

DRAINAGE INFORMATION SHEET

PROJECT TITLE:	AYERS RESIDENCE	ZONE ATLAS/DRNG. FILE #:	C-20/D22, PWDN 9900139
DRB #:		EPC #:	
WORK ORDER #:			
LEGAL DESCRIPTION:	LOTS 16 BLOCK 13, Tract 3, Unit 3, NORTH ALBUQUERQUE ACRES		
CITY ADDRESS:	9520 OAKLAND AVENUE, NE, ALB., NM 87122		
ENGINEERING FIRM:	Advanced Engineering and Consulting, LLC	CONTACT:	Shahab Biazar
ADDRESS:	10205 Snowflake Ct. NW Alb., NM 87114	PHONE:	(505) 899-5570
OWNER:	ROGER AYERS	CONTACT:	
ADDRESS:	8300 Wyoming, NE, # 3013, Alb., NM 87113	PHONE:	
ARCHITECT:		CONTACT:	
ADDRESS:		PHONE:	
SURVEYOR:		CONTACT:	
ADDRESS:		PHONE:	
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	

TYPE OF SUBMITTAL:

- | | |
|-------------------------------------|------------------------------------|
| <input type="checkbox"/> | DRAINAGE REPORT |
| <input type="checkbox"/> | DRAINAGE PLAN |
| <input type="checkbox"/> | CONCEPTUAL GRADING & DRAINAGE PLAN |
| <input checked="" type="checkbox"/> | GRADING PLAN |
| <input type="checkbox"/> | EROSION CONTROL PLAN |
| <input type="checkbox"/> | ENGINEER'S CERTIFICATION |
| <input type="checkbox"/> | OTHER |

PRE-DESIGN MEETING:

- | | |
|--------------------------|---------------|
| <input type="checkbox"/> | YES |
| <input type="checkbox"/> | NO |
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CHECK TYPE OF APPROVAL SOUGHT:

- | | |
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| <input type="checkbox"/> | SKETCH PLAN APPROVAL |
| <input type="checkbox"/> | PRELIMINARY PLAT APPROVAL |
| <input type="checkbox"/> | S. DEV. PLAN FOR SUB'D. APPROVAL |
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| <input type="checkbox"/> | CERTIFICATE OF OCCUPANCY APPROVAL |
| <input checked="" type="checkbox"/> | GRADING PERMIT APPROVAL |
| <input type="checkbox"/> | PAVING PERMIT APPROVAL |
| <input type="checkbox"/> | S. A. D. DRAINAGE REPORT |
| <input type="checkbox"/> | DRAINAGE REQUIREMENTS |
| <input type="checkbox"/> | OTHER |

DATE SUBMITTED: 08 / 04 / 99

BY: SHAHAB BIAZAR

County of Bernalillo

State of New Mexico

BOARD OF COUNTY COMMISSIONERS

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DISTRICT 3
BARBARA J. SEWARD, VICE CHAIR
DISTRICT 4
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LES HOUSTON, MEMBER
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2400 BROADWAY, S.E.
ALBUQUERQUE, NEW MEXICO 87102
PUBLIC WORKS (505) 848-1500

MARK J. CARRILLO, ASSESSOR
JUDY D. WOODWARD, CLERK
IRA ROBINSON, PROBATE JUDGE
JOE BOWDICH, SHERIFF
ORLANDO VIGIL, TREASURER

August 19, 1999

Shahab Biazar, P.E.
Advanced Engineering and Consulting
10209 Snowflake Ct. NW
Albuquerque, New Mexico 87114

RE: Drainage Report and Grading and Drainage Plan for Ayers Residence, Lot 16, Block 13, Tract 3, Unit 3, NAA, (C20/D22) (PWDN 990139) Engineer's Stamp Dated 8/4/99.

Dear Shahab:

Based on the information provided in the submittal of August 4, 1999, the above referenced plan is approved for Building Permit release.

As you are aware, the Engineer's Certification is required prior to the release of the Certificate of Occupancy for this residence.

If you have any questions, or if I may be of further assistance to you, please call me at 924-3982, or contact Brad Catanach at the County.

Sincerely,

A handwritten signature in cursive script, reading "Susan Calongne".

Susan M. Calongne, P.E.
City/County Floodplain Administrator

c: Brad Catanach, P.E., Bernalillo County Public Works Division
Lisa Ann Manwill, P.E., Albuquerque Metropolitan Arroyo Flood Control Authority
File

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JUDY D. WOODWARD, CLERK
IRA ROBINSON, PROBATE JUDGE
JOE BOWDICH, SHERIFF
ORLANDO VIGIL, TREASURER
July 21, 1999

Shahab Biazar, P.E.
Advanced Engineering and Consulting
10209 Snowflake Ct. NW
Albuquerque, New Mexico 87114

RE: *Drainage Report and Grading and Drainage Plan for Ayers Residence, Lot 16, Block 13, Tract 3, Unit 3, NAA, (C20/D22) (PWDN 990139) Engineer's Stamp Dated 7/7/99.*

Dear Shahab:

This letter is a compilation of comments from my office as well as from County Public Works and AMAFCA. Prior to approval of the above referenced plan, the following comments must be addressed:

1. This site is located along the main La Cueva arroyo, one of the major arroyos in NAA. Since this arroyo is very wide and braided, predicting the dominant flow path can be difficult. It appears that the runoff from smaller rainfall events may occur predominately within the northern thalweg located just south of this Lot, thus becoming the dominant flow path in the 100-year events. Therefore, it may not be prudent to assume that the dominant flow is 130' south of the property. Please plot the erosion setback (ESB) limits on the plan. Any development proposed within the ESB must be constructed to scour depth, therefore a scour analysis and scour protection is required.
2. The plan shows the limits of the 100-year WSEL. Is this the water surface from your calculations, or the FEMA floodplain limit? Please plot the FEMA floodplain limit on the plan. Also plot the WSEL and EGL from your analysis for comparison. Show the locations of some of the cross sections through the Lot on the plan. Also plot the energy grade line (EGL) and proposed AMAFCA easement. Is the finish floor elevation higher than the EGL?

Due to the difficulty of this Lot, you may wish to research the drainage plan for Lot 15 adjacent to this site (City drainage file C20/D13). If you have any questions regarding these comments, please call me at 924-3982, or contact Brad Catanach at the County.

Sincerely,

A handwritten signature in cursive script, reading "Susan M. Calongne".

Susan M. Calongne, P.E.
City/County Floodplain Administrator

c: Brad Catanach, P.E., Bernalillo County Public Works Division
Lisa Ann Manwill, P.E., Albuquerque Metropolitan Arroyo Flood Control Authority
File

DRAINAGE INFORMATION SHEET

PROJECT TITLE: AYERS RESIDENCE ZONE ATLAS/DRNG. FILE #: C-20 / ⁵⁰ Dots

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

LEGAL DESCRIPTION: LOTS 16 BLOCK 13, Tract 3, Unit 3, NORTH ALBUQUERQUE ACRES

CITY ADDRESS: 9520 OAKLAND AVENUE, NE, ALB., NM 87122

ENGINEERING FIRM: Advanced Engineering and Consulting, LLC CONTACT: Shahab Biazar

ADDRESS: 10205 Snowflake Ct. NW Alb., NM 87114 PHONE: (505) 899-5570

OWNER: ROGER AYERS CONTACT: _____

ADDRESS: 8300 Wyoming, NE, # 3013, Alb., NM 87113 PHONE: _____

ARCHITECT: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

☒ DRAINAGE REPORT

☐ DRAINAGE PLAN

☐ CONCEPTUAL GRADING & DRAINAGE PLAN

☒ GRADING PLAN

☐ EROSION CONTROL PLAN

☐ ENGINEER'S CERTIFICATION

☐ OTHER

PRE-DESIGN MEETING:

☐ YES

☐ NO

☐ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAN APPROVAL

☐ PRELIMINARY PLAT APPROVAL

☐ S. DEV. PLAN FOR SUB'D. APPROVAL

☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL

☐ SECTOR PLAN APPROVAL

☐ FINAL PLAT APPROVAL

☐ FOUNDATION PERMIT APPROVAL

☒ BUILDING PERMIT APPROVAL

☐ CERTIFICATE OF OCCUPANCY APPROVAL

☒ GRADING PERMIT APPROVAL

☐ PAVING PERMIT APPROVAL

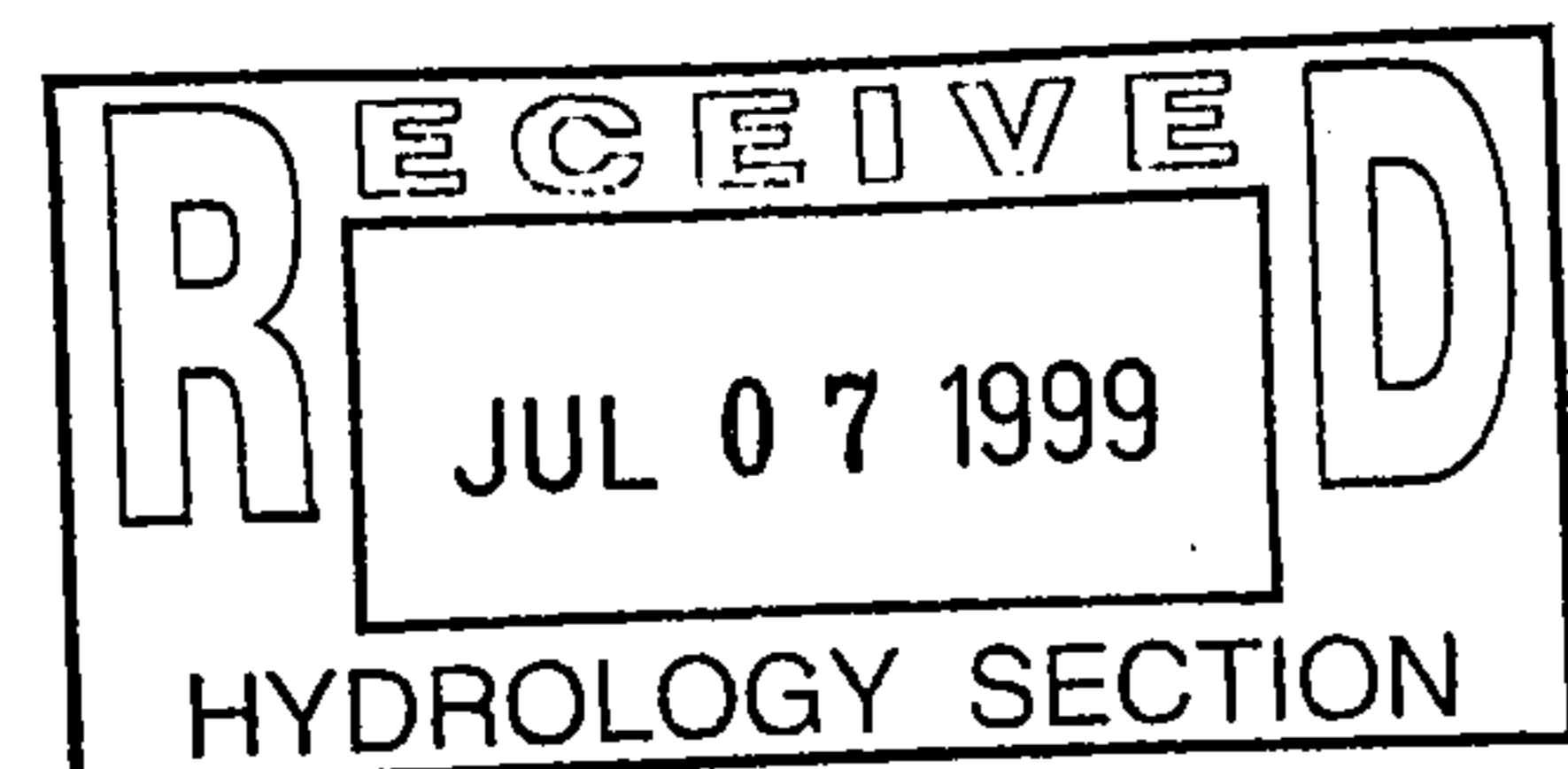
☐ S. A. D. DRAINAGE REPORT

☐ DRAINAGE REQUIREMENTS

☐ OTHER

DATE SUBMITTED: 07 / 06 / 99

BY: SHAHAB BLAZAR



DRAINAGE INFORMATION SHEET

PROJECT TITLE:	AYERS RESIDENCE	ZONE ATLAS/DRNG. FILE #:	C-20
DRB #:		EPC #:	
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CITY ADDRESS:	9520 OAKLAND AVENUE, NE, ALB., NM 87122		
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| <input type="checkbox"/> | OTHER |

PRE-DESIGN MEETING:

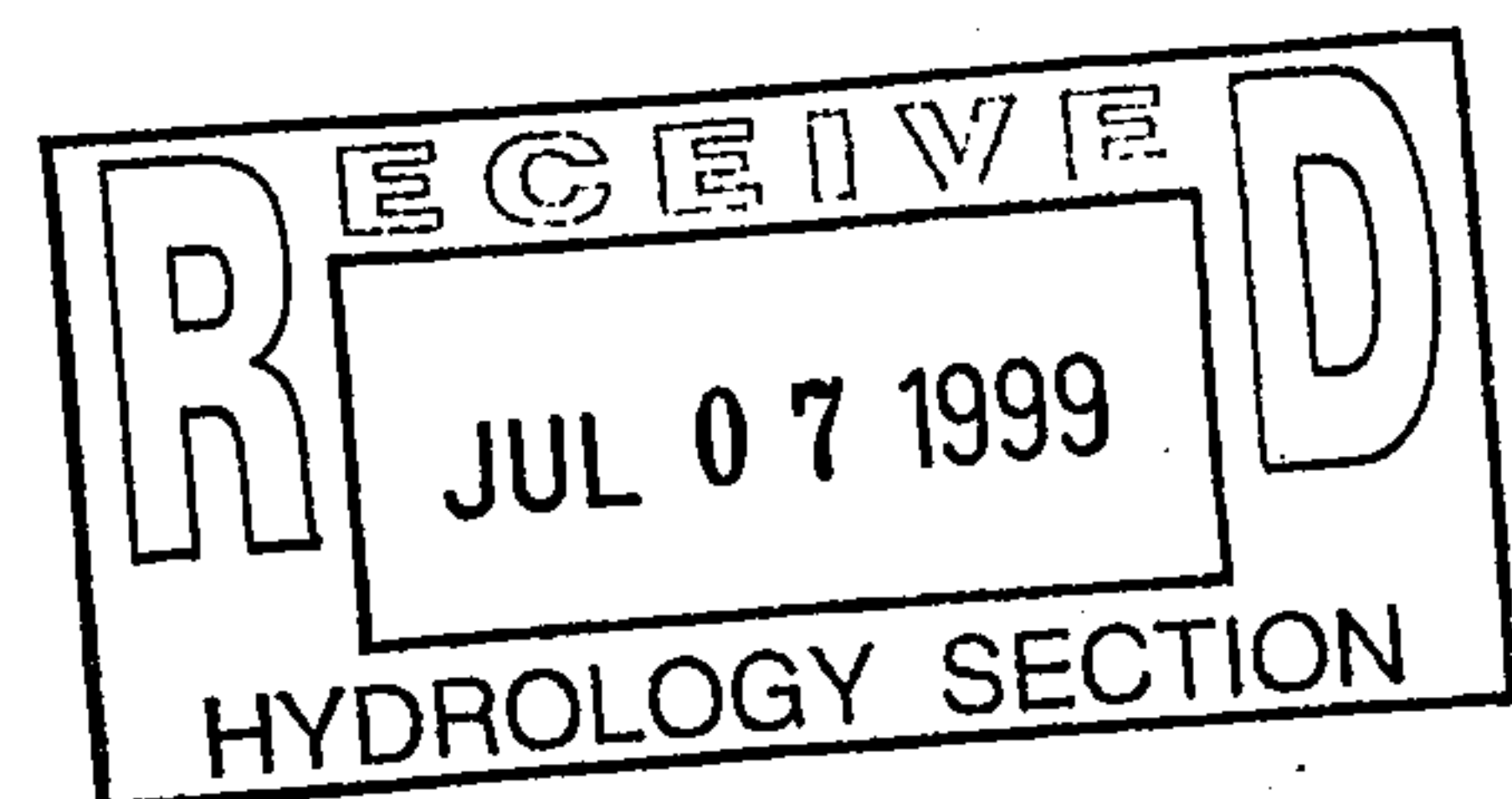
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| <input type="checkbox"/> | YES |
| <input type="checkbox"/> | NO |
| <input type="checkbox"/> | COPY PROVIDED |

