

CERTIFICATE OF SURVEY AND ACCURACY

I, PHILLIP B. KEE, CERTIFY THAT THE GROUND TOPOGRAPHIC SURVEY PORTION OF THIS PROJECT WAS COMPLETED UNDER MY DIRECT SUPERVISION; THAT THIS SURVEY WAS PERFORMED AT THE 95% CONFIDENCE LEVEL TO MEET THE FEDERAL GEOGRAPHIC DATA COMMITTEE STANDARDS; THAT THIS SURVEY WAS PERFORMED TO THE CLASS A HORIZONTAL AND CLASS C VERTICAL WHERE APPLICABLE; THAT THE ORIGINAL DATA WAS OBTAINED BETWEEN THE DATES OF 11/18/19 & 12/02/19; THAT THE CONTOURS SHOWN AS BROKEN LINES MAY NOT MEET THE STATED STANDARD AND ALL COORDINATES ARE BASED ON NAD 83 (NSRS 2011) AND ALL ELEVATIONS ARE BASED ON NAVD 88; THAT THE GPS PORTION OF THIS PROJECT WAS TO PERFORM A GRID TIE TO THE NC STATE PLANE COORDINATE SYSTEM AND INFORMATION USED IS SHOWN & NOTED HEREON; THAT THIS MAP MEETS THE SPECIFICATIONS FOR TOPOGRAPHIC SURVEYS AS STATED IN TITLE 21, CHAPTER 56, SECTION .1606; THAT THIS MAP WAS NOT PREPARED IN ACCORDANCE WITH G.S. 47-30, AS AMENDED AND DOES NOT REPRESENT AN OFFICIAL BOUNDARY SURVEY.

GPS METADATA  
SEE SURVEY CONTROL MAP FOR EW SOLUTIONS, LLC BY KEE MAPPING & SURVEYING, PA (LICENSE # C-3039); SIGNED, SEALED AND DATED ON AUGUST 4TH, 2017 BY NOLAN R. CARMACK, NC PLS (LICENSE #5076).

WITNESS MY ORIGINAL SIGNATURE, REGISTRATION NUMBER, AND SEAL THIS 6th DAY OF FEBRUARY, 2020, A.D.

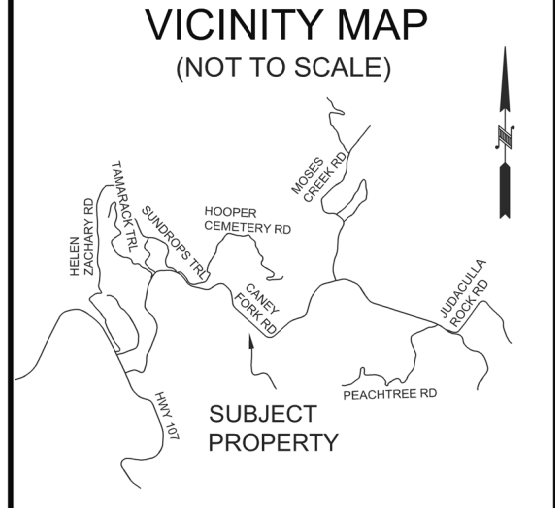
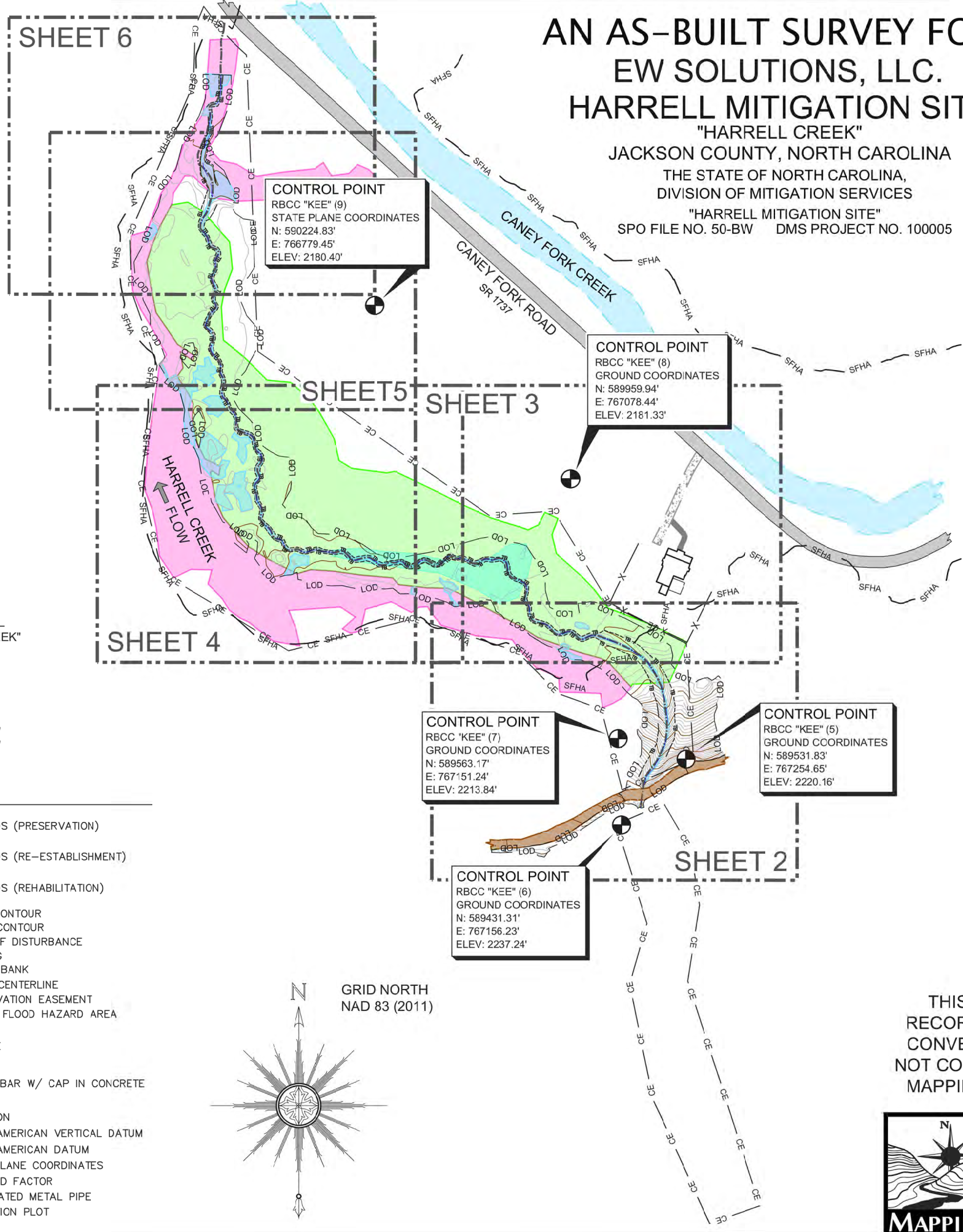


DocuSigned by:  
*Phillip B. Kee*  
D965004A7692407...

