

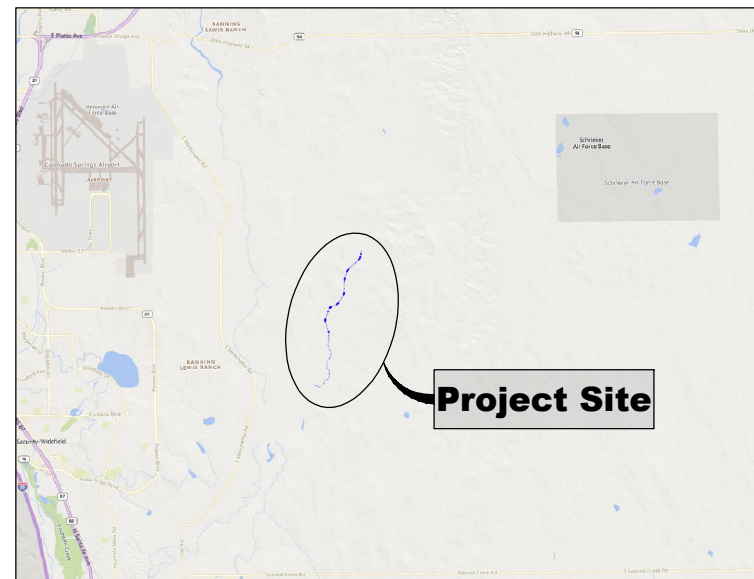


ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION

THE LANDHUIS COMPANY

60% DESIGN PLANS
MARCH 2023

MATRIX PROJECT No. 21.1129.009



VICINITY MAP
N.T.S.

VERTICAL DATUM: THE ELEVATIONS ON THIS PROJECT ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.

HORIZONTAL DATUM: THE COORDINATES FOR THIS PROJECT ARE NAD83/2011 COLORADO STATE PLANE CENTRAL ZONE GRID COORDINATES.

AERIAL PHOTO: PROVIDED BY AERIAL MAPPING SERVICES

BENCHMARK STATEMENT: THE BENCHMARK USED FOR THIS SURVEY IS FIMS MONUMENT NUMBER 202. A U.S. GEOLOGICAL SURVEY BRASS CAP STAMPED '11 HA 1947' IN A CONCRETE PAD, LOCATED ALONG DRENNAN ROAD, APPROXIMATELY 0.5 MILES EAST OF MARKSHEFFEL ROAD, APPROXIMATELY 200 FEET EAST OF A BRIDGE. THE MARK IS 32 FEET NORTH OF THE PAVEMENT, 23 FEET EAST OF A NORTH TO SOUTH FENCE LINE, AND 2 FEET NORTHEAST OF A POWER POLE."

PROPERTY INFORMATION: PARCEL LINES AND PROPERTY OWNERSHIP INFORMATION SHOWN WERE PROVIDED BY AN ALTA SURVEY.



LOCATION MAP
SCALE: 1" = 4,000'

SHEET INDEX

TS01	TITLE SHEET	01
GN01	LEGEND AND GENERAL NOTES	02
EX01-02	EXISTING CONDITIONS MAP	03-04
DR01-02	OVERALL DRAINAGE SHEET	05-06
HZ01-02	HORIZONTAL CONTROL PLAN	07-09
PP01-02	PLAN AND PROFILE OVERVIEW MAP	10-11
PP03-15	PLAN AND PROFILE	12-24
XS01-02	CROSS SECTION OVERVIEW MAP	25-26
XS03-10	CROSS SECTIONS	27-34
RV01-07	REVEGETATION PLAN AND DETAILS	35-41
DT01	TYPICAL DESIGN CHANNEL SECTION	42
DT02-06	TYPICAL GRADE CONTROL DETAILS	43-47

Applicable Specifications (City of Colorado Springs - Drainage Criteria Manual (DCM))			
100	General Provisions	622	Channel Embankment and Backfill
620	Drainage Channels	624	Riprap and Grouted Riprap Channel Construction
621	Channel Excavation	900	Seeding, Fertilizer, Mulching, and Sodding
Applicable Specifications (Mile High Flood District - Urban Storm Drainage Criteria Manual)			
01 71 13	Mobilization	31 23 33	Trenching and Backfill
01 55 26	Traffic Control	31 25 00	Erosion and Sediment Control
01 56 39	Temporary Tree and Plant Protection	31 37 00	Riprap, Boulders, and Bedding
31 11 00	Clearing and Grubbing	32 91 13	Topsoil
31 14 13	Topsoil Stripping and Stockpiling	32 92 19	Seeding
31 23 00	Excavation and Fill	32 93 00	Landscape Planting
31 23 19	Dewatering	32 93 43	Soil Bioengineering or Shoreline Stabilization

REFERENCE DRAWINGS			
Rolling Hills MDDP.spp X-1129-MDG22x34			
No.	DATE	DESCRIPTION REVISIONS	BY
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FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\Design Plans\1129.009-TS01.dwg			
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TITLE SHEET			
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DRAWN BY: EAL	HORIZ. N/A	SHEET 01 OF 47	TS01
CHECKED BY: AJS	VERT. N/A		



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GENERAL NOTES:

1. THE LOCATIONS OF EXISTING ABOVE GROUND AND UNDERGROUND UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR TO CALL FOR UTILITY LOCATOR AT LEAST 3 CALENDAR DAYS BEFORE EARTHWORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL ABOVE GROUND AND UNDERGROUND UTILITIES. IN THE EVENT THAT THE CONTRACTOR UTILITY VERIFICATION RESULTS IN EXISTING STRUCTURES OR UTILITIES BEING IN CONFLICT WITH THE PROPOSED WORK OF THIS CONTRACT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY UTILITIES AND COORDINATE ANY NEEDED MODIFICATIONS TO THE PROPOSED WORK AS DIRECTED BY AFFECTED AGENCY OR UTILITY.
2. THE CONTRACTOR SHALL COORDINATE WITH ALL AFFECTED UTILITY OWNERS TO ESTABLISH THE REQUIREMENTS AND METHODS TO ACCOMMODATE THE PROTECTION, TEMPORARY SUPPORT, ADJUSTMENT OR RELOCATION OF UTILITIES PRIOR TO THE START OF CONSTRUCTION.
3. OVERHEAD UTILITIES ARE NOT INDICATED ON PROFILE OR SECTION DRAWINGS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING AND MAINTAINING IN CONTINUOUS OPERATION, ALL EXISTING STRUCTURES. NOT ALL POTENTIALLY IMPACTED STRUCTURES MAY BE SHOWN ON THE DRAWINGS AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND PROTECT ALL STRUCTURES INCLUDING BUT NOT LIMITED TO STREETS, CURB AND GUTTER, BRIDGE PIERS AND ABUTMENTS, CREEK BANK PROTECTION OF VARIOUS TYPES, CREEK DROP STRUCTURES, SIGNS, PEDESTRIAN WALKS, RETAINING WALLS AND FENCING. IN THE EVENT THAT A STRUCTURE OR UTILITY IS DAMAGED DURING CONSTRUCTION THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER OF THE FACILITY IN WRITING AND COORDINATE AND COOPERATE WITH NEEDED REPAIRS PER THE APPROPRIATE SPECIFICATIONS ACCORDING TO THE OWNER'S DIRECTION.
5. THE CONTRACTOR SHALL CONFIRM THE RECEIPT OF ALL NECESSARY PERMITS AND APPROVALS BEFORE THE START OF CONSTRUCTION.
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS OF THE CITY OF COLORADO SPRINGS, EL PASO COUNTY, AND THE MILE HIGH FLOOD DISTRICT, AS NOTED, UNLESS SPECIFICALLY DETAILED OTHERWISE ON THESE PLANS AND ASSOCIATED SPECIFICATIONS.
7. THE CONTRACTOR SHALL MAINTAIN AT THE SITE AT ALL TIMES ONE SIGNED COPY OF THE PROJECT DRAWINGS AND SPECIFICATIONS, ONE COPY OF THE STORMWATER MANAGEMENT PLAN AND ONE COPY OF ALL REQUIRED PERMITS.
8. THE CONTRACTOR SHALL CONDUCT THEIR OPERATIONS IN SUCH A WAY THAT THE AREA OF DISTURBANCE IS MINIMIZED. ALL EXISTING TREES, SHRUBS AND VEGETATION SHALL BE PROTECTED UNLESS OTHERWISE NOTED ON THE DRAWINGS. NO TREES SHALL BE REMOVED WITHOUT APPROVAL. DESIGNATED ACCESS SHALL BE MINIMAL AND AGREED UPON WITH THE ENGINEER PRIOR TO CONSTRUCTION ACTIVITIES.
9. FOR ALL SITE GRADING, SMOOTH, PARABOLIC TRANSITIONS SHALL BE MADE BETWEEN CHANGES IN SLOPE.
10. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING STABLE EXCAVATIONS AND TEMPORARY SLOPES AND FOR SATISFYING ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS. THIS INCLUDES BUT IS NOT LIMITED TO BENCHING, SHORING, AND SLOPING AS NEEDED FOR CONSTRUCTION.
11. CONSTRUCTION OF THE PROPOSED WORK WILL TAKE PLACE WITHIN THE CHANNEL AND WATER CONTROL MEASURES WILL BE REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCEPTANCE AND CONTROL OF DRAINAGE WATER FROM AREAS ADJACENT TO EAST FORK JIMMY CAMP CREEK AND FOR FLOW WITHIN EAST FORK JIMMY CAMP CREEK AND ITS TRIBUTARIES INCLUDING STORMWATER OUTFALLS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ESTABLISHING MEANS AND METHODS OF GROUND AND SURFACE WATER CONTROL APPROPRIATE FOR CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT DRAWINGS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS AND PERMITS.
12. THE CONTRACTOR SHALL PREPARE AND MAINTAIN THE STORMWATER MANAGEMENT PLAN AND OBTAIN THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THROUGH THE COLORADO DEPARTMENT OF PUBLIC HEALTH (CDPHE) AND ALL OTHER APPROPRIATE FEDERAL, STATE AND LOCAL PERMITS. ADDITIONAL INFORMATION IS PROVIDED ON THE GRADING AND EROSION CONTROL PLANS.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR AS-BUILT DRAWINGS TO BE MAINTAINED AND SUBMITTED TO THE CITY OF COLORADO SPRINGS AND EL PASO COUNTY.
14. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ON-SITE SURVEY CONTROL AND CONSTRUCTION STAKING.
15. CONTRACTOR SHALL FENCE OFF CRITICAL AREAS TO BE PROTECTED AT THE DISCRETION OF THE CITY OF COLORADO SPRINGS AND EL PASO COUNTY.
16. THE CONTRACTOR SHALL DEVELOP A TRAFFIC CONTROL PLAN FOR PLANNED ACCESS TO THE SITE AND FOR EXITING AND ENTERING PUBLIC ROADS.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND MAINTAINING PHYSICAL AND LEGAL ACCESS TO THE PROJECT SITE AND SHALL LIMIT TRANSPORTATION TO AND FROM THE SITE TO THOSE APPROVED BY THE CITY OF COLORADO SPRINGS AND EL PASO COUNTY.
18. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT AND MANAGE SPILLS OF TOXIC MATERIALS, SUCH AS EQUIPMENT FUELS
19. ALL MATERIALS USED SHALL BE NEW AND WITHOUT FLAWS OR DEFECTS OF ANY TYPE AND SHALL BE THE BEST OF THEIR CLASS AND KIND.
20. WORK INCLUDES FURNISHING OF LABOR, MATERIALS, TOOLS, AND EQUIPMENT TO COMPLETE THE CONSTRUCTION OF ALL ELEMENTS OF THE DESIGN PLANS.

ABBREVIATIONS

CL	CENTER LINE	APPROX.	APPROXIMATE
HCL	HORIZONTAL CONTROL LINE	MIN.	MINIMUM
DIA	DIAMETER	MAX.	MAXIMUM
EX./EXIST	EXISTING	HORIZ	HORIZONTAL
PR./PROP	PROPOSED	VERT.	VERTICAL
EL./ELEV	ELEVATION	DIST.	DISTANCE
FT.	FEET	NTS	NOT TO SCALE
INV.	INVERT	TYP	TYPICAL
LF	LINEAR FEET	O.C.	ON CENTER
LT	LEFT	L.O.C.	LIMITS OF CONSTRUCTION
N,S,E,W	NORTH, SOUTH, EAST, WEST	RR	RAILROAD
P	PROPERTY LINE	BCL	BANKFULL CONTROL LINE
ROW	RIGHT-OF-WAY	TCL	THALWEG CONTROL LINE
RT	RIGHT	BLR	BANNING LEWIS RANCH
SF	SQUARE FEET		
STA.	STATION		

STANDARD SYMBOLS

	CENTER LINE
	PROPERTY LINE
	EXISTING CONTOURS: 2' AND 10' INTERVALS UNLESS OTHERWISE NOTED
	PROPOSED CONTOURS: 2' AND 10' INTERVALS UNLESS OTHERWISE NOTED
	LIMITS OF DISTURBANCE
	CONSTRUCTION ACCESS
	R.O.W.
	EASEMENT
	FENCE

LEGEND

	PROPOSED SOIL RIPRAP
	PROPOSED SOIL RIPRAP - BURIED WITH TOPSOIL & REVEGETATION
	PROPOSED SCULPTED CONCRETE DROP STRUCTURE
	PROPOSED COUNTY ACCESS ROAD
	PR. 100-YR FLOODPLAIN BOUNDARY (3,600 OR 4,400 CFS)

REFERENCE DRAWINGS			
No.	DATE	DESCRIPTION	BY
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60% DESIGN PLANS

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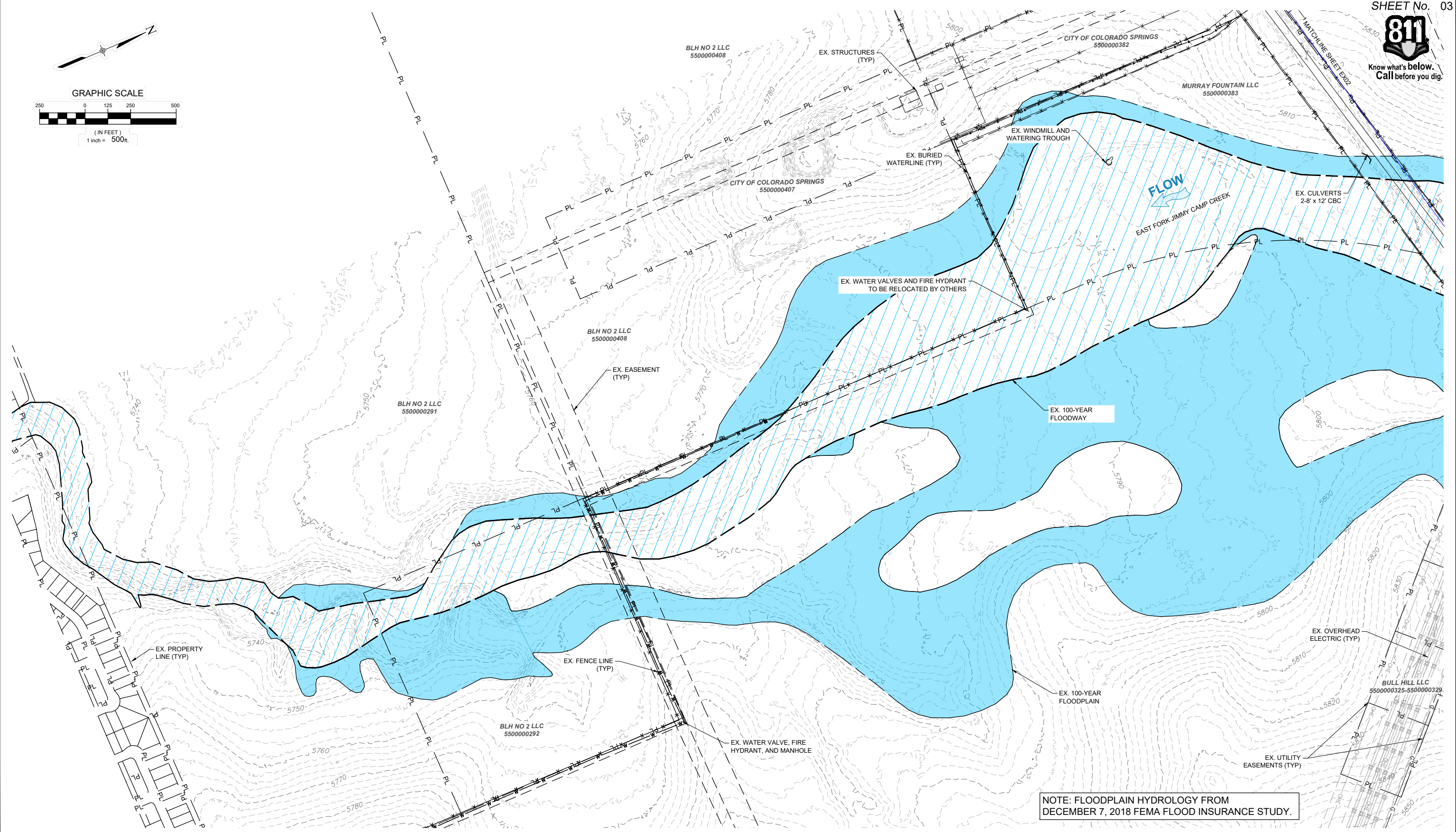
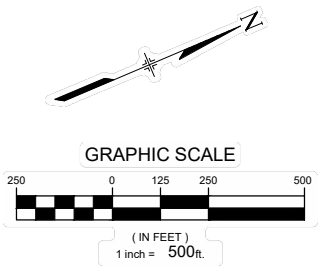
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CHECKED BY: AJS	VERT. N/A	SHEET 02 OF 47	

THE LANDHUIS COMPANY
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION
60% DESIGN PLANS

GENERAL NOTES



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NOTE: FLOODPLAIN HYDROLOGY FROM DECEMBER 7, 2018 FEMA FLOOD INSURANCE STUDY.

REFERENCE DRAWINGS			
X-1129-MDG22x34			
X-1129-009-AERIAL			
X-1129-009-EX FLOODPLAIN			
X-1129-PARCELS			
X-1129-UTILITIES			
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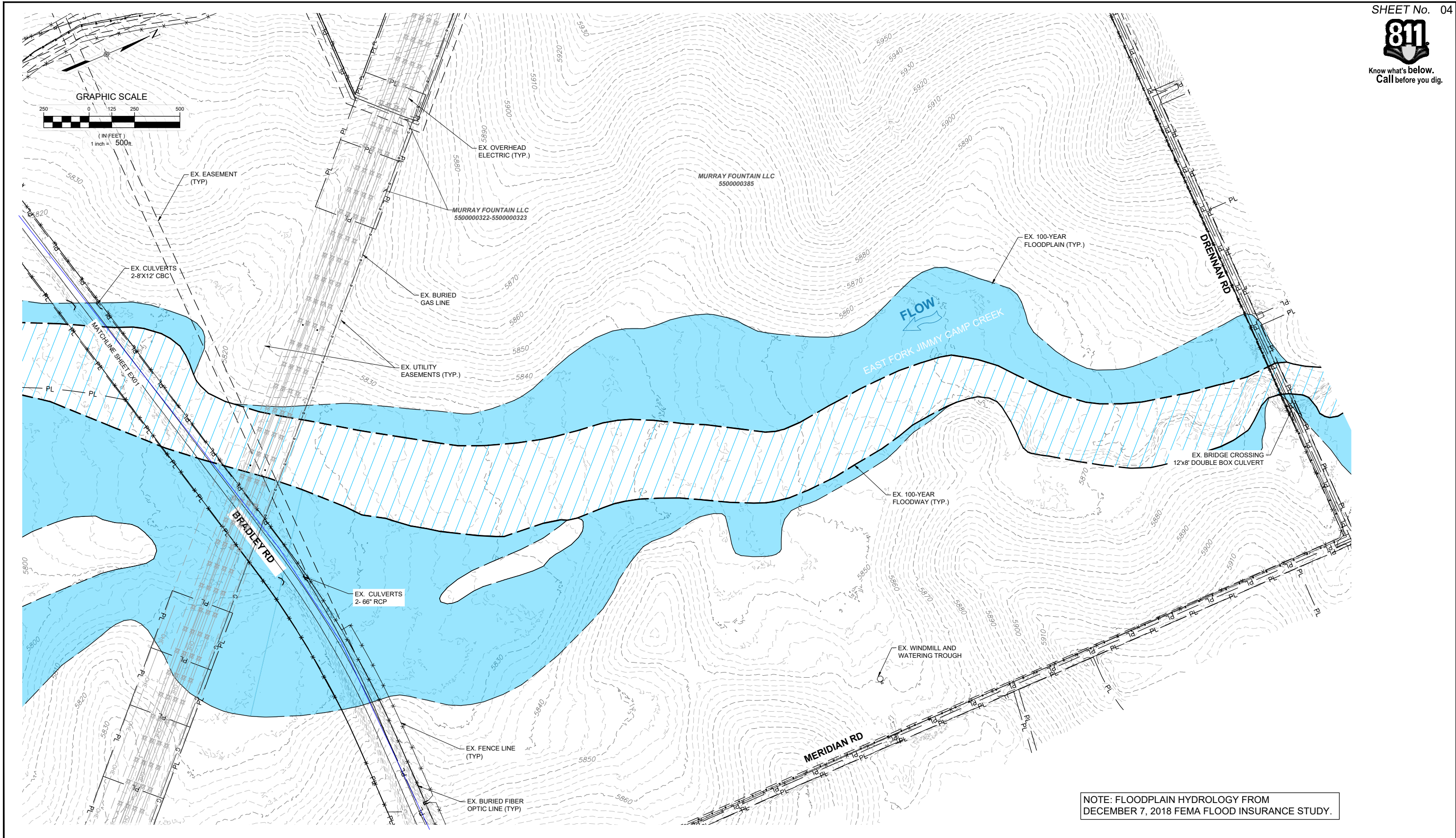
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EXISTING CONDITIONS - LOWER REACH			
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REFERENCE DRAWINGS			
X-1129-MDG2234			
X-1129-009-AERIAL			
X-1129-008-EX FLOODPLAIN			
X-1129-PARCELS			
X-1129-UTILITIES			
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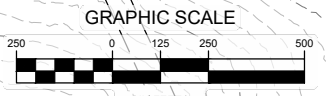
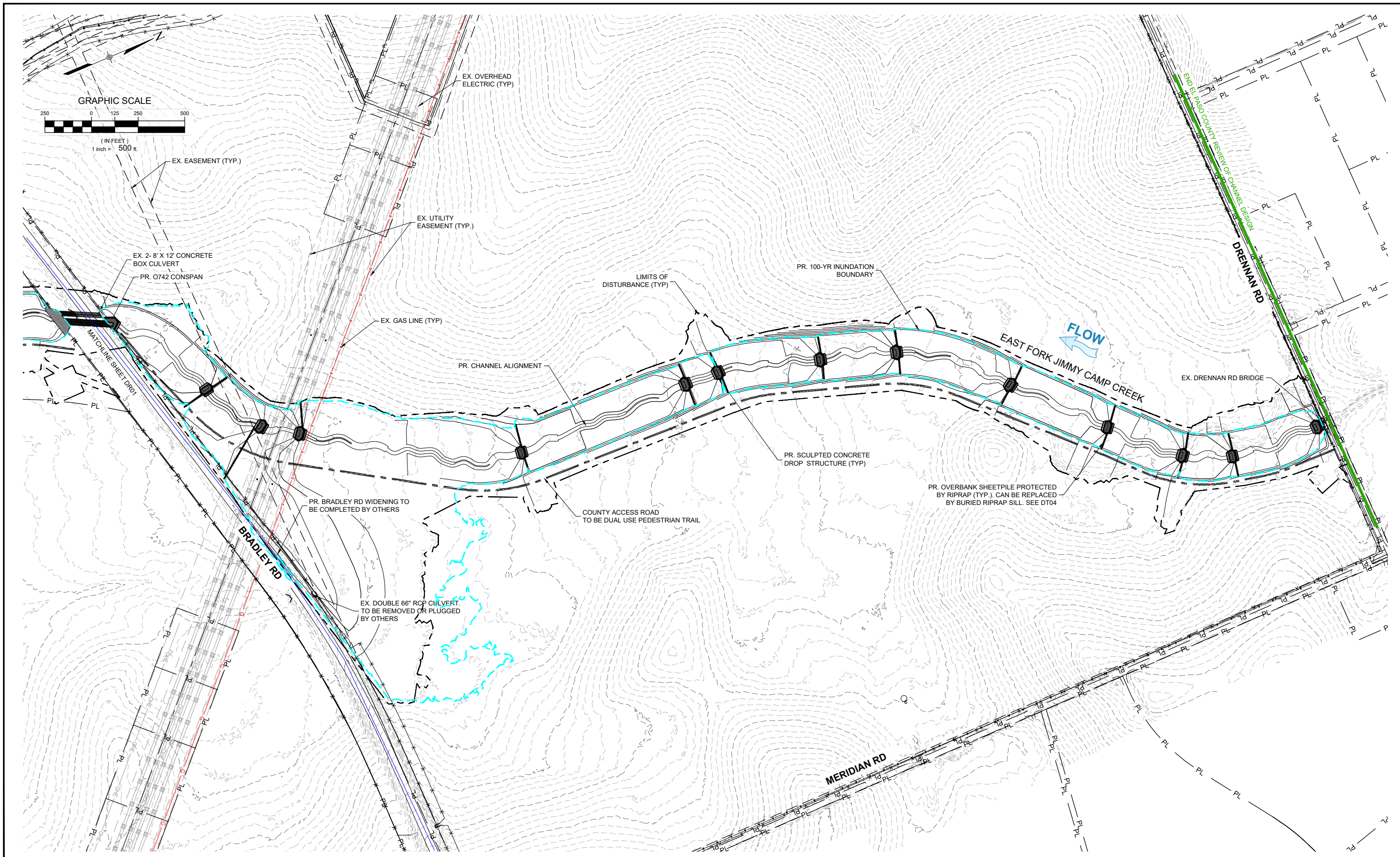
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EXISTING CONDITIONS - UPPER REACH			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 500'	DATE ISSUED: MARCH 2023	DRAWING No. EX02
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FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 21.1129.009



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No.	DATE	DESCRIPTION	BY
X-1129-009-AERIAL X-1129-MDG22x34 X-1129-PARCELS X-1129-009-EX-TOPO X-1129-PR STRUCT X-1129-UTILITIES 42153-CONTROL			
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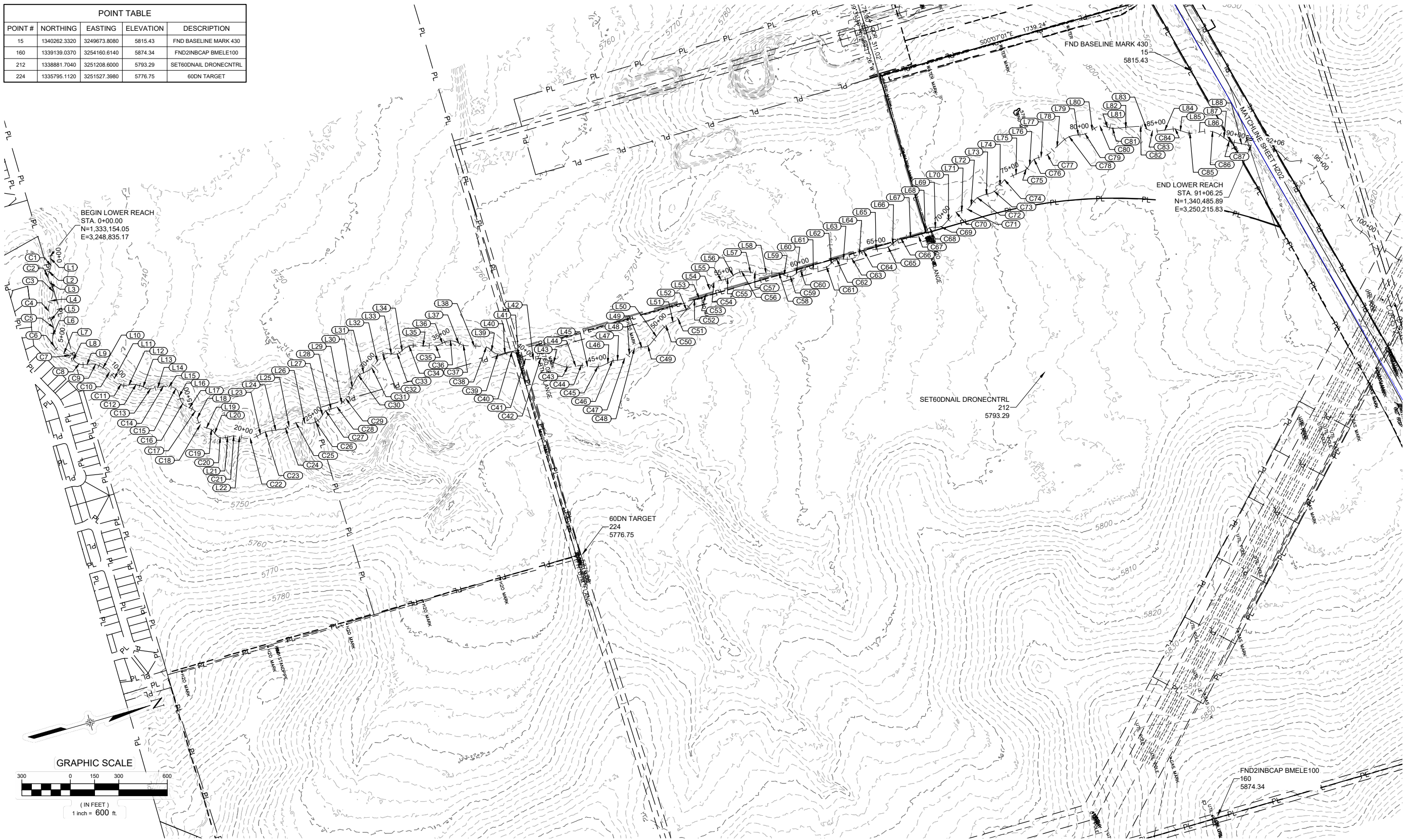
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OVERALL DRAINAGE PLAN - UPPER REACH			
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FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009



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POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
15	1340262.3320	3249673.8080	5815.43	FND BASELINE MARK 430
160	1339139.0370	3254160.6140	5874.34	FND2INBCAP BMELE100
212	1338881.7040	3251208.6000	5793.29	SET60DNAIL DRONECNTRL
224	1335795.1120	3251527.3980	5776.75	60DN TARGET



REFERENCE DRAWINGS	No.	DATE	DESCRIPTION REVISIONS	BY
X-1129-MDG22x34				
X-1129-PARCELS				
X-1129-FIELD				
X-1129-UTILITIES				
X-1129-CONTROL PTS				
X-1129-CONTROL PTS, 1-24-2023				

COMPUTER FILE MANAGEMENT
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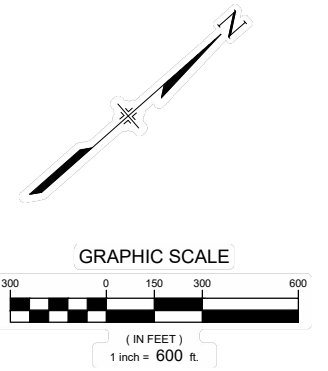
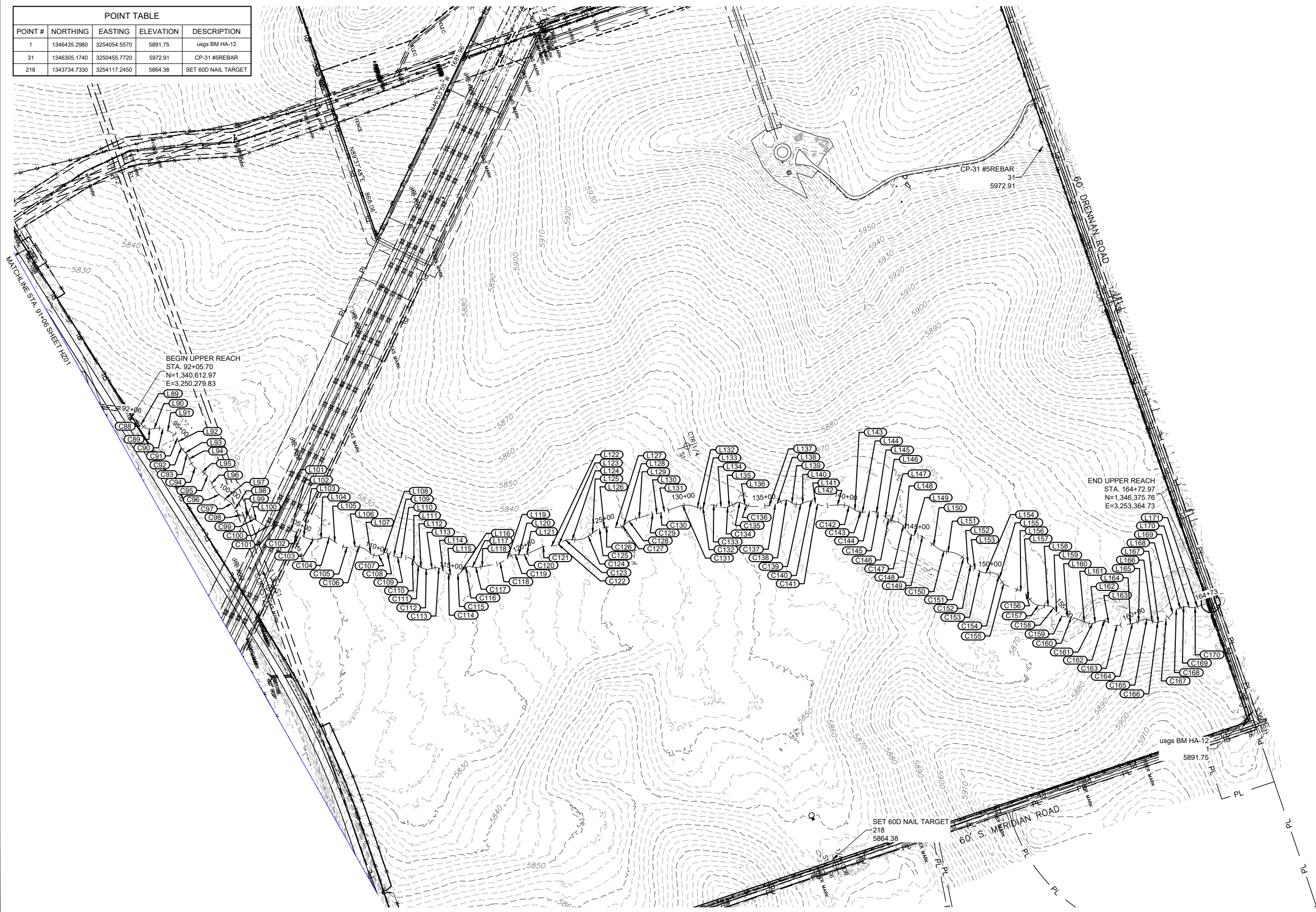
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 PROJECT No. 21.1129.009

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HORIZONTAL CONTROL PLAN - LOWER REACH			
DESIGNED BY: TKM	SCALE: 1" = 600'	DATE ISSUED: MARCH 2023	DRAWING No. HZ01
CHECKED BY: AJS	HORIZ: 1" = 600'	SHEET: 07 OF 47	
	VERT: N/A		



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POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1346435.2980	3254054.5570	5891.75	usgs BM HA-12
31	1346305.1740	3250455.7720	5972.91	CP-31 #5REBAR
218	1343734.7330	3254117.2450	5864.38	SET 60D NAIL TARGET



REFERENCE DRAWINGS	DATE	DESCRIPTION	BY
X-1129-MDG22x34			
X-1129-PARCELS			
X-1129-FIELD			
X-1129-UTILITIES			
X-1129-CONTROL PTS			
X-1129-CONTROL PTS_1-24-2023			

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FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

DESIGNED BY: TKM
DRAWN BY: EAL
CHECKED BY: AJS

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VERT. N/ADATE ISSUED: MARCH 2023
SHEET: 08 OF 47

DRAWING No. HZ02

THE LANDHUIS COMPANY
ROLLING HILLS CHANNEL AND FLOODPLAIN MODIFICATIONS
60% DESIGN PLANS
HORIZONTAL CONTROL PLAN - UPPER REACH



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LOWER SECTION

LINE TABLE with columns: LINE #, BEARING, DISTANCE. Rows L1 to L25.