CHECK TYPE OF APPROVAL SOUGHT:

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DATE SUBMITTED: 07 / 06 / 99

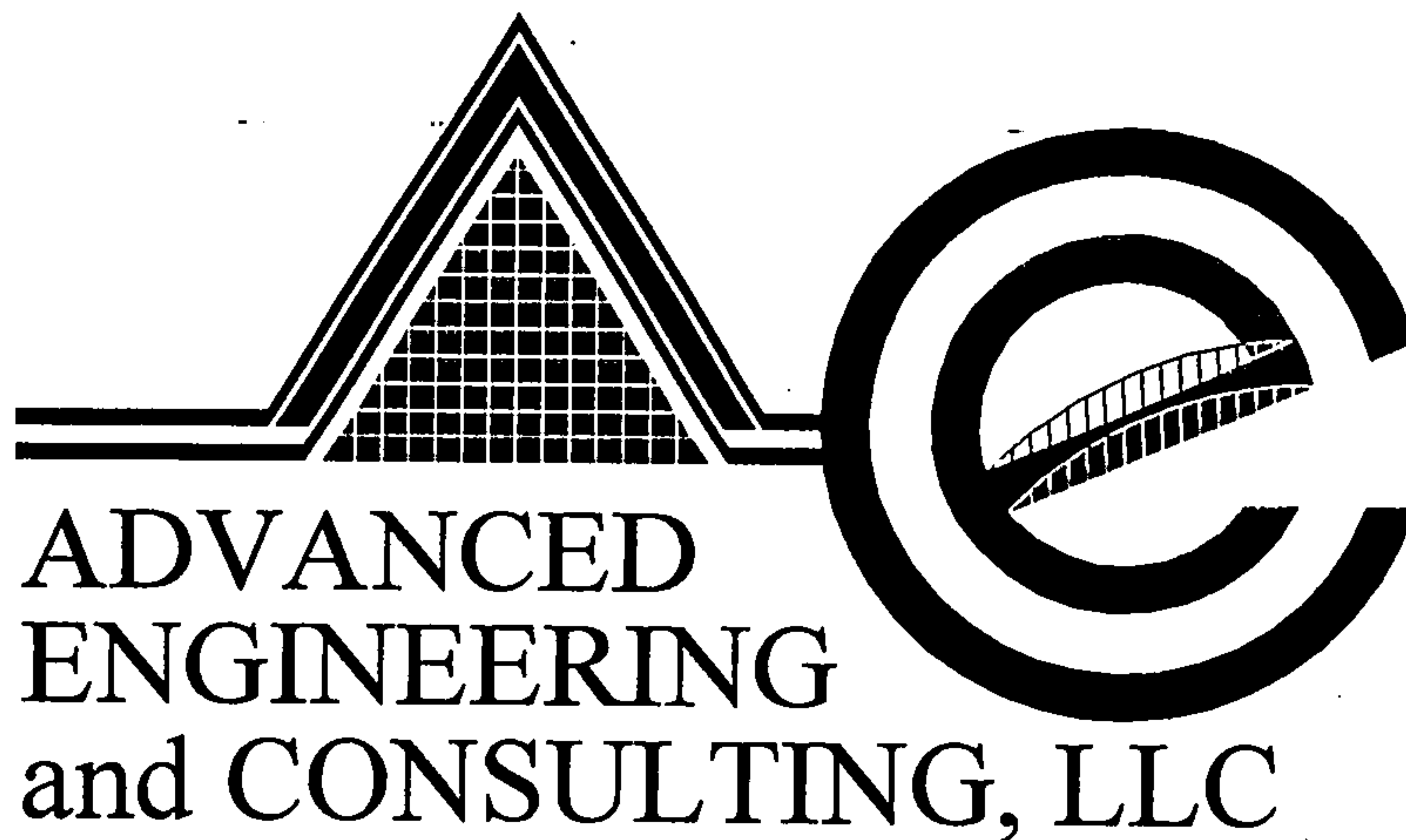
BY: SHAHAB BLAZAR



DRAINAGE REPORT
FOR

Lots 16, Block 13, Tract 3, Unit 3,
North Albuquerque Acres

Prepared by:



10205 Snowflake Ct. NW
Albuquerque, New Mexico 87114

Prepared For:

Roger Ayers
8300 Wyoming Boulevard, NE, Apt.# 3013
Albuquerque, New Mexico 87113

July, 1999



Shahab Biazar
PE NO. 13479

Location

Lots 16, Block 13, Tract 3, Unit 3 of North Albuquerque Acres is a ± 0.727 acre site which is located at southwest corner of Oakland Avenue and Holbrook Street. See attached vicinity map for location.

Purpose

Advanced Engineering and Consulting, LLC on behalf of Roger Ayers has prepared this grading and drainage solution for the proposed site. This grading and drainage plan is prepared in order to obtain grading and drainage approval as well as building permit approval for Mr. Ayers future house.

Existing Drainage Conditions

The site slopes from north to south and drains to an existing arroyo located at the southerly portion of the property. The site at existing conditions generates 1.37 cfs under a 100-year, 6-hour storm. As shown on FIRM Map number 35001C0141-D the southerly portion of the site falls within a 100-year flood plain, Zone AO (depth 2). Based on the Resource Technology, Inc. Hydrology Maps Exhibit 8, Basin 110.0, AP (analysis point and flow rates) 110.90, the flood plain is created based on a 100-year storm runoff of 3048.00 cfs. A reduced copy the Exhibit 8 is located in the map pocket.

Proposed Conditions and On-Site/Offsite Drainage Management Plan

The owners are proposing to build ± 4000 sf new building. The drainage patterns, for on-site and offsite, will remain the same. Under proposed conditions the site, at a flow rate of 2.08 cfs, will continue to drain south to the existing arroyo.

Floodplain Analysis

We have calculated the 100-year water surface elevation using HEC-RAS. The approximate location of the bank line of the main arroyo are shown on the HEC-RAS Cross-Section Plan. The main arroyo which carries the dominant flow is located $\pm 130'$ south of the southerly boundary line.

An erosion setback was calculated using the Center line Setback (CSB, 178.54') and Bankline Setback (BSB, 208.45'). A Center Line Setback of 219.79' also was calculated using the 6 feet per 100 cfs plus the half of the W_D . The floodplain is fairly wide, and the setbacks (CSB & BSB) falls within the 100-year water surface elevation. Since the floodplain is so wide and the main arroyo is $\pm 130'$ south of the southerly boundary line no flood damage will danger the Ayers future resident. The house will be maintained 30' away from the 100-year water surface elevation.

*what if
all flow
in north
channel?*

Calculations

City of Albuquerque, Development Process Manuel, Section 22.2, Hydrology Section, revised January 1993, was used for the runoff calculations. The site falls under Zone 4 based on Figure A-1 of page A-1. We used HEC-Ras program to calculate the hydraulics of the arroyo. We also used "Sediment and Erosion Design Guide" prepared by AMAFCA to calculate the erosion set back into the tract.

RUNOFF DRAINAGE DATA

The site is @ Zone 3

DEPTH (INCHES) @ 100-YEAR STORM

$$P_{60} = 2.14 \text{ inches}$$

$$P_{360} = 2.60 \text{ inches}$$

$$P_{1440} = 3.10 \text{ inches}$$

DEPTH (INCHES) @ 10-YEAR STORM

$$\begin{aligned} P_{60} &= 2.14 \times 0.667 \\ &= 1.43 \text{ inches} \end{aligned}$$

$$P_{360} = 1.73$$

$$P_{1440} = 2.07$$

See the summary output from AHYMO calculations.

Also see the following summary tables.

RUNOFF CALCULATION RESULTS

BASIN	AREA (SF)	AREA (AC)	AREA (MI ²)
Lots 16	31675.09	0.72716	0.001136

PROPOSED

BASIN	Q-100 CFS	Q-10 CFS	TREATMENT A, B, C, D
Lots 16	2.08	1.00	43%, 20%, 20%, 17%

EXISTING

BASIN	Q-100 CFS	Q-10 CFS	TREATMENT A, B, C, D
Lots 16	1.37	0.41	100%, 0%, 0%, 0%

EROSION SETBACK

Erosion setback per Sediment & Erosion Design Guide Section 3.4.5:

Assuming the worse case scenario ($Q=3048.00$ cfs, end of Basin 110.0, AP 110.90*)

Q_d = Dominant Discharge

$$Q_d = 0.2 Q_{100} \quad (\text{Eq. 3.77})$$

$$Q_d = 0.2(3048) = 609.60 \text{ cfs}$$

Sc = Critical Slope

$$Sc = 0.037 Q_D^{-0.133} \quad (\text{Eq. 3.80})$$

$$Sc = 0.037(609.60)^{-0.133} = 0.0158$$

$$W_D = 4.6 Q_D^{0.4} \quad (\text{Eq. 3.78})$$

$$W_D = 4.6(609.60)^{0.4} = 59.81$$

For $200 \text{ cfs} < Q_D \leq 2000 \text{ cfs}$

$$\text{Use } Y/W_D = 0.80 + 4 \log(Q_D) \quad (\text{Eq. 3.74b})$$

$$Y = 59.81(0.80 + 4 \log(609.60)) = 714.14$$

Lateral Erosion Distance $L_v = y/2$

$$L_v = 714.14/2 = 357.07$$

$$\Delta_{\text{Max}} = L_v/2 = 357.07/2 = 178.54' \text{ (bankline setback, BSB)}$$

$$\begin{aligned} \text{CSB} &= \Delta_{\text{Max}} + 0.50 W_D \\ &= 178.54 + 0.50(59.81) = 208.45' \text{ (centerline setback, CSB)} \end{aligned}$$

The width of the floodplain is fairly wide and the setback falls within the floodplain.

Also, the setback can be calculated as:

$$\text{CSB} = 3048/100 * 6 + 0.50(59.81) = 212.79' \text{ (use this instead of 208.45')}$$

* Exhibit 8, Hydrology Maps, Prepared by Resource Technology. See this report for a copy of this exhibit.

*
* LOTS 16, ZONE 3
*

* 100-YEAR, 6-HR STORM (UNDER EXISTING CONDITIONS) *

START

RAINFALL

TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.14 IN RAIN SIX=2.60 IN

RAIN DELAY=3.10 IN DT=0.03333 HR

COMPUTE NM HYD

ID=1 HYD NO=100.0 AREA=0.001136 SQ MI

PER A=100.00 PER B=0.00 PER C=0.00 PER D=0.00

TP=0.1333 HR MASS RAINFALL=-1
*

* 10-YEAR, 6-HR STORM (UNDER EXISTING CONDITIONS) *

START

TIME=0.0

RAINFALL

TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=1.43 IN RAIN SIX=1.73 IN

RAIN DAY=2.07 IN DT=0.03333 HR

COMPUTE NM HYD

ID=1 HYD NO=110.0 AREA=0.001136 SQ MI

PER A=100.00 PER B=0.00 PER C=0.00 PER D=0.00

TP=0.1333 HR MASS RAINFALL=-1
*

* 100-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) *

START

RAINFALL

TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.14 IN RAIN SIX=2.60 IN

RAIN DELAY=3.10 IN DT=0.03333 HR

COMPUTE NM HYD

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PER A=43.00 PER B=20.00 PER C=20.00 PER D=17.00