PHILLIP B. KEE, PLS L-4647

# AN AS-BUILT SURVEY FOR: EW SOLUTIONS, LLC. HARRELL MITIGATION SITE

"HARRELL CREEK"  
JACKSON COUNTY, NORTH CAROLINA  
THE STATE OF NORTH CAROLINA,  
DIVISION OF MITIGATION SERVICES  
"HARRELL MITIGATION SITE"  
SPO FILE NO. 50-BW DMS PROJECT NO. 100005



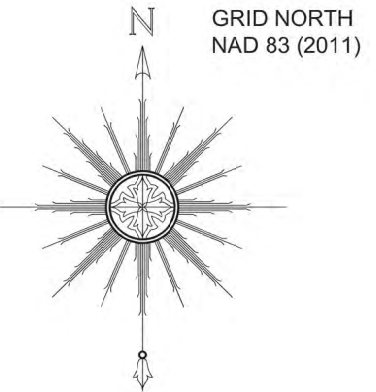
**SURVEYOR'S NOTES**

- ALL DISTANCES AND COORDINATES ARE GROUND MEASUREMENTS IN US SURVEY FEET UNLESS OTHERWISE NOTED.
- PROPERTY SUBJECT TO ALL EASEMENTS, RIGHT OF WAYS AND RESTRICTIONS THAT ARE RECORDED, UNRECORDED, WRITTEN AND UNWRITTEN.
- CONSERVATION EASEMENT BOUNDARIES SHOWN HEREON WERE TAKEN FROM A PLAT OF SURVEY ENTITLED: "CONSERVATION EASEMENT FOR THE STATE OF NORTH CAROLINA, DIVISION OF MITIGATION SERVICES, HARRELL MITIGATION SITE", PREPARED BY KEE MAPPING & SURVEYING, DATED APRIL 10, 2018 AND RECORDED IN PLAT CABINET 22, SLIDE 606 OF THE JACKSON COUNTY REGISTRY.
- JACKSON COUNTY GIS WEBSITE USED TO IDENTIFY ADJOINING PROPERTY OWNERS.
- BY GRAPHIC DETERMINATION, A PORTION OF THE SUBJECT PROPERTY APPEARS TO LIE WITHIN A SPECIAL FLOOD HAZARD AREA (SFHA) AS DETERMINED BY THE F.E.M.A. MAP#s 3700756900J DATED 04/19/2010.
- STATE PLANE COORDINATES AND ELEVATIONS WERE DERIVED FROM THE CONTROL & EXISTING CONDITIONS TOPOGRAPHIC SURVEY PREPARED BY KEE MAPPING & SURVEYING. THE HORIZONTAL DATUM IS NAD 83 (2011) AND THE VERTICAL DATUM IS NAVD(88). ALL COORDINATES SHOWN HEREON ARE GROUND MEASUREMENTS IN US SURVEY FEET.
- UTILITIES WERE LOCATED BASED ON VISIBLE ABOVE GROUND STRUCTURES, THEREFORE THE LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE OR MAY BE PRESENT AND NOT SHOWN HEREON. CALL 1-800-632-4949 BEFORE DIGGING.
- STATIONING FOR PLAN AND PROFILES ARE BASED OFF OF DESIGN CENTERLINES PROVIDED BY EW SOLUTIONS, LLC.
- CONTOUR INTERVAL: 1 FOOT  
VERTICAL DATUM: NAVD 88
- AREA OF LIMITS OF DISTURBANCE: 3.46 ACRES
- WETLANDS SHOWN HEREON WERE DELINEATED AND PROVIDED BY EW SOLUTIONS, LLC.

SHEET #	SHEET TITLE
1	COVER SHEET: "HARRELL MITIGATION SITE - HARRELL CREEK"
2	STREAM DATA: "BEGIN HARRELL CREEK"
3	STREAM DATA: "HARRELL CREEK"
4	STREAM DATA: "HARRELL CREEK"
5	STREAM DATA: "HARRELL CREEK"
6	STREAM DATA: "HARRELL CREEK END"
7	STREAM DATA: "CROSS-SECTIONS 1-6"
8	STREAM DATA: "LONGITUDINAL PROFILE: HARRELL CREEK"
9	STREAM DATA: "LONGITUDINAL PROFILE: HARRELL CREEK"

**LEGEND**

#	STRUCTURE NUMBER	[Pink Box]	WETLANDS (PRESERVATION)
●	1/2" RBR (CROSS-SECTION REBAR)	[Green Box]	WETLANDS (RE-ESTABLISHMENT)
⊙	5/8" RBR W/ "KEE" CAP SET IN CONCRETE	[Light Blue Box]	WETLANDS (REHABILITATION)
—	LOG SILL	—	MINOR CONTOUR
—	BOULDER SILL	—	MAJOR CONTOUR
—	FLOODPLAIN DEBRIS	—	LOD
—	DECIDUOUS TREE (AS NOTED)	—	THALWEG
—	GROUNDWATER GAUGE	—	TOP OF BANK
—	BAROTROLL GAUGE	—	DESIGN CENTERLINE
—	BRUSH TOE	—	CE
—	RIFFLE	—	SFHA
—	POOL/WATER	—	X
—	GRAVEL	—	TREELINE
—	ASPHALT	—	RBR
—	SOIL ROAD	—	RBCC
—	RIP RAP	—	INV
		—	ELEV
		—	NAVD
		—	NAD
		—	SPC
		—	CF
		—	CMP
		—	VP