LINE TABLE with columns: LINE #, BEARING, DISTANCE. Rows L26 to L50.

LINE TABLE with columns: LINE #, BEARING, DISTANCE. Rows L51 to L75.

LINE TABLE with columns: LINE #, BEARING, DISTANCE. Rows L76 to L88.

CURVE TABLE with columns: CURVE #, ARC LENGTH, RADIUS, DELTA ANGLE. Rows C1 to C25.

CURVE TABLE with columns: CURVE #, ARC LENGTH, RADIUS, DELTA ANGLE. Rows C26 to C50.

CURVE TABLE with columns: CURVE #, ARC LENGTH, RADIUS, DELTA ANGLE. Rows C51 to C75.

CURVE TABLE with columns: CURVE #, ARC LENGTH, RADIUS, DELTA ANGLE. Rows C76 to C87.

UPPER SECTION

LINE TABLE with columns: LINE #, BEARING, DISTANCE. Rows L89 to L113.

LINE TABLE with columns: LINE #, BEARING, DISTANCE. Rows L114 to L138.

LINE TABLE with columns: LINE #, BEARING, DISTANCE. Rows L139 to L163.

LINE TABLE with columns: LINE #, BEARING, DISTANCE. Rows L164 to L171.

CURVE TABLE with columns: CURVE #, ARC LENGTH, RADIUS, DELTA ANGLE. Rows C88 to C112.

CURVE TABLE with columns: CURVE #, ARC LENGTH, RADIUS, DELTA ANGLE. Rows C113 to C137.

CURVE TABLE with columns: CURVE #, ARC LENGTH, RADIUS, DELTA ANGLE. Rows C138 to C162.

CURVE TABLE with columns: CURVE #, ARC LENGTH, RADIUS, DELTA ANGLE. Rows C163 to C170.

REFERENCE DRAWINGS table with columns: No., DATE, DESCRIPTION, REVISIONS, BY.

60% DESIGN PLANS

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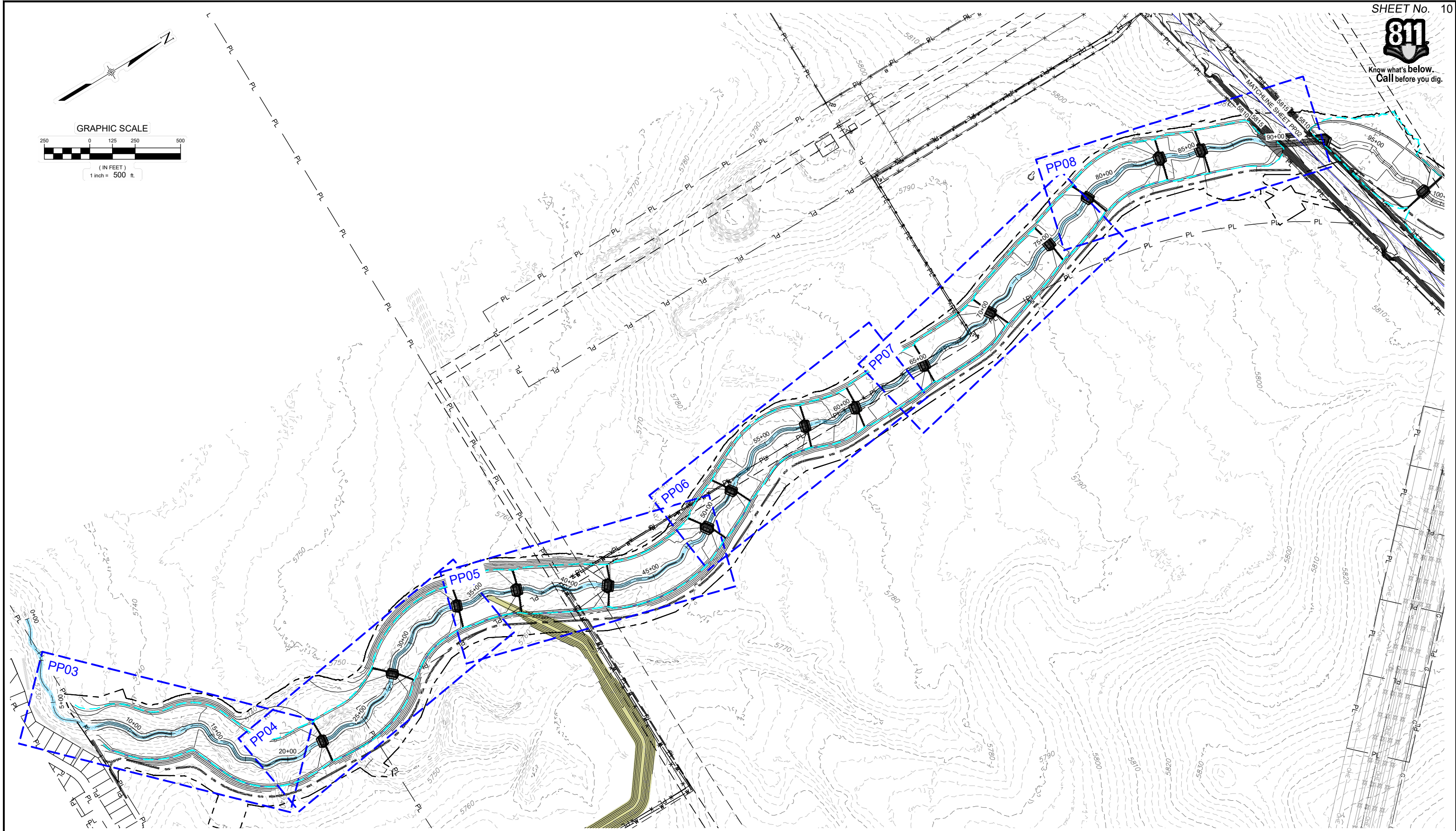
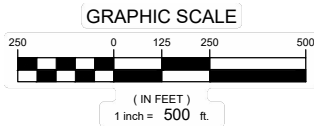
THE LANDHUIS COMPANY ROLLING HILLS CHANNEL AND FLOODPLAIN MODIFICATIONS 60% DESIGN PLANS

HORIZONTAL CONTROL PLAN - LOWER REACH

Table with columns: DESIGNED BY, CHECKED BY, SCALE, DATE ISSUED, DRAWING No.



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REFERENCE DRAWINGS			
X-1129-PARCELS			
X-1129-PR STRUCT			
X-1129-UTILITIES			
X-1129-MDQ22x34			
No.	DATE	DESCRIPTION REVISIONS	BY
COMPUTER FILE MANAGEMENT			
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PLOT DATE: March 7, 2023 11:57:48 AM			
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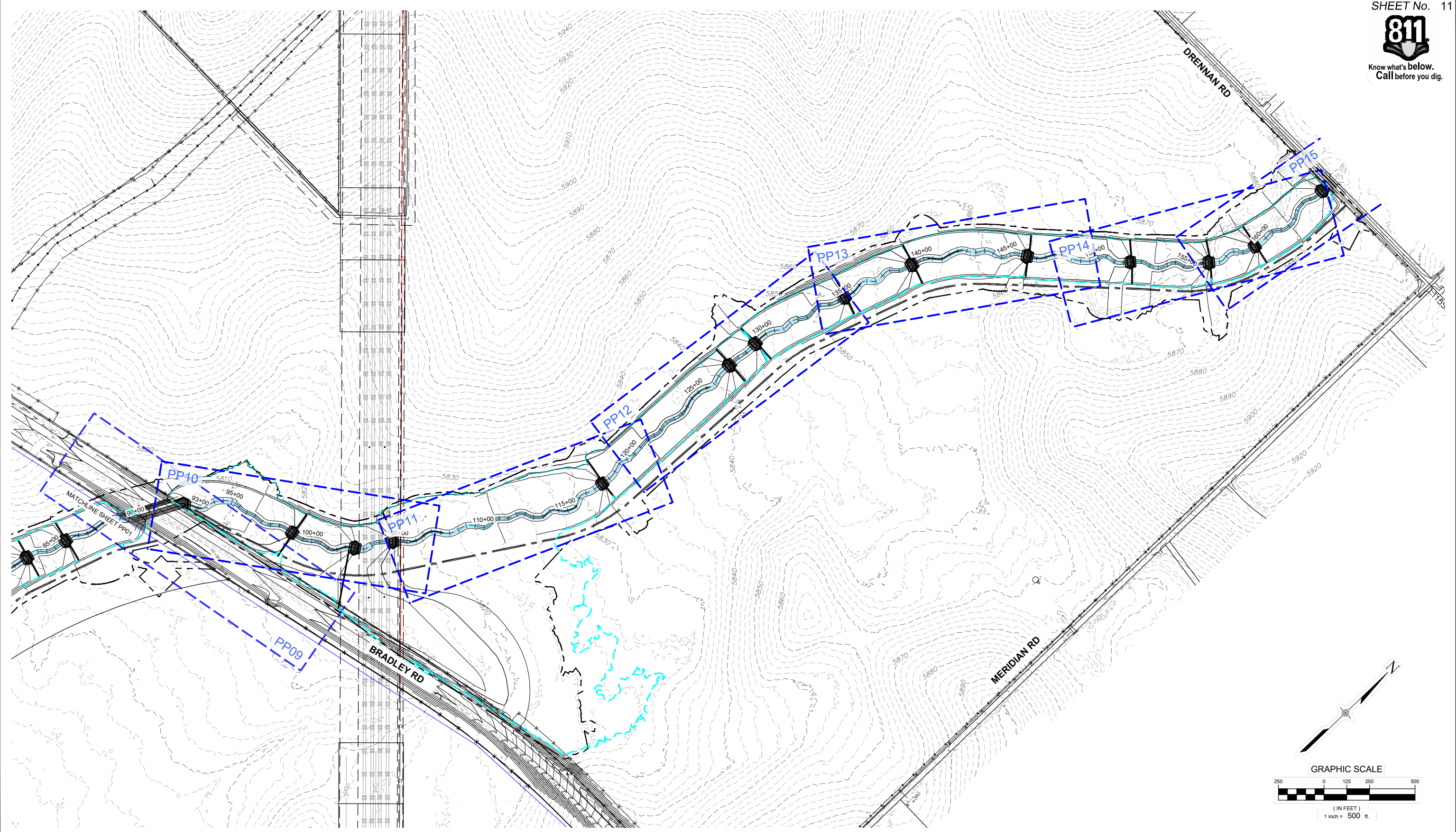


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SEAL			
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THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
PLAN AND PROFILE OVERVIEW - LOWER REACH			
FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 21.1129.009	DESIGNED BY: TKM DRAWN BY: EAL CHECKED BY: AJS	SCALE HORIZ. 1" = 500' VERT. N/A	DATE ISSUED: MARCH 2023 SHEET 10 OF 47 DRAWING No. PP01



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REFERENCE DRAWINGS			
No.	DATE	DESCRIPTION REVISIONS	BY
X-1129-UTILITIES			
X-1129-PARCELS			
X-1129-PR STRUCT			
X-1129-MD22234			
COMPUTER FILE MANAGEMENT			
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PLOT DATE: March 7, 2023 12:13:59 PM			
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THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
PLAN AND PROFILE OVERVIEW - UPPER REACH			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 500'	DATE ISSUED: MARCH 2023	DRAWING No. PP02
CHECKED BY: AJS	VERT. N/A	SHEET 11 OF 47	

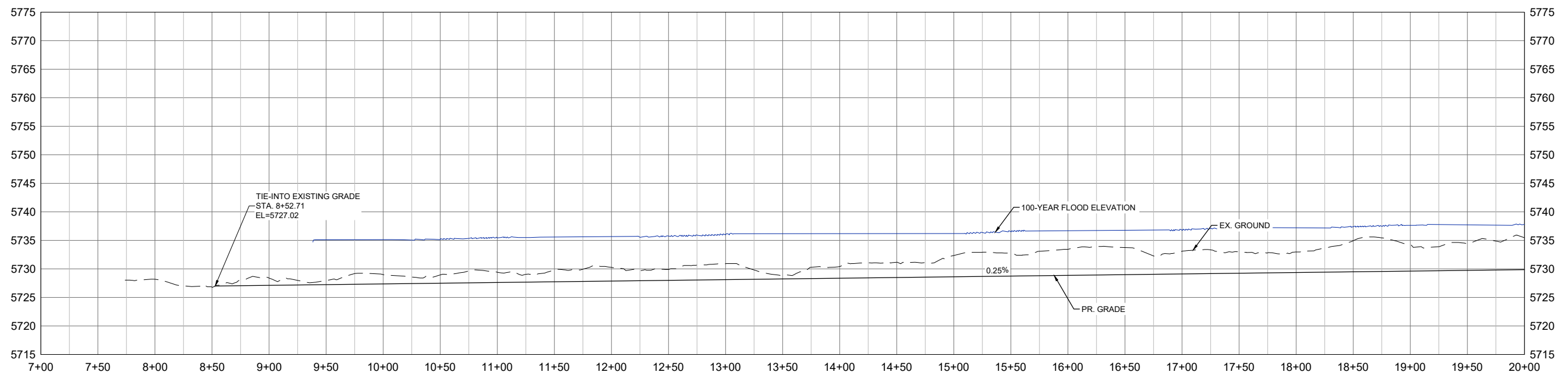
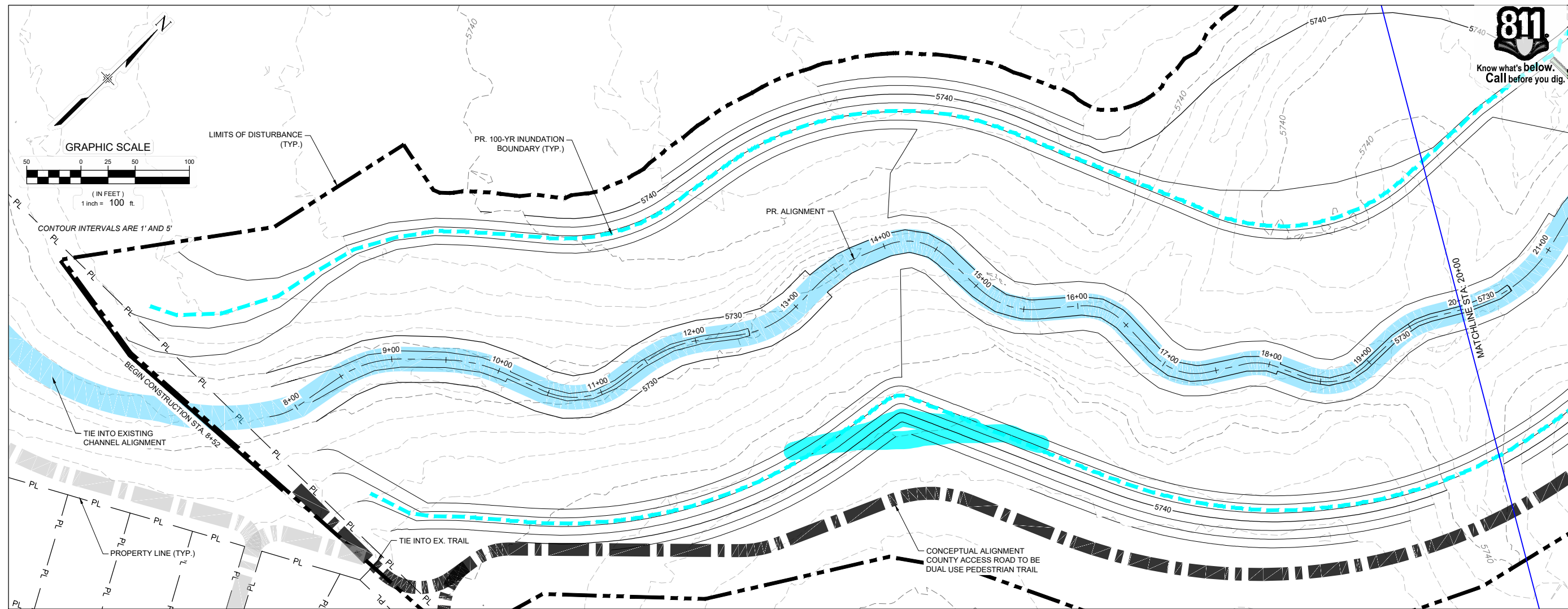
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FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009



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FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Design Plans\1129.009-PP01-08 DS Alignment_60%.dwg			
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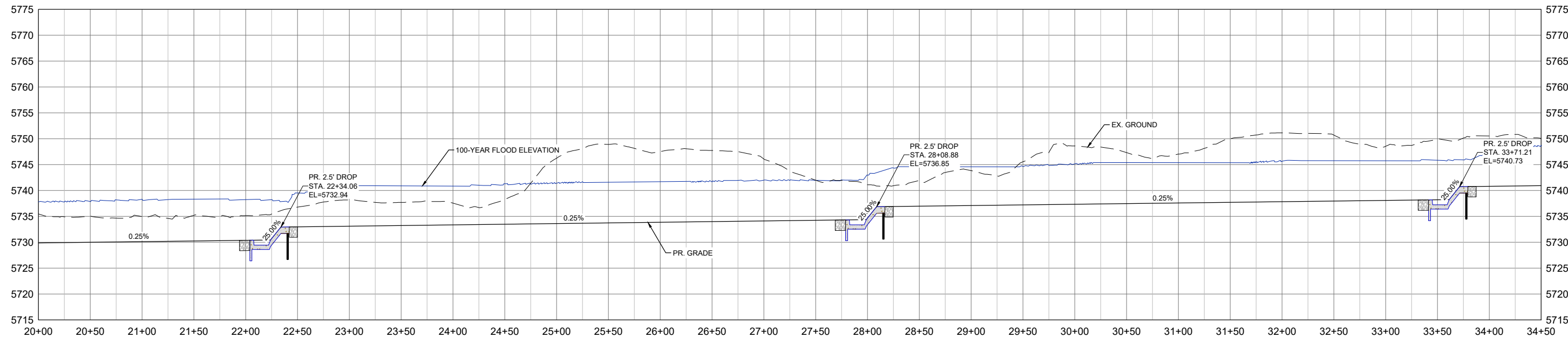
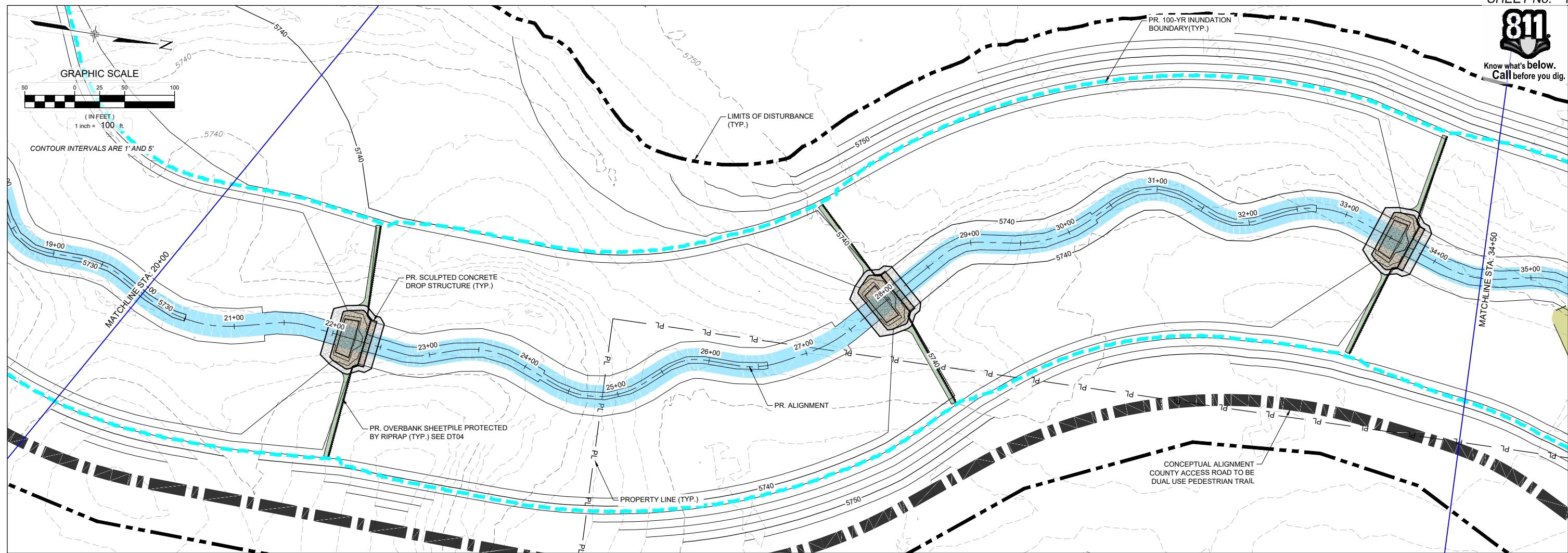
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THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
PLAN AND PROFILE STA. 5+00 - 20+00			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 100'	DATE ISSUED: MARCH 2023	DRAWING No. PP03
CHECKED BY: AJS	VERT. 1" = 20'	SHEET 12 OF 47	



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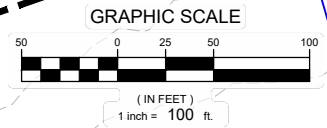
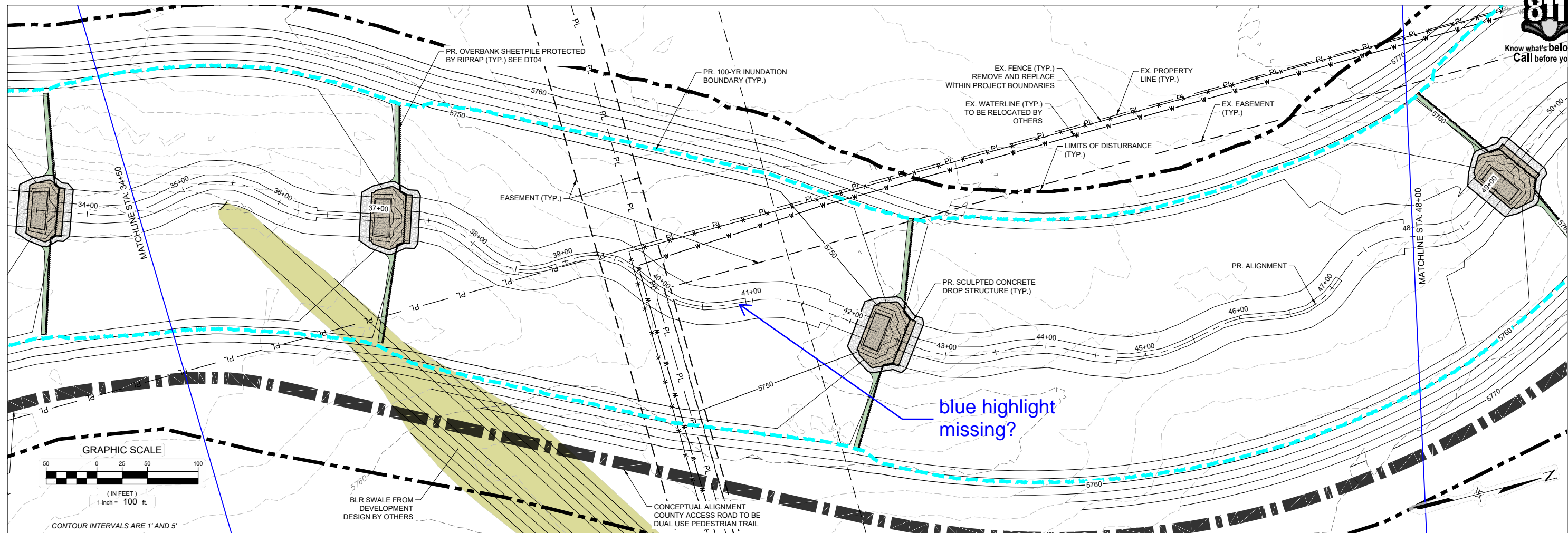
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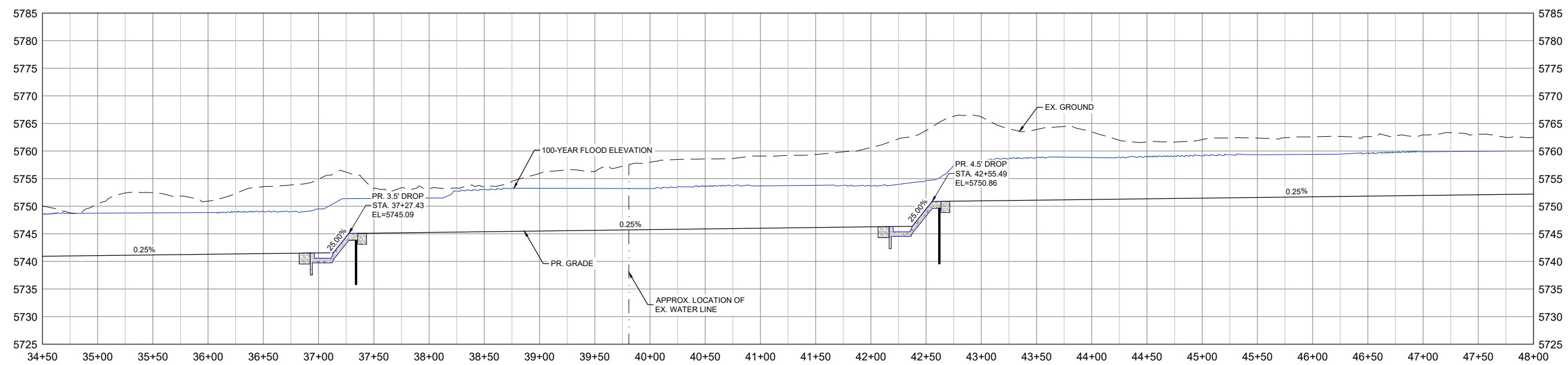
THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
PLAN AND PROFILE STA. 20+00 - 34+50			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 100'	DATE ISSUED: MARCH 2023	DRAWING No. PP04
CHECKED BY: EAL	VERT. 1" = 20'	SHEET 13 OF 47	



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CONTOUR INTERVALS ARE 1' AND 5'



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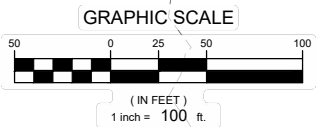


PREPARED BY:

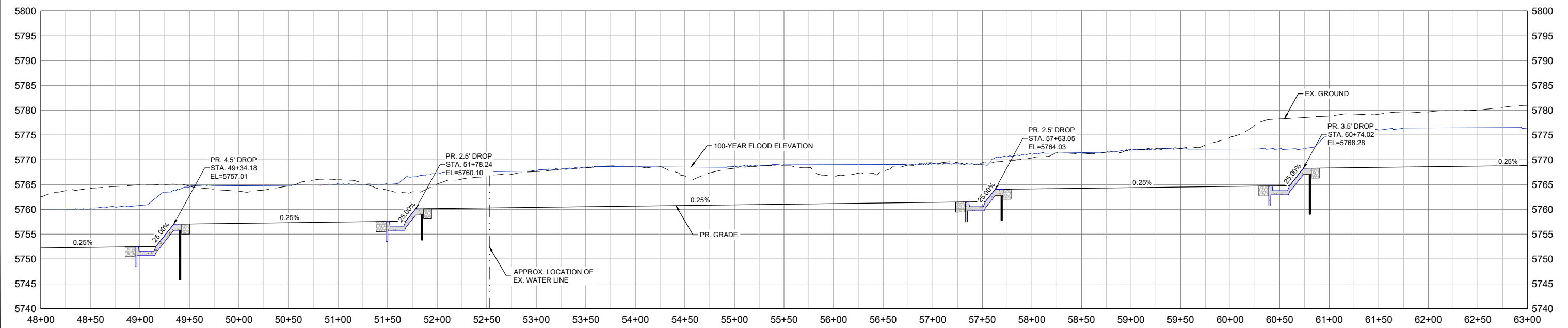
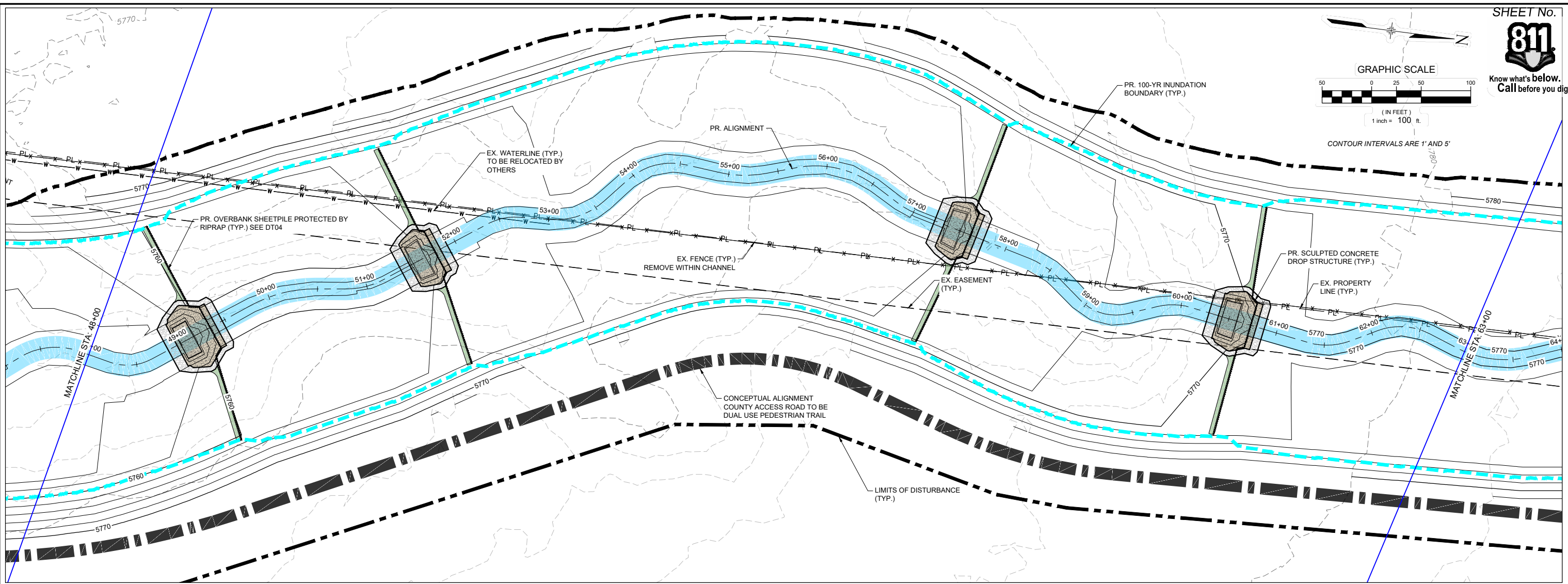
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THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
PLAN AND PROFILE STA. 34+50 - 48+00			
DESIGNED BY:	TKM	SCALE:	DATE ISSUED:
CHECKED BY:	EAL	HORIZ 1" = 100'	MARCH 2023
	AJS	VERT. 1" = 20'	SHEET 14 OF 47
FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 21.1129.009			DRAWING No. PP05



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CONTOUR INTERVALS ARE 1' AND 5'



REFERENCE DRAWINGS			
X-1129-PARCELS			
X-1129-PR STRUCT			
X-1129-UTILITIES			
X-1129-MD02234			
No.	DATE	DESCRIPTION REVISIONS	BY
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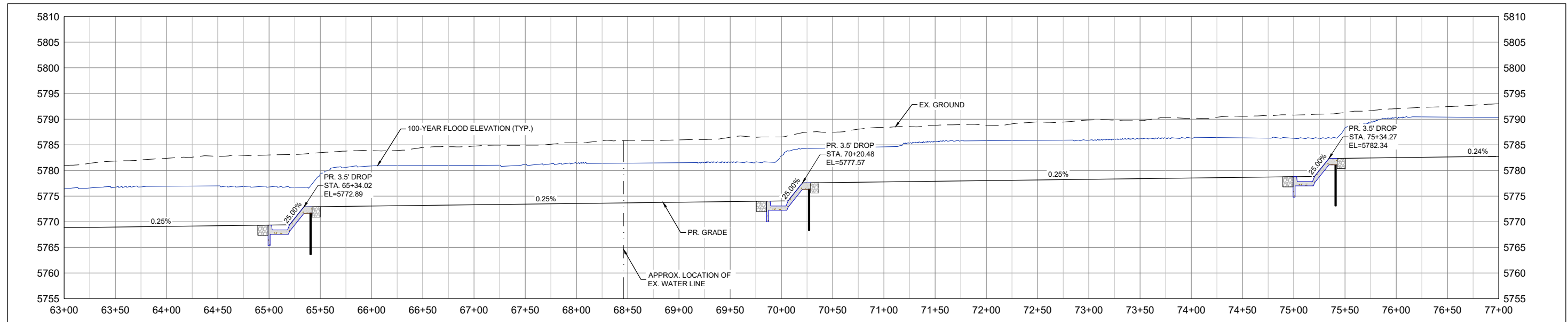
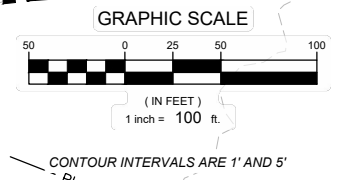
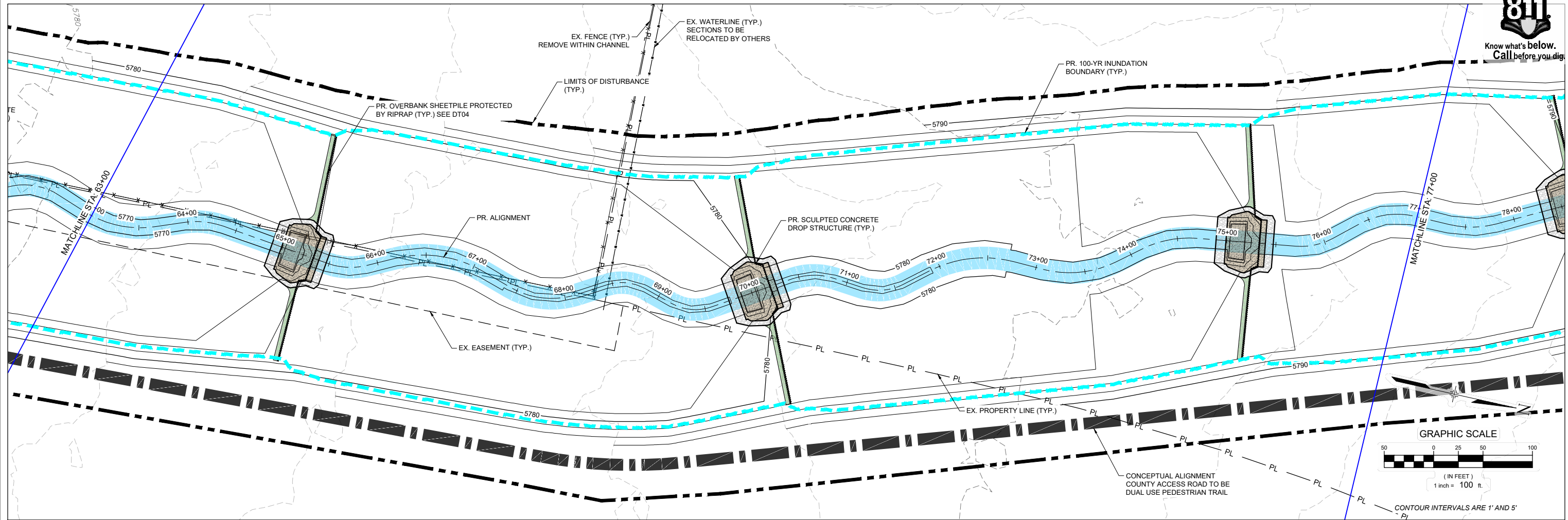
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THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION			
60% DESIGN PLANS			
PLAN AND PROFILE			
STA. 48+00 - 63+00			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 100'	DATE ISSUED: MARCH 2023	DRAWING No. PP06
CHECKED BY: AJS	VERT. 1" = 20'	SHEET 15 OF 47	



