



Bryant Planning Commission Meeting

Boswell Municipal Complex - City Hall Court Room

210 SW 3rd Street

YouTube: <https://www.youtube.com/c/bryantarkansas>

Date: September 11, 2023 - **Time:** 6:00 PM

Call to Order

Approval of Minutes

1. Planning Commission Meeting Minutes 8/14/2023

- [2023-08-14 Planning Commission Meeting Minutes.pdf](#)

Announcements

Director's Report

Public Comments

DRC Report

2. Arkansas Christian Academy - New Middle School Building - 21815 I-30

Charlie Best - Requesting Site Plan Approval - RECOMMENDED APPROVAL, Contingent upon remaining items being met.

3. Midtown Block 8 - Modification to Plan

*Graham Smith Construction - Requesting Major Exception from Code for Modification to Plan and Replat of Block 8 of Midtown.
- NO RECOMMENDATION*

4. Creekside Addition Ph 1 - Replat - Tract A & Lot 76

GarNat Engineering - Requesting Approval for Replat - RECOMMENDED APPROVAL

5. Saratoga Place Subdivision - Final Plat

GarNat Engineering - Requesting Approval for Final Plat - RECOMMENDED APPROVAL

6. Roman Heights Ph 1 - Replat - Lots 21 & 22

Hope Consulting - Requesting Approval for Replat - RECOMMENDED APPROVAL

7. Hilltop Landing Subdivision - Preliminary Plat

Hope Consulting - Requesting Approval for Preliminary Plat - RECOMMENDED APPROVAL, Contingent upon Remaining Comments being met

8. 23740 I-30 - Billboard - Modification

Jimmy Parker - Requesting Approval for Modificaiton to Billboard - APPROVED

9. Sage Health - 1800 N Reynolds Rd - Water Meter

Sage Health - Requesting Approval for installation of 2 Inch Water Meter - APPROVED

10. Eyecare Center of Saline County - Fencing

Alan Schrader - Requesting Approval for New Fencing Around Pavillion

- [0774-PLN-01.pdf](#)

11. AR Care - Hornet Health Center - Sign Permit

Cupple Signs - Requesting Sign Permit Approval - APPROVED

- [0773-APP-02.pdf](#)

12. Midtown - Block 15, Lot 18 - Sidewalk Modification

Graham Smith Construction - Requesting Approval for a Modificiation on Sidewalk Location - Approved, Sidewalk on North Side of Driveway Must come down past alleyway and have a ramp for crossing to opposite side of road, as well as a ramp to existing sidewalk on the opposite side of the road.

- [0775-PLN-01.jpg](#)

13. YumYum Hibachi Express - 3213 Main Street - Sign Permit

KT&T Signs - Requesting Sign Permit Approval - STAFF APPROVED

- [0772-APP-02.pdf](#)

Old Business

New Business

14. Midtown - Block 8 - Modification to Plan

Graham Smith Construction - Requesting Major Exception from Code for Modification to Plan and Replat of Block 8 of Midtown.

- [0776-LTR-01.pdf](#)
- [0776-PLT-01.pdf](#)

15. Creekside Addition Ph 1 - Replat - Tract A & Lot 76

GarNat Engineering - Requesting Approval for Replat

- [0767-IMP-01.pdf](#)
- [0767-PLN-01.pdf](#)
- [0767-PLT-01.pdf](#)
- [0767-AFF-01.pdf](#)

16. Saratoga Place Subdivision - Final Plat

GarNat Engineering - Requesting Approval for Final Plat

- [0745-BOA-01.pdf](#)
- [0745-PLT-03.pdf](#)
- [0745-MOU-01.pdf](#)
- [0745-BND-01.pdf](#)
- [0745-MTN-01.pdf](#)
- [0745-ELC-01.pdf](#)
- [0745-LTR-01.pdf](#)

17. Roman Heights Ph 1 - Replat - Lots 21 & 22

Hope Consulting - Requesting Approval for Replat

- [0781-LTR-01.pdf](#)
- [0781-RPLT-01.pdf](#)
- [0781-ASB-01.pdf](#)
- [0781-PLT-01.pdf](#)

18. Hilltop Landing Subdivision - Preliminary Plat

Hope Consulting - Requesting Approval for Preliminary Plat and Requesting Approval to Pay fee in-lieu-of half street improvements to Hilltop Road

- [0690-PLN-08.pdf](#)
- [0690-GTR-01.pdf](#)
- [0690-PLN-07.pdf](#)
- [0690-MTN-02.pdf](#)
- [0690-DRN-03.pdf](#)
- [0690-SWP-02.pdf](#)
- [0690-SWB-01.pdf](#)
- [0690-DRN-02.pdf](#)
- [0690-SWP-01.pdf](#)

Adjournments



Bryant Planning Commission Meeting Minutes

Monday, August 14th, 2023

Boswell Municipal Complex – City Hall Courtroom

6:00 PM

Agenda

CALL TO ORDER

- Chairman Rick Johnson calls the meeting to order.
- Commissioners Present: Johnson, Statton, Hooten, Penfield, Erwin, Burgess, Speed
- Commissioners Absent: Edwards

ANNOUNCEMENTS

Item number 12, Hilltop Landing Subdivision has been removed from the agenda for not completing all remaining items before the meeting.

Mr. Leonard Speed was welcomed as our newest Planning Commissioner for Ward 2. Commissioner Speed gave a brief introduction about himself.

APPROVAL OF MINUTES

1. Planning Commission Meeting Minutes 7/10/2023

Motion to Approve minutes made by Commissioner Penfield, Seconded by Commissioner Statton. Voice Vote, 7 Yays, 0 nays. Edwards Absent. Minutes were approved.

Vice-Chairman Burgess read the DRC Report.

DRC REPORT

2. Pikewood Subdivision II - Lots 78R and 79R - Replat

Jeff Porter - Requesting Approval for Replat - RECOMMENDED APPROVAL

3. Pikewood Subdivision II - Lot 78R - Conditional Use Permit

Jeff Porter - Requesting Approval for CUP for Accessory Building on Lot without Primary Structure - RECOMMENDED APPROVAL

4. First Security Bank - 1819 N Reynolds Road - Remodel and Site Changes

Murray Contractors - Requesting Approval for Remodel and Site Changes - APPROVED

5. Cornerstone Christian Montessori School - 4910 Springhill Road - Site Plan

Hope Consulting- Requesting Site Plan Approval - APPROVED, Contingent upon remaining comments being addressed

6. Krispy Krunchy Chicken - 400 Bryant Ave - Sign Permit

Action Signs - Requesting Sign Permit Approval - STAFF APPROVED

7. First Security Bank - 1819 N Reynolds Road - Sign Permit

Arkansas Sign and Neon - Requesting Sign Permit Approval - STAFF APPROVED

8. Bryant Vision Clinic - 2213 N Reynolds Road - Sign Permit

L Graphics - Requesting Sign Permit Approval - STAFF APPROVED

9. Hilltop Landing Subdivision - Preliminary Plat

Hope Consulting - Requesting Recommendation for Approval of Preliminary Plat - RECOMMENDED APPROVAL, Contingent upon remaining comments being met

PUBLIC HEARING

10. Pikewood Subdivision II - Lots 78R and 79R - Conditional Use Permit

Jeff Porter - Requesting Approval for CUP for Accessory Building on Lot without Primary Structure

Chairman Johnson opened the public hearing and asked for people here to speak on the Conditional Use to come forward. No members of the public came forward to speak for or against the CUP. After discussion on the Conditional Use Permit, Chairman Penfield suggested they place a condition that the Accessory Structure be no larger than 2,500 SF in size. With all of the Commissioners in agreement, Chairman Johnson called for a Roll Call Vote to approve. 7 yays, 0 nays, Edwards Absent.

Motion to Close Public Hearing made by Commissioner Penfield, Seconded by Commissioner Hooten. Voice Vote, 7 Yays, 0 nays. Edwards Absent.

NEW BUSINESS

11. Pikewood Subdivision II - Lots 78R and 79R - Replat

Jeff Porter - Requesting Approval for Replat

After brief discussion on the item, Chairman Johnson Called for a roll call vote to approve, contingent upon a Utility easement being added along the back and front of the lot before the signing and recording of the Plat. 7 yays, 0 nays, Edwards Absent.

12. Hilltop Landing Subdivision – Preliminary Plat

~~Hope Consulting – Requesting Recommendation for Approval of Preliminary Plat~~

Item Removed From Agenda.

DIRECTOR’S REPORT

No Directors Report

ADJOURNMENT

Motion to Adjourn made by Commissioner Statton, Seconded by Commissioner Erwin. Voice Vote, 7 Yays, 0 nays. Edwards Absent. Meeting was adjourned.

Chairman, Rick Johnson

Date

Secretary, Tracy Picanco

Date



Hwy 5 N Old Stagecoach

Avery Ln

38

840-12030-000
0.53

840-12031-000
1.67

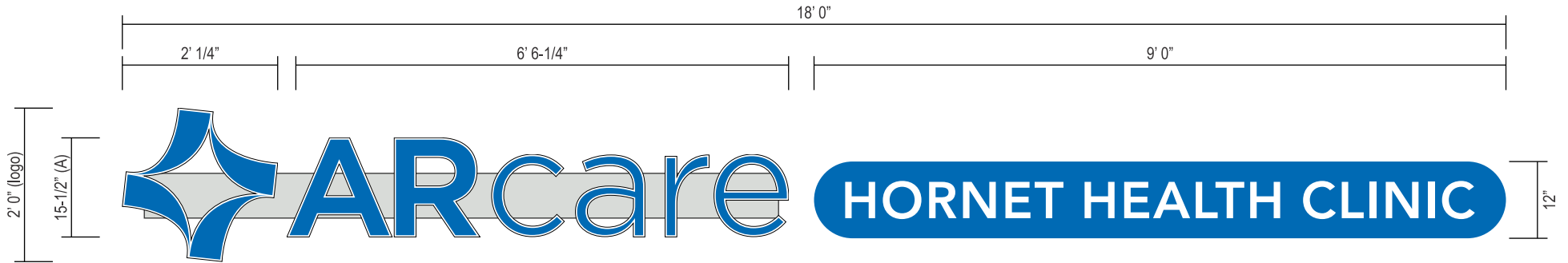
840-12032-002
1.97

840-12027-000
0.53

840-12032-000
4.15







Total Sign Area = 26.38-sqft

- Standard channel letters
- Aluminum returns and back
- White acrylic faces with trimcap - first surface translucent vinyl
- Trim and returns to match vinyl faces
- LED internally illuminated
- Raceway mounted, painted to match wall

Qty 1 set

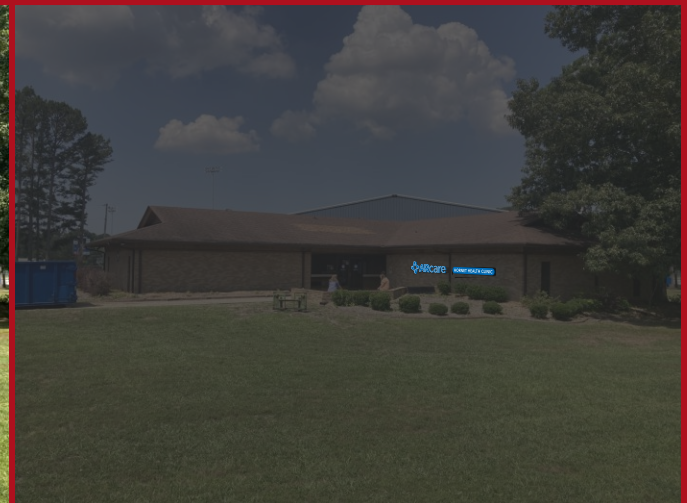
RACEWAY		
SW 7714 Oak Barrel	Oracal 8800 052 Azure Blue	Standard White



Before



After (Day)



After (Night)



208 JONES ROAD
PARAGOULD, AR 72450
PHONE: 870-236-8566
FAX: 870-236-8722

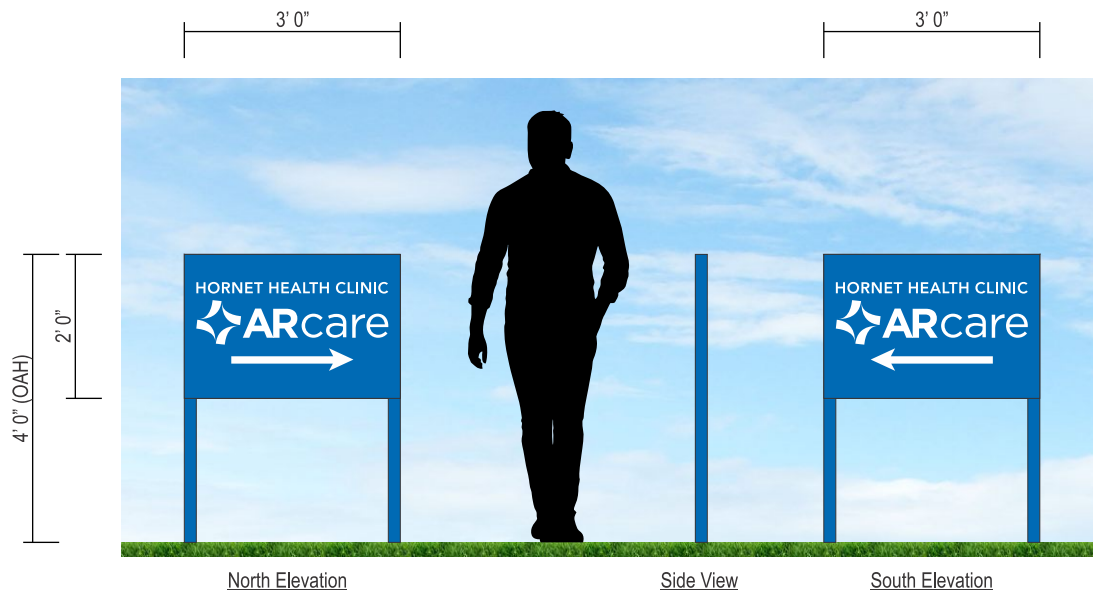


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PLEASE READ CAREFULLY: BEFORE YOU APPROVE THIS PROOF, PLEASE READ YOUR COPY CAREFULLY AND COMPLETELY. CHECK FOR SPELLING ERRORS, COPY OMISSIONS, AND COLOR/DESIGN DETAILS. WE WILL NOT BE HELD RESPONSIBLE FOR ANY ERRORS WHICH ARE NOT MARKED ON THIS PROOF. ANY CHANGES DESIRED DUE TO MISTAKES DISCOVERED AFTER PROOFING AND/OR PRODUCTION OF PRODUCT WILL BE AT THE EXPENSE OF THE CUSTOMER.

CUSTOMER AR Care - Bryant Schools Clinic	DESIGNER HLH	OPTION/REVISION Opt 2
ADDRESS 350 School Dr. Bryant, AR 72022	DATE 06/30/23	
DRAWING ARCare_BryantSchoolsClinic_CL	SCALE 1/2" = 1' 0"	
APPROVAL	APPROVED BY	APPROVAL DATE



2" aluminum square tube frame with legs and ACM faces

Painted with smooth finish

First surface cut vinyl graphics

Sign double faced | Non-illuminated

Qty 1

Total Sign Area = 6-sqft

Images may not be to scale



Before



After

Painted to Match



Oracal 8800 052
Azure Blue



Standard White

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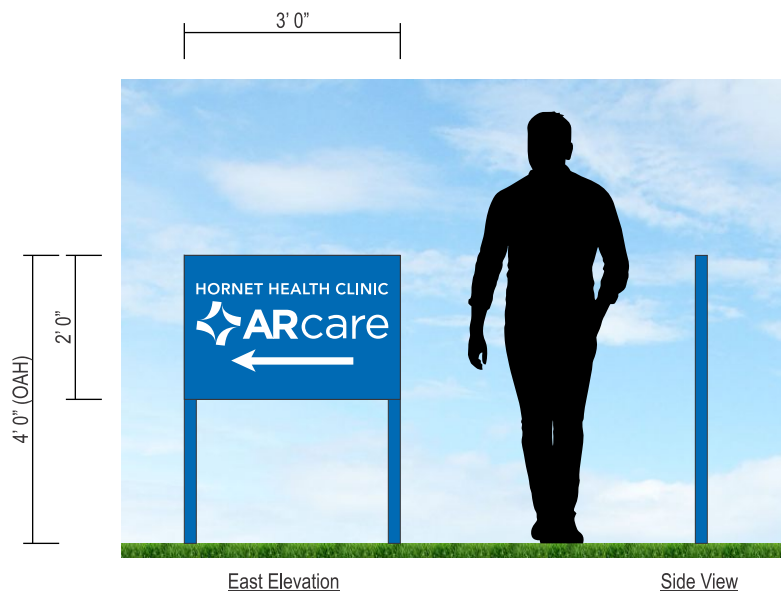


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 PARAGOULD, AR 72450
 PHONE: 870-236-8566
 FAX: 870-236-8722



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CUSTOMER AR Care - Bryant Schools Clinic	DESIGNER HLH/RJS	OPTION/REVISION Opt 1
ADDRESS 350 School Dr. Bryant, AR 72022	DATE 08/22/23	
DRAWING ARCare_BryantSchoolsClinic_DirA	SCALE 3/8" = 1' 0"	
APPROVAL	APPROVED BY	APPROVAL DATE

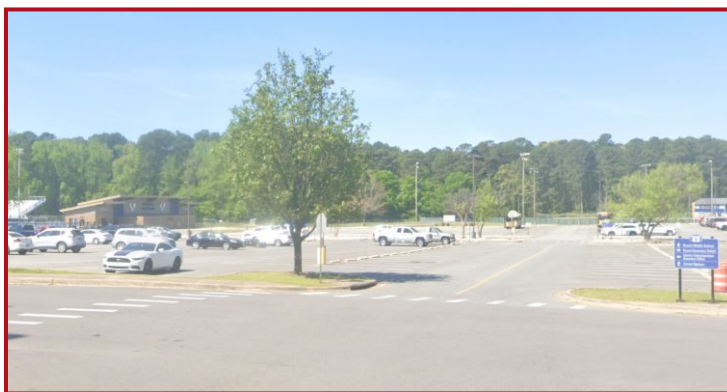


2" aluminum square tube frame with legs and ACM faces
 Painted with smooth finish
 First surface cut vinyl graphics
 Sign single faced | Non-illuminated

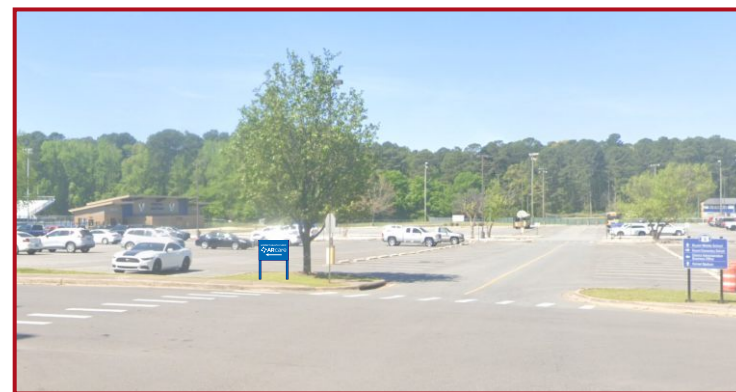
Qty 1

Total Sign Area = 6-sqft

Images may not be to scale



Before



After

Painted to Match



Oracal 8800 052
 Azure Blue



Standard White

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CUSTOMER AR Care - Bryant Schools Clinic	DESIGNER HLH/RJS	OPTION/REVISION Opt 1
ADDRESS 350 School Dr. Bryant, AR 72022	DATE 08/22/23	
DRAWING ARCare_BryantSchoolsClinic_DirB	SCALE 3/8" = 1' 0"	
APPROVAL		
APPROVED BY _____		APPROVAL DATE _____



208 JONES ROAD
 PARAGOULD, AR 72450
 PHONE: 870-236-8566
 FAX: 870-236-8722



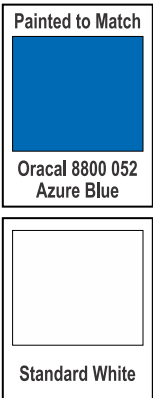
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Replace existing sign
 Flat cut aluminum
 Cut vinyl graphics
 Qty 1

Total Sign Area = 4-sqft

Images may not be to scale



Before



After



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CUSTOMER	AR Care - Bryant Schools Clinic	DESIGNER	HLH/RJS	OPTION/REVISION
ADDRESS	350 School Dr. Bryant, AR 72022	DATE	08/22/23	
DRAWING	ARCare_BryantSchoolsClinic_DirD	SCALE	1/8" = 1"	
APPROVAL				Opt 1
APPROVED BY				APPROVAL DATE



208 JONES ROAD
 PARAGOULD, AR 72450
 PHONE: 870-236-8566
 FAX: 870-236-8722



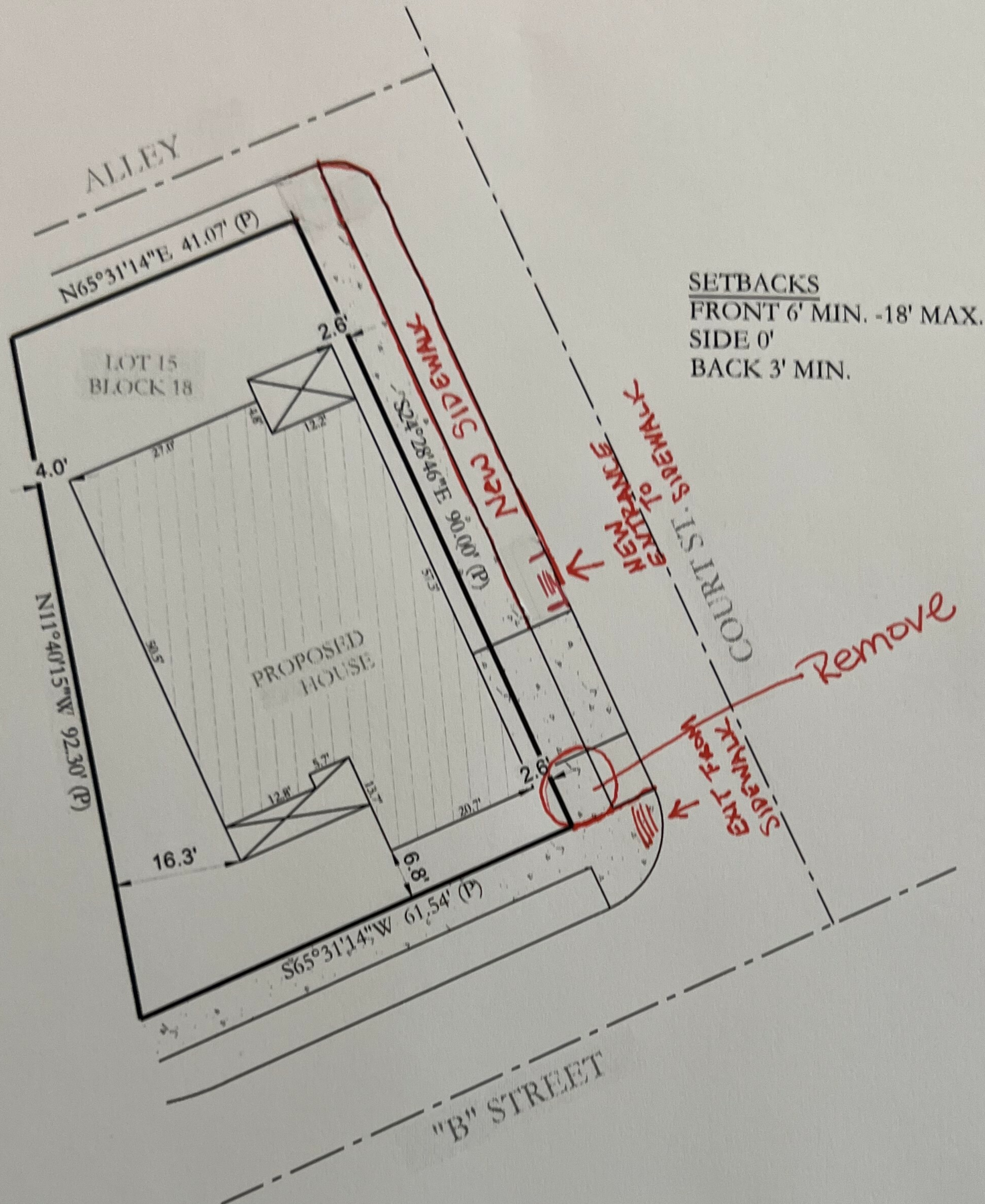
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CUSTOMER AR Care - Bryant Schools Clinic	DESIGNER HLH	OPTION/REVISION Opt 1
ADDRESS 350 School Dr. Bryant, AR 72022	DATE 07/20/23	
DRAWING ARCare_BryantSchoolsClinic_Directionals	SCALE 1-1/2" = 1' 0"	
APPROVAL <hr/>	APPROVED BY <hr/>	APPROVAL DATE <hr/>

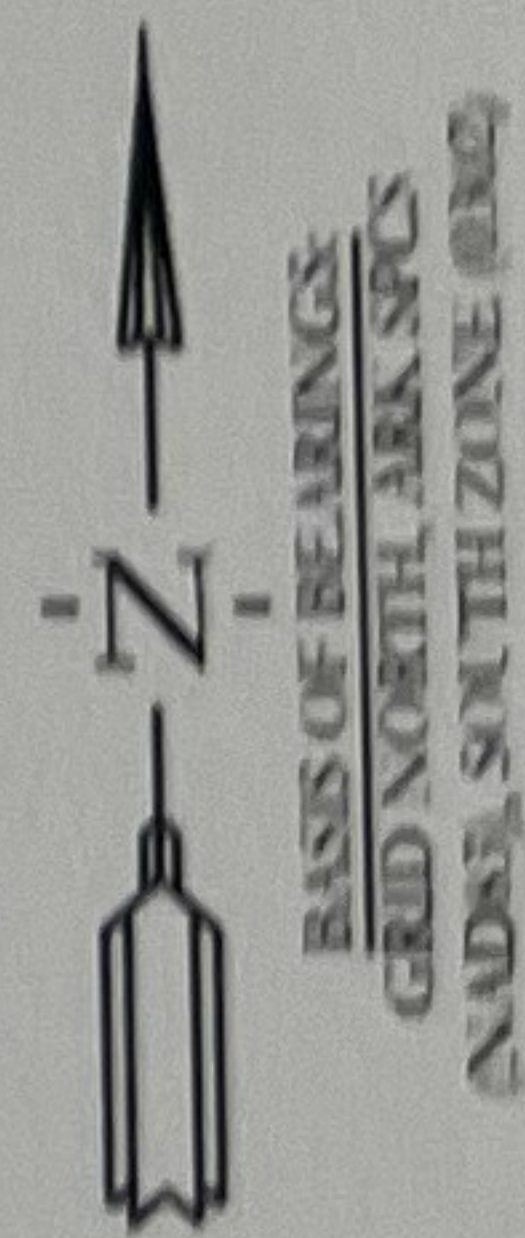


SETBACKS
 FRONT 6' MIN. - 18' MAX.
 SIDE 0'
 BACK 3' MIN.

PROPERTY DESCRIPTION:

LOT 15, BLOCK 18, MIDTOWN BRYANT, IN
 THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS.

This Plot Plan depicts the lot as it appears on the subdivision
 plat. This drawing does not represent an actual survey.



20' 10' 0 20'

PLOT PLAN

No portion of the property described hereon lies within the 100 year flood plain,
 according to the Flood Insurance Rate Map,
 panel # 05125C0240E, dated: 06/05/2020

For the Exclusive Use and Benefit of:
Graham Smith Construction

Address B STREET
Bryant, AR Date 02/23/23

LEGEND

- △ - Computed point
- - Found monument
- ⊙ - Set #4 RB/Plas. Cap
- (M) - Measured
- (P) - Platted
- (R) - Record

Drawn By MD
 Checked By _____



City of Bryant, Arkansas
 Community Development
 210 SW 3rd Street Bryant, AR 72022
 501-943-0943

APPROVED

8/18/23 *CL*
 2 Signs

SIGN PERMIT APPLICATION

Applicants are advised to read the Sign Ordinance prior to completing and signing this form.
 The Sign Ordinance is available at www.cityofbryant.com under the Planning and Community Development tab.

Date: 9/26/23

Note: Electrical Permits may be Required, Please contact the Community Development Office for more information.

Sign Co. or Sign Owner

Name KT & T Signs
 Address 3213 Main St. Ste #7
 City, State, Zip Bryant, AR
 Phone ~~501-258-4893~~ 501-672-0997
 Email Address ktsignartwork@yahoo.com
Kevin 501-672-0997

Property Owner

Name Yum Yum Hibachi Express
 Address 3213 Main St. Ste #7
 City, State, Zip Bryant, AR
 Phone 501-258-4893
 Email Address ~~yumyumhibachi~~ yumyumhibachi@gmail.com

GENERAL INFORMATION

Name of Business Yum Yum Hibachi Express
 Address/Location of sign 3213 Main St Ste #7
 Zoning Classification _____

Please use following page to provide details on the signs requesting approval. Along with information provided on this application, a **Site Plan showing placement of sign(s) and any existing sign(s) on the property is required** to be submitted. **Renderings of the sign(s) showing the correct dimensions is also required** to be submitted with the application. A thirty-five dollar (\$35) per sign payment will be collected at the time of permit issuance. According to the Sign Ordinance a fee for and sign variance or special sign permit request shall be one hundred dollars (\$100). Additional documentation may be required by Sign Administrator.

READ CAREFULLY BEFORE SIGNING

I, *Kevin*, do hereby certify that all information contained within this application is true and correct. I fully understand that the terms of the Sign Ordinance supersede the Sign Administrator's approval and that all signs must fully comply with all terms of the Sign Ordinance regardless of approval. I further certify that the proposed sign is authorized by the owner of the property and that I am authorized by the property owner to make this application. I understand

that no sign may be placed in public right of way. I understand that I must comply with all Building and Electrical Codes and that it is my responsibility to obtain all necessary permits.

Use table below to enter information regarding each sign for approval. Please use each letter to reference each sign rendering.

SIGN	Type (Façade, Pole, Monument, other)	Dimensions (Height, Length, Width)	Sqft (Measured in whole as rectangle)	Height of Sign (Measured from lot surface)		Column for Admin Certifying Approval
				Top of Sign	Bottom of Sign	
A	lighted box	30" x 96"	24 sq. Ft 20 sq. ft			<i>[Signature]</i>
B	Window Sign	18" x 43"	5.38 sq. ft			<i>[Signature]</i>
C						
E						
F						
G						

"Yum Yum Hibachi Express" →

Suite Width Measured at 13 Ft

13' x 2 = 26 SF of signage
Allowed for wall signs

Total in Application 25.38 SF

Sign A



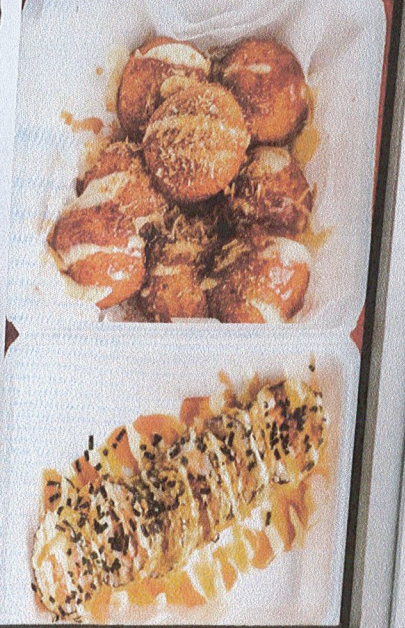
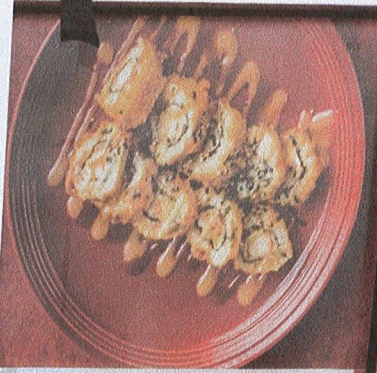
Sign B

Yum 😊 *Yum*

HIBACHI EXPRESS

18" ↑ ↓

← 43" →



on the window



MIDTOWN BRYANT POA
Midtown Bryant Council Inc.

Block 8 Agreement

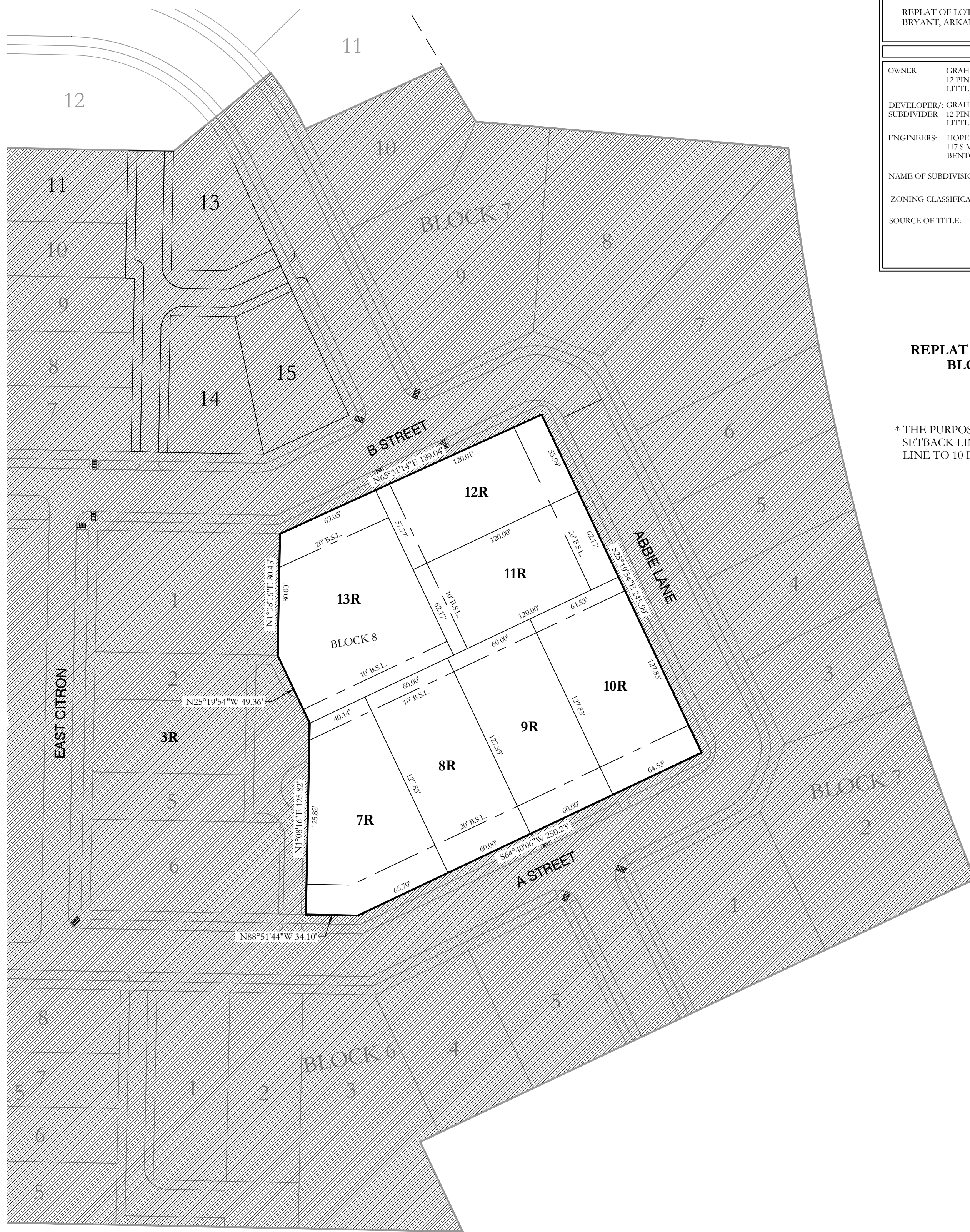
Lots 7, 10, and 12 of Block 8 will be side loading garages. Lot 13 will be side loading if the lot dimensions allow. Lots 8, 9, and 11 will have front loading garages.

Midtown POA will sell the POA's land behind these lots to Graham Smith Construction (GSC) for \$2,000. GSC will pay to go before the city and request a change to the lot lines, so that the POA land will be absorbed into the backyard and side yards of the surrounding lots. In addition, GSC will pay for the materials and labor to construct a new monument sign for Regents Park homes. Finally, GSC will be responsible for any city fees, engineering fees and additional costs for these lot lines to be re-plated.

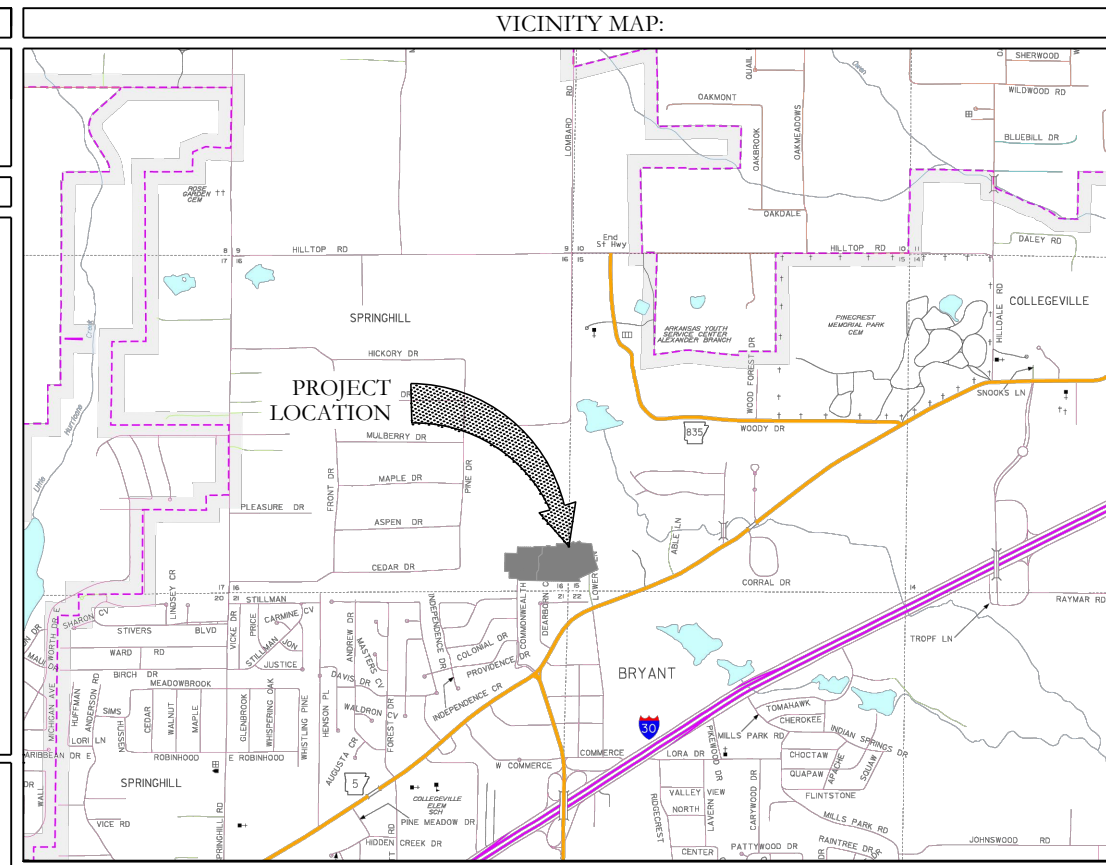
Sincerely,

Ashley Thetford
Midtown Bryant
Secretary

Andrea Sajak
Midtown Bryant
Treasurer

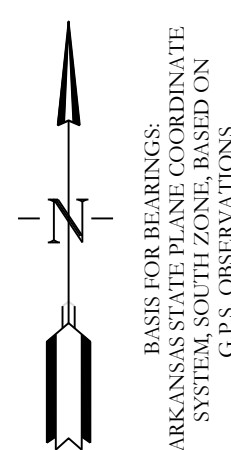


PROPERTY DESCRIPTION:	
REPLAT OF LOTS 7R, 8R, 9R, 10R, 11R, 12R AND 13R, BLOCK 8, MIDTOWN BRYANT, PHASE 1 BRYANT, ARKANSAS.	
PROPERTY SPECIFICATIONS:	
OWNER: GRAHAM SMITH 12 PINE MANOR LITTLE ROCK, AR 72207	NUMBER OF LOTS: 7 SOURCE OF WATER: CITY OF BRYANT SOURCE OF SEWER: CITY OF BRYANT
DEVELOPER/SUBDIVIDER: GRAHAM SMITH 12 PINE MANOR LITTLE ROCK, AR 72207	BUILDING SETBACKS: FRONT - 20' SIDE - 0' TOTAL MIN. BACK - 10'
ENGINEERS: HOPE CONSULTING INC. 117 S MARKET STREET BENTON, AR 72015	
NAME OF SUBDIVISION: MIDTOWN BRYANT PHASE 1	
ZONING CLASSIFICATION: TND OVERLAY DISTRICT	
SOURCE OF TITLE: #2021-009614 AND #2009-32129	



**REPLAT OF LOTS 7R, 8R, 9R, 10R, 11R, 12R AND 13R,
BLOCK 8, MIDTOWN BRYANT, PHASE 1
BRYANT, ARKANSAS.**

* THE PURPOSE OF THIS REPLAT IS TO CHANGE FRONT BUILDING SETBACK LINE LINE TO 20 FEET AND REAR BUILDING SETBACK LINE LINE TO 10 FEET.



By affixing my seal and signature, I Jonathan L. Hope PLS No. 1762, hereby certify that this drawing correctly depicts a survey compiled under my supervision.

NOTE: This survey was based on legal descriptions and title work furnished by others and does not represent a title search.

No portion of the property described hereon lies within the 100 year floodplain, according to the Federal Insurance Rate Map, panel #05119C0420G, Dated: 07/06/2015.

CERTIFICATIONS:

OWNER:	DEVELOPER:
Name: <u>GRAHAM SMITH</u>	Name: <u>GRAHAM SMITH</u>
Address: <u>12 PINE MANOR</u> <u>LITTLE ROCK, AR 72207</u>	Address: <u>12 PINE MANOR</u> <u>LITTLE ROCK, AR 72207</u>

CERTIFICATE OF OWNER:

We, the undersigned, owners of the real estate shown and described herein do hereby certify that we have laid off, platted and subdivided, and do hereby lay off, plat and subdivide said real estate in accordance with the plat.

Date of Execution _____ Name: _____

Source of Title: Saline County Document # _____

CERTIFICATE OF FINAL SURVEYING ACCURACY:

I, Jonathan L. Hope, hereby certify that this plat correctly represents a survey completed by me, or under my supervision, that the boundary lines shown hereon correspond with the description in the deeds cited in the above Source of Titles; and that all monuments which were found or placed on the property are correctly described and located.

Date of Execution _____ Name: Jonathan L. Hope,
Registered Professional
Land Surveyor, No. 1762 Arkansas

CERTIFICATE OF FINAL APPROVAL:

Pursuant to the City of Bryant Subdivision Rules and Regulations, this document was given approval by the Bryant Community Services Director. All of the conditions of approval having been completed, this document is hereby accepted, and this certificate executed under the authority of said rules and regulations.

Date of Execution _____ Rick Johnson
Bryant Community Services Director

HOPE CONSULTING ENGINEERS - SURVEYORS	129 N. Main Street, Benton, Arkansas 72015 PH. (501)315-2626 FAX (501) 315-0024 www.hopeconsulting.com
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FOR USE AND BENEFIT OF:
GRAHAM SMITH

**REPLAT OF LOTS 7R, 8R, 9R, 10R, 11R, 12R AND 13R,
BLOCK 8, MIDTOWN BRYANT, PHASE 1
BRYANT, ARKANSAS.**

DATE: 09-05-2023	C.A.D. BY: BJOHNSON	DRAWING NUMBER: 07-0032					
REVISID:	CHECKED BY: SCALE: 1"=50'						
500	15	14W	0	15	304	62	1762

K:\Land Projects\2004 Subdivision\2007\07-0032 MIDTOWN BRYANT PHASE 1\Drawings\07-0032 Final Plat Phase 1.dwg | Plotted: 9/5/2023 2:47 PM | ©2023 Hope Consulting, Inc.

WILLIAMS & ANDERSON PLC

TWENTY-SECOND FLOOR
111 CENTER STREET
LITTLE ROCK, ARKANSAS 72201

DAVID F. MENZ
dmenz@williamsanderson.com

DIRECT DIAL
(501) 396-8416

(501) 372-0800

TELECOPIER
(501) 372-6453

December 17, 2015

**VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

7015 1730 0001 8235 2609

First Security Bank
ATTN: Chris Williams
5619 Highway 5 North
Bryant, AR 72002

RE: Bryant Municipal Property Owners' Multipurpose Improvement District No. 104 (Creekside Addition Recreation Project)

Dear Mr. Williams:

This is to inform you that Diamond Development II has applied to the City of Bryant to form a property owners improvement district pursuant to Arkansas Code Annotated § 14-94-101 *et seq.* (the "Statute"). Enclosed please find a copy of the petition for the formation of the district and the abstractor's certificate. I understand First Security Bank holds a mortgage on property in the district.

Act 1408, enacted by the Arkansas Legislature in 2009, mandates that anyone who holds a first mortgage on property to be included in a district formed specifically by the Statute must receive notice of the hearing on the formation of the district by certified mail. Any existing mortgage will be subordinated to any debt issued by the improvement district pursuant to Arkansas Code Annotated § 14-94-106 and Arkansas Code Annotated § 14-94-118(b) if the mortgagee fails to appear at the hearing and object to the formation of the district.

This is to inform you that the hearing on the formation of the district will be held before the Bryant City Council at their meeting at 7:00 p.m. on Tuesday, December 22, 2015 in the Bryant City Hall, 210 S.W. 3rd Street, Bryant, Arkansas 72022.

Please call me if you have any questions.

Cordially yours,

WILLIAMS & ANDERSON PLC



David F. Menz

WILLIAMS & ANDERSON PLC

First Security Bank
December 17, 2015
Page 2

DFM:rcs

Encls.

cc: Mayor Jill Dabbs
Sue Ashcraft, City Clerk
Chris Madison, City Attorney
Alan King

FILED
CLERK
2015 DEC 17 AM 10:56
BY *pu*

NOTICE

C.C. 2015-17

**YOUR SIGNATURE HEREON
SHOWS THAT YOU FAVOR
THE ESTABLISHMENT OF AN
IMPROVEMENT DISTRICT.
IF THE DISTRICT IS FORMED,
YOU MAY BE CHARGED
FOR THE COST OF THE
IMPROVEMENTS.**

**PETITION TO FORM BRYANT MUNICIPAL PROPERTY
OWNERS' MULTIPURPOSE IMPROVEMENT DISTRICT NO. *104* -
CREEKSIDE ADDITION RECREATION PROJECT**

TO THE CITY COUNCIL OF THE CITY OF BRYANT, ARKANSAS

The undersigned is the owner of record title of the real property situated within the territory described in the attached Exhibit "A" and incorporated herein.

The undersigned further states that all of the above described territory is owned by twenty-five (25) or fewer persons, and that all of the above-described territory is located within the City of Bryant, Arkansas

Received 12/15/15 10:02 AM

The undersigned petitions that all the real property described in the attached Exhibit "A" be formed into a municipal property owners' improvement district, to be known as City of Bryant Municipal Property Owners' Multipurpose Improvement District No. 104 (the "District"), pursuant to Arkansas Act 113 of 1987, as amended (Ark. Code Ann. §14-94-101 *et seq.*) for the purpose of constructing, either within or without the boundaries of the District, if the property within the District will be benefited thereby, the cost of construction of various improvements for recreational purposes and the cost of maintaining the landscaping and other amenities in the District, and for all purposes authorized by Ark. Code Ann. Title 14, Chapter 94 and amendments thereto, and to any and all other acts which shall be deemed necessary in order to purchase, construct, accept as a gift, operate and maintain any and all improvements authorized therein.

The purposes are to be accomplished in the manner and with the materials that the commissioners for the District deem to be in the best interest of the District and as specified by law. The cost of the District shall be assessed upon the real property of the District according to the benefits received.

The undersigned petitions that the District shall not cease to exist upon the acquiring, constructing or completion of the improvements or amenities, but shall continue to exist for the purpose of preserving, maintaining, and operating the improvements, all in accordance with Ark. Code Ann. §14-94-128.

The undersigned further petition the City Council of the City of Bryant, Arkansas, to appoint as commissioners of the District three persons of integrity and good business ability and the undersigned nominates Jim B. Hastings, Jr., Michael A. Lake and Lisa G. Lake, to serve as said commissioners.

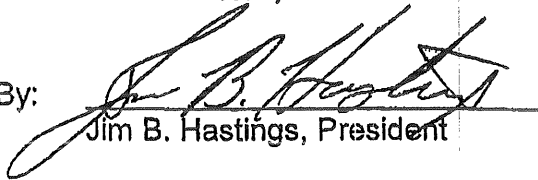
Any number of counterpart copies of this petition may be circulated.

DATED this 15 day of December, 2015.

**DIAMOND DEVELOPMENT II,
A PARTNERSHIP**

Hometime Builders, Inc.

By:


Jim B. Hastings, President

MLL Properties, Inc.

By:


Michael A. Lake, President

EXHIBIT A

PROPERTY DESCRIPTION

ALL OF LOT 101 AND PART OF LOT 98 AND PART OF LOT 100, MIDLAND FARM SUBDIVISION, SALINE COUNTY, ARKANSAS, AND PART OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER AND PART OF THE WEST HALF OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER AND THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER ALL IN SECTION 12, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SALINE COUNTY, ARKANSAS; DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER; THENCE NORTH 89°32'28" WEST ALONG THE SOUTH LINE THEREOF FOR 643.58 FEET TO THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER; THENCE NORTH 02°32'37" EAST ALONG THE WEST LINE THEREOF 680.41 FEET TO THE NORTHWEST CORNER OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER SAID POINT ALSO BEING THE SOUTHEAST CORNER OF LOT 99, MIDLAND FARM SUBDIVISION; THENCE NORTH 89°44'13" WEST ALONG THE SOUTH LINE OF LOT 99, MIDLAND FARM SUBDIVISION FOR 1045.43 FEET; THENCE NORTH 01°56'55" EAST 330.36 FEET TO A POINT ON THE SOUTH LINE OF LOT 101, MIDLAND FARM SUBDIVISION; THENCE NORTH 89°50'05" WEST ALONG THE SOUTH LINE OF LOT 101, MIDLAND FARM SUBDIVISION 265.56 FEET TO A POINT ON THE EAST RIGHT OF WAY LINE OF MIDLAND ROAD SAID POINT ALSO BEING THE SOUTHWEST CORNER OF LOT 101, MIDLAND FARM SUBDIVISION; THENCE NORTH 02°07'30" EAST ALONG SAID EAST RIGHT OF WAY LINE OF MIDLAND ROAD 155.10 FEET TO THE NORTHWEST CORNER OF LOT 101, MIDLAND FARM SUBDIVISION; THENCE SOUTH 89°48'00" EAST ALONG THE NORTH LINE OF LOT 101, MIDLAND FARM SUBDIVISION FOR 1309.14 FEET TO THE NORTHEAST CORNER OF LOT 101, MIDLAND FARM SUBDIVISION AND ALSO BEING A POINT ON THE WEST LINE OF THE WEST HALF OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER; THENCE NORTH 01°54'50" EAST ALONG SAID WEST LINE OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER 826.60 FEET TO THE SOUTHWEST CORNER OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER; THENCE NORTH 01°39'00" EAST ALONG THE WEST LINE OF SAID NORTHEAST QUARTER OF THE NORTHWEST QUARTER 1321.46 FEET TO THE NORTHWEST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHWEST QUARTER; THENCE SOUTH 88°50'18" EAST ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER OF THE NORTHWEST QUARTER 1318.11 FEET TO THE NORTHEAST QUARTER OF SAID NORTHEAST QUARTER OF THE NORTHWEST QUARTER; THENCE SOUTH 03°10'19" WEST ALONG THE EAST LINE OF SAID NORTHEAST QUARTER OF THE NORTHWEST QUARTER 1316.40 FEET TO THE SOUTHEAST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHWEST QUARTER; THENCE SOUTH 89°59'11" WEST ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER OF THE NORTHWEST QUARTER 846.07 FEET TO THE NORTHEAST CORNER OF THE WEST HALF OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER; THENCE SOUTH 01°52'12" WEST ALONG THE EAST LINE OF SAID WEST HALF OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER 1308.41 FEET TO THE NORTHEAST CORNER OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER; THENCE SOUTH 02°02'20" WEST ALONG THE EAST LINE OF SAID NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER 856.20 FEET TO THE POINT OF BEGINNING, CONTAINING 81.35 ACRES, MORE OR LESS.

BEFORE THE CITY COUNCIL OF BRYANT, ARKANSAS

PETITION TO FORM BRYANT MUNICIPAL PROPERTY OWNERS'
MULTIPURPOSE IMPROVEMENT DISTRICT NO. 104 -
CREEKSIDE ADDITION RECREATION PROJECT

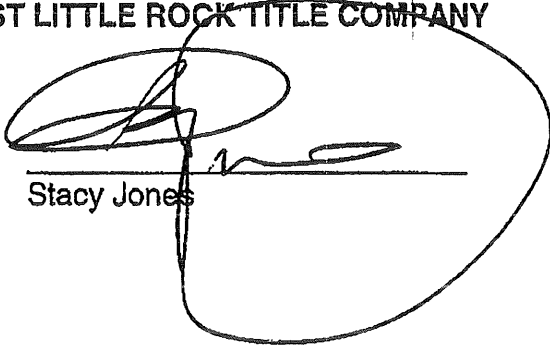
ABTRACTOR'S CERTIFICATE OF PROPERTY OWNERSHIP

I, the undersigned, hereby certify that the deed records in the office of the Circuit Clerk and Ex-Officio Recorder of Saline County, Arkansas, reflect that Diamond Development II is the record title owner of all the real property described in Exhibit "A" to the Petition to Form Bryant Municipal Property Owners' Multipurpose Improvement District No. 104 - Creekside Addition Recreation Project, a copy of which Exhibit "A" is attached hereto and made a part hereof.

DATED this 3rd day of December, 2015.

WEST LITTLE ROCK TITLE COMPANY

By:


Stacy Jones

647284

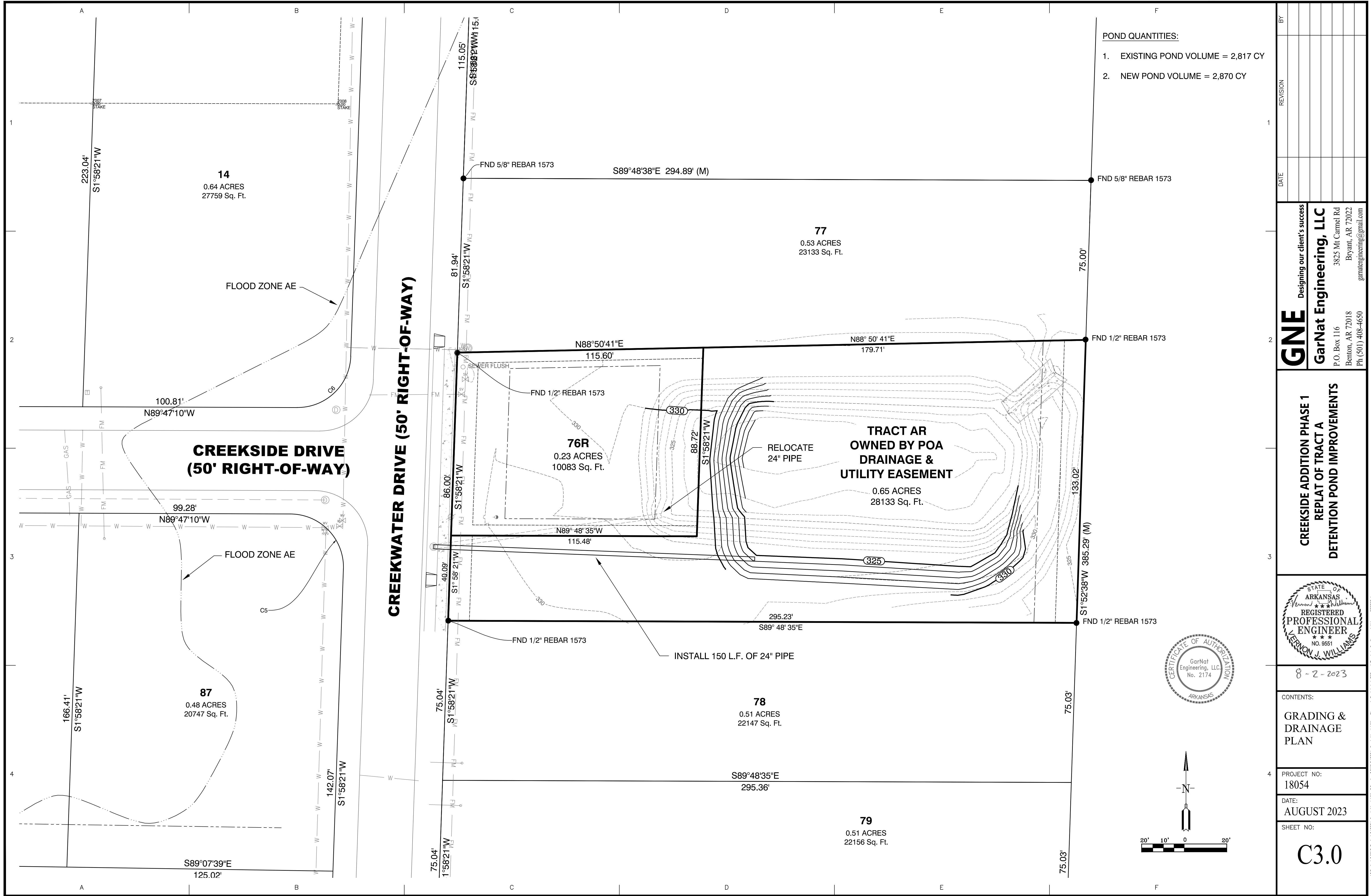
Received 12/15/15 2:02 PM SR

EXHIBIT A

PROPERTY DESCRIPTION

ALL OF LOT 101 AND PART OF LOT 99 AND PART OF LOT 100, MIDLAND FARM SUBDIVISION, SALINE COUNTY, ARKANSAS, AND PART OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER AND PART OF THE WEST HALF OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER AND THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER ALL IN SECTION 12, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SALINE COUNTY, ARKANSAS; DESCRIBED AS FOLLOWS:

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POND QUANTITIES:

- EXISTING POND VOLUME = 2,817 CY
- NEW POND VOLUME = 2,870 CY

BY	REVISION	DATE

Designing our client's success
GarNat Engineering, LLC
P.O. Box 116
Benton, AR 72018
Ph: (501) 408-4650
garnatengineering@gmail.com

3825 Mt Carmel Rd
Bryant, AR 72022

**CREEKSIDE ADDITION PHASE 1
REPLAT OF TRACT A
DETENTION POND IMPROVEMENTS**



8-2-2023

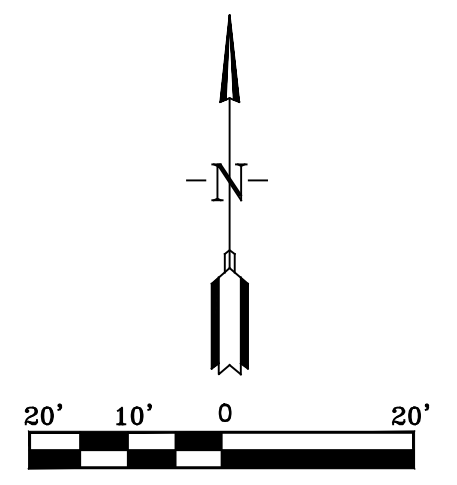
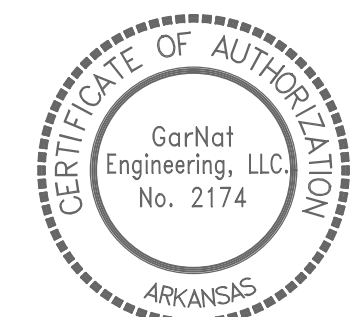
CONTENTS:
GRADING & DRAINAGE PLAN

PROJECT NO:
18054

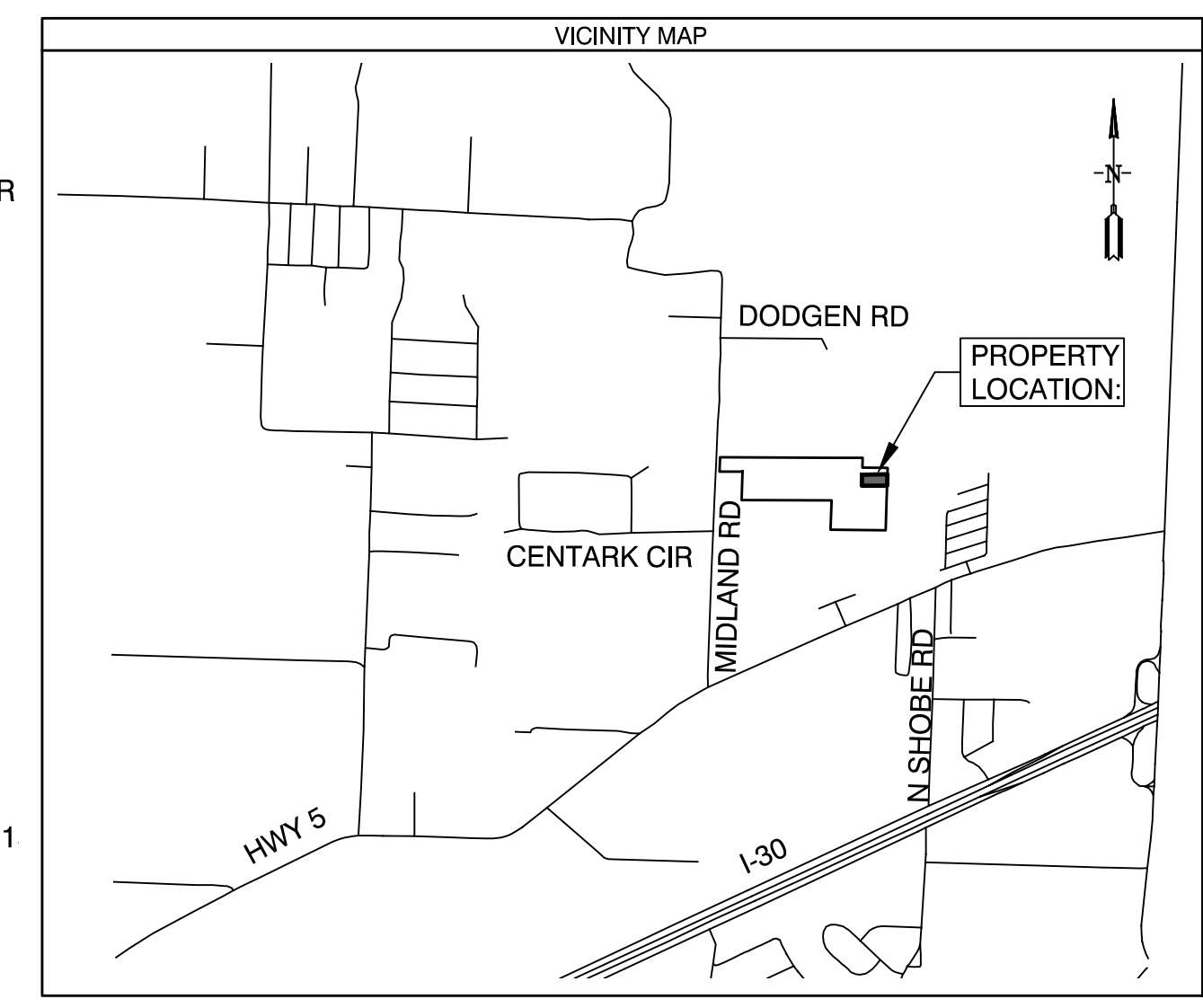
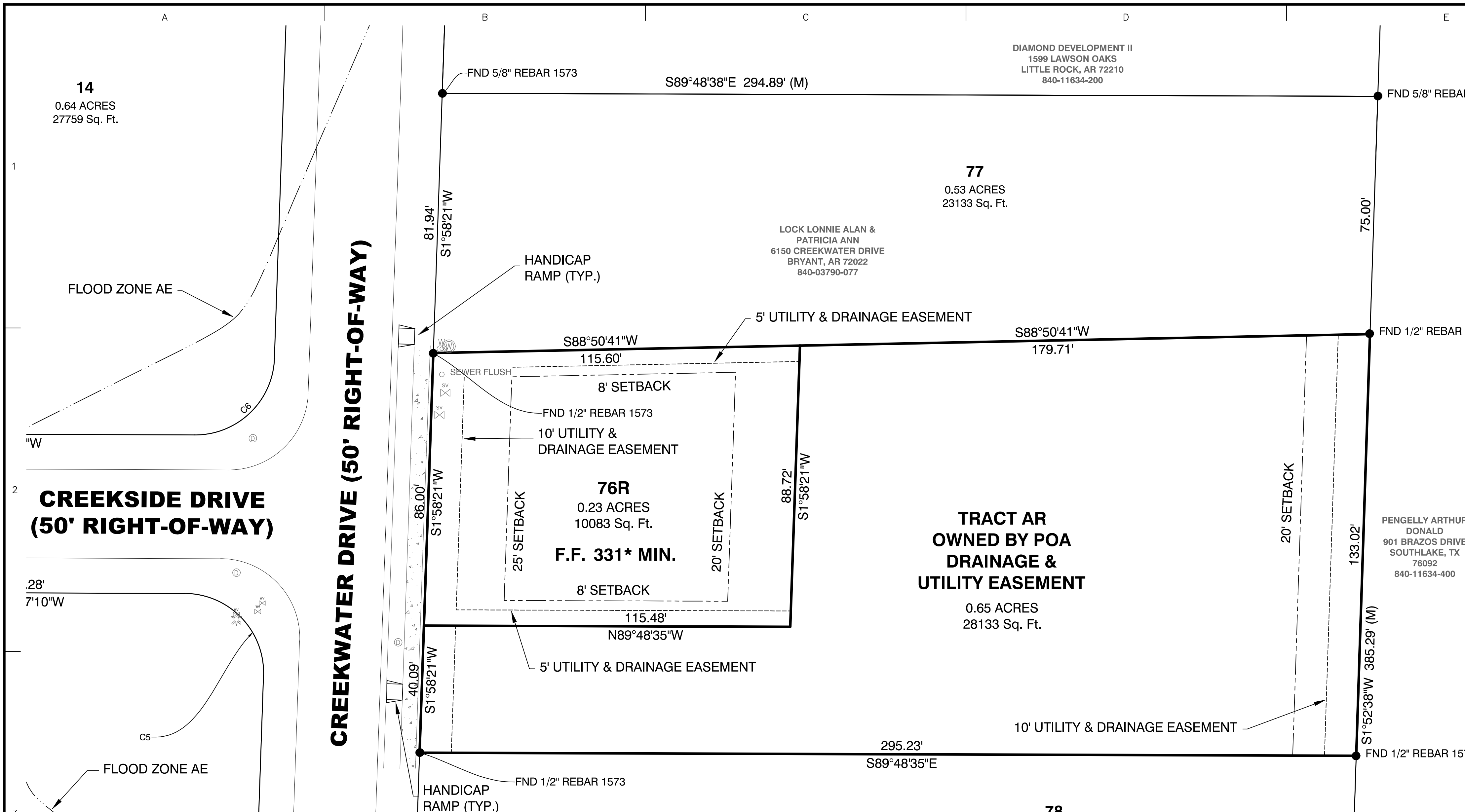
DATE:
AUGUST 2023

SHEET NO:

C3.0



A:\Projects\2018 Projects\18054 - Creekside Addition\Drawings\DWG\18054-Creekside-Addition-Phase-1-Grading-Drainage-Plan-C3.0.dwg and Text_Aug2023.dwg



PROPERTY DESCRIPTION:
TRACT A OF CREEKSIDE ADDITION PHASE 1, FINAL PLAT TO THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS FILED WITH THE SALINE COUNTY CIRCUIT CLERK ON AUGUST 30, 2018, CONTAINING 0.88 ACRES, MORE OR LESS.

DOCUMENTS USED:

- SURVEY PLAT OF RECORD RASBURY SURVEYING 10/23/2014
- DEED OF RECORD 2014 PAGE 25641 WILLIAMS TO DIAMOND DEVELOPMENT II
- DEED OF RECORD 2004 PAGE 112595 THOMAS TO DIAMOND DEVELOPMENT II
- SURVEY PLAT OF RECORD MIDLAND FARM SUBDIVISION BY HENRY N. CONWAY 8/13/1951

BASIS OF BEARINGS:
BENCHMARK(S) PROVIDED ARE REBAR AND COORDINATES ON BENCHMARKS ARE NORTH AMERICAN DATUM 1983, ARKANSAS SOUTH ZONE, US SURVEY FEET, GRID COORDINATES AND ELEVATIONS ARE NAVD 1988. COORDINATES AND ELEVATIONS WERE ESTABLISHED USING GPS AND WERE PROCESSED USING THE NATIONAL GEODETIC SURVEY'S "ONLINE POSITIONING USER SERVICE" (OPUS).

CERTIFICATIONS:
BY AFFIXING MY SEAL AND SIGNATURE, I GEORGE P. WOODEN, PS NO.1573, HEREBY CERTIFY THAT THIS DRAWING CORRECTLY DEPICTS A SURVEY COMPILED UNDER MY SUPERVISION ON JUNE 11, 2018.
THIS SURVEY WAS BASED ON LEGAL DESCRIPTIONS AND TITLE WORK FURNISHED BY OTHERS AND DOES NOT REPRESENT A TITLE SEARCH.
THIS PROPERTY IS LOCATED IN THE 100 YEAR FLOOD PLAIN. THE PROPERTY SHOWN ON THIS PLAT IS LOCATED IN ZONE "AE" OF THE F.E.M.A. MAP PANEL 05125C0240E EFFECTIVE DATE JUNE 5, 2020.

PLAT CERTIFICATES:

OWNER: Diamond Development II
Name: Diamond Development II
Address: 1599 Lawson Oaks Drive, Little Rock, AR 72210

DEVELOPER: Diamond Development II
Name: Diamond Development II
Address: 1599 Lawson Oaks Drive, Little Rock, AR 72210

CERTIFICATE OF RECORDING:
Date: _____ Signed: _____

CERTIFICATE OF OWNER:
We, the undersigned, owners of the real estate shown and described herein do hereby certify that we have laid off, platted and subdivided, and do hereby lay off, plat and subdivide said real estate in accordance with the within plat.
Date: _____ Signed: _____
Jim Hastings
1599 Lawson Oaks Drive, Little Rock, AR 72210

CERTIFICATE OF SURVEYING ACCURACY:
I, George P. Wooden, hereby certify that this plat correctly represents a boundary survey made by me or under my supervision; that the boundary lines shown hereon correspond with the description in the deeds cited in the above Source of Title; and that all monuments which were found or placed on the property are correctly described and located.
Date: _____ Signed: _____
George P. Wooden
Registered Land Surveyor
No. 1573, Arkansas

CERTIFICATE OF FINAL PLAT APPROVAL:
Pursuant to the City of Bryant Subdivision Rules and Regulations, this document was given approval by the Bryant Planning Commission. All of the document is hereby accepted, and this certificate executed under the authority of said rules and regulations.
Date: _____ Signed: _____
Rick Johnson, Chairman
Bryant Planning Commission

CERTIFICATE OF ENGINEERING ACCURACY:
I, Vernon J. Williams, hereby certify that this plat correctly represents a survey and a plan made by me or under my supervision; that all monuments shown hereon actually exist and their locations, size, type, and material are correctly shown; and that all requirements of the City of Bryant Subdivision Rules and Regulations have been fully complied with.
Date: _____ Signed: _____
Vernon J. Williams
Registered Professional Engineer
No. 9551, Arkansas

SURVEY LEGEND

- ▲ - Computed point
- - Found monument
- - Set #4 RB/Plas. Cap
- (M) - Measured
- (R) - Record
- (P) - Platted

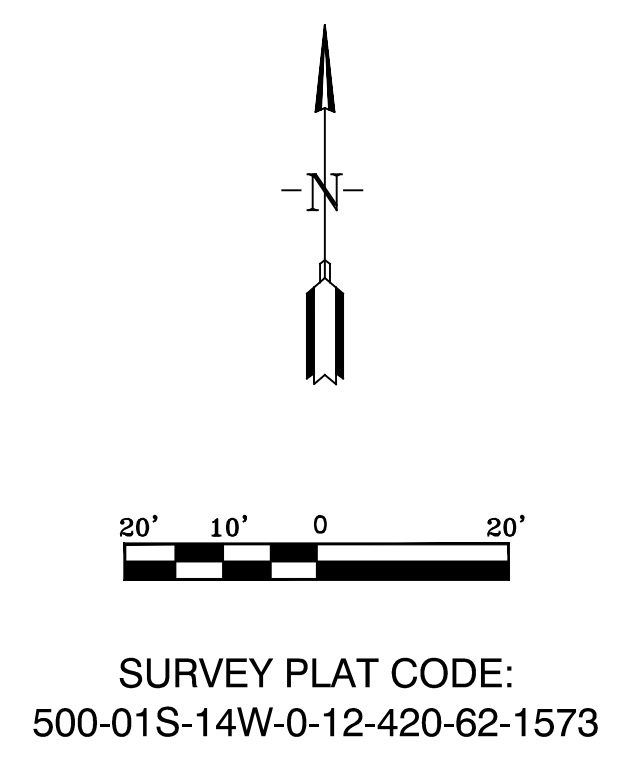
PROPERTY SPECIFICATIONS:

ZONING CLASSIFICATION: R-1
MIN. LOT SIZE: 6,000 S.F.
NUMBER OF LOTS: 2
SOURCE OF WATER: SALEM WATER USERS ASSOCIATION PWA
SOURCE OF SEWER: CITY OF BRYANT

BUILDING SETBACKS:
FRONT - 25' OR AS SHOWN
REAR - 20' OR AS SHOWN
SIDE - 8' OR AS SHOWN

EASEMENTS: UTILITY & DRAINAGE (D.E. & U.E.)
FRONT - 10' OR AS SHOWN
SIDE - 5' OR AS SHOWN
STREET RIGHT OF WAYS: 50' OR AS SHOWN
STREET WIDTH: 28' BOC TO BOC
LOT CORNERS: SET #4 REBAR WITH CAP

REPLAT OF TRACT A
CREEKSIDE ADDITION PHASE I
SALINE COUNTY, ARKANSAS

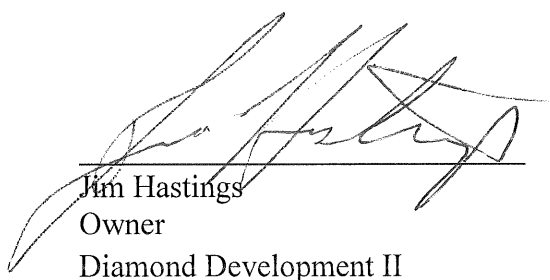


BY	
REVISION	
DATE	
<p>GNE Designing our client's success GarNat Engineering, LLC 3825 Mt Carmel Road Bryant, AR 72022 P.O. Box 116 Benton, AR 72018 Ph. (501) 408-4650 gnatengineering@gmail.com</p>	
<p>CREEKSIDE ADDITION PHASE 1 REPLAT OF TRACT A SALINE COUNTY, ARKANSAS</p>	
<p>CONTENTS:</p> <p>REPLAT OF TRACT A</p>	
PROJECT NO:	18054
DATE:	AUGUST 2023
SHEET NO:	1

* INSTALLATION OF ALL UTILITY SERVICES (INCLUDING INDIVIDUAL GRINDER PUMP STATIONS) SHALL COMPLY WITH REQUIREMENTS OF BRYANT FLOODPLAIN ORDINANCE 2012-15, AS AMENDED. ALL LIFT STATIONS WILL BE INSTALLED WITH THEIR TOPS 1-FOOT BELOW FINISH FLOOR OF HOMES.

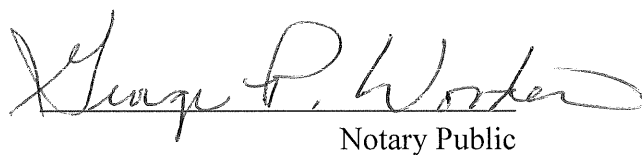
AFFIDAVIT

I, Jim Hastings, Owner of Diamond Development II, certify by my signature below that I hereby authorize Vernon Williams of GarNat Engineering, LLC to act as Diamond Development II agent regarding the Replat of Tract A located in Creekside Addition Phase 1.

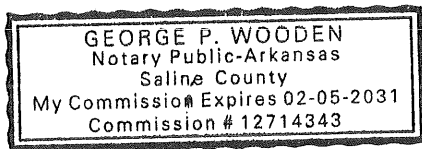

Jim Hastings
Owner
Diamond Development II

8/4/23
Date

Subscribed and sworn to me a Notary Public on this 4TH day of AUGUST, 2023.


Notary Public

My Commission Expires:
02-05-2031



BILL OF ASSURANCE
SARATOGA PLACE SUBDIVISION

PART A. PREAMBLE

WHEREAS, THOMAS D.B. COLLINS, LTD. is the Owner, by virtue of Instrument 2018-006759 of the following land situated in Saline County, Arkansas, to wit:

LEGAL DESCRIPTION

A PART OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 7, TOWNSHIP 1 SOUTH; RANGE 14 WEST; SALINE COUNTY, ARKANSAS; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A RAILROAD SPIKE BEING THE CENTER OF SAID SECTION 7; THENCE CONTINUING ALONG THE EAST LINE OF SAID NORTHEAST QUARTER OF THE SOUTHWEST QUARTER, S0°54'38"W A DISTANCE OF 186.51 FEET TO A FOUND REBAR, THENCE S2°09'25"W A DISTANCE OF 129.78 FEET TO A FOUND PIPE; THENCE N88°20'29"W A DISTANCE OF 1332.31 FEET TO A FOUND PIPE; THENCE ALONG THE WEST LINE OF SAID NORTHEAST QUARTER OF THE SOUTHWEST QUARTER, N2°08'51"E A DISTANCE OF 325.54 FEET TO A FOUND REBAR; THENCE ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER OF THE SOUTHWEST QUARTER THE FOLLOWING CALLS, S87°58'07"E A DISTANCE OF 543.90 FEET TO A FOUND REBAR; S87°56'47"E A DISTANCE OF 222.90 FEET TO A FOUND REBAR; AND S87°54'47"E A DISTANCE OF 561.45 FEET TO THE POINT OF BEGINNING; CONTAINING 9.81 ACRES (427,323.6 SQUARE FEET), MORE OR LESS, SUBJECT TO WISE ROAD RIGHT OF WAY.

WHEREAS, Owner has caused said land to be surveyed and a plat thereof made, dividing said land into lots as shown on said plat and showing the dimensions of each lot and the width of the streets as known as SARATOGA PLACE SUBDIVISION, Saline County, Arkansas.

WHEREAS, the Saline County Real Estate Assessor and Office of Emergency Services have approved said Subdivision and road names.

NOW THEREFORE, Thomas D.B. Collins, Ltd., in consideration of the purposes herein stated, does hereby designate said land and make part hereof to be known as SARATOGA PLACE SUBDIVISION, to the City of Bryant, Saline County, Arkansas, and that hereafter any conveyance by the Owners of said land by lot number shall forever be held to be good and legal description and the streets shown on said plat in said Subdivision are hereby and will become a public road to be accepted by Saline County for maintenance. The property owners of SARATOGA PLACE SUBDIVISION are subject to and are joined as members of the establish SARATOGA PLACE Property Owner's Association for the purpose of maintaining and ownership of common areas and appurtenants belonging thereto. The use of the land in said Subdivision being subject to the following Protective and Restrictive Covenants:

PART B. AREA OF APPLICATION

B-1 FULLY PROTECTED RESIDENTIAL AREA. The residential area covenants in Part C in their entirety shall apply to the entire Subdivision.

PART C: RESIDENTIAL AREA COVENANTS:

C-1 LAND USE AND BUILDING TYPE. No lot shall be used except for residential purposes. Not business of any nature or kind shall at any time be conducted in any building located on any of the lots. No building shall be erected, altered, placed or allowed to remain on any lot other than one detached, single-family dwelling not to exceed two stories in height, excluding basement area. No lot can be subdivided for any purpose without the prior approval from the Saline County Planning Board and the consent of 51% of the voting members of the Property owners associations.

C-2 ARCHITECTURAL CONTROL. No dwelling or structure shall be erected, placed or altered on any lot until the construction plans and specifications and a plan showing the location of the structure, including landscaping, have been approved by the architectural control committee as to quality of workmanship and materials, harmony of external design with existing structures, and as to location with respect to topography and finish grade elevation, and intended objectives of the Architectural Control Committee to achieve a subdivision that accomplishes the desired architectural design in the structure and subdivision ascetics. No fence or wall shall be erected, placed or altered on any lot nearer than the setbacks as shown on the Plat. The term structure is defined to include any and all types of fences, antennas, decks, basketball goals, swimming pools and television satellite dishes, which in no event shall be placed in front of dwellings. Each property owner requesting approval shall submit to the Architectural Control Committee at least two weeks prior to the time approval is needed, a complete set of house plans and completed material and specifications list. Approval shall be a provided in Part D.

C-3. DWELLING COST, QUALITY AND SIZE. No dwelling shall be permitted on any lot unless the dwelling has at least 1,500 square feet, it being the intention and purpose of the covenants to assure that all dwellings shall be of a quality of workmanship and materials substantially the same or better than that for the minimum permitted dwelling size. Each dwelling shall have a minimum of a two car garage. No open carports are allowed. No manufactured houses are allowed, site built homes only.

C-4. BUILDING LOCATION. No building shall be located on any lot, nearer to the side street line, than the minimum building set back lines as shown on the recorded plat. For the purposes of this covenant, eaves and steps shall not be considered as part of the building. No lot shall be subdivided and no more than one dwelling shall be permitted on any one lot.

C-5 BUILDING REQUIRMENTS. All buildings shall have roof pitch of no less than 6/12. A 2 car enclosed garage, No chain link fences shall be allowed, and all fences shall be of a wood type approved by the Architectural control committee.

C-6. EASEMENTS. Easements for installation and maintenance of utilities and drainage facilities, and construction, repair and maintenance of adequate walls, roofs and eaves are reserved as shown on recorded plat.

C-7. NUISANCES. No noxious or offensive trade or activities shall be carried on, nor shall anything be done thereon which may be or become a nuisance to the neighborhood.

C-8. TEMPORARY STRUCTURES. No structure of a temporary character, basement, tent, shack, garage, barn or other out building shall be used on any tract at any time as a residence either temporarily or permanently; except that the developer may have a temporary construction and/or sales office.

C-9. OUT BUILDINGS. One outbuilding for storage shall be permitted, if approved by the Architectural Control Committee and shall conform to the same architectural design and construction of the dwelling. Above ground swimming pools are prohibited.

C-10. SIGNS. No sign of any kind shall be displayed to the public view on any lot, except, one professional sign of not more than one square foot; one sign of not more than five square feet advertising the property for sale or rent or any signs used by a builder to advertise the property during the construction and sales period.

C-11. OWNER RESPONSIBILITY. Any property owner shall insure that any contractor performing services for the property owner shall comply with the provisions of this Bill of Assurance.

C-12. CONTRACTOR RESPONSIBILITY. No contractor shall damage in any way the utilities or streets in any manor.

C-13. OIL AND MINING OPERATIONS. No oil drilling, oil development operations, oil refining, quarrying or mining operations of any kind shall be permitted upon or in any lot, nor shall oil wells, tanks, tunnels, mineral excavations or shafts be permitted upon or in any lot. No derrick or structures designated for use in boring for oil or natural gas shall be erected, maintained or permitted upon any lot.

C-14. LIVESTOCK AND POULTRY. No animals, livestock or poultry of any kind may be raised, bred or kept on any tract, except that dogs or cats may be kept, on any lot provided that they are not kept, bred or maintained for any commercial purpose and provided that facilities for maintenance of same are approved by the Architectural Control Committee and that the keeping of same does not constitute a nuisance.

C-15. GARBAGE AND REFUSE DISPOSAL. No lot or easement shall be used or maintained as a dumping ground for rubbish. Trash, garbage and other waste shall not be kept except in sanitary containers. There shall be no burning of trash, rubbish, leaves or yard waste.

C-16 SIGHT DISTANCE AT INTERSECTIONS. No fence, wall, hedge or shrub planting which obstructs sight lines at elevations between 2 and 6 feet above the roadways shall be placed

or permitted to remain on any lot corner which the triangular area formed by the street property lines and the line connecting them at points 15 feet from the intersection of street right of way lines, or in the case of a rounded property corner, from the intersection of the street property line extended. The same sight line limitations shall apply on any lot within 10 feet from the intersection of the street property line with the edge of a driveway pavement. No tree shall be permitted to remain within such distances or such intersections unless the foliage line is maintained at sufficient height to prevent obstruction of such sight lines.

C-17. LOT, YARD AND HOME MAINTENANCE. All property owners, after acquisition of any lot, shall keep all grounds and yards mowed, trimmed and clean. All houses shall be painted and stained. No deviation from the original plans shall be permitted without approval of the Architectural Control Committee.

C-18. COMMENCEMENT OF CONSTRUCTION. A property owner must start construction of an approved dwelling within a period of one (1) year from date of purchase. The developer reserves the option to repurchase any lot for the amount of the original purchase price if construction is not commenced within such period of time. This option shall be exercised in writing within a period of thirty (30) days after the one (1) year period.

C-19 COMPLETION OF CONSTRUCTION. Any dwelling must be completed in its entirety within a period of one year from date such construction is commenced.

C-20. MOTOR VEHICLE PARKING. Abandoned or unused motor vehicles shall not be parked or permitted to remain on any lot or within the dedicated street. Boats, recreational vehicles and trailers cannot be parked at the front or side of any dwelling or in the dedicated street and must be parked in back of the dwelling. Owners or permanent residents are prohibited from parking in the street. There shall be no non-functioning vehicles kept on the lot or in view of the public. There shall be no repair work done outside of the garage.

C-21. MINIMUM FLOOR LEVEL ELEVATIONS. The Architectural Control Committee reserves the right to prescribe the minimum floor elevations for lots. All homes shall have a minimum floor elevation of one foot above the back of the curb unless waived in writing by the Architectural Control Committee.

C-22 SEWER SERVICE. All homes shall connect to the Private Sewer System and pay such fee charged for the monthly service. No Septic systems shall be allowed on individual lots.

PART D. ARCHITECTURAL CONTROL COMMITTEE:

D-1 MEMBERSHIP. The Architectural Control Committee shall be composed of Darren Baker, Michelle Baker, and Travis Baker. A majority of the committee may designate a representative to act for it. In the event of death or resignation of any member of the committee, the remaining members shall have full authority to designate a successor. Neither the members

of the committee nor its designated representative shall be entitled to any compensation for these services performed pursuant to this covenant.

D-2 PROCEDURE. The committee's approval or disapproval as required in these covenants shall be in writing and in the form hereto attached marked Exhibit "A" which, when executed, should be retained by the owner/builder as proof of the Committee's approval. In the event the committee or its designated representative fails to approve or disapprove within 30 days after plans and specification have been submitted to it or in the event no suit to enjoin the construction or compliance with these covenants has been commenced within 180 days after the completion thereof will not be required and the related covenants shall be deemed to have been fully complied with. The Committee will with Buyer's will with Buyer's permission and at the expense of the Buyer refer Buyer's plan to an architect for revisions and changes to comply with the Bill of Assurance.

PART E. PROPERTY OWNERS ASSOCIATION

E-1 OWNERS EASEMENTS OF ENJOYMENT. Every owner shall have a right and easement of enjoyment in and to the common area which shall be appurtenant to and shall pass with the title to every tract. Subject to the following provision:

(a) The right of the Association to charge reasonable fees for maintenance of the common area;

E-2. MEMBERSHIP AND VOTING RIGHTS

SECTION 1: Every owner of a tract which is subject of assessment shall be a member of the Association. Membership shall be appurtenant to and may not be separated from ownership of any tract which is subject to assessment.

SECTION 2: The Association shall have two classes of voting membership:

Class A: Class A members shall be all owners, with the exception of the Declarant, and shall be entitled to one vote for each tract owned, which may be voted at such time as all tracts are sold by the Declarant. When more than one person holds an interest in any tract, all such persons shall be members. The vote for such tract shall be exercised as they determine, but in no event shall more than one vote be cast with respect to any Tract.

Class B: The Class B member(s) shall be the Declarant and shall be entitled to ten votes per tract owned. The Class B membership shall cease on the happening of the following events.

(a) when all tracts are sold by declarant.

E-3. COVENANT FOR MAINTENANCE ASSESSMENTS

SECTION 1: Creation of the Lien and Personal Obligation of Assessments: The Declarant, for each tract owned within the properties, hereby covenants, and each owner of any tract by acceptance of a deed therefore, whether or not it shall be so expressed in such deed, is deemed to covenant and agree to pay to the Association annual assessment or charges, such assessments to be established and collected as hereinafter provided. The annual assessments, together with interest, costs and reasonable attorneys' fees, shall be a charge on the land and shall be a continuing lien upon the property against which each such assessment is made. Each such assessment, together with interest, costs, and reasonable attorneys' fees, shall also be the personal obligation of the person who is the owner of such property at the time when the assessment fell due. The personal obligation for delinquent assessments shall not pass to his successors in title unless expressly assumed by them.

SECTION 2.: Purpose of Assessment: The assessments levied by the Association shall be used as follows:

- (a) For the maintenance and upkeep of all common areas
- (b) For any other purposes deemed in the best interest of the property owners by the Association

SECTION 3: Annual Assessment: Commencing on the date of filing of this Bill of Assurance, the property owners association will assume total responsibility for operation and maintenance of amenities and common areas and assess each property owner and annual assessment of \$60.00, which shall commence as to all Lots on the first day of January following the date of recordation of this instrument and then effective per annually thereafter. The fees may be adjusted after January 1 of the year immediately following the conveyance of the Lot to an Owner. The sole intent and purpose of these fees are for operation, maintenance, and improvements of the green space, street lights and other amenities in a manner determined by the association membership.

SECTION 4: Notice and Quorum for Any Action Authorized Under Section 3: Written Notice of any meeting called for the purpose of taking any action authorized under Section 3 shall be sent to all members not less than 10 days in advance of the meeting. At the first such meeting called, the presence of member or proxies entitled to cast 60% of all votes shall constitute a quorum.. If the required quorum is not present, another meeting may be called subject to the same notice requirement, and the required quorum at the preceding meeting shall be one-half (1/2) of the required quorum at the preceding meeting. No such subsequent meeting shall be held more than 60 days following the preceding meeting. Each tract as conveyed by Declarant shall have one vote.

SECTION 5: Uniform Rate of Assessment: Both annual and special assessments must be fixed at a uniform rate and may be collect on a semi-annual or annual basis.

SECTION 6: Date of Commencement of Annual Assessments: Due Dates: The annual assessments provided for herein shall commence as to all Lots on the first day of January following the date of recordation of this instrument. The Board of Directors shall fix the amount of the annual assessment against each Lot at least thirty (30) day in advance of each annual assessment period. Written notice of the annual assessment shall be sent to every Owner subject thereto. The due date shall be established by the Board of Directors. The Association shall, upon demand, and for a reasonable charge, furnish a certificate signed by an officer of the Association setting forth whether the assessments on a specified Lot have been paid. A properly executed certificate of the Association as to the status of assessments on a Lot is binding upon the Association as of the date of its issuance.

SECTION 7: Effect of Nonpayment of Assessments: Remedies of the Association: Any assessment not paid within thirty (30) days after the due date shall bear interest from the due date at the rate of ten percent per annum. The Association may bring an action at law against the owner personally obligated to pay the same, or foreclose the lien against the property. No owner may waive or otherwise escape liability for the assessments provided for herein by non-use of the common area or abandonment of the property.

SECTION 8: Subordination of the Lien to Mortgages: The lien of the assessments provided for herein shall be subordinate to the lien of any first mortgage. Sale or transfer of any tract shall not affect the assessment lien. However, the sale or transfer of any tract pursuant to mortgage foreclosure or any proceeding in lieu thereof, shall extinguish the lien of such assessments as to payments which became due prior to such sale or transfer. No sale or transfer shall relieve such tract from liability for any assessments thereafter becoming due or from the lien thereon.

SECTION 9: Special Assessments for Capital Improvements: In addition to the annual assessments authorized above, the members may levy, in any assessment year, a special assessment applicable to that year only for the purpose of defraying, in whole or in part, the cost of any construction, reconstruction, repair or replacement of a capital improvement upon the common areas, provided that such assessment shall have the assent of two-thirds (2/3) of the votes of the members who are voting in person or by proxy at a meeting duly called for this purpose.

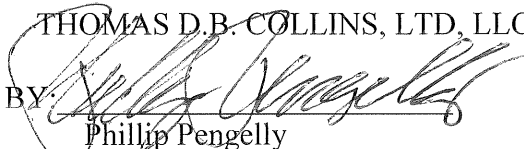
PART F. GENERAL PROVISIONS:

F-1. TERM. These covenants are to run with the land and shall be binding on all parties and all persons claiming under them for a period of twenty-five years from the date these covenants are recorded after which time, said covenants shall be automatically extended for successive period of ten years, subject to the express provision that these covenants may be amended at any time after the date of execution hereby by an instrument signed by the members of the Architectural Control Committee and the owner or owners of a majority of the lots herein platted.

F-2 ENFORCEMENT. Enforcement shall be by proceedings at law or in equity against any person or persons violating or attempting to violate any covenant either to restrain violations or to recover damages.

F-3 SEVERABILITY Invalidation of any one of these covenants by judgment or court order shall in no way affect any of the other provisions which shall remain in full force and effect.

IN WITNESS WHEREOF, the name of Owner is hereby affixed by its Members this 31ST day of AUGUST, 2023.

THOMAS D.B. COLLINS, LTD, LLC
BY: 
Phillip Pengelly

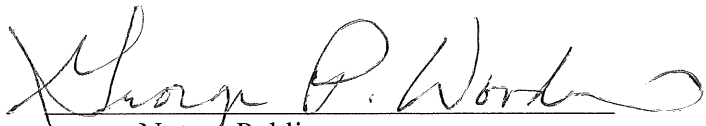
ACKNOWLEDGEMENT

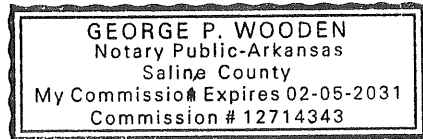
STATE OF ARKANSAS)
)ss
COUNTY OF SALINE)

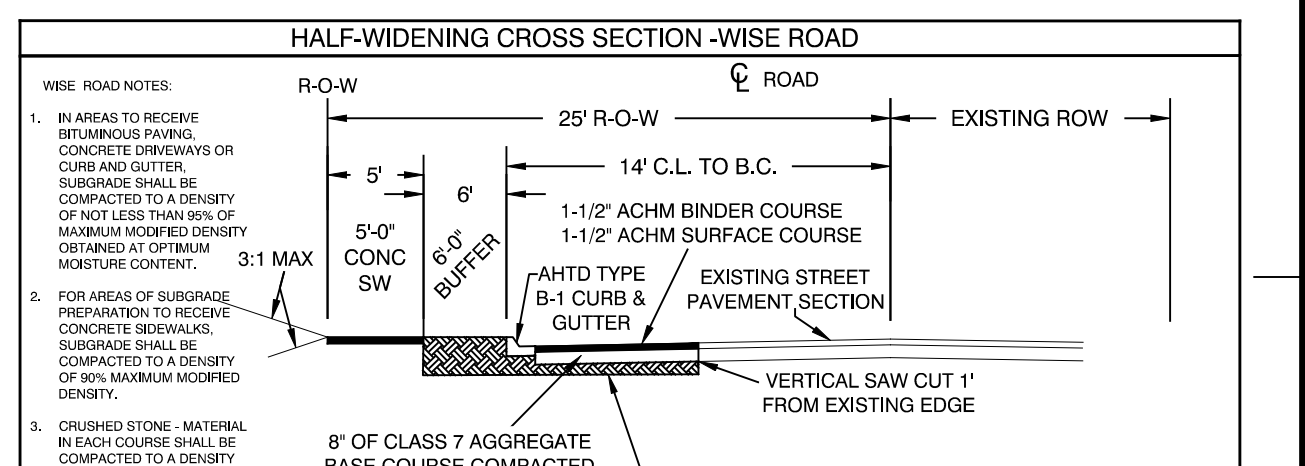
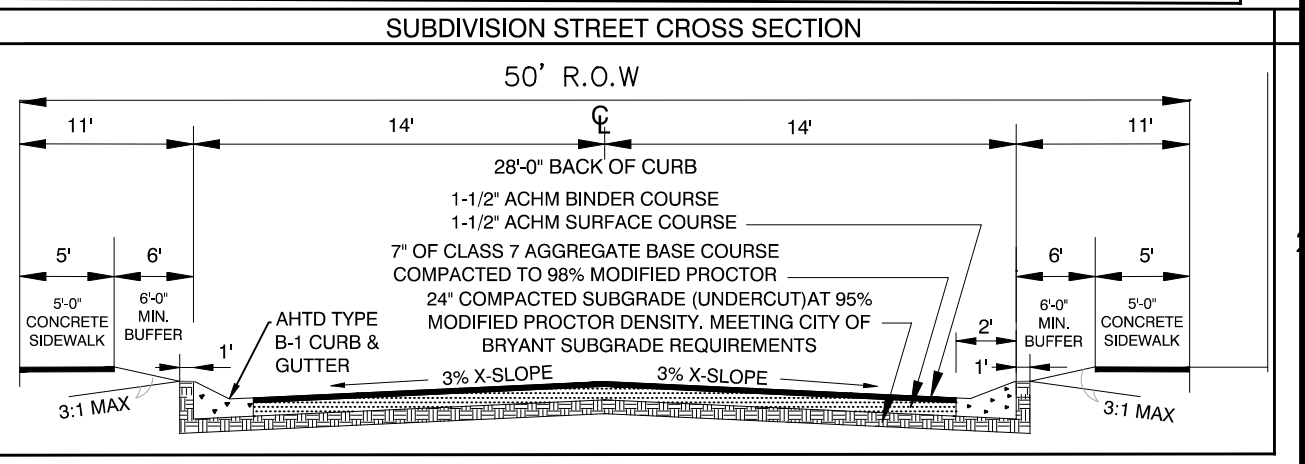
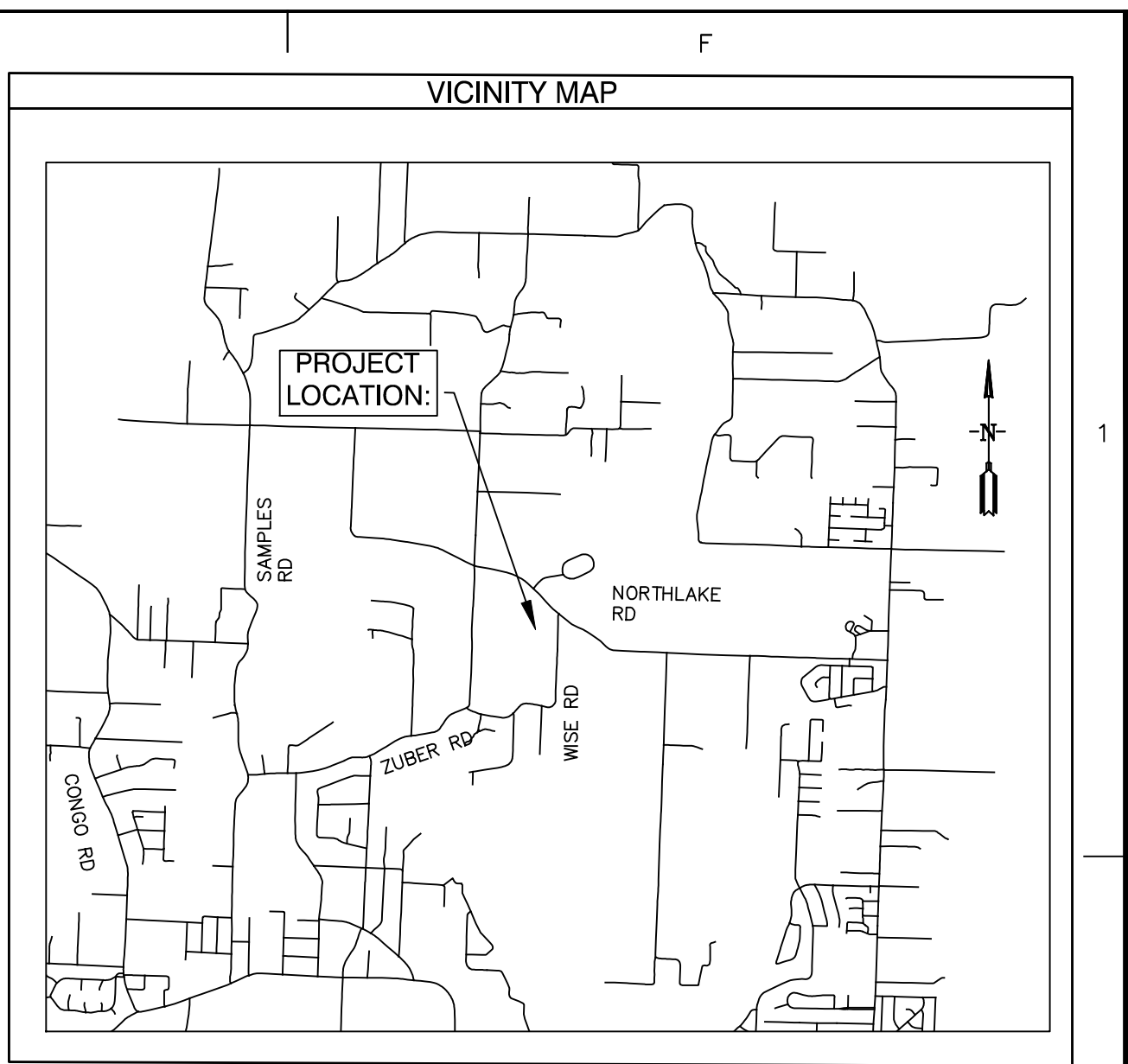
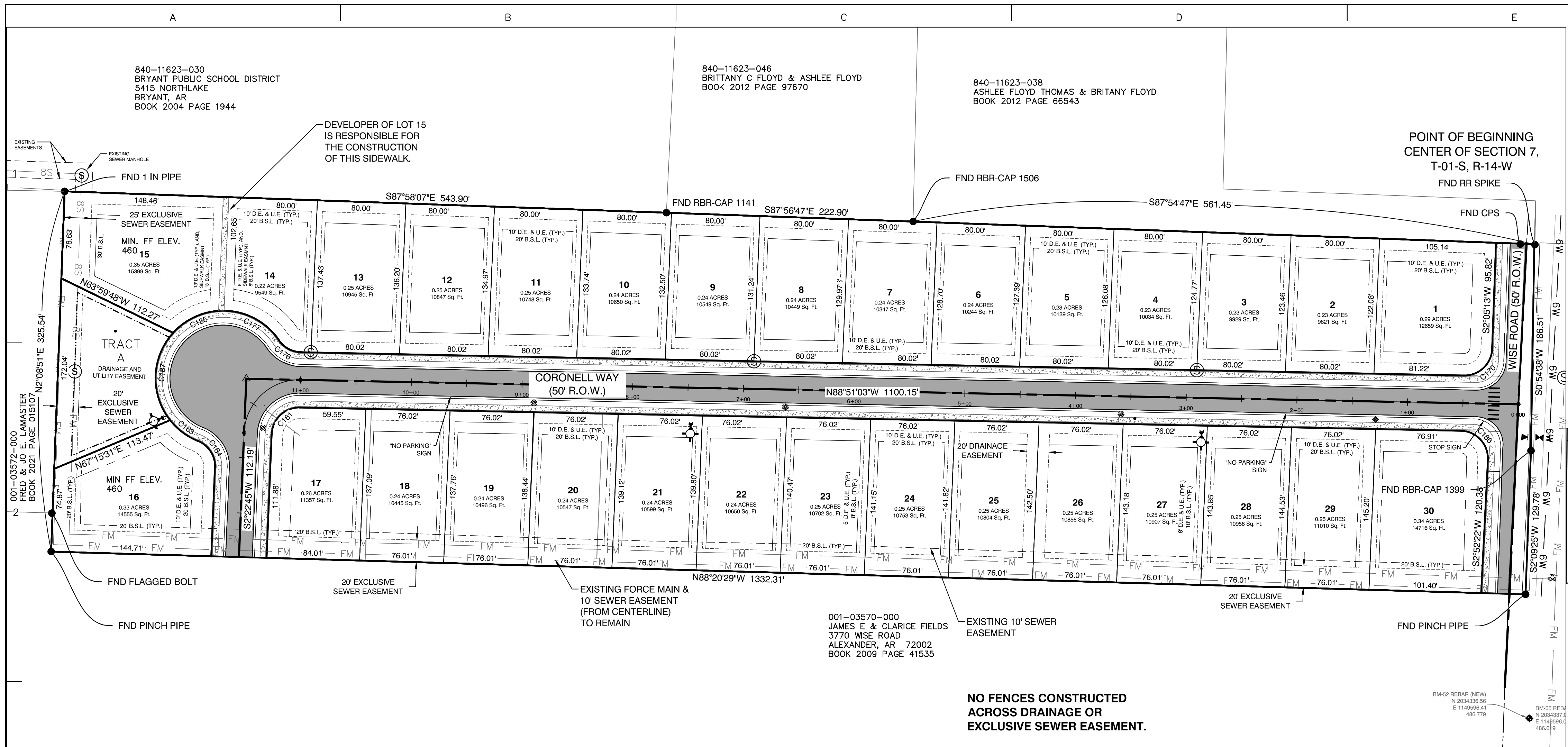
On this day appeared before me, a Notary Public, Michele Stephens-Baker, known to me to be the President of THOMAS D.B. COLLINS, LTD. and acknowledged that he was authorized to execute the foregoing on its behalf and that they had executed same for the consideration and purpose therein mentions and set forth.

WITNESS my hand and seal this 31ST day of AUGUST, 2023.

My commission expires:
02-05-2031


Notary Public

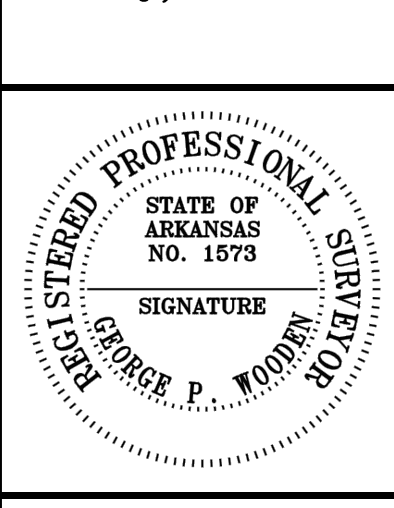




BY	REVISION
DATE	

GNE Designing our client's success
GarNat Engineering, LLC
 P.O. Box 116
 Benton, Arkansas 72018
 Ph (501) 408-4650
 gnatengineering@gmail.com

SARATOGA PLACE SUBDIVISION
 CITY OF BRYANT,
 SALINE COUNTY, ARKANSAS



CONTENTS:
FINAL PLAT

PROJECT NO:
17084
 DATE:
JUNE 16, 2023
 SHEET NO:

1

FINAL PLAT SARATOGA PLACE SUBDIVISION CITY OF BRYANT SALINE COUNTY, ARKANSAS

OWNER: Thomas D.B. Collins LTD
DEVELOPER: Thomas D.B. Collins LTD
Address: 39 Walnut Valley Drive, Little Rock, AR 72211

CERTIFICATE OF OWNER:
 We, the undersigned, owners of the real estate shown and described herein do hereby certify that we have laid off, platted and subdivided, and do hereby lay off, plat and subdivide said real estate in accordance with the within plat.
 Date: _____ Signed: _____
 Name: Phillip Pengelly
 Address: 39 Walnut Valley Drive, Little Rock, Arkansas 72211

CERTIFICATE OF ENGINEERING ACCURACY:
 I, Vernon J. Williams, hereby certify that this plat correctly represents a survey and a plan made by me or under my supervision; that all monuments shown hereon actually exist and their locations, size, type, and material are correctly shown; and that all requirements of the City of Bryant Subdivision Rules and Regulations have been fully complied with.
 Date: _____ Signed: _____
 Vernon J. Williams
 Registered Professional Engineer
 No. 9551, Arkansas

CERTIFICATE OF FINAL PLAT APPROVAL:
 Pursuant to the City of Bryant Subdivision Rules and Regulations, this document was given approval by the Bryant Planning Commission at a meeting held July 10, 2023. All of the document is hereby accepted, and this certificate executed under the authority of said rules and regulations.
 Date: _____ Signed: _____
 Rick Johnson, Chairman
 Bryant Planning Commission

CERTIFICATE OF RECORDING:

CERTIFICATE OF SURVEYING ACCURACY:
 I, George P. Wooden, hereby certify that this plat correctly represents a boundary survey made by me or under my supervision on March 28, 2017; that the boundary lines shown hereon correspond with the description in the deeds cited in the above Source of Title; and that all monuments which were found or placed on the property are correctly described and located.
 Date: _____ Signed: _____
 George P. Wooden
 Registered Land Surveyor
 No. 1573, Arkansas

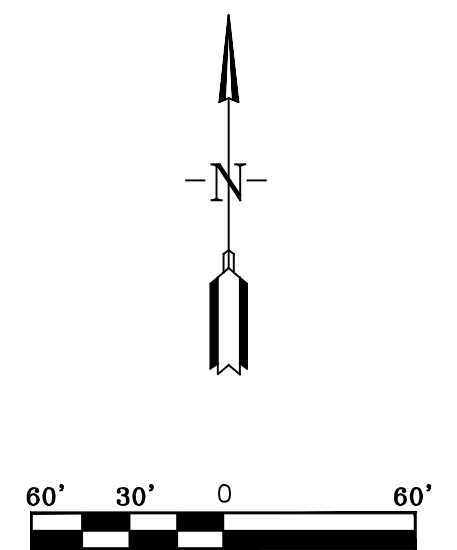
CERTIFICATE OF ENGINEERING ACCURACY:
 I, George P. Wooden, hereby certify that this plat correctly represents a boundary survey made by me or under my supervision on March 28, 2017; that the boundary lines shown hereon correspond with the description in the deeds cited in the above Source of Title; and that all monuments which were found or placed on the property are correctly described and located.
 Date: _____ Signed: _____
 George P. Wooden
 Registered Land Surveyor
 No. 1573, Arkansas

CERTIFICATE OF FINAL PLAT APPROVAL:
 Pursuant to the City of Bryant Subdivision Rules and Regulations, this document was given approval by the Bryant Planning Commission at a meeting held July 10, 2023. All of the document is hereby accepted, and this certificate executed under the authority of said rules and regulations.
 Date: _____ Signed: _____
 Rick Johnson, Chairman
 Bryant Planning Commission

- DOCUMENTS USED FOR THE PREPARATION OF THIS SURVEY**
- JAMES RASBURY 2012-03-06
 - HOPE ENGINEERS FOR COOK 1988
 - HOPE ENGINEERS FOR COOK 1993-07-06
 - BROOKS SURVEYING 2008-04-17
 - BOOK 2018 PAGE 006759
 - BOOK 2014 PAGE 33990
 - BOOK 2012 PAGE 97670
 - BOOK 2012 PAGE 66543
 - BOOK 2010 PAGE 59382
 - BOOK 2010 PAGE 32719
 - BOOK 2009 PAGE 41535
 - BOOK 2008 PAGE 35197 GENERAL WARRANTY DEED
 - BOOK 2004 PAGE 1944 WARRANTY DEED
 - GLO ORIGINAL PLAT T1S R14W DATED 1822-08-22
 - GLO DUPLICATE PLAT T1S R14W DATED 1859
 - BOOK 2012 PAGE 68815 EASEMENT

PROPERTY SPECIFICATIONS:
 ZONING CLASSIFICATION: R-1-S
 MIN. LOT SIZE: 6,000 S.F.
 NUMBER OF LOTS: 30
 SOURCE OF WATER: SALEM WATER
 SOURCE OF SEWER: CITY OF BRYANT
 BUILDING SETBACKS:
 FRONT - 20' OR AS SHOWN
 REAR - 20' OR AS SHOWN
 SIDE - 8' OR AS SHOWN
 EASEMENTS: UTILITY & DRAINAGE (D.E. & U.E.)
 FRONT - 10' OR AS SHOWN
 REAR - 10' OR AS SHOWN
 SIDE - 5' OR AS SHOWN
 STREET RIGHT OF WAYS: 50' OR AS SHOWN
 STREET WIDTH: 28' BOC TO BOC
 LOT CORNERS: SET #4 REBAR WITH CAP
 TRACT A WILL BE OWNED & MAINTAINED BY PROPERTY OWNERS ASSOCIATION. THE ENTIRE LIMITS OF TRACT A ARE A DRAINAGE AND UTILITY EASEMENT.

Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C161	38.73	25.00	88°46'12"	S46° 45' 51"W	34.97
C170	38.86	25.00	89°03'44"	S46° 37' 05"W	35.06
C176	19.09	25.00	43°45'28"	N56° 16' 42"W	18.63
C177	58.23	61.00	54°41'25"	N61° 44' 40"W	56.04
C183	31.52	61.00	29°36'25"	S53° 07' 50"E	31.17
C184	30.68	25.00	70°18'48"	S32° 46' 39"E	28.79
C185	51.80	61.00	48°39'21"	S66° 34' 57"W	50.26
C186	40.02	25.00	91°43'24"	S42° 59' 20"E	35.88
C187	85.78	61.00	80°33'51"	S1° 57' 31"W	78.89



SURVEY LEGEND
 △ - Computed point
 ● - Found monument
 ○ - Set #4 RB/Plas. Cap
 (M)-Measured
 (R)-Record
 (P)-Platted

GENERAL NOTES:
 1. ALL STREETS & DRAINAGE TO MEET CITY OF BRYANT STANDARD SPECIFICATIONS & DETAILS.
 2. ALL TRAFFIC CONTROL DEVICES SHALL MEET THE REQUIREMENTS OF PART 4 OF BRYANT STANDARD SPECIFICATIONS PER PART 4-9



SURVEY PLAT CODE:
 500-01S-14W-0-07-310-62-1573

Memorandum of Understanding

For the completion of street overlay improvements on Wise Road between Saratoga Place Subdivision and Kensington Place Subdivision Phase 4 upon completion of Kensington Place Subdivision Phase 4 and before final plat all street overlay improvements shall be completed.

WHEREAS, the City of Bryant has met and discussed with the representative of the developer, to assist smart management of a proper overlay finished product:

WHEREAS, the City of Bryant deems it necessary to work with developer to ensure best possible infrastructure:

WHEREAS, the parties involved mutually agree to certain principles for the development;

WHEREAS, the provisions below represent the Parties understanding of the agreed upon requirements from previous meetings;

Now, therefore the parties agree to the following provisions:

The developer of Saratoga Place Subdivision and Kensington Place Subdivision Phase 4 will complete all street overlay improvements required and agreed upon by way of approved preliminary plans. Final two inch overlay lift improvements shall be complete before final plat to Kensington Place Phase 4 Subdivision is given. All overlays and improvements shall follow the City of Bryant Minimum Street Specifications and preliminary approved plans by the City of Bryant. Until such time the developer shall leave the streets in an operable and safe condition. The developer must contact the City of Bryant Public Works before any work is performed to ensure that all permits have been obtained and the work performed is being inspected to assure quality standards.

City of Bryant:

Title:

Date:

Thomas D.B Collins LTD:



Title:

OWNER

Date:

8/31/2023

Bryant Public Works Department



August 30, 2023

Phillip Pengelly
Thomas D.B Collins LTD
9360 Gilbert Road
Benton, AR 72019
(501) 680-0970

RE: Saratoga Place Subdivision – Street Infrastructure Bond
Bryant, AR

To whom it may concern:

In accordance with City of Bryant Minimum Street Specifications Part 2.7 the Owner shall provide a Maintenance Warranty Bond to the City for a period of 12 months in the amount of 25 percent of the construction cost but not less than \$50,000. In this case an engineer's estimate was provided for a total amount of \$215,551.50, 25 percent would equate to \$53,887.82. Therefore a \$53,887.82 Maintenance Warranty is required.

After a final inspection by the City of Bryant and issuance of the above described bonds/warranties, the City will issue a final acceptance of the described infrastructure.

Sincerely,

A handwritten signature in black ink, appearing to read "Troy Ellis".

Troy Ellis,
Street Superintendent



Bryant Public Works Department

August 30, 2023

Phillip Pengelly
Thomas D.B Collins LTD
9360 Gilbert Road .
Benton, AR 72019
(501) 680-0970

RE: Saratoga Place Subdivision - Bryant, AR

To whom it may concern:

The City of Bryant has reviewed the completed Stormwater Infrastructure and have determined that it is acceptable. In accordance with the City of Bryant Stormwater Manual the Owner shall be responsible for the provision to the City of a one (1) year maintenance bond for 100 percent of the construction cost. In this case an engineer's estimate was provided for a total amount of \$242,390.00. Therefore a 1-year bond in the amount of \$242,390.00 is required.

After a final inspection by the City of Bryant and issuance of the above described bonds/warranties, the City will issue a final acceptance of the described infrastructure.

Sincerely,

A handwritten signature in black ink, appearing to read "Troy Ellis". The signature is fluid and cursive, with a large loop at the end.

Troy Ellis
Stormwater Superintendent

**Saratoga Place
Wise Road
Bryant, AR 72022
501-249-3378**

STORM WATER MAINTENANCE PLAN

The Saratoga Place Property Owners Association will be responsible for the inspection and maintenance of the stormwater detention pond located on its.

Inspections are to be scheduled as directed in this document. All documentation on scheduled inspections, dates of inspections, and maintenance completed shall be retained by the Saratoga Place Property Owners Association for a period of three years.

DETENTION PONDS

Monthly Maintenance (as applicable):

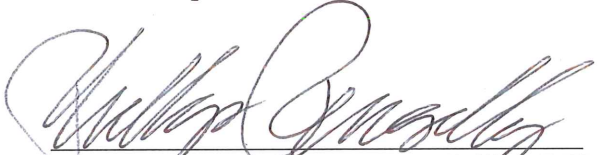
- Mow grass on the slopes and bottom of detention pond.
- Mow grass on exclusive sanitary sewer easement.

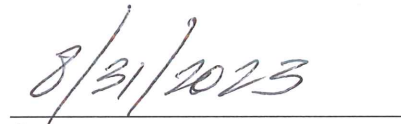
Biennial Maintenance (Spring & Fall):

- Check outlets for clogging with trash or dead vegetation, clean when necessary
- Remove dead vegetation that obstructs flow

Annual Maintenance (Early Spring):

- Check outlets for sediment in-fill, clean when necessary
- Check pond for sediment accumulation, remove if 6" or more has accumulated


Phillip Pengelly, Thomas D. B. Collins, LTD


date



First Electric Cooperative Corporation

P.O. Box 5018
Jacksonville, Arkansas 72078-5018
(501) 982-4545 • (800) 489-7405

September 5, 2023

Mr. Troy Ellis
Bryant Public Works
210 SW Third Street
Bryant, Arkansas 72022

Re: Installation of streetlight for Saratoga Subdivision

Dear Mr. Ellis

The developer has paid all fees for the installation of streetlights within the above referenced subdivision. The lights will be installed as soon as contract crews become available.

Thank you for your patience while we work through our scheduling difficulties.

Sincerely

A handwritten signature in black ink, appearing to be 'RJ' with a flourish.

Randy Jones
Field Engineer

GNE

3825 Mt Carmel Rd.
Bryant, AR 72022

GarNat Engineering, LLC

P.O. Box 116
Benton, AR 72018

June 6, 2023

Truett Smith
Planning & Community Development
210 S.W. 3rd Street
Bryant, AR 72022

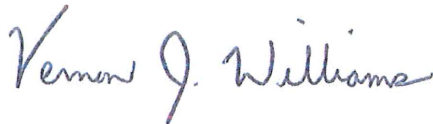
Re: Final Plat Certification
Saratoga Place Subdivision

Dear Mr. Smith:

Please allow this letter to serve as the certification for the referenced project required by Paragraph 15.12.05.a of the City of Bryant Subdivision Regulations. To that end, we certify that all improvements and installation to the subdivision required for its approval under the terms of the City of Bryant Subdivision Rules and Regulations have been made, added, or installed. Furthermore, these improvements were constructed in accordance with the approved plans and specifications.


If you have questions or need any additional information, please do not hesitate to contact us.

Sincerely,
GarNat Engineering, LLC



Vernon J. Williams, P.E., President

Thomas D.B. Collins



Phillip Pengelly

August 23, 2023

Colton Leonard
City of Bryant
210 Southwest Third St., Bryant, AR 72022

RE: Replat Roman Heights Lot 21 and 22 (Parcel #'s 840-08615-021 and 840-08615-022)

Dear Mr. Leonard,

On behalf of our client, please accept this submittal of our application for Replatting Lots 21 and 22 Roman Heights Subdivision. Please find the attachments below that will complete this application.

Sincerely,



Jonathan Hope
Hope Consulting, Inc
jonathan@hopeconsulting.com



CERTIFICATE OF OWNER:

We, the undersigned, owners of the real estate shown and described herein do hereby certify that we have laid off, platted and subdivided, and do hereby lay off, plat and subdivide said real estate in accordance with the plat.

Name: _____

Source of Title: Saline County Document # 2021-024929

LOT 21R AND 22R
A REPLAT OF LOT 21 AND 22 OF
ROMAN HEIGHTS PHASE 1
TO THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS.

THE PURPOSE OF THIS REPLAT IS TO ADJUST LOT LINE BETWEEN LOTS 21 AND 22.

CERTIFICATE OF FINAL SURVEYING ACCURACY:

I, Corbitt Shoffner, hereby certify that this plat correctly represents a survey completed by me, or under my supervision, that the boundary lines shown hereon correspond with the description in the deeds cited in the above Source of Titles; and that all monuments which were found or placed on the property are correctly described and located.

Date of Execution _____

Name: Corbitt Shoffner,
Registered Professional
Land Surveyor, No. 1664
Arkansas

CERTIFICATE OF FINAL APPROVAL:

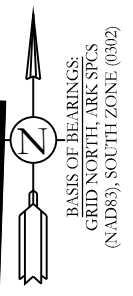
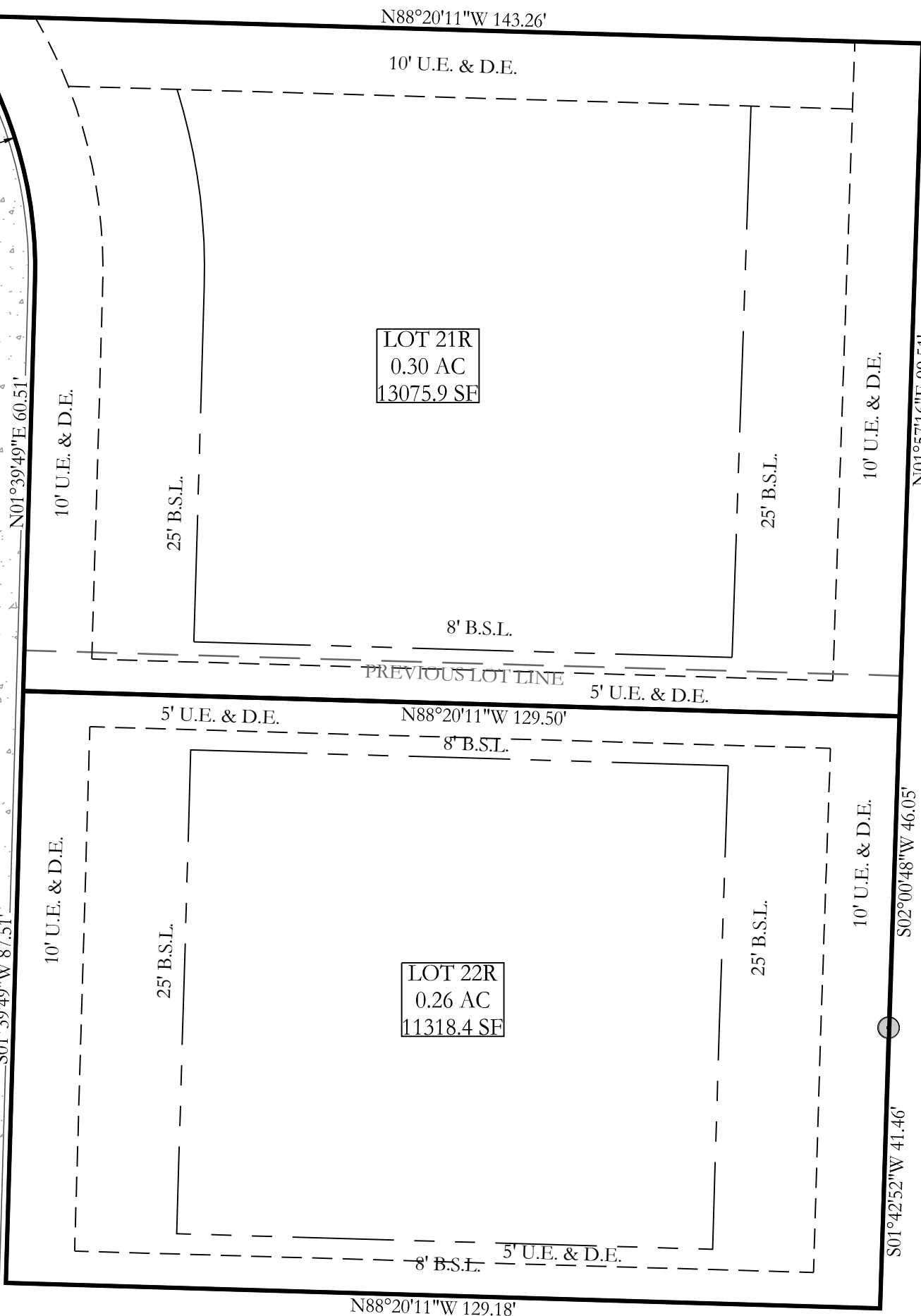
Pursuant to the City of Bryant Subdivision Rules and Regulations, this document was given approval by the Bryant Planning Commission at a meeting held _____, 20____. All of the document is hereby accepted, and this certificate executed under the authority of said rules and regulations.

Date of Execution _____

Name
Bryant Planning Commission

CH=N17°06'30"W 41.19'
R=64.00', L=41.94'

ROMAN HEIGHTS AVE.
50' R/W



BASIS OF BEARINGS:
GRID NORTH, ARK SPKS
(NAD83), SOUTH ZONE (0302)

- LEGEND**
- Computed Point
 - Found monument
 - Set 1/2" Rebar #1664
 - Measured by Surveyor (M)
 - Record measurements (R/D/P)
 - Building Setback Line Restriction B.S.L.
 - Utility / Drainage Easement U.E./D.E.
 - Fence
 - Centerline

Drawn By: MD Checked: _____

GENERAL DISCLAIMER
This survey is for the exclusive use and benefit of parties shown hereon. Use or duplication of this document by any other parties is prohibited and voids said document.
This survey is based on public records and/or title investigations furnished by third parties. No independent search or investigation has been made by this firm for any records, public or private. Listed reference documents hereon were used and considered as a part of this survey; however other records, if any, could further affect this survey. No statement or guarantees of ownership, rights, or other interests are made by this survey plat.
FLOOD STATEMENT
No portion of the property described hereon lies within the 100 year flood plain, according to the Flood Insurance Rate Map, panel # 05125C0240E, dated: 06/05/2020.

129 North Main Street
Benton, Arkansas 72015
office: (501) 315-2626
fax: (501) 315-0024
www.HopeConsulting.com

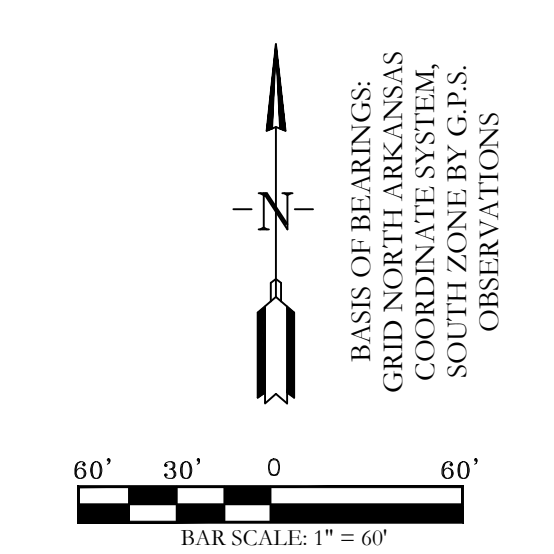
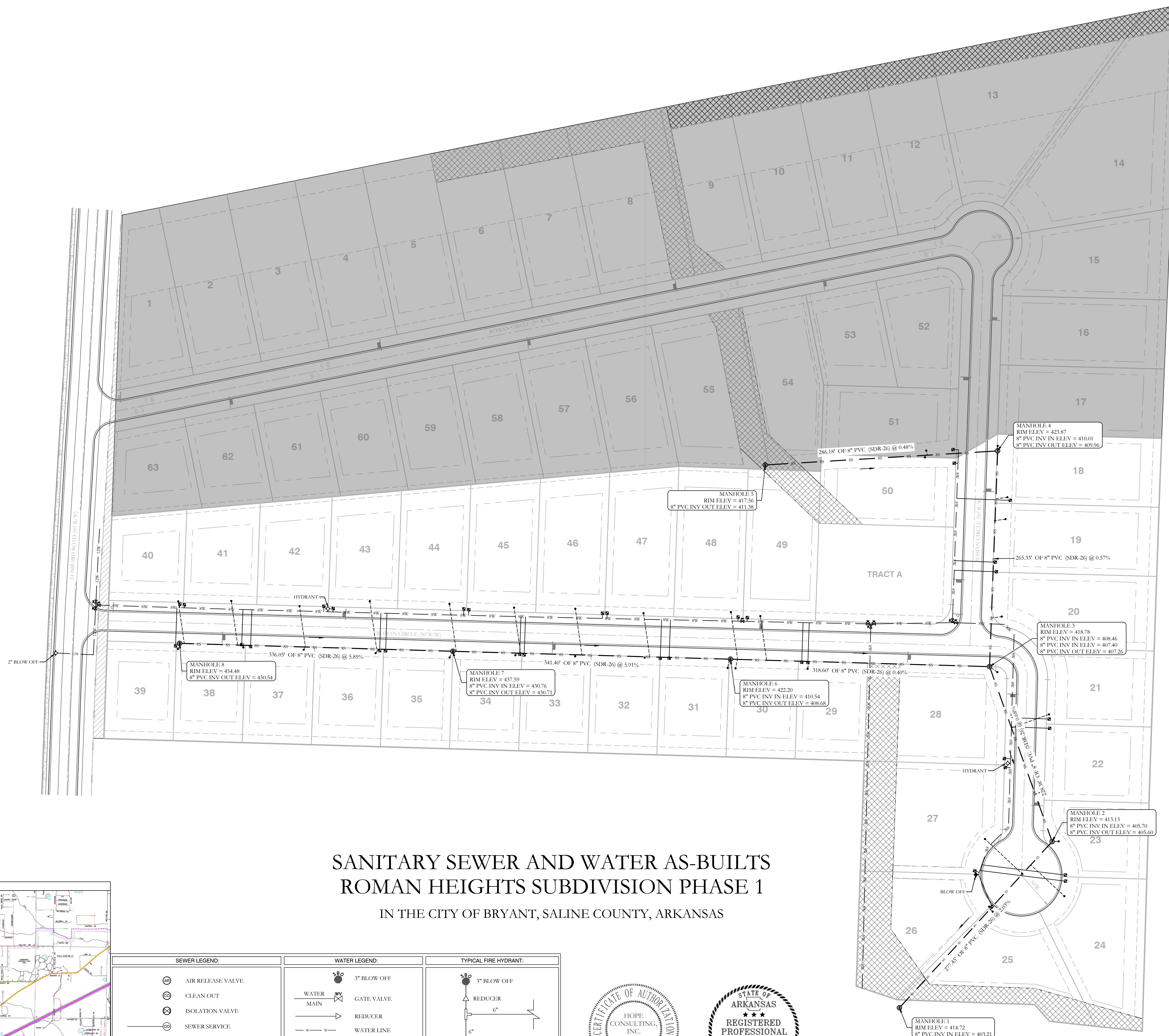
HOPE CONSULTING
ENGINEERS - SURVEYORS
For the Exclusive Use and Benefit of:
BULL HOME BUILDERS

Address	500	01S	14W	0	10	300	62	1664
Date								

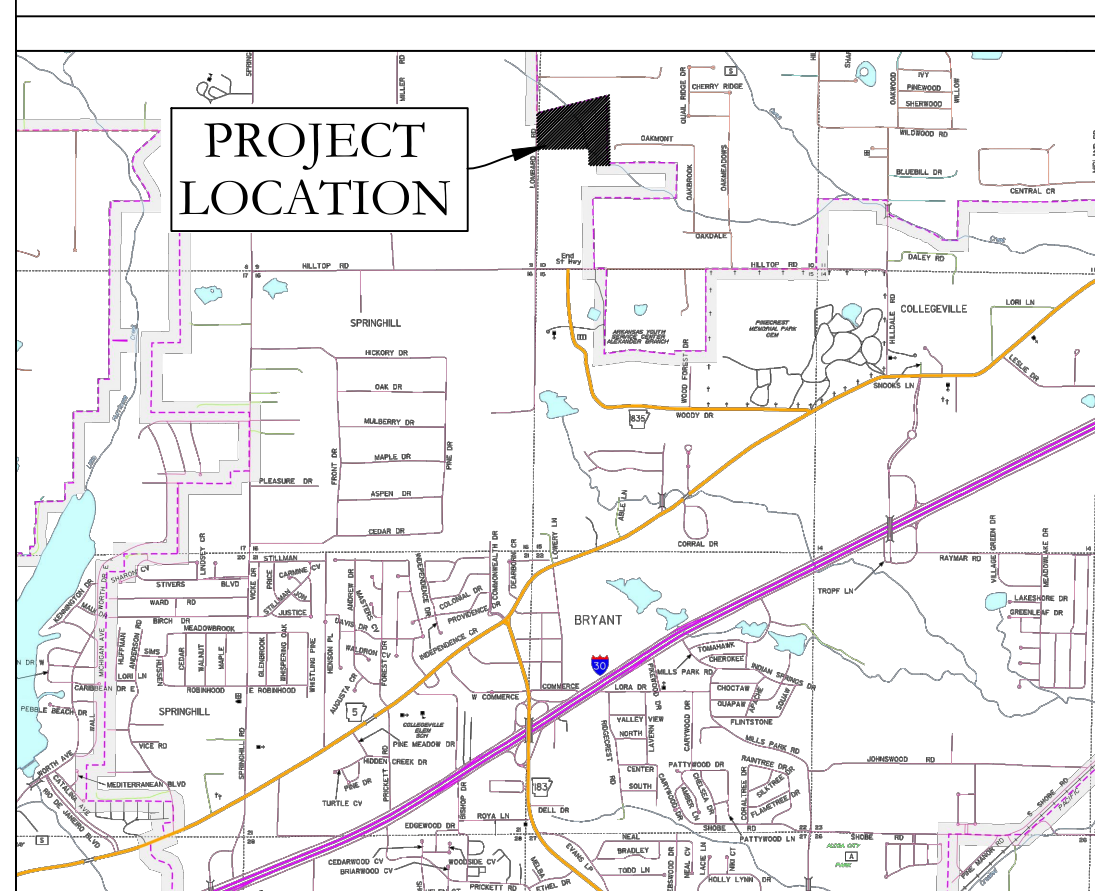


ORIGINAL SIGNATURE ON FILE





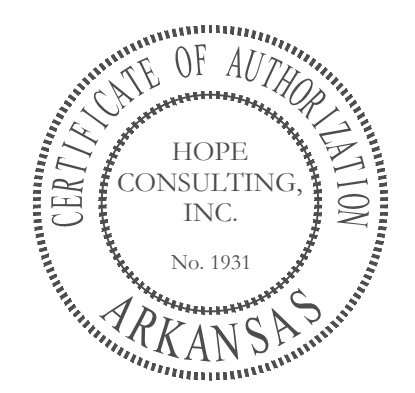
**SANITARY SEWER AND WATER AS-BUILTS
ROMAN HEIGHTS SUBDIVISION PHASE 1
IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS**



SEWER LEGEND:	WATER LEGEND:	TYPICAL FIRE HYDRANT:
AIR RELEASE VALVE	3" BLOW OFF	3" BLOW OFF
CLEAN OUT	WATER MAIN	REDUCER
ISOLATION VALVE	REDUCER	6"
SEWER SERVICE	WATER LINE	GATE VALVE
SEWER SERVICE	FIRE HYDRANT	FIRE HYDRANT
	DOUBLE WATER SERVICE	FIRE HYDRANT
	SINGLE WATER SERVICE	FIRE HYDRANT
	GATE VALVE	FIRE HYDRANT

NOTE:
PROPOSED SEWER MAINS IS TO HAVE TRACER WIRE.
ALSO A NON-BIODEGRADABLE TAPE IDENTIFYING
THE LINE AS "SEWER" MUST BE BURIED IN THE
TRENCH ABOVE THE SEWER MAINS.