TP=0.1333 HR MASS RAINFALL=-1
*

* 10-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) *

START

TIME=0.0

RAINFALL

TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=1.43 IN RAIN SIX=1.73 IN

RAIN DAY=2.07 IN DT=0.03333 HR

COMPUTE NM HYD

ID=1 HYD NO=111.0 AREA=0.001136 SQ MI

PER A=43.00 PER B=20.00 PER C=20.00 PER D=17.00

TP=0.1333 HR MASS RAINFALL=-1
*

FINISH

RUN DATE (MON/DAY/YR) =07/05/1999

PAGE = 1

NOTATION

HEC-RAS OUTPUT FILE

HEC-RAS Plan: N Alb. Acres BASIN 110.0 Reach: LOT 16

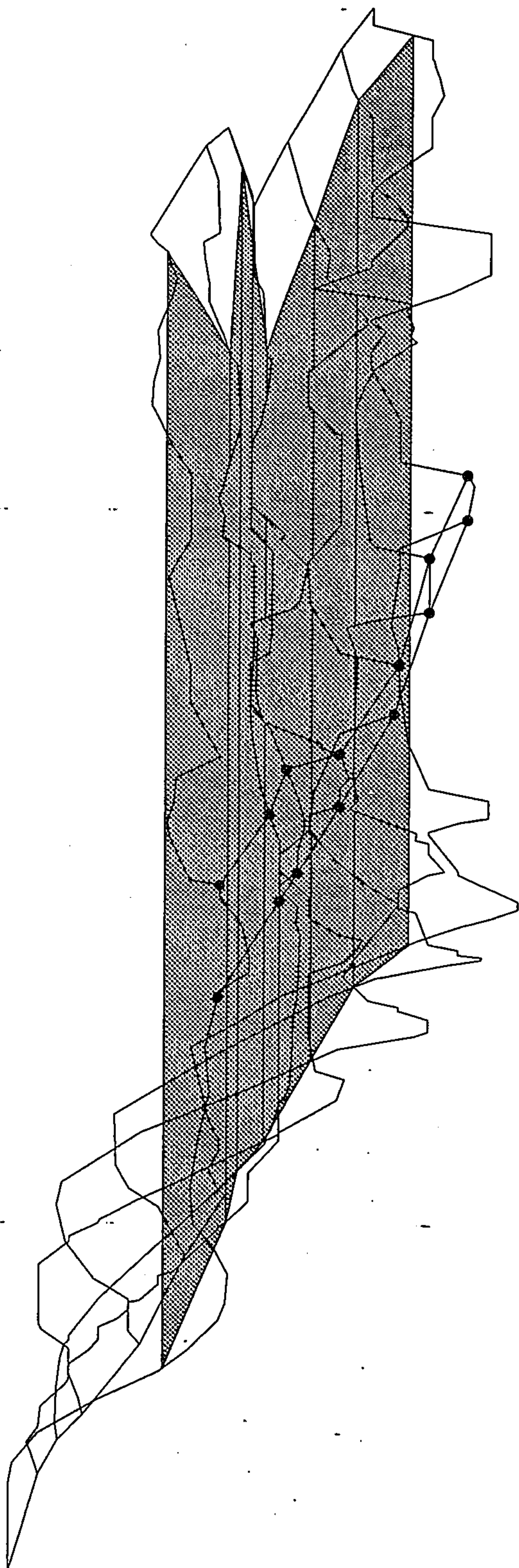
River Sta.	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (sq ft)	Froude # Chl (ft)
7	3048	5650.00	5652.84	5652.84	5653.34	0.0101	7.61	674.07	615.76	0.87
6	3048	5649.00	5650.74	5650.74	5651.30	0.0172	7.89	555.40	489.62	1.07
5	3048	5648.17	5650.37	5650.37	5650.87	0.0125	7.49	644.16	624.70	0.94
4	3048	5646.70	5649.52	5649.52	5650.25	0.0148	9.80	509.26	353.97	1.07
3	3048	5645.00	5647.93	5647.93	5648.64	0.0134	10.00	561.02	451.97	1.03
2	3048	5644.00	5646.50	5646.50	5647.24	0.0150	9.57	519.58	492.63	1.07
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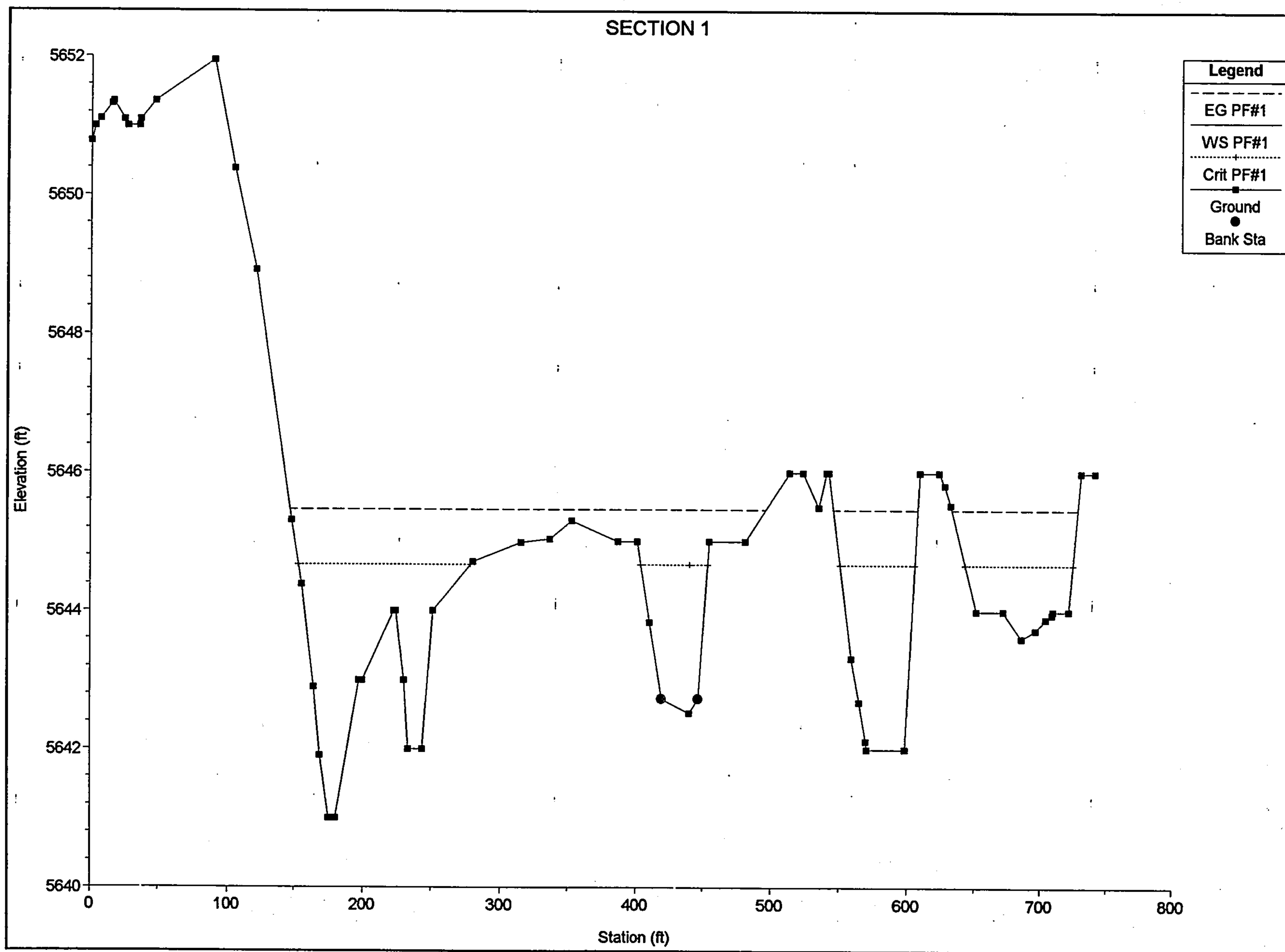
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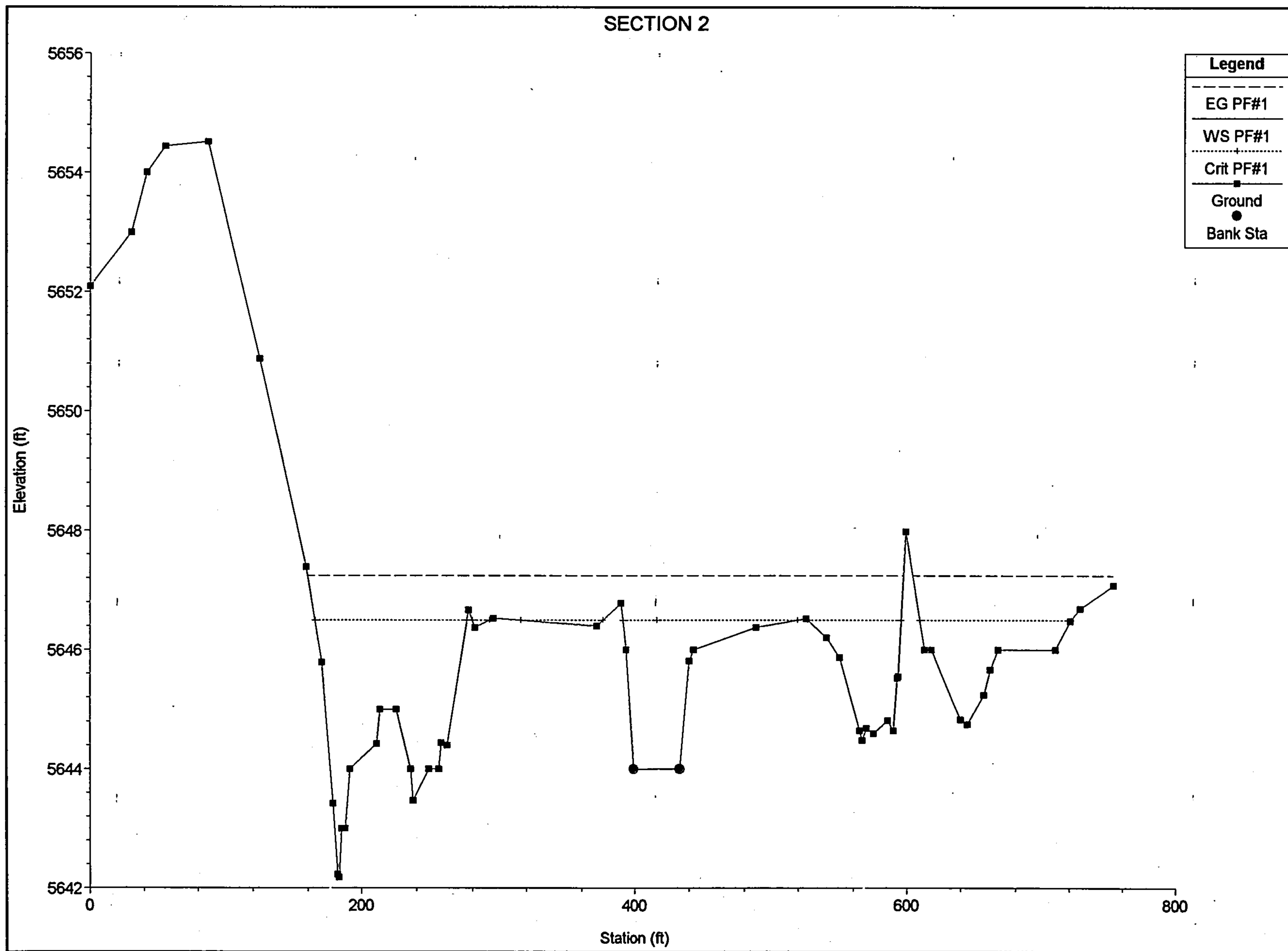
WS PF#1

Ground

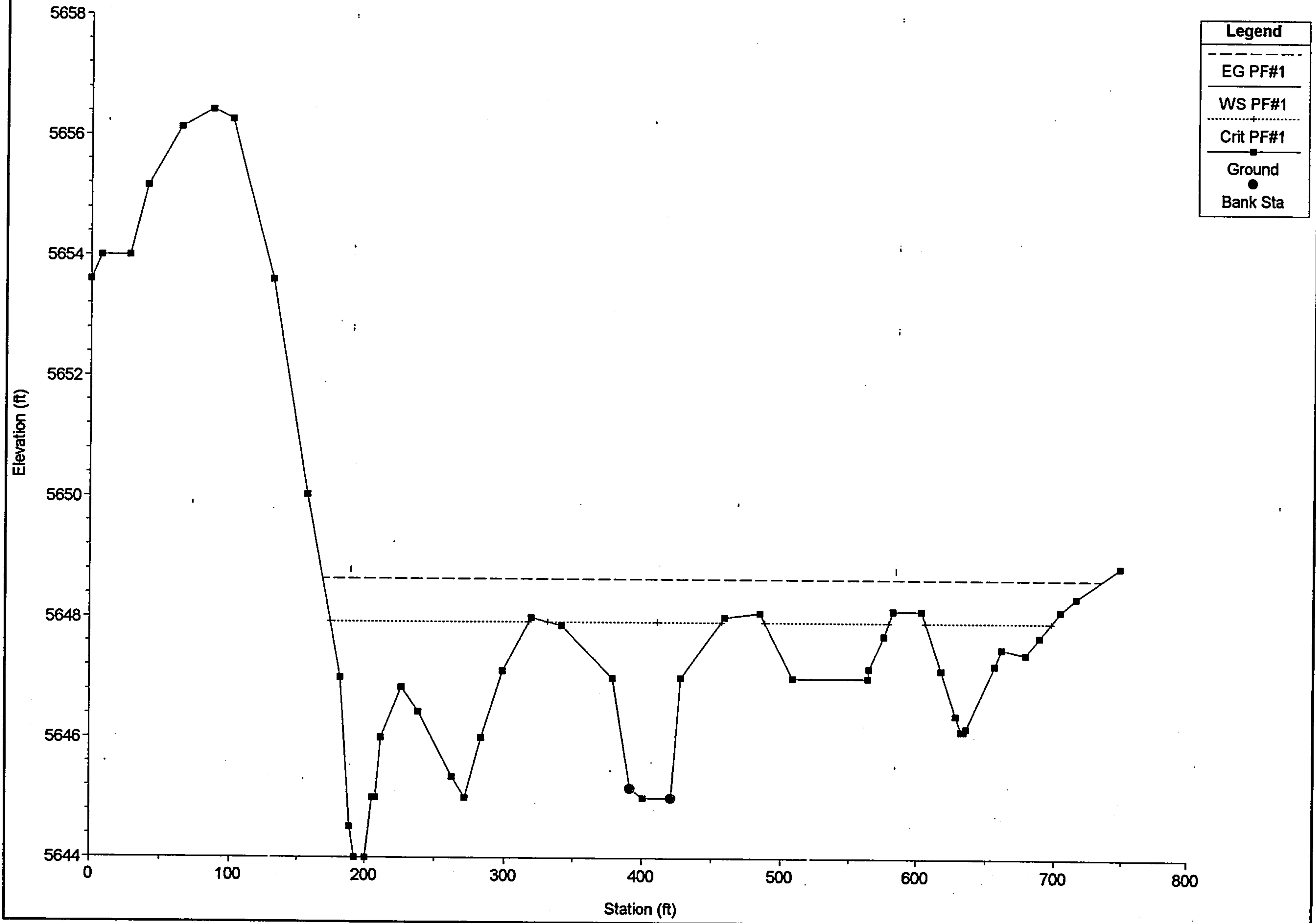
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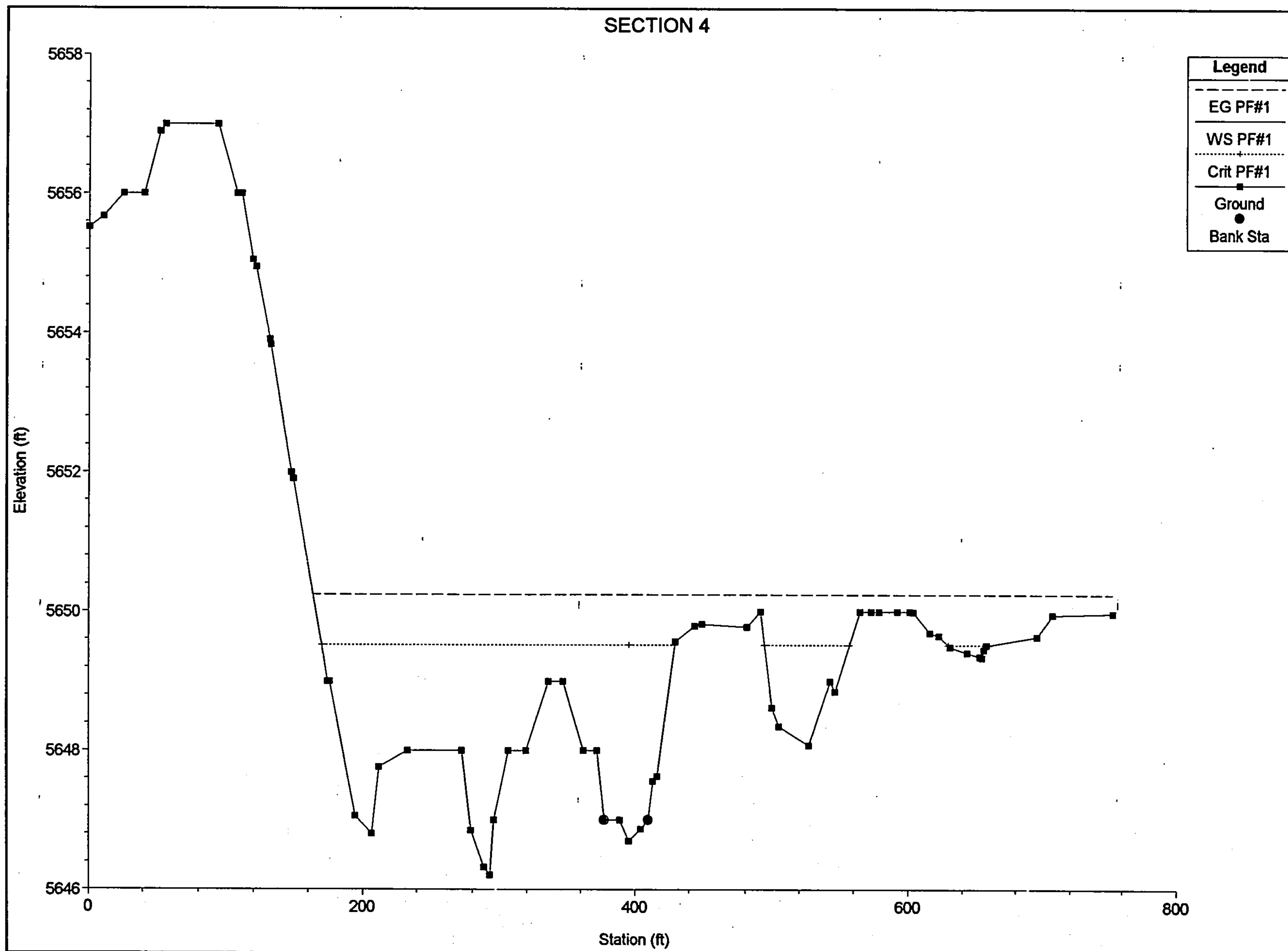






