Sawmill Crossing Unit 1 Grading and Drainage Plan**
**Engineer's Stamp dated 11-5-12 (H13/D057)**

Dear Mr. MacKenzie,

Based upon the information provided in your submittal received 11-5-12, the above referenced plans are approved for Work Order.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit for storm water discharge for disturbing one acre or more and a Topsoil Disturbance Permit for disturbing ¾ of an acre or more. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. Prior to release of SIA and Acceptance of Work Order Closeout, an Engineer Certification per the DPM checklist will be required.

Albuquerque's MS4 Permit became effective March 1st, 2012. Grading and Drainage Plans and Drainage Reports will have to comply with the requirements of the new permit (http://www.cabq.gov/planning/landcoord/Hydrology.html).

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

Sincerely,

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

C: e-mail

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

**DRAINAGE AND TRANSPORTATION INFORMATION SHEET**
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing Subdivision, Unit 1 ZAP/DRG. FILE H13/D057
DRB#: 1009046 EPC#: 1009046 WORK ORDER#: 617586

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS:

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: John MacKenzie, PE
ADDRESS: PO Box 90606 PHONE: 828-2200
CITY, STATE: Albuquerque, NM ZIP CODE: 87199

OWNER: Sawmill Crossing LLC CONTACT: Keith Cheshire
ADDRESS: 7400 Hancock Court, NE PHONE: 797-1134
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

ARCHITECT: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

SURVEYOR: Aldrich Land Surveying CONTACT: Tim Aldrich
ADDRESS: PO Box 30701 PHONE: 884-1990
CITY, STATE: Albuquerque,NM ZIP CODE: 87190

CONTRACTOR: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
X_____ GRADING PLAN (Eng. stamp 11-5-12)
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER/ARCHITECT CERT (TCL)
_____ ENGINEER/ARCHITECT (DRB SITE PLAN)
_____ OTHER (Percolation Testing

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
_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
X_____ WORK ORDER APPROVAL
_____ OTHER (Construction Plans Approval)

RECEIVED
NOV 05 2012

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

SUBMITTED BY: John MacKenzie, PE DATE: November 5, 2012

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 define 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.

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

*November 5, 2012*

*Mr. Shahab Biazar, PE*
*Hydrology Division, Development and Building Services*
*City of Albuquerque*
*PO Box 1293*
*Albuquerque, NM 87103*

***Re: Sawmill Crossing Grading and Drainage Plan***
***Engineers Revised Stamp Date 11-5-12 (H-13/D057)***

*Dear Mr. Biazar:*

*In response to several comments made at DRC about the sidewalk around the Band Saw Place cul-de-sac, I am resubmitting the grading and drainage plan to provide more elevation information on the area behind and south of the cul-de-sac. I also called for grass block to be placed on each side of the spillway.*

*Please call me if you have any questions.*

*Sincerely,*

*MARK GOODWIN & ASSOCIATES, P.A.*

*John MacKenzie, PE*
*Senior Engineer*

*JMM/jmm*

*f:\\11047\sawmill crossing\hydr2ltr.doc*

RECEIVED
NOV 05 2012

## Cherne, Curtis

**From:** Cherne, Curtis
**Sent:** Tuesday, August 26, 2014 1:54 PM
**To:** 'Diane Hoelzer'
**Cc:** Cloud, Jack W.; Tim Aldrich (tim.aldrich@comcast.net)
**Subject:** RE: SAWMILL UNIT 2 GRADING PLAN

Diane,
The grading plan was approved for Unit 1.
I will log this plan in for Unit 2.
I will write a comment letter and send it to you for Unit 2.
Comments will include but are not limited to:

1. Adjust grades at west end of Cheshire Ct to reflect changes made at Unit 1.
2. Provide existing grades on adjoining properties around perimeter (may change this one a little).
3. Show proposed street to the south and how this site will tie to it.
4. The grade downstream of the culvert (that is not shown or sized) west of lot 58 is higher than the grade on the upstream side.
5. State how this site will manage the first flush (which it does easily due to the pond).

Curtis

---

**From:** Diane Hoelzer [mailto:Diane@goodwinengineers.com]
**Sent:** Tuesday, August 26, 2014 9:30 AM
**To:** Cherne, Curtis
**Cc:** Cloud, Jack W.; Tim Aldrich (tim.aldrich@comcast.net)
**Subject:** RE: SAWMILL UNIT 2 GRADING PLAN

*Curtis,*

*I have done some research on your concern we discussed yesterday and attached you will find the drawing from BHI that was originally inserted into our plan and we designed around. This is the area were the survey bust was found. The elevations on this plan proved to be 2 feet (+/-) below the survey we received from ALS. I have checked ALS original survey and then the additional information that ALS got on the parking area to the south that our latest approved G&D plan was designed around. This discrepancy was corrected in all subsequent G&D plans dated on or after 11-8-13.*

*Having said this, it should not be necessary to resurvey the project site or the east boundary as the problem was in the survey from the project to the south and that has been reconciled.*

*If you have any additional concerns or this is still a concern please call me to discuss further.*

**Diane Hoelzer, PE**
**MARK GOODWIN & ASSOCIATES, PA**
**(505) 828-2200**

---

**From:** Cherne, Curtis [mailto:CCherne@cabq.gov]
**Sent:** Monday, August 25, 2014 4:55 PM
**To:** Diane Hoelzer
**Cc:** Cloud, Jack W.
**Subject:** sawmill unit 2 graidn plan

Diane,
There was a datum bust in Sawmill Unit 1. The site ended up about 2.7 feet lower than designed which caused problems along the southern edge of Unit 1. I would like to avoid a repeat with Unit 2.
Therefore, I would like for you to survey the perimeter of Unit 2 and submit a revised grading plan.

Curtis

PIE assign to CC They did a ltr to Keith that the current channel back at first BP

# City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Sawmill Crossing, Unit 1 Building Permit #: _____ City Drainage #: H13/D057

DRB#: 1009046 EPC#: 1009046 Work Order#: 617586

Legal Description: Lot B-1-A-2, Duke City Lumbr Company Addition

City Address: _____

**Engineering Firm:** Mark Goodwin & Associates, PA Contact: Diane Hoelzer

Address. PO Box 90606, ABQ, NM 87199

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

**Owner:** Sawmill Crossing LLC Contact: Keith Cheshire

Address: 7400 Hancock Court, NE, 87109

Phone#. 797-1134 Fax#: _____ E-mail: _____

**Architect:** NA Contact: _____

Address. _____

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

**Surveyor:** Aldrich Land Surveying Contact: Tim Aldrich

Address: PO Box 30701, ABQ, NM 87190

Phone#: 884-1990 Fax#: _____ E-mail: _____

**Contractor:** NA Contact: _____

Address: _____

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

**TYPE OF SUBMITTAL:**

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

RECEIVED
JUL 22 2014
LAND DEVELOPMENT SECTION

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

DATE SUBMITTED. July 21, 2014 By: Diane Hoelzer

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

# CITY OF ALBUQUERQUE

November 12, 2013

John MacKensie, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM 87199

**Re: Sawmill Crossing Unit 1 Amended Drainage Report and Grading and Drainage Plan**

**Engineer's Stamp dated 11-8-13 (H13/D057)**

Dear Mr. MacKensie,

Based upon the information provided in your submittal received 11-8-13, the above referenced report and plan are approved for Amended Preliminary Plat and Amended Infrastructure List action by the DRB.

This is the plan to certify for release of Financial Guarantee or Final Plat approval.

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

Sincerely,

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

Copy: e-mail

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov



MARK GOODWIN
& ASSOCIATES
CONSULTING ENGINEERS

# DRAINAGE AND TRANSPORTATION INFORMATION SHEET
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing Subdivision, Unit 1 ZAP/DRG. FILE H13/D057
DRB#: 1009046 EPC#: 1009046 WORK ORDER#: 617586

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS:

ENGINEERING FIRM: Mark Goodwin & Associates, PA — CONTACT: John MacKenzie, PE
ADDRESS: PO Box 90606 — PHONE: 828-2200
CITY, STATE: Albuquerque, NM — ZIP CODE: 87199

OWNER: Sawmill Crossing LLC — CONTACT: Keith Cheshire
ADDRESS: 7400 Hancock Court, NE — PHONE: 797-1134
CITY, STATE: Albuquerque, NM — ZIP CODE: 87109

ARCHITECT: N/A — CONTACT:
ADDRESS: — PHONE:
CITY, STATE: — ZIP CODE:

SURVEYOR: Aldrich Land Surveying — CONTACT: Tim Aldrich
ADDRESS: PO Box 30701 — PHONE: 884-1990
CITY, STATE: Albuquerque, NM — ZIP CODE: 87190

CONTRACTOR: N/A — CONTACT:
ADDRESS: — PHONE:
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TYPE OF SUBMITTAL:
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___ ENGINEER/ARCHITECT CERT (TCL)
___ ENGINEER/ARCHITECT (DRB SITE PLAN)
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___ CERTIFICATE OF OCCUPANCY (TEMP)
X GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
X WORK ORDER APPROVAL
___ OTHER (Construction Plans Approval)

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

RECEIVED
NOV 08 2013
LAND DEVELOPMENT SECTION

SUBMITTED BY: John MacKenzie, PE DATE: November 8, 2013

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 define 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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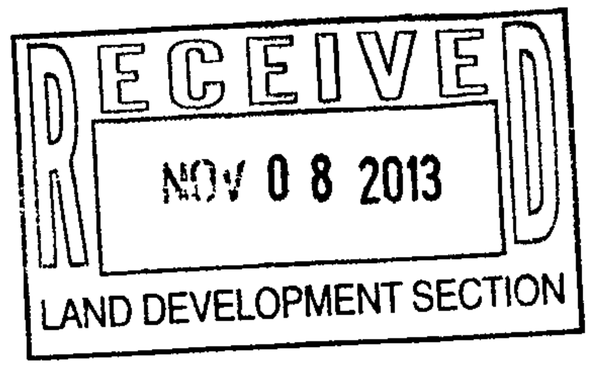
# *SECOND AMENDED DRAINAGE REPORT For SAWMILL CROSSING SUBDIVISION*

*Prepared for:*
*City of Albuquerque*
*PO Box 1293*
*Albuquerque, NM 87103*




11-08-13

*Prepared by*
*Mark Goodwin & Associates, P.A.*
*PO BOX 90606*
*Albuquerque, NM 87199*
*(505) 828-2200*




***November 2013***

*TABLE OF CONTENTS*


1. *Response Letter Dated 11-08-13*
2. *Response Letter dated 10-21-13*
3. *Task Summary E-mail dated 10-07-13*
4. *Supplemental Tract C Pond Volume Summary Table*
5. *Pipe Capacity Nomograph*
6. *POCKET 1 Revised Grading and Drainage Plan*

*Appendix A: Revised HEC-RAS Output*

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 ~*
*~ 2008 ACEC/NM Award Winner for Engineering Excellence ~*

*November 8, 2013*

*Mr. Curtis Cherne, PE*
*City of Albuquerque Hydrology Division*
*PO Box 1293*
*Albuquerque, NM 87103*

***Re: Second Amended Drainage Report for Sawmill Crossing (DRB 1009046 and H13/D057)***

*Dear Mr. Cherne:*

*The most recent drainage report for this subdivision was amended on October 21, 2013. Your office reviewed that report; issued some verbal comments, and then we met at the site on November 6.*

*From your verbal comments and after our on-site meeting I understood that you wanted me to change the following:*

1) *Raise the spillway crest elevation so that it would be slightly higher than existing downstream grade (it's been raised from 59.80 to 60.00).*
2) *Shift the lowest HEC-RAS cross section (RS 1) upstream slightly so that is crosses more reliable existing spot elevations (see new location of where this cross-section was taken). The second cross section was also revised to reflect the slightly higher spillway elevation.*
3) *Increase the channel's longitudinal flowline slope from west to east where feasible to more effectively convey Lot 1 backyard flows and to reduce the chance of "bird-bathing" (HEC-RAS showed only the westerly 20 feet of spillway channel could be steepened due to higher upstream backwater conditions that would develop if the channel slope is more elsewhere).*
4) *Rerun HEC-RAS with the revised initial section on existing grade and revised section across the raised spillway elevation (you can see in the attached report that these changes had essentially no impact on the upstream max water surface elevations through the front yard of Lot 1 (RS 6) and through the Band Saw Place cul-de-sac (RS 7).*

*At the site you were able to observe that spillage to the west off the end of the spillway would in fact flow south and toward low areas within the adjoining Sawmill Village property and not down the east embankment of Sawmill Trust's pond, as you had originally been concerned about. You also observed the appearance of sufficient Water Authority access width west of and around the erosion protection that is proposed west of the spillway crest.*

*Please contact me if I can be of further assistance.*

*Sincerely,*
*MARK GOODWIN & ASSOCIATES, PA*
*John MacKenzie, PE*
*Senior Engineer*

*F:\1-Projects\2011\A11047 - Sawmill Crossing\Drainage\Drainage Report Revision 2.docx*

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 ~*
*~ 2008 ACEC/NM Award Winner for Engineering Excellence ~*

*October 21, 2013*

*Mr. Curtis Cheme, PE*
*City of Albuquerque*
*Hydrology Department*
*PO Box 1293*
*Albuquerque, NM 87103*

***Re: Sawmill Crossing Grading & Drainage Plan Amendments (DRB 1009046 and H13/D057)***

*Dear Mr. Cheme:*

*As agreed to at a meeting in your office on October, 4, 2013, a revision to the approved Drainage Report for Sawmill Crossing ("SC") has to be submitted to your office for review and approval prior to modification of the subdivision's proposed emergency spillway. These changes will also have to be processed as a change-order through the city's Construction Office.*

*The original drainage report for this subdivision was approved by your office on May 31, 2012 (plan with engineer's stamp dated 5-23-12). That grading and drainage plan has been amended twice and was reapproved on November 8, 2012 (engineer's stamp dated 11-5-2012) and again on October 4, 2013 (engineer's stamp dated 9-10-2013).*

*Recently it was discovered that the topographic information obtained from Sawmill Village's grading and drainage plan south of SC was off an older vertical datum. This resulted in the existing offsite grades along the south property line of SC being over two feet higher that previously shown on our approved plan. This condition will prevent the emergency spillway from performing as it was originally designed.*

*To alleviate this situation we propose to build a new channel from the site's centralized ponding area located on Tract C, west along SC's south boundary to its southwest corner, just south of on-site Lot 1. SC's southwest corner is the historical low point along the border between it and Sawmill Village to its south, where historical on-site to off-site flow had always passed (new topo has been obtained to demonstrate this condition and it is shown on the revised plan). The new channel would serve as an emergency spillway to convey runoff in excess of the 100-year, 6-hour storm, the volume of which will be fully contained within the Tract C pond as called-for in the approved drainage report. At the southwest corner of SC a spillway crest will pass emergency flows at elevation 4959.80. The spillway channel between SC's Lot 1 and the subdivision's south boundary would be installed upon a new westerly extension of Tract C, which will also require the existing Agreement and Covenant to be modified. The revised grading and drainage plan calls for the new spillway channel to be constructed per City Standard Drawing 2260. Tract C will be 6 feet wide at its narrowest point with inside channel dimensions of 5 feet wide and 2-foot high sidewalls, including an inverted crown per the standard drawing. The dwelling on Lot 1 adjacent to the channel will contain a stemwall that will be separated from the channel by expansion joint material.*

*HEC-RAS was employed to find the maximum water surface elevations at seven locations along the channel (attached as Exhibit A). Sections 6 and 7 east of the spillway and just south of the Band Saw Place cul-de-sac show potential water surface elevations at 4960.89 and 4960.92, respectively. Building pads for SC's Lots 1 through 4 are currently at elevation 4962.20. From east to west along the channel, maximum water surface elevations subside until reaching 4960.00 at the spillway crest (HEC-RAS River Station 2).*

*At elevation 4959.25 the Tract C pond holds 41,861 CF of runoff storage per the original drainage report. The emergency spillway elevation was originally designed to pass runoff in excess of the 100-year storm (up to SC's entire discharge of 26.7 cfs) at elevation 4959.5 directly south of the Tract C pond onto the Sawmill Village property. With Sawmill Village being on a different datum, the original spillway improvements located approximately 180 east of SC southwest corner will no longer be built there.*

*An increase in storage volume resulting from the alternative spillway location has been estimated to be 7,378 CF, given the anticipated maximum water surface elevation of 4959.80 before passing over the new spillway crest (see attached HEC-RAS run and pond volume table). This additional storage is approximately 17% more than what was previously anticipated inside the Tract C pond, relative to the approved report.*

*Also from the original drainage report, backyard runoff from each of the new on-site buildings was originally designed to drain out to the fronting streets through new 12"-wide concrete channels running along sideyard property lines. In the case of Lot 1, backyard to sideyard drainage along the south side in a 12"-wide channel is being removed in favor of the new spillway channel, which has been designed with of minimum flowline slope of 0.25% from west to east. After passing the front yard of Lot 1, these backyard flows are to be passed in a 12"-diameter HDPE pipe that will discharge onto an open area just above the Tract C pond. Peak discharge from the backyards of Lots 1-4 has been estimated to be 0.43 cfs, based upon comparison of the area encompassing this set of backyards (approximately 4,867 SF) to the entire 7-acre site. As demonstrated with the aid of an attached monograph, a 12"-diameter HDPE pipe has enough capacity to convey 3.9 cfs at the minimum design slope of 1.0%, which is nine times more than what is generated.*

*This concludes the summary of changes connected with revising the emergency spillway location and size at SC. A revised grading and drainage plan presenting all the changes is attached at the back of this package. Please contact me if I can be of further assistance.*

*Sincerely,*
*MARK GOODWIN & ASSOCIATES, PA*

*John MacKenzie, PE*
*Senior Engineer*

*JMM/kb*

*F:\1-Projects\2011\A11047 - Sawmill Crossing\Drainage\Drainage Report Revision.docx*

## John MacKenzie

**From:** Cherne, Curtis <CCherne@cabq.gov>
**Sent:** Monday, October 07, 2013 4:22 PM
**To:** John MacKenzie
**Subject:** RE: Sawmill Crossing Spillway

John,
This is a little more detail than I remember, but the concept discussed in the e-mail is what was discussed and agreed to. On Note # 5, I also stated that the drainage report would also have to be revised.

Curtis

-----Original Message-----
From: John MacKenzie [mailto:John@goodwinengineers.com]
Sent: Friday, October 04, 2013 4:59 PM
To: Cherne, Curtis
Cc: Biazar, Shahab; Doug Hughes
Subject: Sawmill Crossing Spillway

Curtis,

Thanks for meeting with me and Doug today.

Recapping our meeting today I have the following:

1. It was decided that the principal historical outfall from our site is at the southwest corner of the site, which is also the northwest corner of the Sawmill Village site to the south. The on-site discharge has and with our plan will continue to pass from Sawmill Crossing onto Sawmill Village at this location.
2, As reported in your pre-design recap from October of 2011, Sawmill Crossing will contain the 100-year, 6-hour storm on-site and then spill after that onto the Sawmill Village property at the location described above.
3. In order to achieve this we demonstrated with the attached drawing that an emergency channel and spillway will be constructed between the south boundary of Sawmill Crossing and on-site Lot 1 within a 6-foot wide westerly extension of Tract C, which is the Tract that contains the current on-site ponding area. The agreement and covenant for Tract C will be changed accordingly.
4. A HEC-RAS model of the channel between these two points was presented showing that with an upstream FL elevation of 59.85 (at the west spillway), the maximum water surface elevation in the Band Saw Place cul-de-sac is anticipated to be not higher than approximately elevation 4960.75.
5. The channel described above would have to be included in a new grading and drainage plan submittal, and upon approval a work order change would have to be issued.
6. We agreed that the channel would be constructed in accordance with City Standard Drawing 2260 from the front of the proposed house on Lot 1 to the west boundary of Lot 1. The stem wall for Lot 1 would abut the new channel, with its footing extending beneath the channel and an expansion joint separating the two.
7. A new 2' valley gutter would extend from the east end of the channel to the low area west of the main on-site pond on Tract C. The new channel would be a work order item, but this two-foot would be built like the other backyard-draining channels and not in the work order.
This two-foot gutter may have to be in a pipe where it crosses the sidewalk off the cul-de-sac.

Please let me know if there is anything I missed.

John MacKenzie, PE
Mark Goodwin and Associates, PA
Phone: 505-828-2200

-----Original Message-----
From: Cherne, Curtis [mailto:CCherne@cabq.gov]
Sent: Friday, October 04, 2013 2:58 PM
To: John MacKenzie
Subject: sawmill retaining walls approval

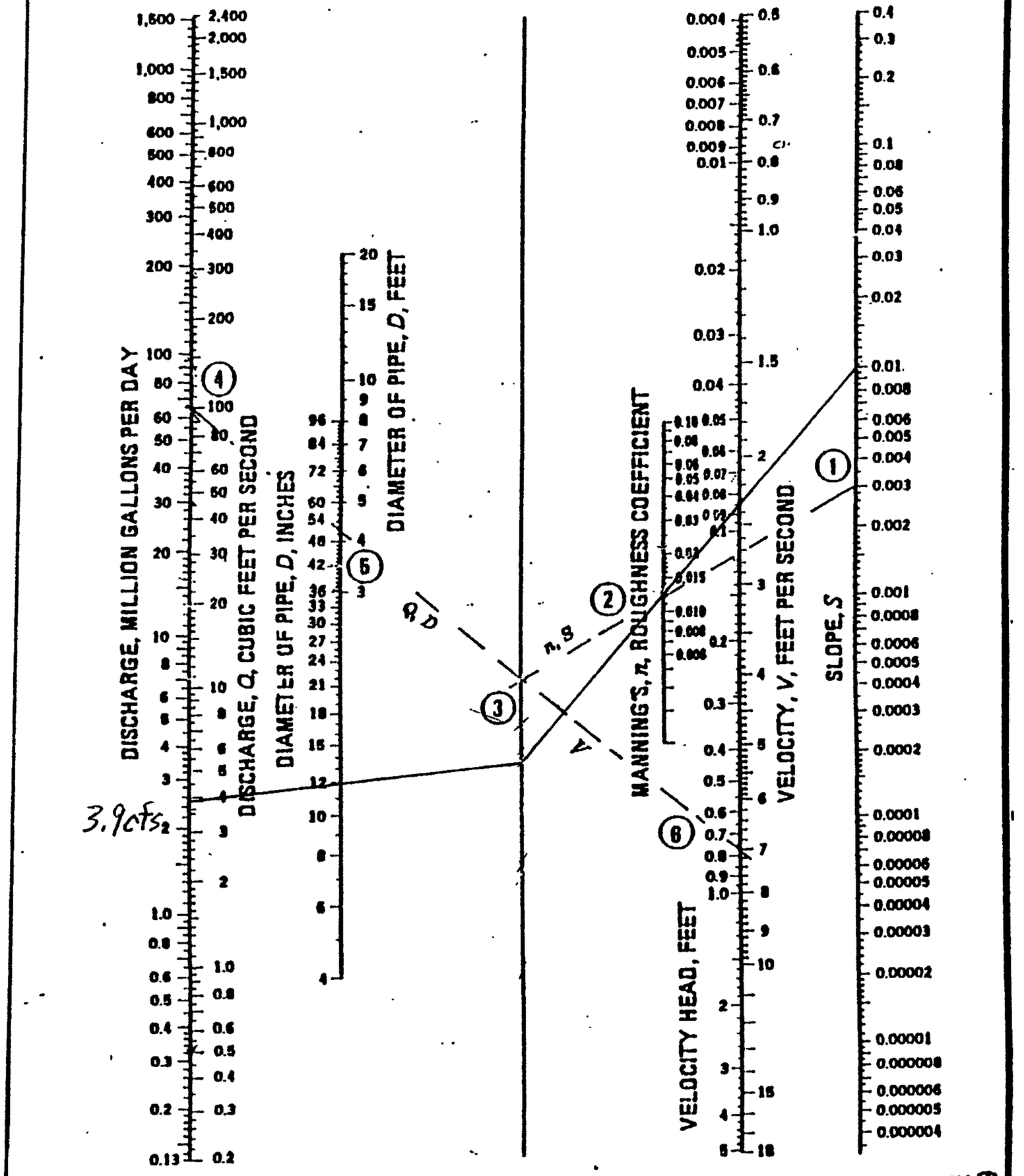
## SAWMILL CROSSING TRACT C RETENTION POND - SUPPLEMENTAL VOLUME

Increased pond depth from 4959.25 to 4960.90 results in expansion of pond storage volume as follows:

| Area of Bottom (SF) | Area of Top (SF) | Average Area (SF) Pyramidal (A1+A2+√A1A2)/3 | Incremental Pond Depth (FT) | Total Volume (CF) & (AF) | Pond Bottom Elevation (E1) | Pond Top Elevation (E2) |
|---|---|---|---|---|---|---|
| 8582 | 16432 | 12296 | 0.60 | 7,378 (0.17 AF) | 4959.25 | 4959.85 |

Storage Volume=1/3(E2-E1)(AREA TOP + AREA BOTTOM + (SQ.RT. AREA 1 x AREA 2))