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THE LANDHUIS COMPANY

ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION
 60% DESIGN PLANS

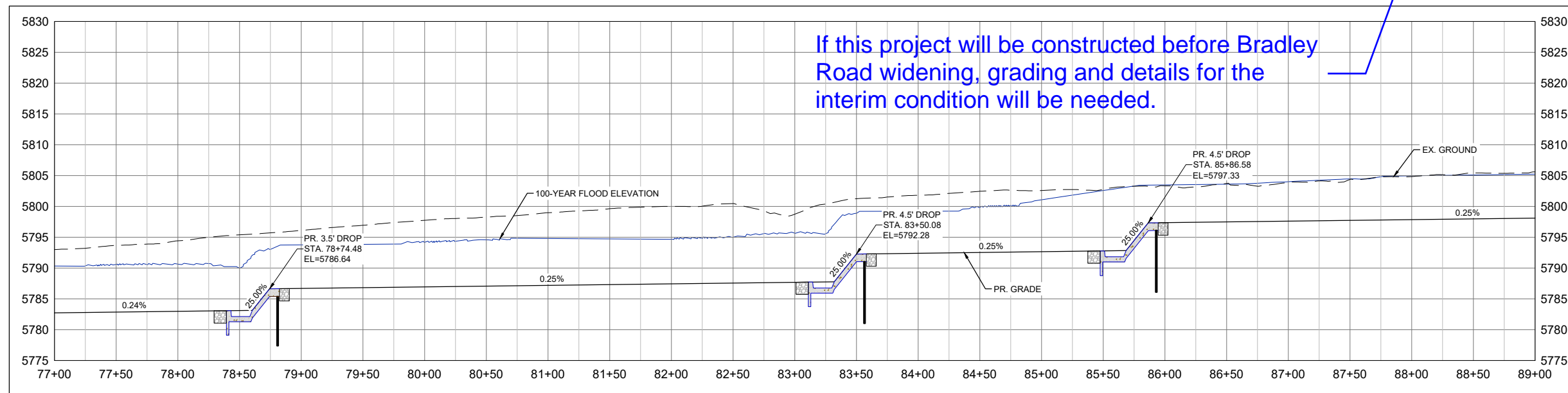
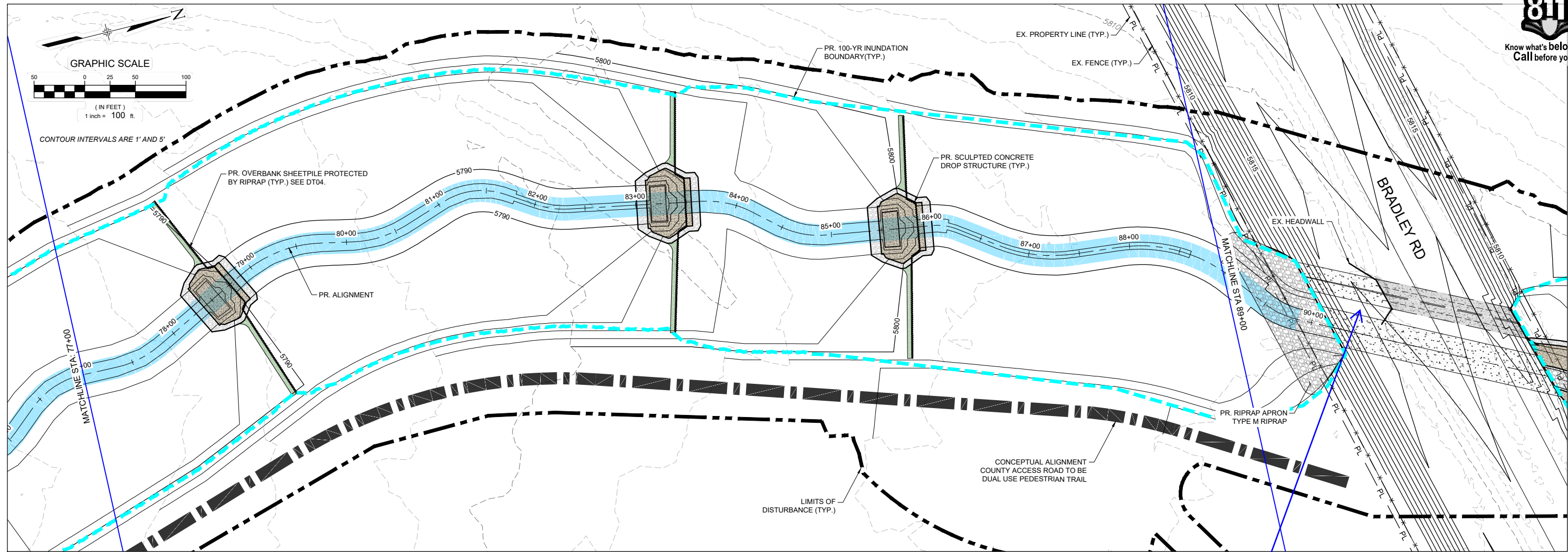
PLAN AND PROFILE
 STA. 63+00 - 77+00

DESIGNED BY: TKM	SCALE: HORIZ 1" = 100'	DATE ISSUED: MARCH 2023	DRAWING No. PP07
CHECKED BY: AJS	VERT. 1" = 20'	SHEET 16 OF 47	

FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 21.1129.009



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Matrix
 Excellence by Design

THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
PLAN AND PROFILE STA. 77+00 - 89+00			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 100'	DATE ISSUED: MARCH 2023	DRAWING No. PP08
CHECKED BY: AJS	VERT. 1" = 20'	SHEET 17 OF 47	

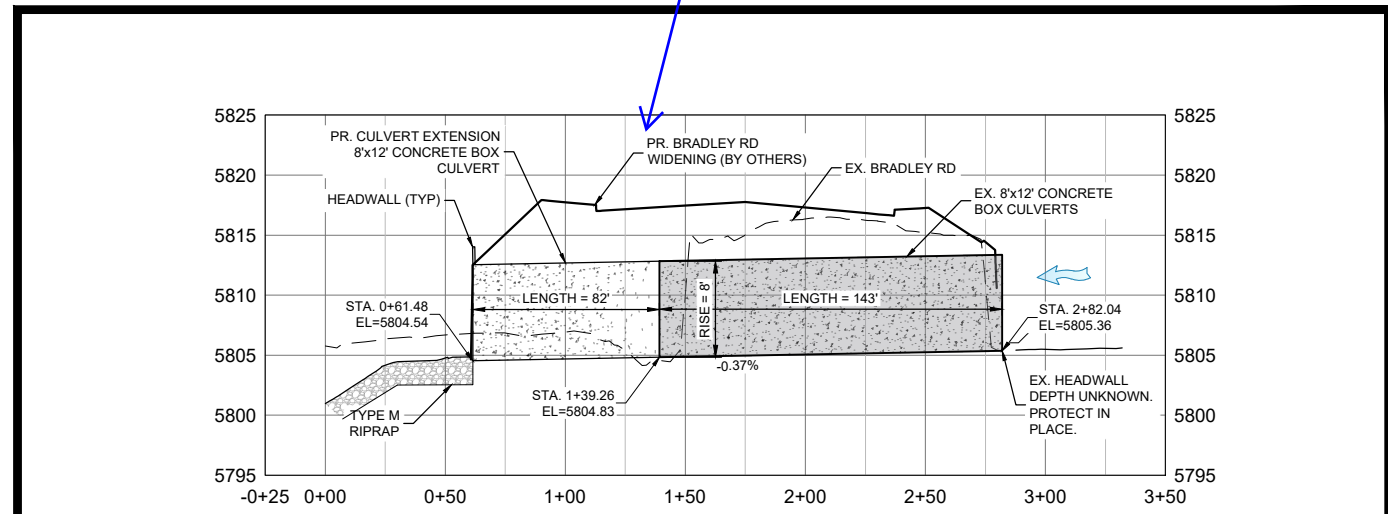
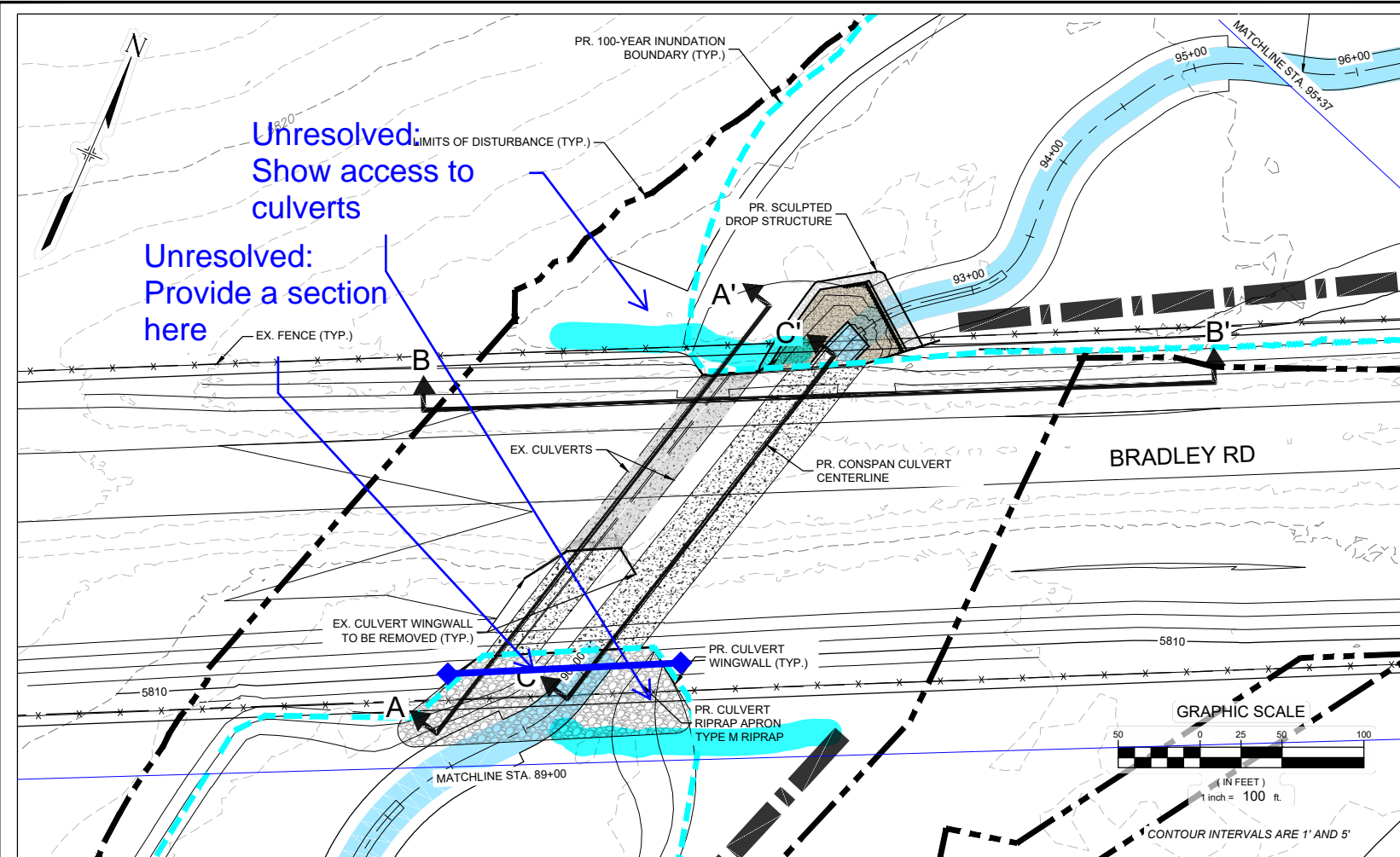
SEAL

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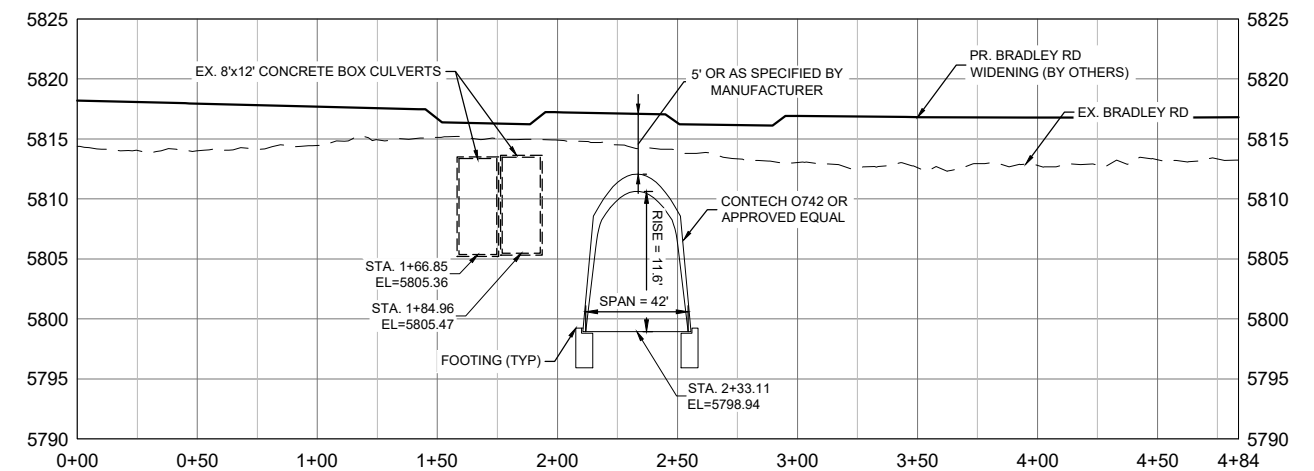
FOR AND ON BEHALF OF
 MATRIX DESIGN GROUP, INC.
 PROJECT No. 21.1129.009



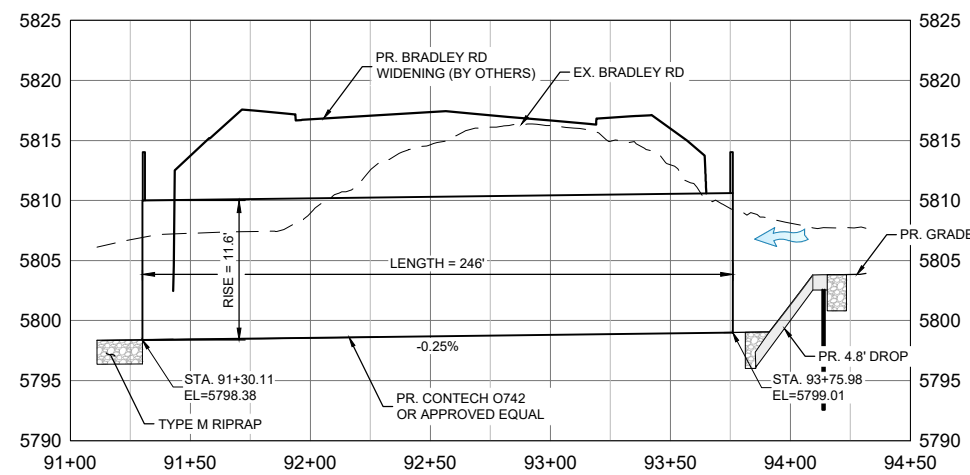
Know what's below.
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A-A' PROFILE ALONG EX. 8'x12' CULVERT



B-B' CROSS SECTION AT BRADLEY RD.



C-C' PROFILE ALONG PROPOSED CONSPAN CULVERT

NOTE: FOLLOWS THE PR. CHANNEL ALIGNMENT
HORIZONTAL SCALE: 1" = 80'
VERTICAL SCALE: 1" = 20'

REFERENCE DRAWINGS			
No.	DATE	DESCRIPTION	BY
X-1129-UTILITIES			
X-1129-PARCELS			
X-1129-PR STRUCT			
X-1129-MDQ22034			
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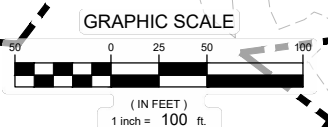
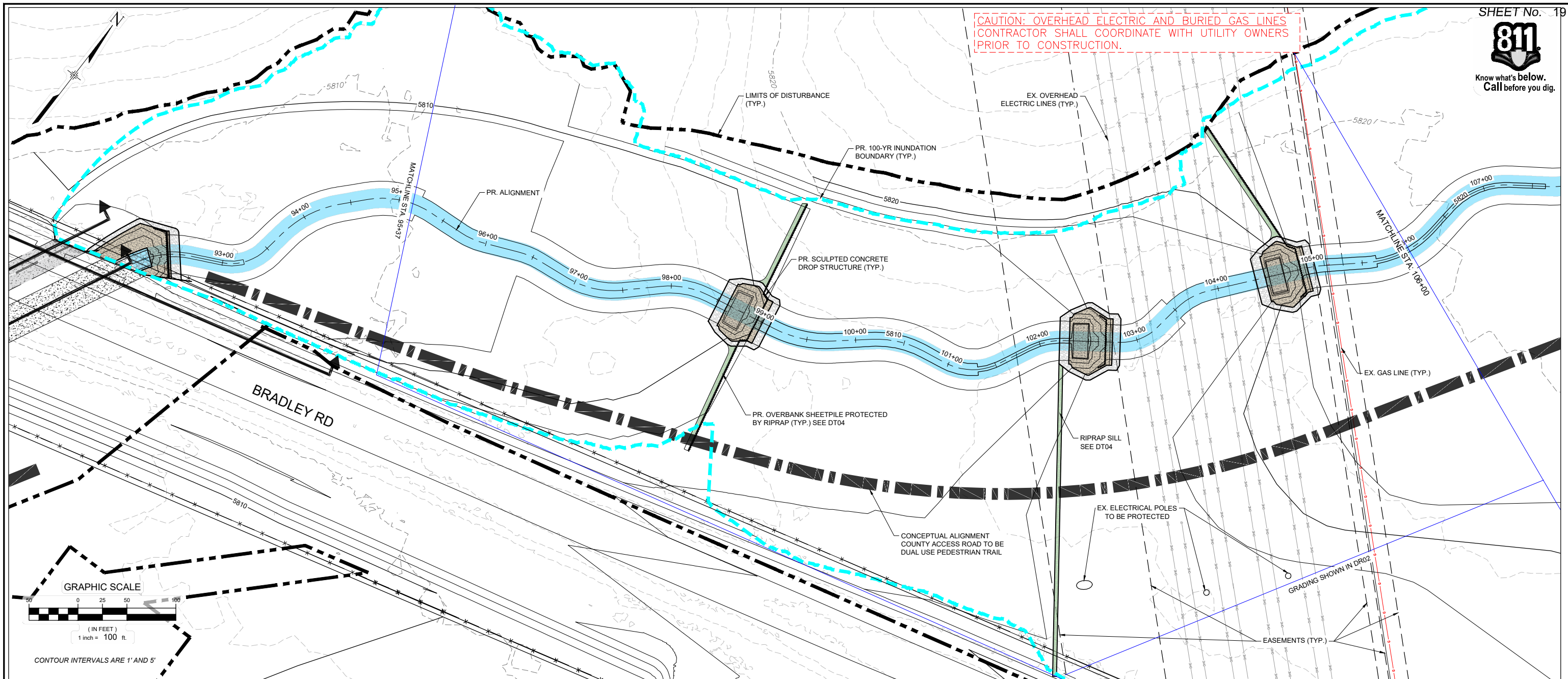
PREPARED BY:
Matrix
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THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
PLAN AND PROFILE STA. 89+00 - 95+37			
DESIGNED BY: TKM	EAL	SCALE: HORIZ. VARIES	DATE ISSUED: MARCH 2023
CHECKED BY: AJS	VERT. 1" = 20'	SHEET	18 OF 47
DRAWING No. PP09			

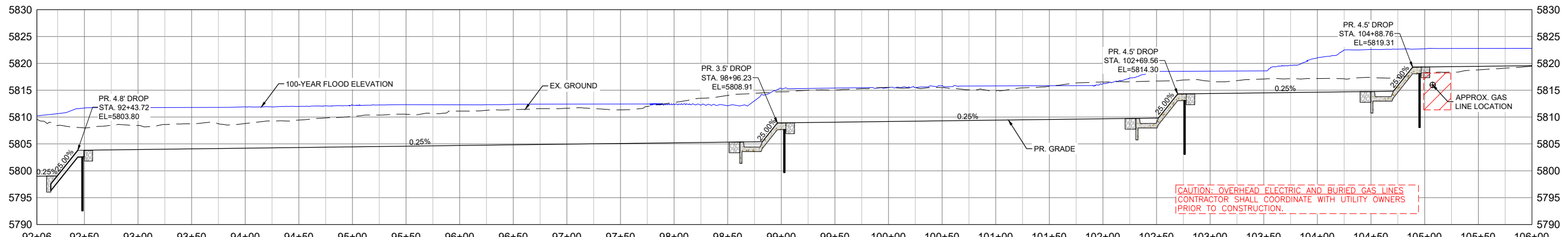


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CAUTION: OVERHEAD ELECTRIC AND BURIED GAS LINES
CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS
PRIOR TO CONSTRUCTION.



CONTOUR INTERVALS ARE 1' AND 5'



CAUTION: OVERHEAD ELECTRIC AND BURIED GAS LINES
CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS
PRIOR TO CONSTRUCTION.

REFERENCE DRAWINGS			
X-1129-UTILITIES X-1129-PARCELS X-1129-PR STRUCT X-1129-MD22034			
No.	DATE	DESCRIPTION REVISIONS	BY
COMPUTER FILE MANAGEMENT			
FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\DWG\Design Plans\1129.009-PP02-15 US Alignment_60%.dwg			
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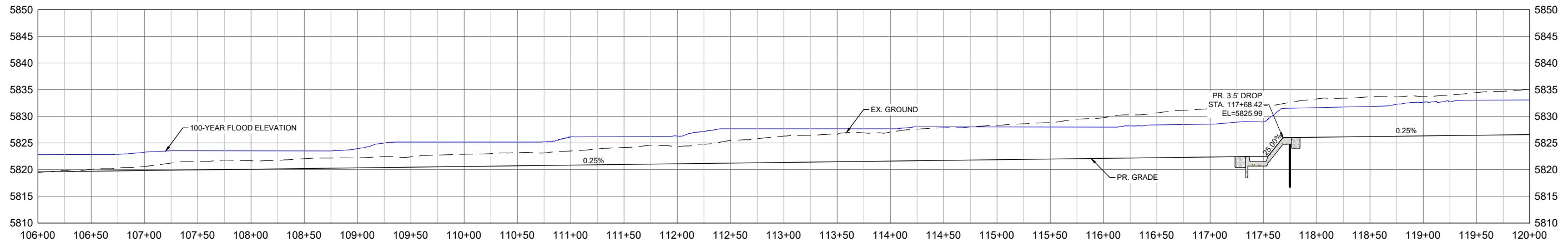
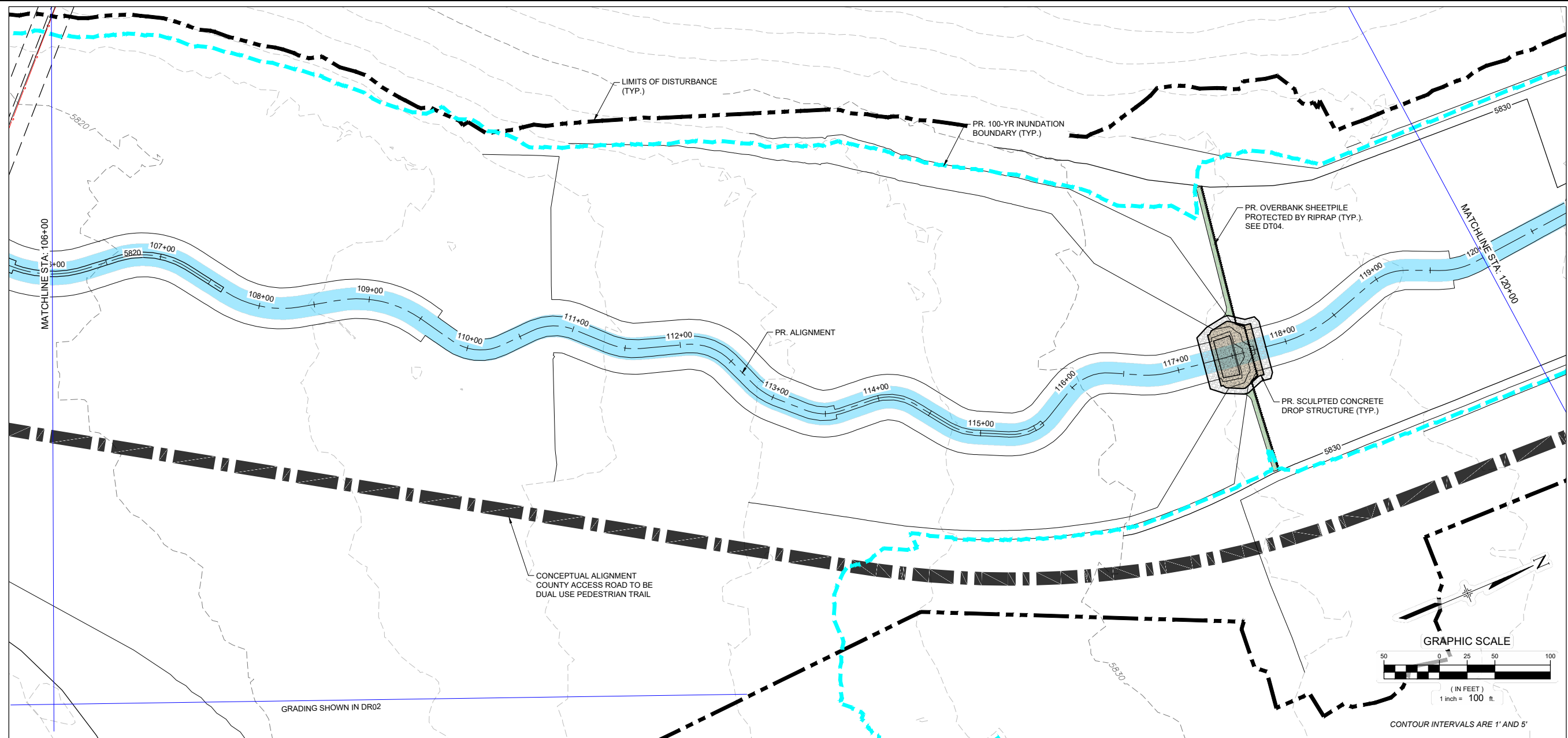


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THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
PLAN AND PROFILE STA. 92+06 - 106+00			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 100'	DATE ISSUED: MARCH 2023	DRAWING No. PP10
DRAWN BY: EAL	VERT. 1" = 20'	SHEET 19 OF 47	
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SEAL

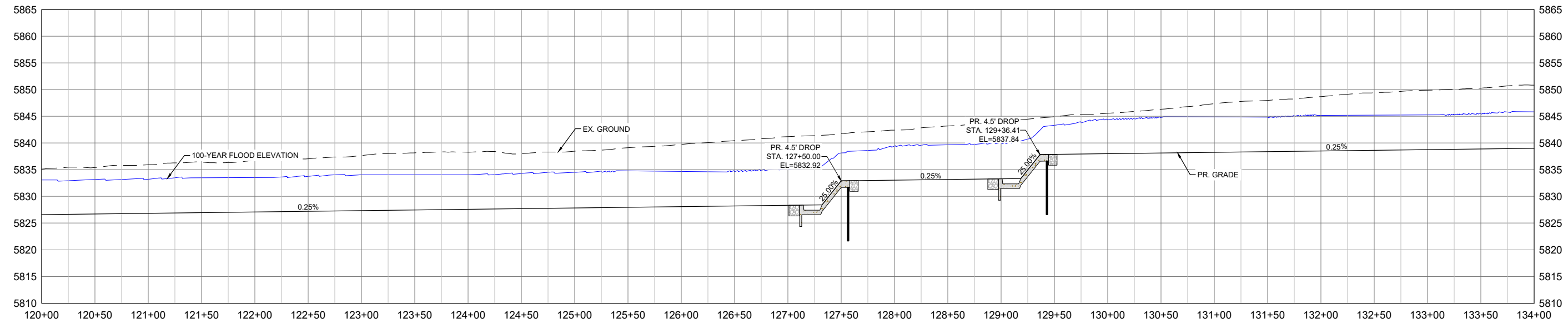
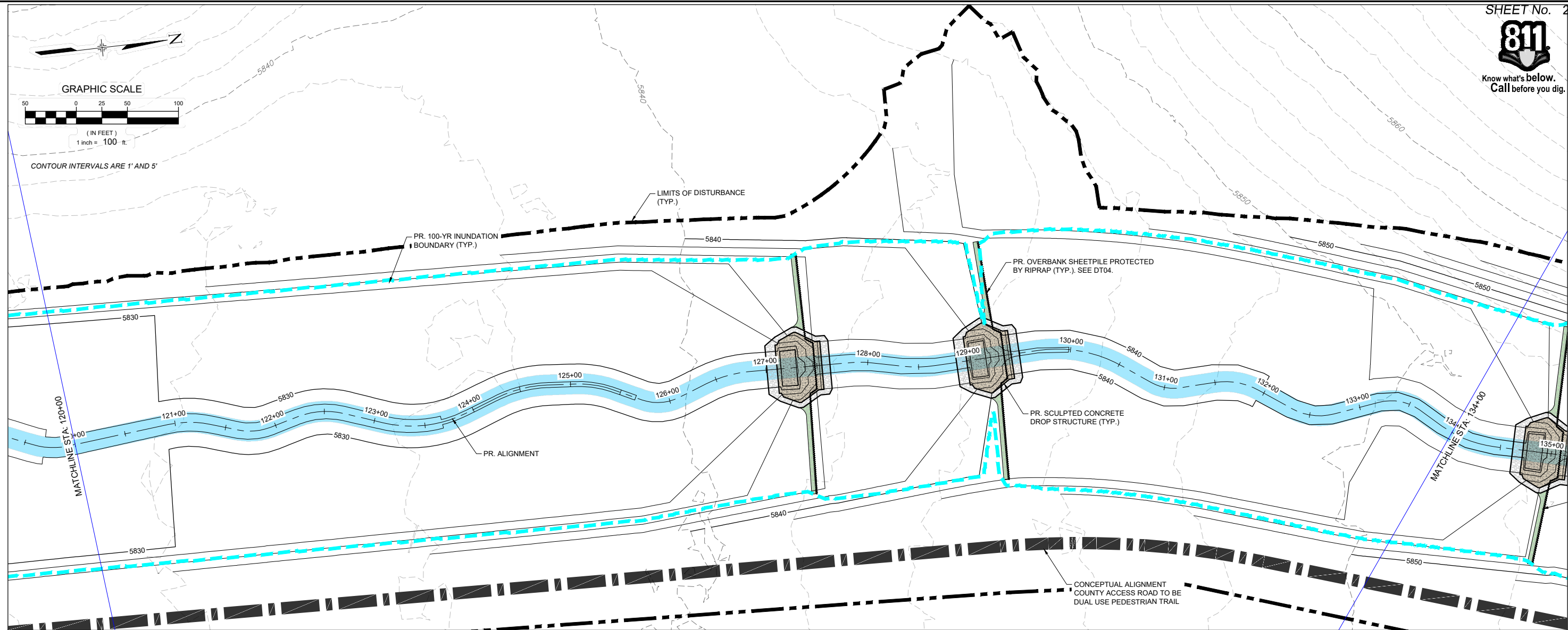
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FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
PLAN AND PROFILE STA. 106+00 - 120+00			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 100'	DATE ISSUED: MARCH 2023	DRAWING No. PP11
CHECKED BY: AJS	VERT. 1" = 20'	SHEET 20 OF 47	



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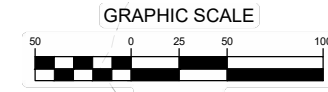
PREPARED BY:

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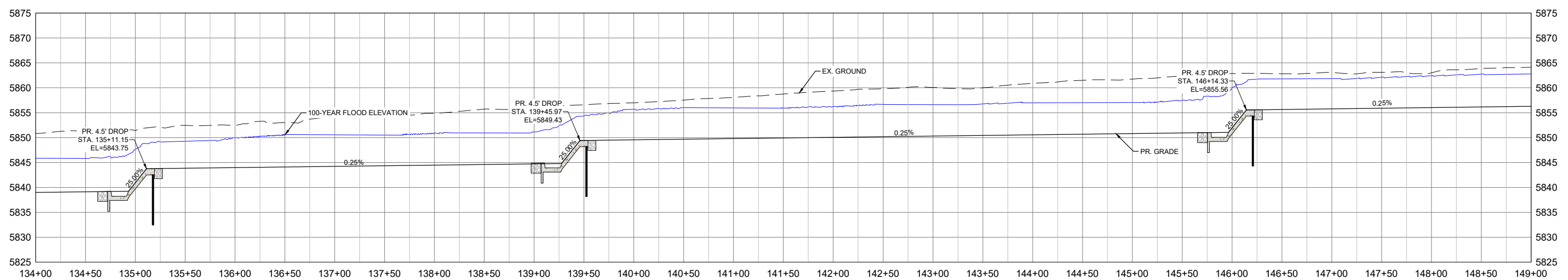
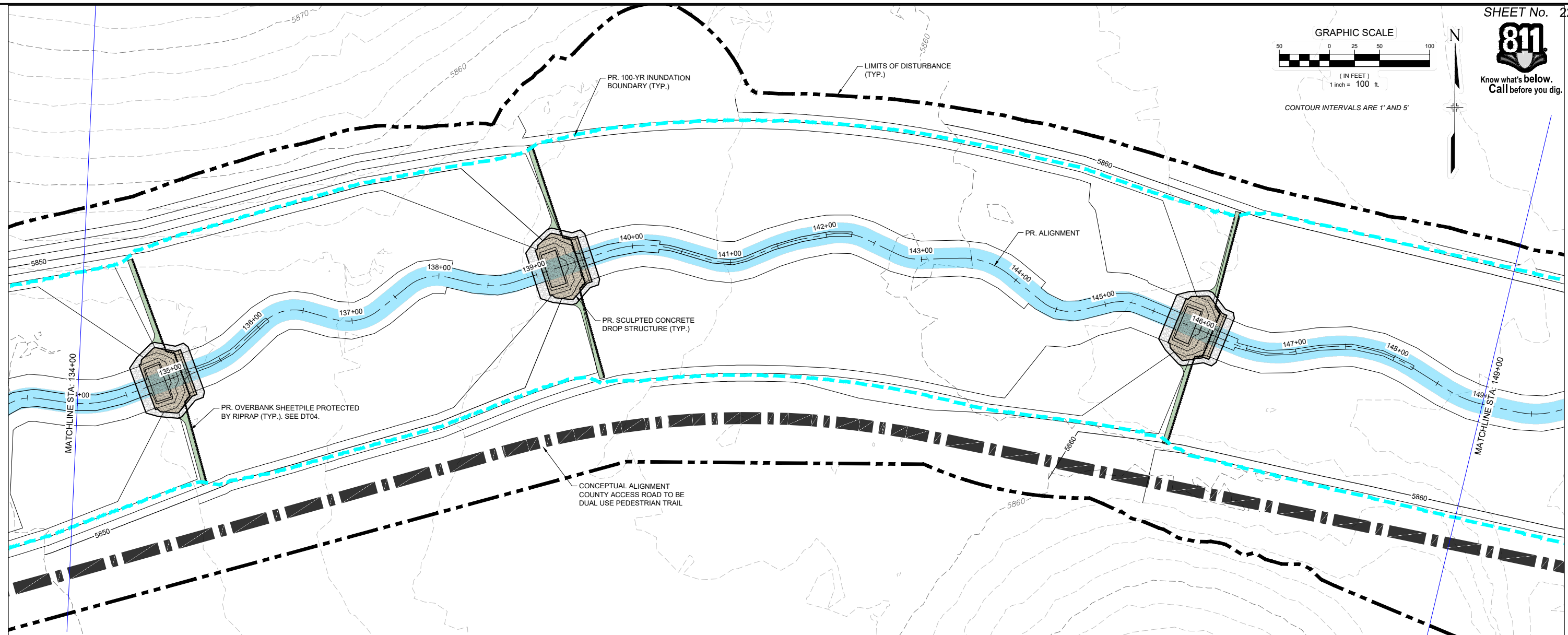
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THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
PLAN AND PROFILE STA. 120+00 - 134+00			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 100'	DATE ISSUED: MARCH 2023	DRAWING No. PP12
CHECKED BY: AJS	VERT. 1" = 20'	SHEET 21 OF 47	



