

Figure 1: General Location and Service Area

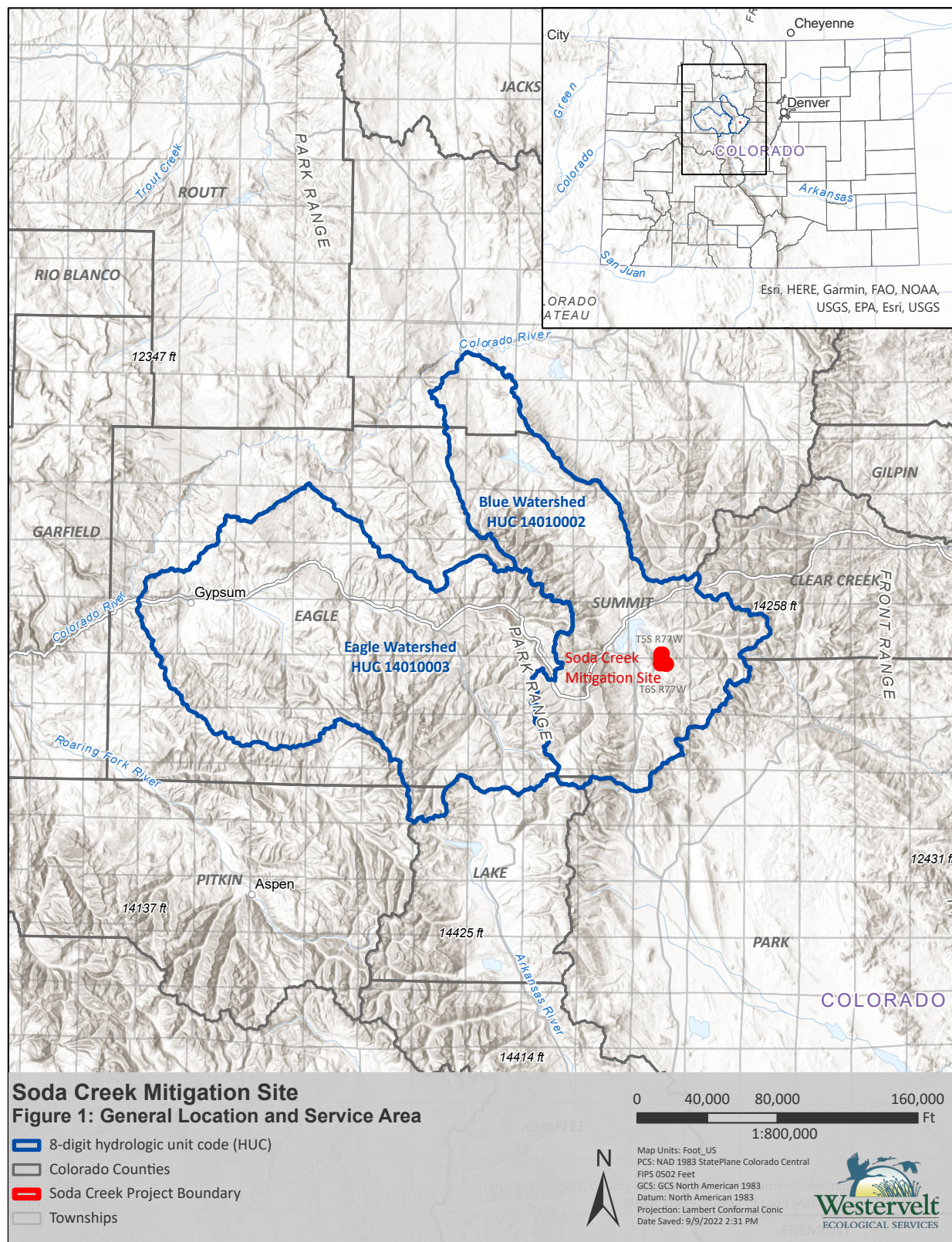


Figure 2: Historic Aerials and Site Photography

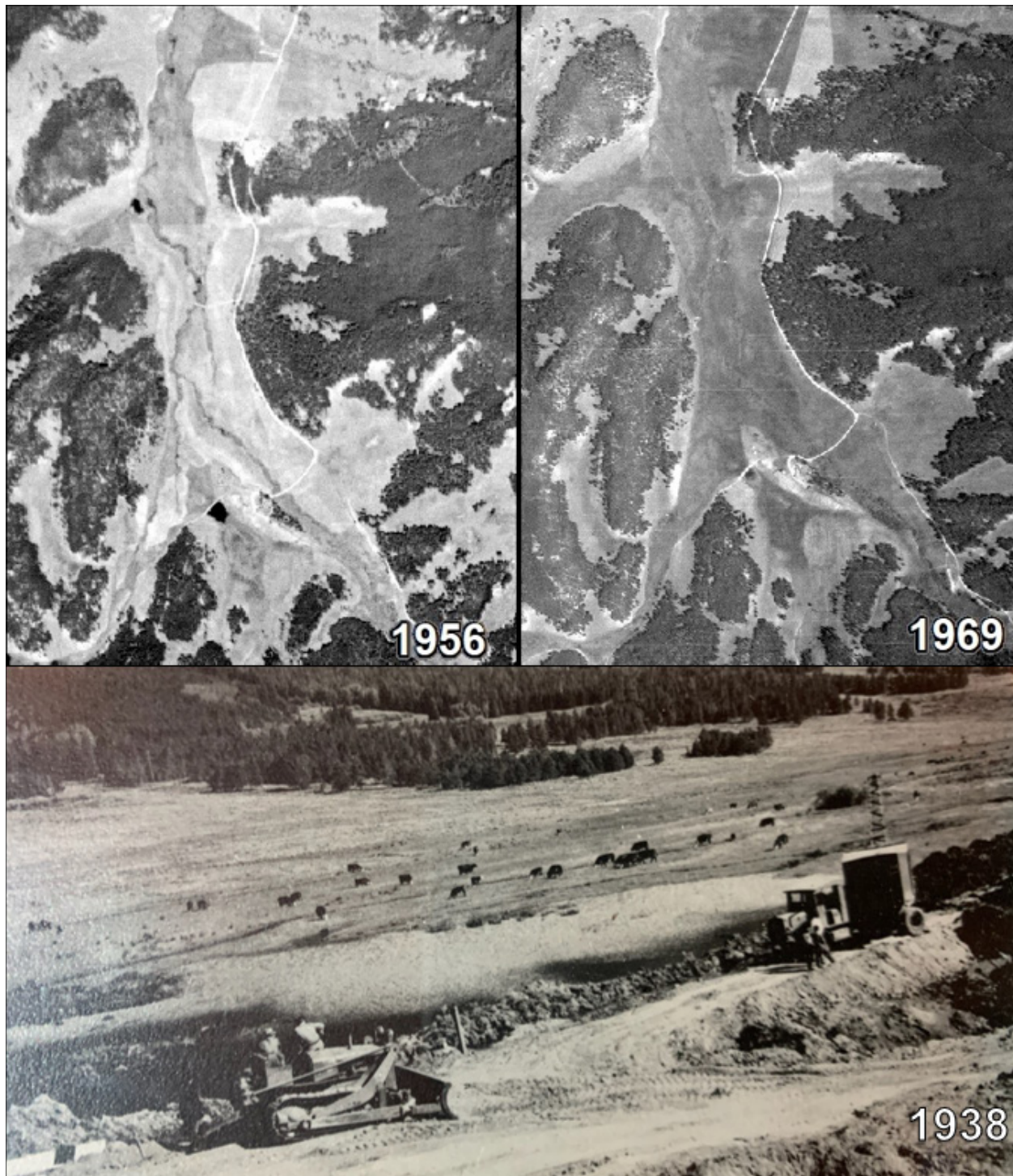
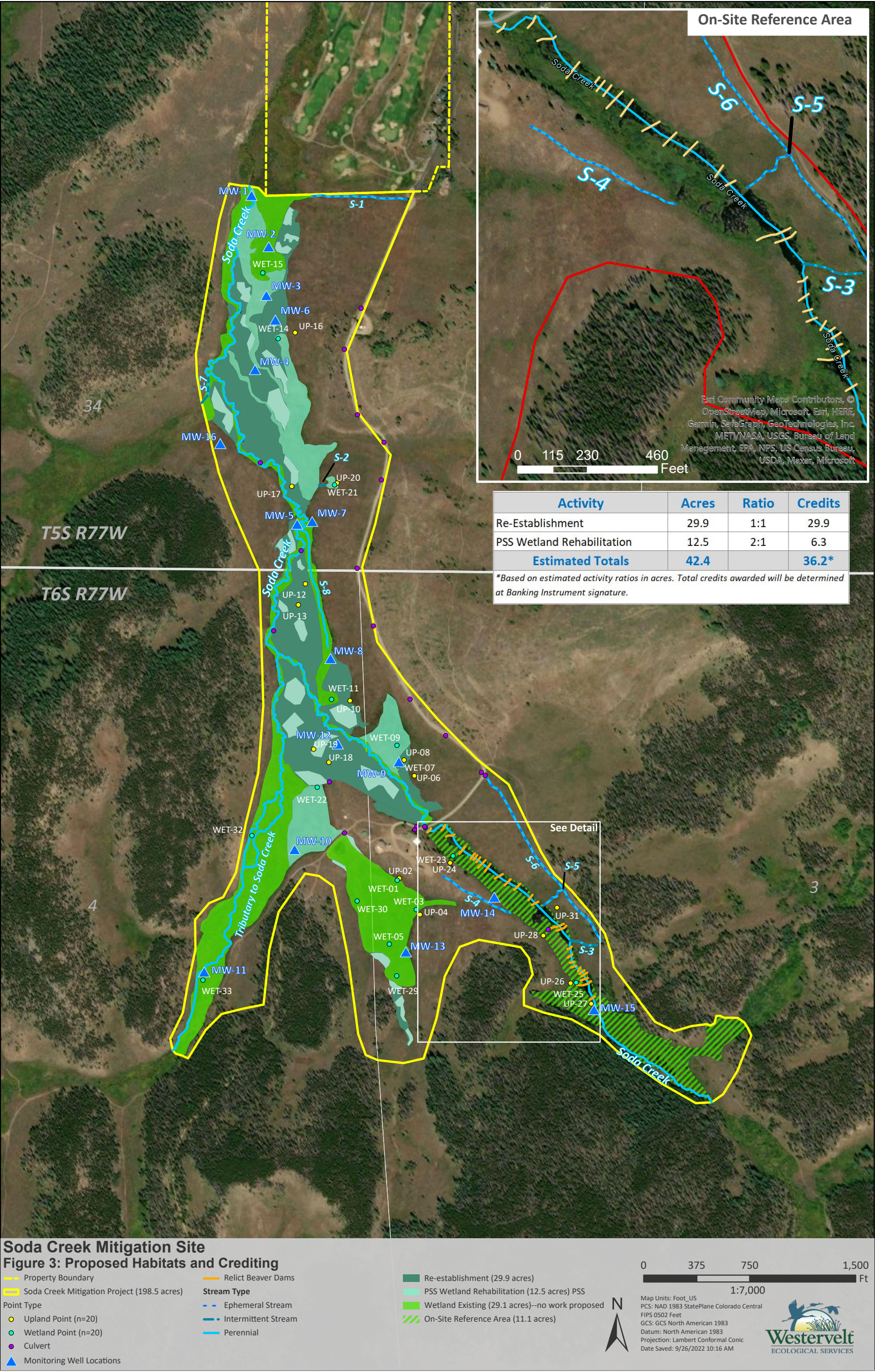
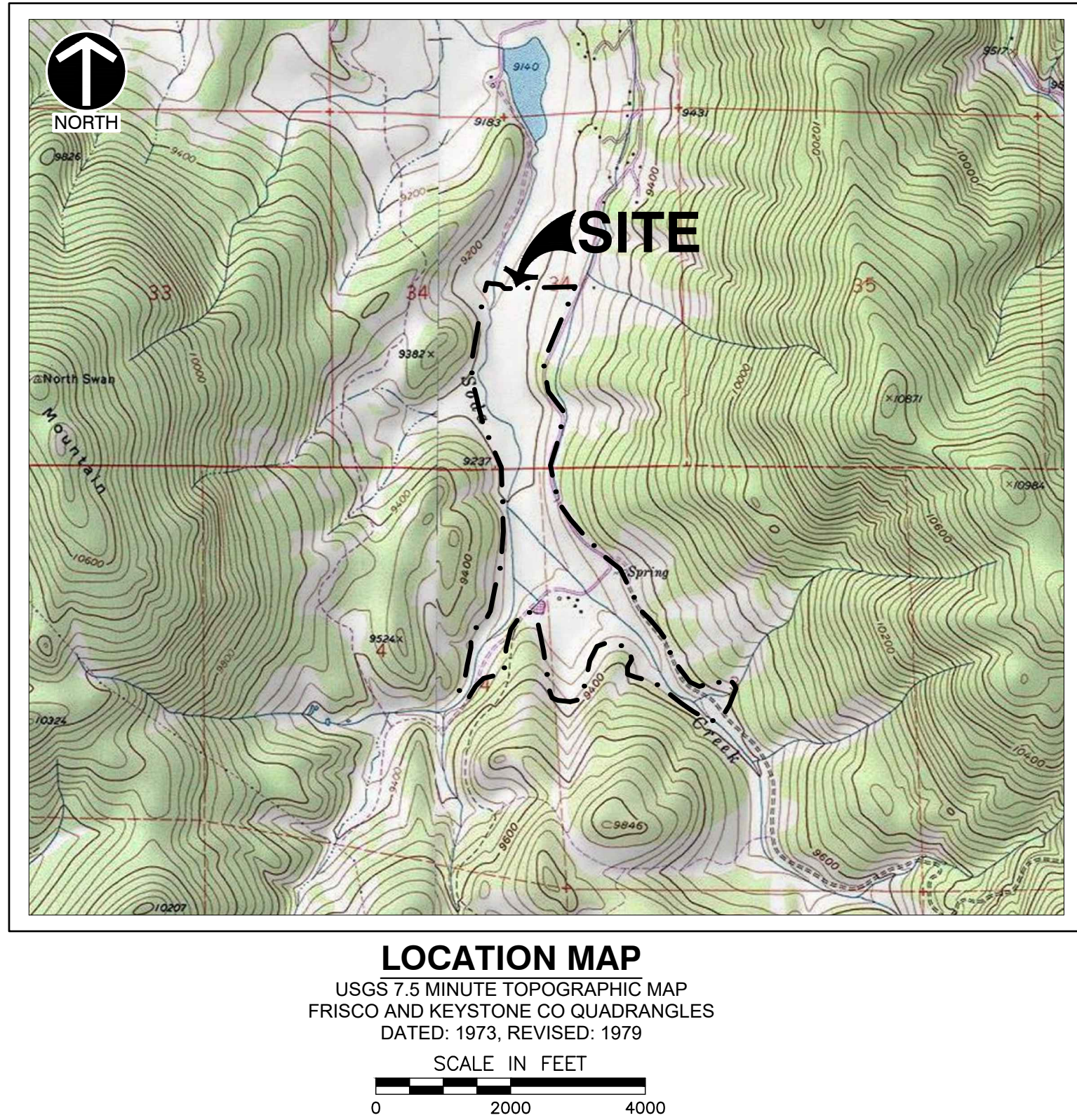
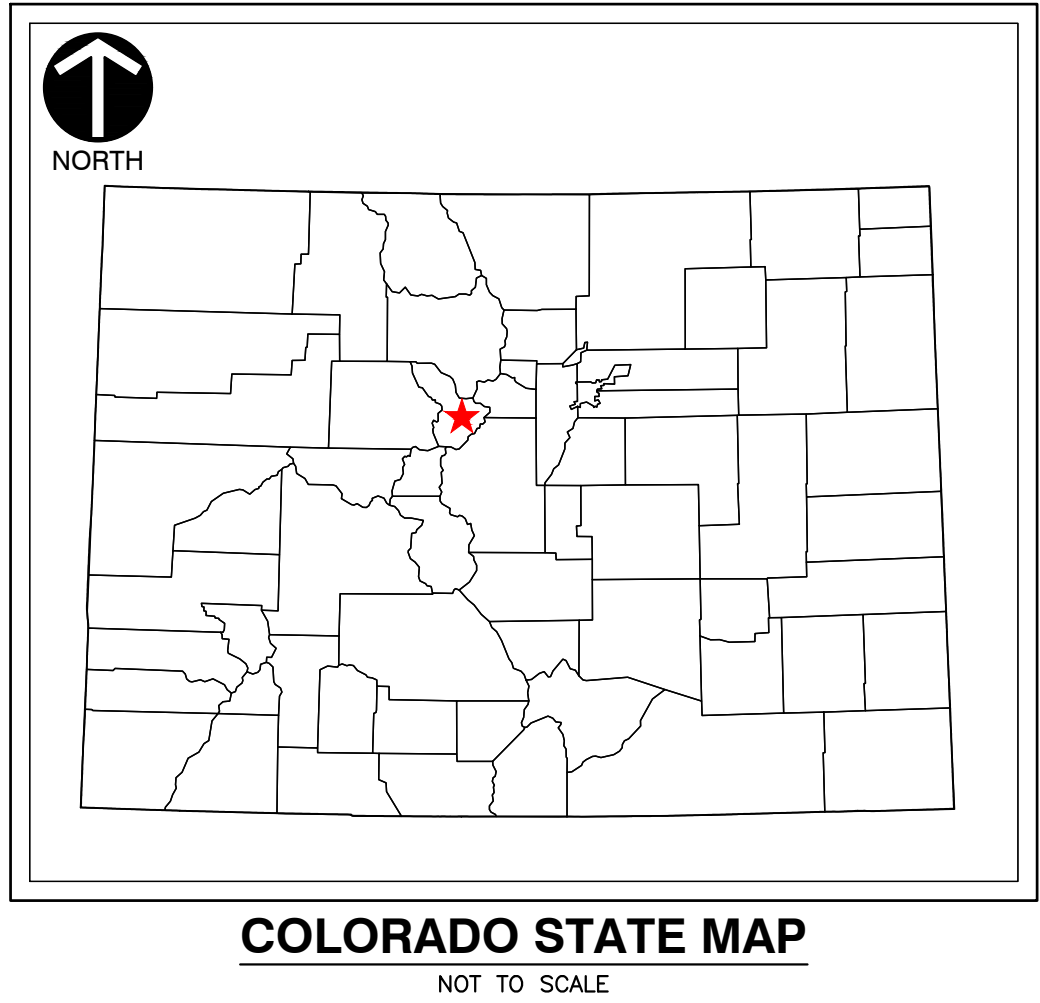