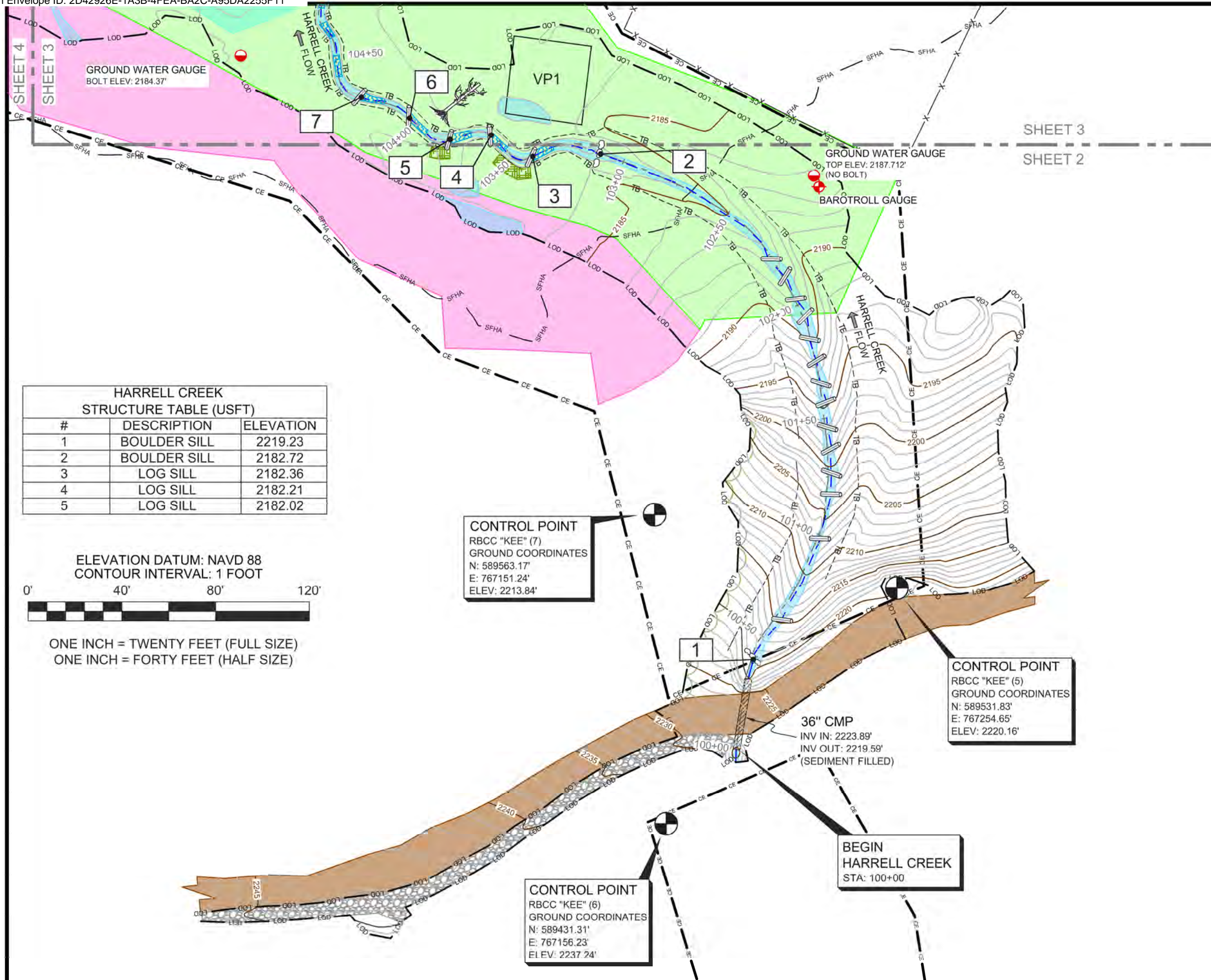


THIS MAP IS NOT FOR RECORDATION, SALES, OR CONVEYANCES AND DOES NOT COMPLY WITH G.S. 47-30 MAPPING REQUIREMENTS.



SHEET SIZE: 11"X 17"  
(HALF SIZE)  
SHEET:  
**1 OF 9**

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(828) 575-9021  
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**HARRELL CREEK  
STRUCTURE TABLE (USFT)**

#	DESCRIPTION	ELEVATION
1	BOULDER SILL	2219.23
2	BOULDER SILL	2182.72
3	LOG SILL	2182.36
4	LOG SILL	2182.21
5	LOG SILL	2182.02

ELEVATION DATUM: NAVD 88  
CONTOUR INTERVAL: 1 FOOT

0' 40' 80' 120'

ONE INCH = TWENTY FEET (FULL SIZE)  
ONE INCH = FORTY FEET (HALF SIZE)

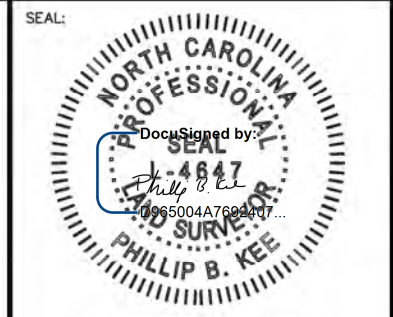
**CONTROL POINT**  
RBCC "KEE" (7)  
GROUND COORDINATES  
N: 589563.17'  
E: 767151.24'  
ELEV: 2213.84'

**CONTROL POINT**  
RBCC "KEE" (5)  
GROUND COORDINATES  
N: 589531.83'  
E: 767254.65'  
ELEV: 2220.16'

**CONTROL POINT**  
RBCC "KEE" (6)  
GROUND COORDINATES  
N: 589431.31'  
E: 767156.23'  
ELEV: 2237.24'

**36" CMP**  
INV IN: 2223.89'  
INV OUT: 2219.59'  
(SEDIMENT FILLED)

**BEGIN  
HARRELL CREEK**  
STA: 100+00



PLEASE REFER TO THE COVERSHEET FOR THE STATEMENT OF CERTIFICATION  
NOTE: SEE SHEET 1 FOR SURVEYOR'S NOTES & LEGEND

ELEVATION DATUM: NAVD 88  
CONTOUR INTERVAL: 1 FOOT

AN AS-BUILT SURVEY FOR:  
EW SOLUTIONS, LLC

SPO FILE NO. 50-BW  
DMS PROJECT NO. 100005

PROJECT:  
HARRELL  
MITIGATION SITE

SHEET TITLE:  
BEGIN  
HARRELL CREEK

TOWNSHIP: CANEY FORK COUNTY: JACKSON STATE: NORTH CAROLINA

DRAWN BY: NH,AB CHECKED BY: PBK SURVEY BY: LDP,DP,KP,CG

SCALE: AS SHOWN SURVEY DATES: 11/18/19 - 12/02/19  
JOB: #1910123-AB SHEET SIZE: 11" X 17"

#	DATE	REVISIONS

SHEET:  
**2 OF 9**



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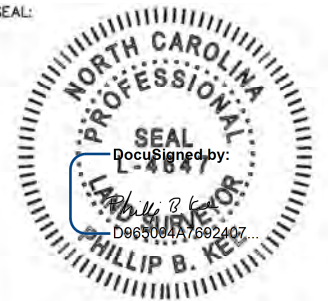
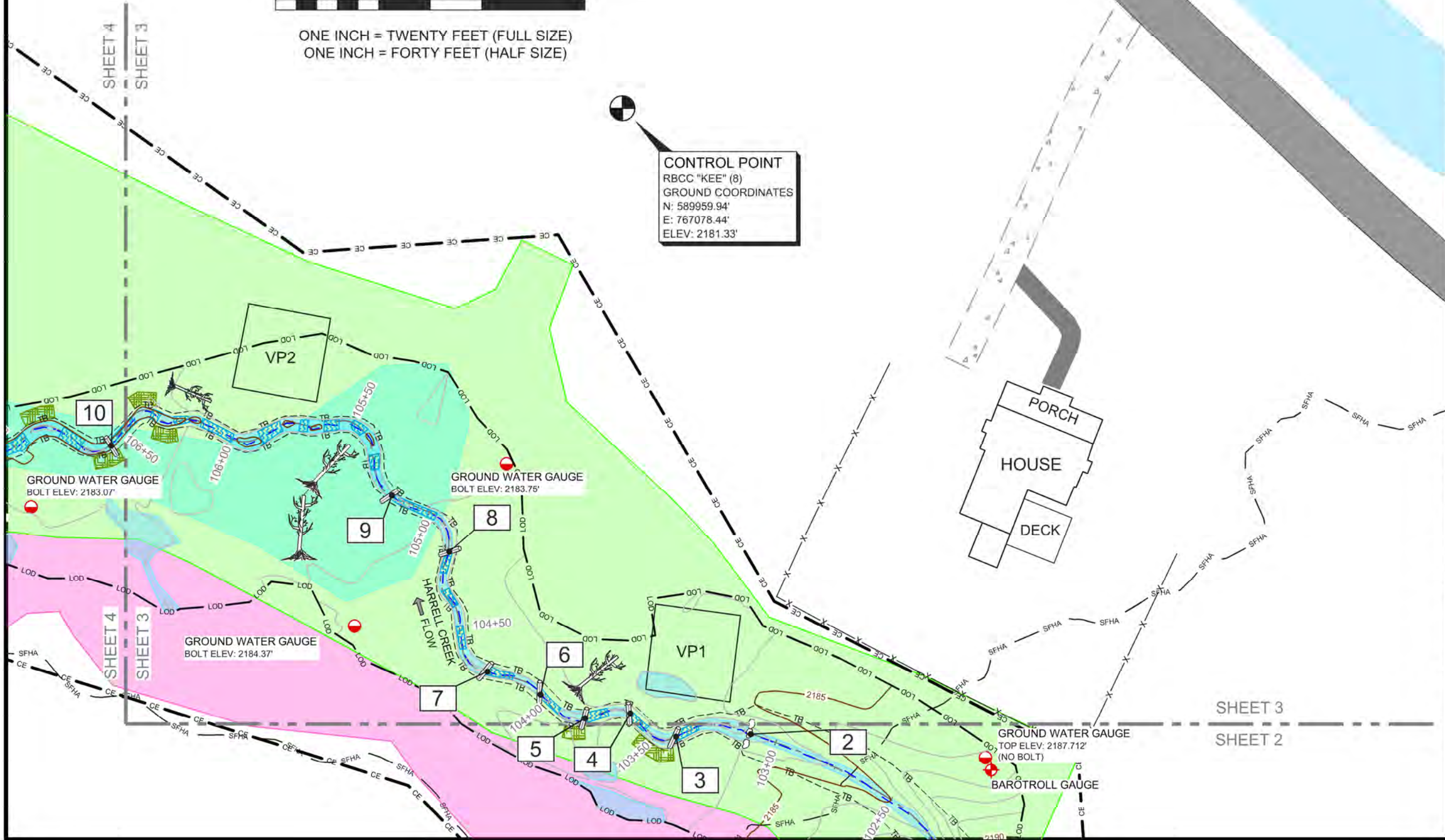
HARRELL CREEK STRUCTURE TABLE (USFT)		
#	DESCRIPTION	ELEVATION
6	LOG SILL	2181.96
7	LOG SILL	2181.67
8	LOG SILL	2181.16
9	LOG SILL	2180.90