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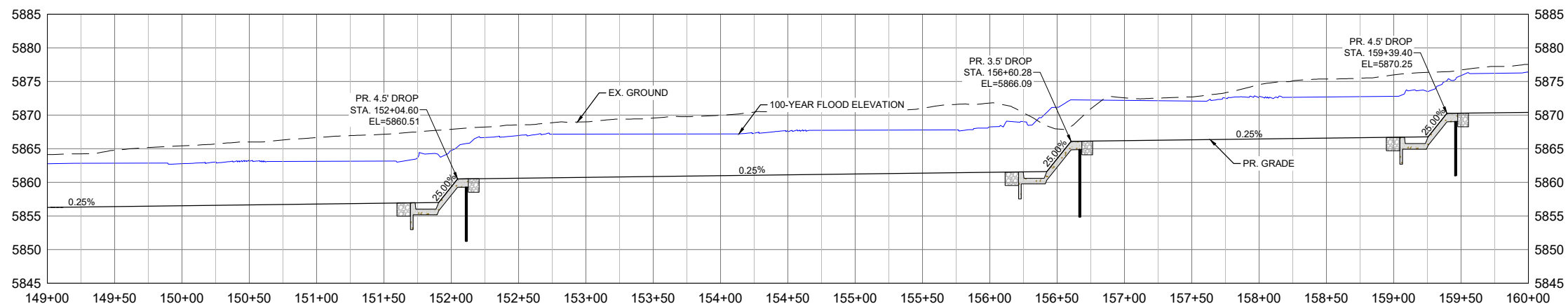
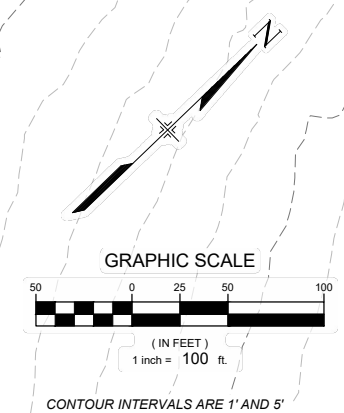
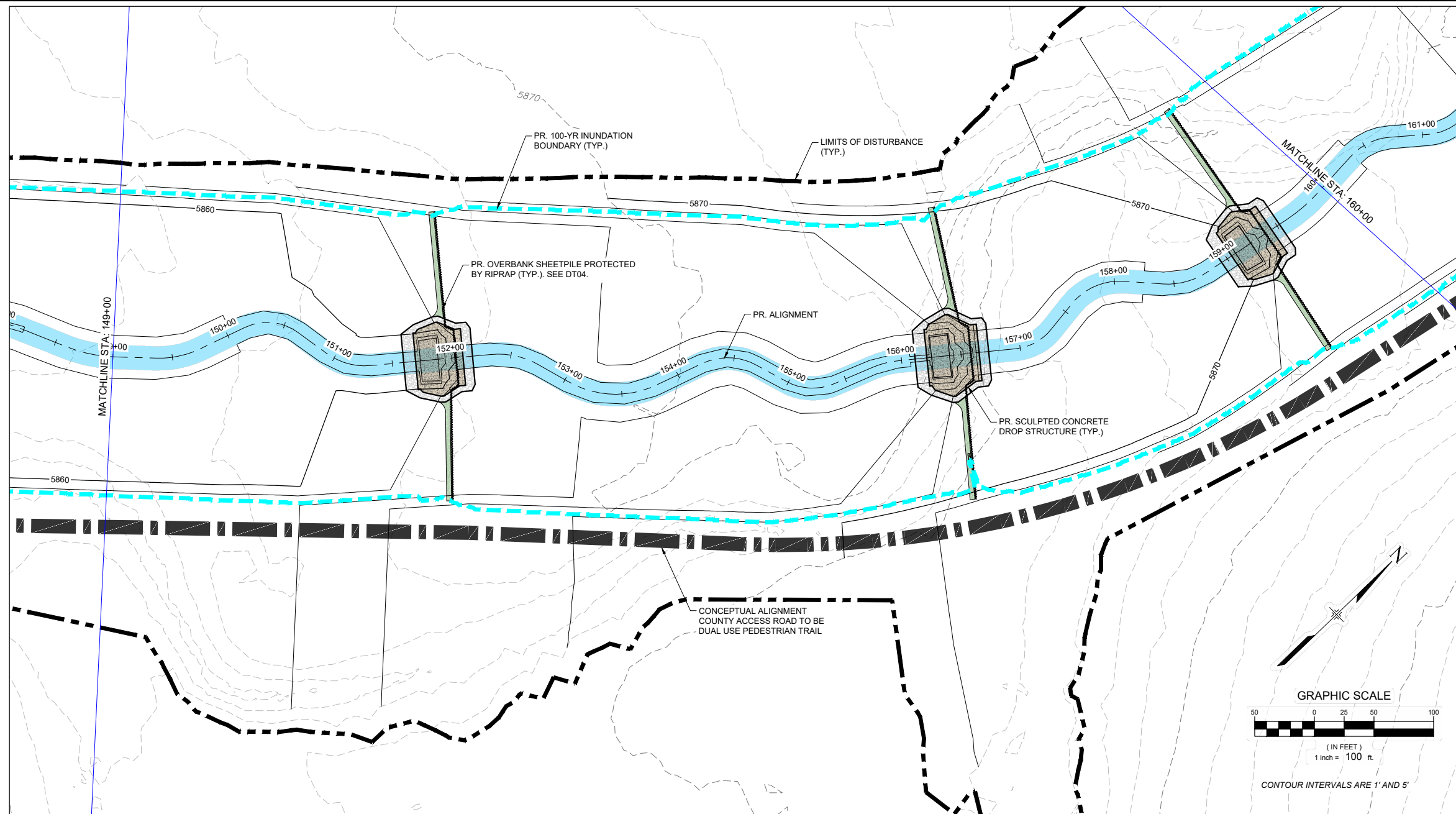
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THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
PLAN AND PROFILE STA. 134+00 - 149+00			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 100'	DATE ISSUED: MARCH 2023	DRAWING No. PP13
CHECKED BY: AJS	VERT. 1" = 20'	SHEET 22 OF 47	



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PLOT DATE: March 7, 2023 12:27:00 PM			
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60% DESIGN PLANS

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Matrix
Excellence by Design

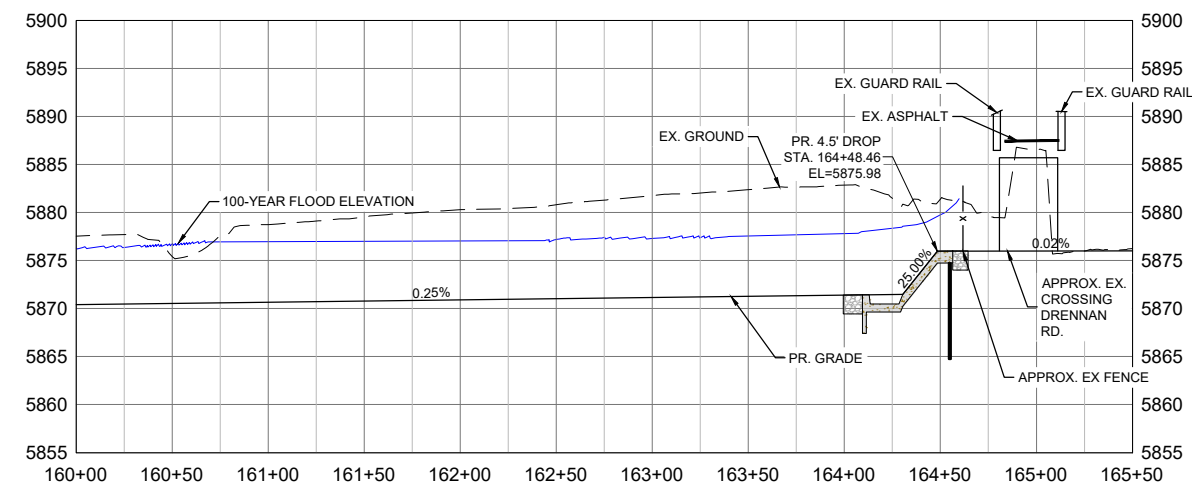
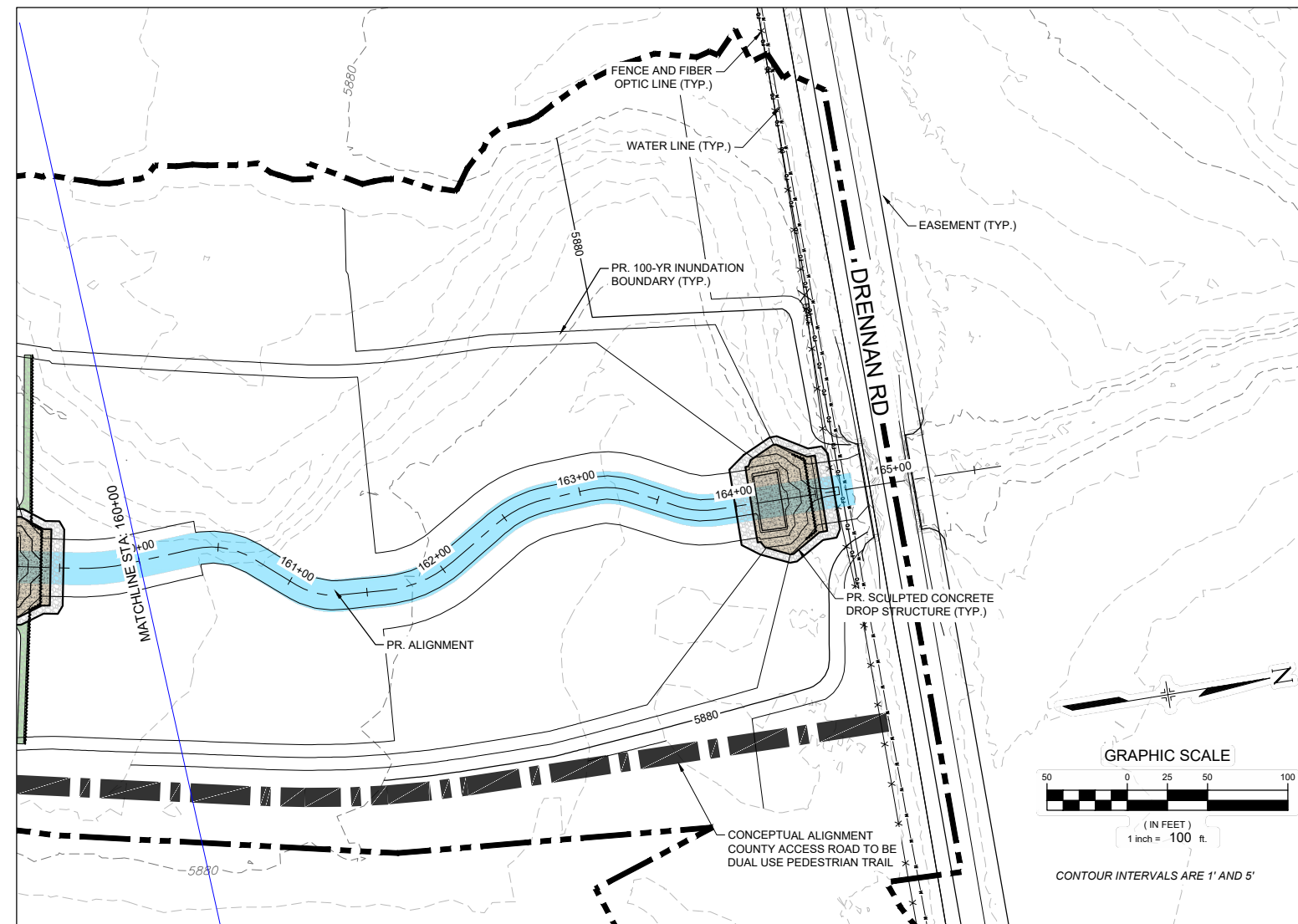
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FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
PLAN AND PROFILE STA. 149+00 - 160+00			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 100'	DATE ISSUED: MARCH 2023	DRAWING No. PP14
CHECKED BY: AJS	VERT. 1" = 20'	SHEET 23 OF 47	



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FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Drawings\Design Plans\1129.009-PP02-15 US Alignment_60%.dwg			
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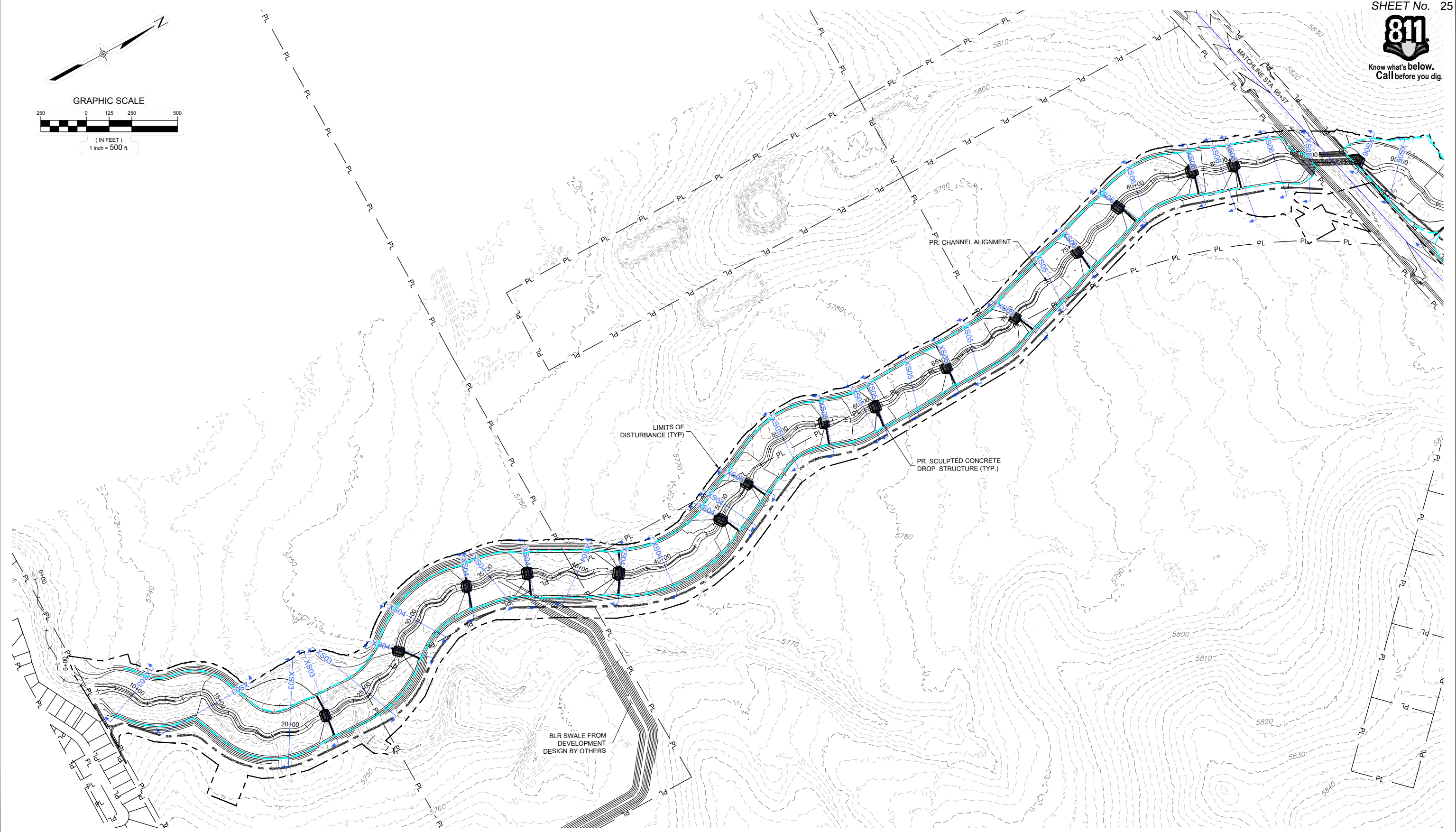
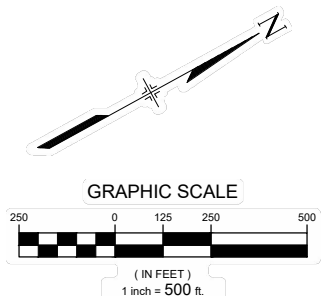
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THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
PLAN AND PROFILE STA. 160+00 - 165+00			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 100'	DATE ISSUED: MARCH 2023	DRAWING No.
DRAWN BY: EAL	VERT. 1" = 20'	SHEET 24 OF 47	PP15
CHECKED BY: AJS			



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REFERENCE DRAWINGS			
X-1129-MDG22-34			
X-1129-PR STRUCT			
X-1129-PARCELS			
No.	DATE	DESCRIPTION REVISIONS	BY
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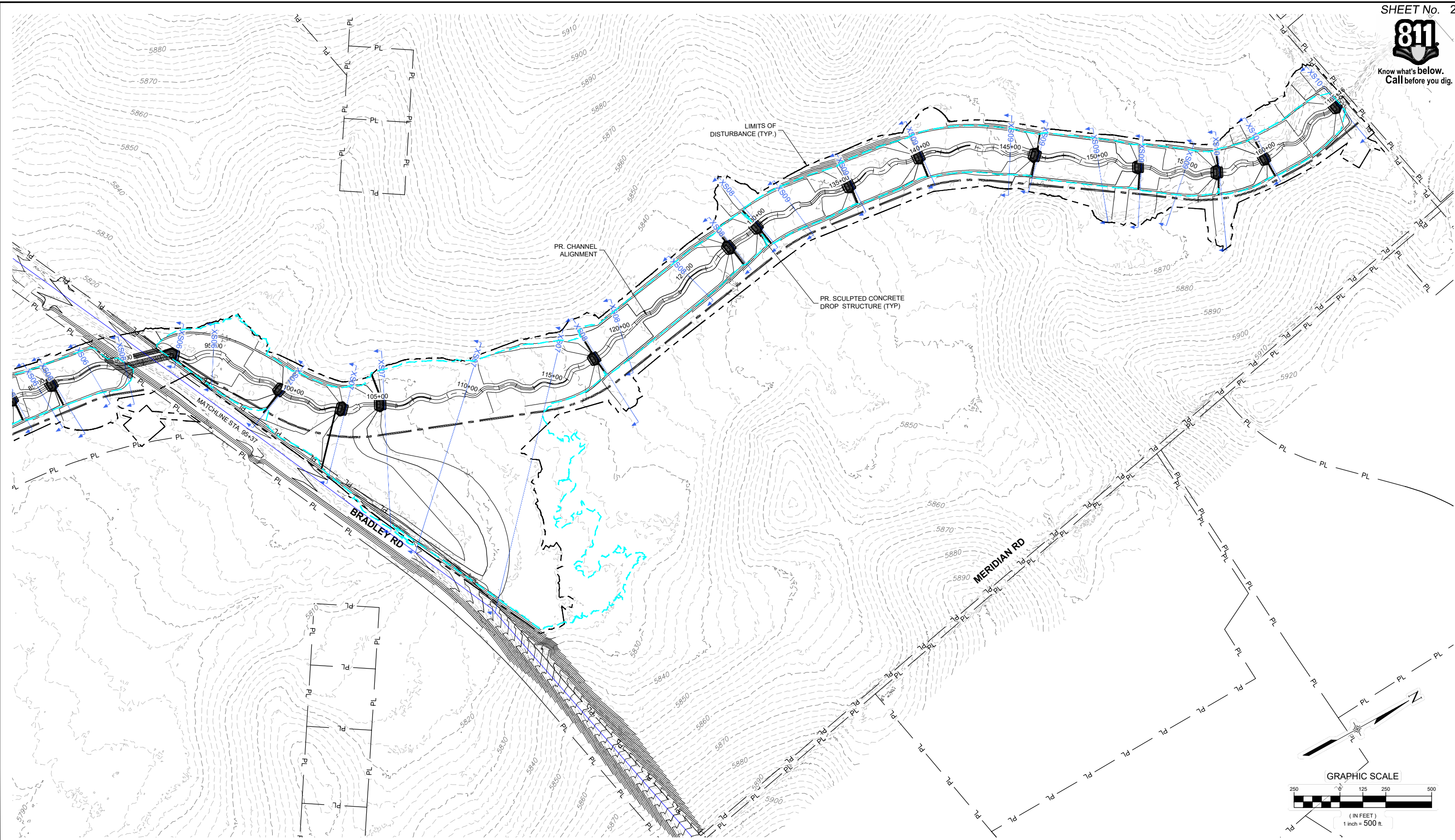
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THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
CROSS SECTION OVERVIEW - LOWER REACH			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 500'	DATE ISSUED: MARCH 2023	DRAWING No. XS01
CHECKED BY: AJS	VERT. N/A	SHEET 25 OF 47	

FOR AND ON BEHALF OF
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PROJECT No. 21.1129.009



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REFERENCE DRAWINGS			
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X-1129-PR STRUCT			
X-1129-PARCELS			
No.	DATE	DESCRIPTION REVISIONS	BY
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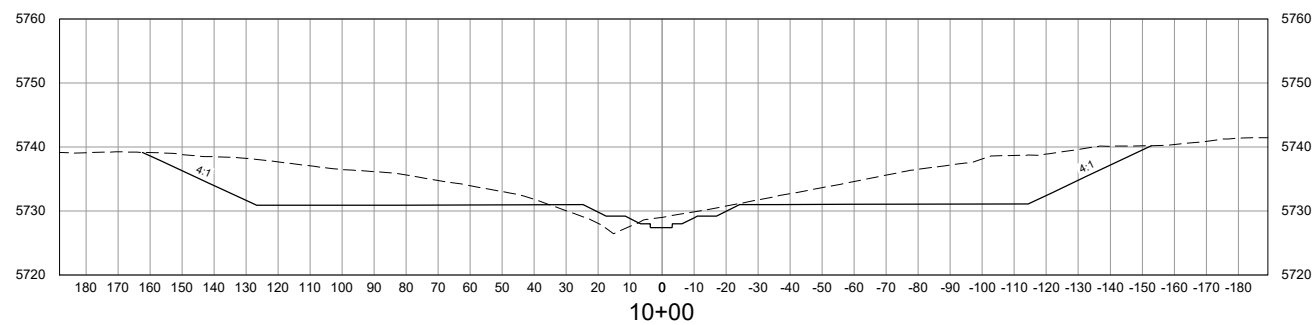
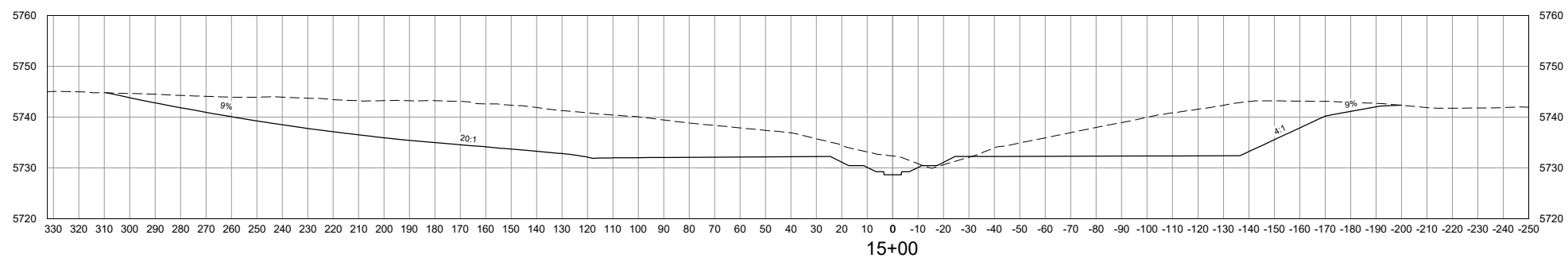
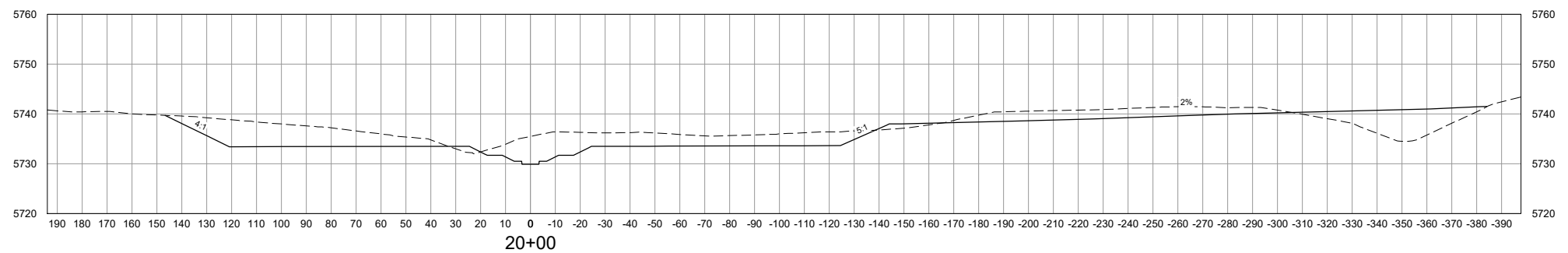
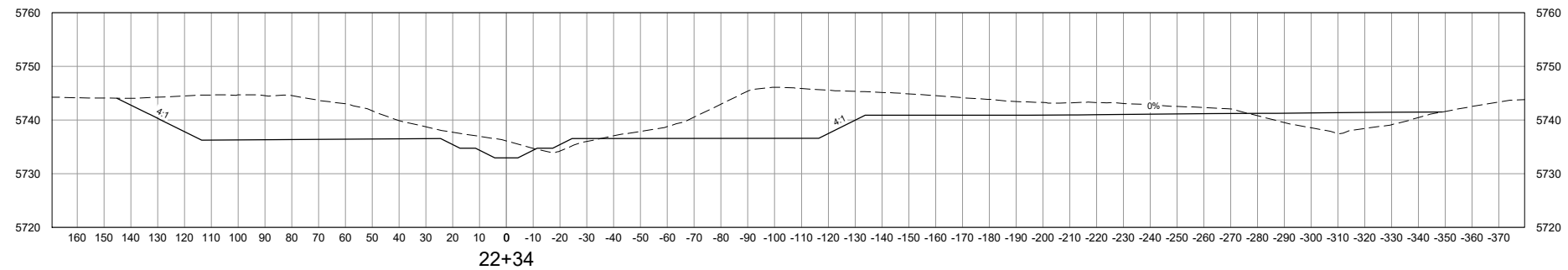
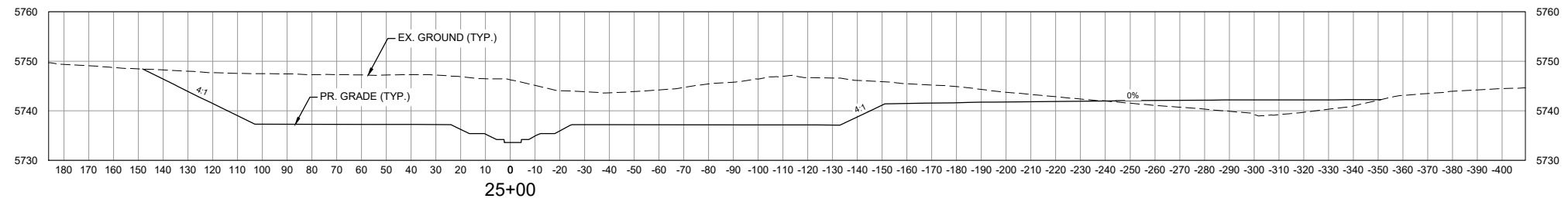
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PROJECT No. 21.1129.009

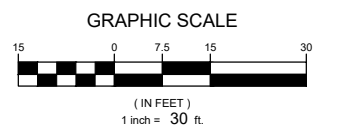
THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
CROSS SECTION OVERVIEW - UPPER REACH			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 500'	DATE ISSUED: MARCH 2023	DRAWING No. XS02
CHECKED BY: AJS	VERT. N/A	SHEET 26 OF 47	



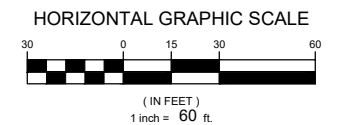
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VERTICAL SCALE: 1" = 30'



HORIZONTAL SCALE: 1" = 60'



NOTE:
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REFERENCE DRAWINGS			
X-1129-MDG22x34			
X-1129-PR STRUCT			
X-1129-PARCELS			
No.	DATE	DESCRIPTION	BY
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60% DESIGN PLANS

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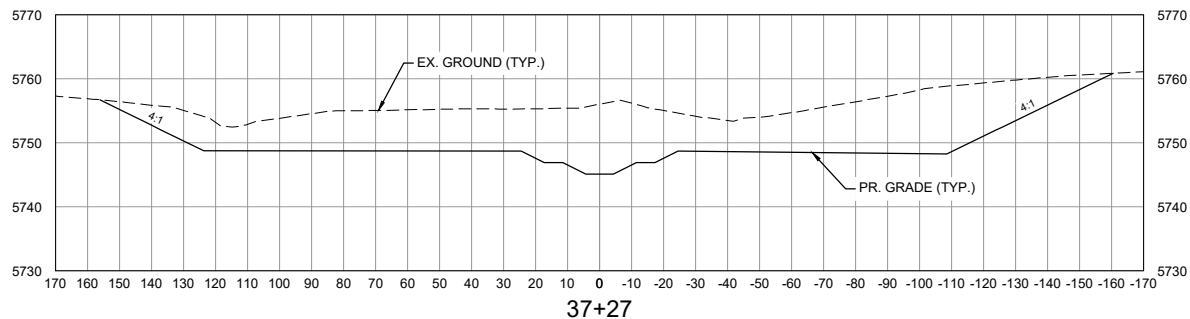
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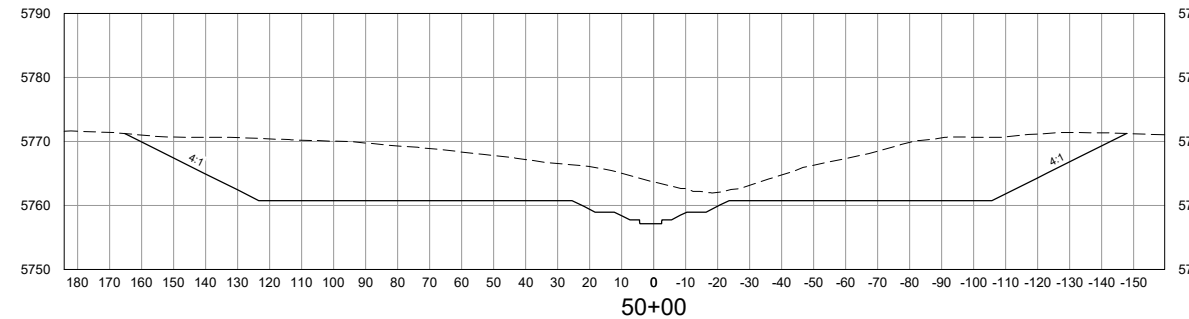
THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
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DESIGNED BY: TKM	SCALE: HORIZ 1" = 60'	DATE ISSUED: MARCH 2023	DRAWING No. XS03
CHECKED BY: AJS	VERT. 1" = 30'	SHEET 27 OF 47	



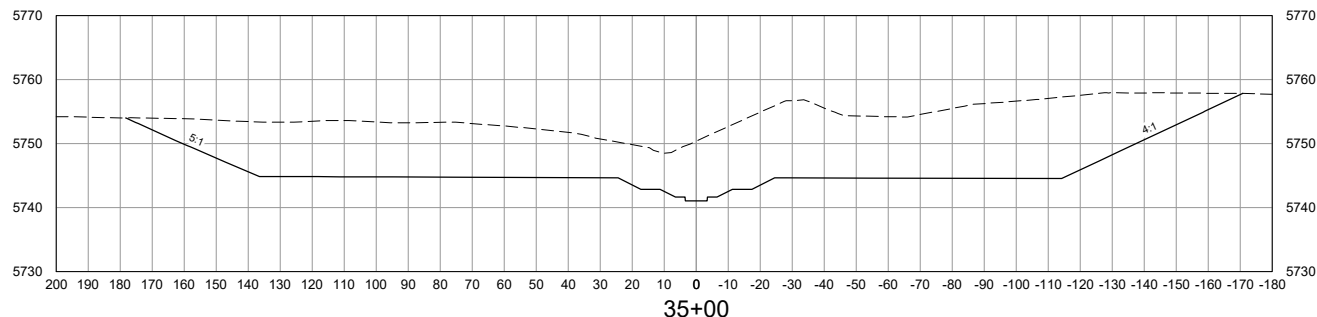
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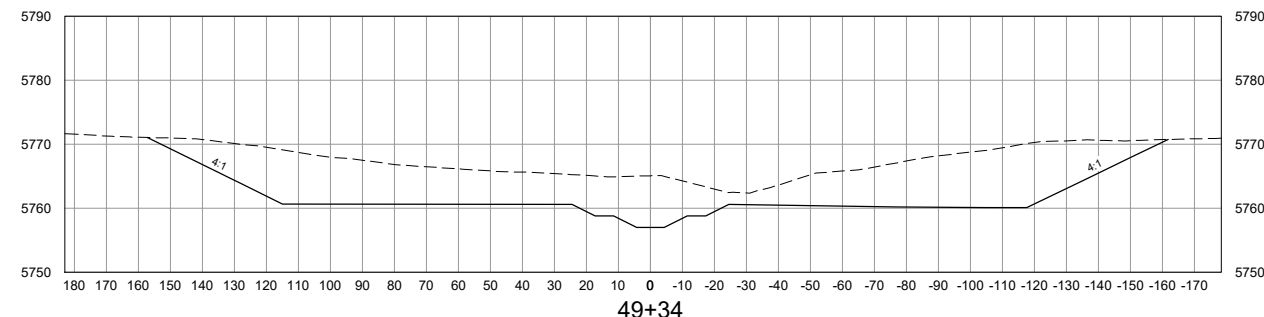
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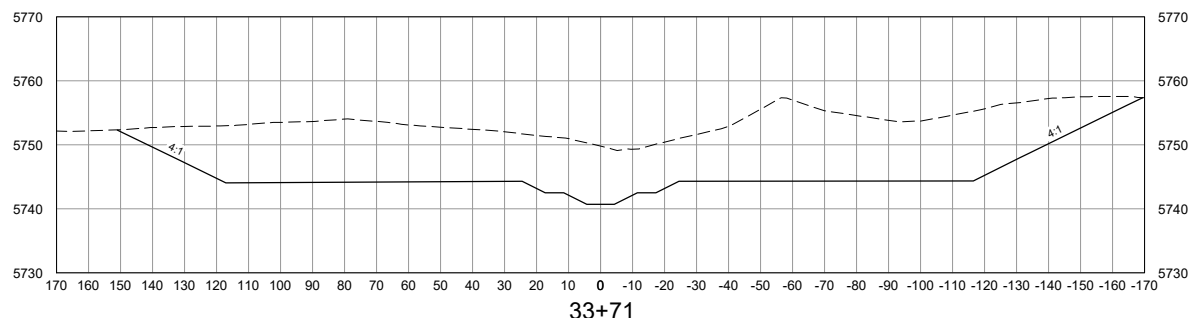
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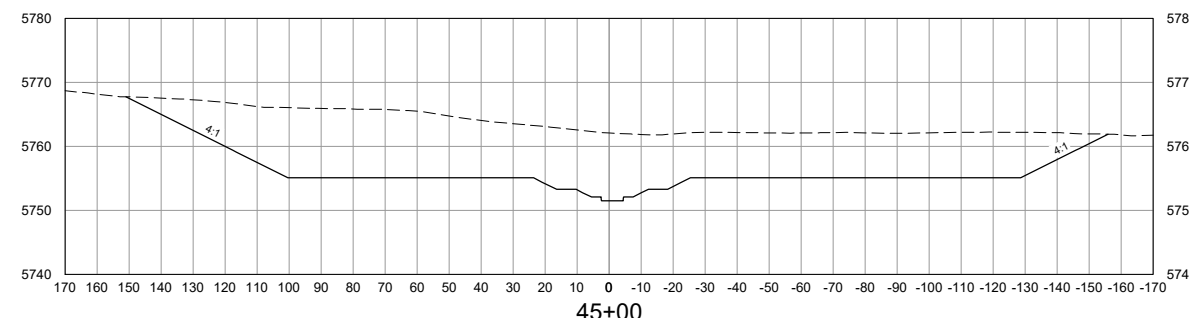
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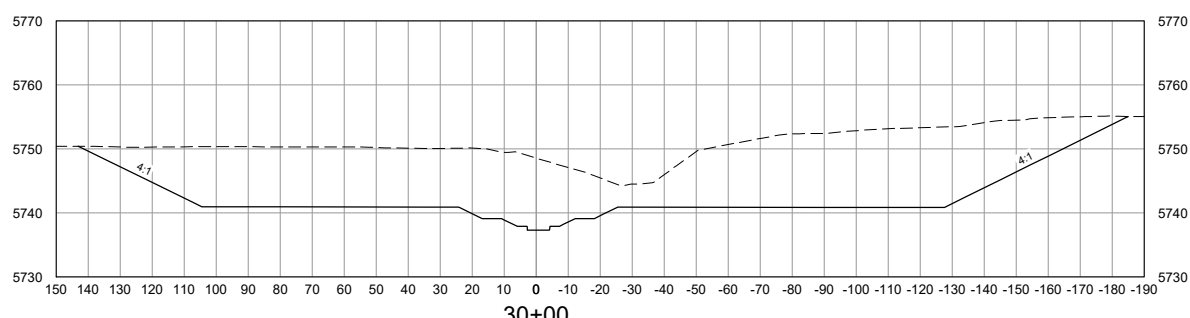
49+34



33+71



45+00

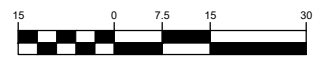


30+00

NOTE:
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VERTICAL SCALE: 1" = 30'

GRAPHIC SCALE



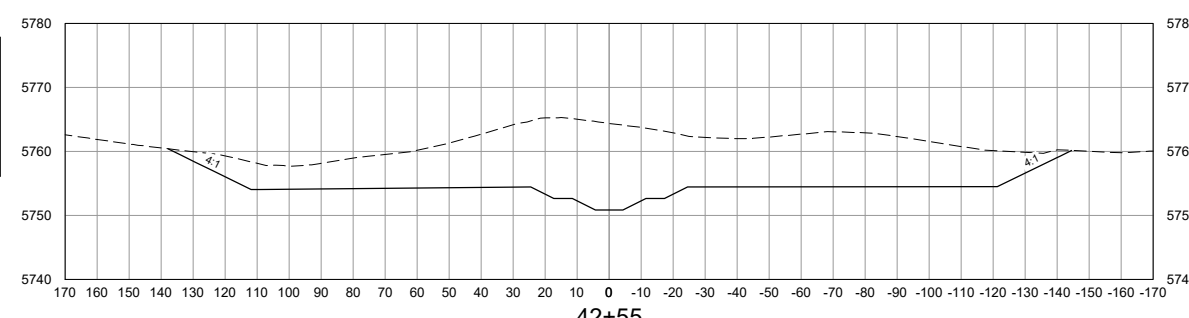
(IN FEET)
1 inch = 30 ft.