Figure 3: Proposed Habitats and Crediting



P:\1300-0001\322-086-CAD01\DWG\EC01\322086-EC01-01-TITLE SHEET.dwg(01 COVER SHEET) [LS(9/11/2022) - LP: 9/11/2022 10:09 AM]



- NOTES**
1. THESE PLANS HAVE BEEN CREATED ON ANSI D (22" X 34") PAPER. FOR REDUCTIONS, REFER TO GRAPHIC SCALE. WHEN PLOTTED ON 11" X 17" PAPER, THIS PLAN SET WILL NOT BE TO SCALE.
 2. THE PLANS HAVE BEEN CREATED FOR FULL COLOR PLOTTING. ANY SET OF THE PLANS THAT IS NOT PLOTTED IN FULL COLOR SHALL NOT BE CONSIDERED ADEQUATE FOR CONSTRUCTION PURPOSES. ***WARNING***: INFORMATION MAY BE LOST IN COPYING AND/OR PLOTTING IN GRAY SCALE.
 3. HORIZONTAL DATUM IS CO STATE PLANE CENTRAL ZONE NAD83 (2011) IN FEET.
 4. VERTICAL DATUM IS NSRS11 (GEOID 18).

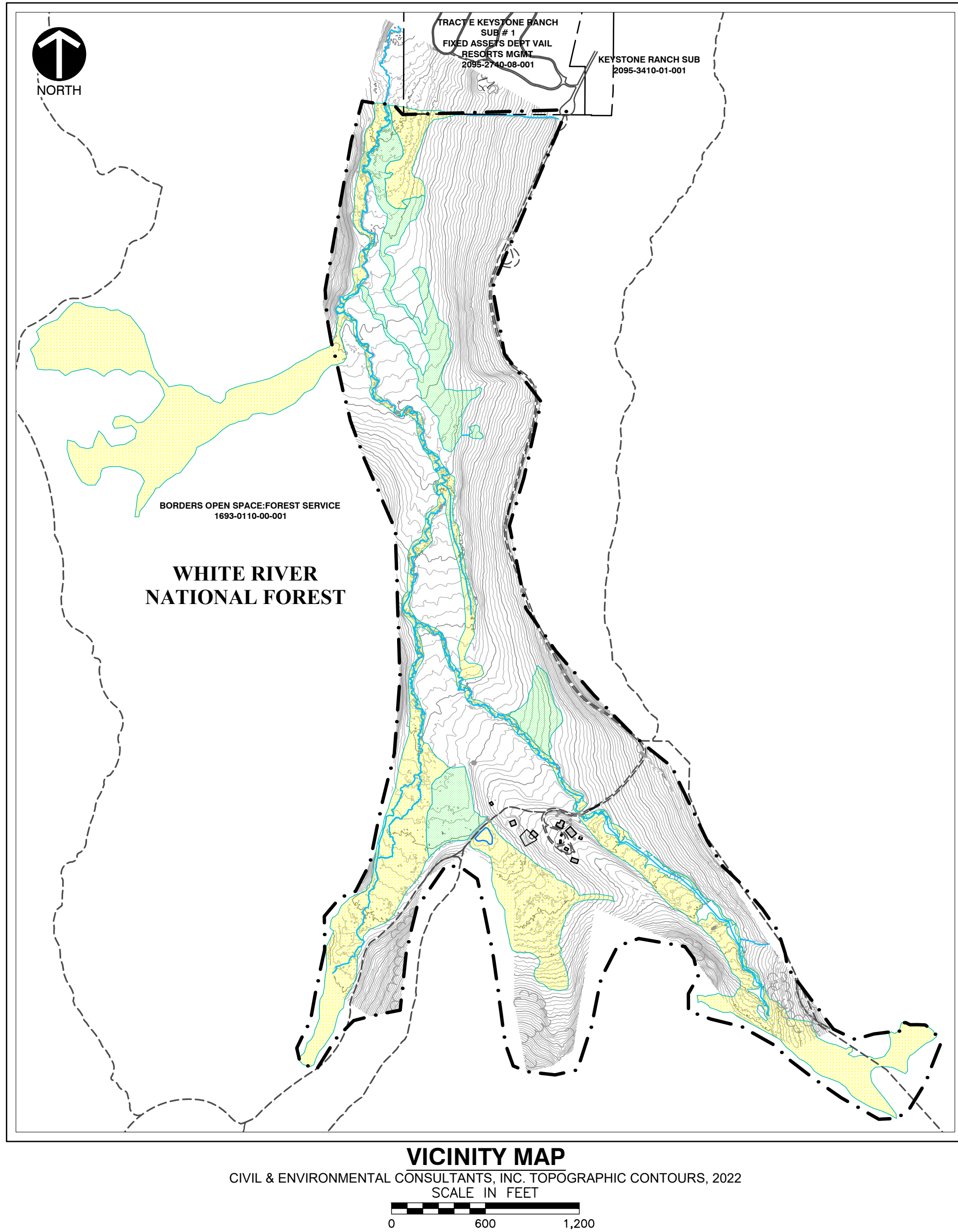
- REFERENCE**
1. EXISTING TOPOGRAPHY PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC) FROM LIDAR AERIAL SURVEY AND TOPOGRAPHIC SURVEYS DATED 07/02/2022.
 2. THE WETLAND DELINEATION SERVICES WERE PERFORMED BY THE WESTERVELT COMPANY IN JUNE 2022.
 3. U.S.D.A., N.R.C.S., SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE FOR, SUMMIT COUNTY, CO, 2021.

National Forest Foundation

SODA CREEK WETLAND RESTORATION

SUMMIT COUNTY, COLORADO

APPROXIMATE 60% COMPLETE



Activity	Acres	Ratio	Credits
Re-establishment	29.9	1:1	29.9
PEM Wetland Rehabilitation	12.5	2:1	6.3
Estimated Totals	42.4		36.2*

*Based on estimated activity ratios in acres. Total credits awarded will be determined at Program Instrument signature.

DRAWING LIST	
DRAWING NO.	TITLE
01	COVER SHEET
EXISTING CONDITIONS	
02	SHEET INDEX
03	SODA CREEK
04	SODA CREEK
05	SODA CREEK
06	SODA CREEK
07	SODA CREEK
08	STREAM S-5
09	STREAM S-5
PROPOSED RESTORATION PLAN	
11	SHEET INDEX
12	SODA CREEK
13	SODA CREEK
14	SODA CREEK
15	SODA CREEK
16	SODA CREEK
17	STREAM S-5
18	STREAM S-5
STRUCTURE DETAILS	
D1	IN-STREAM STRUCTURE DETAILS
D2	IN-STREAM STRUCTURE DETAILS
D3	IN-STREAM STRUCTURE DETAILS

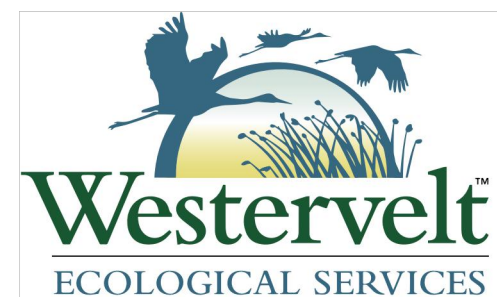
LEGEND	
--- --	PROJECT AREA
---	EXISTING STREAM CENTERLINE
---	EXISTING WETLAND (PEM)
---	EXISTING WETLAND (PSS)



PROGRAM SPONSOR:
NATIONAL FOREST FOUNDATION
BUILDING 27, STE 3, FORT MISSOULA ROAD
MISSOULA, MT 59804
CONTACT: MARCUS SELIG
mselig@nationalforests.org



LANDOWNER:
UNITED STATES FOREST SERVICE
1400 INDEPENDENCE AVENUE
SW WASHINGTON, D.C. 20250-0003



AGENT:
WESTERVELT ECOLOGICAL SERVICES, LLC
602 PARK POINT DRIVE, SUITE 265
GOLDEN, CO 80401



Civil & Environmental Consultants, Inc.
700 Cherrington Parkway · Moon Township, PA 15108
Ph: 412.429.2324 · 800.365.2324 · Fax: 412.429.2114
www.ccecinc.com

WESTERVELT ECOLOGICAL SERVICES
SODA CREEK WETLAND RESTORATION
SUMMIT COUNTY,
COLORADO

DRAWN BY: LKC/CCR CHECKED BY: LKC APPROVED BY: CCM
DATE: August 2022 DWG SCALE: AS SHOWN PROJECT NO: 322-086

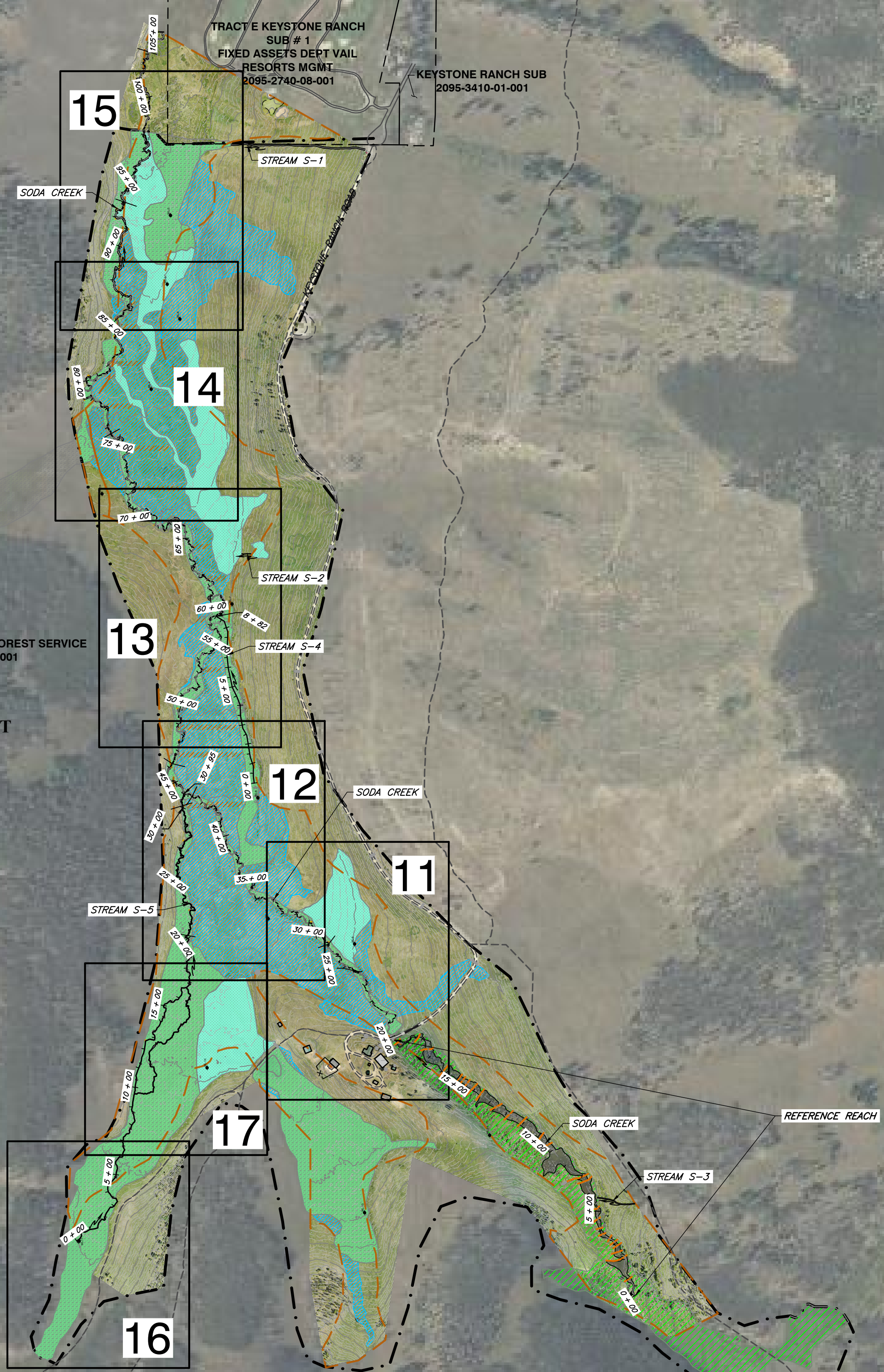
COVER SHEET

01

FOR REVIEW
PURPOSES ONLY
NOT FOR CONSTRUCTION

*HAND SIGNATURE ON FILE

P:\320-000\322-086-CAD\DWG\EC01\32086-EC01-04-INDEX MAP.dwg(10 SHEET INDEX) LS(8/13/2022 - 10:14 AM) - LPS 9/14/2022 10:14 AM