ELEVATION DATUM: NAVD 88  
CONTOUR INTERVAL: 1 FOOT



ONE INCH = TWENTY FEET (FULL SIZE)  
ONE INCH = FORTY FEET (HALF SIZE)

**CONTROL POINT**  
RBCC "KEE" (8)  
GROUND COORDINATES  
N: 589959.94'  
E: 767078.44'  
ELEV: 2181.33'



PLEASE REFER TO THE COVERSHEET FOR THE STATEMENT OF CERTIFICATION

NOTE: SEE SHEET 1 FOR SURVEYOR'S NOTES & LEGEND

ELEVATION DATUM: NAVD 88  
CONTOUR INTERVAL: 1 FOOT

AN AS-BUILT SURVEY FOR:  
EW SOLUTIONS, LLC

SPO FILE NO. 50-BW  
DMS PROJECT NO. 100005

PROJECT:  
HARRELL  
MITIGATION SITE

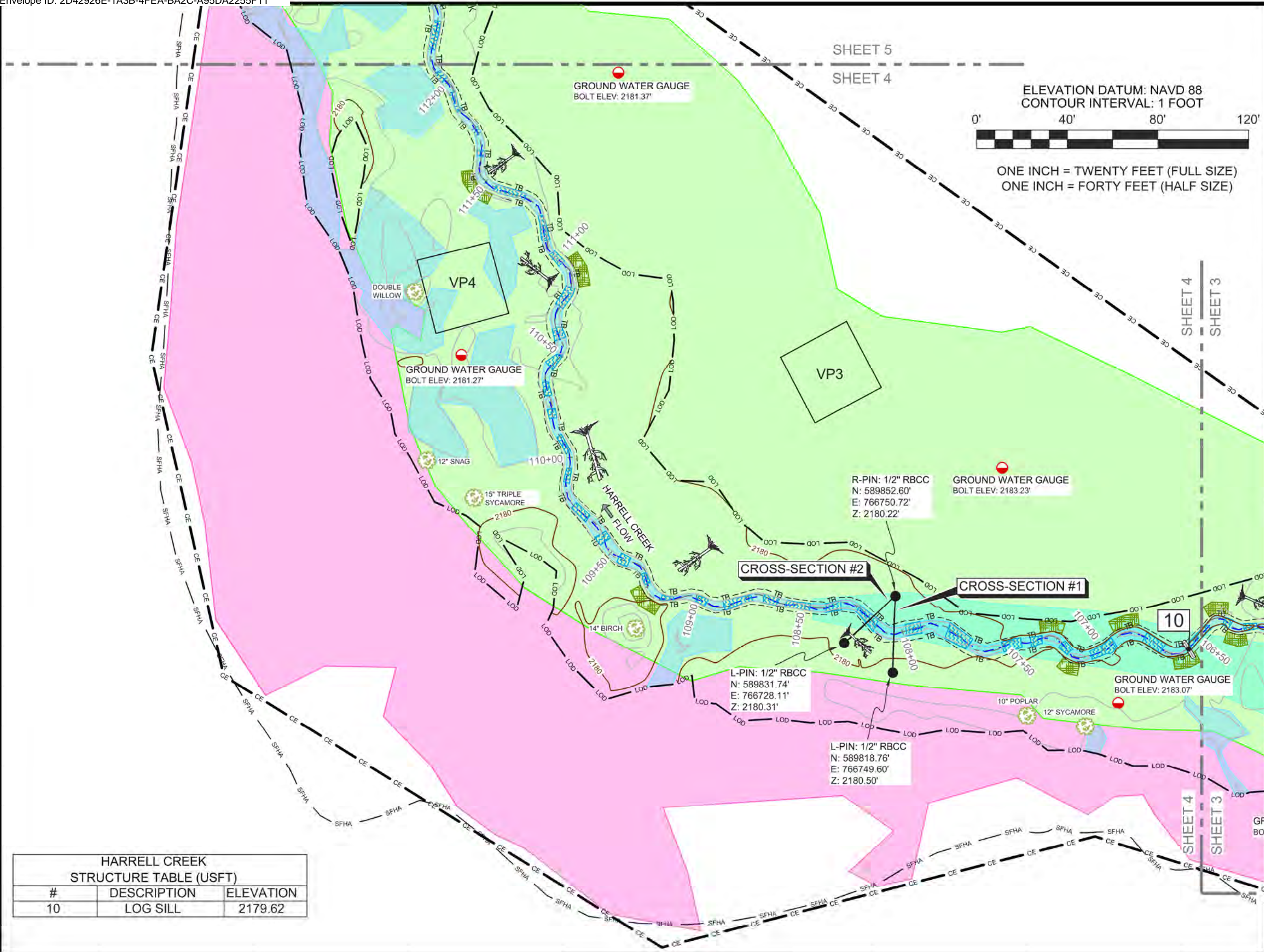
SHEET TITLE:  
HARRELL CREEK

TOWNSHIP: CANEY FORK	COUNTY: JACKSON	STATE: NORTH CAROLINA
DRAWN BY: NH, AB	CHECKED BY: PBK	SURVEY BY: LDP, DP, KP, CG
SCALE: AS SHOWN	SURVEY DATES: 11/18/19 - 12/02/19	
JOB: #1910123-AB	SHEET SIZE: (HALF SIZE) 11" X 17"	
#	DATE	REVISIONS

SHEET:  
**3 OF 9**



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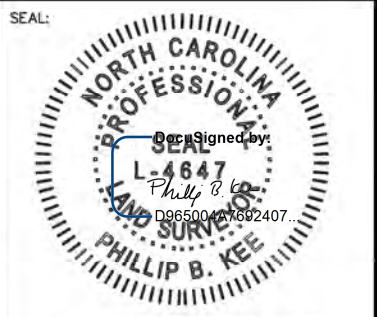


SHEET 5  
SHEET 4

ELEVATION DATUM: NAVD 88  
CONTOUR INTERVAL: 1 FOOT



ONE INCH = TWENTY FEET (FULL SIZE)  
ONE INCH = FORTY FEET (HALF SIZE)