HORIZONTAL SCALE: 1" = 60'

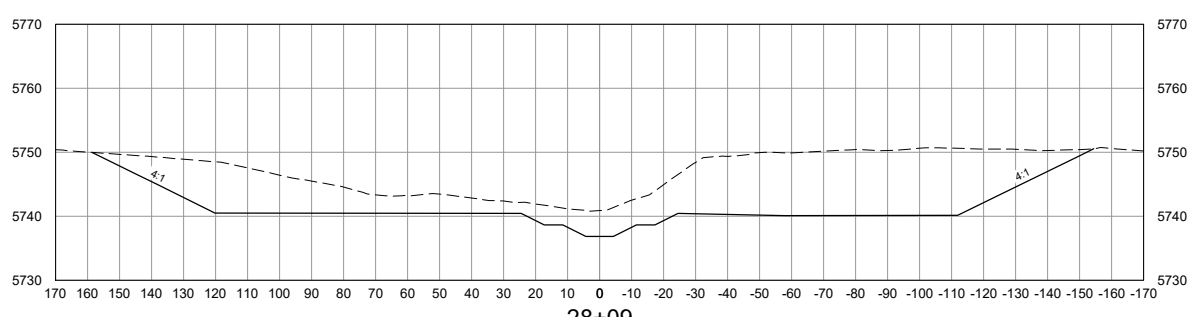
HORIZONTAL GRAPHIC SCALE



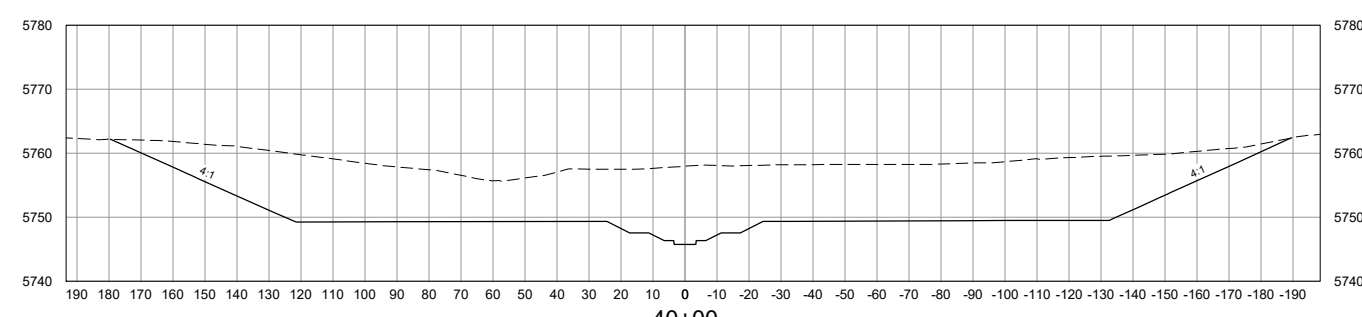
(IN FEET)
1 inch = 60 ft.



42+55



28+09



40+00

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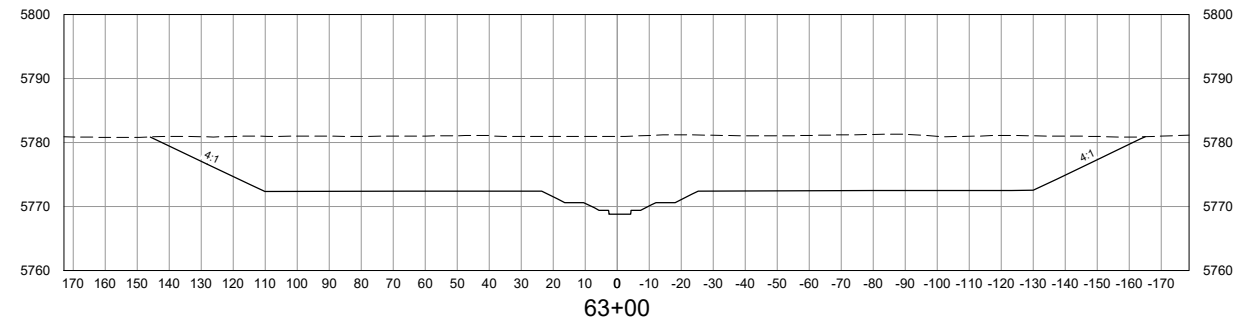
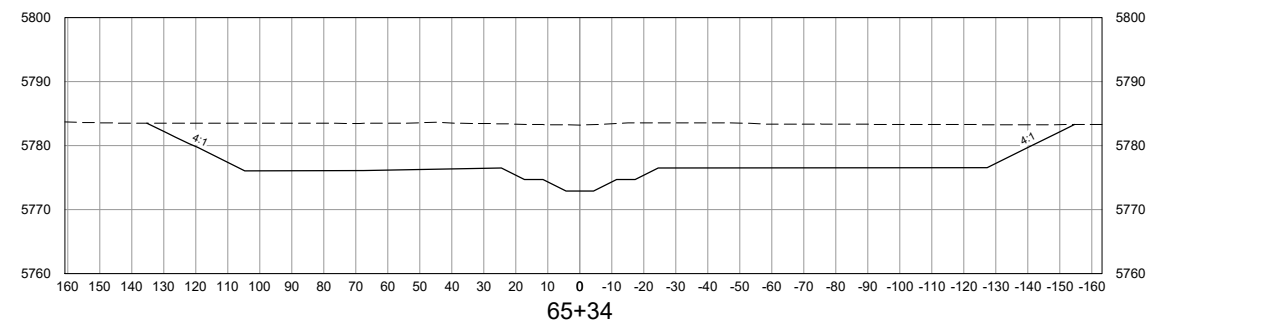
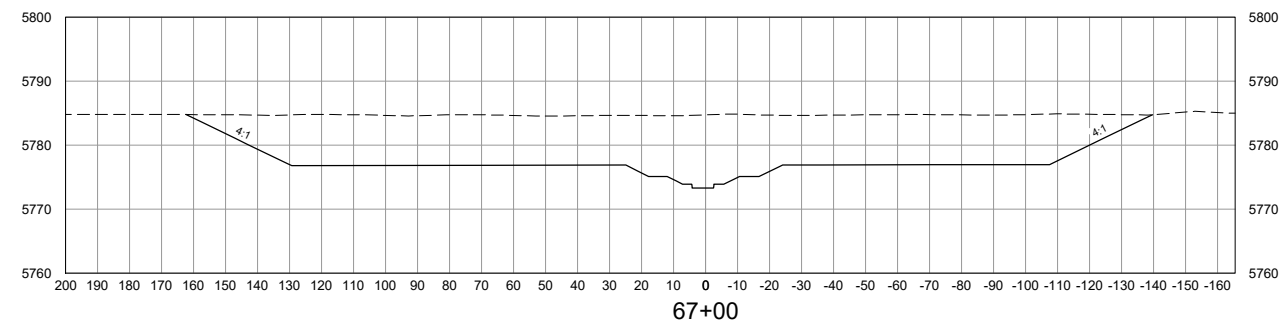
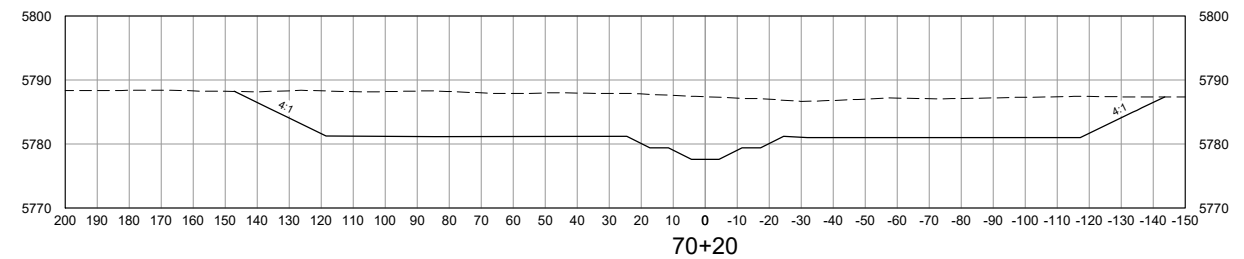
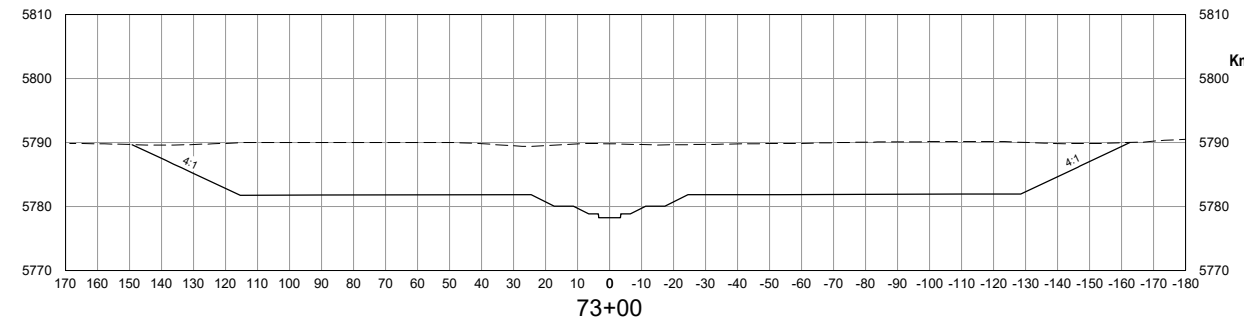
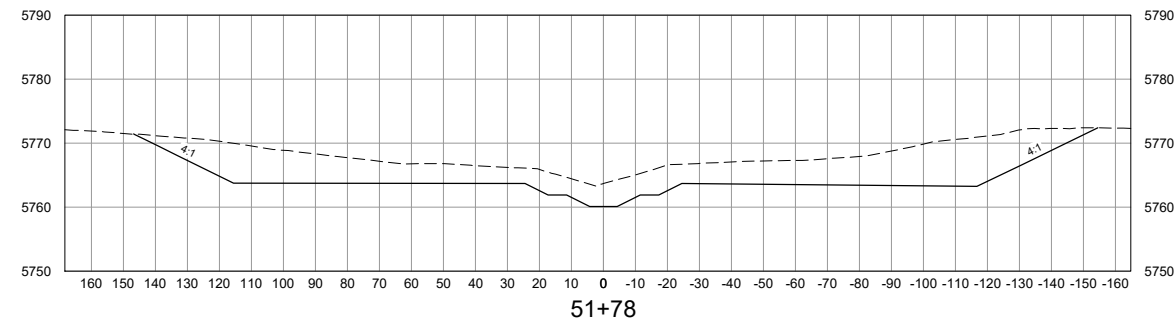
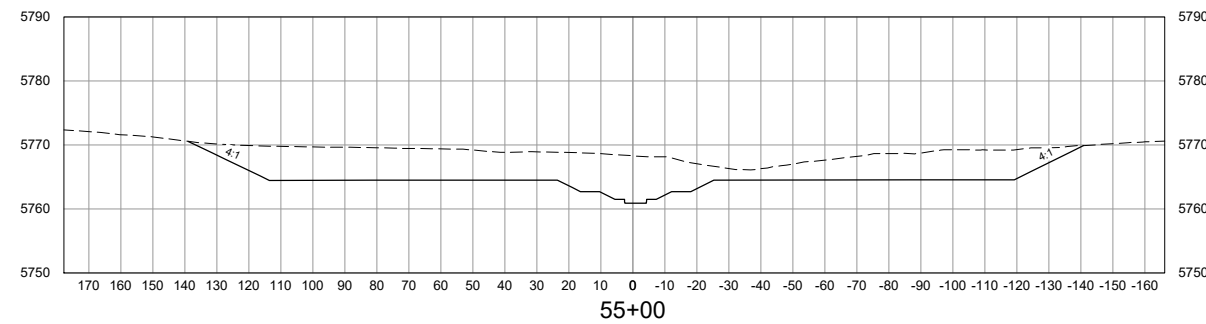
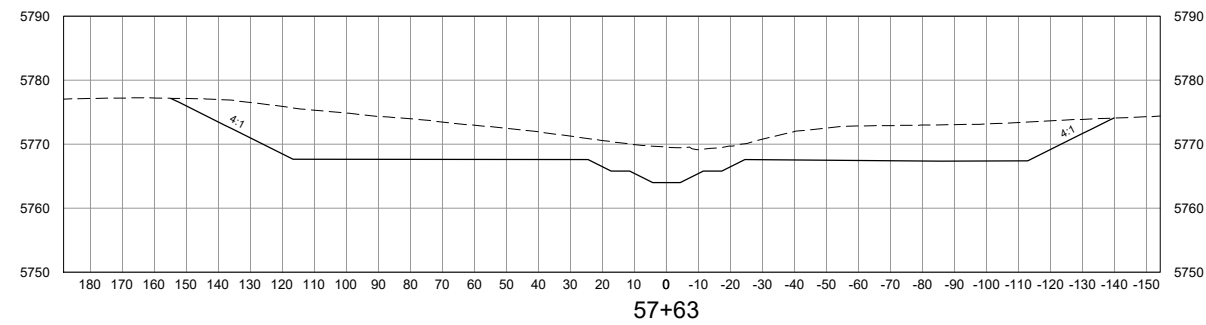
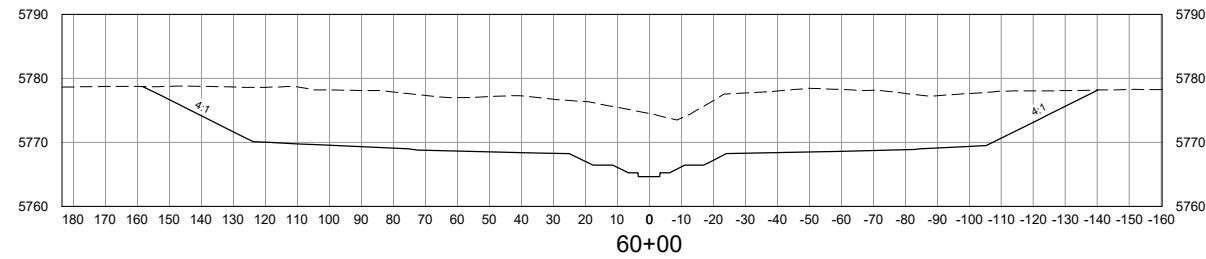
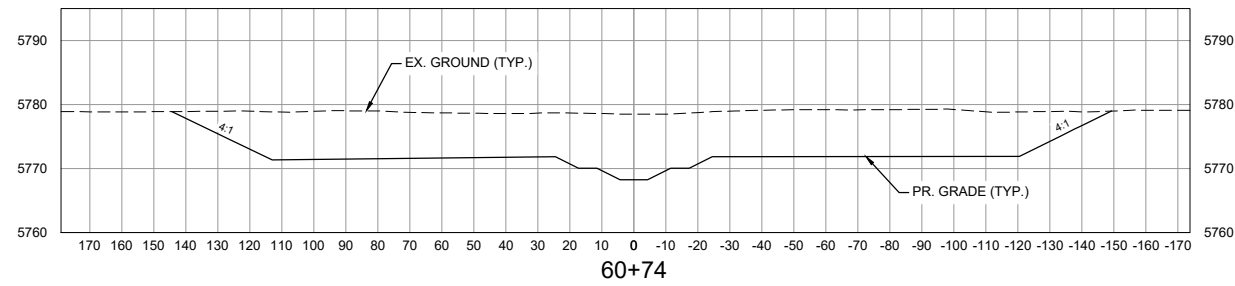
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PROJECT No. 21.1129.009

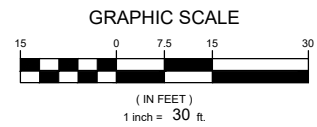
THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
CROSS SECTIONS STA. 28+08 - 50+00			
DESIGNED BY: TKM	SCALE: 1" = 60'	DATE ISSUED: MARCH 2023	DRAWING No. XS04
CHECKED BY: AJS	HORIZ 1" = 60'	SHEET 28 OF 47	
	VERT. 1" = 30'		



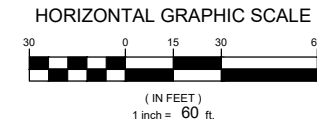
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VERTICAL SCALE: 1" = 30'



HORIZONTAL SCALE: 1" = 60'



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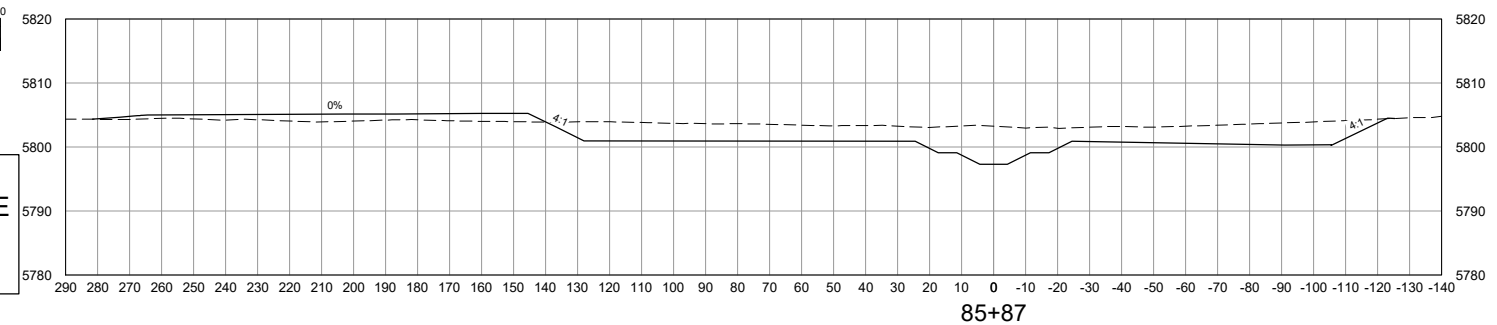
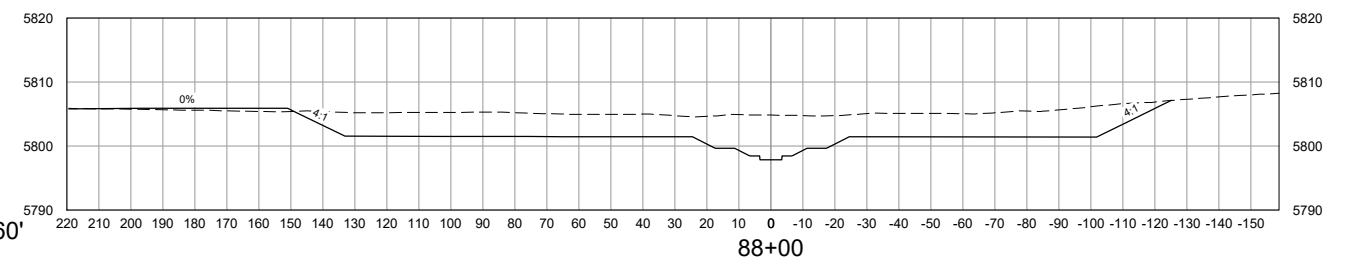
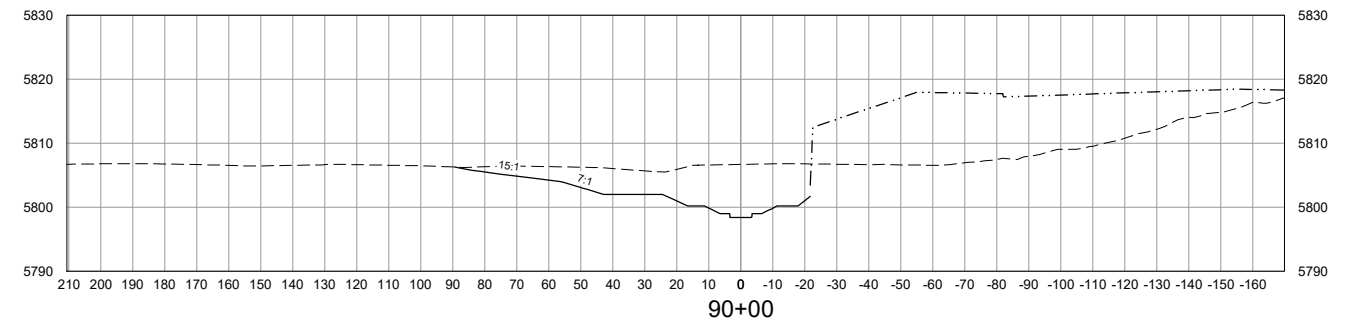
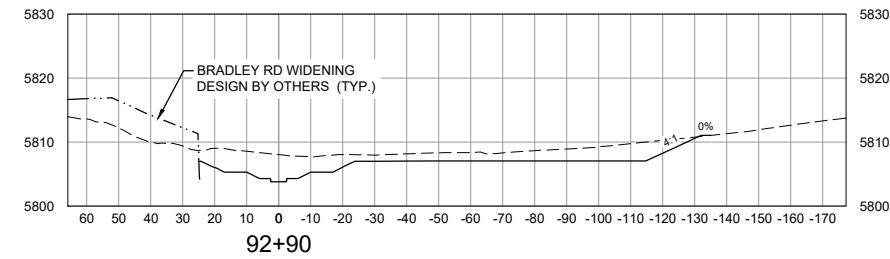
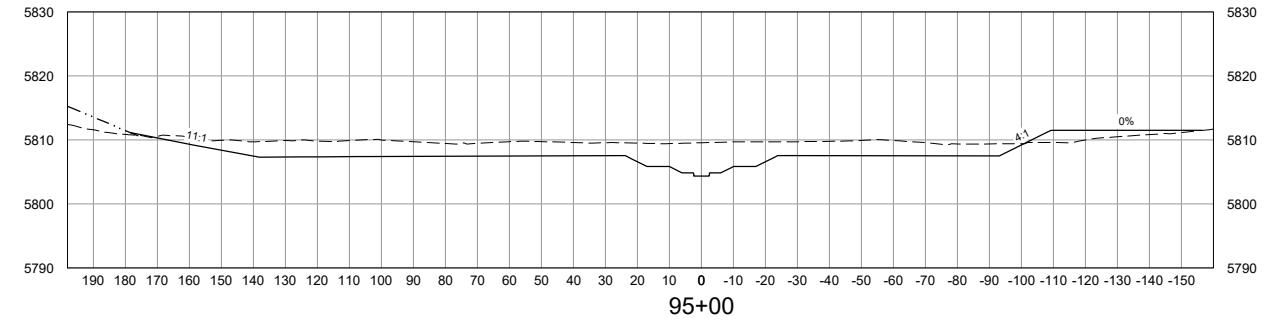
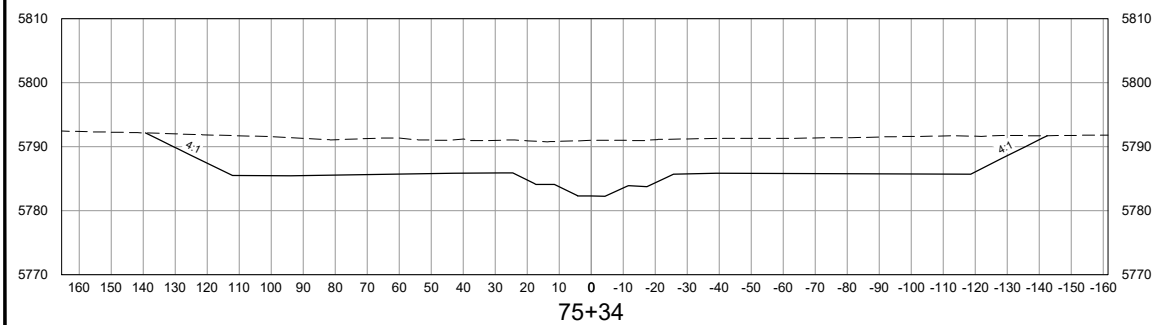
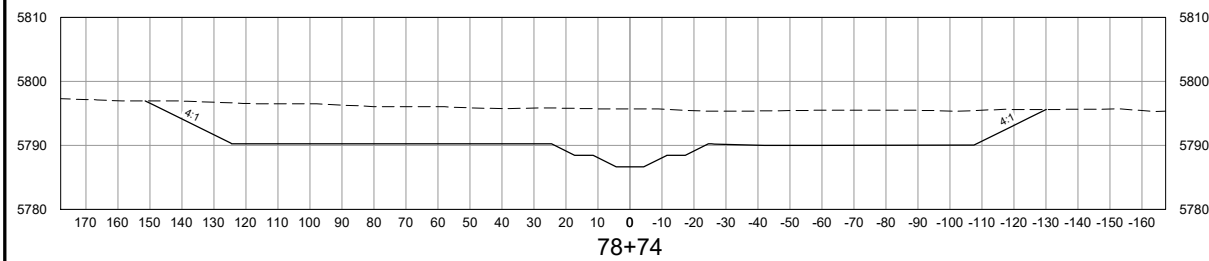
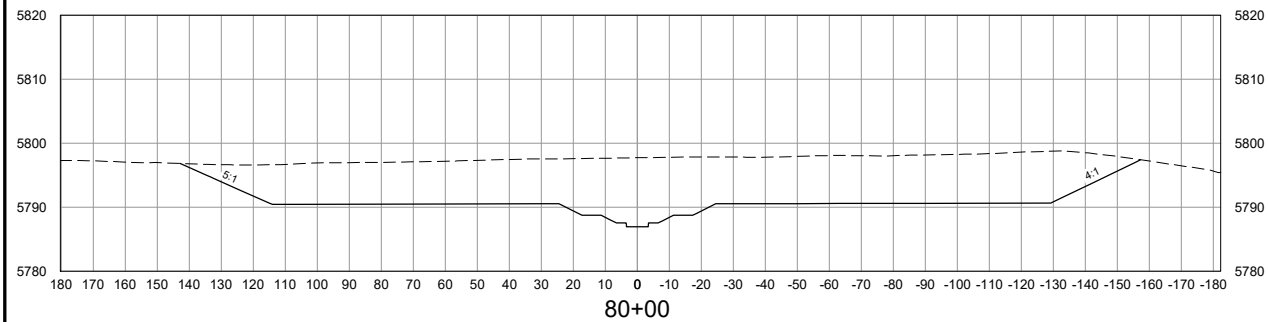
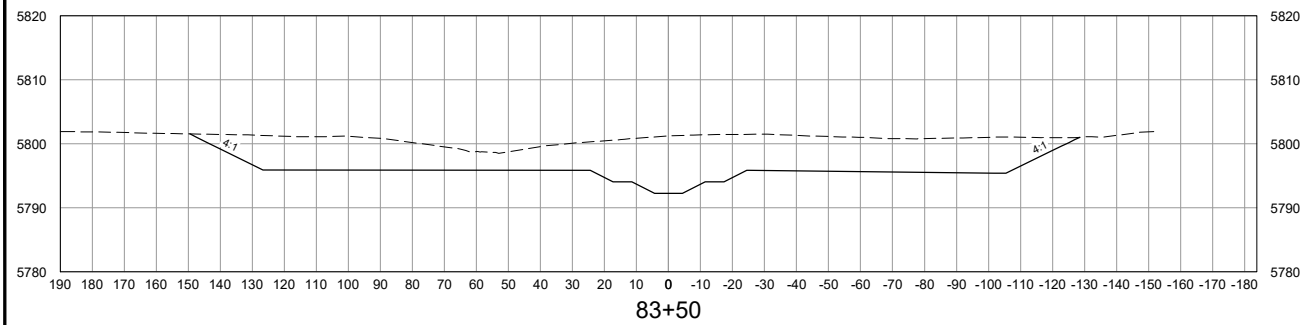
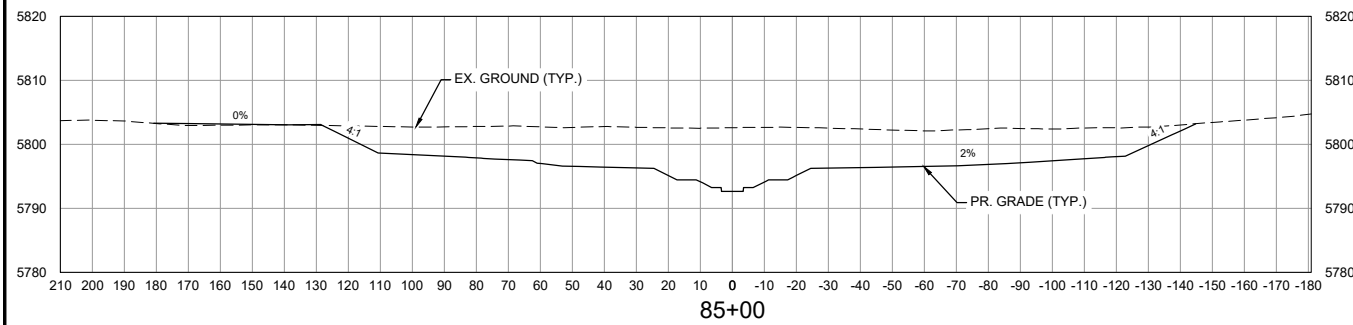


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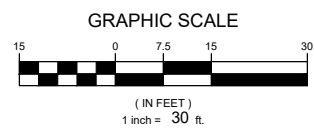
THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
CROSS SECTIONS STA. 51+78 - 73+00			
DESIGNED BY: TKM	SCALE: 1" = 60'	DATE ISSUED: MARCH 2023	DRAWING No. XS05
CHECKED BY: AJS	VERT. 1" = 30'	SHEET 29 OF 47	



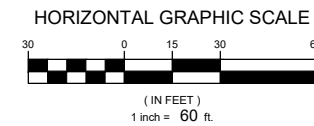
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VERTICAL SCALE: 1" = 30'



HORIZONTAL SCALE: 1" = 60'



NOTE:
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DOWNSTREAM

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COMPUTER FILE MANAGEMENT			
FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\Design Plans\1129.009-XS01-XX.dwg			
CTB FILE: Matrix(black).ctb			
PLOT DATE: March 7, 2023 12:40:31 PM			
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60% DESIGN PLANS