- REFERENCE**
1. EXISTING TOPOGRAPHY PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC) FROM LIDAR AERIAL SURVEY AND TOPOGRAPHIC SURVEYS DATED 07/02/2022. IMAGERY SUPPLEMENTED WITH BING IMAGERY SERVICE.
 2. THE WETLAND DELINEATION SERVICES WERE PERFORMED BY THE WESTERVELT COMPANY IN JUNE 2022.

**FOR REVIEW
PURPOSES ONLY**
NOT FOR CONSTRUCTION

SUBMITTAL & REVISION RECORD

NO	DATE	DESCRIPTION

- LEGEND**
- EXISTING PARCEL LINE
 - EXISTING INDEX CONTOUR
 - EXISTING INTERMEDIATE CONTOUR
 - EXISTING STRUCTURE
 - EXISTING PAVED ROAD
 - EXISTING UNPAVED ROAD OR TRAIL
 - EXISTING TREE LINE
 - EXISTING TREE
 - EXISTING FENCE
 - HYDRIC SOIL MAP UNIT
 - RELICT BEAVER DAM
 - EXISTING CULVERT
 - EXISTING DITCH
 - STREAM FLOW DIRECTION
 - EXISTING STREAM CHANNEL AND BASELINE STATIONING
 - EXISTING STREAM CENTERLINE
 - EXISTING WETLAND (PEM)
 - EXISTING WETLAND (PSS)
 - GROUNDWATER MONITORING WELL
 - PROJECT AREA
 - PROPOSED CROSS FLOODPLAIN GRADE CONTROL LOGS
 - PROPOSED POST-LINED WICKER WEAVE BEAVER DAM ANALOG (BDA)
 - REMOVE DEBRIS IN CHANNEL
 - PROPOSED BANK-ATTACHED POST-ASSISTED LOG STRUCTURES (PALS)
 - PROPOSED WETLAND RE-ESTABLISHMENT
 - PROPOSED PEM WETLAND REHABILITATION
 - PROPOSED PSS WETLAND ENHANCEMENT
 - ON-SITE REFERENCE AREA
 - PROPOSED UPLAND BUFFER
- NOTE: STRUCTURES ARE ENLARGED FOR VISUAL REPRESENTATION

11 DRAWING NUMBER



Civil & Environmental Consultants, Inc.
700 Cherrington Parkway · Moon Township, PA 15108
Ph: 412.429.2324 · 800.365.2324 · Fax: 412.429.2114
www.ccecinc.com

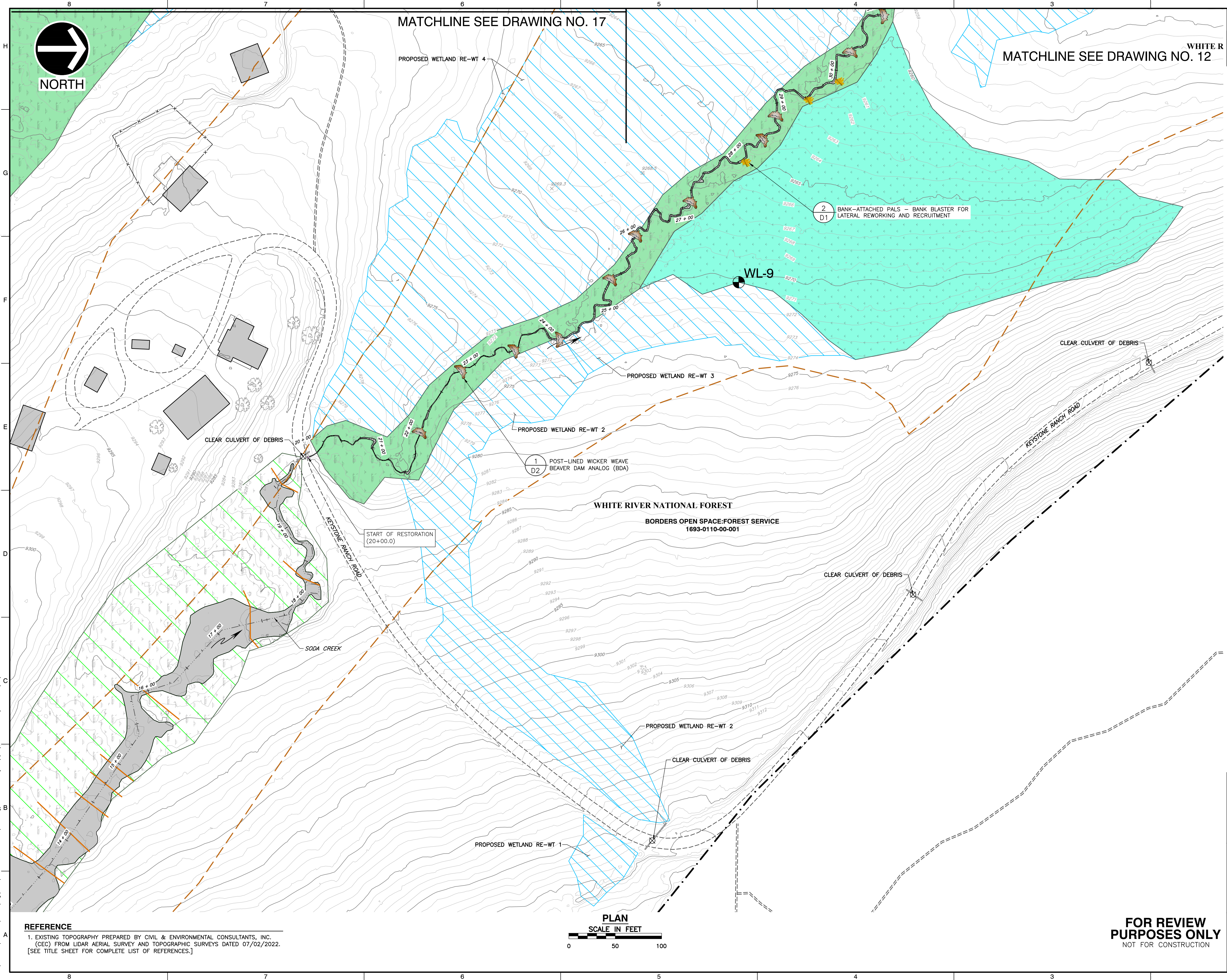
**WESTERVELT ECOLOGICAL SERVICES
SODA CREEK WETLAND RESTORATION
SUMMIT COUNTY,
COLORADO**

DRAWN BY:	LKC/CCR	CHECKED BY:	LKC	APPROVED BY:	CCM
DATE:	August 2022	DWG SCALE:	AS SHOWN	PROJECT NO:	322-086

**PROPOSED RESTORATION PLAN
SHEET INDEX**

10

*HAND SIGNATURE ON FILE



P:\320-000\322-086-CAD\DWG\EC01\32086-EC01-05-Proposed.dwg(11 SODA CREEK) [LS(0/14/2022 - c:\users\l...)] - LP: 9/14/2022 10:15 AM

REFERENCE

1. EXISTING TOPOGRAPHY PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC) FROM LIDAR AERIAL SURVEY AND TOPOGRAPHIC SURVEYS DATED 07/02/2022. [SEE TITLE SHEET FOR COMPLETE LIST OF REFERENCES.]

SUBMITTAL & REVISION RECORD

NO	DATE	DESCRIPTION

LEGEND

- EXISTING PARCEL LINE
 - EXISTING INDEX CONTOUR
 - EXISTING INTERMEDIATE CONTOUR
 - EXISTING STRUCTURE
 - EXISTING PAVED ROAD
 - EXISTING UNPAVED ROAD OR TRAIL
 - EXISTING TREE LINE
 - EXISTING FENCE
 - HYDRIC SOIL MAP UNIT
 - RELICT BEAVER DAM
 - EXISTING CULVERT
 - EXISTING DITCH
 - STREAM FLOW DIRECTION
 - EXISTING STREAM CHANNEL AND BASELINE STATIONING
 - EXISTING STREAM CENTERLINE
 - EXISTING WETLAND (PEM)
 - EXISTING WETLAND (PSS)
 - GROUNDWATER MONITORING WELL
 - PROJECT AREA
 - PROPOSED CROSS FLOODPLAIN GRADE CONTROL LOGS
 - PROPOSED POST-LINED WICKER WEAVE BEAVER DAM ANALOG (BDA)
 - REMOVE DEBRIS IN CHANNEL
 - PROPOSED BANK-ATTACHED POST-ASSISTED LOG STRUCTURES (PALS)
 - PROPOSED WETLAND RE-ESTABLISHMENT
 - PROPOSED PEM WETLAND REHABILITATION
 - PROPOSED PSS WETLAND ENHANCEMENT
 - ON-SITE REFERENCE AREA
 - PROPOSED UPLAND BUFFER
- NOTE: STRUCTURES ARE ENLARGED FOR VISUAL REPRESENTATION



Civil & Environmental Consultants, Inc.
700 Cherrington Parkway · Moon Township, PA 15108
Ph: 412.429.2324 · 800.365.2324 · Fax: 412.429.2114
www.cecinc.com

WESTERVELT ECOLOGICAL SERVICES
SODA CREEK WETLAND RESTORATION
SUMMIT COUNTY,
COLORADO

DRAWN BY:	LKC/CCR	CHECKED BY:	LKC	APPROVED BY:	CCM
DATE:	August 2022	DWG SCALE:	AS SHOWN	PROJECT NO:	322-086

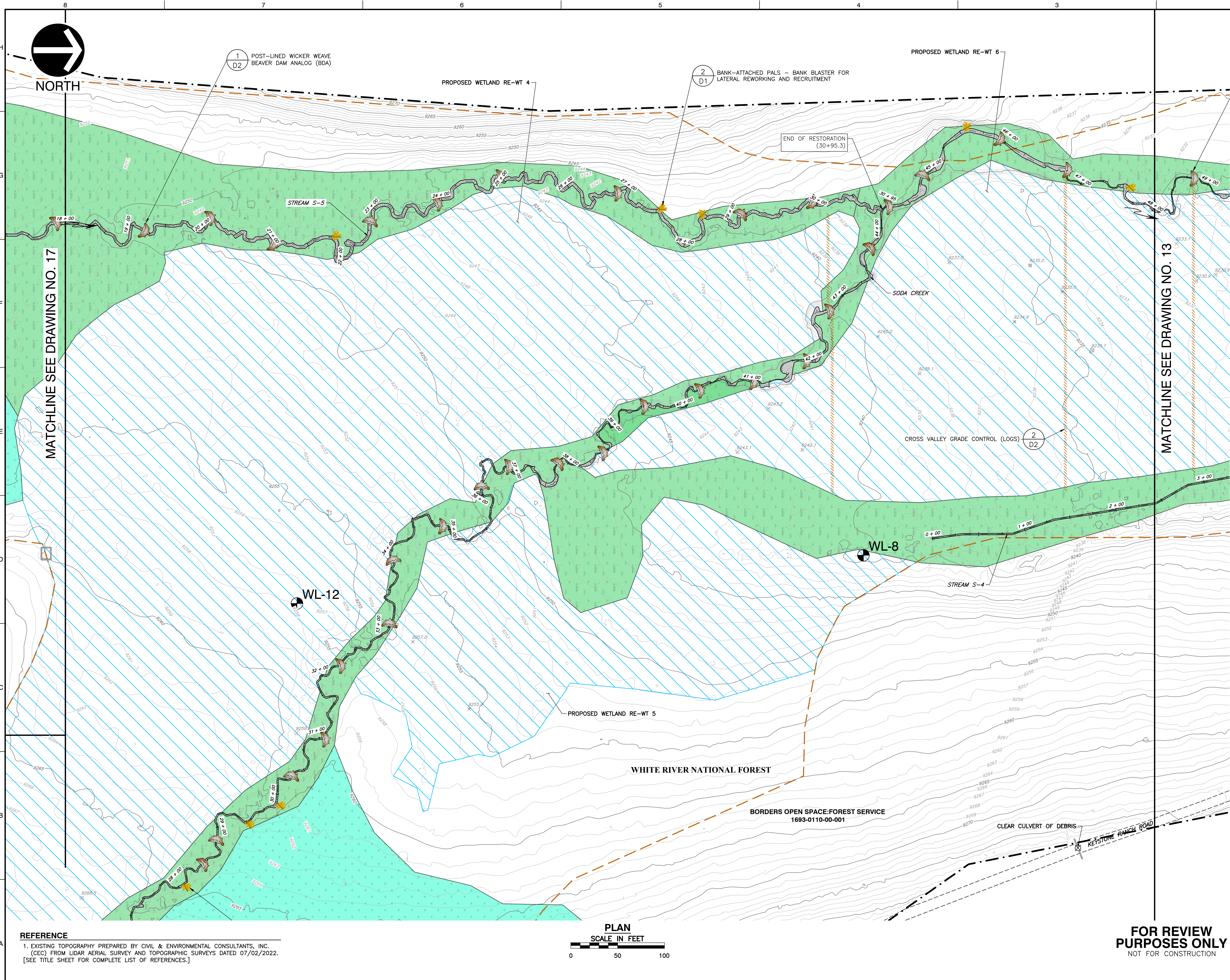
PROPOSED RESTORATION PLAN
SODA CREEK

11

FOR REVIEW
PURPOSES ONLY
NOT FOR CONSTRUCTION

*HAND SIGNATURE ON FILE

P:\1300-000\322-086-CAD\DWG\EC01\322086-EC01-05-Proposed.dwg 12 SODA CREEK\LS(0/14/2022 - c:\temp) - LP 9/14/2022 10:16 AM



SUBMITTAL & REVISION RECORD		
NO	DATE	DESCRIPTION

LEGEND

- EXISTING PARCEL LINE
- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING STRUCTURE
- EXISTING PAVED ROAD
- EXISTING UNPAVED ROAD OR TRAIL
- EXISTING TREE LINE
- EXISTING FENCE
- HYDRIC SOIL MAP UNIT
- RELICT BEAVER DAM
- EXISTING CULVERT
- EXISTING DITCH
- STREAM FLOW DIRECTION
- EXISTING STREAM CHANNEL AND BASELINE STATIONING
- EXISTING STREAM CENTERLINE
- EXISTING WETLAND (PEM)
- EXISTING WETLAND (PSS)
- GROUNDWATER MONITORING WELL
- PROJECT AREA
- PROPOSED CROSS FLOODPLAIN GRADE CONTROL LOGS
- PROPOSED POST-LINED WICKER WEAVE BEAVER DAM ANALOG (BDA)
- REMOVE DEBRIS IN CHANNEL
- PROPOSED BANK-ATTACHED POST-ASSISTED LOG STRUCTURES (PALS)
- PROPOSED WETLAND RE-ESTABLISHMENT
- PROPOSED PEM WETLAND REHABILITATION
- PROPOSED PSS WETLAND ENHANCEMENT
- ON-SITE REFERENCE AREA
- PROPOSED UPLAND BUFFER

NOTE: STRUCTURES ARE ENLARGED FOR VISUAL REPRESENTATION

Civil & Environmental Consultants, Inc.