PLEASE REFER TO THE COVERSHEET FOR THE STATEMENT OF CERTIFICATION  
NOTE: SEE SHEET 1 FOR SURVEYOR'S NOTES & LEGEND

ELEVATION DATUM: NAVD 88  
CONTOUR INTERVAL: 1 FOOT

AN AS-BUILT SURVEY FOR:  
EW SOLUTIONS, LLC

SPO FILE NO. 50-BW  
DMS PROJECT NO. 100005

PROJECT:  
HARRELL  
MITIGATION SITE

SHEET TITLE:  
HARRELL CREEK

TOWNSHIP: CANEY FORK COUNTY: JACKSON STATE: NORTH CAROLINA

DRAWN BY: NH,AB CHECKED BY: PBK SURVEY BY: LDP,DP,KP,CG

SCALE: AS SHOWN SURVEY DATES: 11/18/19 - 12/02/19  
JOB: #1910123-AB SHEET SIZE: 11" X 17"

#	DATE	REVISIONS

SHEET: 4 OF 9



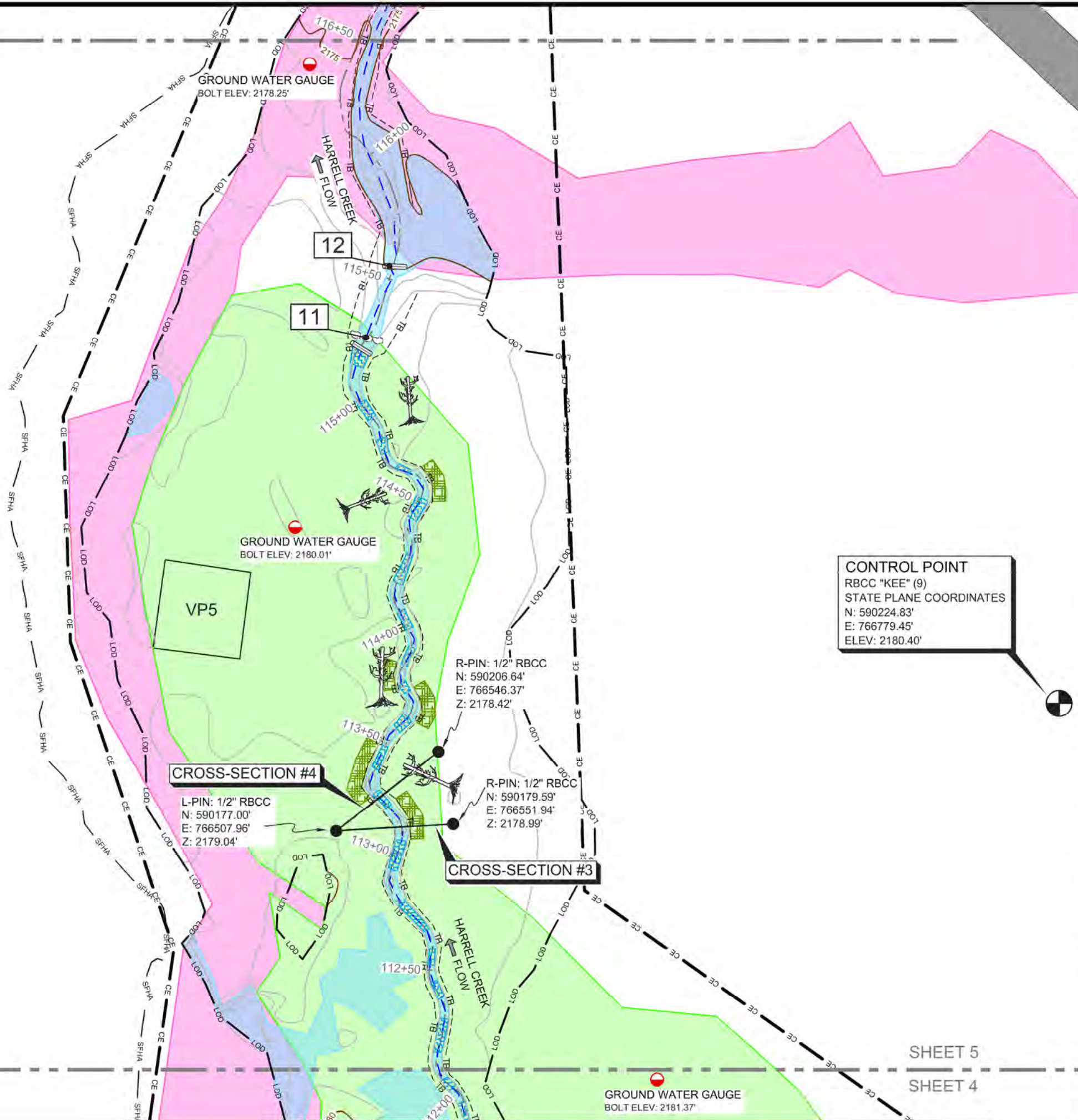
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#	DESCRIPTION	ELEVATION
10	LOG SILL	2179.62

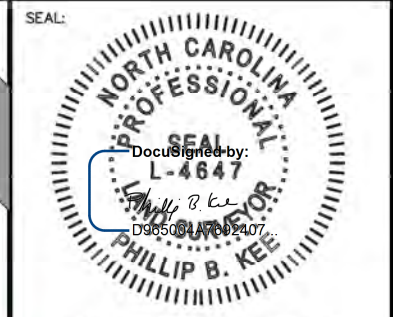
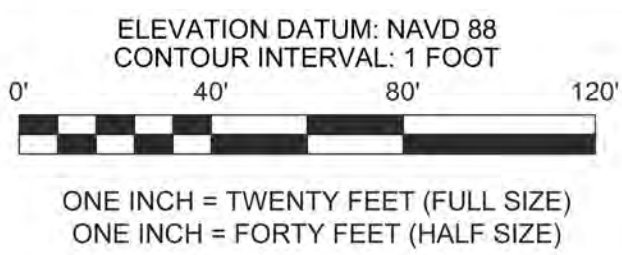
SHEET 6

SHEET 5

HARRELL CREEK STRUCTURE TABLE (USFT)		
#	DESCRIPTION	ELEVATION
11	BOULDER SILL	2176.71
12	LOG SILL	2174.94



**CONTROL POINT**  
 RBCC "KEE" (9)  
 STATE PLANE COORDINATES  
 N: 590224.83'  
 E: 766779.45'  
 ELEV: 2180.40'



PLEASE REFER TO THE COVERSHEET FOR THE STATEMENT OF CERTIFICATION  
 NOTE: SEE SHEET 1 FOR SURVEYOR'S NOTES & LEGEND

ELEVATION DATUM: NAVD 88  
 CONTOUR INTERVAL: 1 FOOT

AN AS-BUILT SURVEY FOR:  
 EW SOLUTIONS, LLC

SPO FILE NO. 50-BW  
 DMS PROJECT NO. 100005

PROJECT:  
 HARRELL  
 MITIGATION SITE

SHEET TITLE:  
 HARRELL CREEK

TOWNSHIP: CANEY FORK	COUNTY: JACKSON	STATE: NORTH CAROLINA
DRAWN BY: NH,AB	CHECKED BY: PBK	SURVEY BY: LDP,DP,KP,CG
SCALE: AS SHOWN	SURVEY DATES: 11/18/19 - 12/02/19	
JOB: #1910123-AB	SHEET SIZE: (HALF SIZE) 11" X 17"	
#	DATE	REVISIONS