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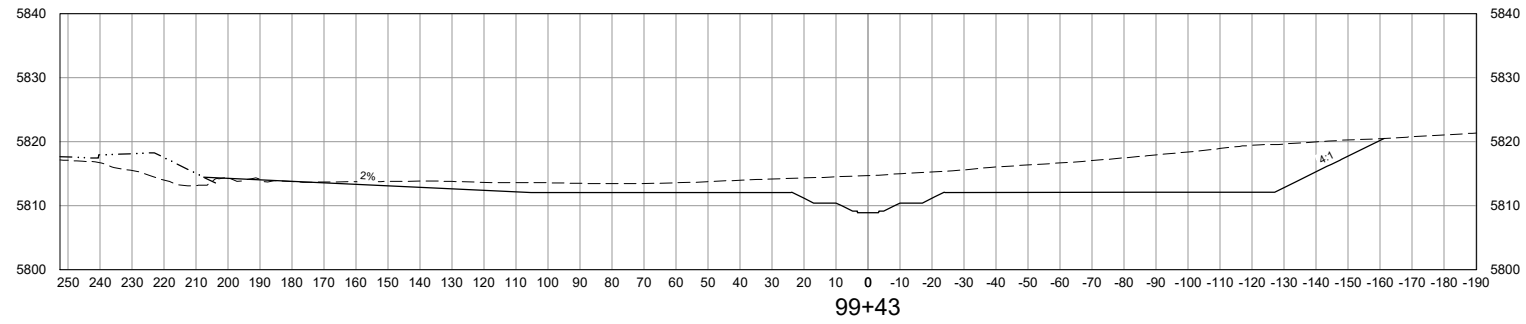
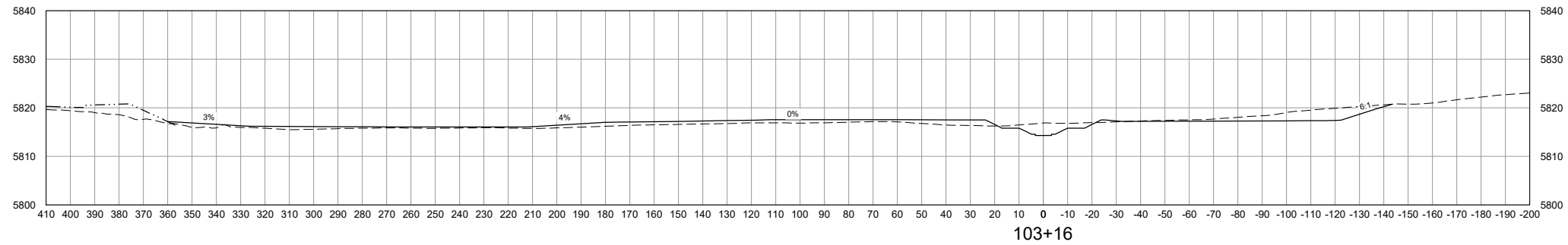
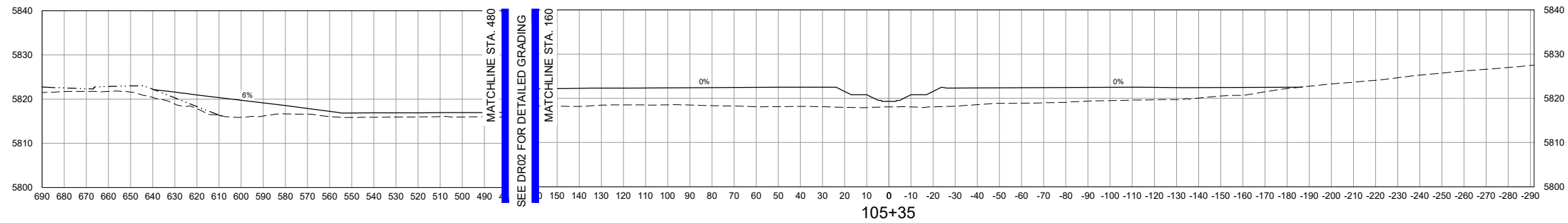
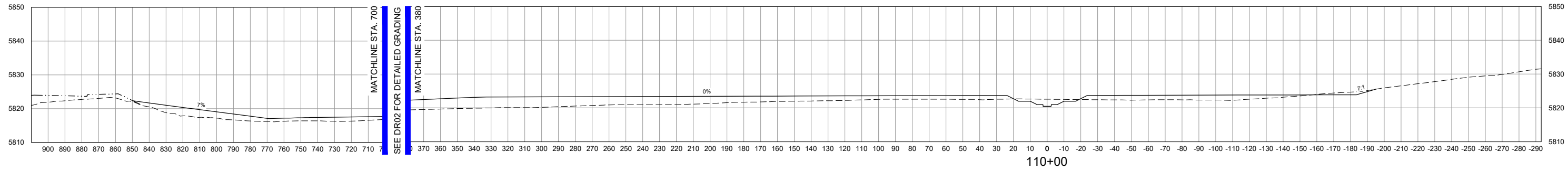
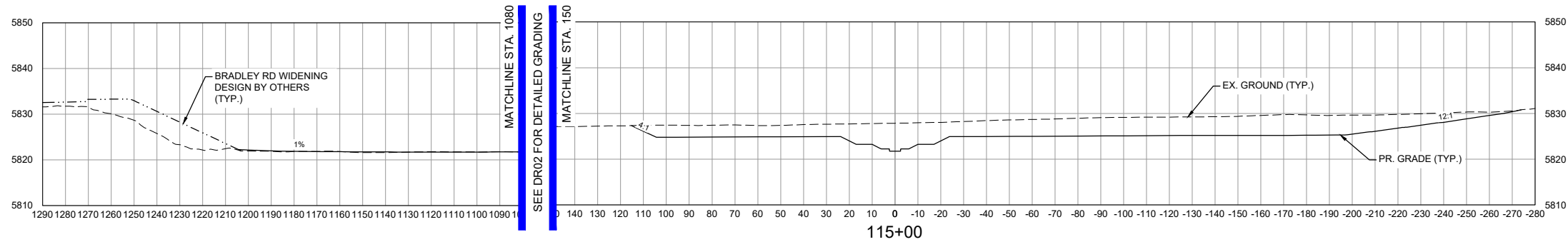
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MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

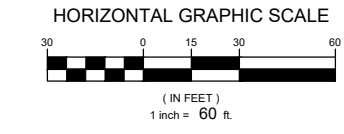
THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
CROSS SECTIONS STA. 75+34 - 95+00			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 60'	DATE ISSUED: MARCH 2023	DRAWING No. XS06
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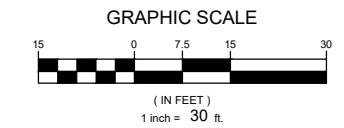
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HORIZONTAL SCALE: 1" = 60'



VERTICAL SCALE: 1" = 30'



NOTE:
ALL CROSS SECTIONS ARE SHOWN LOOKING DOWNSTREAM

No.	DATE	DESCRIPTION	BY
COMPUTER FILE MANAGEMENT			
FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\Design Plans\1129.009-XS01-XX.dwg			
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60% DESIGN PLANS

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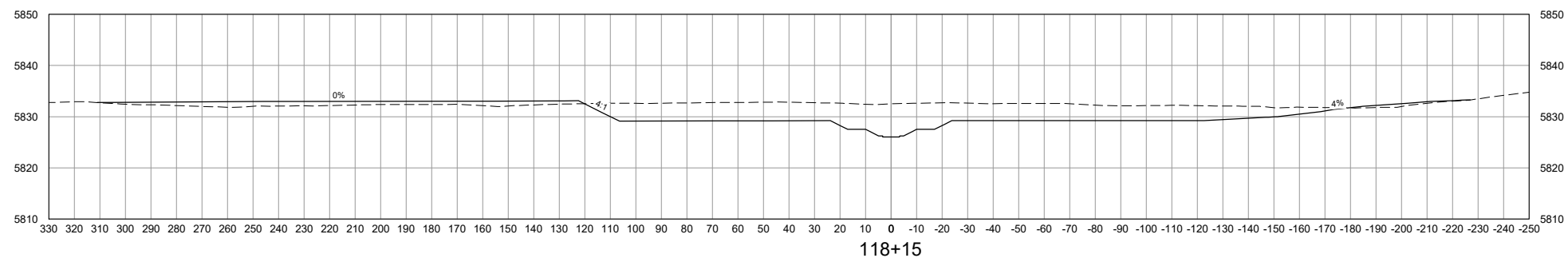
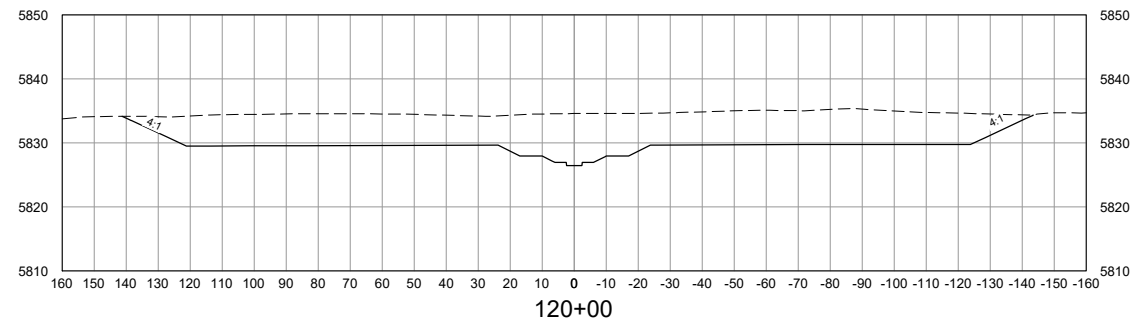
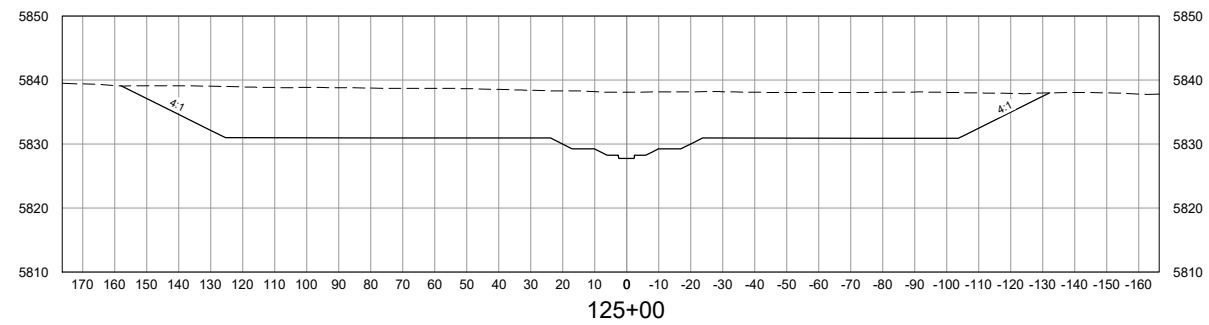
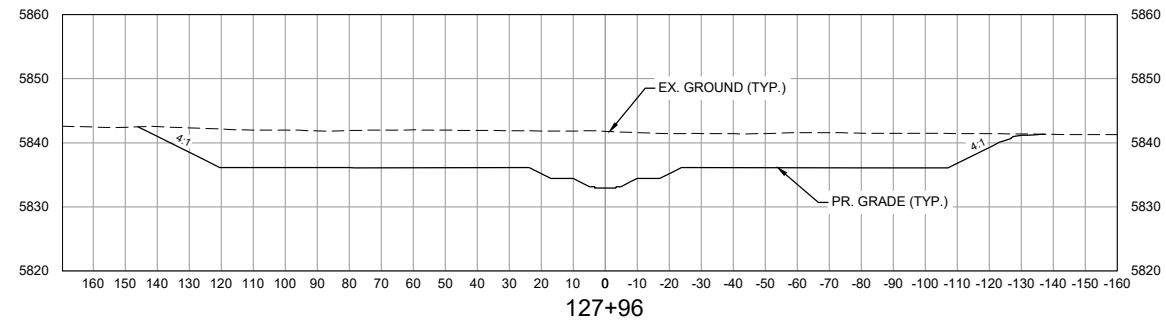
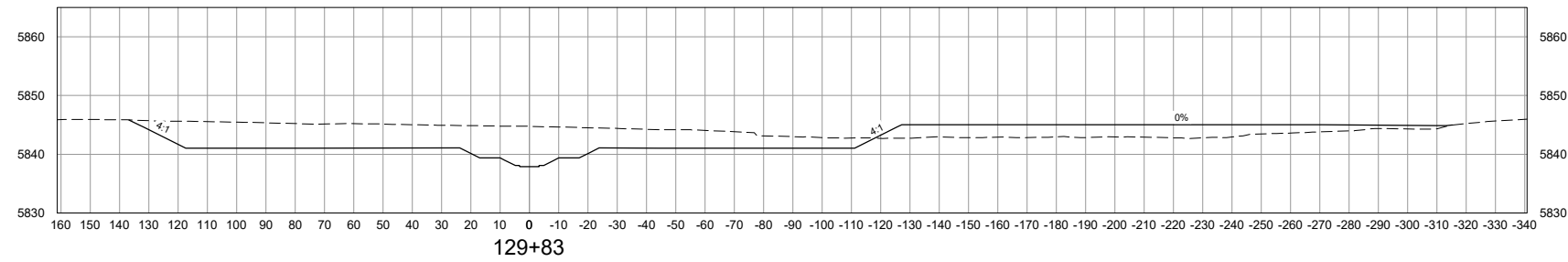
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PRELIMINARY
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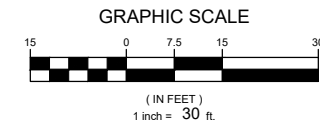
THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
CROSS SECTIONS STA. 99+42 - 115+00			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 60'	DATE ISSUED: MARCH 2023	DRAWING No. XS07
CHECKED BY: EAL	VERT. 1" = 30'	SHEET 31 OF 47	



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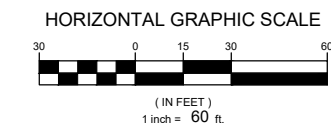


VERTICAL SCALE: 1" = 30'



NOTE:
ALL CROSS SECTIONS ARE
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DOWNSTREAM

HORIZONTAL SCALE: 1" = 60'



REFERENCE DRAWINGS			
X-1129-MDG22x34			
X-1129-PR STRUCT			
X-1129-PARCELS			
No.	DATE	DESCRIPTION REVISIONS	BY
COMPUTER FILE MANAGEMENT			
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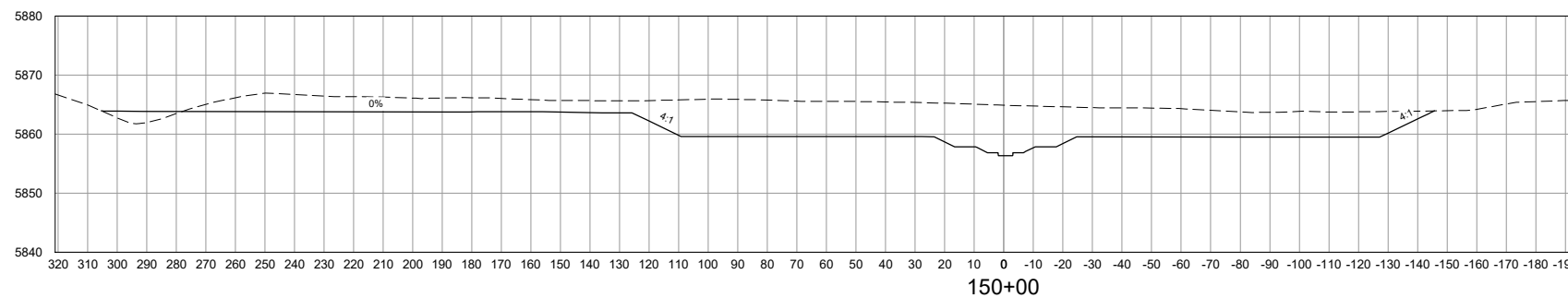
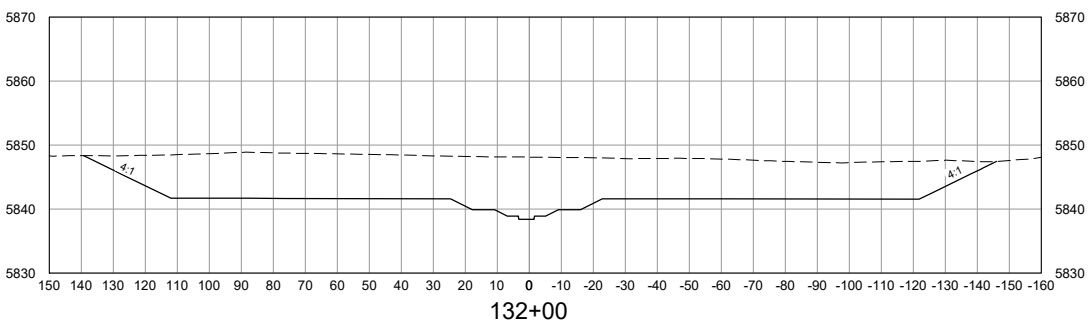
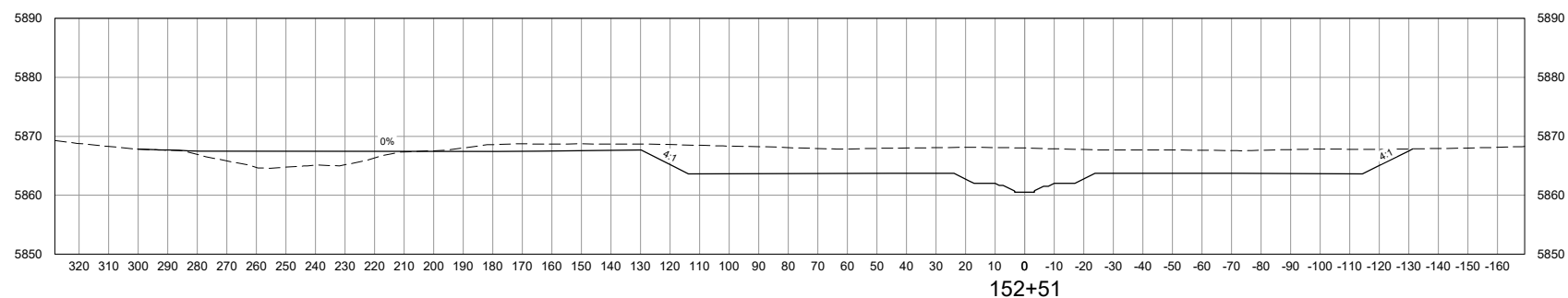
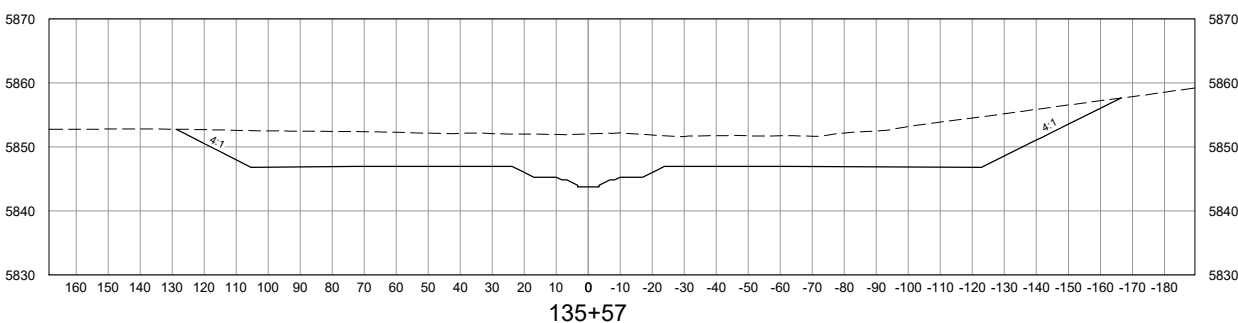
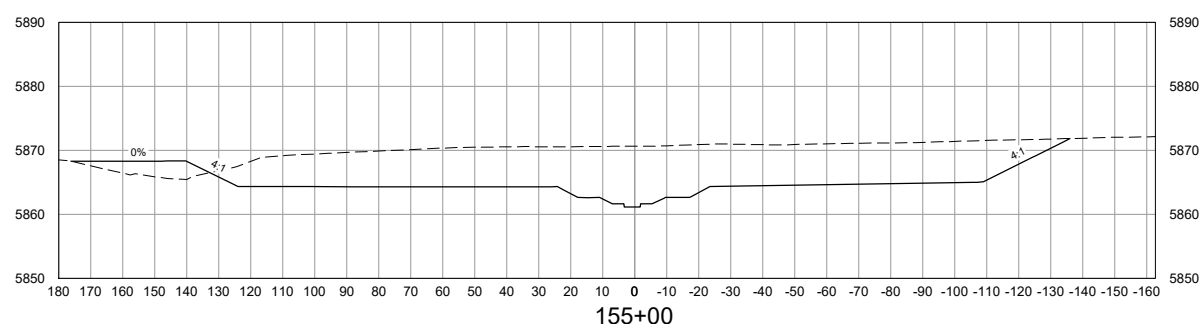
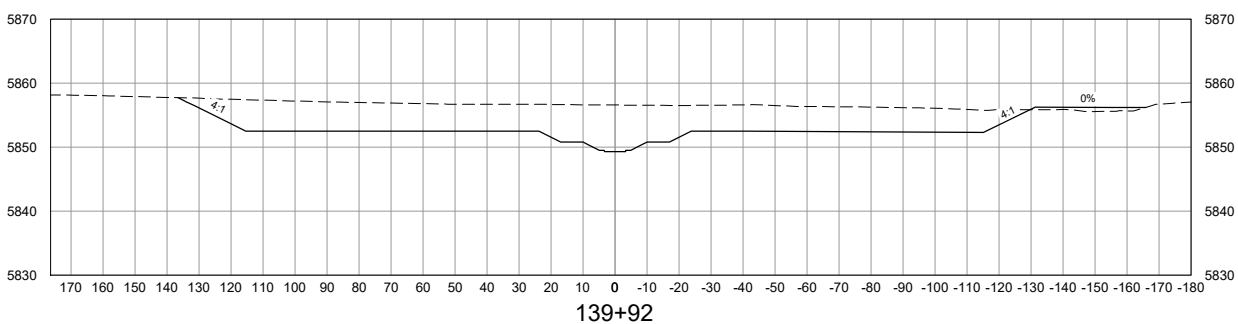
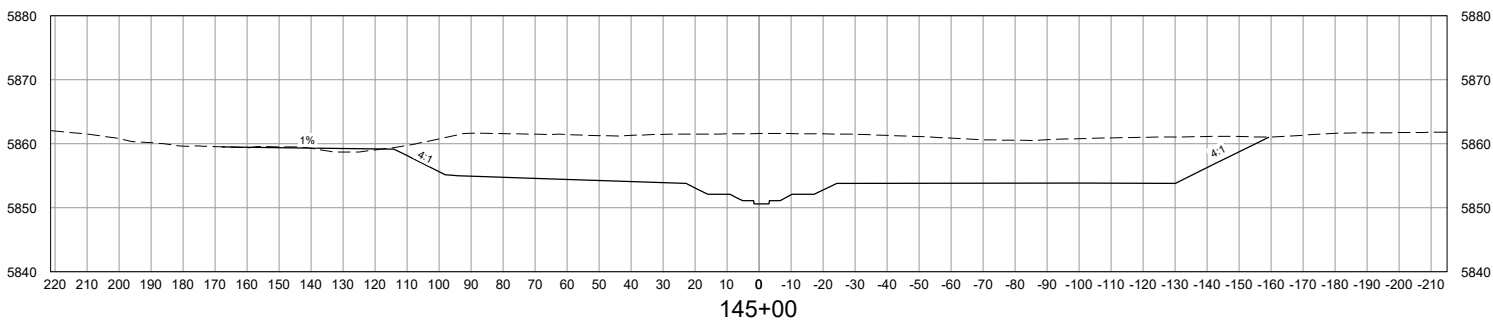
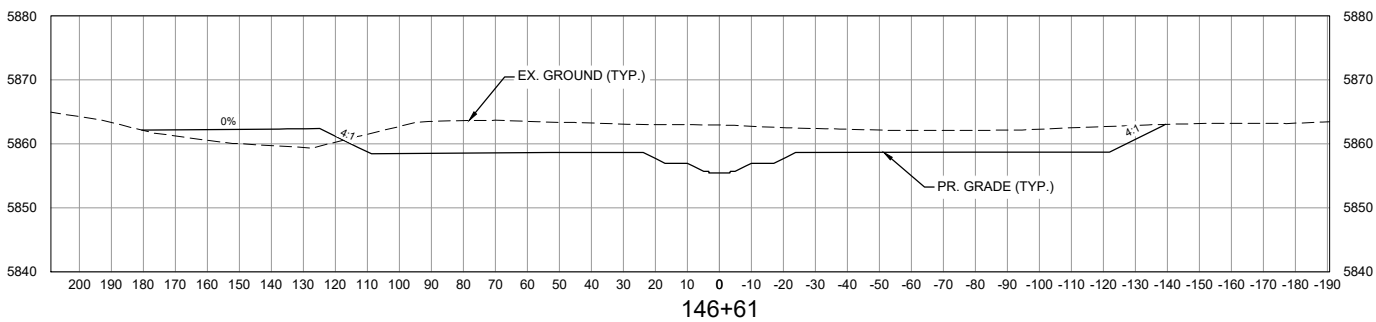
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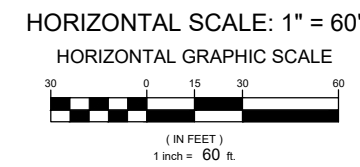
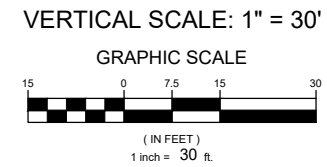
THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
CROSS SECTIONS STA. 118+14 - 129+82			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 60'	DATE ISSUED: MARCH 2023	DRAWING No. XS08
CHECKED BY: AJS	VERT. 1" = 30'	SHEET 32 OF 47	



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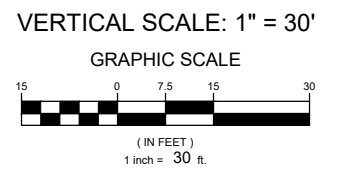
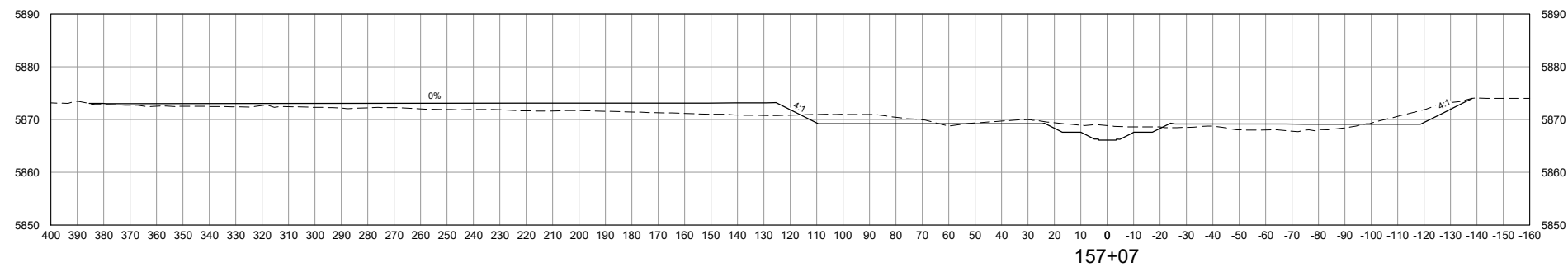
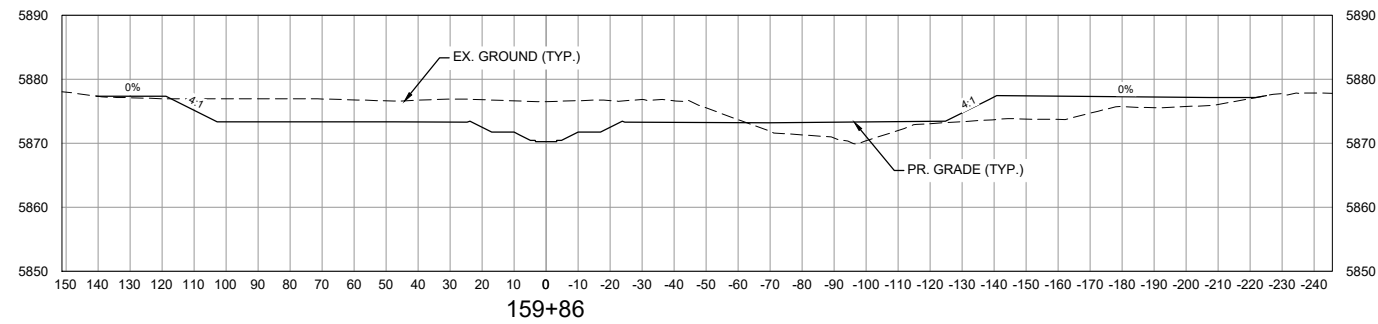
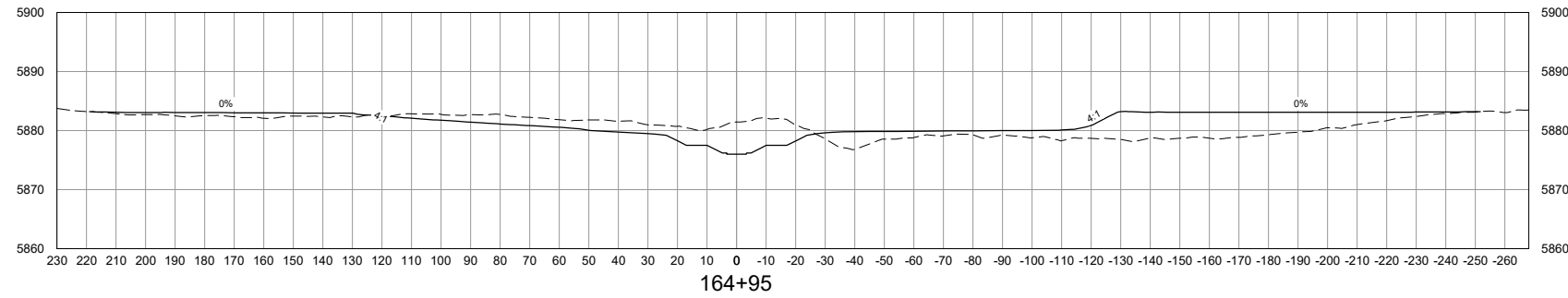
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PROJECT No. 21.1129.009

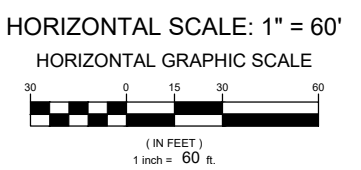
THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
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DESIGNED BY: TKM	SCALE: HORIZ 1" = 60'	DATE ISSUED: MARCH 2023	DRAWING No. XS09
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X-1129-PARCELS			
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60% DESIGN PLANS

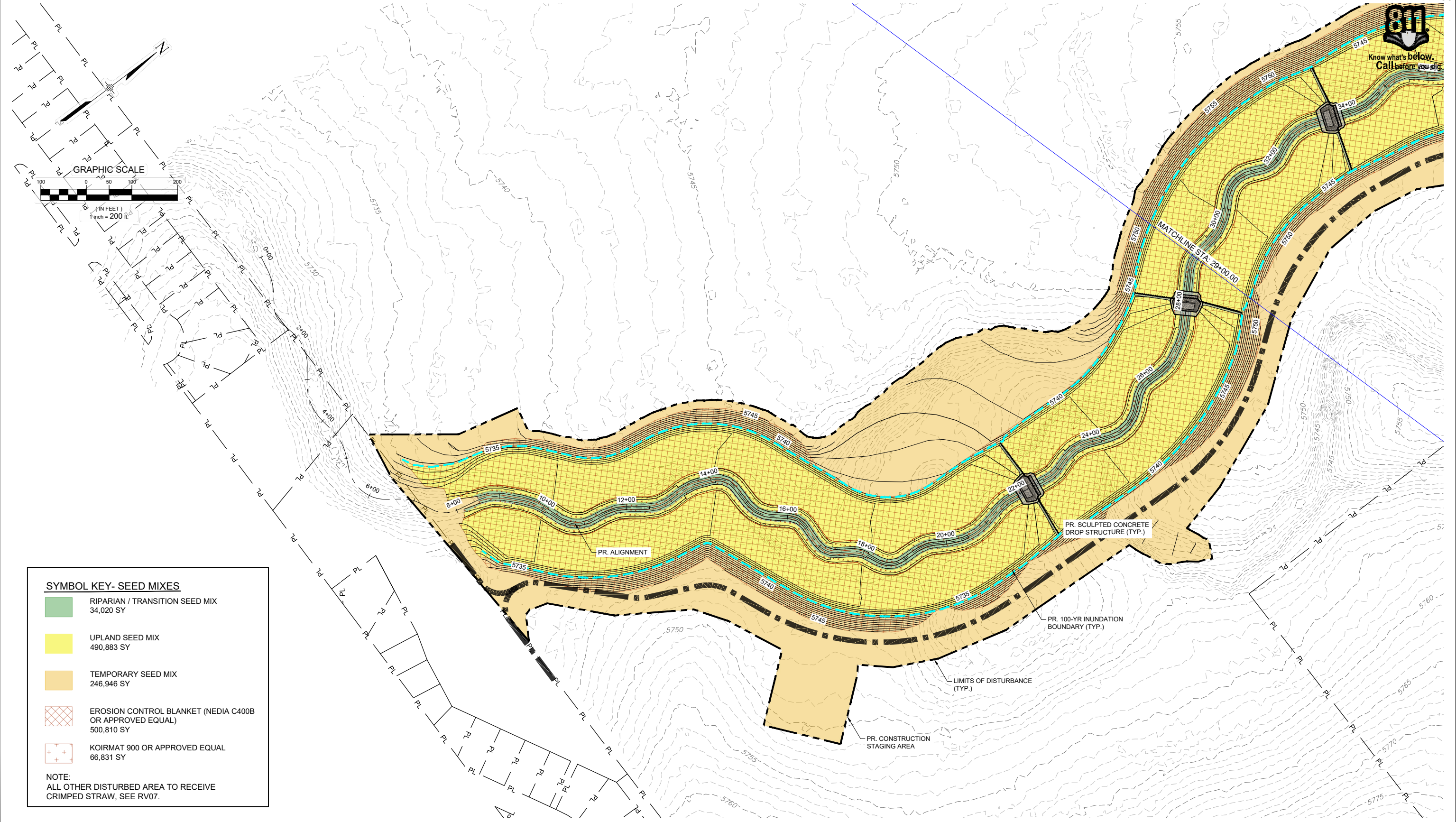
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THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
CROSS SECTIONS STA. 157+06 - 164+94			
DESIGNED BY: TKM	SCALE: HORIZ 1" = 60'	DATE ISSUED: MARCH 2023	DRAWING No. XS10
CHECKED BY: AJS	VERT. 1" = 30'	SHEET 34 OF 47	



SYMBOL KEY- SEED MIXES

	RIPARIAN / TRANSITION SEED MIX 34,020 SY
	UPLAND SEED MIX 490,883 SY
	TEMPORARY SEED MIX 246,946 SY
	EROSION CONTROL BLANKET (NEDIA C400B OR APPROVED EQUAL) 500,810 SY
	KOIRMAT 900 OR APPROVED EQUAL 66,831 SY