700 Cherrington Parkway · Moon Township, PA 15108
Ph: 412.429.2324 · 800.365.2324 · Fax: 412.429.2114
www.ccecinc.com

WESTERVELT ECOLOGICAL SERVICES
SODA CREEK WETLAND RESTORATION
SUMMIT COUNTY,
COLORADO

DRAWN BY:	LKC/CCR	CHECKED BY:	LKC	APPROVED BY:	CCM
DATE:	August 2022	DWG SCALE:	AS SHOWN	PROJECT NO:	322-086

PROPOSED RESTORATION PLAN
SODA CREEK

12

FOR REVIEW
PURPOSES ONLY
NOT FOR CONSTRUCTION

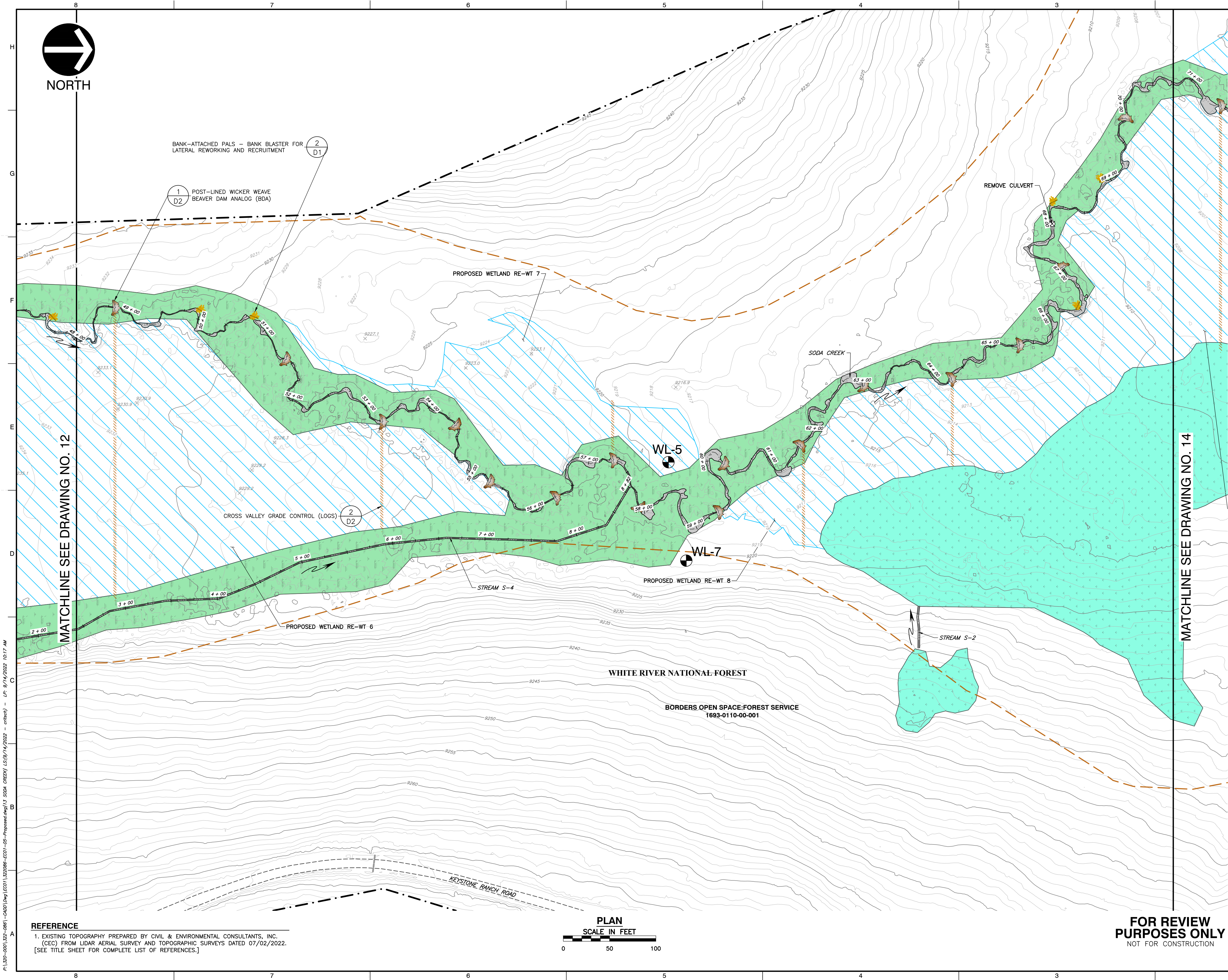
REFERENCE

1. EXISTING TOPOGRAPHY PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC) FROM LIDAR AERIAL SURVEY AND TOPOGRAPHIC SURVEYS DATED 07/02/2022. [SEE TITLE SHEET FOR COMPLETE LIST OF REFERENCES.]

PLAN
SCALE IN FEET

0 50 100

1 *HAND SIGNATURE ON FILE



SUBMITTAL & REVISION RECORD		
NO	DATE	DESCRIPTION

- LEGEND**
- EXISTING PARCEL LINE
 - EXISTING INDEX CONTOUR
 - EXISTING INTERMEDIATE CONTOUR
 - EXISTING STRUCTURE
 - EXISTING PAVED ROAD
 - EXISTING UNPAVED ROAD OR TRAIL
 - EXISTING TREE LINE
 - EXISTING TREE
 - EXISTING FENCE
 - HYDRIC SOIL MAP UNIT
 - RELICT BEAVER DAM
 - EXISTING CULVERT
 - EXISTING DITCH
 - STREAM FLOW DIRECTION
 - EXISTING STREAM CHANNEL AND BASELINE STATIONING
 - EXISTING STREAM CENTERLINE
 - EXISTING WETLAND (PEM)
 - EXISTING WETLAND (PSS)
 - GROUNDWATER MONITORING WELL
 - PROJECT AREA
 - PROPOSED CROSS FLOODPLAIN GRADE CONTROL LOGS
 - PROPOSED POST-LINED WICKER BEAVER DAM ANALOG (BDA)
 - REMOVE DEBRIS IN CHANNEL
 - PROPOSED BANK-ATTACHED POST-ASSISTED LOG STRUCTURES (PALS)
 - PROPOSED WETLAND RE-ESTABLISHMENT
 - PROPOSED PEM WETLAND REHABILITATION
 - PROPOSED PSS WETLAND ENHANCEMENT
 - ON-SITE REFERENCE AREA
 - PROPOSED UPLAND BUFFER
- NOTE: STRUCTURES ARE ENLARGED FOR VISUAL REPRESENTATION

C&E
Civil & Environmental Consultants, Inc.
700 Cherrington Parkway · Moon Township, PA 15108
Ph: 412.429.2324 · 800.365.2324 · Fax: 412.429.2114
www.ccecinc.com

WESTERVELT ECOLOGICAL SERVICES
SODA CREEK WETLAND RESTORATION
SUMMIT COUNTY,
COLORADO

DRAWN BY: LKC/CCR CHECKED BY: LKC APPROVED BY: CCM
DATE: August 2022 DWG SCALE: AS SHOWN PROJECT NO: 322-086

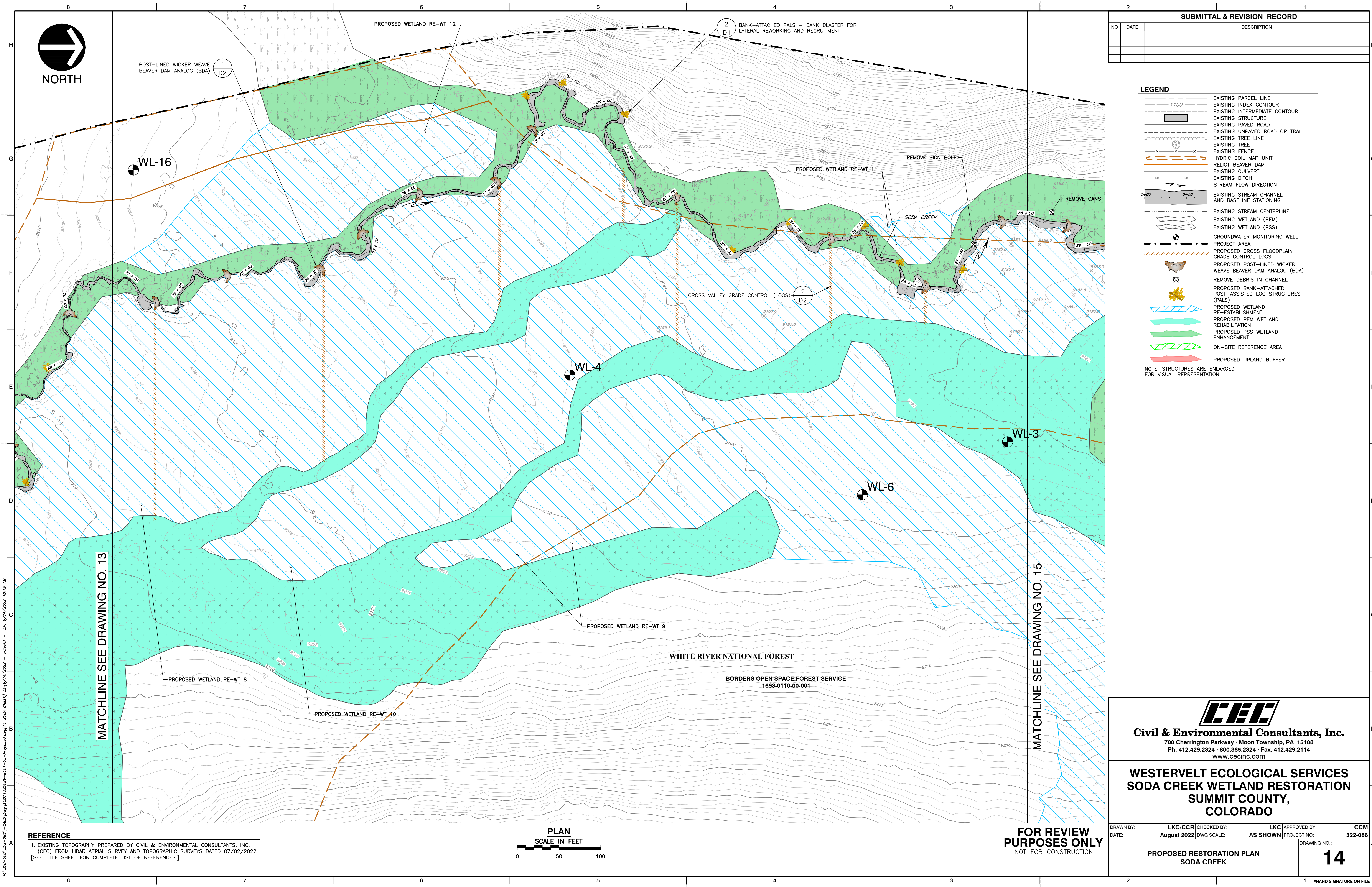
PROPOSED RESTORATION PLAN
SODA CREEK

13

FOR REVIEW
PURPOSES ONLY
NOT FOR CONSTRUCTION

PLAN
SCALE IN FEET
0 50 100

REFERENCE
1. EXISTING TOPOGRAPHY PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC) FROM LIDAR AERIAL SURVEY AND TOPOGRAPHIC SURVEYS DATED 07/02/2022. [SEE TITLE SHEET FOR COMPLETE LIST OF REFERENCES.]

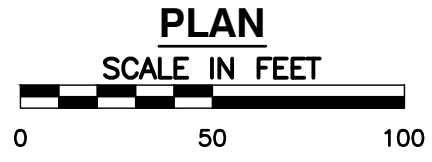


SUBMITTAL & REVISION RECORD		
NO	DATE	DESCRIPTION

- LEGEND**
- EXISTING PARCEL LINE
 - EXISTING INDEX CONTOUR
 - EXISTING INTERMEDIATE CONTOUR
 - EXISTING STRUCTURE
 - EXISTING PAVED ROAD
 - EXISTING UNPAVED ROAD OR TRAIL
 - EXISTING TREE LINE
 - EXISTING TREE
 - EXISTING FENCE
 - HYDRIC SOIL MAP UNIT
 - RELICT BEAVER DAM
 - EXISTING CULVERT
 - EXISTING DITCH
 - STREAM FLOW DIRECTION
 - EXISTING STREAM CHANNEL AND BASELINE STATIONING
 - EXISTING STREAM CENTERLINE
 - EXISTING WETLAND (PEM)
 - EXISTING WETLAND (PSS)
 - GROUNDWATER MONITORING WELL
 - PROJECT AREA
 - PROPOSED CROSS FLOODPLAIN GRADE CONTROL LOGS
 - PROPOSED POST-LINED WICKER WEAVE BEAVER DAM ANALOG (BDA)
 - REMOVE DEBRIS IN CHANNEL
 - PROPOSED BANK-ATTACHED POST-ASSISTED LOG STRUCTURES (PALS)
 - PROPOSED WETLAND RE-ESTABLISHMENT
 - PROPOSED PEM WETLAND REHABILITATION
 - PROPOSED PSS WETLAND ENHANCEMENT
 - ON-SITE REFERENCE AREA
 - PROPOSED UPLAND BUFFER
- NOTE: STRUCTURES ARE ENLARGED FOR VISUAL REPRESENTATION

REFERENCE

1. EXISTING TOPOGRAPHY PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC) FROM LIDAR SURVEY AND TOPOGRAPHIC AERIAL SURVEYS DATED 07/02/2022. [SEE TITLE SHEET FOR COMPLETE LIST OF REFERENCES.]