NOTE:
ALL FIRE HYDRANT LEADERS HAVE A GATE
VALVE BETWEEN MAIN AND FIRE HYDRANT.



HOPE CONSULTING ENGINEERS - SURVEYORS		117 S. Market Street, Benton, Arkansas 72015 PH. (501)315-2626 FAX (501) 315-0024 www.hopeconsulting.com	
FOR USE AND BENEFIT OF: BULL DEVELOPMENT LLC			
WATER & SEWER AS-BUILTS PLAN ROMAN HEIGHTS SUBDIVISION PHASE 1 IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS			
DATE:	10/06/2021	C.A.D. BY:	JPP
REVISION:		CHECKED BY:	
500	01S	14W	0 10 300 62 1762
		SCALE:	1"=60'
		DRAWING NUMBER:	17-0077

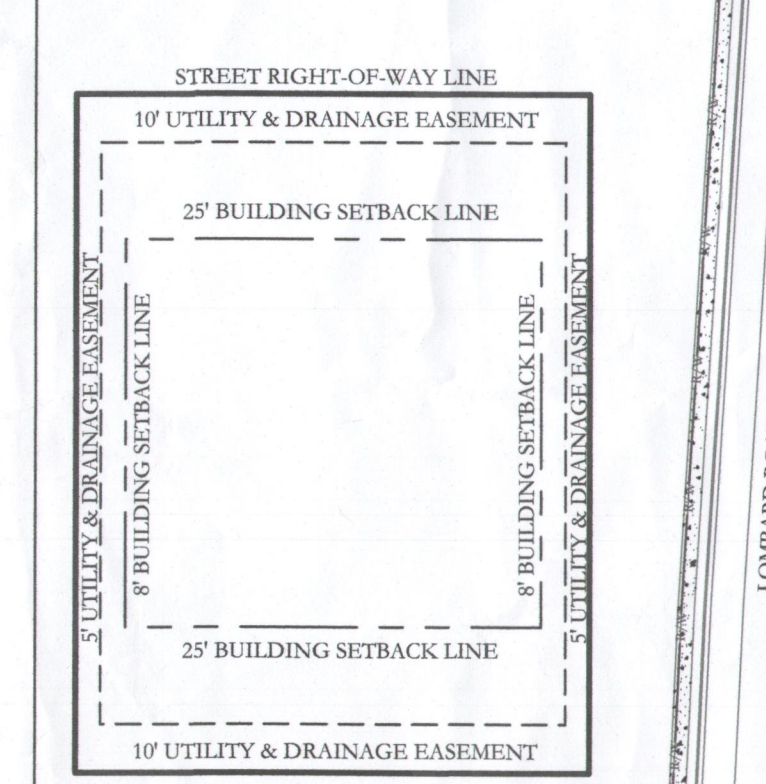
K:\LAND PROJECTS\2021\10\06\2021\170077 ROMAN HEIGHTS\DWG\170077 ROMAN HEIGHTS AS-BUILTS 10-10-21.DWG

Curve #	Length	Radius	Delta	Chord Direction	Ch. Length
C1	19.44'	25.00'	44°33'13"	S56°28'34"W	18.95'
C2	25.03'	50.00'	28°40'44"	S48°32'19"W	24.77'
C3	50.52'	50.00'	57°53'24"	N88°10'37"W	48.40'
C4	40.89'	50.00'	46°51'19"	N35°48'16"W	39.76'
C5	51.44'	50.00'	58°50'34"	N17°09'41"E	49.20'
C6	19.44'	25.00'	44°33'13"	N24°17'22"E	18.95'
C7	34.41'	25.00'	78°51'06"	N37°24'48"W	31.75'
C8	45.75'	64.00'	40°57'31"	N56°21'36"W	44.78'
C9	41.94'	64.00'	37°32'40"	N17°06'30"W	41.19'
C10	21.03'	25.00'	48°11'23"	N22°25'52"W	20.41'
C11	42.05'	50.00'	48°11'23"	N22°25'52"W	40.82'
C12	54.19'	50.00'	62°03'38"	N32°42'38"E	51.57'
C13	62.19'	50.00'	71°15'55"	S80°36'30"E	58.26'
C14	40.70'	50.00'	46°38'28"	S21°39'25"E	39.59'
C15	42.05'	50.00'	48°11'23"	S25°45'31"W	40.82'
C16	21.03'	25.00'	48°11'23"	S25°45'31"W	20.41'
C17	21.99'	14.00'	90°00'01"	S43°20'11"E	19.80'
C18	39.12'	25.00'	89°39'04"	S46°50'17"W	35.25'
C19	45.00'	25.00'	103°15'35"	S49°37'02"E	39.20'

Curve #	Delta	Chord B & D	Arc Length	Arc Radius
SC1	103°15'35"	N49°37'02"W 59.59'	68.48'	38.00'
SC2	90°00'00"	S43°20'11"E 53.74'	59.69'	38.00'

Line #	Direction	Length
L1	N88°20'11"W	33.56'

FOUND 1/2" REBAR NW CORNER NW 1/4 SW 1/4 SECTION 10, T-01-S, R-14-W
28" POST OAK, 866'FM 25.2' AGC BRG. TAG ON 2" PINE, S12'E, 53.1' POWER POLE, N42°W, 55.1'



TYPICAL SETBACKS & EASEMENTS

- NOTE:
- TRACT A WILL BE UTILIZED AS A DETENTION BASIN, DRAINAGE AND UTILITY EASEMENTS MAINTAINED BY THE PROPERTY OWNERS ASSOCIATION.
 - NO FENCE SHALL BE ERRECTED IN HATCHED AREA.

PROPERTY DESCRIPTION:
PART OF THE NW 1/4 OF THE SW 1/4 AND PART OF THE SW 1/4 OF THE NW 1/4, ALL IN SECTION 10, TOWNSHIP 01 SOUTH, RANGE 14 WEST, SALINE COUNTY, ARKANSAS; MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT A FOUND 1/2" REBAR, ACCEPTED AS THE SW CORNER OF THE NW 1/4 OF THE SW 1/4 OF SECTION 10; THENCE S88°21'12"E, A DISTANCE OF 25.00 FEET TO A FOUND 1/2" REBAR; THENCE N02°03'56"E, A DISTANCE OF 970.17 FEET TO A FOUND 1/2" REBAR (PLS #1375), BEING THE POINT OF BEGINNING OF HEREIN DESCRIBED TRACT; THENCE N02°00'45"E, A DISTANCE OF 273.72 FEET TO A POINT; THENCE N84°59'24"E, A DISTANCE OF 700.02 FEET TO A POINT; THENCE S87°59'15"E, A DISTANCE OF 174.31 FEET TO A POINT; THENCE N02°00'45"E, A DISTANCE OF 20.99 FEET TO A POINT; THENCE S88°20'09"E, A DISTANCE OF 165.60 FEET TO A POINT; THENCE N59°48'38"E, A DISTANCE OF 59.09 FEET TO A POINT; THENCE S88°30'37"E, A DISTANCE OF 201.63 FEET TO A POINT ON THE EAST LINE OF THE NW 1/4 OF THE SW 1/4 OF SECTION 10; THENCE ALONG THE EAST LINE THEREOF S02°16'42"W, A DISTANCE OF 47.10' TO A FOUND 1/2" REBAR, ACCEPTED AS THE NORTHEAST CORNER THEREOF; THENCE S01°58'23"W, ALONG SAID EAST LINE, A DISTANCE OF 360.26 FEET TO A POINT; THENCE LEAVING SAID EAST LINE, S01°42'52"W, A DISTANCE OF 298.25 FEET TO A POINT; THENCE S01°26'18"W, A DISTANCE OF 23.73 FEET TO A POINT; THENCE N83°50'59"W, A DISTANCE OF 114.88 FEET TO A POINT; THENCE N41°49'51"W, A DISTANCE OF 27.47 FEET TO A POINT; THENCE N87°58'30"W, A DISTANCE OF 168.90 FEET TO A POINT; THENCE N71°47'01"W, A DISTANCE OF 53.10 FEET TO A POINT; THENCE N02°03'16"E, A DISTANCE OF 277.04 FEET TO A FOUND 1/2" REBAR (PLS #1375); THENCE N88°18'41"W, A DISTANCE OF 935.16 FEET BACK TO THE POINT OF BEGINNING, SAID TRACT CONTAINING 550.021 SQUARE FEET, OR 12.63 ACRES, MORE OR LESS.

2021-024929
I certify this instrument was filed on:
09/15/2021 01:13:31 PM
Myka Biano Sample
Saline County Circuit Clerk



FINAL PLAT
ROMAN HEIGHTS SUBDIVISION PHASE 1
IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

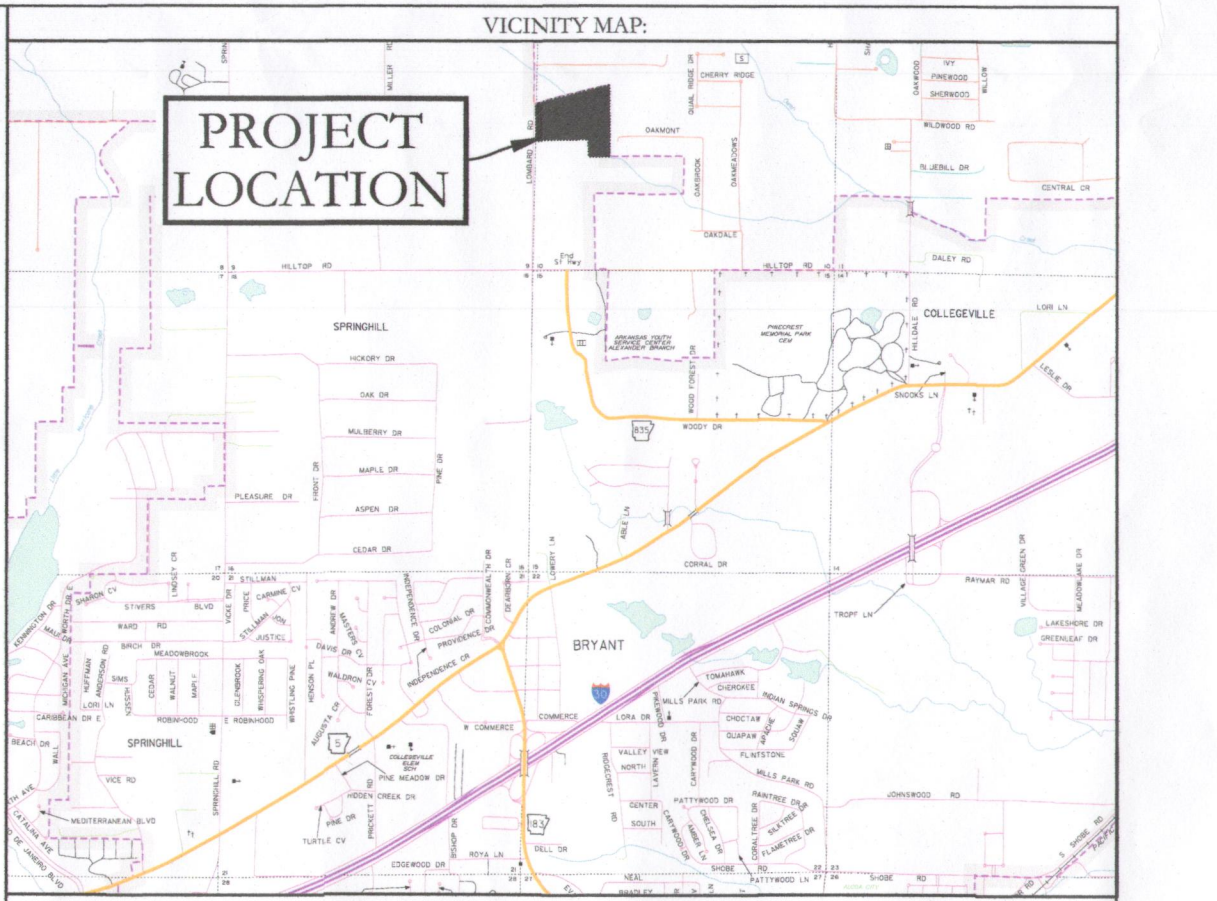
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF ARKANSAS
NO. 12428
SIGNATURE
WILLIAM W. McFADDEN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
NO. 14048
WILLIAM W. McFADDEN

CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

LEGEND

- Found Aliquot Corner
- Computed point
- Found monument
- Set #4 RB/Plas. Cap(SIP)
- Record
- Measured
- Platted
- Street Light
- Fire Hydrant
- Stop Sign
- No Parking Sign



CITY OF BRYANT CERTIFICATIONS:

OWNER: BULL DEVELOPMENT LLC
Name: BULL DEVELOPMENT LLC
Address: P.O. BOX 908, BRYANT, AR 72089

DEVELOPER: BULL DEVELOPMENT LLC
Name: BULL DEVELOPMENT LLC
Address: P.O. BOX 908, BRYANT, AR 72089

CERTIFICATE OF OWNER:
We, the undersigned, owners of the real estate shown and described herein do hereby certify that we have laid off, platted and subdivided, and do hereby lay off, plat and subdivide said real estate in accordance with the within plat.
Date of Execution: 8/12/21
Name: Jonathan L. Hope

CERTIFICATE OF SURVEYING ACCURACY:
I, Jonathan L. Hope, hereby certify that this plat correctly represents a survey and a plan made by me or under my supervision; that all monuments shown hereon actually exist and their location, size, type and material are correctly shown; and that all interior lot lines have been adjusted to "as built conditions" and are accurately described on the plat and identified on the ground in terms of length and direction of the property side as required in accordance with the City of Bryant Subdivision Regulation Ordinance.
Date of Execution: 8/12/21
Name: Jonathan L. Hope, Registered Professional Land Surveyor No. 1762, Arkansas

CERTIFICATE OF FINAL ENGINEERING ACCURACY:
I, William W. McFadden, hereby certify that this plat correctly represents a plat made by me, and that the engineering requirements of the City of Bryant Subdivision Rules and Regulations have been followed.
Date of Execution: 8-12-2021
Name: William W. McFadden, Registered Professional Engineer, No. 14048, Arkansas

CERTIFICATE OF FINAL APPROVAL:
Pursuant to the City of Bryant Subdivision Rules and Regulations, this document was given approval by the Bryant Planning Commission at a meeting held on 8/17/2021. All of the document is hereby accepted, and this certificate executed under the authority of said rules and regulations.
Date of Execution: 8-17-2021
Name: Rick Johnson, Bryant Planning Commission

FLOODPLAIN CERTIFICATION:
By affixing my seal and signature, I, Jonathan L. Hope, PLS No. 1762, hereby certify that this drawing correctly depicts a survey compiled under my supervision.
NOTE: This survey was based on legal descriptions and title work furnished by others and does not represent a title search.
According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Saline County unincorporated areas, panel # 05125C040E, dated 06/05/2020, no portion of the property described hereon does lie within the 100 year flood hazard boundary.

PROPERTY SPECIFICATIONS:

OWNER: BULL DEVELOPMENT LLC
DEVELOPER: BULL DEVELOPMENT LLC
SUBDIVIDER: BULL DEVELOPMENT LLC
ENGINEERS: HOPE CONSULTING, INC.

MIN. LOT SIZE: 9,000 S.F.
NUMBER OF PLOTS: 33
SOURCE OF WATER: CITY OF BRYANT
SOURCE OF SEWER: CITY OF BRYANT
SOURCE OF ELECTRIC: FIRST ELECTRIC COOP
SOURCE OF GAS: CENTERPOINT ENERGY

BUILDING SETBACKS:
FRONT - 25' OR AS SHOWN
REAR - 25' OR AS SHOWN
SIDE - 5' OR AS SHOWN

EASEMENTS: UTILITY & DRAINAGE (D.E. & U.E.)
FRONT - 10' OR AS SHOWN
REAR - 10' OR AS SHOWN
SIDE - 5' OR AS SHOWN

STREET RIGHT OF WAYS: 50' OR AS SHOWN
STREET WIDTH: 26' TO 30' TO BE
LOT CORNERS SET 1/2" REBAR WITH CAP

HOPE CONSULTING ENGINEERS - SURVEYORS

FOR USE AND BENEFIT OF:
BULL DEVELOPMENT LLC

FINAL PLAT
ROMAN HEIGHTS SUBDIVISION PHASE 1
IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

DATE: 10/06/2020
REVISION: 08/12/2021

C.A.D. BY: JPP
CHECKED BY:

DRAWING NUMBER: 17-0077

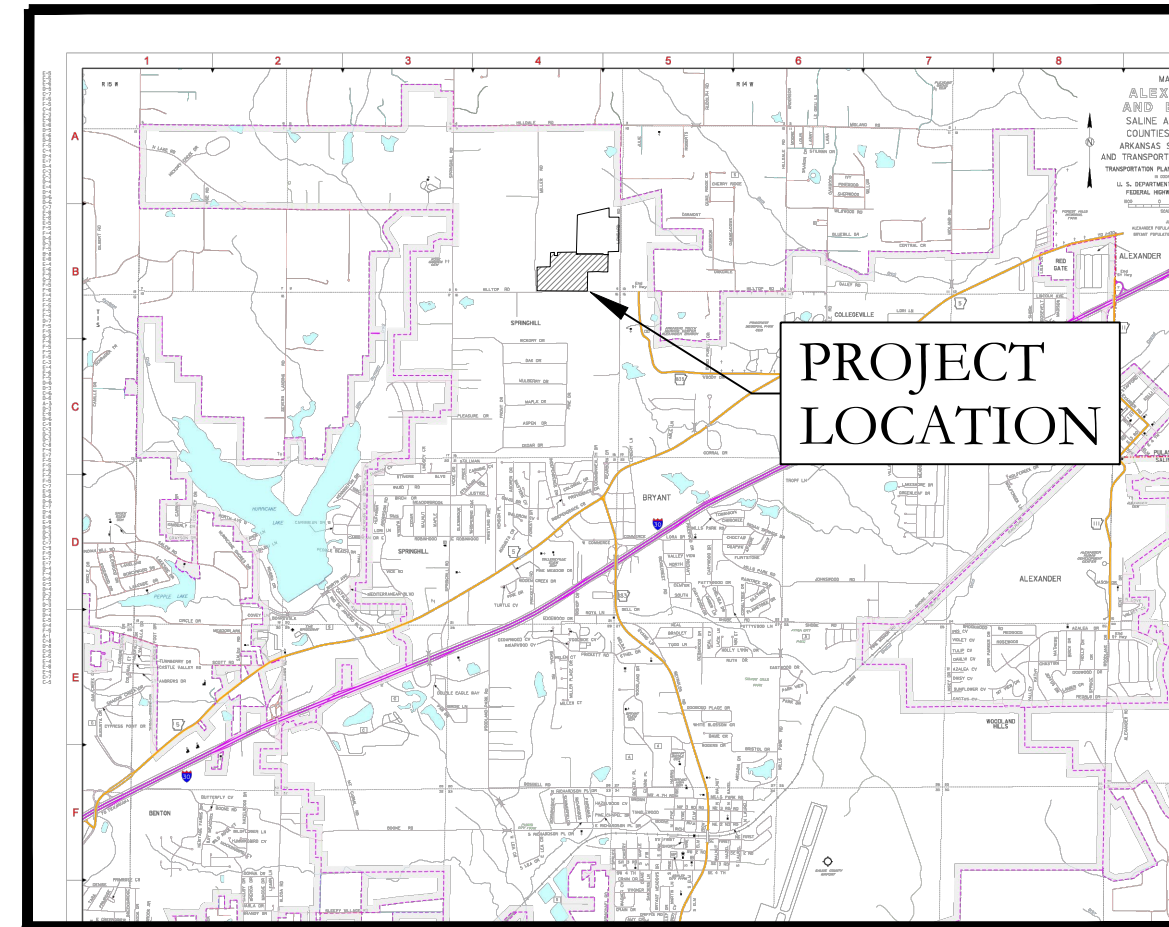
SCALE: 1" = 60'

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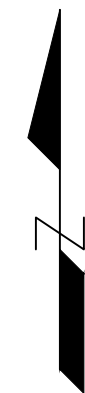
K:\LAND PROJECTS\2004 SUBDIVISIONS\2017-17-0077 ROMAN HEIGHTS FINAL PLAT\17-0077 FINAL PLAT PHASE 1.DWG

CONSTRUCTION PLANS HILLTOP LANDING

HILLTOP ROAD & MILLER ROAD ,BRYANT, AR



VICINITY MAP



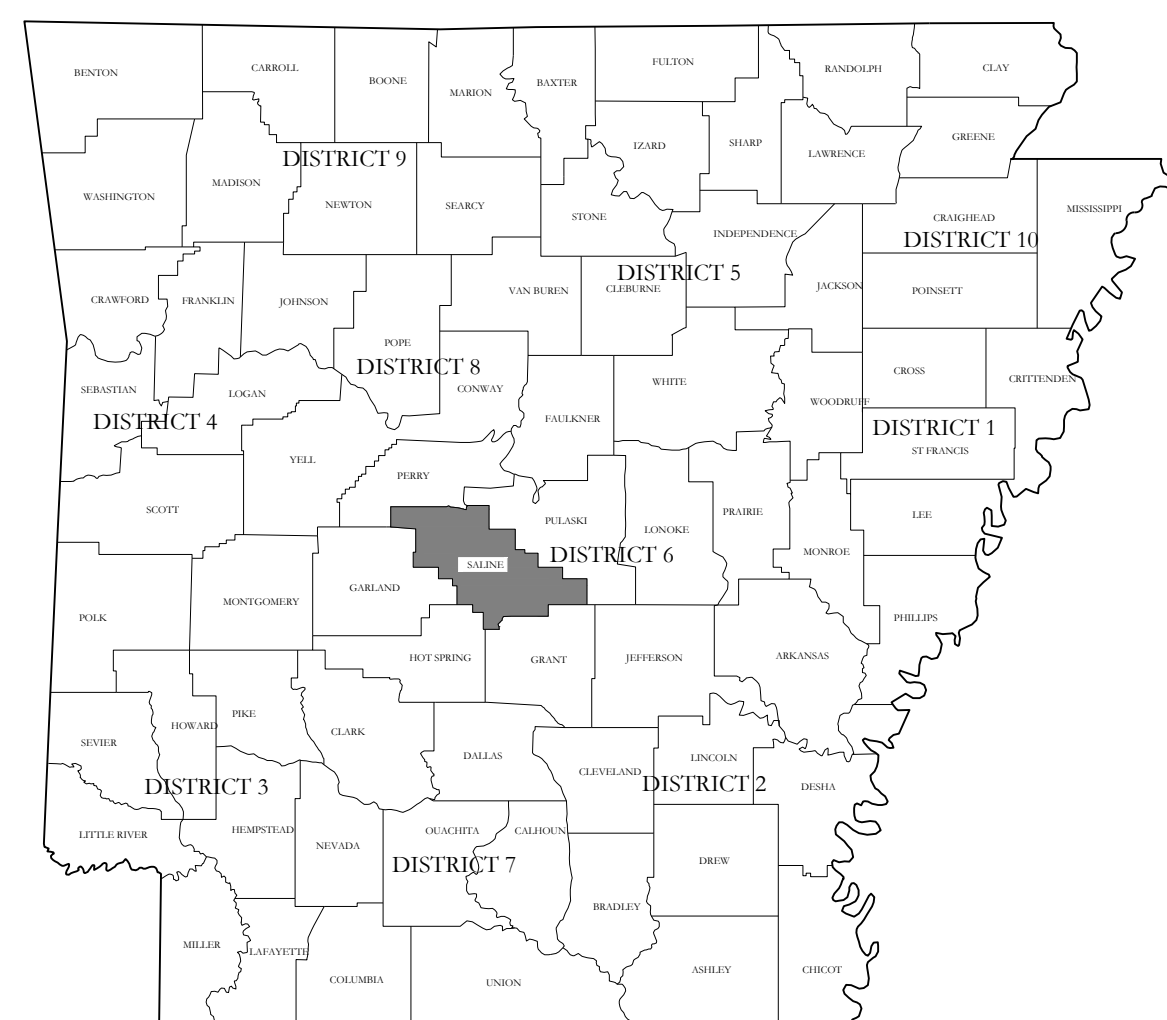
PREPARED BY:

HOPE
CONSULTING
ENGINEERS - SURVEYORS

129 N. Main Street,
Benton, Arkansas 72015
PH. (501)315-2626
FAX (501) 315-0024
www.hopeconsulting.com

DRAWING INDEX

SHEET NO.	TITLE
	PLAT
C-1.0	STREET PLAN & PROFILE
C-1.1	STREET PLAN & PROFILE
C-1.2	STREET PLAN & PROFILE
C-2.0	UTILITY PLAN
C-2.1	SEWER PLAN & PROFILE
C-2.2	SEWER PLAN & PROFILE
C-2.3	SEWER PLAN & PROFILE
C-3.1	STORM PLAN & PROFILE
C-3.2	STORM PLAN & PROFILE
C-3.3	STORM PLAN & PROFILE
C-3.4	STORM PLAN & PROFILE
C-4.0	TRENCH AND SPECIAL DETAILS
C-5.0	CIVIL SPECIFICATIONS
C-6.0	DETENTION
C-6.1	DETENTION
C-7.0	EROSION CONTROL PLAN



HOPE
CONSULTING
ENGINEERS - SURVEYORS

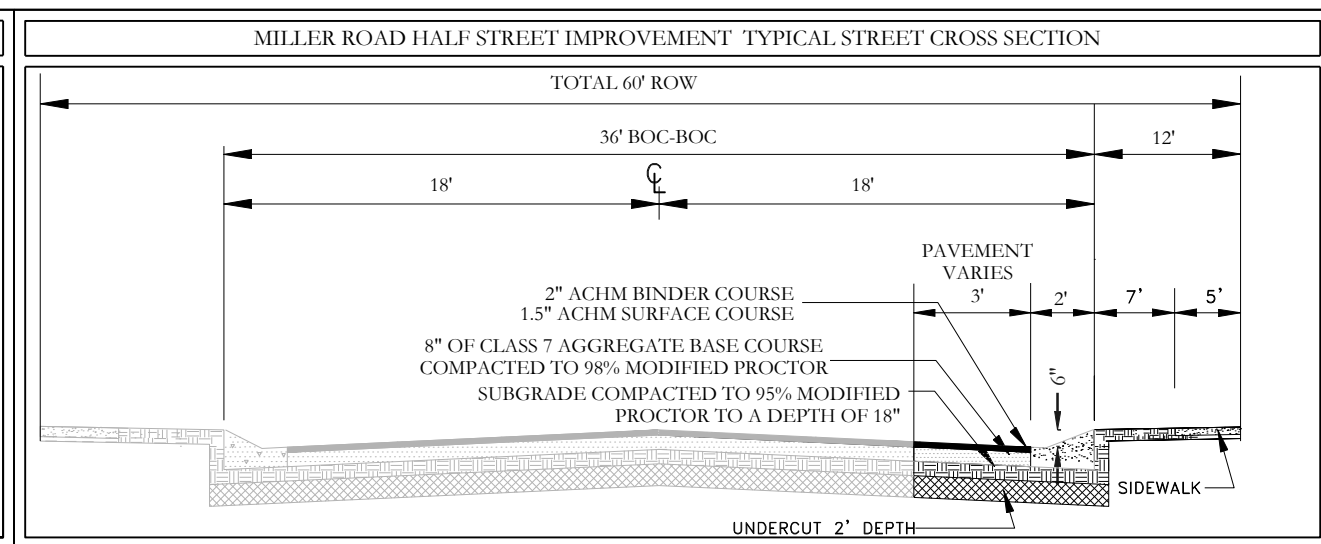
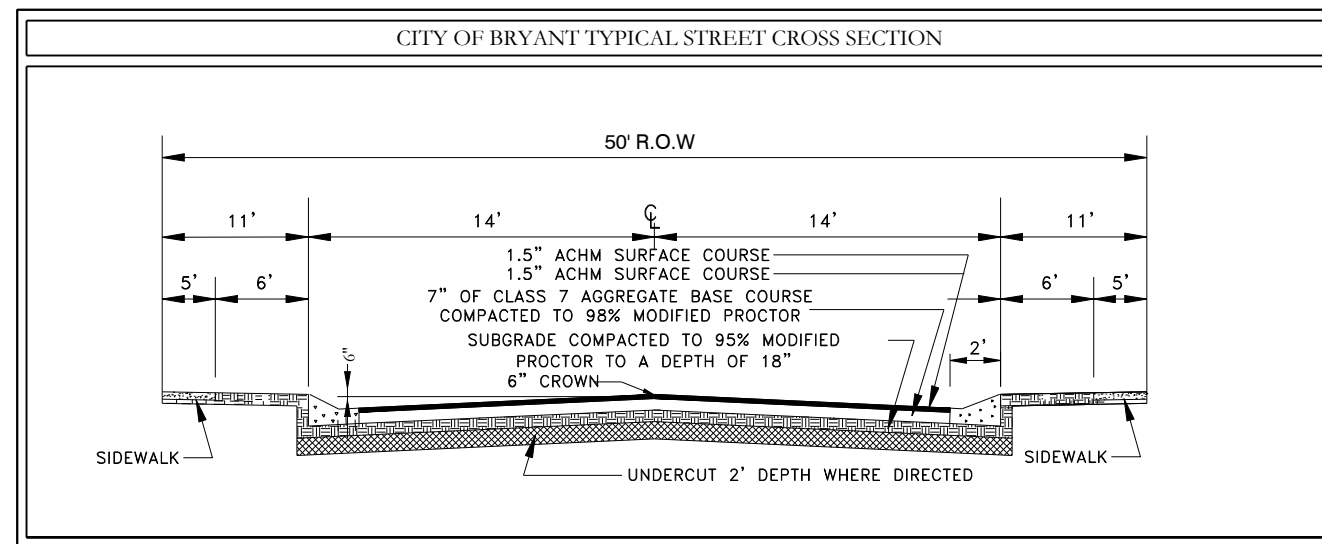
129 N. Main Street,
Benton, Arkansas 72015
PH. (501)315-2626
FAX (501) 315-0024
www.hopeconsulting.com

FOR USE AND BENEFIT OF:
NXT GEN HOMES LLC.

HILLTOP LANDING
A SUBDIVISION IN THE CITY OF BRYANT, AR
HILLTOP ROAD & MILLER ROAD, BRYANT, AR

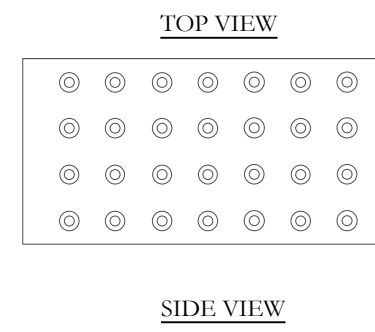
DATE:	02/16/2023	C.A.D. BY:		DRAWING NUMBER:	
REVISED:	08-07-2023	CHECKED BY:		20-1341	
SHEET:		SCALE:			

500 01S 14W 0 9 200 62 1762



NOTES:

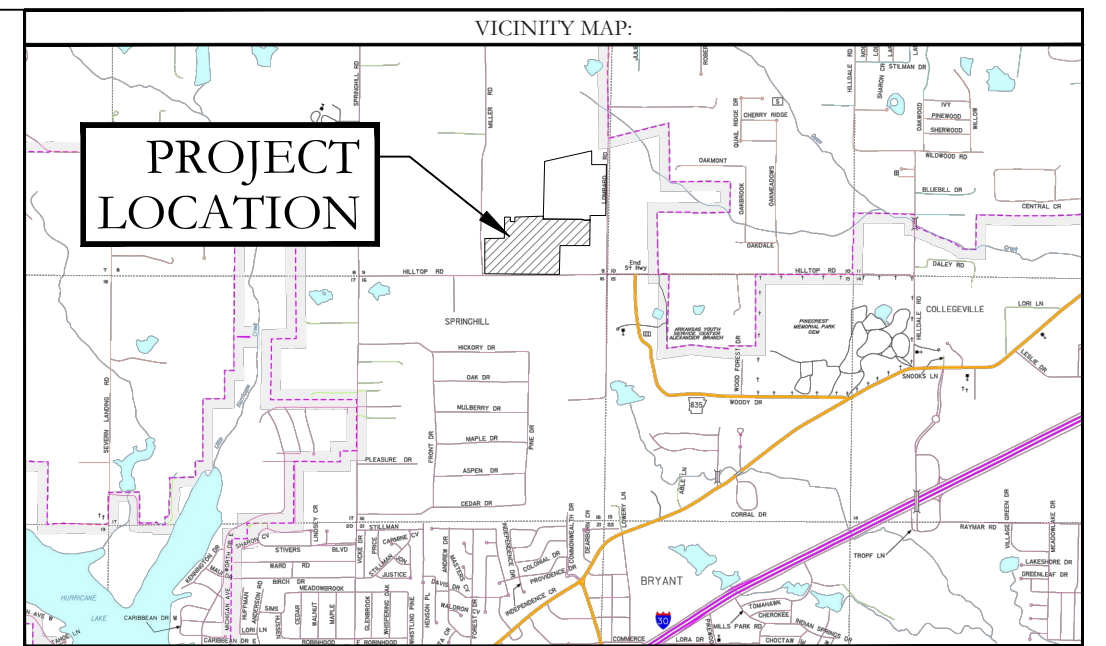
- TRACTS A, C, D, E, F AND G WILL BE UTILIZED FOR DRAINAGE AND UTILITIES PURPOSES AND WILL MAINTAINED BY THE PROPERTY OWNERS ASSOCIATION (POA) OR IMPROVEMENT.



ADA Corrugated Dome Ramp

NOTE:

ALL SIDEWALK RAMP SHALL MEET ADA REQUIREMENT WITH CORRUGATED DOME REQUIREMENTS.



OWNER:	DEVELOPER:
Name: NXT GEN HOMES LLC	Name: NXT GEN HOMES LLC
Address: 19218 SUMMERSHADE DRIVE BRYANT, AR 72022	Address: 19218 SUMMERSHADE DRIVE BRYANT, AR 72022

CERTIFICATE OF OWNER:
We, the undersigned, owners of the real estate shown and described herein do hereby certify that we have laid out, planned and subdivided, and do hereby lay off, plat and subdivide said real estate in accordance with the within plat.

Date of Execution _____ Name _____
Source of Title: 2021-009870

CERTIFICATE OF PRELIMINARY SURVEYING ACCURACY:
I, Jonathan L. Hope, hereby certify that this proposed preliminary plat correctly represents a survey completed by me, or under my supervision on 02/03/2023 that the boundary lines shown hereon correspond with the description in the above Source Title, and that all monuments which were found or placed on the property are correctly described and located.

Date of Execution _____ Signed: Jonathan L. Hope
Registered Professional Land Surveyor No. 1762
Arkansas

CERTIFICATE OF PRELIMINARY ENGINEERING ACCURACY:
I, Kari Tamzidul Islam, hereby certify that this plat correctly represents a survey and a plan made by me or under my supervision that all monuments shown hereon actually exist and their location, size, type and material are correctly shown; and that all requirements of the City of Bryant Subdivision Rules and Regulations have been fully complied with.

Date of Execution _____ Signed: Kari Tamzidul Islam
Registered Professional Engineer, No. 20876
Arkansas

CERTIFICATE OF PRELIMINARY PLAT APPROVAL:
All requirements of the City of Bryant Subdivision Rules and Regulations relative to the preparation and submittal of a Preliminary Plat having been fulfilled, approval of this plat is hereby granted, subject of further provisions of said Rules and Regulations.

Date of Execution _____ Signed: Rick Johnson, Chairman
Bryant Planning Commission



By affixing my seal and signature, I, Jonathan L. Hope, Arkansas PLS No. 1762, hereby certify that this drawing correctly depicts a survey compiled by me or under my direct supervision.

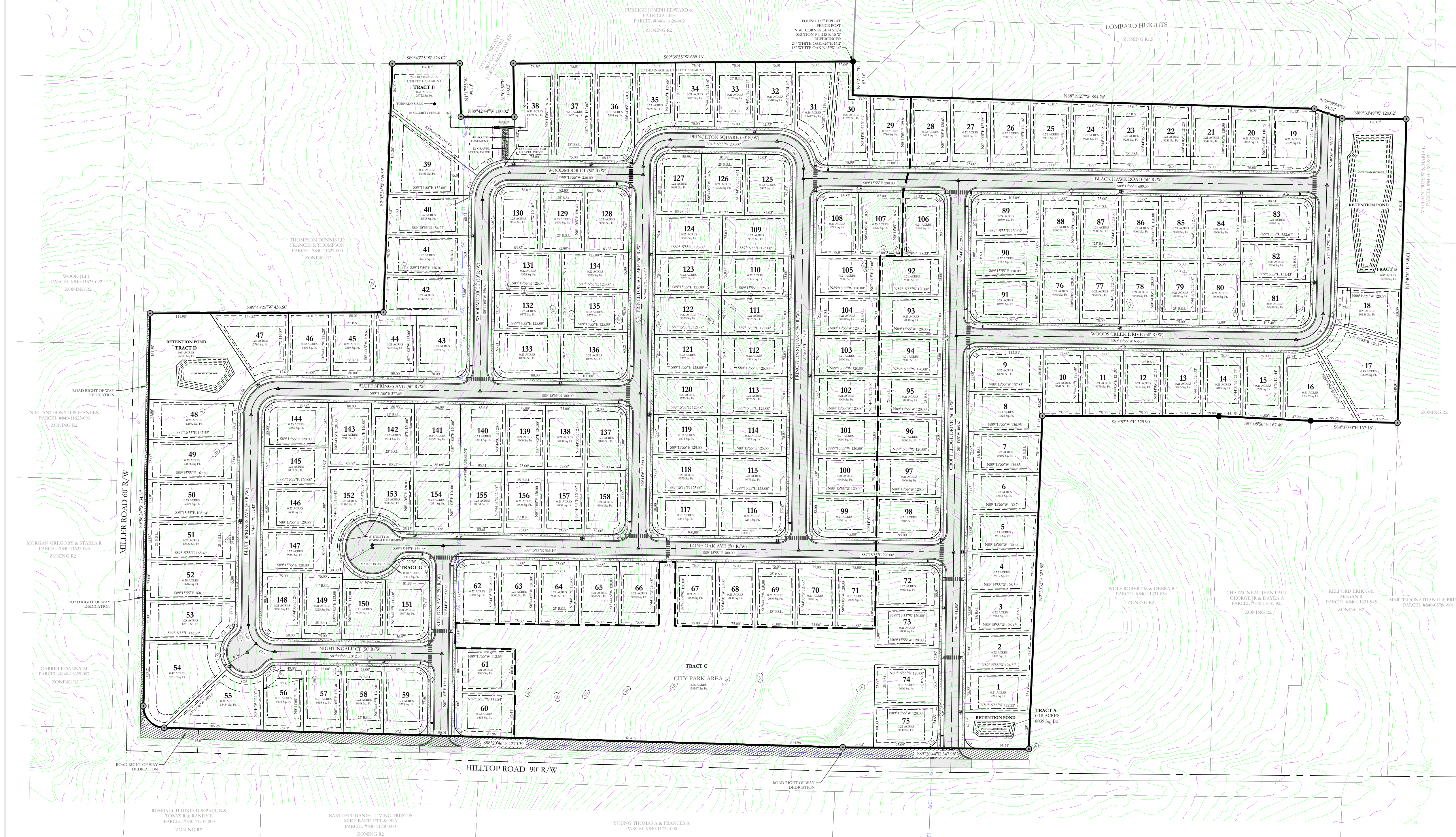
NOTE: This survey was based on legal descriptions and title work furnished by others and does not represent a title search.

No portion of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rate Map, panel # 05125C0225E, Date: 06/05/2020

PROPERTY SPECIFICATIONS:	
OWNER: NXT GEN HOMES LLC 19218 SUMMERSHADE DRIVE BRYANT, AR 72022	NUMBER OF LOTS: 138 EXISTING ZONING: R2
DEVELOPER: NXT GEN HOMES LLC SUBDIVIDER: 19218 SUMMERSHADE DRIVE BRYANT, AR 72022	PROPOSED DENSITY: 3.85 HOMES PER ACRE SOURCE OF WATER: CITY OF BRYANT SOURCE OF SEWER: CITY OF BRYANT SOURCE OF ELECTRIC ENERGY: SOURCE OF GAS: SUMMIT
ENGINEERS: HOPE CONSULTING INC. 129 S MAIN STREET BENTON, AR 72015	BUILDING SETBACKS: FRONT: 25' OR AS SHOWN REAR: 25' OR AS SHOWN SIDE: 5' OR AS SHOWN
NAME OF SUBDIVISION: HILLTOP MANOR	UTILITY & DRAINAGE EASEMENTS: FRONT: 30' OR AS SHOWN REAR: 5' OR AS SHOWN SIDE: 5' OR AS SHOWN

HOPE CONSULTING ENGINEERS - SURVEYORS
129 N. Main Street, Benton, Arkansas 72015
PH: (501) 315-2626
FAX: (501) 315-0024
www.hopeconsulting.com

FOR USE AND BENEFIT OF:			
NXT GEN HOMES LLC			
PRELIMINARY PLAT HILLTOP MANOR SUBDIVISION A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS.			
DATE: 08/07/2023	C.A.D. BY: BJOHNSON	DRAWING NUMBER:	
REVISED:	CHECKED BY:	20-1341	
SHEET:	SCALE: 1"=100'		
500	01S	14W	0 09 200 62 1762

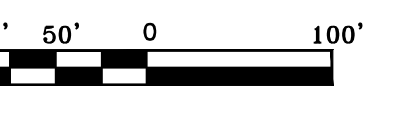
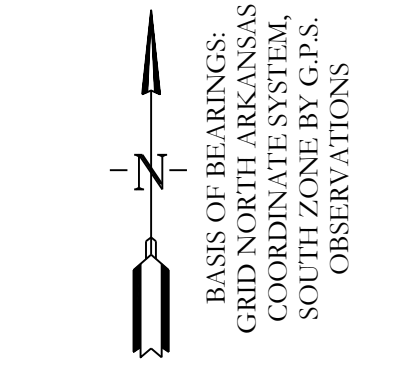


**PRELIMINARY PLAT
HILLTOP MANOR SUBDIVISION
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS.**

Curve Table				Curve Table				Curve Table				Curve Table				Curve Table													
Curve #	Delta	Chord B & D	Arc Length	Arc Radius	Curve #	Delta	Chord B & D	Arc Length	Arc Radius	Curve #	Delta	Chord B & D	Arc Length	Arc Radius	Curve #	Delta	Chord B & D	Arc Length	Arc Radius	Curve #	Delta	Chord B & D	Arc Length	Arc Radius					
C1	90°12'49"	N44°22'19"W	35.42	39.36	25.00	C14	31°36'39"	N21°25'38"E	40.86	41.38	75.00	C27	90°59'59"	N46°11'39"E	35.64	39.67	25.00	C41	90°00'00"	N45°44'05"E	35.36	39.27	25.00	C52	90°00'53"	N44°15'28"W	35.36	39.28	25.00

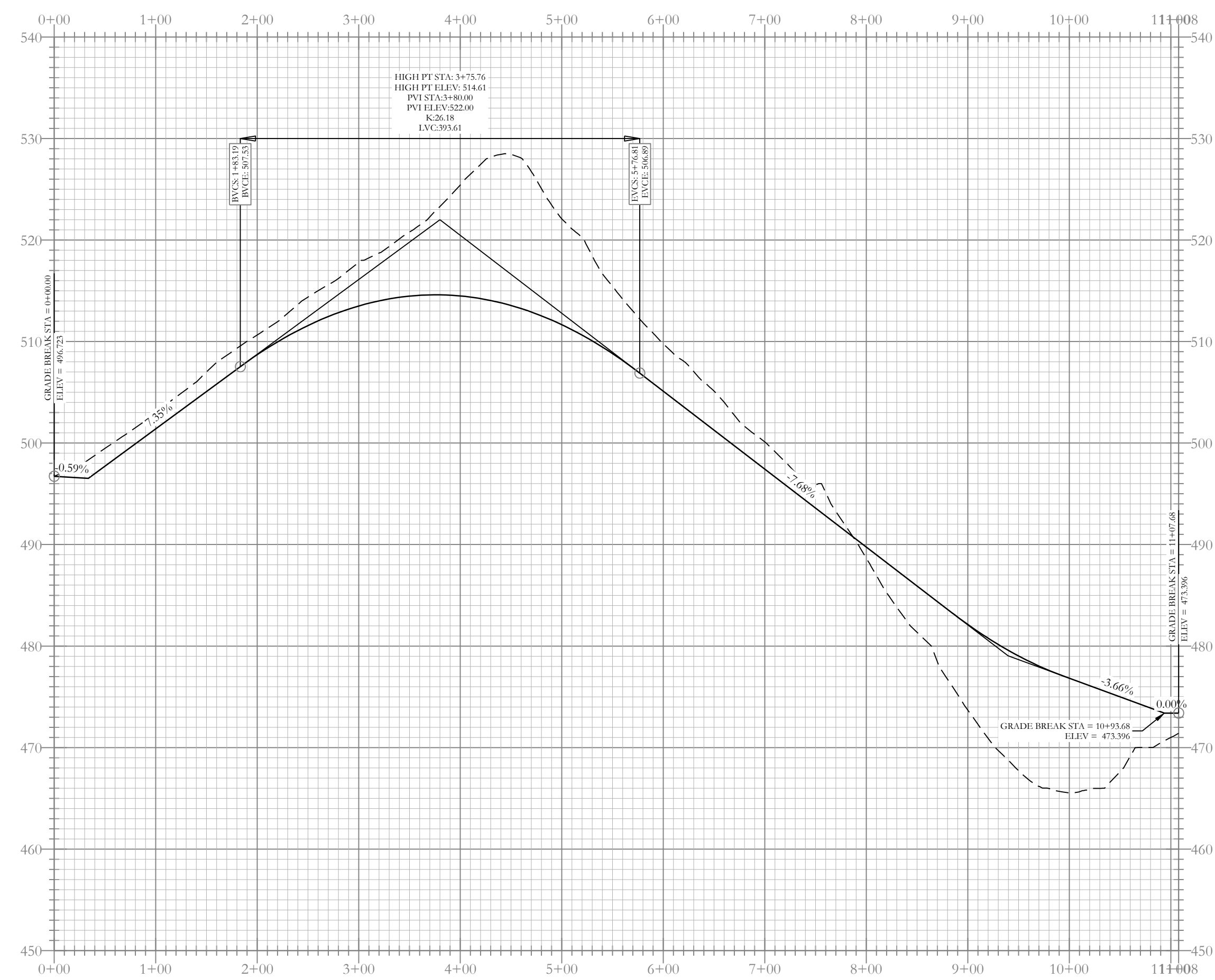
LEGAL DESCRIPTION:
ALL OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER AND PART OF THE FRACTIONAL NORTHEAST QUARTER OF THE NORTHEAST QUARTER AND ALL THAT PART OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 4, TOWNSHIP 3 SOUTH, RANGE 20 WEST OF THE FIFTH PRINCIPAL MERIDIAN, GARLAND COUNTY, ARKANSAS DESCRIBED AS FOLLOWS:

BEGINNING AT A FOUND 1/2" CAPPED REBAR AR 1S# 1024 FOUND AT THE SW CORNER OF THE SW 1/4, NE 1/4; **THENCE**, N 89°38'29" E ALONG THE EAST SOUTHLINE THEREOF A DISTANCE OF 128.05 FEET TO A FOUND 60-D NAIL AT A FENCE CORNER AND BEING THE SE CORNER OF THE SW 1/4 NE 1/4; **THENCE**, N 89°59'56" E ALONG THE SOUTHLINE THEREOF A DISTANCE OF 136.52 FEET TO A FOUND BRIDGE SPIKE BEING THE SE CORNER SE 1/4 NE 1/4; **THENCE**, N 01°18'06" E A DISTANCE OF 1320.16 FEET TO A 1" PIPE FOUND AT THE NE CORNER OF THE SE 1/4 NE 1/4; **THENCE**, S 02°44'51" E ALONG THE EAST LINE THEREOF A DISTANCE OF 816.61 FEET TO A 1/2" ALUMINUM CAPPED REBAR AT THE INTERSECTION OF SAID EAST LINE AND THE SOUTHWEST RIGHT OF WAY LINE OF U.S. HIGHWAY 270 (ALBERT PIKE); **THENCE**, ALONG SAID SOUTH LINE THE FOLLOWING COURSES:
N 83°58'56" W A DISTANCE OF 201.14 FEET;
N 65°58'55" W A DISTANCE OF 318.36 FEET;
N 54°50'43" W A DISTANCE OF 400.00 FEET;
N 64°42'59" W A DISTANCE OF 187.67 FEET;
N 73°41'47" W A DISTANCE OF 187.61 FEET;
S 89°59'55" W A DISTANCE OF 129.12 FEET TO A 1/2" CAPPED REBAR AR 1S# 10414 FOUND ON THE WEST LINE OF THE FRACTIONAL NE 1/4 NE 1/4; **THENCE**, S 01°17'39" W A DISTANCE OF 128.53 FEET TO A 1" PIPE FOUND AT THE NE CORNER OF THE SW 1/4 NE 1/4 AS SHOWN ON SURVEY BY LEWIS & CLARK SURVEYING DATED 11/03/20, SAID POINT BEING 64.78 FEET NORTH OF A FOUND ALUMINUM CAPPED REBAR MARKING THE TECHNICAL NE CORNER AS SHOWN ON SURVEY BY DON MICHAEL BRADY 4/13/2002.
THENCE, S 88°59'10" W A DISTANCE OF 1322.70 FEET TO A FOUND 2" PIPE AS SHOWN ON THE DON M. BRADY SURVEY DATED 4/13/02; **THENCE**, S 07°40'59" W ALONG A FENCE LINE A DISTANCE OF 27.99 FEET TO A 1/2" CAPPED REBAR AR 1S# 10414; **THENCE**, S 68°53'46" W ALONG A FENCE LINE A DISTANCE OF 34.98 FEET TO A 1/2" ALUMINUM CAPPED REBAR FOUND ON THE WEST LINE OF THE SW 1/4 NE 1/4; **THENCE**, S 03°33'48" W ALONG THE WEST LINE THEREOF A DISTANCE OF 1298.25 FEET TO THE POINT OF BEGINNING AND CONTAINING 113.35 ACRES (60,608.115 SQ FT) MORE OR LESS;

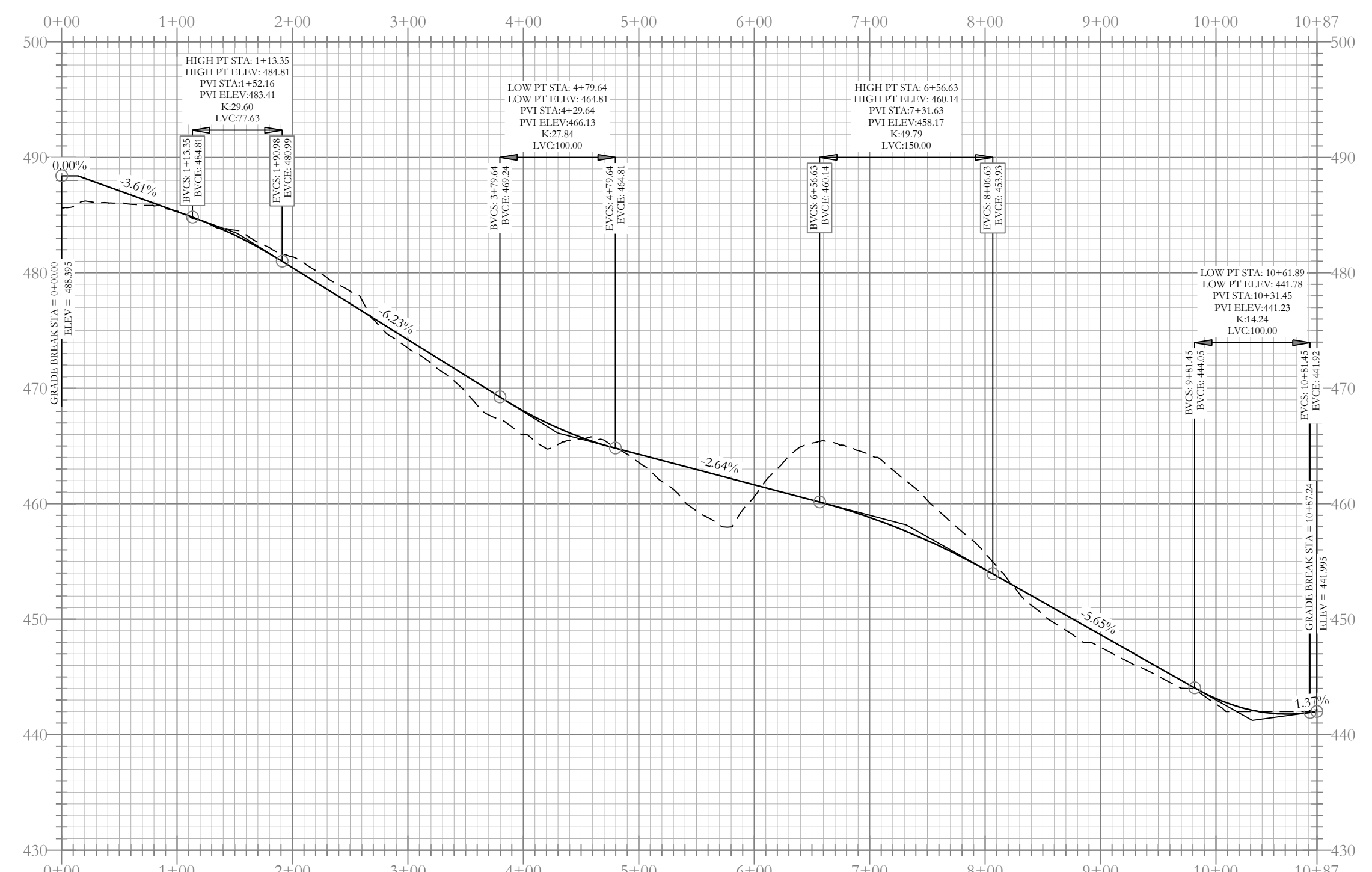


LEGEND

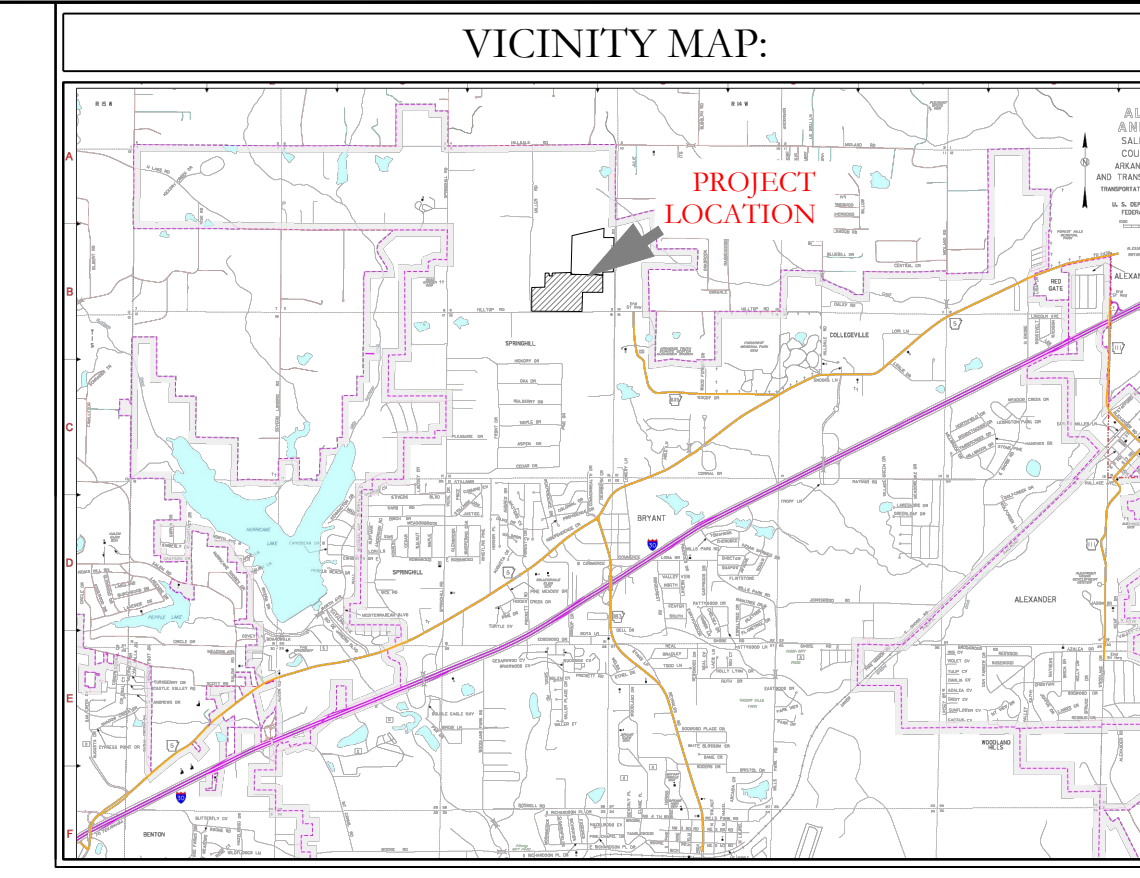
- Aliquot Corner
- Found monument
- Set 2" Rebar
- △ Computed point
- M - Measured
- (P) - Plat/Deed
- ⊙ - Street Lighting
- - Fence
- ||||| - ADA Crosswalk



Croft Ledge Drive Profile

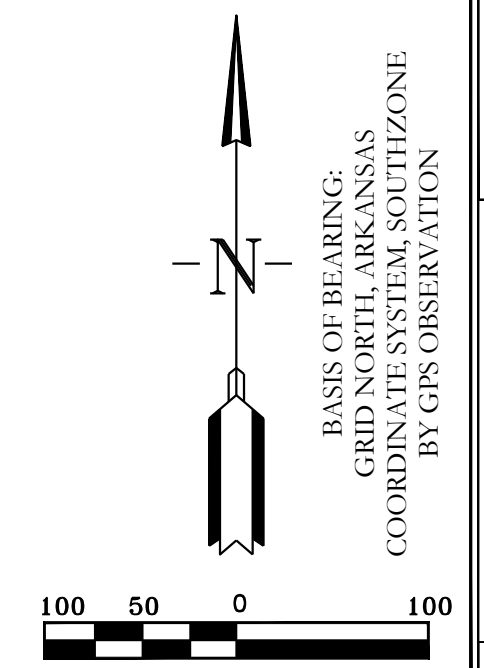
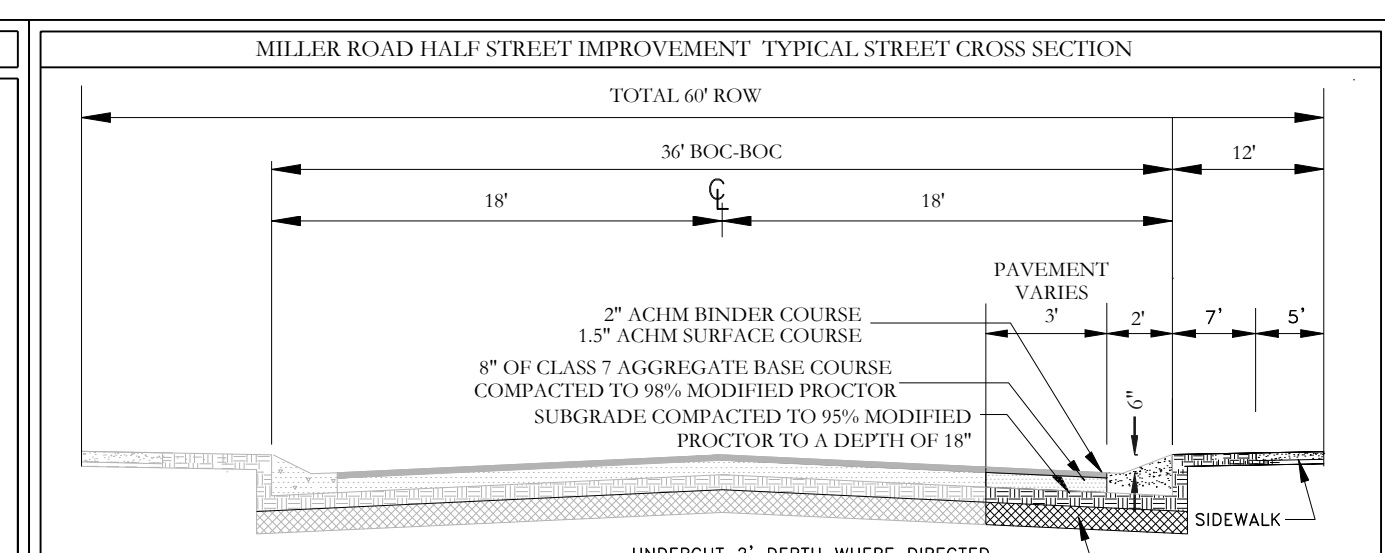
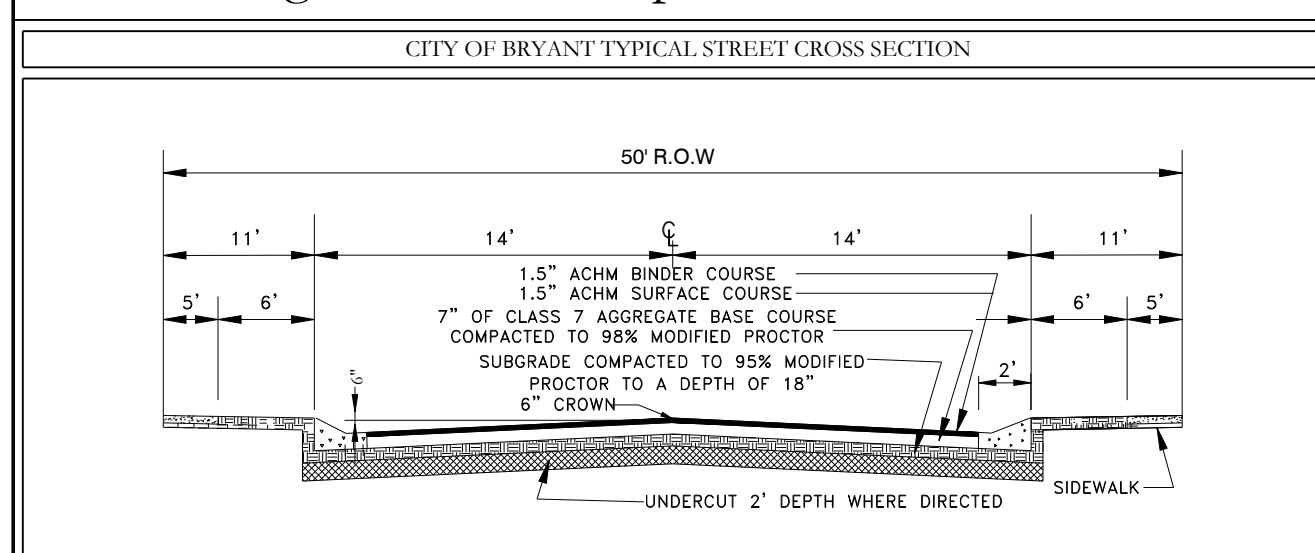


Wood Creek Drive Profile



--- HDPE
 — RCP

N.B :All sidewalk ramps will have ADA requirements with corrugated dome ramp .



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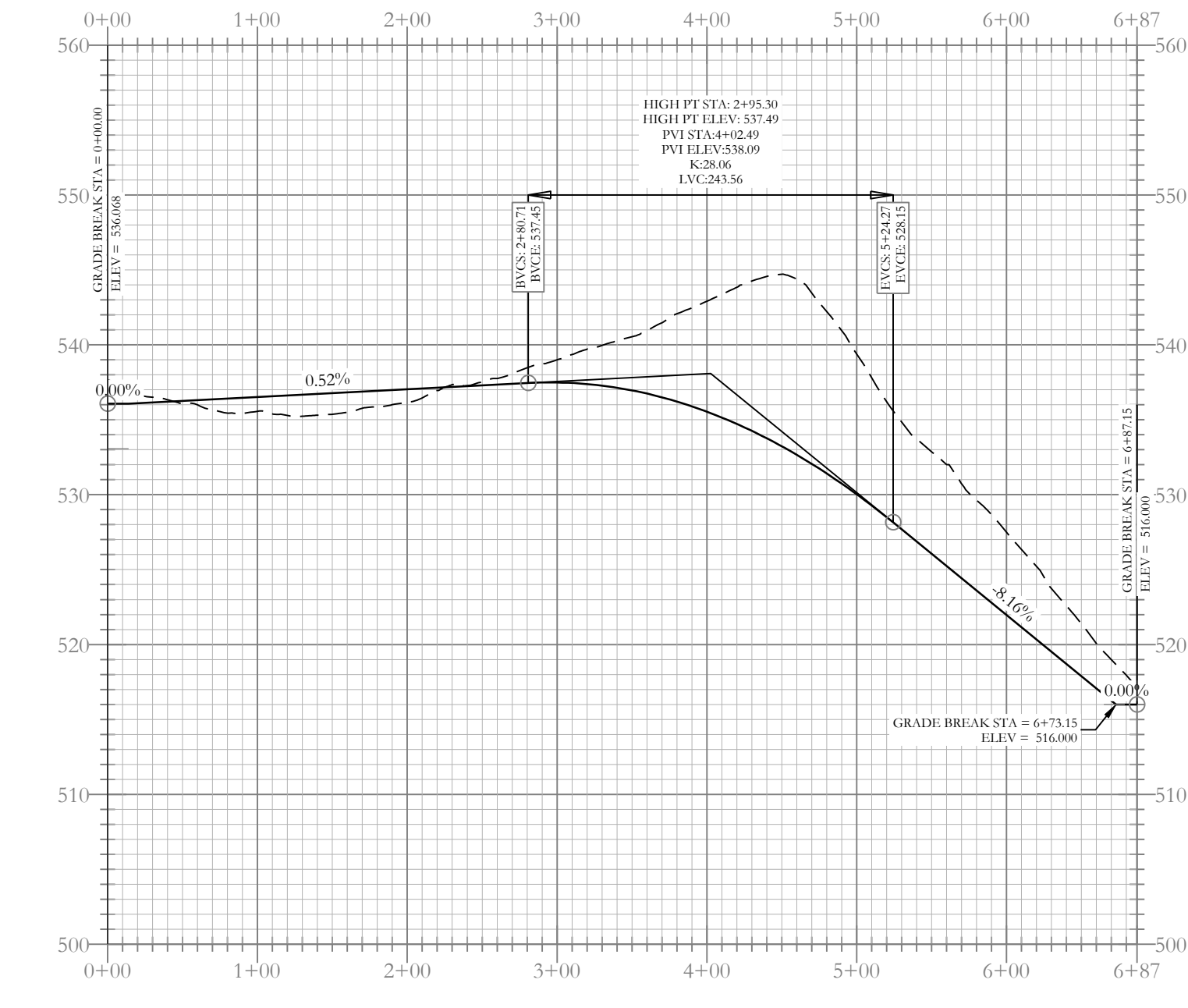
FOR USE AND BENEFIT OF: **NXT GEN HOMES LLC.**

HILLTOP LANDING STREET PLAN & PROFILE
 A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

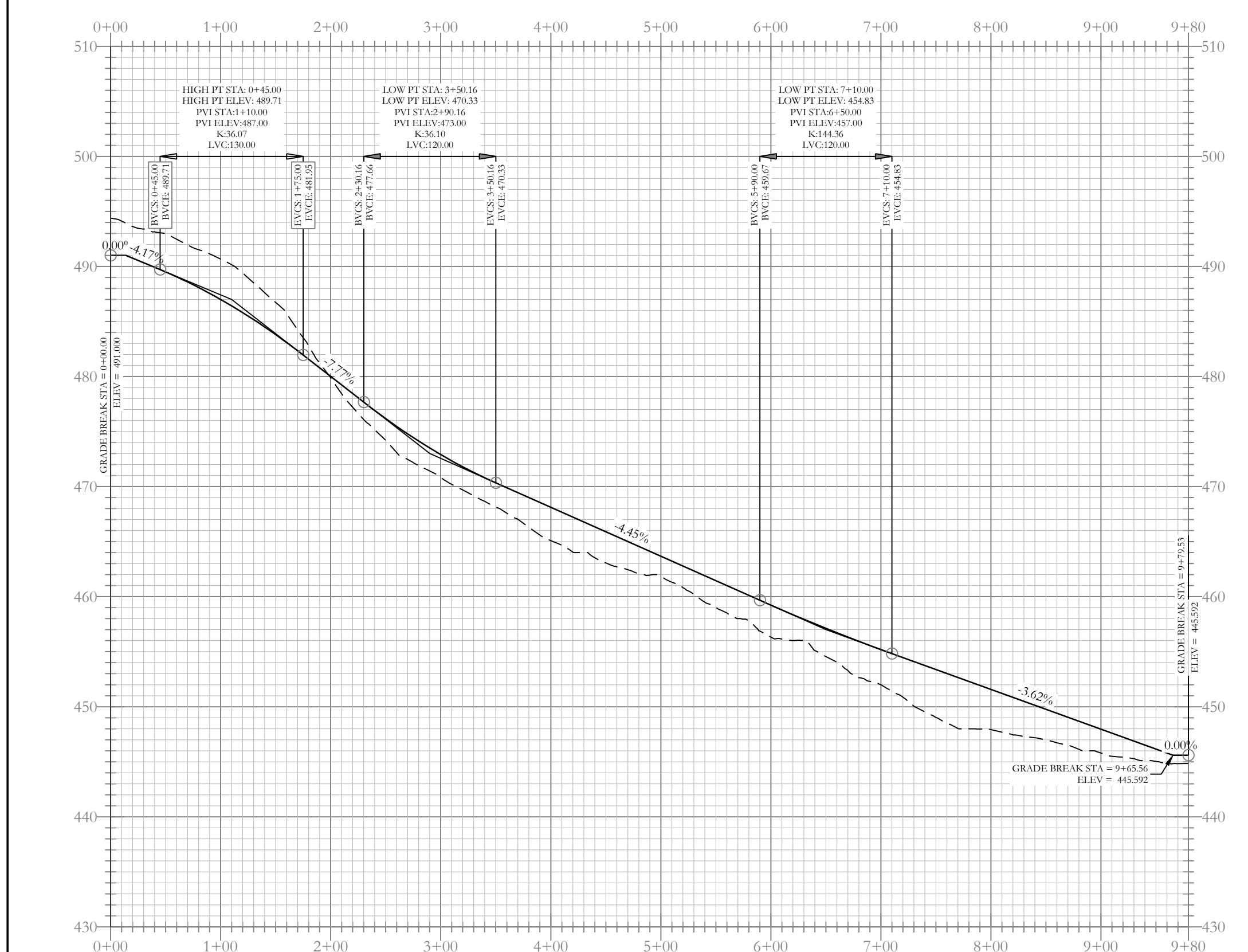
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REVISID: 08/07/2023	CHECKED BY:	20-1341
SHEET: C-1.0	SCALE: 1" = 100'	

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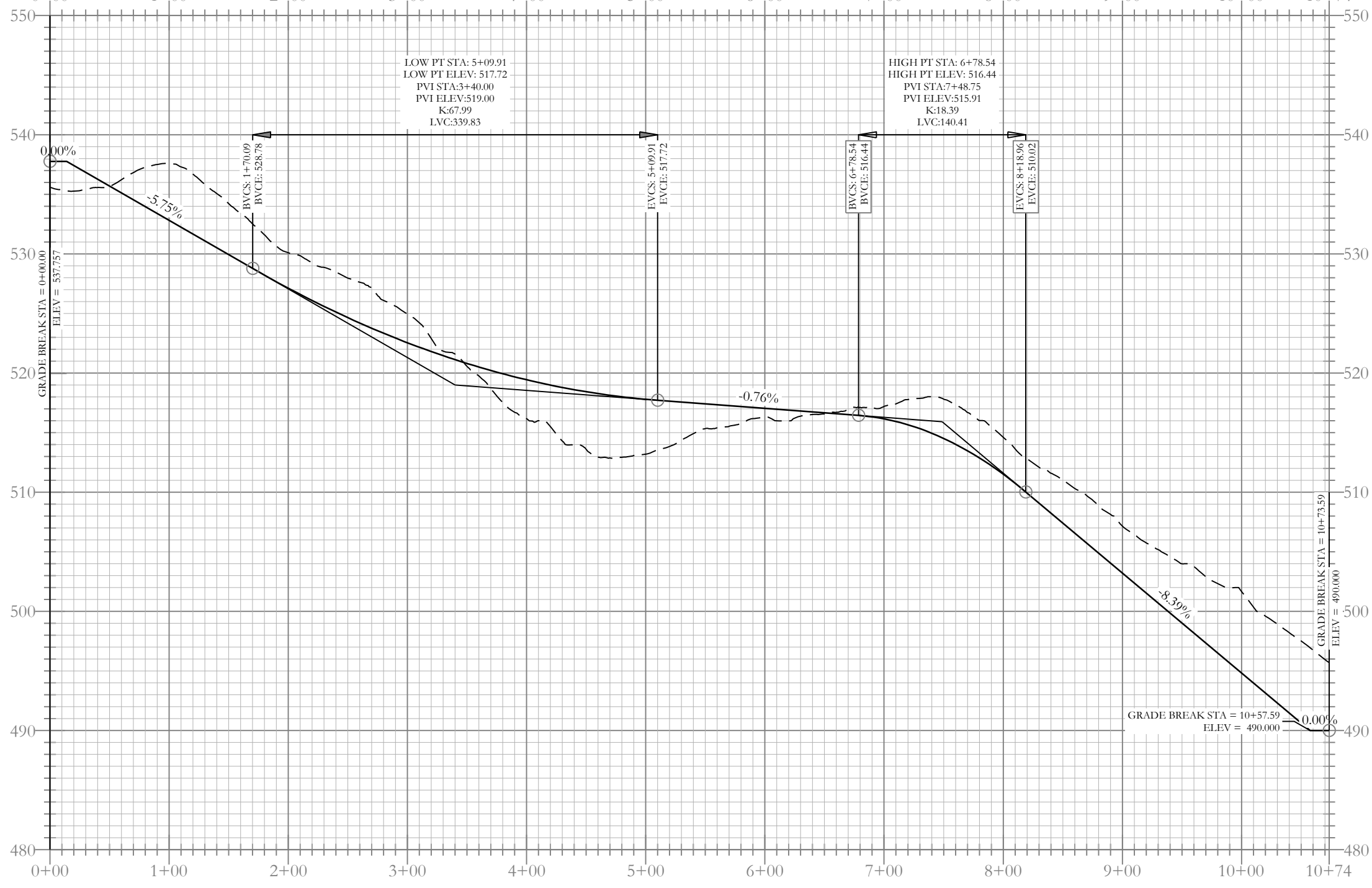
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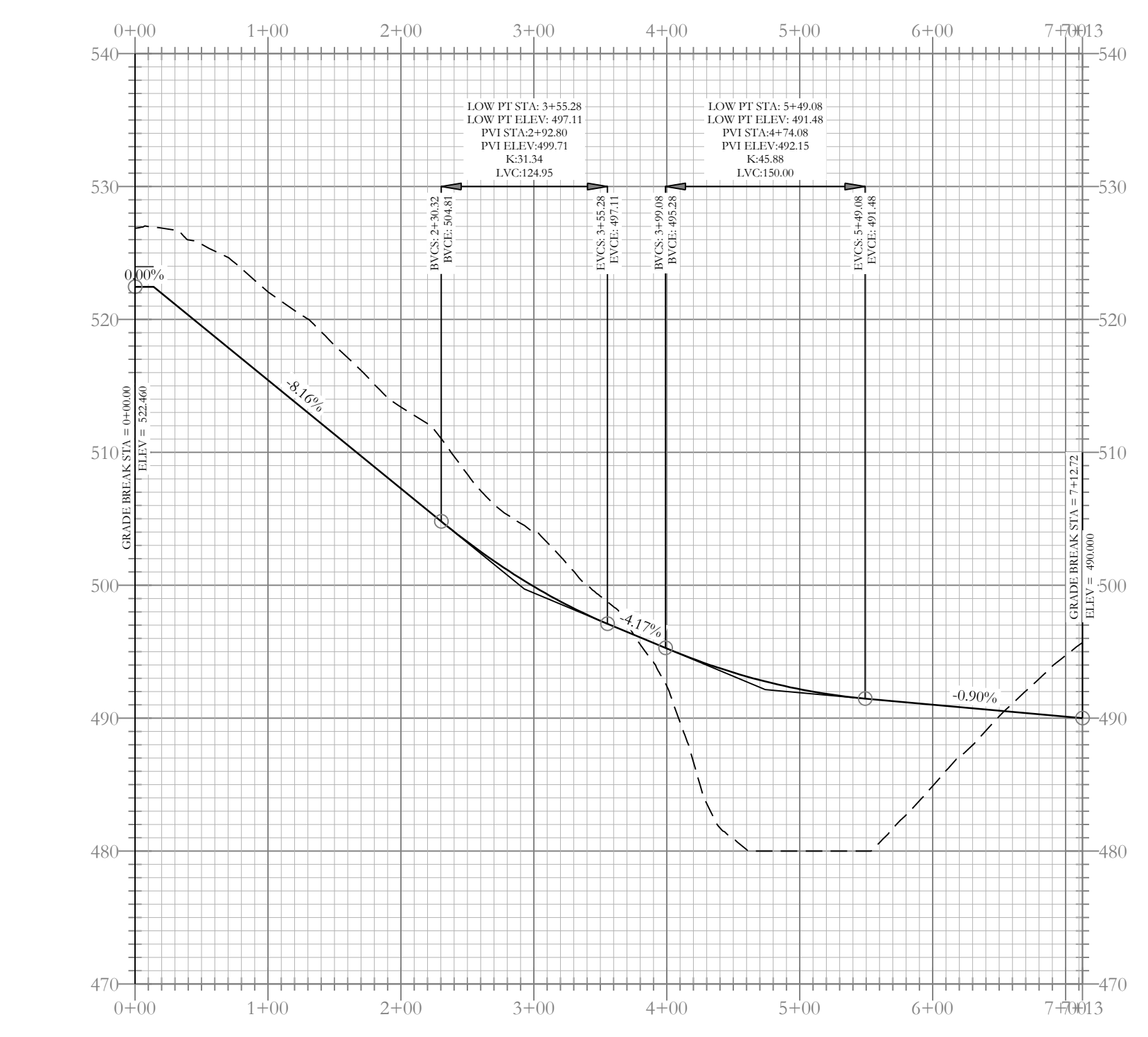
Woodmoor Ct Profile



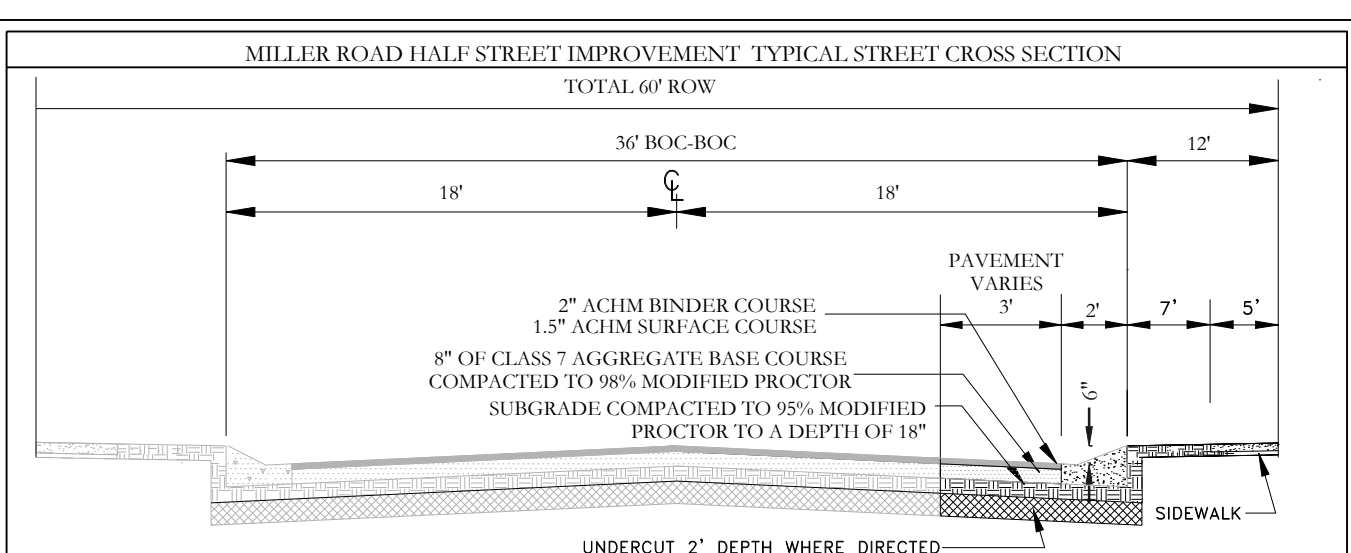
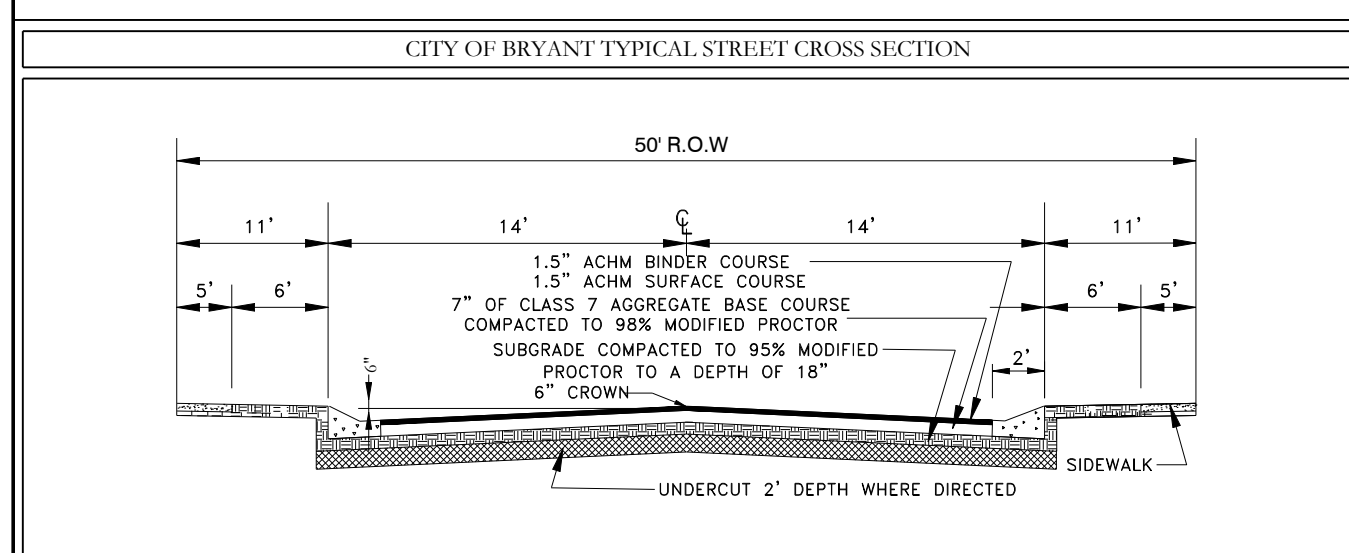
Black Hawk Profile



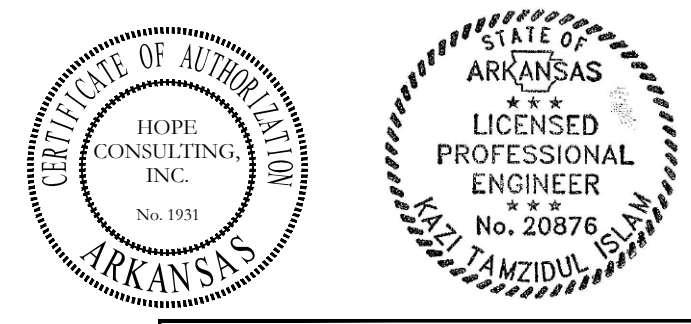
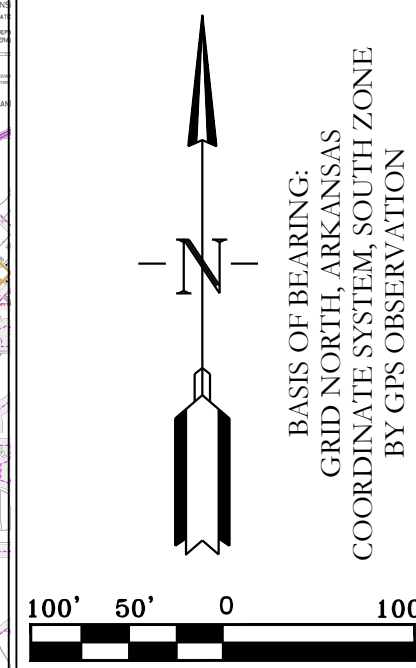
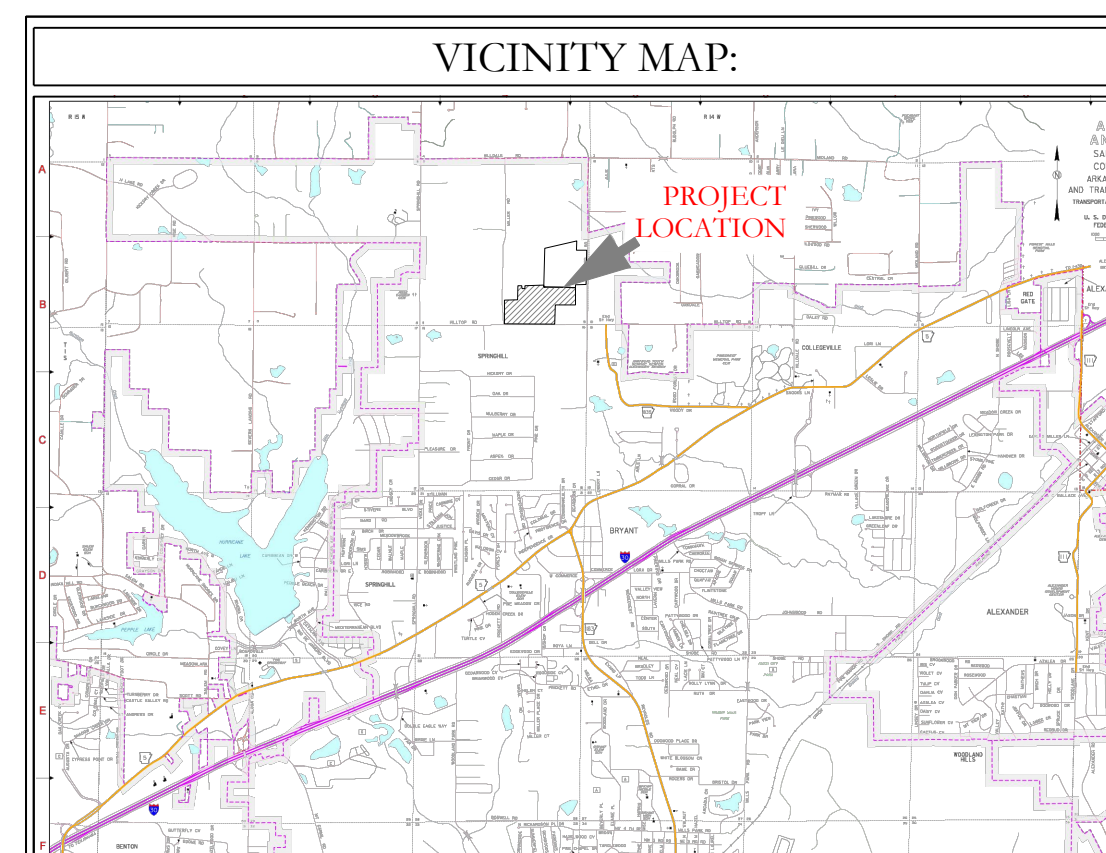
Princeton Square Profile



Princeton Square Profile



N.B : All sidewalk ramps will have ADA requirements with corrugated dome ramp .



--- HDPE
 ——— RCP

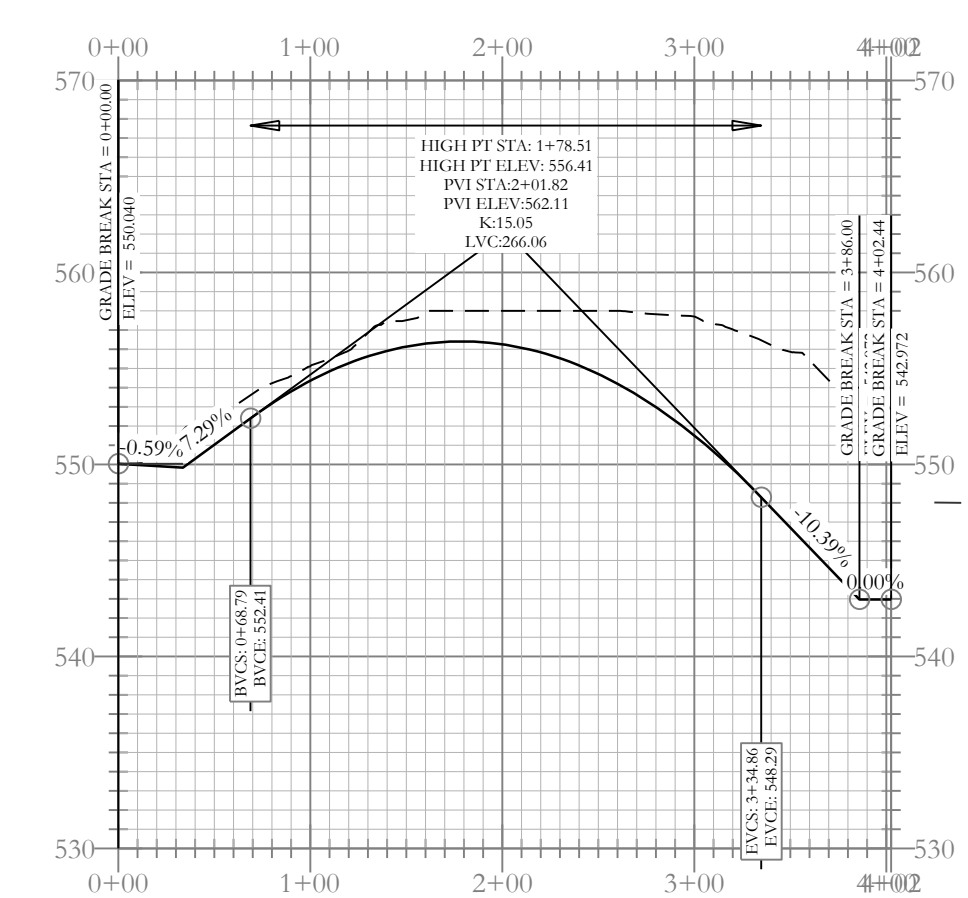
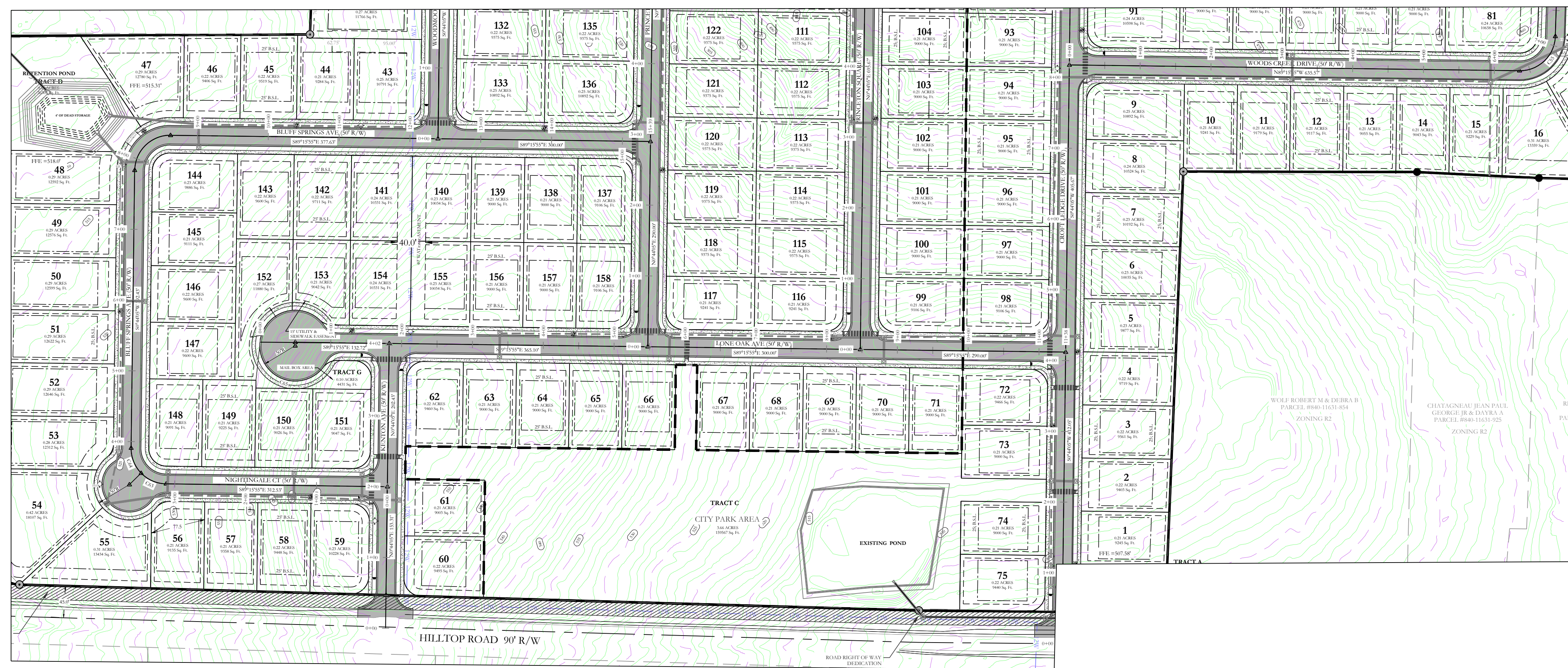
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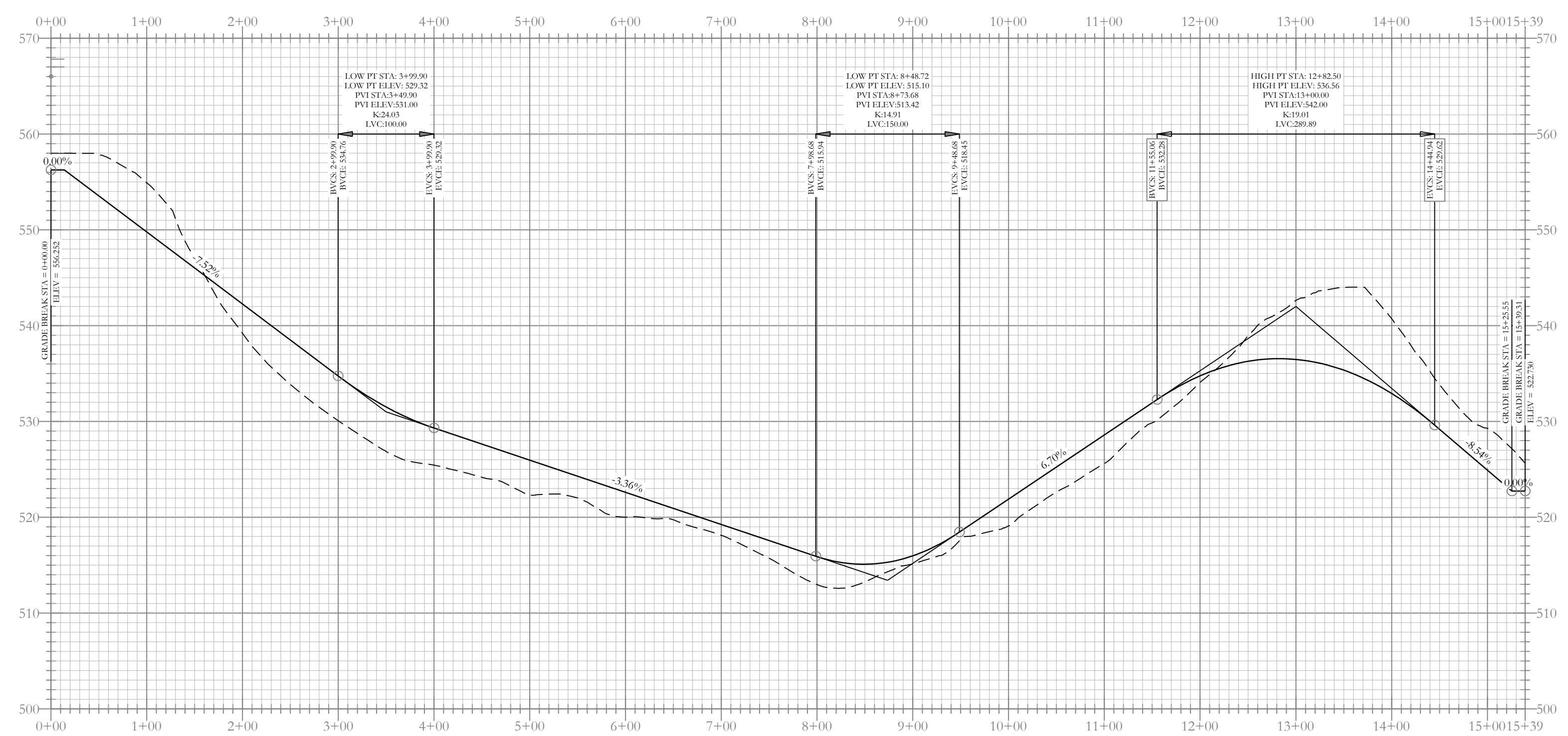
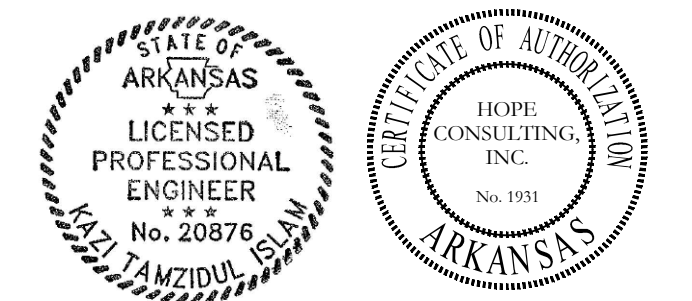
HILLTOP LANDING STREET PLAN & PROFILE
 A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:
REVISIED: 08/07/2023	CHECKED BY:	20-1341
SHEET: C-1.1	SCALE: 1"=120'	

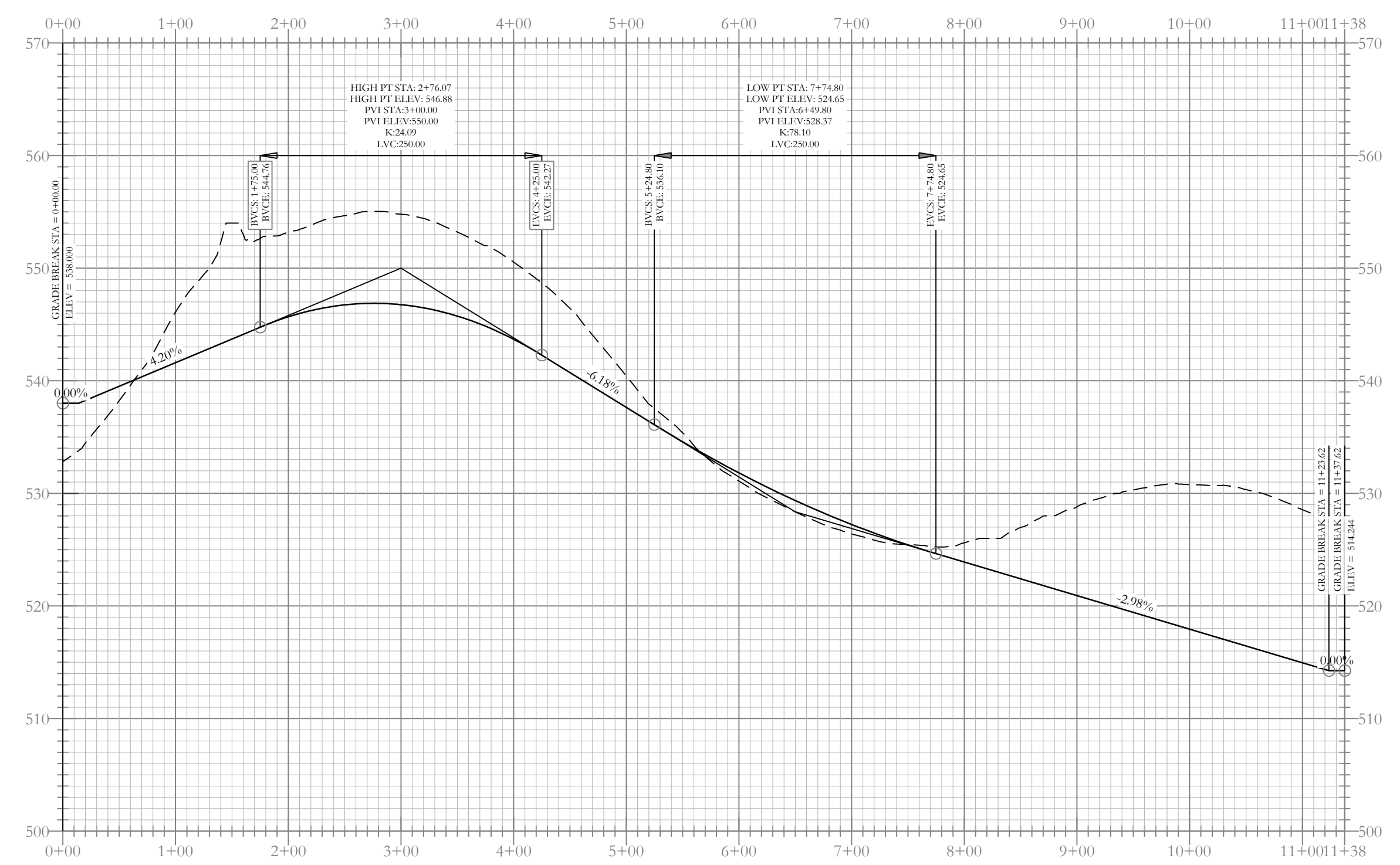
500 01S 14W 0 09 200 62 1762



Kenton Ave Profile

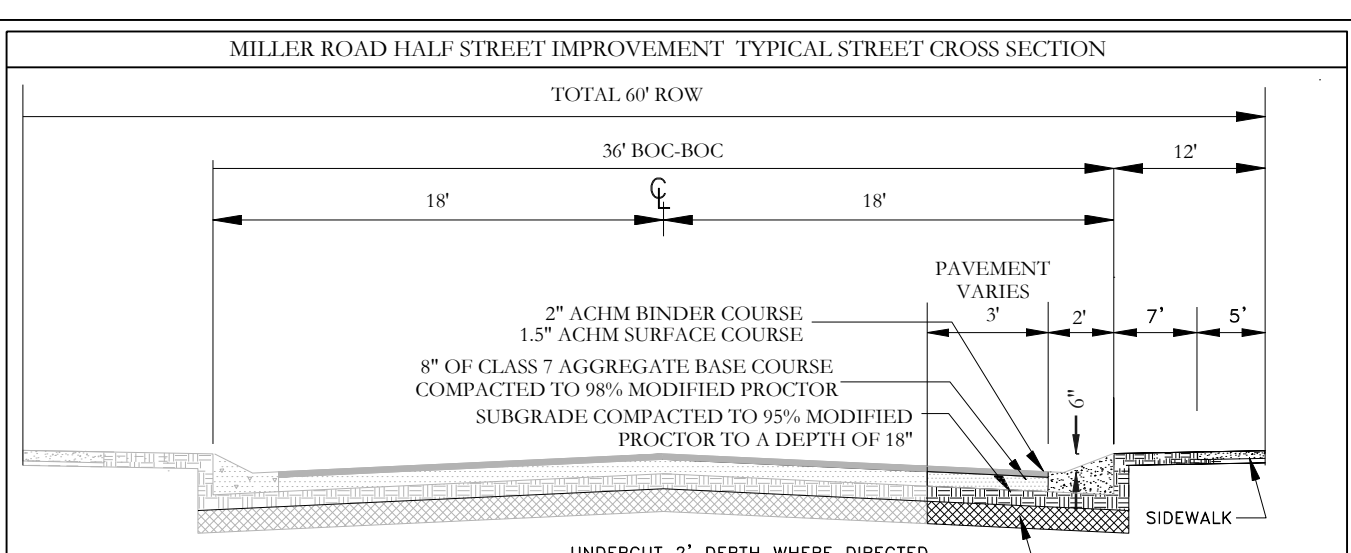
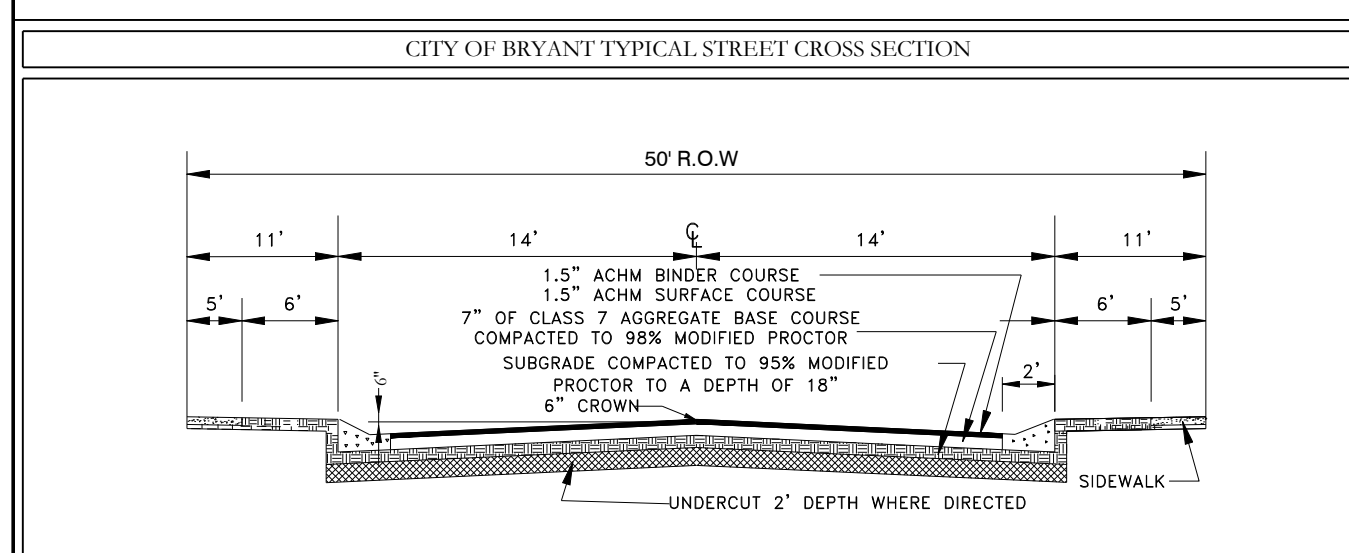


Nightingale Ct-Bluff Springs Ave Profile

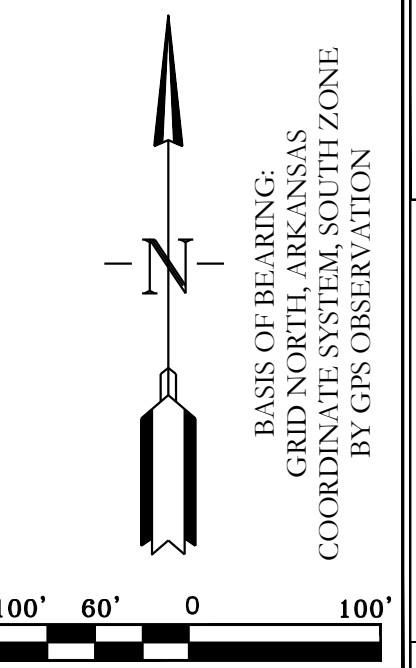
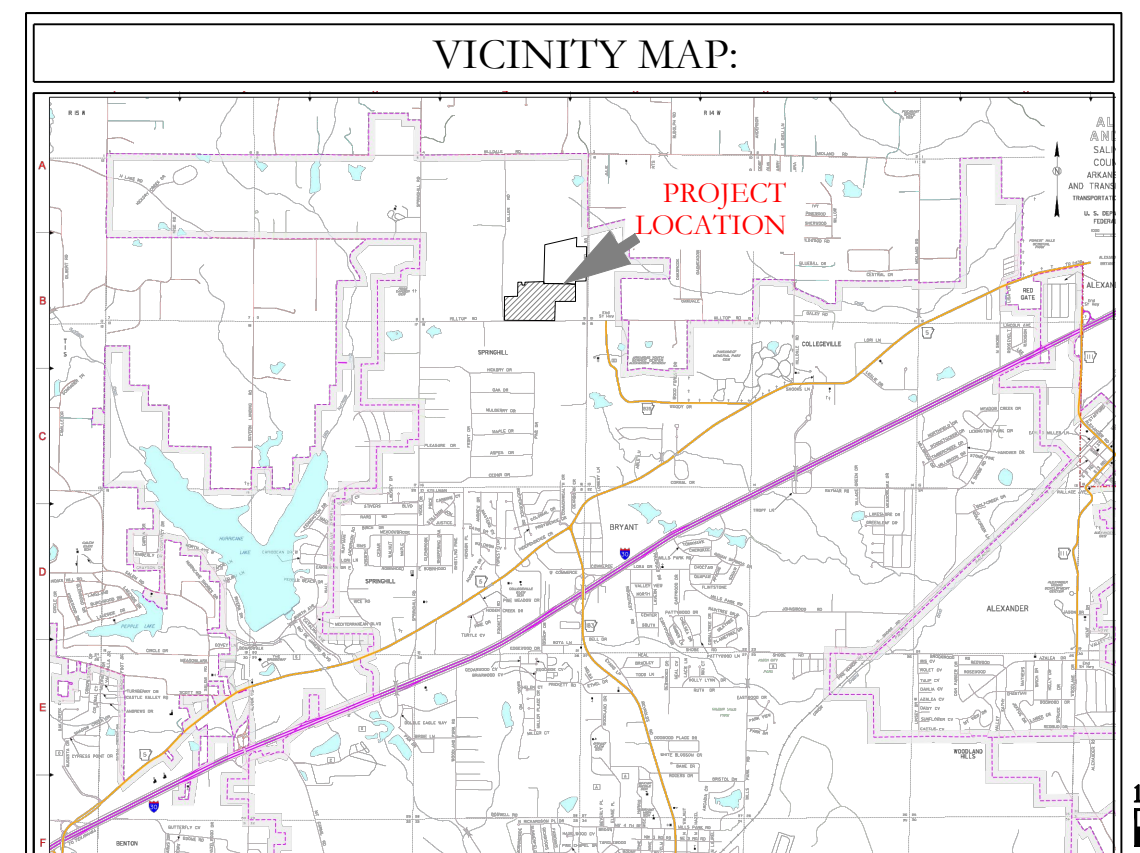


Lone Oak Ave Profile

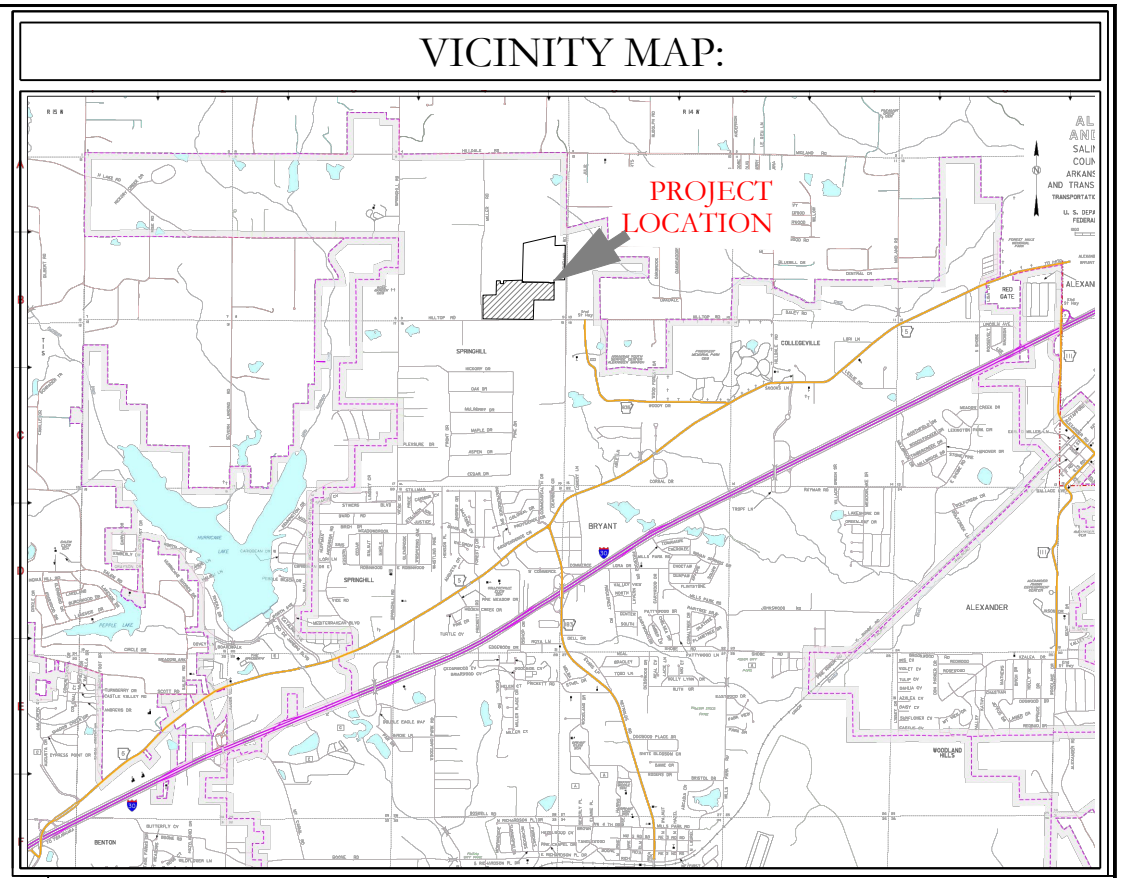
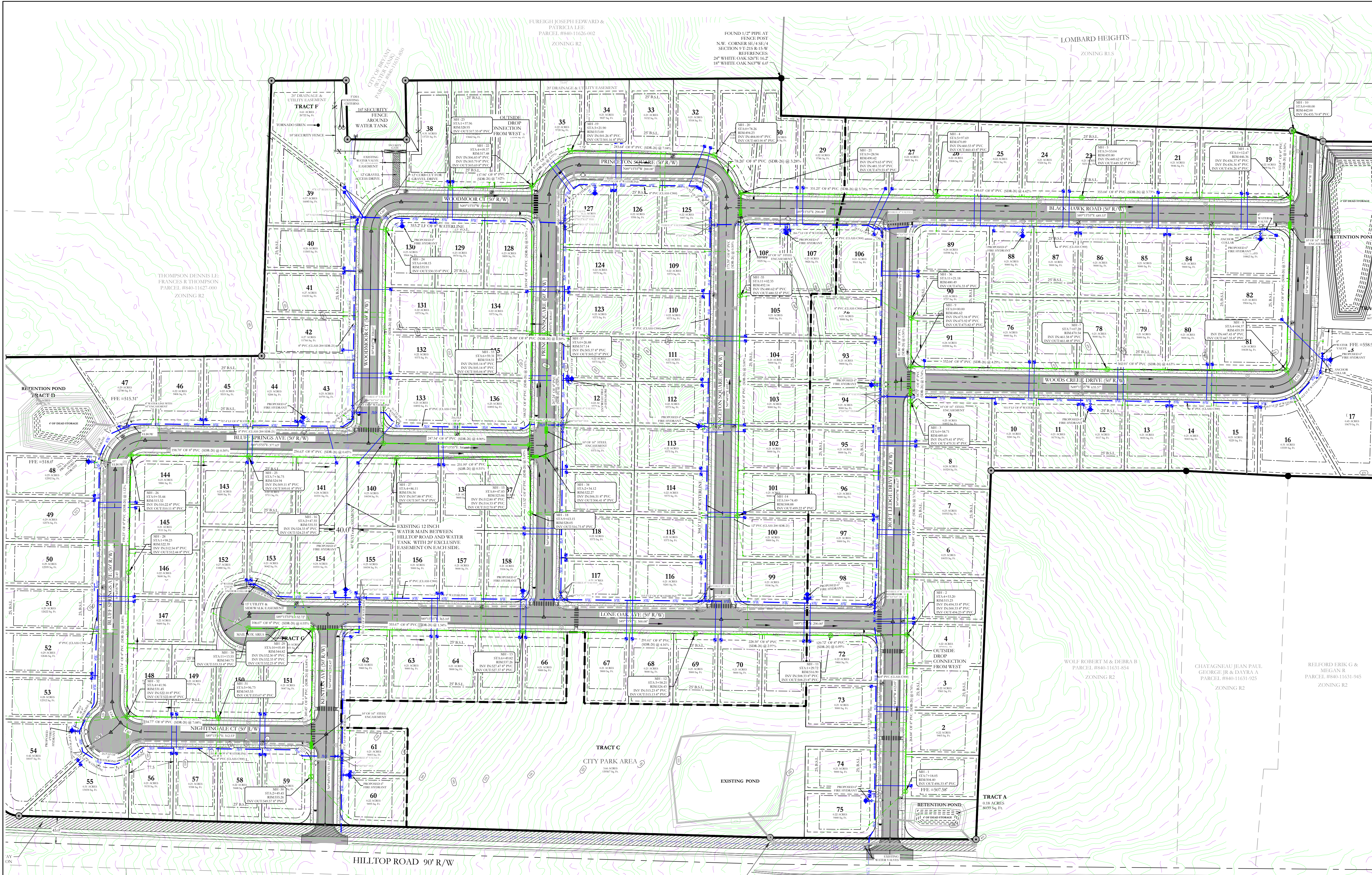
--- HDPE
 — RCP



N.B :All sidewalk ramps will have ADA requirements with corrugated dome ramp .

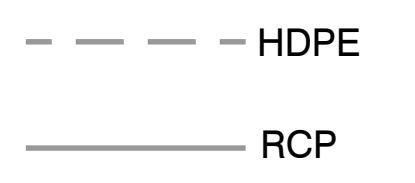


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HILLTOP LANDING STREET PLAN & PROFILE			
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS			
DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:	
REVISID: 08/07/2023	CHECKED BY:	20-1341	
SHEET: C-1.2	SCALE: 1" = 120'		
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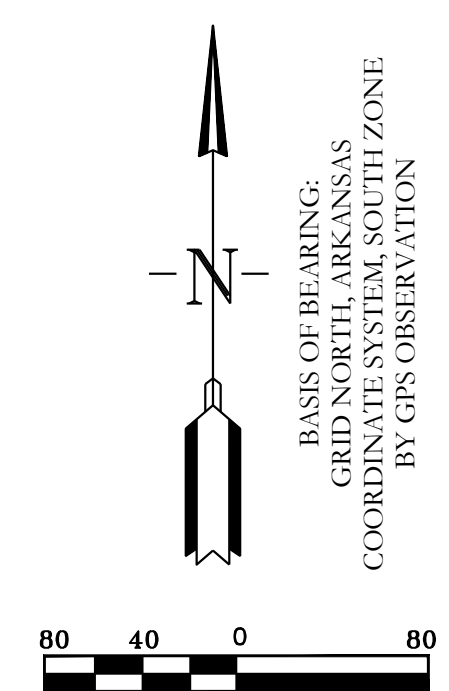
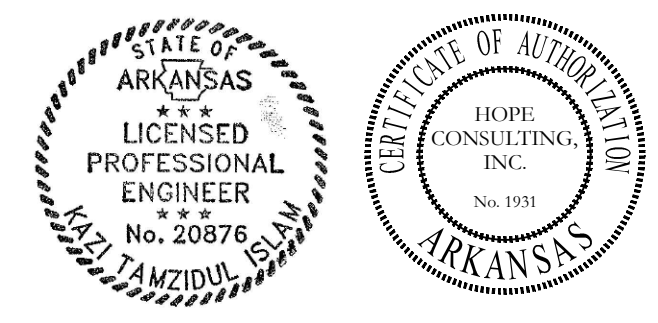


- SEWER CONSTRUCTION NOTES:**
- ALL SEWER CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH BRYANT UTILITIES' MASTER SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF WATER AND SEWER UTILITIES' 2015 EDITION.
 - USE SDR-26 PVC SEWER PIPE EXCEPT WHERE INDICATED OTHERWISE ON THE PLANS OR WHERE DUCTILE IRON PIPE IS REQUIRED FOR COVER.
 - USE DUCTILE IRON PIPE WHERE 3' MINIMUM COVER CANNOT BE MAINTAINED, OR AS INDICATED.
 - ALL LONG-SIDE SEWER SERVICES SHALL BE SCHEDULE 40 OR SDR 21 PIPE.
 - FINISH GRADE HEIGHT ON MANHOLES NEED TO BE 4-6 INCHES ABOVE CURB LINE.
 - ALL MANHOLES WILL BE XYPEX.
 - THE LIFT STATION PROPERTY MUST BE DEEDED TO THE CITY OF BRYANT.
 - STATION MUST BE SET UP THROUGH JACK TYLER.
 - INSTEAD OF FLOATS, THERE WILL NEED TO BE PROBES.
 - SAFETY LIGHT MUST BE INSTALLED (NO WOOD).
 - EVERYTHING IN WET WELL MUST BE STAINLESS STEEL INCLUDING CHAINS.
 - ALL LIFT STATIONS MUST HAVE WOVEN MONOFILAMENT GEOTEXTILE MATERIAL COVERING THE WHOLE PROPERTY OF THE LIFT STATION WITH THE GRAVEL ON TOP TO CONTROL WEEDS AND GRASS CAUSING PROBLEMS IN THE DRIVE TO THE LIFT STATION AND THE GATED AREA OF THE LIFT STATION.
 - LIFT STATION MUST HAVE A ROLLING GATE, OR GATES THAT SWING OUT FOR OUR JET VAC/ PUMP TRUCK TO GET INTO.
 - ALL PANELS MUST HAVE THE ROOF COVER AND MUST BE STEEL FRAME AND PANEL ROOF DESIGN COVERING 5 FEET ON ALL SIDES OF THE PANELS.
 - AT STORM DRAIN CROSSING OR ANY DRAINAGE DITCHES CROSSING, THE SEWER INFRASTRUCTURE WILL NEED TO BE STEEL ENCASED, FIVE FEET ON EITHER SIDE.
 - NO STEPS IN MANHOLES.
 - CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL BURIED UTILITIES PRIOR TO CONSTRUCTION.
 - ELECTRICAL CONDUIT COMING OUT OF THE CONTROL BOX WILL NEED TO BE 3" CONDUIT SHOULD BE PLUGGED WITH PUTTY NOT SPRAY IN FOAM TO RESTRICT GASES FROM ENTERING THE CONTROL BOX THAT CAUSES CORROSION.
 - THE LIFT STATION ROOF NEEDS TO BE METAL OR OTHER MATERIAL, NOT WOOD, ALSO THE LIGHT POLE CAN NOT BE WOOD.
 - RPZ WILL NEED TO BE IN A WEATHERPROOF BOX.

- WATER CONSTRUCTION NOTES:**
- ALL WATER CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH BRYANT UTILITIES' MASTER SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF WATER AND SEWER UTILITIES' 2015 EDITION.
 - LONG-SIDE WATER SERVICE LINES SHALL BE ENCASED, INCLUDING THE LINES BENEATH THE CUL-DE-SAC.
 - ALL SERVICE CROSSINGS SHALL BE 1" DRISCO SERVICE LINE ENCASED IN A 2" PVC SLEEVE.
 - ALL WATER MAIN FITTINGS SHALL BE MEGALUG BRAND MECHANICAL JOINT FITTINGS.