NOTE:
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REFERENCE DRAWINGS			
X-1129-MDG22x34			
X-1129-PR STRUCT			
X-1129-PARCELS			
X-1129-PR-REV6			
No.	DATE	DESCRIPTION REVISIONS	BY
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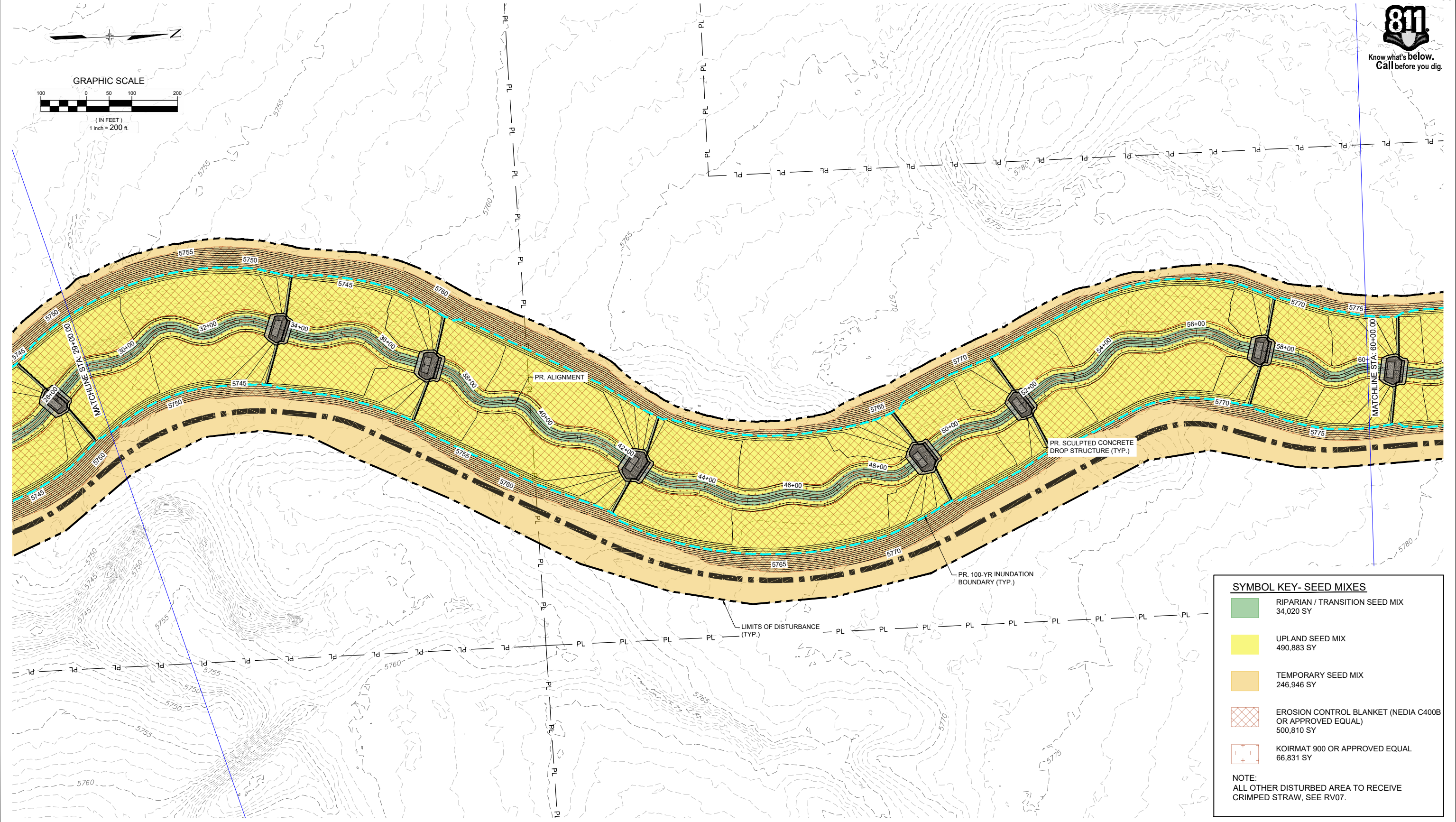
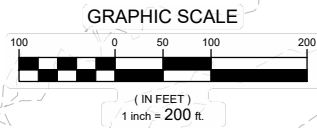


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SEAL			
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THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
REVEGETATION PLAN STA. 7+00 - 29+00			
DESIGNED BY: EEG	SCALE: HORIZ 1" = 200'	DATE ISSUED: MARCH 2023	DRAWING No. RV01
CHECKED BY: AJS	VERT. N/A	SHEET 35 OF 47	



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SYMBOL KEY - SEED MIXES

	RIPARIAN / TRANSITION SEED MIX 34,020 SY
	UPLAND SEED MIX 490,883 SY
	TEMPORARY SEED MIX 246,946 SY
	EROSION CONTROL BLANKET (NEDIA C400B OR APPROVED EQUAL) 500,810 SY
	KOIRMAT 900 OR APPROVED EQUAL 66,831 SY

NOTE:
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No.	DATE	DESCRIPTION REVISIONS	BY

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MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
REVEGETATION PLAN STA. 29+00 - 60+00			
DESIGNED BY: EEG	SCALE: HORIZ 1" = 200'	DATE ISSUED: MARCH 2023	DRAWING No. RV02
CHECKED BY: EAL	VERT. N/A	SHEET 36 OF 47	

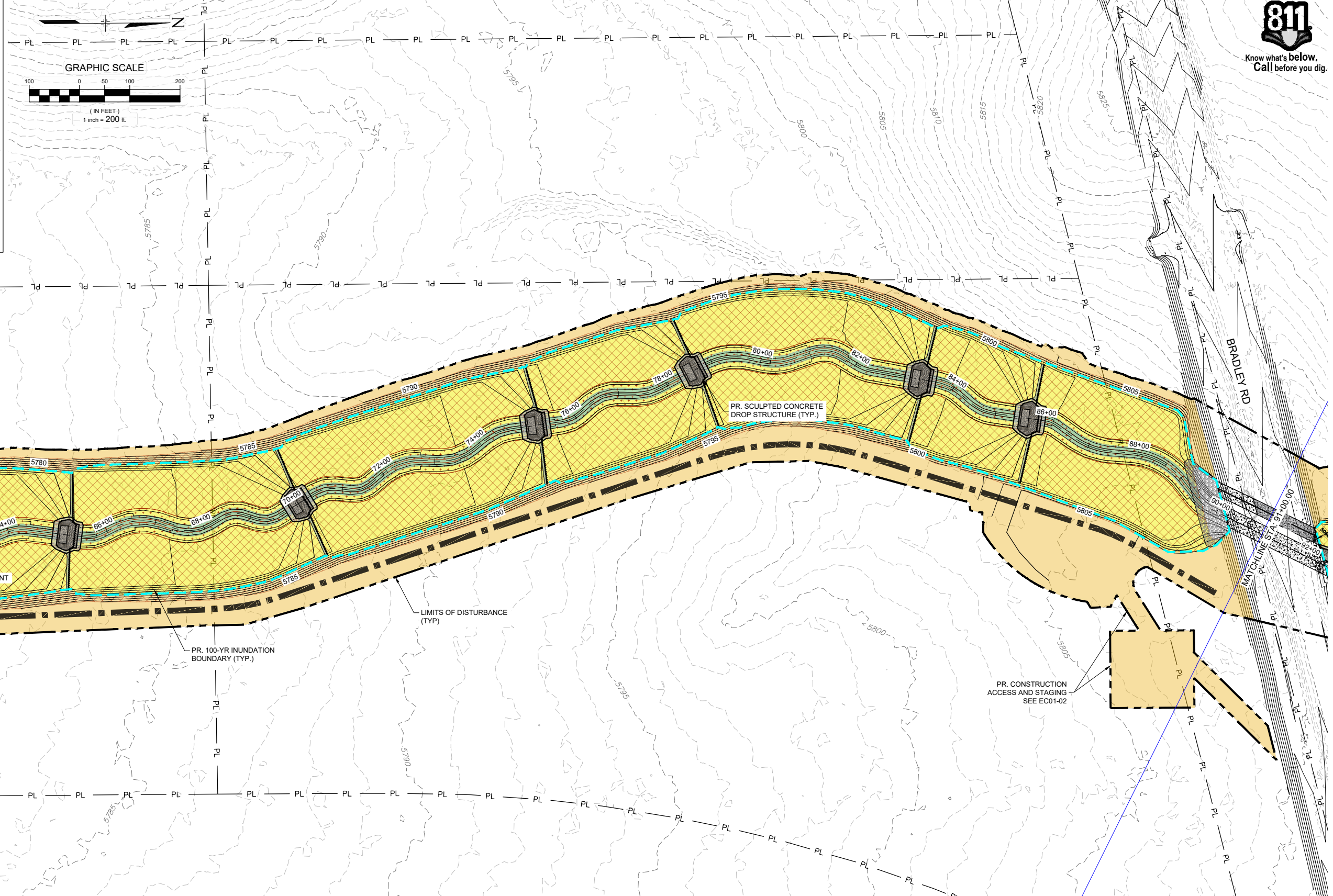


Know what's below.
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SYMBOL KEY- SEED MIXES

- RIPARIAN / TRANSITION SEED MIX
34,020 SY
- UPLAND SEED MIX
490,883 SY
- TEMPORARY SEED MIX
246,946 SY
- EROSION CONTROL BLANKET (NEDIA C400B OR APPROVED EQUAL)
500,810 SY
- KOIRMAT 900 OR APPROVED EQUAL
66,831 SY

NOTE:
ALL OTHER DISTURBED AREA TO RECEIVE CRIMPED STRAW, SEE RV07.



No.	DATE	DESCRIPTION REVISIONS	BY

COMPUTER FILE MANAGEMENT

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THE LANDHUIS COMPANY

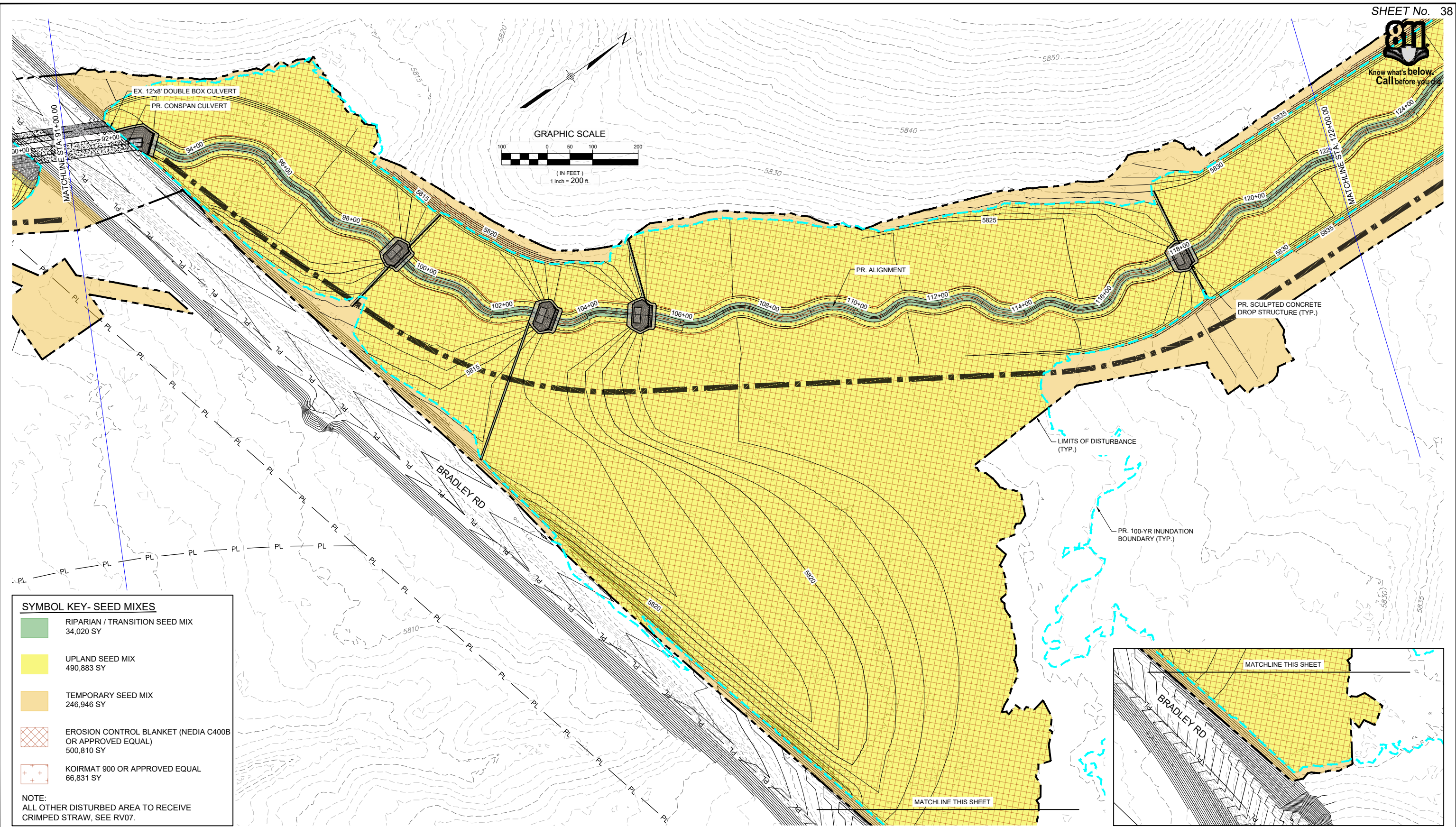
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION
60% DESIGN PLANS

REVEGETATION PLAN
STA. 60+00 - 91+00

DESIGNED BY: EEG	SCALE: HORIZ 1" = 200'	DATE ISSUED: MARCH 2023	DRAWING No.:
CHECKED BY: AJS	VERT. N/A	SHEET: 37 OF 47	RV03



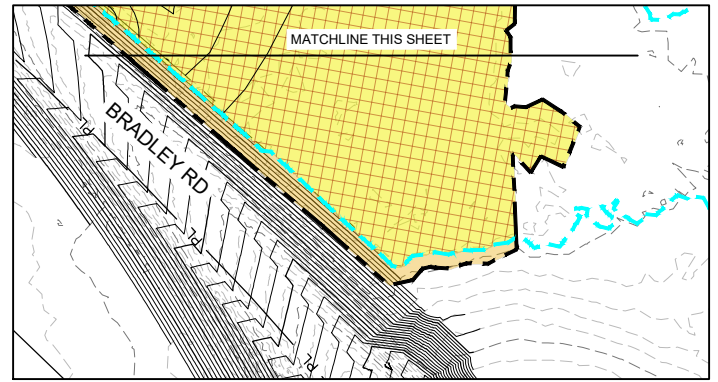
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SYMBOL KEY- SEED MIXES

- RIPARIAN / TRANSITION SEED MIX
34,020 SY
- UPLAND SEED MIX
490,883 SY
- TEMPORARY SEED MIX
246,946 SY
- EROSION CONTROL BLANKET (NEDIA C400B OR APPROVED EQUAL)
500,810 SY
- KOIRMAT 900 OR APPROVED EQUAL
66,831 SY

NOTE:
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PREPARED BY:

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THE LANDHUIS COMPANY

ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION
60% DESIGN PLANS

REVEGETATION PLAN
STA. 91+00 - 122+00

DESIGNED BY: EEG	SCALE: HORIZ 1" = 200'	DATE ISSUED: MARCH 2023	DRAWING No. RV04
CHECKED BY: AJS	VERT. N/A	SHEET 38 OF 47	

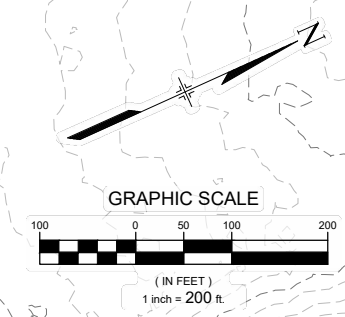
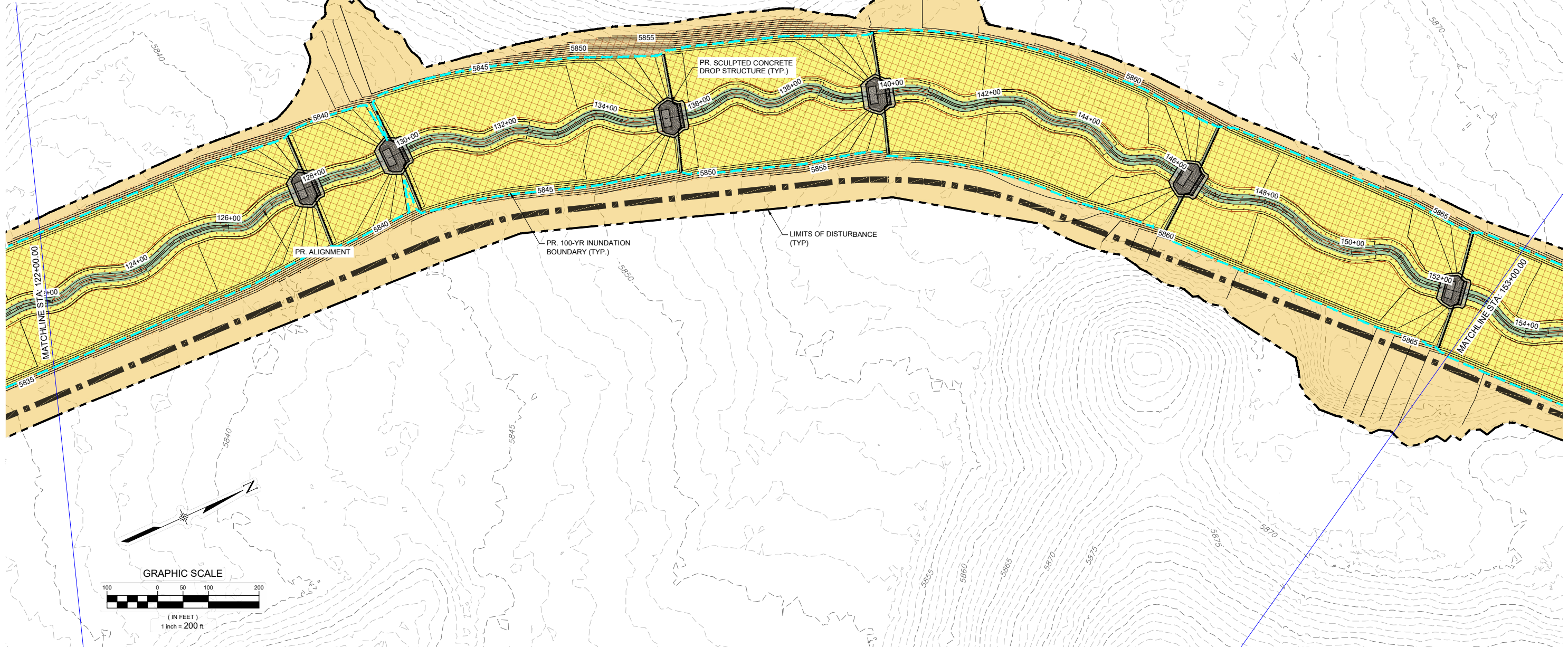


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SYMBOL KEY- SEED MIXES

	RIPARIAN / TRANSITION SEED MIX 34,020 SY
	UPLAND SEED MIX 490,883 SY
	TEMPORARY SEED MIX 246,946 SY
	EROSION CONTROL BLANKET (NEDIA C400B OR APPROVED EQUAL) 500,810 SY
	KOIRMAT 900 OR APPROVED EQUAL 66,831 SY

NOTE:
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THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
REVEGETATION PLAN STA. 122+00 - 153+00			
DESIGNED BY: EEG	SCALE: 1" = 200'	DATE ISSUED: MARCH 2023	DRAWING No. RV05
CHECKED BY: EAL	HORIZ: 1" = 200'	SHEET: 39 OF 47	
	VERT: N/A		

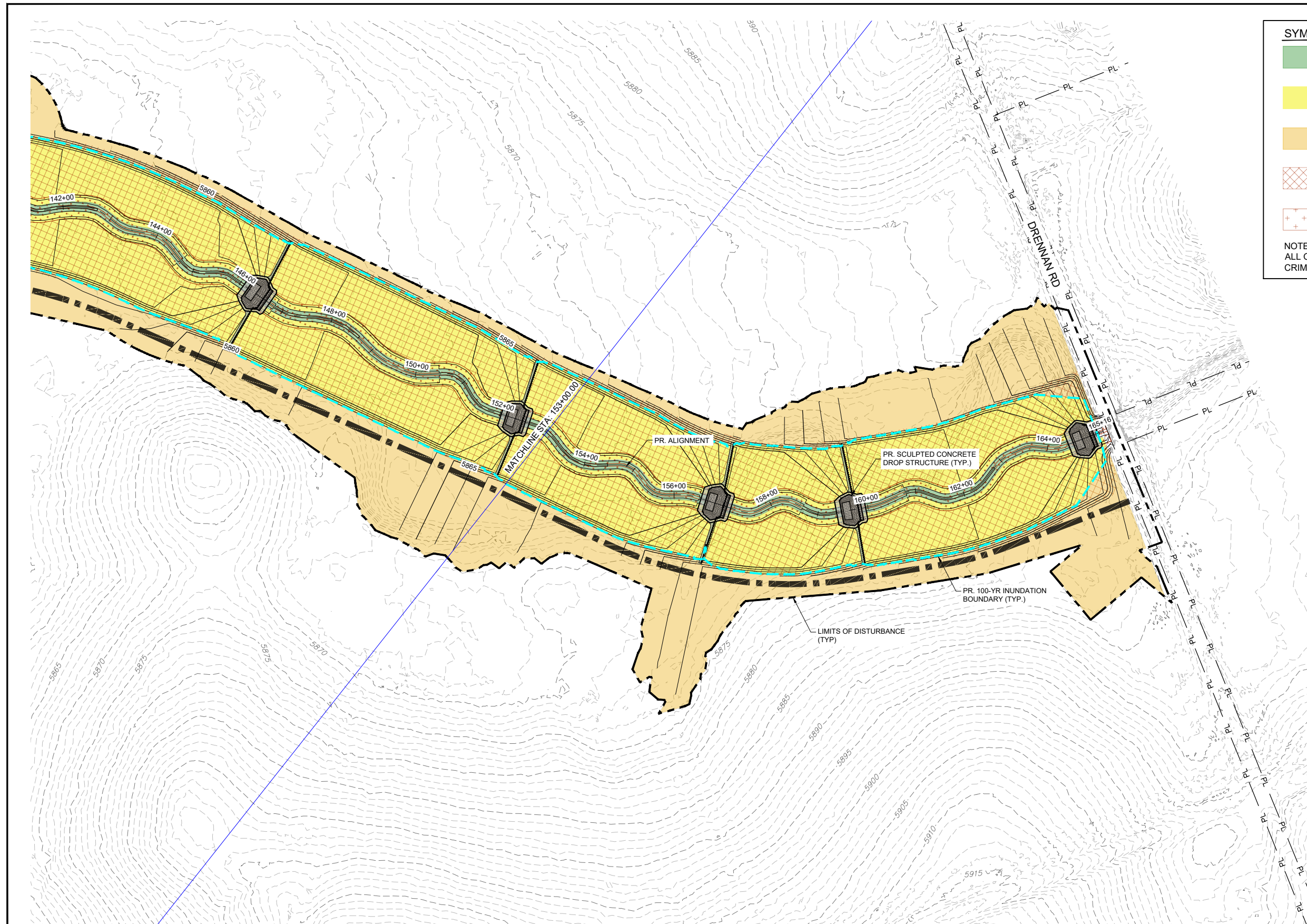
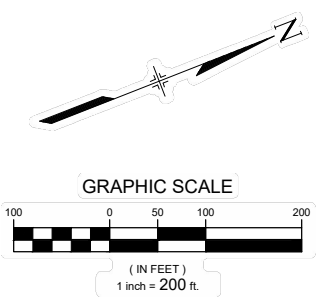


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SYMBOL KEY- SEED MIXES

	RIPARIAN / TRANSITION SEED MIX 34,020 SY
	UPLAND SEED MIX 490,883 SY
	TEMPORARY SEED MIX 246,946 SY
	EROSION CONTROL BLANKET (NEDIA C400B OR APPROVED EQUAL) 500,810 SY
	KOIRMAT 900 OR APPROVED EQUAL 66,831 SY

NOTE:
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X-1129-PARCELS			
X-1129-PR-REVEG			
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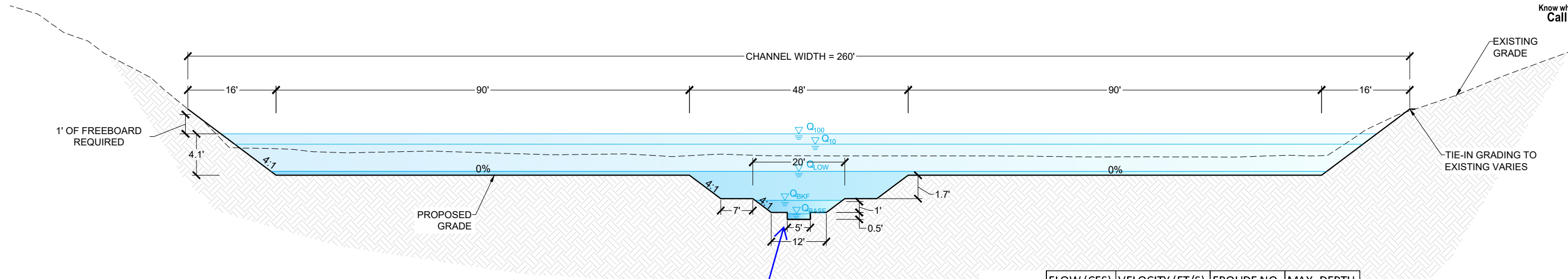
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ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
REVEGETATION PLAN STA. 153+00 - 165+16			
DESIGNED BY: EEG	SCALE: HORIZ 1" = 200'	DATE ISSUED: MARCH 2023	DRAWING No. RV06
CHECKED BY: AJS	VERT. N/A	SHEET 40 OF 47	



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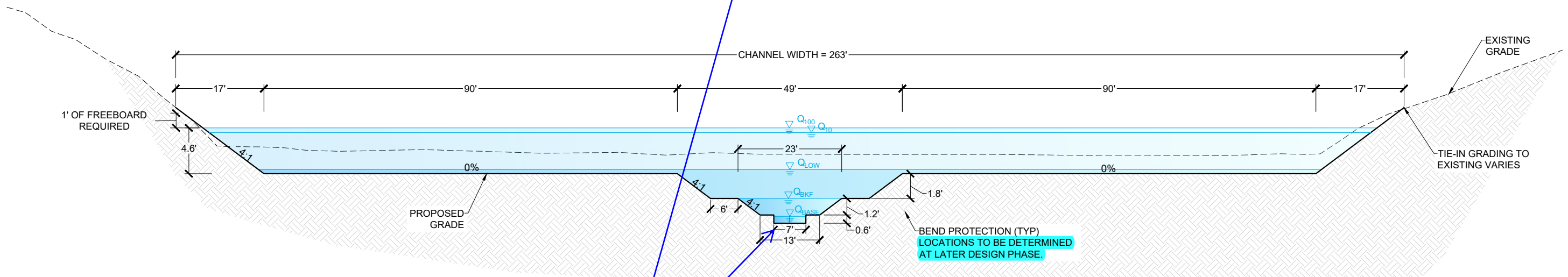


UPPER CHANNEL TYPICAL SECTION
STA 92+06 TO 165+37; SLOPE = 0.25%

NOT TO SCALE NOTE 3:1 VERTICAL EXAGGERATION

	FLOW (CFS)	VELOCITY (FT/S)	FROUDE NO.	MAX. DEPTH
Q _{BASE}	2	1.03	0.29	0.39
Q _{BKF}	25	1.14	0.25	1.60
Q _{LOW}	183	1.05	0.21	3.58
Q ₁₀	2320	2.80	0.27	6.29
Q ₁₀₀	3600	3.29	0.28	7.32

NOTE:
FLOODPLAIN DEPTH VARIES BASED
ON CHANNEL HYDRAULICS.



LOWER CHANNEL TYPICAL SECTION
STA 00+00 TO 90+98; SLOPE = 0.25%

NOT TO SCALE NOTE 3:1 VERTICAL EXAGGERATION

	FLOW (CFS)	VELOCITY (FT/S)	FROUDE NO.	MAX. DEPTH
Q _{BASE}	4	1.19	0.30	0.48
Q _{BKF}	40	1.39	0.27	1.89
Q _{LOW}	227	1.15	0.22	4.02
Q ₁₀	3729	3.33	0.29	7.74
Q ₁₀₀	4400	3.54	0.29	8.21

FLOW DATA SOURCES:
Q₁₀₀ - FEMA FIS
Q₁₀ - 2015 DBPS
Q_{LOW} - CITY/COUNTY EQUATIONS
Q_{BKF} - MATRIX REGRESSION EQUATIONS
Q_{BASE} - MIN. CONSTRUCTIBLE CHANNEL
SEE CHANNEL DESIGN REPORT FOR ADDITIONAL DETAIL.

Unresolved:
Deviation request for
low-flow channel should
be submitted to finalize
that aspect of design.

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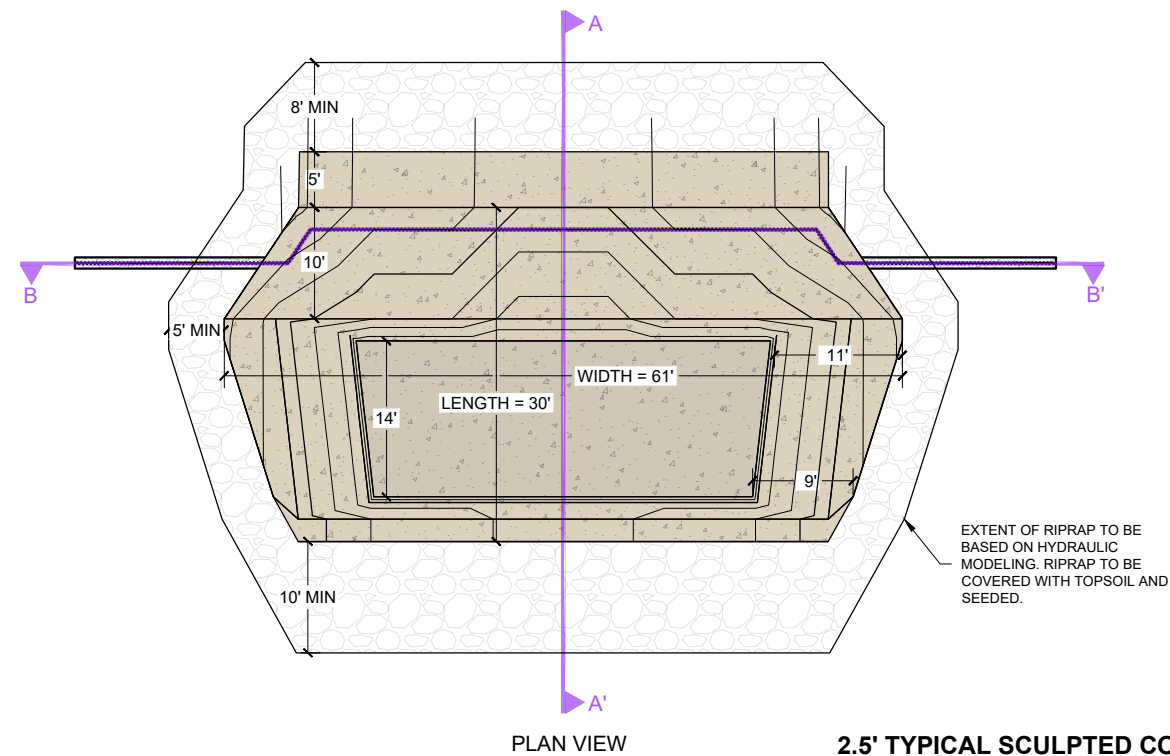
THE LANDHUIS COMPANY
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION
60% DESIGN PLANS

TYPICAL DESIGN CHANNEL SECTION

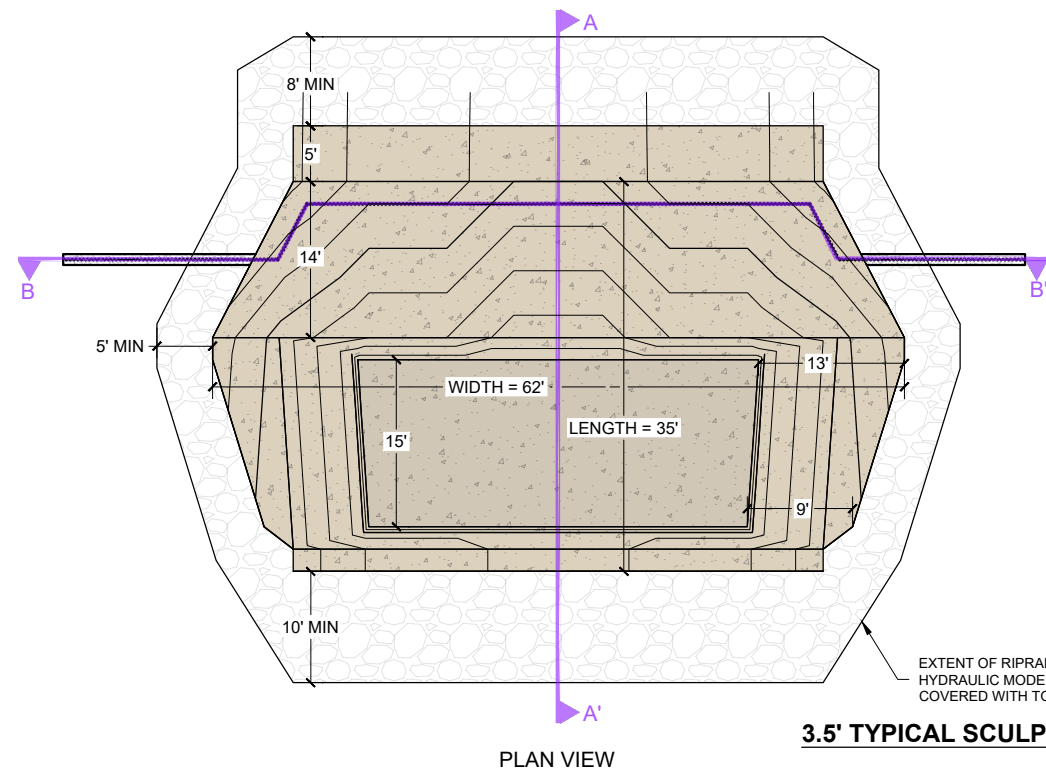
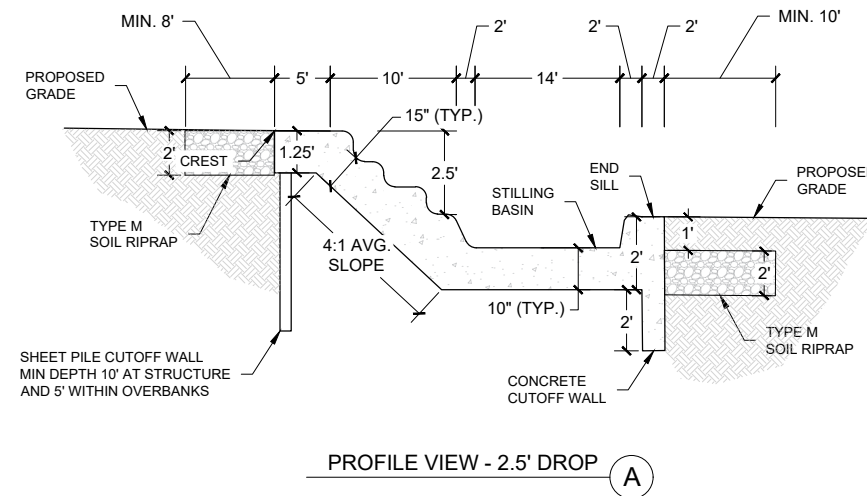
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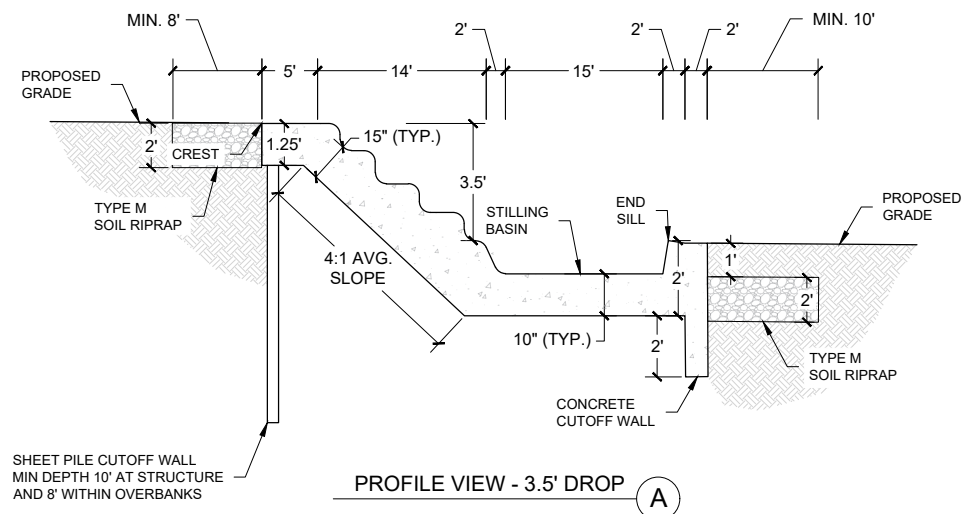
2.5' TYPICAL SCULPTED CONCRETE DROP STRUCTURE



3.5' TYPICAL SCULPTED CONCRETE DROP STRUCTURE

PLAN AND PROFILE VIEW OF TYPICAL SCULPTED CONCRETE DROP STRUCTURES

NOT TO SCALE



- NOTES:
- DROPS SHOWN ARE TYPICAL FOR THE UPSTREAM CHANNEL SECTION. MINOR VARIATION IN THE DROPS EXIST BETWEEN UPSTREAM AND DOWNSTREAM CHANNEL SECTIONS.
 - FOR ALL DROPS, DOWNSTREAM CUTOFF WALL DEPTH IS SET TO PROTECT AGAINST RISK OF DOWNSTREAM DEGRADATION, WITH MINIMUM DEPTH BEING 2'.
 - STILLING BASIN OF ALL DROPS IS 1'.
 - PROFILES FOR ALL DROPS CAN BE SEEN IN PP03-PP15. PROFILES FOR EACH CONCRETE DROP STRUCTURE WILL BE PROVIDED AT 90% DESIGN.

