

# PLANNING & ZONING COMMISSION

## MEETING AGENDA

APRIL 08, 2024, 7:00 PM



PLANNING & ZONING COMMISSION REGULAR MEETING

HISTORIC CHURCH BUILDING - 403 N 7TH STREET, SANGER, TEXAS

### CALL THE REGULAR MEETING TO ORDER AND ESTABLISH A QUORUM

### INVOCATION AND PLEDGE

### CITIZENS COMMENTS

*This is an opportunity for citizens to address the Commission on any matter. Comments related to public hearings will be heard when the specific hearing begins. Citizens are allowed 3 minutes to speak. Each speaker must complete the Speaker's Form and include the topic(s) to be presented. Citizens who wish to address the Commission with regard to matters on the agenda will be received at the time the item is considered. The Commission is not allowed to converse, deliberate or take action on any matter presented during citizen input.*

### CONSENT AGENDA

*All items on the Consent Agenda will be acted upon by one vote without being discussed separately unless requested by a Commissioner to remove the item(s) for additional discussion. Any items removed from the Consent Agenda will be taken up for individual consideration.*

- [1.](#) Consideration and possible action of the minutes from March 11, 2024, meeting.

### PUBLIC HEARING ITEMS

- [2.](#) Conduct a public hearing on an amendment to Ordinance No. 04-11-22 to extend the boundaries of Planned Development (PD 04-11-22) and rezone said tract from (A) Agricultural to PD Planned Development for approximately 21.17 acres of land described as A0029A R BEEBE, 65B, within the City of Sanger, and generally located south of FM 455 and east of Indian Lane, and to further amend certain requirements with the Planned Development.

### ACTION ITEMS

- [3.](#) Consideration and possible action on the Final Plat of lots 1-12 & LOT 13X, BLOCK 1; LOTS 1-4 & LOT 5X, BLOCK B; LOTS 1-78 & LOT 8X, BLOCK C of Lakeside Estates Addition, being 68.028 acres, located in the City of Sanger's ETJ, and generally located on the north side of McReynolds Road approximately 120 feet northeast of the intersection of McReynolds Road and FM 455.

4. Consideration and possible action on an amendment to Ordinance No. 04-11-22 to extend the boundaries of Planned Development (PD 04-11-22) and rezone said tract from (A) Agricultural to PD Planned Development for approximately 21.17 acres of land described as A0029A R BEEBE, 65B, within the City of Sanger, and generally located south of FM 455 and east of Indian Lane, and to further amend certain requirements with the Planned Development.

## **FUTURE AGENDA ITEMS**

*The purpose of this item is to allow the Chairman and Commissioners to bring forward items they wish to discuss at a future meeting, A Commissioner may inquire about a subject for which notice has not been given. A statement of specific factual information or the recitation of existing policy may be given. Any deliberation shall be limited to a proposal to place the subject on an agenda for a subsequent meeting. Items may be placed on a future meeting agenda with a consensus of the Commission or at the call of the Chairman.*

## **ADJOURN**

**NOTE:** The Commission reserves the right to adjourn into Executive Session as authorized by Texas Government Code, Section 551.001, et seq. (The Texas Open Meetings Act) on any item on its open meeting agenda in accordance with the Texas Open Meetings Act, including, without limitation Sections 551.071-551.087 of the Texas Open Meetings Act.

## **CERTIFICATION**

I certify that a copy of this meeting notice was posted on the bulletin board at City Hall that is readily accessible to the general public at all times and was posted on the City of Sanger website on April 5, 2024, at 10:00 a.m..

*Stefani Dodson*

Stefani Dodson, Secretary

The Historical Church is wheelchair accessible. Request for additional accommodations or sign interpretation or other special assistance for disabled attendees must be requested 48 hours prior to the meeting by contacting the City Secretary's Office at 940.458.7930.



# PLANNING & ZONING COMMISSION COMMUNICATION

**DATE:** April 8, 2024  
**FROM:** Stefani Dodson, Planning Technician  
**AGENDA ITEM:** Consideration and possible action of the minutes from March 11, 2024, meeting.

**SUMMARY:**  
N/A

**FISCAL INFORMATION:**

Budgeted: N/A                      Amount: N/A                      GL Account: N/A

**RECOMMENDED MOTION OR ACTION:**

N/A

**ATTACHMENTS:**

Minutes from March 11, 2024

# PLANNING & ZONING COMMISSION

## MEETING MINUTES

MARCH 11, 2024, 7:00 PM



**PLANNING & ZONING COMMISSION REGULAR MEETING  
HISTORIC CHURCH BUILDING - 403 N 7TH STREET, SANGER, TEXAS**

### CALL THE REGULAR MEETING TO ORDER AND ESTABLISH A QUORUM

There being a quorum Commissioner Miller called the Planning and Zoning meeting to order at 7:00 P.M

### BOARD MEMBERS PRESENT:

- Commissioner, Place 2      Sally Amendola
- Commissioner, Place 3      Jackie Turner
- Commissioner, Place 4      Allen McAlister
- Commissioner, Place 6      Jason Miller
- Commissioner, Place 7      Lisa Freeman

### BOARD MEMBERS ABSENT:

- Commissioner, Place 1      Shane Stone
- Commissioner, Place 5      Jacob Gastelum

### STAFF MEMBERS PRESENT:

Director of Development Services Ramie Hammonds, Planning Technician Stefani Dodson

### INVOCATION AND PLEDGE

### CITIZENS COMMENTS

No citizens came forward.

### CONSENT AGENDA

1. Consideration and possible action of the minutes from February 12, 2024, meeting.  
  
Commissioner Miller makes a motion to approve the consent agenda.  
Commissioner Freeman seconded the motion.

Voting Yea: Commissioner Turner, Commissioner McAlister, Commissioner Amendola.  
The motion passes unanimously.

## **ACTION ITEMS**

2. Consideration and possible action on the Final Plat of Marley Meadows being 19.653 acres, located in the City of Sanger's ETJ, and generally located on the west side of Sam Bass Road and approximately 1307 feet north of the intersection of FM 455 and Sam Bass Road.

Planning Technician Stefani Dodson presented the item. Staff recommends approval with the condition all comments are met by City Council.

Commissioner Amendola makes a motion to approve with the condition all comments are met by City Council. Commissioner Freeman seconded the motion.

Voting Yea: Commissioner Turner, Commissioner McAlister, Commissioner Miller. The motion passes unanimously.

## **FUTURE AGENDA ITEMS**

No items were discussed.

## **ADJOURN**

There being no further items Commissioner Miller adjourns the meeting at 7:03 P.M.



## PLANNING & ZONING COMMISSION COMMUNICATION

**DATE:** April 8, 2024

**FROM:** Ramie Hammonds, Development Services Director

**AGENDA ITEM:** Conduct a public hearing on an amendment to Ordinance No. 04-11-22 to extend the boundaries of Planned Development (PD 04-11-22) and rezone said tract from (A) Agricultural to PD Planned Development for approximately 21.17 acres of land described as A0029A R BEEBE, 65B, within the City of Sanger, and generally located south of FM 455 and east of Indian Lane, and to further amend certain requirements with the Planned Development.

### **SUMMARY:**

- The applicant has acquired additional acreage adjacent to PD 04-11-22
- The applicant is proposing to rezone the additional acreage of approximately 21.17 acres from Agricultural (A) to Planned Development (PD).
- The applicant has amended some of the language and requirements in PD 04-11-22. Below are the changes the applicant is proposing:
  - Added language to Community Features to allow metal or wood as accent materials for entry monuments, screening walls, and community signage. Originally was only brick or stone.
  - Decreased the Garden lot depth from 120 feet to 110 feet and the overall size of the lot from 4800 square feet to 4400 square feet.
  - Decreased the depth of the cul-de-sac lots from the original 120 feet to 95 feet. The minimum lot square footage still applies.
  - Decreased Manor Lot housing square footage from minimum 1800 square feet to minimum 1650 square feet.
  - For Manor Lots increased the maximum total lot count below 2000 square feet from 15% to 20%.
  - For Garden Lots increased the maximum total lot count below 1650 square feet from 15% to 20%.
  - Increased maximum height for single family attached from 35 feet to 40 feet.
  - Added language to single family attached that all dwellings will be either front entry from a public street or rear entry from an alleyway.
  - In Single Family attached reduced side yard setback adjacent a street on a corner from 20 feet to 10 feet.
  - Added language for single family attached that end units abutting a common area will have a side yard setback of 5 feet.
  - Single family attached add language that the minimum rear yard setback for front entry lots shall be 10 feet excluding porches and architectural features and all rear entry lots shall be 20 feet. Porches and architectural features may extend 5 feet into rear setback.
  - Amended parking text to state 2 parking spaces per unit within required garage and a minimum 20-foot driveway for additional parking beyond the garage.
  - Added language to single family attached that guest parking will be provide within site at a ratio of 1 space per 4 units.
  - Added language in Multi-family that the maximum building height shall be 3 stories or 45 feet.

- In lieu of side yard walls on corner lots requiring the 25% doors and windows they will r minimum 2 windows or doors totaling 25 square feet. Side yard fencing facing residential streets and the adjacent gate return shall be stained cedar board-on-board fencing with a decorative top cap and metal posts with posts and hardware on the internal side of the fence. The fence will be set back a minimum of 10' and a maximum of 15'. If a window of any size is not installed on the side of the house between the front build line and the fence return, a minimum 3 gallons shrubs at a spacing of 4' on center will be planted. In addition one 3" caliper eastern red cedar or other evergreen tree species shall be planted at the midpoint between the front build line and fence.
- The parkland/open space was increased from 83.78 acres to 86.69.
- The dedicated parkland was decreased from 59.7 acres to 38.50 acres.
- The Multi-family acreage was decreased from 18.469 acres to 15 acres.
- The added 21.17 acreage will increase Garden lots (40' x110') from 158 to 299, Manor Lots (50' x 120') from 541 to 603, and Estate Lots (60' x 120') from 46 to 54. This increases the total lot count from 875 to 1086. Townhomes remained the same at 130 lots.
- The trail system increased from 2.56 miles to 3.02 miles.
- Altered roadway configuration on concept plan.
- Staff mailed out 65 public hearing notices to owners of properties within 200 feet of the subject property and received 4 responses at the time of this report. One in favor and three opposed.

**FISCAL INFORMATION:**

Budgeted: N/A

Amount: N/A

GL Account: N/A

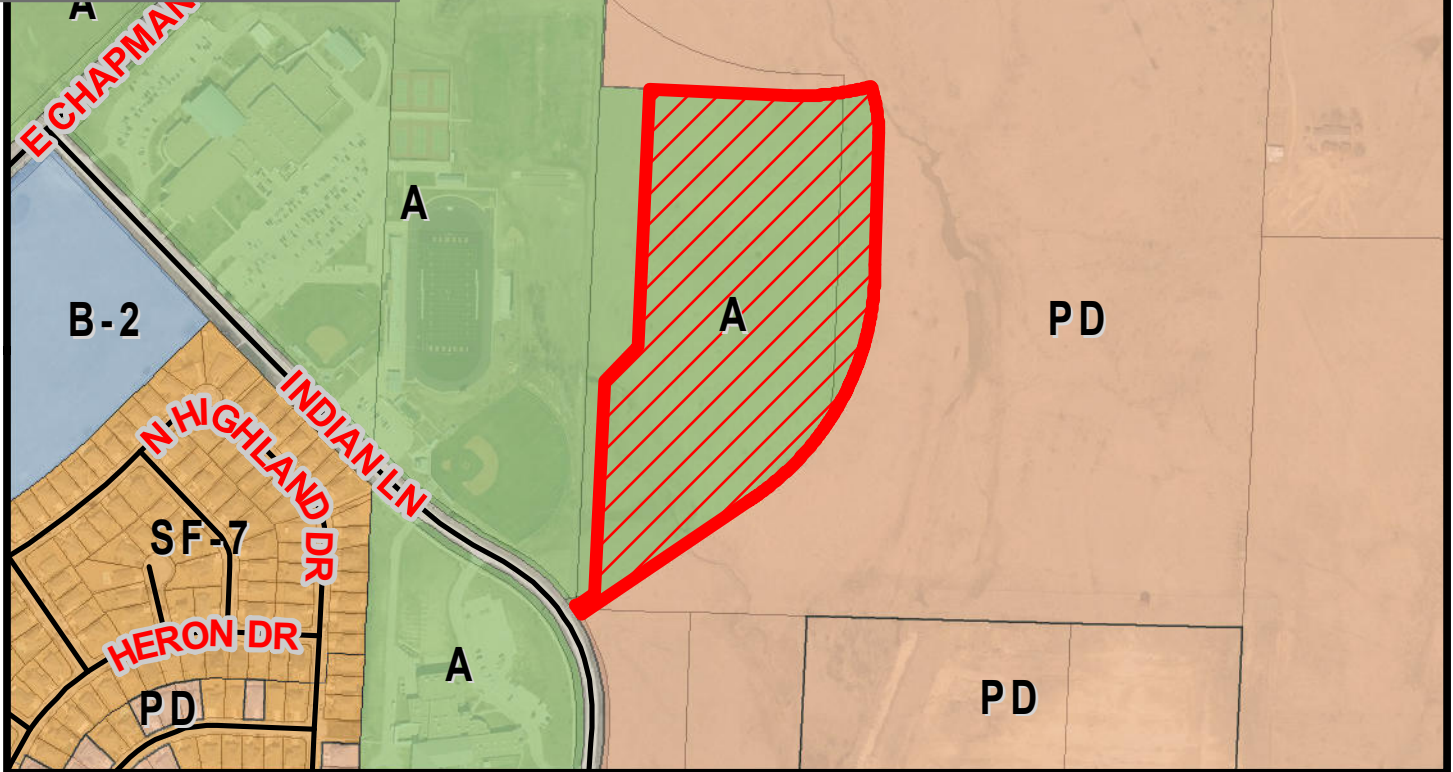
**RECOMMENDED MOTION OR ACTION:**

N/A

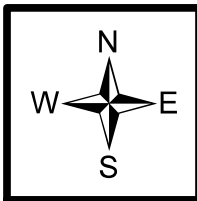
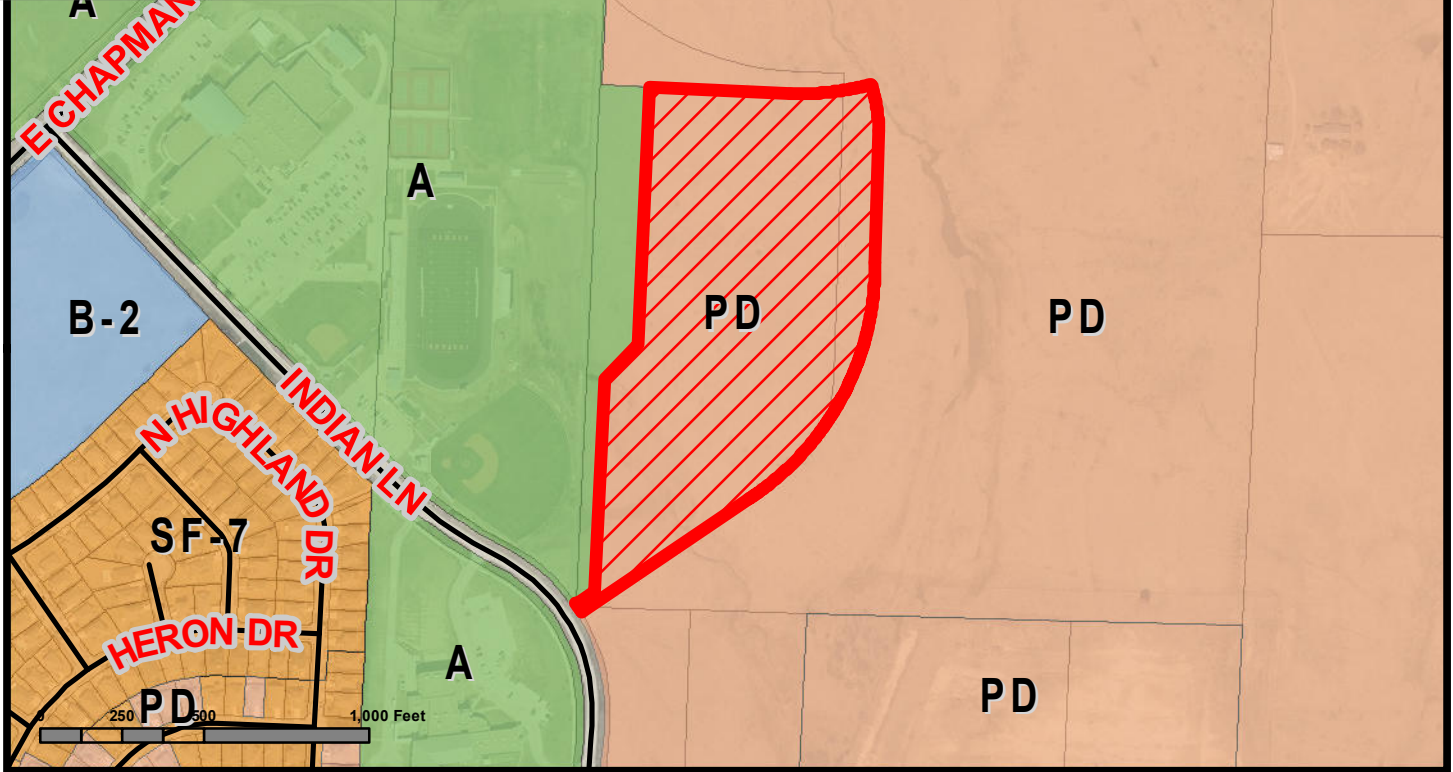
**ATTACHMENTS:**

Location Map

### Current Zoning



### Proposed Zoning



Location: Lane Ranch  
 PD Zoning Change  
 Project: 23SANZON-0027

City Limits Exhibits

**DISCLAIMER:**  
 This map was generated by GIS data provided by the Sanger GIS Department. The City of Sanger does not guarantee the correctness or accuracy of any features on this map. These map products are for illustration purposes only and are not suitable for site-specific decision making. GIS data is subject to constant changes, and may not be complete, accurate or current.







# PLANNING & ZONING COMMISSION COMMUNICATION

**DATE:** April 8, 2024

**FROM:** Ramie Hammonds, Development Services Director

**AGENDA ITEM:** Consideration and possible action on the Final Plat of lots 1-12 & LOT 13X, BLOCK 1; LOTS 1-4 & LOT 5X, BLOCK B; LOTS 1-78 & LOT 8X, BLOCK C of Lakeside Estates Addition, being 68.028 acres, located in the City of Sanger’s ETJ, and generally located on the north side of McReynolds Road approximately 120 feet northeast of the intersection of McReynolds Road and FM 455.

**SUMMARY:**

- The applicant is proposing to create 23 single-family lots and 3 open-space lots.
- The lots will range in size from 2.0 acres to 3.08 acres.
- The properties will be served with on-site septic and a well for water.
- There is one existing house currently located on the site.
- The property is located in the City of Sanger ETJ.

**FISCAL INFORMATION:**

Budgeted: N/A

Amount: N/A

GL Account: N/A

**RECOMMENDED MOTION OR ACTION:**

Staff recommends APPROVAL with the condition all comments are met prior to City Council approval.

**ATTACHMENTS:**

- Location Map
- Final Plat
- Application
- Letter of Intent
- Planning Comments
- Engineering Comments
- Drainage Comments



ENGINEER/PREPARER



5200 State Highway 121  
Colleyville, TX 76034  
Phone: 817-488-4960  
Contact: Jeremy Nelson

SURVEYOR

BARTON CHAPA SURVEYING

5200 State Highway 121  
Colleyville, TX 76034  
Phone: 817-864-1957  
info@bcscdfw.com  
TBPLS Firm #10194474

OWNER

AUSTIN LANDS, LLC  
803 WEST SOUTHLAKE BOULEVARD, STE. 100  
SOUTHLAKE, TX 76092  
PH:312.206.8673

JOB NO. 2022.001.293  
DRAWN: BCS  
CHECKED: JHB

TABLE OF REVISIONS	
DATE	SUMMARY

SANGER 68

DENTON COUNTY TEXAS

Notary Public in and for the State of Texas

GIVEN UNDER MY HAND AND SEAL OF OFFICE this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

SHEET:

**1 OF 1**

STATE OF TEXAS §  
COUNTY OF DENTON §

WHEREAS AUSTIN LANDS, LLC is the owner of a tract of land out of the C. Manchaca Survey, Abstract Number 790, in Denton County, Texas, said tract being conveyed by deed to Austin Lands, LLC as recorded under Document Number 2023-11966, Official Public Records, Denton County, Texas, (O.P.R.D.C.T.) and being previously described as all of "Tract 1" and "Tract 2" of that tract of land described by deed to Ryan G. Williams and Amber N. Williams as recorded under Document Number 2017-151962, (O.P.R.D.C.T.), the subject tract being more particularly described by metes and bounds as follows (bearings are based on State Plane Coordinate System, Texas North Central Zone (4202) North American Datum of 1983 (NAD 83')):

**NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS THAT AUSTIN LANDS, LLC** does hereby adopt this final plat designated herein as **LAKE SIDE ESTATES, LOTS 1-12 & LOT 13X, BLOCK A; LOTS 1-4 & LOT 5X, BLOCK B; AND LOTS 1-7 & LOT 8X, BLOCK C**, or easements for sidewalks, storm drainage facilities, utilities and any other property necessary to serve the plat and to implement the requirements of the subdivision regulations and other City codes and do hereby bind ourselves, our heirs, successors and assigns to warrant and to forever defend the title on the land so dedicated. Further, the undersigned covenants and agrees that he/she shall maintain all easements and facilities in a state of good repair and functional condition at all times in accordance with City codes and regulations. No buildings, fences, trees, shrubs, or other improvements or growths shall be constructed or placed upon, over, or across the easements as shown, except that landscape improvements may be installed, if approved by the City of Sanger. The City of Sanger and public utility entities shall have the right to access and maintain all respective easements without the necessity at any time of procuring permission from anyone.

**BEGINNING** at a 1/2 inch rebar with an illegible cap for the southernmost southwest corner of said "Tract 1" and the herein described tract;

**THENCE** with the perimeter and to the corners of said Tract 1, the following calls:

- North 01 degrees 23 minutes 13 seconds West, a distance of 2,154.80 feet to a 3 inch metal fence corner post found;
- North 89 degrees 48 minutes 23 seconds West, a distance of 547.06 feet to a 1/2 inch rebar found;
- South 88 degrees 52 minutes 40 seconds West, a distance of 91.01 feet to a 1/2 inch rebar with an illegible cap found;
- South 72 degrees 31 minutes 56 seconds West, a distance of 228.19 feet to a point from which an 11 inch hackberry serving as a corner for a wire fence bears South 25 degrees West, a distance of 0.70 feet;
- North 13 degrees 45 minutes 44 seconds West, a distance of 98.90 feet to a point from which a T-post fence corner found bears North 26 degrees West, a distance of 3.70 feet;
- North 88 degrees 41 minutes 53 seconds East, a distance of 666.82 feet to a point from which a 3 inch metal fence corner post found bears South 01 degrees West, a distance of 1.10 feet;
- North 00 degrees 37 minutes 37 seconds West, a distance of 456.94 feet to a point from which a 3 inch metal fence corner post found bears South 01 degrees West, a distance of 1.50 feet;
- North 88 degrees 53 minutes 46 seconds East, a distance of 1,104.96 feet;
- North 88 degrees 56 minutes 51 seconds East, a distance of 706.65 feet to a point for the northeast corner of said "Tract 1", same being the northwest corner of said "Tract 2";

**THENCE** with the perimeter and to the corners of said "Tract 2", the following calls:

- North 88 degrees 20 minutes 48 seconds East, a distance of 650.68 feet to a United State Army Corp of Engineers concrete monument found;
- South 11 degrees 58 minutes 16 seconds East, a distance of 167.26 feet to point from which a 5 inch wood post found bears North 65 degrees East, a distance of 1.29 feet;
- South 61 degrees 06 minutes 38 seconds East, a distance of 201.89 feet to a 1/2 inch rebar with cap stamped, "METROPLEX" found;
- South 32 degrees 24 minutes 33 seconds East, a distance of 696.71 feet to a point from which a 7 inch wood post found bears North 47 degrees West, a distance of 0.54 feet;
- South 12 degrees 23 minutes 06 seconds West, a distance of 283.05 feet to a 1/2 inch rebar with cap stamped, "H&H" found;
- South 88 degrees 45 minutes 17 seconds West, a distance of 508.83 feet to a point from which a nail found in a 4 inch wood post bears South 03 degrees East, a distance of 0.86 feet;
- South 01 degrees 14 minutes 43 seconds East, a distance of 1,529.72 feet to a "PK" nail found in asphalt;
- South 88 degrees 40 minutes 15 seconds West, a distance of 60.05 feet to a "PK" nail found in asphalt;
- North 01 degrees 14 minutes 54 seconds West, a distance of 1,529.52 feet to a 1/2 inch rebar with an illegible cap found;
- South 88 degrees 41 minutes 03 seconds West, a distance of 579.63 feet to a 1/2 inch rebar with an illegible cap found for the westernmost southwest corner of said "Tract 2", same being a re-entrant corner of said "Tract 1";

**THENCE** with the perimeter and to the corners of said "Tract 1", the following calls:

- South 01 degrees 13 minutes 43 seconds East, a distance of 508.75 feet to a 1/2 inch rebar found;
- South 01 degrees 17 minutes 52 seconds East, a distance of 1,019.71 feet to a "PK" nail found in asphalt;
- South 88 degrees 08 minutes 46 seconds West, a distance of 60.00 feet to a "PK" nail found in asphalt;
- North 01 degrees 17 minutes 52 seconds West, a distance of 1,528.45 feet to a 1/2 inch rebar found;
- South 88 degrees 08 minutes 48 seconds West, a distance of 742.21 feet to a point from which a wood post found bears North 49 degrees East, a distance of 1.01 feet;
- North 01 degrees 17 minutes 52 seconds West, a distance of 557.90 feet to a point from which a 5 inch wood post found

Notary Public in and for the State of Texas

GIVEN UNDER MY HAND AND SEAL OF OFFICE this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

Notary Public in and for the State of Texas

GIVEN UNDER MY HAND AND SEAL OF OFFICE this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

**FINAL PLAT  
LAKE SIDE ESTATES  
LOTS 1-12 & LOT 13X, BLOCK 1;  
LOTS 1-4 & LOT 5X, BLOCK B;  
LOTS 1-7 & LOT 8X, BLOCK C  
(3 TOTAL HOA/OPEN SPACE LOTS)  
68.028 ACRES SITUATED IN THE  
C. MANCHACA SURVEY, ABSTRACT #790  
8.070 ACRES DEDICATED AS PUBLIC RIGHT-OF-WAY  
CITY OF SANGER, EXTRATERRITORIAL JURISDICTION  
DENTON COUNTY COUNTY, TEXAS  
PREPARED FEBRUARY 13, 2024**

CERTIFICATE OF APPROVAL CITY OF SANGER

APPROVED AND ACCEPTED

CHAIRMAN, PLANNING & ZONING COMMISSION  
CITY OF SANGER

MAYOR, CITY OF SANGER

CITY SECRETARY, CITY OF SANGER

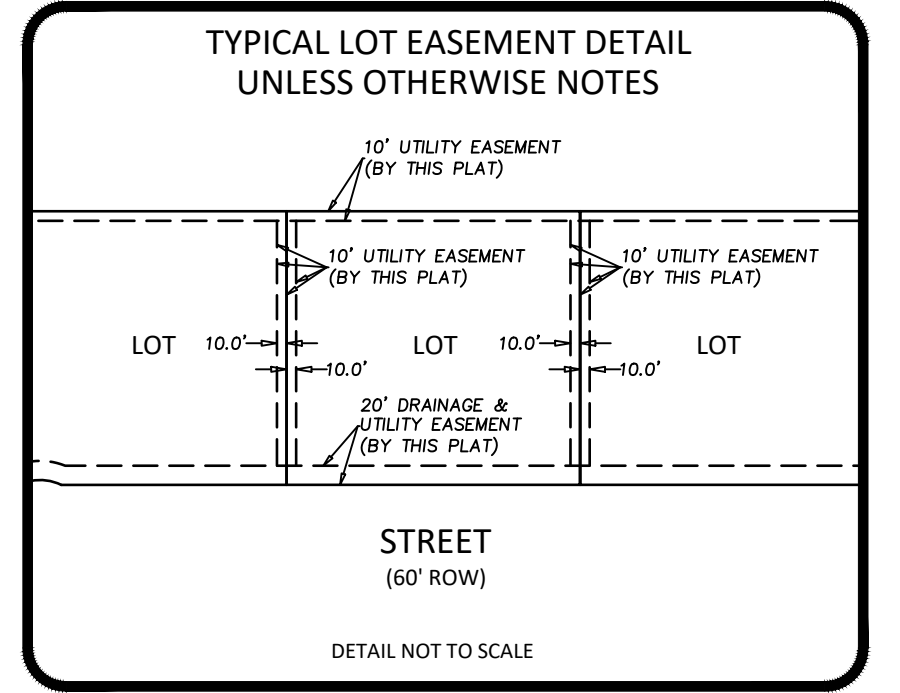
CERTIFICATE OF APPROVAL DENTON COUNTY

REVIEWED AND APPROVED ON \_\_\_\_\_

COUNTY JUDGE, DENTON COUNTY, TEXAS

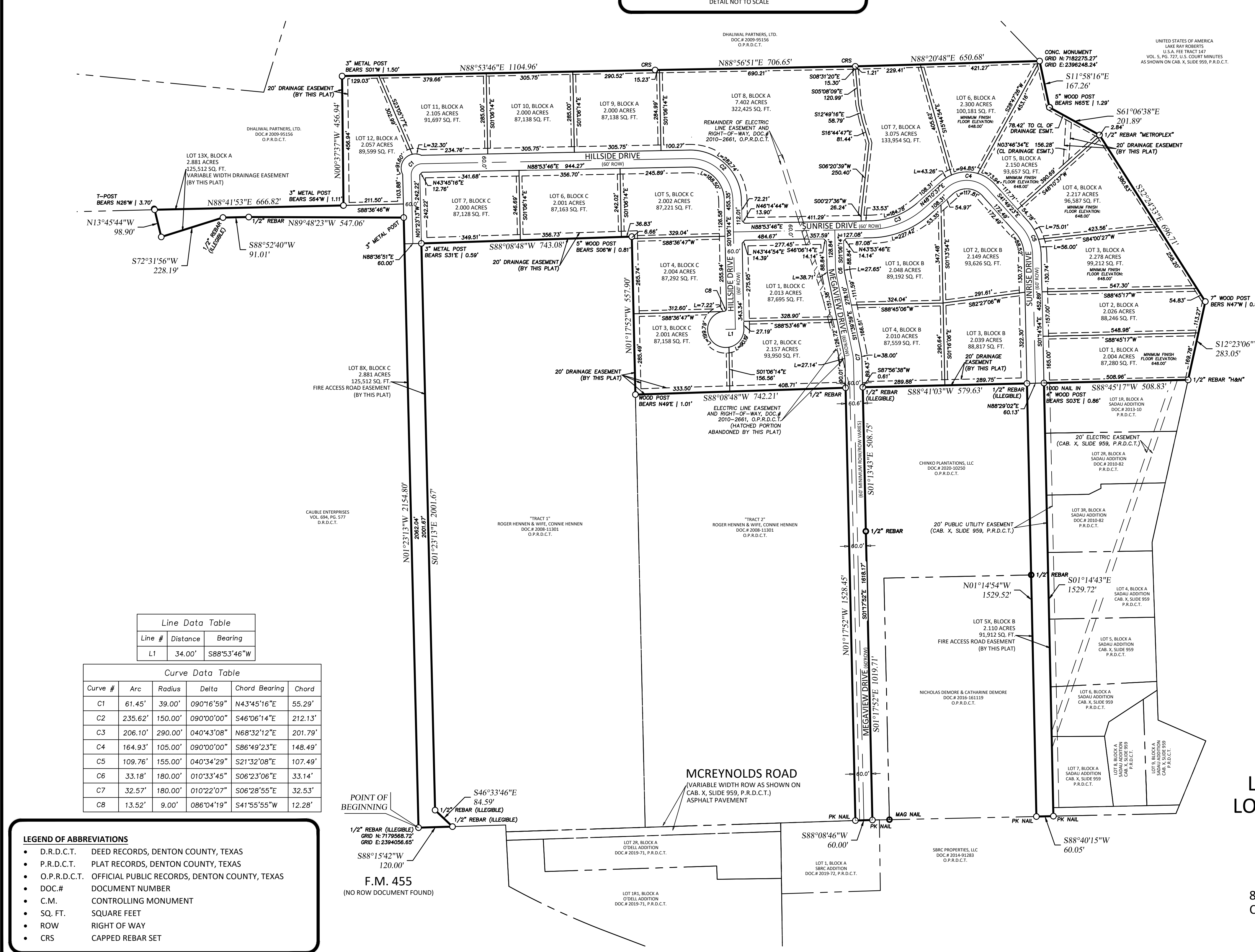
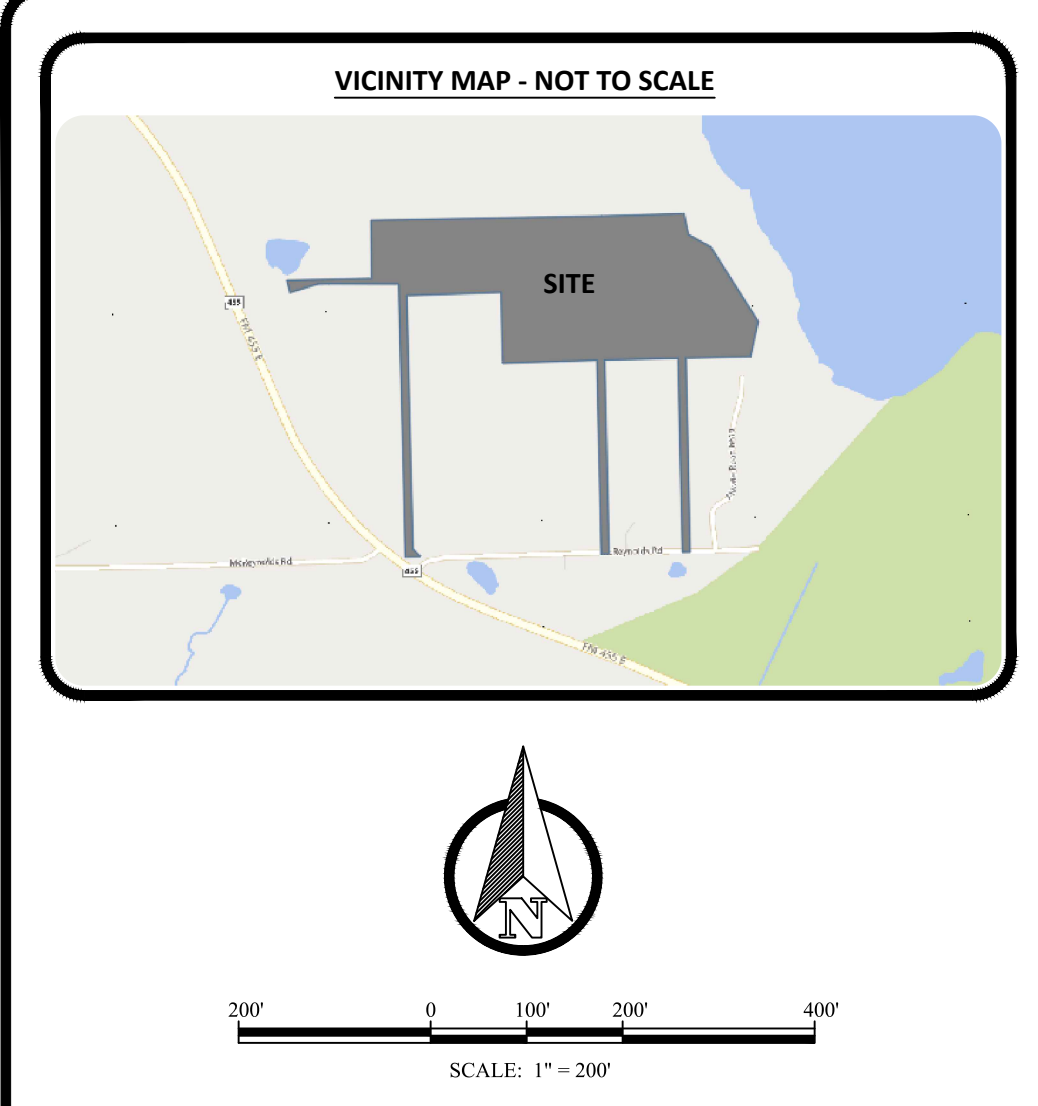
**SURVEYOR'S NOTES:**

- Bearings are based on the State Plane Coordinate System, Texas North Central Zone (4202) North American Datum of 1983 (NAD '83), distances are surface with a combined scale factor of 1.00015063.
- This property lies within Zone "X" of the Flood Insurance Rate Map for Denton County, Texas and Incorporated Areas, map no. 481210230G, with an effective date of April 18, 2011, via scaled map location and graphic plotting.
- Monuments are found unless specifically designated as set.



**PLAT NOTES**

- All lots comply with the minimum size requirements of the zoning district.
- This property may be subject to charges related to impact fees and the applicant should contact the City regarding any applicable fees due.
- All common areas, drainage easements, and detention facilities will be owned and maintained by the HOA/POA. Any common area within the City's right-of-way will require a facilities agreement, to be reviewed and approved by the City.
- Notice - selling a portion of this addition by metes and bounds is a violation of City ordinance and State Law and is subject to fines and withholding of utilities and building permits.
- This plat does not alter or remove existing deed restrictions, if any, on this property.
- Minimum finished floor elevations are at least 2 feet above the 100 year flood plain.
- The subject property does not lie within a 100 - year floodplain according to Community Panel No. 481210230G, date April 18, 2011, of the National Flood Insurance Rate Maps for Denton County, Texas.
- The purpose of the plat is to subdivide the subject tract for future development.
- Bearings are based on State Plane Coordinate System, Texas North Central Zone (4202) North American Datum of 1983 (NAD '83).



Line Data Table

Line #	Distance	Bearing
L1	34.00'	S88°53'46"W

Curve Data Table

Curve #	Arc	Radius	Delta	Chord Bearing	Chord
C1	61.45'	39.00'	090°16'59"	N43°45'16"E	55.29'
C2	235.62'	150.00'	090°00'00"	S46°06'14"E	212.13'
C3	206.10'	290.00'	040°43'08"	N88°32'12"E	201.79'
C4	164.93'	105.00'	090°00'00"	S86°49'23"E	148.49'
C5	109.76'	155.00'	040°34'29"	S21°32'08"E	107.49'
C6	33.18'	180.00'	010°33'45"	S06°23'06"E	33.14'
C7	32.57'	180.00'	010°22'07"	S06°28'55"E	32.53'
C8	13.52'	9.00'	086°04'19"	S41°55'55"W	12.28'

- LEGEND OF ABBREVIATIONS**
- D.R.D.C.T. DEED RECORDS, DENTON COUNTY, TEXAS
  - P.R.D.C.T. PLAT RECORDS, DENTON COUNTY, TEXAS
  - O.P.R.D.C.T. OFFICIAL PUBLIC RECORDS, DENTON COUNTY, TEXAS
  - DOC.# DOCUMENT NUMBER
  - C.M. CONTROLLING MONUMENT
  - SQ. FT. SQUARE FEET
  - ROW RIGHT OF WAY
  - CRS CAPPED REBAR SET



201 Bolivar Street/PO Box 1729 \* Sanger, TX 76266  
 940-458-2059(office) www.sangertexas.org

**SUBDIVISION APPLICATION**

Preliminary  
Plat Minor  
Plat

Final  
Plat/Replat  
Amended Plat

Vacating Plat  
Conveyance  
Plat

Applicant

Owner (if different from applicant)


Name: <b>Jeremy B. Nelson, PE</b>	Name: <b>Ramesh Raavi</b>
Company: <b>Kirkman Engineering, LLC</b>	Company: <b>Austin Lands, LLC</b>
Address: <b>5200 State Highway 121</b>	Address <b>803 W. Southlake Blvd. Suite 100</b>
City, State, Zip: <b>Colleyville, TX 76034</b>	City, State, Zip: <b>Southlake, TX 76092</b>
Phone <b>817-488-4960</b>	Phone: <b>312-206-8673</b>
Fax: <b>N/A</b>	Fax: <b>N/A</b>
Email: <b>jeremy.nelson@trustke.com</b>	Email: <b>ramesh@sr3systems.com</b>

Submittal Checklist

<input type="checkbox"/>	Pre-Application Conference (Date: <u>04 / 03 / 2023</u> )
<input type="checkbox"/>	One (1) Paper Copy of Plat (24"x36", folded to 1/4 size)
<input type="checkbox"/>	Letter of Intent
<input type="checkbox"/>	Non-Refundable Application Fee (Check Payable to City of Sanger)
<input type="checkbox"/>	Application Form (Signed by Owner)
<input type="checkbox"/>	Applicable Plat Checklist (Completed)
<input type="checkbox"/>	Additional Required Documents/Traffic & Drainage Studies etc.
<input type="checkbox"/>	One (1) PDF Copy of all Documents Provided on a CD/DVD or Emailed to <a href="mailto:development@sangertexas.org">development@sangertexas.org</a>

Supporting Materials (List if provided): \_\_\_\_\_

R Number(s): \_\_\_\_\_

DocuSigned by:  
  
 Owner's Signature \_\_\_\_\_  
 Jeremy B. Nelson, PE

03/13/2024

Date

Applicant's Signature \_\_\_\_\_

03/13/2024

Date

Office Use: Reviewed by Director of Development Services    /   /



Kirkman Engineering  
5200 State Highway 121  
Colleyville, TX 76034  
PH 817.488.4960

Ramie Hammonds  
Director/Building Official  
City of Sanger Development Services  
201 Bolivar Street  
Sanger, TX 76266

March 13, 2024

**RE: Lakeside Estates Final Plat Letter of Intent**

Dear Mr. Hammonds,

Please let this document serve as the letter of intent for the Lakeside Estates final plat submittal. The proposed development is located on a 68.028-acre tract of land near the intersection of F.M. 455 and McReynolds Road and comprises of 23 single family lots along with 3 open space lots. The tract of land is situated in the C. Manchaca Survey, Abstract #790 Denton County, Texas. The subdivider of this development is Austin Lands, LLC located at 803 W Southlake Boulevard, Suite 100, Southlake, Texas 76092. Kirkman Engineering will serve as the designated point of contact for future correspondence. We request that the final plat be reviewed and considered by the appropriate approval body.

Thank you,

A handwritten signature in blue ink that reads 'Jeremy B. Nelson, PE'.

Jeremy Nelson, P.E.  
Jeremy.nelson@trustke.com  
(817)488-4960



**DATE: 03/28/24**

**1<sup>st</sup> REVIEW COMMENTS – Final Plat (Lakeside Estates)**

The request is for a Final Plat of Lakeside Estates containing 17 lots, being approximately 68.028 acres in the X. MANCHACA SURVEY, ABSTRACT #790, prepared by Barton Chapa Surveying, submitted on 03/12//2024. Below are the comments that should be addressed before City Council approval. Resubmit the revised plat along with a response letter addressing all comments.

**Planning**

Provide the following

1. An accurate location of the subdivision about the deed records of the county which shall include the volume and page of the deed of the property to be subdivided.
2. A total number of lots and HOA/Open Space lots in the Title Block.
3. The name, address, and address of all utilities providing service to the development is required. A signature from each provider or a will-serve letter, signifying their ability to provide service to the subdivision is required.
4. A signed and notarized copy of private restriction (if any), that is filed for the record in the office of the County Clerk shall be provided with the Final Plat.

**Informational Comments**

1. The property is within the Sanger ETJ.
2. The Final Pat will be scheduled for the Planning and Zoning (P&Z) Commission meeting on Monday, April 8, 2024, and the City Council meeting on Monday, May 6, 2024.

March 25, 2024  
AVO 37449.004

Ms. Ramie Hammonds  
Development Services Director/Building Official  
City of Sanger  
201 Bolivar Street  
P.O. Box 1729  
Sanger, Texas 76266

Re: **Lakeside Estates Final Plat and Drainage Study -Review #1**

Dear Ms. Hammonds,

Halff Associates, Inc. (Halff) was requested by the City of Sanger to review the final plat and drainage study in support of the engineering plans for the Lakeside Estates located near the intersection of McReynolds Road and FM 455 E. The subject tract is located within the City of Sanger's ETJ. The submittal was prepared by Kirkman Engineering and dated March, 2024. The preliminary plat and drainage comments were found acceptable by Halff in September 2023.

We have completed our review and offer the following comments. Please address comments on attached markups and in the Drianage Study and provide annotated responses on markups. Please note, not all comments are written on letter since some comments are easier to show and explain on the markups. Please annotate markup with responses. Please note, an accepted drainage study is required prior to plans acceptance.

### **Final Plat**

1. Text is illegible in the vicinity map.
2. A small portion of the site lies within the floodplain. Revise plat and notes as such
3. Show centerline of existing street. Dimensions from centerline to edges of existing and proposed right-of-way on both sides of the centerline per ordinance 10.104(d)(10)(H).
4. Per the grading plans, additional drainage easements are required for swales.
5. Provide a drainage easement for the proposed pond including access.

### **Civil Plans**

#### **Cover**

1. Provide drainage area maps for the proposed culverts along with drainage area calculations and hydraulic calculations.
2. Based on the grading plan, many properties will require driveway culverts for access. Provide calculations and sizes for each future driveway culvert.
3. Culverts shall meet the requirements outline in ordinance 10.106(d)(7).
4. Provide water and sanitary sewer plans.

#### **Grading Plans**

1. Proposed swales between properties do not have any proposed grading.

2. Add drainage easements to the plat for proposed swales.
3. Revise wall line style for clarity in the plans. The wall will require a Structural Engineer's approval.
4. Point discharges onto USACE property will require approval.
5. A maintenance agreement will be needed for any proposed pond.
6. Maintenance access must be provided for proposed detention areas.
7. Drainage easement is needed for proposed pond.
8. The Hillside Pond outfall plan is unclear. It appears this will direct concentrated flow onto the adjacent property. Clarify.

### **Paving Plans**

1. Ditch profiles with 100-year HGL shall be shown on all road profiles.
2. Vertical curves do not meet minimum K values or minimum length throughout the paving plans. Reconcile.
3. It is suggested to round vertical curve lengths to whole numbers.
4. Provide missing ROW lines on Sunrise Drive.
5. Show all culvert crossings in the paving profiles.
6. Revise leaders on Hillside.
7. Provide vertical curves where the algebraic difference in grade is greater than 1%.

### **Culvert Plan and profiles**

1. 100-year HGL shall be shown on all culvert profiles
2. A minimum of 2' of cover is desired for the sunrise culvert. Provide the class of concrete pipe to be used and/or deload calculations.
3. Provide drainage area maps for the proposed culverts along with drainage area calculations and hydraulic calculations.
4. Based on the grading plan, many properties will require driveway culverts for access. Provide calculations and sizes for each future driveway culvert.

If you have any questions or need additional information, please do not hesitate to call me at (214) 937-3928.

Sincerely,  
HALFF  
TBPELS Firm No. 312



Jamie Akomer, PE, PMP

### **Attachments:**

- Plans markups



# PLANS FOR THE CONSTRUCTION OF PAVING, GRADING & DRAINAGE IMPROVEMENTS

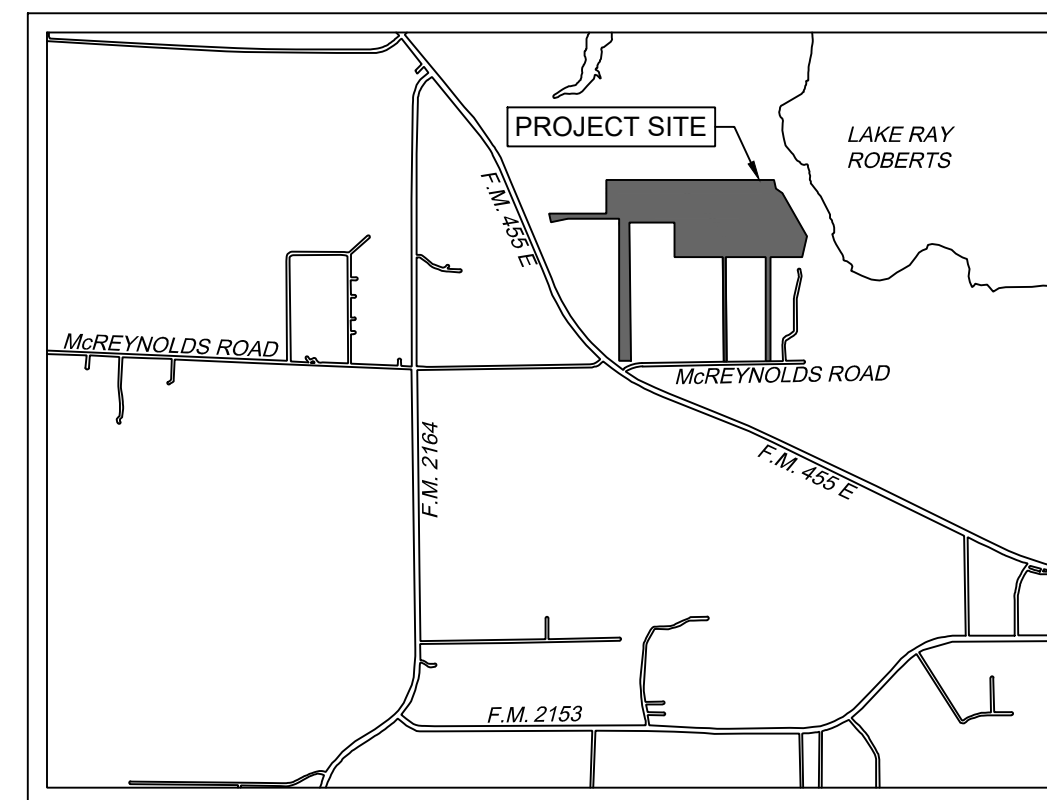
## TO SERVE LAKESIDE ESTATES

TRACT 1 & TRACT 2  
(68.028 ACRES)  
C. MANCHACA SURVEY  
ABSTRACT NO. 790  
THE CITY OF SANGER ETJ,  
DENTON COUNTY, TEXAS

OWNER/DEVELOPER:  
AUSTIN LANDS LLC  
803 W SOUTHLAKE BLVD, SUITE 100  
SOUTHLAKE, TEXAS 76092  
PHONE: (312) 206 - 8673  
CONTACT: RAMESH RAAVI  
Ramesh@sr3systems.com

ENGINEER:  
KIRKMAN ENGINEERING, LLC  
5200 STATE HIGHWAY 121  
COLLEYVILLE, TX 76034  
PHONE: (817) 488 - 4960  
CONTACT: JEREMY NELSON, P.E.  
Jeremy.Nelson@trustke.com

SURVEYOR:  
BARTON CHAPA SURVEYING  
5200 STATE HIGHWAY 121  
COLLEYVILLE, TX 76034  
PHONE: (817) 864 - 1957  
CONTACT: JACK BARTON, RPLS  
Jack@bcsdfw.com



VICINITY MAP  
N.T.S.

### SHEET LIST INDEX

NUMBER	TITLE
--	COVER SHEET
FP	FINAL PLAT SHEET 1 OF 1
C1.1	GENERAL NOTES
C2.0	OVERALL GRADING PLAN
C2.1	LOT GRADING PLAN
C2.2	LOT GRADING PLAN
C2.3	LOT GRADING PLAN
C2.4	LOT GRADING PLAN
C2.5	LOT GRADING PLAN
C2.6	LOT GRADING PLAN
C3.0	MEGAVIEW DRIVE PLAN & PROFILE STA 1+00 TO 10+00
C3.1	MEGAVIEW DRIVE PLAN & PROFILE STA 8+50 TO 16+50
C3.2	MEGAVIEW DRIVE PLAN & PROFILE STA 14+50 TO 22+00
C3.3	SUNRISE DRIVE PLAN & PROFILE STA 1+00 TO 8+00
C3.4	SUNRISE DRIVE PLAN & PROFILE STA 8+00 TO 14+00
C3.5	SUNRISE DRIVE PLAN & PROFILE STA 14+00 TO 18+50
C3.6	HILLSIDE DRIVE PLAN & PROFILE STA 1+00 TO 7+00
C3.7	HILLSIDE DRIVE PLAN & PROFILE STA 7+00 TO 13+50
C3.8	HILLSIDE DRIVE PLAN & PROFILE STA 13+50 TO 21+00
C4.0	CULVERT PLAN & PROFILE
C5.0	EROSION CONTROL PLAN
C6.0	PAVING DETAILS
C7.0	DRAINAGE DETAILS
C8.0	EROSION CONTROL DETAILS

Provide drainage area maps for the proposed culverts along with drainage area calculations and hydraulic calculations

Provide water and sanitary sewer plans

Based on the grading plan, many of these properties will require driveway culverts for access. Provide calculations and sizes for each future driveway culvert



PROJECT NO. SR322002

# MARCH 2024

PRELIMINARY  
FOR REVIEW ONLY  
THESE DOCUMENTS ARE FOR  
DESIGN REVIEW ONLY AND  
NOT INTENDED FOR THE  
PURPOSES OF CONSTRUCTION,  
BIDDING OR PERMIT. THEY  
WERE PREPARED BY, OR  
UNDER THE SUPERVISION OF:  
JEREMY B. NELSON  
P.E.# 138740  
DATE: 03/13/2024

REV:	DATE:	DESCRIPTION:

FILE PATH: K:\bbs\322002\_sanger\drainage\02\_fmr\p03 - Production\COVER SHEET\_SHEET\_0322002.dwg  
PLOTTER: HP DesignJet 5000 Series  
PLOT DATE: 03/13/2024 11:26:54 AM  
PLOT BY: JBN  
PLOT SCALE: 1:1

PLANS FOR THE CONSTRUCTION OF WATER, SANITARY SEWER, PAVING, GRADING & DRAINAGE IMPROVEMENTS TO SERVE LAKESIDE ESTATES, SANGER, TEXAS

ENGINEER/PREPARER



5200 State Highway 121  
Colleyville, TX 76034  
Phone: 817-488-4960  
Contact: Jeremy Nelson

SURVEYOR

BARTON CHAPA SURVEYING

5200 State Highway 121  
Colleyville, TX 76034  
Phone: 817-864-1957  
info@bcsdfw.com  
TBPLS Firm #10194474

OWNER

AUSTIN LANDS, LLC  
803 WEST SOUTHLAKE BOULEVARD, STE. 100  
SOUTHLAKE, TX 76092  
PH:312.206.8673

JOB NO. 2022.001.293  
DRAWN: BCS  
CHECKED: JHB

TABLE OF REVISIONS

DATE	SUMMARY

**SANGER 68**

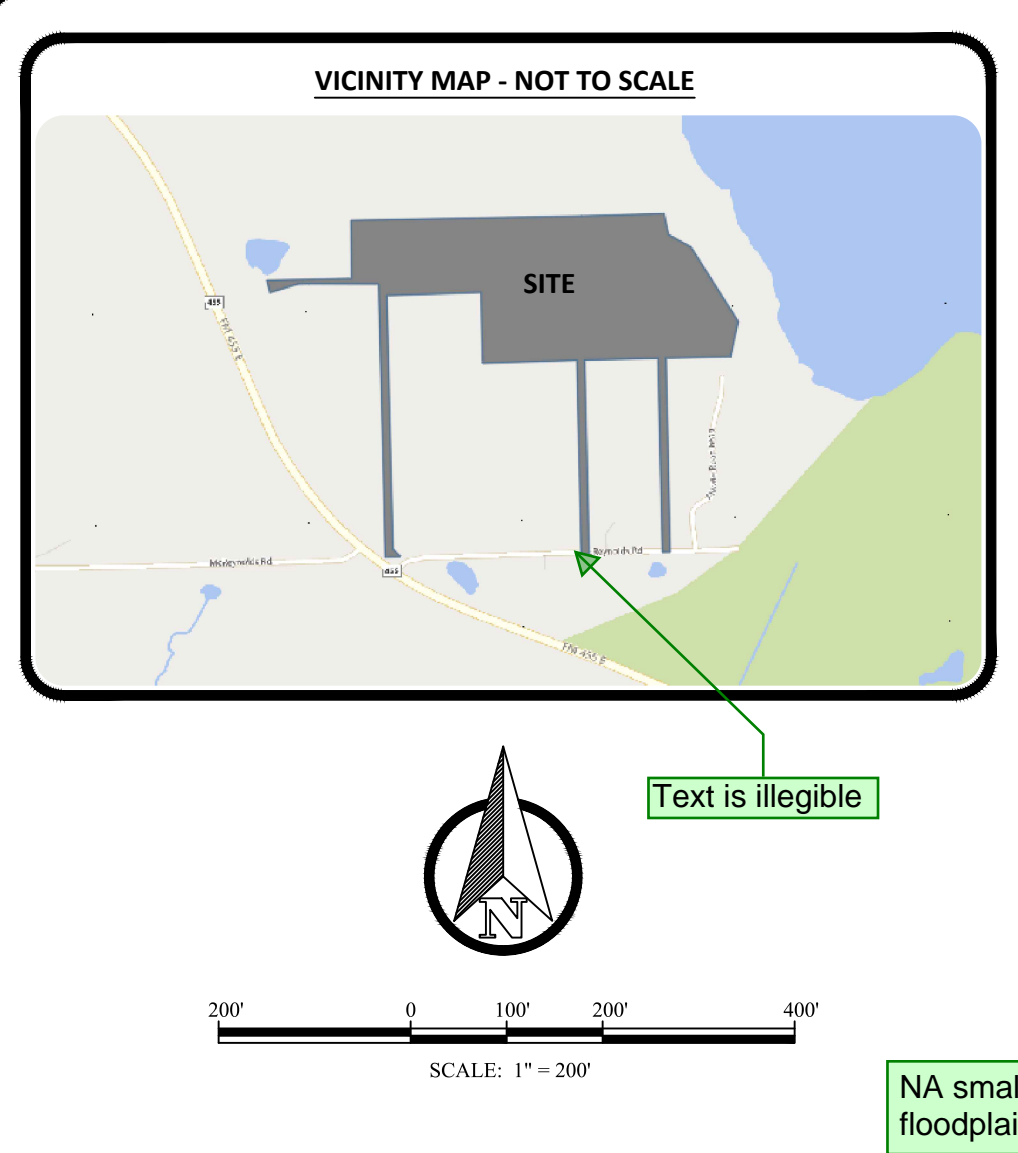
**DENTON COUNTY TEXAS**

Notary Public in and for the State of Texas

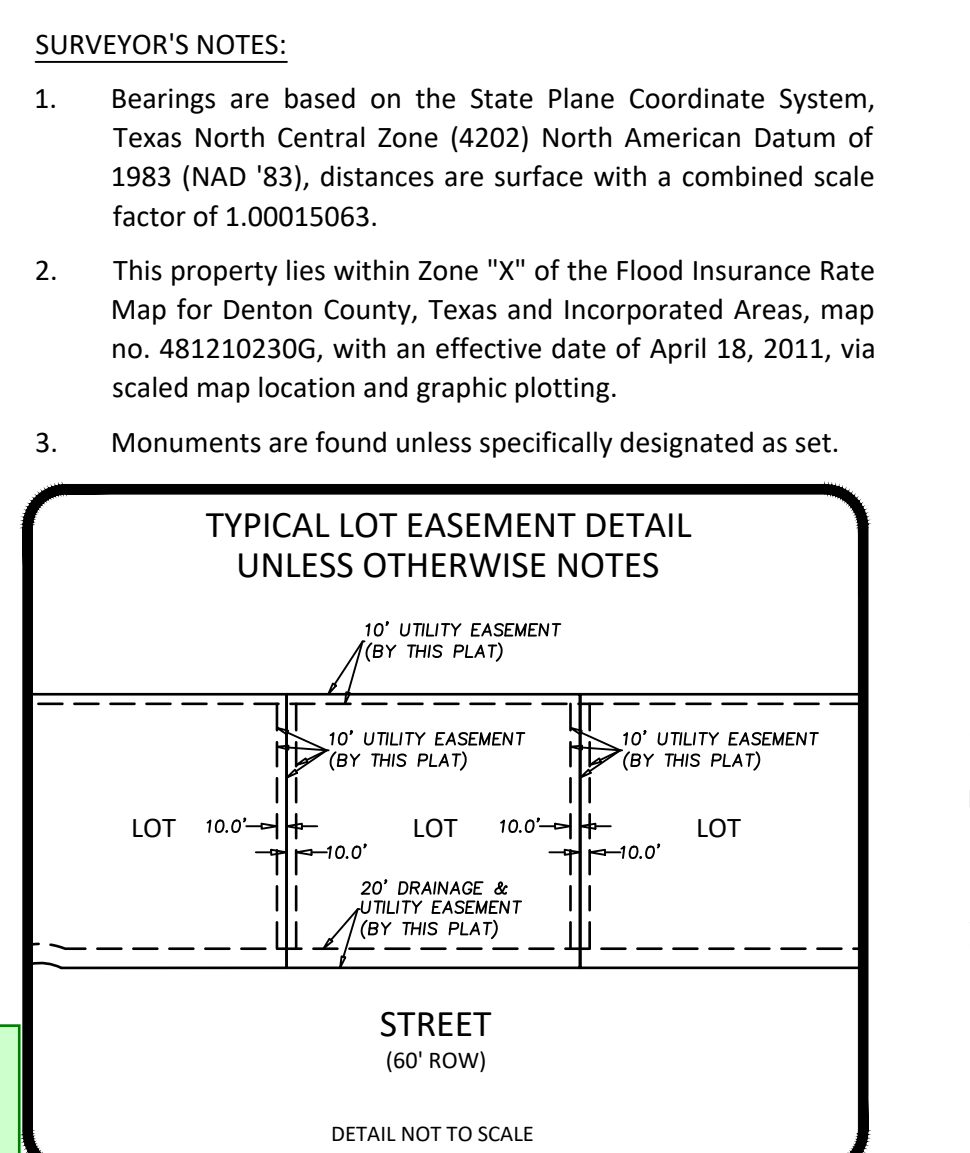
GIVEN UNDER MY HAND AND SEAL OF OFFICE this \_\_\_\_ day of \_\_\_\_ 20\_\_.

SHEET:

**1 OF 1**



- PLAT NOTES**
- 1) All lots comply with the minimum size requirements of the zoning district.
  - 2) This property may be subject to charges related to impact fees and the applicant should contact the City regarding any applicable fees due.
  - 3) All common areas, drainage easements, and detention facilities will be owned and maintained by the HOA/POA. Any common area within the City's right-of-way will require a facilities agreement, to be reviewed and approved by the City.
  - 4) Notice - selling a portion of this addition by metes and bounds is a violation of City ordinance and State Law and is subject to fines and withholding of utilities and building permits.
  - 5) This plat does not alter or remove existing deed restrictions, if any, on this property.
  - 6) Minimum finished floor elevations are at least 2 feet above the 100 year flood plain.
  - 7) The subject property does not lie within a 100 - year floodplain according to Community Panel No. 481210230G, date April 18, 2011, of the National Flood Insurance Rate Maps for Denton County, Texas.
  - 8) The purpose of the plat is to subdivide the subject tract for future development.
  - 9) Bearings are based on State Plane Coordinate System, Texas North Central Zone (4202) North American Datum of 1983 (NAD '83).



CERTIFICATE OF APPROVAL CITY OF SANGER

APPROVED AND ACCEPTED

CHAIRMAN, PLANNING & ZONING COMMISSION  
CITY OF SANGER

MAYOR, CITY OF SANGER

CITY SECRETARY, CITY OF SANGER

CERTIFICATE OF APPROVAL DENTON COUNTY

REVIEWED AND APPROVED ON

COUNTY JUDGE, DENTON COUNTY, TEXAS

STATE OF TEXAS §  
COUNTY OF DENTON §

WHEREAS AUSTIN LANDS, LLC is the owner of a tract of land out of the C. Manchaca Survey, Abstract Number 790, in Denton County, Texas, said tract being conveyed by deed to Austin Lands, LLC as recorded under Document Number 2023-11966, Official Public Records, Denton County, Texas, (O.P.R.D.C.T.) and being previously described as all of "Tract 1" and "Tract 2" of that tract of land described by deed to Ryan G. Williams and Amber N. Williams as recorded under Document Number 2017-151962, (O.P.R.D.C.T.), the subject tract being more particularly described by metes and bounds as follows (bearings are based on State Plane Coordinate System, Texas North Central Zone (4202) North American Datum of 1983 (NAD '83')):

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS THAT AUSTIN LANDS, LLC does hereby adopt this final plat designated herein as LAKESIDE ESTATES, LOTS 1-12 & LOT 13X, BLOCK A; LOTS 1-4 & LOT 5X, BLOCK B; AND LOTS 1-7 & LOT 8X, BLOCK C, or easements for sidewalks, storm drainage facilities, utilities and any other property necessary to serve the plat and to implement the requirements of the subdivision regulations and other City codes and do hereby bind ourselves, our heirs, successors and assigns to warrant and to forever defend the title on the land so dedicated. Further, the undersigned covenants and agrees that he/she shall maintain all easements and facilities in a state of good repair and functional condition at all times in accordance with City codes and regulations. No buildings, fences, trees, shrubs, or other improvements or growths shall be constructed or placed upon, over, or across the easements as shown, except that landscape improvements may be installed, if approved by the City of Sanger. The City of Sanger and public utility entities shall have the right to access and maintain all respective easements without the necessity at any time of procuring permission from anyone.

WITNESS, my hand, this the \_\_\_\_ day of \_\_\_\_ 20\_\_.

AUSTIN LANDS, LLC (OWNER)

(authorized signatory/title)

STATE OF TEXAS §  
COUNTY OF §

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared \_\_\_\_\_, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this \_\_\_\_ day of \_\_\_\_ 20\_\_.

Notary Public in and for the State of Texas

**SURVEYOR'S CERTIFICATE**

This is to certify that I, John H. Barton III, a Registered Professional Land Surveyor of the State of Texas, have prepared this map from an actual survey on the ground, and that this map correctly represents that survey made by me or under my direction and supervision.

John H. Barton III, RPLS# 6737

STATE OF TEXAS §  
COUNTY OF §

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared \_\_\_\_\_, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this \_\_\_\_ day of \_\_\_\_ 20\_\_.

Notary Public in and for the State of Texas

THENCE with the perimeter and to the corners of said Tract 1, the following calls:

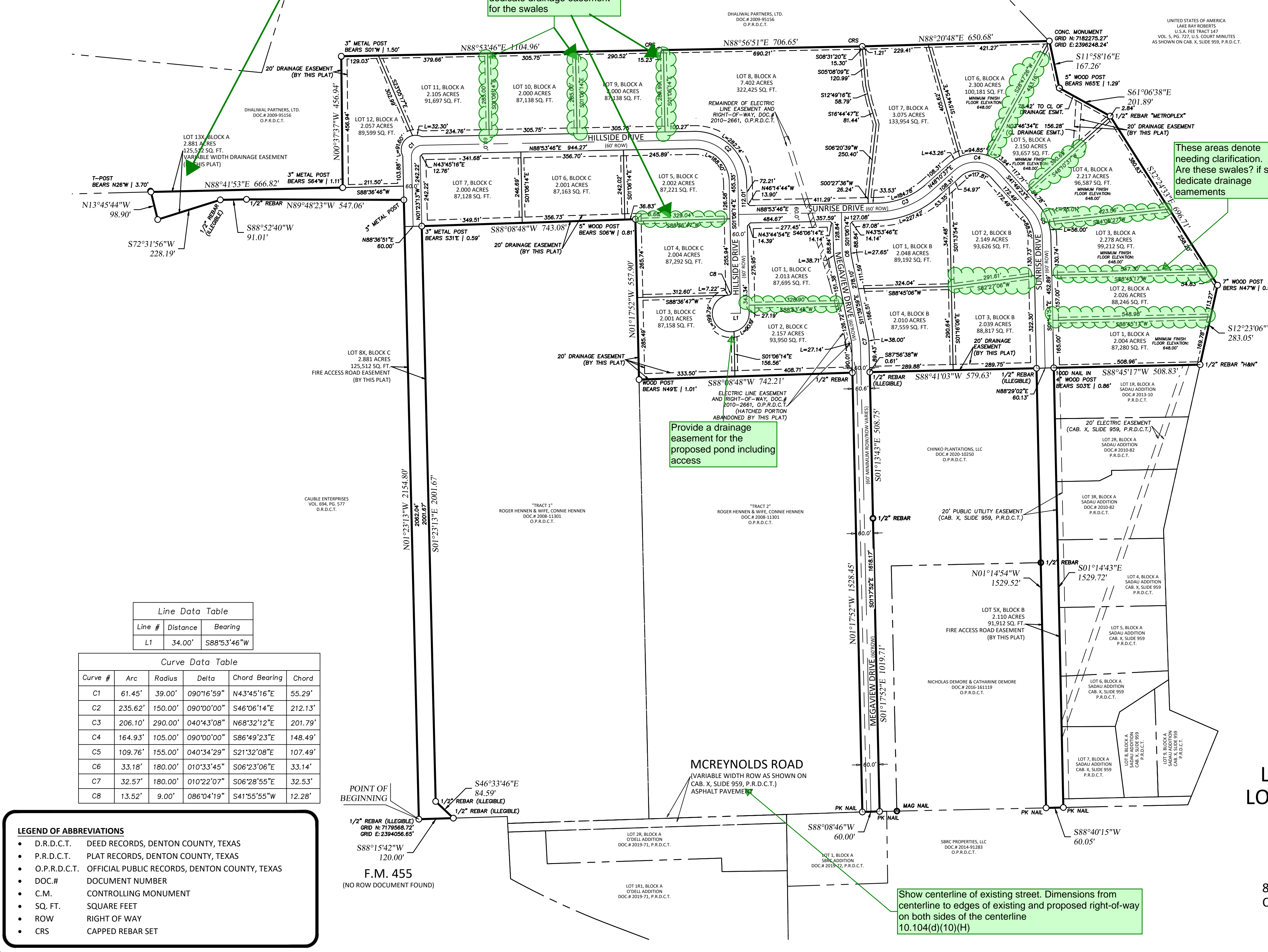
1. North 01 degrees 23 minutes 13 seconds East, a distance of 2,154.80 feet to a 3 inch metal fence corner post found;
2. North 89 degrees 48 minutes 23 seconds West, a distance of 547.06 feet to a 1/2 inch rebar found;
3. South 88 degrees 52 minutes 40 seconds West, a distance of 91.01 feet to a 1/2 inch rebar with an illegible cap found;
4. South 72 degrees 31 minutes 56 seconds West, a distance of 228.19 feet to a point from which an 11 inch hackberry serving as a corner for a wire fence bears South 25 degrees West, a distance of 0.70 feet;
5. North 13 degrees 45 minutes 44 seconds West, a distance of 98.90 feet to a point from which a T-post fence corner found bears North 26 degrees West, a distance of 3.70 feet;
6. North 88 degrees 41 minutes 53 seconds East, a distance of 666.82 feet to a point from which a 3 inch metal fence corner post found bears South 01 degrees West, a distance of 1.10 feet;
7. North 00 degrees 37 minutes 37 seconds West, a distance of 456.94 feet to a point from which a 3 inch metal fence corner post found bears South 01 degrees West, a distance of 1.50 feet;
8. North 88 degrees 53 minutes 46 seconds East, a distance of 1,104.96 feet;
9. North 08 degrees 56 minutes 51 seconds East, a distance of 706.65 feet to a point for the northeast corner of said "Tract 1", same being the northwest corner of said "Tract 2";

THENCE with the perimeter and to the corners of said "Tract 2", the following calls:

1. North 88 degrees 20 minutes 48 seconds East, a distance of 650.68 feet to a United State Army Corp of Engineers concrete monument found;
2. South 11 degrees 58 minutes 16 seconds East, a distance of 167.26 feet to point from which a 5 inch wood post found bears North 65 degrees East, a distance of 1.29 feet;
3. South 61 degrees 06 minutes 38 seconds East, a distance of 201.89 feet to a 1/2 inch rebar with cap stamped, "METROPLEX" found;
4. South 32 degrees 24 minutes 33 seconds East, a distance of 696.71 feet to a point from which a 7 inch wood post found bears North 47 degrees West, a distance of 0.54 feet;
5. South 12 degrees 23 minutes 06 seconds West, a distance of 283.05 feet to a 1/2 inch rebar with cap stamped, "H&H" found;
6. South 88 degrees 45 minutes 17 seconds West, a distance of 508.83 feet to a point from which a nail found in a 4 inch wood post bears South 03 degrees East, a distance of 0.86 feet;
7. South 01 degrees 14 minutes 43 seconds East, a distance of 1,529.72 feet to a "PK" nail found in asphalt;
8. South 88 degrees 40 minutes 15 seconds West, a distance of 60.05 feet to a "PK" nail found in asphalt;
9. North 01 degrees 14 minutes 54 seconds West, a distance of 1,529.52 feet to a 1/2 inch rebar with an illegible cap found;
10. South 88 degrees 41 minutes 03 seconds West, a distance of 579.63 feet to a 1/2 inch rebar with an illegible cap found for the westernmost southwest corner of said "Tract 2", same being a re-entrant corner of said "Tract 1";

THENCE with the perimeter and to the corners of said "Tract 1", the following calls:

1. South 01 degrees 13 minutes 43 seconds East, a distance of 508.75 feet to a 1/2 inch rebar found;
2. South 01 degrees 17 minutes 52 seconds East, a distance of 1,019.71 feet to a "PK" nail found in asphalt;
3. South 88 degrees 08 minutes 46 seconds West, a distance of 60.00 feet to a "PK" nail found in asphalt;
4. North 01 degrees 17 minutes 52 seconds West, a distance of 1,528.45 feet to a 1/2 inch rebar found;
5. South 88 degrees 08 minutes 48 seconds West, a distance of 742.21 feet to a point from which a wood post found bears North 49 degrees East, a distance of 1.01 feet;
6. North 01 degrees 17 minutes 52 seconds West, a distance of 557.90 feet to a point from which a 5 inch wood post found



**FINAL PLAT  
LAKESIDE ESTATES  
LOTS 1-12 & LOT 13X, BLOCK 1;  
LOTS 1-4 & LOT 5X, BLOCK B;  
LOTS 1-7 & LOT 8X, BLOCK C**  
(3 TOTAL HOA/OPEN SPACE LOTS)  
68.028 ACRES SITUATED IN THE  
C. MANCHACA SURVEY, ABSTRACT #790  
8.070 ACRES DEDICATED AS PUBLIC RIGHT-OF-WAY  
CITY OF SANGER, EXTRATERRITORIAL JURISDICTION  
DENTON COUNTY COUNTY, TEXAS  
PREPARED FEBRUARY 13, 2024

SURVEY PREPARED BY BARTON CHAPA SURVEYING, LLC 5200 STATE HIGHWAY 121 COLLEYVILLE, TX 76034 (817) 864-1957

**GENERAL NOTES**

- STANDARDS AND SPECIFICATIONS: ALL MATERIALS, CONSTRUCTION METHODS, WORKMANSHIP, EQUIPMENT, SERVICES AND TESTING FOR ALL PUBLIC IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' ORDINANCES, REGULATIONS, REQUIREMENTS, STATUTES, SPECIFICATIONS AND DETAILS. LATEST PRINTING AND AMENDMENTS THERETO, THE GOVERNING AUTHORITIES' PUBLIC WORKS AND WATER DEPARTMENT REQUIREMENTS, PLUMBING CODES, AND FIRE DEPARTMENT REQUIREMENTS SHALL TAKE PRECEDENCE OVER ALL OTHERS. PRIVATE CONTRACTORS INVOLVED WITH ANY CONSTRUCTION ACTIVITIES NOT REGULATED BY THE GOVERNING AUTHORITY, SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, LATEST PRINTING AND AMENDMENTS THERETO, EXCEPT AS MODIFIED BY THE PROJECT CONTRACT DOCUMENTS.
- EXAMINATION OF PLANS: PRIOR TO COMMENCING ANY CONSTRUCTION, THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE CONTRACTOR DOCUMENTS, CONSTRUCTION PLANS AND SPECIFICATIONS PERTAINING TO THE WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
- EXAMINATION OF SITE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR INVESTIGATING AND SATISFYING THEIR SELF AS TO THE CONDITIONS AFFECTING THE WORK, INCLUDING BUT NOT RESTRICTED TO THE BEARING UPON TRANSPORTATION, DISPOSAL, HANDLING AND STORAGE OF MATERIALS, AVAILABILITY OF LABOR, WATER, ELECTRIC POWER, THE PHYSICAL CONDITION OF THE SITE, CONDITIONS OF THE GROUND, THE CHARACTER OF EQUIPMENT AND FACILITIES NEEDED PRELIMINARY TO AND DURING THE PERFORMANCE OF THE WORK. FAILURE BY THE CONTRACTOR TO ACQUAINT HIMSELF WITH THE AVAILABLE INFORMATION WILL NOT RELIEVE HIM FROM RESPONSIBILITY FOR ESTIMATING THE DIFFICULTY OR COST OF SUCCESSFULLY PERFORMING THE WORK.
- ADDITIONAL AREA TO VERIFY ADEQUATE AREA EXISTS ON-SITE TO PERFORM THE WORK SHOWN IN THESE CONSTRUCTION DOCUMENTS. IF ADDITIONAL AREA IS REQUIRED TO PERFORM THE WORK, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION. SUBSURFACE INVESTIGATION: SUBSURFACE EXPLORATION TO ASCERTAIN THE NATURE OF SOILS HAS BEEN PERFORMED BY THE GEOTECHNICAL ENGINEER OF RECORD ON THE PROJECT. THE SUBSURFACE INFORMATION WILL BE MADE AVAILABLE FOR THE CONTRACTOR'S USE. THE ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR THE ACCURACY, TRULY INFORMATIVE EXTENT OF THE INFORMATION PREPARED BY OTHERS.
- TOPOGRAPHY SURVEY: TOPOGRAPHIC SURVEY INFORMATION SHOWING THE PLANS IS PROVIDED FOR INFORMATIONAL PURPOSES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE INFORMATION SHOWN IS CORRECT, AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY ERRORS, DISCREPANCIES OR OMISSIONS TO THE SURVEY INFORMATION PROVIDED.
- COMPLIANCE WITH LAWS: THE CONTRACTOR SHALL FULLY COMPLY WITH ALL LOCAL, STATE AND FEDERAL LAWS, INCLUDING ALL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THE WORK TO BE DONE THEREUNDER, WHICH EXIST OR MAY BE ENACTED LATER BY GOVERNMENTAL BODIES HAVING JURISDICTION OR AUTHORITY FOR SUCH ENACTMENT. ALL WORK REQUIRED UNDER THIS CONTRACT SHALL COMPLY WITH ALL REQUIREMENTS OF LAW, REGULATION, PERMIT OR LICENSE. IF THE CONTRACTOR FINDS THAT THERE IS A VARIANCE, HE SHALL IMMEDIATELY REPORT THIS TO THE OWNER FOR RESOLUTION.
- PUBLIC CONVENIENCE AND SAFETY: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE SAFETY OF ALL PERSONS AND ALL PROPERTY OF ALL PERSONS AT ALL TIMES DURING THE PERIOD OF CONSTRUCTION. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. MATERIALS STORED ON THE WORK SITE SHALL BE PLACED, AND THE WORK SHALL AT ALL TIMES BE SO CONDUCTED, AS TO CAUSE NO GREATER OBSTRUCTION TO THE TRAVELING PUBLIC THAN IS CONSIDERED ACCEPTABLE BY THE GOVERNING AUTHORITIES AND THE DEVELOPER AND NOT TO PREVENT FREE UNINTERRUPTED ACCESS TO ALL FIRE HYDRANTS, WATER VALVES, GAS VALVES, MANHOLES AND FIRE ALARMS OR POLICE CALL BOXES IN THE VICINITY.
- STORM WATER PREVENTION PLAN (SWPPP): THE CONTRACTOR SHALL COMPLY WITH THE CONDITIONS OF THE SWPPP WHILE CONDUCTING THEIR ACTIVITIES ON THE PROJECT.
- PERMITS AND LICENSES: THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND LICENSES NECESSARY FOR THE EXECUTION OF THE WORK AND SHALL FULLY COMPLY WITH ALL THEIR TERMS AND CONDITIONS. WHENEVER THE WORK UNDER THIS CONTRACT REQUIRES THE OBTAINING OF PERMITS FROM THE GOVERNING AUTHORITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL SUCH PERMITS AND LICENSES. COSTS ASSOCIATED WITH PERMITS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- APPROVED PLANS: THE CONTRACTOR SHALL HAVE AT LEAST ONE SET OF APPROVED PLANS ON-SITE AT ALL TIMES. WORK PERFORMED WITHOUT THE USE OF APPROVED PLANS IS NOT AUTHORIZED AND BE AT THE RISK OF THE CONTRACTOR.
- BONDS: PERFORMANCE, PAYMENT AND MAINTENANCE BONDS MAY BE REQUIRED FROM THE CONTRACTOR FOR "PUBLIC" IMPROVEMENTS. IF REQUIRED, THE CONTRACTOR SHALL PROVIDE THE BONDS IN THE FORM AND IN THE AMOUNTS AS REQUIRED BY THE GOVERNING AUTHORITIES. COSTS ASSOCIATED WITH PROVIDING THE BONDS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- TESTING: THE TESTING AND CONTROL OF ALL MATERIALS USED IN THE WORK SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY. EMPLOYED AND PAID DIRECTLY BY THE CONTRACTOR. IN THE EVENT THE RESULTS DO NOT COMPLY WITH THE PLANS AND SPECIFICATIONS, SUBSEQUENT TESTS NECESSARY TO DETERMINE THE ACCEPTABILITY OF MATERIALS OR CONSTRUCTION SHALL BE AT THE CONTRACTOR'S EXPENSE.
- INSPECTION: THE GOVERNING AUTHORITIES AND/OR THE DEVELOPER WILL PROVIDE INSPECTION OF THE PROPOSED CONSTRUCTION. THE OWNER WILL PAY THE COSTS FOR INSPECTION SERVICES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE WELL IN ADVANCE OF PENDING CONSTRUCTION ACTIVITIES TO THE GOVERNING AUTHORITIES AND/OR THE DEVELOPER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MATERIALS AND SERVICES NECESSARY TO PERFORM THE WORK.
- SHOP DRAWINGS: THE CONTRACTOR SHALL PREPARE, REVIEW, AND SUBMIT ALL SHOP DRAWING, PRODUCT DATA AND SAMPLES REQUIRED BY THE GOVERNING AUTHORITIES AND THE PROJECT CONTRACT DOCUMENTS IN ACCORDANCE WITH ITEM 1.28 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, NORTH CENTRAL TEXAS - NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS.
- SURVEYING: ALL SURVEYING REQUIRED FOR CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE OWNER SHALL PROVIDE TWO BENCHMARKS FOR USE AS HORIZONTAL AND VERTICAL DATUM. THE CONTRACTOR SHALL EMPLOY A REGISTERED PROFESSIONAL LAND SURVEY TO PERFORM ALL ADDITIONAL SURVEY, LAYOUT AND MEASUREMENT WORK NECESSARY FOR THE COMPLETION OF THE PROJECT. THE COSTS ASSOCIATED WITH THE CONSTRUCTION STAKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- PROTECTION OF PROPERTY CORNERS AND BENCHMARKS: THE CONTRACTOR SHALL PROTECT ALL PROPERTY CORNER MARKERS AND BENCHMARKS. WHEN ANY SUCH MARKERS OR BENCHMARKS ARE DAMAGED OR DESTROYED, THEY SHALL BE PROPERLY REFERENCED AND IF DISTURBED SHALL BE RESET BY A REGISTERED PUBLIC SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
- EXISTING STRUCTURES: THE PLANS SHOW THE LOCATION OF ALL KNOWN SURFACE AND SUB SURFACE STRUCTURES, HOWEVER, THE DEVELOPER AND ENGINEER ASSUME NO RESPONSIBILITY FOR THE FAILURE TO SHOW ANY OR ALL OF THESE STRUCTURES ON THE PLANS, OR TO SHOW THEM IN THEIR EXACT LOCATION. SUCH FAILURE SHALL NOT BE CONSIDERED SUFFICIENT BASIS FOR CLAIMS FOR ADDITIONAL COMPENSATION FOR EXTRA WORK OR FOR INCREASING THE PAY QUANTITIES IN ANY MANNER WHATSOEVER, UNLESS THE OBSTRUCTION ENCOUNTERED IN SUCH AS TO REQUIRE CHANGES IN THE LINES OR GRADES, OR REQUIRE THE CONSTRUCTION OF SPECIAL WORK, FOR WHICH PROVISIONS ARE NOT MADE IN THE PLANS.
- PROTECTION OF EXISTING UTILITIES: AS REQUIRED BY "THE TEXAS UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT," TEXAS ONE CALL SYSTEM MUST BE CONTACTED (800-245-4543) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATIONS BEING PERFORMED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT TEXAS ONE CALL SYSTEM TO VERIFY LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE BASED ON THE MOST RECENT INFORMATION AVAILABLE AND ARE NOT GUARANTEED BY THE DEVELOPER OR ENGINEER TO BE ACCURATE AS TO THE LOCATION AND DEPTH. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF HIS ACTIVITIES IN ORDER THAT HE MAY NEGOTIATE SUCH LOCAL ADJUSTMENTS AS NECESSARY IN THE CONSTRUCTION PROCESS TO PROVIDE ADEQUATE CLEARANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO, IDENTIFYING LOCATIONS OF EXISTING UTILITIES, VERIFYING LOCATIONS OF EXISTING UTILITIES, AND PROTECTING EXISTING UTILITIES FROM MOVING AND MAINTENANCE EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL DAMAGED UTILITIES AND RESTORE TO AS ABOVE UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY LOCATIONS OF EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO, IDENTIFYING LOCATIONS OF EXISTING UTILITIES, VERIFYING LOCATIONS OF EXISTING UTILITIES, AND PROTECTING EXISTING UTILITIES FROM MOVING AND MAINTENANCE EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY LOCATIONS OF EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO, IDENTIFYING LOCATIONS OF EXISTING UTILITIES, VERIFYING LOCATIONS OF EXISTING UTILITIES, AND PROTECTING EXISTING UTILITIES FROM MOVING AND MAINTENANCE EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY LOCATIONS OF EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO, IDENTIFYING LOCATIONS OF EXISTING UTILITIES, VERIFYING LOCATIONS OF EXISTING UTILITIES, AND PROTECTING EXISTING UTILITIES FROM MOVING AND MAINTENANCE EQUIPMENT.
- DAMAGE TO EXISTING FACILITIES: EXISTING UTILITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE TO A CONDITION AS GOOD AS OR BETTER THAN THE CONDITIONS PRIOR TO STARTING THE WORK.
- FIRE AND LIFE SAFETY SYSTEMS: THE CONTRACTOR SHALL NOT REMOVE, DISABLE OR DISRUPT EXISTING FIRE OR LIFE SAFETY SYSTEMS WITHOUT RECEIVING PRIOR WRITTEN PERMISSION FROM THE GOVERNING AUTHORITY.
- TRENCH SAFETY: THE CONTRACTOR IS RESPONSIBLE FOR HAVING A TRENCH SAFETY PLAN PREPARED IN ACCORDANCE WITH OSHA REQUIREMENTS BY A LICENSED PROFESSIONAL ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF TRENCH SAFETY CONTROL MEASURES THAT AFFECT DURING THE CONSTRUCTION OF THE PROJECT. THE COSTS FOR PREPARATION OF THE TRENCH SAFETY PLAN SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- TRAFFIC CONTROL: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT TRAFFIC CONTROL. THE COSTS ASSOCIATED WITH THE IMPLEMENTATION OF THE TRAFFIC CONTROL PLAN SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- ACCESS ADJACENT PROPERTIES: ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE DIRECTED BY THE GOVERNING AUTHORITIES AND/OR OWNER.
- ACCESS ROUTES, STAGING AREAS AND STORAGE AREAS: ALL PRIVATE HAUL ROADS AND ACCESS ROUTES AND THE LOCATION OF ALL STAGING AREAS AND STORAGE AREAS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND REPAIRING ALL ROADS AND OTHER FACILITIES USED DURING THE PROJECT. UPON COMPLETION OF THE PROJECT, ACCESS ROADS, STAGING AREAS AND STORAGE AREAS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THAT OF THE CONTRACTOR COMMENCED WORK ON THE PROJECT.
- PARKING OF CONSTRUCTION EQUIPMENT: AT NIGHT AND DURING ALL PERIODS OF TIME WHEN EQUIPMENT IS NOT BEING ACTIVELY USED FOR THE CONSTRUCTION WORK, THE CONTRACTOR SHALL PARK THE EQUIPMENT AT LOCATIONS WHICH ARE APPROVED BY THE OWNER. DURING THE CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL COMPLY WITH THE PRESENT ZONING REQUIREMENTS OF THE GOVERNING AUTHORITIES IN THE USE OF VACANT PROPERTY FOR STORAGE PURPOSES. THE CONTRACTOR SHALL ALSO PROVIDE ADEQUATE BARRICADES, MARKERS AND LIGHTS TO PROTECT THE OWNER, THE GOVERNING AUTHORITIES, THE PUBLIC AND THE OTHER WORK. ALL BARRICADES, LIGHTS, AND MARKERS MUST MEET THE REQUIREMENTS OF THE GOVERNING AUTHORITIES' REGULATIONS.
- WATER FOR CONSTRUCTION: THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR PURCHASING WATER FROM THE GOVERNING AUTHORITY FOR HIS USE ON THE PROJECT SITE. COST ASSOCIATED WITH THIS SERVICE SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- TEMPORARY CONSTRUCTION: THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR THE INSTALLATION AND PURCHASING OF TEMPORARY ELECTRIC AND COMMUNICATIONS SERVICES FROM THE GOVERNING AUTHORITIES FOR HIS USE ON THE PROJECT SITE. COSTS ASSOCIATED WITH THIS SERVICE SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- FENCES: ALL FENCES ENCOUNTERED AND REMOVED DURING CONSTRUCTION, EXCEPT THOSE DESIGNATED TO BE REMOVED OR RELOCATED, SHALL BE RESTORED TO THE ORIGINAL OR BETTER THAN CONDITION UPON COMPLETION OF THE PROJECT WHERE WIRE FENCING, EITHER WIRE MESH OR BARBED WIRE, IS NOT TO BE CROSSED. THE CONTRACTOR SHALL SET CROSS-BRACED POSTS ON EITHER SIDE OF THE CROSSING. TEMPORARY FENCING SHALL BE ERECTED IN PLACE OF THE FENCING REMOVED WHENEVER THE WORK IS NOT IN PROGRESS AND WHEN THE SITE IS VACATED OVERNIGHT AND/OR AT ALL TIMES TO PREVENT PERSONS AND/OR LIVESTOCK FROM ENTERING THE CONSTRUCTION AREA. THE COST OF FENCE REMOVAL, TEMPORARY CLOSURES AND REPLACEMENT SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- COORDINATION WITH OTHER CONTRACTORS ARE DOING WORK IN THE SAME AREA SIMULTANEOUSLY WITH THE PROJECT, THE CONTRACTOR SHALL COORDINATE HIS PROPOSED CONSTRUCTION WITH THAT OF THE OTHER CONTRACTORS.
- CONDITION OF THE SITE DURING CONSTRUCTION: THE CONTRACTOR SHALL KEEP THE SITE OF THE WORK AND ADJACENT PREMISES AS FREE FROM MATERIAL, DEBRIS AND RUBBISH AS IS PRACTICABLE. THE CONTRACTOR SHALL REMOVE MATERIAL, DEBRIS AND RUBBISH FROM ANY PORTION OF THE SITE IF, IN THE OPINION OF THE DEVELOPER, SUCH MATERIAL, DEBRIS AND RUBBISH CONSTITUTES A NUISANCE OR IS OBJECTIONABLE.
- EXISTING ROADWAYS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CLEANLINESS OF EXISTING PAVED ROADS. COSTS ASSOCIATED WITH MAINTAINING THE CLEANLINESS OF EXISTING ROADS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- SITE RECONNAISSANCE: THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE EXISTING CONDITIONS.
- CONSULTANT COORDINATION: CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, MEP, ARCHITECTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER/ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING WITH CONSTRUCTION.
- DUST CONTROL: THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO CONTROL DUST ON THE PROJECT SITE BY SPRINKLING OF WATER, OR ANY OTHER METHODS APPROVED BY THE GOVERNING AUTHORITIES. COSTS ASSOCIATED WITH DUST CONTROL SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- CLEAN UP FOR FINAL ACCEPTANCE: THE CONTRACTOR SHALL MAKE A FINAL CLEAN UP OF ALL PARTS OF THE WORK BEFORE ACCEPTANCE BY THE OWNER. THIS CLEAN UP SHALL INCLUDE REMOVAL OF ALL OBJECTIONABLE MATERIALS AND, IN GENERAL, PREPARING THE SITE OF THE WORK IN AN ORDERLY MANNER OF APPEARANCE.
- REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK: ALL WORK, WHICH HAS BEEN REJECTED OR CONDEMNED, SHALL BE REPAIRED, OR IF IT CANNOT BE REPAIRED SATISFACTORILY, IT SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. DEFECTIVE MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE WORK SITE. WORK DONE BEYOND THE LINE OR NOT IN CONFORMANCE WITH THE GRADES SHOWN ON THE DRAWINGS OR AS WRITTEN AUTHORITY AND PRIOR AGREEMENT IN WRITING AS TO PROCEED SHALL BE AT THE CONTRACTOR'S RISK, AND WILL BE CONSIDERED UNAUTHORIZED, AND, AT THE OPTION OF THE OWNER MAY NOT BE MEASURED AND PAID FOR AND MAY BE ORDERED REMOVED AT THE CONTRACTOR'S EXPENSE. UPON FAILURE OF THE CONTRACTOR TO REPAIR SATISFACTORY OR TO REMOVE AND REPLACE, IF SO DIRECTED, REJECTED, UNAUTHORIZED OR CONDEMNED WORK OR MATERIALS IMMEDIATELY AFTER RECEIVING NOTICE FROM THE OWNER, THE OWNER WILL, AFTER GIVING WRITTEN NOTICE TO THE CONTRACTOR, HAVE THE AUTHORITY TO CAUSE DEFECTIVE WORK TO BE REMOVED OR REPLACED, OR TO CAUSE UNAUTHORIZED WORK TO BE REMOVED AND TO DEDUCT THE COST THEREOF ANY MONIES DUE OR TO BECOME DUE TO THE CONTRACTOR.
- DISPOSITION AND DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS: ALL MATERIALS TO BE REMOVED FROM THE SITE INCLUDED BUT NOT LIMITED TO EXCESS MATERIAL AND UNSUITABLE MATERIALS SUCH AS CONCRETE, ASPHALT, LARGE ROCKS, REFUSE, AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE PROJECT. THE CONTRACTOR SHALL ALSO COMPLY WITH ALL APPLICABLE LAWS GOVERNING SPILLAGE OF DEBRIS WHILE TRANSPORTING TO A DISPOSAL SITE. COSTS ASSOCIATED WITH THE DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- RECORD DRAWINGS: THE CONTRACT SHALL MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF ALL MATERIALS AND SYSTEM COVERED BY THE PROJECT CONTRACT DOCUMENTS. THE COMPLETE SET OF RECORD DRAWINGS MUST BE DELIVERED TO THE OWNER AND/OR ENGINEER BEFORE REQUESTING FINAL PAYMENT.
- FRANCHISE UTILITIES: THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE INSTALLATION OF FRANCHISE UTILITIES THAT ARE NECESSARY FOR ON-SITE AND OFF-SITE CONSTRUCTION, AND SERVICE TO THE PROPOSED DEVELOPMENT.
- SCOPE OF WORK: THE SCOPE OF WORK FOR THE CIVIL IMPROVEMENTS SHOWN ON THESE PLANS TERMINATES 5-FEET FROM THE BUILDING. REFERENCE THE BUILDING PLANS (E.G. ARCHITECTURAL/STRUCTURAL/MEP) FOR AREAS WITHIN 5-FEET OF THE BUILDING AND WITHIN THE BUILDING FOOTPRINT.
- SITE DRAINAGE: CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, MAINTAINING EXISTING DITCHES OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES.
- THE CONTRACTOR SHALL FULLY EXECUTE THE WORK DESCRIBED AS SHOWN IN THE CONSTRUCTION PLANS OR REASONABLY INFERABLE THEREFROM OR ASCERTAINABLE IN THE EXERCISE OF PROFESSIONAL EFFORTS (AS HEREINAFTER DEFINED) AS NECESSARY TO PRODUCE THE RESULTS INTENDED BY THE CONSTRUCTION PLANS, EXCEPT AS SPECIFICALLY INDICATED IN THE CONSTRUCTION PLANS OR REASONABLY INFERABLE THEREFROM OR ASCERTAINABLE IN THE EXERCISE OF PROFESSIONAL EFFORTS. MEANS THAT LEVEL OF SKILL AND CARE ORDINARILY EXERCISED BY EXPERIENCED CONTRACTORS AND CONSTRUCTION MANAGERS COMPARABLE TO CONTRACTOR ENGAGING IN INSTITUTIONAL AND COMMERCIAL PROJECTS SIMILAR IN SIZE AND COMPLEXITY TO THE PROJECT IN MAJOR UNITED STATES URBAN AREAS, WHEN PERFORMING DUTIES, RESPONSIBILITIES AND OBLIGATIONS COMPARABLE TO THOSE UNDER THE CONTRACT DOCUMENTS.