**SUBDIVISION
UTILITY PLAN**



WATER LEGEND:

☐	DUAL WATER METERS
○	SINGLE WATER METER
⊕	GATE VALVE
⊕	45° FITTING
⊕	90° FITTING
⊕	TEE FITTING
⊕	CROSS FITTING
⊕	FIRE HYDRANT

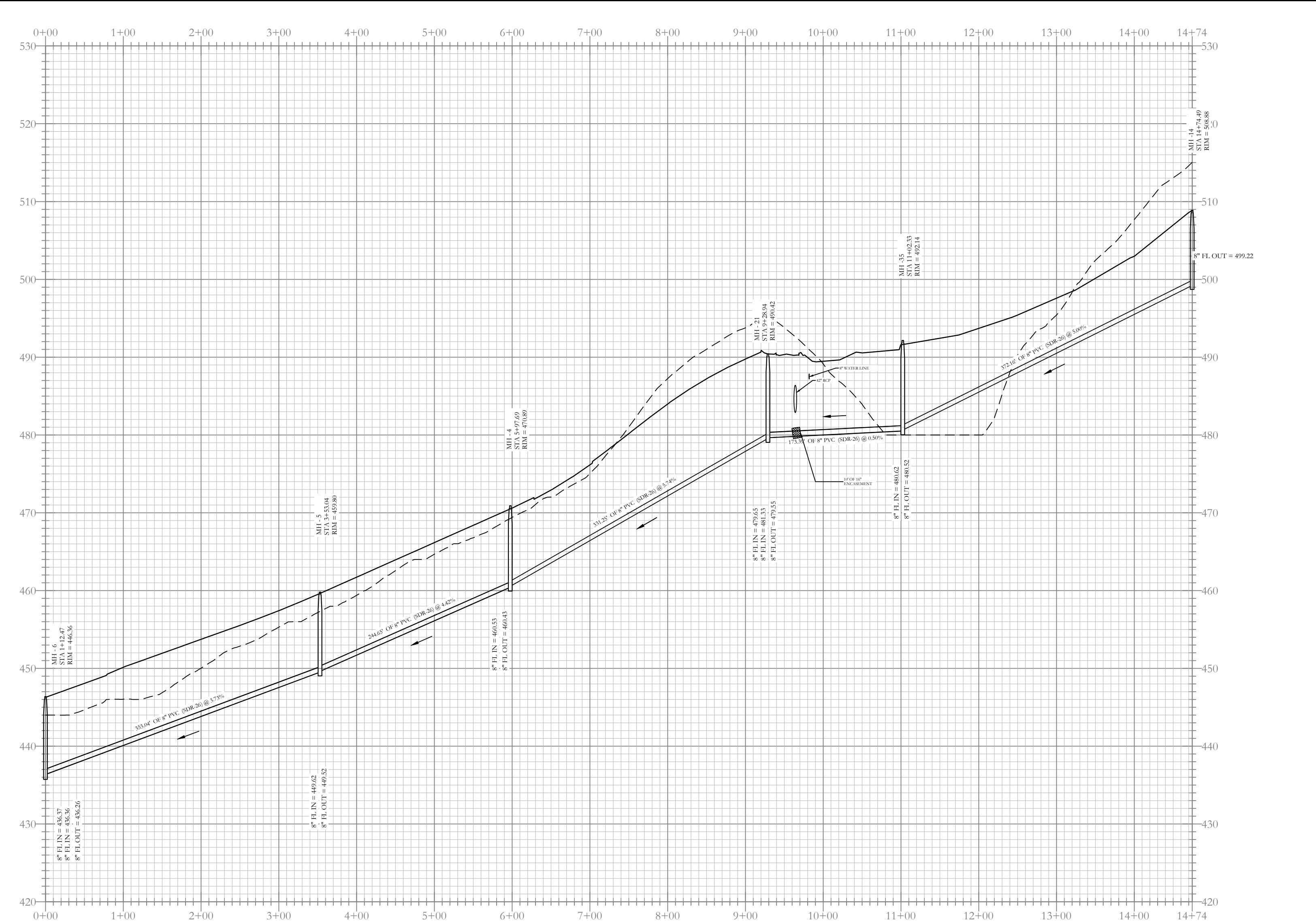
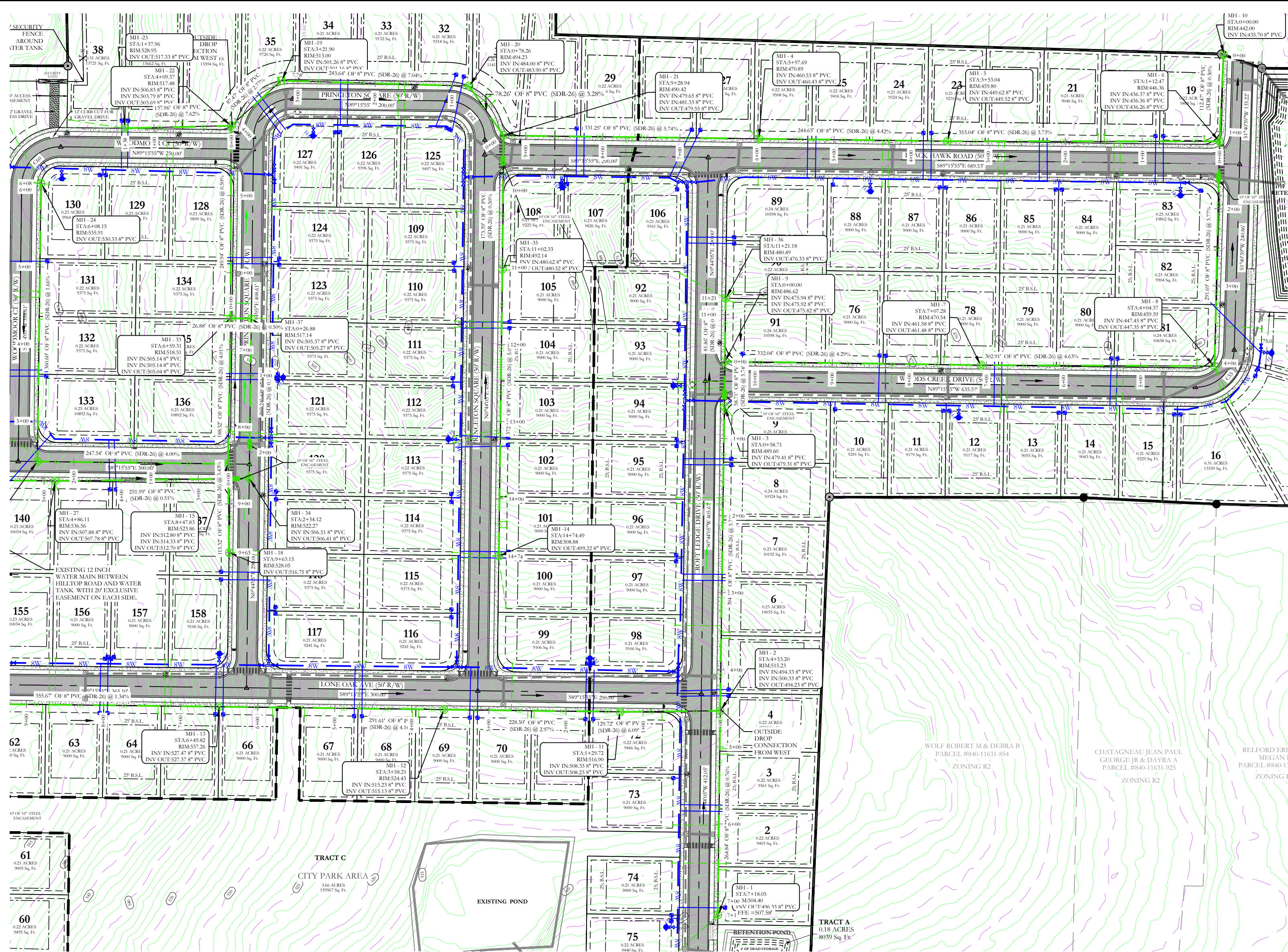
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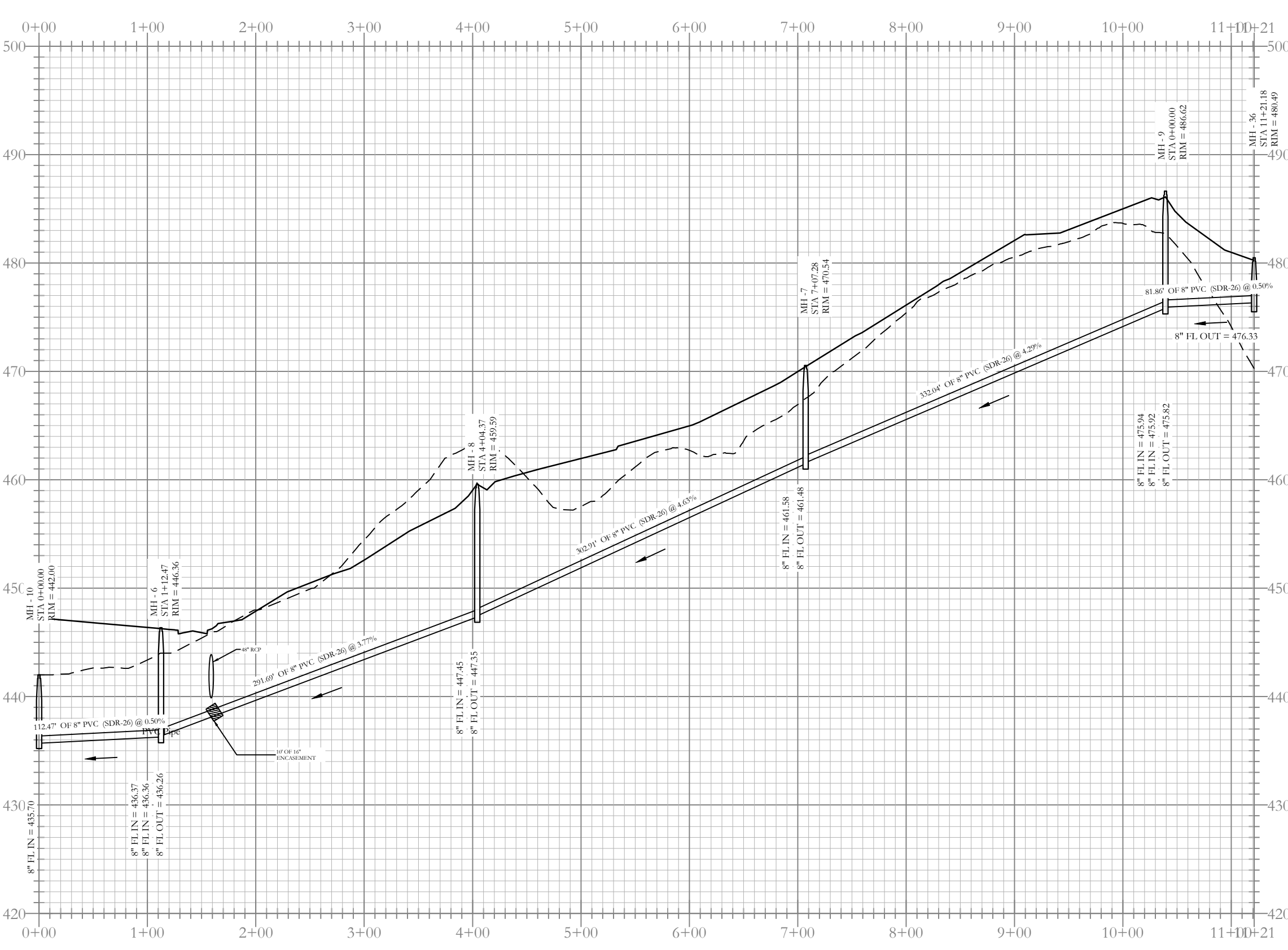
**HILLTOP LANDING
UTILITY PLAN**
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

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REVISED: 08/07/2023	CHECKED BY:	20-1341
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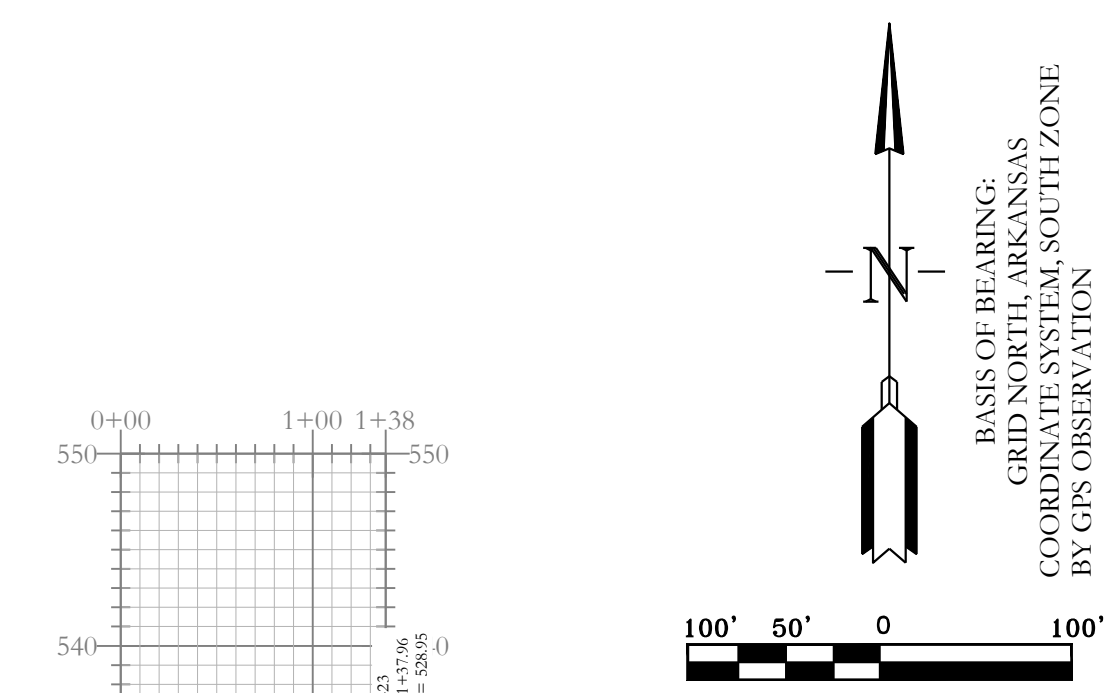
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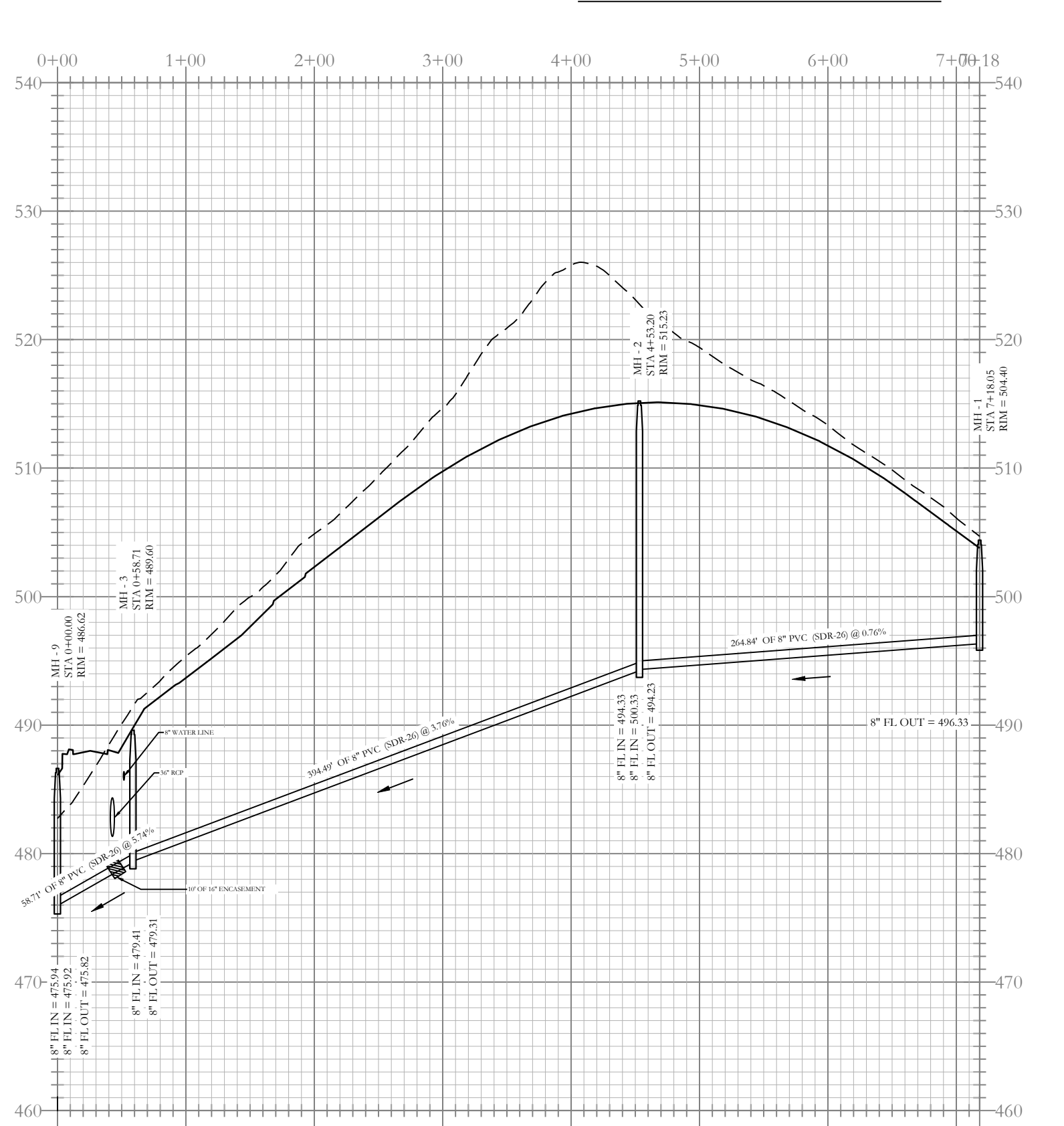
Sewer D Profile



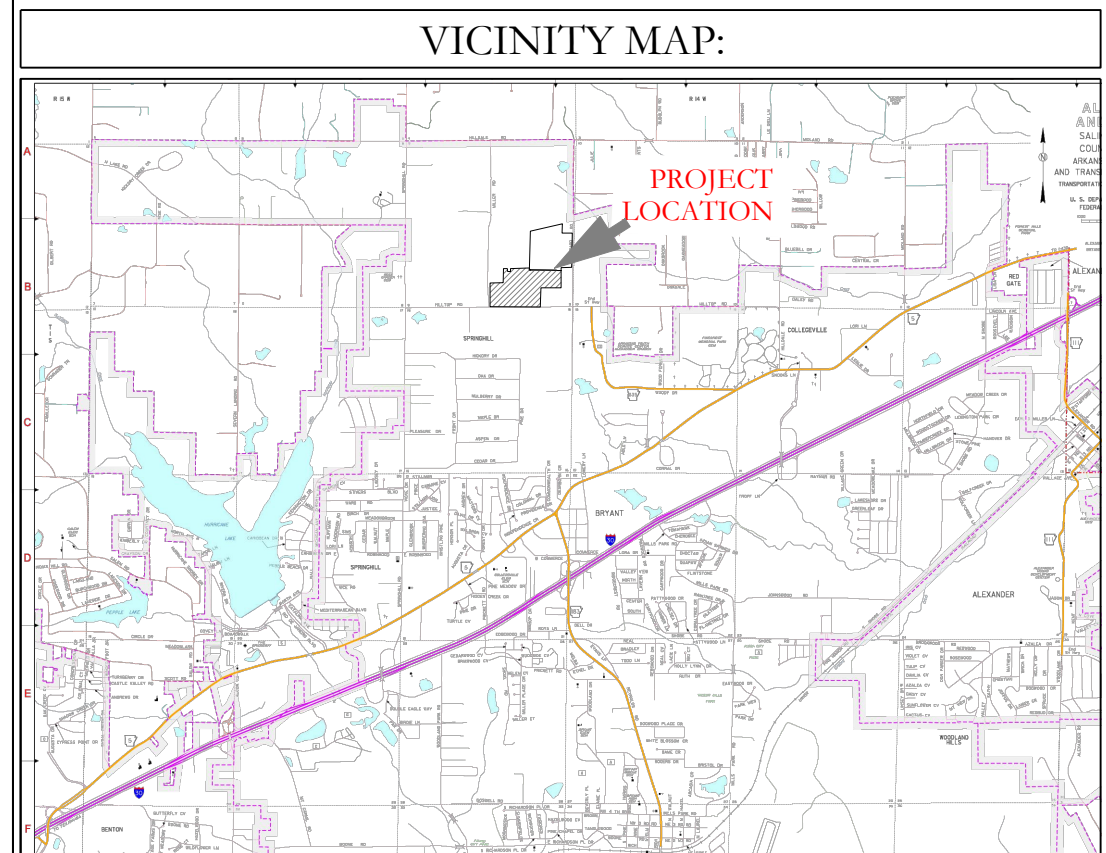
Sewer A Profile



Sewer B-1 Profile



Sewer Entrance Profile

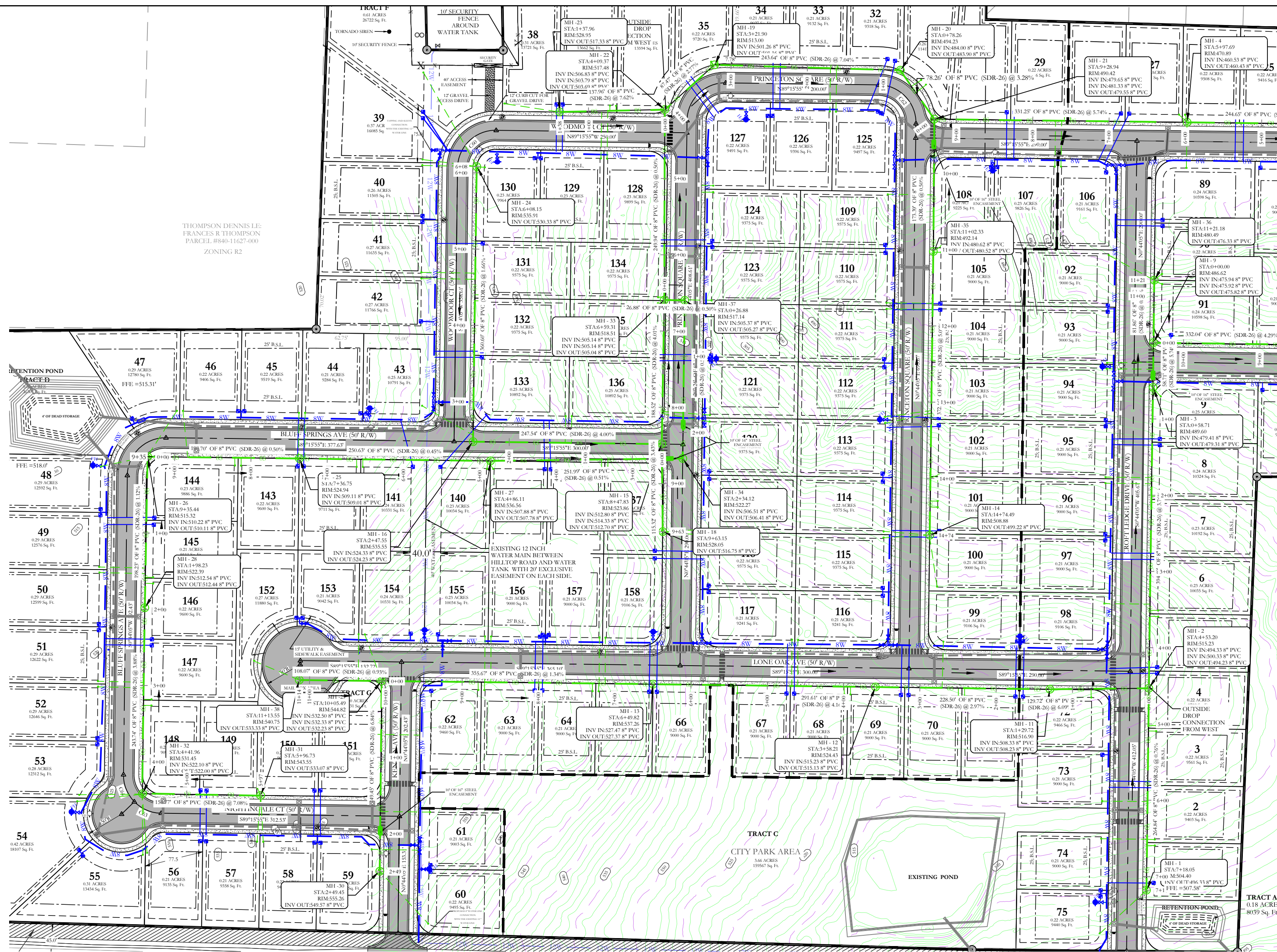


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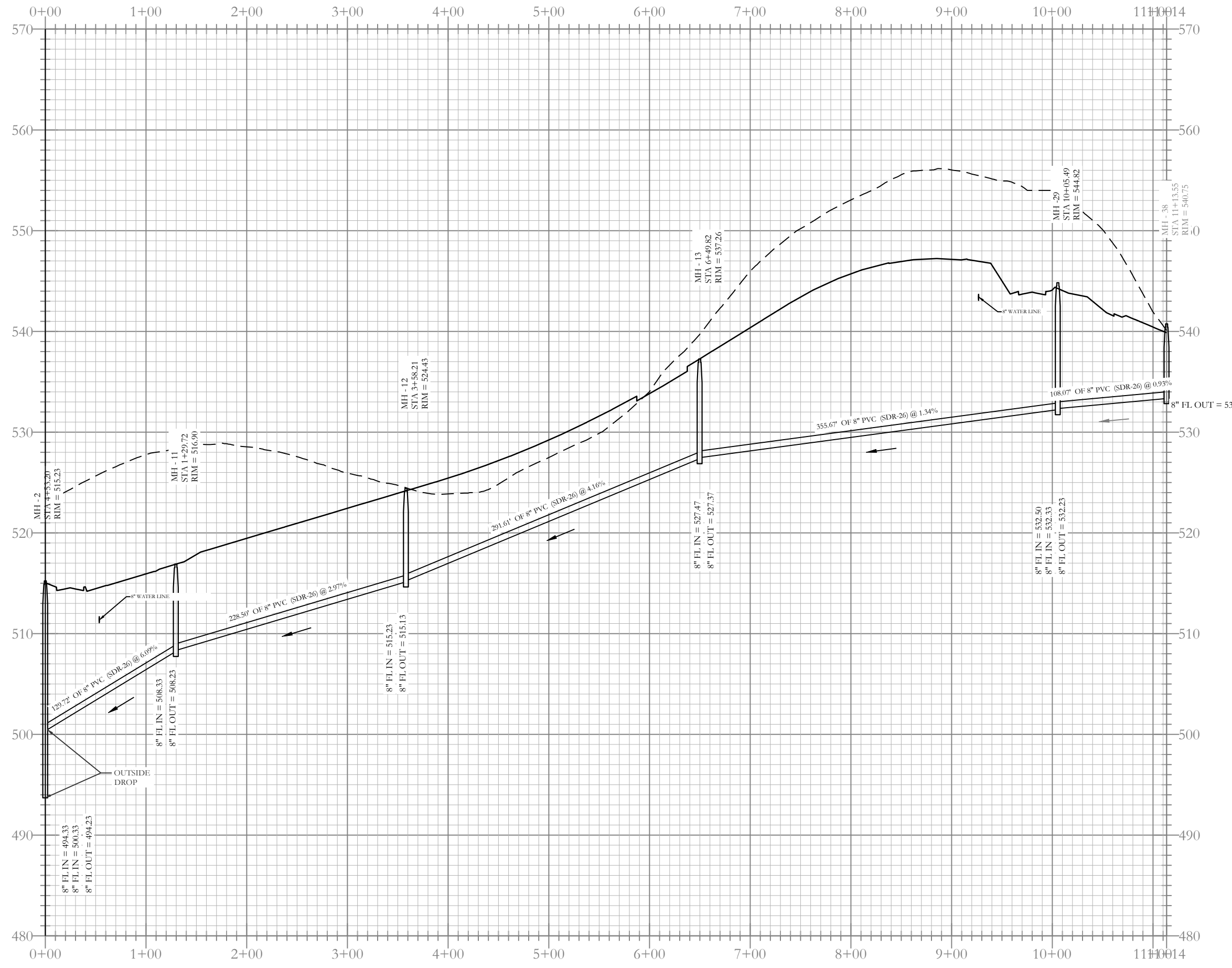
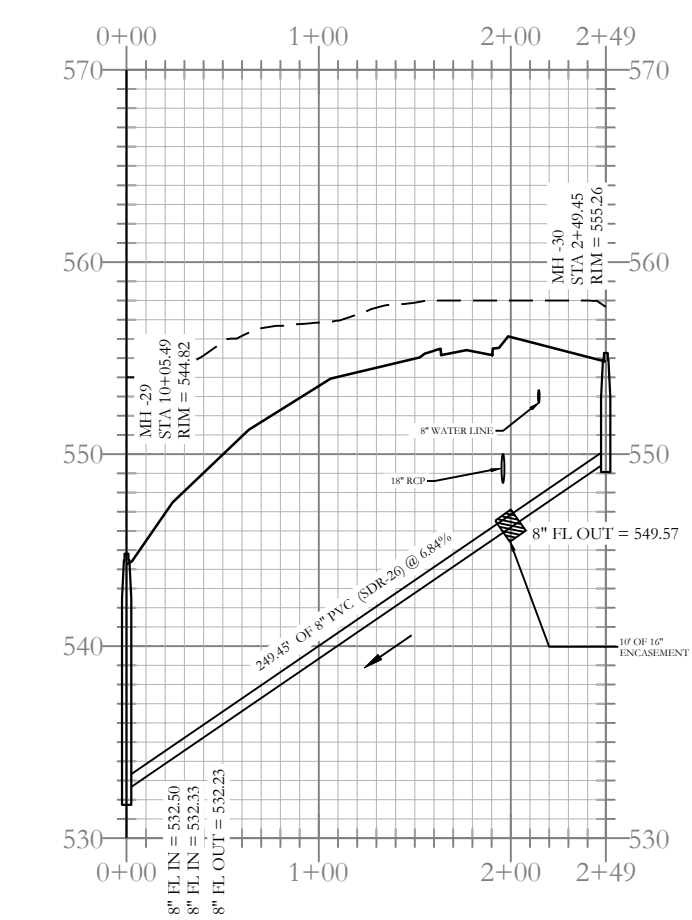
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DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:	
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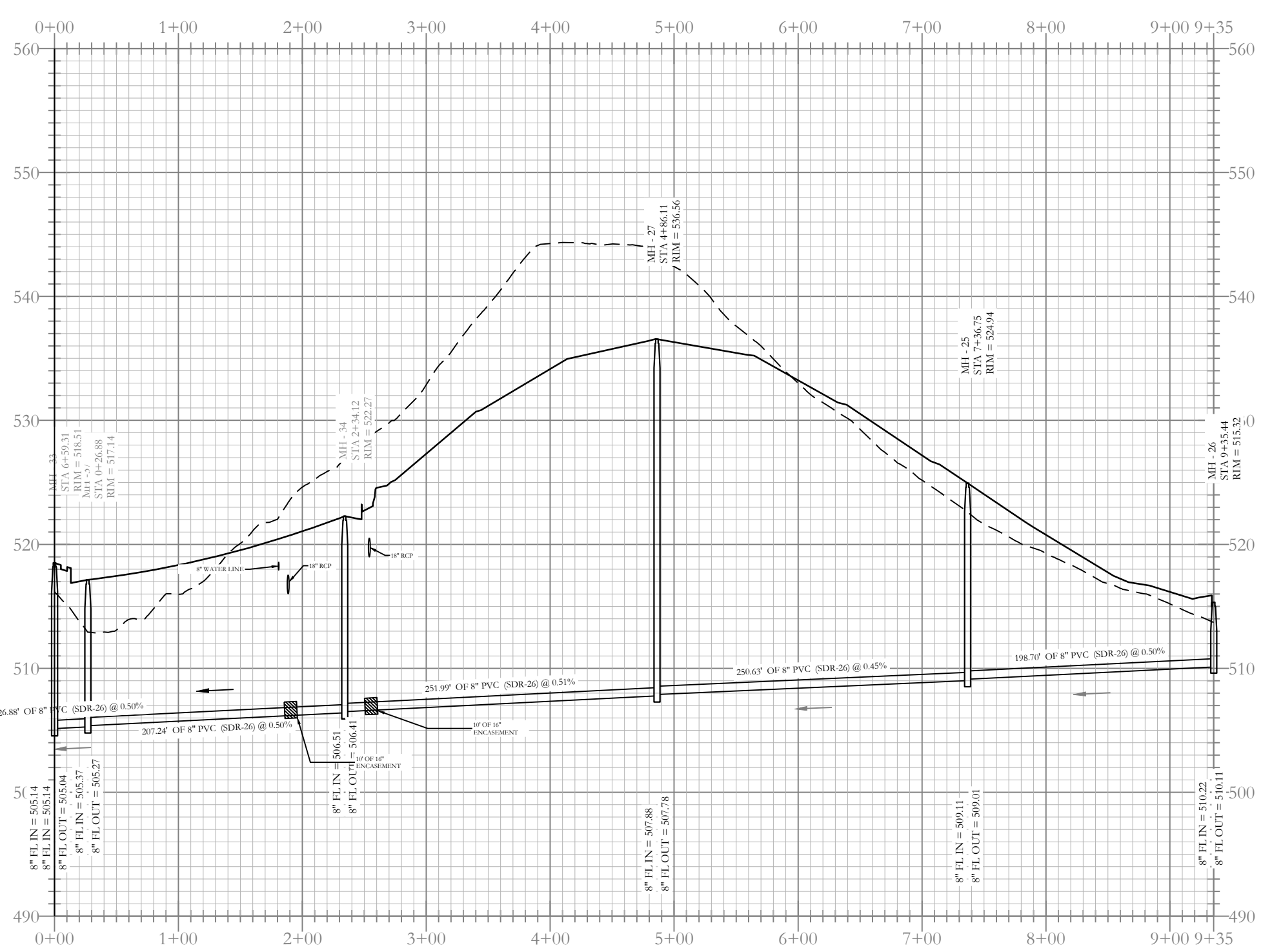
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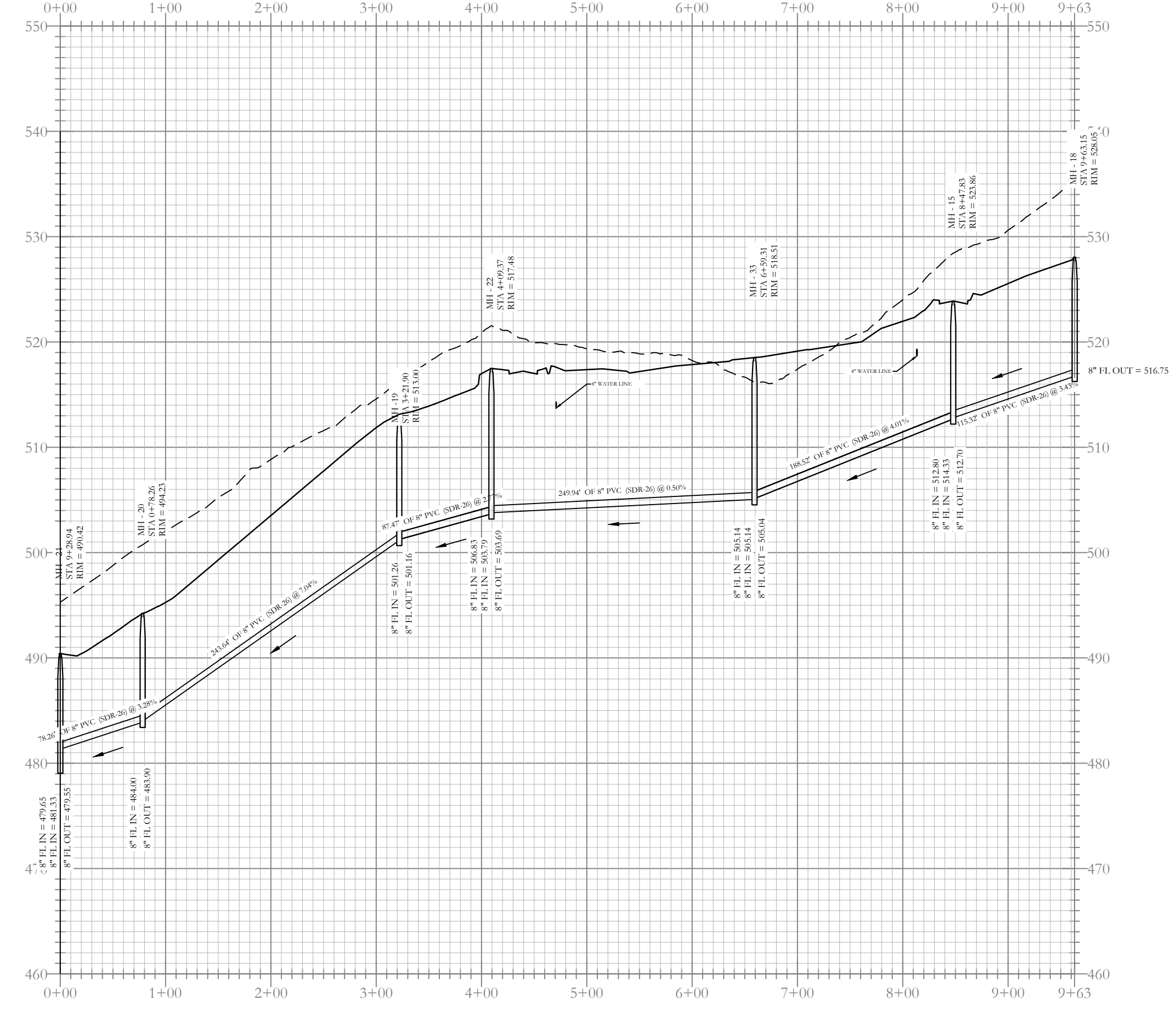
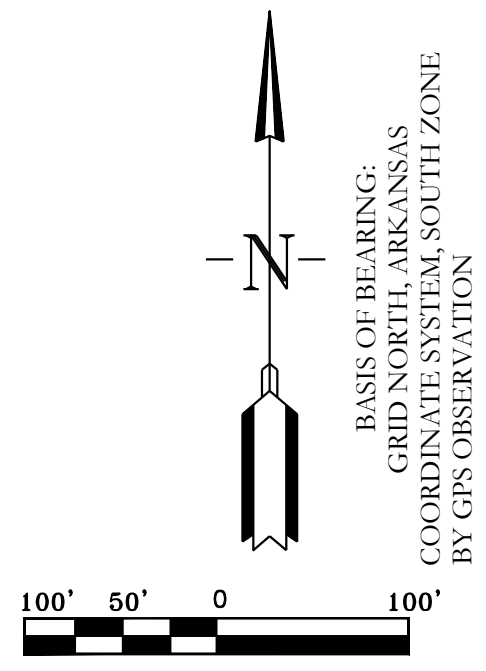
Sewer Entrance-2 Profile



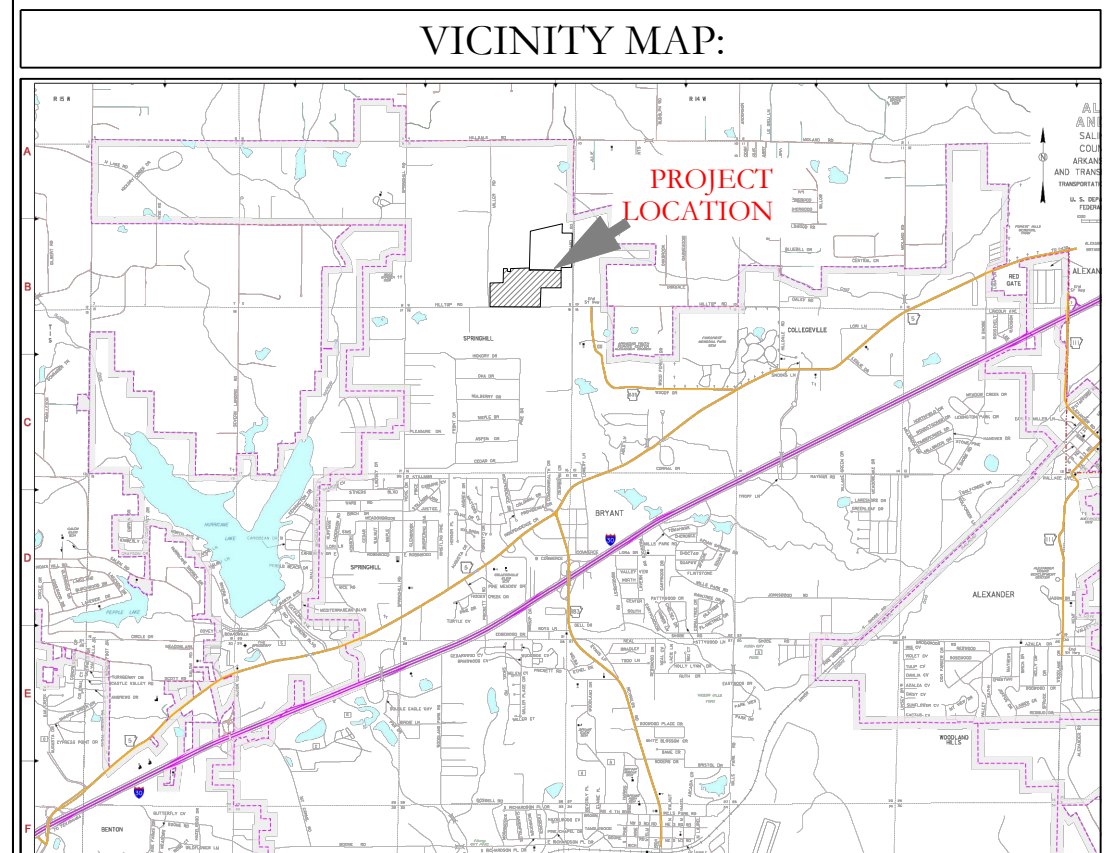
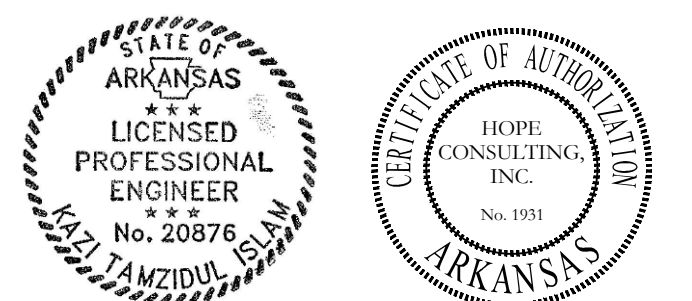
Sewer F-1 Profile



Sewer E-2 Profile



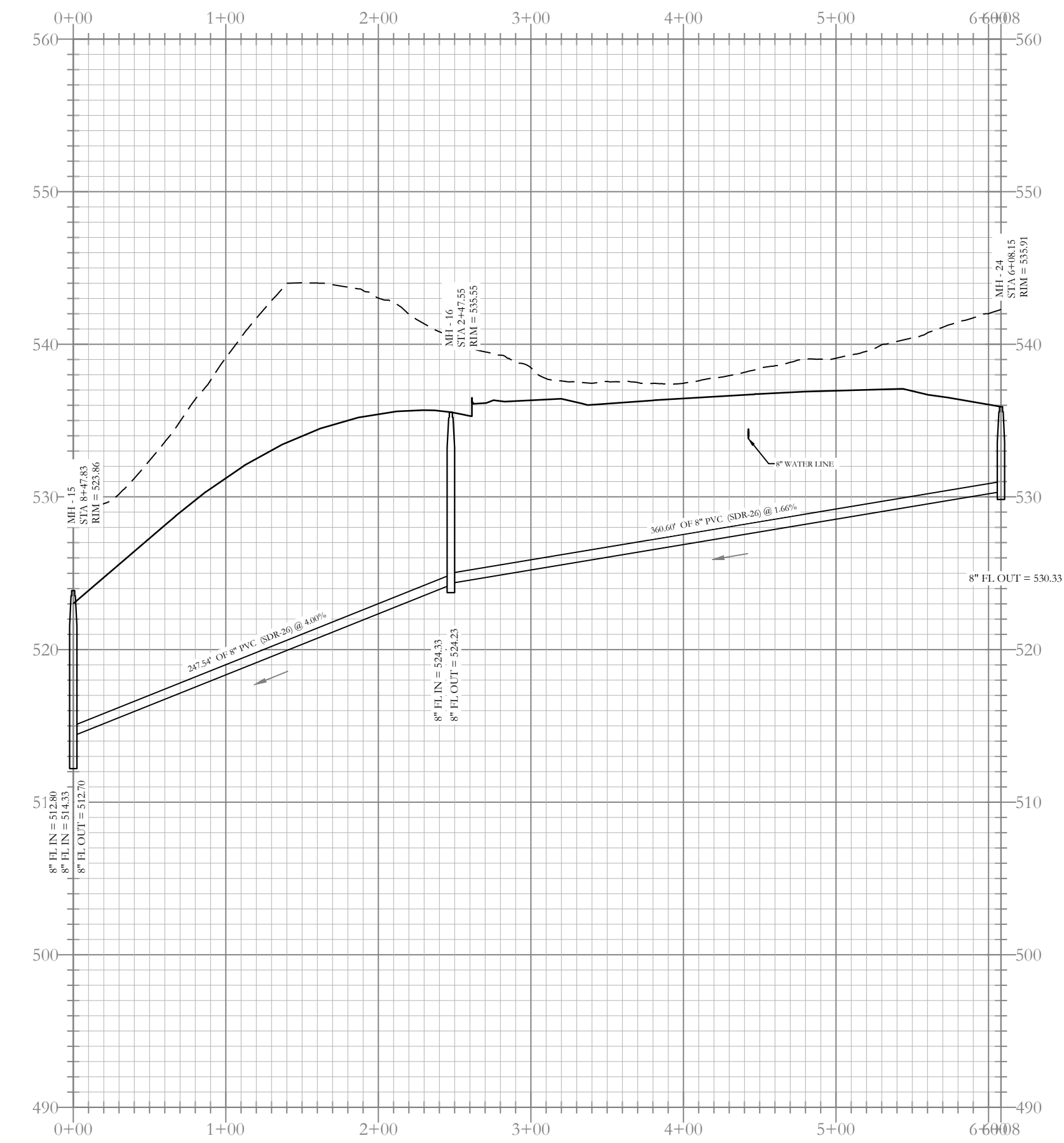
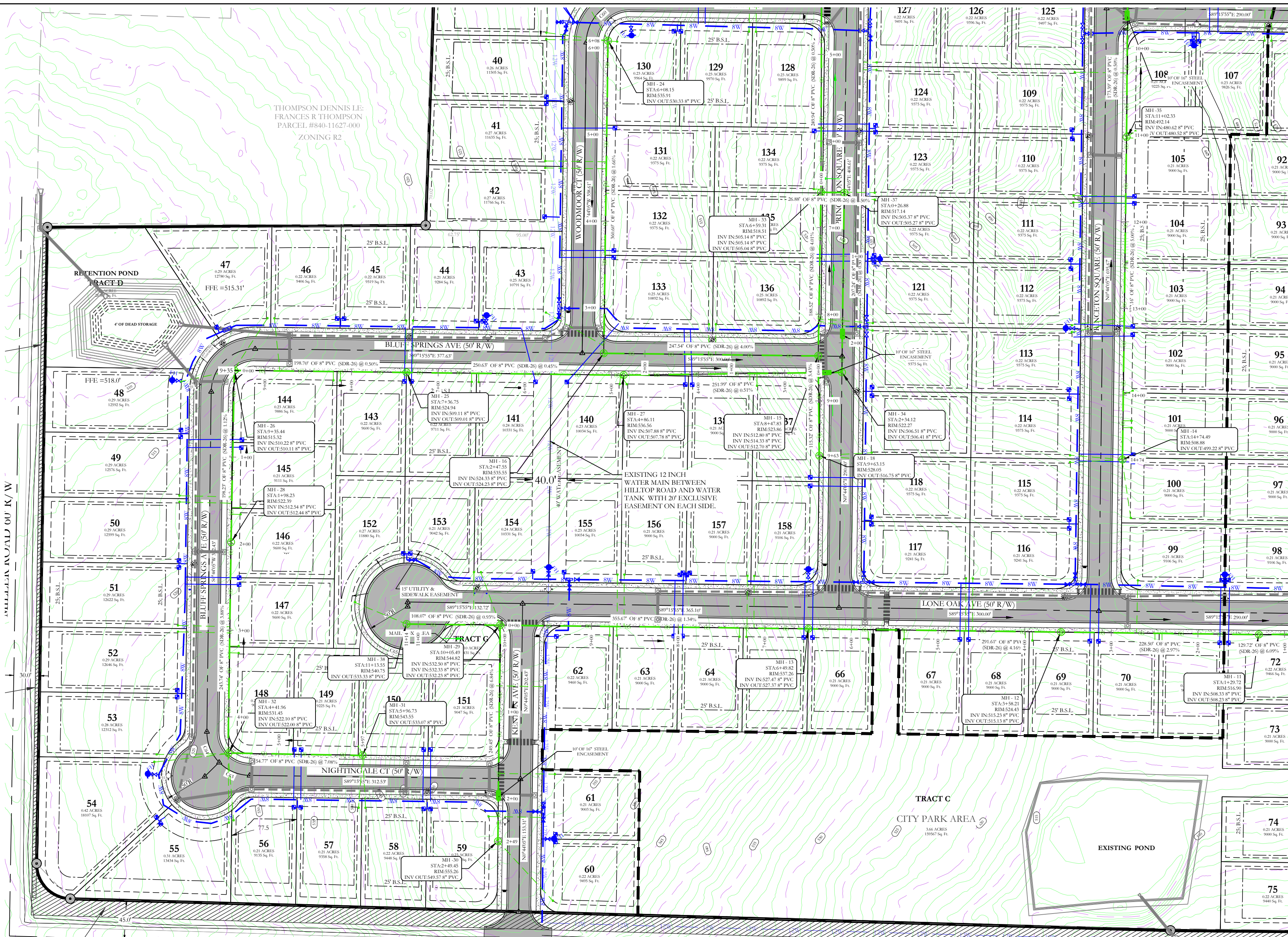
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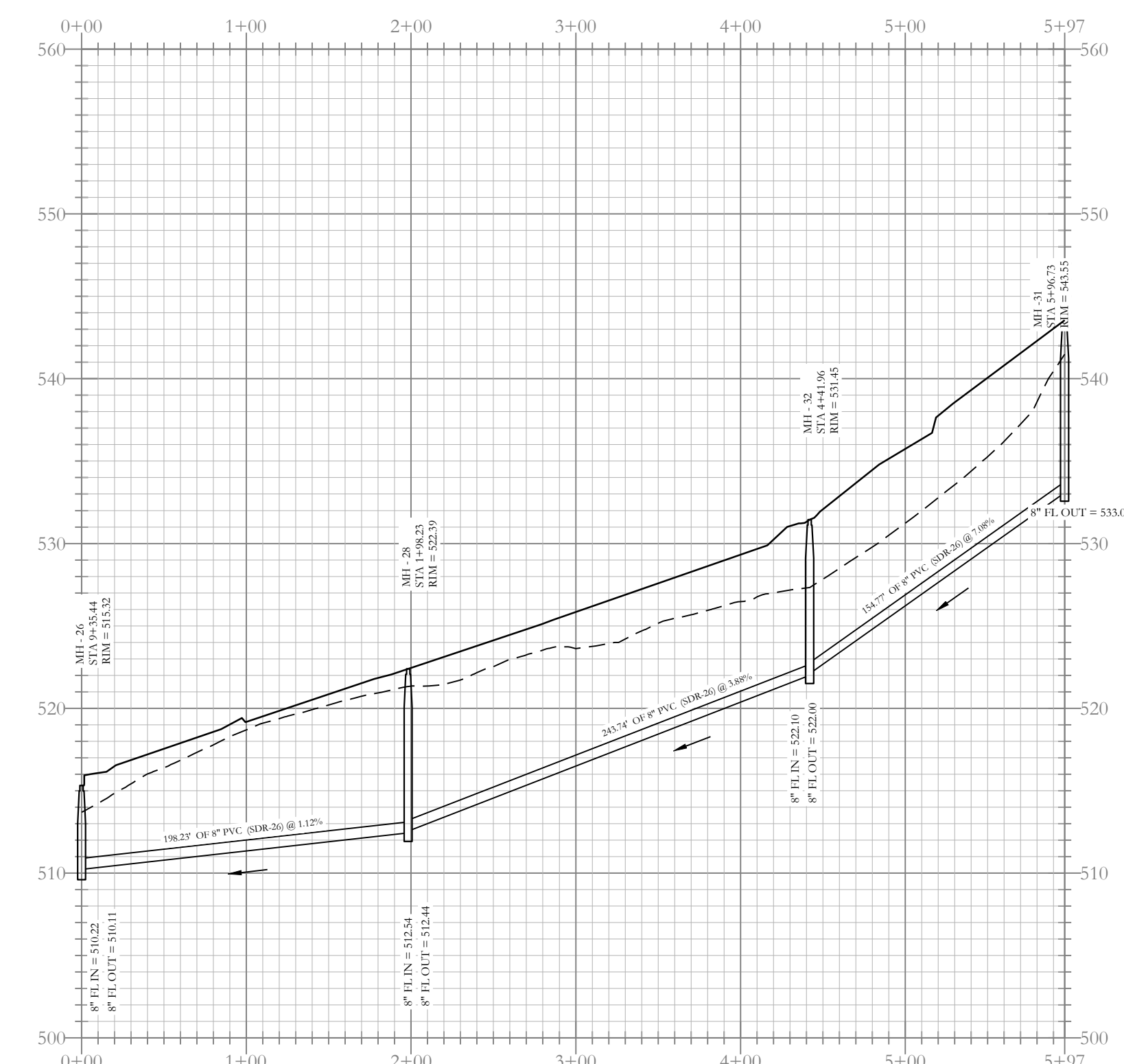
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A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS			
DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:	
REVISED: 08/07/2023	CHECKED BY:	20-1341	
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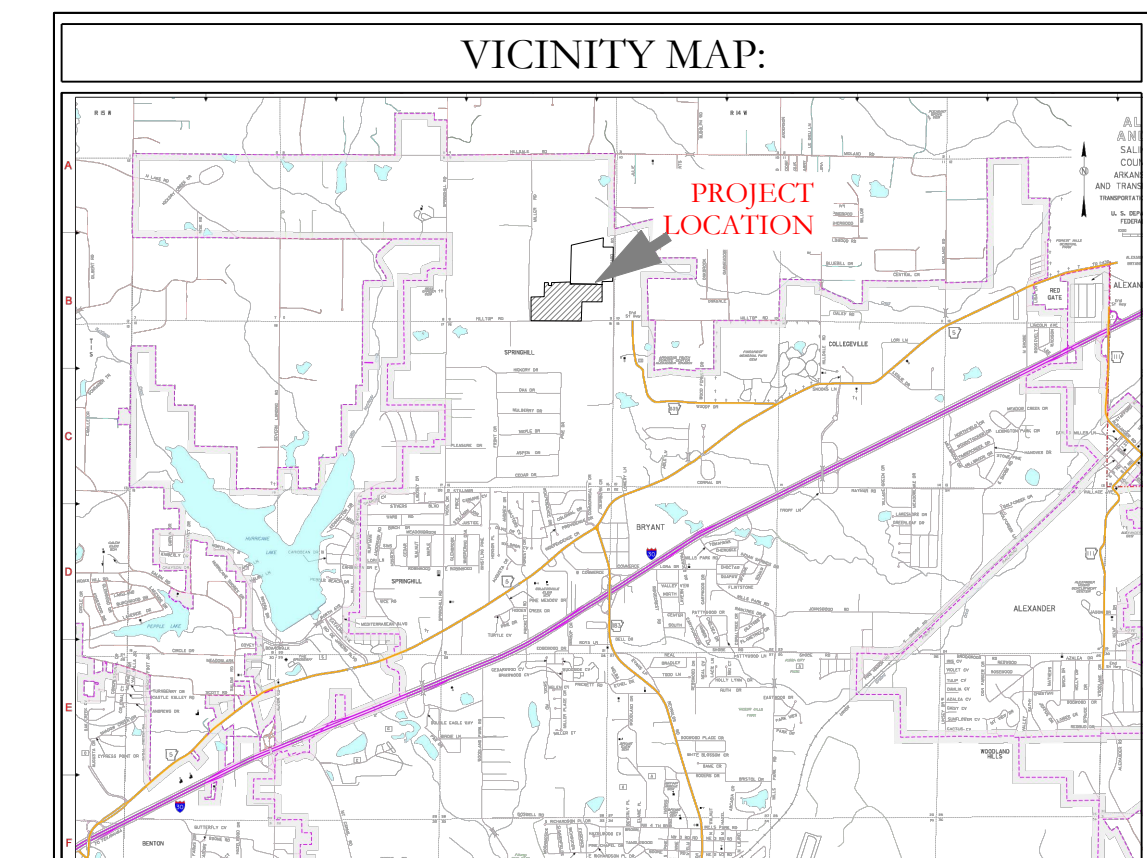
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Sewer B-2 Profile



Sewer E-1 Profile



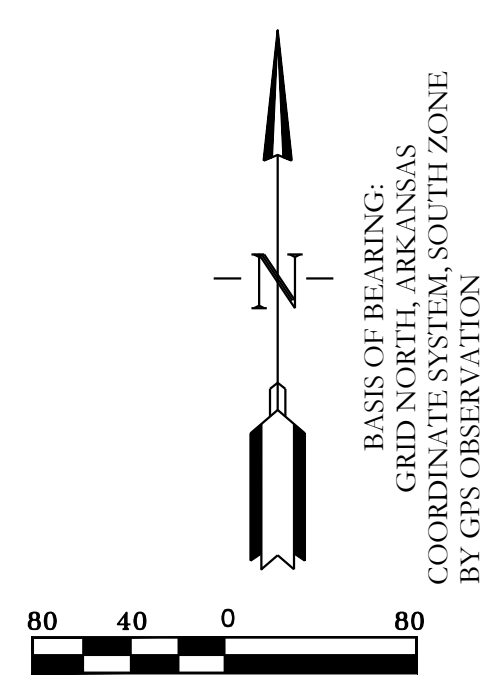
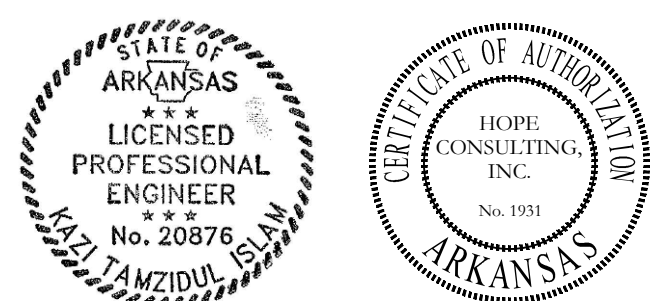
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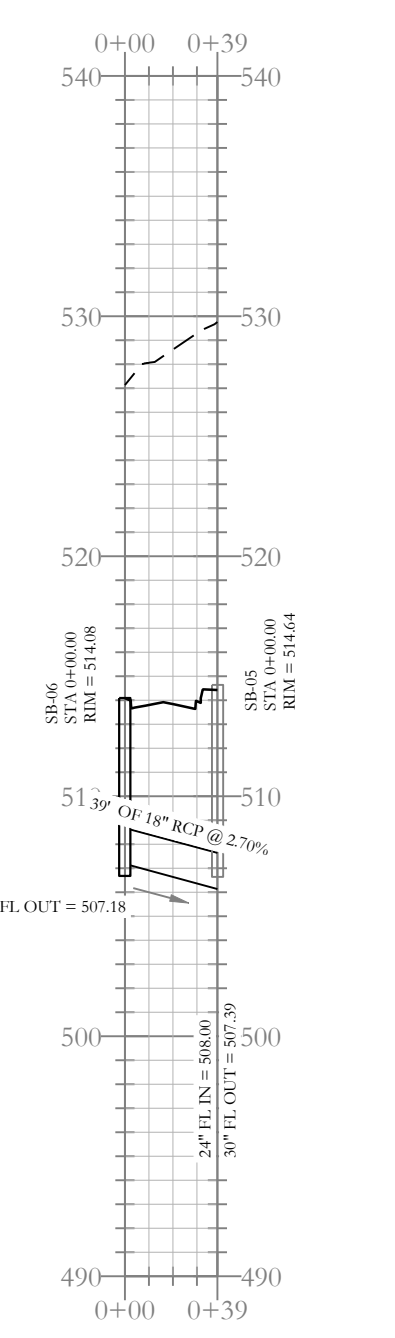
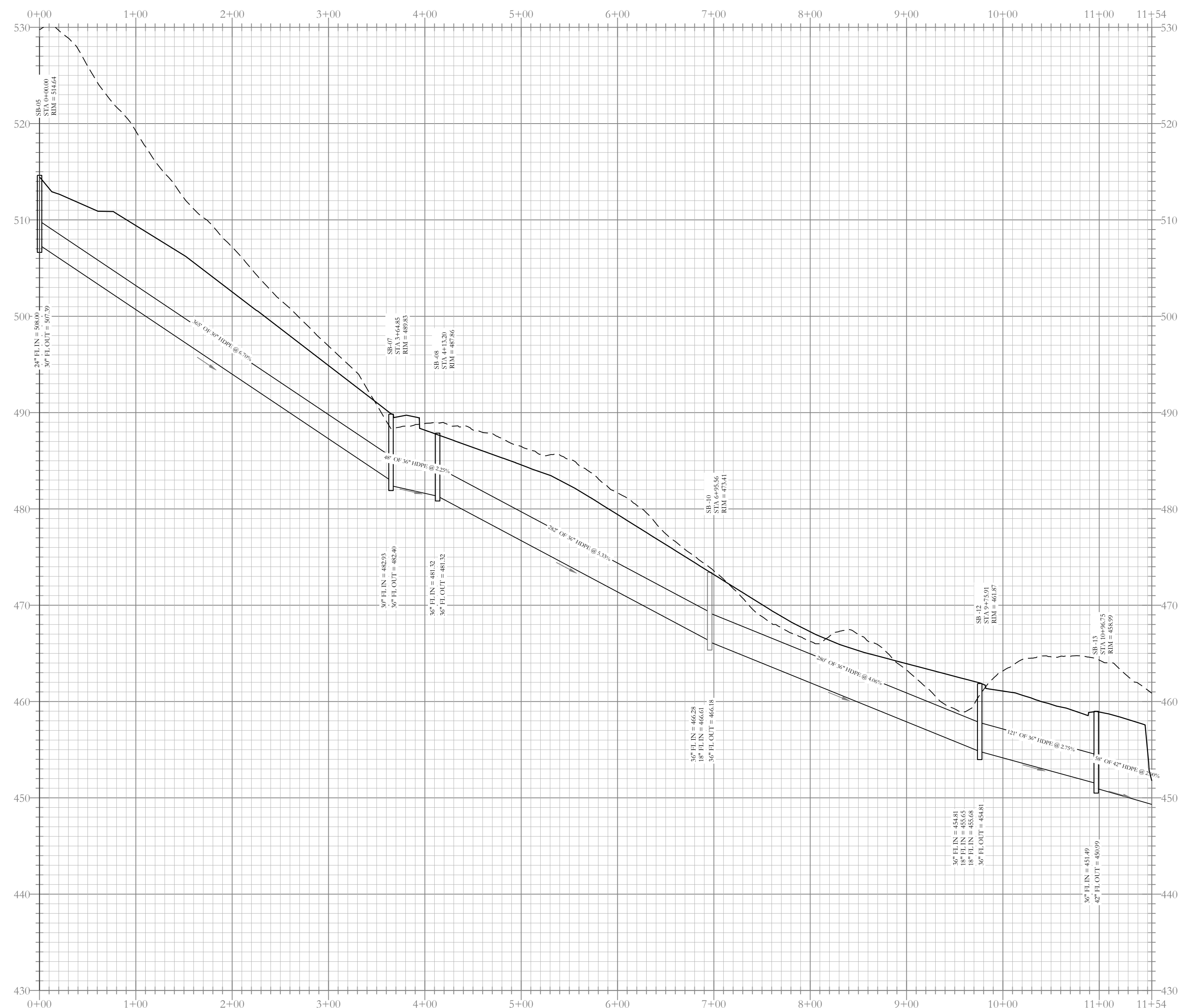
FOR USE AND BENEFIT OF:
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**HILLTOP LANDING
SEWER PLAN AND PROFILE**
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

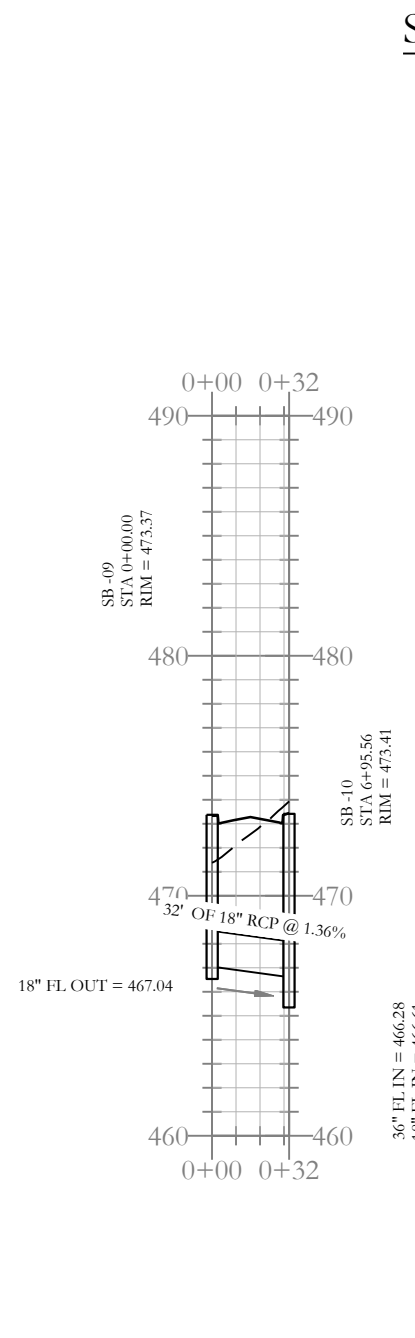
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REVISED: 08/07/2023	CHECKED BY:	20-1341
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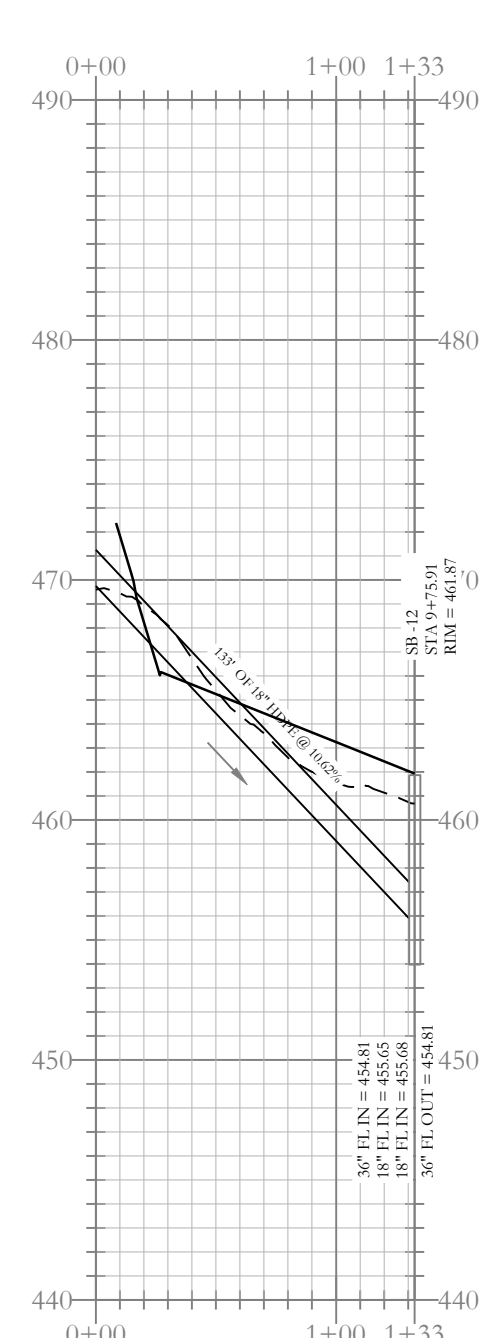


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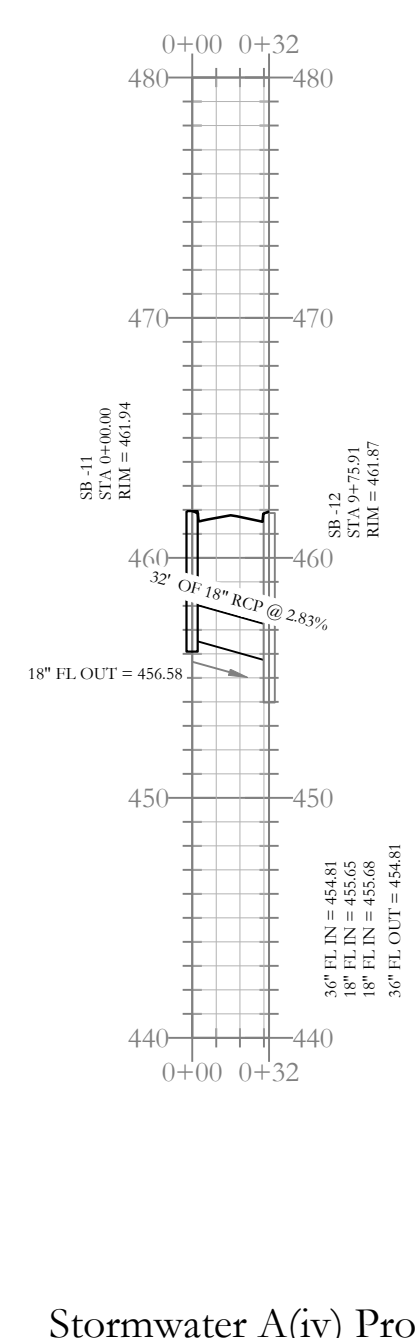


Stormwater A(ii) Profile

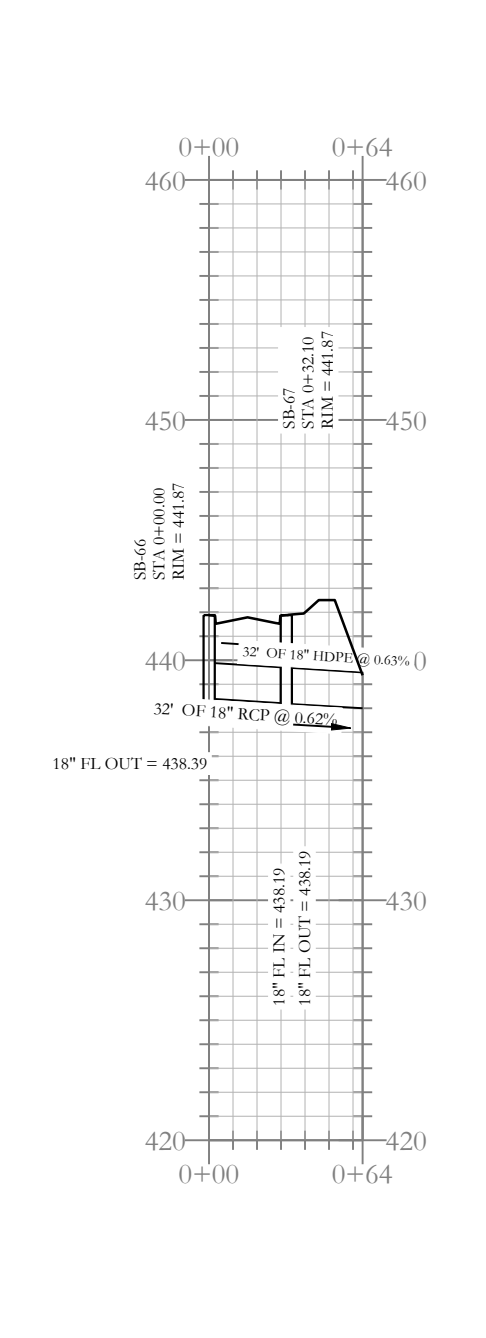
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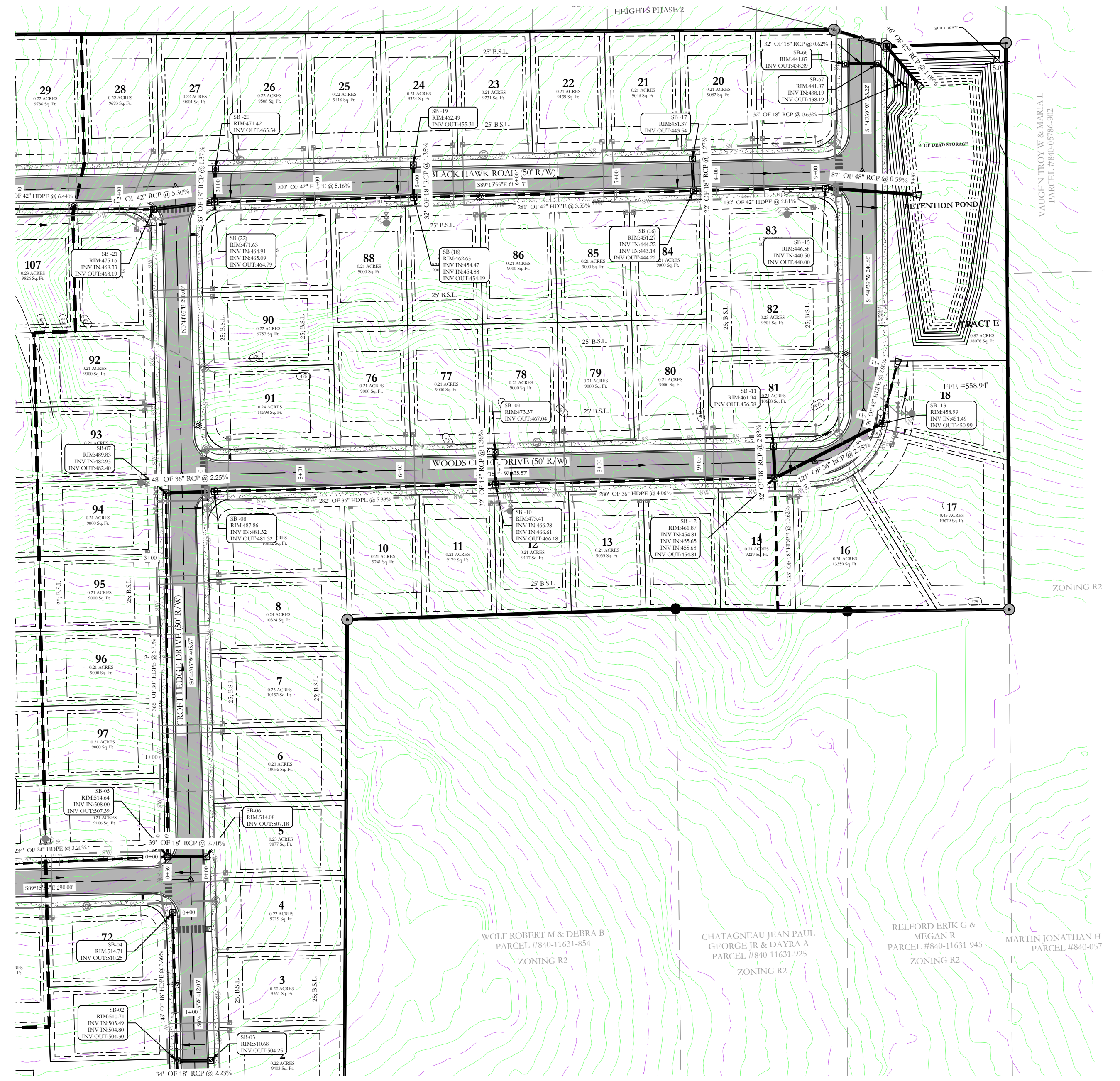
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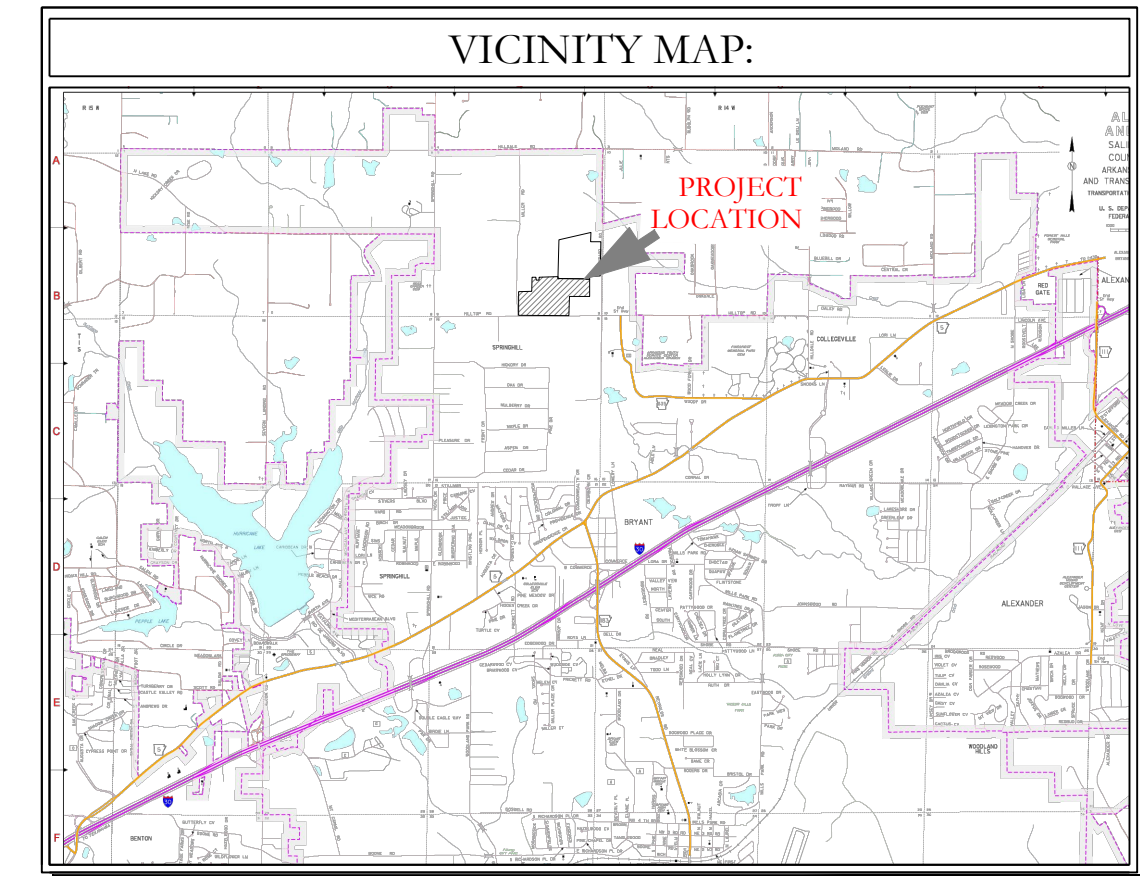
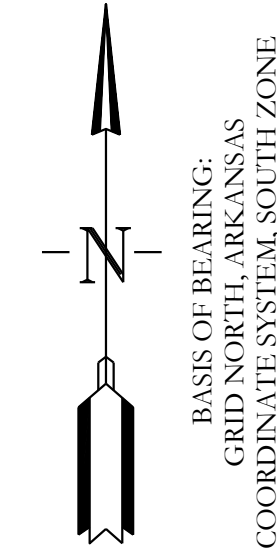
Stormwater A(iv) Profile



Stormwater A(v) Profile



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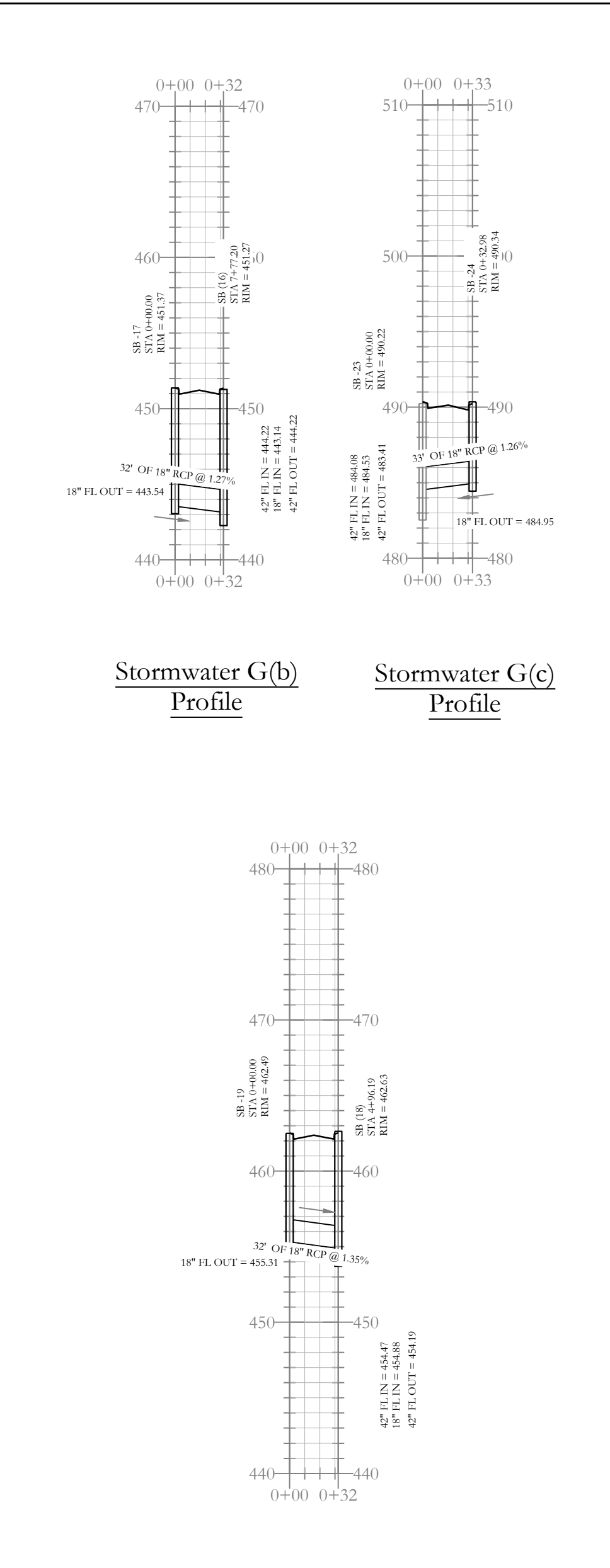
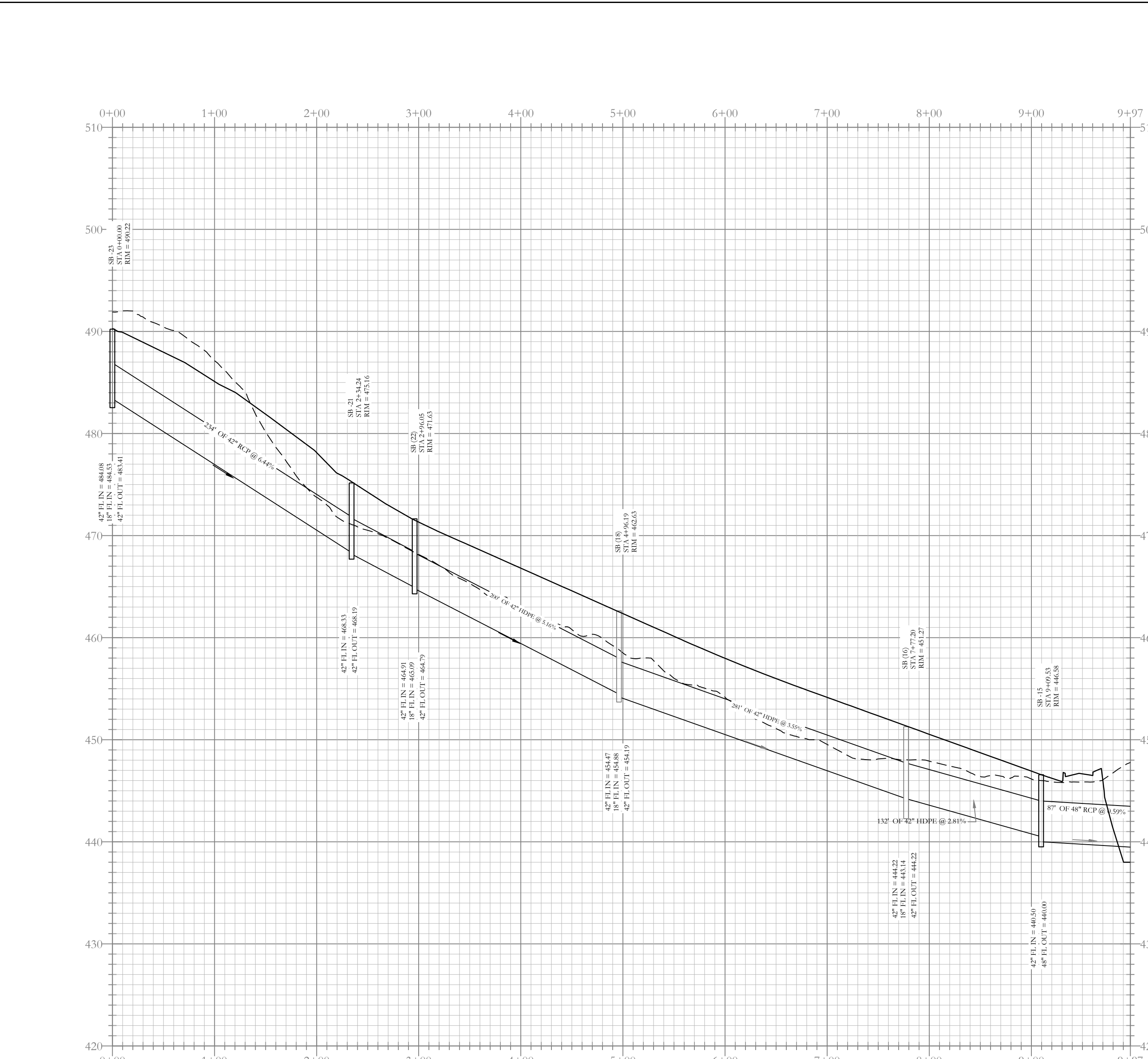
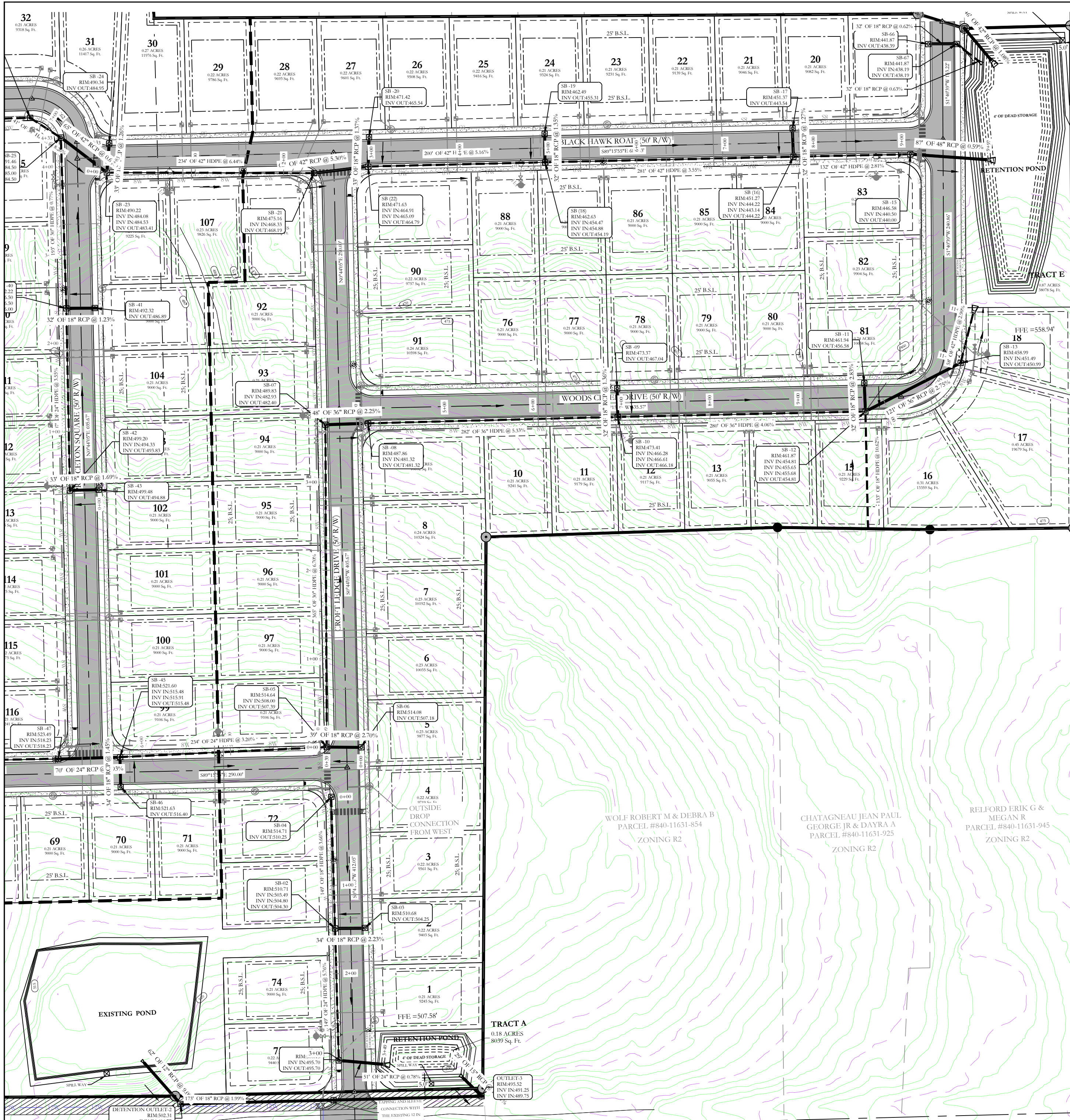
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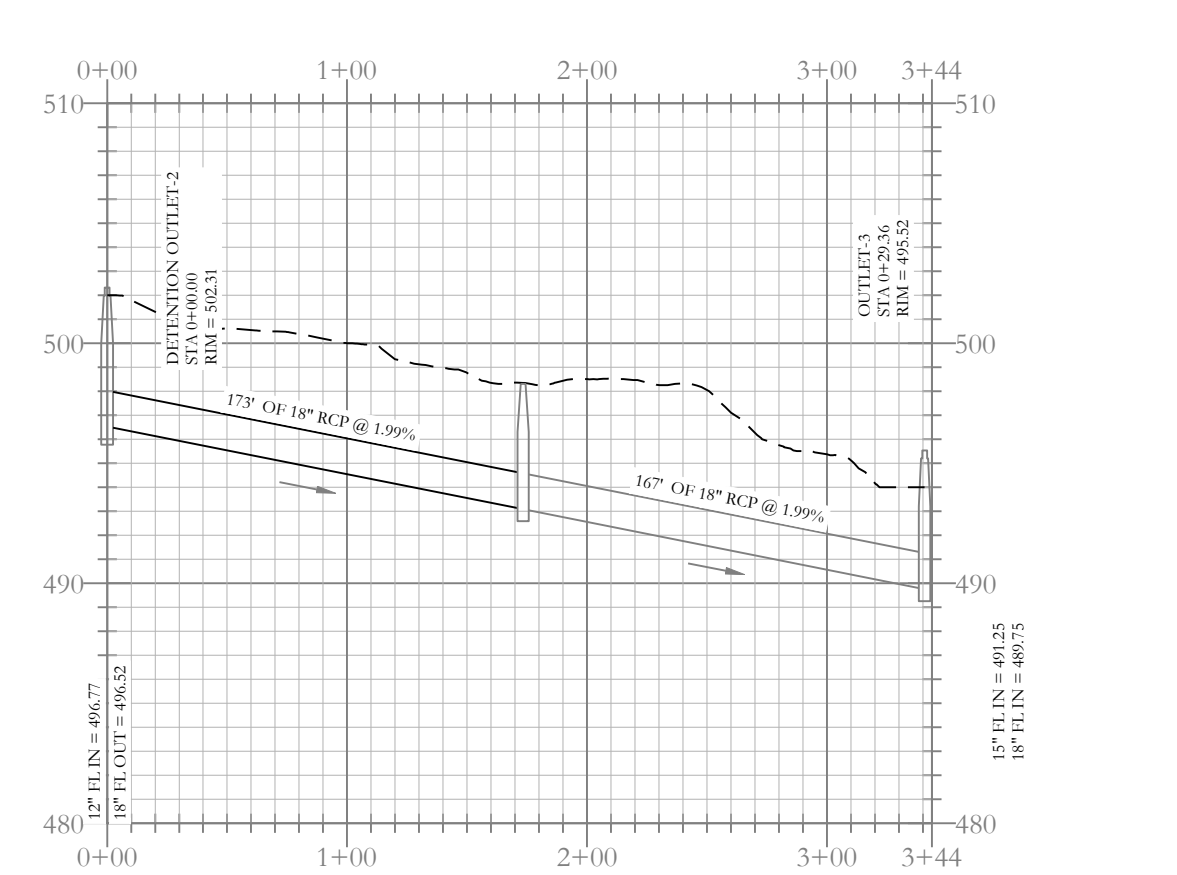
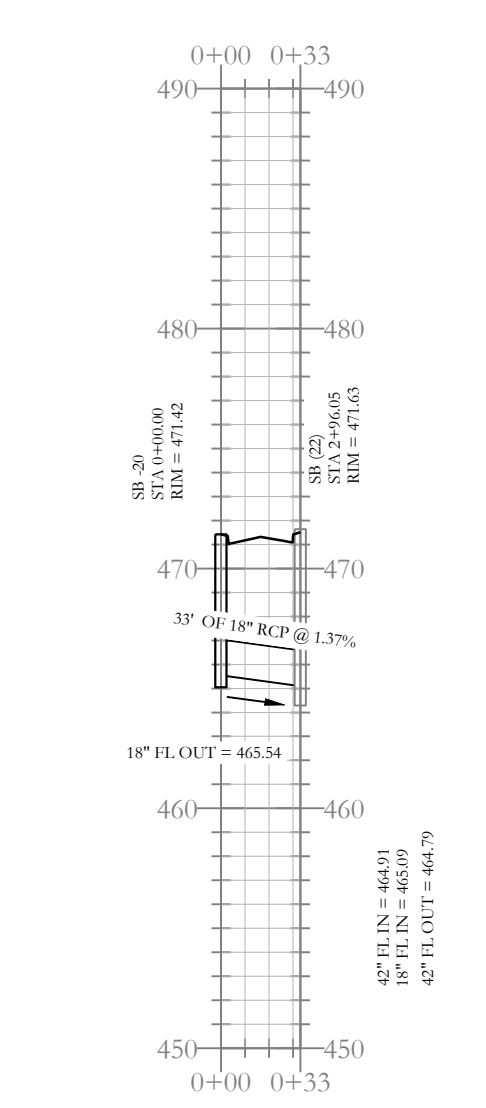
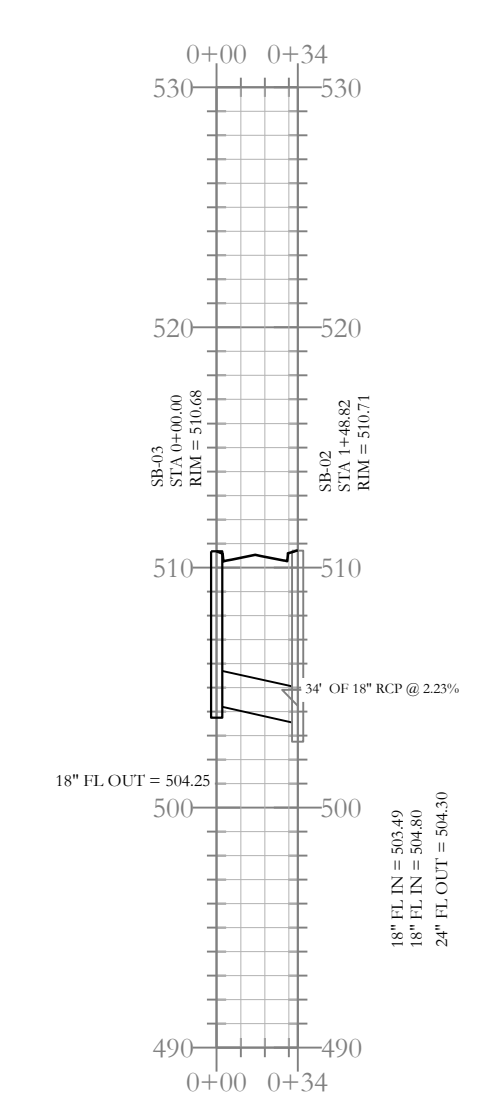
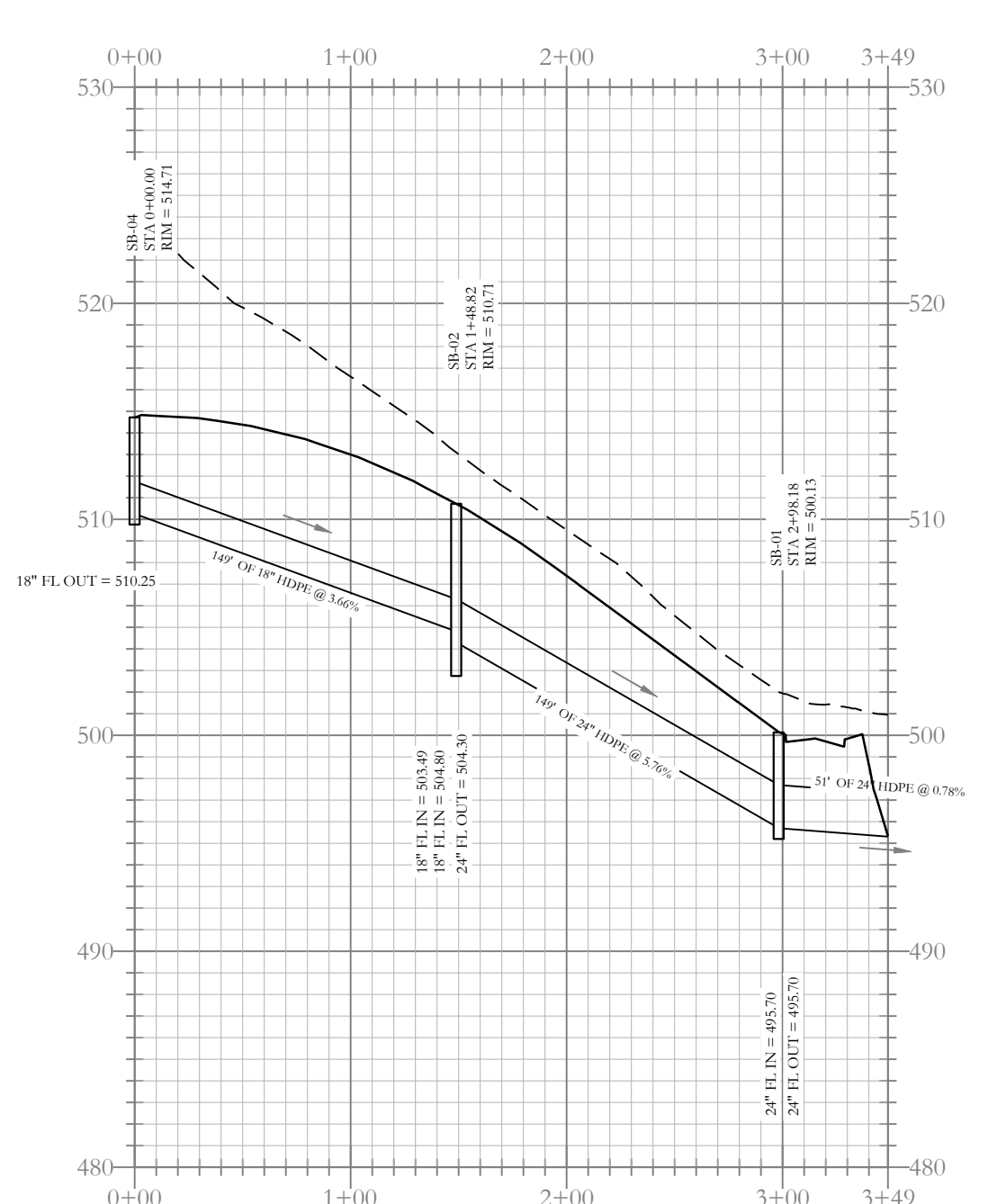
FOR USE AND BENEFIT OF:
NXT GEN HOMES LLC.

HILLTOP LANDING
STORM DRAINAGE PLAN AND PROFILE
 A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:
REVISED: 08/07/2023	CHECKED BY:	20-1341
SHEET: C-3.1	SCALE: 1" = 80'	
500	01S	14W
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		1762



Stormwater G Profile



Detention Outlet to ditch Profile

Stormwater Entrance Profile

Stormwater Entrance-i Profile

Stormwater G(d) Profile

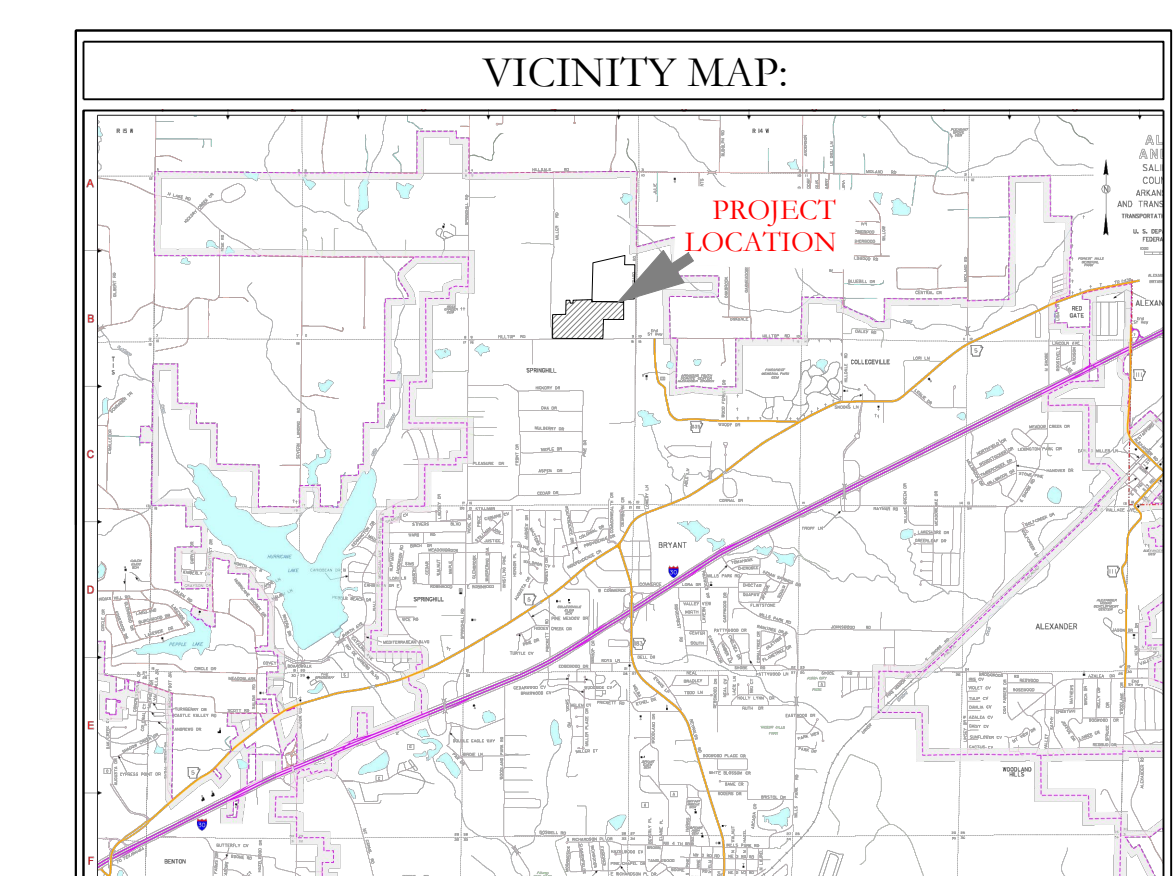
BASIS OF BEARING:
 GRID NORTH, ARKANSAS
 COORDINATE SYSTEM, SOUTH ZONE
 BY GPS OBSERVATION

STATE OF ARKANSAS
 LICENSED PROFESSIONAL ENGINEER
 No. 20876
 AMZIDU

CERTIFICATE OF AUTHORIZATION
 HOPE CONSULTING, INC.
 No. 1991
 ARKANSAS

--- HDPE
 --- RCP

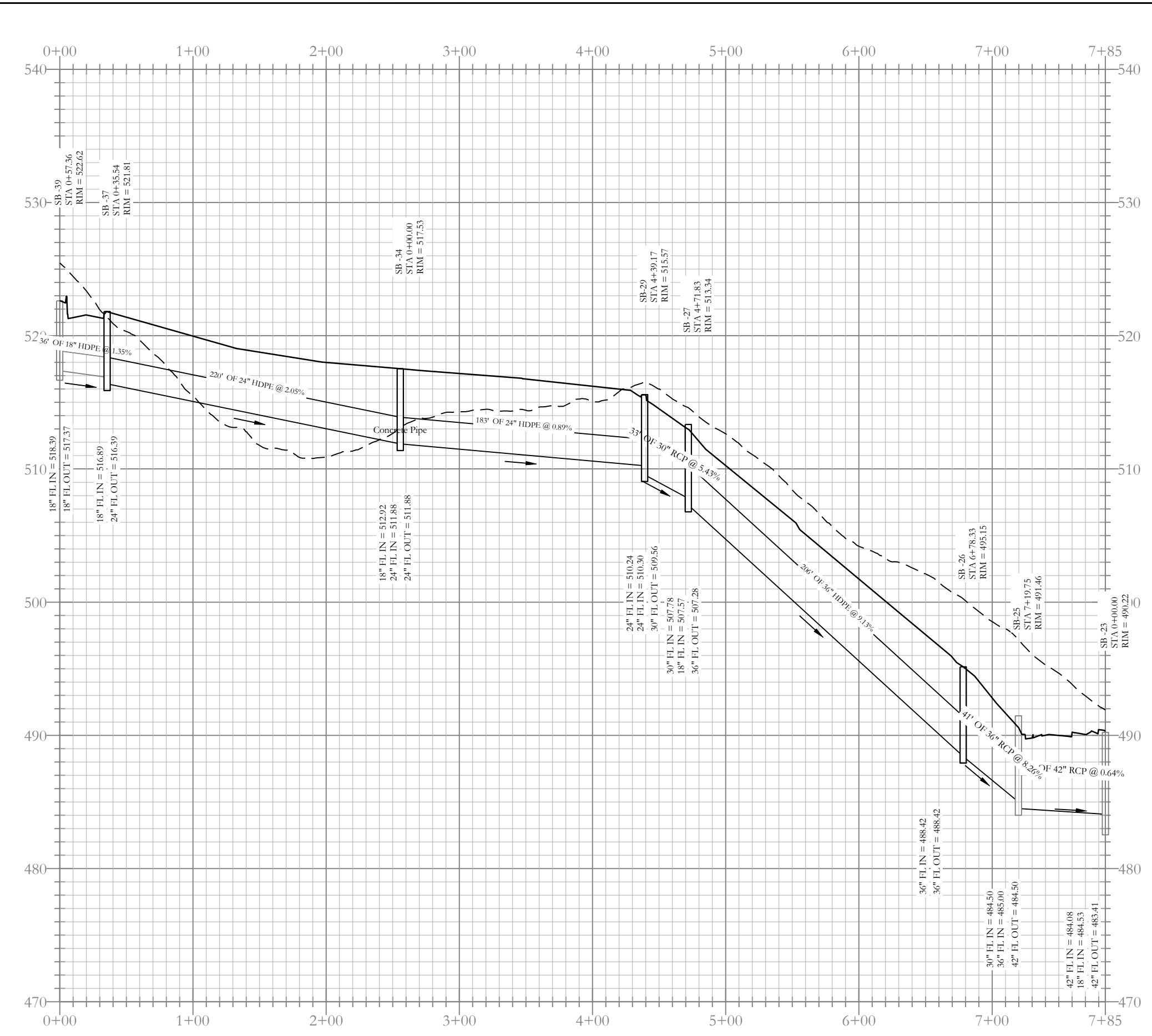
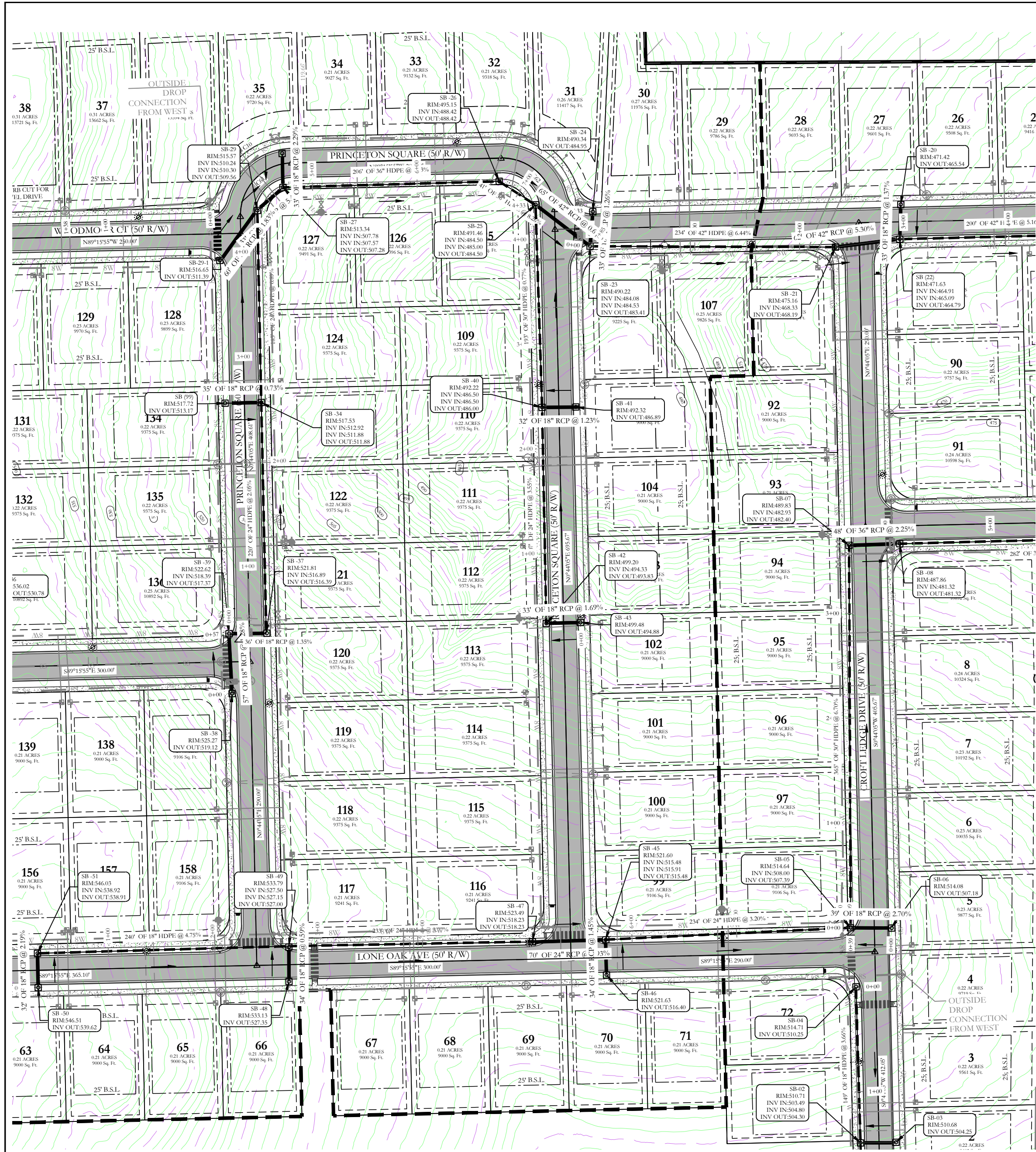
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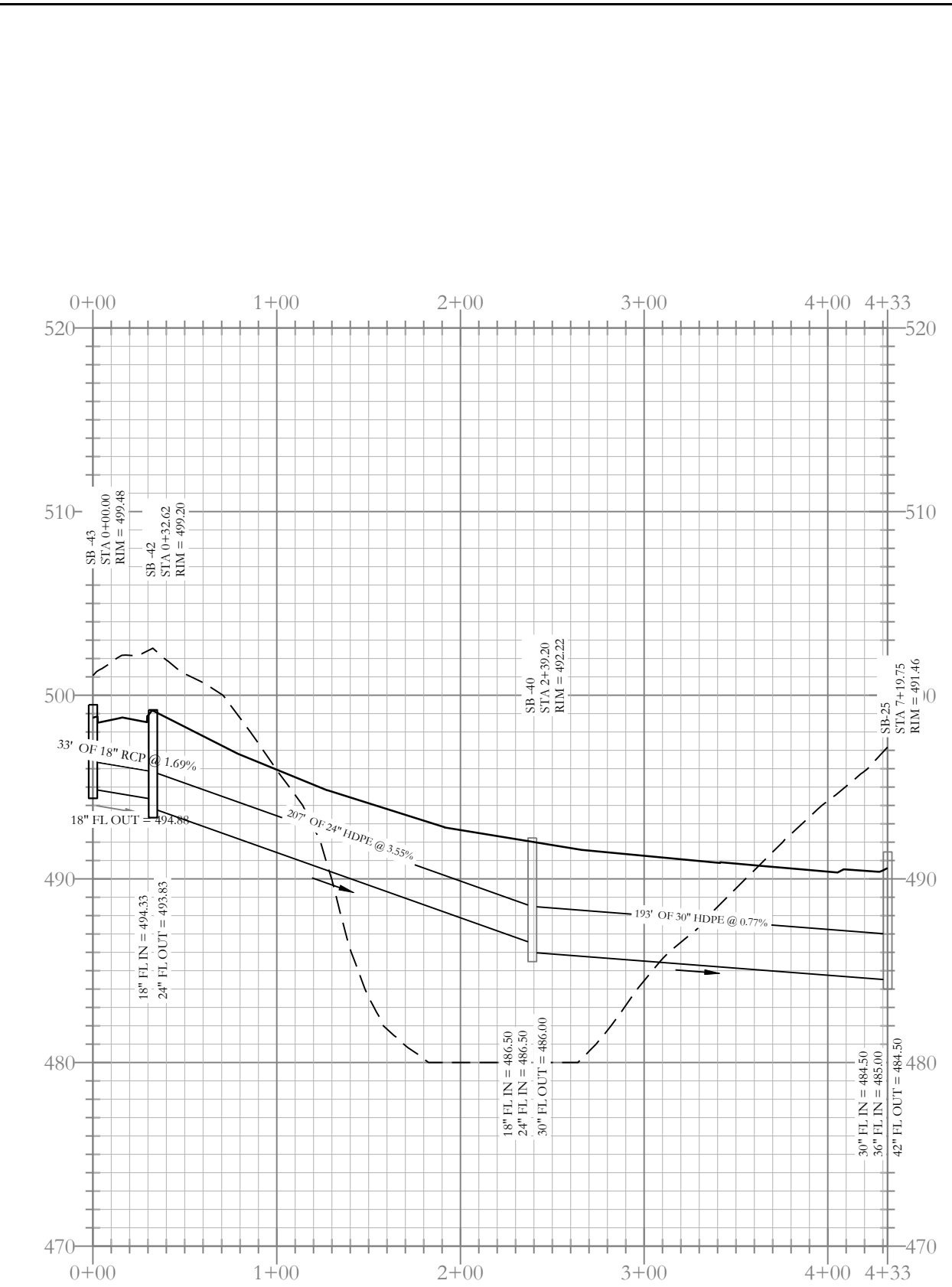
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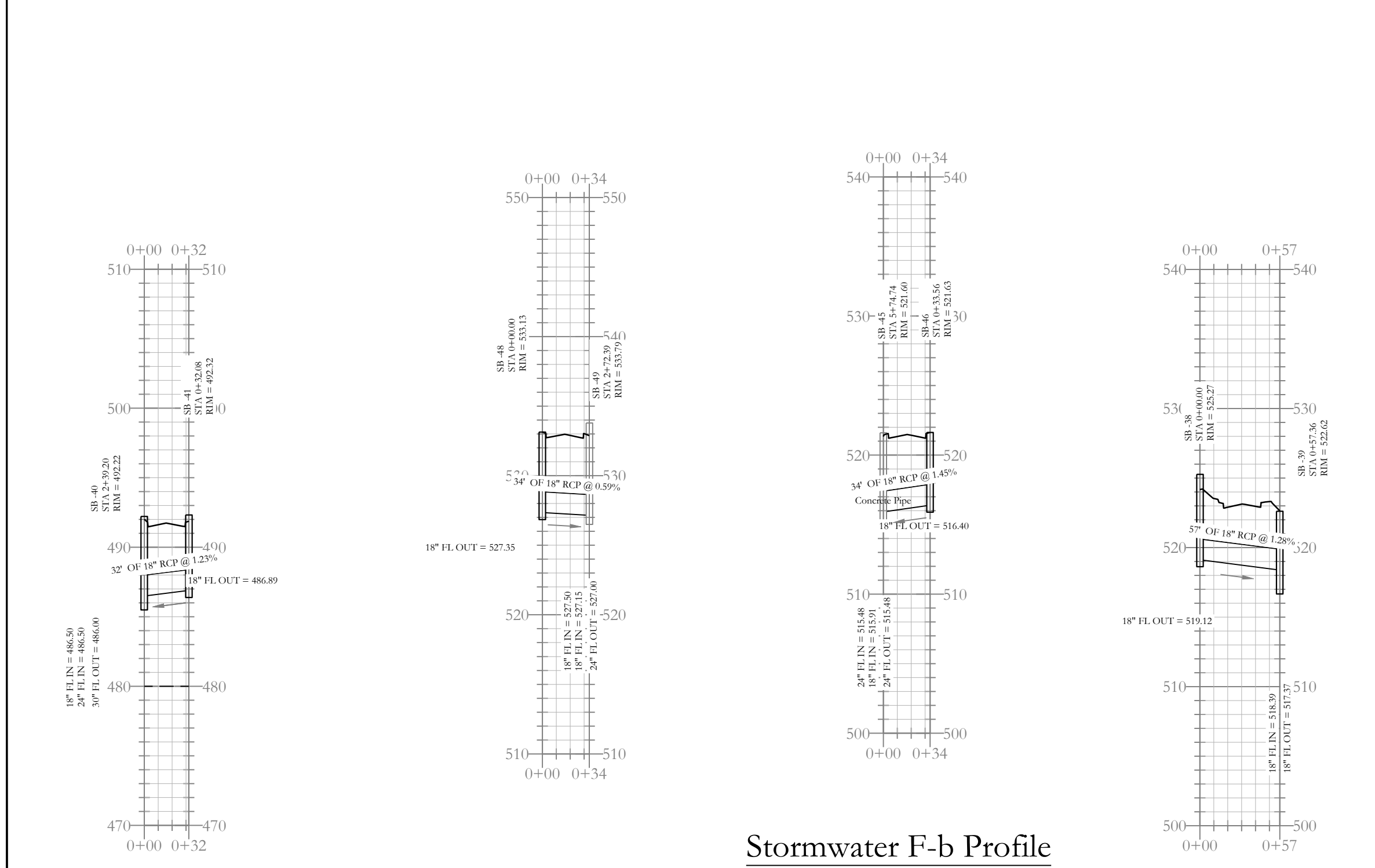
FOR USE AND BENEFIT OF:				NXT GEN HOMES LLC.			
HILLTOP LANDING				STORM DRAINAGE PLAN AND PROFILE			
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS							
DATE:	03/08/2023	C.A.D. BY:		DRAWING NUMBER:			
REVISED:	08/07/2023	CHECKED BY:		20-1341			
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Stormwater C Profile



Stormwater D-1 Profile

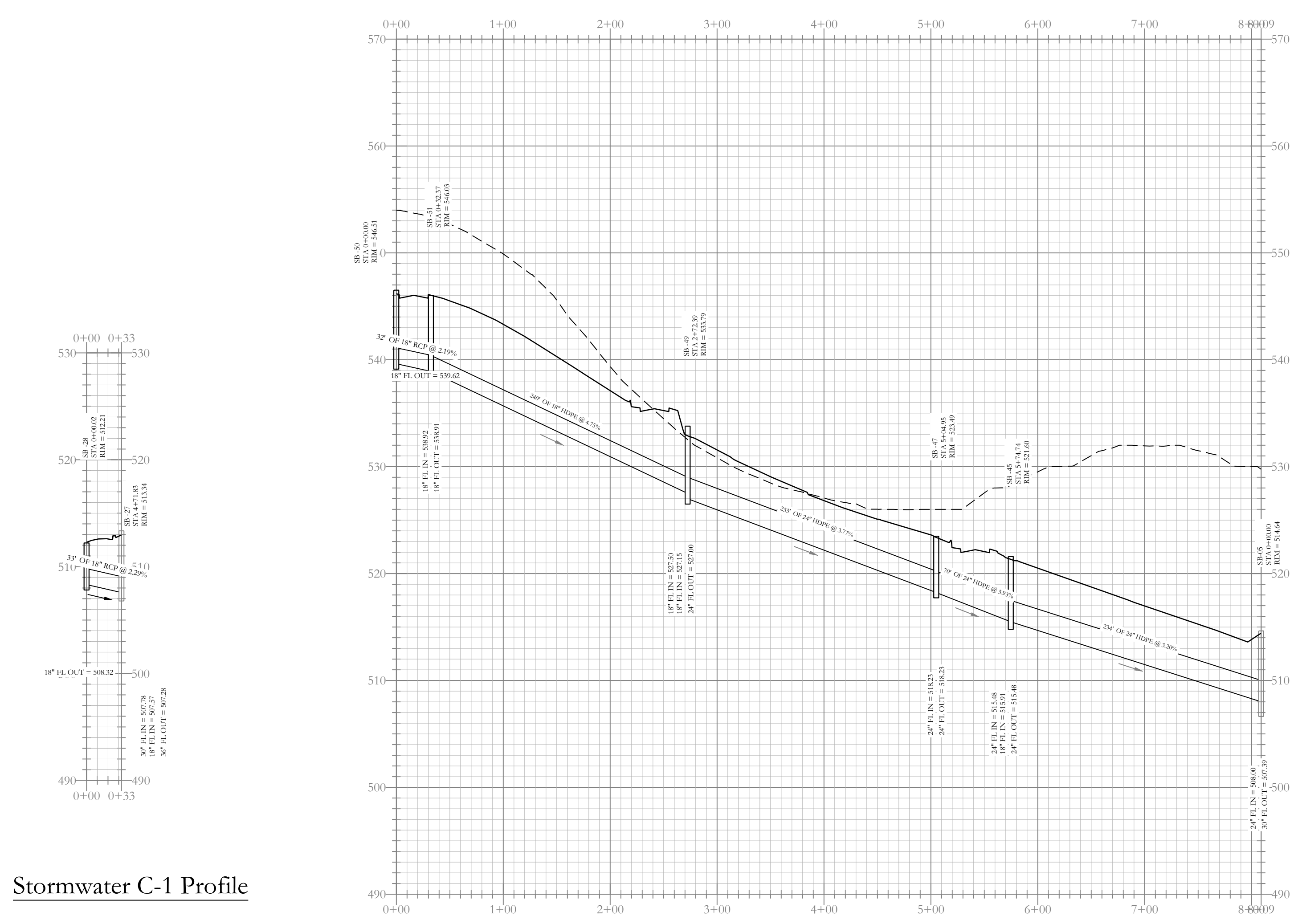


Stormwater D-2 Profile

Stormwater F-a Profile

Stormwater F-b Profile

Stormwater E-1 Profile



Stormwater C-1 Profile

Stormwater F Profile

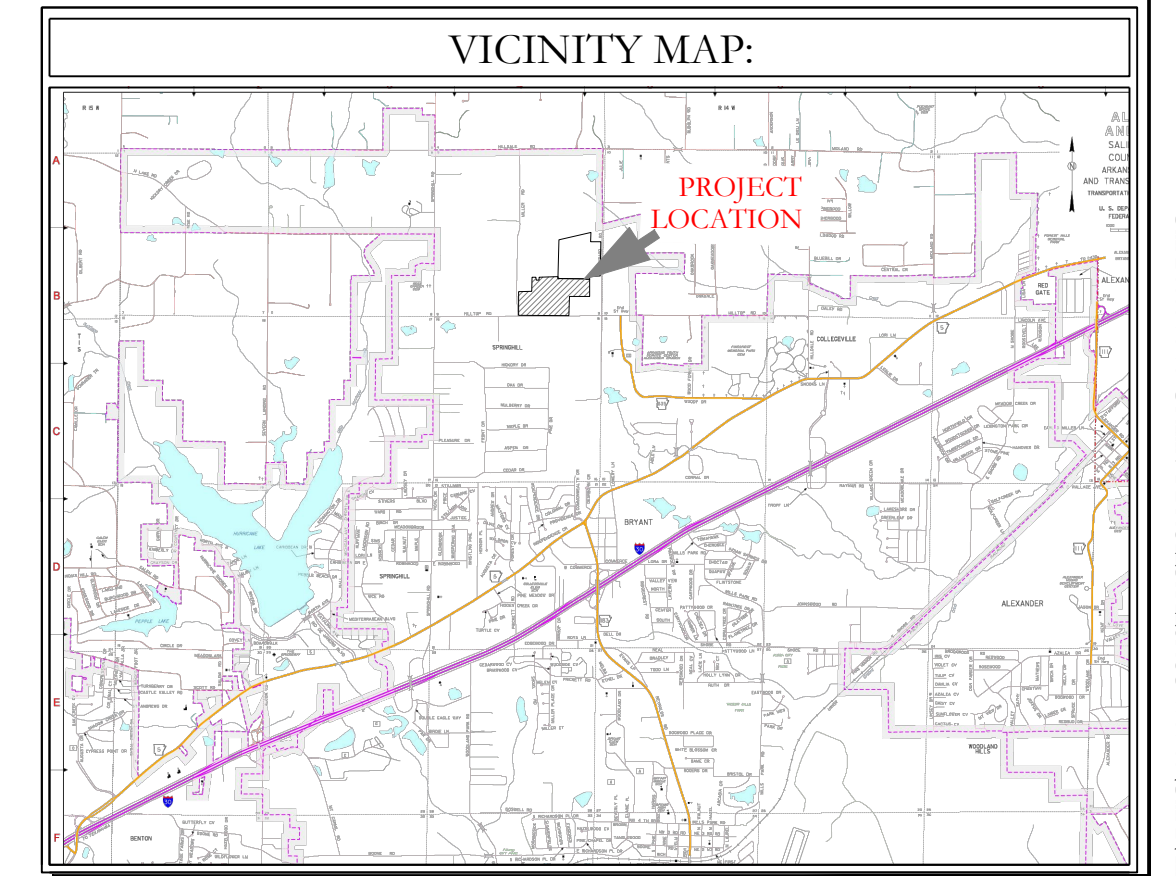
BASIS OF BEARING:
 GRID NORTH ARKANSAS
 COORDINATE SYSTEM SOUTH ZONE
 BY GPS OBSERVATION

80 40 0 80

--- HDPE
 --- RCP

STATE OF ARKANSAS
 LICENSED PROFESSIONAL ENGINEER
 No. 20876
 TAJI JAMZIDUL ISLAM

HOPE CONSULTING, INC.
 No. 1931
 ARKANSAS

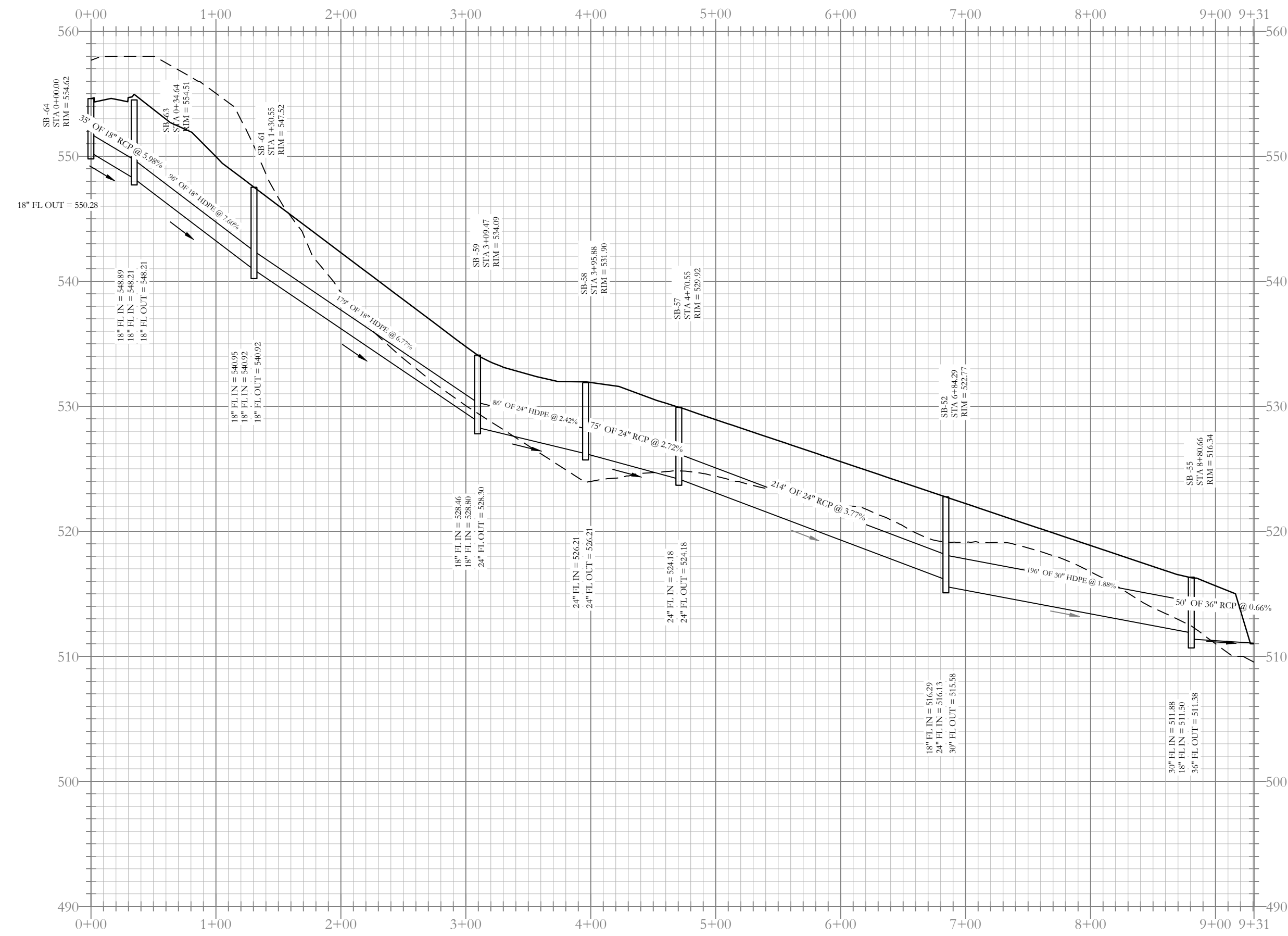
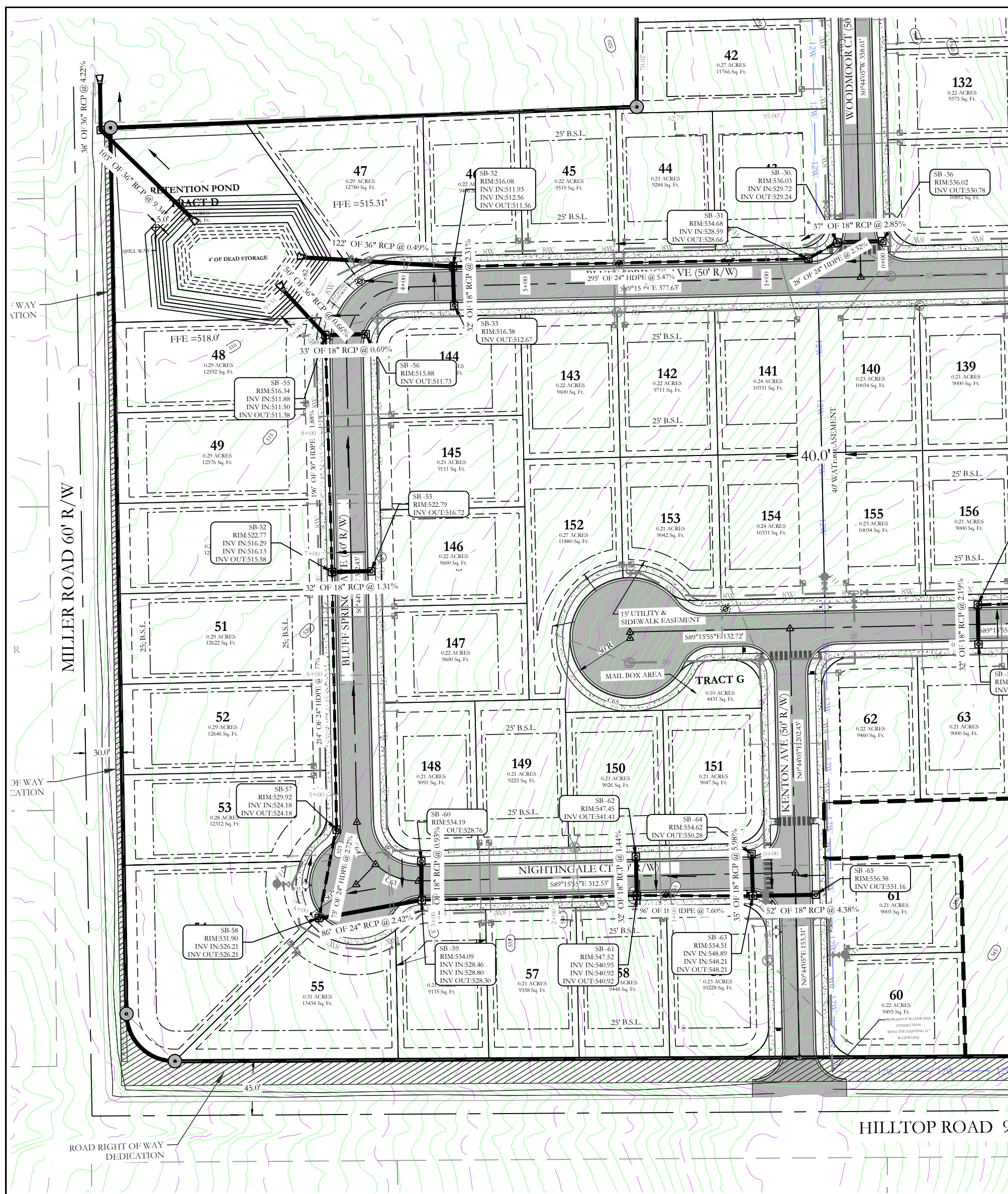


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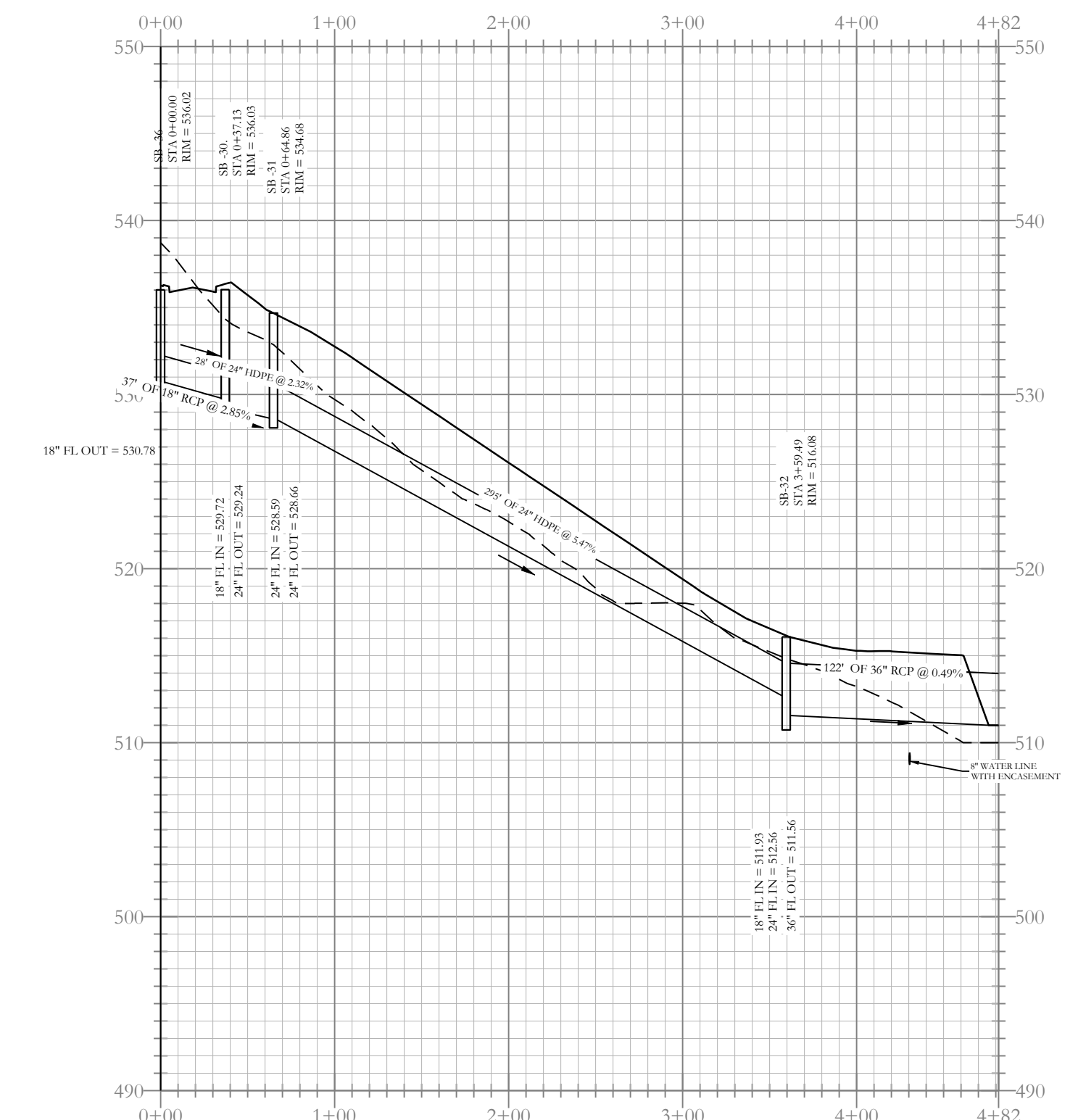
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STORM DRAINAGE PLAN AND PROFILE			
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS			
DATE:	03/08/2023	C.A.D. BY:	DRAWING NUMBER:
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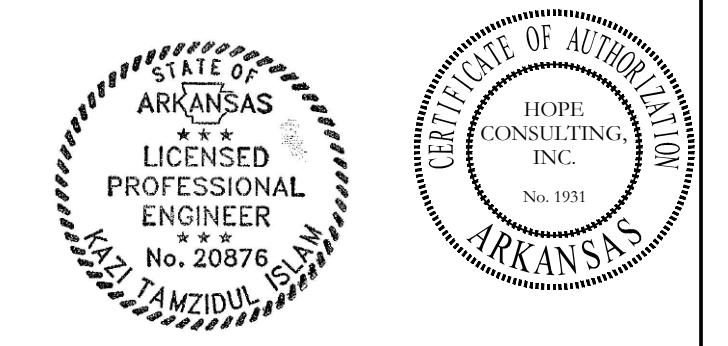
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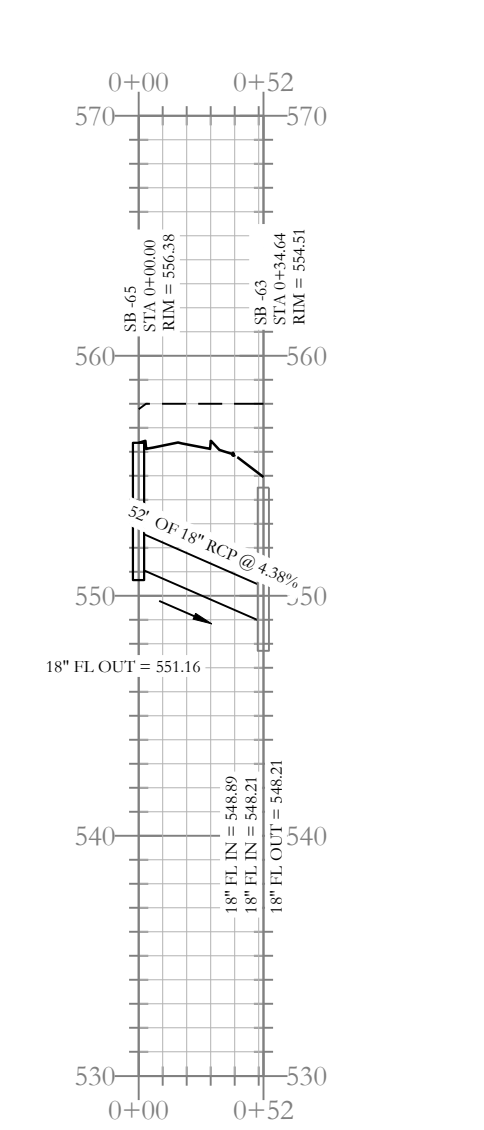
Stormwater E-2 Profile



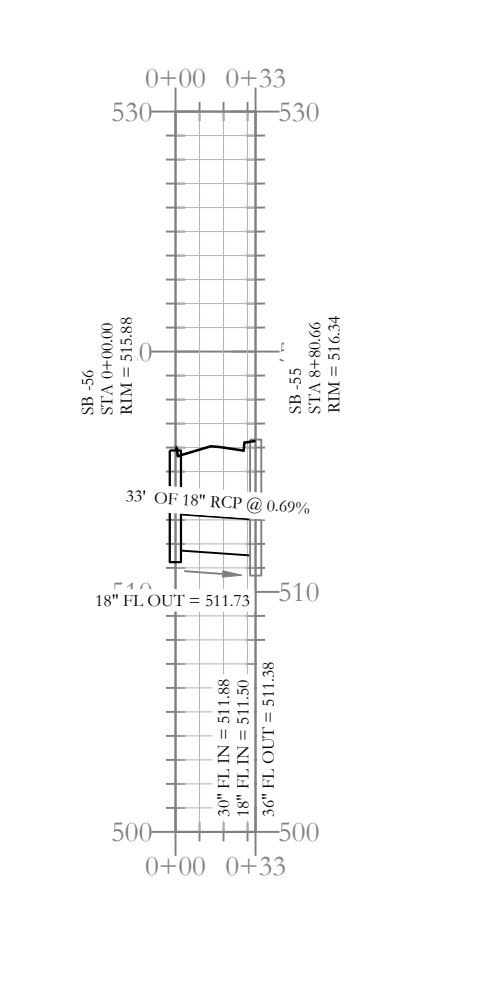
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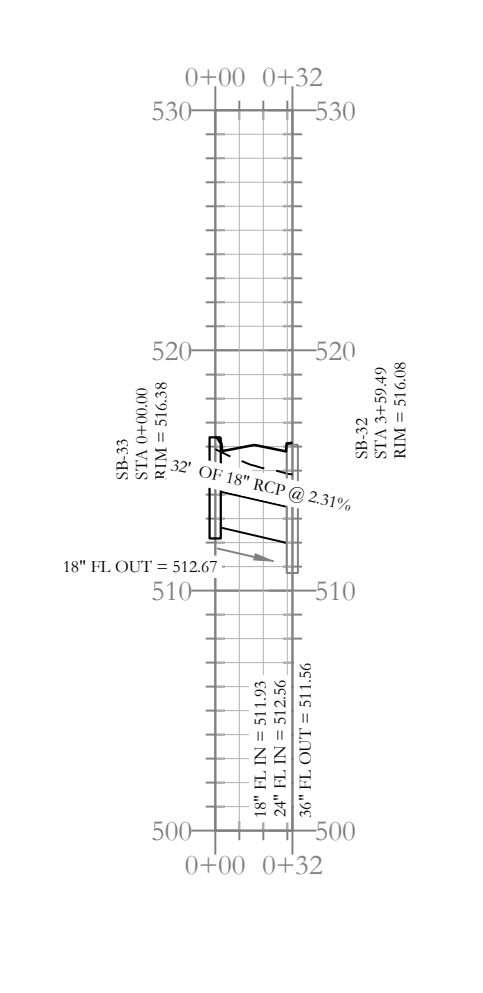
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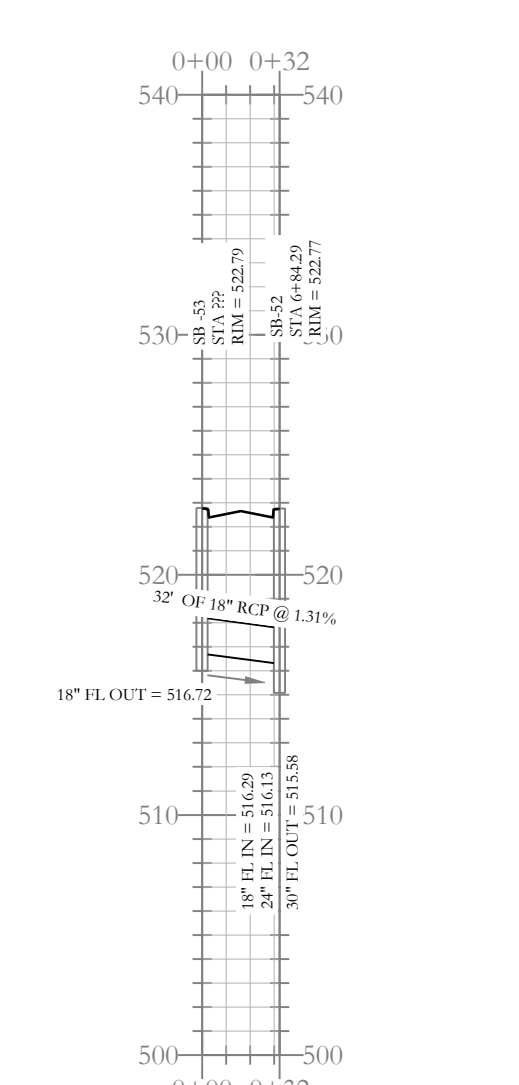
Stormwater Entrance-2 Profile