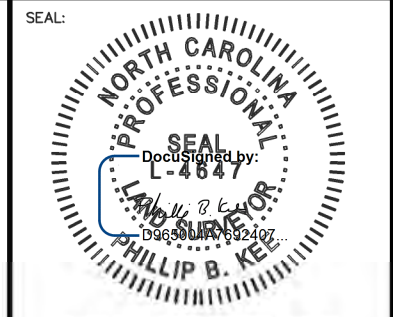
SHEET:  
**5** OF **9**



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SHEET 5

SHEET 4



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ELEVATION DATUM: NAVD 88  
 CONTOUR INTERVAL: 1 FOOT

AN AS-BUILT SURVEY FOR:  
 EW SOLUTIONS, LLC

SPO FILE NO. 50-BW  
 DMS PROJECT NO. 100005

PROJECT:  
 HARRELL MITIGATION SITE

SHEET TITLE:  
 HARRELL CREEK END

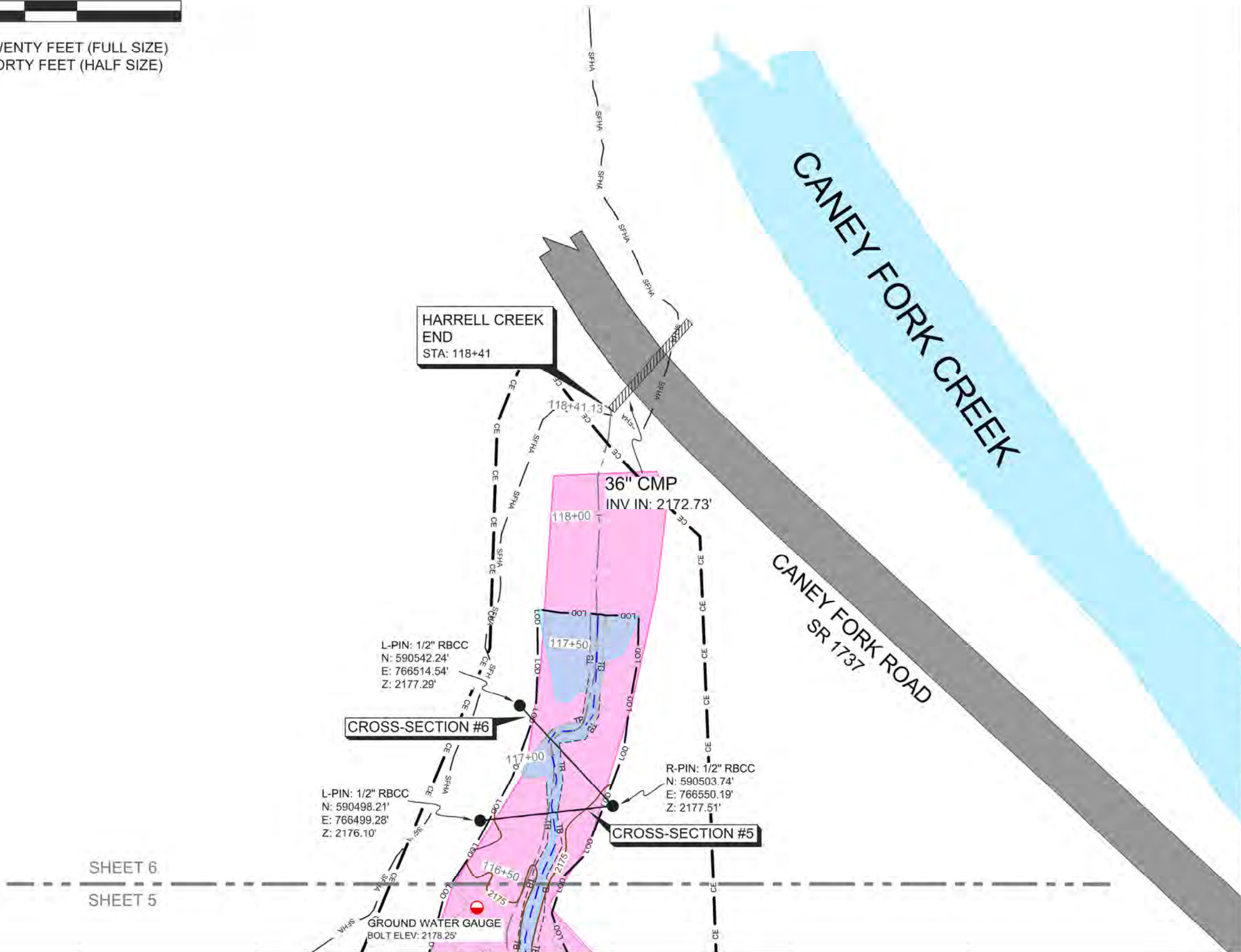
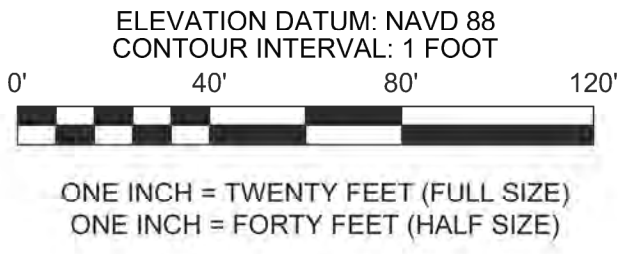
TOWNSHIP: CANEY FORK	COUNTY: JACKSON	STATE: NORTH CAROLINA
DRAWN BY: NH,AB	CHECKED BY: PBK	SURVEY BY: LDP,DP,KP,CG
SCALE: AS SHOWN	SURVEY DATES: 11/18/19 - 12/02/19	
JOB: #1910123-AB	SHEET SIZE: 11" X 17"	

#	DATE	REVISIONS

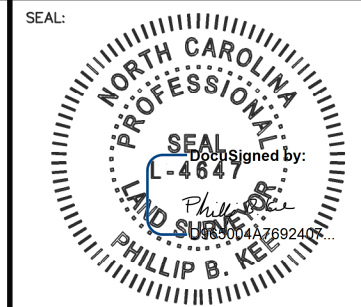
SHEET:  
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SHEET 6  
 SHEET 5



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ELEVATION DATUM: NAVD 88  
CONTOUR INTERVAL: 1 FOOT

AN AS-BUILT SURVEY FOR:  
EW SOLUTIONS, LLC

SPO FILE NO. 50-BW  
DMS PROJECT NO. 100005

PROJECT:  
HARRELL  
MITIGATION SITE

SHEET TITLE:  
CROSS-SECTIONS  
1-6

TOWNSHIP: CANEY FORK	COUNTY: JACKSON	STATE: NORTH CAROLINA
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DRAWN BY: NH, AB	CHECKED BY: PBK	SURVEY BY: LDP, DP, KP, CG
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SCALE: AS SHOWN	SURVEY DATES: 11/18/19 - 12/02/19
JOB: #1910123-AB	SHEET SIZE: 11" X 17"

#	DATE	REVISIONS

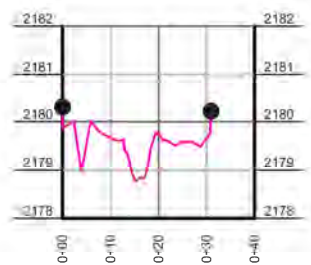
SHEET:  
**7** OF **9**



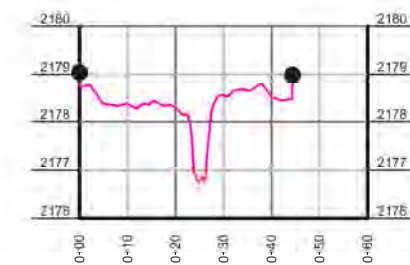
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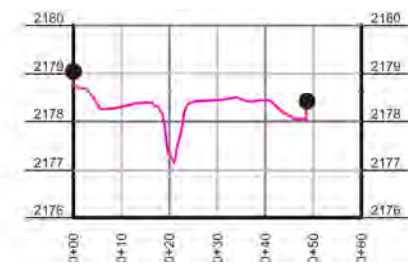
**CROSS-SECTION #1-HARRELL CREEK**  
HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'