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**EROSION CONTROL NOTES:**

- LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY THE GOVERNING AUTHORITIES, PERMITS ARE OBTAINED, AND ALL EROSION CONTROL MEASURES ARE IN PLACE.
- CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
- THE GENERAL CONTRACTOR (AND ALL SUBCONTRACTORS INVOLVED WITH ANY CONSTRUCTION ACTIVITIES RELATED TO EARTHWORK, EROSION CONTROL, ETC. OR WHICH UTILIZE POSSIBLE POLLUTANTS AS DEFINED IN THE TPDES GENERAL PERMIT) SHALL REVIEW AND ADHERE TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE PROJECT, AS WELL AS ALL THE TCEQ REQUIREMENTS SET FORTH IN THE TPDES GENERAL PERMIT.
- THIS EROSION CONTROL PLAN IS A SUPPLEMENT TO THE SWPPP PREPARED BY OTHERS. REFER TO THE SWPPP FOR ADDITIONAL REQUIREMENTS.
- ALL WASH WATER SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN WASH WATER POLLUTANTS AND STORM RUNOFF DISCHARGED FROM THIS SITE.
- OIL AND GREASE ABSORBING MATERIALS SHALL BE READILY AVAILABLE ON-SITE AND SHALL BE PROMPTLY USED TO CONTAIN AND/OR CLEAN UP ALL FUEL OR CHEMICAL SPILLS OR LEAKS.
- DUST CONTROL SHALL BE ACCOMPLISHED BY WATERING DIRT, EXPOSED AREAS ON A REGULAR BASIS. SPRAYING OF PETROLEUM BASED OR TOXIC LIQUIDS FOR THIS IS PROHIBITED.
- DISTURBED AREAS ON THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR AT LEAST 14 DAYS SHALL BE TEMPORARILY PLANTED AND/OR SEEDDED AND WATERED.
- DISTURBED AREAS ON THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED SHALL BE PERMANENTLY PLANTED AND/OR SEEDDED WITHIN 14 DAYS.
- PLANTING AND/OR SEEDING OF VEGETATED AREAS TO ACCOMPLISH STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE LANDSCAPING PLAN. AREAS BEYOND THE LIMITS OF THE LANDSCAPING PLAN (OR WHEN A LANDSCAPING PLAN DOES NOT EXIST) SHALL BE HYDROMULCHED WITH HIGHWAY MIX AND WATERED WITH TEMPORARY ABOVE GROUND IRRIGATION UNTIL THE VEGETATION IS ESTABLISHED.
- ALL WASH WATER SHALL BE CLEANED AT THE CONSTRUCTION EXIT POINT(S) BEFORE LEAVING THE SITE.
- ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED ONTO ADJACENT ROADWAYS BY ANY VEHICLES EXITING THE SITE SHALL BE CLEANED OR REMOVED IMMEDIATELY.
- THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SILT IN ANY STORM SEWER INLETS AND PIPES, AND ALONG SILT FENCES, WITHIN 48 HOURS AFTER INSPECTION OF DEVICES REVEALS THE PRESENCE OF EXCESS SILTATION.
- ALL MATERIALS SHALL BE PLACED AROUND ANY STOCKPILES USED ON THE SITE. STONE OVERFLOW POINTS SHALL BE ADDED AT ALL LOW POINTS ALONG SILT FENCING.
- ADDITIONAL EROSION CONTROL MEASURES MAY BE IMPLEMENTED BY THE CONTRACTOR AT HIS DISCRETION AT NO ADDITIONAL EXPENSE TO THE OWNER. THE ADDITION OR DELETION OF ANY EROSION CONTROL MEASURE MAY REQUIRE THAT THE SWPPP BE MODIFIED IN ACCORDANCE WITH THE TCEQ'S TPDES GENERAL PERMIT GUIDELINES.
- ALL TEMPORARY EROSION CONTROL DEVICES (SILT FENCE, ETC.) SHALL BE REMOVED AND PROPERLY DISPOSED OF OFF SITE WITHIN THIRTY DAYS AFTER STABILIZATION OF ALL DISTURBED SURFACES IS COMPLETE.
- THE CONTRACTOR SHALL ASSUME LIABILITY FOR DAMAGE TO ADJACENT PROPERTIES AND/OR PUBLIC RIGHT OF WAY RESULTING FROM FAILURE TO FULLY IMPLEMENT AND EXECUTE ALL EROSION CONTROL PROCEDURES SHOWN AND NOTED IN THESE PLANS AND IN THE SWPPP.
- THE CONTRACTOR SHALL MODIFY THIS PLAN TO SHOW LOCATIONS OF TEMPORARY WASH DOWN AREA, PORTABLE TOILETS, EQUIPMENT MAINTENANCE/REPAIR AREAS, STOCKPILE AREAS, FUEL STORAGE AREAS, ETC. AND POLLUTANT CONTROLS FOR EACH.
- THE GENERAL CONTRACTOR, AS THE TCEQ DEFINED "OPERATOR," SHALL PERFORM ALL REQUIRED INSPECTIONS OF STORM WATER CONTROLS AND PRACTICES AT FREQUENCIES OUTLINED IN THE TPDES GENERAL PERMIT, AND SHALL FILL OUT APPROPRIATE INSPECTION FORMS (AS PROVIDED IN THE TPDES GENERAL PERMIT).
- DIRT OR ROCK IS EXPORTED FROM THIS SITE, OR IF DIRT OR ROCK IS IMPORTED FROM AN OFF SITE BORROW LOCATION, THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE COMPLIANCE WITH ALL TCEQ STORM WATER REQUIREMENTS FOR THE REMOTE SITE. THE CONTRACTOR SHALL FURNISH THE OWNER WITH A COPY OF THE WRITTEN AGREEMENT WITH THE LANDOWNER OF THE REMOTE SITE INDICATING PERMITTING AND EROSION CONTROL MEASURES WILL BE IMPLEMENTED THEREON.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REESTABLISHING VEGETATION IN ALL DISTURBED AREAS WHETHER SHOWN IN THIS PLAN SET OR NOT. VEGETATION SHALL BE REESTABLISHED IN ACCORDANCE WITH THE STANDARDS OF THE GOVERNING MUNICIPALITY.
- CONTRACTOR TO MAINTAIN EXISTING DRAINAGE PATTERNS DURING CONSTRUCTION UNTIL SUCH TIME THAT THE PROPOSED DRAINAGE INFRASTRUCTURE SHOWN IN THESE CONSTRUCTION PLANS IS INSTALLED AND OPERATIONAL.

**PAVING NOTES**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF PASSING FIELD DENSITY TESTS ON THE STABILIZED SUBGRADE FOR SITE PAVING EQUAL TO THE RATIO OF 1 PER 5,000 SQUARE FEET OF PAVEMENT (ANY ALL FIELD DENSITY TESTS AND ALL FALLING DENSITY TESTS AND ALL FIELD DENSITY TESTS MAY BE REQUIRED FOR FOUNDATIONS. REFER TO STRUCTURAL PLANS AND SPECIFICATIONS FOR SUCH. IN ADDITION, THE CONTRACTOR SHALL PROVIDE THE OWNER TEN (10) PASSING SITE PAVEMENT CORES FOR THE OWNERS USE FOR THICKNESS AND COMPRESSIVE STRENGTH. CORE LOCATIONS SHALL BE DESIGNATED BY THE OWNER. CONTRACTOR SHALL PATCH CORE HOLES AND FINISH WITH LIKE AND MATCHING MATERIALS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL TESTING COSTS SHOULD THE ABOVE TESTS FAIL. MINIMUM CRITERIA AS ESTABLISHED BY MCTCOG. ANY NON-COMFORMING PAVING SHALL BE REPLACED OR RESOLVED IN ACCORDANCE WITH MCTCOG SPECIFICATIONS AND THESE CONSTRUCTION PLANS.
- ALL EARTHWORK AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION AND REPORT FOR THIS PROJECT AND THOSE RECOMMENDATIONS LISTED WITHIN THE REPORT. REFER TO THIS REPORT FOR ALL EARTHWORK AND RELATED ITEMS. REFER TO STRUCTURAL FOR ALL STRUCTURAL AND RELATED ITEMS. REFER TO THIS REPORT FOR ALL EARTHWORK AND RELATED ITEMS. REFER TO STRUCTURAL FOR ALL STRUCTURAL AND RELATED ITEMS. REFER TO STRUCTURAL FOR ALL STRUCTURAL AND RELATED ITEMS. REFER TO STRUCTURAL FOR ALL STRUCTURAL AND RELATED ITEMS. REFER TO STRUCTURAL FOR ALL STRUCTURAL AND RELATED ITEMS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PERFORMING ALL CONSTRUCTION LAYOUTS FROM THE SITE LAYOUT CONTROL POINTS AND FROM THE DIMENSIONS SHOWN. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN ADVANCE AND ALLOW FOR THE ENGINEER'S RESPONSE BEFORE PROCEEDING WITH THE WORK.
- PAVING DIMENSIONS ARE TO FACE OF CURB, AND EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE CITY AND THE ENGINEER WITH A CONCRETE MIX DESIGN AT THE PRE-CONSTRUCTION MEETING FOR REVIEW AND APPROVAL. THE COST OF THIS DESIGN SHALL BE INCLUDED IN THE UNIT PRICE OF PAVEMENT MATERIAL.
- THE CONTRACTOR SHALL PROTECT ANY EXISTING AND/OR PROPOSED UTILITIES, WHICH ARE IN THE PROPOSED SUBGRADE DURING THE SUBGRADE STABILIZATION AND PAVING.
- CONTRACTOR SHALL ADJUST ALL UTILITIES (EXISTING AND PROPOSED) TO FINAL GRADE AT CONTRACTORS EXPENSE. ALL UTILITIES AND APPURTENANCES SHALL BE EXTENDED UP TO FINAL GRADE. UTILITY CLEAN-OUTS, VALVES, MANHOLES, ETC. LOCATED WITHIN PAVED AREAS SHALL BE PAVED PER DETAIL. IN NON-PAVED AREAS, SAID APPURTENANCES SHALL HAVE A 4" THICK CONCRETE PAD EXTENDING 12" BEYOND SAID APPURTENANCE (BLOCK OUT) POURED AT CONSTRUCTION.
- CONTRACTOR SHALL PLACE IRRIGATION, UTILITY CONDUITS, AND OTHER SLEEVES AS NECESSARY FOR CONSTRUCTION PRIOR TO ANY PAVING CONSTRUCTION, PER THE IRRIGATION AND ARCHITECTURAL/MEP PLANS, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE WITH THE CURBS SCORED TO IDENTIFY THE SLEEVE LOCATIONS.
- UNLESS OTHERWISE NOTED, SUBGRADE SHALL BE STABILIZED TO 12" BEYOND THE BACK OF CURB OR EDGE OF PAVEMENT PER GEOTECH RECOMMENDATIONS UNLESS STATED OTHERWISE. ALL CONCRETE STRENGTH AND REINFORCING STEEL SHALL BE PER PROJECT GEOTECHNICAL RECOMMENDATIONS.
- FIRE LANES, PARKING, AND ROADWAY STRIPING & MARKINGS SHALL CONFORM TO CITY STANDARDS.
- SIDEWALKS WITHIN LANDSCAPE AREAS SHALL BE MINIMUM 4" THICK. LARGE EXPANSIONS OF CONCRETE FLATWORK (SUCH AS MAJOR PEDESTRIAN AREAS, PLAZA AREAS BETWEEN BUILDINGS OR OTHER STRUCTURES) SHALL BE TREATED LIKE VEHICULAR CONCRETE PAVEMENT AND RECEIVE SAME SUBGRADE STABILIZATION AS VEHICULAR PAVEMENT (6" DEEP MINIMUM AND IN ACCORDANCE WITH A LIME SERIES TEST) AND ALL JOINTS (CONTRACTION AND EXPANSION JOINTS) SHALL BE SEALED WITH SELF LEVELING POLYURETHANE SEALANT.
- ALL PAVEMENT WITHIN 5' OF PROPOSED BUILDING(S) SHALL ADHERE TO THE STRUCTURAL RECOMMENDATIONS AND OR ARCHITECTURAL REQUIREMENTS. REFER TO STRUCTURAL AND ARCHITECTURAL PLANS AND RELATED TECHNICAL SPECIFICATIONS. CIVIL PAVEMENT LIMITS BEGIN 5' OUTSIDE THE BUILDING. IN THE EVENT OF A CONFLICT WITH THE STRUCTURAL AND OR ARCHITECTURAL, WITHIN THIS AREA, THE STRUCTURAL/ ARCHITECT REQUIREMENTS SHALL GOVERN.
- FOR "CURB INLETS" SUBTRACT 0.5" (6 INCHES) FOR STANDARD THROAT RECESS AT INLETS PER STANDARD DETAILS. SURROUNDING PAVEMENT AND GUTTER SHALL BE WARPED TO DRAIN FOR INLETS ON GRADE, FLUMES, AND SAG INLETS. INLETS ON GRADE SHALL BE SET IN PLACE TO MATCH THE CURB GRADE LINE.
- ALL REINFORCING BARS AND DOWEL BARS IN PAVEMENT SHALL BE SUPPORTED AND MAINTAINED AT THE CORRECT CLEARANCES BY THE USE OF BAR CHAIRS OR OTHER APPROVED SUPPORT.
- CONNECTION OF THE PROPOSED SIDEWALK TO EXISTING PAVING, SIDEWALK, BUILDING, AND WHEELCHAIR RAMPS SHALL BE CONSIDERED SUBSIDIARY TO THE COST OF THE CONSTRUCTION OF THE SIDEWALK. ALL JOINTS (EXPANSION, ISOLATION, CONTRACTION, & CONSTRUCTION) FOR CONCRETE PAVING AND INCIDENTAL CRACKS SHALL BE SEALED AND INSTALLED IN ACCORDANCE WITH THE AMERICAN CONCRETE PAVEMENT ASSOCIATION (ACPA) RECOMMENDATIONS. CONTRACTOR SHALL OBSERVE THE ARCHITECTURAL AND STRUCTURAL JOINING LAYOUTS. IN THE EVENT OF A DISCREPANCY OR CONFLICT FOR SITE PAVING, THE CONTRACTOR SHALL REFER TO ACPA PUBLICATION IS061.010 AND IS400.01P FOR THE JOINT SPECIFICATIONS AND THE LAYOUT OF PAVEMENT JOINTS (NON-PAY ITEM).
- THE CONTRACTOR SHALL USE CARE DURING SOIL STABILIZATION AND COMPACTION ACTIVITIES SO AS NOT TO ADVERSELY AFFECT LANDSCAPE AREAS OR UTILITY LINES WITH SOIL STABILIZATION TREATMENTS. AFTER COMPACTION AND PRIOR TO PLACING GRADE, THE UPPER 8 INCHES (8") OF ALL LANDSCAPED AREA SHALL BE AERATED, TILLED, OR OTHERWISE PROCESSED SO AS TO PROMOTE HEALTHY ROOT GROWTH FOR TURF AND OTHER VEGETATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY REPAIRS, UNDERCUTTING, REMOVAL, DISPOSAL, AND BACKFILLING OF THESE AREAS IF STABILIZATION IS DISCOVERED (NON-PAY ITEM).
- THE CONTRACTOR SHALL SUBMIT A JOINT SPACING PLAN FOR ENGINEER APPROVAL PRIOR TO CONSTRUCTION.

**RETAINING WALLS:**

- RETAINING WALLS SHOWN ARE FOR SITE GRADING PURPOSES ONLY, AND INCLUDE ONLY LOCATION AND SURFACE SPOT ELEVATIONS AT THE TOP AND BOTTOM OF THE WALL.
- RETAINING WALL TYPE OR SYSTEM SHALL BE SELECTED BY THE OWNER.
- RETAINING WALL DESIGN SHALL BE PROVIDED BY OTHERS AND SHALL FIT IN THE WALL ZONE OR LOCATION SHOWN ON THESE PLANS. STRUCTURAL DESIGN AND PERMITTING OF RETAINING WALLS, RAILINGS, AND OTHER WALL SAFETY DEVICES SHALL BE PERFORMED BY A LICENSED ENGINEER AND ARE NOT PART OF THIS PLAN SET.
- RETAINING WALL DESIGN SHALL MEET THE INTENT OF THE GRADING PLAN AND SHALL ACCOUNT FOR ANY INFLUENCE ON ADJACENT BUILDING FOUNDATIONS, UTILITIES, PROPERTY LINES AND OTHER CONSTRUCTABILITY NOTES.
- RETAINING WALL ENGINEER SHALL CONSULT THESE PLANS AND THE GEOTECHNICAL REPORT FOR POTENTIAL CONFLICTS.

UTILITY PROVIDER INDEX				
UTILITY	PROVIDER	CONTACT	PHONE NUMBER	EMAIL ADDRESS
GAS	COSERV	JENNIFER ELLIOT	940-321-7809	JELLIOT@COSERV.COM
ELECTRIC	COSERV	JENNIFER ELLIOT	940-321-7809	JELLIOT@COSERV.COM
TELEPHONE/FIBER				

**DEMOLITION NOTES**

- NO EARTH-DISTURBING ACTIVITIES SHALL COMMENCE UNTIL ALL PERMITS ARE OBTAINED AND PERIMETER EROSION CONTROL MEASURES ARE IN PLACE.
- ALL DEMOLITION SHALL BE CLOSELY COORDINATED WITH THE OWNER'S REPRESENTATIVE REGARDING ITEMS TO BE SALVAGED, THOSE TO BE REMOVED, ETC. INCLUDING ANY AND ALL TREE PRESERVATION AND TRANSPLANTING ACTIVITIES AS OUTLINED IN THE PRE-CONSTRUCTION MEETING. REMOVAL, RELOCATION AND/OR DISPOSAL OF PROPOSED DISPOSAL SITES, AND HAUL ROUTES MUST BE APPROVED BY CITY OFFICIALS PRIOR TO REMOVAL OF DEMOLITION DEBRIS OFF-SITE.
- CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH ALL REGULATIONS GOVERNING AGENCIES REGARDING THE DEMOLITION, REMOVAL, TRANSPORTATION AND DISPOSAL OF ALL DEMOLITION DEBRIS.
- INCREASED AND/OR DISPERSED PROPOSED DISPOSAL SITES, AND HAUL ROUTES MUST BE APPROVED BY CITY OFFICIALS PRIOR TO REMOVAL OF DEMOLITION DEBRIS OFF-SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING DISCONNECTION OF ALL UTILITIES SERVING THE EXISTING SITE WITH THE APPROPRIATE UTILITY COMPANY, AND SHALL OBTAIN APPROVAL FROM SAME TO COMMENCE DEMOLITION ACTIVITIES.
- CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS FOR EXCAVATION AND TRENCHING PROCEDURES. CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, ETC. AS NECESSARY FOR THESE OPERATIONS, AND SHALL COMPLY WITH ALL OSHA PERFORMANCE CRITERIA.
- THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL PROPERTY CORNER MONUMENTS, BENCHMARKS, CONTROL POINTS, ETC. AND SHALL HAVE, AT HIS EXPENSE, ALL CORNER MONUMENTS REPLACED WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND REPAIR OF THE EXISTING FENCES TO REMAIN, IRRIGATION SYSTEMS TO REMAIN, UTILITY LINES, ETC. AS OUTLINED IN THE SPECIFICATIONS.
- THE CONTRACTOR SHALL LOCATE, REMOVE, RELOCATE, AND LOWER ALL UNDERGROUND UTILITY CABLES (ELECTRIC, TELEPHONE, ETC.) UP TO A DEPTH OF 24 INCHES BELOW GRADE AS PART OF THE BASE BID.
- THE CONTRACTOR SHALL LOCATE AND REMOVE ALL UNDERGROUND UTILITY PIPING, CONDUIT, AND CABLES, REGARDLESS OF DEPTH, IN THE AREA OF THE PROPOSED BUILDING(S) FOUNDATION.
- NOTES SHOWN HEREON REGARDING SPECIFIC ITEMS OF DEMOLITION ARE GENERAL IN NATURE, AND ARE NOT INTENDED TO BE WHOLLY INCLUSIVE. THE CONTRACTOR SHALL DEMOLISH AND REMOVE ALL EXISTING IMPROVEMENTS TO THE SATISFACTION OF THE OWNER, AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS, AND TO THE EXTENT AS NOTED IN THE SPECIFICATIONS.
- CONTRACTOR SHALL LOCATE AND REMOVE ALL UNDERGROUND UTILITY SERVICE LINES AT EXISTING METER LOCATIONS, CLEANOUTS, ETC. A MIN. DISTANCE OF 1 FOOT OUTSIDE THE LIMITS OF THE TRACT SHOWN.
- THE CONTRACTOR SHALL CREATE AMPLE STAGING AND STOCKPILE AREAS FOR THE DELIVERIES OF CONSTRUCTION MATERIALS, CONCRETE DELIVERIES, TOPSOIL, ETC. IN ACCORDANCE WITH THE OWNER'S REPRESENTATIVE AND THE PROJECT SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND AUTHORIZATIONS. THE CONTRACTOR IS REQUIRED TO FOLLOW ALL LOCAL, STATE, AND FEDERAL GUIDELINES FOR THE CONTAINMENT, REMOVAL, AND DISPOSAL PROCEDURES.
- KE IS NOT RESPONSIBLE FOR THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR TO IMPLEMENT THIS DEMOLITION PLAN. THIS DEMOLITION PLAN SIMPLY INDICATES THE KNOWN OBJECTS ON THE SUBJECT TRACT THAT ARE TO BE DEMOLISHED AND REMOVED FROM THE SITE.
- KE DOES NOT WARRANT OR REPRESENT THAT THE PLAN, WHICH WAS PREPARED BASED ON THE SURVEY AND UTILITY INFORMATION PROVIDED BY OTHERS, SHOWS ALL IMPROVEMENTS AND UTILITIES. THAT THE IMPROVEMENTS AND UTILITIES ARE SHOWN ACCURATELY. THAT UTILITIES SHOWN CAN BE REMOVED. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING HIS OWN SITE RECONNAISSANCE TO SCOPE HIS WORK AND TO CONFIRM WITH THE OWNER OF IMPROVEMENTS AND UTILITIES THE ABILITY AND PROCESS FOR THE REMOVAL OR THEIR FACILITIES.
- THIS DEMOLITION PLAN IS INTENDED TO GIVE GENERAL GUIDANCE TO THE CONTRACTOR, NOTHING MORE. THE GOAL OF THE DEMOLITION IS TO LEAVE THE SITE IN A STATE SUITABLE FOR THE CONSTRUCTION OF THE PROPOSED DEVELOPMENT. REMOVAL OR PRESERVATION OF IMPROVEMENTS, UTILITIES, ETC. TO ACCOMPLISH THIS GOAL ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR IS STRONGLY CAUTIONED TO REVIEW THE FOLLOWING REPORTS DESCRIBING SITE CONDITIONS PRIOR TO BIDDING AND IMPLEMENTING THE DEMOLITION PLAN:
  - 18.1 ENVIRONMENTAL SITE ASSESSMENT PROVIDED BY THE OWNER.
  - 18.2 ASBESTOS BUILDING INSPECTION REPORT(S) PROVIDED BY THE OWNER.
  - 18.3 GEOTECHNICAL REPORT PROVIDED BY THE OWNER.
  - 18.4 OTHER REPORTS THAT ARE APPLICABLE AND AVAILABLE.
- CONTRACTOR SHALL CONTACT THE OWNER TO VERIFY WHETHER ADDITIONAL REPORTS OR AMENDMENTS TO THE ABOVE CITED REPORTS HAVE BEEN PREPARED AND TO OBTAIN THEM PRIOR TO BIDDING.
- CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS REGARDING THE DEMOLITION OF OBJECTS ON THE SITE AND THE DISPOSAL OF THE DEMOLISHED MATERIALS OFF-SITE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REVIEW THE SITE, DETERMINE THE APPLICABLE REGULATIONS, RECEIVE THE REQUIRED PERMITS AND AUTHORIZATIONS, AND COMPLY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF THE PROPOSED DEVELOPMENT. REMOVAL OR PRESERVATION OF IMPROVEMENTS, UTILITIES, ETC. TO ACCOMPLISH THIS GOAL ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- THAT ARE ALSO TO BE REMOVED.

**UTILITY NOTES**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES, WHETHER PRIVATE OR PUBLIC, PRIOR TO MOBILIZATION. CONTRACTOR SHALL VISIT THE SITE AND MAKE ALL NECESSARY OBSERVATIONS AND INSPECTIONS TO FAMILIARIZE THEMSELVES WITH THE SITE AND THE SITE FACILITIES. THE INFORMATION AND DATA SHOWN WITH RESPECT TO EXISTING UNDERGROUND FACILITIES AT OR CONTIGUOUS TO THE SITE IS APPROXIMATE AND BASED ON INFORMATION FURNISHED BY THE OWNERS OF SUCH UNDERGROUND FACILITIES OR ON PHYSICAL APPURTENANCES OBSERVED IN THE FIELD. THE OWNER AND ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY SUCH INFORMATION OR DATA. AND, THE CONTRACTOR, SHALL HAVE FULL RESPONSIBILITY FOR REVIEWING AND CHECKING ALL SUCH INFORMATION AND DATA. FOR LOCATING ALL UNDERGROUND FACILITIES, FOR COORDINATION OF THE WORK WITH THE OWNERS OF SUCH UNDERGROUND FACILITIES DURING CONSTRUCTION, FOR THE SAFETY AND PROTECTION THEREOF, AND REPAIRING ANY DAMAGE THERETO RESULTING FROM THE WORK. THE COST OF ALL WILL BE CONSIDERED AS HAVING BEEN INCLUDED IN THE CONTRACT PRICE.
- CONTRACTOR SHALL, IN BASE BID PROVIDE ALL NECESSARY FITTINGS AND APPURTENANCES REQUIRED TO COMPLETE ALL CONNECTIONS, RESOLVE UTILITY CONFLICTS AND OTHER INCIDENTAL UTILITY WORK SHOWN ON THE PLANS OR CONTAINED IN THE SPECIFICATIONS OR REQUIRED BY GOVERNING AGENCIES TO INCLUDE, BUT NOT LIMITED TO TEMPORARY SERVICES: VALVES, BOXES, METERS, BACKFLOW PREVENTORS, FIRE DEPARTMENT CONNECTIONS INCLUDING THE REPAIR OR REPLACEMENT OF ANY EXISTING IRRIGATION SYSTEM. CONTRACTOR SHALL RAISE/LOWER OR ADJUST ALL EXISTING UTILITY MAINS IN CONFLICT WITH PROPOSED UTILITIES AS PART OF THE BASE BID FOR ALL KNOWN OR UNKNOWN LINES.
- THE CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITY COMPANIES OR AGENCIES IN WRITING AT LEAST 1 WEEK PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAKE ARRANGEMENTS FOR ANY AND ALL TEMPORARY UTILITIES, PERMITS, AND AGREEMENTS.
- THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL GIVE THE CITY, RESIDENTS AND BUSINESSES AFFECTED BY ANY ANTICIPATED WATER OR SEWER SERVICE DISRUPTIONS AT LEAST FORTY-EIGHT (48) HOURS PRIOR NOTICE.
- CONTRACTOR SHALL EXERCISE CAUTION AND MAINTAIN ADEQUATE CLEAR ZONE BETWEEN THE CONTRACTOR'S EQUIPMENT AND ANY POWER LINES.
- THE CONTRACTOR SHALL PREPARE AT ALL EXISTING POWER POLES, SIGNS, MANHOLES, TELEPHONE RISERS, WATER VALVES, ETC. DURING ALL CONSTRUCTION PHASES. CONTRACTOR WILL BE RESPONSIBLE TO REPLACE ANY DAMAGED ITEMS AND RESTORE ANY SERVICES THAT HAVE BEEN DISTURBED. ALL MANHOLES, CLEAN-OUTS, WATER VALVES, FIRE HYDRANTS AND OTHER APPURTENANCES MUST BE ADJUSTED TO FINAL GRADE BEFORE THE OWNER WILL ACCEPT THE WORK.
- THE CONTRACTOR SHALL SALVAGE ALL EXISTING CITY UTILITIES (INCLUDING SIGNS, VALVES, FIRE HYDRANTS, ETC.) IN ACCORDANCE WITH CITY REQUIREMENTS AND PROVIDE THEM TO THE OWNER.
- ALL UTILITIES WITHIN 5' OF PROPOSED BUILDING(S) SHALL ADHERE TO THE MEP'S RECOMMENDATIONS AND OR REQUIREMENTS. CONTRACTOR SHALL PROVIDE STORM DRAIN CONNECTIONS FOR ALL ROOF DRAIN LINES. REFER TO MEP'S PLANS AND RELATED TECHNICAL SPECIFICATIONS. CIVIL UTILITIES (WATER, SANITARY SEWER & STORM SEWER) LIMITS BEGIN 5' OUTSIDE THE BUILDING. IN THE EVENT OF A CONFLICT WITH THE MEP'S WITHIN THIS AREA, THE MEP'S REQUIREMENTS SHALL GOVERN.
- TESTING OF UTILITY TRENCH BACKFILL COMPACTION SHALL BE AT 75' INTERVALS AND EACH LIFTS BACKFILL UNLESS OTHERWISE DEFINED IN THE GEOTECHNICAL REPORT FOR THIS PROJECT. BACKFILL SHALL BE PROCESSED SUCH THAT NO DIRT CLOSERS ARE IN EXCESS OF 4" DIAMETER. ALL SANITARY SEWER LINES AND STORM SEWER LINES SHALL BE TV TESTED AT THE COMPLETION OF THE PROJECT (IN ADDITION TO MINIMUM CODE OR OTHER REQUIREMENTS) TO CHECK FOR DAMAGE CAUSED BY OTHER TRADES, UTILITY CONFLICTS, TRENCH SETTLEMENT, ETC. THE COST OF SUCH SHALL BE INCLUDED IN THE CONTRACTORS BASE PRICE.

**STANDARD ABBREVIATIONS:**

APPROX	APPROXIMATELY	LT	LEFT
ASPH	ASPHALT	MBC	MULTIPLE BOX CULVERT
BE	BACK OF CURB	ME	MATCH EXISTING
B-B	BACK TO BACK OF CURB	MH	MANHOLE
BR	BARRIER FREE RAMPS	NA	NOT APPLICABLE
BFR	BARRIER	NC	NATURAL GROUND (EXISTING)
CF	CURB FACE	PC	POINT OF CURVATURE
CATV	CABLE TV	PCC	POINT OF COMPOUND CURVATURE
CFS	CUBIC FEET PER SECOND	PI	POINT OF INTERSECTION
CI	CURB INLET	PV	

Existing and proposed ponds shall be analyzed using a computational model for detention analysis. HEC-HMS is recommended.

Lake Ray Roberts has a flowage easement at elevation 645.5 ft. Please show on plans

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AUSTIN LANDS, LLC 803 W SOUTHLAKE BLVD, SUITE 100 SOUTHLAKE, TX 76092 312-206-8673

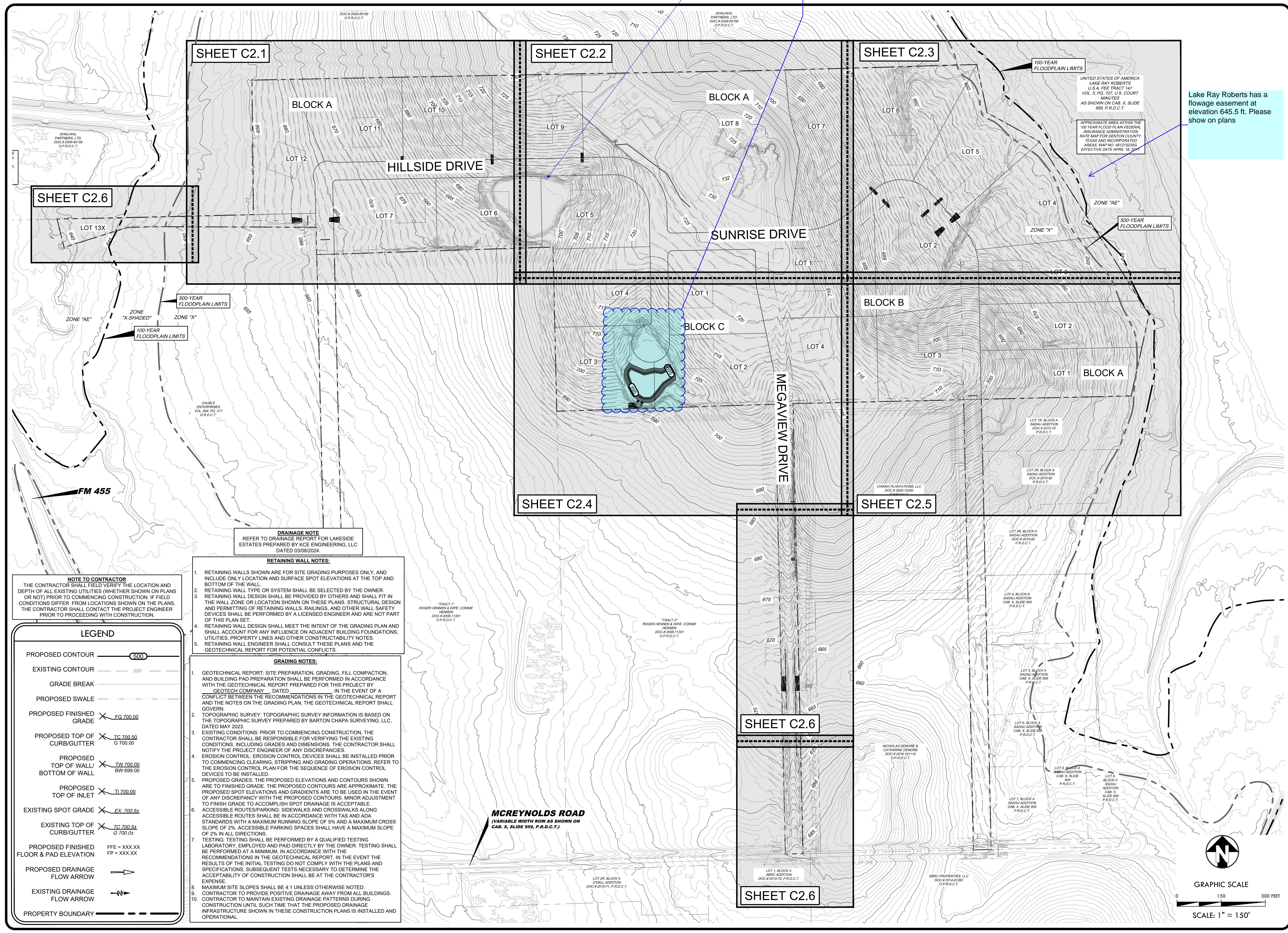
LAKESIDE ESTATES TRACTS 1 & 2 (68.0 AC.) C. MANCHACA SURVEY ABS. NO. 790 CITY OF SANGER ETJ DENTON COUNTY, TEXAS

Table with columns: REV., DATE, DESCRIPTION. It is currently empty.

Kirkman Engineering logo and address: KIRKMAN ENGINEERING, LLC 5200 STATE HIGHWAY 121 COLLEYVILLE, TX 76034 TEXAS FIRM NO. 15874

JOB NUMBER: SR322002 ISSUE DATE: 03/13/2024

OVERALL GRADING PLAN SHEET: C2.0



DRAINAGE NOTE REFER TO DRAINAGE REPORT FOR LAKESIDE ESTATES PREPARED BY KCE ENGINEERING, LLC DATED 03/08/2024.

- RETAINING WALL NOTES: 1. RETAINING WALLS SHOWN ARE FOR SITE GRADING PURPOSES ONLY... 2. RETAINING WALL TYPE OR SYSTEM SHALL BE SELECTED BY THE OWNER... 3. RETAINING WALL DESIGN SHALL BE PROVIDED BY OTHERS... 4. RETAINING WALL DESIGN SHALL MEET THE INTENT OF THE GRADING PLAN... 5. RETAINING WALL ENGINEER SHALL CONSULT THESE PLANS...

- GRADING NOTES: 1. GEOTECHNICAL REPORT: SITE PREPARATION, GRADING, FILL COMPACTION... 2. TOPOGRAPHIC SURVEY: TOPOGRAPHIC SURVEY INFORMATION IS BASED ON... 3. EXISTING CONDITIONS: PRIOR TO COMMENCING CONSTRUCTION... 4. EROSION CONTROL: EROSION CONTROL DEVICES SHALL BE INSTALLED... 5. PROPOSED GRADES: THE PROPOSED ELEVATIONS AND CONTOURS... 6. ACCESSIBLE ROUTES/PARKING: SIDEWALKS AND CROSSWALKS... 7. TESTING: TESTING SHALL BE PERFORMED BY A QUALIFIED TESTING... 8. MAXIMUM SITE SLOPES SHALL BE 4:1 UNLESS OTHERWISE NOTED... 9. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS... 10. CONTRACTOR TO MAINTAIN EXISTING DRAINAGE PATTERNS DURING CONSTRUCTION...

NOTE TO CONTRACTOR THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES... PRIOR TO COMMENCING CONSTRUCTION...

LEGEND: PROPOSED CONTOUR (500), EXISTING CONTOUR (500), GRADE BREAK, PROPOSED SWALE, PROPOSED FINISHED GRADE (EG 700.00), PROPOSED TOP OF CURB/GUTTER (TC 700.50, G 700.00), PROPOSED TOP OF WALL/BOTTOM OF WALL (TW 700.00, BW 699.00), PROPOSED TOP OF INLET (TI 700.00), EXISTING SPOT GRADE (EX 700.5), EXISTING TOP OF CURB/GUTTER (TC 700.5, G 700.0), PROPOSED FINISHED FLOOR & PAD ELEVATION (FFE = XXX.XX, FP = XXX.XX), PROPOSED DRAINAGE FLOW ARROW, EXISTING DRAINAGE FLOW ARROW, PROPERTY BOUNDARY

FILE PATH: K:\Users\j232302... PLOT DATE: 3/13/2024

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AUSTIN LANDS, LLC

803 W SOUTHLAKE BLVD, SUITE 100 SOUTHLAKE, TX 76092 312-206-8673

LAKESIDE ESTATES TRACTS 1 & 2 (68.0 AC.) C. MANCHACA SURVEY ABS. NO. 790 CITY OF SANGER ETJ DENTON COUNTY, TEXAS

Table with 2 columns: REV, DATE, DESCRIPTION



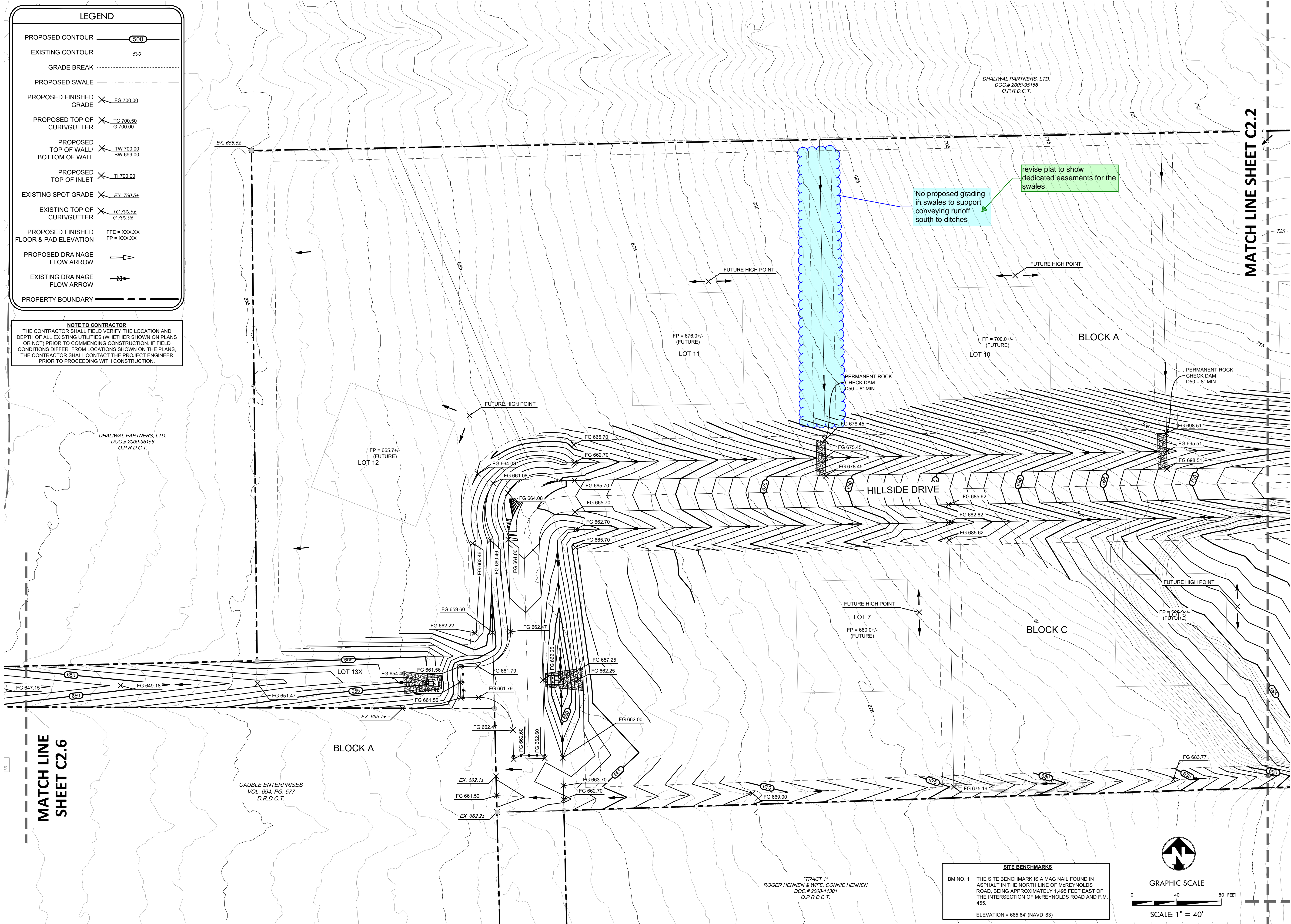
KIRKMAN ENGINEERING, LLC 5200 STATE HIGHWAY 121 COLLEVILLE, TX 76034 TEXAS FIRM NO. 15874

JOB NUMBER: SR322002 ISSUE DATE: 03/13/2024

LOT GRADING PLAN

SHEET:

C2.1

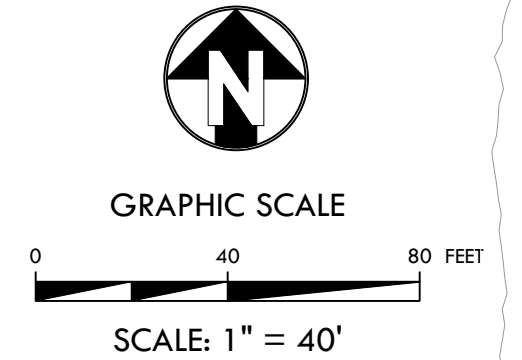


LEGEND: PROPOSED CONTOUR (500), EXISTING CONTOUR (500), GRADE BREAK, PROPOSED SWALE, PROPOSED FINISHED GRADE (FG 700.00), PROPOSED TOP OF CURB/GUTTER (TC 700.50, G 700.00), PROPOSED TOP OF WALL/BOTTOM OF WALL (TW 700.00, BW 699.00), PROPOSED TOP OF INLET (TI 700.00), EXISTING SPOT GRADE (EX 700.5±), EXISTING TOP OF CURB/GUTTER (TC 700.5±, G 700.0±), PROPOSED FINISHED FLOOR & PAD ELEVATION (FFE = XXX.XX, FP = XXX.XX), PROPOSED DRAINAGE FLOW ARROW, EXISTING DRAINAGE FLOW ARROW, PROPERTY BOUNDARY

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FILE PATH: K:\bbs\322002\322002\_sanger\dwg\322002\_sanger\322002.dwg... PLOTTED BY: JEREMY B. NELSON PLOTTED DATE: 3/13/2024

SITE BENCHMARKS: BM NO. 1 THE SITE BENCHMARK IS A MAG NAIL FOUND IN ASPHALT IN THE NORTH LINE OF McREYNOLDS ROAD, BEING APPROXIMATELY 1,495 FEET EAST OF THE INTERSECTION OF McREYNOLDS ROAD AND F.M. 455. ELEVATION = 685.64' (NAVD '83)



TRACT 1" ROGER HENNEN & WIFE, CONNIE HENNEN DOC# 2008-11301 O.P.R.D.C.T.

DHALIWAL PARTNERS, LTD. DOC# 2009-95156 O.P.R.D.C.T.

CAUBLE ENTERPRISES VOL. 694, PG. 577 D.R.D.C.T.

MATCH LINE SHEET C2.6

MATCH LINE SHEET C2.2

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AUSTIN LANDS, LLC

803 W SOUTHLAKE BLVD, SUITE 100 SOUTHLAKE, TX 76092 312-206-8673

LAKESIDE ESTATES TRACTS 1 & 2 (68.0 AC.) C. MANCHACA SURVEY ABS. NO. 790 CITY OF SANGER ETJ DENTON COUNTY, TEXAS

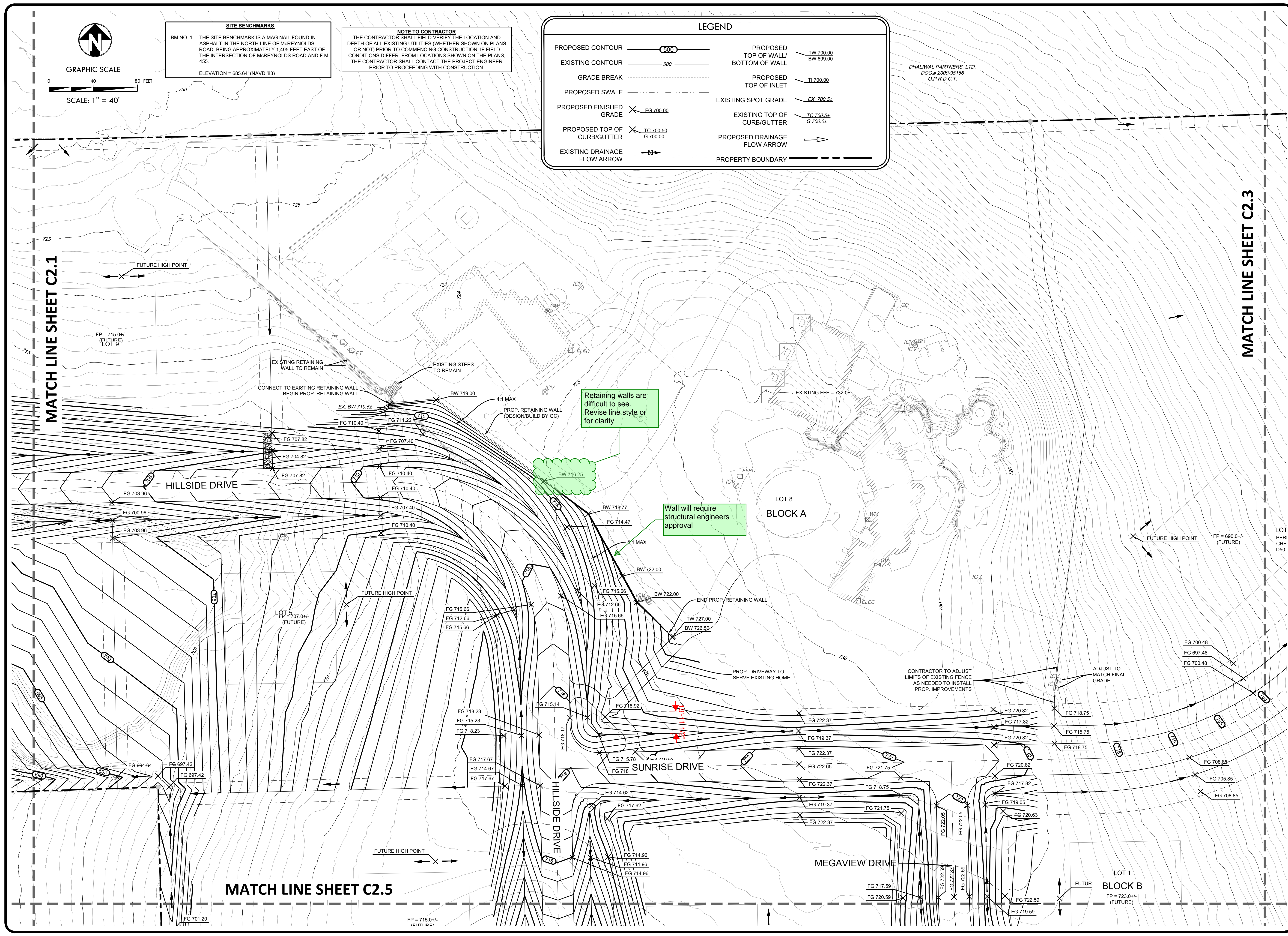
Table with 2 columns: REV, DATE. Description: LOT GRADING PLAN

Kirkman Engineering logo and address: 5200 STATE HIGHWAY 121 COLLEYVILLE, TX 76034 TEXAS FIRM NO. 15874

JOB NUMBER: SR322002 ISSUE DATE: 03/13/2024

LOT GRADING PLAN SHEET: C2.2

SHEET: C2.2



SITE BENCHMARKS: BM NO. 1 THE SITE BENCHMARK IS A MAG NAIL FOUND IN ASPHALT IN THE NORTH LINE OF McREYNOLDS ROAD...

NOTE TO CONTRACTOR: THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES...

LEGEND table with symbols for proposed and existing contours, swales, grades, and drainage.

DHALWAL PARTNERS, LTD. DOC # 2019-95156 O.P.R.D.C.T.

Retaining walls are difficult to see. Revise line style or for clarity

Wall will require structural engineers approval

Vertical text on the left edge containing file paths and dates.

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803 W SOUTHLAKE BLVD, SUITE 100 SOUTHLAKE, TX 76092 312-206-8673

LAKESIDE ESTATES TRACTS 1 & 2 (68.0 AC.) C. MANCHACA SURVEY ABS. NO. 790 CITY OF SANGER ETJ DENTON COUNTY, TEXAS

REV.	DATE	DESCRIPTION

**KE**  
kirkman  
ENGINEERING

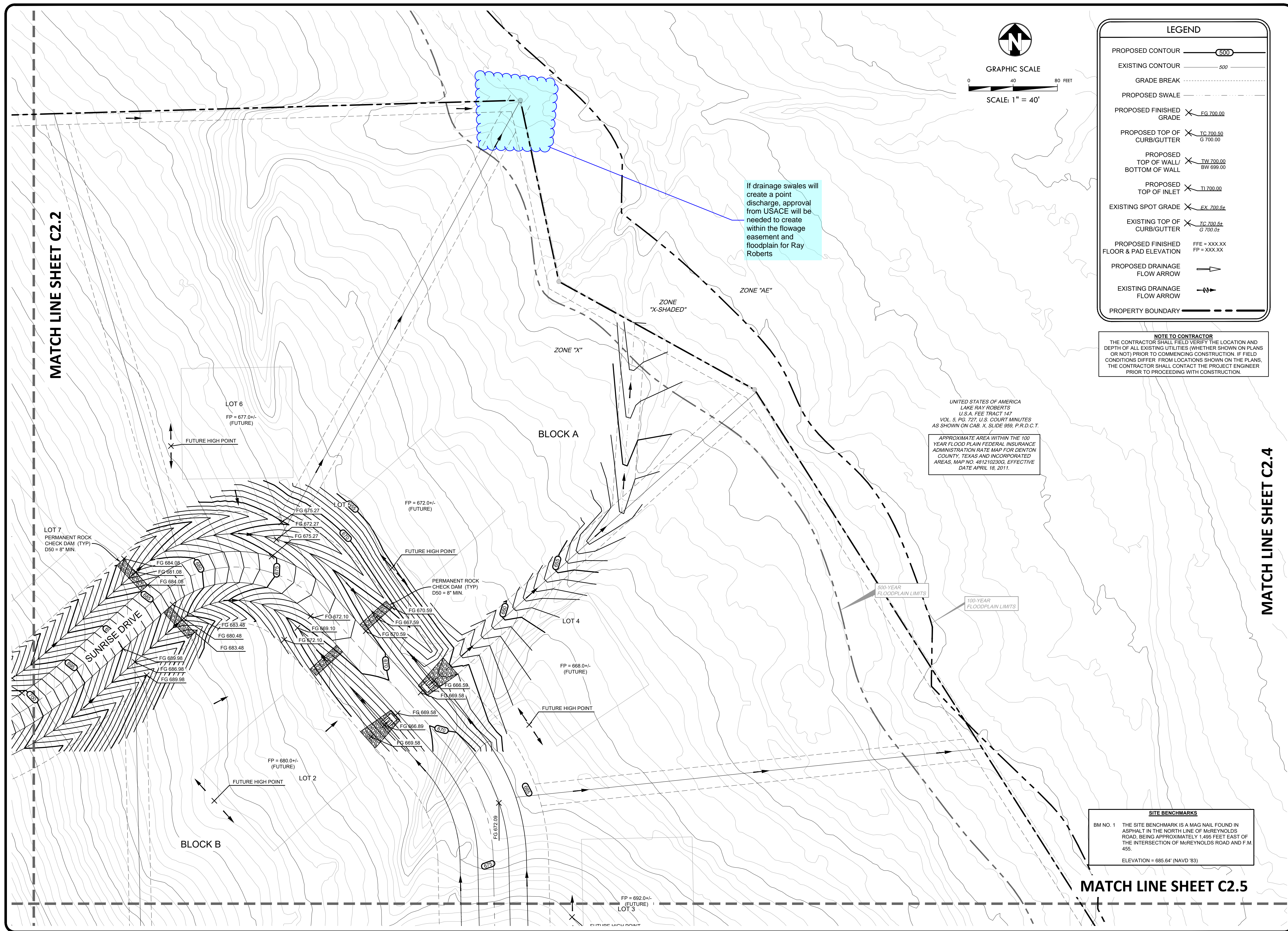
KIRKMAN ENGINEERING, LLC  
5200 STATE HIGHWAY 121  
COLLEYVILLE, TX 76034  
TEXAS FIRM NO. 15874

JOB NUMBER: SR322002  
ISSUE DATE: 03/13/2024

LOT GRADING PLAN

SHEET:

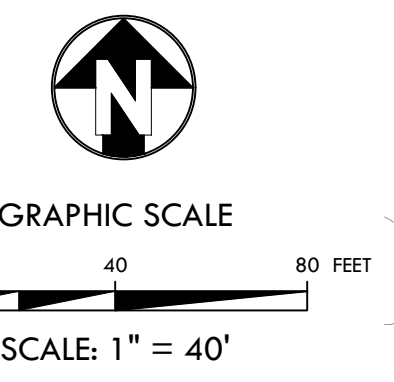
C2.3



MATCH LINE SHEET C2.2

MATCH LINE SHEET C2.4

MATCH LINE SHEET C2.5



LEGEND	
PROPOSED CONTOUR	500
EXISTING CONTOUR	500
GRADE BREAK	- - - - -
PROPOSED SWALE	- - - - -
PROPOSED FINISHED GRADE	X FG 700.00
PROPOSED TOP OF CURB/GUTTER	X TC 700.50 G 700.00
PROPOSED TOP OF WALL/ BOTTOM OF WALL	X TW 700.00 BW 699.00
PROPOSED TOP OF INLET	X TI 700.00
EXISTING SPOT GRADE	X EX 700.5+
EXISTING TOP OF CURB/GUTTER	X TC 700.5+ G 700.0+
PROPOSED FINISHED FLOOR & PAD ELEVATION	FFE = XXX.XX FP = XXX.XX
PROPOSED DRAINAGE FLOW ARROW	→
EXISTING DRAINAGE FLOW ARROW	→
PROPERTY BOUNDARY	- - - - -

**NOTE TO CONTRACTOR**  
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UNITED STATES OF AMERICA  
LAKE RAY ROBERTS  
U.S.A. FEE TRACT 147  
VOL. 5, PG. 727, U.S. COURT MINUTES  
AS SHOWN ON CAB. X, SLIDE 959, P.R.D.C.T.

APPROXIMATE AREA WITHIN THE 100 YEAR FLOOD PLAIN FEDERAL INSURANCE ADMINISTRATION RATE MAP FOR DENTON COUNTY, TEXAS AND INCORPORATED AREAS, MAP NO. 491210230G, EFFECTIVE DATE APRIL 18, 2011.

If drainage swales will create a point discharge, approval from USACE will be needed to create within the flowage easement and floodplain for Ray Roberts

FULL PATH: K:\bbs\322002\_sanger\dwg\c2\c2.3.dwg - Product: K:\bbs\322002\_sanger\dwg\c2\c2.3.dwg  
 PLOT DATE: 03/13/2024  
 PLOTTED BY: JEREMY B. NELSON  
 PLOTTED DATE: 03/13/2024

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LAKESIDE ESTATES TRACTS 1 & 2 (68.0 AC.) C. MANCHACA SURVEY ABS. NO. 790 CITY OF SANGER ETJ DENTON COUNTY, TEXAS

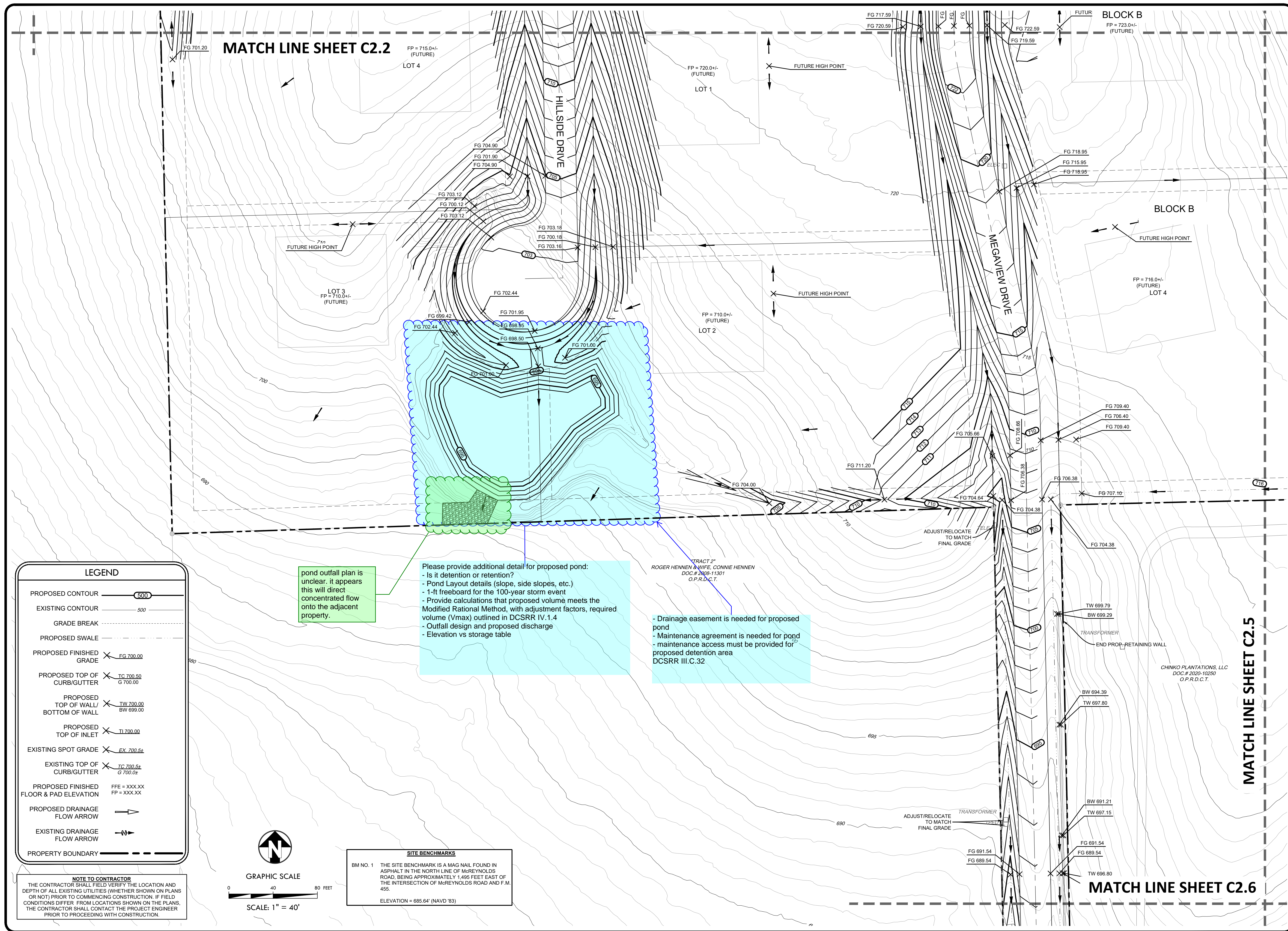
Table with columns for REV, DATE, and DESCRIPTION.

Kirkman Engineering, LLC 5200 STATE HIGHWAY 121 COLLEYVILLE, TX 76034 TEXAS FIRM NO. 15874

JOB NUMBER: SR322002 ISSUE DATE: 03/13/2024

LOT GRADING PLAN

SHEET: C2.4



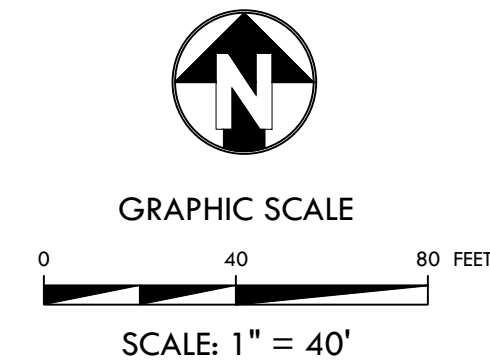
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pond outfall plan is unclear, it appears this will direct concentrated flow onto the adjacent property.

Please provide additional detail for proposed pond: Is it detention or retention? Pond Layout details (slope, side slopes, etc.) 1-ft freeboard for the 100-year storm event Provide calculations that proposed volume meets the Modified Rational Method, with adjustment factors, required volume (Vmax) outlined in DCSRR IV.1.4 Outfall design and proposed discharge Elevation vs storage table

- Drainage easement is needed for proposed pond - Maintenance agreement is needed for pond - maintenance access must be provided for proposed detention area DCSRR III.C.32

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SITE BENCHMARKS BM NO. 1 THE SITE BENCHMARK IS A MAG NAIL FOUND IN ASPHALT IN THE NORTH LINE OF McREYNOLDS ROAD, BEING APPROXIMATELY 1.485 FEET EAST OF THE INTERSECTION OF McREYNOLDS ROAD AND F.M. 455. ELEVATION = 685.64' (NAVD '83)

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LAKESIDE ESTATES TRACTS 1 & 2 (68.0 AC.) C. MANCHACA SURVEY ABS. NO. 790 CITY OF SANGER ETJ DENTON COUNTY, TEXAS

REV.	DATE	DESCRIPTION

**KE**  
kirkman  
ENGINEERING

KIRKMAN ENGINEERING, LLC  
5200 STATE HIGHWAY 121  
COLLEYVILLE, TX 76034  
TEXAS FIRM NO. 15874

JOB NUMBER: SR322002  
ISSUE DATE: 03/13/2024

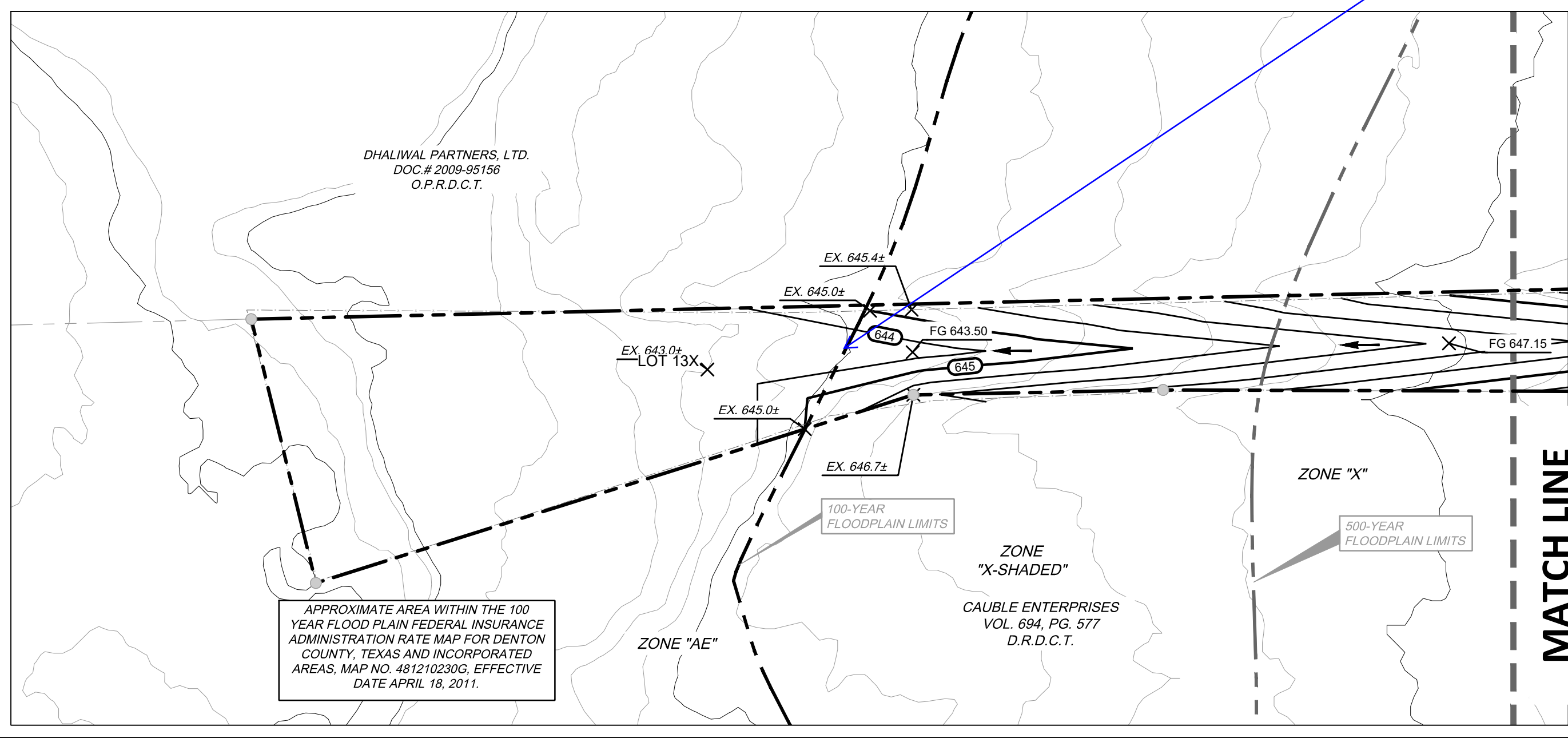
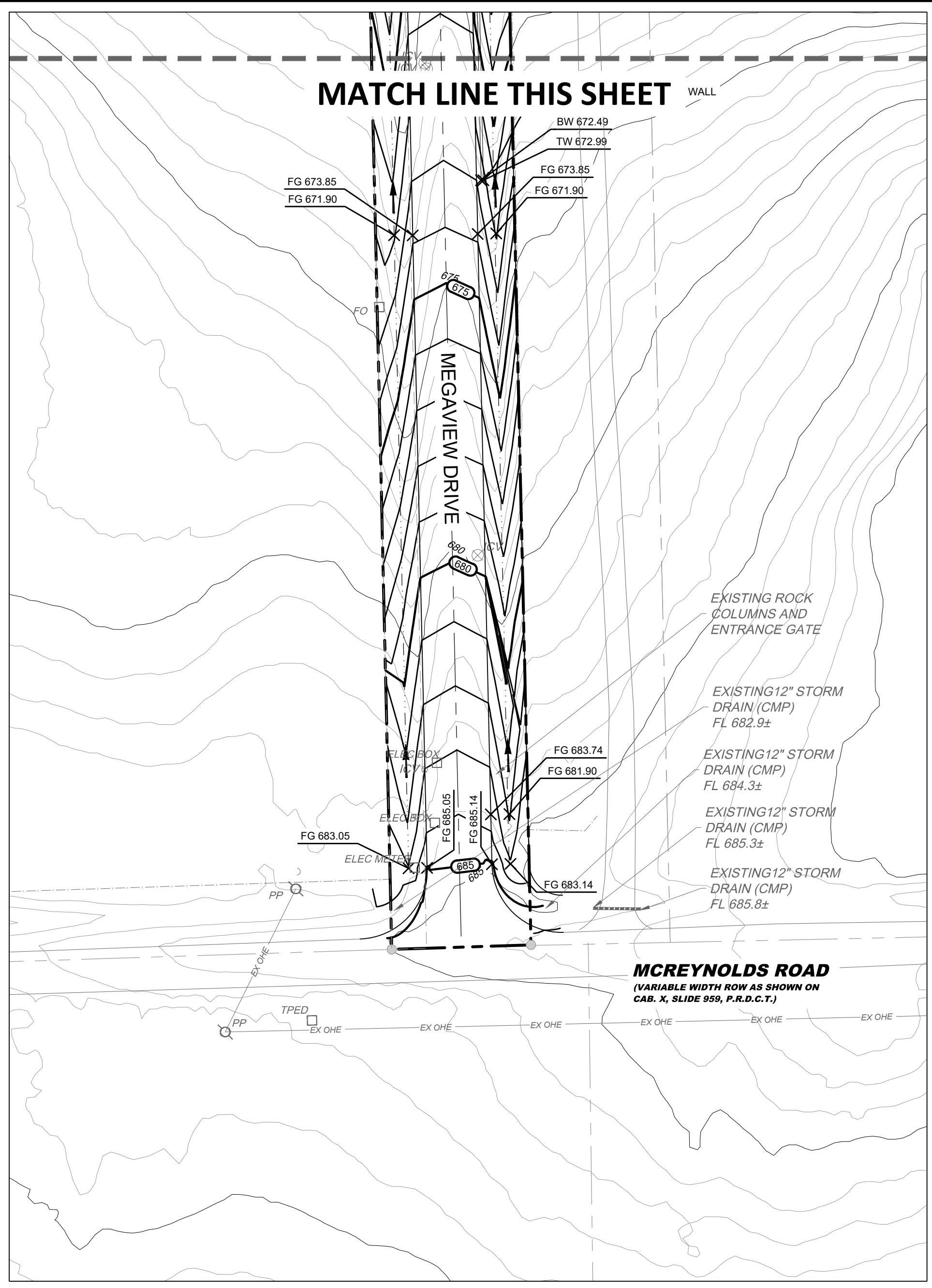
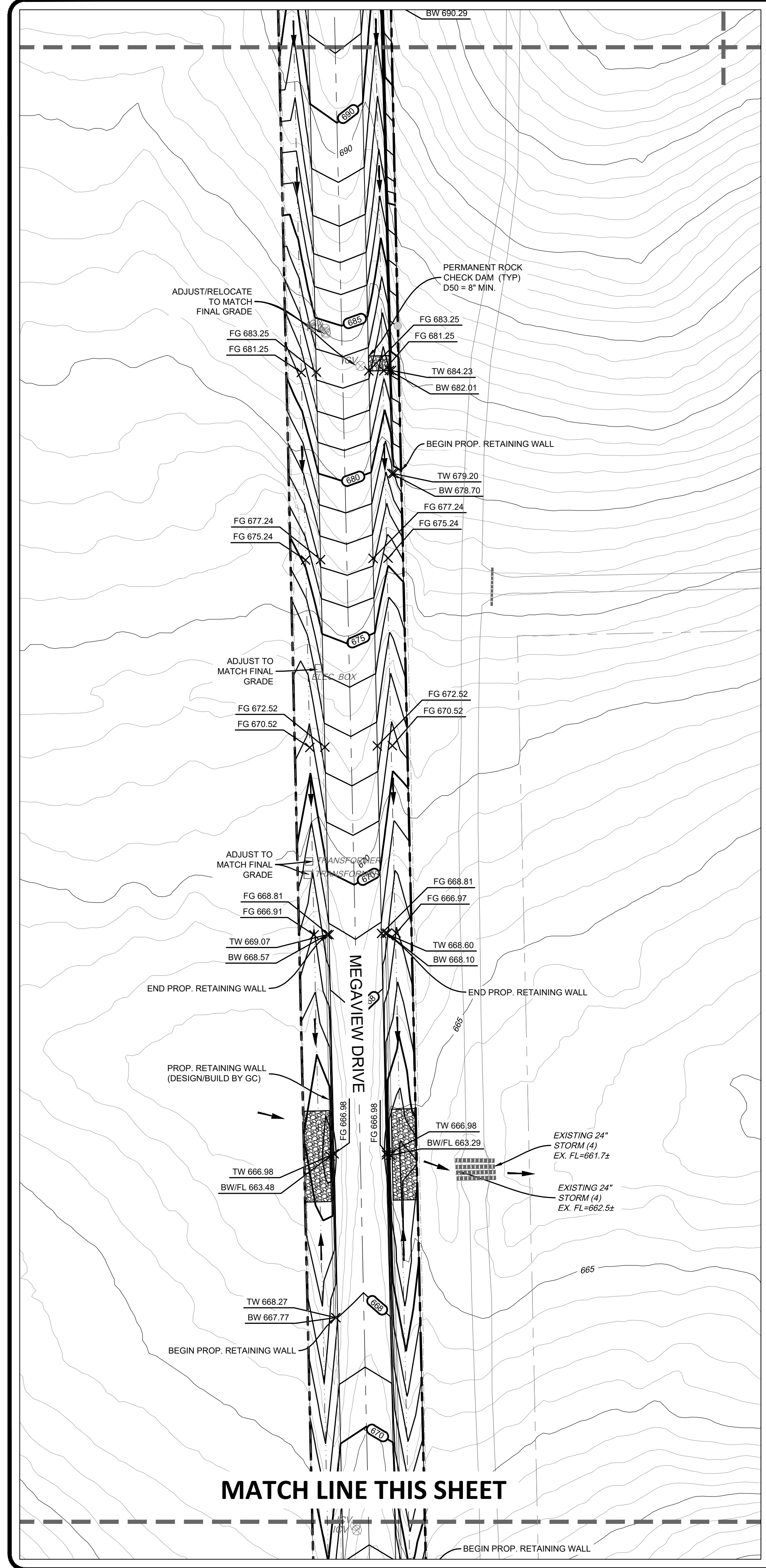
LOT GRADING PLAN

SHEET:

C2.5



FILE PATH: K:\bbs\232002\_sanger\dwg\c2.5.dwg - Product: K:\bbs\232002\_sanger\dwg\c2.5.dwg - Plot Date: 03/13/2024  
PLOT DATE: 03/13/2024  
PLOTTER: HP DesignJet 2550  
PLOT SCALE: 1" = 40'



**LEGEND**

PROPOSED CONTOUR — 500

EXISTING CONTOUR — 500

GRADE BREAK - - - - -

PROPOSED SWALE - - - - -

PROPOSED FINISHED GRADE  $\times$  FG 700.00

PROPOSED TOP OF CURB/GUTTER  $\times$  TC 700.50  
G 700.00

PROPOSED TOP OF WALL  $\times$  TW 700.00  
BOTTOM OF WALL BW 699.00

PROPOSED TOP OF INLET  $\times$  TI 700.00

EXISTING SPOT GRADE  $\times$  EX 700.5±

EXISTING TOP OF CURB/GUTTER  $\times$  TC 700.5±  
G 700.0±

PROPOSED FINISHED FLOOR & PAD ELEVATION FFE = XXX.XX  
FP = XXX.XX

PROPOSED DRAINAGE FLOW ARROW →

EXISTING DRAINAGE FLOW ARROW →

PROPERTY BOUNDARY - - - - -

**NOTE TO CONTRACTOR**  
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**SITE BENCHMARKS**  
BM NO. 1 THE SITE BENCHMARK IS A MAG NAIL FOUND IN ASPHALT IN THE NORTH LINE OF McREYNOLDS ROAD, BEING APPROXIMATELY 1.485 FEET EAST OF THE INTERSECTION OF McREYNOLDS ROAD AND F.M. 455.  
ELEVATION = 685.64' (NAVD '83)

The proposed increase in runoff will impact private property. This is not allowed (DCSRR IV.B). Please provide mitigation to reduce flows back to or less than existing or revise drainage to prevent increases onto private property.

PRELIMINARY FOR REVIEW ONLY THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND NOT INTENDED FOR THE PURPOSES OF CONSTRUCTION, BIDDING OR PERMIT. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF:  
**JEREMY B. NELSON**  
P.E.# 138740  
DATE: 03/13/2024

**AUSTIN LANDS, LLC**  
803 W SOUTHLAKE BLVD, SUITE 100  
SOUTHLAKE, TX 76092  
312-206-8673

**LAKESIDE ESTATES TRACTS 1 & 2**  
(68.0 AC.)  
**C. MANCHACA SURVEY**  
ABS. NO. 790  
CITY OF SANGER ETJ  
DENTON COUNTY, TEXAS

REV.	DATE	DESCRIPTION

**Kirkman Engineering**  
KIRKMAN ENGINEERING, LLC  
5200 STATE HIGHWAY 121  
COLLEYVILLE, TX 76034  
TEXAS FIRM NO. 15874  
JOB NUMBER: SR322002  
ISSUE DATE: 03/13/2024

**LOT GRADING PLAN**  
SHEET:  
**C2.6**

FILE PATH: K:\bbs\322002\_sanger\dwg\322002\_sanger\lotgrading\02\_fer\14603 - Production\322002\_PAL\_032324.dwg  
PLOT DATE: 03/13/2024  
PLOTTER: CALCOMP PLAN, 600x300.dwg  
PLOTTER BY: JEREMY B. NELSON  
PLOT DATE: 03/13/2024

**LEGEND**

PROPOSED REINF. CONCRETE

EXISTING ASPHALT PAVEMENT

PROPERTY BOUNDARY

HIGHPOINT — HP —

LOWPOINT — LP —

DRAINAGE FLOW DIRECTION

**SITE BENCHMARKS**

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- PAVING NOTES**
- PAVING RECOMMENDATIONS ARE MADE BY XXX REPORT No. XXX DATED XXX 2022.
  - CONTRACTOR SHALL OBTAIN A COPY OF SAID GEOTECHNICAL ENGINEERING REPORT AND FAMILIARIZE THEMSELVES PRIOR TO BIDDING AND CONSTRUCTING THE IMPROVEMENTS OF THE PROJECT.
  - ALL PROPOSED "PUBLIC" PAVEMENT TO BE PER THE CITY OF SANGER STAND RDS & SPECIFICATIONS.
  - REFER TO SHEET C6.0 FOR PAVING DETAILS.

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**AUSTIN LANDS, LLC**

803 W SOUTHLAKE BLVD, SUITE 100  
SOUTHLAKE, TX 76092  
312-206-8673

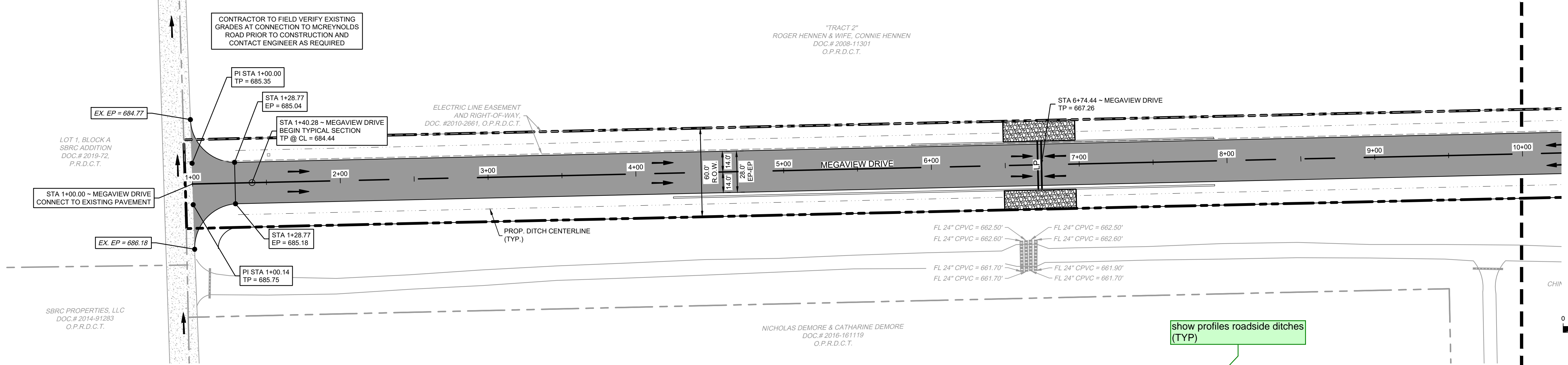
**LAKESIDE ESTATES**  
TRACTS 1 & 2  
(68.0 AC.)  
C. MANCHACA SURVEY  
ABS. NO. 790  
CITY OF SANGER ETJ  
DENTON COUNTY, TEXAS

**MCREYNOLDS ROAD**  
(VARIABLE WIDTH ROW AS SHOWN ON CAB. X, SLIDE 959, P.R.D.C.T.)

CONTRACTOR TO FIELD VERIFY EXISTING GRADES AT CONNECTION TO McREYNOLDS ROAD PRIOR TO CONSTRUCTION AND CONTACT ENGINEER AS REQUIRED

"TRACT 2"  
ROGER HENNING & WIFE, CONNIE HENNING  
DOC.# 2008-11301  
O.P.R.D.C.T.