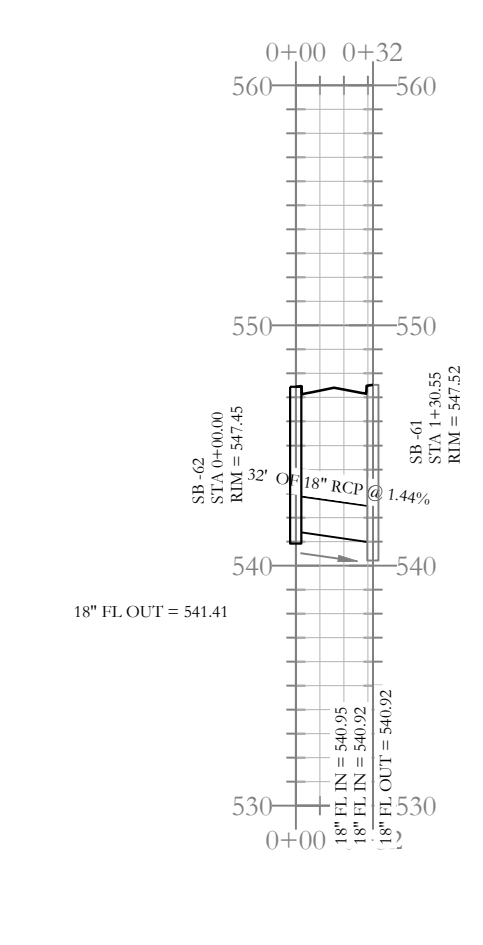
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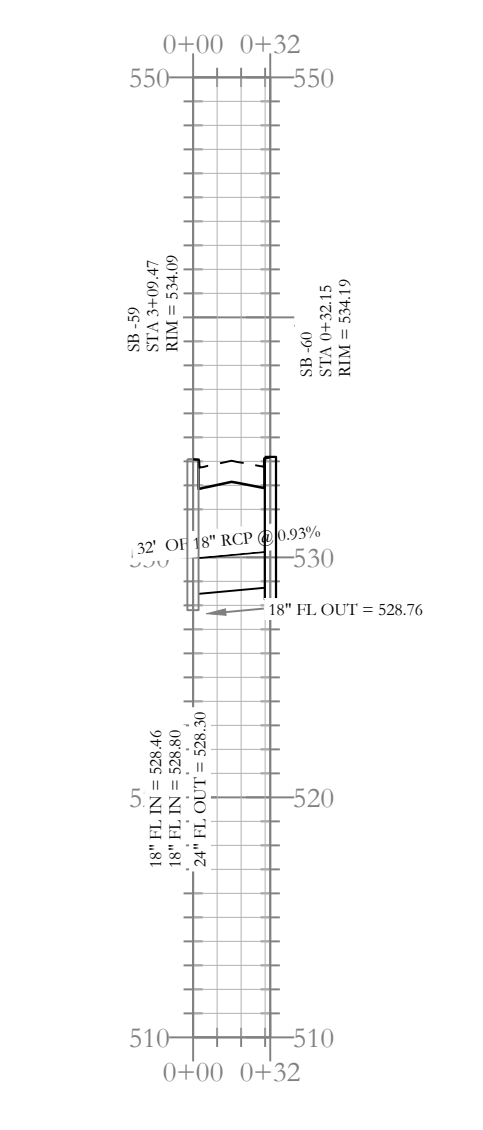
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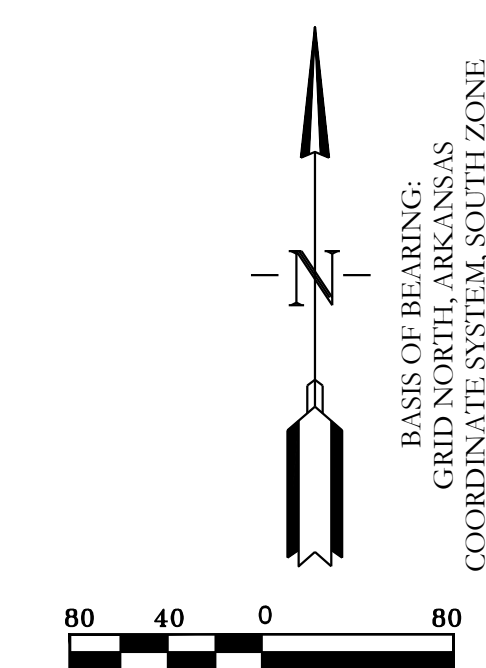
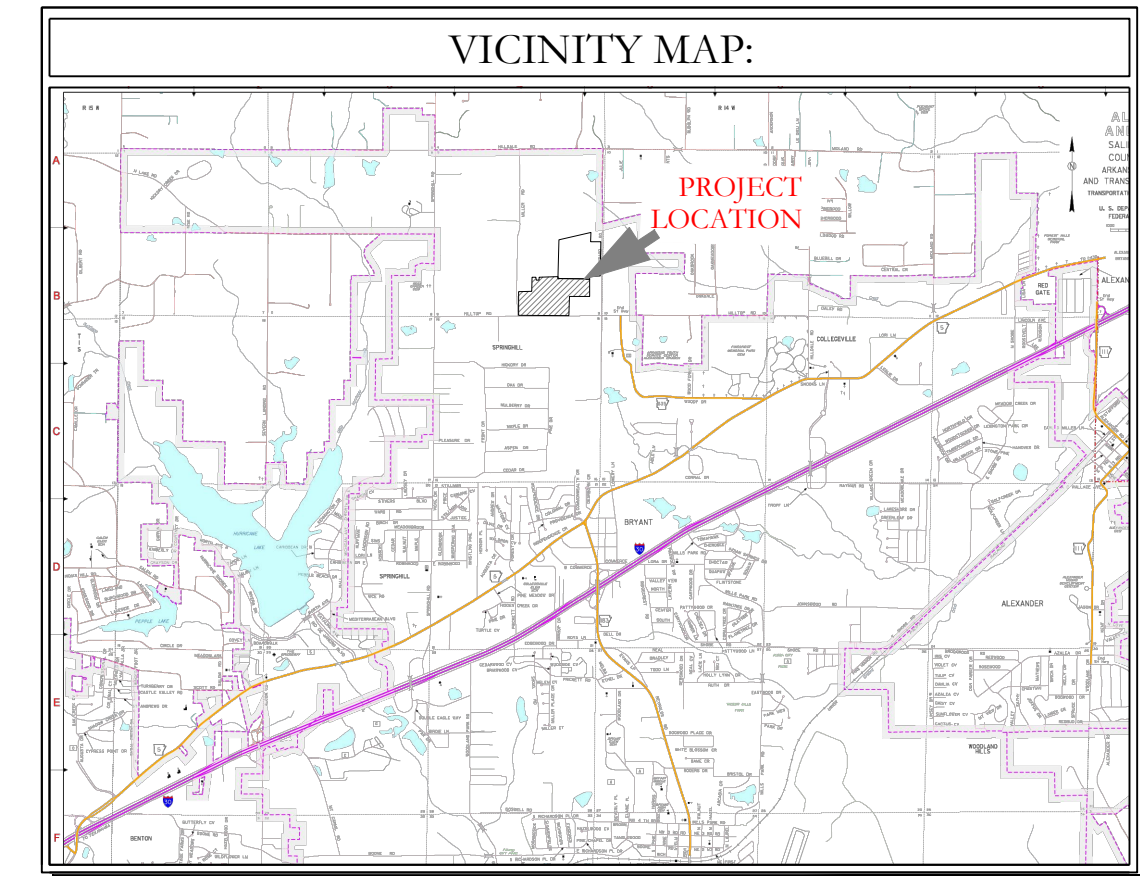
Stormwater E-c Profile



Stormwater E-d Profile



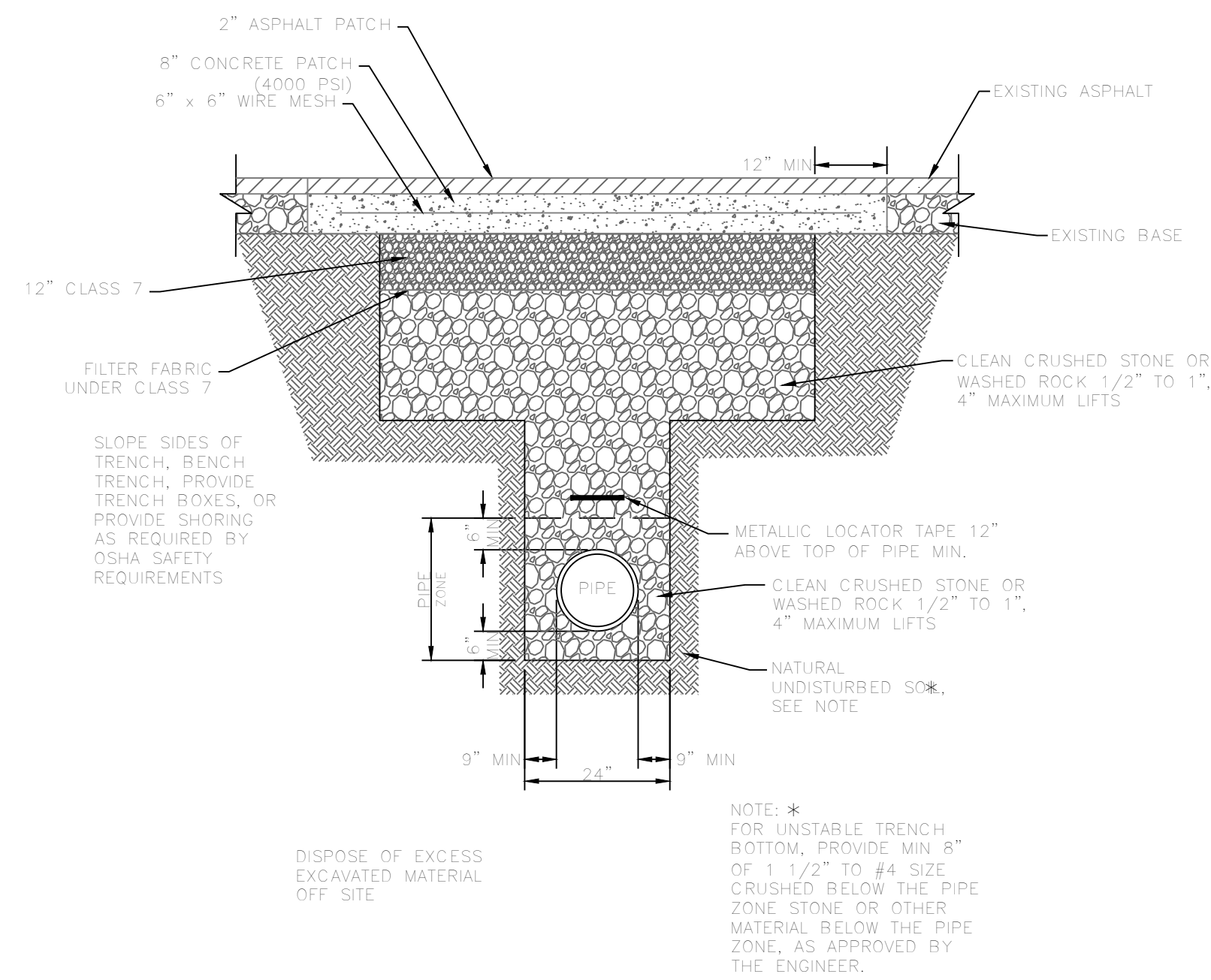
Stormwater E-e Profile



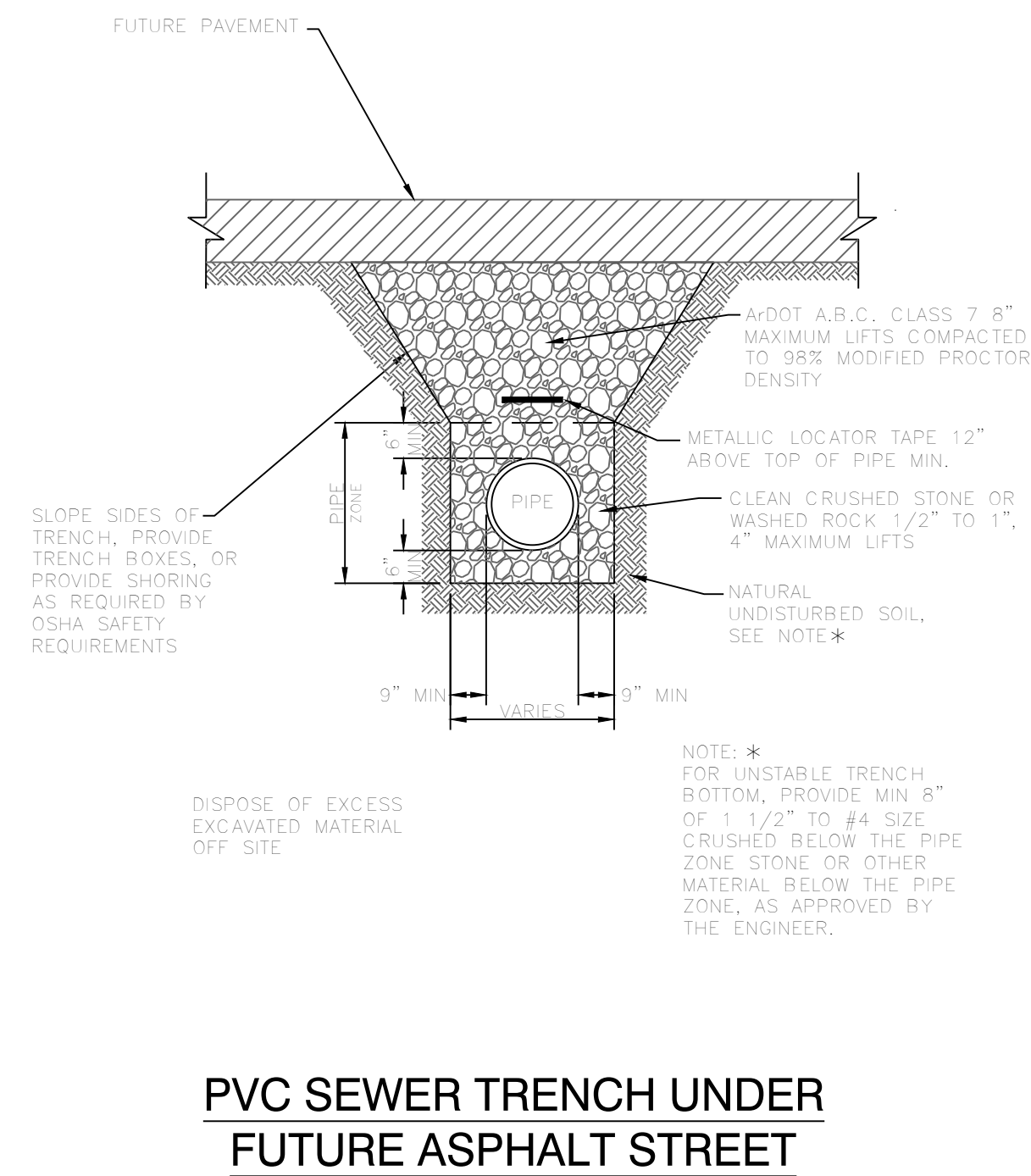
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HILLTOP LANDING STORM DRAINAGE PLAN AND PROFILE A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS			
DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:	
REVISION: 08/07/2023	CHECKED BY:	20-1341	
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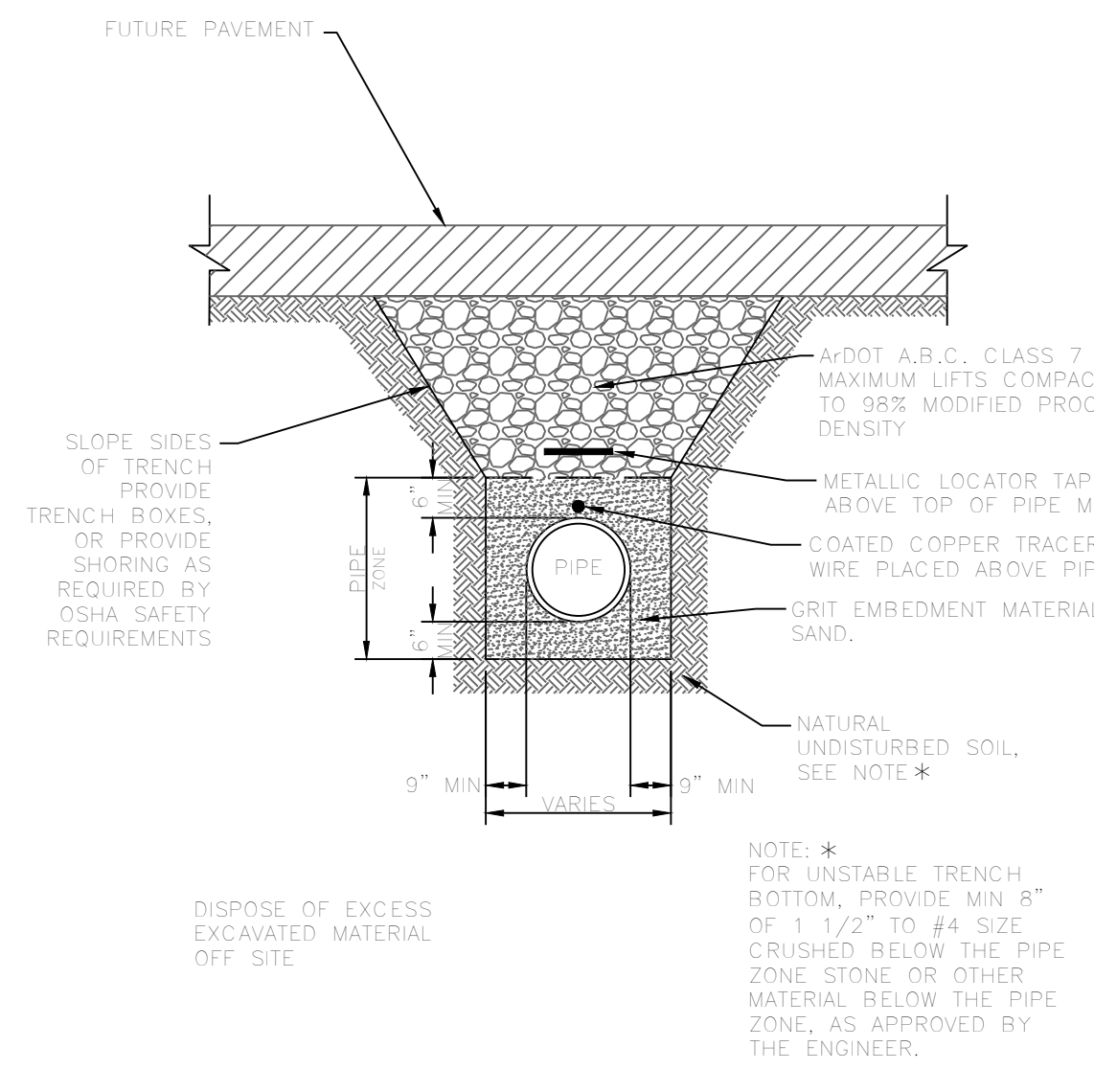
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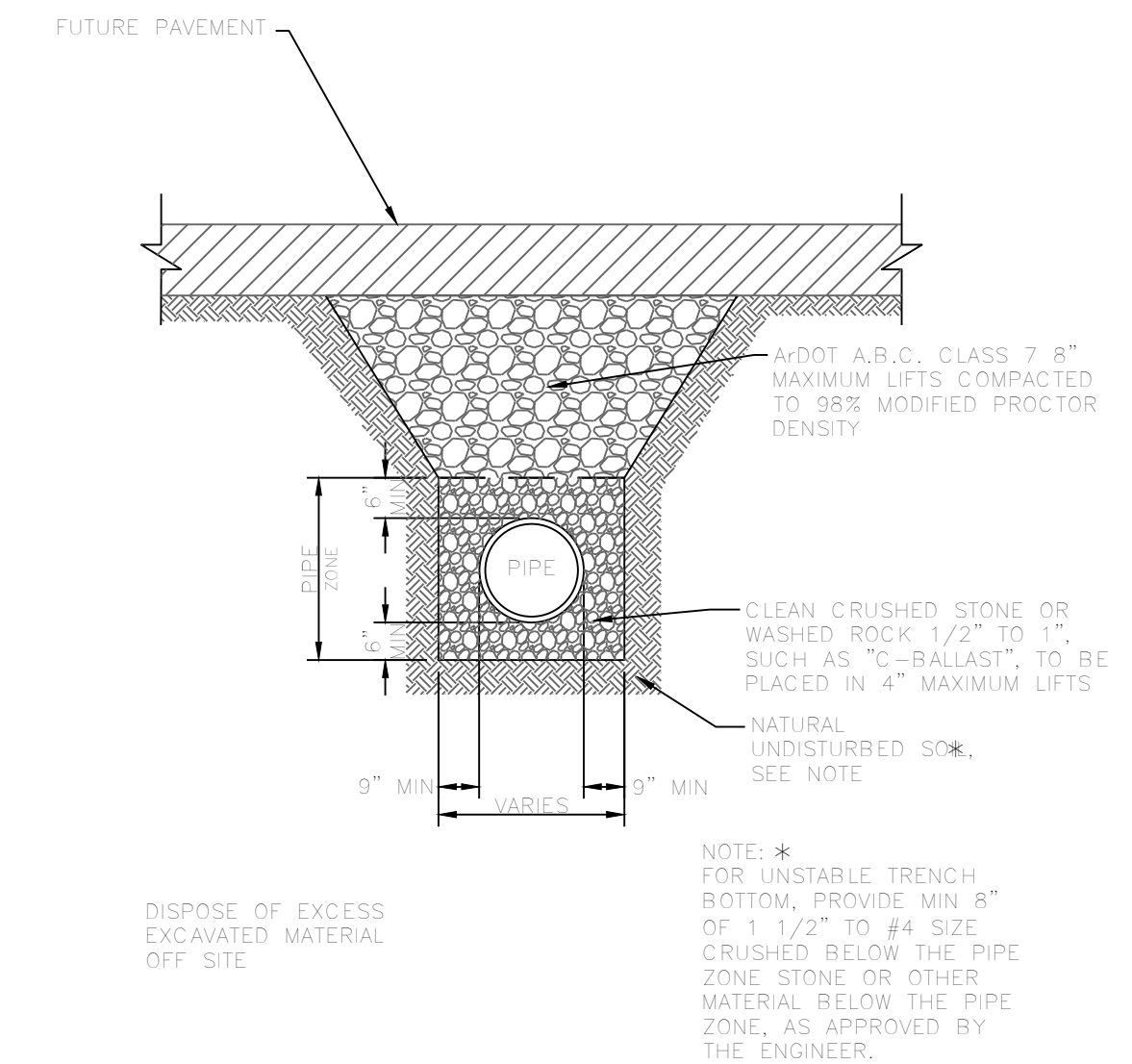
PVC SEWER TRENCH UNDER EXISTING ASPHALT STREET
N.T.S.



PVC SEWER TRENCH UNDER FUTURE ASPHALT STREET
N.T.S.



PVC WATER LINE TRENCH UNDER FUTURE ASPHALT STREET
N.T.S.

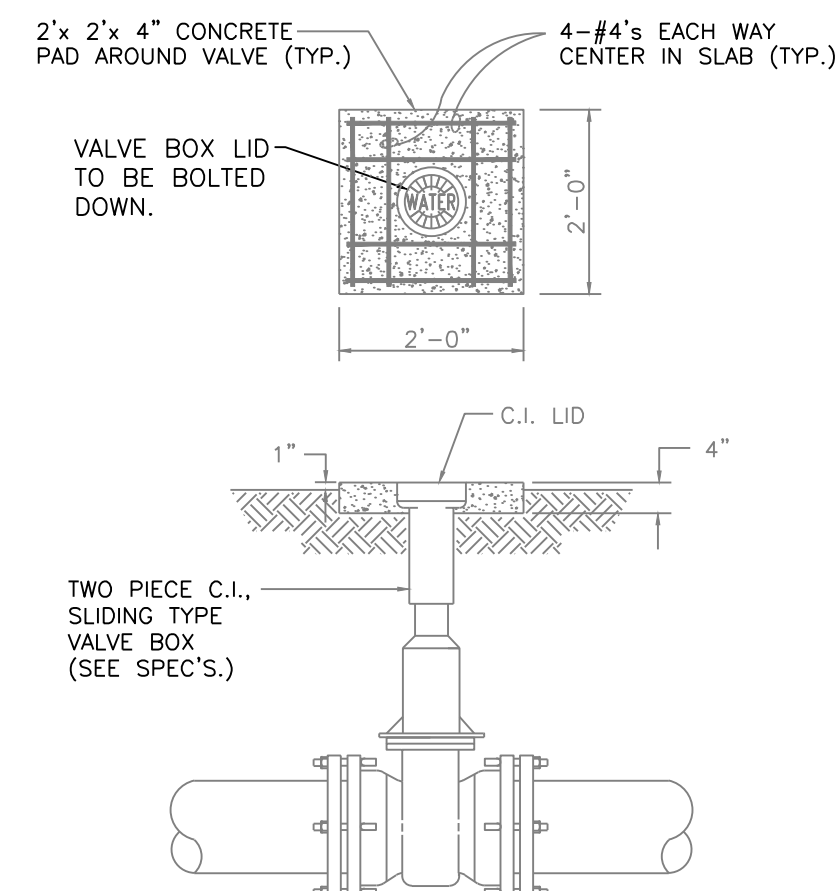


DRAINAGE PIPE TRENCH UNDER FUTURE ASPHALT STREET
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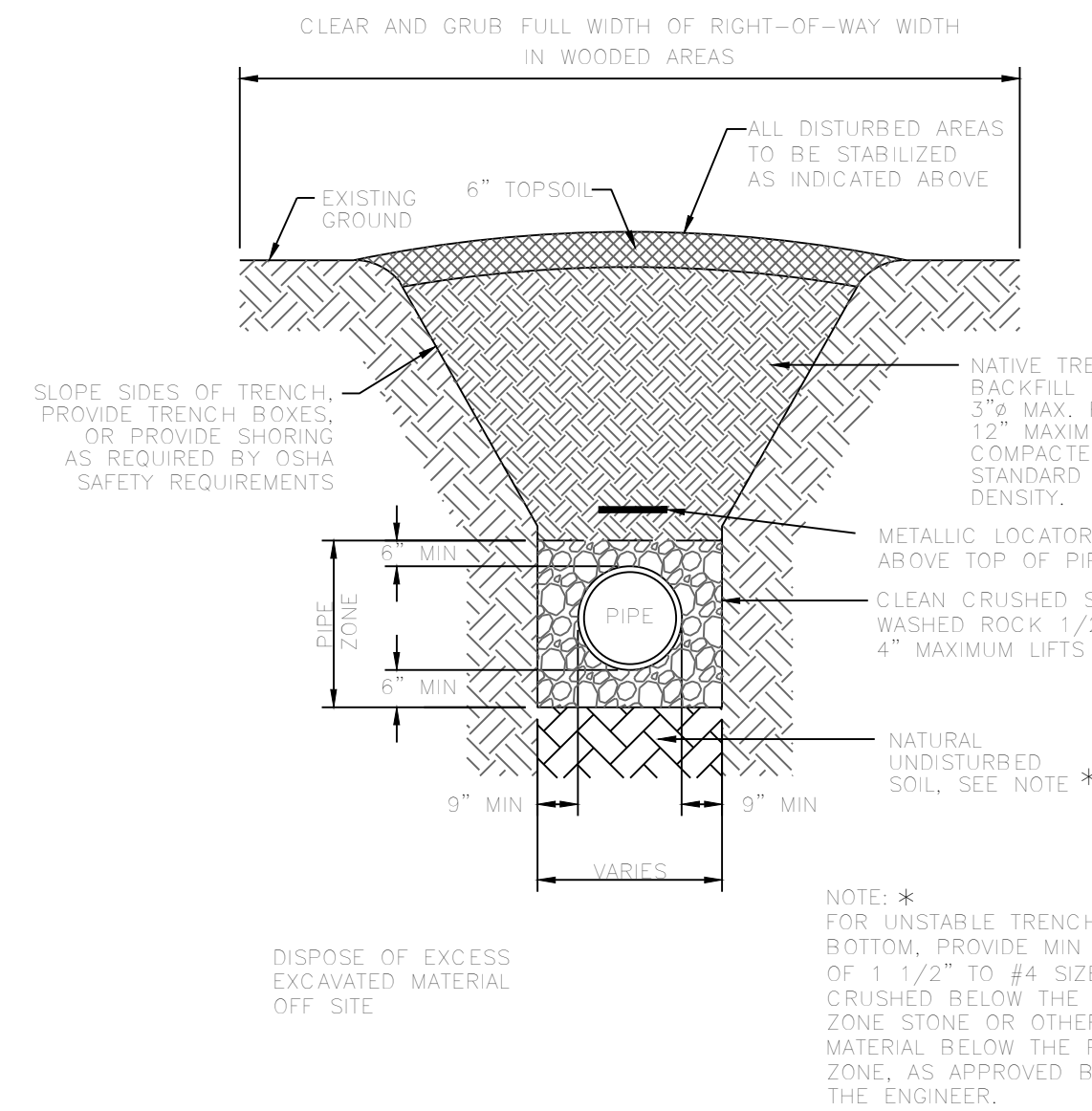
SOIL STABILIZATION REQUIREMENTS:
1. IN LAWN AREAS, DISTURBED SOIL SHALL BE STABILIZED BY PLACEMENT OF SOD TO MATCH EXISTING.
2. IN FIELDS OR WOODED AREAS, DISTURBED SOIL SHALL BE STABILIZED BY SEEDING.

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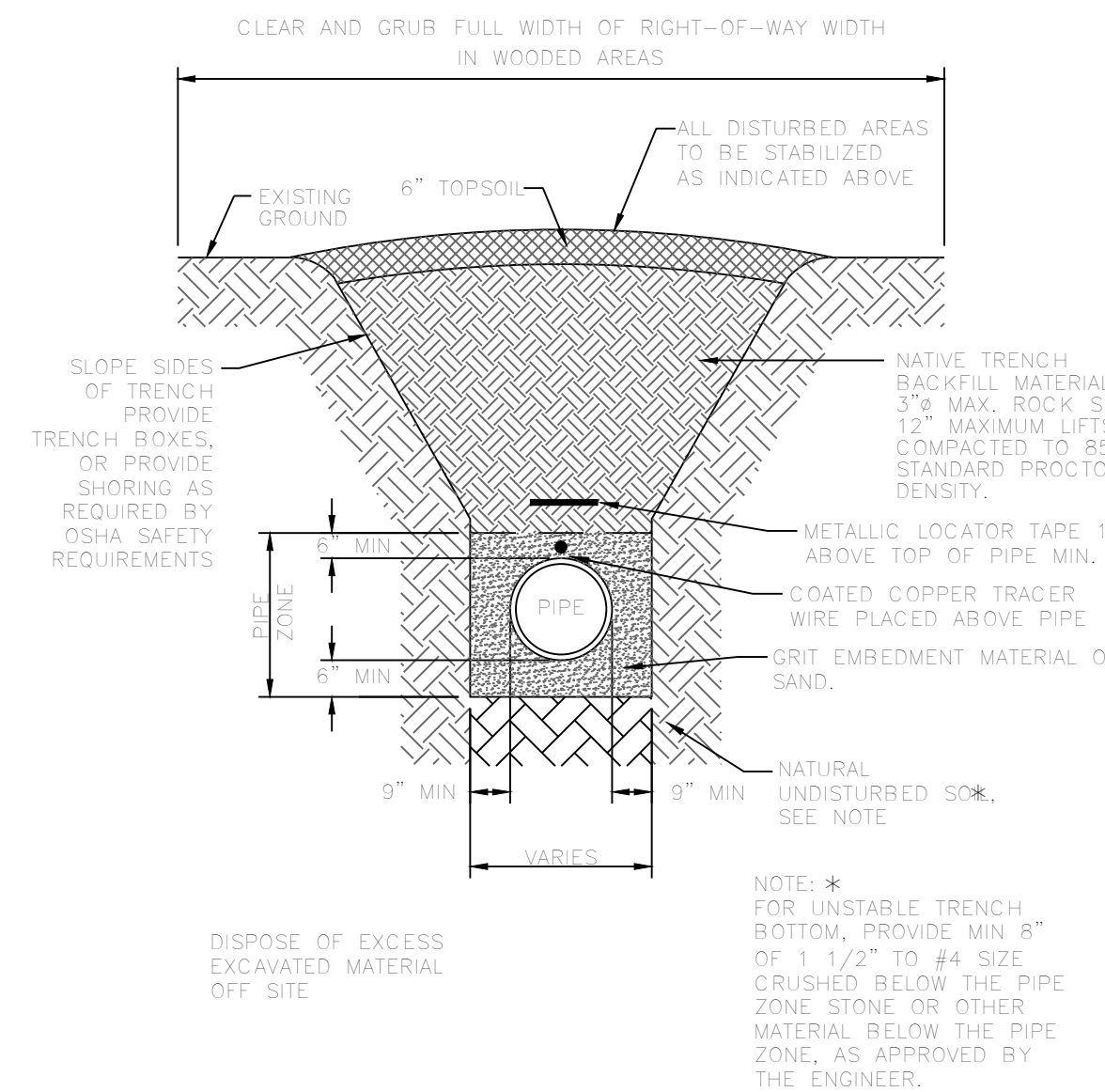
SOIL STABILIZATION REQUIREMENTS:
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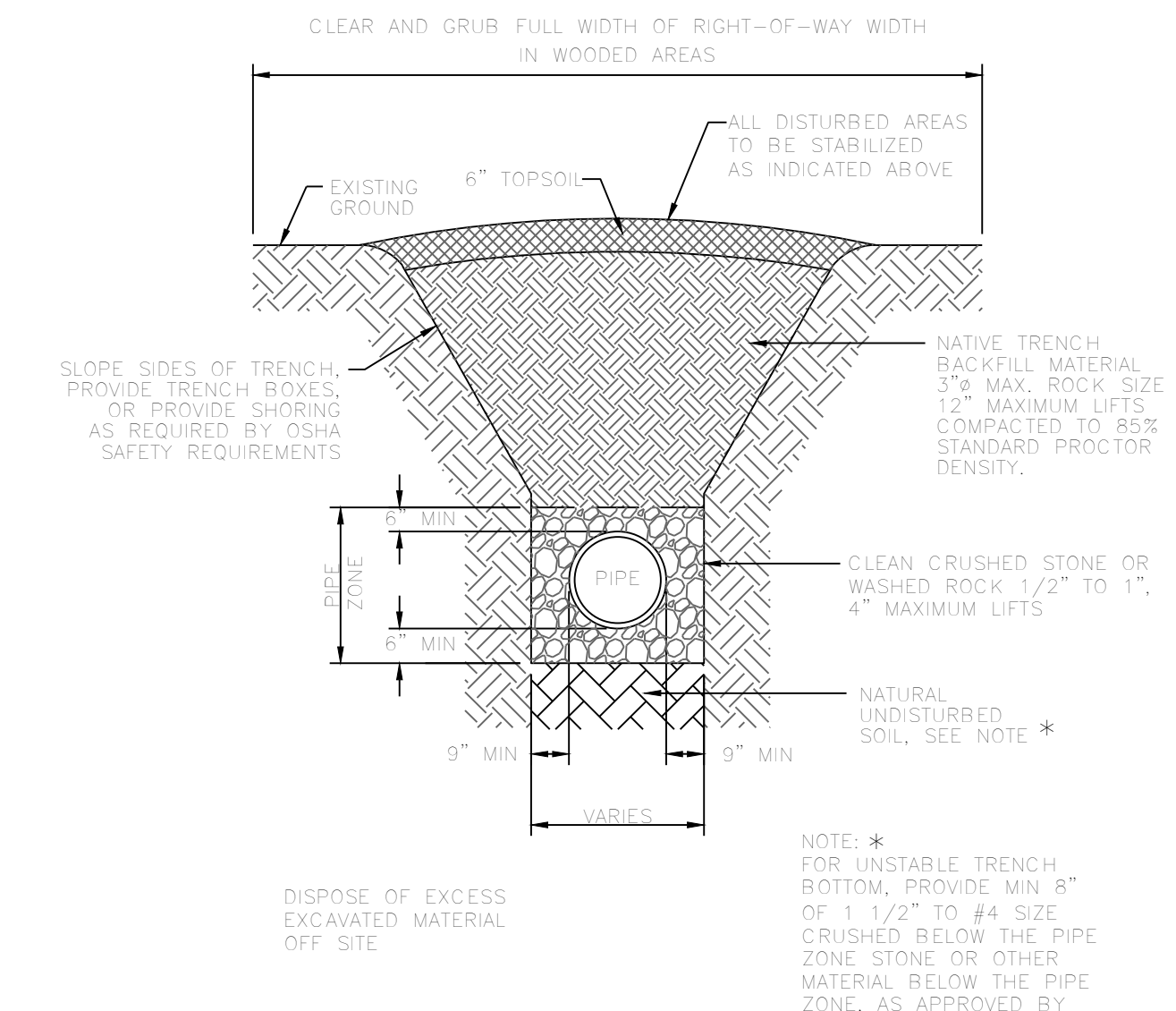
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N.T.S.



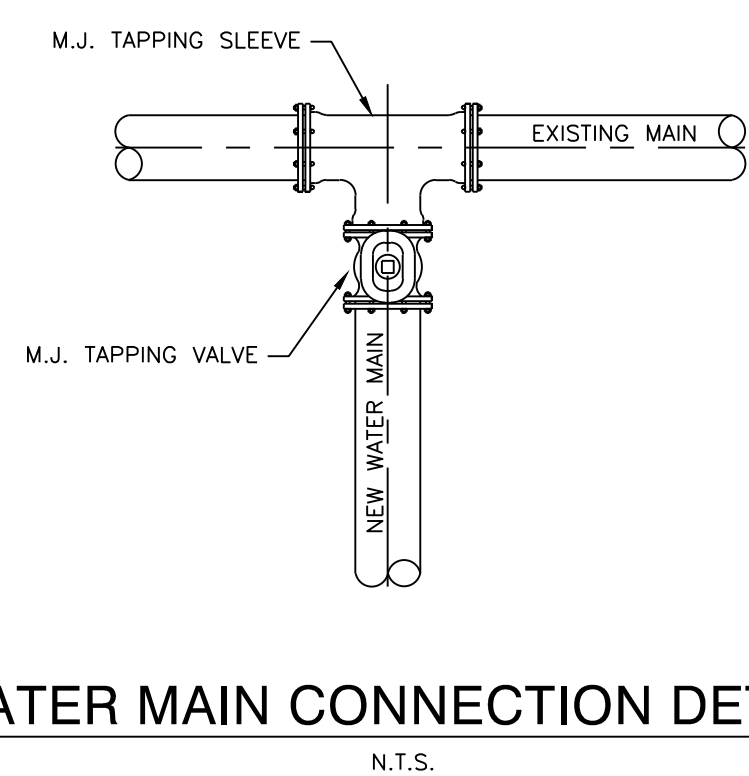
PVC SEWER TRENCH IN UNPAVED AREAS
N.T.S.



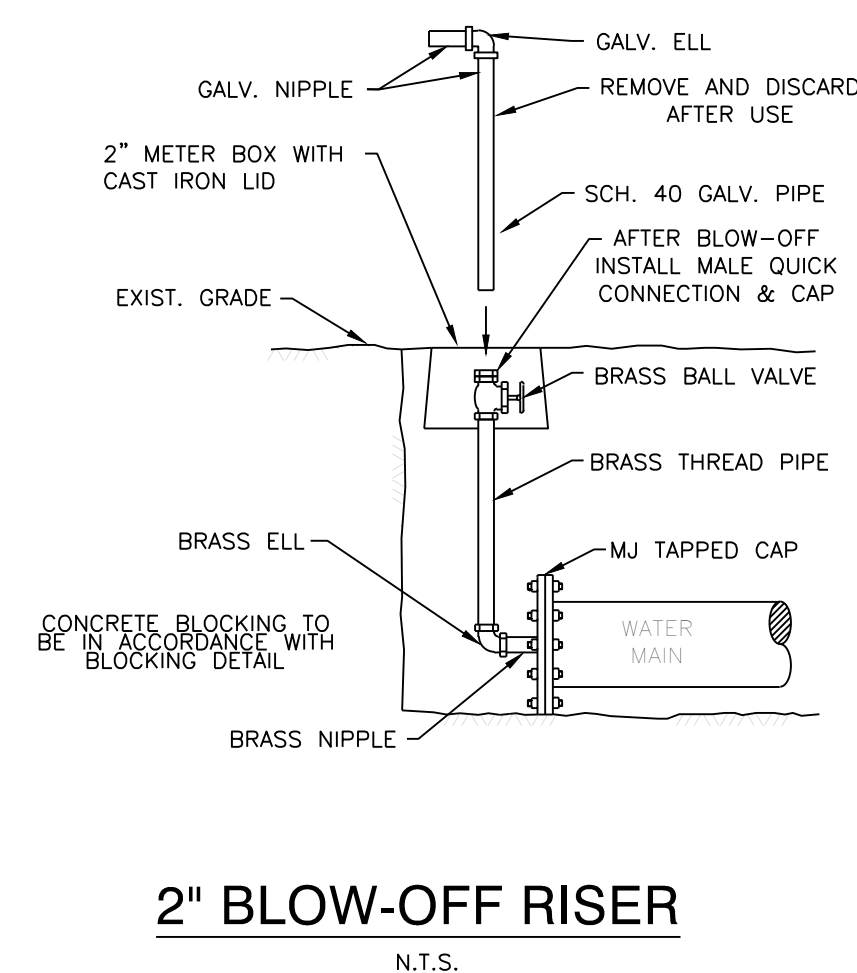
PVC WATER LINE TRENCH IN UNPAVED AREAS
N.T.S.



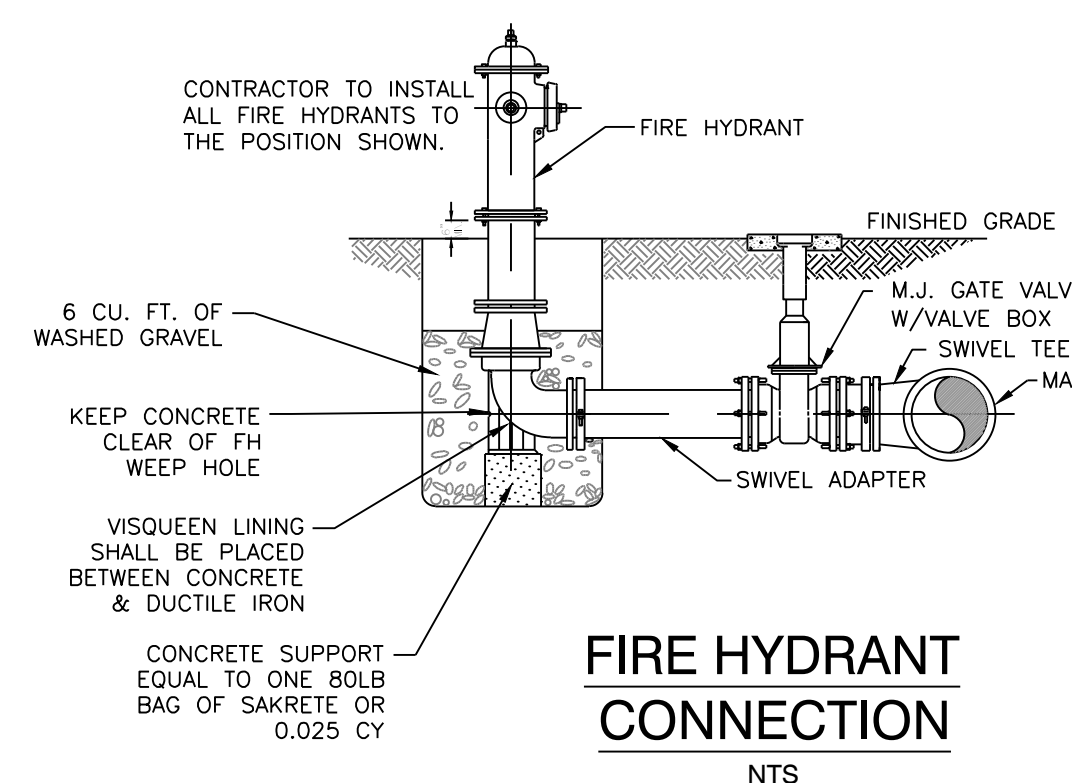
DRAINAGE PIPES IN UNPAVED AREAS
N.T.S.



WATER MAIN CONNECTION DETAIL
N.T.S.



2" BLOW-OFF RISER
N.T.S.



FIRE HYDRANT CONNECTION
N.T.S.

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NXT GEN HOMES LLC.

HILLTOP LANDING TRENCH DETAILS
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:
REVISED: 08/07/2023	CHECKED BY:	20-1341
SHEET: C-4.0	SCALE: 1" = 20"	
500	01S	14W 0 09 200 62 1762

SPECIFICATIONS

SUBGRADE MATERIAL

- A. Subgrade soils shall be all materials used for subgrade including in-situ materials and fill materials.
- B. Subgrades for pavement shall be stabilized by mechanical compaction. Stabilization methods such as fabrics and chemical stabilization may be submitted for approval when supported by engineering data and calculations to substantiate the adequacy of the stabilized procedure.
- C. Subgrade shall be compacted to 95 percent modified proctor density minimum. Moisture content shall be +/- 3% of optimum moisture unless otherwise supported by the site specific geotechnical data and approved by City.
- D. Subgrade shall be prepared in such a manner that the base course shall be placed on a firm foundation that is stable and free from soft spots, pumping, dust pockets, wheel ruts, or other defects.
- E. The top 24 inches of the subgrade shall be a material not susceptible to frost action unless modified with cement, lime or another method approved specifically by the City to resist frost action. Soils classified as A-4 and A-5 including sandy silts, fine silty sand or lean clays are highly susceptible to frost action.
- F. In-situ soils meeting the requirements outlined in these specifications may be utilized as subgrade material. In-situ soils used as subgrade shall be scarified to a minimum depth of 8-inches below finish subgrade, recompact and tested as described below. Fill material for subgrade shall be placed in lifts not to exceed 8-inches compacted depth.
- G. Methods and procedures for establishing the total depth of soil replacement and/or modification shall be as specified by the design engineer and geotechnical investigations. The adequacy of in-situ soils and fill materials as pavement subgrade shall be evaluated based upon the soils classification, liquid limit, and plasticity index.
- H. Soils with a liquid limit greater than 40, or a plasticity index greater than 15 shall be undercut and removed from the street section or improved by a design method of stabilization approved by the City.
- I. Quality control testing shall be as specified below.
- J. Undercut 24" of soil below finished street base course. Proof roll to verify stability.
- K. Backfill the undercut subgrade with Class 7 aggregate or soil meeting the requirements of this section and compact in lifts not exceeding 8".

BASE COURSE

- A. Base course material shall be crushed stone meeting the requirements of ArDOT Class 7 aggregate base course as specified in the latest edition of ArDOT Standard Specifications.
- B. Base course shall be compacted to 98 percent modified proctor density minimum. Moisture content shall be +/- 3% of optimum moisture.

SURFACE COURSE

- A. Surface course for flexible pavement designs shall utilize plant mix bituminous base and binder courses conforming to ArDOT Standard Specifications.

CURB AND GUTTER

- A. Curb and gutter shall be Portland Cement Concrete with a minimum 28-day compressive strength of 4,000 psi. Concrete shall be air-entrained with a maximum of 4-inch slump.
- B. Compaction requirements under curb and gutter shall conform to the requirements for street subgrade materials. Compaction requirements shall extend to a minimum of 1 foot behind the back of curb and gutter removing all soft spots and replacing with suitable material.
- C. Curb and gutter shall conform to the typical detail within these specifications or ArDOT Standard Roadway Drawing Details for curbing.
- D. Expansion joints shall be made with 1/2-inch preformed expansion joint filler of a non-extruding type. Expansion joints shall be placed at intervals not exceeding 195 feet, intersection radii, driveways, stationary structures, and sidewalks.
- E. Contraction joints shall be sawed or fromed at intervals not greater than 20 feet. Depth of saw-cut shall be 1 1/2-inch and have a width of 1/4-inch. Contraction joints shall be sealed in accordance with ArDOT Standard Specifications.
- F. Forms shall be made of metal or wood and shall be properly braced. The minimum length of each section of form used shall be 10 feet. Each section of form shall be uniform and free from undesirable bends or warps. Forms shall be of such cross section and strength and so secured as to resist the pressure of the impact and vibration on any equipment which they support without springing or settlement.
- G. Curb and gutter placed with slip form or extruding equipment will be acceptable providing it complies with all of the above requirements.
- H. After curing, the curb shall be immediately backfilled to within 4 inches of the top curb to eliminate the possibility of washing beneath the curb. The remaining 4 inches shall be topsoil.
- I. Cold weather protection shall meet the requirements of the latest edition of ArDOT Standard Specifications.

SIDEWALKS

General

- A. Sidewalks shall be Portland Cement Concrete with a minimum 28-day compressive strength of 4,000 psi.
- B. Sidewalks shall be on both sides of streets in line with sidewalks on opposite corners of roads.
- C. All sidewalks including ramps shall meet all current Federal Americans with Disabilities (ADA) design guidelines or requirements.
- D. Traverse slopes shall not exceed 2 percent.
- E. Subgrade under sidewalks shall be compacted to 90 percent modified proctor density minimum.
- F. Sidewalks shall not be placed upon grassy or organic materials.
- G. Sidewalks which extend or link existing sidewalks shall adjoin the existing sidewalks to form a continuous, even pathway.
- H. Utility poles, utility boxes, mailboxes, fire hydrants, and other similar obstructions shall not be located in sidewalks. Sidewalk location may vary at the discretion of the City to avoid such obstacles.
- I. All sidewalk ramps shall meet ADA requirements with corrugated dome ramp requirements.

Minimum thickness and reinforcement

- A. Sidewalks shall have a minimum thickness of 4 inches.
- B. Sidewalks shall be reinforced, at a minimum, with woven wire fabric reinforcement.

Contraction and expansion joints

- A. Contraction joints shall be provided perpendicular to the sidewalk at intervals equal to the sidewalk width.
- B. Expansion joints shall be constructed perpendicular to the sidewalk at intervals equal to five times the sidewalk width. Expansion joints shall be made with 1/2-inch preformed expansion joint filler of a non-extruding type. Expansion joints shall be placed at driveways, drop inlets, and curbs.

Quality control testing and inspection by the City

- A. Subgrade and formwork for sidewalks shall be inspected by the City prior to pouring of the sidewalk.
- B. All testing of materials and construction shall be provided and paid for by the Developer/Owner.
- C. All field tests required for a project shall be witnessed by the City, contractor, or their authorized representatives.
- D. All testing shall be accomplished by a testing firm approved by the City and shall be performed under the supervision of a licensed Professional Engineer.
- E. Sampling and testing locations shall be subject to approval by the City.
- F. Density tests on subgrades shall be taken every 300 feet or portion thereof.
- G. The City shall be notified at least one day in advance of the need to inspect subgrade and formwork of sidewalks.

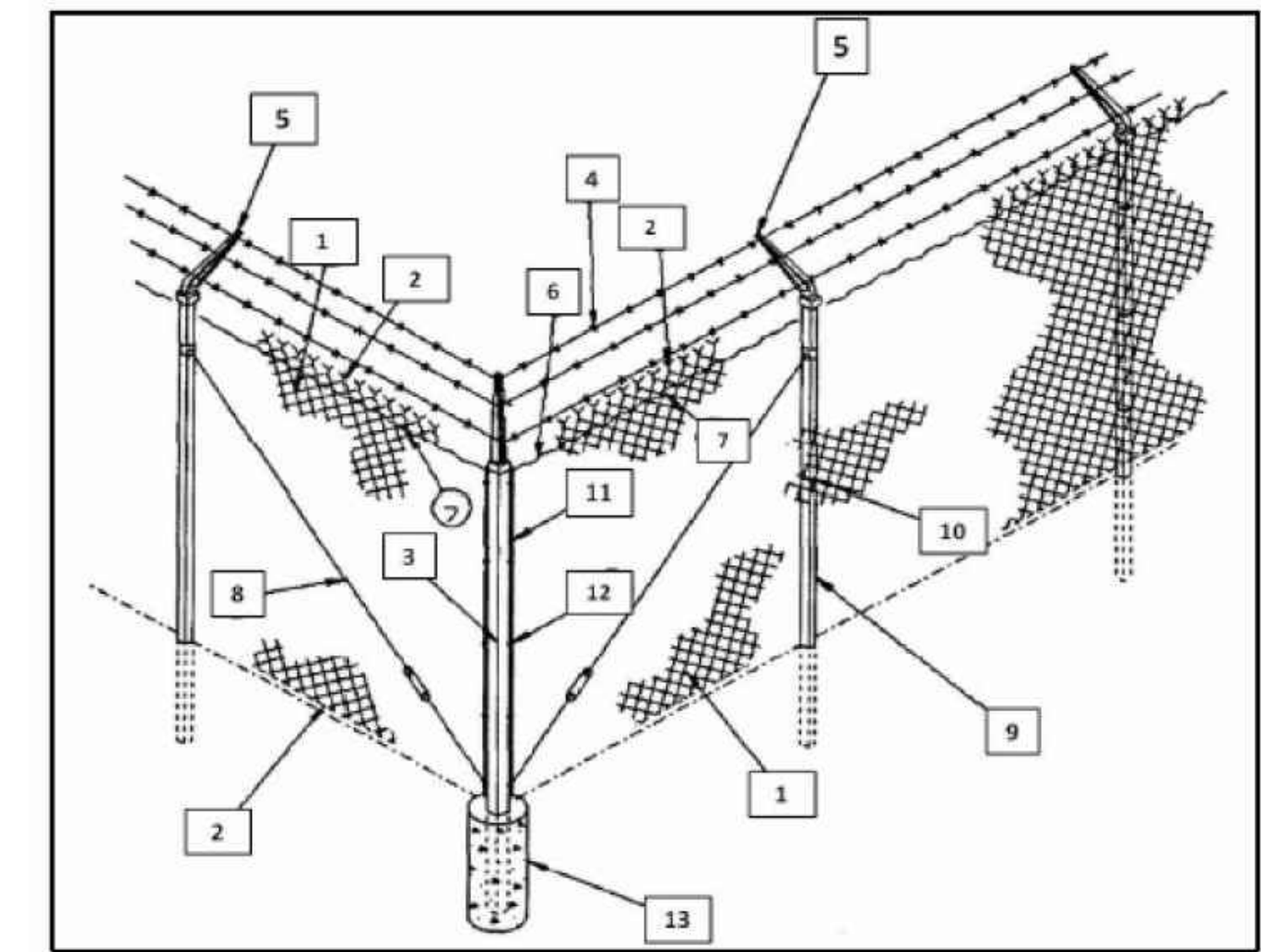
Subgrade

- A. Subgrade soils shall be all materials used for subgrade including in-situ materials and fill materials.
- B. Subgrade shall be compacted to 90 percent modified proctor density minimum. Moisture content shall be +/- 3% of optimum moisture unless otherwise supported by the site specific geotechnical data and approved by City.
- C. Subgrade shall be prepared in such a manner that the base course shall be placed on a firm foundation that is stable and free from soft spots, pumping, dust pockets, wheel ruts, or other defects.
- D. The top 24 inches of the subgrade shall be a material not susceptible to frost action unless modified with cement, lime or another method approved specifically by the City to resist frost action. Soils classified as A-4 and A-5 including sandy silts, fine silty sand or lean clays are highly susceptible to frost action.

QUALITY CONTROL TESTING AND INSPECTIONS

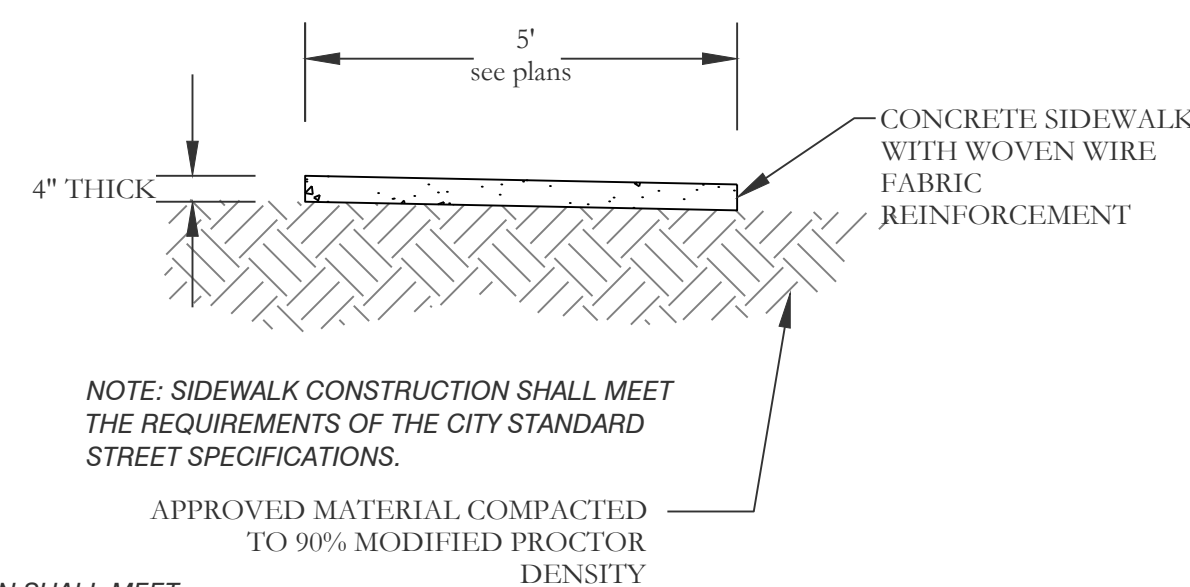
General

- A. Materials and construction employed in street improvements shall be subject to inspection and quality control testing. All testing of materials and construction shall be provided and paid for by the Developer/Owner.
- B. The Developer/Owner shall provide for inspections of street improvements during construction. The inspections shall be accomplished under the supervision of the Engineer of Record. The Engineer of Record shall provide certification that all materials and construction conform to the approved plans and specifications and with these minimum street standards.
- C. The Engineer of Record shall furnish inspection whenever a critical construction activity is taking place. This means that a representative of the Engineer of Record must be on-site whenever a critical construction activity is taking place.
- D. All field tests required for a project shall be witnessed by the City, Engineer of Record, contractor, or other authorized representatives.
- E. The City shall be notified at least one day in advance of any test(s). It is the responsibility of the contractor to coordinated the scheduling of all tests with the City.



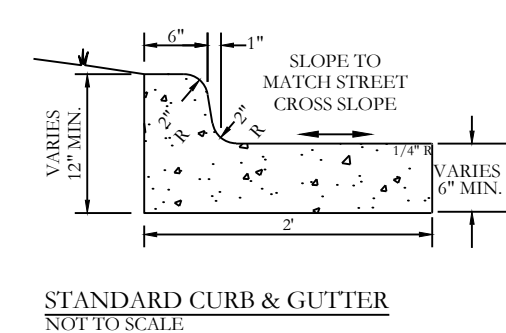
1	Fabric
2	Selvage
3	Corner Post
4	Barbed Wire/Barbed Tape
5	Outrigger/Barbed Wire Arm
6	Tension Wire (Top and Bottom)
7	Hog Ring
8	Truss Rod
9	Line Post
10	Tie Wire
11	Tension Bar
12	Tension Clip
13	Concrete Footing

SECURITY FENCE DETAILS



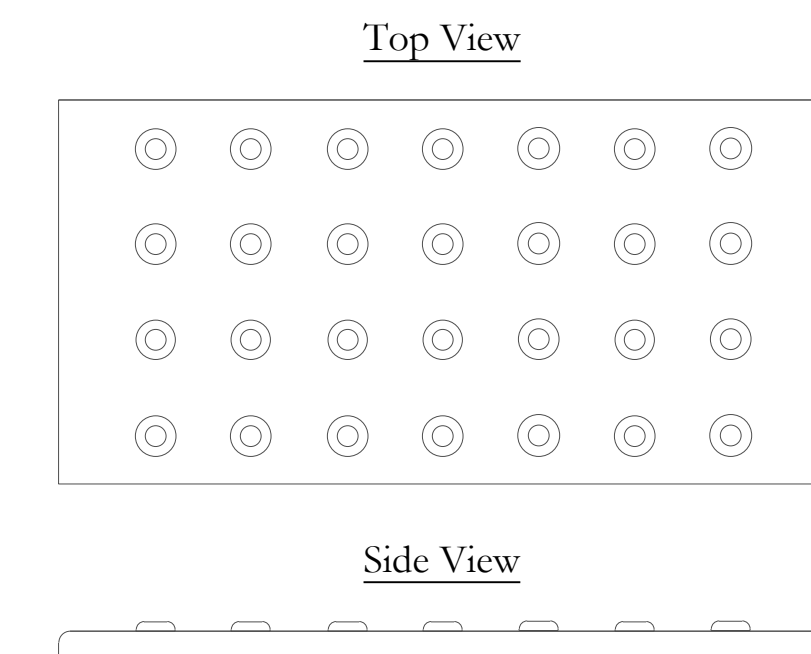
NOTE: SIDEWALK CONSTRUCTION SHALL MEET ADA REQUIREMENTS WITH CORRUGATED DOME RAMP REQUIREMENTS

Typical Sidewalk Detail



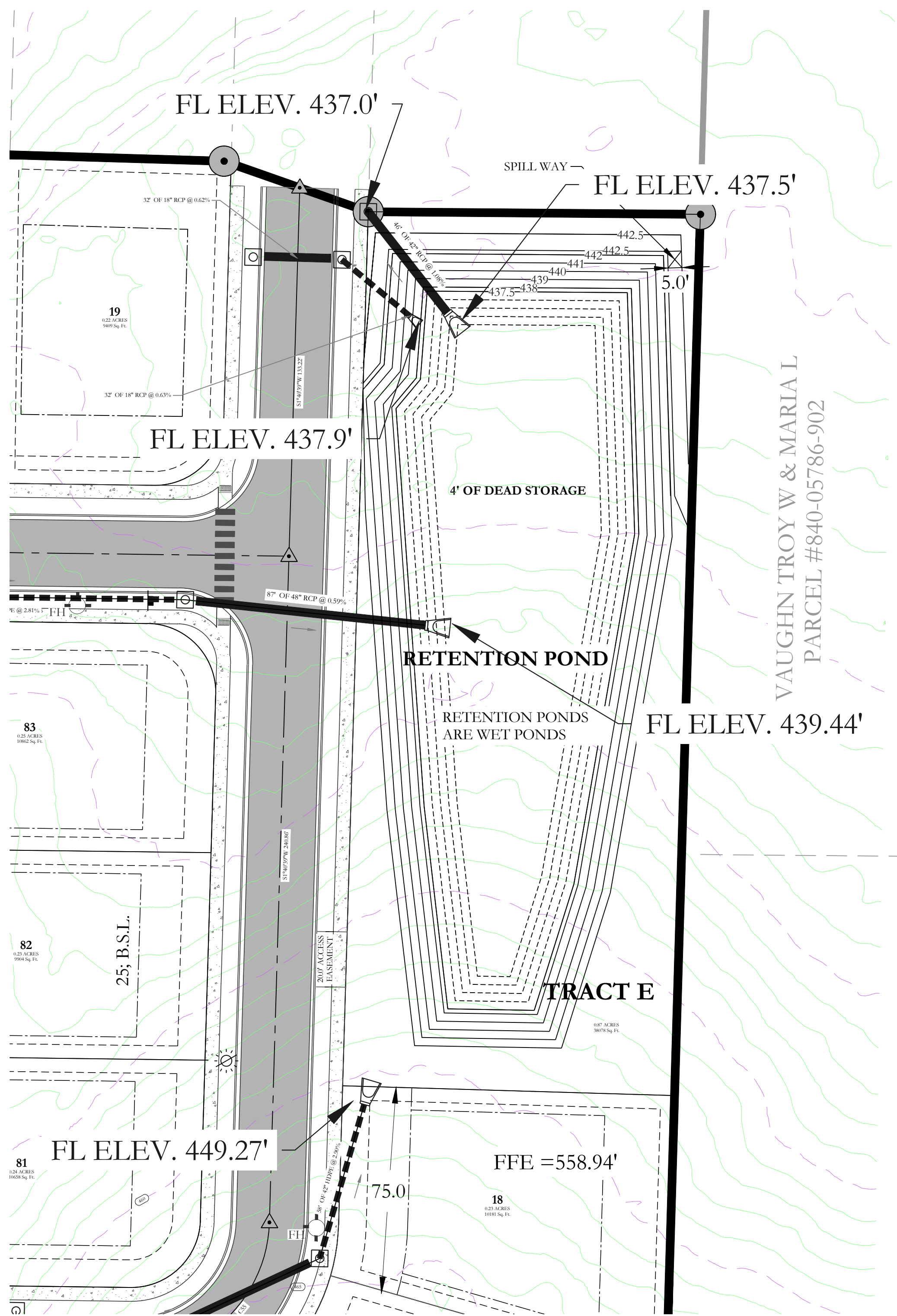
STANDARD CURB & GUTTER
NOT TO SCALE
TYPICAL CURB DETAILS & NOTES
NOT TO SCALE

Typical Curb & Gutter Detail
4,000 psi concrete



ADA Corrugated Dome Ramp

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FOR USE AND BENEFIT OF: NXT GEN HOMES LLC.		
HILLTOP LANDING CIVIL SPECIFICATIONS A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS		
DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:
REVISED: 08/07/2023	CHECKED BY:	20-1341
SHEET: C-5.0	SCALE: 1" = 20"	
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RETENTION POND-1

DETENTION POND MAINTENANCE PLAN

Background

The Retention ponds are located on the periphery of the subdivision. They are designed to temporarily detain stormwater to meet water quantity criteria before discharging off the property.

Routine Maintenance

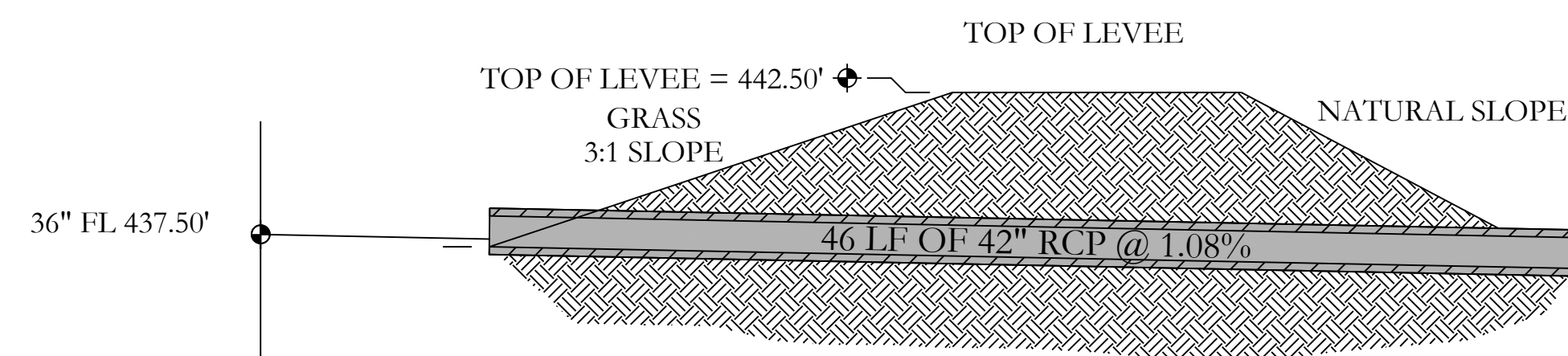
The property owners association will maintain the drainage easements located in Tract "B" and Tract "E". Routine maintenance will include but not be limited to:

- Mowing of the bank slopes and area around the pond on a monthly basis during the growing season and as needed during the cooler months.
- The outlet pipe from the pond and other areas will be inspected monthly for debris which could inhibit the proper flow of discharge. Any debris will be removed immediately and disposed of or placed in a location to prevent future maintenance and to not cause impact up or downstream of the structure.
- Trash will be removed from around the pond to prevent entering the pond. Generally, the site should be kept free of loose trash which could be carried off site by wind or rain.
- Inspect the pond and outlet pipe for non-routine maintenance need.

Periodic or Non-Routine Maintenance

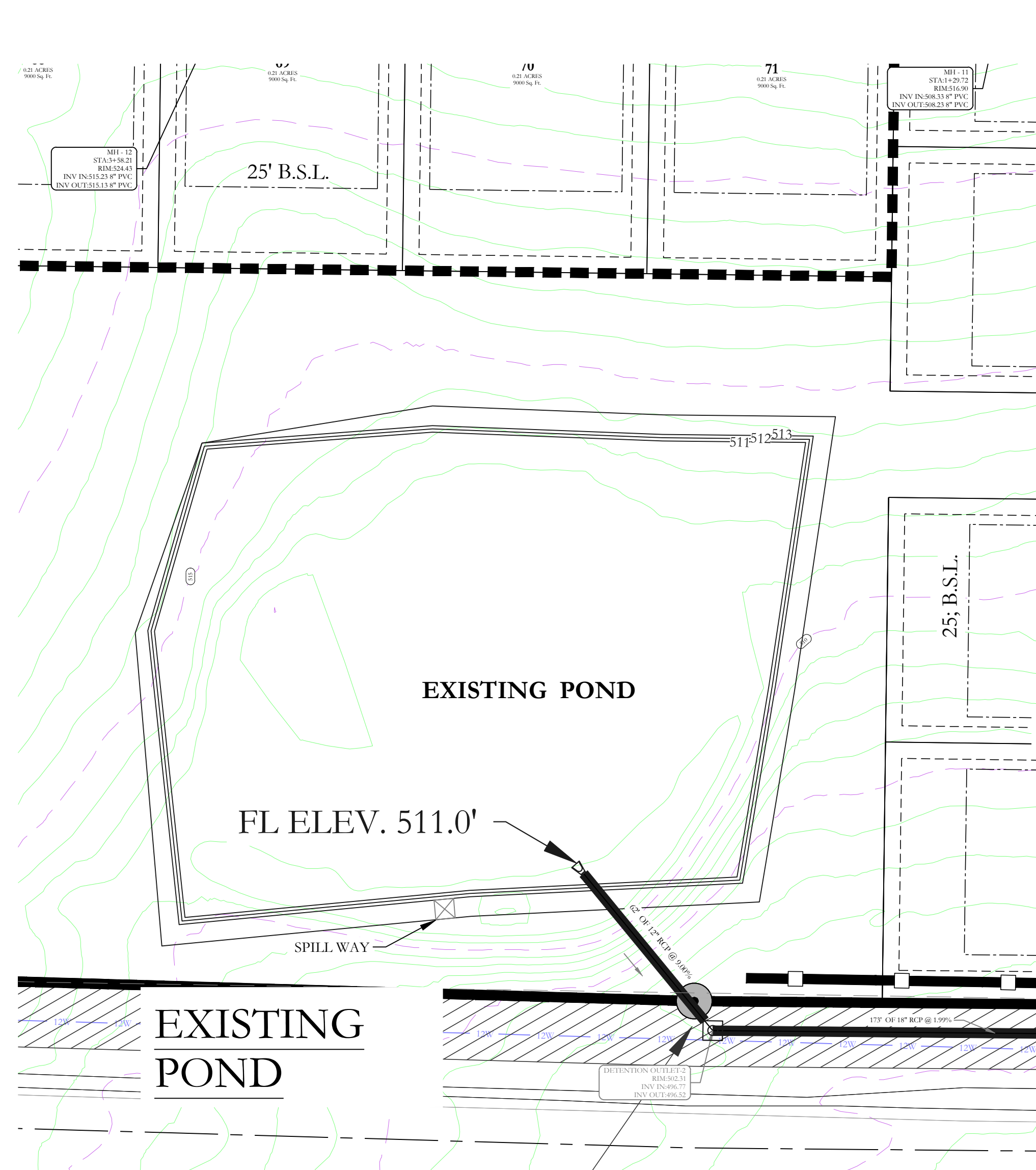
The routine inspection of the ponds areas and discharge pipes will identify needed repairs and non-routine maintenance. These items may include but not be limited to:

- Re-growth of trees on or around the pond bank. These should be cut and removed from the pond area.
- Sediment from the site may accumulate in the pond bottom and reduce the pond to below design volume requirements. The pond should be excavated if the pond bottom elevation reached a level that allows excessive aquatic growth or reduces the pond efficiency such, that the sediments are passing the discharge structure and release off site.
- Stabilization or re-grading of side slopes may be required periodically or after excessive rain events. Any disturbance of slopes should be reseeded or may require installation of erosion control materials until seeding can reestablish adequate grasses to prevent future erosion.
- Any other maintenance or repairs which would minimize other maintenance to the pond or outfall structures.

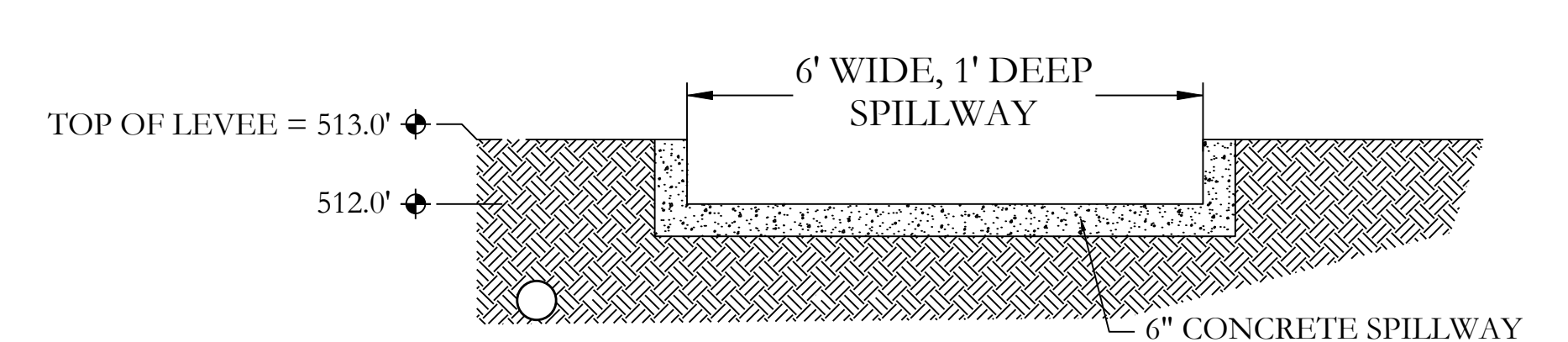


OUTLET SECTION
NTS

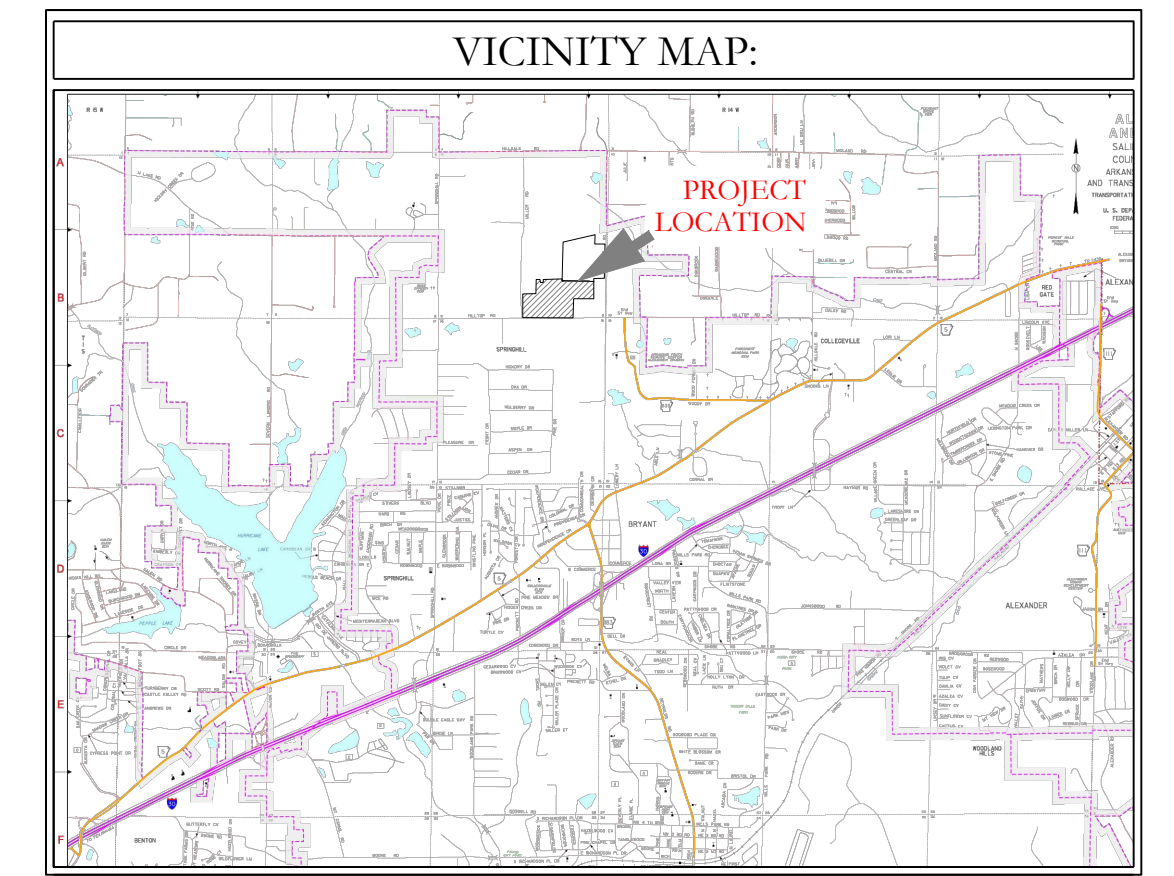
RETENTION POND-1



OUTLET SECTION
NTS



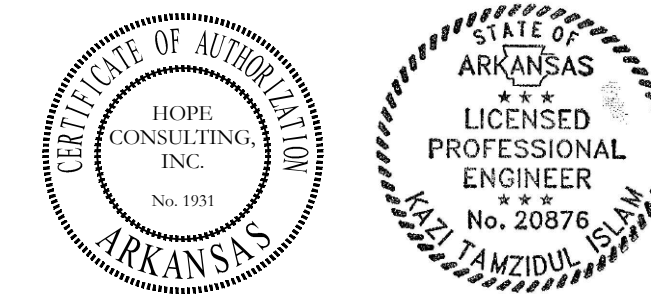
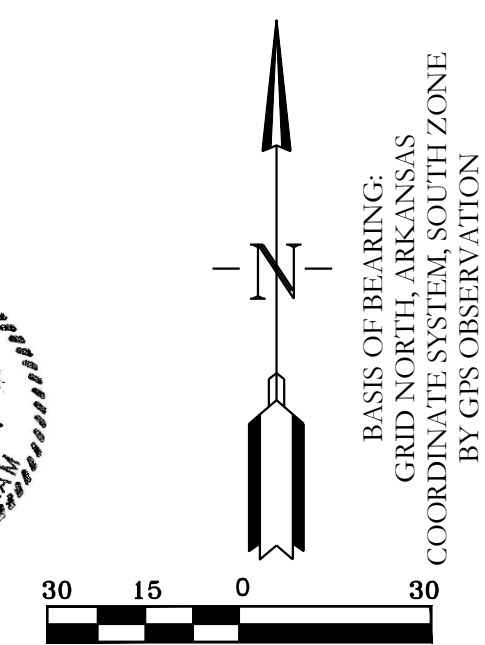
PROPOSED LEVEE AND SPILLWAY
FOR EXISTING POND



EARTHEN SLOPE NOTE:
ALL EARTHEN RETENTION POND SLOPES ON BOTH THE INTERIOR AND EXTERIOR OF THE POND SHALL HAVE A MAXIMUM SLOPE OF 3:1.

NOTE:
ALL RETENTION BASINS WILL BE REQUIRED TO BE STABILIZED WITH SOLID SOD STABILIZATION PER THE STORMWATER MANAGEMENT MANUAL.

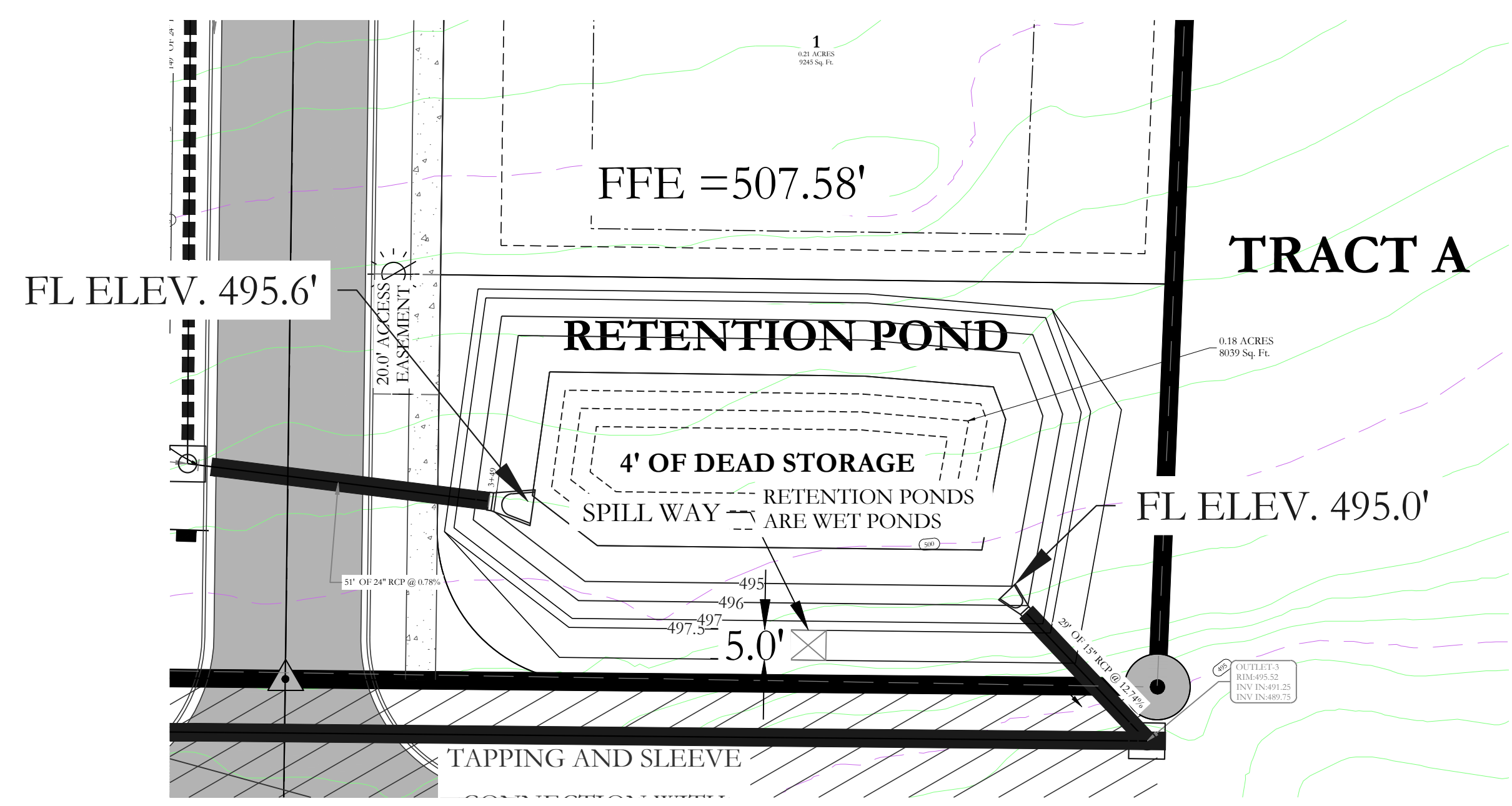
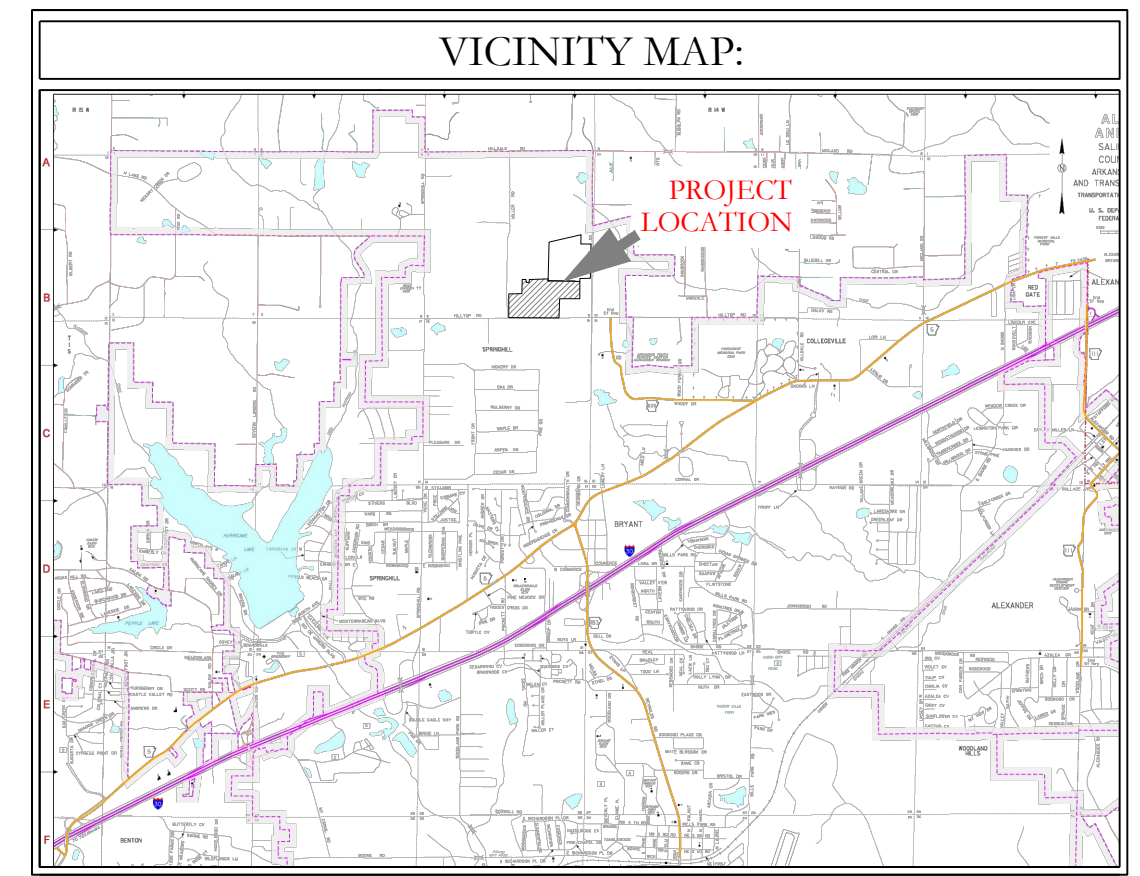
TOP BANKS OF ALL RETENTION POND WILL BE 5' WIDE.



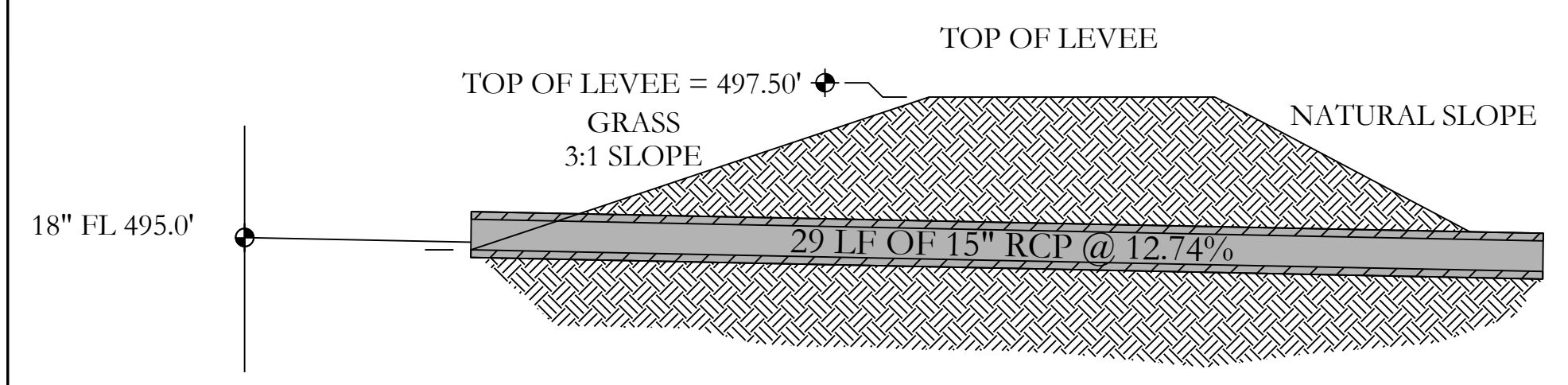
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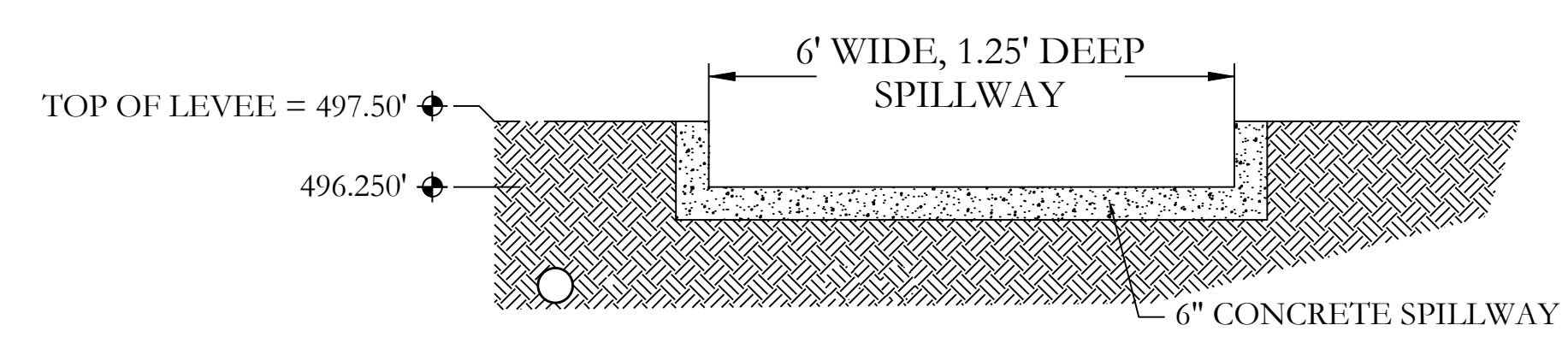
FOR USE AND BENEFIT OF: NXT GEN HOMES LLC.			
HILLTOP LANDING RETENTION POND			
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS			
DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:	
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RETENTION POND-2



OUTLET SECTION
NTS



SPILLWAY END VIEW
NTS

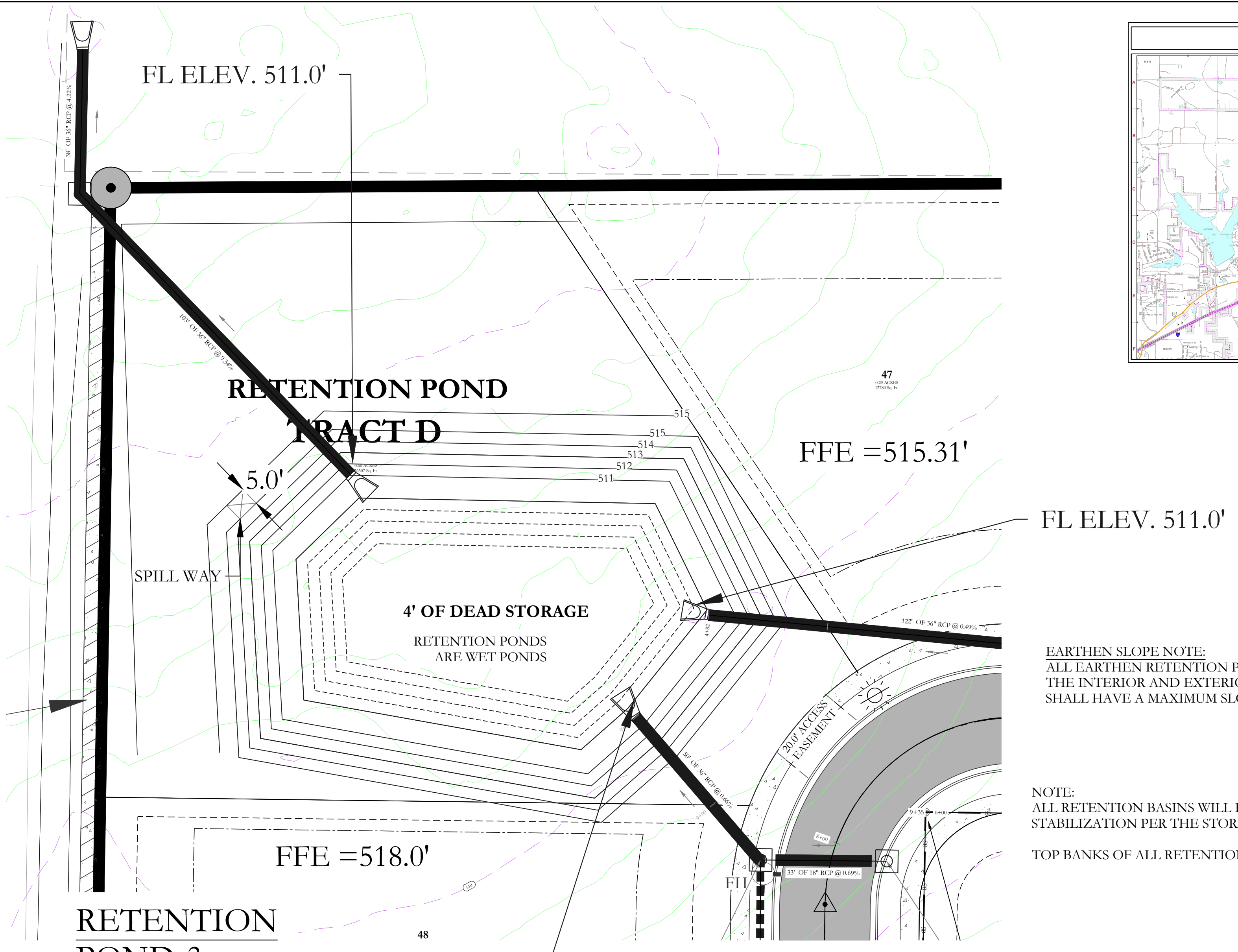
RETENTION POND-2

DETENTION POND MAINTENANCE PLAN

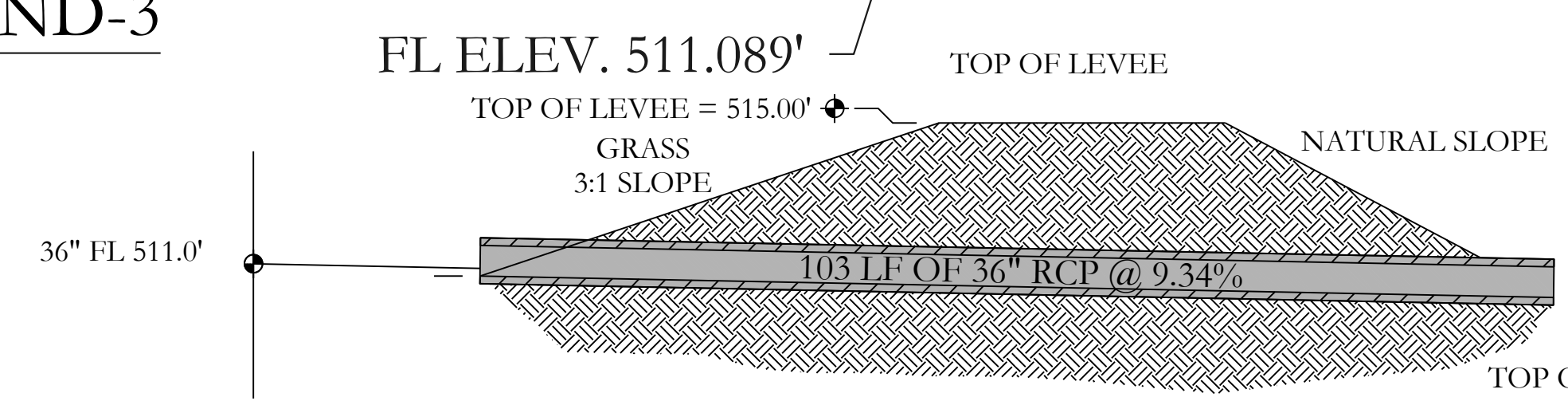
Background
The Retention ponds are located on the periphery of the subdivision. They are designed to temporarily detain stormwater to meet water quantity criteria before discharging off the property.

Routine Maintenance
The property owners association will maintain the drainage easements located in Tract "A" and Tract "D". Routine maintenance will include but not be limited to:
-Mowing of the bank slopes and area around the pond on a monthly basis during the growing season and as needed during the cooler months.
-The outlet pipes from the ponds and other areas will be inspected monthly for debris which could inhibit the proper flow of discharge. Any debris will be removed immediately and disposed of or placed in a location to prevent future maintenance and to not cause impact up or downstream of the structure.
-Trash will be removed from around the pond to prevent entering the pond. Generally, the site should be kept free of loose trash which could be carried off site by wind or rain.
-Inspect the pond and outlet pipe for non-routine maintenance need.

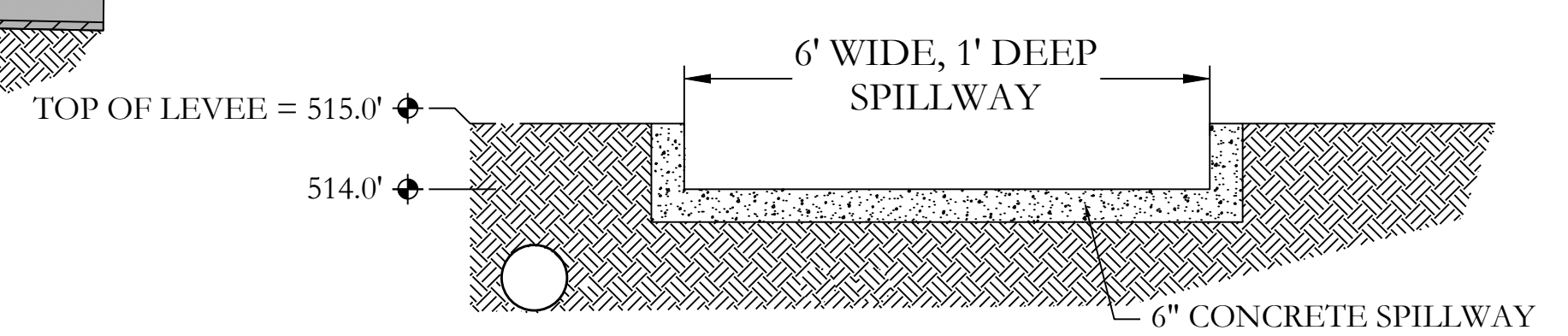
Periodic or Non-Routine Maintenance
The routine inspection of the pond areas and discharge pipes will identify needed repairs and non-routine maintenance. These items may include but not be limited to:
-Re-growth of trees on or around the pond bank. These should be cut and removed from the pond areas.
-Sediment from the site may accumulate in the pond bottom and reduce the pond to below design volume requirements. The pond should be excavated if the pond bottom elevation reached a level that allows excessive aquatic growth or reduces the pond efficiency such, that the sediments are passing the discharge structure and release off site.
-Stabilization or re-grading of side slopes may be required periodically or after excessive rain events. Any disturbance of slopes should be reseeded or may require installation of erosion control materials until seeding can reestablish adequate grasses to prevent future erosion.
-Any other maintenance or repairs which would minimize other maintenance to the pond or outfall structures.



RETENTION POND-3



OUTLET SECTION
NTS

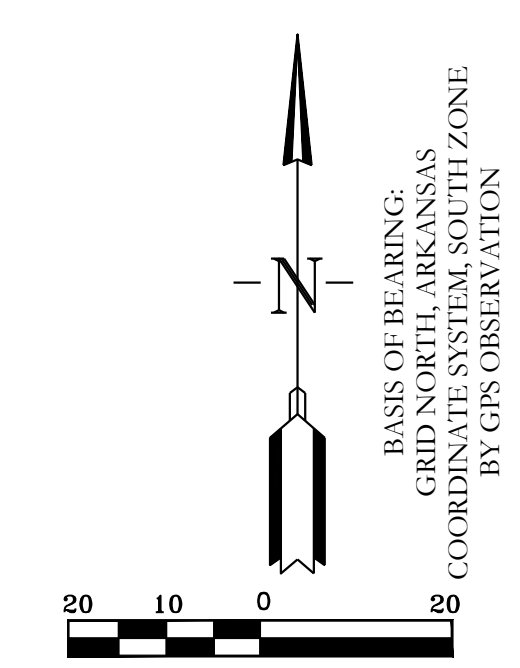
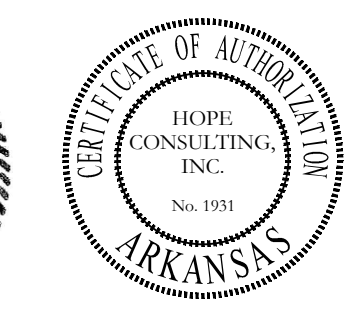


SPILLWAY END VIEW
NTS

RETENTION POND -3

EARTHEN SLOPE NOTE:
ALL EARTHEN RETENTION POND SLOPES ON BOTH THE INTERIOR AND EXTERIOR OF THE POND SHALL HAVE A MAXIMUM SLOPE OF 3:1.

NOTE:
ALL RETENTION BASINS WILL BE REQUIRED TO BE STABILIZED WITH SOLID SOD STABILIZATION PER THE STORMWATER MANAGEMENT MANUAL.
TOP BANKS OF ALL RETENTION PONDS WILL BE 5' WIDE .



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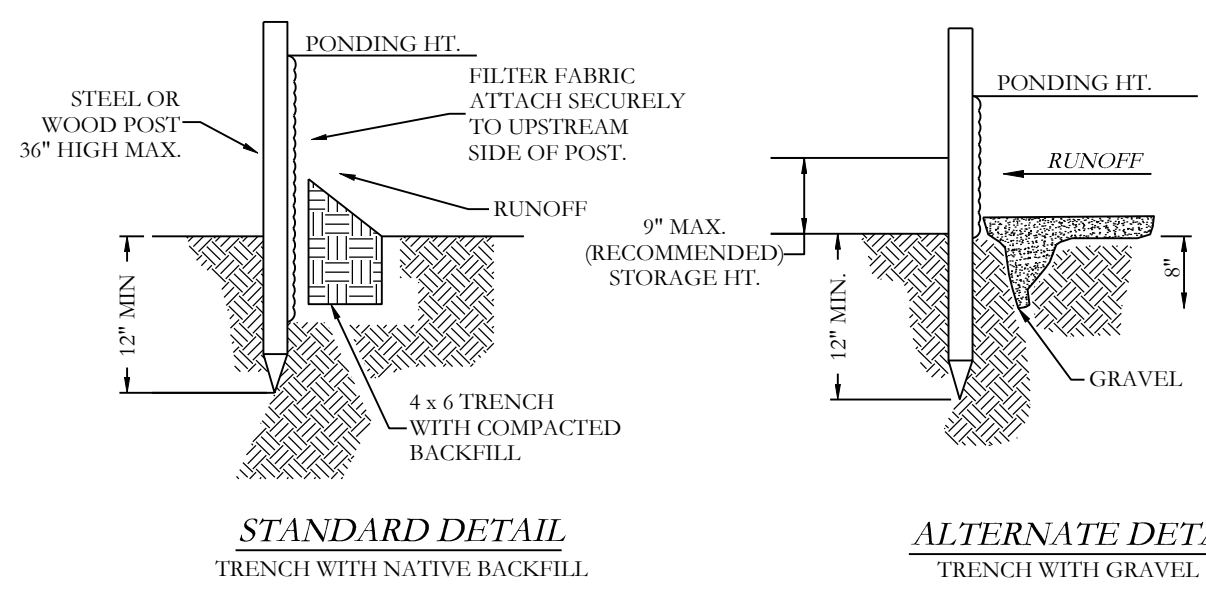
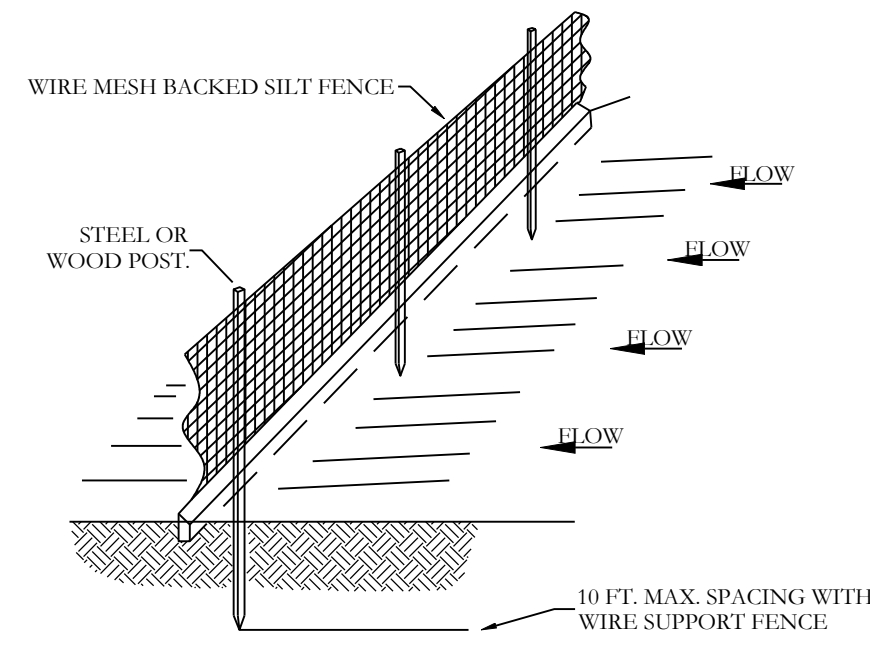
FOR USE AND BENEFIT OF:
NXT GEN HOMES LLC.

HILLTOP LANDING RETENTION POND
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

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REVISED: 08/07/2023	CHECKED BY:	20-1341
SHEET: C-6.1	SCALE: 1"=20'	

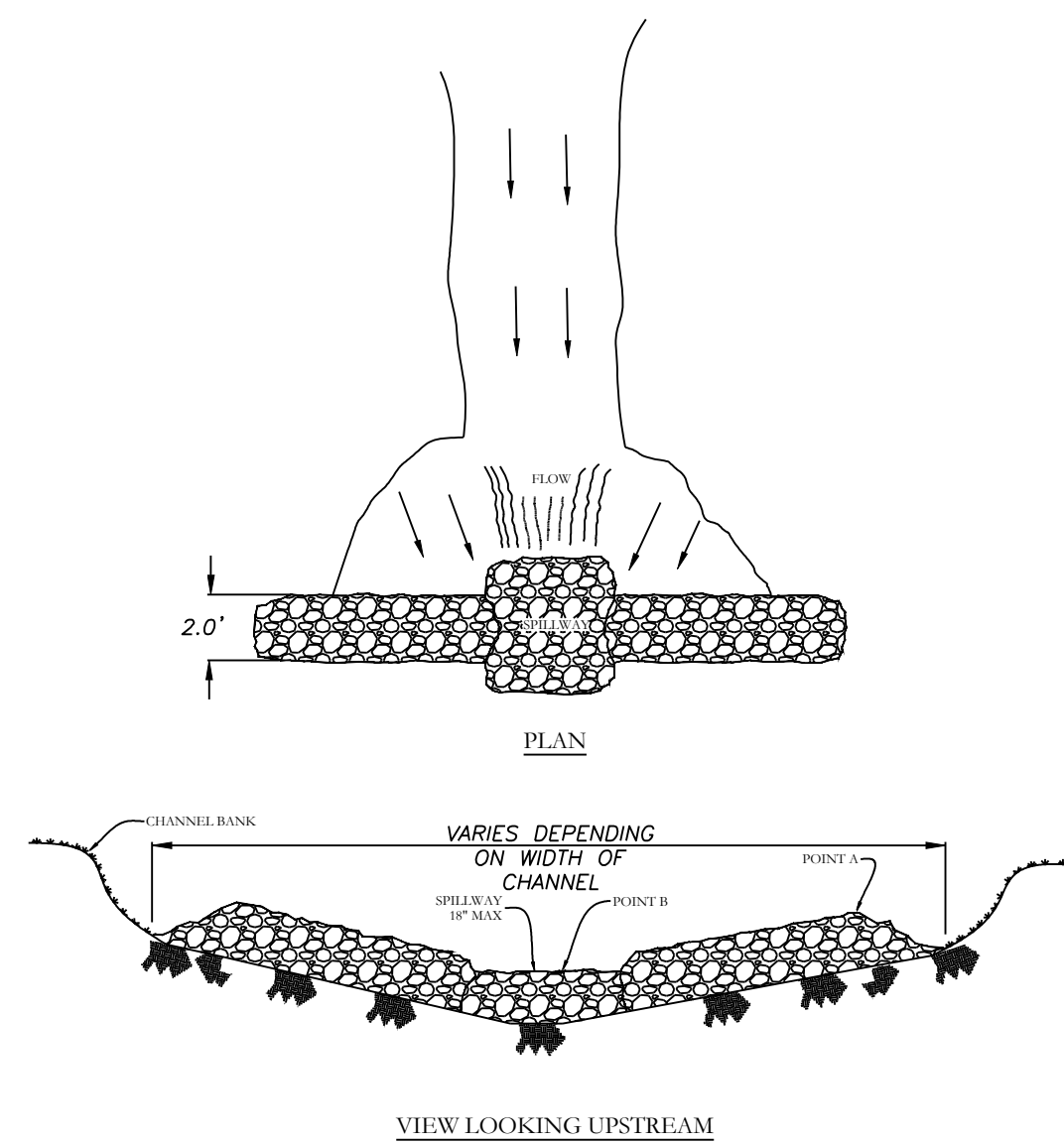
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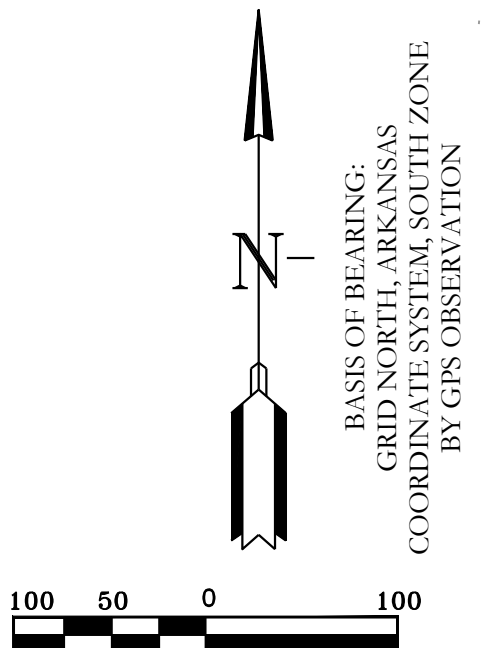
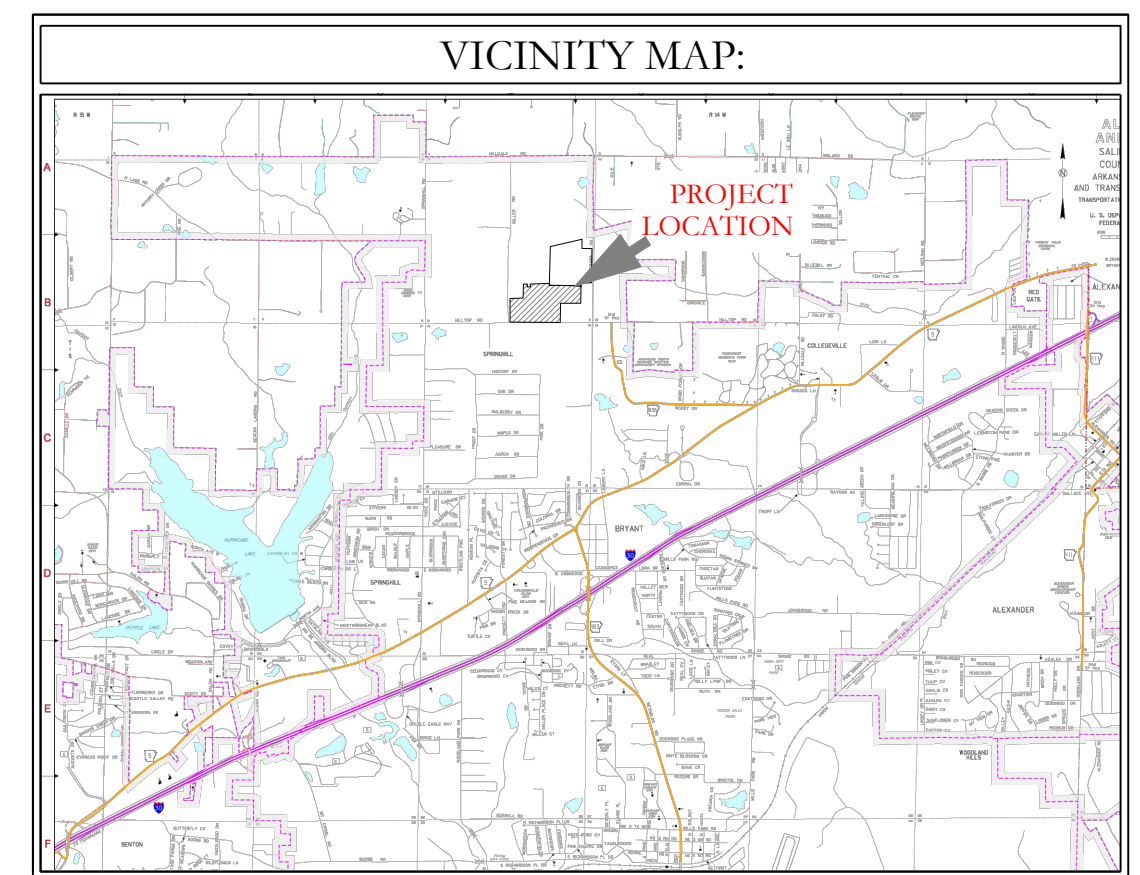
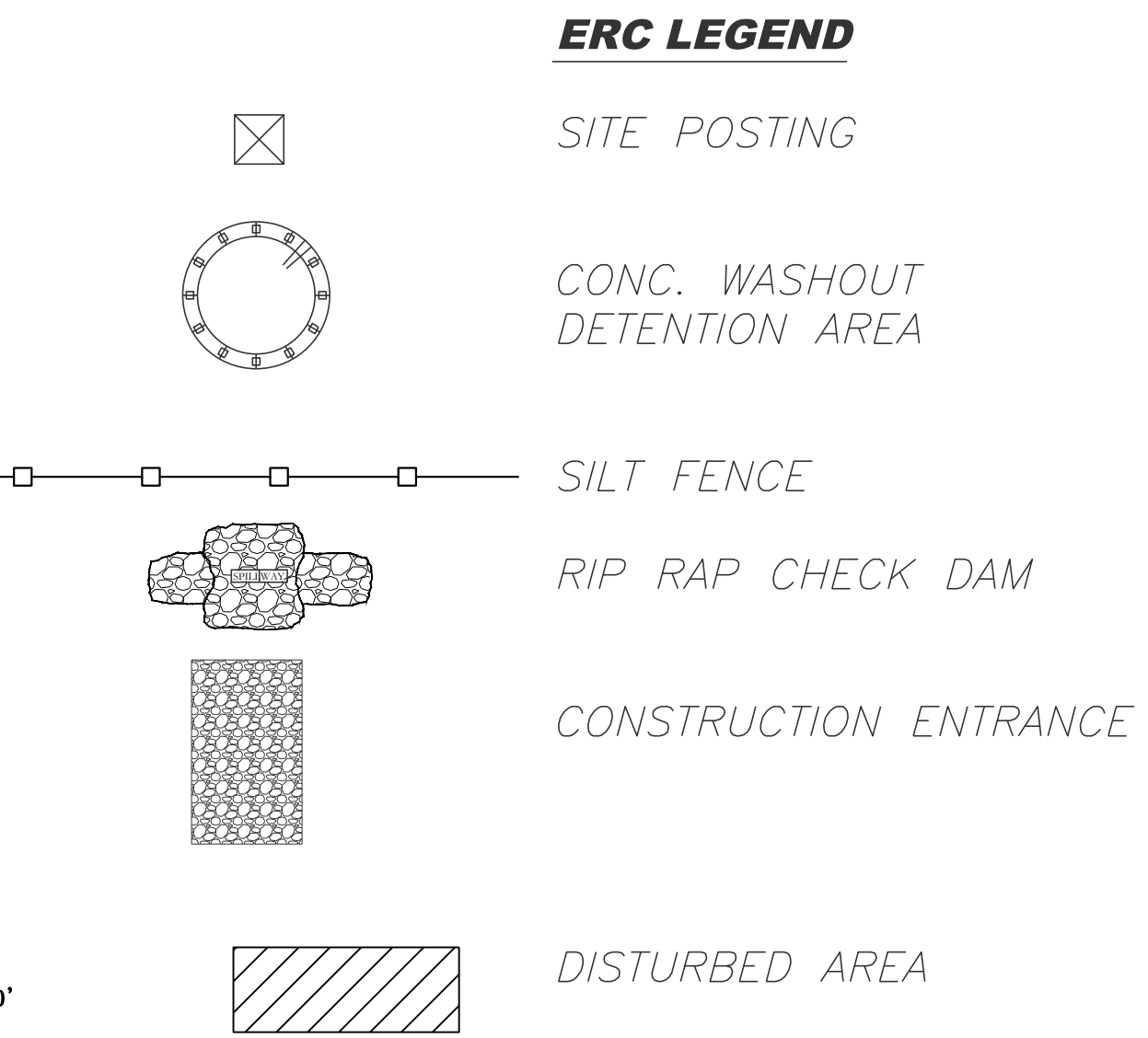
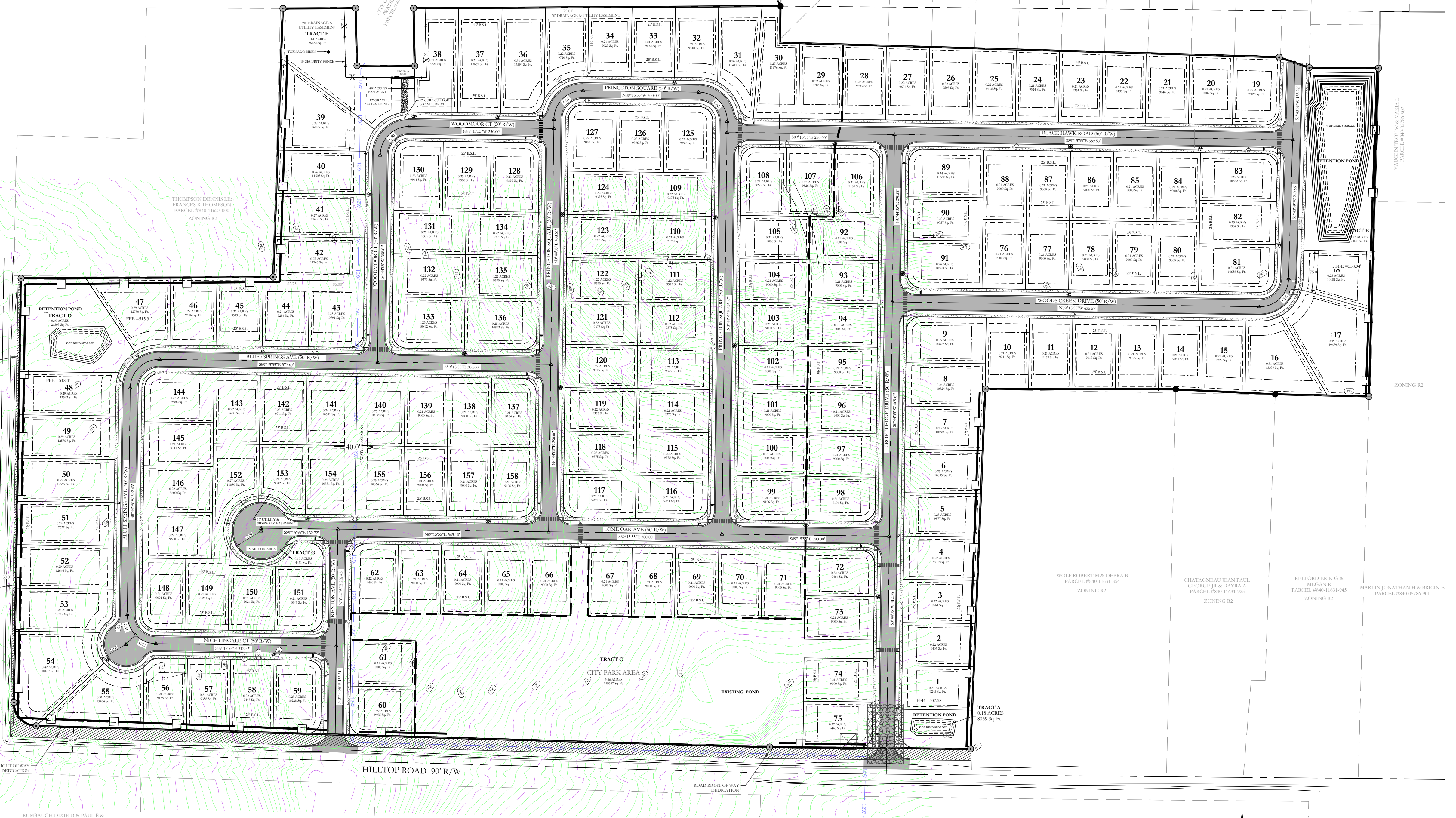
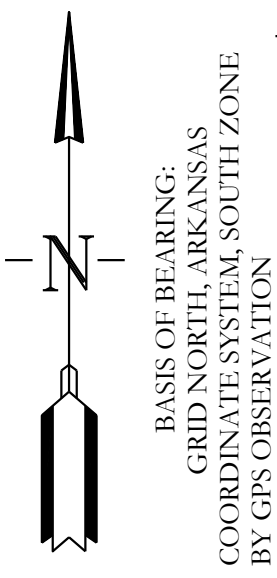
NOTE:
 1) INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
 2) REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
 3) SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

SILT FENCE



VIEW LOOKING UPSTREAM

RIP-RAP CHECK DAM



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HILLTOP LANDING EROSION CONTROL PLAN			
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS			
DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:	
REVISID: 08/07/2023	CHECKED BY:	20-1341	
SHEET: C-7.0	SCALE: 1" = 100'	500	01S
14W	0	09	200
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MTA ENGINEERS

- Geotechnical Engineering
- Materials Testing • Special Inspections
- Design

mtaengineers.com

GEOTECHNICAL ENGINEERING EXPLORATION

**Proposed 50 Acres Subdivision along Hilltop Road
Bryant, Arkansas**

PREPARED FOR:

Jonathan Hope
Hope Consulting
117 South Market Street
Benton, AR 72015

PREPARED BY:

MTA ENGINEERS

8001 National Drive
Little Rock, AR 72209

June 27th, 2023

Report of Geotechnical Engineering Exploration
Proposed 50 Acres Subdivision along Hilltop Road
Bryant, Arkansas
June 27th, 2023

MTA ENGINEERS

Jonathan Hope
Hope Consulting
117 South Market Street
Benton, AR 72015

June 27th, 2023

Subject: Report of Geotechnical Engineering Exploration
Proposed 50 Acres Subdivision along Hilltop Road
Bryant, Arkansas

Mr. Hope:


MTA Engineers has completed the authorized Geotechnical Engineering Exploration for the above referred project. This work was conducted in accordance with the agreement between MTA Engineers and Hope Consulting, detailed in MTA Engineers Proposal dated June 25th, 2023.

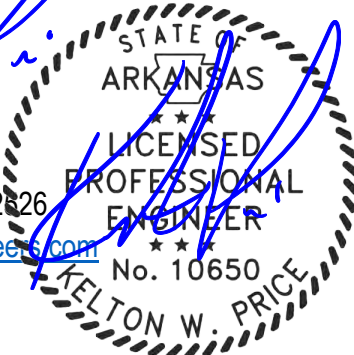
The purpose of our work was to review general surface and subsurface conditions within the project site area, and to gather and present data relative to the design and construction of the proposed 50 Acres Subdivision located in Bryant, Arkansas. This report outlines the exploration procedures used, exhibits the data obtained, and presents our recommendations.

MTA Engineers appreciates this opportunity to provide these services and looks forward to working with you on future projects. Please contact us if you have any questions or require additional information.

Sincerely,

MTA ENGINEERS


Kelton Price, P.E.
Project Engineer
Office +1 501-753-2826
keltonp@mtaengineers.com



STATE OF
ARKANSAS
LICENSED
PROFESSIONAL
ENGINEER
No. 10650
KELTON W. PRICE

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APPENDIX B: Boring Logs
APPENDIX C: Key to Terms and Symbols
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EXECUTIVE SUMMARY

The geotechnical exploration was conducted near Hilltop Road located in Bryant, Arkansas. The general topography of the site was varying elevations. In general, the soil will consist of clayey sand with gravel and lean clay. Subsurface conditions were consistent throughout the entirety of the proposed development. The potential to find buried stumps or other organic material is low.

Major soil types encountered at each boring may be summarized as follow:

Table 1. Soil Types Encountered

SOIL TYPE	DESCRIPTION
SC	Clayey Sand w/ Surface Organics
CL	Lean Clay

See Table 2 General Strata Classification of Soil Logs or the individual soil logs found in Appendix B for a more detailed overview of the soils encountered on site.

Based on the nature of the existing strata encountered at the time of exploration, it is assumed that proposed improvements will be at/or above existing grades. The surface soil contains organic and loose clayey sand. In grass covered areas, the soil of Stratum I is loose and will contain 6-in of topsoil. The stability of these soils will depend on soil moisture conditions at the time of construction, area of improvements may require over-excavation of 2-ft to remove loose isolated surface soils (deeper during wetter seasons). Additional over-excavation may be required in the footing trenches, depending upon weather conditions.

Based on the anticipated bearing load, it is recommended that the store's structures be supported on traditional shallow footings founded a minimum of 24-in below final grade, within Structural fill. Footings founded as recommended may be designed using a net allowable bearing capacity of 2,000-psf for continuous and 2,500-psf for individual spread footings.

The net allowable end bearing pressures are based on a factor of safety in excess of 3.0 with respect to the anticipated shear strength of the structural fill. Total and differential settlement is anticipated in the order of ½ -in.

SUMMARY

- **Rock/Hard Dig:**
 - No rock was encountered.
 - Medium to heavy duty equipment will be required for deep utilities.

- **Soils:**
 - Soils generally consist of medium dense clayey sand and lean clay.
 - Structural fill should be placed according to the “Structural Fill” section of this report.
 - Stripping in the order of 6-in to remove organics.
 - Subgrade soil must meet requirements of City of Bryant.

- **Foundations/Slabs:**
 - Shallow footings founded a minimum of 24-in beneath final grade may be sized using a bearing pressure of 2,000-psf for continuous and 2,500-psf for individual spread footings.

- **Un-compacted Fill:**
 - No un-compacted fill was encountered on the property during the exploration.

- **Stump/Organic Findings:**
 - The potential to find stumps or other organic material beneath the surface is low.

- **Pavement:**
 - Recommended pavement sections are presented within this report.
 - Pavement must meet the requirement of City of Bryant

- **Miscellaneous:**
 - The building is anticipated to be at/or above existing grade.

INTRODUCTION

This exploration was requested in order to evaluate existing subsurface conditions and provide geotechnical design recommendations. The results of this exploration and the geotechnical design recommendations for site construction are presented in this report.

Exploration was accomplished by:

1. Boring 5 locations up to 10-ft or refusal explore subsurface soil, and groundwater conditions.
2. Obtaining samples from each stratum, within the accessible areas, using standard geotechnical sampling technique or standard penetration test.
3. Performing laboratory tests on various samples to determine pertinent engineering properties of the subsurface strata.
4. Analyzing field and laboratory test data to develop design recommendations.

The scope of this geotechnical exploration did not include an environmental assessment to determine the presence of wetlands and/ or hazardous or toxic materials in the soil or groundwater on or near this site. If there is concern of wetlands or a hazardous/ toxic material presence, a qualified environmental assessment consultant should be contacted to perform a site investigation before construction begins.

FIELD EXPLORATION

Subsurface conditions at the site were explored by using dry auger methods and a split spoon sampler to a depth of up to 10-ft at 5 boring locations. The approximate boring locations are shown on the Plan of Borings, Appendix A. Boring logs presenting descriptions of the soil strata encountered are included in Appendix B. Laboratory testing results of the different soil types are located in Appendix D.

Samples were obtained throughout the entirety of most locations in general accordance with Standard Penetration Sampling (SPT). The recorded N-Values (Blows per foot) are indicated on the Boring Logs in the Blows per foot column. All soil samples encountered were removed from the field in moisture

tight containers and transported to our laboratory for further examination. At the lab, a visual classification was performed for each sample.

All various soil types were then analyzed for specific engineering properties. The dry auger drilling procedures facilitated observation of shallow groundwater conditions.

GENERAL SITE AND SUBSURFACE CONDITIONS

The exploration for the proposed Subdivision located along Hilltop Road in Bryant, Arkansas. It is anticipated that proposed roads will be constructed near the existing grade. Soil as explored consisted of lean clays, and clayey sands. Borings were advanced to a depth of 10-ft or refusal within the building and pavement areas using dry auger procedures.

For a more detailed description of soils encountered while testing see the boring log sheets found in the attached report.

Table2. General Strata Classification of Boring Logs

STRATA	DEPTH (ft)	SOIL CLASSIFICATION	SOIL DESCRIPTION	SIGNIFICANT PROPERTIES
STRATUM I	0 to Completion	SC <i>Except B-3</i>	Clayey Sand Surface Organics	Loose to Medium Dense Low Shrink Swell Potential Moderate bearing capacity
STRATUM II	0 to completion	CL <i>Only in B-3 & 5</i>	Lean Clay	Firm to Stiff Moderate Bearing

The significant properties and characteristics of the subsurface strata pertinent to design and constructions are as follows:

- A. The topography of the site and planned building location.
- B. The anticipated bearing loads.
- C. The anticipated pavement Loading.
- D. The anticipated pavement loading.

LABORATORY TESTING

Description of the soils encountered in the borings was prepared in general accordance with applicable ASTM standards. The soil stratification shown on the boring logs represents soil conditions at the specific boring locations. There may be some variations that occur between or beyond the boring locations. The stratification lines on the boring logs represent the approximate boundaries between soil types, but the actual transitions between soil layers in the subsurface of the proposed site may be gradual.

Laboratory soil testing was performed to verify/evaluate classification, volumetric stability, and to determine water content. The laboratory testing for soil properties was limited in this report. The results of the gradations, plasticity and moisture testing is attached as Appendix D. The results are also presented on the Boring Logs in Appendix B.

ANALYSIS AND RECOMMENDATIONS

SITE PREPARATION

Prior to the addition of any fill or the construction of any improvements, areas of the proposed building and parking should be grubbed approximately 6-in to remove organics. Existing soils do not meet the requirements for subgrade within the top 24-in, per City of Bryant. A minimum of 24-in of suitable fill shall be placed. To maintain grades over-excavation may be required. If grades allow fill can be placed above the in-situ soils. All fill/ backfill shall meet City of Bryant requirements for material as well as compaction. Once fill is placed, the area should be proof rolled using a loaded dump truck, or 62,000-lbs equivalent load, to locate any areas of instability. Isolated area of unstable soils should be evaluated at that time. Due to the nature of the in-situ soils, instability will increase significantly with increased soil moisture. Fill should be placed as described in the Structural Fill section of this report. Soils near surface are loose (Stratum I), Stability of these soils is dependent on moisture condition at the time of construction. As stated previously unstable areas will require over-excavation and backfill.

Excavation should be performed under dry conditions, using equipment adequate to perform the work. Depending upon the weather conditions, isolated undercuts of saturated soft clay may be necessary. Structural fill, where needed, should be placed as recommended in the "Structural Fill" section of the

report. Positive drainage should be maintained throughout this process. The addition of excessive moisture could cause a significant loss of soil stability.

STRUCTURAL FILL

Structural Fill within roadways must conform to City of Bryant requirements. Fill should consist of approved materials, which are free of organic matter and debris. For approval, samples of the proposed fill material should be submitted to MTA Engineers for classification testing. Select fill consisting of low plasticity soil such as lean clay or clayey gravel classifying as SC, CL, or GC according to the Unified Soils Classification System are generally considered suitable. High plasticity clay soils (soils with a Liquid Limit above 50) should not be used as fill.

Placement of approved fill should be achieved in multiple thin lifts. Each lift should not exceed 8-in in loose thickness. Compaction of these lifts should be performed with suitable equipment to achieve the compaction requirements noted in Table 3. Care should be taken that all compaction recommendations are performed.

If cohesive soils are to be used, compaction should be performed using a kneading-type vibratory compactor, such as a vibratory sheepsfoot. The material should be broken down sufficiently to provide a dense matrix of particles. All fill within the roadway must comply with City of Bryant Specifications.

Table 3: Compaction Requirements

Material Type and Location	Minimum Compaction (percent of ASTM D1557)	Allowable variance in moisture from optimum
Structural Fill Beneath Pavement Sections	95%	Optimum to +3 (Clay Shale) -3 to +3 (Other Approved Select Fill)
Structural Fill Beneath Buildings	95%	Optimum to +3 (Clay Shale) -3 to +3 (Other Approved Select Fill)
Utility Backfill in Building Area and Pavement	95%	-3 to +3
Miscellaneous and Green Areas	90%	-3 to +3
Aggregate Base Course	95%	-3 to +3 at time of compaction

BUILDING FOUNDATIONS

All foundations must satisfy two basic and independent design criteria. First, foundations must have an acceptable factor of safety against bearing failure under maximum design loads. Secondly, movement of the foundation due to consolidation, shrinkage, and/or swelling of the supporting strata should not exceed tolerable limits for the structure.

Construction factors such as installation of foundations units, excavation procedures, and surface and groundwater conditions should also be considered. These factors and the aforementioned subsurface conditions were influential in the development of the following statement.

In view of the anticipated foundation loading and subsurface conditions encountered, it is suggested that the proposed structures be supported on a foundation system designed in accordance with the following recommendations.

FOUNDATIONS/ SLABS

Shallow Foundations

Based on the nature of existing soils encountered at the time of exploration and the anticipated loading, it is recommended that all structures be supported on traditional shallow footings founded a minimum of 24-in beneath final exterior grade, within Structural fill. In addition, to minimize the potential for localized shear failure within the soils, a minimum footing width of 24-in is recommended. Shallow foundations founded as accounted may be designed using a net allowable bearing pressure of 2,000-psf for continuous and 2,500-psf for individual spread footings. The net allowable end bearing pressures will be based on a factor of safety in excess of 3.0. Total and differential settlement is anticipated to be less than ½-in.

Slab-on-grade type construction is considered appropriate for the floor slab. We recommend that the slab be supported on 4-in of clean crushed stone or gravel (ASTM C-33 #57 or equivalent) on prepared subgrade. A Class A impervious moisture barrier with a minimum thickness of 10-mils, specified according to ASTM E-1745, should be provided between slab and the granular fill due to the potential for perched water to develop during the wetter seasons.

PAVEMENT DESIGN

Paved parking and drives will be constructed as part of the project. Design traffic volumes and loadings have not been determined. However, we anticipate that the drives will be subject to light vehicles and weekly service trucks. We anticipate that the drives will be placed at/or above the existing elevation. The following design criteria were used to develop the recommended pavement sections in conjunction with the AASHTO Design Guide 1996:

Table 3. Pavement Design Assumption Values

PAVEMENT DESIGN ASSUMPTION VALUES	
CBR	5
R-VALUE	15
SOIL SUPPORT VALUE (S)	5

Based on information obtained during this study, subgrade soils in the paved areas should generally consist of proof-rolled properly compacted Structural fill. Structural fill should be placed as recommended in the Structural fill section of the report. It is recommended that positive site drainage should be provided during construction and be incorporated during the final design.

All pavement sections must comply with the City of Bryant minimum requirements. It should be recognized that some periodic maintenance of pavement will be required. As a minimum, this should include periodic sealing of all joints and cracks to prevent surface water infiltration.

UN-COMPACTED FILL

No uncompacted fill was encountered on the property during our exploration.

STUMP/ ORGANIC FINDINGS

potential to find stumps or other organic material below the surface is low.

SEISMIC CONSIDERATION

Based on IBC-2015, a site soil **Class D** may be used for design purposes. Liquefaction potential of the soils in Stratum I & II is negligible. Additional design information on Seismic Consideration is attached as Appendix E.

CONSTRUCTION PROCEDURES

The potential exists for increased perched water to develop during wetter seasons. Therefore, foundation excavation and any other site grading should be performed during drier periods to reduce the possibility of changes in conditions.

Subsurface conditions significantly at variance with those encountered within the borings should be brought to the attention of the engineer, and work delayed pending evaluation and/or preparation of additional recommendations, if warranted.