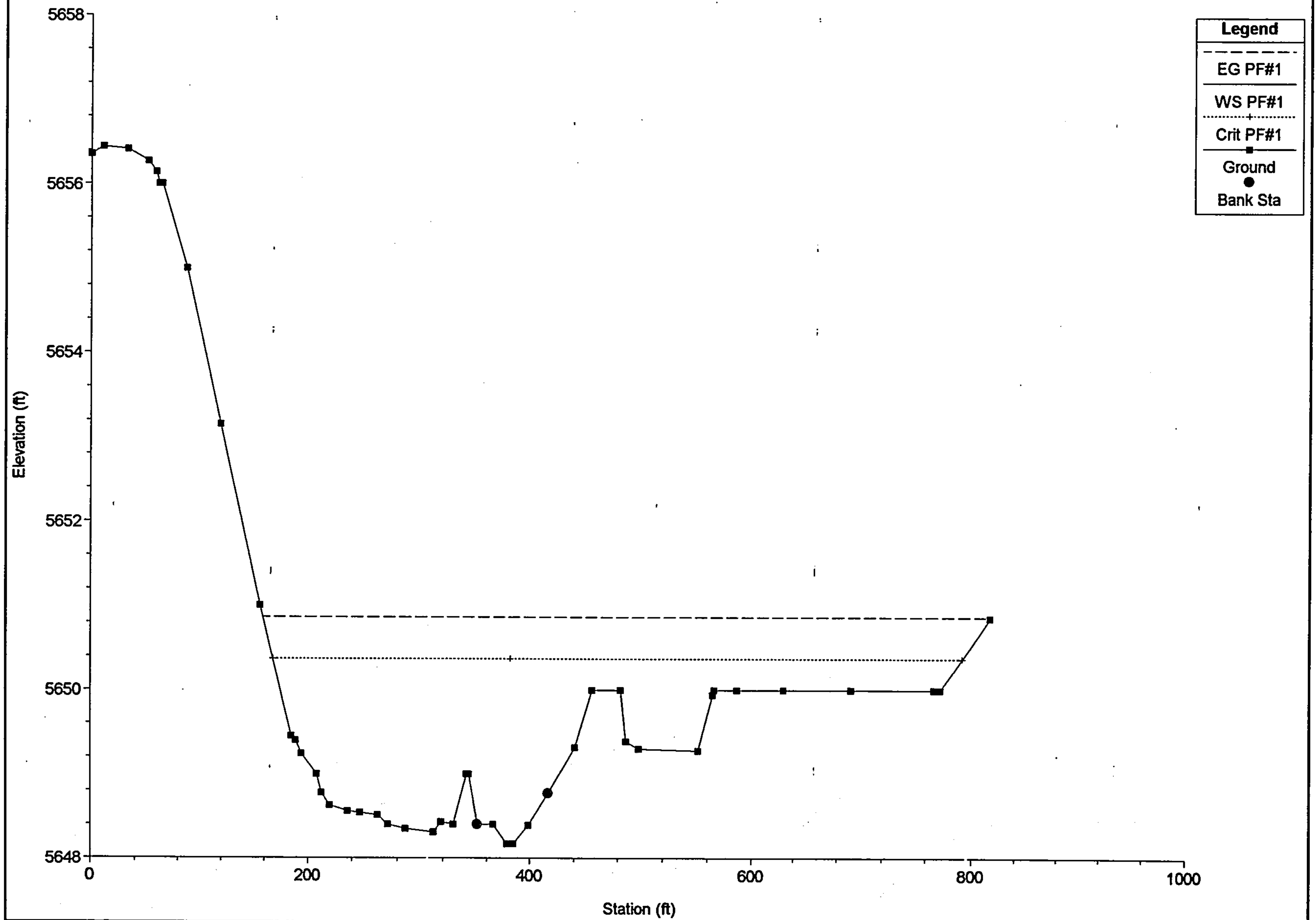
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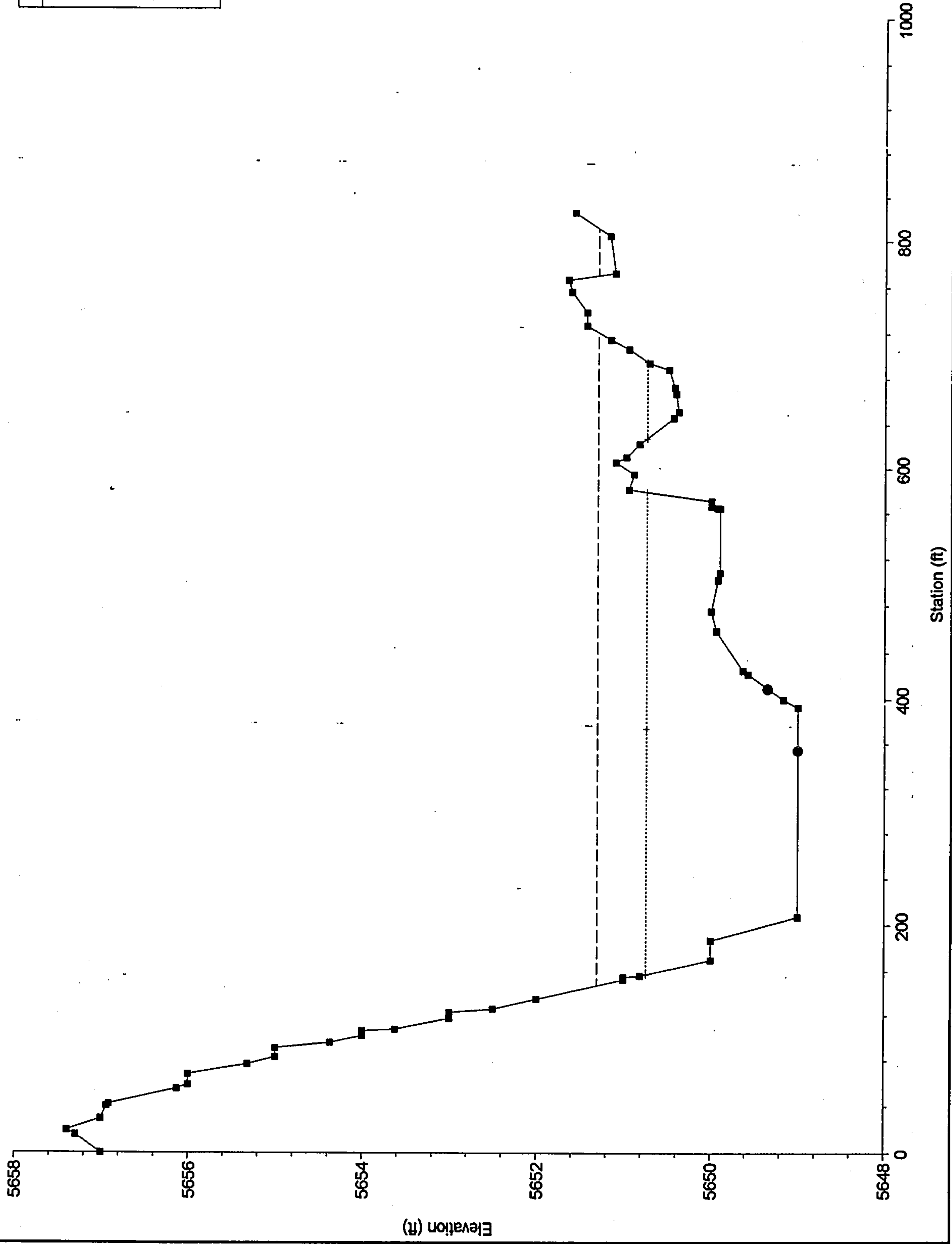
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SECTION 5