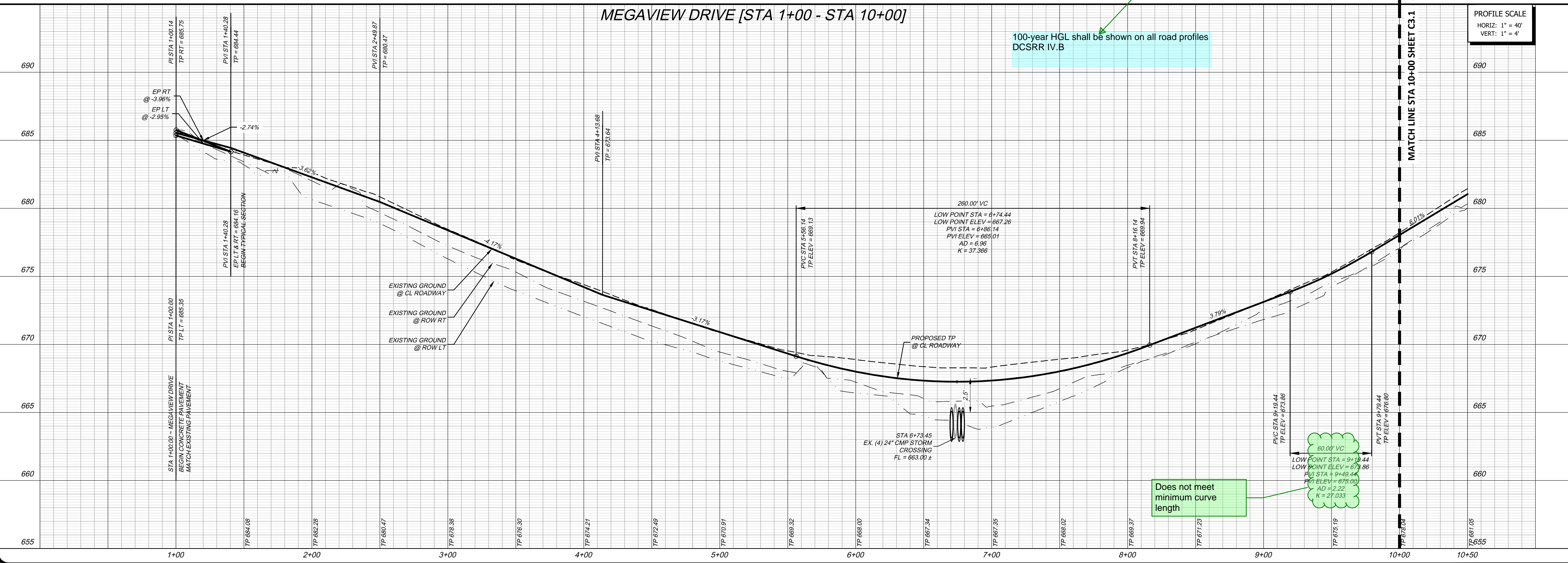
NICHOLAS DEMORE & CATHARINE DEMORE  
DOC.# 2016-16119  
O.P.R.D.C.T.



show profiles roadside ditches (TYP)

100-year HGL shall be shown on all road profiles DCSRR IV.B

**MEGAVIEW DRIVE [STA 1+00 - STA 10+00]**



REV.	DATE	DESCRIPTION

**KE**  
kirkman  
ENGINEERING

KIRKMAN ENGINEERING, LLC  
5200 STATE HIGHWAY 121  
COLLEYVILLE, TX 76034  
TEXAS FIRM NO. 15874

JOB NUMBER: SR322002  
ISSUE DATE: 03/13/2024

**MEGAVIEW DRIVE**  
PLAN & PROFILE  
STA 1+00 TO 10+00

SHEET:  
**C3.0**

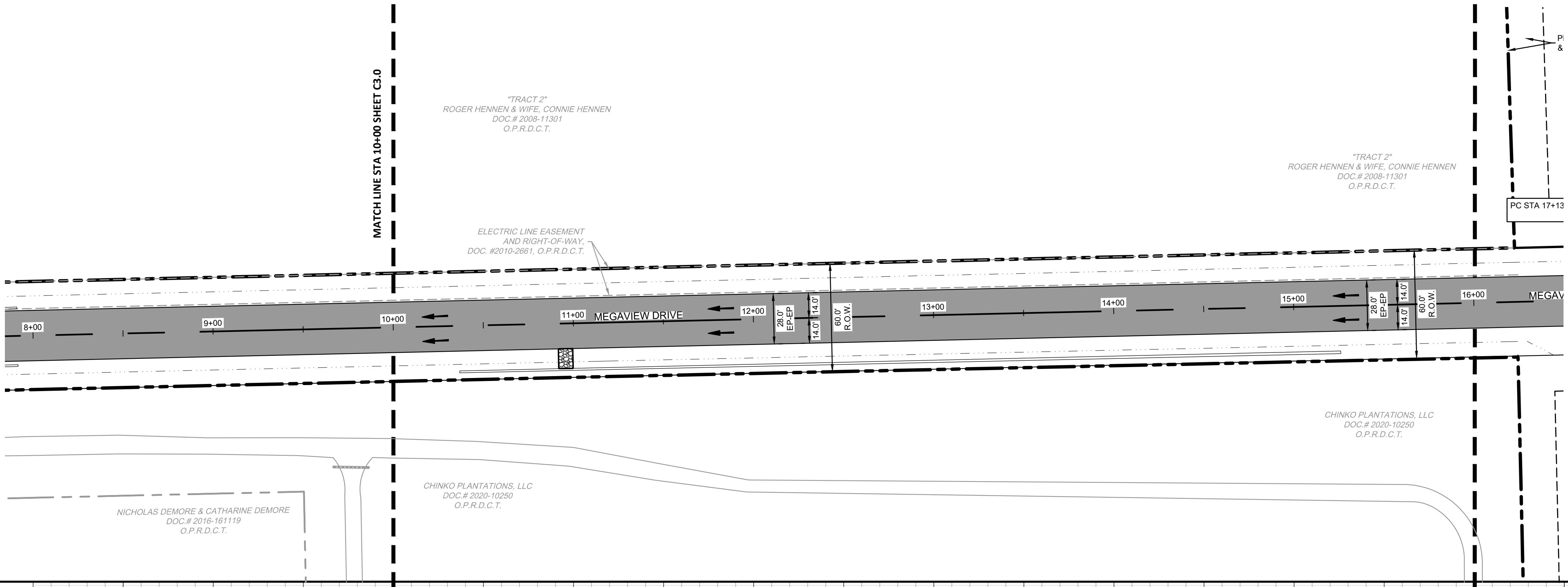
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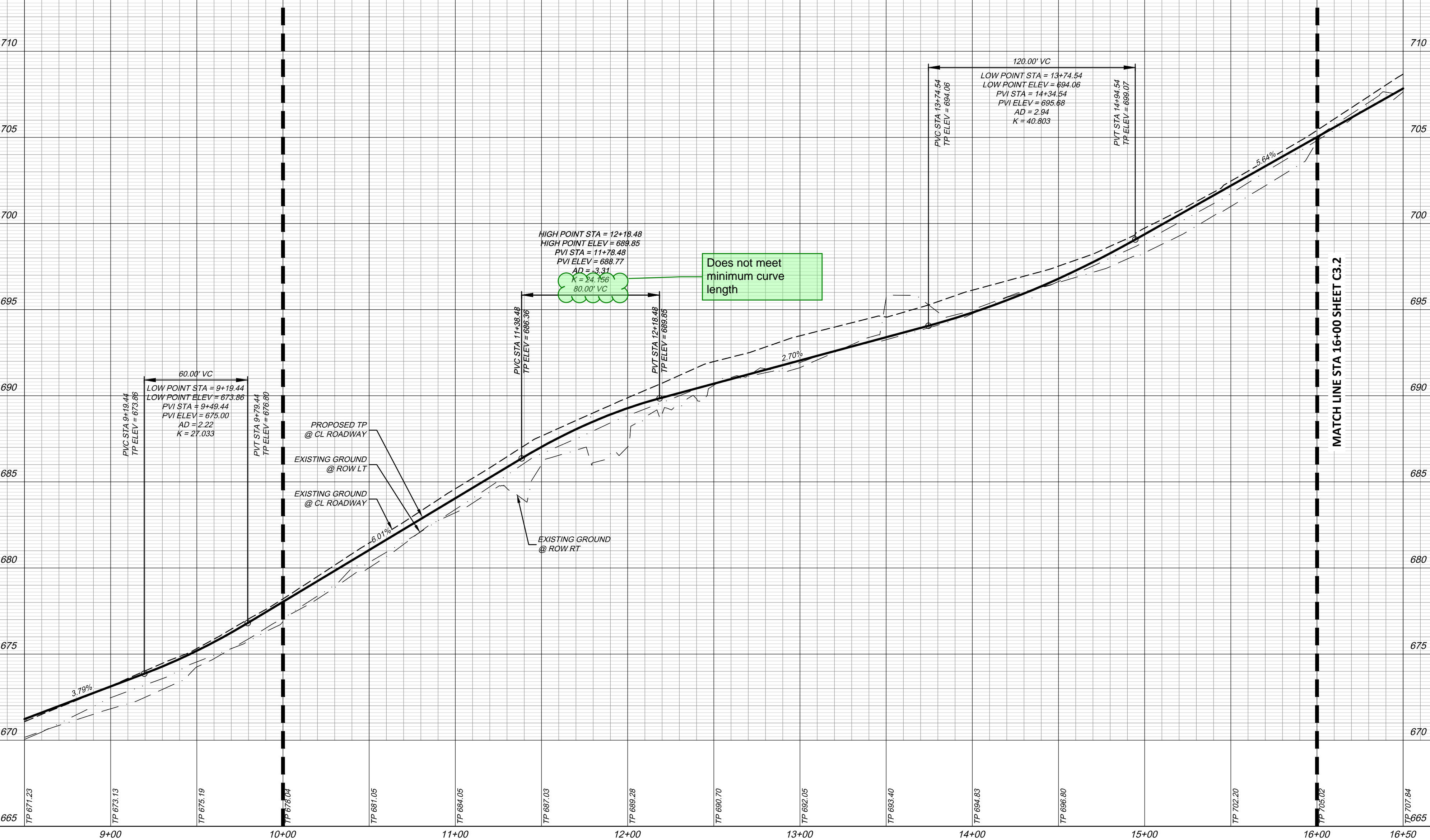
**AUSTIN LANDS, LLC**

803 W SOUTHLAKE BLVD, SUITE 100  
 SOUTHLAKE, TX 76092  
 312-206-8673

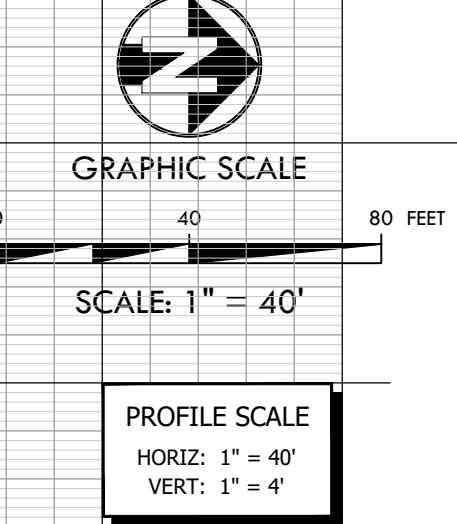
**LAKESIDE ESTATES**  
 TRACTS 1 & 2  
 (68.0 AC.)  
 C. MANCHACA SURVEY  
 ABS. NO. 790  
 CITY OF SANGER ETJ  
 DENTON COUNTY, TEXAS



**MEGAVIEW DRIVE [STA 8+50 - STA 16+50]**



Does not meet minimum curve length



REV.	DATE	DESCRIPTION

**KE**  
**kirkman**  
 ENGINEERING  
 KIRKMAN ENGINEERING, LLC  
 5200 STATE HIGHWAY 121  
 COLLEYVILLE, TX 76034  
 TEXAS FIRM NO. 15874

JOB NUMBER: SR322002  
 ISSUE DATE: 03/13/2024

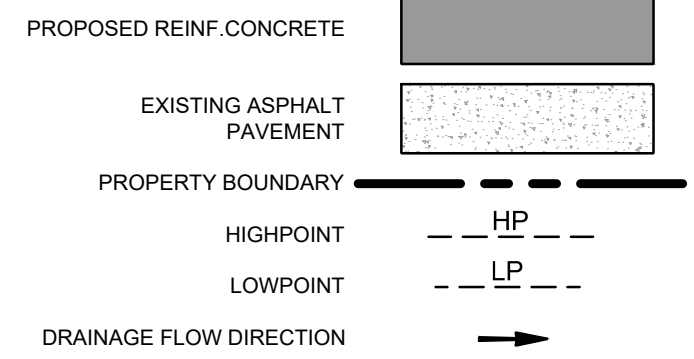
**MEGAVIEW DRIVE**  
**PLAN & PROFILE**  
**STA 8+50 TO 16+50**

SHEET:  
**C3.1**

**PAVING NOTES**

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**LEGEND**



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**SITE BENCHMARKS**

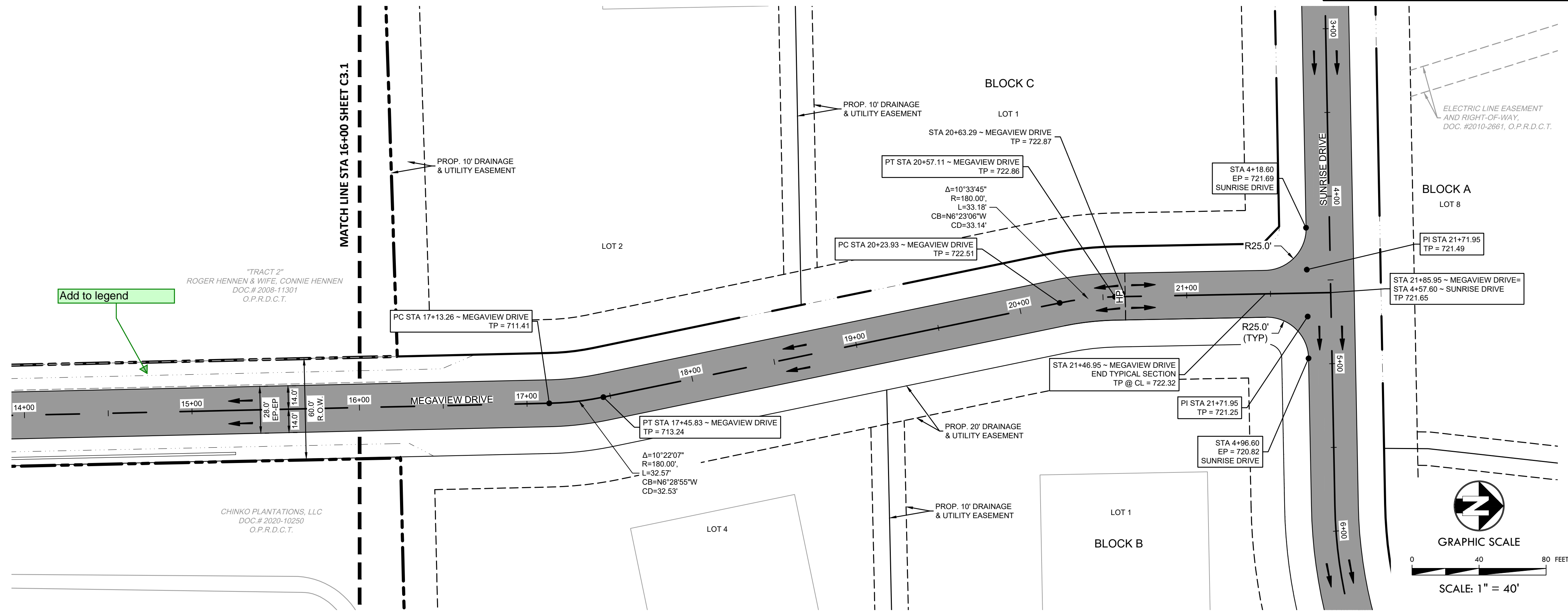
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JEREMY B. NELSON  
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DATE: 03/13/2024

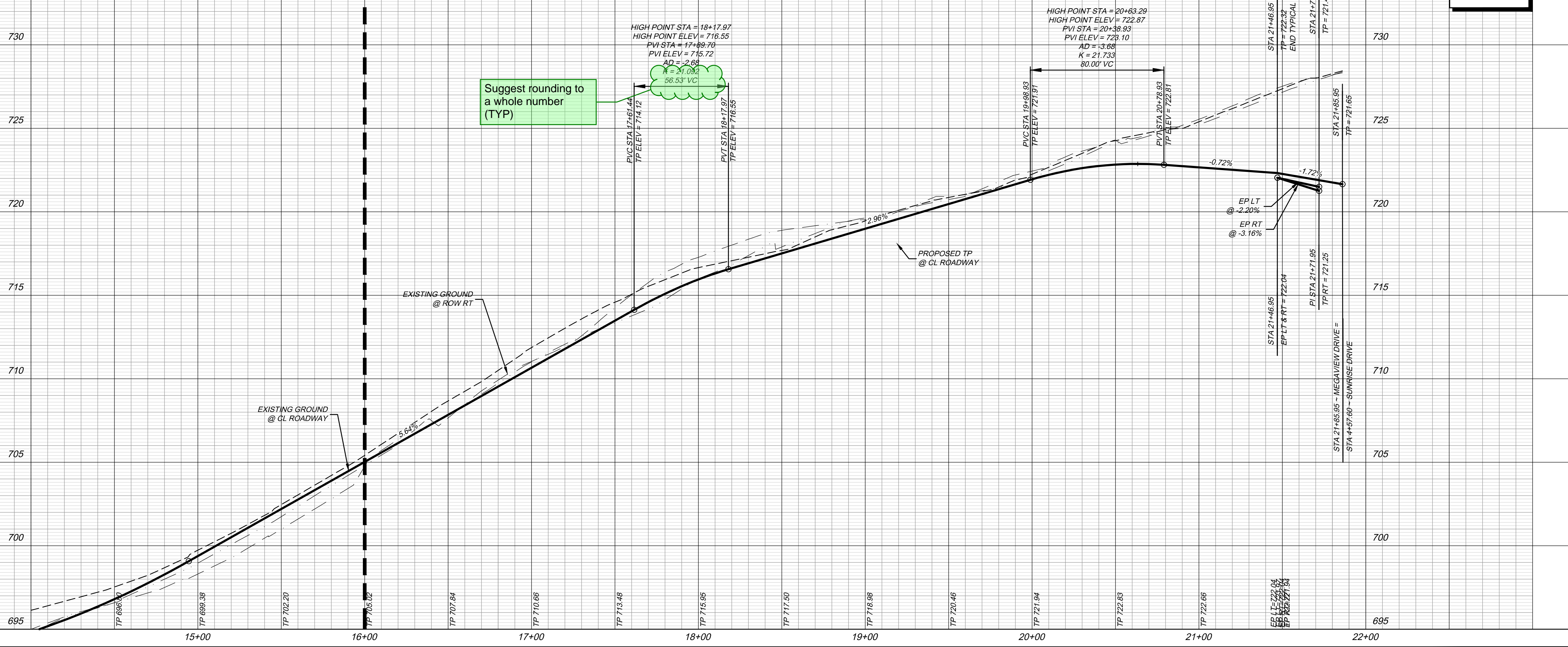
AUSTIN LANDS, LLC

803 W SOUTHLAKE BLVD, SUITE 100  
SOUTHLAKE, TX 76092  
312-206-8673

LAKESIDE ESTATES TRACTS 1 & 2 (68.0 AC.)  
C. MANCHACA SURVEY  
ABS. NO. 790  
CITY OF SANGER ETJ  
DENTON COUNTY, TEXAS



**MEGAVIEW DRIVE [STA 14+50 - STA 22+00]**



Suggest rounding to a whole number (TYP)

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 PLOT DATE: 03/13/2024 10:41:00 AM  
 PLOT SCALE: 1" = 40'

REV.	DATE	DESCRIPTION

**kirkman ENGINEERING**  
KIRKMAN ENGINEERING, LLC  
5200 STATE HIGHWAY 121  
COLLEYVILLE, TX 76034  
TEXAS FIRM NO. 15874

JOB NUMBER: SR322002  
ISSUE DATE: 03/13/2024

**MEGAVIEW DRIVE PLAN & PROFILE STA 14+50 TO 22+00**

SHEET:  
**C3.2**

PAVING NOTES

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NOTE TO CONTRACTOR

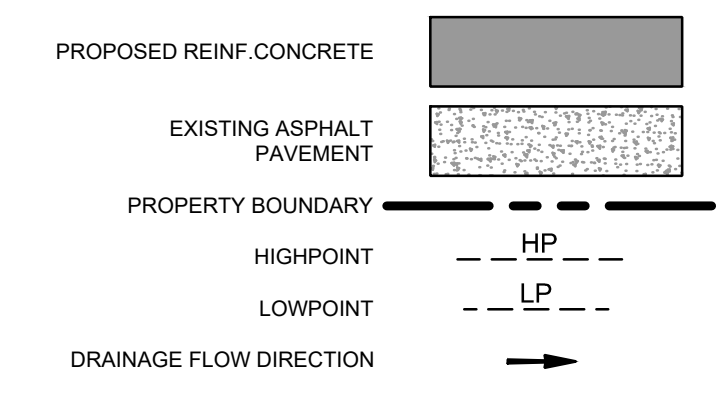
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Provide report and update

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LEGEND

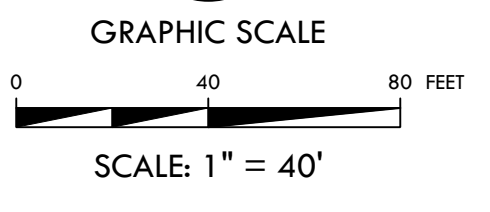
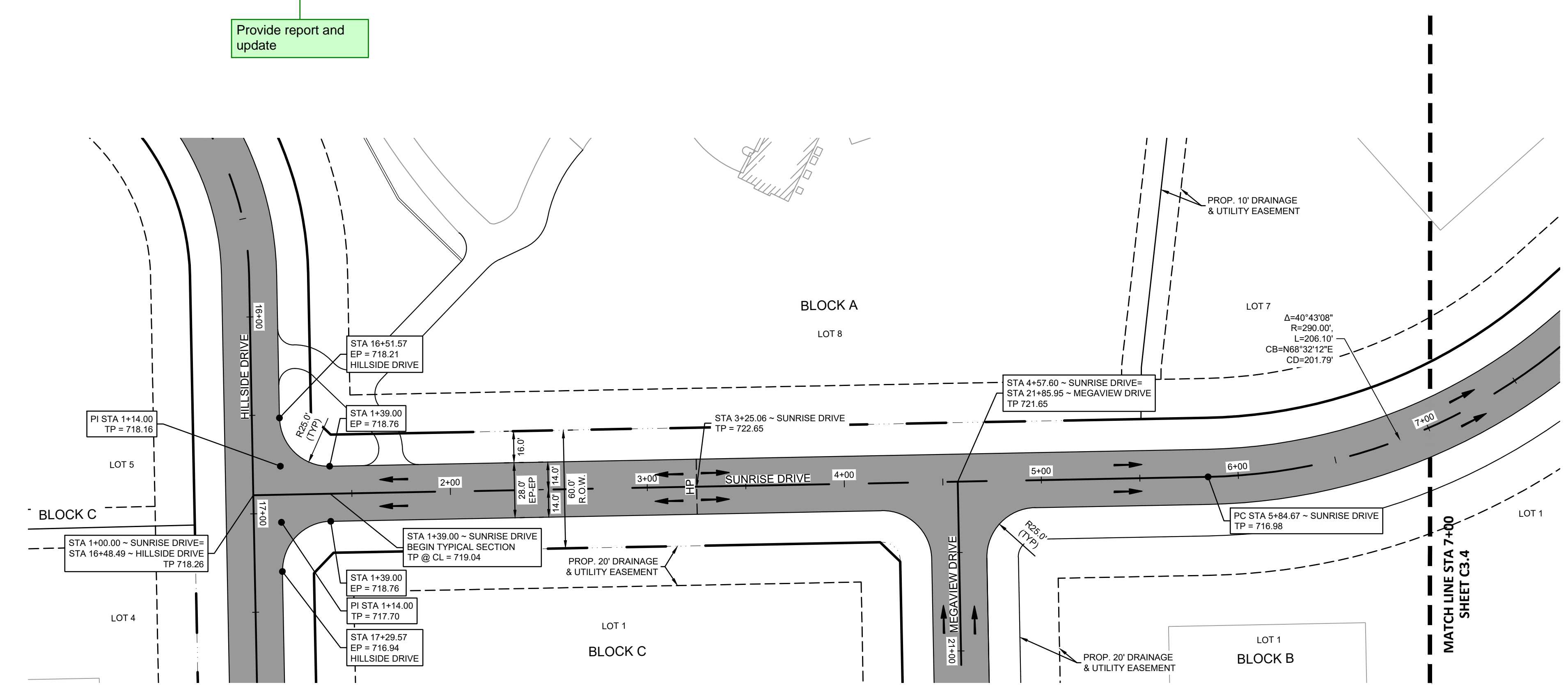


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DATE: 03/13/2024

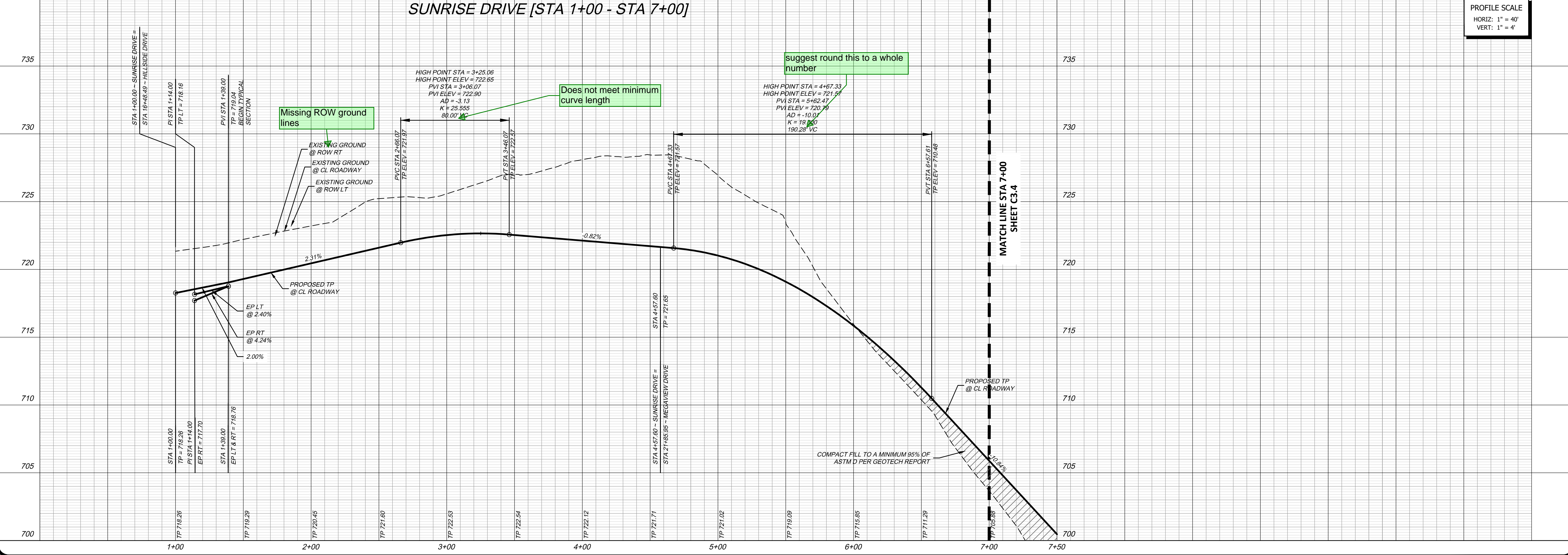
AUSTIN LANDS, LLC

803 W SOUTHLAKE BLVD, SUITE 100  
SOUTHLAKE, TX 76092  
312-206-8673

LAKESIDE ESTATES TRACTS 1 & 2 (68.0 AC.)  
C. MANCHACA SURVEY  
ABS. NO. 790  
CITY OF SANGER ETJ  
DENTON COUNTY, TEXAS



SUNRISE DRIVE [STA 1+00 - STA 7+00]



PROFILE SCALE  
HORIZ: 1" = 40'  
VERT: 1" = 4'

Missing ROW ground lines

Does not meet minimum curve length

suggest round this to a whole number

COMPACT FILL TO A MINIMUM 95% OF ASTM D PER GEOTECH REPORT

REV.	DATE	DESCRIPTION

KIRKMAN ENGINEERING, LLC  
5200 STATE HIGHWAY 121  
COLLEYVILLE, TX 76034  
TEXAS FIRM NO. 15874

JOB NUMBER: SR322002  
ISSUE DATE: 03/13/2024

SUNRISE DRIVE  
PLAN & PROFILE  
STA 1+00 TO 8+00

SHEET:  
**C3.3**

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PLOT USER: jnelson  
PLOT DEVICE: HP DesignJet 560cd  
PLOT SCALE: 1" = 40'  
PLOT SHEET: 1 OF 3

**PAVING NOTES**

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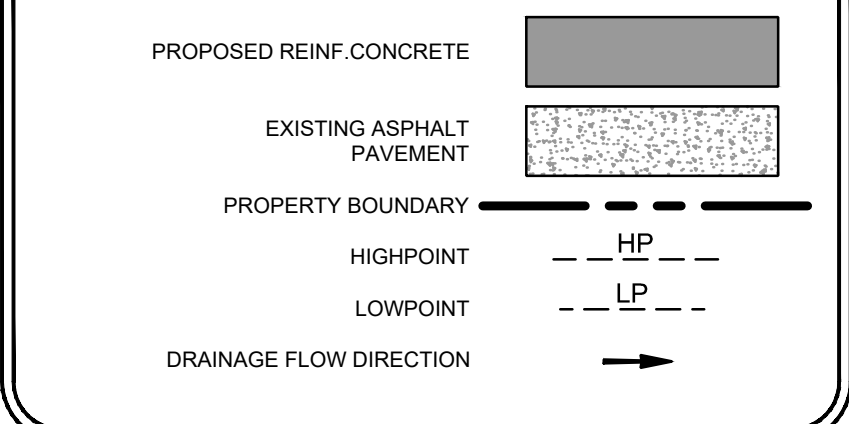
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**LEGEND**

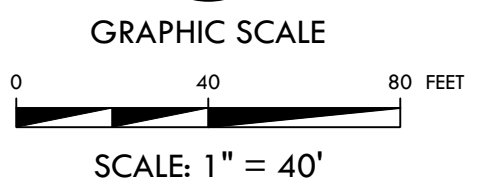
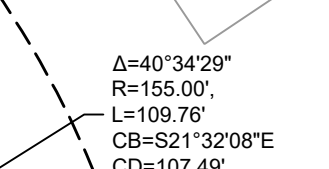
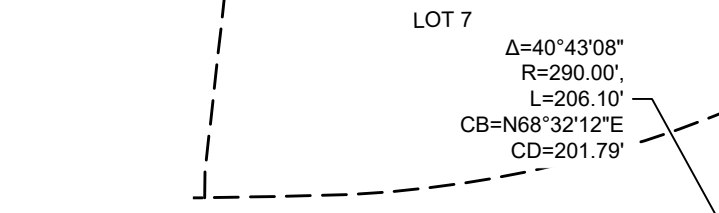


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**AUSTIN LANDS, LLC**

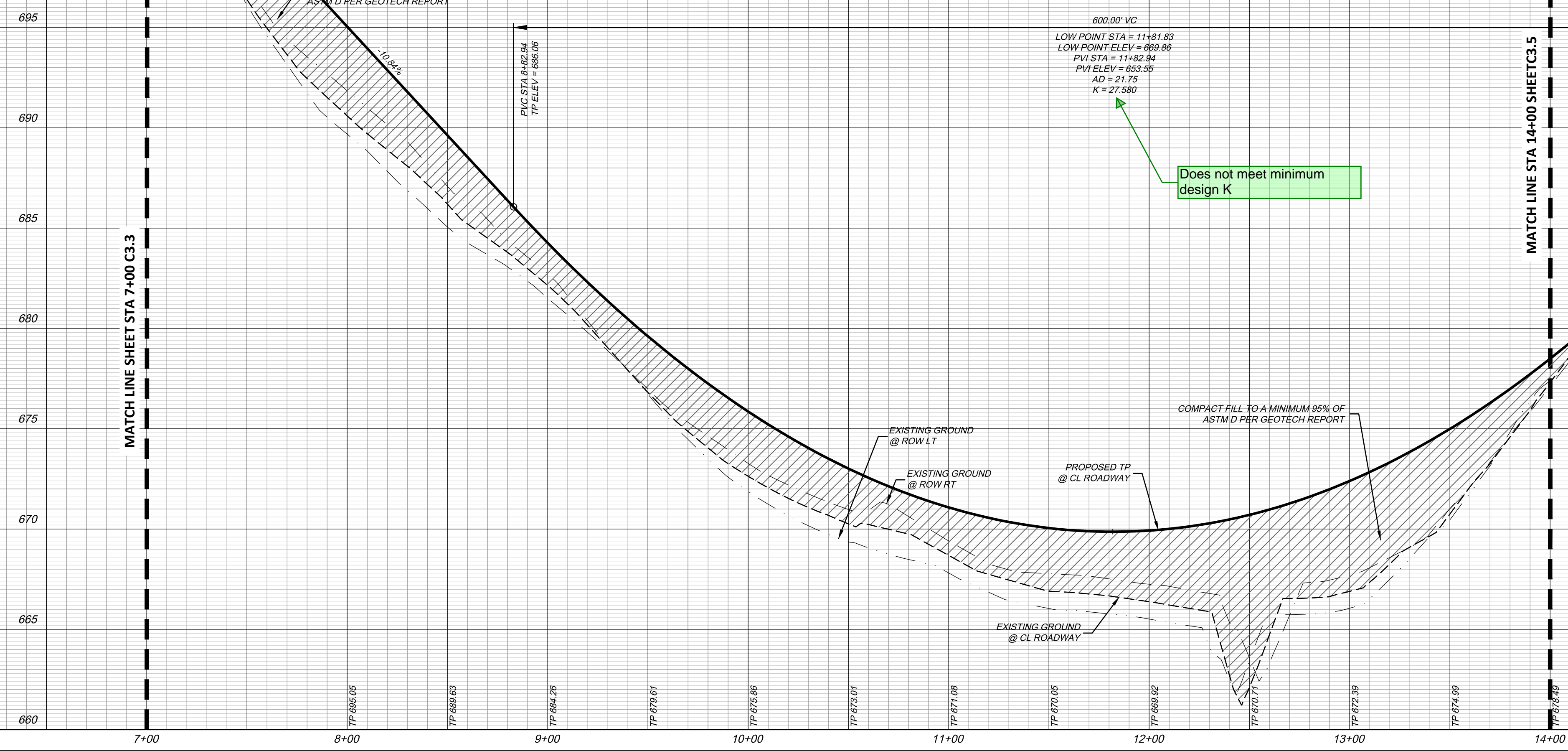
803 W SOUTHLAKE BLVD, SUITE 100  
SOUTHLAKE, TX 76092  
312-206-8673

**LAKESIDE ESTATES**  
TRACTS 1 & 2  
(68.0 AC.)  
C. MANCHACA SURVEY  
ABS. NO. 790  
CITY OF SANGER ETJ  
DENTON COUNTY, TEXAS



**SUNRISE DRIVE [STA 7+00 - STA 16+00]**

**PROFILE SCALE**  
HORIZ: 1" = 40'  
VERT: 1" = 4'



Does not meet minimum design K

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REV.	DATE	DESCRIPTION

**Kirkman Engineering**  
KIRKMAN ENGINEERING, LLC  
5200 STATE HIGHWAY 121  
COLLEYVILLE, TX 76034  
TEXAS FIRM NO. 15874

JOB NUMBER: SR322002  
ISSUE DATE: 03/13/2024

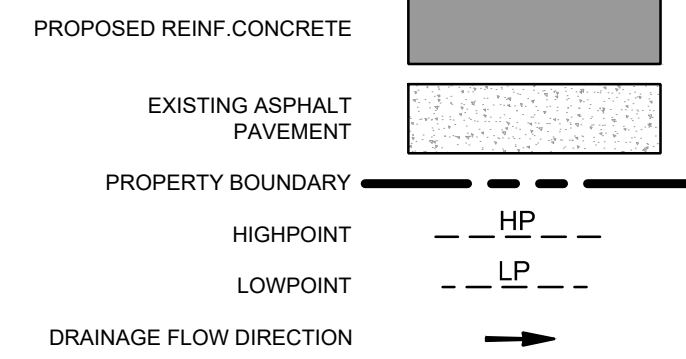
**SUNRISE DRIVE  
PLAN & PROFILE  
STA 8+00 TO 14+00**

SHEET:  
**C3.4**

PAVING NOTES

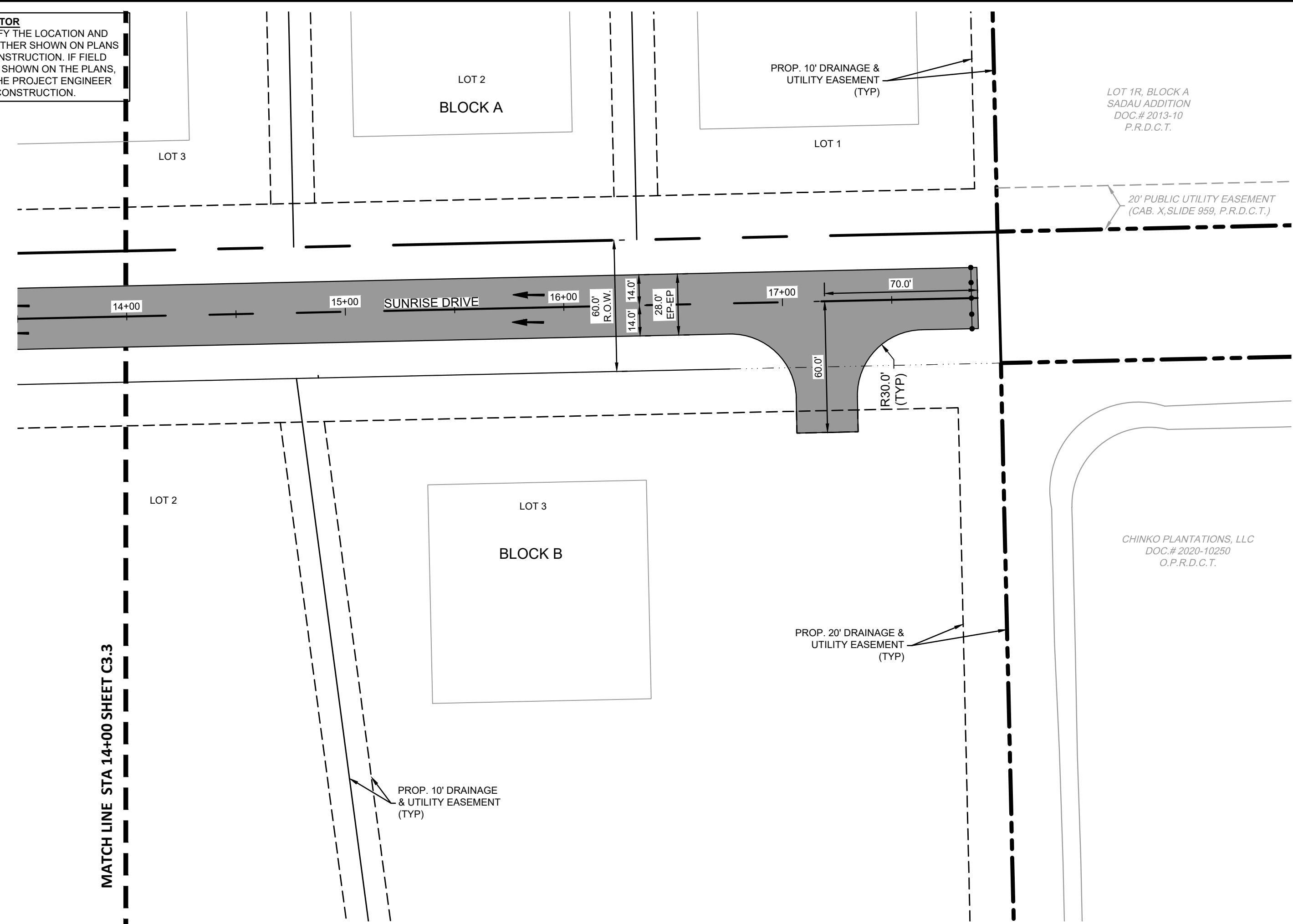
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LEGEND



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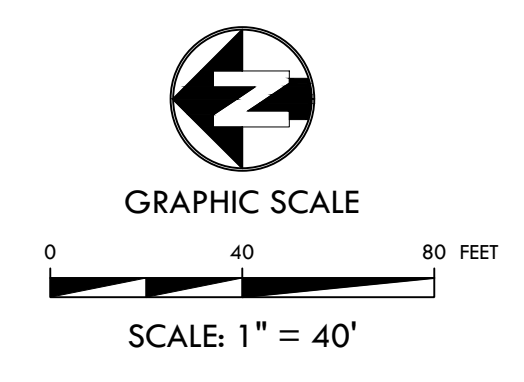
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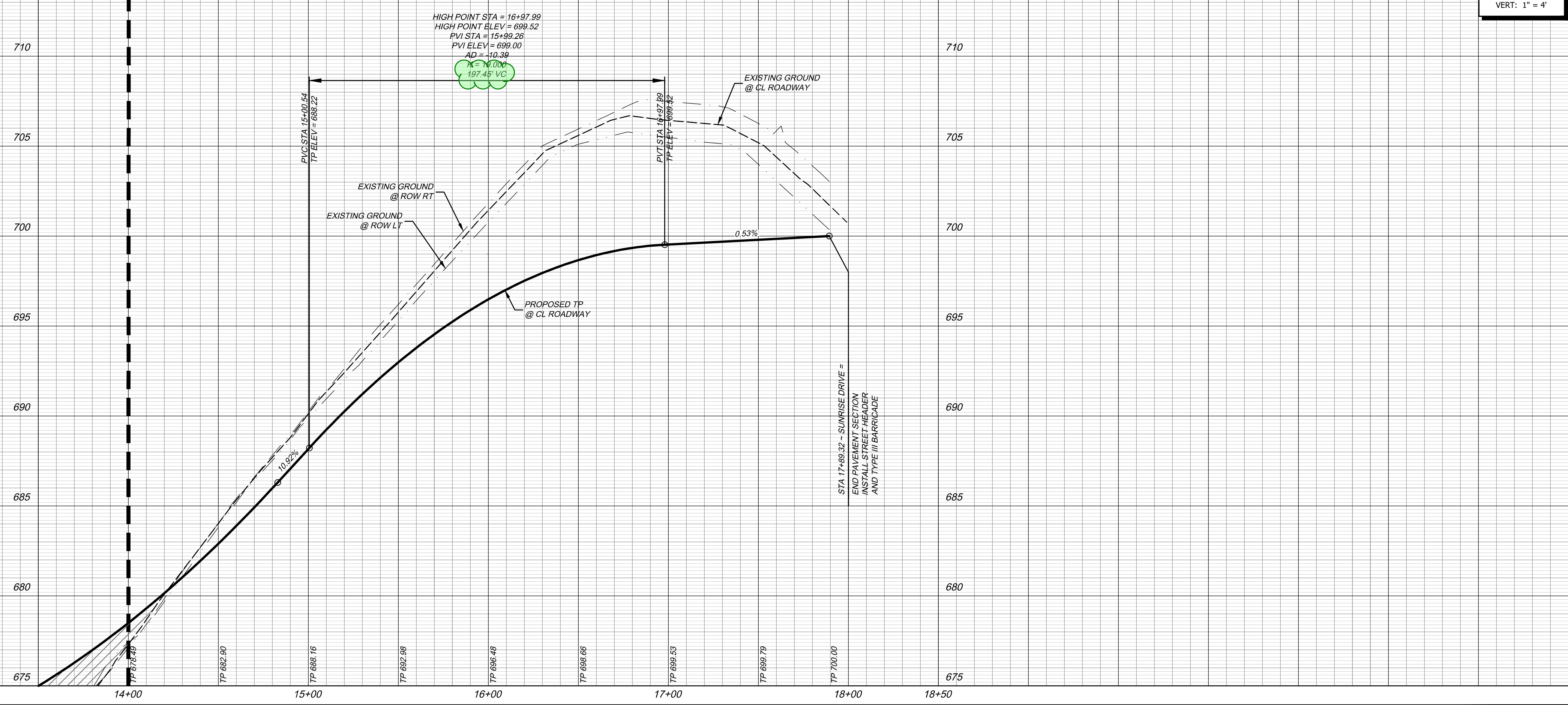
AUSTIN LANDS, LLC

803 W SOUTHLAKE BLVD, SUITE 100  
 SOUTHLAKE, TX 76092  
 312-206-8673

LAKESIDE ESTATES  
 TRACTS 1 & 2  
 (68.0 AC.)  
 C. MANCHACA SURVEY  
 ABS. NO. 790  
 CITY OF SANGER ETJ  
 DENTON COUNTY, TEXAS



SUNRISE DRIVE [STA 14+00 - STA 18+50]



PROFILE SCALE  
 HORIZ: 1" = 40'  
 VERT: 1" = 4'

REV.	DATE	DESCRIPTION

JOB NUMBER: SR322002  
 ISSUE DATE: 03/13/2024

SUNRISE DRIVE  
 PLAN & PROFILE  
 STA 14+00 TO 18+50

SHEET:  
**C3.5**

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 User: jbruce  
 Date: 03/13/2024 10:58:10 AM  
 PLOT DATE: 03/13/2024 10:58:10 AM  
 PLOT SCALE: 1" = 40'  
 PLOT SHEET: C3.5  
 PLOT TOTAL SHEETS: 32



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AUSTIN LANDS, LLC

803 W SOUTHLAKE BLVD, SUITE 100 SOUTHLAKE, TX 76092 312-206-8673

LAKESIDE ESTATES TRACTS 1 & 2 (68.0 AC.) C. MANCHACA SURVEY ABS. NO. 790 CITY OF SANGER ETJ DENTON COUNTY, TEXAS

REV.	DATE	DESCRIPTION



**kirkman**  
ENGINEERING

KIRKMAN ENGINEERING, LLC  
5200 STATE HIGHWAY 121  
COLLEYVILLE, TX 76034  
TEXAS FIRM NO. 15874

JOB NUMBER: SR322002  
ISSUE DATE: 03/13/2024

**HILLSIDE DRIVE  
PLAN & PROFILE  
STA 1+00 TO 7+00**

SHEET:  
**C3.6**

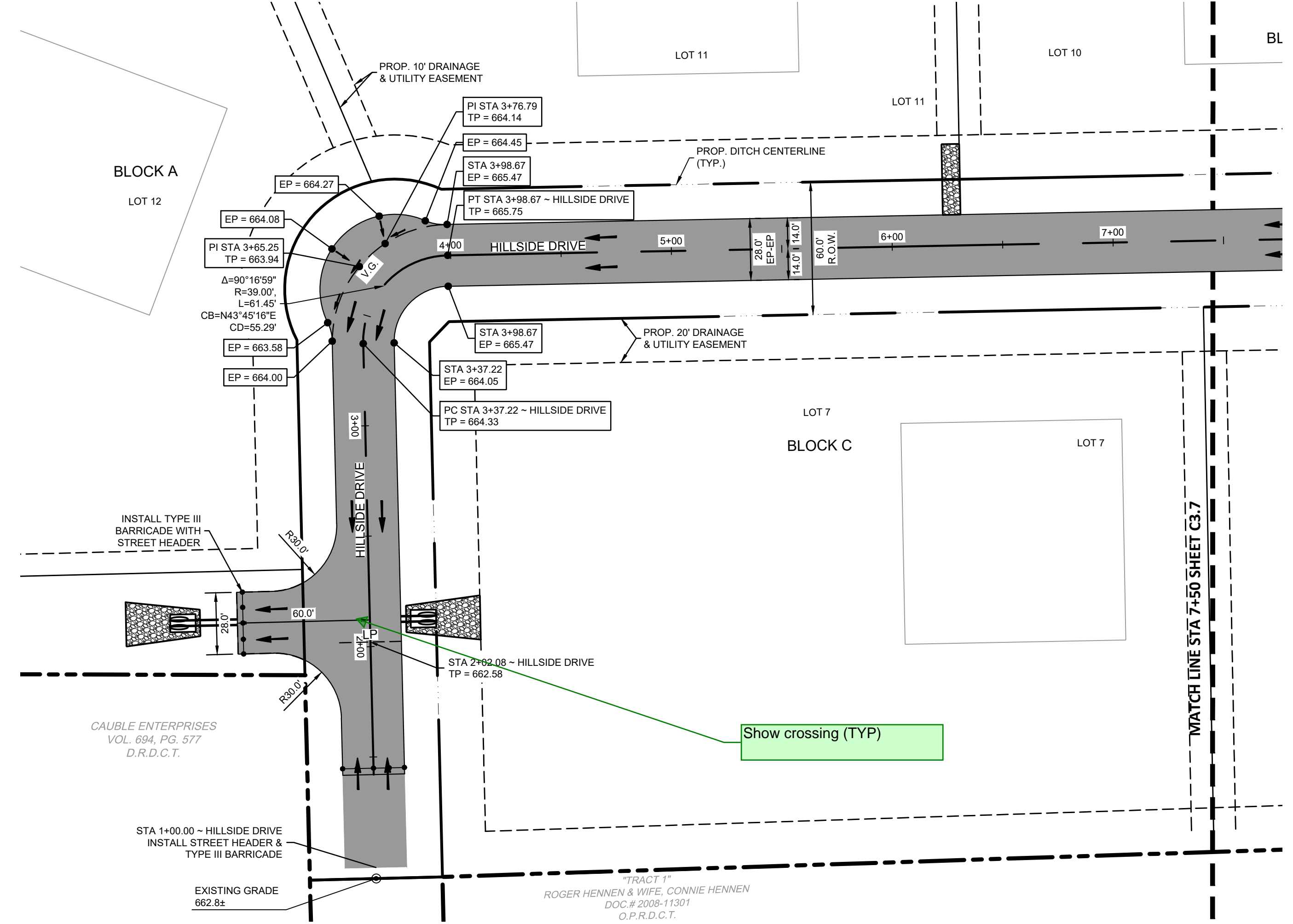
**SITE BENCHMARKS**  
BM NO. 1 THE SITE BENCHMARK IS A MAG NAIL FOUND IN ASPHALT IN THE NORTH LINE OF McREYNOLDS ROAD, BEING APPROXIMATELY 1.495 FEET EAST OF THE INTERSECTION OF McREYNOLDS ROAD AND F.M. 455.  
ELEVATION = 685.64' (NAVD '83)

**LEGEND**

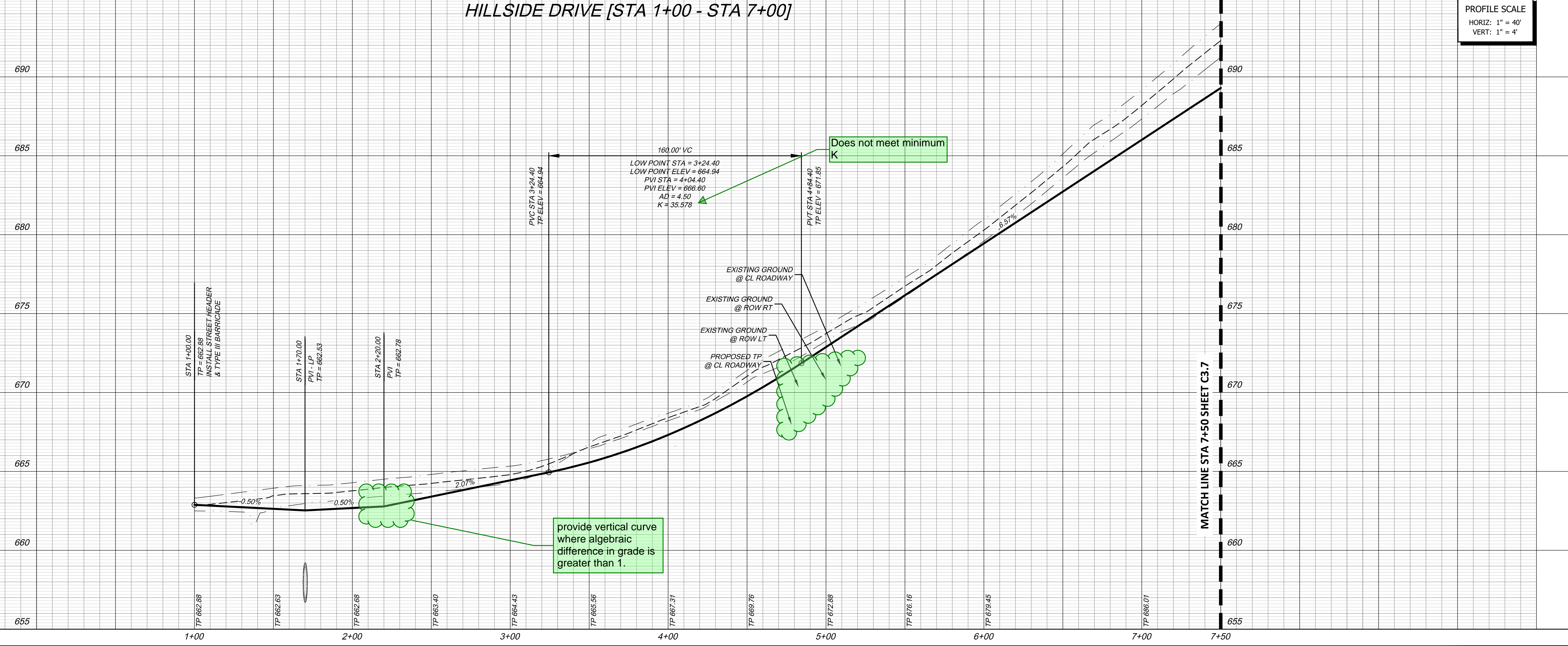
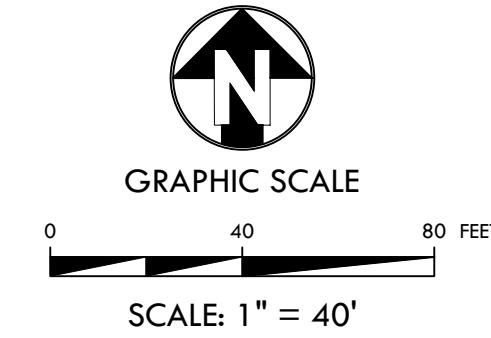
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- EXISTING ASPHALT PAVEMENT
- PROPERTY BOUNDARY
- HIGHPOINT (HP)
- LOWPOINT (LP)
- DRAINAGE FLOW DIRECTION

- PAVING NOTES**
- PAVING RECOMMENDATIONS ARE MADE BY XXX REPORT No. XXX DATED XXX 2022.
  - CONTRACTOR SHALL OBTAIN A COPY OF SAID GEOTECHNICAL ENGINEERING REPORT AND FAMILIARIZE THEMSELVES PRIOR TO BIDDING AND CONSTRUCTING THE IMPROVEMENTS OF THE PROJECT.
  - ALL PROPOSED PUBLIC PAVEMENT TO BE PER THE CITY OF SANGER STANDARDS & SPECIFICATIONS.
  - REFER TO SHEET C6.0 FOR PAVING DETAILS.

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HILLSIDE DRIVE [STA 1+00 - STA 7+00]



PROFILE SCALE  
HORIZ: 1" = 40'  
VERT: 1" = 4'

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AUSTIN LANDS, LLC

803 W SOUTHLAKE BLVD, SUITE 100 SOUTHLAKE, TX 76092 312-206-8673

LAKESIDE ESTATES TRACTS 1 & 2 (68.0 AC.) C. MANCHACA SURVEY ABS. NO. 790 CITY OF SANGER ETJ DENTON COUNTY, TEXAS

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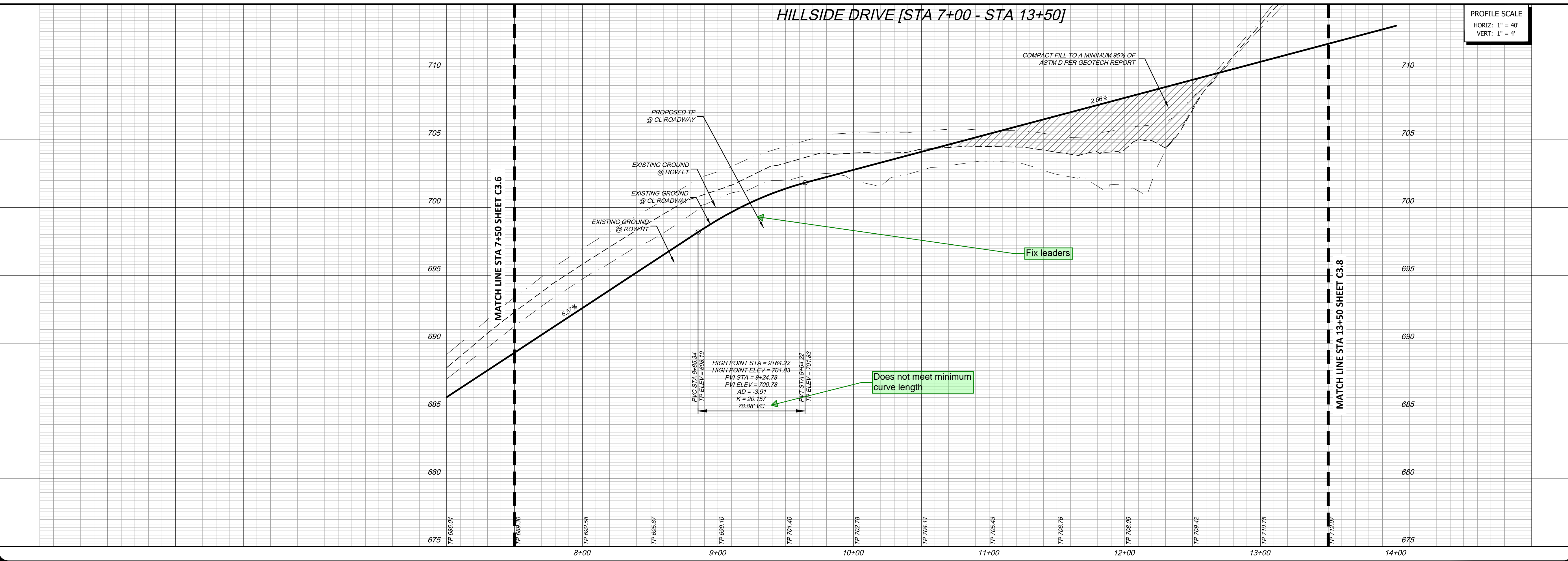
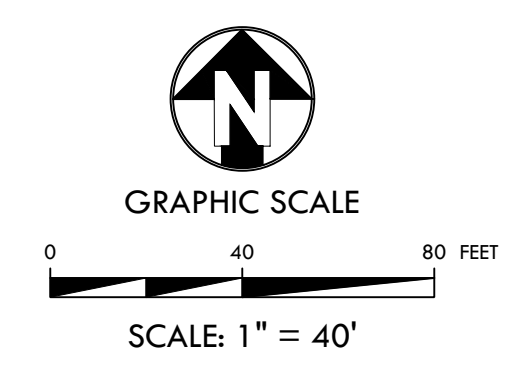
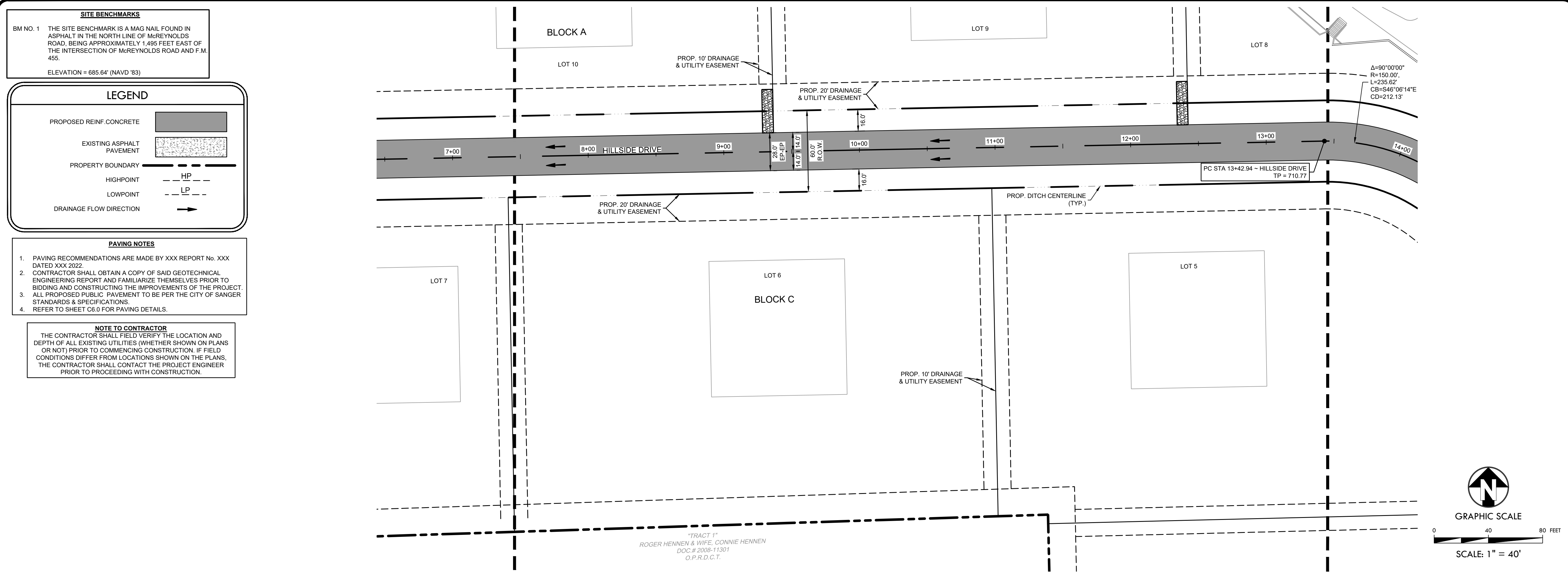
**kirkman**  
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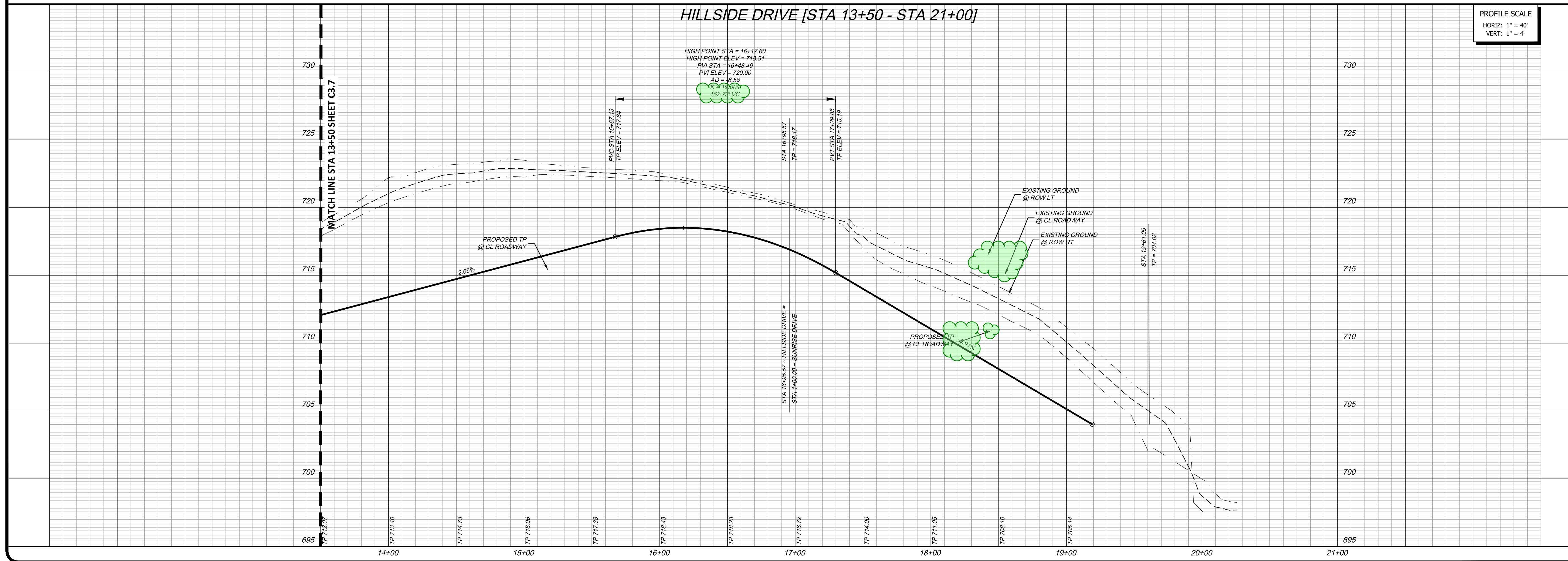
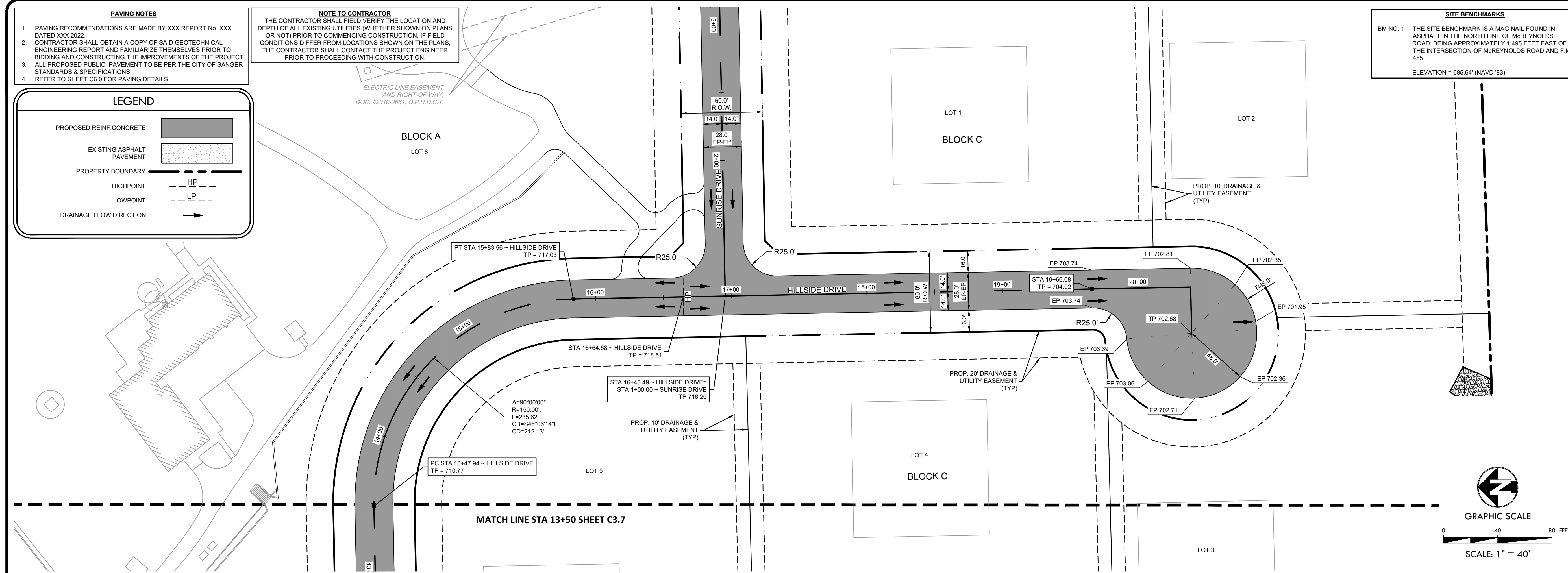
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STA 7+00 TO 13+50**

SHEET:  
**C3.7**



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**LEGEND**

- PROPOSED REINF. CONCRETE
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- PROPERTY BOUNDARY
- HIGHPOINT (HP)
- LOWPOINT (LP)
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**JEREMY B. NELSON**  
 P.E.# 138740  
 DATE: 03/13/2024

**AUSTIN LANDS, LLC**

803 W SOUTHLAKE BLVD, SUITE 100  
 SOUTHLAKE, TX 76092  
 312-206-8673

**LAKESIDE ESTATES**  
 TRACTS 1 & 2  
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 C. MANCHACA SURVEY  
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 DENTON COUNTY, TEXAS

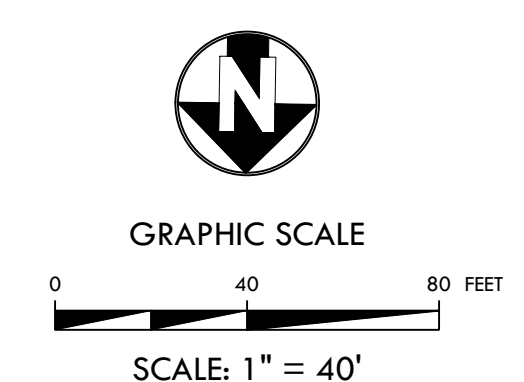
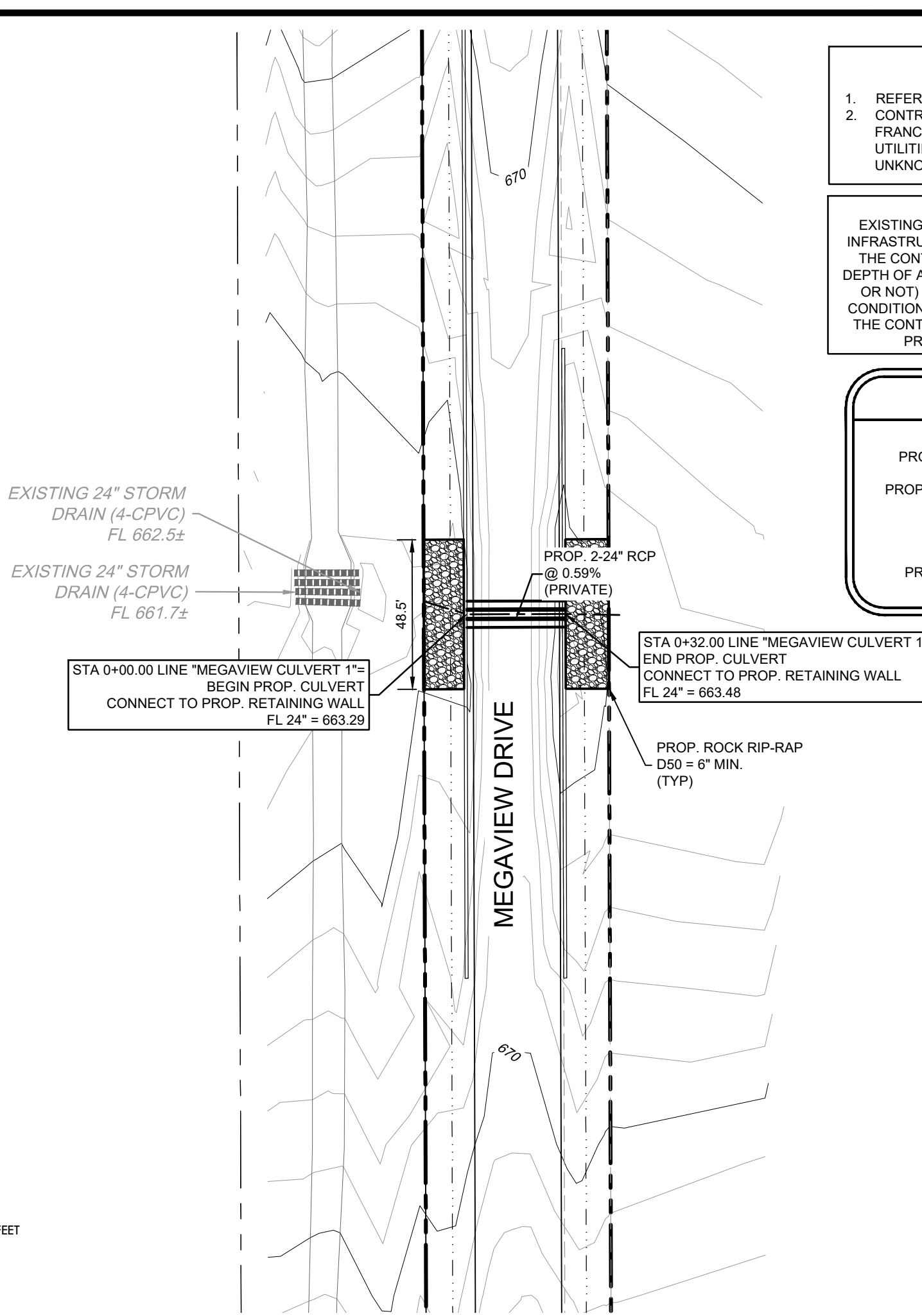
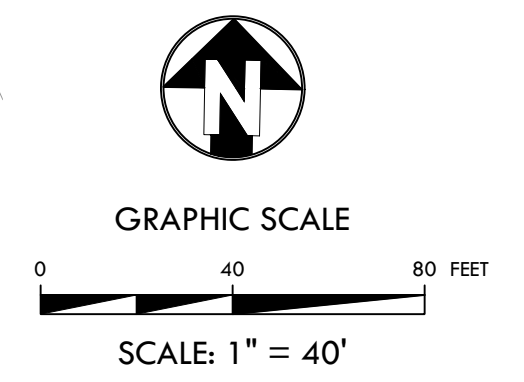
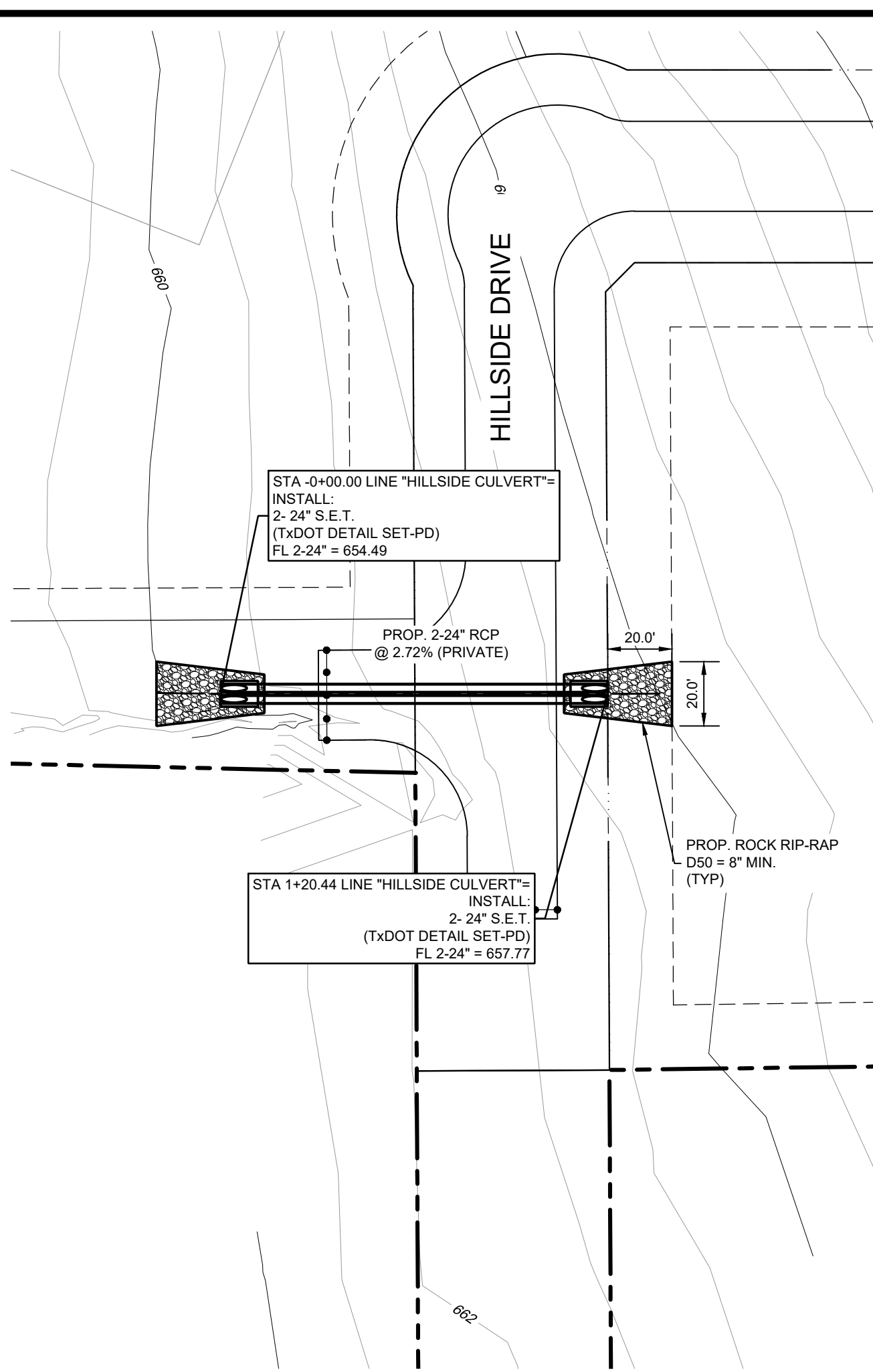
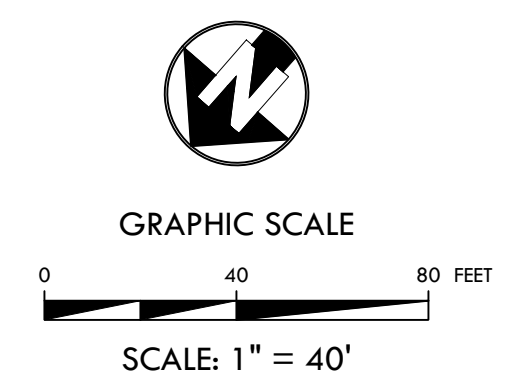
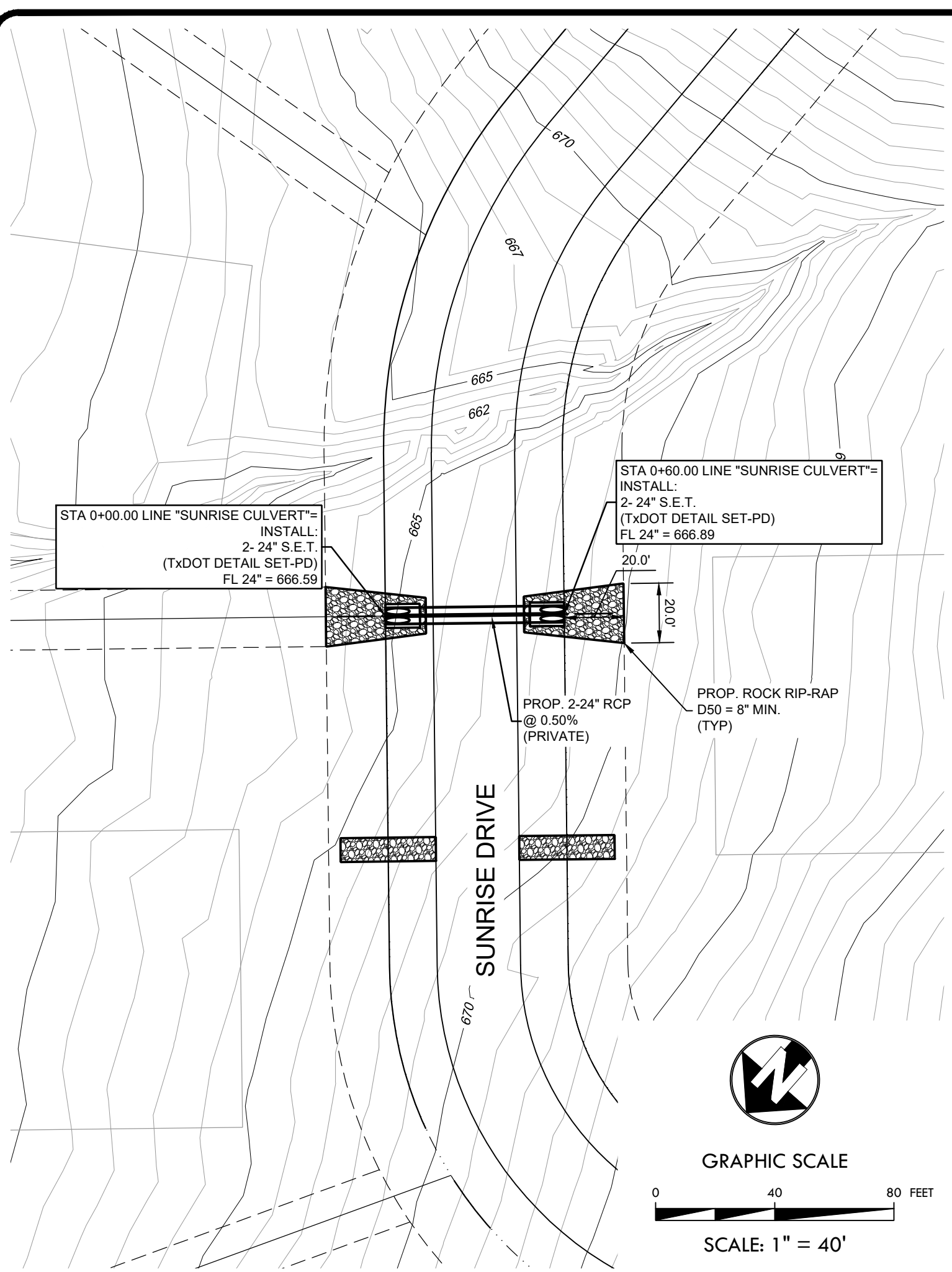
REV.	DATE	DESCRIPTION

**KE kirkman ENGINEERING**  
 KIRKMAN ENGINEERING, LLC  
 5200 STATE HIGHWAY 121  
 COLLEYVILLE, TX 76034  
 TEXAS FIRM NO. 15874

JOB NUMBER: SR322002  
 ISSUE DATE: 03/13/2024

**HILLSIDE DRIVE  
 PLAN & PROFILE  
 STA 13+50 TO 21+00**

SHEET:  
**C3.8**



**STORM DRAIN NOTES:**

- REFER TO SHEET C7.0 FOR STORM DRAIN DETAILS.
- CONTRACTOR SHALL RAISE LOWER OR ADJUST ALL EXISTING FRANCHISE UTILITY LINES IN CONFLICT WITH PROPOSED UTILITIES AS PART OF THE BASE BIDS FOR ALL KNOWN OR UNKNOWN LINES.

**NOTE TO CONTRACTOR**  
EXISTING PRIVATE AND PUBLIC STORM SEWER AND UTILITY INFRASTRUCTURE ARE SHOWN PER RECORD DRAWING PLANS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES (WHETHER SHOWN ON PLANS OR NOT) PRIOR TO COMMENCING CONSTRUCTION. IF FIELD CONDITIONS DIFFER FROM LOCATIONS SHOWN ON THE PLANS, THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

**LEGEND**

- PROPOSED CURB INLET
- PROPOSED STORM DRAIN
- PROPOSED STORM JUNCTION BOX
- PROPERTY BOUNDARY

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**AUSTIN LANDS, LLC**  
  
803 W SOUTHLAKE BLVD, SUITE 100  
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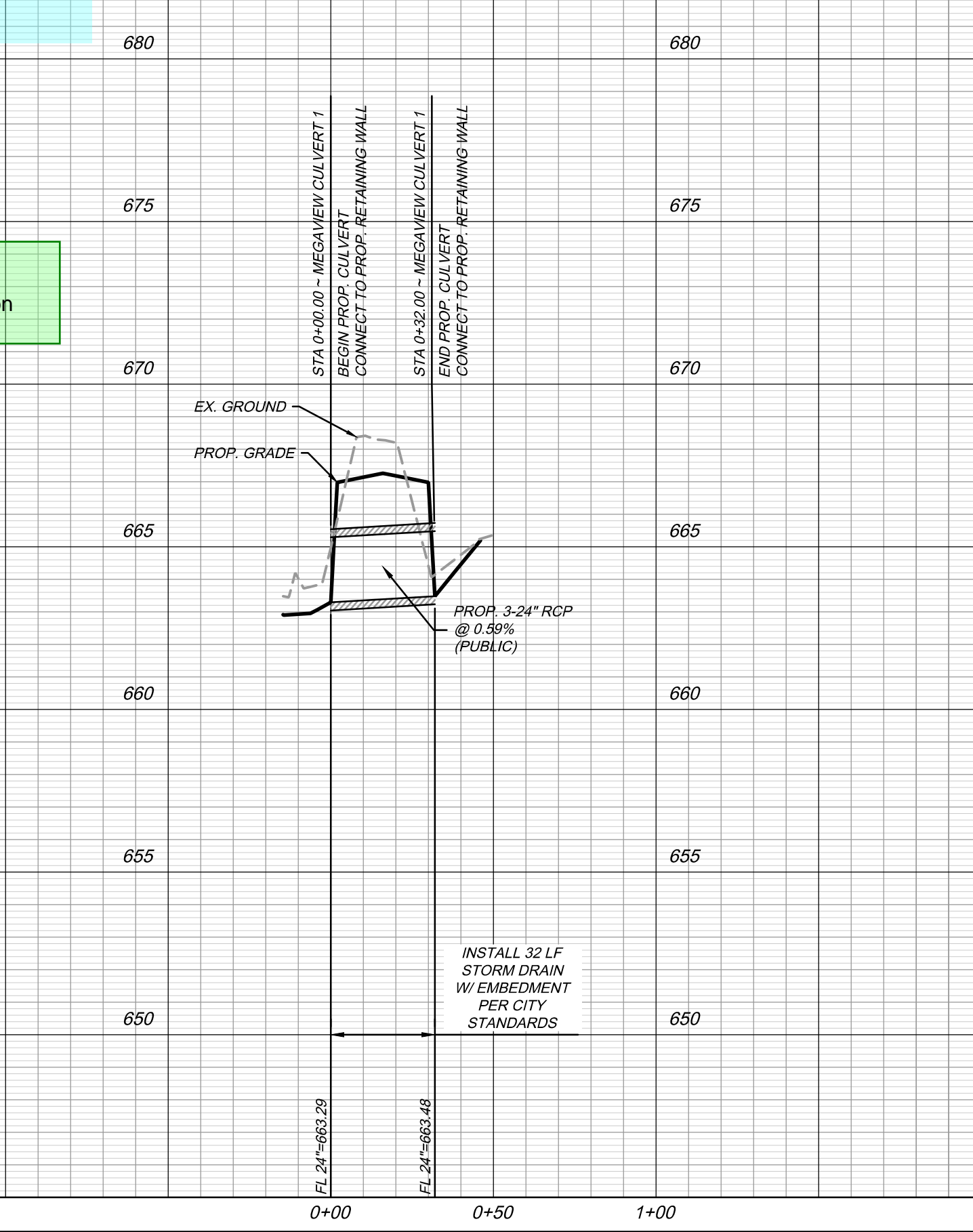
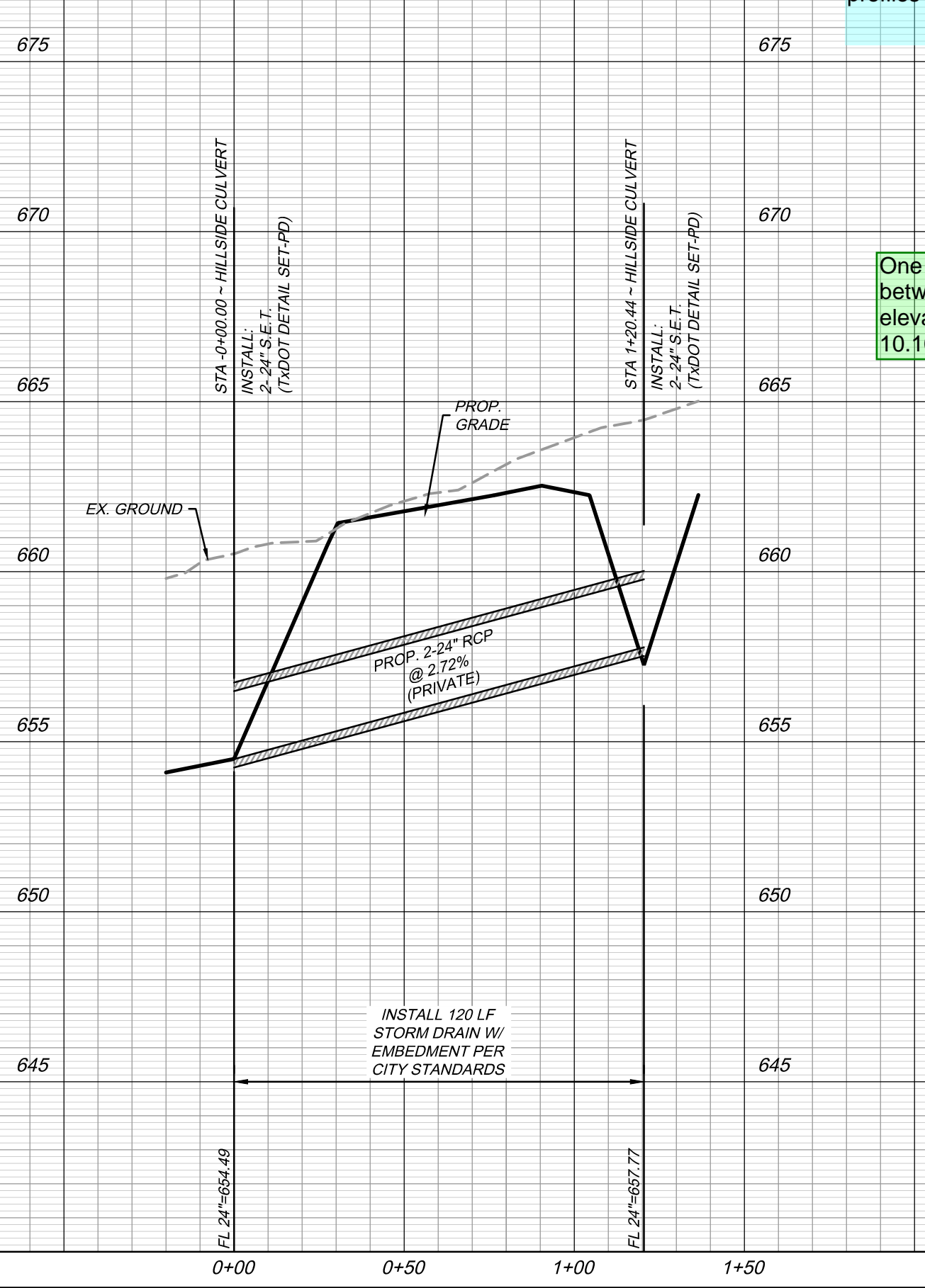
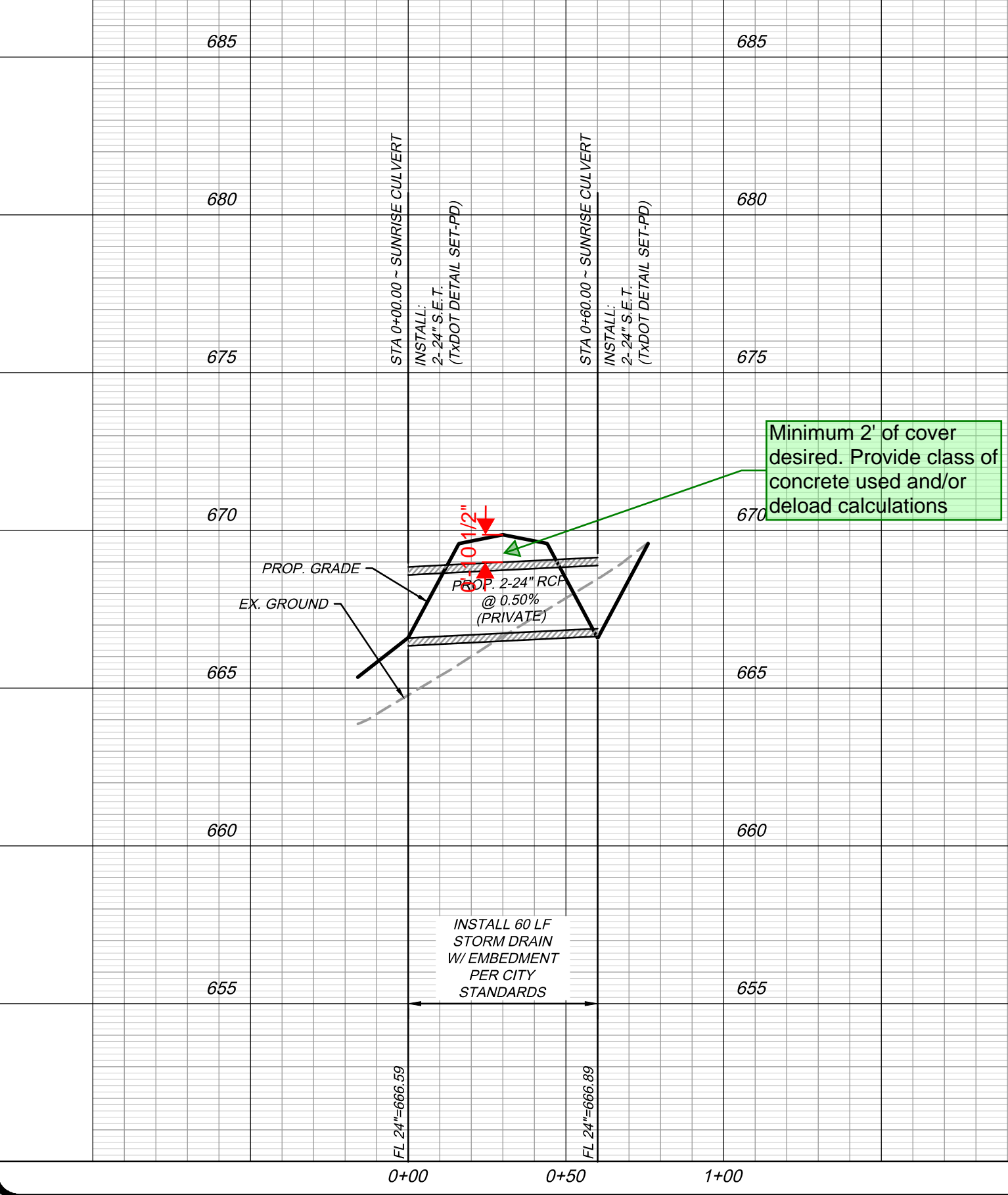
**LAKESIDE ESTATES**  
TRACTS 1 & 2  
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C. MANCHACA SURVEY  
ABS. NO. 790  
CITY OF SANGER ETJ  
DENTON COUNTY, TEXAS

**SUNRISE CULVERT**

**HILLSIDE CULVERT**

**MEGAVIEW CULVERT 1**

**PROFILE SCALE**  
HORIZ: 1" = 40'  
VERT: 1" = 4'



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 PLOT SCALE: 1" = 40'

REV.	DATE	DESCRIPTION

**Kirkman ENGINEERING**  
KIRKMAN ENGINEERING, LLC  
5200 STATE HIGHWAY 121  
COLLEYVILLE, TX 76034  
TEXAS FIRM NO. 15874

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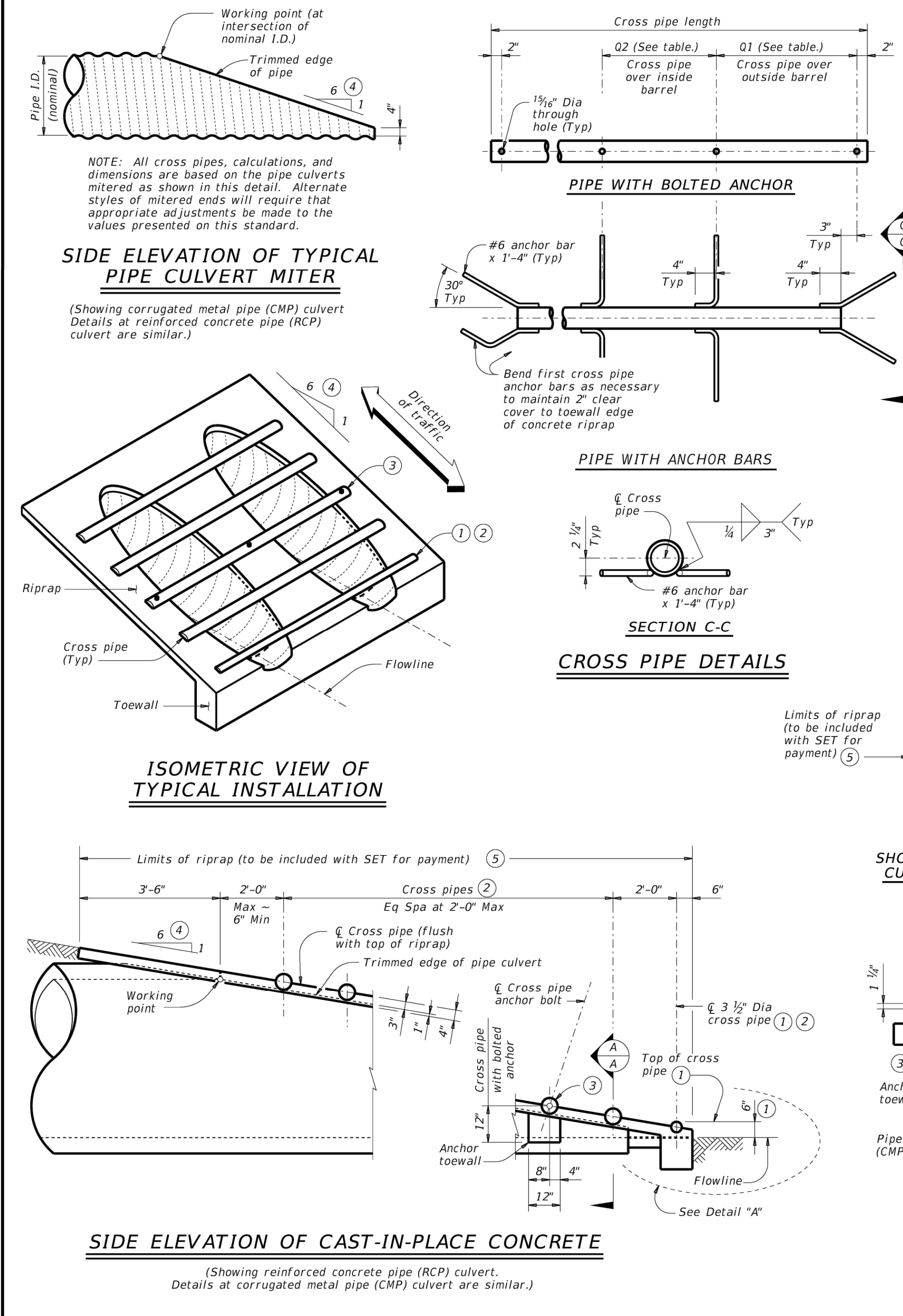
**CULVERT PLAN & PROFILE**  
  
SHEET:  
**C4.0**





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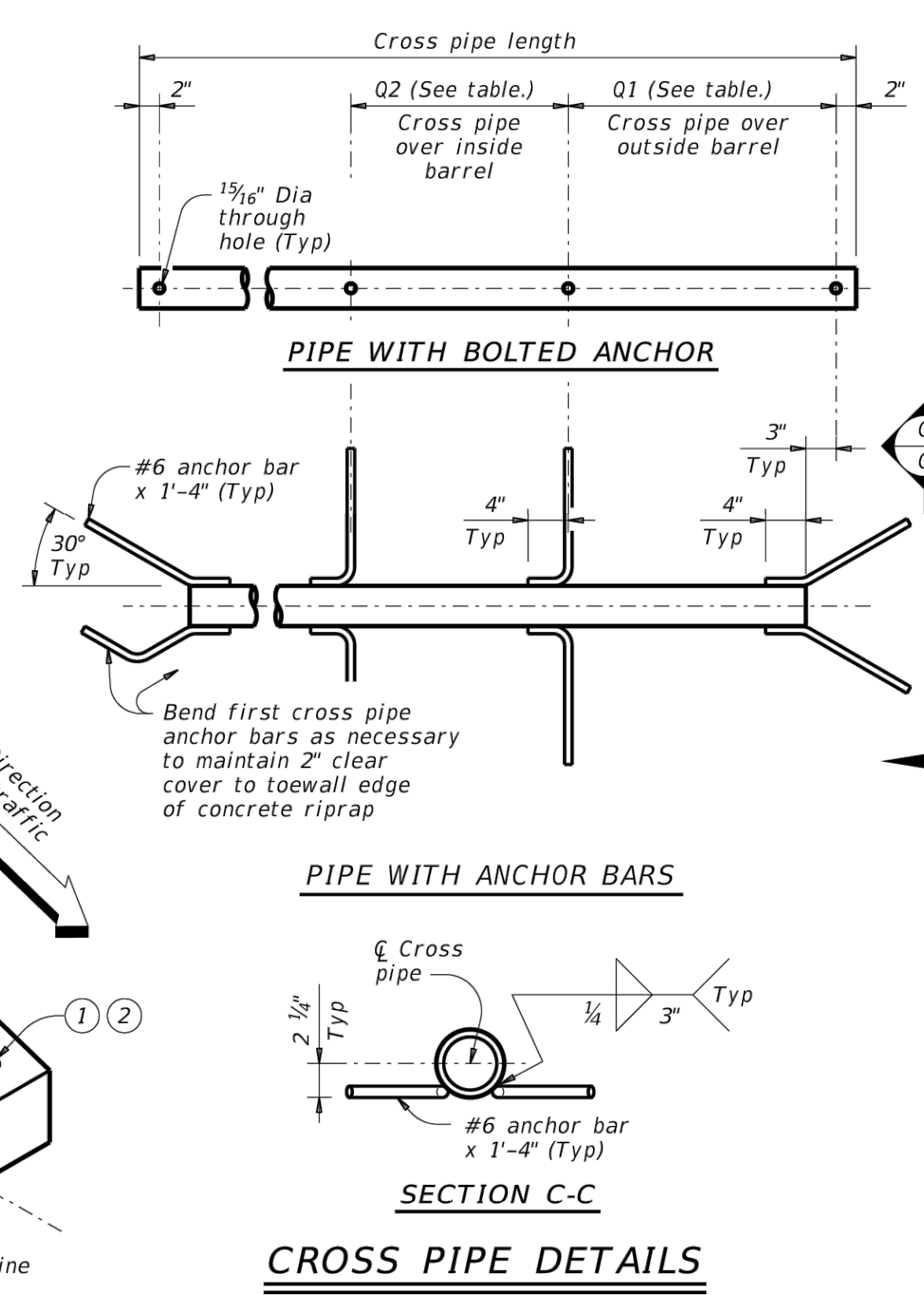
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(Showing corrugated metal pipe (CMP) culvert. Details at reinforced concrete pipe (RCP) culvert are similar.)

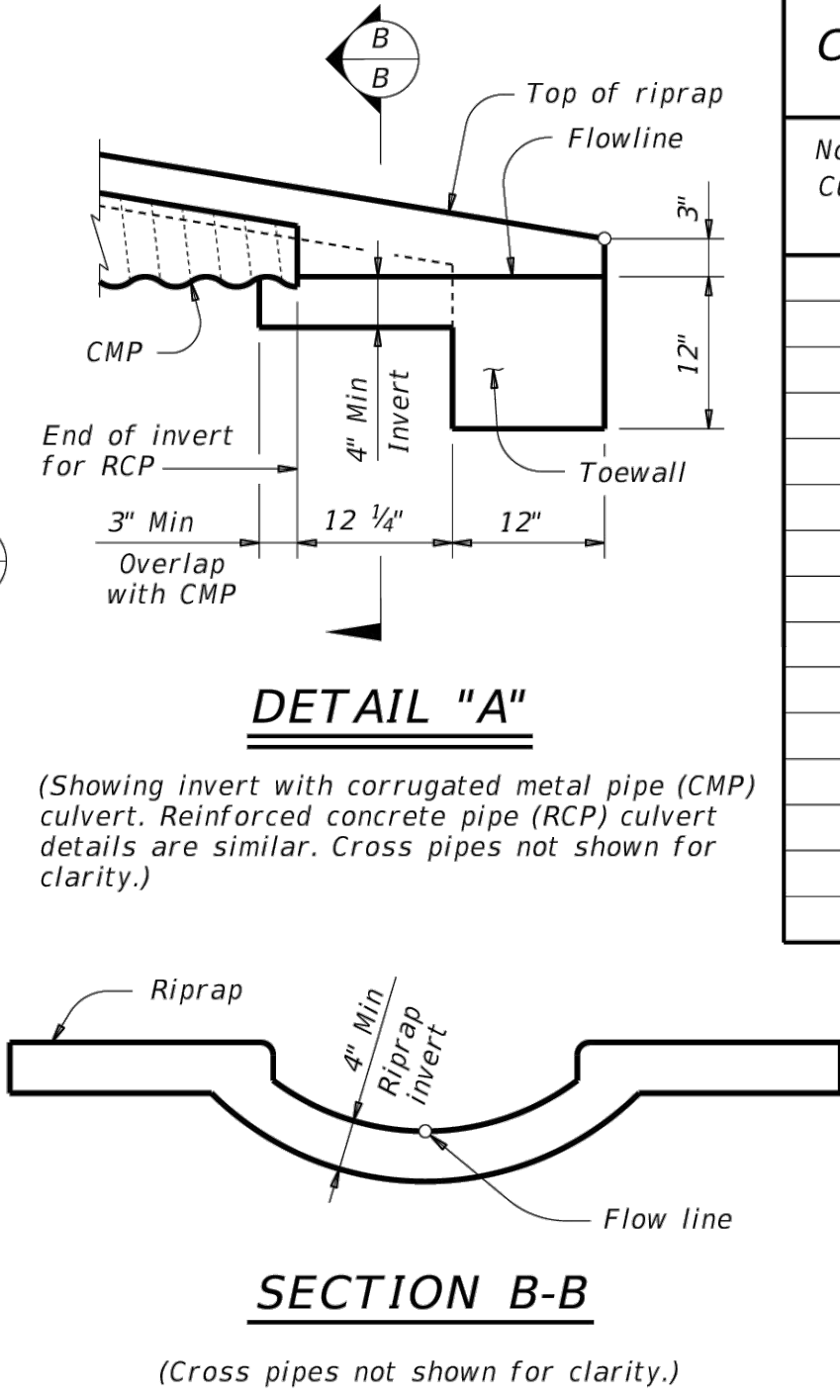
**ISOMETRIC VIEW OF TYPICAL INSTALLATION**

**SIDE ELEVATION OF CAST-IN-PLACE CONCRETE**

(Showing reinforced concrete pipe (RCP) culvert. Details at corrugated metal pipe (CMP) culvert are similar.)



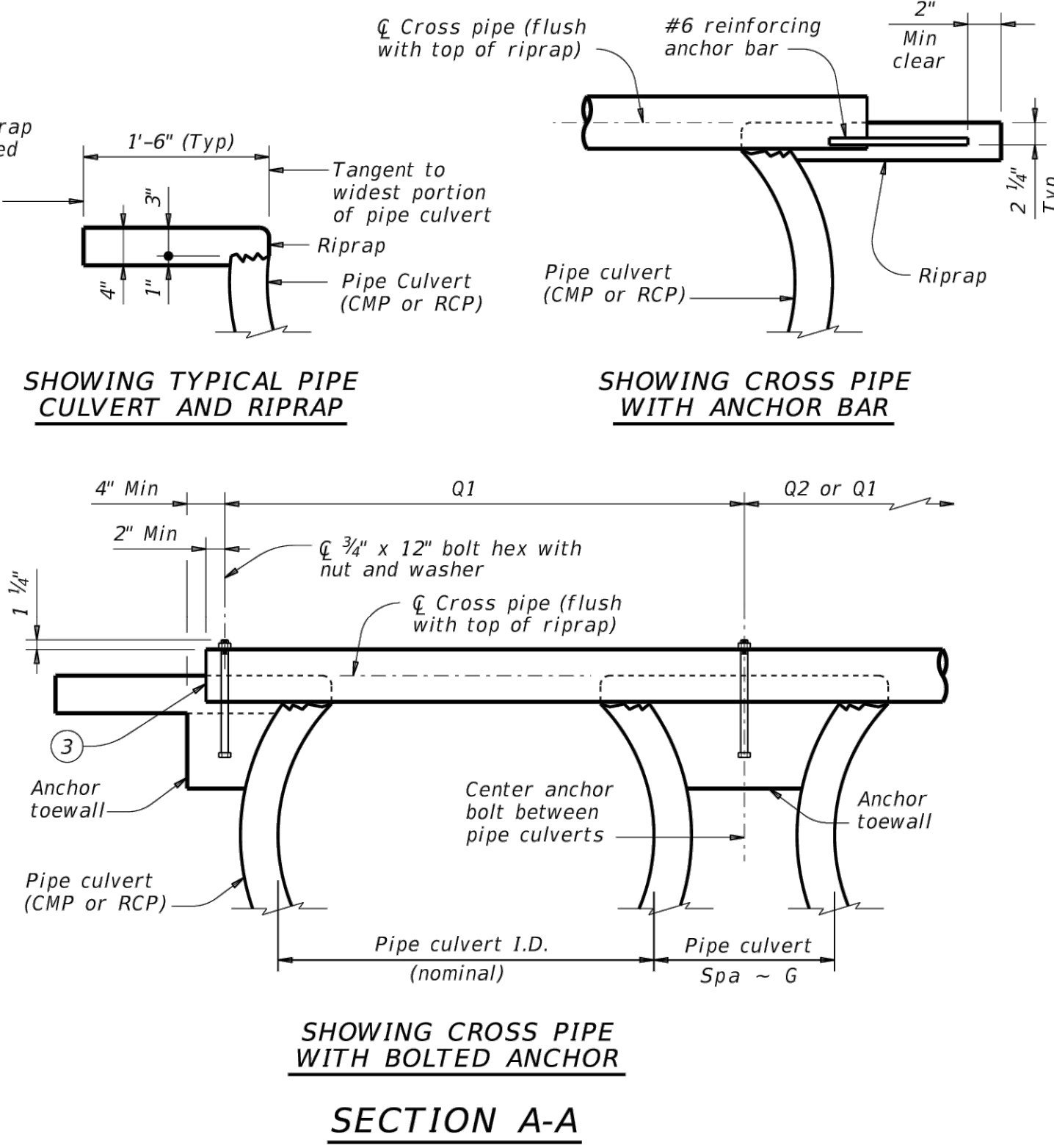
**CROSS PIPE DETAILS**



**DETAIL "A"**

**SECTION B-B**

(Cross pipes not shown for clarity.)