**FOR REVIEW
PURPOSES ONLY**

NOT FOR CONSTRUCTION

C&E
Civil & Environmental Consultants, Inc.
700 Cherrington Parkway · Moon Township, PA 15108
Ph: 412.429.2324 · 800.365.2324 · Fax: 412.429.2114
www.ccecinc.com

**WESTERVELT ECOLOGICAL SERVICES
SODA CREEK WETLAND RESTORATION
SUMMIT COUNTY,
COLORADO**

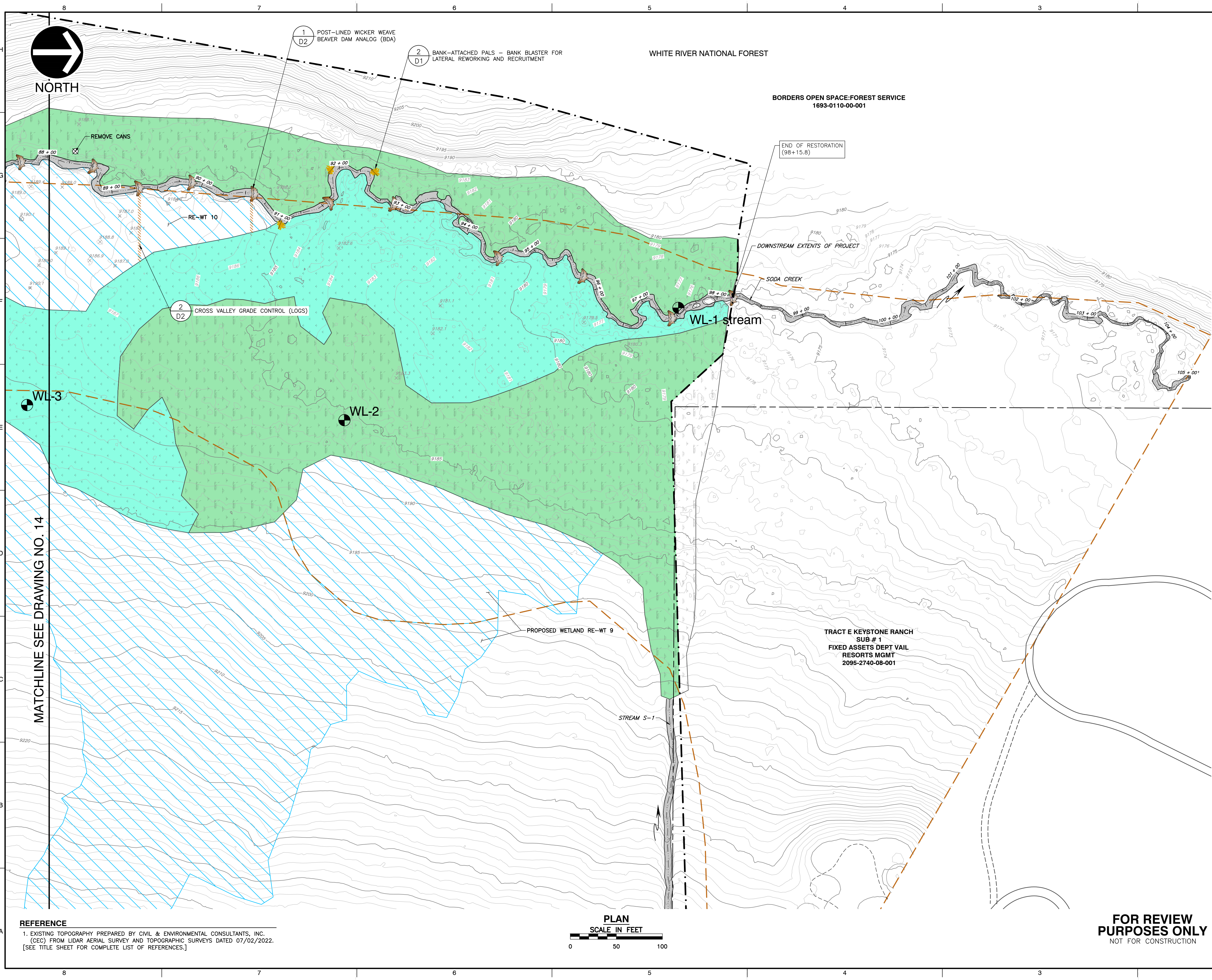
DRAWN BY: **LKC/CCR** CHECKED BY: **LKC** APPROVED BY: **CCM**
DATE: **August 2022** DWG SCALE: **AS SHOWN** PROJECT NO: **322-086**

**PROPOSED RESTORATION PLAN
SODA CREEK**

14

*HAND SIGNATURE ON FILE

P:\1300-000\322-086-CAD\DWG\EC01\322086-EC01-05-Proposed.dwg / 15 SODA CREEK\LS(0/14/2022 - c:\temp) - LP 9/14/2022 10:18 AM



SUBMITTAL & REVISION RECORD		
NO	DATE	DESCRIPTION

LEGEND

- EXISTING PARCEL LINE
- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING STRUCTURE
- EXISTING PAVED ROAD
- EXISTING UNPAVED ROAD OR TRAIL
- EXISTING TREE LINE
- EXISTING FENCE
- HYDRIC SOIL MAP UNIT
- RELICT BEAVER DAM
- EXISTING CULVERT
- EXISTING DITCH
- STREAM FLOW DIRECTION
- EXISTING STREAM CHANNEL AND BASELINE STATIONING
- EXISTING STREAM CENTERLINE
- EXISTING WETLAND (PEM)
- EXISTING WETLAND (PSS)
- GROUNDWATER MONITORING WELL
- PROJECT AREA
- PROPOSED CROSS FLOODPLAIN GRADE CONTROL LOGS
- PROPOSED POST-LINED WICKER WEAVE BEAVER DAM ANALOG (BDA)
- REMOVE DEBRIS IN CHANNEL
- PROPOSED BANK-ATTACHED POST-ASSISTED LOG STRUCTURES (PALS)
- PROPOSED WETLAND RE-ESTABLISHMENT
- PROPOSED PEM WETLAND REHABILITATION
- PROPOSED PSS WETLAND ENHANCEMENT
- ON-SITE REFERENCE AREA
- PROPOSED UPLAND BUFFER

NOTE: STRUCTURES ARE ENLARGED FOR VISUAL REPRESENTATION

Civil & Environmental Consultants, Inc.
700 Cherrington Parkway · Moon Township, PA 15108
Ph: 412.429.2324 · 800.365.2324 · Fax: 412.429.2114
www.cecinc.com

WESTERVELT ECOLOGICAL SERVICES
SODA CREEK WETLAND RESTORATION
SUMMIT COUNTY,
COLORADO

DRAWN BY:	LKC/CCR	CHECKED BY:	LKC	APPROVED BY:	CCM
DATE:	August 2022	DWG SCALE:	AS SHOWN	PROJECT NO:	322-086

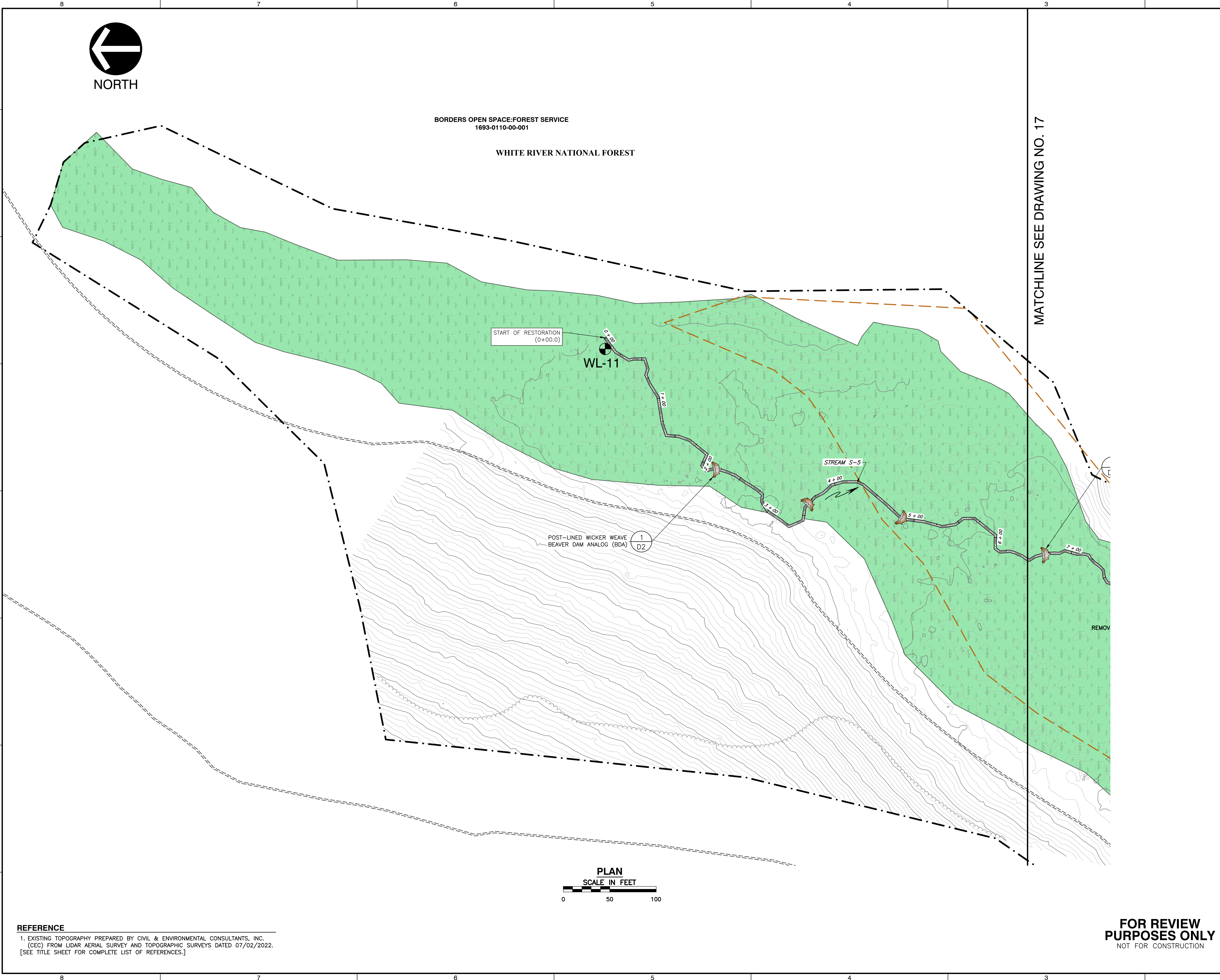
PROPOSED RESTORATION PLAN
SODA CREEK

15

FOR REVIEW
PURPOSES ONLY
NOT FOR CONSTRUCTION

*HAND SIGNATURE ON FILE

P:\1300-000\1322-086-CAD02\Drawings\EC01\132086-EC01-05-Proposed.dwg 16 STREAM S-5] (LS/07/14/2022 - erhuo) - LP 9/14/2022 10:19 AM



REFERENCE
1. EXISTING TOPOGRAPHY PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC) FROM LIDAR AERIAL SURVEY AND TOPOGRAPHIC SURVEYS DATED 07/02/2022. [SEE TITLE SHEET FOR COMPLETE LIST OF REFERENCES.]

**FOR REVIEW
PURPOSES ONLY**
NOT FOR CONSTRUCTION

SUBMITTAL & REVISION RECORD		
NO	DATE	DESCRIPTION

LEGEND

EXISTING PARCEL LINE

EXISTING INDEX CONTOUR

EXISTING INTERMEDIATE CONTOUR

EXISTING STRUCTURE

EXISTING PAVED ROAD

EXISTING UNPAVED ROAD OR TRAIL

EXISTING TREE LINE

EXISTING TREE

EXISTING FENCE

HYDRIC SOIL MAP UNIT

RELICT BEAVER DAM

EXISTING CULVERT

EXISTING DITCH

STREAM FLOW DIRECTION

EXISTING STREAM CHANNEL AND BASELINE STATIONING

EXISTING STREAM CENTERLINE

EXISTING WETLAND (PEM)

EXISTING WETLAND (PSS)

GROUNDWATER MONITORING WELL

PROJECT AREA

PROPOSED CROSS FLOODPLAIN GRADE CONTROL LOGS

PROPOSED POST-LINED WICKER WEAVE BEAVER DAM ANALOG (BDA)

REMOVE DEBRIS IN CHANNEL

PROPOSED BANK-ATTACHED POST-ASSISTED LOG STRUCTURES (PALS)

PROPOSED WETLAND RE-ESTABLISHMENT

PROPOSED PEM WETLAND REHABILITATION

PROPOSED PSS WETLAND ENHANCEMENT

ON-SITE REFERENCE AREA

PROPOSED UPLAND BUFFER

NOTE: STRUCTURES ARE ENLARGED FOR VISUAL REPRESENTATION

Civil & Environmental Consultants, Inc.
700 Cherrington Parkway · Moon Township, PA 15108
Ph: 412.429.2324 · 800.365.2324 · Fax: 412.429.2114
www.ccecinc.com