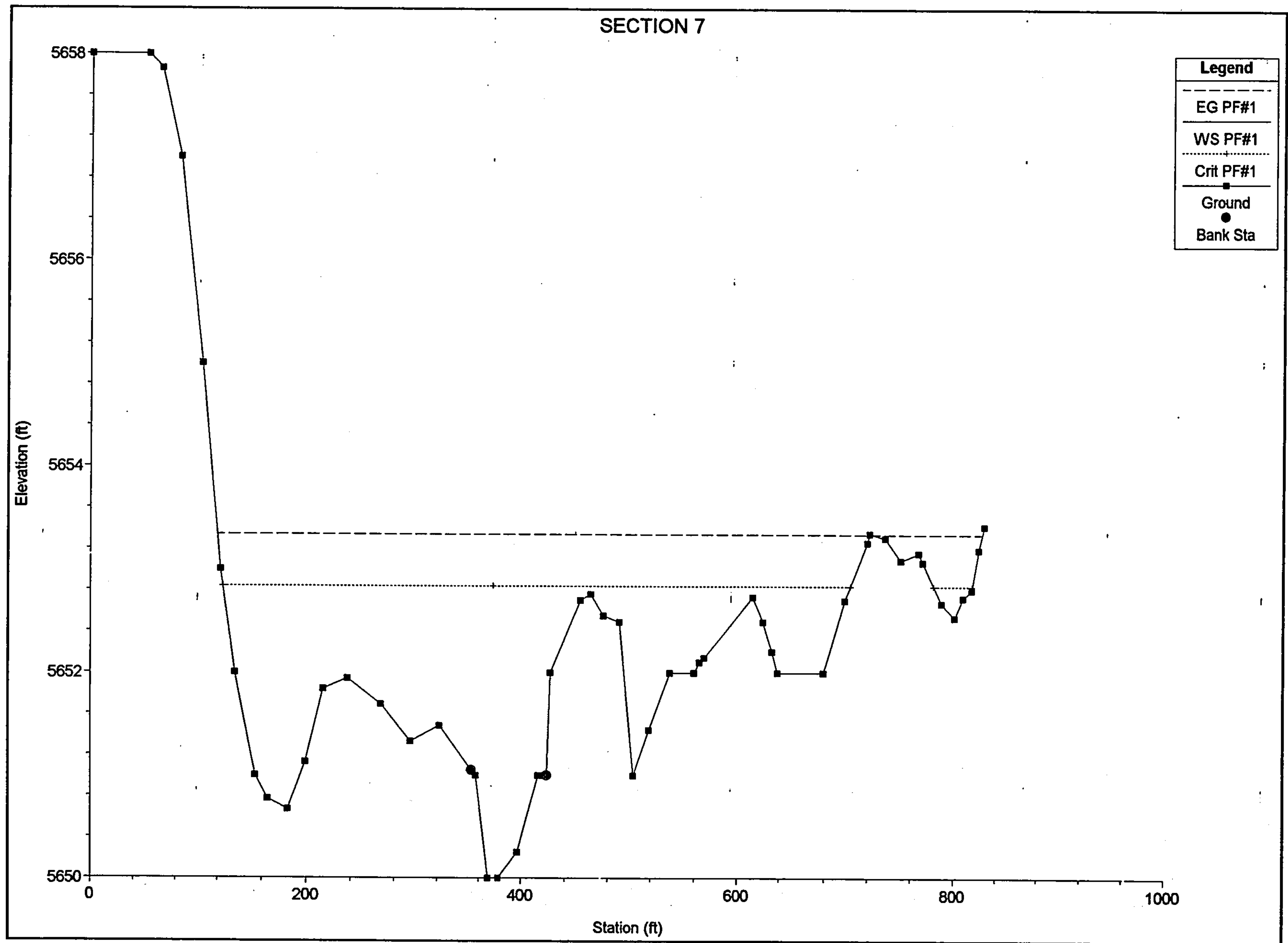


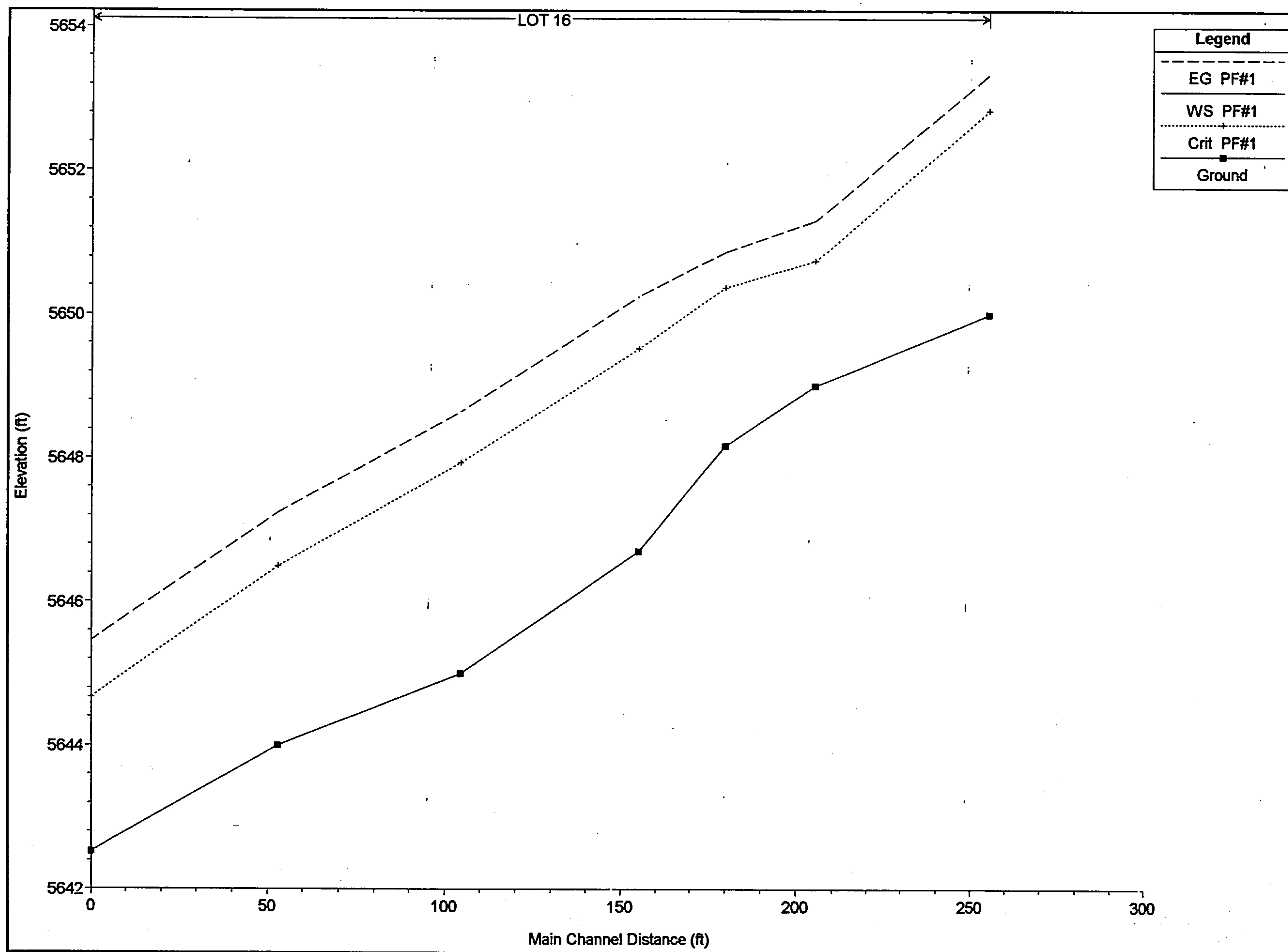
SECTION 6

Legend	
---	EG PF#1
---	WS PF#1
---	Crit PF#1
■	Ground
●	Bank Sta




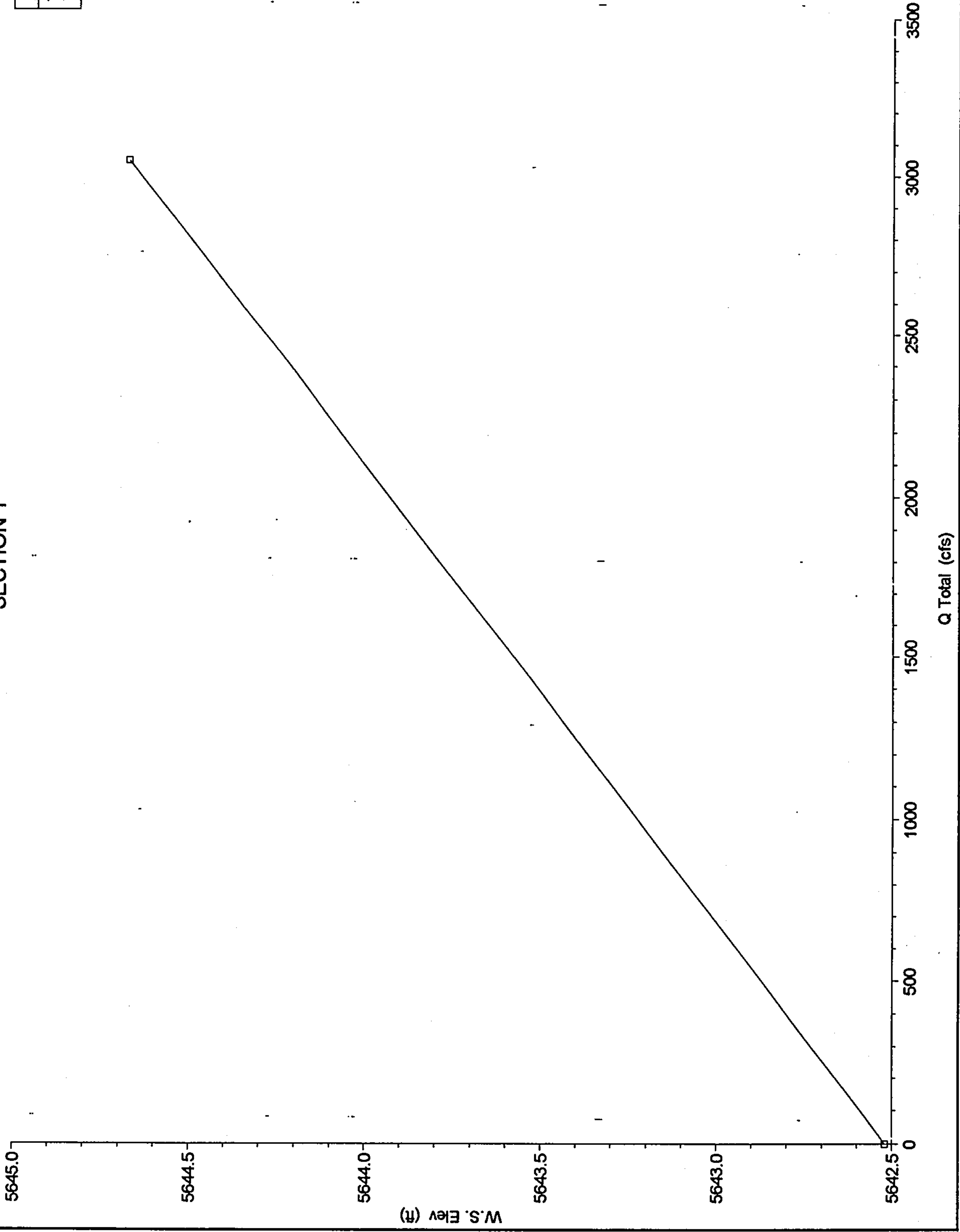
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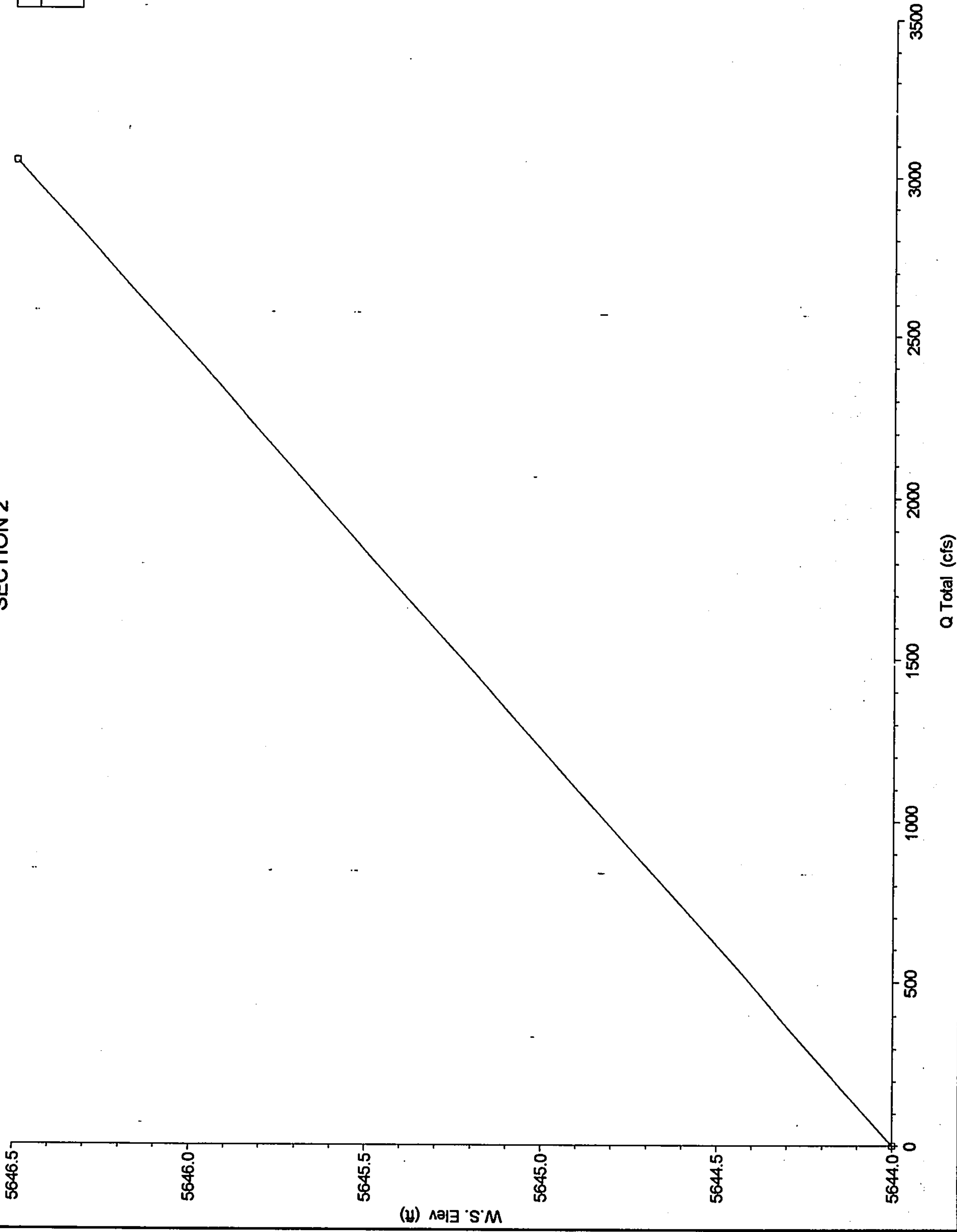
SECTION 1

Legend	
	W.S. Elev




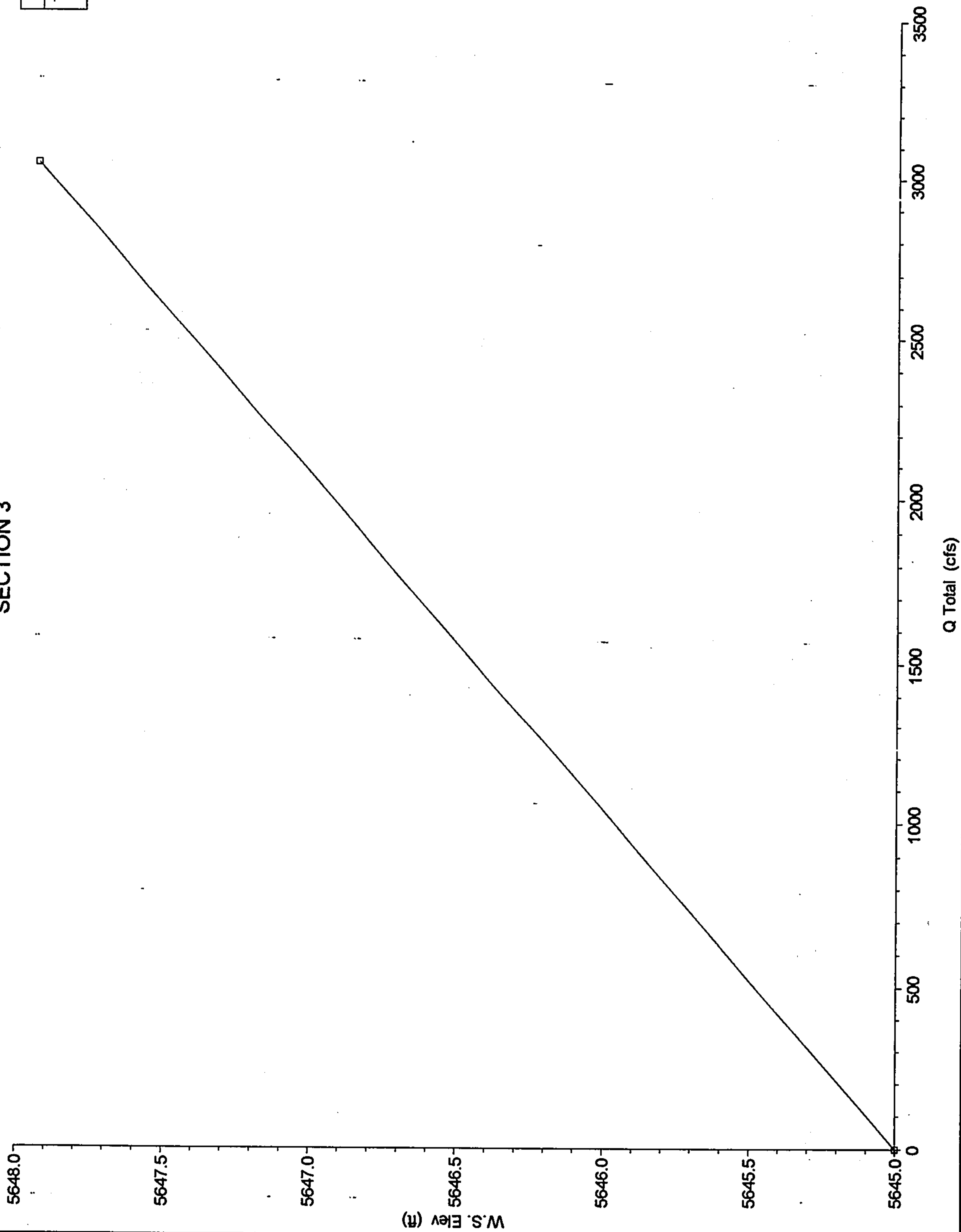
SECTION 2

Legend	
	W.S. Elev




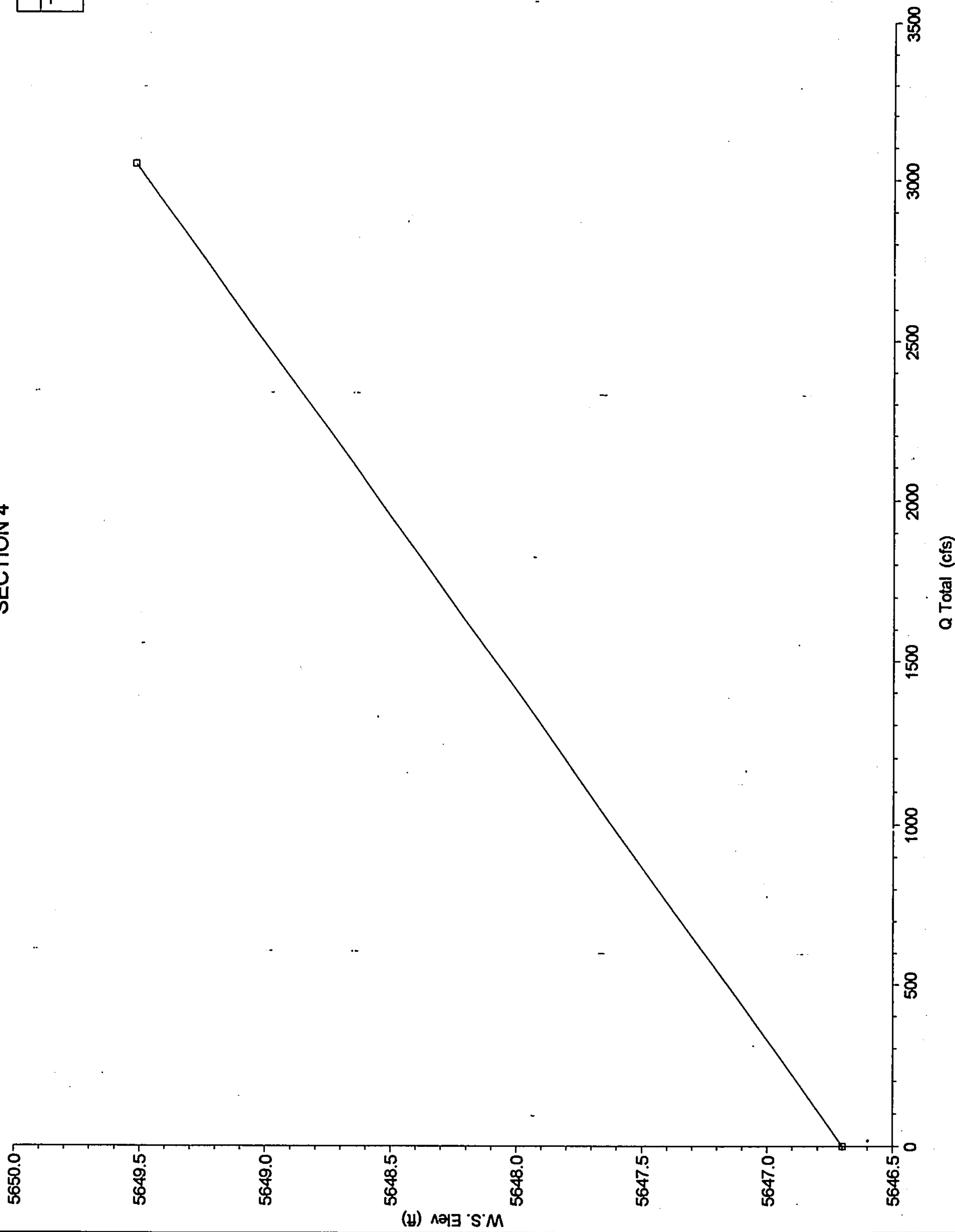
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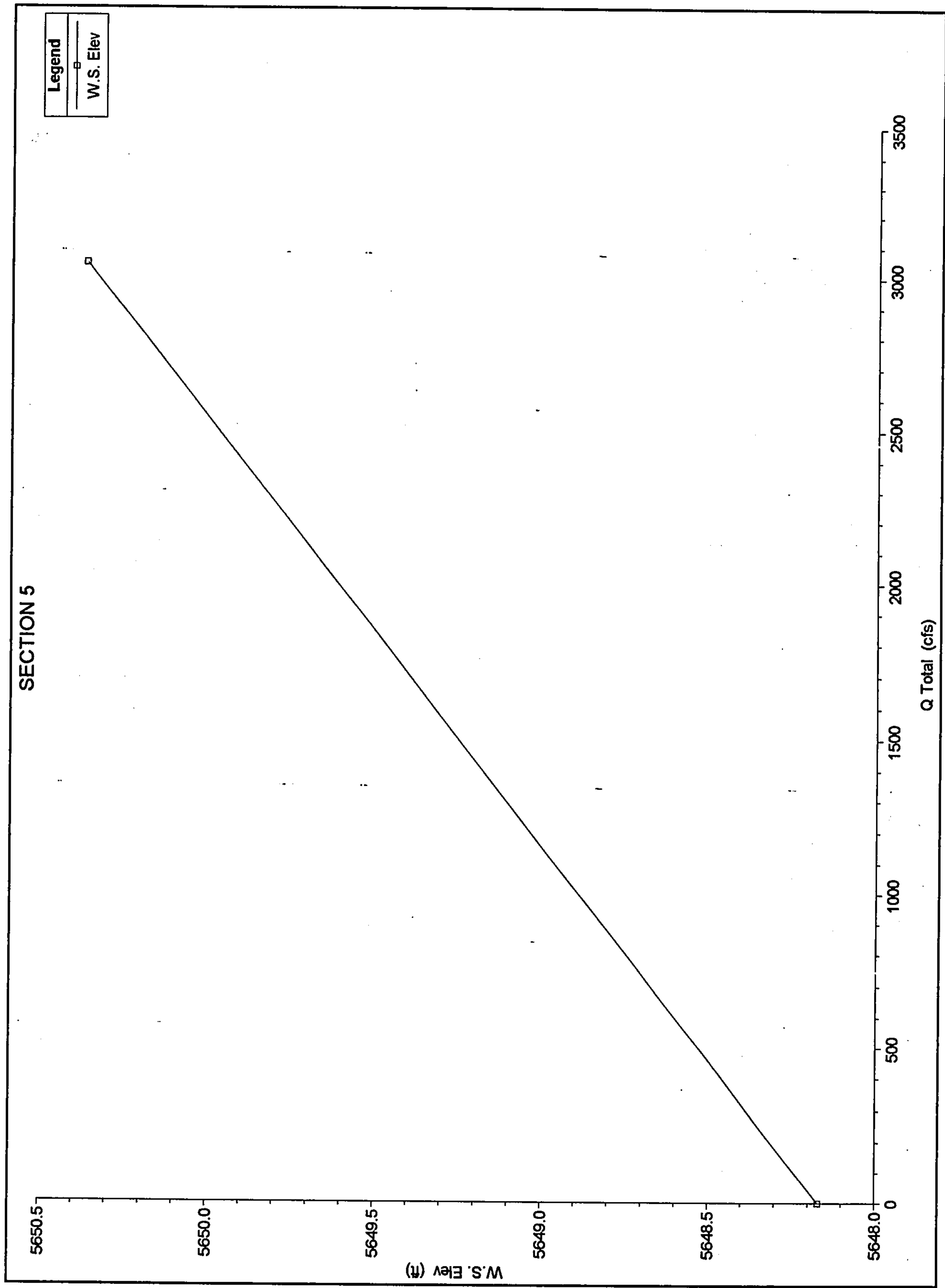
Legend	
	W.S. Elev