**SHOWING TYPICAL PIPE CULVERT AND RIPRAP**

**SHOWING CROSS PIPE WITH ANCHOR BAR**

**SHOWING CROSS PIPE WITH BOLTED ANCHOR**

**SECTION A-A**

**CROSS PIPE LENGTHS, REQUIRED PIPE SIZES, AND RIPRAP QUANTITIES**

Nominal Culvert I.D.	Conc Riprap (CY) (6)	Pipe Culvert Spa ~ G	Single Barrel ~ Q1	Multi-Barrel ~ Q1	Q2	Conditions for Use of Cross Pipes	Cross Pipe Sizes
12"	0.6	0' - 9"	N/A	2' - 1"	1' - 9"	3 or more pipe culverts	3" Std (3.500" O.D.)
15"	0.7	0' - 11"	N/A	2' - 5"	2' - 2"		
18"	0.8	1' - 2"	N/A	2' - 10"	2' - 8"		
21"	0.9	1' - 4"	N/A	3' - 2"	3' - 1"		
24"	0.9	1' - 7"	N/A	3' - 6"	3' - 7"		
27"	1.0	1' - 8"	N/A	3' - 10"	3' - 11"	3 or more pipe culverts	3 1/2" Std (4.000" O.D.)
30"	1.1	1' - 10"	N/A	4' - 2"	4' - 4"	2 or more pipe culverts	
33"	1.2	1' - 11"	4' - 2"	4' - 5"	4' - 8"	All pipe culverts	
36"	1.3	2' - 1"	4' - 5"	4' - 9"	5' - 1"	All pipe culverts	4" Std (4.500" O.D.)
42"	1.5	2' - 4"	4' - 11"	5' - 5"	5' - 10"		
48"	1.7	2' - 7"	5' - 5"	6' - 0"	6' - 7"		
54"	2.0	3' - 0"	5' - 11"	6' - 9"	7' - 6"		
60"	2.2	3' - 3"	6' - 5"	7' - 4"	8' - 3"		
66"	2.4	3' - 3"	6' - 11"	7' - 10"	8' - 9"	All pipe culverts	5" Std (5.563" O.D.)
72"	2.7	3' - 4"	7' - 5"	8' - 5"	9' - 4"		

- The proper installation of the first cross pipe is critical for vehicle safety. Place the top of the first cross pipe no more than 6" above the flow line.
- Provide cross pipes, except the first bottom pipe, of the size shown in the table. Provide a 3 1/2" standard pipe (4" O.D.) for the first bottom pipe.
- Install the third cross pipe from the bottom of the culvert using a bolted connection. Ensure that riprap concrete does not flow into the cross pipe so as to permit disassembly of the bolted connection to allow cleanout access. At the Contractor's option, install all other cross pipes using the bolted connection details.
- Match cross slope as shown elsewhere in the plans. Cross slope of 6:1 or flatter is required for vehicle safety.
- Riprap placed beyond the limits shown will be paid for as concrete riprap in accordance with Item 432, "Riprap."
- Quantities shown are for one end of one reinforced concrete pipe (RCP) culvert. For multiple pipe culverts or for corrugated metal pipe (CMP) culverts, quantities will need to be adjusted. Riprap quantities are for contractor's information only.

**MATERIAL NOTES:**  
 Synthetic Fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.  
 Provide cross pipes that meet the requirements of ASTM A53 (Type E or S, Gr B), ASTM A500 (Gr B), or API 5LX52.  
 Provide ASTM A307 bolts and nuts.  
 Galvanize all steel components, except concrete reinforcing, after fabrication. Repair galvanizing damaged during transport or construction in accordance with the specifications.

**GENERAL NOTES:**  
 Cross pipes are designed for a traversing load of 10,000 pounds at yield as recommended by Research Report 280-2F, "Safety Treatment of Roadside Parallel-Drainage Structures", Texas Transportation Institute, March 1981.  
 Safety end treatments (SET) shown herein are intended for use in those installations where out of control vehicles are likely to traverse the openings approximately perpendicular to the cross pipes.  
 Construct concrete riprap and all necessary inverts in accordance with the requirements of Item 432, "Riprap."  
 Payment for riprap and toewall is included in the Price Bid for each Safety End Treatment.

**Texas Department of Transportation** Bridge Division Standard

**SAFETY END TREATMENT FOR 12" DIA TO 72" DIA PIPE CULVERTS TYPE II ~ PARALLEL DRAINAGE SETP-PD**

FILE: CD-SETP-PD-20.dgn    DW: GAF    CK: CAT    DW: JRP    CK: GAF  
 ©TxDOT February 2020    DIST    COUNTY    SHEET NO.

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 312-206-8673

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JOB NUMBER: SR322002  
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**DRAINAGE DETAILS**

SHEET:  
**C7.0**

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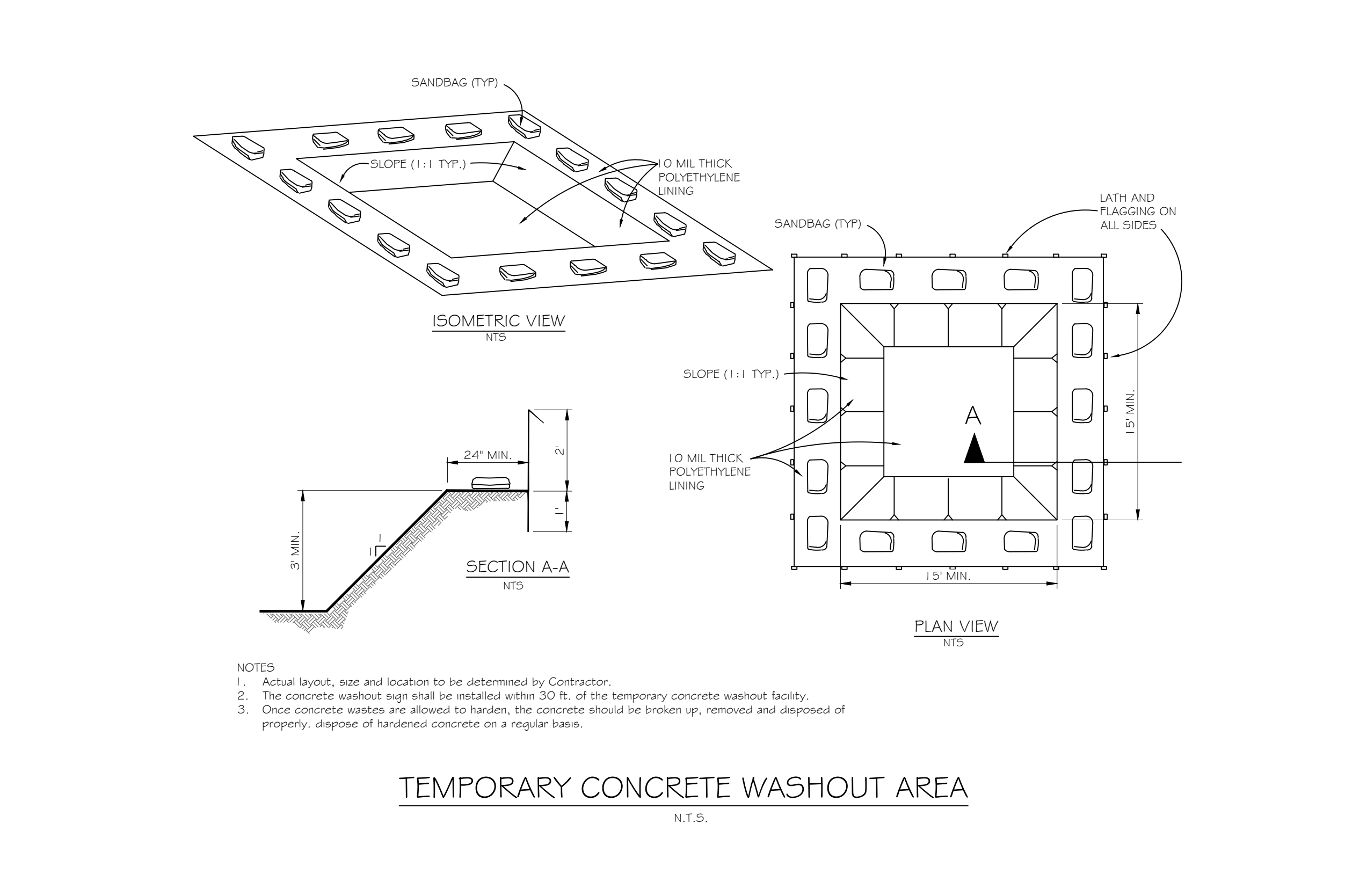
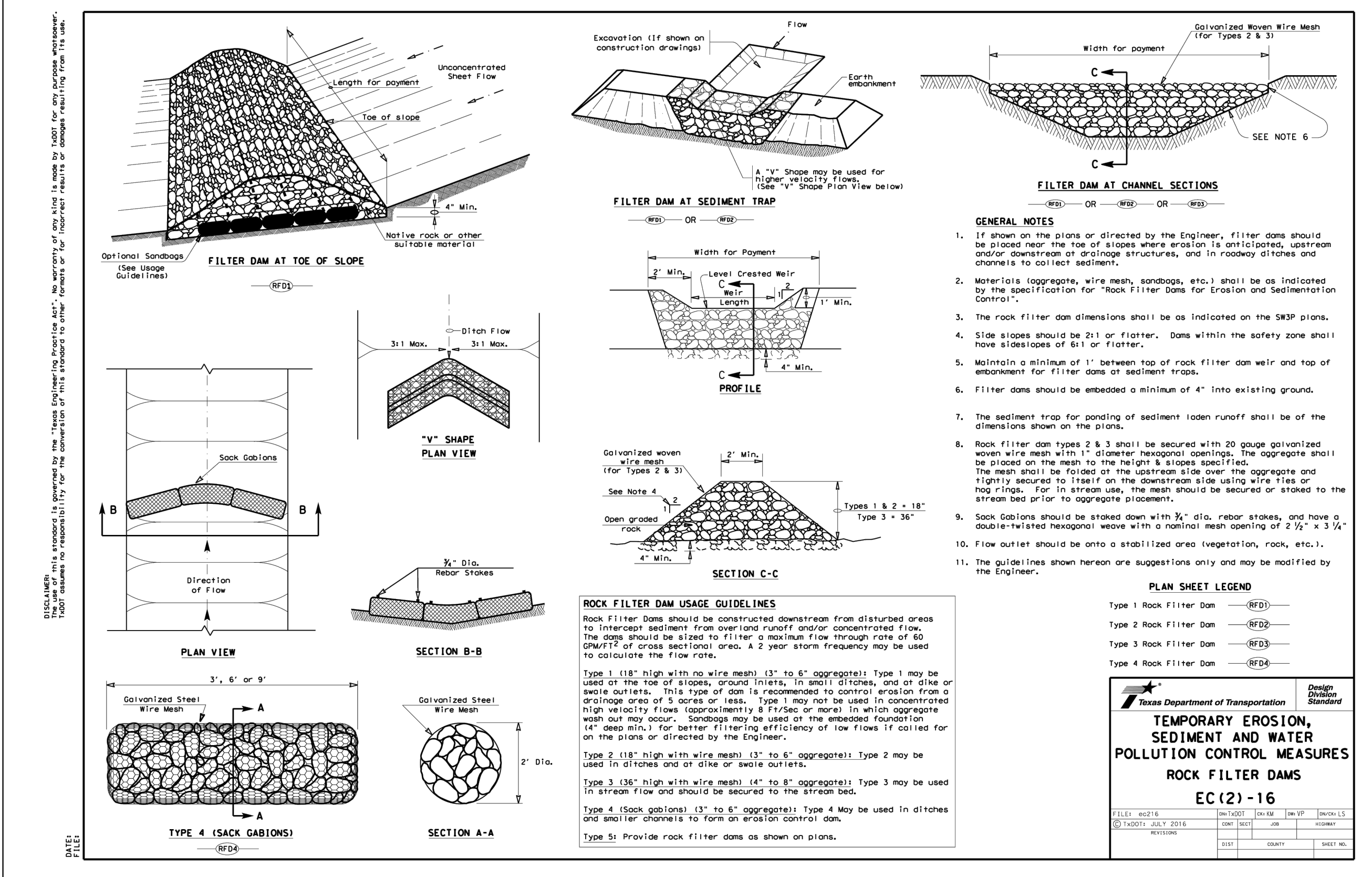
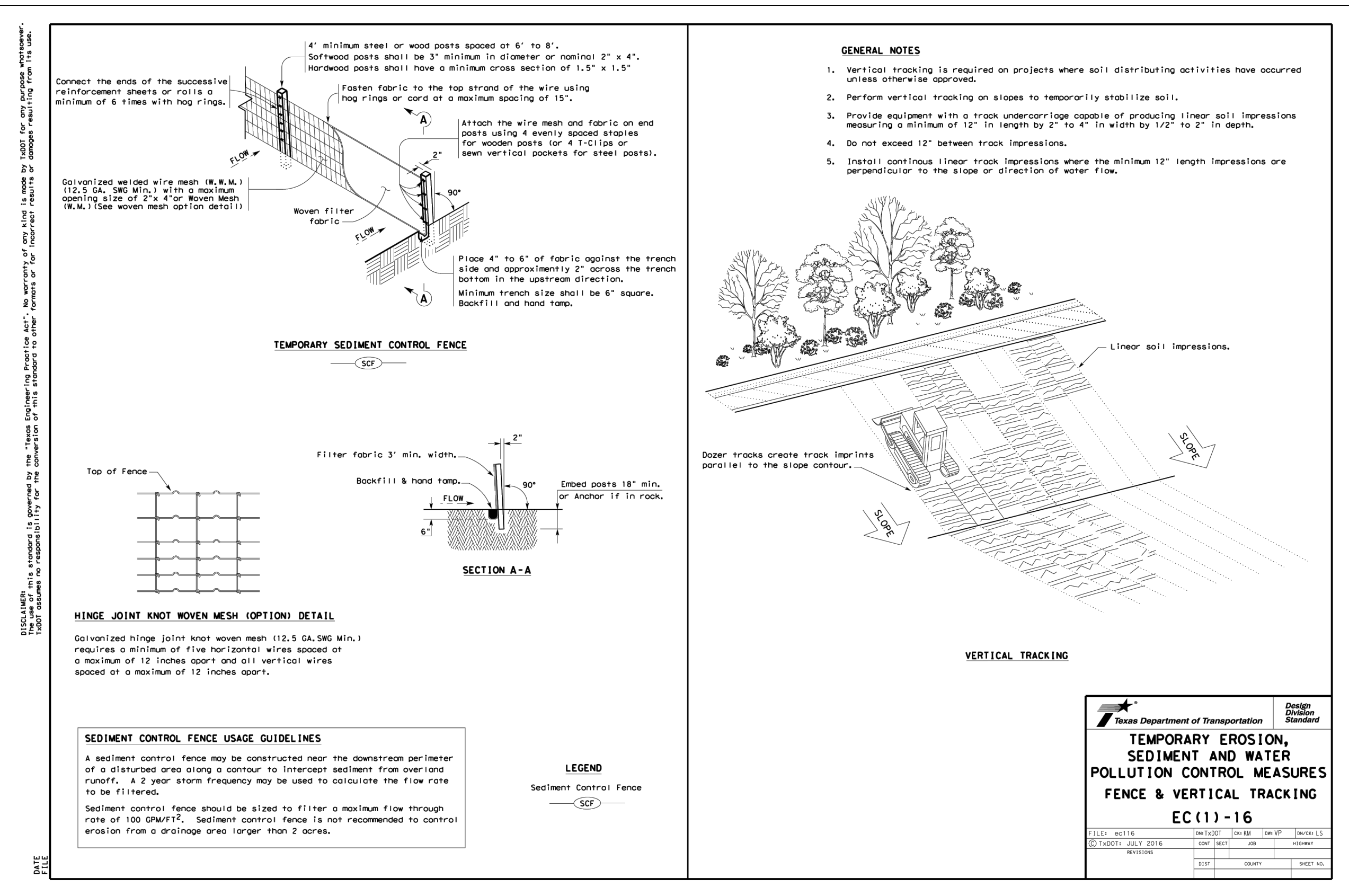
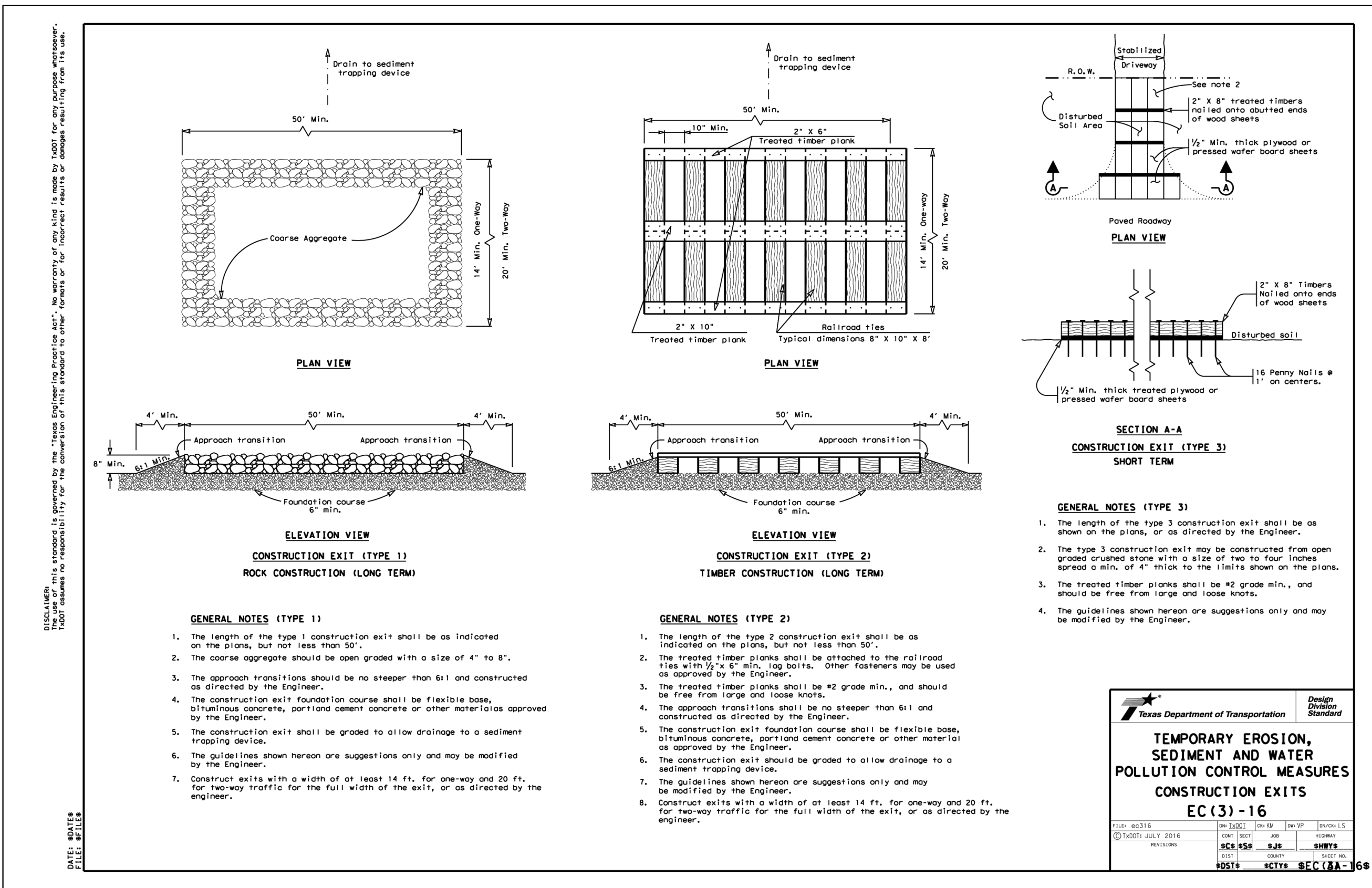
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**EROSION CONTROL DETAILS**  
 SHEET: **C8.0**



FILE# 80216 DATE: JULY 2016  
 SHEET NO. 110 SHEET TOTAL 118



March 25, 2024  
AVO 37449.004

Ms. Ramie Hammonds  
Development Services Director/Building Official  
City of Sanger  
201 Bolivar Street  
P.O. Box 1729  
Sanger, Texas 76266

Re: **Lakeside Estates Drainage Study -Review #1**

Dear Ms. Hammonds,

Halff Associates, Inc. (Halff) was requested by the City of Sanger to review the final plat and drainage study in support of the engineering plans for the Lakeside Estates located near the intersection of McReynolds Road and FM 455 E. The subject tract is located within the City of Sanger's ETJ. The submittal was prepared by Kirkman Engineering and dated March, 2024. The preliminary plat and drainage comments were found acceptable by Halff in September 2023.

We have completed our review and offer the following comments. Please address comments on attached markups and in the Drainage Study and provide annotated responses on markups. Please note, not all comments are written on letter since some comments are easier to show and explain on the markups. Please annotate markup with responses. Please note, an accepted drainage study is required prior to plans acceptance.

### Drainage Study

1. The proposed increase in runoff will impact private property (ZOI-1). This is not allowed (DCSRR IV.B). Please provide mitigation to reduce flows back to or less than existing or revise drainage to prevent increases onto private property.
2. Existing and proposed ponds on site will need to be analyzed using computation model. HEC-HMS is recommended.
3. Please note Lake Ray Roberts contains a flowage easement at elevation 645.5 ft. Please show on plans.
4. Please note multiple storm frequencies must be analyzed for project areas with detention.
5. Please provide additional detail for the proposed pond:
  - a. Is it detention or retention?
  - b. Pond Layout details
  - c. Pond must have 1-ft of freeboard for the 100-year storm event
  - d. Provide calculations that proposed volume meets the Modified Rational Method, with adjustment factors, required volume (Vmax) outlined in DCSRR IV.1.4
  - e. Outfall design and proposed discharge
  - f. Elevation vs Storage table
6. Ensure culverts have required 1-foot of freeboard for the 100-year storm event for SD-1 and SD-L.
7. Are there proposed culverts for the proposed driveway for the existing structure along HD-L?

If you have any questions or need additional information, please do not hesitate to call me at (214) 937-3953.

Sincerely,  
HALFF  
TBPELS Firm No. 312

A handwritten signature in blue ink that reads "Parker C. Moore".

Parker C. Moore, P.E., CFM

**Attachments:**

- Plans markups

# DRAINAGE REPORT FOR LAKESIDE ESTATES IN Sanger, Texas

March 8, 2024



Prepared by:



KCE Engineering, LLC

TBPE Firm #16940

Kameron Erbatur, PE, M.Eng, CFM

kammy@kce-eng.com

Prepared for:



TBPE Firm #15874



*[Handwritten signature]*  
3/8/2024



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## Introduction

The proposed Project site is an approximately 68-acre site located near the northeast corner of FM 455 and McReynolds Rd in the city of Sanger, Texas, as shown in **Appendix A – Figure 1**. The Project site is currently in use as a ranch and is proposed to be developed as a large-lot subdivision with the existing ranch house and surrounding buildings to remain. The proposed minimum lot size is 2-acres, and the construction plans for the infrastructure associated with the development are designed by Kirkman Engineering (KE). KCE Engineering, LLC (KCE) will provide guidance and stormwater runoff calculations for the proposed roadside ditches and culverts.

Per the FIRM 48121C0230G, revised April 18, 2011, there is not FEMA floodplain on the Project site with the exception of the far west side where the Project extends into the Zone AE floodplain of Lake Ray Roberts. The proposed construction plans for the Project site include the construction of access roads and roadside ditches with each lot to provide more detailed design as it develops.

The purpose of this drainage study is to determine the peak discharges for the required storm events to the downstream zones of influence, to ensure no adverse hydrologic impacts to adjacent properties, to determine the required driveway culvert sizes, and to provide HEC-RAS models of all proposed ditches with 10-cfs or more of proposed stormwater runoff.

## Overall Hydrologic Analysis

KCE used the existing contour data provided by Kirkman Engineering (KE) as well as the lidar contour data to delineate the existing drainage areas. Since the Project site is at the top of the watershed, there are numerous locations where the stormwater runoff leaves the Project site. All stormwater runoff from the Project site reaches Lake Ray Roberts which has a 100-year WSEL of 646, but there are some intermediate properties prior to the stormwater runoff reaching Lake Ray Roberts with the exception of the far west side of the Project site. At the far west side of the Project site, the Project reaches the 100-year floodplain of Lake Ray Roberts. At this location, the Project site no longer has a hydrologic impact since the area of the Project site is much less than the contributing drainage area of Lake Ray Roberts.

For the proposed drainage areas, the current construction plans include the grading required for the access roads and roadside ditches with only minor grading within each proposed lot. As each lot develops, they will need to provide their own detailed grading plan with the major divides matching the divides from this drainage study. The existing and proposed drainage areas are shown in **Appendix A – Figures 2 and 3**, respectively.

The time of concentration is defined as the time required for water to flow from the most hydraulically remote point of the basin to the design point of interest. The path of travel is divided into sheet flow, shallow concentrated flow, and open channel flow (or closed storm

Increases on private property are not allowed DCSRR IV.B

This assumes a peak on peak scenario which should not be assumed



system flow). The time of concentration for the existing and proposed conditions were calculated based on the SCS Publication Technical Release (TR-55). The existing flowpaths are shown on **Appendix A – Figure 2**, and the time of concentration calculations are shown in **Appendix B**. KCE used a maximum overland flow length of 100-ft and estimated the velocity in each concentrated channel using the Manning’s equation. For the proposed conditions, KCE used a minimum time of concentration of 15 minutes. **Tables 1 and 2** below show the existing and proposed stormwater runoff calculations for the Project site.



The 2-, 5-, 10-, 25-, 50-, and 100-year storm events (existing and proposed) must be analyzed for sites requiring detention DCSRR IV.B

**Table 1 – Existing Runoff Calculations**

Existing Hydrologic Calculations																
DA Designation	Acres	Single-Family	Pavement	Open Space	Weighted C-Factor	T <sub>c</sub>	I <sub>2</sub>	Q <sub>2</sub>	I <sub>5</sub>	Q <sub>5</sub>	I <sub>10</sub>	Q <sub>10</sub>	I <sub>25</sub>	Q <sub>25</sub>	I <sub>100</sub>	Q <sub>100</sub>
		0.45	0.90	0.35		(min)	(in/hr)	(cfs)	(in/hr)	(cfs)	(in/hr)	(cfs)	(in/hr)	(cfs)	(in/hr)	(cfs)
EX-1	12.80	5%	0%	95%	0.36	18.7	3.47	15.79	4.36	19.81	4.95	22.51	5.79	26.29	7.18	32.62
EX-2	4.91	0%	0%	100%	0.35	7.9	5.17	8.89	6.26	10.75	7.06	12.13	8.19	14.08	9.97	17.13
EX-3	1.60	100%	0%	0%	0.45	7.0	5.41	3.89	6.50	4.68	7.33	5.28	8.50	6.12	10.32	7.43
EX-4	6.14	25%	0%	75%	0.38	5.9	5.73	13.18	6.84	15.75	7.71	17.74	8.93	20.55	10.80	24.86
EX-5	12.96	0%	0%	100%	0.35	7.5	5.27	23.93	6.36	28.86	7.18	32.56	8.33	37.77	10.12	45.91
EX-6	4.15	0%	0%	100%	0.35	6.5	5.55	8.06	6.65	9.66	7.50	10.89	8.69	12.62	10.53	15.30
EX-7	2.46	0%	0%	100%	0.35	6.3	5.61	4.83	6.71	5.78	7.57	6.51	8.77	7.55	10.62	9.14
EX-8	1.81	0%	0%	100%	0.35	6.0	5.70	3.61	6.81	4.31	7.67	4.86	8.89	5.63	10.75	6.81
EX-9	0.45	0%	0%	100%	0.35	8.9	4.94	0.78	6.00	0.95	6.78	1.07	7.87	1.24	9.60	1.51
EX-10	1.18	0%	10%	90%	0.41	8.2	5.10	2.44	6.18	2.95	6.97	3.33	8.09	3.87	9.85	4.71
EX-11	1.30	0%	10%	90%	0.41	9.4	4.83	2.54	5.88	3.10	6.65	3.50	7.72	4.07	9.43	4.97
EX-12	7.48	0%	10%	90%	0.41	12.2	4.31	13.06	5.31	16.09	6.01	18.21	7.00	21.19	8.60	26.04
EX-13	1.70	0%	0%	100%	0.35	6.5	5.55	3.30	6.65	3.96	7.50	4.46	8.69	5.17	10.53	6.27
EX-14	1.77	0%	0%	100%	0.35	10.5	4.61	2.86	5.64	3.50	6.38	3.95	7.42	4.60	9.08	5.63
EX-15	9.95	0%	5%	95%	0.38	9.8	4.75	17.83	5.79	21.76	6.55	24.60	7.61	28.58	9.30	34.94
EX-16	2.68	0%	5%	95%	0.38	8.5	5.03	5.09	6.10	6.17	6.89	6.97	8.00	8.09	9.75	9.86
EX-17	1.94	0%	5%	95%	0.38	7.2	5.35	3.92	6.45	4.72	7.27	5.32	8.43	6.18	10.24	7.50



**Table 2 – Proposed Runoff Calculations**

<b>Proposed Hydrologic Calculations</b>																
<b>DA Designation</b>	<b>Acres</b>	<b>Single-Family</b>	<b>Pavement</b>	<b>Open Space</b>	<b>Weighted C-Factor</b>	<b>T<sub>c</sub></b>	<b>I<sub>2</sub></b>	<b>Q<sub>2</sub></b>	<b>I<sub>5</sub></b>	<b>Q<sub>5</sub></b>	<b>I<sub>10</sub></b>	<b>Q<sub>10</sub></b>	<b>I<sub>25</sub></b>	<b>Q<sub>25</sub></b>	<b>I<sub>100</sub></b>	<b>Q<sub>100</sub></b>
		<b>0.45</b>	<b>0.90</b>	<b>0.35</b>		<b>(min)</b>	<b>(in/hr)</b>	<b>(cfs)</b>	<b>(in/hr)</b>	<b>(cfs)</b>	<b>(in/hr)</b>	<b>(cfs)</b>	<b>(in/hr)</b>	<b>(cfs)</b>	<b>(in/hr)</b>	<b>(cfs)</b>
DA1a	3.83	100%	0%	0%	0.45	15.0	3.90	6.72	4.85	8.36	5.50	9.47	6.41	11.05	7.91	13.64
DA1b	0.50	75%	25%	0%	0.56	15.0	3.90	1.10	4.85	1.36	5.50	1.55	6.41	1.80	7.91	2.23
DA2	0.46	100%	0%	0%	0.45	15.0	3.90	0.81	4.85	1.00	5.50	1.14	6.41	1.33	7.91	1.64
DA3	1.34	100%	0%	0%	0.45	15.0	3.90	2.35	4.85	2.92	5.50	3.31	6.41	3.86	7.91	4.77
DA4	2.06	100%	0%	0%	0.45	15.0	3.90	3.62	4.85	4.49	5.50	5.10	6.41	5.94	7.91	7.33
DA5	3.80	100%	0%	0%	0.45	15.0	3.90	6.67	4.85	8.29	5.50	9.40	6.41	10.96	7.91	13.53
DA6	0.75	100%	0%	0%	0.45	15.0	3.90	1.32	4.85	1.64	5.50	1.86	6.41	2.16	7.91	2.67
DA7a	1.98	100%	0%	0%	0.45	15.0	3.90	3.48	4.85	4.32	5.50	4.90	6.41	5.71	7.91	7.05
DA7b	2.96	100%	0%	0%	0.45	15.0	3.90	5.20	4.85	6.46	5.50	7.32	6.41	8.54	7.91	10.54
DA8	0.56	100%	0%	0%	0.45	15.0	3.90	0.98	4.85	1.22	5.50	1.39	6.41	1.62	7.91	1.99
DA9	0.52	100%	0%	0%	0.45	15.0	3.90	0.91	4.85	1.13	5.50	1.29	6.41	1.50	7.91	1.85
DA10	1.06	100%	0%	0%	0.45	15.0	3.90	1.86	4.85	2.31	5.50	2.62	6.41	3.06	7.91	3.77
DA11	0.28	100%	0%	0%	0.45	15.0	3.90	0.49	4.85	0.61	5.50	0.69	6.41	0.81	7.91	1.00
DA12	1.10	100%	0%	0%	0.45	15.0	3.90	1.93	4.85	2.40	5.50	2.72	6.41	3.17	7.91	3.92
DA13	1.69	100%	0%	0%	0.45	15.0	3.90	2.97	4.85	3.69	5.50	4.18	6.41	4.87	7.91	6.02
DA14	1.12	100%	0%	0%	0.45	15.0	3.90	1.97	4.85	2.44	5.50	2.77	6.41	3.23	7.91	3.99
DA15	1.27	100%	0%	0%	0.45	15.0	3.90	2.23	4.85	2.77	5.50	3.14	6.41	3.66	7.91	4.52
DA16	1.57	100%	0%	0%	0.45	15.0	3.90	2.76	4.85	3.43	5.50	3.88	6.41	4.53	7.91	5.59
DA17	0.43	100%	0%	0%	0.45	15.0	3.90	0.75	4.85	0.94	5.50	1.06	6.41	1.24	7.91	1.53
DA18	1.28	100%	0%	0%	0.45	15.0	3.90	2.25	4.85	2.79	5.50	3.17	6.41	3.69	7.91	4.56
DA19	0.81	100%	0%	0%	0.45	15.0	3.90	1.42	4.85	1.77	5.50	2.00	6.41	2.34	7.91	2.88
DA20	0.78	100%	0%	0%	0.45	15.0	3.90	1.37	4.85	1.70	5.50	1.93	6.41	2.25	7.91	2.78
DA21	2.68	0%	5%	95%	0.38	8.5	5.03	5.09	6.10	6.17	6.89	6.97	8.00	8.09	9.75	9.86





**Proposed Hydrologic Calculations**

DA Designation	Acres	Single-Family	Pavement	Open Space	Weighted C-Factor	T <sub>c</sub>	I <sub>2</sub>	Q <sub>2</sub>	I <sub>5</sub>	Q <sub>5</sub>	I <sub>10</sub>	Q <sub>10</sub>	I <sub>25</sub>	Q <sub>25</sub>	I <sub>100</sub>	Q <sub>100</sub>
		<b>0.45</b>	<b>0.90</b>	<b>0.35</b>		(min)	(in/hr)	(cfs)	(in/hr)	(cfs)	(in/hr)	(cfs)	(in/hr)	(cfs)	(in/hr)	(cfs)
DA22	7.40	0%	5%	95%	0.38	9.8	4.75	13.26	5.79	16.19	6.55	18.29	7.61	21.26	9.30	25.99
DA24a	2.04	100%	0%	0%	0.45	15.0	3.90	3.58	4.85	4.45	5.50	5.05	6.41	5.88	7.91	7.26
DA24b	0.35	100%	0%	0%	0.45	15.0	3.90	0.61	4.85	0.76	5.50	0.87	6.41	1.01	7.91	1.25
DA24c	0.13	100%	0%	0%	0.45	15.0	3.90	0.23	4.85	0.28	5.50	0.32	6.41	0.37	7.91	0.46
DA25a	2.09	100%	0%	0%	0.45	15.0	3.90	3.67	4.85	4.56	5.50	5.17	6.41	6.03	7.91	7.44
DA25b	5.85	100%	0%	0%	0.45	15.0	3.90	10.27	4.85	12.76	5.50	14.47	6.41	16.87	7.91	20.83
DA26a	1.60	100%	0%	0%	0.45	15.0	3.90	2.81	4.85	3.49	5.50	3.96	6.41	4.61	7.91	5.70
DA26b	6.69	50%	0%	50%	0.40	15.0	3.90	10.44	4.85	12.97	5.50	14.71	6.41	17.15	7.91	21.17
DA27	2.92	100%	0%	0%	0.45	15.0	3.90	5.13	4.85	6.37	5.50	7.22	6.41	8.42	7.91	10.40
DA28	4.08	100%	0%	0%	0.45	15.0	3.90	7.16	4.85	8.90	5.50	10.09	6.41	11.77	7.91	14.53
DA29	2.49	100%	0%	0%	0.45	15.0	3.90	4.37	4.85	5.43	5.50	6.16	6.41	7.18	7.91	8.87
DA30	1.88	100%	0%	0%	0.45	15.0	3.90	3.30	4.85	4.10	5.50	4.65	6.41	5.42	7.91	6.69
DA31	1.21	0%	0%	100%	0.35	7.2	5.35	2.27	6.45	2.73	7.27	3.08	8.43	3.57	10.24	4.34
DA32	2.55	0%	10%	90%	0.41	10.0	4.71	4.86	5.75	5.94	6.50	6.71	7.55	7.80	9.24	9.54



KCE then used the proposed grading to route the stormwater runoff along the proposed roadside ditches to the downstream Zones of Influence (ZOI). KCE added design points along each roadside ditch at the middle of the proposed pad sites to provide minimum required culvert sizes for each pad. As these pads develop in the future, they will submit their own individual lot grading plans along with the detailed grading required for the proposed culverts. At that time, the minimum culvert size should be equivalent to the size modeled for each driveway culvert in this drainage report.

The primary access for the Project site will be along Megaview Drive which is the current private drive for the ranch. This road will be improved as part of this proposed Project with drainage ditches graded on either side and an existing 4-24” storm drain culvert replaced by 3-30” culverts. Just downstream of the culvert crossing at Megaview Drive is a private driveway with a 4-24” culvert crossing. KCE has set a ZOI at the upstream side of each culvert crossing to ensure that there is no increase in the peak discharge to each culvert crossing and has included the offsite area to each culvert in the overall calculations. KCE has used the proposed site and grading plans to route the peak discharges along each proposed roadside ditch or channel. **Table 3** below has the existing routed flows to the existing culverts at Megaview Drive, **Table 4** below shows the proposed routed peak discharges along all the proposed ditches and channels, and **Table 5** below shows the comparison at the ZOIs between the existing and proposed conditions.



**Table 3 – Existing Routed Peak Discharges**

100-yr Existing Routed Peak Discharges													
Design Point		Time of Concentration Calculations				I <sub>100</sub> (in/hr)	Drainage Area						Q <sub>100</sub> (cfs)
From	To	Inlet Tc (min)	Distance (feet)	Velocity (fps)	Travel Time (min)		DA	Incr. Area (ac)	Total Area (ac)	Runoff C	Incr. C x A	Total C x A	
<b>Existing Megaview Drive</b>													
ZOI-11	ZOI-15	9.4	993	5.0	12.7	9.43	EX-11	1.30	1.30	0.41	0.53	0.53	5.0
ZOI-15	ZOI-16	12.7	66	5.0	12.9	8.46	EX-15	9.95	11.25	0.38	3.76	4.28	36.2
ZOI-16	-	12.9		5.0	12.9	8.40	EX-10, EX-16, EX-17	5.80	17.05	0.38	2.22	6.50	54.7

**Table 4 – Proposed Routed Peak Discharges**

100-yr Proposed Routed Peak Discharges													
Design Point		Time of Concentration Calculations				I <sub>100</sub> (in/hr)	Drainage Area						Q <sub>100</sub> (cfs)
From	To	Inlet Tc (min)	Distance (feet)	Velocity (fps)	Travel Time (min)		DA	Incr. Area (ac)	Total Area (ac)	Runoff C	Incr. C x A	Total C x A	
<b>Hillside Drive Left Ditch</b>													
HD-L1	HD-L2	15.0	604	5.0	17.0	7.91	1/2 DA5	1.90	1.90	0.45	0.86	0.86	6.8
HD-L2	HD-L3	17.0	305	5.0	18.0	7.49	1/2 DA5	1.90	3.80	0.45	0.86	1.71	12.8
HD-L3	HD-L4	18.0	272	5.0	18.9	7.30	DA4	2.06	5.86	0.45	0.93	2.64	19.3
HD-L4	HD-L5	18.9	237	5.0	19.7	7.14	DA3	1.34	7.20	0.45	0.60	3.24	23.1
HD-L5	HD1	19.7	152	5.0	20.2	7.00	DA2	0.46	7.66	0.45	0.21	3.45	24.1
HD1	HD2	20.2	134	5.0	20.7	6.92	DA6, DA7a, DA7b, DA8, DA9, DA10	7.83	15.49	0.45	3.52	6.97	48.2
HD2	ZOI-1	20.7	500	5.0	22.3	6.85	DA1b	0.50	15.99	0.56	0.28	7.25	49.7



100-yr Proposed Routed Peak Discharges													
Design Point		Time of Concentration Calculations				I <sub>100</sub> (in/hr)	Drainage Area						Q100 (cfs)
From	To	Inlet T <sub>c</sub> (min)	Distance (feet)	Velocity (fps)	Travel Time (min)		DA	Incr. Area (ac)	Total Area (ac)	Runoff C	Incr. C x A	Total C x A	
ZOI-1	-	22.3			-			15.99			7.25	49.7	
<b>Hillside Drive Right Ditch</b>													
HD-R1	HD-R2	15.0	310	5.0	16.0	7.91	DA6	0.75	0.75	0.45	0.34	0.34	2.7
HD-R2	HD-R3	16.0	280	5.0	17.0	7.69	DA8	0.56	1.31	0.45	0.25	0.59	4.5
HD-R3	HD-R4	17.0	394	5.0	18.3	7.50	DA9	0.52	1.83	0.45	0.23	0.82	6.2
HD-R4	-	18.3		5.0	18.3	7.25	DA7a, DA7b, DA10	6.00	7.83	0.45	2.70	3.52	25.6
<b>Hillside Court Left Ditch</b>													
HC-L1	HC-L2	15.0	175	5.0	15.6	7.91	DA15	1.27	1.27	0.45	0.57	0.57	4.5
HC-L2	POND	15.6	84	5.0	15.9	7.79	DA14	1.12	2.39	0.45	0.50	1.08	8.4
POND	ZOI-12	15.9	22	5.0	15.9	7.73	DA11, DA12, DA13	3.07	5.46	0.45	1.38	2.46	19.0
ZOI-12	-	15.9		6.0	15.9	7.71	DA17	0.43	5.89	0.45	0.19	2.65	20.4
<b>Hillside Court Right Ditch</b>													
HC-R1	HC-R2	15.0	250	5.0	15.8	7.91	DA11	0.28	0.28	0.45	0.13	0.13	1.0
HC-R2	POND	15.8	80	5.0	16.1	7.73	DA12	1.10	1.38	0.45	0.50	0.62	4.8
POND	ZOI-12	16.1	22	5.0	16.2	7.68	DA13, DA14, DA15	4.08	5.46	0.45	1.84	2.46	18.9
ZOI-12	-	16.2		6.0	16.2	7.66	DA17	0.43	5.89	0.45	0.19	2.65	20.3
<b>DA7 Ditch</b>													
DA7-1	DA7-2	15.0	735	5.0	17.5	7.91	DA7a	1.98	1.98	0.45	0.89	0.89	7.0



100-yr Proposed Routed Peak Discharges													
Design Point		Time of Concentration Calculations				I <sub>100</sub> (in/hr)	Drainage Area						Q <sub>100</sub> (cfs)
From	To	Inlet T <sub>c</sub> (min)	Distance (feet)	Velocity (fps)	Travel Time (min)		DA	Incr. Area (ac)	Total Area (ac)	Runoff C	Incr. C x A	Total C x A	
DA7-2	ZOI-14	17.5	102	5.0	17.8	7.41	DA7b	2.96	4.94	0.45	1.33	2.22	16.5
ZOI-14	-	17.8		5.0	17.8	7.34			4.94		0.00	2.22	16.3
<b>Megaview Right Ditch</b>													
MD-R1	ZOI-10	15.0	175	5.4	15.5	7.91	DA19	0.81	0.81	0.45	0.36	0.36	2.9
ZOI-10	ZOI-16	15.5	963	5.4	18.5	7.79	DA20	0.78	1.59	0.45	0.35	0.72	5.6
ZOI-16	-	18.5		5.0	18.5	7.21	DA18, DA21, DA22, DA31, DA32	15.12	16.71	0.39	5.84	6.55	47.3
<b>Megaview Left Ditch</b>													
ZOI-11	ZOI-15	15.0	993	3.0	20.5	7.91	DA18	1.28	1.28	0.45	0.58	0.58	4.6
ZOI-15	ZOI-16	20.5	66	5.0	20.7	6.87	DA22, DA32	9.95	11.23	0.38	3.83	4.40	30.3
ZOI-16	-	20.7		5.0	20.7	6.84	DA19, DA20, DA21, DA31	5.48	16.71	0.39	2.15	6.55	44.8
<b>Sunrise Drive Left Ditch</b>													
SD-L1	SD-L2	15.0	178	6.0	15.5	7.91	DA24a	2.04	2.04	0.45	0.92	0.92	7.3
SD-L2	SD-L3	15.5	130	6.0	15.9	7.80	DA24b	0.35	2.39	0.45	0.16	1.08	8.4
SD-L3	SD-1	15.9	101	6.0	16.1	7.73	DA24c	0.13	2.52	0.45	0.06	1.13	8.8
SD-1	ZOI-5	16.1	383	6.0	17.2	7.67	DA25a, DA25b	7.94	10.46	0.45	3.57	4.71	36.1
ZOI-5	-	17.2		5.0	17.2	7.46	DA27	2.92	13.38	0.45	1.31	6.02	44.9

**Table 5 – ZOI Comparison**

ZOI	Contributing DA		100-yr Peak Discharge (cfs)		
	Existing	Proposed	Existing	Proposed	Proposed - Existing
ZOI-1	EX-1	DA1b, DA2, DA3, DA4, DA5, DA6, DA8, DA9, DA10	32.6	49.7	17.0
ZOI-2	EX-2	DA1a	17.1	13.6	-3.5
ZOI-3	EX-3	DA26a	7.4	5.7	-1.7
ZOI-4	EX-4	DA26b	24.9	21.2	-3.7
ZOI-5	EX-5	DA24a, DA24b, DA24c, DA25a, DA25b, DA27	45.9	44.9	-1.0
ZOI-6	EX-6	DA28	15.3	14.5	-0.8
ZOI-7	EX-7	DA29	9.1	8.9	-0.3
ZOI-8	EX-8	DA30	6.8	6.7	-0.1
ZOI-9	EX-9	-	1.5	0.0	-1.5
ZOI-10	EX-10	DA19, DA20a	4.7	5.6	0.9
ZOI-11	EX-11	DA18	5.0	4.6	-0.4
ZOI-12	EX-12	DA11, DA12, DA13, DA14, DA15, DA17	26.0	20.4	-5.6
ZOI-13	EX-13	DA16	6.3	5.6	-0.7
ZOI-14	EX-14	-	5.6		-5.6
ZOI-15	EX-11, EX-15	DA18, DA22, DA32	36.2	30.3	-6.0
ZOI-16	EX-10, EX-11, EX-15, EX-16, EX-17	DA18, DA19, DA20, DA21, DA22, DA31, DA32	54.7	47.3	-7.4

Based on the comparison at each ZOI, there is a decrease in the 100-year peak discharge at every location except for at ZOI-1 and ZOI-10. Since ZOI-1 is located within the FEMA 100-year floodplain (Zone AE) of Lake Ray Roberts, this local increase will have no impact on the actual 100-year WSEL within Lake Ray Roberts. The slight increase 0.9-cfs at ZOI-10 should be contained within the proposed roadside ditch along the east side of Megaview Dr. and there is a decrease at the next design point downstream (ZOI-16), therefore, there is not an adverse impact to other properties.

The proposed increase in runoff will impact private property. This is not allowed (DCSRR IV.B). Please provide mitigation to reduce flows back to or less than existing or revise drainage to prevent increases onto private property.



## Hydraulic Modeling

Kirkman Engineering provided KCE with the proposed grading plans for the Project site as well as the conceptual pad locations for each lot. KCE assumed that each lot would have a driveway at the middle of the conceptual pad location and created HEC-RAS models for all proposed ditches conveying 10-cfs or more. For any proposed driveways with a ditch that conveys less than 10-cfs, the minimum size driveway culvert should be 24". The proposed culvert at the end of Hillside Dr that outfalls towards the west should be a minimum of 2-24", the proposed culvert under Megaview Dr. should be 2-30", and the culvert under Sunrise Dr that outfalls to the east should be 3-24". If there is not enough cover for a standard culvert, traffic-rated culverts may be required.

The creek banks were set at the edge of road and the peak discharge was applied at the upstream side of each proposed driveway or culvert. The United States Army Corps of Engineers HEC-RAS (version 6.4.1) program was used to calculate the proposed conditions for the channel through Project site. **Table 6** below shows the ditch names, the design points that correspond to each flow change location in RAS, and the applied 100-year peak discharge. **Table 7** below shows the minimum culvert size for each lot based on the RAS models, and **Table 8** shows the RAS results for each ditch. Please refer to **Appendix C** for the profiles and cross-sections of each ditch, and **Appendix A – Figure 4** has the hydraulic key map.



**Table 6 – Design Point/RAS Comparison**

Reach	Junction	RAS XS	Peak Discharge (cfs)
			100-yr
HD-1	HD-R4	9+13	25.6
	HD1	7+88	48.2
	HD2	6+17	49.7
HD-L	HD-L1	15+93	6.8
	HD-L2	10+13	12.8
	HD-L3	7+07	19.3
	HD-L4	4+32	23.1
	HD-L5	2+37	24.1
SC-1	ZOI-15	3+83	30.3
	ZOI-16	3+07	47.3
SD-1	SD-R1	11+01	28.3
	SD-1	10+40	36.1
	ZOI-5	7+71	44.9
SD-L1	SD-L1	7+21	7.3
	SD-L2	2+39	8.4
	SD-L3	1+30	8.8
SD-R1	SD-R1	6+37	7.4
SD-R2	SD-R1	4+65	20.8





**Table 7 – Minimum Culvert Sizes**

Block	Lot	Minimum Culvert Size
A	1	24"
	2	24"
	3	24"
	4	24"
	5	2-24"
	6	24"
	7	24"
	8	24"
	9	2-24"
	10	2-24"
	11	3-24"
	12	3-24"
B	1	24"
	2	24"
	3	2-24"
	4	24"
C	1	24"
	2	24"
	3	24"
	4	24"
	5	24"
	6	24"
	7	24"

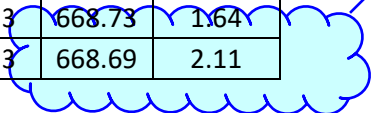
**Table 8 – RAS Results**

Reach	River Station	100-yr		
		Q (cfs)	WSEL (ft)	Velocity (fps)
HD-1	913	25.6	659.24	0.95
	909	25.6	659.18	1.89
	908	Culvert		
	788	48.2	656.42	6.78
	715	48.2	654.05	4.07
	617	49.7	652.54	4.68
	514	49.7	650.60	4.58
	408	49.7	648.70	4.49
	298	49.7	646.52	4.53
	200	49.7	644.74	3.98
HD-L	1593	6.8	715.72	3.13
	1507	6.8	713.69	3.14
	1417	6.8	711.69	3.15
	1327	6.8	709.73	3.09
	1240	6.8	707.70	3.17
	1165	6.8	705.75	3.10
	1089	6.8	703.73	3.07
	1027	6.8	702.34	2.40
	1013	12.8	702.34	1.47
	1010	Culvert		
	993	12.8	701.47	3.50
	975	12.8	700.85	3.62
	905	12.8	698.96	3.52
	844	12.8	695.93	3.60
	798	12.8	692.93	3.59
	753	12.8	689.98	3.62
	722	12.8	687.97	3.58
	707	19.3	687.52	2.06
	704	Culvert		
	687	19.3	685.77	3.94
	676	19.3	685.02	3.95
	647	19.3	683.16	3.89
601	19.3	680.1	3.94	
556	19.3	677.20	3.84	



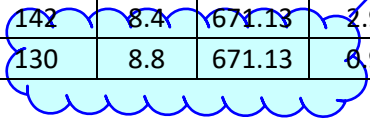
Reach	River Station	100-yr		
		Q (cfs)	WSEL (ft)	Velocity (fps)
	505	19.3	674.24	3.75
	453	19.3	671.3	3.67
	432	23.1	670.3	2.37
	429	Culvert		
	414	23.1	668.97	4.08
	400	23.1	668.26	3.78
	365	23.1	666.32	3.82
	329	23.1	664.35	3.88
	294	23.1	662.99	2.38
	256	23.1	662.81	2.53
	237	24.1	662.75	2.32
	235	Culvert		
	219	24.1	662.06	3.67
	201	24.1	661.98	2.80
	180	24.1	661.72	3.51
	144	24.1	661.29	3.53
	109	24.1	660.77	3.80
	67	24.1	660.04	4.08
	56	24.1	659.31	4.16
	39	24.1	656.94	3.73
	23	24.1	656.42	0.54
SC-1	383	30.3	665.84	1.78
	374	30.3	665.59	2.01
	359	30.3	665.54	1.46
	355	Proposed Culvert		
	317	30.3	664.52	0.27
	312	30.3	664.52	0.42
	307	47.3	664.50	1.17
	287	Existing Culvert		
	254	47.3	662.99	1.82
	238	47.3	662.88	2.04
	189	47.3	661.99	2.35
	147	47.3	660.98	2.17
SD-1	1101	28.3	668.73	1.64
	1100	28.3	668.69	2.11

1-ft freeboard is required for culverts DCSRR IV.3



Reach	River Station	100-yr		
		Q (cfs)	WSEL (ft)	Velocity (fps)
	1099.5	Culvert		
	1040	36.1	667.49	5.24
	1022	36.1	665.88	4.08
	998	36.1	664.02	3.92
	972	36.1	661.97	4.01
	940	36.1	659.43	4.07
	908	36.1	656.96	4.06
	872	36.1	654.14	4.00
	824	36.1	652.40	3.70
	771	44.9	650.71	3.66
	730	44.9	649.70	3.39
	684	44.9	648.71	3.02
	650	44.9	648.32	3.80
SD-L	721	7.3	718.74	3.17
	665	7.3	717.04	2.96
	617	7.3	714.02	3.05
	575	7.3	709.89	3.16
	534	7.3	705.05	3.07
	493	7.3	699.97	3.23
	449	7.3	694.68	3.26
	427	7.3	692.13	3.25
	416	7.3	691.50	1.09
	413	Culvert		
	397	7.3	688.92	3.44
	374	7.3	686.36	3.26
	337	7.3	682.35	3.24
	298	7.3	679.58	3.20
	271	7.3	677.97	3.00
	249	7.3	676.73	1.39
	239	8.4	676.74	0.87
	237	Culvert		
	221	8.4	674.62	3.81
	192	8.4	673.01	3.08
165	8.4	672.02	3.02	
142	8.4	671.13	2.94	
130	8.8	671.13	6.93	

1-ft freeboard is required for culverts DCSRR IV.3





Reach	River Station	100-yr		
		Q (cfs)	WSEL (ft)	Velocity (fps)
	128	Culvert		
	113	8.8	669.84	3.44
	92	8.8	669.17	3.00
	39	8.8	668.01	2.92
SD-R1	637	7.4	717.78	3.14
	580	7.4	714.77	3.22
	526	7.4	710.92	3.09
	472	7.4	705.73	3.23
	423	7.4	700.93	3.21
	370	7.4	695.74	3.23
	321	7.4	690.66	3.25
	266	7.4	684.73	3.26
	224	7.4	679.76	3.25
	183	7.4	675.03	3.09
	151	7.4	672.01	3.08
	121	7.4	669.94	3.01
	93	7.4	668.85	3.07
	55	7.4	668.63	0.72
	42	7.4	668.62	0.86
	40	Culvert		
	25	7.4	667.59	2.65
22	7.4	667.60	1.84	
16	7.4	667.57	1.87	
SD-R2	465	20.8	696.97	4.02
	414	20.8	695.30	3.88
	399	20.8	694.83	2.02
	391	20.8	694.84	1.27
	387	Culvert		
	367	20.8	692.46	3.94
	351	20.8	691.24	3.95
	305	20.8	687.00	4.03
	257	20.8	681.92	4.02
	206	20.8	677.24	3.94
	149	20.8	673.06	3.97
	99	20.8	669.91	4.01



Reach	River Station	100-yr		
		Q (cfs)	WSEL (ft)	Velocity (fps)
	49	20.8	668.49	2.40

## Conclusions

Kirkman Engineering and KCE coordinated on the drainage design for this proposed large-lot residential development. Based on the comparison of existing to proposed peak discharges at each location where stormwater runoff leaves the Project site, there are decreases to all locations except for ZOI-1 which is located at the FEMA Zone AE floodplain of Lake Ray Roberts and ZOI-10 where the peak discharge will be contained within the proposed roadside ditch. KCE has modeled all proposed ditches that convey more than 10-cfs in HEC-RAS to determine the required culvert sizes for the future driveways and this information is provided in **Table 7**. As each lot develops it will provide a detailed lot grading plan with the major divides the same as the ones used in this drainage report.

If you have any questions or comments, please feel free to call.

Sincerely,

**KCE Engineering, LLC**

**a Texas limited liability corporation**

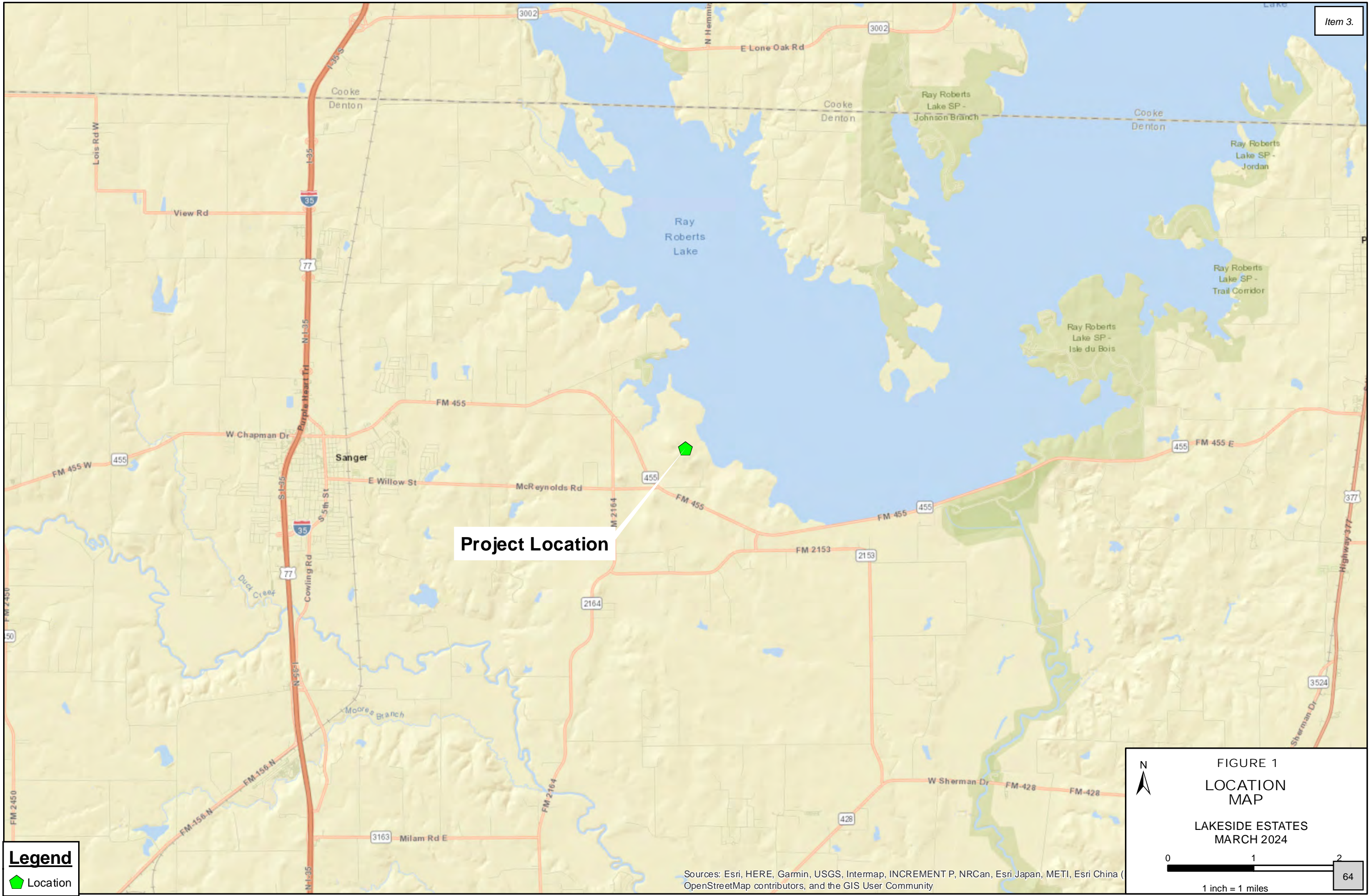
**TBPE Reg. No. F-16940**

Kamaron Erbatur, P.E., M.Eng., CFM  
 Principal



## Appendices

### Appendix A – Exhibits



**Project Location**

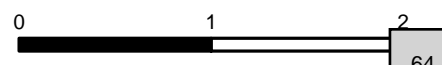
**Legend**

Location



FIGURE 1  
LOCATION  
MAP

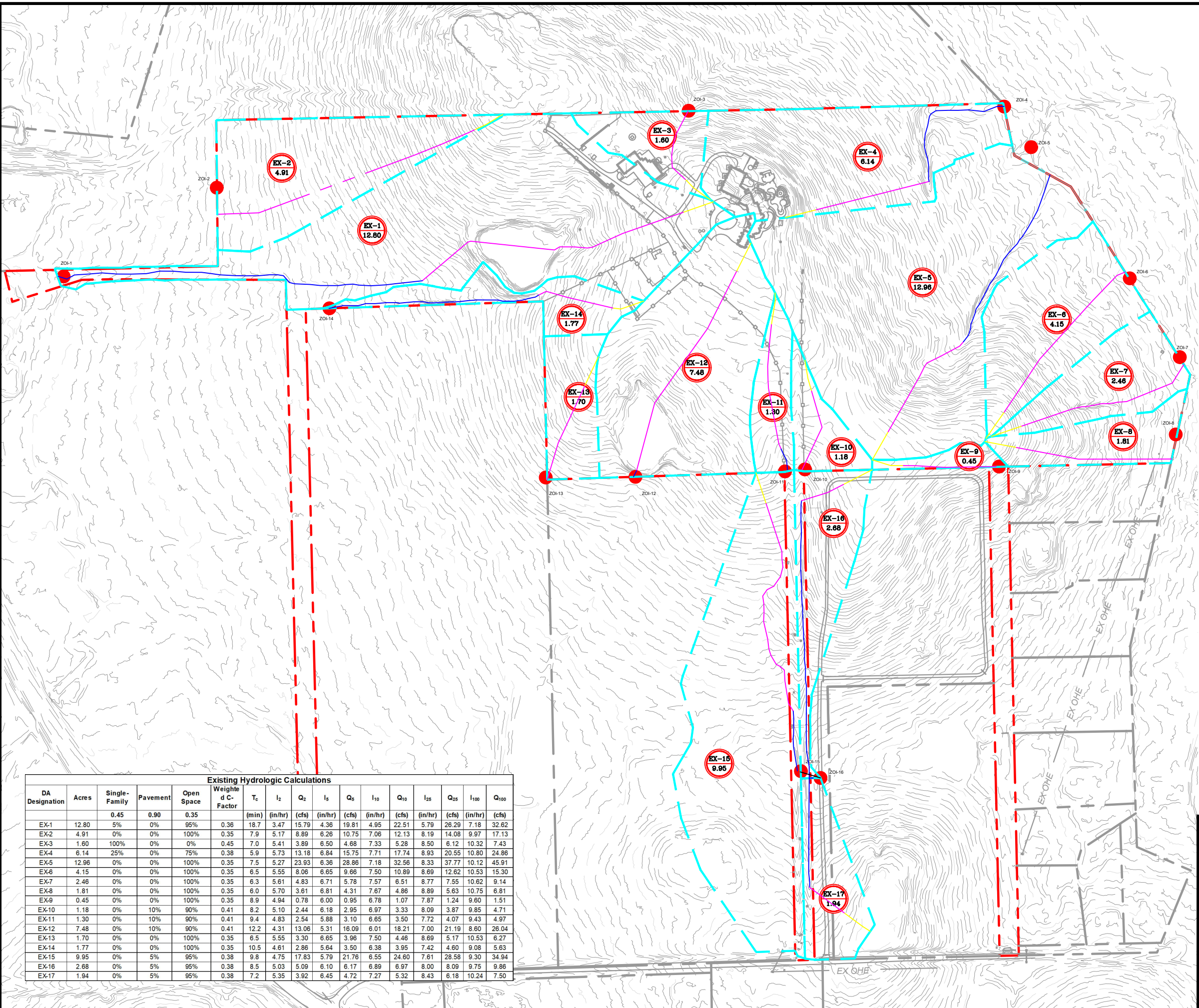
LAKESIDE ESTATES  
MARCH 2024



1 inch = 1 miles

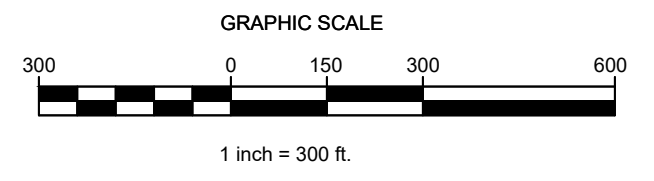
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (OpenStreetMap contributors, and the GIS User Community





**LEGEND:**

- EX FLOWPATH-SHEET
- EX FLOWPATH-SHALLOW
- EX FLOWPATH-CHANNEL
- LIDAR CONTOURS
- DRAINAGE DIVIDES
- SITE BOUNDARY
- ZOI



**Existing Hydrologic Calculations**








DA Designation	Acres	Single-Family	Pavement	Open Space	Weighted C-Factor	T <sub>c</sub> (min)	I <sub>2</sub> (in/hr)	Q <sub>2</sub> (cfs)	I <sub>5</sub> (in/hr)	Q <sub>5</sub> (cfs)	I <sub>10</sub> (in/hr)	Q <sub>10</sub> (cfs)	I <sub>25</sub> (in/hr)	Q <sub>25</sub> (cfs)	I <sub>100</sub> (in/hr)	Q <sub>100</sub> (cfs)
EX-1	12.80	5%	0%	95%	0.36	18.7	3.47	15.79	4.36	19.81	4.95	22.51	5.79	26.29	7.18	32.62
EX-2	4.91	0%	0%	100%	0.35	7.9	5.17	8.89	6.26	10.75	7.06	12.13	8.19	14.08	9.97	17.13
EX-3	1.60	100%	0%	0%	0.45	7.0	5.41	3.89	6.50	4.68	7.33	5.28	8.50	6.12	10.32	7.43
EX-4	6.14	25%	0%	75%	0.38	5.9	5.73	13.18	6.84	15.75	7.71	17.74	8.93	20.55	10.80	24.86
EX-5	12.96	0%	0%	100%	0.35	7.5	5.27	23.93	6.36	28.86	7.18	32.56	8.33	37.77	10.12	45.91
EX-6	4.15	0%	0%	100%	0.35	6.5	5.55	8.06	6.65	9.66	7.50	10.89	8.69	12.62	10.53	15.30
EX-7	2.46	0%	0%	100%	0.35	6.3	5.61	4.83	6.71	5.78	7.57	6.51	8.77	7.55	10.62	9.14
EX-8	1.81	0%	0%	100%	0.35	6.0	5.70	3.61	6.81	4.31	7.67	4.86	8.89	5.63	10.75	6.81
EX-9	0.45	0%	0%	100%	0.35	8.9	4.94	0.78	6.00	0.95	6.78	1.07	7.87	1.24	9.60	1.51
EX-10	1.18	0%	10%	90%	0.41	8.2	5.10	2.44	6.18	2.95	6.97	3.33	8.09	3.87	9.85	4.71
EX-11	1.30	0%	10%	90%	0.41	9.4	4.83	2.54	5.88	3.10	6.65	3.50	7.72	4.07	9.43	4.97
EX-12	7.48	0%	10%	90%	0.41	12.2	4.31	13.06	5.31	16.09	6.01	18.21	7.00	21.19	8.60	26.04
EX-13	1.70	0%	0%	100%	0.35	6.5	5.55	3.30	6.65	3.96	7.50	4.46	6.69	5.17	10.53	6.27
EX-14	1.77	0%	0%	100%	0.35	10.5	4.61	2.86	5.64	3.50	6.38	3.95	7.42	4.60	9.08	5.63
EX-15	9.95	0%	5%	95%	0.38	9.8	4.75	17.83	5.79	21.76	6.55	24.60	7.61	28.58	9.30	34.94
EX-16	2.68	0%	5%	95%	0.38	8.5	5.03	5.09	6.10	6.17	6.89	6.97	8.00	8.09	9.75	9.86
EX-17	1.94	0%	5%	95%	0.38	7.2	5.35	3.92	6.45	4.72	7.27	5.32	8.43	6.18	10.24	7.50

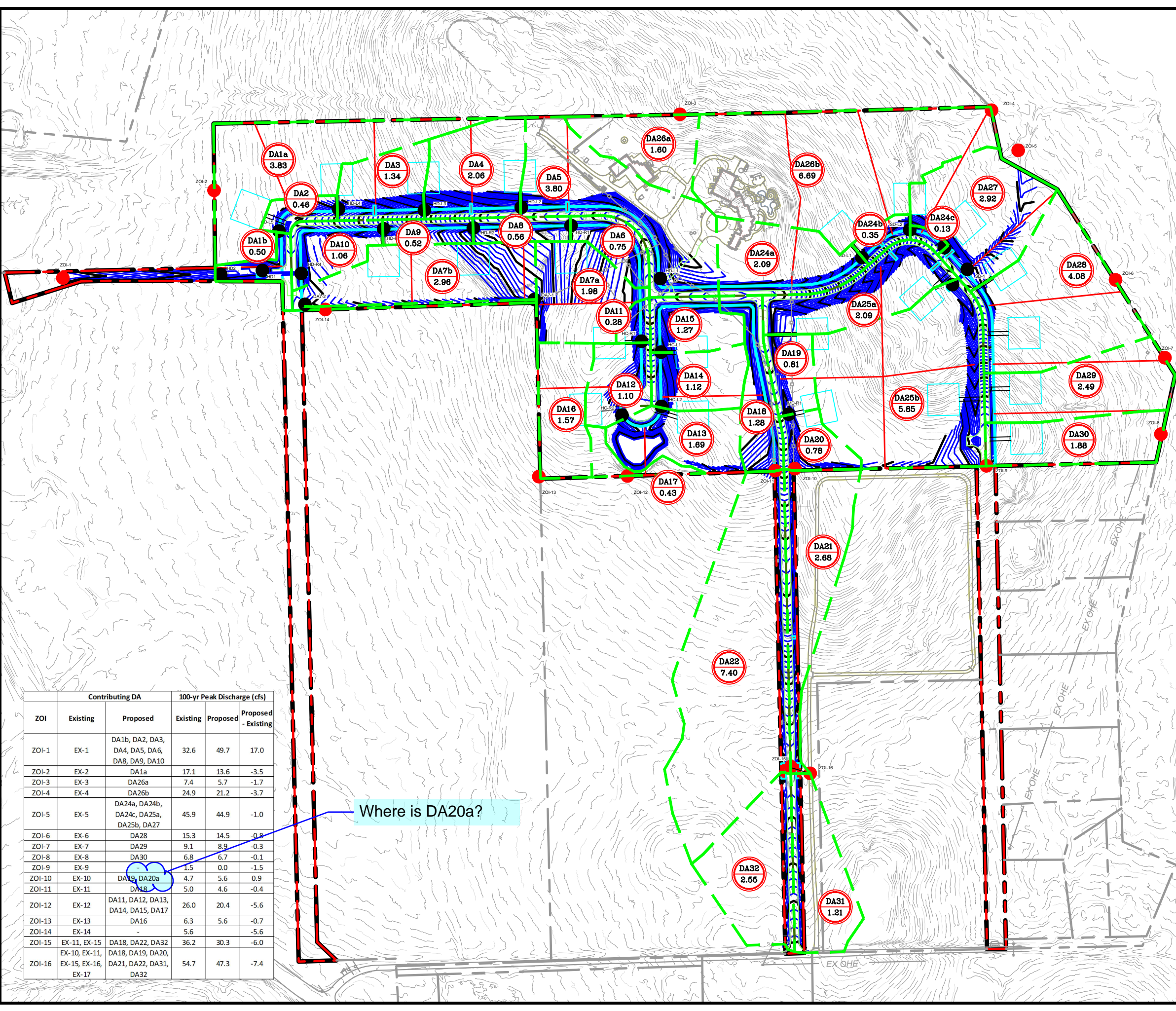


**FIGURE 2 -  
EXISTING  
DRAINAGE AREA  
MAP**

LAKESIDE ESTATES  
MARCH 2024

**LEGEND:**

-  LIDAR CONTOURS
-  MAJOR PROP CONTOURS
-  MINOR PROP CONTOURS
-  DRAINAGE DIVIDES
-  SITE BOUNDARY
-  ZOI
-  DESIGN POINTS




ZOI	Contributing DA		100-yr Peak Discharge (cfs)		
	Existing	Proposed	Existing	Proposed	Proposed - Existing
ZOI-1	EX-1	DA1b, DA2, DA3, DA4, DA5, DA6, DA8, DA9, DA10	32.6	49.7	17.0
ZOI-2	EX-2	DA1a	17.1	13.6	-3.5
ZOI-3	EX-3	DA26a	7.4	5.7	-1.7
ZOI-4	EX-4	DA26b	24.9	21.2	-3.7
ZOI-5	EX-5	DA24a, DA24b, DA24c, DA25a, DA25b, DA27	45.9	44.9	-1.0
ZOI-6	EX-6	DA28	15.3	14.5	-0.8
ZOI-7	EX-7	DA29	9.1	8.9	-0.3
ZOI-8	EX-8	DA30	6.8	6.7	-0.1
ZOI-9	EX-9	DA19	1.5	0.0	-1.5
ZOI-10	EX-10	DA19, DA20a	4.7	5.6	0.9
ZOI-11	EX-11	DA18	5.0	4.6	-0.4
ZOI-12	EX-12	DA11, DA12, DA13, DA14, DA15, DA17	26.0	20.4	-5.6
ZOI-13	EX-13	DA16	6.3	5.6	-0.7
ZOI-14	EX-14	-	5.6	-	-5.6
ZOI-15	EX-11, EX-15	DA18, DA22, DA32	36.2	30.3	-6.0
ZOI-16	EX-10, EX-11, EX-15, EX-16, EX-17	DA18, DA19, DA20, DA21, DA22, DA31, DA32	54.7	47.3	-7.4

Where is DA20a?

NORTH

GRAPHIC SCALE

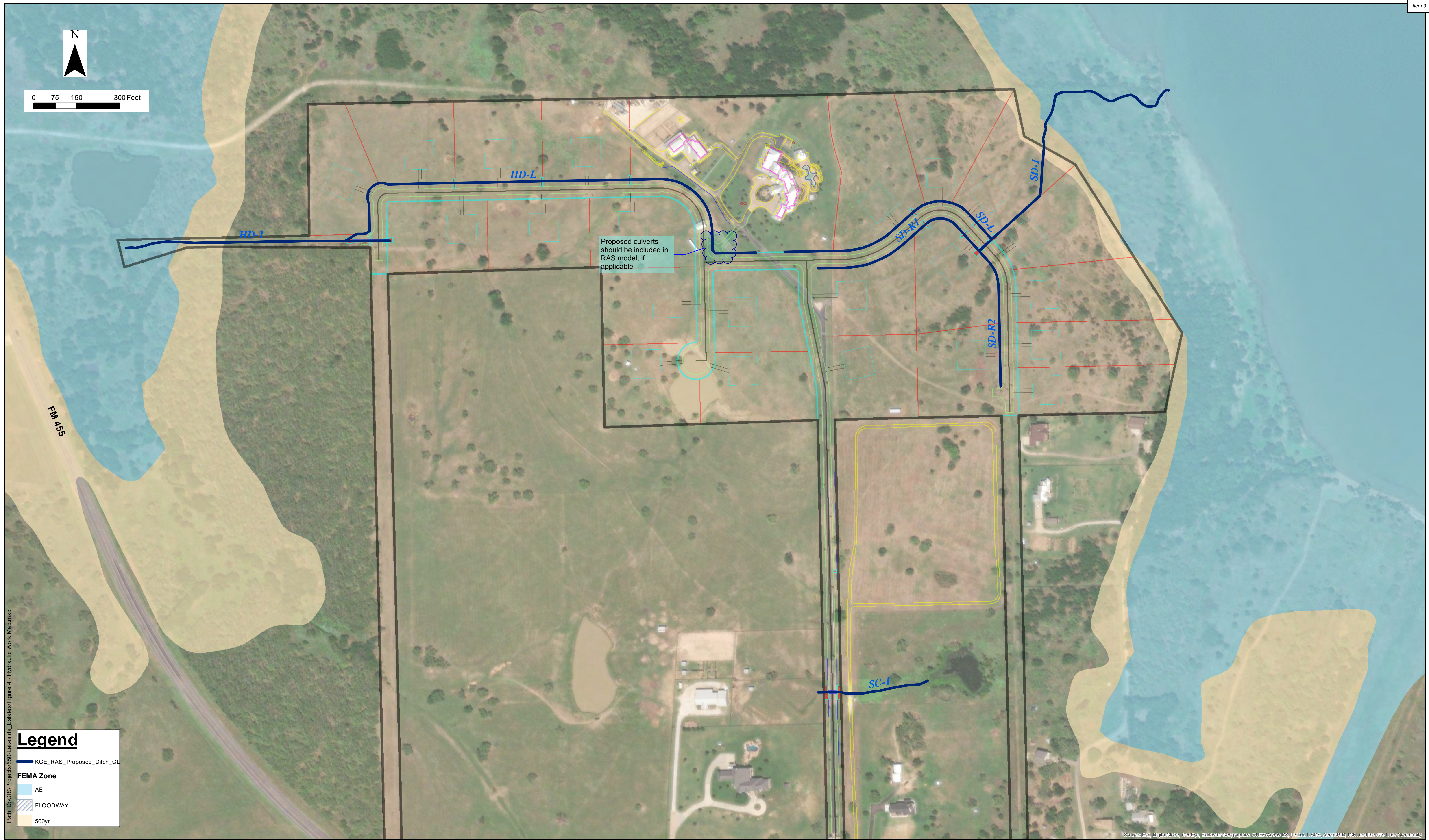


1 inch = 300 ft.



## FIGURE 3 - PROPOSED DRAINAGE AREA MAP

LAKESIDE ESTATES  
MARCH 2024



**FIGURE**  
**4**

**PREPARED BY:** OCE **CHECKED BY:** KME  
**DATE:** March 2024 **PROJECT #:** 550

**LAKESIDE ESTATES  
HYDRAULIC KEY MAP**



Reg. #: F-16940



## Appendix B – Hydrologic Calculations



## Lag Time Calculations

Drainage Report  
Lakeside Estates – Sanger, Texas  
March 8, 2024

Item 3.

Existing Time of Concentration

TRAVEL TIME CALCULATIONS

Basin Data		Overland Flow					Shallow Concentrated Flow					Channel/Street Flow						Time of Conc. Calc. (min) (20)			
Basin Name	Calculated Longest Flowpath (ft) (1)	Length (ft) (2)	Slope (ft/ft) (3)	Surface Type (4)	Manning's n (5)	T <sub>O</sub> (min) (6)	Length (ft) (7)	Slope (ft/ft) (8)	Surface Type (9)	K (10)	T <sub>S</sub> (min) (11)	Length (ft) (12)	Slope (ft/ft) (13)	Manning's n (14)	X-Section Type	Area (ft <sup>2</sup> ) (15)	WP (ft) (16)		Channel Velocity (f/s) (17)	T <sub>H</sub> (min) (19)	
EX-1	1682	100	0.048	Grass	0.150	6.11	425	0.102	unpaved	16.1	1.37	1157	0.025	0.050	Ditch	33.00	35.00	4.30	4.48	18.7	
							264	0.004	unpaved	16.1	4.31										
							196	0.007	unpaved	16.1	2.42										
						<b>Total T<sub>O</sub> (min)= 6.11</b>					<b>Total T<sub>S</sub> (min)= 8.11</b>								<b>Total T<sub>H</sub> (min)= 4.48</b>		
EX-2	950	100	0.100	Grass	0.150	4.55	850	0.070	unpaved	16.1	3.32								4.00	0.00	7.9
						<b>Total T<sub>O</sub> (min)= 4.55</b>					<b>Total T<sub>S</sub> (min)= 3.32</b>								<b>Total T<sub>H</sub> (min)= 0.00</b>		
EX-3	343	100	0.045	Grass	0.150	6.27	243	0.110	unpaved	16.1	0.76								4.00	0.00	7.0
						<b>Total T<sub>O</sub> (min)= 6.27</b>					<b>Total T<sub>S</sub> (min)= 0.76</b>								<b>Total T<sub>H</sub> (min)= 0.00</b>		
EX-4	915	100	0.155	Grass	0.150	3.82	364	0.100	unpaved	16.1	1.19	451	0.056	0.050	Ditch	34.00	26.00	8.30	0.91		5.9
						<b>Total T<sub>O</sub> (min)= 3.82</b>					<b>Total T<sub>S</sub> (min)= 1.19</b>								<b>Total T<sub>H</sub> (min)= 0.91</b>		
EX-5	1075	100	0.097	Grass	0.150	4.61	380	0.070	unpaved	16.1	1.48	595	0.035	0.050	Ditch	30.00	22.00	6.90	1.44		7.5
						<b>Total T<sub>O</sub> (min)= 4.61</b>					<b>Total T<sub>S</sub> (min)= 1.48</b>								<b>Total T<sub>H</sub> (min)= 1.44</b>		
EX-6	683	100	0.118	Grass	0.150	4.26	583	0.074	unpaved	16.1	2.21								8.00	0.00	6.5
						<b>Total T<sub>O</sub> (min)= 4.26</b>					<b>Total T<sub>S</sub> (min)= 2.21</b>								<b>Total T<sub>H</sub> (min)= 0.00</b>		
EX-7	662	100	0.123	Grass	0.150	4.19	562	0.076	unpaved	16.1	2.11								8.00	0.00	6.3
						<b>Total T<sub>O</sub> (min)= 4.19</b>					<b>Total T<sub>S</sub> (min)= 2.11</b>								<b>Total T<sub>H</sub> (min)= 0.00</b>		
EX-8	592	100	0.117	Grass	0.150	4.28	492	0.087	unpaved	16.1	1.72								4.00	0.00	6.0
						<b>Total T<sub>O</sub> (min)= 4.28</b>					<b>Total T<sub>S</sub> (min)= 1.72</b>								<b>Total T<sub>H</sub> (min)= 0.00</b>		
EX-9	390	100	0.028	Grass	0.150	7.58	290	0.050	unpaved	16.1	1.34								8.00	0.00	8.9
						<b>Total T<sub>O</sub> (min)= 7.58</b>					<b>Total T<sub>S</sub> (min)= 1.34</b>								<b>Total T<sub>H</sub> (min)= 0.00</b>		
EX-10	368	100	0.032	Grass	0.150	7.18	268	0.070	unpaved	16.1	1.05								5.00	0.00	8.2
						<b>Total T<sub>O</sub> (min)= 7.18</b>					<b>Total T<sub>S</sub> (min)= 1.05</b>								<b>Total T<sub>H</sub> (min)= 0.00</b>		
EX-11	569	100	0.030	Grass	0.150	7.37	395	0.049	unpaved	16.1	1.84	74	0.054	0.050	Ditch	8.00	12.25	5.20	0.24		9.4
						<b>Total T<sub>O</sub> (min)= 7.37</b>					<b>Total T<sub>S</sub> (min)= 1.84</b>								<b>Total T<sub>H</sub> (min)= 0.24</b>		
EX-12	826	100	0.032	Grass	0.150	7.18	485	0.080	unpaved	16.1	1.77	22	0.360	0.050	Ditch	15.00	19.25	15.00	0.02		12.2
						<b>Total T<sub>O</sub> (min)= 7.18</b>	219	0.005	unpaved	16.1	3.20									<b>Total T<sub>H</sub> (min)= 0.02</b>	
											<b>Total T<sub>S</sub> (min)= 4.97</b>										
EX-13	420	100	0.070	Grass	0.150	5.25	320	0.075	unpaved	16.1	1.21								8.00	0.00	6.5
						<b>Total T<sub>O</sub> (min)= 5.25</b>					<b>Total T<sub>S</sub> (min)= 1.21</b>								<b>Total T<sub>H</sub> (min)= 0.00</b>		
EX-14	1003	100	0.025	Grass	0.150	7.93	240	0.080	unpaved	16.1	0.88	663	0.080	0.050	Ditch	20.00	18.50	6.40	1.73		10.5
						<b>Total T<sub>O</sub> (min)= 7.93</b>					<b>Total T<sub>S</sub> (min)= 0.88</b>								<b>Total T<sub>H</sub> (min)= 1.73</b>		

**Existing Time of Concentration**  
**TRAVEL TIME CALCULATIONS**

Basin Data		Overland Flow					Shallow Concentrated Flow					Channel/Street Flow					Time of Conc. Calc. (min) (20)		
Basin Name	Calculated Longest Flowpath (ft) (1)	Length (ft) (2)	Slope (ft/ft) (3)	Surface Type (4)	Manning's n (5)	T <sub>O</sub> (min) (6)	Length (ft) (7)	Slope (ft/ft) (8)	Surface Type (9)	K (10)	T <sub>S</sub> (min) (11)	Length (ft) (12)	Slope (ft/ft) (13)	Manning's n (14)	X-Section Type	Area (ft <sup>2</sup> ) (15)		WP (ft) (16)	Channel Velocity (f/s) (17)
EX-15	997	100	0.079	Grass	0.150	5.00	709	0.038	unpaved	16.1	3.76	188	0.027	0.050	Ditch	15.00	19.25	3.00	1.04
<b>Total T<sub>O</sub> (min)=</b>						<b>5.00</b>	<b>Total T<sub>S</sub> (min)=</b>					<b>3.76</b>	<b>Total T<sub>H</sub> (min)=</b>					<b>1.04</b>	<b>9.8</b>
EX-16	1121	100	0.070	Grass	0.150	5.25	142	0.070	unpaved	16.1	0.55	879	0.040	0.050	Ditch	23.00	20.00	5.40	2.71
<b>Total T<sub>O</sub> (min)=</b>						<b>5.25</b>	<b>Total T<sub>S</sub> (min)=</b>					<b>0.55</b>	<b>Total T<sub>H</sub> (min)=</b>					<b>2.71</b>	<b>8.5</b>
EX-14	589	100	0.064	Grass	0.150	5.44	134	0.064	unpaved	16.1	0.55	355	0.032	0.050	Ditch	23.00	20.00	4.90	1.21
<b>Total T<sub>O</sub> (min)=</b>						<b>5.44</b>	<b>Total T<sub>S</sub> (min)=</b>					<b>0.55</b>	<b>Total T<sub>H</sub> (min)=</b>					<b>1.21</b>	<b>7.2</b>