◆ ◆ ◆ ◆

The following illustrations are attached and complete this report:

- Appendix A: Excavation Location Plan
- Appendix B: Test Pit Logs
- Appendix C: Key to terms and Symbols
- Appendix D: Laboratory Test Summary
- Appendix E: Seismic Design Criteria



◆ ◆ ◆ ◆

Appendix A :

Boring Location Plan

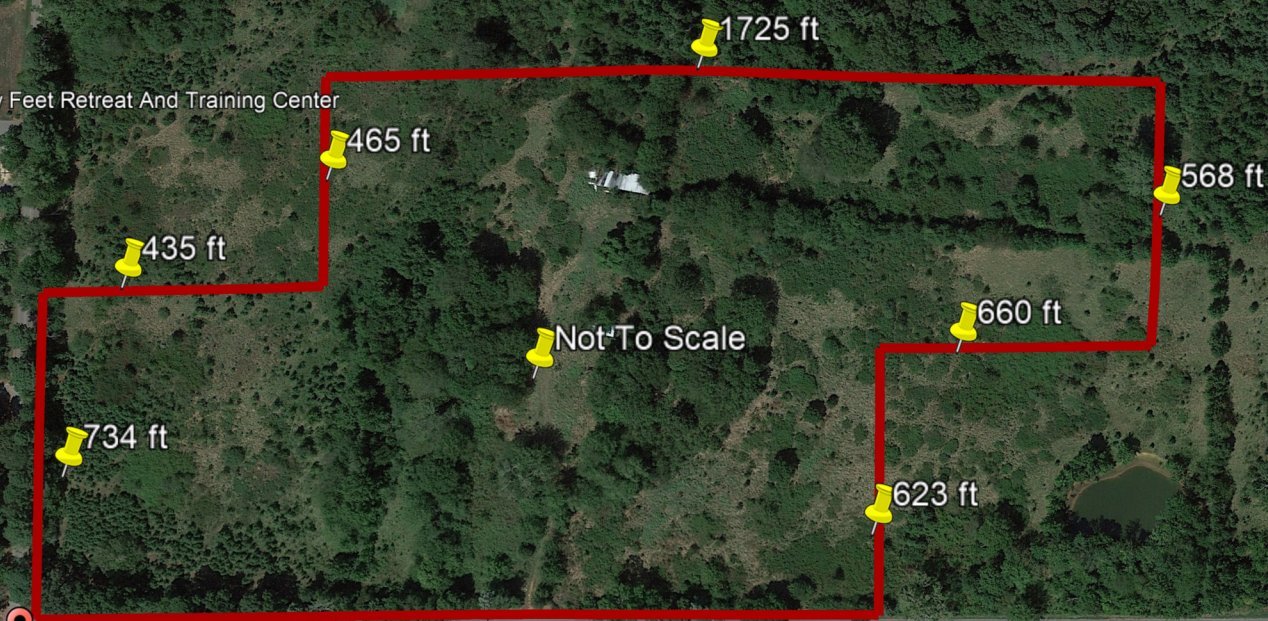
50 Acres
Subdivision
Little Rock, AR

Legend

-  length of each boundary
-  Miller Rd & Hilltop Rd

od Dog Behavior Academy Inc

Furry Feet Retreat And Training Center



Miller Rd & Hilltop Rd

Not To Scale

Google Earth



Appendix B: Boring Logs



Boring Log Report

BORING NO. B-1

PAGE 1 OF 1

JOB NO. GEO23-097
 JOB NAME: 50 ACRES SUBDIVISION
 COORDINATES: NORTH: _____ EAST: _____
 STATION: _____
 LOCATION: BRYANT, AR

DATE: 6-13-2023
 TYPE OF DRILLING: DRY AUGER
 EQUIPMENT: GEOPROB 7822
 LOGGED BY: CORY. S
 DRILLED BY: P. KING

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	PLASTICITY INDEX	PERCENT PASSING #200	NO. OF BLOWS PER 6-IN.	N-Value
			SURFACE ELEVATION: EXISTING GRADE								
		1	LOOSE, RED-BROWN, CLAYEY SAND W/ SANDSTONE FRAGMENTS & SURFACE ORGANICS	SC	22	9.7	38	16	36.6	5 4-4	8
5		2	MEDIUM DENSE, RED-TAN, SANDY CLAY W/ SANDSTONE FRAGMENTS		4 5-7	12					
		3			5 4-4	8					
10		4	LOOSE, TANNISH RED TO GRAY, SANDY CLAY		4 5-4	9					
			Boring Terminated								
15											
20											
25											
30											

COMPLETION DEPTH: 10 WATER DEPTH> INITIAL: AFTER 24 HOURS:

REMARKS:



Boring Log Report

BORING NO. B-2
 PAGE 1 OF 1

JOB NO. GEO23-097
 JOB NAME: 50 ACRES SUBDIVISION
 COORDINATES: NORTH: _____ EAST: _____
 STATION: _____
 LOCATION: BRYANT, AR

DATE: 6-13-2023
 TYPE OF DRILLING: DRY AUGER
 EQUIPMENT: GEOPROB 7822
 LOGGED BY: CORY. S
 DRILLED BY: P. KING

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	PLASTICITY INDEX	PERCENT PASSING #200	NO. OF BLOWS PER 6-IN.	N-Value
5			LOOSE TO MEDIUM DENSE, TANNISH GRAY TO RED, SANDY CLAY W/ SANDSTONE FRAGMENTS & SURFACE ORGANICS	SC	22	18.2	38	16	38.0	5 6-5	11
										3 2-5	7
										5 5-6	11
										5 5-8	13
10			MEDIUM DENSE, TANNISH RED TO GRAY, CLAYEY SAND							5 7-8	15
			Boring Terminated								
15											
20											
25											
30											

COMPLETION DEPTH: 10 WATER DEPTH> INITIAL: _____ AFTER 24 HOURS: _____

REMARKS:



Boring Log Report

BORING NO. B-3
 PAGE 1 OF 1

JOB NO. GEO23-097
 JOB NAME: 50 ACRES SUBDIVISION
 COORDINATES: NORTH: _____ EAST: _____
 STATION: _____
 LOCATION: BRYANT, AR

DATE: 6-13-2023
 TYPE OF DRILLING: DRY AUGER
 EQUIPMENT: GEOPROB 7822
 LOGGED BY: CORY. S
 DRILLED BY: P. KING

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	PLASTICITY INDEX	PERCENT PASSING #200	NO. OF BLOWS PER 6-IN.	N-Value
			STIFF, TAN-RED, SANDY CLAY W/ SURFACE ORGANICS	CL						5 7-6	13
					7 9-10	19					
5					6 7-5	12					
			FIRM TO STIFF, TAN-RED, SANDY CLAY		6 7-15	22					
10				8 9-11	20						
			Boring Terminated								
15											
20											
25											
30											

COMPLETION DEPTH: 10 WATER DEPTH> INITIAL: _____ AFTER 24 HOURS: _____

REMARKS:



Boring Log Report

BORING NO. B-4
 PAGE 1 OF 1

JOB NO. GEO23-097
 JOB NAME: 50 ACRES SUBDIVISION
 COORDINATES: NORTH: _____ EAST: _____
 STATION: _____
 LOCATION: BRYANT, AR

DATE: 6-13-2023
 TYPE OF DRILLING: DRY AUGER
 EQUIPMENT: GEOPROB 7822
 LOGGED BY: CORY. S
 DRILLED BY: P. KING

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	PLASTICITY INDEX	PERCENT PASSING #200	NO. OF BLOWS PER 6-IN.	N-Value
			LOOSE, TAN-RED, CLAYEY SAND W/ SURFACE ORGANICS & SANDSTONE FRAGMENTS	SC	14	10.7	24	10	39.2	4 5-4	9
					6 5-5	10					
5					7 7-10	17					
			MEDIUM DENSE, TAN-RED, CLAYEY SAND		4 5-8	13					
10				4 6-8	14						
			Boring Terminated								
15											
20											
25											
30											

COMPLETION DEPTH: 10 WATER DEPTH> INITIAL: _____ AFTER 24 HOURS: _____

REMARKS:



Boring Log Report

BORING NO. B-5
 PAGE 1 OF 1

JOB NO. GEO23-097
 JOB NAME: 50 ACRES SUBDIVISION
 COORDINATES: NORTH: _____ EAST: _____
 STATION: _____
 LOCATION: BRYANT, AR

DATE: 6-13-2023
 TYPE OF DRILLING: DRY AUGER
 EQUIPMENT: GEOPROB 7822
 LOGGED BY: CORY. S
 DRILLED BY: P. KING

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	PLASTICITY INDEX	PERCENT PASSING #200	NO. OF BLOWS PER 6-IN.	N-Value
			LOOSE, TAN-RED, CLAYEY SAND W/ SURFACE ORGANICS	SC	14	14.6	27	13	37.6	4 3-3	6
5			FIRM TO STIFF, TANNISH RED TO GRAY, SANDY CLAY	CL	18	36.1	35	17	87.2	2 2-4	6
10										3 6-8	14
										5 6-8	14
			Boring Terminated								
15											
20											
25											
30											




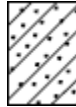
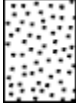

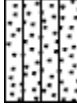
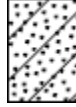


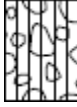





COMPLETION DEPTH: 10 WATER DEPTH> INITIAL: _____ AFTER 24 HOURS: _____

REMARKS:



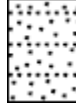
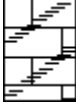
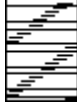
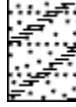
Appendix C: Key to Terms

TERMS AND SYMBOLS USED ON BORING LOGS



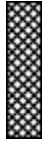

SOIL TYPES

	CLAY (CH)		SILTY CLAY (CL)		CLAY (CL)		SANDY CLAY (CL)
	WELL-GRADED SAND (SW)		POORLY-GRADED SAND (SP)		SILTY SAND (SM)		CLAYEY SAND (SC)
	WELL-GRADED GRAVEL (GW)		POORLY-GRADED GRAVEL (GP)		SILTY GRAVEL (GM)		SANDY SILT (ML)
	CLAYEY GRAVEL (GC)		SILT (ML)		SILT (MH)		FILL MATERIAL

ROCK TYPES

	LIMESTONE		SHALE		SANDSTONE
	WEATHERED LIMESTONE		WEATHERED SHALE		WEATHERED SANDSTONE

SAMPLER TYPE

	SHELBY TUBE SAMPLE		SPLIT SPOON SAMPLE		AUGER SAMPLE		NO RECOVERY
---	--------------------	---	--------------------	---	--------------	---	-------------

SOIL GRAIN SIZE

U.S. STANDARD SIEVE								
12"	3"	3/4"	4	10	40	200		
BOULDERS	COBBLES	GRAVEL		SAND			SILT	CLAY
		COARSE	FINE	COARSE	MEDIUM	FINE		
304	76.2	19.1	4.75	2	0.42	0.074	0.002	
SOIL GRAIN SIZE IN MILIMETERS								

TERMS DESCRIBING CONSISTENCY OR CONDITION

COARSE GRAINED SOILS (major portion retained on No 200 sieve): Includes (1) clean gravels and sands, and (2) silty clayey gravels and sands condition is rated according to relative density, as determined by laboratory tests.

DESCRIPTIVE TERMS	N VALUE	RELATIVE DENSITY
VERY LOOSE	0-4	0 – 15 %
LOOSE	4-10	15 – 35 %
MEDIUM DENSE	10-30	35 – 65 %
DENSE	30-50	65 – 85 %
VERY DENSE	50 and above	85 – 100 %

FINE GRAINED SOILS (major portion passing No 200 sieve): include (1) inorganic and organic silt and clays, (2) gravelly, sandy, or silty clays, and (3) clayey silts. Consistency is rated according to shearing strength, as indicated by penetrometer reading or by unconfined compression tests.

DESCRIPTIVE TERMS	N VALUE	UNCONFINED COMPRESSIVE STRENGTH TON / SQ. FT.
VERY SOFT	0-3	less than 0.25
SOFT	3-6	0.25 - 0.50
FIRM	6-12	0.50 - 1.00
STIFF	13-20	1.00 - 2.00
VERY STIFF	20-50	2.00- 4.00
HARD	50 and above	4.00 and higher

NOTE: Slickensided and fissured clays may have lower unconfined compressive strengths than shown above because of planes of weakness or cracks in the soil. The consistency rating of such soils are based on penetrometer readings

TERMS CHARACTERIZING MOISTURE CONTENT

DRY: No water evident in sample; fines less than plastic limit.

MOIST: Sample feels damp; fines near the plastic limit.

VERY MOIST: Water visible on sample; fines greater than plastic limit and less than liquid limit.

WET: Sample bears free water; fines greater than liquid limit.

TERMS CHARACTERIZING SOIL STRUCTURE

SLICKENSIDED: Having inclined planes of weakness that are slick and glassy in appearance.

FISSURED: Containing shrinkage cracks, frequently filled with fine sand or silt; usually more or less vertical.

LAMINATED: Composed of thin layer of varying color and texture.

INTERBEDDED: Composed of alternate layers of different soil types

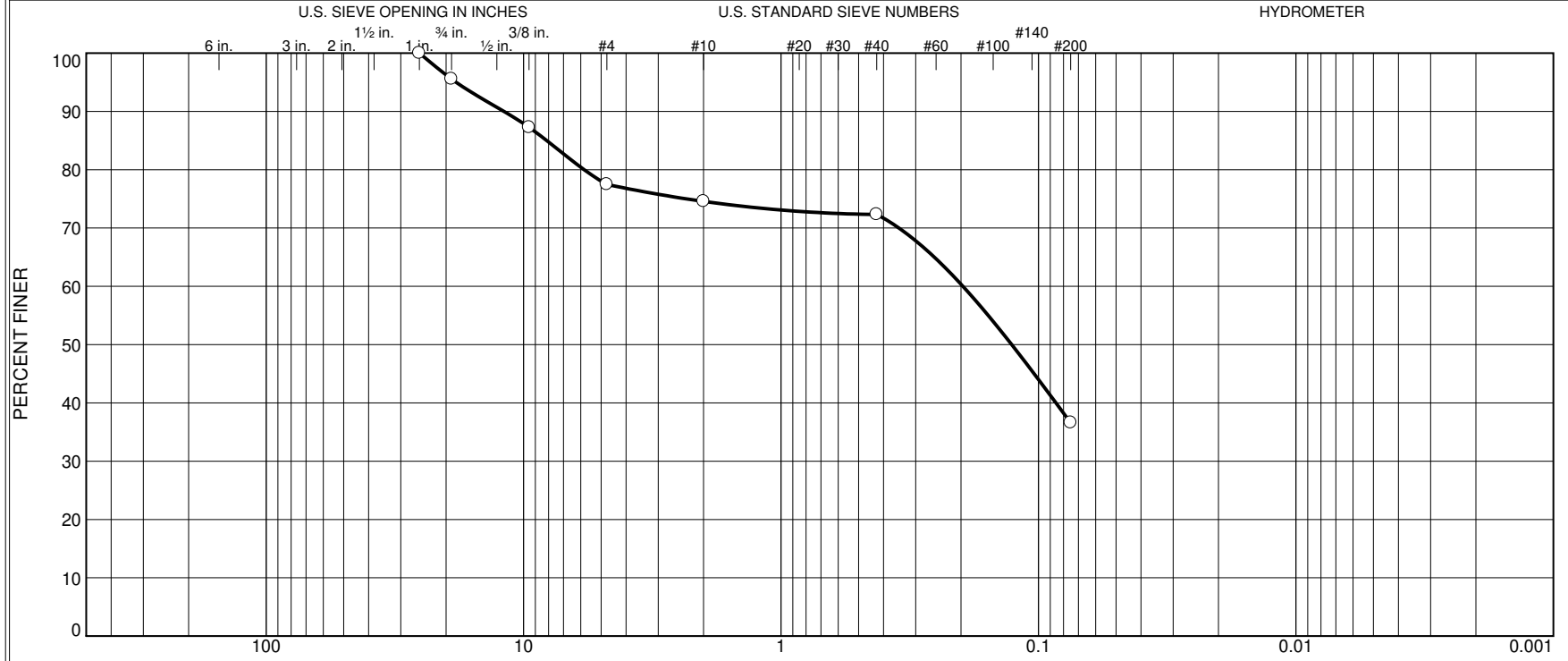
CALCAREOUS: Containing appreciable quantities of calcium carbonate.

WELL GRADED: Having wide range in grain sizes and substantial amounts of all intermediate particle size.

POORLY GRADED: Predominantly of one grain size, or having a range of sizes with some intermediate size missing

Appendix D: Laboratory Test Summary

Particle Size Distribution Report



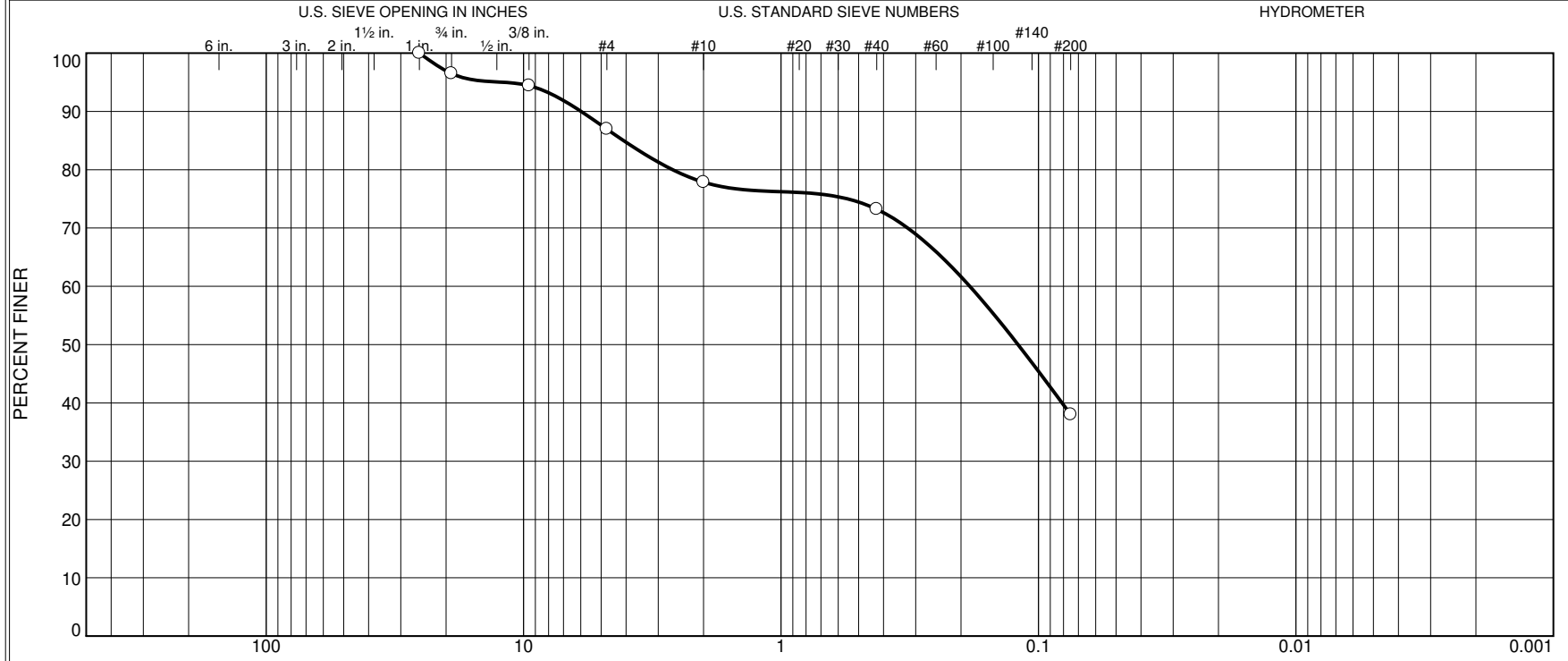
% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	4.4	18.1	2.9	2.3	35.7	36.6	

Source	Sample #	Depth/Elev.	Date Sampled	AASHTO	Material Description	NM %	LL	PL
B-1	S-1	0	6-15-2023	A-6(2)	RED-BROWN, CLAYEY SAND W/ GRAVEL	9.7	38	22

Client HOPE CONSULTING	Materials Testing of Arkansas
Project 50 ACRES SUBDIVISION	
Project No. GEO23-097 Figure	
Little Rock, AR	

Tested By: S. PENNINGTON **Checked By:** F. MONDUN

Particle Size Distribution Report



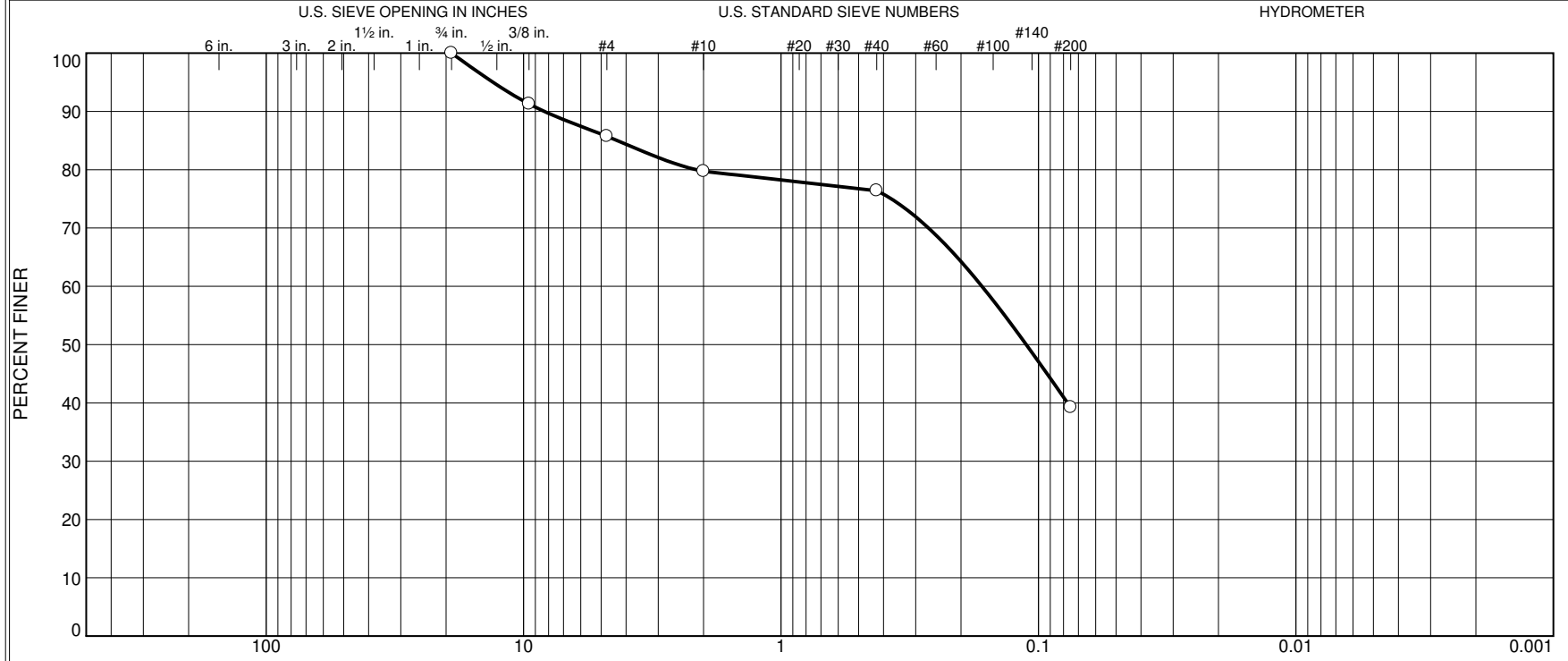
% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	3.5	9.5	9.1	4.7	35.2	38.0	

Source	Sample #	Depth/Elev.	Date Sampled	AASHTO	Material Description	NM %	LL	PL
B-2	S-2	2	6-15-2023	A-6(2)	TANNISH GRAY TO RED, CLAYEY SAND	18.2	38	22

Client HOPE CONSULTING	Materials Testing of Arkansas	Little Rock, AR
Project 50 ACRES SUBDIVISION		
Project No. GEO23-097 Figure		

Tested By: S. PENNINGTON **Checked By:** F. MONDUN

Particle Size Distribution Report



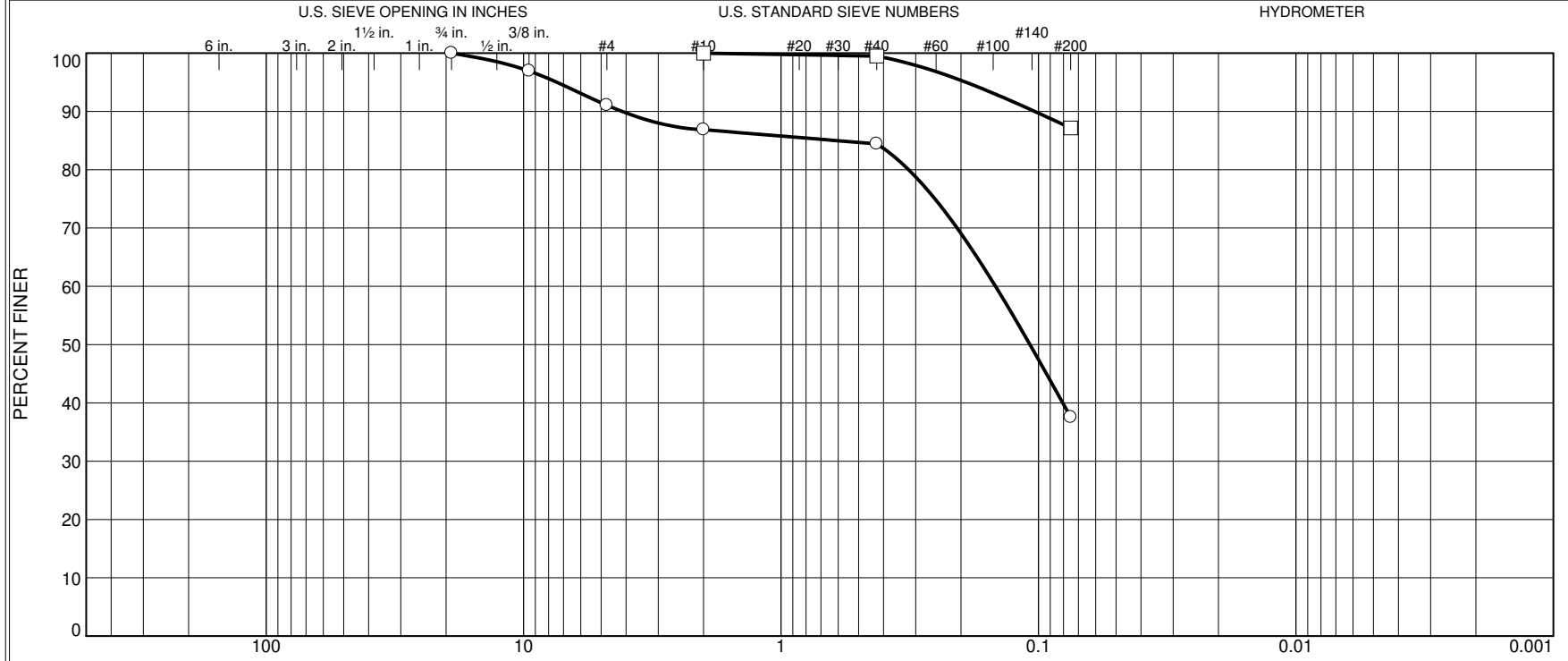
% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	14.3	6.0	3.3	37.2	39.2	

Source	Sample #	Depth/Elev.	Date Sampled	AASHTO	Material Description	NM %	LL	PL
B-4	S-1	0	6-15-2023	A-4(0)	TAN-RED, CLAYEY SAND	10.7	24	14

Client HOPE CONSULTING	Materials Testing of Arkansas
Project 50 ACRES SUBDIVISION	
Project No. GEO23-097 Figure	
Little Rock, AR	

Tested By: S. PENNINGTON **Checked By:** F. MONDUN

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	8.9	4.2	2.5	46.8	37.6	
0.0	0.0	0.0	0.0	0.5	12.3	87.2	

Source	Sample #	Depth/Elev.	Date Sampled	AASHTO	Material Description	NM %	LL	PL
B-5	S-1	0	6-15-2023	A-6(1)	TAN-RED, CLAYEY SAND	14.6	27	14
B-5	S-3	4	6-15-2023	A-6(14)	TANNISH RED TO GRAY, SANDY CLAY	36.1	35	18

Client HOPE CONSULTING	Materials Testing of Arkansas	Little Rock, AR
Project 50 ACRES SUBDIVISION		
Project No. GEO23-097 Figure		

Tested By: S. PENNINGTON **Checked By:** F. MONDUN

Appendix E: Seismic Design Criteria

ATC Hazards by Location

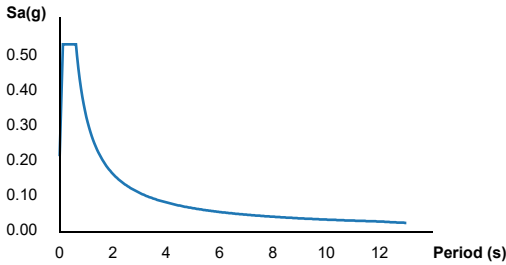
Search Information

Coordinates: 34.643606998951, -92.50461665805817
 Elevation: 542 ft
 Timestamp: 2023-06-27T19:08:20.123Z
 Hazard Type: Seismic
 Reference Document: IBC-2015
 Risk Category: II
 Site Class: D

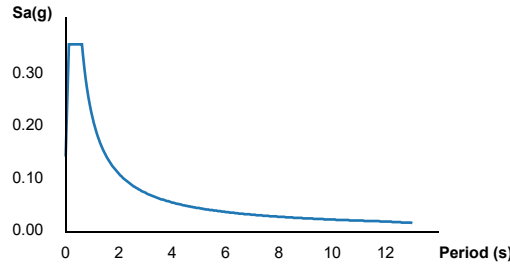


Map data ©2023 Imagery ©2023, Maxar Technologies, Pulaski Area GIS, State of Arkansas, U.S. Geological Survey, USDA/FPAC/GEO

MCER Horizontal Response Spectrum



Design Horizontal Response Spectrum



Basic Parameters

Name	Value	Description
S_S	0.352	MCE_R ground motion (period=0.2s)
S_1	0.148	MCE_R ground motion (period=1.0s)
S_{MS}	0.534	Site-modified spectral acceleration value
S_{M1}	0.326	Site-modified spectral acceleration value
S_{DS}	0.356	Numeric seismic design value at 0.2s SA
S_{D1}	0.218	Numeric seismic design value at 1.0s SA

Additional Information

Name	Value	Description
SDC	D	Seismic design category
F_a	1.519	Site amplification factor at 0.2s
F_v	2.209	Site amplification factor at 1.0s
CR_S	0.839	Coefficient of risk (0.2s)
CR_1	0.817	Coefficient of risk (1.0s)
PGA	0.18	MCE_G peak ground acceleration
F_{PGA}	1.439	Site amplification factor at PGA
PGA_M	0.26	Site modified peak ground acceleration
T_L	12	Long-period transition period (s)
S_sRT	0.352	Probabilistic risk-targeted ground motion (0.2s)
S_sUH	0.419	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
S_sD	1.5	Factored deterministic acceleration value (0.2s)
S_1RT	0.148	Probabilistic risk-targeted ground motion (1.0s)
S_1UH	0.181	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
S_1D	0.6	Factored deterministic acceleration value (1.0s)

PGAd	0.6	Factored deterministic acceleration value (PGA)
------	-----	---

The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

Please note that the ATC Hazards by Location website will not be updated to support ASCE 7-22. [Find out why.](#)

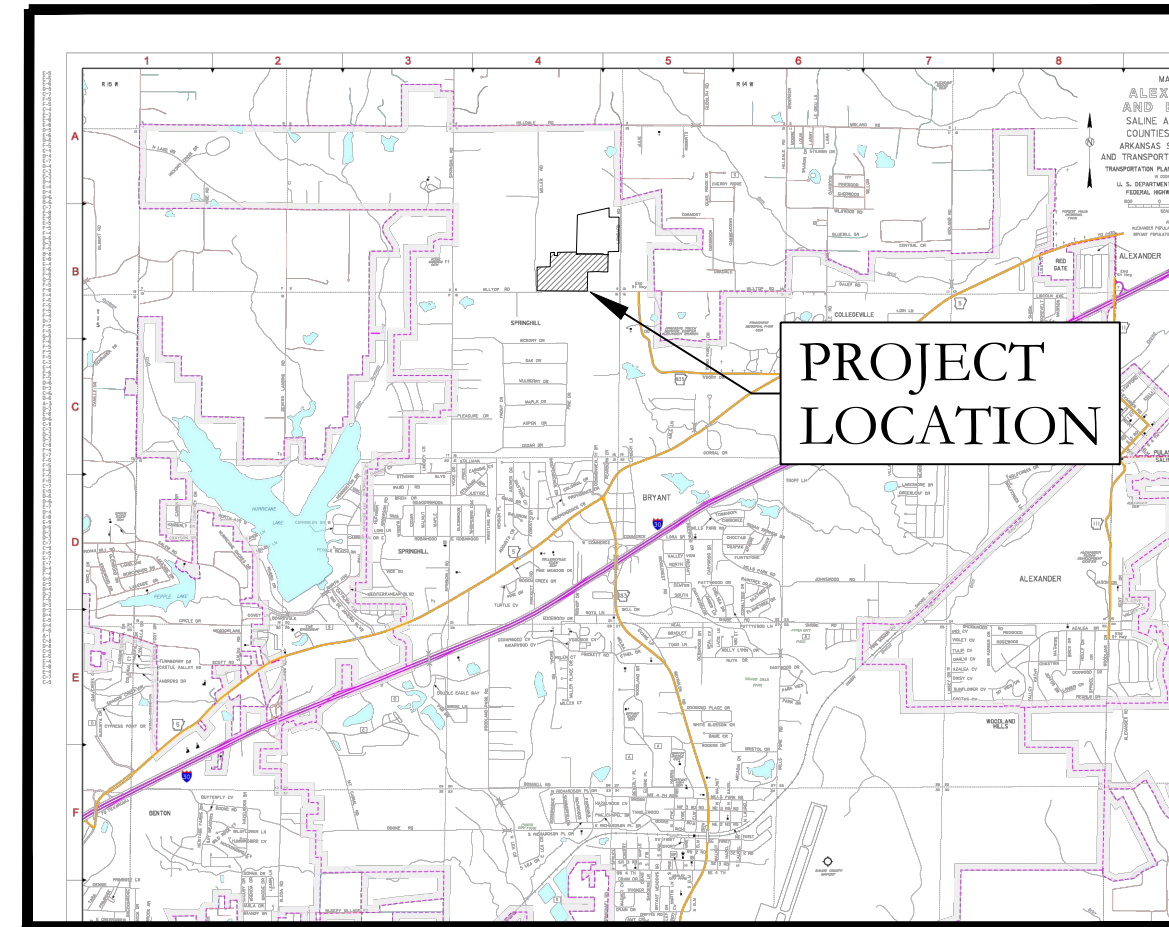
Disclaimer

Hazard loads are provided by the U.S. Geological Survey [Seismic Design Web Services](#).

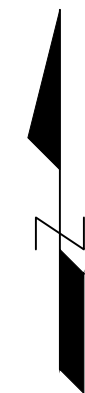
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CONSTRUCTION PLANS HILLTOP LANDING

HILLTOP ROAD & MILLER ROAD ,BRYANT, AR



VICINITY MAP



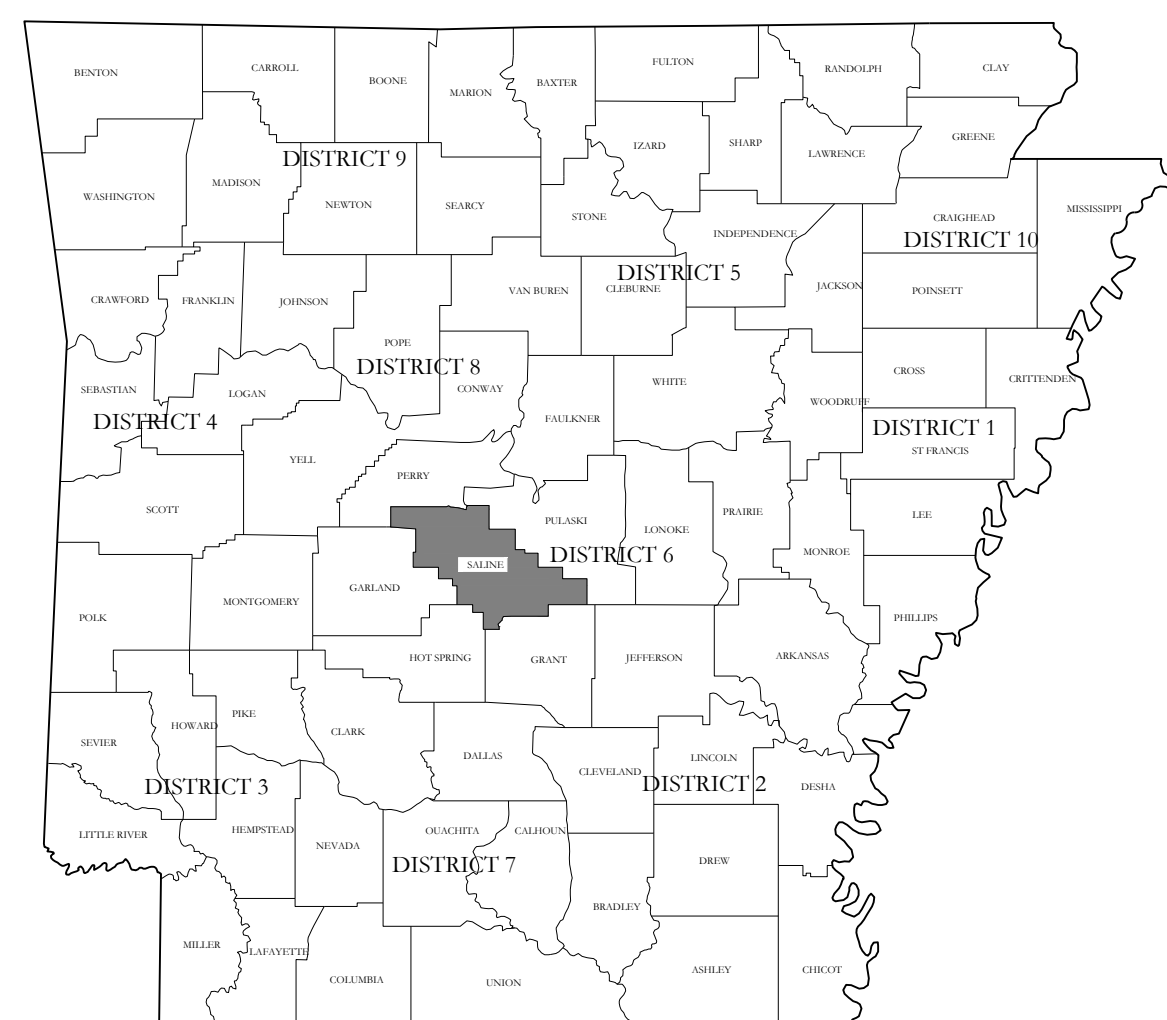
PREPARED BY:

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Benton, Arkansas 72015
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DRAWING INDEX

SHEET NO.	TITLE
	PLAT
C-1.0	STREET PLAN & PROFILE
C-1.1	STREET PLAN & PROFILE
C-1.2	STREET PLAN & PROFILE
C-2.0	UTILITY PLAN
C-2.1	SEWER PLAN & PROFILE
C-2.2	SEWER PLAN & PROFILE
C-2.3	SEWER PLAN & PROFILE
C-3.1	STORM PLAN & PROFILE
C-3.2	STORM PLAN & PROFILE
C-3.3	STORM PLAN & PROFILE
C-3.4	STORM PLAN & PROFILE
C-4.0	TRENCH AND SPECIAL DETAILS
C-5.0	CIVIL SPECIFICATIONS
C-6.0	DETENTION
C-6.1	DETENTION
C-7.0	EROSION CONTROL PLAN



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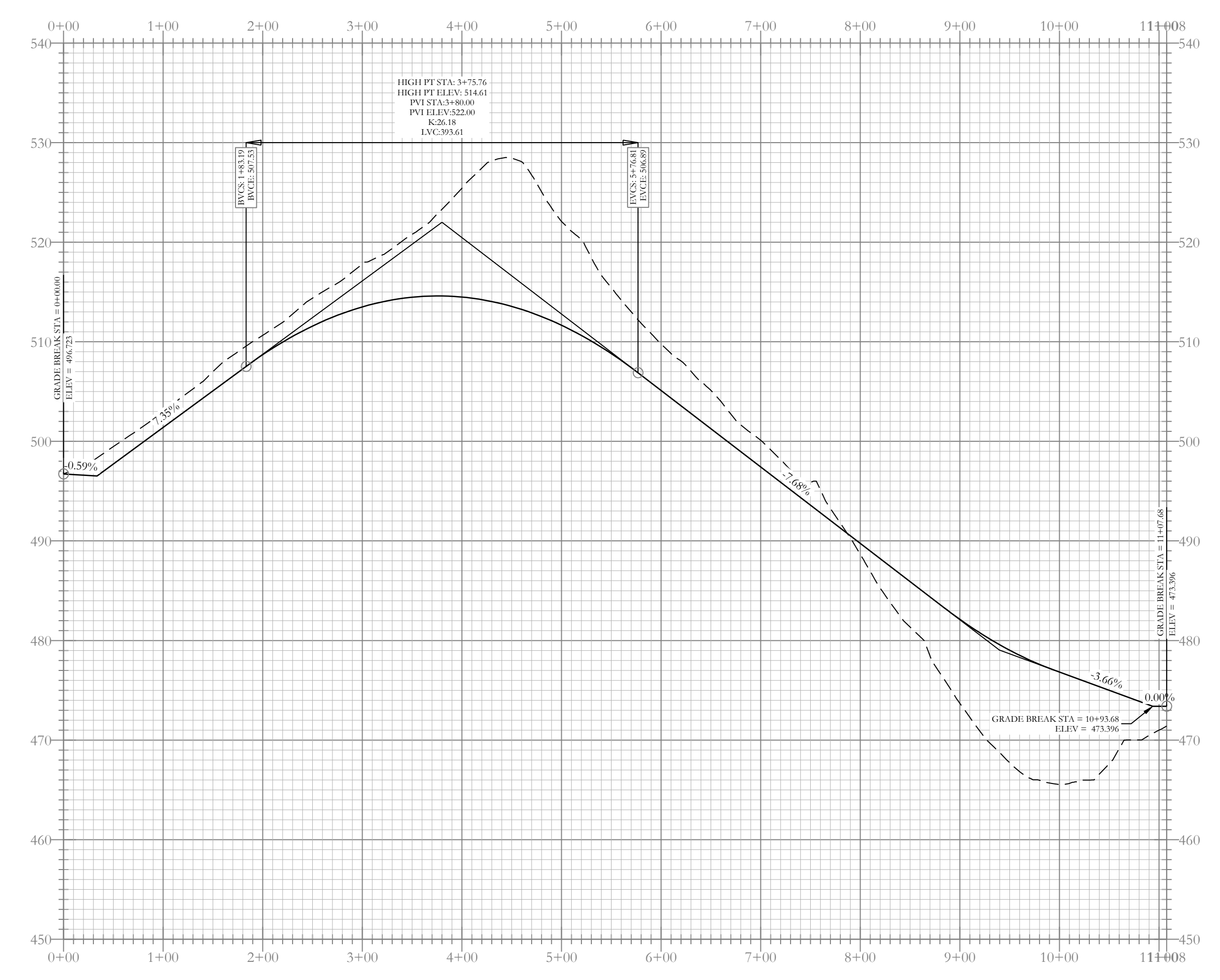
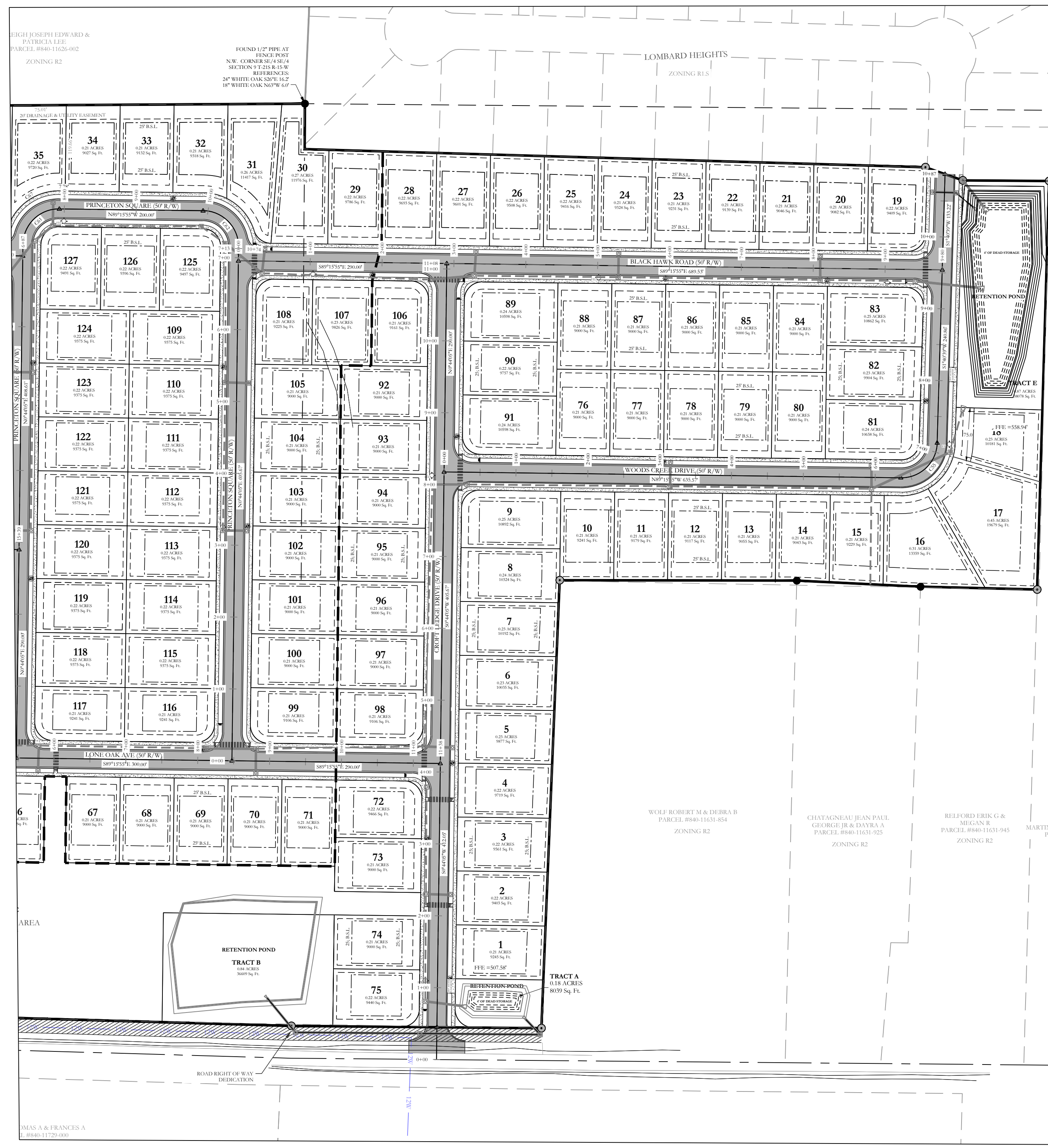
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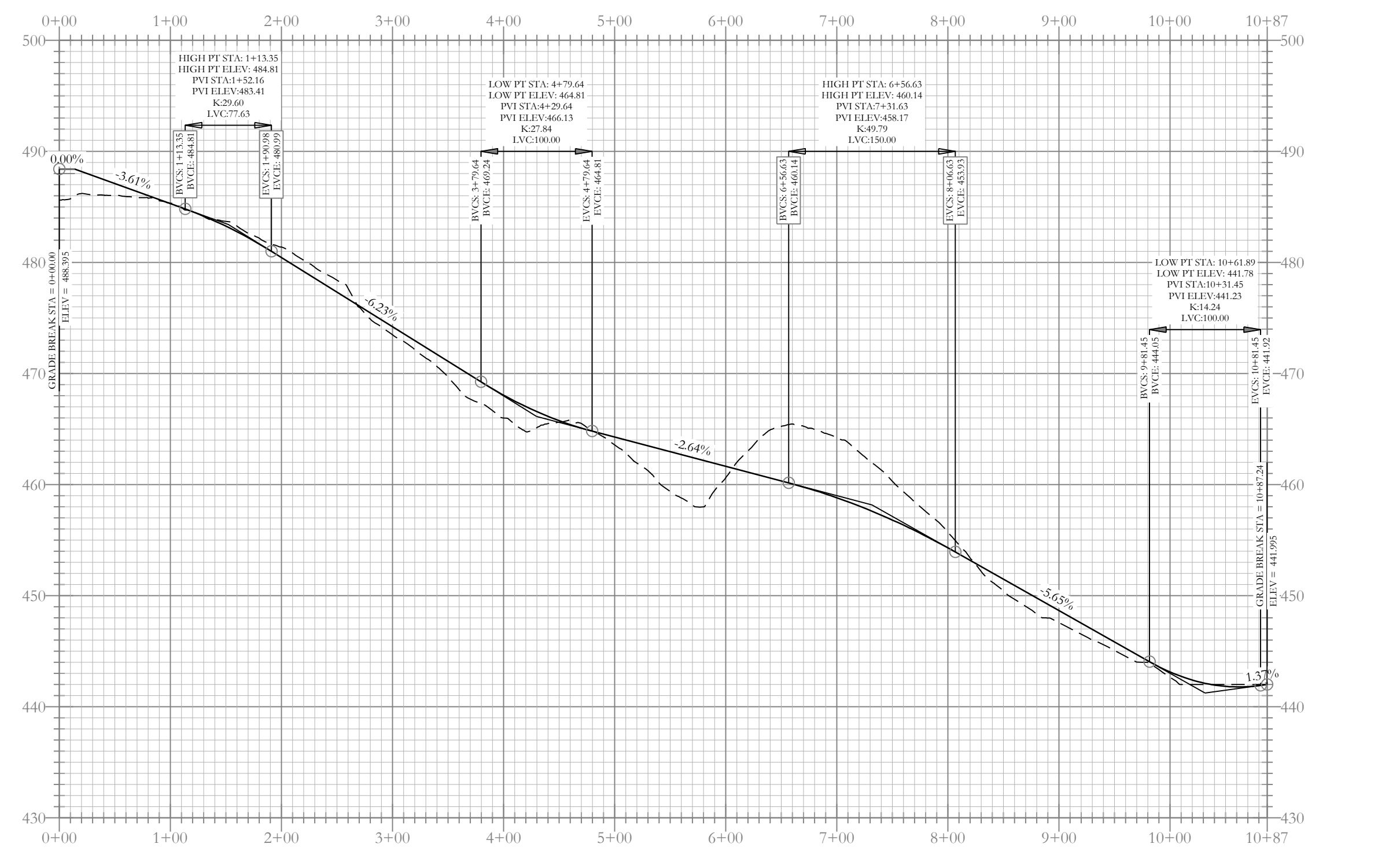
HILLTOP LANDING
A SUBDIVISION IN THE CITY OF BRYANT, AR
HILLTOP ROAD & MILLER ROAD, BRYANT, AR

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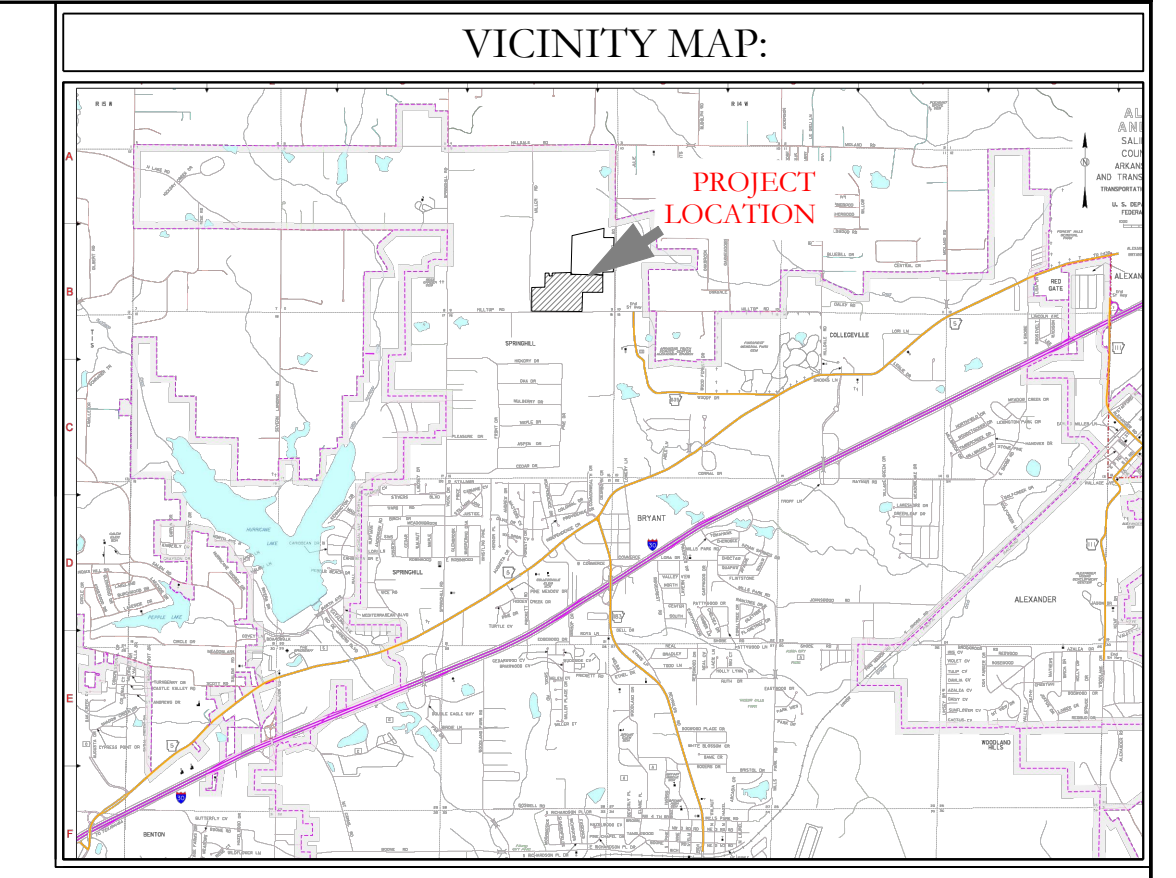
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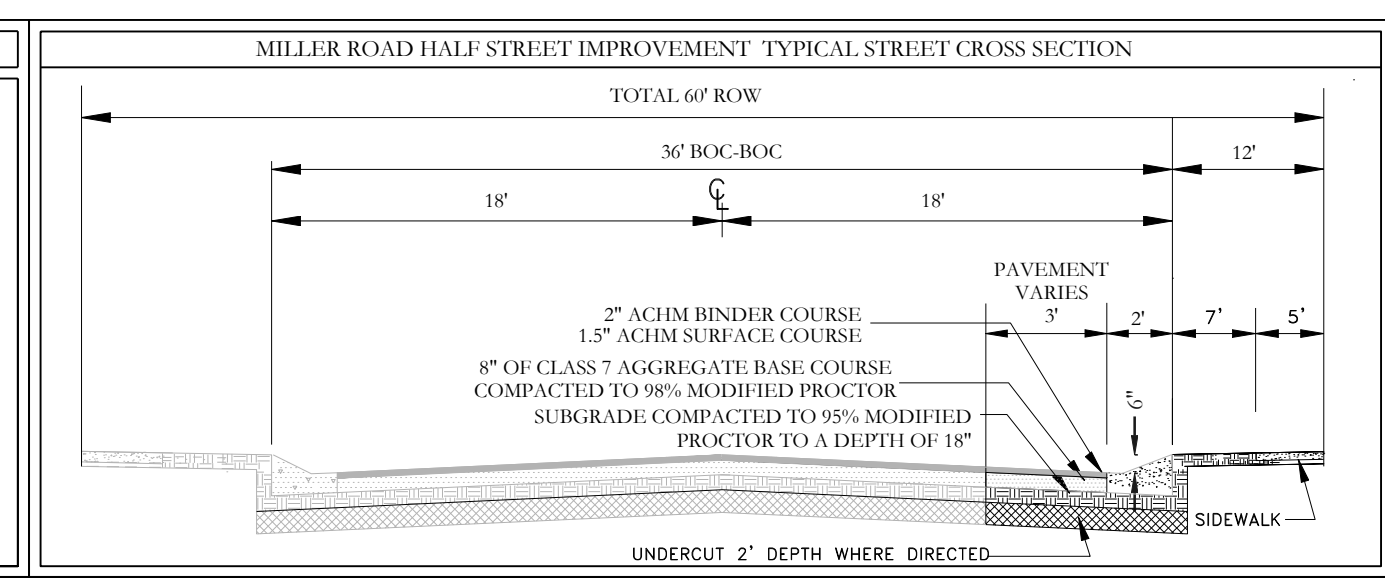
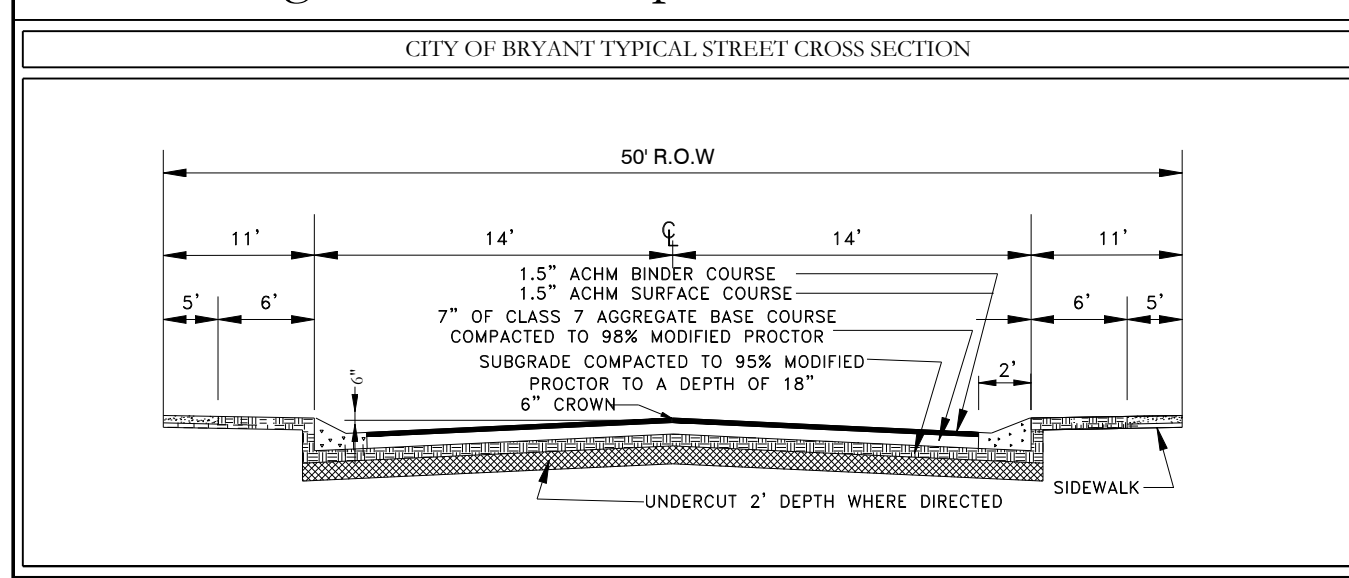
Croft Ledge Drive Profile



Wood Creek Drive Profile



N.B :All sidewalk ramps will have ADA requirements with corrugated dome ramp .



--- HDPE
 --- RCP

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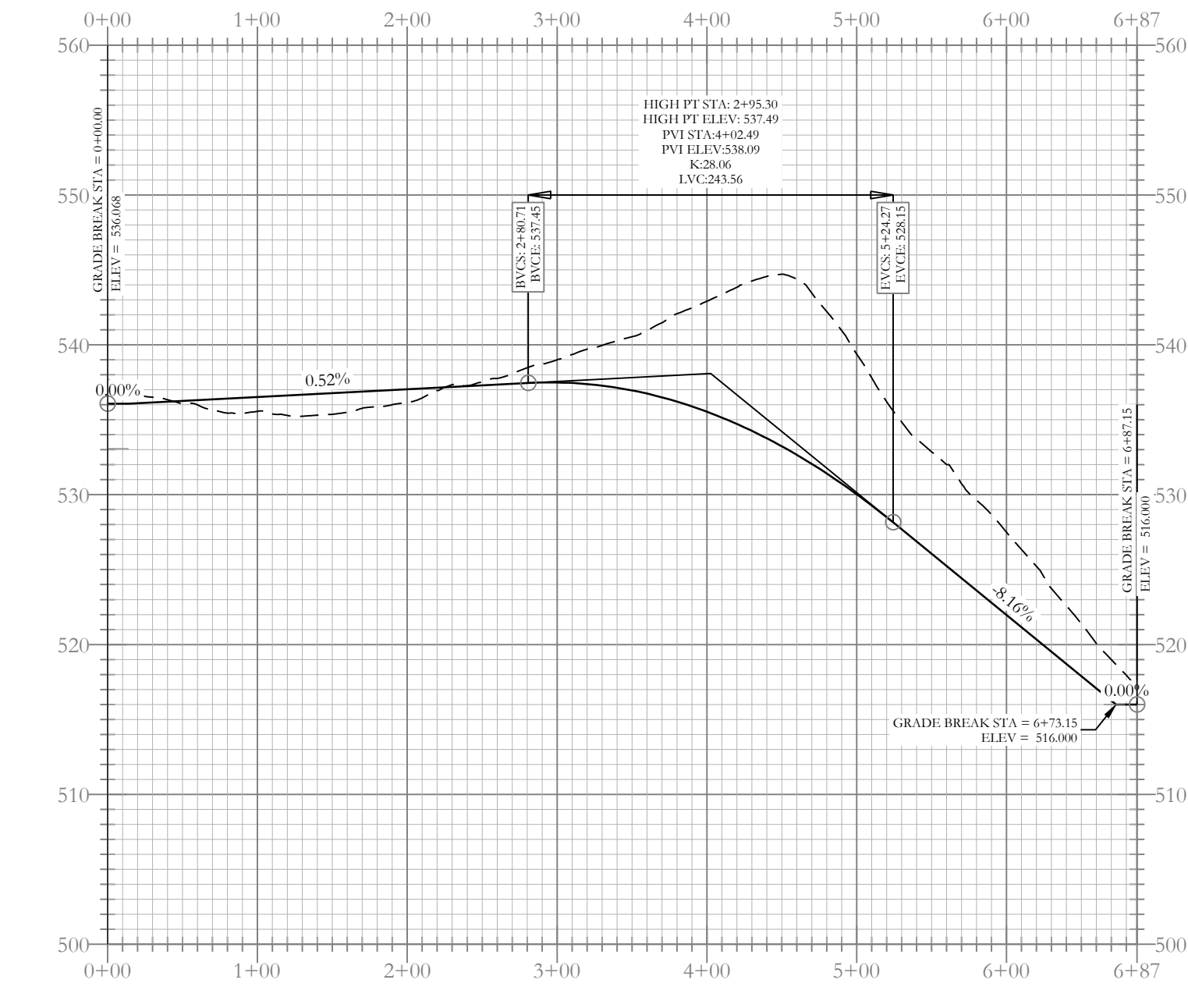
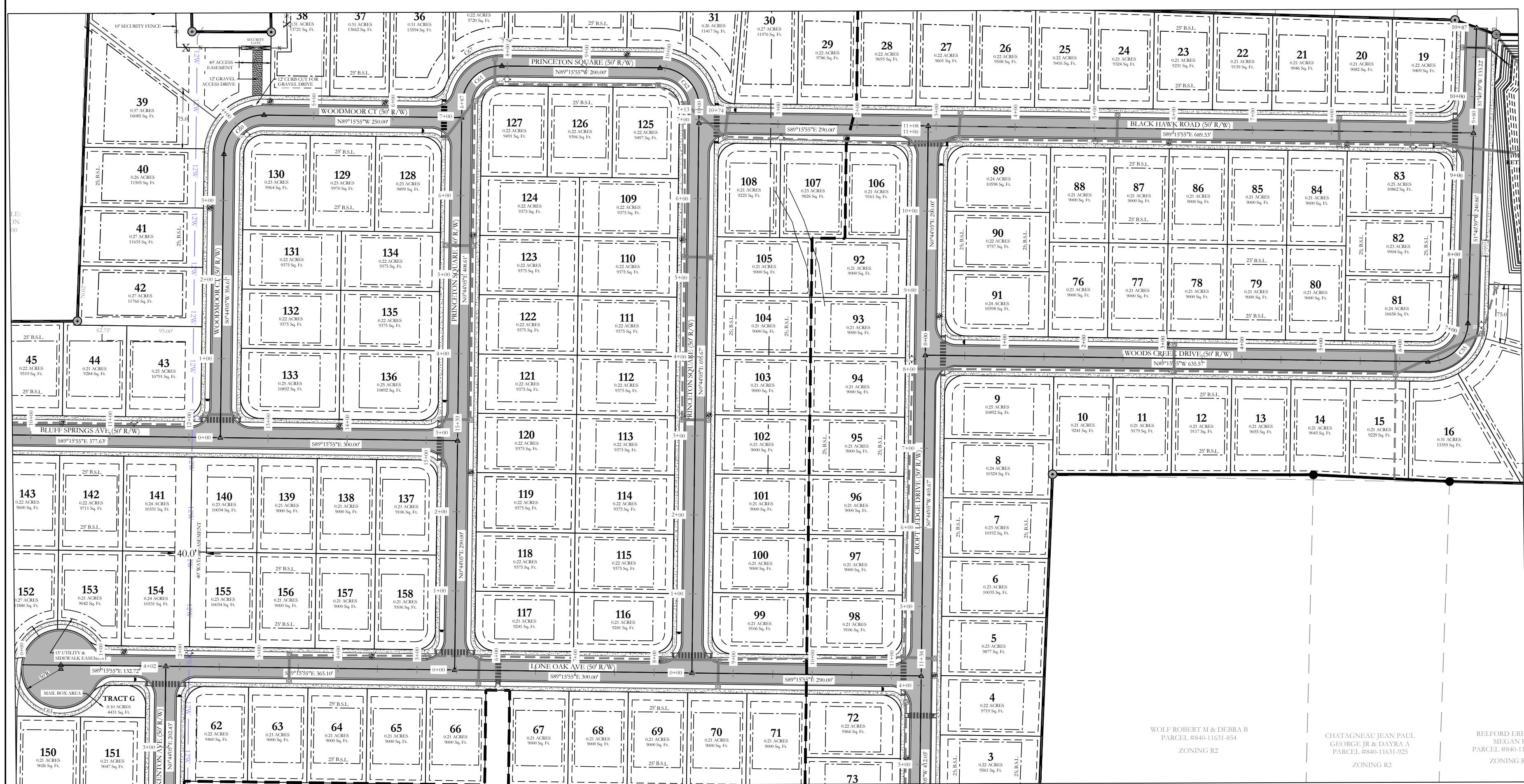
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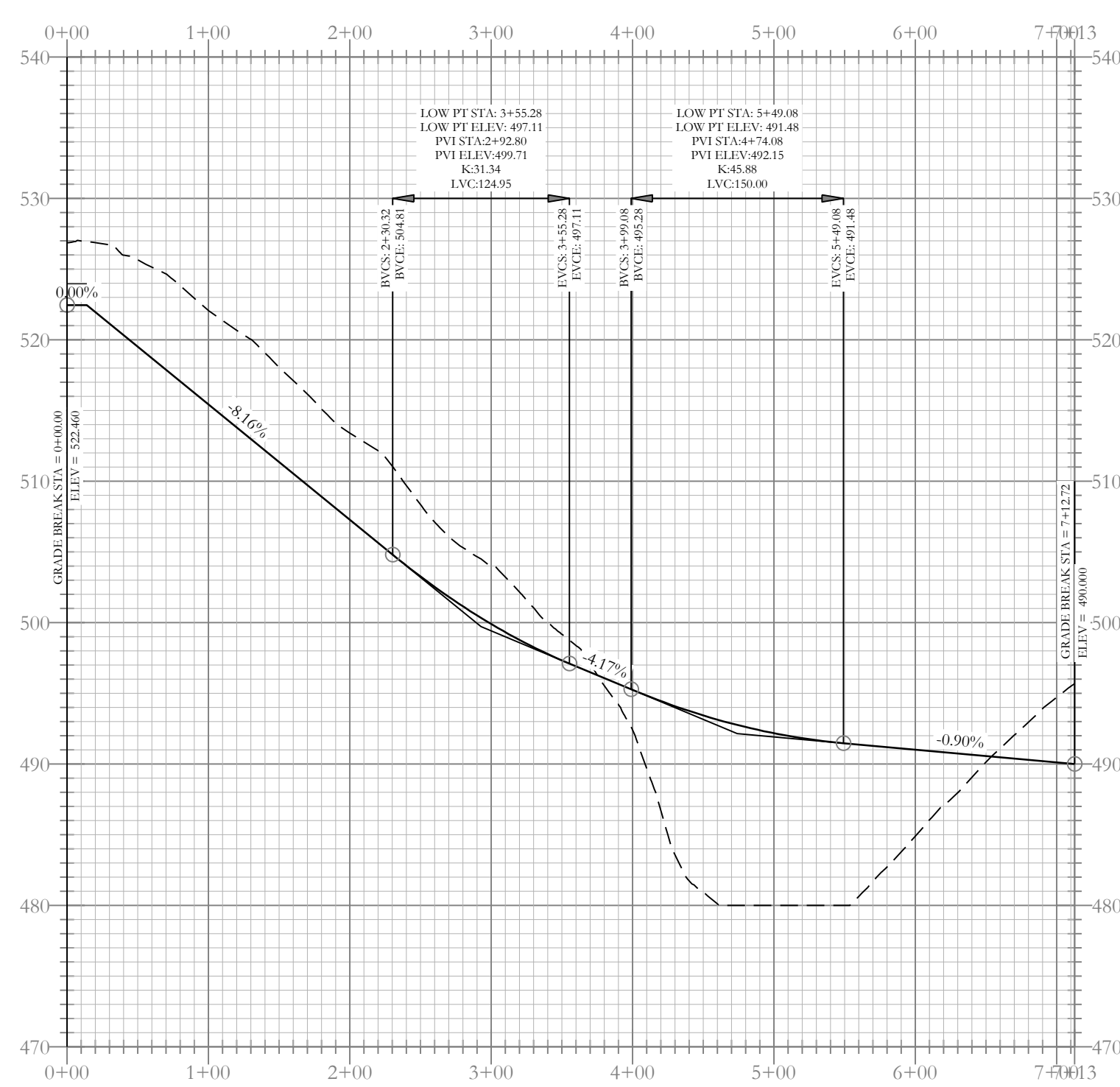
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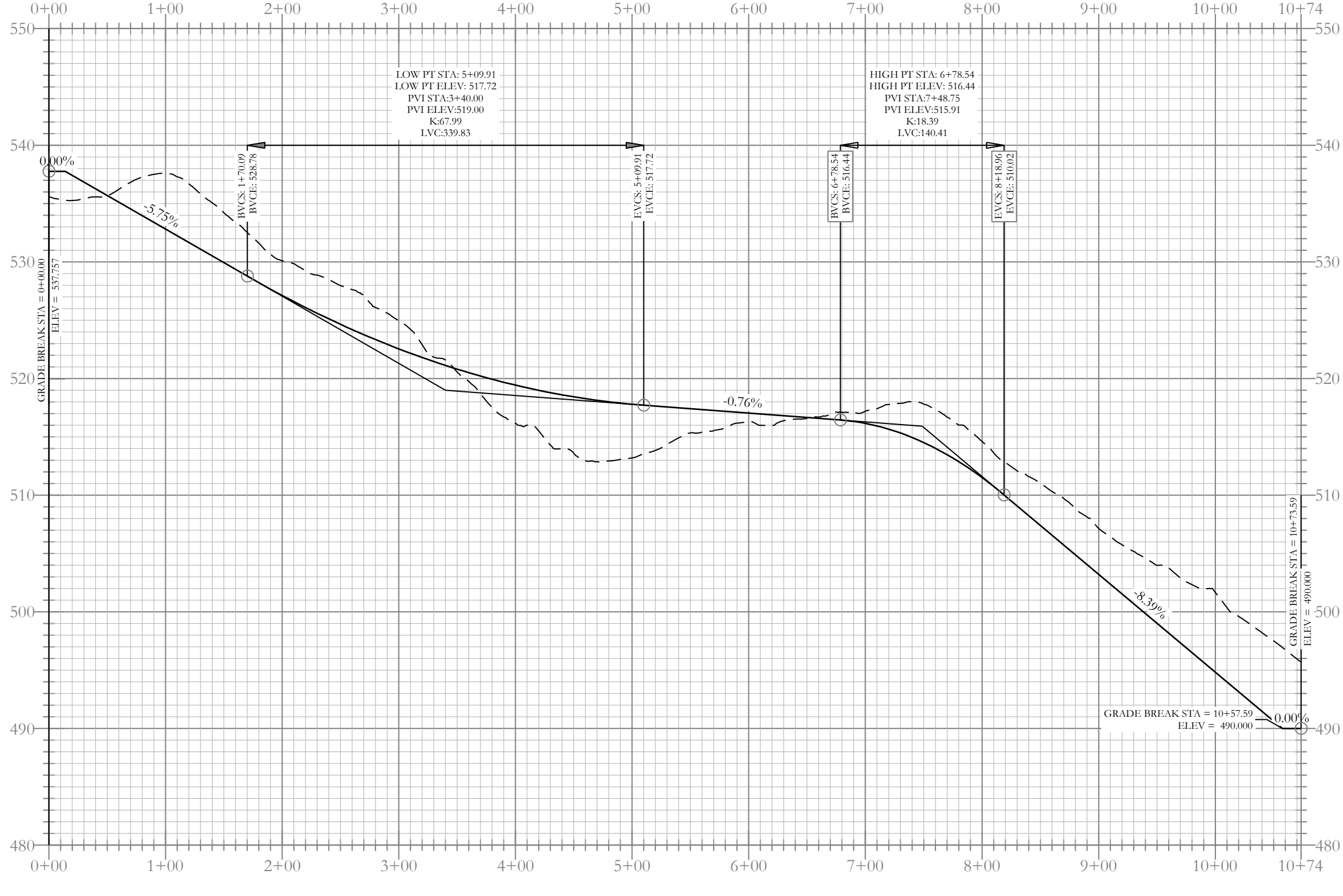
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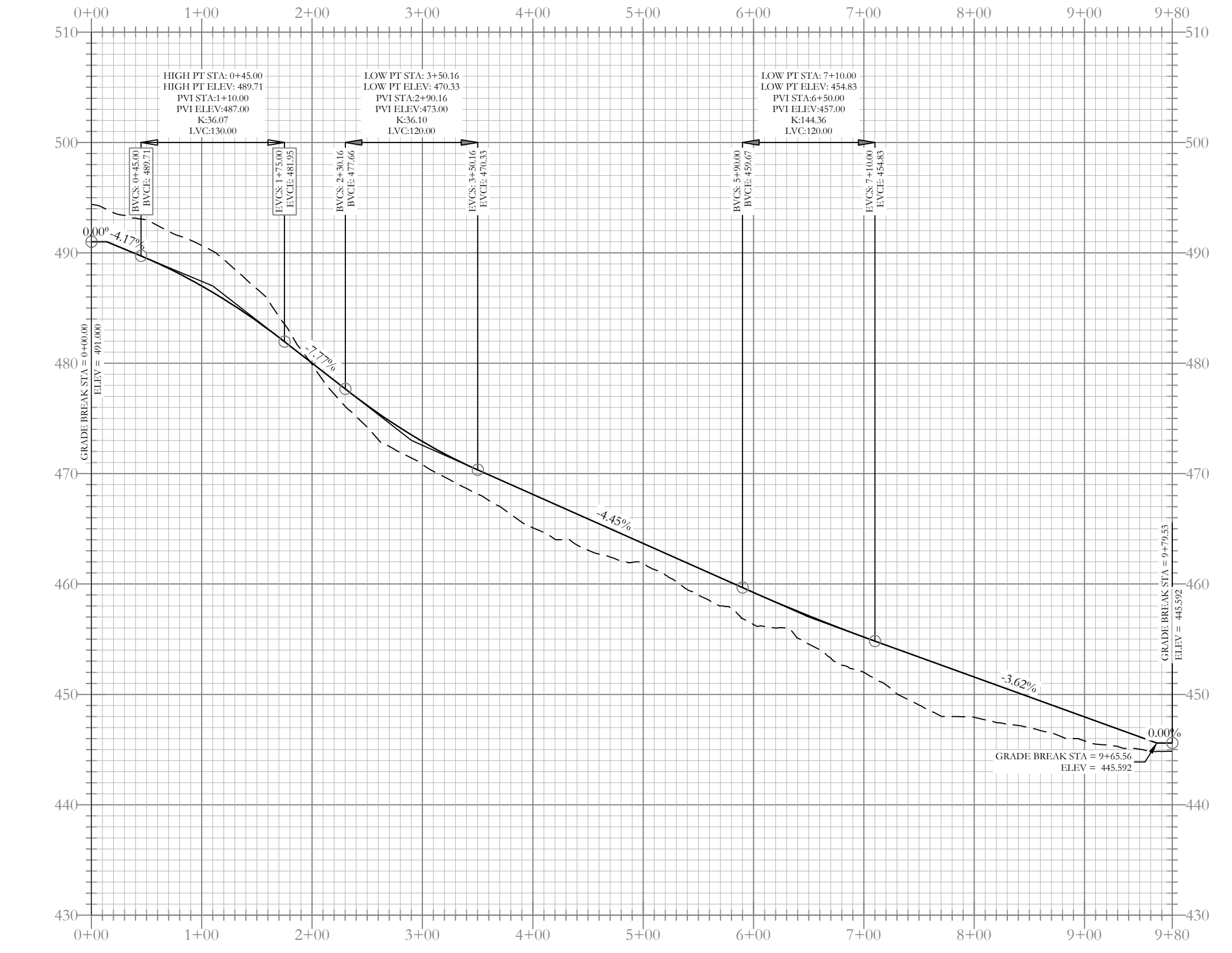
Woodmoor Ct Profile



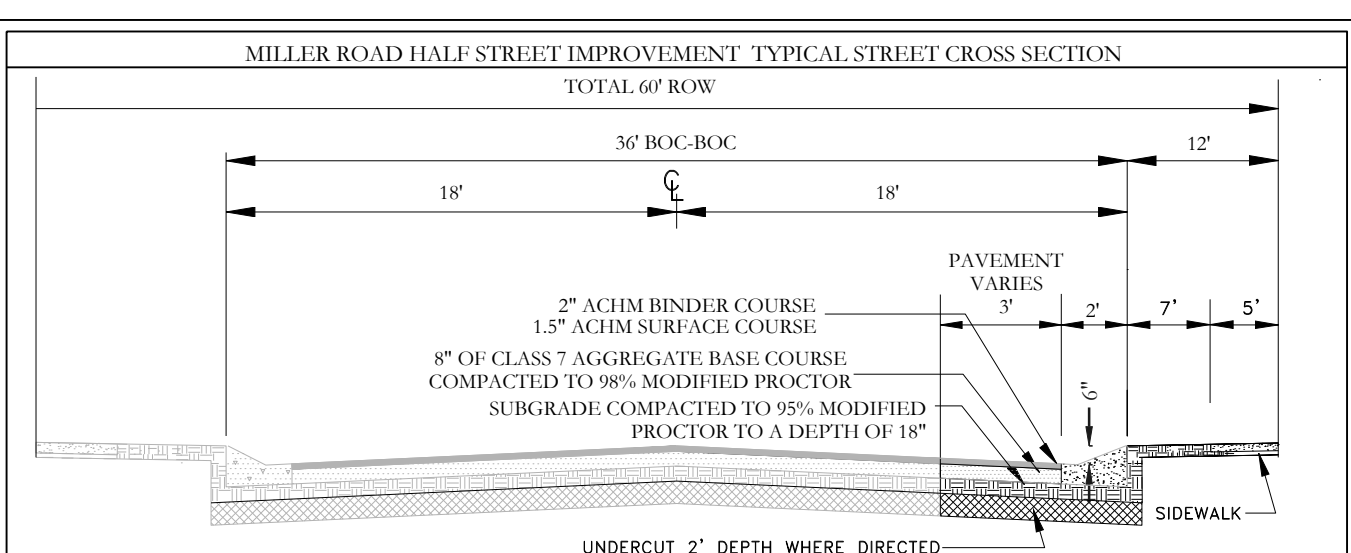
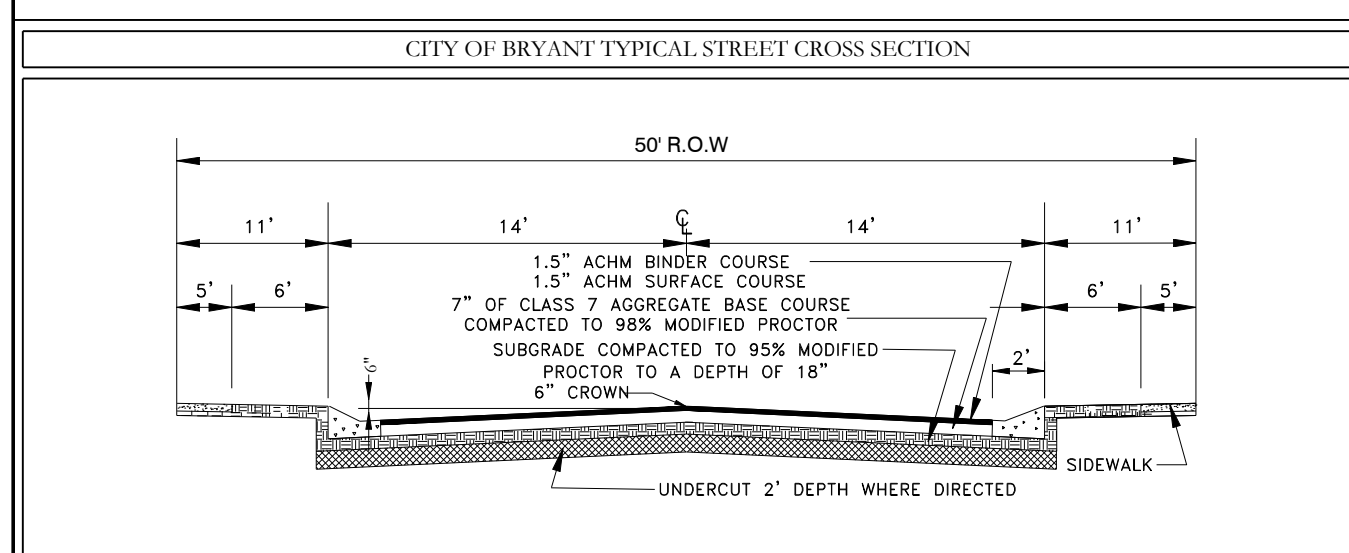
Princeton Square Profile



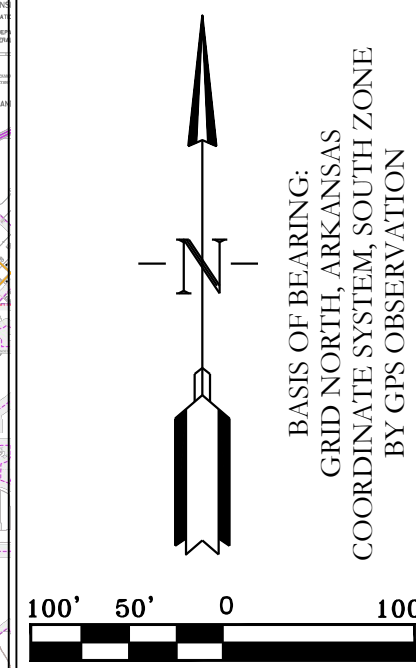
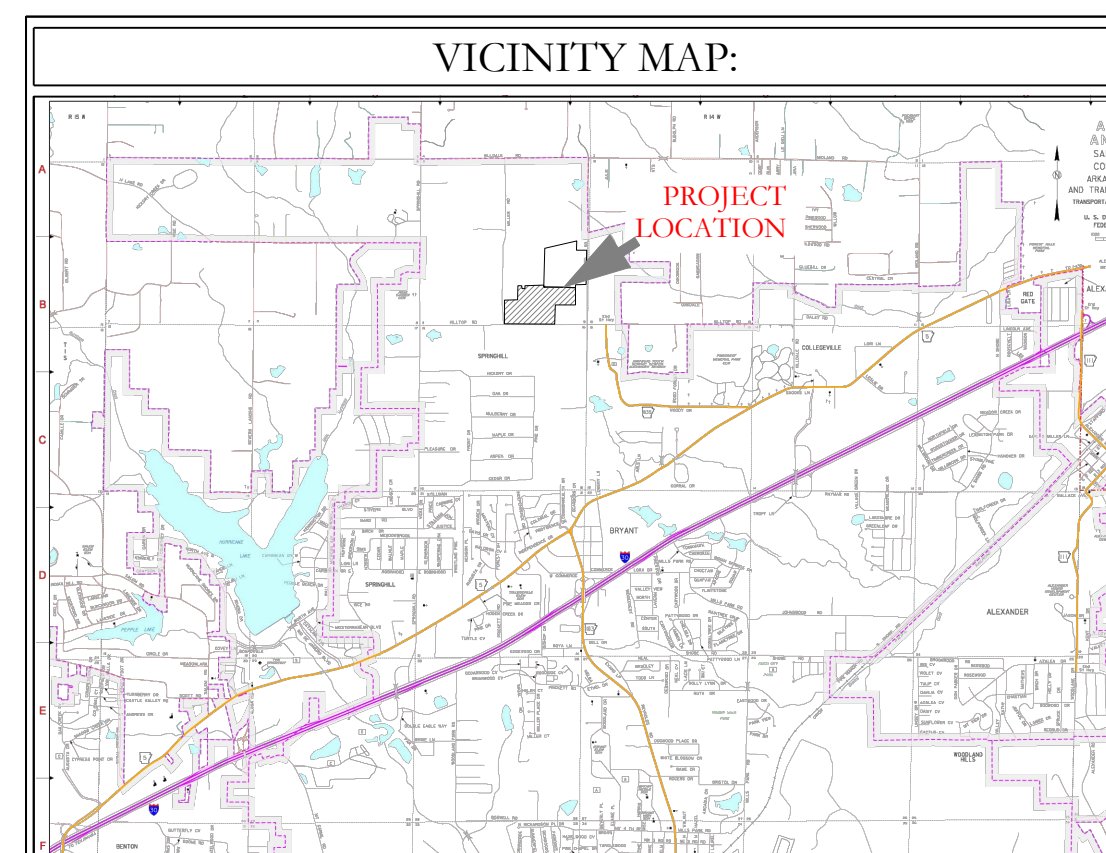
Princeton Square Profile



Black Hawk Profile



N.B : All sidewalk ramps will have ADA requirements with corrugated dome ramp .

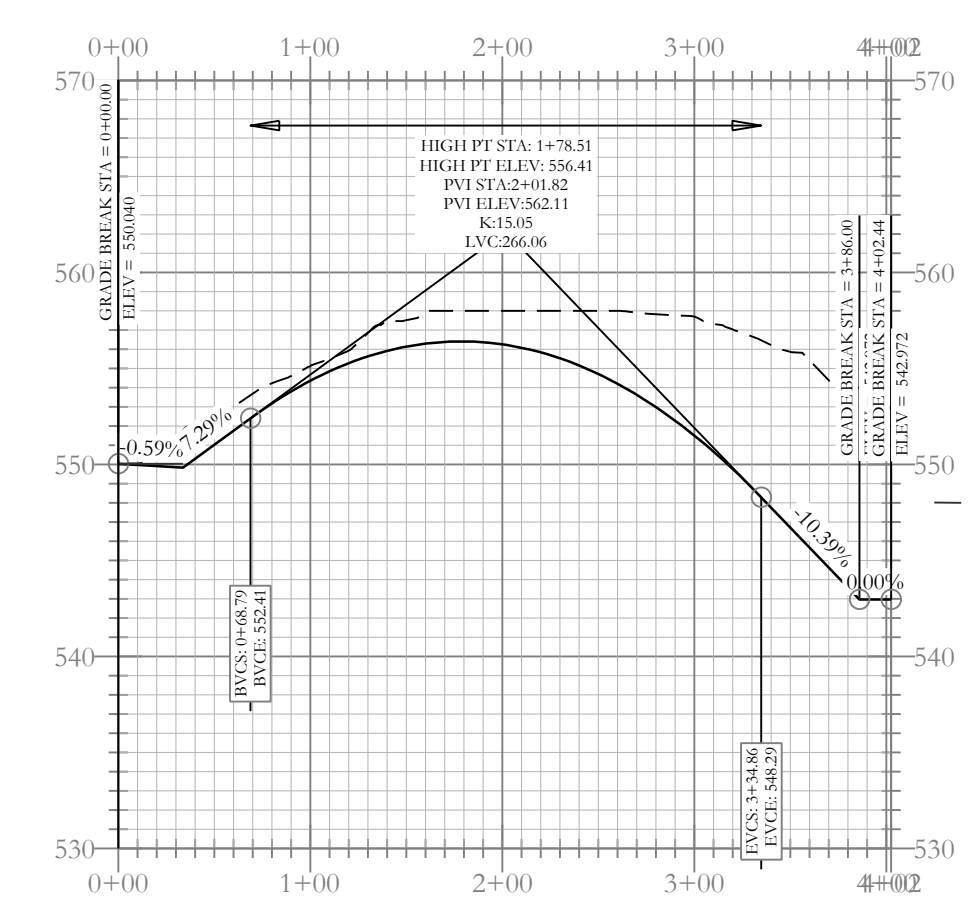
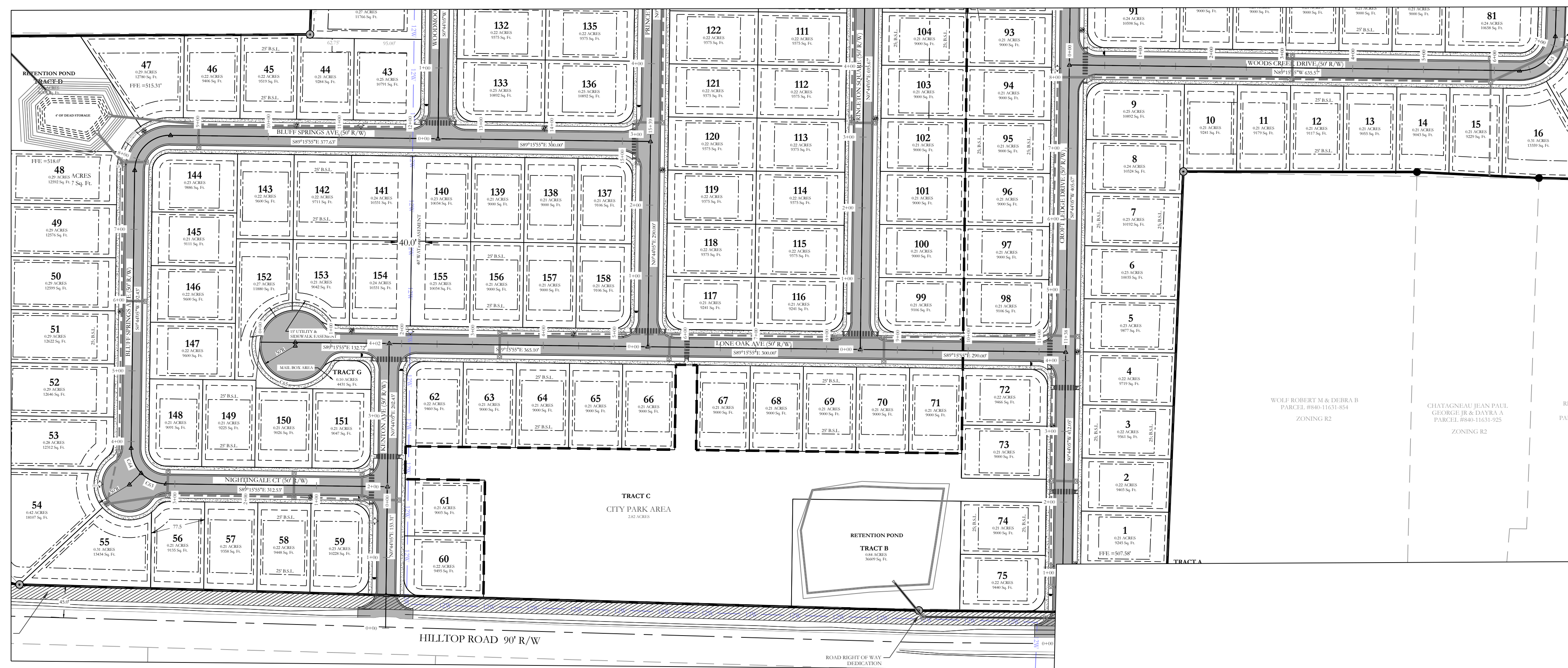


--- HDPE
— RCP

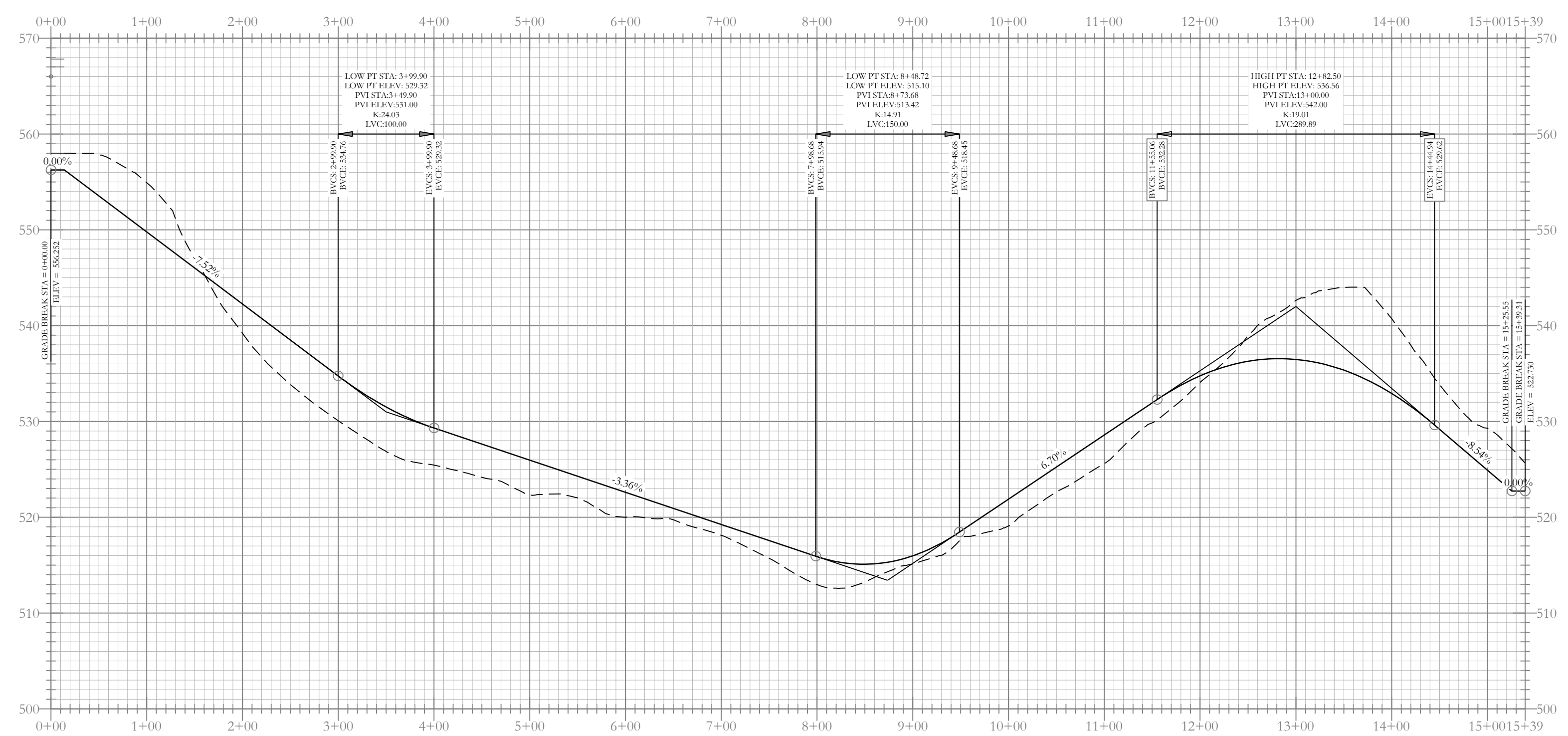
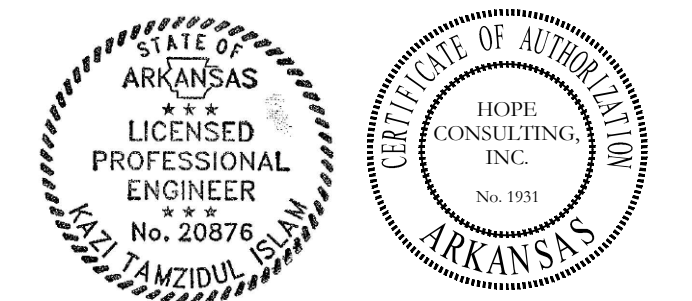
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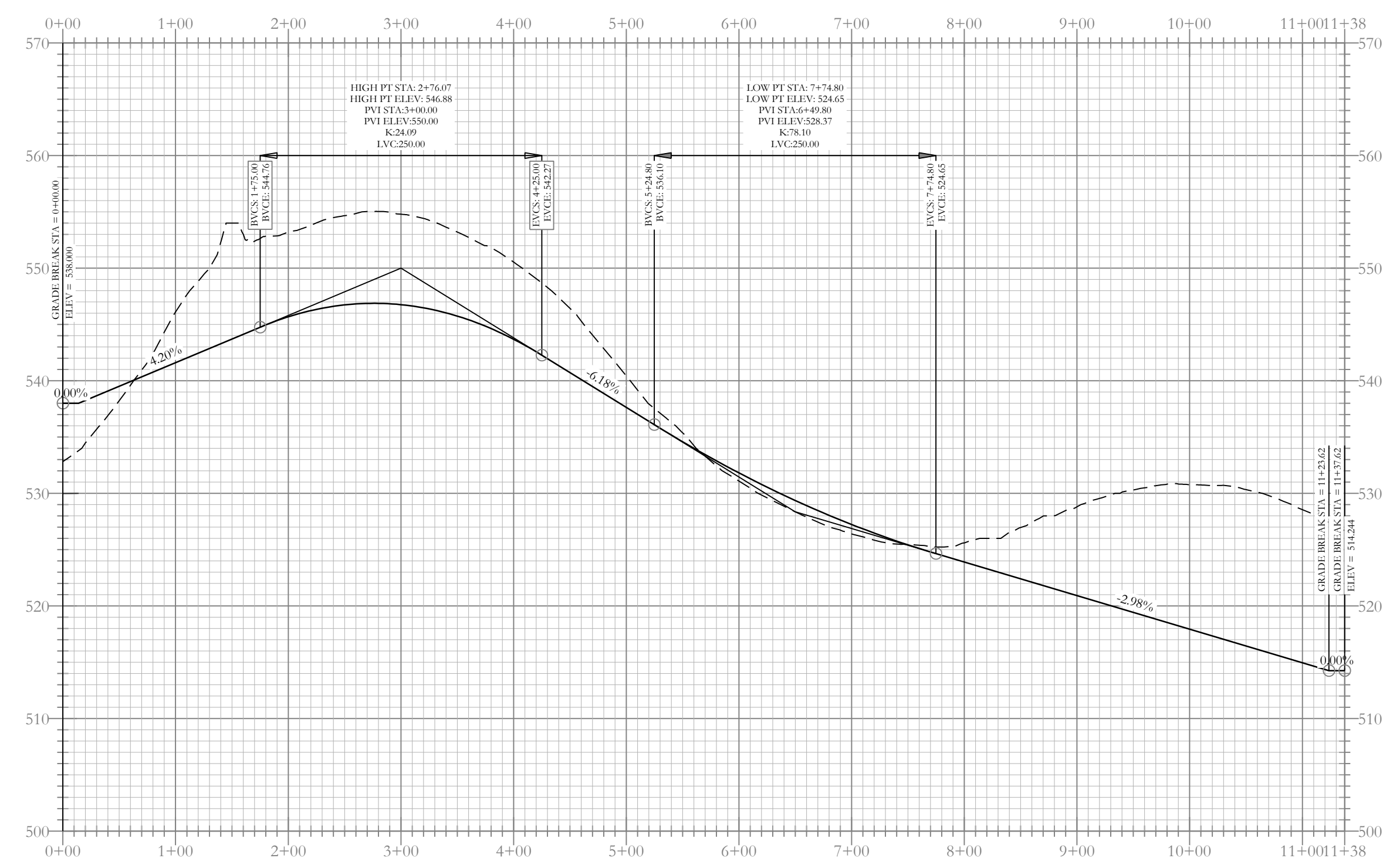
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HILLTOP LANDING STREET PLAN & PROFILE A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS			
DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:	
REVISID: 08/07/2023	CHECKED BY:	20-1341	
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Kenton Ave Profile

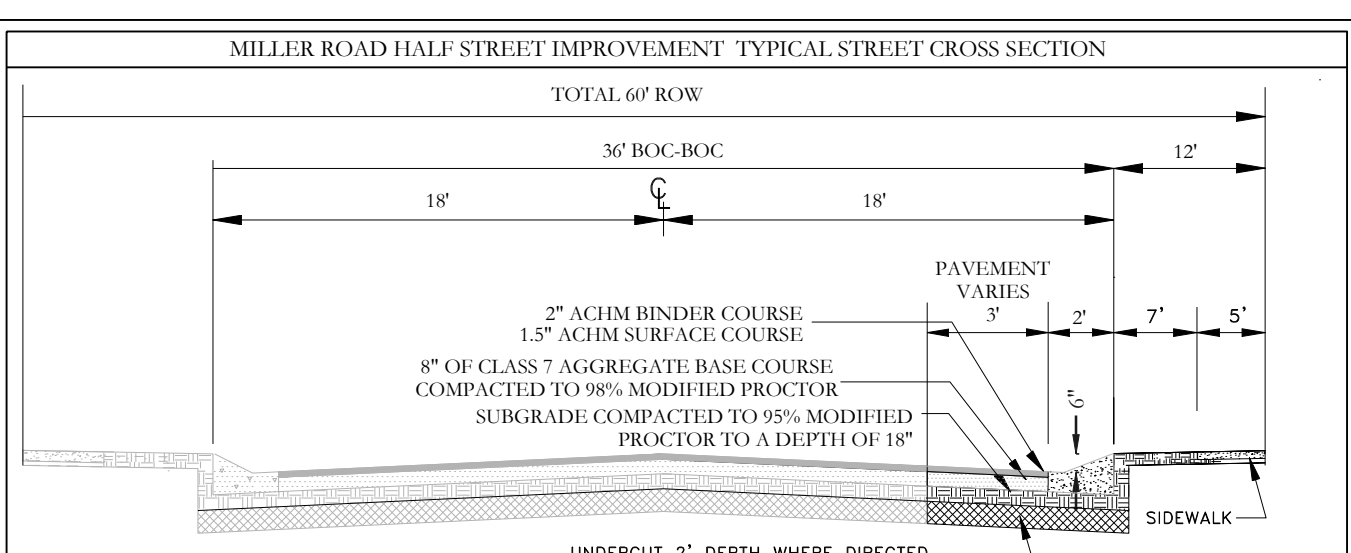
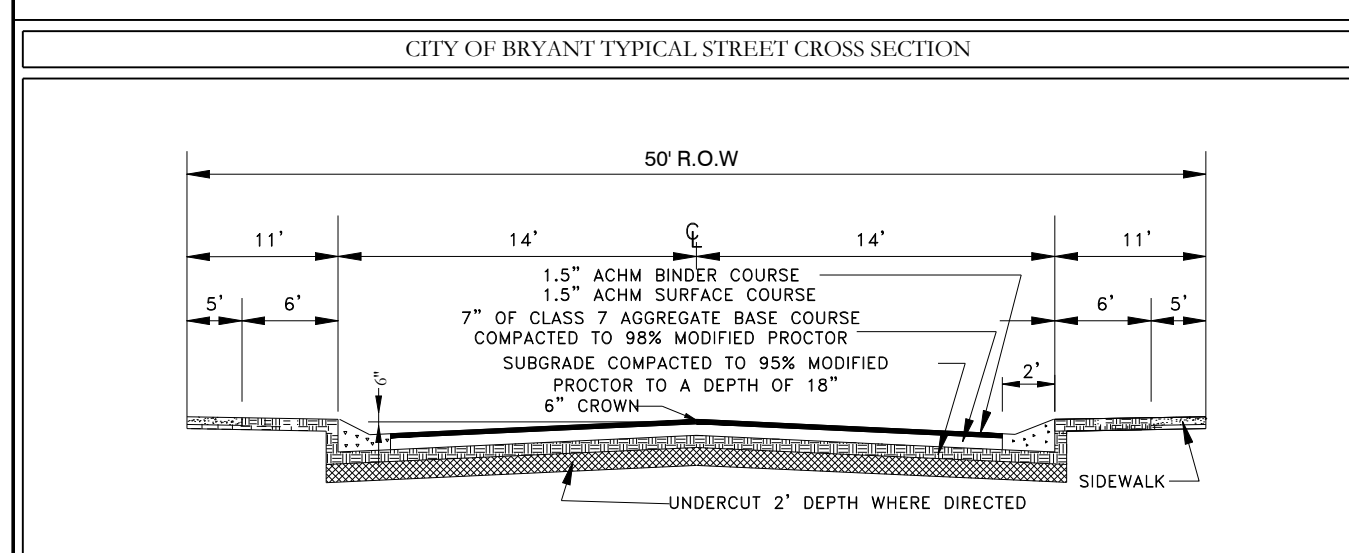


Nightingale Ct-Bluff Springs Ave Profile

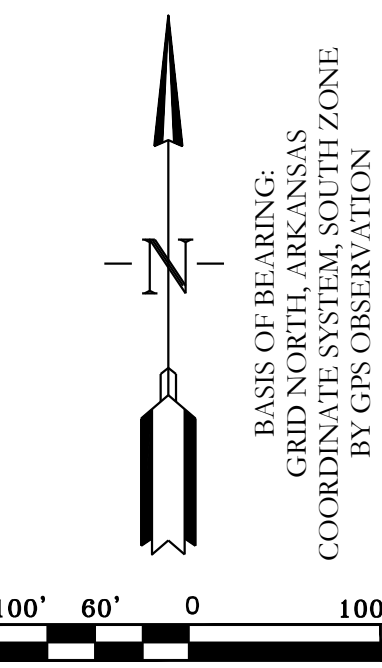
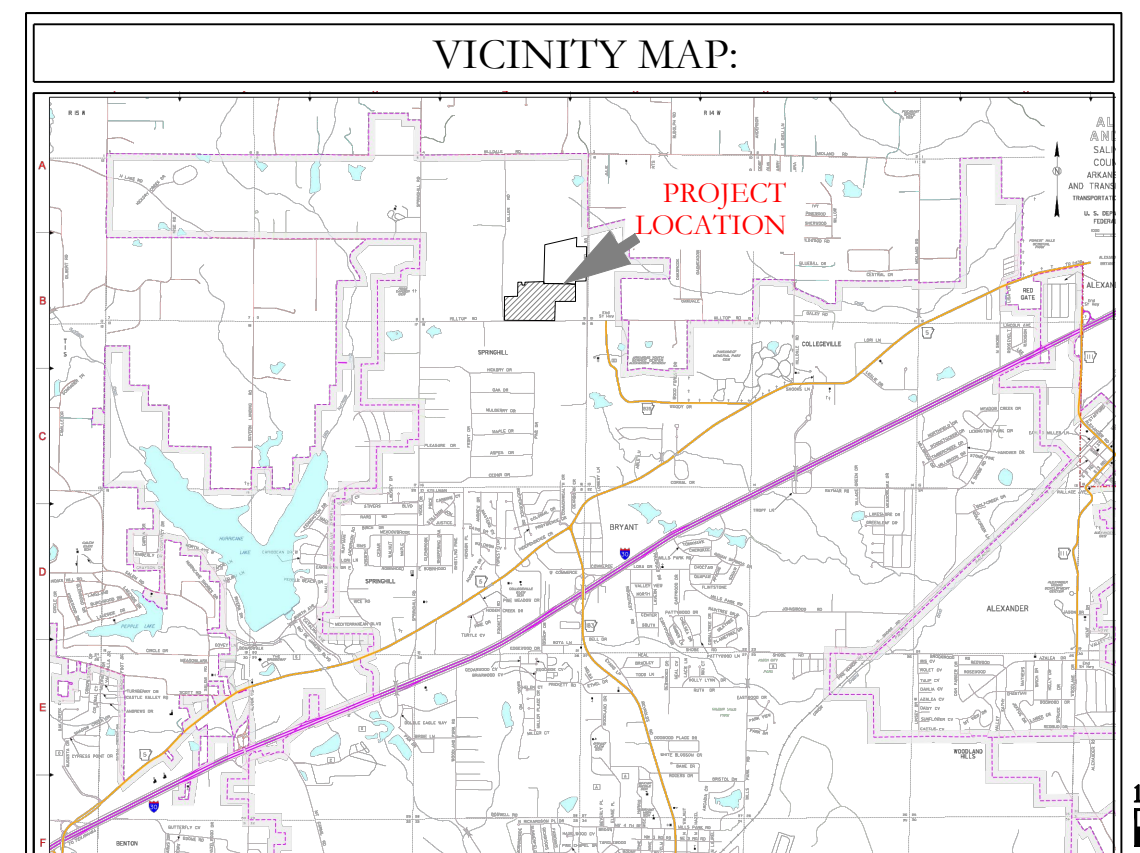


Lone Oak Ave Profile

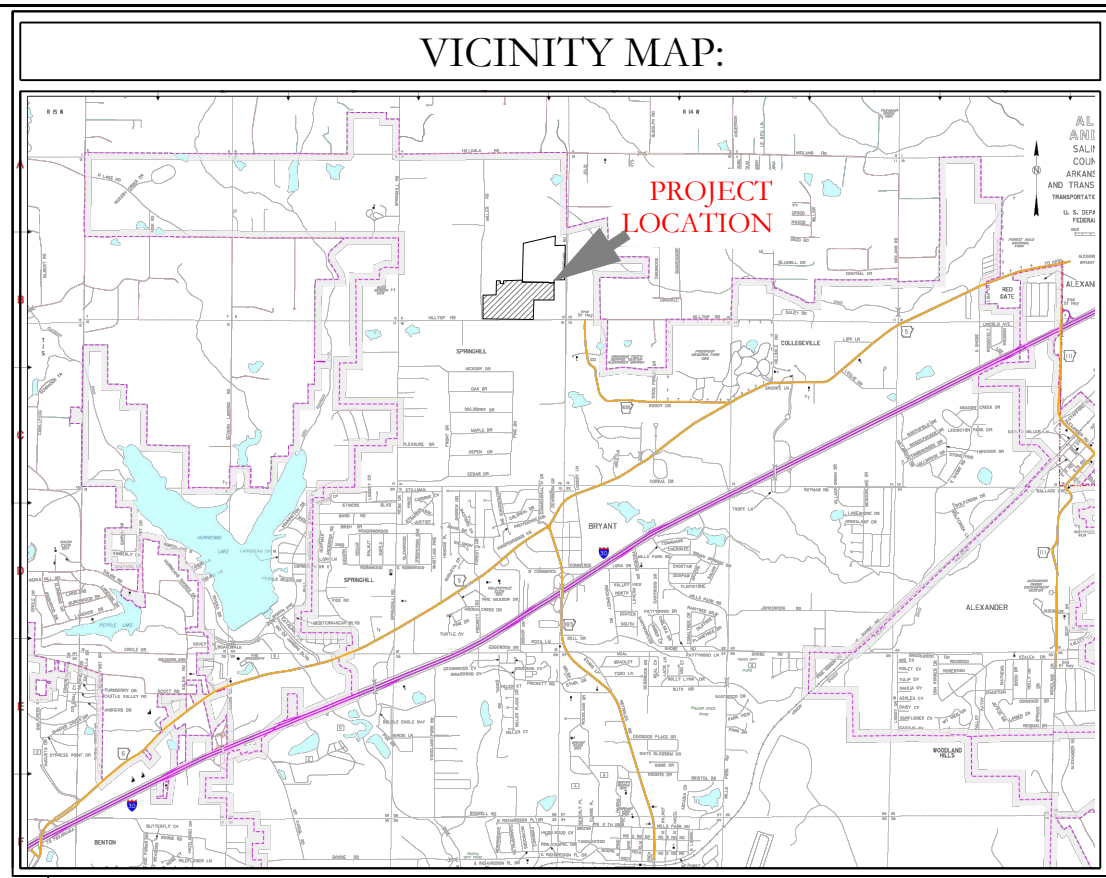
--- HDPE
 — RCP



N.B :All sidewalk ramps will have ADA requirements with corrugated dome ramp .

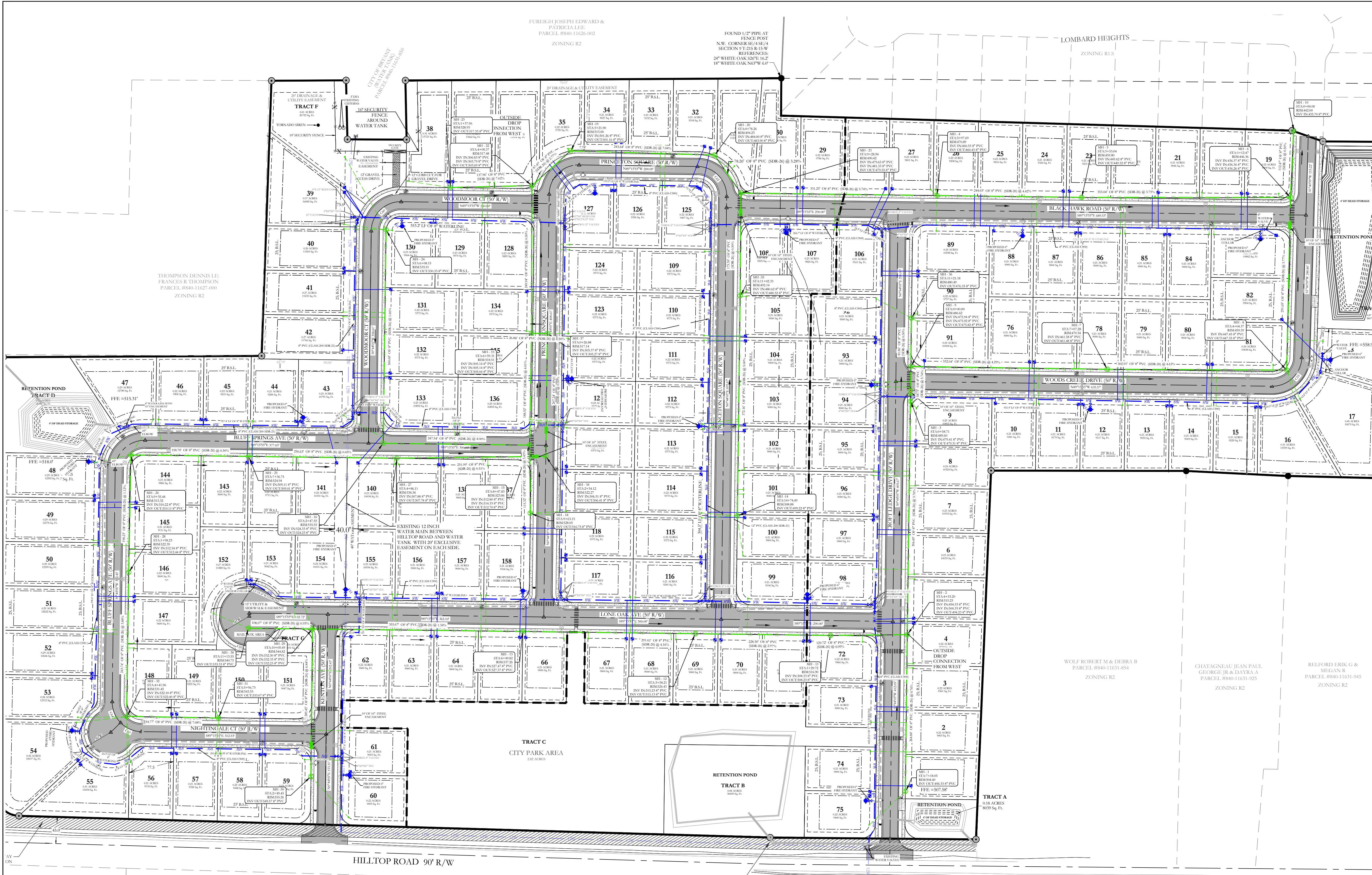


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DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:	
REVISID: 08/07/2023	CHECKED BY:	20-1341	
SHEET: C-1.2	SCALE: 1" = 120'		
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- SEWER CONSTRUCTION NOTES:**
1. ALL SEWER CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH BRYANT UTILITIES' MASTER SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF WATER AND SEWER UTILITIES' 2015 EDITION.
 2. USE SDR-26 PVC SEWER PIPE EXCEPT WHERE INDICATED OTHERWISE ON THE PLANS OR WHERE DUCTILE IRON PIPE IS REQUIRED FOR COVER.
 3. USE DUCTILE IRON PIPE WHERE 3' MINIMUM COVER CANNOT BE MAINTAINED, OR AS INDICATED.
 4. ALL LONG-SIDE SEWER SERVICES SHALL BE SCHEDULE 40 OR SDR 21 PIPE.
 5. FINISH GRADE HEIGHT ON MANHOLES NEED TO BE 4-6 INCHES ABOVE CURB LINE.
 6. ALL MANHOLES WILL BE XYPEX.
 7. THE LIFT STATION PROPERTY MUST BE DEEDED TO THE CITY OF BRYANT.
 8. STATION MUST BE SET UP THROUGH JACK TYLER.
 9. INSTEAD OF FLOATS, THERE WILL NEED TO BE PROBES.
 10. SAFETY LIGHT MUST BE INSTALLED (NO WOOD).
 11. EVERYTHING IN WET WELL MUST BE STAINLESS STEEL INCLUDING CHAINS.
 12. ALL LIFT STATIONS MUST HAVE WOVEN MONOFILAMENT GEOTEXTILE MATERIAL COVERING THE WHOLE PROPERTY OF THE LIFT STATION WITH THE GRAVEL ON TOP TO CONTROL WEEDS AND GRASS CAUSING PROBLEMS IN THE DRIVE TO THE LIFT STATION AND THE GATED AREA OF THE LIFT STATION.
 13. LIFT STATION MUST HAVE A ROLLING GATE, OR GATES THAT SWING OUT FOR OUR JET VAC/ PUMP TRUCK TO GET INTO.
 14. ALL PANELS MUST HAVE THE ROOF COVER AND MUST BE STEEL FRAME AND PANEL ROOF DESIGN COVERING 5 FEET ON ALL SIDES OF THE PANELS.
 15. AT STORM DRAIN CROSSING OR ANY DRAINAGE DITCHES CROSSING, THE SEWER INFRASTRUCTURE WILL NEED TO BE STEEL ENCASED, FIVE FEET ON EITHER SIDE.
 16. NO STEPS IN MANHOLES.
 17. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL BURIED UTILITIES PRIOR TO CONSTRUCTION.
 18. ELECTRICAL CONDUIT COMING OUT OF THE CONTROL BOX WILL NEED TO BE 3" CONDUIT SHOULD BE PLUGGED WITH PUTTY NOT SPRAY IN FOAM TO RESTRICT GASES FROM ENTERING THE CONTROL BOX THAT CAUSES CORROSION.
 19. THE LIFT STATION ROOF NEEDS TO BE METAL OR OTHER MATERIAL, NOT WOOD, ALSO THE LIGHT POLE CAN NOT BE WOOD.
 20. RPZ WILL NEED TO BE IN A WEATHERPROOF BOX.

- WATER CONSTRUCTION NOTES:**
1. ALL WATER CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH BRYANT UTILITIES' MASTER SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF WATER AND SEWER UTILITIES' 2015 EDITION.
 2. LONG-SIDE WATER SERVICE LINES SHALL BE ENCASED, INCLUDING THE LINES BENEATH THE CUL-DE-SAC.
 3. ALL SERVICE CROSSINGS SHALL BE 1" DRISCO SERVICE LINE ENCASED IN A 2" PVC SLEEVE.
 4. ALL WATER MAIN FITTINGS SHALL BE MEGALUG BRAND MECHANICAL JOINT FITTINGS.