SECTION 4

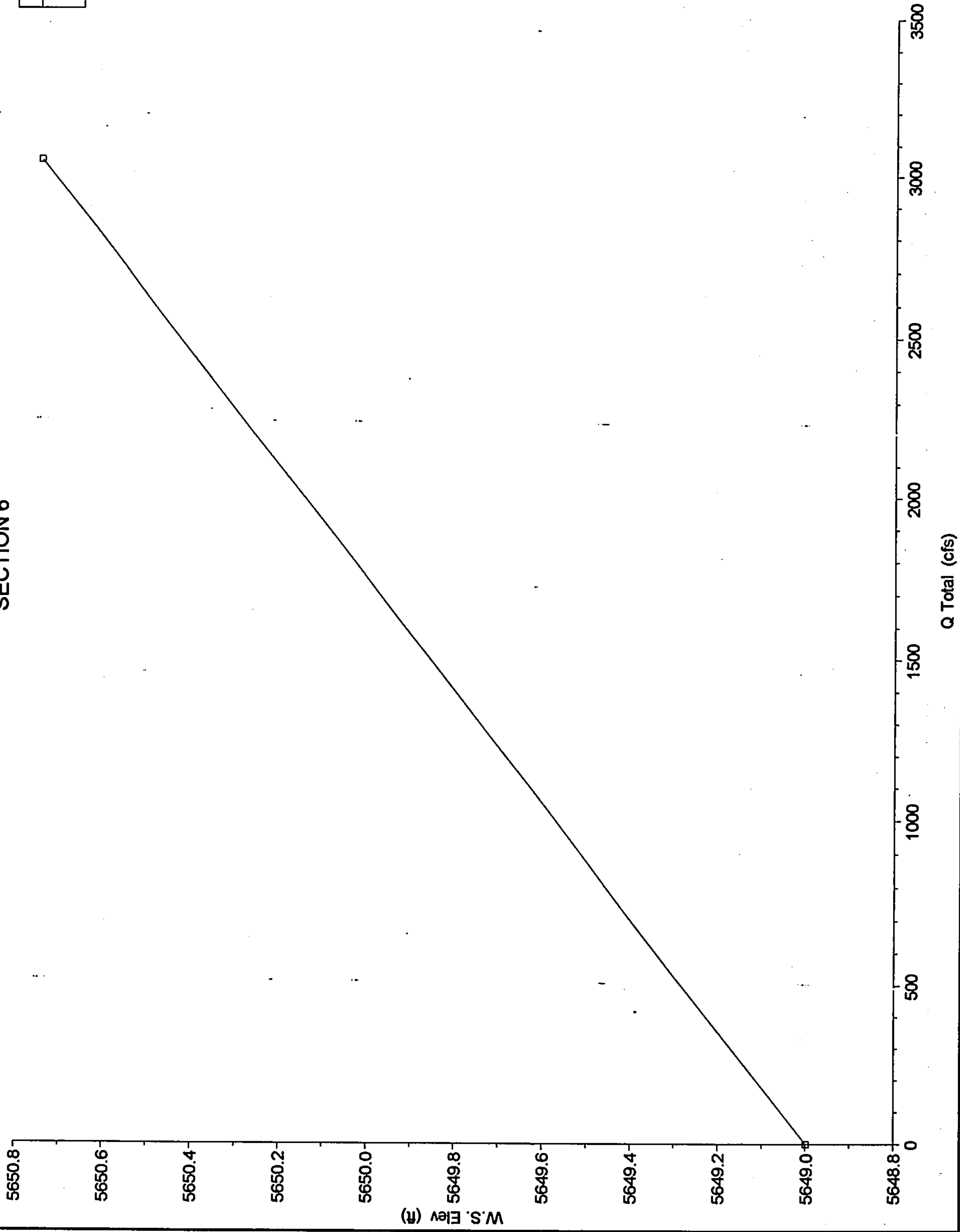
Legend	
	W.S. Elev

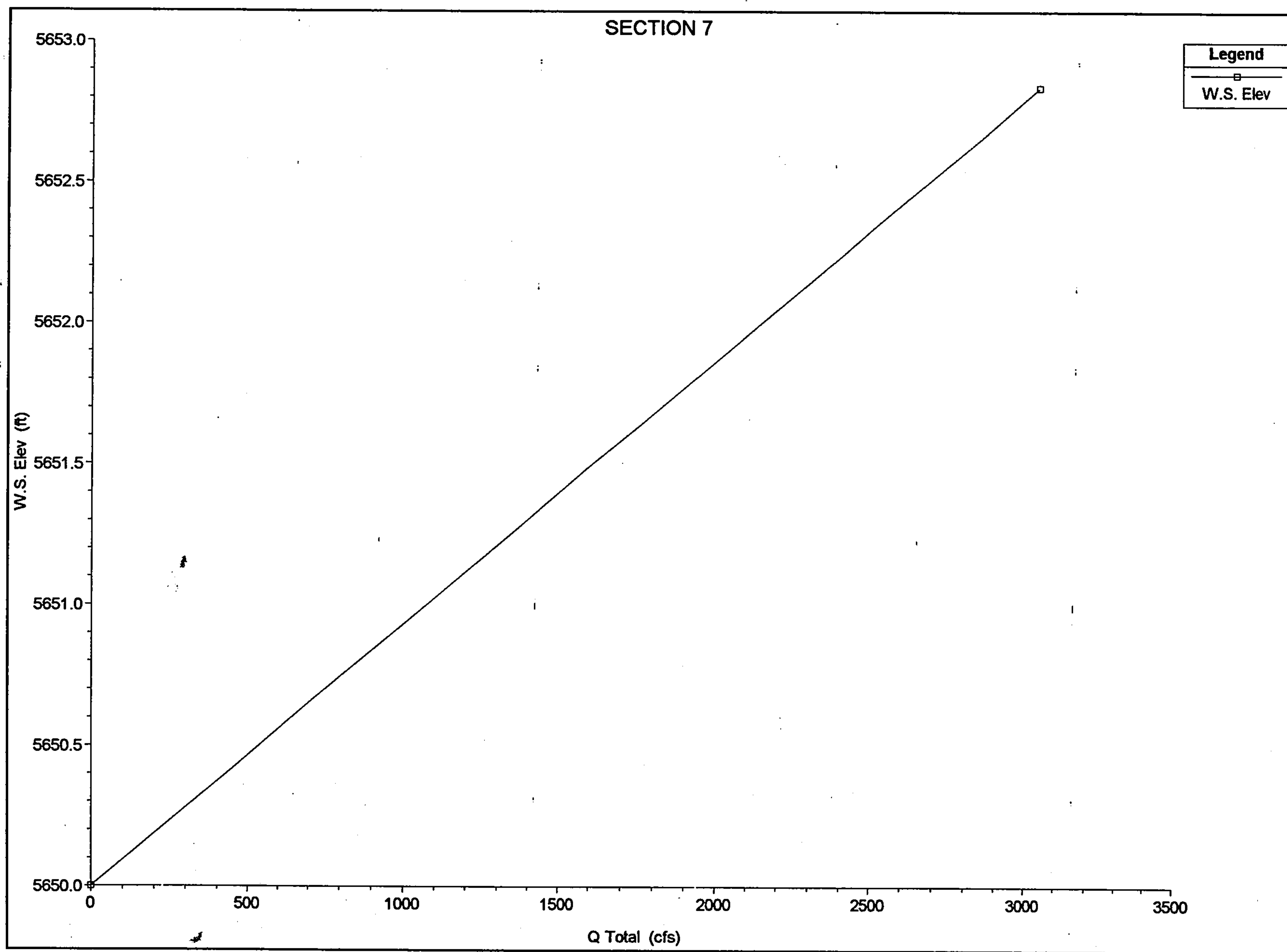




SECTION 6

Legend	
	W.S. Elev





DRAINAGE INFORMATION SHEET

PROJECT DATA:

TITLE: CHAVEZ RESIDENCE

DRNG. FILE #: C20/D20

DRB #:

EPC #:

-

WORK ORDER #:

-

LEGAL DESCRIPTION: LOT27, BLOCK 1, TRACT 3, UNIT 3, N. ALB. ACRES

CITY ADDRESS: EAGLE ROCK DR. NE

ENGINEERING FIRM: BORDENAVE DESIGNS

CONTACT: J. BORDENAVE

ADDRESS: P.O. BOX 91194, 87199

PHONE: 823-1344

OWNER: MARTY CHAVEZ

CONTACT: K. CHAVEZ

ADDRESS:

PHONE: 344-6205

ARCHITECT: PERFECTION DRAFTING

CONTACT:

ADDRESS:

PHONE:

SURVEYOR: E. MAXWELL DOAK

CONTACT: M. DOAK

ADDRESS: 637 SOLAR RD NW 87107

PHONE: 344-4492

CONTRACTOR:

CONTACT:

ADDRESS:

PHONE:

TYPE OF SUBMITTAL:

☐ CONCEPT GRADING & DRAINAGE PLAN

☒ GRADING PLAN

☒ DRAINAGE PLAN

☐ DRAINAGE REPORT

☐ EROSION CONTROL PLAN

☐ ENGINEER'S CERTIFICATION

☐ OTHER:

PRE-DESIGN MEETING:

☐ YES

☒ NO

☐ COPY OF MINUTES PROVIDED

TYPE OF APPROVAL SOUGHT:

☐ SECTOR PLAN

☐ SKETCH PLAT

☐ PRELIMINARY PLAT

☐ FINAL PLAT

☐ SITE DEV. PLAN FOR SUBD.

☐ SITE DEV. PLAN FOR PERMIT

☐ GRADING PERMIT

☐ PAVING PERMIT

☐ FOUNDATION PERMIT

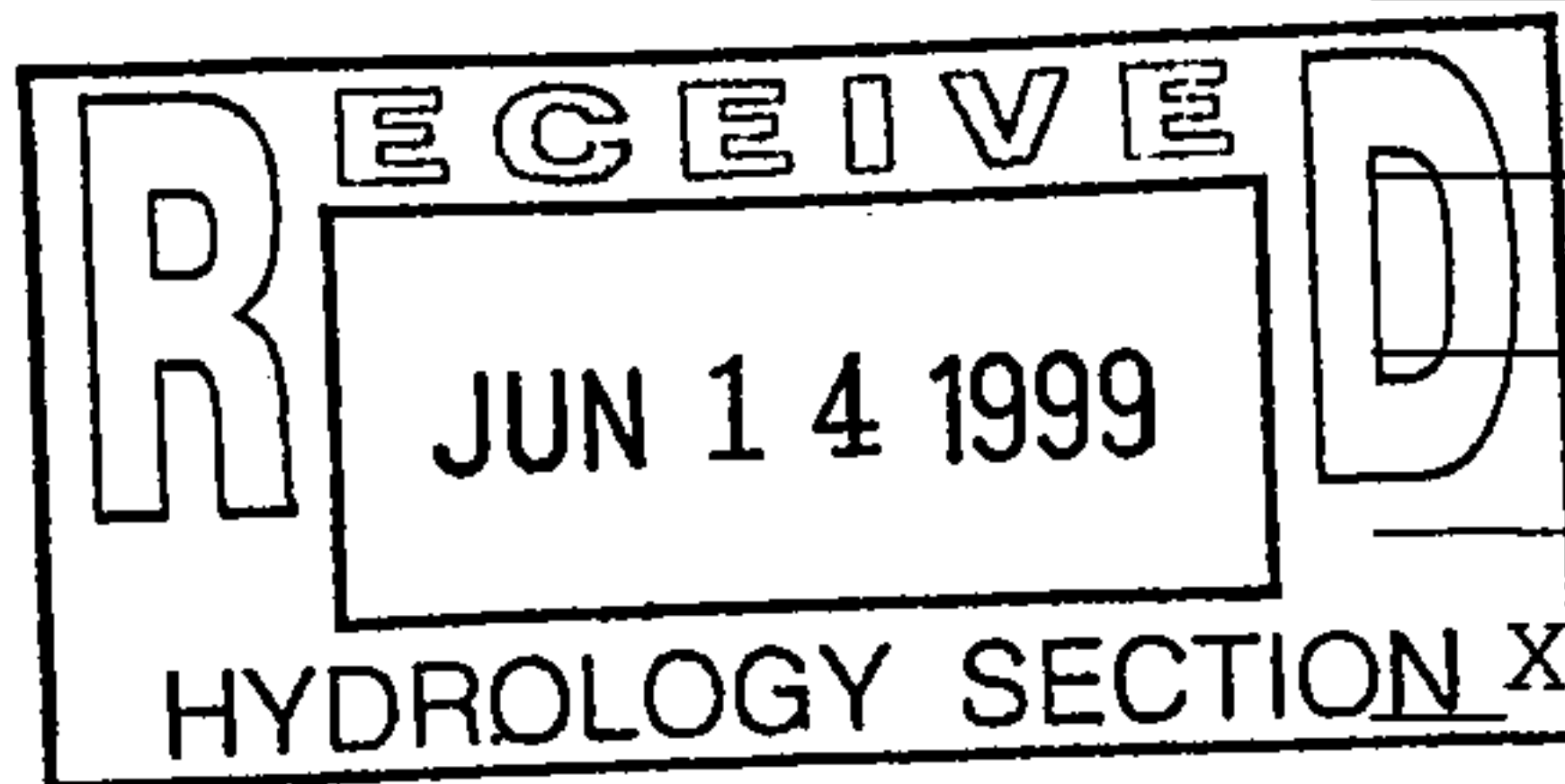
☐ BUILDING PERMIT

☐ CERTIFICATE OF OCCUPANCY

☐ S.A.D. DRAINAGE REPORT

☐ DRAINAGE REQUIREMENTS

☐ OTHER:



DATE SUBMITTED: 06/14/99

BY:

A handwritten signature in black ink, appearing to be "J. Bordenave", written over a horizontal line.

DRAINAGE INFORMATION SHEET

WE
WE
WE

PROJECT DATA:

TITLE: CHAVEZ RESIDENCE

DRNG. FILE #: C-20/D20

DRB #:

EPC #: -

WORK ORDER #: -

LEGAL DESCRIPTION: LOT27, BLOCK 1, TRACT 3, UNIT 3, N. ALB. ACRES

CITY ADDRESS: EAGLE ROCK DR. NE

ENGINEERING FIRM: BORDENAVE DESIGNS

CONTACT: J. BORDENAVE

ADDRESS: P.O. BOX 91194, 87199

PHONE: 823-1344

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SURVEYOR: E. MAXWELL DOAK

CONTACT: M. DOAK

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PHONE: 344-4492

CONTRACTOR:

CONTACT:

ADDRESS:

PHONE:

TYPE OF SUBMITTAL:

☐ CONCEPT GRADING & DRAINAGE PLAN

☒ GRADING PLAN

☒ DRAINAGE PLAN

☐ DRAINAGE REPORT

☐ EROSION CONTROL PLAN

☐ ENGINEER'S CERTIFICATION

☐ OTHER:

PRE-DESIGN MEETING:

☐ YES

☒ NO

☐ COPY OF MINUTES PROVIDED

TYPE OF APPROVAL SOUGHT: *ok no cert*

☐ SECTOR PLAN

☐ SKETCH PLAT

☐ PRELIMINARY PLAT

☐ FINAL PLAT

☐ SITE DEV. PLAN FOR SUBD.