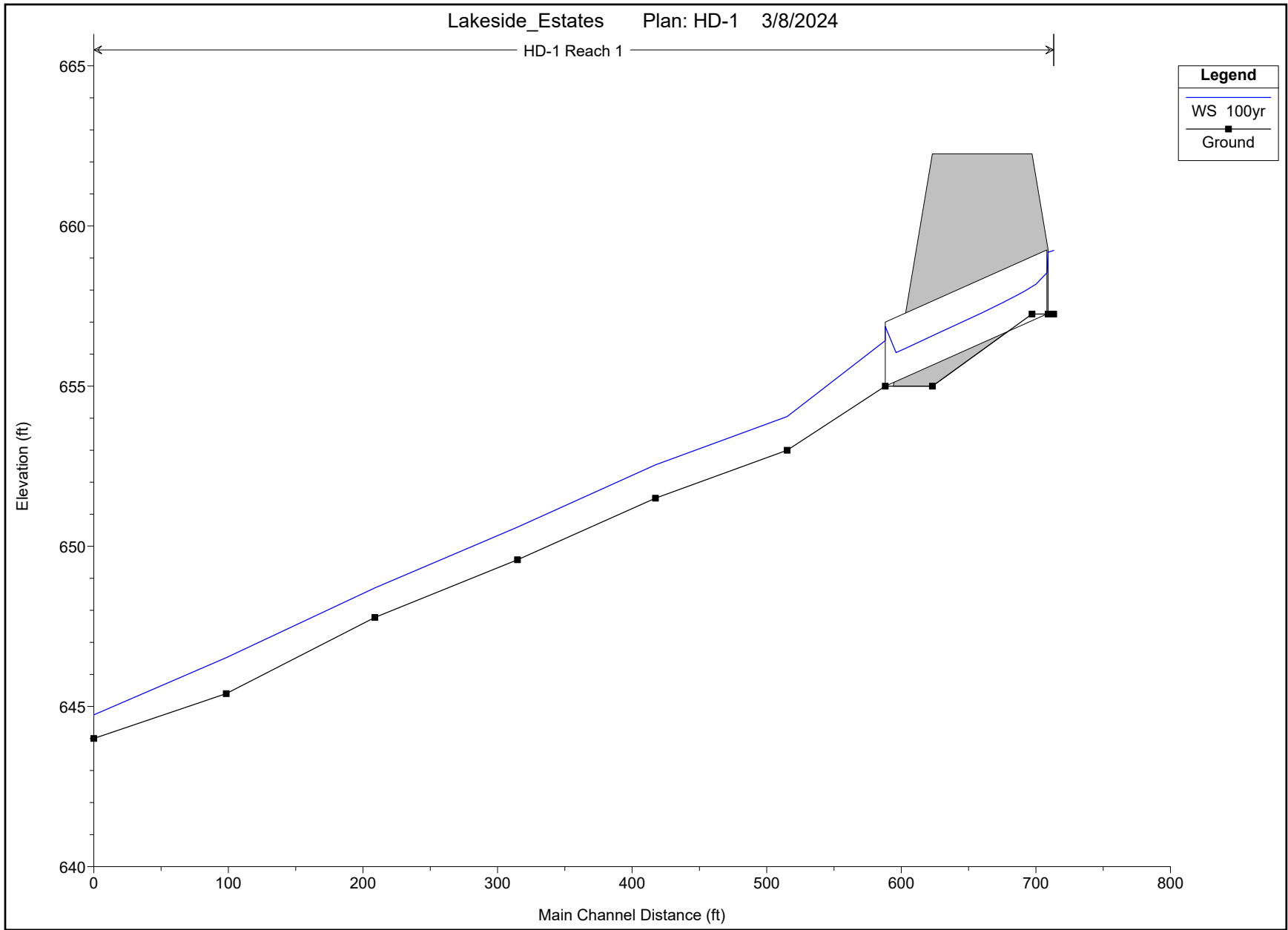


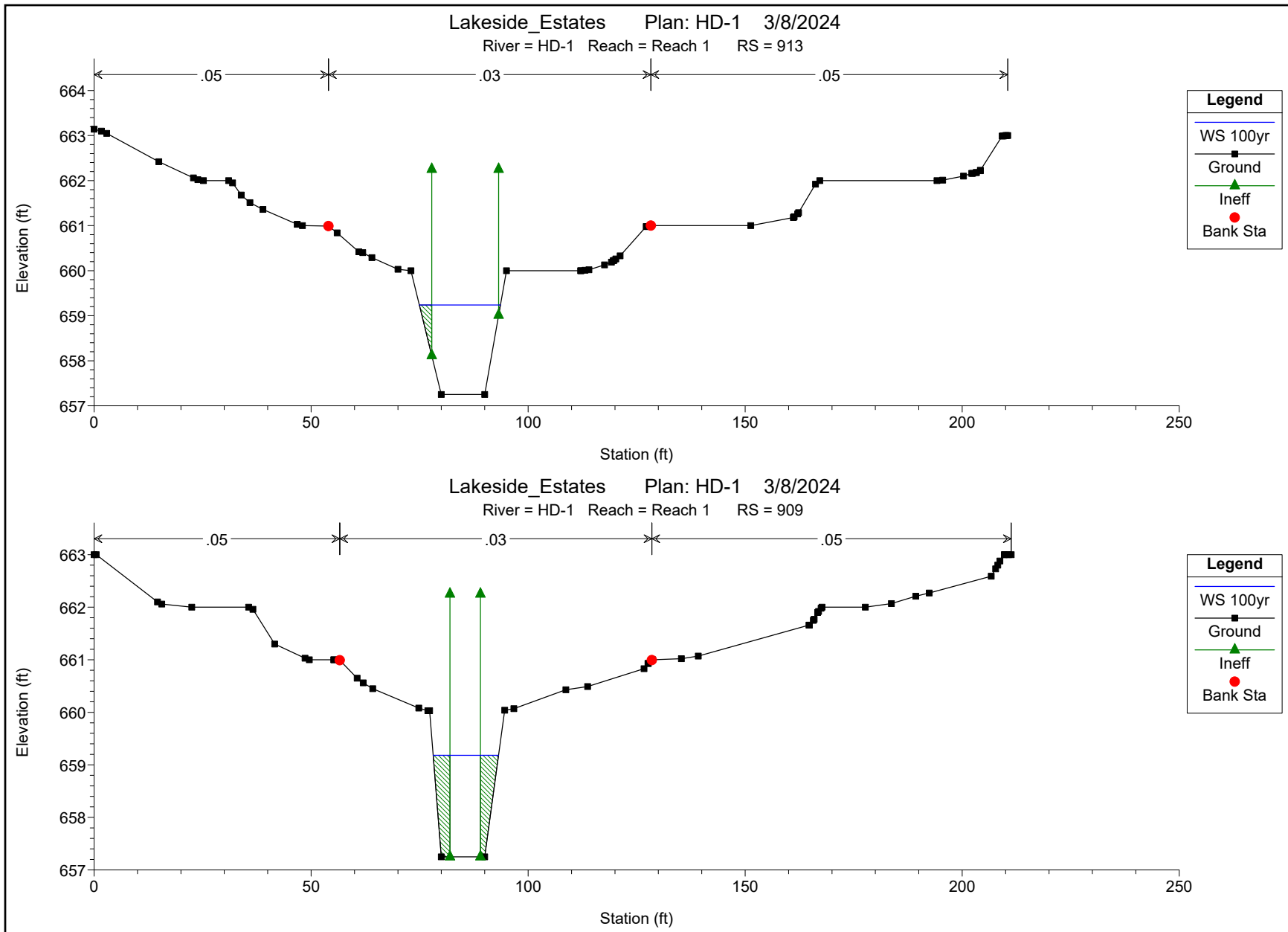
## Appendix C – Hydraulic Data

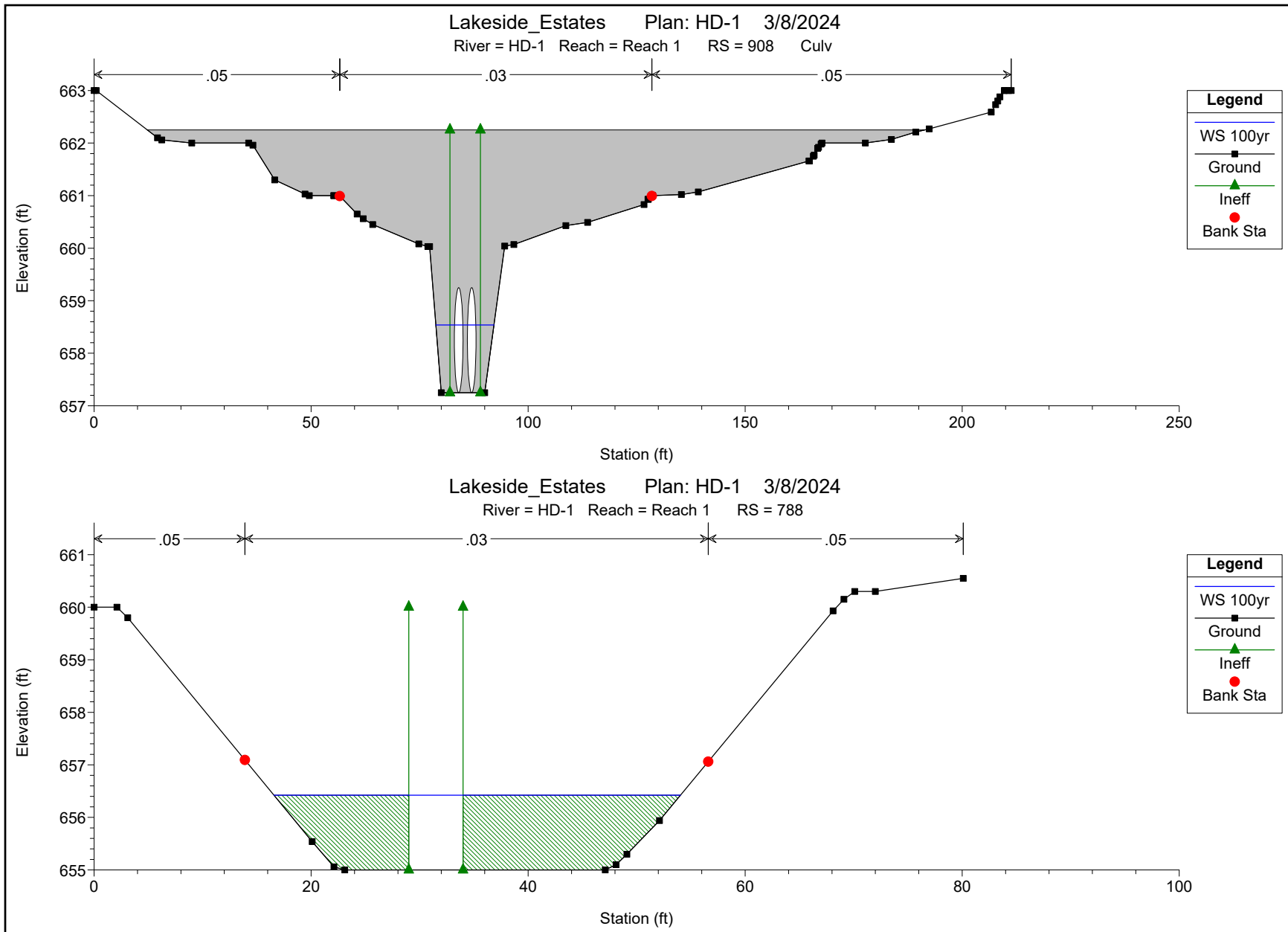


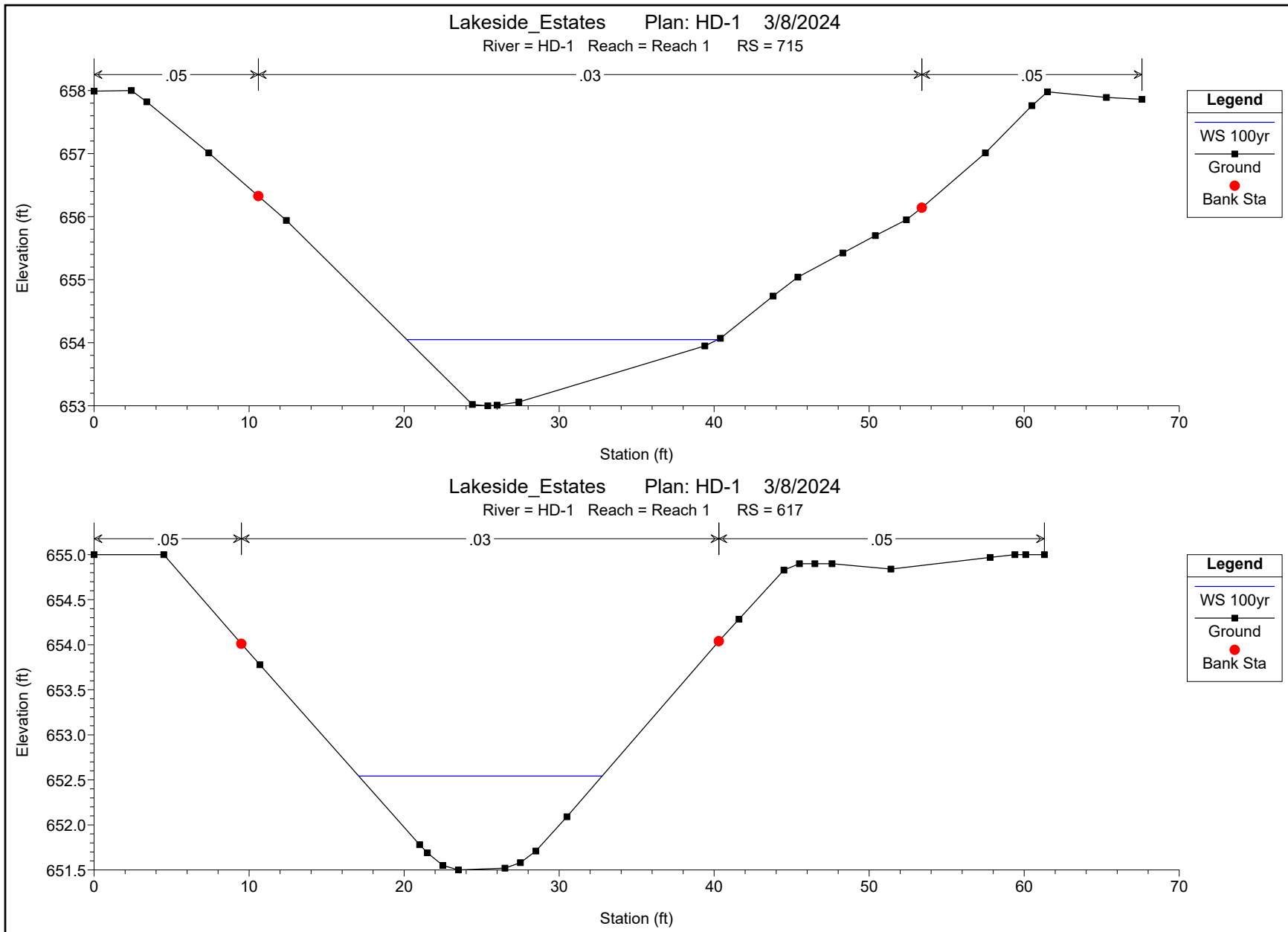


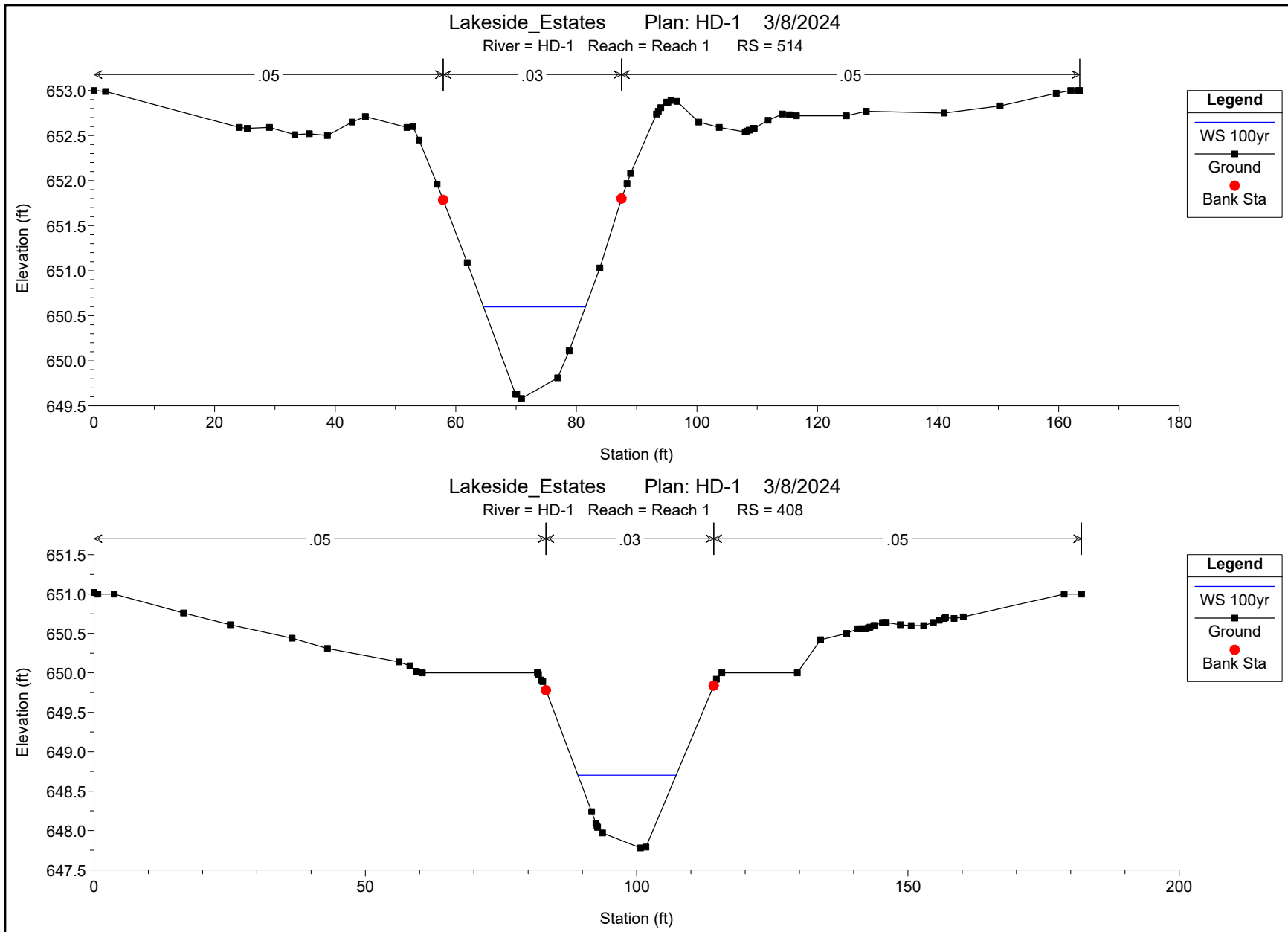
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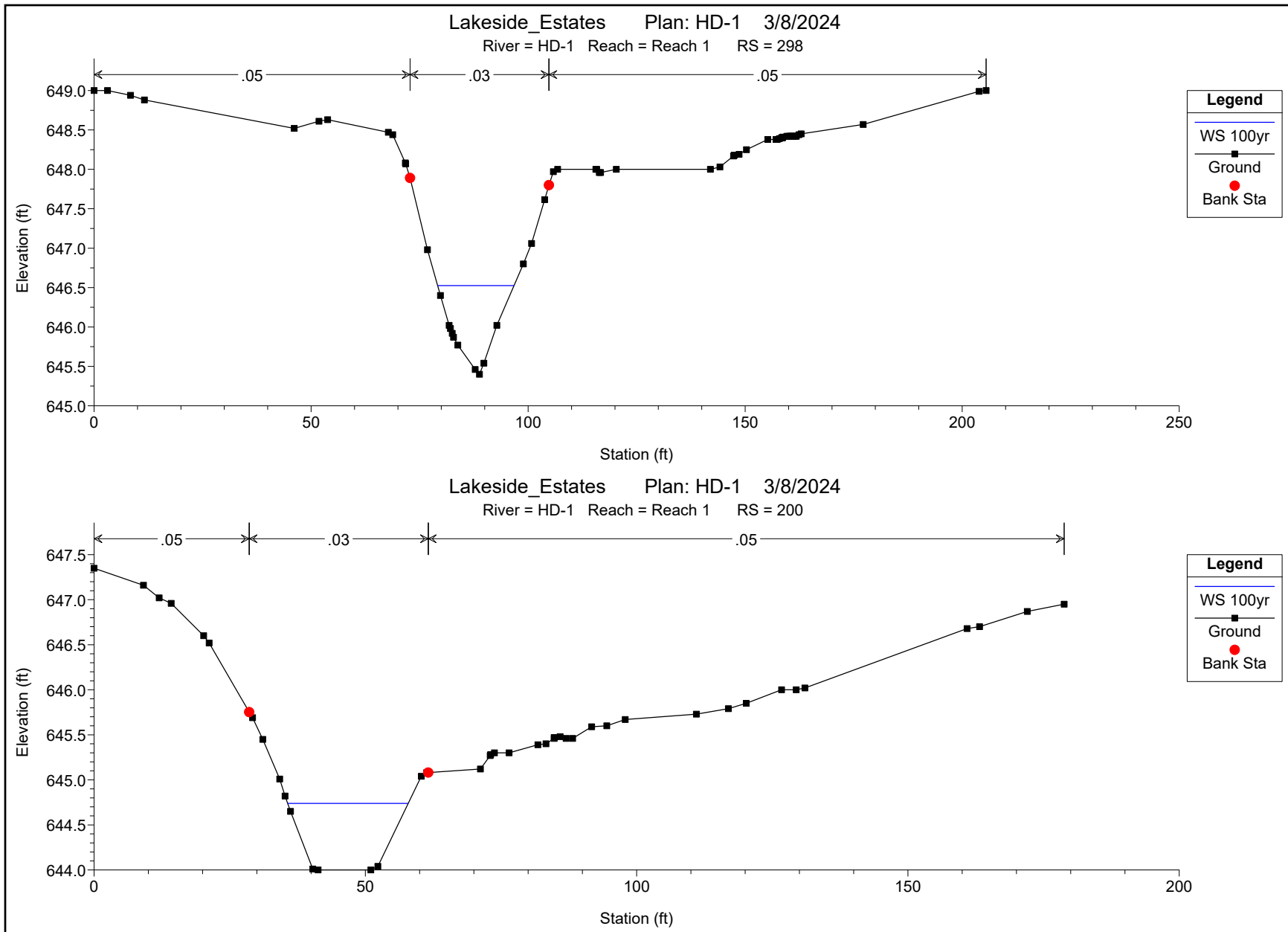








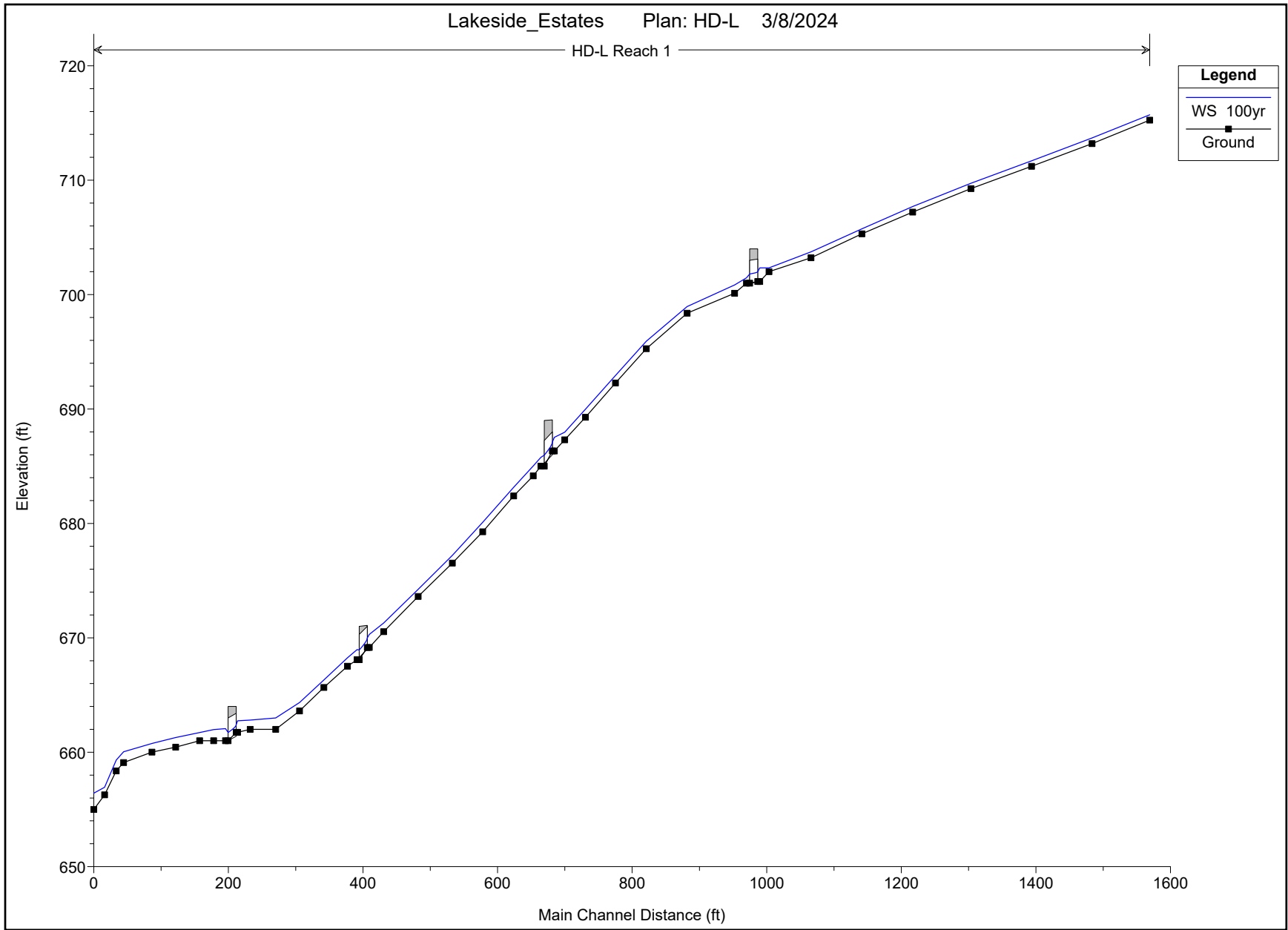


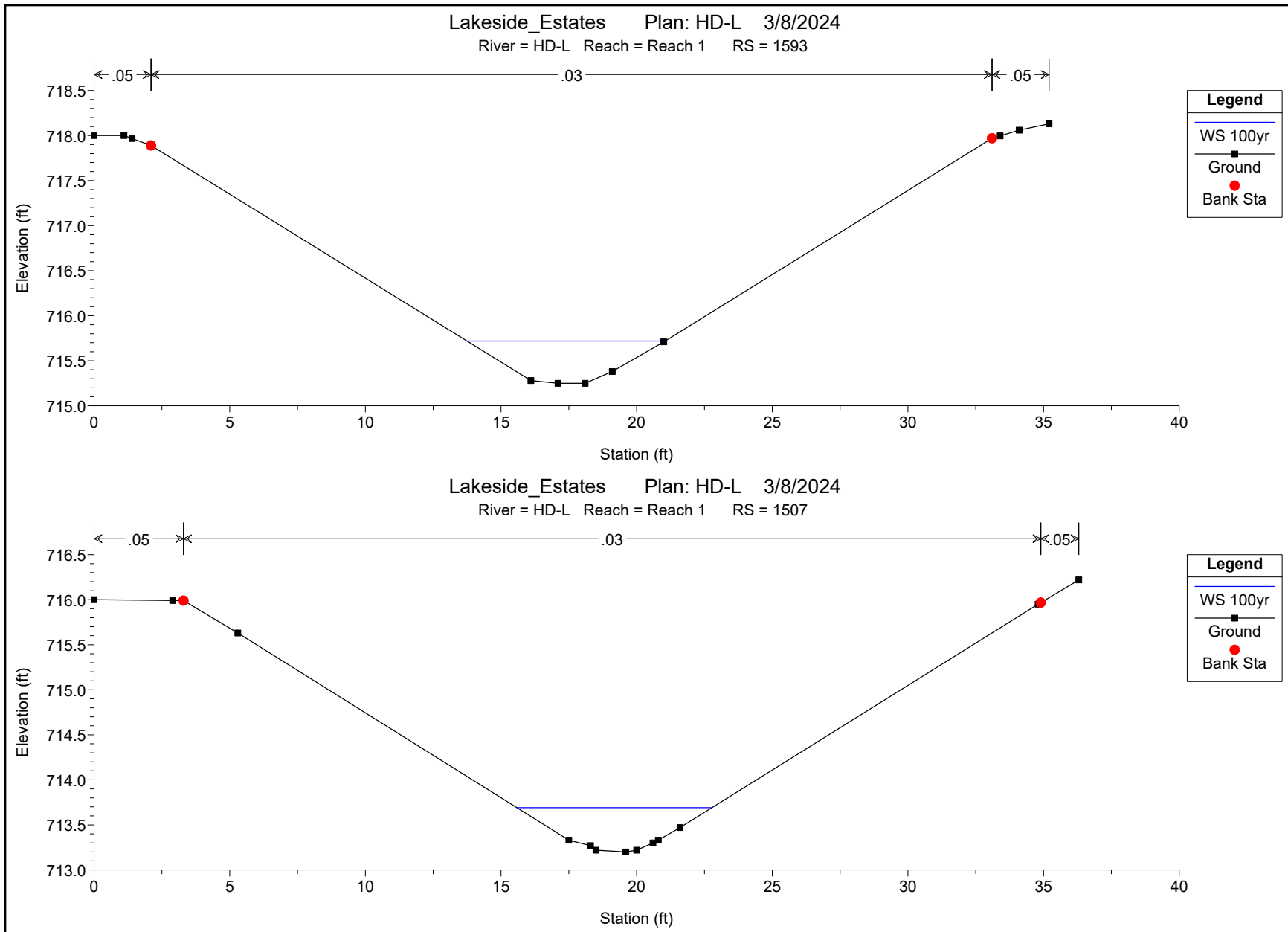


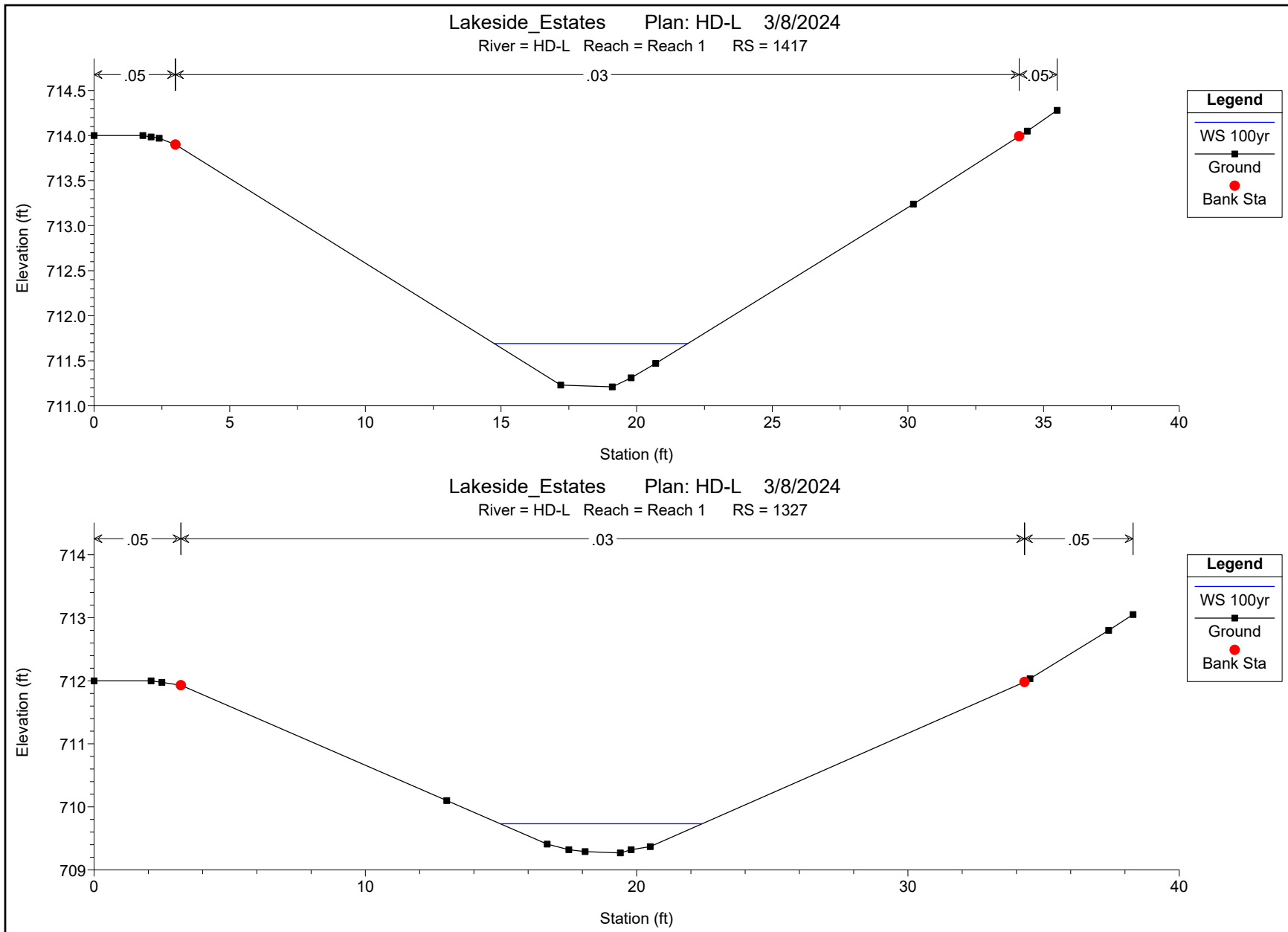


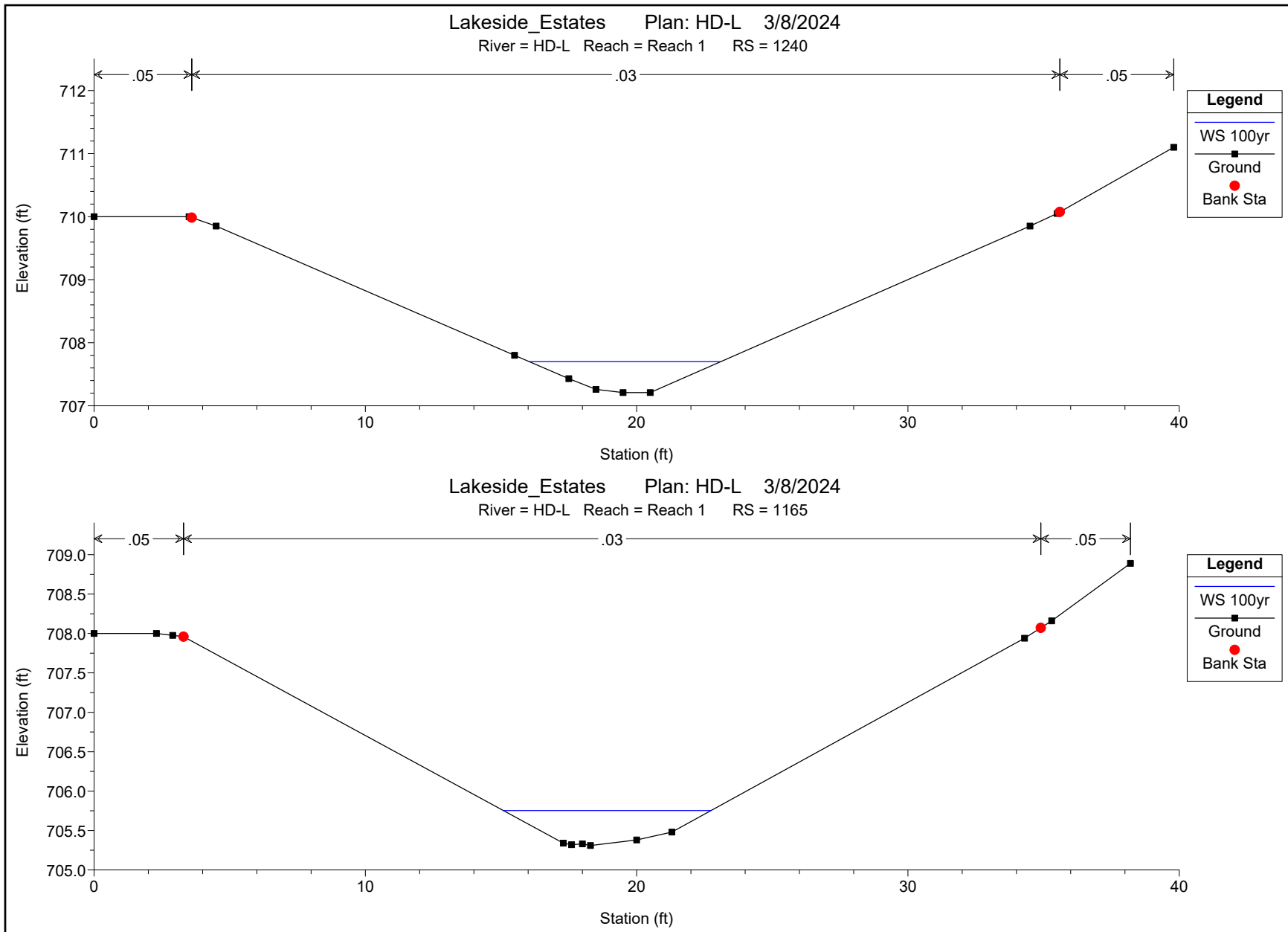
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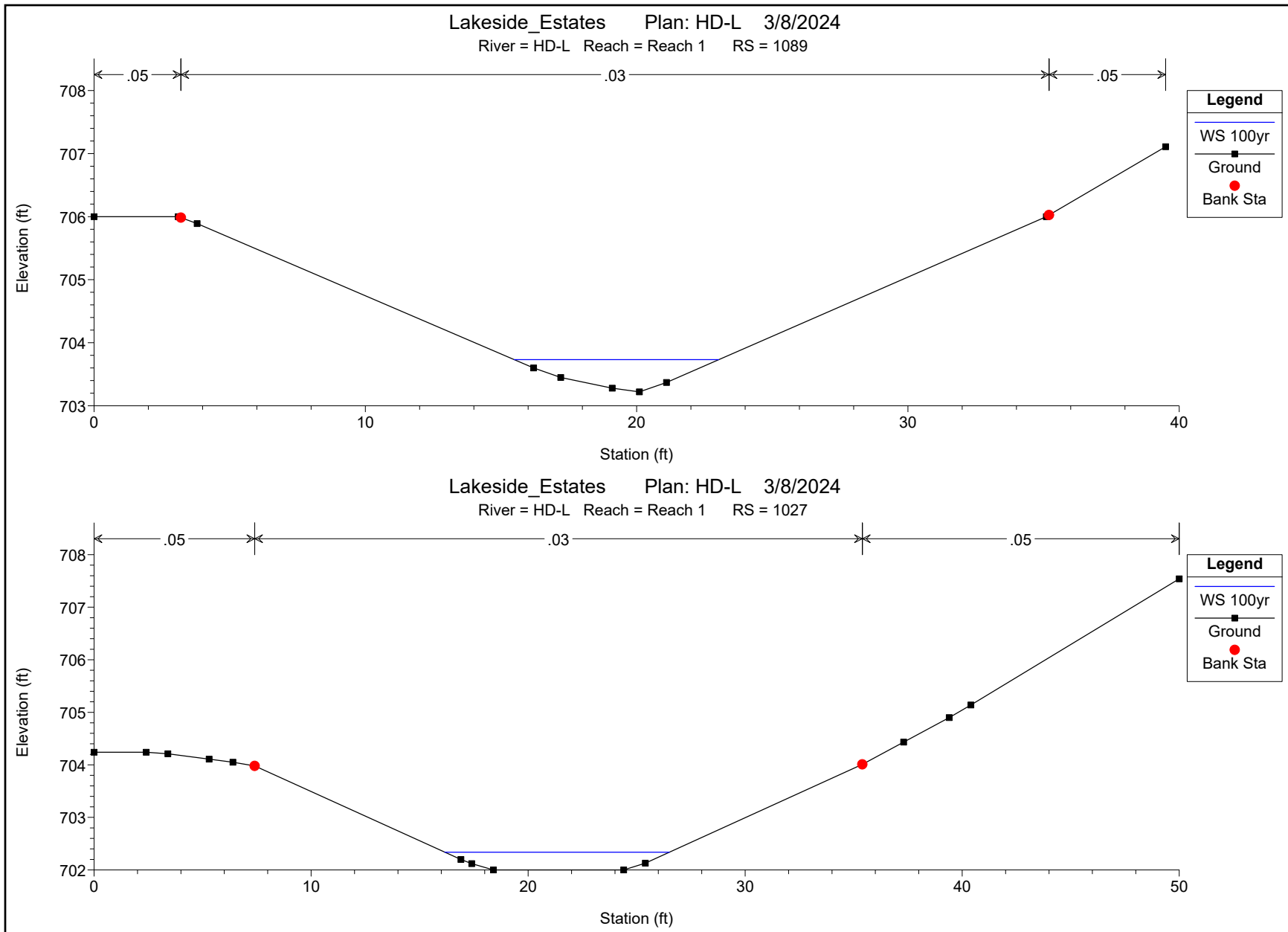