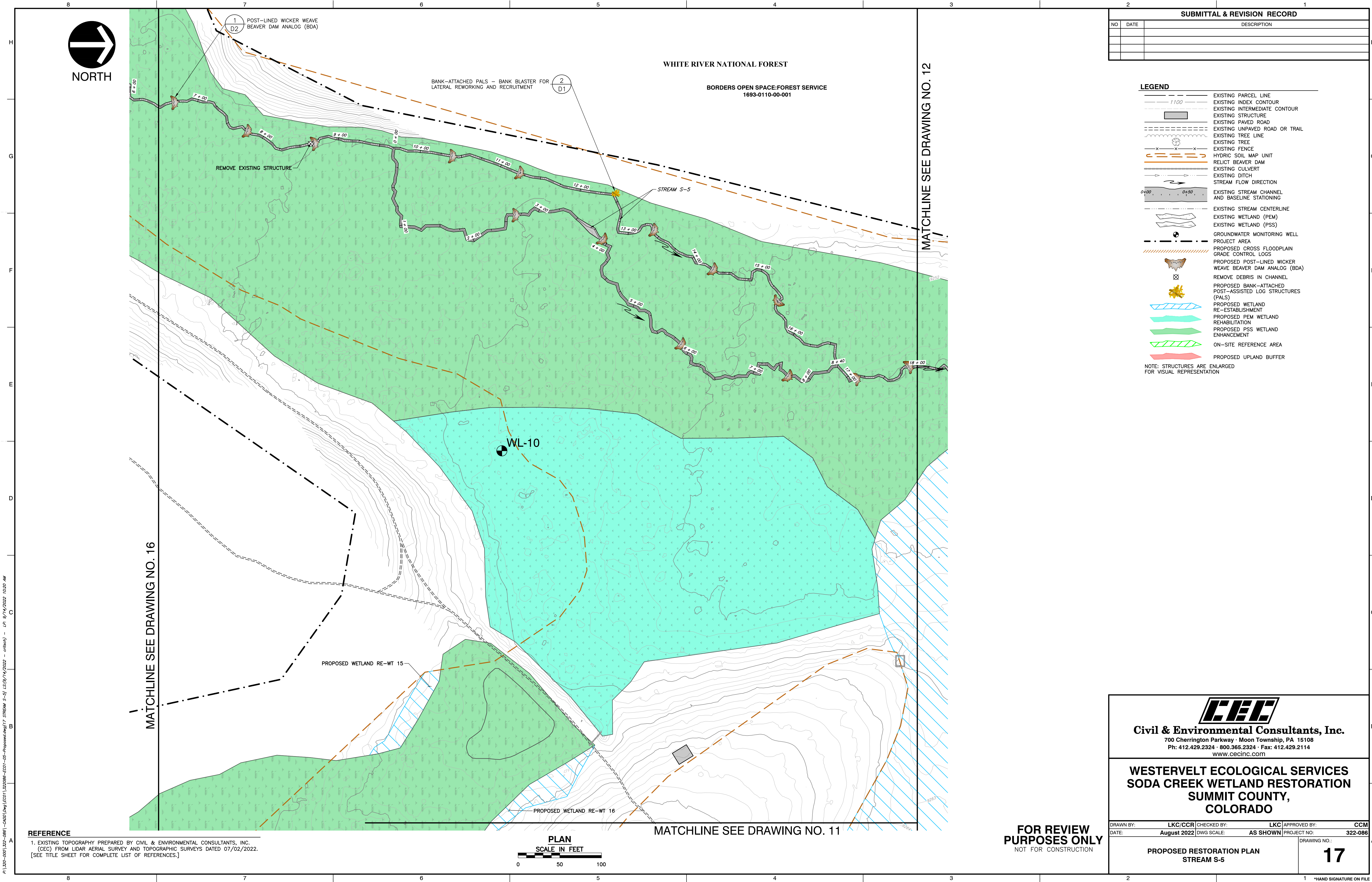
WESTERVELT ECOLOGICAL SERVICES
SODA CREEK WETLAND RESTORATION
SUMMIT COUNTY,
COLORADO

DRAWN BY:	LKC/CCR	CHECKED BY:	LKC	APPROVED BY:	CCM
DATE:	August 2022	DWG SCALE:	AS SHOWN	PROJECT NO.:	322-086

PROPOSED RESTORATION PLAN