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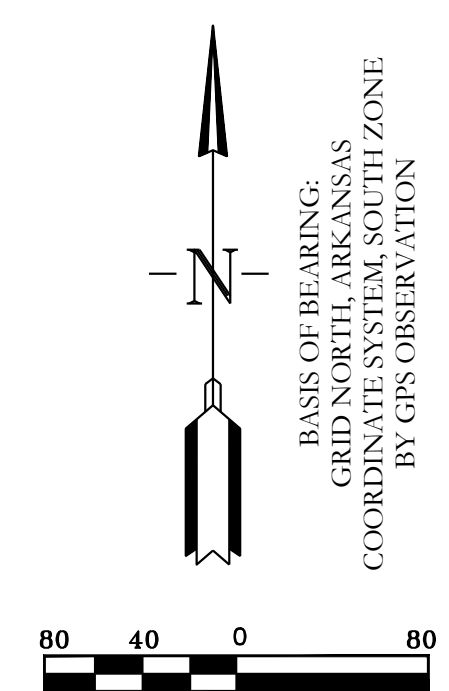
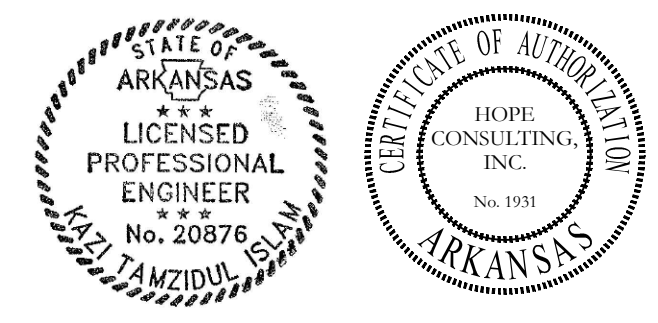
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HILLTOP LANDING
UTILITY PLAN
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

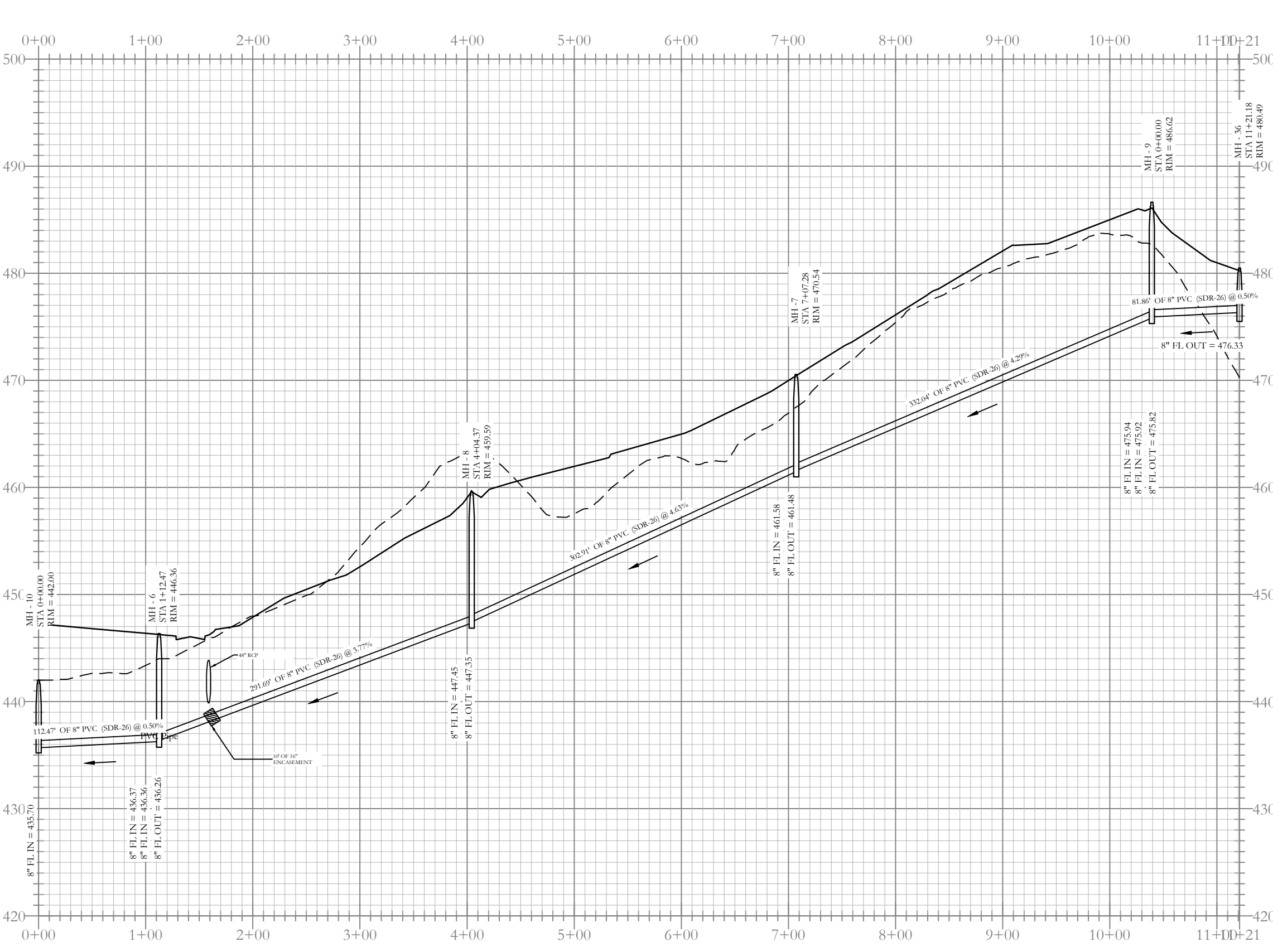
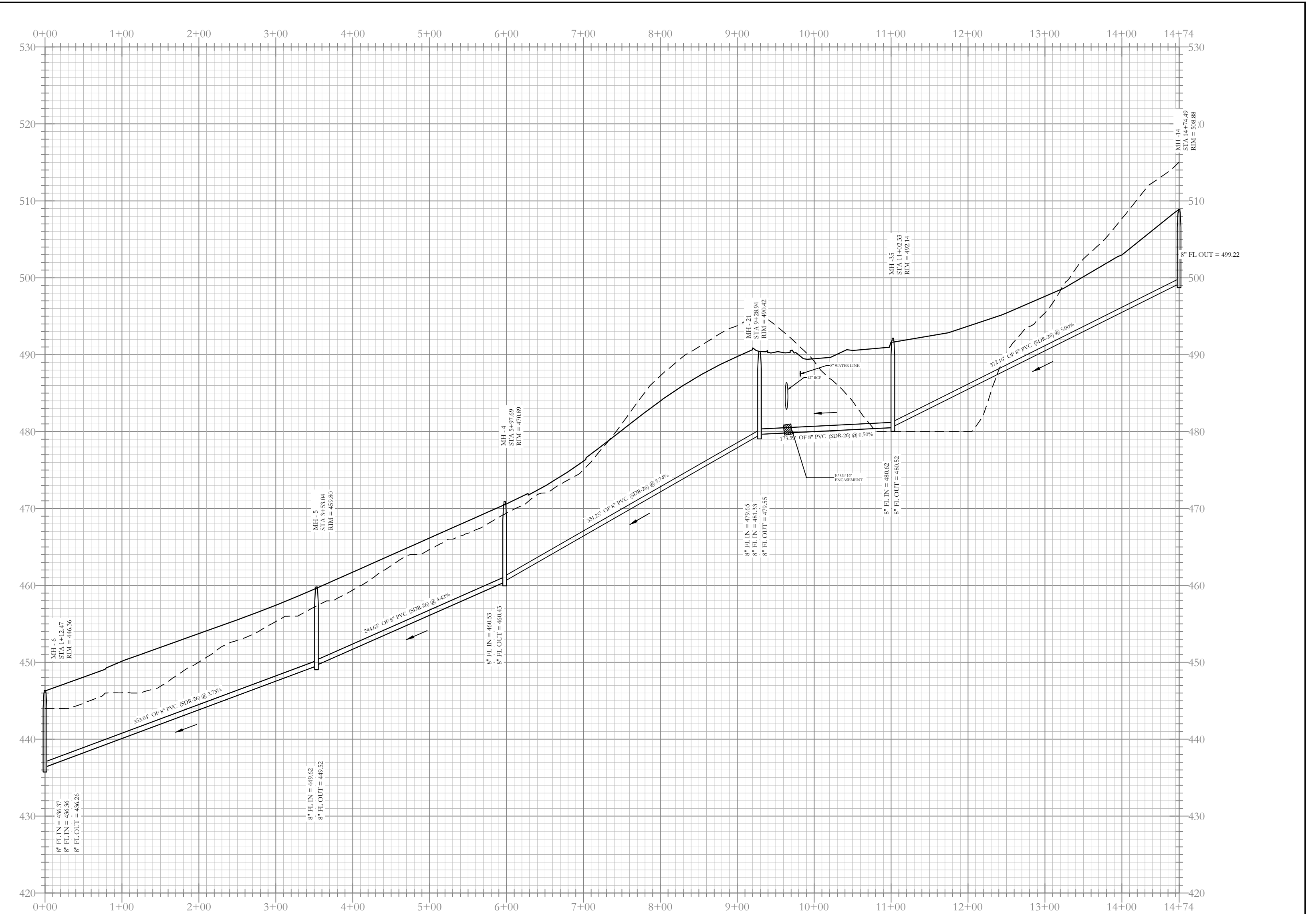
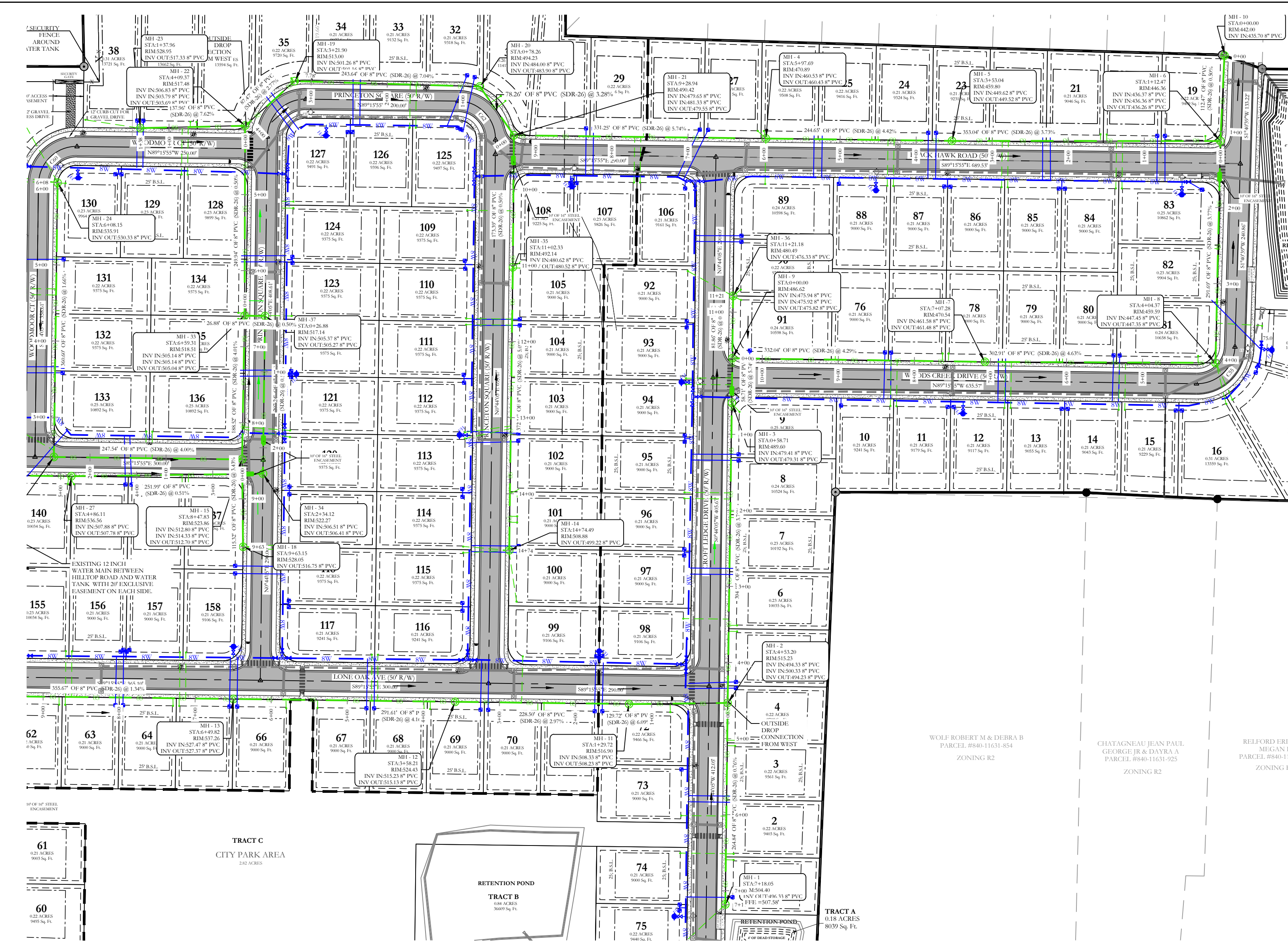
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**SUBDIVISION
UTILITY PLAN**

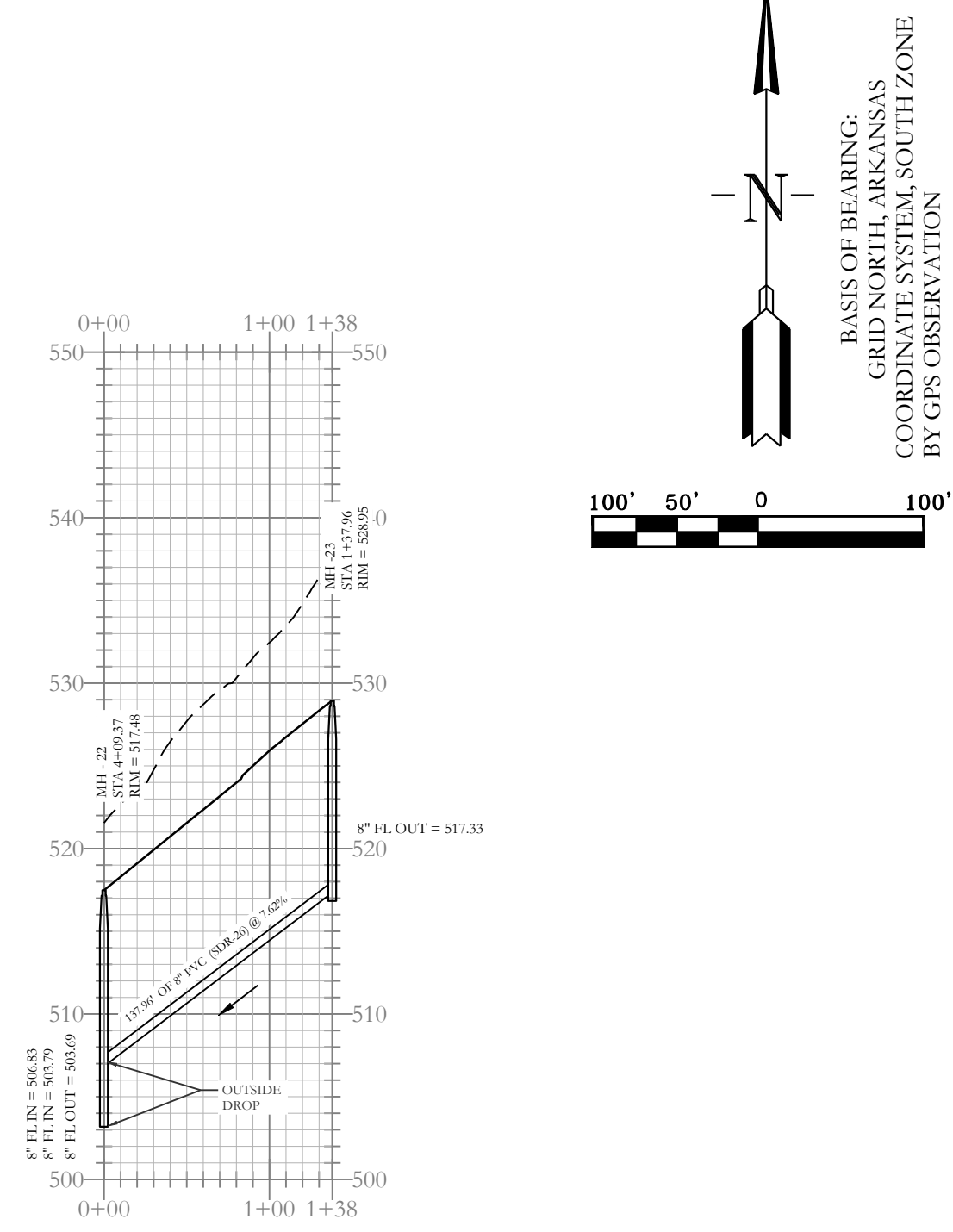


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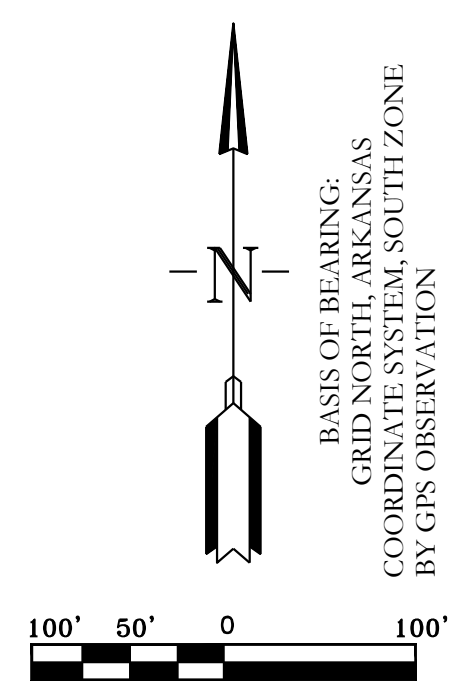
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	SINGLE WATER METER
	GATE VALVE
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	90° FITTING
	TEE FITTING
	CROSS FITTING
	FIRE HYDRANT



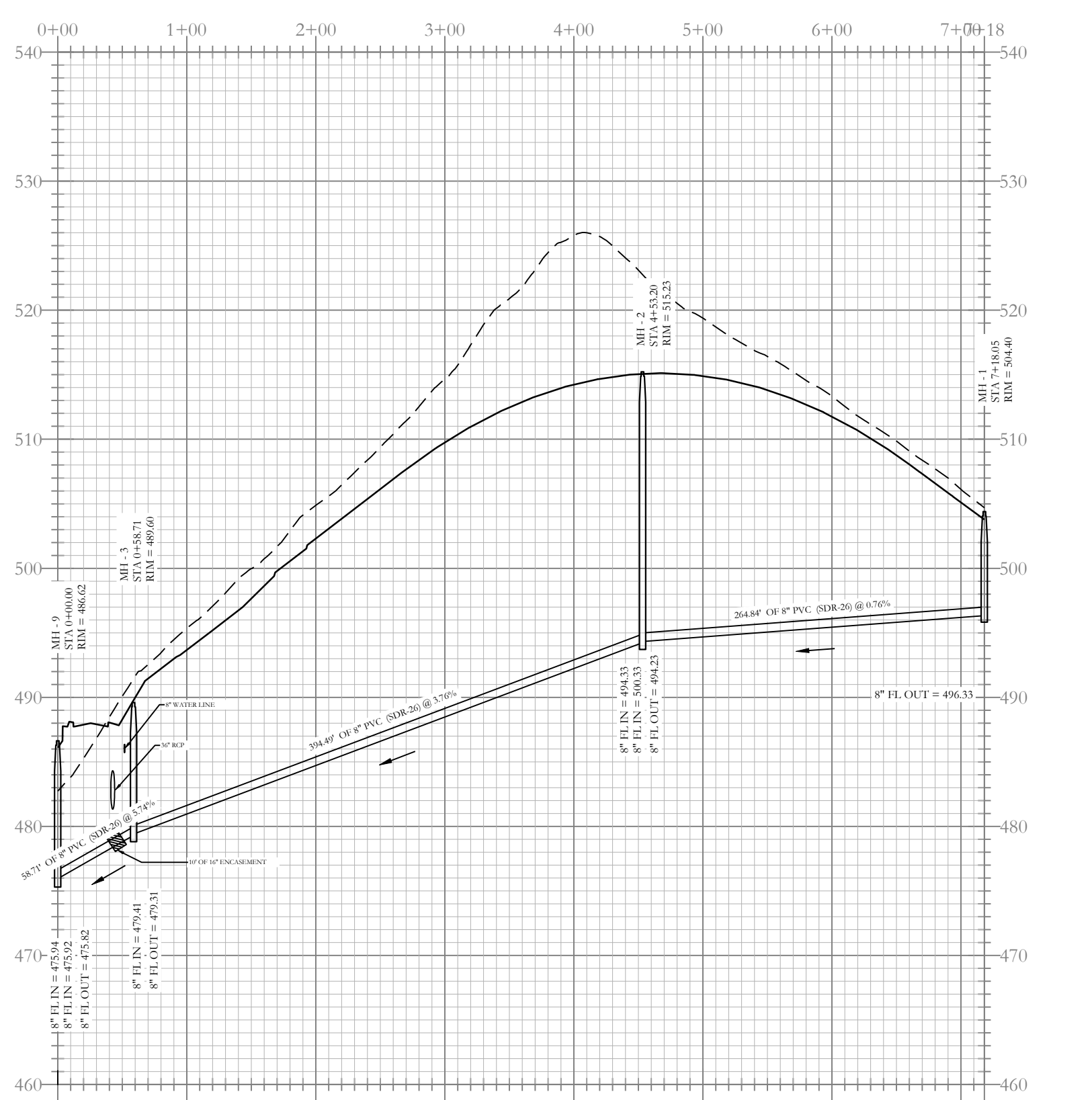
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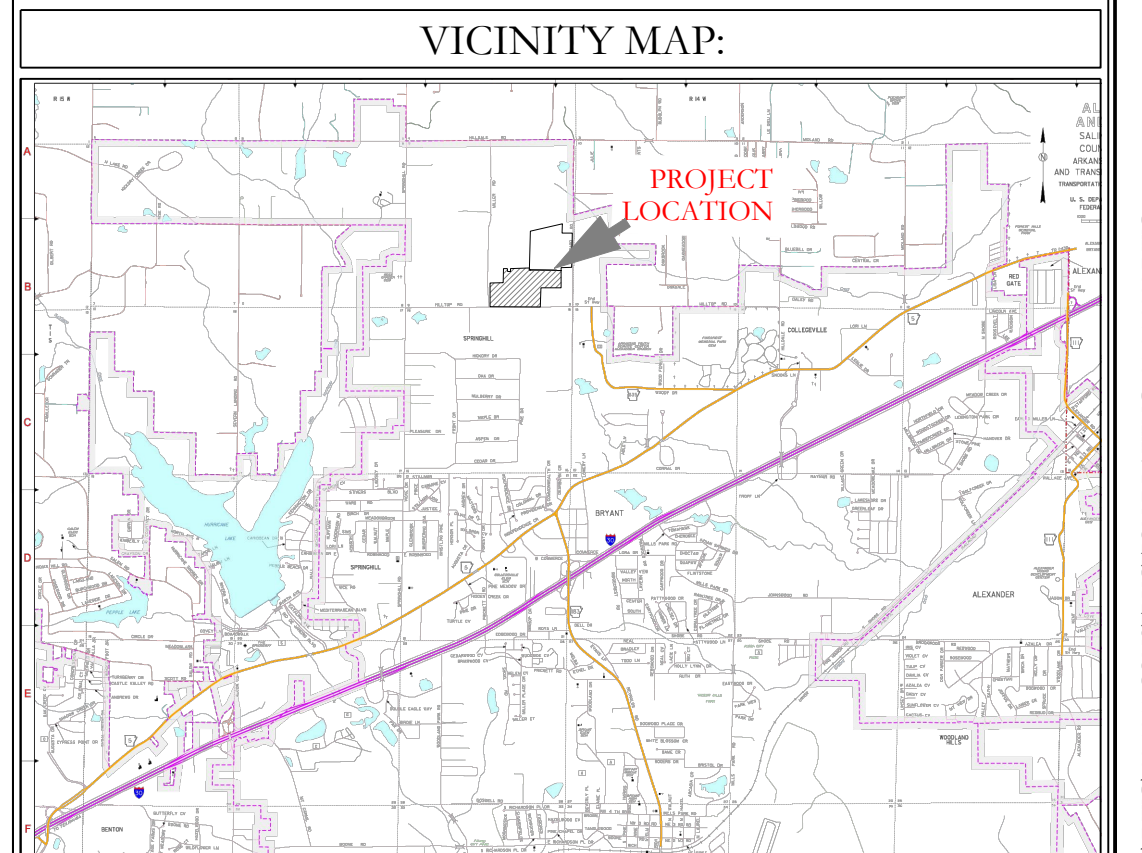
Sewer B-1 Profile



Sewer D Profile



Sewer Entrance Profile

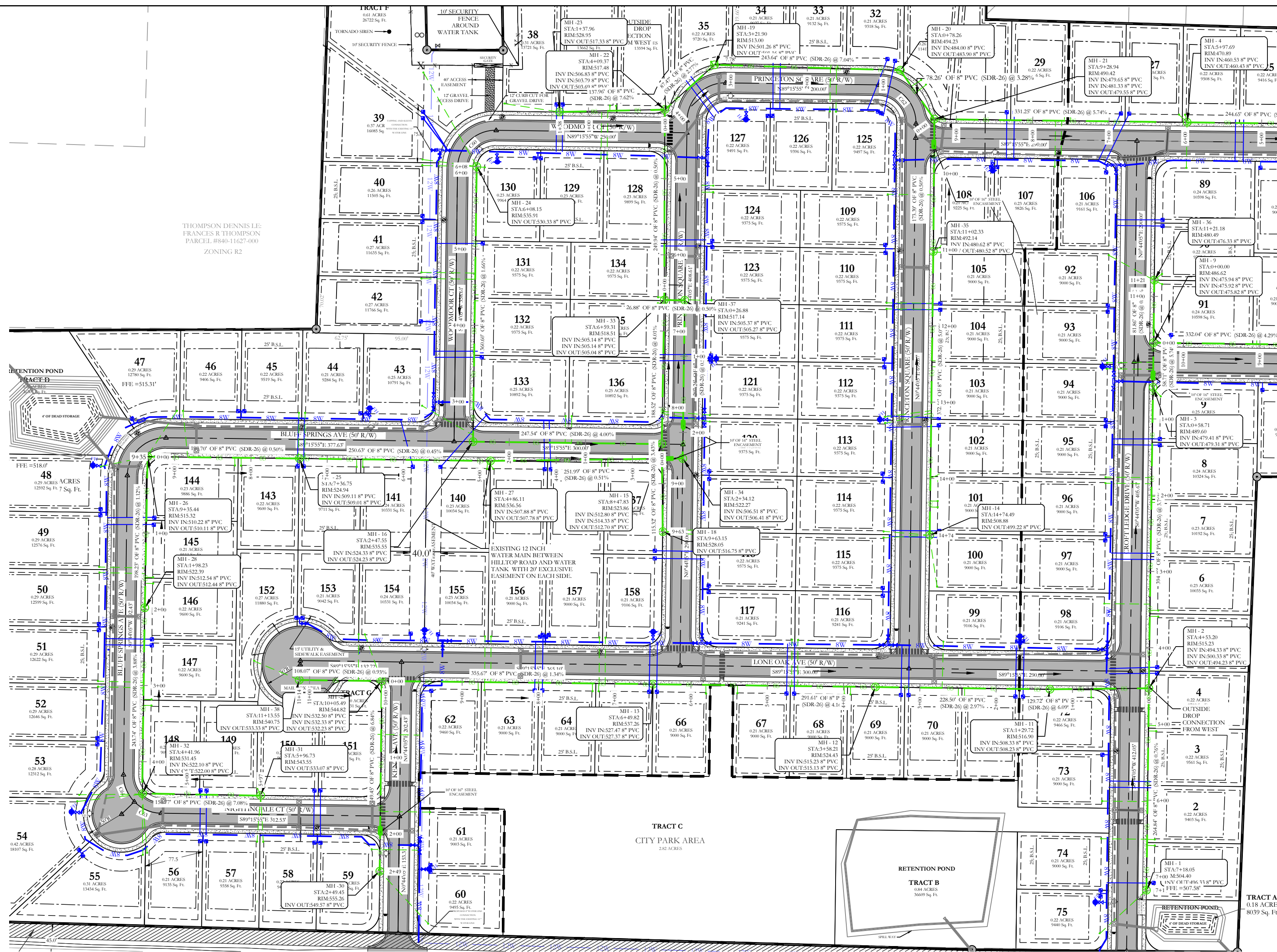


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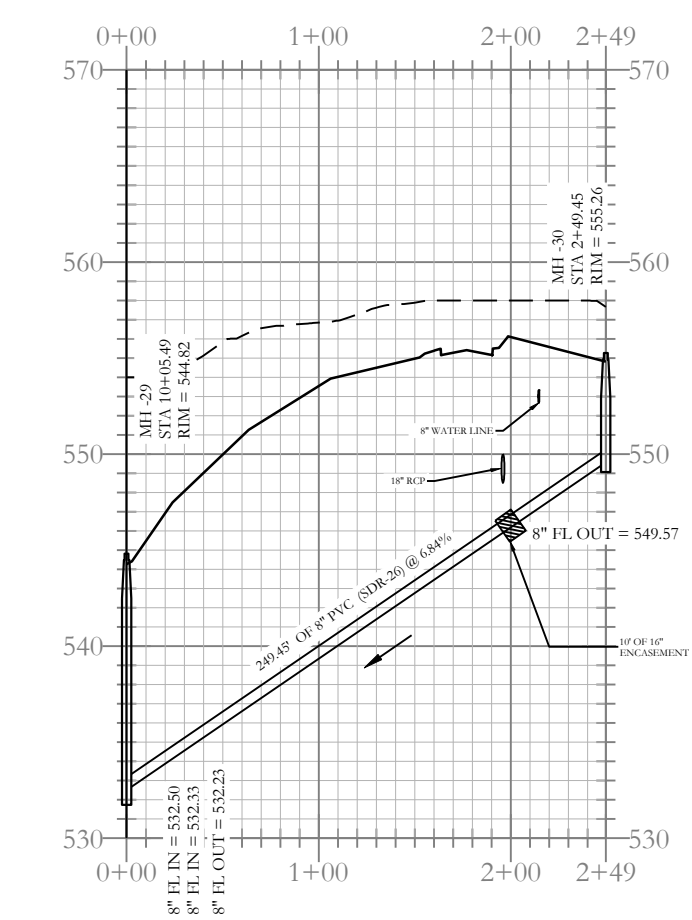
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A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS			
DATE:	03/08/2023	C.A.D. BY:	DRAWING NUMBER:
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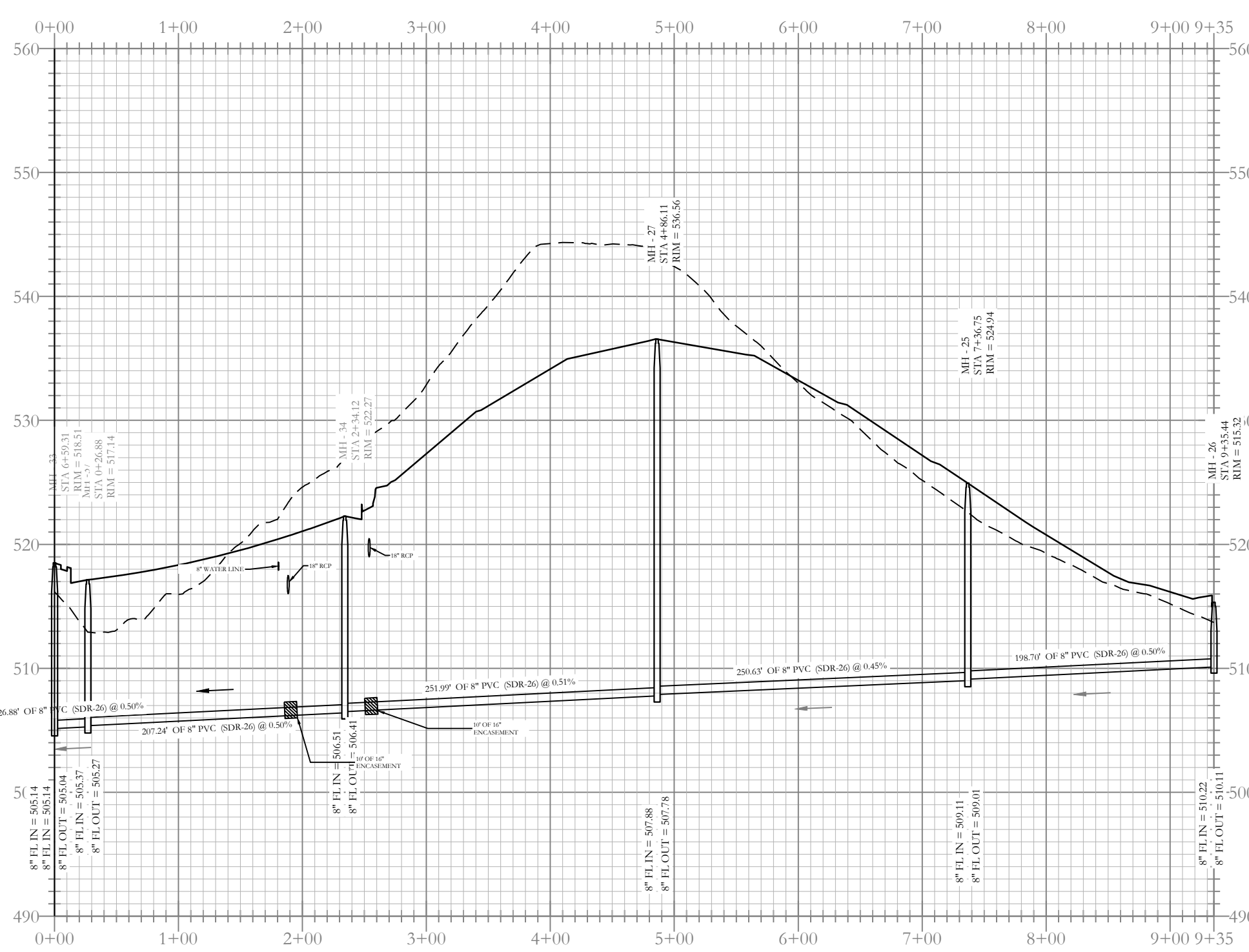
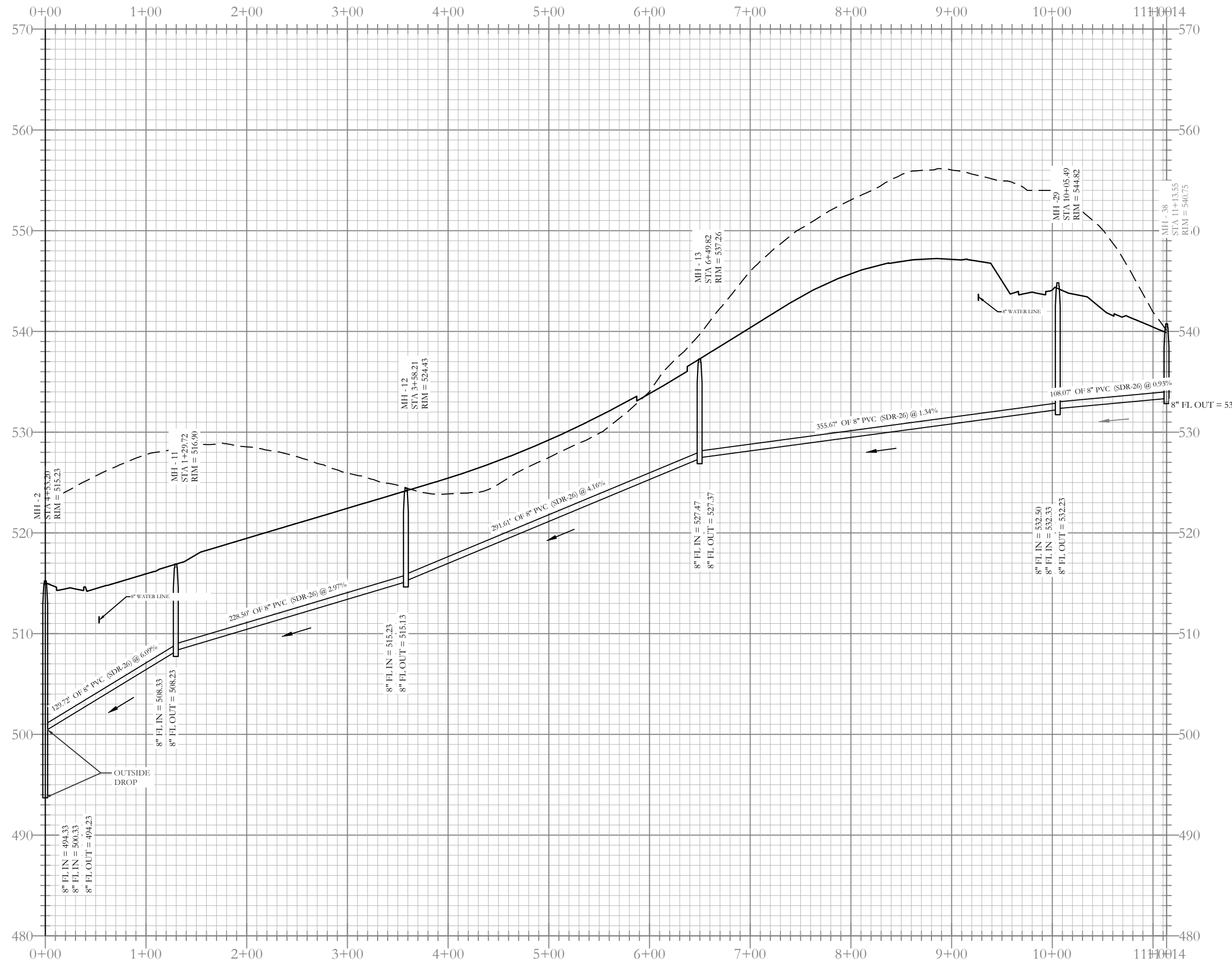
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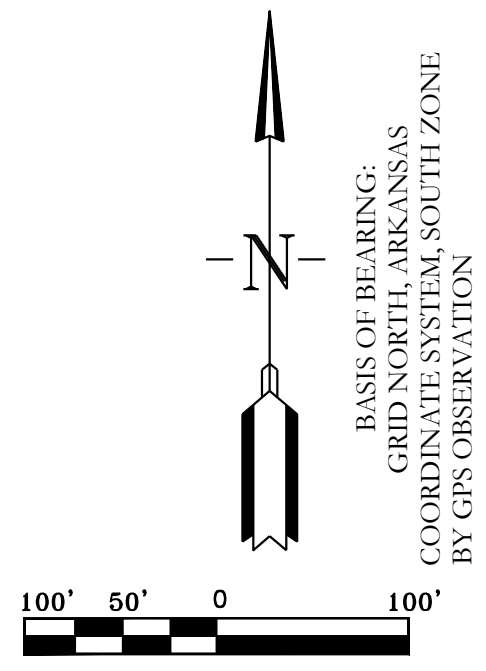
Sewer Entrance-2 Profile



Sewer F-1 Profile

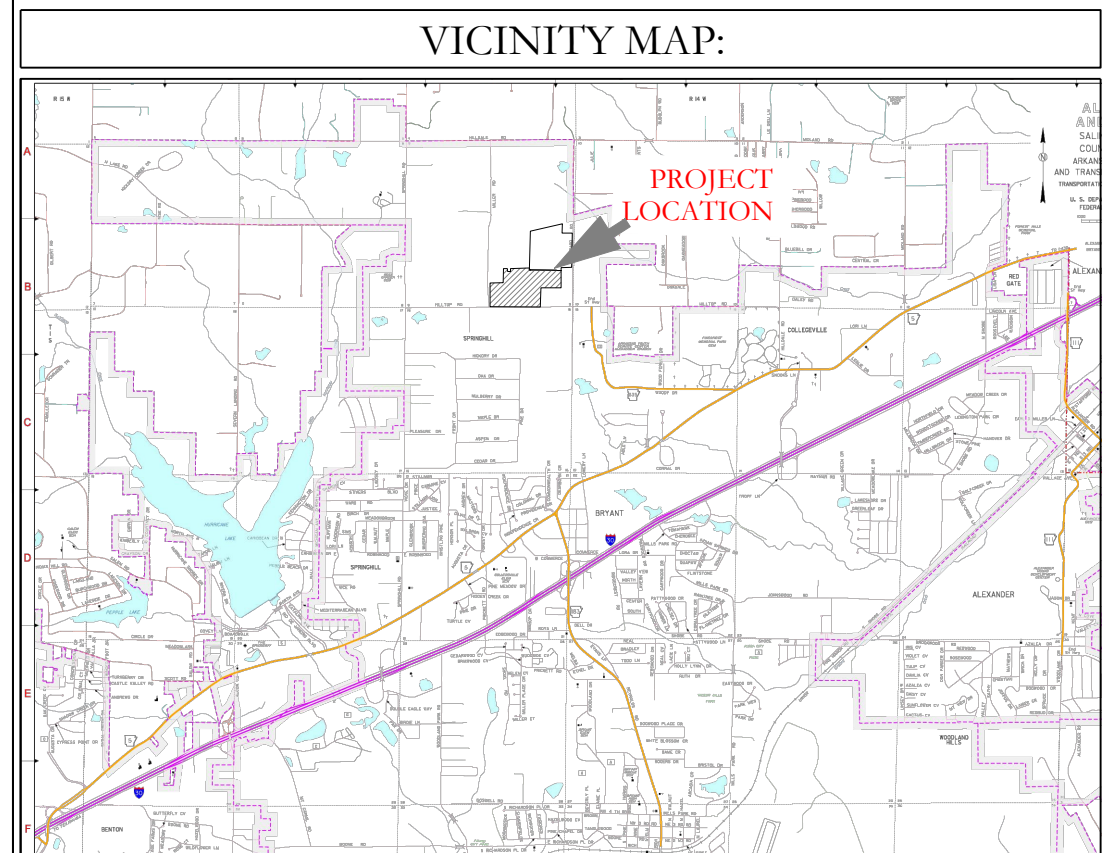
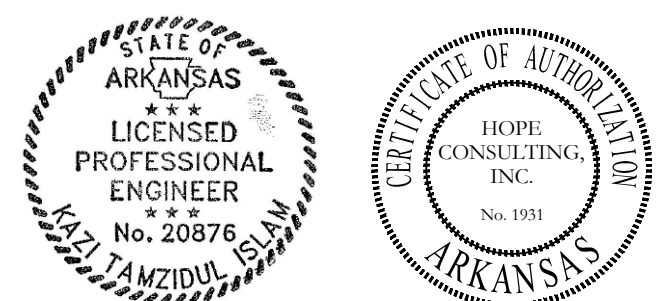
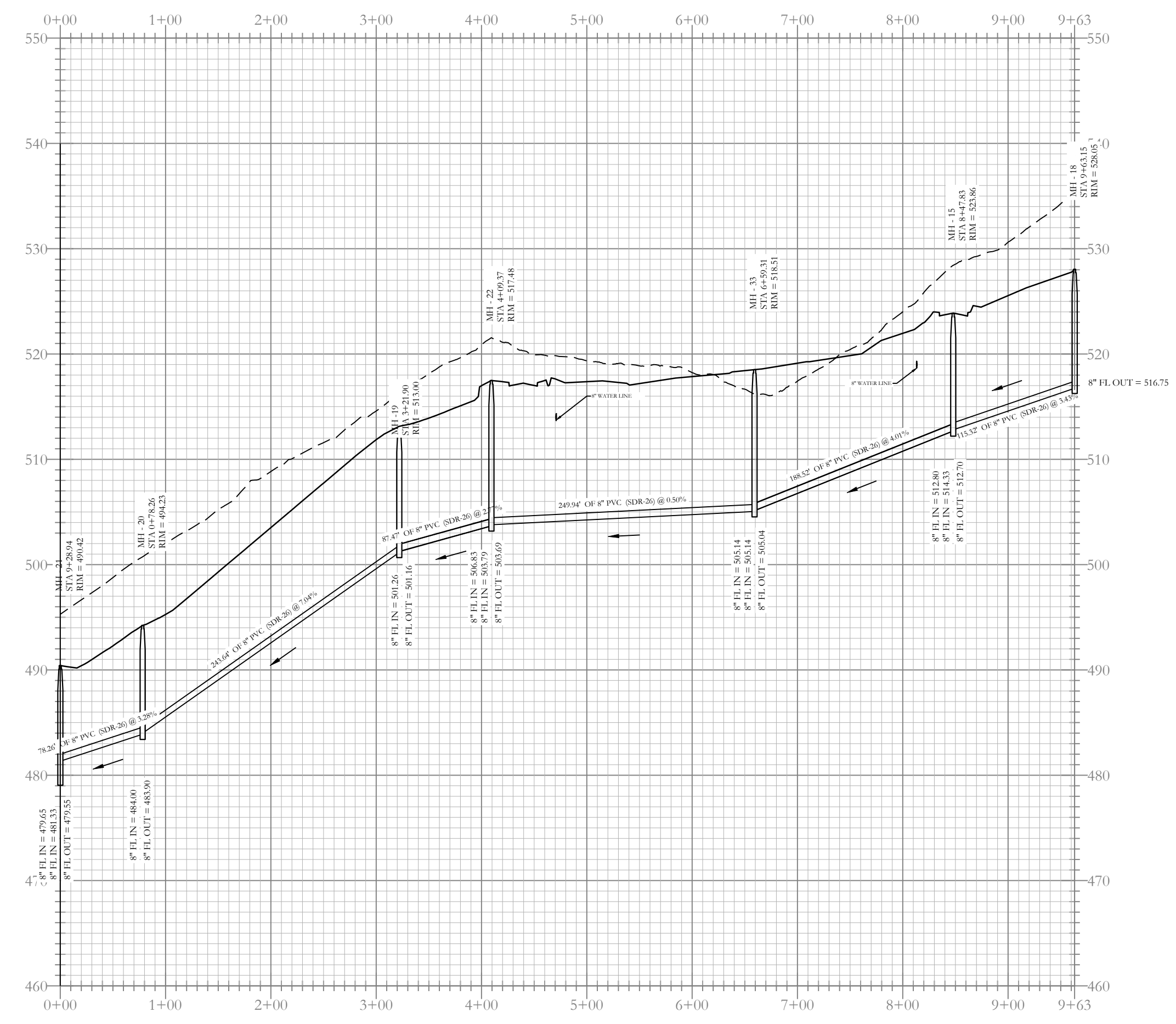


Sewer E-2 Profile



BASIS OF BEARING:
 CURVED SOUTH ARKANSAS
 COORDINATE SYSTEM, SOUTH ZONE
 BY GPS OBSERVATION

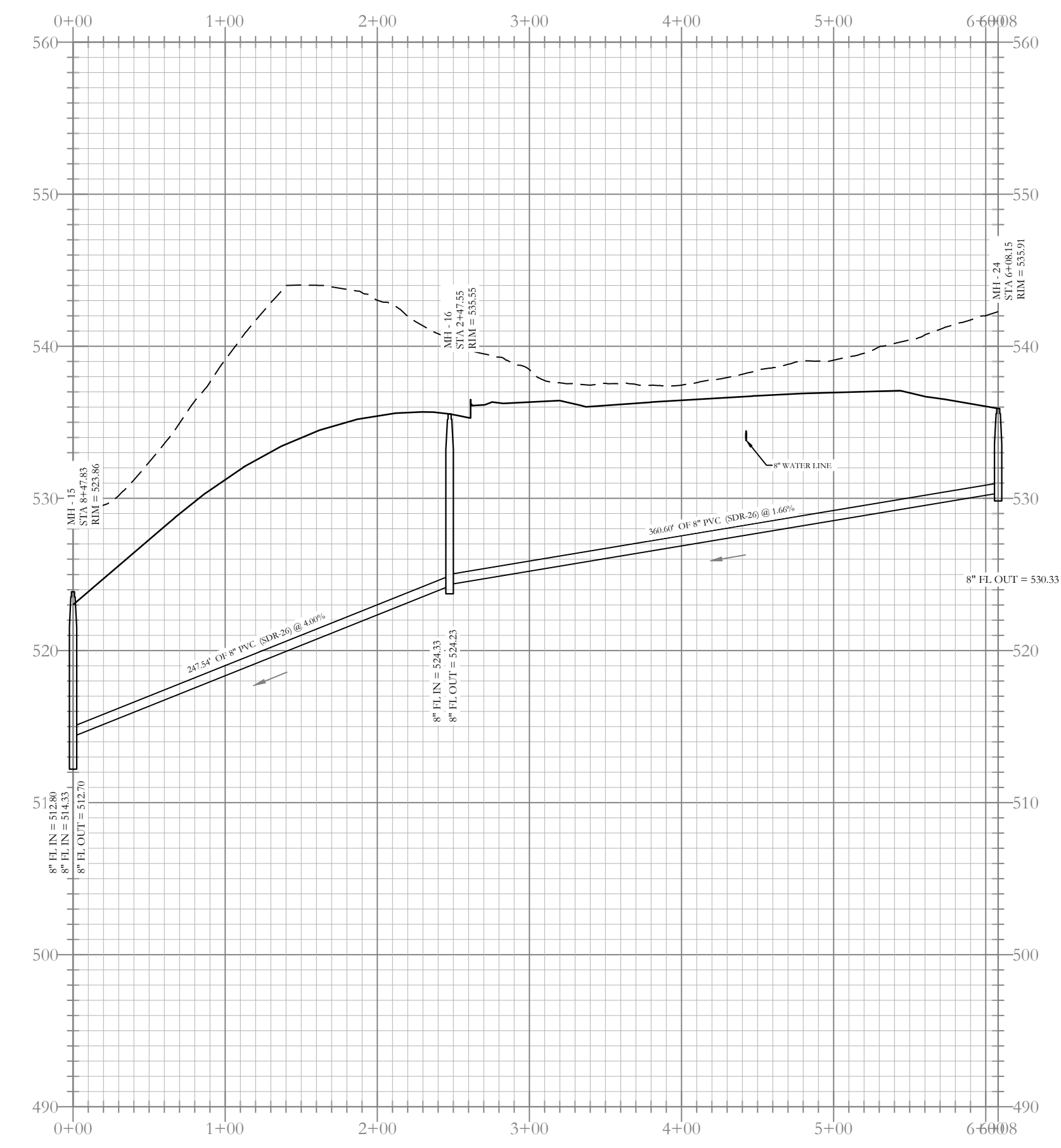
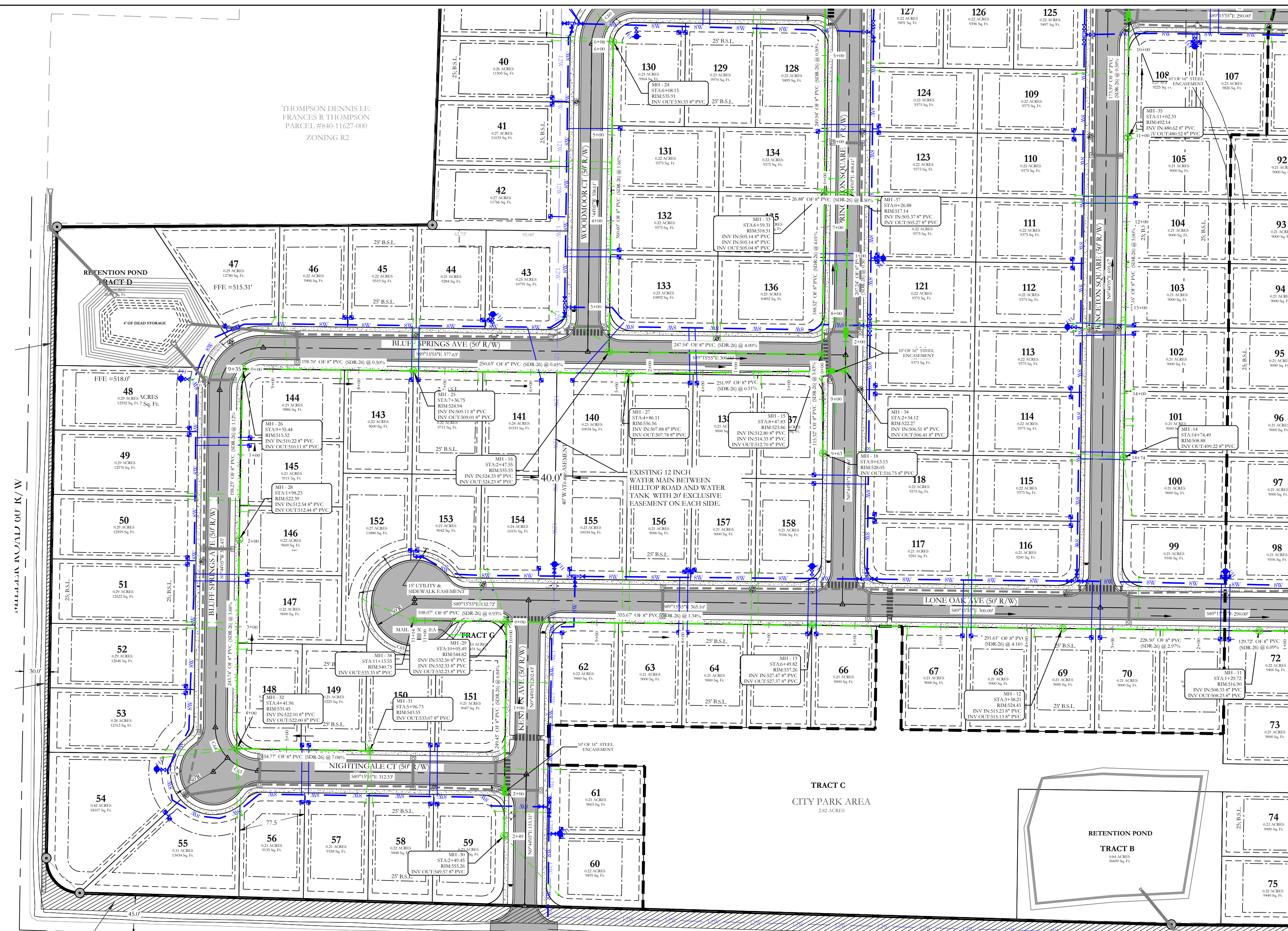
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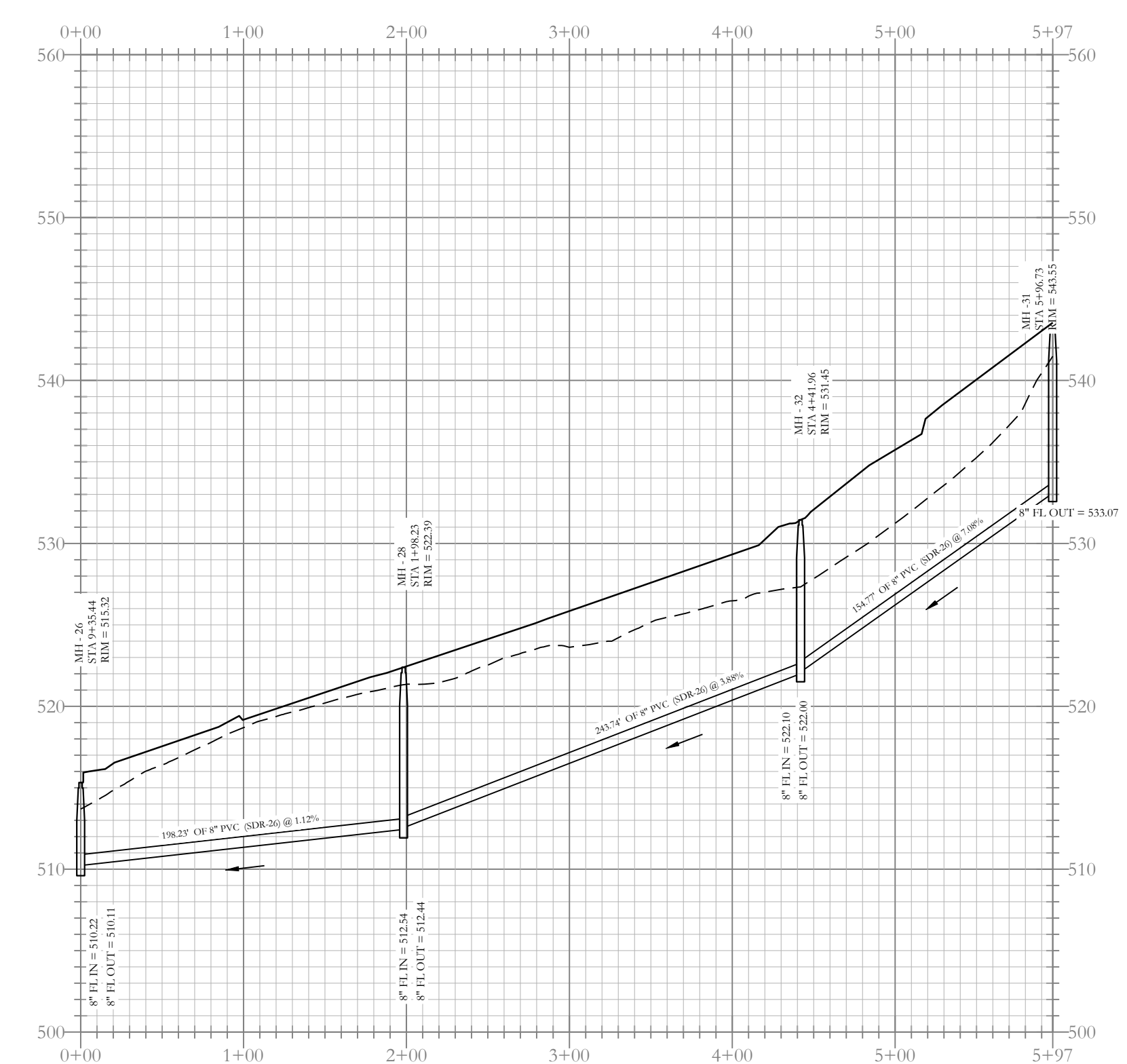
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DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:	
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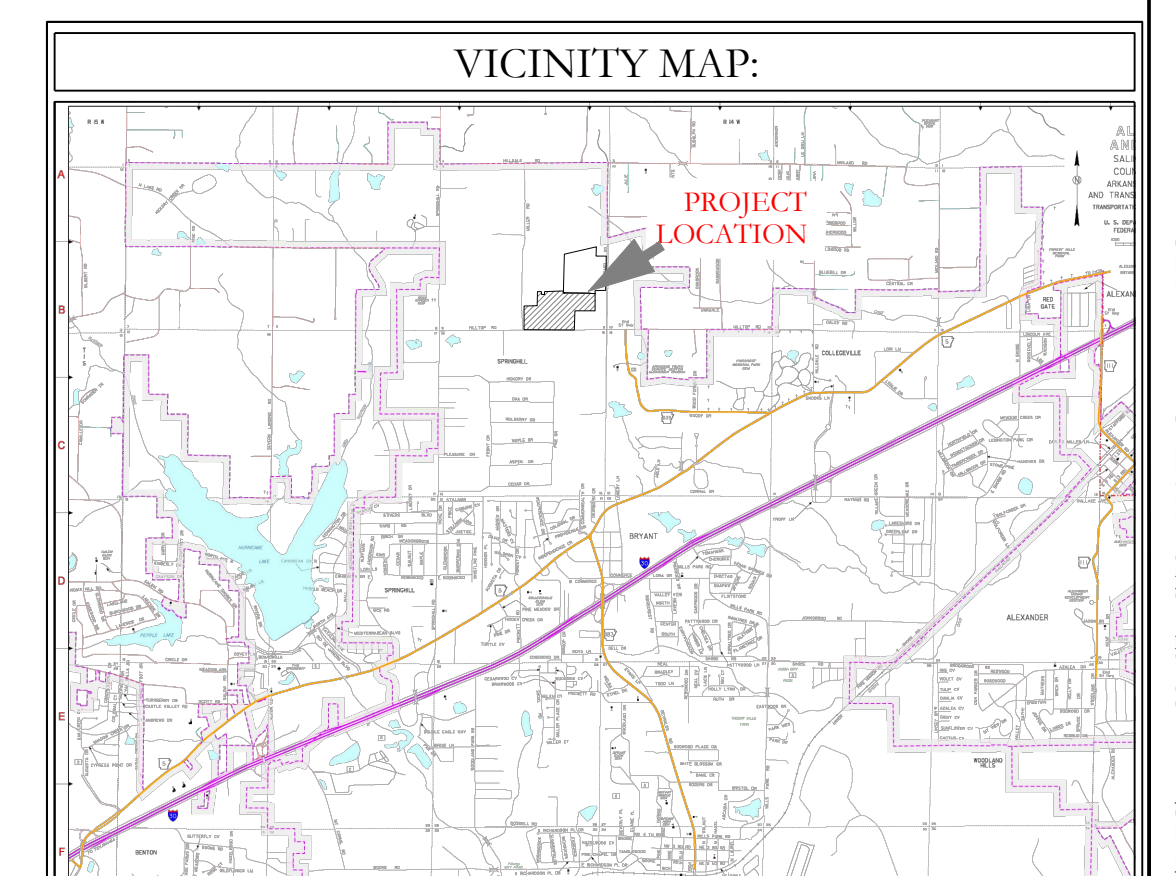
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Sewer B-2 Profile



Sewer E-1 Profile



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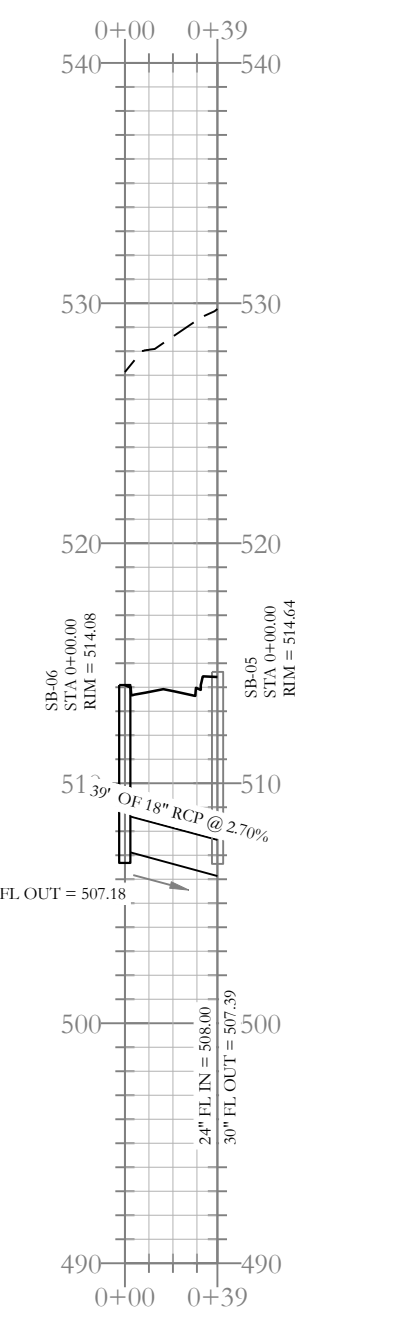
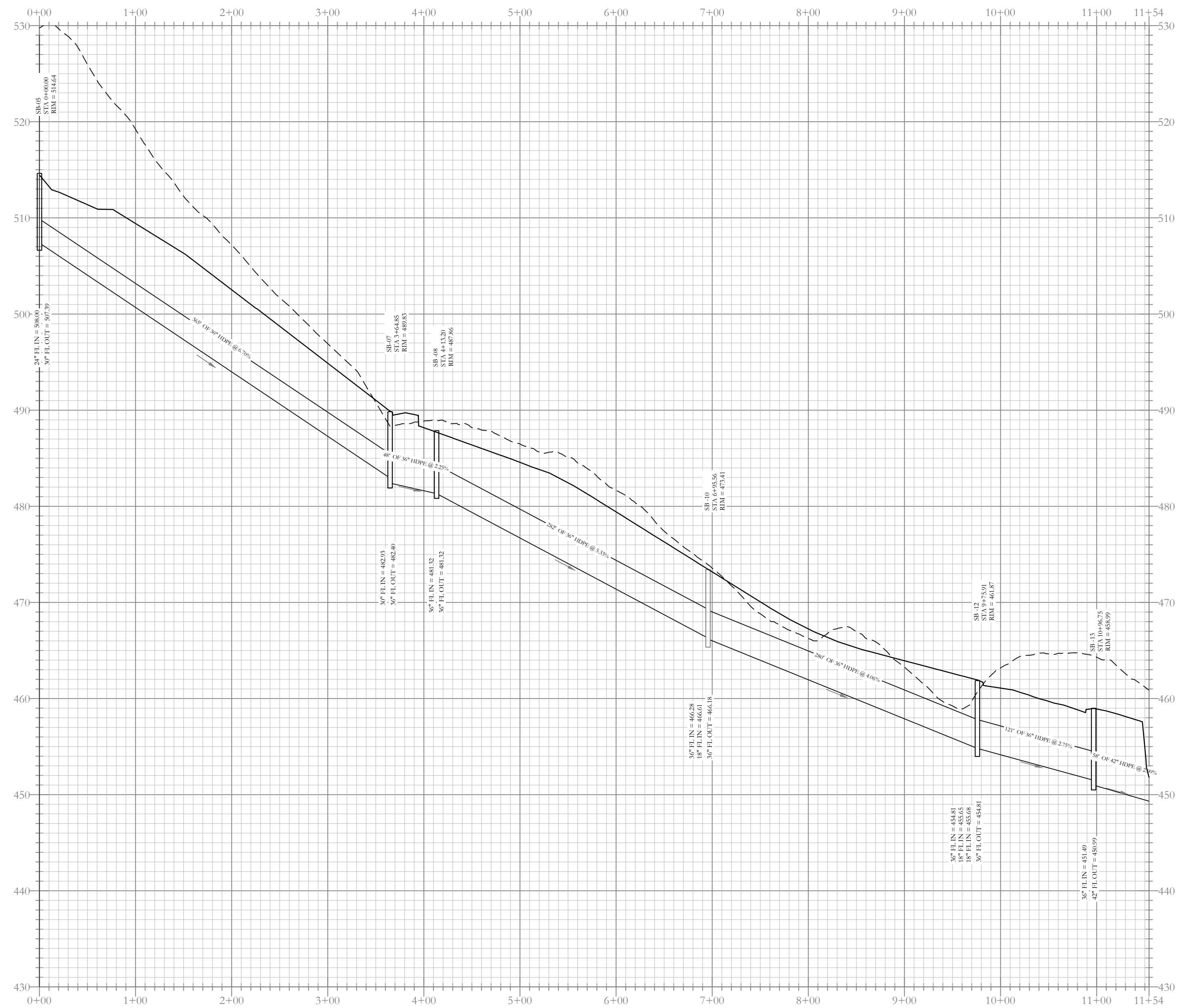
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LICENSED PROFESSIONAL ENGINEER
No. 20876
KAR TAMZIOUL

CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

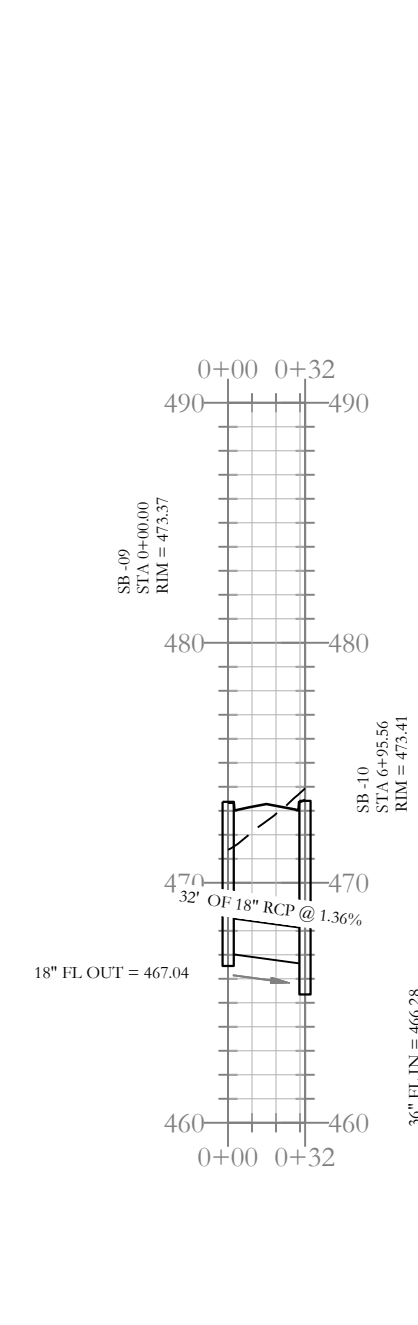
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BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE
BY GPS OBSERVATION

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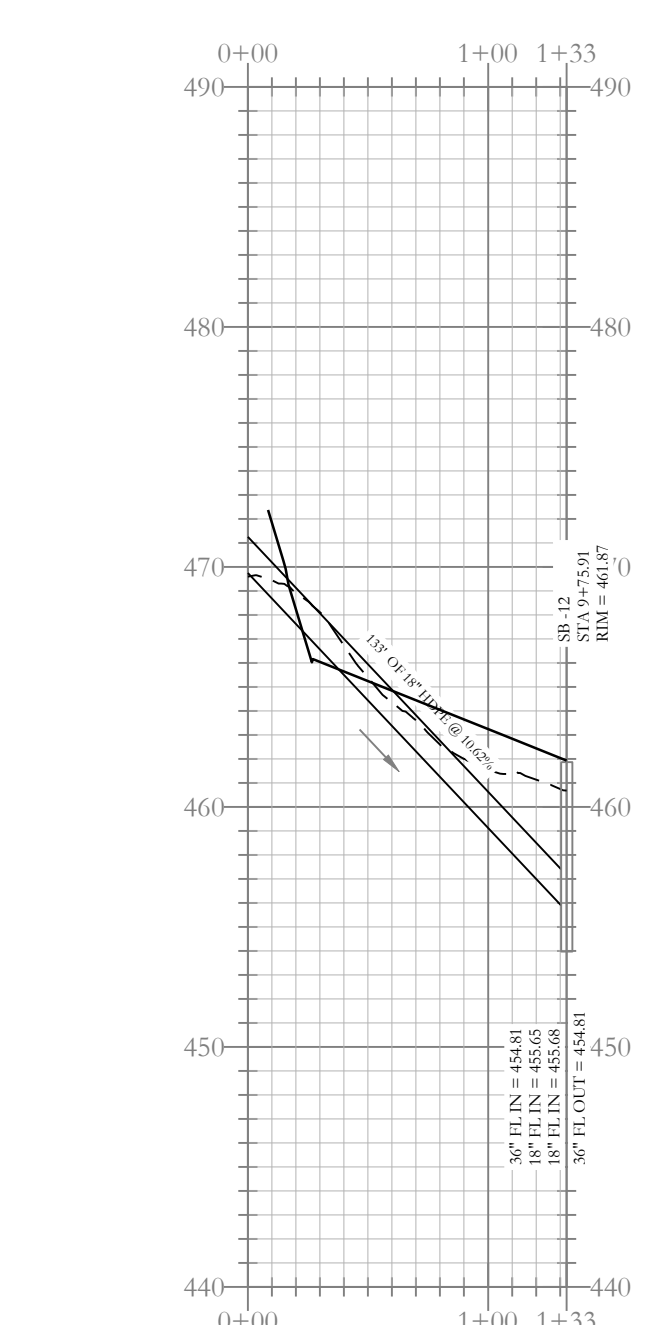


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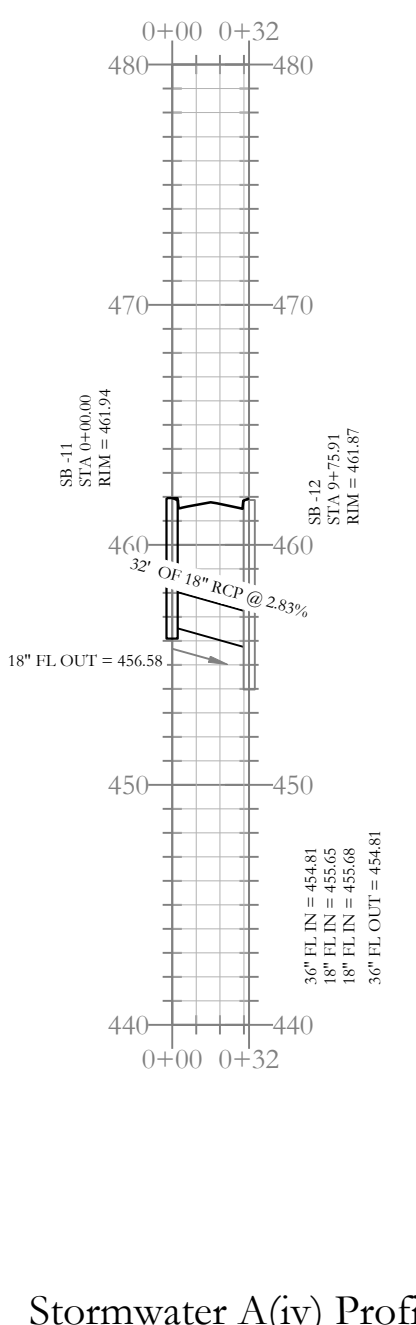


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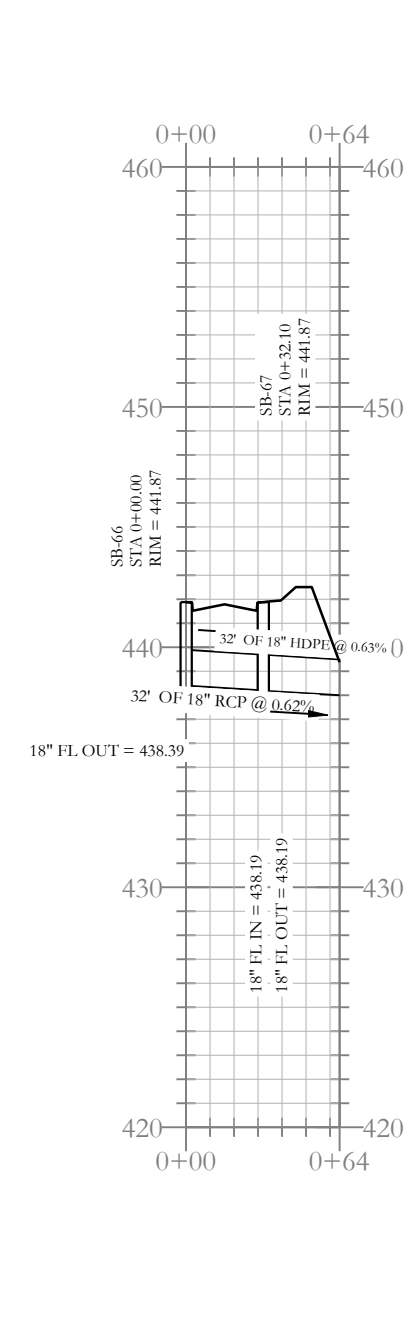
Stormwater A Profile



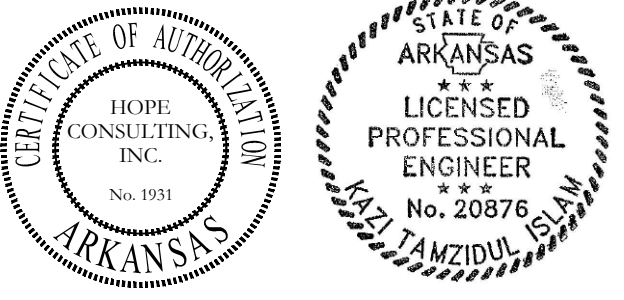
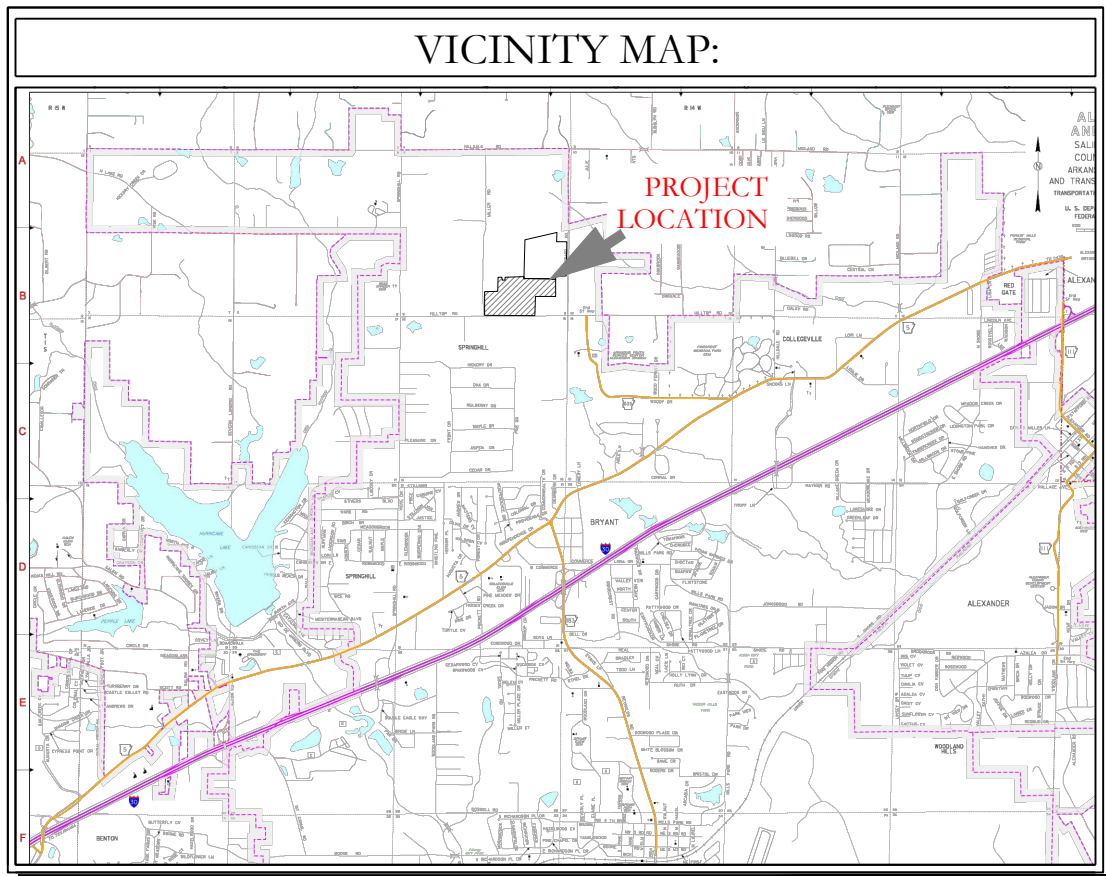
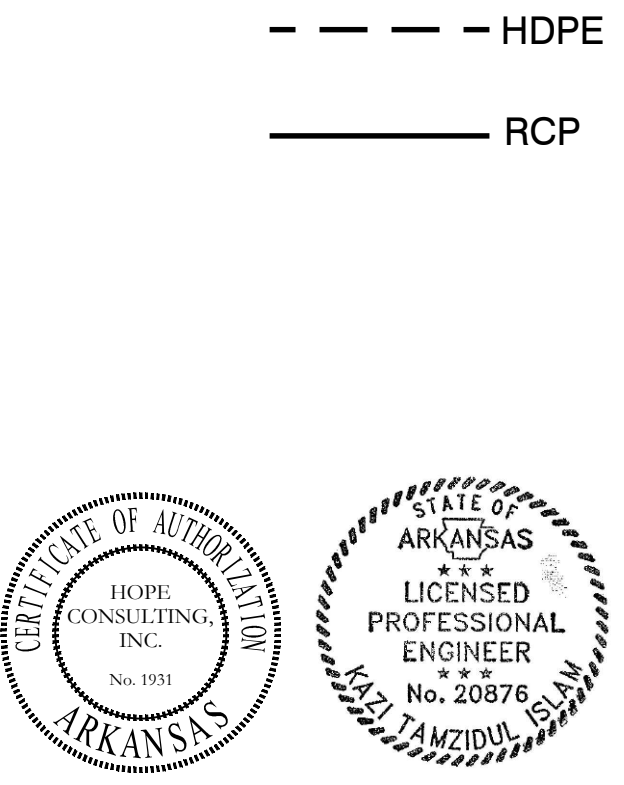
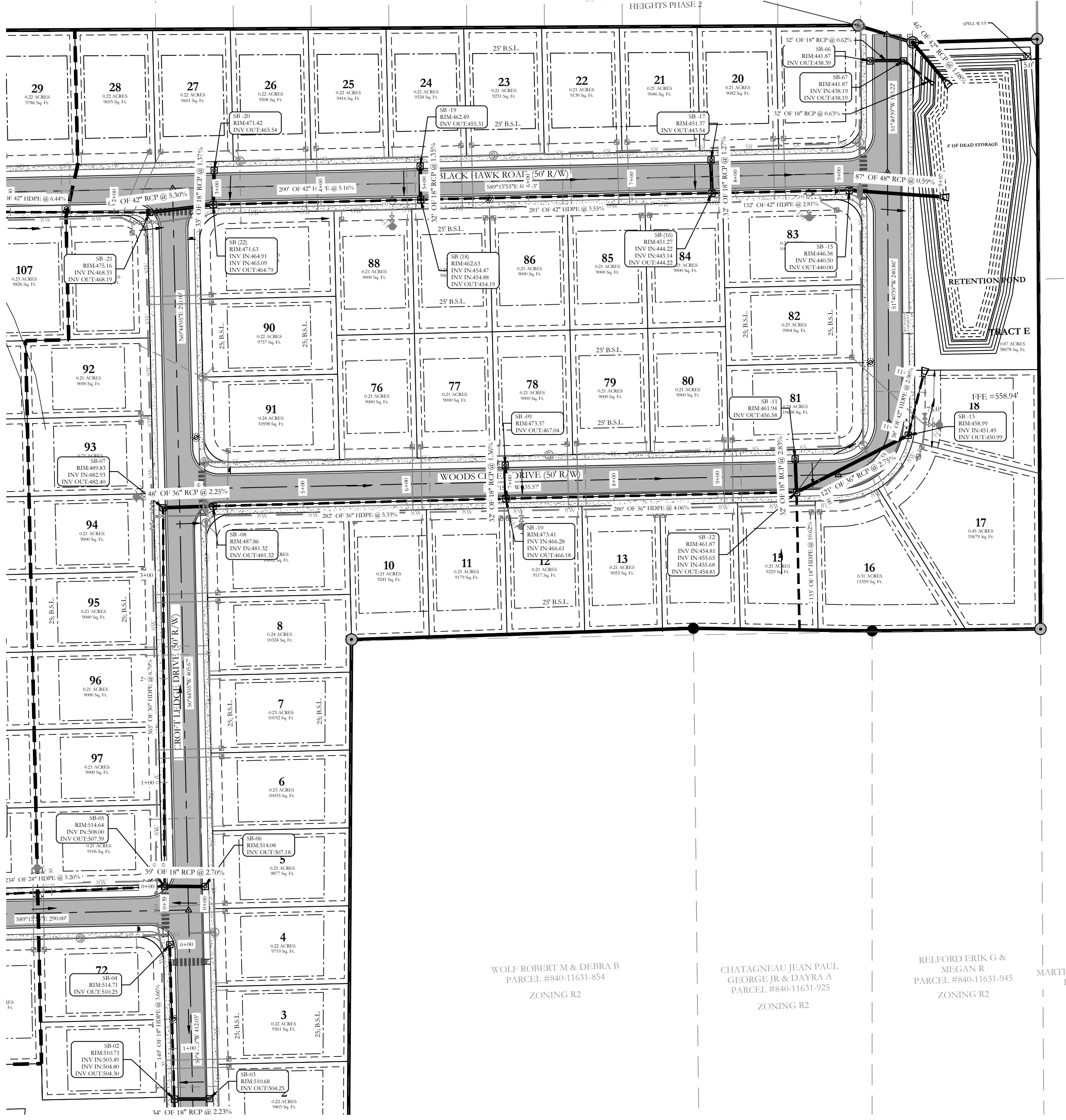
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Stormwater A(iv) Profile



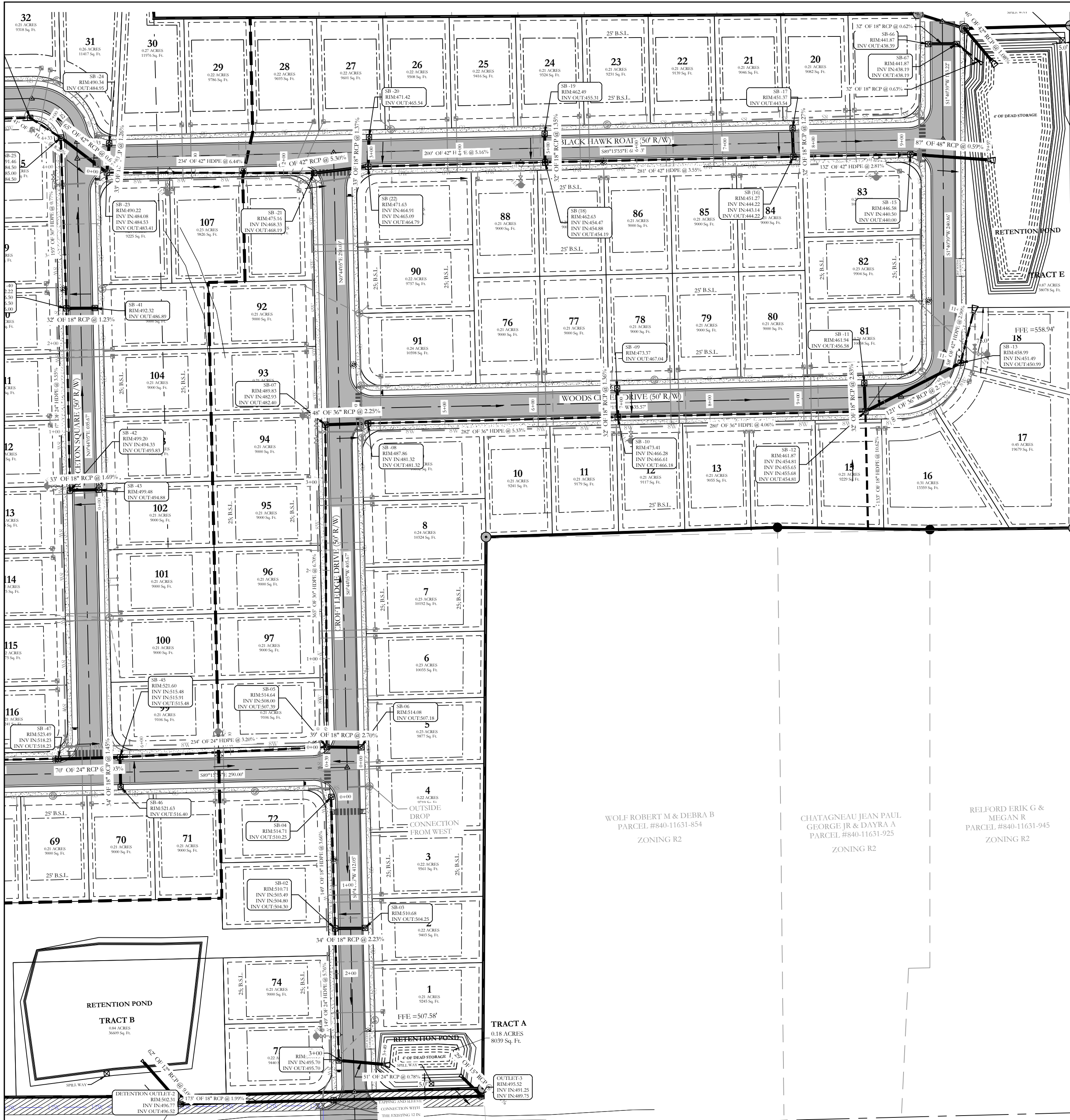
Stormwater A(v) Profile



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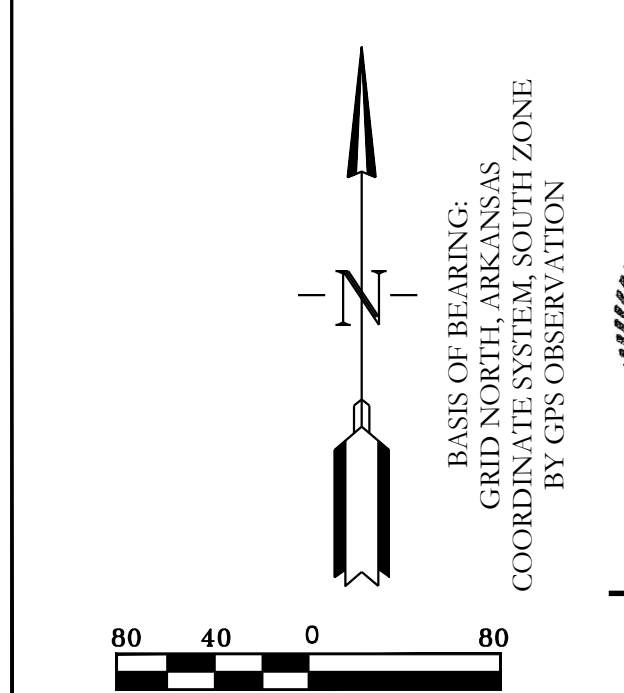
FOR USE AND BENEFIT OF: NXT GEN HOMES LLC.			
HILLTOP LANDING			
STORM DRAINAGE PLAN AND PROFILE			
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS			
DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:	
REVISED: 08/07/2023	CHECKED BY:	20-1341	
SHEET: C-3.1	SCALE: 1" = 80'		
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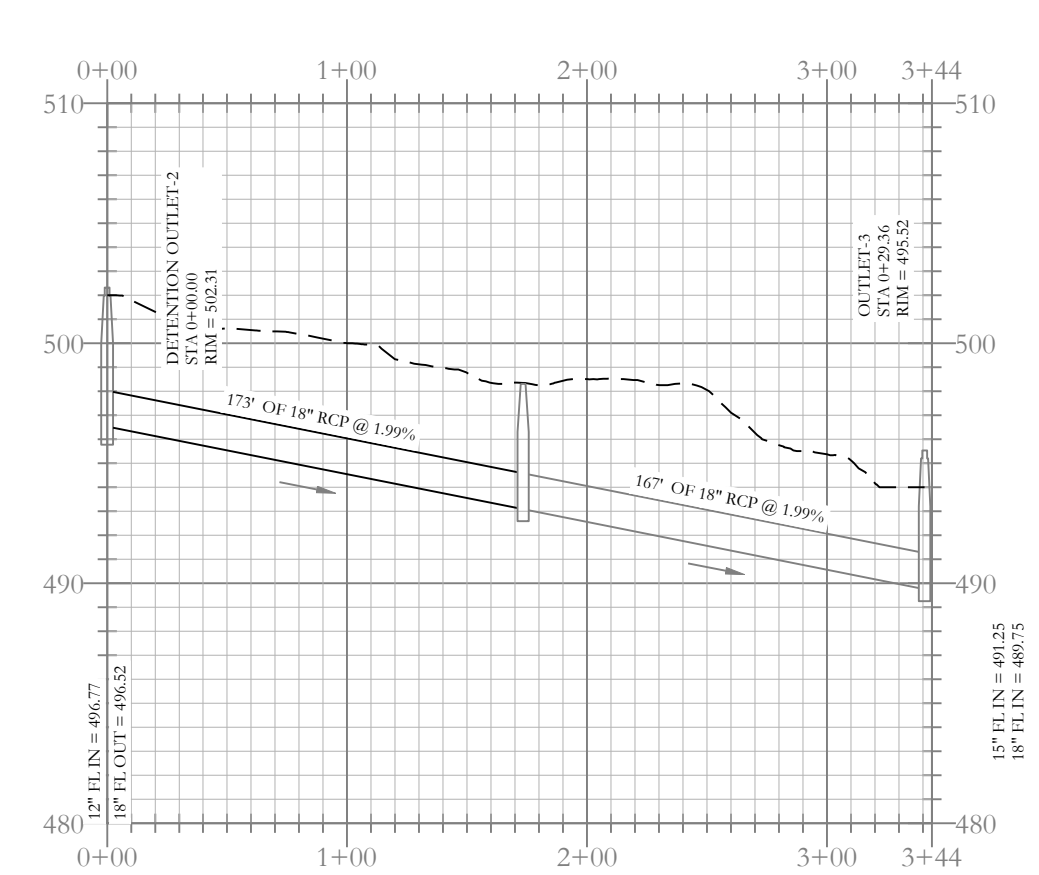
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PARCEL #840-11631-854
ZONING R2

CHAYAGONDIA JEAN PAUL
GERARDE JR & DAYRA A
PARCEL #840-11631-925
ZONING R2

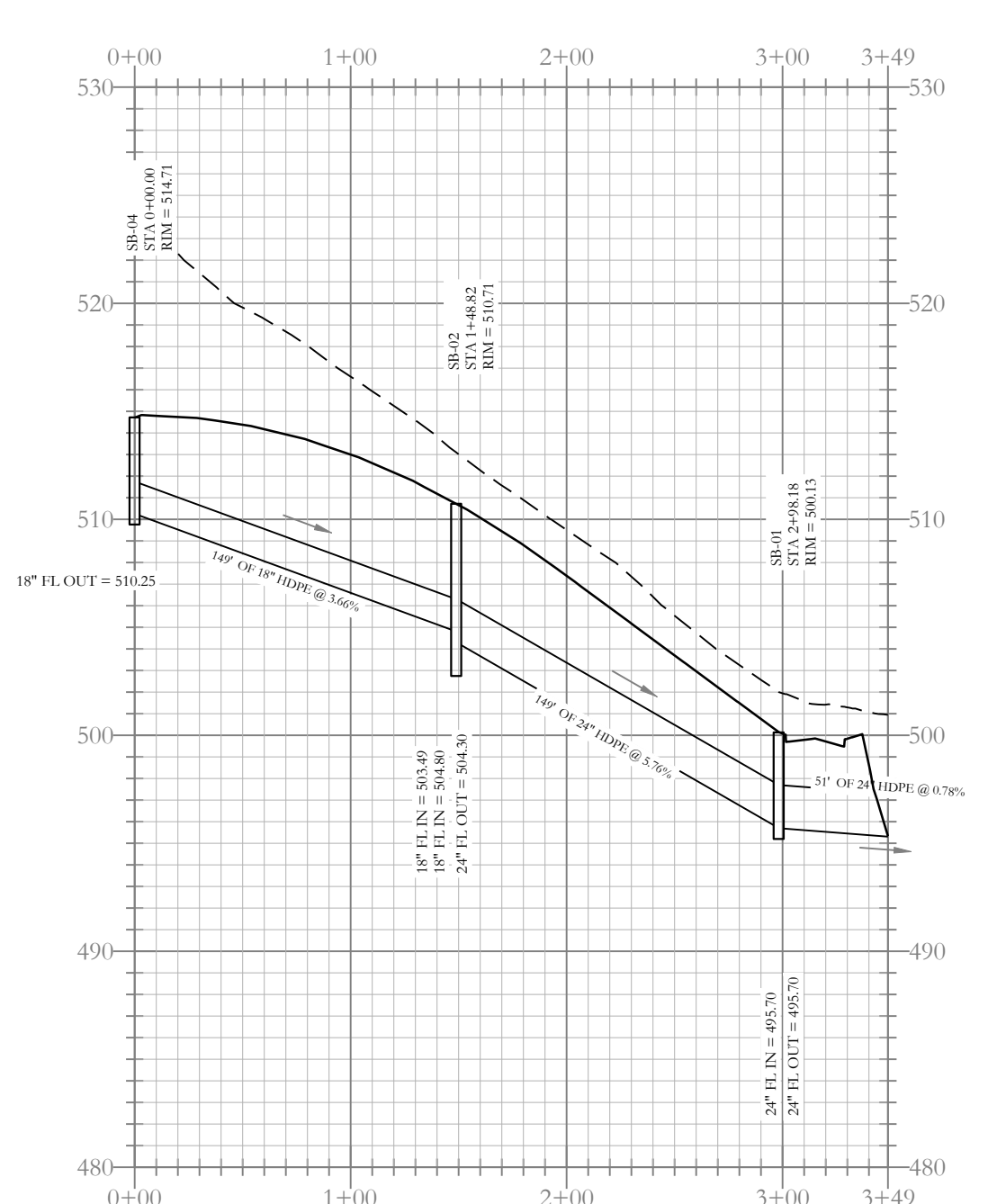
RELFORD ERIK G &
MEGAN R
PARCEL #840-11631-945
ZONING R2



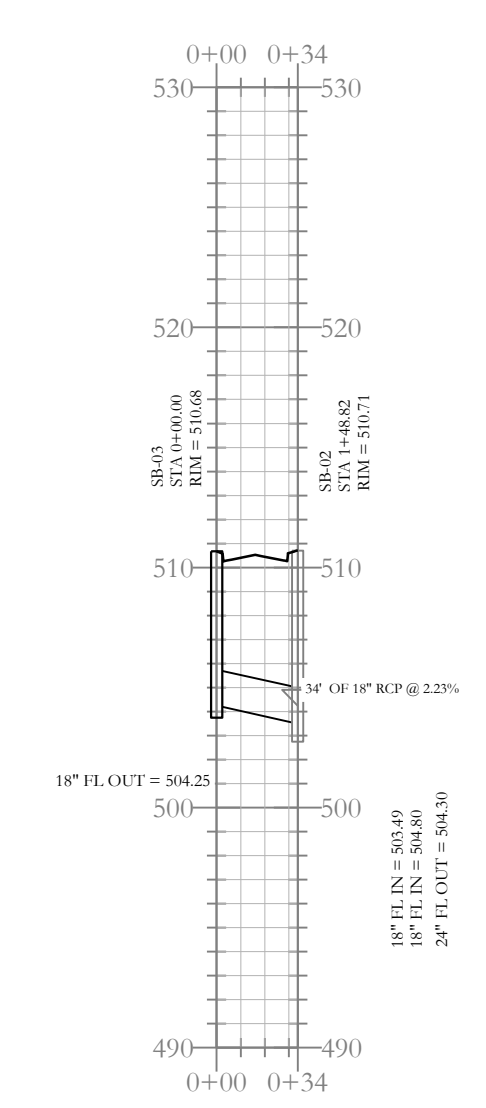
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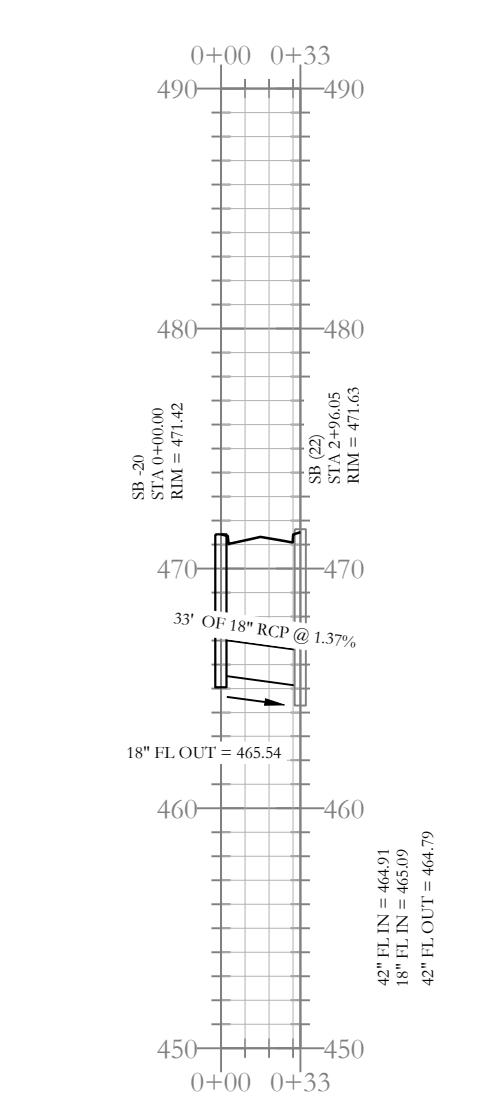
Detention Outlet to ditch Profile



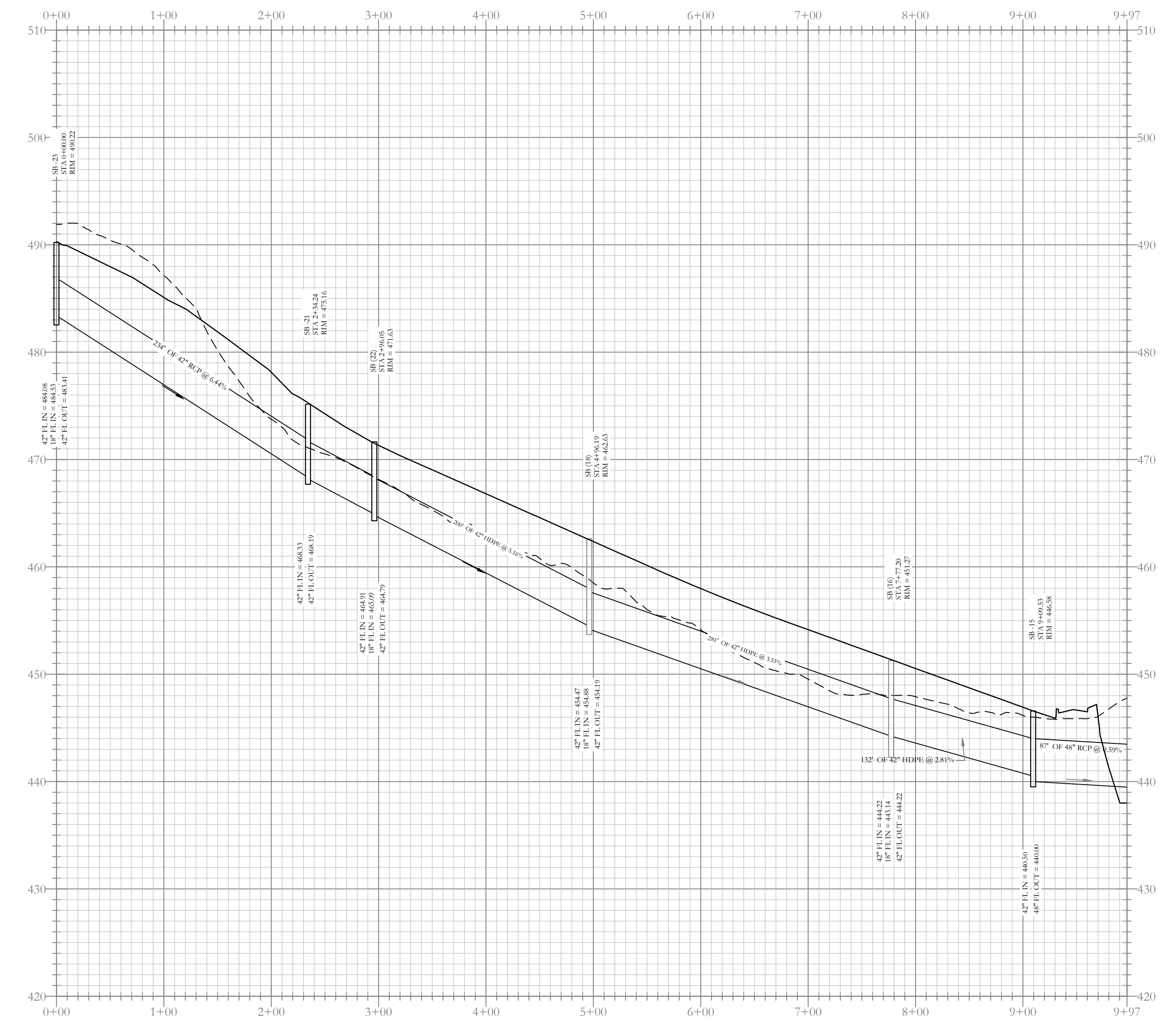
Stormwater Entrance Profile



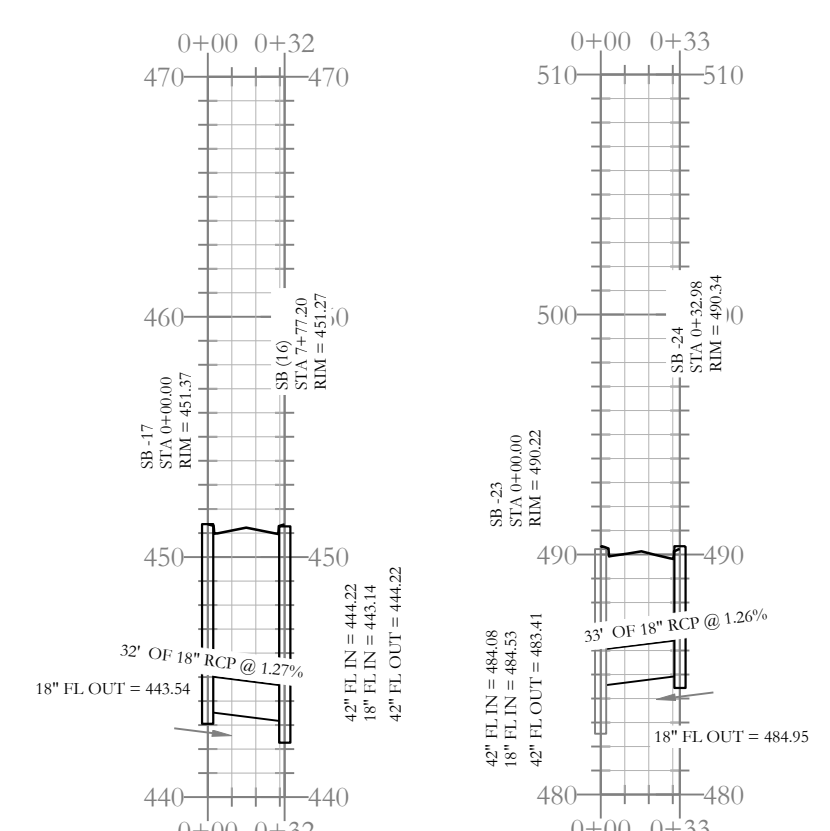
Stormwater Entrance-i Profile



Stormwater G(d) Profile

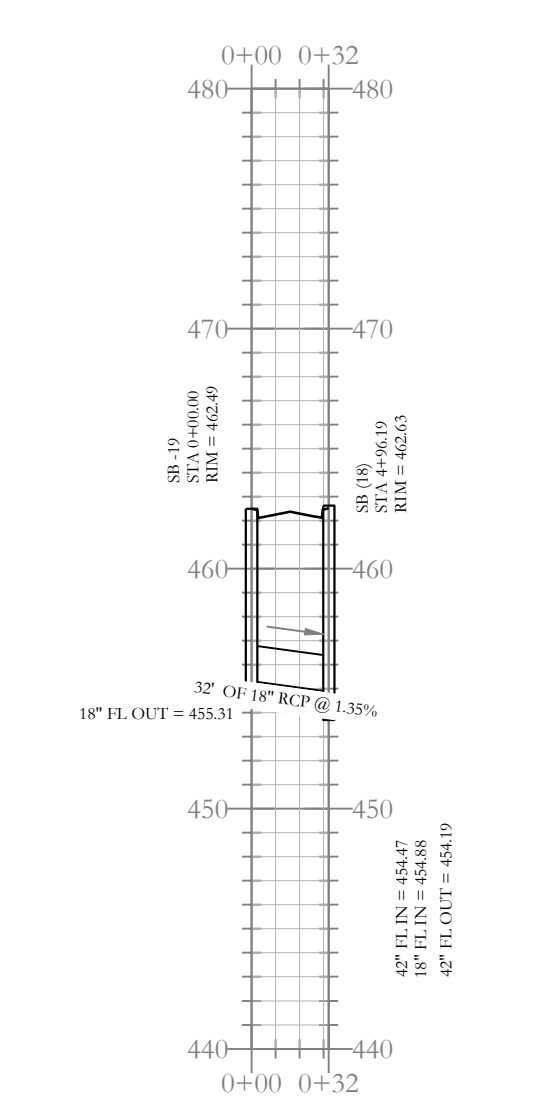


Stormwater G Profile

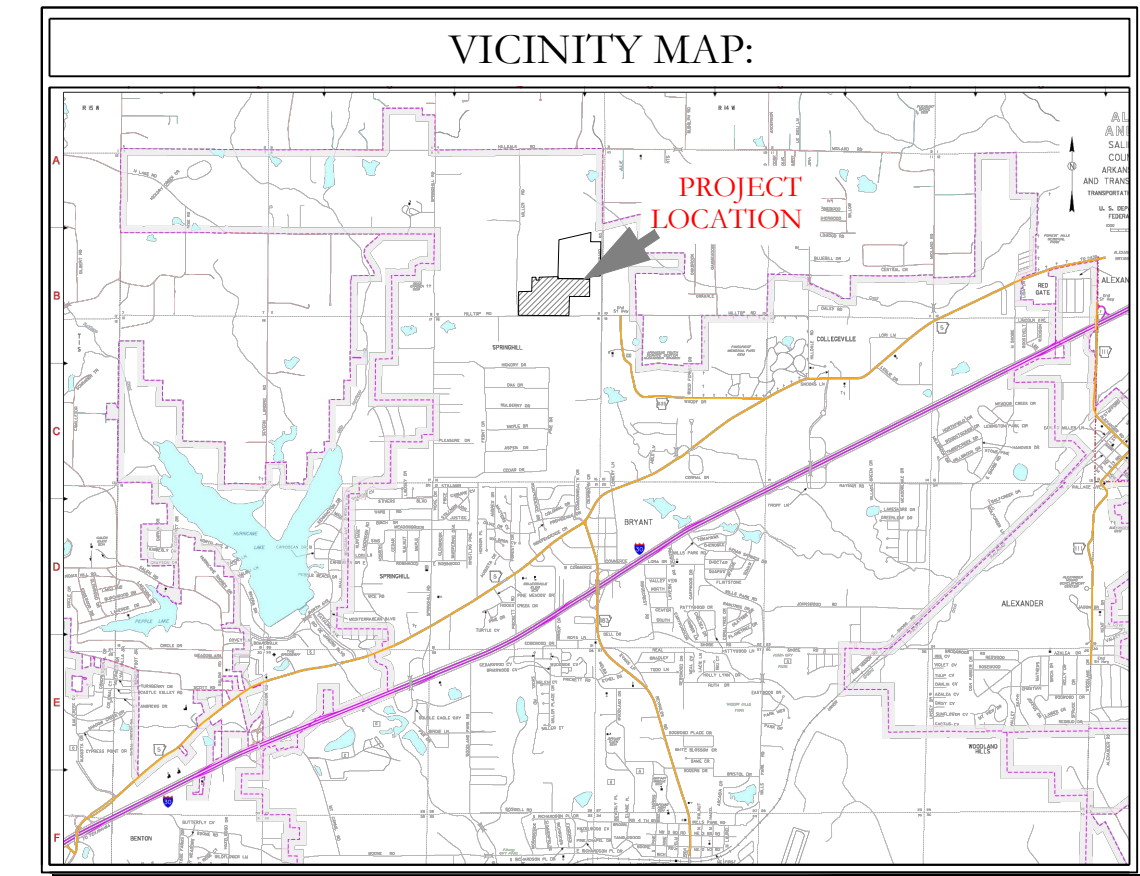


Stormwater G(b) Profile

Stormwater G(c) Profile



Stormwater G(a) Profile

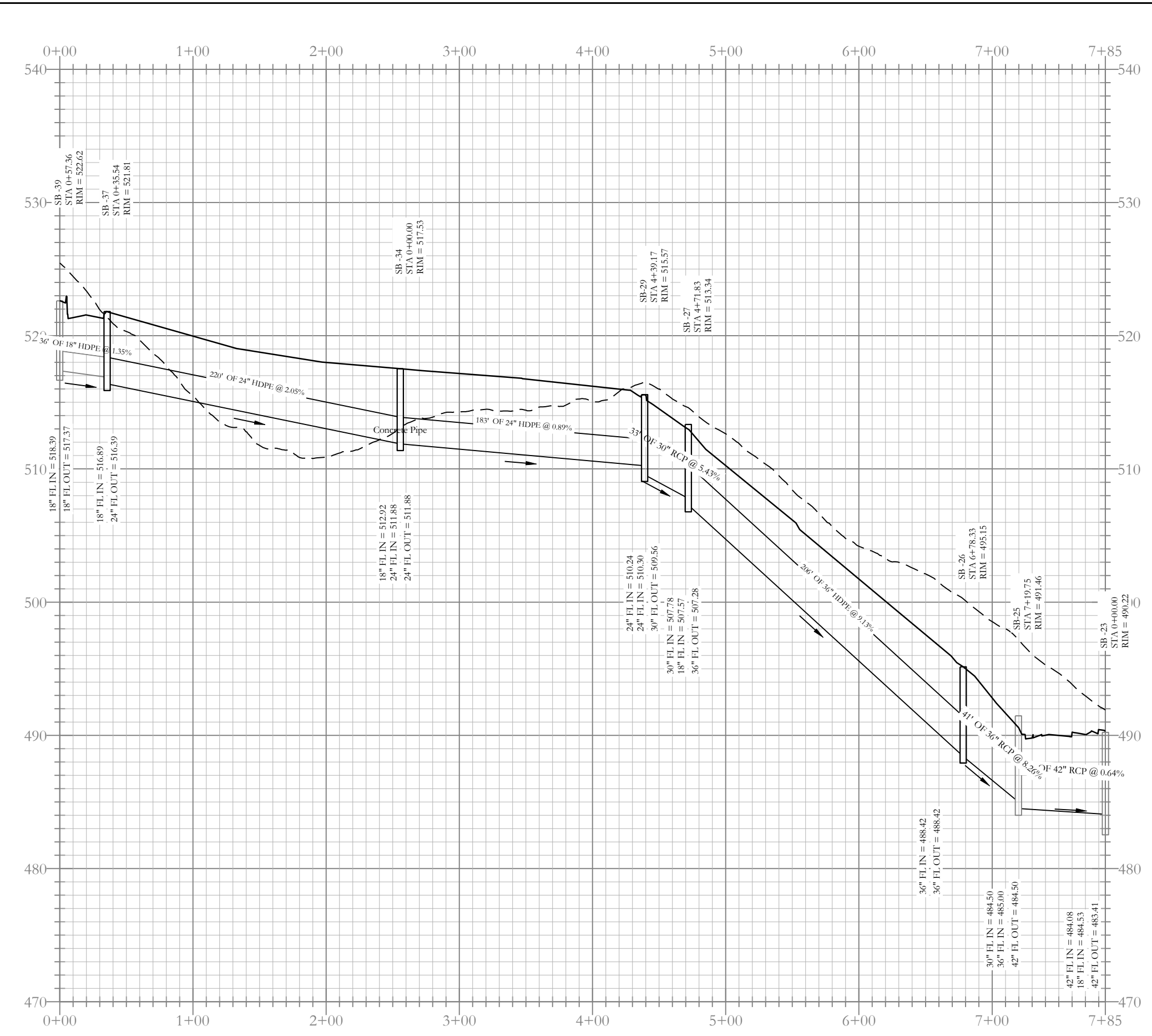
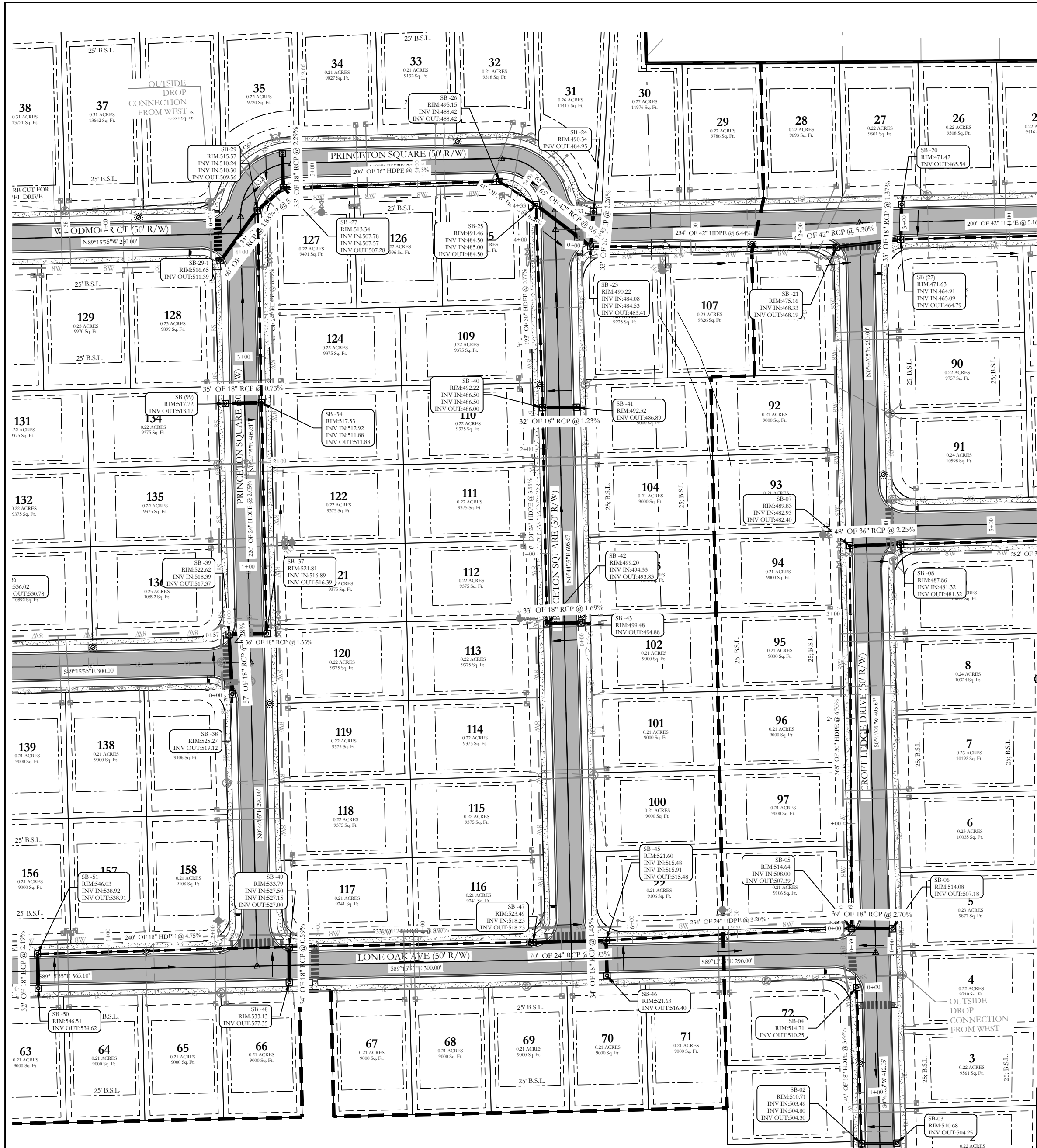


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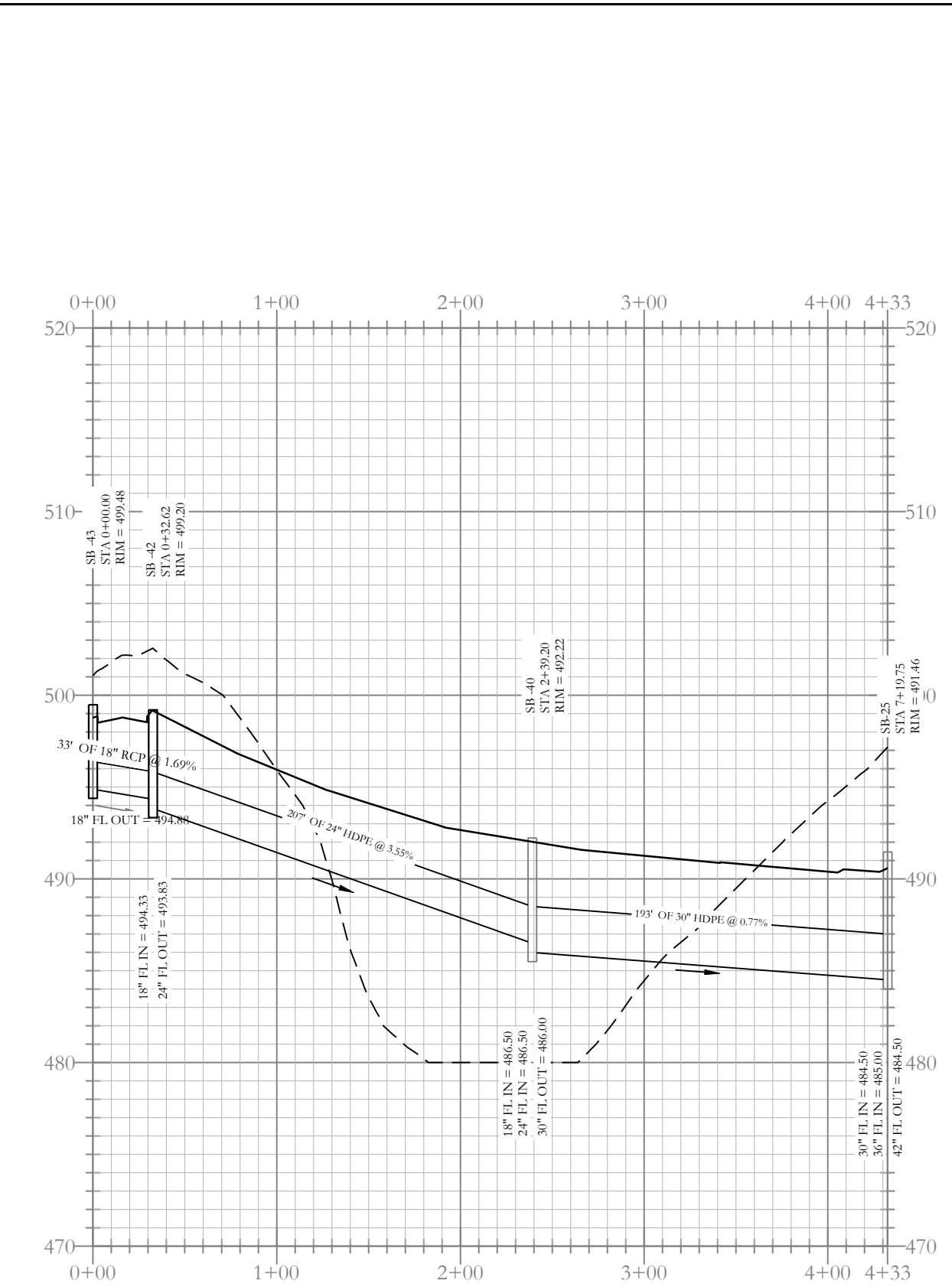
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HILLTOP LANDING STORM DRAINAGE PLAN AND PROFILE A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS			
DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:	
REVISED: 08/07/2023	CHECKED BY:	20-1341	
SHEET: C-3.2	SCALE: 1" = 80'		
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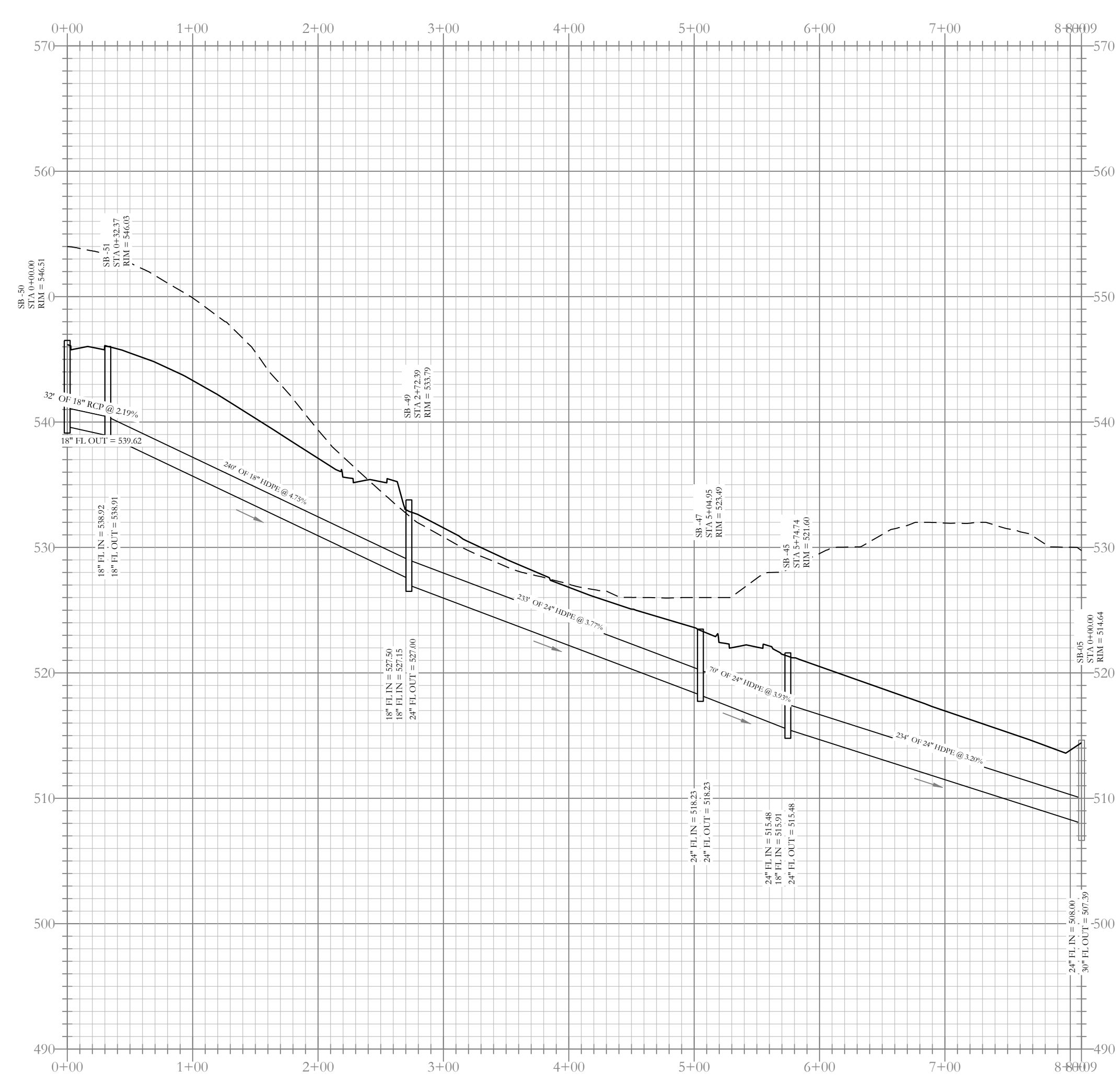
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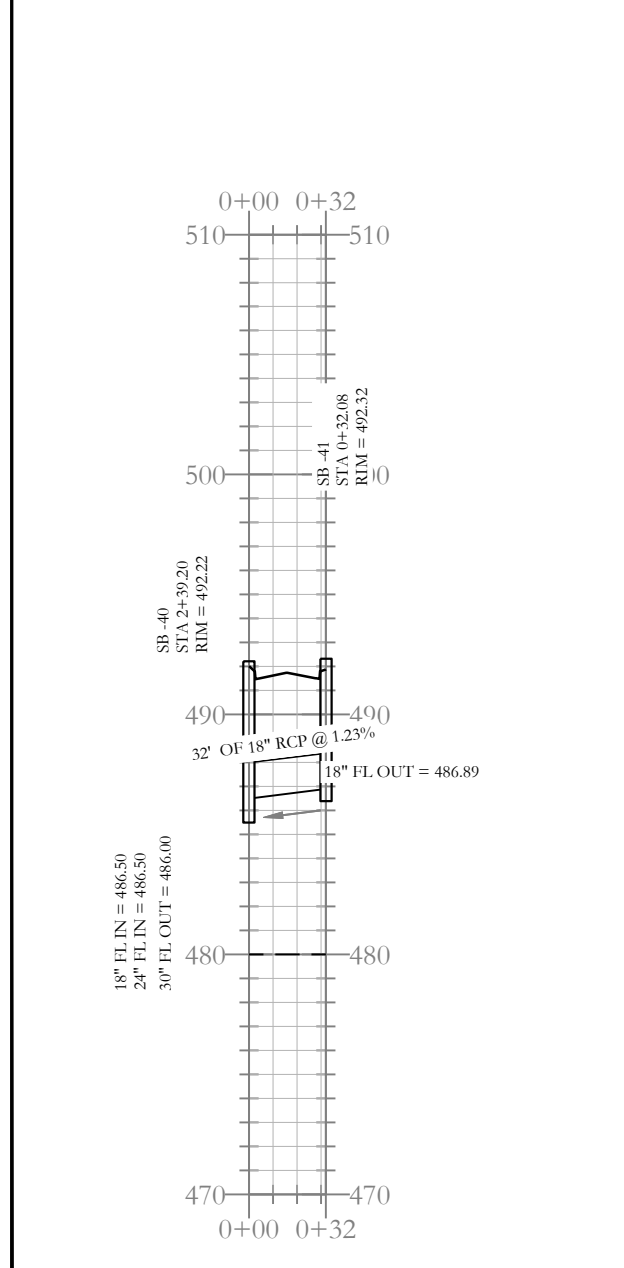
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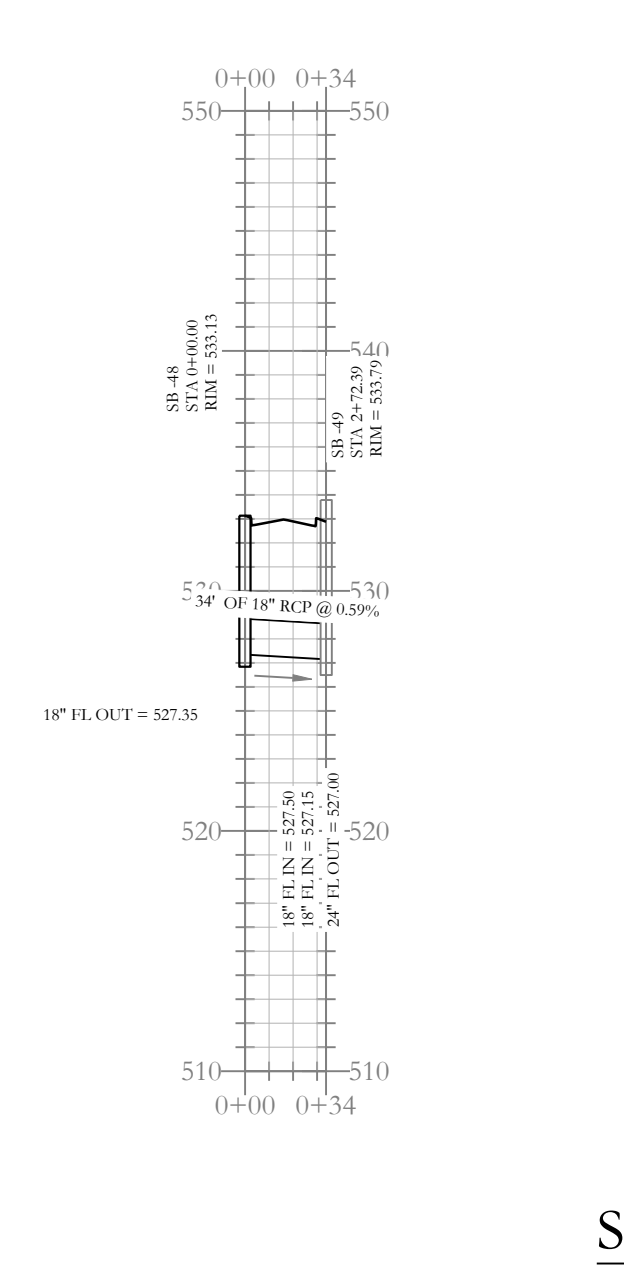
Stormwater D-1 Profile



Stormwater F Profile

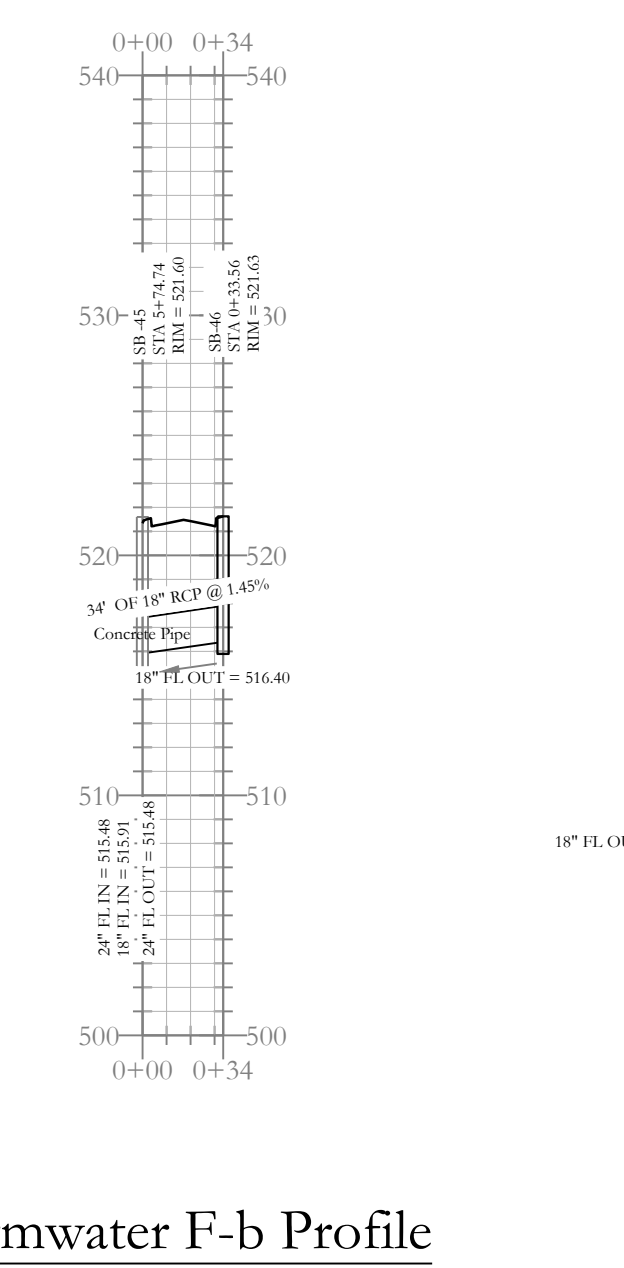


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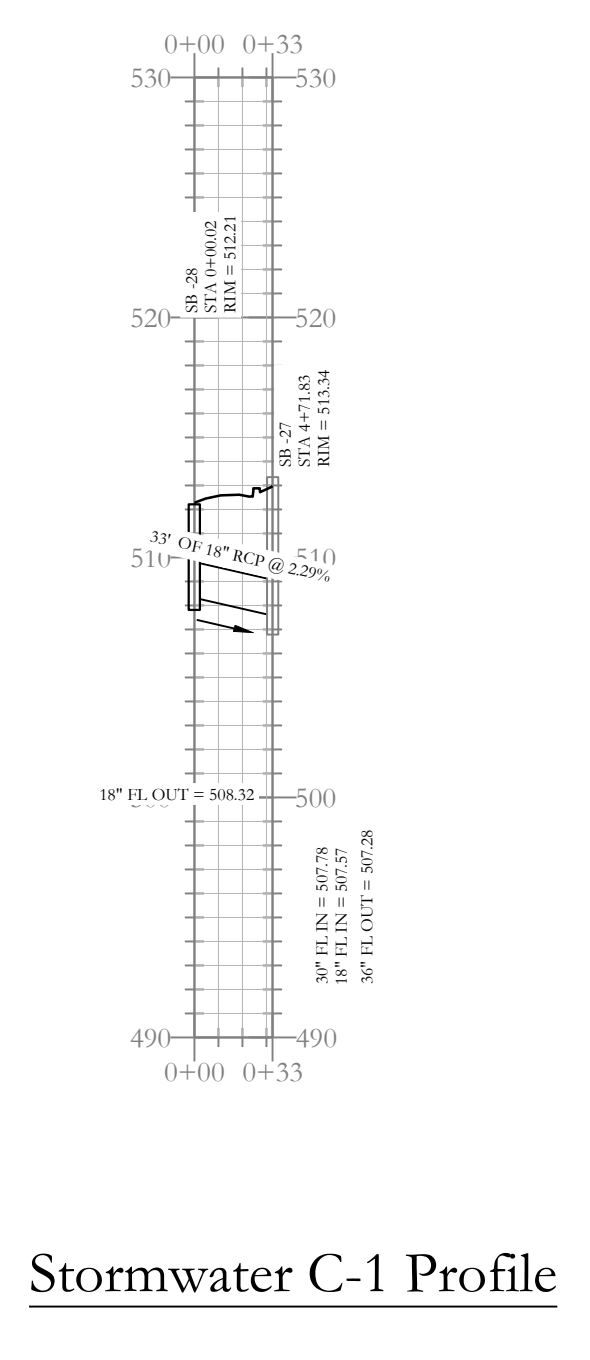


Stormwater F-a Profile

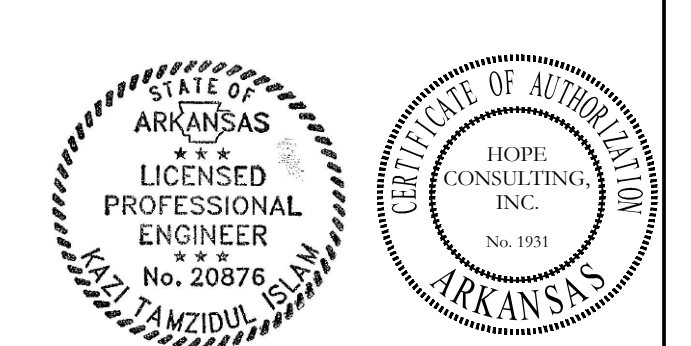
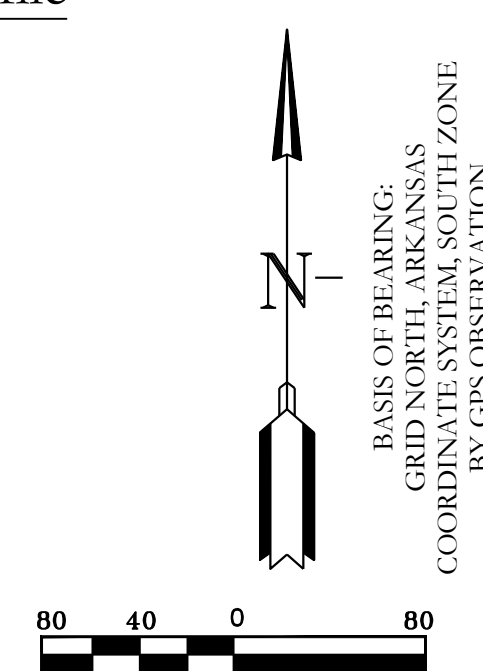
Stormwater F-b Profile



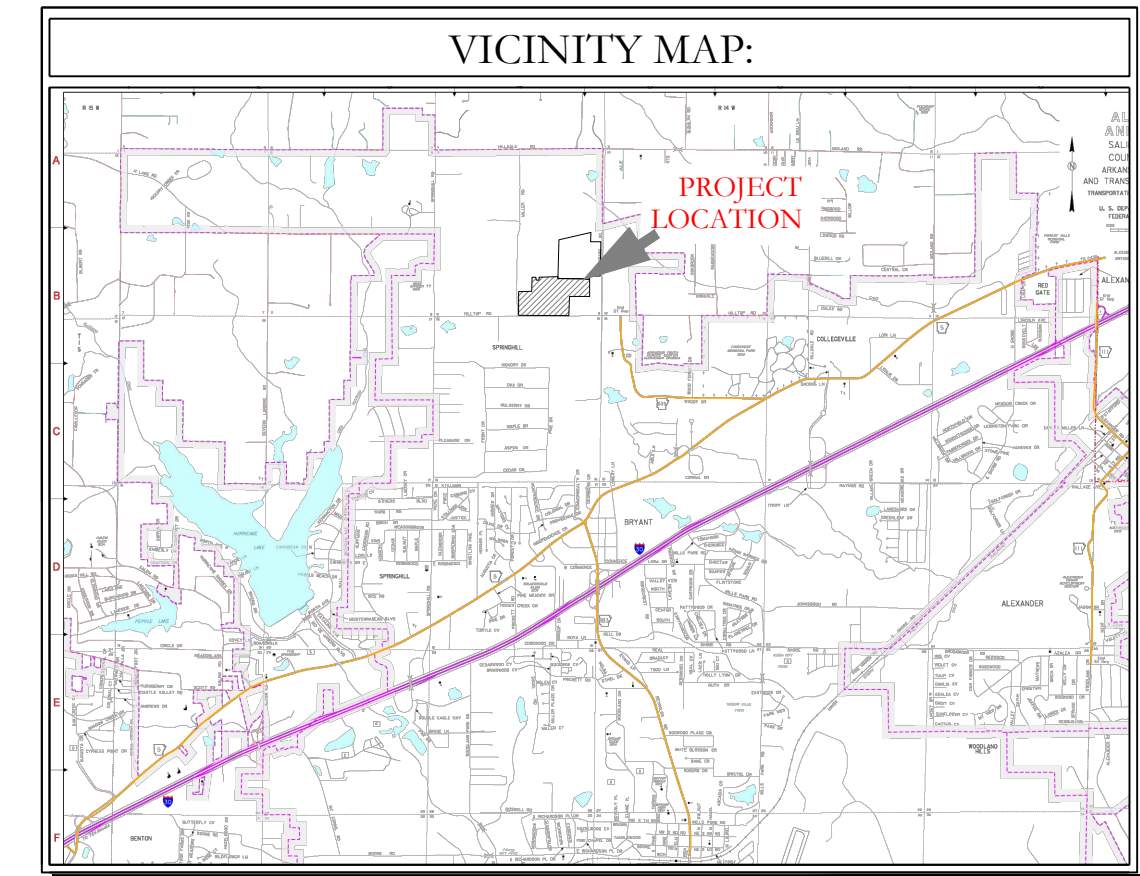
Stormwater E-1 Profile



Stormwater C-1 Profile



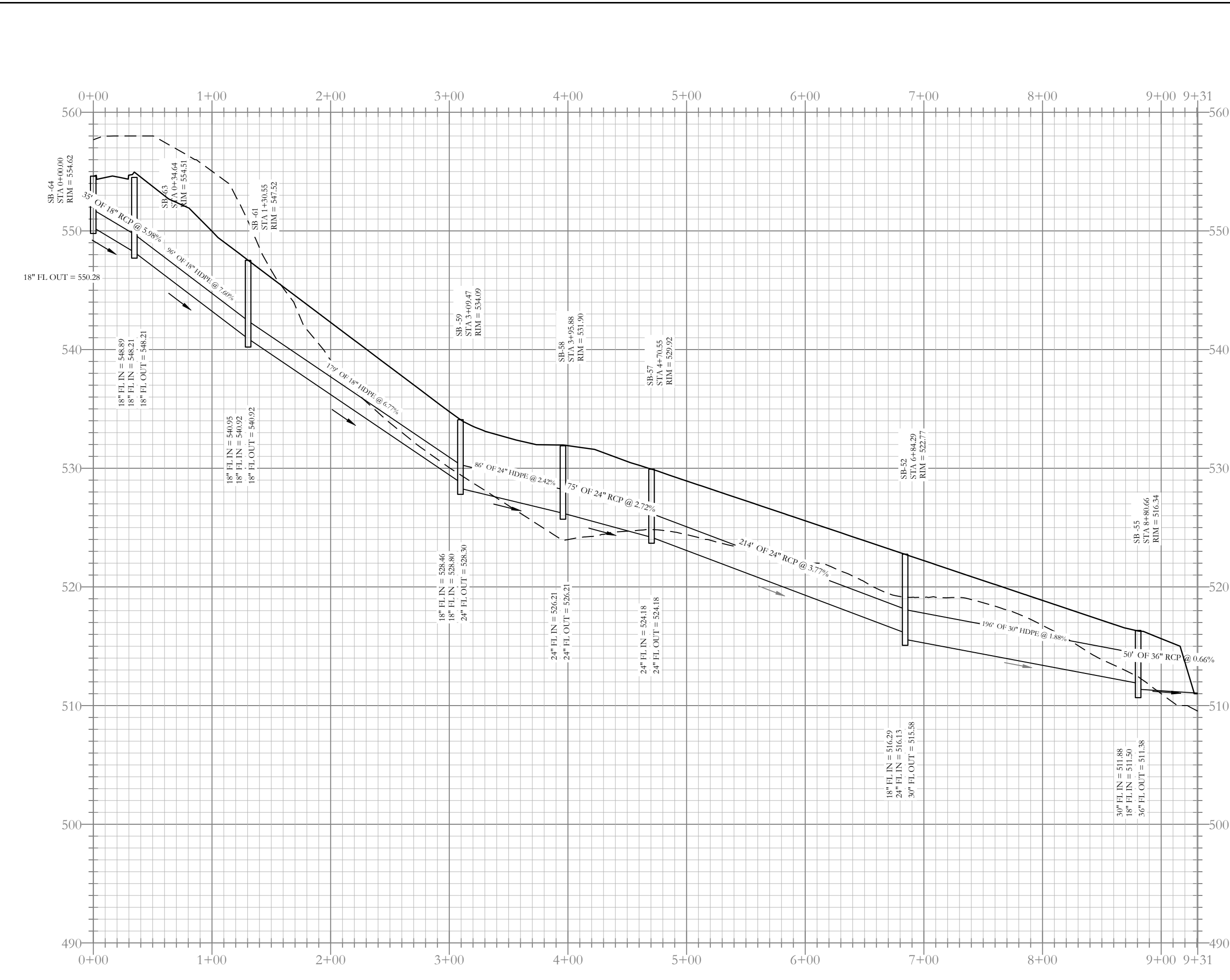
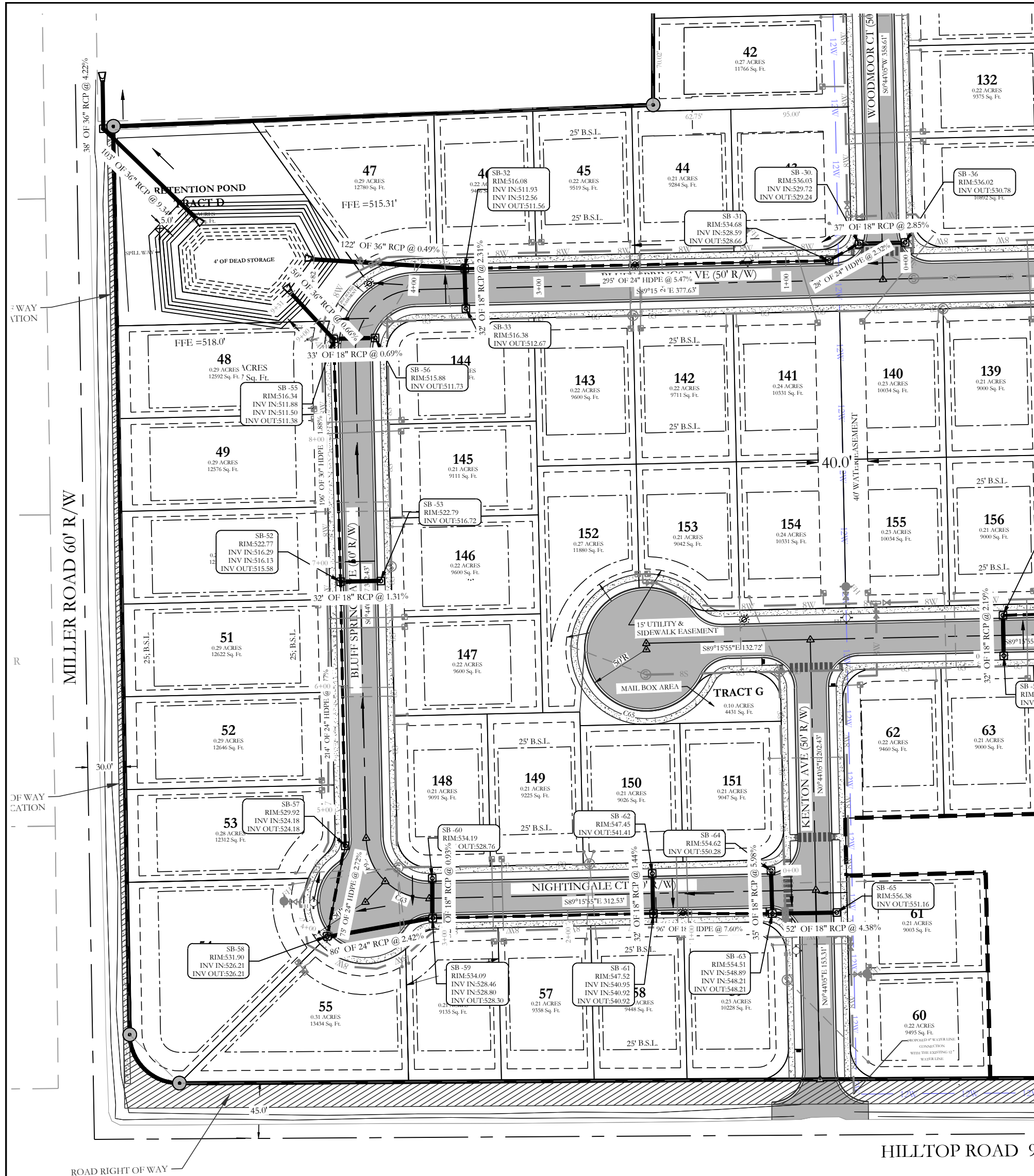
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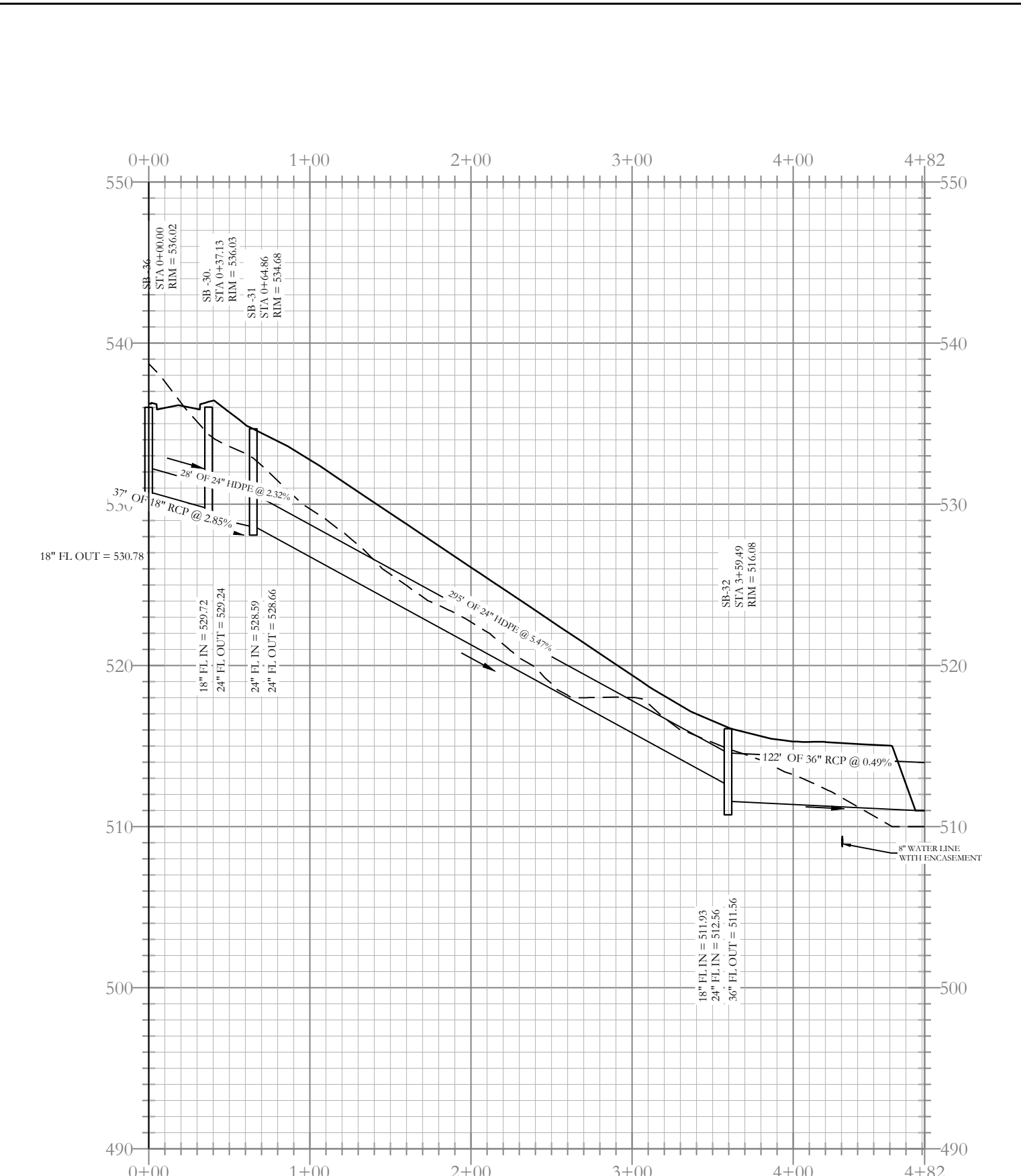
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DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:	
REVISED: 08/07/2023	CHECKED BY:	20-1341	
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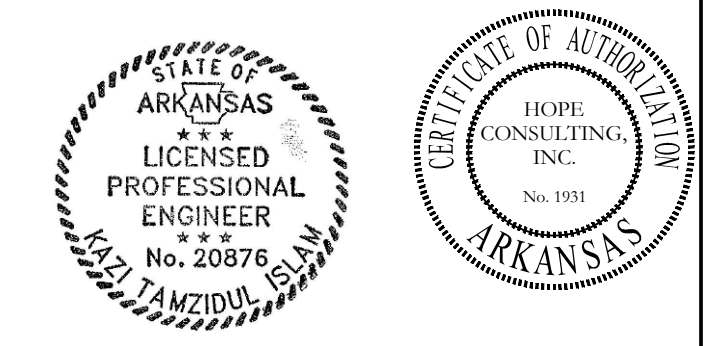
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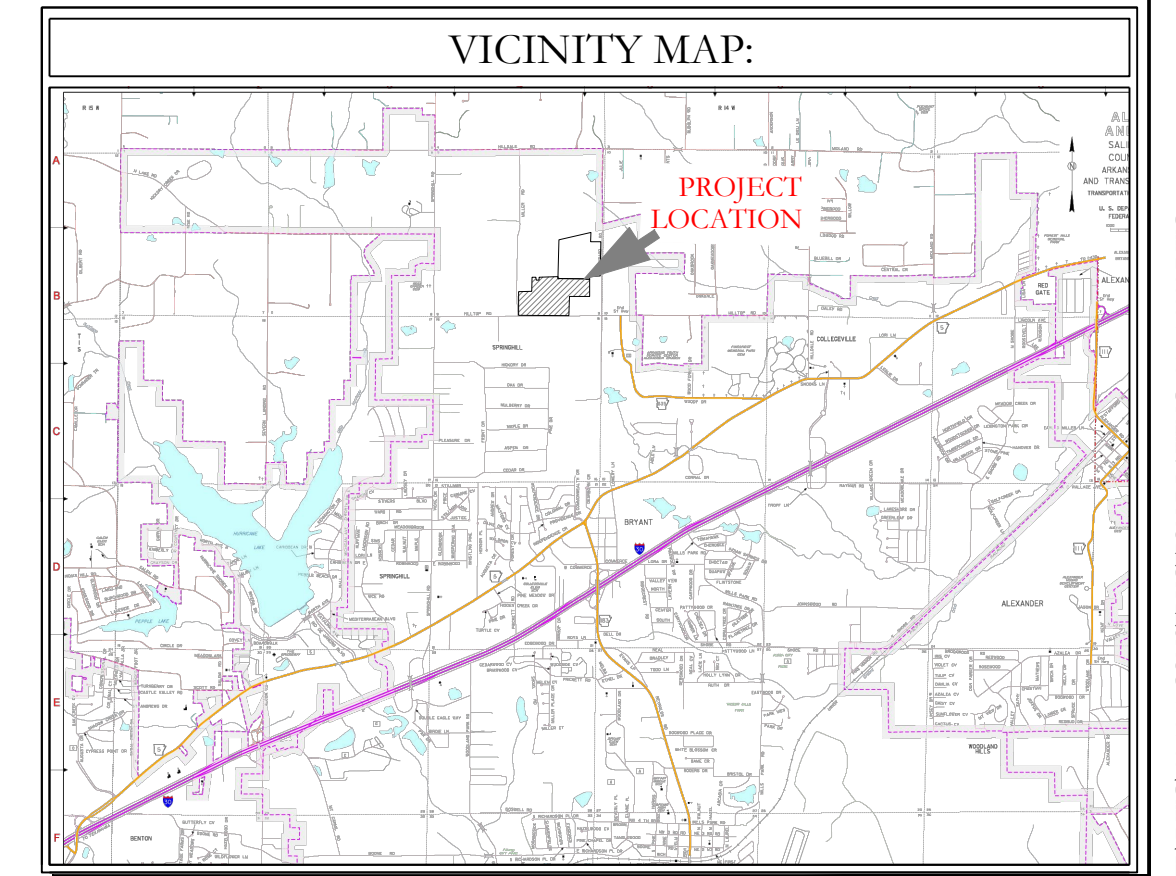
Stormwater E-2 Profile