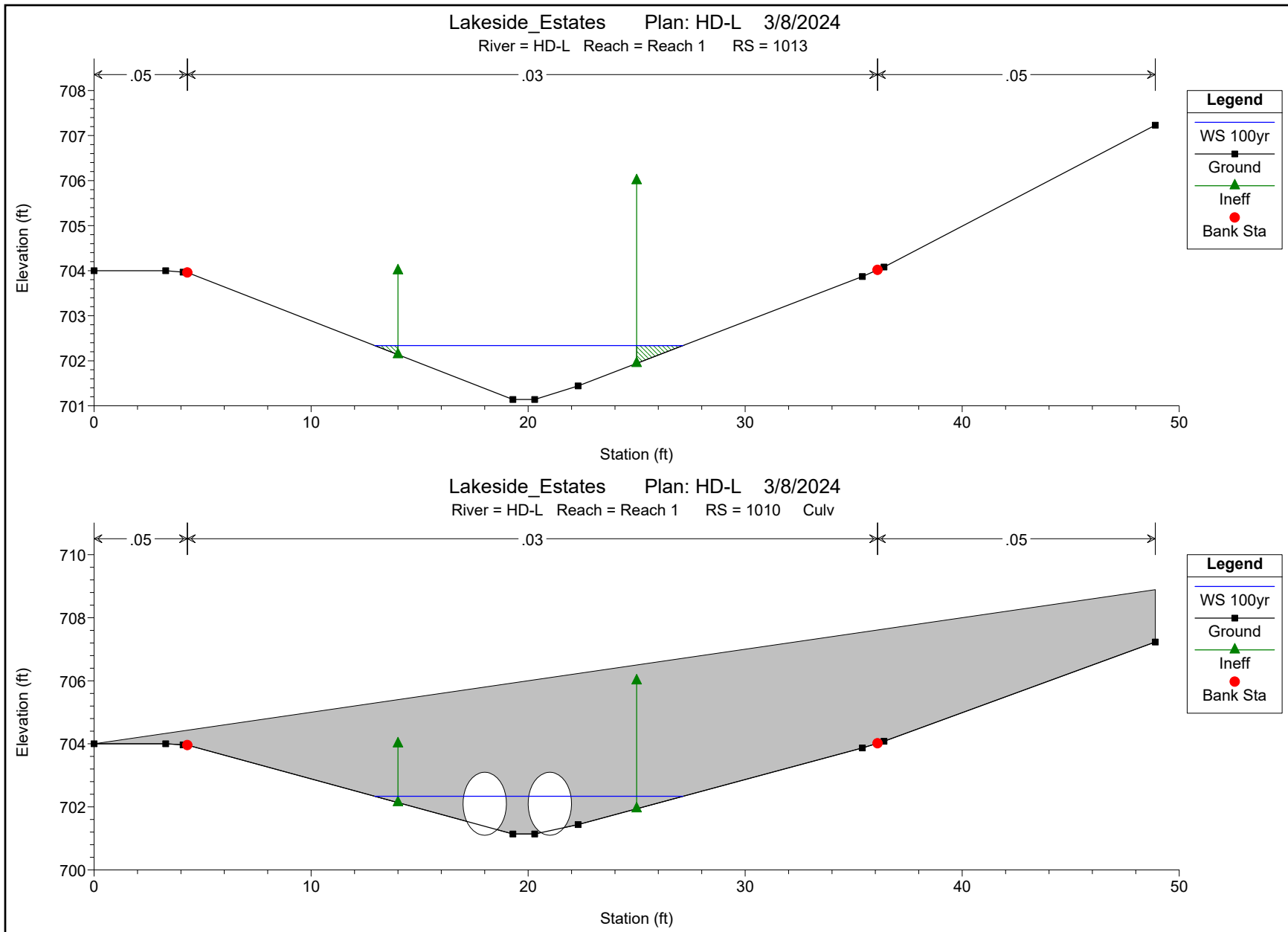


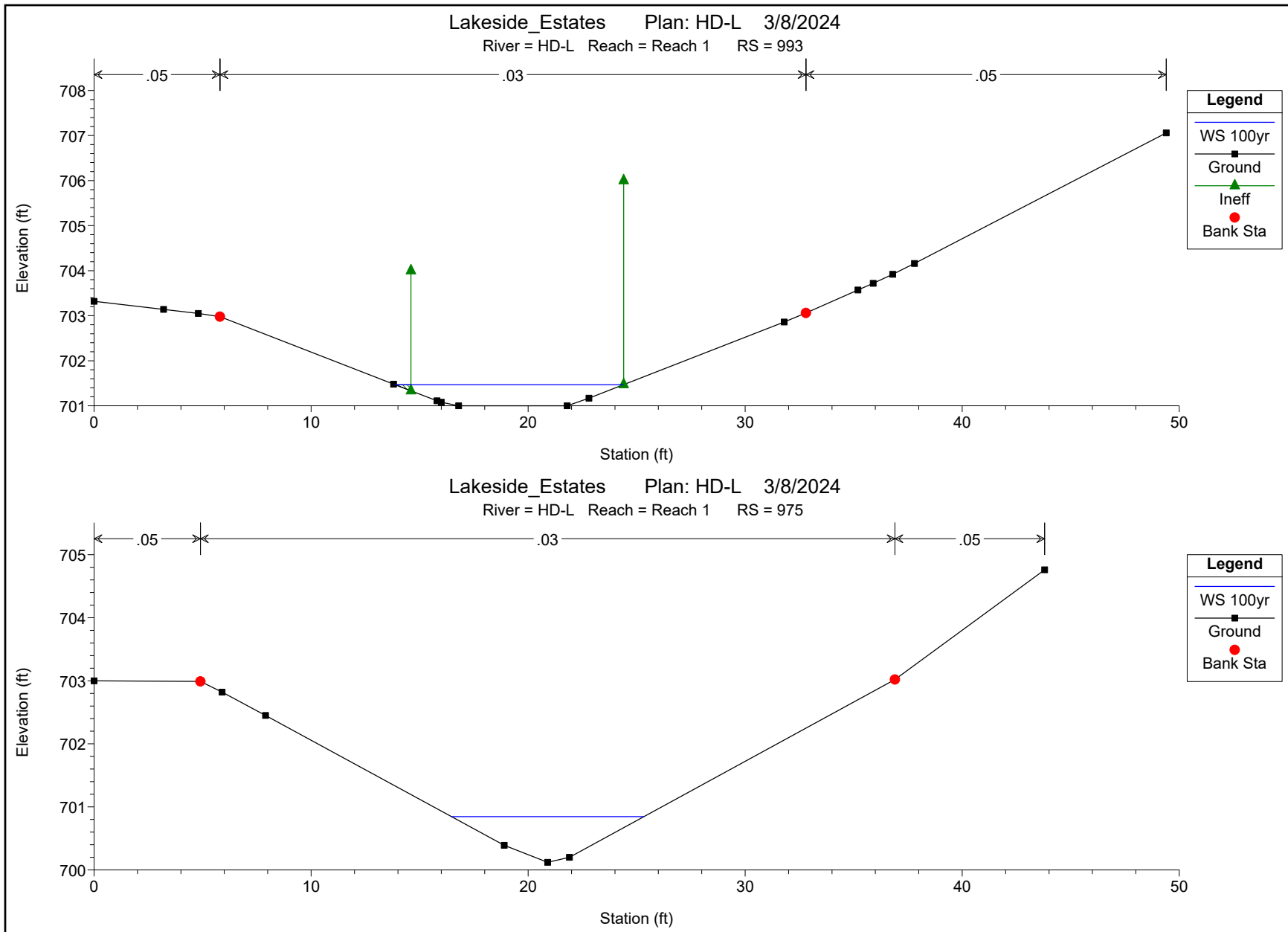


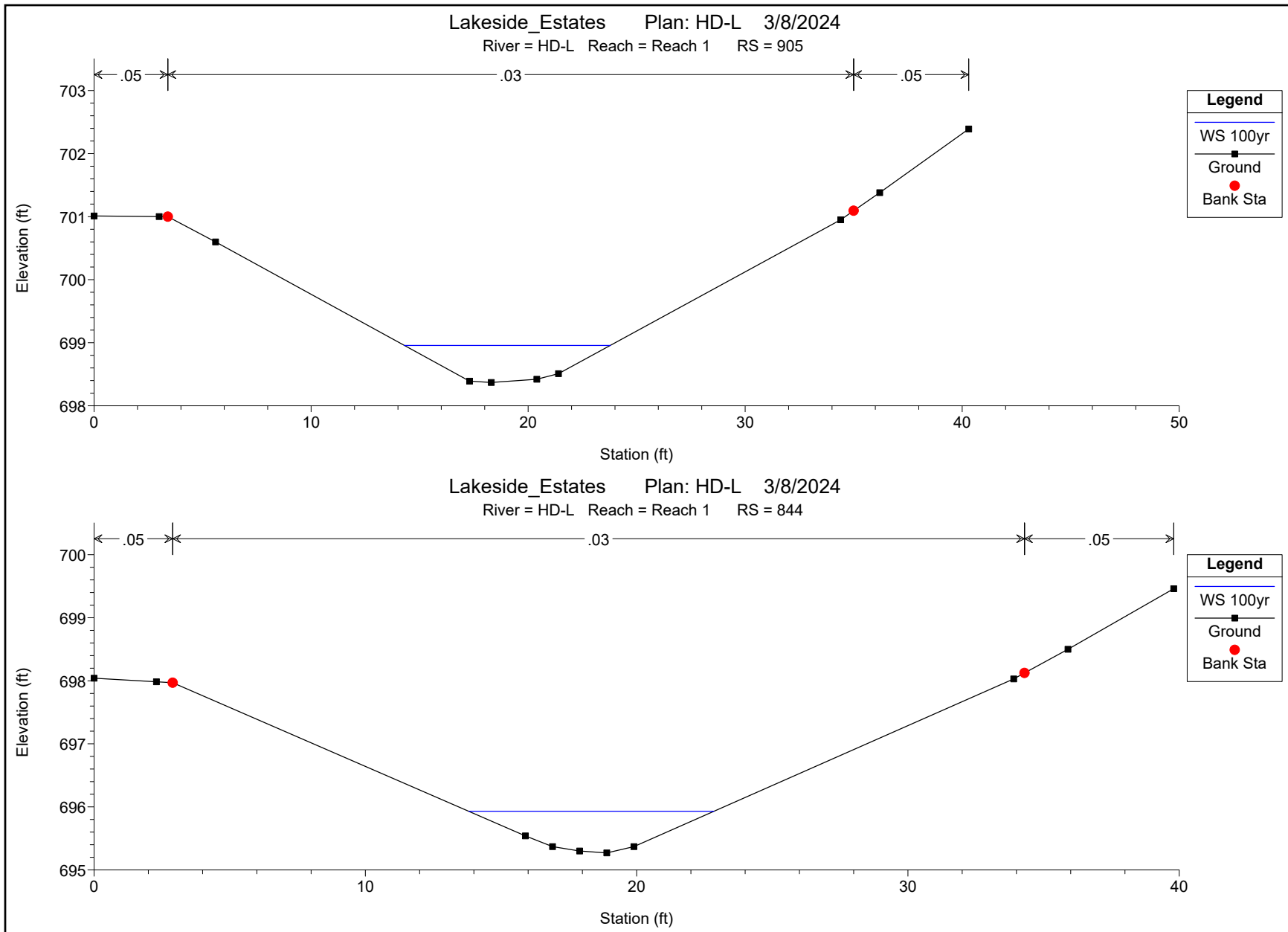




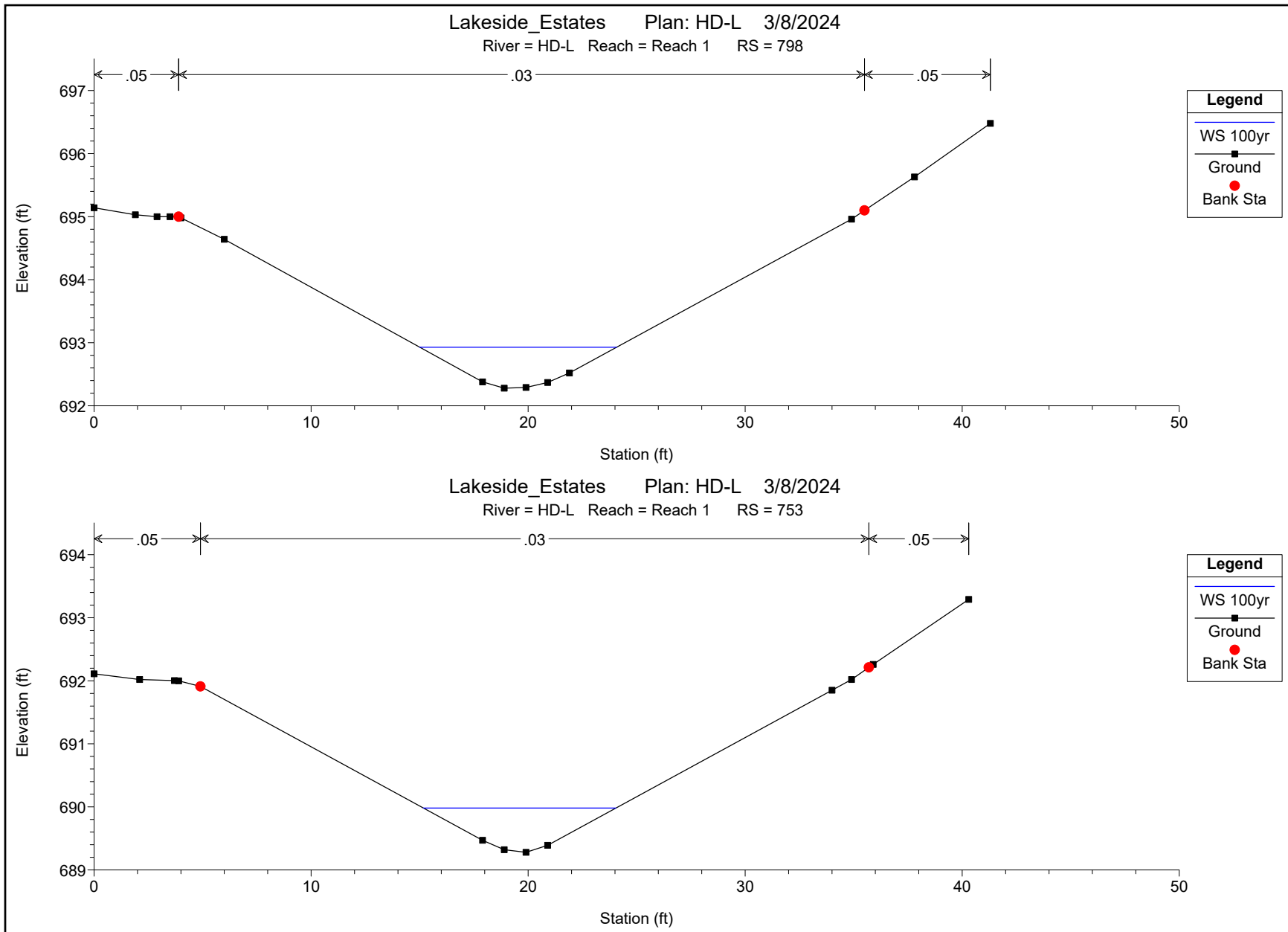


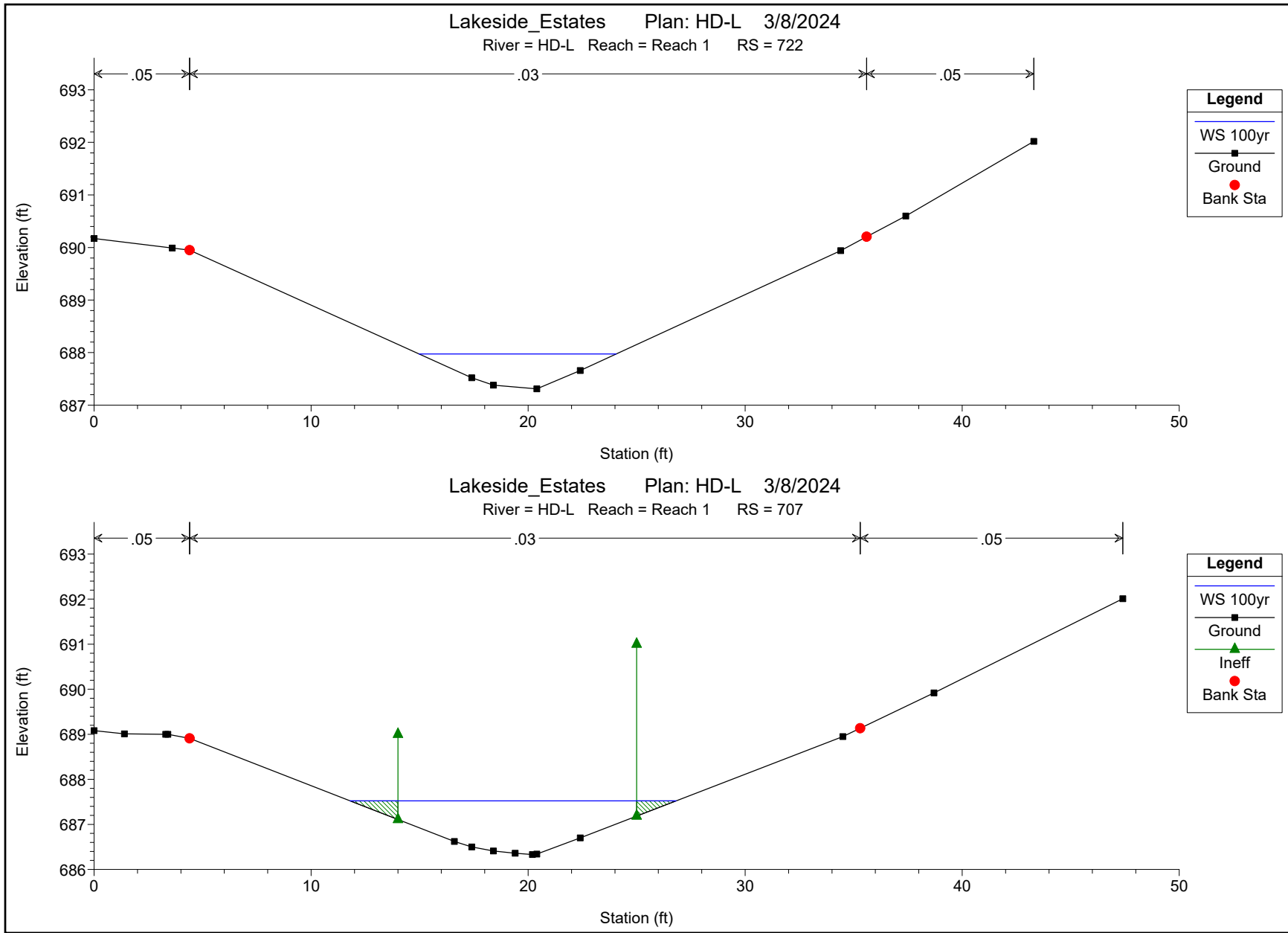


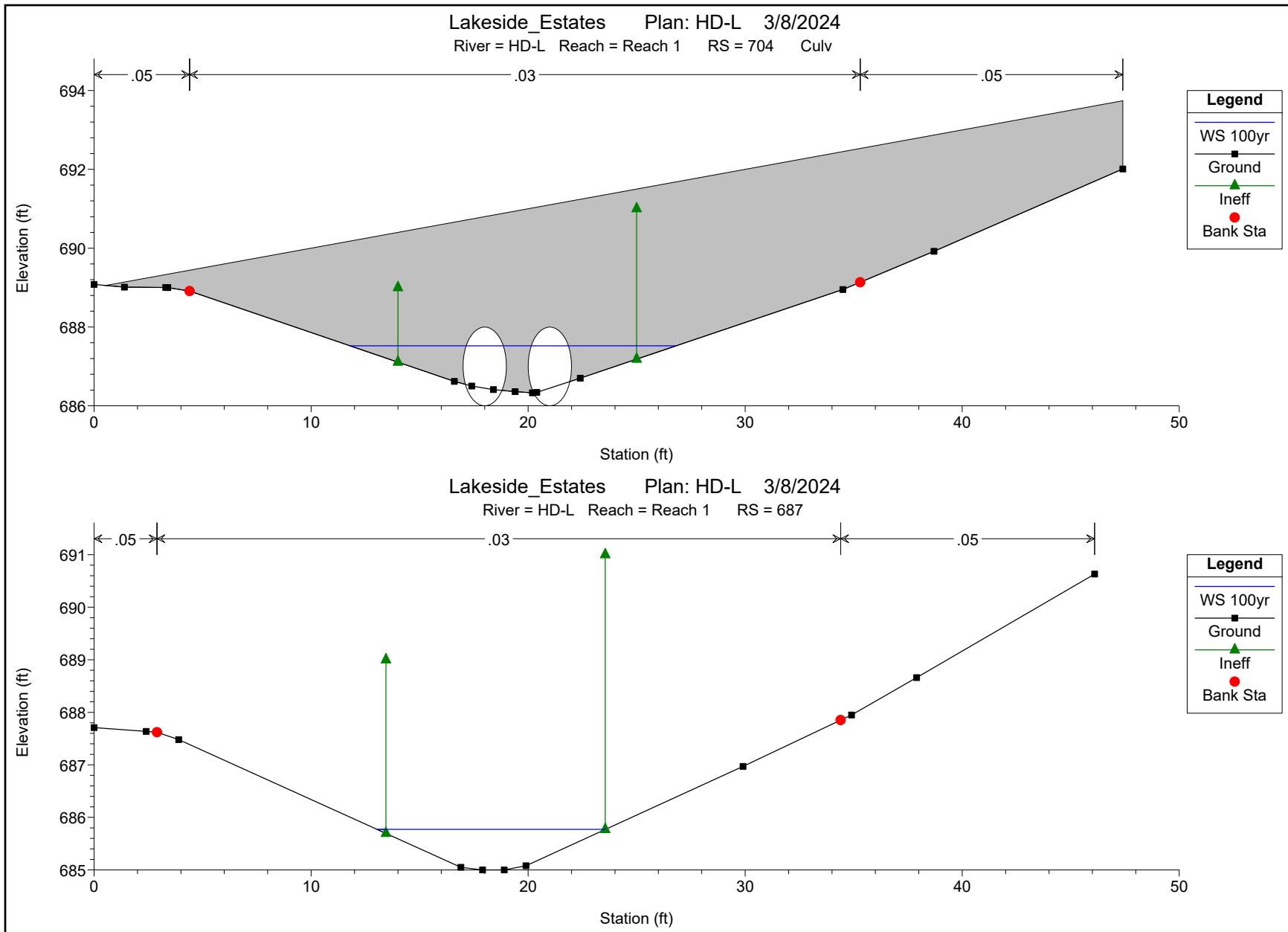


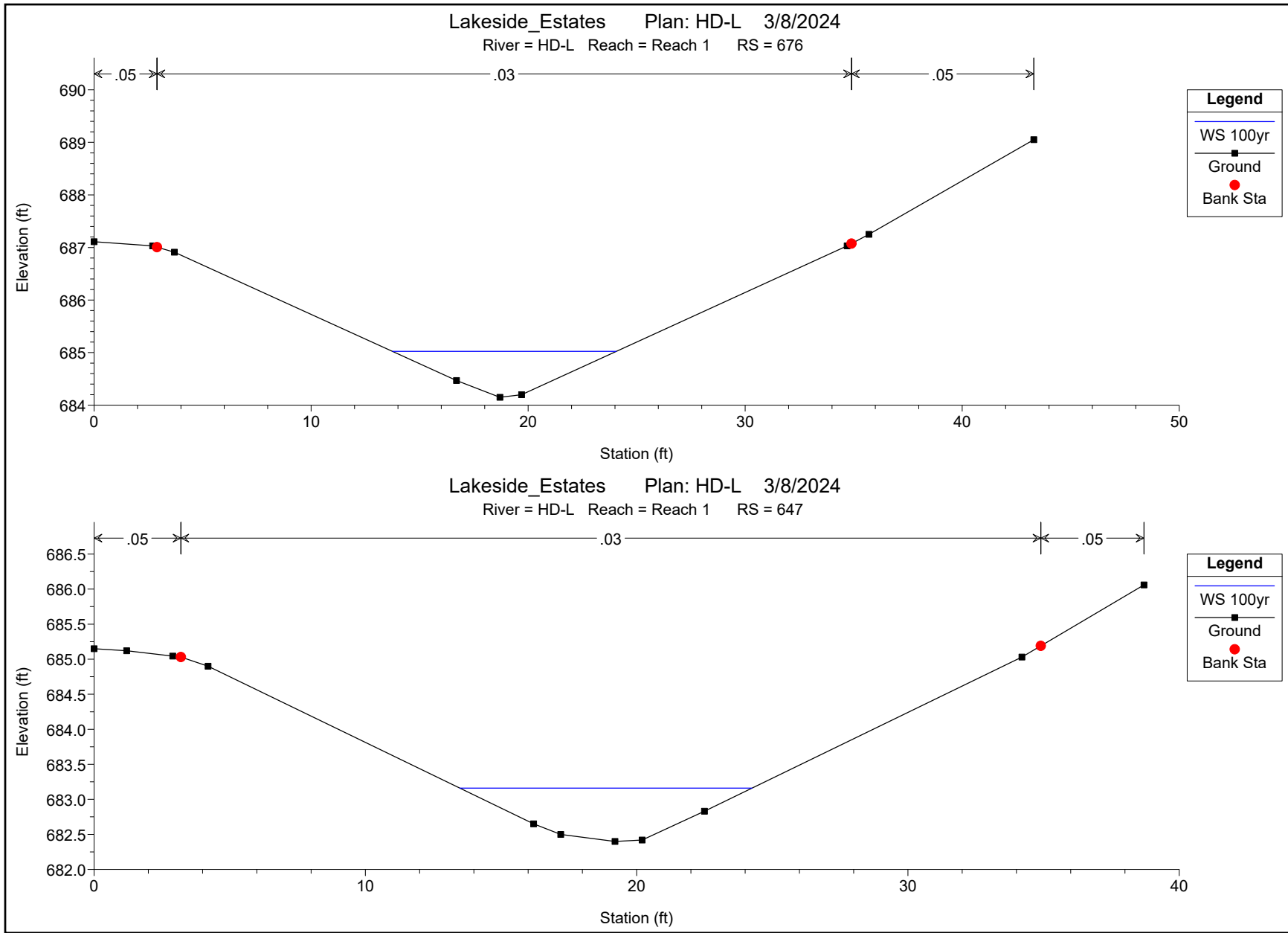


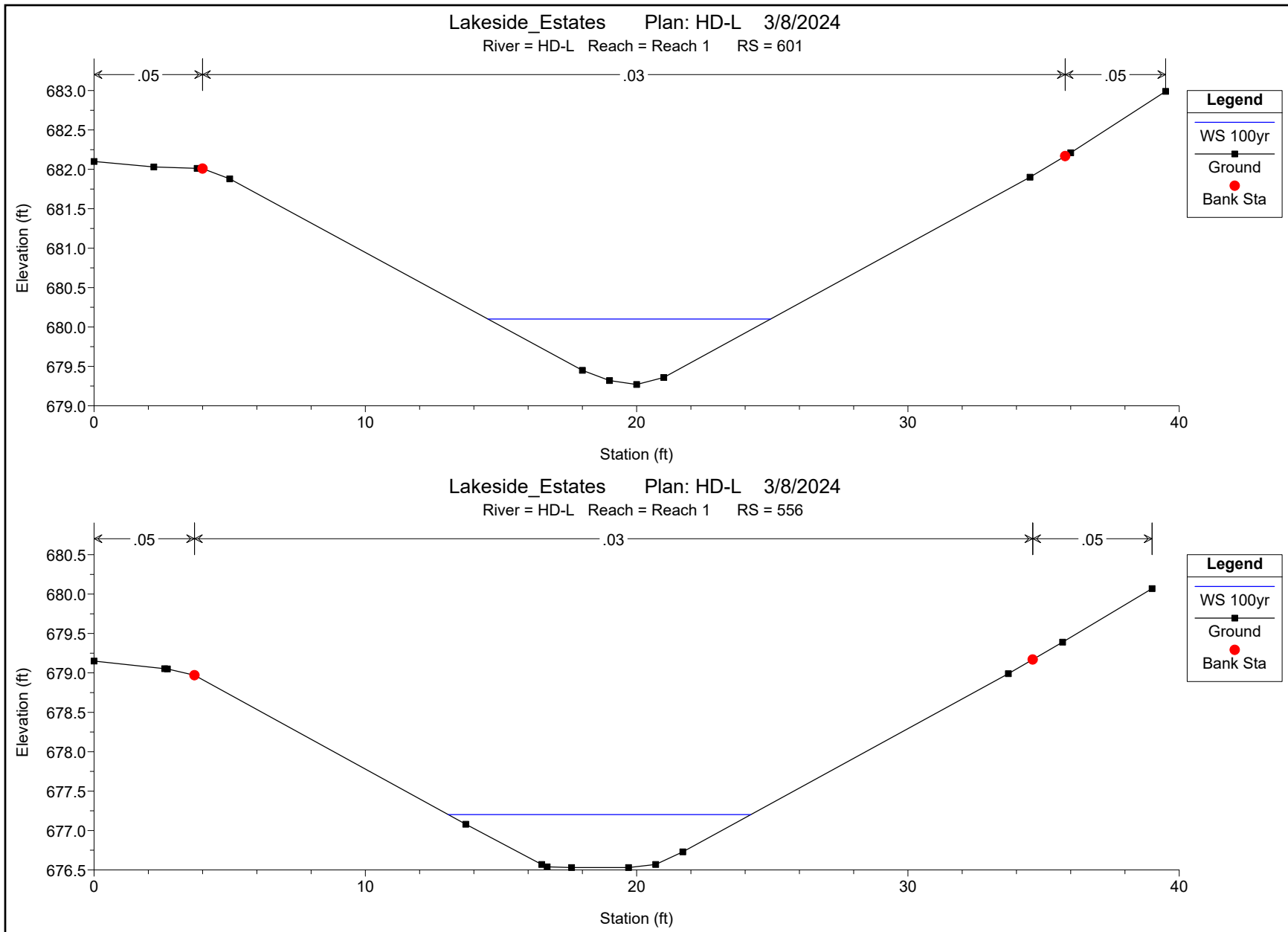


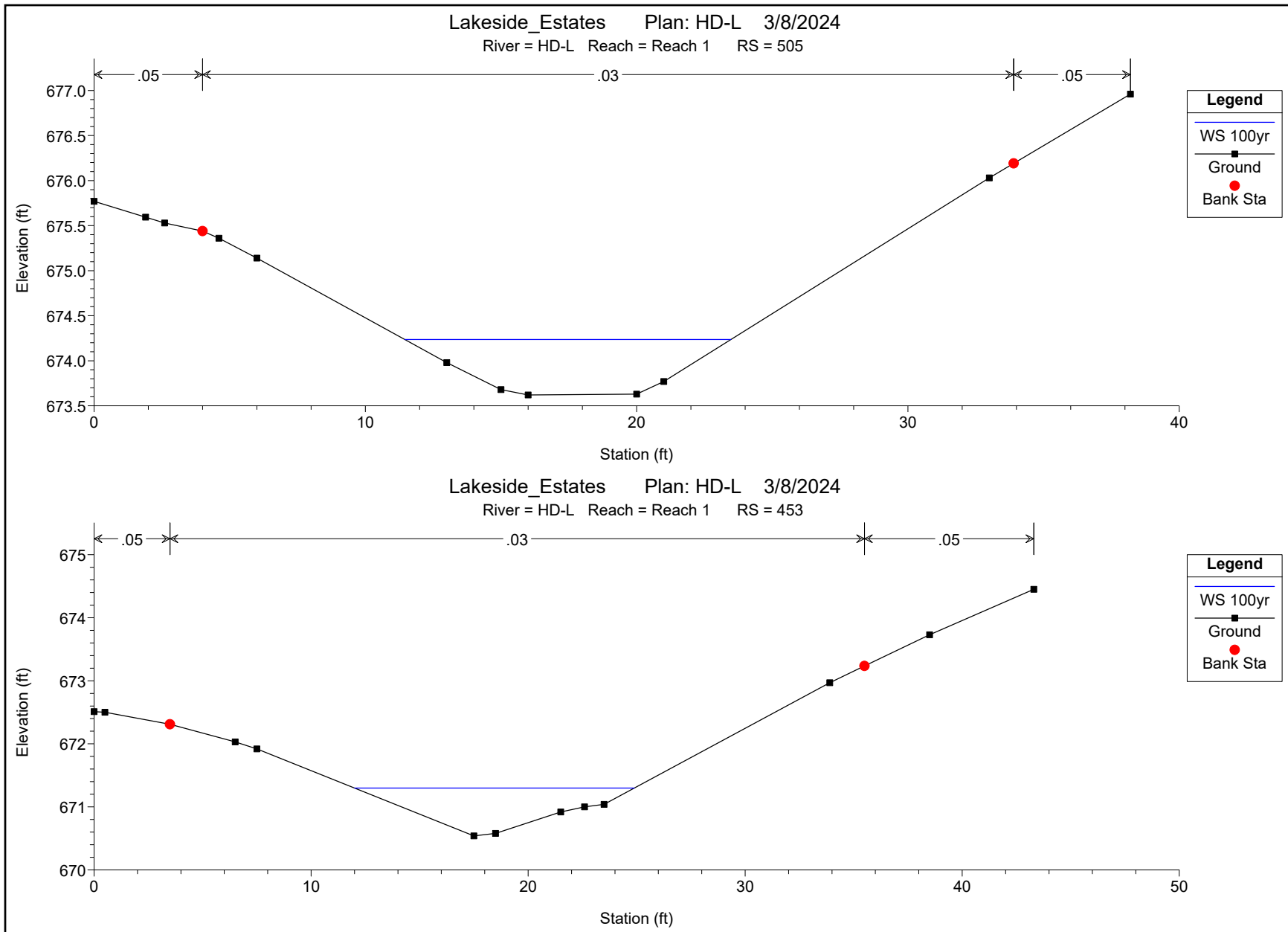


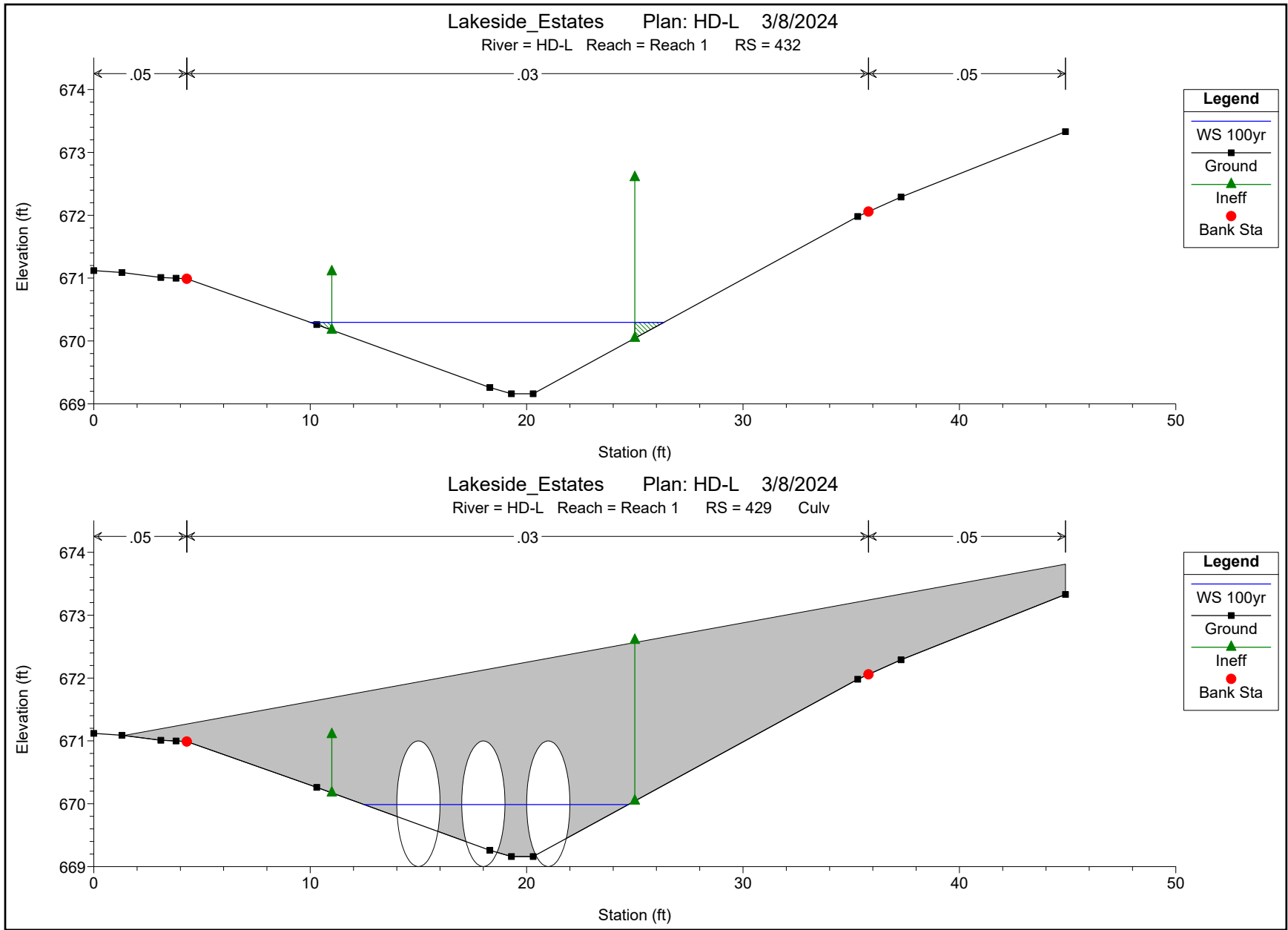


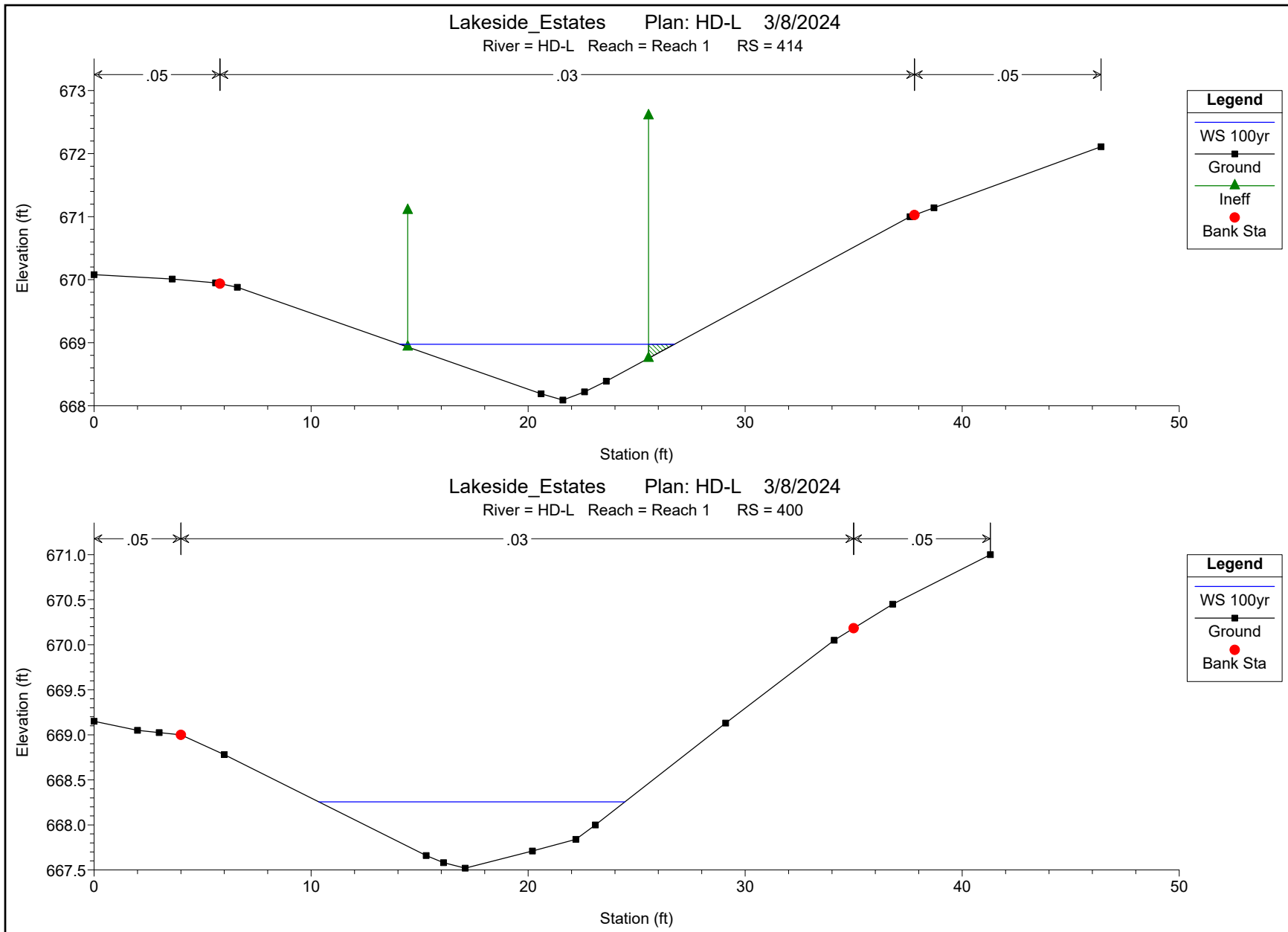




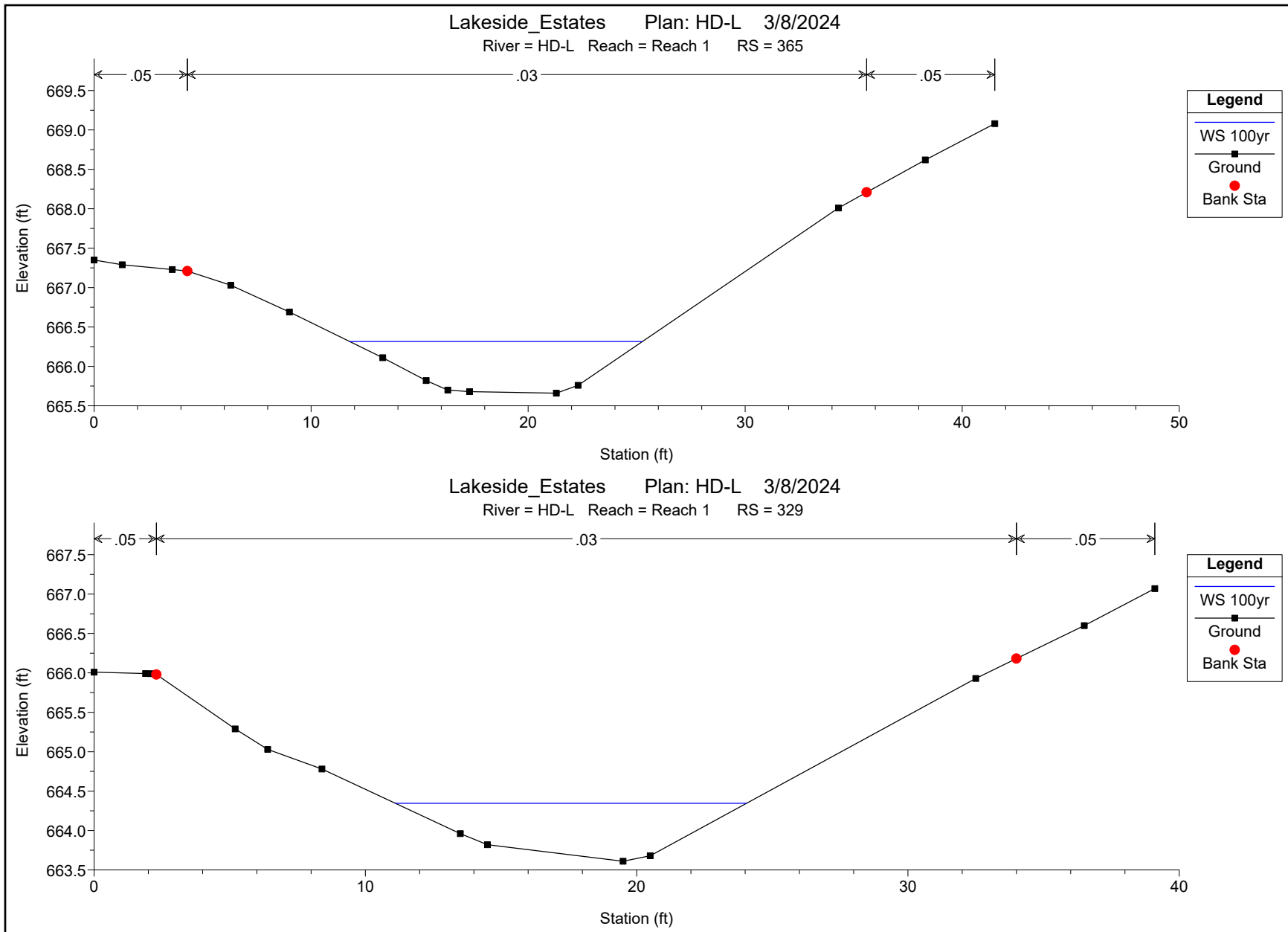


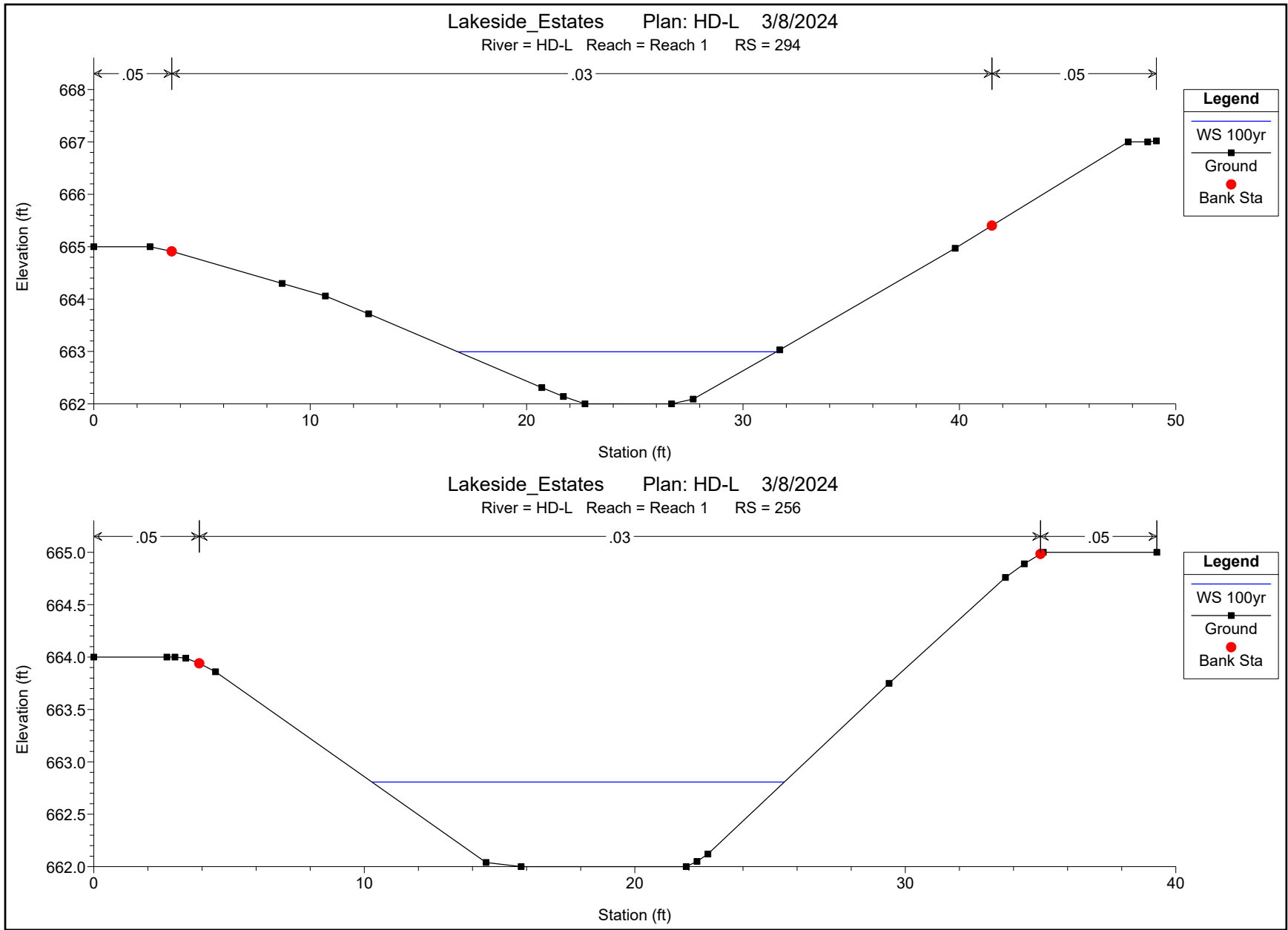


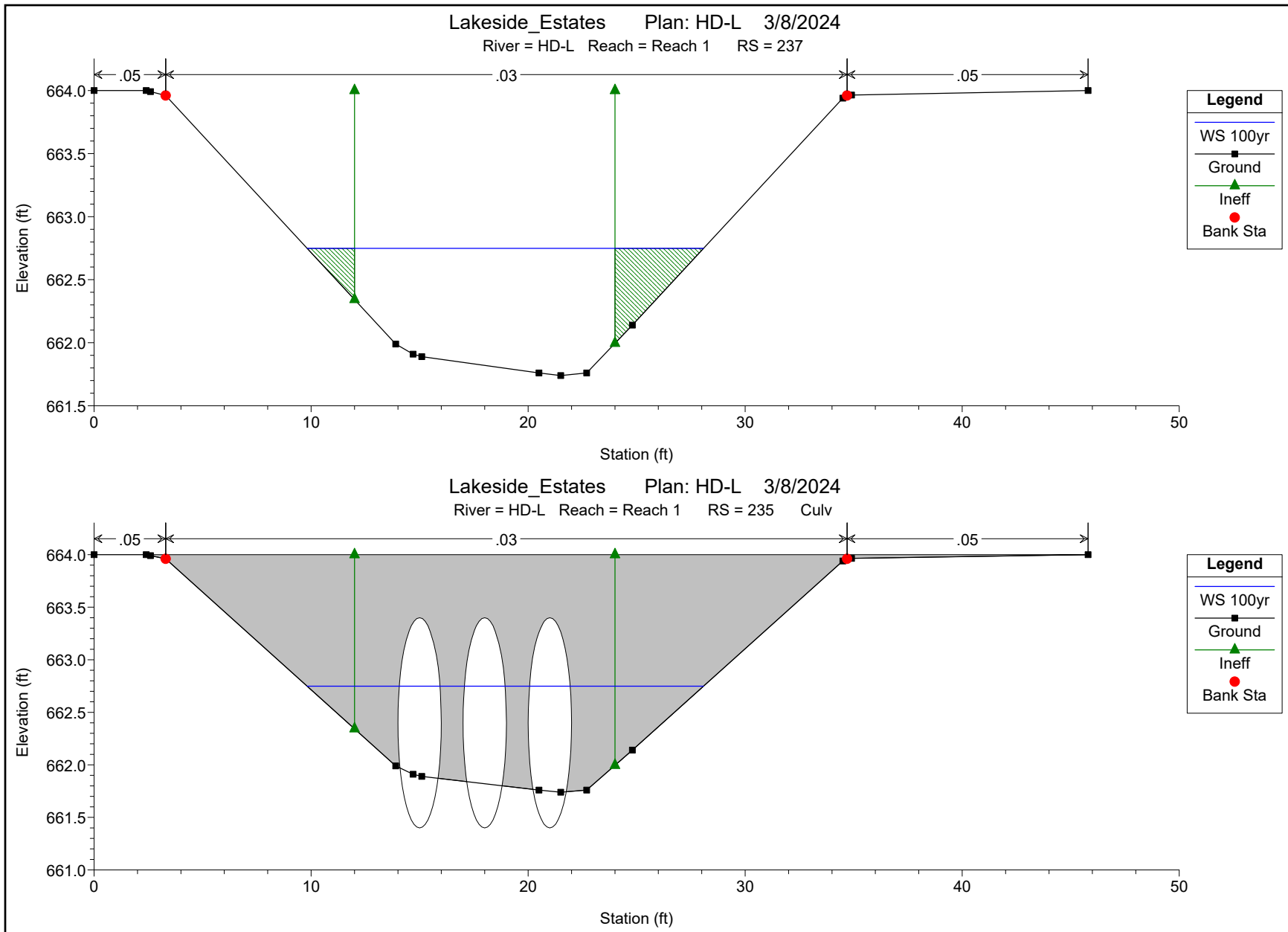


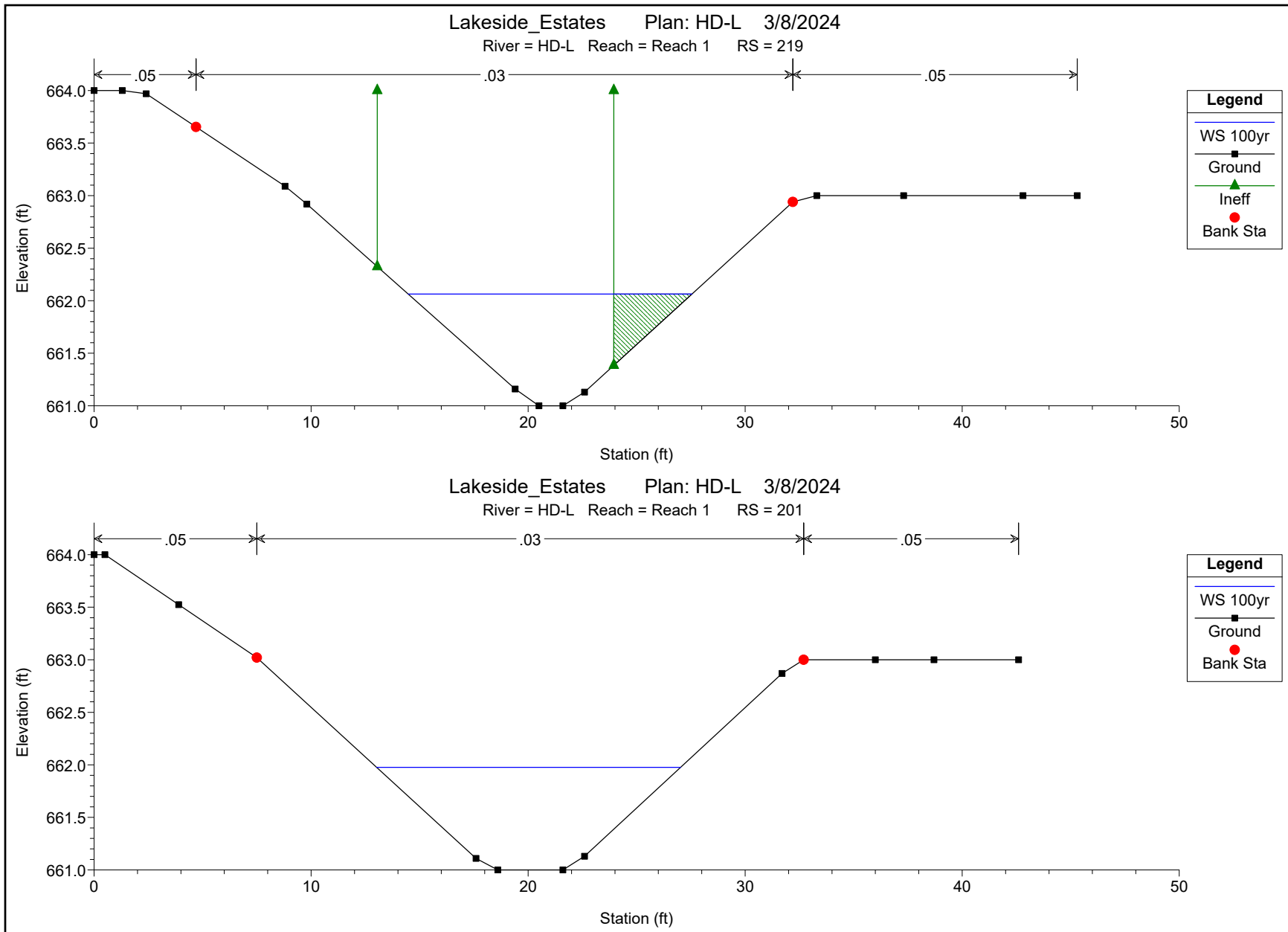


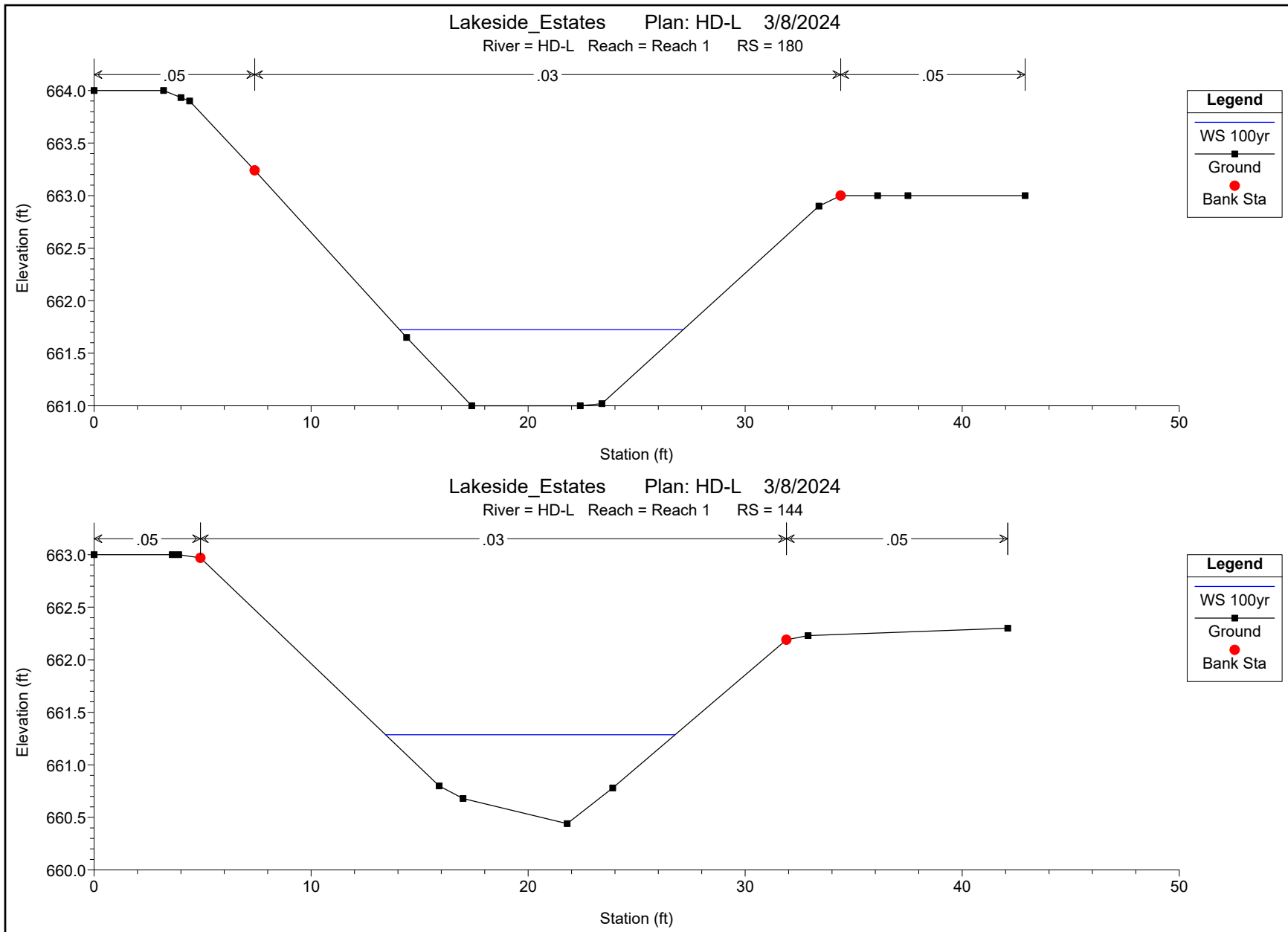


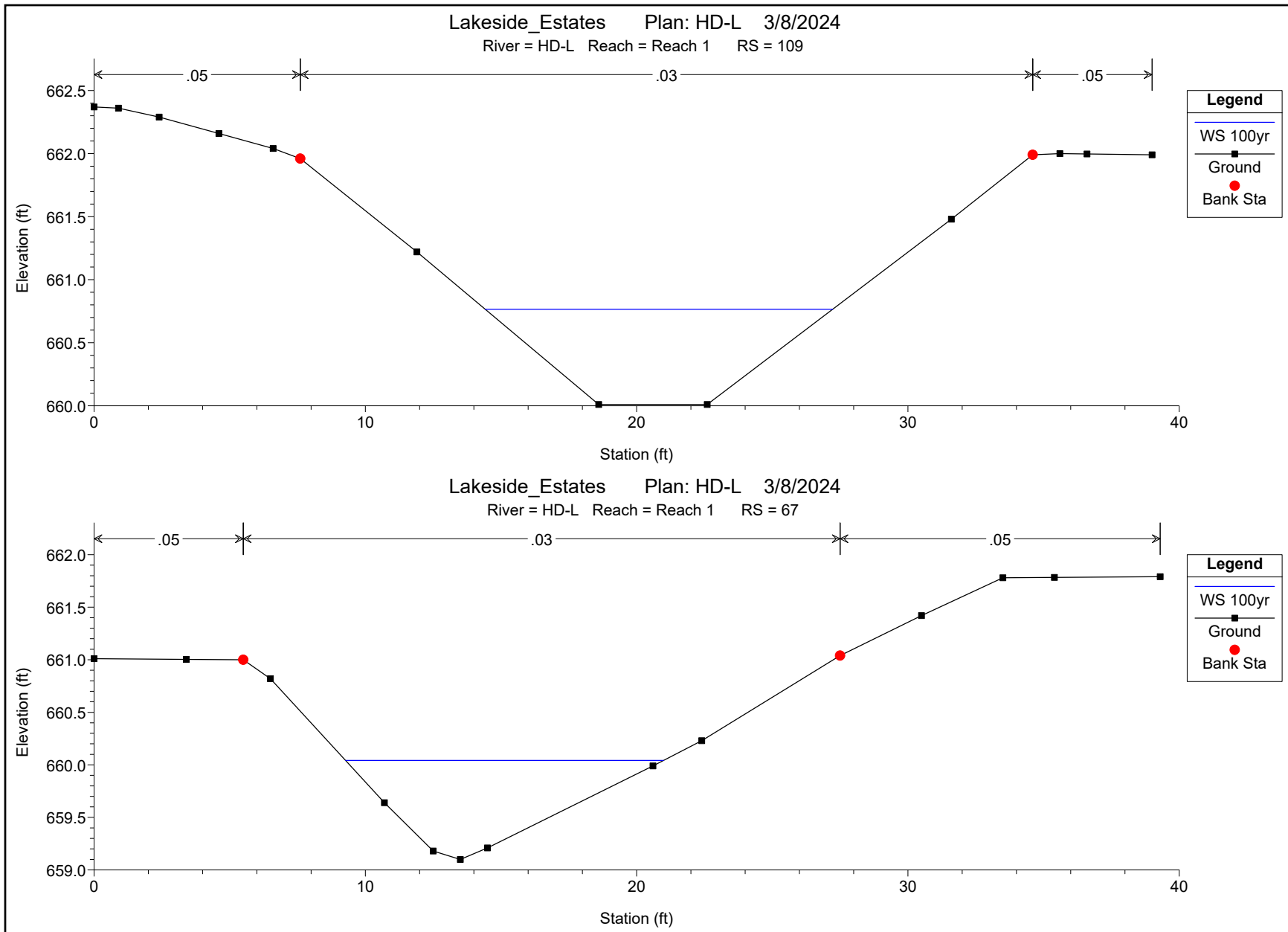


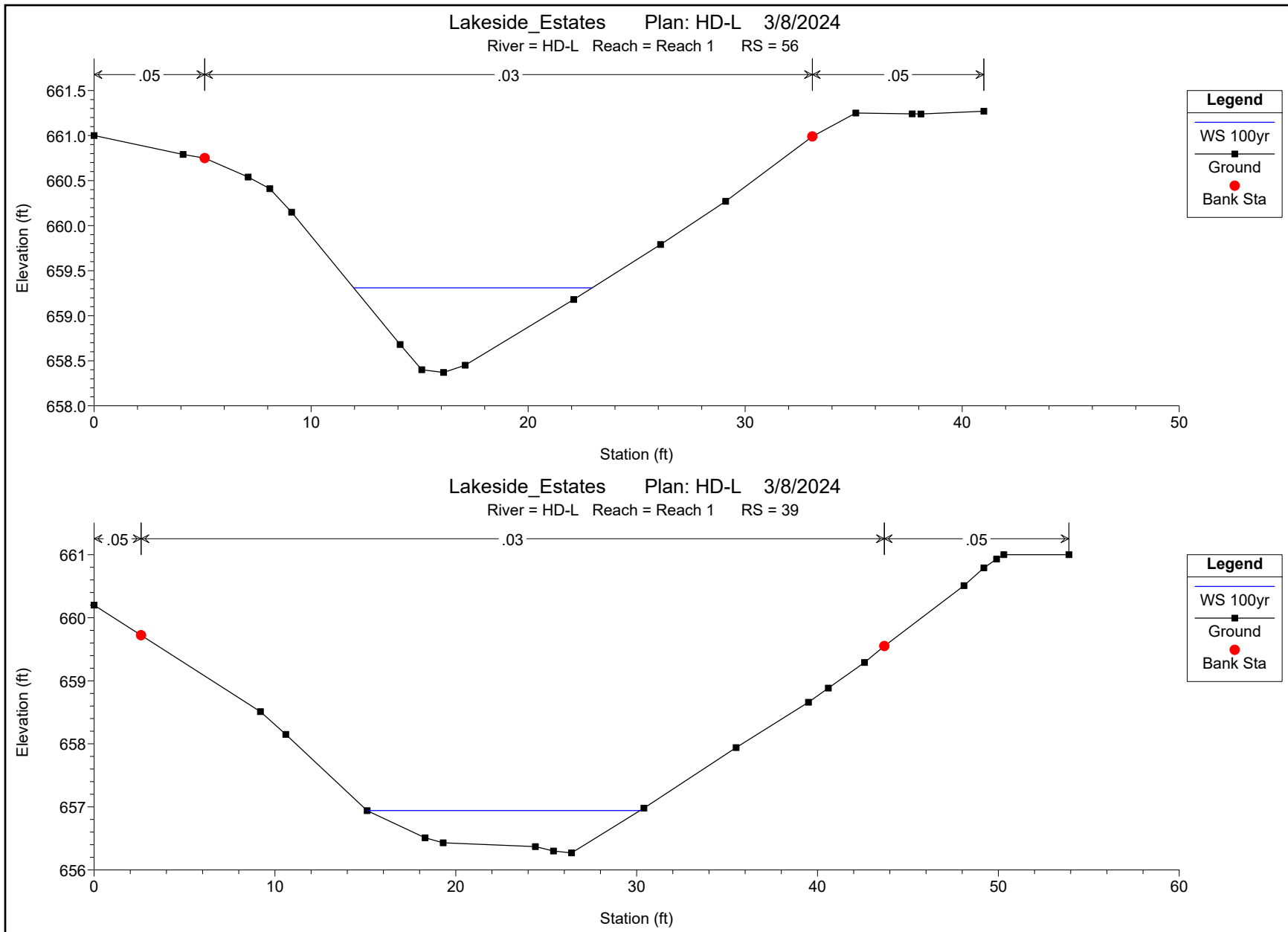


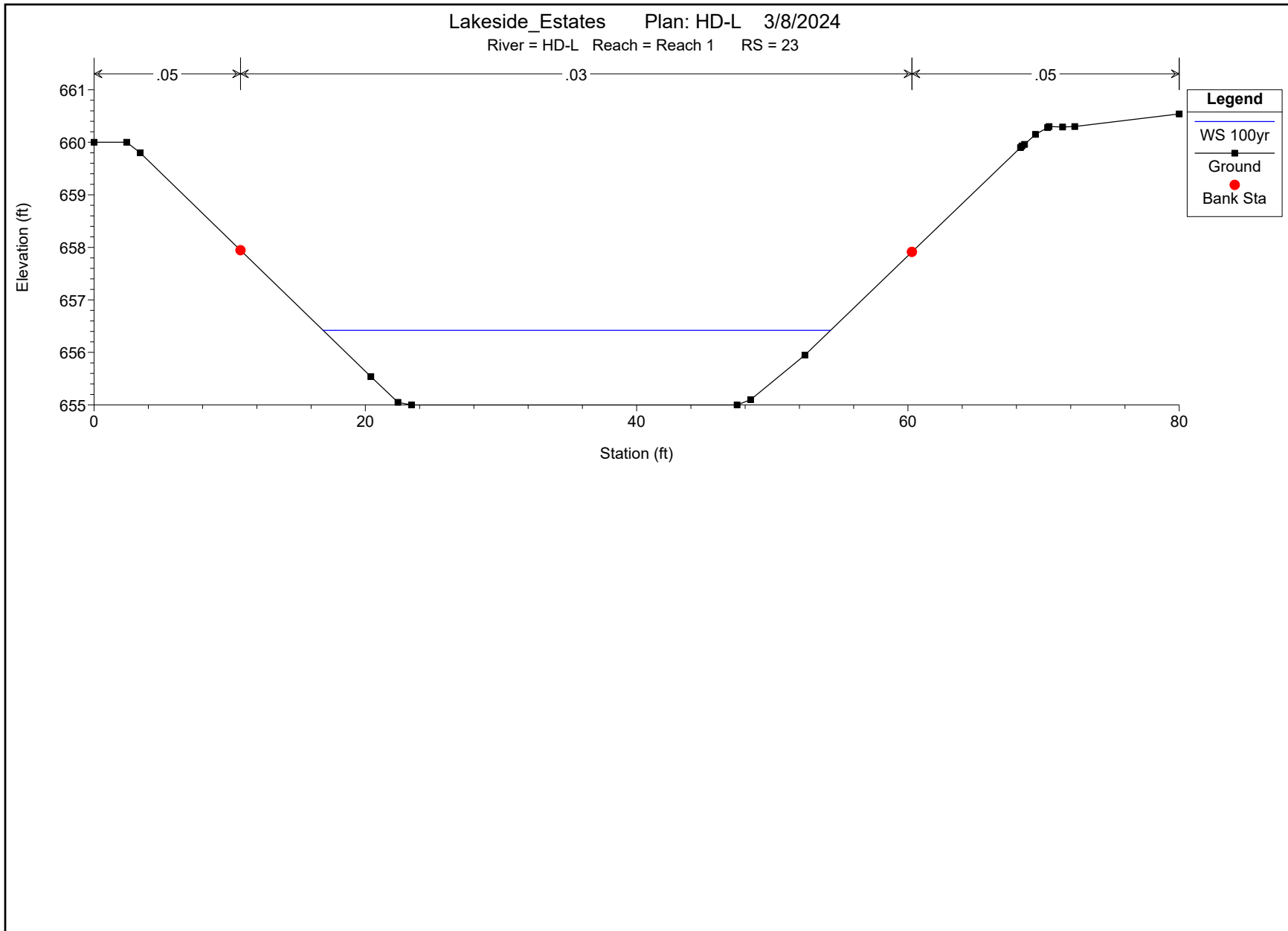








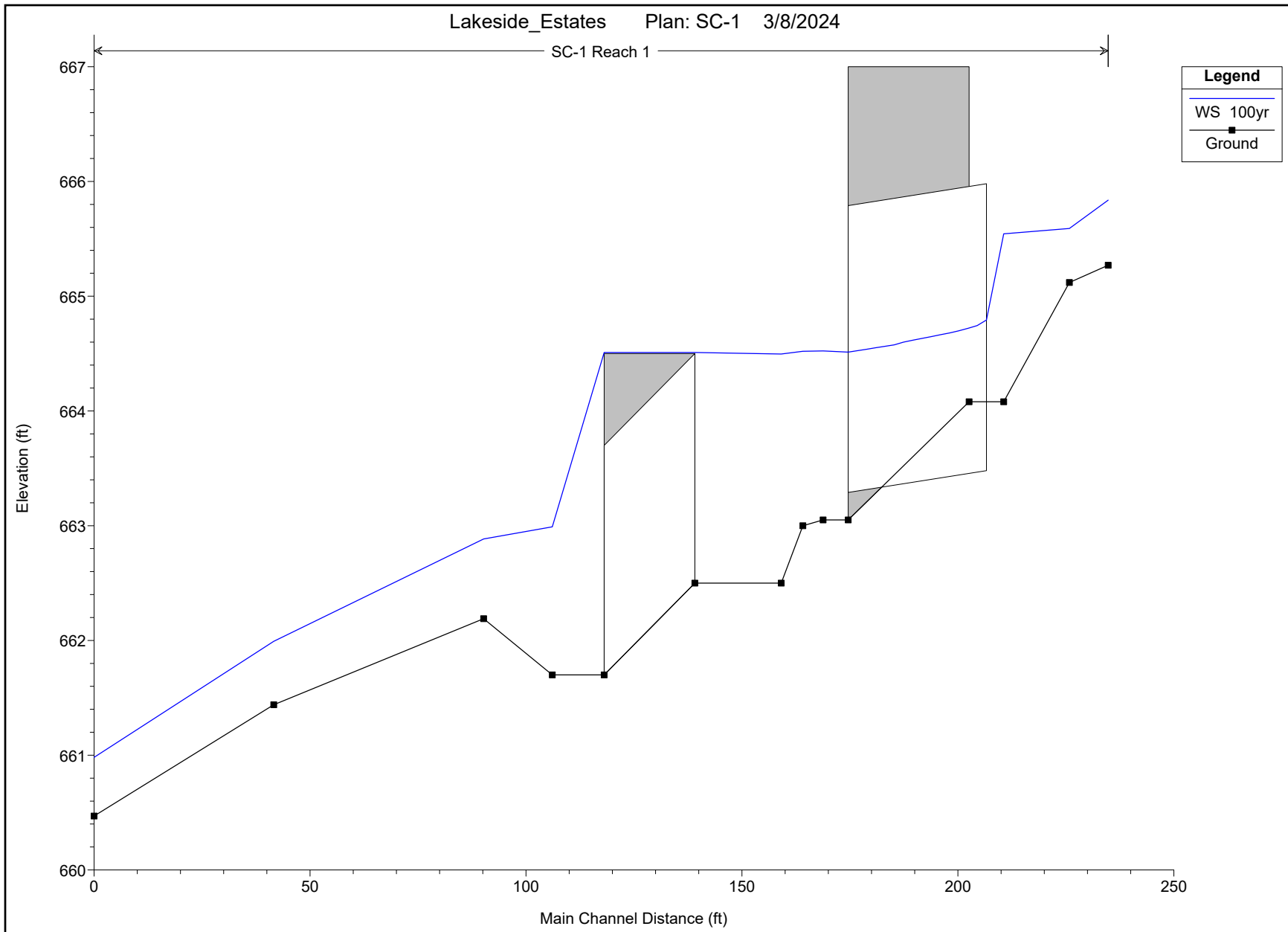


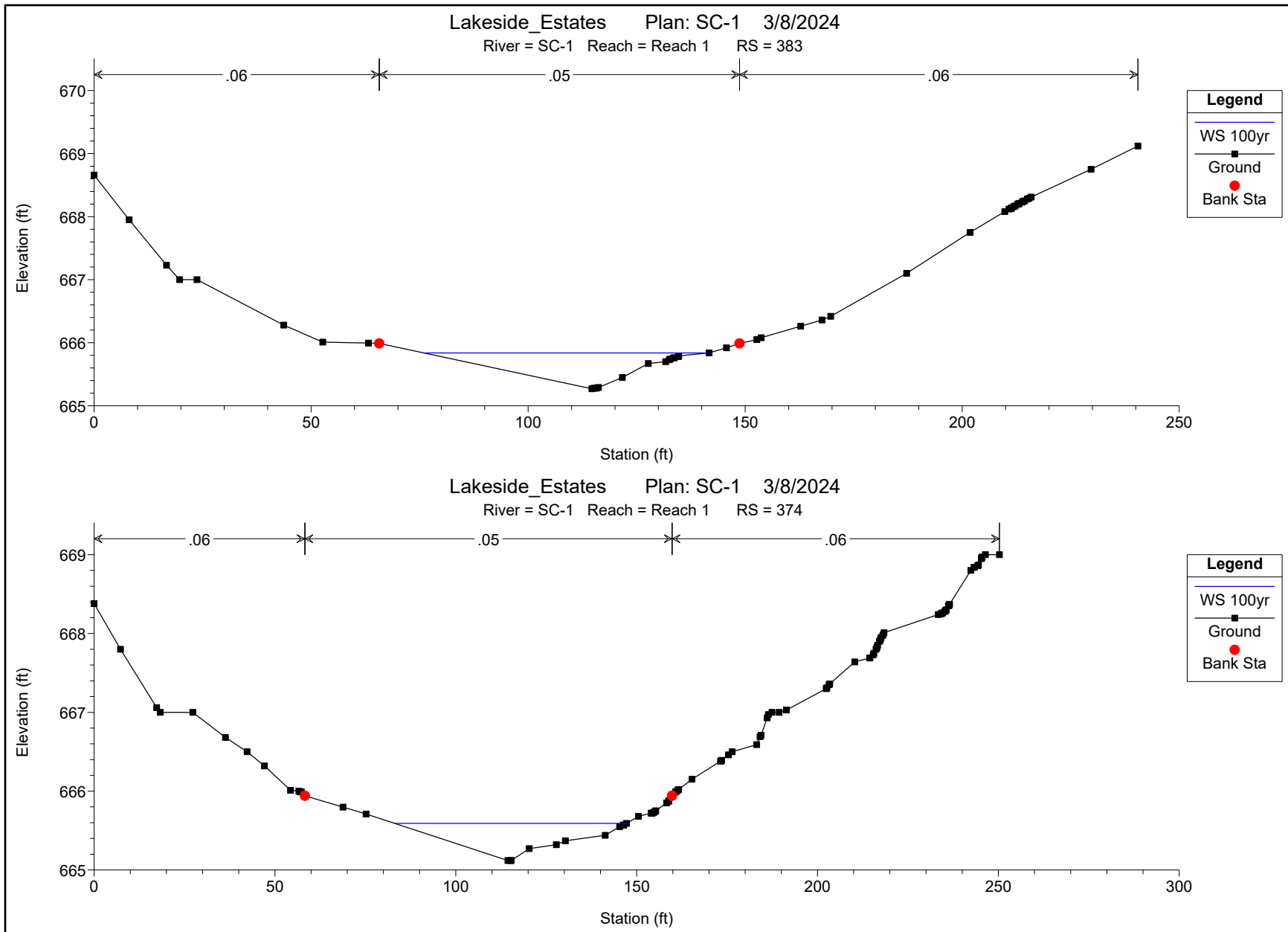


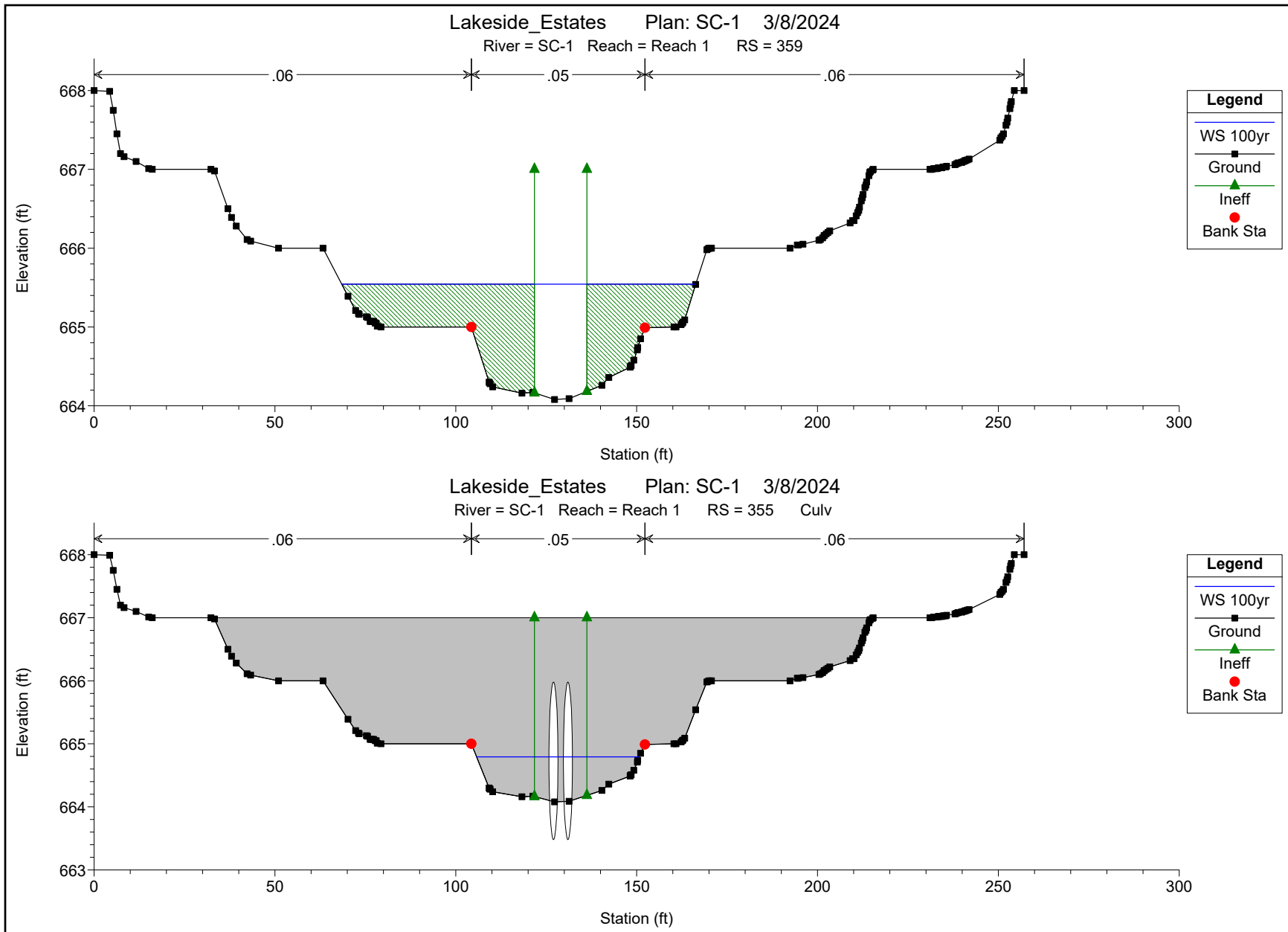


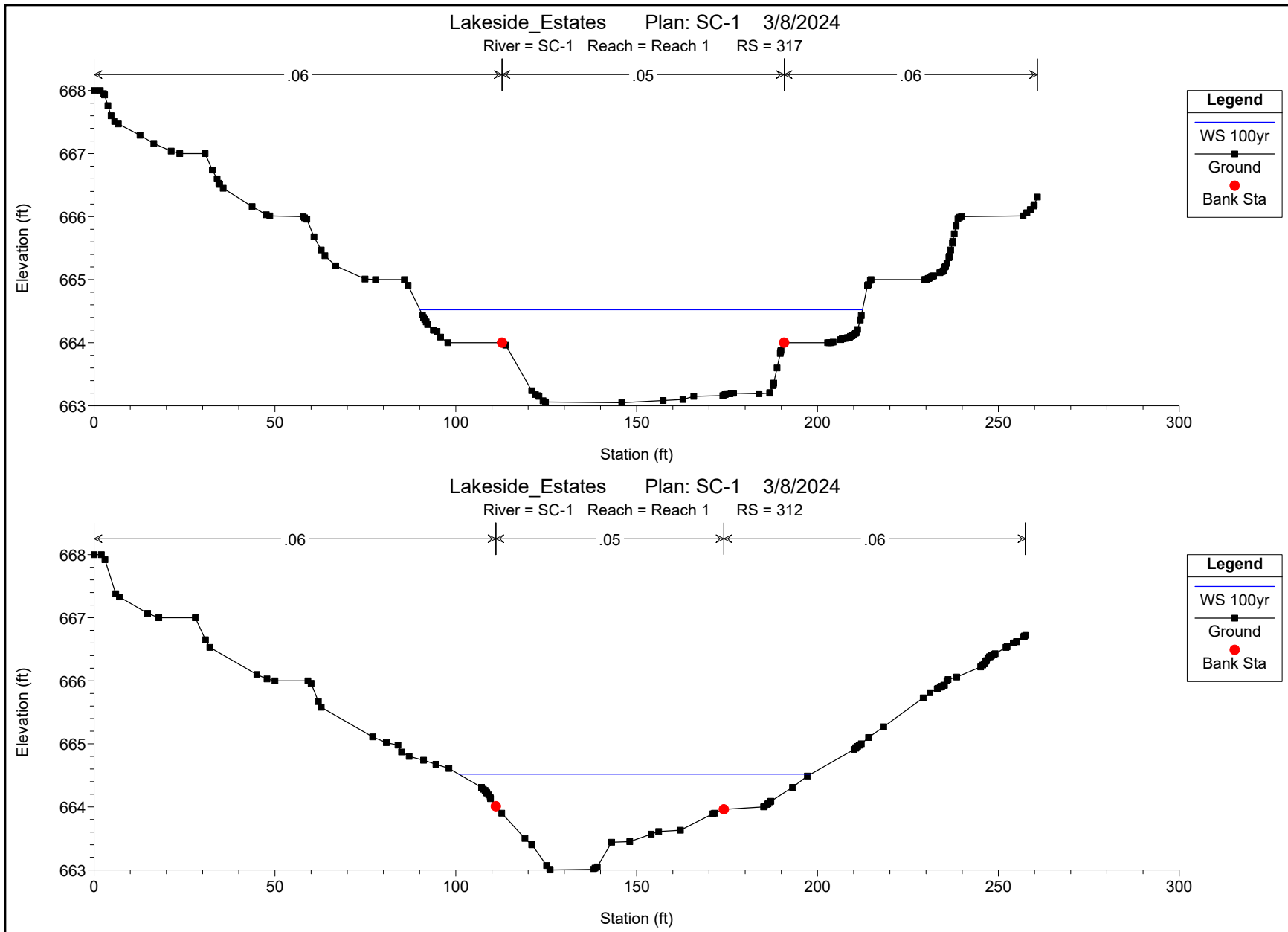


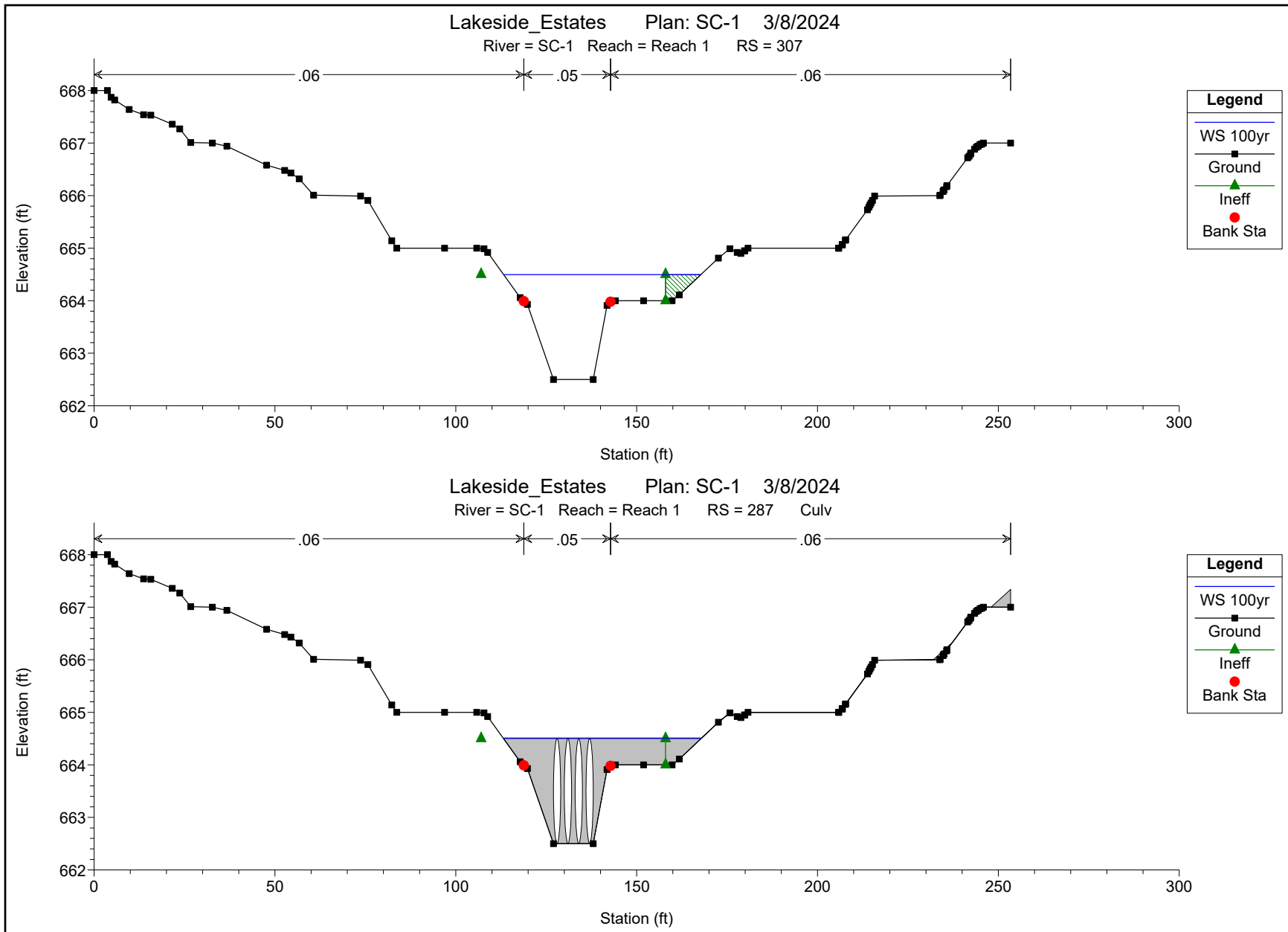
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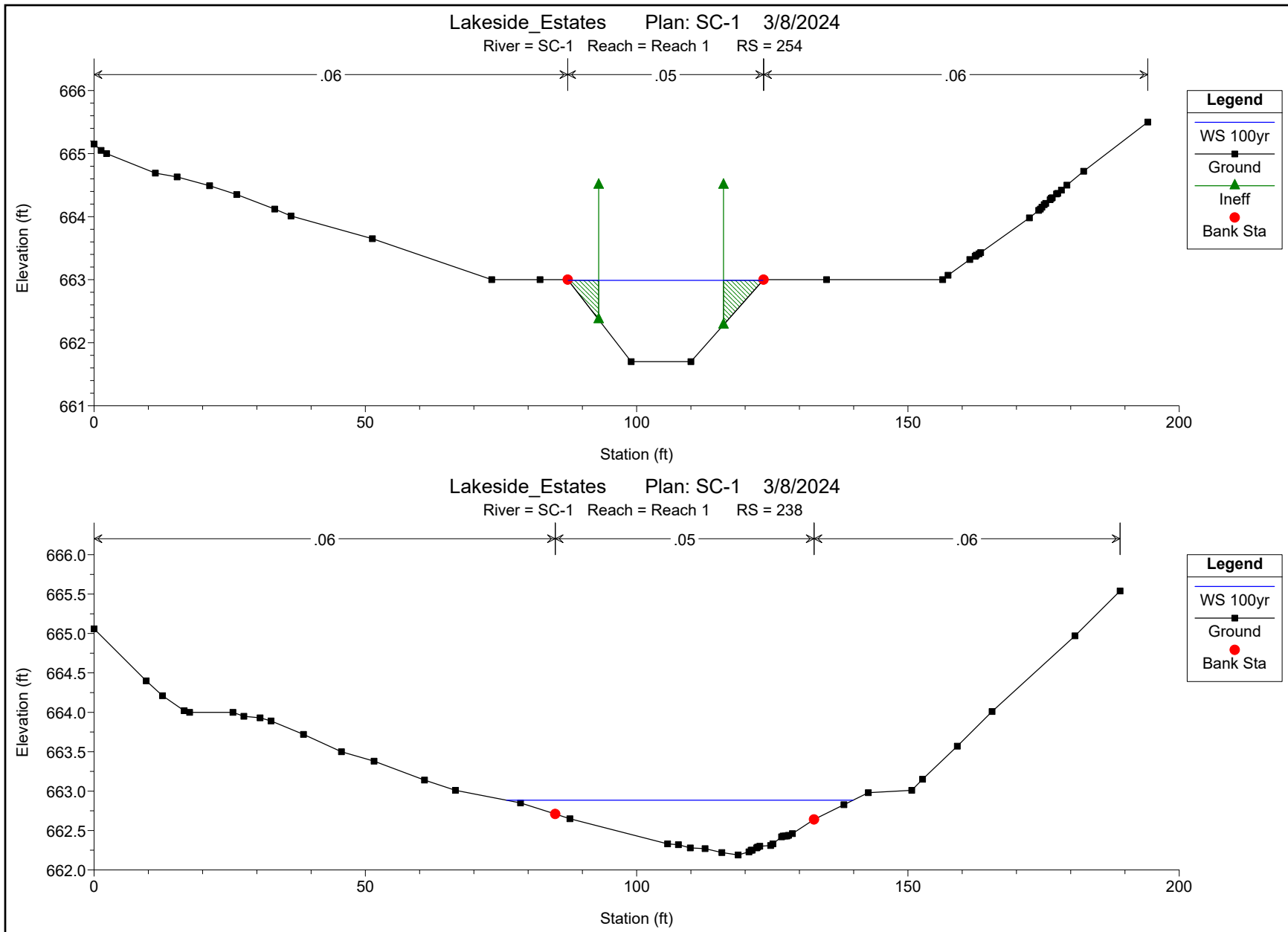


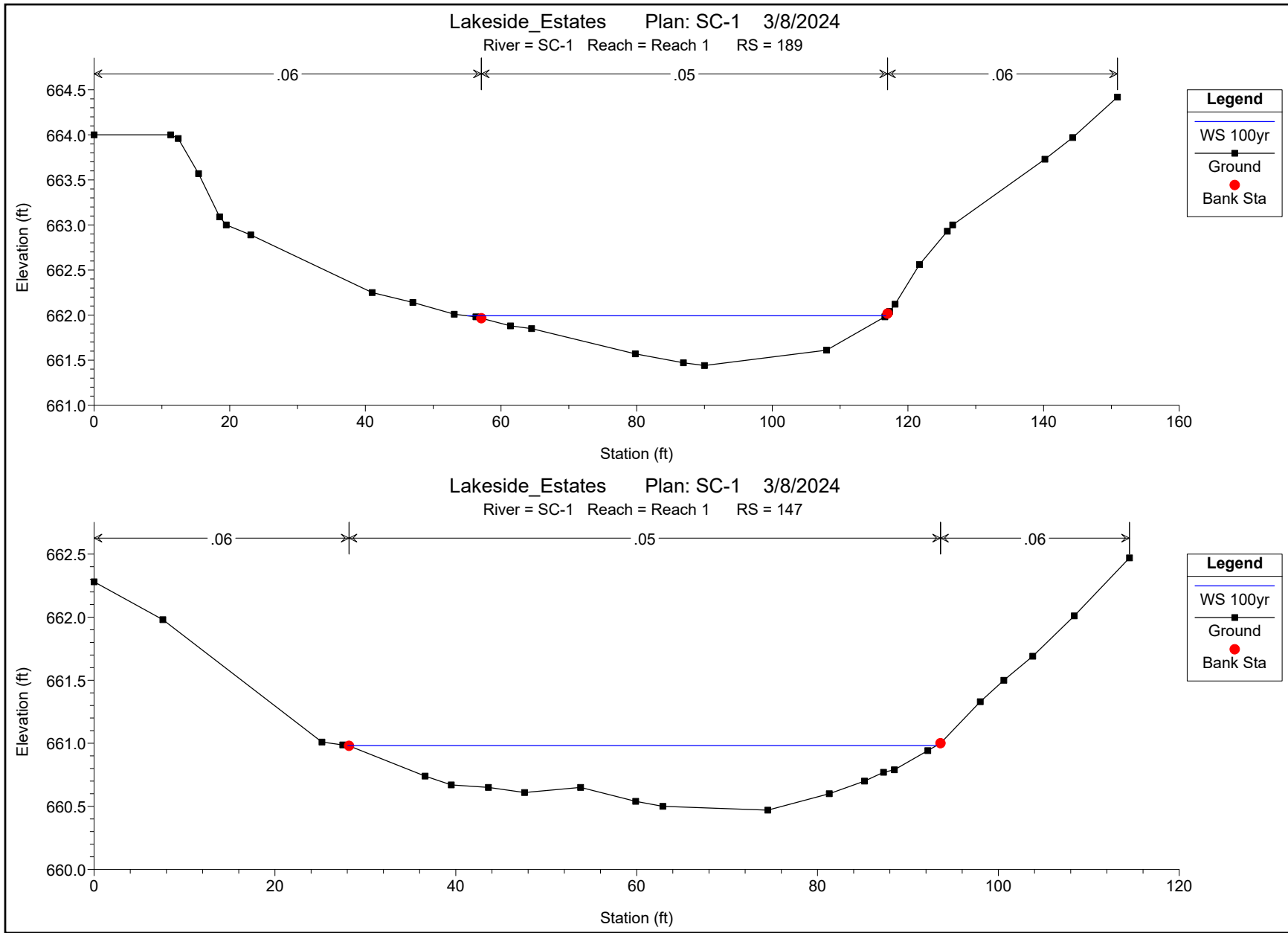








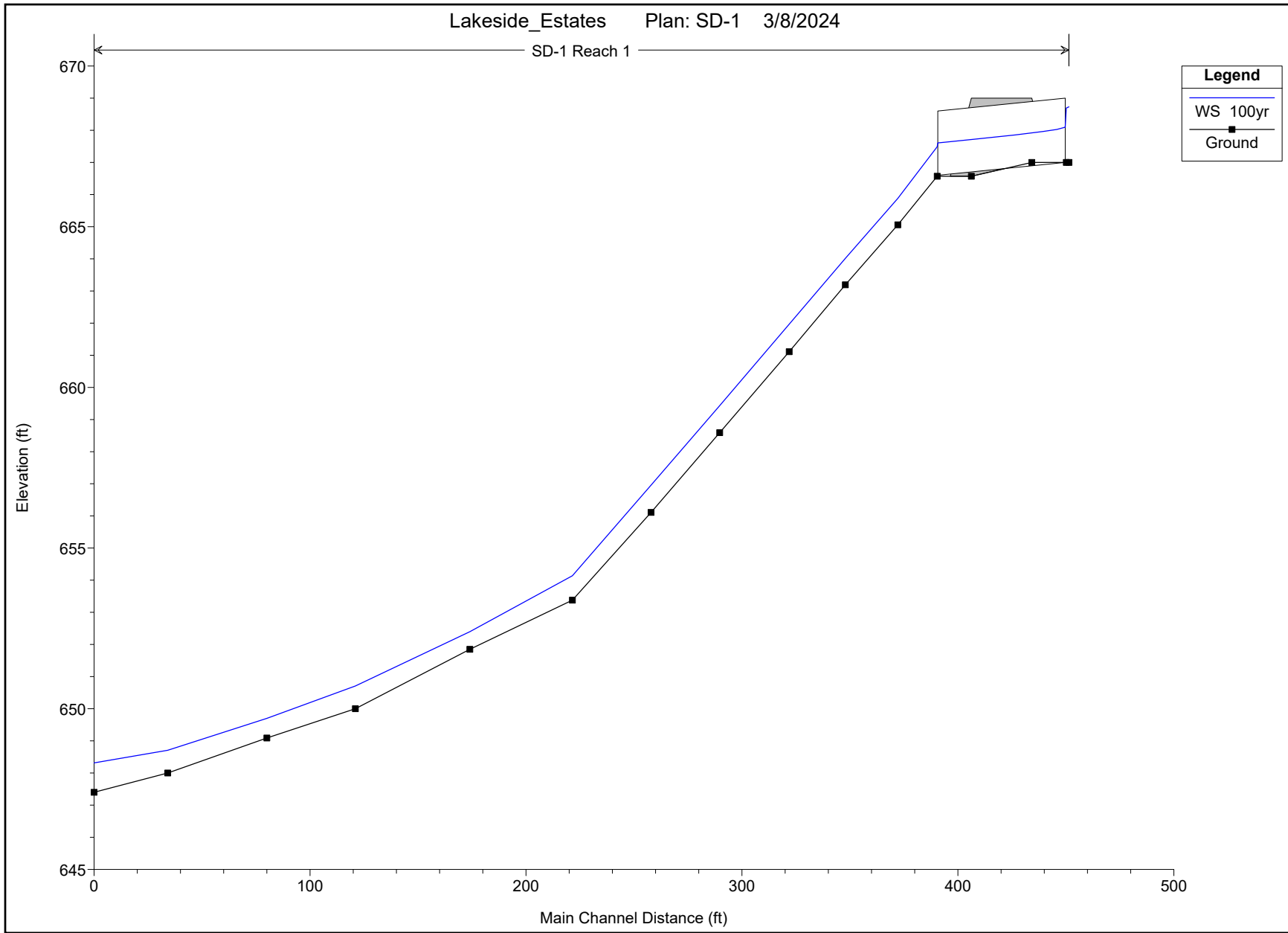


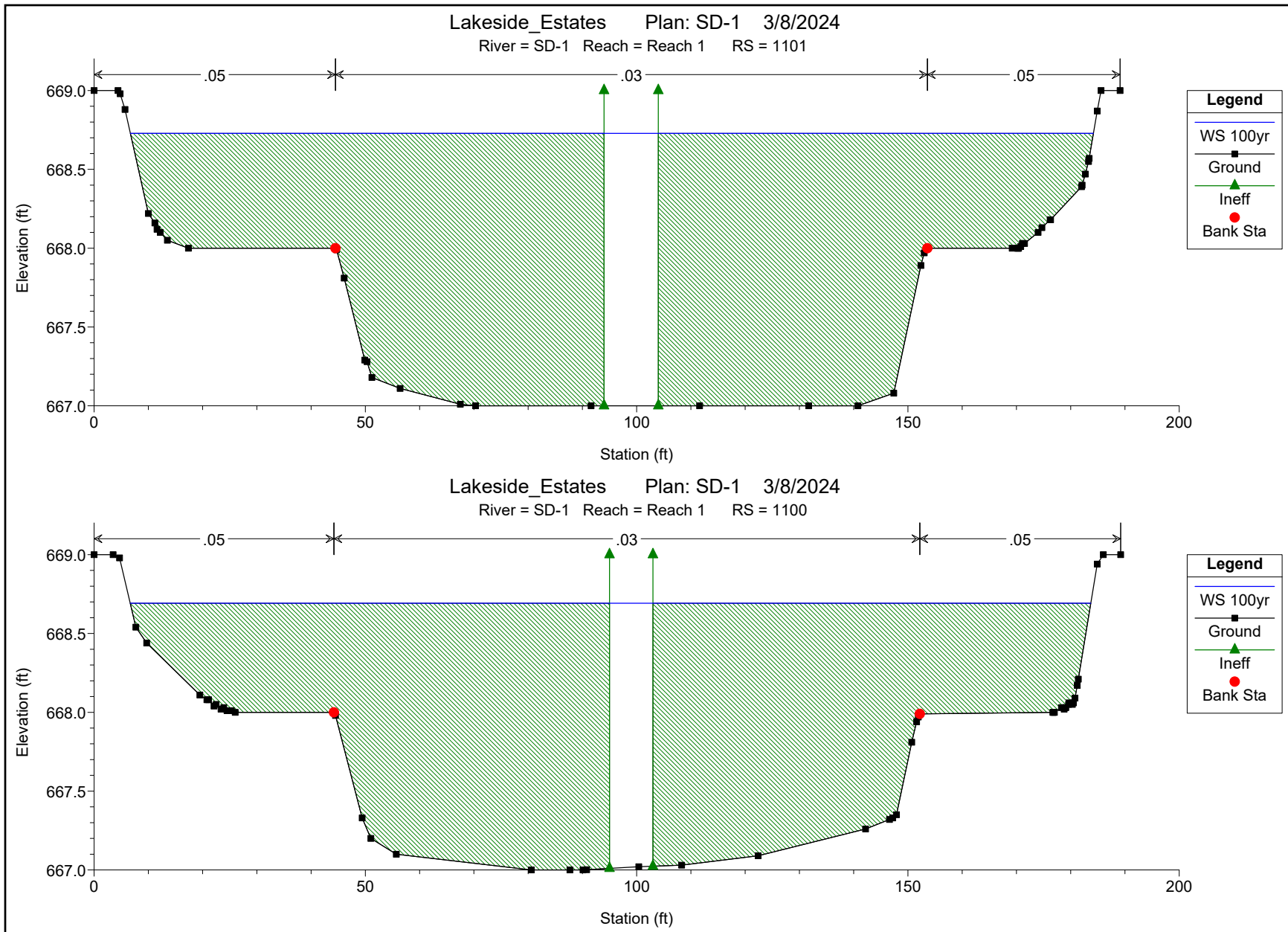


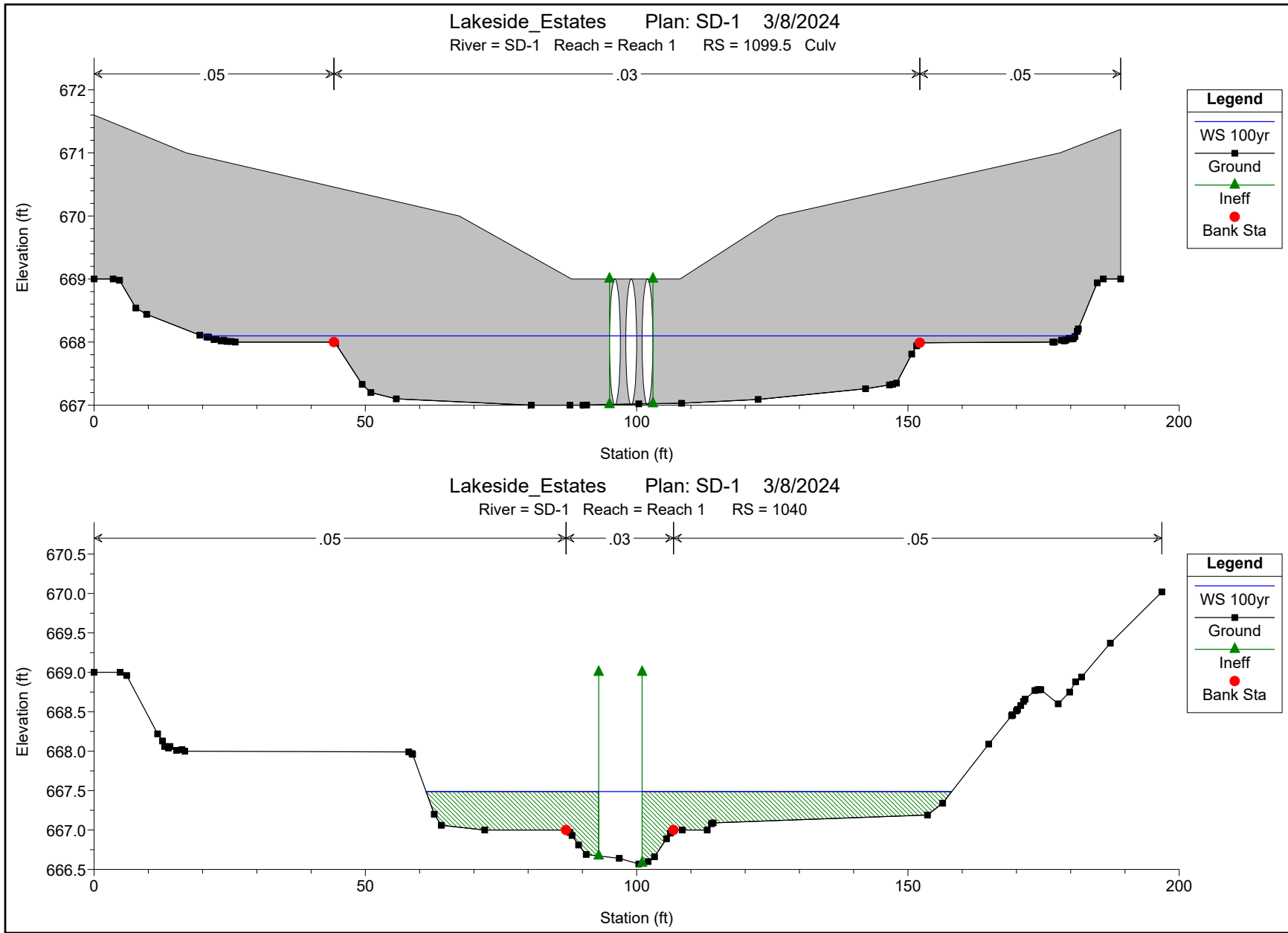


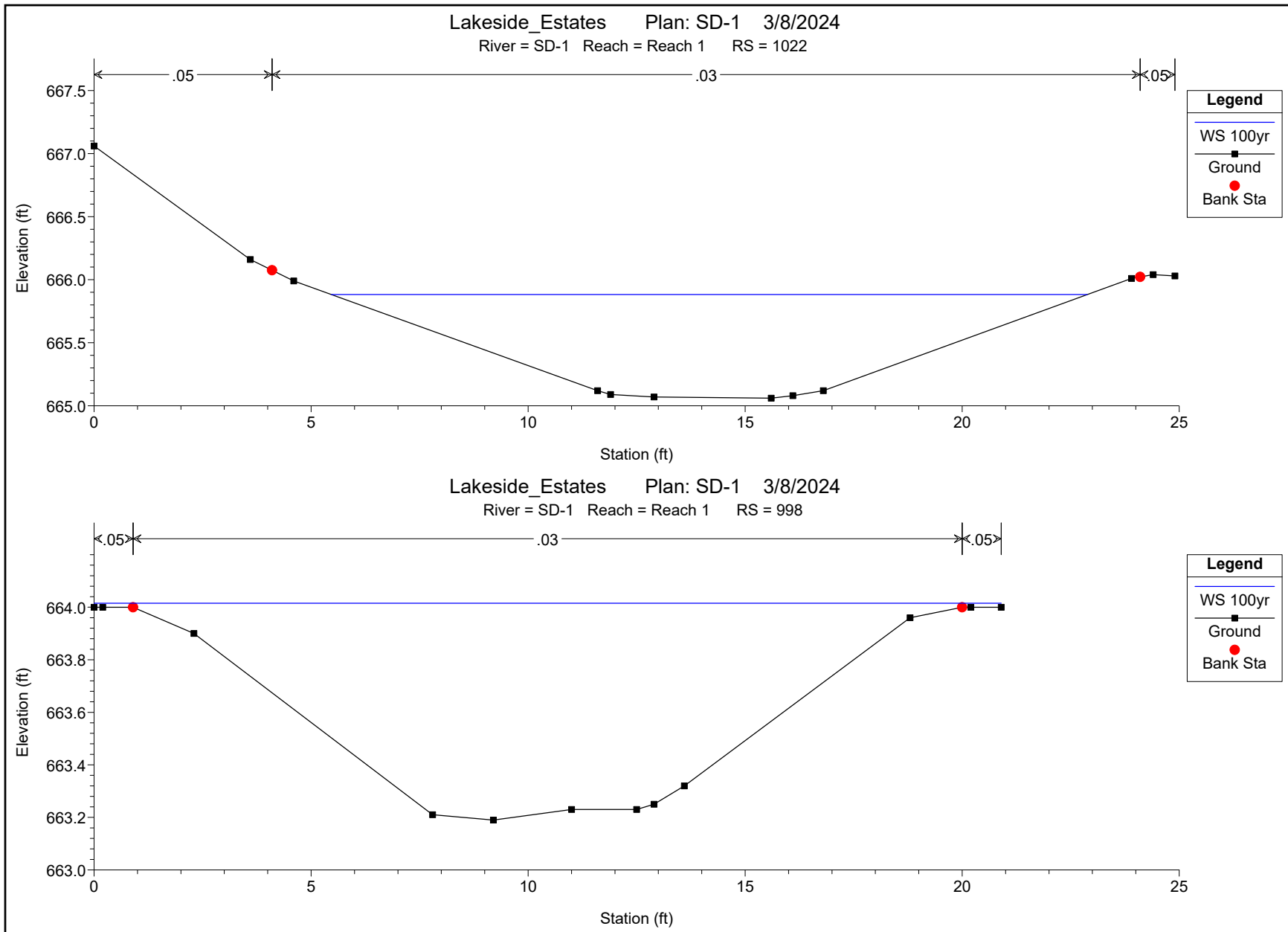


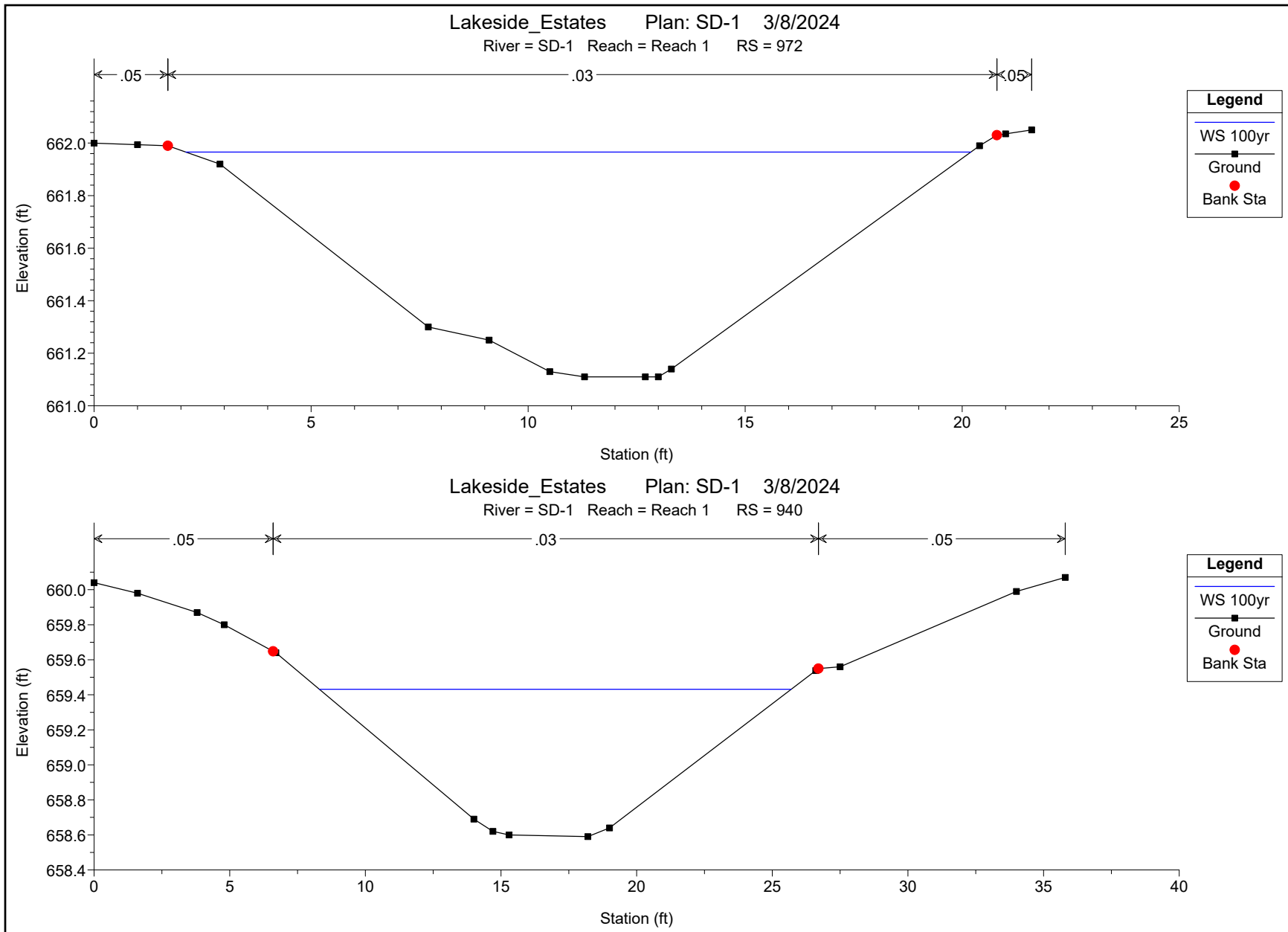
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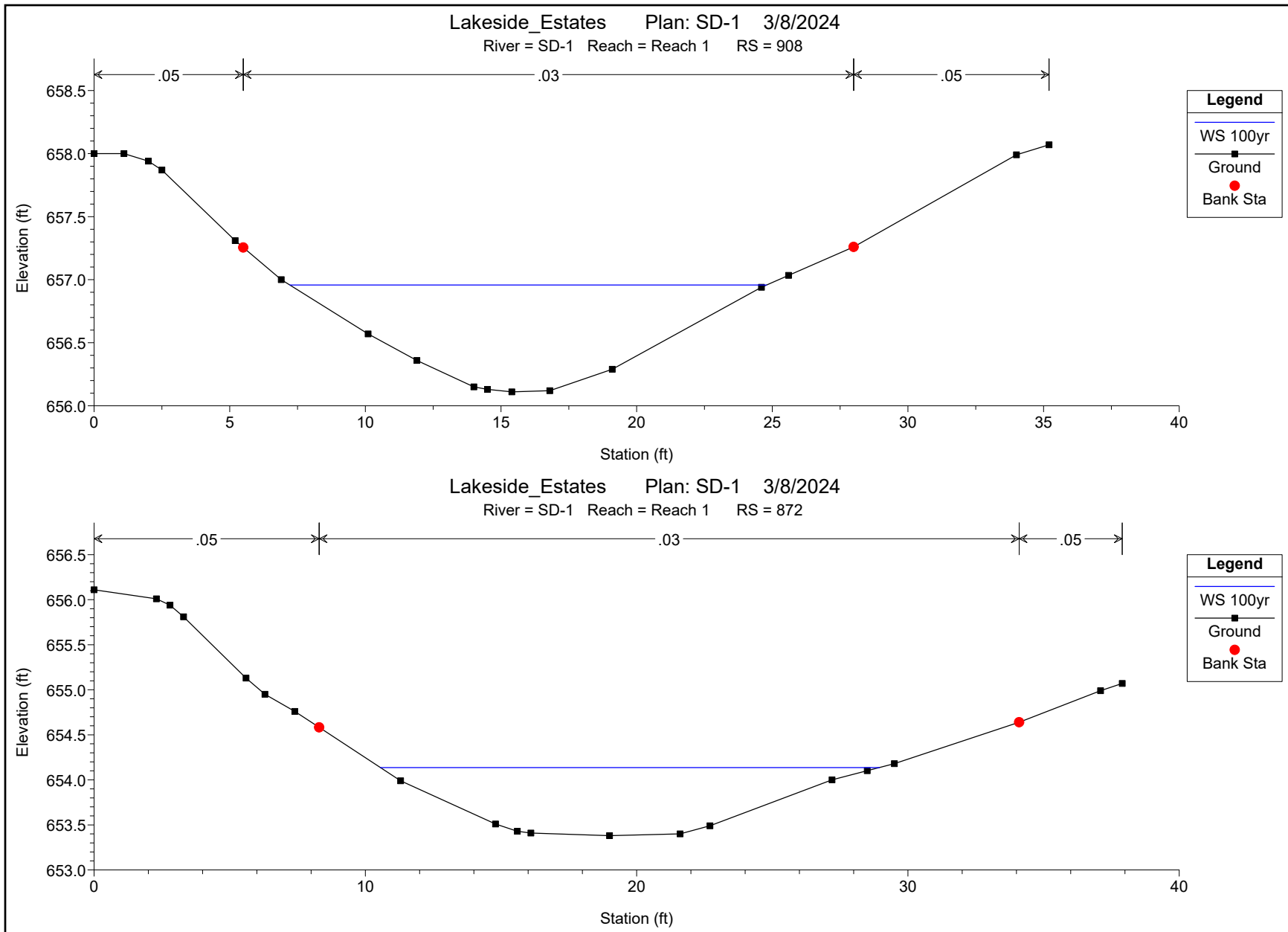


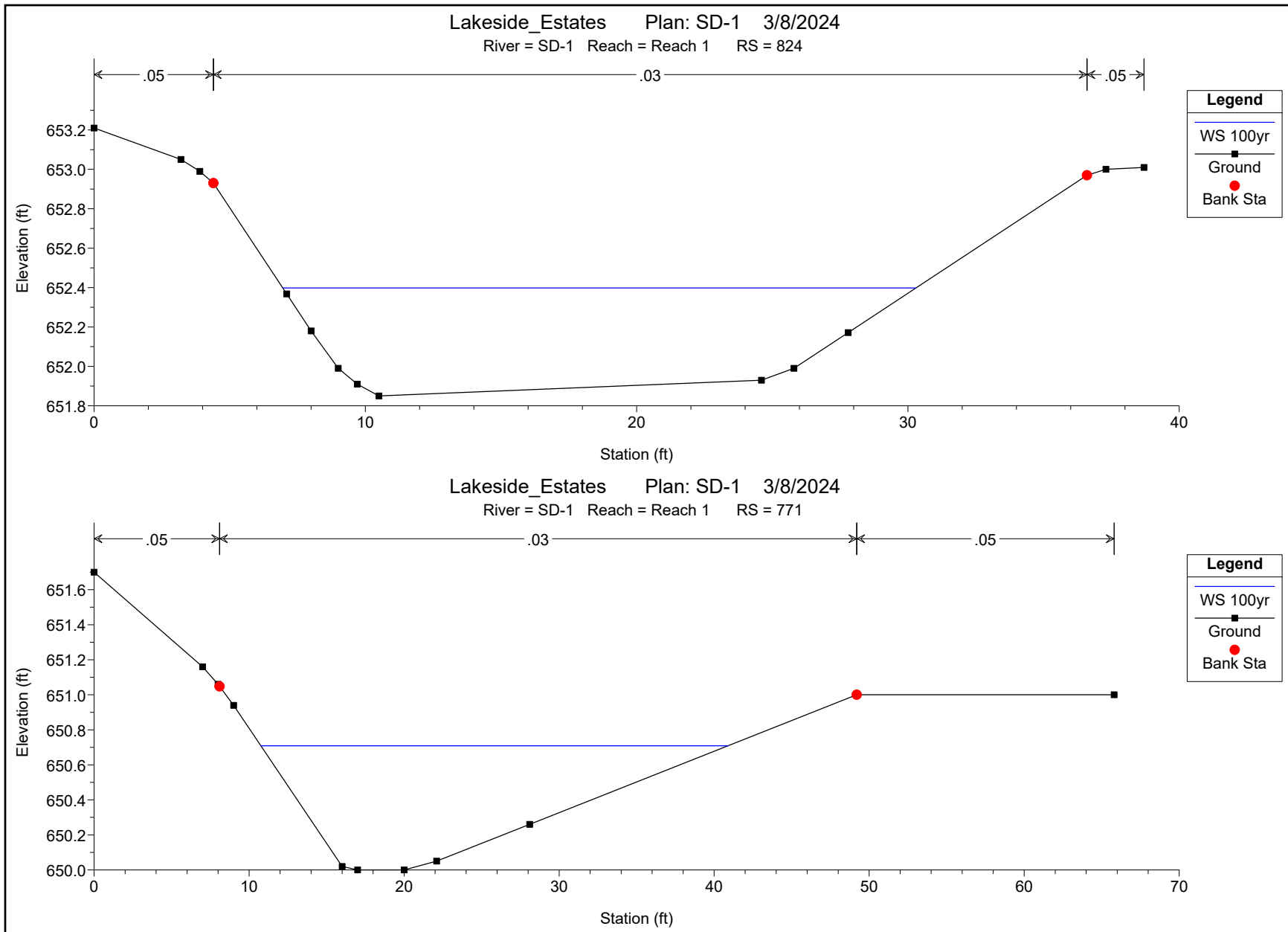




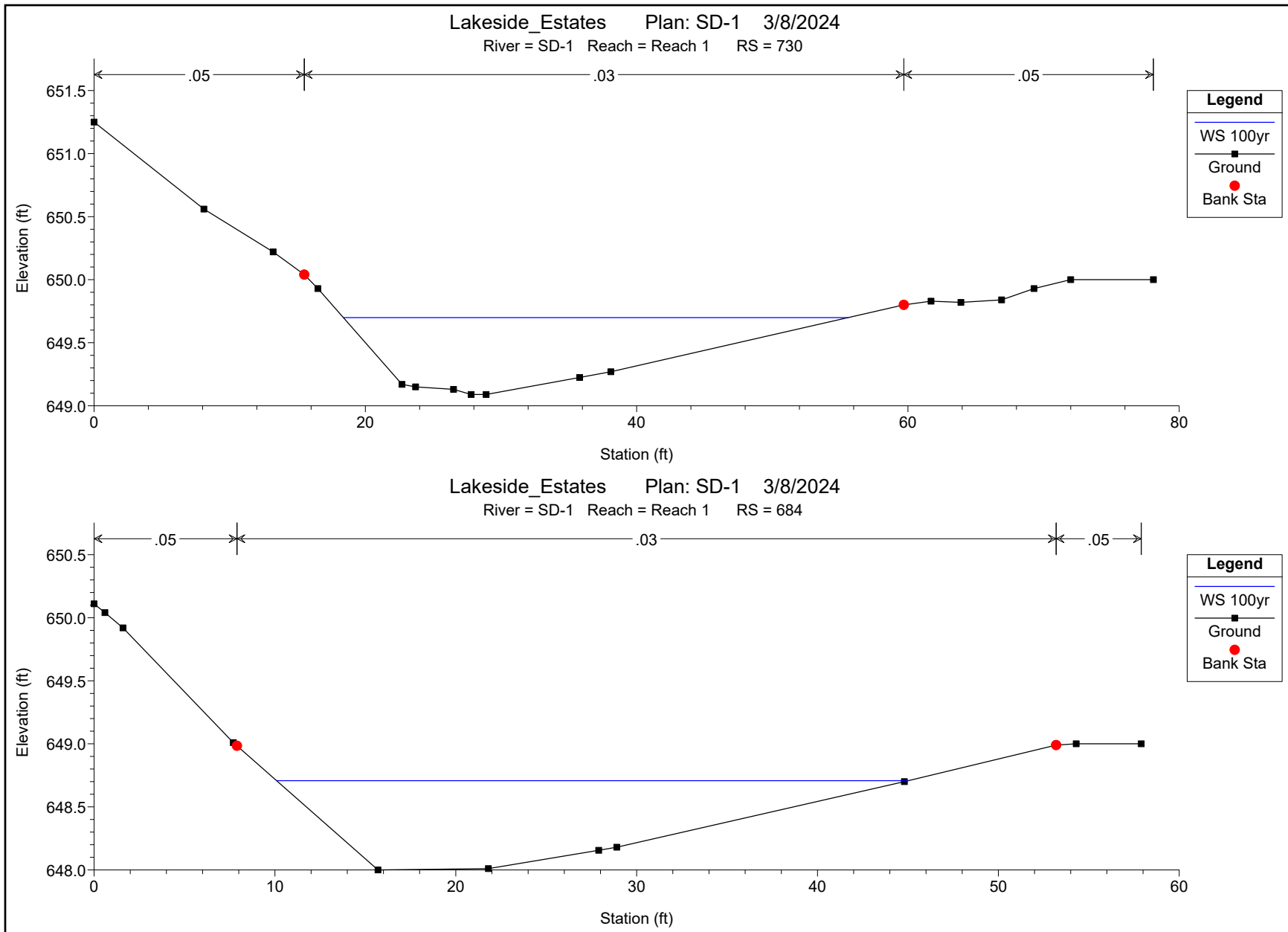


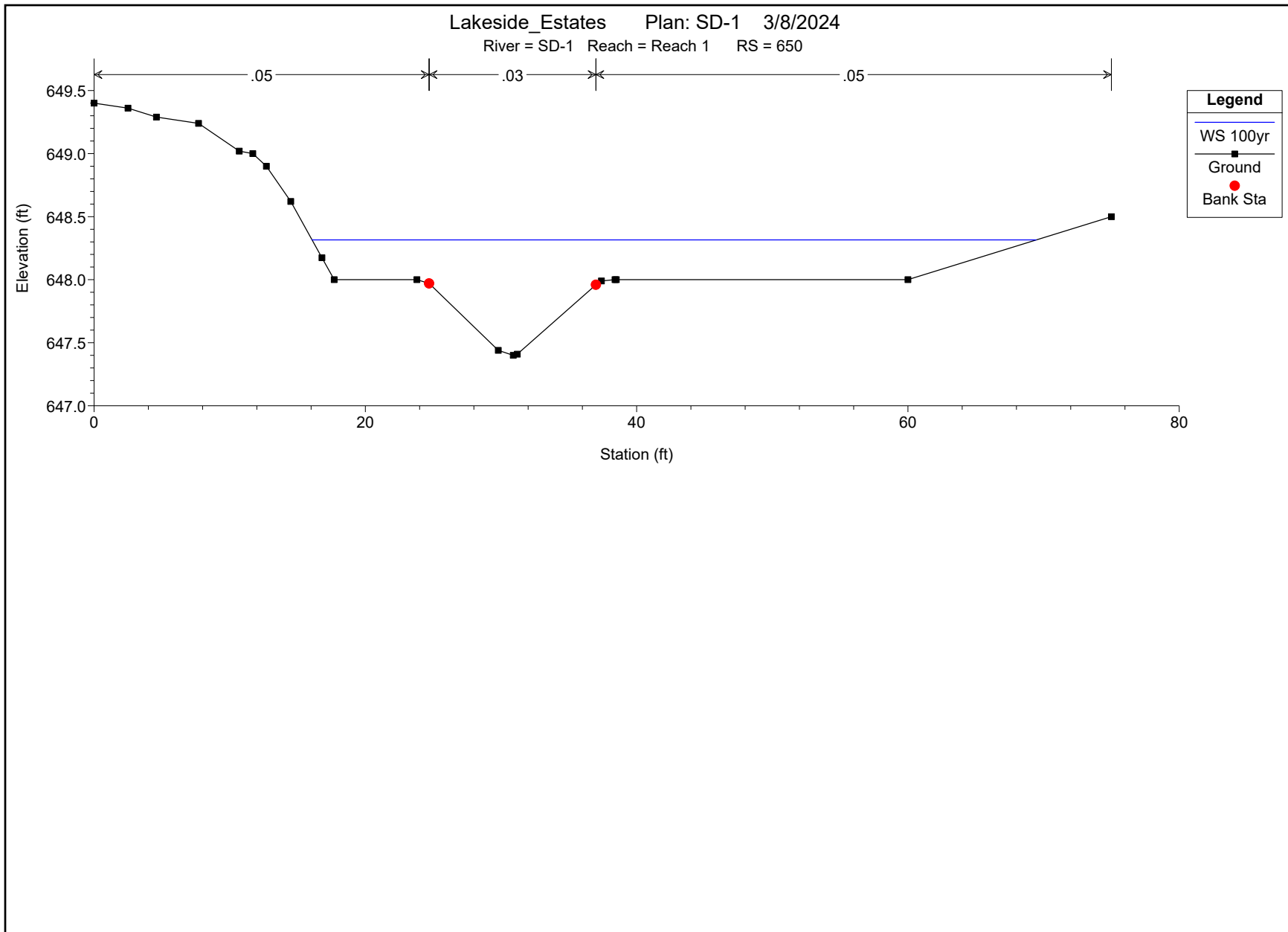






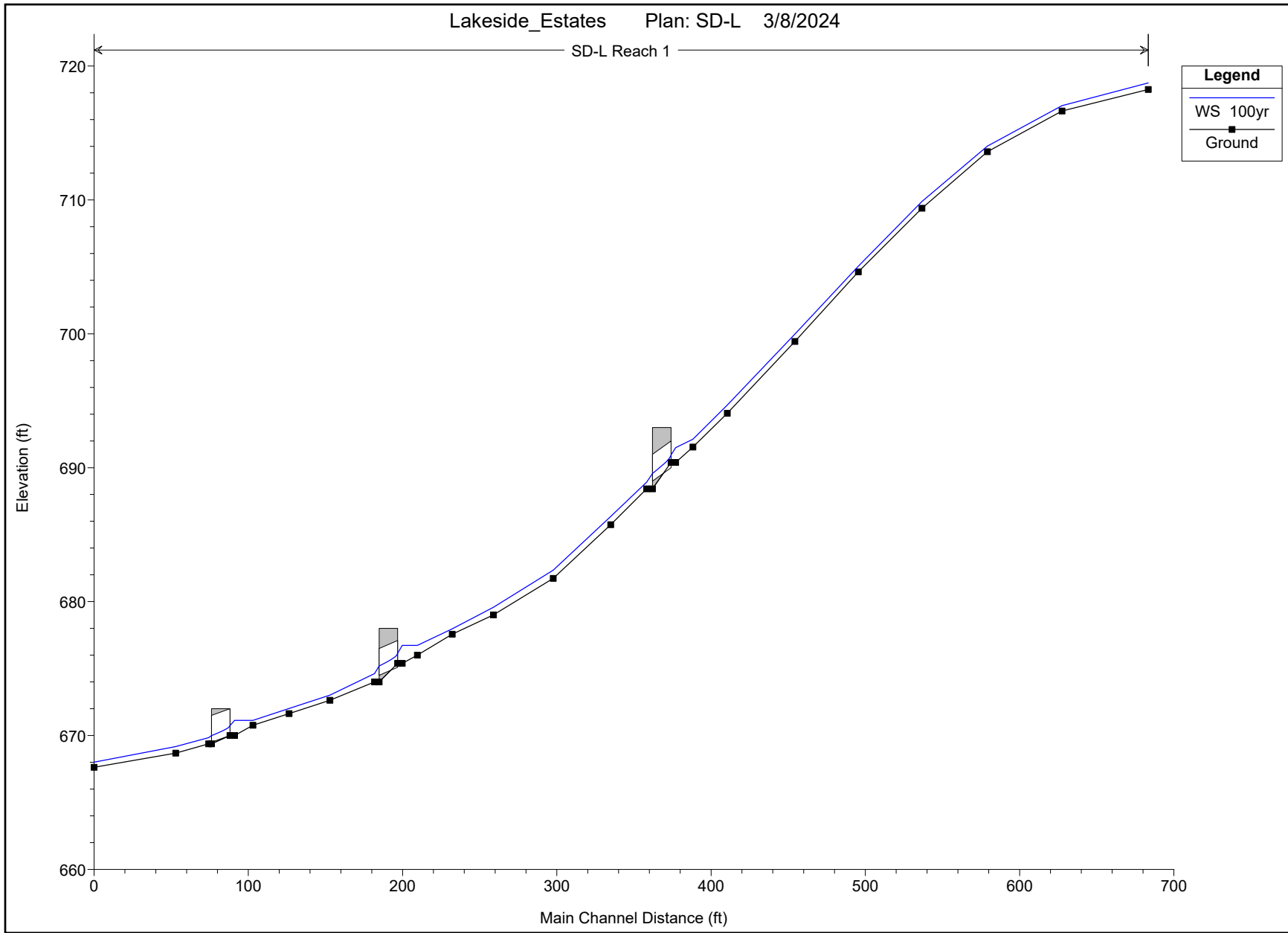


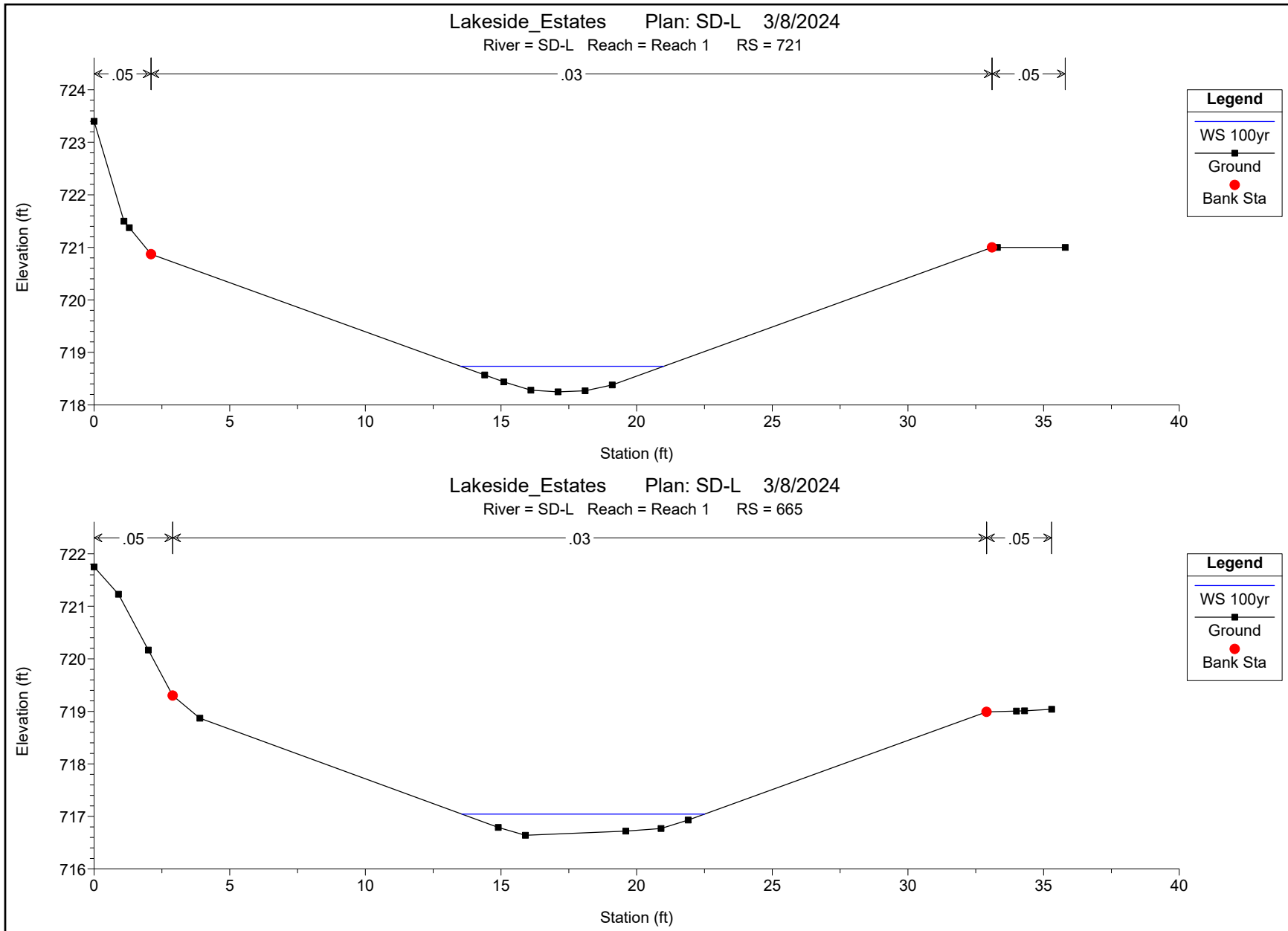


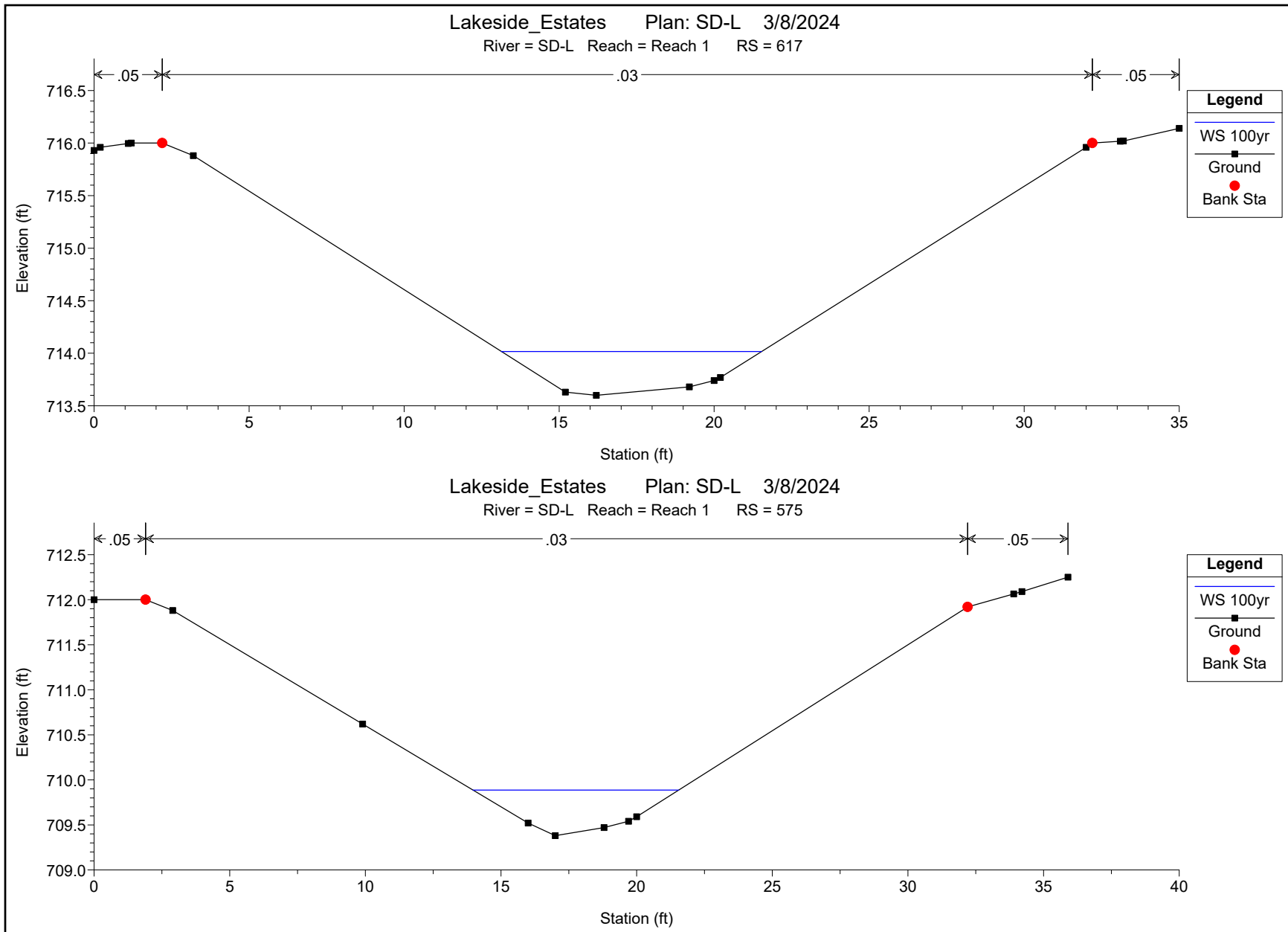


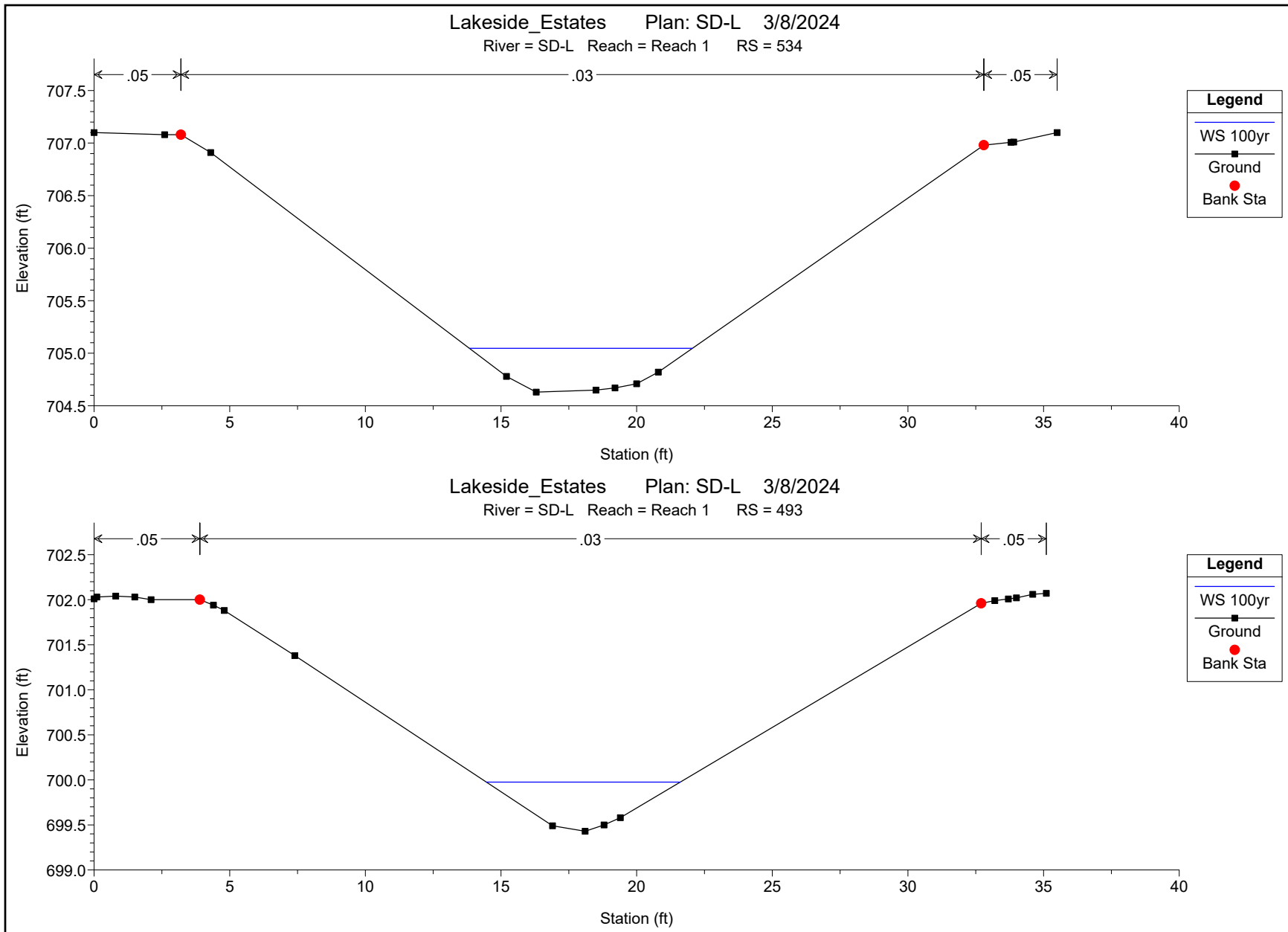


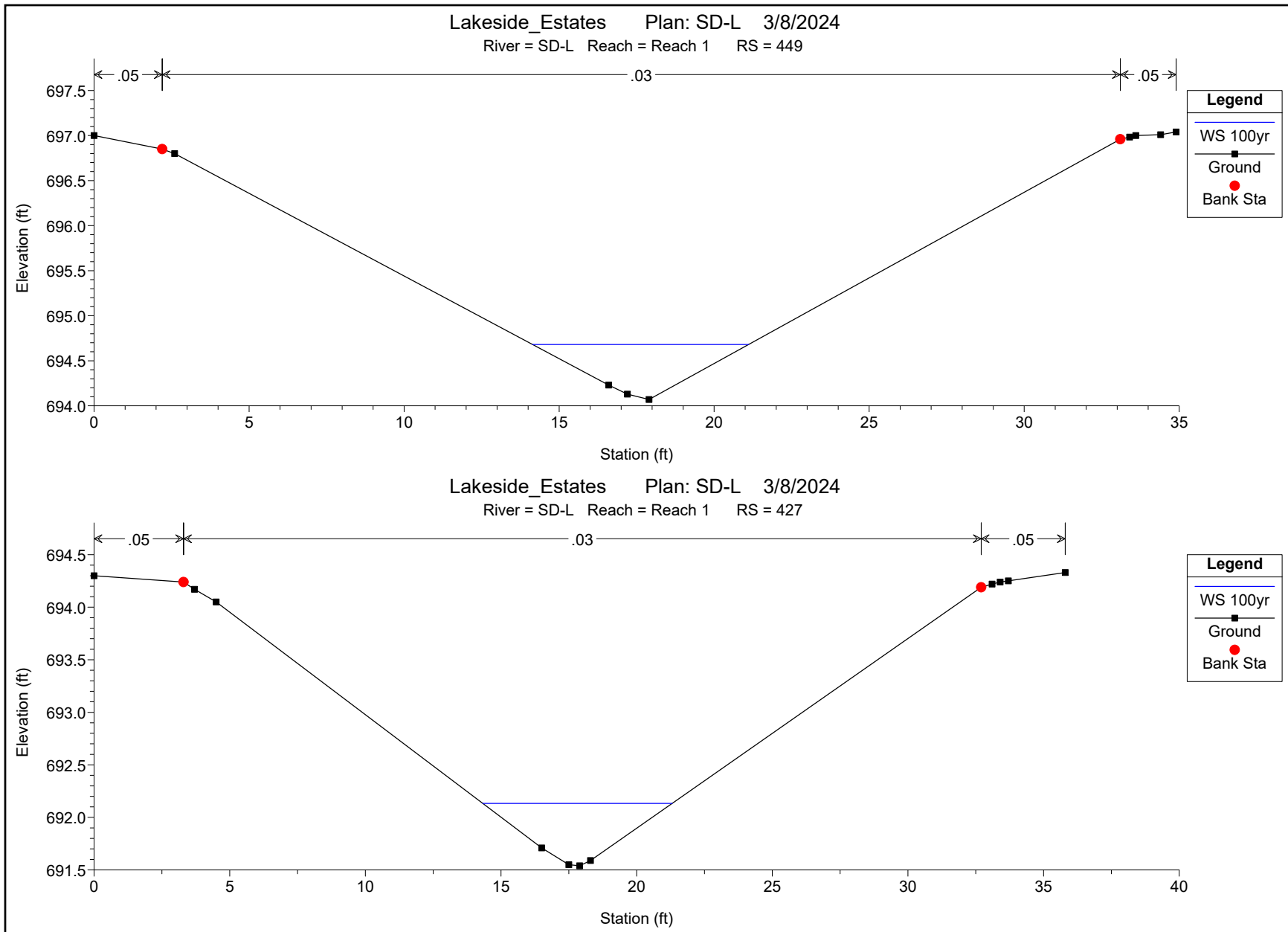
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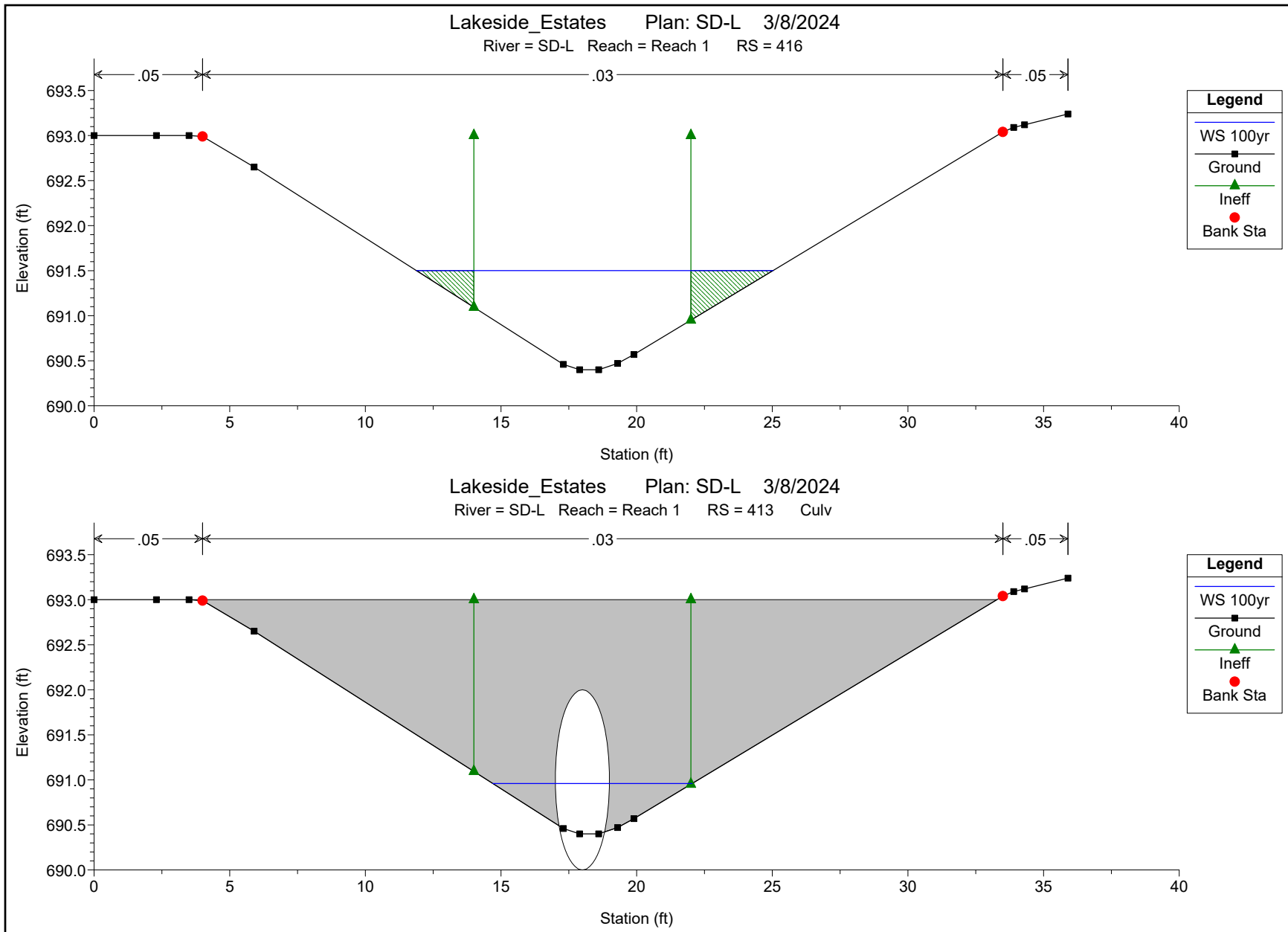