STREAM S-5

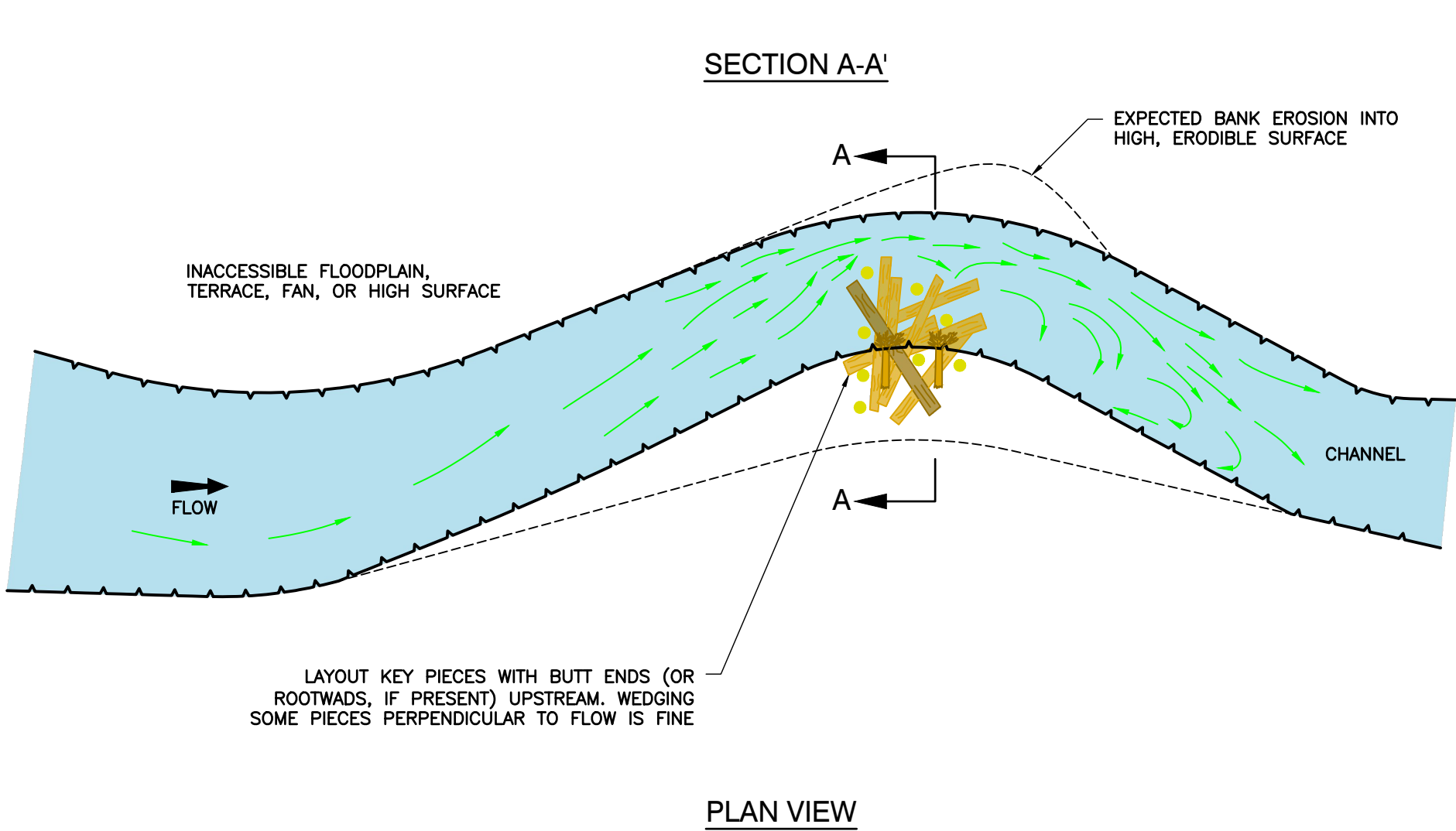
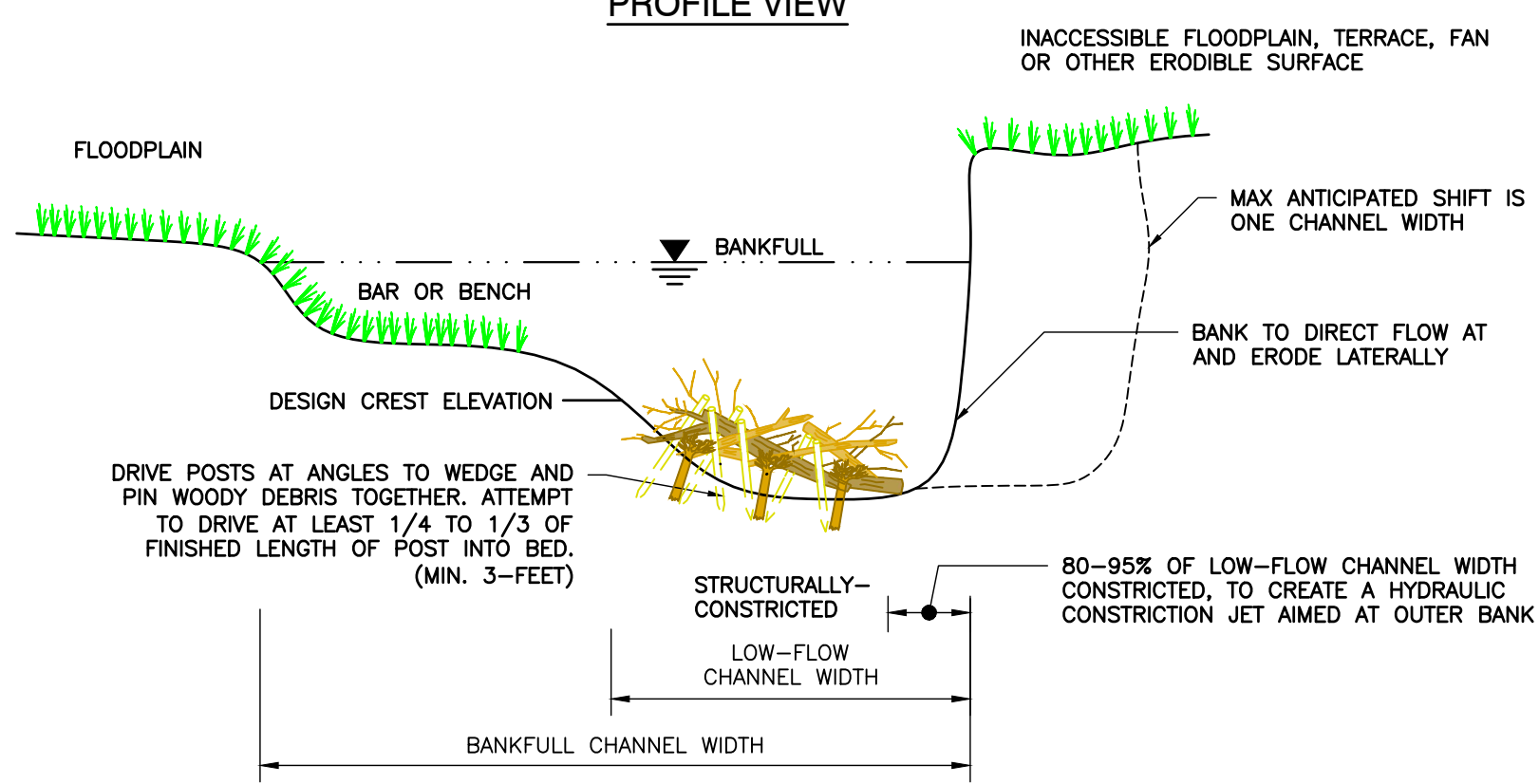
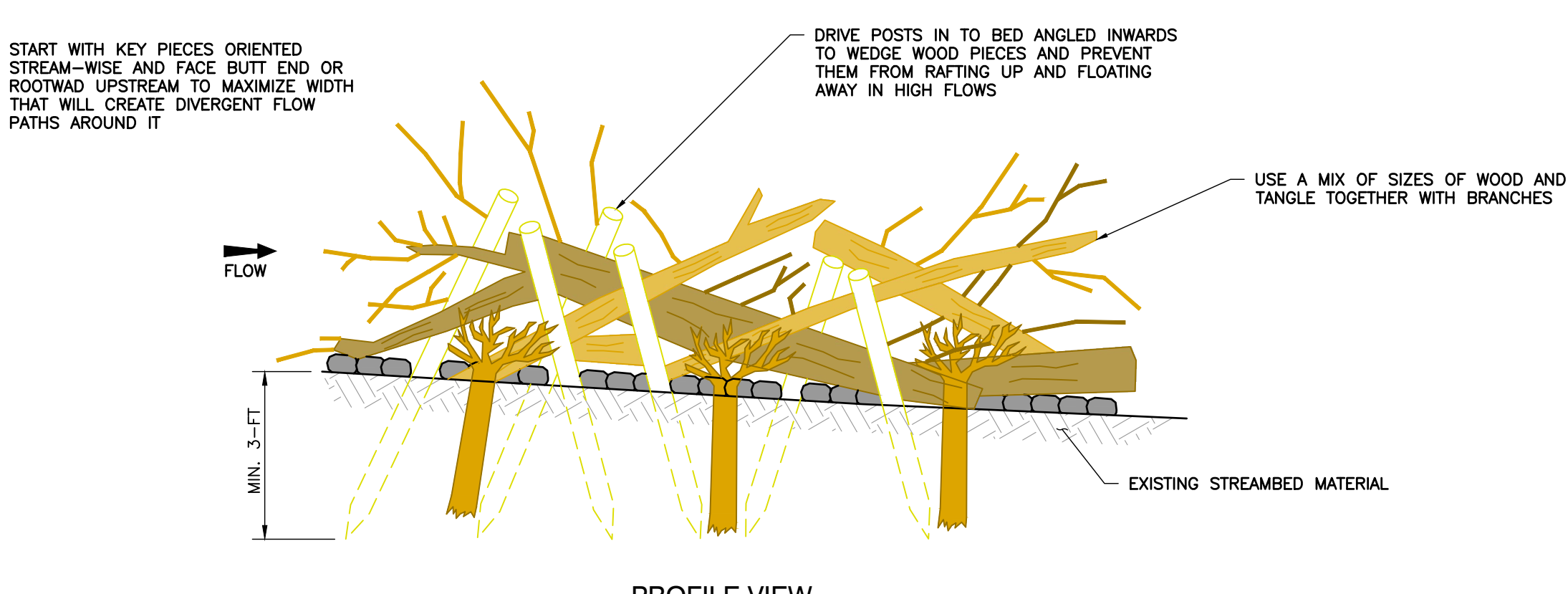
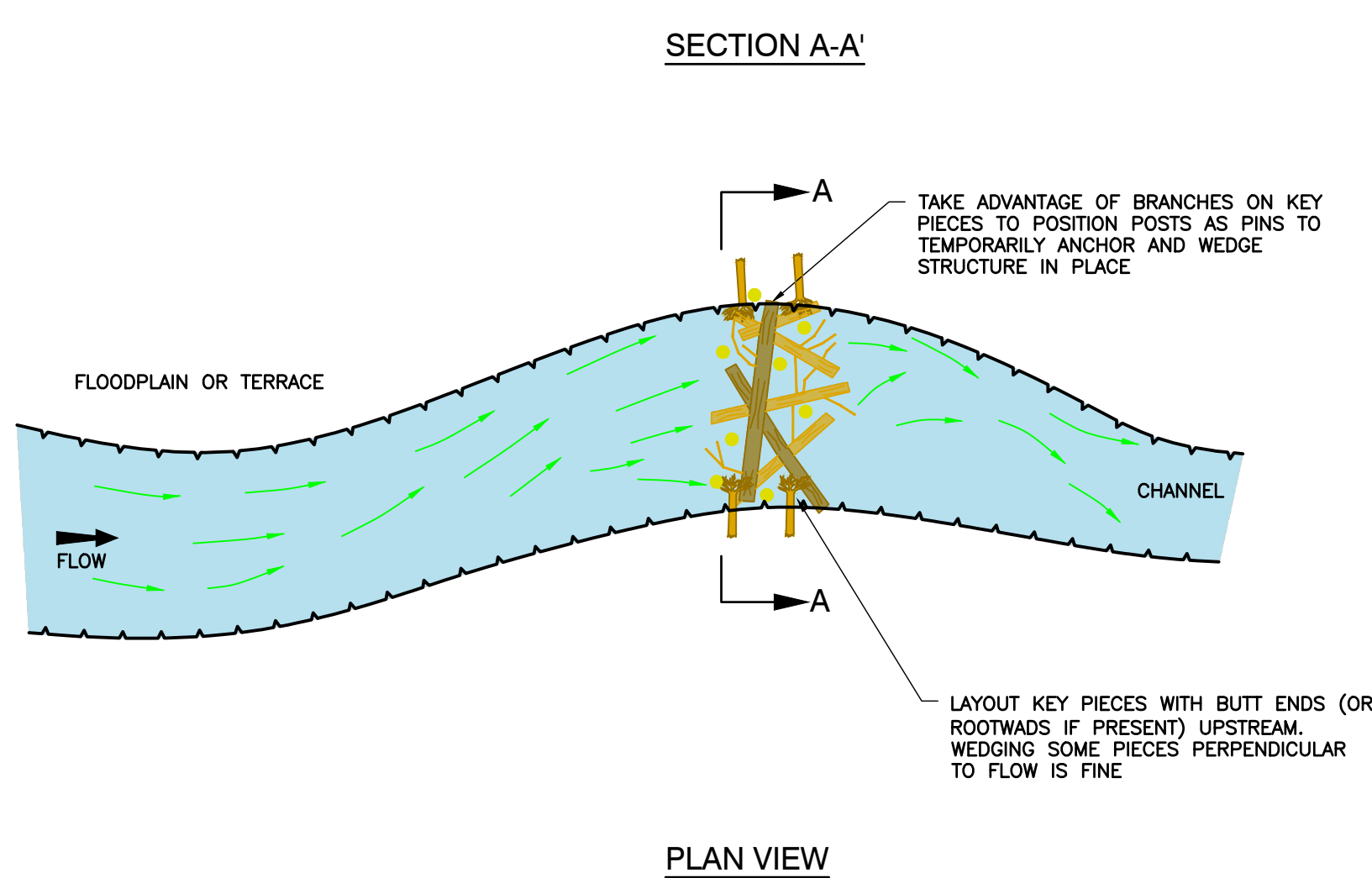
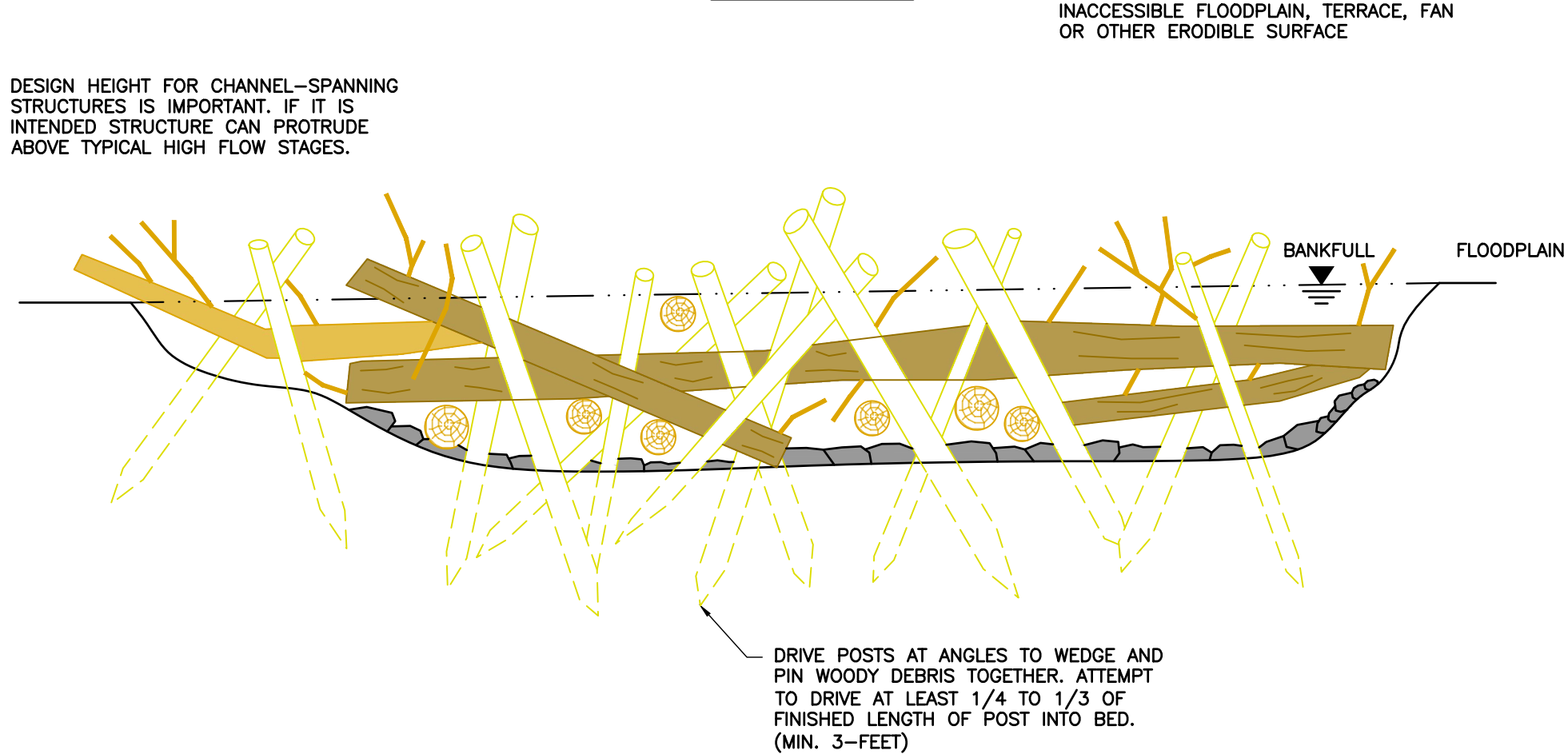
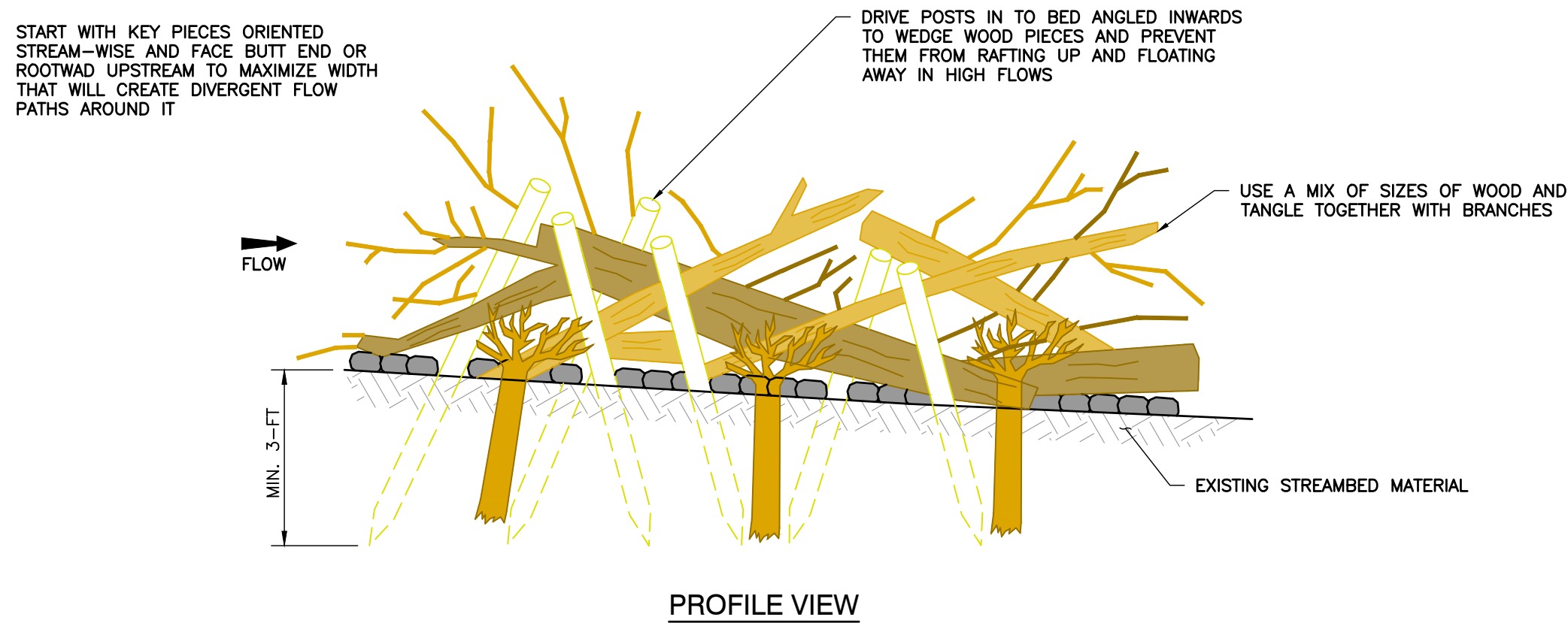
16