*Reference: American Concrete Pipe Association (1980).*




**B) Circular Pipe Solution**

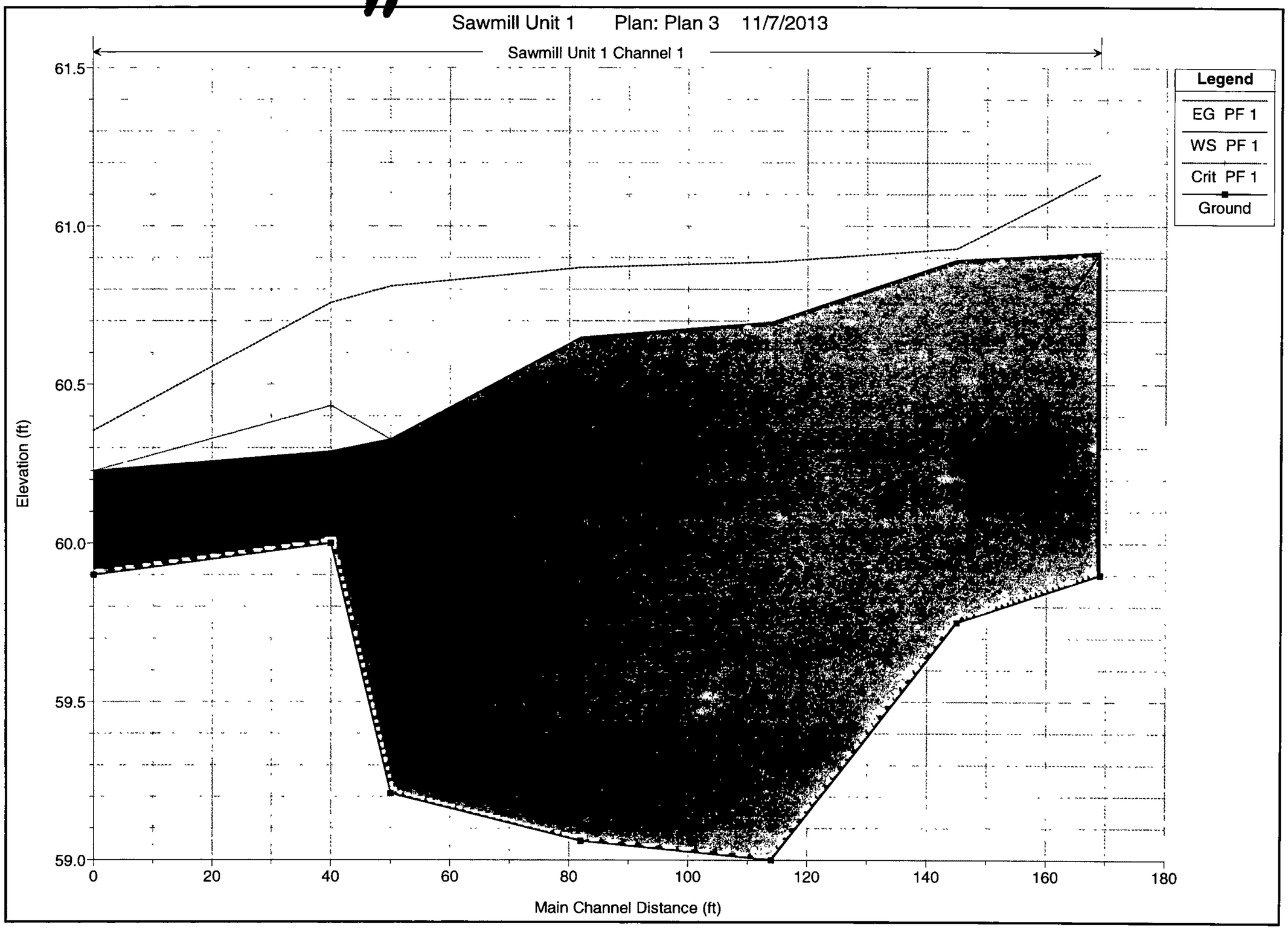
# Appendix A-1

HEC-RAS Plan: plan 3 River: Sawmill Unit 1 Reach: Channel 1 Profile: PF 1

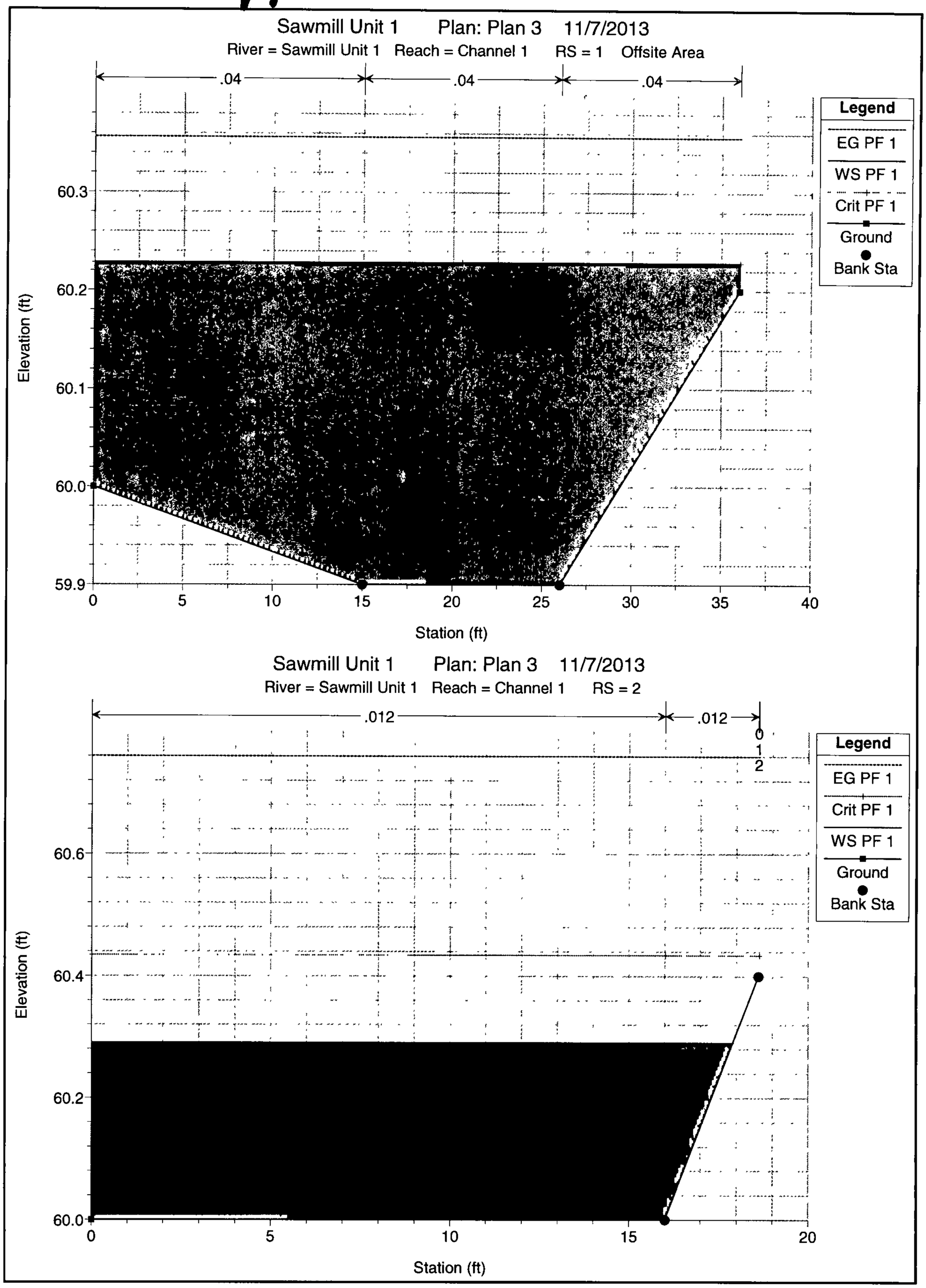
| Reach | River Sta | Profile | Q Total | Min Ch El | W.S. Elev | Crit W.S. | E.G. Elev | E.G. Slope | Vel Chnl | Flow Area | Top Width | Froude # Chl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (cfs) | (ft) | (ft) | (ft) | (ft) | (ft/ft) | (ft/s) | (sq ft) | (ft) | |
| Channel 1 | 7 | PF 1 | 26.80 | 59.90 | 60.92 | 60.92 | 61.17 | 0.036480 | 3.99 | 6.72 | 13.20 | 0.98 |
| Channel 1 | 6 | PF 1 | 26.80 | 59.75 | 60.89 | 60.26 | 60.93 | 0.002242 | 1.57 | 17.80 | 19.13 | 0.27 |
| Channel 1 | 5 | PF 1 | 26.80 | 59.00 | 60.70 | | 60 89 | 0.000456 | 3.49 | 7.74 | 5.11 | 0.50 |
| Channel 1 | 4 | PF 1 | 26.80 | 59.06 | 60.65 | | 60.87 | 0.000580 | 3.76 | 7.20 | 5.11 | 0.55 |
| Channel 1 | 3 | PF 1 | 26 80 | 59.21 | 60.33 | 60.33 | 60.81 | 0.002168 | 5 58 | 4.86 | 5.16 | 1.00 |
| Channel 1 | 2 | PF 1 | 26.80 | 60.00 | 60.29 | 60.43 | 60.76 | 0.010712 | 3 51 | 4.92 | 17.89 | 1.62 |
| Channel 1 | 1 | PF 1 | 26.80 | 59.90 | 60.23 | 60.23 | 60.36 | 0.031621 | 3 15 | 9.59 | 36.00 | 0 97 |

# HEC-RAS SUMMARY

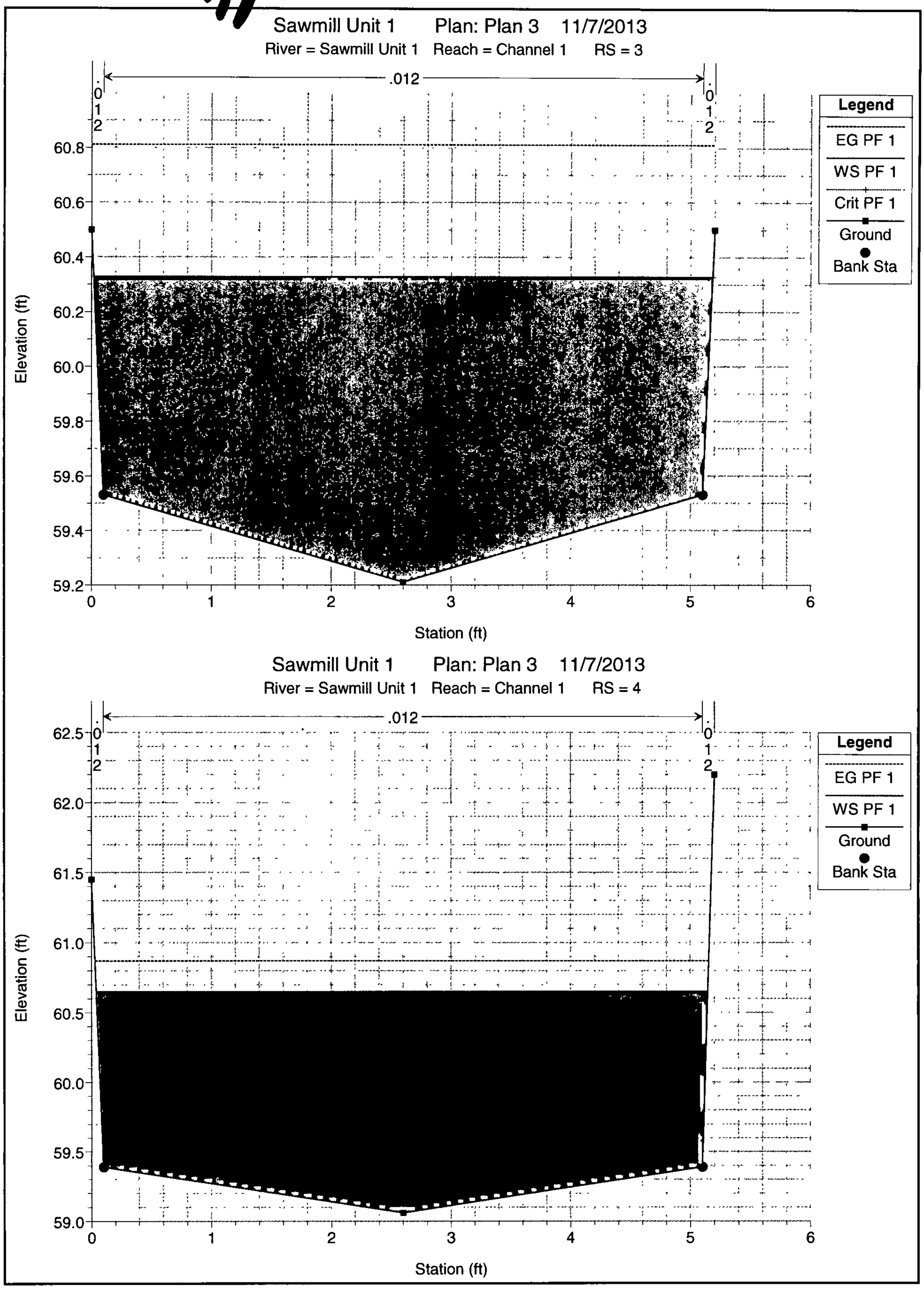
# Appendix A-2


Sawmill Unit 1 Plan: Plan 3 11/7/2013
Sawmill Unit 1 Channel 1
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Elevation (ft)
61.5
61.0
60.5
60.0
59.5
59.0
0
20
40
60
80
100
120
140
160
180
Main Channel Distance (ft)

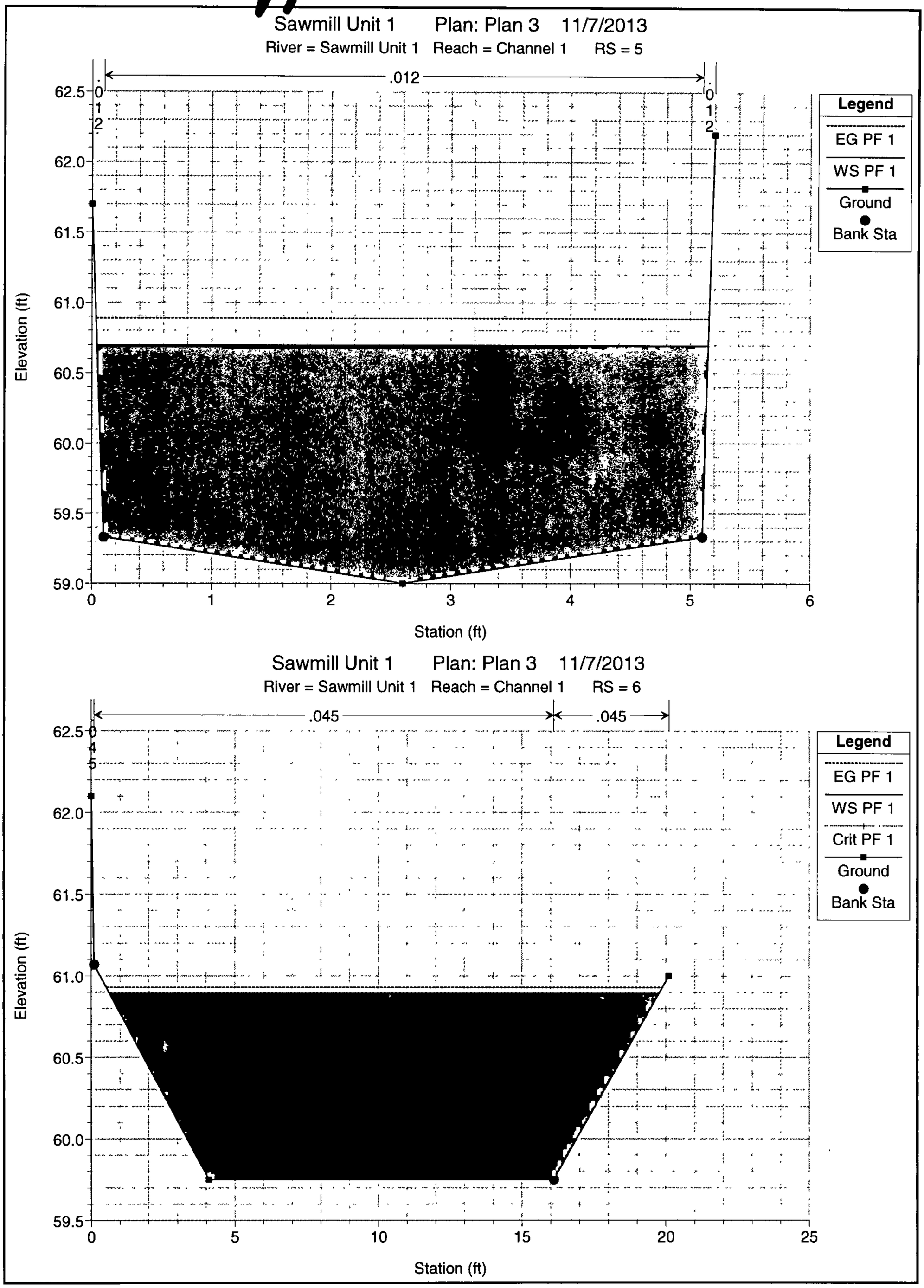
# Appendix A-3


Sawmill Unit 1 Plan: Plan 3 11/7/2013
River = Sawmill Unit 1 Reach = Channel 1 RS = 1 Offsite Area
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
60.3
60.2
60.1
60.0
59.9
0
5
10
15
20
25
30
35
40
Station (ft)
Sawmill Unit 1 Plan: Plan 3 11/7/2013
River = Sawmill Unit 1 Reach = Channel 1 RS = 2
.012
.012
0
1
2
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
60.6
60.4
60.2
60.0
0
5
10
15
20
Station (ft)

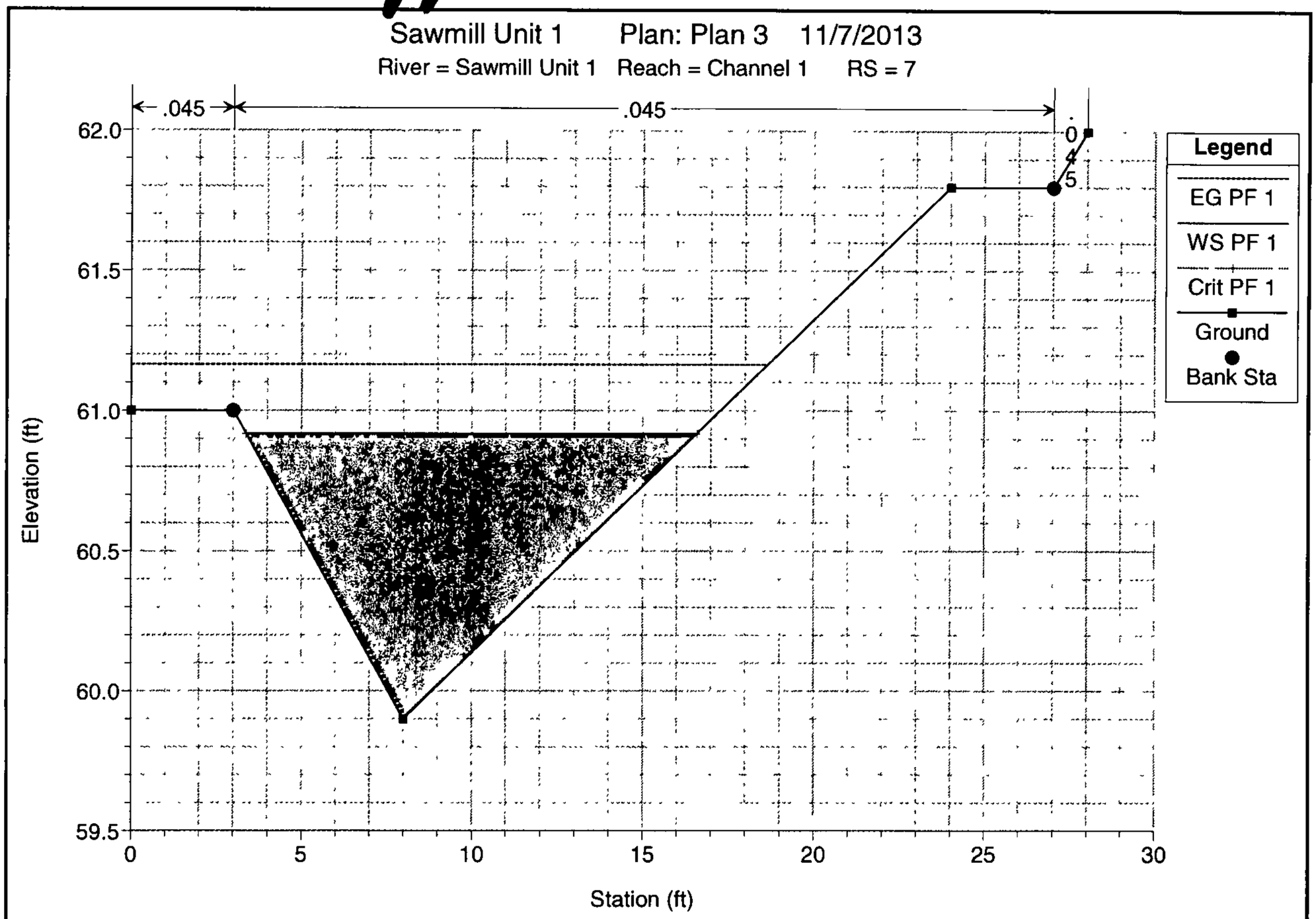
# Appendix A-4

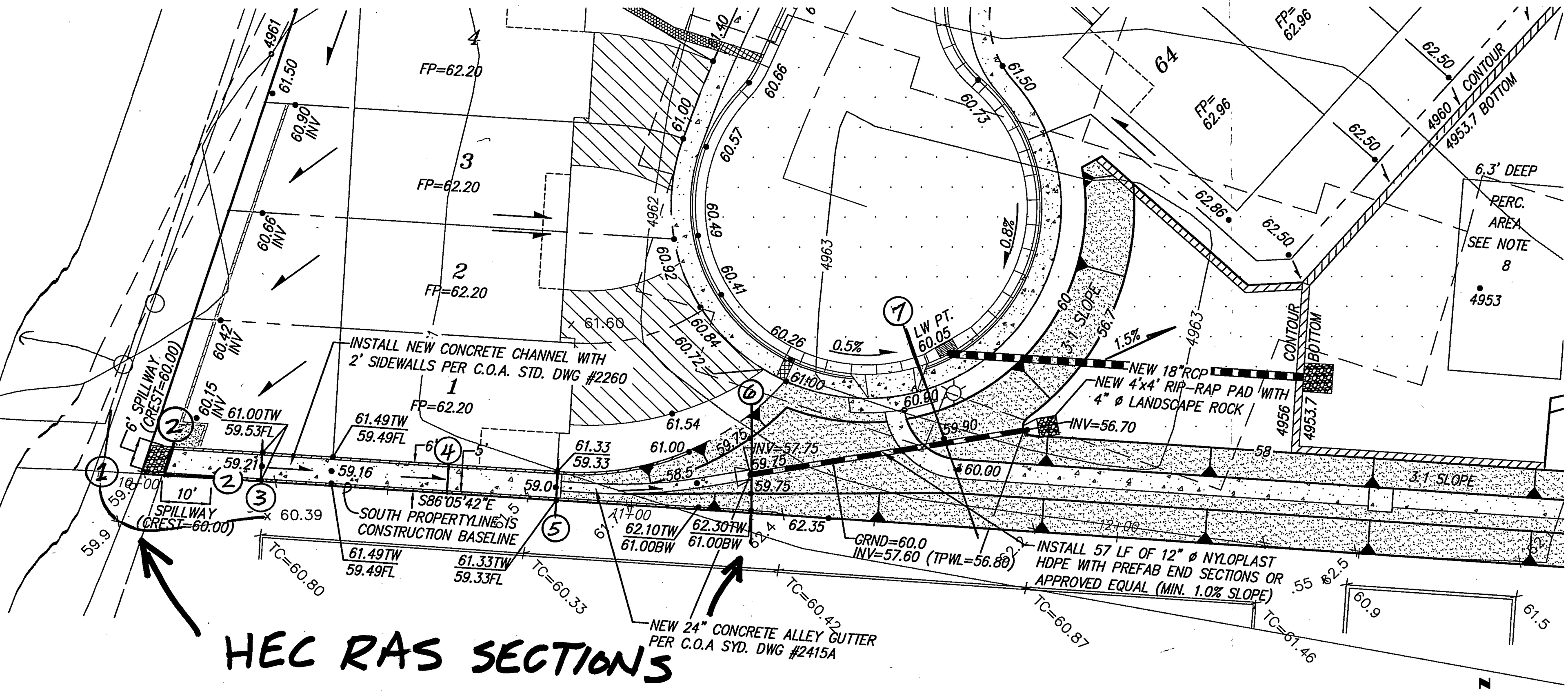

Sawmill Unit 1 Plan: Plan 3 11/7/2013
River = Sawmill Unit 1 Reach = Channel 1 RS = 3
.012
.012
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
60.8
60.6
60.4
60.2
60.0
59.8
59.6
59.4
59.2
0
1
2
3
4
5
6
Station (ft)
Sawmill Unit 1 Plan: Plan 3 11/7/2013
River = Sawmill Unit 1 Reach = Channel 1 RS = 4
.012
.012
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
62.5
62.0
61.5
61.0
60.5
60.0
59.5
59.0
0
1
2
3
4
5
6
Station (ft)

# Appendix A-5

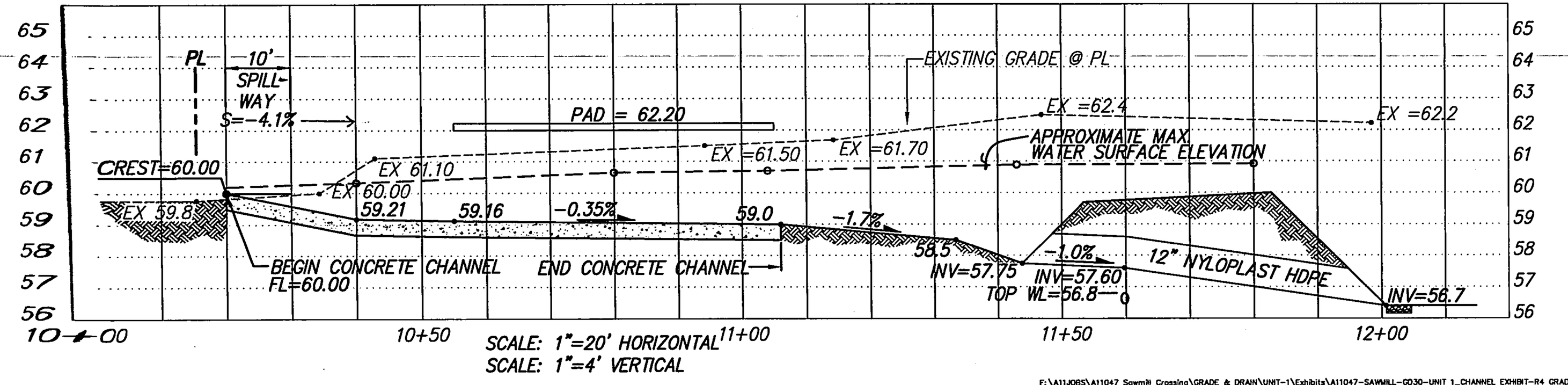

Sawmill Unit 1 Plan: Plan 3 11/7/2013
River = Sawmill Unit 1 Reach = Channel 1 RS = 5
.012
.012
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
62.5
62.0
61.5
61.0
60.5
60.0
59.5
59.0
0
1
2
3
4
5
6
Station (ft)
Sawmill Unit 1 Plan: Plan 3 11/7/2013
River = Sawmill Unit 1 Reach = Channel 1 RS = 6
.045
.045
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
62.5
62.0
61.5
61.0
60.5
60.0
59.5
0
5
10
15
20
25
Station (ft)

# Appendix A-6


Sawmill Unit 1 Plan: Plan 3 11/7/2013
River = Sawmill Unit 1 Reach = Channel 1 RS = 7
.045
.045
0
4
5
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
62.0
61.5
61.0
60.5
60.0
59.5
0
5
10
15
20
25
30
Station (ft)




# HEC RAS SECTIONS




SCALE: 1"=20' HORIZONTAL
SCALE: 1"=4' VERTICAL

SAWMILL UNIT 1
CHANNEL EXHIBIT


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



F:\A11JOBS\A11047 Sawmill Crossing\GRADE & DRAIN\UNIT-1\Exhibits\A11047-SAWMILL-GD30-UNIT 1_CHANNEL EXHIBIT-R4 GRADING.dwg, Last saved by: Dwayne, 11/8/13

## Cherne, Curtis

**From:** Keith Cheshire <keith@cheshire.comcastbiz.net>
**Sent:** Thursday, July 24, 2014 10:06 AM
**To:** Cherne, Curtis
**Subject:** Re: Sawmill crossing bldg permits

Thanks I'll change opening on channel. I see what your talking about. They should have the landscaping done in the next two weeks around the pond/ channel area. The hoa is set up and will be maintaining it. This landscaping will includes all around the pipe openings to protect against erosion. Thanks

Sent from my iPhone

> On Jul 24, 2014, at 9:06 AM, "Cherne, Curtis" <CCherne@cabq.gov> wrote:
>
> Keith,
> Yes. I went out there yesterday. I will write the letter today to
> allow building permits on all lots in Unit 1.
> A couple of things:
>
> 1. Goodwin's plan proposed rip-rap around the pipe near Lot 1 and
> where the pipe daylights 20 feet to the east. It wasn't there. The
> slopes were better, but it could use some erosion protection. The
> slopes aren't big, but a couple of good storms could cause the dirt to
> fall into the pipe openings. Covering the dirt with rock will reduce
> your maintenance also.
>
> 2. The hole in the wall at the south end of Lot 1 does not come to
> the top of the channel. The gap is only 3-1/2 to 4 inches rather than
> 6 inches. Tough to tell if it will be a problem, but in general the
> hole(s) in the wall should be at or above the top of the channel.
>
> Curtis
>
> -----Original Message-----
> From: Keith Cheshire [mailto:keith@cheshire.comcastbiz.net]
> Sent: Thursday, July 24, 2014 8:57 AM
> To: Cherne, Curtis
> Subject:
>
> Morning Curtis
> I'm just following up on sawmill. I understand you have a
> certification from Goodwins office
>
> Sorry to bug I just need to get my next permits Thanks
>
> Sent from my iPhone

2-26-14 mb in R &-I

Keith Chechi, Brian Hoover, Curtis Chen

1. Keith is the bunch
2. pond slope - put small retaining wall the 3:1
3. 6' from slope to wall - put rail on top
   (concrete - 4 ft at 3:1 plus 2' flat
4. put
5. pipe outlet connect - short retaining wall
   pipe inlet - Shotcrete
6. will move Comcast box
7. initial 1-41 on 64 the 67
8. Dian submit grading and drainage plan and request to allow me to expose plat and 4 lots on 8 lots
9. Submit cert for sideyard and backyard channels for release of F6 NOT for CO
10. Build wall at back of planters

**DRAINAGE AND TRANSPORTATION INFORMATION SHEET**
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing Subdivision, Unit 1 ZAP/DRG. FILE H13/D057
DRB#: 1009046 EPC#: 1009046 WORK ORDER#: 617586

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS:

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: John MacKenzie, PE
ADDRESS: PO Box 90606 PHONE: 828-2200
CITY, STATE: Albuquerque, NM ZIP CODE: 87199

OWNER: Sawmill Crossing LLC CONTACT: Keith Cheshire
ADDRESS: 7400 Hancock Court, NE PHONE: 797-1134
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

ARCHITECT: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

SURVEYOR: Aldrich Land Surveying CONTACT: Tim Aldrich
ADDRESS: PO Box 30701 PHONE: 884-1990
CITY, STATE: Albuquerque,NM ZIP CODE: 87190

CONTRACTOR: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN (Eng. stamp 5-23-12)
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER/ARCHITECT CERT (TCL)
_____ ENGINEER/ARCHITECT (DRB SITE PLAN)
X_____ OTHER (Percolation Testing

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
_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
X_____ OTHER (Construction Plans Approval)

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

RECEIVED
Oct 18 2012
LAND DEVELOPMENT SECTION

SUBMITTED BY: John MacKenzie, PE DATE: October 18, 2012

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 define 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.