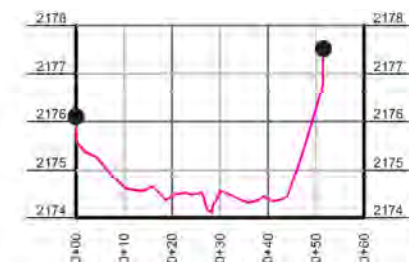
**CROSS-SECTION #2-HARRELL CREEK**  
HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'



**CROSS-SECTION #3- HARRELL CREEK**  
HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'



**CROSS-SECTION #4-HARRELL CREEK**  
HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'



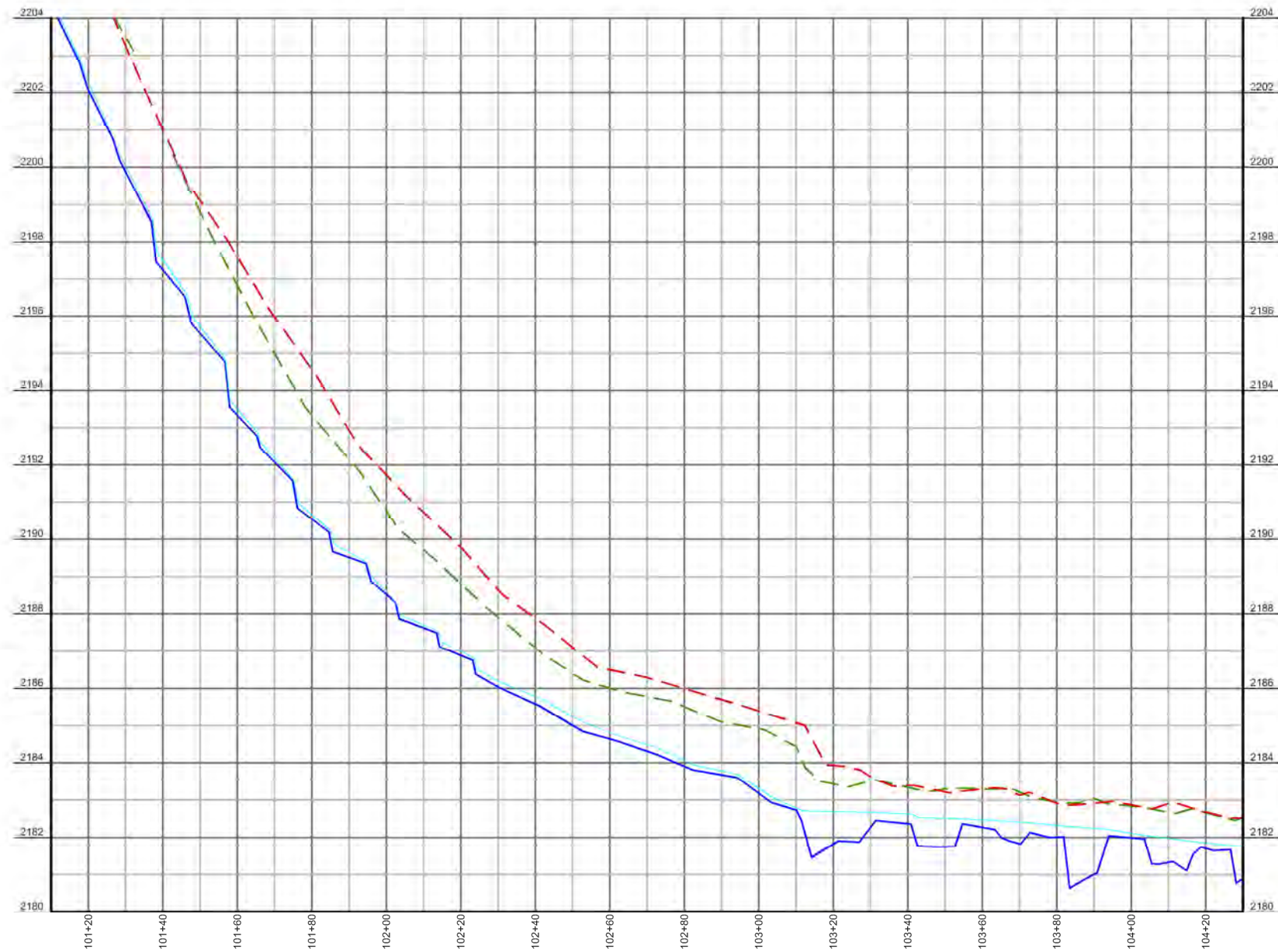
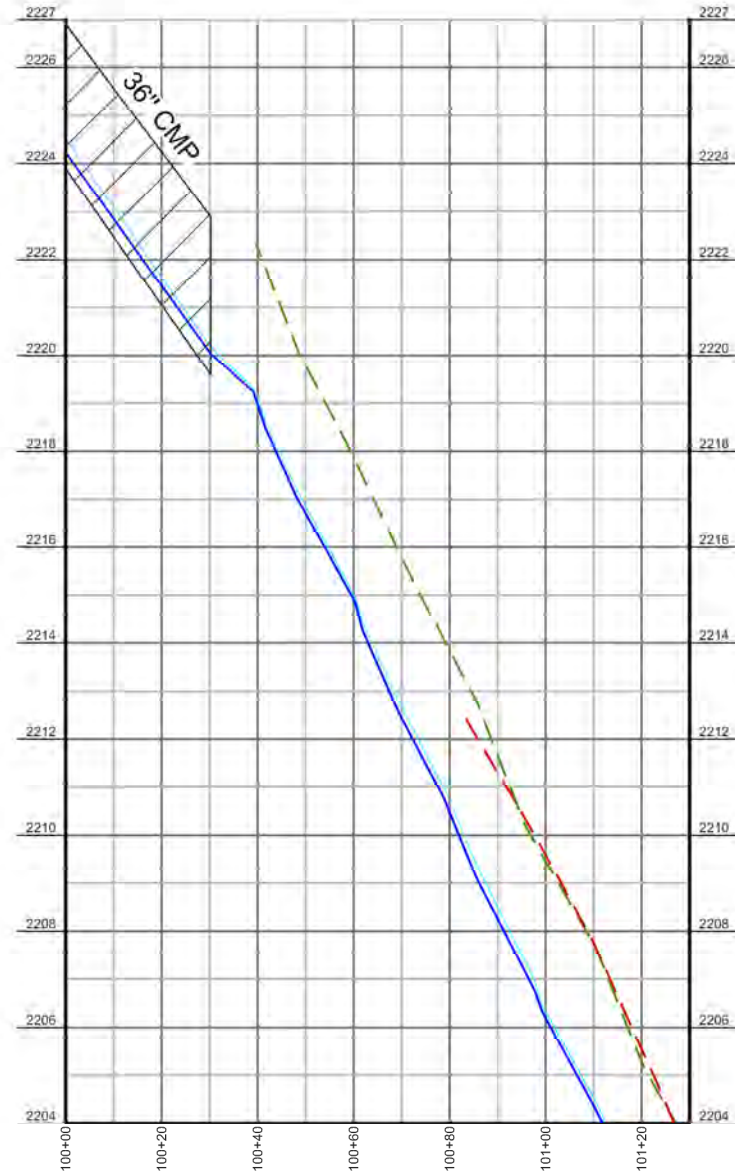
**CROSS-SECTION #5-HARRELL CREEK**  
HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'