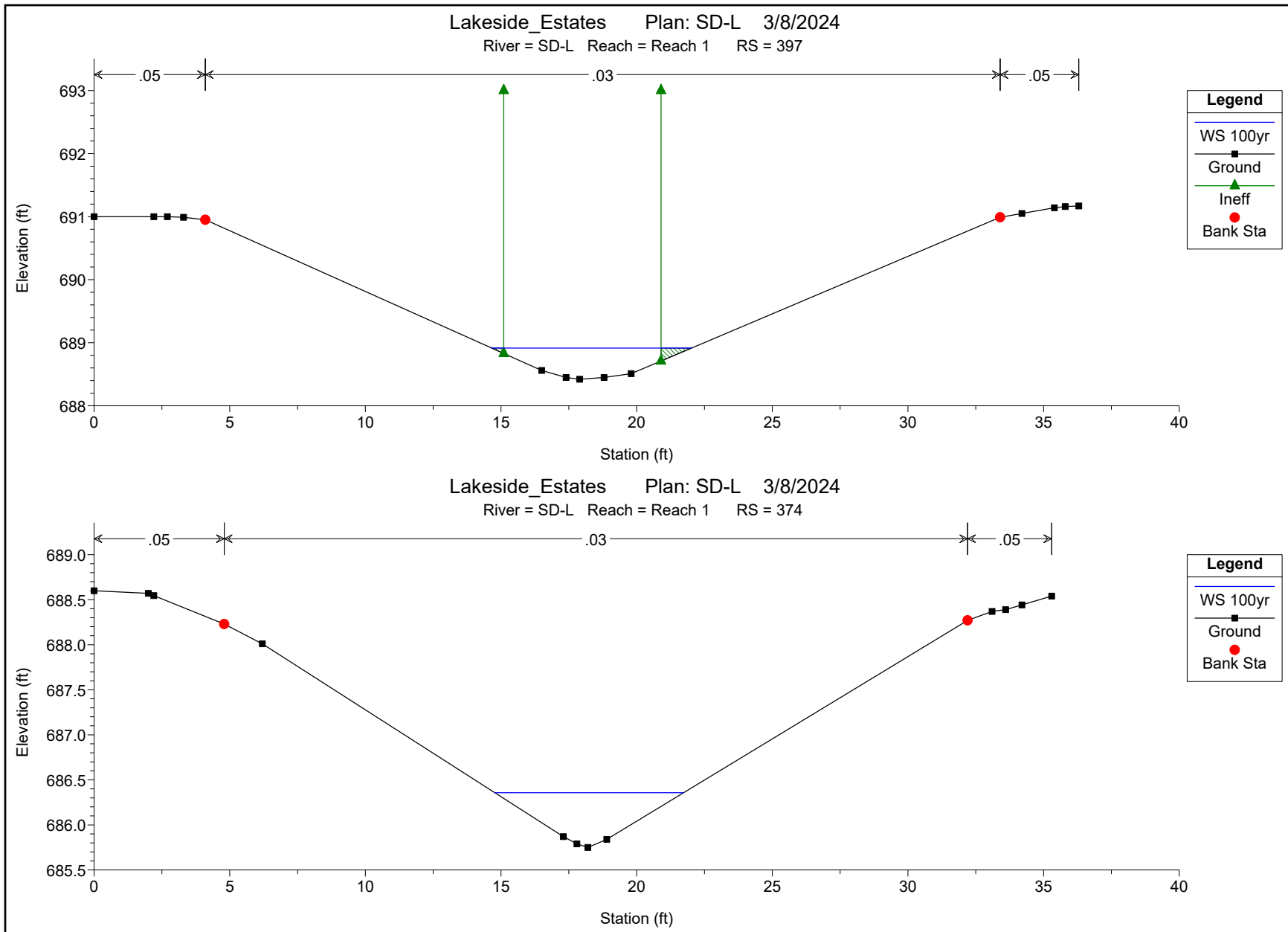


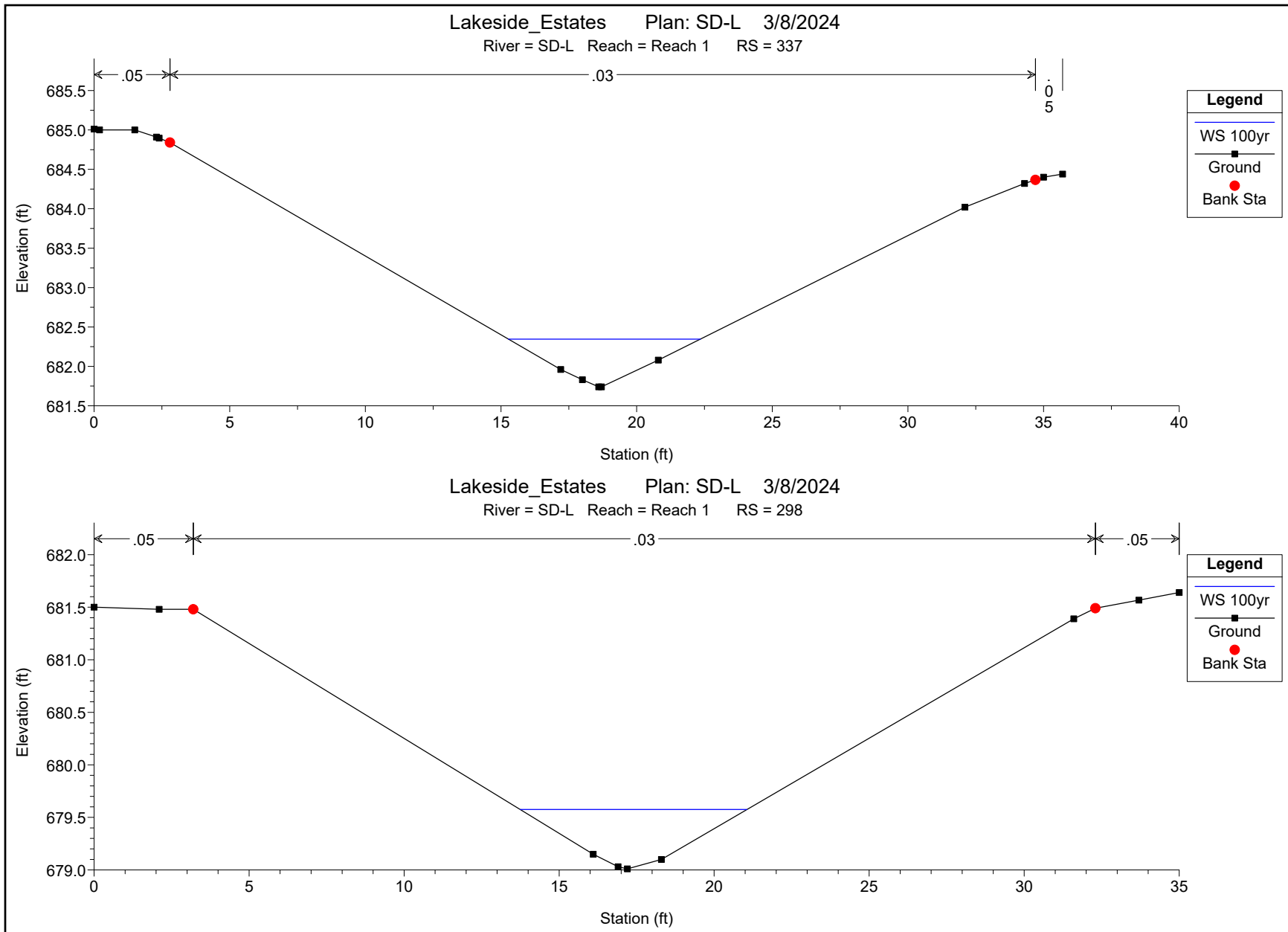


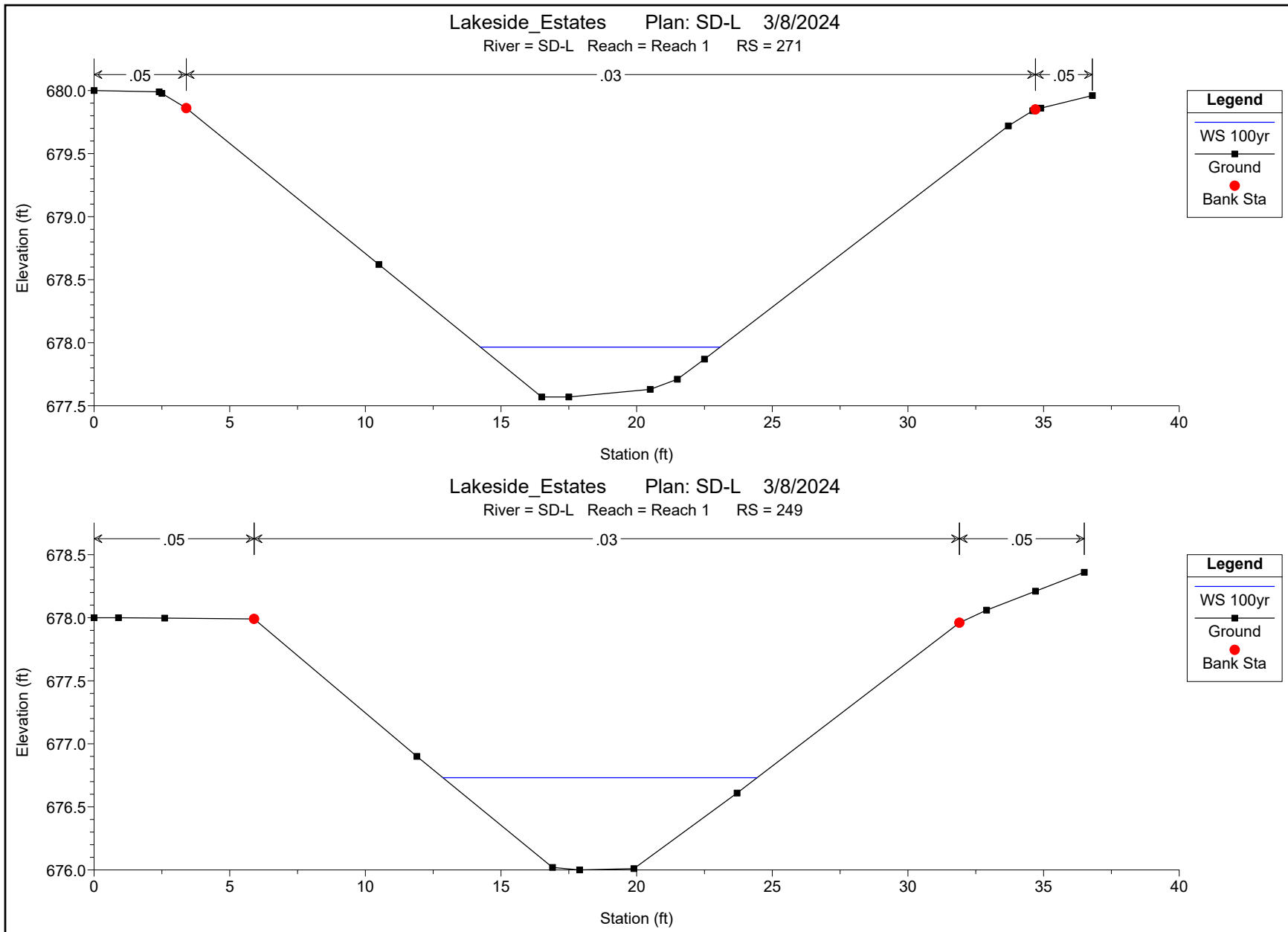


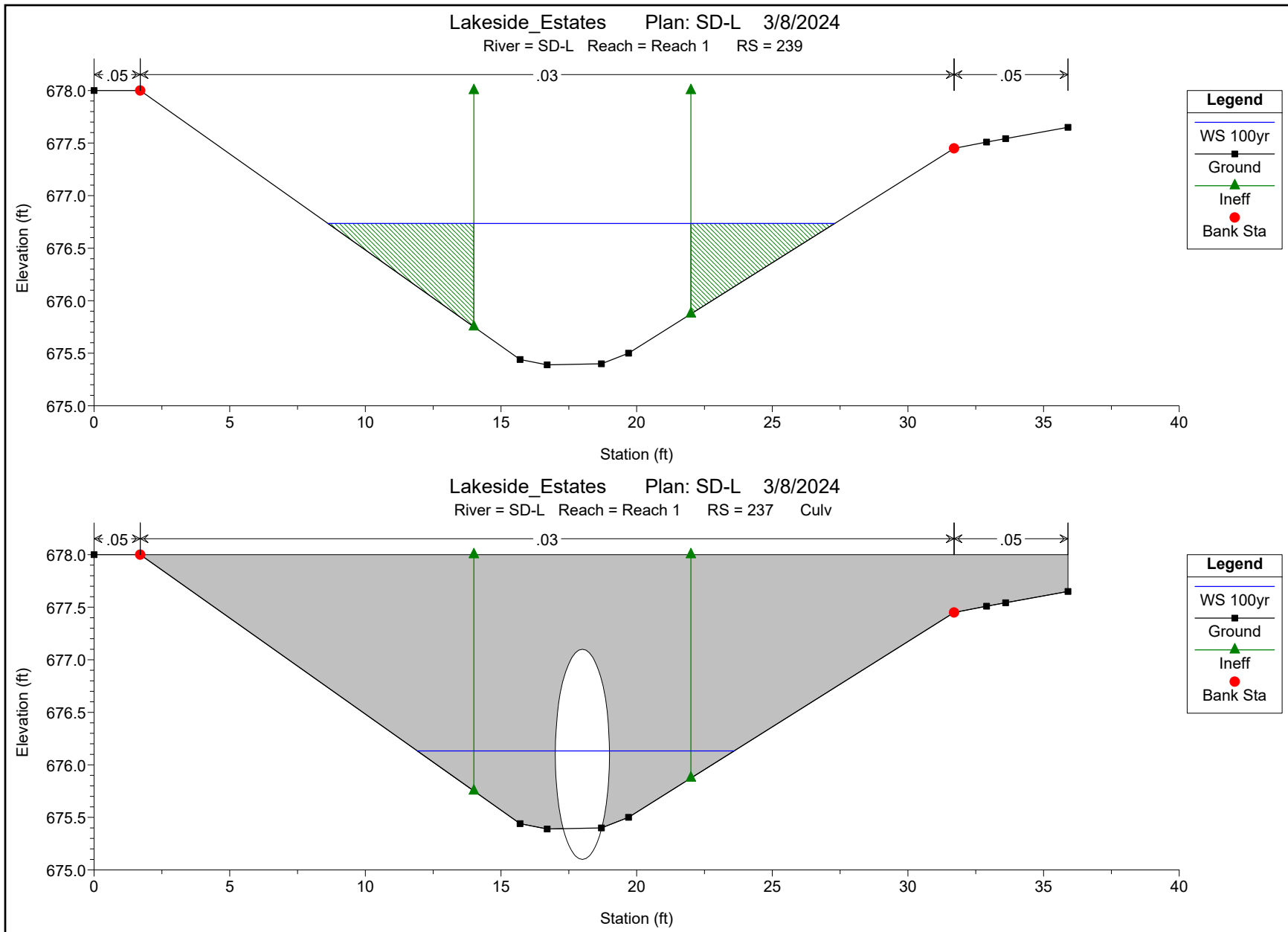


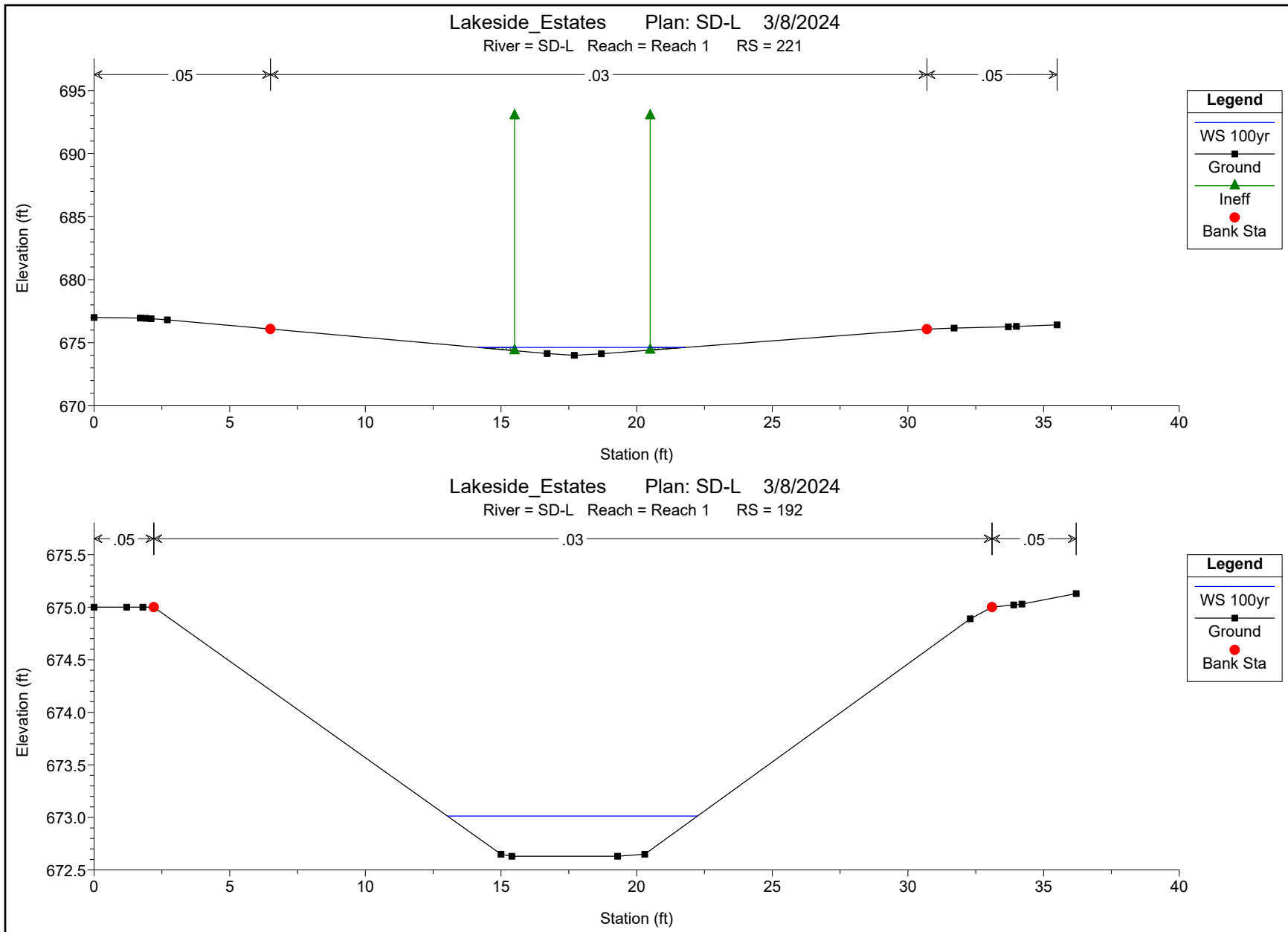


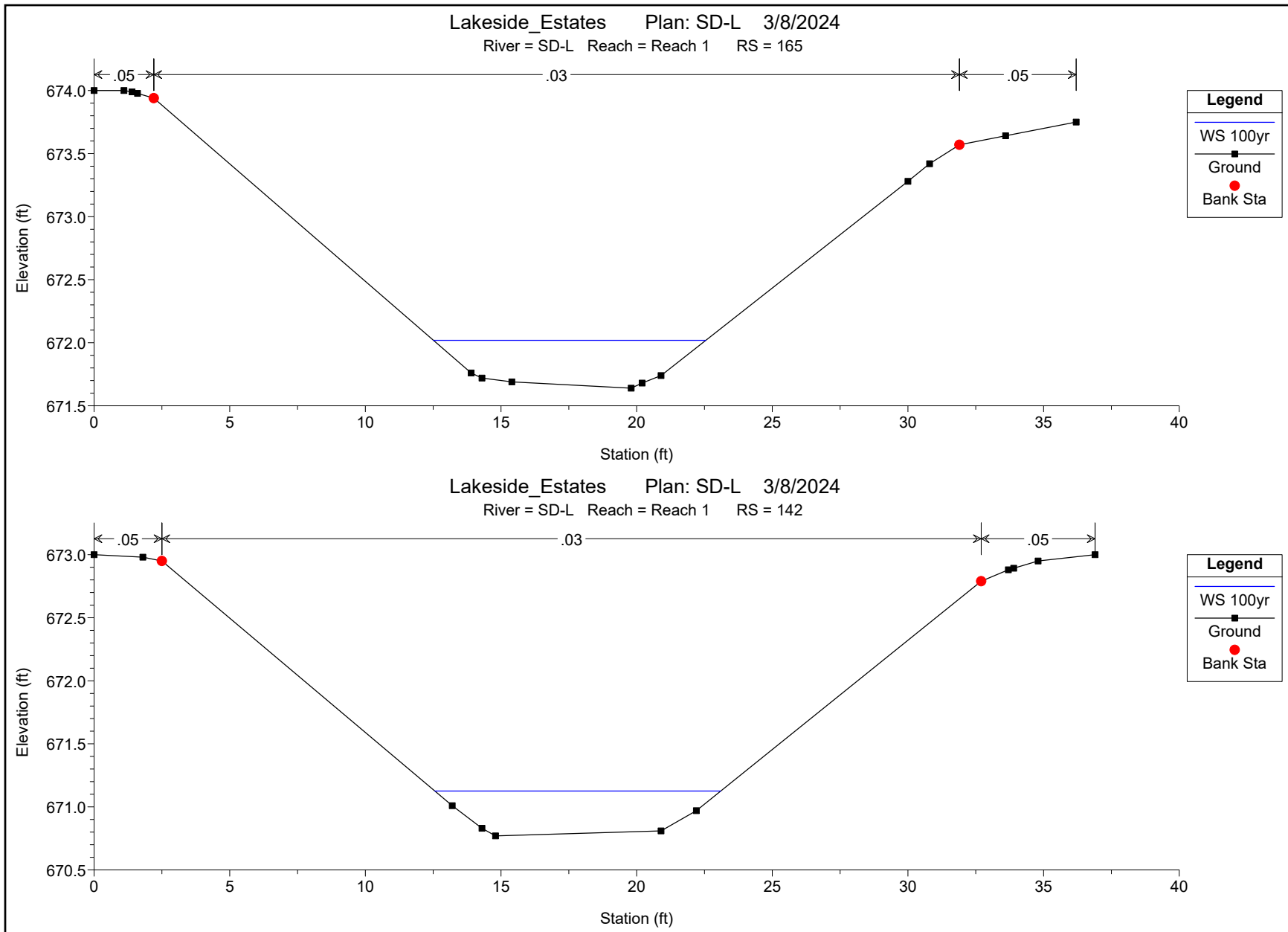


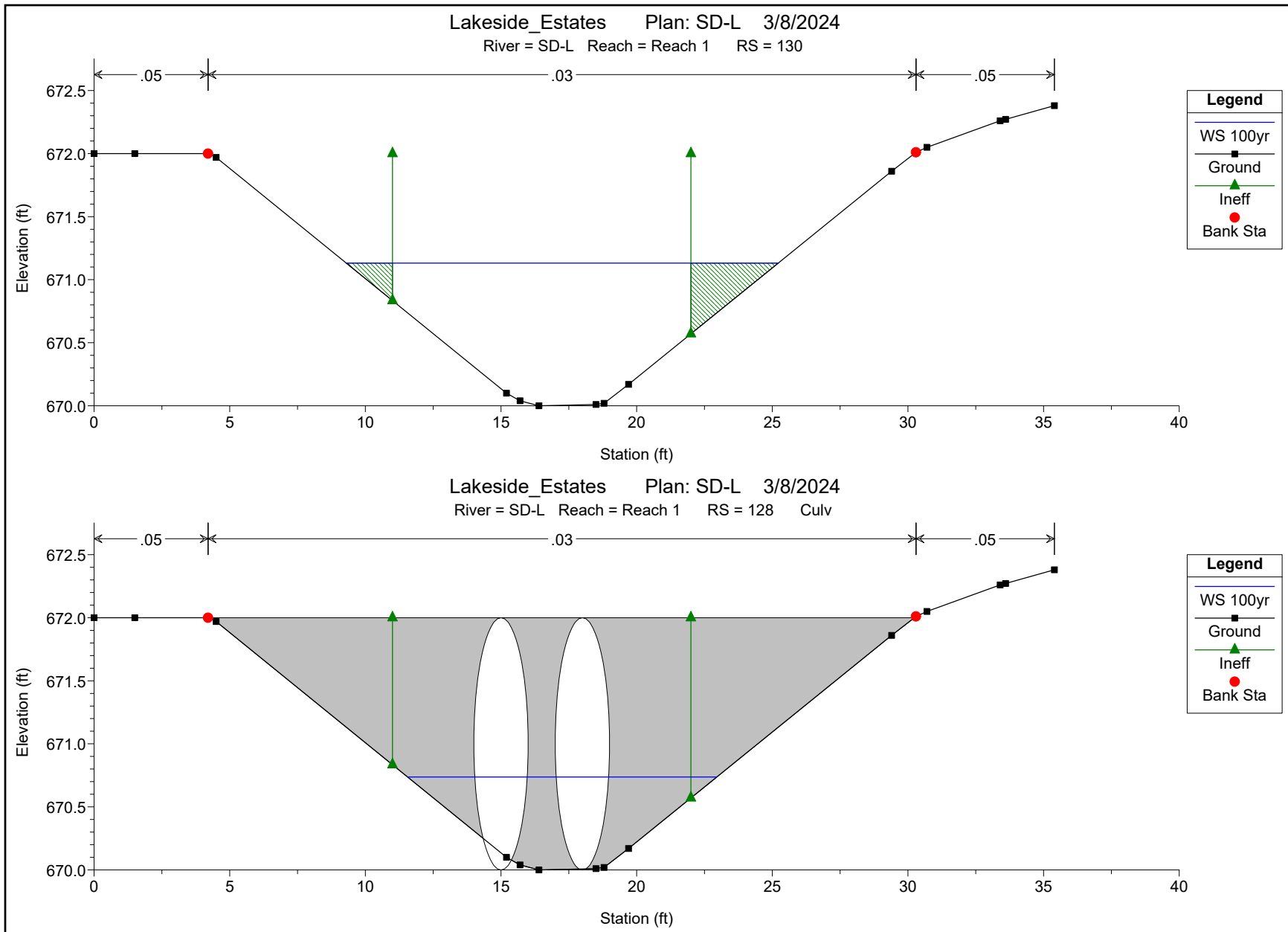




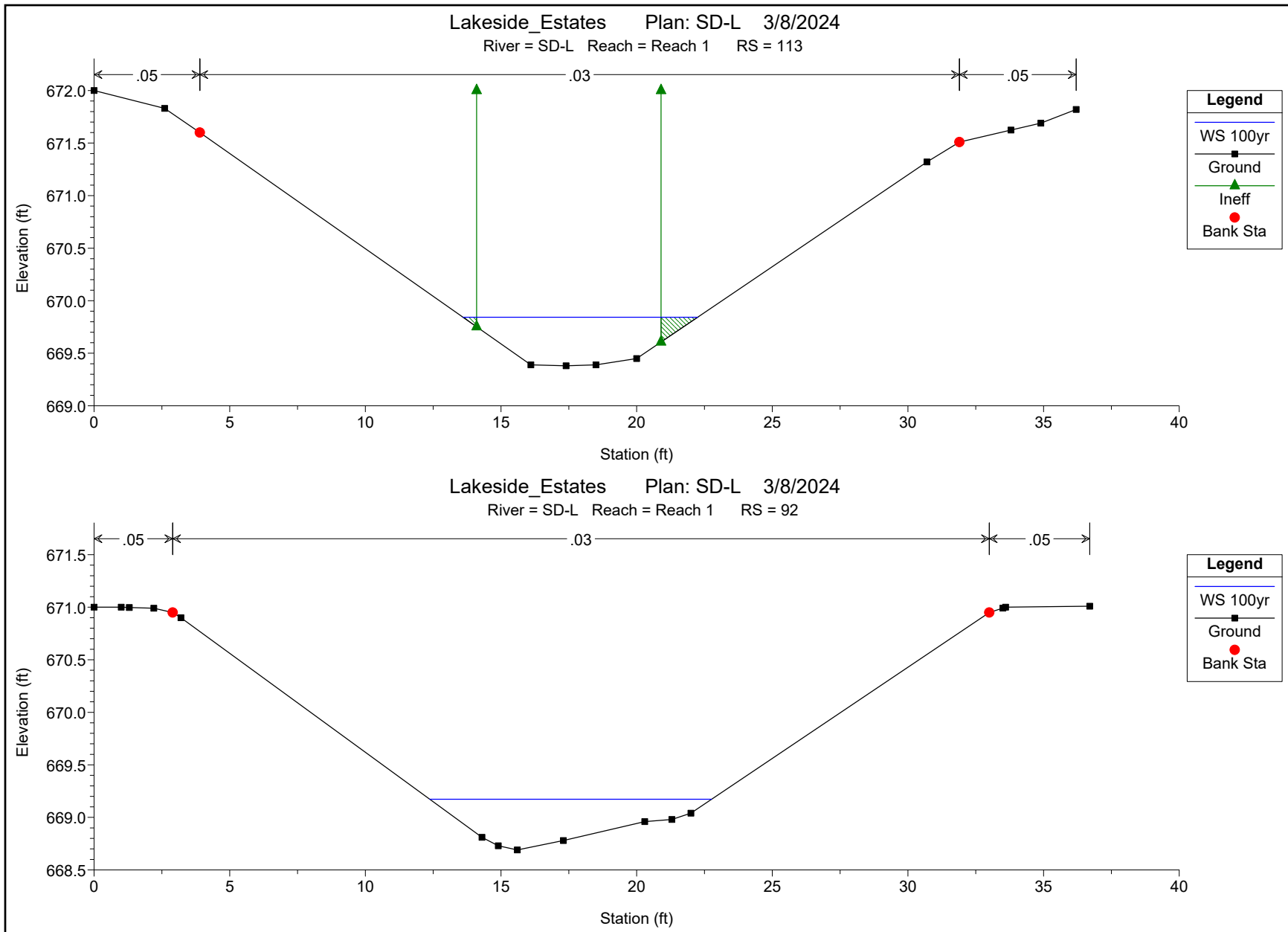


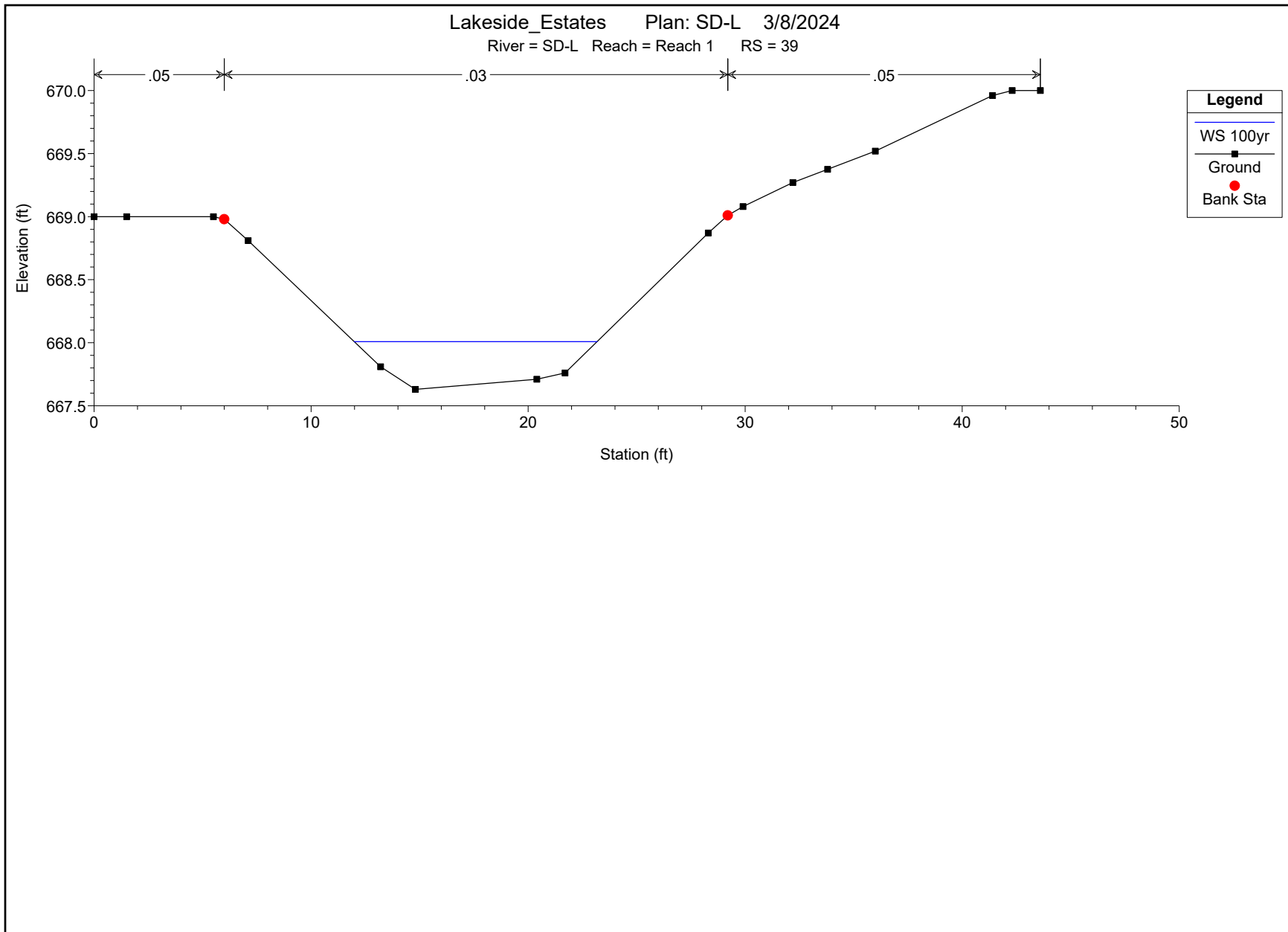










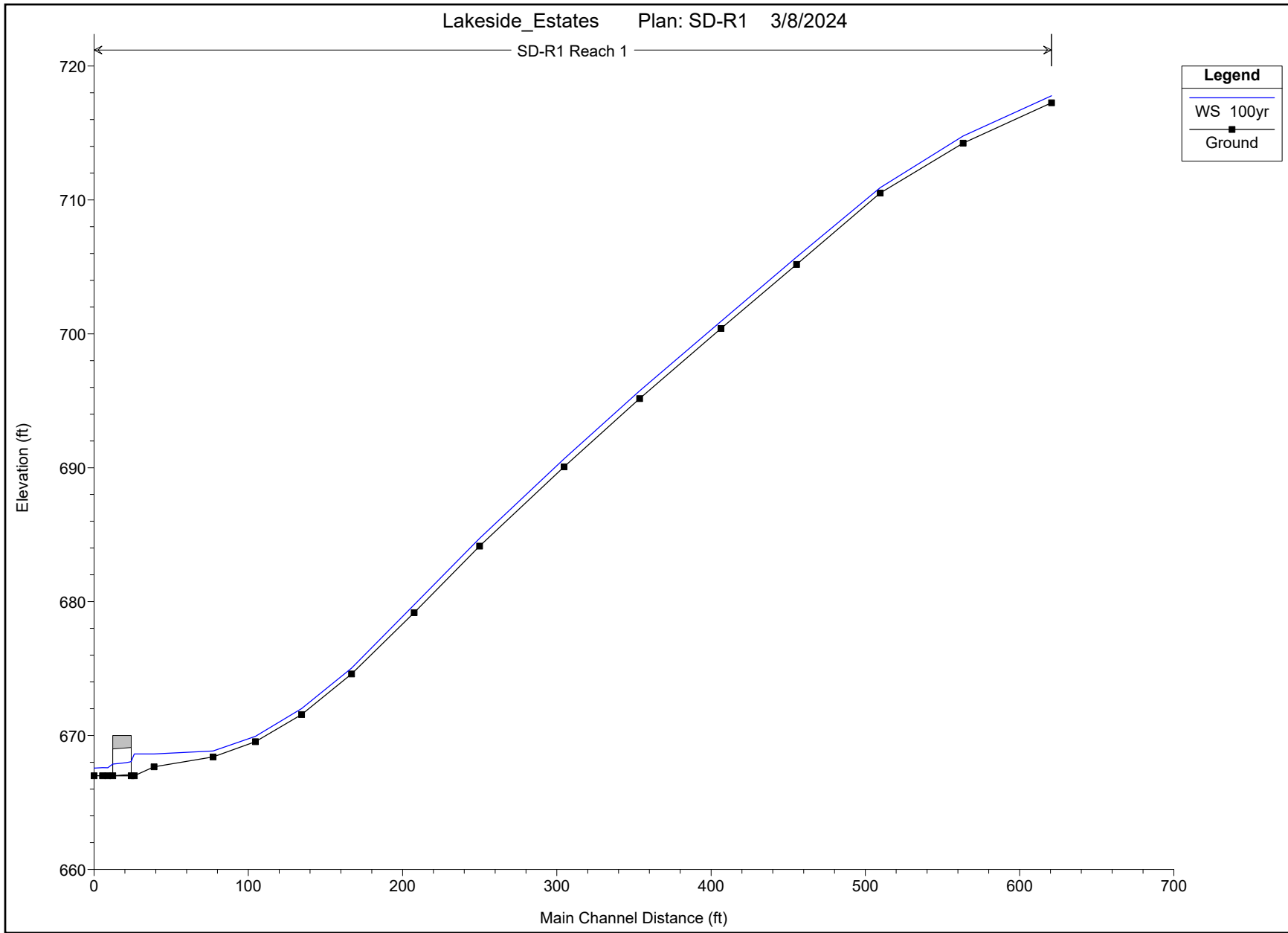


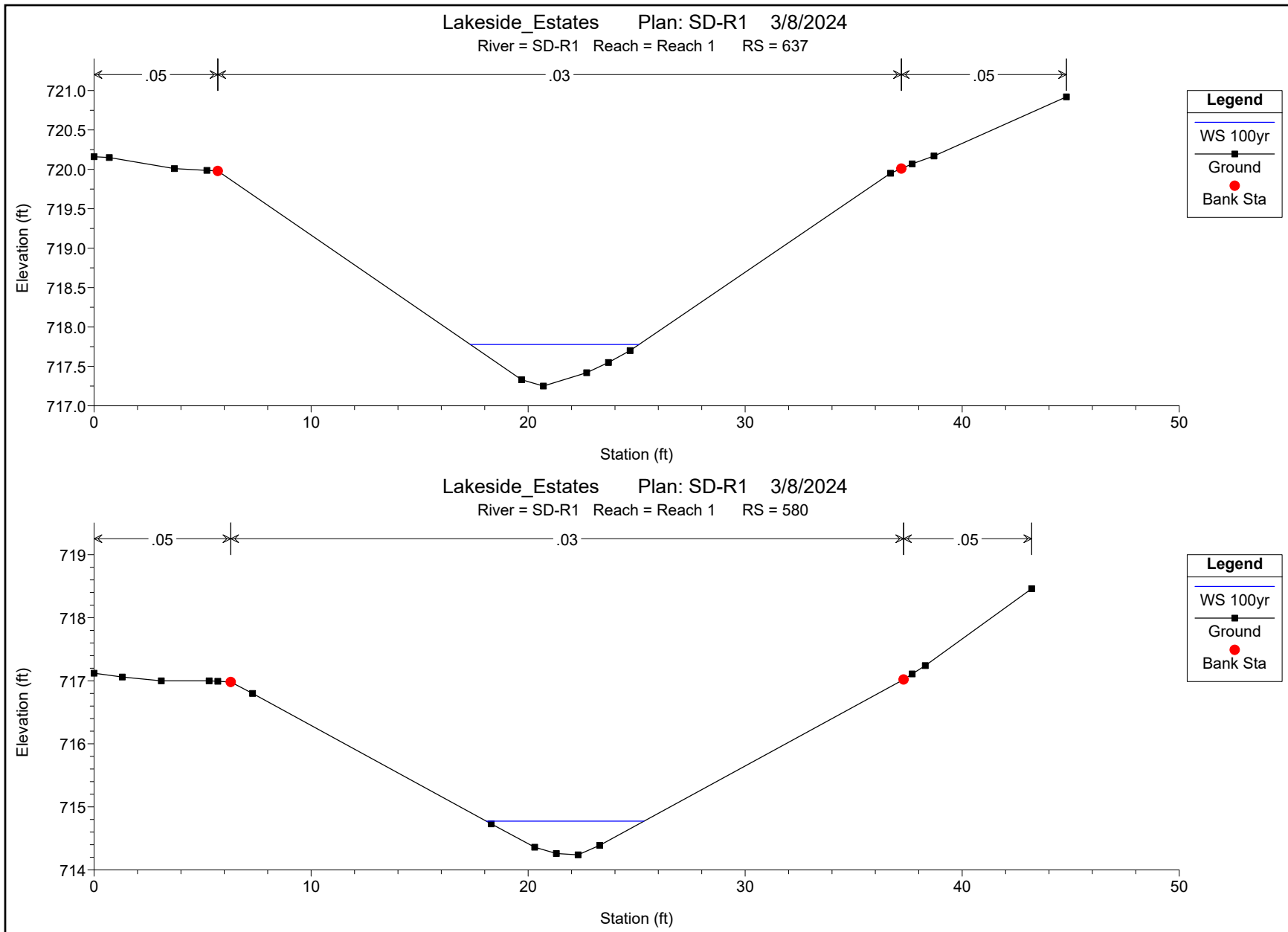


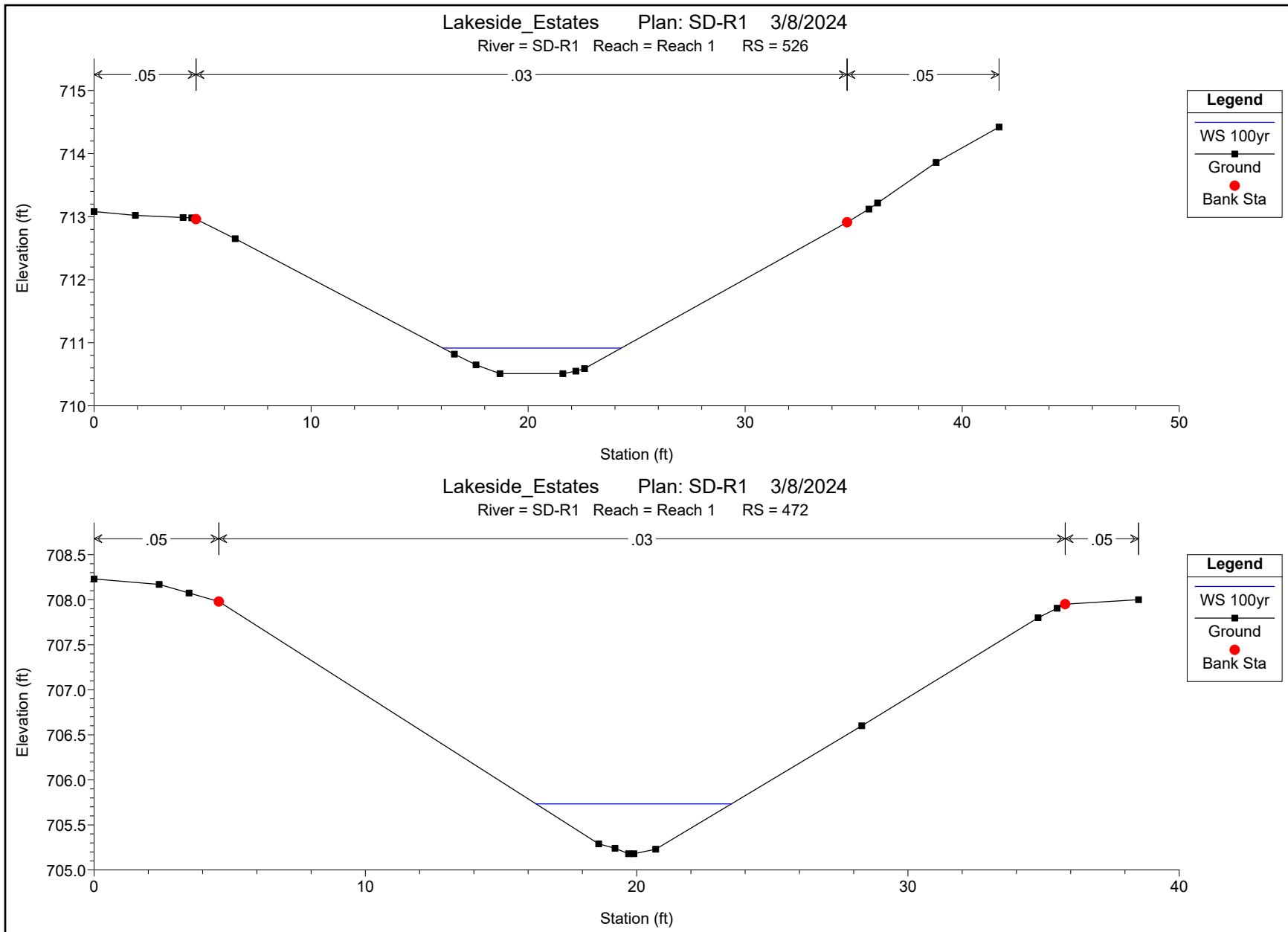
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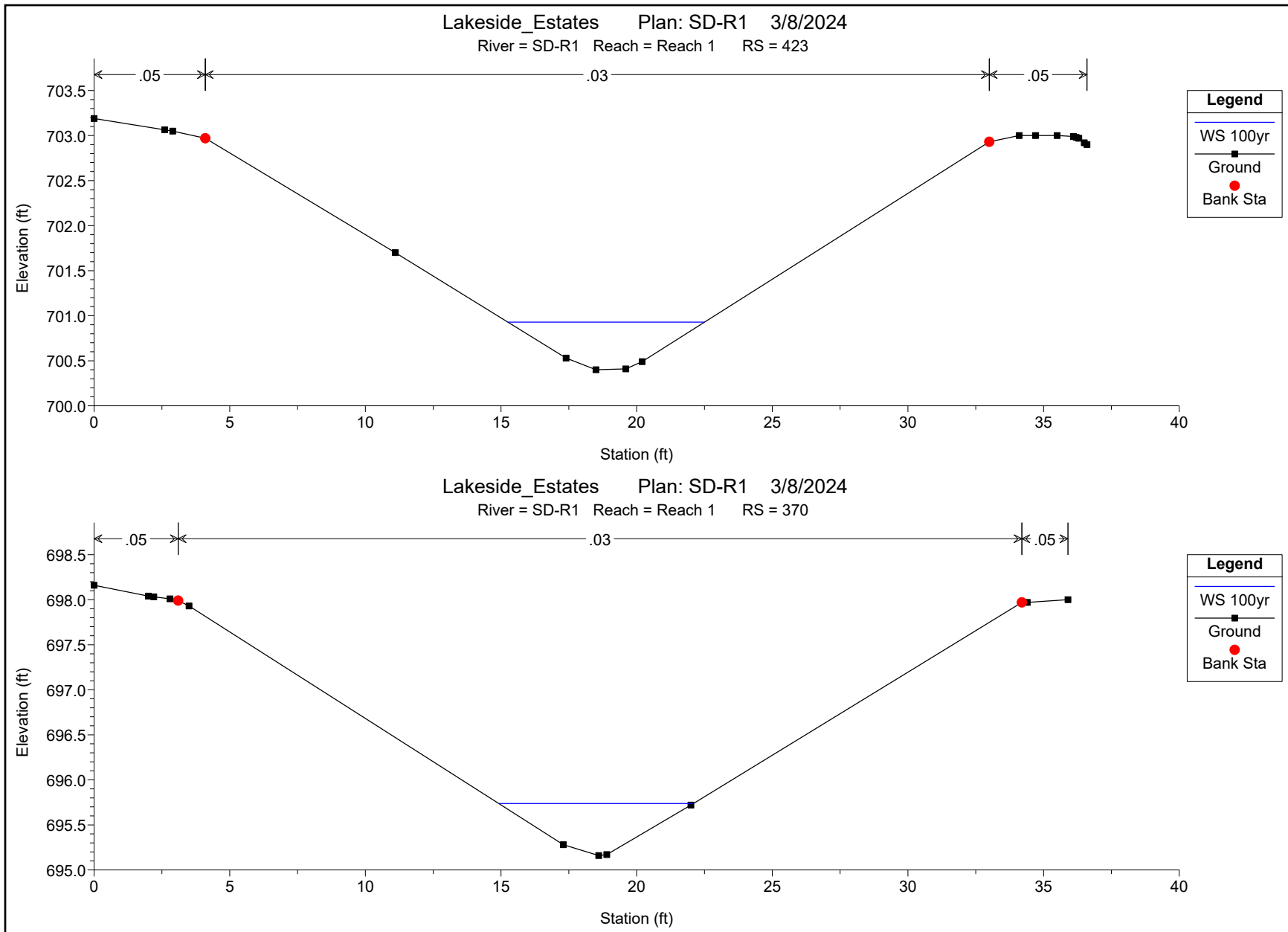
Drainage Report  
Lakeside Estates – Sanger, Texas  
March 8, 2024

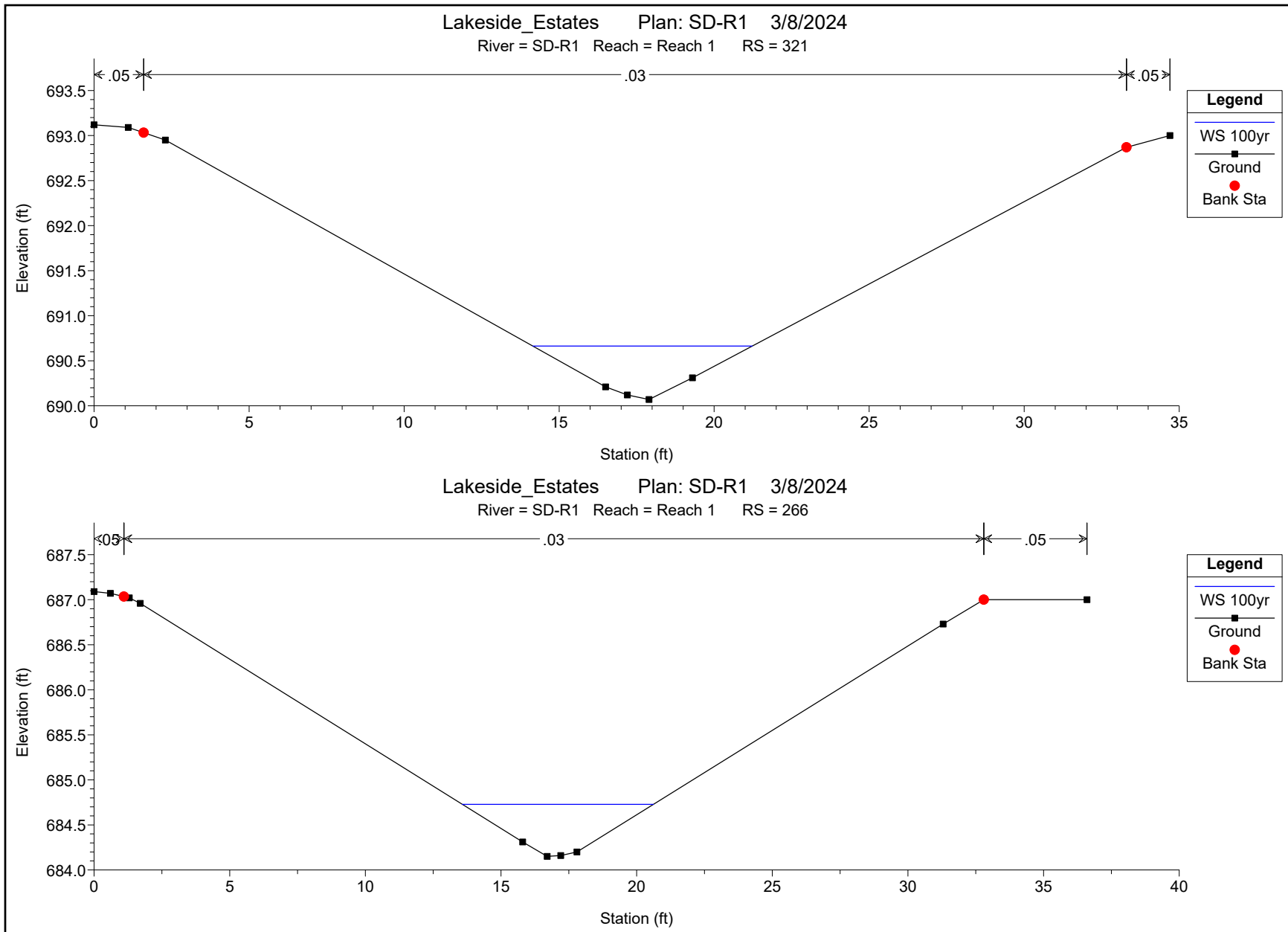
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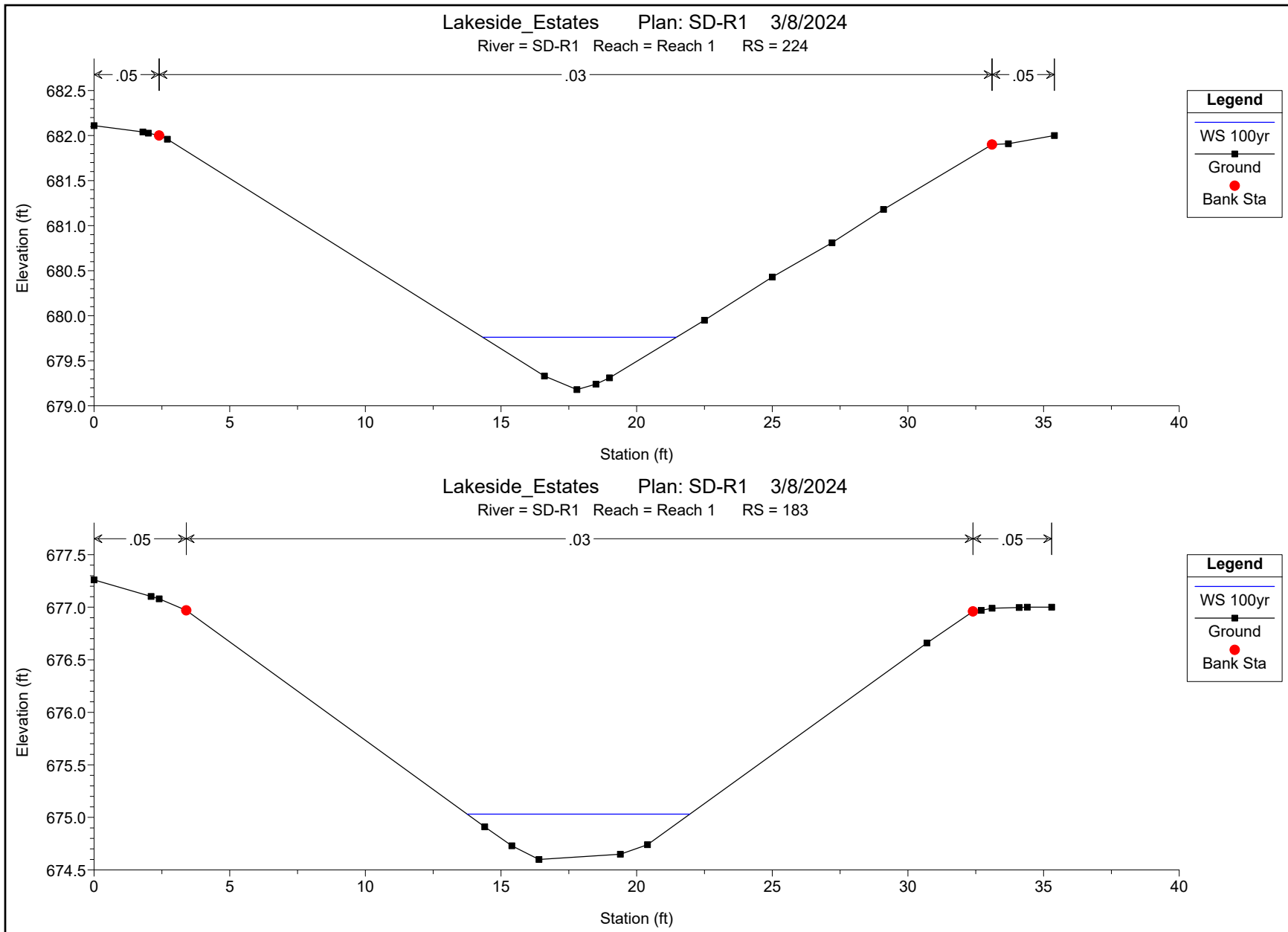


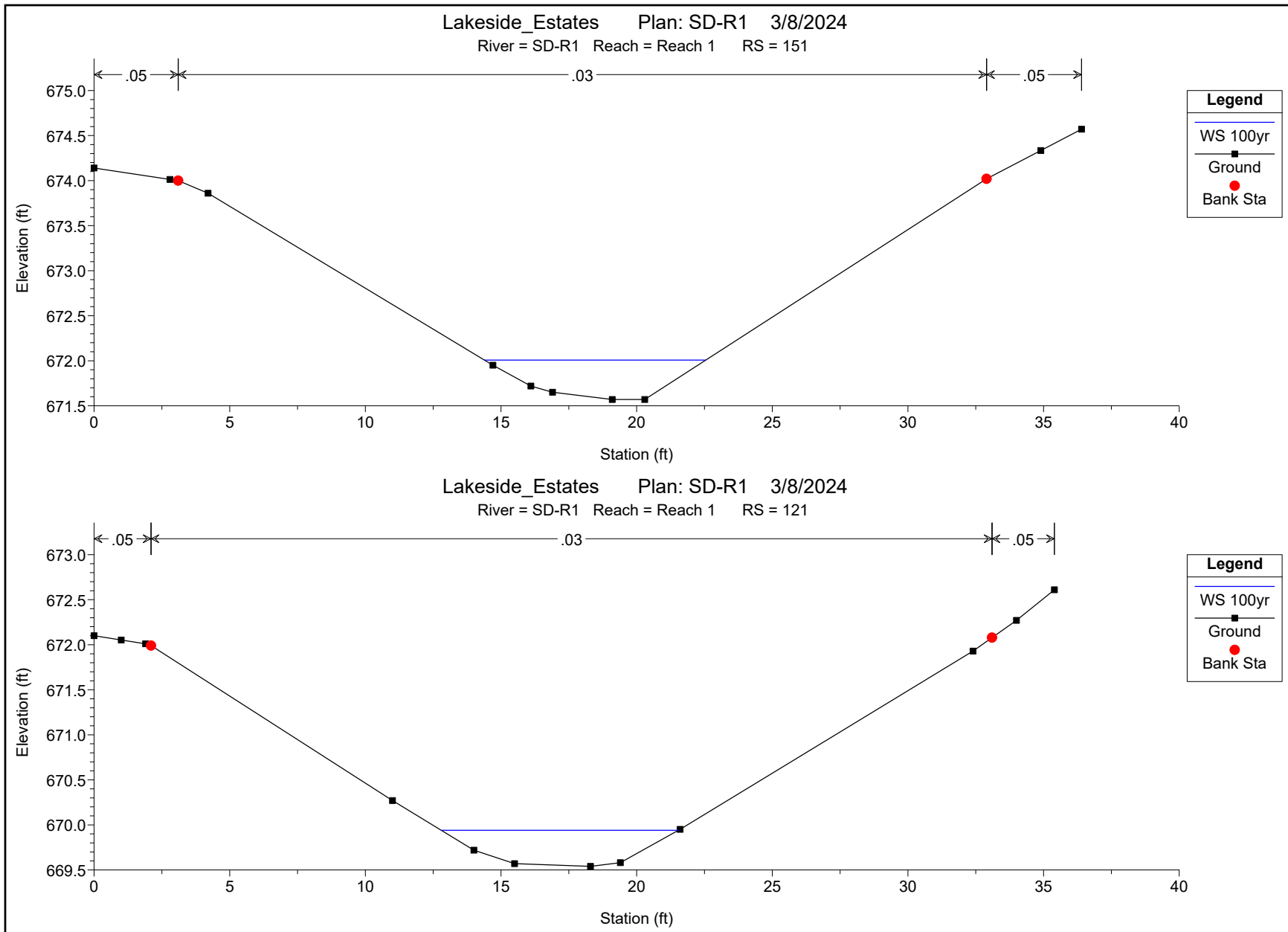


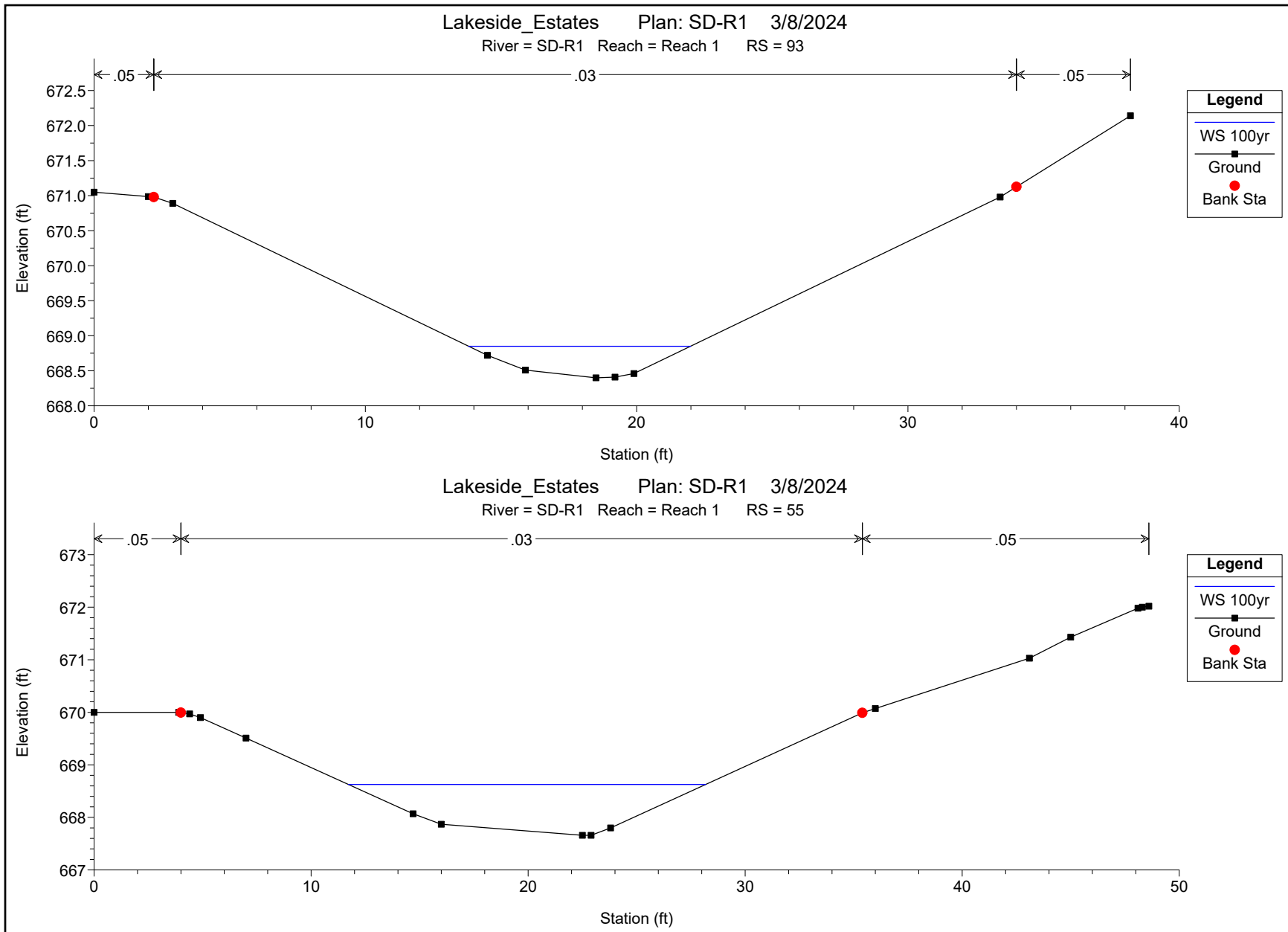


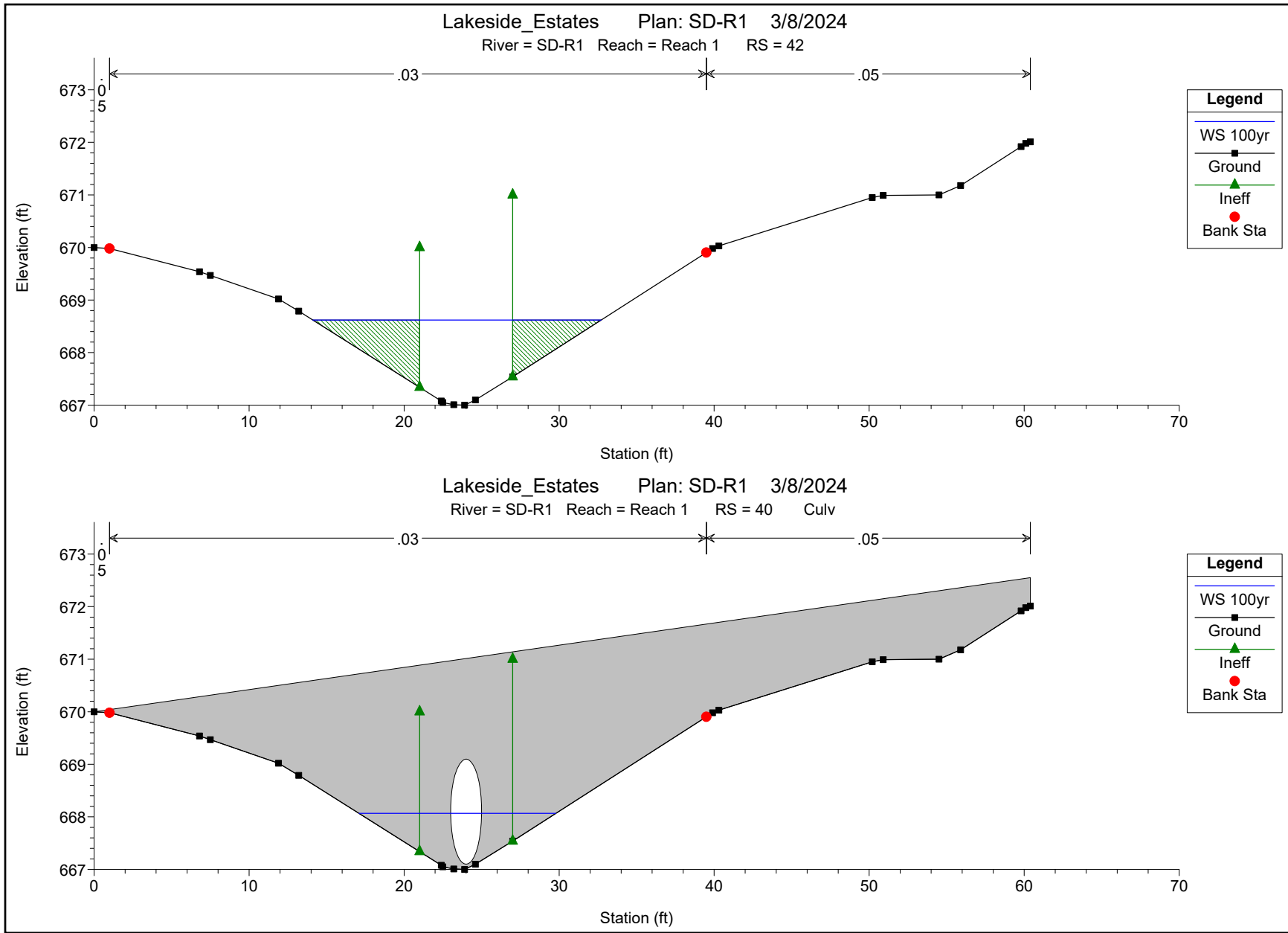


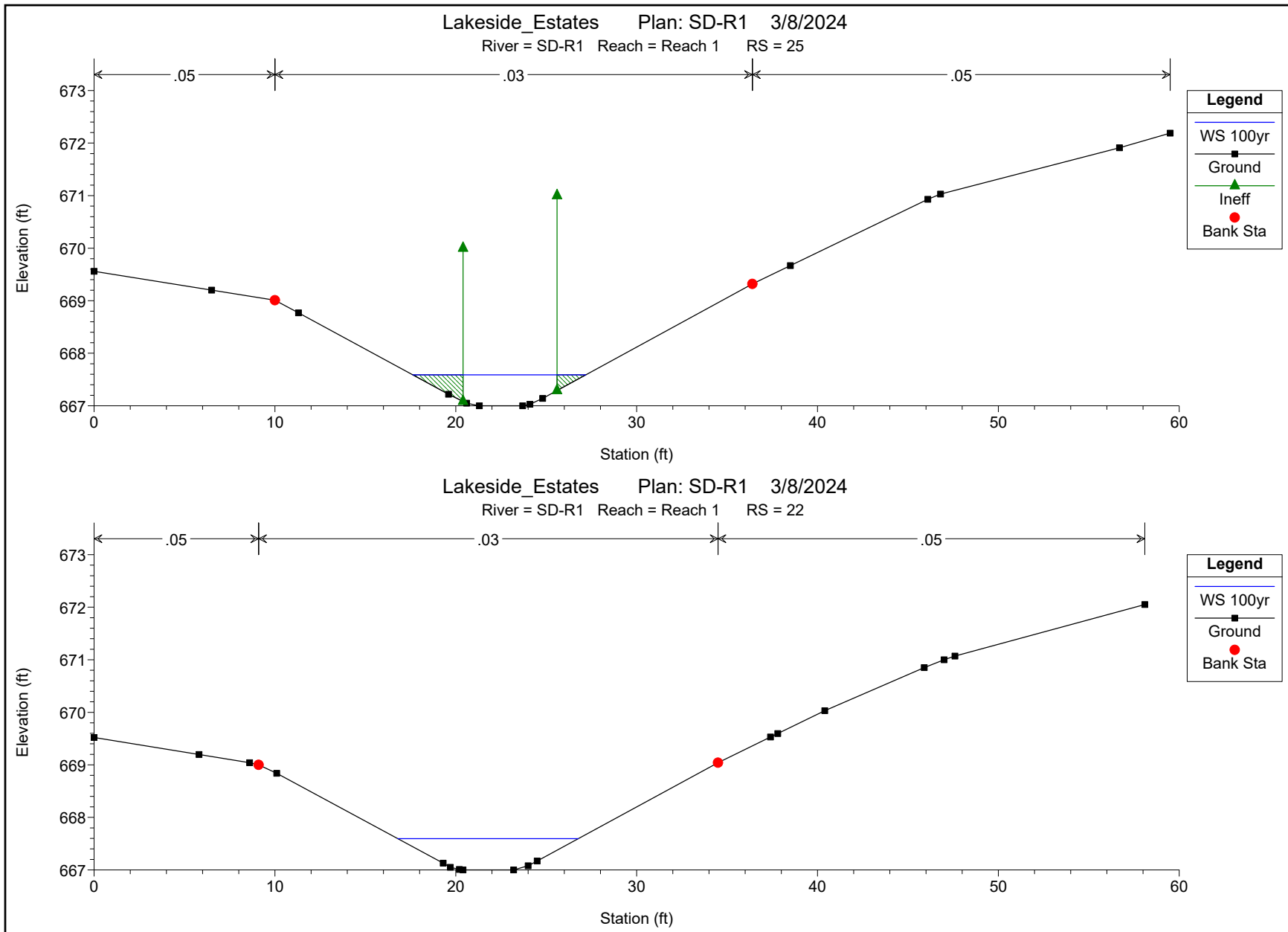


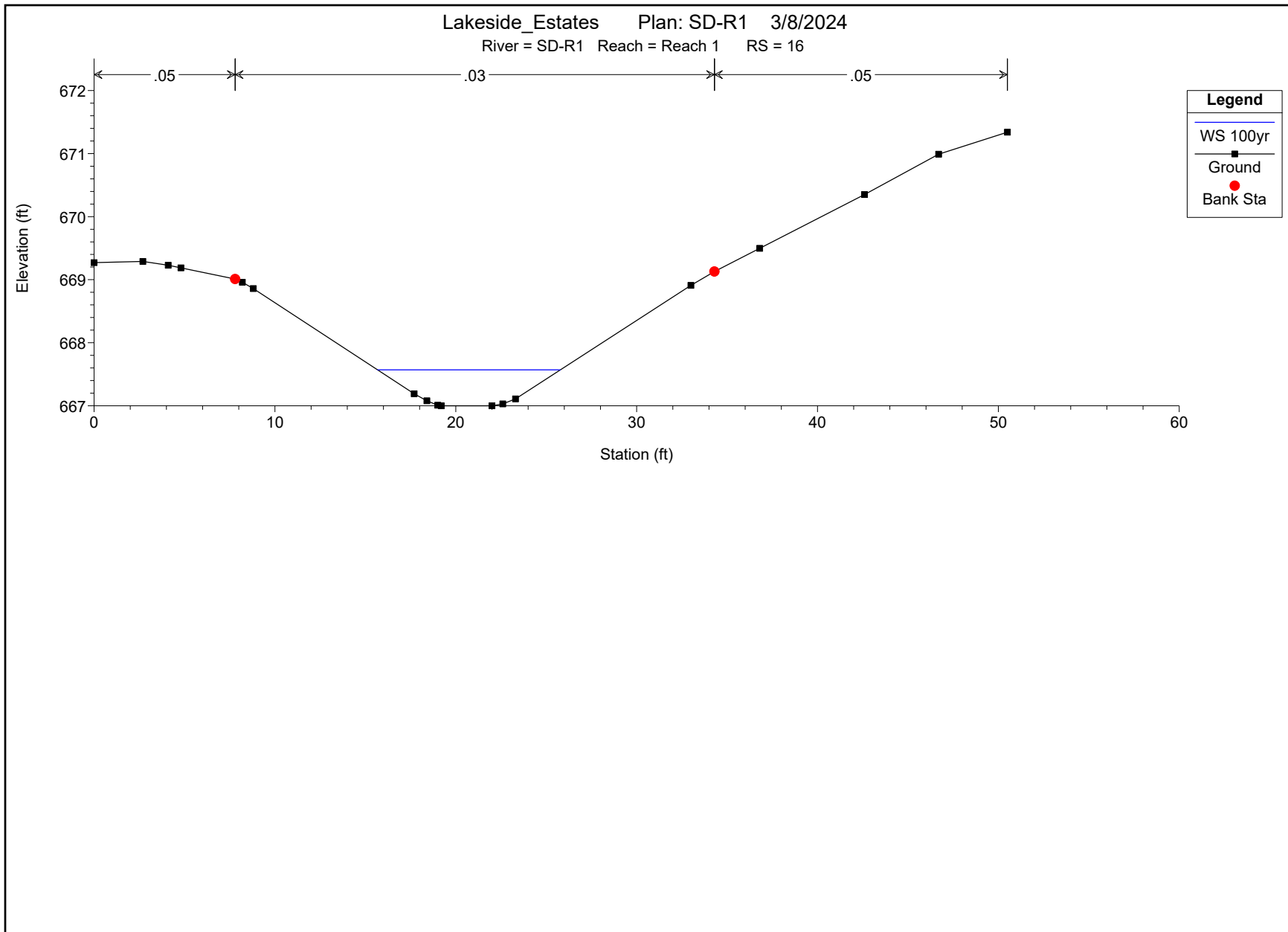










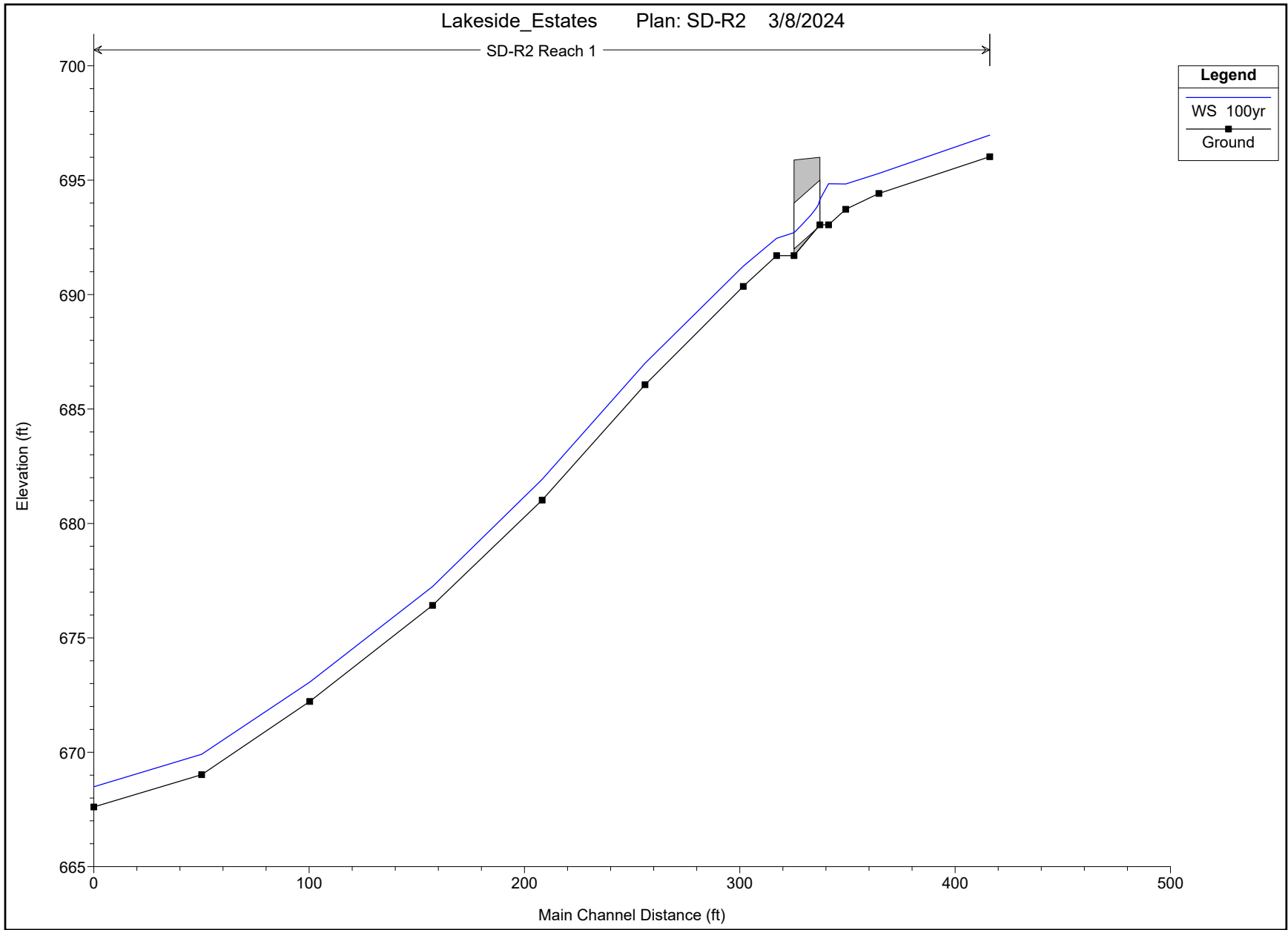




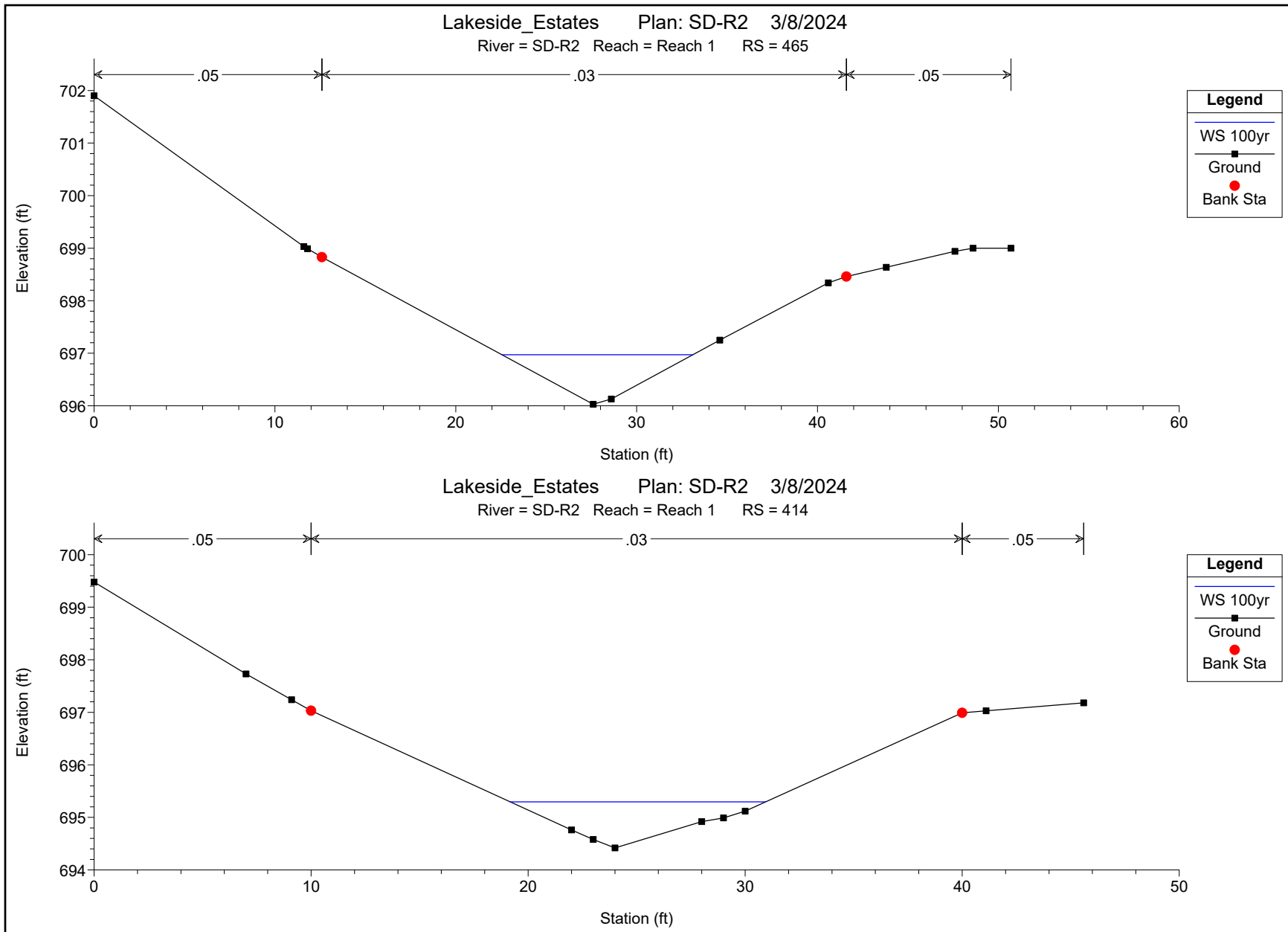
SD-R2

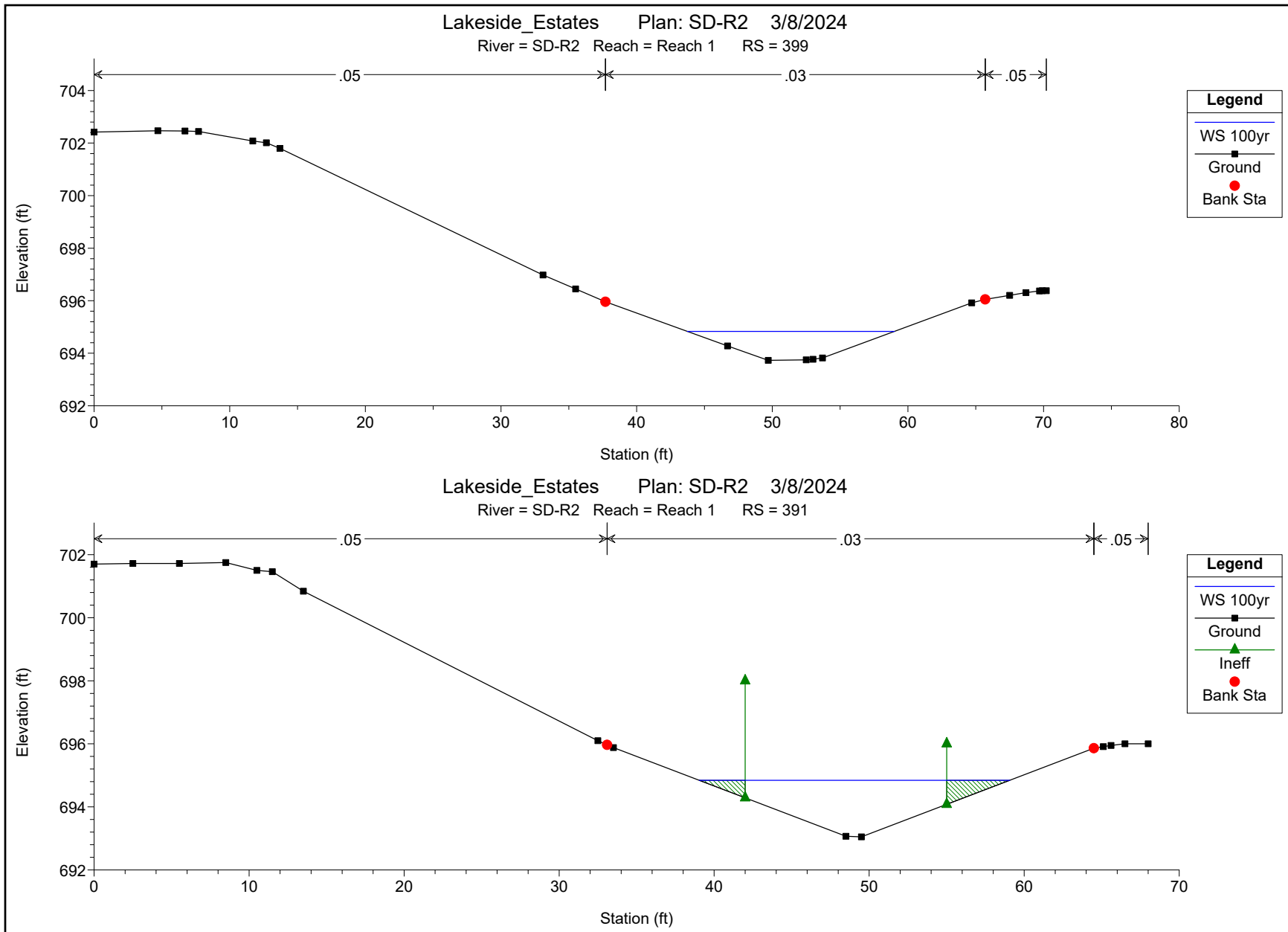
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Lakeside Estates – Sanger, Texas  
March 8, 2024

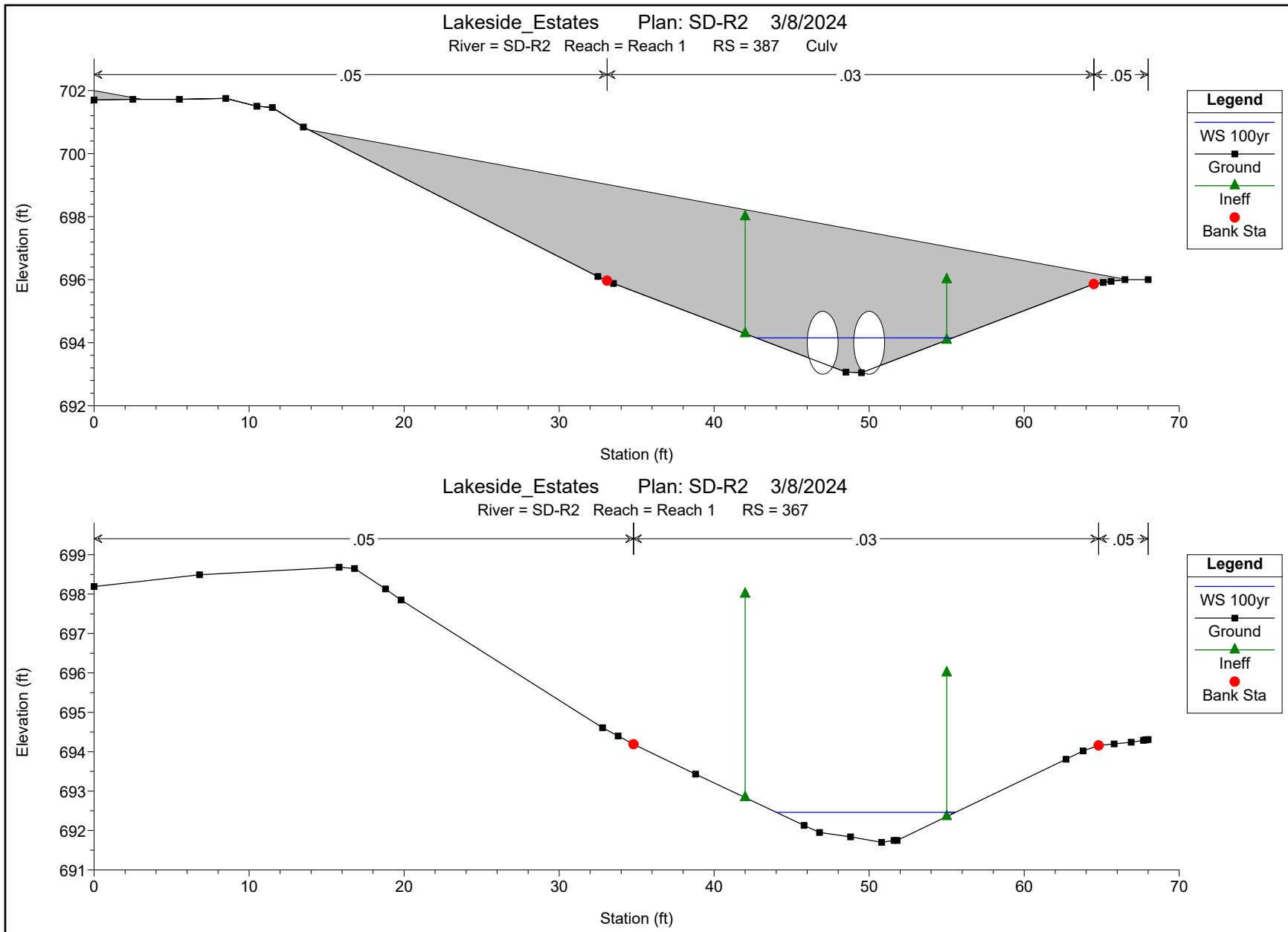
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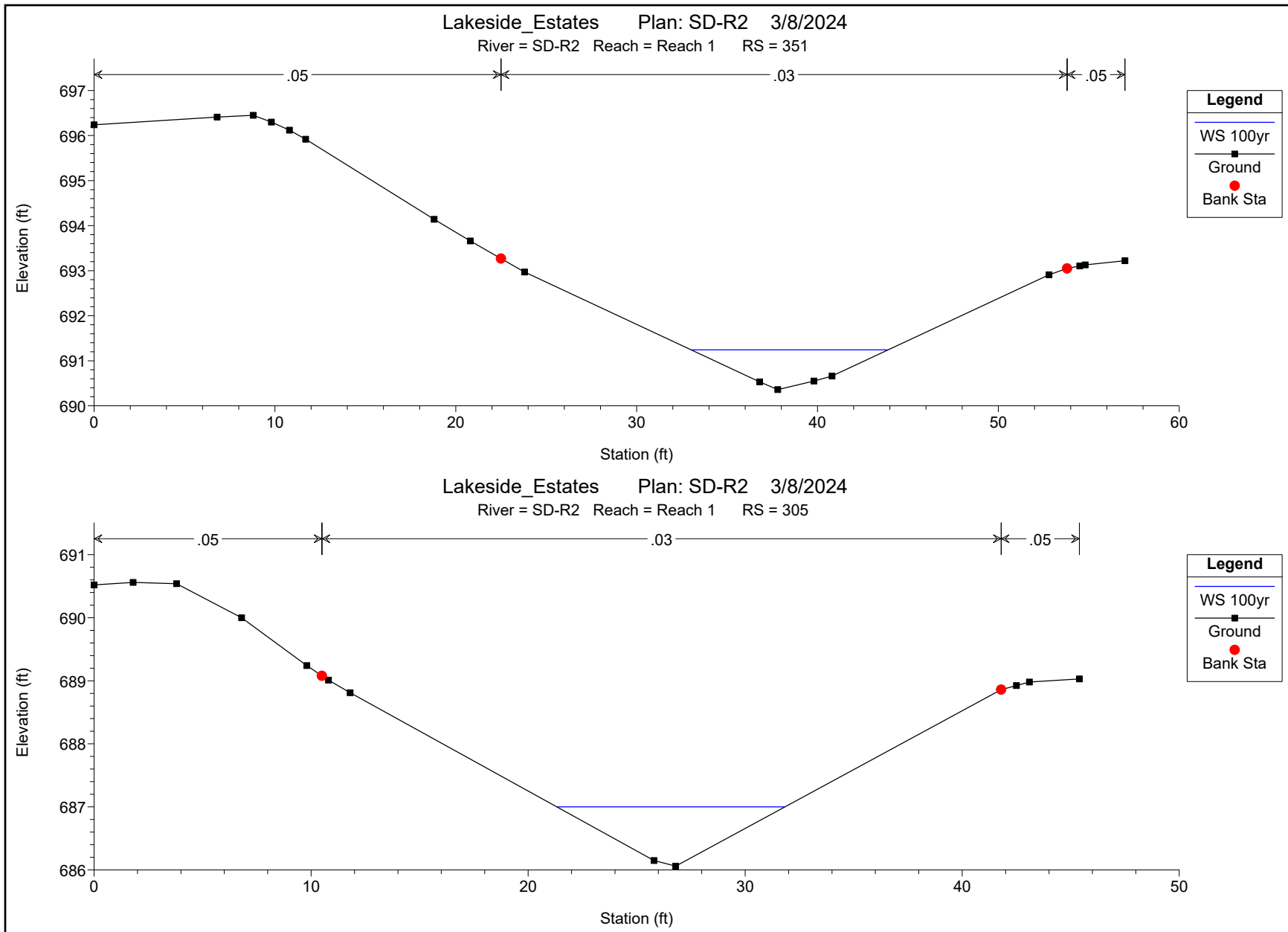


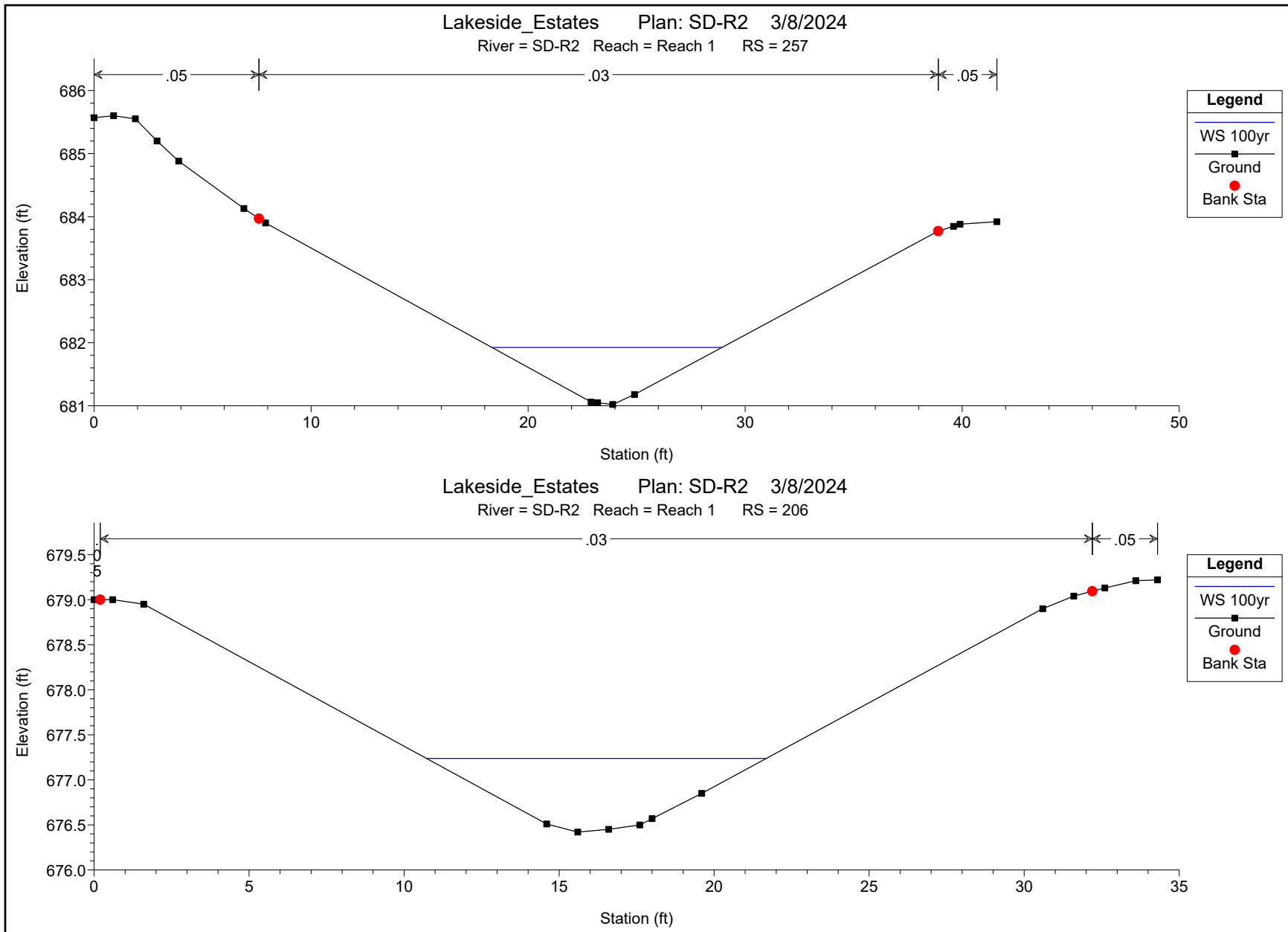


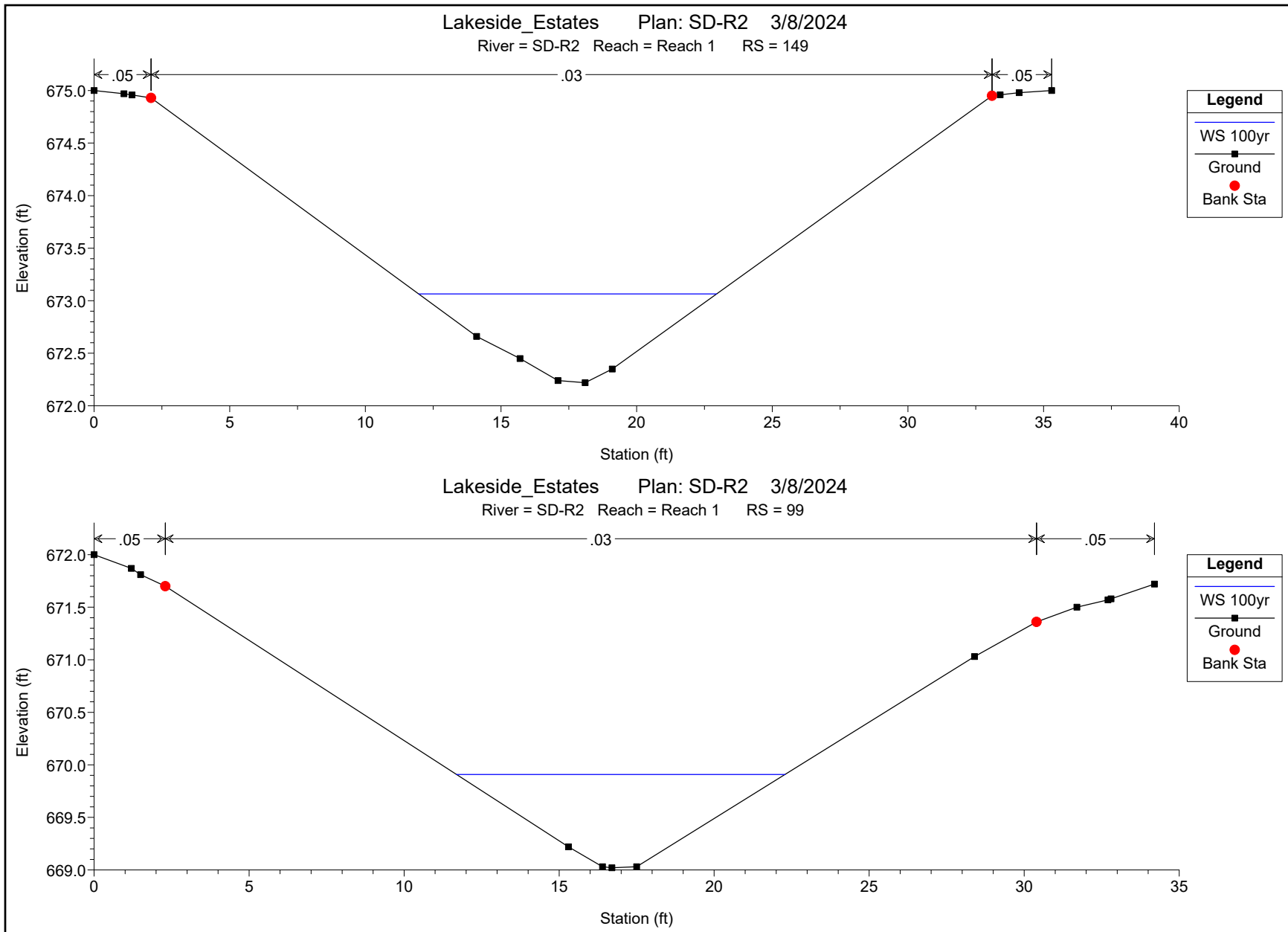


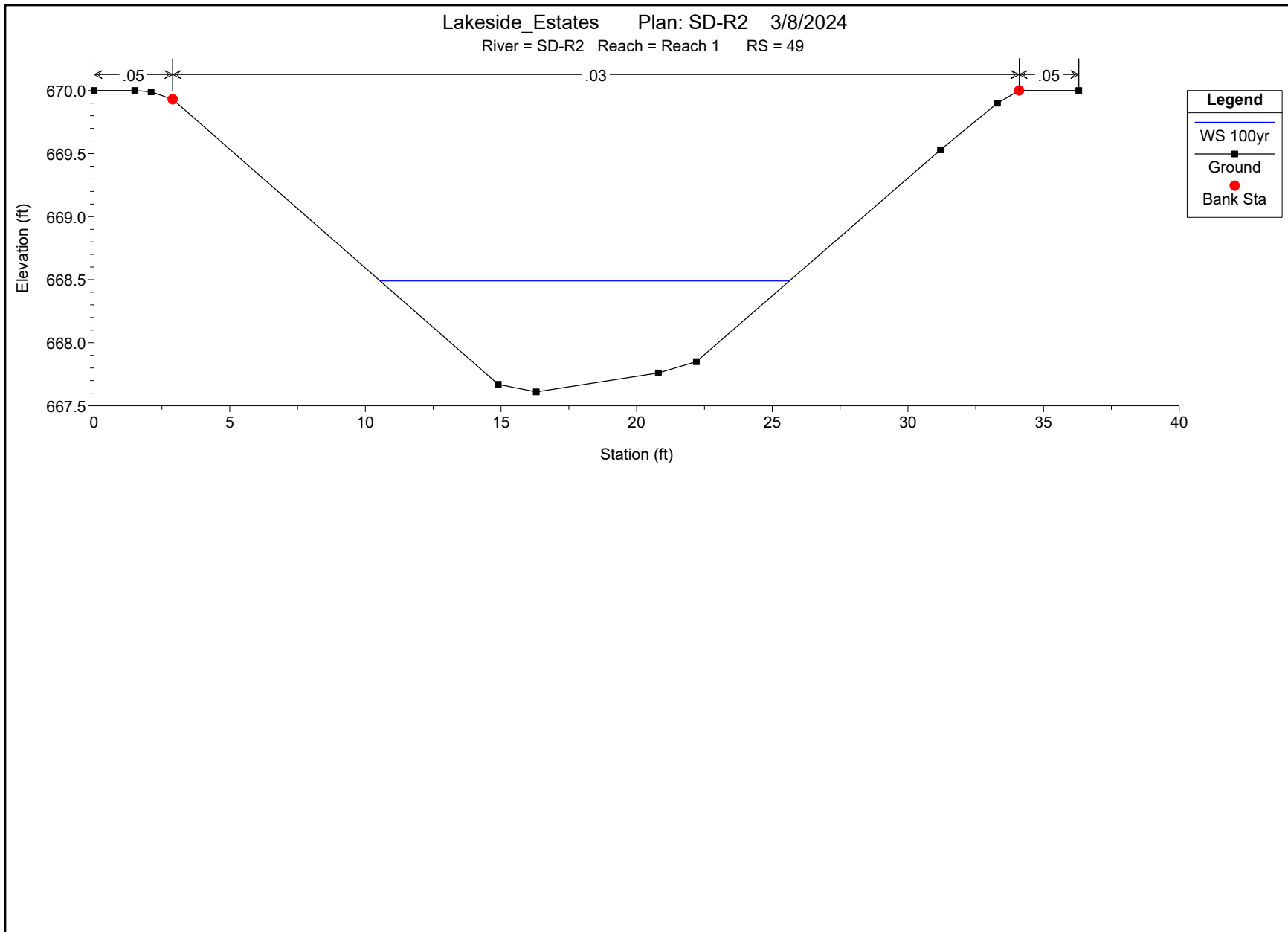














## Appendix D – Construction Plans





## Appendix E – Electronic Data



## PLANNING & ZONING COMMISSION COMMUNICATION

**DATE:** April 8, 2024

**FROM:** Ramie Hammonds, Development Services Director

**AGENDA ITEM:** Consideration and possible action on an amendment to Ordinance No. 04-11-22 to extend the boundaries of Planned Development (PD 04-11-22) and rezone said tract from (A) Agricultural to PD Planned Development for approximately 21.17 acres of land described as A0029A R BEEBE, 65B, within the City of Sanger, and generally located south of FM 455 and east of Indian Lane, and to further amend certain requirements with the Planned Development.