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

PROJECT Sawmill Crossing
SUBJECT Percolation Pond
BY _____ DATE _____
CHECKED _____ DATE _____
SHEET ____ OF ____

From Vinyard & Associates soils report, dated July 9, 2012, the percolation rate at ponding area is 9 minutes/in., or 0.11 in./min. in a saturated bore hole. The rate would be greater at initial storm stage. Bottom of proposed pond is to be at elevation 4953. At this elevation pond area is approximately 3700 square feet. Conversion of the percolation rate is necessary:

$$\text{Rate} = 0.11\ \text{in/min}\left(\frac{1\ \text{ft}}{12\ \text{in}}\right)\left(\frac{60\ \text{min}}{\text{hr}}\right) = 0.56\ \frac{\text{ft}}{\text{hr}}$$

Therefore, over each hour the following volume percolates into the clean sand beneath the site (sand begins at elev. 4957)

$$3700\ \text{ft}^2\left(0.56\ \text{ft/hr}\right) = 2{,}056.6\ \frac{\text{ft}^3}{\text{hr}}$$

RECEIVED
OCT 18 2012
LAND DEVELOPMENT SECTION

The runoff volume generated during the 100-yr, 6-hour storm was previously found to be 41,861 ft$^3$, which would take approximate 20 hours to infiltrate.

$$\text{Inf. Time} = \frac{41{,}861\ \text{ft}^3}{2{,}056.6\ \text{ft}^3/\text{hr}} = 20.4\ \text{hrs} < 96\ \text{hrs}\ \text{OK}$$

Vinyard & Associates, Inc.

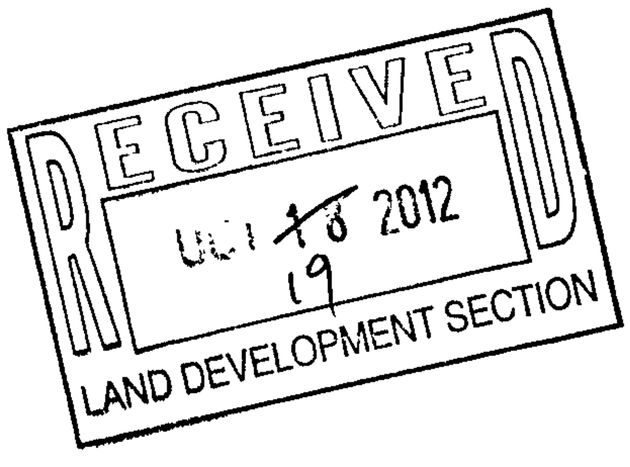
8916-A Adams Street, NE
Albuquerque, New Mexico 87113
(505) 797-9743 • Fax: (505) 797-9749
vinyardandassociates@comcast.net

Geotechnical Engineering • Materials Testing • Environmental Engineering

# GEOTECHNICAL INVESTIGATION
# SAWMILL CROSSING SUBDIVISION

**Prepared for:**

**Sawmill Crossing, LLC**




**Project No.: 12-1-094**

**July 9, 2012**

## 3.0 SITE CONDITIONS

The site is bound to the east by a UPS facility and to the west by a railroad siding and a ponding area on the order of 8' deep. The site is bound to the north by Aspen Street and to the south by existing apartments and vacant land.

The site is relatively flat. Vegetation on-site consists of sparse weeds and grass. Based upon a review of historical aerial photographs the site was previously developed with at least two large buildings. The structures have been demolished but the concrete slabs were left in place. Additional historical site development included paved areas and utilities.

## 4.0 SITE SUBSURFACE CONDITIONS

To explore the site subsurface conditions, seven test holes were drilled at the approximate locations shown on the Site Plan, Figure 1. Logs of the Test Holes are presented on Figures 2 through 8. The soil profile varied significantly both laterally across the site and with depth. Test Holes 2, 3, 5 and 7 encountered sandy clay and clayey sand at the ground surface. The remaining test holes encountered silty sand at the ground surface. The sandy clay was moderately to highly plastic, firm to stiff, and very moist. The silty sand was fine to medium grained, loose, and moist. At greater depths, the test holes encountered clean sands. The clean sands were fine to medium grained, loose to medium dense, and slightly moist. Depth to the clean sands ranged from 5' to 15'.

Neither flowing groundwater nor bedrock was encountered in the test holes to a depth of 26', the maximum depth of exploration. However, groundwater conditions may change with time due to precipitation, variations in groundwater level, seepage from ponding areas, or leaking utilities.

The soils encountered in the test holes exhibit a limited consolidation potential under the anticipated structural loads. Limited to moderate consolidation (collapse) occurs when the granular site soils increase in moisture content. The sandy clay and clayey sand soils are slightly expansive to moderately collapsible upon an increase in moisture content. Refer to Figures 10 through 16.

The existing fill encountered consists of silty and clayey sand. The fill contained a limited amount of rubble, trash, and debris. This fill is not suitable for structure or pavement support. The existing fill appears suitable for reuse as structural fill — provided all

particularly as the exposed soils dry out. Heavy equipment and material stockpiles should be located a minimum of five feet from the top of slope.

## 14.0 PERMANENT CUT and FILL SLOPES

Permanent cut and fill slopes should be no steeper than 3:1 (horizontal:vertical). Building set backs from slopes should conform to Section R403.1.7 of the 2009 International Building Code.

## 15.0 PERCOLATION AREA

To determine the percolation rate of the site soils, a percolation test was performed at the approximate location indicated on the Site Plan, Figure 1. The test was performed by augering a six-inch diameter hole to a depth of 6.5'. The percolation hole penetrated approximately 2' into the clean sand layer encountered over the majority of the site. The boring was stabilized by inserting a perforated pipe. The hole was then filled with water and the surrounding soils were allowed to saturate. The hole was then refilled with water and the percolation rate was measured.

The following percolation rate was measured:

| Boring | Percolation Rate (minutes/inch) |
|---|---|
| 7 | 9 |

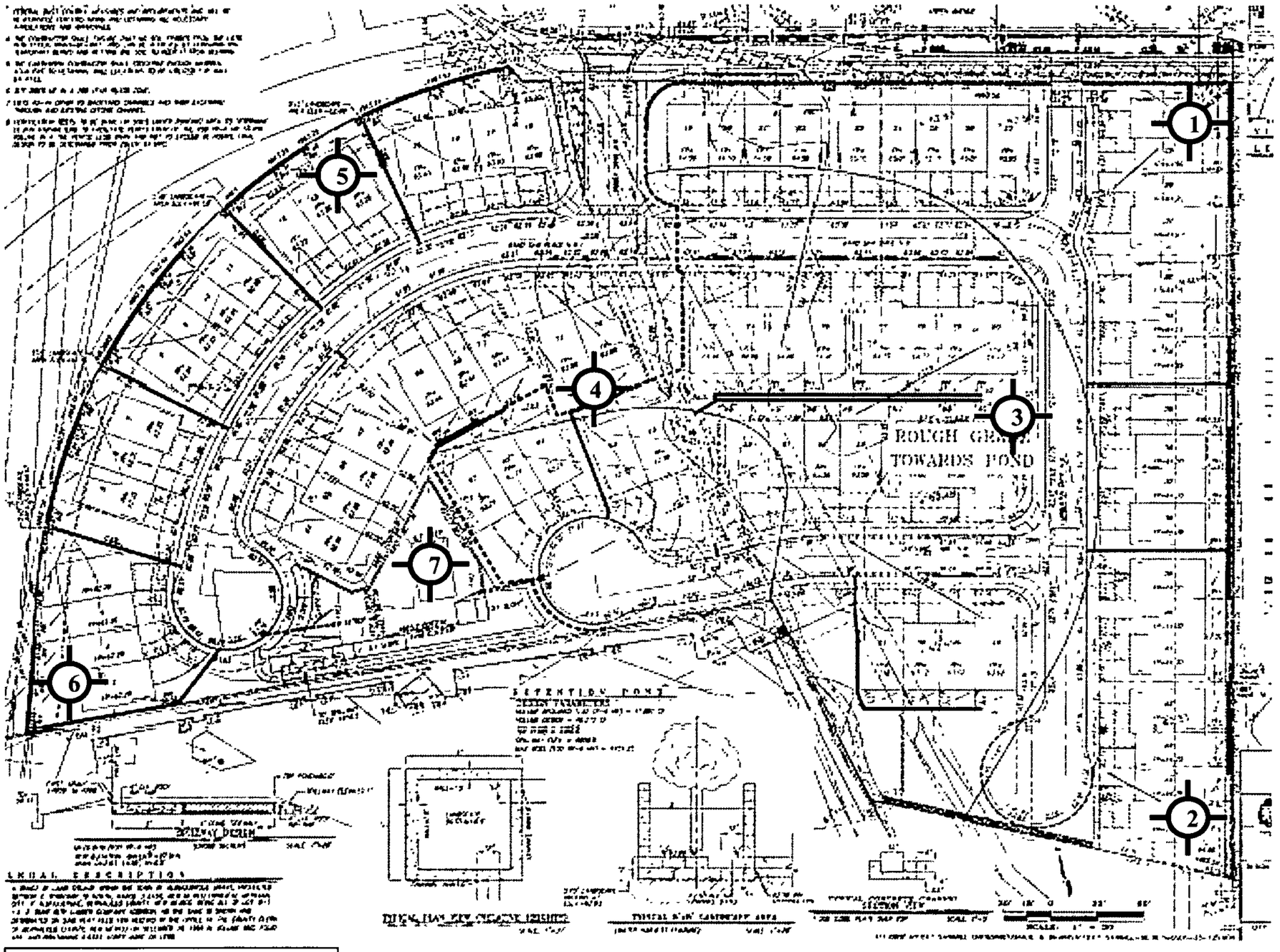
Please note the above percolation rate is applicable only to the clean sand.

## 16.0 CLOSURE

This report was prepared for the exclusive use of our Client. The recommendations presented in this report are based upon the subsurface conditions disclosed by the test holes. Soil and groundwater conditions may vary between test holes and with time.

# V&A Project No.: 12-1-094

**SITE PLAN**
***Scale Unknown**




(#) **TEST HOLE LOCATION**

**FIGURE 1**

V
&
A

# LOG OF TEST HOLE NO. 7

Project: Sawmill Crossing Subdivision
Elevation: N/A
Depth to Groundwater: Not Encountered

Project No.: 12-1-094
Date Drilled: 6/21/2012
Drilling Method: 7" H.S.A.

| Depth, feet | Blows/Foot | Sample Type | Dry Density pcf | Water Content, % | Additional Testing | Unified Classification | Material Description |
|---|---|---|---|---|---|---|---|
| 5 | 9 | R | 82 | 12.4 | 1 | CL | FILL - CLAY, sandy, firm, slightly moist, brown and black, asphalt |
| 10 | 18 | R | 102 | 2.0 | 1,2,5 | SP | SAND, fine grained, loose, slightly moist, light brown |
| | 8 | S | | 1.5 | | | |
| 15 | 6 | S | | 1.6 | 1 | | |
| 20 | 11 | S | | 1.9 | | | |
| 25 | | | | | | | Bottom of hole at 21½' |
| 30 | | | | | | | |
| 35 | | | | | | | |

ADDITIONAL TESTS: 1= Sieve Analysis 2= Atterberg Limits 3=Direct Shear 4=R-Value 5=Other

**Figure: 8**

# SUMMARY OF LABORATORY TEST DATA

| Test Hole | Depth (feet) | Unified Classification | Natural Dry Density (pcf) | Natural Moisture Content (%) | Atterberg Limits | | SIEVE ANALYSIS-% PASSING BY WEIGHT | | | | | | | | | | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | LL | PI | 1 1/2" | 3/4" | 3/8" | No. 4 | No. 8 | No. 16 | No. 30 | No. 50 | No. 100 | No. 200 | |
| 4 | 15 | | | 2.2 | | | | | | | | | | | | | |
| 4 | 20 | | | 3.9 | | | | | | | | | | | | | |
| 5 | 2 | CL | 77 | 13.7 | | | | | | | 100 | 99 | 99 | 97 | 92 | 87.4 | CLAY, sandy |
| 5 | 5 | SM | 97 | 2.2 | NV | NP | | | | 100 | 99 | 98 | 97 | 92 | 62 | 26.1 | SAND, silty |
| 5 | 10 | | | 1.4 | | | | | | | | | | | | | |
| 5 | 15 | SP | | 1.6 | | | | | 100 | 98 | 93 | 84 | 59 | 13 | 1 | 0.4 | SAND |
| 5 | 20 | | | 1.4 | | | | | | | | | | | | | |
| 6 | 2 | SM | 107 | 2.6 | NV | NP | | | | | | 100 | 98 | 88 | 51 | 22.5 | SAND, silty |
| 6 | 5 | SP | 103 | 0.8 | | | | | | 100 | 99 | 98 | 93 | 62 | 5 | 1.0 | SAND |
| 6 | 10 | SP | | 2.6 | | | | 100 | 97 | 97 | 95 | 92 | 80 | 44 | 7 | 1.1 | SAND |
| 6 | 15 | | | 2.4 | | | | | | | | | | | | | |
| 6 | 20 | | | 6.7 | | | | | | | | | | | | | |
| 7 | 2 | CL | 82 | 12.4 | | | | | | | 100 | 99 | 97 | 91 | 68 | 51.5 | CLAY, very sandy |
| 7 | 5 | SM | 102 | 2.0 | NV | NP | | | | | | 100 | 99 | 91 | 41 | 15.6 | SAND, silty |
| 7 | 10 | | | 1.5 | | | | | | | | | | | | | |
| 7 | 15 | SP | | 1.6 | | | | | 100 | 99 | 97 | 89 | 78 | 43 | 3 | 1.0 | SAND |
| 7 | 20 | | | 1.9 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

**V & A Project No.: 12-1-094**

**Project: Sawmill Crossing Subdivision**

**Table No.: 1**

## Cherne, Curtis

**From:** Diane Hoelzer <Diane@goodwinengineers.com>
**Sent:** Monday, March 03, 2014 2:27 PM
**To:** Cherne, Curtis
**Subject:** RE: Sawmill cert approval with conditions

Thank you Curtis, I am working on the details of the revised plan now.
~Diane

-----Original Message-----
From: Cherne, Curtis [mailto:CCherne@cabq.gov]
Sent: Monday, March 03, 2014 1:32 PM
To: Diane Hoelzer; Mark Goodwin
Cc: Rael, Jane E.
Subject: Sawmill cert approval with conditions

Diane/Mark,
Please read letter. It should be in compliance with our discussion on site last week.

Jane,
Appr grading portion for ROFG.

Curtis

**DRAINAGE AND TRANSPORTATION INFORMATION SHEET**
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing Subdivision, Unit 1 ZAP/DRG. FILE H13/D057
DRB#: 1009046 EPC#: 1009046 WORK ORDER#: 617586

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS:

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: John MacKenzie, PE
ADDRESS: PO Box 90606 PHONE: 828-2200
CITY, STATE: Albuquerque, NM ZIP CODE: 87199

OWNER: Sawmill Crossing LLC CONTACT: Keith Cheshire
ADDRESS: 7400 Hancock Court, NE PHONE: 797-1134
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

ARCHITECT: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

SURVEYOR: Aldrich Land Surveying CONTACT: Tim Aldrich
ADDRESS: PO Box 30701 PHONE: 884-1990
CITY, STATE: Albuquerque,NM ZIP CODE: 87190

CONTRACTOR: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN (Eng. stamp 5-23-12)
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER/ARCHITECT CERT (TCL)
_____ ENGINEER/ARCHITECT (DRB SITE PLAN)
X_____ OTHER (Percolation Testing

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
_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
X_____ OTHER (Construction Plans Approval)

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

SUBMITTED BY: John MacKenzie, PE DATE: October 18, 2012

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 define 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.

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

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

PROJECT Sawmill Crossing
SUBJECT Percolation Pond
BY _____ DATE _____
CHECKED _____ DATE _____
SHEET ____ OF ____

From Vinyard & Associates soils report, dated July 9, 2012, the percolation rate at ponding area is 9 minutes/in., or 0.11 in./min. in a saturated bore hole. The rate would be greater at initial storm stage. Bottom of proposed pond is to be at elevation 4953. At this elevation pond area is approximately 3700 square feet. Conversion of the percolation rate is necessary:

$$\text{Rate} = 0.11\ \text{in/min}\left(\frac{1\ \text{ft}}{12\ \text{in}}\right)\left(\frac{60\ \text{min}}{\text{hr}}\right) = 0.56\ \frac{\text{ft}}{\text{hr}}$$

Therefore, over each hour the following volume percolates into the clean sand beneath the site (sand begins at elev. 4957)

$$3700\ \text{ft}^2\left(0.56\ \text{ft/hr}\right) = 2{,}056.6\ \frac{\text{ft}^3}{\text{hr}}$$

The runoff volume generated during the 100-yr, 6-hour storm was previously found to be 41,861 $\text{ft}^3$, which would take approximate 20 hours to infiltrate.

$$\text{Inf. Time} = \frac{41{,}861\ \text{ft}^3}{2\,056.6\ \text{ft}^3/\text{hr}} = 20.4\ \text{hrs} < 96\ \text{hrs}\ \ \text{OK}$$

Vinyard & Associates, Inc.

8916-A Adams Street, NE
Albuquerque, New Mexico 87113
(505) 797-9743 • Fax: (505) 797-9749
vinyardandassociates@comcast.net

Geotechnical Engineering • Materials Testing • Environmental Engineering

# GEOTECHNICAL INVESTIGATION
# SAWMILL CROSSING SUBDIVISION

**Prepared for:**

**Sawmill Crossing, LLC**

**Project No.: 12-1-094**

**July 9, 2012**

## 3.0 SITE CONDITIONS

The site is bound to the east by a UPS facility and to the west by a railroad siding and a ponding area on the order of 8' deep. The site is bound to the north by Aspen Street and to the south by existing apartments and vacant land.

The site is relatively flat. Vegetation on-site consists of sparse weeds and grass. Based upon a review of historical aerial photographs the site was previously developed with at least two large buildings. The structures have been demolished but the concrete slabs were left in place. Additional historical site development included paved areas and utilities.

## 4.0 SITE SUBSURFACE CONDITIONS

To explore the site subsurface conditions, seven test holes were drilled at the approximate locations shown on the Site Plan, Figure 1. Logs of the Test Holes are presented on Figures 2 through 8. The soil profile varied significantly both laterally across the site and with depth. Test Holes 2, 3, 5 and 7 encountered sandy clay and clayey sand at the ground surface. The remaining test holes encountered silty sand at the ground surface. The sandy clay was moderately to highly plastic, firm to stiff, and very moist. The silty sand was fine to medium grained, loose, and moist. At greater depths, the test holes encountered clean sands. The clean sands were fine to medium grained, loose to medium dense, and slightly moist. Depth to the clean sands ranged from 5' to 15'.

Neither flowing groundwater nor bedrock was encountered in the test holes to a depth of 26', the maximum depth of exploration. However, groundwater conditions may change with time due to precipitation, variations in groundwater level, seepage from ponding areas, or leaking utilities.

The soils encountered in the test holes exhibit a limited consolidation potential under the anticipated structural loads. Limited to moderate consolidation (collapse) occurs when the granular site soils increase in moisture content. The sandy clay and clayey sand soils are slightly expansive to moderately collapsible upon an increase in moisture content. Refer to Figures 10 through 16.

The existing fill encountered consists of silty and clayey sand. The fill contained a limited amount of rubble, trash, and debris. This fill is not suitable for structure or pavement support. The existing fill appears suitable for reuse as structural fill — provided all

particularly as the exposed soils dry out. Heavy equipment and material stockpiles should be located a minimum of five feet from the top of slope.

## 14.0 PERMANENT CUT and FILL SLOPES

Permanent cut and fill slopes should be no steeper than 3:1 (horizontal:vertical). Building set backs from slopes should conform to Section R403.1.7 of the 2009 International Building Code.

## 15.0 PERCOLATION AREA

To determine the percolation rate of the site soils, a percolation test was performed at the approximate location indicated on the Site Plan, Figure 1. The test was performed by augering a six-inch diameter hole to a depth of 6.5'. The percolation hole penetrated approximately 2' into the clean sand layer encountered over the majority of the site. The boring was stabilized by inserting a perforated pipe. The hole was then filled with water and the surrounding soils were allowed to saturate. The hole was then refilled with water and the percolation rate was measured.

The following percolation rate was measured:

| Boring | Percolation Rate (minutes/inch) |
|---|---|
| 7 | 9 |

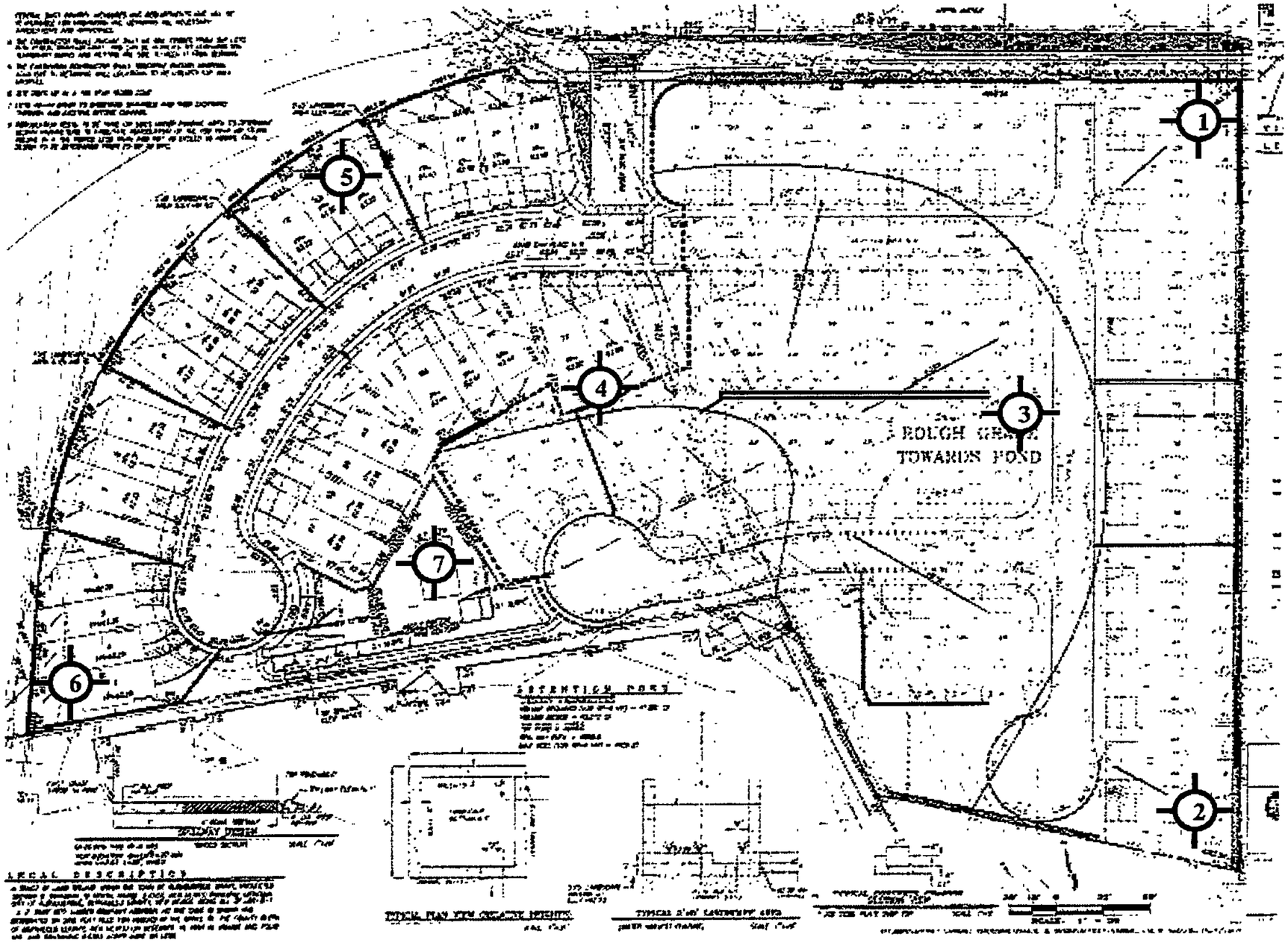
Please note the above percolation rate is applicable only to the clean sand.

## 16.0 CLOSURE

This report was prepared for the exclusive use of our Client. The recommendations presented in this report are based upon the subsurface conditions disclosed by the test holes. Soil and groundwater conditions may vary between test holes and with time.