**CROSS-SECTION #6-HARRELL CREEK**  
HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'

### LEGEND

- CROSS-SECTION REBAR



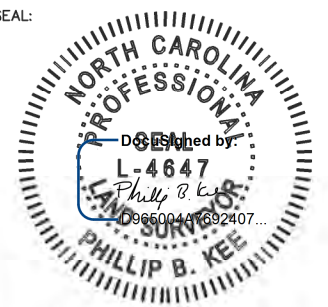
**LONGITUDINAL PROFILE-HARRELL CREEK**

HORIZONTAL: 1" = 40'  
 VERTICAL: 1" = 4'

**LEGEND**

- THALWEG
- - - WATER SURFACE
- - - RIGHT TOP OF BANK
- - - LEFT TOP OF BANK

SEAL:



PLEASE REFER TO THE COVERSHEET FOR THE STATEMENT OF CERTIFICATION

NOTE: SEE SHEET 1 FOR SURVEYOR'S NOTES & LEGEND

ELEVATION DATUM: NAVD 88  
 CONTOUR INTERVAL: 1 FOOT

AN AS-BUILT SURVEY FOR:  
 EW SOLUTIONS, LLC

SPO FILE NO. 50-BW  
 DMS PROJECT NO. 100005

PROJECT:  
 HARRELL  
 MITIGATION SITE

SHEET TITLE:  
 LONGITUDINAL  
 PROFILE

TOWNSHIP: CANEY FORK	COUNTY: JACKSON	STATE: NORTH CAROLINA
-------------------------	--------------------	--------------------------

DRAWN BY: NH,AB	CHECKED BY: PBK	SURVEY BY: LDP,DP,KP,CG
--------------------	--------------------	----------------------------

SCALE: AS SHOWN	SURVEY DATES: 11/18/19 - 12/02/19
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JOB: #1910123-AB	SHEET SIZE: (HALF SIZE) 11" X 17"
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#	DATE	REVISIONS

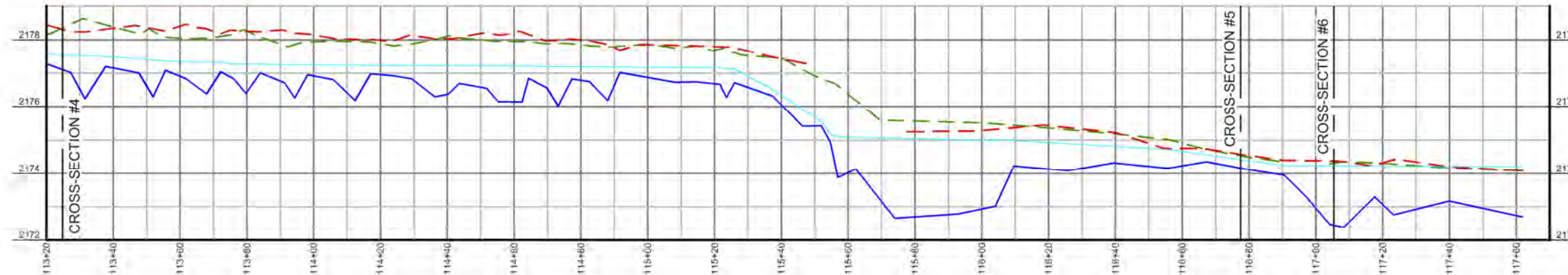
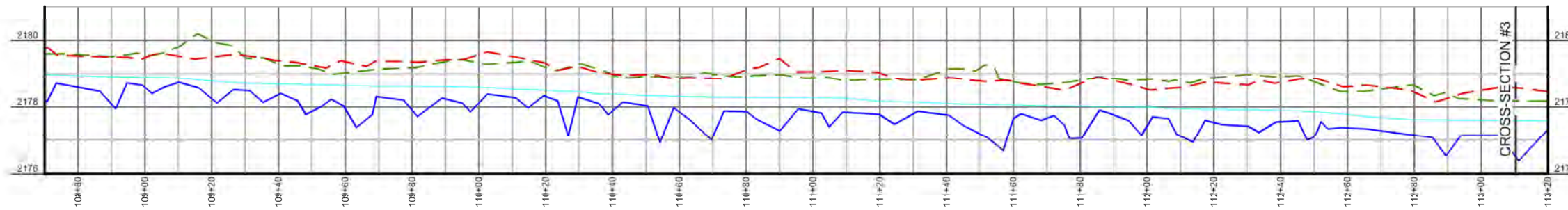
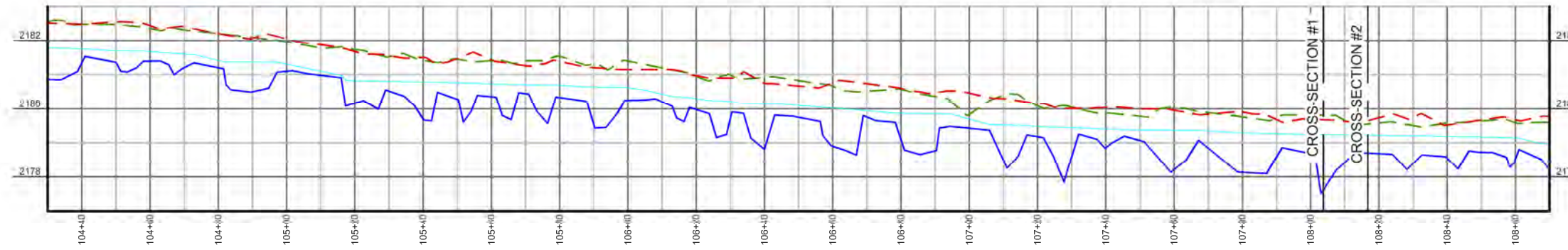
SHEET:

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**LONGITUDINAL PROFILE-HARRELL CREEK**

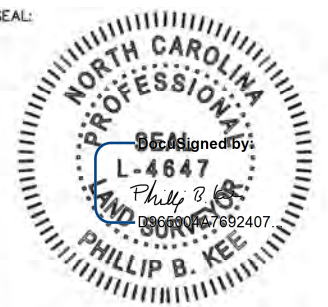
HORIZONTAL: 1" = 40'

VERTICAL: 1" = 4'

**LEGEND**

- THALWEG
- - - WATER SURFACE
- - - RIGHT TOP OF BANK
- - - LEFT TOP OF BANK

SEAL:



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ELEVATION DATUM: NAVD 88  
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EW SOLUTIONS, LLC

SPO FILE NO. 50-BW  
DMS PROJECT NO. 100005

PROJECT:  
HARRELL  
MITIGATION SITE

SHEET TITLE:  
LONGITUDINAL  
PROFILE

TOWNSHIP: CANEY FORK	COUNTY: JACKSON	STATE: NORTH CAROLINA
DRAWN BY: NH,AB	CHECKED BY: PBK	SURVEY BY: LDP,DP,KP,CG
SCALE: AS SHOWN	SURVEY DATES: 11/18/19 - 12/02/19	
JOB: #1910123-AB	SHEET SIZE: (HALF SIZE) 11" X 17"	

#	DATE	REVISIONS

SHEET:

9 OF 9



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