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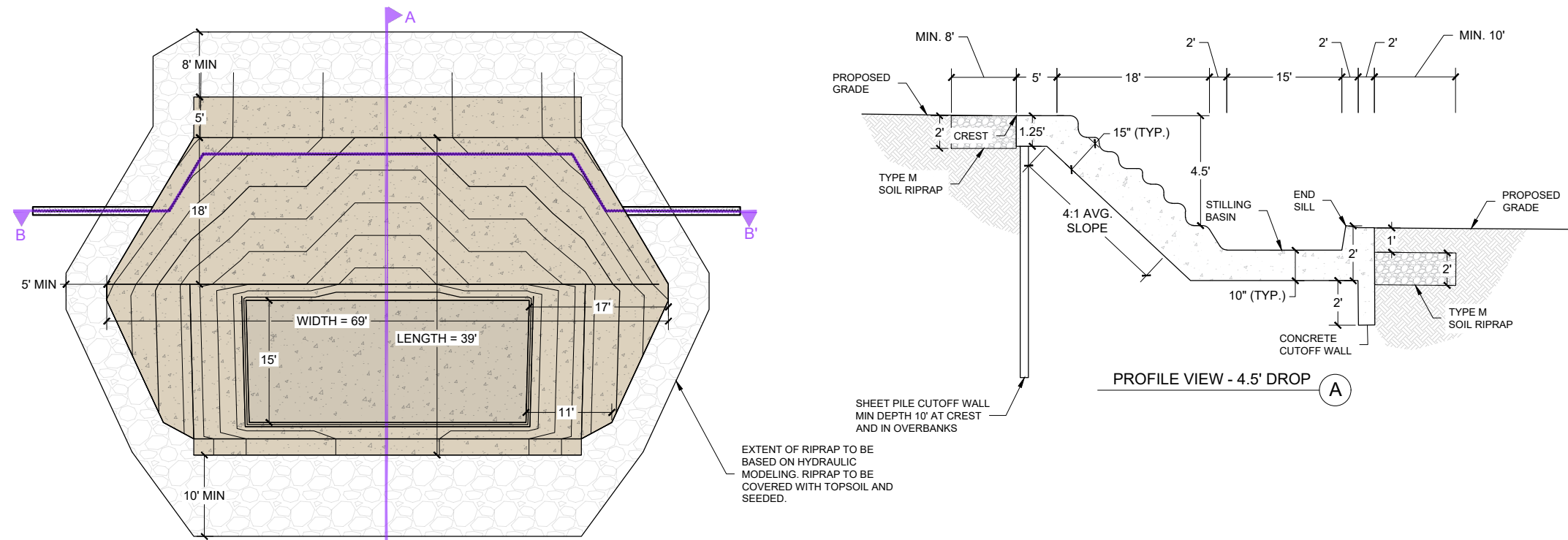
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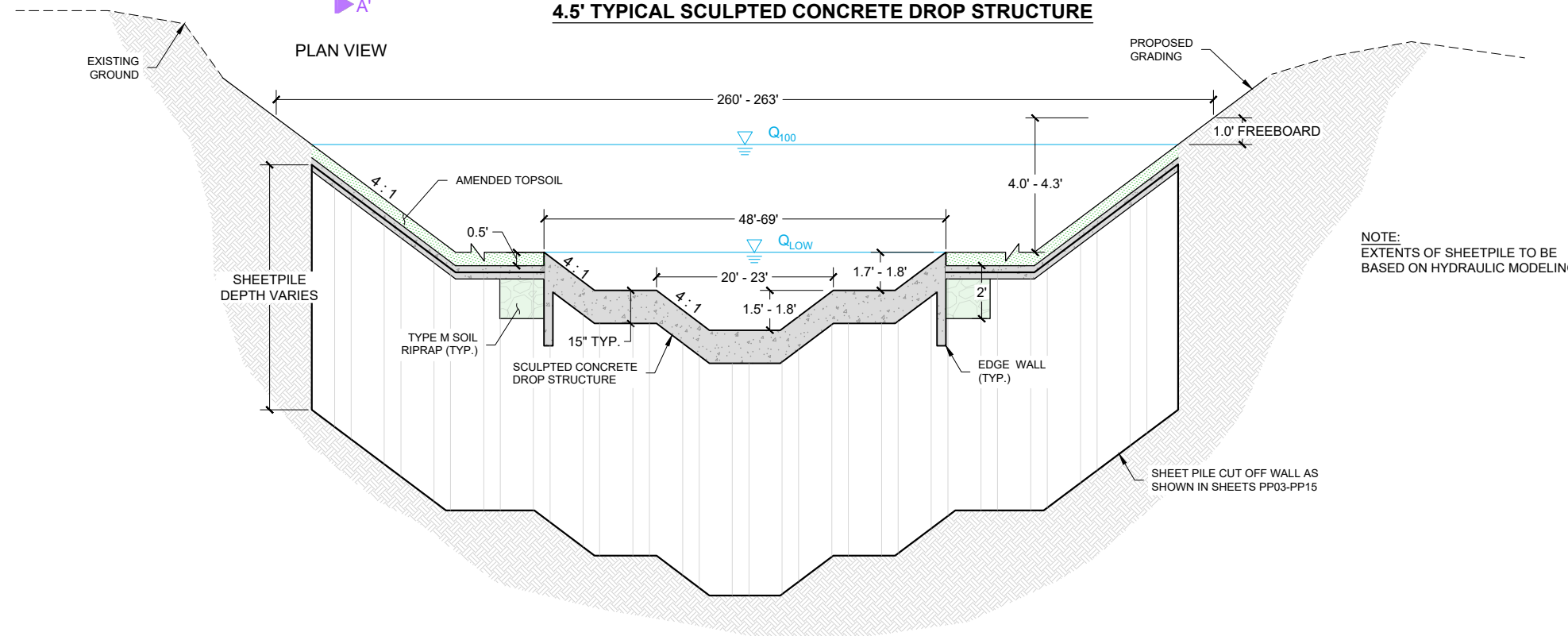
THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
TYPICAL DROP STRUCTURE PLAN AND PROFILE VIEWS			
DESIGNED BY: TKM	SCALE: HORIZ N/A	DATE ISSUED: MARCH 2023	DRAWING No. DT02
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4.5' TYPICAL SCULPTED CONCRETE DROP STRUCTURE



NOTE:
EXTENTS OF SHEETPILE TO BE
BASED ON HYDRAULIC MODELING.

CROSS SECTION VIEW - ALL DROPS (B)

TYPICAL SCULPTED CONCRETE DROP STRUCTURES

NOT TO SCALE

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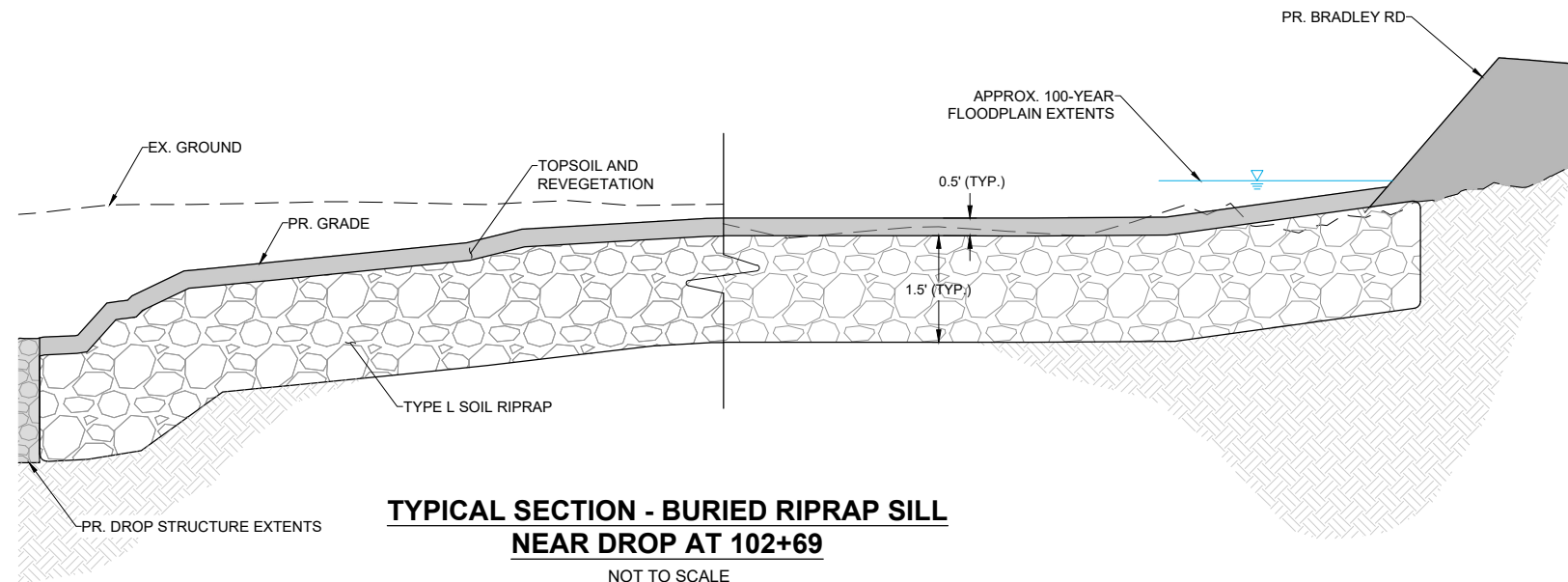


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THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
TYPICAL DROP STRUCTURE			
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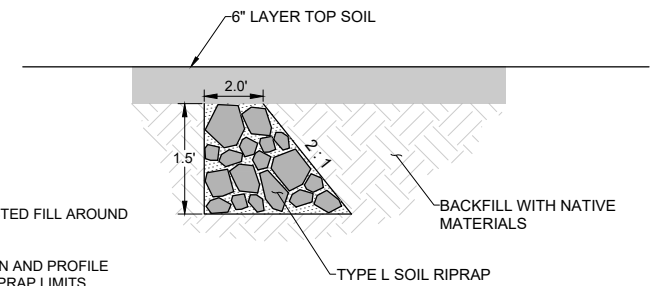


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**TYPICAL SECTION - BURIED RIPRAP SILL
NEAR DROP AT 102+69**

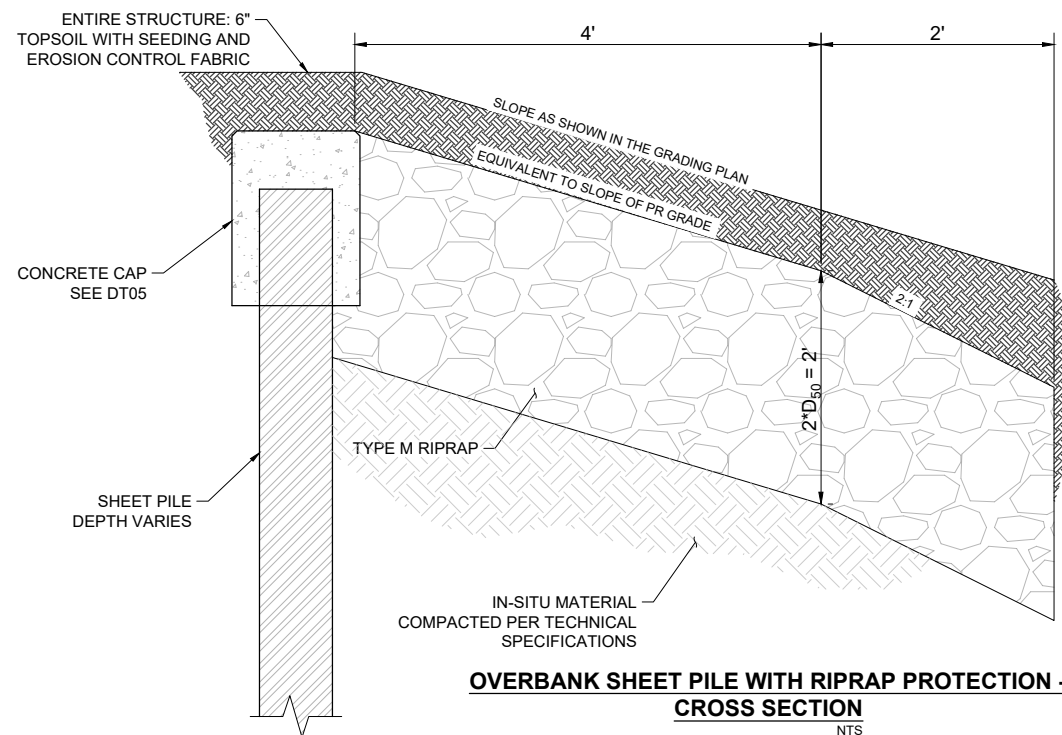
NOT TO SCALE



**TYPICAL PROFILE -
BURIED RIPRAP SILL**

NOTES

- 1) PLACE COMPACTED FILL AROUND RIPRAP SILLS.
- 2) SEE SHEET PLAN AND PROFILE SHEETS FOR RIPRAP LIMITS.



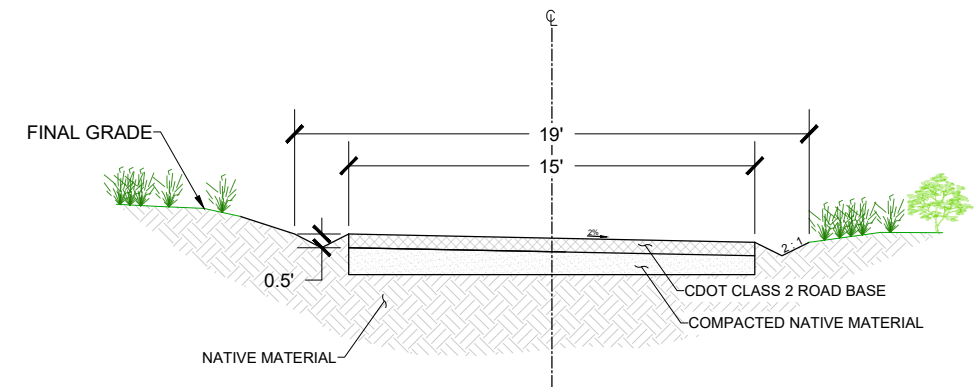
**OVERBANK SHEET PILE WITH RIPRAP PROTECTION -
CROSS SECTION**

NTS

NOTE:
SHEET PILE CAN BE REMOVED AND REPLACED WITH RIPRAP APRON PROTECTING OVERBANK. DETAIL NOT SHOWN.

NOTES:

1. SHEETPILE TO BE PLACED WHERE NOTED IN THE PP SHEETS.



TYPICAL COUNTY ACCESS ROAD CROSS SECTION

NTS

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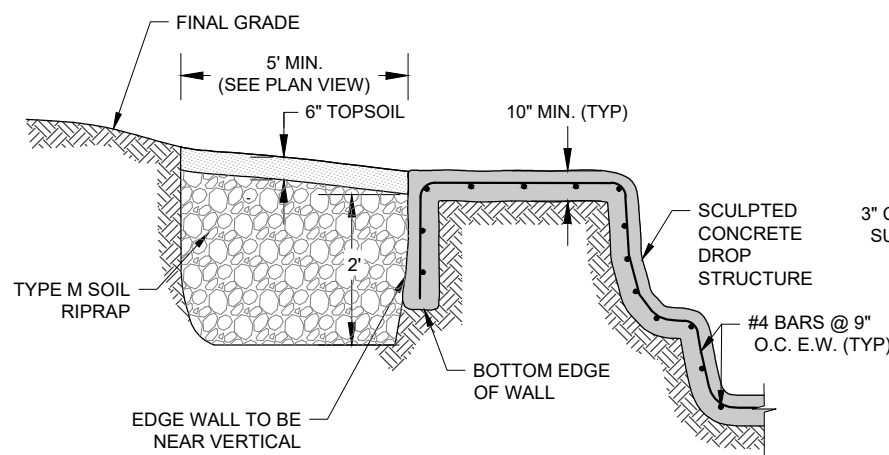
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ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
TYPICAL DETAILS			
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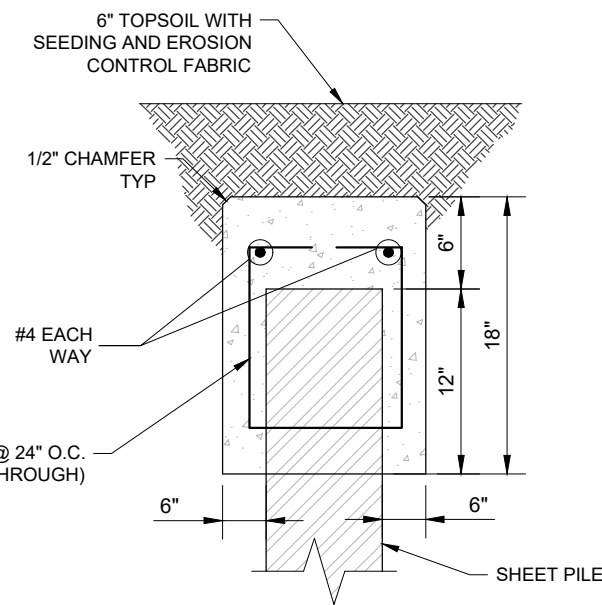


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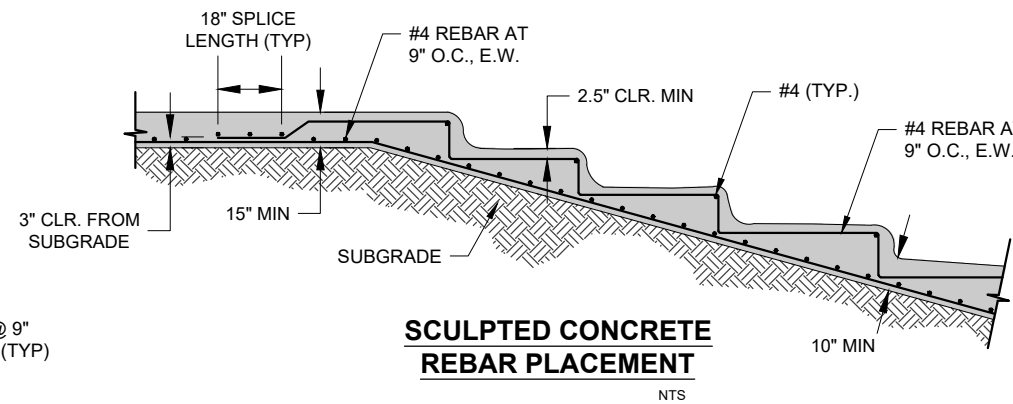
NOTES:
1. DETAIL APPLIES TO THE OUTER PERIMETER OF THE STRUCTURE.
2. SEE THE REBAR PLACEMENT DETAIL FOR RIPRAP LIMITS IN THE CHANNEL PORTION OF THE STRUCTURE.

STRUCTURE EDGE WALL DETAIL (SC)
NTS

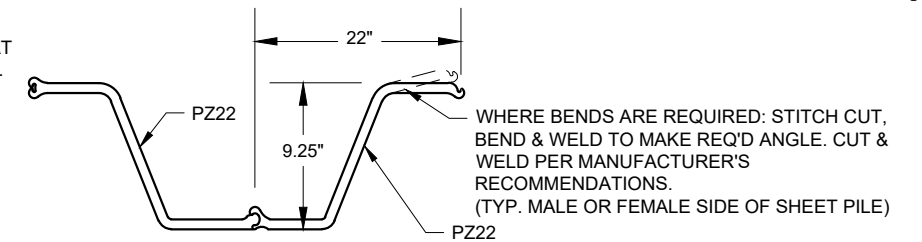


CONCRETE SHEET PILE CAP
NTS

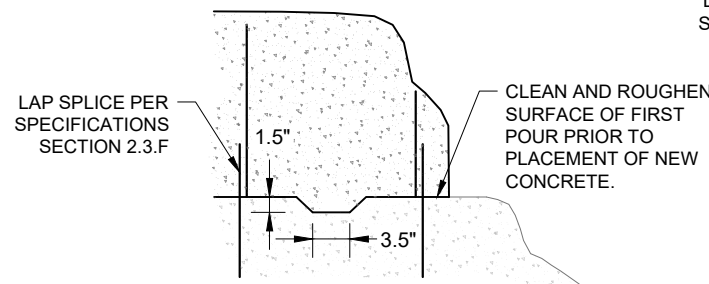
NOTE:
CAN BE REPLACED WITH STEEL CAP



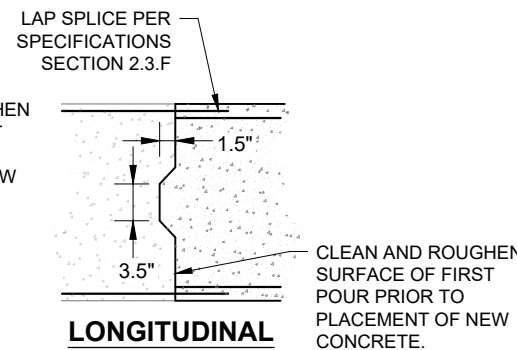
SCULPTED CONCRETE REBAR PLACEMENT
NTS



PZ22 SHEET PILE DETAIL
NTS



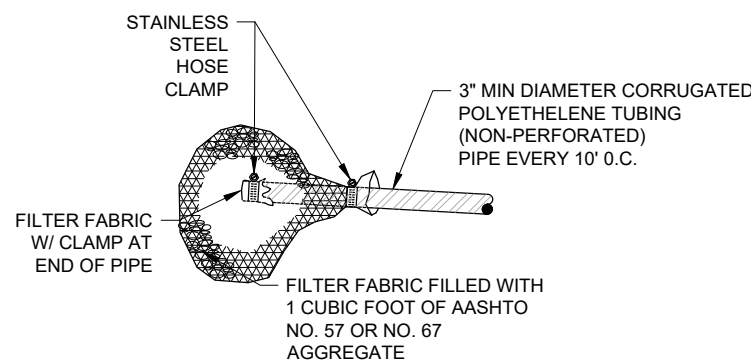
HORIZONTAL CONSTRUCTION JOINT DETAIL
NTS



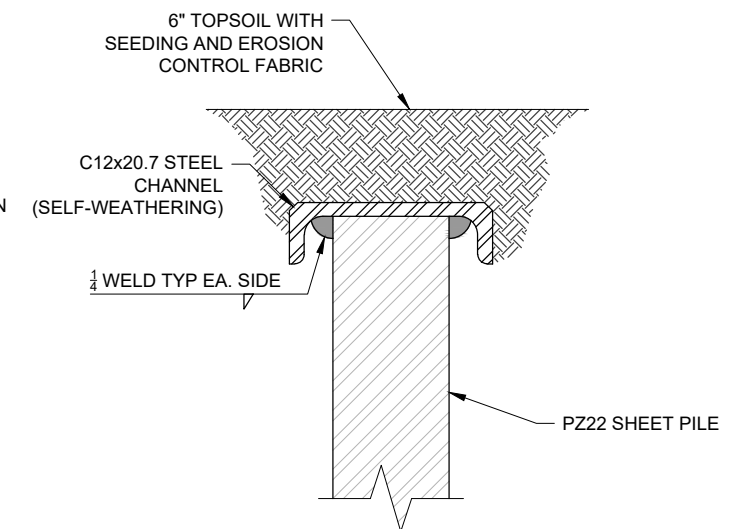
LONGITUDINAL CONSTRUCTION JOINT DETAIL
NTS

GENERAL CONSTRUCTION JOINT NOTES:

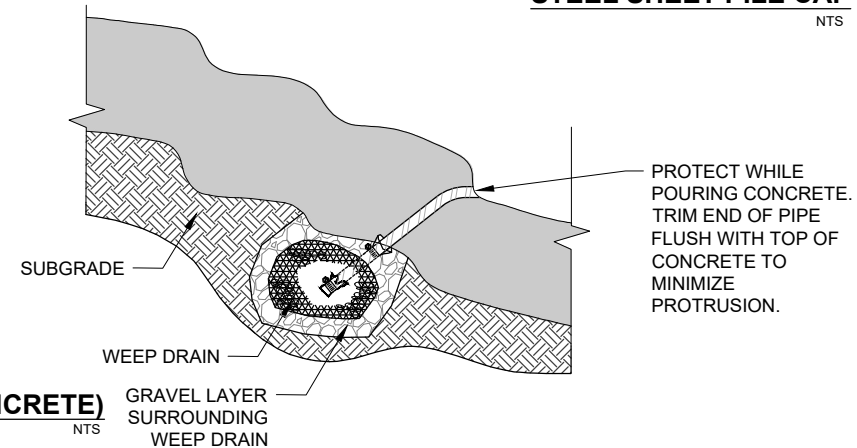
1. CONTRACTOR MUST SHOW THE LOCATION OF CONSTRUCTION JOINTS IN THE SCULPTED CONCRETE CONSTRUCTION PLAN. CONSTRUCTION JOINT LOCATIONS REQUIRE ENGINEER APPROVAL PRIOR TO INSTALLATION.
2. LONGITUDINAL JOINTS ARE NOT PERMITTED IN BASE FLOW CHANNEL
3. PLACE HORIZONTAL CONSTRUCTION JOINTS PERPENDICULAR TO THE DIRECTION OF FLOW IN THE BASE FLOW CHANNEL.



WEEP DRAINS (SCULPTED CONCRETE)
NTS



STEEL SHEET PILE CAP
NTS



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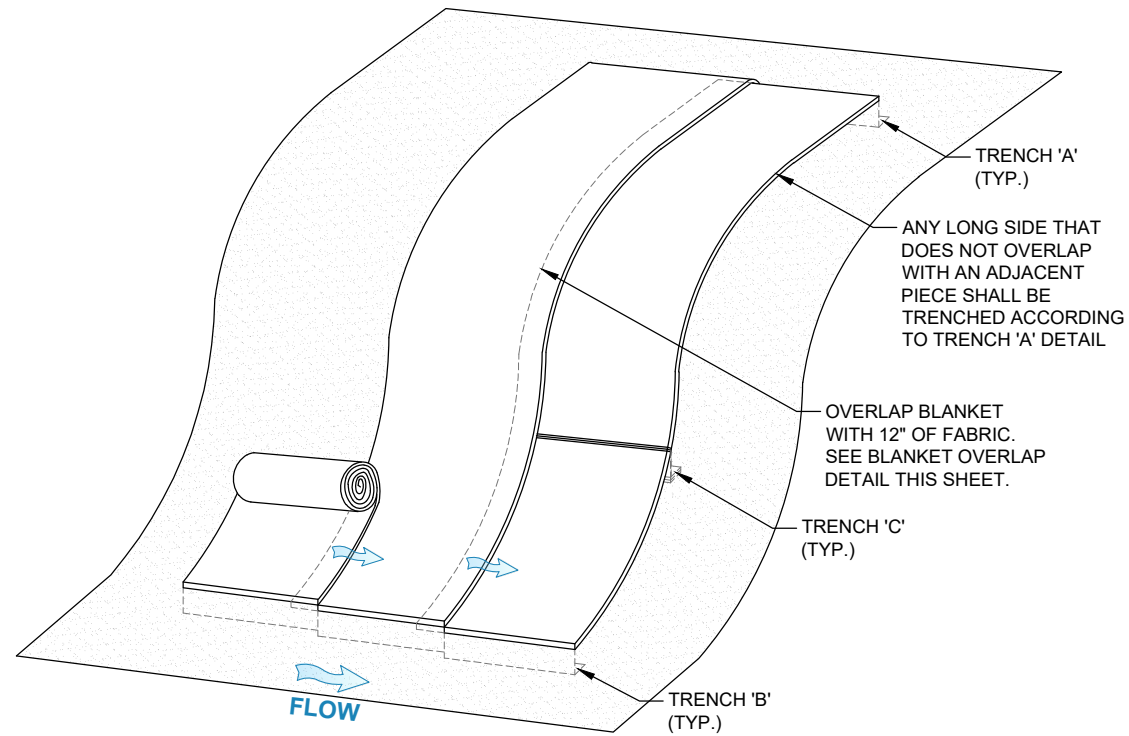
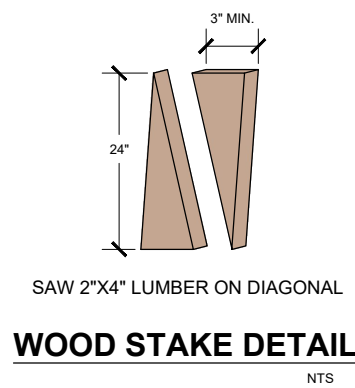
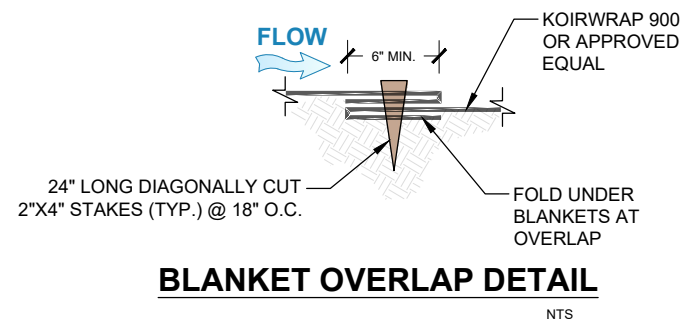
THE LANDHUIS COMPANY			
ROLLING MEADOWS CHANNEL & FLOODPLAIN MODIFICATION 60% DESIGN PLANS			
TYPICAL GRADE CONTROL DETAILS SCULPTED CONCRETE DROP STRUCTURE			
DESIGNED BY: TKM	SCALE: N/A	DATE ISSUED: MARCH 2023	DRAWING No. DT05
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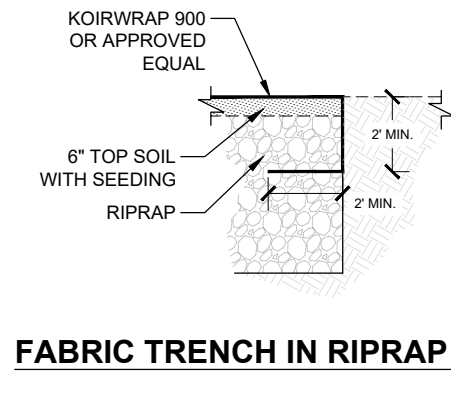
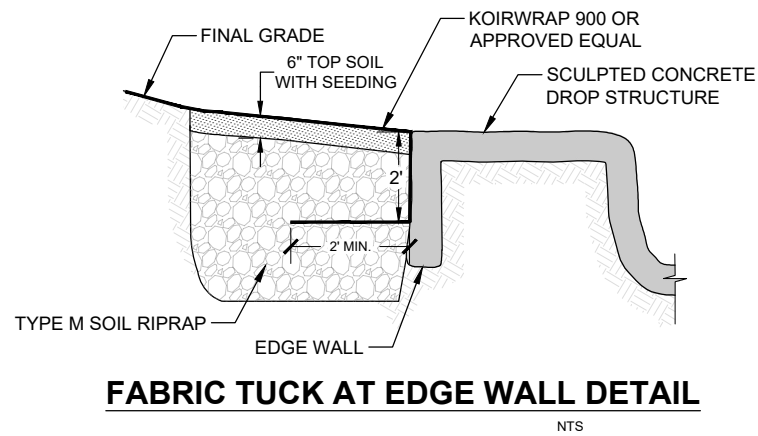
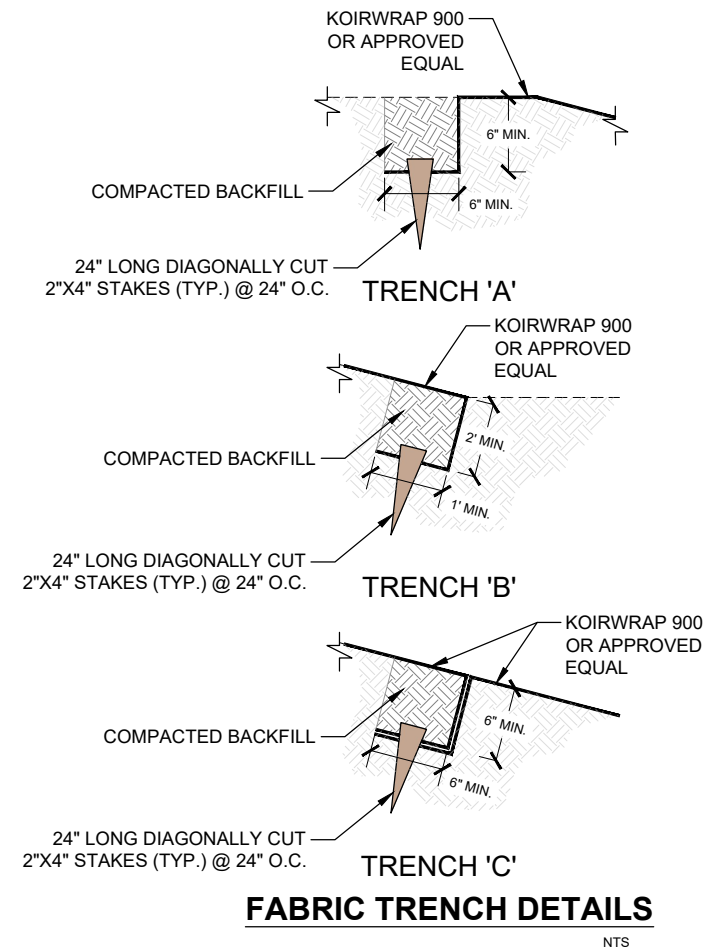
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PROJECT No. 21.1129.009



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NOTE: STAKE @24" O.C. AND ALL SEAMS @18" O.C.



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TYPICAL FABRIC DETAILS			
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