# V&A Project No.: 12-1-094

**SITE PLAN**
***Scale Unknown**




# (#) TEST HOLE LOCATION

**FIGURE 1**

V
&
A

# LOG OF TEST HOLE NO. 7

Project: Sawmill Crossing Subdivision
Elevation: N/A
Depth to Groundwater: Not Encountered

Project No.: 12-1-094
Date Drilled: 6/21/2012
Drilling Method: 7" H.S.A.

| Depth, feet | Blows/Foot | Sample Type | Dry Density pcf | Water Content, % | Additional Testing | Unified Classification | Material Description |
|---|---|---|---|---|---|---|---|
| 5 | 9 | R | 82 | 12.4 | 1 | CL | FILL - CLAY, sandy, firm, slightly moist, brown and black, asphalt |
| 10 | 18 | R | 102 | 2.0 | 1,2,5 | SP | SAND, fine grained, loose, slightly moist, light brown |
| 15 | 8 | S | | 1.5 | | | |
| 20 | 6 | S | | 1.6 | 1 | | |
| 25 | 11 | S | | 1.9 | | | |
| 30 | | | | | | | Bottom of hole at 21½' |
| 35 | | | | | | | |

ADDITIONAL TESTS: 1= Sieve Analysis 2= Atterberg Limits 3=Direct Shear 4=R-Value 5=Other

**Figure: 8**

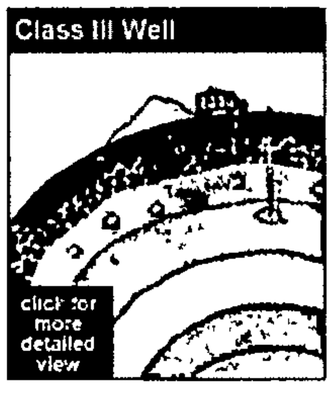
# SUMMARY OF LABORATORY TEST DATA

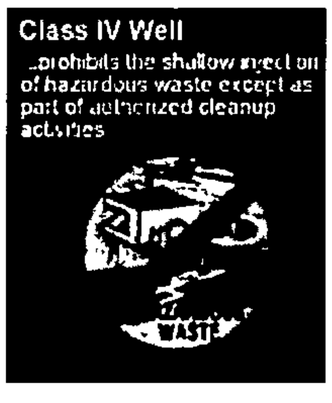
| Test Hole | Depth (feet) | Unified Classification | Natural Dry Density (pcf) | Natural Moisture Content (%) | Atterberg Limits | | SIEVE ANALYSIS-% PASSING BY WEIGHT | | | | | | | | | | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | LL | PI | 1 1/2" | 3/4" | 3/8" | No. 4 | No. 8 | No. 16 | No. 30 | No. 50 | No. 100 | No. 200 | |
| 4 | 15 | | | 2.2 | | | | | | | | | | | | | |
| 4 | 20 | | | 3.9 | | | | | | | | | | | | | |
| 5 | 2 | CL | 77 | 13.7 | | | | | | | 100 | 99 | 99 | 97 | 92 | 87.4 | CLAY, sandy |
| 5 | 5 | SM | 97 | 2.2 | NV | NP | | | | 100 | 99 | 98 | 97 | 92 | 62 | 26.1 | SAND, silty |
| 5 | 10 | | | 1.4 | | | | | | | | | | | | | |
| 5 | 15 | SP | | 1.6 | | | | | 100 | 98 | 93 | 84 | 59 | 13 | 1 | 0.4 | SAND |
| 5 | 20 | | | 1.4 | | | | | | | | | | | | | |
| 6 | 2 | SM | 107 | 2.6 | NV | NP | | | | | | 100 | 98 | 88 | 51 | 22.5 | SAND, silty |
| 6 | 5 | SP | 103 | 0.8 | | | | | | 100 | 99 | 98 | 93 | 62 | 5 | 1.0 | SAND |
| 6 | 10 | SP | | 2.6 | | | | 100 | 97 | 97 | 95 | 92 | 80 | 44 | 7 | 1.1 | SAND |
| 6 | 15 | | | 2.4 | | | | | | | | | | | | | |
| 6 | 20 | | | 6.7 | | | | | | | | | | | | | |
| 7 | 2 | CL | 82 | 12.4 | | | | | | | 100 | 99 | 97 | 91 | 68 | 51.5 | CLAY, very sandy |
| 7 | 5 | SM | 102 | 2.0 | NV | NP | | | | | | 100 | 99 | 91 | 41 | 15.6 | SAND, silty |
| 7 | 10 | | | 1.5 | | | | | | | | | | | | | |
| 7 | 15 | SP | | 1.6 | | | | | 100 | 99 | 97 | 89 | 78 | 43 | 3 | 1.0 | SAND |
| 7 | 20 | | | 1.9 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

**V & A Project No.: 12-1-094**

**Project: Sawmill Crossing Subdivision**

**Table No.: 1**

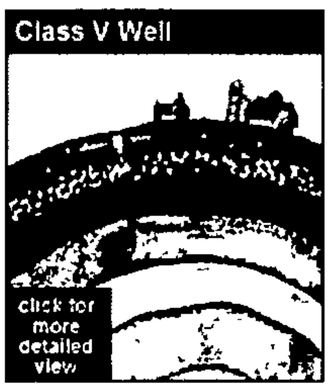



Class IV wells inject hazardous or radioactive wastes into or above underground sources of drinking water (USDW). These wells are banned unless authorized under other Statutes [RCRA, Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)] for purposes of ground water remediation.

Class V wells includes all underground injection wells that are not included in the other classes This "catch all" well class includes technically advanced deep wastewater disposal systems and shallow "low-tech" wells, such as septic systems and cesspools Generally, they are shallow, on-site disposal systems, such as floor and sink drains which discharge directly into the subsurface via dry wells, leach fields, and similar types of drainage systems.

Exclusions: Injection practices which are not covered by the UIC Program include individual residential waste disposal systems that inject ONLY sanitary waste and commercial waste disposal systems that serve fewer than 20 persons per day and that inject ONLY sanitary waste.




Back to Questions

**Drinking Water Ground Water Underground Injection Control**

Last updated on Monday, August 20, 2012

**EPA's Region 6 Office**
Serving Arkansas, Louisiana, New Mexico, Oklahoma, Texas, and 66 Tribal Nations

# *Frequently Asked Questions about the Underground Injection Control (UIC) Program*

**Water Quickfinder**

- Water Home
- Animal Waste
- Coastal Louisiana
- Source Water Assessment
- Publications
- Educator Resources
- Septic Systems
- Stormwater
- Tribal Water Protection
- Underground Injection Wells
- Water Conservation
- More

## What is a USDW?

USDWs are defined broadly to include all fresh water aquifers unless they have been specifically exempted from protection. A USDW may be in current use as a source of drinking water, but that is not necessary. A USDW is simply any aquifer which contains fewer than 10,000 mg/l total dissolved solids and is currently being used as a drinking water source or which is of sufficient volume and adequate quality to be a future source for a public water system (25 or more connections)

Back to Questions

## What is Underground Injection?

Underground injection is the practice of placing fluids underground, in porous formations of rocks, through wells or other similar conveyance systems While rocks such as sandstone and limestone appear to be solid, they can contain significant voids or pores that allow water and other fluids to fill and move through them. Man-made or produced fluids (liquids, gases or slurries) can move into the pores of rocks by the use of pumps or by gravity. The fluids may be water, wastewater or water mixed with chemicals. Engineering can predict the capacity of rocks to contain fluids and the technology to do so safely

Back to Questions

## What Is an Injection Well?

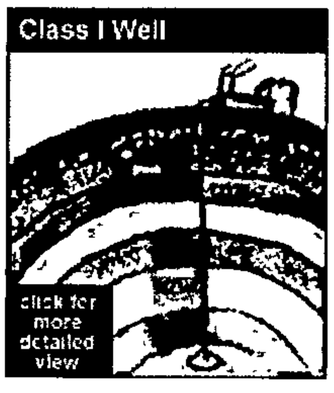
The UIC Program defines an injection well as a bored, drilled, or driven shaft whose depth is greater than the largest surface dimension; or, a dug hole whose depth is greater than the largest surface dimension; or, an improved sinkhole; or, a subsurface fluid distribution system. This definition covers a wide variety of injection practices that range from technically sophisticated wells which pump fluids into isolated formation up to two miles below the Earth's surface, to on-site drainage systems, such as septic systems and storm water wells, that discharge fluids a few feet underground.

Back to Questions

## How Does the UIC Program Regulate the Wide Variety of Underground Injection Activities?

The EPA classifies underground injection activities into five classes for regulatory control purposes.
An injection well's classification is determined by its waste stream constituents and its depth of injection relative to the depth of any USDWs near by.

Class I wells emplace hazardous and nonhazardous fluids (industrial and municipal wastes) into isolated formations beneath the lowermost USDW Class I wells that inject hazardous waste, are the most highly regulated well class. They are technically sophisticated and are further regulated under the Resource Conservation and Recovery Act (RCRA)




Class II wells are oil and gas related wells. They may be used for disposal of oil and gas wastes, enhanced recovery, or hydrocarbon storage.

Class III wells are wells that inject super-heated steam, water, or other fluids into formations in order to extract minerals such as salt, sulfur, and uranium.

9-22-4

The site historically drains ~~to the Southwest~~, South in all direction but North.

~~Permit~~ work it out to get 2 discharge points to prevent the 10 day retention volume

~~Consider~~
flat grading Scheme

Look into discharging ~ 1 cfs out the Southwest corner into Summit H13-D025A

Design st access

— Do pre design —

Call 9-23-4
Doug

928-2206

# CITY OF ALBUQUERQUE
## PLANNING DEPARTMENT
### HYDROLOGY DEVELOPMENT SECTION

DEVELOPMENT REVIEW BOARD MEMO

**DRB PROJECT NO: 1002739**

**AGENDA ITEM NO: 7**

**SUBJECT:**

SIA Ext for Defr Sdwk Constr

**ENGINEERING COMMENTS:**

Hydrology has no objection.

**RESOLUTION/COMMENTS:**

**SIGNED**:

Curtis Cherne
Hydrology Section
City Engineer Designee
AMAFCA Designee
924-3986

**DATE**: 9-21-11

## Cherne, Curtis

**From:** Cherne, Curtis
**Sent:** Friday, September 23, 2011 10:19 AM
**To:** 'Doug Hughes'
**Cc:** 'Michael Balaskovits'
**Subject:** Tract B1A2 and Sawmill Village

Good morning,
Per our conversation yesterday concerning the proposed development (proposed area) at Tract B1A2 and offsite flows at Sawmill Village (Sawmill).
I visited the site(s) this morning to attempt to confirm the contours shown our GIS to aid in making a determination for drainage for the proposed development. I also looked at the approved Grading Plan for Sawmill.
It is evident that the Sawmill site accepted offsite flows in the existing condition near the northeast and northwest corners of Sawmill. There is approx. a 2 foot cut south of the northeast corner of Sawmill and the proposed site is about 2 feet higher than Sawmill about 100 to 150 feet west of the northwest corner of Sawmill. It is also evident that there was an existing swale along the west edge of the proposed development into Sawmill. It appears this area has been filled.

It does not look like any flows leave the proposed area to the east thru UPS. There is evidence of ponding inside the proposed area along the eastern edge and it looks like there is a high point in the UPS site in the first drive aisle. There is also a 2" or so lip of asphalt on the UPS side. The existing alley gutter near the south end along the eastern edge of the proposed area drains west from UPS as evidenced by the sediment inside the proposed area in the valley gutter.

The railroad tracks will make it difficult to drain the proposed area north. Therefore, it seems south and southwest seem to be the historic flow path and therefore should be the proposed.

In the spirit of the drainage ordinance the Sawmill site should accept offsite flows from the proposed development. It seems the two discharge points should be in the northeast and northwest corners of Sawmill. It seems the 1 cfs at each point (2 cfs total) you are requesting is most likely less than existing and could be easily accommodated by Sawmill.

Hydrology has an approved DMP and Grading Plan that do not mention or account for offsite flows from Tract B1A2. It was missed, but that does not make it right. Would the best way to remedy this be for the three of us to meet to discuss?

Curtis

## Cherne, Curtis

---

**From:** John MacKenzie [John@goodwinengineers.com]
**Sent:** Wednesday, May 23, 2012 1:16 PM
**To:** Cherne, Curtis ; Biazar, Shahab
**Cc:** Diane Hoelzer
**Subject:** RE: Sawmill Pond GD Approval

I second that approach since I know for a fact that the owner of Sawmill Village will not permit any activity by our client on their property. Thru the EPC process they have been particularly opposed to anything involving the Sawmill Crossing project. Having to get permission from them to do anything will most assuredly be used as a tool by them to further delay this project's approval.

*John MacKenzie, PE*
*Mark Goodwin and Associates, PA*
*Phone: 505-828-2200*

---

**From:** Diane Hoelzer
**Sent:** Wednesday, May 23, 2012 11:41 AM
**To:** Cherne, Curtis ; sbiazar@cabq.gov
**Cc:** John MacKenzie
**Subject:** RE: Sawmill Pond GD Approval

I have decided against punching a pipe through to their property.
As we may not be able to get permission from adjacent property owner, an easement may be required, too complicated.

---

**From:** Cherne, Curtis [mailto:CCherne@cabq.gov]
**Sent:** Wednesday, May 23, 2012 10:48 AM
**To:** Diane Hoelzer
**Cc:** Biazar, Shahab
**Subject:** RE: Sawmill Pond GD Approval

Diane,
I was thinking the pond should drain faster than 96 hours due to daily monsoons. I did not want to tie the site to 24 hours because the in-situ soils may not support it. If you put the words "in a maximum of 96 hours" it allows some flexibility at the time of DRC, which is acceptable.
Concerning the 1-2 cfs:
Per the meeting last fall, it is written that "Sawmill Village will accept 1 or 2 cfs for storms greater than the 100 yr-6 hr storm along the north edge and the northeast corner of sawmill village (1 cfs at each pt). For this to happen a small pipe will have to be built into the Sawmill Village site to pull water off the top of the pond. Since construction of the pipe will occur on someone else's property, their approval is required.

Curtis Cherne, P.E., CFM
Hydrology

---

**From:** Diane Hoelzer [mailto:Diane@goodwinengineers.com]
**Sent:** Monday, May 21, 2012 12:00 PM
**To:** Cherne, Curtis
**Subject:** Sawmill Pond GD Approval
**Importance:** High

Curtis,

I am proposing to add the following text to the grading plan:

Percolation test to be done for soils under the ponding area to determine design parameters necessary to facilitate pond to percolate the 100 yr-6 hr storm in 96 hours.
Design to be determined upon receipt of soils report prior to or at the time of DRC. If reasonable percolations rates dont allow this, then 1-2 cfs may need to be discharged
to the inlet in the property to the south as previously agreed upon.

Will this be acceptable in order to receive PP approval ?

*Diane Hoelzer, PE*
**MARK GOODWIN & ASSOCIATES, PA**
**PO Box 90606, Albuquerque, NM 87199**
**(505) 828-2200 office**
**(505) 239-6511 cell**

# CITY OF ALBUQUERQUE

April 19, 2012

Diane Hoelzer, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM 87199

**Re: Sawmill Crossing, Grading and Drainage Plan**
**Engineer's Stamp dated 3-29-12 (H13/D057)**

Dear Ms. Hoelzer,

Based upon the information provided in your submittal received 3-29-12, the above referenced plan cannot be approved for Preliminary Plat action by the DRB until the following comments are addressed:

- Due to the flatness of the site and the unique drainage scheme, Hydrology initially thought the amount of imperviousness should be 50% or less. However, a centralized pond as shown on the plan could work if the water in the pond can infiltrate into the ground. It would be preferable for the water in the pond to infiltrate in 24 hours, so that it will be nearly dry before the next rainfall event.
- It is my understanding that in this location, there is a layer of soil with acceptable percolation rates at 5 or 6 feet below the ground surface. The proposed pond is 6.3 feet deep and therefore the pond bottom may be in this soil with acceptable percolation rates. Provide a bore log in the location of the proposed pond and percolation calculations to aid in the determination of the time it will take for water in the pond to infiltrate.
- Since this site will be developed in phases, provide a grading plan that shows the lots to be developed as well as grades on the undeveloped areas. If you prefer, comments on the grading plan for future phases can be addressed when those phases are developed.
- Do you intend the grade the entire site creating pads for Unit 1 and rough grading for the other areas or creating pads and street grades on the entire site?
- Provide the Volume Required, Volume Provided and WSE for the proposed pond on the grading plan.
- Provide a spillway for the pond and show the inlet on the site to the south that will receive the runoff. The spillway can be rock, but not small rock.
- The pond walls should be constructed of continuously poured concrete not CMU blocks. Details to be determined at DRC.
- Is there supposed to be an inlet in each cul-de-sac? Show the storm drain.
- Provide existing elevation data on the east and west sides of the site. Additional survey data should be provided to determine if the existing concrete rundown between lots 42 and 41 drains to the east. During a site visit, it appeared that flows don't drain to the east as witnessed by an area of fines on this site.
- The drainage report should states that lots 41 through 44 will drain to the east via the existing concrete channel, if it does drain east.

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

# CITY OF ALBUQUERQUE

- Show the built environment on the Sawmill site to the south in the area of the proposed pond.
- It appears the 5'x5' landscape areas may drain out the back rather than out to the front per the drainage report.
- DMD has asked Hydrology to minimize the use of sidewalk culverts, because the plates are being stolen. To assist DMD with their request, Hydrology would prefer water harvesting areas that drain thru 4" (multiple?) pipes thru the curb rather than sidewalk culverts. The property owners will be responsible for maintenance of the pipes. Please add a note to the plat.
- Aspen Ave currently drains west to east across the frontage of this site. You are proposing to introduce a high point in Aspen Ave near lot 23 that will interrupt the existing flow pattern.
- Provide a water block at the entrance to this site.
- Provide slopes and flows for all channels.
- The channel that daylights near lot 58 has in invert of 61.70. The downstream (?) grade on the other side of the sidewalk is proposed to be 62.31. Should the sidewalk culvert extend across the sidewalk?
- To help minimize the amount of imperviousness, single car width or narrower driveways should be considered.
- Retaining walls are shown near lots 73, 58 and 51. They appear to be unnecessary due to the flatness of this site.
- Please provide street names on the grading plan.
- Provide flow arrows in the back yards of Lots 1 through 7.
- The plan proposes curb and gutter and sidewalk across the railroad tracks. How will this be built? Provide spot elevation data at regular intervals in the location of the railroad tracks.
- Hydrology appreciates including the infrastructure list and plat in the drainage report.

If you have any questions or would like to set a meeting, please contact me at 924-3986.

Sincerely,

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

Copy: e-mail

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

Volume for pond

$$E = \frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A}$$

=

| | | | |
|---|---|---|---|
| B | 15% | x 6.93 ac = | 1.03 |
| C | 15% | | = 1.05 |
| D | 70% | | 4.9 |

$$E = \frac{1.28 \times 1.03 + 1.13 \times 1.03 + 2.12 \times 4.9}{6.96}$$

$$= \frac{0.8 + 1.16 + 10.4}{6.96} = \frac{123}{6.96} \quad 1.77 \text{ in}$$

$$V_{360} = \frac{1.77 \text{ in} \times 6.96 \text{ ac}}{12 \text{ in}} \text{ ft} = 1.03 \text{ ac ft}$$

# CITY OF ALBUQUERQUE
## PLANNING DEPARTMENT

### HYDROLOGY DEVELOPMENT SECTION
DEVELOPMENT REVIEW BOARD MEMO

**DRB PROJECT NO: 1003272**

**AGENDA ITEM NO: 6**

**SUBJECT:**

Site Plan for Building Permit

**ENGINEERING COMMENTS:**

An approved Infrastructure List and ~~approved~~ received SIA are required for signature.

**RESOLUTION/COMMENTS:**

**SIGNED**:
Curtis Cherne
Hydrology Section
City Engineer Designee
AMAFCA Designee
924-3986

**DATE**: 4-18-12

**DRAINAGE AND TRANSPORTATION INFORMATION SHEET**
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing Subdivision ZONE MAP/DRG. FILE H13/D057
DRB#: 1009046 EPC#: WORK ORDER#:

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS:

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: Diane Hoelzer, PE
ADDRESS: PO Box 90606 PHONE: 828-2200
CITY, STATE: Albuquerque, NM ZIP CODE: 87199

OWNER: Sawmill Crossing LLC CONTACT: Keith Cheshire
ADDRESS: 7400 Hancock Court, NE PHONE: 797-1134
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

ARCHITECT: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

SURVEYOR: Aldrich Land Surveying CONTACT: Tim Aldrich
ADDRESS: PO Box 30701 PHONE: 884-1990
CITY, STATE: Albuquerque,NM ZIP CODE: 87190

CONTRACTOR: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
x_____ GRADING PLAN (Eng. stamp 5-23-12)
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER/ARCHITECT CERT (TCL)
_____ ENGINEER/ARCHITECT (DRB SITE PLAN)
_____ OTHER

CHECK TYPE OF APPROVAL SOUGHT:
_____ SIA/FINANCIAL GUARANTEE RELEASE
x_____ 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
_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
x_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ OTHER (SPECIFY)

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

APR 24 2012

SUBMITTED BY: Diane Hoelzer, PE DATE: May 24, 2012

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 define 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.

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

*May 23, 2012*

*Mr. Curtis Cherne, PE*
*Principal Engineer, Planning Dept.*
*Development and Building Services*
*City of Albuquerque*
*PO Box 1293*
*Albuquerque, NM 87103*

***Re: Sawmill Crossing Grading and Drainage Plan***
***Engineers Revised Stamp Date 5-23-12 (H-13/D057)***

*Dear Mr. Cherne;*

*In response to our meeting on Monday May 21, 2012 the following revisions have been made on this grading and drainage plan:*

1. *Revised proposed street width in Aspen Avenue,*
2. *Revised contours for rough grading towards pond,*
3. *Added plan view of the 5' x 5' landscape area for clarity,*
4. *Reduced spillway width and added 4" rock rip-rap on either side of sidewalk to property line,*
5. *Added a spillway design cross section*
6. *Added percolation area in plan view and Note 8 with regards to percolation of the 100 yr 6 hr storm volume,*
7. *Revised retention pond design parameters,*
8. *Clarified retaining wall designation in pond.*

*Please call me if you have any questions.*

*Sincerely,*

*MARK GOODWIN & ASSOCIATES, P.A.*

*Diane Hoelzer, PE*
*Senior Engineer*

*DLH/dlh* *f:\\11047\sawmill crossing\hydr_ltr.docx*

RECEIVED
APR 24 2012

Sawmill

Pond perc - 72 hr infiltration
sizes at DRC

Rock on Spillway bowing here

Spillway

## Cherne, Curtis

**From:** Cherne, Curtis
**Sent:** Wednesday, May 23, 2012 10:48 AM
**To:** 'Diane Hoelzer'
**Cc:** Biazar, Shahab
**Subject:** RE: Sawmill Pond GD Approval

Diane,
I was thinking the pond should drain faster than 96 hours due to daily monsoons. I did not want to tie the site to 24 hours because the in-situ soils may not support it. If you put the words "in a maximum of 96 hours" it allows some flexibility at the time of DRC, which is acceptable.
Concerning the 1-2 cfs:
Per the meeting last fall, it is written that "Sawmill Village will accept 1 or 2 cfs for storms greater than the 100 yr-6 hr storm along the north edge and the northeast corner of sawmill village (1 cfs at each pt). For this to happen a small pipe will have to be built into the Sawmill Village site to pull water off the top of the pond. Since construction of the pipe will occur on someone else's property, their approval is required.

Curtis Cherne, P.E., CFM
Hydrology

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**From:** Diane Hoelzer [mailto:Diane@goodwinengineers.com]
**Sent:** Monday, May 21, 2012 12:00 PM
**To:** Cherne, Curtis
**Subject:** Sawmill Pond GD Approval
**Importance:** High

Curtis,

I am proposing to add the following text to the grading plan:

Percolation test to be done for soils under the ponding area to determine design parameters necessary to facilitate pond to percolate the 100 yr-6 hr storm in 96 hours.
Design to be determined upon receipt of soils report prior to or at the time of DRC. If reasonable percolations rates dont allow this, then 1-2 cfs may need to be discharged
to the inlet in the property to the south as previously agreed upon.

Will this be acceptable in order to receive PP approval ?

*Diane Hoelzer, PE*
**MARK GOODWIN & ASSOCIATES, PA**
**PO Box 90606, Albuquerque, NM 87199**
**(505) 828-2200 office**
**(505) 239-6511 cell**

## Cherne, Curtis

**From:** Cherne, Curtis

**Sent:** Thursday, May 17, 2012 4:31 PM

**To:** 'bstidworthy@bhinc.com'; 'mbalaskovitz@bhinc.om'; 'Diane Hoelzer'

**Cc:** Cloud, Jack W.

**Subject:** sawmill crossing/sawmill village spillway

All,
Last October we sat down and agreed that Sawmill Village will accept drainage from the site to the north (Sawmill Crossing) in excess of the 6-hour storm. Sawmill Crossing is going through the DRB process and has submitted a drainage report with accompanying grading plan.

I think it is prudent for BHI to review the Sawmill Crossing plan so they may inform their client of the proposed plan. Larger rock may be necessary on the Sawmill Village site to prevent the existing rock from being washed into the parking lot.

Curtis Cherne, P.E. CFM
Hydrology

## Biazar, Shahab

**From:** Cherne, Curtis

**Sent:** Friday, October 05, 2012 11:35 AM

**To:** Rael, Jane E.

**Cc:** 'Bruce Stidworthy'; 'Doug Hughes'; 'John MacKenzie'; Woodall, Stephen P.; 'Michael Balaskovits'; Dourte, Richard H.; Biazar, Shahab

**Subject:** Sawmill crossing and Sawmill Village

**Attachments:** sawmill sites.pdf

Jane,
I am writing this e-mail to address Stephen Woodall's concern for the need for a Public Drainage Easement on the Sawmill Village site.

Doug Hughes, Mark Goodwin and Associates, brought it to my attention that the grading and drainage plan for Sawmill Village, stamp date 5-13-08 Bohannan Huston Inc, did not adequately address offsite flows from the Sawmill Crossing site. I felt an engineered solution to address the problem rather than a legal solution was a preferred course of action.

Therefore, I called a meeting with the engineers representing both sites on 10-5-11. In attendance were Doug Hughes, Bruce Stidworthy, Mike Balaskovits and Curtis Cherne. The purpose of the meeting was to determine a solution to the condition that the Sawmill Crossing site was dammed up with the construction of the Sawmill Village site. Historically, a portion of the Sawmill Crossing site drained into the Sawmill village site and ponded in the western area of the site.

It was agreed that the Sawmill Village site would accept flows for storms greater than the 6-hour storm. I have attached the meeting notes. The purpose of the pond on the Sawmill Crossing site to provide volume for the 6-hour storm is that the Sawmill Village site will drain before stormwater enters from the Sawmill Crossing site.

Mark Goodwin and Associates submitted a drainage report for Preliminary Plat approval. The grading plan was also provided to Bohannan Huston Inc. for comment. A comment sheet is also attached.

The pond at Sawmill Crossing will provide the volume for the 6-hour storm as well as provide an infiltration gallery so the pond will drain vertically downward. Perc rates are required for DRC approval. The time to drain the pond is currently 72 hours, but may be less due to percolation rates.

Draining the Sawmill Crossing site to the regional pond was also considered but not required or recommended because; the Sawmill Crossing site was not included in the drainage master plan for the regional pond and Hydrology only wanted one person/group responsible for pond maintenance. That way in case the pond requires maintenance, it is very clear who is supposed to do it.

The pond has a hard-scaped spillway and if it spills it will drain to an inlet on the Sawmill Village site, then drain to the regional pond. The regional pond has a public drainage easement with an agreement and covenant for the Sawmill Trust(?) for maintenance.
It is my understating that both property owners are aware of this drainage scheme via their engineer. Hydrology feels the property owners were adequately represented by their engineers.

Hydrology still supports this drainage scheme and does not feel that a public drainage easement is necessary on the Sawmill Village site for the following reasons:

1. The probably is low that stormwater will spill from the Sawmill Crossing pond. There is a 1% chance that the site will receive the 100 yr-6 hour storm that the site was designed to per the DPM. Probability is not my strong suit, but the probability for the site to receive multiple 6-hour storms in the time it takes to drain the pond would be significantly less than 1%. There is a 0.2% chance the site will receive a 500-year storm.
2. If the Sawmill Crossing site is to spill into the Sawmill Village site, the flows will drain to an onsite inlet and enter the regional pond. Flows in excess of the onsite storm drain capacity will not enter or cause any damage to the buildings on the Sawmill Village site due to building elevation.

If anyone feels I have misrepresented this condition or would like to add to this explanation, please feel free to respond.

Curtis Cherne, P.E. CFM
Hydrology
COA

## Biazar, Shahab

---

**From:** John MacKenzie [John@goodwinengineers.com]
**Sent:** Friday, October 05, 2012 3:27 PM
**To:** Cherne, Curtis
**Subject:** RE: Sawmill crossing and Sawmill Village

Curtis,

This is very well written. Thanks for the explanation. Please let me know if Jane responds accordingly.

*John MacKenzie, PE*
*Mark Goodwin and Associates, PA*
*Phone: 505-828-2200*

---

**From:** Cherne, Curtis [mailto:CCherne@cabq.gov]
**Sent:** Friday, October 05, 2012 11:35 AM
**To:** Rael, Jane E.
**Cc:** Bruce Stidworthy; Doug Hughes; John MacKenzie; Woodall, Stephen P.; Michael Balaskovits; Dourte, Richard H.; Biazar, Shahab
**Subject:** Sawmill crossing and Sawmill Village

Jane,
I am writing this e-mail to address Stephen Woodall's concern for the need for a Public Drainage Easement on the Sawmill Village site.

Doug Hughes, Mark Goodwin and Associates, brought it to my attention that the grading and drainage plan for Sawmill Village, stamp date 5-13-08 Bohannan Huston Inc, did not adequately address offsite flows from the Sawmill Crossing site. I felt an engineered solution to address the problem rather than a legal solution was a preferred course of action.

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It was agreed that the Sawmill Village site would accept flows for storms greater than the 6-hour storm. I have attached the meeting notes. The purpose of the pond on the Sawmill Crossing site to provide volume for the 6-hour storm is that the Sawmill Village site will drain before stormwater enters from the Sawmill Crossing site.

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The pond has a hard-scaped spillway and if it spills it will drain to an inlet on the Sawmill Village site, then drain to the regional pond. The regional pond has a public drainage easement with an agreement and covenant for the Sawmill Trust (?) for maintenance.
It is my understating that both property owners are aware of this drainage scheme via their engineer. Hydrology feels the property owners were adequately represented by their engineers.