Stormwater B Profile



--- HDPE
 ——— RCP



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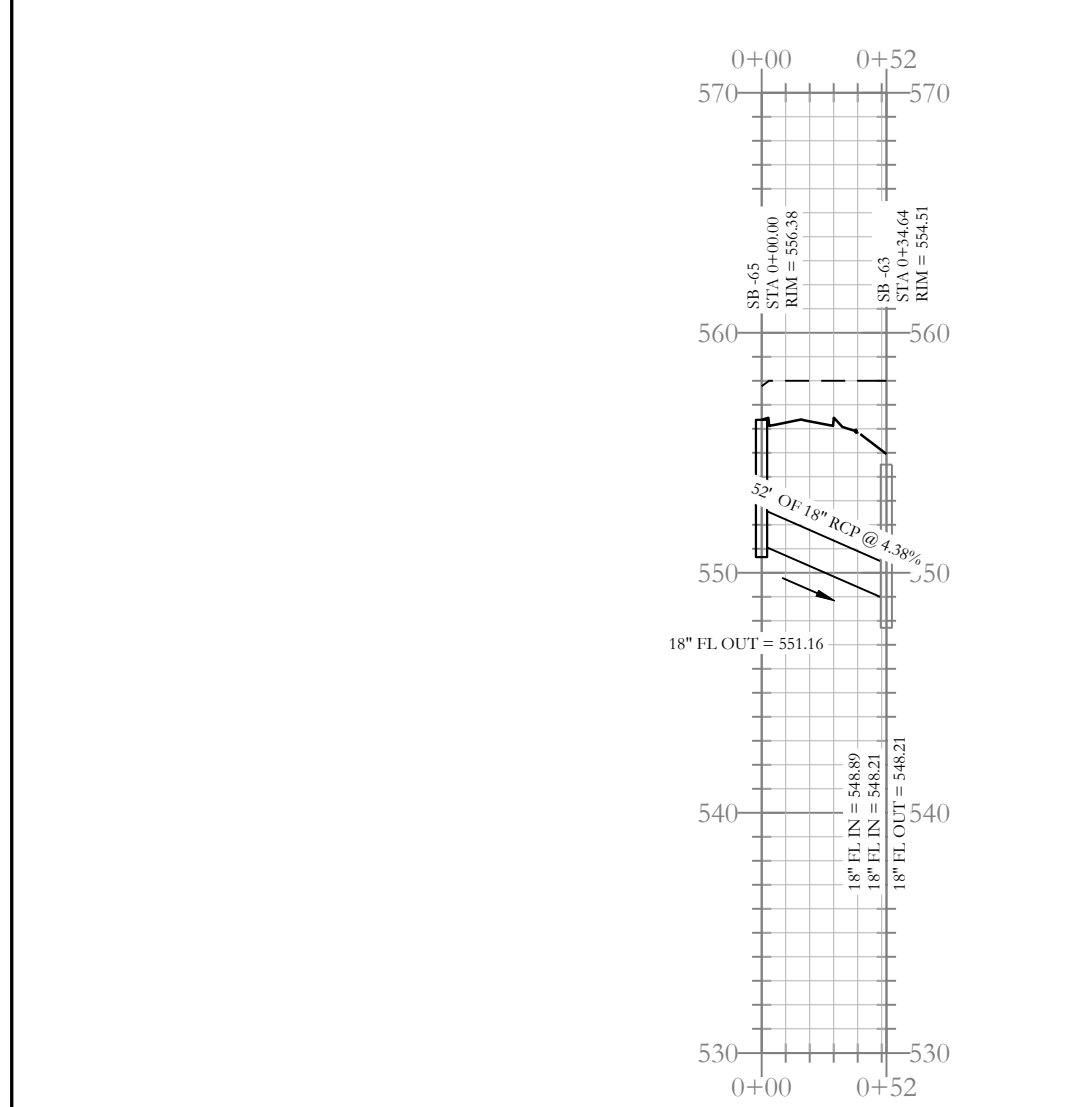
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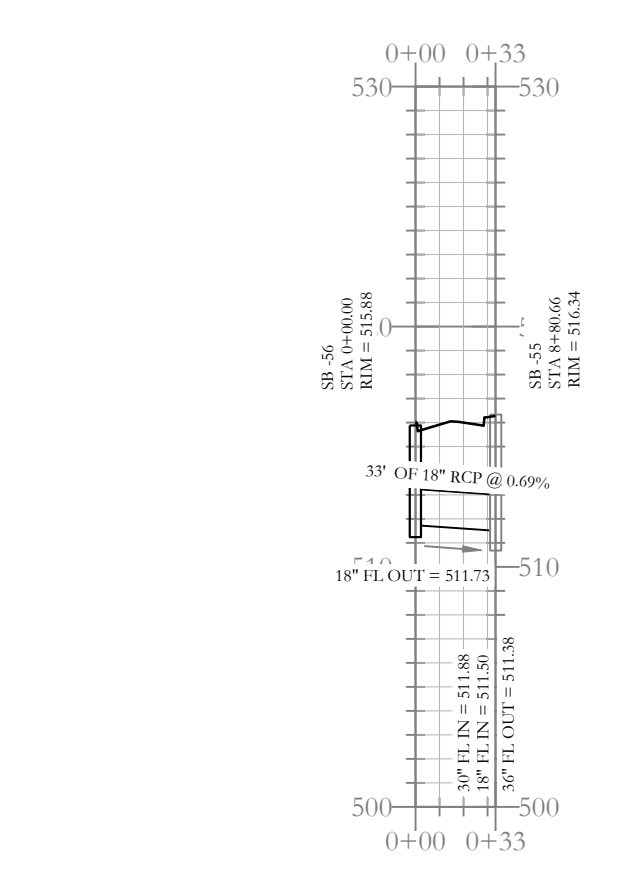
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 A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:
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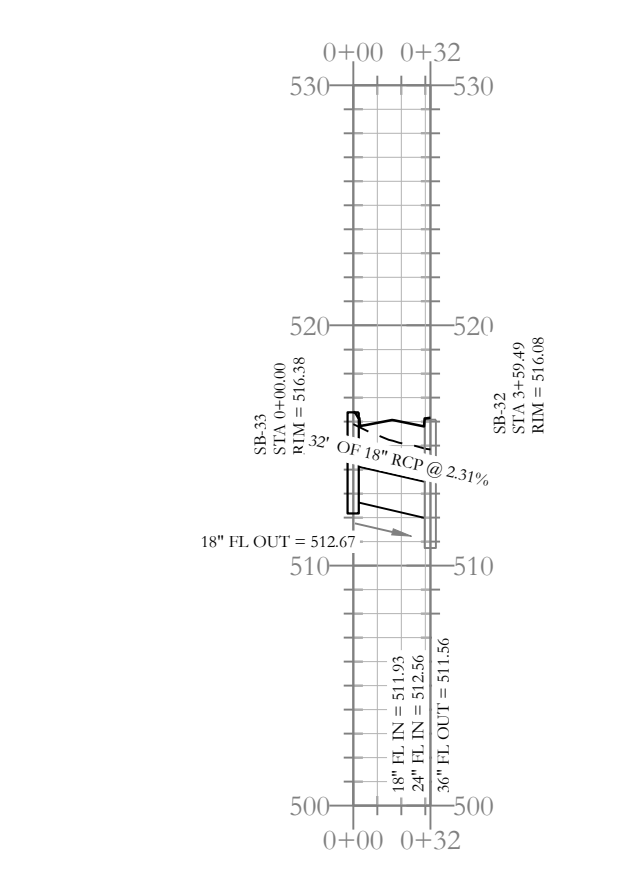
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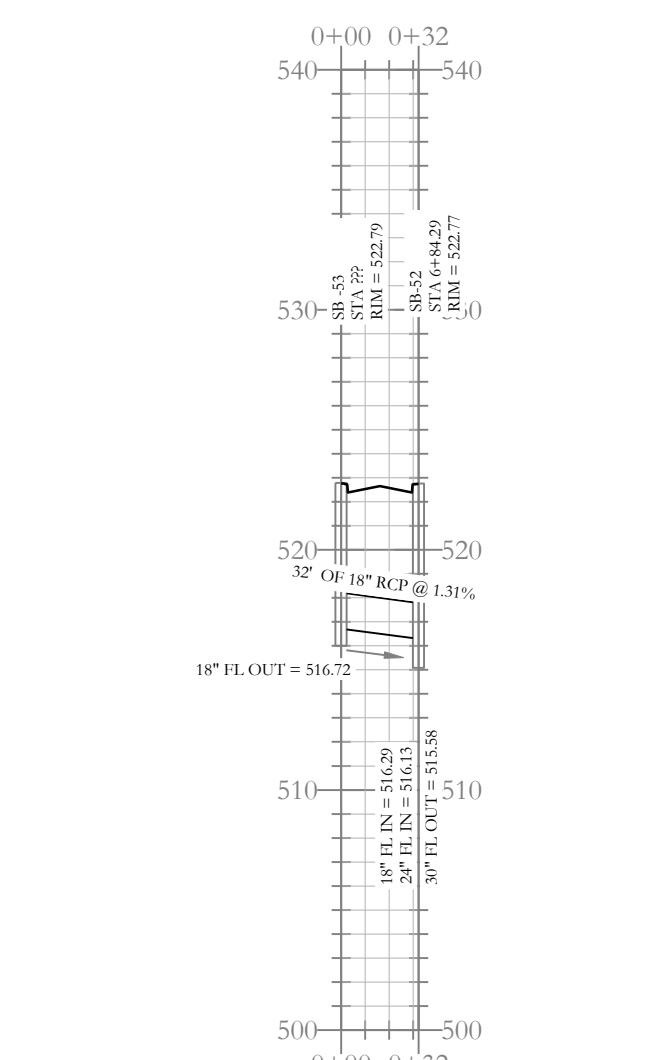
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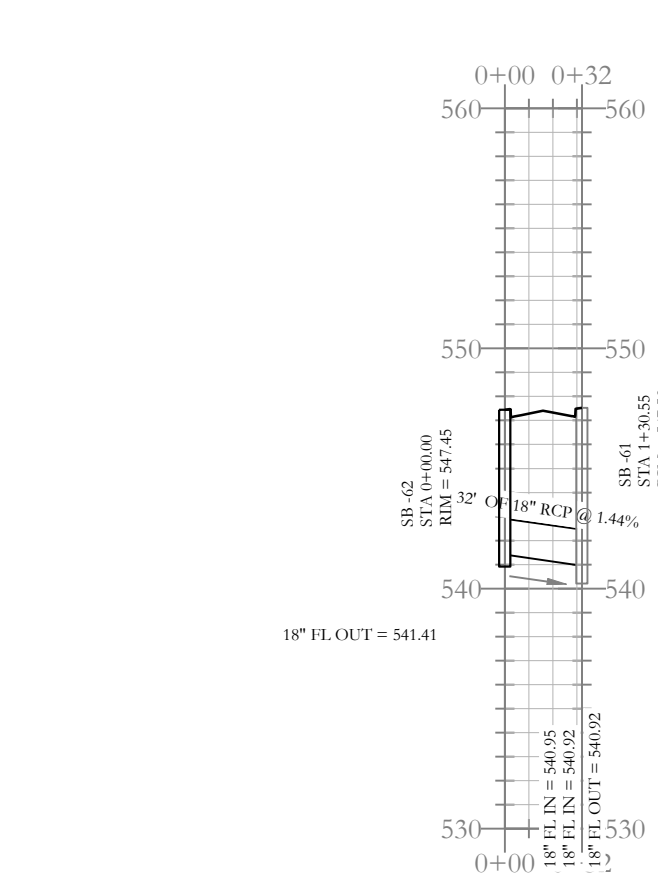
Stormwater E-a Profile



Stormwater E-b Profile



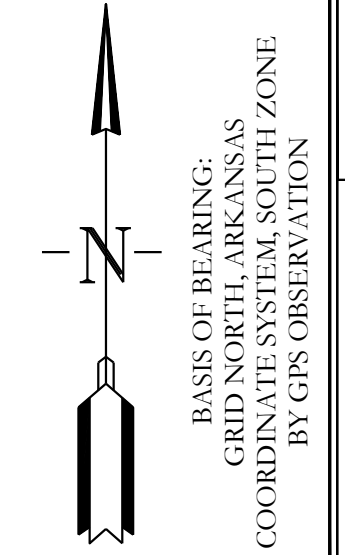
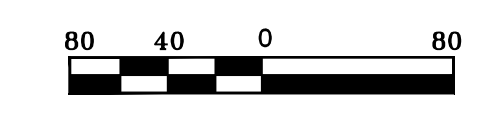
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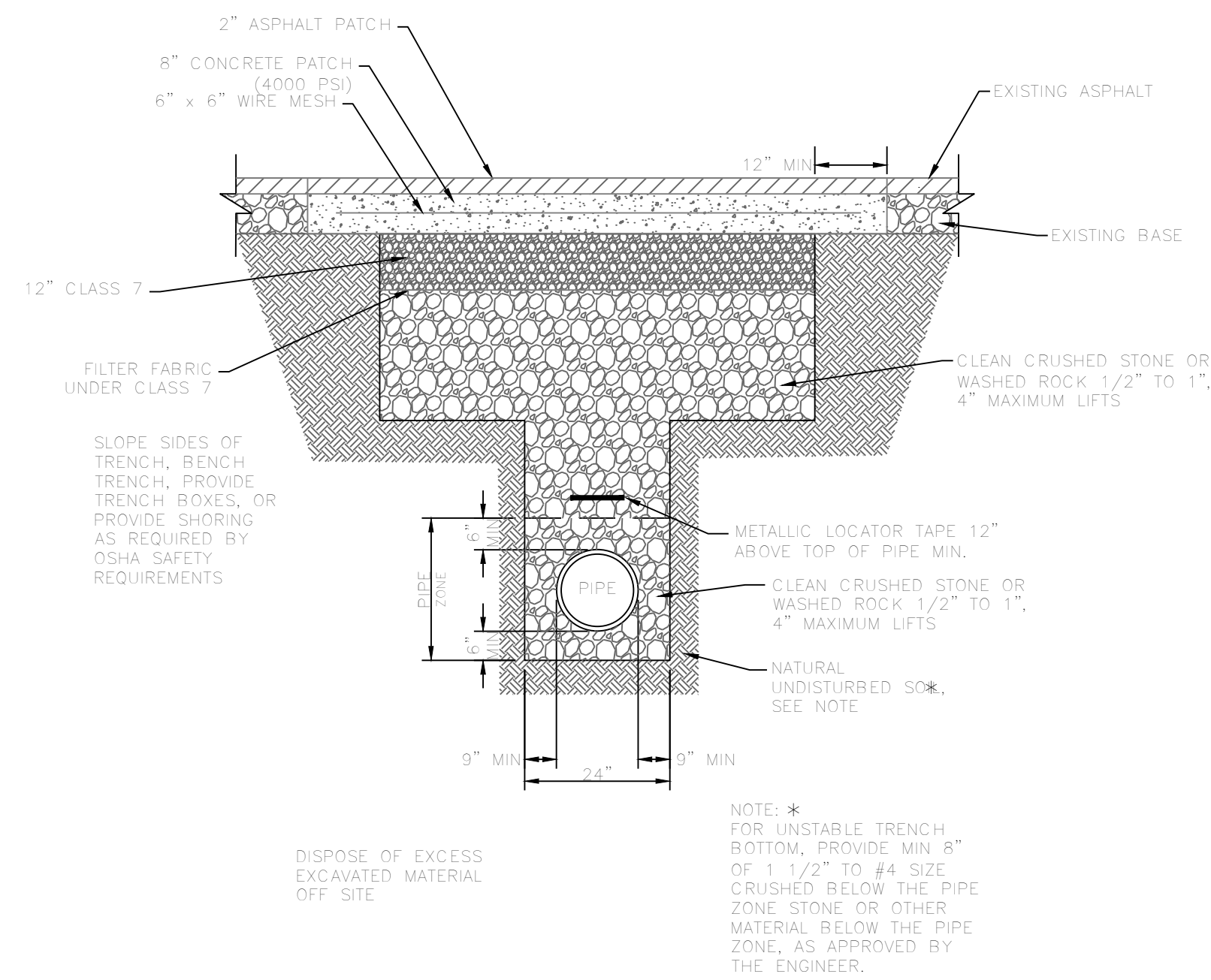
Stormwater E-d Profile



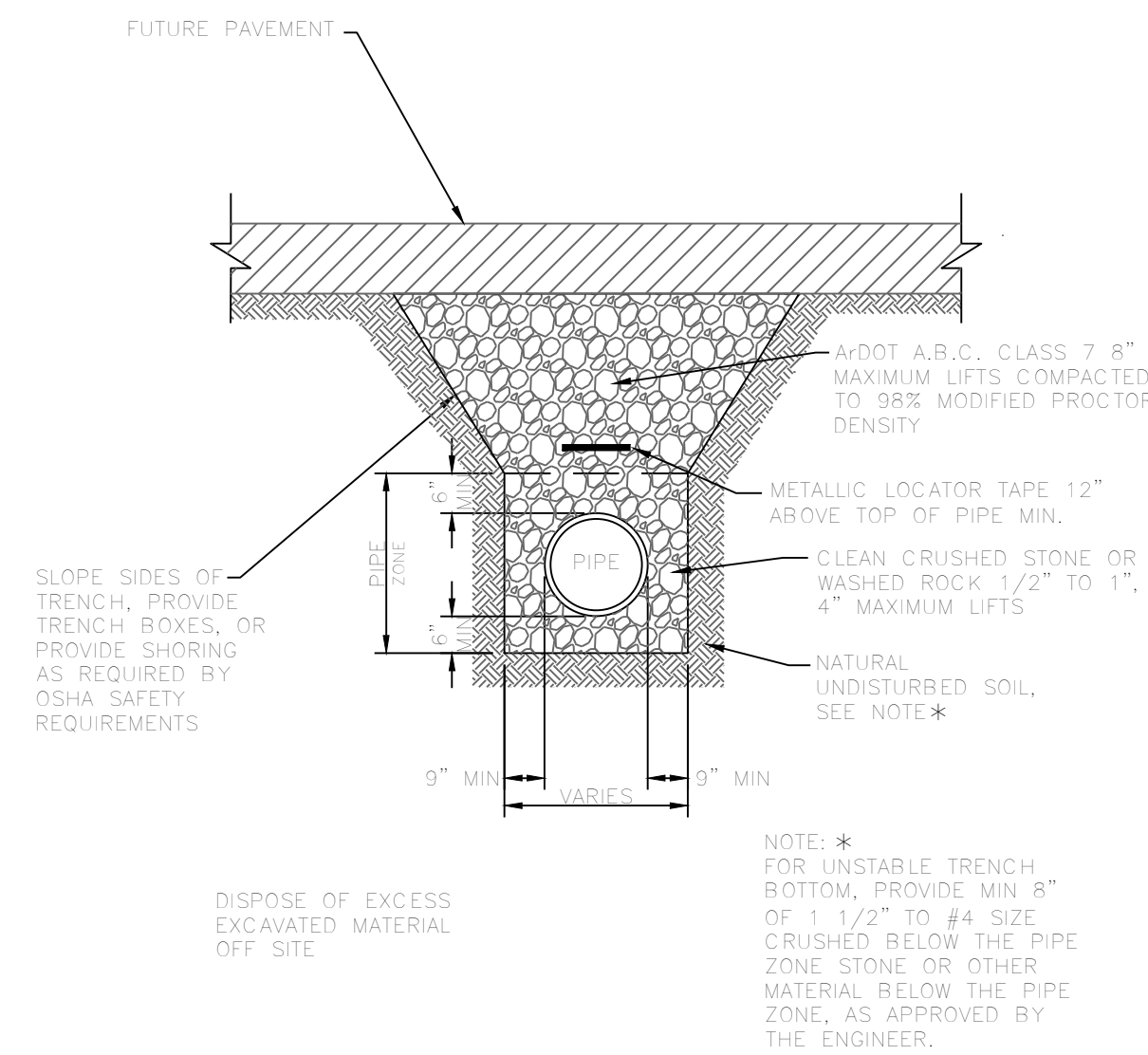
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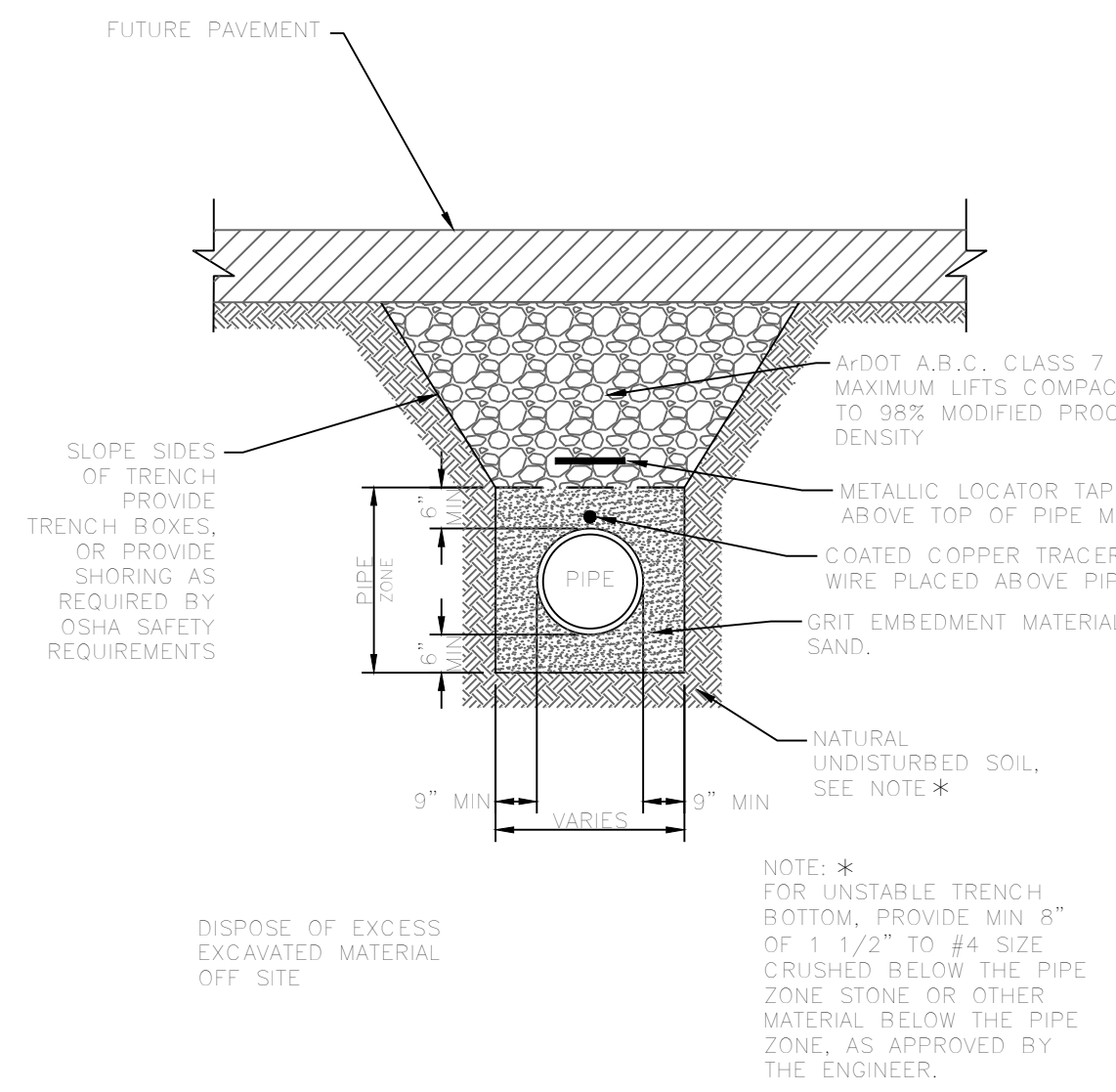
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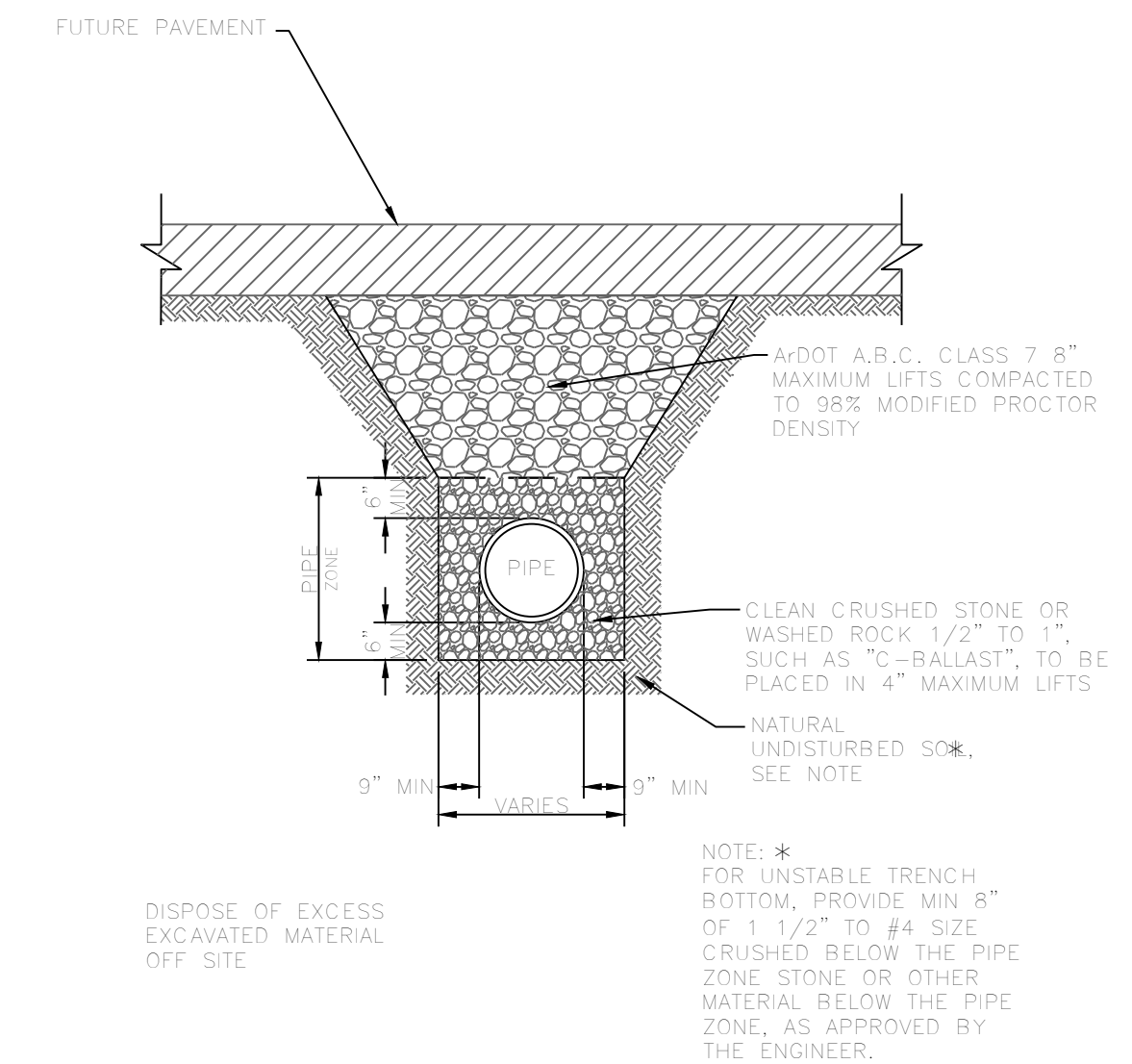
PVC SEWER TRENCH UNDER EXISTING ASPHALT STREET
N.T.S.



PVC SEWER TRENCH UNDER FUTURE ASPHALT STREET
N.T.S.



PVC WATER LINE TRENCH UNDER FUTURE ASPHALT STREET
N.T.S.

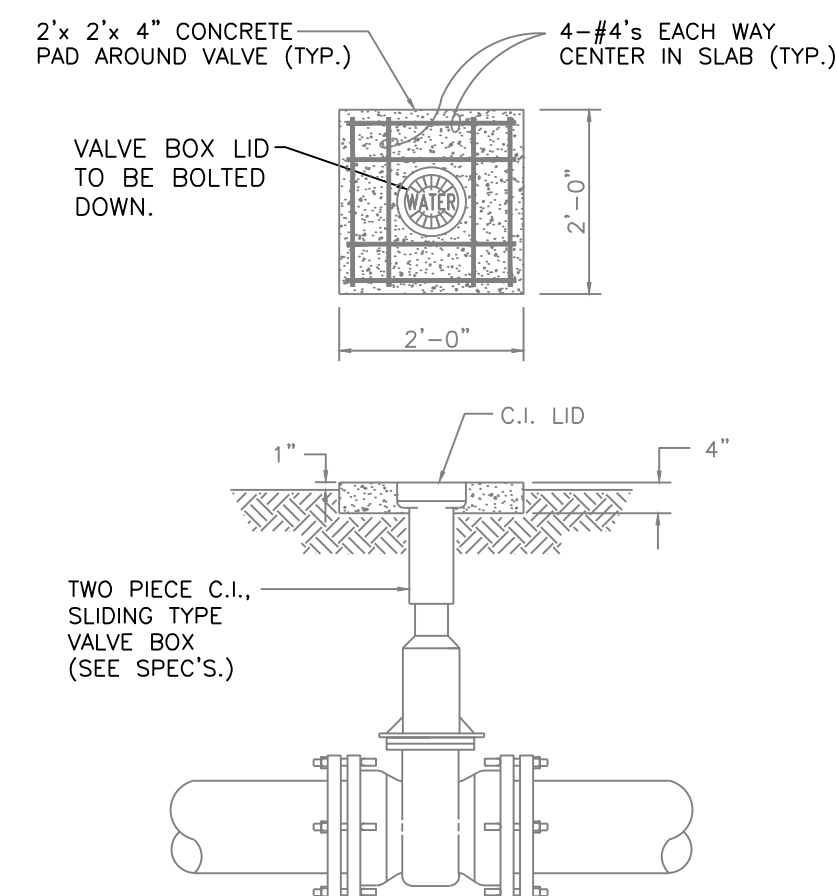


DRAINAGE PIPE TRENCH UNDER FUTURE ASPHALT STREET
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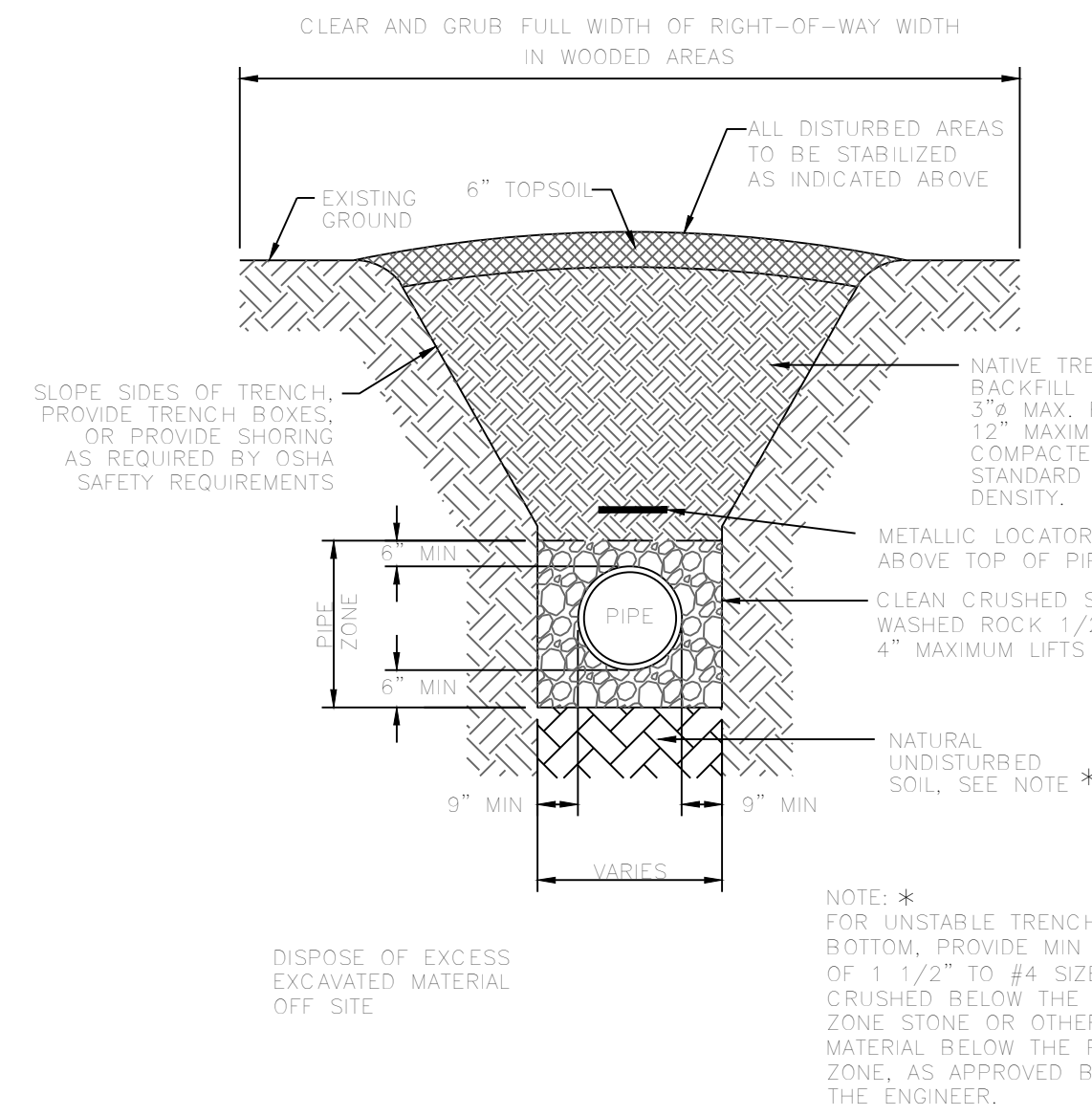
SOIL STABILIZATION REQUIREMENTS:
1. IN LAWN AREAS, DISTURBED SOIL SHALL BE STABILIZED BY PLACEMENT OF SOD TO MATCH EXISTING.
2. IN FIELDS OR WOODED AREAS, DISTURBED SOIL SHALL BE STABILIZED BY SEEDING.

SOIL STABILIZATION REQUIREMENTS:
1. IN LAWN AREAS, DISTURBED SOIL SHALL BE STABILIZED BY PLACEMENT OF SOD TO MATCH EXISTING.
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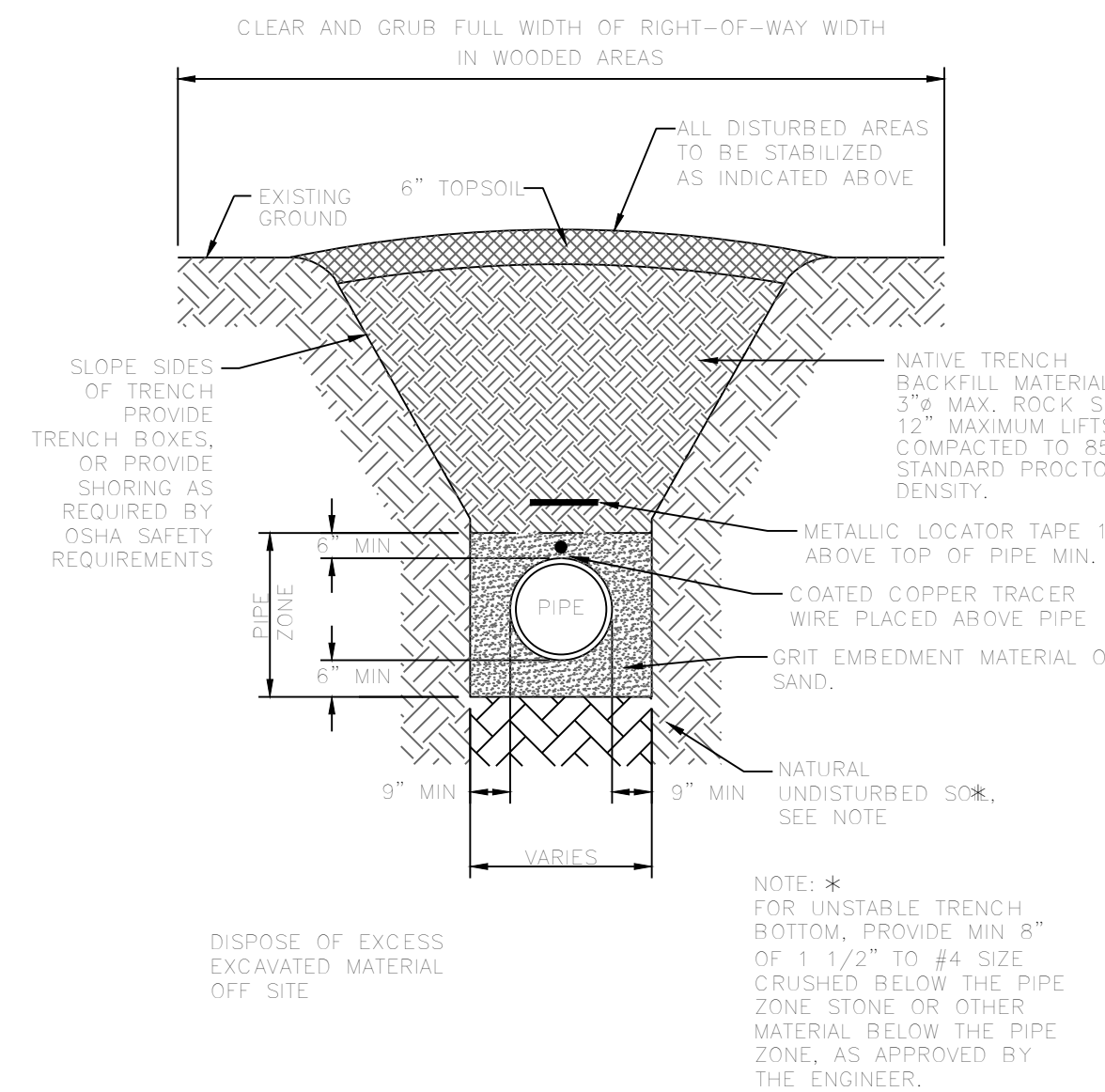
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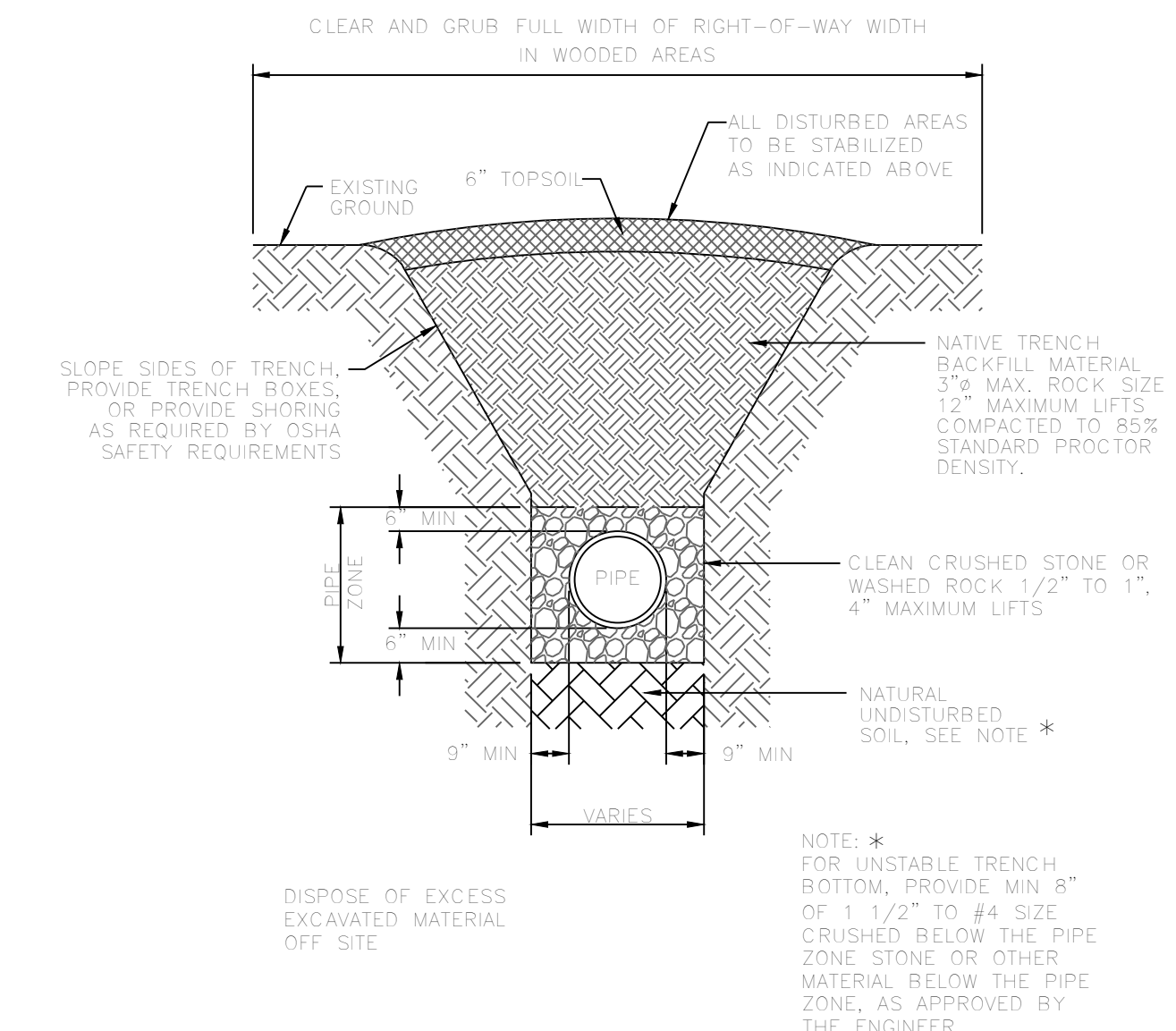
DETAIL-VALVE BOX
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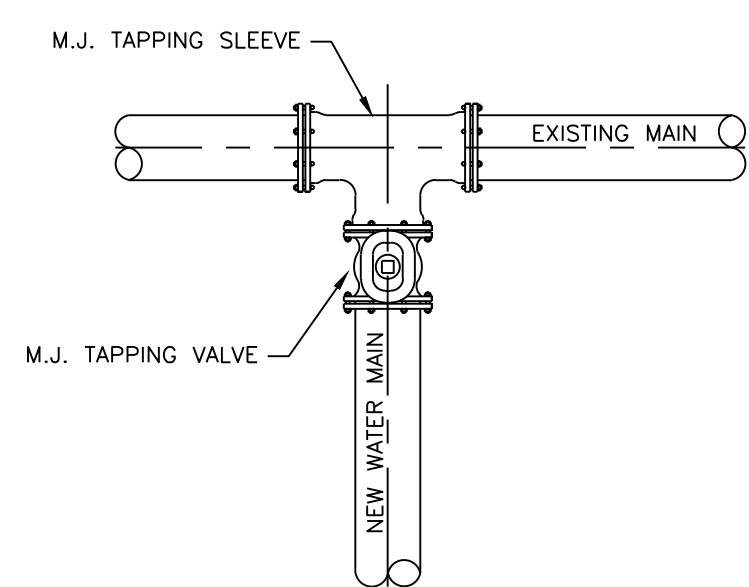
PVC SEWER TRENCH IN UNPAVED AREAS
N.T.S.



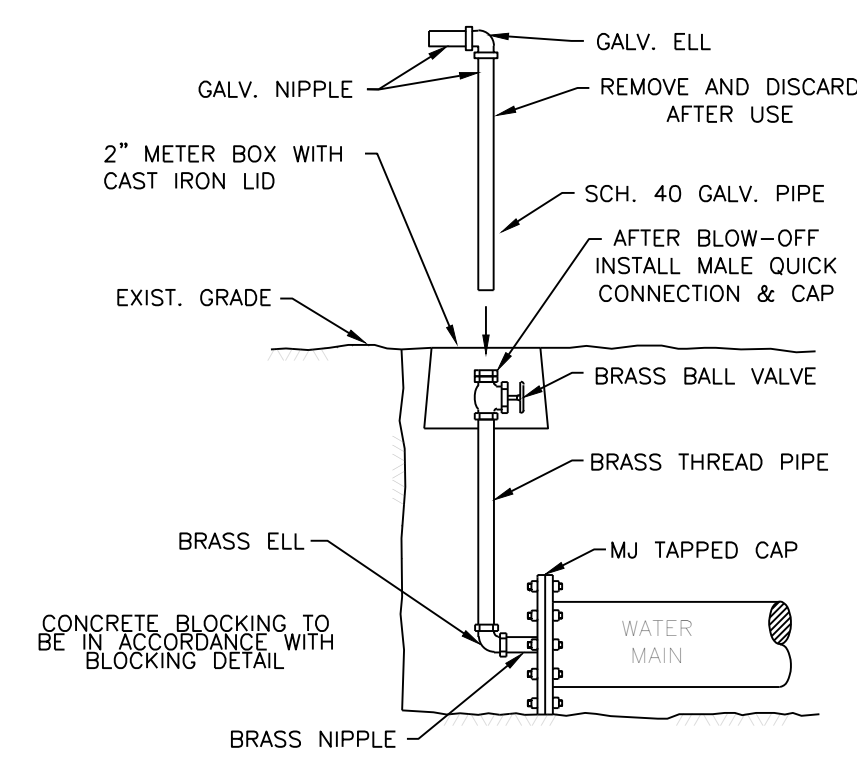
PVC WATER LINE TRENCH IN UNPAVED AREAS
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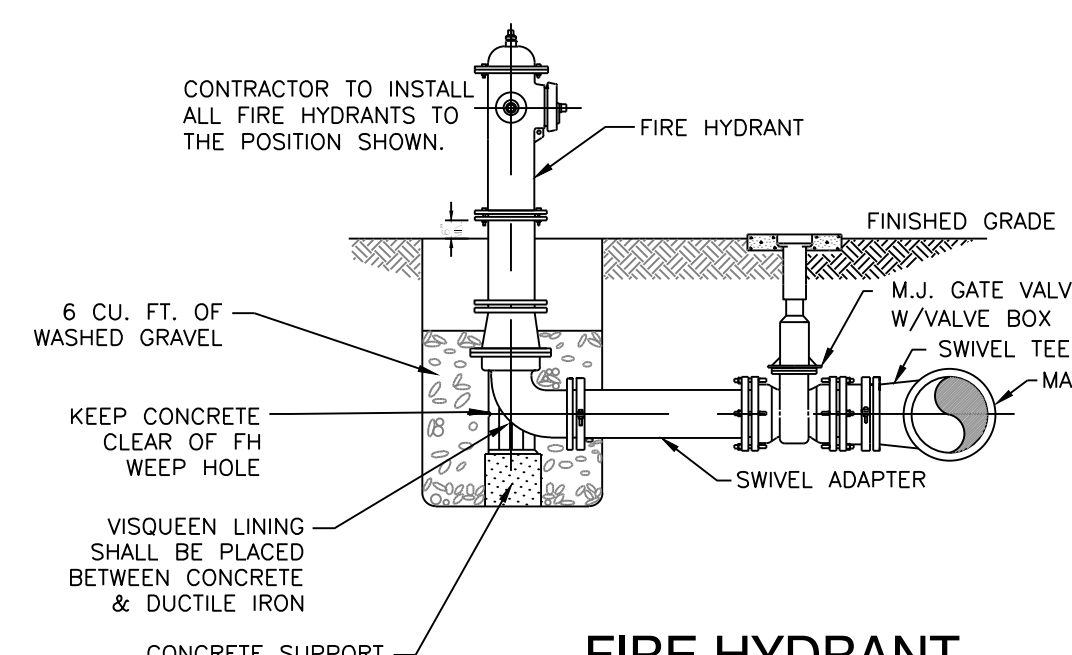
DRAINAGE PIPES IN UNPAVED AREAS
N.T.S.



WATER MAIN CONNECTION DETAIL
N.T.S.



2" BLOW-OFF RISER
N.T.S.



FIRE HYDRANT CONNECTION
N.T.S.

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HILLTOP LANDING TRENCH DETAILS
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:
REVISED: 08/07/2023	CHECKED BY:	20-1341
SHEET: C-4.0	SCALE: 1" = 20"	

500	01S	14W	0	09	200	62	1762
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SPECIFICATIONS

SUBGRADE MATERIAL

- A. Subgrade soils shall be all materials used for subgrade including in-situ materials and fill materials.
- B. Subgrades for pavement shall be stabilized by mechanical compaction. Stabilization methods such as fabrics and chemical stabilization may be submitted for approval when supported by engineering data and calculations to substantiate the adequacy of the stabilized procedure.
- C. Subgrade shall be compacted to 95 percent modified proctor density minimum. Moisture content shall be +/- 3% of optimum moisture unless otherwise supported by the site specific geotechnical data and approved by City.
- D. Subgrade shall be prepared in such a manner that the base course shall be placed on a firm foundation that is stable and free from soft spots, pumping, dust pockets, wheel ruts, or other defects.
- E. The top 24 inches of the subgrade shall be a material not susceptible to frost action unless modified with cement, lime or another method approved specifically by the City to resist frost action. Soils classified as A-4 and A-5 including sandy silts, fine silty sand or lean clays are highly susceptible to frost action.
- F. In-situ soils meeting the requirements outlined in these specifications may be utilized as subgrade material. In-situ soils used as subgrade shall be scarified to a minimum depth of 8-inches below finish subgrade, recompact and tested as described below. Fill material for subgrade shall be placed in lifts not to exceed 8-inches compacted depth.
- G. Methods and procedures for establishing the total depth of soil replacement and/or modification shall be as specified by the design engineer and geotechnical investigations. The adequacy of in-situ soils and fill materials as pavement subgrade shall be evaluated based upon the soils classification, liquid limit, and plasticity index.
- H. Soils with a liquid limit greater than 40, or a plasticity index greater than 15 shall be undercut and removed from the street section or improved by a design method of stabilization approved by the City.
- I. Quality control testing shall be as specified below.
- J. Undercut 24" of soil below finished street base course. Proof roll to verify stability.
- K. Backfill the undercut subgrade with Class 7 aggregate or soil meeting the requirements of this section and compact in lifts not exceeding 8".

BASE COURSE

- A. Base course material shall be crushed stone meeting the requirements of ArDOT Class 7 aggregate base course as specified in the latest edition of ArDOT Standard Specifications.
- B. Base course shall be compacted to 98 percent modified proctor density minimum. Moisture content shall be +/- 3% of optimum moisture.

SURFACE COURSE

- A. Surface course for flexible pavement designs shall utilize plant mix bituminous base and binder courses conforming to ArDOT Standard Specifications.

CURB AND GUTTER

- A. Curb and gutter shall be Portland Cement Concrete with a minimum 28-day compressive strength of 4,000 psi. Concrete shall be air-entrained with a maximum of 4-inch slump.
- B. Compaction requirements under curb and gutter shall conform to the requirements for street subgrade materials. Compaction requirements shall extend to a minimum of 1 foot behind the back of curb and gutter removing all soft spots and replacing with suitable material.
- C. Curb and gutter shall conform to the typical detail within these specifications or ArDOT Standard Roadway Drawing Details for curbing.
- D. Expansion joints shall be made with 1/2-inch preformed expansion joint filler of a non-extruding type. Expansion joints shall be placed at intervals not exceeding 195 feet, intersection radii, driveways, stationary structures, and sidewalks.
- E. Contraction joints shall be sawed or fromed at intervals not greater than 20 feet. Depth of saw-cut shall be 1 1/2-inch and have a width of 1/4-inch. Contraction joints shall be sealed in accordance with ArDOT Standard Specifications.
- F. Forms shall be made of metal or wood and shall be properly braced. The minimum length of each section of form used shall be 10 feet. Each section of form shall be uniform and free from undesirable bends or warps. Forms shall be of such cross section and strength and so secured as to resist the pressure of the impact and vibration on any equipment which they support without springing or settlement.
- G. Curb and gutter placed with slip form or extruding equipment will be acceptable providing it complies with all of the above requirements.
- H. After curing, the curb shall be immediately backfilled to within 4 inches of the top curb to eliminate the possibility of washing beneath the curb. The remaining 4 inches shall be topsoil.
- I. Cold weather protection shall meet the requirements of the latest edition of ArDOT Standard Specifications.

SIDEWALKS

General

- A. Sidewalks shall be Portland Cement Concrete with a minimum 28-day compressive strength of 4,000 psi.
- B. Sidewalks shall be on both sides of streets in line with sidewalks on opposite corners of roads.
- C. All sidewalks including ramps shall meet all current Federal Americans with Disabilities (ADA) design guidelines or requirements.
- D. Traverse slopes shall not exceed 2 percent.
- E. Subgrade under sidewalks shall be compacted to 90 percent modified proctor density minimum.
- F. Sidewalks shall not be placed upon grassy or organic materials.
- G. Sidewalks which extend or link existing sidewalks shall adjoin the existing sidewalks to form a continuous, even pathway.
- H. Utility poles, utility boxes, mailboxes, fire hydrants, and other similar obstructions shall not be located in sidewalks. Sidewalk location may vary at the discretion of the City to avoid such obstacles.
- I. All sidewalk ramps shall meet ADA requirements with corrugated dome ramp requirements.

Minimum thickness and reinforcement

- A. Sidewalks shall have a minimum thickness of 4 inches.
- B. Sidewalks shall be reinforced, at a minimum, with woven wire fabric reinforcement.

Contraction and expansion joints

- A. Contraction joints shall be provided perpendicular to the sidewalk at intervals equal to the sidewalk width.
- B. Expansion joints shall be constructed perpendicular to the sidewalk at intervals equal to five times the sidewalk width. Expansion joints shall be made with 1/2-inch preformed expansion joint filler of a non-extruding type. Expansion joints shall be placed at driveways, drop inlets, and curbs.

Quality control testing and inspection by the City

- A. Subgrade and formwork for sidewalks shall be inspected by the City prior to pouring of the sidewalk.
- B. All testing of materials and construction shall be provided and paid for by the Developer/Owner.
- C. All field tests required for a project shall be witnessed by the City, contractor, or their authorized representatives.
- D. All testing shall be accomplished by a testing firm approved by the City and shall be performed under the supervision of a licensed Professional Engineer.
- E. Sampling and testing locations shall be subject to approval by the City.
- F. Density tests on subgrades shall be taken every 300 feet or portion thereof.
- G. The City shall be notified at least one day in advance of the need to inspect subgrade and formwork of sidewalks.

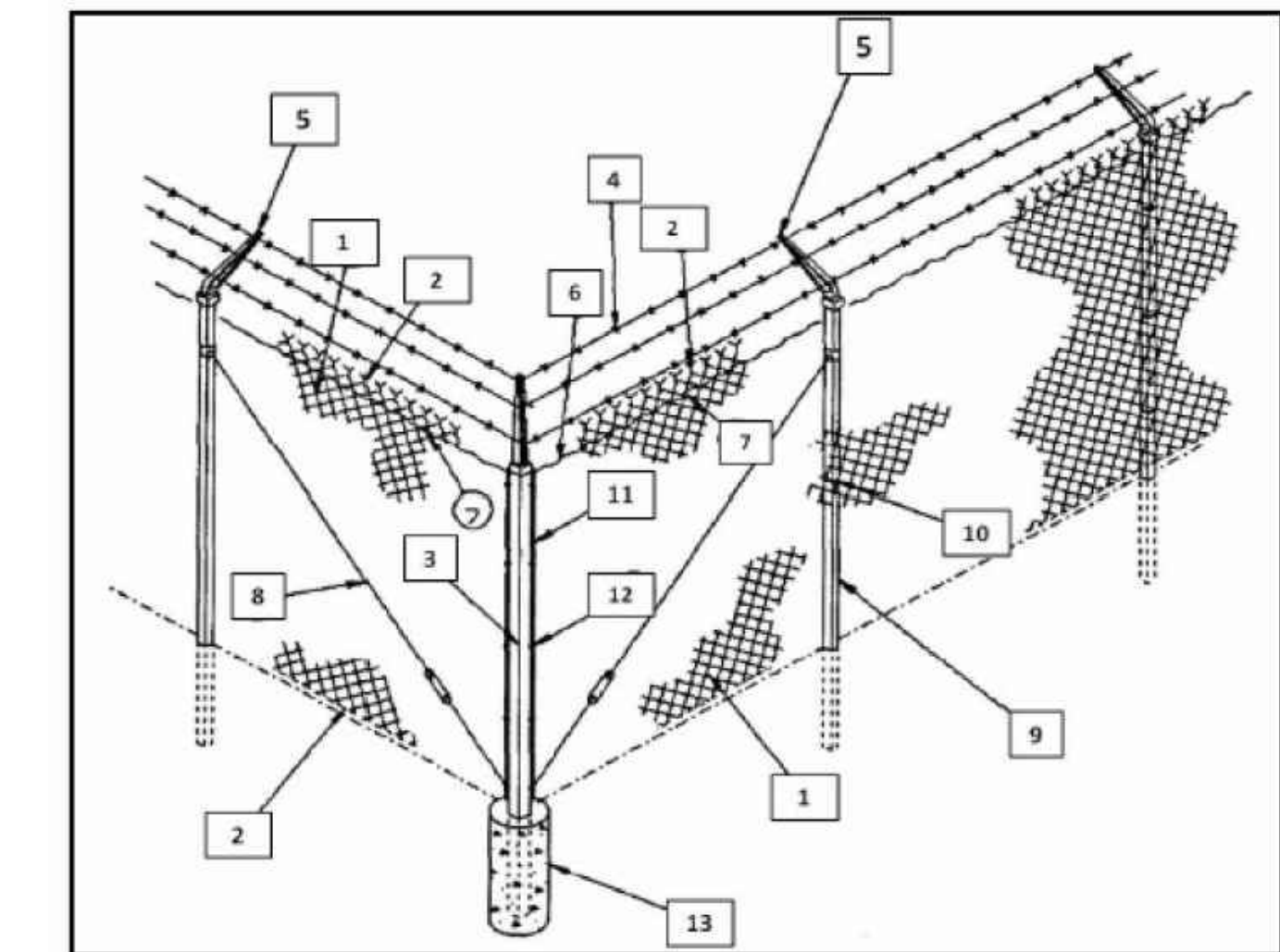
Subgrade

- A. Subgrade soils shall be all materials used for subgrade including in-situ materials and fill materials.
- B. Subgrade shall be compacted to 90 percent modified proctor density minimum. Moisture content shall be +/- 3% of optimum moisture unless otherwise supported by the site specific geotechnical data and approved by City.
- C. Subgrade shall be prepared in such a manner that the base course shall be placed on a firm foundation that is stable and free from soft spots, pumping, dust pockets, wheel ruts, or other defects.
- D. The top 24 inches of the subgrade shall be a material not susceptible to frost action unless modified with cement, lime or another method approved specifically by the City to resist frost action. Soils classified as A-4 and A-5 including sandy silts, fine silty sand or lean clays are highly susceptible to frost action.

QUALITY CONTROL TESTING AND INSPECTIONS

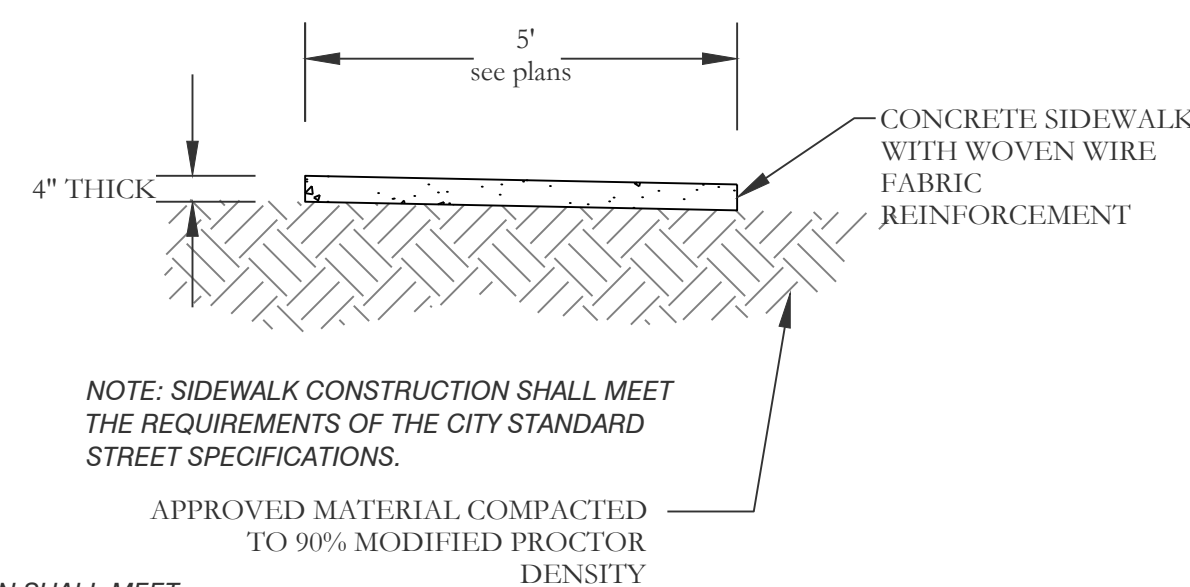
General

- A. Materials and construction employed in street improvements shall be subject to inspection and quality control testing. All testing of materials and construction shall be provided and paid for by the Developer/Owner.
- B. The Developer/Owner shall provide for inspections of street improvements during construction. The inspections shall be accomplished under the supervision of the Engineer of Record. The Engineer of Record shall provide certification that all materials and construction conform to the approved plans and specifications and with these minimum street standards.
- C. The Engineer of Record shall furnish inspection whenever a critical construction activity is taking place. This means that a representative of the Engineer of Record must be on-site whenever a critical construction activity is taking place.
- D. All field tests required for a project shall be witnessed by the City, Engineer of Record, contractor, or other authorized representatives.
- E. The City shall be notified at least one day in advance of any test(s). It is the responsibility of the contractor to coordinated the scheduling of all tests with the City.



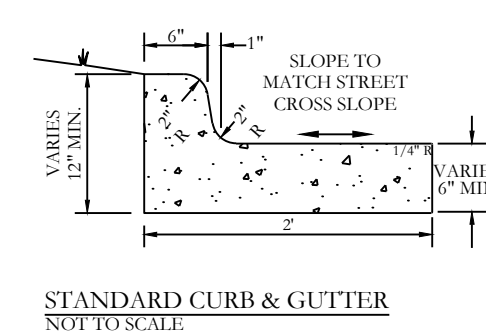
1	Fabric
2	Selvage
3	Corner Post
4	Barbed Wire/Barbed Tape
5	Outrigger/Barbed Wire Arm
6	Tension Wire (Top and Bottom)
7	Hog Ring
8	Truss Rod
9	Line Post
10	Tie Wire
11	Tension Bar
12	Tension Clip
13	Concrete Footing

SECURITY FENCE DETAILS



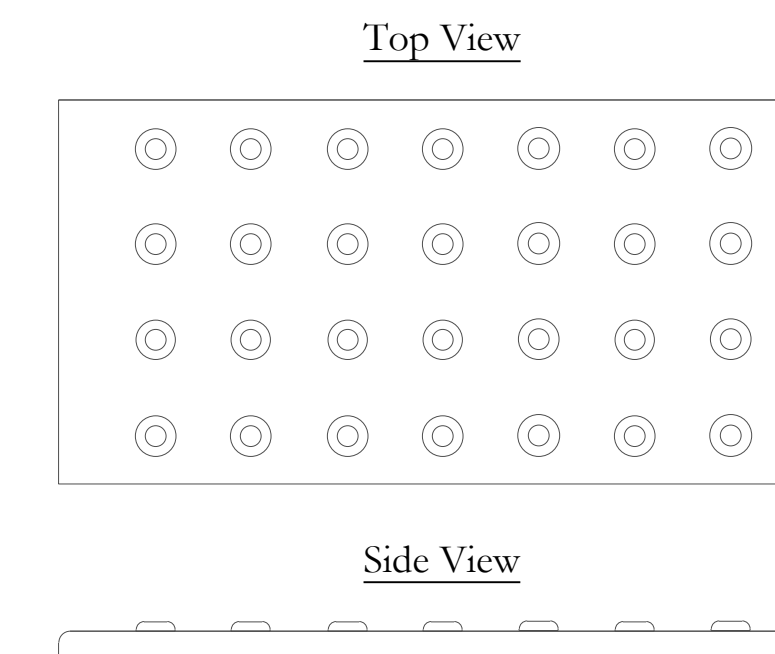
NOTE: SIDEWALK CONSTRUCTION SHALL MEET ADA REQUIREMENTS WITH CORRUGATED DOME RAMP REQUIREMENTS

Typical Sidewalk Detail



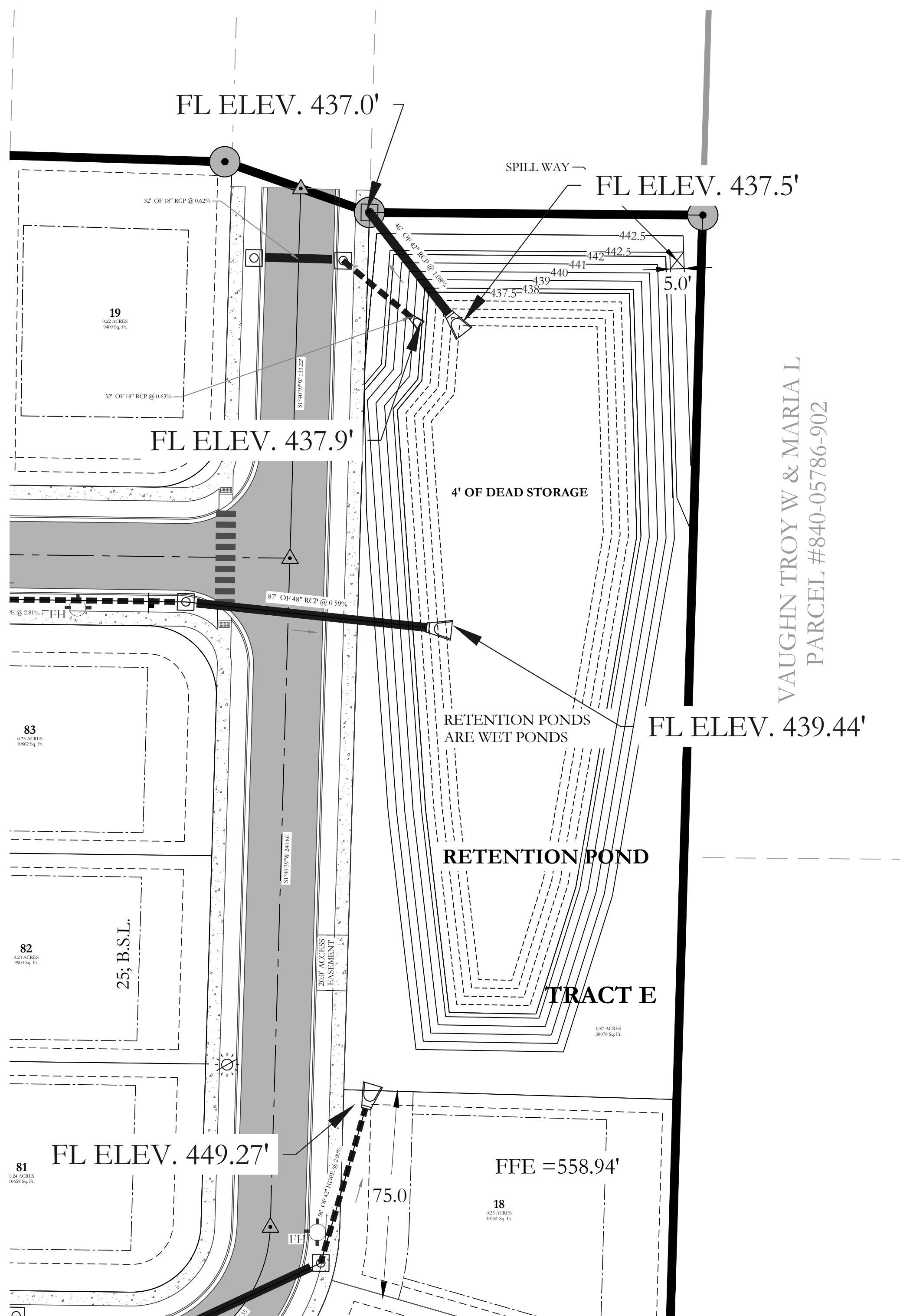
TYPICAL CURB DETAILS & NOTES NOT TO SCALE

Typical Curb & Gutter Detail
4,000 psi concrete



ADA Corrugated Dome Ramp

HOPE CONSULTING ENGINEERS - SURVEYORS		129 N. Main Street, Benton, Arkansas 72015 PH. (501)315-2626 FAX (501) 315-0024 www.hopeconsulting.com
FOR USE AND BENEFIT OF: NXT GEN HOMES LLC.		
HILLTOP LANDING CIVIL SPECIFICATIONS A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS		
DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:
REVISED: 08/07/2023	CHECKED BY:	20-1341
SHEET: C-5.0	SCALE: 1" = 20"	
500	01S	14W 0 09 200 62 1762



RETENTION POND-1

DETENTION POND MAINTENANCE PLAN

Background

The Retention ponds are located on the periphery of the subdivision. They are designed to temporarily detain stormwater to meet water quantity criteria before discharging off the property.

Routine Maintenance

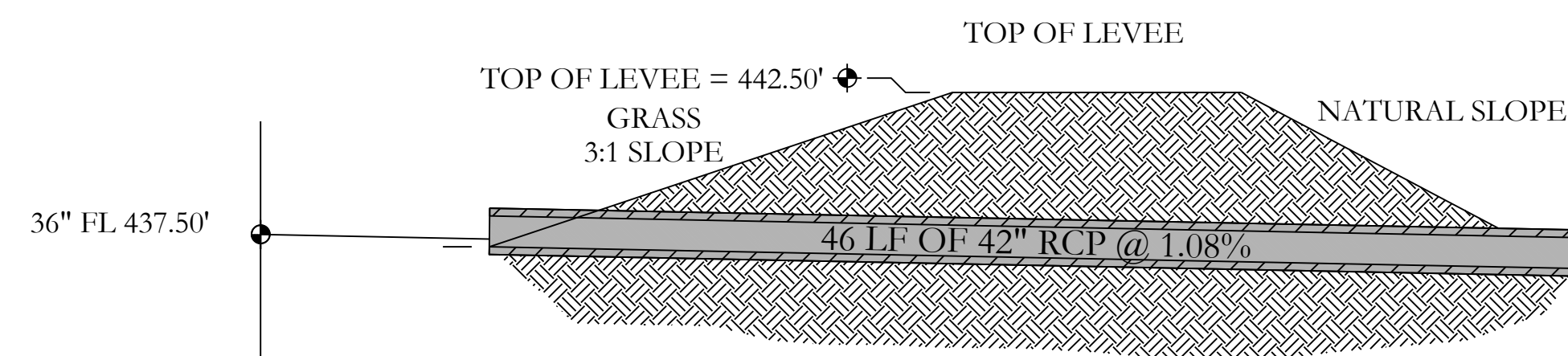
The property owners association will maintain the drainage easements located in Tract "B" and Tract "E". Routine maintenance will include but not be limited to:

- Mowing of the bank slopes and area around the pond on a monthly basis during the growing season and as needed during the cooler months.
- The outlet pipe from the pond and other areas will be inspected monthly for debris which could inhibit the proper flow of discharge. Any debris will be removed immediately and disposed of or placed in a location to prevent future maintenance and to not cause impact up or downstream of the structure.
- Trash will be removed from around the pond to prevent entering the pond. Generally, the site should be kept free of loose trash which could be carried off site by wind or rain.
- Inspect the pond and outlet pipe for non-routine maintenance need.

Periodic or Non-Routine Maintenance

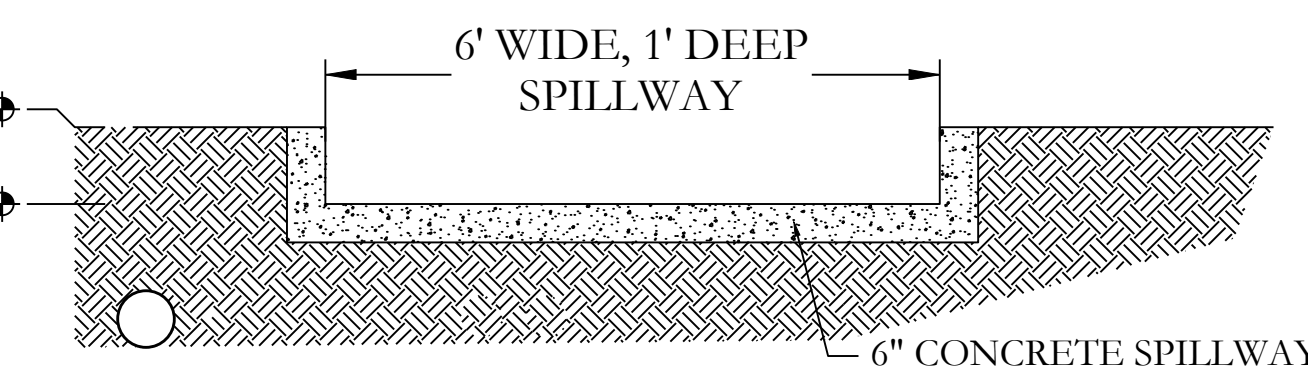
The routine inspection of the ponds areas and discharge pipes will identify needed repairs and non-routine maintenance. These items may include but not be limited to:

- Re-growth of trees on or around the pond bank. These should be cut and removed from the pond area.
- Sediment from the site may accumulate in the pond bottom and reduce the pond to below design volume requirements. The pond should be excavated if the pond bottom elevation reached a level that allows excessive aquatic growth or reduces the pond efficiency such, that the sediments are passing the discharge structure and release off site.
- Stabilization or re-grading of side slopes may be required periodically or after excessive rain events. Any disturbance of slopes should be reseeded or may require installation of erosion control materials until seeding can reestablish adequate grasses to prevent future erosion.
- Any other maintenance or repairs which would minimize other maintenance to the pond or outfall structures.

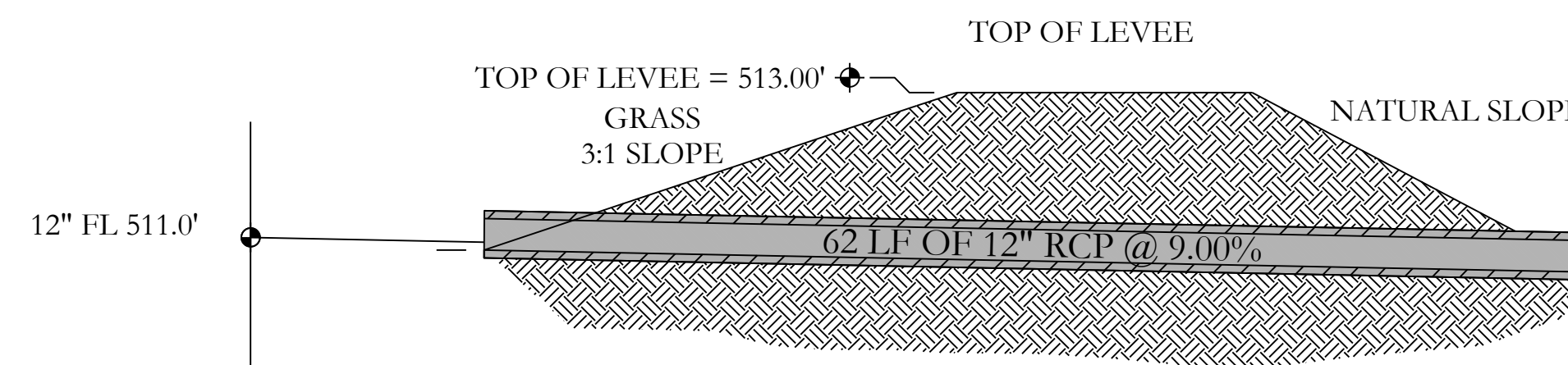
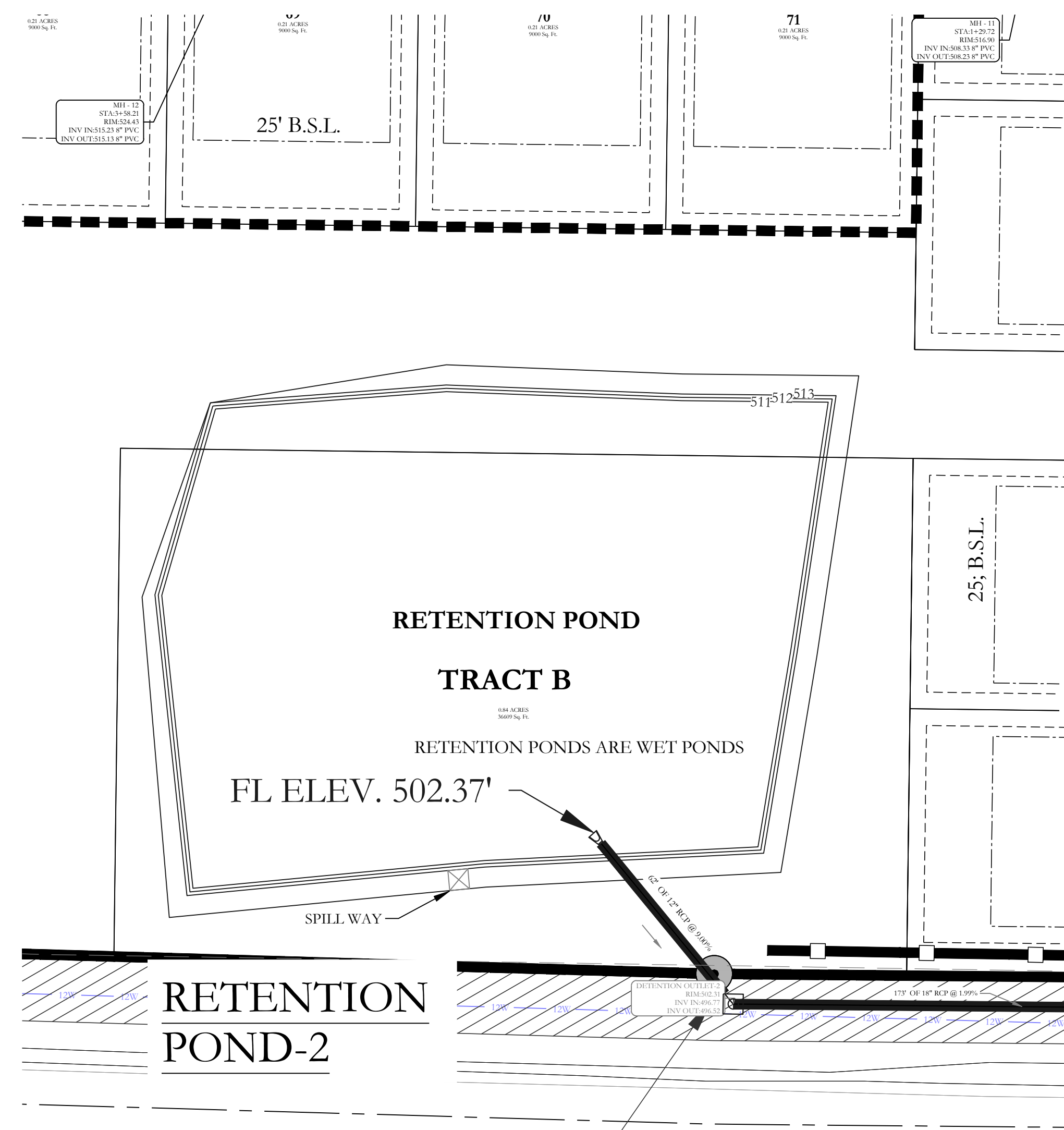


OUTLET SECTION
NTS

RETENTION POND-1

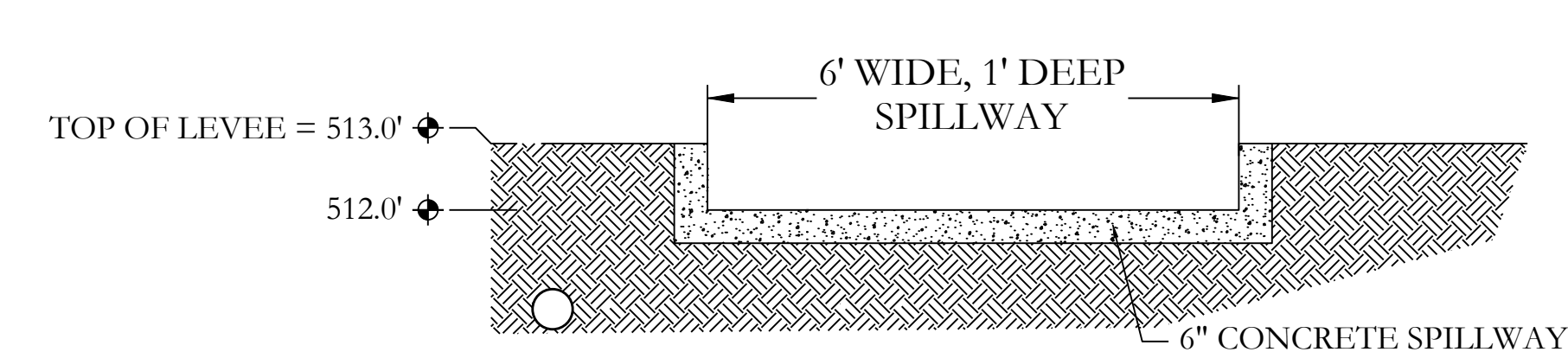


SPILLWAY END VIEW
NTS

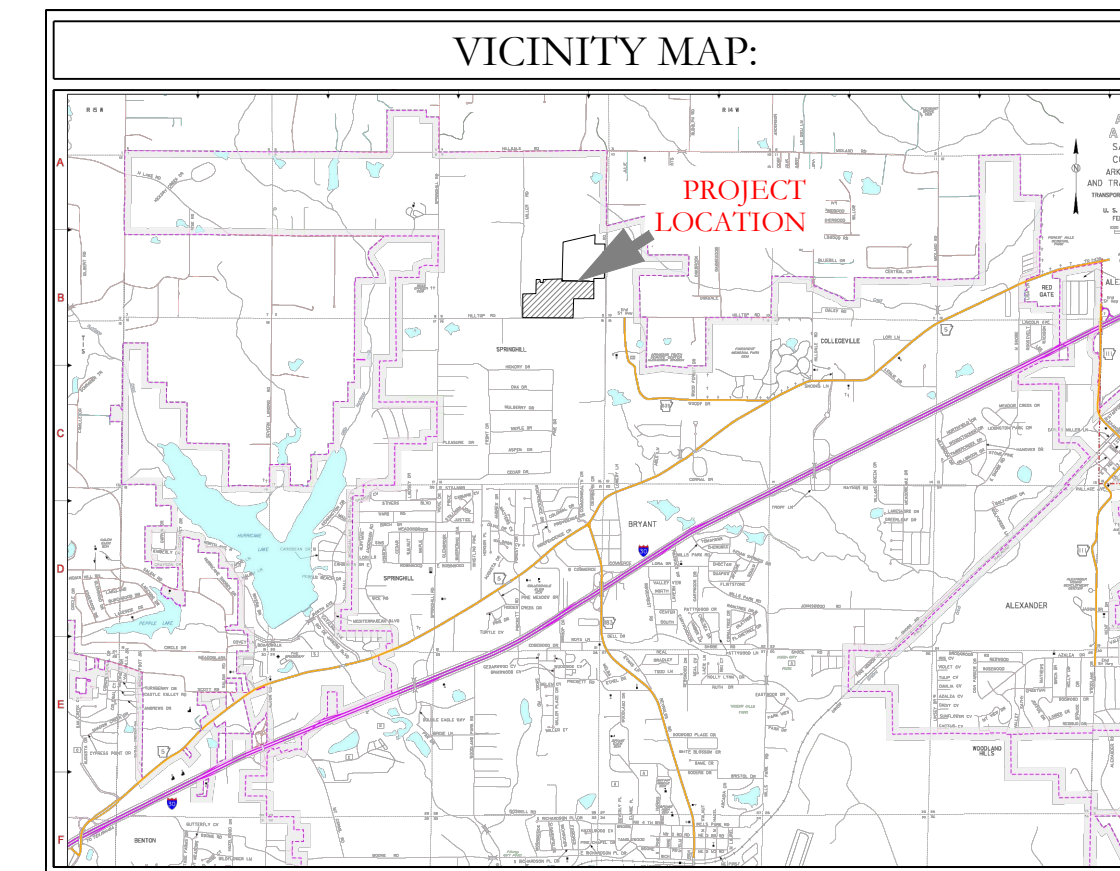


OUTLET SECTION
NTS

RETENTION POND -2



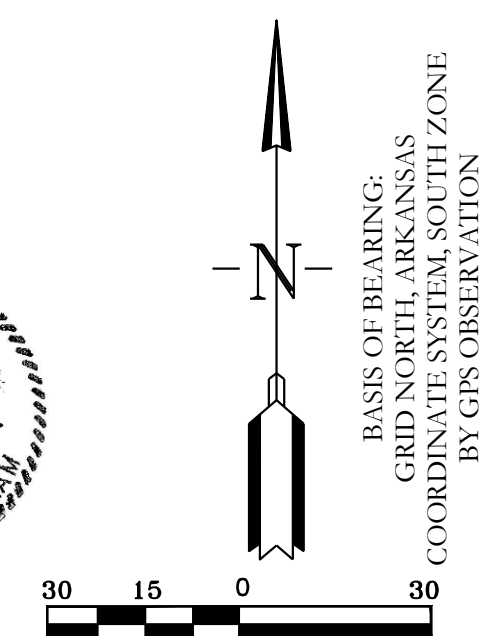
SPILLWAY END VIEW
NTS



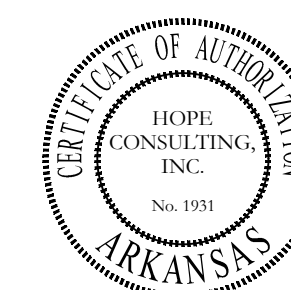
EARTHEN SLOPE NOTE:
ALL EARTHEN RETENTION POND SLOPES ON BOTH THE INTERIOR AND EXTERIOR OF THE POND SHALL HAVE A MAXIMUM SLOPE OF 3:1.

NOTE:
ALL RETENTION BASINS WILL BE REQUIRED TO BE STABILIZED WITH SOLID SOD STABILIZATION PER THE STORMWATER MANAGEMENT MANUAL.

TOP BANKS OF ALL RETENTION PONDS WILL BE 5' WIDE.



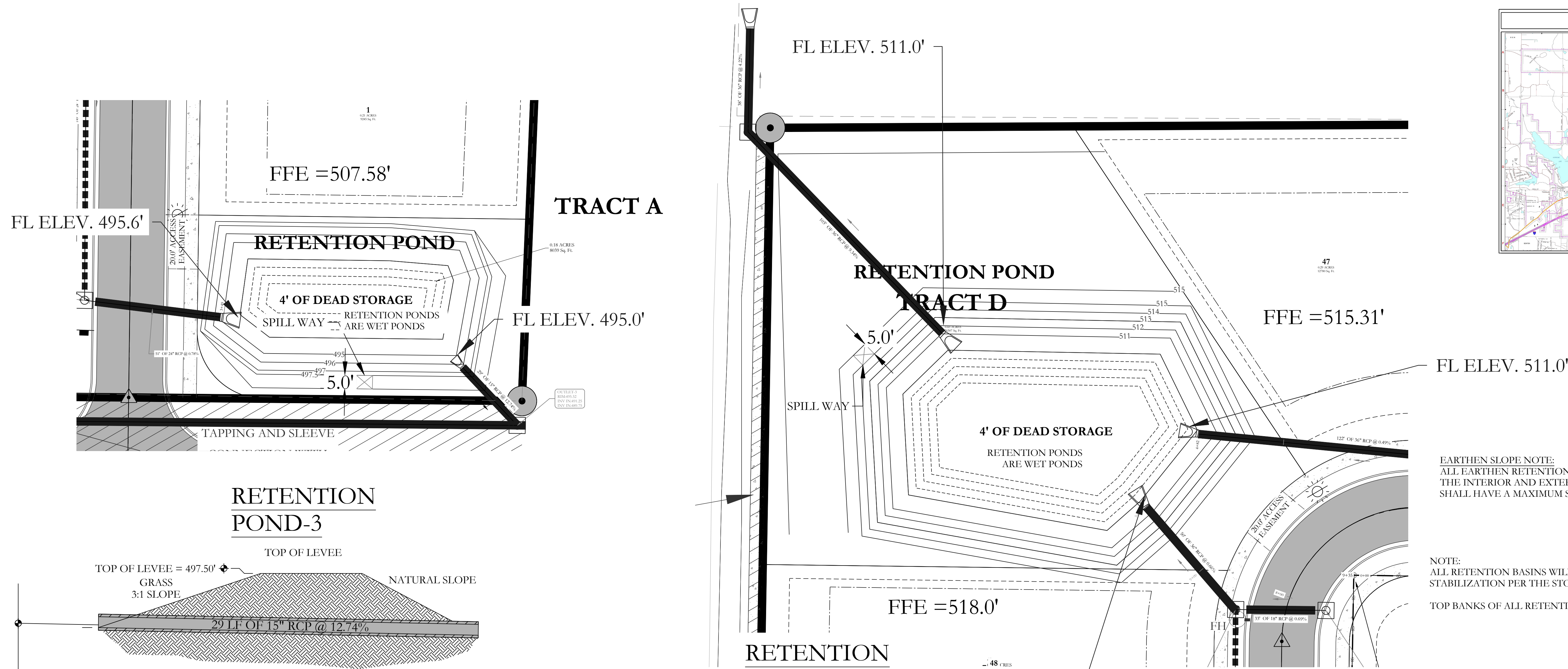
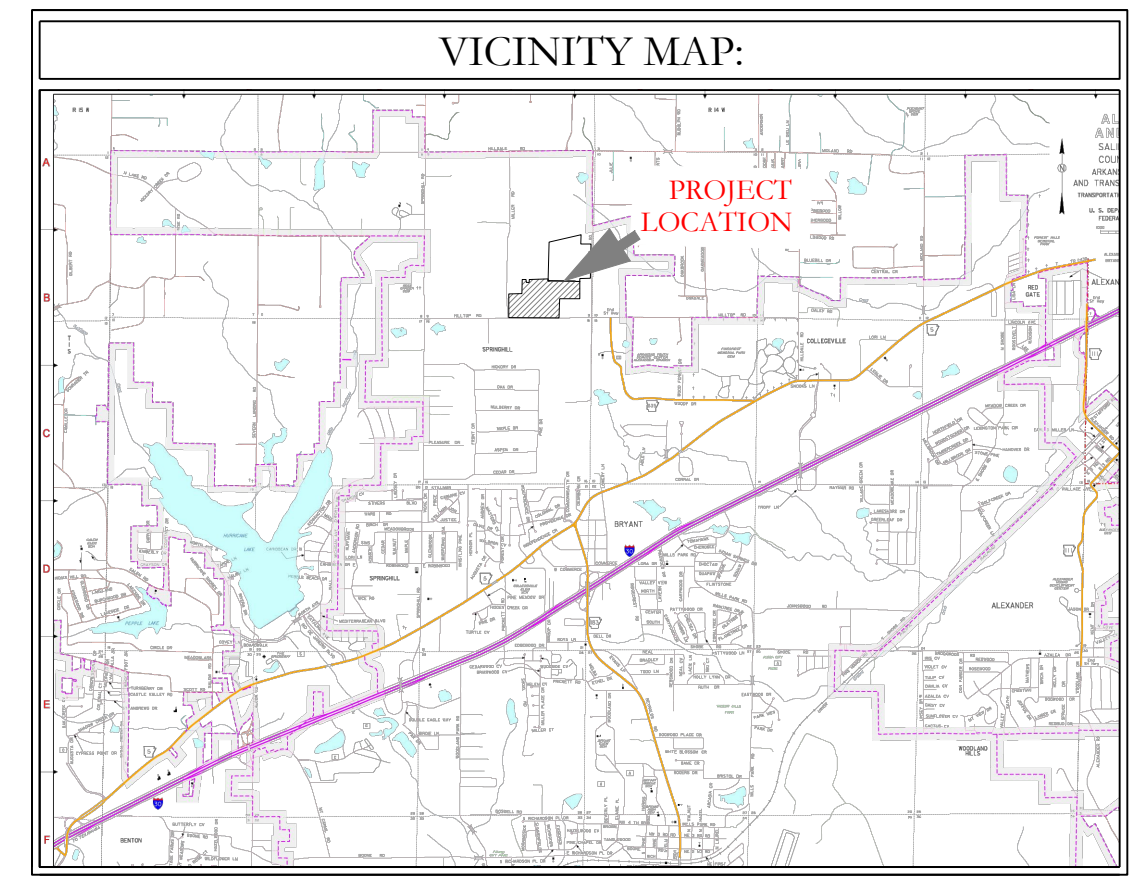
BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE
BY GPS OBSERVATION



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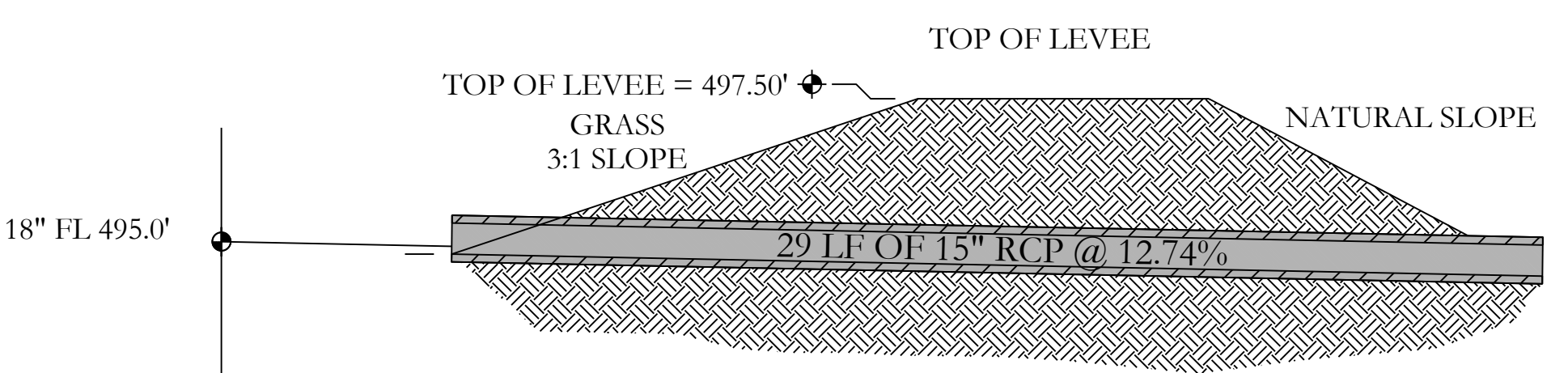
FOR USE AND BENEFIT OF: NXT GEN HOMES LLC.			
HILLTOP LANDING RETENTION POND			
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS			
DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:	
REVISED: 08/07/2023	CHECKED BY:	20-1341	
SHEET: C-6.0	SCALE: 1"=30'		
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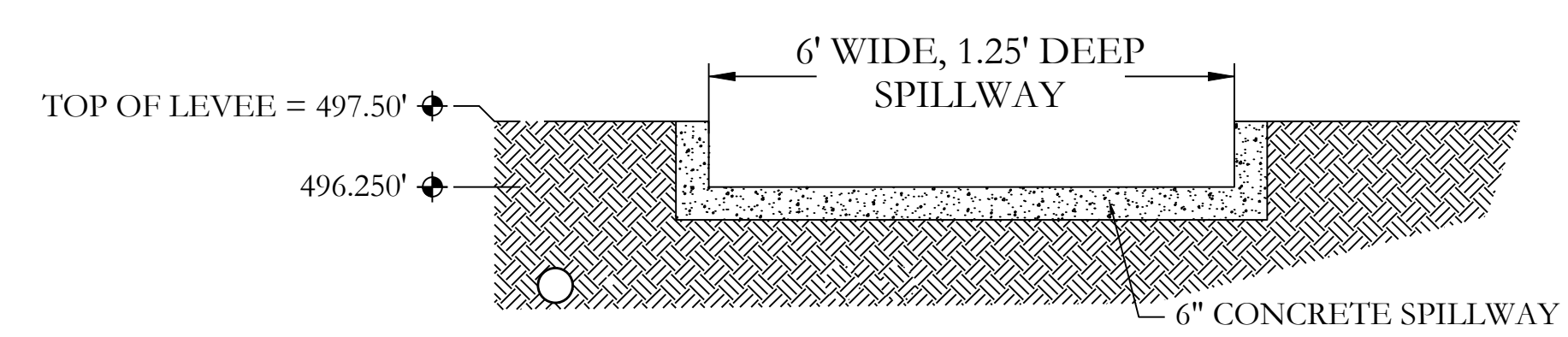
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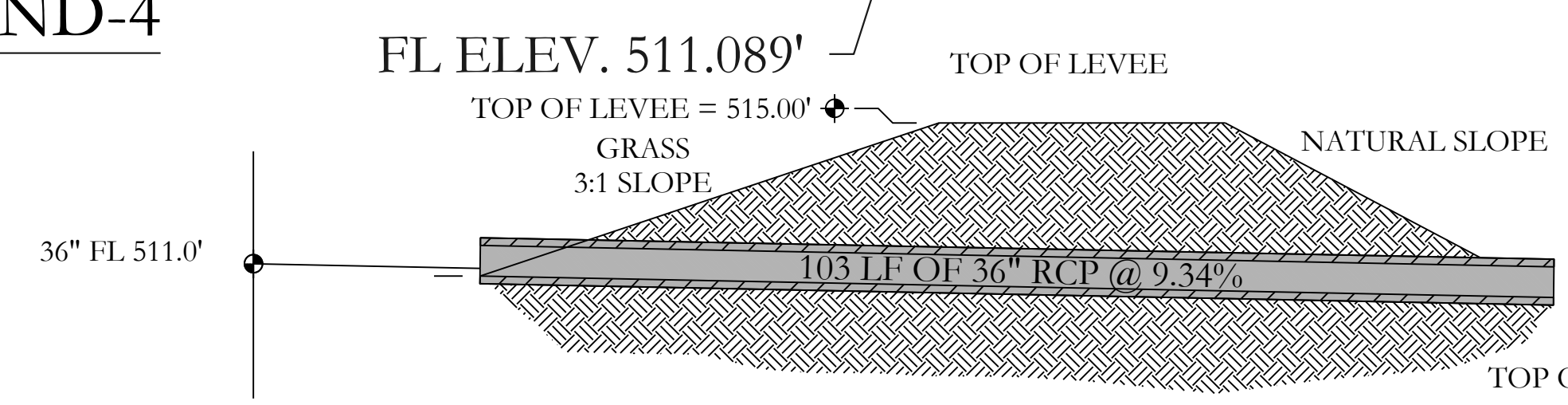
TOP BANKS OF ALL RETENTION POND WILL BE 5' WIDE.



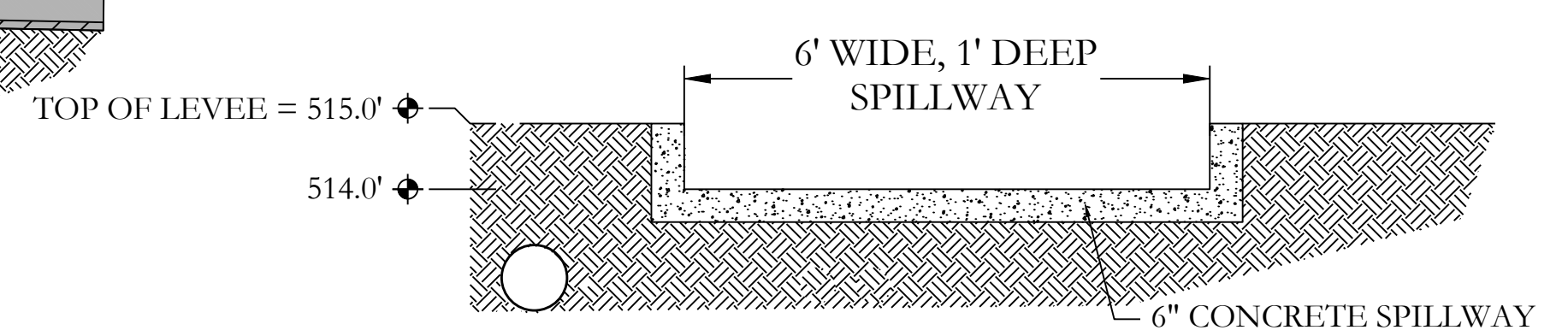
OUTLET SECTION
NTS



SPILLWAY END VIEW
NTS



OUTLET SECTION
NTS



SPILLWAY END VIEW
NTS

RETENTION POND-3

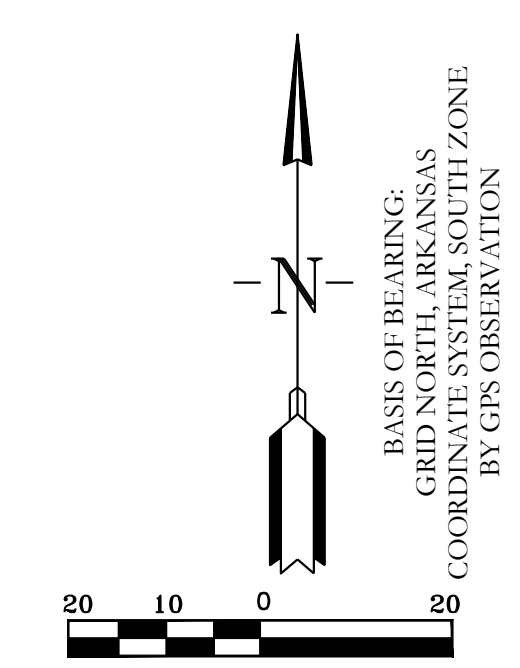
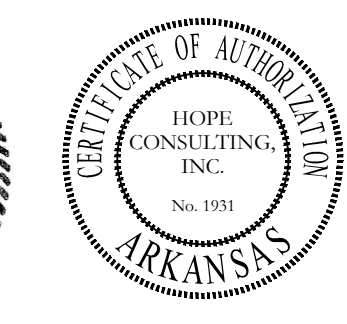
RETENTION POND -4

DETENTION POND MAINTENANCE PLAN

Background
The Retention ponds are located on the periphery of the subdivision. They are designed to temporarily detain stormwater to meet water quantity criteria before discharging off the property.

Routine Maintenance
The property owners association will maintain the drainage easements located in Tract "A" and Tract "D". Routine maintenance will include but not be limited to:
-Mowing of the bank slopes and area around the pond on a monthly basis during the growing season and as needed during the cooler months.
-The outlet pipes from the ponds and other areas will be inspected monthly for debris which could inhibit the proper flow of discharge. Any debris will be removed immediately and disposed of or placed in a location to prevent future maintenance and to not cause impact up or downstream of the structure.
-Trash will be removed from around the pond to prevent entering the pond. Generally, the site should be kept free of loose trash which could be carried off site by wind or rain.
-Inspect the pond and outlet pipe for non-routine maintenance need.

Periodic or Non-Routine Maintenance
The routine inspection of the pond areas and discharge pipes will identify needed repairs and non-routine maintenance. These items may include but not be limited to:
-Re-growth of trees on or around the pond bank. These should be cut and removed from the pond areas.
-Sediment from the site may accumulate in the pond bottom and reduce the pond to below design volume requirements. The pond should be excavated if the pond bottom elevation reached a level that allows excessive aquatic growth or reduces the pond efficiency such, that the sediments are passing the discharge structure and release off site.
-Stabilization or re-grading of side slopes may be required periodically or after excessive rain events. Any disturbance of slopes should be reseeded or may require installation of erosion control materials until seeding can reestablish adequate grasses to prevent future erosion.
-Any other maintenance or repairs which would minimize other maintenance to the pond or outfall structures.



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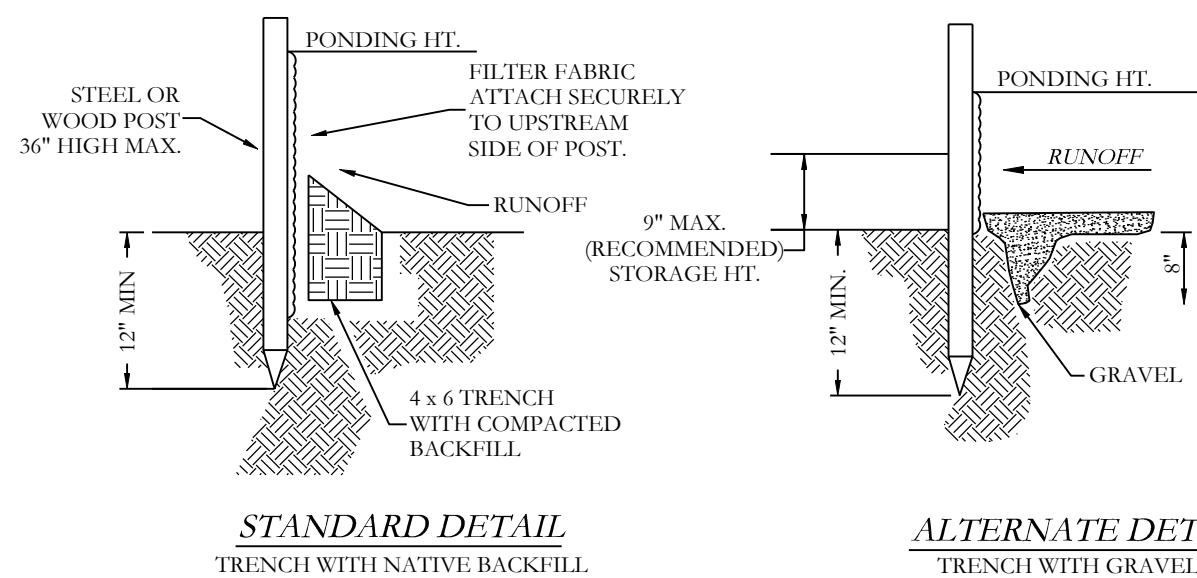
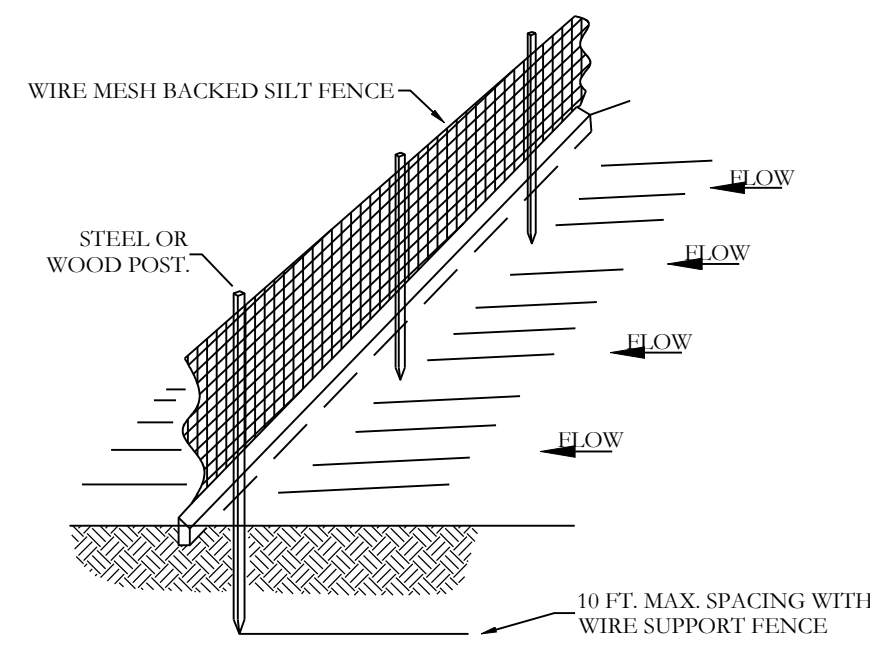
FOR USE AND BENEFIT OF:
NXT GEN HOMES LLC.

**HILLTOP LANDING
RETENTION POND**
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:
REVISED: 08/07/2023	CHECKED BY:	20-1341
SHEET: C-6.1	SCALE: 1"=20'	

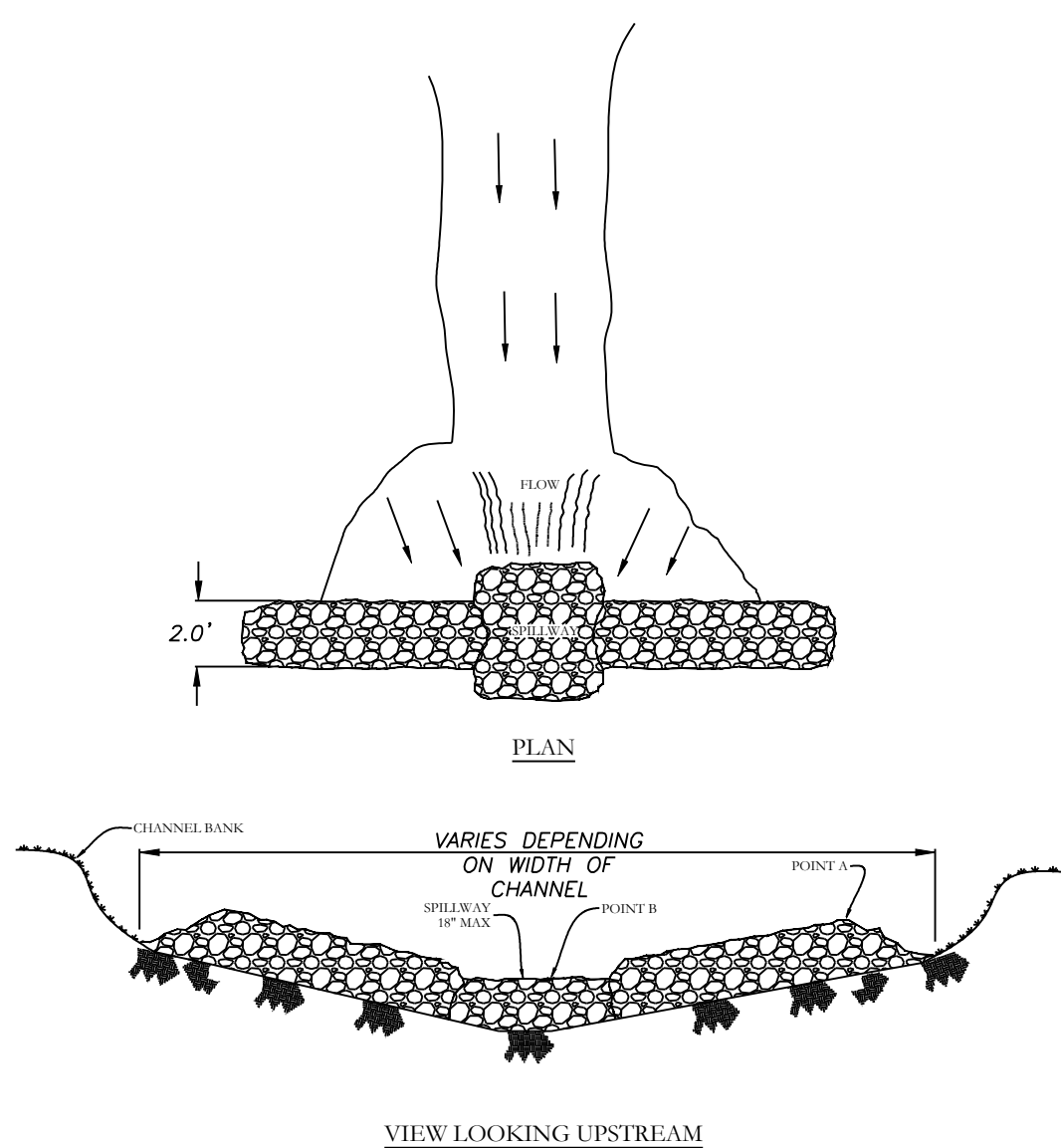
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K:\LAND PROJECTS\2024\SUBDIVISIONS\2020\20-1341\HILLTOP LANDING\CIVIL\DWG\20-1341-CONSTRUCTION.DWG - 04-06-2023.DWG



- NOTE:
- 1) INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
 - 2) REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
 - 3) SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

SILT FENCE

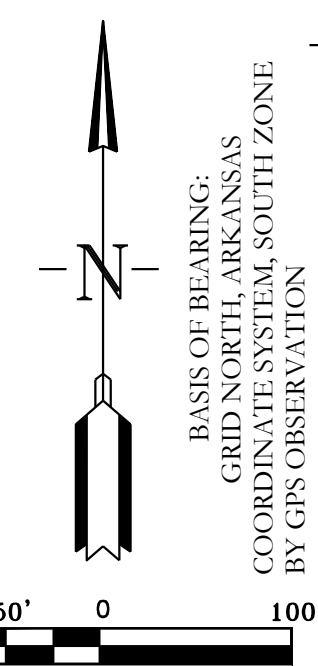


- NOTES:
- 1) POINT 'C' MUST BE HIGHER THAN POINT 'B' (SPILLWAY HEIGHT).
 - 2) 10' MIN. RIP-RAP BEHIND POINT 'B' TO THE FLOW WITH HEIGHT 10' MIN.
 - 3) 10' MIN. RIP-RAP BEHIND POINT 'A' TO THE FLOW WITH HEIGHT 10' MIN.
 - 4) CHECK FOR SEDIMENT ACCUMULATION UPSTREAM OF CHECK DAM.
 - 5) SPILLWAY HEIGHT SHALL NOT EXCEED 10' 0".
 - 6) INSPECT AFTER EACH SIGNIFICANT STORM, MAINTAIN AND REPAIR PROPERLY.

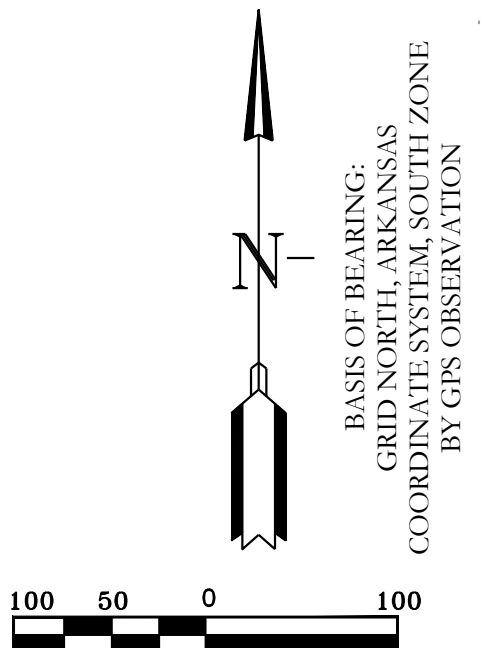
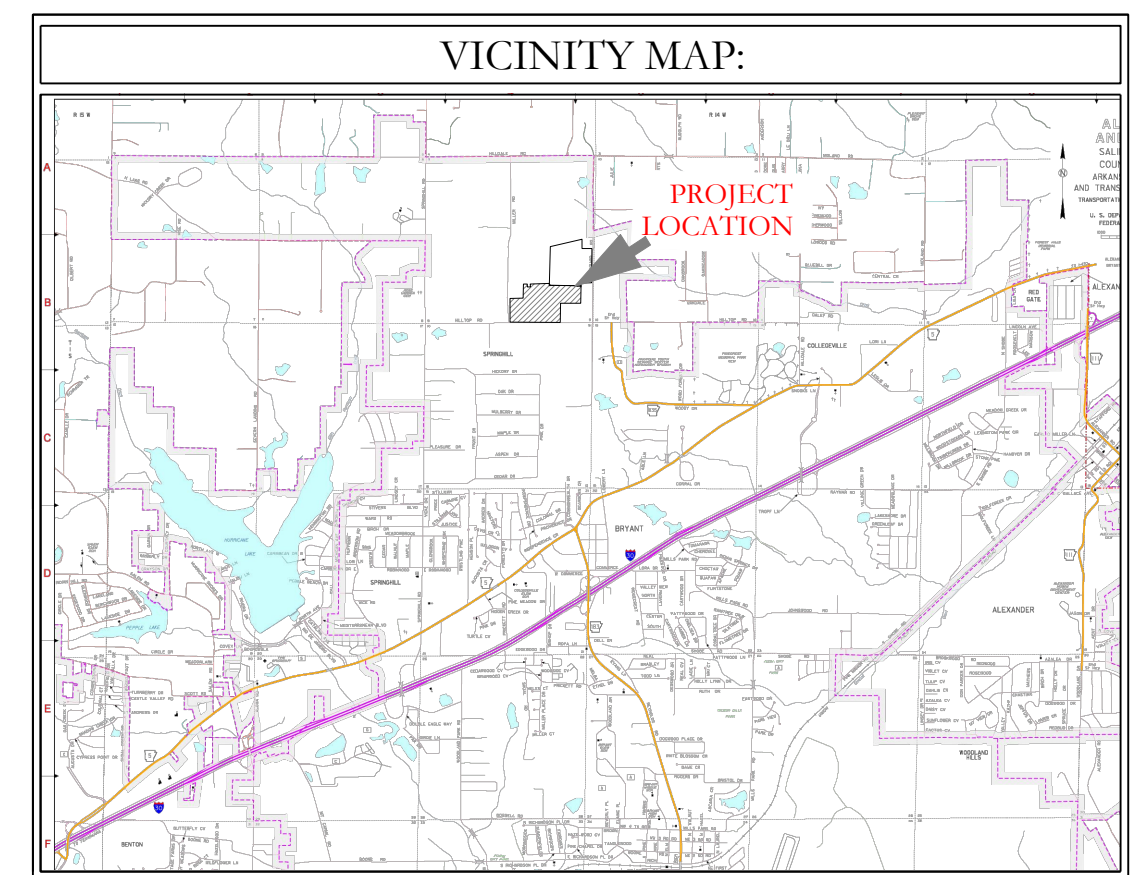
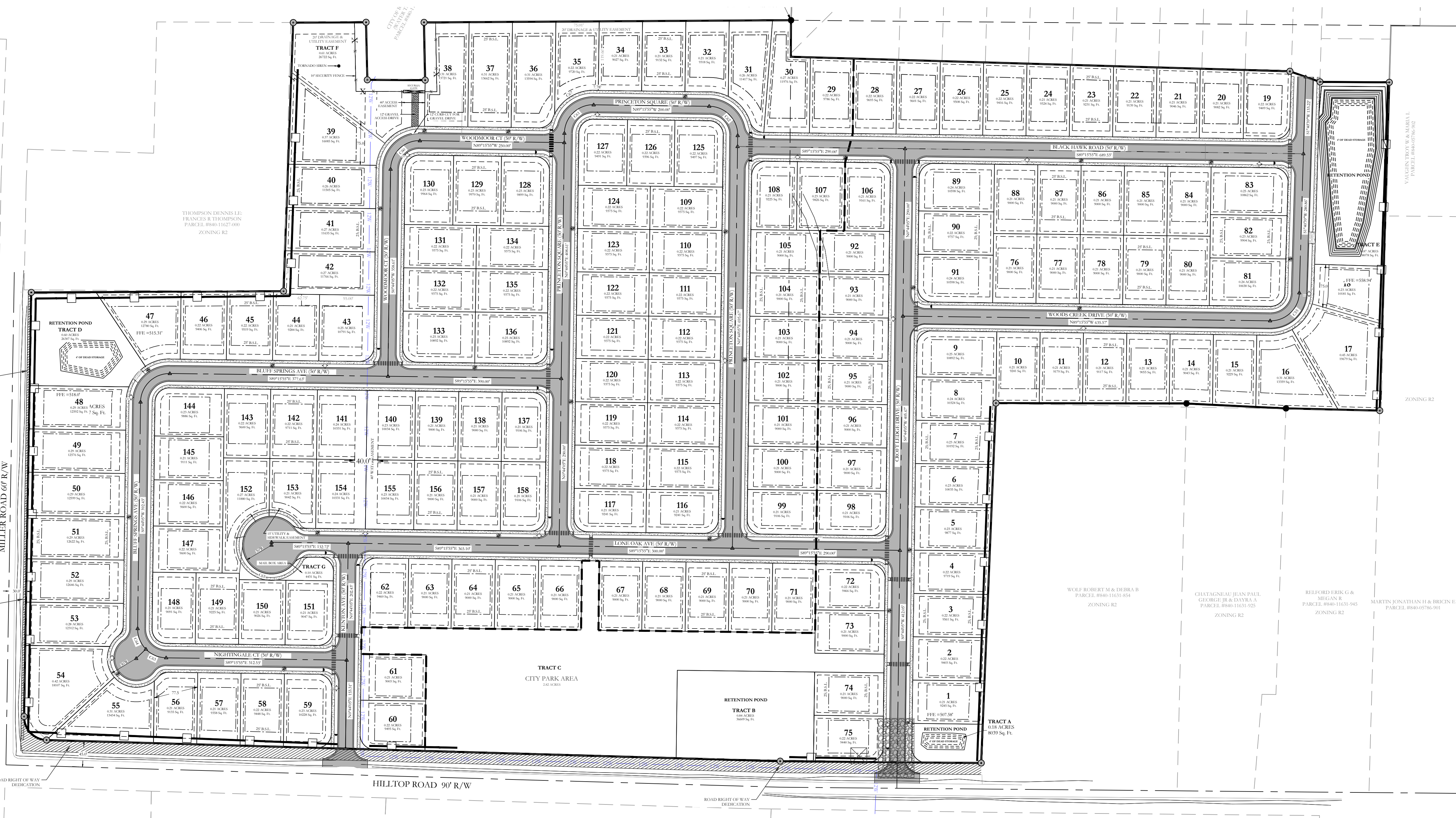
RIP-RAP CHECK DAM

ERC LEGEND

- SITE POSTING
- CONC. WASHOUT DETENTION AREA
- SILT FENCE
- RIP-RAP CHECK DAM
- CONSTRUCTION ENTRANCE
- DISTURBED AREA



BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE,
BY GPS OBSERVATION



BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE,
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FOR USE AND BENEFIT OF: NXT GEN HOMES LLC.			
HILLTOP LANDING EROSION CONTROL PLAN A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS			
DATE: 03/08/2023	C.A.D. BY:	DRAWING NUMBER:	
REVISID: 08/07/2023	CHECKED BY:	20-1341	
SHEET: C-7.0	SCALE: 1"=100'		
500	01S	14W	0 09 200 62 1762

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117 S. Market St. Benton, AR 72015 * 501-315-2626 * Fax 501-315-0024

Stormwater Infrastructure Maintenance Plan Agreement

Scott m. Hurley
AR Land & Realty
501.240.0049 Mobile
scott@arlr.net

Hilltop Landing Subdivision - Hilltop Road and Miller Road

All maintenance basin maintenance plans shall contain or uphold, without limitation, the following provisions:

- (1) A description of the property on which the stormwater management facility is located and all easements from the site to the facility;
- (2) Size and configuration of the facility;
- (3) A statement that properties which will be served by the facility are granted rights to construct, use, reconstruct, repair and maintain access to the facility;
- (4) A statement that each lot served by the facility is responsible for repairs and maintenance of the facility and any unpaid ad valorem taxes, public assessments for improvements, and unsafe building and public nuisance abatement liens charged against the facility, including all interest charges together with attorney fees, costs, and expenses of collection. If an association is delegated these responsibilities, then membership into the association shall be mandatory for each parcel served by the facility and any successive buyer. The association shall have the power to levy assessments for these obligations, and all that unpaid assessments levied by the association shall become a lien on the individual parcel;
- (5) All stormwater facilities must be designed to minimize the need for maintenance, to provide easy vehicle and personal access for maintenance purpose, and be structurally sound. It shall be the responsibility of the applicant to obtain any necessary easements or other property interested to allow access to the facilities for inspection or maintenance;
- (6) Detention/retention areas, earthen berms, intake structures, piping, discharge structures, trickle channels, spillways, pipe flares, weirs and fencing shall be regularly inspected, maintained and repaired to ensure their proper operation and to prevent the creation of any hazards or nuisances;
- (7) Major deposits of sediment shall be removed from the detention/retention area on an annual basis or after any extreme storm event. Excavated materials shall be properly disposed of off-site. Every five years the detention area(s) shall be

surveyed to confirm that the original as-constructed contours have been maintained;

(8) Every three months piping and outlet structures shall be inspected and cleared of any accumulated debris;

(9) Erosion in detention/retention areas shall be promptly repaired and stabilized with appropriate Best Management Practices (BMP's);

(10) Detention/retention area shall be mowed during the growing season May through September to maintain the turf height of 6-inches or less. Any brush or trees that may grow within the detention areas bottom, slopes or banks shall be removed;

(11) Litter and foreign materials shall be removed from the detention area(s) weekly. Large or noxious pieces of litter shall be removed immediately. The area(s) shall be inspected visually after rainfall events in excess of 1" in 24 hours;


(12) Inspections of overall detention/retention area(s) and detention/retention components shall occur monthly with their conditions noted on an inspection form. If any remedial action is required, it should be noted and corrected;

(13) All inspection forms must be retained on-site, including the "As-Built" drawings and photographs of the improvements in their original condition;

(14) Items 1-13 shall be listed on the Stormwater Infrastructure Maintenance Plan Agreement.

(15) Inspection forms for Stormwater Infrastructure components are required. (An example of inspection forms are attached.)

Scott M. Hurley



signature

date

4-18-2023

HILLTOP LANDING SUBDIVISION
HILLTOP ROAD & MILLER ROAD, BRYANT, AR 72022
DRAINAGE REPORT

FOR
City of Bryant, Saline County, AR

April 2023

Owner & Developer: NXT GEN HOMES LLC.

By:

HOPE
CONSULTING
ENGINEERS - SURVEYORS

TABLE OF CONTENTS

ITEM DESCRIPTION

1. Narrative & Summary
2. Hydrograph Report

Narrative & Summary

PROJECT TITLE

Hilltop Landing Subdivision

PROJECT PROPERTY OWNER

Nxt Gen Homes LLC.

PROJECT LOCATION

Hilltop Road and Miller Road, Bryant, AR

PROJECT DESCRIPTION

The proposed sub divisional development is on Hilltop Road and Miller Road, Bryant, AR . Total development site area is 54.0 acres.

DRAINAGE ANALYSIS

On Site Drainage- Rational method was used to determine the existing and proposed flows from proposed site. There will be four detention ponds to detain water from this development. Detailed drainage calculations considering the future expected development has been conducted to determine the required detention ponds and culvert dimensions. Summary of the calculations are below:

Detention Pond-1

- Pond is situated on the north east side of the property.
- Pre-development area 34.50 acres.
- Post-development area 36.28 acres.
- Pre-development runoff coefficient 0.47.
- Post-development runoff cumulative coefficient 0.65
- Pond has a bottom area of 18,760 sft with bottom elevation of 437.50’.
- One 42” HDPE with 1.08% slope are proposed for outflow pipes.

Peak flows for Pre and post development phase of onsite area have been tabulated below-

Period of time	Pre-development	Post-dev. Without detention	Post-dev. With detention
	Peak Flow (cfs)	Peak Flow (cfs)	Peak Flow (cfs)
2-Year	65.96	90.29	32.54
5-Year	72.96	99.87	35.52
10-Year	85.63	117.23	39.88
25-Year	98.15	134.37	45.74
50-Year	111.88	153.15	57.52
100-Year	118.85	162.70	63.55

Detention Pond-2

- Pond is situated on the South-west side of the property.
- Pre-development area 7.2 acres.
- Post-development area 4.11 acres.
- Pre-development runoff coefficient 0.40.
- Post-development runoff cumulative coefficient 0.40
- Pond has a bottom area of 18,270 sft with bottom elevation of 511.00’.
- One 12” HDPE with 9% slope are proposed for outflow pipes.

Peak flows for Pre and post development phase of onsite area have been tabulated below-

Period of time	Pre-development	Post-dev. Without detention	Post-dev. With detention
	Peak Flow (cfs)	Peak Flow (cfs)	Peak Flow (cfs)
2-Year	12.77	6.629	0.387
5-Year	14.20	7.333	0.462
10-Year	16.42	8.607	0.613
25-Year	18.77	9.865	0.773
50-Year	21.35	11.24	0.959
100-Year	22.64	11.95	1.059

Detention Pond-3

- Pond is situated on the south east side of the property.
- Pre-development area 2.25 acres.
- Post-development area 3.21 acres.
- Pre-development runoff coefficient 0.47.
- Post-development runoff cumulative coefficient 0.65
- Pond has a bottom area of 5,512 sft with bottom elevation of 495.00’.
- One 18” HDPE with 12.74% slope are proposed for outflow pipes.

Peak flows for Pre and post development phase of onsite area have been tabulated below-

Period of time	Pre-development	Post-dev. Without detention	Post-dev. With detention
	Peak Flow (cfs)	Peak Flow (cfs)	Peak Flow (cfs)
2-Year	5.039	9.942	2.797
5-Year	5.635	11.12	3.269
10-Year	6.430	12.69	3.910
25-Year	7.337	14.48	4.642
50-Year	8.326	16.43	5.424
100-Year	8.825	17.40	5.810

Detention Pond-4

- Pond is situated on the West side of the property.
- Pre-development area 14.40 acres.
- Post-development area 13.97 acres.
- Pre-development runoff coefficient 0.47.
- Post-development runoff cumulative coefficient 0.65
- Pond has a bottom area of 7,680 sft with bottom elevation of 511.00’.
- One 36” HDPE with 9.34% slope is proposed for outflow pipes.

Peak flows for Pre and post development phase of onsite area have been tabulated below-

Period of time	Pre-development	Post-dev. Without detention	Post-dev. With detention
	Peak Flow (cfs)	Peak Flow (cfs)	Peak Flow (cfs)
2-Year	31.09	43.27	18.44
5-Year	34.66	48.39	21.11
10-Year	39.81	55.21	24.59
25-Year	45.47	63.00	28.39
50-Year	51.67	71.49	32.15
100-Year	54.77	75.78	33.77

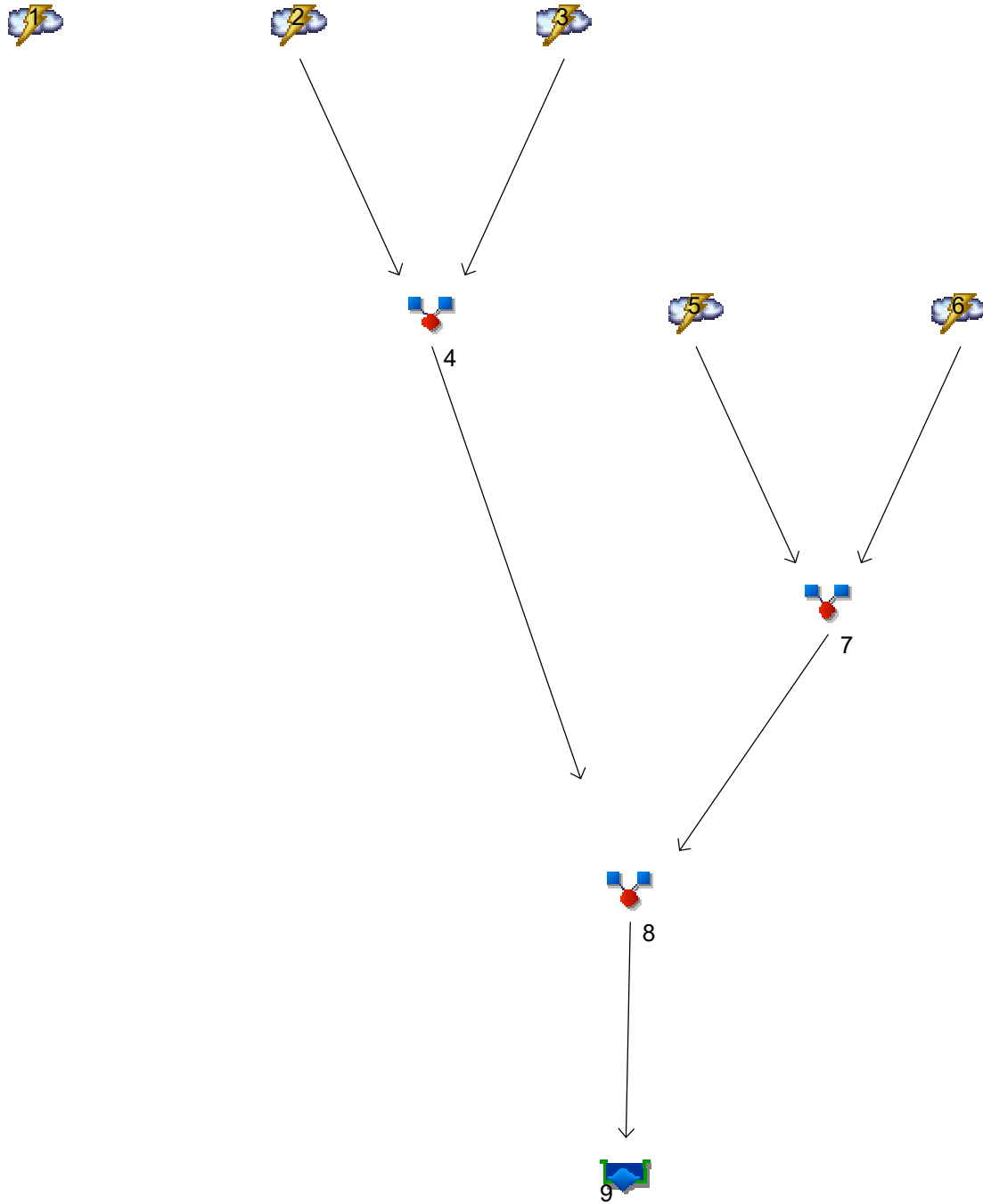
CONCLUSION

From the onsite drainage calculation, it is seen that there is decrease in flow for all storm events due to the proposed detention ponds.