☐ SITE DEV. PLAN FOR PERMIT

☐ GRADING PERMIT

☐ PAVING PERMIT

☐ FOUNDATION PERMIT

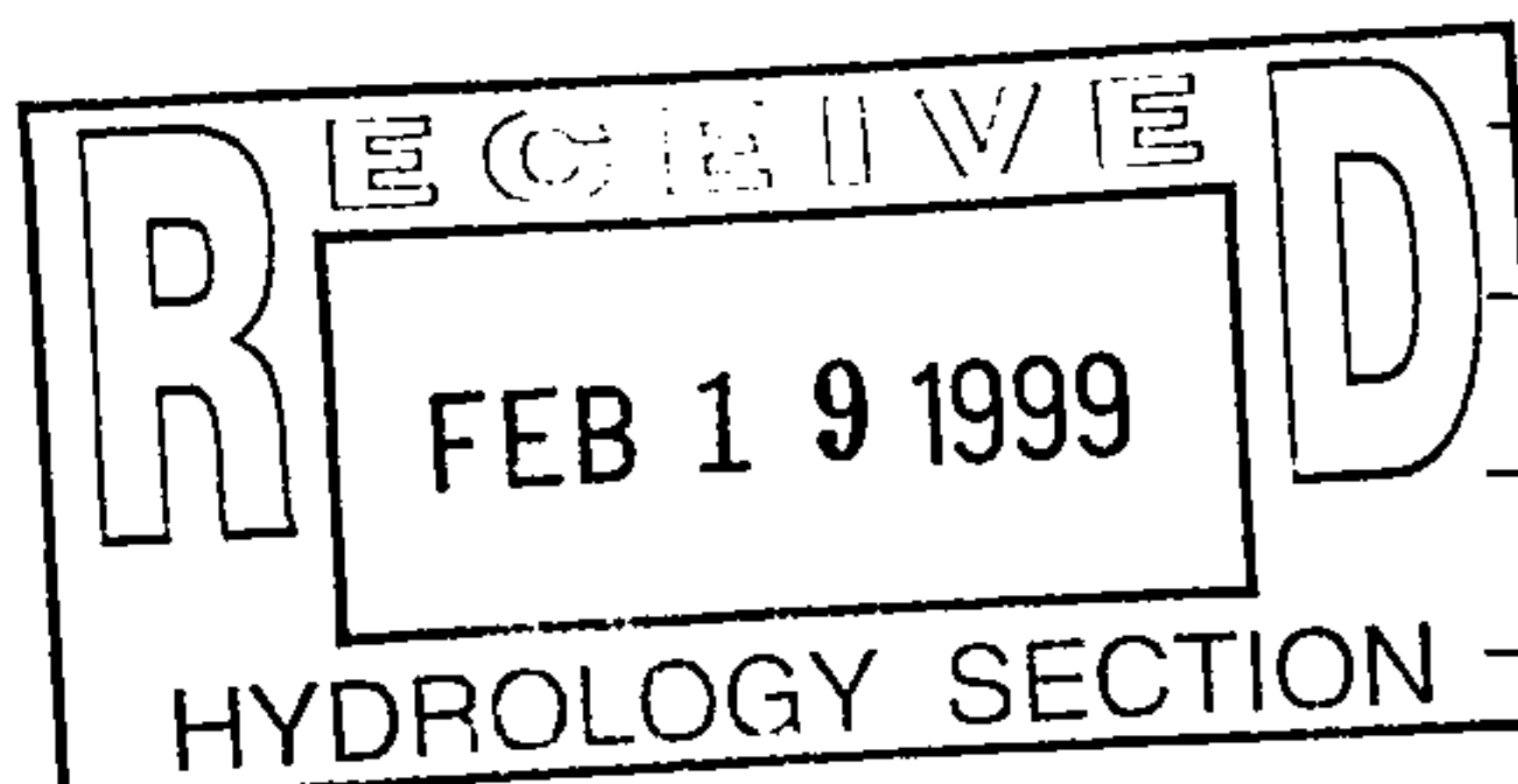
☒ BUILDING PERMIT

☐ CERTIFICATE OF OCCUPANCY

☐ S.A.D. DRAINAGE REPORT

☐ DRAINAGE REQUIREMENTS

☐ OTHER:



DATE SUBMITTED: 02/19/99

BY: *[Signature]*



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

11/11/99

June 18, 1999

Jake Bordenave, P.E.
Bordenave Designs
P. O. Box 91194
Albuquerque, New Mexico 87199

RE: Revised Grading and Drainage Plan for Chavez Residence, Lot 27, Block 1, Tract 3, Unit 3, NAA (C20/D21), Submitted for Building Permit Approval, Engineer's Stamp Dated 6/14/99.

Dear Mr. Bordenave:

Based on the information provided in the submittal of June 14, 1999, the above referenced plan is approved for Building Permit release.

Since this site is located outside the erosion setback limit of the La Cueva arroyo, the Engineer's Certification for this Lot **will not be required** as long as construction is done in compliance with this approved plan.

If you have any questions, or if I may be of further assistance to you, please call me at 924-3982.

Sincerely,

Susan M. Calongne, P.E.
City/County Floodplain Administrator

c: Whitney Reiersen, City Hydrology
File



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

March 1, 1999

Jake Bordenave, P.E.
Bordenave Designs
P. O. Box 91194
Albuquerque, New Mexico 87199

RE: Grading and Drainage Plan for Chavez Residence, Lot 27, Block 1, Tract 3, Unit 3, NAA (C20/D24), Submitted for Building Permit Approval, Engineer's Stamp Dated 12/15/98.

Dear Mr. Bordenave:

Based on the information provided with the submittal of February 19, 1999, the above referenced plan is adequate for Building Permit release.

It appears that this site is located outside the erosion setback limit of the La Cueva arroyo, therefore, the Engineer's Certification for this Lot will not be required as long as construction is done in compliance with this approved plan.

If you have any questions, or if I may be of further assistance to you, please call me at 924-3982.

Sincerely,

Susan M. Calongne, P.E.
City/County Floodplain Administrator

c: Andrew Garcia, City Hydrology
File



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

44
44
44

March 1, 1999

Jake Bordenave, P.E.
Bordenave Designs
P. O. Box 91194
Albuquerque, New Mexico 87199

[Handwritten signature]

RE: Grading and Drainage Plan for Chavez Residence, Lot 27, Block 1, Tract 3, Unit 3, NAA (C20/D20), Submitted for Building Permit Approval, Engineer's Stamp Dated 12/15/98.

Dear Mr. Bordenave:

Based on the information provided with the submittal of February 19, 1999, the above referenced plan is adequate for Building Permit release.

It appears that this site is located outside the erosion setback limit of the La Cueva arroyo, therefore, the Engineer's Certification for this Lot will not be required as long as construction is done in compliance with this approved plan.

If you have any questions, or if I may be of further assistance to you, please call me at 924-3982.

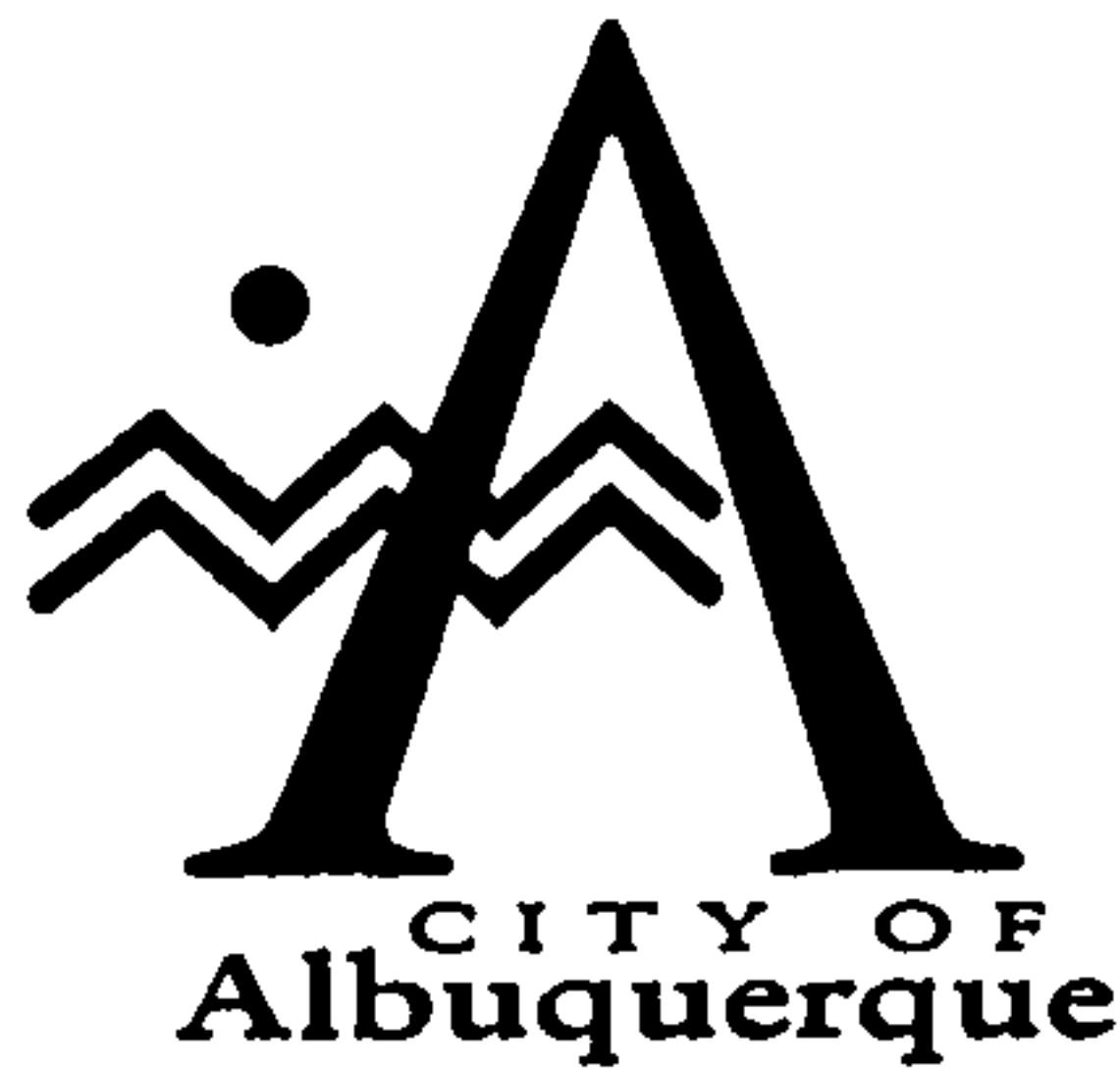
Sincerely,

[Handwritten signature of Susan M. Calongne]

Susan M. Calongne, P.E.
City/County Floodplain Administrator

c: Andrew Garcia, City Hydrology

File



May 28, 1998

C. A. Coonce, P.E.
12324 Pineridge, NE
Albuquerque, New Mexico 87112

**RE: Revised Grading and Drainage Plan for Clark Residence, Lot 22, Block 3, Tract 3, Unit 3,
North Albuquerque Acres (C20/D20) Engineer's Stamp Dated 5/28/98.**

Dear Mr. Coonce:

Based on the information provided with the submittal of May 28, 1998, the above referenced plan is approved for Building Permit release.

As you are aware, the Engineer's Certification, per the D.P.M., must be submitted to and approved by this office after construction is complete.

If you have any questions, or if I may be of further assistance to you, please call me at 924-3982.

Sincerely,

Susan M. Calongne, P.E.
City/County Floodplain Administrator

c: Andrew Garcia, City Hydrology
Robert Clark, Owner
File

Good for You, Albuquerque!



DRAINAGE INFORMATION SHEET

PROJECT TITLE: RESIDENCE ZONE ATLAS/ DRNG. FILE #: C20/p20
 DRB #: _____ EPC #: _____ WORK ORDER #: _____
 LEGAL DESCRIPTION: LOT 22, BLOCK 3, TR 3, UNIT 3, NAA
 CITY ADDRESS: ALAMEDA BLVD. N.E.

ENGINEERING FIRM: C.A. COONCE & ASSOC. CONTACT: C.A. COONCE
 ADDRESS: 12324 PINERIDGE, N.E. PHONE: 296-1089

OWNER: Robert B. & FELICIA CLARK CONTACT: ROBERT CLARK
 ADDRESS: 1825 MARTHA AVE. 87112 PHONE: 275-8521

ARCHITECT: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____

SURVEYOR: TONY HARRIS CONTACT: TONY HARRIS
 ADDRESS: 2412 MONROE NE 87110 PHONE: _____

CONTRACTOR: ROSEMARY RUTLEDGE, INC. CONTACT: ROSEMARY RUTLEDGE
 ADDRESS: 6128 PADRE CT. N.E. 87112 PHONE: 828-9644

TYPE OF SUBMITTAL:

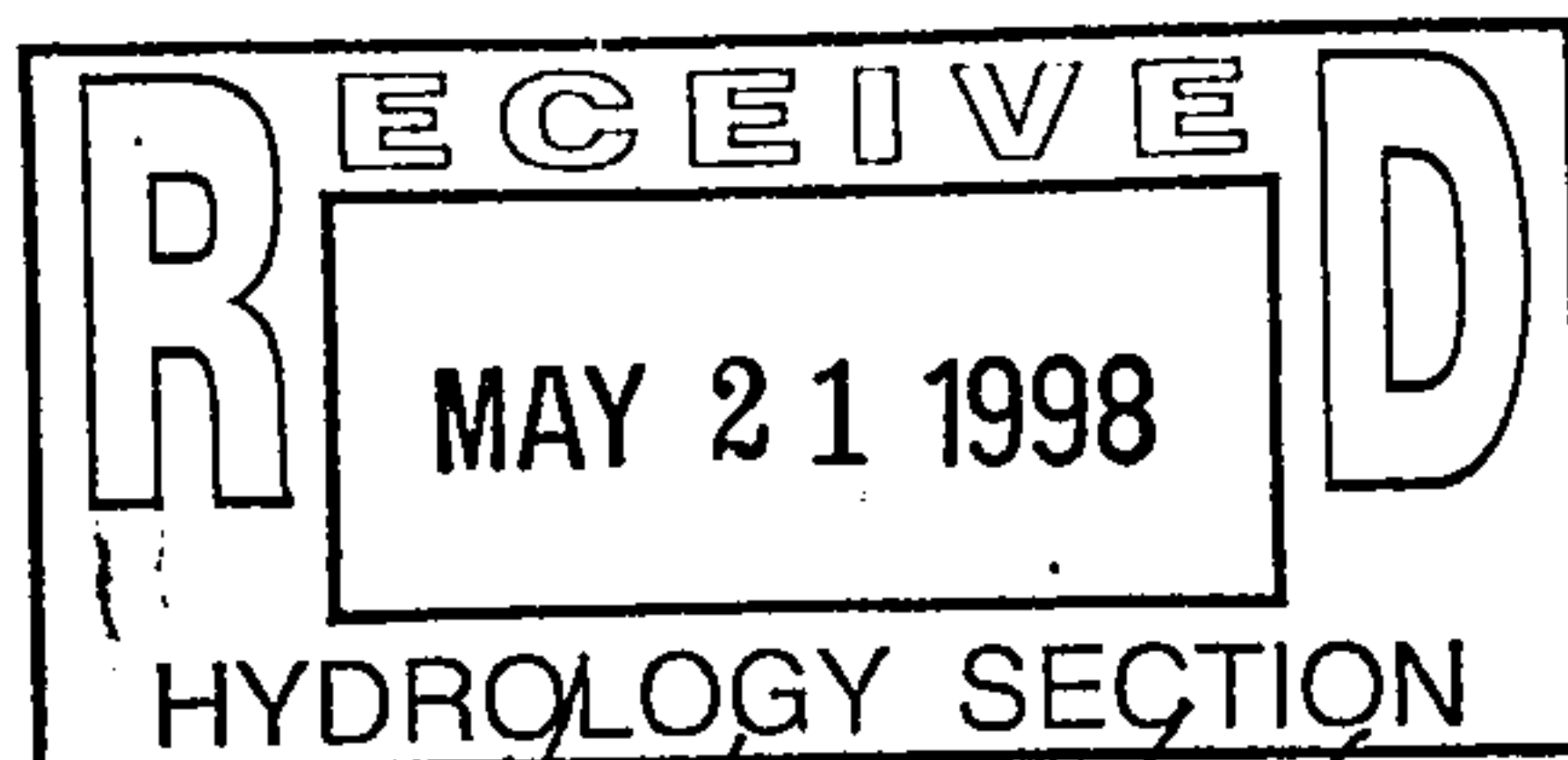
- ☐ DRAINAGE REPORT
☒ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION
☐ OTHER

PRE-DESIGN MEETING:

- ☐ YES
☐ NO
☐ COPY PROVIDED

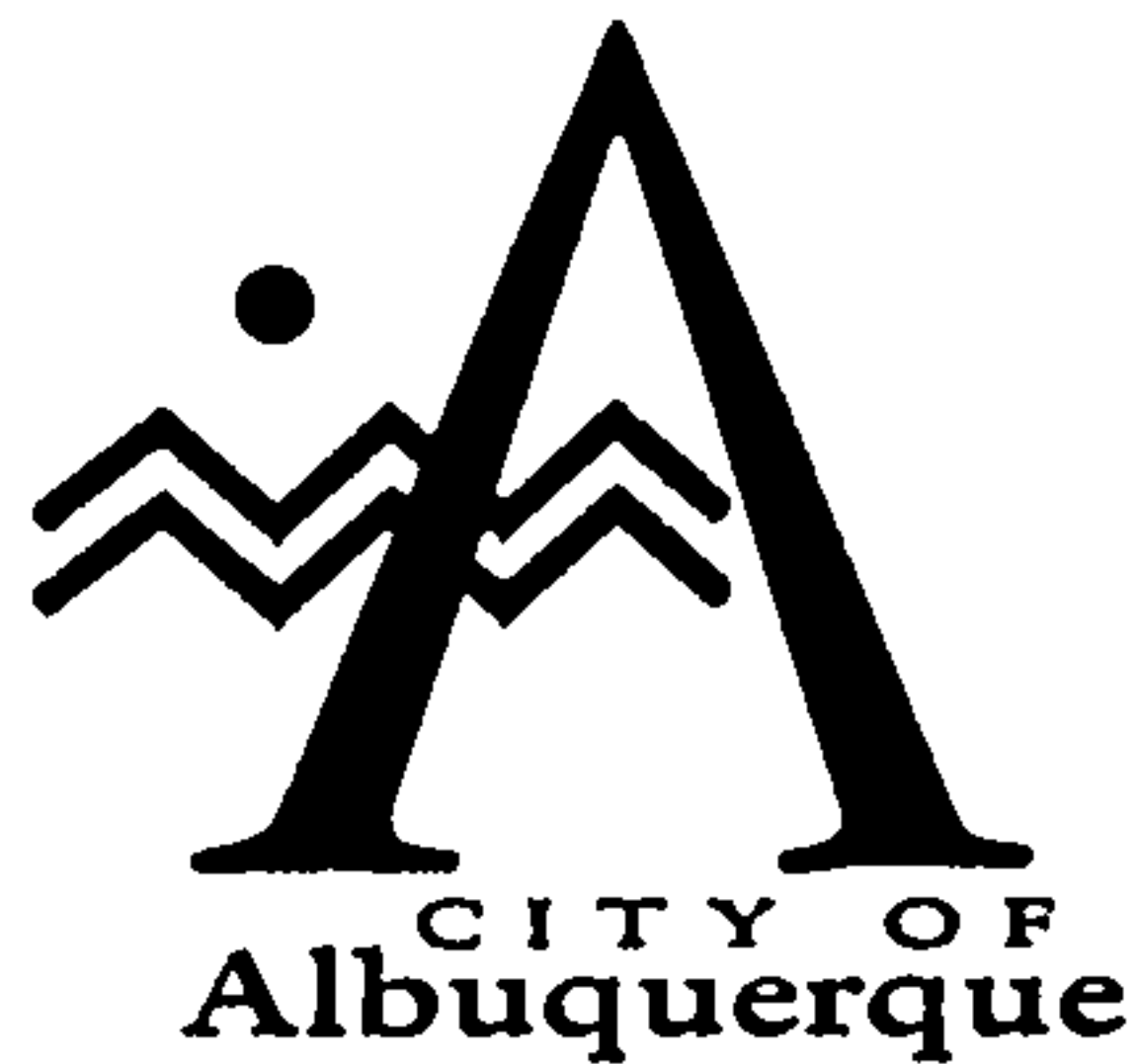
CHECK TYPE OF APPROVAL SOUGHT:

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



DATE SUBMITTED: 7/20/98 5/22/98

BY: C.A. COONCE *CA Coonce*



May 11, 1998

C. A. Coonce, P.E.
12324 Pineridge, NE
Albuquerque, New Mexico 87112

**RE: Grading and Drainage Plan for Clark Residence, Lot 22, Block 3, Tract 3, Unit 3, NAA
(C20/D20) Engineer's Stamp Dated 4/20/98.**

Dear Mr. Coonce:

Prior to approval for release of the Building Permit for the above referenced residence, please address the following:

1. Your plan shows the erosion setback encroaching into the southwest corner of the residence. How do you propose to protect the house, garage and portico from erosion? Mitigation measures must be identified on the plan. This must be provided since the City does not have any plans to improve the arroyo adjacent to this residence in the near future (improvements are not identified in the decade plan).
2. The proposed easement seems adequate. Please prepare the easement document and have it filed. This easement must be filed prior to release of the Building Permit.

If you have any questions, please call me at 924-3982.

Sincerely,

Susan M. Calongne, P.E.
City/County Floodplain Administrator

c: Andrew Garcia, City Hydrology
Robert Clark, Owner
File

Good for You, Albuquerque!



DRAINAGE INFORMATION SHEET

PROJECT TITLE: RESIDENCE ZONE ATLAS/ DRNG. FILE #: C20/P20

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

LEGAL DESCRIPTION: LOT 22, BLOCK 3, TR 3, UNIT 3, NAA

CITY ADDRESS: ALAMEDA BLVD. N.E.

ENGINEERING FIRM: C.A. COONCE & ASSOC. CONTACT: C.A. COONCE

ADDRESS: 12324 PINERIDGE, N.E. PHONE: 296-1089

OWNER: Robert B. & FELICIA CLARK CONTACT: ROBERT CLARK

ADDRESS: 1825 MARTHA N.E. 87112 PHONE: 275-8521

ARCHITECT: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: TONY HARRIS CONTACT: TONY HARRIS

ADDRESS: 2412 MONROE NE 87110 PHONE: _____

CONTRACTOR: ROSEMARY RUTLEDGE, INC. CONTACT: ROSEMARY RUTLEDGE

ADDRESS: 6128 PADRE CT. N.E. 87112 PHONE: 828-9644

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☒ DRAINAGE PLAN
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☒ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERTIFICATION
- ☐ OTHER

PRE-DESIGN MEETING:

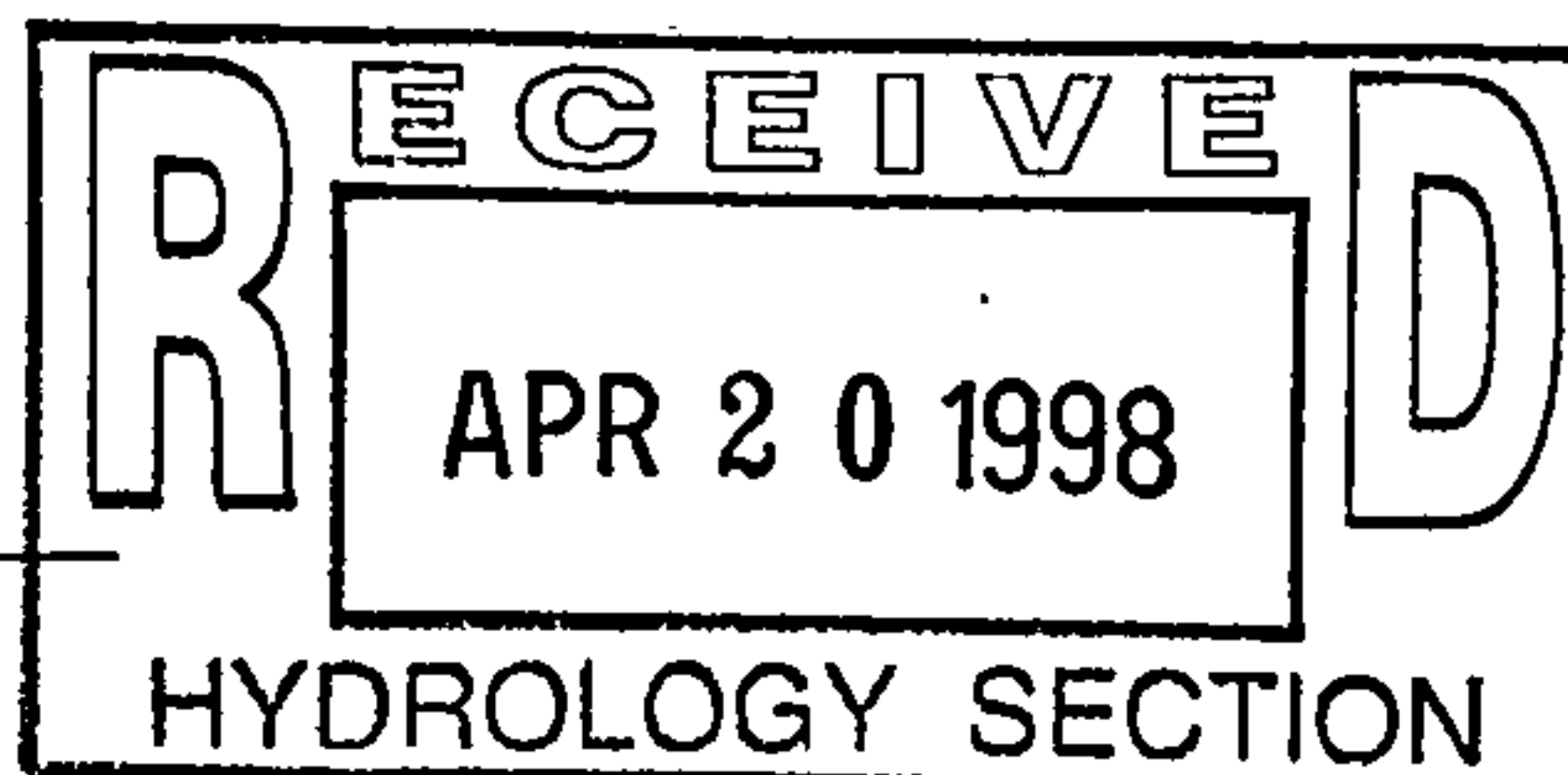
- ☐ YES
- ☐ NO
- ☐ COPY PROVIDED

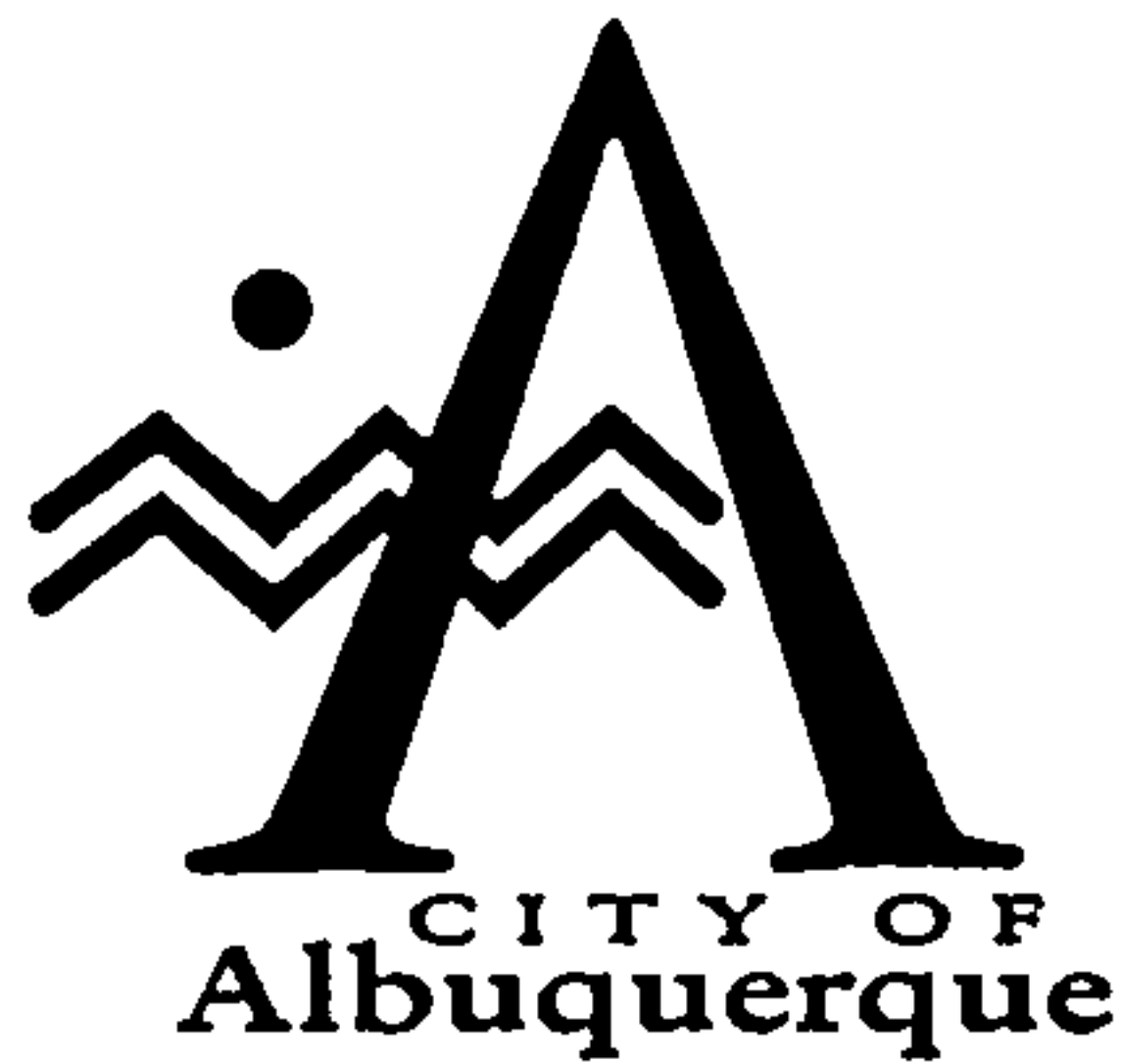
CHECK TYPE OF APPROVAL SOUGHT:

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

DATE SUBMITTED: 4/20/98

BY: C.A. COONCE *Ca Coonce*





April 8, 1998

C. A. Coonce, P.E.
12324 Pineridge, NE
Albuquerque, New Mexico 87112

**RE: Grading and Drainage Plan for Clark Residence, Lot 22, Block 3, Tract 3, NAA
(C20/D20) Engineer's Stamp Dated 3/20/98.**

Dear Mr. Coonce:

Prior to release of the Building Permit for the above referenced residence, the following comments must be addressed:

1. It appears from the aerial photographs that the dominant flow path of the La Cueva arroyo is much closer to the Lot than the average downvalley direction. Therefore, please measure the erosion setback from the bank of the arroyo, or take the centerline setback from the dominant thalweg.
2. Please show the proposed drainage easement for the arroyo. This easement will go to the City. Typically easements are based on the energy grade line (EGL), or FEMA floodplain limit, whichever is larger. Please plot the EGL on the plan. The flow rate of 3709 cfs was determined for the La Cueva arroyo assuming that the upstream avulsions are not controlled. Your use of 3700 cfs in the arroyo is acceptable for your analysis.
3. Is the proposed finish floor elevation higher than the EGL plus freeboard? Provide at least one section to demonstrate this.
4. It appears that the percentage of Land treatment D used for the on-site drainage calculations was very low and treatment A was very high. Please check these.

If you have any questions regarding these comments, please call me at 924-3982.

Sincerely,

Susan M. Calongne, P.E.
City/County Floodplain Administrator

c: Andrew Garcia, City Hydrology
Robert Clark, Owner
File

Good for You, Albuquerque!



DRAINAGE INFORMATION SHEET

20
18

PROJECT TITLE: Clark Residence ZONE ATLAS/ DRNG. FILE #: C-20/D

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

LEGAL DESCRIPTION: LOT 22, BLK 3, TR 3, UNIT 3, NAA

CITY ADDRESS: ALAMEDA N.E.

ENGINEERING FIRM: C.A. COONCE & ASSOC. CONTACT: C.A. COONCE

ADDRESS: 12324 PINERIDGE, N.E. PHONE: 296-1089

OWNER: Robert & Felicia Clark CONTACT: Robert Clark

ADDRESS 1825 Martha N.E. 87112 PHONE 275-8525

ARCHITECT: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: Harris Surveying Inc. CONTACT Tony Harris

ADDRESS: 2412 Monroe N.E. PHONE: 898-8056

CONTRACTOR: Rosemary Rutledge, Inc. CONTACT _____

ADDRESS: _____ PHONE: 828-9644

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☒ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERTIFICATION
- ☐ OTHER

PRE-DESIGN MEETING:

- ☐ YES
- ☒ NO
- ☐ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SKETCH PLAT APPROVAL
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY APPROVAL
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ S.A.D. DRAINAGE REPORT
- ☐ DRAINAGE REQUIREMENTS
- ☐ SUBDIVISION CERTIFICATION

DATE SUBMITTED: 3/23/98 C.A. Coonce

BY: C.A. COONCE