Hydrology still supports this drainage scheme and does not feel that a public drainage easement is necessary on the Sawmill Village site for the following reasons:

1. The probably is low that stormwater will spill from the Sawmill Crossing pond. There is a 1% chance that the site will receive the 100 yr-6 hour storm that the site was designed to per the DPM. Probability is not my strong suit,

**Biazar, Shahab**

---

**From:** Bruce Stidworthy [bstidwor@bhinc.com]
**Sent:** Friday, May 18, 2012 9:46 AM
**To:** Cherne, Curtis ; 'Diane Hoelzer'
**Cc:** Cloud, Jack W.; 'John MacKenzie'; Michael Balaskovits; Chad Rennaker (crennaker@pacificap.com)
**Subject:** RE: sawmill crossing/sawmill village spillway
**Attachments:** 20120518094337707.pdf

Curtis, John: I have reviewed the grading plan and I have marked it up with some comments and questions for your consideration.

Thanks, Bruce

---

**From:** Bruce Stidworthy
**Sent:** Thursday, May 17, 2012 5:01 PM
**To:** 'Cherne, Curtis '; mbalaskovitz@bhinc.om; Diane Hoelzer
**Cc:** Cloud, Jack W.; 'John MacKenzie'
**Subject:** RE: sawmill crossing/sawmill village spillway

Could someone send us a copy of the most current version of the grading plan and drainage report?

Thanks, Bruce

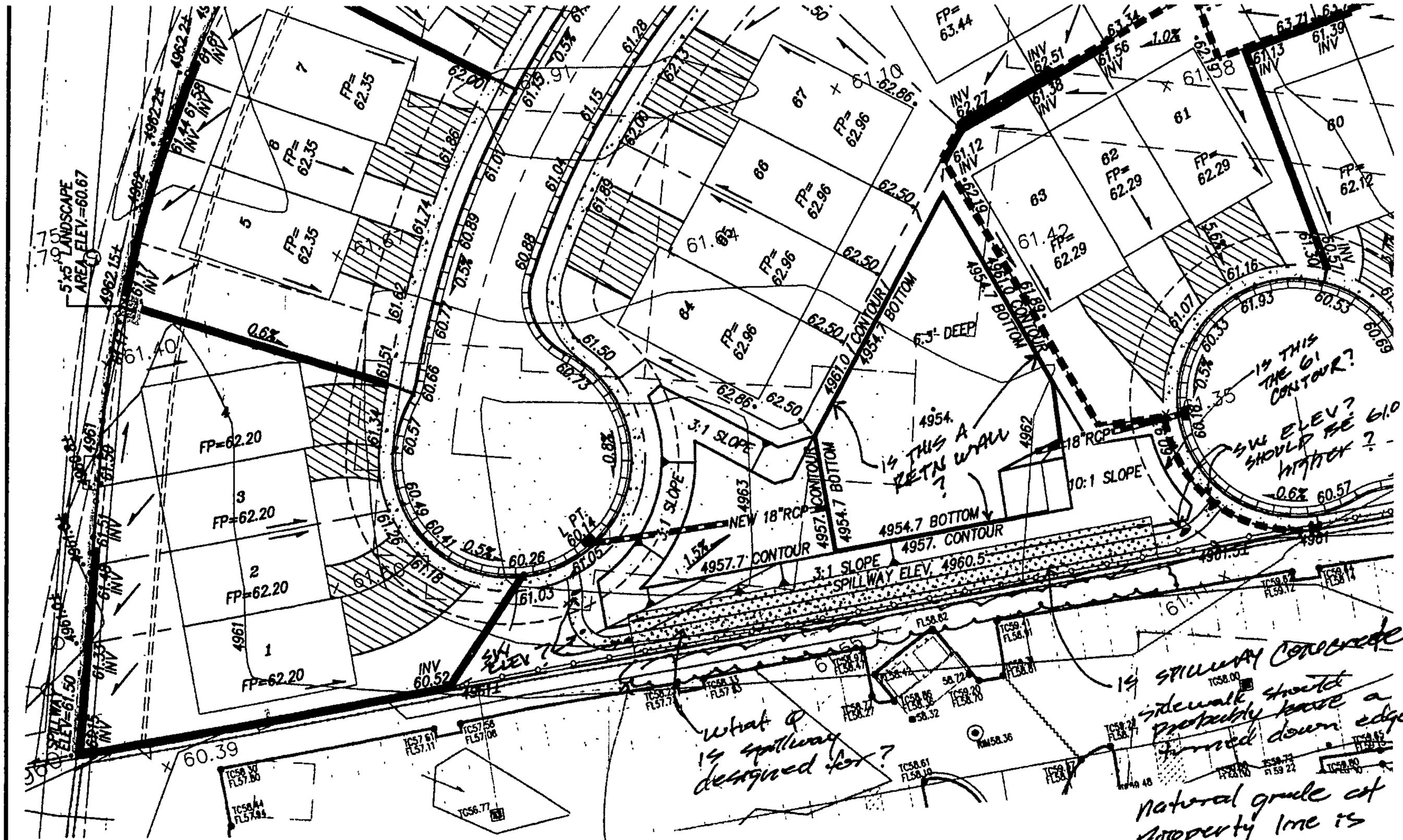
---

**From:** Cherne, Curtis [mailto:CCherne@cabq.gov]
**Sent:** Thursday, May 17, 2012 4:31 PM
**To:** Bruce Stidworthy; mbalaskovitz@bhinc.om; Diane Hoelzer
**Cc:** Cloud, Jack W.
**Subject:** sawmill crossing/sawmill village spillway

All,
Last October we sat down and agreed that Sawmill Village will accept drainage from the site to the north (Sawmill Crossing) in excess of the 6-hour storm. Sawmill Crossing is going through the DRB process and has submitted a drainage report with accompanying grading plan.

I think it is prudent for BHI to review the Sawmill Crossing plan so they may inform their client of the proposed plan. Larger rock may be necessary on the Sawmill Village site to prevent the existing rock from being washed into the parking lot.

Curtis Cherne, P.E. CFM
Hydrology




## RETENTION POND

VOLUME REQUIRED (100 YR 6HR) = 41,861 CF
VOLUME DESIGN = 45,272 CF
TOP POND = 4,961
MAX WSEL = ~~49,615~~ BEFORE BEGINS TO SPILL
4960.5 ??

## LEGAL DESCRIPTION

12"

NA11047-SAWMILL-GD30_R2.dwg, 5/4/2012 1:11:10 PM, KIP 7100 Series (Copy 1), CHRIS

## Cherne, Curtis

**From:** Cherne, Curtis
**Sent:** Monday, October 07, 2013 4:22 PM
**To:** 'John MacKenzie'
**Subject:** RE: Sawmill Crossing Spillway

John,
This is a little more detail than I remember, but the concept discussed in the e-mail is what was discussed and agreed to.
On Note # 5, I also stated that the drainage report would also have to be revised.

Curtis

-----Original Message-----
From: John MacKenzie [mailto:John@goodwinengineers.com]
Sent: Friday, October 04, 2013 4:59 PM
To: Cherne, Curtis
Cc: Biazar, Shahab; Doug Hughes
Subject: Sawmill Crossing Spillway

Curtis,

Thanks for meeting with me and Doug today.

Recapping our meeting today I have the following:

1. It was decided that the principal historical outfall from our site is at the southwest corner of the site, which is also the northwest corner of the Sawmill Village site to the south. The on-site discharge has and with our plan will continue to pass from Sawmill Crossing onto Sawmill Village at this location.
2, As reported in your pre-design recap from October of 2011, Sawmill Crossing will contain the 100-year, 6-hour storm on-site and then spill after that onto the Sawmill Village property at the location described above.
3. In order to achieve this we demonstrated with the attached drawing that an emergency channel and spillway will be constructed between the south boundary of Sawmill Crossing and on-site Lot 1 within a 6-foot wide westerly extension of Tract C, which is the Tract that contains the current on-site ponding area. The agreement and covenant for Tract C will be changed accordingly.
4. A HEC-RAS model of the channel between these two points was presented showing that with an upstream FL elevation of 59.85 (at the west spillway), the maximum water surface elevation in the Band Saw Place cul-de-sac is anticipated to be not higher than approximately elevation 4960.75.
5. The channel described above would have to be included in a new grading and drainage plan submittal, and upon approval a work order change would have to be issued.
6. We agreed that the channel would be constructed in accordance with City Standard Drawing 2260 from the front of the proposed house on Lot 1 to the west boundary of Lot 1. The stem wall for Lot 1 would abut the new channel, with its footing extending beneath the channel and an expansion joint separating the two.
7. A new 2' valley gutter would extend from the east end of the channel to the low area west of the main on-site pond on Tract C. The new channel would be a work order item, but this two-foot would be built like the other backyard-draining channels and not in the work order. This two-foot gutter may have to be in a pipe where it crosses the sidewalk off the cul-de-sac.

Please let me know if there is anything I missed.

John MacKenzie, PE
Mark Goodwin and Associates, PA
Phone: 505-828-2200

-----Original Message-----
From: Cherne, Curtis [mailto:CCherne@cabq.gov]
Sent: Friday, October 04, 2013 2:58 PM

To: John MacKenzie
Subject: sawmill retaining walls approval

Curtis

## Cherne, Curtis

**To:** Wolfe, Bryan K.
**Subject:** sawmill crossing and sawmill trust pond

Bryan,
This is a follow-up from this morning's conversation concerning how to provide an emergency spillway for the Sawmill Crossing pond after they discovered the vertical datum bust of 2.7 feet so their designed spillway will not work without the water surface elevation of the pond encroaching halfway up peoples driveways, which is outside the easement, outside the ROW, and just not a good way to develop.

Sawmill crossing has been working hard to not drain directly to the Sawmill pond because they do not want any maintenance responsibility. From their latest submittal, it appears their emergency spillway will have to drain directly to the pond, due to existing grades. Sawmill Trust would see this and demand maintenance money from Sawmill Crossing. This road would be bumpy and most likely involve litigation.

So……
To avoid all this, I figured that the City should maintain the pond. The pond is a permanent pond approximately 5.5 ac-ft in volume. Since it is permanent and greater than 2 ac-ft, the City should probably be maintaining it anyway. The property is owned by the Sawmill Trust.

The pond has not been maintained for years. Large cuts have developed in the sides and a couple of sticks of RCP fell off the outlet pipe, because the dirt eroded away and there was no support.

Keith Cheshire owns/develops Sawmill Trust
will slow this down too much
Going out headwater to see
if the area west of the property
can drain South

# DRAINAGE AND TRANSPORTATION INFORMATION SHEET
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing Subdivision ZONE MAP/DRG. FILE H13/D057
DRB#: 1009046 EPC#: WORK ORDER#:

LEGAL DESCRIPTION: Lot B-1-A-2, Duke City Lumber Company Addition
CITY ADDRESS:

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: John MacKenzie
ADDRESS: PO Box 90606 PHONE: 828-2200
CITY, STATE: Albuquerque, NM ZIP CODE: 87199

OWNER: Sawmill Crossing LLC CONTACT: Keith Cheshire
ADDRESS: 7400 Hancock Court, NE PHONE: 797-1134
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

ARCHITECT: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

SURVEYOR: Aldrich Land Surveying CONTACT: Tim Aldrich
ADDRESS: PO Box 30701 PHONE: 884-1990
CITY, STATE: Albuquerque,NM ZIP CODE: 87190

CONTRACTOR: N/A CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

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

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
_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
x_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
__x__ OTHER (SPECIFY) Retaining wall

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

SUBMITTED BY: John MacKenzie DATE: Sept 10, 2013

RECEIVED
SEP 11 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 define 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.

## Cherne, Curtis

**From:** Cherne, Curtis
**Sent:** Wednesday, March 05, 2014 3:59 PM
**To:** Diane Hoelzer (diane@goodwinengineers.com)
**Subject:** 65% review comments sawmill trust

Diane,
I had a look at the mylar you dropped off.

1. I agree that a detail should be provided similar to what John did so it is easier to see.
2. The ground elevation over the 12" pip should not be higher than 60 so the pond can spill over it.
3. In the filed we had discussed shotcreting the slope near the upstream invert of the 12" pipe. I see you are proposing a wall, but I would like to see some rock on the dirt that is remaining.
4. Update the BW grades based on the as-built elevation of the 12" pipe inverts.
5. Show limits of fence/handrail. Kristal wants to see what the ends will look like. It told her it will look like what Keith showed me. Send her an e-mail with the picture Keith sent me and annotate something for the ends. She is aware that it is a fence and not a handrail.
6. Add a build note for the walls (2 courses or so) on the backside of the 5x5 planters.
7. The spillway elevation appears to be at 60 not 59.5 as shown on the plan.

I talked to Kristal about the fence detail and the plat.

Curtis

but the probability for the site to receive multiple 6-hour storms in the time it takes to drain the pond would be significantly less than 1%. There is a 0.2% chance the site will receive a 500-year storm.

2. If the Sawmill Crossing site is to spill into the Sawmill Village site, the flows will drain to an onsite inlet and enter the regional pond. Flows in excess of the onsite storm drain capacity will not enter or cause any damage to the buildings on the Sawmill Village site due to building elevation.

If anyone feels I have misrepresented this condition or would like to add to this explanation, please feel free to respond.

Curtis Cherne, P.E. CFM
Hydrology
COA

## Cherne, Curtis

H13D057

**From:** Cherne, Curtis

**Sent:** Monday, September 30, 2013 10:22 AM

**To:** Wolfe, Bryan K.

**Subject:** sawmill crossing draining into Sawmill Trust area

Bryan,
I spoke with John MacKensie this morning concerning our recent complication with the Sawmill Crossing project. Sawmill crossing has an approved grading plan to spill their pond to a certain location into the Sawmill Trust lot to the south.

Well.....They had a datum bust and their sight is 2.5 feet too low and cannot spill to the previously approved location.
Therefore, Sawmill Crossing does not want to regrade their entire sight but wishes to drain to the historic low point into the Sawmill Trust site.

This new location was not planned to accept drainage, but luckily it is a landscape area.

The engineer's of both sites had a "deal" going earlier. However, since Sawmill Trust wishes to alter that deal, Sawmill Crossing is going to submit a grading plan, absent of Sawmill Trust's approval to drain to the historic low point.

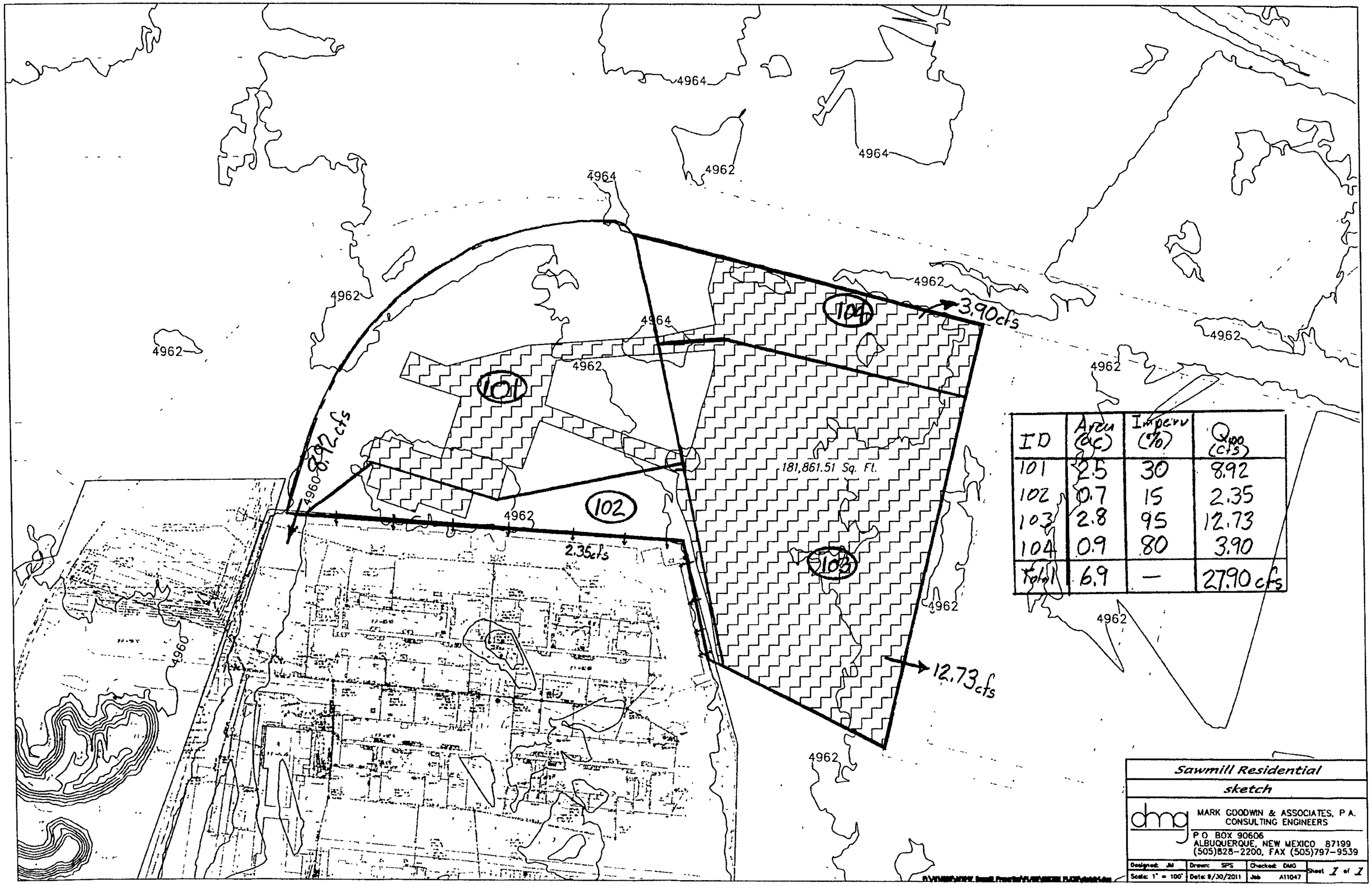
This idea is in the spirit of the drainage ordinance and therefore I should support it. However, the Sawmill Trust folks will not be happy with it.

I have a meeting with engineer's form Mark Goodwin's office on Thursday at 9:30 to conceptually approve this drainage scheme.

Another area of concern which is between the two private parties but weighs heavily on this situation is the Sawmill Trust is asking Sawmill Crossing to pay monthly dues for maintenance of the pond.

Most likely, the folks from Sawmill Trust will be calling you or Suzie to not allow the revised drainage scheme to occur.

Curtis




| ID | Area (ac) | Impervious (%) | $Q_{100}$ (cfs) |
|---|---|---|---|
| 101 | 2.5 | 30 | 8.92 |
| 102 | 0.7 | 15 | 2.35 |
| 103 | 2.8 | 95 | 12.73 |
| 104 | 0.9 | 80 | 3.90 |
| Total | 6.9 | — | 27.90 cfs |

*Sawmill Residential*

*sketch*

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

| Designed: JM | Drawn: SPS | Checked: DMG | Sheet 1 of 1 |
|---|---|---|---|
| Scale: 1" = 100' | Date: 9/30/2011 | Job A11047 | |


Show limits of pond
Lower the edge of pond
road
tracks
high pt
N
50' 25' 0 50' 100'
SCALE: 1" = 50'

# GRADING & DRAINAGE PLAN

THE PROPOSED ADDITION/COMMERCIAL PROJECT IS LOCATED IN THE SAWMILL AREA OF THE CITY OF ALBUQUERQUE. THE GRADING AND DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO.86-46, AND THE CITY STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

1. EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND EXISTING STRUCTURES (80% BUILT OUT) + REMAINING FUTURE BODY SHOP BLDG. AND EXIST PVG.
2. PROPOSED IMPROVEMENTS: A 8000 SF ADDITION TO SALES/OFFICES, PRIVATE ASPHALT DRIVEWAY EXPANSION, NEW GRADE ELEVATIONS, AND LANDSCAPING/POND IMPROVEMENTS.
3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
4. QUANTIFICATION OF DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS WHICH CONTRIBUTE TO THE EXISTING FLOWS, including NEW PONDING REQUIREMENTS.

PRESENTLY, THE SITE IS ESTABLISHED AND USED AS A TRUCK SERVICE CENTER/ DISTRIBUTING OUTLET FACILITY. THE SITE IS BOUNDED BY DEVELOPED COMMERCIAL PROPERTY. ASPEN AVE. ON THE SOUTH IS A 40 FEET WIDE PAVED CITY MAINTAINED LOCAL STREET WITH SIDEWALK. THE SITE TERRAIN SLOPES GENERALLY NORTH AT 1% SLOPES.

THE SITE IS NOT WITHIN OR ADJACENT TO A DESIGNATED FEMA FLOOD HAZARD ZONE. DEVELOPED LOT RUNOFF WILL BE PERMITTED TO DRAIN TO THE POND(S). HISTORICAL OUTFALL LOCATIONS WILL REMAIN UNCHANGED WITH DEVELOPMENT. FREE DISCHARGE OF PROJECT RUNOFF IS NOT ACCEPTABLE SINCE DOWNSTREAM DRAINAGE FACILITIES DO NOT EXIST. A PORTION OF SITE RUNOFF IS ROUTED THROUGH EXISTING/PROPOSED LANDSCAPING AS POINT RAINFALL.

THIS PROJECT DOES NOT LIE WITHIN A FEDERALLY DESIGNATED FLOOD HAZARD ZONE

## FIRM MAP PANEL # 331 E

## CALCULATIONS

**DESIGN CRITERIA**

HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) REVISED JANUARY 1993 FOR CITY OF ALBUQUERQUE. ADOPTED BY THE COUNTY OF BERNALILLO
DISCHARGE RATE: Q=QPEAK x AREA. "Peak Discharge Rates For Small Watersheds"
VOLUMETRIC DISCHARGE: VOLUME = EWeighted x AREA
P100 = 2.35 Inches, Zone 2 Time of Concentration, TC = 10 Minutes
DESIGN STORM 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [ ] = 10 YEAR VALUES

**EXISTING CONDITIONS** 80% D.

LOT AREA = 6.7 ACRES, WHERE EXCESS PRECIP 'W' =1.86 in. [1.13]
PEAK DISCHARGE, Q100 = 7.7 CFS [4] WHERE UNIT PEAK DISCHARGE = 3.6 CFS/AC. [2.7]
THEREFORE, VOLUME 100 = 45237 CF [27482]

**DEVELOPED CONDITIONS (Includes Paved Parking)**

DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA

| | AREA | LAND TREATMT | Q Peak | E |
|---|---|---|---|---|
| UNDEVELOPED | 0.00 Ac (0%) | A | 1.54[0.38] | 0.53[0.13] |
| LANDSCAPING/POND | 1.00 Ac (15%) | B | 2.28[0.85] | 0.78[0.28] |
| GRAVEL & COMPACTED SOIL | 0.00 Ac (---%) | C | 3.14[1.71] | 1.13[0.52] |
| ROOF - PAVEMENT | 5.7 Ac (85%) | D | 4.70[3.14] | 2.12[1.34] |
| | 6.7 Ac | | | |

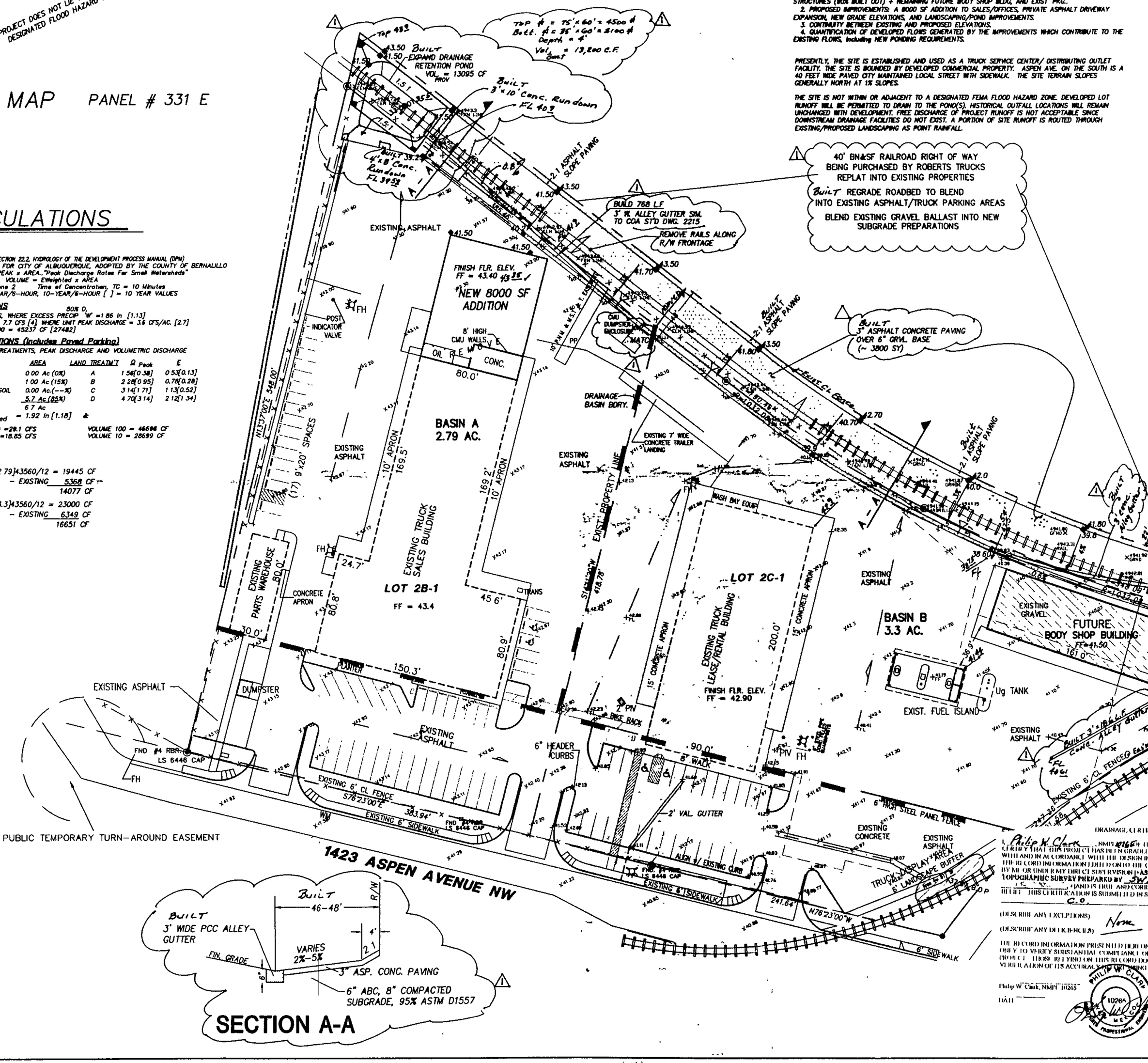
THEREFORE $E_{Weighted}$ = 1.92 In [1.18] ♣

Q100 =29.1 CFS VOLUME 100 = 46696 CF
Q10 =18.85 CFS VOLUME 10 = 28699 CF

**POND CALCS.**

BASIN A = 2.79 AC.
THEREFORE [1.92 X 2.79]43560/12 = 19445 CF
- EXISTING 5368 CF
14077 CF

BASIN B = 3.3 AC
THEREFORE [1.92 X 3.3]43560/12 = 23000 CF
- EXISTING 6349 CF
16651 CF

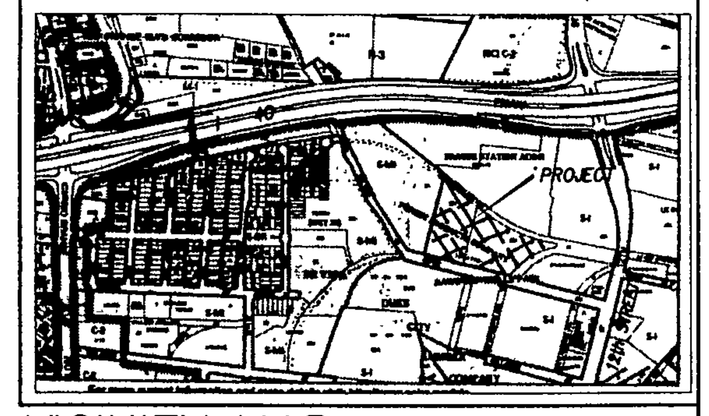






## SECTION A-A

Scale: 1" = 40'




## VICINITY MAP ZONE H-13

## NOTES

1. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 7TH EDITION W/ UPDATES.
2. AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. AN APPROVED COPY OF THIS PLAN MUST BE SUBMITTED AT THE TIME OF APPLICATION.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL LANDSCAPING AREA SHALL BE SOFT-LINED WITH NATIVE VEGETATION AND/OR GRAVEL.
1 LINE POND SIDESLOPES AT 2:1 WITH TYPE VL RIPRAP (AVG. MEAN, 4" DIA)
5. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
6. REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1011, NATIVE SEED MIX
7. MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION. 3 HORIZONTAL TO 1 VERTICAL, 3:1.
1 8. NEW ASPHALT PAVEMENT SHALL CONSIST OF 3" ASPHALT CONCRETE OVER 6" AGGREGATE BASE COURSE ON 8" COMPACTED SUBGRADE, 95% PROCTOR, ASTM D-1557

## LEGEND

| | |
|---|---|
| 1 41.6 | AS BUILT ELEV. |
| +24.0 | EXIST SPOT ELEVATION |
| 10 | EXIST. CONTOUR |
| 24.0 | NEW SPOT ELEVATION |
| 54 | NEW CONTOUR |
| | NEW SWALE |
| | DRAINAGE DIRECTION, EXISTING |
| FL | FLOWLINE |
| O PP | EXISTING POWER POLE |
| NG OR G | NATURAL GROUND, EXISTING |
| TB | TOP OF BERM, EXISTING |
| R/C | REBAR AND CAP, EXISTING |
| CLF | CHAIN LINK FENCE, EXISTING |
| | NEW P.C.C., CONCRETE / NEW ASPHALT PAVING |

## PROJECT DATA

**LEGAL DESCRIPTION**

LOTS 2B-1 AND 2C-1, FOREST PRODUCTS COMPANY, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

**PROJECT BENCHMARK**

THE BASIS OF ELEVATIONS FOR THIS SURVEY IS ACS BENCHMARK 11-H13, THE PUBLISHED ELEVATION OF WHICH IS 4961.64 , AND IS LOCATED IN THE NORTH NORTHWEST QUADRANT OF INDIAN SCHOOL ROAD NW & 12TH STREET NW.