### **SUMMARY:**

- The applicant has acquired additional acreage adjacent to PD 04-11-22
- The applicant is proposing to rezone the additional acreage of approximately 21.17 acres from Agricultural (A) to Planned Development (PD).
- The applicant has amended some of the language and requirements in PD 04-11-22. Below are the changes the applicant is proposing:
  - Added language to Community Features to allow metal or wood as accent materials for entry monuments, screening walls, and community signage. Originally was only brick or stone.
  - Decreased the Garden lot depth from 120 feet to 110 feet and the overall size of the lot from 4800 square feet to 4400 square feet.
  - Decreased the depth of the cul-de-sac lots from the original 120 feet to 95 feet. The minimum lot square footage still applies.
  - Decreased Manor Lot housing square footage from minimum 1800 square feet to minimum 1650 square feet.
  - For Manor Lots increased the maximum total lot count below 2000 square feet from 15% to 20%.
  - For Garden Lots increased the maximum total lot count below 1650 square feet from 15% to 20%.
  - Increased maximum height for single family attached from 35 feet to 40 feet.
  - Added language to single family attached that all dwellings will be either front entry from a public street or rear entry from an alleyway.
  - In Single Family attached reduced side yard setback adjacent a street on a corner from 20 feet to 10 feet.
  - Added language for single family attached that end units abutting a common area will have a side yard setback of 5 feet.
  - Single family attached add language that the minimum rear yard setback for front entry lots shall be 10 feet excluding porches and architectural features and all rear entry lots shall be 20 feet. Porches and architectural features may extend 5 feet into rear setback.
  - Amended parking text to state 2 parking spaces per unit within required garage and a minimum 20-foot driveway for additional parking beyond the garage.
  - Added language to single family attached that guest parking will be provide within site at a ratio of 1 space per 4 units.

- Added language in Multi-family that the maximum building height shall be 3 stories feet.
- In lieu of side yard walls on corner lots requiring the 25% doors and windows they will require minimum 2 windows or doors totaling 25 square feet. Side yard fencing facing residential streets and the adjacent gate return shall be stained cedar board-on-board fencing with a decorative top cap and metal posts with posts and hardware on the internal side of the fence. The fence will be set back a minimum of 10’ and a maximum of 15’. If a window of any size is not installed on the side of the house between the front build line and the fence return, a minimum 3 gallons shrubs at a spacing of 4’ on center will be planted. In addition one 3” caliper eastern red cedar or other evergreen tree species shall be planted at the midpoint between the front build line and fence.
- The parkland/open space was increased from 83.78 acres to 86.69.
- The dedicated parkland was decreased from 59.7 acres to 38.50 acres.
- The Multi-family acreage was decreased from 18.469 acres to 15 acres.
- The added 21.17 acreage will increase Garden lots (40’ x110’) from 158 to 299, Manor Lots (50’ x 120’) from 541 to 603, and Estate Lots (60’ x 120’) from 46 to 54. This increases the total lot count from 875 to 1086. Townhomes remained the same at 130 lots.
- The trail system increased from 2.56 miles to 3.02 miles.
- Altered roadway configuration on concept plan.
- Staff mailed out 65 public hearing notices to owners of properties within 200 feet of the subject property and received 4 responses at the time of this report. One in favor and three opposed.

**FISCAL INFORMATION:**

Budgeted: N/A                      Amount: N/A                      GL Account: N/A

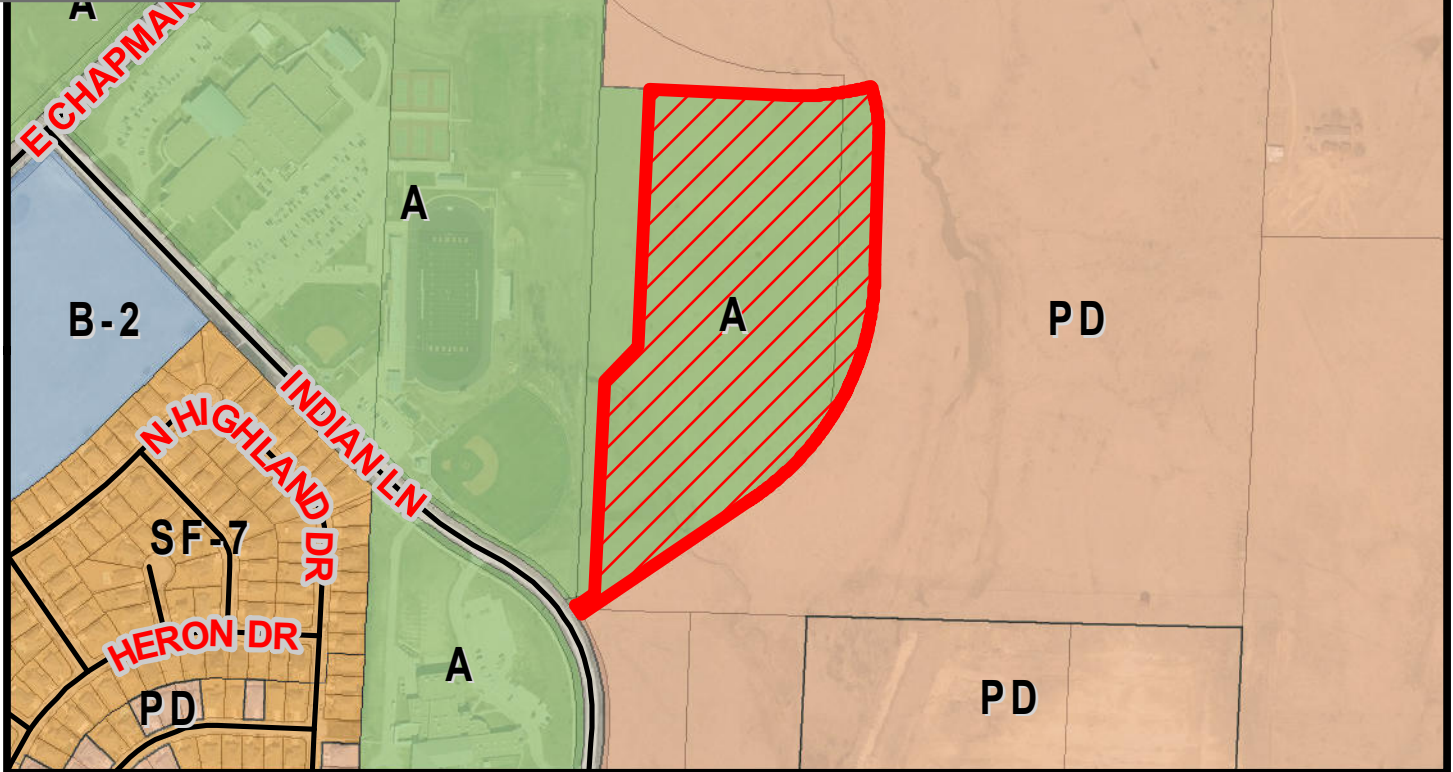
**RECOMMENDED MOTION OR ACTION:**

Staff recommends APPROVAL.

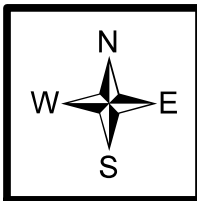
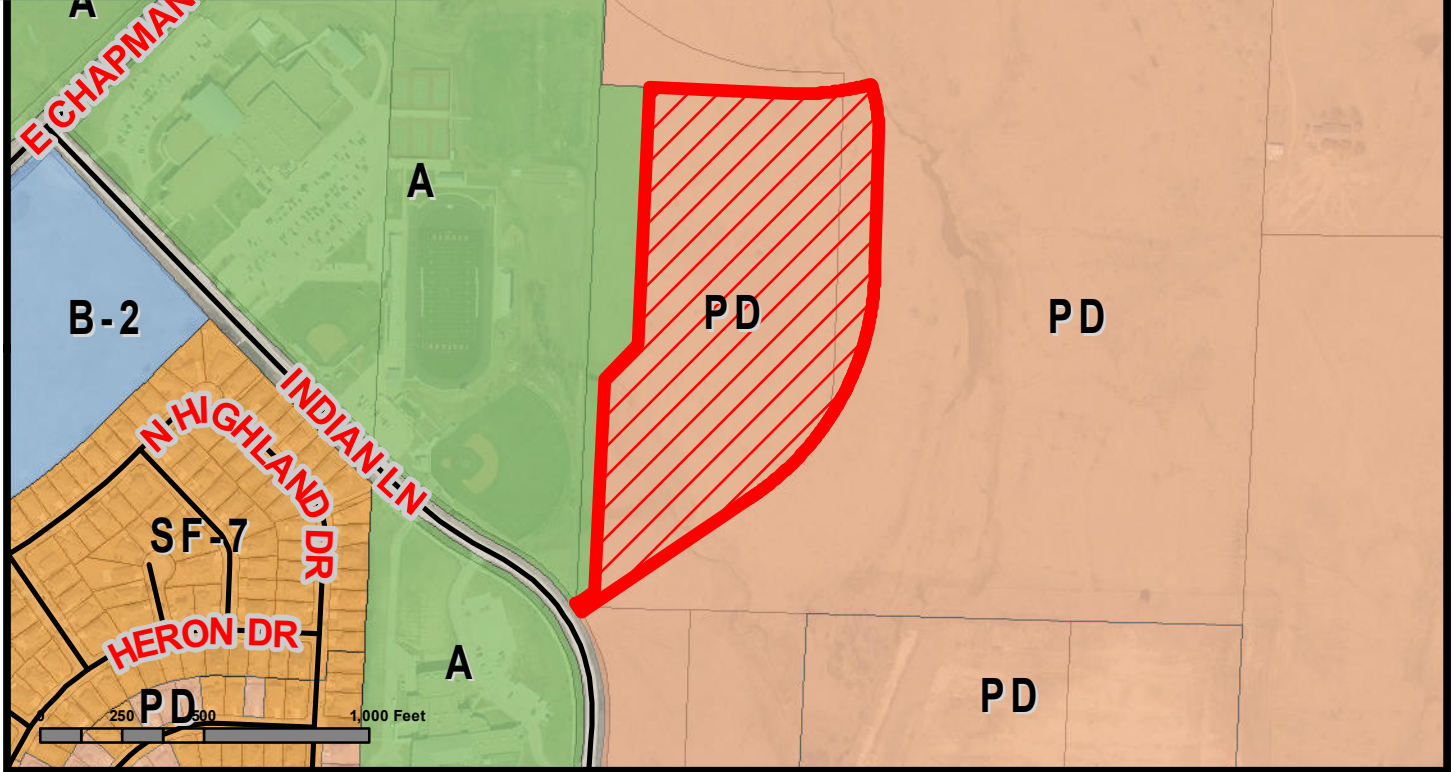
**ATTACHMENTS:**

- Location Map
- Revised PD
- Legal Description
- Lane Ranch Concept Map
- Lane Ranch Park Plan
- Application
- Letter of Intent
- Original Approved PD
- Response Form 1 – In favor
- Response Form 1 – Opposed
- Response Form 2 – Opposed
- Response Form 3 - Opposed

### Current Zoning



### Proposed Zoning



Location: Lane Ranch  
 PD Zoning Change  
 Project: 23SANZON-0027

City Limits Exhibits

**DISCLAIMER:**  
 This map was generated by GIS data provided by the Sanger GIS Department. The City of Sanger does not guarantee the correctness or accuracy of any features on this map. These map products are for illustration purposes only and are not suitable for site-specific decision making. GIS data is subject to constant changes, and may not be complete, accurate or current.



## **347.329 ACRE LANE RANCH PD SUMMARY**

Purpose Statement - To amend PD 04-11-22 and establish a quality master planned multi-phase and multiple product residential and commercial community for the property described by metes and bounds on Exhibit "A" (the "Property") of this PD Ordinance. Development and use of the Property shall comply with the Sanger Zoning Ordinance as it existed on the date of its adoption on August 3, 1987 and subsequent amended (the "The Zoning Ordinance") and this PD ordinance. In the event of a conflict between the Zoning Ordinance and this PD Ordinance, this PD ordinance shall control.

### **PROPOSED USES**

#### Single Family (210.499 Acres)

Approximately 190.299 acres are proposed as single-family detached uses and 20.20 acres as single family attached (townhome).

#### Business District (50.14 Acres)

Approximately 50.14 acres are proposed as local business and retail. Within this area we also anticipate approximately 8 acres of assisted living along with 15 acres of multi-family.

#### Open Space/Floodplain (86.69 Acres)

Approximately 86.69 acres of proposed open space, park area and floodplain.

### **COMMUNITY FEATURES**

The hardscape within the community shall include entry monuments, screening walls and community signage constructed primarily of brick and stone. Wood and metal elements can be used to add interest. Signs shall not be within the sight visibility triangles.

A mandatory homeowners association shall be established to own and maintain the private open spaces, common areas and greenbelts; all private landscape improvements; dog parks and dog waste stations, perimeter masonry and tubular steel fencing; entry monuments and signage. The homeowner's association shall maintain on street parking spaces within a street right-of-way

and any parking spaces located within a common area lot. Private trails and sidewalks shall be constructed within a pedestrian access easement and owned and maintained by the HOA.

The 100-year floodplain shall be designated as a public drainage easement within the Public Parkland dedication. Maintenance responsibility shall be identified on the plat using the City of Sanger Standard drainage easement inscription.

**RESIDENTIAL LAND USES**

**I. Lot Sizes, Setbacks, etc. for Single Family Detached.** Except as otherwise provided below, detached single family residences shall comply with Section 53, “R-1” RESIDENTIAL DISTRICT -1 of the Zoning Ordinance, subject to the following changes:

A. Minimum Lot Width, Depth, and Size.

The Estate Lots:

The minimum lot width shall be 60 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 7,200 square feet.

The Manor Lots:

The minimum lot width shall be 50 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 6,000 square feet.

The Garden Lots:

The minimum lot width shall be 40 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 4,800 square feet.

B. Lot Depths for Cul-de-Sac and Eyebrow Lots.

The minimum lot depth for all lots within any proposed residential use along a cul-de-sac or eyebrow may have a reduced lot depth of 95 feet. The lot minimum square footage still applies.

C. Minimum House Size.

The Estate Lots:

The minimum air-conditioned area within each residence shall be 2,250 square feet.

The Manor Lots:

The minimum air-conditioned area within each residence shall be 1,650 square feet. The Manor Lots shall place a limit of 20% of the total lot count to be below 2,000 square feet. No more than 10% shall be between 1,650 square feet to 1,800 square feet.

The Garden Lots:

The minimum air-conditioned area within each residence shall be 1,500 square feet. Garden Lots shall place a limit of 20% of the total lot count to be below 1,650 square feet.

D. Maximum Height.

The maximum building height shall be 2 stories or 35 feet.

E. Front Yard Setback.

The minimum front yard building setback for all lots shall be 25 feet. Front porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the front yard a maximum of five feet.

F. Side Yard Setback.

The minimum side yard building setback shall be five feet (5') on each side. A side yard adjacent to a street on a corner lot shall always have a minimum ten-foot (10') side yard building setback.

G. Rear Yard Setback.

The minimum rear yard building setback for all lots shall be 20 feet from the rear facade of the residence (excluding porches and projecting architectural features) to the rear lot line. Porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the rear yard a maximum of five feet (5').

H. Maximum Lot Coverage.

The maximum lot coverage will be 65% for any residential lot.

I. Garages.

An enclosed parking area of at least four hundred square feet shall be provided for a garage (this does not count towards the minimum house size). The face of a garage door must be located at least 20 feet from the street right-of-way line that the garage door faces. The garage door does not have to be behind the street facing façade of the house. Split garage doors with a separate door for each vehicle bay are not required.

J. Design Elements

All residential dwellings will meet the City of Sanger Exterior Façade Design Criteria Manual as adopted on October 7, 2019, except as noted below:

- 1.3 Garages shall be a minimum of 400 square feet. Any garage facing a public street may not extend more than 15 feet beyond the house front or front porch, whichever is closer. On non-typical lots where site constraints are present, a variance to the maximum 15 feet garage extension beyond house front may be approved by the Director of Development Services or through an alternative façade permit application by the City Council.

1.4 All walls, except gabled roof areas, which are on the front façade and face a street other than an alley must contain at least 25% of the wall space in windows and doors. The garage door shall count as a “door” towards the 25% requirement.

In lieu of side yard walls on corner lots requiring windows and doors comprising of 25% of the wall space, a corner lot shall comply with the following:

1. A side yard wall on a corner lot facing a street shall consist of at least 2 windows or doors totaling 25 square feet in aggregate area.
2. On corner lots, side yard fencing facing residential streets and the adjacent gate return, shall be a stained 6-foot-tall cedar board-on-board fence with a decorative top cap and metal posts. Posts and hardware shall be on the internal side of the fence and not viewed from the public ROW.
3. On corner lots, fencing facing a collector or arterial street shall be a 6-foot masonry wall with columns.
4. On corner lots, front fencing or gates that face a primary street shall be set back from the front façade a minimum of 10 feet but no more than 15 feet.
5. If a window of any size is not installed on the side of a house on a corner lot between the front build line and side yard fence return, shrubs of a minimum of 3 gallons in size shall be planted between front build line and fence return at a spacing of 4 feet on center. In addition, one 3-inch caliper eastern red cedar (*Juniperus virginiana*), or other evergreen tree species approved by the Director of Development Services, shall be planted at the longitudinal midpoint between the front build line and fence return.

**II. Lot Sizes, Setbacks, etc. for Single Family Attached.** Except as otherwise provided below, attached single family residences shall comply with Section 57, “TH” TOWNHOME RESIDENTIAL DISTRICT of the Zoning Ordinance, subject to the following changes:

A. Minimum Lot Width, Depth, and Size.

The minimum lot width shall be 22 feet. The minimum lot depth shall be 90 feet. The minimum lot size shall be 1,980 square feet.

B. Minimum House Size.

The minimum air-conditioned area within each residence shall be 1,300 square feet.

C. Maximum Height.

The maximum building height shall be 2 stories or 40 feet.

D. Driveway/Garage Locations.



All residential dwellings shall be either front entry from a public street, or rear entry from an alleyway.

E. Front Yard Setback.

The minimum front yard building setback for all lots shall be 20 feet. Front porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the front yard a maximum of five feet.

F. Side Yard Setback.

The minimum side yard building setback shall be seven and one-half feet (7.5') on each side. A side yard adjacent to a street on a corner lot shall always have a minimum ten-foot (10') side yard building setback. For end dwelling units that abut a common area lot rather than an alley or street right of way, the minimum side yard setback adjacent to the common area lot shall be 5 feet.

G. Rear Yard Setback.

The minimum rear yard building setback for all front entry lots shall be 10 feet from the rear facade of the residence (excluding porches and projecting architectural features) to the rear lot line. All rear entry lots shall have a 20-foot setback from the garage to the alley right-of-way. Porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the rear yard a maximum of five feet (5').

H. Maximum Lot Coverage.

The maximum lot coverage shall not apply to any townhomes.

I. Parking.

Two off-street parking spaces shall be provided per unit within the required garage. All residential dwellings shall have a minimum 20-foot driveway for additional parking beyond the garage.

Guest parking will be provided within the site at a ratio of 1 space per 4 units.

J. Design Elements

All residential dwellings will meet the City of Sanger Exterior Façade Design Criteria Manual as adopted on October 7, 2019, except as noted below:

- 1.3 Have attached garages with a minimum of 400 square feet. Any garage facing a public street may not extend more than 15 feet beyond the house front. On non-typical lots where site constraints are present, a variance to the maximum 15 feet garage extension beyond house front may be approved by the Director of Development Services or through an alternative façade permit application by the City Council.

- 1.4 All walls, except gabled roof areas, which are on the front façade and face a street other than an alley must contain at least 25% of the wall space in windows and doors. The garage door will count as a “door” towards the 25% requirement.

**III. Lot Sizes, Setbacks, etc. for Multi-Family.** Except as otherwise provided below, Multi-Family residences shall comply with Section 19, “MF-2” MULTI-FAMILY RESIDENTIAL DISTRICT – 2 of the Zoning Ordinance., subject to the following changes:

A. Maximum Height.

The maximum building height shall be 3 stories or 45 feet.

**IV. General Conditions.**

- A. For the purposes of determining compliance with the lot width requirements, lot widths shall be measured at the rear of the required front yard setback as shown on the Final Plats.
- B. Sidewalks may be located outside of the public right-of-way if located within an adjacent open space lot with a pedestrian access easement to provide for meandering sidewalks and trails that may be located within adjacent common area lots or to preserve existing trees along perimeter roads.

**V. Residential Single Family Detached Landscape Requirements.** Except as otherwise provided below, landscape requirements shall comply with Section 48, Landscape Regulations of the Zoning Ordinance, subject to the following changes:

The following requirements apply to single family residential development:

- A. Each single-family residence shall have an irrigation system in the front yard and street corner side yard with a freeze sensor regulator shut off.
- B. Each Home lot shall have a minimum of two shade trees that are at least three inches in caliper planted. The trees shall be planted in the front and rear yard. If the lot fronts or sides onto a common area lot, the front yard requirement may be satisfied with the trees located in the adjacent greenspace. No other front yard or side yard tree planting requirement shall apply.
- C. All required trees shall be selected from a tree list approved during the Home Permitting stage.
- D. Each Home lot shall have a minimum of twelve (12) shrubs placed in the front yard. Individual shrubs shall be a minimum of three (3) gallons in size when planted.

**VI. Multifamily, Townhome and Non-residential Uses Landscape Requirements.**

All landscape requirements shall comply with Sections 48.4 and 48.5, Landscape Regulations of the Zoning Ordinance.

**VII. Parkland/Open Space (86.69 Acres)**

- A. The developer, and its assigns, agree to dedicate approximately 38.50 acres of the total 86.69 acres of open space/floodplain as Public Park property (the “Parkland”) to the City of Sanger. Common areas shall include floodplain, ponds, detention areas, and small open spaces as shown on the Preliminary Park Concept Plan. Small Open Spaces shall be connected with sidewalks to be a comprehensive pedestrian system. Common areas will abut a public street right-of-way in at least one location with a sidewalk connection. The Parkland shall be credited toward the Park Land Dedication requirement.
- B. A pedestrian circulation system shall be provided that affords connectivity to the entire community and the perimeter of the Property. The pedestrian circulation system shall include concrete trails that are a minimum of six feet in width. Trails in greenbelts will be constructed of concrete and shall connect with the project sidewalks. The pedestrian circulation system may be located on private property with a pedestrian access easement or within the right-of-way. The pedestrian circulation system shall include such items as benches, landscaping, signage, lighting, bike racks, water fountains, trash cans, and doggie waste stations. These items are represented on the Preliminary Park Concept Plan.
- C. All interior residential street rights-of-way shall be improved with sidewalks that are a minimum of four feet in width and (1) constructed by the homebuilders at the time of adjacent house construction; or (2) constructed by the developer for all non-buildable lots. All sidewalks along Collector and Arterial Road frontages are to be five feet in width. The pedestrian circulation system will replace the required public sidewalk along Lane Ranch Drive as shown on the Preliminary Park Concept Plan.
- D. The developer, and its assigns, agree to also install additional amenities such as an off-street parking lot, dog park, covered picnic area, playground equipment and fishing docks as shown on the Preliminary Park Concept Plan. The exact number and location of these amenities may change during the final design process. They are generally represented on the Preliminary Park Concept Plan.
- E. The phasing of the park improvements will coincide with the residential phasing plan and is noted on the overall Preliminary Park Concept Plan.

**VIII. Fencing Requirements**

- A. The developer shall install a perimeter brick or stone screening wall along Major Collector Streets as shown on the Concept Plan. Floodplain, parks, open spaces, right-of-way shall be exempt from the screening requirements in this Section; however, tubular steel fencing may be installed in these areas at the developer's option.
- B. Homebuilder side yard and back yard fencing on residential lots shall be a maximum of six feet in height and shall be setback a minimum of five feet from the front building line shown on the Detail Plan.
- C. Fencing on all residential lots abutting an open space lot or greenbelt shall be restricted to tubular steel painted black. No solid fencing other than a brick and/or stone masonry courtyard wall under 42 inches shall be permitted abutting an open space lot or greenbelt; however, landscape borders, including trimmed hedges, are permitted.

#### **IX. Street Typology**

- A. Standard curbs will be required adjacent to streets abutting all residential lot types unless otherwise approved by the City's engineering department.
- B. Streets fronting open space lots must have standard curbs adjacent to the common area lot. Streets adjacent to common area lots may provide for on-street parking. In addition, the street faces adjacent to open spaces near the flood plain will have a maintenance access location.
- C. Developer shall work with City to determine the location and number of stop signs within the subdivision and speed limits to facilitate traffic calming and maximize the benefit from the pedestrian system.

#### **X. Utilities and Equipment**

- A. Electrical and gas utility meters and AC condensers should be unobtrusively located beyond the front or side street facade zone and screened from view from adjacent streets or common open spaces with landscaping or appropriate fencing.
- B. Transformers on individual lots should be screened to minimize visual impact.
- C. Satellite dishes and solar panels should be located in less conspicuous locations and out of view from adjacent streets or common open spaces when possible.
- D. Antennas should be located inside the building when possible.
- E. Solar panels, when visible from the front, should be flush with the roof.
- F. All public utility easements (PUE) shall be a minimum of 15 feet in width. All franchise utility easements (FUE) shall be a minimum of 10 feet in width.

## **XI. Refuse Locations**

- A. Refuse containers should be stored within an enclosed storage area, fenced, or walled to be screened from view from adjacent streets or common open spaces. Landscaping could also be added as a screening measure.

## **XII. Home Variety**

- A. Detached home designs with the same or similar facade, materials, or colors should be separated by a minimum of three lots on the same side of the street and should not be located directly across or diagonally across the street from each other.
- B. If a detached home plan is repeated on an adjacent lot, it should be elevated with a different architectural style or two of the following three elevation changes - brick color, roof color, or flipped plan.

## **BUSINESS DISTRICT USES**

Except as otherwise provided below, commercial uses shall comply with Section 23, “B-2” Business District - 2 of the Zoning Ordinance, subject to the following changes:

1. A 15-acre multi-family site will be allowed. The base zoning for this tract will be “MF-2” Multi-Family Residential District - 2 at 20 units per gross acre. See Section III for other changes to the MF-2 base zoning category.
2. Self-Storage facilities may be allowed by SUP approval.
3. Boat storage facilities may be allowed by SUP approval.
4. The building height for a pitched roof building shall be a maximum of 45 feet.
5. The front, rear, and side building setbacks adjacent to any internal street shall be a minimum of 15 feet.
6. Any mechanical equipment including roof top equipment shall be screened from residential districts either by fencing, landscaping, or rooftop screening as applicable.

## LEGAL DESCRIPTION

All that certain lot, tract, or parcel of land, being part of the Rueben Bebee Survey, Abstract No. 29, Denton County, Texas, and being all of that tract of land described in a deed to Hien & Duyet Nguyen recorded in Document No. 2016-27020 Real Property Records of Denton, County, Texas (RPRDCT) and all of that tract of land described in a deed to Dualbond Holdings, LLC recorded in Document No. 2016-27021 (RPRDCT) and all of that tract of land described in a deed to Sanger Town Center LLC recorded in Document No. 2017-48301 (RPRDCT) and a part of that tract of land described in a deed to Marion Hills Apartments, LLC recorded in Document No. 2017-48293 (RPRDCT), being more completely described as follows, to-wit:

BEGINNING at 1/2" iron rod set for the southeast corner of the Hien & Duyet Nguyen tract and the north right-of-way line of McReynolds Road;

THENCE with the north right-of-way line of McReynolds Road North 87°54'58" West a distance of 1,789.63 feet to a 1/2" iron rod set for the southwest corner of the Hien & Duyet Nguyen tract and the southeast corner of a tract of land described in a deed to Winston Grove Apartments, LLC recorded in Document No. 2018-13037 (RPRDCT);

THENCE North 2°23'22" East a distance of 2,526.23 feet to 1/2" iron rod set for the northeast corner of a tract of land described in a deed to Marion Hills Apartments, LLC recorded in Document No. 2017-92008 (RPRDCT);

THENCE North 88°13'32" West a distance of 1,325.35 feet to a 2" iron rod found for the northwest corner of the Marion Hills Apartments, LLC;

THENCE South 2°25'03" West a distance of 2,504.45 feet to a 1/2" iron rod set for the southwest corner of Lake Ridge Estates, Phase 1 an addition to the City of Sanger recorded in Cabinet V, Page 752 of the Plat Records of Denton County, Texas (PRDCT) and the north right-of-way line of McReynolds Road;

THENCE with the north right-of-way line of McReynolds Road North 87°25'44" West a distance of 612.45 feet to a 1/2" iron rod set for the southwest corner of the Sanger Town Center LLC tract and the east right-of-way line of Indian Lane right-of-way recorded in Document No. 2004-145888 (RPRDCT);

THENCE with the east right-of-way line of Indian Lane as follows:

North 2°15'10" East a distance of 1,935.36 feet to a 1/2" iron rod set for corner;

North 5°39'58" East a distance of 200.32 feet to a 1/2" iron rod set for corner;

North 2°02'56" East a distance of 24.96 feet to the beginning of a curve to the left, having a radius of 550.39 feet, a chord of North 16° 40' 37" West – 354.48 feet, a distance of 360.91 feet to a 1/2" iron rod set for corner in the east line of a tract of land described in a deed to Sanger ISD (herein called Tract 1) recorded in Volume 1841, Page 662 (RPRDCT);

THENCE South 88°03'30" East a distance of 21.92 feet to a 1/2" iron rod set for the southwest corner of a tract of land described in a deed to Sanger ISD recorded in Document No. 2022-160016 (RPRDCT);

THENCE with the south and east line of the Sanger ISD tract

North 56°02'48" East a distance of 62.25 feet to a 1/2" iron rod set for corner;

North 02°36'29" East a distance of 643.72 feet to a 1/2" iron rod set for corner;

North 45°05'54" East a distance of 148.05 feet to a 1/2" iron rod set for corner;

North 02°36'29" East a distance of 1013.28 feet to a 1/2" iron rod set for the northeast corner of a tract of land described in a deed to Sanger ISD recorded in Document No. 2022-160017 (RPRDCT);

THENCE with the north line of the Sanger ISD tract North  $87^{\circ}23'31''$  West a distance of 150.00 feet to a 1/2" iron rod set for corner in the east line of a tract of land described in a deed to Sanger ISD Tract 1;

THENCE with the east line of the Sanger ISD Tract 1 North  $2^{\circ}36'29''$  East a distance of 616.01 feet to a 1/2" iron rod set for the northeast corner of the Sanger ISD Tract 1 and the northwest corner of the Sanger Town Center LLC and the south right-of-way line of West Chapman Road;

THENCE with the south right-of-way line of West Chapman Road and the north line of the Sanger Town Center LLC as follows:

South  $87^{\circ}53'26''$  East a distance of 1,269.90 feet to a 1/2" iron rod set for corner;

South  $88^{\circ}02'57''$  East a distance of 500.69 feet to a 1/2" iron rod set for corner;

South  $87^{\circ}47'23''$  East a distance of 2,068.95 feet to a 1/2" iron rod set for the northeast corner of the Dualbond Holdings, LLC Tract and the northwest corner of a tract of land described in a deed to Miller Family Trust recorded in Document No. 94-0089391 (RPRDCT);

THENCE with the west line of the Miller Family Trust tract South  $2^{\circ}58'32''$  West a distance of 1,272.08 feet to a 1/2" iron rod set for corner;

THENCE South  $2^{\circ}42'07''$  West a distance of 3,659.25 feet to the place of beginning, containing 347.329 acres, or 15,129,632 square feet of land.



**LEGEND**

[Red]	GENERAL BUSINESS AREAS
[Pink]	60' ESTATE LOTS
[Yellow]	60' MANOR LOTS
[Orange]	40' GARDEN LOTS
[Light Blue]	TOWN HOME LOTS
[Green]	GRASS / OPEN SPACE
[Dark Green]	LAKES
[Blue]	LAKERIDGE PD

APPROX. RESIDENTIAL LOT COUNT BY TYPE

54 LOTS (ESTATE LOTS)
603 LOTS (MANOR LOTS)
299 LOTS (GARDEN LOTS)
130 LOTS (TOWN HOMES)
TOTAL 1086 LOTS

RESIDENTIAL AREA	210,499 AC.
• SINGLE FAMILY	190,299 AC.
• TOWN HOMES	20.20 AC.
GENERAL BUSINESS AREA	50.14 AC.
OPEN SPACE / FLOODPLAIN	86.69 AC.

PRELIMINARY - FOR REVIEW ONLY  
 These documents are for design review or permit purposes and are not to be used for construction or other purposes without the approval of F. E. MIDDLETON, Jr., P.E. 67449

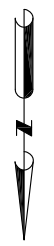
No.	DATE	REVISION	APPROX.
1	9-18-23	CONCEPT PLAN	347.329

**Middleton PROJECT ENGINEER & Associates, LLC.**  
 CONSULTING CIVIL ENGINEERS & LAND PLANNERS  
 TYPE # - 10900  
 2785 ROCKBROOK DRIVE, SUITE 105  
 LEWISVILLE, TEXAS 75067 (972) 393-9800

**CONCEPT PLAN**  
**LANE RANCH**  
**347.329 ACRES - CITY OF SANGER**  
**DENTON COUNTY TEXAS**

Drawing File: 0001032CONCEPT.DWG  
 Project No. 0001032

DATE: 9-18-23  
 SCALE: 1"=250'  
 SHEET NO.: 1







**LEGEND**

- PARK BENCH/DOG WASTE STATION/TRASH CANS
- 6' HIKE & BIKE TRAIL
- PARK AREA/OPEN SPACE
- LAKES
- ☐ COVERED PICNIC AREA
- ⊙ PLAYGROUND
- ⊥ FISHING PIER
- ① PARK PHASE NUMBER
- PARK PHASE LINE
- ▭ PARKING AREA FOR PARKS

TOTAL OPEN SPACE - 86.69 AC.

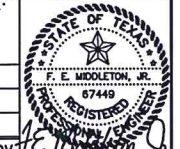
PARKLAND DEDICATION REQUIREMENT

- SINGLE FAMILY (1 AC./50 D.U.) 21.70 AC.
- MULTI-FAMILY (1 AC./21 BEDROOMS) 16.80 AC.
- TOTAL 38.50 AC.

PARKLAND DEDICATION WILL BE ACCOMPLISHED BY DEDICATING OPEN SPACE AND USABLE FLOODPLAIN WITHIN THE 90.69 ACRES.

TOTAL LENGTH OF TRAIL SYSTEM=15,976 L.F. (3.02 MILES)

PRELIMINARY - FOR REVIEW ONLY  
 These documents are for design review and not intended for construction or permit purposes. The approval of F. E. MIDDLETON, JR. P.E. 67448



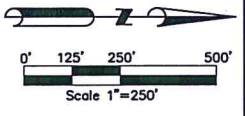
No.	DATE	REVISION	APPROV.
			9-18-23

**Middleton PROJECT ENGINEER:  
& Associates, LLC.**

CONSULTING CIVIL ENGINEERS & LAND PLANNERS  
 TBPE #10900  
 © Copyright 2023  
 2785 ROCKBROOK DRIVE, SUITE 105  
 LEWISVILLE, TEXAS 75067 (972) 393-9800

**PRELIMINARY PARK CONCEPT PLAN**

**LANE RANCH**  
 347.329 ACRES - CITY OF SANGER  
 DENTON COUNTY TEXAS



Drawing File: 0001032CONCEPT6-PARK	DATE: 9-18-23	SCALE: 1"=250'	SHEET NO: 1
Project No. 0001032			1



201 Bolivar Street/PO Box 1729 \* Sanger, TX 76266  
940-458-2059(office) www.sangertexas.org

**ZONING CHANGE/SUP APPLICATION**

Zoning Change

Specific Use Permit

Applicant	Owner (if different from applicant)
Name: <b>Mr. Casey McGinnis</b>	Name: <b>See attached sheet</b>
Company: <b>JTWSCM Development LLC</b>	Company:
Address: <b>4029 Veneto Drive</b>	Address:
City, State, Zip: <b>Frisco, Texas 75033</b>	City, State, Zip
Phone: <b>214-232-6180</b>	Phone:
Fax: <b>N/A</b>	Fax:
Email: <b>mcginnisdevelopment@gmail.com</b>	Email:

**Submittal Checklist**

<input checked="" type="checkbox"/>	Site Plan (for Specific Use Permits Only)
<input checked="" type="checkbox"/>	Letter of Intent
<input checked="" type="checkbox"/>	Application Fee (Check Payable to City of Sanger)

I certify that I am the legal owner of the above referenced property and that to the best of my knowledge this is a true description of the property upon which I have requested the above checked action. I designate the applicant listed as my representative.

Describe the subject property (address, location, size, etc.):

347.329 acres located at the northeast corner of Indian Land and McReynolds Road (known as Lane Ranch)

Describe the proposed zoning change or Specific Use Permit (SUP):

Amending the original PD zoning Ordinance No. 4-11-22 to add the Marion Property Holding tract (21.17 acres)

See attached sheet for owner signatures

Owner Signature

Applicant Signature

Date

May 31, 2023  
Date

Office Use

Fee	
Date	

City of Sanger  
201 Bolivar / P.O. Box 1729  
Sanger, TX 76266  
940-458-2059 (office) www.sangertexas.org

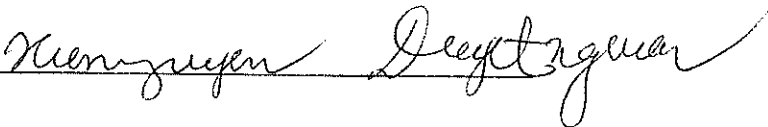
LANE RANCH PD OWNERSHIPS (THIS INFORMATION WAS TAKEN FROM THE DENTON COUNTY APPRASIAL WEB SITE)

1)

NGUYEN, HIEN T & DUYET 151.67 ACRES  
3608 WAYNOKA DR,  
CARROLLTON, TX, 75007-2792  
PHONE: 469-900-7113  
EMAIL: [nguyenhelen15@gmail.com](mailto:nguyenhelen15@gmail.com)

A0029A R. BEEBE, TR 56B, 149.658 ACRES, OLD DCAD SHT 2, TR 3

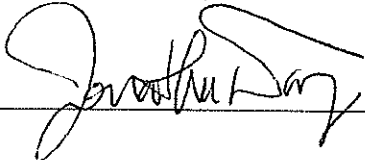
A0029A R. BEEBE, TR 56A, 2.012 ACRES

SIGNATURE: 

2)

DUALBOND HOLDINGS LLC 51.17 ACRES  
MR. JONATHAN WANG  
101 FOREST BEND DR,  
COPPELL, TX, 75019-2040  
PHONE: 214-316-2256  
EMAIL: [wangjtc@verizon.net](mailto:wangjtc@verizon.net)

A0029A R. BEEBE, TR 56, 51.17 ACRES, OLD DCAD SHT 2, TR 3

SIGNATURE: 

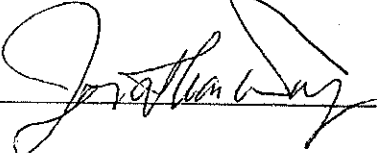
3)

SANGER TOWN CENTER LLC 122.52 ACRES  
MR. JONATHAN WANG  
101 FOREST BEND DR,  
COPPELL, TX, 75019-2040  
PHONE: 214-316-2256  
EMAIL: [wangjtc@verizon.net](mailto:wangjtc@verizon.net)

A0029A R. BEEBE, TR 65(PT), 84.5014 ACRES, OLD DCAD SHT 2, TR 4

A0029A R. BEEBE, TR 60, 25.22 ACRES, OLD DCAD SHT 2, TR 7

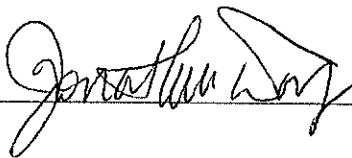
A0029A R. BEEBE, TR 61, 12.8 ACRES, OLD DCAD SHT 2, TR 8

SIGNATURE: 

4)

MARION PROPERTY HOLDING LLC    21.1720 ACRES  
MR. JONATHAN WANG  
101 FOREST BEND DR,  
COPPELL, TX, 75019-2040  
PHONE: 214-316-2256  
EMAIL: [wangjtc@verizon.net](mailto:wangjtc@verizon.net)

A0029A R. BEEBE, TR 65B

SIGNATURE:  \_\_\_\_\_

## **347.329 ACRE LANE RANCH PD SUMMARY**

Purpose Statement - To amend PD 04-11-22 and establish a quality master planned multi-phase and multiple product residential and commercial community for the property described by metes and bounds on Exhibit "A" (the "Property") of this PD Ordinance. Development and use of the Property shall comply with the Sanger Zoning Ordinance as it existed on the date of its adoption on August 3, 1987 and subsequent amended (the "The Zoning Ordinance") and this PD ordinance. In the event of a conflict between the Zoning Ordinance and this PD Ordinance, this PD ordinance shall control.

### **PROPOSED USES**

#### **Single Family (268.101 Acres)**

Approximately 180.98 acres are proposed as single family detached uses, 16.2 acres as single family attached (townhome) and 70.92 acres of open space. The net density is 3.79 units/acre.

#### **Business District (83.935 Acres)**

Approximately 42.93 acres are proposed as local business and retail, 5.0 acres of assisted living along with 19.15 acres of multi-family and 12.13 acres of open space.

### **COMMUNITY FEATURES**

The hardscape within the community shall include entry monuments, screening walls and community signage constructed of brick or stone. Signs shall not be within the sight visibility triangles.

A mandatory homeowners association shall be established to own and maintain the private open spaces, common areas and greenbelts; all private landscape improvements; dog parks and dog waste stations, perimeter masonry and tubular steel fencing; entry monuments and signage. The homeowner's association shall maintain on street parking spaces within a street right-of-way and any parking spaces located within a common area lot. Private trails and sidewalks shall be constructed within a pedestrian access easement and owned and maintained by the HOA.

The 100-year floodplain shall be designated as a public drainage easement within the Public Parkland dedication. Maintenance responsibility shall be identified on the plat using the City of Sanger Standard drainage easement inscription.

**RESIDENTIAL LAND USES**

**I. Lot Sizes, Setbacks, etc. for Single Family Detached.** Except as otherwise provided below, detached single family residences shall comply with Section 53, "R-1" RESIDENTIAL DISTRICT -1 of the Zoning Ordinance, subject to the following changes:

**A. Minimum Lot Width, Depth, and Size.**

The Estate Lots (60' X 120'):

The minimum lot width shall be 60 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 7,200 square feet.

The Manor Lots (50' X 120'):

The minimum lot width shall be 50 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 6,000 square feet.

The Garden Lots (40' X 120'):

The minimum lot width shall be 40 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 4,800 square feet.

**B. Minimum House Size.**

The Estate Lots:

The minimum air-conditioned area within each residence shall be 2,250 square feet.

The Manor Lots:

The minimum air-conditioned area within each residence shall be 1,800 square feet. Over the entire development, the Manor Lots shall average over 2,000 square feet in house size. The Manor Lots shall place a limit of 15% of the total lot count to be below 2,000 square feet.

The Garden Lots:

The minimum air-conditioned area within each residence shall be 1,500 square feet. Over the entire development, the Garden Lots shall average over 1,650 square feet in house size. The Garden Lots shall place a limit of 15% of the total lot count to be below 1,650 square feet.

**C. Maximum Height.**

The maximum building height shall be 2 stories or 35 feet.

D. Front Yard Setback.

The minimum front yard building setback shall be twenty-five feet (25'). Front porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the front yard a maximum of five feet (5').

E. Side Yard Setback.

The minimum side yard building setback shall be five feet (5') on each side. A side yard adjacent to a street on a corner lot shall always have a minimum ten-foot (10') side yard building setback.

F. Rear Yard Setback.

The minimum rear yard building setback shall be twenty feet (20') from the rear facade of the residence (excluding porches and projecting architectural features) to the rear lot line. Porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the rear yard a maximum of five feet (5').

G. Maximum Lot Coverage.

The maximum lot coverage will be 65% for any residential lot.

H. Garages.

An enclosed parking area of at least four hundred square feet shall be provided for a garage (this does not count towards the minimum house size). The face of a garage door must be located at least 20 feet from the street right-of-way line that the garage door faces. The garage door does not have to be behind the street facing façade of the house. Split garage doors with a separate door for each vehicle bay are not required.

I. Design Elements

All residential dwellings will meet the City of Sanger Exterior Façade Design Criteria Manual as adopted on October 7, 2019.

**II. Lot Sizes, Setbacks, etc. for Single Family Attached.** Except as otherwise provided below, attached single family residences shall comply with Section 57, "TH" TOWNHOME RESIDENTIAL DISTRICT of the Zoning Ordinance, subject to the following changes:

A. Minimum Lot Width, Depth, and Size.

The minimum lot width shall be 22 feet. The minimum lot depth shall be 90 feet. The minimum lot size shall be 1,980 square feet.

B. Minimum House Size.

The minimum air-conditioned area within each residence shall be 1,300 square feet.

C. Maximum Height.

The maximum building height shall be 2 stories or 35 feet.

D. Front Yard Setback.

The minimum front yard building setback shall be twenty-five feet (20'). Front porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the front yard a maximum of five feet (5').

E. Side Yard Setback.

The minimum side yard building setback at the end of each building shall be seven- and one-half feet (7.5') on each side creating a 15-foot separation between buildings. A side yard adjacent to a street on a corner lot shall always have a minimum twenty-foot (20') side yard building setback.

F. Rear Yard Setback.

The minimum rear yard setback shall be five feet from the rear facade of the residence to the alley right-of-way.

G. Maximum Lot Coverage.

The maximum lot coverage shall not apply to any townhomes.

H. Parking

Two off-street parking spaces shall be provided per unit and shall not be within the required front yard.

I. Design Elements

All residential dwellings will meet the City of Sanger Exterior Façade Design Criteria Manual as adopted on October 7, 2019.

**III. Lot Sizes, Setbacks, etc. for Multi-Family.** Multi-Family residences shall comply with Section 19, "MF-2" MULTI-FAMILY RESIDENTIAL DISTRICT – 2 of the Zoning Ordinance.

**IV. General Conditions.**

- A. For the purposes of determining compliance with the lot width requirements, lot widths shall be measured at the rear of the required front yard setback as shown on the Final Plats.
- B. Sidewalks may be located outside of the public right-of-way if located within an adjacent open space lot with a pedestrian access easement to provide for meandering sidewalks and trails that may be located within adjacent common area lots or to preserve existing trees along perimeter roads.



**V. Residential Single Family Detached Landscape Requirements.** Except as otherwise provided below, landscape requirements shall comply with Section 48, Landscape Regulations of the Zoning Ordinance, subject to the following changes:

The following requirements apply to single family residential development:

- A. Each single-family residence shall have an irrigation system in the front yard and street corner side yard with a freeze sensor regulator shut off.
- B. Each Home lot shall have a minimum of two shade trees that are at least three inches in caliper planted. The trees shall be planted in the front and rear yard. If the lot fronts or sides onto a common area lot, the front yard requirement may be satisfied with the trees located in the adjacent greenspace. No other front yard or side yard tree planting requirement shall apply.
- C. All required trees shall be selected from a tree list approved during the Detail Plan stage.
- D. Each Home lot shall have a minimum of twelve (12) shrubs placed in the front yard. Individual shrubs shall be a minimum of three (3) gallons in size when planted.

**VI. Multifamily, Townhome and Non-residential Uses Landscape Requirements.**

All landscape requirements shall comply with Sections 48.4 and 48.5, Landscape Regulations of the Zoning Ordinance.

**VII. Parkland/Open Space (83.054 Acres)**

- A. Developer, and its assigns, agree to dedicate approximately 59.7 acres of the total 83.054 acres of floodplain/open space as Public Park property (the "Parkland") to the City of Sanger. Common areas shall include floodplain, ponds, detention areas, and small open spaces as shown on the Preliminary Park Concept Plan. Small Open Spaces shall be connected with sidewalks to be a comprehensive pedestrian system. Common areas will abut a public street right-of-way in at least one location with a sidewalk connection. The Parkland shall be credited toward the Park Land Dedication requirement.
- B. A pedestrian circulation system shall be provided that affords connectivity to the entire community and the perimeter of the Property. The pedestrian circulation system shall include concrete trails that are a minimum of six feet in width. Trails in greenbelts will be constructed of concrete and shall connect with the project sidewalks. The pedestrian circulation system may be located on private property with a pedestrian access easement or within the right-of-way. The pedestrian circulation system shall include such items as benches, landscaping, signage, lighting, bike racks, water fountains, trash cans, and doggie waste stations. These items are represented on the Park Plan.

- C. All interior residential street rights-of-way shall be improved with sidewalks that are a minimum of four feet in width and (1) constructed by the homebuilders at the time of adjacent house construction; or (2) constructed by the developer for all non-buildable lots. All sidewalks along Collector and Arterial Road frontages are to be five feet in width. The pedestrian circulation system will replace the required public sidewalk along Lane Ranch Drive as shown on the Preliminary Park Concept Plan.
- D. Developer, and its assigns, agree to also install additional amenities such as an off-street parking lot, dog park, covered picnic area, playground equipment and fishing docks as shown on the Preliminary Park Concept Plan. The exact number and location of these amenities may change during the final design process. They are generally represented on the Park Plan.
- E. The phasing of the park improvements will coincide with the residential phasing plan and is noted on the overall Preliminary Park Concept Plan.

### **VIII. Fencing Requirements**

- A. The developer shall install a perimeter brick or stone screening wall along Major Collector Streets as shown on the Detail Plan. Floodplain, parks, open spaces, right-of-way shall be exempt from the screening requirements in this Section; however, tubular steel fencing may be installed in these areas at the developer's option.
- B. Homebuilder side yard and back yard fencing on residential lots shall be a maximum of six feet in height and shall be setback a minimum of five feet from the front building line shown on the Detail Plan.
- C. Fencing on all residential lots abutting an open space lot or greenbelt shall be restricted to tubular steel painted black. No solid fencing other than a brick and/or stone masonry courtyard wall under 42 inches shall be permitted abutting an open space lot or greenbelt; however, landscape borders, included trimmed hedges, are permitted.

### **IX. Street Typology**

- A. Standard curbs will be required adjacent to streets abutting all residential lot types unless otherwise approved by the City's engineering department.
- B. Streets fronting open space lots must have standard curbs adjacent to the common area lot. Streets adjacent to common area lots may provide for on-street parking. In addition, the street faces adjacent to open spaces near the flood plain will have a maintenance access location.
- C. Developer shall work with City to determine the location and number of stop signs within the subdivision and speed limits to facilitate traffic calming and maximum the benefit from the pedestrian system.

### **X. Utilities and Equipment**

- A. Electrical and gas utility meters and AC condensers should be unobtrusively located beyond the front or side street facade zone and screened from view from adjacent streets or common open spaces with landscaping or appropriate fencing.
- B. Transformers on individual lots should be screened to minimize visual impact.
- C. Satellite dishes, and solar panels should be located in less conspicuous locations and out of view from adjacent streets or common open spaces when possible.
- D. Antennas should be located inside the building when possible.
- E. Solar panels when visible from the front should be flush with the roof.

#### **XI. Refuse Locations**

- A. Refuse containers should be stored within an enclosed storage area, fenced, or walled to be screened from view from adjacent streets or common open spaces with landscaping can be added.

#### **XII. Home Variety**

- A. Detached home designs with the same or similar facade, materials, or colors should be separated by a minimum of three lots on the same side of the street and should not be located directly across or diagonally across the street from each other.
- B. If a detached home plan is repeated on an adjacent lot, it should be elevated with a different architectural style or two of the following three elevation changes - brick color, roof color, or flipped plan.

#### **BUSINESS DISTRICT USES**

Except as otherwise provided below, commercial uses shall comply with Section 23, "B-2" Business District - 2 of the Zoning Ordinance, subject to the following changes:

1. An 19.15-acre multi-family site will be allowed. The base zoning for this tract will be "MF-2" Multi-Family Residential District - 2 at 20 units per gross acre.
2. Self-Storage facilities may be allowed by SUP approval.
3. Boat storage facilities may be allowed by SUP approval.

4. The building height for a pitched roof building shall be a maximum of 45 feet.
5. The front, rear and side building setbacks adjacent to any internal street shall be a minimum of 15 feet.
6. Any mechanical equipment including roof top equipment shall be screened from residential districts either by fencing, landscaping or rooftop screening as applicable.



**MIDDLETON & ASSOCIATES, LLC**

**CONSULTING CIVIL ENGINEERS AND LAND PLANNERS**

May 31, 2023

Ms. Ramie Hammonds  
 Director of Development Services  
 City of Sanger  
 201 Bolivar Street  
 Sanger, Texas 76266

RE: Letter of Intent  
 Rezoning for Lane Ranch  
 Sanger, Texas

Dear Ramie:

Please accept this Letter of Intent for the rezoning of the Lane Ranch property located at the northeastern intersection of McReynolds Road and Indian Lane in Sanger. This zoning application is to amend the current zoning Ordinance 04-11-22 for Lane Ranch. The property is approximately 347 acres consisting of seven (7) different properties owned by Hien T. & Duyet Nguyen, Dualbond Holdings, LLC, Sanger Town Center, LLC and Marion Property Holding, LLC. This tract is currently open pastureland with no tree cover.

The purpose of this request is to amend the current PD zoning to now include an additional 21 acres known as the Marion Property. This tract was acquired by the owners of Lane Ranch, and they are requesting it be part of the overall Lane Ranch PD. The amended PD would add an additional 142 single family residential lots to the current PD. This PD amendment would also revise the roadway configuration for Lane Ranch Drive as it intersects FM 455. Unfortunately, the negotiations with the Sanger ISD did not allow for the anticipated continuation of the roadway across school property.

The applicant for this submittal is Mr. Casey McGinnis with JTWSCM Development. If you have any other questions or would like additional information regarding our submittal, please contact me at 972-393-9800 or Mr. McGinnis at 214-232-6180.

Sincerely,  
**MIDDLETON & ASSOCIATES, LLC.**

Eugene Middleton, P.E.  
 President

**CITY OF SANGER, TEXAS**

**ORDINANCE No. 04-11-22**

**AN ORDINANCE OF THE CITY OF SANGER, DENTON COUNTY, TEXAS, REZONING APPROXIMATELY 326 ACRES OF TRACTS DESCRIBED AS A0029A R. BEEBE, TR 56, 56A, 56B, 60, 61 and 65, FROM “A” AGRICULTURAL TO “PD” PLANNED DEVELOPMENT; PROVIDING FOR THE REPEAL OF ALL ORDINANCES IN CONFLICT; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY OF FINE IN ACCORDANCE WITH SECTION 1.109 OF THE CODE OF ORDINANCE FOR VIOLATIONS; AND PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS**, the City of Sanger (the “City”) is a home rule municipality regulated by state law and Charter; and

**WHEREAS**, the City Council finds it necessary for the public health, safety, and welfare that development occur in a controlled and orderly manner; and

**WHEREAS**, the Planning and Zoning Commission on May 9, 2022, duly covered and conducted public hearing for the purpose of assessing a request for amendment to the Zoning Map, recommending approval for the hereinafter described property; and

**WHEREAS**, On May 9, 2022 the City Council approved the amendment to the Zoning Map from Agricultural (A) to Planned Development (PD); and

**WHEREAS**, all request for amendment to the Zoning Map were duly filed with the City of Sanger, Texas, concerning the hereinafter described property; and

**WHEREAS**, the following provision of proper legal notice requirements, including written notice to owners within 200 feet of the subject property, were made in the time and manner prescribed by law; and

**WHEREAS**, the City Council finds that the passage of this Ordinance is in the best interest of the citizens of Sanger.

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SANGER, TEXAS:**

**SECTION 1.** That the legal description of the tracts zoned herein is generally described as **A0029A R. BEEBE, TR 56, 56A, 56B, 60, 61 and 65 326 ACRES.**

**SECTION 2.** That the subject property described in Section 1 and further described through metes and bounds in Exhibit A, and generally located on the south side of FM 455 and approximately 330 feet east of the intersection of Marion Road and FM 455 and continuing south

to McReynolds Rd, is rezoned from A (Agricultural) to PD (Planned Development), as illustrated in Exhibit B and the conceptual plan as illustrated in Exhibit C.

**SECTION 3.** That all matters stated in the preamble are found to be true and correct and are incorporated herein as if copied in their entirety.

**SECTION 4.** All ordinances or parts of ordinances in conflict herewith are, to the extent of such conflict, hereby repealed.

**SECTION 5.** It is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses, phrases and words of this Ordinance are severable and, if any word, phrase, clause, sentence, paragraph, or section of this Ordinance shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining portions of this Ordinance, since the same would have been enacted by the City Council without the incorporation in this Ordinance of any such unconstitutional word, phrase, clause, sentence, paragraph, or section.

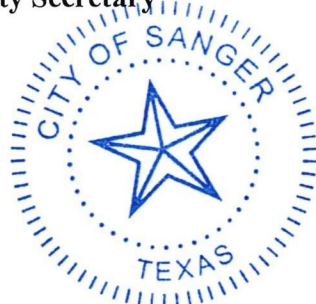
**SECTION 6.** Any person, firm or corporation who shall violate any of the provisions of this article shall be guilty of a misdemeanor and upon conviction shall be fined in accordance with the general penalty provision found in The Code of Ordinances, Section 1.109 General Penalty for Violations of Code.

**SECTION 7.** This ordinance will take effect immediately from and after its passage and the publication of the caption, as the law and Charter in such cases provide.

**DULY PASSED, APPROVED AND ADOPTED** by the City Council of the City of Sanger, Texas, on this 9th day of May, 2022.

ATTEST:

Kelly Edwards  
Kelly Edwards, City Secretary



APPROVED:

Thomas E. Muir  
Thomas E. Muir, Mayor

APPROVED TO FORM:

Hugh Coleman  
Hugh Coleman, City Attorney

## EXHIBIT A

## LEGAL DESCRIPTION

All that certain lot, tract, or parcel of land, being part of the Rueben Bebee Survey, Abstract No. 29, Denton County, Texas, and being all of that tract of land described in a deed to Hien & Duyet Nguyen recorded in Document No. 2016-27020 Real Property Records of Denton, County, Texas (RPRDCT) and all of that tract of land described in a deed to Dualbond Holdings, LLC recorded in Document No. 2016-27021 (RPRDCT) and all of that tract of land described in a deed to Sanger Town Center LLC recorded in Document No. 2017-48301 (RPRDCT), being more completely described as follows, to-wit:

BEGINNING at 1/2" iron rod set for the southeast corner of the Hien & Duyet Nguyen tract and the north right-of-way line of McReynolds Road;

THENCE with the north right-of-way line of McReynolds Road North 87°54'58" West a distance of 1,789.63 feet to a 1/2" iron rod set for the southwest corner of the Hien & Duyet Nguyen tract and the southeast corner of a tract of land described in a deed to Winston Grove Apartments, LLC recorded in Document No. 2018-13037 (RPRDCT);

THENCE North 2°23'22" East a distance of 2,526.23 feet to 1/2" iron rod set for the northeast corner of a tract of land described in a deed to Marion Hills Apartments, LLC recorded in Document No. 2017-92008 (RPRDCT);

THENCE North 88°13'32" West a distance of 1,325.35 feet to a 2" iron rod found for the northwest corner of the Marion Hills Apartments, LLC;

THENCE South 2°25'03" West a distance of 2,504.45 feet to a 1/2" iron rod set for the southwest corner of Lake Ridge Estates, Phase 1 an addition to the City of Sanger recorded in Cabinet V, Page 752 of the Plat Records of Denton County, Texas (PRDCT) and the north right-of-way line of McReynolds Road;

THENCE with the north right-of-way line of McReynolds Road North 87°25'44" West a distance of 612.45 feet to a 1/2" iron rod set for the southwest corner of the Sanger Town Center LLC tract and the east right-of-way line of Indian Lane right-of-way recorded in Document No. 2004-145888 (RPRDCT);

THENCE with the east right-of-way line of Indian Lane as follows:

North 2°15'10" East a distance of 1,935.36 feet to a 1/2" iron rod set for corner;

North 5°39'58" East a distance of 200.32 feet to a 1/2" iron rod set for corner;

North 2°02'56" East a distance of 24.96 feet to the beginning of a curve to the left, having a radius of 550.39 feet, a chord of North 14° 26' 46" West – 313.65 feet, a distance of 318.05 feet to a 1/2" iron rod set for the southwest corner of land described in a deed to Marion Hills Apartments, LLC recorded in Document No. 2017-48293 (RPRDCT);

THENCE with the east line of the Marion Hills Apartments, LLC as follows:

North 56°02'48" East a distance of 658.23 feet to a 1/2" iron rod set for the beginning of a curve to the left, having a radius of 800.00 feet, a chord of North 29° 03' 15" East – 726.20 feet, a distance of 753.77 feet to a 1/2" iron rod set corner;

North 2°03'42" East a distance of 408.45 feet to the beginning of a curve to the left, having a radius of 800.00 feet, a chord of North 05° 18' 19" West – 205.15 feet, a distance of 205.72 feet to a 1/2" iron rod set for the northeast corner of the Marion Hills Apartments, LLC tract;

THENCE with the north line of the Marion Hills Apartments, LLC as follows:

South 78°30'05" West a distance of 64.61 feet to a curve to the right, having a radius of 800.00 feet, a chord of South 85° 33' 17" West – 196.47 feet, a distance of 196.97 feet to a 1/2" iron rod set corner;

Ordinance – #04-11-22



North 87°23'31" West a distance of 565.51 feet to a 1/2" iron rod set for the northwest corner of the Marion Hills Apartments, LLC and the east line of a tract of land described in a deed to Sanger ISD recorded in Volume 1841, Page 662 (RPRDCT);

THENCE with the east line of the Sanger ISD tract North 2°36'29" East a distance of 840.18 feet to a 1/2" iron rod set for the northeast corner of the Sanger ISD tract and the northwest corner of the Sanger Town Center LLC and the south right-of-way line of West Chapman Road;

THENCE with the south right-of-way line of West Chapman Road and the north line of the Sanger Town Center LLC as follows:

South 87°53'26" East a distance of 1,269.90 feet to a 1/2" iron rod set for corner;

South 88°02'57" East a distance of 500.69 feet to a 1/2" iron rod set for corner;

South 87°47'23" East a distance of 2,068.95 feet to a 1/2" iron rod set for the northeast corner of the Dualbond Holdings, LLC Tract and the northwest corner of a tract of land described in a deed to Miller Family Trust recorded in Document No. 94-0089391 (RPRDCT);

THENCE with the west line of the Miller Family Trust tract South 2°58'32" West a distance of 1,272.08 feet to a 1/2" iron rod set for corner;

THENCE South 2°42'07" West a distance of 3,659.25 feet to the place of beginning, containing 326.825 acres, or 14,236,483 square feet of land.

## EXHIBIT B

### 326.825 ACRE LANE RANCH PD SUMMARY

Purpose Statement - To establish a quality master planned multi-phase and multiple product residential and commercial community for the property described by metes and bounds on Exhibit "A" (the "Property") of this PD Ordinance. Development and use of the Property shall

comply with the Sanger Zoning Ordinance as it existed on the date of its adoption on August 3, 1987 and subsequent amended (the "The Zoning Ordinance") and this PD ordinance. In the event of a conflict between the Zoning Ordinance and this PD Ordinance, this PD ordinance shall control.

#### PROPOSED USES

##### Single Family (242.890 Acres)

Approximately 152.38 acres are proposed as single family detached uses, 16.35 acres as single family attached (townhome) and 74.16 acres of open space. The net density is 3.76 units/acre.

##### Business District (83.935 Acres)

Approximately 43.079 acres are proposed as local business and retail, 8.762 acres of assisted living along with 18.469 acres of multi-family and 13.625 acres of open space.

#### COMMUNITY FEATURES

The hardscape within the community shall include entry monuments, screening walls and community signage constructed of brick or stone. Signs shall not be within the sight visibility triangles.

A mandatory homeowners association shall be established to own and maintain the private open spaces, common areas and greenbelts; all private landscape improvements; dog parks and dog waste stations, perimeter masonry and tubular steel fencing; entry monuments and signage. The homeowner's association shall maintain on street parking spaces within a street right-of-way and any parking spaces located within a common area lot. Private trails and sidewalks shall be constructed within a pedestrian access easement and owned and maintained by the HOA.

The 100-year floodplain shall be designated as a public drainage easement within the Public Parkland dedication. Maintenance responsibility shall be identified on the plat using the City of Sanger Standard drainage easement inscription.

**RESIDENTIAL LAND USES**

**I. Lot Sizes, Setbacks, etc. for Single Family Detached.** Except as otherwise provided below, detached single family residences shall comply with Section 53, “R-1” RESIDENTIAL DISTRICT -1 of the Zoning Ordinance, subject to the following changes:

**A. Minimum Lot Width, Depth, and Size.**

The Estate Lots (60’ X 120’):

The minimum lot width shall be 60 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 7,200 square feet.

The Manor Lots (50’ X 120’):

The minimum lot width shall be 50 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 6,000 square feet.

The Garden Lots (40’ X 120’):

The minimum lot width shall be 40 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 4,800 square feet.

**B. Minimum House Size.**

The Estate Lots:

The minimum air-conditioned area within each residence shall be 2,250 square feet.

The Manor Lots:

The minimum air-conditioned area within each residence shall be 1,800 square feet. Over the entire development, the Manor Lots shall average over 2,000 square feet in house size. The Manor Lots shall place a limit of 15% of the total lot count to be below 2,000 square feet.

The Garden Lots:

The minimum air-conditioned area within each residence shall be 1,500 square feet. Over the entire development, the Garden Lots shall average over 1,650 square feet in house size. The Garden Lots shall place a limit of 15% of the total lot count to be below 1,650 square feet.

**C. Maximum Height.**

The maximum building height shall be 2 stories or 35 feet.

D. Front Yard Setback.

The minimum front yard building setback shall be twenty-five feet (25'). Front porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the front yard a maximum of five feet (5').

E. Side Yard Setback.

The minimum side yard building setback shall be five feet (5') on each side. A side yard adjacent to a street on a corner lot shall always have a minimum ten-foot (10') side yard building setback.

F. Rear Yard Setback.

The minimum rear yard building setback shall be twenty feet (20') from the rear facade of the residence (excluding porches and projecting architectural features) to the rear lot line. Porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the rear yard a maximum of five feet (5').

G. Maximum Lot Coverage.

The maximum lot coverage will be 65% for any residential lot.

H. Garages.

An enclosed parking area of at least four hundred square feet shall be provided for a garage (this does not count towards the minimum house size). The face of a garage door must be located at least 20 feet from the street right-of-way line that the garage door faces. The garage door does not have to be behind the street facing façade of the house. Split garage doors with a separate door for each vehicle bay are not required.

I. Design Elements

All residential dwellings will meet the City of Sanger Exterior Façade Design Criteria Manual as adopted on October 7, 2019.

**II. Lot Sizes, Setbacks, etc. for Single Family Attached.** Except as otherwise provided below, attached single family residences shall comply with Section 57, "TH" TOWNHOME RESIDENTIAL DISTRICT of the Zoning Ordinance, subject to the following changes:

A. Minimum Lot Width, Depth, and Size.

The minimum lot width shall be 22 feet. The minimum lot depth shall be 90 feet. The minimum lot size shall be 1,980 square feet.

B. Minimum House Size.

The minimum air-conditioned area within each residence shall be 1,300 square feet.

C. Maximum Height.

The maximum building height shall be 2 stories or 35 feet.

D. Front Yard Setback.

The minimum front yard building setback shall be twenty-five feet (20'). Front porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the front yard a maximum of five feet (5').

E. Side Yard Setback.

The minimum side yard building setback at the end of each building shall be seven- and one-half feet (7.5') on each side creating a 15-foot separation between buildings. A side yard adjacent to a street on a corner lot shall always have a minimum twenty-feet (20') side yard building setback.

F. Rear Yard Setback.

The minimum rear yard setback shall be five feet from the rear facade of the residence to the alley right-of-way.

G. Maximum Lot Coverage.

The maximum lot coverage shall not apply to any townhomes.

H. Parking

Two off-street parking spaces shall be provided per unit and shall not be within the required front yard.

I. Design Elements

All residential dwellings will meet the City of Sanger Exterior Façade Design Criteria Manual as adopted on October 7, 2019.

**III. Lot Sizes, Setbacks, etc. for Multi-Family.** Multi-Family residences shall comply with Section 19, "MF-2" MULTI-FAMILY RESIDENTIAL DISTRICT – 2 of the Zoning Ordinance.

**IV. General Conditions.**

- A. For the purposes of determining compliance with the lot width requirements, lot widths shall be measured at the rear of the required front yard setback as shown on the Final Plats.
- B. Sidewalks may be located outside of the public right-of-way if located within an adjacent open space lot with a pedestrian access easement to provide for meandering sidewalks and trails that may be located within adjacent common area lots or to preserve existing trees along perimeter roads.

**V. Residential Single Family Detached Landscape Requirements.** Except as otherwise provided below, landscape requirements shall comply with Section 48, Landscape Regulations of the Zoning Ordinance, subject to the following changes:

The following requirements apply to single family residential development:

- A. Each single-family residence shall have an irrigation system in the front yard and street corner side yard with a freeze sensor regulator shut off.
- B. Each Home lot shall have a minimum of two shade trees that are at least three inches in caliper planted. The trees shall be planted in the front and rear yard. If the lot fronts or sides onto a common area lot, the front yard requirement may be satisfied with the trees located in the adjacent greenspace. No other front yard or side yard tree planting requirement shall apply.
- C. All required trees shall be selected from a tree list approved during the Detail Plan stage.
- D. Each Home lot shall have a minimum of twelve (12) shrubs placed in the front yard. Individual shrubs shall be a minimum of three (3) gallons in size when planted.

**VI. Multifamily, Townhome and Non-residential Uses Landscape Requirements.**

All landscape requirements shall comply with Sections 48.4 and 48.5, Landscape Regulations of the Zoning Ordinance.

**VII. Parkland/Open Space (83.783 Acres)**

- A. Developer, and its assigns, agree to dedicate approximately 59.7 acres of the total 83.783 acres of floodplain/open space as Public Park property (the "Parkland") to the City of Sanger. Common areas shall include floodplain, ponds, detention areas, and small open spaces as shown on the Preliminary Park Concept Plan. Small Open Spaces shall be connected with sidewalks to be a comprehensive pedestrian system. Common areas will abut a public street right-of-way in at least one location with a sidewalk connection. The Parkland shall be credited toward the Park Land Dedication requirement.
- B. A pedestrian circulation system shall be provided that affords connectivity to the entire community and the perimeter of the Property. The pedestrian circulation system shall include concrete trails that are a minimum of six feet in width. Trails in greenbelts will be constructed of concrete and shall connect with the project sidewalks. The pedestrian circulation system may be located on private property with a pedestrian access easement or within the right-of-way. The pedestrian circulation system shall include such items as benches, landscaping, signage, lighting, bike racks, water fountains, trash cans, and doggie waste stations. These items are represented on the Park Plan.

- C. All interior residential street rights-of-way shall be improved with sidewalks that are a minimum of four feet in width and (1) constructed by the homebuilders at the time of adjacent house construction; or (2) constructed by the developer for all non-buildable lots. All sidewalks along Collector and Arterial Road frontages are to be five feet in width. The pedestrian circulation system will replace the required public sidewalk along Lane Ranch Drive as shown on the Preliminary Park Concept Plan.
- D. Developer, and its assigns, agree to also install additional amenities such as an off-street parking lot, dog park, covered picnic area, playground equipment and fishing docks as shown on the Preliminary Park Concept Plan. The exact number and location of these amenities may change during the final design process. They are generally represented on the Park Plan.
- E. The phasing of the park improvements will coincide with the residential phasing plan and is noted on the overall Preliminary Park Concept Plan.

### **VIII. Fencing Requirements**

- A. The developer shall install a perimeter brick or stone screening wall along Major Collector Streets as shown on the Detail Plan. Floodplain, parks, open spaces, right-of-way shall be exempt from the screening requirements in this Section; however, tubular steel fencing may be installed in these areas at the developer's option.
- B. Homebuilder side yard and back yard fencing on residential lots shall be a maximum of six feet in height and shall be setback a minimum of five feet from the front building line shown on the Detail Plan.
- C. Fencing on all residential lots abutting an open space lot or greenbelt shall be restricted to tubular steel painted black. No solid fencing other than a brick and/or stone masonry courtyard wall under 42 inches shall be permitted abutting an open space lot or greenbelt; however, landscape borders, included trimmed hedges, are permitted.

### **IX. Street Typology**

- A. Standard curbs will be required adjacent to streets abutting all residential lot types unless otherwise approved by the City's engineering department.
- B. Streets fronting open space lots must have standard curbs adjacent to the common area lot. Streets adjacent to common area lots may provide for on-street parking. In addition, the street faces adjacent to open spaces near the flood plain will have a maintenance access location.
- C. Developer shall work with City to determine the location and number of stop signs within the subdivision and speed limits to facilitate traffic calming and maximum the benefit from the pedestrian system.

### **X. Utilities and Equipment**

- A. Electrical and gas utility meters and AC condensers should be unobtrusively located beyond the front or side street facade zone and screened from view from adjacent streets or common open spaces with landscaping or appropriate fencing.
- B. Transformers on individual lots should be screened to minimize visual impact.
- C. Satellite dishes, and solar panels should be located in less conspicuous locations and out of view from adjacent streets or common open spaces when possible.
- D. Antennas should be located inside the building when possible.
- E. Solar panels when visible from the front should be flush with the roof.

#### **XI. Refuse Locations**

- A. Refuse containers should be stored within an enclosed storage area, fenced, or walled to be screened from view from adjacent streets or common open spaces with landscaping can be added.

#### **XII. Home Variety**

- A. Detached home designs with the same or similar facade, materials, or colors should be separated by a minimum of three lots on the same side of the street and should not be located directly across or diagonally across the street from each other.
- B. If a detached home plan is repeated on an adjacent lot, it should be elevated with a different architectural style or two of the following three elevation changes - brick color, roof color, or flipped plan.

### **BUSINESS DISTRICT USES**

Except as otherwise provided below, commercial uses shall comply with Section 23, "B-2" Business District - 2 of the Zoning Ordinance, subject to the following changes:

1. An 18.5-acre multi-family site will be allowed. The base zoning for this tract will be "MF-2" Multi-Family Residential District - 2 at 20 units per gross acre.
2. Self-Storage facilities may be allowed by SUP approval.
3. Boat storage facilities may be allowed by SUP approval.

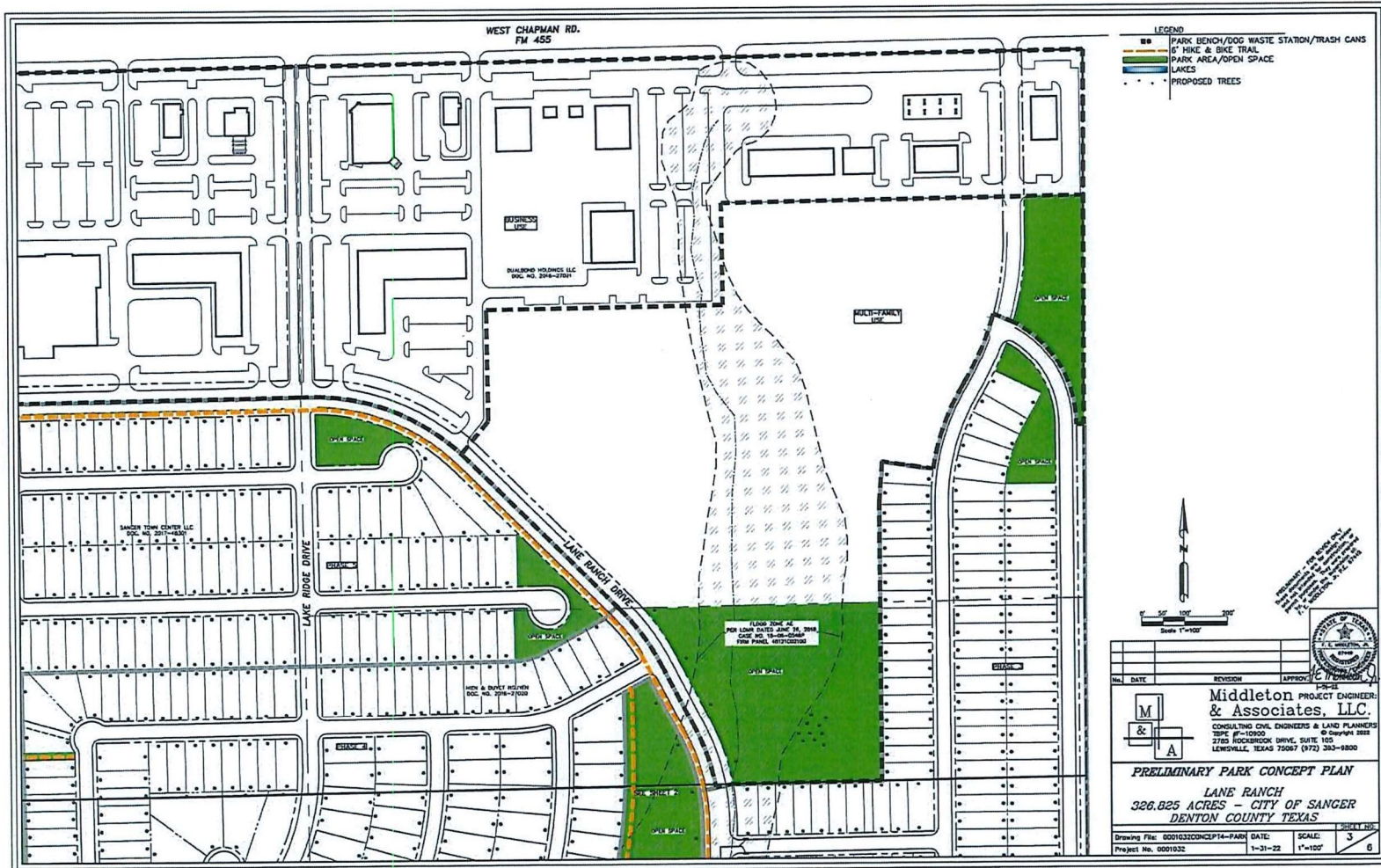


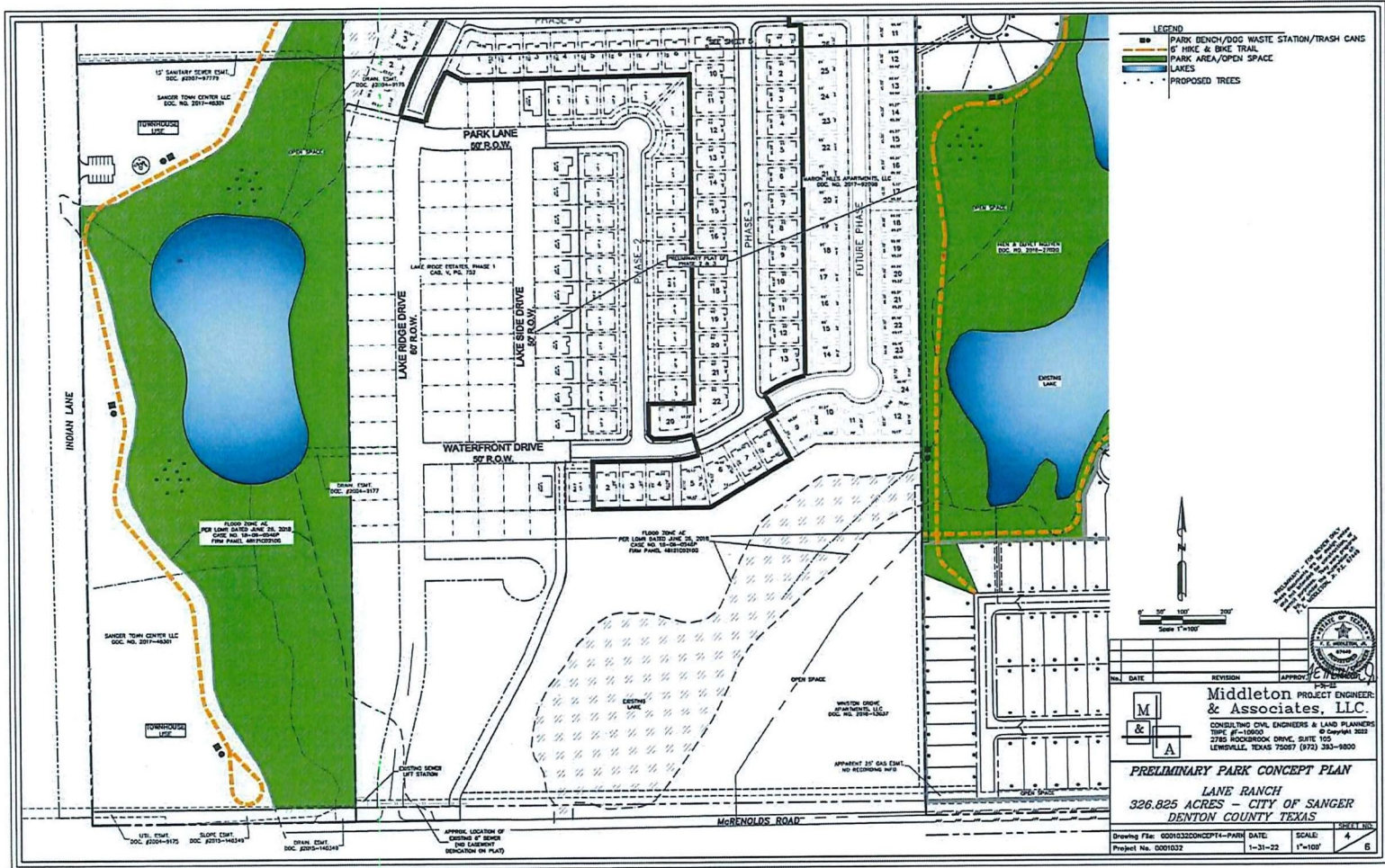
4. The building height for a pitched roof building shall be a maximum of 45 feet.
5. The front, rear and side building setbacks adjacent to any internal street shall be a minimum of 15 feet.
6. Any mechanical equipment including roof top equipment shall be screened from residential districts either by fencing, landscaping or rooftop screening as applicable.











Ordinance - #04-11-22



Ordinance - #04-11-22





EXHIBIT C



# DRC MEDIA COMPANY

**NEWS & ADVERTISING SOLUTIONS**  
One company delivers it all.

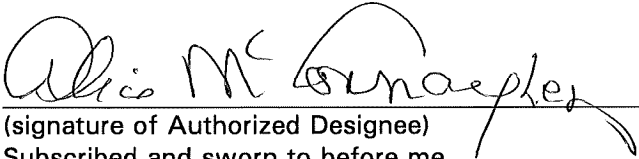
3555 Duchess Drive  
P.O. Box 369  
Denton, TX 76202  
940-387-3811

Publication(s): Denton Record-Chronicle

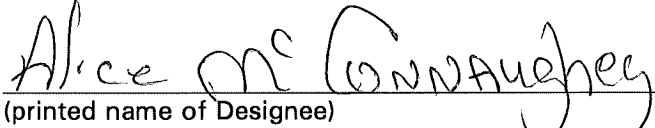
## PROOF OF PUBLICATION

Being duly sworn (s)he is the Publisher/authorized designee of Denton Record-Chronicle, in City of Denton/surrounding areas in Denton County; Newspaper of general circulation which has been continuously and regularly published for a period of not less than one year preceding the date of the attached notice, and that the said notice was published in said newspaper Denton Record-Chronicle on the following dates below:

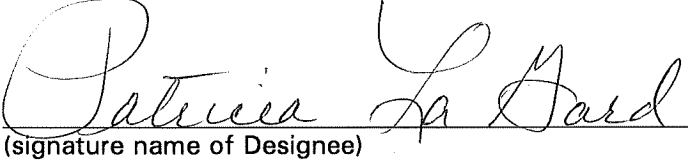
06/10/2022 06/12/2022 06/14/2022

  
\_\_\_\_\_  
(signature of Authorized Designee)

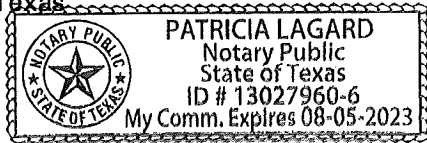
Subscribed and sworn to before me  
this 14th day of June, 2022 by

  
\_\_\_\_\_  
(printed name of Designee)

Witness my hand and official seal:

  
\_\_\_\_\_  
(signature name of Designee)

Notary Public, Denton County, Texas



SANGER CITY OF  
P O BOX 1729  
SANGER TX 76266

**CITY OF SANGER, TEXAS**  
**ORDINANCE No. 04-11-22**

AN ORDINANCE OF THE CITY OF SANGER, DENTON COUNTY, TEXAS, REZONING APPROXIMATELY 326 ACRES OF TRACTS DESCRIBED AS A0029A R. BEEBE, TR 56, 56A, 56B, 60, 61 and 65, FROM "A" AGRICULTURAL TO "PD" PLANNED DEVELOPMENT; PROVIDING FOR THE REPEAL OF ALL ORDINANCES IN CONFLICT; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY OF FINE IN ACCORDANCE WITH SECTION 1.109 OF THE CODE OF ORDINANCE FOR VIOLATIONS; AND PROVIDING FOR AN EFFECTIVE DATE. SECTION 6. Any person, firm or corporation who shall violate any of the provisions of this article shall be guilty of a misdemeanor and upon conviction shall be fined in accordance with the general penalty provision found in The Code of Ordinances, Section 1.109 General Penalty for Violations of Code. DULY PASSED, APPROVED AND ADOPTED by the City Council of the City of Sanger, Texas, on this 9th day of May, 2022.

drc 06/10/2022 & 06/14/2022

Ad Number: 45702

Price: \$56.70

Ad Copy:  
CITY OF SANGER, TEXAS  
ORDINANCE No. 04-11-22

AN ORDINANCE OF THE CITY OF SANGER, DENTON COUNTY, TEXAS, REZONING APPROXIMATELY 326 ACRES OF TRACTS DESCRIBED AS A0029A R. BEEBE, TR 56, 56A, 56B, 60, 61 and 65, FROM "A" AGRICULTURAL TO "PD" PLANNED DEVELOPMENT; PROVIDING FOR THE REPEAL OF ALL ORDINANCES IN CONFLICT; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY OF FINE IN ACCORDANCE WITH SECTION 1.109 OF THE CODE OF ORDINANCE FOR VIOLATIONS; AND PROVIDING FOR AN EFFECTIVE DATE. SECTION 6. Any person, firm or corporation who shall violate any of the provisions of this article shall be guilty of a misdemeanor and upon conviction shall be fined in accordance with the general penalty provision found in The Code of Ordinances, Section 1.109 General Penalty for Violations of Code. DULY PASSED, APPROVED AND ADOPTED by the City Council of the City of Sanger, Texas, on this 9th day of May, 2022.

drc 06/10/2022 & 06/14/2022

# Response Form

23SANZON-0027

Lane Ranch – PD Amendment

In order for your opinion to be counted, please complete and mail this form to:

Development Services Department

Attn: Ramie Hammonds

P.O. Box 1729

Sanger, TX 76266

You may also email a copy to:

Email: [rhammonds@sangertexas.org](mailto:rhammonds@sangertexas.org)

Project No: 23SANZON-0027/ PD Amendment

Please circle one  In favor of request  Opposed to request

Comments:

Signature Eddie Lane

Printed Name EDDIE LANE

Mailing Address 111 W. McKinney

City, State, Zip DENTON TX 76201

Phone Number 940-384-7378

Email Address EDDIELANE@OUTLOOK.COM

Physical Address of Property within 200 feet APPROX 5 AC ON WEST SIDE  
INDIAN LN,

# Response Form

23SANZON-0027

Lane Ranch – PD Amendment

In order for your opinion to be counted, please complete and mail this form to:

**Development Services Department**

**Attn: Ramie Hammonds**

**P.O. Box 1729**

**Sanger, TX 76266**

You may also email a copy to:

Email: [rhammonds@sangertexas.org](mailto:rhammonds@sangertexas.org)

**Project No:** 23SANZON-0027/ PD Amendment

**Please circle one:** In favor of request

Opposed to request

**Comments:**

Signature

*V. Parker Ty Parker*

Printed Name

*Victoria Parker Ty Parker*

Mailing Address

*3015 Lake Ridge Dr.*

City, State, Zip

*Sanger, TX 76266*

Phone Number

*940-395-2140*

Email Address

*wreckemtech98@hotmail.com*

Physical Address of Property within 200 feet

*3015 Lake Ridge Dr.,*

*Sanger, TX 76266*

# Response Form

23SANZON-0027

Lane Ranch – PD Amendment

In order for your opinion to be counted, please complete and mail this form to:

**Development Services Department**  
**Attn: Ramie Hammonds**  
**P.O. Box 1729**  
**Sanger, TX 76266**

You may also email a copy to:

Email: [rhammonds@sangertexas.org](mailto:rhammonds@sangertexas.org)

**Project No:** 23SANZON-0027/ PD Amendment

**Please circle one:** In favor of request      Opposed to request

**Comments:**

FM 455 is not able to handle more traffic. My husband and I bought Sanger Drug in 1967. I realize Sanger is growing. We built our home on FM 455 in 1972. The road is very busy now and this addition would increase the traffic.

Signature Carolyn Mask

Printed Name Carolyn Mask

Mailing Address P.O. Box 804

City, State, Zip Sanger, TX 76266

Phone Number 940-391-8145

Email Address c2mask@embargmail.com

Physical Address of Property within 200 feet 10935 Mesquite Hill Road at 455

# Response Form

23SANZON-0027

Lane Ranch – PD Amendment

In order for your opinion to be counted, please complete and mail this form to:

**Development Services Department**  
**Attn: Ramie Hammonds**  
**P.O. Box 1729**  
**Sanger, TX 76266**

You may also email a copy to:

Email: [rhammonds@sangertexas.org](mailto:rhammonds@sangertexas.org)

**Project No:** 23SANZON-0027/ PD Amendment

**Please circle one:** In favor of request

Opposed to request

**Comments:**

Signature Carrie Sisco

Printed Name Carrie Sisco

Mailing Address P.O. Box 21

City, State, Zip Sanger, TX 76266

Phone Number 940-368-2165

Email Address C-Sisco63@yahoo.com

Physical Address of Property within 200 feet 2124 FM 455