*HAND SIGNATURE ON FILE



P:\1300-000\1322-086-CA02\DWG\EC01\STRUCTURE DETAILS.dwg(1) IN-STREAM STRUCTURE DETAILS (LS/12/2022 - cecinc) - LP: 9/14/2022 10:20 AM

SUBMITTAL & REVISION RECORD		
NO	DATE	DESCRIPTION



FOR REVIEW
PURPOSES ONLY
NOT FOR CONSTRUCTION

C&E
Civil & Environmental Consultants, Inc.
700 Cherrington Parkway · Moon Township, PA 15108
Ph: 412.429.2324 · 800.365.2324 · Fax: 412.429.2114
www.cecinc.com

WESTERVELT ECOLOGICAL SERVICES
SODA CREEK WETLAND RESTORATION
SUMMIT COUNTY,
COLORADO

DRAWN BY: LKC/CCR CHECKED BY: LKC APPROVED BY: CCM
DATE: August 2022 DWG SCALE: AS SHOWN PROJECT NO: 322-086

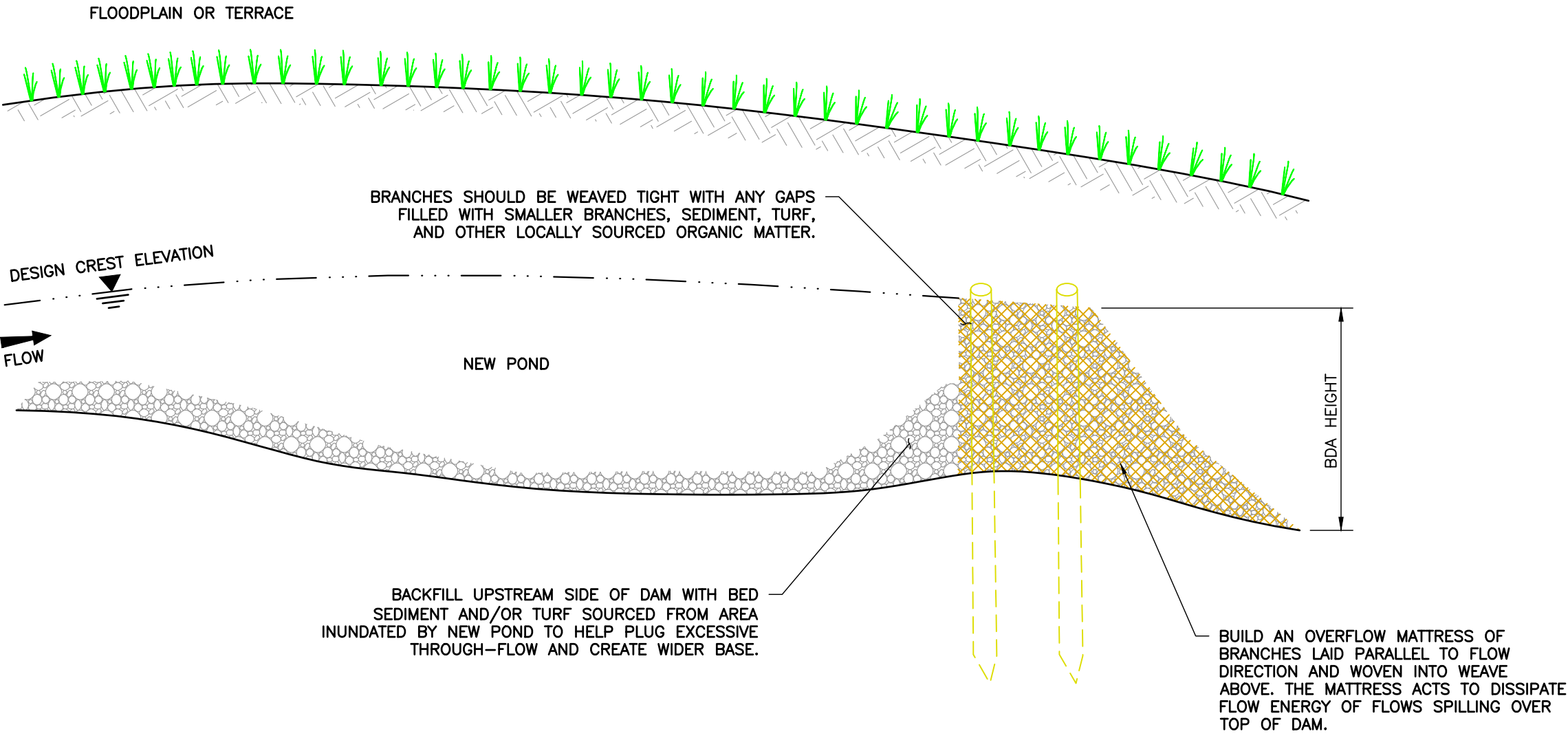
IN-STREAM STRUCTURE DETAILS

D1

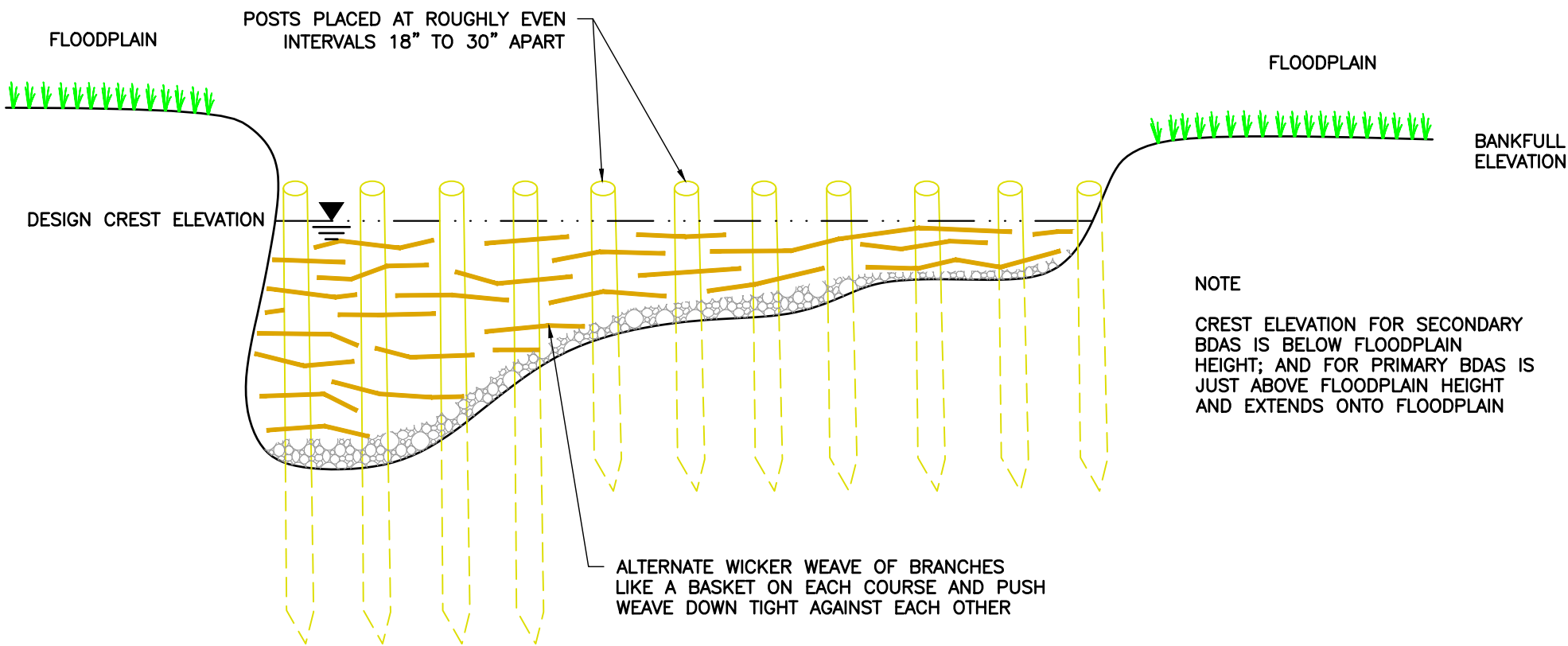
1 *HAND SIGNATURE ON FILE

P:\1300-000\1322-086-CADD\DWG\ED01\132086-ED01-STRUCTURE DETAILS.dwg(132086-ED01-STRUCTURE DETAILS.dwg) - L:\P\9/14/2022 10:20 AM

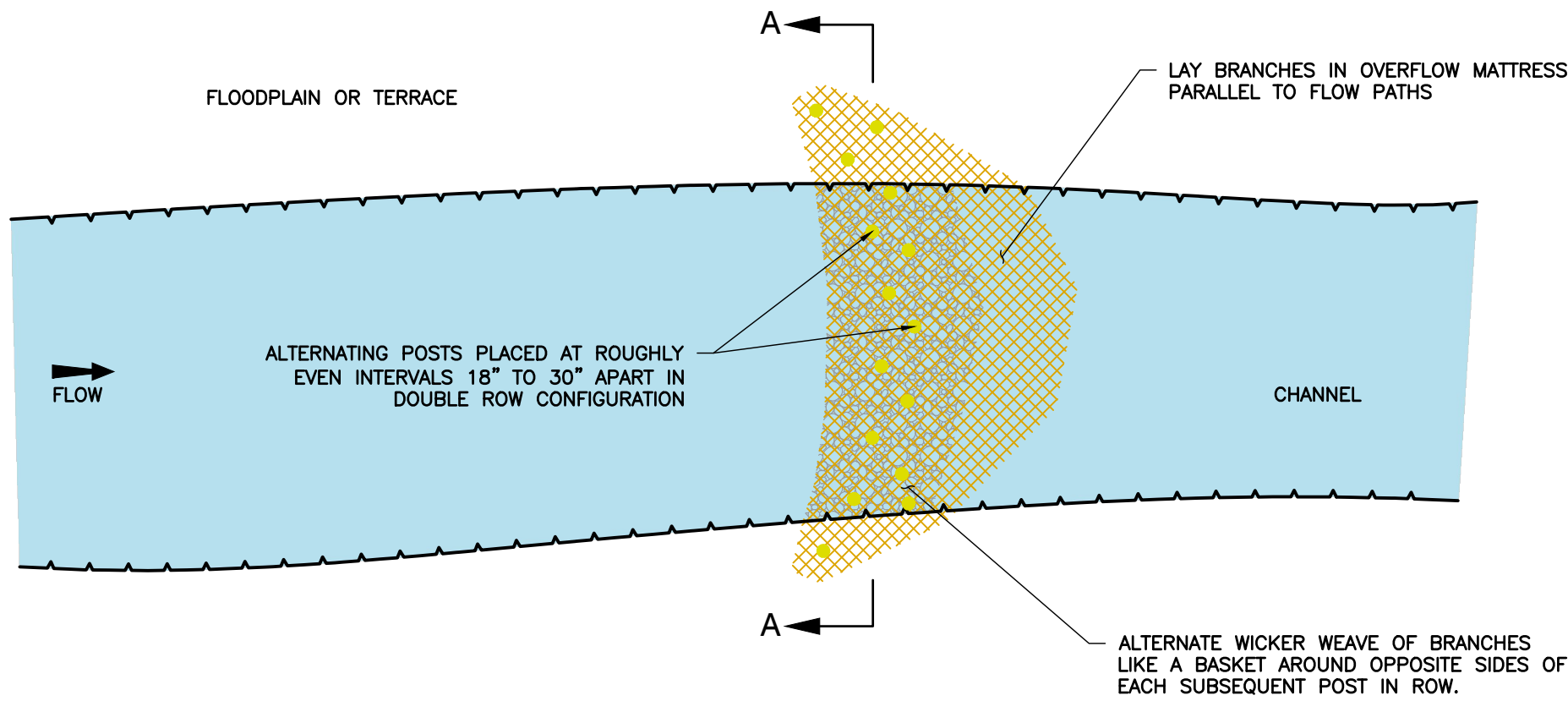
SUBMITTAL & REVISION RECORD		
NO	DATE	DESCRIPTION



PROFILE VIEW

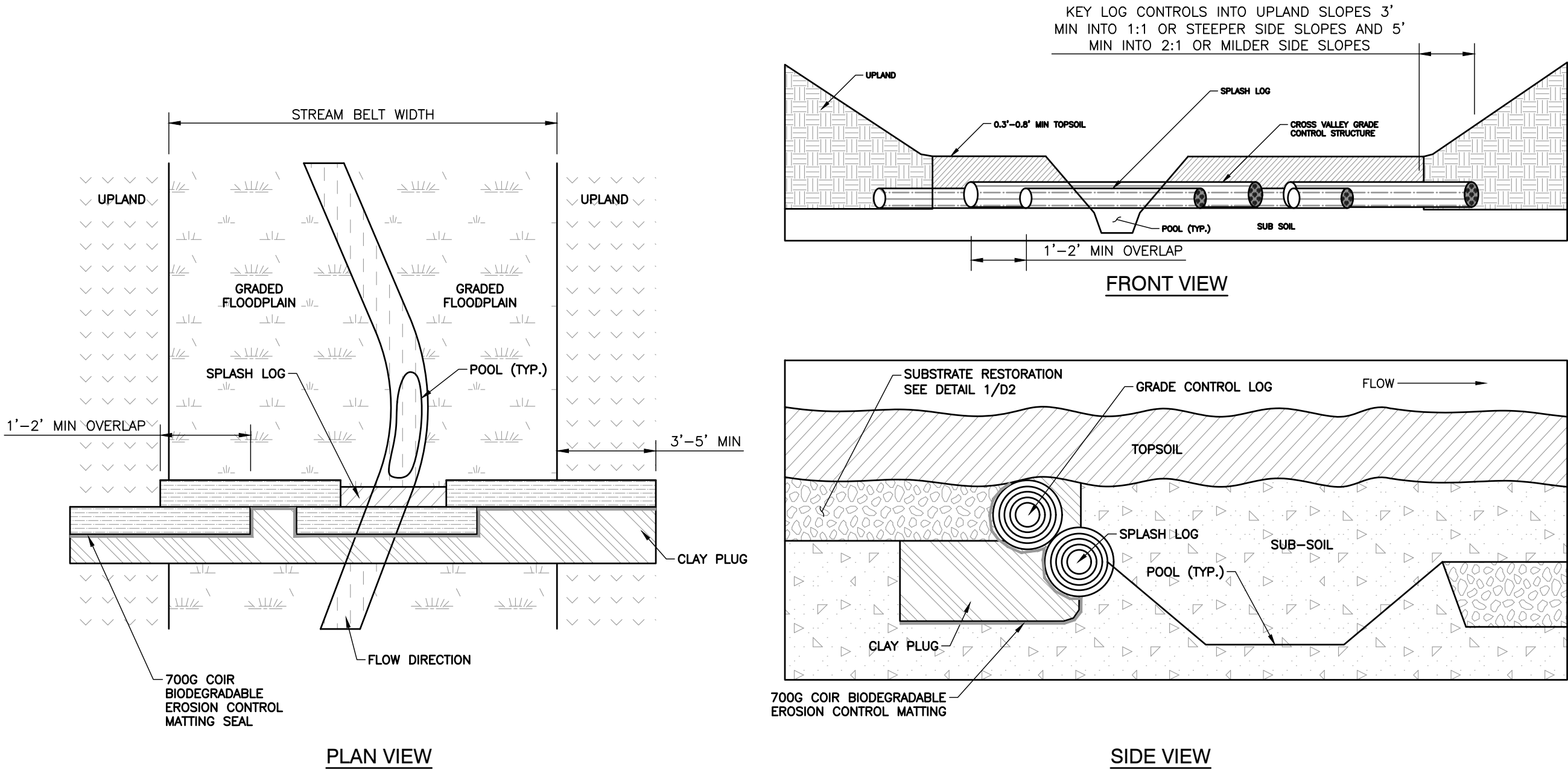


SECTION A-A'



PLAN VIEW

1
D2
POST-LINED WICKER WEAVE BEAVER DAM ANALOG (BDA)
NOT TO SCALE



NOTES:

- STRUCTURES MAY BE CONSTRUCTED OUT OF WOOD OR STONE MATERIAL; ALL MATERIAL IS TO BE APPROVED BY THE DESIGN ENGINEER OR CONSTRUCTION MANAGER PRIOR TO INSTALLATION ON-SITE. FINAL STRUCTURE ALIGNMENT AND LOCATION MAY BE ADJUSTED BY DESIGN ENGINEER OR CONSTRUCTION MANAGER IN THE FIELD AS NEEDED.
- WOODY MATERIAL IS TO BE BETWEEN 12"-16" AND RELATIVELY STRAIGHT; HIGHLY VARIABLE OR CURVED TRUNKS ARE NOT TO BE USED. STONE MATERIAL IS TO BE A MINIMUM OF 12 INCHES MEDIAN DIAMETER, AND MUST BE INSTALLED IN A COLUMN FASHION WHICH IS 2 FEET WIDE, 2 FEET DEEP, AND THE SPECIFIED WIDTH OF THE STRUCTURE AS SHOWN ON THE PLANS.
- ALL STRUCTURES ARE TO BE PLACED ON GRADED ROCK SUBSTRATE, BEDROCK, OR COMPETENT SUBSOIL NON-EROSIVE BASE SUCH AS A DENSE CLAY, GRADED ROCK SUBSTRATE, BEDROCK, OR COMPETENT SUBSOIL.
- CROSS VALLEY GRADE CONTROL LOGS OR ROCK WITHIN THE FLOODPLAIN SHALL EXTEND ACROSS THE ENTIRE BELT WIDTH OF THE STREAM. LOGS ARE TO BE OVERLAPPED BY A MINIMUM OF 1:5; AND TOED INTO THE VALLEY SIDE SLOPES, A MINIMUM OF 3-5'.
- MATERIAL WITH A HEAVY CLAY OR CLAYEY SILT CONTENT SHALL BE USED TO CONSTRUCT A CLAY PLUG ON THE UPSTREAM SIDE OF THE LOG SILL. THE CLAY PLUG SHALL HAVE A WIDTH OF 3 FEET UPSTREAM OF THE LOG SILL AND EXTEND ACROSS THE ENTIRE VALLEY BOTTOM IN ORDER TO PREVENT WATER-PIPING THROUGH THE STRUCTURE. MATERIAL EXCAVATED FOR THE LOG SILLS MAY BE USED AT THE DISCRETION OF THE ENGINEER OR ENGINEER'S ON-SITE CONSTRUCTION OBSERVER TO CONSTRUCT THE CLAY PLUG.

2
D2
CROSS VALLEY GRADE CONTROL (LOGS)
NOT TO SCALE

FOR REVIEW
PURPOSES ONLY
NOT FOR CONSTRUCTION

C&E
Civil & Environmental Consultants, Inc.
700 Cherrington Parkway · Moon Township, PA 15108
Ph: 412.429.2324 · 800.365.2324 · Fax: 412.429.2114
www.ccecinc.com

WESTERVELT ECOLOGICAL SERVICES
SODA CREEK WETLAND RESTORATION
SUMMIT COUNTY,
COLORADO

DRAWN BY: LKC/CCR CHECKED BY: LKC APPROVED BY: CCM
DATE: August 2022 DWG SCALE: AS SHOWN PROJECT NO: 322-086

IN-STREAM STRUCTURE DETAILS

D2

1 *HAND SIGNATURE ON FILE