**TOPOGRAPHIC DESIGN SURVEY**

PERFORMED BY SOUTHWEST SURVEYING INC. MAR. 2006. + SUPPLEMENTED DATA FROM AS-BUILT FROM 2C-1 DEVELOPMENT, AUGUST 2007.

DRAINAGE CERTIFICATION

I, Philip W. Clark, NMPE 10265 OF THE FIRM Clark Consulting Engrs. HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED GRADING PLAN DATED 6/19/09 THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENTS HAS BEEN PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AS SUPPLEMENTAL DATA TO THE ORIGINAL TOPOGRAPHIC SURVEY PREPARED BY SW Surveying Co. , NMPS , OF THE FIRM , AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR C.O.

(DESCRIBE ANY EXCEPTIONS) None

(DESCRIBE ANY DEFICIENCIES)

THE RECORD INFORMATION PRESENTED HEREON IS BELIEVED TO BE ADEQUATE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY AND SUITABILITY FOR ANY OTHER PURPOSE.

Philip W. Clark, NMPE 10265

DATE 11/13/09

PHILIP W. CLARK 10265 REGISTERED PROFESSIONAL ENGINEER 11/13/09

REGISTERED PROFESSIONAL ENGINEER 6/16/09


Clark Consulting Engineers
19 Ryan Road
Edgewood, New Mexico 87015
Tele (505) 281-2444 Fax: (505) 281-2444

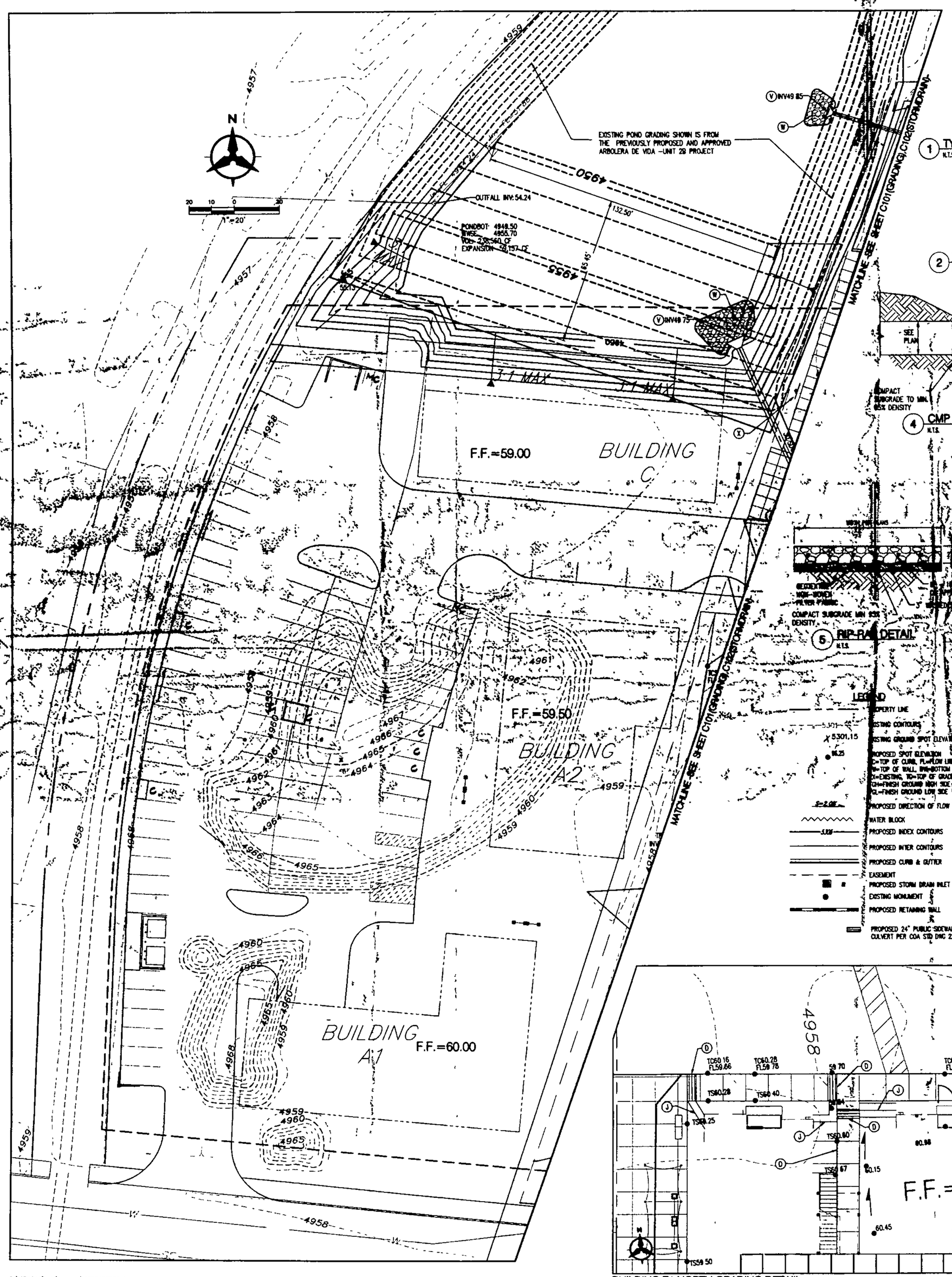

| DATE | REVISION |
|---|---|
| 11/12/09 | As Built Dwg |

LOTS 2B-1 & 2C-1 FOREST PRODUCTS COMPANY
ALBUQUERQUE, NEW MEXICO
ROBERTS TRUCK CENTER, 1423 ASPEN AVE. NW

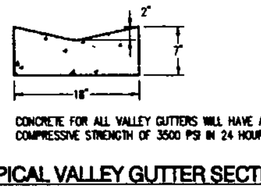
**Grading & Drainage Plan**

| | | | |
|---|---|---|---|
| DESIGNED BY PWC | DRAWN BY. CCE | JOB # ROBERTS_TRK | 1 OF 1 |
| CHECKED BY PWC | DATE 1/23/09 | FILE # G/D | |

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HYDROLOGY SECTION

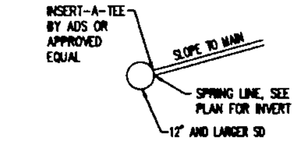



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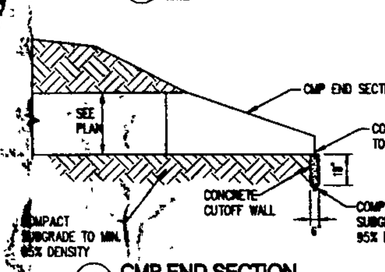



CONCRETE FOR ALL VALLEY GUTTERS WILL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI IN 24 HOURS.

1 TYPICAL VALLEY GUTTER SECTION
N.T.S.



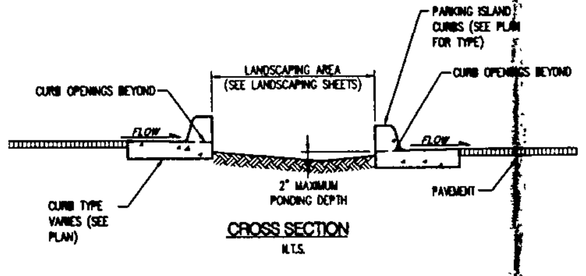

2 TYPICAL ROOF DRAIN CONNECTION
N.T.S.



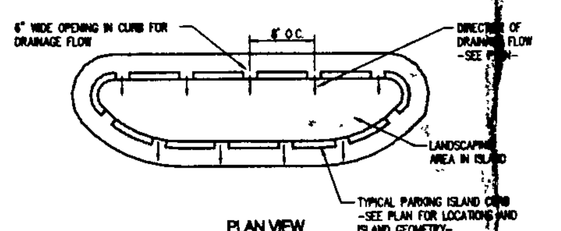

4 CMP END SECTION
N.T.S.




5 RIP-RAP DETAIL
N.T.S.

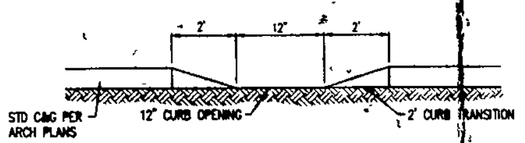



CROSS SECTION
N.T.S.




PLAN VIEW
N.T.S.

3 TYPICAL WATER HARVESTING DETAIL
N.T.S.




6 TYPICAL CURB CUT DETAIL
N.T.S.

## KEYED NOTES

A. INSTALL 2'x3' NYLOPLAST ROAD & HIGHWAY GRATE INLET (OR APPROVED EQUAL). SEE MFR DET.

B. INSTALL 4' DIA TYPE "C" SD MANHOLE PER COA STD DWG 2101.

C. MATCH EXISTING GRADE @ PROPERTY LINE

D. INSTALL 24" SIDEWALK CULVERT AS PER COA STD DWG 2236, OR APPROVED EQUAL

E. PROVIDE 12" WIDE OPENING IN CURB PER DRAINAGE, SEE DETAIL 6, THIS SHEET.

F. WATER HARVESTING ISLAND. SEE DETAIL 3, THIS SHEET.

G. OPENING IN WALL FOR DRAINAGE, GROUTLESS VERTICAL JOINTS IN FIRST COURSE, TO ABOVE GROUND LEVEL COURSE.

H. CMU RETAINING WALL (CMU FENCE). SEE ARCH DETAIL.

I. STEP/RAMP STRIP AROUND PATIO DOORS TO INDIVIDUAL SEE PLAN FOR SPECIFIC GRADES. SEE PLAN FOR STEP HEIGHT. SPOT ELEVATION GIVEN IS AT BOTTOM OF STEP.

J. 18" WIDE CONCRETE VALLEY GUTTER PER DETAIL 1, THIS SHEET. CONTRACTOR TO BE ENSURE ABRUPT BOTTOM FROM TO SURROUNDING PAVING TO ENSURE PAVEMENT FOLLOWS VALLEY GUTTER GRADING.

K. RESIDENTIAL RETAINING WALL

L. CONNECT RD TO MAIN PER DETAIL 2, THIS SHEET. ROOF DRAIN GRADE ON RW PLAN IS AT SPRING LINE OF MAIN.

M. INSTALL 18" GRATE AND INLET DISC GRADING PLAN FOR TOP OF GRATE ELEVATION). (NYLOPLAST OR APPROVED EQUAL).

N. 18" OPENING IN CMU WALL @ VALLEY GUTTER. SEE ARCH DET.

O. 4" STEP SPOT ELEVATIONS GIVEN ARE ON LOW SIDE OF STEP.

P. 18" DRAIN FOR INNER ROOM, SEE PLUMBING PLAN FOR CONTINUATION.

Q. 8" STORM DRAIN LINE FOR INTERIOR DRAINS, SEE PLUMBING PLAN FOR CONTINUATION.

R. SD CLEAN OUT, SEE DETAIL SHEET C600

S. INSTALL 18" PEDESTRIAN NYLOPLAST GRATE (OR APPROVED EQUAL). SEE MFR DETAIL.

T. INSTALL 24" STANDARD NYLOPLAST GRATE (OR APPROVED EQUAL). SEE MFR DETAIL.

U. CONNECT TO ROOF DRAIN. SEE ARCHITECTURAL PLANS FOR CONTINUATION.

V. INSTALL CMP END SECTION (CONTECH OR APPROVED EQUAL) WITH CUTOFF WALL PER DETAIL 4, THIS SHEET SEE PLAN FOR SIZES.

W. INSTALL RIP-RAP, 2' DEEP, PER DETAIL 5, THIS SHEET

X. INSTALL POND MAINTENANCE SIGN. SIGN IS TO DETAIL THAT THIS STORM WATER MANAGEMENT POND IS PRIVATELY MAINTAINED BY THE TRACT'S OWNERS WHOSE PROPERTIES DRAIN TO THE POND

## LEGEND

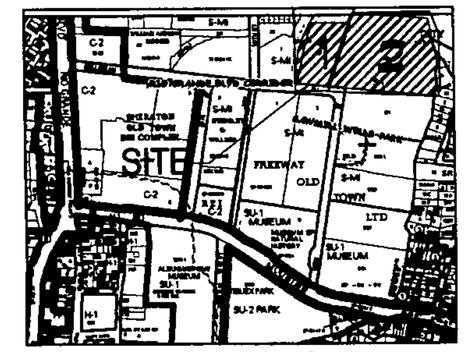
- PROPERTY LINE
- EXISTING CONTOURS
- EXISTING GROUND SPOT ELEVATION
- PROPOSED SPOT ELEVATION (TW=TOP OF WALL, BW=BOTTOM OF WALL, EX=EXISTING, TG=TOP OF GRADE, FG=FINISH GROUND HIGH SIDE, FGL=FINISH GROUND LOW SIDE)
- PROPOSED DIRECTION OF FLOW
- WATER BLOCK
- PROPOSED INDEX CONTOURS
- PROPOSED INTER CONTOURS
- PROPOSED CURB & GUTTER
- EASEMENT
- PROPOSED STORM DRAIN INLET
- EXISTING MONUMENT
- PROPOSED RETAINING WALL
- PROPOSED 24" PUBLIC SIDEWALK CULVERT PER COA STD DWG 2236




TOWNHOME TYPICAL LOT GRADING DETAIL
1"=10'




BUILDING E1 NORTH GRADING DETAIL
1"=10'




VICINITY MAP
ZONE ATLAS PAGE J-13-Z

## GENERAL NOTES

1. ALL WORK DETAILED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THE PROJECT GEOTECHNICAL REPORT. WHERE APPLICABLE, CITY OF ALBUQUERQUE PUBLIC WORKS STANDARDS SHALL APPLY

2. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA REQUIREMENTS WITH RESPECT TO STORM WATER DISCHARGE.

3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS INCLUDING ALL UNDERGROUND UTILITIES. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION OBSERVER OR ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY

4. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT LINE LOCATING SERVICE FOR LOCATION OF EXISTING UTILITIES.

5. ALL ELECTRICAL, TELEPHONE, CABLE TV, GAS AND OTHER UTILITY LINES, CABLES, AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION THAT REQUIRE RELOCATION, SHALL BE COORDINATED WITH THAT UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL NECESSARY UTILITY ADJUSTMENTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCES CAUSED BY UTILITY COMPANY WORK CREWS. THE CONTRACTOR MAY BE REQUIRED TO RESCHEDULE HIS ACTIVITIES TO ALLOW UTILITY CREWS TO PERFORM THEIR REQUIRED WORK.

6. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATION & ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND APPROVED BY THE CONSTRUCTION OBSERVER.

7. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

8. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT-OF-WAY.

9. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FOR THE PROJECT PRIOR TO COMMENCING CONSTRUCTION (I.E., BARRICADING, TOPSOIL DISTURBANCE, EXCAVATION PERMITS, EPA STORM WATER PERMITS, ETC.).

10. ALL PROPERTY CORNERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ALL PROPERTY CORNERS MUST BE RESET BY A REGISTERED LAND SURVEYOR.

11. ALL BARRICADES AND CONSTRUCTION SIGNING SHALL CONFORM TO APPLICABLE SECTIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), US DEPARTMENT OF TRANSPORTATION, LATEST EDITION.

12. THE CONTRACTOR SHALL MAINTAIN ALL CONSTRUCTION BARRICADES AND SIGNING AT ALL TIMES. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADING AT THE END AND BEGINNING OF EACH DAY.

13. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO CONFORM WITH EPA REQUIREMENTS, INCLUDING COMPLIANCE WITH NPDES PHASE 2 REQUIREMENTS.

14. THE CONTRACTOR IS RESPONSIBLE FOR SWPPP PREPARATION AND IMPLEMENTATION.

## GRADING NOTES

1. EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.

2. THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST

3. ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, AND PAVEMENT INSTALLATION, AS SHOWN ON THIS PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "GEOTECHNICAL INVESTIGATION," AS PROVIDED BY THE ARCHITECT OR OWNER. ALL OTHER WORK SHALL, UNLESS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT, (FIRST PRIORITY) SPECIFICATIONS, AND/OR THE CITY OF ALBUQUERQUE (COA) STANDARD SPECIFICATIONS FOR PUBLIC WORKS (SECOND PRIORITY)

4. EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.

5. IT IS THE INTENT OF THESE PLANS THAT THIS CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE OF THE PROPERTY BOUNDARIES EXCEPT AS REQUIRED BY THIS PLAN

6. THE CONTRACTOR IS TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHT-OF-WAY. THIS SHOULD BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS OR SILT FENCE AT THE PROPERTY LINES AND WETTING THE SOIL TO PROTECT IT FROM WIND EROSION.

7. A DISPOSAL SITE FOR ANY & ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL AND/OR A BORROW SITE CONTAINING ACCEPTABLE FILL MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE OBSERVER. ALL COSTS INCURRED IN OBTAINING A DISPOSAL OR BORROW SITE AND HAUL TO OR FROM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.

8. PAVING AND ROADWAY GRADES SHALL BE +/- 0.1' FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE +/- 0.05' FROM BUILDING PLAN ELEVATION.

9. ALL PROPOSED CONTOURS REFLECT TOP OF PAVEMENT ELEVATIONS IN THE PARKING AREA AND MUST BE ADJUSTED FOR MEDIANS AND ISLANDS.

10. VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION STATION PRIOR TO BEGINNING CONSTRUCTION

11. ALL SIDEWALKS SHALL HAVE A CROSS SLOPE OF 1% MIN & 2% MAX.

12. ALL PATIOS SHALL SLOPE AWAY FROM THE BUILDING AT 1% MIN AND 2% MAX.

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JUL 15 2008
HYDROLOGY SECTION


architecture
interiors
planning
engineering

Dekker
Perich
Sabatini

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Albuquerque, NM 87109
505 761-9700
fax 761-4222
dps@dpsdesign.org

ARCHITECT

ENGINEER


PROJECT

Sawmill Village
1751 Bellamah Avenue, NW
Albuquerque, NM

| REVISIONS |
|---|
| △ |
| △ |
| △ |
| △ |
| △ |
| △ |

| | |
|---|---|
| DRAWN BY | CP |
| REVIEWED BY | BJB |
| DATE | 5-13-08 |
| PROJECT NO | 06134 |

DRAWING NAME

GRADING AND STORM DRAIN PLAN

SHEET NO
C100


Bohannan ▲ Huston, Inc.
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

## KEYED NOTES

A. INSTALL 2'x2' NYLOPLAST ROAD & HIGHWAY GRATE INLET (OR APPROVED EQUAL). SEE MFR DET

B. INSTALL 4' DIA. TYPE 'E' SD MANHOLE PER COA STD DWG 2101.

C. MATCH EXISTING GRADE @ PROPERTY LINE

D. INSTALL 24" SIDEWALK CULVERT AS PER COA STD DWG 2236, OR APPROVED EQUAL

E. PROVIDE 12' WIDE OPENING IN CURB FOR DRAINAGE. SEE DETAIL 8, SHEET C100.

F. WATER HARVESTING ISLAND, SEE DETAIL 3, SHEET C100.

G. OPENING IN WALL FOR DRAINAGE. GROUTLESS VERTICAL JOINTS @ FIRST COURSE TO ABOVE GROUND LEVEL COURSE.

H. CMU RETAINING WALL (CMU FENCE). SEE ARCH DETAIL

I. PROVIDE STEP FROM PATIO DOWN TO SIDEWALK. SEE PLAN FOR SIDEWALK GRADE. SEE PLAN FOR STEP HEIGHT. SPOT ELEVATION GRADE IS AT BOTTOM OF STEP

J. 18" WIDE CONCRETE VALLEY GUTTER PER DETAIL 1, SHEET C100. CONTRACTOR IS TO INSTALL VALLEY GUTTER PRIOR TO SURROUNDING PAVING TO ENSURE PAVEMENT FOLLOWS VALLEY GUTTER GRADING.

K. SEGMENTAL RETAINING WALL

## VICINITY MAP

ZONE ATLAS PAGE J-13-Z

## LEGEND

PROPERTY LINE

EXISTING CONTOURS

EXISTING GROUND SPOT ELEVATION

PROPOSED SPOT ELEVATION
TC=TOP OF CURB, FL=FLOW LINE
TW=TOP OF WALL, BW=BOTTOM OF WALL
EG=EXISTING, TG=TOP OF GRADE
FG=FINISH GROUND HIGH SIDE
FG=FINISH GROUND LOW SIDE

PROPOSED DIRECTION OF FLOW

WATER BLOCK

PROPOSED INDEX CONTOURS

PROPOSED INTER CONTOURS

PROPOSED CURB & GUTTER

EASEMENT

PROPOSED STORM DRAIN INLET

EXISTING MONUMENT

PROPOSED RETAINING WALL

PROPOSED 24" PUBLIC SIDEWALK CULVERT PER COA STD DWG 2236

## NOTICE TO CONTRACTORS

1. CONTRACTOR SHALL ADJUST ALL MANHOLES TO FINISHED GRADE PER COA STD DWG. 2101.


**Bohannan ▲ Huston**

Courtyard 1 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES


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Tue, 13-May-2008 - 11:30:am, Plotted by: JSMITH

RECEIVED
HYDROLOGY SECTION

# Sawmill Village
## 1751 Bellamah Avenue, NW
## Albuquerque, NM


Dekker Perich Sabatini
7601 Jefferson NE
Suite 100
Albuquerque, NM 87109
505 761-9700
fax 761-4222
dps@dpsdesign.org


architecture
interiors
planning
engineering

ENGINEER

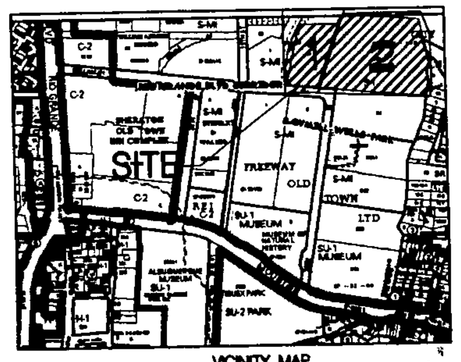
PROJECT

ARCHITECT

REVISIONS

DRAWN BY CP
REVIEWED BY BJB
DATE 5-15-08
PROJECT NO 04124
DRAWING NAME GRADING PLAN

SHEET NO. C101




## KEYED NOTES

A. INSTALL 2'x2' NYLOPLAST ROAD & HIGHWAY GRATE INLET (OR APPROVED EQUAL). SEE MFR DET

B. INSTALL 4' DIA TYPE "E" SD MANHOLE PER COA STD DWG 2101

C. MATCH EXISTING GRADE @ PROPERTY LINE

D. INSTALL 24" SIDEWALK CULVERT AS PER COA STD DWG 2236, OR APPROVED EQUAL.

E. PROVIDE 12" WIDE OPENING IN CURB FOR DRAINAGE. SEE DETAIL 8, SHEET C100.

F. WATER HARVESTING ISLAND, SEE DETAIL 3, SHEET C100.

G. OPENING IN WALL FOR DRAINAGE, GROUTLESS VERTICAL JOINTS @ FIRST COURSE TO ABOVE GROUND LEVEL COURSE.

H. CMU RETAINING WALL (CMU FENCE). SEE ARCH DETAIL.

I. PROVIDE STEP FROM PATIO DOWN TO SIDEWALK. SEE PLAN FOR SIDEWALK GRADE. SEE PLAN FOR STEP HEIGHT. SPOT ELEVATION GIVEN IS AT BOTTOM OF STEP.