Hydrograph Summary Report

Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023



Legend

Hyd.	Origin	Description
1	Rational	Pre Development
2	Rational	Post development-1a
3	Rational	post development-1b
4	Combine	combine-1
5	Rational	post development-2a
6	Rational	post development-2b
7	Combine	combine-2
8	Combine	<no description>
9	Reservoir	detention pond 1

Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

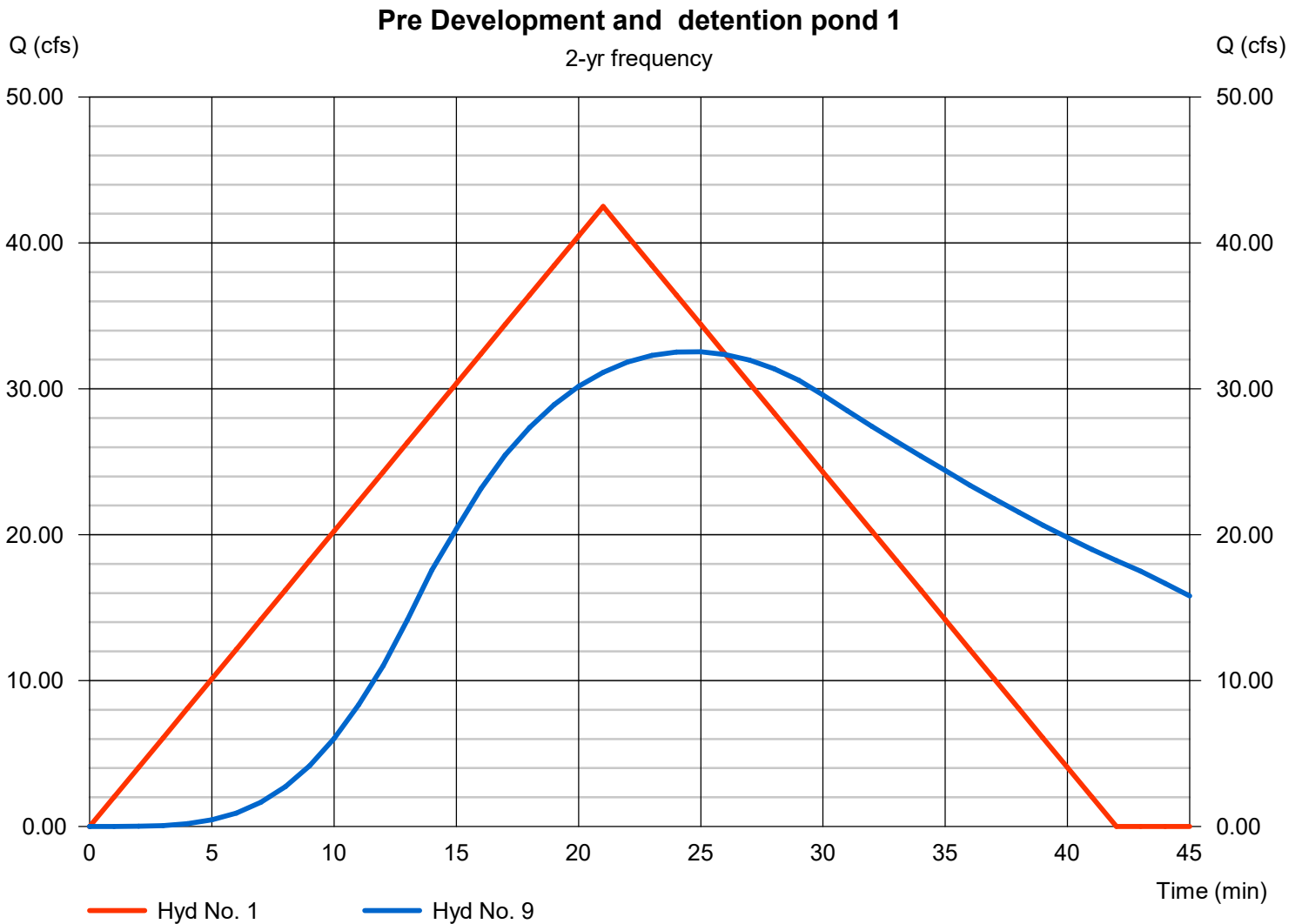
Pre Development

Hydrograph type = Rational
Peak discharge = 42.51 cfs
Time to peak = 21 min
Hyd. Volume = 53,568 cuft

Hyd. No. 9

detention pond 1

Hydrograph type = Reservoir
Peak discharge = 32.54 cfs
Time to peak = 25 min
Hyd. Volume = 81,205 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

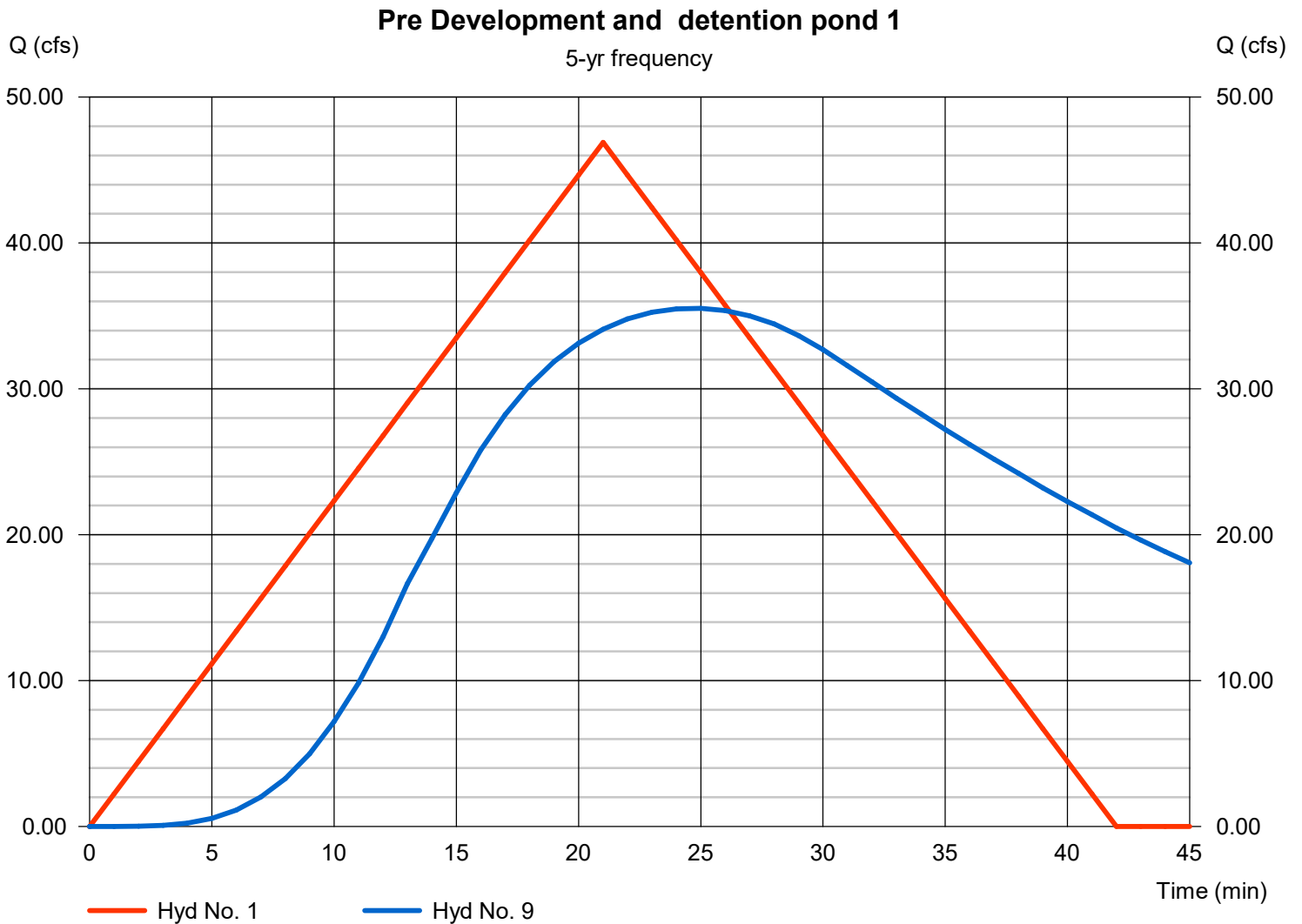
Pre Development

Hydrograph type = Rational
Peak discharge = 46.89 cfs
Time to peak = 21 min
Hyd. Volume = 59,077 cuft

Hyd. No. 9

detention pond 1

Hydrograph type = Reservoir
Peak discharge = 35.52 cfs
Time to peak = 25 min
Hyd. Volume = 89,828 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

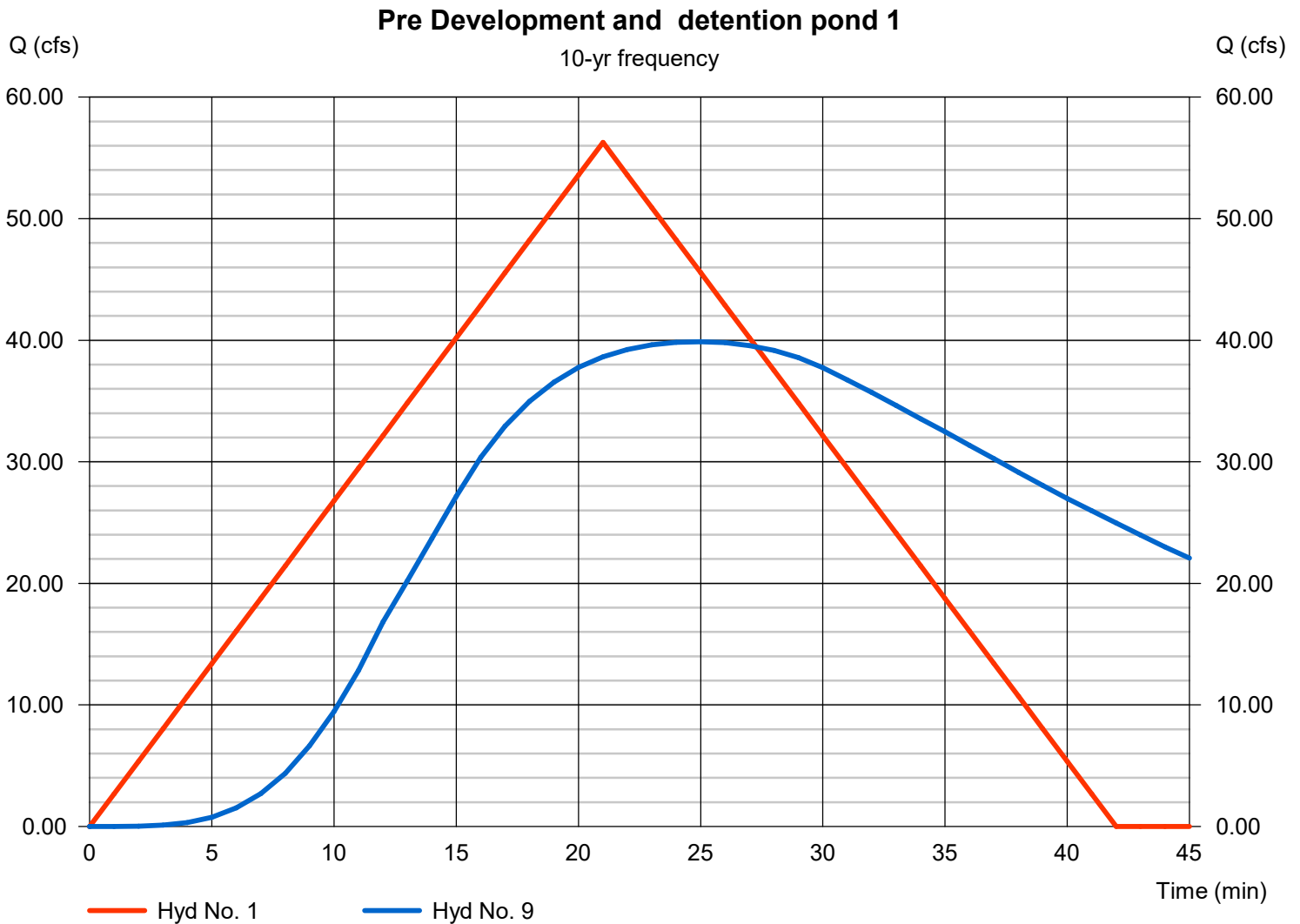
Pre Development

Hydrograph type = Rational
Peak discharge = 56.26 cfs
Time to peak = 21 min
Hyd. Volume = 70,892 cuft

Hyd. No. 9

detention pond 1

Hydrograph type = Reservoir
Peak discharge = 39.88 cfs
Time to peak = 25 min
Hyd. Volume = 105,448 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

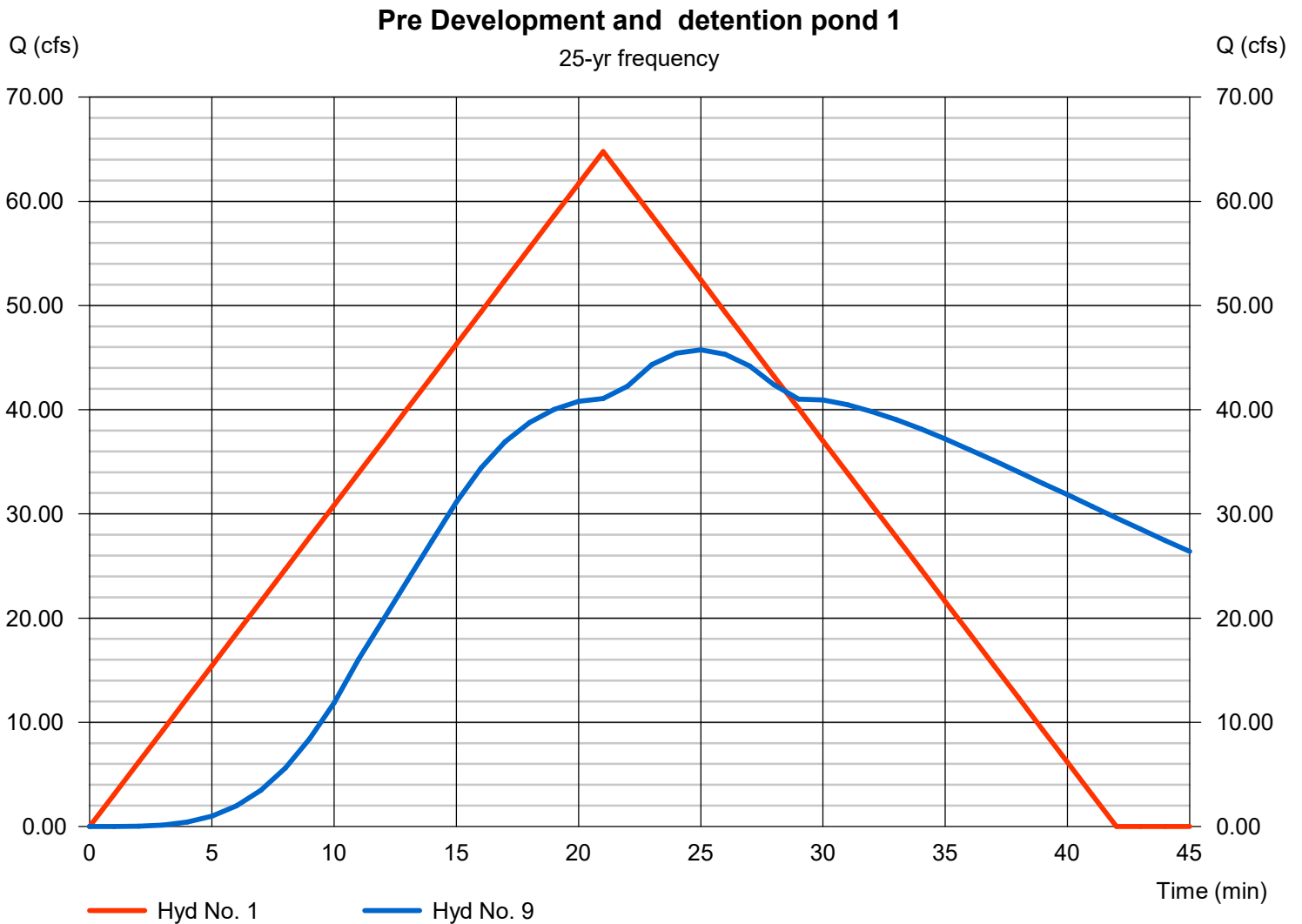
Pre Development

Hydrograph type = Rational
Peak discharge = 64.78 cfs
Time to peak = 21 min
Hyd. Volume = 81,626 cuft

Hyd. No. 9

detention pond 1

Hydrograph type = Reservoir
Peak discharge = 45.74 cfs
Time to peak = 25 min
Hyd. Volume = 120,872 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

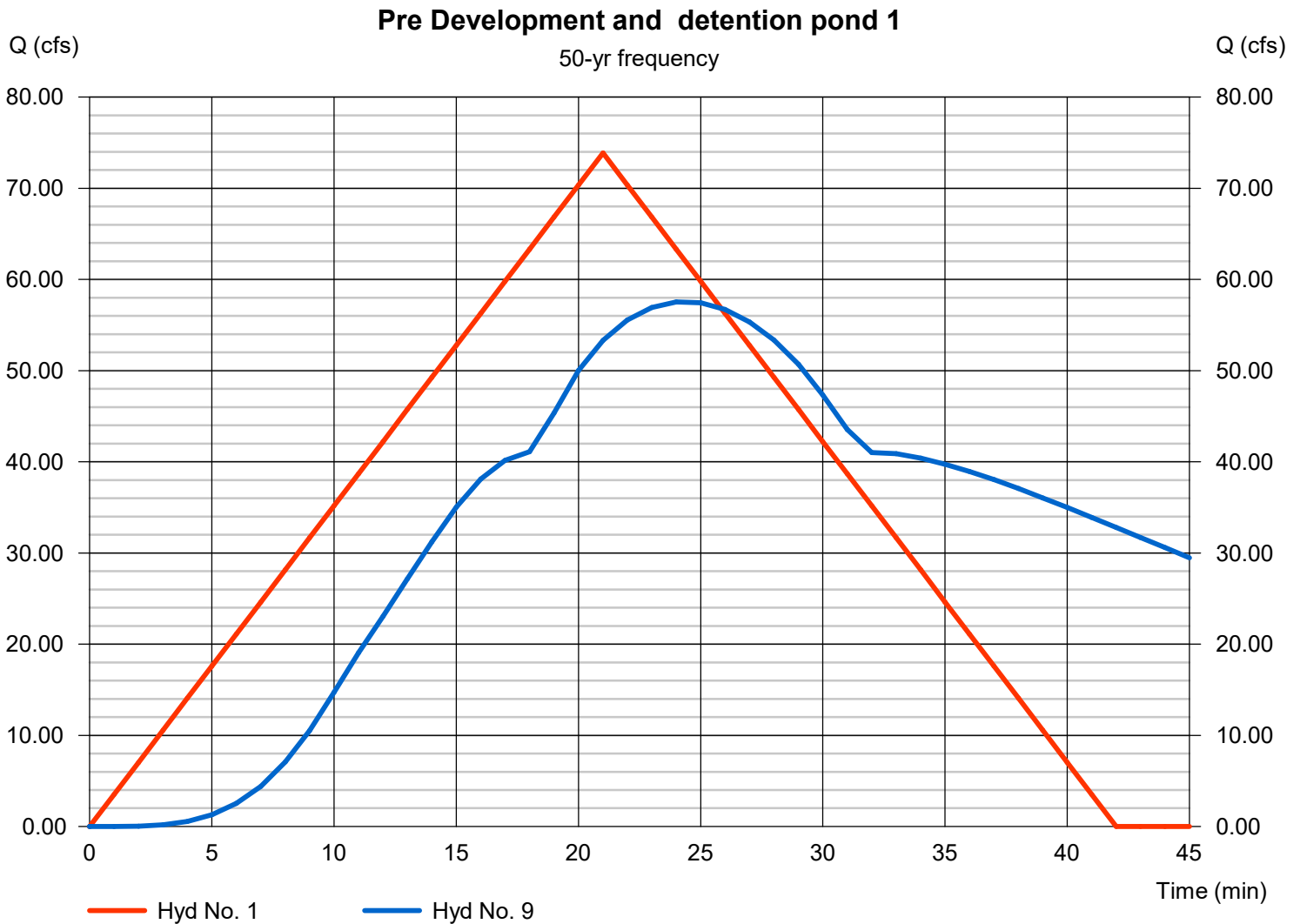
Pre Development

Hydrograph type = Rational
Peak discharge = 73.87 cfs
Time to peak = 21 min
Hyd. Volume = 93,080 cuft

Hyd. No. 9

detention pond 1

Hydrograph type = Reservoir
Peak discharge = 57.52 cfs
Time to peak = 24 min
Hyd. Volume = 137,777 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

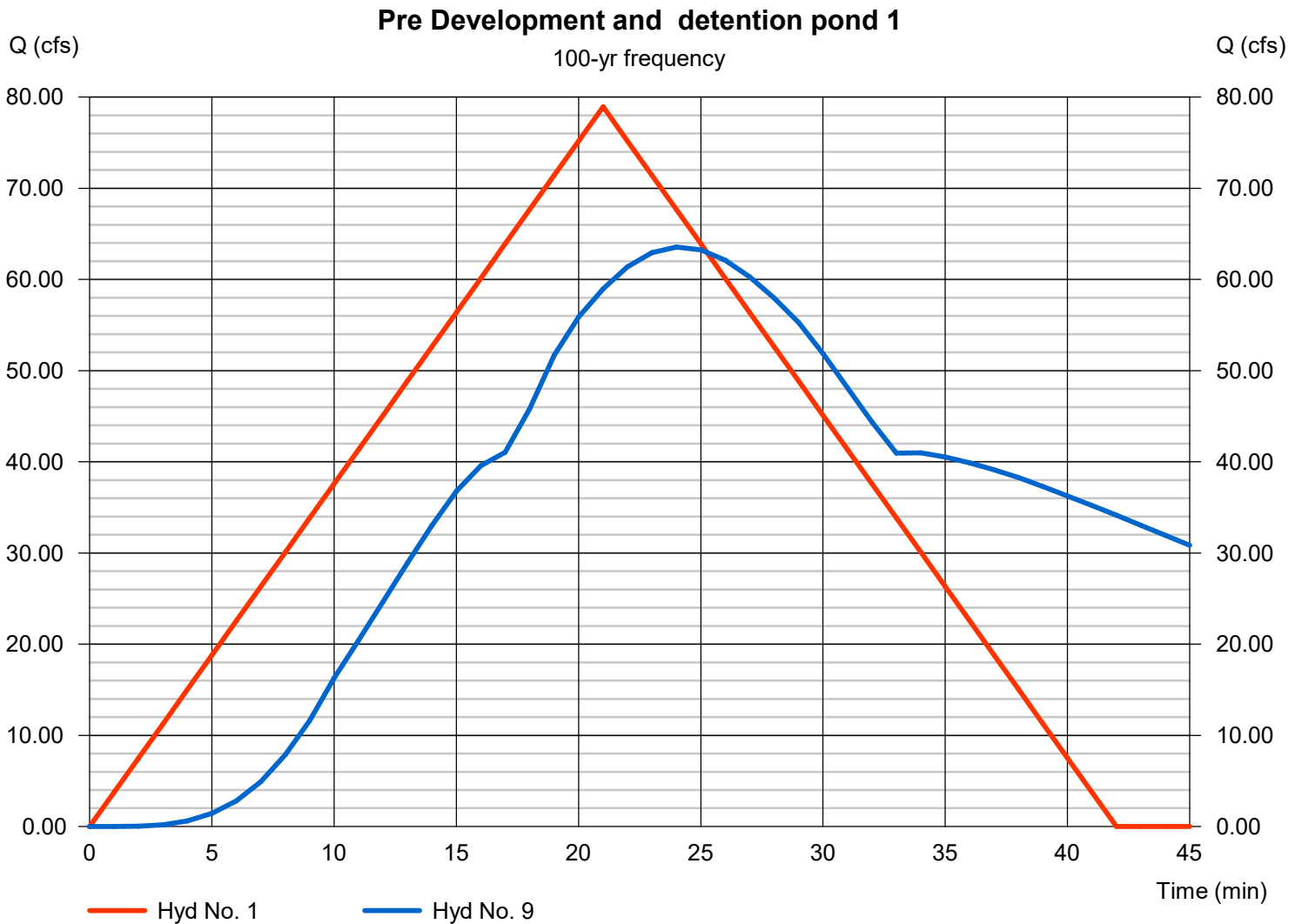
Pre Development

Hydrograph type = Rational
Peak discharge = 78.94 cfs
Time to peak = 21 min
Hyd. Volume = 99,461 cuft

Hyd. No. 9

detention pond 1

Hydrograph type = Reservoir
Peak discharge = 63.55 cfs
Time to peak = 24 min
Hyd. Volume = 146,374 cuft



Pond Report

Pond No. 2 - Detention Pond 1

Pond Data

Trapezoid -Bottom L x W = 268.0 x 70.0 ft, Side slope = 3.00:1, Bottom elev. = 437.50 ft, Depth = 5.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	437.50	18,760	0	0
0.50	438.00	19,783	9,635	9,635
1.00	438.50	20,824	10,151	19,786
1.50	439.00	21,883	10,676	30,462
2.00	439.50	22,960	11,210	41,672
2.50	440.00	24,055	11,753	53,425
3.00	440.50	25,168	12,305	65,730
3.50	441.00	26,299	12,866	78,596
4.00	441.50	27,448	13,436	92,032
4.50	442.00	28,615	14,015	106,047
5.00	442.50	29,800	14,603	120,650

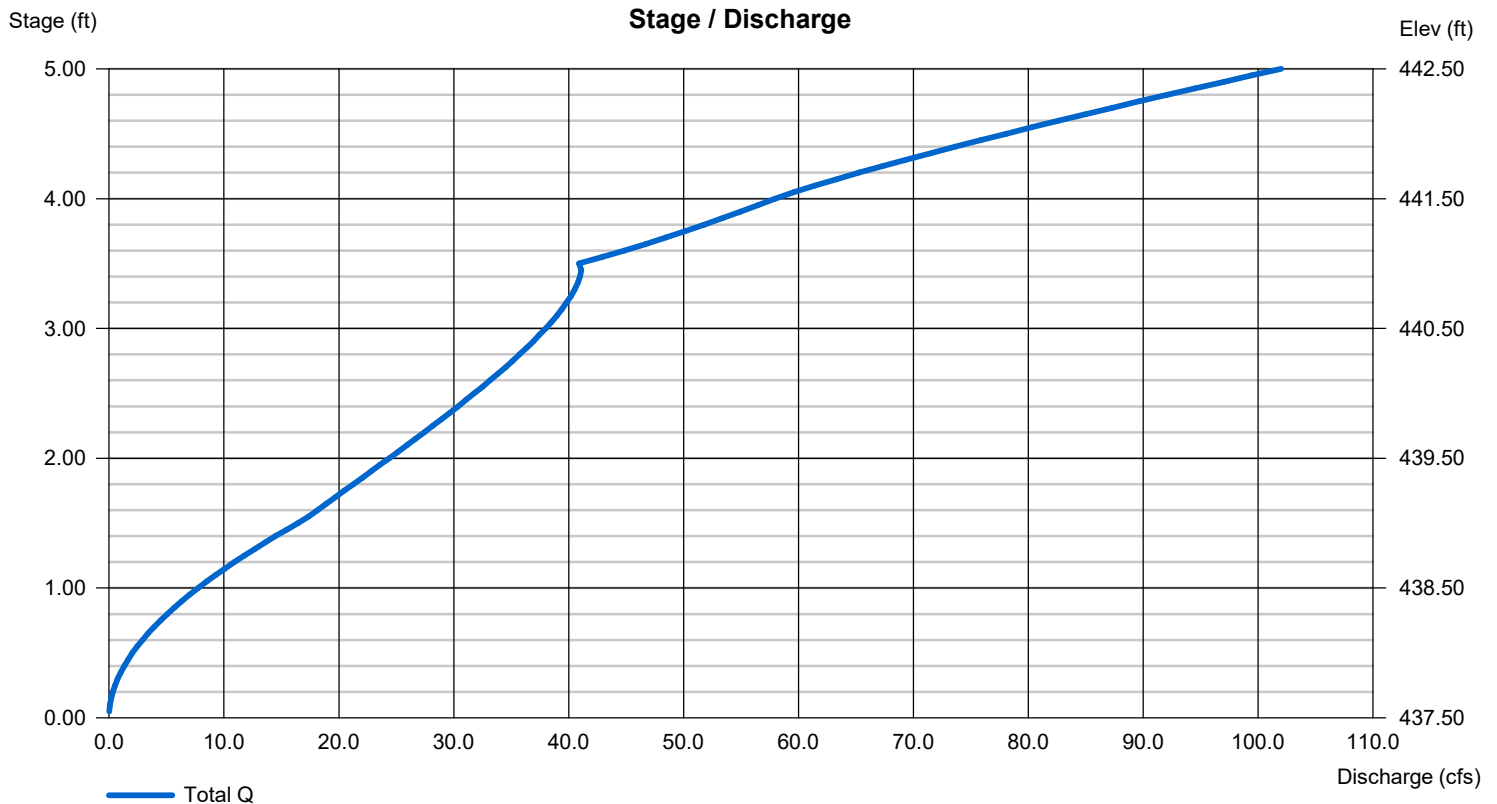
Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 42.00	Inactive	Inactive	0.00
Span (in)	= 42.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 437.50	0.00	0.00	0.00
Length (ft)	= 46.00	0.00	0.00	0.00
Slope (%)	= 1.08	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 6.00	Inactive	Inactive	0.00
Crest El. (ft)	= 441.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	42.51	1	21	53,568	-----	-----	-----	Pre Development
2	Rational	60.00	1	15	53,998	-----	-----	-----	Post development-1a
3	Rational	5.960	1	15	5,364	-----	-----	-----	post development-1b
4	Combine	65.96	1	15	59,362	2, 3	-----	-----	combine-1
5	Rational	18.19	1	15	16,367	-----	-----	-----	post development-2a
6	Rational	6.149	1	15	5,534	-----	-----	-----	post development-2b
7	Combine	24.33	1	15	21,901	5, 6	-----	-----	combine-2
8	Combine	90.29	1	15	81,262	4, 7	-----	-----	<no description>
9	Reservoir	32.54	1	25	81,205	8	440.05	54,740	detention pond 1
drainage one pond_04-18-2023.gpw					Return Period: 2 Year			Wednesday, 04 / 19 / 2023	

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	46.89	1	21	59,077	-----	-----	-----	Pre Development
2	Rational	66.36	1	15	59,728	-----	-----	-----	Post development-1a
3	Rational	6.592	1	15	5,933	-----	-----	-----	post development-1b
4	Combine	72.96	1	15	65,661	2, 3	-----	-----	combine-1
5	Rational	20.11	1	15	18,103	-----	-----	-----	post development-2a
6	Rational	6.801	1	15	6,121	-----	-----	-----	post development-2b
7	Combine	26.92	1	15	24,225	5, 6	-----	-----	combine-2
8	Combine	99.87	1	15	89,885	4, 7	-----	-----	<no description>
9	Reservoir	35.52	1	25	89,828	8	440.28	60,392	detention pond 1
drainage one pond_04-18-2023.gpw					Return Period: 5 Year			Wednesday, 04 / 19 / 2023	

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	56.26	1	21	70,892	-----	-----	-----	Pre Development	
2	Rational	77.90	1	15	70,107	-----	-----	-----	Post development-1a	
3	Rational	7.738	1	15	6,964	-----	-----	-----	post development-1b	
4	Combine	85.63	1	15	77,071	2, 3	-----	-----	combine-1	
5	Rational	23.61	1	15	21,249	-----	-----	-----	post development-2a	
6	Rational	7.983	1	15	7,185	-----	-----	-----	post development-2b	
7	Combine	31.59	1	15	28,434	5, 6	-----	-----	combine-2	
8	Combine	117.23	1	15	105,505	4, 7	-----	-----	<no description>	
9	Reservoir	39.88	1	25	105,448	8	440.71	71,054	detention pond 1	
drainage one pond_04-18-2023.gpw					Return Period: 10 Year			Wednesday, 04 / 19 / 2023		

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	64.78	1	21	81,626	-----	-----	-----	Pre Development	
2	Rational	89.29	1	15	80,357	-----	-----	-----	Post development-1a	
3	Rational	8.869	1	15	7,982	-----	-----	-----	post development-1b	
4	Combine	98.15	1	15	88,339	2, 3	-----	-----	combine-1	
5	Rational	27.06	1	15	24,356	-----	-----	-----	post development-2a	
6	Rational	9.151	1	15	8,235	-----	-----	-----	post development-2b	
7	Combine	36.21	1	15	32,591	5, 6	-----	-----	combine-2	
8	Combine	134.37	1	15	120,930	4, 7	-----	-----	<no description>	
9	Reservoir	45.74	1	25	120,872	8	441.12	81,944	detention pond 1	
drainage one pond_04-18-2023.gpw					Return Period: 25 Year			Wednesday, 04 / 19 / 2023		

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	73.87	1	21	93,080	-----	-----	-----	Pre Development
2	Rational	101.77	1	15	91,590	-----	-----	-----	Post development-1a
3	Rational	10.11	1	15	9,098	-----	-----	-----	post development-1b
4	Combine	111.88	1	15	100,688	2, 3	-----	-----	combine-1
5	Rational	30.85	1	15	27,761	-----	-----	-----	post development-2a
6	Rational	10.43	1	15	9,387	-----	-----	-----	post development-2b
7	Combine	41.27	1	15	37,147	5, 6	-----	-----	combine-2
8	Combine	153.15	1	15	137,835	4, 7	-----	-----	<no description>
9	Reservoir	57.52	1	24	137,777	8	441.49	91,647	detention pond 1
drainage one pond_04-18-2023.gpw					Return Period: 50 Year			Wednesday, 04 / 19 / 2023	

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	78.94	1	21	99,461	-----	-----	-----	Pre Development	
2	Rational	108.11	1	15	97,303	-----	-----	-----	Post development-1a	
3	Rational	10.74	1	15	9,665	-----	-----	-----	post development-1b	
4	Combine	118.85	1	15	106,968	2, 3	-----	-----	combine-1	
5	Rational	32.77	1	15	29,492	-----	-----	-----	post development-2a	
6	Rational	11.08	1	15	9,972	-----	-----	-----	post development-2b	
7	Combine	43.85	1	15	39,464	5, 6	-----	-----	combine-2	
8	Combine	162.70	1	15	146,433	4, 7	-----	-----	<no description>	
9	Reservoir	63.55	1	24	146,374	8	441.66	96,403	detention pond 1	
drainage one pond_04-18-2023.gpw					Return Period: 100 Year			Wednesday, 04 / 19 / 2023		

Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023



Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	Pre development
2	Rational	Post development
3	Reservoir	detention pond

Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

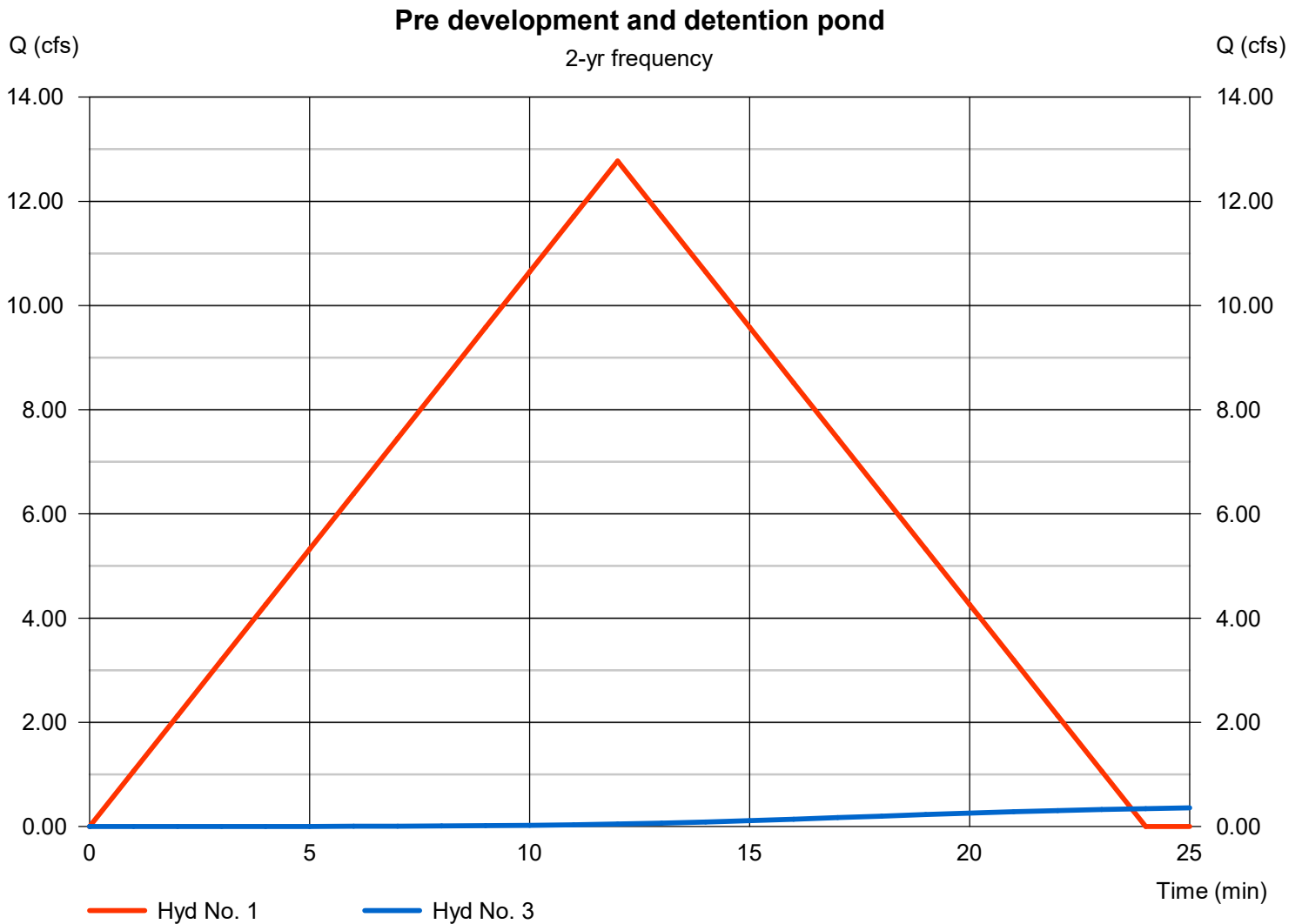
Pre development

Hydrograph type = Rational
Peak discharge = 12.77 cfs
Time to peak = 12 min
Hyd. Volume = 9,197 cuft

Hyd. No. 3

detention pond

Hydrograph type = Reservoir
Peak discharge = 0.39 cfs
Time to peak = 29 min
Hyd. Volume = 5,573 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

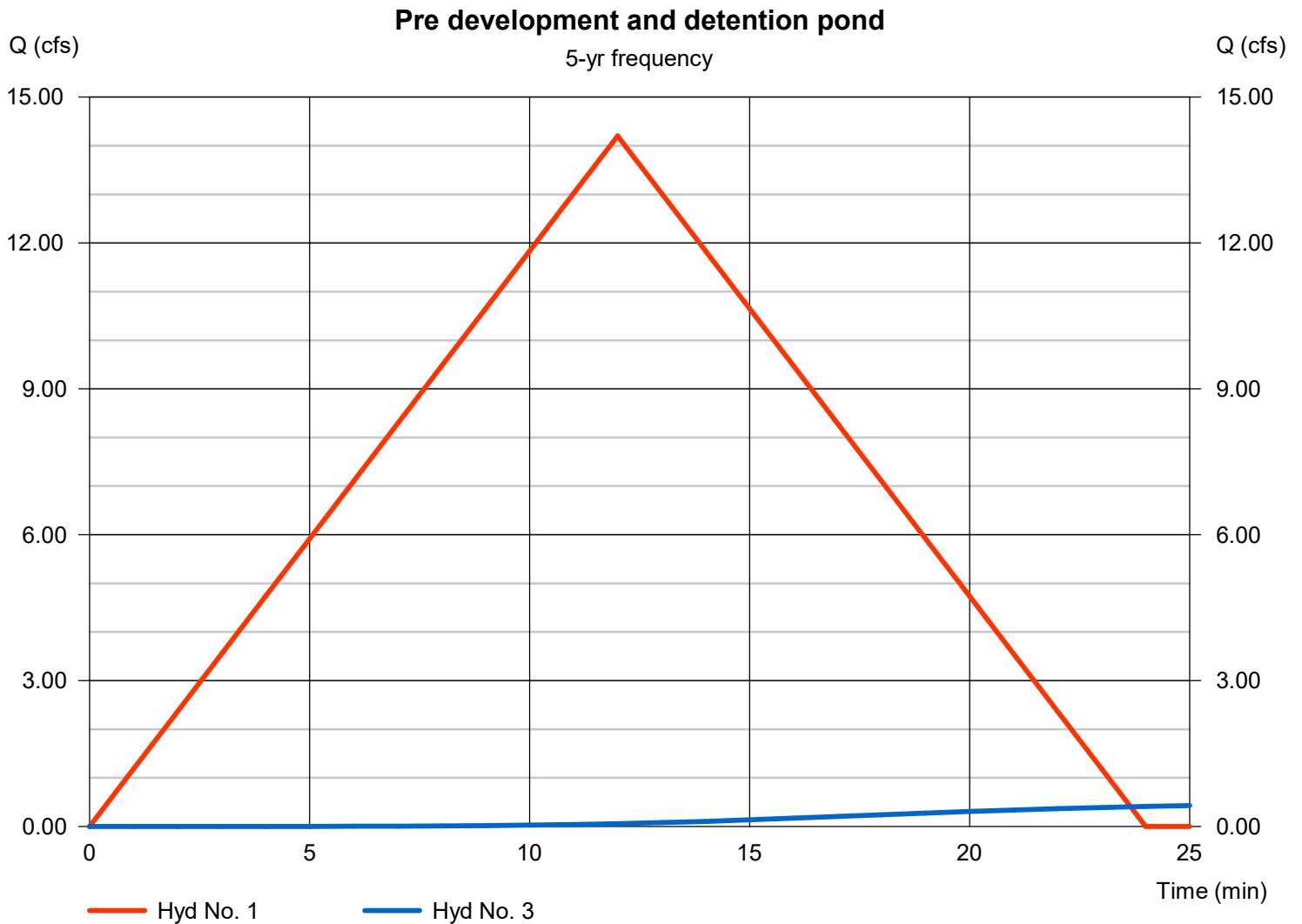
Pre development

Hydrograph type = Rational
Peak discharge = 14.20 cfs
Time to peak = 12 min
Hyd. Volume = 10,226 cuft

Hyd. No. 3

detention pond

Hydrograph type = Reservoir
Peak discharge = 0.46 cfs
Time to peak = 29 min
Hyd. Volume = 6,203 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

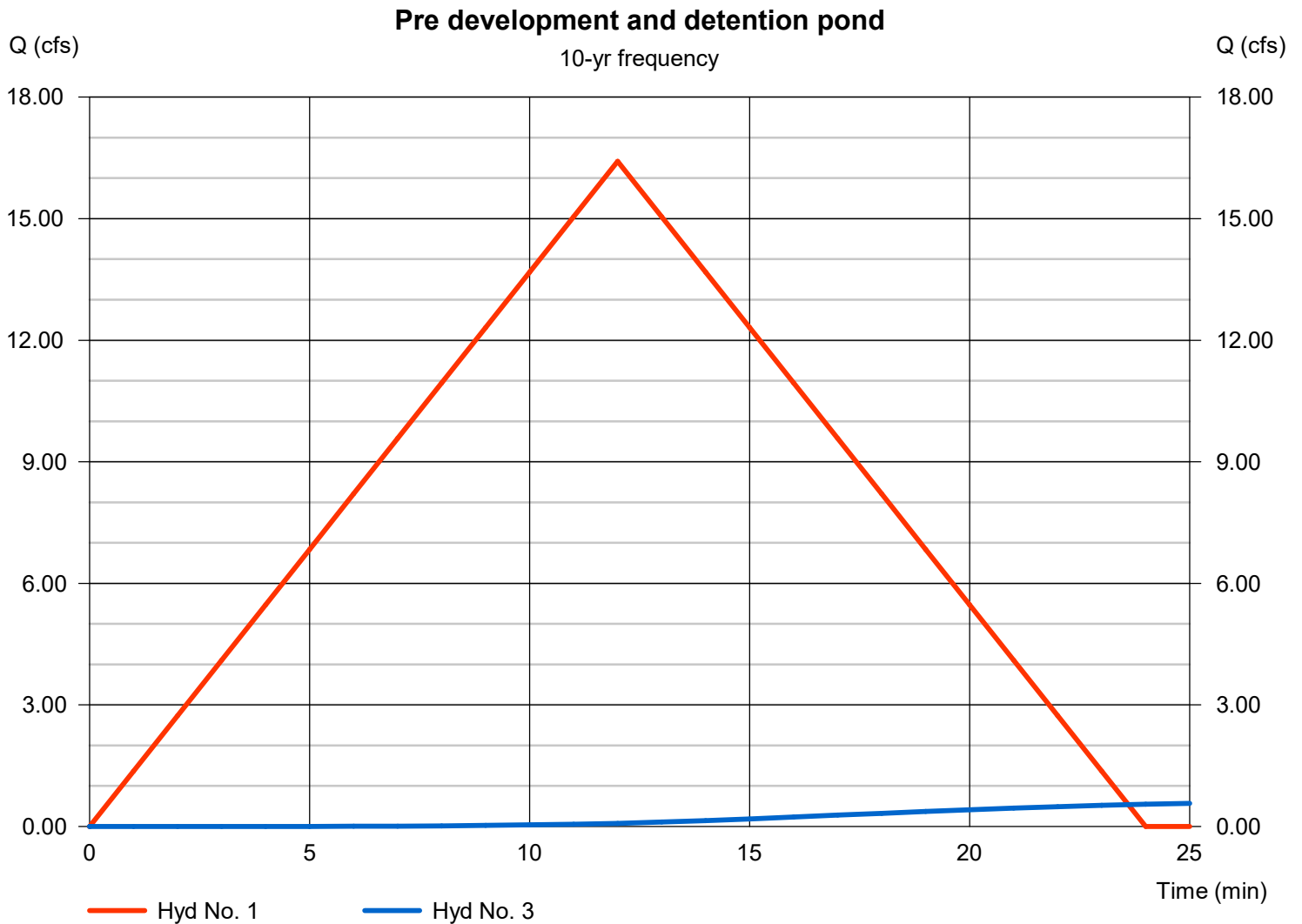
Pre development

Hydrograph type = Rational
Peak discharge = 16.42 cfs
Time to peak = 12 min
Hyd. Volume = 11,819 cuft

Hyd. No. 3

detention pond

Hydrograph type = Reservoir
Peak discharge = 0.61 cfs
Time to peak = 29 min
Hyd. Volume = 7,345 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

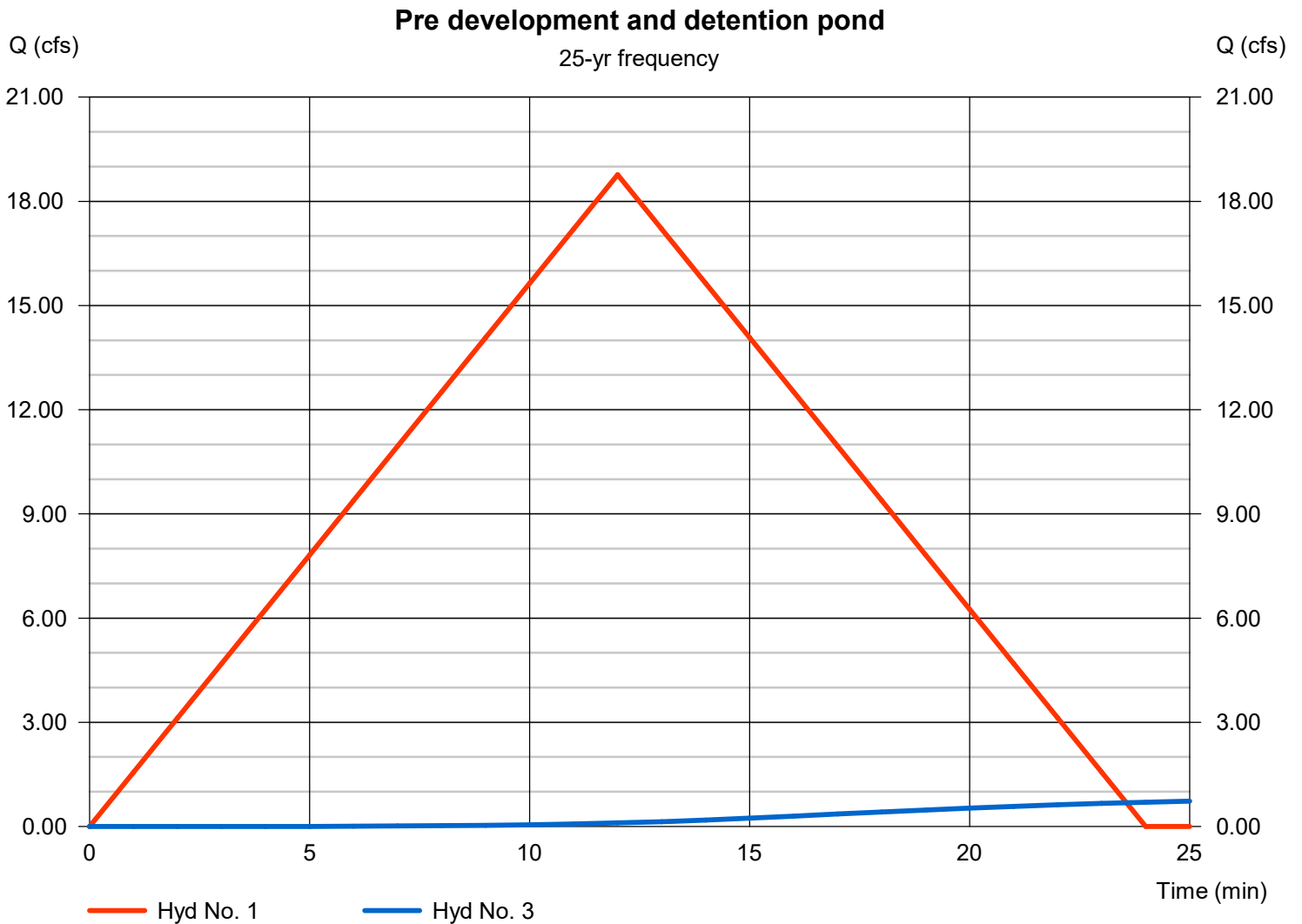
Pre development

Hydrograph type = Rational
Peak discharge = 18.77 cfs
Time to peak = 12 min
Hyd. Volume = 13,512 cuft

Hyd. No. 3

detention pond

Hydrograph type = Reservoir
Peak discharge = 0.77 cfs
Time to peak = 29 min
Hyd. Volume = 8,475 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

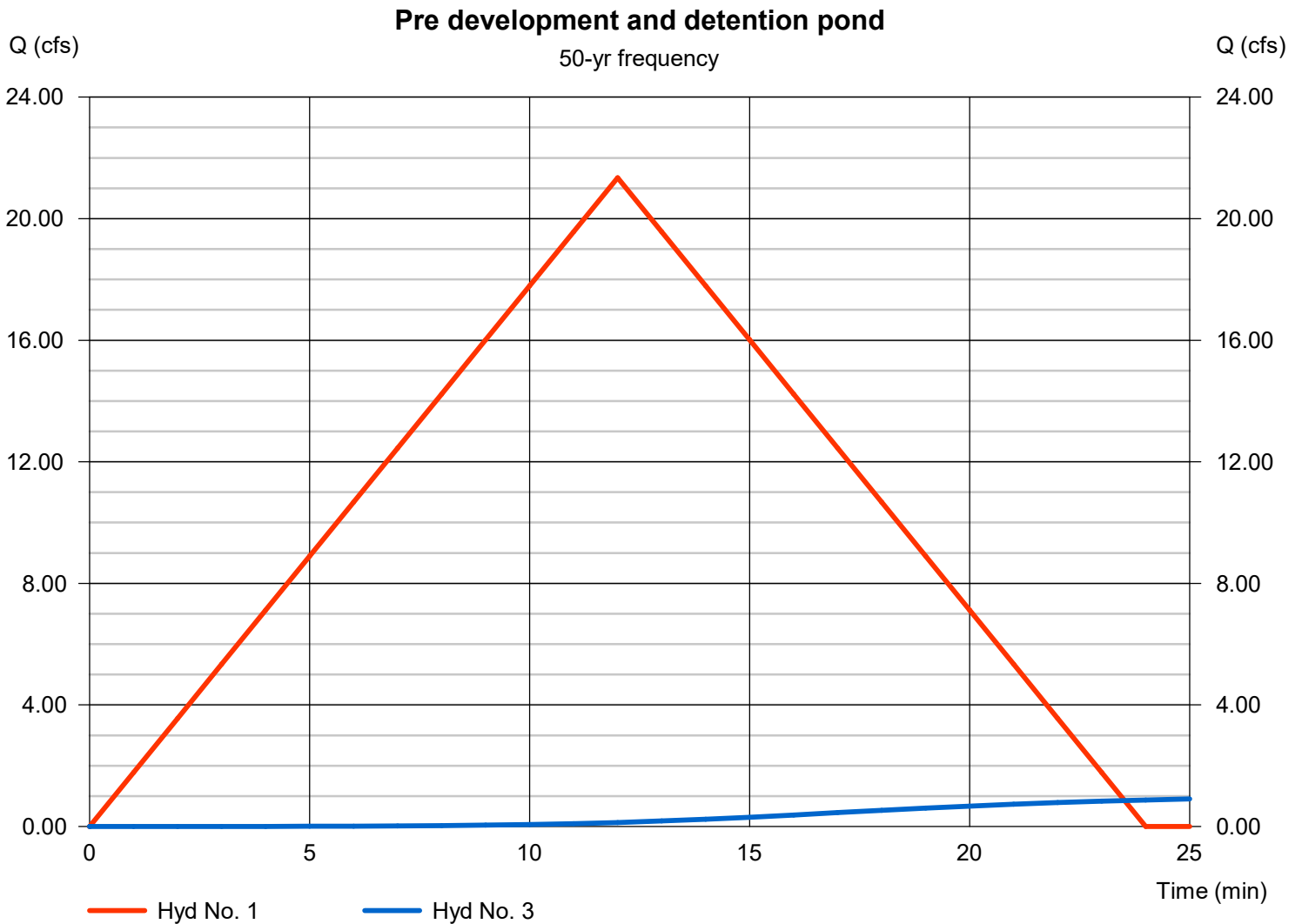
Pre development

Hydrograph type = Rational
Peak discharge = 21.35 cfs
Time to peak = 12 min
Hyd. Volume = 15,370 cuft

Hyd. No. 3

detention pond

Hydrograph type = Reservoir
Peak discharge = 0.96 cfs
Time to peak = 29 min
Hyd. Volume = 9,713 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

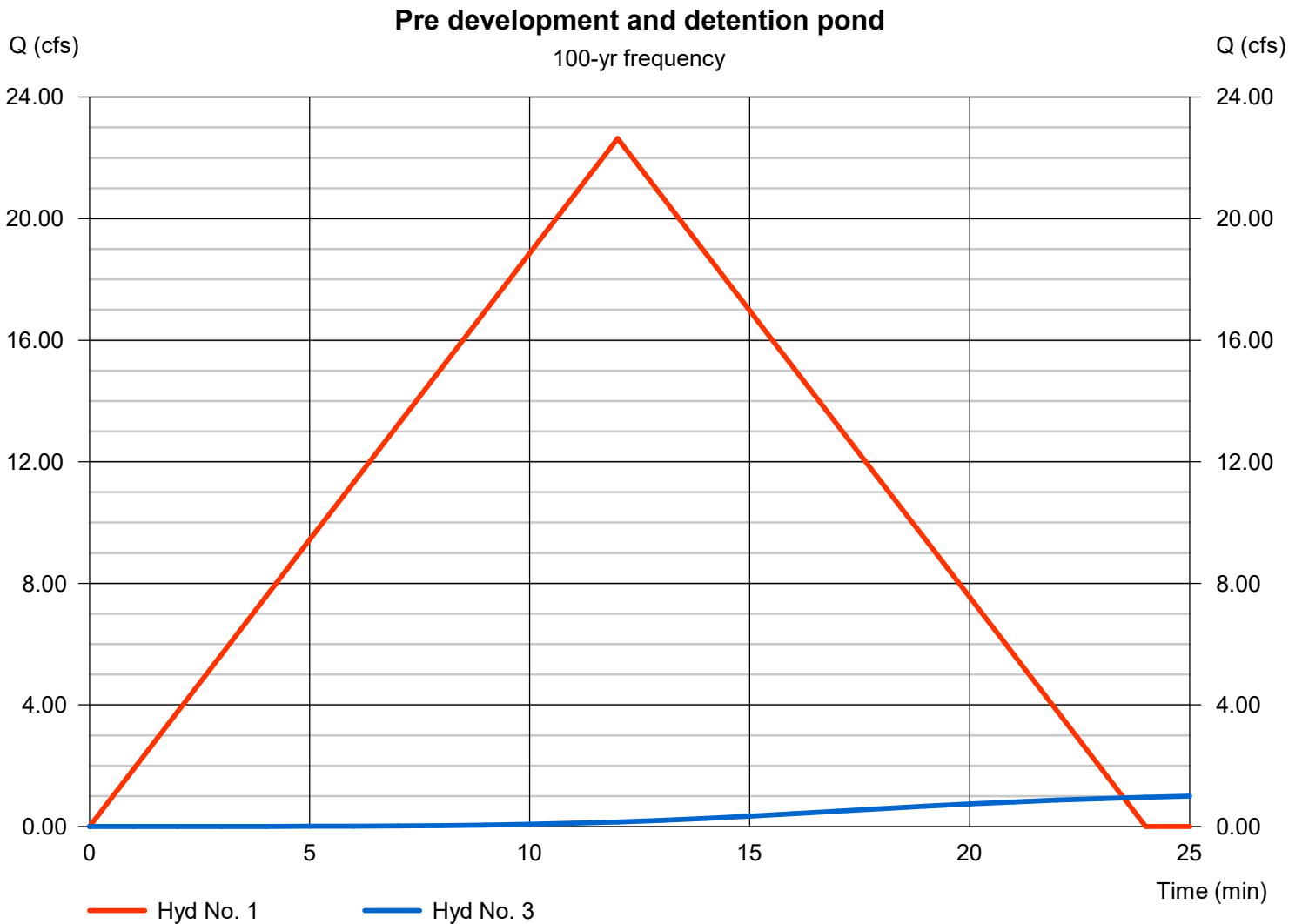
Pre development

Hydrograph type = Rational
Peak discharge = 22.64 cfs
Time to peak = 12 min
Hyd. Volume = 16,299 cuft

Hyd. No. 3

detention pond

Hydrograph type = Reservoir
Peak discharge = 1.06 cfs
Time to peak = 29 min
Hyd. Volume = 10,343 cuft



Pond Report

Pond No. 1 - Detention Pond 2

Pond Data

Trapezoid -Bottom L x W = 145.0 x 126.0 ft, Side slope = 3.00:1, Bottom elev. = 511.00 ft, Depth = 2.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	511.00	18,270	0	0
0.20	511.20	18,597	3,687	3,687
0.40	511.40	18,926	3,752	7,439
0.60	511.60	19,259	3,818	11,257
0.80	511.80	19,594	3,885	15,142
1.00	512.00	19,932	3,953	19,095
1.20	512.20	20,273	4,020	23,115
1.40	512.40	20,617	4,089	27,204
1.60	512.60	20,964	4,158	31,362
1.80	512.80	21,313	4,228	35,590
2.00	513.00	21,666	4,298	39,888

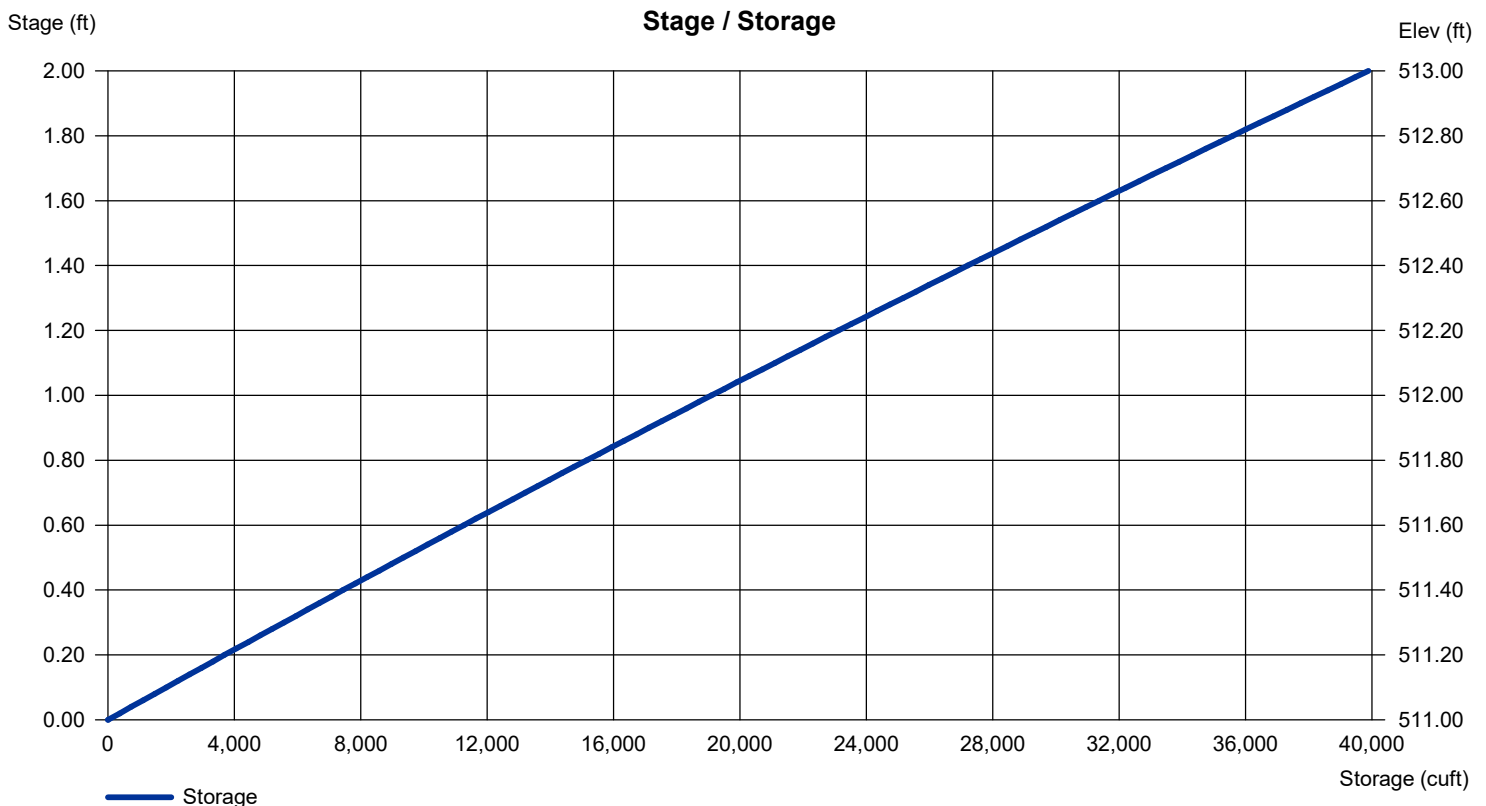
Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	Inactive	Inactive	0.00
Span (in)	= 12.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 511.00	0.00	0.00	0.00
Length (ft)	= 64.00	0.00	0.00	0.00
Slope (%)	= 9.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 6.00	0.00	0.00	0.00
Crest El. (ft)	= 512.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Contour)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	12.77	1	12	9,197	-----	-----	-----	Pre development	
2	Rational	6.629	1	15	5,966	-----	-----	-----	Post development	
3	Reservoir	0.387	1	29	5,573	2	511.31	5,693	detention pond	
DETENTION POND 2.gpw					Return Period: 2 Year			Thursday, 10 / 6 / 2022		

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	14.20	1	12	10,226	-----	-----	-----	Pre development
2	Rational	7.333	1	15	6,599	-----	-----	-----	Post development
3	Reservoir	0.462	1	29	6,203	2	511.34	6,272	detention pond
DETENTION POND 2.gpw					Return Period: 5 Year			Thursday, 10 / 6 / 2022	

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	16.42	1	12	11,819	-----	-----	-----	Pre development	
2	Rational	8.607	1	15	7,746	-----	-----	-----	Post development	
3	Reservoir	0.613	1	29	7,345	2	511.39	7,310	detention pond	
DETENTION POND 2.gpw					Return Period: 10 Year			Thursday, 10 / 6 / 2022		

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	18.77	1	12	13,512	-----	-----	-----	Pre development	
2	Rational	9.865	1	15	8,879	-----	-----	-----	Post development	
3	Reservoir	0.773	1	29	8,475	2	511.45	8,325	detention pond	
DETENTION POND 2.gpw					Return Period: 25 Year			Thursday, 10 / 6 / 2022		

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	21.35	1	12	15,370	-----	-----	-----	Pre development	
2	Rational	11.24	1	15	10,120	-----	-----	-----	Post development	
3	Reservoir	0.959	1	29	9,713	2	511.50	9,427	detention pond	
DETENTION POND 2.gpw					Return Period: 50 Year			Thursday, 10 / 6 / 2022		

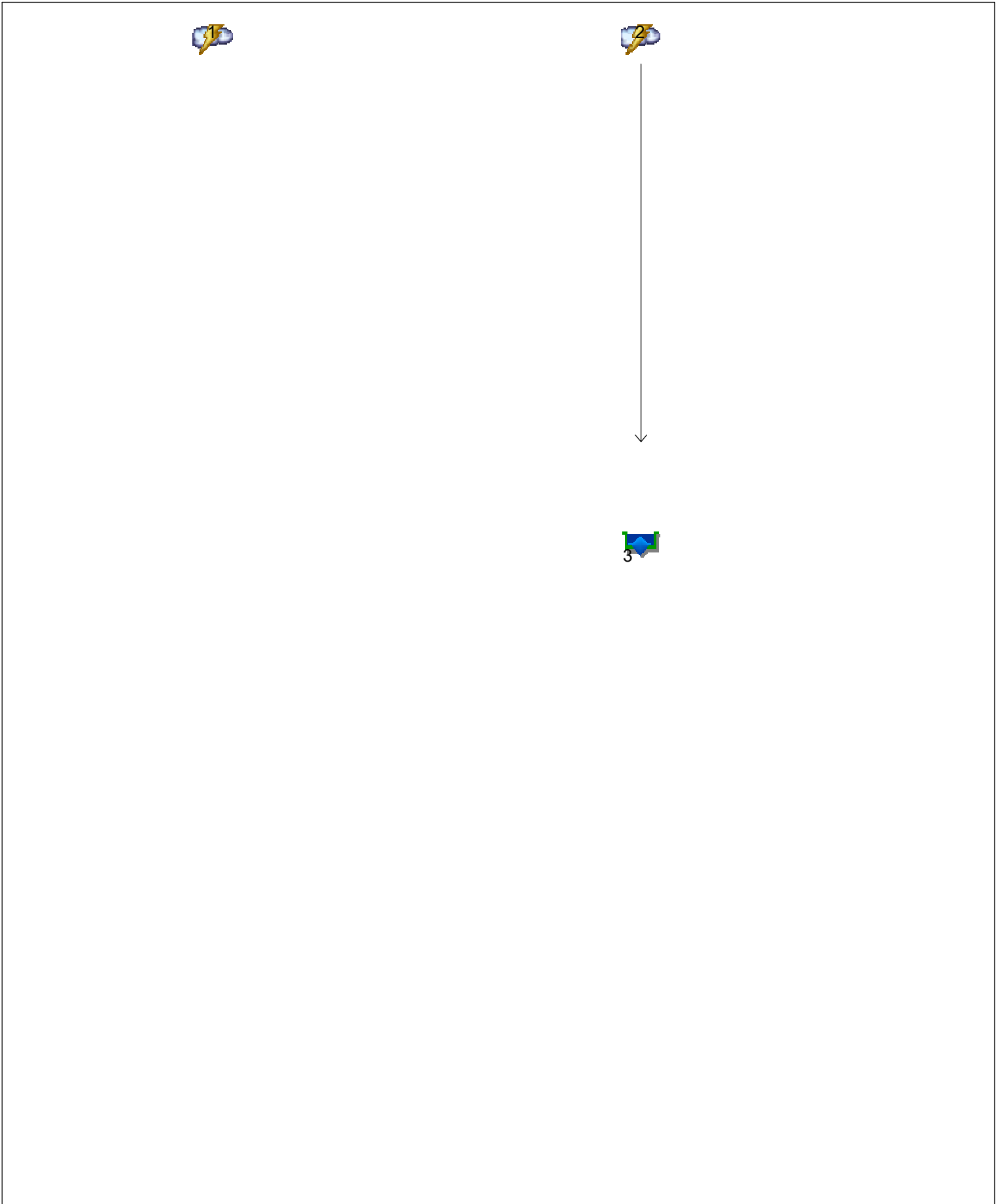
Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	22.64	1	12	16,299	-----	-----	-----	Pre development	
2	Rational	11.95	1	15	10,751	-----	-----	-----	Post development	
3	Reservoir	1.059	1	29	10,343	2	511.53	9,983	detention pond	
DETENTION POND 2.gpw					Return Period: 100 Year			Thursday, 10 / 6 / 2022		

Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

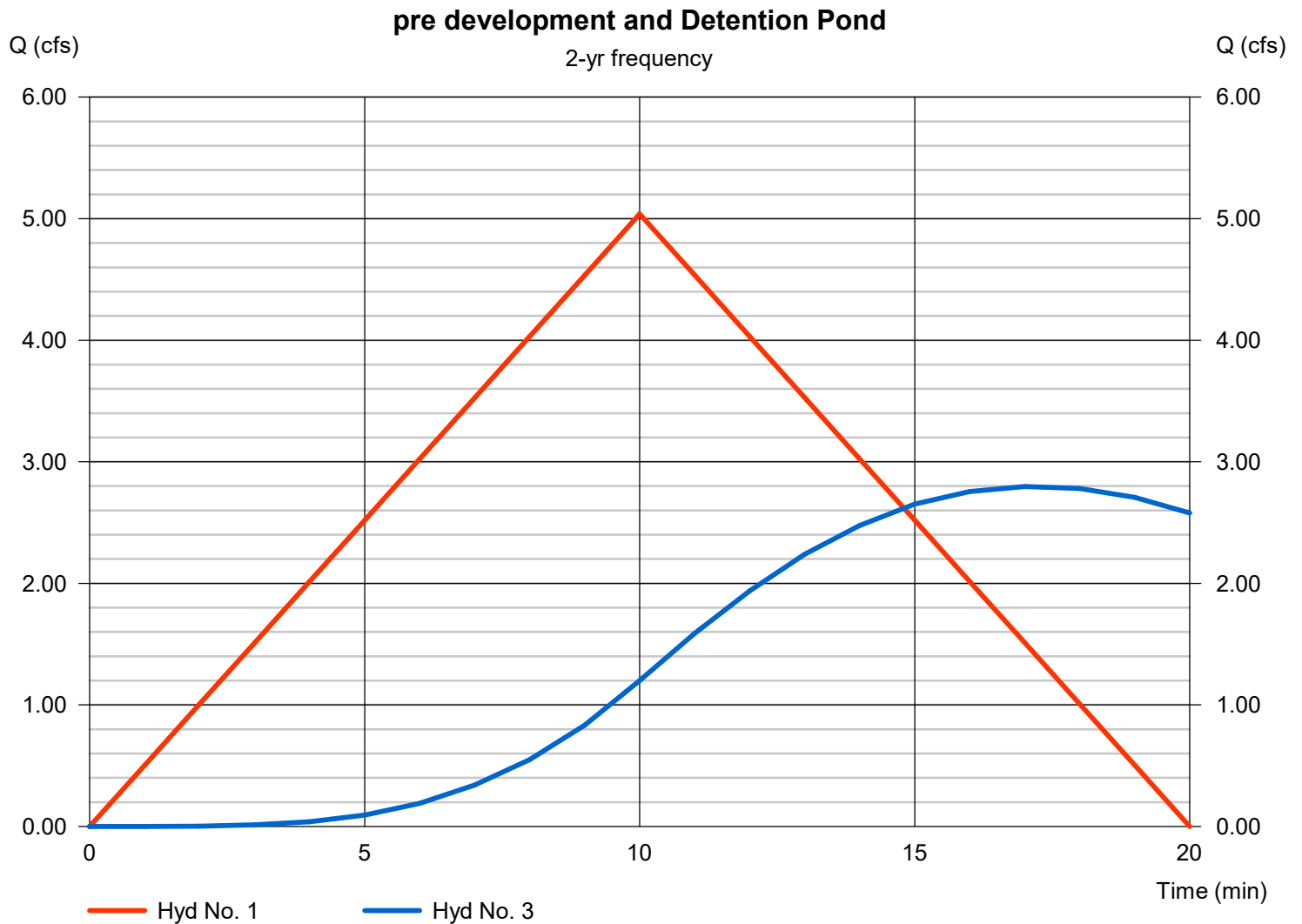
pre development

Hydrograph type = Rational
Peak discharge = 5.039 cfs
Time to peak = 10 min
Hyd. Volume = 3,023 cuft

Hyd. No. 3

Detention Pond

Hydrograph type = Reservoir
Peak discharge = 2.80 cfs
Time to peak = 17 min
Hyd. Volume = 5,925 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

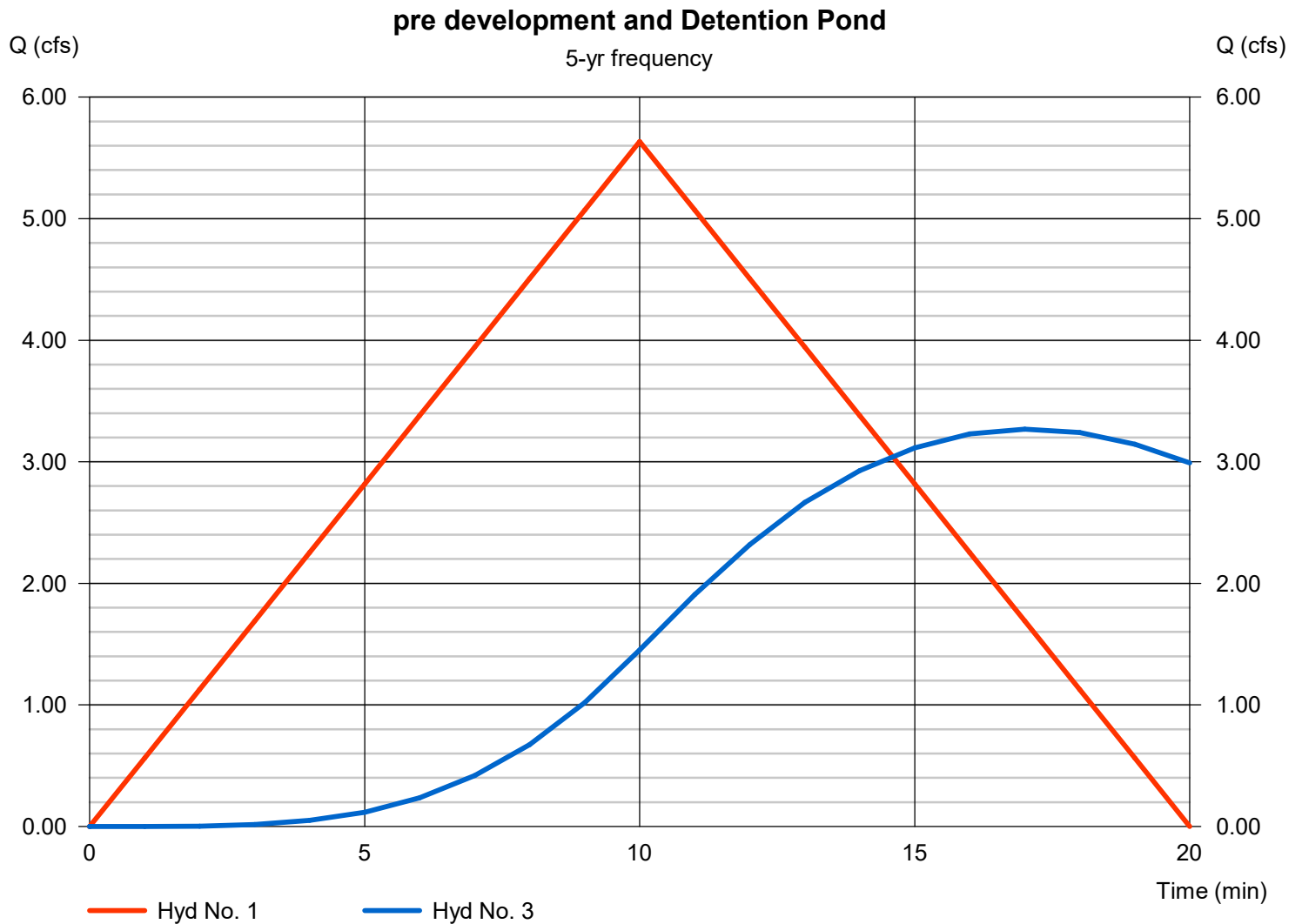
pre development

Hydrograph type = Rational
Peak discharge = 5.635 cfs
Time to peak = 10 min
Hyd. Volume = 3,381 cuft

Hyd. No. 3

Detention Pond

Hydrograph type = Reservoir
Peak discharge = 3.27 cfs
Time to peak = 17 min
Hyd. Volume = 6,630 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

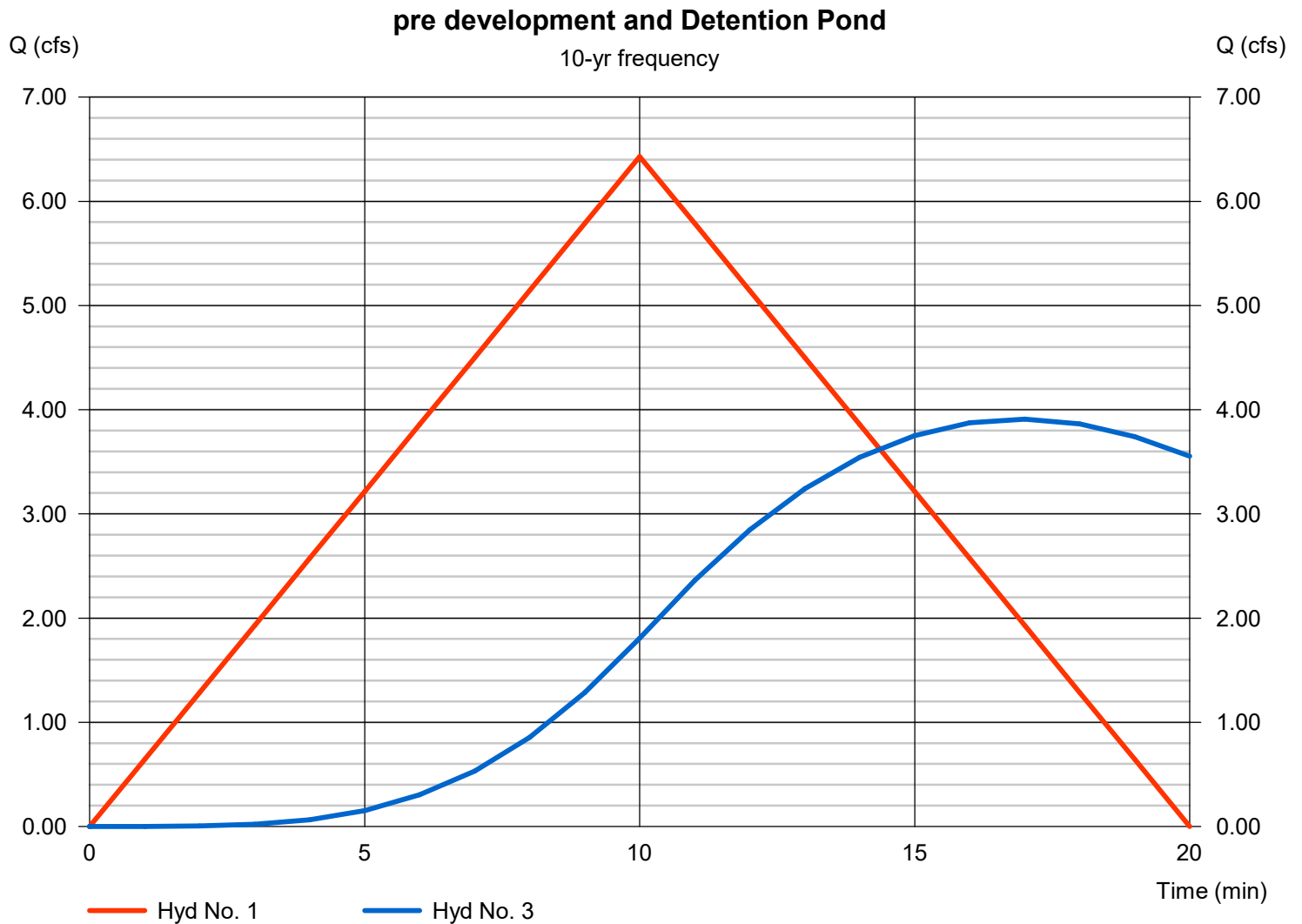
pre development

Hydrograph type = Rational
Peak discharge = 6.430 cfs
Time to peak = 10 min
Hyd. Volume = 3,858 cuft

Hyd. No. 3

Detention Pond

Hydrograph type = Reservoir
Peak discharge = 3.91 cfs
Time to peak = 17 min
Hyd. Volume = 7,571 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

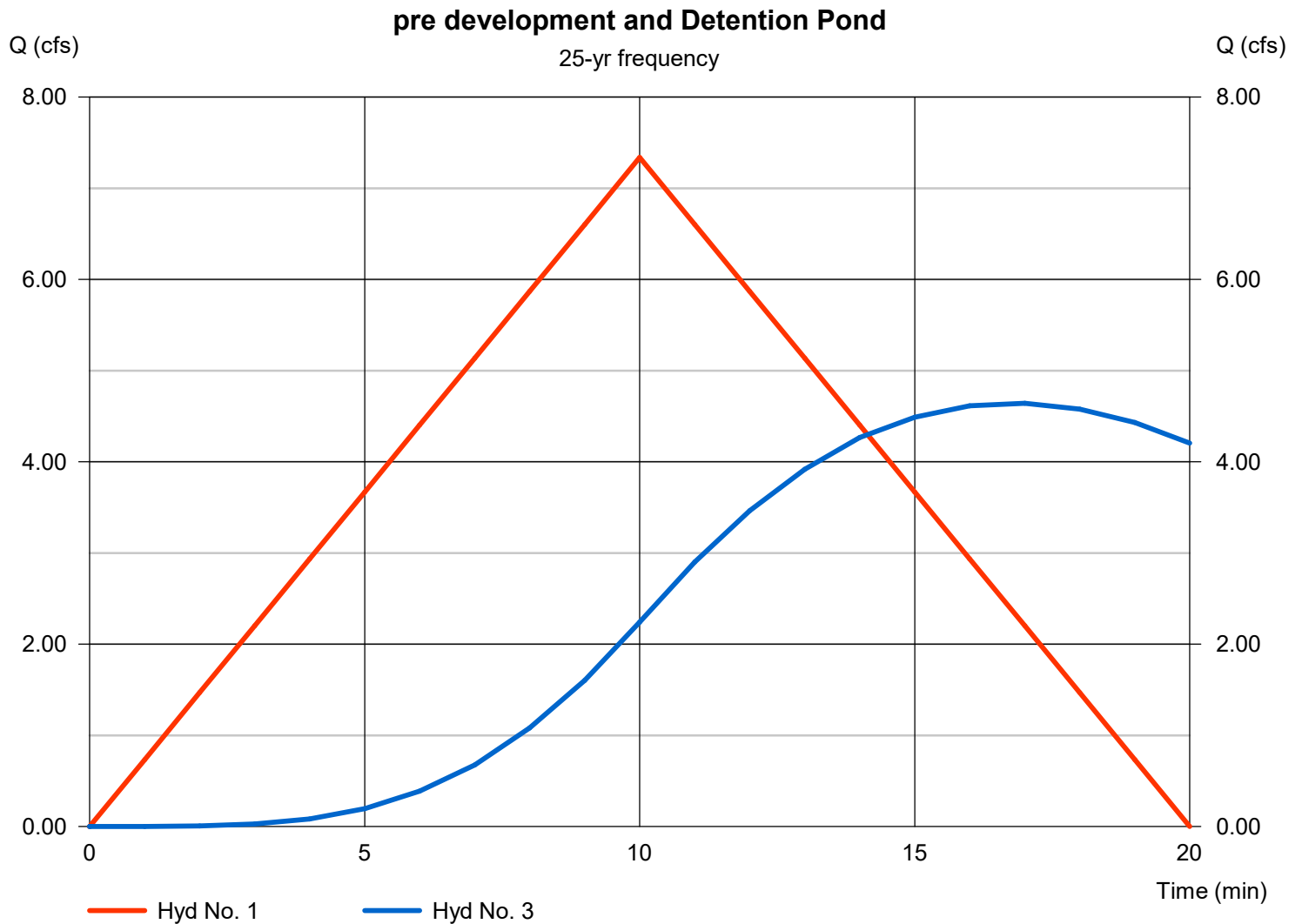
pre development

Hydrograph type = Rational
Peak discharge = 7.337 cfs
Time to peak = 10 min
Hyd. Volume = 4,402 cuft

Hyd. No. 3

Detention Pond

Hydrograph type = Reservoir
Peak discharge = 4.64 cfs
Time to peak = 17 min
Hyd. Volume = 8,645 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

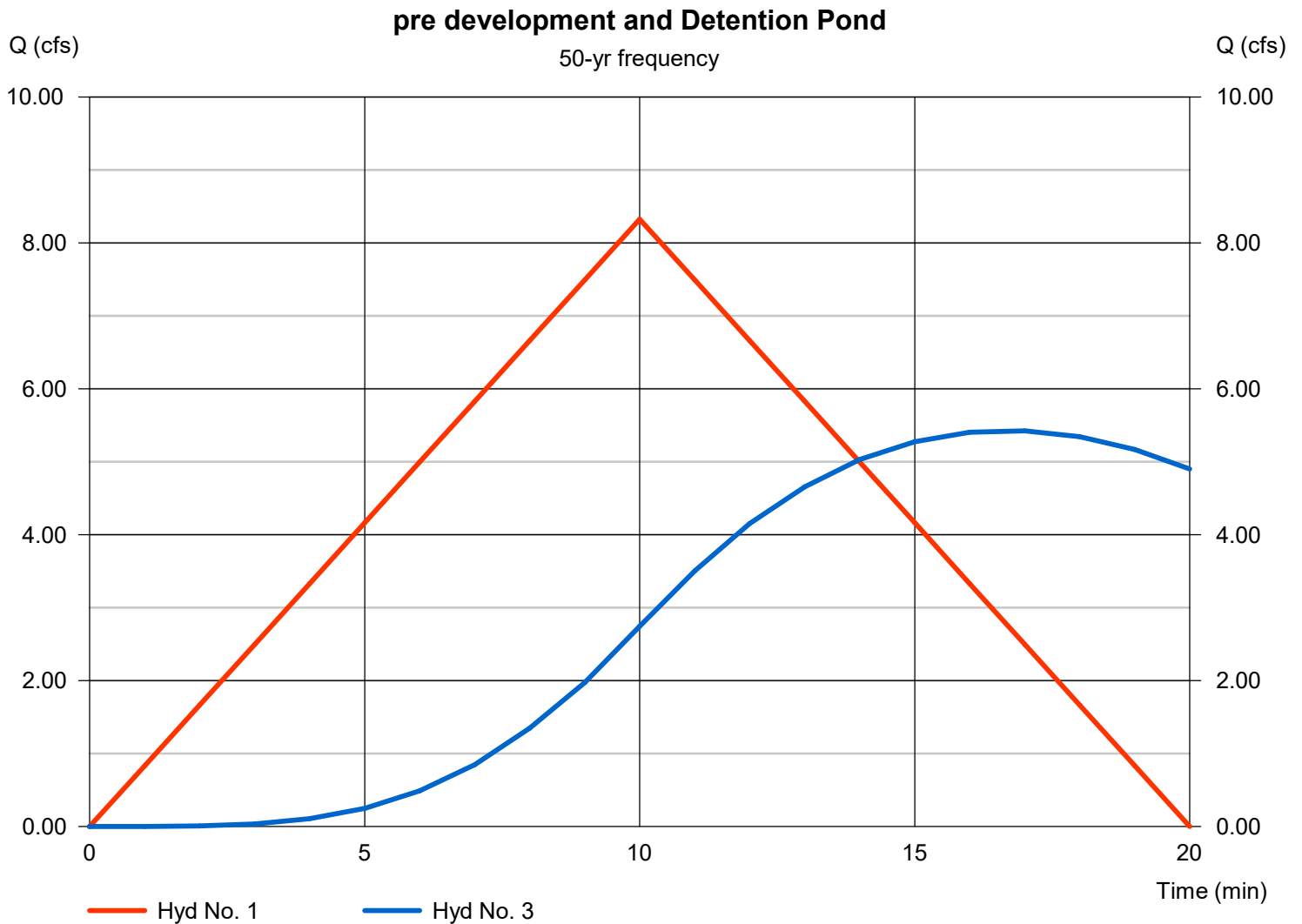
pre development

Hydrograph type = Rational
Peak discharge = 8.326 cfs
Time to peak = 10 min
Hyd. Volume = 4,995 cuft

Hyd. No. 3

Detention Pond

Hydrograph type = Reservoir
Peak discharge = 5.42 cfs
Time to peak = 17 min
Hyd. Volume = 9,816 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

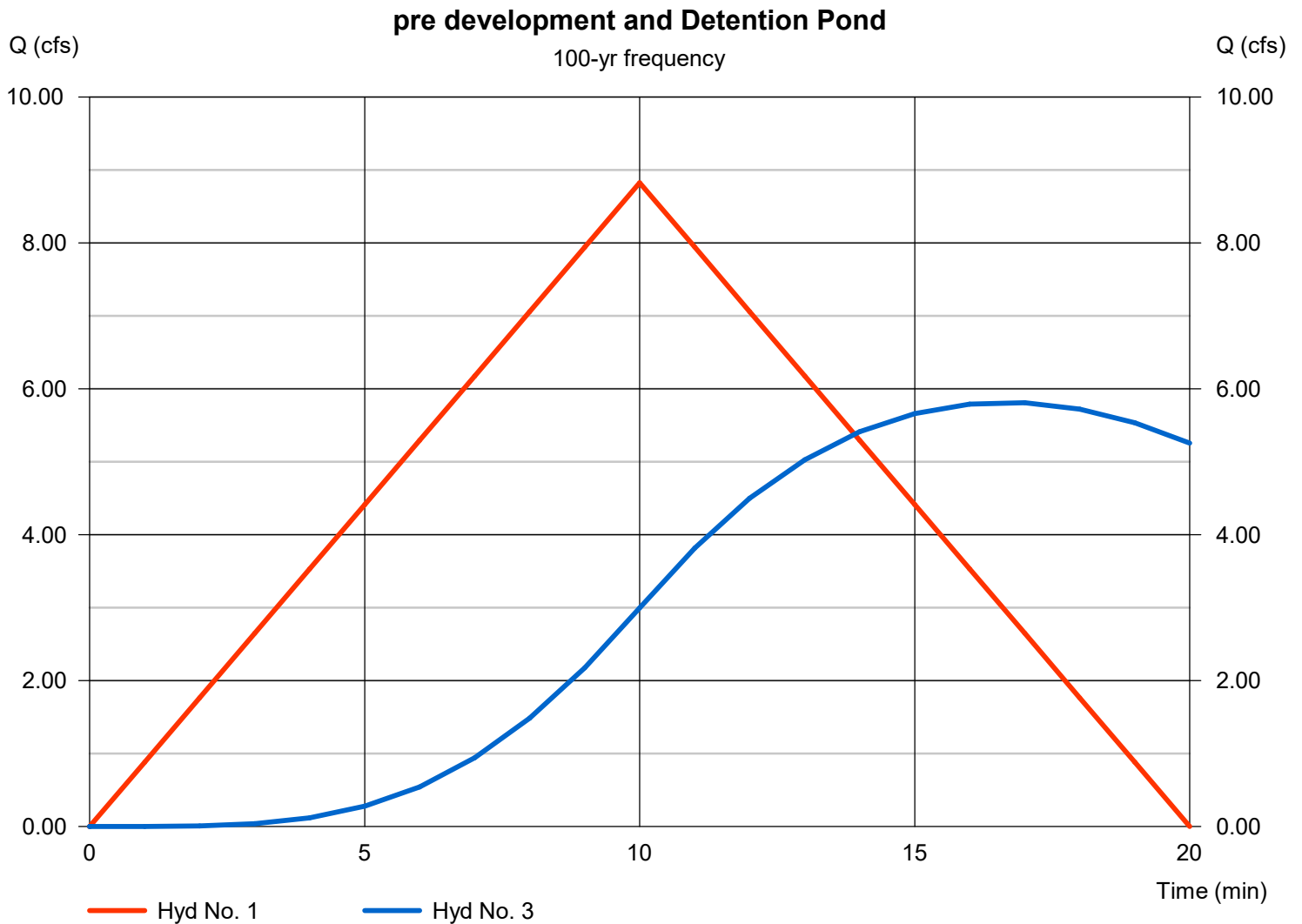
pre development

Hydrograph type = Rational
Peak discharge = 8.825 cfs
Time to peak = 10 min
Hyd. Volume = 5,295 cuft

Hyd. No. 3

Detention Pond

Hydrograph type = Reservoir
Peak discharge = 5.81 cfs
Time to peak = 17 min
Hyd. Volume = 10,406 cuft



Pond Report

Pond No. 1 - Detention Pond -3

Pond Data

Trapezoid -Bottom L x W = 106.0 x 52.0 ft, Side slope = 3.00:1, Bottom elev. = 495.00 ft, Depth = 2.50 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	495.00	5,512	0	0
0.25	495.25	5,751	1,408	1,408
0.50	495.50	5,995	1,468	2,876
0.75	495.75	6,243	1,530	4,406
1.00	496.00	6,496	1,592	5,998
1.25	496.25	6,753	1,656	7,654
1.50	496.50	7,015	1,721	9,375
1.75	496.75	7,281	1,787	11,162
2.00	497.00	7,552	1,854	13,016
2.25	497.25	7,827	1,922	14,938
2.50	497.50	8,107	1,992	16,930

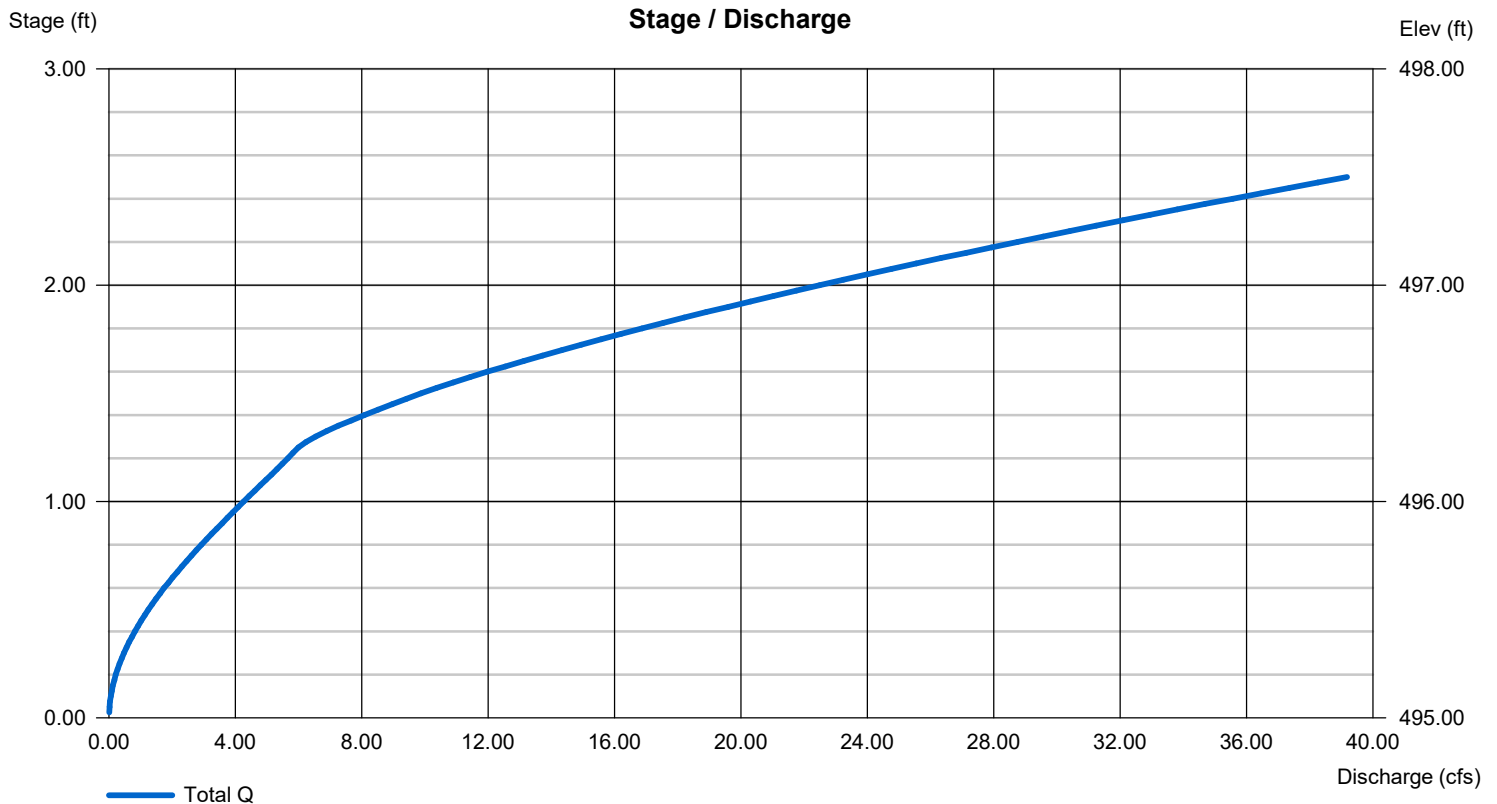
Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 18.00	0.00	0.00	0.00
Span (in)	= 18.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 495.00	0.00	0.00	0.00
Length (ft)	= 29.00	0.00	0.00	0.00
Slope (%)	= 12.74	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 6.00	0.00	0.00	0.00
Crest El. (ft)	= 496.25	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	5.039	1	10	3,023	-----	-----	-----	pre development	
2	Rational	9.942	1	10	5,965	-----	-----	-----	post development	
3	Reservoir	2.797	1	17	5,925	2	495.78	4,598	Detention Pond	
detention pond 3.gpw					Return Period: 2 Year			Wednesday, 04 / 19 / 2023		

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	5.635	1	10	3,381	-----	-----	-----	pre development	
2	Rational	11.12	1	10	6,671	-----	-----	-----	post development	
3	Reservoir	3.269	1	17	6,630	2	495.85	5,064	Detention Pond	
detention pond 3.gpw					Return Period: 5 Year			Wednesday, 04 / 19 / 2023		

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	6.430	1	10	3,858	-----	-----	-----	pre development	
2	Rational	12.69	1	10	7,612	-----	-----	-----	post development	
3	Reservoir	3.910	1	17	7,571	2	495.95	5,674	Detention Pond	
detention pond 3.gpw					Return Period: 10 Year			Wednesday, 04 / 19 / 2023		

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	7.337	1	10	4,402	-----	-----	-----	pre development	
2	Rational	14.48	1	10	8,686	-----	-----	-----	post development	
3	Reservoir	4.642	1	17	8,645	2	496.05	6,359	Detention Pond	
detention pond 3.gpw					Return Period: 25 Year			Wednesday, 04 / 19 / 2023		

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	8.326	1	10	4,995	-----	-----	-----	pre development	
2	Rational	16.43	1	10	9,856	-----	-----	-----	post development	
3	Reservoir	5.424	1	17	9,816	2	496.17	7,100	Detention Pond	
detention pond 3.gpw					Return Period: 50 Year			Wednesday, 04 / 19 / 2023		

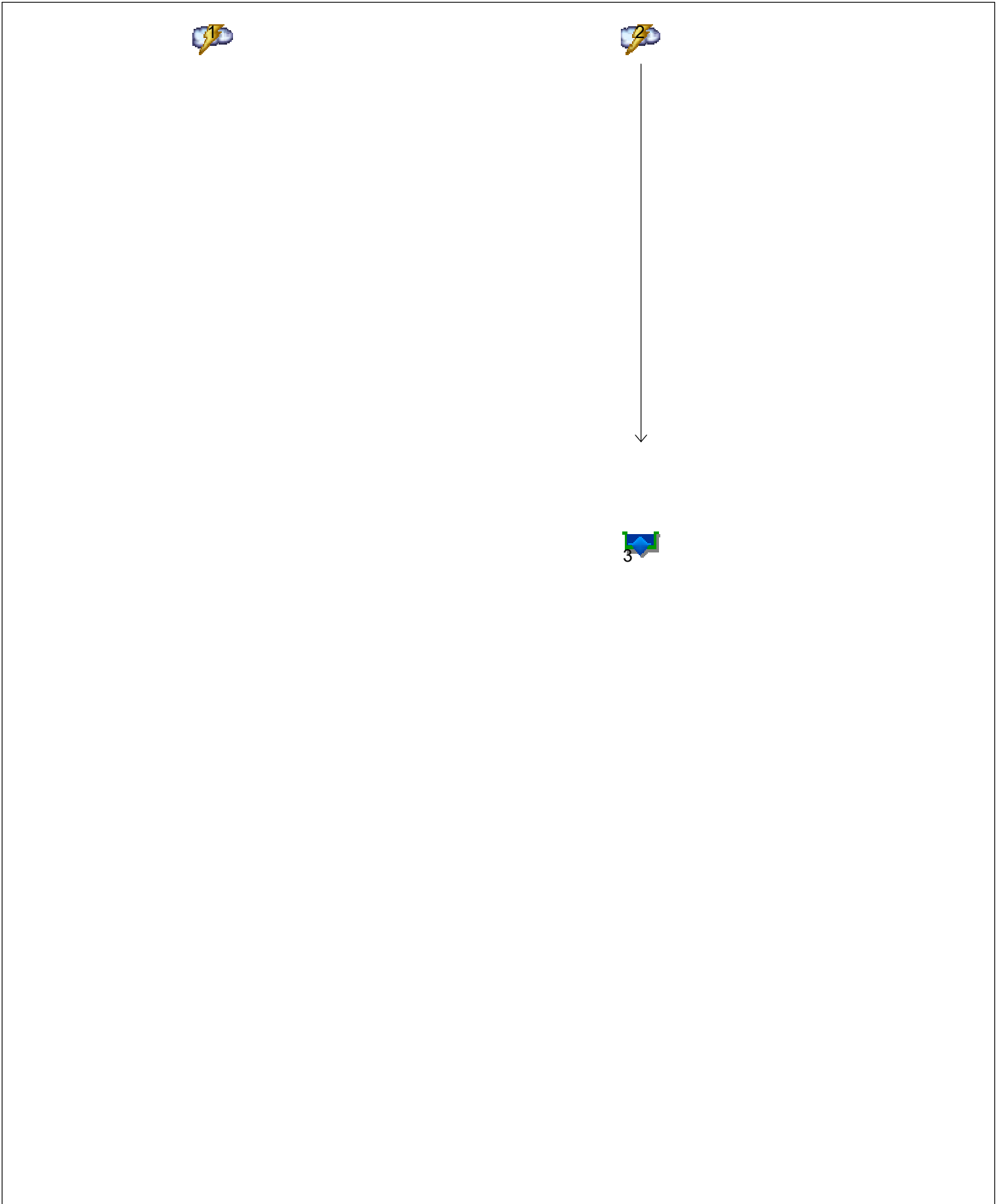
Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	8.825	1	10	5,295	-----	-----	-----	pre development	
2	Rational	17.41	1	10	10,447	-----	-----	-----	post development	
3	Reservoir	5.810	1	17	10,406	2	496.22	7,475	Detention Pond	
detention pond 3.gpw					Return Period: 100 Year			Wednesday, 04 / 19 / 2023		

Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

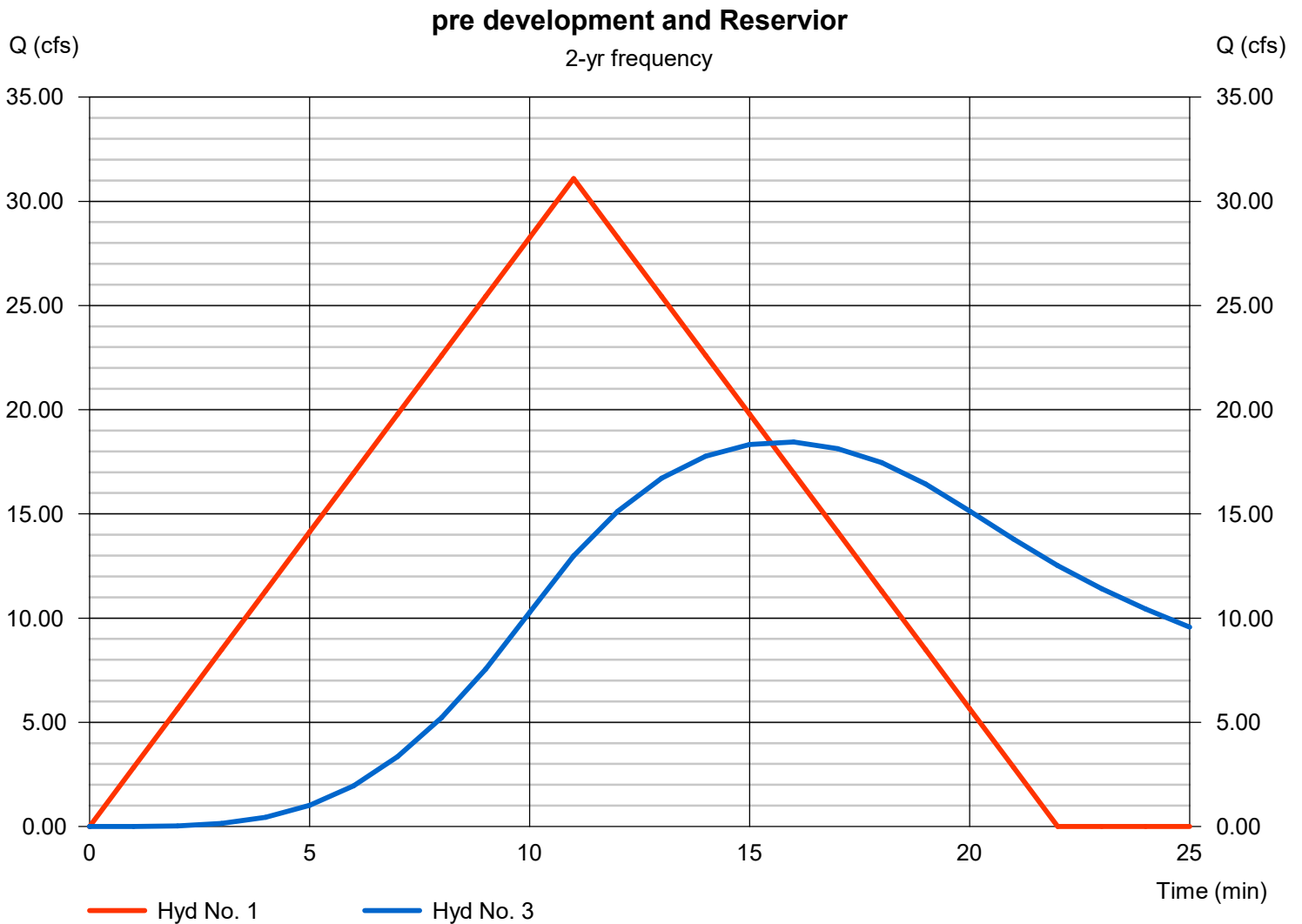
pre development

Hydrograph type = Rational
Peak discharge = 31.09 cfs
Time to peak = 11 min
Hyd. Volume = 20,519 cuft

Hyd. No. 3

Reservoir

Hydrograph type = Reservoir
Peak discharge = 18.44 cfs
Time to peak = 16 min
Hyd. Volume = 25,931 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

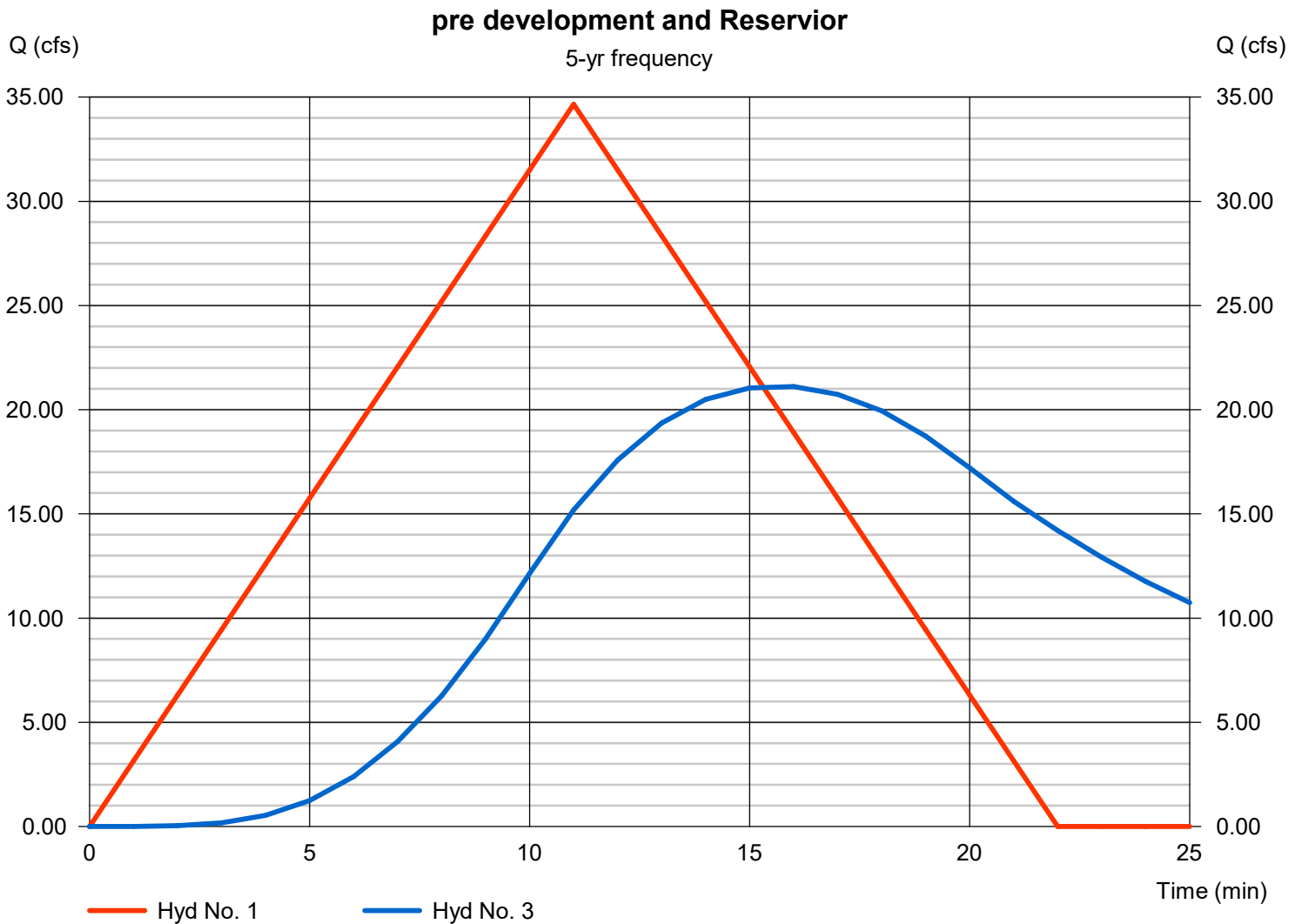
pre development

Hydrograph type = Rational
Peak discharge = 34.66 cfs
Time to peak = 11 min
Hyd. Volume = 22,873 cuft

Hyd. No. 3

Reservoir

Hydrograph type = Reservoir
Peak discharge = 21.11 cfs
Time to peak = 16 min
Hyd. Volume = 29,001 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

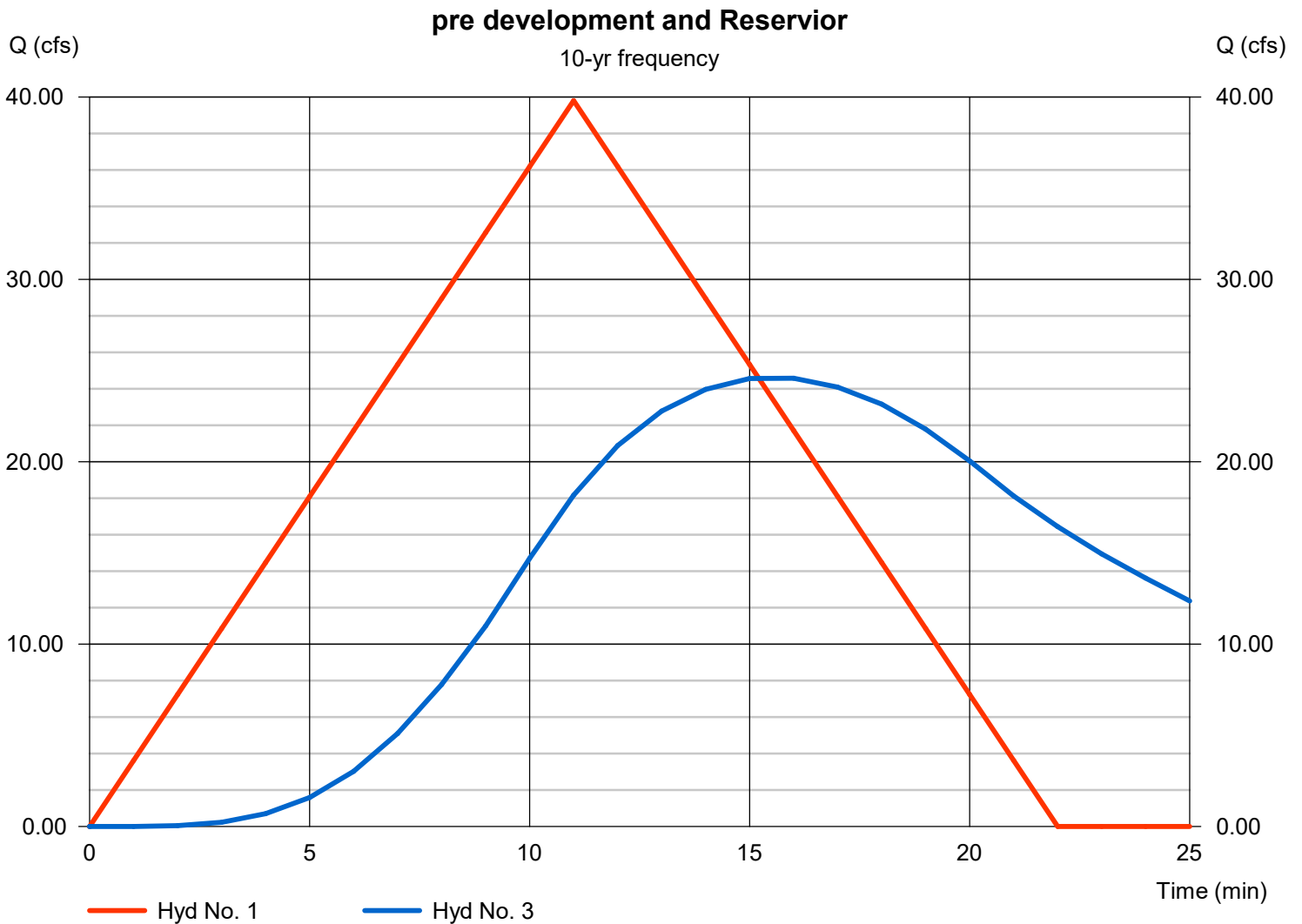
pre development

Hydrograph type = Rational
Peak discharge = 39.81 cfs
Time to peak = 11 min
Hyd. Volume = 26,276 cuft

Hyd. No. 3

Reservoir

Hydrograph type = Reservoir
Peak discharge = 24.59 cfs
Time to peak = 16 min
Hyd. Volume = 33,097 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

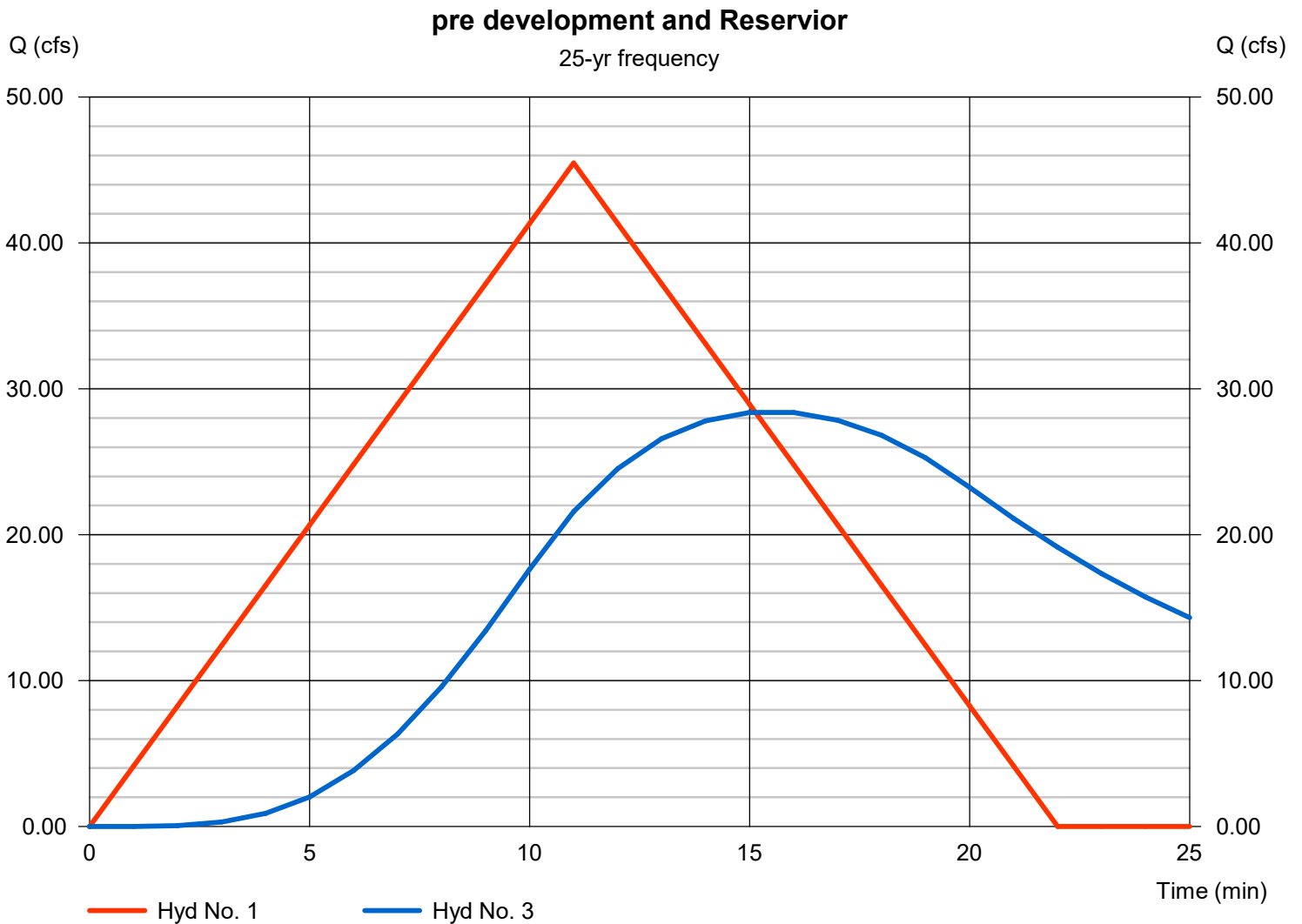
pre development

Hydrograph type = Rational
Peak discharge = 45.47 cfs
Time to peak = 11 min
Hyd. Volume = 30,012 cuft

Hyd. No. 3

Reservoir

Hydrograph type = Reservoir
Peak discharge = 28.39 cfs
Time to peak = 15 min
Hyd. Volume = 37,772 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

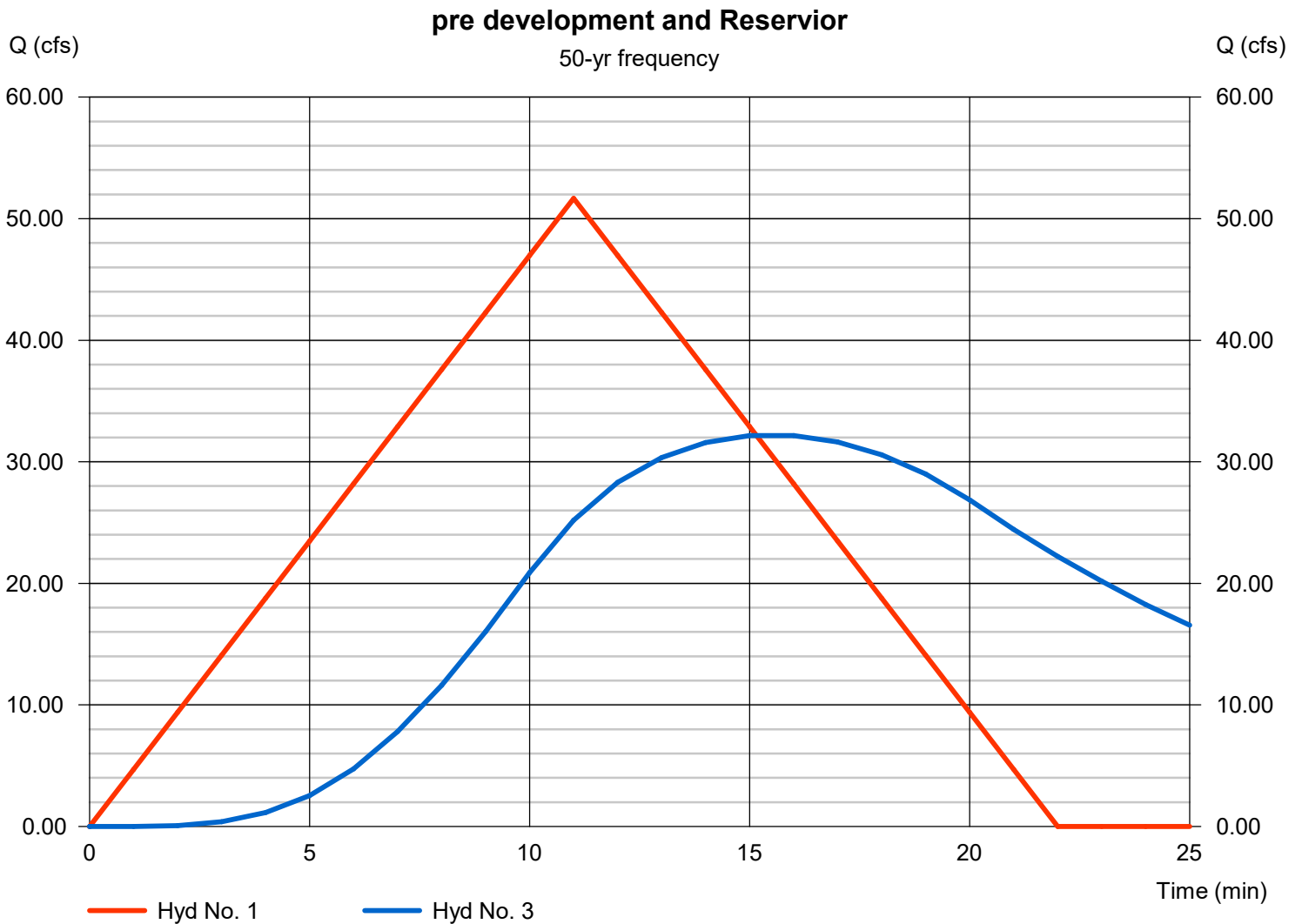
pre development

Hydrograph type = Rational
Peak discharge = 51.67 cfs
Time to peak = 11 min
Hyd. Volume = 34,102 cuft

Hyd. No. 3

Reservoir

Hydrograph type = Reservoir
Peak discharge = 32.15 cfs
Time to peak = 16 min
Hyd. Volume = 42,865 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

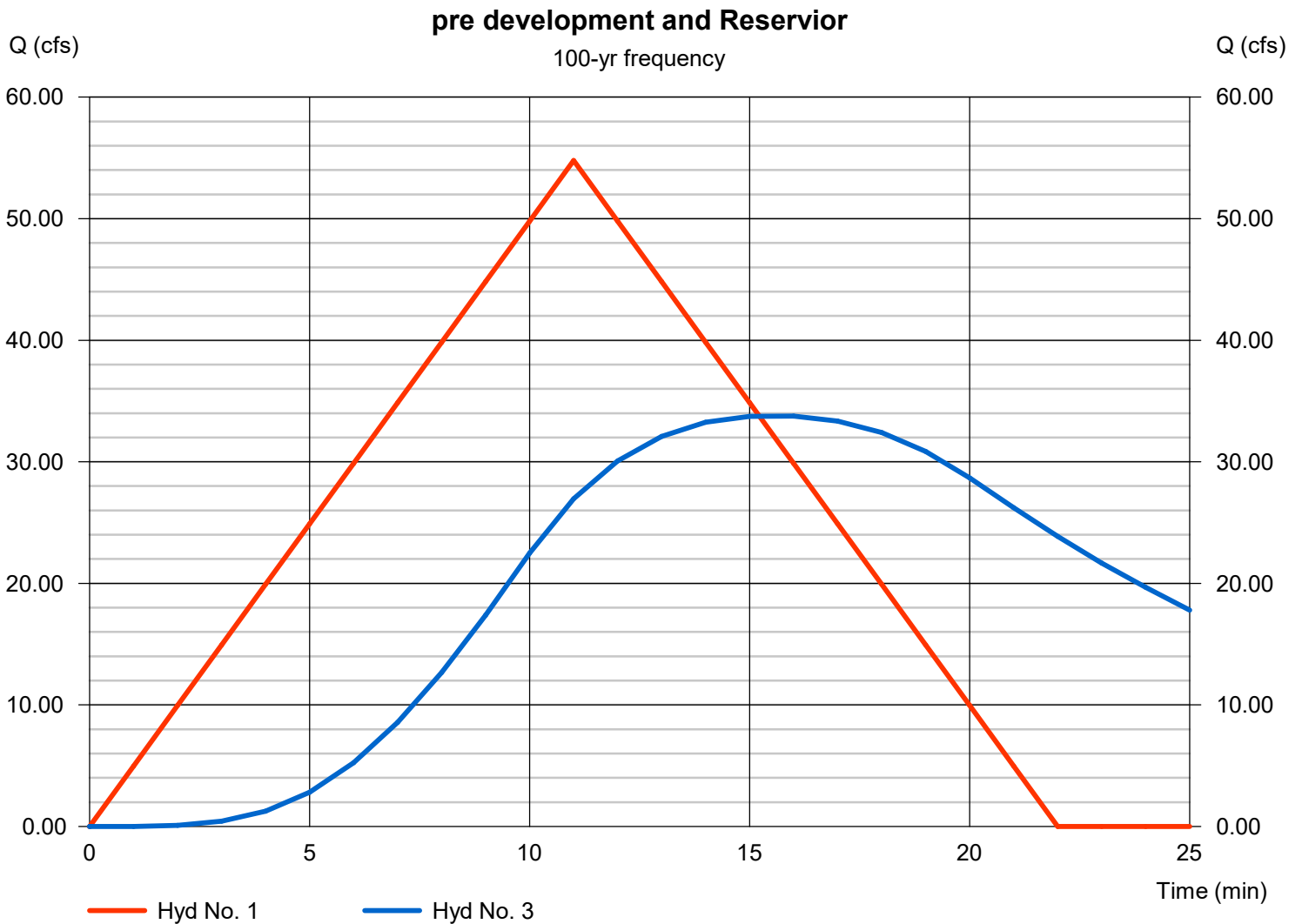
pre development

Hydrograph type = Rational
Peak discharge = 54.77 cfs
Time to peak = 11 min
Hyd. Volume = 36,151 cuft

Hyd. No. 3

Reservoir

Hydrograph type = Reservoir
Peak discharge = 33.77 cfs
Time to peak = 16 min
Hyd. Volume = 45,435 cuft



Pond Report

Pond No. 1 - Detention Pond -4

Pond Data

Trapezoid -Bottom L x W = 120.0 x 64.0 ft, Side slope = 3.00:1, Bottom elev. = 511.00 ft, Depth = 4.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	511.00	7,680	0	0
0.40	511.40	8,127	3,161	3,161
0.80	511.80	8,586	3,342	6,503
1.20	512.20	9,057	3,528	10,032
1.60	512.60	9,539	3,719	13,750
2.00	513.00	10,032	3,914	17,664
2.40	513.40	10,537	4,113	21,777
2.80	513.80	11,053	4,318	26,095
3.20	514.20	11,581	4,527	30,622
3.60	514.60	12,121	4,740	35,362
4.00	515.00	12,672	4,958	40,320

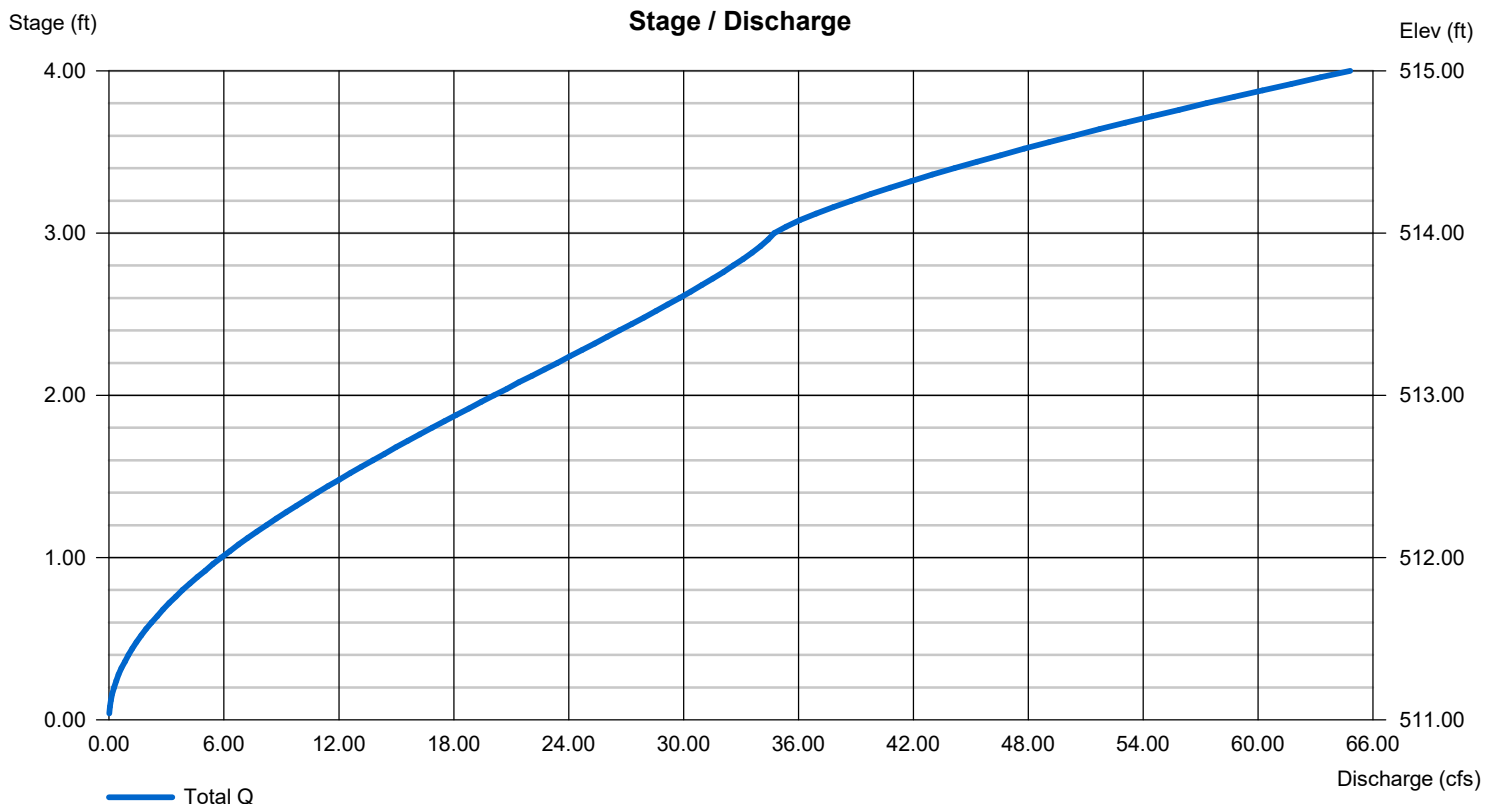
Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 36.00	Inactive	Inactive	0.00
Span (in)	= 36.00	24.00	24.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 511.00	511.00	513.00	0.00
Length (ft)	= 103.00	0.50	0.00	0.00
Slope (%)	= 9.34	0.01	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.50	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	Inactive	6.00	Inactive	0.00
Crest El. (ft)	= 511.00	514.00	511.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	Rect	Rect	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Contour)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	31.09	1	11	20,519	-----	-----	-----	pre development	
2	Rational	43.27	1	10	25,961	-----	-----	-----	post development	
3	Reservoir	18.44	1	16	25,931	2	512.90	16,675	Reservior	
detention pond 4.gpw					Return Period: 2 Year			Wednesday, 04 / 19 / 2023		

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	34.66	1	11	22,873	-----	-----	-----	pre development	
2	Rational	48.39	1	10	29,031	-----	-----	-----	post development	
3	Reservoir	21.11	1	16	29,001	2	513.06	18,301	Reservior	
detention pond 4.gpw					Return Period: 5 Year			Wednesday, 04 / 19 / 2023		

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	39.81	1	11	26,276	-----	-----	-----	pre development	
2	Rational	55.21	1	10	33,127	-----	-----	-----	post development	
3	Reservoir	24.59	1	16	33,097	2	513.27	20,466	Reservior	
detention pond 4.gpw					Return Period: 10 Year			Wednesday, 04 / 19 / 2023		

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	45.47	1	11	30,012	-----	-----	-----	pre development	
2	Rational	63.00	1	10	37,802	-----	-----	-----	post development	
3	Reservoir	28.39	1	15	37,772	2	513.51	22,950	Reservior	
detention pond 4.gpw					Return Period: 25 Year			Wednesday, 04 / 19 / 2023		

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	51.67	1	11	34,102	-----	-----	-----	pre development	
2	Rational	71.49	1	10	42,895	-----	-----	-----	post development	
3	Reservoir	32.15	1	16	42,865	2	513.77	25,730	Reservior	
detention pond 4.gpw					Return Period: 50 Year			Wednesday, 04 / 19 / 2023		

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	54.77	1	11	36,151	-----	-----	-----	pre development	
2	Rational	75.78	1	10	45,465	-----	-----	-----	post development	
3	Reservoir	33.77	1	16	45,435	2	513.90	27,191	Reservior	
detention pond 4.gpw					Return Period: 100 Year			Wednesday, 04 / 19 / 2023		