J. 18" WIDE CONCRETE VALLEY GUTTER PER DETAIL 1, SHEET C100. CONTRACTOR IS TO INSTALL VALLEY

K. RETAINING SCREEN WALL.

L. CONNECT TO ROOF DRAIN. SEE ARCHITECTURAL PLANS FOR CONTINUATION.

M. INSTALL 18"x24" STANDARD NYLOPLAST GRATE (OR APPROVED EQUAL). SEE DETAIL

N. CONNECT TO STORM DRAIN. SEE PLUMBING PLAN FOR CONTINUATION.

O. 6" STORM DRAIN LINE FOR INTERIOR DRAINS. SEE PLUMBING PLAN FOR CONTINUATION.

P. INSTALL 18"x24" STANDARD NYLOPLAST GRATE (OR APPROVED EQUAL). SEE DETAIL

MATCHLINE SEE SHEET C100

F.F.=59.50

BUILDING D1

F.F.=60.65

BUILDING E2

F.F.=60.40

BUILDING D2

F.F.=60.25

BUILDING D3

F.F.=61.00

BUILDING E3

F.F.=61.00

BUILDING E1

F.F.=61.25

TOWNHOMES

LEGEND

- PROPERTY LINE
- PROPOSED DIRECTION OF FLOW
- WATER BLOCK
- EASEMENT
- PROPOSED STORM DRAIN INLET
- PROPOSED 24" PUBLIC SIDEWALK CULVERT PER COA STD DWG 2236
- PROPOSED RETAINING WALL

MATERIALS:

STORM DRAIN 12"ø AND SMALLER: SDR-35 PVC
STORM DRAIN LARGER THAN 12"ø: ALMACOR OR ADS HOPE

NOTICE TO CONTRACTORS

1. CONTRACTOR SHALL ADJUST ALL MANHOLES TO FINISHED GRADE PER COA STD. DWG. 2111

Bohannan ▲ Huston

Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4386

ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

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HYDROLOGY SECTION

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ARCHITECT

ENGINEER

PROJECT


Sawmill Village
1751 Bellamah Avenue, NW
Albuquerque, NM.

| REVISIONS |
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| 1 |
| 2 |
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| 6 |

| | |
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| DRAWN BY | CP |
| REVIEWED BY | SJS |
| DATE | 5-13-08 |
| PROJECT NO | 06134 |
| DRAWING NAME | |

STORM DRAIN PLAN

SHEET NO
C102

LEGEND

- PROPERTY LINE
- 5301 EXISTING CONTOURS
- BASIN BOUNDARY
- PROPOSED DIRECTION OF FLOW
- WATER BLOCK
- 5305 PROPOSED INDEX CONTOURS
- PROPOSED INTER CONTOURS
- PROPOSED STORM DRAIN INLET

N

40 20 0 40
1"=40'

**Proposed Ultimate Development Conditions Basin Data Table**

This table is based on the DPM Section 22.2, Zone: 2

| Basin ID | Area (SQ. FT) | Area (AC.) | Land Treatment Percentages A | B | C | D | Q(100) (cubic.) | Q(100) (CFS) | V(100) (inches) | V(100)=in (CF) |
|---|---|---|---|---|---|---|---|---|---|---|
| Tract B-2-A | 226055 | 7.46 | 0.0% | 5.0% | 5.0% | 90.0% | 4.50 | 33.66 | 2.00 | 37742 |
| BASIN 1 | 32962 | 0.76 | 0.0% | 10.0% | 0.0% | 90.0% | 4.46 | 3.37 | 1.99 | 5455 |
| BASIN 2 | 34871 | 0.80 | 0.0% | 10.0% | 0.0% | 90.0% | 4.46 | 3.57 | 1.99 | 5771 |
| BASIN 3 | 8640 | 0.20 | 0.0% | 5.0% | 0.0% | 95.0% | 4.58 | 0.91 | 2.05 | 1478 |
| BASIN 4 | 13870 | 0.32 | 0.0% | 5.0% | 0.0% | 95.0% | 4.58 | 1.46 | 2.05 | 2373 |
| BASIN 5 | 4709 | 0.11 | 0.0% | 10.0% | 0.0% | 90.0% | 4.46 | 0.48 | 1.99 | 779 |
| BASIN 6 | 11415 | 0.26 | 0.0% | 5.0% | 0.0% | 95.0% | 4.58 | 1.20 | 2.05 | 1953 |
| BASIN 7 | 20804 | 0.48 | 0.0% | 10.0% | 0.0% | 90.0% | 4.46 | 2.13 | 1.99 | 3443 |
| BASIN 8 | 16442 | 0.38 | 0.0% | 10.0% | 0.0% | 90.0% | 4.46 | 1.68 | 1.99 | 2721 |
| BASIN 9 | 2706 | 0.06 | 0.0% | 5.0% | 0.0% | 95.0% | 4.58 | 0.28 | 2.05 | 463 |
| BASIN 10 | 25127 | 0.58 | 0.0% | 5.0% | 0.0% | 95.0% | 4.58 | 2.64 | 2.05 | 4299 |
| BASIN 11 | 30743 | 0.71 | 0.0% | 5.0% | 0.0% | 95.0% | 4.58 | 3.23 | 2.05 | 5260 |
| BASIN 12 | 42740 | 0.98 | 0.0% | 10.0% | 0.0% | 90.0% | 4.46 | 4.37 | 1.99 | 7073 |
| BASIN 13 | 21398 | 0.49 | 0.0% | 5.0% | 0.0% | 95.0% | 4.58 | 2.25 | 2.05 | 3661 |
| BASIN 14 | 22666 | 0.52 | 0.0% | 55.0% | 0.0% | 45.0% | 3.37 | 1.75 | 1.38 | 2612 |
| BASIN 15 | 6813 | 0.16 | 0.0% | 10.0% | 0.0% | 85.0% | 4.34 | 0.68 | 1.92 | 1090 |
| BASIN 16 | 29822 | 0.68 | 0.0% | 5.0% | 0.0% | 95.0% | 4.58 | 3.13 | 2.05 | 5102 |
| BASIN 17 | 12858 | 0.30 | 0.0% | 10.0% | 0.0% | 35.0% | 3.13 | 0.82 | 1.25 | 1338 |
| BASIN 18 | 62175 | 1.43 | 0.0% | 10.0% | 0.0% | 90.0% | 4.46 | 6.36 | 1.99 | 10290 |
| BASIN 19 | 7820 | 0.17 | 0.0% | 5.0% | 0.0% | 95.0% | 4.58 | 0.80 | 2.05 | 1304 |
| BASIN 20 | 9458 | 0.22 | 0.0% | 0.0% | 0.0% | 100.0% | 4.70 | 1.02 | 2.12 | 1671 |
| BASIN 21 | 8464 | 0.19 | 0.0% | 15.0% | 0.0% | 85.0% | 4.34 | 0.84 | 1.92 | 1354 |
| TOTAL | 426303 | 9.79 | 0.0% | 12.2% | 0.0% | 87.8% | 4.46 | 43.10 | 1.98 | 69490 |

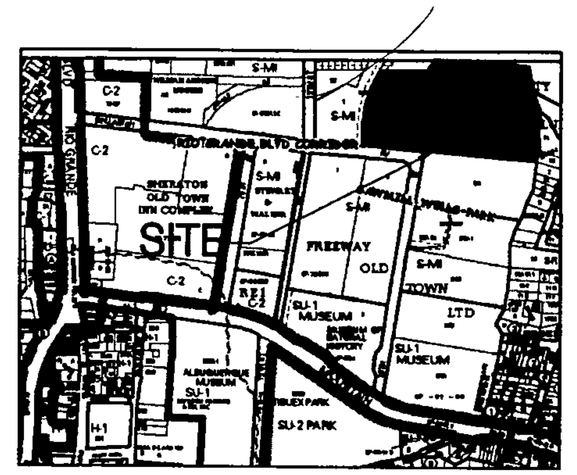
**STORM DRAIN PIPE TABLE**

| PIPE # | Contributing Basins and Storm Drains | Size in. | Slope | Capacity cfs | ACTUAL FLOW cfs |
|---|---|---|---|---|---|
| NORTH | | | | | |
| SD1 | BSN 2 | 18 | 0.50% | 7.43 | 3.57 |
| SD2 | BSN 5 | 8 | 0.50% | 0.85 | 0.48 |
| SD3 | BSN 2,5 | 18 | 1.00% | 10.50 | 4.05 |
| SD4 | BSN 1,2,5 | 18 | 1.00% | 10.50 | 7.42 |
| CENTRAL | | | | | |
| SD5 | SD6,15 + BSN19 | 30 | 1.00% | 41.02 | 25.65 |
| SD6 | SD7,21 + BSN3 | 30 | 0.50% | 29.00 | 20.92 |
| SD7 | SD8, BSN9 | 24 | 0.50% | 16.00 | 14.20 |
| SD8 | SD9,20 + BSN10 | 24 | 0.50% | 16.00 | 13.92 |
| SD9 | BSN 11,12,14 | 24 | 0.50% | 16.00 | 9.36 |
| SD10 | BSN 12 | 18 | 0.50% | 7.43 | 4.37 |
| SD11 | BSN 14 | 12 | 0.50% | 2.52 | 1.75 |
| SD12 | SD13 + BSN4 | 18 | 1.00% | 10.50 | 4.79 |
| SD13 | BSN 6,7 | 12 | 1.00% | 3.56 | 3.33 |
| SD14 | BSN 7 | 12 | 0.50% | 2.52 | 2.13 |
| SD15 | BSN 8,13 | 18 | 1.00% | 10.50 | 3.93 |
| SD16 | BSN 13 | 12 | 1.00% | 3.56 | 2.25 |
| SD20 | BSN 21 | 12 | 1.00% | 3.56 | 1.92 |
| SD21 | SD12 + BSN20 | 18 | 1.00% | 10.50 | 5.81 |
| WEST | | | | | |
| SD17 | BSN 15,16 | 12 | 2.00% | 5.04 | 3.81 |
| SD18 | BSN 15 | 8 | 1.00% | 1.21 | 0.68 |
| SD19 | BSN 16 | 12 | 1.00% | 3.56 | 3.13 |

PONDBOT: 4949.50
MWSE: 4955.70
VOL: 238,560 CF
EXPANSION: 59,137 CF

BASIN 18 F.F.=59.00 BUILDING C
BASIN 15
BASIN 16
BASIN 17
BASIN 19
BASIN 3
BASIN 20
BASIN 4
BASIN 8
BASIN 13
BASIN 10
BASIN 11
BASIN 21
BASIN 1 F.F.=59.50 BUILDING D1
BASIN 2 BUILDING F2
BASIN 5 F.F.=60.65
BASIN 6
BASIN 7
BASIN 12
BUILDING A2 F.F.=59.50
BUILDING A1 F.F.=60.00
BUILDING B F.F.=60.25
BUILDING D2 F.F.=60.40
BUILDING E3 F.F.=61.00
TOWNHOMES F F.F.=61.25
BASIN 14
F.F.=61.00
SD1 SD2 SD3 SD4 SD5 SD6 SD7 SD8 SD9 SD10 SD11 SD12 SD13 SD14 SD15 SD16 SD17 SD18 SD19 SD20 SD21
IN1 IN2 IN3 IN4 IN5 IN6 IN7 IN8 IN9 IN10 IN11 IN12 IN13 IN14 IN15 IN16 IN18 IN19 IN20 IN21
BELLAMAH AVENUE N.W. 60' R.O.W.
18TH STREET N.W. 60' R.O.W.
EXISTING BUILDING

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VICINITY MAP
ZONE ATLAS PAGE J-13-Z


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ARCHITECT


## GRADING AND DRAINAGE NARRATIVE

Site Location and Background Information

The purpose of this submittal is to present a drainage and grading plan for the proposed Sawmill Village development to the North of Bellamah and 18th street. The design site proposes mixed use development. There will be some residential townhomes, and some commercial sites. The site is in rainfall zone 2 as defined by figure A-1 of the DPM section 22. The existing legal description of the site is Tract 2-D, Arboleda De Vida and Lot B-2-A, Duke City Lumber Company Addition. Please see the vicinity map on this sheet for a graphic depiction of the site location. This conceptual grading and drainage plan is submitted in support of site plan approval.

The Sawmill Master Drainage Plan Area, prepared by Bohannan Huston Inc., addresses drainage off the western site and the surrounding area to the west and north (city hydrology file: H13-D25). This submittal integrates the eastern Lot B-2-A into the Sawmill Master Drainage Plan and modifies the pond construction to be in compliance with the guidance and recommendations set forth in that report.

Existing Conditions

This entire site (Tracts 2-D & B-2-A) is approximately 10 acres and is an old industrial sawmill. The natural slope of the site is very flat. The slope across the site is less than 1% from the northeast to the southwest. There is an existing pond north of Tract 2-D that is part of the Sawmill Master Drainage Plan. It currently discharges into the storm drain in Bellamah at a maximum flow of 4 C.F.S. The site is approximately level with Bellamah and the surrounding properties.

Proposed Conditions

Under proposed conditions the site will slope slightly to the pond north of Tract 2-D and utilize storm drain systems to convey runoff to the pond w/ functional surface slopes. The site will be mostly impervious treatment D and the rest landscaped treatment B and C. The Sawmill Master Drainage Plan sizes the existing pond as a retention system to be conservative. The pond is a retention pond to elevation 4954 at which it can discharge 4 C.F.S. in a detention condition. The existing pond is sized to accept runoff from the Tract 2-D (the portion of the site west of 18th St.). The pond expansion is sized to accept additional runoff from Lot B-2-A. With this project, we propose to expand the volume of the existing pond by approximately 59,000 CF. This expansion can be accomplished without lowering the pond bottom. Accordingly, the depth of retained water below the invert of the outlet pipe will not be increased with this project. The proposed pond expansion volume exceeds the 100yr, 6hr storm volume generated by tract B-2-A.

Flood plain

In accordance with FEMA community map panel #35001C0331 E, the site is not located within a flood plain.

Offsite Flows

There are no significant upstream offsite flows which will impact this site.

Conclusions

This drainage submittal has been prepared in accordance with City of Albuquerque requirements. This plan clearly demonstrates the proposed, general surface grading and drainage. The implementation of this design will result in the safe passage of the 100 year storm event. With this submittal we request hydrology department approval of this Grading and Drainage Plan for building permit.

**INLET TABLE**

| Inlet # | Inlet Type | Top of Grate | Actual Flow | Avail Head ft | Capacity |
|---|---|---|---|---|---|
| IN1 | 2'x2' Nyloplast Road & Highway Grate | 57.07 | 3.37 | 0.5 | 6.00 |
| IN2 | 2'x2' Nyloplast Road & Highway Grate | 58.00 | 3.57 | 0.5 | 6.00 |
| IN3 | 2'x2' Nyloplast Road & Highway Grate | 58.38 | 0.91 | 0.5 | 6.00 |
| IN4 | 2'x2' Nyloplast Road & Highway Grate | 58.38 | 1.46 | 0.5 | 6.00 |
| IN5 | 2'x2' Nyloplast Road & Highway Grate | 58.76 | 0.48 | 0.5 | 6.00 |
| IN6 | 2'x2' Nyloplast Road & Highway Grate | 59.15 | 1.20 | 0.5 | 6.00 |
| IN7 | 2'x2' Nyloplast Road & Highway Grate | 59.16 | 2.13 | 0.5 | 6.00 |
| IN8 | 2'x2' Nyloplast Road & Highway Grate | 57.97 | 1.68 | 0.5 | 6.00 |
| IN9 | 2'x2' Nyloplast Road & Highway Grate | 59.39 | 0.28 | 0.5 | 6.00 |
| IN10 | 2'x2' Nyloplast Road & Highway Grate | 58.64 | 2.64 | 0.5 | 6.00 |
| IN11 | 2'x2' Nyloplast Road & Highway Grate | 58.45 | 3.23 | 0.5 | 6.00 |
| IN12 | 2'x2' Nyloplast Road & Highway Grate | 58.81 | 4.37 | 0.5 | 6.00 |
| IN13 | 2'x2' Nyloplast Road & Highway Grate | 57.97 | 2.25 | 0.5 | 6.00 |
| IN14 | 24" Standard Nyloplast Grate | 58.80 | 1.75 | 0.5 | 3.60 |
| IN15 | 2'x2' Nyloplast Road & Highway Grate | 57.90 | 0.68 | 0.5 | 6.00 |
| IN16 | 2'x2' Nyloplast Road & Highway Grate | 57.75 | 3.13 | 0.5 | 6.00 |
| IN19 | 2'x2' Nyloplast Road & Highway Grate | 57.30 | 0.80 | 0.5 | 6.00 |
| IN20 | 2'x2' Nyloplast Road & Highway Grate | 57.15 | 1.02 | 0.5 | 6.00 |
| IN21 | 18" Pedestrian Nyloplast Grate | 57.00 | 0.84 | 0.5 | 6.20 |

* The actual head available varies with each inlet, but in no case is the available head less than 0.5'.

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HYDROLOGY SECTION

ENGINEER

BRUCE A. STOCKWELL
NEW MEXICO
14822
REGISTERED PROFESSIONAL ENGINEER
5/12/08

PROJECT

Sawmill Village
1751 Bellamah Avenue, NW
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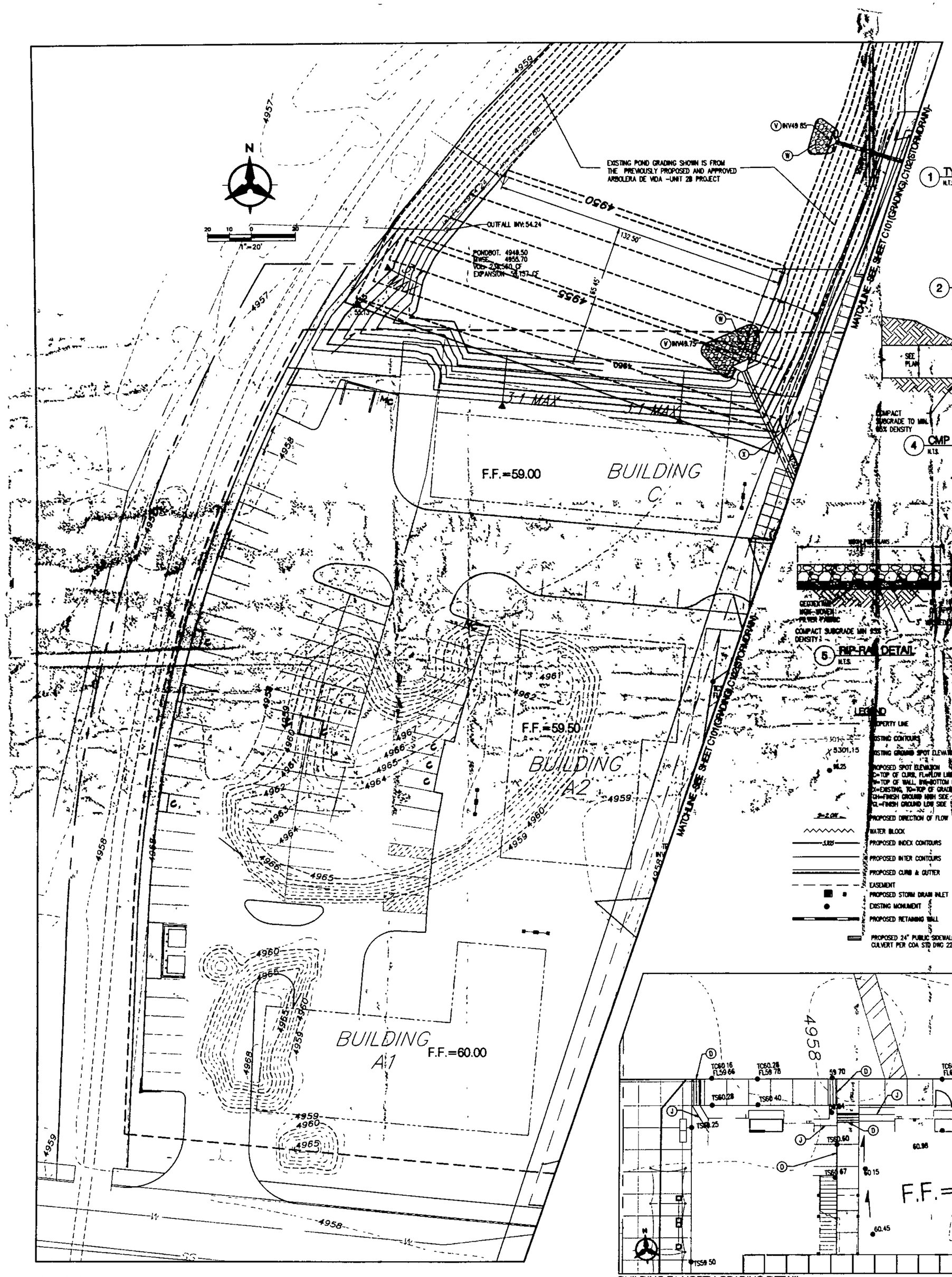
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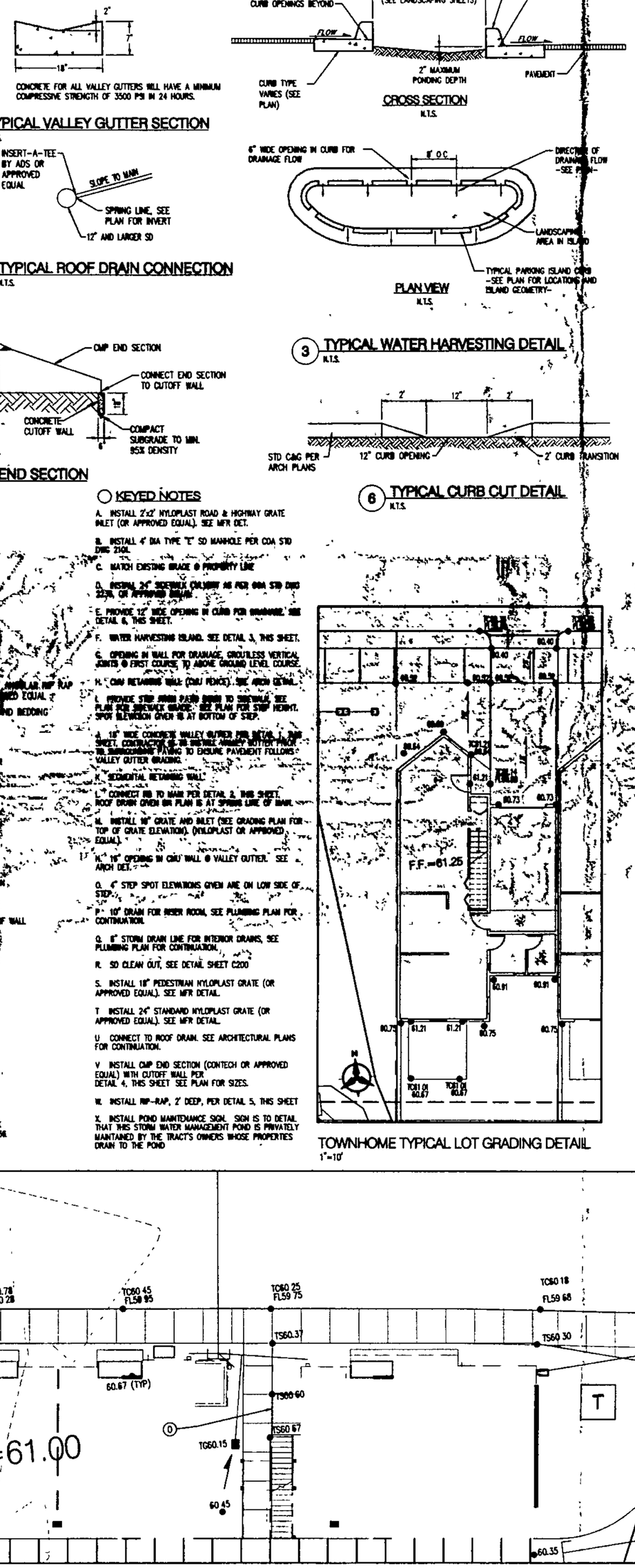
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| DRAWN BY | CF |
| REVIEWED BY | BJB |
| DATE | May 13, 2008 |
| PROJECT NO. | 06124 |
| DRAWING NAME | |

DRAINAGE MANAGEMENT PLAN

SHEET NO.

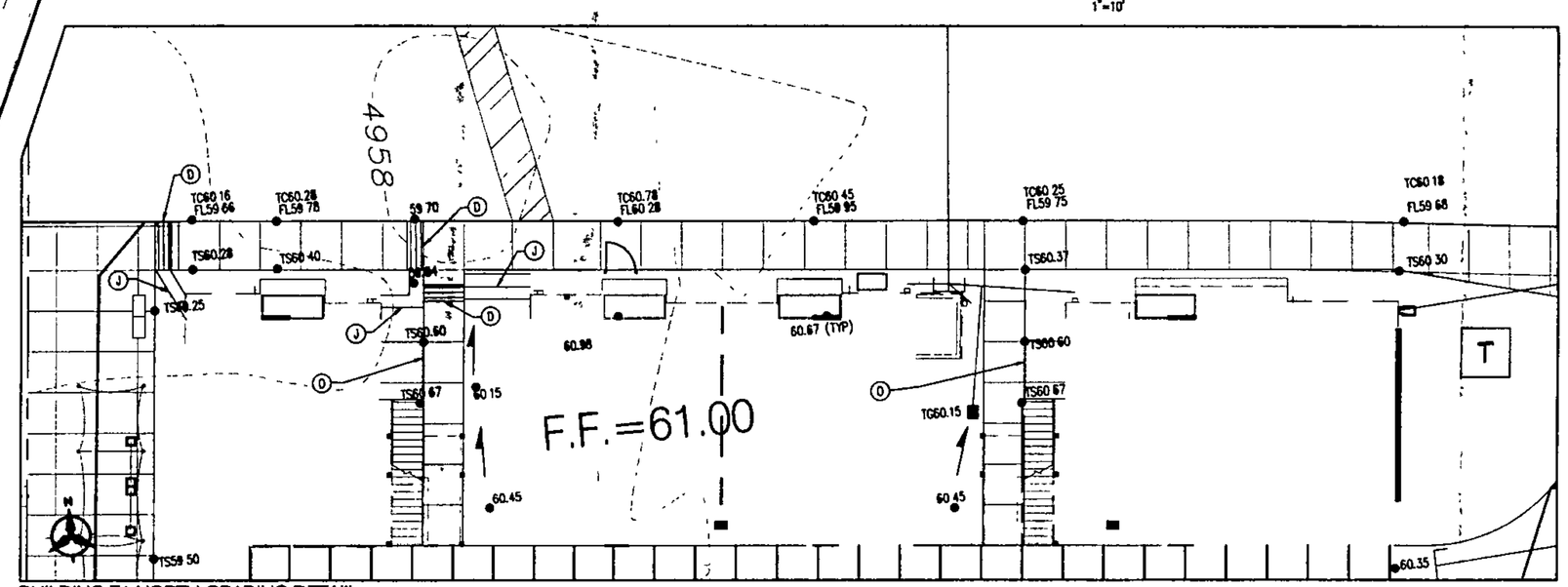
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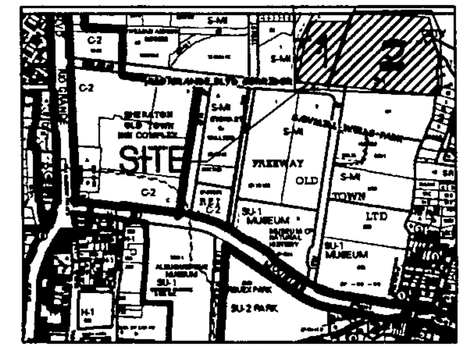









## GENERAL NOTES

1. ALL WORK DETAILED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THE PROJECT GEOTECHNICAL REPORT. WHERE APPLICABLE, CITY OF ALBUQUERQUE PUBLIC WORKS STANDARDS SHALL APPLY
2. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA REQUIREMENTS WITH RESPECT TO STORM WATER DISCHARGE.
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS INCLUDING ALL UNDERGROUND UTILITIES. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION OBSERVER OR ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
4. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT LINE LOCATING SERVICE FOR LOCATION OF EXISTING UTILITIES.
5. ALL ELECTRICAL, TELEPHONE, CABLE TV, GAS AND OTHER UTILITY LINES, CABLES, AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION THAT REQUIRE RELOCATION, SHALL BE COORDINATED WITH THAT UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL NECESSARY UTILITY ADJUSTMENTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCES CAUSED BY UTILITY COMPANY WORK CREWS. THE CONTRACTOR MAY BE REQUIRED TO RESCHEDULE HIS ACTIVITIES TO ALLOW UTILITY CREWS TO PERFORM THEIR REQUIRED WORK.
6. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATION & ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES FROM THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND APPROVED BY THE CONSTRUCTION OBSERVER.
7. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
8. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT-OF-WAY.
9. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FOR THE PROJECT PRIOR TO COMMENCING CONSTRUCTION (I.E., BARRICADING, TOPSOIL DISTURBANCE, EXCAVATION PERMITS, EPA STORM WATER PERMITS, ETC.).
10. ALL PROPERTY CORNERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ALL PROPERTY CORNERS MUST BE RESET BY A REGISTERED LAND SURVEYOR.
11. ALL BARRICADES AND CONSTRUCTION SIGNING SHALL CONFORM TO APPLICABLE SECTIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), US DEPARTMENT OF TRANSPORTATION, LATEST EDITION.
12. THE CONTRACTOR SHALL MAINTAIN ALL CONSTRUCTION BARRICADES AND SIGNING AT ALL TIMES. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADING AT THE END AND BEGINNING OF EACH DAY.
13. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO CONFORM WITH EPA REQUIREMENTS, INCLUDING COMPLIANCE WITH NPDES PHASE 2 REQUIREMENTS.
14. THE CONTRACTOR IS RESPONSIBLE FOR SWPPP PREPARATION AND IMPLEMENTATION.

## GRADING NOTES

1. EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN
2. THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST
3. ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, AND PAVEMENT INSTALLATION, AS SHOWN ON THIS PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "GEOTECHNICAL INVESTIGATION," AS PROVIDED BY THE ARCHITECT OR OWNER. ALL OTHER WORK SHALL, UNLESS OTHERWISE STATED OR PROVIDED FOR HEREIN, BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT, (FIRST PRIORITY) SPECIFICATIONS, AND/OR THE CITY OF ALBUQUERQUE (COA) STANDARD SPECIFICATIONS FOR PUBLIC WORKS (SECOND PRIORITY).
4. EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.
5. IT IS THE INTENT OF THESE PLANS THAT THIS CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE OF THE PROPERTY BOUNDARIES EXCEPT AS REQUIRED BY THIS PLAN.
6. THE CONTRACTOR IS TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHT-OF-WAY. THIS SHOULD BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS OR SILT FENCE AT THE PROPERTY LINES AND WETTING THE SOIL TO PROTECT IT FROM WIND EROSION.
7. A DISPOSAL SITE FOR ANY & ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL AND/OR A BORROW SITE CONTAINING ACCEPTABLE FILL MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE OBSERVER. ALL COSTS INCURRED IN OBTAINING A DISPOSAL OR BORROW SITE AND HAUL TO OR FROM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.
8. PAVING AND ROADWAY GRADES SHALL BE +/- 0.1' FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE +/- 0.05' FROM BUILDING PLAN ELEVATION.
9. ALL PROPOSED CONTOURS REFLECT TOP OF PAVEMENT ELEVATIONS IN THE PARKING AREA AND MUST BE ADJUSTED FOR MEDIANS AND ISLANDS.
10. VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION PRIOR TO BEGINNING CONSTRUCTION
11. ALL SIDEWALKS SHALL HAVE A CROSS SLOPE OF 1% MIN & 2% MAX
12. ALL PATIOS SHALL SLOPE AWAY FROM THE BUILDING AT 1% MIN AND 2% MAX

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ARCHITECT

ENGINEER

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1751 Bellamah Avenue, NW
Albuquerque, NM

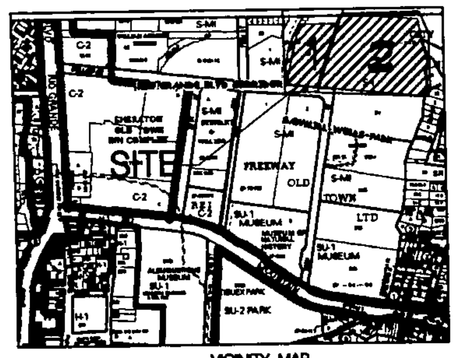
REVISIONS
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|---|---|
| DRAWN BY | CP |
| REVIEWED BY | BJB |
| DATE | 5-13-08 |
| PROJECT NO | 06134 |
| DRAWING NAME | |

GRADING AND STORM DRAIN PLAN

SHEET NO
C100

P:\070249\cdp\general\070249GP01.dwg
Tue, 13-May-2008 - 11:28:am, Plotted by: JSMITH




VICINITY MAP
ZONE ATLAS PAGE A-13-Z

## KEYED NOTES

A. INSTALL 2'x2' NYLOPLAST ROAD & HIGHWAY GRATE INLET (OR APPROVED EQUAL). SEE MFR DET

B. INSTALL 4' DIA TYPE "L" SD MANHOLE PER COA STD DWG 2101

C. MATCH EXISTING GRADE @ PROPERTY LINE

D. INSTALL 24" SIDEWALK CULVERT AS PER COA STD DWG 2236, OR APPROVED EQUAL.

E. PROVIDE 12" WIDE OPENING IN CURB FOR DRAINAGE, SEE DETAIL 8, SHEET C100.

F. WATER HARVESTING ISLAND, SEE DETAIL 3, SHEET C100.

G. OPENING IN WALL FOR DRAINAGE, GROUTLESS VERTICAL JOINTS @ FIRST COURSE TO ABOVE GROUND LEVEL COURSE.

H. CMU RETAINING WALL (CMU FENCE). SEE ARCH DETAIL.

I. PROVIDE STEP FROM PATIO DOWN TO SIDEWALK. SEE PLAN FOR SIDEWALK GRADE. SEE PLAN FOR STEP HEIGHT SPOT ELEVATION GIVEN IS AT BOTTOM OF STEP.

J. 18" WIDE CONCRETE VALLEY GUTTER PER DETAIL 1, SHEET C100. CONTRACTOR IS TO INSTALL VALLEY GUTTER PRIOR TO SURROUNDING PAVING TO ENSURE PAVEMENT FOLLOWS VALLEY GUTTER GRADING.

K. SEGMENTAL RETAINING WALL.

L. CONNECT TO MH#2 PER DETAIL 2, SHEET C100.

M. INSTALL 18" GRATE AND INLET (SEE GRADING PLAN FOR TOP OF GRATE ELEVATION). ON-PLANT OR - OFF APPROVED ASPHALT.

N. 18" STORM PIPE @ 0.5% SLOPE @ VALLEY GUTTER.

SPOT ELEVATIONS GIVEN ARE ON LOW SIDE OF STEP.

P. SEE GRADING AND DRAINAGE PLAN FOR ROOF DRAIN LOCATIONS.

Q. SEE UTILITY PLAN FOR SANITARY SEWER, AND WATER SERVICE LOCATIONS.

R. SD CLEAN OUT, SEE DETAIL SHEET C200

S. CONNECT TO ROOF DRAIN, SEE ARCHITECTURAL PLANS FOR CONTINUATION.

T. SWALE (FLOW LINE) SHALL BE 6" BELOW ADJACENT CURBS, OR LIPS OF PAN.

U. CONNECT TO ROOF DRAIN, SEE ARCHITECTURAL PLANS FOR CONTINUATION.

F.F.=59.50
F.F.=60.65
F.F.=60.40
F.F.=60.25
F.F.=61.00
F.F.=61.00
F.F.=61.25
F.F.=61.00

BUILDING D1
BUILDING F2
BUILDING D2
BUILDING E3.1
BUILDING B
BUILDING E1
TOWNHOMES F

SEE BUILDING E1 NORTH GRADING DET, SHEET C100

SEE TOWNHOME TYPICAL LOT GRADING DET, SHEET C100

LEGEND

- PROPERTY LINE
- EXISTING CONTOURS
- EXISTING GROUND SPOT ELEVATION
- PROPOSED SPOT ELEVATION (TC=TOP OF CURB, FL=FLOW LINE; TW=TOP OF WALL, BW=BOTTOM OF WALL; EX=EXISTING, TG=TOP OF GRADE; FGH=FINISH GROUND HIGH SIDE, FGL=FINISH GROUND LOW SIDE)
- PROPOSED DIRECTION OF FLOW
- WATER BLOCK
- PROPOSED INDEX CONTOURS
- PROPOSED INTER CONTOURS
- PROPOSED CURB & GUTTER
- EASEMENT
- PROPOSED STORM DRAIN INLET
- EXISTING MONUMENT
- PROPOSED RETAINING WALL
- PROPOSED 24' PUBLIC SIDEWALK CULVERT PER COA STD DWG 2236

Bohannan ▲ Huston
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

NOTICE TO CONTRACTORS

1. CONTRACTOR SHALL ADJUST ALL MANHOLES TO FINISHED GRADE PER COA STD. DWG. 2111.

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Tue, 13-May-2008 - 11:30:am, Plotted by: JSMITH

N

1"=20'

architecture
interiors
planning
engineering

Dekker
Perich
Sabatini

7601 Jefferson NE
Suite 100
Albuquerque, NM 87109
505 761-9700
Fax 761-4222
dps@dpsdesign.org

ARCHITECT

ENGINEER

PROJECT

Sawmill Village
1751 Bellamah Avenue, NW
Albuquerque, NM

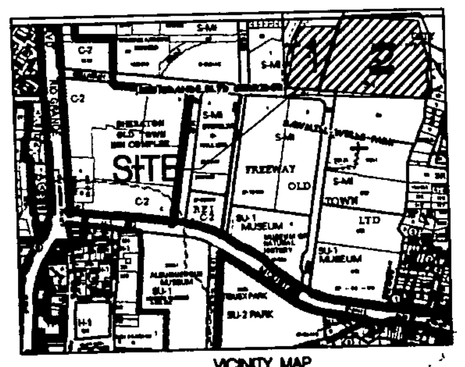
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MAY 13 2008
HYDROLOGY SECTION

REVISIONS
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|---|---|
| DRAWN BY | CP |
| REVIEWED BY | BJB |
| DATE | 5-13-08 |
| PROJECT NO | 070124 |
| DRAWING NAME | |

GRADING PLAN

SHEET NO
C101
OF




VICINITY MAP
ZONE ATLAS PAGE J-13-Z

## KEYED NOTES

A. INSTALL 2'x3' NYLOPLAST ROAD & HIGHWAY GRATE INLET (OR APPROVED EQUAL). SEE MFR DET

B. INSTALL 4' DIA TYPE "E" SD MANHOLE PER COA STD DWG 2101

C. MATCH EXISTING GRADE @ PROPERTY LINE

D. INSTALL 24" SIDEWALK CULVERT AS PER COA STD DWG 2236, OR APPROVED EQUAL.

E. PROVIDE 12" WIDE OPENING IN CURB FOR DRAINAGE, SEE DETAIL 6, SHEET C103.

F. WATER HARVESTING ISLAND, SEE DETAIL 3, SHEET C103.

G. OPENING IN WALL FOR DRAINAGE, GROUTLESS VERTICAL JOINTS @ FIRST COURSE TO ABOVE GROUND LEVEL COURSE.

H. CMU RETAINING WALL (CMU FENCE). SEE ARCH DETAIL.

I. PROVIDE STEP FROM PATIO DOWN TO SIDEWALK, SEE PLAN FOR SIDEWALK GRADE. SEE PLAN FOR STEP HEIGHT. SPOT ELEVATION GIVEN IS AT BOTTOM OF STEP.

J. 18" WIDE CONCRETE VALLEY GUTTER PER DETAIL 1, SHEET C103. CONTRACTOR IS TO INSTALL VALLEY [illegible]

K. [illegible] RETAINING WALL.

L. CONNECT TO 18" SD PER DET 1/C103 & SHEET C104. [illegible]

M. [illegible] AND INLET (SEE GRADING PLAN) FOR TOP OF GRATE ELEVATIONS. (NYLOPLAST OR APPROVED EQUAL)

N. [illegible] VALLEY GUTTER

O. [illegible]

P. 10" CROSS PERFORATED PIPE. SEE PLUMBING PLAN FOR CONTINUATION.

Q. 6" STORM DRAIN LINE FOR INTERNAL DRAINS. SEE PLUMBING PLAN FOR CONTINUATION.

R. [illegible] NYLOPLAST DRAIN FOR [illegible]

S. [illegible] OR STANDARD NYLOPLAST GRATE OR APPROVED EQUAL). SEE MFR DETAIL

T. CONNECT TO ROOF DRAIN. SEE ARCHITECTURAL PLANS FOR CONTINUATION.

MATCH LINE SEE SHEET C101

F.F.=59.50

BUILDING D1

F.F.=60.40

BUILDING D2

F.F.=60.25

BUILDING B

F.F.=60.25

BUILDING E1

F.F.=61.00

F.F.=60,65

BUILDING E2

F.F.=61.00

BUILDING E3

F.F.=61.25

TOWNHOMES

LEGEND

- PROPERTY LINE
- PROPOSED DIRECTION OF FLOW
- WATER BLOCK
- EASEMENT
- PROPOSED STORM DRAIN INLET
- PROPOSED 24" PUBLIC SIDEWALK CULVERT PER COA STD DWG 2236
- PROPOSED RETAINING WALL

MATERIALS

STORM DRAIN 12"Ø AND SMALLER: SDR-35 PVC
STORM DRAIN LARGER THAN 12"Ø: ALAMCOR OR ADS HDPE

NOTICE TO CONTRACTORS

1. CONTRACTOR SHALL ADJUST ALL MANHOLES TO FINISHED GRADE PER COA STD. DWG. 2111

Bohannan ▲ Huston

Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335

ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

P:\070249\cdp\general\070249GP03.dwg
Tue, 13-May-2008 - 11:32:am, Plotted by: JSMITH

RECEIVED
MAY 13 2008
HYDROLOGY SECTION


architecture
interiors
planning
engineering

Dekker
Perich
Sabatini

7601 Jefferson NE
Suite 100
Albuquerque, NM 87109
505 761-9700
fax 761-4222
dps@dpsdesign.org

ARCHITECT


ENGINEER

PROJECT

Sawmill Village
1751 Bellamah Avenue, NW
Albuquerque, NM

REVISIONS

| | |
|---|---|
| DRAWN BY | GP |
| REVIEWED BY | BJB |
| DATE | 5-15-08 |
| PROJECT NO | 06134 |
| DRAWING NAME | |

STORM DRAIN PLAN

SHEET NO
C102
OF

**CITY OF ALBUQUERQUE**
**PLANNING DEPARTMENT**
**DEVELOPMENT SERVICE / HYDROLOGY SECTION**

**DATE:** 9-13-13
**CONFERENCE RECAP**

**ZONE ATLAS PAGE NO:** H13
**DRAINAGE FILE:** H13D057
**ZONING:** _____
**DRB:**
**SUBJECT:** Financial guarantee of side yard channels
**STREET ADDRESS (IF KNOWN):** _____
**SUBDIVISION NAME:** Summit Crossing
**APPROVAL REQUESTED:**
**ATTENDANCE:** John McKenzie

**FINDINGS:**

It is acceptable to Financially Guarantee the side yard channels in lieu of building them prior to building permit approval.

an Engineer's certification is required for release of Financial Guarantee.

TO be Financially Guaranteed prior to Final plat approval

THE UNDERSIGNED AGREES THAT THE ABOVE FINDINGS ARE SUMMARIZED ACCURATELY AND ARE SUBJECT TO CHANGE IF FURTHER INVESTIGATION REVEALS THAT THEY ARE NOT REASONABLE OR THAT THEY ARE BASED ON INACCURATE INFORMATION.

**SIGNED:** Curtis A. Cherne
**NAME (PRINT):** Curtis A. Cherne

**SIGNED:** John McKenzie
**NAME (PRINT):**

**NOTE** PLEASE PROVIDE A COPY OF THIS RECAP WITH YOUR DRAINAGE SUBMITTAL.

## Cherne, Curtis

---

**From:** Cherne, Curtis
**Sent:** Monday, August 26, 2013 1:58 PM
**To:** 'John MacKenzie'; Olson, Paul L.; Biazar, Shahab
**Subject:** RE: Sawmill Crossing 617587

Looks alright to me.

Curtis

---

**From:** John MacKenzie [mailto:John@goodwinengineers.com]
**Sent:** Wednesday, August 21, 2013 8:39 AM
**To:** Olson, Paul L.; Cherne, Curtis; Biazar, Shahab
**Subject:** FW: Sawmill Crossing 617587

Gents,

Here is the revised plan per our discussion yesterday.

*John MacKenzie, PE*
*Mark Goodwin and Associates, PA*
*Phone: 505-828-2200*

---

**From:** John MacKenzie
**Sent:** Tuesday, August 20, 2013 8:56 AM
**To:** Paul Olson (polson@cabq.gov)
**Subject:** Sawmill Crossing 617587

Paul,

Here is a revised drawing for the valley gutter we talked about yesterday. The FL slope on each side of the upstream side of the VG is 0.29% to 0.3% and 0.29% down the gutter FL. It would be located 25 feet off the existing pavement cut to the NW.

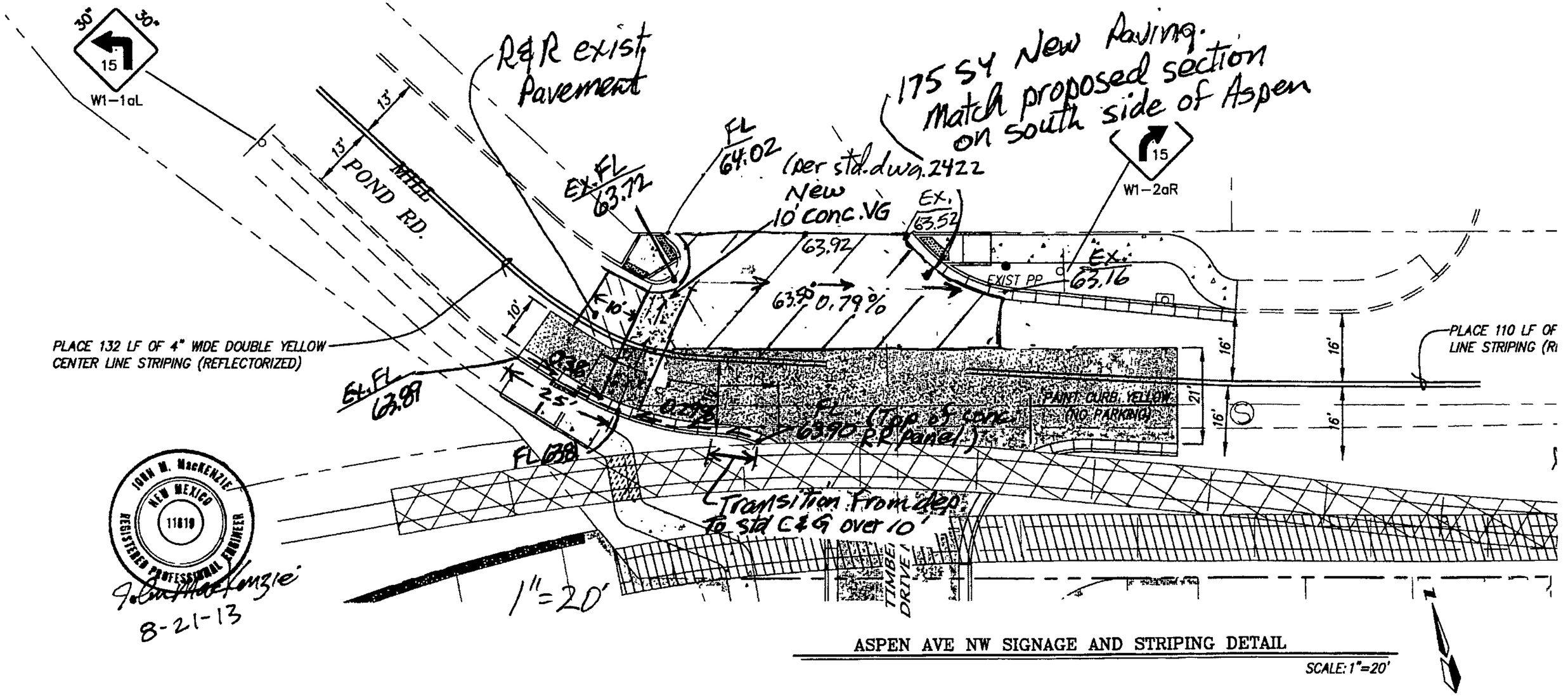
*John MacKenzie, PE*
*Mark Goodwin and Associates, PA*
*Phone: 505-828-2200*

TYPICAL 32' FT. ASPEN AVE STREET SECTION
(LOOKING WEST @ STA. 12+00)

(PER COA STD. DWG 2405 B) NTS

HANDICAP RAMP DETAIL
ON ASPEN AVE @ MILL POND RD

SCA




JOHN M. MacKENZIE
NEW MEXICO
11819
REGISTERED PROFESSIONAL ENGINEER

8-21-13

ASPEN AVE NW SIGNAGE AND STRIPING DETAIL

SCALE: 1"=20'

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## Cherne, Curtis

---

**From:** Doug Hughes [Doug@goodwinengineers.com]
**Sent:** Friday, October 04, 2013 10:25 AM
**To:** John MacKenzie
**Cc:** Cherne, Curtis
**Subject:** FW: Tract B1A2 and Sawmill Village -wrong exhibit
**Attachments:** G & D Concept 2011-09-30.pdf

John,
Please see attached the exhibit that Curtis may be thinking of.

---

**From:** Doug Hughes
**Sent:** Monday, October 03, 2011 8:49 AM
**To:** Michael Balaskovits
**Cc:** Cherne, Curtis ; John MacKenzie; Mark Goodwin
**Subject:** RE: Tract B1A2 and Sawmill Village -wrong exhibit

Mike,
Attached please find the corrected exhibit.

If 1:30 Wednesday works for you then I will send out a meeting invite.

**Doug Hughes, PE**
MARK GOODWIN & ASSOCIATES, PA
(505) 828-2200
(505) 797-9539 fax
(505) 821-9313 cell
doug@goodwinengineers.com

---

**From:** Michael Balaskovits [mailto:mbalaskovits@bhinc.com]
**Sent:** Monday, October 03, 2011 8:16 AM
**To:** Doug Hughes
**Subject:** FW: Tract B1A2 and Sawmill Village

Good morning Doug, would you mind resending the attachment. I think this one might have been a mistake. Thanks.

Mike Balaskovits, PE, LEED AP
*Community Development and Planning*
BHI

---

**From:** Doug Hughes [mailto:Doug@goodwinengineers.com]
**Sent:** Friday, September 30, 2011 2:04 PM
**To:** Michael Balaskovits
**Cc:** John MacKenzie; Cherne, Curtis ; Mark Goodwin
**Subject:** RE: Tract B1A2 and Sawmill Village

Mike,
It is good that we both have projects to work on. The close proximity of them is probably no accident. I am busy the first half of the week next week but can meet any time after 1:30 PM Wednesday. John MacKenzie would like to join us, and Curtis is the one who suggested that we meet. So how does

Wednesday at 1:30 work for everyone.

We don't have an exact development plan, or any layout that we are actually pursuing. The owner is considering several different variations of high density residential development.

We are gathering records and I am trying to identify the drainage, utility and traffic constraints on the property. The attached sketch summarizes my analysis of existing drainage patterns. The 2004 Bernalillo County topo (see attached) shows a ridge running north/south through the middle of the site, and the site slopes east and west at an average of 1% away from that ridge.. Most of the existing site is impervious and the remainder is bare packed dirt or gravel, so existing runoff is relatively high (100-YR flow is11.27 cfs to the southwest and 16.63 cfs to the southeast).

In 2004, drainage from the west half of Tract B1A2 combined with drainage from Sawmill Village site and flowed through a large shallow pond on the Sawmill Village property that drained south into Bellamah Ave. Several other properties drained into Bellamah Ave but now they all go through a series of ponds because Bellamah Ave and it's storm drain do not have enough capacity to allow free discharge from those properties. It seems reasonable that the Bellamah drainage capacity should be prorated among all of the properties that drain into Bellamah Ave.

Though the site is in the middle of the Sawmill/Wells Park Sector Development Plan, the hydrology department doesn't seem to have any comprehensive plan for that area in their records. Neither Curtis nor I were able to make sense of the numerous plans in his files for the Sawmill Village development. I am trying to figure out what the capacity of Bellamah Ave is and how much of that capacity belongs to Tract B1A2. I am also trying to figure out what provision has been made for that drainage to get to Bellamah Ave. through the Sawmill Village development. Can you meet with us to discuss these two issues?

**Doug Hughes, PE**
MARK GOODWIN & ASSOCIATES, PA
(505) 828-2200
(505) 797-9539 fax
(505) 821-9313 cell
doug@goodwinengineers.com

---

**From:** Michael Balaskovits [mailto:mbalaskovits@bhinc.com]
**Sent:** Thursday, September 29, 2011 3:15 PM
**To:** Doug Hughes
**Subject:** RE: Tract B1A2 and Sawmill Village

Doug, we have to stop meeting like this. Sorry it's taken so long for my response. Would you like to get together sometime next week to discuss further. I'd like to understand exactly what you have planned for your development, how far along you are, and to see if we can come up with something together. Let me know your availability for early next week. Thanks!!

As a side note, we have DRB the 12 and we are looking to get approval at that time for our project.

Mike Balaskovits, PE, LEED AP
*Community Development and Planning*
BHI

---

**From:** Doug Hughes [mailto:Doug@goodwinengineers.com]

**Sent:** Friday, September 23, 2011 1:27 PM
**To:** Cherne, Curtis
**Cc:** Michael Balaskovits
**Subject:** RE: Tract B1A2 and Sawmill Village

Ok, when and where shall we meet? I have a meeting Monday 12 till 3, otherwise I am available. Your office or the site are both fine with me. I would like to review the drainage toward UPS also.

**Doug Hughes, PE**
MARK GOODWIN & ASSOCIATES, PA
(505) 828-2200
(505) 797-9539 fax
(505) 821-9313 cell
doug@goodwinengineers.com

---

**From:** Cherne, Curtis [mailto:CCherne@cabq.gov]
**Sent:** Friday, September 23, 2011 10:19 AM
**To:** Doug Hughes
**Cc:** Michael Balaskovits
**Subject:** Tract B1A2 and Sawmill Village

Good morning,
Per our conversation yesterday concerning the proposed development (proposed area) at Tract B1A2 and offsite flows at Sawmill Village (Sawmill).

I visited the site(s) this morning to attempt to confirm the contours shown our GIS to aid in making a determination for drainage for the proposed development. I also looked at the approved Grading Plan for Sawmill.

It is evident that the Sawmill site accepted offsite flows in the existing condition near the northeast and northwest corners of Sawmill. There is approx. a 2 foot cut south of the northeast corner of Sawmill and the proposed site is about 2 feet higher than Sawmill about 100 to 150 feet west of the northwest corner of Sawmill. It is also evident that there was an existing swale along the west edge of the proposed development into Sawmill. It appears this area has been filled.

It does not look like any flows leave the proposed area to the east thru UPS. There is evidence of ponding inside the proposed area along the eastern edge and it looks like there is a high point in the UPS site in the first drive aisle. There is also a 2" or so lip of asphalt on the UPS side. The existing alley gutter near the south end along the eastern edge of the proposed area drains west from UPS as evidenced by the sediment inside the proposed area in the valley gutter.

The railroad tracks will make it difficult to drain the proposed area north. Therefore, it seems south and southwest seem to be the historic flow path and therefore should be the proposed.

In the spirit of the drainage ordinance the Sawmill site should accept offsite flows from the proposed development. It seems the two discharge points should be in the northeast and northwest corners of Sawmill. It seems the 1 cfs at each point (2 cfs total) you are requesting is most likely less than existing and could be easily accommodated by Sawmill.

Hydrology has an approved DMP and Grading Plan that do not mention or account for offsite flows from Tract B1A2. It was missed, but that does not make it right. Would the best way to remedy this be for the three of us to meet to discuss?

Curtis

# CITY OF ALBUQUERQUE

December 1, 2011

James D. Hughes, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM 87199

**Re: Sawmill Crossing, Conceptual Grading Plan**
**Engineer's Stamp dated 11-10-11 (H13/D057)**

Dear Mr. Hughes,

Based upon the information provided in your submittal received 11-10-11, the above referenced plan cannot be approved for Site Plan for Subdivision action by the DRB until the following comments that were presented at the 11-16-11 DRB meeting are addressed:

- Meeting the ponding requirement will be more difficult with the proposed zoning. Hydrology would prefer to keep the existing zoning.
- Residential zoning may be possible with a neighborhood pond.
- Proposing public streets with this design will cause a mixture of Public and Private stormwater. That is undesirable.
- The Conceptual Grading Plan states to use 70% impervious, whereas the DPM has a max of 45% for the flat grading scheme. The proposed development is too dense to accommodate the ponding required.
- Homeowners are regularly filling in ponds on their lots. Hydrology would prefer to see a more centralized neighborhood private pond. The pond could double as a park.
- Why does the plan propose to fill so much at the south west corner? This is a historic outfall location.

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

Sincerely,

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

Copy: e-mail

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

**DRAINAGE AND TRANSPORTATION INFORMATION SHEET**
**(Rev. 12/05)**

PROJECT TITLE: Sawmill Crossing ZONE MAP/DRG. FILE # H-13/D057
DRB#: 1009046 EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: _____
CITY ADDRESS: _____

ENGINEERING FIRM: Mark Goodwin CONTACT: Doug Hughes
ADDRESS: Po Box 90606 PHONE: 828-2200
CITY, STATE: Albuquerque NM ZIP CODE: 87199

OWNER: Sawmill Crossing, LLC CONTACT: Keith Cheshire
ADDRESS: 7400 Hancock Ct NE PHONE: 797 8589
CITY, STATE: Suite B ZIP CODE: 87109
Albuquerque NM 87109

ARCHITECT: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

SURVEYOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

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

CHECK TYPE OF APPROVAL SOUGHT:
_____ SIA/FINANCIAL GUARANTEE RELEASE
_____ PRELIMINARY PLAT APPROVAL
__X__ S. DEV. PLAN FOR SUB'D APPROVAL
_____ S. DEV. FOR BLDG. PERMIT APPROVAL
_____ SECTOR PLAN APPROVAL
_____ 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
_____ OTHER (SPECIFY)

RECEIVED
NOV 1 2011
HYDROLOGY SECTION

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

SUBMITTED BY: Doug Hughes DATE: 11-10-11

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 define 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.